Hənʎəmdᶻi Məkola
Yorke Island Conservancy

As-found Survey and Condition Assessment

March 2018

HERITAGEWORKS

As-Found Survey & Condition Assessment

Yorke Island Conservancy

Aerial photograph of Yorke Island (enlarged section), 15 May 1943, BC Provincial Archives

Submitted by Heritageworks Ltd.

In collaboration with Denise Cook Design

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British Columbia Heritage Branch

The Vancouver Artillery Association

BCParks

Canada 150 1867-2017

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1.0 Introduction

During the summer of 2017 a team from Heritageworks visited the Yorke Island Conservancy to perform a condition assessment of the buildings and modified landscape at Yorke Island. Yorke Island is the largest island within the 39-hectare Yorke Island Conservancy that also includes Clarence Island, Fanny Island and the Artillery Islets. The Conservancy, which is managed by BC Parks, was established in 2007 and it lies 68 km northwest of Campbell River at the confluence of Johnstone Strait and Sunderland Channel. The island is uninhabited, and access is challenging.

Yorke Island contains significant engineering works related to the period of occupation by the Canadian military from 1937-1946, when the island served an important role in the Harbour Defense of Vancouver. The human-engineered landscape includes roads, landings, service infrastructure, fortifications and other such constructions related to Coast defense.

Over the course of three visits, collectively representing eight days of on-site assessment (twenty-two person-days), the team used a wide range of investigative techniques and non-destructive technologies to interrogate the built environment of Yorke Island and to record as-found conditions. This report summarizes the current condition of the buildings and outlines the principal decay mechanisms that are active on the site. This information is presented in a prioritized format that is intended to inform the subsequent Implementation Plan and the Maintenance Plan for Yorke Island.

The As-Found Survey and Condition Assessment should be read in conjunction with the Conservation Plan (CP) for Yorke Island. It does not seek to duplicate information that is contained in the CP except where necessary to contextualise the relative significance of a particular object or place for the purpose of recommending priorities for repair interventions. The complete suite of planning documents consists of the following:

- Heritage Conservation Plan;
- Condition Assessment & Record Drawings;
- Implementation Plan;
- Maintenance & Monitoring Plan;
- BC Parks Management Plan.

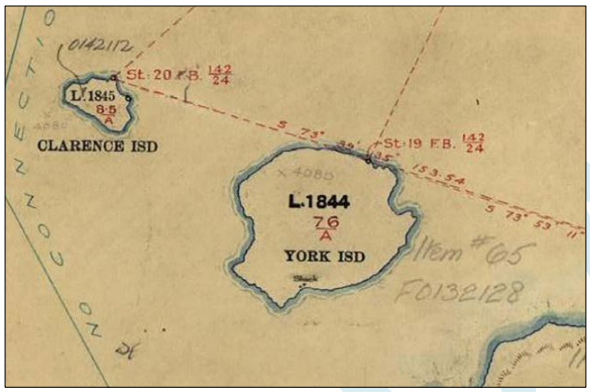
These technical documents are intended to provide guidance to BC Parks to assist them in operational decision making related to heritage conservation at the site, and to inform the BC Parks management plan for Yorke Island, which will provide additional context and considerations around implementation in the broader context of conservancy management.

Heritageworks Ltd. is an international heritage company based on Vancouver Island, in British Columbia, Canada. We work both locally and internationally to assess and conserve historic buildings, monuments and objects/artefacts. We are comprised of craftspeople, conservators, archaeologists, architects, engineers and conservation practitioners. Together we have a broad international experience of vernacular buildings, traditional building materials and the craft skills necessary to shape them.

2.0 Project Background and Scope of Assessment

The as-found survey and condition assessment of heritage assets at Yorke Island form parts of a larger project that aims to use the unique situation and circumstances of Yorke Island as an opportunity to create a working model for the management of heritage and cultural landscapes in BC Parks. It is intended that the successfully-delivered Yorke Island project will become a case study for a standardized, strategic approach to managing heritage resources in provincial parks and protected areas throughout the province of B.C.

Yorke Island Conservancy is situated in the traditional territories of the Tlowitsis We Wai Kai, Kwiakah, We Wai Kum and Xwemalhkwu nations. While it is likely that Clarence Island was used for indigenous cultural practices, there are no documented pre-contact archaeological sites on Yorke Island which was the principle object of our investigation.



The island was pre-empted in 1925 when a small area was cleared for the construction of a shack/cabin. These modest structures were the only identified buildings on the island when the Treatt Report was created in 1936 as a review of coastal defenses. The report highlighted the strategic advantage of Yorke Island for the defense of Vancouver, and recommended that it should be armed for this purpose.

The scope of our investigation was principally related to the structures dating from the period of military occupation between 1937 when construction of the battery was commenced, and the closure of the fort in 1945. At the end of the war the battery went into a period of 'care and maintenance' under a resident caretaker, until it was finally decommissioned sometime between 1952 and 1956. It was at this time the guns were removed and the island was abandoned.

Of the nearly sixty structures that were constructed at Yorke Island between 1937 and 1945, only twenty-six of these were scheduled 'to remain' in Department of National Defence drawings from 1945, while the rest were 'to be disposed of by War Assets' [1]. Seventeen of these structures survive today.

[1] Department of National Defense Drawing No S-2053-1, Yorke Island Battery, January 1945

3.0 Site Dates, Conditions & Focus

Mobilization 1, 3-5 July 2017 –Daytime temperatures fluctuated during the survey period from +10 to +20 degrees centigrade. Weather was fair-good with northwesterly winds of 15-30 knots. The survey performed during this mobilization was focused on the area of the Battery Complex, sometimes known as 'the fort'. These buildings included:

- Battery Observation Post;
- No 1 & No 2 Guns (and their Shelters);
- 6-Pounder Emplacement;
- Browning Emplacement;
- War Shelter (and Ammunition Passage);
- New Magazine (and Ammunition Passage);
- Oil Store;
- Laundry;
- Old Magazine;
- Gun Stores & Workshop;
- Machine Gun Stores;
- Slit Trenches (associated with the fort);
- Perimeter Fence & Gate.

Mobilization 2, 15-18 August 2017 –Daytime temperatures fluctuated during the survey period from +2 to +12 degrees centigrade. Weather was fair with northwesterly winds of 20-30 knots. The survey performed during this mobilization was focused on perimeter, camp and other outlying areas. The field party included engineer Robin Zirnhelt, P. Eng. The buildings surveyed included:

- No 1, No 2 & No 3 Searchlights;
- Sunderland Post;
- Courtenay Post;
- Gunner's Post;
- Generator Shed & Power Plant;
- Latrines;
- Water Tank (50,000 gal. fresh water);
- Officer's Mess;
- Wireless Telegraph Station;
- Gymnsasium;
- Bofors Anti-Aircraft Platform;
- Service Trenches;
- Roads, Landings & Footpaths;
- Slit Trenches & Small Fortifications (associated with the lights and listening posts).

Mobilization 3, 20 October 2017 –Temperature +5 degrees centigrade. Weather was fair with light northwesterly winds and light rain. The purpose of the mobilization was to provide hands-on training for BC Parks volunteers. The field event was held in conjunction with presentations and round-table discussions of the vision for Yorke Island at the community of Sayward.

Mobilization 4, 20 November 2017 –Temperature +1 degrees centigrade. Weather was fair and calm. The purpose of this mobilization was to brief members of 192 Construction Engineering Flight (CEF) Aldergrove and 191 CEF Comox and to provide an overview of critical repairs to the Gun Shelters for consideration of a volunteer event in 2018.

Mobilization 5, 15 December 2017 –Temperature +2 degrees centigrade. Weather was fair with northwesterly winds of 30+ knots. The survey team made a detailed inspection and documentation of the structural steel frames and plastic armor of the Gun Shelters in preparation for a volunteer event during 2018 with specialists from 191/192 CEF.

4.0 Assessment Methods & Equipment

A range of investigative methods were used to generate a good overall understanding of the condition of the various buildings at the site. These included:

- Visual inspection and acoustic sampling;
- Moisture profiling with Delmhorst RDM3 hammer-probe type moisture meter;
- Resistography with IML F500 resistograph;
- Documentation by measured drawing;
- Survey with total station theodolite and integrated EDM using a Topcon gPT-7003i;
- Survey with RTK GPS Hemisphere 320;
- Aerial photography with 3DR Solo UAV and GoPro HERO5 camera;
- Laser scanning with Faro Focus 3D 330;
- Concrete scanning with Hilti PS200S Ferroscan;
- Digital photography using a variety of handheld cameras;
- Measured drawings and sketches;
- Review and analysis of historic documents and images.

The purpose of these investigations was to document the current (as-found) conditions on site and to record the following:

- Construction characteristics including overall dimensions;
- Building chronology to distinguish between earlier and later parts of the buildings;
- Typical defects and decay-mechanisms;
- Specific damage;
- Unique features;
- Identify potentially hazardous materials;
- Types of building materials and the sorts of craft technologies that were used to shape them.

The assessment also included a structural review by consulting professional engineer Robin Zirnhelt, P.Eng. of ISL Engineering Ltd. This review focused on identifying any structural issues that may represent a risk to life safety, and/or safety of the buildings themselves. Where issues were identified, discussions were had both on-site and off-site to explore potential repair solutions, and these are included in this report.

5.0 Summary of Historic Construction Types

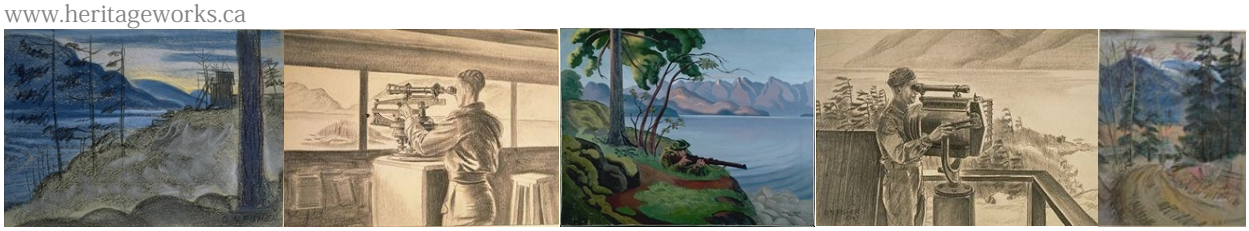
The buildings that were critical to the operation of the battery were clearly given the priority in terms of design and construction resources, while auxiliary buildings such as those serving camp and administration purposes were typically lightweight. With very few exceptions the operational buildings were made from brick or concrete while the auxiliary buildings were wood-framed.

The auxiliary buildings were simply-made from locally-available materials, with very few specially imported components such as door hardware, window sashes and woodstoves. Typically these were clad in either shiplap or tar-paper with battens, and fitted with site-made joinery and doors. Unlike the more robust service buildings that required expert builders, the camp and administrative buildings could have been hastily put together with a less-skilled workforce.

Examples of simple camp buildings made from locally-available materials. Note the site-made doors.

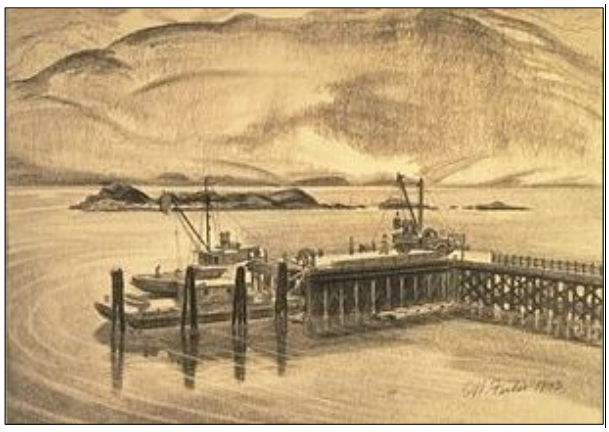
Many of these simple buildings remained throughout the course of the war. In some cases the buildings were upgraded with shake roofs, and supplemented with gardens and other modest embellishments. In one instance, an enthusiastic resident painted his tarpaper shack with a mural to mimic a log building on stone foundations!

Vegetable and flower gardens in the camp area.



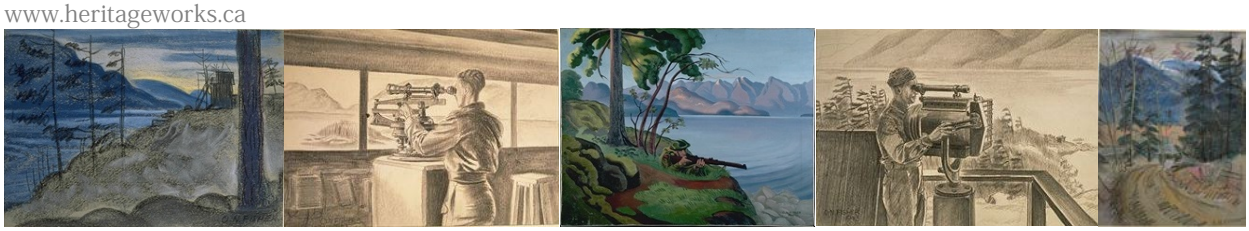
Tarpaper-clad building painted to mimic logs on a stone foundation. Note the bordered flower gardens

The lifeline of the Yorke Island defenses was the dock on the southern (predominantly leeward) side of the island. It was from here that men, construction materials, ammunition and other supplies could be transferred from boats onto shore, and then distributed to various parts of the island by truck and tractor.




A network of wooden 'duckboards' and boardwalks was constructed to combat the muddy conditions on site and facilitate the use of wheelbarrows and sack trollies. These elevated wooden trails connected most parts of the camp and extended in all directions from the dock.


Elevated wooden boardwalks (duckboards) around the jetty and extending into camp.




Mud features prominently in the images of Yorke Island, and gumboots were a practical concession to the local conditions that appears to have been adopted by both officers and men during winter months.

The simple construction of the NCO's Office (center) is in clear contrast to the concrete construction of the Old Magazine (left) and the brick-made Gun Stores & Workshops (right). Note the shakes on the roof of the NCO's Office.

Most of these light-framed buildings are gone now, but there are enough examples surviving on site to indicate how they were constructed. The best examples of these are near the Camp Power Plant.


Left *– Machinery Shed near Power Plant.* ***Right*** *– Storage Locker near Power Plant.*

These buildings teach us that the predominant framing materials were rough-sawn, full-dimension, Douglas-fir timbers and boards, with shiplap or butt-jointed plank floors and siding. These materials were locally available and in good supply. Boards were preferred over sheet goods for structural purposes, while roll goods such as bitumen impregnated felt and tar paper were preferred for cladding and roofing. Concrete was used sparingly for the larger structures, and most of the auxiliary buildings sat directly on timber bearers.

Electricity was supplied via aerial (strung between trees) and buried services to most (if not all) auxiliary buildings, and all of the service buildings including the listening posts. The wiring was utilitarian and generally surface-mounted. Galvanized metal conduits were used in the service buildings (sometimes cast in place), while insulated wire with ceramic insulators was used for most auxiliary buildings. In some cases these were later concealed behind interior finishes.

The interiors of the buildings were finished to various standards depending on their status and use. Administrative buildings adopted a standard 3x color paint scheme, and service buildings were painted in variations of this.


Left – *Standard 3x color scheme for Administrative Buildings.*
Right – *Variation of colors at Power Plant.*

Many of the camp buildings were left unfinished and unpainted. In some instances however, walls and ceilings were clad internally with ½-in 'Buffalo Board', a lightweight material made from wood fiber that was common at the time. Examples of this material can be found in the Power Plant and Wireless Telegraph Station buildings. In some cases ¼-in hardboard was also used, and examples of this material can be found in the Machine Gun Store.

The war diaries indicate that equipment and equipment operators from local logging companies were employed to work on Yorke Island under temporary contracts. Likewise, local fishing boats were used to provision the island. It seems reasonable to assume that local carpenters were similarly employed to carry out construction of the camp and other auxiliary buildings. These buildings are made using materials, tools and methods that exactly match coastal railway and logging camp construction of that period.

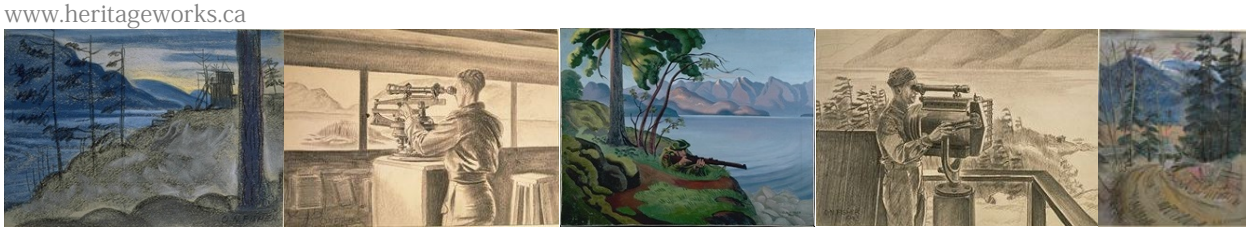
Wall framing being set out by civilian carpenters on a new floor for a building (possibly one of the two Section Huts) at the Camp. Note the floor beams are laid over timber stub-posts and bearers set on grade.

The gymnasium is a unique example of a prefabricated heavy-timber building that was probably made off-site and then transported to the island as a kit of parts. It consists of dry-laminated 2-in timber stock connected with split-ring and shear-plate connectors.

Right *– Tarpaper cladding being applied over 1x8 butt-joint sheathing, from a simple wood scaffold made from rough-sawn 2x4's and 1x6 shiplap.*

The listening posts appear to be the only true log-built structures on the island. Enough remains of Sunderland Post and Courtenay Bay Post to see that these were identically made and asymmetrically shaped structures. It is unclear how the Gunner's post was made, but it was likely of similar construction. Of the three posts, Sunderland is in the best condition.

The infrastructure that underpins the camp and battery was as thoughtfully designed and robustly made as the service buildings. The most dramatic examples are the deep rock cuts that were made to facilitate the buried electrical services that powered the lights (the construction of these service corridors was a major undertaking; at least equal to the effort required to establishing the gun emplacements). The 50,000 gallon, freshwater reservoir made from concrete is another example of this investment in island infrastructure. Similarly, the fire suppression system and network of pressurized hydrants that were fed from the 10,000 gallon saltwater reservoir was another major construction initiative.




Left – *The 10,000 gallon saltwater reservoir for fire suppression.*
Right *- 'Cat-skidding' a load of building materials up one of the haul roads.*

The most substantially-made service buildings include the lights, magazines, gun emplacements and Fire Command Post. These are robust, brick, concrete and steel constructions that are built to withstand bombardment and aerial attack. These buildings are much better-detailed and more thoughtfully organized, representing designs that were created by military engineers. It's clear that it took a great deal of effort to accommodate the imposition of these standardized building designs on the irregular and often unforgiving local landscape; but this was achieved without compromise. The quality of workmanship associated with these buildings is very high.

The development of Yorke Island corresponds directly with the progression of Canada's role in the Second World War. The growth of infrastructure and evolution of buildings on the island can best be understood in this historical context:

10 Sep 1939 – Canada declares war on Germany;

10 Dec 1939 – First Canadian troops sail for Britain;

11 Apr 1940 – Vancouver Shipyards begin construction of minesweepers and corvettes for battle in the Atlantic;

21 Jun 1940 – Parliament passes the Conscription Act;

7 Dec 1941 – Japan attacks Pearl Harbor;

18-24 Dec 1941 – Japanese submarines harry US merchant shipping along California coast, attacking eight ships and sinking two;

13 Jan 1942 – Order-in-Council authorizes internments of Japanese Canadians;

7 Jun 1942 – US Freighter torpedoed by Japanese submarine off Cape Flattery, near the entrance to the Strait of Juan de Fuca;

20 Jun 1942 – Japanese submarine shells Estavan Point lighthouse;

07 May 1945 – Germany surrenders to the Allies;

02 Sep 1945 – Japan surrenders to the Allies

6.0 Building Chronology

In 1937 the Canadian government announced its national defence policy to ensure the security of coasts, seaports and railway terminals. The plans, which called for 'fixed,' or permanent, defences (as opposed to fieldworks that are considered temporary in nature) were based on a comprehensive field study of defense needs on both coasts by Major B. C. D. Treatt MC RA.

Treatt's *Ultimate Plan* as it became known, called for the installation of batteries both for counter-bombardment and close defence at Esquimalt, Vancouver and Prince Rupert, as well as a small battery at Yorke Island in the Johnstone Strait to defend the Inside Passage to Vancouver, 150 miles to the south.

Treatt's plan also envisaged Defence Electric Lights (searchlights operated by Coast Artillery soldiers) to allow the batteries to be fought at night, obstacles such as submerged explosive mines and nets, and a modern system of communication, range-finding and fire control.

Treatt's plan saw Yorke Island set up in a naval examination role whereby it would support the Examination Service who identified and controlled vessels approaching from the north, and, in the event of hostile action, delay them with heavy artillery while conveying information of an attack to a naval striking force in Puget Sound or the Strait of Georgia.

In general, incoming warships were challenged and cleared by the Port War Signal Station (PWSS) manned by the Royal Canadian Navy with the Selected Military Officer transmitting the necessary orders to the battery. The PWSS was supported by an examination vessel. Suspicious vessels were ordered to an examination anchorage under the guns of the examination battery.

In this context, the first phase of coast artillery defence on Yorke Island can be characterised as the '**examination battery period**.'

The examination battery was constructed to the highest specifications of the time, but was ultimately temporarily armed with old naval guns due to the long delivery times for new weapons from Britain. This policy was applied on the east and west coasts and became known as the *Interim Plan*. Interim measures were designed to minimise work needed to realise the Ultimate Plan. The Interim Plan at Yorke is less of a construction phase, than an interesting sub-theme within the initial phase.

In October 1940 an inspection of the defences noted the deficiency of adequate lights and supply of ammunition at Yorke Island.

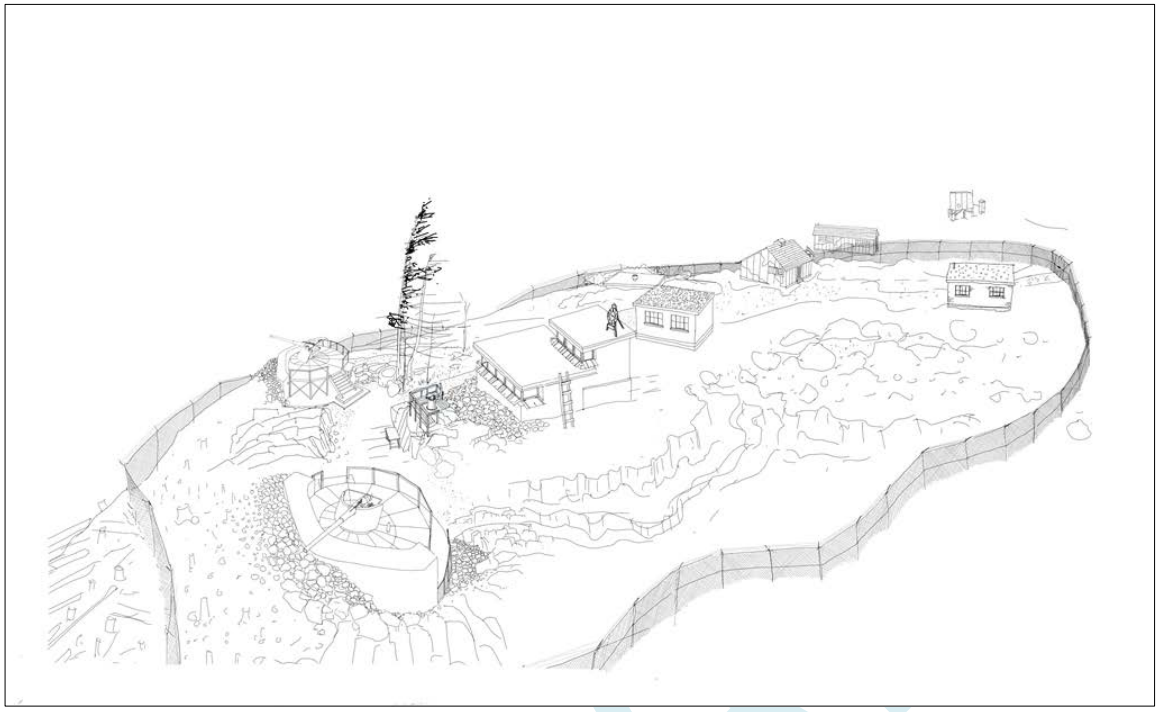
Following an inspection of the defences by Colonel J. H. Cunningham, US Army, 14 Coast Artillery, Harbour Defence of Puget Sound, and colonel C. V. Bishop, Officer Commanding Victoria-Esquimalt Fortress Area on 11 June 1941, a recommendation was made to adapt Yorke Island to a counter bombardment role thereby closing Johnstone Strait to an enemy rather than maintain a striking force to the south.

The economy of this strategy appealed to the Joint Services Committee Pacific Coast which, in April 1942, ordered that the two 4.7 inch guns be swapped with the 6 inch calibre guns at Stanley Park. This involved alterations and improvements at the battery

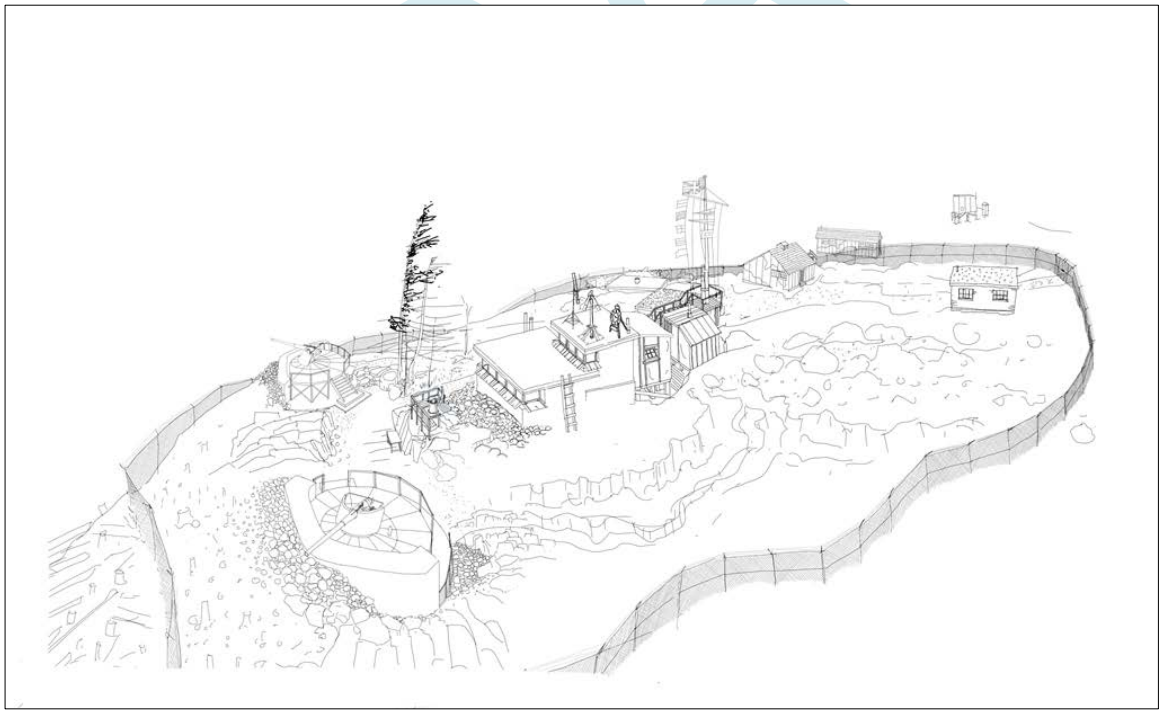
In this context, the second phase of coast artillery defence on Yorke Island can be characterised as the '**counter-bombardment battery period**.'

NB: A detailed chronology of Yorke Island is included in the Conservation Plan.

