



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

Public Works and Government Services Canada  
Canada Place/Place du Canada  
10th Floor/10e étage  
9700 Jasper Ave/9700 ave Jasper  
Edmonton  
Alberta  
T5J 4C3  
Bid Fax: (780) 497-3510

**SOLICITATION AMENDMENT  
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Public Works and Government Services Canada  
Canada Place / Place du Canada  
10th Floor / 10e étage  
9700 Jasper Ave / 9700 ave Jasper  
Edmonton  
Alberta  
T5J 4C3

<b>Title - Sujet</b> Life Safety System Replacement	
<b>Solicitation No. - N° de l'invitation</b> EW038-210713/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> DFO EW038-210713	<b>Date</b> 2020-08-18
<b>GETS Reference No. - N° de référence de SEAG</b> PW-SPWU-201-11879	
<b>File No. - N° de dossier</b> PWU-0-43072 (201)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2020-09-01</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Mountain Daylight Saving Time MDT
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Ho (RPC), Hector	<b>Buyer Id - Id de l'acheteur</b> pwu201
<b>Telephone No. - N° de téléphone</b> (780) 901-0989 ( )	<b>FAX No. - N° de FAX</b> (780) 497-3510
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation  
EW038-210713/A

Amd. No. - N° de la modif.  
002

Buyer ID - Id de l'acheteur  
pwu201

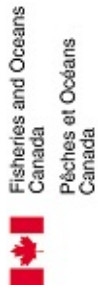
Client Ref. No. - N° de réf. du client  
DFO-EW038-210713

File No. - N° du dossier  
PWU-0-43072

CCC No./N° CCC - FMS No./N° VME

---

Please see English version of Amendment #002



# Asset Overview Report

*By Asset Name*

DRAFT

Hay River CCG Base

## Table of Contents

DRAFT

Region: Central and Arctic

Site: Hay River CCG Base

Asset: Access Road-C L 00002 17660 .....	1
Asset: Administration Building-C L 00002 16580 .....	5
Asset: Carpenter Shop-C L 00002 17465 .....	18
Asset: DFO Wharf-C L 00002 58873 .....	28
Asset: Fences and Gates-C L 00002 18254 .....	32
Asset: Fish Management Complex-C L 00002 15914 .....	37
Asset: Flammable Storage-C L 00002 18152 .....	52
Asset: Groundskeeper Shed-C L 00002 15579 .....	61
Asset: Helicopter Operations / General Storage-C L 00002 16709 .....	66
Asset: Helicopter Pad-C L 00002 15823 .....	75
Asset: Open Storage-C L 00002 15146 .....	79
Asset: Parking Lot-C L 00002 15840 .....	83
Asset: Propane Tank and Lines-C L 00002 15656 .....	89
Asset: RSER / DFO Storage Warehouse-C L 00002 17105 .....	93
Asset: Sewage Septic Tank (NOT USED)-C L 00002 16944 .....	99
Asset: Shore Protection-C L 00002 15162 .....	101
Asset: Stores / Maintenance Shop-C L 00002 17009 .....	104
Asset: Underground Power & Fiber Optic Lines-C L 00002 15182 .....	119
Asset: Underground Water Service-C L 00002 14562 .....	123
Asset: Wharf-C L 00002 16145 .....	127
Asset: Yard(s)-C L 00002 15709 .....	132
Asset: ~Boat Equipment Storage (REMOVED)-C L 00002 17971 .....	139



# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Access Road  
**Asset Number:** C L 00002 17660  
**Currency:** CAD

## Statistics

<b>FCI Cost:</b>	170,815	<b>FCI</b>	0.74
<b>RI Cost:</b>	170,815	<b>RI</b>	0.74
<b>Total Requirement Cost:</b>	170,814	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	230,465		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation Access Road

## Asset Description

ACCESS ROAD, ASSET CODE: C L 00002 17660

### ARCHITECTURAL

#### General

The Hay River Canadian Coast Guard Base can be found at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0P9. The site infrastructure includes a paved, asphalt Access Road. Asset Code: C L 00002 17660, which leads onto the site from the Mackenzie Highway. The Access Road is approximately 8.5 meters wide by 250 lineal meters long.

## System Description



DRAFT

# Asset Overview Report

## By Asset Name

System Name	Description
G2011 - Bases and Sub-Bases-Roadway Flexible Pavement - Base Course	Roadway flexible pavement (bituminous) includes a 300mm thick gravel base course (also known as pit-run) for freeways, major arterials, minor arterials, collectors and local roads; spread and compaction included.
G2011 - Bases and Sub-Bases-Roadway Flexible Pavement - Intermediate Course	Roadway flexible pavement includes a 75mm thick bituminous intermediate binder course for freeways, major arterials, minor arterials, collectors and local roads.
G2012 - Paving and Surfacing-Roadway Flexible Pavement - Surface Course	Roadway flexible pavement includes a 50mm thick bituminous wearing surface course for freeways, major arterials, minor arterials, collectors and local roads. Observed years remaining increased due to system condition. Assume 8.5m wide, by 250m long.
G2015 - Painted Lines-Roadway - Traffic Control - Painted Pavement Markings	Roadway includes painted pavement markings used to provide guidance and information to drivers and pedestrians. Includes centerline striping, directional arrows, crosswalk and other roadway graphics.

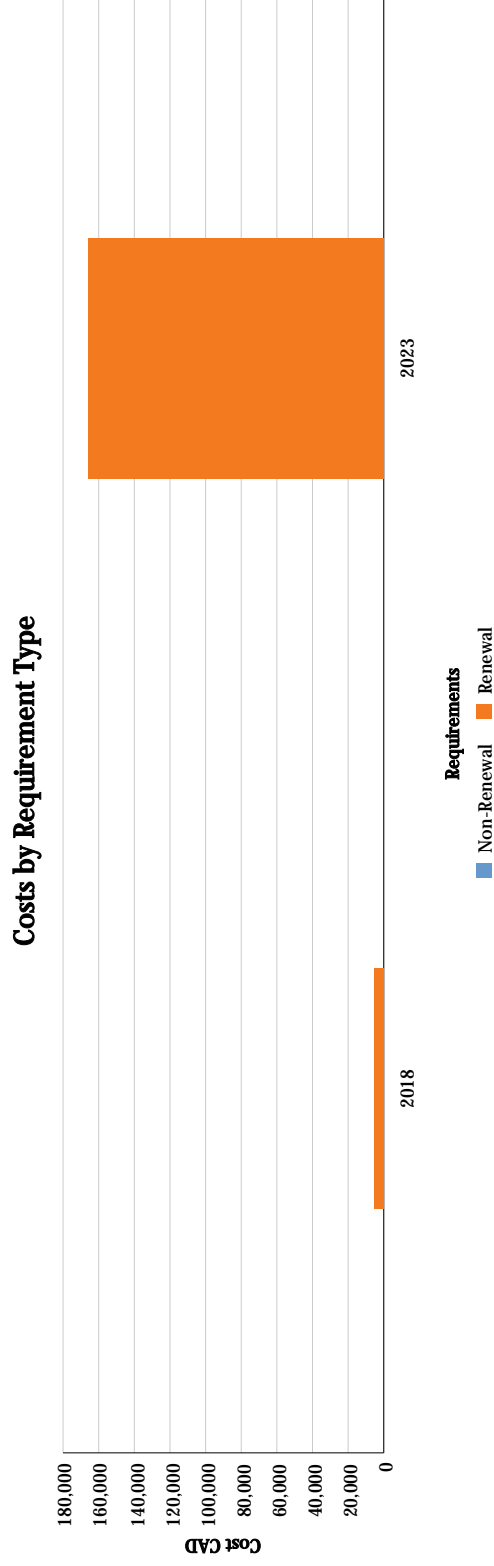
## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
G2011 - Bases and Sub-Bases	Roadway Flexible Pavement - Intermediate Course	25	62	1986	2023	69,380	111,904
G2011 - Bases and Sub-Bases	Roadway Flexible Pavement - Base Course	65	12	1986	2051	4,367	36,393
G2012 - Paving and Surfacing	Roadway Flexible Pavement - Surface Course	25	125	1986	2023	96,330	77,064
G2015 - Painted Lines	Roadway - Traffic Control - Painted Pavement Markings	10	100	1986	2018	5,104	5,104
Subtotal							230,465
Overhead:							0
Subtotal							0
Total Replacement Value Based on System Costs with Overheads							230,465

# Asset Overview Report

*By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Roadway - Traffic Control - Painted Pavement Markings Renewal	Yes	G2015 - Painted Lines	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	5,104
Roadway Flexible Pavement - Intermediate Course Renewal	Yes	G2011 - Bases and Sub-Bases	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	69,380
Roadway Flexible Pavement - Surface Course Renewal	Yes	G2012 - Paving and Surfacing	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	96,330
<b>Total</b>						<b>170,814</b>

# Asset Overview Report

## By Asset Name

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Administration Building  
**Asset Number:** C L 00002 16580  
**Currency:** CAD

### Statistics

<b>FCI Cost:</b>	1,706,953	<b>FCI</b>	0.68
<b>RI Cost:</b>	1,822,117	<b>RI</b>	0.73
<b>Total Requirement Cost:</b>	1,706,953	<b>Size:</b>	462 SM
<b>Current Replacement Value:</b>	2,500,684		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Front Elevation Administration Building

## Asset Description

ADMINISTRATION BUILDING; ASSET CODE C.I. 00002 16580

### ARCHITECTURAL

#### General

The Administration building, Asset Code C.I. 00002 16580, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a single level building with crawlspace foundation built in 1984. The Administration building contains 462 square meters of floor space.

#### Construction

The substructure construction found beneath the Administration building facility consists of an elevated wood floor, supported on wood floor trusses and sitting on an exterior perimeter cast concrete foundation walls founded on strip concrete footings. The entire foundation substructure is supported by steel piles driven into the highly compressible discontinuous permafrost soils to prevent subsidence and settlement issues. Exterior walls are clad with prefinished metal panel siding on an insulated wood framed backup wall, finished with vapour retarder and painted gypsum wallboard. Roof framing consists of pre-engineered wood roof trusses and is waterproofed with a protected membrane roof assembly. Fenestration consists of insulated aluminum window

assemblies and entry doors are finished, insulated wood panel doors and frames, some with insulated glazing.

## Classification

The Administration Building can be classified as a Group D, Personal and Business Services Occupancy per Table 3.1.2.1. of the 2010 National Building Code of Canada.

## MECHANICAL

The building has an indoor air handler, with a humidifier and a dx cooling unit set on the roof. There is a hot water heating system supplied by two high efficiency, propane fired boilers installed in 2018, and a pneumatic temperature control system.

The building is supplied with water from a municipal system, and the sanitary waste is piped to a holding tank.

## ELECTRICAL

The electrical system includes a service entrance with a metering cabinet, panel boards and power distribution. There is also a transfer switch and an exterior connection for use with a portable emergency generator

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - Crawlspace	Basic perimeter foundation for building with crawlspace. System cost includes strip footing, 1.8 meter high foundation wall, damp proofing and underdrain and is based on average height of crawlspace at 600mm.
A - Substructure-Grade Beams	The substructure includes grade beams with a span of 9.14 meters and 1.016-mm deep.
A - Substructure-Pile Foundation	The building substructure includes pile caps and piles 15-LM in length in clusters of 10 at each pile cap.
B10 - Superstructure-Single-Story - Wood - Crawl Space	Single-story wood framed building over crawl space. Includes wood floor framing and roof structure. Exterior walls are covered under a separate System. System components include wood floor joists, subfloor, wood roof framing and sheathing.
B2010 - Exterior Walls-Wood Stud Framing With Metal Panel Siding	The exterior walls are of 38 x 140mm studs, 400mm OC, insulated, with aluminum panel siding.
B2020 - Exterior Windows-Aluminum Windows	The building includes aluminum framed exterior units with insulating glass. Observed years remaining increased due to system condition.
B2030 - Exterior Doors-Door Assembly - 900 x 2,100 HM	Exterior doors include 900 x 2,100 steel door and steel frame with hinges, lockset (lever), exit hardware and closer. Includes painted door and painted frame. Observed years remaining increased due to system condition.
B30 - Roofing-Modified Bitumen	The roof covering is a modified bitumen waterproofing system. Observed years remaining increased due to system condition.
C1010 - Partitions-GWB Walls - Standard (Non-Painted)	The building interior includes standard GWB partitions, taped and finished, but not painted, with no insulation.
C1020 - Interior Doors-Swinging Doors - 900 x 2100 HM & Wood	Interior doors include 900 x 2100 steel or wood doors and steel or wood frame with hinges, lockset (lever) and closer. Includes painted door and painted frame.





DRAFT

# Asset Overview Report

## By Asset Name

System Name	Description
C1030 - Fittings-Restroom Accessories	The restroom accessories include mirror, grab bars, paper towel dispenser and disposal, diaper changing station, toilet paper holder and soap dispenser.
C1030 - Fittings-Toilet Partitions	Restrooms are equipped with standard quality, ceiling hung partitions.
C1035 - Identifying Devices-Fittings - Signage (Room Numbering and Identification)	Room, door and graphic symbol signs. Adhesive backs and Braille. Observed years remaining increased due to system condition.
C3010 - Wall Finishes-Ceramic Wall Tile	Building wall coverings include 100 x 100-mm thin set ceramic decorator tiles at medium price. Tile job includes wainscot with bullnose trim.
C3010 - Wall Finishes-Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	Interior wall finishes include standard paint finish.
C3020 - Floor Finishes-Carpeting - Tile	Floor finishes include a standard range carpet tiles (460 x 460 or 600 x 600 modules) and vinyl or rubber base, for medium traffic areas.
C3020 - Floor Finishes-Carpeting Broadloom	Floor finishes include medium priced carpeting and base.
C3020 - Floor Finishes-Ceramic Floor Tile	Floor finishes include ceramic tile and base. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Concrete - Painted or Sealed	Typical painted concrete with an abrasive textured additive to prevent slipping. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Vinyl Sheet Goods	Floor finishes include areas of vinyl sheet goods flooring and related base. Observed years remaining increased due to system condition.
C3030 - Ceiling Finishes-Acoustic Ceiling Tile System	Standard suspended ACT ceiling system with 600 x 600 or 600 x 1,200mm regular tiles in 24 or 14-mm grids. Use add-ons as applicable. Observed years remaining increased due to system condition.
C3030 - Ceiling Finishes-GWB Taped and Finished	GWB ceiling system over 2,400-mm floor taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal or wood furring.
D2010 - Plumbing Fixtures-Custodial/Utility Sinks	The plumbing fixtures include a custodial/utility sink in the janitor's closet.
D2010 - Plumbing Fixtures-Restroom Fixtures - Std Density	The restroom fixtures include vitreous china urinals and water closets, vitreous china or molded lavatories.
D2010 - Plumbing Fixtures-Sinks - Breakroom and Conference Room	The plumbing fixtures include stainless steel countertop sink located in the break rooms and conference room
D2020 - Domestic Water Distribution-Domestic Water Distribution System	The building water distribution system includes a new city water service with branch piping, backflow preventer, water meter, valves, insulation and fittings.
D2020 - Domestic Water Distribution-Water Heater - Gas - 40 Gal	The domestic hot water is provided by a propane fired, 151 L water heater with a 40,000 btuh burner and circulating pump. The water heater was installed in 2015.
D2030 - Sanitary Waste-Sanitary Sewage Holding Tank	The sanitary sewage drains to a holding tank located behind the building. The tank is periodically sucked out by connection to a discharge standpipe. There have been some issues with the discharge piping.
D2030 - Sanitary Waste-Sanitary Waste - Gravity Discharge	The building includes an sanitary waste system, hung from the slab in the crawl space and discharging to a holding tank.
D2040 - Rain Water Drainage-Roof Drainage - Gravity	Rain water drainage includes roof drains and piping, and discharges on grade.



# Asset Overview Report

## By Asset Name

System Name	Description
D2090 - Other Plumbing Systems-Propane Gas Supply for Bldg	The building includes a propane gas supply and distribution system.
D3020 - Heat Generating Systems-Boiler Heating Water - Propane Fired	Heat is provided by two high efficiency, 96% AFUE, hot water boilers with circulating pumps and accessories. the boilers are propane fired.
D3020 - Heat Generating Systems-Humidifier - Steam Generating - Whole Building	There is n electric, steam generating humidifier installed in the central air handling unit. Note: The unit is functioning normally and the observed years remaining has been extended.
D3030 - Cooling Generating Systems-Air Cooled Condensing Unit	Cooling is provided by a 20 ton air cooled condensing unit located on the roof.
D3040 - Distribution Systems-Central Station Air Handler - AHU-1	The HVAC system consists of one air handler located in the boiler room. The system is in good condition and the observed useful life has been extended.
D3040 - Distribution Systems-Ductwork Distribution System	The HVAC system includes ductwork, dampers, diffusers, installed throughout the building.
D3040 - Distribution Systems-Exhaust System - Restroom w/Roof Fan	HVAC ventilation system includes roof-mounted restroom exhaust system with a fan and ductwork. Note: This system is in good condition and the observed yeas remaining has been increased.
D3040 - Distribution Systems-Heating Hot Water - Building Heating Water Distribution System	The Hot water Heating System consists of distribution piping, valves, insulation and fittings. The system is in good condition and has been maintained so the observed years remaining has been extended.
D3040 - Distribution Systems-Perimeter Heat System - Hydronic Fin Tube	The HVAC distribution includes a two-pipe system of heating hot water, with perimeter units. Note: This system is in good condition and the observed years remaining has been extended.
D3060 - Controls and Instrumentation-Compressor - Temperature Control System	The building has a duplex compressor unit for the pneumatic control system. Note: The system is functioning normally, and the observed years remaining has been extended.
D3060 - Controls and Instrumentation-Pneumatic Controls	The building includes a pneumatic HVAC control system with air supply, actuators, thermostats and control panel. Note: The system is in good condition and the new boilers have an OEM control package, therefore, the observed useful life has been extended.
D5012 - Low Tension Service and Dist.-Distribution Equipment, Panelboards, and Feeders - 600Y/347V & 208Y/120V	The electrical distribution system includes panelboards, feeders and associated equipment. Note: The system is in good condition and functioning normally, and the observed years remaining has been extended.
D5012 - Low Tension Service and Dist.-Main Electrical Service	The building includes an electrical service, which includes incoming feeders and meter. Note: The equipment is in good condition, and the observed years remaining has been extended.
D5012 - Low Tension Service and Dist.-Transformer - 112.5 KVA	The facility has a transformer located in the boiler room. Note: The equipment is functioning normally, and the observed years remaining has been extended.
D5020 - Lighting and Branch Wiring-Lighting - Exterior - LED Wall Packs	The exterior lighting consists of LED wall pack fixtures.
D5021 - Branch Wiring Devices-Branch Wiring - Equipment & Devices	Branch wiring for this building includes interior and exterior branch wiring, devices, and utilization equipment. Note: This system is in good condition and functioning normally, and the observed years remaining has been extended.
D5022 - Lighting Equipment-Lighting Fixtures - Interior - Fluorescent	The building has fluorescent light fixtures throughout. Note: The lighting is operating normally and in good condition, and the observed years remaining has been extended.

# Asset Overview Report

*By Asset Name*

System Name	Description
D5031 - Public Address and Music Systems-Public Address System	The building includes a public address system with speakers, amplifier and wiring. Note: The system functioning normally, and the observed years remaining has been expended.
D5033 - Telephone Systems-Telephone System with VOIP	Telephone service with VOIP is provided throughout the building with distribution wiring extended to telephone outlets.
D5037 - Fire Alarm Systems-Fire Alarm System	The building has a fire alarm system panel, sensors, horns and smoke detectors. The system does not meet current codes for fire alarm systems.
D5039 - Local Area Networks-LAN System	The facility includes a LAN system and data cabling system with a UPS. Note: The system is functioning normally, and the observed years remaining has been extended.
D5092 - Emergency Light and Power Systems-Emergency Backup Power System	There is an exterior connection and a transfer switch in the electrical room for connection with a portable emergency generator. Note: The system is in good condition and the observed years remaining has been extended.
D5092 - Emergency Light and Power Systems-Emergency Battery Pack Lights	The emergency lighting system includes self-contained battery packs and lights in the egress passages.
D5092 - Emergency Light and Power Systems-Exit Signs	The building has illuminated exit signs. (Picture not available)
E - Equipment and Furnishings-Fixed Casework Cabinetry	Building includes average plastic laminate casework including wall and under counter cabinets and countertops, without appliances. Observed years remaining increased due to system condition.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Pile Foundation	75	6	1984	2059	12,423	207,045
A - Substructure	Grade Beams	75	6	1984	2059	9,501	158,353
A - Substructure	Foundation Wall and Footings - Crawlspace	75	6	1984	2059	7,700	123,194
B10 - Superstructure	Single-Story - Wood - Crawl Space	75	6	1984	2059	7,414	123,559
B2010 - Exterior Walls	Wood Stud Framing With Metal Panel Siding	50	12	1984	2034	8,856	73,801
B2020 - Exterior Windows	Aluminum Windows	30	125	1984	2023	85,633	68,506
B2030 - Exterior Doors	Door Assembly - 900 x 2,100 HM	30	125	1984	2023	33,283	26,827
B30 - Roofing	Modified Bitumen	20	125	1984	2023	126,484	101,187

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
C1010 - Partitions	GWB Walls - Standard (Non-Painted)	50	62	1984	2034	17,887	28,849
C1020 - Interior Doors	Swinging Doors - 900 x 2100 HM & Wood	50	125	1984	2034	116,071	92,857
C1030 - Fittings	Restroom Accessories	25	125	2009	2034	12,730	10,184
C1030 - Fittings	Toilet Partitions	40	125	1984	2024	16,051	12,841
C1035 - Identifying Devices	Fittings - Signage (Room Numbering and Identification)	10	125	1984	2021	4,351	3,481
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	125	2014	2024	7,585	6,068
C3010 - Wall Finishes	Ceramic Wall Tile	25	125	2009	2034	12,568	10,055
C3020 - Floor Finishes	Vinyl Sheet Goods	12	125	1996	2020	7,792	6,234
C3020 - Floor Finishes	Concrete - Painted or Sealed	15	125	1999	2020	657	525
C3020 - Floor Finishes	Ceramic Floor Tile	25	125	1984	2021	23,682	18,946
C3020 - Floor Finishes	Carpeting - Tile	10	125	2016	2026	34,216	27,373
C3020 - Floor Finishes	Carpeting Broadloom	10	125	1984	2018	34,354	27,483
C3030 - Ceiling Finishes	Acoustic Ceiling Tile System	20	125	1984	2026	86,932	69,546
C3030 - Ceiling Finishes	GWB Taped and Finished	30	125	1984	2026	12,298	9,838
D2010 - Plumbing Fixtures	Custodial/Utility Sinks	30	125	1984	2021	7,781	6,225
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density	30	125	1984	2021	32,555	26,044
D2010 - Plumbing Fixtures	Sinks - Breakroom and Conference Room	30	125	1984	2020	6,879	5,503
D2020 - Domestic Water Distribution	Water Heater - Gas - 40 Gal	10	112	2015	2025	9,898	8,837
D2020 - Domestic Water Distribution	Domestic Water Distribution System	30	112	1984	2023	32,210	28,632
D2030 - Sanitary Waste	Sanitary Sewage Holding Tank	40	100	1984	2024	40,960	40,960
D2030 - Sanitary Waste	Sanitary Waste - Gravity Discharge	50	125	1984	2034	109,267	87,414
D2040 - Rain Water Drainage	Roof Drainage - Gravity	50	125	1984	2034	21,929	17,543



DRAFT

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D2090 - Other Plumbing Systems	Propane Gas Supply for Bldg	40	125	1984	2024	17,396	13,917
D3020 - Heat Generating Systems	Humidifier - Steam Generating - Whole Building	30	125	1984	2021	34,537	27,630
D3020 - Heat Generating Systems	Boiler Heating Water - Propane Fired	30	125	2018	2048	49,777	39,822
D3030 - Cooling Generating Systems	Air Cooled Condensing Unit	15	125	1986	2021	31,855	25,484
D3040 - Distribution Systems	Ductwork Distribution System	40	125	1984	2024	78,119	62,495
D3040 - Distribution Systems	Heating Hot Water - Building Heating Water Distribution System	25	125	1984	2024	154,400	123,520
D3040 - Distribution Systems	Perimeter Heat System - Hydronic Fin Tube	18	112	1984	2024	171,252	152,224
D3040 - Distribution Systems	Central Station Air Handler - AHU-1	25	125	1984	2023	119,195	95,356
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan	20	125	1984	2023	5,033	4,027
D3060 - Controls and Instrumentation	Compressor - Temperature Control System	20	125	1984	2021	43,378	34,702
D3060 - Controls and Instrumentation	Pneumatic Controls	20	112	1984	2023	108,214	96,620
D5012 - Low Tension Service and Dist.	Main Electrical Service	30	125	1984	2024	22,325	17,860
D5012 - Low Tension Service and Dist.	Distribution Equipment, Panelboards, and Feeders - 600Y/347V & 208Y/120V	30	125	1984	2023	70,098	56,079
D5012 - Low Tension Service and Dist.	Transformer - 112.5 KVA	20	125	1984	2024	22,642	18,114
D5020 - Lighting and Branch Wiring	Lighting - Exterior - LED Wall Packs	20	125	2017	2037	14,707	11,766
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices	30	125	1984	2023	29,418	23,534
D5022 - Lighting Equipment	Lighting Fixtures - Interior - Fluorescent	20	125	1984	2022	53,616	42,893
D5031 - Public Address and Music Systems	Public Address System	15	125	1984	2023	21,649	17,319
D5033 - Telephone Systems	Telephone System with VOIP	10	125	2010	2020	3,421	2,737
D5037 - Fire Alarm Systems	Fire Alarm System	10	125	1984	2018	37,952	30,361
D5039 - Local Area Networks	LAN System	15	125	2005	2023	44,355	35,484



DRAFT

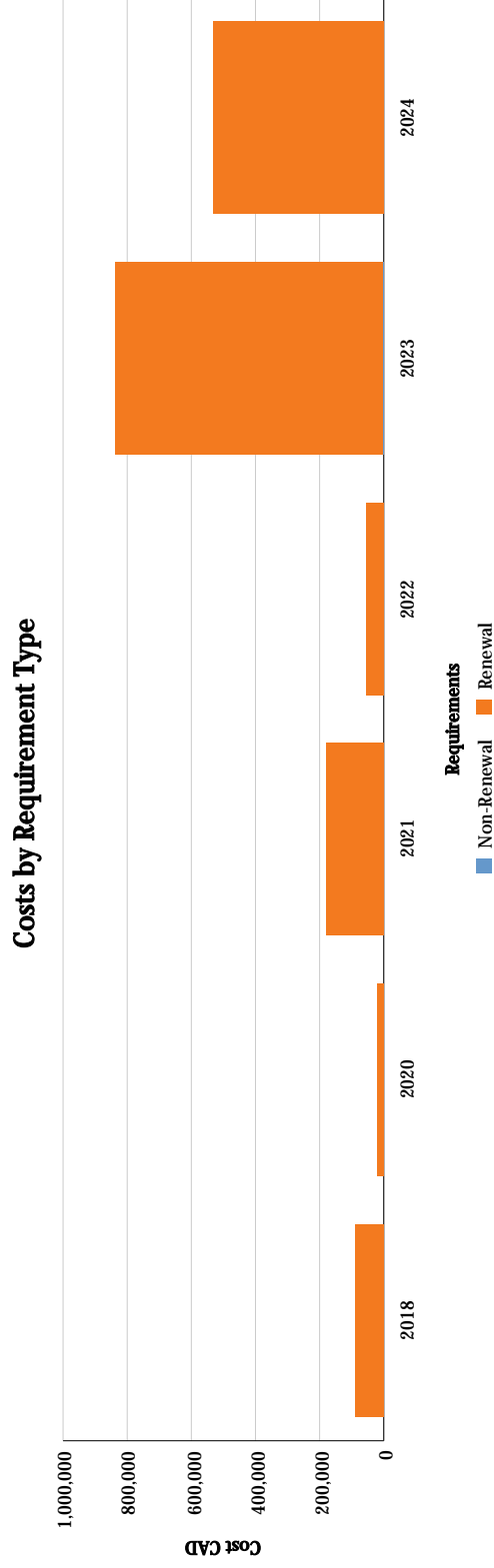
# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D5092 - Emergency Light and Power Systems	Exit Signs	10	125	1984	2018	8,573	6,859
D5092 - Emergency Light and Power Systems	Emergency Backup Power System	20	125	1984	2023	125,735	100,588
D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights	10	125	1984	2018	7,756	6,205
E - Equipment and Furnishings	Fixed Casework Cabinetry	25	125	1984	2023	34,228	27,382
	<b>Subtotal</b>						<b>2,500,884</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>2,500,884</b>

# Asset Overview Report *By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Air Cooled Condensing Unit Renewal	Yes	D3030 - Cooling Generating Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	31,855
Aluminum Windows Renewal	Yes	B2020 - Exterior Windows	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	85,633
Branch Wiring - Equipment & Devices Renewal	Yes	D5021 - Branch Wiring Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	29,418
Carpeting Broadloom Renewal	Yes	C3020 - Floor Finishes	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2018	34,354

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Central Station Air Handler - AHU-1 Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	119,195
Ceramic Floor Tile Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	23,682
Compressor - Temperature Control System Renewal	Yes	D3060 - Controls and Instrumentation	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	43,378
Concrete - Painted or Sealed Renewal	Yes	C3020 - Floor Finishes	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	657
Custodial/Utility Sinks Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	7,781
Distribution Equipment, Panelboards, and Feeders - 600Y/347V & 208Y/120V Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	70,098
Domestic Water Distribution System Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	32,210
Door Assembly - 900 x 2,100 HM Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	33,283
Ductwork Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	78,119
Emergency Backup Power System Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	125,735
Emergency Battery Pack Lights Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	7,756
Exhaust System - Restroom w/Roof Fan Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	5,033
Exit Signs Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	8,573
Exterior Walls - Deteriorating Weatherstripping	No	B2010 - Exterior Walls	Maintenance	2- Due within 2 Years of Inspection	Aug 14, 2020	0
Fire Alarm System Renewal	Yes	D5037 - Fire Alarm Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	37,952

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Fittings - Signage (Room Numbering and Identification) Renewal	Yes	C1035 - Identifying Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	4,351
Fixed Casework Cabinetry Renewal	Yes	E - Equipment and Furnishings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	34,228
Floor Finishes - Aged Vinyl Composite Tile Janitor Room	No	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	1,548
Heating Hot Water - Building Heating Water Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	154,400
Humidifier - Steam Generating - Whole Building Renewal	Yes	D3020 - Heat Generating Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	34,537
LAN System Renewal	Yes	D5039 - Local Area Networks	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	44,355
Lighting Fixtures - Interior - Fluorescent Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2022	53,616
Main Electrical Service Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	22,325
Modified Bitumen Renewal	Yes	B30 - Roofing	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	126,484
Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	7,585
Perimeter Heat System - Hydronic Fin Tube Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	171,252
Pneumatic Controls Renewal	Yes	D3060 - Controls and Instrumentation	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	108,214
Propane Gas Supply for Bldg Renewal	Yes	D2090 - Other Plumbing Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	17,396
Public Address System Renewal	Yes	D5031 - Public Address and Music Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	21,649
Restroom Fixtures - Std Density Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	32,555



# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Sanitary Sewage Holding Tank Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	40,960
Sinks - Breakroom and Conference Room Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	6,879
Telephone System with VOIP Renewal	Yes	D5033 - Telephone Systems	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	3,421
Toilet Partitions Renewal	Yes	C1030 - Fittings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	16,051
Transformer - 112.5 KVA Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	22,643
Vinyl Sheet Goods Renewal	Yes	C3020 - Floor Finishes	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	7,792
<b>Total</b>						<b>1,706,953</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Carpenter Shop  
**Asset Number:** C L 00002 17465  
**Currency:** CAD

## Statistics

<b>FCI Cost:</b>	581,227	<b>FCI</b>	0.42
<b>RI Cost:</b>	587,933	<b>RI</b>	0.43
<b>Total Requirement Cost:</b>	581,229	<b>Size:</b>	318 SM
<b>Current Replacement Value:</b>	1,375,444		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation Carpenter Shop

## Asset Description

CARPENTER SHOP; ASSET CODE C L 00002 17465

### ARCHITECTURAL

#### General

The Carpenter Shop building, Asset Code C L 00002 17465, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a single level building with a slab on grade foundation built in 1968. The Carpenter Shop building contains 318 square meters of floor space.

#### Construction

The substructure construction found beneath the Carpenter Shop building facility consists of a concrete floor slab on grade with exterior perimeter cast concrete foundation walls founded on strip concrete footings. Exterior walls are clad with prefinished metal panel siding on an insulated steel framed backup wall, finished with vapour retarder and either painted gypsum wallboard or prefinished metal wall panels. Roof framing consists of a metal roof deck supported on structural steel members and waterproofed with a standing seam metal roof panel assembly. Fenestration consists of wood framed window assemblies and entry doors are finished, wood panel doors and frames, some with glazing.

# Asset Overview Report

*By Asset Name*

## Classification

The Carpenter Shop building can be classified as a Group F, Division 3 Industrial Low Hazard Occupancy as a workshop per Table 3.1.2.1. of the 2010 National Building Code of Canada.

## Mechanical

The building heat is provided by a high efficiency hot water boiler with pumps, piping and accessories. There is a heating air handler and baseboard radiation. The painting are has a ventilation system. The plumbing system consists of a water holding tank, fixtures and piping. There is a shop compressed air system.

## Electrical

The electrical system consists of the incoming service, panelboards and power distribution. The building has fluorescent lighting with explosion proof fixtures in the paint room.

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - No Basement	Basic foundation for building without basement - to include strip footing, 1200mm foundation wall and damp proofing. Also included are underdrains.
A - Substructure-Structural Slab on Grade - Light Industrial	The building substructure includes a light industrial type structural slab on grade.
B10 - Superstructure-Low Slope Roof Assembly - Metal Deck Steel Framing	Roof superstructure consists of steel columns and steel joist roof structure.
B2010 - Exterior Walls-Metal Siding on Framing	The exterior wall has prefinished metal panel siding on framing with GWB finish on the interior.
B2020 - Exterior Windows- Windows - Aluminum	The building includes aluminum framed exterior units with insulating glass.
B2030 - Exterior Doors-Door Assembly - Single	Exterior doors include single-leaf door and frames with standard hardware.
B2030 - Exterior Doors-Overhead Rolling Doors - Manual Operation	Exterior openings include overhead rolling doors with manual operation. Observed years remaining increased due to system condition.
B30 - Roofing-Metal Roofing - High End	The roof covering is of formed metal roofing, such as standing seam metal.
C1010 - Partitions-GWB on Wood Stud	The building interior includes standard GWB on wood stud partitions, taped and finished, but not painted, no insulation. Observed years remaining increased due to system condition.
C1020 - Interior Doors-Swinging Doors Wood and Metal	Interior doors include wood and metal doors and frames with standard hardware. System cost includes both single and double doors. Observed years remaining increased due to system condition.
C1030 - Fittings-Washroom Accessories	The washroom accessories typically include mirror, grab bars, paper towel dispenser and disposal, toilet paper holder and soap dispenser. Observed years remaining increased due to system condition.
C1035 - Identifying Devices-Signage (Room Numbering and Identification)	The building has way finding signage which typically includes door numbers, names and graphics. Observed years remaining increased due to system condition.
C20 - Stairs-Stairs Typical	The interior stairs include two, 12-riser flights per story with hand and guard rails.



