FORT RODD HILL

and

FISGARD LIGHTSTATION

FEDERAL HERITAGE BUILDINGS REVIEW OFFICE

BUILDING REPORT NO. 96-96

TABLE OF CONTENTS

Introduction

Part I -- Background Essays on Fort Rodd Hill, Addressing FHBRO Criteria

Part II -- Individual Buildings of Fort Rodd Hill:

Upper Battery:
- Guardhouse
- Gun Emplacement and Magazine
- Telephone Exchange
- Searchlight Director's Building (see Searchlight System section)

Battery Commander's Post

Fitter's Shop

Lower Battery:
- Guardhouse
- Gun Emplacement and Magazine
- Artillery Store
- Small Arms Ammunition Store
- Oil Store
- Casemate Barracks:
    - Barracks Building
    - Coal Store
    - Provision Store
    - General Store
    - Latrines

Searchlight System:

- Searchlight Director's Building (located in Upper Battery)
- Defence Electric Light No. 1
- Searchlight No. 6
- Searchlight No. 7
- Searchlight Engine Room

Belmont Battery:

- Gun Emplacement and Magazine Complex
- Director's Tower

Fortress Plotting Room

Three Miscellaneous Buildings Outside of the Batteries:

- Canteen
- Warrant Officer's Quarters
- Second World War Hut

Part III -- Fisgard Lightstation:

- Lighthouse
- Lightkeeper's Dwelling

FEDERAL HERITAGE BUILDINGS REVIEW OFFICE

BUILDING REPORT NO. 96-96

TITLE: **Fort Rodd Hill and Fisgard Lighthouse National Historic Sites (29 buildings)**
603 Fort Rodd Hill Road
Colwood, British Columbia

SOURCE: **Joan Mattie, Historical Services Branch**

INTRODUCTION

Fort Rodd Hill, comprising some 20 hectares of park-like property on the south coast of Vancouver Island (Figure 1), contains an almost complete collection of structures dating to the fort's establishment at the turn of the 20th century, along with a few newer buildings and features reflecting updates to the Second World War (Figure 2). The site enjoys a scenic setting, with views of the Strait of Juan de Fuca and the Olympic mountains to the south (in Washington, U.S.A.). It also contains fine natural habitats for a variety of West Coast flora and fauna.

One of the last British coastal defences anywhere, Fort Rodd Hill shows a late approach to military planning of this type, after which there were no further major developments.[1] Planning here was progressive in most respects, but traditional a few others. Proposed as early as 1879, the fort was not begun until 1895, after a cost-sharing agreement was worked out with Canada. Having been declared obsolete and surplus to the needs of Canada's Department of National Defence in 1956 -- its sole owner since the British departed in 1906 -- Fort Rodd Hill was declared a national historic site in 1958,[2] and was acquired by Parks Canada in 1962.

In the 37 years since 1962, Parks has carried out stabilization and/or restoration of many structures at Fort Rodd Hill, based on thorough, well-researched reports by staff or consultants. These reports not only contain excellent structural histories and resource analyses, but accounts of the events leading up to the fort's establishment and of the activities during its years of operation, as well as discussion of Fort Rodd Hill's position with regard to other forts in the British Empire in the late-19th and early 20th centuries. For historical content, this FHBRO report relies almost exclusively on those studies. Another aid has been the Royal Engineer record plans, made from ca. 1903 to 1905, which recorded the buildings as they had been constructed -- sometimes slightly different that what was called for on the proposal drawings. The record plans had also been, and continue to be, a great resource in guiding Parks personnel in their restoration and management of the site.

This report is divided into three parts. The first contains discussions of the whole fort under the FHBRO criteria. The second part, while making reference to the general comments, focusses on the separate buildings and more specific application of the FHBRO criteria to them. When evaluating each building, reference should be made both to Part I and Part II. The third part is on Fisgard Lighthouse, whose history, architectural character, and environment are treated separately.

PART I

FORT RODD HILL -- HISTORICAL ASSOCIATIONS

Thematic
Fort Rodd Hill was the first large-scale military fortification on Canada's west coast and the most

elaborate.[3] It was conceived as part of a series of related defences at strategic points along the indented coastline in the vicinity of the Royal Navy base at Esquimalt and the city of Victoria (Figure 3), which centres it was meant to protect. During its 64-year period of active military use, from establishment in 1895 to closure in 1956, Fort Rodd Hill's various states of development and preparedness were linked to themes such as the flourishing and then waning of the British Empire, the maturing of Canada, the Great Depression, two World Wars and the Cold War. The fort is also reflective of late-19th century military planning and technology, with some updatings to the mid-20th century.

Many events and discussions had led up to the erection of the first permanent structures at Fort Rodd Hill in 1895, the earliest being the arrival of the first Royal Navy ship in Esquimalt harbour in 1848. Victoria, established as a Hudson's Bay Company fort in 1843, became the capital of the new British colony of Vancouver Island the following year, in 1849. As the Royal Navy expanded its presence at Esquimalt over the next decades, having relocated the base for its Pacific Squadron there from Valparaiso, Chile by 1864 (the establishment of Fisgard Lighthouse in 1860 also reflecting this expansion), the settlement at Victoria also grew in size and importance. In 1866, it became the capital of British Columbia when that colony merged with Vancouver Island.

Since the Royal Navy had been intimately connected to the development and protection of both colonies, and Britain still had its Pacific Squadron to consider (steam-powered warships run on coal, conveniently supplied locally from Colwood), Canada expected Britain to continue its involvement when British Columbia joined Confederation in 1871. Due to changing priorities (such as the allocation of limited funds to places perceived to have more military and economic value), Britain was reluctant to do so, though periodic crises, such as the Fenian threat in 1871, and an Anglo-Russian dispute in 1884-85 played a role in convincing them to prolong their stay. So too, did concern over the security of coal stores, and the vulnerability of the western terminus of the C.P.R. at Vancouver, after the railroad was completed across Canada in 1885. Still, through years of discussions, recommendations and reports, no real agreement with Canada on a sharing of responsibility was reached until 1893. Until 1893, the landward protection of the naval base and Victoria consisted of four temporary batteries of muzzle-loading guns mounted on earthworks -- the first installed in 1878 at Macaulay Point, situated between the two harbours. The local militia manned the batteries and, in general, was an integral component of the defences.

The 1893 agreement was a detailed plan for permanent coastal defences with modern artillery at a number of sites at and near Esquimalt and Victoria. Fort Rodd Hill was part of that plan. A sharing of costs for the buildings and other works was agreed upon, and there were clauses specifying other responsibilities as well. The Imperial government would supervise construction and provide technical advice; it would also supply the arms and install a garrison of 75 marine artillerymen.[4] The Dominion government would provide the land; ensure that a garrison of 100 in eastern Canada could be quickly deployed to the west coast, in case of an emergency; and it would take responsibility for the reorganization and expansion of the local militia, which the British would train. The site for the new fort, on the west side of Esquimalt harbour, opposite the naval base, was strategically positioned, not only for the protection of the base, but for intercepting hostile ships before they gained access to Victoria harbour to the east.

Construction began in September 1895 by civilian day-labour supervised by Royal Engineers, after the crew finished the upgrading of Macaulay Battery (also part of the 1893 agreement).
Due to the uneven, rocky terrain, and to evolving fortification theory, Fort Rodd Hill departed from the early British forts in Canada in that its major components -- Upper and Lower Batteries, and Belmont Battery -- were split in their positions.[5] Several outbuildings and emplacements completed the defences, including: two Defence Electric Lights on the foreshore for night action (one of which remains), and the semi-subterranean engine room that powered them; a warrant officer's quarters, a fitter's shop (for repairing guns and gun-related equipment); a canteen; and a battery command post. The use of concrete for most of the construction was also relatively new, as was the type of artillery

on the batteries (quick-firing guns on disappearing mountings), and the new use of telephone to coordinate action among the scattered parts of the fort, as well as with the several other defence sites along the shore between Rodd Hill and Victoria. As torpedo boats were becoming a greater threat to ships and coastal installations, special strategy and installations were designed to handle them, including Belmont Battery, and preparations for a minefield and steel submarine net across the Esquimalt harbour entrance, between Fort Rodd Hill and the opposite shore (set up during the two World Wars; now interpreted with artifacts on the beach below Lower Battery).

The residency of well-trained personnel to man the fort transformed it into an effective, up-to-date facility -- a condition maintained until the British left in 1906, at which time they turned over all responsibilities and assets to Canada. The period 1895 to 1906 had certainly been a high point in the history of Fort Rodd Hill. The majority of buildings and works were constructed during this period, and the militia's readiness for action was not equalled for a long time. A "Defence Scheme" was developed and described in a substantial document. In detail, it outlined the sequence of actions to follow in case of war, including actions to be coordinated with other batteries in the vicinity. The testing of that scheme, through annual summer camps and exercises, were major events at Fort Rodd Hill until 1905, just before the British entirely withdrew from Canada's west coast.

The next period at Fort Rodd Hill, from 1906 until the late 1930s, on the eve of the Second World War, was marked by a policy of minimal preservation. The Canadian garrison, headquartered at Work Point Barracks, and assigned to rotating duty at the fort and other batteries along the coast, was too small for its responsibilities, limiting the extent to which it could fulfil them. Soldiers settled for a "demoralizing daily grind of repetitious cleaning, oiling, accounting and testing."[6] Fort Rodd Hill became an isolated outpost for the few stationed there, with only a weekly delivery of rations and mail. As historian Ronald Lovatt has put it, "Drinking in the canteen or desertion offered the only relief."[7] The installation of the fledgling Canadian navy at Esquimalt dockyard in 1911 (deserted since the British left it in 1906) had little effect on Fort Rodd Hill.

During the First World War, only brief periods of heightened alert broke the steady routine of watch duty, practice alarms and live firing practices at the fort. Otherwise, the main energies of the Canadian garrison were spent in giving basic training to volunteers, before sending them off to military camps in Ontario and Quebec, prior to overseas service. Most of this activity took place at the Willows Camp (the old Victoria agricultural fair grounds) rather than at Fort Rodd Hill, however. [8] Though the coastal defences did not see real action during the war, they perhaps acted as a deterrent to the German navy, including two of its cruisers at large in the Pacific in 1914, before they were destroyed by the Royal Navy.[9]

In the post-war period after 1918, the national defence budget shrank, as Canadians turned their backs on the military and embraced peace. The Great Depression in the early-to-mid-1930s, and its further cuts to military spending, ensured general deterioration of the physical defences around Esquimalt and Victoria. The personnel situation fared somewhat better at first. Starting in 1922 and lasting for nine years, the 5th Company Royal Canadian Garrison Artillery revived the large-scale summer training camp at Fort Rodd Hill, "which changed the Company from a mere maintenance organization to a well-trained unit capable of fulfilling a war role in the defences as well as discharging its maintenance responsibilities in peace," according to Lovatt.[10] The worsening Depression curtailed this effort by 1931, however, though the 5 Heavy Battery company continued to camp at the fort for six weeks every year.

By 1935, the defences were considered obsolete and at the bottom of their decline, not only at Fort Rodd Hill, but at all the defences associated with Esquimalt. At the fort, the batteries were in very poor shape, communication with other batteries was almost impossible due to the state of the telephone system, stores were in the wrong places, accommodation was far from adequate, and transport of materiel was ridiculously limited to an old station wagon.[11] A major review resulted in

the "Ultimate Plan" for upgrading facilities and for military readiness, initiated because of growing concern over the rise of Nazi Germany. Though there was no German fleet in the Pacific, the possibility existed that Japan might enter the fray on the German side. Recommendations were not acted upon immediately, but in 1938, an "Interim Plan" was instituted, incorporating some of the points in the Ultimate Plan, which, ironically, would not be fully implemented until 1944, near the end of the Second World War.

The years 1938 to 1944 thus became the second period of major significance at Fort Rodd Hill, though some of the fort's former importance was reduced with the establishment of the fire command post and battery at Mary Hill to the west (no longer extant), where enemy ships could be challenged earlier in their course from the West toward Esquimalt. In 1939, when war actually broke out, the situation soon changed from chaos and lack of commitment to serious planning and action. The batteries began to be steadily improved, the old electric defence lights were replaced with narrow-beamed searchlights (two at Fort Rodd Hill, still in place), wooden huts were erected for accommodation (one left on site), Belmont Battery was given the role of "examination battery" (authorized to fire a round across the bow of any merchant vessel that failed to stop for examination, or to sink any vessel that resisted examination or was obviously hostile), and sophisticated instruments for plotting the positions of enemy ships and for directing fire against them were installed in a new subterranean bunker -- the Fortress Plotting Room.

Though the United States did not officially enter the war until after the bombing of Pearl Harbour in December 1941, it began to cooperate with Canada in a "Permanent Joint Board on Defence" in the late 1930s. Among of the results of that were the coordination of batteries on both sides of the Strait of Juan de Fuca (including radio links); the donation to Canada of heavy-duty guns, instruments and ammunition, which could reach farther across the Strait than previous armaments; and the exchange of liaison officers between the United States and Canada.[12] At this time, there was also increasing reliance of both countries on air power, and cooperation to the point that American and Canadian air and coastal defences were operated in unison, until Japan surrendered in 1945. By the end of the war, Fort Rodd Hill had reached its peak of performance capability.

After the Second World War, the importance of fixed coastal defences declined, as the development of better aircraft, rockets, radar and nuclear weapons radically changed military strategy and tactics. A full military acceptance that coastal batteries were obsolete was somewhat slow in coming, however, and it was not until 1956 that the Department of National Defence finally withdrew from Fort Rodd Hill and other batteries along the coast of Vancouver Island. By this time, with the Soviet Union having emerged as the main threat to Western peace, Canadian interests in coastal British Columbia, including the navy at Esquimalt, the city of Victoria, and other regional communities, were better protected by a new generation of weapons and strategies not confined to coastal locations.

In evaluating Fort Rodd Hill according to the FHBRO "Thematic" criteria, it should be understood that the buildings most closely associated with the defence of Esquimalt and Victoria, and with the theme of the coastal defence of Canada, are the gun emplacements and magazines. It may be a matter for some debate as to whether the buildings that operated in close association with them (e.g. the Battery Commander's Post, the Director's Tower and the Fortress Plotting Room -- without which the guns could not have operated) carry the same level of association with the theme. The level of importance of buildings even farther removed from the main purpose of the fort, such as the guardhouses, the barracks building, and the canteen, will have to be determined.

Person/Event

There are no known persons of national importance associated with Fort Rodd Hill.

Local Development

In the late-1890s, when the local economy was depressed, the construction of Fort Rodd Hill created

a sizeable demand for goods and services, and provided jobs to what must have been a considerable number of labourers and craftsmen. Originally, it was proposed to hire Chinese workers, after the completion of the C.P.R. in 1885 had released them from service, but pressure was brought to bear on the hiring of "whites," given the unemployment situation.[13] After construction, the fort assumed a low public profile for many years, and it was considered a remote posting even from Esquimalt, as good roads did not exist between the two, and walking was the usual means of transport. It was not staffed with a great number of personnel until the Second World War, when its lands were only incidentally used for accommodation structures, there being a shortage of building space elsewhere. Except for the military patronage of a local pub on the sandspit entrance to the Royal Roads lagoon (neighbouring the west side of the fort), the fort by itself therefore did not have a great impact on the local community, for whom the property remained off-limits until acquired by Parks Canada in 1962.

If one considers the fort as part of the whole coastal defences of the Esquimalt-Victoria region, however, then it can be seen to have contributed to the overall influence of the various army units in the life of the local community. Though the majority was accommodated at Work Point Barracks, in 1898 some 40 men of the 19 Company Royal Garrison Artillery were housed in Casemate Barracks at Fort Rodd Hill as in interim measure, upon their arrival from Britain. The departing British marines, which the artillery garrison replaced, received a rousing send-off by the people of Victoria, indicative of the regard the citizens felt for them.[14] The new Garrison of 322 men (all ranks) represented a four-fold increase, which must have meant an increase in goods and services to be supplied by local merchants, thereby providing some much-needed stimulation to the local economy.

ARCHITECTURE

Aesthetic Design

Being largely utilitarian military structures of concrete, most buildings at Fort Rodd Hill do not embody intrinsic aesthetic qualities. Yet because they are so well preserved and/or restored as virtually the only intact examples of coastal fortifications remaining in Canada dating to the turn of the 20th century, they can be said to exemplify the best aesthetics available today, within the parameters of their type and period. Buildings of similar date at Macaulay Point Battery, Esquimalt (built just prior to Fort Rodd Hill), to which some of the structures at Fort Rodd Hill might have been compared (especially the gun emplacements; e.g. Figure 4), no longer exist in a complete or well-maintained form (e.g. Figure 4). The same is true of structures at Fort McNab, Halifax Defence Complex, established 1888-92 and now a National Historic Site, also of concrete construction (see Figures 5-7 for an idea of its generally ruinous state).

A few buildings at Fort Rodd Hill do, on the other hand, exhibit good intrinsic aesthetics. Mainly, these are the accommodations buildings, including the two guardhouses and the barracks building at Casemate Barracks, as well as the Canteen just outside of Lower Battery. In these, the horizontal orientation emphasized by long, low, red-painted verandahs, and the rounded white paintings around window sills and the lower edges of door frames (thought to have been a tradition with a functional purpose, brought by the British from India),[15] create appealing effects. Searchlight No. 7, with its faux painting as camouflage, is another instance in which aesthetics have a positive bearing on the appearance of a structure.

Functional Design

The overall design of Fort Rodd Hill as a coastal defence was considered to have been less than satisfactory because of the problems associated with the site.[16] Standard military practice for the late 19th century was applied where it was ineffectual in a local environment -- as if the designer had not visited the place, which may have been the case. The main problem was the vulnerability of the landward side, due to the rise in elevation behind each of the gun emplacements. Though Upper

and Lower Batteries were endowed with loopholed defensible walls on these sides, an invading troop of land forces could easily have shot over them, rendering the coastal guns inoperable. Nevertheless, the site was useful for its command of the entrance to Esquimalt Harbour and coastal points farther west, while the possibility of a land invasion was slim. Macaulay Point Battery, Esquimalt (upgraded to something approaching Fort Rodd Hill in 1888-92, but on a smaller scale), which did not have the same impediments of terrain, was in a better position for total defence, and its design, without the traditional element of a defensible wall, was more advanced in concept.[17] Fort McNabb, at the entrance to Halifax Harbour, was both well positioned and well designed, and has been regarded by military historians as "the most important British defence installation in Canada during the last years of the Imperial garrisons."[18]

The coastal defence was a form begun in the 19th century and almost entirely limited to Britain and North America.[19] In the history of coastal defence development, Fort Rodd Hill occupies a position almost at the end of its evolution. In other times and places (including Europe), exposed land frontiers had been the main threats to security, resulting in long traditions of land-oriented fortresses with thick stone walls and a tightly consolidated ground plan within a rigidly geometric outline, among other traits. Coastal forts of the early 19th-century incorporated some of these features, but were oriented to the sea. Their main weakness in the late-19th century was that they presented exposed targets that were poor matches against enemy ships that had become faster, stronger (ironclad), and possessed of more devastating, longer-range weapons. In addition, a policy of low investment in British military spending in the late-19th century prohibited the high expense necessary for the old type of installation.

These problems had been addressed in the late-19th century by building coastal batteries that were more flexible and informal in layout, taking as much advantage of natural terrain as was possible. Expensive stone construction, which often chipped dangerously under heavy fire, was replaced with economical buildings of thick concrete, and defensible walls of the same material, or barbed wire where practicable. Probably the most important innovation was the introduction of "disappearing" guns for the batteries, with mountings that mechanically rose above their earth-backed pits during fire, recoiling into a hidden position for reloading, thus protecting both the costly guns and the personnel who manned them. The mountings ran on circular tracks, so that guns potentially had an arc of fire throughout 360 degrees. The system would not have been possible without a change to breech-loading of ammunition, rather than through the gun muzzle, as previously. The scattered locations of batteries also dictated that each one be self-contained with its own magazine. From the water, coastal forts of this era -- including Fort Rodd Hill -- were less conspicuous targets than their predecessors, and they were better able to respond to the manoeuvres of fast ships and torpedo boats.

Fort Rodd Hill, with its defensible, loopholed walls and guardhouses on the landward side of Upper and Lower Batteries, partially looks back to the earlier land-based fortification practice, while the magazines and gun emplacements, and the use of concrete as a building material illustrate more recent developments. Soon afterward, landward defence features were entirely eliminated from the few forts then being built by the British and Americans (a British one at Singapore may have been the last), and around 1900, construction of coastal forts ceased entirely. By then, there was not a single major harbour in the British Isles, or in the British Empire at large, that did not already have some version of one.[20] The First World War demonstrated that coast works had only a minor role to play in modern warfare, prompting further disinterest in them for strategic purposes. A last stand supporting their usefulness came during the Second World War, when new equipment, such as range finders and heavier, faster guns (such as the 6-pounder Duplexes at Belmont Battery, Fort Rodd Hill), was able to extend their life for a short time, into the Cold War period -- these developments well illustrated in the changes to Belmont Battery and the construction of the Fortress Plotting Room at Lower Battery.
While the overall design of Fort Rodd Hill may have been verging on the obsolete from the beginning, and site issues were not entirely addressed, the individual batteries and buildings are

classic examples of British military design at the end of the 19th century. Their maintenance and restoration has ensured that they are the best examples left in Canada.

Almost all buildings are of heavy concrete construction, with steel I-beams adding strength to the flat concrete roofs. The roofs have also been weatherproofed with tar and aggregate. Their slight projection beyond the wall plane, and a groove on the underside, creates a dripline to direct water away from the walls. Though concrete had been used in construction in Roman times, it did not again see much use until the mid- to late-19th century. Techniques mainly revolved around concrete block construction or poured concrete construction.[21] It has not yet been established which type was used at Fort Rodd Hill, but it is presumed to have been the latter. These buildings predate the widespread use of reinforced concrete, which began in Britain and Canada around 1908,[22] and which achieved similar but more flexible strength, using thinner dimensions of concrete embedded with narrow-gauge steel rods.

While some buildings at Fort Rodd Hill are simple concrete shells, most have some added functional element of note, such as loopholes in the guardhouses; fittings and purpose-designed openings and shutters in the searchlight buildings; and special bases, pedestals and wiring for sophisticated equipment, as in the Searchlight Engine Room, the Searchlight Director's Building, the Director's Tower at Belmont Battery, the Fortress Plotting Room, and the Battery Commander's Post. The gun emplacements and magazines at Upper, Lower and Belmont Batteries are the most sophisticated in terms of functional design, since their layout, construction, and use of materials was very specialized and designed to accommodate highly technical functions.

The white-painting of the window sills, bottom corners of doorways, lower portions of verandah posts, and other areas in the 1895-1905 buildings is a distinctive feature that spans both aesthetic and functional design, though it appears that the intention was most closely related to the latter. Thought to be a tradition brought to Canada by British forces formerly based in India, the purpose of the painting is understood to have been twofold: to make the buildings' extremities more visible to personnel at night (in the absence of exterior lamps) and, in India at least, to repel snakes and lizards.[23] The insides of the gun emplacements were also painted white, presumably to enhance the safety of night work in them.

Craftsmanship and Materials

The buildings at Fort Rodd Hill show good, though not outstanding craftsmanship. Workings of material include the pouring of concrete, and the surface plastering of it; the carpentry of the woodwork (windows, floors, doors, cupboards). Some of the components in the buildings are the recent work of Parks carpenters or conservators, such as door, window and floor replacements. The original labour for the building was non-military and contracted locally.

Designer

As per the 1893 agreement between Britain and Canada, the buildings at Fort Rodd Hill were designed by the British Royal Engineers, who also supervised their construction. The designs were typical of the engineers' work in the late 19th century, in British colonies throughout the world. The Second World War buildings were designed by the Canadian Department of National Defence.

ENVIRONMENT

Site

Most of Fort Rodd Hill's buildings relate to their sites much as they did shortly after they were first constructed, i.e. in the ca. 1895-1905 period. Though quite a lot of development was introduced during the Second World War, this was usually of a temporary nature and was removed after the end of the war, before Parks acquired the site. The few Second World War developments that

remain as alterations to older buildings, such as at Belmont Battery, offer valuable evidences of change during an important phase in the site's history. Other Second World War buildings, such as the Fortress Plotting Room and the newer searchlights, have more recent time-lines in which to consider change and retention of character over time. Regarding the retention of character, Parks' restoration programme over the last 35 years and its management of the fort as a historic site have helped to maintain the integrity of the site according to its use since 1895. Any vegetation that has grown up, mitigating much of the barren harshness that the site had in the 1895-1956 period, is indicative of consideration for the natural qualities that were present in the pre-military period.

Setting

The Fort Rodd Hill compound is defined by the shore of Esquimalt Harbour to the east, the Strait of Juan de Fuca to the south, the entrance to the Royal Roads lagoon to the southeast, and a secondary road angling from the north to the southeast (through a forest), toward the lagoon (Figure 2). Except for a sign, the entrance to the fort off the secondary road is not prominent, but rather it quietly diverges from the secondary road through forested, hilly terrain, where deer are often sighted. The approach does not suggest a military installation, but rather a park, which incidentally contains a historic site. The built part of the site is concentrated toward the southeast end of the property, just below the public parking lot. This part of the site too, while more open, is also park-like, with a scenic winding road connecting buildings that are usually tucked in behind rock outcroppings, are low to the ground, and scattered, so that their impact in any one place is not too overwhelming to the natural features. While unlike the stereotype of starkness, characteristic of many military installations when in use (this one was more stark during the Second World War and before, when some of the trees were cut), the fort does display the quality of inconspicuousness that was an intentional part of the planning of coastal defences in the late-19th century. In this environment, the key buildings that define the site's character as a military fort are the gun emplacements and magazines, ready to repel an enemy's advances. Almost all other buildings at least reinforce that character, partly through their functions in support of the guns, and partly because of their similar concrete construction. Some of the very minor buildings, however (such as the small stores buildings), may be seen to visually contribute little to a military appearance of this site.

Landmark

Though Fort Rodd Hill is not physically prominent in the region of Colwood-Victoria, due to its siting between a wooded area and rocky outcroppings by a beach, it is well known to most local residents, and to a growing number of visitors from farther away. In addition, it is also "very well thought of," according to Colwood councillor Steve Davidson, who refers to the site as "one of our jewels."[24] Mr. Davidson is also chairperson of the new Fort & Lighthouse Preservation Society, which is managing and coordinating various volunteer initiatives that are helping Parks Canada in its public outreach. In this 100th anniversary year of the fort (by some calculations) there have been, or will be, for example, many events to further raise public awareness, such as band concerts, a family picnic day, a 100-gun salute, and a military encampment. Besides participating in the planned activities of this sort, and visiting the fort as a historic site, many locals and other visitors also come to the property to simply enjoy the natural environment, the views, and the walks afforded through the wooded areas and along the beach.

Endnotes

1 Joseph Greenough, Fort Rodd Hill: A Structural History of Upper Battery and Lower Battery, Parks Canada Manuscript Report Number 210 [hereafter MRS #210], pp. 23-26.

2 Historic Sites and Monuments Board of Canada, Minutes, November 1958, p. 52.

3 See Historic Sites and Monuments Board of Canada, Minutes, November 1958. These and other recognitions of the value of Fort Rodd Hill were incorporated into the

Commemorative Intent section (2.0) of the Commemorative Integrity Statement for the fort, September 1996, p. 2.

4 Ronald Lovatt, Shoot, Shoot, Shoot. A History of the Victoria-Esquimalt Coast Artillery Defences, 1878-1956 (Victoria: Rodd Hill Friends Society, 1993), p. 26.

5 The CIS statement for FRH states that the spatial separation of the three batteries is one of the associative values of the fort, in that it illustrates "the late nineteenth-century principle of detached fortifications to minimize the impact of a direct hit and the visibility of the batteries from the enemy's perspective. p. 7.

6 Lovatt, Shoot, p. 56.

7 Ibid., p. 57.

8 Ibid.

9 Ibid., p. 60.

10 Ibid., p. 80.

11 Ibid., p. 94.

12 Ibid., p. 99.

13 Ibid., p. 30.

14 Ibid., p. 36.

15 Information from Steve Malins, Fort Rodd Hill employee, during site visit, January 1997.

16 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report #282 (Ottawa: Parks Canada, 1978), p. 45.

17 Greenough, op. cit., p. 37. Macaulay Battery has never been reviewed by FHBRO, and may not be since it may be defined as a ruin. The property is still in the hands of the Department of National Defence.

18 Ian Doull, "Fort McNab, Halifax Defence Complex, FHBRO Report #96-24; citing Roger Sarty, "Fort McNab 1939-1963: A Structural and Narrative History," manuscript prepared for the Halifax Defence Complex, 1984.

19 Greenough, op. cit., p. 26.

20 Ibid., p. 27.

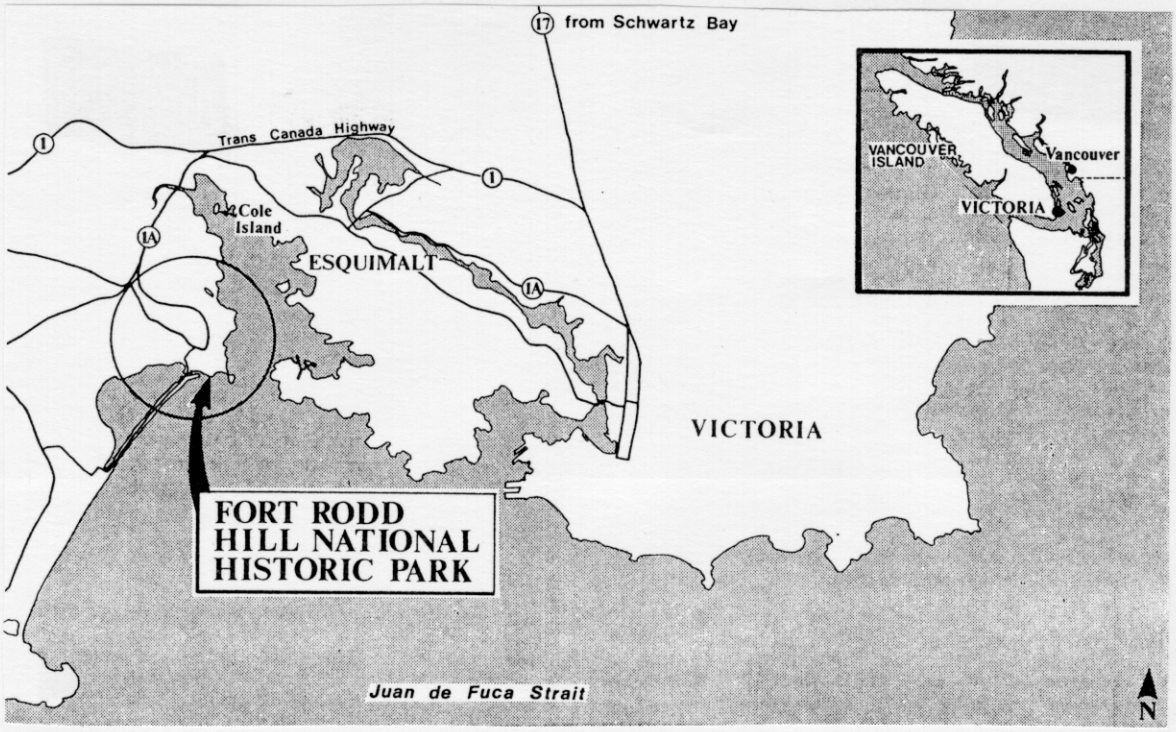
21 Pamela H. Simpson, "Cheap, Quick, and Easy: The Early History of Rockfaced Concrete Block Building," Perspectives in Vernacular Architecture, Vol. III, Thomas Carter and Bernard Hermann, eds. (University of Missouri Press, 1989), p. 108.

22 Construction, Volume I, No. 7 (May 1908), p. 36. This article is entitled "Reinforced Concrete Approved. British Architects Favor New Construction." See also Sigfried Giedion, "Ferroconcrete and Its Influence Upon Architecture," in Space, Time and Architecture. The Growth of a New Tradition (Cambridge, Massachusetts: Harvard

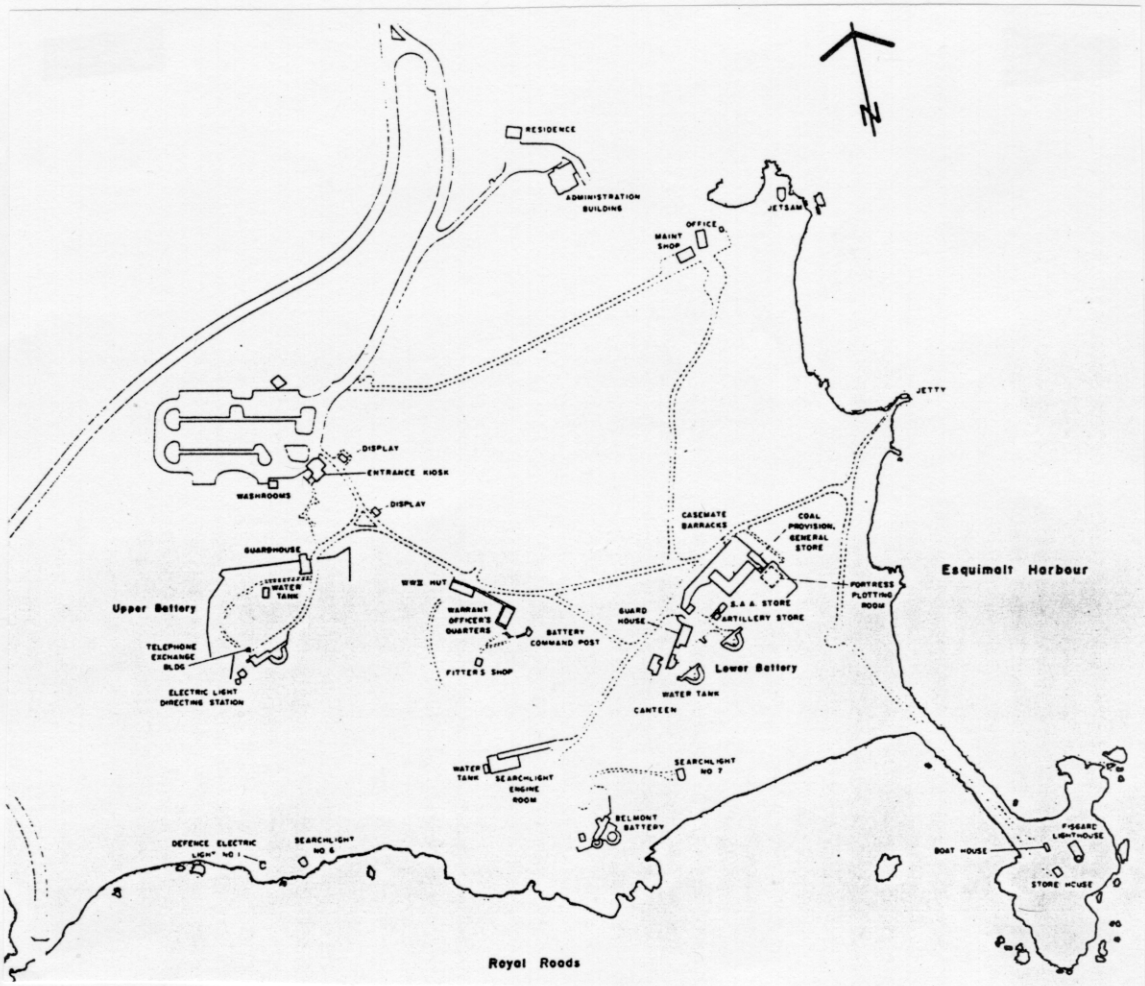
University Press, 1967).

23 Information from Steve Malins, Fort Rodd Hill employee, during site visit in January 1997.

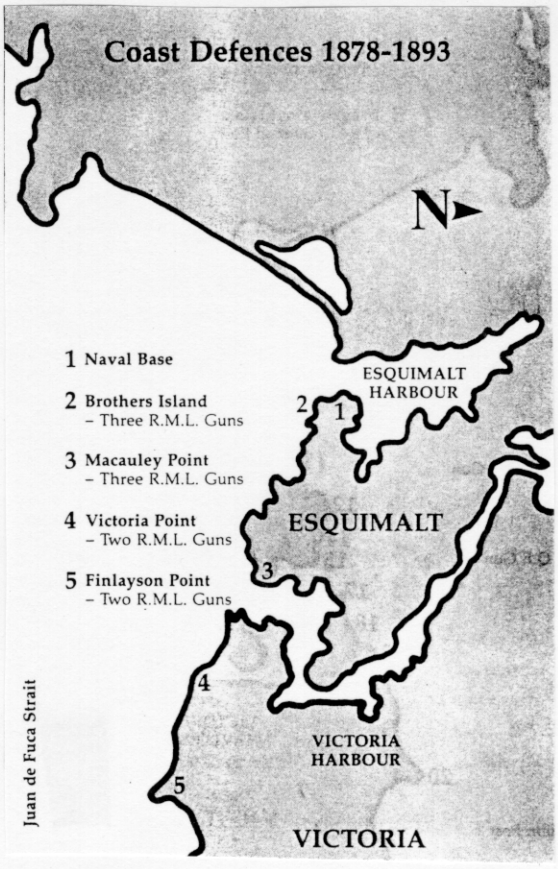
24 Telephone conversation with Steve Davidson, Councillor, City of Colwood, 2 June 1997.