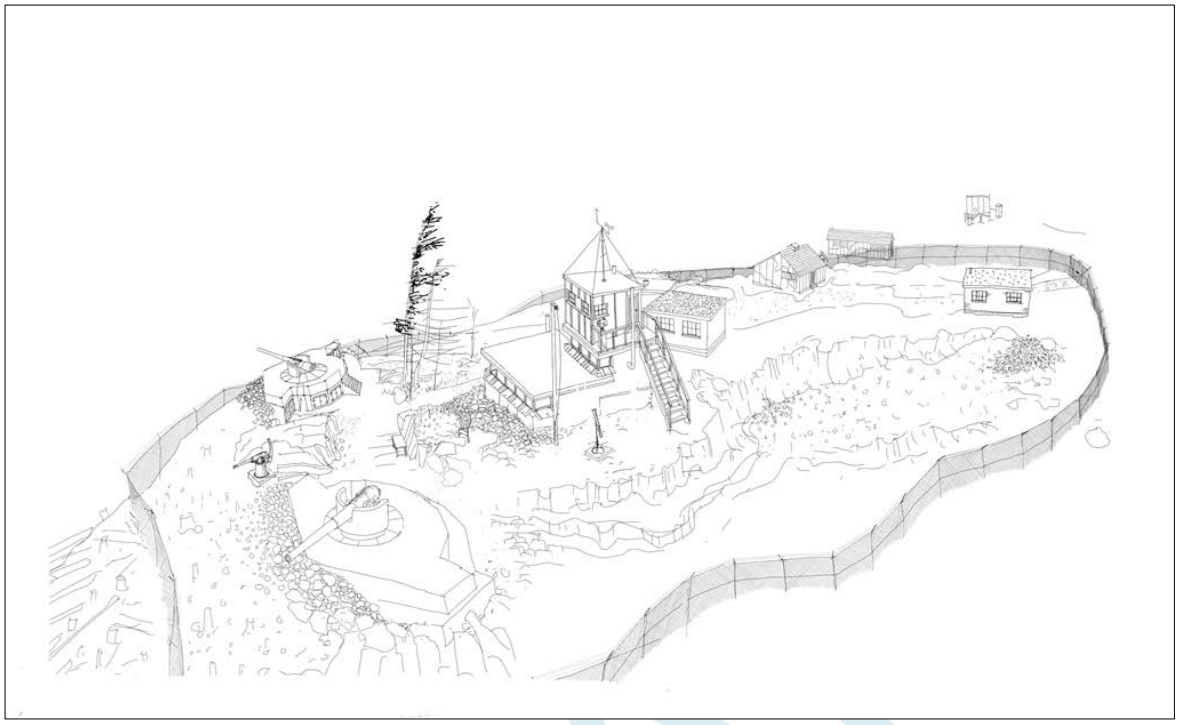
6.1 Evolution of the Battery Complex



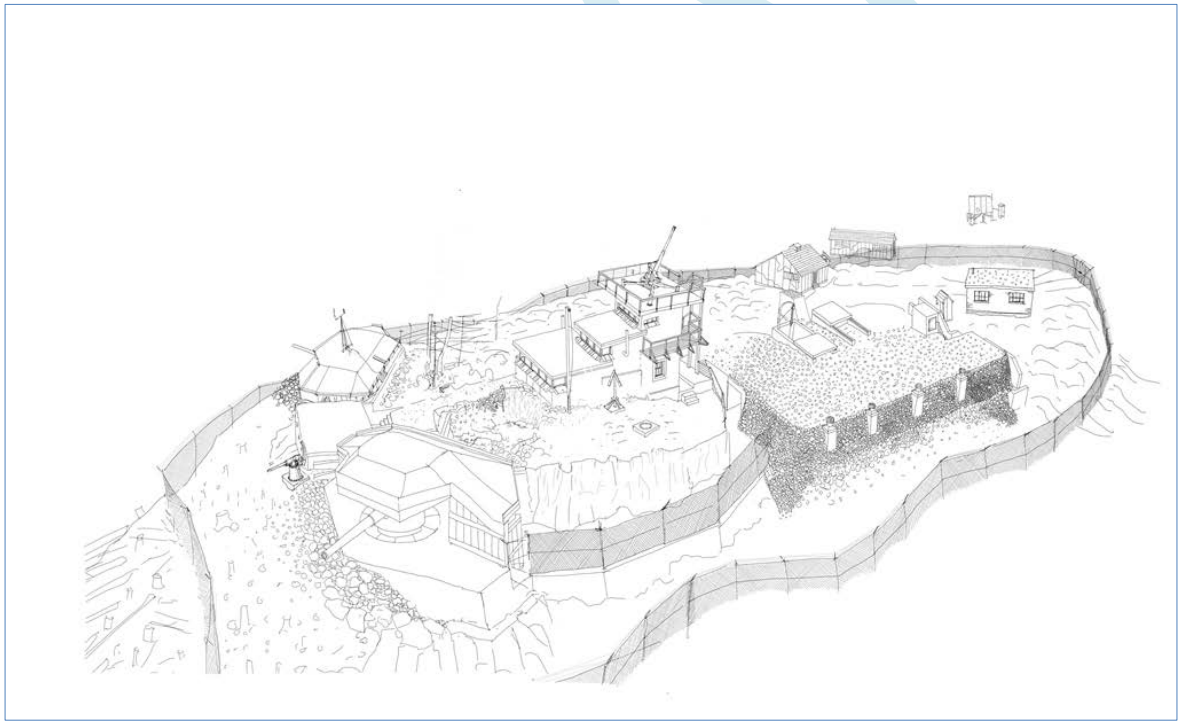
1938 Layout, Sketch by R. Linzey



1939 Layout, Sketch by R. Linzey



1943 Layout, Sketch by R. Linzey



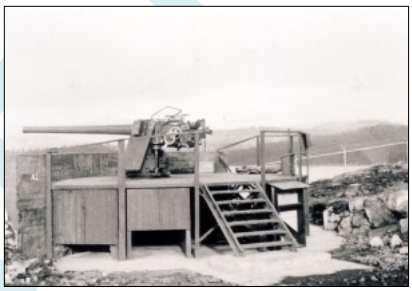
1943b Layout, Sketch by R. Linzey

6.2 Chronology of the Guns



Left *- Image likely shows the test firing of the 4.7 in QF gun in emplacement A1, sometime around 4 Sept 1939*
Center *– Close up of the 4.7 in QF gun of First World War vintage in emplacement A1. Note the naval signal station semaphore on the roof of the searchlight directing station.*
Right *- A1 emplacement seen from the searchlight directing station. Note the concrete has been painted to resemble the rock rubble surrounding the apron.*

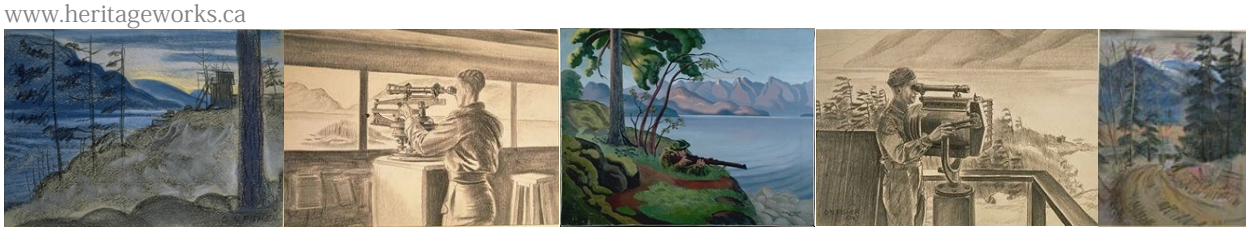


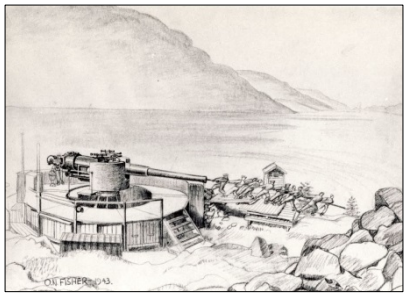
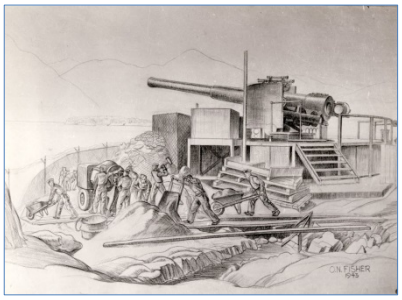


Left *– A1 emplacement showing the 4.7in QF equipment elevated for high-angle (greater range) fire.*
Center *- The painted rock camouflage is evident in this early view of emplacement A1.*
Right*– A1 emplacement sometime after the previous image. Note the adaptation of the handrail to accommodate the traversing of the barrel and the rudimentary wooden expense lockers.*



Left *– As the risk of aerial attack grew, naturalistic camouflage was employed to hide the battery.*
Center *– The 4.7in gun in A2 emplacement. Note the ammunition of coast artillery comprising separate shell and cartridge that would never meet until they reached the breech of the weapon.*
Right *- After Pearl Harbour, the battery was converted to its counter-bombardment role with irreverent haste. The new weapons were mounted long before the rest of the battery infrastructure could catch up.*



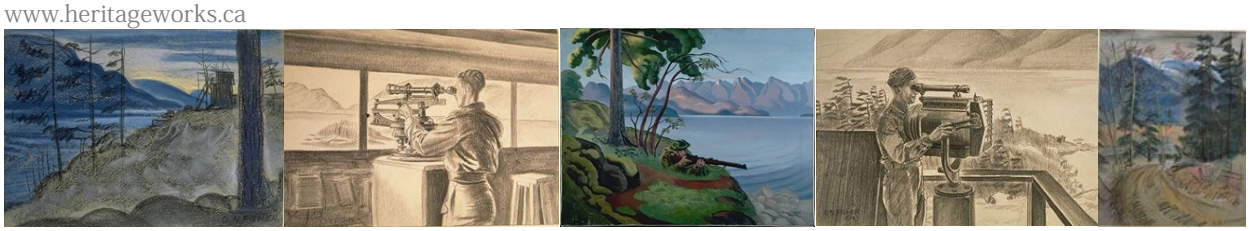




Left *– Orville Fisher's sketch of 1943 illustrates the makeshift arrangements for gun drill after the installation of 6 in guns in the old 4.7in emplacements.*
Center *– Orville Fisher's 1943 sketch captures the activity as the new 6 in guns from Stanley Park were mounted and the work to build suitable magazine stores for the counter-bombardment battery were underway.*
Right *- Likely emplacement A2. Note loop-holed wall of War Shelter and tarped QF Gun.*



Left – *Emplacement A1 seen from A2. Note the disruption pattern painted on the plastic armour designed to blend in with the tree line when seen from the sea below.*
Center – *Likely emplacement A2 showing ready use ammunition 'expense lockers' for shell and cartridge.*
Right – *Likely emplacement A2. Note chalked 'tally' of ammunition on back of plastic armour.*


Left – *Inside A2. Note telephone for communication with Battery Observation Post. Also note range and bearing dials on gun mount.*
Center – *The overhead protection against aerial strafing of emplacement A1. Note that the weather station, formerly located on the port war Signal Station now resides on the roof of the cover structure. It is suggested that while the intention had been to place rocks on the overhead protection as naturalistic camouflage, this was never executed because the shock of the firing would have dislodged the rocks and caused nuisance to the crew below.*

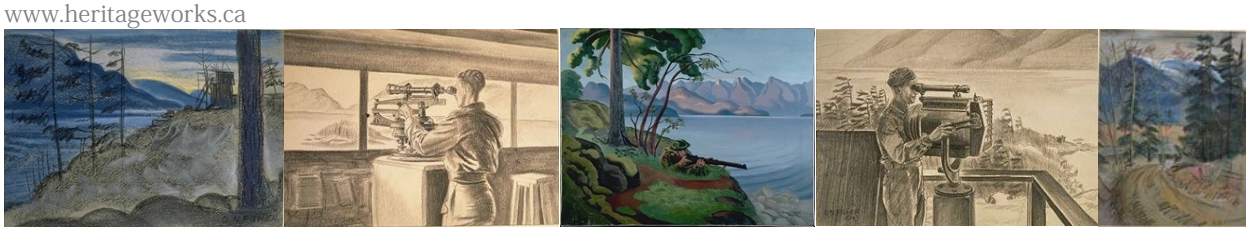


6.3 Chronology of the Fire Command Post (aka Battery Observation Post, or 'BOP')

Left – *The Searchlight Directing Station with Battery Observation Post below as they first looked in 1938. Note the range clock that was used to communicate with the battery in the event that telephone wires were cut. The clock indicates whether shot is 'short'; or 'long' and by how many yards based on observation of shell splashes from the Battery Observation Post.*
Center – *The men of the Fire Commanders Post gather at the door of the Searchlight Directing Station. Note the stock of a 50mm Browning SMG on the roof for rudimentary anti-aircraft defence.*
Right – *Battery Observation Post - note the Aldis lamp signaller at open window; Searchlight directing station, and on the roof, the elements of the naval signal station for the examination service. On the roof from left to right are: Browning SMG, semaphore, range dial, signal mast, and behind, the naval signalmens' quarters.*

Left – *The signal station seen from the signal flag platform.*
Center – *Typical scene inside the Battery Observation Post. The device in the forground is an M1910 Azimuth Scope for initial laying instrctions.*
Right – *The rear of the Battery Observation Post - note the depression position finder base on the right and the time of flight indicator on the wall that rang a bell just prior to impact to allow for fall of shot observation.*

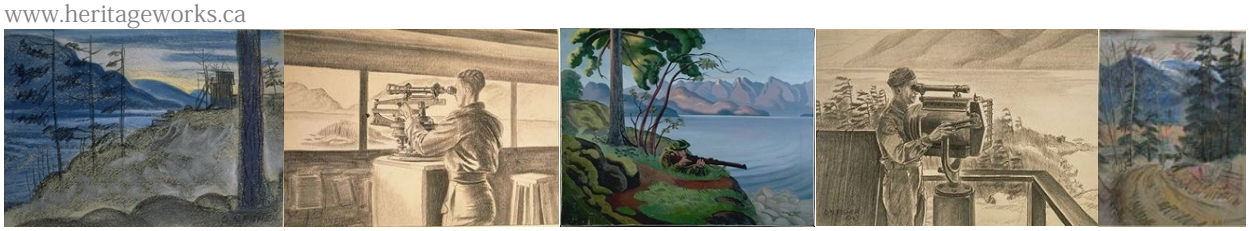
Left – *For a brief period, the naval signal station sat directly on top of the Searchlight Directing Station.*
Center – *Naval signal station seen from the roof of the Searchlight Directing Station. Note the stairs to the signal platform in the background.*
Right – *Orville Fisher's visit in 1943 coincided with the naval signal station atop the roof of the Fire Command Post.*



Left – *This intriguing sketch by Orville Fisher shows men clearing the site for the new magazine retired behind the Fire Commander's Post. Fisher's sketches provide valuable insight into the main construction period that upgraded the fort to its counter-bombardment role.*
Center Left – *Naval signal station -signal flags. Note lower half of flagpole is a topped tree.*
Center Right – *Original signal flagstaff with jackyard. Note the support for the pole is a tree trunk in-situ. A five flag signal with number pennants, as shown here, is likely communicating a location and instructions to a vessel in the offing.*
Right – *Post after the completion of the permanent Port War Signal Station. Note signal flagstaff.*

Left – *This image shows the completed fire control and signal station arrangement seen from between emplacement A2 and the war shelter. Note the handrail and camouflage treatment of the Bofors platform. The shack in the foreground is perhaps a privy for the use of the men 'stood to,' who could not leave their post.*
Center – *The interior of the concrete Naval Signal Station. Note the top hung, inward opening observation slot sashes, as well as personal touches like the photograph of a child over the window.*
Right – *Watkins Depression Range Finder in Battery Observation Post*

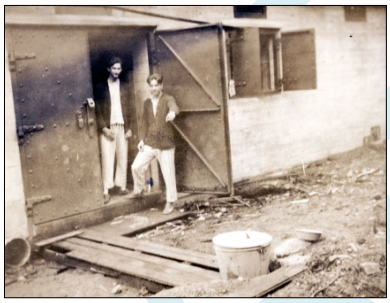
Left – *Within the Searchlight Directing Station, each light was remotely controlled by a separate instrument operated by an observer. Observers would receive bearing data for a suspect vessel (range was irrelevant for a serachlight at the water's edge) either visually, by telephone or by speaking tube from the Battery Observation Post. They would rotate the handle on the side of the instrument to 'dial up' the bearing, and this information would simultaneously arrive on similar dials at the searchlight equipment below, adjusted for the bearing at the changed viewpoint from the light. The transmission system was called Magslip made by Muirheads of Beckenham, England. Observers could electrically instruct the searchlights to cover up or expose as needed to assist the artillery.*
Center – *Searchlight directing sets in searchlight directing station*
Right – *Aldis lamp - used for naval signalling. Located on roof of searchlight directing station. Orville Fisher sketch 1943*



6.4 Chronology of the Generator Shed & Power Plant

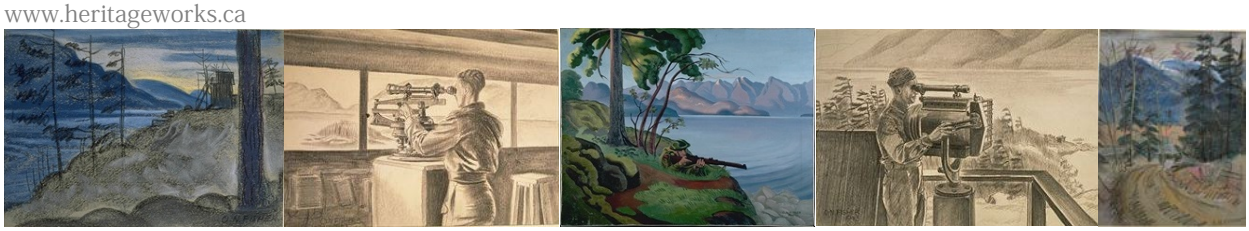


Left – *Engine room phase 1*
Center – *Engine room phase 1*
Right – *Engine room phase 1*


Left – *Engine room phase 1 NB sign on door indicates signals section in residence (?) or perhaps just for purpose of photograph (?)*
Center *- Northernmost engine room*
Right – *Engine room after addition to the south. Note the camouflage structures on the roof, and ladder to access roof.*

Left – *Engine room (?) note panelled doors*
Right – *Royal Canadian Navy Wireless-Telegraph Station with caption "RCN Wireless Telegraphy Station inside main gates of fort. Note: this building subsequently used as machine gun store, and this change of use may coincide with the construction of the New Wireless Telegraphy Station closer to the center of the islad. Note also the W/T wires strung between trees." L.A.C PA - 146228*



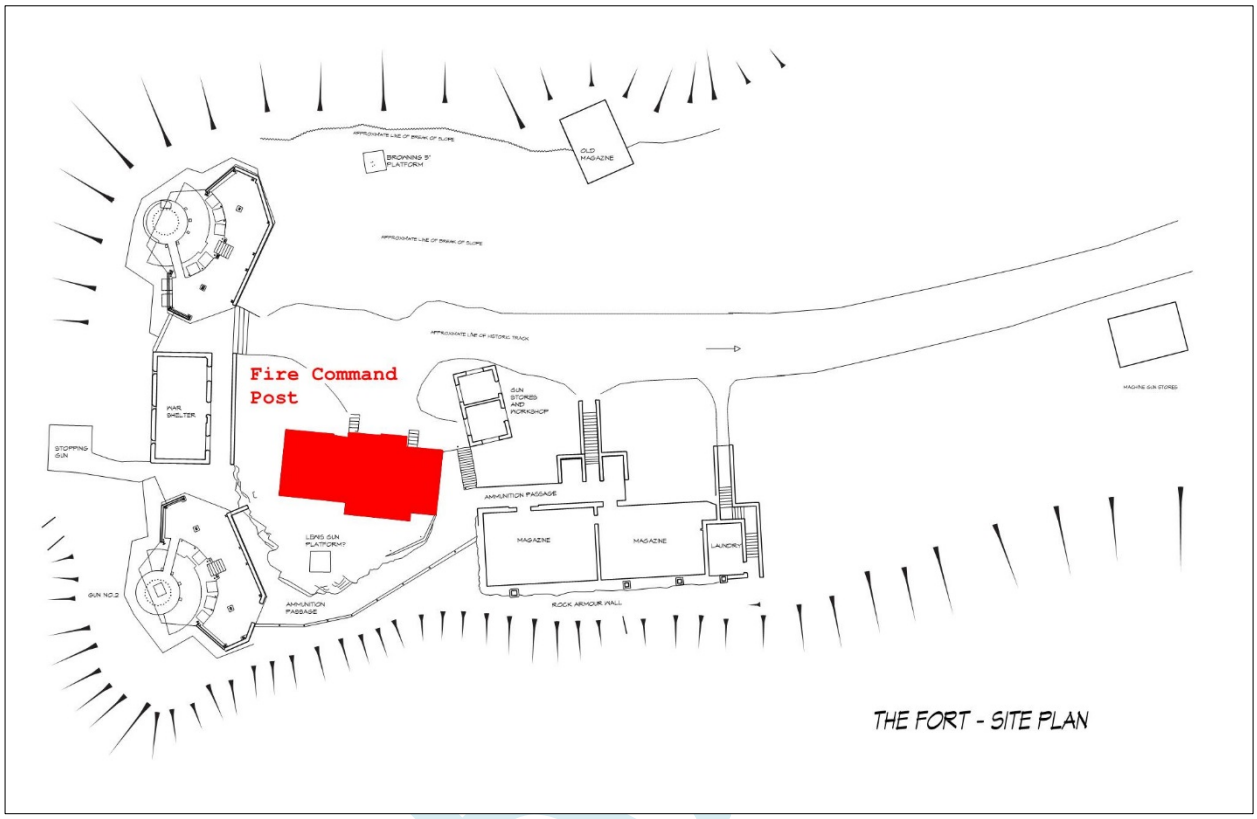
7.0 Current Condition - Battery

Aerial image of Battery showing gun emplacements, Fire Command Post and the New Magazine.

The Battery Complex consists of the following buildings:

- Fire Command Post (aka Battery Observation Post);
- No 1 & No 2 Guns (and their Shelters);
- 6-Pounder Emplacement;
- Browning Emplacement;
- War Shelter (and Ammunition Passage);
- New Magazine (and Ammunition Passage);
- Oil Store;
- Laundry;
- Old Magazine;
- Gunner's Stores & Workshops;
- Machine Gun Stores;
- Slit Trenches (associated with the fort);
- Perimeter Fence & Gate.

7.1 Fire Command Post (aka Battery Observation Post, or 'BOP')



Location of Fire Command Post within the Battery Complex

Description of Structure

The Fire Command Post, also referred to as the Searchlight Directing Station and Battery Observation Post, or simply the 'BOP', is an assemblage of utilitarian spaces, each with its own highly-specialized use. These are arranged in a hierarchal configuration that is typical of coast artillery defenses of the period. As the attached BOP chronology shows, it was modified in 1943 at the same time the new 6-in guns were installed. The BOP consists of the Port War Signal Station, the Searchlight Directing Station, the Battery Observation Post, a small Generator Room, and the Naval Signal Station (this being located on the top floor of the building). The building is surrounded on the south and east by a concrete apron, and to the west there is loose rock armor/camouflage. There are holdfasts on the concrete apron, but the specific nature of the equipment/weapon is unclear.

The older parts of the building are made from bricks while later additions were made in concrete. A wooden staircase (now missing) once provided access to a wrap-around exterior wooden deck and the

roof. The absence of these features makes access to the Naval Signal Station difficult except by walking on top of the Searchlight Directing Station's roof.

All of the interior spaces were once lined with laths and interior paneling. Most of this is now missing, but a small section of interior hardboard lining remains in the Port War Signal Station including an example of the original, 3-color paint scheme. Some of the lining is also in place within the Searchlight Directing Station above. All door and window sashes are missing, but the jambs remain in most places.

The building is roofed with tar and gravel, likely concealing a painted camouflage finish. There are holdfasts on the uppermost roof for an anti-aircraft gun.

The Fire Command Post is the very heart of the Battery Complex, and like other buildings within the fort, the relationships that exist between individual buildings to one another and to their surrounding landscape contributes to the overall heritage character of Yorke Island. Views forward of the post (looking down-range, or northwest along Johnstone Straight) are of special importance to the interpretation of this building because it was from here that all operations were directed; maintaining visual connectivity to the waters that the Yorke Island Battery defended. Significant features include the instrument mounts, remains of hand-painted bearings along the valance of the Battery Observation Post, and the painted remains of the interior finishes.

Condition

The core structure of the Fire Command Post is in excellent condition. The roofs are in fair condition, but these have been damaged by visitors trying to access the Naval Signal Station and its rooftop.

Steel shutters enclose the Battery Observation Post and Searchlight Directing Station. These are in poor to moderate condition and some have been disconnected/disassociated from their original locations.

The exterior of the building is camouflage painted, and some of this remains in legible condition, though it has been vandalized recently with paintballs on the east elevation. Some of the exterior walls have also been marked with modern graffiti. The original camouflage paint is highly susceptible to damage.

Guardrails along the concrete apron to the south and east are missing.

The roofs are somewhat accessible, and visitor impacts include damage to the vegetation cover revealing the underlying bitumen, and thus increasing UV damage. In hot summer conditions the roofs warm up and the bitumen becomes pliable; making it easily damaged by people walking on it. In winter conditions the membranes are brittle.

Risks Assessment

Building	Hazard	Likelihood	Severity	Priority
Fire Command Post	Collapse of Fire Command Post in seismic event	Low	Med	Low
	Damage to roof membrane from visitors/volunteers walking on it	High	Low	Med
	Damage to the building by visitors/volunteers occupying it (fire, mechanical damage, etc.)	High	Low	Low
	Damage to exterior camouflage paint caused by visitors	Med	Med	Med
	Damage resulting from impact from deadfall	Med	High	High
	Loss or damage to building features such as shutters that have become dissociated	High	High	High

Recommended Repairs

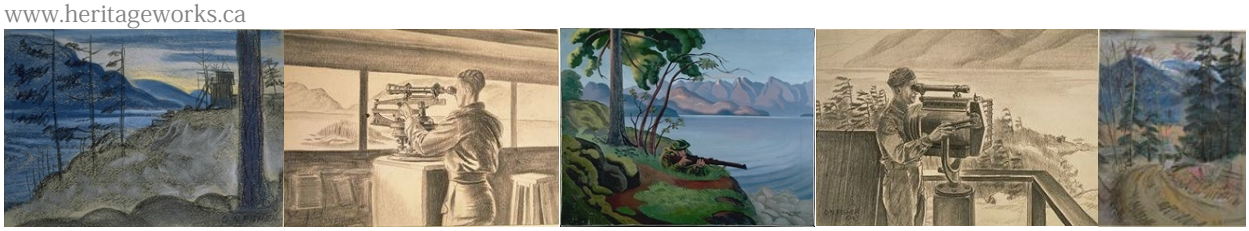
Building	Scope Ref.	Action Required	Priority
Fire Command Post	0.1	• Reconstruct exterior stairs and balconies to provide safe access to the Naval Signal Station and its roof.	High
	0.2	• Reinstate the metal shutters at the Battery Observation Post and Searchlight Directing Station; • Stabilize the metalwork; • Secure the shutters in place to prevent damage and/or injury to visitors.	High
	0.3	• Reinstate historic barriers at south and east of apron using the existing, cast-in-place receivers.	High
	0.4	• Consolidate the instrument desk in the Searchlight Directing Station.	High
	0.5	• Strip existing roof, record camouflage paint scheme, and install new bitumen roofing to make all parts of the Fire Command Post watertight.	Med
	0.6	• Remove paintball damage.	Low
	0.7	• Remove modern graffiti.	Low

Photos

Left - *South Elevation*

Right *– Southeast corner*

North elevation

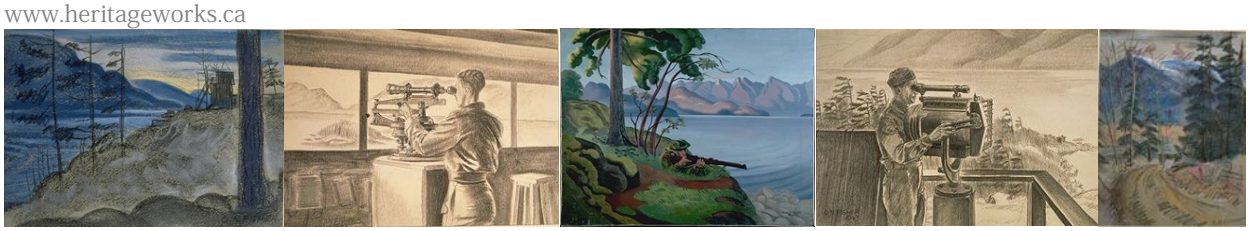


7.2 No 1 Gun & Shelter

Location of No. 1 Gun within the Battery Complex

Description of Structure

Gun Emplacement No. 1 is a utilitarian engineering work that was built to a standard design for breech-loading coast artillery of the period. As the attached gun chronology shows, it was modified in 1943 to accommodate the replacement of the original 4.7-in gun with a new 6-inch gun. The No. 1 Gun consists of the Gun Pit, (including the holdfasts for the 6-in gun that was finally removed in 1958-59); the sloped concrete Apron forward of the gun, the elevated Gun Platform to the rear of the gun (including the expense lockers that it covers), and the Gun Shelter. The Gun Platform is connected to the level of the expense lockers by a short flight of concrete stairs that are integral with the structure. The pre-fabricated steel structure of the Gun Shelter stands immediately inside the concrete revetments that shield the rear of the gun and this frame is supported in some places on raised concrete piers. This shelter consists of modular panels of Plastic Armor composed of precast bitumen and aggregate slabs (plates) and retained by metal flanges that are bolted to the steel frame. The ceiling panels are affixed to steel backing plates to give them extra support, and the whole roof is covered with tar and gravel. A vertical metal shield hangs from the eave of the roof immediately forward of the gun, and this is assumed to be armored plate.



There are few surviving examples of gun emplacements where the plastic armor remains intact, and Yorke Island is the only one in Canada. The Gun Shelters and their plastic armor (which wartime inspection reports simply refer to as 'overhead protection'), are rare and highly-significant examples of Second World War coastal defenses.

The No. 1 Gun is an integral part of the Battery Complex, and like other buildings within the fort, the relationships that exist between individual buildings to one another and to their surrounding landscape contributes to the overall heritage character of Yorke Island. The view to the northwest up Johnstone Straight (forward of the gun) is key to the context and interpretation of this building.