# Asset Overview Report

## By Asset Name

System Name	Description
C3010 - Wall Finishes-Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	Interior wall finishes include standard paint finish.
C3010 - Wall Finishes-Prefinished Metal Wall Panels	Interior wall finishes include prefinished metal wall panels. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Concrete - Painted or Sealed	Typical painted concrete with an abrasive textured additive to prevent slipping.
C3020 - Floor Finishes-Linearoleum Sheet Goods	Floor finishes include areas of seamless linoleum and or marmoleum sheet goods flooring and related base.
C3030 - Ceiling Finishes-GWB Taped and Finished	System includes GWB ceiling at 2400mm or more above the floor level; typically taped, finished and painted with primer and 2 finish coats. Ceiling supported by a suspension system or fastened to metal or wood furring.
C3030 - Ceiling Finishes-Painted Roof Superstructure	Roof superstructure is painted. Observed years remaining increased due to system condition.
D2010 - Plumbing Fixtures-Emergency Eyewash	Plumbing fixtures include an emergency eyewash unit.
D2010 - Plumbing Fixtures-Restroom Fixtures	The restroom fixtures include water closet and lavatory.
D2010 - Plumbing Fixtures-Utility Sink	The plumbing fixtures include laundry tub type utility sink.
D2020 - Domestic Water Distribution-Water Distribution Piping	The building domestic water distribution system includes a distribution piping. Note: The system is in good condition with some recent modifications. The observed years remaining has been extended.
D2020 - Domestic Water Distribution-Water Heater - Electric - 10 Gal	The domestic hot water is provided by a 10-gallon residential-grade electric water heater.
D2023 - Domestic Water Supply Equipment-Potable Water Tank - Fiberglass - 2270 L	The system includes a single-wall, aboveground 2270 L fiberglass storage tank for potable water usage and pump. The system is located in the attic
D2030 - Sanitary Waste-Sanitary Sewage Holding Tank	The sanitary sewage drains to a holding tank located behind the building. The tank is periodically sucked out by connection to a discharge standpipe. There have been some issues with the discharge piping.
D2030 - Sanitary Waste-Sanitary Waste - Gravity Disch - Average	The building includes an sanitary waste system piped to a holding tank. Note: The system is functioning normal and appears to be in good condition. The overserved useful life has been extended.
D2090 - Other Plumbing Systems-Propane Gas Supply for Bldg	The building includes a propane gas supply and distribution system.
D2090 - Other Plumbing Systems-Shop Compressed Air System	The building has a shop compressed air system with a compressor and piping.
D3020 - Heat Generating Systems-Boiler Heating Water - Propane Fired	Heat is provided by a high efficiency, 96% AFUE, hot water boiler and accessories. The boilers are propane fired.
D3040 - Distribution Systems-Air Handler with Ductwork	The HVAC system includes air handling units (fan coil), ceiling hung with distribution ductwork. Note: The system is in good condition and observed years remaining has been extended.
D3040 - Distribution Systems-Exhaust System Paint Room	The building has a dedicated paint room exhaust system. Note: The system is in good condition and the observed years remaining has been increased.
D3040 - Distribution Systems-Heating Hot Water - Building	The Hot water Heating System consists of pumps, distribution piping, valves, insulation and fittings. The system is in good condition and has been



# Asset Overview Report

## By Asset Name

System Name	Description
Heating Water Distribution System	maintained with some modifications so the observed years remaining has been extended.
D3040 - Distribution Systems-Perimeter Heat System - Hydronic Fin Tube	HVAC distribution includes a two-pipe system of heating hot water with perimeter baseboard radiation. The system is in good condition with some recent modifications, and the observed years remaining has been extended.
D3040 - Distribution Systems-Sawdust Collection System Removal	The building has a sawdust collection system that is no longer used and should be removed.
D3050 - Terminal and Package Units-Unit Heaters - Electric	Heating in some rooms is provided by suspended, electric unit heaters. Note: The unit is good condition and the observed useful life has been extended.
D5012 - Low Tension Service and Dist.-Electrical Distribution Equipment, Panelboards and Feeders	The electrical distribution system for this building includes panelboards, feeders, and associated equipment. The system is go condition and the observed years remaining has been extended.
D5012 - Low Tension Service and Dist.-Transformer	The facility has a transformer located in an outside in a boxed enclosure, and a picture could not be taken.. Note: The equipment is functioning normally, and the observed years remaining has been extended.
D5020 - Lighting and Branch Wiring-Lighting - Exterior - LED Wall Packs	Exterior lighting consists of HID wall pack units.
D5021 - Branch Wiring Devices-Branch Wiring - Equipment & Devices	Branch wiring for this building includes interior and exterior branch wiring, devices, and power to the shop equipment. Note: The system is in good condition and the observed years remaining has been extended.
D5022 - Lighting Equipment-Lighting Fixtures - Explosion Proof in Paint Room	The paint room has explosion proof fluorescent light fixtures. Note: The system is operating normally and the observed years remaining has been extended.
D5022 - Lighting Equipment-Lighting Fixtures - Fluorescent	The building lighting system includes fixtures, conduit and wire. Note: The fixtures are operating normally, and the observed years remaining has been expending.
D5039 - Local Area Networks-LAN & Telephone System	Building includes a combination LAN and Telephone System. The system is functioning normally and the observed years remaining has been extended.
D5092 - Emergency Light and Power Systems-Emergency Battery Pack Lights	The emergency lighting system includes self-contained battery packs and lights.
D5092 - Emergency Light and Power Systems-Exit Signs	The emergency system includes the installation of Exit signs.
E - Equipment and Furnishings-Casework Fixed	The building includes typical fixed casework for a work shop.
G2023 - Curbs, Rails and Barriers-Pipe Bollards	The site contains metal parking bumpers, pipe bollards, concrete filled, painted, 2400 mm L x 1200 mm D hole, 200 mm diameter.

# Asset Overview Report

## By Asset Name

### Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Structural Slab on Grade - Light Industrial	75	6	1968	2043	4,415	73,585
A - Substructure	Foundation Wall and Footings - No Basement	75	6	1968	2043	4,895	78,312
B10 - Superstructure	Low Slope Roof Assembly - Metal Deck Steel Framing	75	6	1968	2043	4,413	70,609
B2010 - Exterior Walls	Metal Siding on Framing	75	62	1968	2043	53,160	85,056
B2020 - Exterior Windows	Windows - Aluminum	30	125	1993	2023	65,301	52,241
B2030 - Exterior Doors	Door Assembly - Single	30	125	1993	2023	32,442	25,953
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation	30	125	1998	2028	4,790	3,832
B30 - Roofing	Metal Roofing - High End	65	125	1968	2033	378,896	303,117
C1010 - Partitions	GWB on Wood Stud	50	62	1963	2028	9,959	15,935
C1020 - Interior Doors	Swinging Doors Wood and Metal	50	125	1968	2026	58,173	46,538
C1030 - Fittings	Washroom Accessories	25	125	1993	2023	7,986	6,389
C1035 - Identifying Devices	Signage (Room Numbering and Identification)	10	125	2008	2021	2,995	2,396
C20 - Stairs	Stairs Typical	75	38	1968	2043	16,908	45,087
C3010 - Wall Finishes	Prefinished Metal Wall Panels	25	81	1993	2028	15,679	19,357
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	125	2013	2023	5,476	4,381
C3020 - Floor Finishes	Linoleum Sheet Goods	25	125	2012	2037	11,932	9,546
C3020 - Floor Finishes	Concrete - Painted or Sealed	15	125	2008	2023	7,253	5,803
C3030 - Ceiling Finishes	Painted Roof Superstructure	30	125	1993	2028	3,983	3,186
C3030 - Ceiling Finishes	GWB Taped and Finished	30	125	1998	2028	8,555	6,844

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D2010 - Plumbing Fixtures	Restroom Fixtures	30	125	1968	2019	1,891	1,513
D2010 - Plumbing Fixtures	Emergency Eyewash	30	125	1968	2018	4,381	3,505
D2010 - Plumbing Fixtures	Utility Sink	30	125	1968	2019	6,817	5,453
D2020 - Domestic Water Distribution	Water Distribution Piping	30	112	1968	2023	9,892	8,833
D2020 - Domestic Water Distribution	Water Heater - Electric - 10 Gal	10	112	2015	2023	4,367	3,899
D2023 - Domestic Water Supply Equipment	Potable Water Tank - Fiberglass - 2270 L	35	125	2008	2023	21,047	16,837
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - Average	50	125	1968	2023	7,166	5,733
D2030 - Sanitary Waste	Sanitary Sewage Holding Tank	40	100	1968	2024	40,960	40,960
D2090 - Other Plumbing Systems	Shop Compressed Air System	20	105	2017	2037	29,764	28,347
D2090 - Other Plumbing Systems	Propane Gas Supply for Bldg	40	125	1968	2024	11,974	9,579
D3020 - Heat Generating Systems	Boiler Heating Water - Propane Fired	30	125	1968	2048	25,222	20,178
D3040 - Distribution Systems	Air Handler with Ductwork	25	125	1968	2023	24,065	19,252
D3040 - Distribution Systems	Perimeter Heat System - Hydronic Fin Tube	18	112	1968	2023	33,641	30,036
D3040 - Distribution Systems	Exhaust System Paint Room	15	125	1968	2021	11,305	9,044
D3040 - Distribution Systems	Sawdust Collection System Removal	15	125	1968	2019	4,690	3,752
D3040 - Distribution Systems	Heating Hot Water - Building Heating Water Distribution System	25	125	1968	2024	9,820	7,856
D3050 - Terminal and Package Units	Unit Heaters - Electric	15	112	1968	2023	13,190	11,777
D5012 - Low Tension Service and Dist.	Transformer	20	125	1968	2023	38,935	31,148
D5012 - Low Tension Service and Dist.	Electrical Distribution Equipment, Panelboards and Feeders	30	125	1968	2023	34,302	27,441
D5020 - Lighting and Branch Wiring	Lighting - Exterior - LED Wall Packs	20	125	2017	2023	1,237	989
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices	30	125	1968	2023	20,249	16,199
D5022 - Lighting Equipment	Lighting Fixtures - Fluorescent	20	125	1968	2023	34,457	27,565



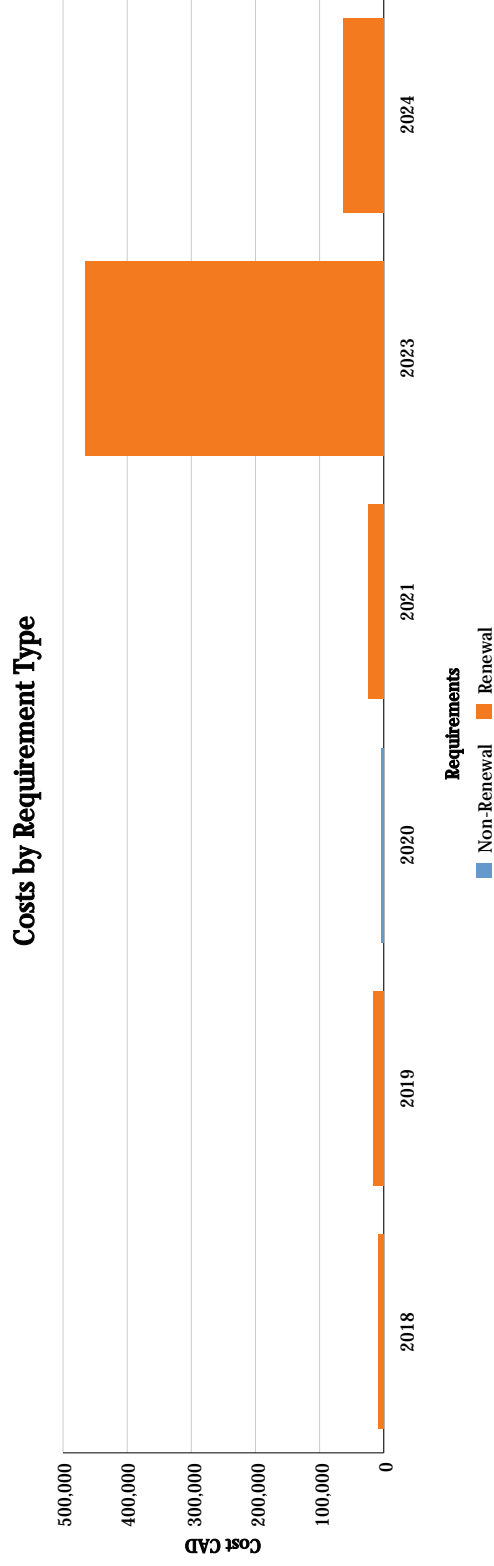
DRAFT

# Asset Overview Report

*By Asset Name*

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D5022 - Lighting Equipment	Lighting Fixtures - Explosion Proof in Paint Room	20	125	1968	2023	104,292	83,433
D5039 - Local Area Networks	LAN & Telephone System	15	106	1968	2021	10,069	9,499
D5092 - Emergency Light and Power Systems	Exit Signs	10	125	1968	2019	2,840	2,272
D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights	10	125	2005	2018	3,549	2,840
E - Equipment and Furnishings	Casework Fixed	30	125	1968	2028	83,796	67,037
G2023 - Curbs, Rails and Barriers	Pipe Bollards	30	125	1968	2030	27,876	22,301
	<b>Subtotal</b>						<b>1,375,444</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>1,375,444</b>

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Air Handler with Ductwork Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	24,065
Branch Wiring - Equipment & Devices Renewal	Yes	D5021 - Branch Wiring Devices	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	20,249
Concrete - Painted or Sealed Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	7,253
Door Assembly - Single Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	32,442
Electrical Distribution Equipment, Panelboards and Feeders Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	34,302
Emergency Battery Pack Lights Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2018	3,549
Emergency Eyewash Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2018	4,381
Exhaust System Paint Room Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2021	11,305



DRAFT

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Exit Signs Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2019	2,840
Exterior Windows - Deteriorating Paint Finish Window Frames	No	B2020 - Exterior Windows	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	4,640
Heating Hot Water - Building Heating Water Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	9,820
LAN & Telephone System Renewal	Yes	D5039 - Local Area Networks	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	10,069
Lighting - Exterior - LED Wall Packs Renewal	Yes	D5020 - Lighting and Branch Wiring	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	1,237
Lighting Fixtures - Explosion Proof in Paint Room Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	104,292
Lighting Fixtures - Fluorescent Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	34,457
Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	5,476
Perimeter Heat System - Hydronic Fin Tube Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	33,641
Potable Water Tank - Fiberglass - 2270 L Renewal	Yes	D2023 - Domestic Water Supply Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	21,047
Propane Gas Supply for Bldg Renewal	Yes	D2090 - Other Plumbing Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	11,974
Restroom Fixtures Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2019	1,891
Sanitary Sewage Holding Tank Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	40,960
Sanitary Waste - Gravity Disch - Average Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	7,166
Sawdust Collection System Removal Renewal	Yes	D3040 - Distribution Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2019	4,690
Signage (Room Numbering and Identification) Renewal	Yes	C1035 - Identifying Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	2,995
Transformer Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	38,935
Unit Heaters - Electric Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	13,190
Utility Sink Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2019	6,817
Washroom Accessories Renewal	Yes	C1030 - Fittings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	7,986
Water Distribution Piping Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	9,892
Water Heater - Electric - 10 Gal Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	4,367
Windows - Aluminum Renewal	Yes	B2020 - Exterior Windows	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	65,301
<b>Total</b>						<b>581,229</b>

# Asset Overview Report

## By Asset Name

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** DFO Wharf  
**Asset Number:** C L 00002 58873  
**Currency:** CAD

Assets are ordered by Asset Name

### Statistics

<b>FCI Cost:</b>	0	<b>FCI</b>	0.00
<b>RI Cost:</b>	0	<b>RI</b>	0.00
<b>Total Requirement Cost:</b>		<b>Size:</b>	250 SM
<b>Current Replacement Value:</b>	851,004		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation DFO Wharf

## Asset Description

DFO WHARF, ASSET CODE: C L 00002 58873

### ARCHITECTURAL

#### General

The Hay River Canadian Coast Guard Base can be found at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0P9. The site infrastructure includes the DFO Wharf, Asset Code: C L 00002 58873, which sits on the western most part of the site on the Hay River. Two other wharfs can be found just east of the DFO Wharf, but are not part of this condition assessment. The DFO Wharf was built in 2001, is 52 lineal meters in length and includes a boat launch ramp. The wharf consists of sheet steel piling shore protection tied back to the shore and backfilled with granular material behind the piling. The wearing surface adjacent to the wharf is compacted gravel.

## System Description



DRAFT

# Asset Overview Report

## By Asset Name

System Name	Description
A - Substructure-Pile Anchors	The DFO Wharf sheet piling is tied back into the ground on shore using two Z-piles at each anchor. Twenty-five anchors in total.
G2011 - Bases and Sub-Bases-Boat Launch - Rigid Pavement Base Course	Rigid pavement (concrete) includes a 300-mm thick gravel base course; spread and compaction included.
G2021 - Bases and Sub-Bases-DFO Wharf Base Course Backfill	Parking lot flexible pavement (bituminous) includes a 457-mm thick gravel base course for large paved areas.
G2021 - Bases and Sub-Bases-DFO Wharf Intermediate Course	Parking lot flexible pavement includes a 75-mm thick bituminous intermediate binder course for large paved areas.
G2031 - Paving and Surfacing-Boat Launch - Rigid Pavement Wearing Surface	Structural concrete, in place, slab on grade, 150mm thick.
G2049 - Miscellaneous Structures-Sheet Steel Seawall	Site development includes steel sheet piling seawall, steel sheeting, 3,600 meters high, driven from shore, for protecting shoreline. The sheet piling is anchored to the shore via ties.
G2049 - Miscellaneous Structures-Site Development - Mooring Accessories	Site development includes dock cleats and service utilities for water vessels to tie up to and tender into docks.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Pile Anchors	75	6	2001	2076	31,297	521,615
G2011 - Bases and Sub-Bases	Boat Launch - Rigid Pavement Base Course	65	12	2001	2066	58	480
G2021 - Bases and Sub-Bases	DFO Wharf Base Course Backfill	65	12	2001	2066	678	5,652
G2021 - Bases and Sub-Bases	DFO Wharf Intermediate Course	25	62	2001	2026	3,262	5,262
G2031 - Paving and Surfacing	Boat Launch - Rigid Pavement Wearing Surface	25	125	2001	2026	1,986	1,589
G2049 - Miscellaneous Structures	Sheet Steel Seawall	60	125	2001	2061	393,425	314,740
G2049 - Miscellaneous Structures	Site Development - Mooring Accessories	30	125	2001	2031	2,083	1,666
	<b>Subtotal</b>						<b>851,004</b>

Overhead:	0
Subtotal	0
Total Replacement Value Based on System Costs with Overheads	851,004

### Requirements including Renewals

No data available.

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Fences and Gates  
**Asset Number:** C L 00002 18254  
**Currency:** CAD

## Statistics

<b>FCI Cost:</b>	262,698	<b>FCI:</b>	1.10
<b>RI Cost:</b>	262,698	<b>RI:</b>	1.10
<b>Total Requirement Cost:</b>	262,698	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	239,137		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT



# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation Fences and Gates

## Asset Description

FENCES AND GATES; ASSET CODE C L 00002 18254

ARCHITECTURAL

General

The Fences and Gates infrastructure, Asset Code C L 00002 18254, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. Several types of Fences and Gates can be found on the compound and includes: Perimeter Chain Link Fencing, Automatic Sliding Chain Link Security Gate, Manual Vehicle Entrance Gate, Post and Chain Fencing and Metal Pipe Rail Fencing. The Fencing and Gates infrastructure dates from 1970.

## System Description



DRAFT

# Asset Overview Report

## By Asset Name

System Name	Description
G2041 - Fences and Gates-Fencing - Vehicle Gates Chain Link Powered	Site development includes chain link fence gates and posts, motor operators for gates, up to 13.7-m sliding, excludes electric wiring and excavation. Observed years remaining increased due to system condition.
G2041 - Fences and Gates-Fencing - Vehicle Gates Manual	Site development includes swing metal fence gates and posts for vehicular traffic. Observed years remaining increased due to system condition.
G2041 - Fences and Gates-Site Development - Fencing - Chain Link	Site development includes 3-m high chain link fencing with 50-mm post.
G2041 - Fences and Gates-Site Development - Fencing Metal Rail	Site development includes 1.066-mm high metal posts with 2 metal pipe rails. Observed years remaining increased due to system condition.
G2041 - Fences and Gates-Site Development - Fencing Post and Chain	Site development includes 1,200-mm high fence posts, 1,200-mm o.c. with steel chain strung between them. Observed years remaining increased due to system condition.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
G2041 - Fences and Gates	Fencing - Vehicle Gates Manual	20	125	1990	2023	7,437	5,950
G2041 - Fences and Gates	Fencing - Vehicle Gates Chain Link Powered	20	125	1990	2023	17,410	13,928
G2041 - Fences and Gates	Site Development - Fencing - Chain Link	20	125	1990	2023	237,851	190,281
G2041 - Fences and Gates	Site Development - Fencing Post and Chain	20	125	1990	2025	33,426	26,741
G2041 - Fences and Gates	Site Development - Fencing Metal Rail	25	125	1995	2028	2,797	2,237
Subtotal							239,137

Overhead: 0

Total Replacement Value Based on System Costs with Overheads 239,137

DRAFT

## Asset Overview Report *By Asset Name*

Subtotal 0

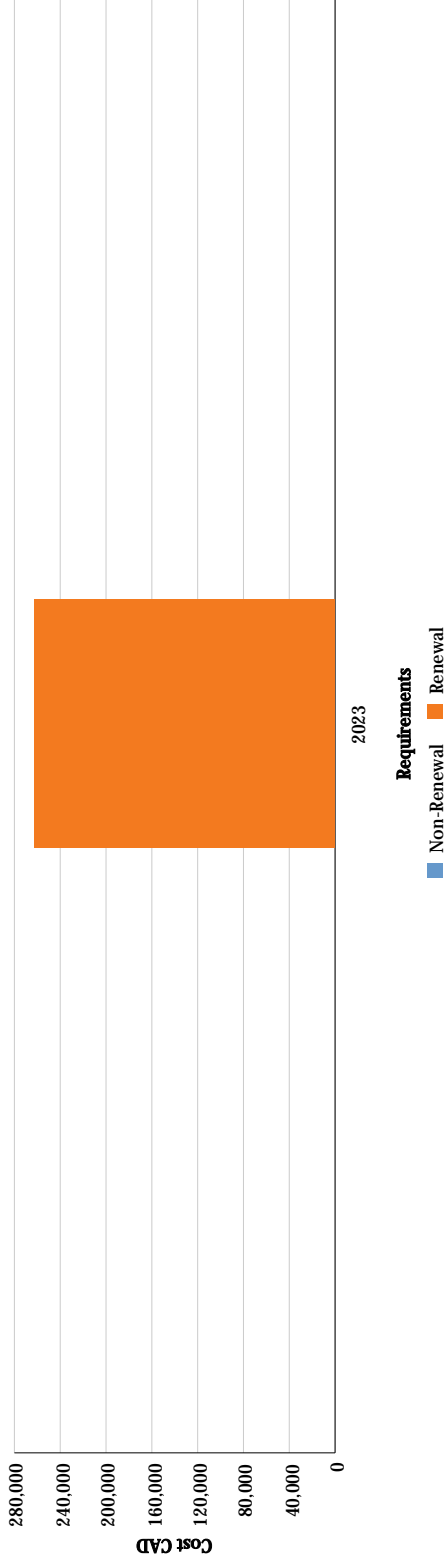
Total Replacement Value Based on System Costs with Overheads 239,137

### Requirements including Renewals

# Asset Overview Report

## By Asset Name

Costs by Requirement Type



# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Fish Management Complex  
**Asset Number:** C L 00002 15914

**Assets are ordered by Asset Name**      **Currency:** CAD

## Statistics

<b>FCI Cost:</b>	2,892,649	<b>FCI</b>	0.60
<b>RI Cost:</b>	3,261,425	<b>RI</b>	0.67
<b>Total Requirement Cost:</b>	3,143,944	<b>Size:</b>	1,164 SM
<b>Current Replacement Value:</b>	4,844,387		

**Address 1**      **Address 2**  
City      State/Province/Region

42037 Mackenzie Highway      -  
Hay River      NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation Fish Management Complex

## Asset Description

FISH MANAGEMENT COMPLEX; ASSET CODE C L 00002 15914

### ARCHITECTURAL

#### General

The Fish Management Complex building, Asset Code C L 00002 15914, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a two level building with crawlspace foundation built in 1974. The Fish Management Complex contains 1,164 square meters of floor space.

#### Construction

The substructure construction found beneath the Fish Management Complex facility consists of an elevated concrete floor, supported on concrete grade beams and sitting on an exterior perimeter cast concrete foundation walls founded on strip concrete footings. The entire foundation substructure is supported by steel piles driven into the highly compressible discontinuous permafrost soils to prevent subsidence and settlement issues. Exterior walls are clad with prefinished metal siding on an insulated steel framed backup wall, finished with vapour retarder and either painted gypsum wallboard or prefinished metal wall panels. Roof framing consists of a metal roof deck supported by structural steel support members and is waterproofed with asphalt shingles.

# Asset Overview Report

By *Asset Name*

Fenestration consists of insulated aluminum window assemblies and entry doors are finished, metal panel doors and frames, some with insulated glazing.

## Classification

The Fish Management Complex can be classified as a Group F, Division 2, Industrial Medium Hazard Occupancy as a laboratory per Table 3.1.2.1. of the 2010 National Building Code of Canada.

## Mechanical

The building is heated by a hydronic heating system with boilers, pumps and distribution piping. There is an HVAC system serving the second floor with air conditioning. Domestic water from a municipal system was recently added to the building and there is a domestic water heater. Sewage drains by gravity to a holding tank. There are fire protection stand pipes and hose cabinets throughout the building and those are now connected to the water system.

## Electrical

The building has a main electrical and an electrical distribution system. There is fluorescent lighting throughout. The building has a connection and transfer switch to connect to a portable electric generator.

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - Crawlspace	Basic perimeter foundation for building with crawlspace. System cost includes strip footing, 1.8 meter high foundation wall, damp proofing and underdrain and is based on average height of crawlspace at 600mm.
A - Substructure-Grade Beams	The substructure includes grade beams with a span of 9.14 meters and 1,016-mm deep.
A - Substructure-Pile Foundation	The building substructure includes pile caps and piles 15-IM in length in clusters of 10 at each pile cap.
B10 - Superstructure-Flat Roof Assembly - Metal Deck Steel Framing	Roof superstructure consists of steel columns and steel joist roof structure.
B10 - Superstructure-Floor Assembly - Cast in Place Concrete	Floor superstructure consists of reinforced cast in place concrete construction.
B1015 - Exterior Stairs and Fire Escapes-Exterior Stairs - Steel	The facility has exterior steel stairs, (one flight), with railings. Measure each flight.
B2010 - Exterior Walls-Metal Siding on Framing	The exterior wall has prefinished metal panel siding on framing with GWB finish on the interior.
B2020 - Exterior Windows- Windows - Aluminum	The building includes aluminum framed exterior units with insulating glass. Observed years remaining increased due to system condition.
B2030 - Exterior Doors-Door Assembly - Single	Exterior doors include single-leaf door and frames with standard hardware. Observed years remaining increased due to system condition.
B2030 - Exterior Doors-Overhead Rolling Doors - Manual Operation	Exterior openings include overhead rolling doors with manual operation. Observed years remaining increased due to system condition.
B30 - Roofing-Asphalt Shingles	The building roof is finished with asphalt shingles. Observed years remaining increased due to system condition.
C1010 - Partitions-CMU Block Walls	Interior partitions include concrete masonry unit (CMU) assemblies with no finish.





# Asset Overview Report

## By Asset Name

System Name	Description
C1010 - Partitions-GWB on Wood Stud	The building interior includes standard GWB on wood stud partitions, taped and finished, but not painted, no insulation.
C1020 - Interior Doors-Swinging Doors Wood and Metal	Interior doors include wood and metal doors and frames with standard hardware. System cost includes both single and double doors.
C1030 - Fittings-Metal Partitions Washrooms	Washrooms and change rooms are equipped with standard quality ceiling, and or floor mounted toilet partitions. Observed years remaining increased due to system condition.
C1030 - Fittings-Washroom Accessories	The washroom accessories typically include mirror, grab bars, paper towel dispenser and disposal, toilet paper holder and soap dispenser.
C1035 - Identifying Devices-Signage (Room Numbering and Identification)	The building has way finding signage which typically includes door numbers, names and graphics.
C20 - Stairs-Stairs Typical	The interior stairs include two, 12-riser flights per story with hand and guard rails.
C3010 - Wall Finishes-Paint Masonry/Epoxy Finish	Wall finishes include paint on CMU and minimum hi-build epoxy finish. Observed years remaining increased due to system condition.
C3010 - Wall Finishes-Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	Interior wall finishes include standard paint finish.
C3020 - Floor Finishes-Carpeting - Sheet or Tiles	Floor finishes include medium priced carpeting and or carpet tiles and base.
C3020 - Floor Finishes-Concrete - Painted or Sealed	The building includes a typical painted or sealed concrete floor finish.
C3020 - Floor Finishes-Linearoleum Sheet Goods	Floor finishes include areas of seamless linearoleum and or marmoleum sheet goods flooring and related base.
C3020 - Floor Finishes-Vinyl Composite Tile Standard	Floor finishes include areas of standard VCT flooring and related base. Observed years remaining increased due to system condition.
C3030 - Ceiling Finishes-GWB Taped and Finished	System includes GWB ceiling at 2400mm or more above the floor level; typically taped, finished and painted with primer and 2 finish coats. Ceiling supported by a suspension system or fastened to metal or wood furring.
C3030 - Ceiling Finishes-Suspended ACT	600 x 600mm or 600 x 1200mm x 19mm standard acoustic ceiling tiles (ACT) in 14mm tee grid suspension system. Observed years remaining increased due to system condition.
D1090 - Other Conveying Systems-Dumbwaiter	The building has a dumbwaiter between the first and second floor. The unit is seldom used.
D2010 - Plumbing Fixtures-Laboratory Sinks	The building plumbing fixtures include a stainless steel laboratory sinks. Note: The unit is in good condition and the observed years remaining has been extended.
D2010 - Plumbing Fixtures-Restroom Fixtures	The restroom fixtures include vitreous china water closets and urinals. Note: The systems are functioning normally and the observed years remaining has been extended.
D2010 - Plumbing Fixtures-Restroom Fixtures - Lavatories	The restroom fixtures include vitreous china lavatories. Note: The system is functioning normally and the observed years remaining has been extended.
D2010 - Plumbing Fixtures-Sinks - Breakroom and Conference Room	The plumbing fixtures include stainless steel countertop sinks located in the break rooms. Note: The system is working normally and the observed years remaining has been extended.





# Asset Overview Report

## By Asset Name

System Name	Description
D2020 - Domestic Water Distribution-Domestic Water Distribution System	The building water distribution system includes a new city water service with branch piping, backflow preventer, water meter, valves, insulation and fittings. Note: The system is good condition and the observed years remaining has been extended.
D2020 - Domestic Water Distribution-Water Heater - Propane	The domestic hot water is provided by a propane fired water heater with acirculating pump. The water heater was installed in 2015.
D2030 - Sanitary Waste-Sanitary Sewage Holding Tank	The sanitary sewage drains to a holding tank located behind the building. The tank is periodically sucked out by connection to a discharge standpipe. There have been some issues with the discharge piping. Note: The system is functioning normally and the observed years remaining has been extended.
D2030 - Sanitary Waste-Sanitary Waste - Gravity Discharge	The building includes an sanitary waste system, hung from the slab in the crawl space and discharging to a holding tank.
D2090 - Other Plumbing Systems-Propane Gas Supply for Bldg	The building includes a propane gas supply and distribution system. Note: The system is in good condition with some recent modifications and the observed years remaining has been increased.
D2090 - Other Plumbing Systems-Shop Compressed Air System	The building has a shop compressed air system with a compressor and piping.
D3020 - Heat Generating Systems-Boiler Heating Water - Propane Fired	Heat is provided by two high efficiency, 96% AFUE, hot water boilers with circulating pumps and accessories. the boilers are propane fired.
D3030 - Cooling Generating Systems-Air Cooled Condensing Unit	Cooling is provided by an air cooled condensing unit located on the roof. Note: The unit is in good condition and the observed years remaining have been extended.
D3040 - Distribution Systems-Central Station Air Handler - 2nd Floor	The HVAC system consists of one air handler located in the boiler room.
D3040 - Distribution Systems-Ductwork Distribution System	The HVAC system includes ductwork, dampers, diffusers, installed throughout the building. Note: The system is in good condition with some modifications and the observed years remaining has been extended.
D3040 - Distribution Systems-Exhaust System - Restroom w/Roof Fan	HVAC ventilation system includes roof-mounted restroom exhaust system with a fan and ductwork. Note: This system is in good condition and the observed years remaining has been increased.
D3040 - Distribution Systems-Heating Hot Water - Building Heating Water Distribution System	The Hot water Heating System consists of distribution piping, valves, insulation and fittings. Note: The system is in good condition and has been maintained so the observed years remaining has been extended.
D3040 - Distribution Systems-Perimeter Heat System - Hydronic Fin Tube	The HVAC distribution includes a two-pipe system of heating hot water, with perimeter units in various parts of the building. Note: This system is in good condition and the observed years remaining has been extended.
D3041 - Air Distribution Systems-Air to Air Heat Exchange Ventilation Units	There are 4 air to air exchange ventilating units on the first floor.
D3050 - Terminal and Package Units-Data Room Cooling - HP w/Air Cooled Remote Condenser	The data room is conditioned by a mini-split heat pump
D3050 - Terminal and Package Units-Unit Heaters - Hot Water	There are hot water unit heaters in the building. Note: The units are in good condition and the observed years remaining has been extended.