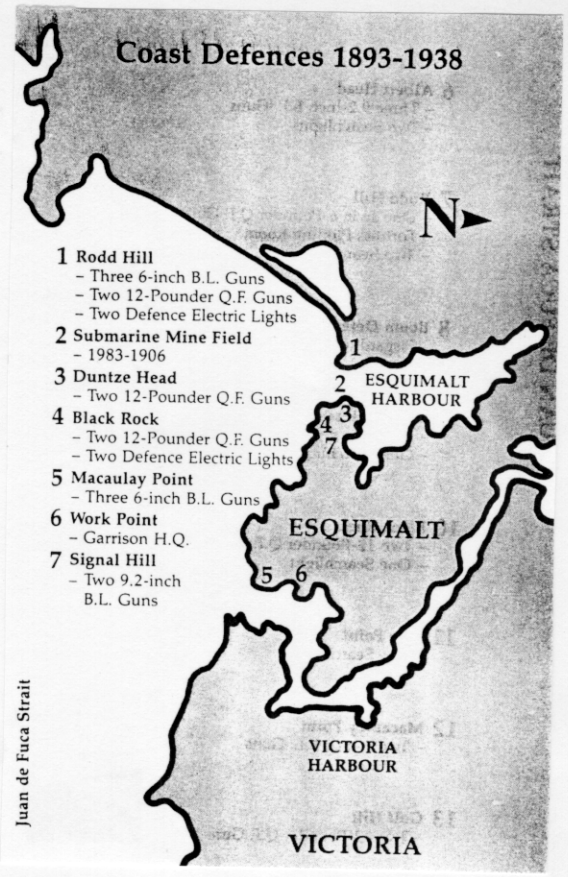


1 Map of Esquimalt-Victoria region showing location of Fort Rodd Hill. (Revised Management Plan. Fort Rodd Hill National Historic Park, Canada, Parks Canada, 1986, p. 2.)



2 Site plan of Fort Rodd Hill. (Fort Rodd Hill, Curatorial and Collection Management Services, 1997.)





3 Evolution of Coast Defences in vicinity of Esquimalt-Victoria, 1878-1956. (Brochure produced by Fort Rodd Hill National Historic Park.)

4 Part of gun emplacement, Macaulay Point Battery. (Ian Doull, NHSD-HSB, Parks, 1996.)

5 Fort McNab, Halifax; 6-inch Gun Emplacement No. 1; built 1888-92. (Ian Doull, HNHSD-HSB, Parks, 1996.)

6 Fort McNabb, Halifax; 10-inch Gun Emplacement; built 1888-92. (Ian Doull, NHSD-HSB, Parks, 1996.)

7 Fort McNabb, Halifax; Magazine No. 2, shell stores chamber, showing lamp recesses; built 188-92. (Ian Doull, NHSD-HSB, Parks, 1996.)

PART II

INDIVIDUAL BUILDINGS OF FORT RODD HILL

Upper Battery - Introduction to the four structures here:

Guardhouse: 1895-98
Magazine and Gun Emplacement: 1895-98
Telephone Exchange: ca. 1904
Searchlight Director's Building: 1903-04 (see Searchlight section)

Upper Battery is a self contained unit of buildings surrounded by concrete walls or barbed wire entanglement, somewhat like a miniature fortress (Figure 1). The main part of the complex dates to 1898, when it was completed under the design and supervision of the Royal Engineers. A water tank dating to ca. 1902 made Upper Battery more self sufficient, eliminating the necessity of carrying water up from the main reservoir near Lower Battery, as was previously done. The Searchlight Director's Building and the Telephone Exchange, dating to 1903-04, were not specific to the functions of Upper Battery, but were located there because of the height of land, advantageous for command and control of other operations at Fort Rodd Hill. The focus of the battery was the 6-inch disappearing gun mounted on the magazine -- one of three such guns that existed at Fort Rodd Hill from 1898 to ca. 1941. Throughout this period, Upper Battery underwent only minor alterations. With conservation and restoration, it has survived in good condition to the present. Following is a discussion of three of the four components that can be considered buildings. The Searchlight Director's Building will be considered with a group of other buildings associated with the whole searchlight system.

Upper Battery - Guardhouse (1896-1898)

HISTORICAL ASSOCIATIONS

This structure was built to accommodate a small guard when the battery was fully manned. Controlling the gate and keeping watch on the battery perimeter were the guard units main duties, using the Guardhouse as a base. This type of building is a typical element in all military forts and bases. No records have been found, however, of any actual guard duty performed here. It is thought that the Guardhouse may have fulfilled its intended role on only brief occasions, during the annual summer training camps at Fort Rodd Hill.[1] Otherwise, records suggest that it served in 1899 as temporary accommodation for two non-commissioned officers and six rank-and-file of the Royal Garrison Artillery, while enlargement was taking place at Work Point Barracks (their normal place of accommodation). Another record exists of its use in 1922 as a Battery Orderly Room (offices) during summer camp. Beyond this, it is known that the guard house was used occasionally as a temporary married quarter. While not directly associated with coastal defence, therefore, the guard house has performed useful operational functions. Constructed during the initial, founding phase of Fort Rodd Hill, the guardhouse illustrates a pivotal time in the fort's history.

ARCHITECTURE

The guardhouse has a long rectangular shape with flat roof, prominent chimney, vertically proportioned sash windows, and red-painted porch along the front, as well as rounded white paintings -- rimmed with narrow red lines -- around the window sills and other features (Figures 2-5). The red and white touches add a pleasing contrast to the flat grey colour of the plastered concrete walls.

Guardhouses were a feature of all forts with some landward orientation, and some other military installations as well. In Canada, the porch shelter is a common feature, some examples more aesthetically developed than others. At the Work Point Barracks' guard house (ca. 1900; Figure 6), keystoned arches (in wood) between panelled porch posts (now simplified), add a note of distinction, as does the high hipped roof with a slight flare toward the eaves. The Royal Military College guardhouse at Kingston (1814-19; Figure 7) is enhanced by its stone textures and its dentil moulding at the cornice line, while the guardhouse at Fortress Louisbourg is distinguished by its heavy timber arches (Figure 8).

The simple and inexpensive concrete construction of the Fort Rodd Hill guardhouse ensured a durable, low-maintenance building that must have adequately met requirements. The layout comprises three interconnected rooms: a central living area (Figure 11), into which the entrance door opens; a kitchen in the south end, and a bedroom/ blockhouse in the north end (see plan, Figure 10). This latter juts through the defensible wall (Figures 9) to form a loopholed position from which riflemen could fire along the wall and toward the gate. The kitchen is the most elaborate room (Figures 12-14), retaining its original fittings of dresser (containing a work counter and hutch with open shelves, among other features; built according to a standard Royal Engineer plan; Figure 15), an enclosed hanging cupboard, and a dry sink (Figure 13; supplied with running water after the water tank was built ca. 1902) mounted on a low cupboard. The bedroom retains its loopholed openings with thick wooden doors (some of which have been replaced; Figure 16). There is narrow-board wooden flooring throughout, some of it replacement material installed in the 1960s. Also in the 1960s, the electric fixtures and wiring, introduced in 1928, were removed.[2] The latrine at the rear has no access from the inside of the building, but is of the same age (Figures 3-5).

Workings of material include the pouring of concrete, and the surface plastering of it, and the carpentry of the woodwork (windows, floors, doors, cupboards in the kitchen). The stone dry sink is of note, but likely was purchased intact from a supplier. Some of the components are the recent work of carpenter/conservators, such as the doors for the loopholes, and some of the flooring, all of which are of good quality..

ENVIRONMENT

The site is little changed from its appearance in 1895 when the guard house was completed. The battery walls and gate are still in place (Figures 2-4 and 9), as is the semi-subterranean water tank (Figure 18), and the protected path between earth embankments (Figure 19), leading to the Gun Emplacement and Magazine. As an identifiable type within military forts, the guardhouse serves to emphasize the nature of the fort and its site. Being the first building encountered when visitors enter the gates into Upper Battery, and perhaps the most attractive of this group, the guardhouse is quite noticeable and prominent. Beyond the visitors made aware of the site through National Historic Site promotions (such as in the brochure racks in the B.C. ferries), there are the many visitors drawn from current and retired members of the military regulars and reserves. But in general, it is likely that many other Victoria and regional residents, have little awareness of this specific building.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 13.

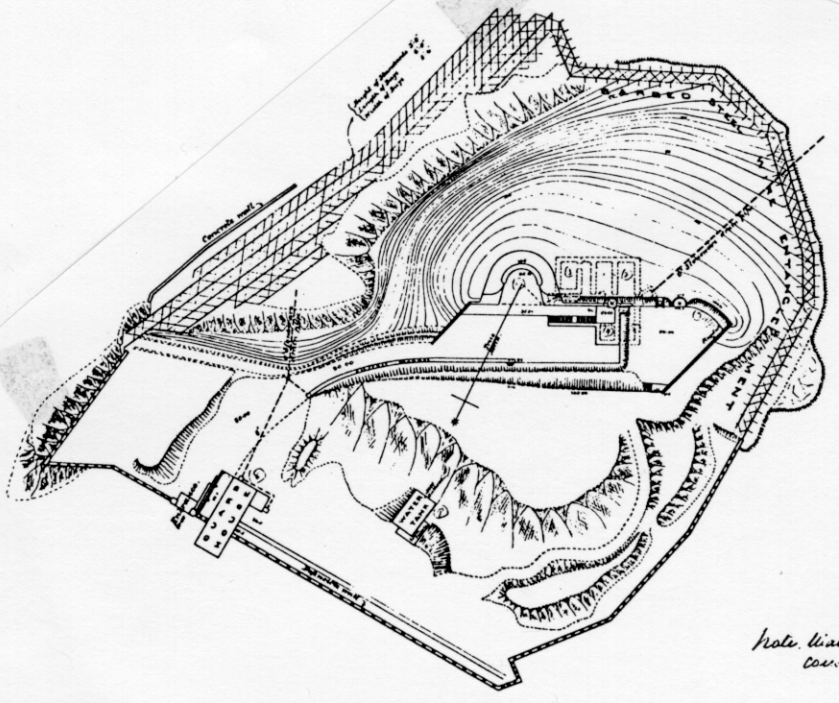
2 Ibid., p. 11.

VICTORIA, B.C. ESQUIMALT DISTRICT.—
RODD HILL, UPPER OR ONE GUN BATTERY.— RECORD PLANS OF —
EMPLACEMENT FOR ONE 6 INCH B.L. GUN ON H.P. DISAPPEARING CARRIAGE.—
DETAILS OF GUARD HOUSE, AND GENERAL SURFACE PLAN.—

—DETAILS 10 FEET TO ONE INCH (R.F. 1/120)—

SURFACE PLAN 30 FEET TO ONE INCH (R.F. 1/360).

AUTHORITY FOR COMMENCEMENT OF WORK: Cypher 22.4.95.
DATE OF COMMENCEMENT .....Do:..... 6.9.95
DATE OF COMPLETION .....Do:..... 31.3.98
ESTIMATED COST, ...Do £3508
ACTUAL COST, ...Do ..... £3465.



Note. Water supply [illegible] considered [illegible]

—SURFACE PLAN.—

A. Grant.
LT. COLONEL, —
O.C.R.E. ESQUIMALT, —
28th January 1903.

1 Record plan of Upper Battery in 1903. (Reproduced in Ronald Lovatt, Fort Rodd Hill Historic Resource Study, Parks Canada MRS #282, 1978 [hereafter MRS #282], p. 161.

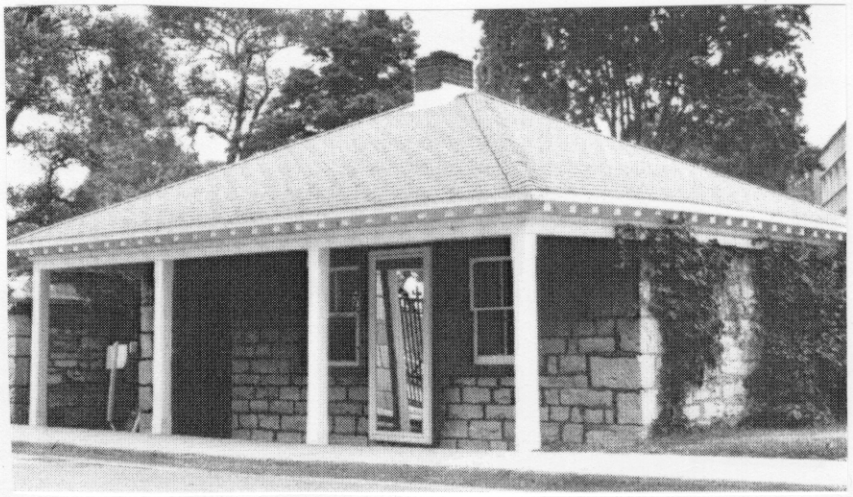
2 Guardhouse, Upper Battery; constructed 1896-98; designed by Royal Engineers; view of building's south side and part of loopholed defensible wall near gate. (J. Mattie, NHSD-HSB, Parks, 1997.)

3 Guardhouse, Upper Battery; view of southeast side and entrance gate. (J. Mattie, NHSD-HSB, Parks, 1997.)

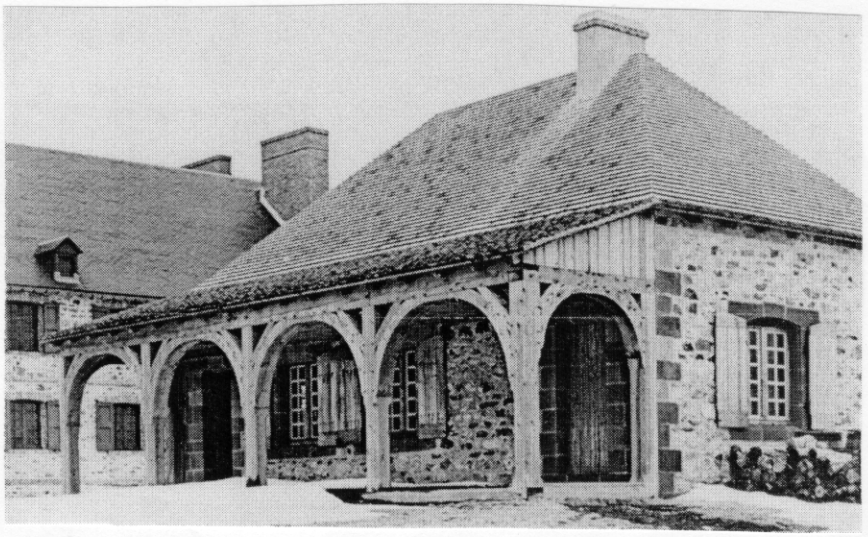
4 Guardhouse, Upper Battery from southeast, looking toward defensible wall extending to the west. (J. Mattie, NHSD-HSB, Parks, 1997.)

5 Guardhouse, Upper Battery; urinal in latrine at rear. (J. Mattie, NHSD-HSB, Parks, 1997.)

6 Guardhouse at Work Point Barracks, CFB Esquimalt, Esquimalt, British Columbia; constructed 1890-91; Canada, Department of Public Works, architects. (Ian Doull, NHSD-HSB, Parks, 1989.)

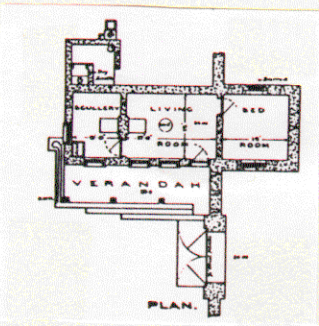


7 Guardhouse, Royal Military College, Kingston, Ontario; constructed 1814-19. (CIHB, Parks, 1975.)



8 Place d'Armes guardhouse, Fortress of Louisbourg NHS; reconstruction of 1740s building. (Charles S. Lindsay, "Louisbourg Guardhouses," Canadian Historic Sites: Occasional Papers in Archaeology and History, No. 12 [1975], cover illustration.)

9 Guardhouse, Upper Battery, as seen from outside the gate. Note right side, which is an extension of the building through and beyond the defensible wall. (J. Mattie, NHSD-HSB, Parks, 1997.)



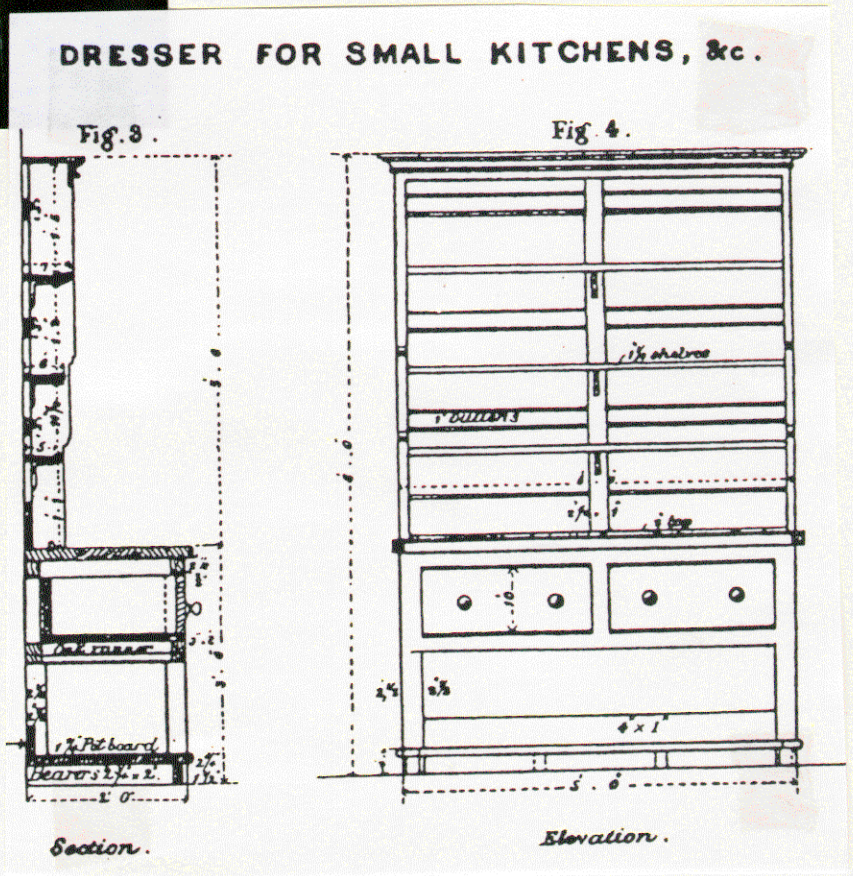
10 Layout of Guardhouse included on the 1903 Record Plan. (MRS #282, p. 161.)

11 Guardhouse, Upper Battery; living room (centre of building), looking beyond into kitchen. (J. Mattie, NHSD-HSB, Parks, 1997.)

12 Guardhouse, Upper Battery; kitchen. (J. Mattie, NHSD-HSB, Parks, 1997.)

13 Guardhouse, Upper Battery; southeast corner of kitchen. (J. Mattie, NHSD-HSB, Parks, 1997.)

14 Guardhouse, Upper Battery; cupboard in kitchen. (J. Mattie, NHSD-HSB, Parks, 1997.)



15 Standard plan for cupboard in military kitchens, design by Royal Engineers. (Great Britain, War Office Pattern Book No. 2, 1892-1901; reproduced in MRS #282, p. 165.)

16 Guardhouse, Upper Battery; loophole in bedroom with shutter opened. (J. Mattie, NHSD-HSB, Parks, 1997.)

17 Guardhouse, Upper Battery; bedroom, showing closed loopholes and part of Parks exhibit. (J. Mattie, NHSD-HSB, Parks, 1997.)

18 Upper Battery; water tank constructed 1902 near Guardhouse. (J. Mattie, NHSD-HSB, Parks, 1997.)

19 Upper Battery; path leading from Guardhouse and gate to gun emplacement area. (J. Mattie, NHSD-HSB, Parks, 1997.)

Upper Battery - Gun Emplacement and Magazine Complex (1895-98)

HISTORICAL ASSOCIATIONS

The Magazine Complex and Gun Emplacement of Upper Battery (Figures 1-9) relate directly to the establishment of Fort Rodd Hill as a coastal defence, meant to protect the Royal Navy base at Esquimalt, as well as the City of Victoria. All of the components in this complex were oriented to the mounted gun, which would deliver the fire meant to challenge or disable enemy ships in the Strait of Juan de Fuca. Though never discharged in battle, the 6-inch disappearing gun at Upper Battery, in place from 1897 to 1943, is thought to have been a deterrent to potential enemy attacks. It was also the focus (along with the major guns at the other two batteries within Fort Rodd Hill) of many militia and military practices that took place during those years. During the Second World War, other batteries such as at Mary Hill and Macaulay Point, and Belmont Battery at Fort Rodd Hill assumed more importance than Upper and Lower Batteries, especially around 1943 when their guns were removed.[1]

ARCHITECTURE

The Magazine Complex is an excellent example of its type. Externally, its symmetry and site-hugging low profile are pleasing aesthetic elements. Inside, the vaulted ceilings, the v-joint wood panelling in some sections and brick lining in others, and the diamond-paned cast iron covers for the lamp recesses (in the walls), are all quite attractive (see Figures 6-8).

Functionally, the Gun Emplacement and its largely subterranean Magazine are complex pieces of design, both in their fittings and their physical layout (see sectional elevation in Figure 1). Above ground, the U-shaped **Gun Emplacement**, with parapet on the seaward side and terreplein on the land side, is comprised of the following elements:

- **Bench Mark**: an angled and inclined supporting wall on the east flank of the emplacement (visible bottom left, Figure 2, and in elevation, Figure 1), in which is inscribed (on the terreplein side) the height of the emplacement above mean sea level (97.93'). This survey record was apparently placed there by Royal Engineers to facilitate an accurate calculation of the elevation at which the gun would be fired, in order to engage a target.
- **Cartridge and Dial Recesses**: also on the east flank (dark doors to right of bench mark, barely visible in Figure 2; see also section to right of bench mark in Figure 1), these were two recesses in the parapet wall on the terreplein side. The smaller one held cartridges brought up from the magazine below. The taller one housed a variety of technical instruments, such as dials and signalling apparatus. The doors of these recesses have been rebuilt by Parks.
- **Gun Emplacement**: the centre of this U-shaped structure, built up with earth and concrete retaining walls (Figures 2, 3), is a pit containing remnants of the original gun carriage, into which the gun would retract for loading. The gun barrel on display is original to the battery. In the concrete wall surrounding the pit are five recesses at ground level for the short term storage of shells, while the gun was in action. Another recess higher in the wall (with door) was for small gun stores. A hatch, connected by a stairway to the underground ammunition storage below (see layout and cross section in Figure 9), allowed protected passage for men carrying the cartridges.

The following elements comprise the underground portion of the **Magazine Complex** and Gun Emplacement (Figures 4-8; layout in Figure 9):

- **Steps and Entrance Well**: besides an entrance to the underground complex, this served as a light well (note windows in Figures 4, 5) and also as a second opening through which ammunition shells -- the largest ones -- could be brought up to ground level by means of a davit (visible in Figure 4). A rifle rack stood against the wall immediately below the davit. Protective pipe railings around the openings and stairs ensure safety, though one section is a Parks substitute for the chain type railing shown on the 1903 Record Plan.
- **Lamp Room**: located at the bottom of the entrance steps, on the right (Figure 5), this room was intended for the maintenance and storage of the candle lamps, which were the main source of illumination in the underground chambers. In addition, the lamps were always lit in this room, before being placed in the several recesses opening into the other chambers. Set into thick walls, the recesses are covered with diamond-paned casement windows (on both the inside and outside of the walls), to reduce the chances of fire igniting the gunpowder. The lamp room itself is vaulted and brick lined, the walls covered with v-joint boarding. Seepage of rainwater was a problem, which led to the use of metal sheeting on part of the ceiling, and metal cups at the base of the door jambs. Some of the smaller components of the room, such as the window, the recess covers, and a bench and shelf (shown on the 1903 Record Plan) are Parks replacements.
- **Crew Shelter**: This brick-lined vault (Figure 6) with sash window into the entrance well (its outside window is straight ahead in Figure 4) was intended as a short-term shelter for men assigned to gun duty (including any wounded), during inclement weather, enemy fire, or stand-by periods. In peacetime, the shelter provided a convenient space for stores, and was sometimes used for ammunition examination and maintenance. The vaulted ceiling is partly lined with metal sheeting, as in the lamp room and for the same reason: rainwater seepage or condensation. Some components are replacements by Parks: the v-joint panelling of the walls, the iron gate and double wooden doors in the opening leading to the artillery store, the glass door of the lamp recess, the woodwork and panes of the sash window, and the simple furniture of table and benches.
- **Royal Artillery Store**: A brick-lined vault at the west end of the stores area (visible through the door in Figure 6), it was intended to house all of the items associated with the maintenance and operation of the gun and ammunition. Tools for this work were hung on the walls and a long work bench extended the full length of one wall. Some time before 1931, this chamber and the Shell Store switched functions, probably so that the artillery store could be in a vault with natural light. Likely it was at this time that the work bench disappeared. Parks replacements include: a new work bench, match-board panelling, and windows for the two lamp recesses.
- **Shell Store**: This brick-lined centre vault of the underground storage area (Figure 7; left side of the magazine from entrance well) was intended for storage of 400 shells of two sizes, according to the Record Plan of 1903. The vault fronts onto a passageway (connecting the three stores vaults) that has a window and doorway opening to the entrance well. A groove in the floor just beyond the doorway (entrance vault side) serves as a drain for rainwater, a constant problem. The wooden double doors are probably original, and the sash type window has needed only partial restoration. The ventilated ceiling is partly metal sheeted, thought to have played a role in reducing the possibility of static charge, as well as helping to guide condensation down the walls, where it would not affect the shells. Parks replacements in the Shell Store include the match-board wall panelling, the replica shells, and the loose wooden flooring on which they sit (historically correct).
- **Shifting Lobby**: This narrow, vaulted hallway (Figure 8) was for changing clothing and shoes before entering or leaving the Cartridge Store -- important because of the risk of sparks from regular military uniforms and outdoor shoes with grit in the soles. A simple moveable wooden barrier with benches and peg hangers signalled the point at which the special regulations for this procedure were applied (Figure 10 shows copy of procedure instructions). A lamp recess lights both this chamber and the Cartridge Store on the other

side, while a hatch is also set between the two (lower left corner, Figure 8), for issuing the cartridges to men who would then carry them up the nearby flight of steps to the serving hatch near the gun emplacement. A shifting lobby was a standard part of any magazine designed by the Royal Engineers, and they were all similar. Parks has replaced missing parts of the wooden barrier and the peg hangers (original parts of both existed when Parks assumed ownership in 1962).

- **Cartridge Store**: This brick-lined vault at the east end of the underground stores area was the most dangerous, as it contained the cartridge explosives (zinc cylinders or boxes), which propelled the shells. The vault is entered from the shifting area through double doors. A low serving hatch between the Cartridge Store and the Shifting Lobby (bottom left corner of Figure 8) was for passing cartridges from workers on the inside (who had changed into their special clothing) to personnel who would carry them up the ammunition passage to the hatch near the gun. Two candle recesses light this chamber, while another small wall recess dates to the Second World War, when the standard lamp for this purpose was battery powered. Parks replacements include an approximation of the vertical sliding door of the serving hatch (no handle, sash or fastenings), and covers for the two candle recesses.
- **Ammunition Passage**: This is the stairway route by which both cartridges and shells were passed from the storage vaults to the serving hatch near the gun (Figure 9). The passage was lit by candle lamps in four recesses. Under the stairway is the main drain for both gun emplacement and underground chambers. A large catch pit is located at one end of this space, while two inspection pits (at the top and bottom of the stairs) allow monitoring.
- **Ventilators**: Each underground vault has a ceiling ventilator, which is connected to a surface ventilator on the parapet above the entrance well (Figure 11; also visible in Figure 4). Each of the four sides of the surface ventilator has a louvred opening behind a wooden door. The doors of the ventilator were opened or closed twice daily

by the District Gunner, according to the readings on the wet and dry bulb thermometer at the guard house. Some damage has occurred to the wooden louvres, and the wooden doors covering them generally remain shut.

There is some fairly sophisticated craftsmanship in the underground vaults; some good arching of bricks above doors and windows in the entrance well (opening from the stores area, the lamp room and the crew shelter -- e.g. Figure 5); and quality workmanship in the concrete walls, indicated by their good performance over almost 100 years.

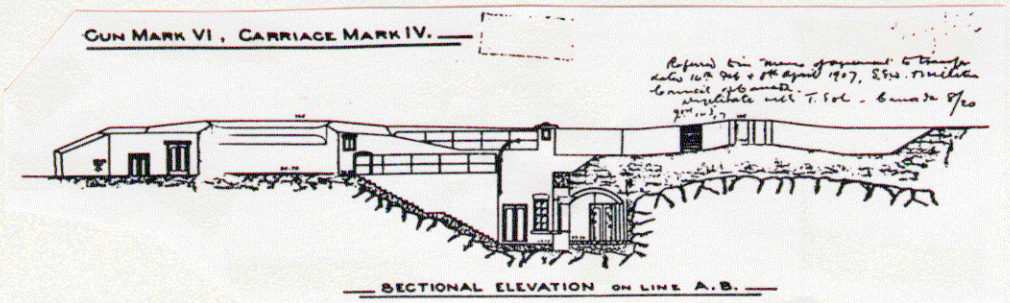
ENVIRONMENT

The site has changed in relatively minor ways, such as in the growth of trees below the complex, which has obscured some of the original sight lines. In addition, not all of the barbed wire beyond the flanks of the gun emplacement has survived (see original layout of wire fence in Figure 12). Most of the later Second World War installations, such as a "dummy" gun on the glacis south-west of the 6-inch gun pit, and the Anti-Aircraft Machine Guns are long gone, though the concrete-lined machine gun pit remains on the glacis (forward and to the left of the 6-inch gun).[2] The gun and magazine complex of Upper Battery is one of three such features in batteries at Fort Rodd Hill. It is also at the highest elevation. Upper Battery Magazine and Gun Emplacement would be familiar to visitors at Fort Rodd Hill, being a major installation and the first battery encountered after the Park Entrance. Many current and retired military regulars and reserves, and the Rodd Hill Friends Society would also be familiar with it.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 20.

2 Ibid., p. 28.



1 Gun Emplacement and Magazine, Upper Battery; cross section from 1903 Record Plan. (MRS #282, p. 159.)

2 Left Gun Emplacement, Upper Battery; constructed between 1895 and 1898; designed by Royal Engineers. (J. Mattie, NHSD-HSB, Parks, 1997.)

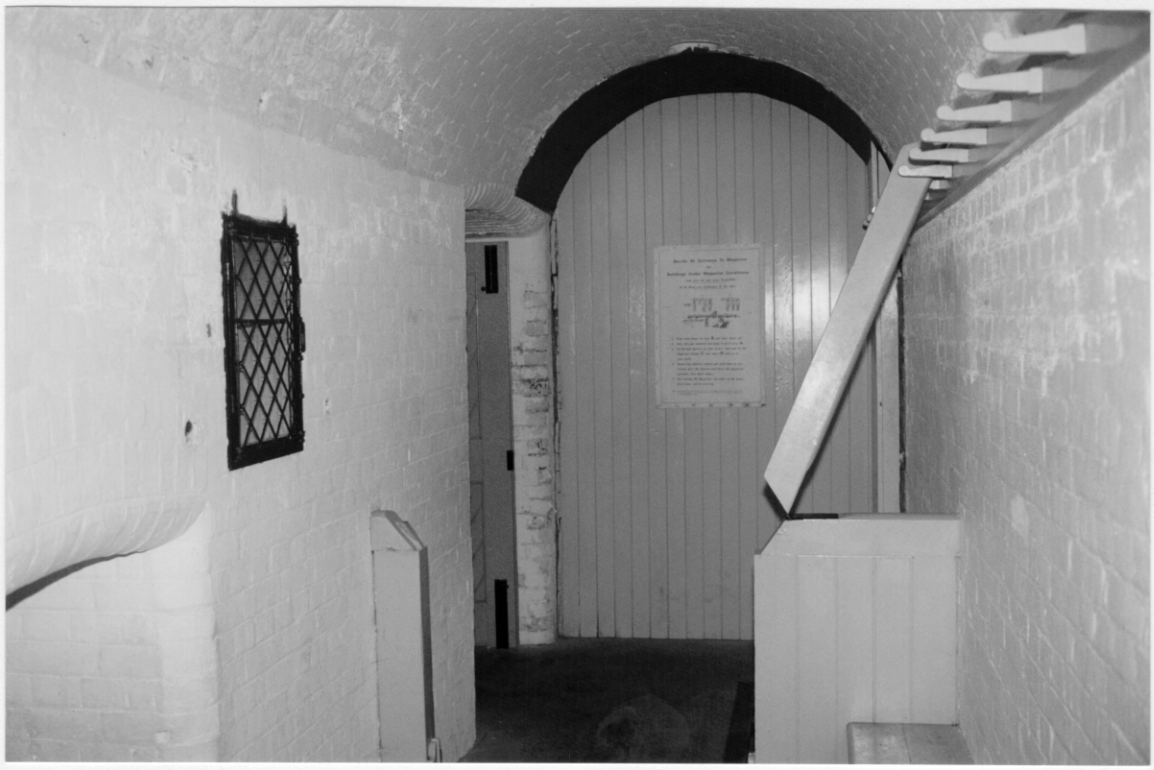
3 Left Gun Emplacement, Upper Battery; photo taken from earthworks above the upper terreplein. (J. Mattie, NHSD-HSB, Parks, 1997.)

4 Magazine, Upper Battery; steps going down in entrance well, protected by pipe railings (window of crew shelter is straight ahead). (J. Mattie, NHSD-HSB, Parks, 1997.)

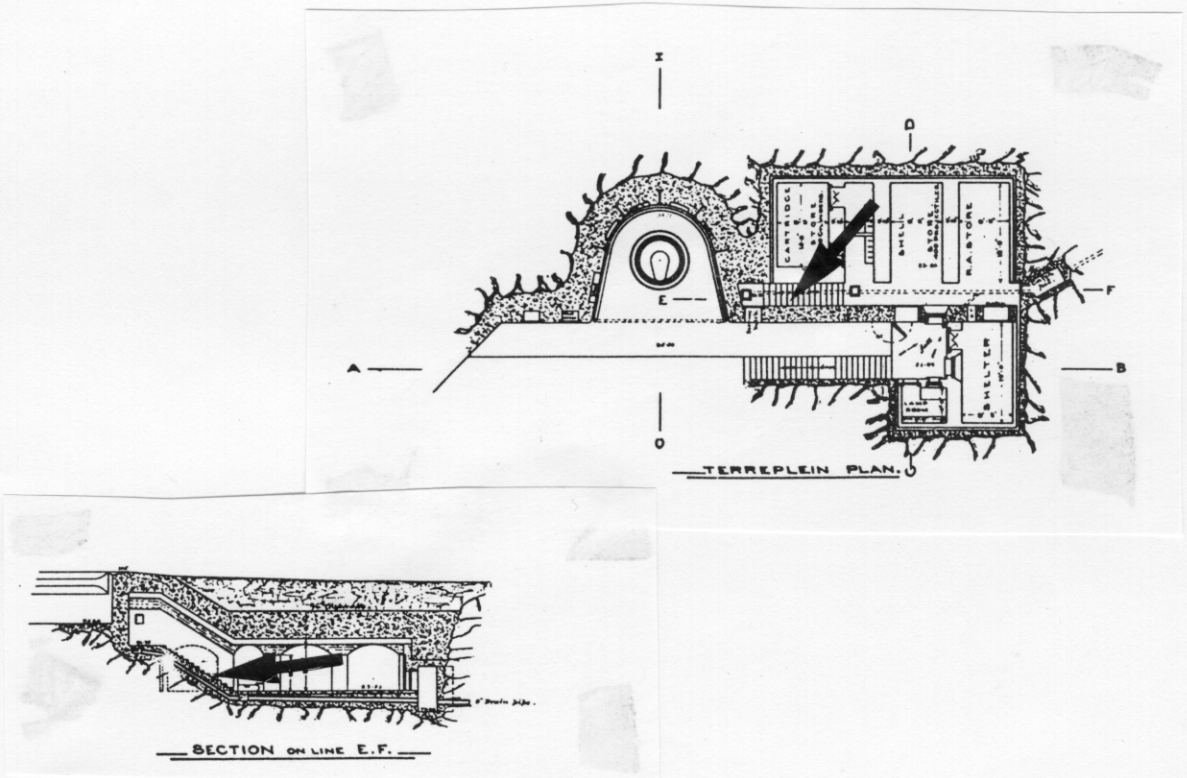
5 Magazine, Upper Battery; lamp room at bottom of entrance well (in Figure No. 4, lamp room is to the right and out of sight). (J. Mattie, NHSD-HSB, Parks, 1997.)

6 Magazine, Upper Battery; crew shelter, showing doors to artillery store (straight ahead) and shell store (visible through entrance lobby door at left). (J. Mattie, NHSD-HSB, Parks, 1997.)

7 Magazine, Upper Battery; shell store. (J. Mattie, NHSD-HSB, Parks, 1997.)



8 Magazine, Upper Battery; shifting lobby. (J. Mattie, NHSD-HSB, Parks, 1997.)



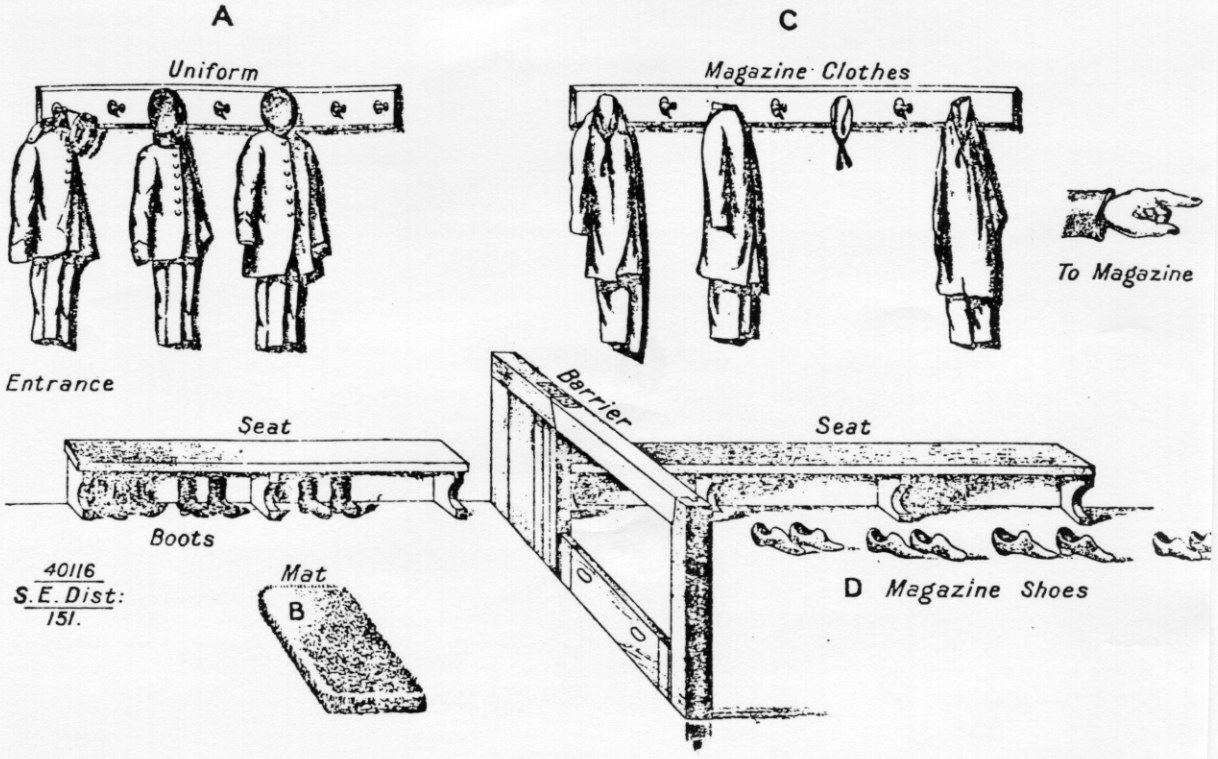
9 Plan and cross section of Magazine, Upper Battery, with arrows pointing to ammunition passage (leading up to the gun emplacement), Record Plan of 1903. (MRS #282, p. 159.)