Condition

The high-quality of materials and workmanship of No. 1 Gun are character-defining elements of the structure. It is precisely because the building was so carefully designed and constructed, that it remains in such good condition today despite 60-years of abandonment. The concrete is in excellent condition, and despite some modest vandalism to exposed surfaces, the plastic armor is as well. The lower roof edges (at sides and rear) have wooden guards supported on metal posts to permit the installation of rock, brushwood and other natural camouflage over the Gun Shelter, though it doesn't appear this was ever implemented. These are in variable condition depending on the roof aspect, with many of the boards lost or badly perished. The chief weakness of the building is its tar and gravel roof membrane. Seedling trees (wildings) have rooted in the accumulated leaf litter, disturbing the roofs. The roof is somewhat accessible, and visitor impacts include damage to the vegetation cover revealing the underlying bitumen, and thus increasing UV damage. In hot summer conditions the roofs warm up and the bitumen become pliable; making it easily damaged by people walking on it. In winter conditions the membranes are brittle. All the primary seams along the hipped roof are broken, allowing water to run under the roof armor and along structural members, contributing to the corrosion of steel members and their connections.

Risks Assessment

Building	Hazard	Likelihood	Severity	Priority
No 1 Gun & Shelter	Collapse of Gun Shelter in seismic event	Low	High	High
	Damage to roof membrane from visitors/volunteers walking on it	High	Low	Med
	Corrosion of retaining plates resulting in further damage to plastic armor	High	Med	High
	Corrosion of metal beams, columns and connections resulting in partial of complete collapse	Med	High	Med
	Damage resulting from impact from deadfall	Med	High	High

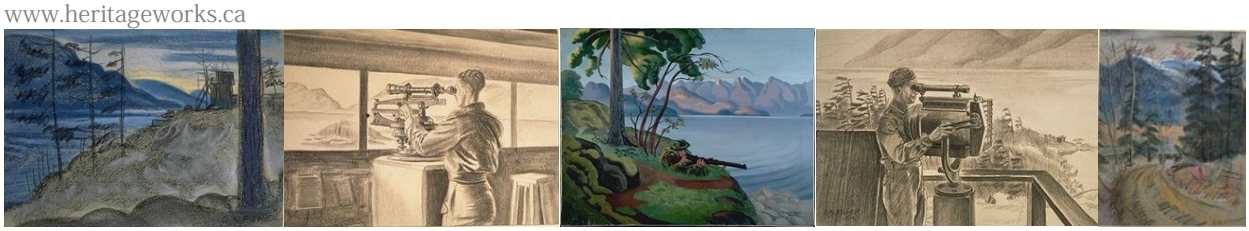
Recommended Repairs

Building	Scope Ref	Action Required	Priority
No 1 Gun & Shelter	1.1	• Make repairs to the corroded steel columns and column base connections of gun shelters.	High
	1.2	• Clear all drains and ensure that they are operating effectively.	High
	1.3	• Make seismic upgrade to gun shelter by securing column heads to concrete wall; • Add new bolts at empty connections of metal frame.	High
	1.4	• Repair lost and badly deteriorated retaining bolts and reinstate retaining flanges of plastic armor.	High
	1.5	• Treat remaining retaining bolts and flanges to inhibit corrosion.	Medium
	1.6	• Strip existing roof and install new bitumen roofing to make gun shelter watertight.	Medium
	1.7	• Reinstate historic barriers at some of the unguarded edges around gun pit.	Medium
	1.8	• Install nuts and oversized washers on holdfast studs in gun pit.	Medium
	1.9	• Treat loose armor panel (originally from roof above gun pit) in-situ and support to minimize corrosion.	Low
	1.10	• Perform lead-abatement work to structural frame; • Descale all exposed metal surfaces with needle gun; • Treat all exposed metal surfaces with rust inhibitor; • Treat all exposed metal surfaces with polyurethane.	Low
	1.11	• Treat expense lockers and make all hardware operable; • Repaint locker doors while preserving original signage.	Low
	1.12	• Reestablish historic views forward of the gun, and northwest up Johnstone Straight (field of fire).	Low
	1.13	• Replace new wood perimeter around gun shelter roof.	Low
	1.14	• Windsafe surrounding forest including removal of over-mature alder.	Low
	1.15	• Remove modern graffiti.	Low

Photos

Interior of No 1 Gun showing apron and gun pit

Northwest elevation



Southwest elevation

Detail of plastic armor on the north elevation of the gun shelter.

7.3 No 2 Gun & Shelter

Location of No. 2 Gun within the Fort

Description of Structure

Gun Emplacement No. 2 is a utilitarian engineering work that was built to a standard design for breech-loading coast artillery of the period. As the attached gun chronology shows, it was modified in 1943 to accommodate the replacement of the original 4.7-in gun with a new 6-inch gun. The No. 2 Gun consists of the Gun Pit, (including the holdfasts for the 6-in gun that was finally removed in 1958-59); the sloped concrete Apron forward of the gun, the elevated Gun Platform to the rear of the gun (including the expense lockers that it covers), and the Gun Shelter. The Gun Platform is connected to the level of the expense lockers by a short flight of concrete stairs that are integral with the structure. The pre-fabricated steel structure of the Gun Shelter stands immediately inside the concrete revetments that shield the rear of the gun and this frame is supported in some places on raised concrete piers. This shelter consists of modular panels of Plastic Armor composed of precast bitumen and aggregate slabs (plates) and retained by metal flanges that are bolted to the steel frame. The ceiling panels are affixed to steel backing plates to give them extra support, and the whole roof is covered with tar and gravel. A vertical metal shield hangs from the eave of the roof immediately forward of the gun, and this is assumed to be armored plate.

There are few surviving examples of gun emplacements where the plastic armor remains intact, and Yorke Island is the only one in Canada. The Gun Shelters and their plastic armor (which wartime inspection reports simply refer to as 'overhead protection'), are rare and highly-significant examples of Second World War coastal defenses.

The No. 2 Gun is an integral part of the Battery Complex, and like other buildings within the fort, the relationships that exist between individual buildings to one another and to their surrounding landscape contributes to the overall heritage character of Yorke Island. The view to the northwest up Johnstone Straight (forward of the gun) is key to the context and interpretation of this building.

Condition

The high-quality of materials and workmanship of No. 2 Gun are character-defining elements of the structure. It is precisely because the building was so carefully designed and constructed, that it remains in such good condition today despite 60-years of abandonment. The concrete is in excellent condition, and despite some modest vandalism to exposed surfaces, the plastic armor is as well. The lower roof edges (at sides and rear) have wooden guards supported on metal posts to permit the installation of rock, brushwood and other natural camouflage over the Gun Shelter, though it doesn't appear this was ever implemented. These are in variable condition depending on the roof aspect, with many of the boards lost or badly perished. The chief weakness of the building is its tar and gravel roof membrane. Seedling trees (wildings) have rooted in the accumulated leaf litter, disturbing the roofs. The roof is somewhat accessible, and visitor impacts include damage to the vegetation cover revealing the underlying bitumen, and thus increasing UV damage. In hot summer conditions the roofs warm up and the bitumen become pliable; making it easily damaged by people walking on it. In winter conditions the membranes are brittle. All the primary seams along the hipped roof are broken, allowing water to run under the roof armor and along structural members, contributing to the corrosion of steel members and their connections.

Risks Assessment

Building	Hazard	Likelihood	Severity	Priority
No 2 Gun & Shelter	Collapse of Gun Shelter in seismic event	Low	High	High
	Damage to roof membrane from visitors/volunteers walking on it	High	Low	Med
	Corrosion of retaining plates resulting in further damage to plastic armor	High	Med	High
	Corrosion of metal beams, columns and connections resulting in partial of complete collapse	Med	High	Med
	Damage resulting from impact from deadfall	Med	High	High

Recommended Repairs

Building	Scope Ref.	Action Required	Priority
No 2 Gun & Shelter	2.1	• Make repairs to the corroded steel columns and column base connections of gun shelters.	High
	2.2	• Clear all drains and ensure that they are operating effectively.	High
	2.3	• Make seismic upgrade to gun shelter by securing column heads to concrete wall; • Add new bolts at empty connections of metal frame.	High
	2.4	• Repair lost and badly deteriorated retaining bolts and reinstate retaining flanges of plastic armor.	High
	2.5	• Reinstate historic barriers at west of apron using the existing, cast-in-place receivers.	High
	2.6	• Reinstate the collapsed plastic armor panel.	High
	2.7	• Treat remaining retaining bolts and flanges to inhibit corrosion.	Medium
	2.8	• Strip existing roof and install new bitumen roofing to make gun shelter watertight.	Medium
	2.9	• Reinstate historic barriers at some of the unguarded edges around gun pit using the existing, cast-in-place receivers.	Medium
	2.10	• Install nuts and oversized washers on holdfast studs in gun pit.	Medium
	2.11	• Treat loose armor panel (originally from roof above gun pit) in-situ and support to minimize corrosion.	Low
	2.12	• Perform lead-abatement work to structural frame; • Descale all exposed metal surfaces with needle gun; • Treat all exposed metal surfaces with rust inhibitor; • Treat all exposed metal surfaces with polyurethane.	Low
	2.13	• Treat expense lockers and make all hardware operable; • Repaint locker doors while preserving original signage.	Low
	2.14	• Reestablish historic views forward of the gun, and northwest up Johnstone Straight (field of fire).	Low
	2.15	• Install new wood perimeter around gun shelter roof.	Low
	2.16	• Wind-safe surrounding forest including removal of over-mature alder.	Low
	2.17	• Remove modern graffiti.	Low

Photos

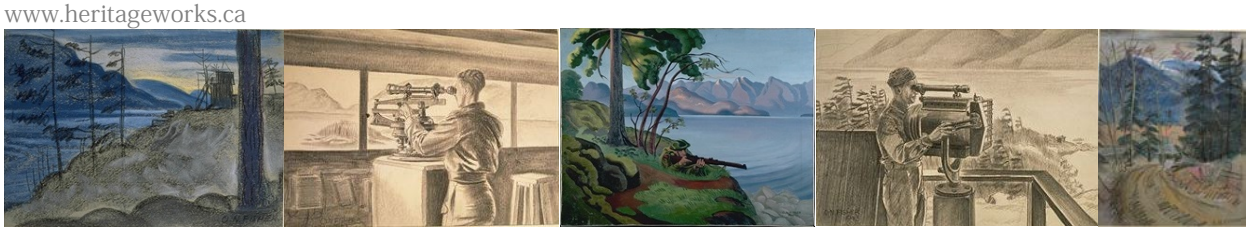
North elevation

Northwest corner

Interior of No 2 Gun showing expense lockers and stairs leading up to the platform.

Northeast elevation

Left *– Underside of plastic armor in the roof showing blue-grey paint scheme likely intended to resemble the sky when seen from the water below.*

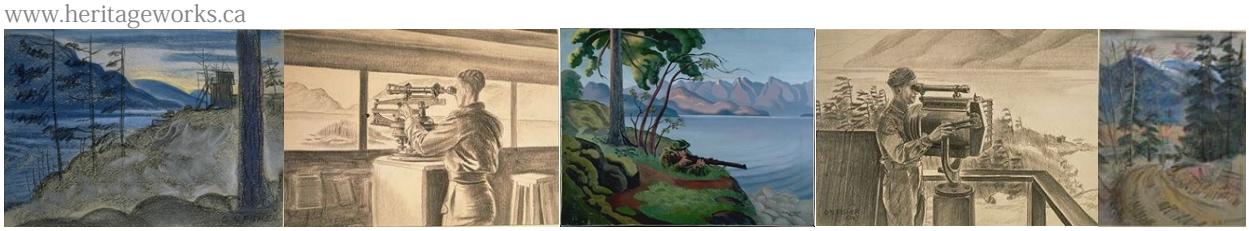


Right *– Interior*

Collapsed panel of plastic armor at northeast corner of gun shelter

Left *– Ammunition Passage toward No 2 Gun Magazine*

Right *– Ammunition Passage toward New Magazine*



7.4 War Shelter (and Ammunition Passage)

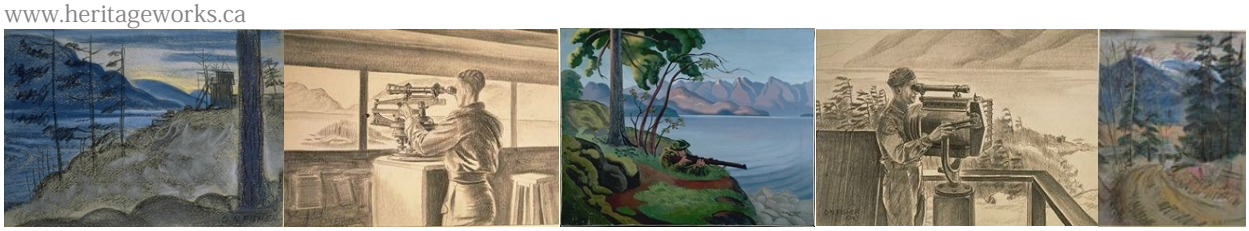
Location of War Shelter within the Fort

Description of Structure

The War Shelter (aka Crew Shelter) is a simple and functional building made from concrete, that doubled as a pill box for the close defense of the fort. It consists of a single large room is separated from the covered Ammunition Passage by a concrete partition wall. The building is situated equidistant to the guns. There are 3x loopholes along the west wall, and these are shuttered at the inside with sliding steel panels. Earth and rock armor are banked up against the west elevation. To the southwest of the War Shelter a paved pathway leads to the Stopping Gun, where there is a small concrete gun platform with a holdfast for a Hotchkiss 6-pounder.

The interior of the War Shelter is lined with simple shiplap wood paneling. The door and window jambs and trims remain in place, and one of the simple plank door sashes remains (unhinged) inside the building interior. The doors and windows provide good evidence of the original paint colours.

The building is roofed with tar and gravel. There is a flue at the northwest corner of the roof but the ventilator is missing (it is currently capped temporarily with one of the shutters from the BOP).



Like other buildings within the fort, the relationships that exist between the War Shelter, its adjacent buildings and the surrounding landscape are essential parts of the overall heritage character of Yorke Island.

Condition

The core structure of the War Shelter is in excellent condition.

The roof is in poor condition, and visitor impacts include damage to the vegetation cover revealing the underlying bitumen, and thus increasing UV damage. In some places the roofing membrane is missing entirely. In hot summer conditions the roofs warm up and the bitumen become pliable; making it easily damaged by people walking on it. In winter conditions the membrane is brittle.

There is extensive modern graffiti along both interior walls of the Ammunition Passage.

The exterior of the building was camouflage painted, but it is no longer legible.

The stone retaining wall that borders the path to the Stopping Gun is in poor condition and the stones are loose. Similarly, the rock armor/camouflage forward of the Stopping Gun platform is separating from the concrete.

Risks Assessment

Building	Hazard	Likelihood	Severity	Priority
War Shelter, Stopping Gun & Ammunition Passage	Damage to roof membrane from visitors/volunteers walking on it	High	Low	Med
	Damage to the building by visitors/volunteers occupying it (fire, mechanical damage, etc.)	High	Low	Low
	Damage to painted surfaces caused by visitors, including new graffiti	High	Med	Med
	Damage resulting from impact from deadfall	Med	High	High
	Loss or damage to building features such as the door that has become unhinged	High	High	High

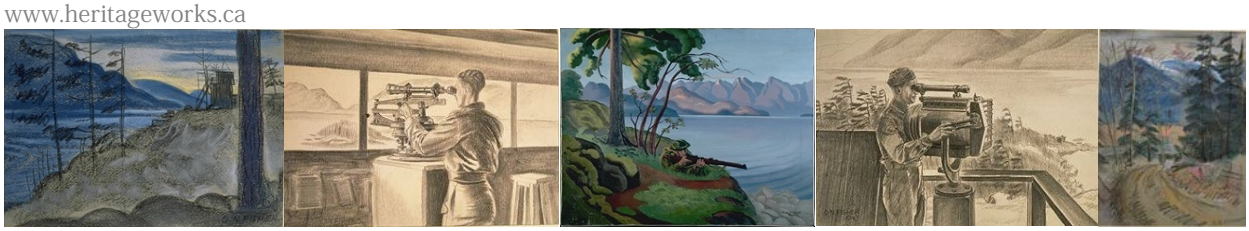
Recommended Repairs

Building	Scope Ref.	Action Required	Priority
War Shelter (and Ammunition Passage	5.1	• Reinstate the door on hardware to match original configuration; • Consider making a new door panel to match existing.	High
	5.2	• Make and install a new cap flashing for the flue.	High
	5.3	• Repair the modern damage to interior walls of Ammunition Shelter with multiple coats of lime wash to match historic colors.	Medium
	5.4	• Repair the stone retaining wall that borders the path to the Stopping Gun platform.	Medium
	5.5	• Strip existing roof and install new bitumen roofing to make all parts of the War Shelter watertight.	Low
	5.6	• Windsafe surrounding forest including removal of over-mature alder.	Low

Photos

West elevation of War Shelter in context of the gun emplacements

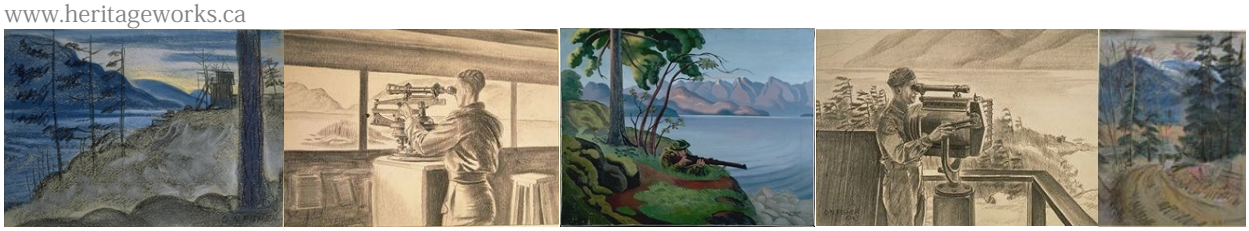
West elevation



Left *– Ammunition Passage, toward No 2 Gun*

Right *– Ammunition Passage, toward No 1 Gun*

Note wooden frames, possibly to receive blackout shutters.



7.5 New Magazine (and Ammunition Passage)

Location of New Magazine (including the Laundry and Boiler House) within the Fort

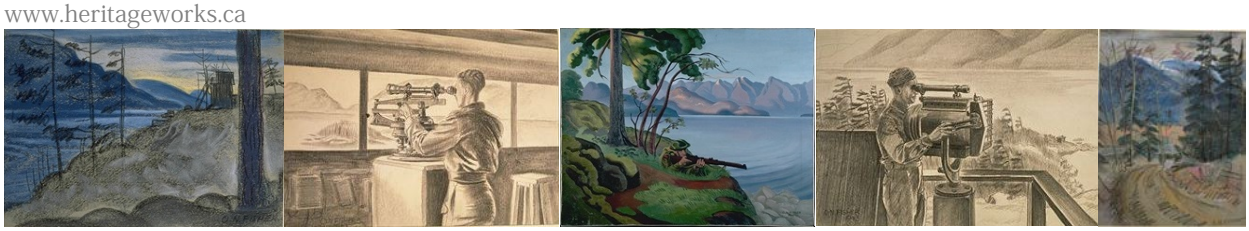
Description of Structure

The New Magazine is a substantial engineering work that was constructed on a blasted rock platform from concrete in 1943 when the guns were updated. It has a functional, defensive design that is typical of coast artillery batteries. The New Magazine consists of 2x Ammunition Wells (with modern safety covers), 3x Access Stairs, Passage and Access Shaft (leading to the roof), Laundry, Boiler Room plus 2x partially subterranean, separate Shell and Cartridge Stores. The New Magazine is connected to the guns by the Ammunition Passage, a level concrete path leading from the Shell Stores to the No. 2 Gun.

Some of the original heavy steel doors are in-situ and still operable. A shaft gives ladder access to the magazine roof, likely for rapid deployment to provide close defense of the position.

The shell stores contain some of the timber columns that formed the original structure of the shelving and racking system.

The roof of the New Magazine is tar and gravel. In places this is covered by rock armor/camouflage. The entire west elevation and the majority of the south elevation are covered in rock armor/camouflage as



well. The rockwork is battered but it is assumed that the walls of the underlying concrete structure are plumb. This means that the armor/camouflage is much thicker along its base. The joints are bound with hard cementitious mortar, and there is a heavy tarpaper membrane between the stone and the concrete.

There are few surviving examples of rock armor/camouflage of this type (it is identical to that of Fort Rodd Hill National Historic Site near Victoria, but these are unusual nationally and internationally). This makes the stone façade a rare and highly-significant example of Second World War coastal defenses.

The New Magazine in an integral part of the Battery Complex, and like other buildings within the fort, the relationships that exist between individual buildings to one another and to their surrounding landscape contributes to the overall heritage character of Yorke Island.

Condition

Like the Guns and the War Shelter, the high-quality of materials and workmanship in the New Magazine is character-defining. The thoughtful design and careful construction are also the main reasons that the building survives in such good condition. The concrete is in excellent condition throughout, with just one area of modest calcification at the Passage near the south entrance.

The chief weakness of the building is its tar and gravel roof. Seedling trees (wildings) have rooted in the accumulated leaf litter, disturbing the roofs. The roof is easily accessible, and visitor impacts include disruption of the rock armor/camouflage and damage to the vegetation cover revealing the underlying bitumen, and thus increasing UV damage. In hot summer conditions the roofs warm up and the bitumen become pliable; making it easily damaged by people walking on it. In winter conditions the membranes are brittle

The rock armor/camouflage is delaminating from the structure at many locations and is in poor condition. Additionally, the stiff mortar joints have failed and large cracks have opened up in the rockwork allowing water to run freely between the rock and the concrete walls. Seasonal frost-jacking will soon cause this rockwork to fail.

The floor on one of the Shell Stores has been damaged by fire, presumably lit by vandals.

The metal ventilators are missing from all of the flues. The damaged original ventilators are lying down-slope on the forest below the New Magazine. One of the flues above the Laundry/Boiler is brick-made, and in poor condition with an open top.

The original metal covers to the Ammunition Wells are lying on the roof and partially buried beneath vegetation. They are in poor condition and the tracks that they originally ran on are badly decayed.

The passageway contains an extensive collection of modern graffiti that is scratched into the soft, rendered surfaces on both sides. There is modern painted graffiti within the shell stores.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
New Magazine & Laundry	Damage to painted surfaces caused by visitors, including new graffiti	High	Med	Med
	Damage to roof membrane from visitors walking on it	High	Low	Med
	Damage resulting from impact from deadfall	Med	High	High
	Water ingress through open flues causing damage to interior surfaces.	High	Med	Med
	Damage to rock armor/camouflage from visitors climbing on it	High	High	High

Recommended Repairs

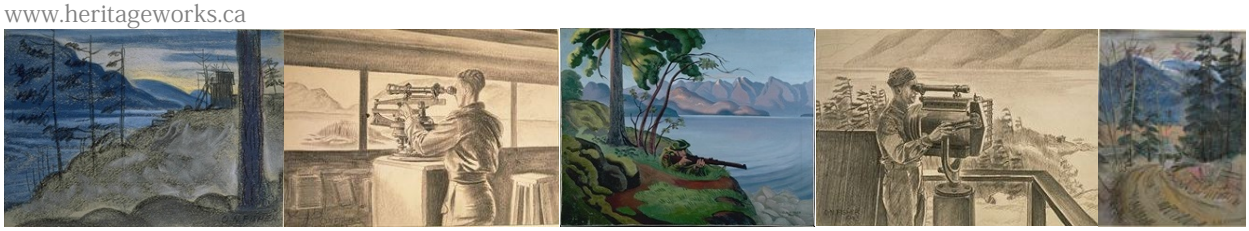
Building	Scope Ref.	Action Required	Priority
New Magazine & Laundry	6.1	• Make repairs to rock armor; • Use flexible/flowable grout to fill the voids behind rockwork; • Repoint in the areas where the mortar joints are fractured.	High
	6.2	• Repair and reinstate the tracks and covers for the Ammunition Wells.	High
	6.3	• Make and install a new cap flashing for the flu above Laundry / Boiler; • Repair and repoint brickwork as necessary.	High
	6.4	• Reinstate original ventilators on flues above Shell Stores; • Repair the original ventilator covers where possible; • Make and install new ventilators where originals are too badly damaged to re-use.	High
	6.5	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	6.6	• Treat metal doors and frames and make all hardware operable; • Repaint doors while preserving original signage; • Install new metal bar inside door at top of Access Shaft to prevent falls.	Medium
	6.7	• Strip existing roof and install new bitumen roofing to make all parts of the War Shelter watertight.	Low
	6.8	• Record and remove painted graffiti from inside	Low

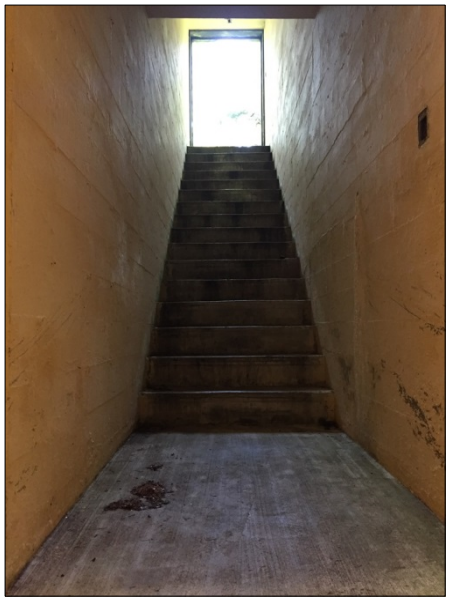
		the Shell Stores.	