# Asset Overview Report

## By Asset Name

System Name	Description
D3060 - Controls and Instrumentation-DDC/ Pneumatic System - Hybrid -	HVAC controls include a pneumatic system for the majority of the building and a DDC system for the second floor HVAC system.
D3060 - Controls and Instrumentation- Maintenance Garage CO Monitor System	The vehicle maintenance area has a CO monitoring system.
D40 - Fire Protection-Fire Protection Standpipe System	The building has a fire protection standpipe system with water supplied by the municipal water system (new) and stand pipes and fire hose station in the building. Note: This system is in normal with some recent modifications.condition and the observed years remaining been extended.
D5012 - Low Tension Service and Dist.-Distribution Equipment, Panelboards, and Feeders	The electrical distribution system includes panelboards, feeders and associated equipment. Note: The system is in good condition and functioning normally, and the observed years remaining has been extended.
D5012 - Low Tension Service and Dist.-Main Electrical Service	The building includes an electrical service, which includes incoming feeders and meter. Note: The equipment is in good condition, and the observed years remaining has been extended.
D5020 - Lighting and Branch Wiring-Lighting - Exterior - LED Wall Packs	The exterior lighting consists of LED wall pack fixtures.
D5021 - Branch Wiring Devices-Branch Wiring - Equipment & Devices	Branch wiring for this building includes interior and exterior branch wiring, devices, and utilization equipment. Note: This system is in good condition and functioning normally, and the observed years remaining has been extended.
D5022 - Lighting Equipment-Lighting Fixtures - Interior - Fluorescent	The building has fluorescent light fixtures throughout. Note: The lighting is operating normally and in good condition, and the observed years remaining has been extended.
D5031 - Public Address and Music Systems-Public Address System	The building includes a public address system with speakers, amplifier and wiring. Note: The system functioning normally, and the observed years remaining has been expended.
D5033 - Telephone Systems-Telephone System with VOIP	Telephone service with VOIP is provided throughout the building with distribution wiring extended to telephone outlets.
D5037 - Fire Alarm Systems-Fire Alarm System	The building has a fire alarm system panel, sensors, horns and smoke detectors. The system does not meet current codes for fire alarm systems.
D5039 - Local Area Networks-LAN System	The facility includes a LAN system and data cabling system with a UPS.
D5092 - Emergency Light and Power Systems- Emergency Backup Power System	There is an exterior connection and a transfer switch in the electrical room for connection with a portable emergency generator. Note: The system is in good condition and the observed years remaining has been extended.
D5092 - Emergency Light and Power Systems- Emergency Battery Pack Lights	The emergency lighting system includes self-contained battery packs and lights in the egress passages.
E - Equipment and Furnishings-Casework Fixed	The building includes typical administrative and laboratory space casework. Estimate based on asset size.
E1027 - Laboratory Equipment-Fume Hood	The building has a laboratory fume hood. Note: The unit is in good condition and the observed years remaining has been increased.
E1091 - Maintenance Equipment-Chain Hoist Systems	There are two chain hoists in the maintenance area. Note: These are functioning normally and the observed years remaining has been extended.
E2012 - Fixed Casework-Fixed Lockers - Single Tier	Staff lockers, steel, baked enamel, single tier box, 450 x 375 x 1800mm.

# Asset Overview Report

## By Asset Name

System Name	Description
G2023 - Curbs, Rails and Barriers-Pipe Bollards	The site contains metal parking bumpers, pipe bollards, concrete filled, painted, 2400 mm L x 1200 mm D hole, 200 mm diameter.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Grade Beams	75	6	1974	2049	11,969	199,483
A - Substructure	Foundation Wall and Footings - Crawlspace	75	6	1974	2049	8,642	138,271
A - Substructure	Pile Foundation	75	6	1974	2049	15,649	260,823
B10 - Superstructure	Flat Roof Assembly - Metal Deck Steel Framing	75	6	1974	2049	8,077	129,227
B10 - Superstructure	Floor Assembly - Cast in Place Concrete	75	6	1974	2049	52,146	834,344
B1015 - Exterior Stairs and Fire Escapes	Exterior Stairs - Steel	50	125	2012	2062	43,661	34,929
B2010 - Exterior Walls	Metal Siding on Framing	75	62	1974	2049	143,835	230,135
B2020 - Exterior Windows	Windows - Aluminum	30	125	1974	2023	176,685	141,348
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation	30	125	1974	2021	33,527	26,821
B2030 - Exterior Doors	Door Assembly - Single	30	125	1974	2021	25,953	20,763
B30 - Roofing	Asphalt Shingles	20	125	1994	2023	124,736	99,789
C1010 - Partitions	CMU Block Walls	50	62	1974	2024	56,979	91,166
C1010 - Partitions	GWB on Wood Stud	50	62	1974	2024	22,783	36,452
C1020 - Interior Doors	Swinging Doors Wood and Metal	50	125	1974	2024	334,495	267,596
C1030 - Fittings	Metal Partitions Washrooms	40	125	1974	2026	22,795	18,236
C1030 - Fittings	Washroom Accessories	25	125	1999	2024	29,231	23,385
C1035 - Identifying Devices	Signage (Room Numbering and Identification)	10	125	2014	2024	10,962	8,770



DRAFT

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
C20 - Stairs	Stairs Typical	75	38	1974	2049	50,723	135,261
C3010 - Wall Finishes	Paint Masonry/Epoxy Finish	15	125	2004	2023	52,274	41,819
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	125	2014	2024	19,167	15,334
C3020 - Floor Finishes	Linoeum Sheet Goods	25	125	1999	2024	43,441	34,753
C3020 - Floor Finishes	Vinyl Composite Tile Standard	10	125	2004	2023	21,021	16,817
C3020 - Floor Finishes	Carpeting - Sheet or Tiles	10	125	2014	2024	43,180	34,544
C3020 - Floor Finishes	Concrete - Painted or Sealed	15	125	2006	2021	16,620	13,296
C3030 - Ceiling Finishes	Suspended ACT	20	125	1994	2026	137,485	109,988
C3030 - Ceiling Finishes	GWB Taped and Finished	30	125	2004	2034	15,506	12,405
D1090 - Other Conveying Systems	Dumbwaiter	35	125	1974	2020	51,632	41,305
D2010 - Plumbing Fixtures	Restroom Fixtures - Lavatories	30	125	1974	2020	15,883	12,706
D2010 - Plumbing Fixtures	Restroom Fixtures	30	125	1984	2021	17,410	13,928
D2010 - Plumbing Fixtures	Laboratory Sinks	30	125	1974	2021	10,467	8,373
D2010 - Plumbing Fixtures	Sinks - Breakroom and Conference Room	30	125	1974	2020	6,879	5,503
D2020 - Domestic Water Distribution	Domestic Water Distribution System	30	112	1974	2023	81,154	72,137
D2020 - Domestic Water Distribution	Water Heater - Propane	10	112	2015	2025	9,898	8,837
D2030 - Sanitary Waste	Sanitary Sewage Holding Tank	40	100	1974	2023	40,960	40,960
D2030 - Sanitary Waste	Sanitary Waste - Gravity Discharge	50	125	1974	2024	268,013	214,410
D2090 - Other Plumbing Systems	Propane Gas Supply for Bldg	40	125	1974	2023	43,828	35,063
D2090 - Other Plumbing Systems	Shop Compressed Air System	20	105	1974	2018	25,421	24,211
D3020 - Heat Generating Systems	Boiler Heating Water - Propane Fired	30	125	2018	2048	49,777	39,822
D3030 - Cooling Generating Systems	Air Cooled Condensing Unit	15	125	2003	2023	31,855	25,484

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D3040 - Distribution Systems	Ductwork Distribution System	40	125	1974	2024	62,374	49,899
D3040 - Distribution Systems	Heating Hot Water - Building Heating Water Distribution System	25	125	1974	2024	61,328	49,063
D3040 - Distribution Systems	Perimeter Heat System - Hydronic Fin Tube	18	112	1974	2024	91,334	81,186
D3040 - Distribution Systems	Central Station Air Handler - 2nd Floor	25	125	2003	2028	119,195	95,356
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan	20	125	1974	2023	12,681	10,145
D3041 - Air Distribution Systems	Air to Air Heat Exchange Ventilation Units	30	100	2003	2033	108,549	108,549
D3050 - Terminal and Package Units	Data Room Cooling - HP w/Air Cooled Remote Condenser	20	125	2012	2032	9,217	7,374
D3050 - Terminal and Package Units	Unit Heaters - Hot Water	25	112	1974	2023	93,331	83,331
D3060 - Controls and Instrumentation	DDC/Pneumatic System - Hybrid -	25	125	1998	2023	45,752	36,602
D3060 - Controls and Instrumentation	Maintenance Garage CO Monitor System	10	125	2010	2020	8,396	6,717
D40 - Fire Protection	Fire Protection Standpipe System	35	125	1974	2021	49,902	39,921
D5012 - Low Tension Service and Dist.	Main Electrical Service	30	125	1974	2023	22,325	17,860
D5012 - Low Tension Service and Dist.	Distribution Equipment, Panelboards, and Feeders	30	125	1984	2023	176,611	141,289
D5020 - Lighting and Branch Wiring	Lighting - Exterior - LED Wall Packs	20	125	2017	2037	16,545	13,236
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices	30	125	1974	2023	74,118	59,295
D5022 - Lighting Equipment	Lighting Fixtures - Interior - Fluorescent	20	125	1974	2021	135,084	108,067
D5031 - Public Address and Music Systems	Public Address System	15	125	1974	2021	19,167	15,333
D5033 - Telephone Systems	Telephone System with VOIP	10	125	2010	2020	8,620	6,896
D5037 - Fire Alarm Systems	Fire Alarm System	10	125	1974	2018	101,808	81,446
D5039 - Local Area Networks	LAN System	15	125	2005	2020	111,753	89,402



DRAFT

# Asset Overview Report

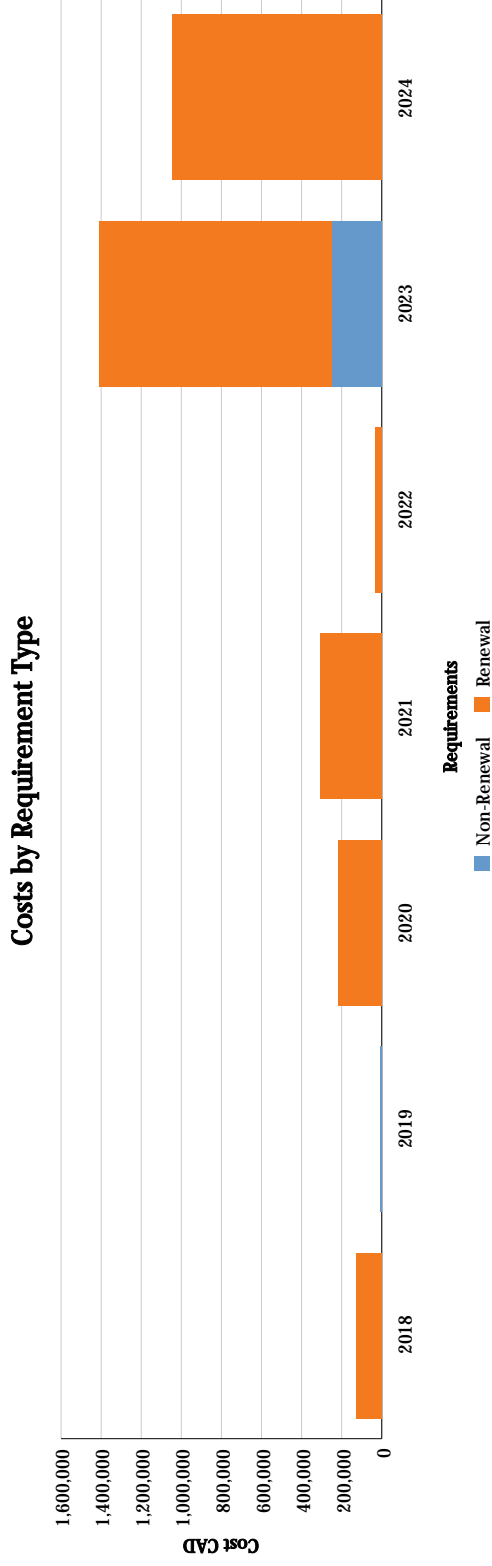
## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D5092 - Emergency Light and Power Systems	Emergency Backup Power System	20	125	1974	2023	62,868	50,294
D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights	10	125	1974	2020	11,634	9,307
E - Equipment and Furnishings	Casework Fixed	30	125	1974	2023	84,141	67,313
E1027 - Laboratory Equipment	Fume Hood	20	100	1995	2023	13,571	13,571
E1091 - Maintenance Equipment	Chain Hoist Systems	25	100	1985	2022	32,242	32,242
E2012 - Fixed Casework	Fixed Lockers - Single Tier	40	125	2000	2040	2,527	2,022
G2023 - Curbs, Rails and Barriers	Pipe Bollards	30	125	2004	2034	62,722	50,177
	<b>Subtotal</b>						<b>4,844,387</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>4,844,387</b>

# Asset Overview Report

*By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Air Cooled Condensing Unit Renewal	Yes	D3030 - Cooling Generating Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	31,855
Asphalt Shingles Renewal	Yes	B30 - Roofing	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	124,736
Branch Wiring - Equipment & Devices Renewal	Yes	D5021 - Branch Wiring Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	74,118
CMU Block Walls Renewal	Yes	C1010 - Partitions	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	56,979

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Carpeting - Sheet or Tiles Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	43,180
Casework Fixed Renewal	Yes	E - Equipment and Furnishings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	84,141
Ceiling Finishes - Stained Acoustic Ceiling Tile 2nd	No	C3030 - Ceiling Finishes	Maintenance	2- Due within 2 Years of Inspection	Aug 14, 2020	2,134
Chain Hoist Systems Renewal	Yes	E1091 - Maintenance Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2022	32,242
Concrete - Painted or Sealed Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	16,620
DDC/Pneumatic System - Hybrid - Renewal	Yes	D3060 - Controls and Instrumentation	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	45,752
Distribution Equipment, Panelboards, and Feeders Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	176,611
Domestic Water Distribution System Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	81,154
Door Assembly - Single Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	25,953
Ductwork Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	62,374
Dumbwaiter Renewal	Yes	D1090 - Other Conveying Systems	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	51,632
Emergency Backup Power System Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	62,868
Emergency Battery Pack Lights Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	11,634
Exhaust System - Restroom w/Roof Fan Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	12,681
Exterior Windows - Deteriorating Window Assemblies 2nd	No	B2020 - Exterior Windows	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	3,141



# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Fire Alarm System Renewal	Yes	D5037 - Fire Alarm Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	101,808
Fire Protection Standpipe System Renewal	Yes	D40 - Fire Protection	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	49,902
Fume Hood Renewal	Yes	E1027 - Laboratory Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	13,571
GWB on Wood Stud Renewal	Yes	C1010 - Partitions	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	22,783
Heating Hot Water - Building Heating Water Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	61,328
LAN System Renewal	Yes	D5039 - Local Area Networks	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	111,753
Laboratory Sinks Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	10,467
Lighting Fixtures - Interior - Fluorescent Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	135,084
Linoleum Sheet Goods Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	43,441
Main Electrical Service Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	22,325
Maintenance Garage CO Monitor System Renewal	Yes	D3060 - Controls and Instrumentation	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	8,396
Overhead Rolling Doors - Manual Operation Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	33,527
Paint Masonry/Epoxy Finish Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	52,274
Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	19,167
Perimeter Heat System - Hydronic Fin Tube Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	91,334

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Propane Gas Supply for Bldg Renewal	Yes	D2090 - Other Plumbing Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	43,828
Public Address System Renewal	Yes	D5031 - Public Address and Music Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	19,167
Restroom Fixtures - Lavatories Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	15,883
Restroom Fixtures Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	17,410
Sanitary Sewage Holding Tank Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	40,960
Sanitary Waste - Gravity Discharge Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	268,013
Shop Compressed Air System Renewal	Yes	D2090 - Other Plumbing Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	25,421
Signage (Room Numbering and Identification) Renewal	Yes	C1035 - Identifying Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	10,962
Sinks - Breakroom and Conference Room Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	6,879
Substructure - Settlement Perimeter Ground Surface	No	A - Substructure	Maintenance	3- Due within 5 Years of Inspection	Aug 14, 2023	249,160
Superstructure - Mezzanine Lacks Protective Guard 1st	No	B10 - Superstructure	Building Code	1- Due within 1 Year of Inspection	Aug 14, 2019	5,913
Swinging Doors Wood and Metal Renewal	Yes	C1020 - Interior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	334,495
Telephone System with VOIP Renewal	Yes	D5033 - Telephone Systems	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	8,620
Unit Heaters - Hot Water Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	93,331
Vinyl Composite Tile Standard Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	21,021



DRAFT

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Washroom Accessories Renewal	Yes	C1030 - Fittings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	29,231
Windows - Aluminum Renewal	Yes	B2020 - Exterior Windows	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	176,685
<b>Total</b>						<b>3,143,944</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Flammable Storage  
**Asset Number:** C L 00002 18152  
**Currency:** CAD

Assets are ordered by Asset Name

## Statistics

<b>FCI Cost:</b>	321,747	<b>FCI</b>	0.45
<b>RI Cost:</b>	321,747	<b>RI</b>	0.45
<b>Total Requirement Cost:</b>	321,748	<b>Size:</b>	138 SM
<b>Current Replacement Value:</b>	717,158		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation Flammable Storage

## Asset Description

FLAMMABLE STORAGE; ASSET CODE C L 00002 18152

### ARCHITECTURAL

#### General

The Flammable Storage, Asset Code C L 00002 18152, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a single level building with crawlspace foundation built in 1989. The Flammable Storage facility contains 138 square meters of floor space and is used to store flammable and hazardous materials.

#### Construction

The substructure construction found beneath the Flammable Storage building consists of an elevated wood floor, supported on wood floor trusses and sitting on an exterior perimeter cast concrete foundation walls founded on strip concrete footings. The entire foundation substructure is supported by steel piles driven into the highly compressible discontinuous permafrost soils to prevent subsidence and settlement issues. Exterior walls are clad with prefinished metal panel siding on an insulated wood framed backup wall, finished with vapour retarder and painted gypsum wallboard or prefinished metal wall panels. Roof framing consists of pre-engineered wood roof trusses and is waterproofed with a standing seam metal panel roof assembly. Fenestration consists of

# Asset Overview Report

## By Asset Name

insulated aluminum window assemblies and entry doors are finished, insulated metal panel doors and frames. There is an overhead, metal panel garage door.

### Classification

The Flammable Storage facility can be classified as a Group F, Division 1 Industrial Hazardous Occupancy as a flammable materials storage facility per Table 3.1.2.1. of the 2010 National Building Code of Canada.

### Mechanical

The building heat is provided by a high efficiency hot water boiler with pumps, piping and accessories. Heat is distributed unit heaters and an in-floor heating system. The facility had a fire suppression system, but that system is no longer in service. The building does not have domestic water supply.

### Electrical

The electrical system consists of the incoming service, panelboards and power distribution. The building has fluorescent lighting with explosion proof fixtures in the area that was used as flammable storage.

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - No Basement	Basic foundation for building without basement - to include strip footing, 1,200-mm foundation wall and damp proofing. Also included are underdrains.
A - Substructure-Structural Slab on Grade - Light Industrial	The building substructure includes a light industrial type structural slab on grade.
B10 - Superstructure-Flat Roof Assembly - Metal Deck Steel Framing	Roof superstructure consists of steel columns and steel joist roof structure.
B1014 - Ramps-Accessible Ramp - Exterior Steel	Concrete in place, handicapped ramp w/cheek walls & rails both sides. Assume 1.5m wide.
B1015 - Exterior Stairs and Fire Escapes-Exterior Stairs - Steel	The facility has exterior steel stairs, (one flight), with railings. Measure each flight.
B2010 - Exterior Walls-Metal Siding on Framing	The exterior wall has prefinished metal panel siding on framing with GWB finish on the interior.
B2030 - Exterior Doors-Door Assembly - Double	Exterior doors include double-leaf doors and frames with standard hardware.
B2030 - Exterior Doors-Door Assembly - Single	Exterior doors include single-leaf door and frames with standard hardware.
B2030 - Exterior Doors-Overhead Rolling Doors - Manual Operation	Exterior openings include overhead rolling doors with manual operation. Observed years remaining increased due to system condition.
B30 - Roofing-Metal Roofing	The roof covering is of formed metal roofing, such as standing seam metal.
C1010 - Partitions-GWB on Wood Stud	The building interior includes standard GWB on wood stud partitions, taped and finished, but not painted, no insulation.
C1020 - Interior Doors-Swinging Doors Wood and	Interior doors include wood and metal doors and frames with standard hardware. System cost includes both single and double doors.



# Asset Overview Report

## By Asset Name

System Name	Description
Metal	
C1035 - Identifying Devices-Signage (Room Numbering and Identification)	The building has way finding signage which typically includes door numbers, names and graphics.
C3010 - Wall Finishes-Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	Interior wall finishes include standard paint finish. Observed years remaining increased due to system condition.
C3010 - Wall Finishes-Prefinished Metal Wall Panels	Interior wall finishes include prefinished metal wall panels. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Concrete - Painted & Sealed	Typical painted concrete with an abrasive textured additive to prevent slipping.
C3030 - Ceiling Finishes-Prefinished Metal Ceiling Panels	Ceiling system consists of prefinished metal ceiling panels. Observed years remaining increased due to system condition.
D2090 - Other Plumbing Systems-Propane Gas Supply for Bldg	The building includes a propane gas supply and distribution system.
D3020 - Heat Generating Systems-Boiler Heating Water - Propane Fired	Heat is provided by a high efficiency, 96% AFUE, hot water boiler and accessories. The boilers are propane fired.
D3040 - Distribution Systems-Exhaust System Flammable Storage	The building has an exhaust system installed as part of the flammable storage suppression and control system. Note: The system is in good condition the suppression system is no longer in service. The observed years remaining has been increased.
D3040 - Distribution Systems-Heating Hot Water - Building Heating Water Distribution System	The Hot water Heating System consists of pumps, distribution piping, valves, insulation and fittings. The system is in good condition and has been maintained with recent modifications so the observed years remaining has been extended.
D3047 - Glycol Distribution Systems-Infloor Heating System	The building has a four zone in-floor heating system. One of the zones has a pipe leak and has been shut off. The remaining zones are currently functioning normally. Note: Based on functionality and that modifications were made with the new boilers, the observed useful life has been extended.
D3050 - Terminal and Package Units-Unit Heaters - Hot Water	There are hot water unit heaters in the building. Note: The units are in good condition and the observed years remaining has been extended.
D40 - Fire Protection-Fire Suppression System FM200 System	The area of the building previously used for flammable storage has a FM 200 type fire protection system. The system is not being maintained at this time because the building is no longer used for flammable storage. The system includes an alarm panel.
D5012 - Low Tension Service and Dist.-Electrical Distribution Equipment, Panelboards and Feeders	The electrical distribution system for this building includes panelboards, feeders, and associated equipment. The system is in good condition and the observed years remaining has been extended.
D5012 - Low Tension Service and Dist.-Transformer - 30 KVA	There is a 30 KVA transformer in the building. Note: The equipment is functioning normally, and the observed years remaining has been extended.
D5020 - Lighting and Branch Wiring-Lighting - Exterior - LED Wall Packs	Exterior lighting consists of HID wall pack units.
D5021 - Branch Wiring Devices-Branch Wiring - Equipment & Devices	Branch wiring for this building includes interior and exterior branch wiring, devices, and power to the shop equipment. Note: The system is in good condition and the observed years remaining has been extended.

# Asset Overview Report

## By Asset Name

System Name	Description
D5022 - Lighting Equipment-Lighting Fixtures - Explosion Proof in Flammable Storage Area	The flammable storage area has explosion proof fluorescent light fixtures. The area currently is not used for flammable storage. Note: The system is operating normally and the observed years remaining has been extended.
D5022 - Lighting Equipment-Lighting Fixtures - Fluorescent	The building area not designated as flammable storage has fluorescent light fixtures. The system includes fixtures, conduit and wire. Note: The fixtures are operating normally, and the observed years remaining has been expending.
D5092 - Emergency Light and Power Systems-Exit Signs	The emergency system includes the installation of Exit signs.
G2041 - Fences and Gates-Site Development - Fencing Chain Link	Site development includes 3-m high chain link fencing with 50-mm post.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Structural Slab on Grade - Light Industrial	75	6	1989	2064	1,916	31,933
A - Substructure	Foundation Wall and Footings - No Basement	75	6	1989	2064	3,096	51,592
B10 - Superstructure	Flat Roof Assembly - Metal Deck Steel Framing	75	6	1989	2064	1,915	30,642
B1014 - Ramps	Accessible Ramp - Exterior Steel	50	12	1989	2039	830	6,643
B1015 - Exterior Stairs and Fire Escapes	Exterior Stairs - Steel	50	125	1989	2039	29,108	23,286
B2010 - Exterior Walls	Metal Siding on Framing	75	62	1989	2064	35,019	56,031
B2030 - Exterior Doors	Door Assembly - Double	30	125	1989	2019	12,514	10,011
B2030 - Exterior Doors	Door Assembly - Single	30	125	1989	2019	25,953	20,763
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation	30	125	1989	2023	10,108	8,087
B30 - Roofing	Metal Roofing	65	125	1989	2054	164,427	131,541
C1010 - Partitions	GWB on Wood Stud	50	62	1989	2039	5,403	8,644





DRAFT

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
C1020 - Interior Doors	Swinging Doors Wood and Metal	50	125	1989	2039	14,543	11,635
C1035 - Identifying Devices	Signage (Room Numbering and Identification)	10	125	2009	2019	1,300	1,040
C3010 - Wall Finishes	Prefinished Metal Wall Panels	25	81	1989	2026	24,759	30,567
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	125	2009	2023	2,273	1,818
C3020 - Floor Finishes	Concrete - Painted & Sealed	15	125	2004	2019	3,941	3,153
C3030 - Ceiling Finishes	Prefinished Metal Ceiling Panels	30	125	1989	2028	42,871	34,296
D2090 - Other Plumbing Systems	Propane Gas Supply for Bldg	40	125	1989	2029	5,196	4,157
D3020 - Heat Generating Systems	Boiler Heating Water - Propane Fired	30	125	2018	2048	25,222	20,178
D3040 - Distribution Systems	Heating Hot Water - Building Heating Water Distribution System	25	125	1989	2024	4,261	3,409
D3040 - Distribution Systems	Exhaust System Flammable Storage	15	125	1989	2024	12,812	10,249
D3047 - Glycol Distribution Systems	Infloor Heating System	30	100	1989	2023	55,629	55,629
D3050 - Terminal and Package Units	Unit Heaters - Hot Water	25	112	1989	2023	53,332	47,618
D40 - Fire Protection	Fire Suppression System FM200 System	15	125	1989	2018	29,652	23,722
D5012 - Low Tension Service and Dist.	Electrical Distribution Equipment, Panelboards and Feeders	30	125	1989	2023	14,886	11,909
D5012 - Low Tension Service and Dist.	Transformer - 30 KVA	20	125	1989	2023	17,114	13,691
D5020 - Lighting and Branch Wiring	Lighting - Exterior - LED Wall Packs	20	125	2017	2023	3,711	2,968
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices	30	125	1968	2023	11,839	9,471
D5022 - Lighting Equipment	Lighting Fixtures - Explosion Proof in Flammable Storage Area	20	125	1989	2023	42,975	34,380
D5022 - Lighting Equipment	Lighting Fixtures - Fluorescent	20	125	1989	2023	14,953	11,962

DRAFT

# Asset Overview Report

*By Asset Name*

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D5092 - Emergency Light and Power Systems	Exit Signs	10	125	1989	2019	4,495	3,596
G2041 - Fences and Gates	Site Development - Fencing Chain Link	20	125	2009	2029	3,171	2,537
	<b>Subtotal</b>						<b>717,158</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>717,158</b>

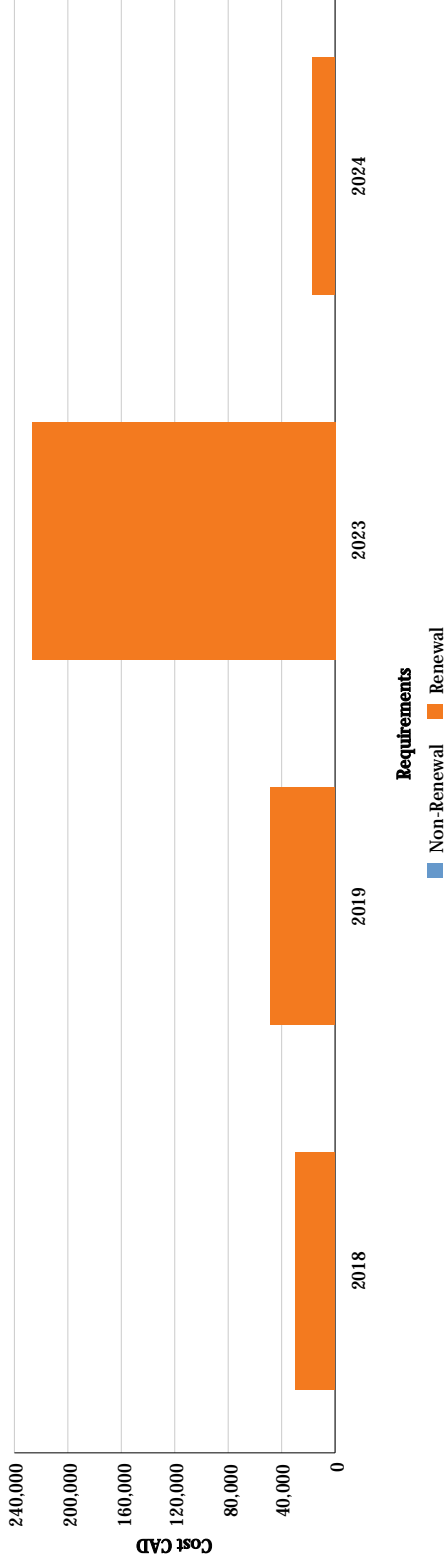
## Requirements including Renewals

DRAFT

# Asset Overview Report

*By Asset Name*

Costs by Requirement Type



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Branch Wiring - Equipment & Devices Renewal	Yes	D5021 - Branch Wiring Devices	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	11,839
Concrete - Painted & Sealed Renewal	Yes	C3020 - Floor Finishes	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2019	3,941
Door Assembly - Double Renewal	Yes	B2030 - Exterior Doors	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2019	12,514
Door Assembly - Single Renewal	Yes	B2030 - Exterior Doors	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2019	25,953
Electrical Distribution Equipment, Panelboards and Feeders Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	14,886
Exhaust System Flammable Storage Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2024	12,812
Exit Signs Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2019	4,495
Fire Suppression System FM200 System Renewal	Yes	D40 - Fire Protection	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2018	29,652
Heating Hot Water - Building Heating Water Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2024	4,261
Infloor Heating System Renewal	Yes	D3047 - Glycol Distribution Systems	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	55,629

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Lighting - Exterior - LED Wall Packs Renewal	Yes	D5020 - Lighting and Branch Wiring	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	3,711
Lighting Fixtures - Explosion Proof in Flammable Storage Area Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	42,975
Lighting Fixtures - Fluorescent Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	14,953
Overhead Rolling Doors - Manual Operation Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	10,108
Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	2,273
Signage (Room Numbering and Identification) Renewal	Yes	C1035 - Identifying Devices	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2019	1,300
Transformer - 30 KVA Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	17,114
Unit Heaters - Hot Water Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	53,332
<b>Total</b>						<b>321,748</b>

# Asset Overview Report

## By Asset Name

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Groundskeeper Shed  
**Asset Number:** C L 00002 15579  
**Currency:** CAD

### Statistics

<b>FCI Cost:</b>	6,488	<b>FCI</b>	0.05
<b>RI Cost:</b>	6,488	<b>RI</b>	0.05
<b>Total Requirement Cost:</b>	6,488	<b>Size:</b>	30 SM
<b>Current Replacement Value:</b>	119,493		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation Groundskeeper Shed

## Asset Description

GROUNDKEEPER SHED; ASSET CODE C L 00002 15579

### ARCHITECTURAL

#### General

The Groundskeeper Shed, Asset Code C L 00002 15579, can be found on the site of the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a single level building with concrete slab on grade foundation built in 1992. The Groundskeeper Shed contains 30 square meters of unheated floor space.

#### Construction

The substructure construction found beneath the Groundskeeper Shed facility consists of a concrete slab on grade substructure with perimeter cast concrete foundation walls founded on strip concrete footings. Exterior walls are clad with prefinished metal panel siding on a wood framed backup wall. The sloped roof framing consists of pre-engineered wood roof trusses and is waterproofed with a metal roofing panel assembly. Fenestration consists of insulated aluminum window assemblies and the entry door is a finished, insulated wood panel door and frame, set with insulated glazing.

**Classification**

The Groundskeeper Shed can be classified as a Group F, Division 3, Low Hazard Industrial Occupancy for use as a grounds storage facility per Table 3.1.2.1. of the 2010 National Building Code of Canada.

**Mechanical**

The building does not have any mechanical services.

**Electrical**

The building does not have electrical power.

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - No Basement	Basic foundation for building without basement - to include strip footing, 1,200-mm foundation wall and damp proofing. Also included are underdrains.
A - Substructure-Structural Slab on Grade - Non-Industrial	The building substructure includes a non-industrial type structural slab on grade.
B10 - Superstructure-Single-Story - Wood Framed Roof Truss	The building superstructure includes wood truss roof framing, sheathing and batt insulation.
B1014 - Ramps-Access Ramp - Exterior Steel	Portable access ramp, aluminum. Observed years remaining increased due to system condition.
B2010 - Exterior Walls-Metal Siding on Framing	The exterior wall has prefinished metal panel siding on framing with GWB finish on the interior.
B2020 - Exterior Windows-Windows - Aluminum	The building includes aluminum framed exterior units with insulating glass. Observed years remaining increased due to system condition.
B2030 - Exterior Doors-Door Assembly - Single	Exterior doors include single-leaf door and frames with standard hardware.
B2030 - Exterior Doors-Overhead Rolling Doors - Manual Operation	Exterior openings include overhead rolling doors with manual operation. Observed years remaining increased due to system condition.
B30 - Roofing-Metal Roofing - High End	The roof covering is of formed metal roofing, such as standing seam metal.
C3010 - Wall Finishes-Unfinished Plywood Panels	Interior wall finishes include panels of unfinished plywood. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Concrete - Painted or Sealed	Typical painted or sealed concrete with an abrasive textured additive to prevent slipping. Observed years remaining increased due to system condition.
C3030 - Ceiling Finishes-Wood Ceiling - Painted or Stained	Ceiling system of painted or stained wood. Observed years remaining increased due to system condition.