Plate I. *To face page 15.*

Army Form G. 949.

(Referred to in paragraphs 47, 60 and 61)

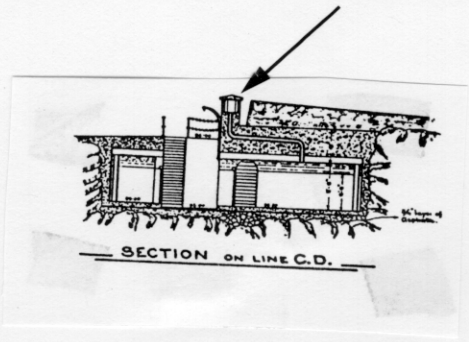
TO BE READ AND EXPLAINED TO THE MEN.



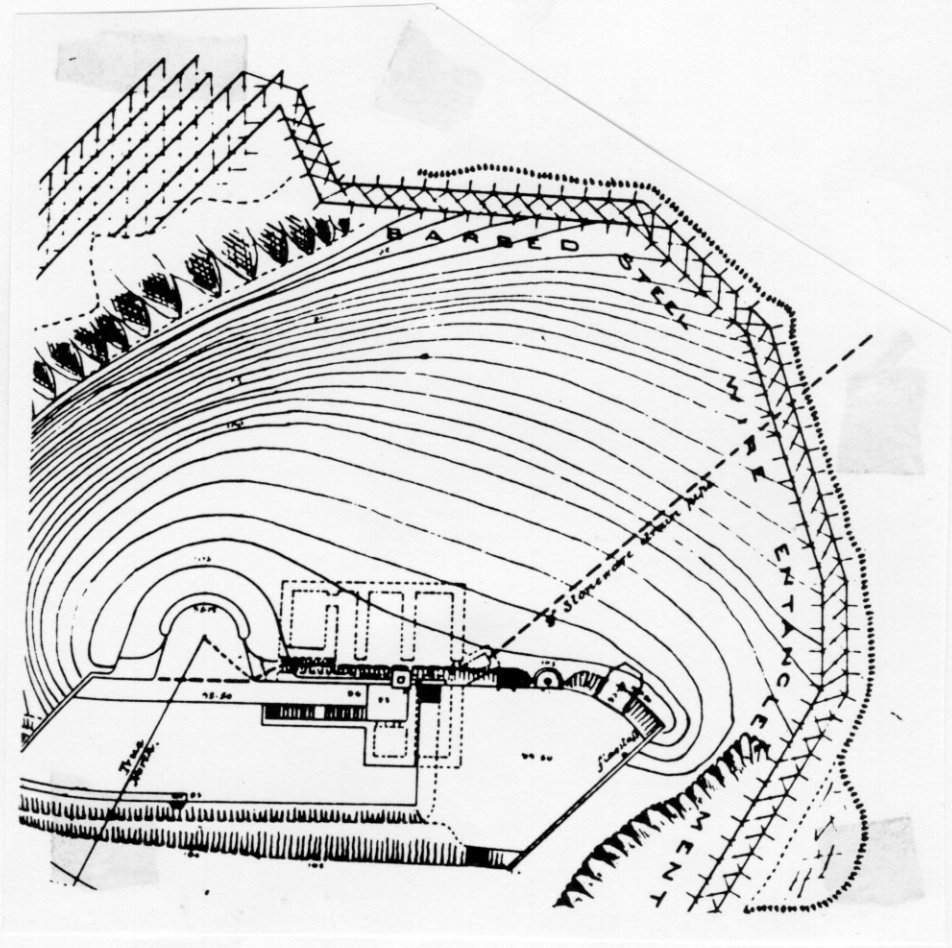
1. *Wipe your boots on mat* B *and take them off.*
2. *Take off your uniform and hang it on the pegs* A.
3. *Pass over the barrier in your socks; then put on the magazine clothes* C. *and shoes* D *and go to your work.*
4. *Inspecting officers should put each foot in succession past the barrier and draw the magazine goloshes over their boots.*
5. *On leaving the Magazine the order of the above directions will be reversed.*

NOTE *Neither Magazine Clothes nor Shoes must ever be taken outside the barrier nor must uniform or boots be ever brought inside it. If the magazine shoes are allowed to collect grit, they are just as dangerous and as likely to make sparks as boots.*

10 Procedures to be followed in shifting lobby. (Regulations for Magazines and Care of War Materiel, London, England, 1913; reproduced in MRS #282, p. 177.)



11 Magazine, Upper Battery; cross section showing ventilator rising our of shell store; Record Plan of 1903. (MRS #282, p. 159)



12 Plan of Upper Battery, including barbed wire entanglement; Record Plan of 1903. (MRS #282, p. 161.)

Upper Battery - Telephone Exchange (ca. 1904)

HISTORICAL ASSOCIATIONS

Historical information on this building is sketchy, but it appears that the structure was not directly associated with the operation of Upper Battery. Probably completed in 1904, it likely relates, rather, to the rapid increase in line communications between various other fort components at this time, especially the Electric Light Directing Station opened in the same year (1904; see report in Searchlight section) and/or the Fortress Fire Commander's Post, instituted in 1924. In addition, it may have played a role in the whole coast defence command.[1]

In early 1939, the on-site telephone system at Fort Rodd Hill was found to be in such poor shape, a construction company telephone was pressed into action to pass orders and receive reports. It may be that in part of the interim, between 1931 and 1939,[2] the telephone exchange function had been transferred to Signal Hill at Esquimalt to serve all the coastal batteries. In any case, the 1939 Defence Scheme document does refer to the transfer of the exchange back from Signal Hill to Rodd Hill, when hostilities were imminent.[3] This may have been a temporary move, however, since when war actually broke out in September, Mary Hill became the site of the Fire Command Post for the whole coastal defences, and was connected to all batteries, observation posts and searchlights by telephone.[4] When the Fortress Plotting Room adjacent to Lower Battery was completed in 1943, all telephone exchange activities at Rodd Hill were concentrated there.

The Telephone Exchange had fulfilled an important strategic role in the period ca. 1904 to ca. 1931. Furthermore, it is an excellent example of the progress in communications systems within Canada's military -- an advancement beyond semaphore (flag) signalling (embodied in the Bickford Tower at Esquimalt), which has not entirely been eliminated for some situations. The Telephone Exchange also illustrates a phase of the development of Fort Rodd Hill that was subsequent to the main establishment completion in 1899. During this phase, some refinements were made (such as the provision of a water supply in Upper Battery) and updated concepts of military practice were implemented (such as a better communication system). The phase also corresponds to the last few years in which the British were maintaining a presence in the Esquimalt area and were influential in Canada's coastal defences.

ARCHITECTURE

This simple concrete building, built into the earthworks protecting the rear side of the Gun Emplacement (Figures 1, 2) was a shell in which telephone exchange equipment was installed. Related to that equipment are remnants of a conduit containing several old cable ends, probably once connected to the searchlight lines. These are located on the west interior wall, above traces of a shelf or bench. The exterior of the building appears as original, including the window frame (glass has been replaced) and door. Some degradation of the concrete has occurred at the sides of the roof overhang and just under it (Figure 2). A similarly-sized flat-roofed structure (called a "Telephone Cabinet"), but made of brick, was part of York Redoubt at the Halifax Defence Complex.[5] Enlarged during the Second World War, it is now open to the elements (no windows or door) and is deteriorating.

Designer

The designer is unknown and the exchange building does not appear in the Record Plans of 1903-05, though a single telephone is shown in place for Upper Battery at that time. A possibility for the designer is the Canadian Signals Corps, who are known to have manned the Telephone Exchange in 1931, and probably earlier.[6]

ENVIRONMENT

Changes to the site in the immediate vicinity include the disappearance of three small box-like structures on the north rampart, between the Telephone Exchange and the water tank, installed there in 1943. Aerial photographs of that time also show a flight of steps cut into the bank alongside the east wall of the Telephone Exchange, presumably to give easy access to these structures. Both the structures and the steps had disappeared by 1950.[7] A few bolts anchored in the rock indicate their location, but their purpose has so far not been determined. Being a small, unobtrusive building, unrelated to the operation of the Gun Emplacement and Magazine, the Telephone Exchange does not greatly influence the character of the terreplein in this battery, though it does contribute to a knowledge of the whole establishment of Fort Rodd Hill. It is not open to the visiting public.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 30.

2 An eyewitness claims that the building was present in 1931 and was used by Signals personnel then. See Lovatt, op. cit., p. 34.

3 Ibid., p. 34.

4 Ronald Lovatt, Shoot, Shoot, Shoot. A History of the Victoria-Esquimalt Coast Artillery Defences, 1878-1956 (Victoria: Rodd Hill Friends Society, 1993), p. 95.

5 See Ian Doull, "York Redoubt, Halifax Defence Complex," FHBRO Report #95-01, Volume 3. Its date is given only as "pre-1900."

6 Lovatt, MRS #282, p. 34.

7 Ibid., p. 28.

1 Telephone Exchange, Upper Battery; constructed ca. 1904. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Detail of Telephone Exchange roof, showing water damage. (J. Mattie, NHSD-HSB, Parks, 1997.)

Battery Commander's Post (1901)

HISTORICAL ASSOCIATIONS

Dating to 1901, this building was part of the final programme to make Fort Rodd Hill fully operational, after the larger works were completed, especially Upper and Lower Batteries, to which it is related. From 1901 to 1944, when the 6-inch disappearing guns were removed from Fort Rodd Hill, this was a key building for both batteries, since it was from here that they were commanded in action as one fire unit (location and photos in Figures 1-4).[1] Besides the Battery Commander stationed here to coordinate and order the angles of fire, the other assigned personnel would have included at least one Depression Range Finder operator, and a maximum of two Signallers. Among their other activities, the Signallers manned the telephone line connected to other observation posts along the coast, and the line connected to the Gun Group Commanders in Upper and Lower Batteries. They would also have been responsible for use of the other electronic communications devices present in their separate room at the back of the Battery Commander's Post (possibly including the artillery dial circuit) and for any visual signalling required, from the flagpole outside (visible in Figure 3). The operators of the Depression Range Finder also had other devices with which to make their calculations, including a Target Indicator Card, the Group Difference Disc and Table, and mechanical dials for setting the range and bearing of the guns. The Battery Commander plotted all the pertinent information on charts marked with a variety of information, including the area of water covered by the three 6-inch disappearing guns, and the arcs of fire of each of them. As with all the structures at Fort Rodd Hill, this building was never engaged in any war-time action, other than practices and drills for readiness. In the peacetime military camps, it figured in any practice deployment of the guns.

ARCHITECTURE

This is a simple flat-roofed concrete shell with an observation slit wrapping around the front (seaward) side at eye level, and an off-set extension at the back for the telephone operators (Figures 2, 5). It's functional features include the observation slit and the concrete pedestal on which the Depression Range Finder sat (Figure 4). The downward swinging shutters on the slit are replacements by Parks. The pedestal, while somewhat chipped, remains in good enough condition to give an adequate idea of the building's purpose. The telephone extension retains some evidence of lines to which it was formerly connected. On the outside, former deterioration has shown that at least the back part of the building was made of bricks covered with concrete stucco (Figure 2), despite the notations on the 1905 Record Plan that the building was all concrete. A staircase leading up the outside of the building from the door of the telephone extension suggests that these steps were for gaining better viewpoints from either the roof or the adjacent rock promontory. The craftsmanship throughout is adequate. The designer would have been the British Royal Engineers, according to the 1893 agreement between Canada and Britain for the construction of Fort Rodd Hill.

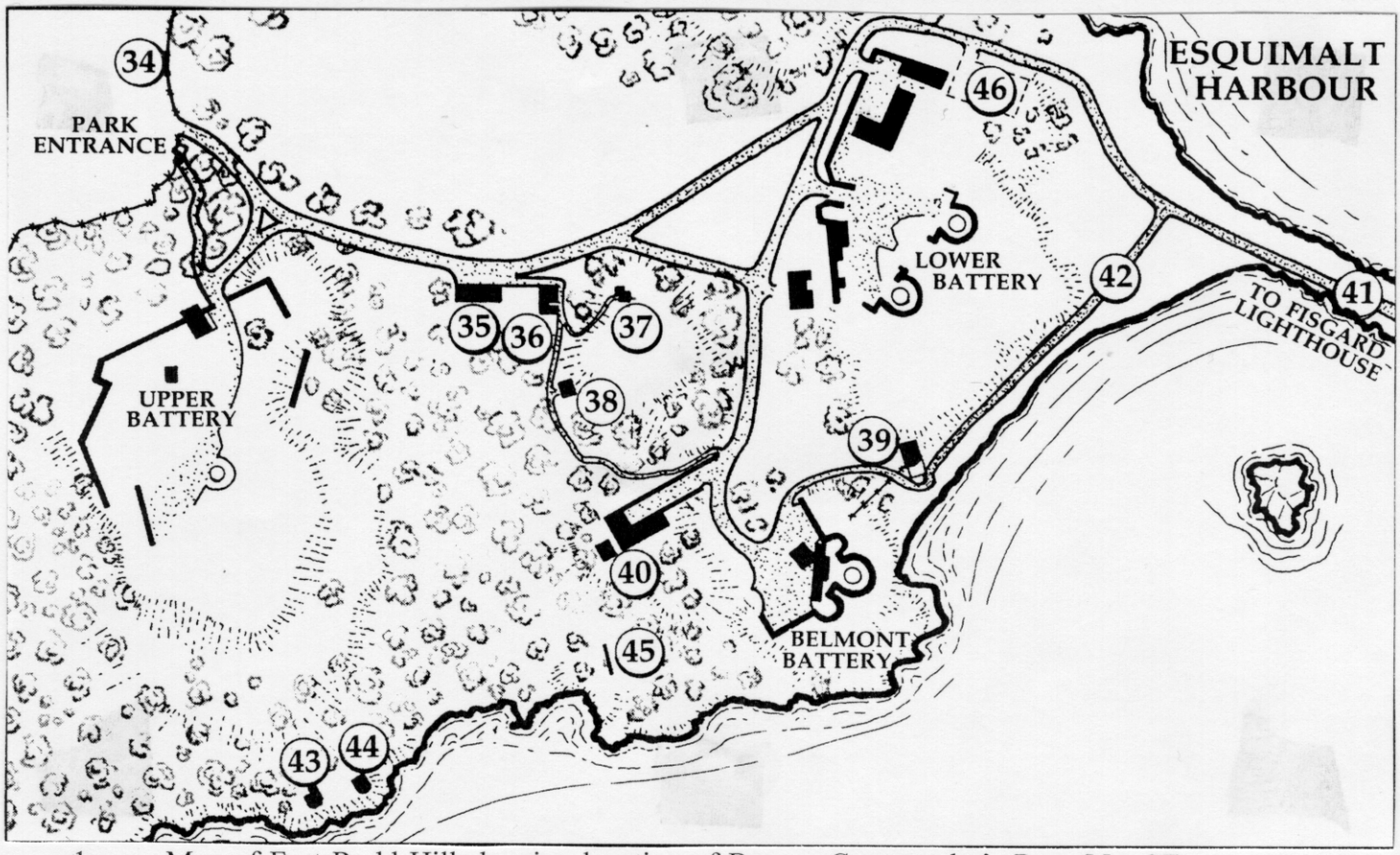
ENVIRONMENT

Perched on a rock promontory between Upper and Lower Batteries (Figures 1, 3), and just above the Warrant Officer's house, the Battery Commander's Post relates to its site in much the same manner as when it was completed in 1901, except for the growth of trees obscuring some of its sightlines. The building's size and colouring (grey with blackish areas due to aging and micro-organisms) do not make it stand out physically, but the function of the building makes it important to an understanding of the fort's operation. It would be familiar to serious visitors to

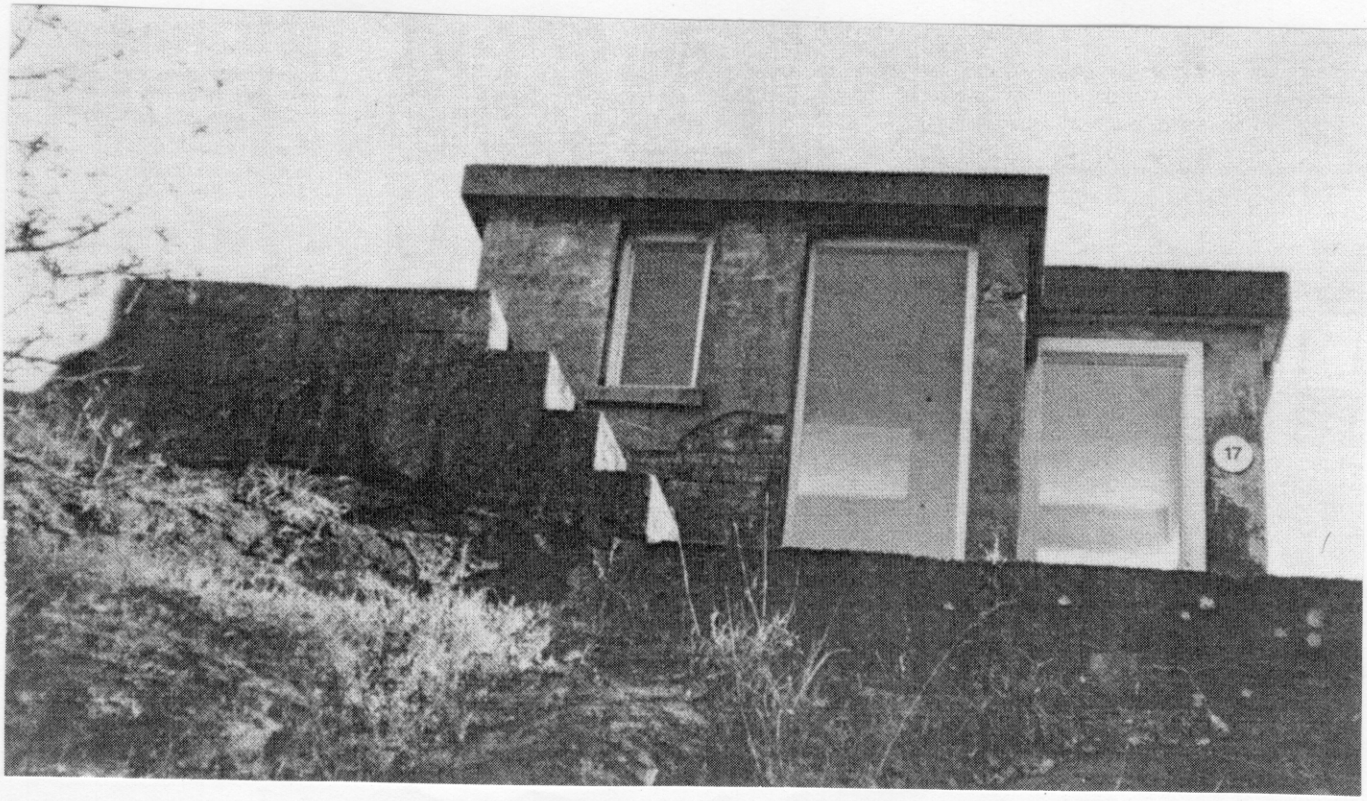
Fort Rodd Hill, who follow all the points on the self-guided tour, and to military regulars and reservists who are familiar with the fort.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), pp. 36-40.



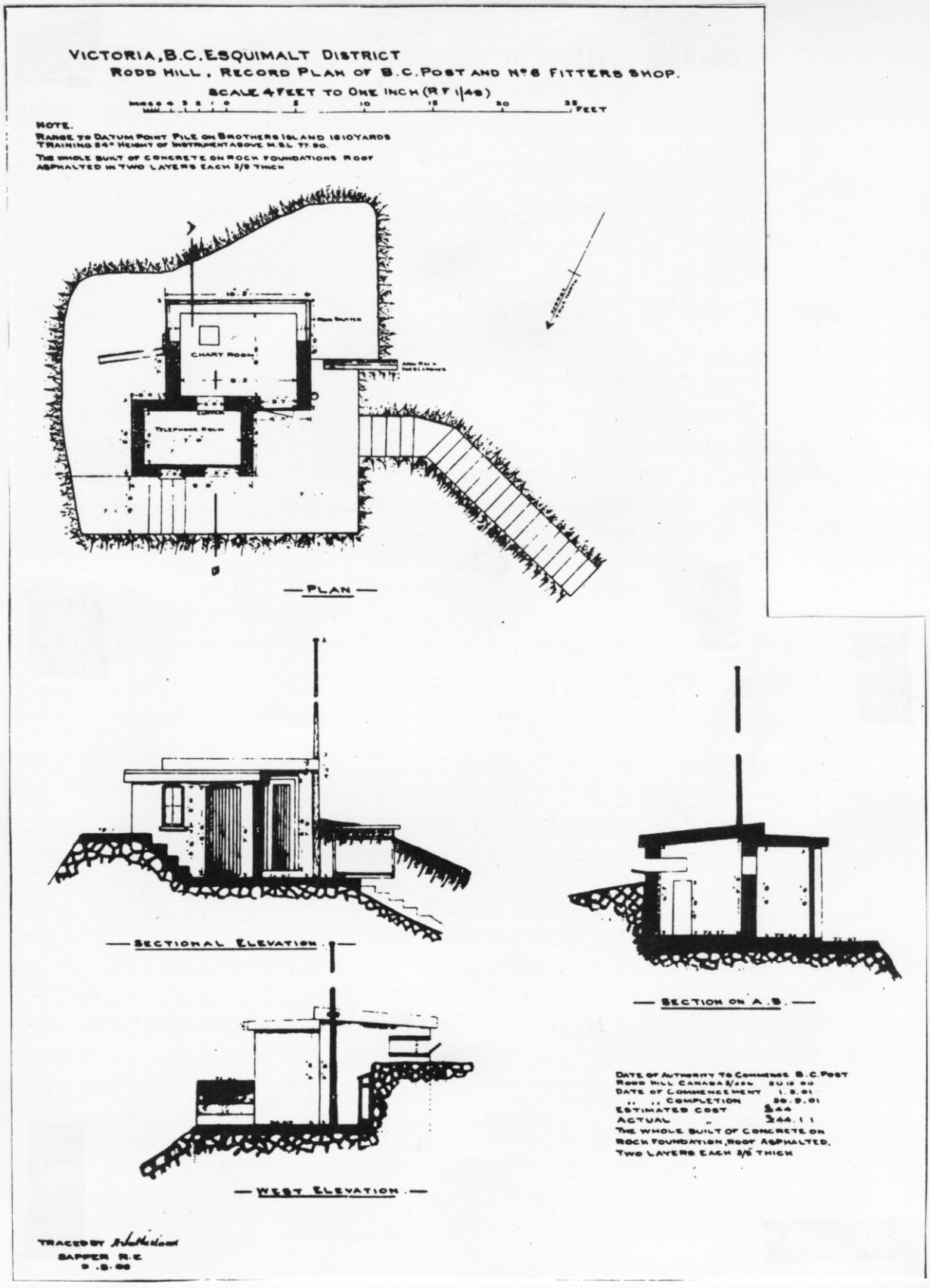
1 Map of Fort Rodd Hill showing location of Battery Commander's Post (No. 37) between Upper and Lower Batteries. (Fort Rodd Hill, Catalogue of Features.)



2 Battery Commander's Post; constructed in 1901; designed by Royal Engineers; photo taken from the rear (landward) side in 1978. (MRS #282, p. 201.)

3 Battery Commander's Post from the front (seaward) side. (J. Mattie, NHSD-HSB, Parks, 1997.)

4 Interior of Battery Commander's Post, looking out through observation slit; the pedestal for the Depression Range Finder is at lower left. (J. Mattie, NHSD-HSB, Parks, 1997.)



5 Battery Commander's Post; Record plan of 1906. (Public Archives of Canada, reproduced in MRS #282, p. 187.)

Fitter's Shop (1901)

HISTORICAL ASSOCIATIONS

Dating to 1901, the Fitter's Shop illustrates the final push of British and Canadian authorities to erect the last small buildings that would make Fort Rodd Hill fully operational, after the major installations (including Upper and Lower Batteries) were completed. Sited between Upper and Lower Batteries, and servicing the armaments of both, this forge-like building was considered a necessary type for any coast battery in the late-19th and early-20th centuries.[1] Inside, a smith or armourer would make small repairs to the guns and/or their mountings, as necessary. After the 6-inch disappearing guns became obsolete and were removed from Fort Rodd Hill (1944) the Fitter's Shop was turned to use as a motor transport office, and it continued in this function until the end of the Second World War. Today, a local blacksmith performs interpretive demonstrations in it.

ARCHITECTURE

The aesthetics of this concrete cube are enhanced by its symmetry, the slight arch over the front door, and the 1901 date stone. According to the British treatise Fortification and Military Engineering, a fitter's shop was expected to contain a forge, an anvil, a grindstone, and a bench, as well as a vice and fitting tools.[2] It is likely that the Fitter's Shop at Fort Rodd Hill contained all of these things, as well as a cupboard. Though the cupboard and the original tools are no longer extant, the other non-portable elements remain. The forge is linked to a small chimney, while a large central ceiling ventilator is also still in place, indicating its use in drawing out excess smoke and fumes. Two patches of wood blocks are also set into the concrete floor, presumably for supporting metal while hammering it, to prevent damage caused by a too-hard surface underneath. Double doors gave ample access for the gun pieces that came and went from here, while two windows supplied light for working.

ENVIRONMENT

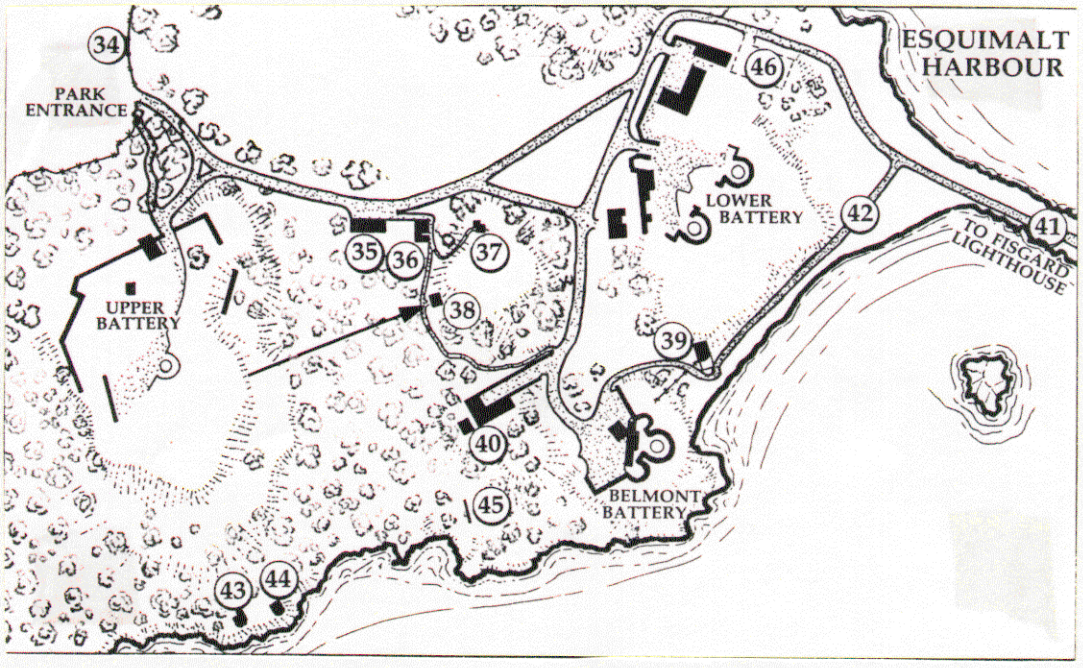
The Fitter's Shop is located in a hollow behind a rock outcropping, hidden and protected from the fire of enemy ships, but within easy distance of the guns it served. Except, perhaps, for more vegetation around it, this site is much like it must have been in the 1901-44 period when the building was in use for its intended purpose. Because of its inconspicuous appearance and site, the building does not have a strong visual presence. Likely it would be known only to Fort Rodd Hill visitors determined to see all of the features in the self-guiding tour, and/or to Military regulars and reservists who have a special interest in history.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 113.

2 Great Britain. Fortification and Military Engineering, (London: HMSO, 1893), Vol. 1, p. 319; cited in Lovatt, MRS #282, p. 113.

1 Fitter's Shop; constructed 1901; designed by Royal Engineers. (J. Mattie, NHSD-HSB, Parks, 1997.)



2 Map of Fort Rodd Hill showing location of Fitter's Shop (No. 38). (Fort Rodd Hill, Catalogue of Features.)

Lower Battery

Introduction to the twelve buildings here:

Guardhouse, 1895-98
Gun Emplacement and Magazine Complex, 1895-98
Artillery Store, 1898
Small Arms Ammunition Store, 1898
Oil Store, 1928
Casemate Barracks:
- Barracks Building, 1898
- Coal Store, 1898
- Oil Store, 1898
- Provision Store, 1898
- General Store, 1903
- Latrines, 1898

Lower battery contains two main functional parts: a) the part oriented to the Gun Emplacement and Magazine Complex, for the delivery of artillery fire, and b) Casemate Barracks, for the housing of military personnel manning both Upper and Lower Batteries. A third part (c) is that associated with the battery entrance, which includes the Guardhouse. Completed in 1898, all are within a common defensive wall (Figure 1), but each is quite self-contained. The environments of both the Gun Emplacement and Casemate Barracks underwent considerable change during the Second World War, but these changes were of a temporary nature, most evidences of which were removed in the 1950s. Currently, both of these parts of Lower Battery now appear much as they did in 1898, as does the Guardhouse.

Lower Battery - Guardhouse (1895-98)

HISTORICAL ASSOCIATIONS

This Guardhouse is related to the general theme of coastal defence on Canada's west coast in an indirect way: as a useful building that performed secondary operational functions. Its history is very similar to that of the Guardhouse in Upper Battery, including: its intended purpose for accommodating a small guard when the battery was fully manned; and the duties of the guards who were to be based there, namely controlling the gate in the defensible wall, and keeping watch on the battery perimeter. As in the case of Upper Battery Guardhouse, however, there is no record of this building -- a typical structure in all military forts and bases -- being used for its intended purpose. In 1899, it was designated as temporary accommodation for two non-commissioned officers and six rank and file of the Royal Garrison Artillery (while enlargements were being made to Work Point Barracks, their usual residence). In the 1930s it was used by the staff of the School of Artillery as an office and possibly a lecture room during summer training. In September 1939 a Sergeant-Major and two non-commissioned officers used the building as their quarters for a short time until it was needed for battery offices. By 1944, it was allotted as quarters for eight men and, for a while, it contained a Medical Inspection Room. The red cross painted on the north wall of the building (part of the defensible wall), and dating from that time, was still visible in the 1960s. For a time during the Second World War, the bedroom was used as a communications centre of some kind, perhaps related to anti-aircraft defence.[1]

ARCHITECTURE

This guardhouse is visually similar to that in Upper Battery, including: its concrete walls, long rectangular shape with flat roof, prominent chimney, vertically proportioned sash windows, red-painted porch along the front, rounded white markings at the base of the front door's corners and around the window sills (Figures 1-3) and the three-room layout (Figures 4-6). The main difference is that while the Upper Battery Guardhouse is set at a right angle to the defensible wall, and its loopholed bedroom projects through that wall, Lower Battery Guardhouse is set parallel to the defensible wall with no penetration of it, except for loopholes (Figure 6). In fact, the defensible wall acts as the rear wall of the building (see plan, Figure 4). A small difference is that the latrine is attached and more conveniently accessed from the main building, through an exterior door of the kitchen (Figure 1). Originally, only the toilet space was roofed; today, a wooden shed-style roof covers the whole latrine (unlike the flat concrete roof of the latrine at Upper Barracks Guardhouse).

The construction has proved sturdy and effective, requiring only the re-shingling of the porch roof, the renovation of some window frames, the replacement of some missing hardware and some floor boards, and a few other details to bring it back to a good state of repair, much like it was in 1898. Furnishings in the kitchen (including the stone dry sink) have not survived as well as those in Upper Battery's kitchen.

Two guardhouses at other forts and military installations in Canada, comparable to those at Fort Rodd Hill have been mentioned in the guardhouse section of the Upper Battery report. They include the 1890-91 guardhouse at Work Point Barracks (with faux keystoned arches), and the 1814-19 guardhouse at Royal Military College, Kingston. (with dentil moulding and interesting textures of stone; see photos in Upper Battery report).

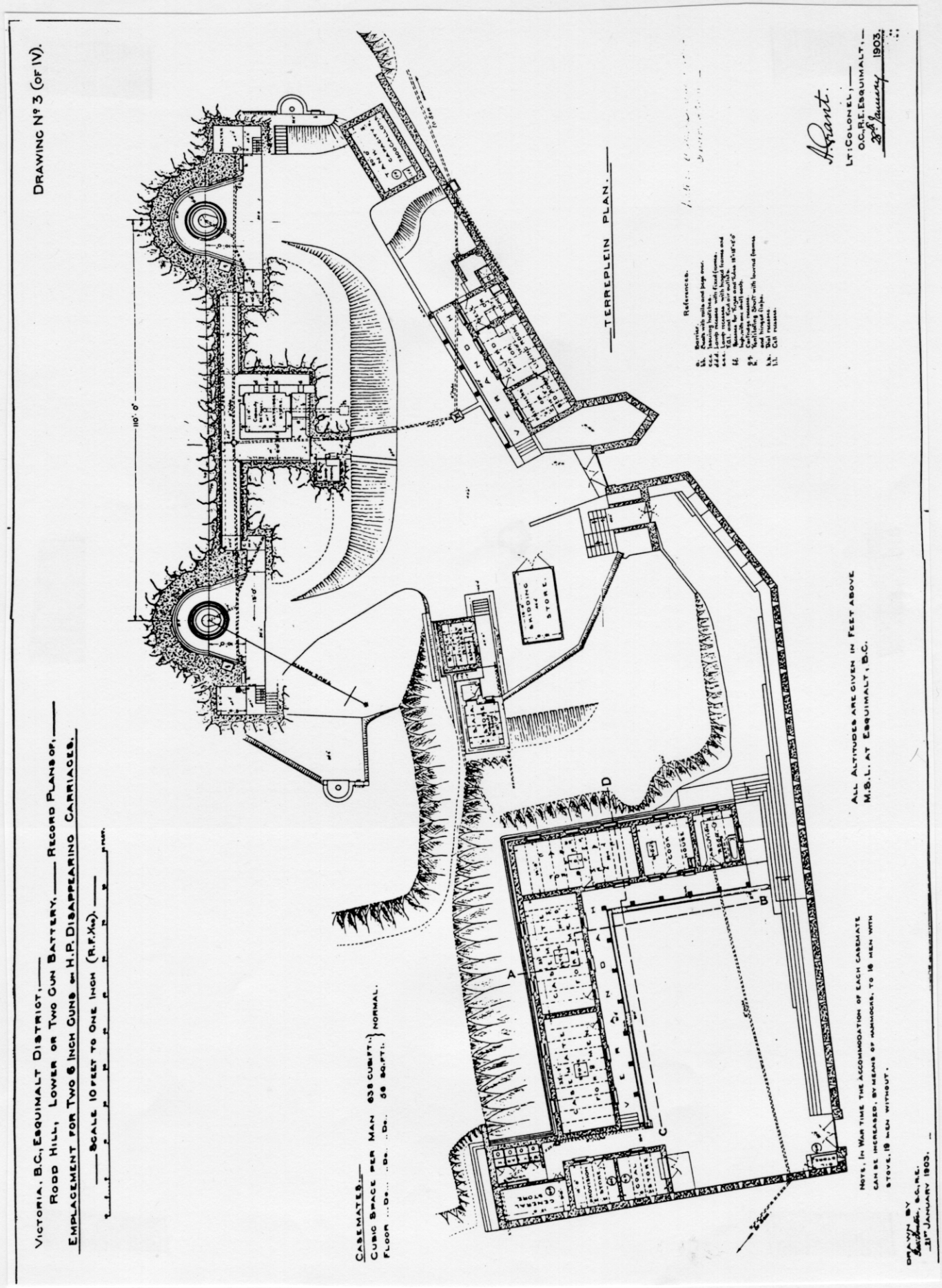
ENVIRONMENT

The building relates to its site in a manner that is virtually unchanged since 1898 when Lower Battery was completed. Adjacent to the Guardhouse on the north end, the defensible wall continues (from its functional role as the rear wall of the Guardhouse) toward the gate in a bastion-like bulge with loopholes (Figure 2; see also plan in Figure 4), offering firing positions for small arms in 180o of sightlines, including a line toward the gate. The magazine complex is in much closer proximity to the Guardhouse than at Upper Battery (see plan in introductory section on Lower Battery). Here the earth build-up over the magazine (dug into a rock outcropping) starts very near to the Guardhouse verandah. During the Second World War, some temporary structures were in close proximity, on the other side of the entrance gates and set at right angles to it.