Photos

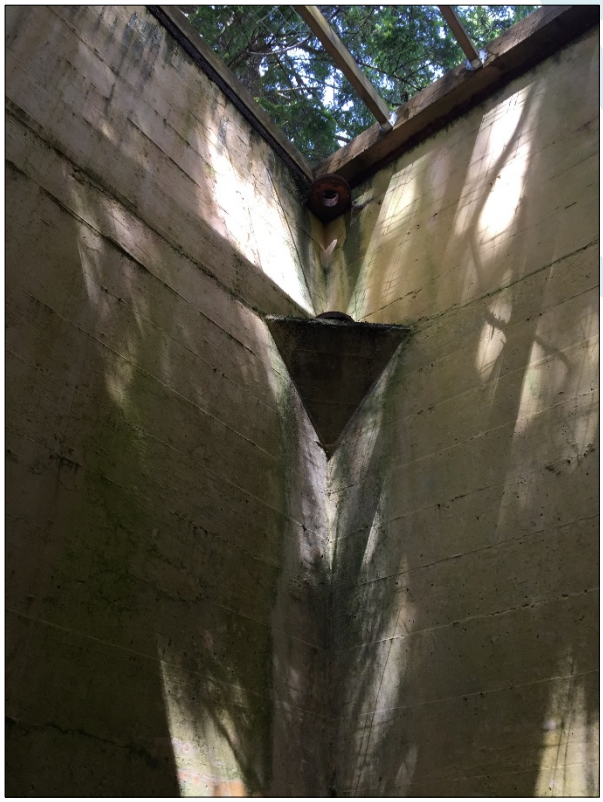
Left – *West entrance to magazine*

Right *– Magazine passage from west entrance*

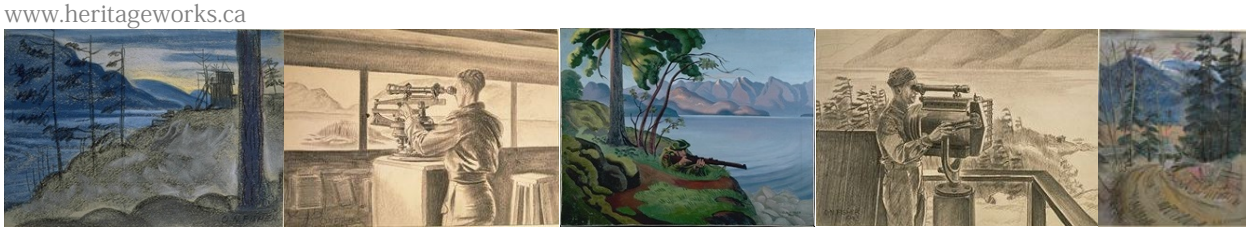




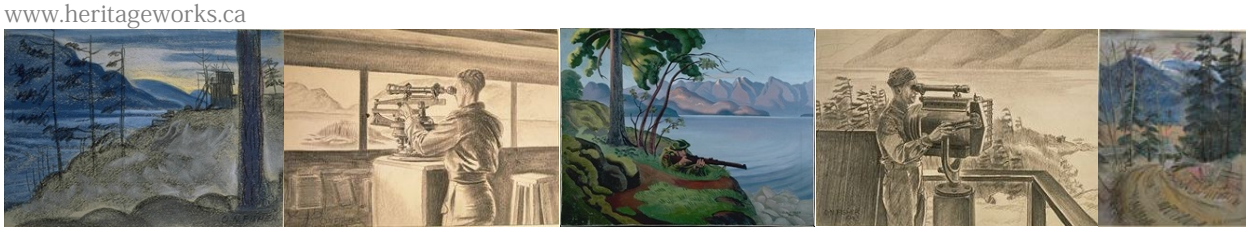
Left – *Interior of north entrance* ***Right*** *– Interior of shell store*



Left *– Interior of ammunition well* ***Right*** *– Exterior top of ventilator flue*

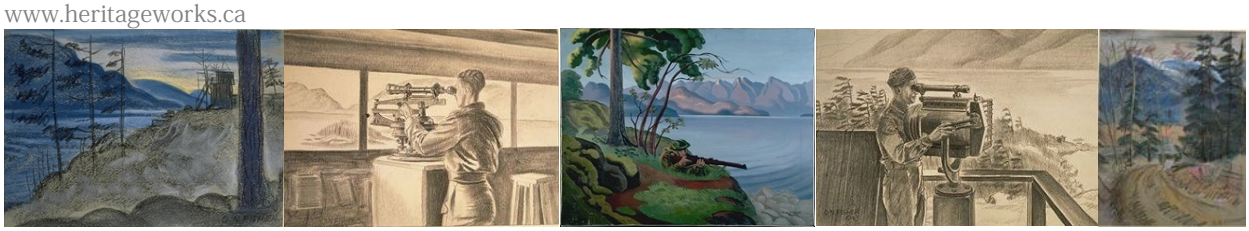


Modern graffiti on wall of passage near west entrance



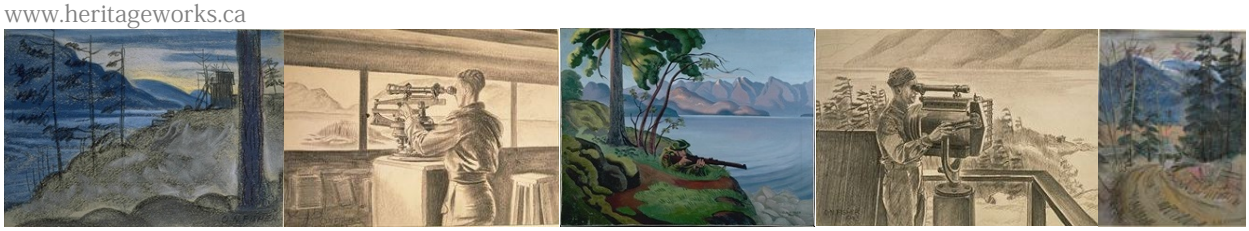
Exterior of escape hatch

Calcification of concrete in the magazine

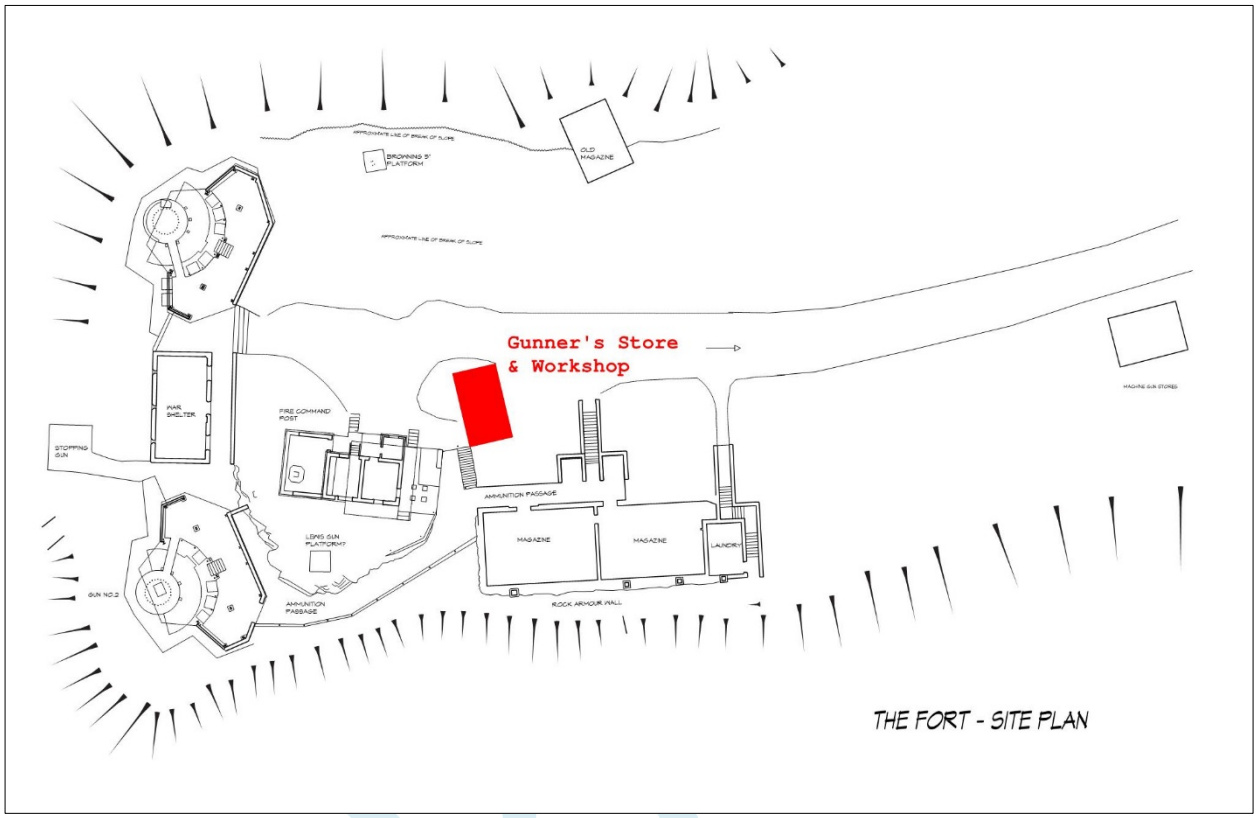


Left *– Stairs to Laundry*

Right *– Exterior top of brick flue from Boiler/Laundry*



7.6 Gun Stores & Workshop



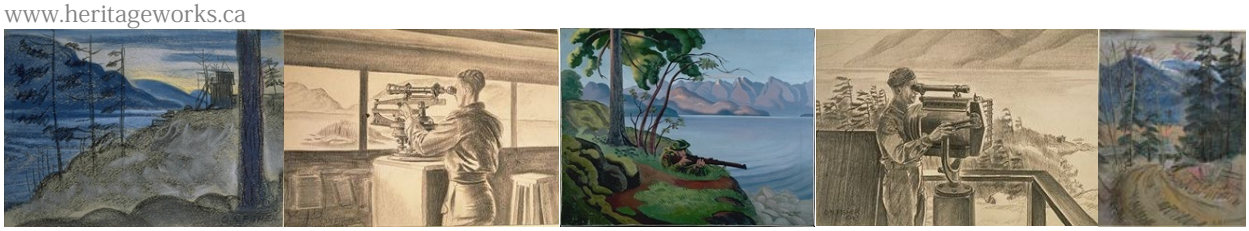
Location of the Gun Stores & Workshop within the Fort

Description of Structure

The Gun Store & Workshop dates from the earliest phase of the battery. It is a simple brick-made building consisting of 2x rooms with a cast concrete floor. The rooms are well lit with 2x windows each and separate doors to the outside. The windows have metal frames 'Crittal'-type and sashes (still in situ), while the doors are made from wood (only the jambs remain).

Parts of the building interior were lined, paneled and trimmed out as per the BOP, but a plaster render was applied directly to the internal brick partition wall. The floor of the building was painted, and the paint scheme combined with indentations in the concrete provide witness to the original layout of the workbenches where the removeable parts of the guns were stored when the guns were inactive or 'stood to'. Historic photos suggest that each room was used to store the parts (sights, breach rings, firing mechanisms, etc.) from only one of each gun.

The roof is tar and gravel with vertical 8-in boards around the eaves. Like other buildings remaining in the fort complex, the Gun Store & Workshop was electrified, with service conduit running behind the interior lining boards and chased into the brickwork where necessary.



The Gun Store & Workshop is in an integral part of the Battery Complex, and like other buildings within the fort, the relationships that exist between individual buildings to one another and to their surrounding landscape contributes to the overall heritage character of Yorke Island.

Condition

There is a large Douglas-fir tree growing at (and probably under) the southeast corner of the building that is causing some minor deformation of the structure, but the brickwork is otherwise in good condition. Because of its location the building is subject to a lot of leaf litter from the surrounding forest, and the roof has a correspondingly large amount of vegetation including some seedling trees growing on it.

Soils have accumulated along the east elevation to such an extent that groundwater now flows into the building during wet conditions and the bottoms of the door jambs are partially buried.

Evidence in the form of charred timbers suggests that the building had a fire at one time, and was then re-finished to conceal the damage.

Risks Assessment

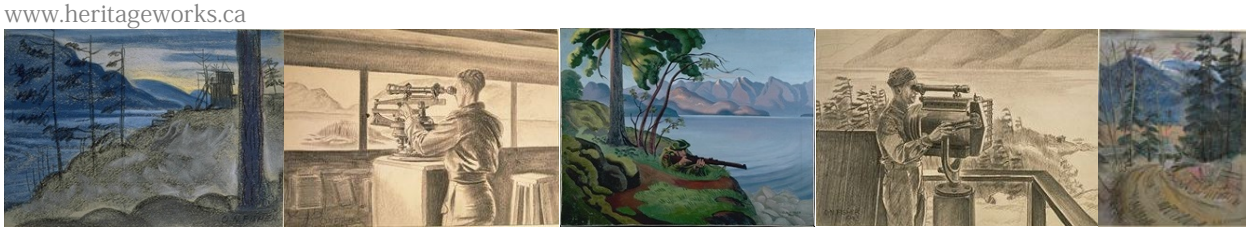
Building	Hazard	Likelihood	Severity	Priority
Gun Store & Workshop	Damage resulting from impact from deadfall	High	High	High
	Loss or damage to building features such as window parts that have become dissociated	High	High	High
	Damage to brickwork resulting from tree roots	High	High	Med
	Damage to painted surfaces caused by visitors	High	Low	Low
	Damage to window sashes caused by visitors	High	Med	Med

Recommended Repairs

Building	Scope Ref	Action Required	Priority
Gun Stores & Workshop	8.1	• Alter/lower grades along east elevation to encourage drainage away from building.	High
	8.2	• Remove D-fir tree from southeast corner.	High
	8.3	• Consolidate and re-associate loose parts of window sashes; • Treat corrosion of metal parts and secure in place.	High
	8.4	• Remove all trees from roof.	Medium
	8.5	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	8.6	• Strip existing roof and install new bitumen roofing to make all parts of the building watertight.	Low

Photos

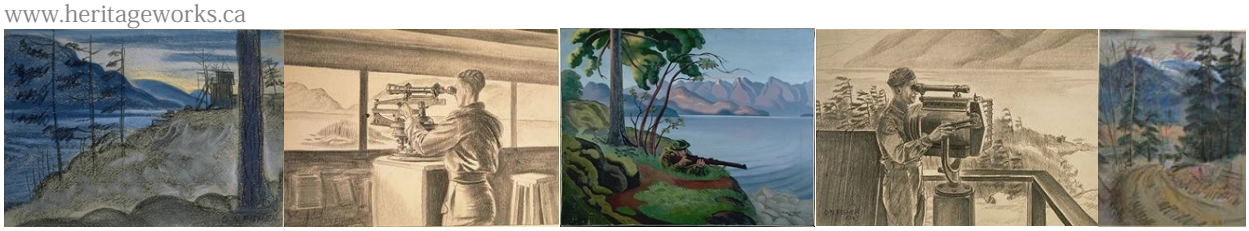
South elevation



Northwest corner

Left – *North elevation*

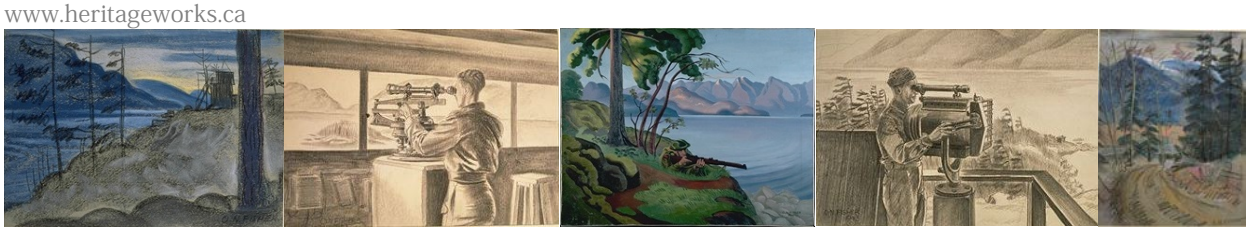
Right *– West elevation*



Northwest corner showing the extensive vegetation on roof

Left – *Interior of window at west elevation*

Right – *Interior of window at south elevation*



7.7 Machine Gun Stores

Location of the Machine Gun Stores within the Fort

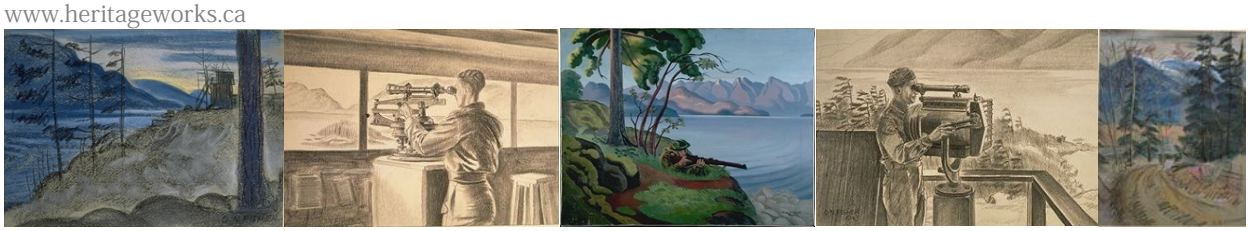
Description of Structure

The Machine Gun Store dates from the earliest phase of the battery. It is a simple brick-made building consisting of 2x interconnected rooms with a suspended wood floor. The rooms are well lit with 2x and 3x windows respectively, and connected to the outside by a single door. The windows have metal frames and sashes, while the doors are made from wood as per the Gunner's Store and Workshop.

Like the Gunner's Store and Workshop, the building interior was lined, paneled and trimmed. Plaster render also was applied to the walls in some places.

The roof is tar and gravel with vertical 8-in boards around the eaves. The Machine Gun Store was electrified, with service conduits running behind the interior lining boards and chased into the brickwork where necessary.

The building is a highly significant remainder of the original fort construction from 1937-39, and it is particularly valuable for its rich building archaeology because so many of the original fixtures and features are still in place and/or legible.



Like other buildings within the fort, the relationships that exist between the Machine Gun Store, other buildings within the battery complex and the surrounding landscape, contributes to the overall heritage character of Yorke Island.

Condition

The brickwork is in good condition and many of the original building fixtures remain in place. All of the window jambs and sashes are in place though many of the glazing bars are damaged. The wood-framed floor is in place but badly decayed as a result of moisture-laden leaf litter and driving rain. Many of the interior surfaces, including the original 3x color paint scheme is still legible. Because of its location the building is subject to a lot of leaf litter from the surrounding forest, and the roof has a correspondingly large amount of vegetation including some seedling trees growing on it.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
Machine Gun Stores	Damage resulting from impact from deadfall	High	High	High
	Loss or damage to building features such as window parts that have become dissociated	High	High	High
	Damage to painted surfaces caused by visitors	High	Low	Low
	Damage to window sashes caused by visitors	High	Med	Med

Recommended Repairs

Building	Scope Ref	Action Required	Priority
Machine Gun Stores	9.1	Consolidate and re-associate loose parts of window sashes; Treat corrosion of metal parts and secure in place.	High
	9.2	Remove all trees from roof.	Medium
	9.3	Windsafe surrounding forest including removal of over-mature alder.	Medium
	9.4	Carefully document and remove existing floor to make the building safe for visitors; Consider reinstating floor to match original.	Medium
	9.5	Strip existing roof and install new bitumen roofing to make all parts of the building watertight.	Low

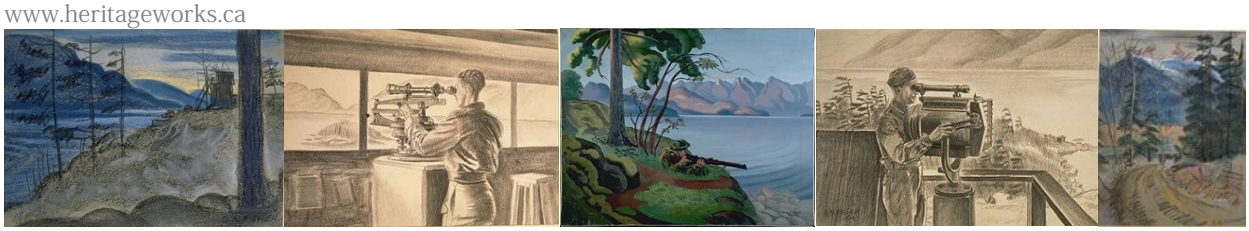
Photos

North elevation

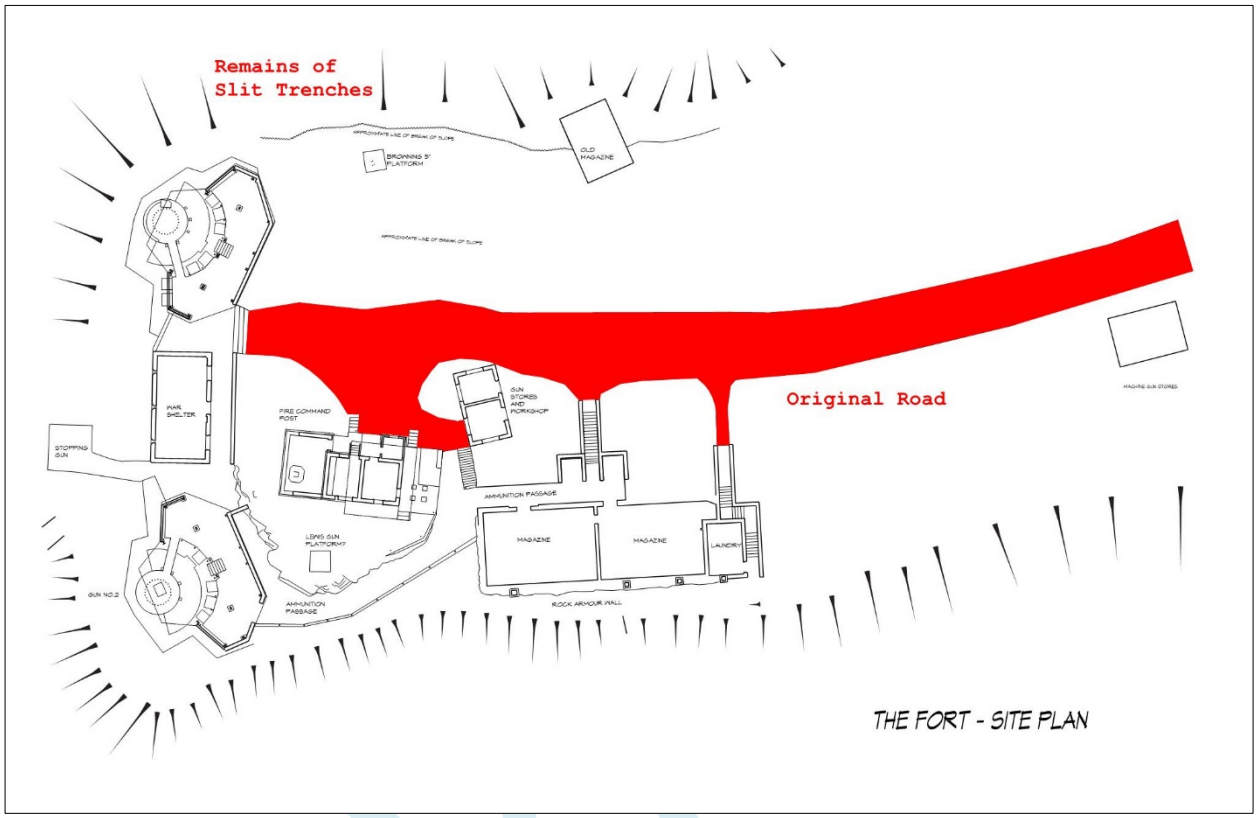
Exterior northwest corner

Exterior southwest corner

South elevation



7.8 Fort Landscape



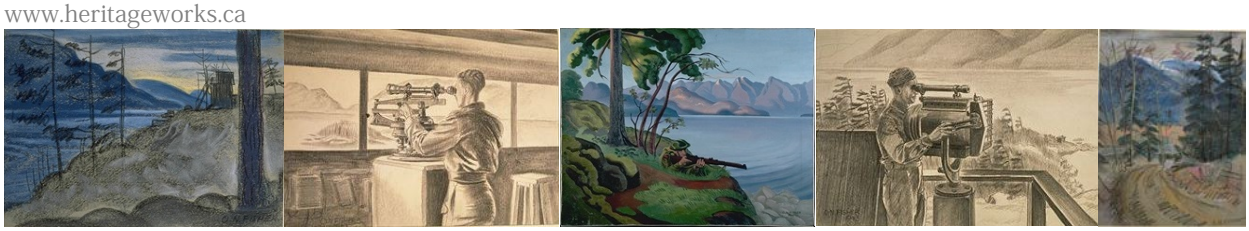
Location of the Slit Trenches and the Original Road within the Fort

Description of Structure

During the period of occupation 1937-59 the area within the fort was largely cleared of trees except those which afforded some shelter and camouflage to the auxiliary buildings south of the guns. The entire forest was cleared forward of the Gunner's Stores & Workshop to provide good visibility down-range into Johnstone Straight.

While the fort was operational it would have been possible to arrive at the Main Gate (located near the Machine Gun Store) and look through the length of the fort over the roof of the War Shelter and down-range over the top of Clarence Island into Johnstone Strait. On a clear day, it is easy to imagine that one could see as far as Telegraph Cove or Alert Bay.

These long views up Johnstone Straight provide important context for the fort, and help us to understand why the various buildings were situated where they were in the landscape, and why they received different camouflage treatments depending on their location.



The relationships between buildings, and to the surrounding landscape is fundamental to the heritage character of Yorke Island.

Condition

The main access road that runs through the fort is now overgrown with trees including many alders that are mature and/or over-mature. The scrub forest forward of the guns has matured during the 60-years since the fort was occupied, and now obscure the view from both guns and the Fire Command Post. Remains of defense post trenches (slit trenches) are visible to the north side of the fort within the perimeter fence.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
Machine Gun Stores	Damage resulting from impact from deadfall	High	High	High
	Loss of historic views and features such as roads, preventing visitor interpretation of the fort.	High	Low	Med
	Loss of historic features such as slit trenches due to deadfall and erosion.	High	High	High

Recommended Repairs

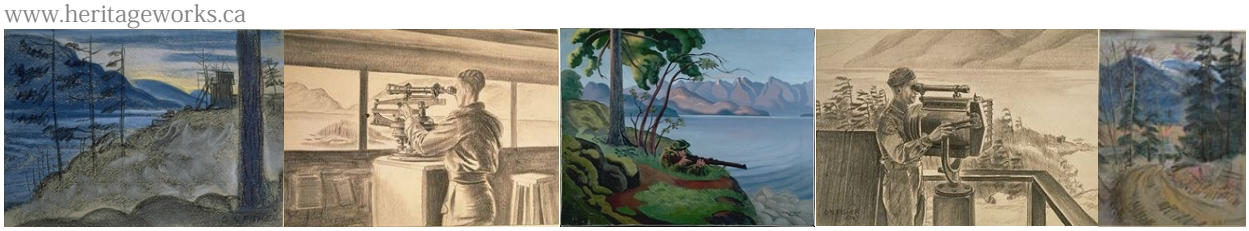
Building	Scope Ref	Action Required	Priority
Fort Landscape	10.1	• Clear views from BOP and Guns to the northwest up Johnstone Straight.	High
	10.2	• Clear views from Main Gate to War Shelter and restore historic road.	High
	10.3	• Clear trees and shrubs from slit trenches; • Restore the historic features.	High
	10.4	• Clear views from War Shelter and Gunner's Stores & Workshop up Johnstone Strait.	Medium
	10.5	• Windsafe the forest within the fort and forward of the guns including removal of all alder trees within the fort perimeter fence.	Medium
	10.6	• Restore the historic paths between buildings and reinstate the historic	Low

		landscape as closely as possible within the perimeter fence of the fort.	

Photos

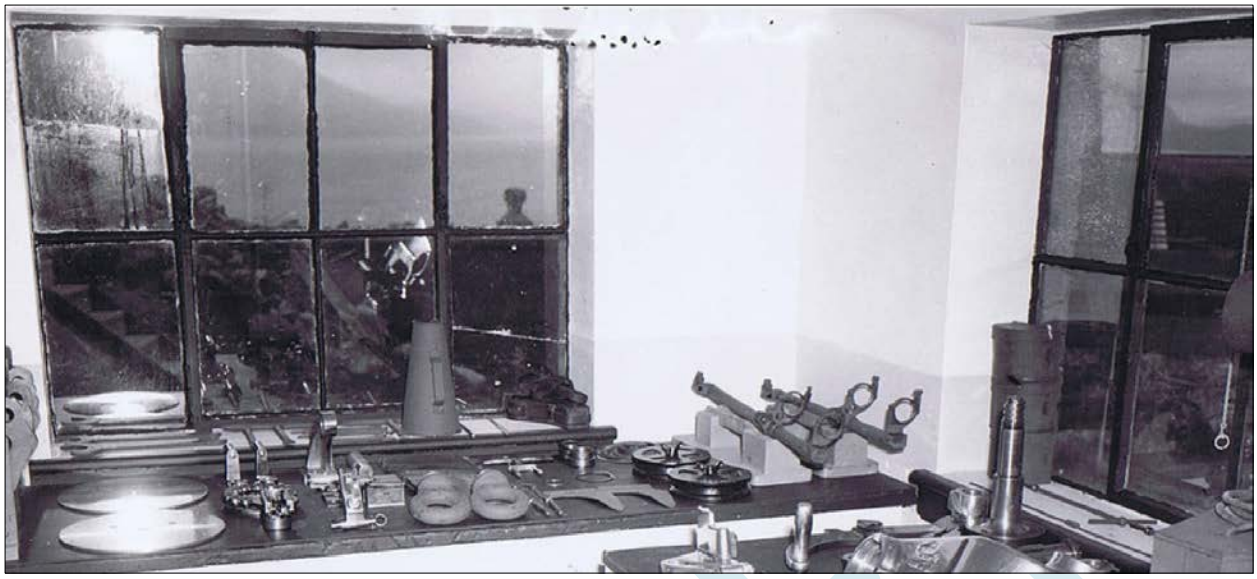
The view down-range into Johnstone Straight as it would have been visible from the BOP, Guns and War Shelter during the period of occupation 1937-59

Historic view past Gunner's Stores & Workshop towards main gate. Note the roof of the Old Magazine on the left.

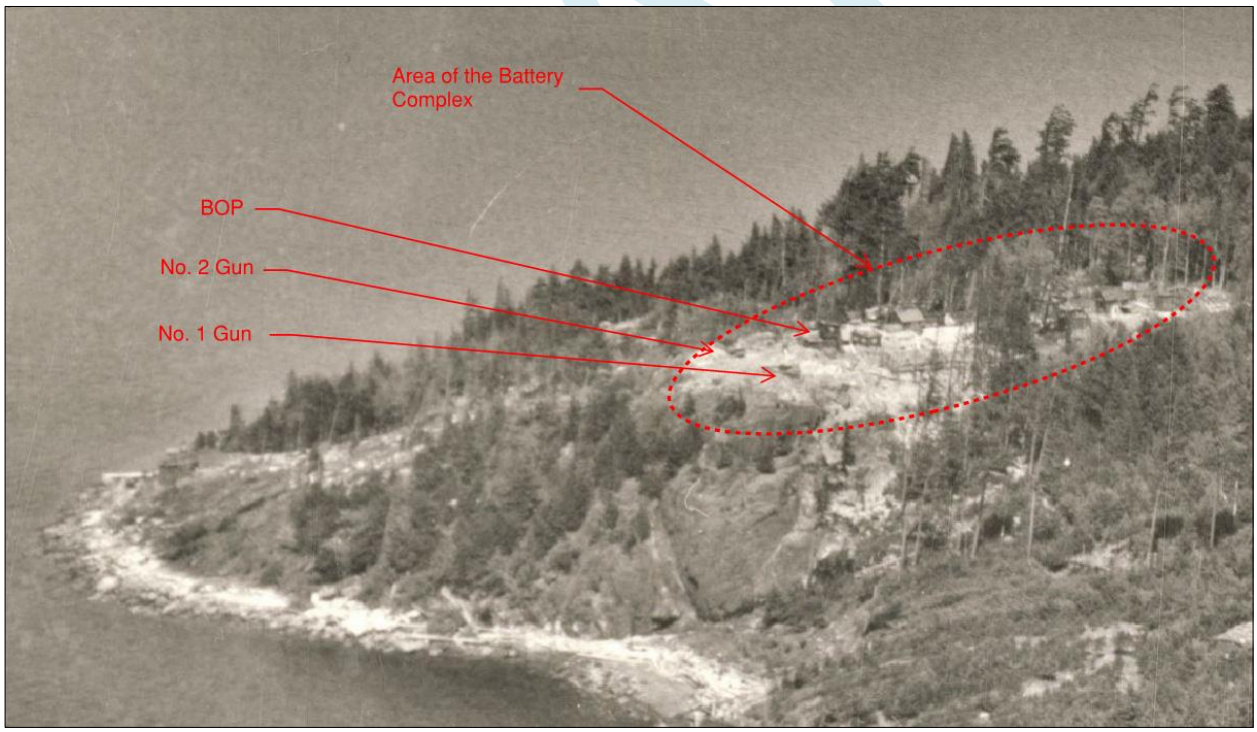


Extract from historic view past Gunner's Stores & Workshop towards main gate

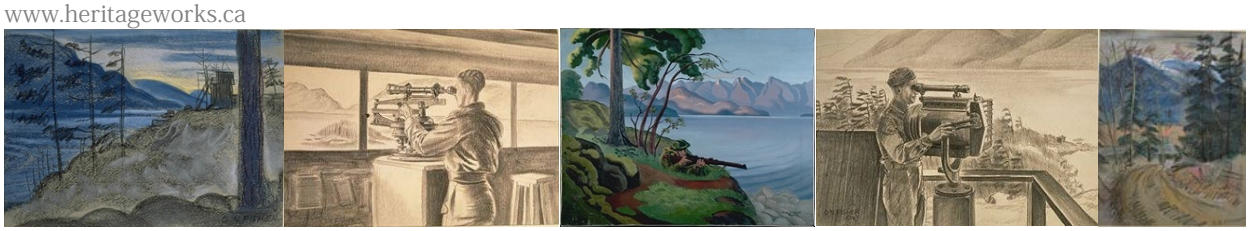
Modern view of the same landscape



Enlarged portion of a view inside the Gunner's Store & Workshop and through the windows towards Johnstone Straight. This image shows the steps to the BOP at left and the roof of the War Shelter at center (constructed in 1943), but not a single tree.