DRAFT

# Asset Overview Report

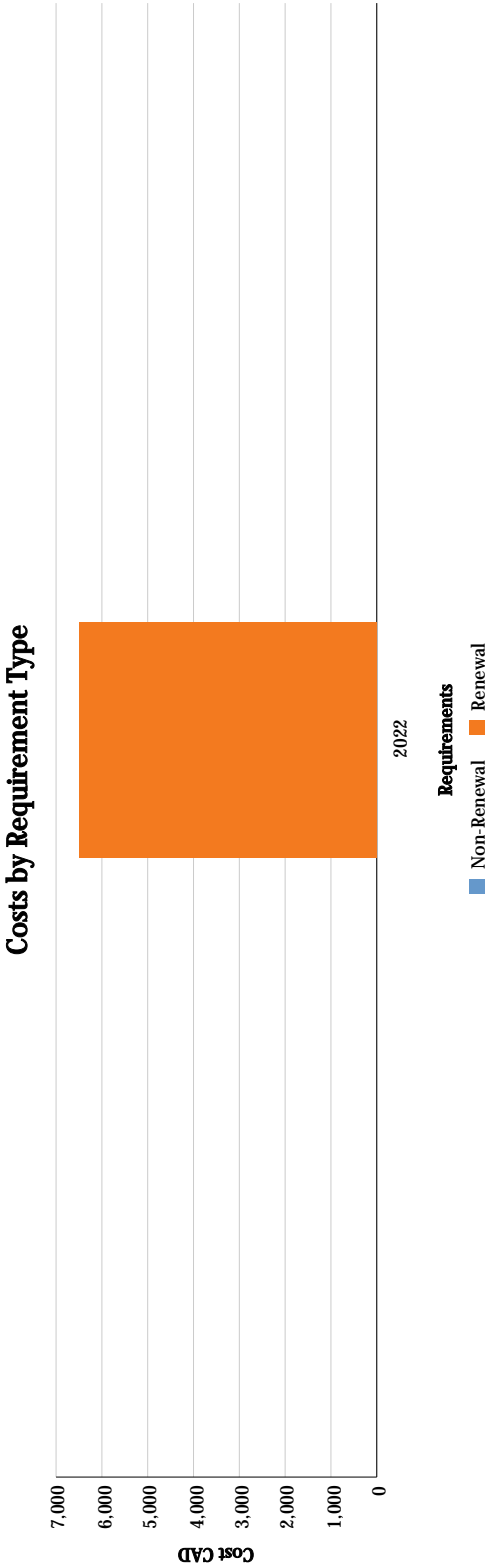
## By Asset Name

### Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Structural Slab on Grade - Non-Industrial	75	6	1992	2067	312	5,198
A - Substructure	Foundation Wall and Footings - No Basement	75	6	1992	2067	1,443	24,055
B10 - Superstructure	Single-Story - Wood Framed Roof Truss	75	6	1992	2067	324	5,395
B1014 - Ramps	Access Ramp - Exterior Steel	30	112	1992	2028	4,350	3,884
B2010 - Exterior Walls	Metal Siding on Framing	75	62	1992	2067	16,329	26,126
B2020 - Exterior Windows	Windows - Aluminum	30	125	1992	2026	7,710	6,168
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation	30	125	1992	2026	4,329	3,463
B2030 - Exterior Doors	Door Assembly - Single	30	125	1992	2022	6,488	5,191
B30 - Roofing	Metal Roofing - High End	65	125	1974	2039	35,745	28,596
C3010 - Wall Finishes	Unfinished Plywood Panels	25	81	1992	2026	2,655	3,277
C3020 - Floor Finishes	Concrete - Painted or Sealed	15	125	2007	2026	857	685
C3030 - Ceiling Finishes	Wood Ceiling - Painted or Stained	30	125	1992	2026	9,320	7,456
	<b>Subtotal</b>				<b>Subtotal</b>		<b>119,493</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>119,493</b>



### Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Door Assembly - Single Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2022	6,488
<b>Total</b>						<b>6,488</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Assets are ordered by Asset Name**

**Asset:** Helicopter Operations / General Storage  
**Asset Number:** C L 00002 16709

**Currency:** CAD

## Statistics

<b>FCI Cost:</b>	338,471	<b>FCI:</b>	0.47
<b>RI Cost:</b>	340,246	<b>RI:</b>	0.47
<b>Total Requirement Cost:</b>	338,472	<b>Size:</b>	174 SM
<b>Current Replacement Value:</b>	718,542		

**Address 1**  
**City**

42037 Mackenzie Highway  
Hay River

**Address 2**  
**State/Province/Region**

-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation Helicopter Operations / General Storage

## Asset Description

HELICOPTER OPERATIONS / GENERAL STORAGE; ASSET CODE C I 00002 16709

### ARCHITECTURAL

#### General

The Helicopter Operations / General Storage building, Asset Code C I 00002 16709, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a single level building with a concrete slab foundation built in 1974. The Helicopter Operations / General Storage building contains 174 square meters of floor space.

#### Construction

The substructure construction found beneath the Helicopter Operations / General Storage facility consists of a concrete floor slab at grade, sitting on exterior perimeter cast concrete foundation walls founded on strip concrete footings. Exterior walls are clad with prefinished metal panel siding on an insulated steel framed backup wall, finished with vapour retarder and either painted gypsum wallboard or prefinished metal wall panels. Roof framing consists of a metal roof deck supported by structural steel framing and is waterproofed with a standing seam metal panel roof

# Asset Overview Report

## By Asset Name

assembly. Fenestration consists of insulated aluminum window assemblies and entry doors are finished, insulated wood panel doors and frames.

### Classification

The Helicopter Operations / General Storage building can be classified as a Group F, Division 3 Low Hazard Industrial Occupancy per Table 3.1.2.1. of the 2010 National Building Code of Canada.

### Mechanical

The building heat is provided by electric unit heaters. There is a domestic water holding tank, water heater, water distribution and plumbing fixtures. The sanitary sewer is piped to a holding tank.

### Electrical

There is an electrical service to the building with lighting and general power. The building also has a battery changing room.

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - No Basement	Basic foundation for building without basement - to include strip footing, 1200mm foundation wall and damp proofing. Also included are underdrains.
A - Substructure-Structural Slab on Grade	The building substructure includes a light industrial type structural slab on grade.
B10 - Superstructure-Floor Assembly - Wood Joists and Subfloor	Floor assembly includes wood floor framing components include wood floor joists, subfloor.
B10 - Superstructure-Sloped Roof Assembly - Metal Deck Steel Framing	Roof superstructure consists wood frame roof and ceiling rafters sheathed with plywood.
B2010 - Exterior Walls-Metal Siding on Framing	The exterior wall has prefinished metal panel siding on framing with GWB finish on the interior.
B2020 - Exterior Windows-Windows - Aluminum	The building includes aluminum framed exterior units with insulating glass.
B2030 - Exterior Doors-Door Assembly - Single	Exterior doors include single-leaf door and frames with standard hardware. Observed years remaining increased due to system condition.
B2030 - Exterior Doors-Overhead Rolling Doors - Manual Operation	Exterior openings include overhead rolling doors with manual operation. Observed years remaining increased due to system condition.
B30 - Roofing-Metal Roofing - High End	The roof covering is of formed metal roofing, such as standing seam metal.
C1010 - Partitions-GWB on Wood Stud	The building interior includes standard GWB on wood stud partitions, taped and finished, but not painted, no insulation.
C1020 - Interior Doors-Swinging Doors Wood and Metal	Interior doors include wood and metal doors and frames with standard hardware. System cost includes both single and double doors.
C1030 - Fittings-Washroom Accessories	The washroom accessories typically include mirror, grab bars, paper towel dispenser and disposal, toilet paper holder and soap dispenser.
C1035 - Identifying Devices-Signage (Room Numbering and Identification)	The building has way finding signage which typically includes door numbers, names and graphics.
C3010 - Wall Finishes-Painted Finish - Average (1 Coat Prime - 2	Interior wall finishes include standard paint finish.

# Asset Overview Report

## By Asset Name

System Name	Description
Coats Finish)	
C3010 - Wall Finishes-Plywood Wall Sheathing	Interior wall finishes include economy grade plywood sheathing.
C3020 - Floor Finishes-Concrete - Painted or Sealed	Typical painted or sealed concrete with an abrasive textured additive to prevent slipping. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Linoleum Sheet Goods	Floor finishes include areas of seamless linoleum and or marmoleum sheet goods flooring and related base.
C3020 - Floor Finishes-Wood Flooring - Plywood	Floor finishes, direct glue-down, include plywood floors and base, for large open areas.
C3030 - Ceiling Finishes-Suspended ACT	600 x 600mm or 600 x 1200mm x 19mm standard acoustic ceiling tiles (ACT) in 14mm tee grid suspension system.
C3030 - Ceiling Finishes-Wood Ceiling - Painted or Stained	Ceiling system of painted or stained wood.
D2010 - Plumbing Fixtures-Emergency Eyewash	Plumbing fixtures include an emergency eyewash unit.
D2010 - Plumbing Fixtures-Restroom Fixtures	The restroom fixtures include water closet and lavatory.
D2020 - Domestic Water Distribution-Water Distribution Piping	The building domestic water distribution system includes a distribution piping. Note: The system is in good condition with some recent modifications. The observed years remaining has been extended.
D2020 - Domestic Water Distribution-Water Heater - Electric - 10 Gal	The domestic hot water is provided by a 10-gallon residential-grade electric water heater.
D2023 - Domestic Water Supply Equipment-Potable Water Tank - Fiberglass - 2270 L	The system includes a single-wall, aboveground 2270 L fiberglass storage tank for potable water usage and pump. The system is located in the attic
D2030 - Sanitary Waste-Sanitary Sewage Holding Tank	The sanitary sewage drains to a holding tank located behind the building. The tank is periodically sucked out by connection to a discharge standpipe. There have been some issues with the discharge piping.
D2030 - Sanitary Waste-Sanitary Waste - Gravity Disch - Average	The building includes an sanitary waste system piped to a holding tank.
D3040 - Distribution Systems-Exhaust System - Generator Room	There is an exhaust system for the generator room
D3050 - Terminal and Package Units-Unit Heaters - Electric	Heating is provided by suspended, electric unit heaters. Note: The unit is good condition and the observed useful life has been extended.
D5012 - Low Tension Service and Dist.-Electrical Distribution Equipment, Panelboards and Feeders	The electrical distribution system for this building includes panelboards, feeders, and associated equipment. The system is go condition and the observed years remaining has been extended.
D5020 - Lighting and Branch Wiring-Lighting - Exterior - LED Wall Packs	Exterior lighting consists of LED wall pack units.
D5021 - Branch Wiring Devices-Branch Wiring - Equipment & Devices	Branch wiring for this building includes interior and exterior branch wiring, devices, and power to the shop equipment. Note: The system is in good condition and the observed years remaining has been extended.
D5022 - Lighting Equipment-Lighting Fixtures - Fluorescent	The building area not designated as flammable storage has fluorescent light fixtures. The system includes fixtures, conduit and wire. Note: The fixtures are operating normally, and the observed years remaining has been expending.



# Asset Overview Report

## By Asset Name

System Name	Description
D5094 - Other Special Systems and Devices-Battery Charging Equipment	The building has a battery charging station.
E - Equipment and Furnishings-Casework Fixed	The building includes typical fixed casework for a work shop.

### Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Structural Slab on Grade	75	6	1974	2049	2,416	40,263
A - Substructure	Foundation Wall and Footings - No Basement	75	6	1974	2049	3,620	57,926
B10 - Superstructure	Floor Assembly - Wood Joists and Subfloor	75	6	1974	2049	231	3,855
B10 - Superstructure	Sloped Roof Assembly - Metal Deck Steel Framing	75	6	1974	2049	4,147	66,355
B2010 - Exterior Walls	Metal Siding on Framing	75	62	1974	2049	39,323	62,916
B2020 - Exterior Windows	Windows - Aluminum	30	125	1974	2023	24,152	19,321
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation	30	125	1974	2023	9,579	7,663
B2030 - Exterior Doors	Door Assembly - Single	30	125	1974	2023	12,977	10,381
B30 - Roofing	Metal Roofing - High End	65	125	1974	2039	207,321	165,856
C1010 - Partitions	GWB on Wood Stud	50	62	1974	2024	4,557	7,290
C1020 - Interior Doors	Swinging Doors Wood and Metal	50	125	1974	2024	79,988	63,990
C1030 - Fittings	Washroom Accessories	25	125	1999	2024	4,370	3,496
C1035 - Identifying Devices	Signage (Room Numbering and Identification)	10	125	2014	2024	1,639	1,311
C3010 - Wall Finishes	Plywood Wall Sheathing	25	81	1999	2024	4,791	5,915

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	125	2012	2022	3,833	3,067
C3020 - Floor Finishes	Wood Flooring - Plywood	25	125	1999	2024	3,833	3,067
C3020 - Floor Finishes	Linoleum Sheet Goods	25	125	1999	2024	3,729	2,983
C3020 - Floor Finishes	Concrete - Painted or Sealed	15	125	2004	2021	4,969	3,975
C3030 - Ceiling Finishes	Wood Ceiling - Painted or Stained	30	125	2004	2034	40,385	32,308
C3030 - Ceiling Finishes	Suspended ACT	20	125	1994	2023	10,394	8,315
D2010 - Plumbing Fixtures	Emergency Eyewash	30	125	1974	2018	4,381	3,505
D2010 - Plumbing Fixtures	Restroom Fixtures	30	125	1974	2019	1,891	1,513
D2020 - Domestic Water Distribution	Water Heater - Electric - 10 Gal	10	112	2015	2023	4,367	3,899
D2020 - Domestic Water Distribution	Water Distribution Piping	30	112	1974	2023	5,413	4,833
D2023 - Domestic Water Supply Equipment	Potable Water Tank - Fiberglass - 2270 L	35	125	2008	2023	21,047	16,837
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - Average	50	125	1974	2023	3,921	3,137
D2030 - Sanitary Waste	Sanitary Sewage Holding Tank	40	100	1974	2023	40,960	40,960
D3040 - Distribution Systems	Exhaust System - Generator Room	25	125	2000	2025	3,217	2,573
D3050 - Terminal and Package Units	Unit Heaters - Electric	15	112	1974	2023	10,798	9,642
D5012 - Low Tension Service and Dist.	Electrical Distribution Equipment, Panelboards and Feeders	30	125	1974	2023	18,769	15,015
D5020 - Lighting and Branch Wiring	Lighting - Exterior - LED Wall Packs	20	125	1974	2023	1,237	989
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices	30	125	1974	2023	11,080	8,864
D5022 - Lighting Equipment	Lighting Fixtures - Fluorescent	20	125	1974	2023	18,854	15,083
D5094 - Other Special Systems and Devices	Battery Charging Equipment	20	100	2000	2020	13,056	13,056
E - Equipment and Furnishings	Casework Fixed	30	125	1974	2021	10,474	8,380
	<b>Subtotal</b>						<b>718,542</b>

DRAFT

# Asset Overview Report

## By Asset Name

Overhead:	0
Subtotal	0

Total Replacement Value Based on System Costs with Overheads 718,542

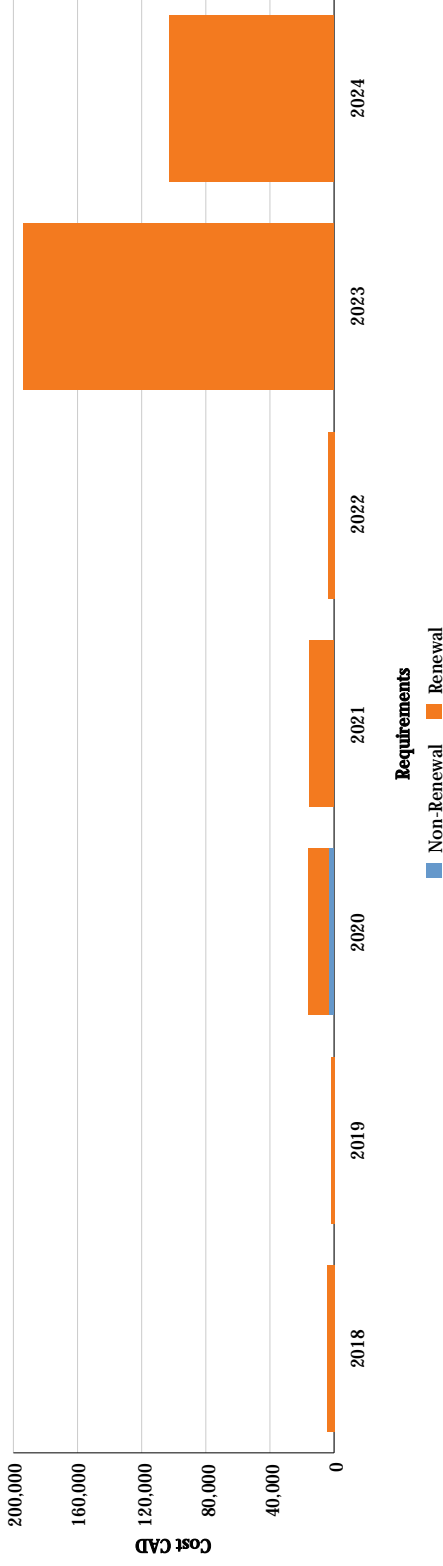
### Requirements including Renewals



# Asset Overview Report

## By Asset Name

Costs by Requirement Type



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Battery Charging Equipment Renewal	Yes	D5094 - Other Special Systems and Devices	Lifecycle	2 - Due within 2 Years of Inspection	Aug 14, 2020	13,056
Branch Wiring - Equipment & Devices Renewal	Yes	D5021 - Branch Wiring Devices	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	11,080
Casework Fixed Renewal	Yes	E - Equipment and Furnishings	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2021	10,474
Concrete - Painted or Sealed Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2021	4,969
Door Assembly - Single Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	12,977
Electrical Distribution Equipment, Panelboards and Feeders Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	18,769
Emergency Eyewash Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2018	4,381
Equipment and Furnishings - Aged Vanity Cabinet Washroom	No	E - Equipment and Furnishings	Lifecycle	2 - Due within 2 Years of Inspection	Aug 14, 2020	3,413
GWB on Wood Stud Renewal	Yes	C1010 - Partitions	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2024	4,557
Lighting - Exterior - LED Wall Packs Renewal	Yes	D5020 - Lighting and Branch Wiring	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	1,237

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Lighting Fixtures - Fluorescent Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	18,854
Linoleum Sheet Goods Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	3,729
Overhead Rolling Doors - Manual Operation Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	9,579
Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2022	3,833
Plywood Wall Sheathing Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	4,791
Potable Water Tank - Fiberglass - 2270 L Renewal	Yes	D2023 - Domestic Water Supply Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	21,047
Restroom Fixtures Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2019	1,891
Sanitary Sewage Holding Tank Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	40,960
Sanitary Waste - Gravity Disch - Average Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	3,921
Signage (Room Numbering and Identification) Renewal	Yes	C1035 - Identifying Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	1,639
Suspended ACT Renewal	Yes	C3030 - Ceiling Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	10,394
Swinging Doors Wood and Metal Renewal	Yes	C1020 - Interior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	79,988
Unit Heaters - Electric Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	10,798
Washroom Accessories Renewal	Yes	C1030 - Fittings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	4,370
Water Distribution Piping Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	5,413
Water Heater - Electric - 10 Gal Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	4,367
Windows - Aluminum Renewal	Yes	B2020 - Exterior Windows	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	24,152
Wood Flooring - Plywood Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	3,833
<b>Total</b>						<b>338,472</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Helicopter Pad  
**Asset Number:** C L 00002 15823  
**Currency:** CAD

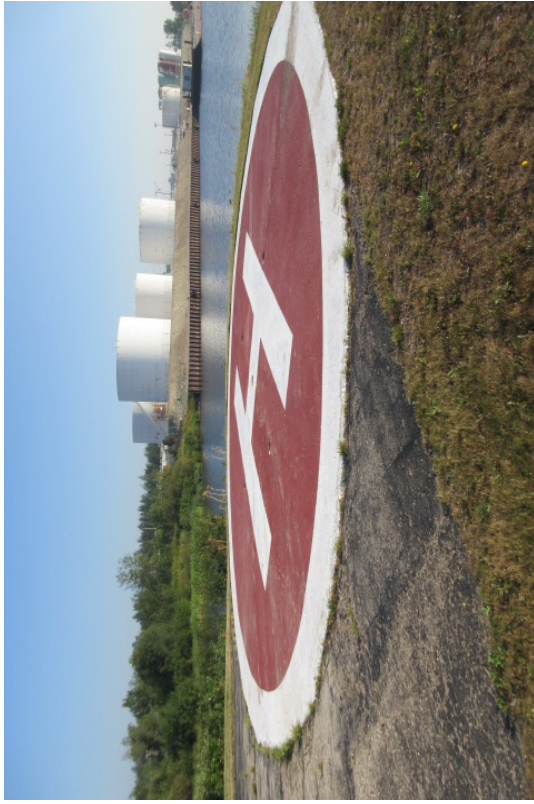
Assets are ordered by Asset Name

## Statistics

<b>FCI Cost:</b>	16,441	<b>FCE</b>	0.21
<b>RI Cost:</b>	16,441	<b>RI</b>	0.21
<b>Total Requirement Cost:</b>	16,441	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	76,775		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

## Photo



Signature - Exterior Helicopter Pad

## Asset Description

HELICOPTER PAD, ASSET CODE: C L 00002 15823

### ARCHITECTURAL

#### General

The Hay River Canadian Coast Guard Base is located at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. Site infrastructure includes a Helicopter Pad, Asset Code C L 00002 15823 located at the far eastern edge of the site. The landing pad is composed of reinforced concrete, it is circular in area and has painted, pavement markings on it.

#### Mechanical

The Helicopter Pad does not have any mechanical services.

#### Electrical

The helicopter Pad does not have any electrical services.

# Asset Overview Report

*By Asset Name*

## System Description

System Name	Description
A - Substructure-Structural Slab on Grade - Light Industrial	The helicopter landing pad substructure includes a light industrial type structural slab on grade.
G2021 - Bases and Sub-Bases-Pavement - Base Course	Pavement includes a 300mm thick gravel base course for large paved areas.
G2049 - Miscellaneous Structures-Site Development - Painted Pavement Markings	Site development includes painted pavement markings.

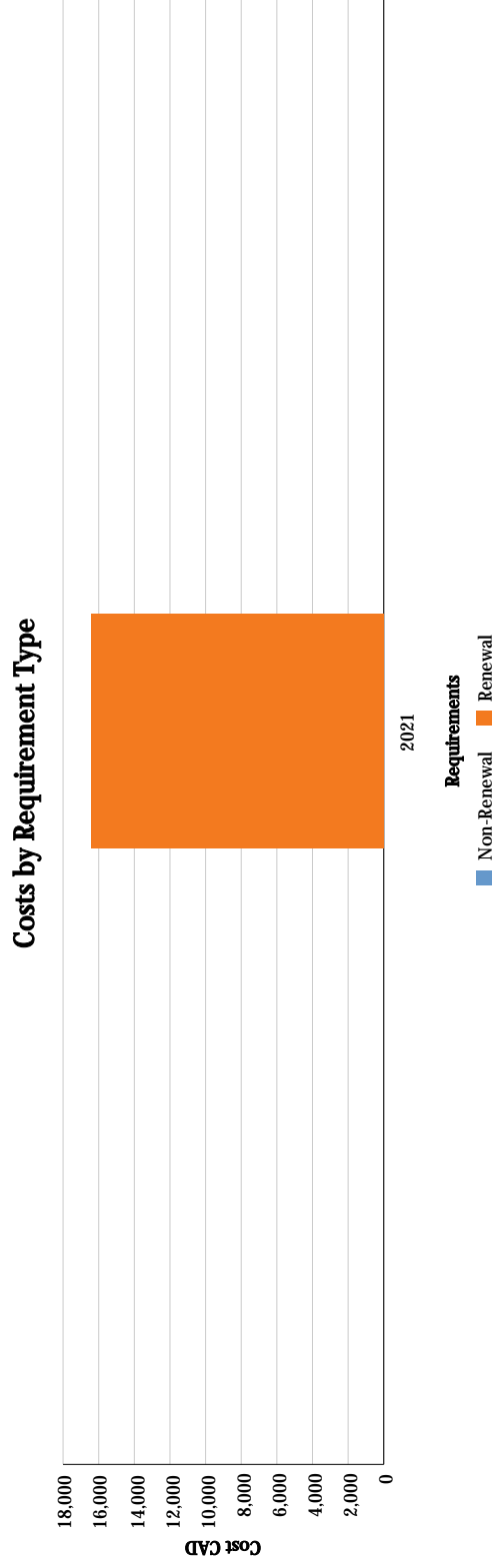
## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Structural Slab on Grade - Light Industrial	75	6	1969	2044	3,554	59,238
G2021 - Bases and Sub-Bases	Pavement - Base Course	65	12	1969	2034	526	4,384
G2049 - Miscellaneous Structures	Site Development - Painted Pavement Markings	35	125	1986	2021	16,441	13,153
	<b>Subtotal</b>						<b>76,775</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>76,775</b>

# Asset Overview Report

*By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Site Development - Painted Pavement Markings Renewal	Yes	G2049 - Miscellaneous Structures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	16,441
<b>Total</b>						<b>16,441</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Open Storage  
**Asset Number:** C L 00002 15146  
**Currency:** CAD

Assets are ordered by Asset Name

## Statistics

<b>FCI Cost:</b>	20,243	<b>FCI</b>	0.47
<b>RI Cost:</b>	20,243	<b>RI</b>	0.47
<b>Total Requirement Cost:</b>	20,243	<b>Size:</b>	620 SM
<b>Current Replacement Value:</b>	43,439		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

## Photo



Signature - Exterior Elevation Open Storage

## Asset Description

OPEN STORAGE; ASSET CODE C L 00002 15146

### ARCHITECTURAL

#### General

The Open Storage infrastructure, Asset Code C L 00002 15146, can be found on the Hay River Canadian Coast Guard Base located at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a gravel surfaced open storage compound originally developed in 1970 and located on the north side of the RSER/DFO Storage Warehouse.

#### Mechanical

The Open Storage does not have any mechanical services.

#### Electrical

The Open Storage does not have any electrical services



# Asset Overview Report

*By Asset Name*

## System Description

System Name	Description
G2011 - Bases and Sub-Bases-Open Storage - Base Course	The open storage space includes a 300mm thick gravel base course (also known as pit-run) typically used for freeways, major arterials, minor arterials, collectors and local roads; spread and compaction included.
G2011 - Bases and Sub-Bases-Open Storage - Intermediate Course	The Open Storage pavement includes a 75mm thick bituminous intermediate binder course typically used for freeways, major arterials, minor arterials, collectors and local roads.

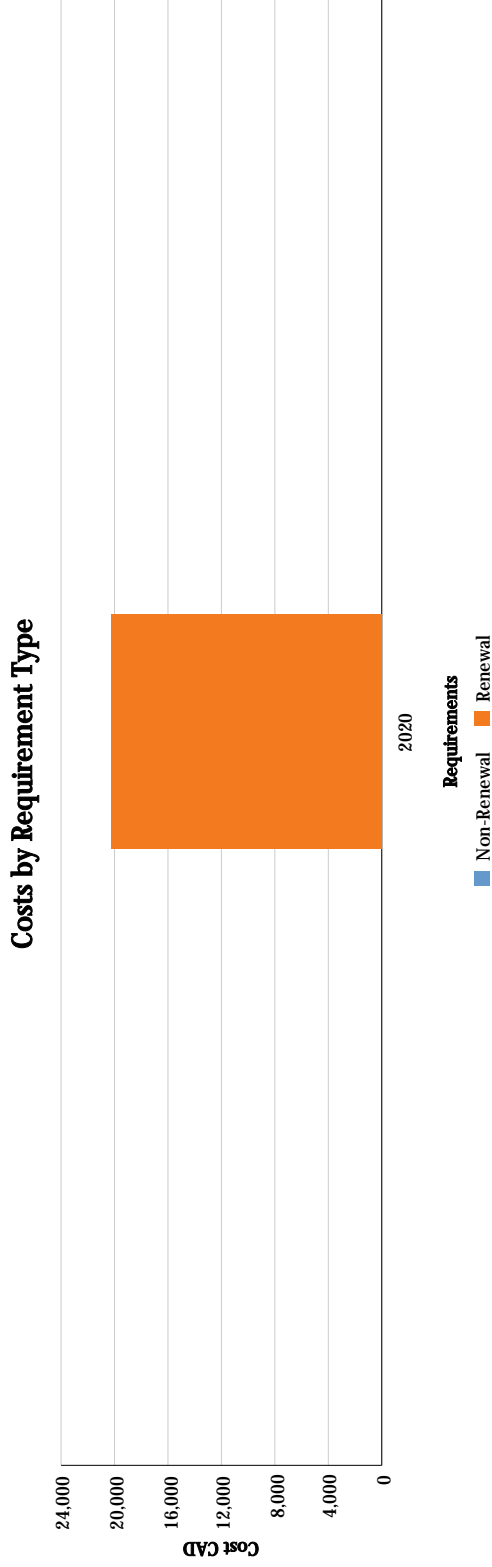
## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
G2011 - Bases and Sub-Bases	Open Storage - Base Course	65	12	1970	2035	1,295	10,789
G2011 - Bases and Sub-Bases	Open Storage - Intermediate Course	25	62	1995	2020	20,243	32,650
	<b>Subtotal</b>						<b>43,439</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>43,439</b>

# Asset Overview Report

*By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Open Storage - Intermediate Course Renewal	Yes	G2011 - Bases and Sub-Bases	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	20,243
<b>Total</b>						<b>20,243</b>

# Asset Overview Report

## By Asset Name

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Parking Lot  
**Asset Number:** C L 00002 15840  
**Currency:** CAD

Assets are ordered by Asset Name

### Statistics

<b>FCI Cost:</b>	451,922	<b>FCI</b>	0.79
<b>RI Cost:</b>	451,922	<b>RI</b>	0.79
<b>Total Requirement Cost:</b>	451,921	<b>Size:</b>	2,380 SM
<b>Current Replacement Value:</b>	573,646		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior View Parking Lot Administration Building

## Asset Description

PARKING LOT, ASSET CODE: C L 00002 15840

### ARCHITECTURAL

#### General

The Hay River Canadian Coast Guard Base can be found at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0P9. The site infrastructure includes a paved, asphalt Parking Lot, Asset Code: C L 00002 15840, which can be found on the site in front of the Administration building. The Administration Parking Lot is approximately 2,380 square meters in size and dates from 1984. There is an additional Parking Lot found to the north of the Stores / Maintenance Shop facility. Its size is approximately 956 square meters and dates from 1968.

#### Electrical

There are parking lot light poles and vehicle power kiosks in the parking lot.

# Asset Overview Report

*By Asset Name*

## System Description

System Name	Description
D5022 - Lighting Equipment-Parking Lot Light Poles & Power Pedestals	There are light poles with LED fixtures and power pedestals for vehicles in the parking lot. Note: The system is in good condition and the observed years remaining has been extended.
G2021 - Bases and Sub-Bases-Parking Lot Administration - Base Course	Parking lot flexible pavement (bituminous) includes a 300mm thick gravel base course for large paved areas.
G2021 - Bases and Sub-Bases-Parking Lot Administration - Intermediate Course	Parking lot flexible pavement includes a 75mm thick bituminous intermediate binder course for large paved areas.
G2021 - Bases and Sub-Bases-Parking Lot Stores - Base Course	Parking lot flexible pavement (bituminous) includes a 300mm thick gravel base course for large paved areas.
G2021 - Bases and Sub-Bases-Parking Lot Stores - Intermediate Course	Parking lot flexible pavement includes a 75mm thick bituminous intermediate binder course for large paved areas. Observed years remaining increased due to system condition.
G2022 - Paving and Surfacing-Parking Lot Administration - Surface Course	Parking lot flexible pavement includes a 75mm thick bituminous wearing surface course for large paved areas.
G2022 - Paving and Surfacing-Parking Lot Stores - Surface Course	Parking lot flexible pavement includes a 75mm thick bituminous wearing surface course for large paved areas. Observed years remaining increased due to system condition.
G2025 - Markings and Signage-Parking Lot Administration - Traffic Control - Painted Pavement Markings	Parking lot includes painted pavement markings used to provide guidance and information to drivers and pedestrians. Includes parking space, directional arrows, crosswalk, accessibility and other parking lot graphics.
G2025 - Markings and Signage-Parking Lot Stores - Traffic Control - Painted Pavement Markings	Parking lot includes painted pavement markings used to provide guidance and information to drivers and pedestrians. Includes parking space, directional arrows, crosswalk, accessibility and other parking lot graphics.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D5022 - Lighting Equipment	Parking Lot Light Poles & Power Pedestals	20	100	1995	2023	113,422	113,422
G2021 - Bases and Sub-Bases	Parking Lot Stores - Base Course	65	12	1968	2033	3,929	32,745
G2021 - Bases and Sub-Bases	Parking Lot Administration - Intermediate Course	25	62	1984	2023	70,588	113,852

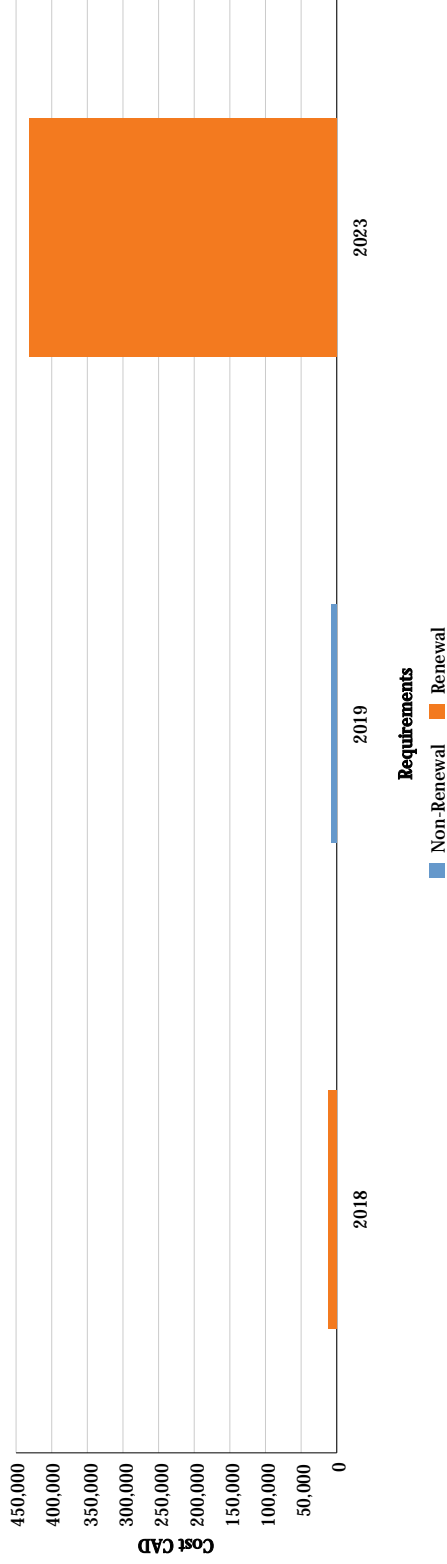
# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
G2021 - Bases and Sub-Bases	Parking Lot Administration - Base Course	65	12	1984	2049	9,782	81,519
G2021 - Bases and Sub-Bases	Parking Lot Stores - Intermediate Course	25	62	1993	2023	28,354	45,732
G2022 - Paving and Surfacing	Parking Lot Administration - Surface Course	25	125	1984	2023	156,667	125,334
G2022 - Paving and Surfacing	Parking Lot Stores - Surface Course	25	125	1993	2023	62,930	50,344
G2025 - Markings and Signage	Parking Lot Administration - Traffic Control - Painted Pavement Markings	10	115	1984	2018	8,838	7,686
G2025 - Markings and Signage	Parking Lot Stores - Traffic Control - Painted Pavement Markings	10	115	1993	2018	3,464	3,012
<b>Subtotal</b>							<b>573,846</b>
<b>Overhead:</b>							<b>0</b>
<b>Subtotal</b>							<b>0</b>
<b>Total Replacement Value Based on System Costs with Overheads</b>							<b>573,846</b>

## Requirements including Renewals

Costs by Requirement Type



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Parking Lot Administration - Deteriorating Asphalt Surface	No	G2022 - Paving and Surfacing	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2019	7,658
Parking Lot Administration - Intermediate Course Renewal	Yes	G2021 - Bases and Sub-Bases	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	70,588
Parking Lot Administration - Surface Course Renewal	Yes	G2022 - Paving and Surfacing	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	156,667
Parking Lot Administration - Traffic Control - Painted Pavement Markings Renewal	Yes	G2025 - Markings and Signage	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2018	8,838
Parking Lot Light Poles & Power Pedestals Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	113,422
Parking Lot Stores - Intermediate Course Renewal	Yes	G2021 - Bases and Sub-Bases	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	28,354
Parking Lot Stores - Surface Course Renewal	Yes	G2022 - Paving and Surfacing	Lifecycle	3 - Due within 5 Years of Inspection	Aug 14, 2023	62,930
Parking Lot Stores - Traffic Control - Painted Pavement Markings Renewal	Yes	G2025 - Markings and Signage	Lifecycle	1 - Due within 1 Year of Inspection	Aug 14, 2018	3,464



Fisheries and Oceans  
Canada  
Pêches et Océans  
Canada

DRAFT

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Total						451,921



# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Propane Tank and Lines  
**Asset Number:** C L 00002 15656  
**Currency:** CAD

## Statistics

<b>FCI Cost:</b>	72,894	<b>FCI</b>	0.46
<b>RI Cost:</b>	72,894	<b>RI</b>	0.46
<b>Total Requirement Cost:</b>	72,894	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	158,714		

**Address 1**  
City  
42037 Mackenzie Hwy.  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



D3012 - Propane Tank

## Asset Description

A single propane tank with a propane vaporizer system provides propane gas to all the buildings on the Base. There vaporizing system is in an adjacent shed, and the propane is distributed around the base in underground piping.