Being an identifiable type within any fortress, and located adjacent to the entrance gate of the defensible walls, the Guardhouse is a visually prominent component in the Lower Battery complex. The building would be quite familiar to those who have visited Fort Rodd Hill and to the local interest group of military regulars and reservists, as well as the Friends of Fort Rodd Hill.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 48.



1 Plan of Lower Battery, 1903. (MRS #282, p. 207.)

Lower Battery

Introduction to the twelve buildings here:

Guardhouse, 1895-98
Gun Emplacement and Magazine Complex, 1895-98
Artillery Store, 1898
Small Arms Ammunition Store, 1898
Oil Store, 1928
Casemate Barracks:
    Barracks Building, 1898
    Coal Store, 1898
    Oil Store, 1898
    Provision Store, 1898
    General Store, 1903
    Latrines, 1898

Lower battery contains two main functional parts: a) the part oriented to the Gun Emplacement and Magazine Complex, for the delivery of artillery fire, and b) Casemate Barracks, for the housing of military personnel manning both Upper and Lower Batteries. A third part (c) is that associated with the battery entrance, which includes the Guardhouse. Completed in 1898, all are within a common defensive wall (Figure 1), but each is quite self-contained. The environments of both the Gun Emplacement and Casemate Barracks underwent considerable change during the Second World War, but these changes were of a temporary nature, most evidences of which were removed in the 1950s. Currently, both of these parts of Lower Battery now appear much as they did in 1898, as does the Guardhouse.

Lower Battery - Guardhouse (1895-98)

HISTORICAL ASSOCIATIONS

This Guardhouse is related to the general theme of coastal defence on Canada's west coast in an indirect way: as a useful building that performed secondary operational functions. Its history is very similar to that of the Guardhouse in Upper Battery, including: its intended purpose for accommodating a small guard when the battery was fully manned; and the duties of the guards who were to be based there, namely controlling the gate in the defensible wall, and keeping watch on the battery perimeter. As in the case of Upper Battery Guardhouse, however, there is no record of this building -- a typical structure in all military forts and bases -- being used for its intended purpose. In 1899, it was designated as temporary accommodation for two non-commissioned officers and six rank and file of the Royal Garrison Artillery (while enlargements were being made to Work Point Barracks, their usual residence). In the 1930s it was used by the staff of the School of Artillery as an office and possibly a lecture room during summer training. In September 1939 a Sergeant-Major and two non-commissioned officers used the building as their quarters for a short time until it was needed for battery offices. By 1944, it was allotted as quarters for eight men and, for a while, it contained a Medical Inspection Room. The red cross painted on the north wall of the building (part of the defensible wall), and dating from that time, was still visible in the 1960s. For a time during the Second World War, the bedroom was used as a communications centre of some kind, perhaps related to anti-aircraft defence.[1]

ARCHITECTURE

This guardhouse is visually similar to that in Upper Battery, including: its concrete walls, long rectangular shape with flat roof, prominent chimney, vertically proportioned sash windows, red-painted porch along the front, rounded white markings at the base of the front door's corners and around the window sills (Figures 1-3) and the three-room layout (Figures 4-6). The main difference is that while the Upper Battery Guardhouse is set at a right angle to the defensible wall, and its loopholed bedroom projects through that wall, Lower Battery Guardhouse is set parallel to the defensible wall with no penetration of it, except for loopholes (Figure 6). In fact, the defensible wall acts as the rear wall of the building (see plan, Figure 4). A small difference is that the latrine is attached and more conveniently accessed from the main building, through an exterior door of the kitchen (Figure 1). Originally, only the toilet space was roofed; today, a wooden shed-style roof covers the whole latrine (unlike the flat concrete roof of the latrine at Upper Barracks Guardhouse).

The construction has proved sturdy and effective, requiring only the re-shingling of the porch roof, the renovation of some window frames, the replacement of some missing hardware and some floor boards, and a few other details to bring it back to a good state of repair, much like it was in 1898. Furnishings in the kitchen (including the stone dry sink) have not survived as well as those in Upper Battery's kitchen.

Two guardhouses at other forts and military installations in Canada, comparable to those at Fort Rodd Hill have been mentioned in the guardhouse section of the Upper Battery report. They include the 1890-91 guardhouse at Work Point Barracks (with faux keystoned arches), and the 1814-19 guardhouse at Royal Military College, Kingston. (with dentil moulding and interesting textures of stone; see photos in Upper Battery report).

ENVIRONMENT

The building relates to its site in a manner that is virtually unchanged since 1898 when Lower Battery was completed. Adjacent to the Guardhouse on the north end, the defensible wall continues (from its functional role as the rear wall of the Guardhouse) toward the gate in a bastion-like bulge with loopholes (Figure 2; see also plan in Figure 4), offering firing positions for small arms in 180° of sightlines, including a line toward the gate. The magazine complex is in much closer proximity to the Guardhouse than at Upper Battery (see plan in introductory section on Lower Battery). Here the earth build-up over the magazine (dug into a rock outcropping) starts very near to the Guardhouse verandah. During the Second World War, some temporary structures were in close proximity, on the other side of the entrance gates and set at right angles to it.

Being an identifiable type within any fortress, and located adjacent to the entrance gate of the defensible walls, the Guardhouse is a visually prominent component in the Lower Battery complex. The building would be quite familiar to those who have visited Fort Rodd Hill and to the local interest group of military regulars and reservists, as well as the Friends of Fort Rodd Hill.

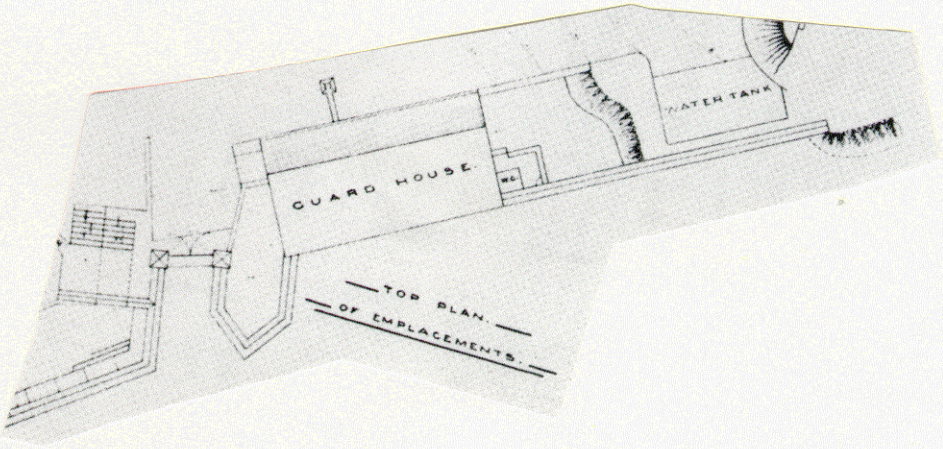
Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 48.

1 Guardhouse, Lower Battery; constructed in 1895-98; designed by Royal Engineers; view from south side showing latrine at left. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Guardhouse, Lower Battery, showing its position next to gate and loopholed bulge in defensible wall. (J. Mattie, NHSD-HSB, Parks, 1997.)

3 Guardhouse, Lower Battery; front side. (J. Mattie, NHSD-HSB, Parks, 1997.)



4 Top plan of Guardhouse, Lower Battery, showing its relationship to the gate and defensible wall; Record Plan of 1903. (MRS #282, p. 205.)

5 Guardhouse, Lower Battery; living room (centre room). (J. Mattie, NHSD-HSB, Parks, 1997.)

6 Guardhouse, Lower Battery; living room, showing opened loophole through defensible wall at rear. (J. Mattie, NHSD-HSB, Parks, 1997.)

Lower Battery - Gun Emplacement and Magazine Complex (1895-98)

HISTORICAL ASSOCIATIONS

The Gun Emplacement and Magazine complex of Lower Battery (Figure 1) relates directly to the establishment of Fort Rodd Hill as a coastal defence, meant to protect the Royal Navy base at Esquimalt, as well as the City of Victoria. Completed in 1898, the Gun Emplacement was equipped with two 6-inch disappearing guns, which would deliver the fire meant to challenge or disable enemy ships in the Strait of Juan de Fuca, or at the entrance to Esquimalt harbour.[1] Though never discharged in battle, the two guns appear to have acted as a deterrent to potential enemy attacks during the First World War,[2] and they were also important to the intermittent military and militia training exercises that took place at Fort Rodd Hill, beginning in 1898. In 1917 the 6-inch disappearing guns were demobilized, and from that time, they were regarded as reserve armament.[3]

The first step toward their complete replacement occurred in the 1920s when a 6-inch Quick Firing (Q.F.) gun from a ship was mounted on a naval pedestal on the glacis southeast of the Left Gun Emplacement. This gun, intended only for drills (because of its mounting it would not have been fully functional), was removed ca. 1940. Around 1942, a 40 mm anti-aircraft Bofors gun was mounted in the Left Gun Emplacement (Figure 2),[4] joining several other anti-aircraft defences in the Esquimalt-Victoria area. In 1944, all guns and carriages were removed from Lower Battery and sold as scrap. Their sites and architectural positions are intact, however, enabling a good on-site interpretation of their history, which illustrates the last stage in the development of British-designed fortifications.

ARCHITECTURE

As with Upper Battery, the few incidentally aesthetic components in this overwhelmingly functional structure are found in the interior of the magazine. Here, the vaulting, the matchstick wood panelling in some sections and painted brick in others, plus some of the smaller details such as the diamond-paned covers of the lamp recesses are of some aesthetic value. Perhaps the symmetry of the two gun emplacements (see plan, Figure 3), their varied profile and sweeping horizontal lines could also be considered to have some aesthetic merit.

The following is a discussion of the functional aspects of the two above-ground gun emplacements and the subterranean magazine between them. The layout is quite different than that of Upper Battery, partly because two guns (rather than one) were employed. Site differences played a role as well, particularly the rock outcropping at Lower Battery, whose advantage was utilized, being excavated for a strong and well-protected, though simpler arrangement of chambers.

Gun Emplacements

- **Right Gun Emplacement**: This U-shaped defensive work (Figures 3, 4) has concrete walls on the inside and earthworks built up to the top of it on the seaward side. This arrangement, plus the disappearing carriage for the 6-inch gun, made the emplacement almost invisible from the water side and therefore less vulnerable to attack. Only the carriage ring (for swinging the gun and carriage to different targets) remains in the gun

pit, as well as bolts in the U-shaped wall, for the mounting and dismounting of both the gun and its carriage. Five recesses in the front of the wall were for the temporary storage of shells while the gun was in action, the shells having been brought up from the magazine, including some through the ammunition hatch, which is nearby. Two other recesses -- on the left side of the gun pit and covered by doors -- were for the storage of small arms, fuses and tubes. On the right side of the gun pit is the storage recess for instruments. A small crew shelter, vaulted and open, is located at the far right end of the emplacement, set below the terreplein, with concrete steps leading down to it. This space was intended to shelter gunners from enemy fire and inclement weather during stand-by periods. It also offered short-term protection for the wounded. Up and to the right of the crew shelter is the Right Depression Range Finder Position, with a pedestal set in a semi-circular recess of the parapet wall, all dating to 1898. The range finder was an instrument for calculating the accurate aiming of the guns.

- **Left Gun Emplacement**: This is virtually a mirror image of the Right Gun Emplacement, with the ammunition hatch and fuse and tube storage on the right side of the gun pit, and the instrument recess and crew shelter on the left (Figure 5).

Magazine

The main elements of this magazine -- lamp room, shifting lobby, cartridge store and shell store -- have the same function as those of the magazine in Upper Battery. Their disposition within the underground excavation is different, however (see plan, Figure 6). Down the ramp from the **Entrance** (Figure 7) and to the left, the **Lamp Room** is the first encountered (see position in Figure 6). It and the entrance lobby are separated from the rest of the magazine by heavy double doors. Beyond this is the T-shaped **shell storage area** (Figures 8, 9; the stem of the T is visible near Steve Malins in Figure 8) with two long, narrow vaults at right angles to each other (unlike the single vault at Upper Battery). At the base of the "T", just inside the double doors that lead outside, a short hallway turns right toward the **shifting lobby** (Figure 10), where clothing and shoes had to be changed before workers could go into the **cartridge store** (left, at the far end of the shifting lobby), potentially the most dangerous part of the magazine due to the presence of explosives. Associated with the cartridge store is the square vent, visible above the magazine on the outside, above and to the right of the entrance (Figure 7). This was a necessary provision for the ventilation of gunpowder particles that could be suspended in the air. The added feature of this magazine -- the **lamp passage** (Figure 11) -- is on the west side of the cartridge store. Its purpose was to allow lamps to be placed in three lamp recesses -- two lighting the cartridge store and one the shifting lobby -- without entering those spaces, thereby reducing the risk of explosion. Leading from each end of the top of the "T" were the **sloped passageways** going up to the ammunition hatches at the two gun emplacements. Shells and cartridges would be carried along this route, the latter having been passed to the shell storage area by means of a low hatch opening from the cartridge store chamber (visible in Figure 8, lower right).

The effectiveness of the materials in the magazine -- excavated rock, brick cladding of most vaults, concrete surfacing in others, thin metal sheeting in the tops of some vaults (to protect the stores underneath from dripping condensation), and matchstick wood panelling where dryness was especially desired -- has been proven through almost 100 years of existence, resulting in a high degree of physical integrity today. Replacements or repairs of small components have included: some bolts on the double entrance doors; the frames, grills and glass doors of the window recesses; some repairwork to the concrete-faced vaults (in the shell store); the barrier of the shifting lobby (Parks-built); and a few other details. Parks has also installed replica shells (of two sizes) on wooden platforms, for a more realistic interpretation of the magazine.

The two missing elements in this magazine (compared to Upper Battery) are located elsewhere: the crew shelter, within the works of the gun emplacement (see that section), and the artillery store, a separate structure nearby (next report).

Craftsmanship and Materials

For the gun emplacement part of the structure, the architectural workings of materials include: the making of the concrete wall around the gun pit; the fitting of various recesses into it, some with doors; and a small amount of stonework to create a retaining wall -- at the far right end of the right emplacement, near the Depression Range Finder Position (using undressed stones). In the magazine, the workmanship includes: the excavation of vaults in the naturally occurring rock; the facing of those vaults with brick or concrete surfaces; the installation of wood fittings, including v-joint boarding in the shifting lobby, and heavy wooden doors. Perhaps the excavation of the rock vaults shows the highest degree of skill beyond that which ordinary workmanship could accomplish.

ENVIRONMENT

The changes to the site in the immediate vicinity of the Gun Emplacement and Magazine Complex have been relatively minor since completion in 1898. The disappearing guns are long gone, of course, as is the live ammunition. Though the Depression Range Finders are missing, their pedestals remain on both left and right sides (right side shown in Figure 12). Near the left emplacement there are remains of a machine gun pit (Figure 13). Some changes in exterior steps have occurred, most rebuilt by Parks Canada in the 1960s, not always on their exact original locations due to considerations of public convenience and safety. The views from the two Gun Emplacements and the Magazine Complex are much like they would have been originally, except for the added development visible across Esquimalt harbour at the naval dockyard, and the house built on the crest of the hill to the north in 1928-32 (Figure 14; now administrative quarters for Parks staff). The defensible walls bordering the north part of Lower Battery remain as important elements of the site, and the views through their gates give visitors a good introduction to the Gun Emplacement and Magazine (Figure 15), as well as from farther away -- across the field, where many of the historic summer training camps were quartered (Figures 16, 17).

Being the most important feature in Lower Battery (one of three batteries at Fort Rodd Hill), the Gun Emplacement and Magazine complex in this location is quite prominent and it carries a strong visual message about the nature of Fort Rodd Hill. Its landmark value would be significant to visitors to the fort, and to the interest groups of military regulars and reserves who are especially aware of it. Designed to be inconspicuous from the water, it would have less landmark value to passing ships, though small pleasure boats may have reasonably good sightlines to some parts of it.

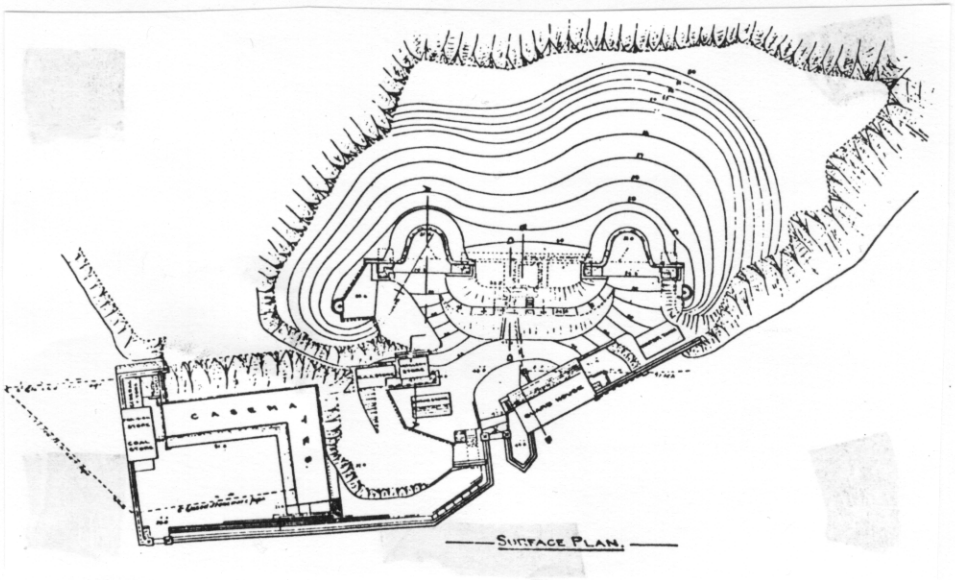
Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), pp. 43, 51-52.

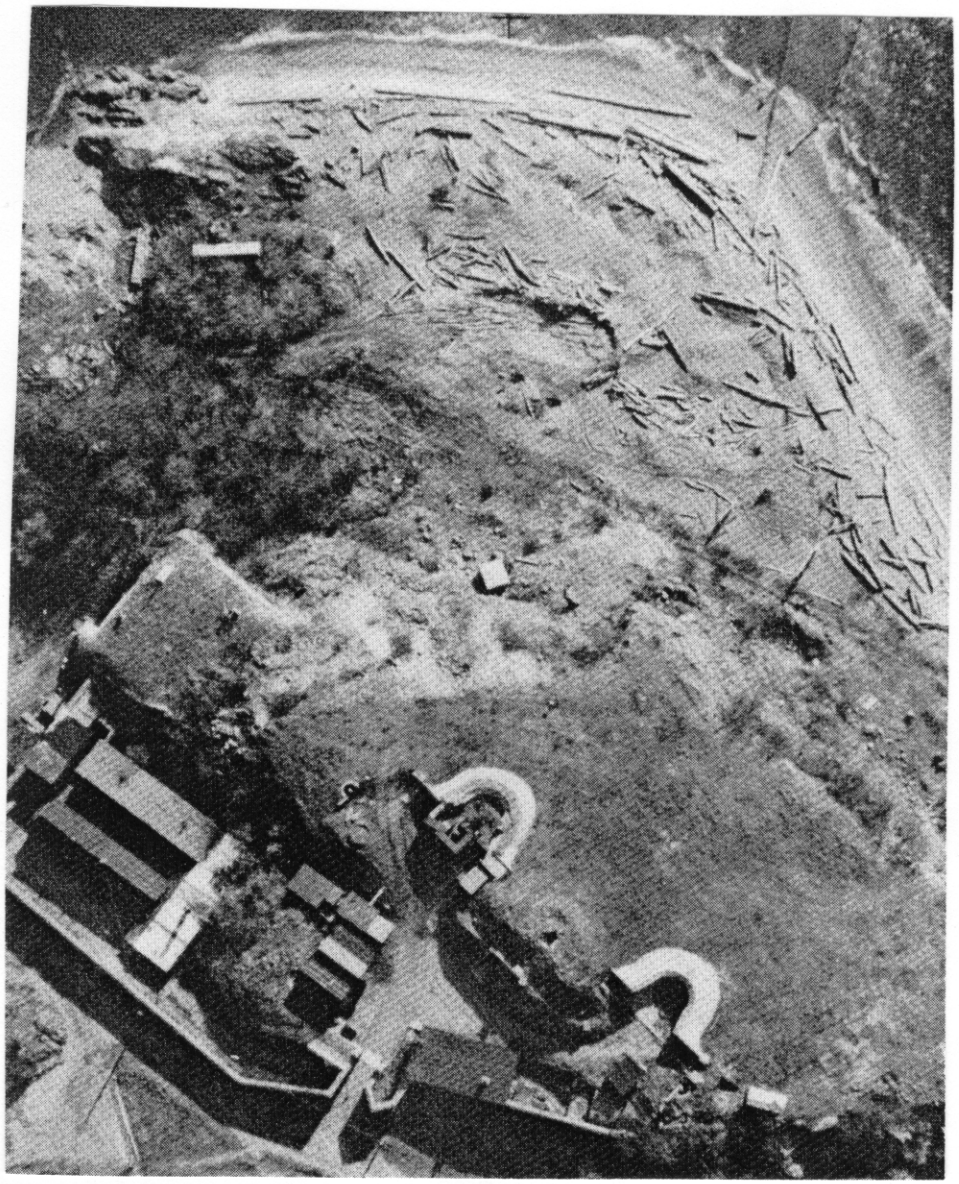
2 Ronald Lovatt, Shoot, Shoot, Shoot. A History of the Victoria-Esquimalt Coast Artillery Defences, 1878-1956 (Victoria: Rodd Hill Friends Society, 1993), p. 69.

3 Lovatt, MRS #282, p. 62.

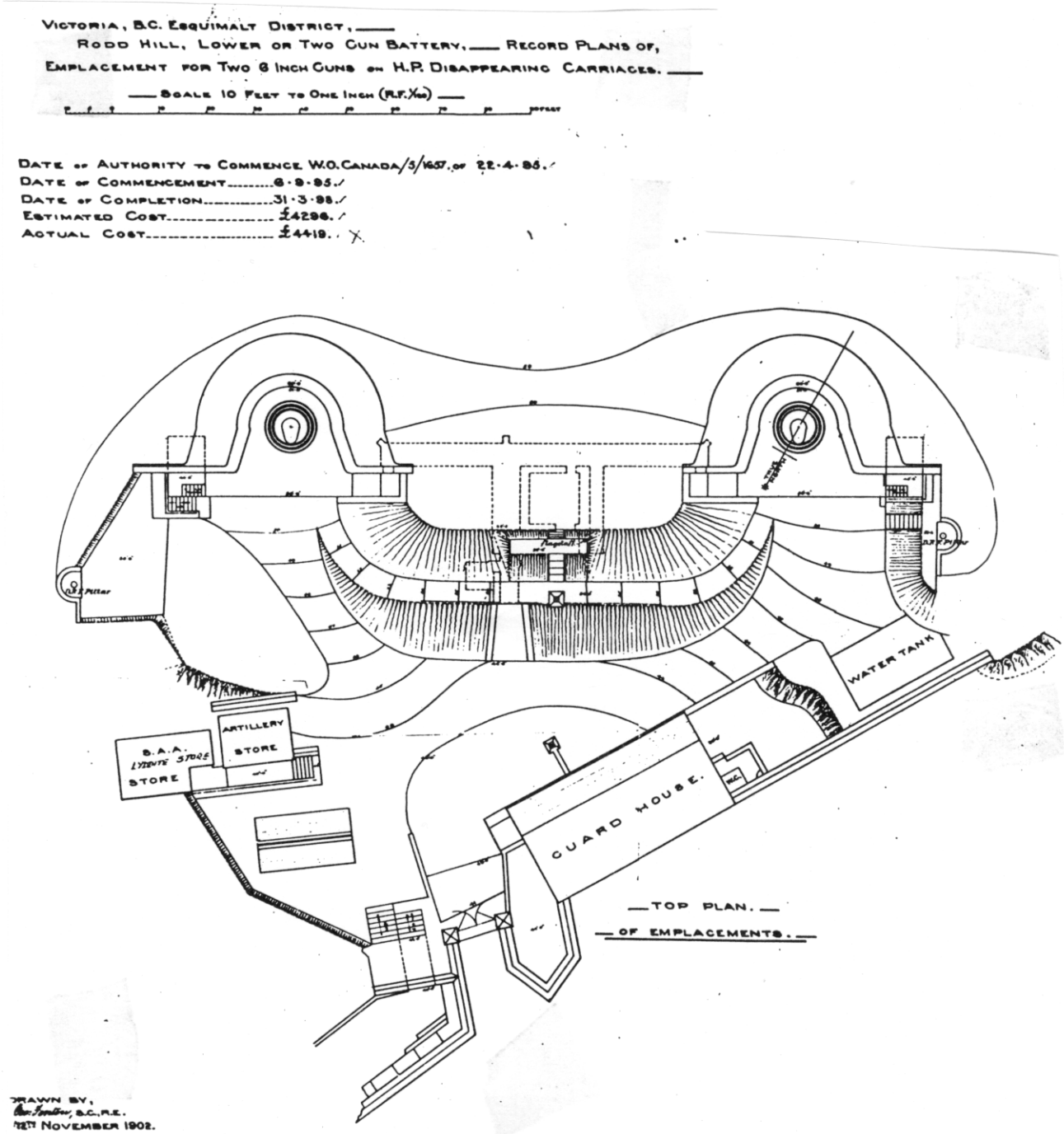
4 Ibid., p. 65.



1 Surface plan of Lower Battery; Drawing No. 4, Record plan of 1903. (MRS #282, p. 209.)



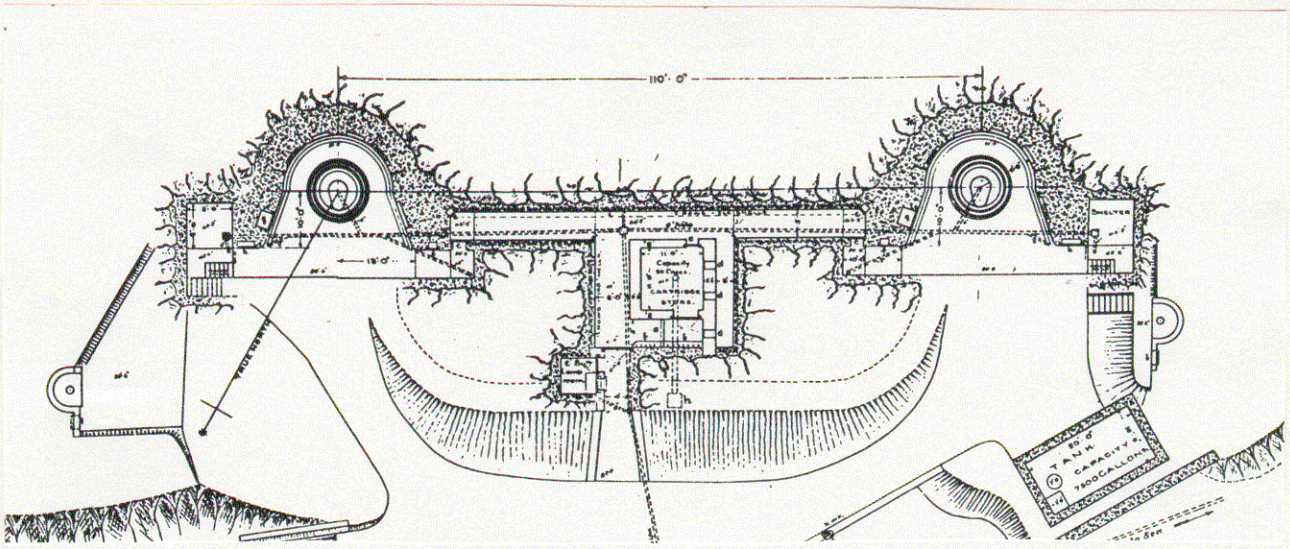
2 Aerial view of Lower Battery in 1944; note that 6-inch disappearing guns have been removed, and the left emplacement has received a 40 mm Bofors gun. (Joseph Greenough, Fort Rodd Hill: A Structural History of Upper Battery and Lower Battery, Parks Canada, 1977, MRS #210, [hereafter MRS #210] p. 257.)



3 Surface plan of Lower Battery, including Gun Emplacements; Drawing No. 2, Record Plan of 1903. (MRS #282, p. 205.)

4 Right Gun Emplacement, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

5 Left Gun Emplacement, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)



6 Plan of Gun Emplacements and underground magazine; Drawing No. 3, Record Plan of 1903. (MRS #282, p. 207.)

7 Entrance to underground Magazine, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

8 Right side of shell storage area, Magazine, Lower Battery. To the right of Steve Malins (Parks Canada employee at Fort Rodd Hill) is the hallway leading to the Magazine entrance (the stem of the "T" in Figure 6); behind him is one of the sloped passageways going up to the ammunition hatch at the Right Gun Emplacement. A corresponding passageway to the Left Gun Emplacement is partially visible in the far left of Figure 9. (J. Mattie, NHSD-HSB, Parks, 1997.)

9 Left side of shell storage area, Magazine, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

10 Shifting lobby, Magazine, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

11 Lamp passage, Magazine, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

12 Far right side of Right Gun Emplacement, showing pedestal on which Depression Range Finder was set. (J. Mattie, NHSD-HSB, Parks, 1997.)

13 Maxim Machine Gun in pit near left Depression Range Finder (left of Left Gun Emplacement), ca. 1914. (FRH.P.6081.)

14 View from top of Gun Emplacements, Lower Battery, toward north, where Guardhouse and gate can be seen at lower left; open field in middle distance (left); and Journey's End (Administration Building of Fort Rodd Hill), built 1928-32, on crest of hill beyond. (J. Mattie, NHSD-HSB, Parks, 1997.)

15 View of Left Gun Emplacement, Lower Battery, through gates in defensible wall. (J. Mattie, NHSD-HSB, Parks, 1997.)

16 Long distance view of Lower Battery, across field where military exercises were once held and troops were accommodated in tents. (J. Mattie, NHSD-HSB, Parks, 1997.)

17 Photo of field north of Lower Battery, looking north toward Upper Battery (part of its wall is visible in centre of photo. Photo taken ca. 1912 during summer training camp of the Royal Canadian Garrison Artillery. (FRH.P.2442.)

Lower Battery - Artillery Store (1898) and Small Arms Ammunition Store (1898)

HISTORICAL ASSOCIATIONS

This pair of buildings is closely associated with the same historical theme as for both Upper and Lower Batteries' Gun Emplacements and Magazines, since they also were directly related to use of artillery at a coastal defence installation. They are secondary to the actual disappearing gun emplacement (a major part of the coastal defence), however, since small arms, and their ammunition kept in the Small Arms Artillery Store, were intended as a last resort for use at the battery's perimeter, in the remotely-possible event that an enemy managed to invade by land. The Artillery Store was intended to hold the tools and equipment associated with the operation and maintenance of the 6-inch disappearing gun.[1] The main difference between these specially designated structures and the equivalent rooms in the magazine at Upper Battery is that, here, they are separate entities, whereas at Upper Battery, the Artillery Store and Small Arms Artillery Store are fully integrated parts of the underground Magazine.

ARCHITECTURE

These are simple, roughly rectangular buildings (Figures 1-3; the Small Arms Store has a short extension on one end), of grey concrete, with flat concrete roofs. The following is a break-down of their functional features.

Small Arms Ammunition Store

- This simple but sturdy building (Figure 1) was originally intended to store up to 785 boxes of small arms ammunition. In 1902 it was changed to storage for Lyddite shells, then used with the 6-inch disappearing guns, a short distance away. In 1942-43, when the 6-inch guns and ammunition were removed from Fort Rodd Hill, the building began to be used for general storage, extending until 1954. Few changes to the building appear to have been necessary for any of these conversions, except, perhaps, for the removal of an inner door, which is missing. Like any ammunition store, one of the most important features of the structure had to be security, providing protection from illegal entry, and from explosion of the ammunition stored inside. The semi-subterranean siting and its limited points of entry (a barred window and a thick door with a strong lock) contributed to both types, as did the strong concrete walls and roof. Inside, a small lobby (visible as the extension on the outside) fulfilled the same safety purpose as the shifting lobby in the magazine, in that personnel changed clothing and shoes here before going into the storage area (through an inner door on the other side of another concrete wall), and before going outside. This would minimize the chances of sparks igniting gunpowder, or the inadvertent transfer of gunpowder outdoors, on clothing. To reduce chances of dripping moisture and falling particles from the concrete ceiling, and thereby either degrading or igniting the gunpowder, the ammunition storage room is brick lined and has a wooden cladding of v-joint boarding (the present one, a Parks replacement).

Artillery Store

- As with the above building, this one is semi-subterranean (Figure 2), with only its front wall fully exposed. Its door and window open to a sunken trench reached by a short flight of stairs. The edges are safety-protected by iron railings. Designed to hold the tools and equipment associated with the operation and maintenance of the 6-inch disappearing gun, the building has a row of hooks on one wall (probably for cleaning rods), apparently original. There are also two benches, as mentioned in the 1903 Record Plan.

ENVIRONMENT

The environment of these two buildings has changed with the removal of three structures almost directly in front of them (see 1944 photo, Figure 4), one of which also dated to 1898. This was the Skidding Store, meant to house the larger artillery maintenance tools, such as the "repository equipment."[2] It seems to have been wood-framed, with a gable roof, and during the Second World War, it was used as a men's mess. Around 1940, another small building was erected on its northwest side, and a lean-to on its southeast side. The former was to provide accommodation for the cooks (supplying the mess), while the purpose of the latter is unknown. All three buildings were removed between 1944 and 1954. Otherwise, no obvious changes have occurred to this site, which lies between the Gun Emplacement and Magazine (to the southwest), and the Casemate Barracks (east and northeast), sheltered by a grass-covered hill immediately south of it. Though fairly inconspicuous, the buildings are meant to be part of the Gun Emplacement and Magazine Complex, to which they probably would have been attached were it not for site limitations.

Endnotes

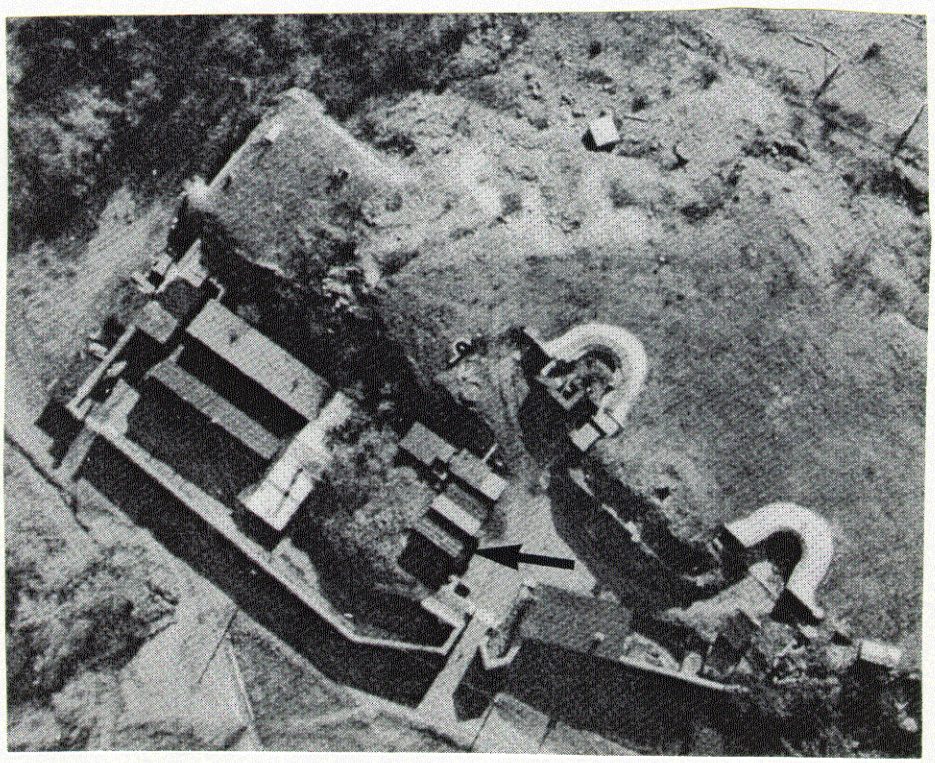
1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 55.

2 Ibid., p. 56.

1 Small Arms Ammunition Store, Lower Barracks; constructed 1898; designed by Royal Engineers; view from north side. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Artillery Store, Lower Battery; constructed 1898; designed by Royal Engineers; view of north side. (J. Mattie, NHSD-HSB, Parks, 1997.)

3 View of Small Arms Ammunition and Artillery Stores (the flat-roofed buildings in lower-left quadrant), Lower Battery. Casemate Barracks is beyond, and almost obscured by the crest of a small hill. The defensible wall lies beyond that. (J. Mattie, NHSD-HSB, Parks, 1997.)



4 Aerial view of Lower Battery in 1944. Note presence of three no-longer-extant buildings in front of Artillery Store (arrow). (MRS #210, p. 257.)

Lower Battery - Oil Store (ca. 1928)

HISTORICAL ASSOCIATIONS

This small structure, fairly remotely linked to the theme of coastal defences near Esquimalt and Victoria, was built to store a variety of greases and oils, such as would be used to operate and maintain the guns of Upper and Lower Batteries, and also the lamps used in the magazines and elsewhere. Built in the 1920s, it probably was meant to augment or replace the smaller oil store in Casemate Barracks, built in 1898.[1]

ARCHITECTURE

The structure is a flat-roofed rectangular building approximately 2 m. x 3 m., and 2.6 m. high (Figure 1). Built of brick, it is one of the few structures at Fort Rodd Hill not made of concrete, though one if its sides is formed by the defensible concrete wall of Lower Battery. Large double doors give ample access for the oil drums that would have been moved in and out. Inside, there is some shelving, apparently original. A modern electrical conduit connects this building with the Guardhouse nearby.