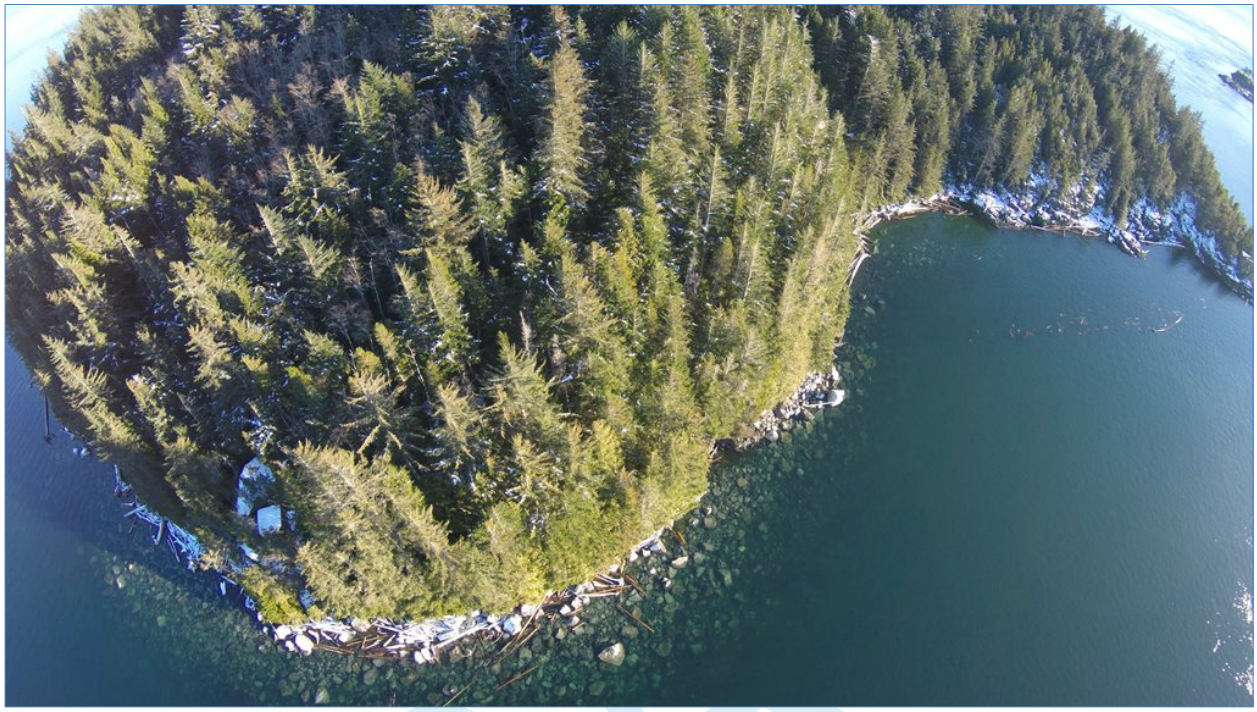


Aerial photo pre-1943 showing the clearing made in the forest for the fort and forward of the guns.



Unimpeded view from No. 1 Gun during the period of occupation.

8.0 Current Condition – Lights, Camp & Perimeter

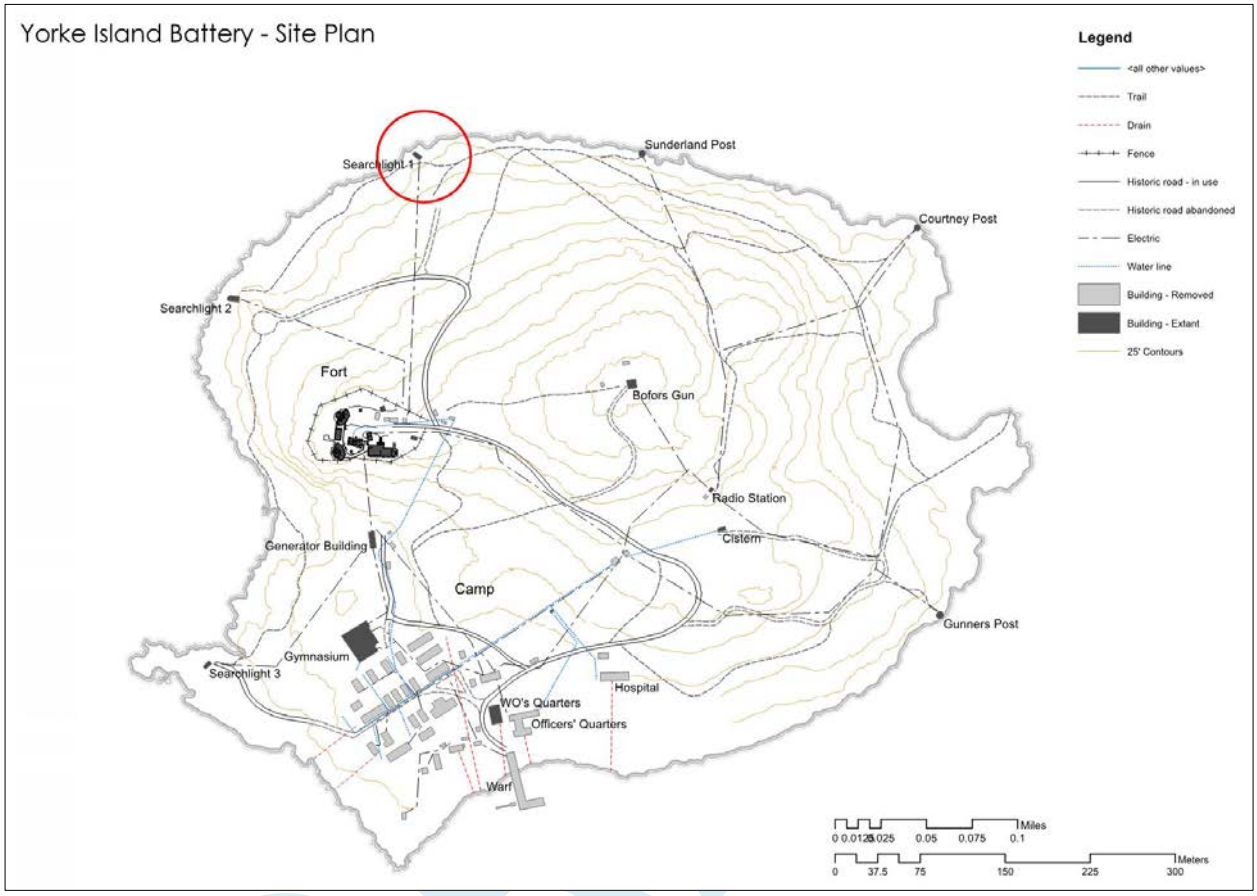


Aerial image of No. 2 Light (lower left)

The Lights, Camp and Perimeter includes the following buildings:

- No 1, No 2 & No 3 Searchlights;
- Sunderland Post;
- Courtenay Bay Post;
- Gunner's Post;
- Generator Shed & Power Plant;
- Latrines;
- Water Tank (50,000 gal. fresh water);
- Officer's Mess;
- Wireless Telegraph Station;
- Gymnsasium
- Bofors Anti-aircraft Platform;
- Service Trenches;
- Roads, Landings & Footpaths;
- Slit Trenches & Small Fortifications (associated with the lights and listening posts).

8.1 No 1 Searchlight



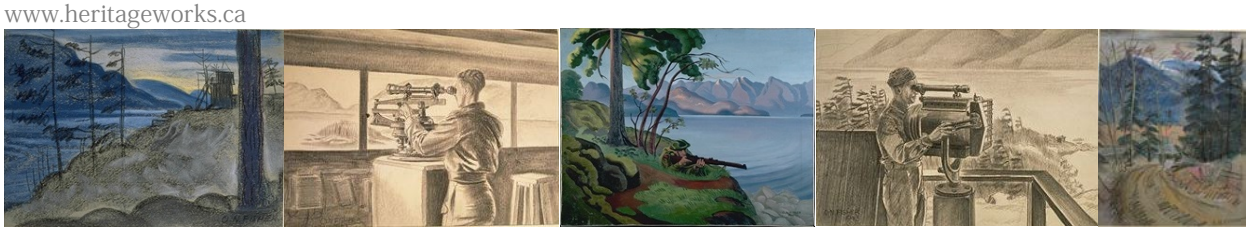
Location of No. 1 Light

Description of Structure

The No. 1 Searchlight is a utilitarian engineering work of military design. It is one of three lights on Yorke Island. The design is thoughtfully detailed and the concrete construction is robust and well made. The curved concrete work is carefully fit to the irregular bedrock. 3x folding and sliding doors provide a large single entrance at the rear of the light. A cantilevered, flat roof with a semi-circular seaward face is orientated toward the nortwest and provides the guide track for the telescopic metal shutters that enclose the light. The massive General Electric light has been removed, but the service conduit and holdfasts remain in the concrete floor.

The single room is vented through one wall and through the roof. The roof is tar and gravel.

The building is a highly significant (and evocative) remainder of battery complex. Like other buildings around the perimeter of the island, the light was connected via a perimeter sentry trail. Near the light, modest fortifications and stone walls are evidence of close infantry defenses.



The relationship between the light (plus its corresponding electrical service trenches and access road) and its specific location along the coastline are important context. The view from within the light represents the field of operation; maintaining these views to the ocean are essential to the interpretation of the building.

Condition

The structure is in very good condition despite its harsh marine environment. The curved-section steel beam that supports the cantilevered roof slab is very important to the structural integrity of the building. This beam is currently in good condition but it is essential that this is maintained in order to ensure the buildings longevity.

The metal tracks (cast in place) that support the steel shutters are badly corroded and continuing to decay. These are in poor condition.

6 of the 6 original steel shutters are still in place

3 of the 3 original wood and steel doors are still in place and 2 of them are still mounted. The tracks are in poor condition and badly corroded.

The exterior of the building was originally painted in a camouflage pattern and this is still legible in some places.

The roof is in fair condition.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
No 1 Searchlight	Continued corrosion of the curved and cantilevered metal beam that supports the roof slab, ultimately resulting in collapse of the roof.	High	High	High
	Damage to painted surfaces caused by visitors	Low	Med	Low
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	Med	Med	Med
	Continued corrosion of the metal parts resulting in loss of historic features	High	Med	Med

Recommended Repairs

Building	Scope Ref	Action Required	Priority
No 1 Searchlight	11.1	• Descale exposed metal surfaces of cantilevered beam above shutters with needle gun; • Treat with rust inhibitor; • Treat with polyurethane.	High
	11.2	• Stabilize the shutters and tracks; • Treat all exposed metal parts.	High
	11.3	• Repair the doors and make operable; • Treat all exposed metal parts.	Med
	11.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Med

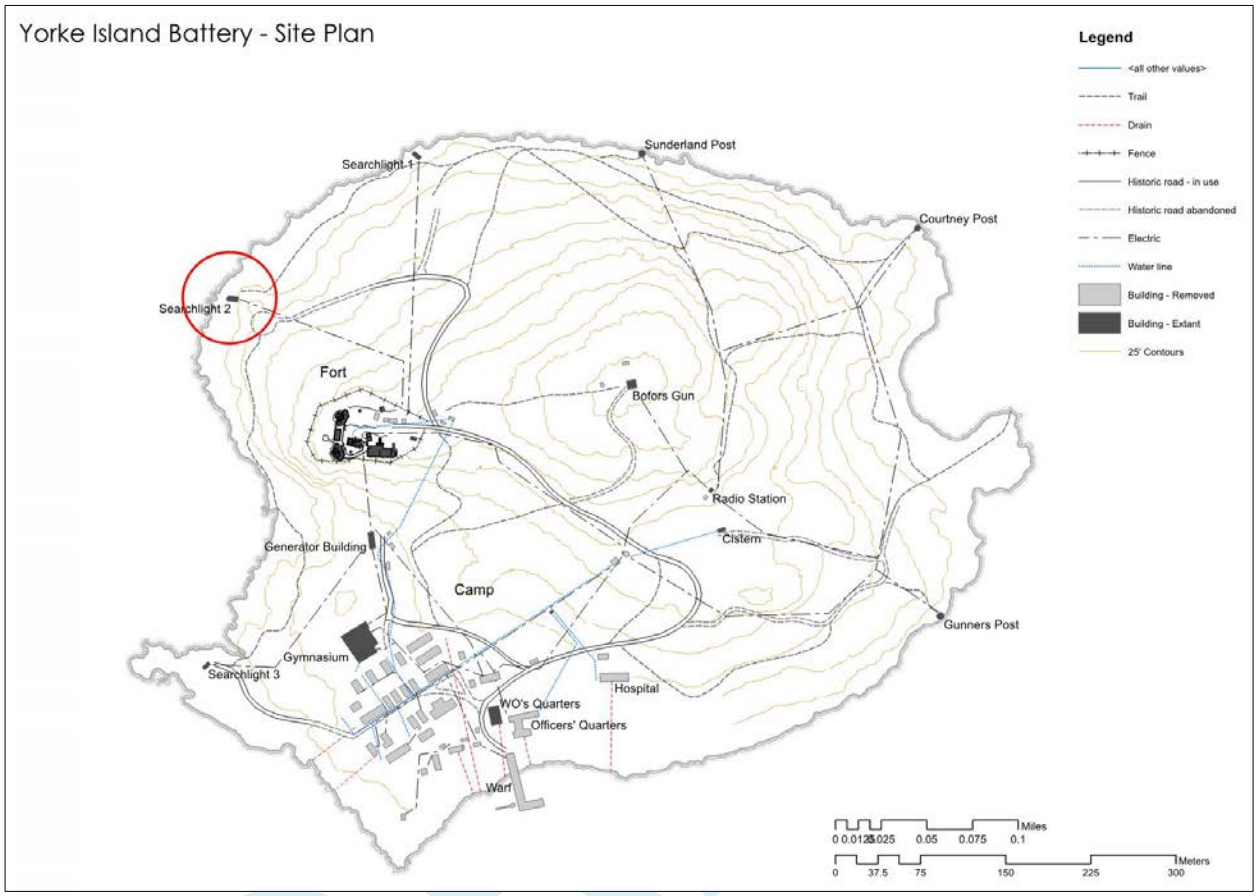
Photos

North elevation

Interior showing doors at east end of building and service trench in floor

Interior, showing shutters and tracks at northeast

8.2 No 2 Searchlight



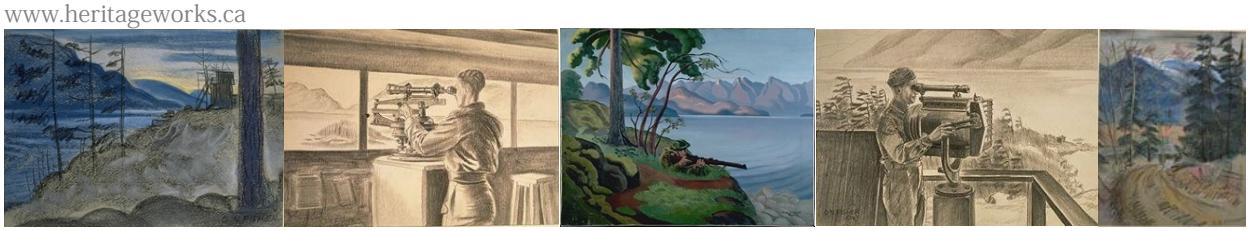
Location of No. 2 Light

Description of Structure

The No. 2 Searchlight is a utilitarian engineering work of military design. It is one of three lights on Yorke Island. The design is thoughtfully detailed and the concrete construction is robust and well made. The curved concrete work is carefully fit to the irregular bedrock. 3x folding and sliding doors provide a large single entrance at the rear of the light. A curved, cantilevered, flat roof extends seaward and provides the guide track for the telescopic metal shutters that enclose the light. The massive General Electric light has been removed, but the service conduit and holdfasts remain in the concrete floor.

The single room is vented through one wall and through the roof. The roof is tar and gravel.

The building is a highly significant (and evocative) remainder of battery complex. Like other buildings around the perimeter of the island, the light was connected via a perimeter trail. Near the light, modest fortifications and stone walls are evidence of close defenses.



The relationship between the light (plus its corresponding electrical service trenches and access road) and its specific location along the coastline are important context. The view from within the light represents the field of operation; maintaining these views to the ocean are essential to the interpretation of the building.

Condition

The structure is in very good condition despite its harsh marine environment. The curved-section steel beam that supports the cantilevered roof slab is very important to the structural integrity of the building. This beam is currently on good condition but it is essential that this is maintained in order to ensure the buildings longevity.

The metal tracks (cast in place) that support the steel shutters are badly corroded and continuing to decay. These are in poor condition.

None of the 6 original steel shutters are still in place

3 of the 3 original wood and steel doors are still in place. This is the best surviving example of the doors. The tracks are in poor condition and corroded.

The exterior of the building was originally painted in a camouflage pattern and this is still legible in some places.

The roof is in fair condition.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
No 2 Searchlight	Continued corrosion of the curved and cantilevered metal beam that supports the roof slab, ultimately resulting in collapse of the roof.	High	High	High
	Damage to painted surfaces caused by visitors	Low	Med	Low
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	Med	Med	Med
	Continued corrosion of the metal parts resulting in loss of historic features	High	High	High

Recommended Repairs

Building	Scope Ref	Action Required	Priority
No 2 Searchlight	12.1	• Descale exposed metal surfaces of cantilevered beam above shutters with needle gun; • Treat with rust inhibitor; • Treat with polyurethane.	High
	12.2	• Stabilize the shutters and tracks; • Treat all exposed metal parts.	High
	12.3	• Repair the doors and make operable; • Treat all exposed metal parts.	Med
	12.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Med

Photos

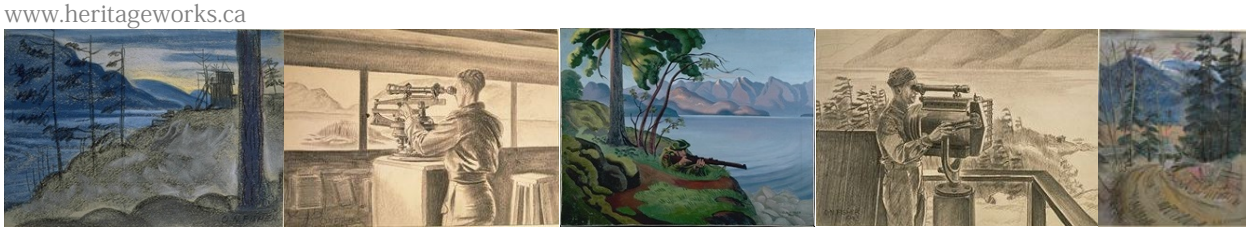
Iron beam supporting cantilevered roof slab at north end of the light

Left – *Tracks for shutters*

Right *– Interior showing doors at east end*

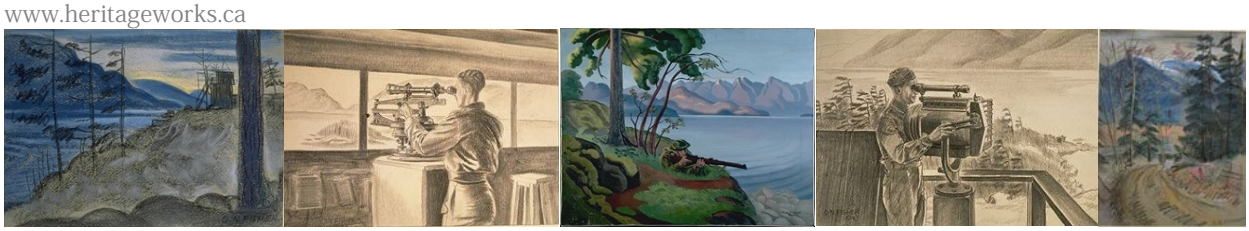
Left – *Exterior of doors at east elevation*

Right *– Interior of doors at east elevation*

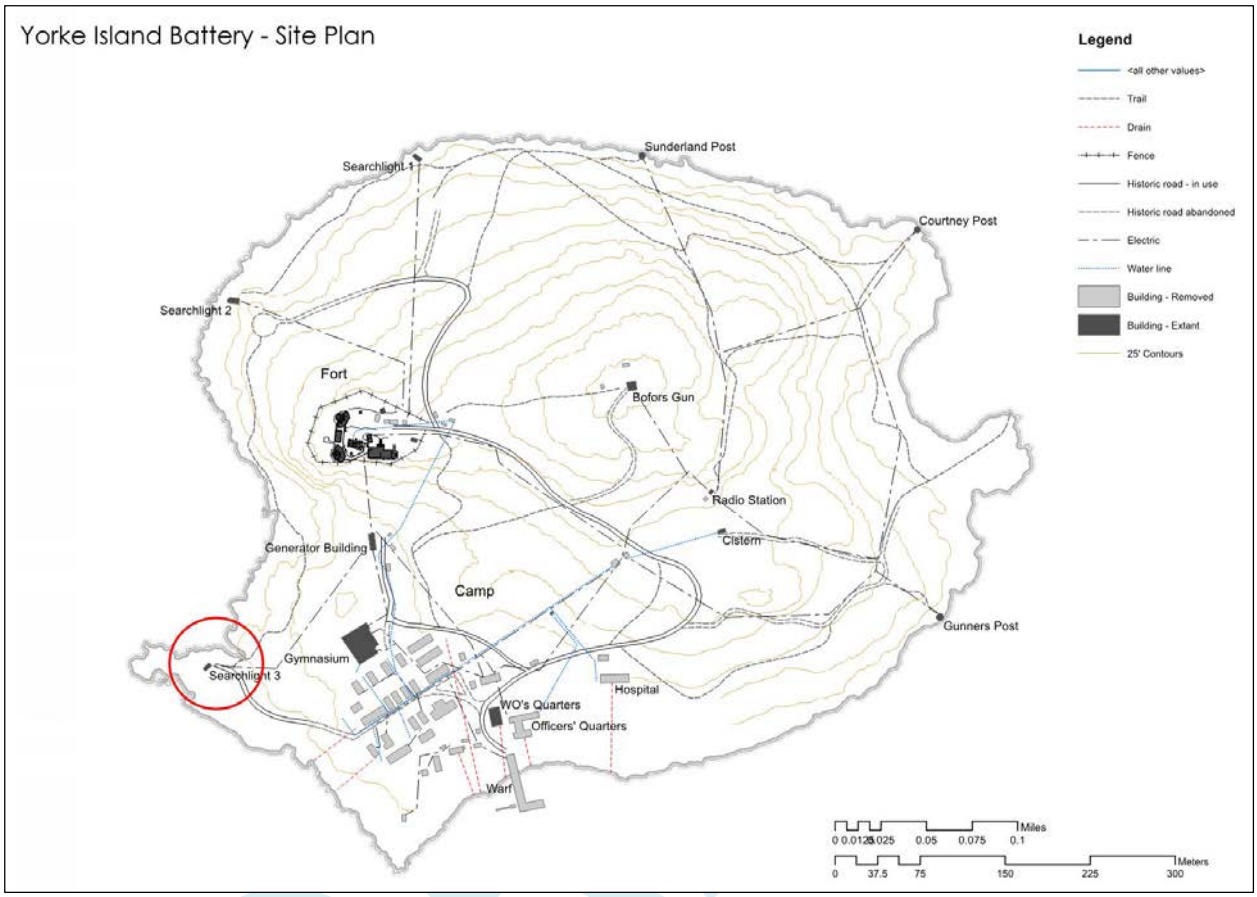


Left – *Detail of ventilation hole at roof (from above)*

Right *– Service conduit at entrance*



8.3 No 3 Searchlight



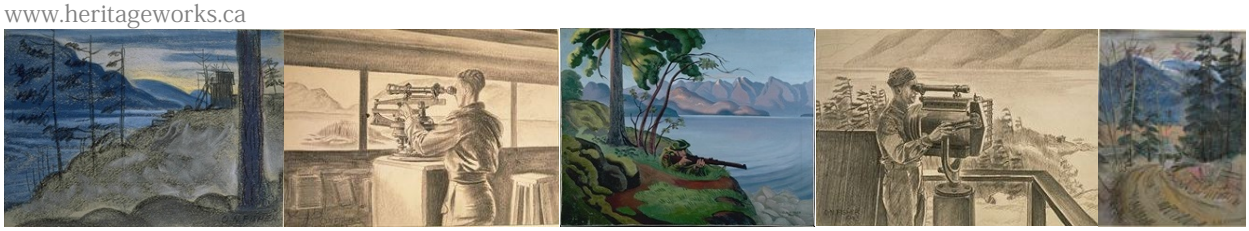
Location of No. 3 Light

Description of Structure

The No. 3 Searchlight is a utilitarian engineering work of military design. It is one of three lights on Yorke Island. The design is thoughtfully detailed and the concrete construction is robust and well made. The curved concrete work is carefully fit to the irregular bedrock. 3x folding and sliding doors provide a large single entrance at the rear of the light. A curved, cantilevered, flat roof extends seaward and provides the guide track for the telescopic metal shutters that enclose the light. The massive General Electric light has been removed, but the service conduit and holdfasts remain in the concrete floor.

The single room is vented through one wall and through the roof. The roof is tar and gravel.

The building is a highly significant (and evocative) remainder of battery complex. Like other buildings around the perimeter of the island, the light was connected via a perimeter trail. Near the light, modest fortifications and stone walls are evidence of close defenses.



The relationship between the light (plus its corresponding electrical service trenches and access road) and its specific location along the coastline are important context. The view from within the light represents the field of operation; maintaining these views to the ocean are essential to the interpretation of the building.

Condition

The structure is in very good condition despite its harsh marine environment. The curved-section steel beam that supports the cantilevered roof slab is very important to the structural integrity of the building. This beam is currently on good condition but it is essential that this is maintained in order to ensure the buildings longevity.

The metal tracks (cast in place) that support the steel shutters are badly corroded and continuing to decay. These are in extremely poor condition.

None of the 6 original steel shutters are still in place.

2 of the 3 original wood and steel doors are still inside the building and partially attached while the third panel is lying in the environs nearby. The tracks are in poor condition and badly corroded.

The exterior of the building was originally painted in a camouflage pattern and this is still legible in some places.

The roof is in fair condition.