## System Description

System Name	Description
D3012 - Gas Supply System-Propane Gas Service to Buildings - Underground	The propane is delivered to the buildings in underground pipe.
D3012 - Gas Supply System-Propane Tank - 45.4 Cubic Meters	There is a 1606 cubic foot (45.4 cubic meter) propane tank on the base.
D3012 - Gas Supply System-Propane Vaporizer System	The propane distribution has an Algas-SD1 propane vaporizer with a capacity of 52.3 USGal/hr.

# Asset Overview Report

*By Asset Name*

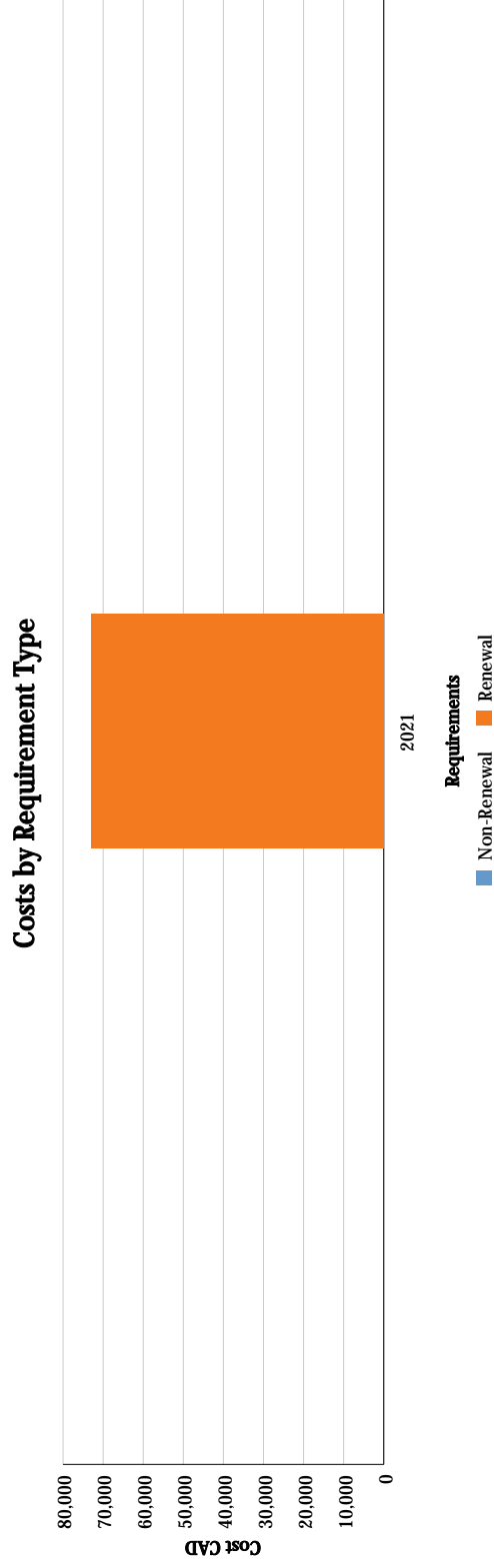
## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D3012 - Gas Supply System	Propane Vaporizer System	30	100	1991	2021	39,631	39,631
D3012 - Gas Supply System	Propane Tank - 45.4 Cubic Meters	30	100	1991	2021	33,263	33,263
D3012 - Gas Supply System	Propane Gas Service to Buildings - Underground	40	125	1991	2032	107,274	85,820
	<b>Subtotal</b>						<b>158,714</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>158,714</b>

# Asset Overview Report

*By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Propane Tank - 45.4 Cubic Meters Renewal	Yes	D3012 - Gas Supply System	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	33,263
Propane Vaporizer System Renewal	Yes	D3012 - Gas Supply System	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	39,631
<b>Total</b>						<b>72,894</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** RSER / DFO Storage Warehouse  
**Asset Number:** C L 00002 17105

**Assets are ordered by Asset Name**      **Currency:** CAD

## Statistics

<b>FCI Cost:</b>	98,682	<b>FCI</b>	0.09
<b>RI Cost:</b>	105,150	<b>RI</b>	0.10
<b>Total Requirement Cost:</b>	105,150	<b>Size:</b>	372 SM
<b>Current Replacement Value:</b>	1,100,876		

**Address 1**      **Address 2**  
City      State/Province/Region

42037 Mackenzie Highway  
Hay River  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior Elevation RSER / DFO Storage Warehouse

## Asset Description

RSER / DFO STORAGE WAREHOUSE; ASSET CODE C L 00002 17105

### ARCHITECTURAL

#### General

The RSER / DFO Storage Warehouse facility, Asset Code C L 00002 17105, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a single level building with a slab foundation built in 1996. The RSER / DFO Storage Warehouse building contains 372 square meters of floor space.

#### Construction

The substructure construction found beneath the RSER / DFO Storage Warehouse building consists of concrete slab on grade, sitting on an exterior perimeter cast concrete foundation walls founded on strip concrete footings. Exterior walls are clad with prefinished metal panel siding on an insulated wood framed backup wall, finished on the interior with prefinished metal panels. The floors are typically painted or sealed concrete finishes. Roof framing consists of pre-engineered wood roof trusses and is waterproofed with a standing seam metal panel roof assembly. Fenestration consists of insulated aluminum window assemblies and entry doors are finished, insulated metal panel doors and frames.

## Classification

The RSER / DFO Storage Warehouse can be classified as a Group F Division 3 Low Hazard Industrial Occupancy per Table 3.1.2.1. of the 2010 National Building Code of Canada for storage uses.

## Mechanical

The building is heated by propane fired unit heaters, and does not have any plumbing services. There is a shop compressed air system.

## Electrical

The building has a main electrical and an electrical distribution system. There is HID lighting throughout.

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - No Basement	Basic foundation for building without basement - to include strip footing, 1200mm foundation wall and damp proofing. Also included are underdrains.
A - Substructure-Structural Slab on Grade	The building substructure includes a light industrial type structural slab on grade.
B10 - Superstructure-Single-Story - Wood Framed Roof Truss	The building superstructure includes wood truss roof framing, sheathing and batt insulation.
B2010 - Exterior Walls-Metal Siding on Framing	The exterior wall has prefinished metal panel siding on framing with GWB finish on the interior.
B2020 - Exterior Windows-Windows - Aluminum	The building includes aluminum framed exterior units with insulating glass.
B2030 - Exterior Doors-Door Assembly - Single	Exterior doors include single-leaf door and frames with standard hardware.
B2030 - Exterior Doors-Overhead Rolling Doors - Electric Operation	Exterior openings include overhead rolling doors with electric operators.
B30 - Roofing-Metal Roofing - High End	The roof covering is of formed metal roofing, such as standing seam metal.
C1010 - Partitions-GWB on Wood Stud	The building interior includes standard GWB on wood stud partitions, taped and finished, but not painted, no insulation.
C1020 - Interior Doors-Swinging Doors Wood and Metal	Interior doors include wood and metal doors and frames with standard hardware. System cost includes both single and double doors.
C1035 - Identifying Devices-Signage (Room Numbering and Identification)	The building has way finding signage which typically includes door numbers, names and graphics.
C3010 - Wall Finishes-Prefinished Metal Wall Panels	Interior wall finishes include prefinished metal wall panels. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Concrete - Painted or Sealed	Typical painted concrete with an abrasive textured additive to prevent slipping.
C3030 - Ceiling Finishes-Prefinished Metal Ceiling Panels	Ceiling system consists of prefinished metal ceiling panels. Observed years remaining increased due to system condition.
D2090 - Other Plumbing Systems-Propane Gas Supply for Bldg	The building has a propane gas distribution system, including meter and distribution piping, valves and fittings.
D2090 - Other Plumbing Systems-Shop Compressed Air System	The building has a shop compressed air system with a compressor and piping.

# Asset Overview Report

## By Asset Name

System Name	Description
D3050 - Terminal and Package Units- Unit Heaters - Gas Fired	There are gas fired unit heaters in the building. Note: The units are in good condition and the observed years remaining has been extended.
D5012 - Low Tension Service and Dist.- Distribution Equipment, Panelboards, and Feeders	The electrical distribution system includes panelboards, feeders and associated equipment.
D5012 - Low Tension Service and Dist.- Main Electrical Service	The building includes an electrical service, which includes incoming feeders and meter.
D5020 - Lighting and Branch Wiring-Lighting - Exterior - LED Wall Packs	The exterior lighting consists of LED wall pack fixtures.
D5022 - Lighting Equipment-Lighting Fixtures - Interior - HID	The building has fluorescent light fixtures throughout. Note: The lighting is operating normally and in good condition, and the observed years remaining has been extended.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Structural Slab on Grade	75	6	1996	2071	5,165	86,081
A - Substructure	Foundation Wall and Footings - No Basement	75	6	1996	2071	5,294	84,698
B10 - Superstructure	Single-Story - Wood Framed Roof Truss	75	6	1996	2071	4,014	66,894
B2010 - Exterior Walls	Metal Siding on Framing	75	62	1996	2071	57,497	91,995
B2020 - Exterior Windows	Windows - Aluminum	30	125	1996	2026	35,314	28,251
B2030 - Exterior Doors	Door Assembly - Single	30	125	1996	2026	12,977	10,381
B2030 - Exterior Doors	Overhead Rolling Doors - Electric Operation	30	125	1996	2026	48,555	38,844
B30 - Roofing	Metal Roofing - High End	65	125	1996	2061	443,237	354,590
C1010 - Partitions	GWB on Wood Stud	50	62	1996	2046	7,095	11,352
C1020 - Interior Doors	Swinging Doors Wood and Metal	50	125	1996	2046	14,543	11,635
C1035 - Identifying Devices	Signage (Room Numbering and Identification)	10	125	2016	2026	3,503	2,803



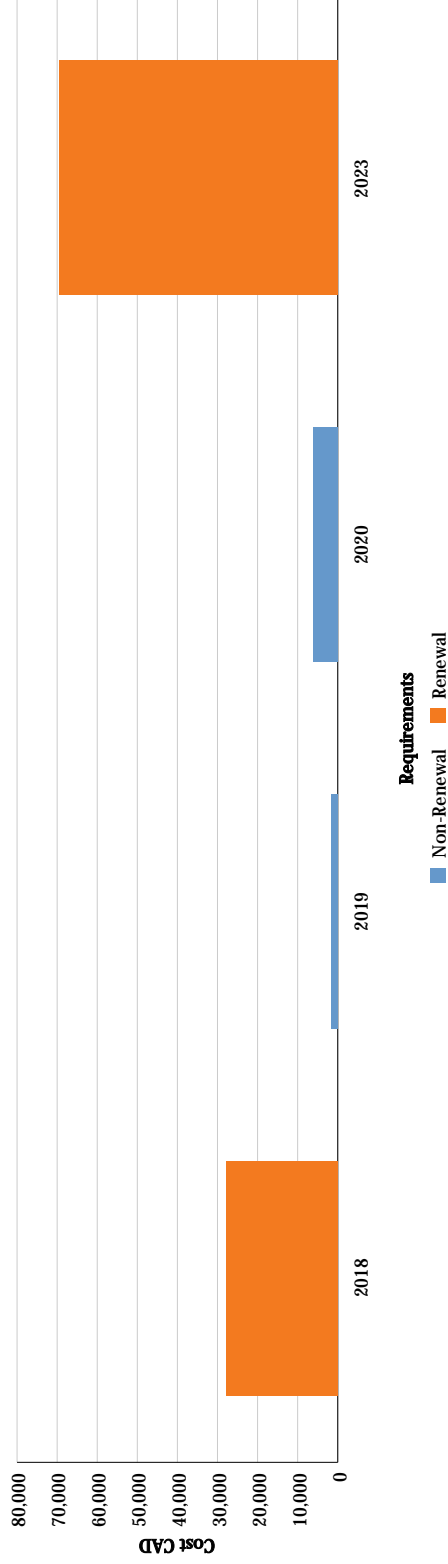
# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
C3010 - Wall Finishes	Prefinished Metal Wall Panels	25	81	1996	2026	40,676	50,218
C3020 - Floor Finishes	Concrete - Painted or Sealed	15	125	2011	2026	10,623	8,498
C3030 - Ceiling Finishes	Prefinished Metal Ceiling Panels	30	125	1996	2026	115,564	92,451
D2090 - Other Plumbing Systems	Shop Compressed Air System	20	105	2018	2018	27,805	26,481
D2090 - Other Plumbing Systems	Propane Gas Supply for Bldg	40	125	1996	2036	14,007	11,206
D3050 - Terminal and Package Units	Unit Heaters - Gas Fired	15	112	1996	2023	31,745	28,344
D5012 - Low Tension Service and Dist.	Distribution Equipment, Panelboards, and Feeders	30	125	1996	2026	56,443	45,154
D5012 - Low Tension Service and Dist.	Main Electrical Service	30	125	1996	2026	22,325	17,860
D5020 - Lighting and Branch Wiring	Lighting - Exterior - LED Wall Packs	20	125	2017	2037	3,677	2,941
D5022 - Lighting Equipment	Lighting Fixtures - Interior - HID	20	125	1996	2023	37,749	30,199
	<b>Subtotal</b>				<b>Subtotal</b>		<b>1,100,876</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>1,100,876</b>

## Requirements including Renewals

Costs by Requirement Type



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Exterior Doors - Damaged Overhead Garage Door	No	B2030 - Exterior Doors	Maintenance	2- Due within 2 Years of Inspection	Aug 14, 2020	4,816
Exterior Walls - Damaged Exterior Metal Siding	No	B2010 - Exterior Walls	Reliability	2- Due within 2 Years of Inspection	Aug 14, 2020	1,383
Lighting Fixtures - Interior - HID Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	37,749
Shop Compressed Air System Renewal	Yes	D2090 - Other Plumbing Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	27,805
Superstructure - Unwanted Bee Hives	No	B10 - Superstructure	Maintenance	1- Due within 1 Year of Inspection	Aug 14, 2019	1,652
Unit Heaters - Gas Fired Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	31,745
<b>Total</b>						<b>105,150</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Sewage Septic Tank (NOT USED)  
**Asset Number:** C L 00002 16944

**Assets are ordered by Asset Name**      **Currency:** CAD

## Statistics

<b>FCI Cost:</b>	0	<b>FCI</b>	0.00
<b>RI Cost:</b>	0	<b>RI</b>	0.00
<b>Total Requirement Cost:</b>		<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	0		

**Address 1**      42037 Mackenzie Hwy.  
**City**      Hay River  
**Address 2**      -  
**State/Province/Region**      NT

No photo available.

## Asset Description

The Base does not have a central septic system. Each building has a sewage holding tank that is pumped out as needed. These sewage holding tanks are listed with each building to better reflect the age and condition of the tanks.

## System Description

System Name	Description
-------------	-------------

Overhead:	0
Subtotal	0

Total Replacement Value Based on System Costs with Overheads

Requirements including Renewals

No data available.

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Shore Protection  
**Asset Number:** C L 00002 15162  
**Currency:** CAD

Assets are ordered by Asset Name

## Statistics

<b>FCI Cost:</b>	0	<b>FCI</b>	0.00
<b>RI Cost:</b>	0	<b>RI</b>	0.00
<b>Total Requirement Cost:</b>		<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	529,792		

**Address 1**  
City  
42037 Mackenzie Highway  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

No photo available.

## Asset Description

SHORE PROTECTION, ASSET CODE: C L 00002 15162

### ARCHITECTURAL

#### General

The Hay River Canadian Coast Guard Base can be found at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The site infrastructure includes shore protection along the Hay River bank edge on the southeastern edge of the site. Shore protection consists of broken stone rip-rap and steel piling walls to prevent river bank erosion.

#### Mechanical

The Shore Protection does not have any mechanical services.

# Asset Overview Report

*By Asset Name*

Electrical  
The Shore Protection does not have any electrical services

## System Description

System Name	Description
G2049 - Miscellaneous Structures-Shore Protection Rip Rap SE Site	Site development includes river bank broken stone rip-rap for protecting shoreline. Assume 170LM long by 2M high.
G2049 - Miscellaneous Structures-Steel Piling Seawall SE Site	Site development includes steel sheet piling seawalls, steel sheeting, 3.6 M high, shore driven for protecting shoreline.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
G2049 - Miscellaneous Structures	Shore Protection Rip Rap SE Site	60	125	1982	2042	124,223	99,378
G2049 - Miscellaneous Structures	Steel Piling Seawall SE Site	60	125	1982	2042	538,017	430,414
	<b>Subtotal</b>						<b>529,792</b>
	<b>Overhead:</b>						<b>0</b>
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>529,792</b>

## Requirements including Renewals

No data available.

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Stores / Maintenance Shop  
**Asset Number:** C L 00002 17009  
**Currency:** CAD

Assets are ordered by Asset Name

## Statistics

<b>FCI Cost:</b>	1,715,902	<b>FCI</b>	0.37
<b>RI Cost:</b>	1,748,082	<b>RI</b>	0.37
<b>Total Requirement Cost:</b>	1,746,311	<b>Size:</b>	804 SM
<b>Current Replacement Value:</b>	4,663,288		

**Address 1**  
City  
42037 Mackenzie Hwy.  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT



# Asset Overview Report

*By Asset Name*

## Photo



Signature - Front Elevation Stores / Maintenance Shop

## Asset Description

STORES / MAINTENANCE SHOP; ASSET CODE C.I. 00002 17009

### ARCHITECTURAL

#### General

The Stores / Maintenance Shop, Asset Code C.I. 00002 17009, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a single level building with crawlspace foundation built in 1968 and renovated in 1991. The Stores / Maintenance Shop contains 804 square meters of floor space.

#### Construction

The substructure construction found beneath the Stores / Maintenance Shop facility consists of an elevated concrete floor, supported on concrete grade beams and resting on an exterior perimeter cast concrete foundation walls founded on strip concrete footings. The entire foundation substructure is supported by steel piles driven into the highly compressible discontinuous permafrost soils to prevent subsidence and settlement issues. Exterior walls are clad with prefinished metal panel siding on an insulated wood framed backup wall, finished with vapour retarder and either painted gypsum or prefinished metal wall panels. Roof framing consists of pre-engineered structural steel support members and is waterproofed with a standing seam metal roofing assembly. Fenestration

# Asset Overview Report

*By Asset Name*

consists of insulated aluminum window assemblies and entry doors are finished, insulated wood panel doors and frames, some with insulated glazing.

## Classification

The Stores / Maintenance Shop can be classified as a Group F, Division 3 Low Hazard Industrial Occupancy per Table 3.1.2.1. of the 2010 National Building Code of Canada for use as general storage facility and a Group F, Division 2 Medium Hazard Industrial Occupancy as a maintenance shop.

## Mechanical

The building is heated by a hydronic heating system with boilers, pumps and distribution piping. There is an HVAC system serving the first and second floor office areas. There is also a waste oil boiler with piping connecting to the heating water system. Domestic water from a municipal system was recently added to the building and there is a domestic water heater. Sewage drains by gravity to a holding tank. The maintenance area contains an auto hoist. There are fire protection stand pipes and hose cabinets throughout the building and those are now connected to the water system.

## Electrical

The building has a main electrical and an electrical distribution system. There is fluorescent lighting throughout. The building has a connection and transfer switch to connect to a portable electric generator.

## System Description

System Name	Description
A - Substructure-Foundation Wall and Footings - Crawlspace	Basic perimeter foundation for building with crawlspace. System cost includes strip footing, 1.8 meter high foundation wall, damp proofing and underdrain and is based on average height of crawlspace at 600mm.
A - Substructure-Grade Beams	The substructure includes grade beams with a span of 9.141M and 1.021M deep.
A - Substructure-Pile Foundation	The building substructure includes pile caps and piles 15-1M in length in clusters of 10 at each pile cap.
B10 - Superstructure-Floor Assembly - Cast in Place Concrete	Floor superstructure consists of reinforced cast in place concrete construction.
B10 - Superstructure-Single-Story - Steel Framed Roof on Columns	Single-story steel framed building with steel columns and steel joist roof structure. Exterior walls are covered under a separate System.
B1014 - Ramps-Access Ramp - Exterior Steel	Portable access ramp, aluminum. RS means line items provided for estimation purposes.
B1015 - Exterior Stairs and Fire Escapes-Exterior Stairs - Steel	Exterior steel stairs (one flight) with railing.
B2010 - Exterior Walls-Wood Stud Framing With Metal Panel Siding	The exterior walls are of 38 x 140mm studs, 400mm OC, insulated, with aluminum panel siding. Observed years remaining increased due to system condition.
B2020 - Exterior Windows-Aluminum Windows	The building includes aluminum framed exterior units with insulating glass. Observed years remaining increased due to system condition.
B2030 - Exterior Doors-Door Assembly - 6 x 7 Wood	Exterior doors include pr. 900 x 2,100 wood doors and wood frame with hinges, locksets (lever), exit hardware and closers. Includes painted doors and painted frame. Observed years remaining increased due to system condition.



# Asset Overview Report

## By Asset Name

System Name	Description
B2030 - Exterior Doors-Door Assembly - Single	Exterior doors include single-leaf door and frames with standard hardware. Observed years remaining increased due to system condition.
B2030 - Exterior Doors-Overhead Rolling Doors - Manual Operation	Exterior openings include overhead rolling doors with manual operation. Observed years remaining increased due to system condition.
B30 - Roofing-Metal Roofing - High End	The roof covering is of formed metal roofing, such as standing seam metal.
C1010 - Partitions-CMU Block Walls - Plain	Interior walls are of 200-mm hollow concrete block, light and regular weight, with no finish. Observed years remaining increased due to system condition.
C1010 - Partitions-GWB Walls - Standard (Non-Painted)	The building interior includes standard GWB partitions, taped and finished, but not painted, with no insulation. Observed years remaining increased due to system condition.
C1020 - Interior Doors-Swinging Doors - 900 x 2100 HM & Wood	Interior doors include 900 x 2100 steel or wood doors and steel or wood frame with hinges, lockset (lever) and closer. Includes painted door and painted frame. Observed years remaining increased due to system condition.
C1030 - Fittings-Restroom Accessories	The restroom accessories include mirror, grab bars, paper towel dispenser and disposal, diaper changing station, toilet paper holder and soap dispenser. Observed years remaining increased due to system condition.
C1030 - Fittings-Toilet Partitions	Restrooms are equipped with standard quality, ceiling-hung partitions.
C1035 - Identifying Devices-Fittings - Signage (Room Numbering and Identification)	Room, door and graphic symbol signs. Adhesive backs and Braille.
C20 - Stairs-Stairs Typical	The interior stairs include one, 12-riser flight per story with hand and guard rails.
C3010 - Wall Finishes-Paint Masonry/Epoxy Finish - Economy	Wall finishes include paint on CMU and minimum hi-build epoxy finish.
C3010 - Wall Finishes-Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	Interior wall finishes include standard paint finish.
C3010 - Wall Finishes-Prefinished Metal Wall Panels	Interior wall finishes include prefinished metal wall panels. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Concrete - Painted or Sealed	Typical painted or sealed concrete with an abrasive textured additive to prevent slipping. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Linearoleum Sheet Goods	Floor finishes include areas of seamless linearoleum and or marmoleum sheet goods flooring and related base. Observed years remaining increased due to system condition.
C3020 - Floor Finishes-Vinyl Composite Tile	Floor finishes include areas of standard vinyl composite tile, VCT flooring and related base. Observed years remaining increased due to system condition.
C3030 - Ceiling Finishes-Acoustic Ceiling Tile System	Standard suspended ACT ceiling system with 600 x 600 or 600 x 1,200mm regular tiles in 24 or 14-mm grids. Use add-ons as applicable. Observed years remaining increased due to system condition.
C3030 - Ceiling Finishes-GWB Taped and Finished	GWB ceiling system over 2,400-mm floor taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal or wood furring.



# Asset Overview Report

## By Asset Name

System Name	Description
C3030 - Ceiling Finishes-Prefinished Metal Ceiling Panels	Ceiling system consists of prefinished metal ceiling panels. Observed years remaining increased due to system condition.
D2010 - Plumbing Fixtures-Custodial/Utility Sinks	The plumbing fixtures include a custodial/utility sink.
D2010 - Plumbing Fixtures-Restroom Fixtures	The restroom fixtures include vitreous china water closets and urinals.
D2010 - Plumbing Fixtures-Restroom Fixtures - Individual Shower	The restroom fixtures include fiberglass individual shower stall.
D2010 - Plumbing Fixtures-Restroom Fixtures - Lavatories	The restroom fixtures include vitreous china lavatories.
D2010 - Plumbing Fixtures-Sink - Breakroom	The plumbing fixtures include stainless steel countertop sinks located in the break room.
D2020 - Domestic Water Distribution-Domestic Water Distribution System	The building water distribution system includes a new city water service ,branch piping, backflow preventer, water meter, valves, insulation and fittings.
D2020 - Domestic Water Distribution-Water Heater - Propane	The domestic hot water is provided by a propane fired water heater with acirculating pump. The water heater was installed in 2015.
D2030 - Sanitary Waste-Sanitary Sewage Holding Tank	The sanitary sewage drains to a holding tank located behind the building. The tank is periodically sucked out by connection to a discharge standpipe. There have been some issues with the discharge piping. Note: The system is functioning normally and the observed years remaining has been extended.
D2030 - Sanitary Waste-Sanitary Waste - Gravity Discharge	The building includes an sanitary waste system, hung from the slab in the crawl space and discharging to a holding tank. The system has had some deterioration and repairs. Note: The observed years remaining has been reduced to reflect the deteriorating system
D2090 - Other Plumbing Systems-Propane Gas Supply for Bldg	The building includes a propane gas supply and distribution system. Note: The system is in good condition with some recent modifications and the observed years remaining has been increased.
D2090 - Other Plumbing Systems-Shop Compressed Air System	The building has a shop compressed air system with a compressor and piping.
D3020 - Heat Generating Systems-Boiler Heating Water - Propane Fired	Heat is provided by two high efficiency, 90% AFUE, hot water boilers with circulating pumps and accessories. the boilers are propane fired.
D3020 - Heat Generating Systems-Waste Oil Boiler	There is a waste oil fueled boiler with pump and piping to tie into the heating water system.
D3040 - Distribution Systems-Central Station Air Handler	The HVAC system consists of one air handler located on the mezzanine.
D3040 - Distribution Systems-Ductwork Distribution System	The HVAC system includes ductwork, dampers, diffusers, installed throughout the building. Note: The system is in good condition with some modifications and the observed years remaining has been extended.
D3040 - Distribution Systems-Exhaust System - Maintenance Garage	The building includes a garage exhaust system including a fan and ductwork. Note: The system is functioning normally and the observed years remaining has been increased.
D3040 - Distribution Systems-Heating Hot Water -	The Hot water Heating System consists of distribution piping, valves, insulation and fittings. Note: The system is in good condition and has been maintained so the



# Asset Overview Report

## By Asset Name

System Name	Description
Building Heating Water Distribution System	observed years remaining has been extended.
D3040 - Distribution Systems-Perimeter Heat System - Hydronic Fin Tube	The HVAC distribution includes a two-pipe system of heating hot water, with perimeter units in various parts of the building. Note: This system is in good condition and the observed years remaining has been extended.
D3041 - Air Distribution Systems-Air Heating and Filtration Units	The building has air filtration and heating units.
D3042 - Exhaust Ventilation Systems-Welding Exhaust	The building has a welding exhaust system in the shop area.
D3050 - Terminal and Package Units-Unit Heaters - Hot Water	There are hot water unit heaters in the building. Note: The units are in good condition and the observed years remaining has been extended.
D3060 - Controls and Instrumentation-Pneumatic Controls	The building includes average pneumatic HVAC control system with compressed air supply, controls, sensors and miscellaneous devices. Note: The system is functioning normally and has had some modifications, and the observed years remaining has been increased.
D40 - Fire Protection-Fire Protection Standpipe System	The building has a fire protection standpipe system with water supplied by the municipal water system (new) and stand pipes and fire hose station in the building. Current building codes for new construction requires fire sprinklers throughout.
D5012 - Low Tension Service and Dist.- Distribution Equipment, Panelboards, and Feeders	The electrical distribution system includes panelboards, feeders and associated equipment. The wharf power stations and the parking lot receptacles are fed from this building.
D5012 - Low Tension Service and Dist.- Main Electrical Service	The building includes an electrical service, which includes incoming feeders and meter.
D5012 - Low Tension Service and Dist.- Transformer	The building has an electrical transformer.
D5020 - Lighting and Branch Wiring-Lighting - Exterior - LED Wall Packs	The exterior lighting consists of LED wall pack fixtures.
D5021 - Branch Wiring Devices-Branch Wiring - Equipment & Devices	Branch wiring for this building includes interior and exterior branch wiring, devices, and utilization equipment. Note: This system is in good condition and functioning normally, and the observed years remaining has been extended.
D5022 - Lighting Equipment-Lighting Fixtures - Interior - Fluorescent	The building has fluorescent light fixtures throughout. Note: The lighting is operating normally and in good condition, and the observed years remaining has been extended.
D5031 - Public Address and Music Systems-Public Address System	The building includes a public address system with speakers, amplifier and wiring.
D5033 - Telephone Systems-Telephone System with VOIP	Telephone service with VOIP is provided throughout the building with distribution wiring extended to telephone outlets. The system is functioning normally and the observed years remaining has been extended.
D5037 - Fire Alarm Systems-Fire Alarm System	The building has a fire alarm system panel, sensors, horns and smoke detectors. The system does not meet current codes for fire alarm systems.
D5039 - Local Area Networks-LAN System	The facility includes a LAN system and data cabling system.