ENVIRONMENT

The building is between the Guardhouse and the semi-subterranean water tank, all abutting the defensible wall. In this location it was closer to the guns and magazine than the older, smaller oil store in Lower Battery (see proximity to Magazine entrance, Figure 2). Despite its red brick colouring, the Oil Store is quite inconspicuous. Almost nothing has changed in the environment since around 1928 when it was built.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 65.

1 Oil Store, Lower Battery; constructed 1928. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Lower Battery, showing location of 1928 Oil Store between Guardhouse (at right) and water tank (behind the Oil Store), and opposite the Magazine (at left). (J. Mattie, NHSD-HSB, Parks, 1997.)

Lower Battery - Casemate Barracks

Barracks Building (1898)
Coal Store (1898)
Provision Store (1898)
General Store (1903)
Latrines (1898)
Oil Store (1898)

Introduction

The Casemate Barracks complex, within the defensible wall that marks the perimeter of Lower Battery (Figure 1), lies northeast of the gun emplacement, at a lower elevation. A small gate in the wall bordering this quarter opens directly into the barrack parade (lower left corner of Figure 1). The word "casemate" in association with this barracks is a puzzle, since, by definition, a casemate is an underground structure, almost invariably under the ramparts of a fort, usually arched and frequently combining a defensive role with some other function, generally storage, but sometimes accommodation.[1] Except for accommodation, the "casemates" at Fort Rodd Hill are none of these things. Furthermore, by the time this fort was designed, casemates were virtually a thing of the past. Historian Joseph Greenough speculates that the word was misappropriated because of confusion over its meaning at this late date, mistakenly understood as a term referring to room size. In this matter, the Lower Battery Casemate Barracks did conform to the standard dimensions of casemates in the earlier, smoothbore gun era.[2]

HISTORICAL ASSOCIATIONS

The Casemate Barracks buildings date from 1898, having been erected to accommodate and provide support services for artillerymen -- both those who would man the 6-inch disappearing guns during emergencies (which, as it turned out, were the two world wars), and those who came to Fort Rodd Hill for the annual summer training camps. The buildings therefore played a secondary role in the historical theme of coastal defences -- closely but not directly related to the active operation of the batteries' guns and their supporting magazines. Within the complex, a hierarchy of relationships to the theme may be considered, from the Barracks Building itself (the paramount building in the casemate barracks complex) to the several stores buildings and latrine (more remotely related to the general theme of coastal defence).

ARCHITECTURE

Barracks Building (1898):

Except for its L-shape and larger size, this structure is much like the two guardhouses at Upper and Lower Batteries: one storey, with flat concrete roof (Figures 2, 3); a verandah with sloping wooden roof; similar windows; and heavy vertical-boarded doors (unlike the paneled doors that were proposed in the 1897 plan, Figure 3). The white painting around the front windows and doors (Figure 2) is more extensive here than at the guardhouses, though the side and rear windows have the familiar rounded paintings around the sills (Figure 4). It is a fairly attractive structure in terms of proportion and scale, though details are not as aesthetically refined as in certain other military barracks buildings in Canada. An example is the 1830-32 Cavalier Building in the Halifax Citadel, with its beautiful stonework and varied profile (two stories of verandahs, and a hipped-roof storey on top, with numerous picturesque chimneys).[3]

Functionally, this L-shaped structure of concrete (reinforced with steel I-beams in the

roof), is divided into five rooms (see original and recent plans, Figures 3, 5). Each room has a high ceiling (ca. 4m high), including: three long, rectangular barracks rooms, for accommodating eight men during peace or 19 men during war (the latter accomplished by removing the stoves and using hammocks instead of iron beds); a cook house; and an ablution room (northwest end of the barrack block; Figures 4, 5). None of the rooms is inter-connected by interior doors.

The barracks rooms, which today are stripped of all furnishings (Figures 6, 7) retain two rows of ring bolts high on each end wall -- for shelving, as indicated in a 1930s historical photo (Figure 8); four rows of rings in each ceiling (for hanging hammocks, according to one source[4]), and iron pintles of two different sizes in the front and rear walls (the walls with the window and door openings; purpose of the pintles unknown). The floors are of wooden boards. Though used primarily for troop accommodation, the rooms show some adaptation to other uses over time. The southeast room, for example, was used as a dry canteen in the 1930s, and was changed to use as a medical inspection room around 1944, possibly including a medical officer's quarters (the floor today indicates a former subdivision of the room into two parts). The next room (centre barracks room), was specially fitted in the 1950s with pipes containing cable conduits (purpose unknown). The third room, partly fitting into the corner, changed use from general troop accommodation to a cook's quarters in 1944. All three rooms were electrically wired in the 1950s, but this wiring was removed before Parks acquired the fort in 1962.

The Cook House, situated between the barracks rooms and the ablution room, initially contained a stove and a sink in one corner, to which a running water supply was connected around 1905. Other than the loss of these features (and the furniture used here), the room is largely in original condition, including the door and wooden floor. The windows and their frames have been reconditioned by Parks. Outside the kitchen on a verandah post there is a large metal hook. Former personnel remember it as the place where a large iron triangle and striker were hung, for summoning men to meals.[5]

The Ablution Room, at the north end of the Barracks Building, was gutted of its original bath tub and bench (for wash basins) by 1944, when it was assigned as a Warrant Officer's Quarter. Though in the 1950s it again became an ablution room with appropriate fittings, these also had been removed when Parks acquired it in 1962. The room is now empty once more. Evidences of past use include remnants of various drains and pipes in the concrete floor.

Coal Store (1898):

This primarily utilitarian concrete structure (Figure 9; facing the southeast end of the barracks building) is minimally enlivened by slightly rounded openings above the west door and windows, mis-matched in size and placement. The storage of coal here, from 1898 to 1954, was enhanced by a below-grade floor (about two feet down) and double doors big enough to allow a truck to dump its load directly into it. Though the 1897 proposal plan does not include a double door arrangement, the 1903 Record Plan clearly shows it (compare Figures 1 and 3). The east wall is part of the defensible wall and has two loopholes through it, both without frames or doors. The plain south wall adjoins the Provision Store, while the west wall faces the passage between the Barracks Building and the three small service structures (including this building). Parks has placed a heavy plank flooring over the shallow coal pit and now uses the building as a garage. The flat concrete roof is slightly sloped toward the defensive wall, ensuring runoff of rainwater away from the barracks enclosure.

Provision Store (1898)

This simple one-roomed concrete structure (Figure 10) shares its north and south walls with the Coal Store and the General Store, respectively. Its east wall is also part of the battery's outer defensive wall. The loopholes here are framed, but the doors are missing. Intended for the storage of vegetables and other provisions, the Provision Store is equipped with a few shelves and a small cellar. A door and window face the passageway that separates this building from the Barracks, the door thought to be original, with the window renovated by Parks. Parks also installed a new wooden floor over the cellar, complete with a trap door, which is sealed.

General Store (1903)

This small concrete building is in the extreme southeast corner of Casemate Barracks, which is also the corner of the defensible wall in this part of Lower Battery. Its three loopholes (two in the east wall and one in the south -- visible behind shelves in Figure 11) were never framed or shuttered. The structure's door, the interior shelves and a bench are thought to be original. The roof is of an unusual type for Fort Rodd Hill, being wooden, some portions of which have been replaced by Parks. Though the proposed plan of Fort Rodd Hill does not show a store in this position, it seems likely that most or all of the work on it was complete when the 1903 Record Plan was made. It is believed that its erection was a response to local needs.

Latrine (1898)

This basic concrete building is at the end of the passageway between the Barracks Building and the three stores (see plan, Figure 13). Originally, the toilets were of the dry earth type, but their fittings have long since been removed. Opposite the enclosures is a trough urinal (Figure 12) with a remnant of piping reaching it from outside. There is some indication that two flushing toilets were probably in place by the late 1920s, when the barracks was connected to the municipal water supply. Extensive white-painting here and in the previously reviewed stores indicates an accommodation to the minimal light in this location. A blocked loophole recess in the east wall contains some wiring, which may once have been for an electric light.

Oil Store (1898)

This tiny windowless brick structure is immediately inside the north gate opening into Casemate Barracks' parade ground. For the storage of gun grease and lantern oil, and any other oil and grease needs that may have arisen, the building is thought to have been superseded by the larger oil store near the Guardhouse of Lower Battery, built around 1928.

ENVIRONMENT

Additions came to Casemate Barracks in 1903 (the small general-purpose storage building, included in this report), and more extensively, between 1939 and 1945, during the Second World War. Sever several temporary buildings were erected at this time, but have since been removed. They included a large Quartermaster's Stores Hut, tightly fitted into the parade square in front of the Barracks Building. On the other side of the defensible wall (and the other side of the stores buildings), there was a signal shelter, another oil store, and a latrine, all visible in 1943 aerial photograph (Figure 15).

Endnotes

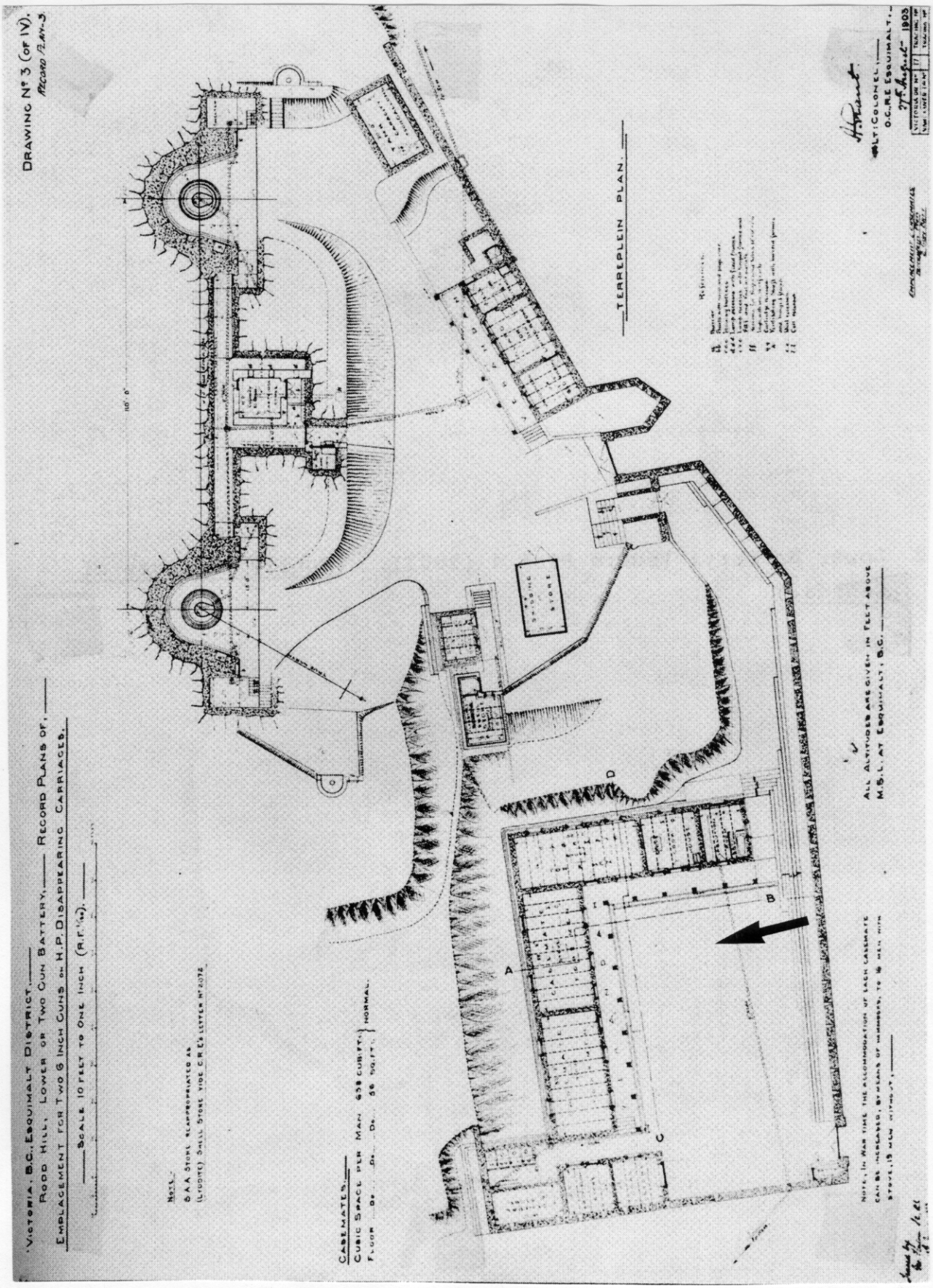
1 Joseph Greenough, Fort Rodd Hill: A Structural History of Upper Battery and Lower Battery, Parks Canada Manuscript Report Number 210, p. 65.

2 Ibid.

3 Rhona Goodspeed, Halifax Citadel Buildings, FHBRO #95-001.

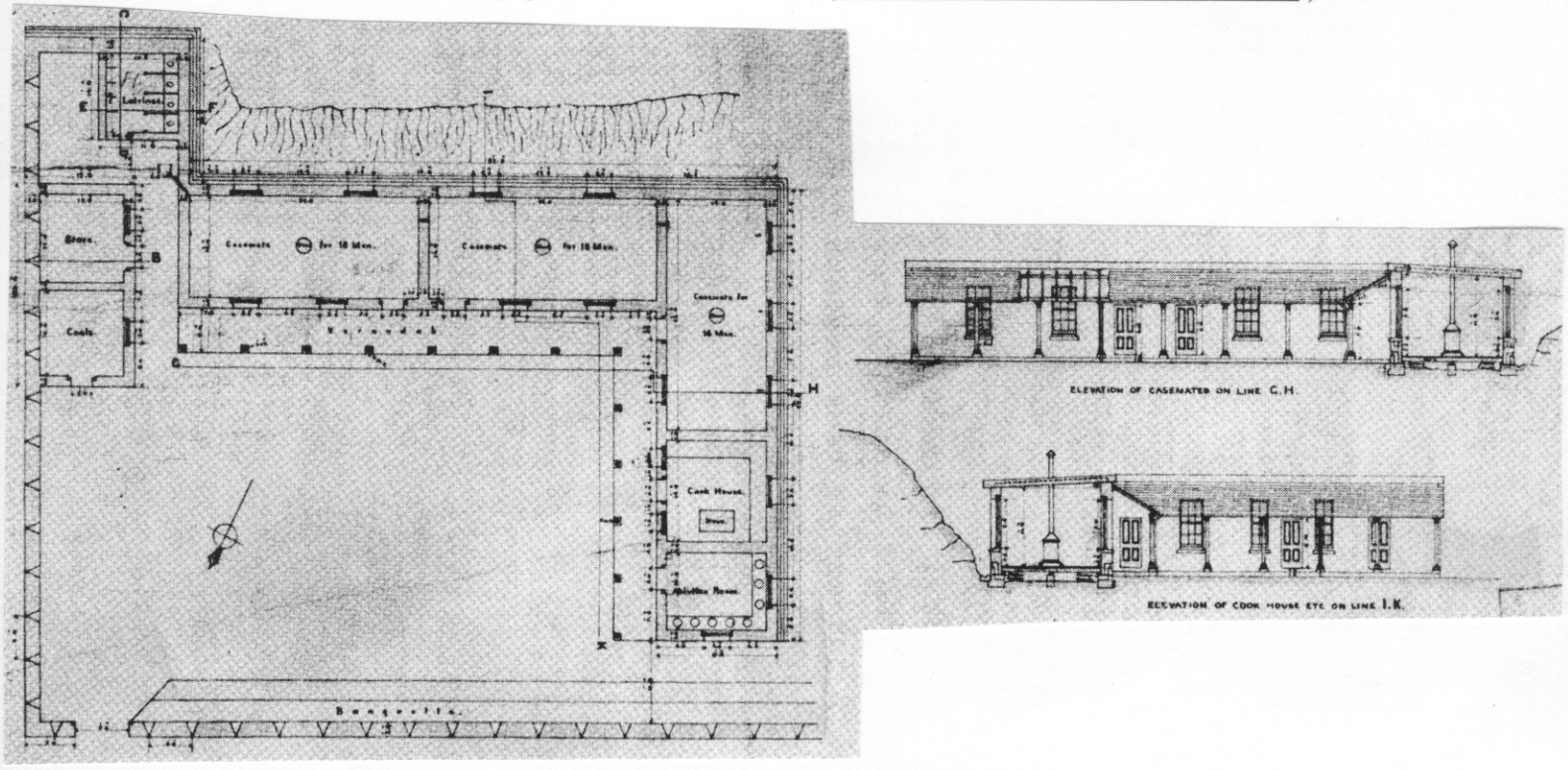
4 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 74.

5 Ibid., p. 72.



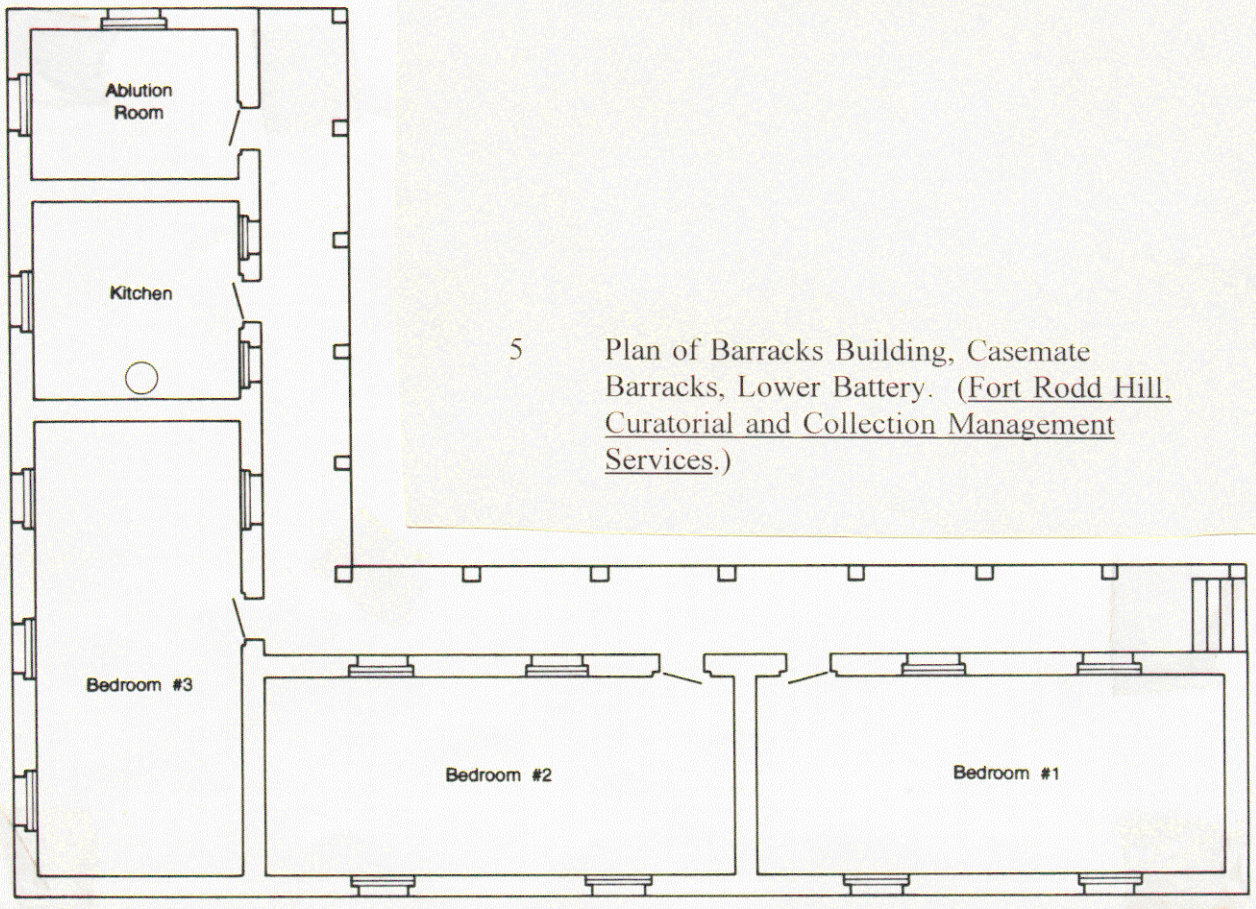
1 Plan of Lower Battery in 1903; arrow points to Casemate Barracks area. (MRS #282, p. 207.)

2 Northwest end of L-shaped Barracks Building, Casemate Barracks; constructed in 1898; designed by Royal Engineers; at right is the defensible wall leading upward toward the Battery gate and Guardhouse. (J. Mattie, NHSD-HSB, Parks, 1997.)



3 Plan and elevation of Barracks Building (with some cross sections where the building changes angle), Casemate Barracks, Lower Battery, 1897. Drawing is titled "Proposed Accommodation of Garrison." (MRS #210, p. 237.)

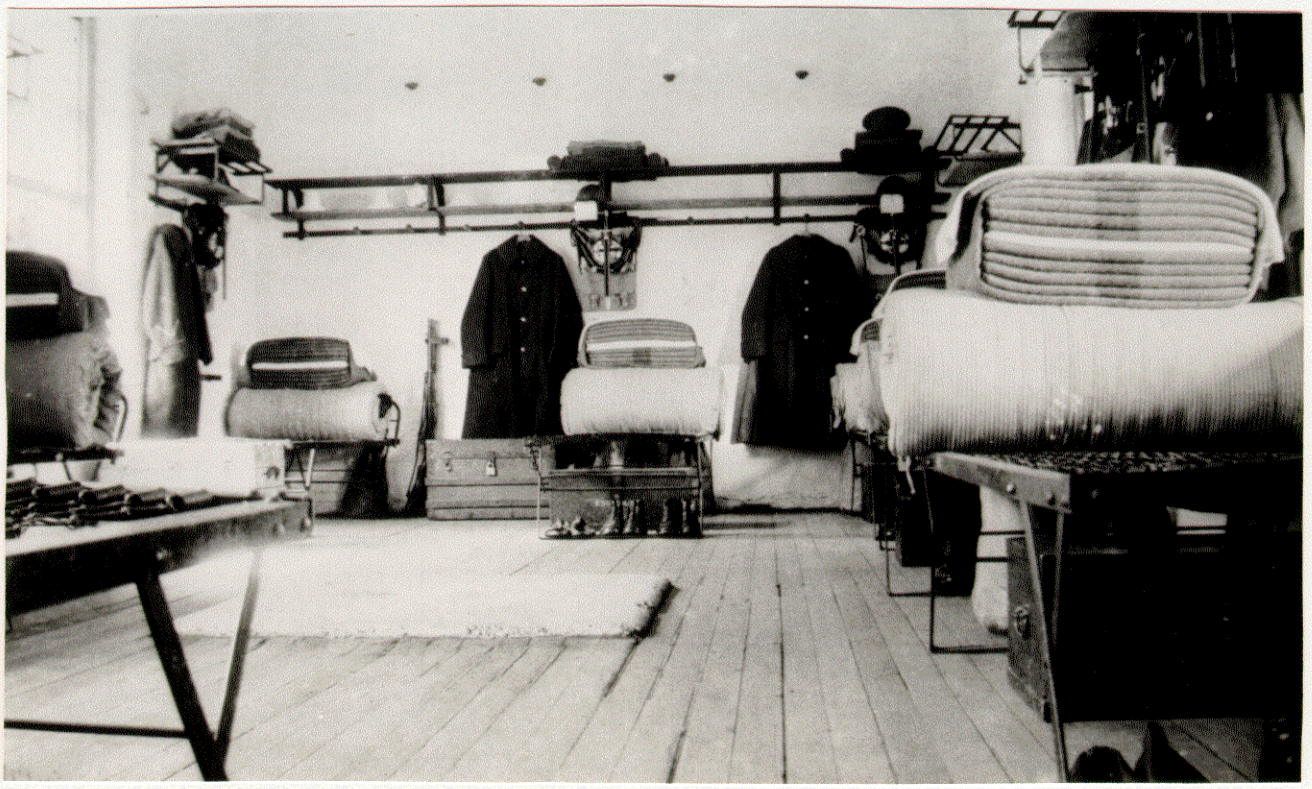
4 Rear of Barracks Building, Casemate Barracks, Lower Battery. This end contains the ablution room. (J. Mattie, NHSD-HSB, Parks, 1997.)



5 Plan of Barracks Building, Casemate Barracks, Lower Battery. (Fort Rodd Hill, Curatorial and Collection Management Services.)

6 Interior of bedroom #3 (see plan, Figure 5), Barracks Building, Casemate Barracks, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

7 Interior of Bedroom #2 (see plan, Figure 5), Barracks Building, Casemate Barracks, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)



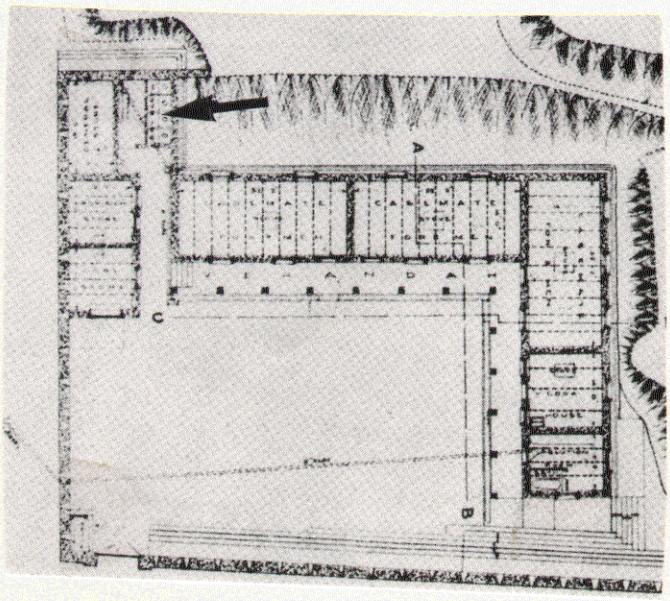
8 One of bedrooms in Barracks Building, Casemate Barracks, Lower Battery, ca. 1930s. (FRH.P.8231.)

9 Coal Store, Casemate Barracks, Lower Battery; constructed in 1898; designed by Royal Engineers. (J. Mattie, NHSD-HSB, Parks, 1997.)

10 Interior of Provision Store, Casemate Barracks, Lower Battery; constructed 1898; designed by Royal Engineers. (J. Mattie, NHSD-HSB, Parks, 1997.)

11 Interior of General Store, Casemate Barracks, Lower Battery; constructed 1898; designed by Royal Engineers. (J. Mattie, NHSD-HSB, Parks, 1997.)

12 Interior of Latrine, Casemate Barracks, Lower Battery; constructed 1898; designed by Royal Engineers. (J. Mattie, NHSD-HSB, Parks, 1997.)



13 1903 Record Plan of Casemate Barracks, Lower Battery; arrow points to location of latrine. (MRS #282, p. 207.)

14 Oil Store beside gate into parade ground, Casemate Barracks, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

15 Aerial view of Lower Battery in 1943. Note intrusion of war-time Quartermaster's Stores building in Casemate Barracks parade ground (right arrow; left arrow points to Fortress Plotting Room, apropos to next report). (FRH.P.1340.)

Searchlight System

Searchlight Director's Building, 1903-04 (in Upper Battery)
Defence Electric Light No. 1, 1903
Searchlight No. 6, 1940
Searchlight No. 7, 1940
Searchlight Engine Room, 1898-1901

INTRODUCTION - HISTORICAL ASSOCIATIONS

Fort Rodd Hill's coastal searchlights and the related Director's Building and Engine Room were part of a coordinated plan for the military defence of Esquimalt and Victoria, providing night-time capability against enemy ships, particularly torpedo boats. As such, they were designed to work together with the submarine mines across Esquimalt Harbour and the Quick Firing (Q.F.) guns of Belmont Battery. Broached in 1896, and subsequently the subject of much debate regarding quantities and locations (the general need for them was a given), the lights became operational in 1904. Around 1940, during the Second World War, the original Defence Electric Lights were replaced with the more powerful Searchlights #6 and #7. The apparatuses of both periods could be turned on or off, or adjusted for bearing and elevation by remote control from the Searchlight Director's Building in Upper Battery.

During the first years of the First World War, the Defence Electric Lights at Fort Rodd Hill, and others on the Esquimalt side, were fully employed to illuminate the harbour approaches all night, every night.[1] Later, the lights were only turned on at the request of the examination service at Belmont Battery, or for training exercises. The more powerful Searchlights #6 and #7, introduced during the Second World War, were more technologically advanced, and could be used with heavier, faster guns than had previously been possible. At some point, probably in the 1940s, the director's station appears to have moved operations to other locations, ultimately to the first level of the Director's Tower at Belmont Battery around 1945.[2] The searchlights were actively used at training camps in the 1950s during the Cold War, until 1956 when coastal batteries were deemed obsolete. One of the last practices coordinating guns and searchlights saw the landmark participation of women from the Canadian Women's Army Corps Reserve. In June and in August, 1956, they operated the searchlights in a night firing exercise.[3]

Though the 1903 electric lights had been surplussed in 1940, and the Second World War lighting apparatuses are also gone, three of the four buildings that housed them -- except for that of Defence Electric Light No. 2 -- remain, as does the original Searchlight Engine Room that provided the power for them all (with updated generators beginning in 1940).

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 107.

2 Ibid., p. 100.

3 Ronald Lovatt, Shoot, Shoot, Shoot. A History of the Victoria-Esquimalt Coast Artillery Defences, 1878-1956 (Victoria: Rodd Hill Friends Society, 1993), p. 112.

Searchlight Director's Building (1903-04)
(located in Upper Battery)

HISTORICAL ASSOCIATIONS

This building, authorized in 1902 and built between May 1903 and November 1904,[1] was for the Director of the four electric lights of the Esquimalt-Victoria defences, and of the searchlights that replaced them. The lights -- two at Fort Rodd Hill and two on the opposite shore of Esquimalt harbour -- were for the night illumination of the harbour approaches, facilitating the accurate aiming of Belmont Battery's quick-firing (Q.F.) guns at enemy ships. The Searchlight Director himself would oversee the manipulation of the lights by remote control, based on information gained from the Fire Commander of the Esquimalt Defences, with whom he was in contact by telephone. It was essential that the Searchlight Director's Building be sited where the whole of the illuminated area could be seen -- hence, its position in Upper Battery on the upper terreplein level, in the parapet. In this location it was also directly above, and therefore ideally placed to direct the moveable, single concentrated beam light (Defence Electric Light No. 1), which could illuminate individual ships beyond, or at the limits of, the dispersed beam illuminated area provided by Defence Electric Lights Nos. 2-4. During the Second World War, the searchlight command post was switched to a position at Belmont Battery, and subsequently, to other locations.

ARCHITECTURE

This simple concrete shell (Figures 1, 2) is six-sided due to an angling of walls on the south, seaward side. At eye level, the seaward side is fitted with an observation slit, with upward swinging steel shutters. The building's other characteristics are a flat roof (I-beams exposed) and a double door on the terreplein side. From this location, the Director supervised the operation of the remote control mechanisms for the manipulation of the searchlights, based on telephoned information from the Fire Commander of the Esquimalt Defences, and aided by charts and plotting equipment resting on a small table. The table's post hole remains in the concrete floor to indicate its placement (for position, see 1903 Record Plan; Figure 3). Eight cable ends remain fixed in the walls under the shelf below the observation slits, apparently for telephone and other communications links to: the Searchlight Engine Room, the lights and engine rooms on both sides of the harbour, along with telephone links to the Officer Commanding Submarine Mining in the naval yard at Esquimalt, and the fortress exchange at Signal Hill.[2] Other electrical instruments may have been present, as indicated by remnants of lead components on a box attached to one wall. Some degree of comfort (or perhaps temperature control for the instruments) was provided in the matchstick wall boarding (still in place; Figure 2) and a stove (no longer extant).

ENVIRONMENT

The building's association with its surrounding landscape -- terreplein development on the north side (Figure 4), with cliff and vistas to the south -- quite closely approximates conditions during its historic period of use. Changes on the terreplein side include the disappearance of the neighbouring Fortress Fire Commanders Post, accommodated in a wooden shed (demolished after 1950). The shed's foundations and the three concrete pedestals that supported the Position Finder are clearly visible today, next to the Searchlight Director's Building. The pedestal for the Depression Ranger Finder also remains as an artifact, though its shed has also been removed. On the cliff side, the views of the Strait and the lower portions of Fort Rodd Hill remain little changed, except for the growth of some trees, which block some sightlines. Though its function

was quite important to the whole theatre of operations in Esquimalt Harbour, the building is small and unobtrusive, and therefore it has only a small visual impact on the character of Upper Battery (and no impact on this battery's functional operations). It is unlikely that the building is familiar to any more than the most attentive visitors to Fort Rodd Hill and to the military interest groups that have contact with the site.

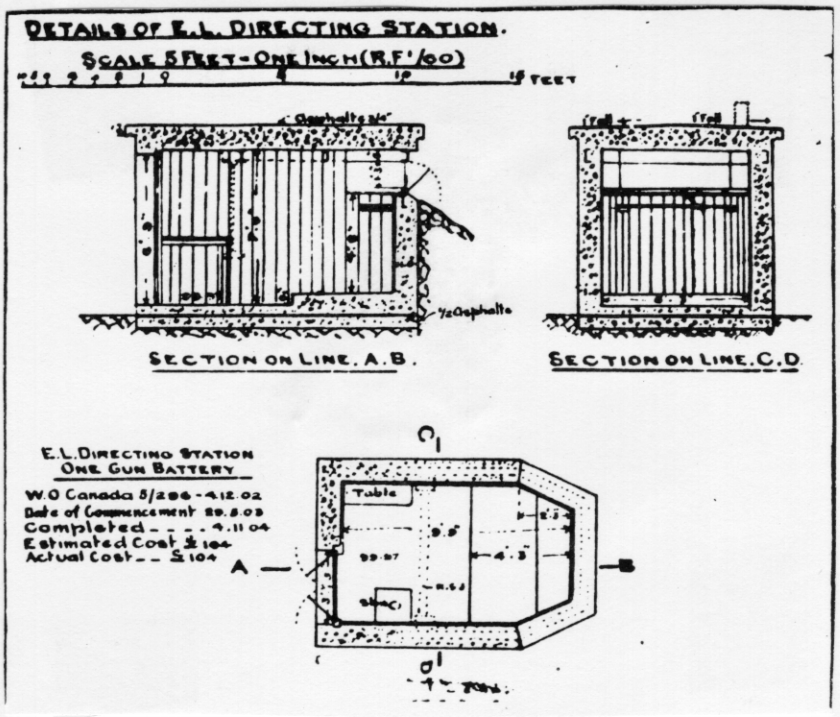
Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 31.

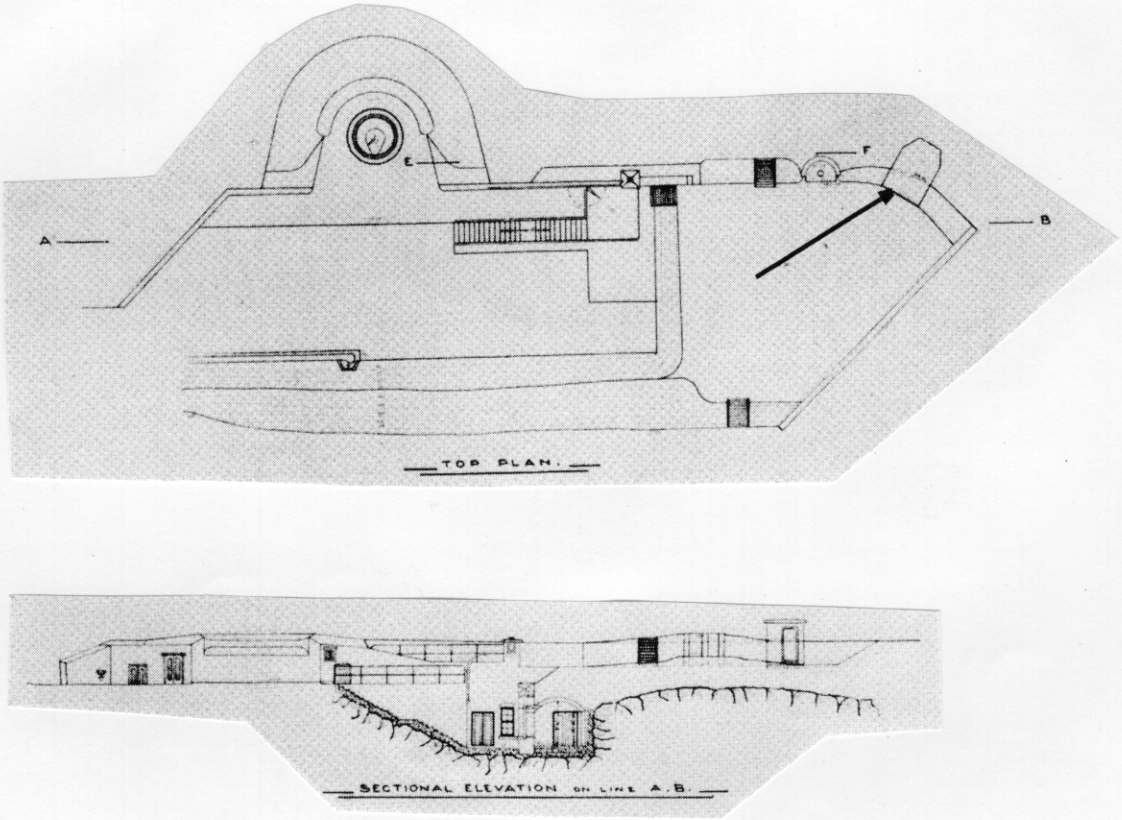
2 These links were specified in the plan "Esquimalt British Columbia Defence Scheme Revised," January 1902, Public Record Office, Great Britain; cited in Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 31.

1 Searchlight Director's Building, Upper Battery; constructed 1903-04; designed by Royal Engineers; view from terreplein side looking out to Strait of Juan de Fuca. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Searchlight Director's building, interior. (J. Mattie, NHSD-HSB, Parks, 1997.)