Risk Assessment

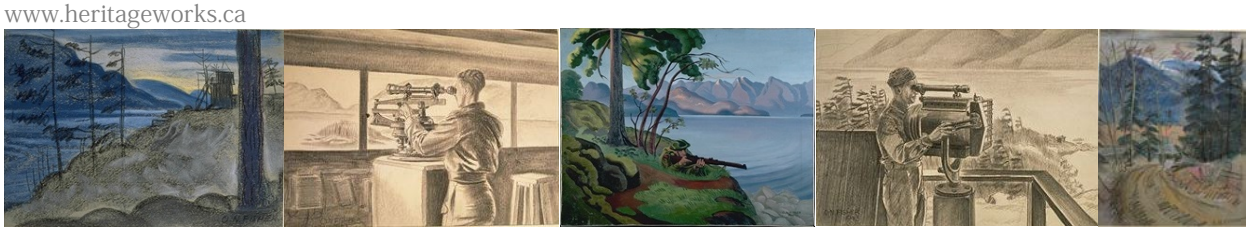
Building	Hazard	Likelihood	Severity	Priority
No 3 Searchlight	Continued corrosion of the curved and cantilevered metal beam that supports the roof slab, ultimately resulting in collapse of the roof.	High	High	High
	Damage to painted surfaces caused by visitors	High	Med	Med
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	High	High	High
	Continued corrosion of the metal parts resulting in loss of historic features	High	Med	Med

Recommended Repairs

Building	Scope Ref	Action Required	Priority
No 3 Searchlight	13.1	• Descale exposed metal surfaces of cantilevered beam above shutters with needle gun; • Treat with rust inhibitor; • Treat with polyurethane.	High
	13.2	• Stabilize the tracks for shutters; • Treat all exposed metal parts.	High
	13.3	• Repair the doors and fix in open position; • Retrieve the missing door panel from environs and return to original location; • Treat all exposed metal parts.	High
	13.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Low

Photos

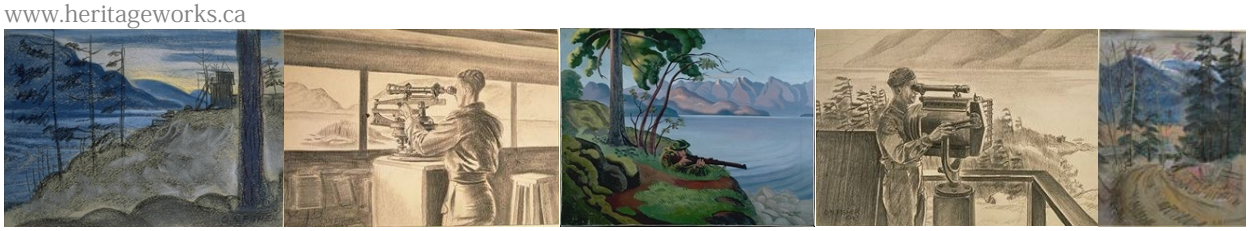
Northwest elevation



Roof, view towards northwest

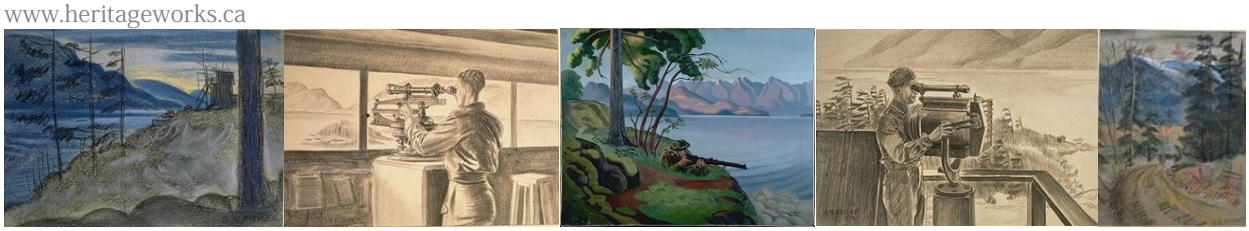
Left – *Detail of shutter tracks*

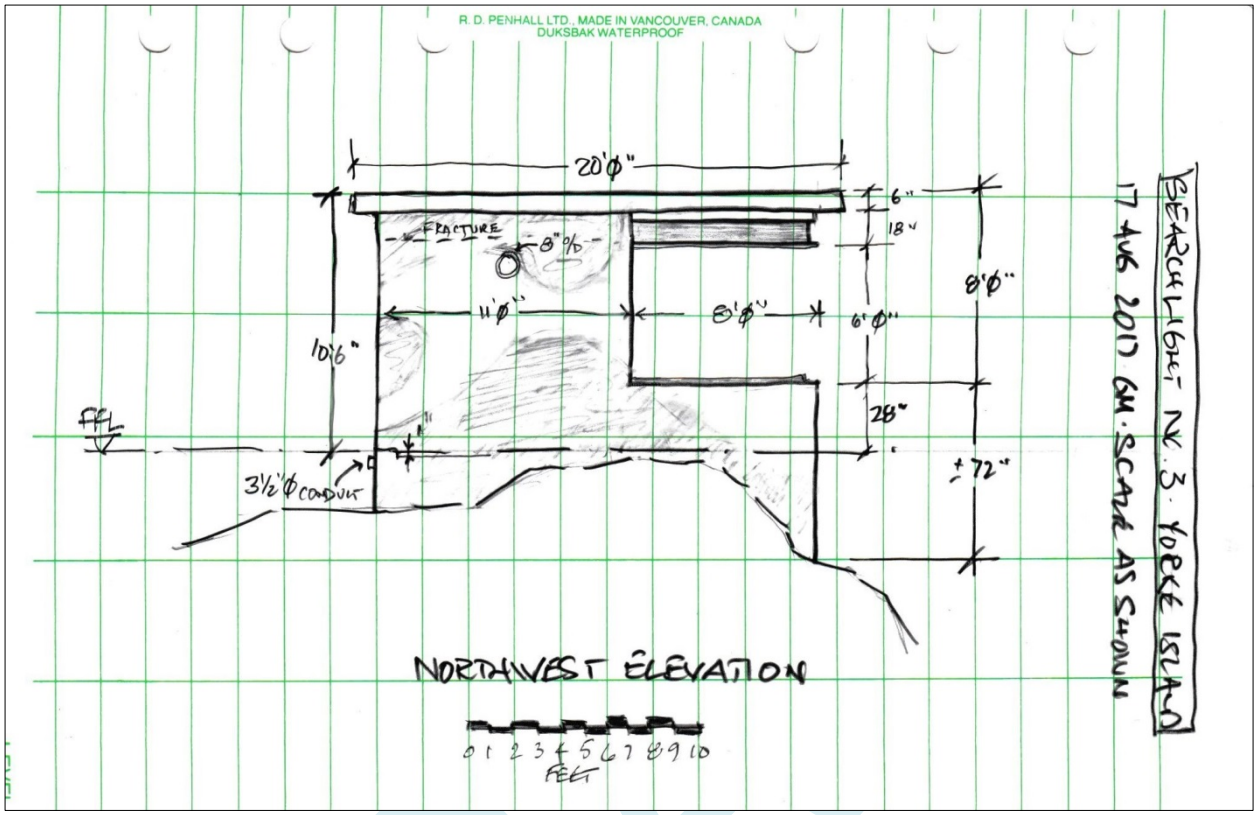
Right *– Detail of shutter tracks*

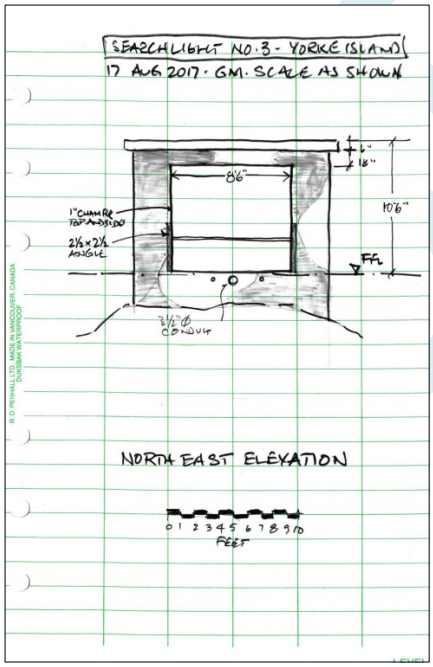


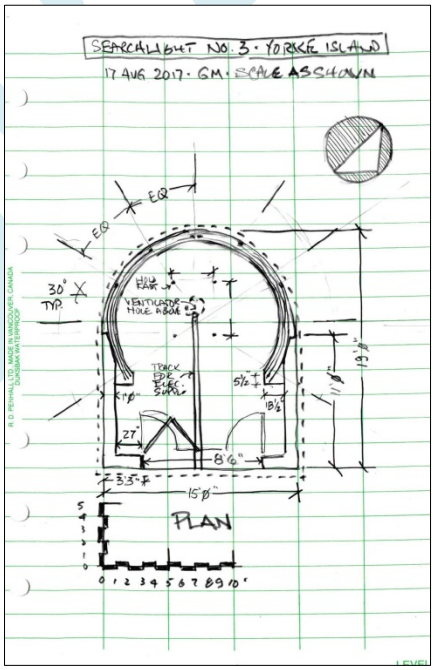
East corner

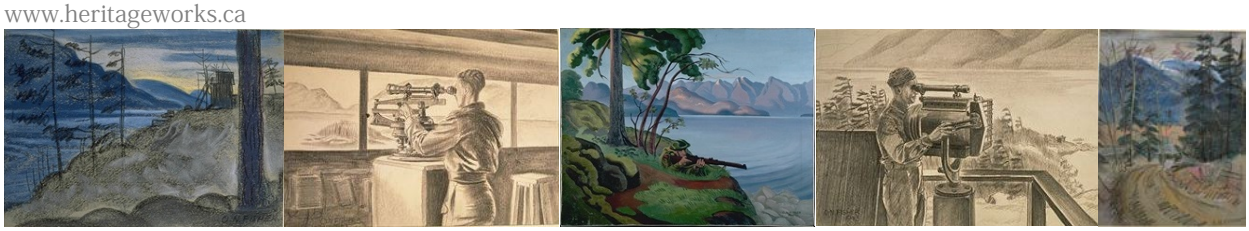
Left – *Interior showing doors at southeast elevation* ***Right*** *– One of the doors in landscape north of light*



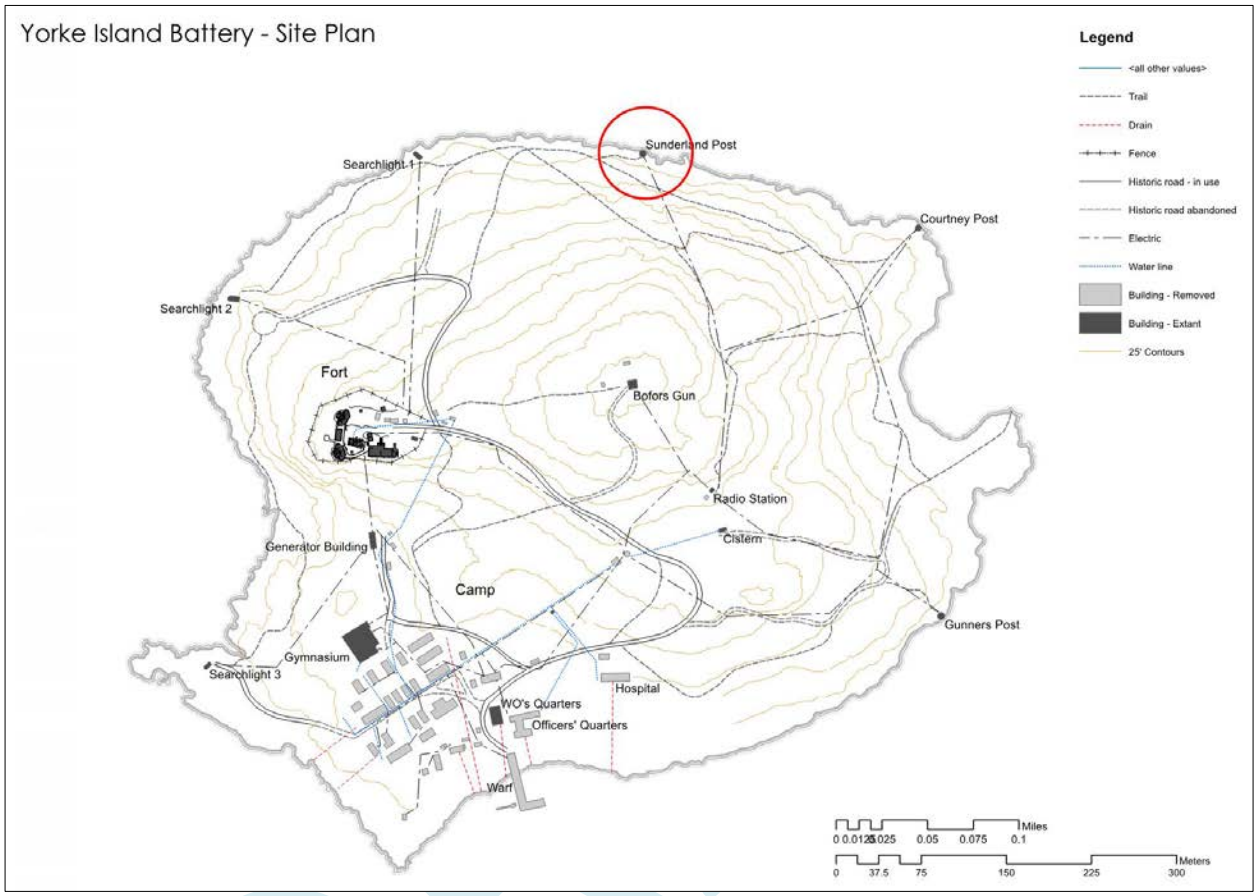

R. D. PENHALL LTD., MADE IN VANCOUVER, CANADA
DUKSBAK WATERPROOF
20'0"
6"
18"
8'0"
FRACTURE
8" ø
11'0"
8'0"
6'0"
10'6"
28"
FFL
3½" ø CONDUIT
72"
SEARCHLIGHT NO. 3. YORKE ISLAND
17 AUG 2017 GM. SCALE AS SHOWN
NORTHWEST ELEVATION
0 1 2 3 4 5 6 7 8 9 10
FEET


SEARCHLIGHT NO. 3 - YORKE ISLAND
17 AUG 2017 - GM. SCALE AS SHOWN
8'6"
6"
18"
10'6"
1" CHAMFER TOP & BOTTOM
2½ x 2½ ANGLE
FFL
3½" ø CONDUIT
NORTH EAST ELEVATION
0 1 2 3 4 5 6 7 8 9 10
FEET


SEARCHLIGHT NO. 3 - YORKE ISLAND
17 AUG 2017 - GM. SCALE AS SHOWN
EQ
EQ
30° TYP.
HALF BAR
VENTILATOR HOLE ABOVE
TRACK BOX BUSS SLAB
5½"
11'0"
19'0"
18½"
27"
8'6"
3'3"
15'0"
PLAN
0 1 2 3 4 5 6 7 8 9 10



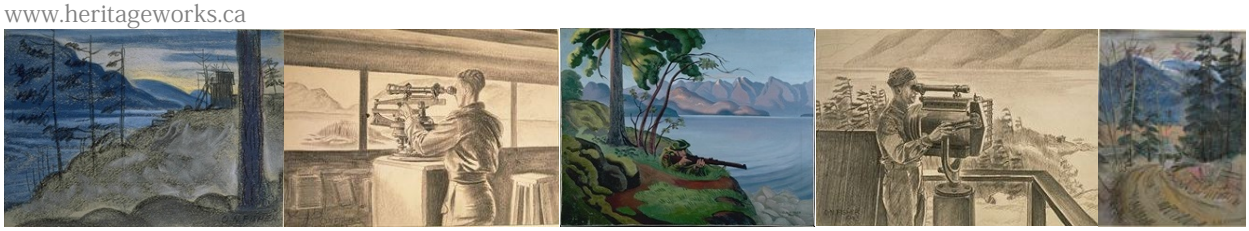
8.4 Sunderland Post



Location of Sunderland Post

Description of Structure

Sunderland Post is one of three listening posts located around the perimeter of the island, and the best surviving example. It is a small two room log-built structure very different from other buildings on the island (and reminiscent of infantry field work construction of the WWI era and a century before). It has an irregular plan consisting of a small rectangular main room with windows on side walls and a door on the landward gable end, and the triangular front room facing the water. The landward room had a stove and furniture for basic operations, while the seaward room (now almost completely collapsed) appears to have been used for monitoring and observation. The Post is located several meters from the shore line on ground above the beach head. It is built using standard round log construction with simple dovetail connections between at the corners. The logs have been crudely chinked with moss (to provide weatherproofing and reduce drafts) and these horizontal gaps have been closed with saplings at the interior. The roof is made from round pole rafters with square edged roofing boards on top. The rafter



tails project to create generous eaves. The roof is finished with tar paper as the protective membrane. The gables are planked with horizontal shiplap boards. The floor is simply constructed of planks on a raft of sleeper joists with a pad stone foundation. Windows and doors are simply built from similar square edge plank materials as used on the roof and partition wall between rooms with the main door. Some of the rustic wood door and window hardware remains. Markings and labelling chalked on the boards suggest that the building was prefabricated elsewhere and then moved to its current location in several loads.

Condition

The building is partially-collapsed and hazardous. Some of the logs are missing, and those that remain are generally soft, but the partially-collapsed roof is still providing some cover. Sufficient information currently exists in the building to understand and interpret all of the original building features. With an appropriate team the Sunderland Post can be repaired.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
Sunderland Post	Continued decay resulting in the loss of the building and all physical evidence.	High	High	High
	Damage from visitor impacts including fire.	High	High	High
	Damage resulting from impact from deadfall	High	High	High

Recommended Repairs

Building	Scope Ref	Action Required	Priority
Sunderland Post	14.1	• Record the site; • Repair the log structure; • Repair the roof and make watertight; • Carefully document and remove all contents; • Repair/replace the floor; • Repair the windows, doors and furniture.	High
	14.2	• Windsafe the adjacent forest.	High
	14.3	• Restore the historic sentry paths between building and the island perimeter trail.	Medium
	14.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Low

Photos

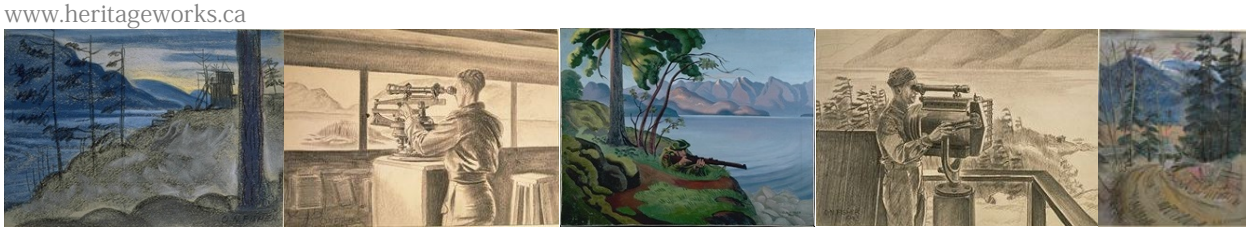
Northwest corner

Southwest corner

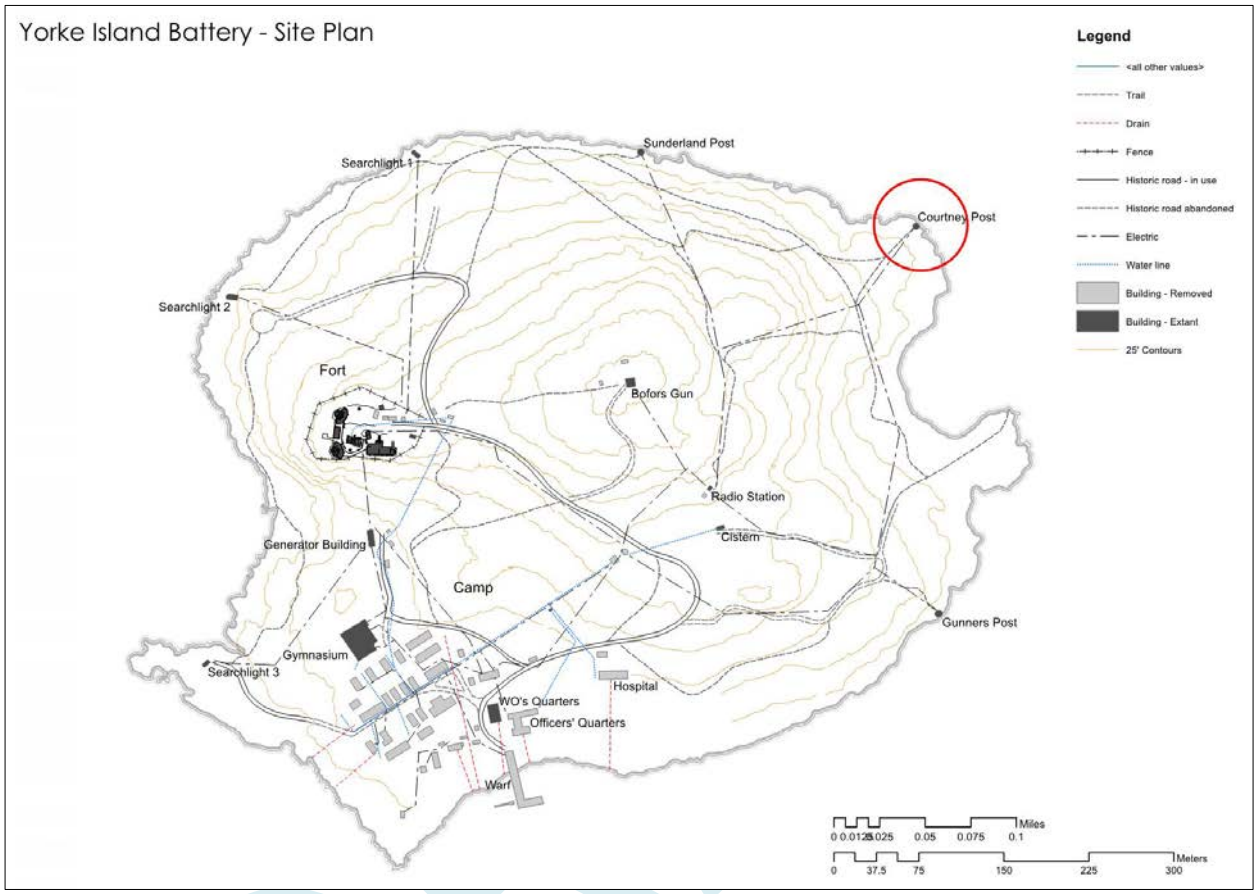
South elevation

Left *– Interior showing window at south wall*

Right *– Interior, simple roof truss at west wall*



8.5 Courtenay Post



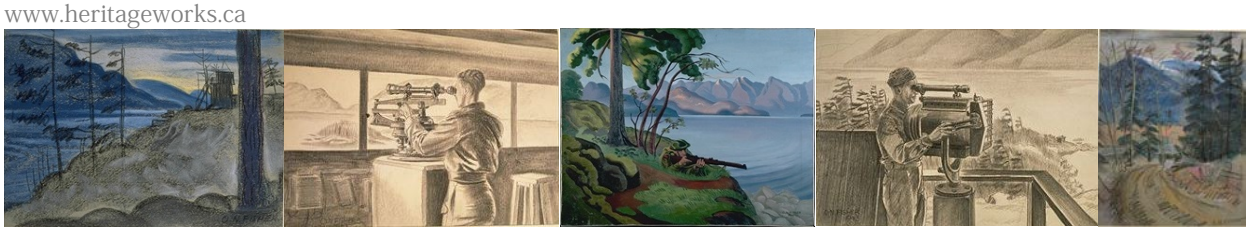
Location of Courtenay Post

Description of Structure

Courtney Post is the northeastern most listening post. Identical in design and function to Sunderland Post, very little of this post survives beyond a collapsed pile of rotten wooden building materials. The surviving remnants comprise the remains of the *second* Courtenay Post. The original Courtenay Post was located on the southern side of the bay and appears to have been a fortification in the form of a low pillbox constructed from sand bags and logs.

Courtenay Bay post monitors the eastern approach to the island and was connected to the other perimeter posts by an inland sentry trail. Like the other coastal observation posts and lights, electricity was provided to these posts and some remains of this network survive on site.

Condition



Courtenay Post belongs to a class of buildings on Yorke island, for which we have good spatial/topographic information and some archaeological remains are extant on site. At Courtenay Bay this takes the form of a debris scatter around the site of the building with some collapsed but intact building elements. The condition of the building is very poor, and will likely continue to deteriorate in the local conditions. Slowing or arresting deterioration of the site that has reached this level of preservation and that is made from perishable materials is challenging and management for the site should adopt an approach in keeping with site maintenance for archeological landscape features for which there are many around the island. Materials should not be removed from the site unless as part of a dedicated program of removals. Trails and access routes to the site should be kept clear and well maintained. The site itself should also be kept clear of encroaching vegetation and made legible for occasional visitation.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
Courtenay Bay Post	Continued decay resulting in the loss of the building and all physical evidence.	High	Med	Low

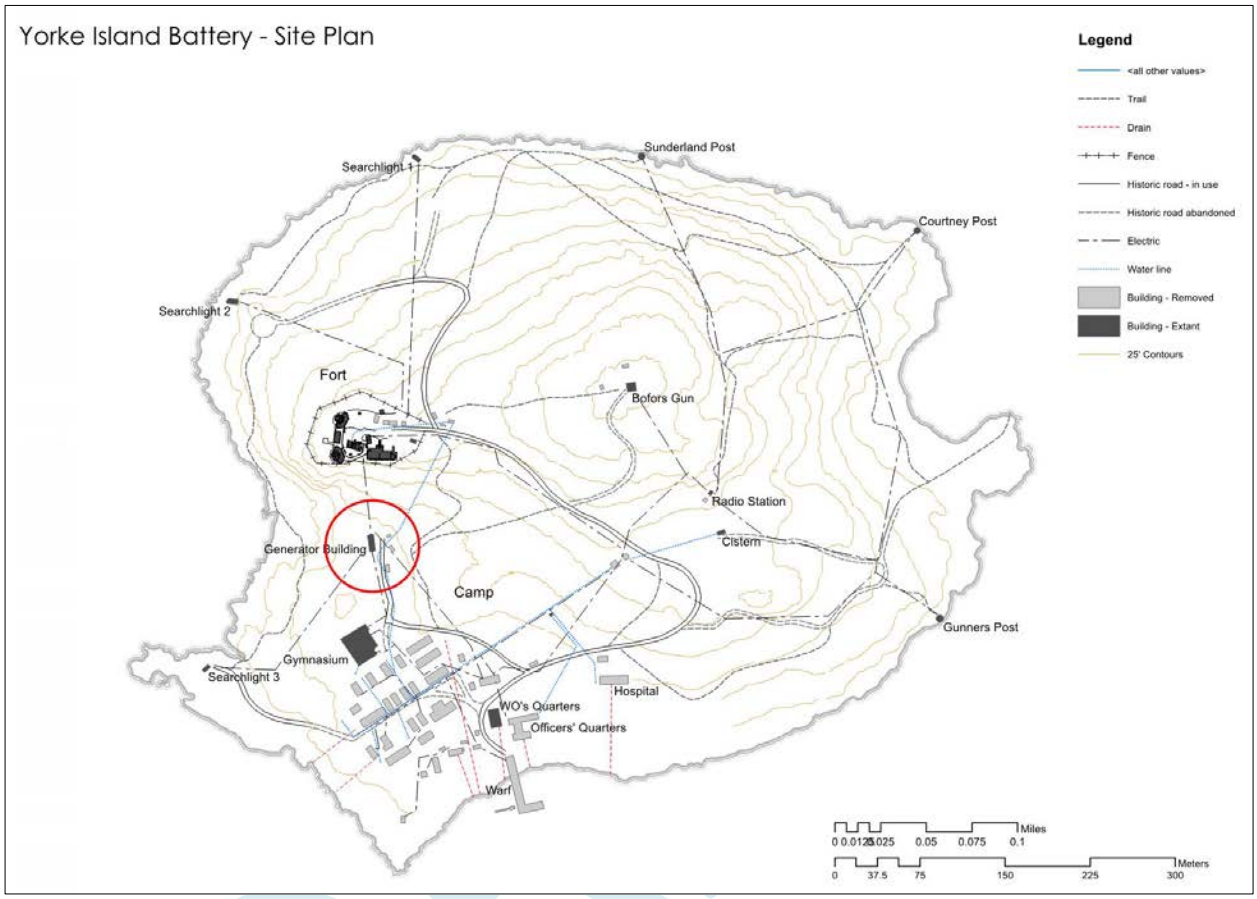
Recommended Repairs

Building	Scope Ref	Action Required	Priority
Courtenay Bay Post	15.1	• Record site, undertaking limited excavation; • Clear brush from around ruin to retard further decay.	High

Photos

Southern aspect of ruinous building showing the decayed roof

8.6 Generator Shed & Power Plant



Location of Generator Shed & Power Plant

Description of Structure

The Generator Shed & Power Plant forms the functional hub of the site, originally providing power to the fort, the camp and all of the sites around the perimeter of the island. The building was built in two phases of concrete construction, resulting in a large (1,200 ft. sq.) double-roomed structure with a flat concrete slab roof, and 12-in thick concrete walls. The exteriors of these walls are painted with camouflage.

The complex is located on the slopes to the south of the fort and is connected by a steep climb up the south side of the magazine where a staircase gives access to the path between the two sites. A road with prominent drainage ditches leads from the Generator Shed & Power Plant to the Camp and there are several secondary structures/installations located around the perimeter of the main building.

The larger of the two rooms (and the first to be constructed) housed four generators plus turbines on large rectangular concrete foundation pads with service channels cast into the concrete slab floor. The space was ventilated by louvered windows along the west wall and painted with high gloss paint internally. Various fixtures and furnishings relating to operation of the turbines remain intact but the generators, cabling and machinery have all been removed. The east wall has large steel double doors hung on a steel channel frame set into concrete walls. A single window with large steel shutters is in the same wall just north of the doors, and 2x windows to the same pattern are arranged symmetrically in the north wall. Steel louvers are positioned at upper level in the wall around the building.

The southern and smaller of the two rooms (constructed during a later phase) is constructed in a similar way to the main generator room with slightly thinner perimeter walls. Internally, the walls were lined with painted particle board (Buffalo Board) applied on lath along each wall and there is a single remaining internal partition. The floor and ceiling are concrete slabs. As per the main generator room, there are four smaller concrete bases for machinery, but no machinery remaining. The west wall has two lower louvered ventilator windows at chest height and two steel ventilators at upper level in the wall. The south and east walls have pairs of sash windows in each wall. At the center of the east wall a large steel double door provides access to the space.

Externally the building is painted with yellow and brown camouflage, applied directly to concrete wall surfaces (the roof may be likewise treated). The west wall is partially protected by an earth embankment and there are ditches around the north, south and east sides. To the south elevation a large concrete base with holdfasts stands directly outside the wall while a smaller base inside a wooden cover shed is located slightly beyond.

The concrete slab roof is at different elevations over the two parts of the building but constructed similarly over both parts with a 4-in thick projecting slab covered with a bitumen and gravel membrane. The roof projects approximately 18-in from the face of the wall and a fascia board was originally applied to the whole perimeter with iron bolts set into the concrete slab. Very thick vegetation covers and obscures both roofs.