# Asset Overview Report

*By Asset Name*

System Name	Description
D5092 - Emergency Light and Power Systems-Emergency Backup Power System	There is an exterior connection and a transfer switch in the electrical room for connection with a portable emergency generator. Note: The system is in good condition and the observed years remaining has been extended.
D5092 - Emergency Light and Power Systems-Emergency Battery Pack Lights	The emergency lighting system includes self-contained battery packs and lights in the egress passages.
D5092 - Emergency Light and Power Systems-Exit Signs	The building does not have illuminated exit signs
D5094 - Other Special Systems and Devices-Cable Tray - Data Systems Wiring	A cable tray for data and communications wire has been installed in the building. However, the cables were tied to the underside of the tray rather than being run in the tray.
E - Equipment and Furnishings-Fixed Casework Cabinetry	Building includes average plastic laminate casework including wall and under counter cabinets and countertops, without appliances. Observed years remaining increased due to system condition.
E1031 - Vehicular Service Equipment-Vehicle Hoist & Service Equipment	The building has a vehicle hoist and related vehicle service equipment. Note: The system is in good condition with current inspection tags, and the observed years remaining has been increased.
E1091 - Maintenance Equipment-Chain Hoist Systems	There are chain hoists in the maintenance area. Note: These are functioning normally and the observed years remaining has been extended.
G2023 - Curbs, Rails and Barriers-Pipe Bollards	The site contains metal parking bumpers, pipe bollards, concrete filled, painted, 2400 mm L x 1200 mm D hole, 200 mm diameter. Observed years remaining increased due to system condition.
G2031 - Paving and Surfacing-Pedestrian Pavement - Perimeter Steel Grate	Pedestrian pavement includes perimeter walkway composed of steel grating. Assume 1,200-mm width.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Pile Foundation	75	6	1968	2043	21,619	360,312
A - Substructure	Grade Beams	75	6	1968	2043	16,534	275,575
A - Substructure	Foundation Wall and Footings - Crawlspace	75	6	1968	2043	10,157	162,519
B10 - Superstructure	Single-Story - Steel Framed Roof on Columns	75	6	1968	2043	10,711	178,520





Fisheries and Oceans  
Canada  
Pêches et Océans  
Canada

DRAFT

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
B10 - Superstructure	Floor Assembly - Cast in Place Concrete	75	6	1968	2043	36,019	576,299
B1014 - Ramps	Access Ramp - Exterior Steel	30	112	1992	2022	52,202	46,609
B1015 - Exterior Stairs and Fire Escapes	Exterior Stairs - Steel	50	125	1991	2041	29,108	23,286
B2010 - Exterior Walls	Wood Stud Framing With Metal Panel Siding	50	12	1968	2028	11,683	97,357
B2020 - Exterior Windows	Aluminum Windows	30	125	1968	2023	75,311	60,248
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation	30	125	1968	2021	19,158	15,326
B2030 - Exterior Doors	Door Assembly - Single	30	125	1968	2021	51,907	41,525
B2030 - Exterior Doors	Door Assembly - 6 x 7 Wood	30	125	1968	2021	10,728	8,582
B30 - Roofing	Metal Roofing - High End	65	125	1968	2033	957,964	766,371
C1010 - Partitions	GWB Walls - Standard (Non-Painted)	50	62	1968	2028	6,264	10,103
C1010 - Partitions	CMU Block Walls - Plain	50	62	1968	2028	18,288	29,496
C1020 - Interior Doors	Swinging Doors - 900 x 2100 HM & Wood	50	125	1968	2023	126,623	101,298
C1030 - Fittings	Restroom Accessories	25	125	1991	2023	22,154	17,723
C1030 - Fittings	Toilet Partitions	40	125	1991	2031	27,933	22,347
C1035 - Identifying Devices	Fittings - Signage (Room Numbering and Identification)	10	125	2011	2021	7,572	6,057
C20 - Stairs	Stairs Typical	75	38	1968	2043	8,454	22,543
C3010 - Wall Finishes	Prefinished Metal Wall Panels	25	81	1991	2028	29,879	36,887
C3010 - Wall Finishes	Paint Masonry/Epoxy Finish - Economy	15	125	2006	2021	14,487	11,590
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	125	2011	2021	5,312	4,250
C3020 - Floor Finishes	Linoleum Sheet Goods	25	125	1991	2020	37,475	29,980
C3020 - Floor Finishes	Concrete - Painted or Sealed	15	125	1991	2023	16,077	12,862
C3020 - Floor Finishes	Vinyl Composite Tile	10	125	1991	2021	4,550	3,640



DRAFT

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
C3030 - Ceiling Finishes	Acoustic Ceiling Tile System	20	125	1991	2026	7,087	5,669
C3030 - Ceiling Finishes	Prefinished Metal Ceiling Panels	30	125	1991	2028	62,131	49,705
C3030 - Ceiling Finishes	GWB Taped and Finished	30	125	1968	2026	12,298	9,838
D2010 - Plumbing Fixtures	Sink - Breakroom	30	125	1991	2021	3,439	2,751
D2010 - Plumbing Fixtures	Restroom Fixtures	30	125	1991	2021	17,410	13,928
D2010 - Plumbing Fixtures	Restroom Fixtures - Individual Shower	30	125	1991	2021	3,788	3,030
D2010 - Plumbing Fixtures	Custodial/Utility Sinks	30	125	1991	2021	15,561	12,449
D2010 - Plumbing Fixtures	Restroom Fixtures - Lavatories	30	125	1991	2023	7,942	6,353
D2020 - Domestic Water Distribution	Water Heater - Propane	10	112	1991	2025	9,898	8,837
D2020 - Domestic Water Distribution	Domestic Water Distribution System	30	112	1991	2021	56,055	49,826
D2030 - Sanitary Waste	Sanitary Sewage Holding Tank	40	100	1991	2023	40,960	40,960
D2030 - Sanitary Waste	Sanitary Waste - Gravity Discharge	50	125	1991	2028	185,122	148,098
D2090 - Other Plumbing Systems	Propane Gas Supply for Bldg	40	125	1991	2023	30,273	24,219
D2090 - Other Plumbing Systems	Shop Compressed Air System	20	105	2017	2035	25,421	24,211
D3020 - Heat Generating Systems	Boiler Heating Water - Propane Fired	30	125	2018	2048	49,777	39,822
D3020 - Heat Generating Systems	Waste Oil Boiler	30	125	2002	2032	92,748	74,198
D3040 - Distribution Systems	Perimeter Heat System - Hydronic Fin Tube	18	112	1991	2024	35,645	31,684
D3040 - Distribution Systems	Exhaust System - Maintenance Garage	25	125	1991	2023	6,000	4,800
D3040 - Distribution Systems	Central Station Air Handler	25	125	1991	2028	119,195	95,356
D3040 - Distribution Systems	Heating Hot Water - Building Heating Water Distribution System	25	125	1991	2024	42,361	33,889
D3040 - Distribution Systems	Ductwork Distribution System	40	125	1991	2024	20,045	16,036
D3041 - Air Distribution Systems	Air Heating and Filtration Units	30	100	1991	2033	108,549	108,549



# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D3042 - Exhaust Ventilation Systems	Welding Exhaust	25	100	1991	2018	25,685	25,685
D3050 - Terminal and Package Units	Unit Heaters - Hot Water	25	112	1991	2023	106,664	95,235
D3060 - Controls and Instrumentation	Pneumatic Controls	20	112	1991	2021	106,405	95,004
D40 - Fire Protection	Fire Protection Standpipe System	35	125	1991	2026	49,902	39,921
D5012 - Low Tension Service and Dist.	Transformer	30	100	1991	2021	13,605	13,605
D5012 - Low Tension Service and Dist.	Distribution Equipment, Panelboards, and Feeders	30	125	1991	2021	121,989	97,591
D5012 - Low Tension Service and Dist.	Main Electrical Service	30	125	1991	2021	22,325	17,880
D5020 - Lighting and Branch Wiring	Lighting - Exterior - LED Wall Packs	20	125	2017	2037	16,545	13,236
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices	30	125	1991	2023	51,195	40,956
D5022 - Lighting Equipment	Lighting Fixtures - Interior - Fluorescent	20	125	1991	2021	93,305	74,644
D5031 - Public Address and Music Systems	Public Address System	15	125	1991	2018	13,239	10,591
D5033 - Telephone Systems	Telephone System with VOIP	10	125	1991	2020	5,954	4,763
D5037 - Fire Alarm Systems	Fire Alarm System	10	125	1991	2018	101,808	81,446
D5039 - Local Area Networks	LAN System	15	125	2005	2020	77,190	61,752
D5092 - Emergency Light and Power Systems	Emergency Backup Power System	20	125	1991	2023	62,868	50,294
D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights	10	125	1991	2018	24,238	15,512
D5092 - Emergency Light and Power Systems	Exit Signs	10	125	1991	2018	17,615	8,573
D5094 - Other Special Systems and Devices	Cable Tray - Data Systems Wiring	20	100	2012	2042	10,575	10,575
E - Equipment and Furnishings	Fixed Casework Cabinetry	25	125	1991	2023	34,228	27,382
E1031 - Vehicular Service Equipment	Vehicle Hoist & Service Equipment	25	100	1991	2023	64,107	64,107

# Asset Overview Report

## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
E1091 - Maintenance Equipment	Chain Hoist Systems	25	100	1991	2022	32,242	32,242
G2023 - Curbs, Rails and Barriers	Pipe Bollards	30	125	1991	2026	31,361	25,089
G2031 - Paving and Surfacing	Pedestrian Pavement - Perimeter Steel Grate	25	125	1991	2035	39,634	31,707
	<b>Subtotal</b>						<b>4,663,288</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>4,663,288</b>

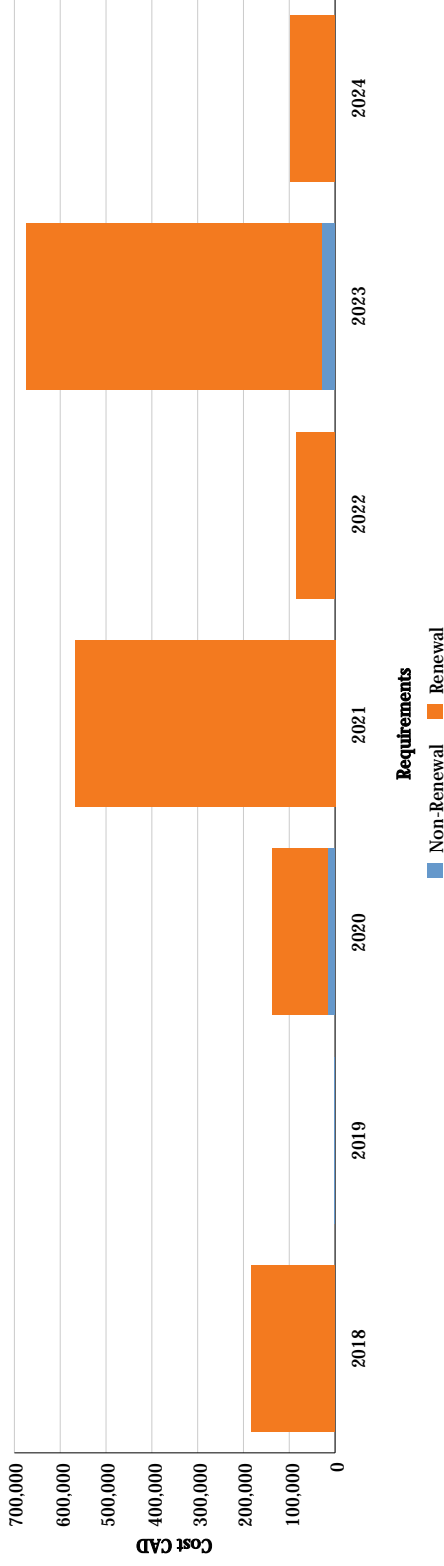
## Requirements including Renewals

DRAFT

# Asset Overview Report

## By Asset Name

Costs by Requirement Type



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Access Ramp - Exterior Steel Renewal	Yes	B1014 - Ramps	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2022	52,202
Aluminum Windows Renewal	Yes	B2020 - Exterior Windows	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	75,311
Branch Wiring - Equipment & Devices Renewal	Yes	D5021 - Branch Wiring Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	51,195
Chain Hoist Systems Renewal	Yes	E1091 - Maintenance Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2022	32,242
Concrete - Painted or Sealed Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	16,077
Custodial/Utility Sinks Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	15,561

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Distribution Equipment, Panelboards, and Feeders Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	Inspection 3- Due within 5 Years of Inspection	2021 Aug 14, 2021	121,989
Domestic Water Distribution System Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	56,055
Door Assembly - 6 x 7 Wood Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	10,728
Door Assembly - Single Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	51,907
Ductwork Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	20,045
Emergency Backup Power System Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	62,868
Emergency Battery Pack Lights Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	24,238
Equipment and Furnishings - Aged Vanity Cabinets Washrooms	No	E - Equipment and Furnishings	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	6,826
Exhaust System - Maintenance Garage Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	6,000
Exit Signs Renewal	Yes	D5092 - Emergency Light and Power Systems	Life Safety	1- Due within 1 Year of Inspection	Aug 14, 2018	17,615
Fire Alarm System Renewal	Yes	D5037 - Fire Alarm Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	101,808
Fittings - Signage (Room Numbering and Identification) Renewal	Yes	C1035 - Identifying Devices	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	7,572
Fixed Casework Cabinetry Renewal	Yes	E - Equipment and Furnishings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	34,228
Floor Finishes - Aged Vinyl Flooring Cafe Upper	No	C3020 - Floor Finishes	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	5,090



DRAFT

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Floor Finishes - Aged Vinyl Flooring Office Garage	No	C3020 - Floor Finishes	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	5,090
Heating Hot Water - Building Heating Water Distribution System Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	42,361
LAN System Renewal	Yes	D5039 - Local Area Networks	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	77,190
Lighting Fixtures - Interior - Fluorescent Renewal	Yes	D5022 - Lighting Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	93,305
Linoleum Sheet Goods Renewal	Yes	C3020 - Floor Finishes	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	37,475
Main Electrical Service Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	22,325
Overhead Rolling Doors - Manual Operation Renewal	Yes	B2030 - Exterior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	19,158
Paint Masonry/Epoxy Finish - Economy Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	14,487
Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	5,312
Perimeter Heat System - Hydronic Fin Tube Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2024	35,645
Pneumatic Controls Renewal	Yes	D3060 - Controls and Instrumentation	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	106,405
Propane Gas Supply for Bldg Renewal	Yes	D2090 - Other Plumbing Systems	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	30,273
Public Address System Renewal	Yes	D5031 - Public Address and Music Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	13,239
Restroom Accessories Renewal	Yes	C1030 - Fittings	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	22,154
Restroom Fixtures - Individual Shower Renewal	Yes	D2010 - Plumbing fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	3,788

# Asset Overview Report

## By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Restroom Fixtures - Lavatories Renewal	Yes	D2010 - Plumbing fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	7,942
Restroom Fixtures Renewal	Yes	D2010 - Plumbing fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	17,410
Sanitary Sewage Holding Tank Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	40,960
Sink - Breakroom Renewal	Yes	D2010 - Plumbing fixtures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	3,439
Superstructure - Pitted Cast In Place Concrete Floor Garage	No	B10 - Superstructure	Maintenance	3- Due within 5 Years of Inspection	Aug 14, 2023	30,406
Swinging Doors - 900 x 2100 HM & Wood Renewal	Yes	C1020 - Interior Doors	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	126,623
Telephone System with VOIP Renewal	Yes	D5033 - Telephone Systems	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	5,954
Transformer Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	13,605
Unit Heaters - Hot Water Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	106,664
Vehicle Hoist & Service Equipment Renewal	Yes	E1031 - Vehicular Service Equipment	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	64,107
Vinyl Composite Tile Renewal	Yes	C3020 - Floor Finishes	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	4,550
Wall Finishes - Aged Gypsum Wall Paint Office	No	C3010 - Wall Finishes	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2019	1,202
Welding Exhaust Renewal	Yes	D3042 - Exhaust Ventilation Systems	Lifecycle	1- Due within 1 Year of Inspection	Aug 14, 2018	25,685
<b>Total</b>						<b>1,746,311</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Assets are ordered by Asset Name**

**Asset:** Underground Power & Fiber Optic Lines

**Asset Number:** C L 00002 15182

**Currency:** CAD

## Statistics

<b>FCI Cost:</b>	551,649	<b>FCI:</b>	0.85
<b>RI Cost:</b>	551,649	<b>RI:</b>	0.85
<b>Total Requirement Cost:</b>	551,649	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	648,185		

**Address 1**  
**City**

42037 Mackenzie Hwy.  
Hay River

**Address 2**  
**State/Province/Region**

-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



G4013 - Underground Electrical System - Service Transformer

## Asset Description

The Base has an underground power distribution system with distribution and transformers. There is an underground fiber optics system connecting to each building for phone and data systems.

## System Description

System Name	Description
D5039 - Local Area Networks-Fiber Optics System	Underground fiber optics lines have been installed to the buildings on the Base.
G4013 - Underground Power Distribution-Underground Electrical System	The Base electrical power is distributed by and underground electrical distribution system. Note: The system is functioning normally and the observed years remaining has been increased.



# Asset Overview Report

*By Asset Name*

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
D5039 - Local Area Networks	Fiber Optics System	15	100	2010	2025	96,536	96,536
G4013 - Underground Power Distribution	Underground Electrical System	30	100	1982	2023	551,649	551,649
	<b>Subtotal</b>						<b>648,185</b>
	Overhead:						0
	<b>Subtotal</b>						<b>0</b>
	<b>Total Replacement Value Based on System Costs with Overheads</b>						<b>648,185</b>

## Requirements including Renewals

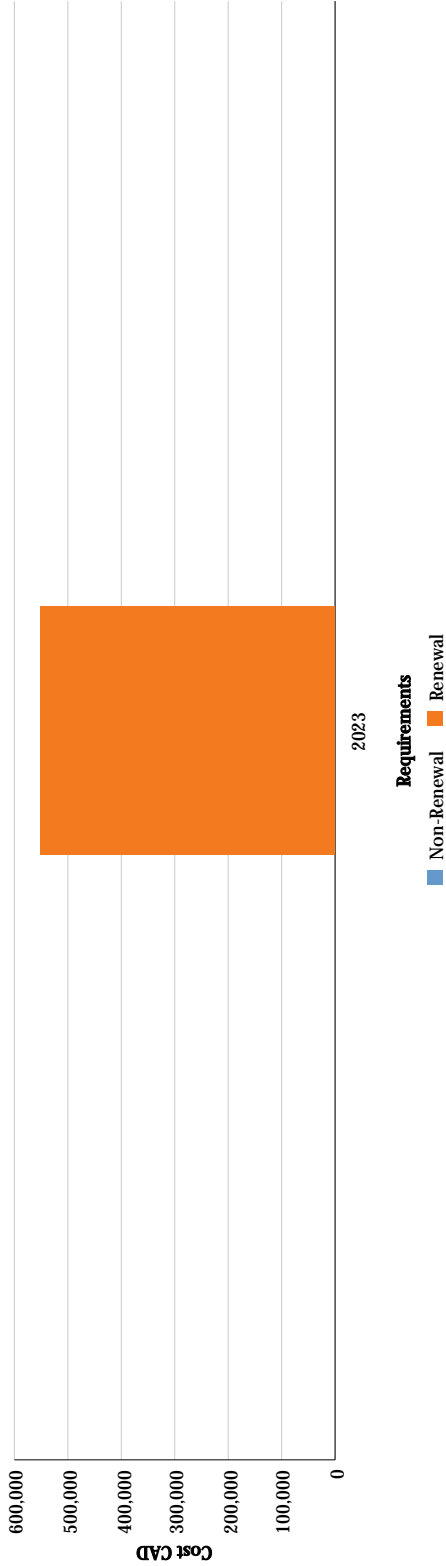


DRAFT

# Asset Overview Report

## By Asset Name

Costs by Requirement Type



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Underground Electrical System Renewal	Yes	G4013 - Underground Power Distribution	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	551,649
Total						551,649

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Underground Water Service  
**Asset Number:** C L 00002 14562  
**Currency:** CAD

Assets are ordered by Asset Name

## Statistics

<b>FCI Cost:</b>	621,497	<b>FCE</b>	1.00
<b>RI Cost:</b>	621,497	<b>RI</b>	1.00
<b>Total Requirement Cost:</b>	621,497	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	621,497		

**Address 1**  
City  
42037 Mackenzie Hwy.  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



G3011 - Underground Water System - Hydrant

## Asset Description

The Coast Guard Base is supplied water from a municipal water system. The system connects to the Administration Building, The Fisheries Management Building and the Stores/Maintenance Building. All other buildings have potable water tanks. There are fire hydrants on the water system.

## System Description

System Name	Description
G3011 - Potable Water Distribution and Storage-Underground Water System	There is an underground water distribution system with connects to fire hydrants, the Administration Building, the Fisheries Management Buildings, and the Stores/Maintenance Building

# Asset Overview Report

*By Asset Name*

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
G3011 - Potable Water Distribution and Storage	Underground Water System	25	100	1995	2020	621,497	621,497
Subtotal							621,497
Overhead:							0
Subtotal							0
Total Replacement Value Based on System Costs with Overheads							621,497

## Requirements including Renewals

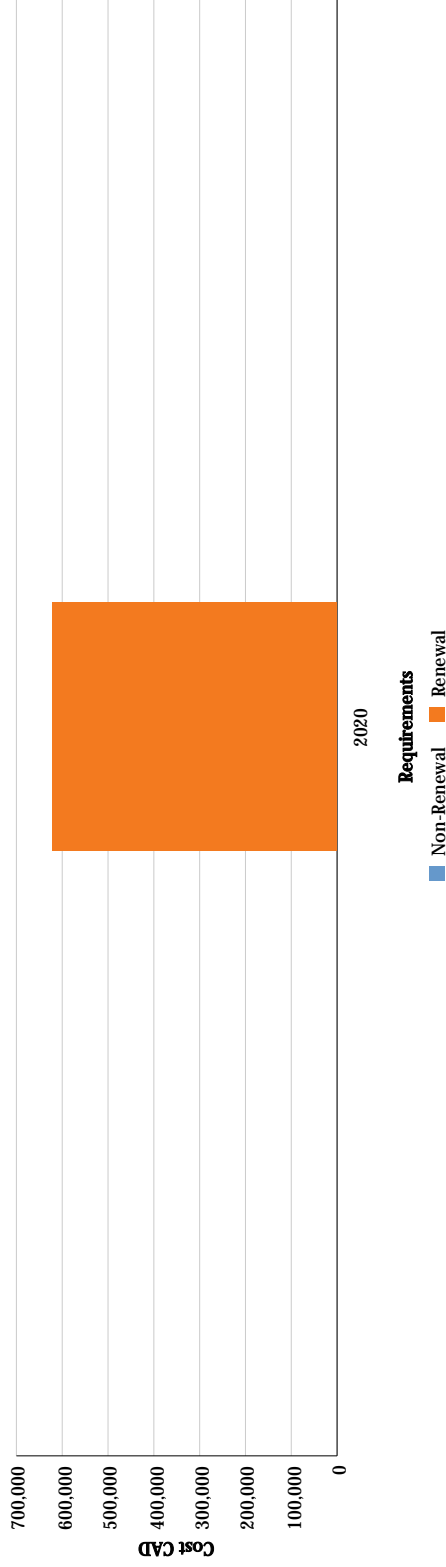


DRAFT

# Asset Overview Report

## By Asset Name

Costs by Requirement Type



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Underground Water System Renewal	Yes	G3011 - Potable Water Distribution and Storage	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	621,497
Total						621,497

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Wharf  
**Asset Number:** C L 00002 16145  
**Currency:** CAD

Assets are ordered by Asset Name

## Statistics

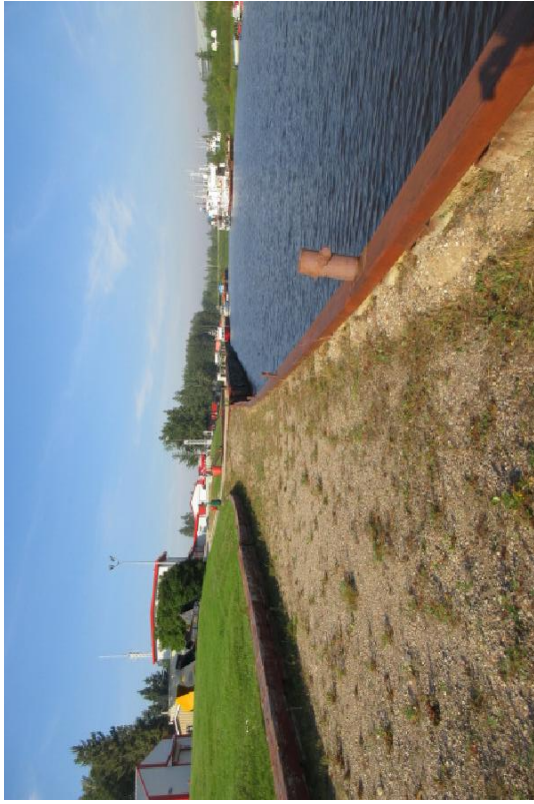
<b>FCI Cost:</b>	361,205	<b>FCI</b>	0.21
<b>RI Cost:</b>	361,205	<b>RI</b>	0.21
<b>Total Requirement Cost:</b>	361,205	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	1,724,263		

**Address 1**  
City  
42037 Mackenzie Hwy.  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Exterior View Wharf

## Asset Description

WHARF, ASSET CODE: C.I. 00002 16145

### ARCHITECTURAL

#### General

The Hay River Canadian Coast Guard Base can be found at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0P9. The site infrastructure includes two wharfs along the Hay River bank edge on the northeastern edge of the site. The two wharfs consist of sheet steel piling, supported by wales tied back to the shore and anchored below grade. New fill placed behind the piling.

#### Mechanical

There are two fuel dispensary systems on the wharf.

#### Electrical

There are four power stations and one light pole on the wharf.



## System Description

System Name	Description
A - Substructure-Wharf One Pile Anchors	The Wharf One sheet piling is assumed to be tied back into the ground on shore using two piles at each anchor. Thirteen anchors in total. Observed years remaining reduced due to system condition.
A - Substructure-Wharf Two Pile Anchors	The Wharf Two sheet piling is assumed to be tied back into the ground on shore using two piles at each anchor. Twenty-seven anchors in total.
D2099 - Other Piping Systems-Fuel Tank and Pump	There are two fuel tanks and pumps on the wharf. The tank holds 2500 liters.
D5012 - Low Tension Service and Dist.-Distribution, Panelboards and Feeders	There are 3 power connection stations on the wharf used for shore power to ships moored at the wharf. Note: The equipment is in good condition and functioning normally and the observed years remaining has been increased.
D5022 - Lighting Equipment-Wharf Light Pole and LED	The wharf lighting is a pole with four LED lights.
G2021 - Bases and Sub-Bases-Wharf One Base Course Backfill	Parking lot flexible pavement (bituminous) includes a 457-mm thick gravel base course for large paved areas.
G2021 - Bases and Sub-Bases-Wharf One Intermediate Course	Parking lot flexible pavement includes a 75-mm thick bituminous intermediate binder course for large paved areas.
G2021 - Bases and Sub-Bases-Wharf Two Base Course Backfill	Parking lot flexible pavement (bituminous) includes a 457-mm thick gravel base course for large paved areas.
G2021 - Bases and Sub-Bases-Wharf Two Intermediate Course	Parking lot flexible pavement includes a 75-mm thick bituminous intermediate binder course for large paved areas.
G2049 - Miscellaneous Structures-Mooring Accessories One	Site development includes dock cleats and service utilities for water vessels to tie up to and tender into docks. Quantities are outlined in the means line items. Observed years remaining reduced due to system condition.
G2049 - Miscellaneous Structures-Mooring Accessories Two	Site development includes dock fenders, ladders, cleats and service utilities for water vessels to tie up to and tender into docks. Quantities are outlined in the means line items.
G2049 - Miscellaneous Structures-Sheet Steel Seawall One	Site development includes steel sheet piling seawall, steel sheeting, 3,600 meters high, driven from shore, for protecting shoreline. Observed years remaining reduced due to system condition.
G2049 - Miscellaneous Structures-Sheet Steel Seawall Two	Site development includes steel sheet piling seawall, steel sheeting, 3,600 meters high, driven from shore, for protecting shoreline.
G4013 - Underground Power Distribution-Underground Electrical Power Distribution	Power is supplied to the Wharf power kiosks, the fuel depot, and the parking lot power kiosks via an underground distribution system.



DRAFT

# Asset Overview Report

## By Asset Name

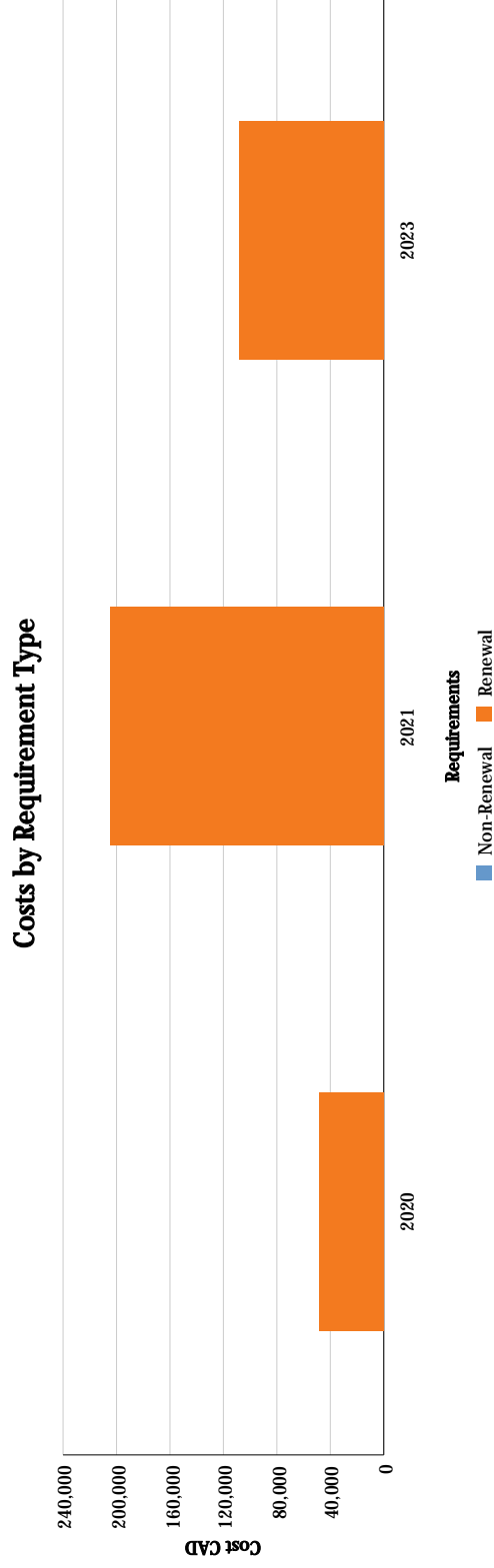
### Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Wharf Two Pile Anchors	75	6	1970	2045	33,801	563,344
A - Substructure	Wharf One Pile Anchors	75	6	1970	2023	16,274	271,240
D2099 - Other Piping Systems	Fuel Tank and Pump	25	100	1991	2025	24,498	24,498
D5012 - Low Tension Service and Dist.	Distribution, Panelboards and Feeders	30	125	1970	2023	91,947	73,558
D5022 - Lighting Equipment	Wharf Light Pole and LED	20	125	2015	2035	44,381	35,505
G2021 - Bases and Sub-Bases	Wharf One Intermediate Course	25	62	1995	2020	7,118	11,481
G2021 - Bases and Sub-Bases	Wharf One Base Course Backfill	65	12	1970	2035	1,480	12,331
G2021 - Bases and Sub-Bases	Wharf Two Intermediate Course	25	62	1995	2020	41,523	66,972
G2021 - Bases and Sub-Bases	Wharf Two Base Course Backfill	65	12	1970	2035	8,631	71,929
G2049 - Miscellaneous Structures	Sheet Steel Seawall One	60	125	1970	2021	201,757	161,405
G2049 - Miscellaneous Structures	Sheet Steel Seawall Two	60	125	1970	2030	420,326	336,261
G2049 - Miscellaneous Structures	Mooring Accessories Two	30	125	2000	2030	2,586	2,068
G2049 - Miscellaneous Structures	Mooring Accessories One	30	125	2000	2021	2,586	2,068
G4013 - Underground Power Distribution	Underground Electrical Power Distribution	30	100	2000	2030	91,603	91,603
Subtotal							1,724,263
Overhead:							0
Subtotal							0
Total Replacement Value Based on System Costs with Overheads							1,724,263

# Asset Overview Report

*By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Distribution, Panelboards and Feeders Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	91,947
Mooring Accessories One Renewal	Yes	G2049 - Miscellaneous Structures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	2,586
Sheet Steel Seawall One Renewal	Yes	G2049 - Miscellaneous Structures	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	201,757
Wharf One Intermediate Course Renewal	Yes	G2021 - Bases and Sub-Bases	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	7,118
Wharf One Pile Anchors Renewal	Yes	A - Substructure	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2023	16,274
Wharf Two Intermediate Course Renewal	Yes	G2021 - Bases and Sub-Bases	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	41,523
<b>Total</b>						<b>361,205</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** Yard(s)  
**Asset Number:** C L 00002 15709  
**Currency:** CAD

**Assets are ordered by Asset Name**

## Statistics

<b>FCI Cost:</b>	241,192	<b>FCE</b>	0.17
<b>RI Cost:</b>	241,192	<b>RI:</b>	0.17
<b>Total Requirement Cost:</b>	241,191	<b>Size:</b>	1 SM
<b>Current Replacement Value:</b>	1,402,712		

**Address 1**  
City  
42037 Mackenzie Hwy.  
Hay River  
**Address 2**  
State/Province/Region  
-  
NT

# Asset Overview Report

*By Asset Name*

## Photo



Signature - Flags at Entrance Hay River CCG Base Yard(s)

## Asset Description

YARD(S): ASSET CODE C L 00002 15709

### ARCHITECTURAL

#### General

The Yard(s), Asset Code C L 00002 15709, can be found on the Hay River Canadian Coast Guard Base at 42037 Mackenzie Highway, Hay River, Northwest Territories, X0E 0R9. The facility is a gravel surfaced, asphalt surfaced and landscaped surfaced compound originally developed in 1970. Site infrastructure located in the Yard includes:

1. A Fuel Distribution Equipment Slab,
2. A Equipment Slab Wharf 2,
3. Exterior Stairs Steel,
4. Conex Steel Storage Containers,
5. Roadway - Wharf 2,

# Asset Overview Report

*By Asset Name*

6. Roadway - DFO Wharf,
7. Yard - Base Course,
8. Site Development Entrance Sign,
9. Site Development Retaining Wall Wood Tie Wharf 1,
10. Site Development Retaining Wall Wood Tie Wharf 2,
11. Site Development Retaining Wall Concrete Parking,
12. Site Development Flagpoles Steel,
13. Miscellaneous Structures Concrete Equipment Slab DFO,
14. Miscellaneous Structures Concrete Equipment Slab,
15. Miscellaneous Structures Concrete Slab Flammable Storage,
16. Miscellaneous Structures Fish Cleaning Shed,
17. Miscellaneous Structures Storage Shed,
18. Special Construction Millard Tower.

## Mechanical

There is a fuel depot with two tanks and two pumps in the Yard. A water distribution from the municipal water system has been installed on the Baes. Water is supplied to the Administration Building, the Fisheries Management Building, and the Stores - Maintenance Shops Building. There are fire hydrants on the system.

## Electrical

There is a solar photovoltaic system on the Base. There are panels on and equipment in the Heli Operations Building, the Carpenter Shop and the Stores & Maintenance Building. The base has an underground fiber optics network.

## System Description

System Name	Description
A - Substructure-Equipment Slab Wharf 2	An equipment slab supports one flag pole on metal tower at Wharf 2. Assume 1.5 SM by 600mm thick.
A - Substructure-Fuel Distribution Equipment Slab on Grade 1	The fuel distribution equipment sits on a concrete equipment slab on grade. Assume 14SM, 300-mm thick.
B1015 - Exterior Stairs and Fire Escapes-Exterior Stairs - Steel	Exterior steel stairs (one flight) with railing.
D5090 - Other Electrical Systems-Solar Photovoltaic System	There is solar photovoltaic system on the with panels on the Heli Operations Building, The Carpenter Shop and Stores-Maintenance Building. The inverters and other electrical equipment are located in the buildings.
E1039 - Other Vehicular Equipment-Fuel Dispensing Station - Diesel Fuel	There is a fuel dispensing station in the yard with a tank and pump system pump system for diesel fuel.
E1039 - Other Vehicular Equipment-Fuel Dispensing Station - Gasoline	There is a fuel dispensing station in the yard with a tank and pump system pump system for Gasoline.
F10 - Special Construction-Millard Tower	The site infrastructure includes a self supported, Millard Training Tower, 9 1M in height; three legs and three concrete foundations.



# Asset Overview Report

## By Asset Name

System Name	Description
F1010 - Special Structures-Conex Steel Storage Container	Conex steel storage containers, 6M x 2.4M
G2011 - Bases and Sub-Bases-Roadway - Base Course DFO Wharf	Roadway flexible pavement (bituminous) includes a 300-mm thick gravel base course (also known as pit-run) for freeways, major arterials, minor arterials, collectors and local roads; spread and compaction included.
G2011 - Bases and Sub-Bases-Roadway - Base Course Wharf 2	Roadway flexible pavement (bituminous) includes a 300-mm thick gravel base course (also known as pit-run) for freeways, major arterials, minor arterials, collectors and local roads; spread and compaction included.
G2011 - Bases and Sub-Bases-Roadway - Intermediate Course DFO Wharf	Roadway flexible pavement includes a 75-mm thick bituminous intermediate binder course for freeways, major arterials, minor arterials, collectors and local roads.
G2011 - Bases and Sub-Bases-Roadway - Intermediate Course Wharf 2	Roadway flexible pavement includes a 75-mm thick bituminous intermediate binder course for freeways, major arterials, minor arterials, collectors and local roads. Observed years remaining increased due to system condition.
G2011 - Bases and Sub-Bases-Yard - Base Course	The base course for the compound yard includes a 300-mm thick gravel base course (also known as pit-run) for roads; spread and compaction included.
G2012 - Paving and Surfacing-Roadway - Surface Course DFO Wharf	Roadway flexible pavement includes a 50-mm thick bituminous wearing surface course for freeways, major arterials, minor arterials, collectors and local roads.
G2012 - Paving and Surfacing-Roadway - Surface Course Wharf 2	Roadway flexible pavement includes a 50-mm thick bituminous wearing surface course for freeways, major arterials, minor arterials, collectors and local roads.
G2013 - Curbs Gutters and Drains-Roadway - Curbs and Gutters - Cast-In-Place Concrete	Roadway includes cast-in-place concrete curbs and gutters at each side of roadway, 150-mm curbs and 400-mm gutters.
G2041 - Fences and Gates-Site Development - Entrance Signage	Site development includes identification signage. Main entrance.
G2042 - Retaining Walls-Site Development - Retaining Wall Concrete Parking	Site development includes retaining wall 600-mm high consisting of cast-in-place on concrete footing. Observed years remaining increased due to system condition.
G2042 - Retaining Walls-Site Development - Retaining Wall Wood Tie Wharf 1	Site development includes retaining wall 600-mm. high consisting of pressure-treated 200 x 200-mm wood ties.
G2042 - Retaining Walls-Site Development - Retaining Wall Wood Tie Wharf 2	Site development includes retaining wall 600-mm. high consisting of pressure-treated 200 x 200-mm wood ties. Observed years remaining increased due to system condition.
G2048 - Flagpoles-Site Development - Flagpoles - Steel	Site development includes steel flagpoles.
G2049 - Miscellaneous Structures-Miscellaneous Structures - Concrete Equipment Slab	Concrete equipment slab on grade in front of the DFO Fish Management Complex. Assume 2.4 m by 3.6 m by 100mm thick. Observed years remaining increased due to system condition.
G2049 - Miscellaneous Structures-Miscellaneous Structures - Concrete Equipment Slab DFO	Concrete equipment slab on grade adjacent to the DFO boat launch ramp. Assume 2.4 m by 3.6 m by 150mm thick.
G2049 - Miscellaneous Structures-Miscellaneous Structures - Concrete Slab Flammable Storage	Concrete equipment slab on grade adjacent to the Flammable Storage facility. Assume 3.6 m by 7.3m by 150mm thick.