3 Plan of Searchlight Director's Building, formerly known as Electric Light Directing Station. Record plan of 1903. (MRS #282, p. 179.)



4 Plan of Upper Battery showing location of Searchlight Director's Building (arrow). Record Plan of 1902, Sheet 2. (MRS #282, p. 159.)

Searchlight System
Defence Electric Light No. 1 (1903)

HISTORICAL ASSOCIATIONS

Defence Electric Light No. 1 -- one of two original defence lights at Fort Rodd Hill -- was a "moving" light, authorized by the British War Office in 1897 for positioning at the entrance to Royal Roads lagoon adjacent to the west side of Rodd Hill.[1] By 1902 the light apparatus was in a temporary shelter on the site. Emplacement (in its own building) came in 1903. The 90 cm light was operational until December 1940 when it was replaced by a more powerful modern searchlight -- Searchlight No. 6 (nearby; see next report). Throughout its history, Defence Electric Light No. 1 considerably enhanced the capabilities of Fort Rodd Hill, ensuring its round-the-clock readiness as a coastal defence of Esquimalt and Victoria.

ARCHITECTURE

An irregular-shaped building, with angled walls on the seaward side (Figure 1) and a short extension on the landward side (Figure 2), Defence Electric Light No. 1 contained a moving light rather than a fixed one as in Defence Electric Light No. 2. The shuttered opening for it (at the angled end of the building) was therefore much larger (compare plans in Figures 3 and 4), allowing for movement over an arc of 90.o [2] The building remains in relatively good condition, including the side-swinging steel shutters and the matchboarded interior. On the walls, several exposed cable ends remain to indicate connections to the Searchlight Director's Building in Upper Battery, and to the power source in the Searchlight Engine Room. Missing is a small bench that was built into the building's north extension. On the roof, a concrete cap marks the position of the chimney opening that once vented a stove. The 1905 Record Plan states that the design was a modification of [Great Britain] War Office Design No. 58643, and that the steel shutters were War Office Type Design No. 37001.

ENVIRONMENT

Many of the features original to the environment of this defence light are still in place, and the building relates to them as it always has: to the cliff immediately below, the Strait of Juan de Fuca, and the untamed rocky land at the rear. Across the lagoon to the west, at the far end of a sandbar (visible in Figure 1) is the pub that was a favourite haunt of those stationed at Fort Rodd Hill (those who could get away) since the early 20th century. Changes to the site include: a chain link fence near the emplacement -- at cliff's edge, on the west side -- for the protection of visitors; Parks-built concrete steps at the rear to allow easy access; and a pleasant path running through the woods from Belmont Battery. The building is fairly inconspicuous, especially when encountered from the landward side, but for small boats coming into the lagoon, it would be quite recognizable as marking the western extremity of Fort Rodd Hill. For this group, it would have some landmark value. For landlubbers, it would have almost none.

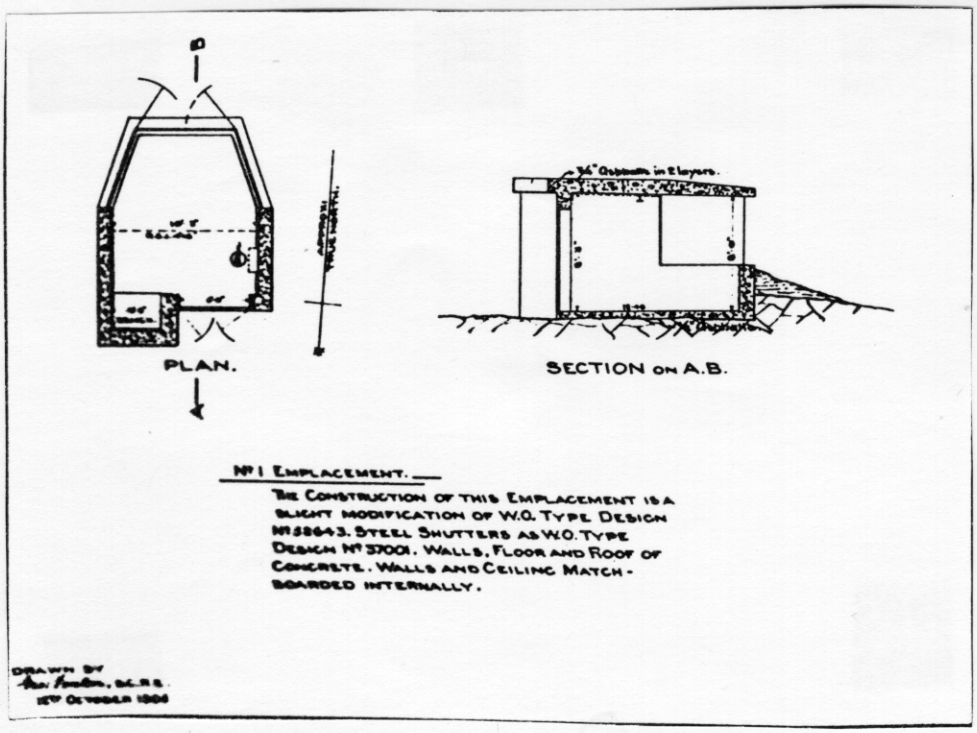
Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 110.

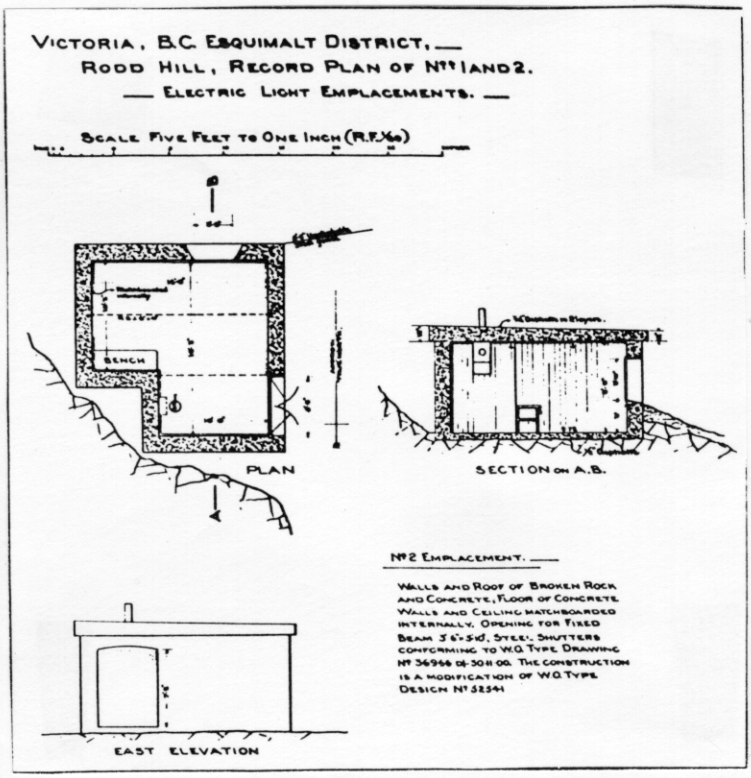
2 Ibid.

1 Defence Electric Light No. 1; constructed 1903; designed by Royal Engineers; view across lagoon, adjacent to the west. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Defence Electric Light No. 1; rear view. (J. Mattie, NHSD-HSB, Parks, 1997.)



3 Record plan (1905) of Electric Light Emplacement No. 1. (MRS #282, p. 241.)



4 Record plan (1905) of Electric Light Emplacement No. 2. (MRS #282, p. 241.)

Searchlight System
Searchlight No. 6 (1940)

HISTORICAL ASSOCIATIONS

This building illustrates the upgrading of the searchlight system on Canada's west coast during the Second World War, according to the Canadian-British Interim Plan,[1] and to some extent reflecting the Canadian-American International Joint Defence Plan for Juan de Fuca Strait, worked out in 1940.[2] By this time, Japanese submarines were posing the biggest threat to peace on the Pacific coast of North America. A total of 17 searchlights were emplaced along the coastline of Vancouver Island,[3] and others along the approaches to Burrard Inlet within the City of Vancouver. Never tested in battle, the apparatus of Searchlight No. 6 was removed about nine years after the war ended, ca. 1954.

ARCHITECTURE

This 1940 concrete building is rounded to accommodate the sliding steel shutters that covered the 60-inch General Electric searchlight inside, when it was not in use. When open, a commanding view of the Strait of Juan de Fuca was presented. The opening on the north side of the building was large enough to move the light apparatus in and out, but today, the metal-clad wooden doors, which were double, are missing. The roof is much thinner than that of Defence Electric Light No. 1, and of other early concrete buildings at Fort Rodd Hill, probably indicating the adoption of true reinforced concrete with small-gauge steel rods embedded inside -- a widespread type of construction by the 1940s. During the early years of the Second World War, Searchlight No. 6 was connected to and controlled by the Searchlight Director in the Searchlight Director's Building on the upper terreplein of Upper Battery. Later, this connection and control seems to have moved to Belmont Battery.[4] During the war, the structure was camouflaged to blend with the surrounding rocks and vegetation.[5]

The designer is presumed to have been the Canadian military, which adopted the British technique (developed between the two World Wars) of using searchlights with heavy guns.[6]

ENVIRONMENT

The site is little changed since the searchlight was operational during the Second World War, from 1940 to 1945, though there may have been more build-up of natural material around it, as part of the structure's camouflage. Defence Electric Light No. 1 is still adjacent, and, as in the discussion of that site, there has been an introduction of Parks-built path and stairs. Since the two buildings are so close to together, it may be assumed that they both share the distinction of marking the western extremity of Fort Rodd Hill on the southwest corner of its property near the water, though the older light is slightly closer to this point.

Endnotes

1 Ronald Lovatt, Shoot, Shoot, Shoot. A History of the Victoria-Esquimalt Coast Artillery Defences, 1878-1956 (Victoria: Rodd Hill Friends Society, 1993), pp. 84-85.

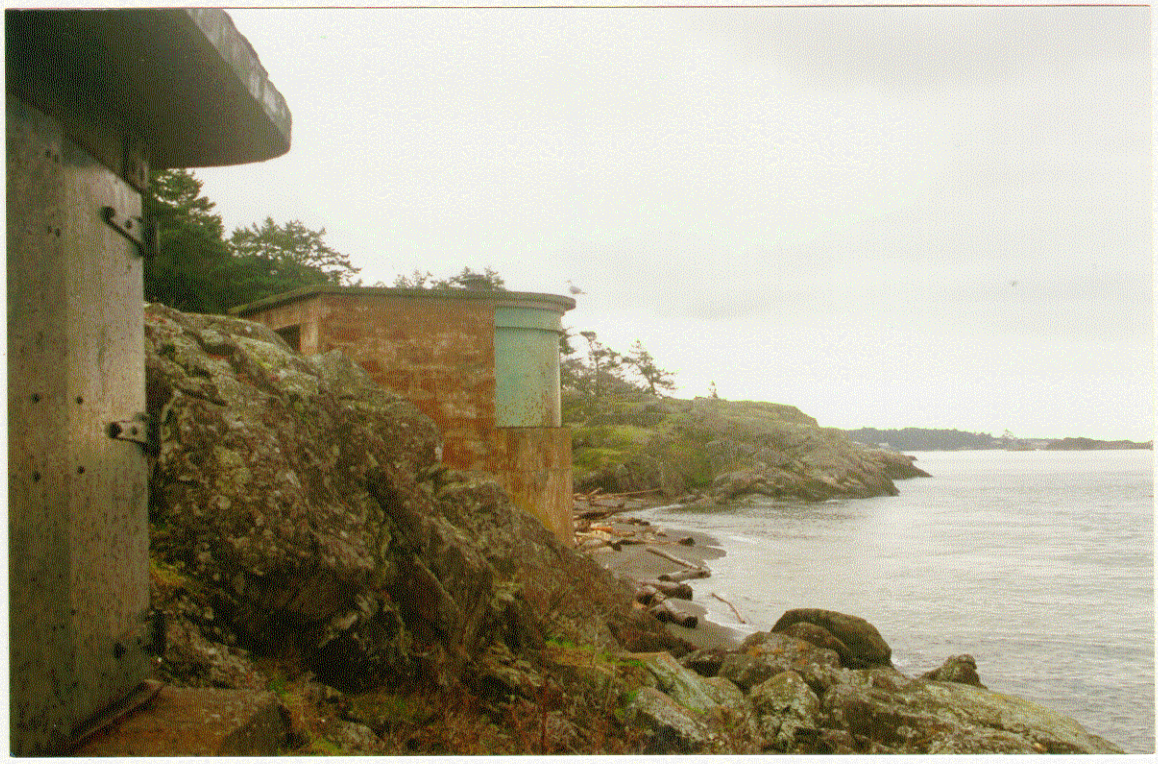
2 Ronald Lovatt, A History of the Defence of Victoria and Esquimalt, 1918-1956 (Ottawa: Parks Canada, 1988), pp. 66-71.

3 Ronald Lovatt, Shoot, op. cit., p. 98; this reference is a map showing all the military emplacements in the Esquimalt-Victoria vicinity during 1939-56. The map is also reproduced in Figure 3, which follows the introductory section of this FHBRO report.

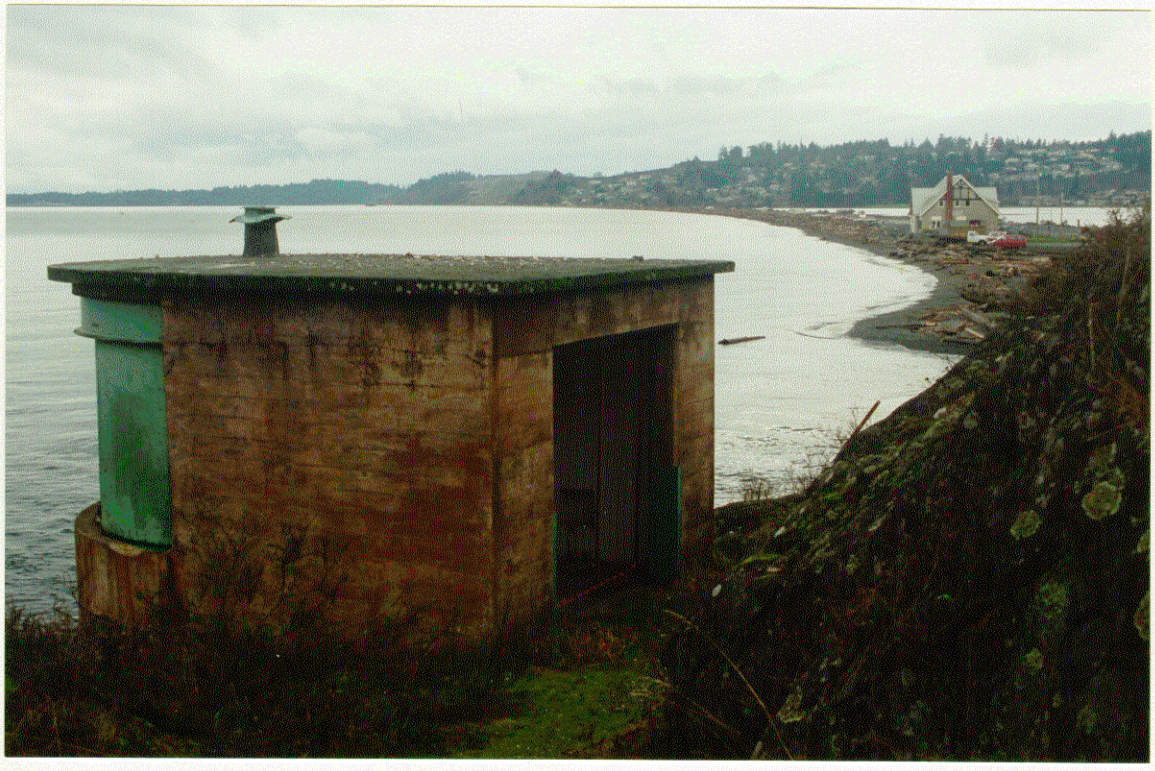
4 Lovatt, MRS #282, op. cit., p. 107.

5 Ibid., p. 111.

6 Ibid., p. 107.

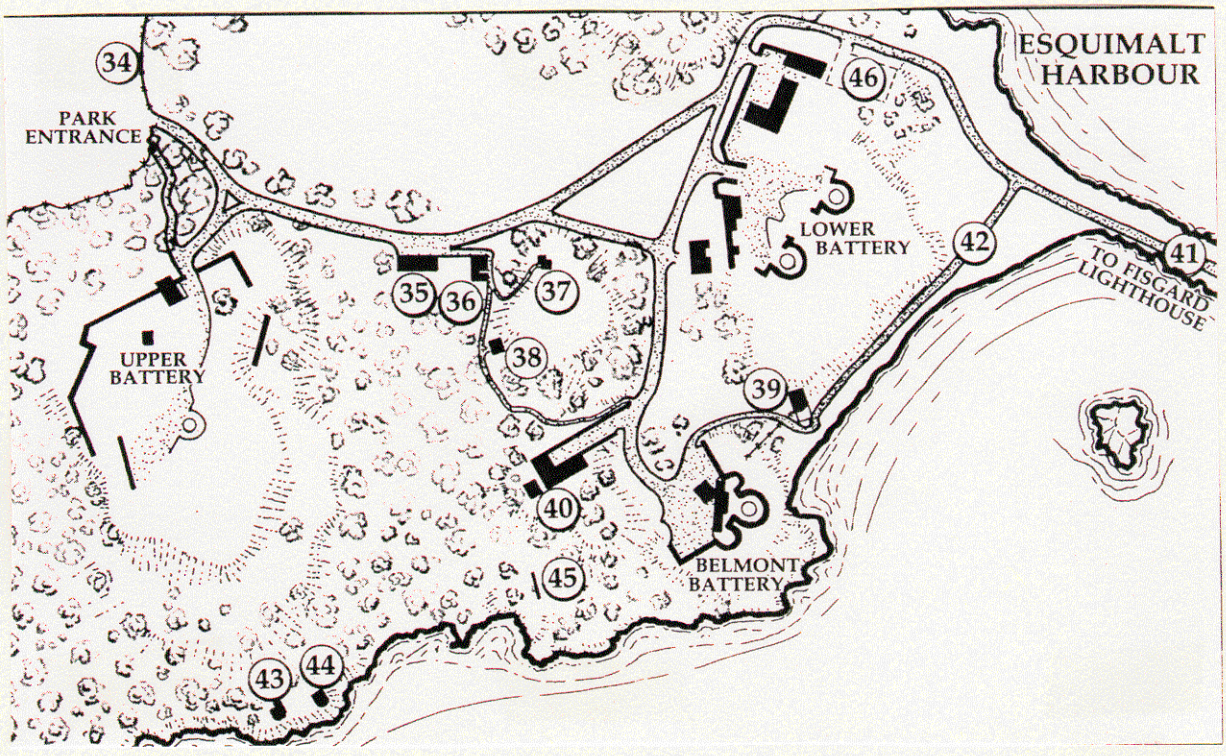


1 Searchlight No. 6; constructed 1940; designed by Canada. Department of National Defence; view from west to east, toward mouth of Esquimalt Harbour. (J. Mattie, NHSD-HSB, Parks, 1997.)



2 Searchlight No. 6; view from east to west. (J. Mattie, NHSD-HSB, Parks, 1997.)

3 Searchlight No. 6; view from interior, looking out to Strait of Juan de Fuca. (J. Mattie, NHSD-HSB, Parks, 1997.)



4 Site plan of Fort Rodd Hill showing location of Searchlight No. 6 (No. 44 on plan). (Fort Rodd Hill, Catalogue of Features.)

Searchlight System
Searchlight No. 7 (1940)

HISTORICAL ASSOCIATIONS

This building, virtually identical to Searchlight No. 6 except for its camouflage, and built at the same time, also shares the same historical associations. These include: the upgrading of Canada's searchlight system on the west coast during the Second World War, as well as the connection to the Interim Plan for defence readiness, and to the International Joint Defence Plan for Juan de Fuca Strait.

ARCHITECTURE

The camouflage of this structure (Figure 1) -- a Parks reproduction based on historical evidence (Figure 2) -- is meant to convey the impression of a boathouse, complete with boat rails and boat. It has been given a boarded gable roof, with irregular-length, loosely spaced boards on the front gable end; faux-painted boarding on the concrete walls and on the sliding metal doors at the front (along with a fake window); and a rough-built extension at the back, covering the door. On the west side, painted rocks at the foundation level obscure the preciseness of the concrete outlines. Up close, the appearance is somewhat like a stage set, and quite attractive. From a distance, the camouflage may have been quite convincing.

As for Searchlight No. 6 (previous report), the functional characteristics of Searchlight No. 7 include basic concrete construction with a rounded front opening, which can be closed by steel shutters that slide in tracks. This structure, however, is more complete. It contains its original doors on the north side, which are of heavy wood with a metal plate covering -- perhaps strengthened to protect against any shell debris coming from the batteries behind. A large searchlight from another location has been installed inside (Figure 3; the light is flipped backwards so visitors can see it from the door) -- a 60 inch Canadian General Electric Type B like the one that was originally in position. The mounting for this light is made to run forward and back in the track embedded in the floor. The original connection of this structure to the Searchlight Director's Building on the upper terreplein of Upper Battery was probably switched to a station within Belmont Battery in the last years of the Second World War (as with Searchlight No. 6).[1]

The designer of the building is presumed to have been the Canadian army, which adopted the British technique (developed between the two World Wars) of using searchlights with heavy guns.[2]

ENVIRONMENT

Searchlight No. 7 still commands a view of Esquimalt harbour and the approaches to it, as well as the navy base on the opposite shore, and Fisgard Lighthouse (Figures 1, 2). The foundation remains for Defence Electric Light No. 1, which occupied the same position, are scattered about the site on the east side (Figure 4). Changes in the vicinity include: gravel paths on the west and south sides; a metal fence with gate that can restrict access to the searchlight when required; an interpretive display of submarine netting and buoys along the path from the searchlight to the lighthouse; a build-up of the beach to the south so that the shoreline is now farther out (making the pseudo-boathouse appear somewhat out of place); and the construction of a causeway to the Fisgard Lighthouse island (probably the reason for the beach build-up).

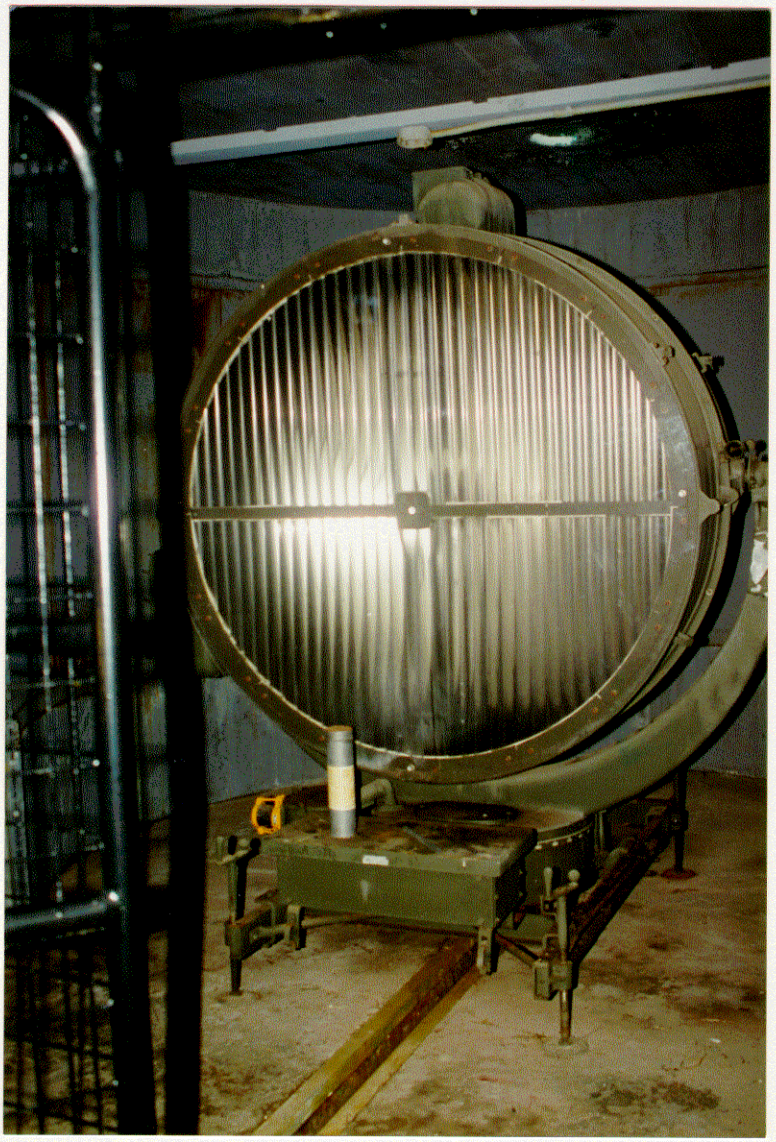
Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 107.

2 Ibid., p. 107.

1 Searchlight No. 7; constructed 1940; designed by Canada. Department of National Defence; view from west to east and Fisgard Lighthouse. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Searchlight No. 7 during Second World War, shortly after construction. (FRH. P. 8413.)



3 Searchlight No. 7. For interpretation purposes, the light is facing the rear of the building, where visitors can view it. Behind the light, the windows that open to Esquimalt harbour are closed by shutters. (J. Mattie, NHSD-HSB, Parks, 1997.)

4 Base of Searchlight No. 7. Parks employee indicates remnants of foundation for Defence Electric Light No. 2. (J. Mattie, NHSD-HSB, Parks, 1997.)

Searchlight System
Searchlight Engine Room (1898-1901)

HISTORICAL ASSOCIATIONS

The Engine Room was an integral part of the searchlight system, providing the considerable quantities of power required to run the lights -- first the Defence Electric Lights Nos. 1 and 2, and later, Searchlights No. 6 and 7. All of these were, at one time or another, directly connected to the Engine Room by cables. Though a supporting building, the Engine Room therefore shares in the historical associations of the night-time capability of the Esquimalt-Victoria defences against enemy ships (particularly torpedo boats in this instance) -- from 1901 when it became operational, through the two world wars, the military training exercises on either side of these events, and into the Cold War era. The replacement of the original generators with more powerful and advanced models around 1940 allowed the Engine Room to adapt to the requirements of updated technology during the Second World War and after.

ARCHITECTURE

The Engine Room (Figures 1, 2) is a partially subterranean structure for reasons of protection from bombardment, both for strength (to minimize the effect of a direct impact) and for camouflage (so as not to offer an easily visible target). The configuration is roughly rectangular with an L-shaped curved-roof addition, containing tanks of oil for the engines, wrapping around the northwest corner (Figures 6, 7). The only exposed side of the main building faces an entrance ditch (Figure 2). Aesthetic qualities here are a result of the asymmetrical balance of windows and rooflines, with focus on the entrance and its datestone (1898). The slight curve over the openings of windows and doors and the typical white paintings around sills and foundation add to the aesthetic character.

Inside, the three Gardner diesel engines on ca. 1940 concrete beds are replacements[1] to help interpret the Second World War period, when similar engines were providing power for the updated and more powerful Searchlights Nos. 6 and 7. Originally, from 1901 (when the building became fully functional) to ca. 1940, two Hornsby-Akroyd engines and dynamos (Figures 3, 4) did the job for the weaker Defence Electric Lights Nos. 1 and 2. The earlier system required a different type of ventilation to reduce the tell-tale expulsions of smoke, which would have attracted unwanted enemy attention. Engine exhaust was vented through two large water-filled tanks sunk under the entrance ditch, and the steam-diluted product was then sent up and out through pipe chimneys attached to the wall of the building (plan of tanks visible in Figure 7; elevation of pipes shown in Figure 6).[2] In the Gardner diesel era, the emissions by-passed the water tanks (probably removed at this time), being vented through short pipes extending through three of the window openings -- the present arrangement. A store room and a test room remain at one end of the room (the latter with original bench and cupboards), while a raised concrete platform remains at the other end. In the Hornsby-Akroyd era, four 800-gallon tanks sat on this platform (visible in Figure 4), their large quantities of stored water required for cooling the engines.

The L-shaped oil store addition contains six of the sixteen 800-gallon tanks (also set in a vertical position on a raised concrete platform; see plan in Figure 8) that supplied the fuel for the engines. The rounded galvanized tin roof covering the addition is stamped in several places: "Commanding Royal Engineer, Esquimalt, Warrant No. 673" (see Figure 5). Access to the oil store is at the end of the entrance ditch, through a gate in an open iron grill (Figures 1, 2).

ENVIRONMENT

The environment of the Engine Room has changed very little since the building was last operational, around 1954. Though the two exhaust-cleaning water tanks have been removed, their position under the entrance ditch was never very visible. Time has ensured an even greater camouflage effect than would have been present shortly after construction, including the growth of moss on the entrance ditch retaining wall, micro-organisms on the wall of the building, and growth of trees, bushes and grasses above and around the installation.

Endnotes

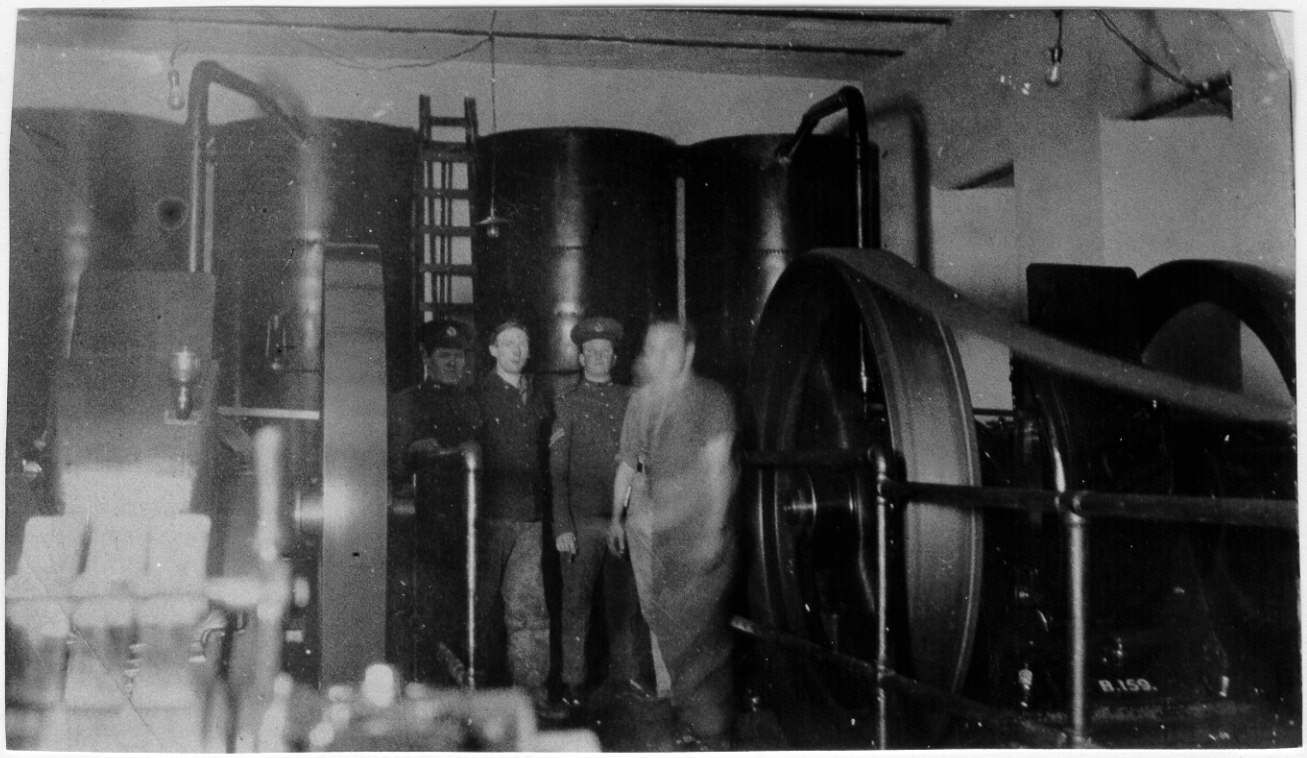
1 These were acquired by Parks from a hospital in Montreal, since the original Gardner engines had been sold by the Department of National Defence in the mid-1950s. Information from Steve Malins, employee, Fort Rodd Hill; site visit, January 1997.

2 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), pp. 108-110.

1 Searchlight Engine Room; constructed 1898-1901; designed by Royal Engineers; view through entrance ditch to tank room at end. Entrance to Engine Room is out of sight, at left (see next photo). (J. Mattie, NHSD-HSB, Parks, 1997.)

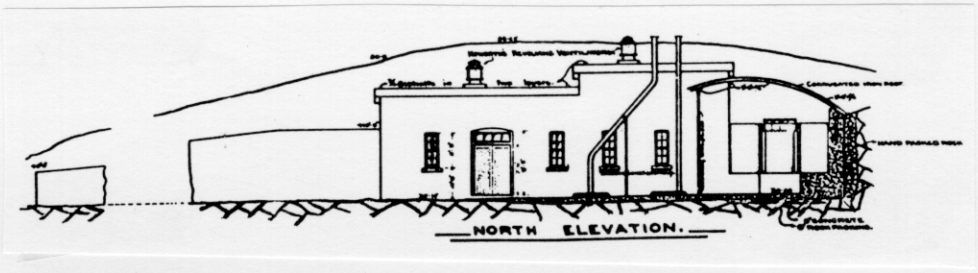
2 Searchlight Engine Room; view of entrance (left) and tank room (behind bars at right). (J. Mattie, NHSD-HSB, Parks, 1997.)

3 The Hornsby-Akroyd engine that helped generate power for the searchlights. (Fort Rodd Hill Photo Collection.)

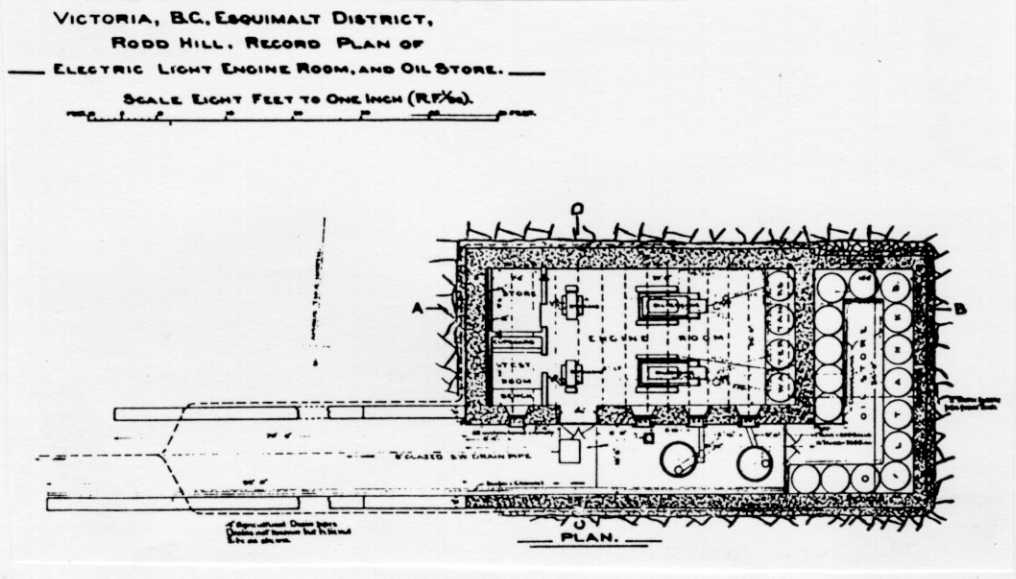


4 Photo of the Engine Room in operation, showing one of the two Hornsby-Akroyd engines, the dynamo associated with it, and some of the fuel tanks, ca. 1930s. (Fort Rodd Hill Photo Collection.)

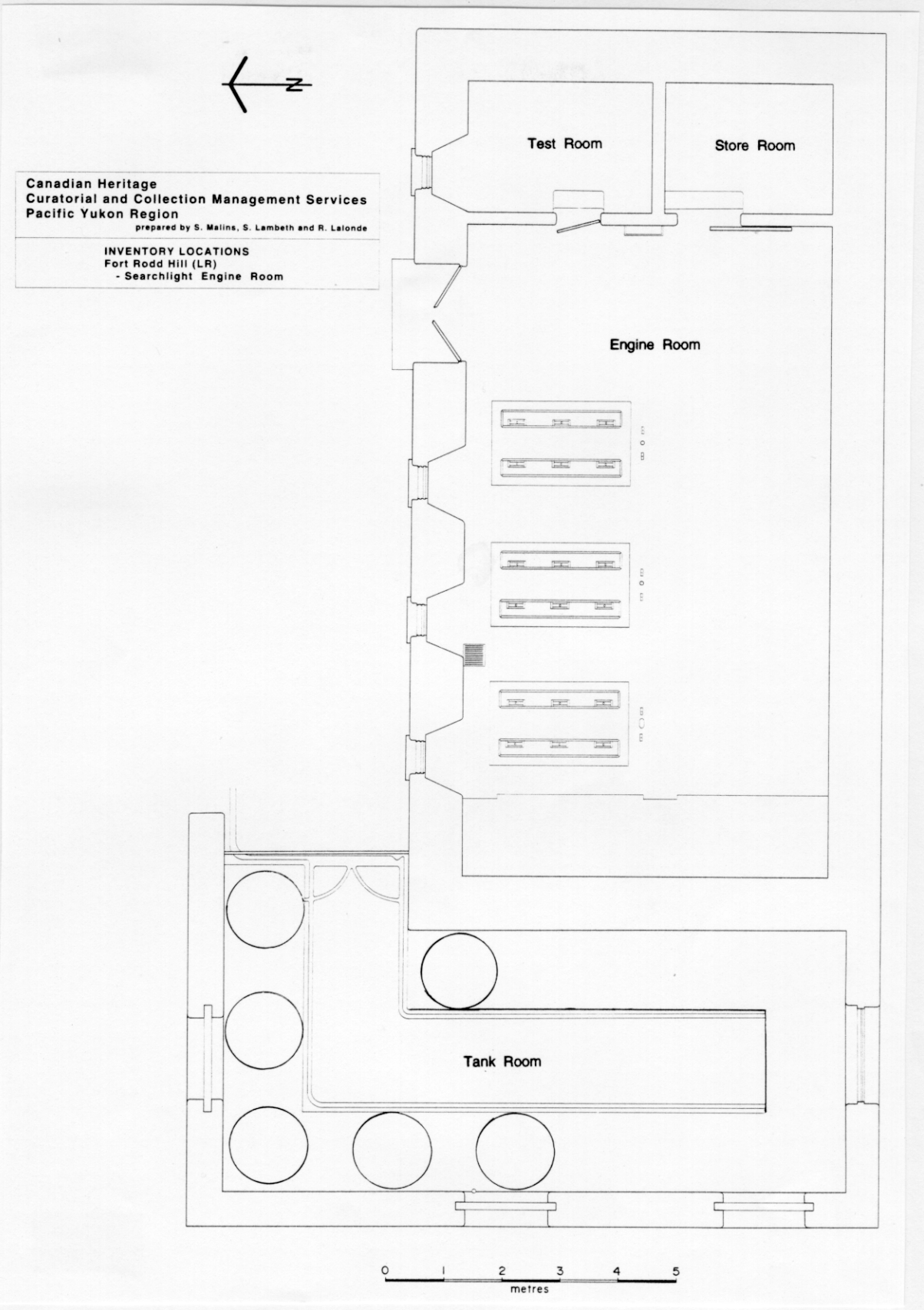
5 Part of the curved, galvanized metal roof over the tank room (far right location in following plans, Figures 6 and 7), showing stamp with words "Commanding Royal Engineer, Esquimalt, Warrant No. 673." (J. Mattie, NHSD-HSB, Parks, 1997.)