There are substantial service corridors leading away from the Generator Shed & Power Plant. These should be regarded as highly significant and related features.

Condition

The structure is generally in very good condition though several trees have fallen against it. The large steel doors are still in place (or nearby) and they are in fair/good condition. The interior of the southern space has been damaged by vandals, and there is a lot of debris on the floor in this area.

The camouflage paint is in fair condition on the west elevation, but remains vulnerable to damage.

Soils and forest debris have accumulated along the east elevation to the extent that groundwater can now enter the generator hall. A distinct smell of oil hangs over the entire building and immediate surrounding environs suggesting the that adjacent soils are probably contaminated.

The building is made to the same high standards of other primary buildings on Yorke Island, with good quality materials and excellent craftsmanship throughout. The result is a robust building that continues to stand the test of time.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
Generator Shed & Power Plant	Damage to painted surfaces caused by visitors.	High	Med	Low
	Damage resulting from impact from deadfall	High	Med	Med
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	Med	High	Med
	Continued corrosion of the metal parts resulting in loss of historic features	High	High	High

Recommended Repairs

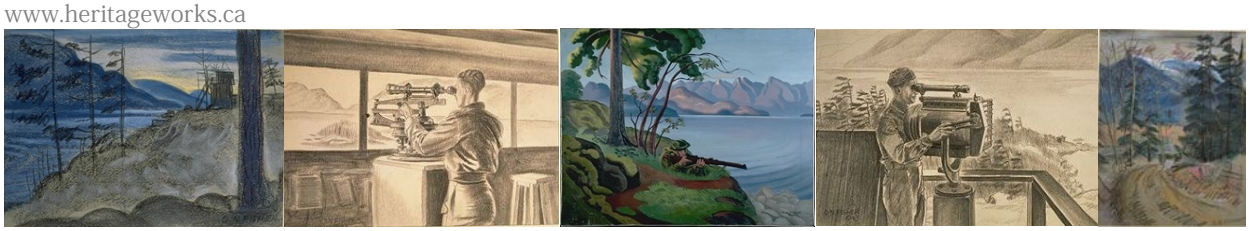
Building	Scope Ref	Action Required	Priority
Generator Shed & Power Plant	17.1	• Explore ways to protect the historic camouflage; • Investigate other international examples where protection has been successful.	High
	17.2	• Remove deadfall.	High
	17.3	• Repair the doors and fix in open position; • Treat all exposed metal parts.	Medium
	17.4	• Alter/lower grades along east elevation to encourage drainage away from building.	Medium
	17.5	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	17.6	• Strip existing roof and install new bitumen roofing to make all parts of the building watertight.	Low
	17.7	• Carefully document and remove contents covering the floor.	Low

Photos

Southwest corner.

West elevation. Note the camouflage paint.

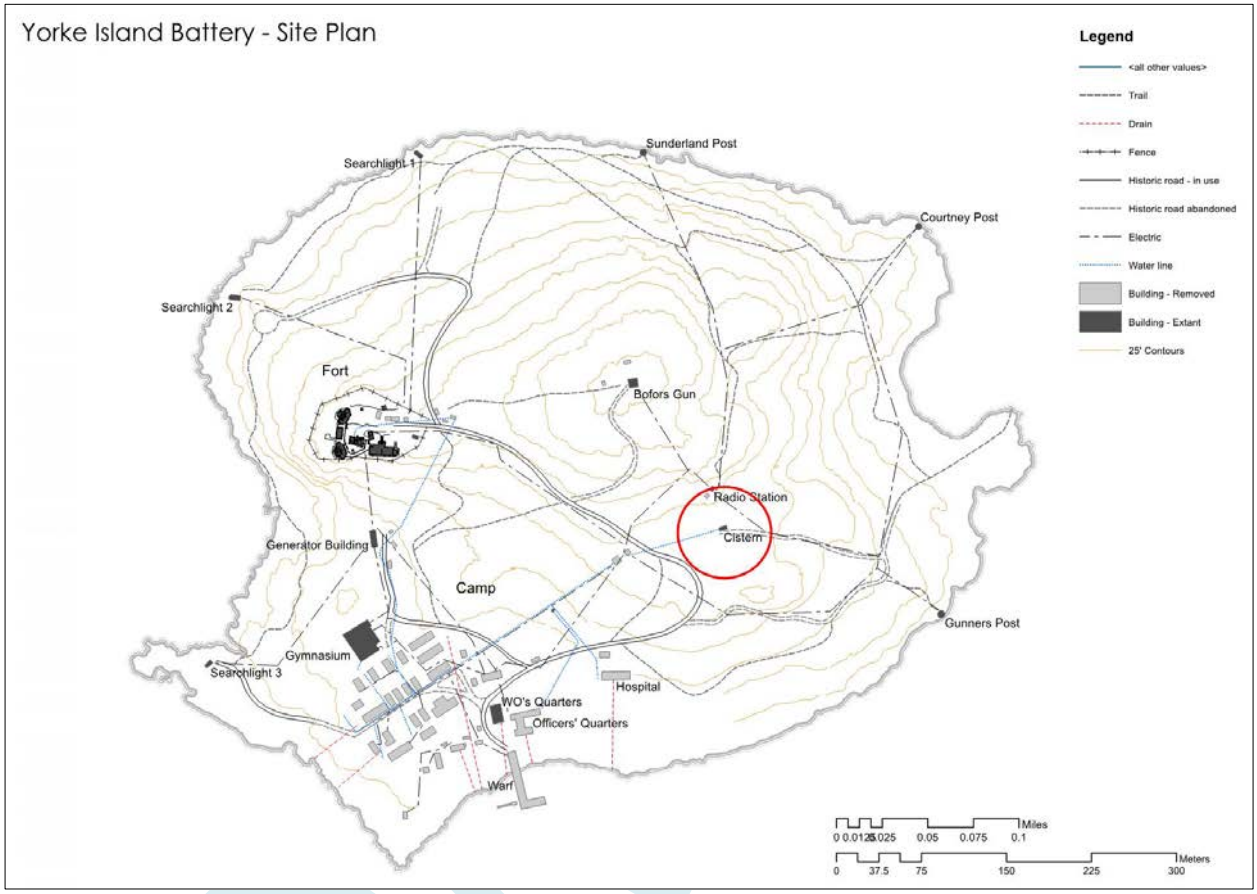
Left *– Example of metal louvre on west elevation*
Right *– Example of wooden louvre on west elevation*



East elevation

Doors to Generator Shed and Power Plant at east elevation.

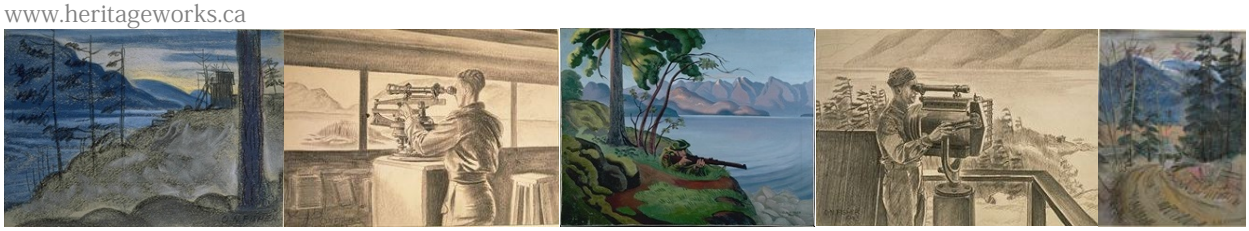
8.7 Water Tank (50,000 gal. fresh water)



Location of Water Tank

Description of Structure

The Water Tank is a 50,000 gallon capacity fresh water cistern located in a saddle between hills at the south central part of the island. Its function was to provide fresh water to the buildings of the camp, the hospital and the generator building. It is connected to a freshwater network carried in a combination of clay tile and cast iron pipes. It is an imposing concrete construction comprising a tank with 2-ft thick walls battered at a 10-degree angle on the external elevation. The cistern chamber has vertical walls internally with a capacity to carry 15-ft depth of water. The basin has two columns arranged axially at the center of the tank which would have originally supported a wooden cover. The west wall has a steel rung ladder cast into the concrete (through the full depth of the wall) for access on both the exterior and interior faces.



Condition

The Water Tank is heavily overgrown by salmon berry bushes around its base. Several trees have come down around the perimeter and at least two of these lean against the exterior of the west and east elevations. Vegetation has also established itself around the rim of the basin and there is a significant amount of debris and water on the bottom of the tank. The structure itself is very solid however, and the concrete in good condition. Conservation should be focused on management of vegetation around and on the structure. It may be desirable to control access to the tank with a ladder guard to reduce the risk of falls into the basin.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
Water Tank (50,000 gal. fresh water)	Damage resulting from impact from deadfall	High	Low	Low

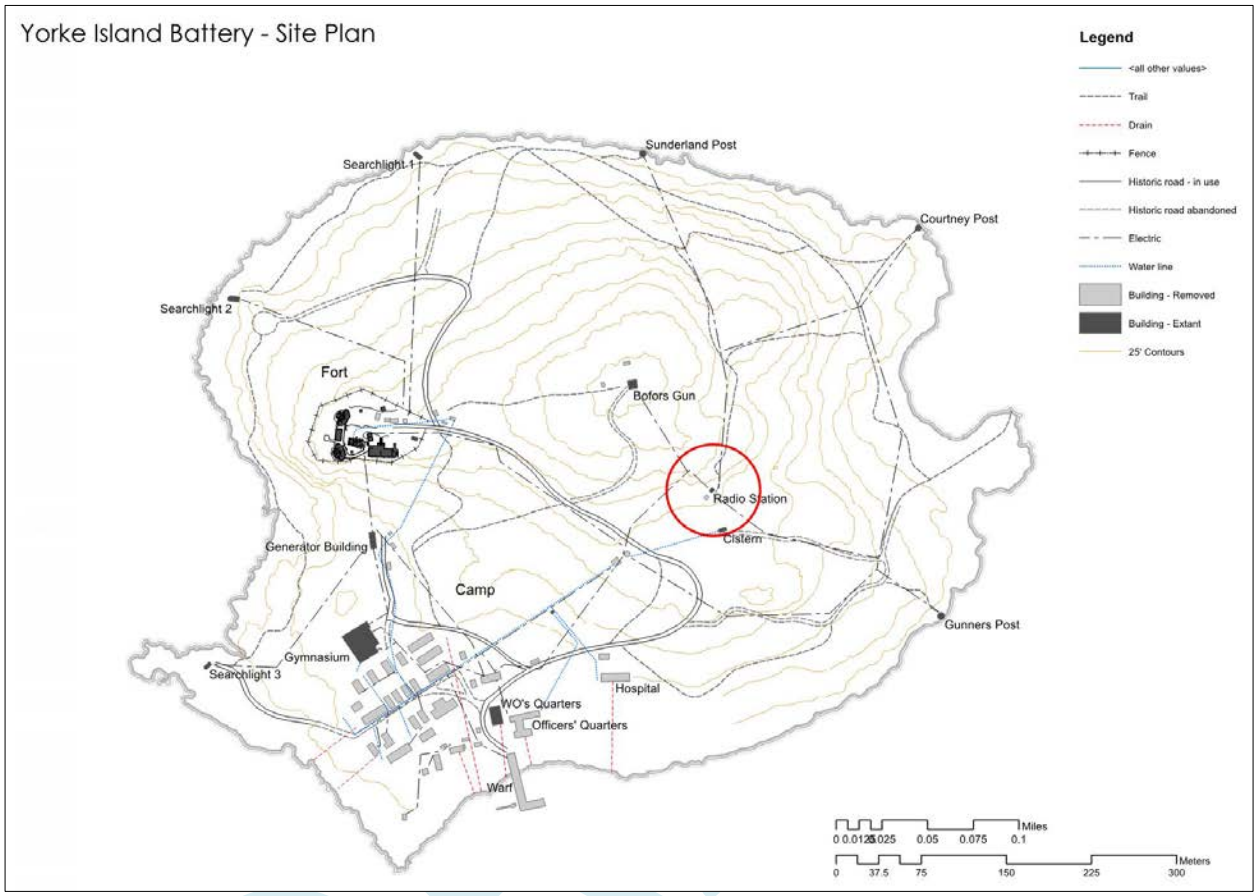
Recommended Repairs

Building	Scope Ref	Action Required	Priority
Water Tank (50,000 gal. fresh water)	19.1	Windsafe surrounding forest including removal of over-mature alder.	Low
	19.2	Clear brush and deadfall from around the structure.	Low
	19.3	Maintain good outflow drainage to prevent water from accumulating within the cistern.	Low

Photos

Interior of Water Tank

8.8 Wireless Telegraphy Station



Location of Wireless Telegraphy Station

Description of Structure

The Wireless Telegraphy Station is located in a protected location at the bottom of a small bluff, and at the foot of the hill which has the Bofors Gun Platform at its summit. Like the Water Tank, this building is somewhat removed from other infrastructure on the island, but it served an important role in connecting and supporting a network of electrical and radio services both internally on the island and for external communications. The building is functionally related to a radio mast (now removed) that was located on the hill directly south of the Water Tank. In this capacity it acted as a switch and broadcast point for communication and signaling to points external to the island.

Physically, it is a small single room concrete structure tucked close to the cliff face. Its construction is similar to other concrete structures on the island and it is well made; it has a 4-in thick, flat concrete slab roof originally finished with tar and gravel; 13-in thick, reinforced concrete walls; a concrete slab

floor; a single access door in its south elevation and single windows on both north and south walls. Internally the building was lined on the walls and ceiling with battens and painted Buffalo board painted in the familiar 3x color paint scheme.

Externally the building was camouflage painted, and this remains highly legible on the south and east elevations, especially under the overhanging eves. Joinery for windows and doors is similar to that found in the War Shelter, with simple molding profiles and a blue/ grey paint finish. There are several brackets with insulators and wiring still in position on the external walls.

An important and highly significant example of regimental graffiti can be found on the east wall. Like the camouflage paint, this graffiti is extremely susceptible to damage.

Condition

The condition of the Wireless Telegraph Station is stable. Internal finishes have been damaged and partially removed, but the structure is sound. The remaining joinery is in stable condition and reasonably well protected from the weather. The camouflage scheme is in the best condition of any on the island, and is perhaps the best known survival of a painted deception pattern in B.C. (R. Linzey, Pers. Comm). Together with the graffiti, is highly-significant as an example of the original appearance of these buildings. The good condition of the paint scheme is a result of the relatively sheltered situation of the building and maintaining its continued protection should be a priority.

Like other buildings with similar roof construction, the roof of the Wireless Telegraphy Station is covered with extensive vegetation that is damaging the roof membrane and underlying roof structure over time. The building is currently on a Courtney Bay trail loop, and therefore has the potential for frequent visitation. Managing access to the structure may be desirable as a long term goal.

Risk Assessment

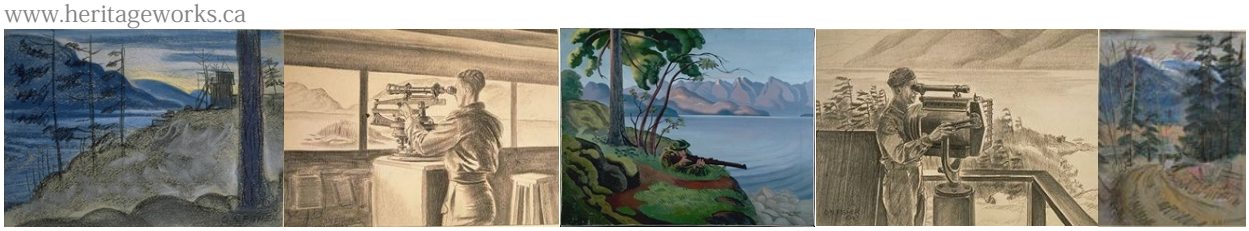
Building	Hazard	Likelihood	Severity	Priority
Wireless Telegraph Station	Damage to historic graffiti caused by visitors	High	High	High
	Damage to painted surfaces caused by visitors	High	Med	Med
	Damage to interior finishes and windows caused by visitors	High	Med	Low
	Damage resulting from impact from deadfall	High	Med	Med

Recommended Repairs

Building	Scope Ref	Action Required	Priority
Wireless Telegraph Station	21.1	• Explore ways to protect the historic grafitti; • Investigate other international examples where protection has been successful.	High
	21.2	• Clear deadfall that is leaning against the bulding.	High
	21.3	• Explore ways to protect the historic camouflage; • Investigate other international examples where protection has been successful.	High
	21.4	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	21.5	• Carefully document and remove contents covering the floor.	Low
	21.6	• Strip existing roof and install new bitumen roofing to make the building watertight.	Low

Photos

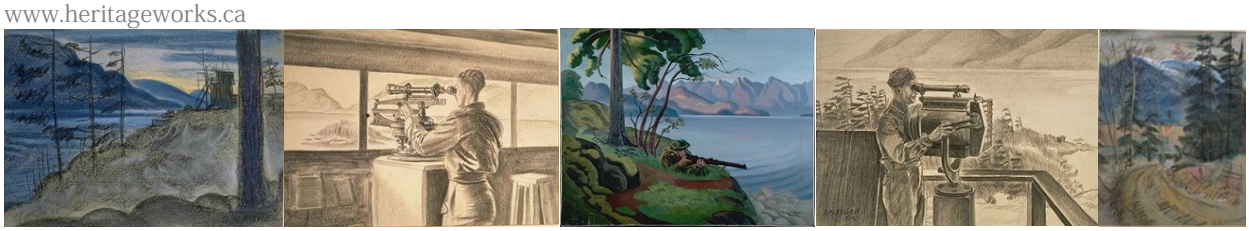
Southeast corner of the Wireless Telegraphy Station



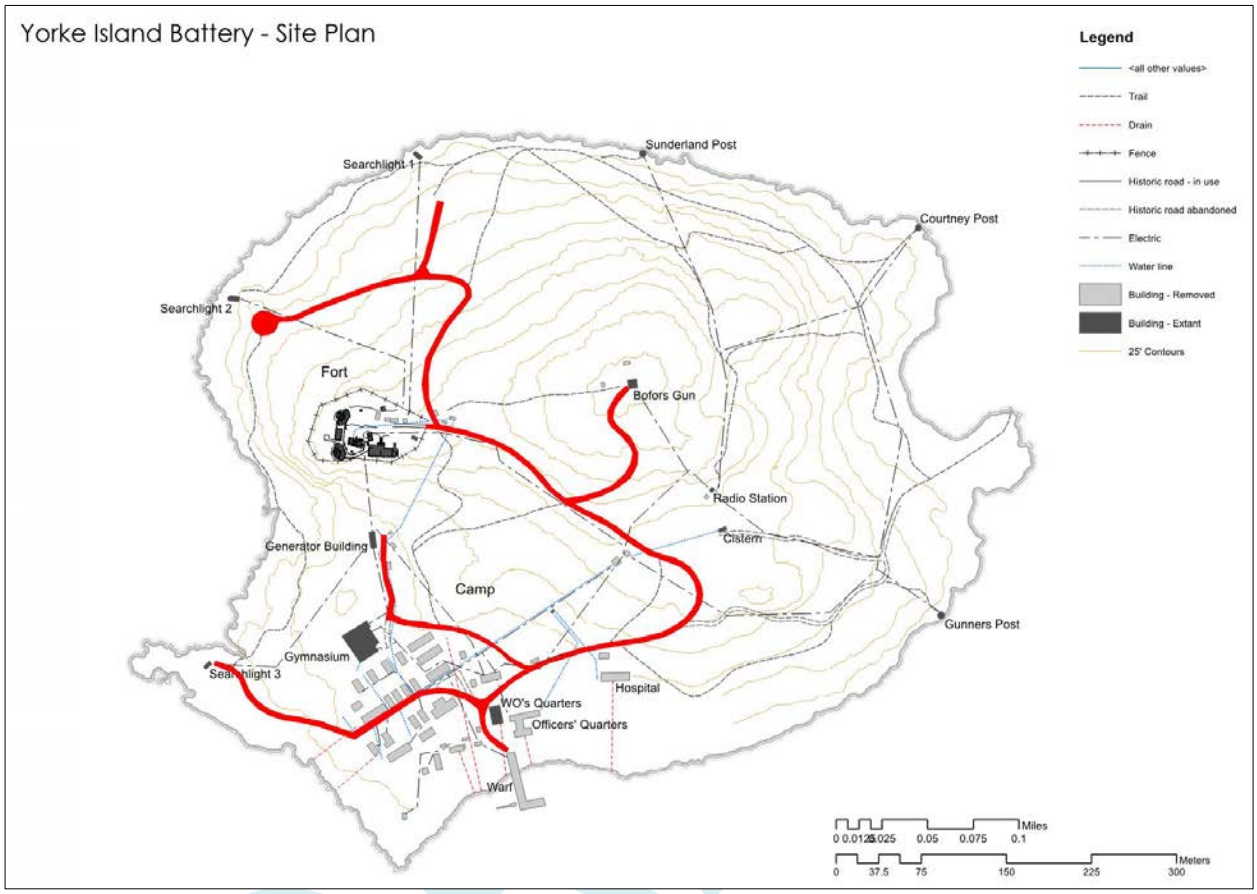
East elevation

Details of the door and windows.

Regimental graffiti on the exterior east elevation "Army and Navy, Yorke Island, Long May They Live"



8.9 Greater Landscape



Primary roads of the Battery

Description of Infrastructure

The buildings that were critical to the operation of the battery were constructed to a very high standard, and were linked by a network of primary roads. From these primary roads, secondary tracks provided access to supporting buildings, and the entire island was crossed and encircled by footpaths. These rational old ways of navigating the island provide visitors with insights to the battery functions and serve as a critical interpretive tool for managing the historic place.

The relationships between buildings, service corridors, roads and tracks to the surrounding landscape is fundamental to the heritage character of Yorke Island. There are many small fortifications, slit trenches (sangers), and berms related to the perimeter trail and the posts, and some of these are undocumented.

Condition

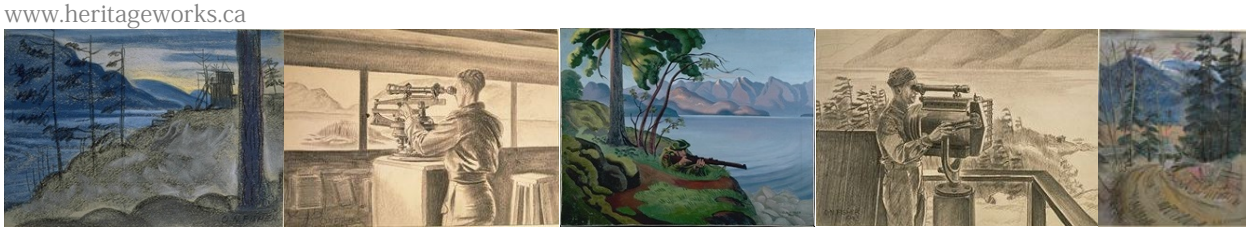
Many of the old roads and tracks are barely legible now. The forest has overgrown the historic landscape, and unrelated modern trails and desire-lines confuse the record. There is a general lack of interpretation and signage to help guide visitors as they explore the island and attempt to understand the landscape.

Risk Assessment

Building	Hazard	Likelihood	Severity	Priority
Greater Landscape	Damage resulting from impact from deadfall	High	Low	Med
	Loss of historic views and features such as roads, preventing visitor interpretation of the fort.	High	Low	Med
	Loss of historic features such as slit trenches due to deadfall and erosion.	High	High	High
	Damage resulting from impact from deadfall	High	High	High

Recommended Repairs

Building	Scope Ref	Action Required	Priority
Greater Landscape	25.1	• GPS-locate all historic slit trenches, sangers and defenses associated with perimeter.	High
	25.2	• As above, for Fort defenses.	High
	25.3	• As above for Camp defenses.	High
	25.4	• Reinstate cleared landing at entrance to dock; • Selectively fall trees growing on landing including large alders.	Medium
	25.5	• Fall all alder trees growing within the perimeter of Fort (within the fenced area).	Medium
	25.6	• Reinstate original road boundaries (widths) on the main road from dock to fort (see drawings); • Reinstate clearing through forest canopy by removing overhead branches; • Clear all deadfall and debris on road bed; • Reinstate drainage and ditches; • Selectively fall trees growing on original road bed.	Medium



	25.7	• As above, for road spur leading to Power Plant	Medium

9.0 Risk Assessment – Buildings & Objects

Building	Hazard	Likelihood	Severity	Priority
Fire Command Post	Collapse of Fire Command Post in seismic event	Low	Med	Low
	Damage to roof membrane from visitors/volunteers walking on it	High	Low	Med
	Damage to the building by visitors/volunteers occupying it (fire, mechanical damage, etc.)	High	Low	Low
	Damage to exterior camouflage paint caused by visitors including new graffiti	Med	Med	Med
	Damage resulting from impact from deadfall	Med	High	High
	Loss or damage to building features such as shutters that have become dissociated	High	High	High
No 1 Gun & Shelter	Collapse of Gun Shelter in seismic event	Low	High	High
	Damage to roof membrane from visitors walking on it	High	Low	Med
	Corrosion of retaining plates resulting in further damage to plastic armor	High	Med	High
	Corrosion of metal beams, columns and connections resulting in partial of complete collapse	Med	High	Med
	Damage resulting from impact from deadfall	Med	High	High
	New graffiti	Med	Low	Low
No 2 Gun & Shelter	Collapse of Gun Shelter in seismic event	Low	High	High
	Damage to roof membrane from visitors walking on it	High	Low	Med
	Corrosion of retaining plates resulting in further damage to plastic armor	High	Med	High
	Corrosion of metal beams, columns and connections resulting in partial of complete collapse	Med	High	Med
	Damage resulting from impact from deadfall	Med	High	High
	New graffiti	Med	Low	Low
War Shelter & Ammunition Passage	Damage to roof membrane from visitors/volunteers walking on it	High	Low	Med
	Damage to the building by visitors/volunteers occupying it (fire, mechanical damage, etc.)	High	Low	Low

	Damage to painted surfaces caused by visitors, including new graffiti	High	Med	Med
	Damage resulting from impact from deadfall	Med	High	High
	Loss or damage to building features such as the door that has become unhinged	High	High	High
New Magazine & Laundry	Damage to painted surfaces caused by visitors, including new graffiti	High	Med	Med
	Damage to roof membrane from visitors walking on it	High	Low	Med
	Damage resulting from impact from deadfall	Med	High	High
	Water ingress through open flues causing damage to interior surfaces.	High	Med	Med
	Damage to rock armor/camouflage from visitors climbing on it	High	High	High
Old Magazine				
Gun Store & Workshop	Damage resulting from impact from deadfall	High	High	High
	Loss or damage to building features such as window parts that have become dissociated	High	High	High
	Damage to brickwork resulting from tree roots	High	High	Med
	Damage to painted surfaces caused by visitors	High	Low	Low
	Damage to window sashes caused by visitors	High	Med	Med
Machine Gun Stores	Damage resulting from impact from deadfall	High	High	High
	Loss or damage to building features such as window parts that have become dissociated	High	High	High
	Damage to painted surfaces caused by visitors	High	Low	Low
	Damage to window sashes caused by visitors	High	Med	Med
Fort Landscape	Damage resulting from impact from deadfall	High	High	High
	Loss of historic views and features such as roads, preventing visitor interpretation of the fort.	High	Low	Med
	Loss of historic features such as slit trenches due to deadfall and erosion.	High	High	High
Perimeter Fence				

& Gate				
No 1 Searchlight	Continued corrosion of the curved and cantilevered metal beam that supports the roof slab, ultimately resulting in collapse of the roof.	High	High	High
	Damage to painted surfaces caused by visitors	Low	Med	Low
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	Med	Med	Med
	Continued corrosion of the metal parts resulting in loss of historic features	High	Med	Med
No 2 Searchlight	Continued corrosion of the curved and cantilevered metal beam that supports the roof slab, ultimately resulting in collapse of the roof.	High	High	High
	Damage to painted surfaces caused by visitors	Low	Med	Low
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	Med	Med	Med
	Continued corrosion of the metal parts resulting in loss of historic features	High	High	High
No 3 Searchlight	Continued corrosion of the curved and cantilevered metal beam that supports the roof slab, ultimately resulting in collapse of the roof.	High	High	High
	Damage to painted surfaces caused by visitors	High	Med	Med
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	High	High	High
	Continued corrosion of the metal parts resulting in loss of historic features	High	Med	Med
Sunderland Post	Continued decay resulting in the loss of the building and all physical evidence.	High	High	High
	Damage from visitor impacts including fire.	High	High	High
	Damage resulting from impact from deadfall	High	High	High
Courtenay Post	Continued decay resulting in the loss of the building and all physical evidence.	High	Med	Low
Gunner's Post				
Generator Shed	Damage to painted surfaces caused by visitors.	High	Med	Low