# Asset Overview Report

*By Asset Name*

System Name	Description
G2049 - Miscellaneous Structures-Miscellaneous Structures - Fish Cleaning Shed	Fish cleaning shed, portable building, economy, on skids. Assume 2.4m by 3.6m.
G2049 - Miscellaneous Structures-Miscellaneous Structures - Storage Shed	Flammable liquids storage shed next to DFO Fish Management Complex, portable building, economy, on skids. Assume 2.4m by 2.4m.

## Asset Replacement Value Based on System Costs with Overheads

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
A - Substructure	Fuel Distribution Equipment Slab on Grade 1	75	6	2014	2089	191	3,178
A - Substructure	Equipment Slab Wharf 2	75	6	2010	2085	41	682
B1015 - Exterior Stairs and Fire Escapes	Exterior Stairs - Steel	50	125	2010	2060	58,215	46,572
D5090 - Other Electrical Systems	Solar Photovoltaic System	20	100	2018	2038	476,375	476,375
E1039 - Other Vehicular Equipment	Fuel Dispensing Station - Diesel Fuel	30	100	1990	2020	50,333	50,333
E1039 - Other Vehicular Equipment	Fuel Dispensing Station - Gasoline	30	100	1997	2027	50,333	50,333
F10 - Special Construction	Millard Tower	50	125	2014	2064	44,623	35,699
F1010 - Special Structures	Conex Steel Storage Container	30	125	1998	2028	219,601	175,680
G2011 - Bases and Sub-Bases	Roadway - Base Course Wharf 2	65	12	1970	2035	3,393	28,275
G2011 - Bases and Sub-Bases	Roadway - Intermediate Course DFO Wharf	25	62	2001	2026	27,295	44,024
G2011 - Bases and Sub-Bases	Roadway - Base Course DFO Wharf	65	12	2001	2066	1,718	14,317
G2011 - Bases and Sub-Bases	Roadway - Intermediate Course Wharf 2	25	62	1995	2026	53,904	86,943
G2011 - Bases and Sub-Bases	Yard - Base Course	65	12	1970	2035	6,165	51,378
G2012 - Paving and Surfacing	Roadway - Surface Course DFO Wharf	25	125	2001	2026	37,897	30,318
G2012 - Paving and Surfacing	Roadway - Surface Course Wharf 2	25	125	1995	2020	74,843	59,874





DRAFT

# Asset Overview Report

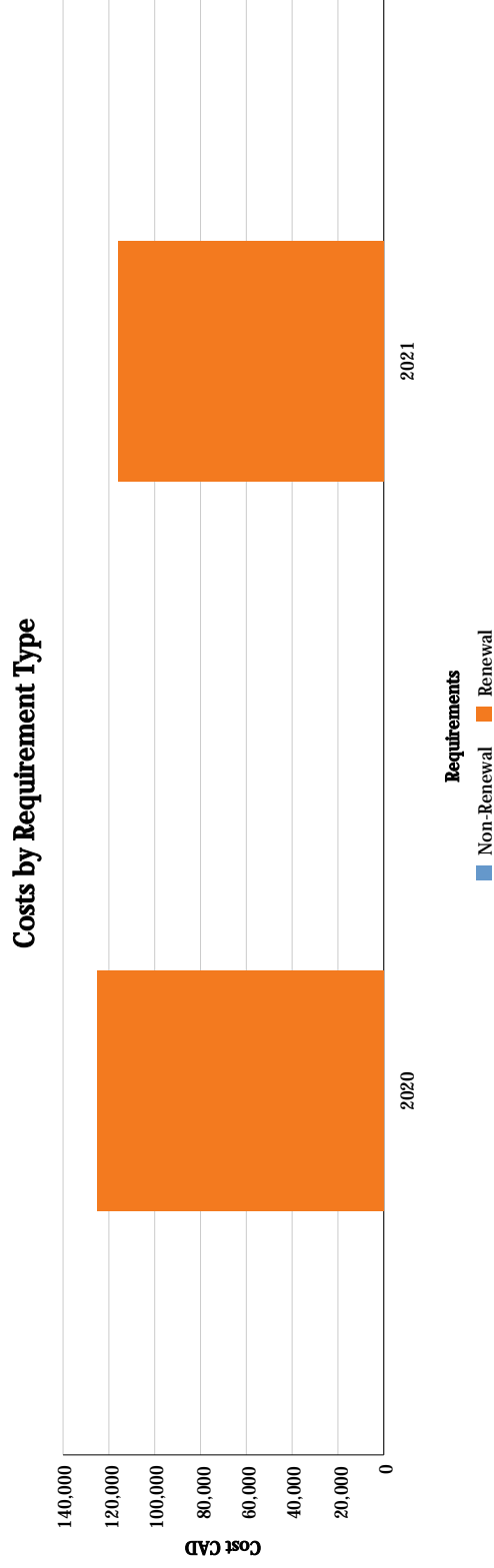
## By Asset Name

Uniformat	System Name	Lifetime (Years)	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Cost
G2013 - Curbs Gutters and Drains	Roadway - Curbs and Gutters - Cast-In-Place Concrete	25	125	2014	2039	8,669	6,935
G2041 - Fences and Gates	Site Development - Entrance Signage	20	125	2010	2030	16,923	13,538
G2042 - Retaining Walls	Site Development - Retaining Wall Concrete Parking	40	125	1970	2028	109,390	87,512
G2042 - Retaining Walls	Site Development - Retaining Wall Wood Tie Wharf 1	40	125	1970	2021	34,122	27,298
G2042 - Retaining Walls	Site Development - Retaining Wall Wood Tie Wharf 2	40	125	1970	2021	81,893	65,515
G2048 - Flagpoles	Site Development - Flagpoles - Steel	25	125	2010	2035	36,153	28,922
G2049 - Miscellaneous Structures	Miscellaneous Structures - Concrete Equipment Slab DFO	40	125	2001	2041	1,457	1,166
G2049 - Miscellaneous Structures	Miscellaneous Structures - Concrete Slab Flammable Storage	40	125	1989	2029	4,372	3,497
G2049 - Miscellaneous Structures	Miscellaneous Structures - Storage Shed	40	125	2002	2042	6,007	4,806
G2049 - Miscellaneous Structures	Miscellaneous Structures - Concrete Equipment Slab	40	125	1974	2028	2,915	2,332
G2049 - Miscellaneous Structures	Miscellaneous Structures - Fish Cleaning Shed	40	125	2009	2049	9,011	7,209
Subtotal							1,402,712
Overhead:							0
Subtotal							0
Total Replacement Value Based on System Costs with Overheads							1,402,712

# Asset Overview Report

*By Asset Name*

## Requirements including Renewals



Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Fuel Dispensing Station - Diesel Fuel Renewal	Yes	E1039 - Other Vehicular Equipment	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	50,333
Roadway - Surface Course Wharf 2 Renewal	Yes	G2012 - Paving and Surfacing	Lifecycle	2- Due within 2 Years of Inspection	Aug 14, 2020	74,843
Site Development - Retaining Wall Wood Tie Wharf 1 Renewal	Yes	G2042 - Retaining Walls	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	34,122
Site Development - Retaining Wall Wood Tie Wharf 2 Renewal	Yes	G2042 - Retaining Walls	Lifecycle	3- Due within 5 Years of Inspection	Aug 14, 2021	81,893
<b>Total</b>						<b>241,191</b>

# Asset Overview Report

*By Asset Name*

**Region:** Central and Arctic  
**Site:** Hay River CCG Base  
**Asset:** ~Boat Equipment Storage (REMOVED)  
**Asset Number:** C L 00002 17971

**Assets are ordered by Asset Name**      **Currency:** CAD

## Statistics

<b>FCI Cost:</b>	0	<b>FCI</b>	0.00
<b>RI Cost:</b>	0	<b>RI</b>	0.00
<b>Total Requirement Cost:</b>		<b>Size:</b>	9 SM
<b>Current Replacement Value:</b>	0		

**Address 1**      42037 Mackenzie Hwy.  
**City**      Hay River  
**Address 2**      -  
**State/Province/Region**      NT

No photo available.

## Asset Description

## System Description

System Name	Description
-------------	-------------



DRAFT

# Asset Overview Report

*By Asset Name*

Overhead:	0
Subtotal	0

Total Replacement Value Based on System Costs with Overheads

## Requirements including Renewals

No data available.

Mackenzie Electric Ltd.  
 51 Studney Drive  
 Hay River, NT  
 X0E 0R6  
 Ph 867.874.6806  
 Fax 867.874.2368  
 mackenzie\_electric@northwestel.net



### Annual Fire Alarm Inspection Report

<b>Building Name</b>	CCGS - DFO Building
<b>Location</b>	Hay River, NT
<b>Panel Make</b>	Edwards
<b>Panel Model</b>	6616

#### Panel Functions:

<input checked="" type="checkbox"/> Alarm Lamp	<input checked="" type="checkbox"/> Supervision of all Zones
<input checked="" type="checkbox"/> Trouble Lamp	<input checked="" type="checkbox"/> Ground Fault Detection
<input checked="" type="checkbox"/> Alarm Zone Lamps	<input checked="" type="checkbox"/> Alarm Operation
<input checked="" type="checkbox"/> Trouble Zone Lamps	<input checked="" type="checkbox"/> Alarm Silence
<input checked="" type="checkbox"/> Ground Fault Lamp	<input checked="" type="checkbox"/> Trouble Silence
<input checked="" type="checkbox"/> Power Lamp	<input checked="" type="checkbox"/> Lamp Test
<input checked="" type="checkbox"/> Loss of Power Indication	<input checked="" type="checkbox"/> Auto-dialer Calls Out
<input checked="" type="checkbox"/> Trouble Buzzer	<input checked="" type="checkbox"/> Fan Shutdown
<input checked="" type="checkbox"/> Reset	<input checked="" type="checkbox"/> Door Holders
<input checked="" type="checkbox"/> Annunciator Functions Pass	

☒ = PASS      ☐ = FAIL      NA = Not Applicable

#### Power Supply and Battery:

Voltage with AC on	28.4
Voltage with AC off	27.6
Voltage after load test (AC power off and signals activated for 10 min.) 20.4 or more	25.5
Charging Current (After load test)	

#### Results:

- ☒ This fire alarm system was found to be fully functional with the above tests and all devices on the following page(s) where found to be operational.

Or

- ☐ This fire alarm system has deficiencies noted below that require to be rectified.

#### Notes:

---



---



---



---

Inspected by:

Date: April 20th, 2020

*This fire alarm system should be re-inspected within one year of the above date.*

## FIRE ALARM SYSTEM ANNUAL TEST AND INSPECTION RECORD

BUILDING NAME: CCGS - DFO Building

DATE:

Location	Device	Correctly Installed	Requires Service/Repairs	Alarm Operation Confirmed	Circuit Number	Annunciator Indication Confirmed	Device Make/Model	Remarks
Mechanical Room Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	270SPO	All devices are Edwards unless otherwise indicated
Mechanical Room	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	284C	Need Extension Ladder
Mechanical Room	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #1
Electrical Room	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	284C	
1st Floor F&O Main Entrance	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	270SPO	
1st Floor F&O South Bay	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	283C	
1st Floor F&O North Bay	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
1st Floor F&O Mechanics Bay	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	283C	
1st Floor F&O Wash Bay	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	283C	
1st Floor F&O Mechanics Bay	B/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	4035AR	Ground Fault Zone #2
1st Floor CCGS Entrance	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	270SPO	
1st Floor CCGS Stores	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
1st Floor CCGS Entrance	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #3
1st Floor CCGS Nav. Aids Entrance	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>		
1st Floor CCGS Nav. Aids Storage	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	270SPO	
1st Floor CCGS Nav. Aids Storage	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
1st Floor CCGS Nav. Aids Entrance	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #4
1st Floor CCGS Shipping/Receiving	B/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	1035AR	
2nd Floor F&O South Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	270SPO	
2nd Floor F&O South Hall	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	270SPO	
2nd Floor F&O North Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	270SPO	
2nd Floor F&O South Stair	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
2nd Floor F&O South Storage	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>		Need Extension Ladder
2nd Floor F&O Coffee Room	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
2nd Floor F&O Reception Area	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
2nd Floor F&O South Hall	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
2nd Floor F&O Conference Room	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	1400A	Should be relocated

FLO IT  
SERVER RM.FLO  
GUN LOCKER



## FIRE ALARM SYSTEM ANNUAL TEST AND INSPECTION RECORD

BUILDING NAME: CCGS - DFO Building

DATE:

Location	Device	Correctly Installed	Requires Service/Repairs	Alarm Operation Confirmed	Circuit Number	Annunciator Indication Confirmed	Device Make/Model	Remarks
2nd Floor F&O North Storage	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
2nd Floor F&O North Hall	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
2nd Floor F&O North Stair	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	6249C	
2nd Floor F&O Coffee Room	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #5
2nd Floor F&O Hall	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Sig #1
2nd Floor F&O South Hall	B/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	4035AR	
2nd Floor CCGS Electronics Lab	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	6	YES <input type="checkbox"/> NO <input type="checkbox"/>	283C	
2nd Floor CCGS Electronics Lab	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	6	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #6
2nd Floor CCGS North Hall	B/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	4035AR	
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>						

Mackenzie Electric Ltd.  
 51 Studney Drive  
 Hay River, NT  
 X0E 0R6  
 Ph 867.874.6806  
 Fax 867.874.2368  
 mackenzie\_electric@northwestel.net



### Annual Fire Alarm Inspection Report

<b>Building Name</b>	Canadian Coast Guard Main Office
<b>Location</b>	Hay River, NT
<b>Panel Make</b>	Edwards
<b>Panel Model</b>	6616

#### Panel Functions:

- |                                                                |                                                              |
|----------------------------------------------------------------|--------------------------------------------------------------|
| <input checked="" type="checkbox"/> Alarm Lamp                 | <input checked="" type="checkbox"/> Supervision of all Zones |
| <input checked="" type="checkbox"/> Trouble Lamp               | <input checked="" type="checkbox"/> Ground Fault Detection   |
| <input checked="" type="checkbox"/> Alarm Zone Lamps           | <input checked="" type="checkbox"/> Alarm Operation          |
| <input checked="" type="checkbox"/> Trouble Zone Lamps         | <input checked="" type="checkbox"/> Alarm Silence            |
| <input checked="" type="checkbox"/> Ground Fault Lamp          | <input checked="" type="checkbox"/> Trouble Silence          |
| <input checked="" type="checkbox"/> Power Lamp                 | <input checked="" type="checkbox"/> Lamp Test                |
| <input checked="" type="checkbox"/> Loss of Power Indication   | <input checked="" type="checkbox"/> Auto-dialer Calls Out    |
| <input checked="" type="checkbox"/> Trouble Buzzer             | <input checked="" type="checkbox"/> Fan Shutdown             |
| <input checked="" type="checkbox"/> Reset                      | <input checked="" type="checkbox"/> Door Holders             |
| <input checked="" type="checkbox"/> Annunciator Functions Pass |                                                              |

☒ = PASS

☐ = FAIL

NA = Not Applicable

#### Power Supply and Battery:

Voltage with AC on	27.0
Voltage with AC off	26.4
Voltage after load test (AC power off and signals activated for 10 min.) 20.4 or more	25.5
Charging Current (After load test)	

#### Results:

- ☒ This fire alarm system was found to be fully functional with the above tests and all devices on the following page(s) where found to be operational.

Or

- ☐ This fire alarm system has deficiencies noted below that require to be rectified.

#### Notes:

Heat Detector In Electrical Room to be replaced.

Heat Detector changed May 8<sup>th</sup>, 2020.

Inspected by:

Date: April 20<sup>th</sup>, 2020

This fire alarm system should be re-inspected within one year of the above date.



## FIRE ALARM SYSTEM ANNUAL TEST AND INSPECTION RECORD

BUILDING NAME: Canadian Coast Guard Main DATE: April 20<sup>th</sup>, 2020.

Location	Device	Correctly Installed	Requires Service/Repairs	Alarm Operation Confirmed	Circuit Number	Annunciator Indication Confirmed	Device Make/Model	Remarks
Back Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro MS-51	All devices are Edwards unless otherwise indicated
Main Entrance	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro MS-51	
Training Room	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Mirone 73494	
Training Room	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro MS-51	
Office Area	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Mirone 73494	
Stationary Storage	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Mirone 73494	
Janitor Room	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Mirone 73494	Ground Fault Zone #1
Janitor Room	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>		
Crawlspace	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	Mirone 73494	
Crawlspace	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	281C	
Crawlspace	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	281C	
Crawlspace	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	281C	
Crawlspace	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #2
Electrical Room	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	283C	Replaced 2020.
Electrical Room	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #3
Mechanical Room	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	284C	
Mechanical Room	DD	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	6251C-001A	
Mechanical Room	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>		Ground Fault Zone #4
Material Management Office	Bell	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro BDC624C	
Hallway	Bell	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro BDC624C	Ground Fault Sig #1
Hallway	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		

Mackenzie Electric Ltd.  
 51 Studney Drive  
 Hay River, NT  
 X0E 0R6  
 Ph 867.874.6806  
 Fax 867.874.2368  
 mackenzie\_electric@northwestel.net



### Annual Fire Alarm Inspection Report

<b>Building Name</b>	Canadian Coast Guard Maintenance Shop
<b>Location</b>	Hay River, NT
<b>Panel Make</b>	Edwards
<b>Panel Model</b>	Quickstart - QS4

#### Panel Functions:

<input checked="" type="checkbox"/> Alarm Lamp	<input checked="" type="checkbox"/> Supervision of all Zones
<input checked="" type="checkbox"/> Trouble Lamp	<input checked="" type="checkbox"/> Ground Fault Detection
<input checked="" type="checkbox"/> Alarm Zone Lamps	<input checked="" type="checkbox"/> Alarm Operation
<input checked="" type="checkbox"/> Trouble Zone Lamps	<input checked="" type="checkbox"/> Alarm Silence
<input checked="" type="checkbox"/> Ground Fault Lamp	<input checked="" type="checkbox"/> Trouble Silence
<input checked="" type="checkbox"/> Power Lamp	<input checked="" type="checkbox"/> Lamp Test
<input checked="" type="checkbox"/> Loss of Power Indication	<input checked="" type="checkbox"/> Auto-dialer Calls Out
<input checked="" type="checkbox"/> Trouble Buzzer	<input checked="" type="checkbox"/> Fan Shutdown
<input checked="" type="checkbox"/> Reset	<input checked="" type="checkbox"/> Door Holders
<input checked="" type="checkbox"/> Annunciator Functions Pass	
<input checked="" type="checkbox"/> = PASS	<input checked="" type="checkbox"/> = FAIL
	NA = Not Applicable

#### Power Supply and Battery:

Voltage with AC on	27.1
Voltage with AC off	22.8
Voltage after load test (AC power off and signals activated for 10 min.) 20.4 or more	
Charging Current (After load test)	

#### Results:

- ☒ This fire alarm system was found to be fully functional with the above tests and all devices on the following page(s) where found to be operational.

Or

- ☐ This fire alarm system has deficiencies noted below that require to be rectified.

#### Notes:

Panel Batteries to be replaced.  
 Auto dialer does not call Emergency Response.

\* Panel Batteries replaced May 8<sup>th</sup>, 2020

Inspected by:

Date:

April 21<sup>st</sup>, 2020

*This fire alarm system should be re-inspected within one year of the above date.*



## FIRE ALARM SYSTEM ANNUAL TEST AND INSPECTION RECORD

BUILDING NAME: Canadian Coast Guard Maintenance DATE:

Location	Device	Correctly Installed	Requires Service/Repairs	Alarm Operation Confirmed	Circuit Number	Annunciator Indication Confirmed	Device Make/Model	Remarks
R.S.E.R.	DD	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	9	YES <input type="checkbox"/> NO <input type="checkbox"/>	264C-001	AS-2
R.S.E.R.	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	9	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	All Devices are Edwards unless noted otherwise
R.S.E.R.	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
R.S.E.R.	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
R.S.E.R.	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
R.S.E.R.	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
R.S.E.R. East Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
R.S.E.R. East Exit	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	Ground Fault Zone #1
R.S.E.R. East Exit	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
R.S.E.R. West Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
R.S.E.R. West Exit	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	1	YES <input type="checkbox"/> NO <input type="checkbox"/>	1400A	
R.S.E.R.	H/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 2	YES <input type="checkbox"/> NO <input type="checkbox"/>	g1-hov15	
Shipping Receiving	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Shipping Receiving	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Shipping Receiving	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Shipping Receiving East Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Shipping Receiving West Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Shipping Receiving Storage Room	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Shipping Receiving H/S	H/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 2	YES <input type="checkbox"/> NO <input type="checkbox"/>	h1-hov15	
Shipping Receiving	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	Ground Fault Zone #2
Electrical Room	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	2	YES <input type="checkbox"/> NO <input type="checkbox"/>	1400A	
Maintenance Shop Men's Washroom	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Maintenance Shop Mechanical Room	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	284B-PL	
Maintenance Shop Mechanical Room	FS	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	11	YES <input type="checkbox"/> NO <input type="checkbox"/>	FM# WFD-3	
Maintenance Shop Mechanical Room	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	11	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	Ground Fault Zone #11
Maintenance Shop Hallway	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Women's Washroom	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Maintenance Shop Hallway East Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Hallway East Exit	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	4	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	Ground Fault Zone #14

4-2005  
H 9

## FIRE ALARM SYSTEM ANNUAL TEST AND INSPECTION RECORD

BUILDING NAME: Canadian Coast Guard Maintenance DATE:

Location	Device	Correctly Installed	Requires Service/Repairs	Alarm Operation Confirmed	Circuit Number	Annunciator Indication Confirmed	Device Make/Model	Remarks
Maintenance Shop Hallway	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Maintenance Shop Hallway	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Maintenance Shop Hallway	H/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 2	YES <input type="checkbox"/> NO <input type="checkbox"/>	g1-hov15	
Maintenance Shop Welding Bay	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	283B-PL	
Maintenance Shop Welding Bay	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	283B-PL	
Maintenance Shop Welding Bay	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Welding Bay	H/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 2	YES <input type="checkbox"/> NO <input type="checkbox"/>		
Maintenance Shop Welding Bay	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	Ground Fault Zone #3
Maintenance Shop Hallway	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Maintenance Shop Hallway North Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	3	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Mechanics Bay	H/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 2	YES <input type="checkbox"/> NO <input type="checkbox"/>	g1-hov15	
Maintenance Shop Mechanics Bay	HD	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro# 135R	Did not test
Maintenance Shop Mechanics Bay	HD	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro# 135R	Did not test
Maintenance Shop Mechanics Bay	HD	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro# 135R	Did not test
Maintenance Shop Mechanics Bay	HD	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro# 135R	Did not test
Maintenance Shop Mechanics Bay	HD	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro# 135R	Did not test
Maintenance Shop Mechanics Bay	HD	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pyro# 135R	Did not test
Maintenance Shop Mechanics Bay	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	Testable. Did not test
Maintenance Shop Mech. Mngr. Office	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	1400A	
Maintenance Shop Mech. Mngr. Office	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	1400A	
Maintenance Shop Mech. Mngr. Office	S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	1400A	
Maintenance Shop Mech. West Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Mech. North Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Mech. South Exit	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Mech. West Exit	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	Ground Fault Zone #5
Maintenance Shop Mech. Coffee Room	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Maintenance Shop Mech. Coffee Room	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	5	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Maintenance Shop Mech. Mezzanine	DD	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	10	YES <input type="checkbox"/> NO <input type="checkbox"/>	6264C-001	AS1
Maintenance Shop Mechanics Bay	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	10	YES <input type="checkbox"/> NO <input type="checkbox"/>	4.7K	Ground Fault Zone #10



**BUILDING NAME:** Canadian Coast Guard Maintenance

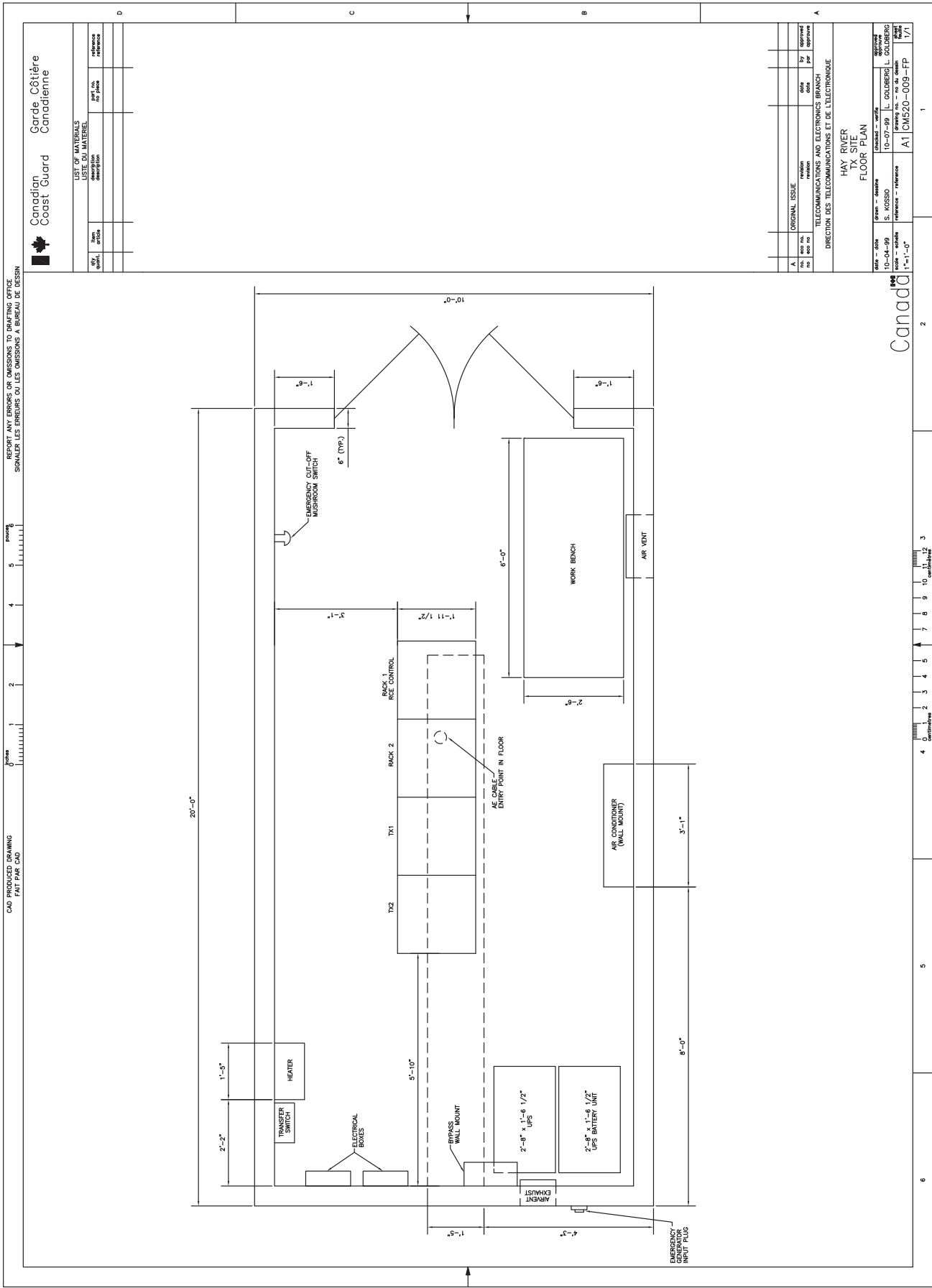
Location	Device	Correctly Installed	Requires Service/ Repairs	Alarm Operation Confirmed	Circuit Number	Annunciator Indication Confirmed	Device Make/Model	Remarks
Maintenance Shop Mechanics Bay	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 2	YES <input type="checkbox"/> NO <input type="checkbox"/>	10K	Ground Fault Sig 2
Helicopter Operations Shed	H/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	g1-hov15	
Helicopter Operations Shed	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Helicopter Operations Shed	M	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	270spow	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	
Helicopter Operations Shed	RHT	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	8	YES <input type="checkbox"/> NO <input type="checkbox"/>	281B-PL	

## FIRE ALARM SYSTEM ANNUAL TEST AND INSPECTION RECORD

BUILDING NAME:

DATE:

Location	Device	Correctly Installed	Requires Service/Repairs	Alarm Operation Confirmed	Circuit Number	Annunciator Indication Confirmed	Device Make/Model	Remarks
Flammable Stores Mechanical Room	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	6	YES <input type="checkbox"/> NO <input type="checkbox"/>	284B-PL	
Flammable Stores	H/S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Sig. 1	YES <input type="checkbox"/> NO <input type="checkbox"/>	g1-hov15	
Flammable Stores	FL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	16	YES <input type="checkbox"/> NO <input type="checkbox"/>	FL3000	Hazardous Side
Flammable Stores	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	15	YES <input type="checkbox"/> NO <input type="checkbox"/>	ccs-250	Hazardous Side
Flammable Stores	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	15	YES <input type="checkbox"/> NO <input type="checkbox"/>	ccs-250	Hazardous Side
Flammable Stores	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	15	YES <input type="checkbox"/> NO <input type="checkbox"/>	ccs-250	Hazardous Side
Flammable Stores	H	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	15	YES <input type="checkbox"/> NO <input type="checkbox"/>	ccs-250	Hazardous Side
Flammable Stores	M	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	Man-Rel	YES <input type="checkbox"/> NO <input type="checkbox"/>	270docy	Hazardous Side
Flammable Stores	M	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	Man-Rel	YES <input type="checkbox"/> NO <input type="checkbox"/>	270docy	Hazardous Side
Flammable Stores	HORN	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Pre-Sig	YES <input type="checkbox"/> NO <input type="checkbox"/>	889dawc	Hazardous Side
Flammable Stores	PS	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	17	YES <input type="checkbox"/> NO <input type="checkbox"/>		Disconnected
Flammable Stores	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	17	YES <input type="checkbox"/> NO <input type="checkbox"/>	47K	Ground Fault Zone #17
Flammable Stores	EOL	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	Pre-Sig	YES <input type="checkbox"/> NO <input type="checkbox"/>	47K	
Flammable Stores	EOL	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>	rela-eol	
Flammable Stores	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	15	YES <input type="checkbox"/> NO <input type="checkbox"/>	47K	Ground Fault Zone #15
Flammable Stores	EOL	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	16	YES <input type="checkbox"/> NO <input type="checkbox"/>	47K	Ground Fault Zone #16
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		
		YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		



Canadian  
Coast Guard



Garde Côtière  
Canadienne

LIST OF MATERIALS

LISTE DU MATÉRIEL

QTY

DESCRIPTION

REF. NO.

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

DATE

BY

APPROVED

HAY RIVER  
TX SITE  
FLOOR PLAN

TELECOMMUNICATIONS AND ELECTRONICS BRANCH

DIRECTION DES TELECOMMUNICATIONS ET DE L'ELECTRONIQUE

DATE - 10-04-99

BY - S. KOSSO

DATE - 10-07-99

BY - L. GOLDBERG

DATE - 10-07-99

BY - L. GOLDBERG

DATE - 10-07-99

BY - L. GOLDBERG

DATE - 10-07-99

BY - L. GOLDBERG

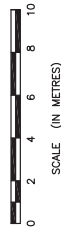
DATE - 10-07-99

BY - L. GOLDBERG

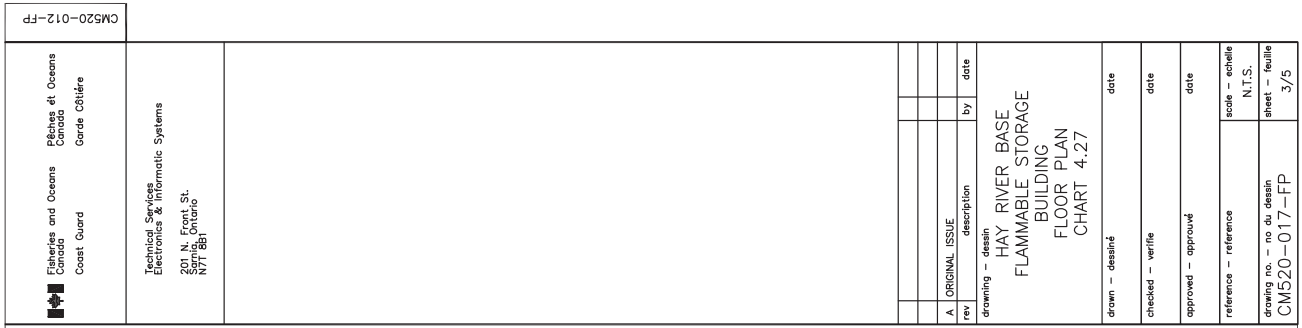
DATE - 10-07-99

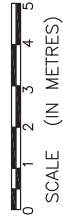






A	ORIGINAL ISSUE									
rev	drawing - description	by	date							
	drawing - details			HAY RIVER BASE STORES/MAINTENANCE SHOP BUILDING FLOOR PLAN CHART 4.26						
					drawn – dessiné	date	10-01--94			
					checked – vérifié	date				
					approved – approuvé	date				
					reference – référence	scale – échelle	N.T.S.			
					drawing no. – no du dessin	sheet – feuille	n.t.s.			
					CM520-017-FP		2/5			

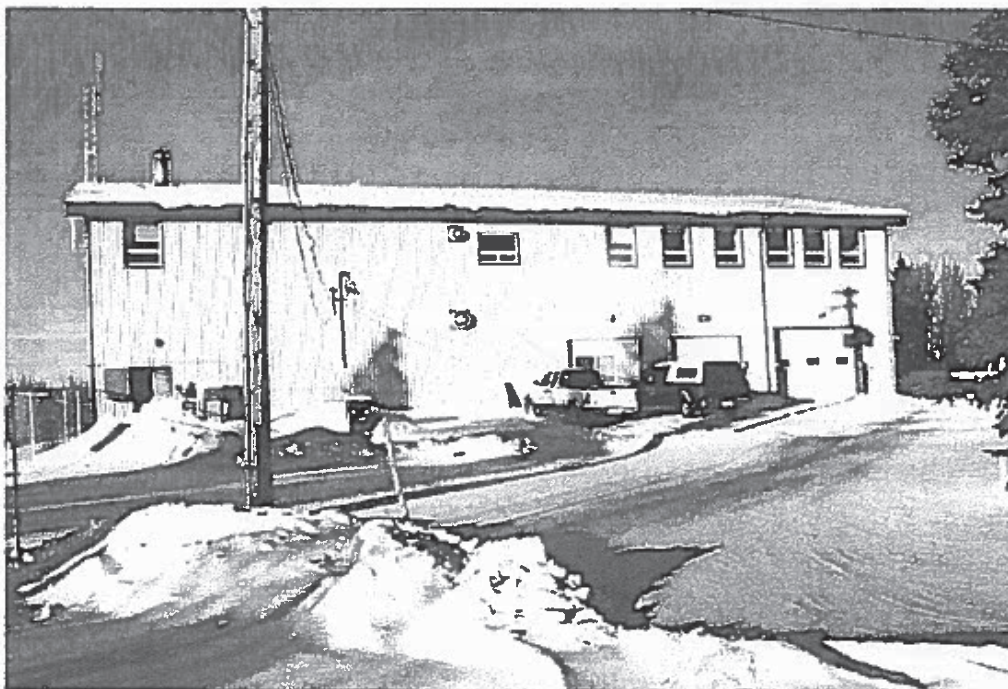




A	ORIGINAL ISSUE				
rev	drawing – dessin	by	date		
	HAY RIVER BASE CARPENTER SHOP BUILDING FLOOR PLAN CHART 4.28				
				drawn – dessiné	date
					09-01-93
				checked – vérifié	date
				approved – approuvé	date
				reference – référence	scale – échelle
					N.T.S.
				drawing no. – no du dessin	sheet – feuille
				CN520-017-FP	4/5



BUILDING CONDITION REPORT  
F&O ADMINISTRATION/CCG  
TELECOM BUILDING  
CANADIAN COAST GUARD  
42037 MACKENZIE HIGHWAY  
HAY RIVER, N.W.T.