6 Elevation and cross section of Engine Room; record plan of 1905. (MRS #282, p. 239.)



7 Floor plan of Engine Room; record plan of 1905. Note locations of the two Hornsby-Akroyd engines and their associated dynamos. (MRS #282, p. 239.)



8 Current plan of Engine Room; note placement of the three Gardner diesel engines. (Parks Canada, Curatorial and Collection Management Services.)

Belmont Battery, 1898-1900, with subsequent changes

HISTORICAL ASSOCIATIONS

Belmont Battery, which faces east toward Esquimalt harbour (Figure 1), was specifically built to respond to torpedo attacks, considered in the 1890s to be ". . . the most likely form of attack against most of our harbours . . . [and] ships at anchor," according to a contemporary British textbook on fortifications and military engineering.[1] Besides the light, Quick-Firing (Q.F.) guns at Belmont intended as anti-torpedo defences (two 12-pounders emplaced in 1900), there were also the related searchlights (previous reports) and the submarine minefields and torpedo net at the entrance to Esquimalt harbour (the net now interpreted with a relic of same on the beach below Lower Battery). This system did not basically change until it was declared obsolete in the mid-1950s. It was refined, however, as techniques and equipment improved, such as in 1943-44 when modifications to the Gun Emplacements, the Magazine, and the erection of the new Director's Tower were made. This was in preparation for the 1944 installation of two 6-pounder Duplex guns -- a formidable new weapon that could fire 36 rounds of ammunition in one minute, and with more precision than previously possible.[2]

Through its association with the original planning and construction at Fort Rodd Hill, its state of readiness during the First World War, its updates during the Second World War, and its maintenance throughout the first part of the Cold War (until 1956), Belmont Battery illustrates the prime phases of development at this defensive facility.

Note: The separate reports on the Gun Emplacements and Magazine, and on the Director's Tower will follow each other directly since their history and physical positioning are so intertwined. The Figure pages, which relate to them both, are at the end of this Belmont Battery section (after the Director's Tower Report).

Endnotes

1 Great Britain. Fortification and Military Engineering (London: LMSO, 1893), Part II, p. 292. Cited in Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 85.

2 Ibid., p. 85.

Belmont Battery
Gun Emplacement and Magazine Complex (1898-1900, with changes up to 1943-44)

ARCHITECTURE

The aesthetic qualities of balance and symmetry, once enjoyed by Belmont Battery (apparent in the plan, Figure 2, and elevation, Figure 8), have been obliterated by changes and additions. The original functional design was typical for (though not identical to) most British batteries in the last decade of their installation, including the layout, choice of materials, and method of construction. Both the original and updated designs are sophisticated and complex, intended to fulfil a highly technical purpose.

The various parts of the Gun Emplacement and Magazine are described below, including their upgrades and renovations into the 1940s:

Gun Emplacements

Right Gun Emplacement:

- Like the Left Gun Emplacement, this one was built to handle a 12-pounder Q.F. gun on a circular pedestal, with a field of fire through 235 degrees.[1] In 1946, two years after the original gun was replaced by a 6-pounder Duplex gun (1944), about half of the emplacement and its obsolete ready-use ammunition storage area was demolished.[2] Today, the emplacement lacks its original low parapet wall on the seaward side, while on the landward side, the new (1946) ammunition chamber sits directly behind the gun (Figure 3). Only a small portion of the original pipe railing remains in this section (the wooden replacement railing installed by Parks is prominent in Figure 3). In 1978, under Parks administration, a 12-pounder Q.F. gun was re-installed, though not the historical one for this location.

Left Gun Emplacement:

- This emplacement (Figures 5, 6) was a mirror image of the Right Gun Emplacement, having a similarly mounted (in 1900) 12-pounder Q.F. gun. Two years after the gun was dismounted and replaced by a 6-pounder Duplex gun (1944), most of this emplacement was also demolished, including the ready-use ammunition storage area. Only one of the old cartridge recesses remains to be seen (visible to the left of the stairs in Figure 6). This area was further changed by the addition of a new crew shelter in 1945, whose back wall intrudes into the space formerly occupied by the traverse behind the left gun emplacement (visible in Figures 5, 6). A replacement 6-pounder Duplex gun was acquired from Norway in 1978 and installed by Parks to interpret the 1944-54 era (note its twin barrels in Figure 7).

Magazine

Of the usual concrete construction found elsewhere at Fort Rodd Hill, but with no vaulting, the original magazine at Belmont Battery was similar in many respects to that in Upper Battery. The function and number of the chambers was the same (seven) but their overall arrangement and individual sizes were different. The original parts of the magazine are still quite identifiable, but there have been additions and alterations, primarily due to the adaptation of the battery in 1943

for new armaments, emplaced in 1944. The individual components are described below.

Original Crew Shelter:

- This chamber -- used consecutively as a crew shelter, an artillery store, and a paint store -- is accessed to the right and down a few steps from the staircase to the second level of the magazine (Figure 10; its position also visible in Figures 8-11). As a crew shelter, with virtually no elaboration inside (perhaps originally containing a table and a bench or two), it was intended to protect the personnel of the two gun crews (left and right gun emplacements) during quiet periods, and the casualties produced during the heat of battle. Dating from the subsequent period of use as either artillery or paint store is the rack of three shelves.

Original Artillery Store:

- In 1900 when the magazine was more symmetrical than at present, this chamber matched the crew shelter as the other forward-projecting "wing" (see plan, Figure 9). Its original purpose was to hold all of the tools and equipment needed to maintain and operate the guns while in action. A work bench was probably included. Around 1944, it became an electrical equipment room, for which evidence remains, such as a concrete generator bed, an empty terminal box, a magslip wall rack, and remnants of a cable and conduits.

Ammunition Storage Entrance:

- originally open, this area between the Crew Shelter and the Artillery Store (see plan, Figure 9) was an ammunition handling bay -- for the first stage of the shells' and cartridges' journey from long-term storage to ready-use storage near the guns. From the ground-floor storage level the ammunition was hoisted by davits (visible in historical photo, and in same area now roofed, Figure 13) up to the next, interim level on the traverse. In 1943, the area was roofed and given a new outer wall, thus eliminating on the outside the appearance of a recess between the Crew Shelter and the Artillery Store (compare Figures 11 and 12). A single doorway was made in the concrete wall for accessing the magazine (Figure 12), while another door gave access to the few stairs leading up to the terreplein (Figure 13).

Lamp Room:

- This small room had the same function as the lamp rooms in the 6-inch disappearing gun batteries. Candle lamps for lighting the shell and cartridge stores were stored and maintained here, to minimize the flames' chances of igniting the magazine's explosives in the Shell and Cartridge stores. Located inside and to the right of the main magazine entrance (underneath and just beyond the stairway entrance to the next level; see plan in Figure 14), the lamp room contains a bench and shelving, which are original. In 1944, this chamber was converted to use as a paint store. It was probably at this time that the room began to be lit electrically, indicated by an electrical conduit and outlet that remain.

New Ammunition Storage Area:

- this chamber encompasses the semi-subterranean areas formerly designated as **Shell Store** (left of centre in plan, Figure 14), **Shifting Lobby** (centre), and **Cartridge Store** (right of centre). In 1943 their dividing walls were removed and the space became one big room (Figure 15), better suited to the fixed round ammunition (rather than the separate shells and cartridges required by the previous 12-pounder Q.F. guns). Remnants of the Shifting Lobby are to be found in the end wall, with its two layers of bricks and an air space between, and in two holes in the floor where bench legs were embedded.

New Artillery Store:

- this new room for holding the tools necessary for maintaining the Second World War-era Duplex guns (see Parks interpretive display in Figure 16), and for use as a workshop, was built slightly down from the right gun emplacement on the landward side, over the old crew shelter and partly overhanging it (Figure 12). It has one good-sized window for lighting, aiding the daytime gun repairs that would have taken place here.

New Crew Shelter:

- this concrete-walled and concrete-roofed structure with three windows (partly hidden by the legs of the Director's Tower, Figure 12) was built over the old Artillery Store and partly overhangs it. In this position it was closer and more convenient to the gun emplacements than the old crew shelter, and it was lifted higher off the ground, which probably meant drier conditions inside (its door leading from the covered part of the traverse is visible in Figure 13).

Traverse

- this route between the two gun emplacements (Figure 17) -- a storey above the ground-floor magazine components, but down a few steps from the gun emplacements -- was originally an open passageway protected by a parapet wall on the gun emplacement side and railings on the landward side. Major changes came in 1943 when preparations for the new Duplex armaments were made. The new Artillery Store and the new Crew Shelter intruded upon parts of the original Traverse space, while most of the rest was covered by the roof over the ammunition bay. Short flights of new stairs were set within new openings of the parapet wall, creating new points of access to the left and right gun emplacements. Today, the traverse is a hodge-podge of concrete walls, steps and wells protected by railings (Figures 5, 6; railings recently installed by Parks for safety purposes are clearly distinguishable from the original pipe railings; for example, see Figure 3), considered to be the best choice given the presence of pre-existing structures. The datestone proclaiming the originating date of 1898 remains in the centre (Figure 13).

ENVIRONMENT

The changes that the Gun Emplacement and Magazine complex underwent after 1900 (when it was completed) relate primarily to the two World Wars -- important phases in the site's history. Besides the additions and deletions noted previously in the sections dealing with individual components, there was a loss in the late-1940s of two originally single-storey, shed-roofed wooden shelters (for seven men each) on the extremities of the left and right flanks of the complex (Figure 17) -- in place since 1899. Sometime after 1903, perhaps at the beginning of the First World War, the south shelter was given a flat roof that was used as an observation platform. This was the position from which the Gun Group Commander directed the fire of the two 12-pounder Q.F. guns and from which the defence electric lights were controlled (see Searchlight section), into the 1930s.[3] Later, in 1940, the roof platform was enlarged, enclosed and covered, giving the building a second storey, which was reached by an external stairway. A Depression Range Finder, stereo binoculars, and telephones connected to the fire command centre and the searchlights were installed here. The north shelter, on the other hand, does not appear to have been altered before it was demolished, sometime between 1945 and 1950. Traces of both shelters remain, including concrete floors and pads for the entrance steps, and traces of roof outlines on the surviving concrete walls that protected the shelters on their west sides. Other remnants in close proximity include: a concrete pit for a machine gun, constructed around 1940 near the left gun emplacement (visible in Figure 18); a concrete pad near the machine gun position -- for some form of semaphore signalling during the Second World War; and portions of the original glacis wall, which collapsed and was rebuilt by Parks in the 1960s (but to a different pattern). The growth of trees in the vicinity has also obscured some sightlines and has softened the stark character that the site had when it was operational as a military installation .

Belmont Battery is probably the most visible and most memorable part of Fort Rodd Hill because of its tower (Figures 19, 21-22; see next report); its large, menacing guns; and its position in full view of Esquimalt, Fisgard Lighthouse, and points west along the coast (Figures 19, 20). Because of its visibility and striking presence, it is probably familiar to anyone who has cruised the waters in this area, has visited Fort Rodd Hill or Fisgard Lighthouse, or has simply gazed out at the view from Esquimalt or the residential areas on the slope to the west.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 88.

2 Ibid., pp. 97-98.

3 Ibid., p. 86.

Belmont Battery
Director's Tower - (1943)

HISTORICAL ASSOCIATIONS

The Director's Tower at Belmont Battery relates directly to the Second World War installation of the 6-pounder Duplex guns in the left and right emplacements. The tower was linked to the Duplex guns by magslip transmission cables, through which data and commands for firing were passed. The rate of fire was 36 rounds per minute per barrel, with a maximum range of 5,500 yards, though it was expected that engagements would normally occur at 2,000 yards or less.[1] The Duplex guns and their firing coordinations comprised a formidable weapons system, probably the ultimate gun defence against torpedo boats.

Although production of these guns began in England in 1941, Canada was not included in the initial allocation. The first to arrive for the Esquimalt-Victoria defences was mounted at Duntze Head (Esquimalt) in June 1943.[2] The Belmont Battery gun was placed in action on 6 July 1944 and it was operational until the Japanese surrender on 15 August 1945. Shortly afterward, when coast artillery was declared redundant, the Duplex guns were dismounted and the associated equipment and stores were removed. An almost immediate change in policy, in which the need for harbour defence of Esquimalt was reestablished, saw the guns remounted.[3] They remained in place until around 1956, when all guns, equipment and related stores were released to requesting NATO countries. It is thought that Belmont Battery's Duplex guns were the last to be dismounted, and that the Duplex subsequently found in Norway for reinstatement by Parks in 1978 was one of the last remaining in the world.[4]

The construction of the tower in 1943 (March to August) fulfilled some of the points in the 1938 "Ultimate Plan" to counter the threat of Nazi Germany, providing an excellent example of the Second World War phase of development at Fort Rodd Hill.[5] Its use as an observation post, with coordinating command of the formidable Duplex guns and the searchlights until ca. 1956 stretched its period of impact into the Cold War era.

ARCHITECTURE

This two-level observation post rests on four slightly splayed legs (Figure 21). Their taper and the clean horizontal lines of the two levels of windows, contribute to some incidental aesthetic merit, though these features pertain more to functional considerations than artistic ones.

The main purpose of the Director's Tower, for which plans were drawn up in 1942, was to provide a site for the fire direction instrument called the "No. 13 Director." This instrument had to be high enough for a good scan of the harbour and its approaches, and well above the gun, where its sightlines would not be obscured by smoke. In November 1943, by which time the tower was complete, it had only one working level, where the No. 13 Director was mounted on a pedestal. Running down from the instrument, and through the centre of the tower was the exposed magslip conduit, connected to the guns. The first modification came in 1944 when the magslip conduit was encased in concrete (its state today; visible in Figures 12 and 21). Some time after August 1945, a doorway was cut into the concrete wall of the observation room, and an exterior steel staircase replaced the ladder and trap door that previously had provided access to it. Not long afterward, another level was added to the tower and the staircase extended to reach it. It is presumed that the No. 13 Director and its pedestal were then relocated to this second floor, while the first storey became the Searchlight Directing Station (relocated from its position, since ca. 1940, on the roof of the old wooden crew shelter in Upper Battery -- see previous report on Belmont Battery's Gun Emplacement and Magazine).[6] The splayed design of the tower's

reinforced concrete legs, plus the iron bracing up the centre ensured stability during periods of wind or concussion due to artillery fire. The downward-opening shutters over the windows were also designed to protect against damage.

The craftsmanship pertains mainly to the handling of concrete and steel, and in this it is adequate. Apparently the contractor, Dominion Bridge Company,[7] did not originally conform to all the specifications included in the plan, such as for the No. 13 Director's pedestal, and for the window frames, which were put in as wood rather than the required steel. These lapses were rectified over the next two years.[8]

Though the Duplex guns and the system for firing them were developed in England, prior to the Second World War, it is likely that the plans for the Director's Tower were drawn up by the Department of National Defence in Ottawa, judging by the correspondence between Ottawa and Esquimalt regarding the construction of the guns' emplacements in 1943.[9]

ENVIRONMENT

The immediate property around the Director's Tower quite closely resembles its state shortly after it was built, during the latter part of the Second World War, after the modifications to the Gun Emplacement and Magazine were complete. Farther afield, the site is missing some of its Second World War elements, such as the huts located at the rear of the battery, where personnel manning it were accommodated.[10] Today's view from the tower includes much more development along the shoreline, including more military buildings at Esquimalt to the east, and more residential units to the west.

The Director's Tower is probably the dominant structure at Fort Rodd Hill, being the most visible from the water and from Esquimalt, to which it is historically related (the landward side is quite forested, and buildings are not easily seen until they are encountered directly; see Figure 22).

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 96.

2 Ibid., p. 97.

3 Ibid.

4 Information conveyed by Steve Malins, employee, Fort Rodd Hill, during site visit, January 1997. See also Lovatt, MRS #282, p. 97, in which he notes the availability of this gun in Norway, thought to be the last remaining example of its type.

5 Ronald Lovatt, Shoot, Shoot, Shoot. A History of the Victoria-Esquimalt Coast Artillery Defences, 1878-1956 (Victoria: Rodd Hill Friends Society, 1993), p. 106.

6 Lovatt, MRS #282, p. 100.

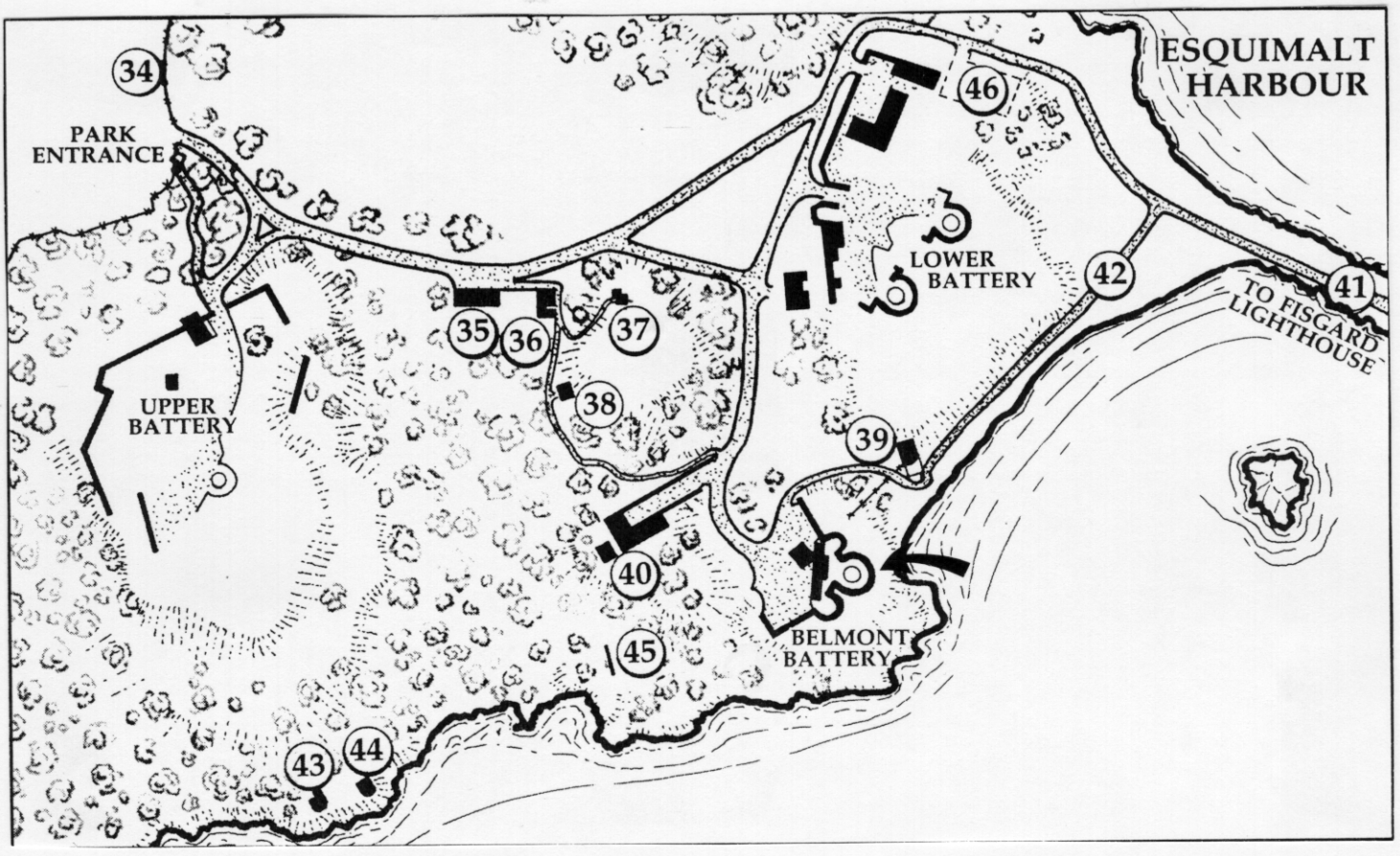
7 Ibid., p. 100.

8 Ibid.

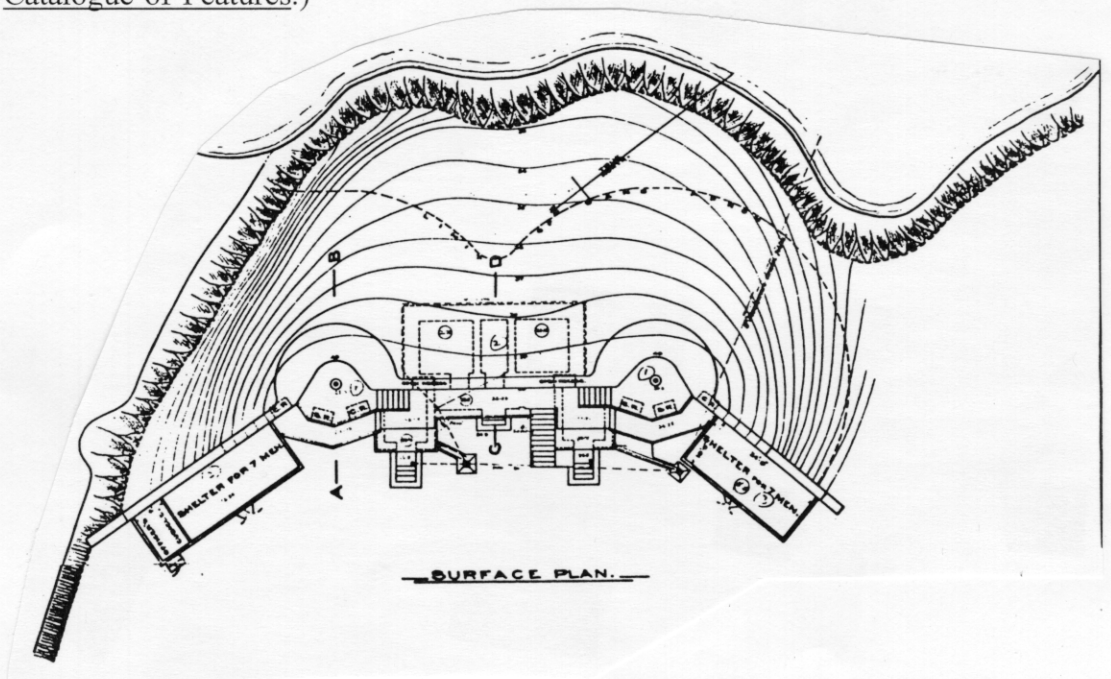
9 See correspondence between the Commander of Esquimalt Fortress to Department of National Defence, Headquarters, Pacific Command, June 1944; cited in Lovatt, MRS

#282, p. 152.

10 Ibid., p. 102.

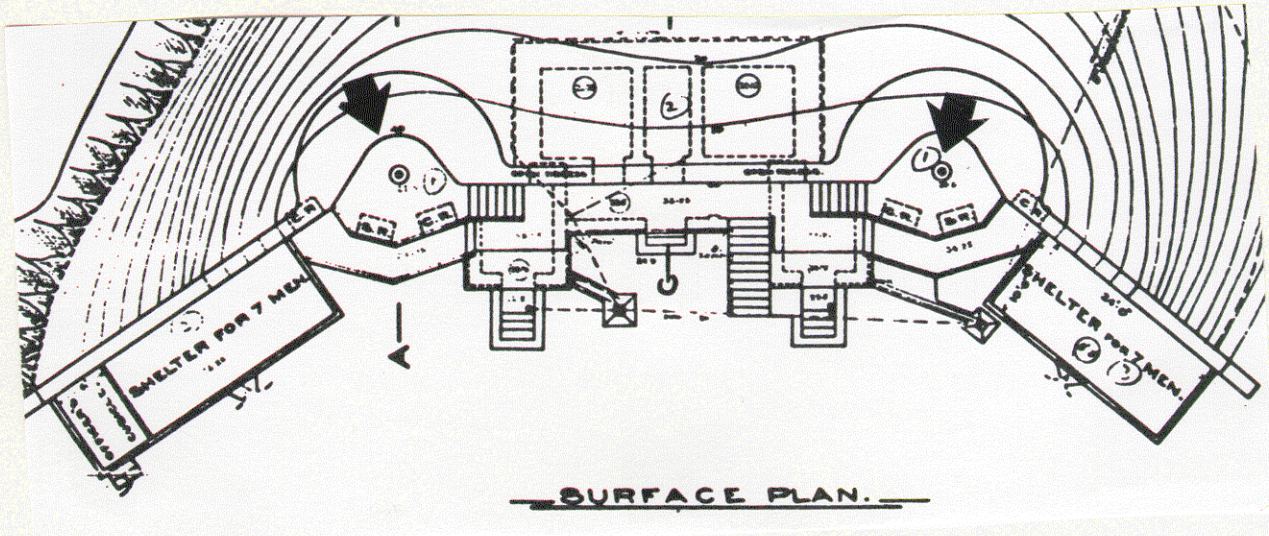


1 Plan of Fort Rodd Hill showing location of Belmont Battery (arrow). (Fort Rodd Hill, Catalogue of Features.)



2 Plan of Belmont Battery, from 1903 Record Plan. (MRS #282, p. 233.)

3 Right gun emplacement, Belmont Battery, showing 12-pounder Q.F. gun -- the type that was originally intended for use in the battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

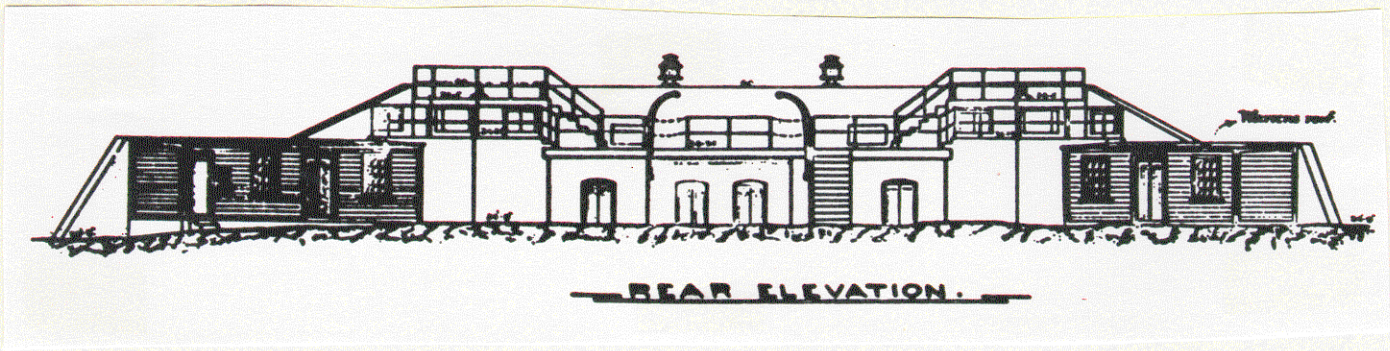


4 Plan of Belmont Battery in 1903; arrows point to left and right gun emplacements. (MRS #282, p. 233.)

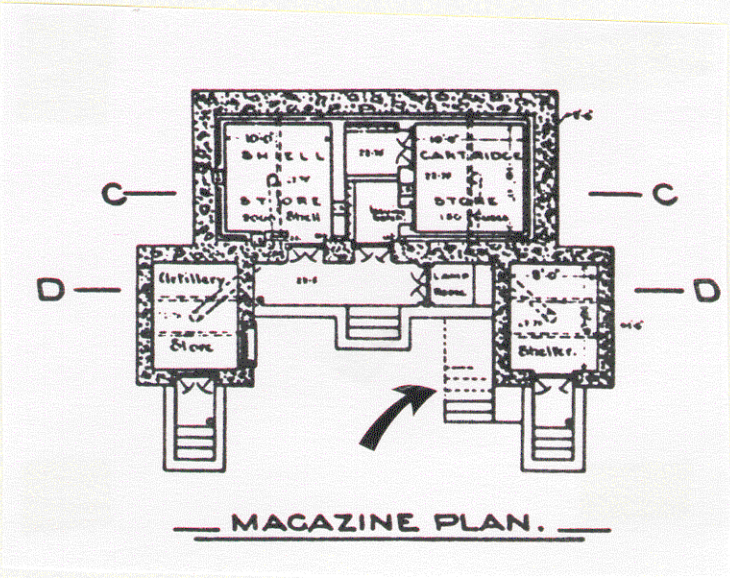
5 Left gun emplacement, Belmont Battery, showing back of 6-pounder Duplex gun that Parks installed. Right run (the 12-pounder Q.F.) is also visible in centre of photo. (J. Mattie, NHSD-HSB, Parks, 1997.)

6 Left gun emplacement, showing original cartridge recess (bottom left) and intrusion into the traverse of the 1943 crew shelter (right). (J. Mattie, NHSD-HSB, Parks, 1997.)

7 Left gun emplacement (foreground) with its 6-pounder Duplex gun; right gun emplacement and its 12-pounder Q.F. gun is farther away (left). (J. Mattie, NHSD-HSB, Parks, 1997.)



8 Elevation of landward side of Belmont Battery in 1903. (MRS #282, p. 233.)



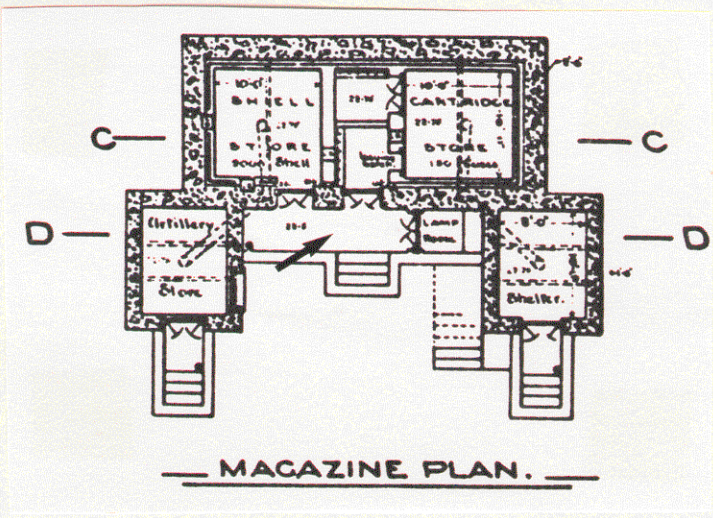
9 Plan of magazine, Belmont Battery, in 1903; clockwise from left: artillery store, shell store, shifting lobby, cartridge store, crew shelter, and lamp room (in centre, to right of central steps). Arrow points to stairs going up to the traverse. All other stairs are going down a few steps. (MRS #282, p. 233.)

10 Magazine area of Belmont Battery in 1997, showing mix of original and 1943 additions. Stairs going to traverse correspond to staircase with arrow in Figure 9. (J. Mattie, NHSD-HSB, Parks, 1997.)

11 Belmont Battery (rear) ca. 1920, before the 1943 additions. (FRH Photo Collection.)

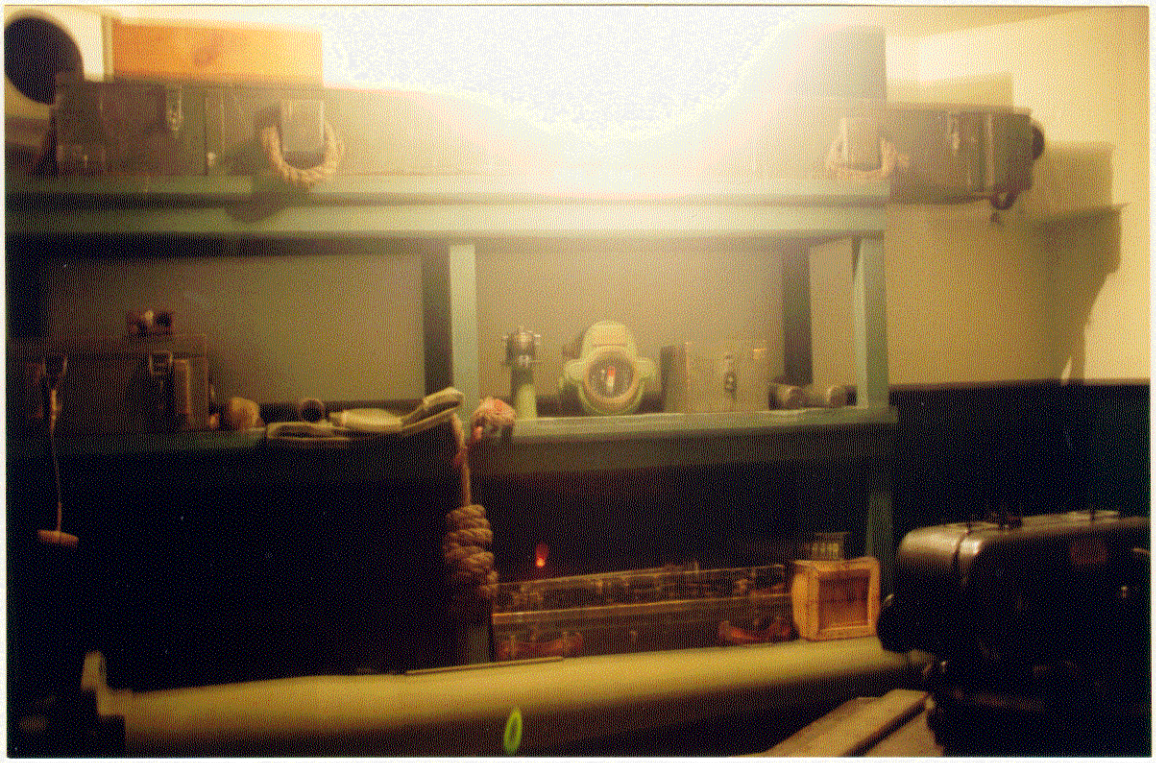
12 Belmont Battery (rear) in 1997, including the Director's Tower built in 1943. (J. Mattie, NHSD-HSB, Parks, 1997.)

13 Upper level of ammunition handling bay, covered over in 1943; Belmont Battery. Part of davit for hoisting ammunition is visible at left. The doorway to the new (1943) crew shelter is visible to right of davit. The short stairway to the gun emplacements is visible through doorway at centre. (J. Mattie, NHSD-HSB, Parks, 1997.)

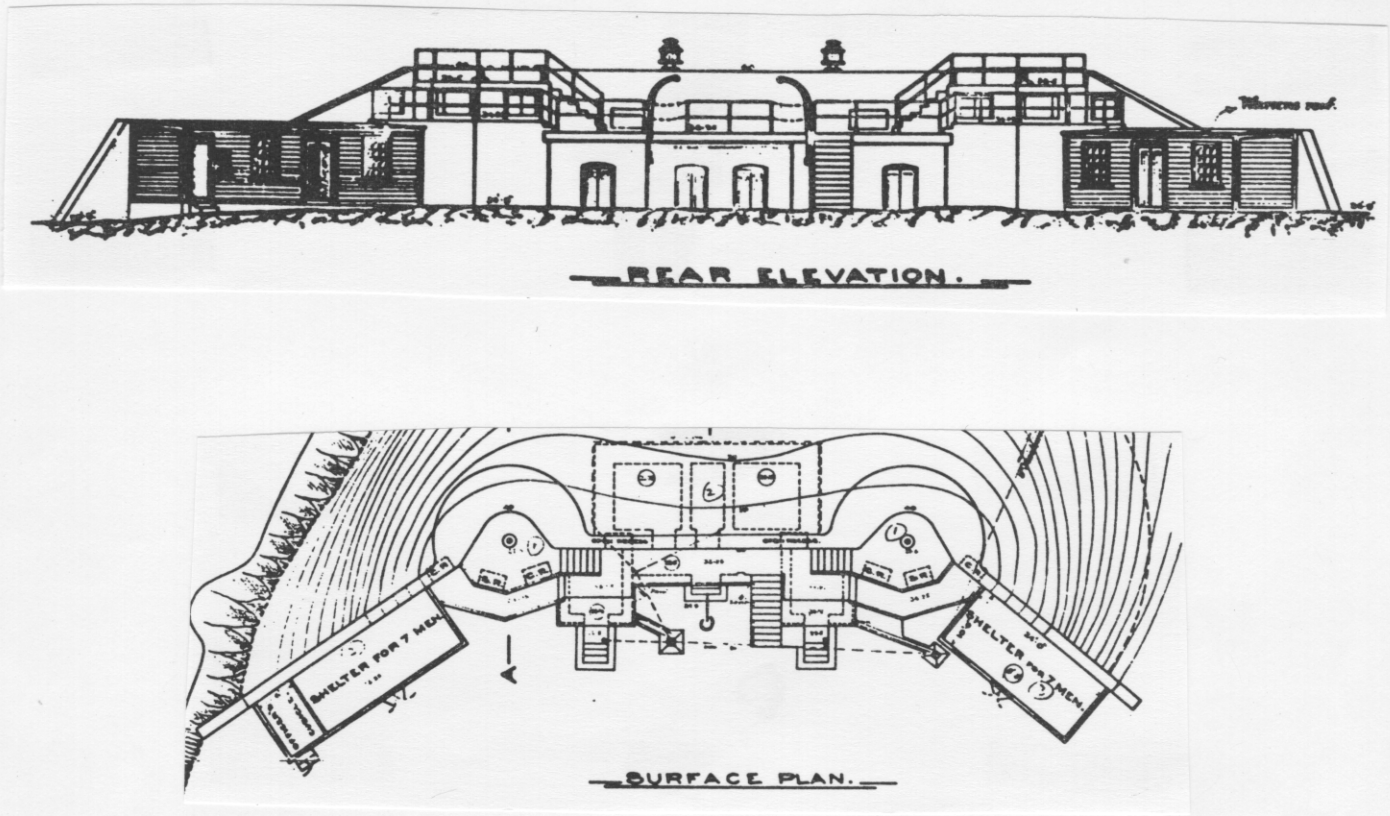


14 Plan of Magazine in 1903. Arrow points to ammunition bay, above the lamp room. The shell and cartridge stores, and the shifting lobby, are under the gun emplacements. (MRS #282, p. 233.)