& Power Plant	Damage resulting from impact from deadfall	High	Med	Med
	Loss or damage to building features such as parts of the doors and shutters that have become dissociated	Med	High	Med
	Continued corrosion of the metal parts resulting in loss of historic features	High	High	High
Latrine				
Water Tank (50,000 gal. fresh water)	Damage resulting from impact from deadfall	High	Low	Low
Officer's Mess				
Wireless Telegraphy Station	Damage to historic graffiti caused by visitors	High	High	High
	Damage to painted surfaces caused by visitors	High	Med	Med
	Damage to interior finishes and windows caused by visitors	High	Med	Low
	Damage resulting from impact from deadfall	High	Med	Med
Gymnasium				
Bofors Anti-aircraft Platform				
Service Trenches				
Greater Landscape	Damage resulting from impact from deadfall	High	Low	Med
	Loss of historic views and features such as roads, preventing visitor interpretation of the fort.	High	Low	Med
	Loss of historic features such as slit trenches due to deadfall and erosion.	High	High	High
	Damage resulting from impact from deadfall	High	High	High

10.0 Recommended Repairs

Building	Scope Ref.	Action Required	Priority
Fire Command Post	0.1	• Reconstruct exterior stairs and balconies to provide safe access to the Naval Signals Post and its roof.	High
	0.2	• Reinstate the metal shutters at the Battery Observation Post and Searchlight Directing Station; • Stabilize the metalwork; • Secure the shutters in place to prevent damage and/or injury to visitors.	High
	0.3	• Reinstate historic barriers at south and east of apron using the existing, cast-in-place receivers.	High
	0.4	• Consolidate the instrument desk in the Searchlight Directing Station.	High
	0.5	• Strip existing roof and install new bitumen roofing to make all parts of the Fire Command Post watertight.	Med
	0.6	• Remove paintball damage.	Low
	0.7	• Remove modern graffiti.	Low
No 1 Gun & Shelter	1.1	• Make repairs to the corroded steel columns and column base connections of gun shelters.	High
	1.2	• Clear all drains and ensure that they are operating effectively.	High
	1.3	• Make seismic upgrade to gun shelter by securing column heads to concrete wall; • Add new bolts at empty connections of metal frame.	High
	1.4	• Repair lost and badly deteriorated retaining bolts and reinstate retaining flanges of plastic armor.	High
	1.5	• Treat remaining retaining bolts and flanges to inhibit corrosion.	Medium
	1.6	• Strip existing roof and install new bitumen roofing to make gun shelter watertight.	Medium
	1.7	• Reinstate historic barriers at some of the unguarded edges around gun pit using the existing, cast-in-place receivers.	Medium
	1.8	• Install nuts and oversized washers on holdfast studs in gun pit.	Medium

	1.9	• Treat loose armor panel (originally from roof above gun pit) in-situ and support to minimize corrosion.	Low
	1.10	• Perform lead-abatement work to structural frame; • Descale all exposed metal surfaces with needle gun; • Treat all exposed metal surfaces with rust inhibitor; • Treat all exposed metal surfaces with polyurethane.	Low
	1.11	• Treat expense lockers and make all hardware operable; • Repaint locker doors while preserving original signage.	Low
	1.12	• Reestablish historic views forward of the gun, and northwest up Johnstone Straight (field of fire).	Low
	1.13	• Replace new wood perimeter around gun shelter roof.	Low
	1.14	• Windsafe surrounding forest including removal of over-mature alder.	Low
	1.15	• Remove modern graffiti.	Low
No 2 Gun & Shelter	2.1	• Make repairs to the corroded steel columns and column base connections of gun shelters.	High
	2.2	• Clear all drains and ensure that they are operating effectively.	High
	2.3	• Make seismic upgrade to gun shelter by securing column heads to concrete wall; • Add new bolts at empty connections of metal frame.	High
	2.4	• Repair lost and badly deteriorated retaining bolts and reinstate retaining flanges of plastic armor.	High
	2.5	• Reinstate historic barriers at west of apron using the existing, cast-in-place receivers.	High
	2.6	• Reinstate the collapsed plastic armor panel.	High
	2.7	• Treat remaining retaining bolts and flanges to inhibit corrosion.	Medium
	2.8	• Strip existing roof and install new bitumen roofing to make gun shelter watertight.	Medium
	2.9	• Reinstate historic barriers at some of the	Medium

		unguarded edges around gun pit using the existing, cast-in-place receivers.	
	2.10	• Install nuts and oversized washers on holdfast studs in gun pit.	Medium
	2.11	• Treat loose armor panel (originally from roof above gun pit) in-situ and support to minimize corrosion.	Low
	2.12	• Perform lead-abatement work to structural frame; • Descale all exposed metal surfaces with needle gun; • Treat all exposed metal surfaces with rust inhibitor; • Treat all exposed metal surfaces with polyurethane.	Low
	2.13	• Treat expense lockers and make all hardware operable; • Repaint locker doors while preserving original signage.	Low
	2.14	• Reestablish historic views forward of the gun, and northwest up Johnstone Straight (field of fire).	Low
	2.15	• Replace new wood perimeter around gun shelter roof.	Low
	2.16	• Windsafe surrounding forest including removal of over-mature alder.	Low
	2.17	• Remove modern graffiti.	Low
6-Pounder Emplacement	3.1		
Browning Emplacement	4.1		
War Shelter & Ammunition Passage	5.1	• Reinstate the door on hardware to match original configuration; • Consider making a new door panel to match existing.	High
	5.2	• Make and install a new cap flashing for the flu.	High
	5.3	• Repair the modern damage to interior walls of Ammunition Shelter with multiple coats of lime wash to match historic colors.	Medium
	5.4	• Repair the stone retaining wall that borders the path to the Stopping Gun platform.	Medium

	5.5	• Strip existing roof and install new bitumen roofing to make all parts of the War Shelter watertight.	Low
	5.6	• Windsafe surrounding forest including removal of over-mature alder.	Low
New Magazine & Laundry	6.1	• Make repairs to rock armor; • Use flexible/flowable grout to fill the voids behind rockwork; • Repoint in the areas where the mortar joints are fractured.	High
	6.2	• Repair and reinstate the tracks and covers for the Ammunition Wells.	High
	6.3	• Make and install a new cap flashing for the flu above Laundry / Boiler; • Repair and repoint brickwork as necessary.	High
	6.4	• Reinstate original ventilators on flues above Shell Stores; • Repair the original ventilator covers where possible; • Make and install new ventilators where originals are too badly damaged to re-use.	High
	6.5	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	6.6	• Treat metal doors and frames and make all hardware operable; • Repaint doors while preserving original signage; • Install new metal bar inside door at top of Access Shaft to prevent falls.	Medium
	6.7	• Strip existing roof and install new bitumen roofing to make all parts of the War Shelter watertight.	Low
Old Magazine	7.1		
Gun Stores & Workshop	8.1	• Alter/lower grades along east elevation to encourage drainage away from building.	High
	8.2	• Remove D-fir tree from southeast corner.	High
	8.3	• Consolidate and re-associate loose parts of window sashes; • Treat corrosion of metal parts and secure in place.	High
	8.4	• Remove all trees from roof.	Medium
	8.5	• Windsafe surrounding forest including removal of over-mature alder.	Medium

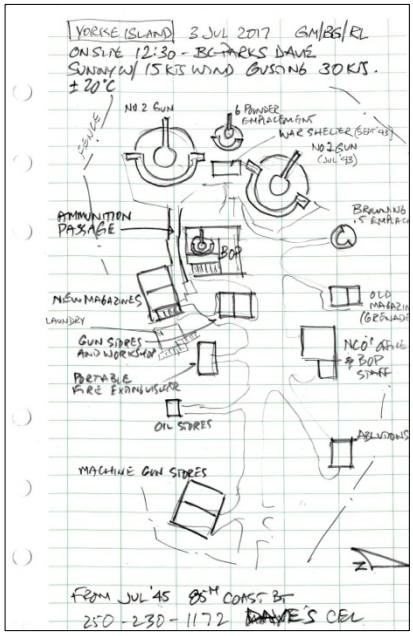
	8.6	• Strip existing roof and install new bitumen roofing to make all parts of the building watertight.	Low
Machine Gun Stores	9.1	• Consolidate and re-associate loose parts of window sashes; • Treat corrosion of metal parts and secure in place.	High
	9.2	• Remove all trees from roof.	Medium
	9.3	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	9.4	• Carefully document and remove existing floor to make the building safe for visitors; • Consider reinstating floor to match original.	Medium
	9.5	• Strip existing roof and install new bitumen roofing to make all parts of the building watertight.	Low
Fort Landscape	10.1	• Clear views from BOP and Guns to the northwest up Johnstone Straight.	High
	10.2	• Clear views from Main Gate to War Shelter and restore historic road.	High
	10.3	• Clear trees and shrubs from slit trenches; • Restore the historic features.	High
	10.4	• Clear views from War Shelter and Gunner's Stores & Workshop up Johnstone Straight.	Medium
	10.5	• Windsafe the forest within the fort and forward of the guns including removal of all alder trees within the fort perimeter fence.	Medium
	10.6	• Restore the historic paths between buildings and reinstate the historic landscape as closely as possible within the perimeter fence of the fort.	Low
No 1 Searchlight	11.1	• Descale exposed metal surfaces of cantilevered beam above shutters with needle gun; • Treat with rust inhibitor; • Treat with polyurethane.	High
	11.2	• Stabilize the shutters and tracks; • Treat all exposed metal parts.	High
	11.3	• Repair the doors and make operable; • Treat all exposed metal parts.	Med

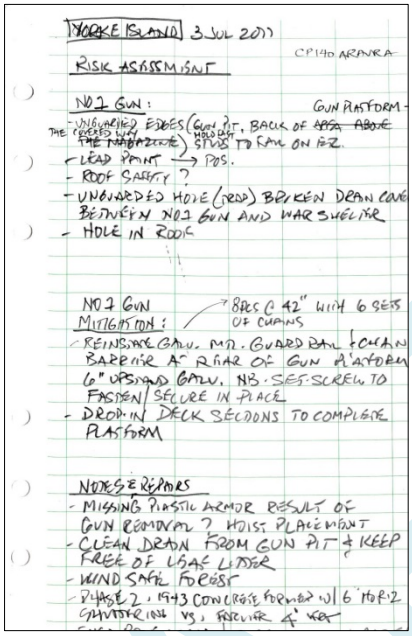
	11.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Med
No 2 Searchlight	12.1	• Descale exposed metal surfaces of cantilevered beam above shutters with needle gun; • Treat with rust inhibitor; • Treat with polyurethane.	High
	12.2	• Stabilize the shutters and tracks; • Treat all exposed metal parts.	High
	12.3	• Repair the doors and make operable; • Treat all exposed metal parts.	Med
	12.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Med
No 3 Searchlight	13.1	• Descale exposed metal surfaces of cantilevered beam above shutters with needle gun; • Treat with rust inhibitor; • Treat with polyurethane.	High
	13.2	• Stabilize the tracks for shutters; • Treat all exposed metal parts.	High
	13.3	• Repair the doors and fix in open position; • Retrieve the missing door panel from environs and return to original location; • Treat all exposed metal parts.	High
	13.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Low
Sunderland Post	14.1	• Repair the log structure; • Repair the roof and make watertight; • Carefully document and remove all contents; • Repair or replace the floor; • Repair the windows, doors and furniture.	High
	14.2	• Windsafe the forest within the fort and forward of the guns including removal of all alder trees within the fort perimeter fence.	High
	14.3	• Restore the historic paths between building and the island perimeter trail.	Medium
	14.4	• Restore historic sightlines to ocean by selectively pruning/clearing shoreline trees.	Low
Courtenay Bay Post	15.1	• Clear brush from around ruin to retard further decay.	High
Gunner's Post	16.1		

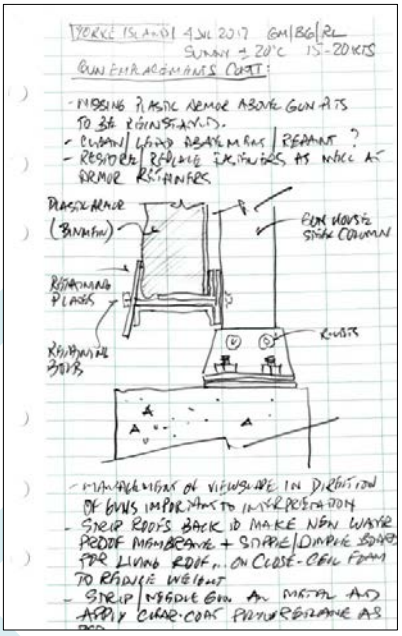
Generator Shed & Power Plant	17.1	• Explore ways to protect the historic camouflage; • Investigate other international examples where protection has been successful.	High
	17.2	• Remove deadfall.	High
	17.3	• Repair the doors and fix in open position; • Treat all exposed metal parts.	Medium
	17.4	• Alter/lower grades along east elevation to encourage drainage away from building.	Medium
	17.5	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	17.6	• Strip existing roof and install new bitumen roofing to make all parts of the building watertight.	Low
	17.7	• Carefully document and remove contents covering the floor.	Low
Latrine	18.1		
Water Tank (50,000 gal. fresh water)	19.1	• Windsafe surrounding forest including removal of over-mature alder.	Low
	19.2	• Clear brush and deadfall from around the structure.	Low
	19.3	Maintain good outflow drainage to prevent water from accumulating within the cistern.	Low
Officer's Mess	20.1		
Wireless Telegraph Station	21.1	• Explore ways to protect the historic grafitti; • Investigate other international examples where protection has been successful.	High
	21.2	• Clear deadfall that is leaning against the bulding.	High
	21.3	• Explore ways to protect the historic camouflage; • Investigate other international examples where protection has been successful.	High
	21.4	• Windsafe surrounding forest including removal of over-mature alder.	Medium
	21.5	• Carefully document and remove contents covering the floor.	Low
	21.6	• Strip existing roof and install new bitumen roofing to make the building watertight.	Low
Gymnsasium	22.1		
Bofors Anti-aircraft Platform	23.1		

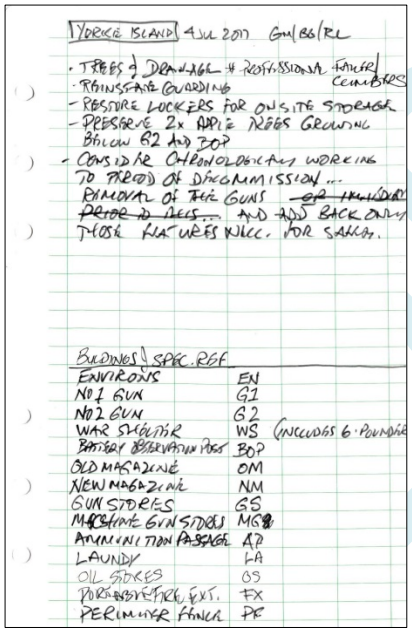
Service Trenches	24.1	• GPS-locate all service trenches and integrate with GIS base mapping.	Low
Greater Landscape	25.1	• GPS-locate all historic slit trenches, sangers and defenses associated with perimeter of island.	High
		• As above, for Fort defenses.	High
		• As above for Camp defenses.	High
		• Reinstate cleared landing at entrance to dock; • Selectively fall trees growing on landing including large alders.	Medium
		• Fall all alder trees growing within the perimeter of Fort (within the fenced area).	Medium
		• Reinstate original road boundaries (widths) on the main road from dock to fort (see drawings); • Reinstate clearing through forest canopy by removing overhead branches; • Clear all deadfall and debris on road bed; • Reinstate drainage and ditches; • Selectively fall trees growing on original road bed.	Medium
		• As above, for road spur leading to Power Plant	Medium
		• As above for road between fort gate and War Shelter.	Medium
		• As above, for road spur leading to Courtenay Bay.	Low
		• GPS-locate all historic service roads, landings and footpaths, and integrate with GIS base mapping.	Low

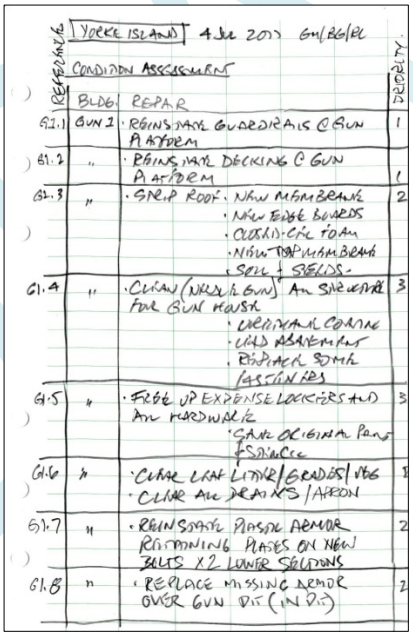
Appendix I - Sample Field Data

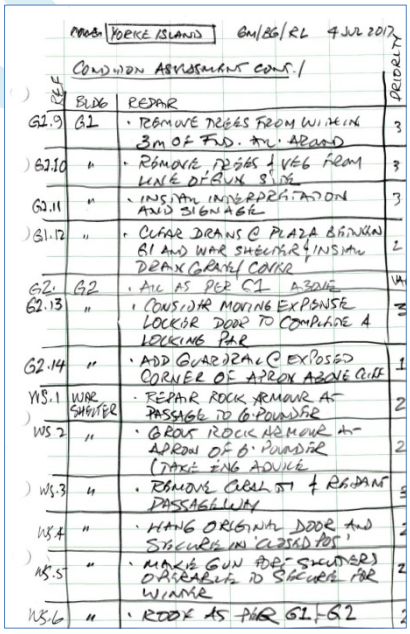


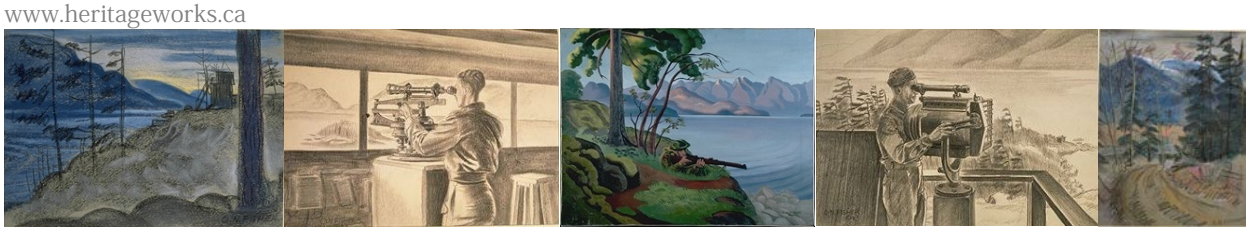


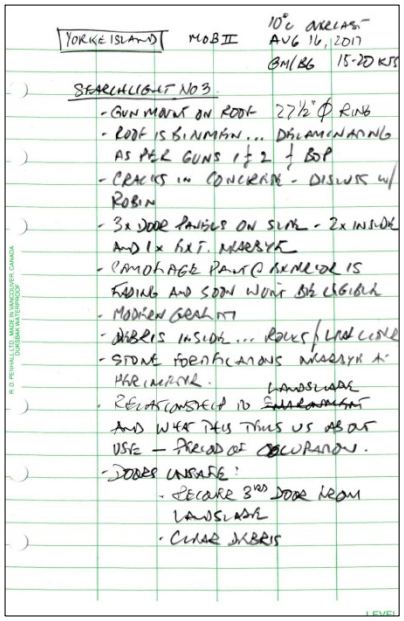








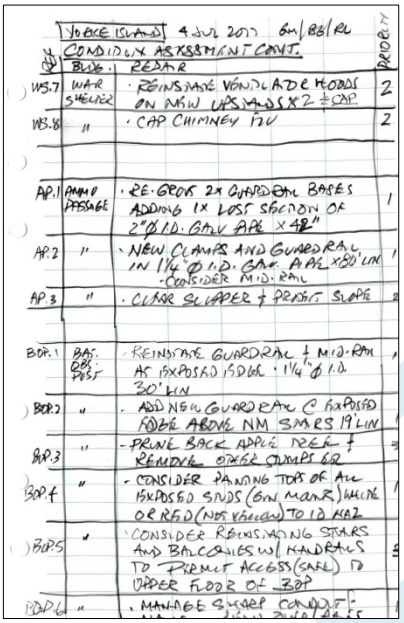




YORKE ISLAND MOB II 10°C OVERCAST AUG 16, 2017 GM/BG 15-20 KTS

SEARCHLIGHT NO 3

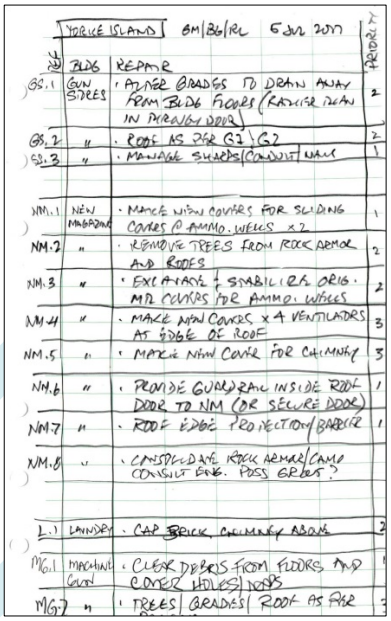
- GUN MOUNT ON ROOF 27½" Ø RING
- ROOF IS BINMAN... DELAMINATING AS PER GUNS 1 & 2 & BOP
- CRACKS IN CONCRETE - DISCUSS W/ ROBIN
- 3x DOOR PANELS ON SLNL - 2x INSIDE AND 1x EXT. NEARBYK
- CAMOUFLAGE PAINT @ INNER IS FADING AND SOON WONT BE VISIBLE
- MODERN GRAFITI
- DEBRIS INSIDE... ROCKS / LAND CLEAR
- STONE FORTIFICATIONS NEARBYK AT HAR INNER.
- RELATIONSHIP TO LANDSCAPE AND WHAT THIS TELLS US ABOUT USE — PERIOD OF OCCUPATION.
- DOORS UNSAFE:
  - SECURE 3RD DOOR FROM LANDSCAPE
  - CLEAR DEBRIS



YORKE ISLAND 4 JUL 2017 GM/BG/RL

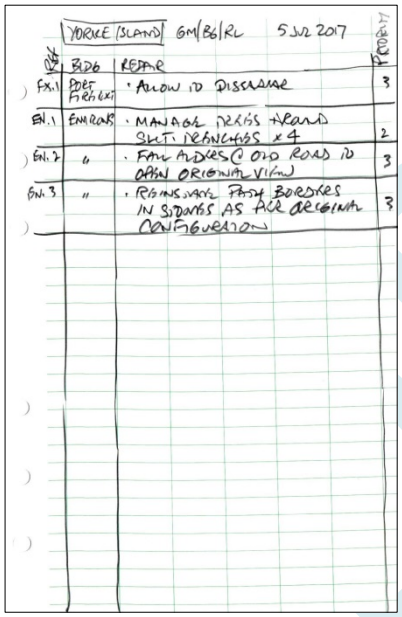
CONDITION ASSESSMENT CONT.

REF	BLDG.	REPAIR	PRIORITY
WS.7	WAR SHELTER	· REINSTATE VENTILATOR HOODS ON NEW UPSTANDS x 2 & CAP	2
WS.8	"	· CAP CHIMNEY FLU	2
AP.1	AMMO PASSAGE	· RE-GROUT 2x GUARDRAIL BASES ADDING 1x LOST SECTION OF 2" Ø I.D. GALV PIPE x 48"	1
AP.2	"	· NEW CLAMPS AND GUARDRAIL IN 1¼" Ø I.D. GALV PIPE x 30' LIN · CONSIDER M.D. RAIL	1
AP.3	"	· CLEAR SLOPER & PROVIDE SLOPE	2
BOP.1	BAT. OBS. POST	· REINSTATE GUARDRAIL & MID-RAIL AS EXPOSED EDGE · 1¼" Ø I.D. 30' LIN	1
BOP.2	"	· ADD NEW GUARDRAIL @ EXPOSED EDGE ABOVE NM STAIRS 19' LIN	1
BOP.3	"	· PRUNE BACK APPLE TREE & REMOVE OTHER STUMPS ETC	3
BOP.4	"	· CONSIDER PAINTING TOPS OF ALL EXPOSED STUDS (GUN MOUNTS) WHITE OR RED (NOT YELLOW) TO ID HAZ	1
BOP.5	"	· CONSIDER REINSTATING STAIRS AND BALCONIES W/ HANDRAILS TO PERMIT ACCESS (SAFE) TO UPPER FLOOR OF BOP	3
BOP.6	"	· MANAGE SHARP CONDUIT [illegible]	1



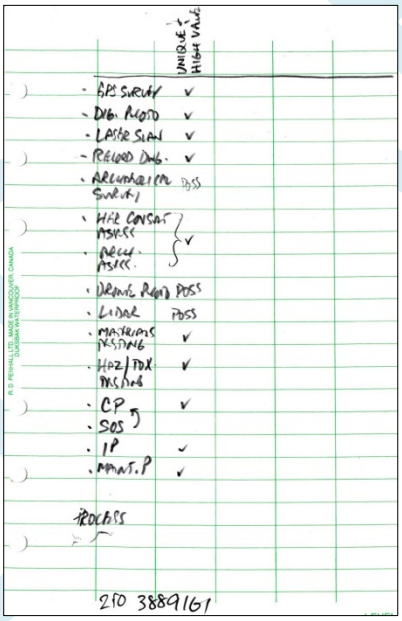
YORKE ISLAND GM/BG/RL 5 JUL 2017

REF	BLDG	REPAIR	PRIORITY
GS.1	GUN STORES	· ADJUST GRADES TO DRAIN AWAY FROM BLDG FLOORS (RATHER DEAD IN PARTICULAR DOOR)	2
GS.2	"	· ROOF AS PER G1 / G2	2
GS.3	"	· MANAGE SHARPS / CONDUIT / WALL	1
NM.1	NEW MAGAZINE	· MAKE NEW COVERS FOR SLIDING COVERS @ AMMO. WELLS x 2	1
NM.2	"	· REMOVE TREES FROM ROCK ARMOR AND ROOFS	2
NM.3	"	· EXCAVATE & STABILIZE ORIG. MT COVERS FOR AMMO. WELLS	2
NM.4	"	· MAKE NEW COVERS x 4 VENTILATORS AT EDGE OF ROOF	3
NM.5	"	· MAKE NEW COVER FOR CHIMNEY	3
NM.6	"	· PROVIDE GUARDRAIL INSIDE ROOF DOOR TO NM (OR SECURE DOOR)	1
NM.7	"	· ROOF EDGE PROTECTION / BARRIER	1
NM.8	"	· CONSIDER ROCK ARMOR / CAMO CONSULT ENG. POSS GRANT?	
L.1	LAUNDRY	· CAP BRICK CHIMNEY ABOVE	2
MG.1	MACHINE GUN	· CLEAR DEBRIS FROM FLOORS AND COVER HOLES / NOOKS	1
MG.2	"	· TREES / GRADES / ROOF AS PER	2



YORKE ISLAND GM/BG/RL 5 JUL 2017

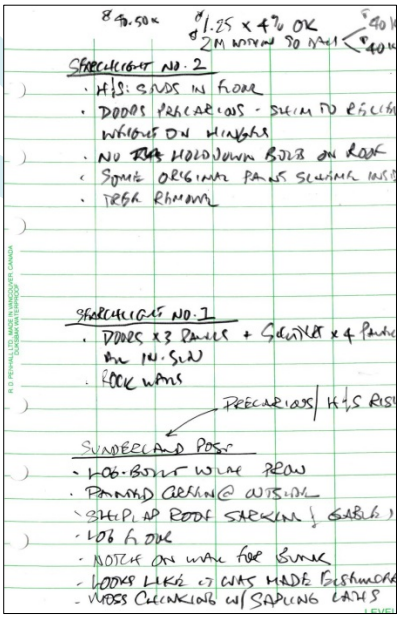
REF	BLDG	REPAIR	PRIORITY
FX.1	FORT FRENCH	· ALLOW TO DISCLAIMER	3
EN.1	ENTRANCE	· MANAGE DRAIN TREND SLIT TRENCHES x 4	2
EN.2	"	· FILL ADDITIONAL OLD ROAD TO OPEN ORIGINAL VIEW	3
EN.3	"	· REINSTATE FRONT BORDERS IN STONES AS PER ORIGINAL CONFIGURATION	3



	UNIQUE / HIGH VALUE
· APS SURVEY	✓
· DIG. PHOTO	✓
· LASER SCAN	✓
· RELOCATE DIG.	✓
· ARCHAEOLOGY SURVEY	POSS
· HIST CONSULT ASSESS	✓
· ARCH. ASSESS.	✓
· DRONE PHOTO	POSS
· LIDAR	POSS
· MATERIALS TESTING	✓
· HAZ / TOX TESTING	✓
· CP	✓
· SOS	
· IP	✓
· MAINT. P	✓

PROCESS

210 3889161



8 @ 50K

1.25 x 4% OK

2M MOTION 90 MM

40 K

40 K

SEARCHLIGHT NO. 2

- H&S: SINKS IN FLOOR
- DOORS PRECARIOUS - SHIM TO RECLAIM WEIGHT ON HINGES
- NO HOLDDOWN BOLTS ON ROOF
- SOME ORIGINAL PANS SLUMPING INSIDE
- TREE REMOVAL

SEARCHLIGHT NO. 1

- DOORS x 3 PANELS + SCHEMET x 4 PANELS FOR IN. SLN
- ROCK WALLS

PRECARIOUS / H&S RISK

SUNDERLAND POSS

- LOG-BOLT WALL FROM
- PANNED CRACKING OUTSIDE
- SHIPLAP ROOF SHEATHING & GABLE
- LOG & DOR
- NOTCH ON WALL FOR SUNK
- LOOKS LIKE IT WAS MADE BESTMOCK
- WOOD CHECKING W/ SAPLING LATHS