15 New ammunition storage area (ca. 1944) created by removing former dividing walls between shell store, shifting lobby and cartridge store; Belmont Battery. (FRH. P. 1141.)



16 New artillery store (ca. 1944), Belmont Battery; furnished with tools and instruments for interpretation display. (J. Mattie, NHSD-HSB, Parks, 1997.)



17 Elevation and surface plan of Belmont Battery in 1903, showing position of no-longer-extant wooden shelters on far left and far right. (MRS #282, p. 233.)

18 Left gun emplacement and machine gun pit below it (on right; constructed ca. 1940). (J. Mattie, NHSD-HSB, Parks, 1997.)

19 View of Belmont Battery from beach near Searchlight No. 7. (J. Mattie, NHSD-HSB, Parks, 1997.)

20 Left gun emplacement, Belmont Battery, looking out to Fisgard Lighthouse and entrance to Esquimalt harbour. (J. Mattie, NHSD-HSB, Parks, 1997.)

21 Director's Tower, Belmont Battery; lower part (up to and including first floor) constructed in 1943; second storey added ca. 1945; designed by Canada. Department of National Defence. (J. Mattie, NHSD-HSB, Parks, 1997.)

22 Environment on north side of Belmont Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

Fortress Plotting Room (1940-41)

Though sometimes considered as part of Lower Battery (since it was built on a site formerly occupied by a portion of that battery's perimeter defences), the Fortress Plotting Room was not directly linked to it or its functions, which by 1940-41, were considerably reduced. The underground building relates, rather, to the whole system of coastal defences in the Victoria-Esquimalt vicinity in its function as a central computation facility.

HISTORICAL ASSOCIATIONS

The provision of a 6-room Fortress Plotting Room at Lower Battery was part of the flurry of activities at Fort Rodd Hill leading up to, and during, the Second World War. Along with the Director's Tower of Belmont Battery, it represented a fulfilment of the "Ultimate Plan" for ensuring adequate defences on Canada's west coast, under threat of Nazi Germany and Japan during the last part of the Second World War.[1] The most sophisticated development in coast artillery to date, the fortress system of range finding could precisely track enemy ships and direct accurate fire against them, using data gathered from numerous observation posts along the coastline, relayed through a telephone exchange exclusive to the system. That information would then be translated into firing commands for any or all of the 18 gun emplacements in the Victoria-Esquimalt vicinity (their positions in 1939-56 are shown in Figure 3, Part I of this report). The Plotting Room was the heart of this whole operation.

Plans for it began to be drawn up in 1939, and by early 1940, they were finalized. Construction occurred during 1940-41. The plotter -- officially called a "Plotter Fortress No. 2 MkI Type HB8 Regd. No. 25" -- was delayed in its transit from England, however, and did not arrive until 1943, only becoming operational by December of that year. Meanwhile, one of the rooms of the Fortress Plotting Room had been fitted with the required telephone exchange. Though its operation in relation to the plotter was delayed, the exchange immediately went into action relaying calls between other components of the coastal defences. In this, it assumed the function formerly assigned to the Telephone Exchange in Upper Battery. The new exchange was operated by personnel from the Royal Canadian Corps of Signals, who were accommodated in the main fortress plotting room, where the fortress plotter was to go. Responding to their complaints about the cold and the damp, Royal Canadian Engineers lined the facility with wood composition panelling (Donnaconna board; also known by other names such as Beaver Board and Ten-Test) and installed heaters.[2]

After the Second World War, the plotting room was used occasionally during militia training, until 1951 when it became an Anti-Aircraft Operations Room. For this use, the plotter and other related equipment were moved out, and large transparent panel maps of the West Coast were moved in, along with controllers desks and tables. This new role lasted until 1954, shortly before coastal defences were declared obsolete.[3]

The Plotting Room was not turned over to Parks Canada until 1966 because of the presence of an operational telephone terminal board in the exchange room, belonging to the Department of National Defence. This board still exists in operational condition, and access to it is restricted. The plotter was returned in 1975 from storage at the Canadian Artillery Museum, Shilo, Manitoba, loaned for use in the historical interpretation of the building.

Only one other fortress plotter is known to have been used in Canada -- that of the Fire Command Post at York Redoubt National Historic Site, Halifax Defence Complex (see FHBRO Report No. 95-01, Volume III).[4] That multi-purpose two-storey building, also begun in 1940 and with its plotting room located nearby and underground, is not presently used or open to the

public.

ARCHITECTURE

This roughly L-shaped concrete building was designed to be as inconspicuous as possible, with its overburden of dirt and sod, and walls disguised by rocks and natural vegetation. Functionally, its main requirements were to be bomb-proof and gas-proof (in the event of a chemical attack), ensuring a secure housing of the fortress range plotter under all conceivable conditions of war. Elaborate provisions were made for sealing the building, such as air-lock entrances and changing areas, and an engine room (accessible only from the outside) for both a de-gassing plant and an air conditioning plant. The de-gassing plant, in a separate room adjacent to the plotting room, was sunk lower in the earth than the rest of the building, having an overburden of about 10 feet. The plotter, installed in the large central room, was bolted to a sound concrete foundation. To resist heavy bombardment, the concrete roof was four-and-a-half feet deep, with steel ribs providing extra strength. The walls were three feet thick. Both roof and walls were backed by dirt and rocks that could absorb concussion.

A comparison of plans dating to 1940 and to 1951 (when the plotting room was converted to an Anti-Aircraft Operations Room), reveals only a change of equipment and a different arrangement of furnishings.[5] The 1940 plan, referring to the structure as Building No. 1030, shows that the design was a product of the "Department of National Defence, Office of D.E.O., Esquimalt." In 1942, it was the 4th Fortress Company, Royal Canadian Engineers, that lined the Lower Battery Plotting Room with Donnaconna Board.[6]

ENVIRONMENT

The Fortress Plotting Room remains camouflaged and protected by its overburden of dirt and rocks as originally, though around 1967, some debris from the east part of the wall (near the entrance) had to be removed for safety reasons. Because of its camouflage, the building does not exert a strong visual presence on the appearance of Fort Rodd Hill, though when it is seen at close range, it uniquely contributes to a total picture of the Fort in all its functions.

Endnotes

1 Ronald Lovatt, Shoot, Shoot, Shoot. A History of the Victoria-Esquimalt Coast Artillery Defences, 1878-1956 (Victoria: Rodd Hill Friends Society, 1993), p. 105.

2 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 64. Though Lovatt refers to the installation of "wood panelling" it is likely the same fibreboard that was observed in a January 1997 site visit.

3 Ibid.

4 Ian Doull, "York Redoubt, Halifax Defence Complex," Parks Canada, FHBRO Report No. 95-01, Vol. 3, pp. 139-40.

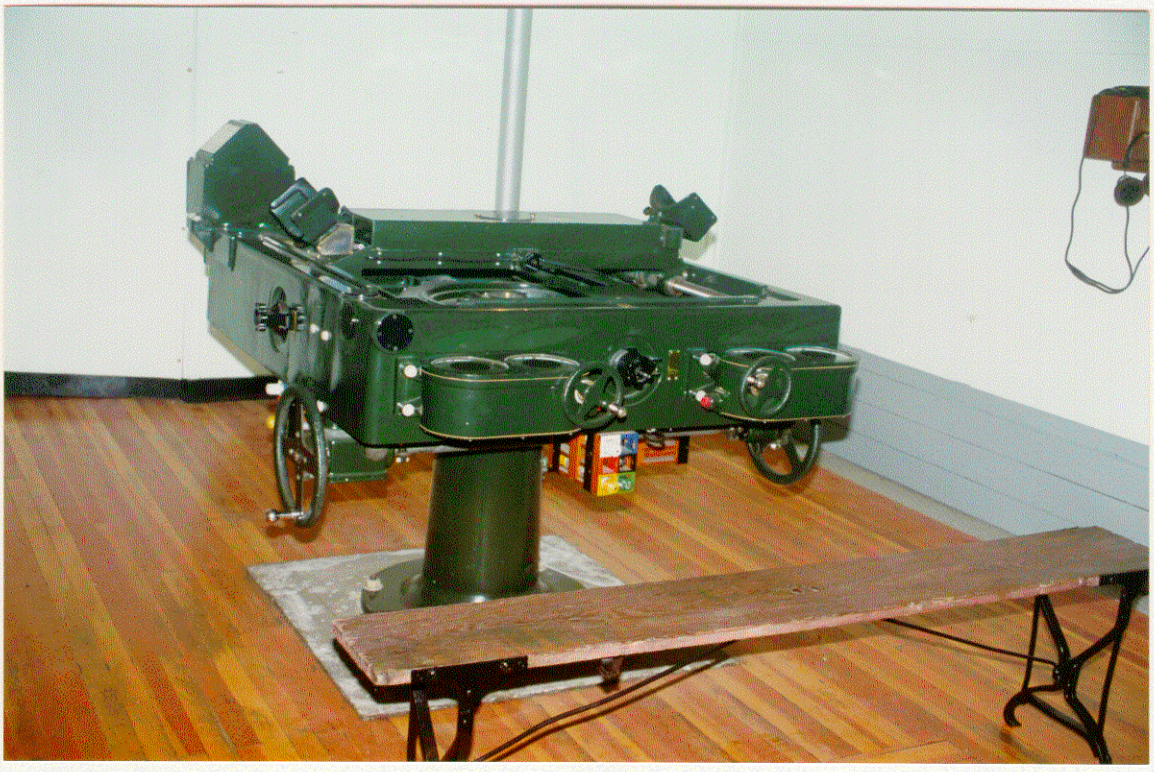
5 Lovatt, MRS #282, Figures 32, 33, pp. 223, 225.

6 Ibid., p. 64.

1 Aerial view of Lower Battery in 1944; arrow points to Fortress Plotting Room. (MRS #210, p. 257.)

2 Fortress Plotting Room, adjacent to Casemate Barracks, Lower Battery; constructed in 1941; designed by Canada, Department of National Defence. (J. Mattie, NHSD-HSB, Parks, 1997.)

3 Entrance to Fortress Plotting Room, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)



4 Plotting instrument (the "Plotter Fortress No. 2 MKI Type HB8 Reg'd. No. 25"), in main plotting room of Fortress Plotting Room, Lower Battery. (J. Mattie, NHSD-HSB, Parks, 1997.)

5 Historical photo (ca. 1943) of large central room where plotter was positioned; Fortress Plotting Room, Lower Battery. (FRH.Photo Collection.)

Three Miscellaneous Support Buildings Outside of the Batteries:

a) Canteen (1900)

HISTORICAL ASSOCIATIONS

Like all canteens, this one was intended for the relaxation of military personnel, having a tap room and a cellar to store beer, spirits and non-alcoholic drinks. Though located close to Lower Battery (just outside the defensible walls; Figures 1, 2), it was for the use of all assigned to Fort Rodd Hill, including reservists participating in the annual summer training camps. These would have been mostly accommodated in tents across the field that the canteen faces.

According to the 1902 Defence Scheme drawn up in Britain, the building was also intended to be adapted to other uses during war-time.[1] In this event, the plan specified that it should be used as a store for emergency rations -- enough to last fourteen days for troops at both Fort Rodd Hill and Colwood (the infantry protective force). Whether this was implemented is not currently known. During the Second World War, the structure may have become an orderly room,[2] though a large temporary building for this purpose was erected immediately in front of it (Figure 3). What is known is that the large tap room was subdivided to provide a separate office for the officer in charge of the orderly unit. Notations on the above-referenced historical photograph suggest that the canteen at this time was being used as a "Men's Mess." Apparently, it continued in this role until 1945.

After the Second World War the building had a variety of uses -- first as a Master Gunners' office, then sporadically as a temporary married quarter during the summer months. For a time in the 1960s, Parks Canada used it as a records office. Throughout all uses, the building was never closely involved with the main theme of active military defence at this fort, though it did serve a useful purpose in catering to the needs of the men stationed here.

ARCHITECTURE

The appearance of this building's facade (Figure 1) is much like that of the guardhouses in Upper and Lower Batteries: long and low, with a simple red verandah extending the whole width, and the type of white paintings around window sills and doorway edges that are distinctive of Fort Rodd Hill buildings, ca. 1898-1905. The footprint is slightly different than the guardhouses however, having an offset rear extension modifying the basic rectangular shape. The current interior layout (Figure 4) reflects its state in 1943, after several previous minor changes (apparently temporary and related to use rather than basic alteration of layout). It includes one large room (Figure 5; currently designated as the billiard room; originally, a tap room); a bar room with a half door, over which drinks were passed; and two other small rooms for use by officers. At one time, one of these rooms was a dry canteen. Entrance to the cellar, which had a good reputation for chilling beer in summer, was either by a trap door in the room currently designated as "NCO's Room" or by an outdoor stairs and doorway. At some point, a small latrine was attached to the back of the building, replacing a separate structure nearby.

ENVIRONMENT

The environment of the Canteen is much like it was before the Second World War period when the temporary Orderly building was set in front of it. The tight positioning of that building suggests that retention of the crossroads intersection in front was important. This road

arrangement is still in place, with one road leading off toward Belmont Battery and the Searchlight Engine Room; another toward Upper Battery, passing the Warrant Officer's House; and the other passing by Lower Battery on the way to the boat jetty on Esquimalt Harbour. The roof-less old latrine exists as a ruin nearby, with vegetation growing over part of it (Figure 6). The proximity of the building to Lower Battery's defensive walls and to the cliff face that defines its north side (note the latrine's position against the cliff in Figure 6) remains a factor in the site's character, as does that of the large open field to the north -- where many military encampments and training drills took place. Because of the open vista across this field and the visual association with Lower Battery at the rear, the Canteen is quite a prominent building at Fort Rodd Hill.

Endnotes

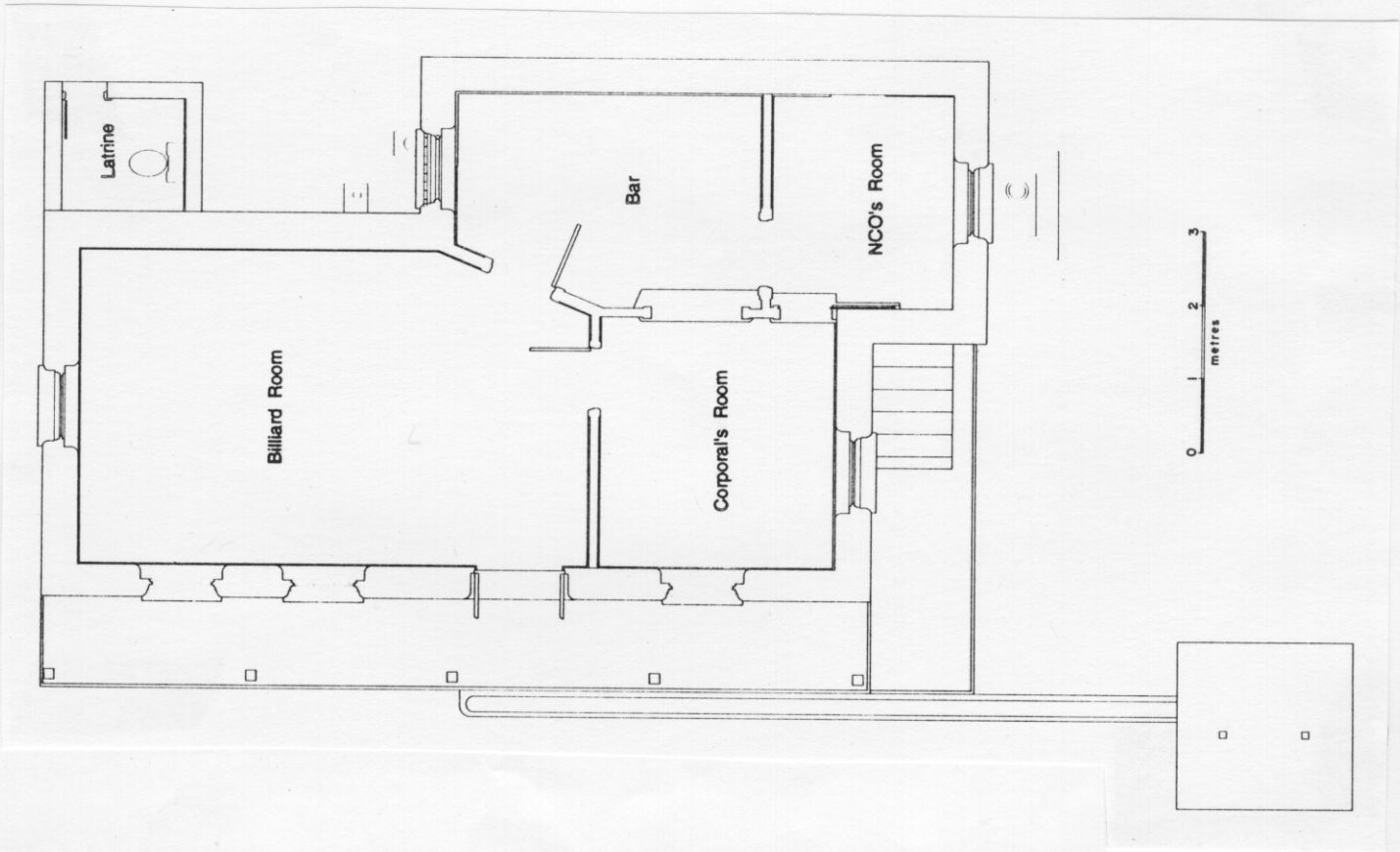
1 Great Britain, Public Record Office. CAB 11 27 7968 "Esquimalt British Columbia Defence Scheme." Revised to January 1901; cited in Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 114.

2 Lovatt, op. cit., p. 115.

1 Canteen, Fort Rodd Hill; constructed in 1900; designed by Royal Engineers. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Canteen, showing its location just outside of Lower Battery, and at edge of field variously used for accommodation tents, and for summer training exercises. (J. Mattie, NHSD-HSB, Parks, 1997.)

3 Photo of Canteen and temporary building (Orderly Room) in front of it during Second World War. (FRH. P. 1238.)



4 Current plan of Canteen, and position of latrine ruin (right). (Fort Rodd Hill, Curatorial and Collection Management Services, 1997.)

5 Canteen interior, main room. (J. Mattie, NHSD-HSB, Parks, 1997.)

6 Ruins of latrine near Canteen. (J. Mattie, NHSD-HSB, Parks, 1997.)

Three Miscellaneous Buildings Outside of the Batteries:

b) Warrant Officer's House (1897)

HISTORICAL ASSOCIATIONS

In its first half century, this building was mainly used to accommodate the officer or caretaker in charge of Fort Rodd Hill, contrary to its original designation as quarters for a Master Gunner and his family. Ranked as Warrant Officers, Master Gunners were highly trained armament stores experts, usually in charge of a group of coast artillery fortifications, such as for all the gun batteries of the Esquimalt-Victoria defences. However, since Fort Rodd Hill was considered a remote location, the Master Gunner for this region usually preferred to operate, instead, from the Work Point Barracks, next to Esquimalt, with regular visits to all the batteries in his charge.[1] During two years of the Second World War, when there was an acute shortage of housing and no alternative presented itself, two Master Gunners did stay here, each for a one year period. Throughout the other six years of the war, the building was an officer's mess. Otherwise, the tenants have included three Brigadiers, one Major, four Generals, and six Sergeants[2] -- most of which had their families with them. For those who could appreciate the advantages of country living, the accommodation and setting was idyllic during peacetime, except for one disadvantage: inhabitants would have to move out for about six weeks each summer, during the annual permanent force camp, when the building was needed as an officer's mess.

ARCHITECTURE

This 1897 house is a simple gable-roofed two-storey structure of red brick, built on a concrete foundation (Figures 1, 2). Though attractive, the proportions and composition of the facade are less than ideal, as the right-hand windows are either cramped-looking (ground floor) or oddly misaligned (placed to light a stairwell, but awkward). Features of aesthetic interest are the segmentally-arched windows and doorways, a corbelling detail in all the window frames (e.g. Figure 3), and the large chimney with its corbelled cap and many flues. The sills of the ground floor windows and the bottom corners of the doorway are treated with the round-edged white paintings familiar on other accommodations buildings at Fort Rodd Hill (said to be for better visibility at night). The layout is typical for the period: three main rooms on each floor (including three bedrooms upstairs), with a bathroom (originally with a dry earth toilet) and courtyard wall appended at the rear (Figure 4). A standard plan prepared by the Royal Engineers was probably used, since a nearly identical design was reproduced in the Warrant Officer's House (1898) at Signal Hill, Esquimalt.[3] The rear addition of that example is treated slightly differently, having only a shed-roofed bathroom (no courtyard wall; Figure 5).

Inside, the house was renovated a number of times, most radically in 1945 when it was turned into an officer's mess. Between 1958 and 1962, it was almost completely wrecked by vandals. In 1966, Parks undertook a major rehabilitation, restoring some features, but

generally creating modern office space. The Fort Rodd Hill administration moved here shortly after, and remained until 1976 when Cavendish house began to be used for this purpose. Since then, the building has provided temporary office space for temporary staff, including the summer guides. The upstairs is also used to store some of the site's collection of historic records, while a small interpretive exhibit is open to the public on the ground floor.

ENVIRONMENT

There has been very little change to the environment of this building since its erection in 1897. The Battery Commander's Post is still on the knoll to the south; there are woods to the rear; and the large field where military drills and encampments took place is to the east, across a winding road (running between the three batteries), which the house immediately fronts (Figure 6). The biggest change came in 1939 with the introduction of a Second World War hut to the north (see Figure 2, next report). Since this later building is one of the few remnants from that period, which was important to the history of Fort Rodd Hill, it enhances rather than detracts from the value of the site. The Warrant Officer's Quarters would be quite well known to Park visitors since it is beside the restrooms (in the Second World War hut), and it is on the roadway that must be walked to view all the Fort Rodd Hill elements below Upper Battery, as well as Fisgard Lighthouse.

Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 79.

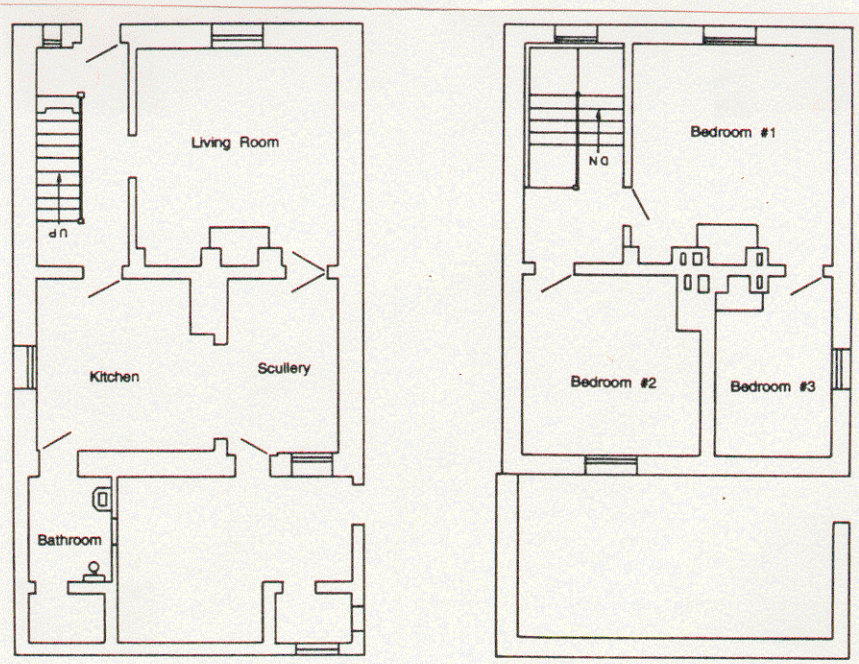
2 Ibid., p. 80. This reference includes a list of all the occupants between 1899 and 1948.

3 See Ian Doull, "Signal Hill, CFB Esquimalt (10 Buildings)," FHBRO Report #89-203.

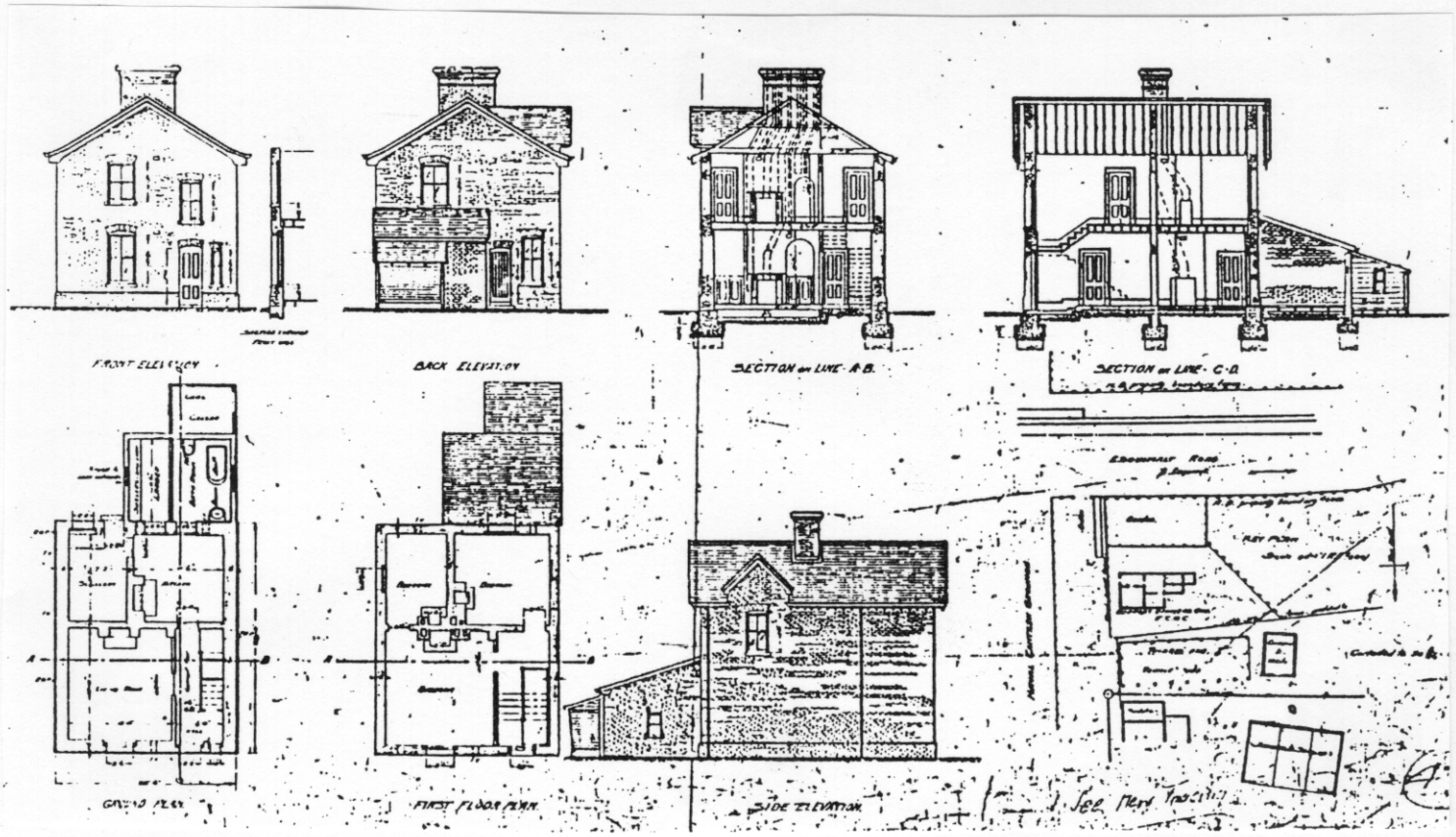
1 Warrant Officer's House; constructed in 1897; designed by Royal Engineers; front view. (J. Mattie, NHSD-HSB, Parks, 1997.)

2 Warrant Officer's House, rear view. (J. Mattie, NHSD-HSB, Parks, 1997.)

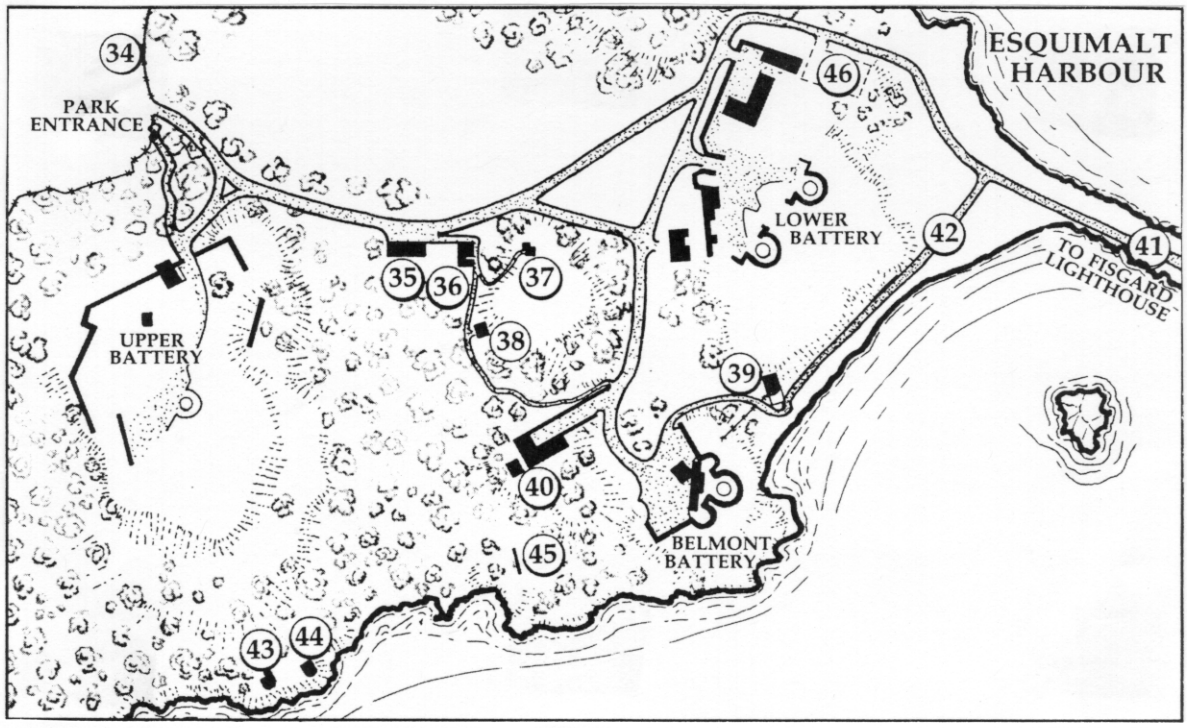
3 Detail of front entrance and window on right side. (J. Mattie, NHSD-HSB, Parks, 1997.)



4 Plan of Warrant Officer's House, first and second floors. (Fort Rodd Hill, Curatorial and Collection Management Services, 1997.)



5 Record plan of Warrant Officers Quarters, Signal Hill, CFB Esquimalt, British Columbia. (reproduced from FHBRO Report #89-203.)



6 Map of Fort Rodd Hill showing location of Warrant Officer's House (No. 36). (Fort Rodd Hill, Catalogue of Features [brochure].)

Three Miscellaneous Buildings Outside of the Batteries:

c) Second World War Hut (1939)

HISTORICAL ASSOCIATIONS

The last remaining Second World War hut at Fort Rodd Hill, where once there had been about 35 examples, this building was erected in 1939 as an officers' quarters.[1] Other huts here had been for stores of various sorts, recreation, ablutions, accommodations, and other purposes, mostly related to the personnel who manned the base, or were quartered here while on duty elsewhere.[2] After the Second World War, this example accommodated the single men of one out-fort detachment stationed at Fort Rodd Hill, and by 1958 it had become a caretaker's quarters, as the fort by then was practically abandoned. At that time, it contained a kitchen, a dining room, two bedrooms and a living room. After Fort Rodd Hill was taken over by Parks, the hut was converted to a services building, complementing the administration quarters in the Warrant Officer's house next door (both visible in Figure 2). Rooms were assigned for use by a commissionaire and the park superintendent, and for the registration function of collections management. Today, the greater part of the building is devoted to public restrooms.

Thousands of temporary huts were erected across Canada by the Department of National Defence during the Second World War, as accommodations for Canadian and Allied troops. As Parks historian Kate McFarlane has pointed out, ". . . they have come to symbolize base life for the thousands of servicemen and women who have slept, eaten, and trained in them throughout the years" and they "met Canada's vast wartime accommodation requirements with speed, efficiency, and economy."[3]

ARCHITECTURE

At about 11 metres long, rectangular, and with a gable roof (Figure 2), this is one of the smaller examples of a Second World War hut. The basic construction is wood frame set on a concrete foundation. Three gabled entrance porches and three windows on the facade give it some aesthetic appeal, as does the colour scheme of white clapboard walls, green trim and red roofs.

Though very simple, military huts of this type are considered to have been a success story because of their low expense, utility and longevity, with many remaining in good condition well past their anticipated life spans, due to sound construction. The type was also significant for employing techniques such as standardization of plans, prefabrication and assembly-line production.[4] Some huts were much larger than the one remaining at Fort Rodd Hill, having up to three stories, and in numerous modular configurations -- in the shapes of L, T, E, etc., with H being the most popular for troop accommodation.

ENVIRONMENT

This Second World War hut shares virtually the same environment to that of the Warrant Officer's Quarters next door: frontage on the road that links the batteries and other buildings of Fort Rodd Hill, a view across the field where many military practices and encampments have taken place, and rough, treed terrain behind (Figure 1). The 1944 map of Fort Rodd Hill plotting other extant and new buildings erected at that time, shows only one small structure across the street from this location, now gone. Otherwise, the temporary hutted buildings were well dispersed, with some concentration on the far side of the field. Because this building serves as

the only restroom for the park today, it has considerable landmark value, and in any case, it is on the path that visitors must take to reach all the buildings below Upper Battery, as well as the beach and Fisgard Lighthouse.

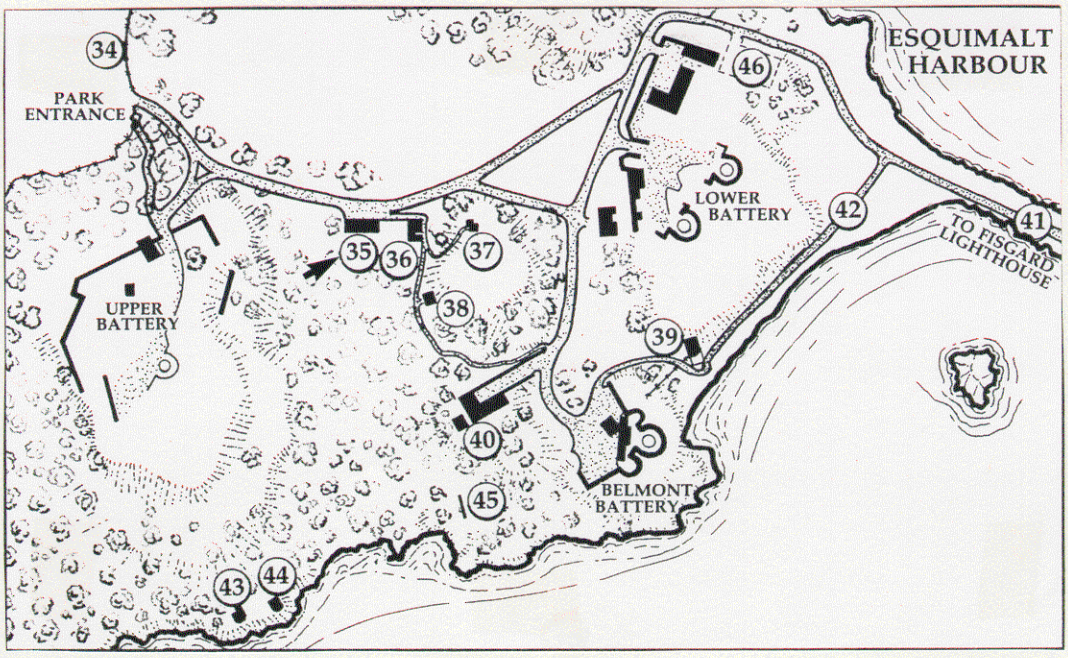
Endnotes

1 Ronald Lovatt, Fort Rodd Hill. Historic Resource Study, Parks Canada Manuscript Report Number 282 (Ottawa: Parks Canada, 1978), p. 127.

2 Ibid., Figure 47, p. 253. The 1944 map illustrated in this Figure shows each hut and its location, along with a key indicating its purpose.

3 Kate McFarlane, draft report on Second World War temporary buildings, Parks Canada Headquarters, 1993.

4 Ibid.



1 Map of Fort Rodd Hill showing location of Second World War Hut (No. 35); (Fort Rodd Hill, Catalogue of Features [brochure].)

2 Second World War Hut (now public restrooms); constructed ca. 1939. (J. Mattie, NHSD-HSB, Parks, 1997.)