Prepared by:

Public Works and Government  
Services Canada  
Suite 1000, 9700 Jasper Ave.  
Edmonton, Alberta  
T5J 4E2

---

## TABLE OF CONTENTS

1. EXECUTIVE SUMMARY
2. PROJECT FRAMEWORK / INTRODUCTION
3. OPERATIONAL PERFORMANCE
4. FUNCTIONAL PERFORMANCE
5. TECHNICAL PERFORMANCE/ASSET CONDITION
6. ENVIRONMENTAL PERFORMANCE
7. BUILDING COMPONENT SUMMARY

### APPENDICES

- A 25 YEAR PLAN
- B TYPICAL FLOOR PLAN
- C PHOTOGRAPHS
- D DEFICIENCY REPORTS

### COMMON APPENDICES

- E PWGSC ENVIRONMENTAL AUDIT DATED APRIL 1997
- F HRDC REPORT DATED DEC. 29, 1998\*
- G HRDC REPORT DATED JUNE 30, 1999
- J BUILDING PERFORMANCE REVIEW
- K LIFE & SAFETY SYSTEMS COMPLIANCE TESTING
- L SUSTAINABLE DEVELOPMENT STRATEGY
- M BUSINESS RESUMPTION PLAN
- N SUSTAINABLE DEVELOPMENT STRATEGY
- O ENVIRONMENTAL MANAGEMENT FRAMEWORK

## 1 EXECUTIVE SUMMARY

The building, presently known as F&O Administration/CCG Telecom Building, was constructed in 1973. Additional insulation and new pre-finished metal cladding was applied to exterior walls in 1993 and an additional insulation and new roof shingles were installed in 1994. At the time the building envelope was upgraded, new windows and overhead doors were also installed.

During the past seven years there was number of alterations and upgrading carried out. Carpet was replaced in 1995 and new resilient flooring installed in 1997. Ceiling tiles at the second floor were replaced in 1994, at the time the asbestos was removed from the building. Entire second floor was repainted in 1993. Additional office and an interview room was provided in Field Inspector's work area in 1995 and original laboratory area was changed to telecommunication repair workshop. In 1999 the heating water system was upgraded from a monoflo system to a reverse return system, and the heating water boiler were replaced.

Structural concrete slab of the main floor was originally constructed on grade over gravel base. Over the years, due to thawing of permafrost and resulting settlement of base gravel, a crawl space was formed (approximate depth 1.5 m to the floor below top of main floor). Subsequently, spray-on insulation was provided to underside of the main floor, to minimize transfer of building heat to the ground below. A timber retaining wall was formed (early 90's) around the perimeter of the building to retain gravel base all around and ensure appropriate access at all overhead doors and man doors. No signs of distress were noticed in floor and other structural elements.

There is no heritage value associated with the property.

Number of fire protection deficiencies or unsafe practices were outlined by Kim Beattie, Fire Protection Consultant of Human Resources Development Canada, in his report dated December 29, 1998. (Refer to Appendix F)

DFO management verbally confirmed that all deficiencies listed in HRDC report have been rectified.

Second floor is accessible only by staircase, no elevator or other means of transportation is provided for wheel chair access. To meet minimum barrier free accessibility requirements, a minimum retrofit to main floor was carried out in 1994, providing one accessible office and an unisex washroom in Service Bay area. The second floor has no provision for mechanical ventilation, cooling or humidification.

It is recommended that accessibility audit and further investigation be carried out to determine whether accessibility exemption criteria can be applied in this facility. Refer to Volume 8 - Asset Management, Chapter 8.26: Accessibility: Exemption Criteria and Approval Process.

Both aboveground and underground storage tanks were historically located at the site. There is not enough information to determine if the tanks were removed and properly purged before disposal nor was confirmatory sampling identified of the surrounding soils for potential hydrocarbon contamination. A soil sampling program has been identified and recommended for the DFO Management building to delineate the extent of possible contamination. Asbestos board is also contained in the building in limited quantities. It is recommended that the asbestos be monitored to ensure that at any sign of deterioration, the asbestos board be removed and

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

---

replaced. All employees should be aware of the location of the asbestos containing materials. There were previous complaints in the facility regarding migration of fumes from the garage to the office level. This problem has been addressed during recent renovations to the building however, the indoor air quality at the building should be monitored by conducting periodic inspections of systems and annual follow ups to ensure IAQ problems are being addressed.



## **2 PROJECT FRAMEWORK/INTRODUCTION**

### **2.1 Introduction**

The purpose of this report is to provide basic information on the current physical condition of F&O Administration/CCG Telecom Building components, comment on conditions relative to prevailing codes and standards, and outline the investment plans up to year 2025.

The condition of the existing systems was assessed by the following means:

- Visual surface examination of representative portions of the various systems;
- Review of existing drawings
- Discussions with building management and maintenance staff.

No design calculations or tests were performed, unless specifically stated within this report. Any comments or conclusions are therefore based upon the condition of the existing physical installation.

We have not carried out any investigation to locate any hazardous substances, contaminants or pollutants.

Costs are based on 2000 values and should be considered Class 'D' estimate (20%) in constant 2000 dollars with a 20% design allowance added for professional fees and an additional 25% for contingencies. A more detailed study and analysis will be required at a later date to refine the recommendations and cost estimate.

Expenditures allocated to various years throughout the BCR are to be read as fiscal years; for example Year 2001 means fiscal year 2001/02.

### **2.2 Building History**

The building, presently known as F&O Administration/CCG Telecom Building, was constructed in 1973. Originally, structural concrete slab was constructed on grade over gravel base. Over the years, due to thawing of permafrost and resulting settlement of base gravel, a crawl space was formed (approximate depth 1.5 m to the floor below top of main floor). Subsequently, spray-on insulation was provided to underside of the main floor, to minimize transfer of building heat to the ground below. A timber retaining wall was formed (early 90's) around the perimeter of the building to retain gravel base all around and ensure appropriate access at all overhead doors and man doors.

Additional insulation and new pre-finished metal cladding was applied to exterior walls in 1993 and an additional insulation and new roof shingles were installed in 1994. At the time the building envelope was upgraded, new windows and overhead doors were also installed.

During the past seven years there was number of alterations and upgrading carried out. Carpet was replaced in 1995 and new resilient flooring installed in 1997. Ceiling tiles at the second floor were replaced in 1994, at the time the asbestos was removed from the building. Entire second floor was repainted in 1993. Additional office and an interview room was provided in Field Inspector's work area in 1995 and original laboratory area was changed to telecommunication repair workshop.

There is no heritage value associated with the property.

### 3 OPERATIONAL PERFORMANCE

#### 3.1 Compliance with Regulatory Codes, Health, Fire and Safety Codes

The occupancy of this building is primarily categorized as "Group F, Division 2" (medium to low hazard industrial occupancy).

Number of fire protection deficiencies or unsafe practices were outlined by Kim Beattie, Fire Protection Consultant of Human Resources Development Canada, in his report dated December 29, 1998. (Refer to Appendix F)

DFO management verbally confirmed that all deficiencies listed in HRDC report have been rectified.

#### 3.2 Compliance with Accessibility Standards

To meet minimum barrier free accessibility requirements, a minimum retrofit to main floor was carried out in 1994, providing one accessible office and an unisex washroom in Service Bay area.

Second floor is accessible only by staircase, no elevator or other means of transportation is provided for wheel chair access.

Majority of doors are equipped with door knobs or other hardware not complying to standards. There is insufficient space for wheelchair access at a number of doorways.

Washrooms at second floor are of insufficient size and do not contain fixtures and accessories to be in compliance with standards. (Ref. Photo No. 7)

Major renovation to this floor would be required to make it barrier free accessible.

\* It is recommended that accessibility audit and further investigation be carried out to determine whether accessibility exemption criteria can be applied in this facility. Refer to Volume 8 - Asset Management, Chapter 8.26: Accessibility: Exemption Criteria and Approval Process.

#### 3.3 Compliance with Performance Targets for Office Environment Conditions

PWGSC uses the following documents to prescribe the heating, ventilating and air conditioning requirements for Office Accommodation:

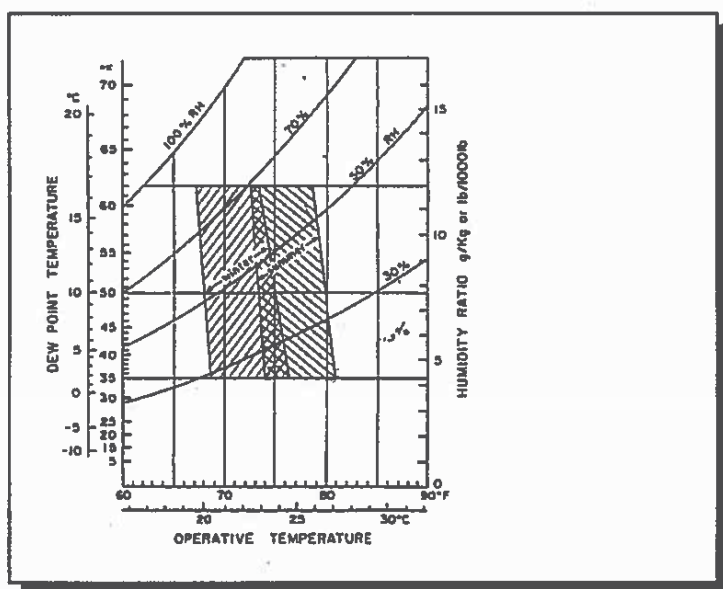
- PART 4 of the "Standards for Lease Accommodation" (SLA) as published by PWGSC.
- PWGSC Shared Accommodation Leadership, Design Guide
- Treasury Board Directive, 2-17 Use and Occupancy of Buildings.
- Canada Labour Code, Occupational Safety and Health
- The American Conference of Governmental Industrial Hygienist (ACGIH), threshold Values for Chemical Substances and Physical Agents.

These documents refer to and in general restate the thermal comfort guidelines

- ASHRAE standard 55 - "Thermal Environmental Conditions for Human Occupancy"
- ASHRAE standard 62 - "Ventilation for Acceptable Indoor Air Quality"

The following summarizes the basic HVAC requirements:

ASHRAE 55 requires that dry bulb temperatures and relative humidity be maintained within the parameters shown in the following figure:



- ASHRAE 55 requires that air motion within the space be maintained between 0 and 0.15 m/s (winter) and 0 and 0.25 m/s (summer).
- ASHRAE 62 indicates that ventilation air should be provided to the occupants at the volume of 10 l/s per person for office space. CO<sub>2</sub> concentrations within the occupied space of 1000 ppm or more at any time, would indicate that there is a ventilation problem.
- ASHRAE and PW&GSC standards indicate maximum noise levels that can be generated in each type of office space.

The office area of this building has no means of mechanical ventilation, cooling or humidification. A budget provision is made for the upgrade of the mechanical system to provided for these requirements in the year 2001.

An indoor air quality survey has never been done for this building. A budget provision is made for the production of an indoor air quality benchmark, after the HVAC system is upgraded, in the years 2002, 2012, 2022. (Ref 3.3, \$7,500, 2002, 2012)

---

#### 4 FUNCTIONAL PERFORMANCE

Function of the building has changed over the years. In the most recent renovation, 1997/98, most of the special purpose lab space on the second floor was removed to accommodate three CCG Telecommunication/Radio staff and equipment. Six Fisheries Management staff also have offices on this floor. With 582 m<sup>2</sup>, there is room for double the existing number of staff, and perhaps more, except for the amount of space needed for CCG Telecom equipment and the reception/display area for Fisheries Management. In the 1992 renovation, provision of a main floor office and washroom were intended to comply with requirements for accessibility to F&O programs and staff. Barrier free accessibility remains an issue, as discussed in Section 5.5.1 HVAC does not support the building's function as 'office space'. There is no mechanical ventilation, cooling or humidification. Section 5.7.3 recommends remediation.

---

## 5 TECHNICAL PERFORMANCE/ASSET CONDITION

### 5.1 Introduction

The building is a two storey steel structure, supported by concrete beams and concrete structural slab on timber piles and pile caps. Each floor has total floor area of 582 m<sup>2</sup>.

There is an asphalt paving at all sides of the building providing access to all overhead doors and personnel doors. Area at south and east sides of the building is designated for staff parking.

### 5.2 Building Envelope

#### 5.2.1 Exterior Walls

Based on record drawings from 1993 retrofit, the exterior wall construction consists of the following elements:

- prefinished metal cladding;
- 38 mm faced rigid insulation between horizontal metal 'z' bars;
- 63 mm unfaced rigid insulation between vertical metal 'z' bars;
- T & G plywood with stick on vapour barrier;
- metal inner liner;

The condition and performance of this exterior wall is satisfactory, no deficiencies were observed or problems reported.

#### 5.2.2 Doors and Windows

##### Windows

Windows are, owning sash, sliding single operating with double sealed insulating glass in prefinished aluminum frame.

All windows are in good condition and no deficiencies were observed or reported by DFO.

From the historical performance of other glazed sealed units, an allowance is provided annually for replacement of the glazed sealed units in this building. This estimate is for budgeting purposes only, as it is difficult to estimate when or if any failure will occur. (Ref. 5.2.2.1, \$1,450, 2001 to 2025).

---

### Exterior Doors

The exterior doors, including overhead doors are of insulated hollow metal. Doors are in good condition and should not require attention, other than regular maintenance, within the next 25 years (Ref. 5.2.2.2, \$145, 2001, 2005, 2010, 2020, 2025).

### **5.2.3 Roof**

Based on record drawings from 1993 retrofit, roof construction consists of the following elements:

- Asphalt shingles;
- T & G plywood sheathing;
- 100 mm thick rigid insulation (two layers of 50 mm rigid insulation boards);
- metal 'z' bars;
- Gypsum board sheathing with stick-on vapour barrier;
- Original metal roof;

Due to snow cover the inspection of the roof could not be carried out. No problems or deficiencies were reported by DFO. Life expectancy of the roof shingles is between 15 to 20 years, therefore replacement of shingles in this facility is projected in year 2014 (Ref. 5.2.3, \$59,073, 2014).

## **5.3 Interior Elements**

### **5.3.1 Floors**

All main floor areas have exposed concrete floor. Approximately 50% of concrete floor area has paint finish, the remaining areas have unfinished concrete. Second floor level has several finishes. Majority of the second floor is finished with resilient sheet flooring, installed in 1997. Floor in offices is finished with carpet, which was installed in 1995. Both staircases are finished with rubber flooring. Concrete floor in cutting room is painted and show deterioration. This floor should be repaired and re-finished.

All flooring, with the exception floor in cutting room, has been well maintained and is in a good condition. A budget provision is made for repair to Cutting Room floor (Ref. 5.3.1.1, \$725, 2001), replacement of carpet (Ref. 5.3.1.2, \$26,100, 2005, 2015, 2025), replacement of resilient flooring (Ref. 5.3.1.3, \$10,005, 2007, 2017), repainting of concrete floor finish (Ref. 5.3.1.4, \$2,465, 2005, 2015, 2025).

### **5.3.2 Ceilings**



---

With the exception of office and washroom, there is no suspended ceiling at main floor.

Ceilings of the second floor are finished with acoustic tiles, installed in 1994, at the time asbestos was removed from the building.

Condition of the ceiling tiles is satisfactory. A budget provision is made for cyclical replacement of ceiling tiles in 2010 and 2025 (Ref. 5.3.2, \$29,537, 2010, 2025).

### **5.3.3 Walls**

Majority of walls at main floor level are concrete block. Number of new drywall partitions were constructed in the last several years, subdividing original 6 vehicle storage bays into several smaller spaces. Walls at second floor are finished with painted drywall, with the exception of walls around stairwells, cutting room and dumb waiter, which are concrete block. Walls at second floor level were last painted in 1993.

The condition of walls is generally satisfactory. Cyclical painting of walls is foreseen on a 10 year cycle beginning 2003 (Ref. 5.3.3, \$25,317, 2003, 2013, 2023).

### **5.3.4 Interior Doors**

Majority of interior doors at main floor are hollow metal, painted. Doors at second floor are mostly constructed of solid core wood, painted.

All doors are in good condition and should not require attention other than regular maintenance within the next 25 years.

### **5.3.5 Vestibule**

Vestibule at front entry is very small and it's function is more as a air lock. More welcoming area has been created at second floor level in the area of public counter. (Ref. Photo No. 5).

### **Washrooms**

There is one unisex washroom at main floor level and one men and one female washroom at the second level. Washroom at main floor has been modified in 1995 providing barrier free accessibility. Entire second floor, including the washrooms, are not barrier free accessible. (Ref. Photo No. 7). Refer to paragraph 3.2 for barrier free accessibility compliance or exemption.

## **5.4 Exterior Elements**



---

#### **5.4.1 Site Signage**

No building sign has been observed. It is recommended to provide a new building sign meeting federal identity program guidelines (Ref. 5.4.1, \$725, 2001).

#### **5.4.2 Site Landscaping**

There is an asphalt paving at all sides of the building providing access to all overhead doors and personnel doors. Area at south and east sides of the building is designated for staff parking.

### **5.5 Building Code Compliance**

#### **5.5.1 Barrier-Free Design**

To meet minimum barrier free accessibility requirements, a minimum retrofit to main floor was carried out in 1994. One unisex washroom in Service Bay area, and one office with barrier free accessibility, has been provided.

There is however no provision for barrier free accessibility to the second floor. No elevator or other means of transportation is provided for wheel chair access.

Majority of doors at both floor levels are equipped with door knobs or other hardware not complying to standards. There is insufficient space for wheelchair access at a number of doorways, including front entry vestibule.

Washrooms at second floor are of insufficient size and do not contain fixtures and accessories to be in compliance with Barrier Free Guidelines.

Major renovation to this floor would be required to make it barrier free accessible.

It is recommended that an accessibility audit and further investigation be carried out to determine whether accessibility exemption criteria can be applied in this facility. Refer to Volume 8 - Asset Management, Chapter 8.26: Accessibility: Exemption Criteria and Approval Process.

#### **5.5.2 Fire Separations**

Number of fire protection deficiencies or unsafe practices were outlined by Kim Beattie, Fire Protection Consultant of Human Resources Development Canada, in his report dated December 29, 1998. (Refer to Appendix F)

DFO management verbally confirmed that all deficiencies listed in HRDC report have been rectified.

---

## 5.6 STRUCTURAL

1973 construction - two storey building. Concrete beams and concrete structural slab on timber piles and pile caps.

Originally, structural concrete slab was constructed on grade over gravel base. Over the years, due to thawing of permafrost and resulting settlement of base gravel, a crawl space was formed (approximate depth 1.5 m to the crawl space floor from underside of the main floor ). Subsequently, spray-on insulation was provided to underside of the main floor, to minimize transfer of building heat to the ground below. A timber retaining was formed (in early 90's) around the perimeter of the building to retain gravel base all around and ensure appropriate access at all overhead doors and man doors.

Structural steel beams and columns have been used in super structure. 2nd floor is made up of composite metal deck and concrete topping supported on open web steel. The roof is pitched steel frame construction with metal roof. In early 90's, roof was upgraded with additional insulation, plywood and shingles. Walls were also upgraded with additional insulation and new metal siding.

Main floor concrete slab is in satisfactory condition, with minor shrinkage cracks that will require minor repairs and painting.

Overall conditions of structural elements are satisfactory. No significant repairs other than maintenance repairs are anticipated in the future.

Approximate useful life of the building may be estimated at 20 years.

---

## **5.7 MECHANICAL**

### **5.7.1 Site Services**

Propane is piped underground to the building from the bulk storage facility. Water service to the building is 50 mm and runs underground from the hydrant east of the building. The water supply to the building is not metered.

### **5.7.2 Domestic Hot and Cold Water & Drainage**

Domestic hot water is supplied from the 151 litre propane fired domestic water heater located in the mechanical room. A budget provision is made for the replacement of the domestic water heater at the end of its expected service life. (Ref 5.7.2.1, \$2,500, 2012)

Domestic hot and cold water is distributed to the fixtures in the building via copper piping. The sanitary sewers from each plumbing fixture run to a buried sewage holding tank.

The washroom plumbing fixtures and fittings on the second floor are dated. An allowance for the maintenance and replacement of plumbing fixtures and valves is recommended. (Ref 5.7.2.2, \$4,500, 2012)

### **5.7.3 HVAC System**

The office area on the second floor is not mechanically ventilated, cooled or humidified. In order to meet Treasury Board Guidelines, a new HVAC is required for the second floor. (Ref 5.7.3.1, \$180,000, 2001)

The crawl space is mechanically ventilated by means of cabinet exhaust fans mounted at the rear of the building above ground.

Two cast iron Weil McLain boilers provides the source of heat for the glycol heating water system. The boilers were replaced in 1999. An allowance is made for the replacement of the boilers at the end of their 25 year expected service life. (Ref 5.7.3.2, \$23,000, 2024) At that time the heating water system was converted from a monoflo system to a reverse return heating water system. Thermo-mechanical valves were removed from the zones and replaced with electric zone control valves and thermostats at that time. Balancing valves were added to the system and the system was also completely balanced. The heating system fluid was found to be in a poor state and the entire system was therefore flushed and cleaned. The new heating system is complete with a pot feeder, centrifugal air eliminator, and diaphragm type expansion tank. Two primary heating water circulation pumps circulate a glycol mixture throughout the boilers while two secondary heating water pumps circulated water to the field. The pumps are paired for duty and standby service. The primary secondary pumping system allows the secondary heating water

---

system temperature to be controlled to a temperature suitable for the outdoor temperature, while the heating water through the boilers is maintained at a constant temperature recommended by the boiler manufacturers.

Combustion air is provided to the room via a duct directly to the outside, terminating in a weather hood on the exterior. The combustion air duct in the mechanical room is installed with a unit heater on a open top end of the duct. The unit heater is controlled by a local adjustable temperature controller which senses combustion air supply temperature. The unit heater is in need of replacement.

Maintenance is done on an as required basis through a service contract. A budget allocation is made to implement a maintenance management system which will track maintenance tasks and costs. (Ref 5.7.3.3, \$7,500, 2001)

#### **5.7.4 Controls**

Control of the heating water system is by a Honeywell Excel DDC system which was installed at the time of the boiler and heating water system upgrade of 1999.

Secondary heating water temperature is scheduled according to the outdoor air temperature and is regulated by DDC control of a three-way valve which interconnects the primary heating water loop with the secondary heating water loop. The DDC system also controls the alternating of the duty pumps and the activation of the system based on outdoor air temperature. On the main floor, the fan motors of the overhead unit heaters are controlled by electric line voltage thermostats. Perimeter radiation on the main floor and the second floor is controlled by electric 24v thermostats in conjunction with electric zone valves

It is recommended that the DDC controls system be enhanced to include for remote monitoring. An allowance for the control system enhancement is made for the years 2002 and periodic upgrade in the year 2017. (Ref 5.7.4, \$8,700, 2002, 2017)

#### **5.7.5 Fire Protection System**

This building is not sprinklered. Fire fighting is provided by ABC dry chemical portable fire extinguishers located throughout the building in conjunction with a standpipe system. The standpipe system is not required by code for a building of this type. The fire extinguishers were noted to have been inspected on a yearly basis.

---

## **5.8 ELECTRICAL**

### **5.8.1 Service**

The building is served by a 400 A, 3 Ø, 4 W overhead service by a local utility company.

Service meter, circuit box and service disconnect are located in the Electrical room.

Main service disconnect is 400 A, moulded case Square D circuit breaker Cat No A8745DL, Series T4.

Downstream of the service disconnect is a CDP type Square D Model MCN3254-4, 400 A, 3 Ø. There are 13 - 3 Ø circuit breakers, out of which 4 breakers are spare. There is a spare space for a 3 Ø circuit breaker. This panel provides sub-feed to sub-distribution panels throughout the building.

The system is reaching its useful life, and it must be replaced in the next 5 years. (Ref. 5.8.1, \$43,500, years 2006-2007).

### **5.8.2 Emergency Power**

There is no provision for emergency power in this building.

### **5.8.3 Distribution**

All wiring is surface mounted in EMT conduit.

Wiring for washbay is in vapour proof device.

The Mechanical room was renovated about 1997, and therefore all wiring and starters are in excellent condition.

Balance of the wiring in the building is very old, but is in reasonably good condition.

### **5.8.4 Lighting**

All lighting, except for two offices, are fluorescent lighting.

In Garage and Warehouse, the fixtures are industrial type backed enamel reflectors and open strip fixtures.

In offices, they are surface mounted wrap around light fixtures.

Office area: some of the fixture lenses are missing, and there is a mixture of cool/white and warm white lamps.

---

Fluorescent lamps are T-12, F-40 with magnetic ballast.

The lamps are replaced on an as required basis.

The lighting system is very old and it is reaching the end of its useful life. It is recommended that the lighting system be replaced in the next 5 to 7 years. (Ref. 5.8.4, cyclical D-1).

#### **5.8.5 Fire Alarm System**

A new fire alarm system was installed in the last 2 or 3 years. (1996 - 1997)

The system consists of:

- 16 zones, Edward Model 6616
- Presently there are only 6 zones used with space to add an additional 10 zones.

The fire alarm is remotely monitored by a monitoring agency, who in turn informs the fire hall. The town fire hall is manned by volunteer fire fighters.

The fire alarm system is regularly maintained by a contract electrician. As per the records, the last maintenance was done December 1999, with a scheduled maintenance due for December 2000.

The system is in very good condition.

#### **5.8.6 Outdoor Lighting and Plug-ins**

The outdoor lighting consists of wall pack HPS fixtures on all four sides of the building. These fixtures are photocell controlled. The lamps are replaced on an as required basis.

There are no plug-in pedestals in the parking lot. There are 6 duplex receptacles on exterior walls for vehicle plug-in.

#### **5.8.7 Exit Signage**

Few exit doors have exit signage. Remaining doors do not have them.

The signage consists of illuminated and non-illuminated types.

Illuminated type sign fixtures are not connected to the emergency battery pack.

#### **5.8.8 LAN and Telephone System**

---

LAN

The LAN fibre cable is received from the Administration building.

In the electrical room, it has a fibre cable management, one hub and one patch panel.

CAT-5 LAN wiring and outlets are located in offices on the second floor.

Telephone

Regular telephone lines bix block are located in the main floor Electrical Room.

From this, regular telephone wiring is provided to the offices on the second floor.

**5.8.9 Emergency Lighting**

Standalone wall mounted battery packs are located in the warehouse and washbay on the main floor and offices on the second floor.

The units are regularly maintained. Last maintenance was done in December 1999.

**5.8.10 Public Address System**

Public address speakers are located in warehouse, washbay, garage on main floor and in the offices/electronic lab on the second floor.

**5.8.11 Maintenance and Deficiencies**

The main service and service distribution are reaching their useful life and must be replaced complete with all wiring. (Ref. 5.8.1, \$43,500, years 2006/2007).

The lighting system is functional, though it is a mixture of different types and kinds of fixtures. The lenses are cracked, broken and missing with magnetic type ballast and T-12 lamps. There are areas which have keyless lamp holders with incandescent lamps. The system, complete with wiring, must be replaced within the next 5 to 7 years. (Ref. 5.8.4, \$58,000, years 2006 to 2008).



---

## **6 ENVIRONMENTAL PERFORMANCE**

Information collected for the following report was obtained through a site inspection that was conducted on January 24 and 25 of 2000 and from an Environmental Audit that was completed on the facility in 1996 that can be referenced in Appendix E. The environmental performance of the Fisheries and Oceans Management Office is detailed below.

### **6.1 Management Systems**

#### **6.1.1 DFO Policies**

The DFO Occupational Health and Safety Manual, dated 1990, details departmental policy on occupation health and safety. It outlines organizational and operational requirements to meet provisions of the Canadian Labour Code and central agency policies. Program objectives include provisions of information and training, safe working environment, reporting of accidents, first aid and emergency facilities, joint committees, statistics and investigations. Chapters of the Manual include: roles and responsibilities, joint occupational health and safety committees, training, standards, Workplace Hazardous Materials Information System (WHMIS) and Transportation of Dangerous Goods (TDG).

#### **Transportation of Dangerous Goods Policy**

A Departmental Directive on Transportation of Dangerous Goods (1-87) was issued in 1987. The directive covers all DFOs responsibilities under the Federal Transportation of Dangerous Goods Act and regulations. It includes direction on shipping documentation, safety markings, training responsibilities and reporting requirements. All shipping and receiving personnel have TDG training and all operational personnel are trained in both TDG and WHMIS.

#### **Firearms Policy**

An Interim Directive on the Storage of Firearms, Firearm Components and Firearm Ammunition (7-82) was issued in 1982. It sets out policy and procedures for the storage of firearms and ammunition. The directive pertains to firearms and ammunition issued by Departmental authorities for use by authorized personnel during the course of their duties. It requires that firearms and ammunition be retained in securely locked facilities.

A Central and Arctic Region Firearms Use Policy was implemented in 1990. Also, a Regional Firearms Policy Advisory Group provides advice and guidance to the Regional Management Committee regarding the safe use of firearms by non-Fishery Officer personnel.



---

### **Material Management Manual**

Chapter 1, Section 10 of the manual sets out policies and procedures for the disposal of surplus materials that are hazardous to life and health, and which require special care, protection and signage (with large warning placards). Hazardous items requiring special storage include: explosives and highly flammable liquids, corrosive liquids, alcohol, poison, narcotics, firearms and ammunition.

Chapter 8, Section 6 of the manual outlines procedures for the receipt and shipment of materials. Shipment of hazardous materials such as chemicals, corrosive liquids, poisons, and petroleum products are subject to the Transportation of Dangerous Goods regulations.

### **Emergency Procedures and Fire Orders**

There is no emergency response plan in place at the management office.

## **6.1.2 In-house Committees**

### **Occupational Health and Safety Committee**

There has been a recommendation to form a committee at the facility, however, there has not yet been one activated. The audit in 1993 indicated that a health and safety officer was designated for the site but no meetings were being held at the site.

### **Emergency Spill Response Team**

There are Rescue, Safety and Environmental Response (RSER) personnel located on the base that are specifically trained in responding to emergency spill incidents. Spill response equipment is stored on site in the RSER garage. Training for such response individuals includes response to the spill, clean up and containment requirements as well as response protocol. It is feasible that if a spill were to occur at the Fisheries and Oceans Management Office, the CCG spill team, that is on site, would respond.

## **6.1.3 Environment Management System**

In December of 1995, the Auditor General Act was amended by the Government of Canada to include Sustainable Development Strategies (SDS) from all federal Departments. By 1997, all federal departments were to have initial Sustainable Development Strategies filed with an update required every three years.

Sustainable development can be interpreted as development that meets the needs of the present without compromising future generations abilities to meet their needs. Within this strategy, the Greening of Government Operations Policy of 1995 commits the federal government to meet or exceed federal environmental statutes and

regulations; emulate best practices from the public and private sectors; and to develop and implement Environmental Management Systems (EMS) which includes action plans. A copy of the DFO SDS can be found in Appendix L.

The overall responsibility of the management of the facility is with the Chief of Administrative Services in Yellowknife.

## 6.2 Wastewater

Wastewaters from federal facilities are expected to meet secondary treatment levels listed in the *"Guidelines for Effluent Quality and Wastewater Treatment at Federal Facilities"* (Environment Canada, 1976). The required effluent quality criteria are listed in the table below.

PARAMETER	FEDERAL LIMIT REQUIRED*
5 Day Biological Oxygen Demand (BOD)	20mg/L
Suspended Solids	25mg/L
Fecal Coliforms	400/100mL
Phosphorous	1mg/L
Residual Chlorine	0.5mg/L
pH	6-9
Phenols	20mg/L
Oils and Grease	15mg/L

\*Taken from Environment Canada, 1976 *"Guidelines for Effluent Quality and Wastewater Treatment at Federal Facilities"*.

The Fisheries and Oceans Management Office generates wastewater that is collected in an underground wastewater holding tank and pumped out weekly by Hay River Disposal. The wastewater is then taken to the town sewage treatment facility. There are no current records of the quality or quantity of the wastewater being collected from the management office storage tank.

The Hay River sewage treatment facility is a three cell lagoon system providing secondary treatment, followed by approximately 86 acres of wetland treatment before entering the Great Slave lake. This facility has no capacity to treat oily waste.

## 6.3 Water Use

The Fisheries and Oceans Management Office is serviced by the Town of Hay River for water. According to the staff during the investigation, there are no water saving initiatives in place in at the site because only a minimal amount of water is used.

There are no recommendations for water consumption at the facility.

---

## 6.4 Hazardous Materials

The Canadian Environmental Protection Act requires that government address toxic substances used in the Canadian marketplace. This involves identifying toxic substances and assessing them to determine their hazards. Based on these findings, controls are applied throughout their life cycle to prevent them from harming human health and the environment.

Hazardous chemicals were once stored at the site when a laboratory was established at the site. The laboratory has since been dismantled and all associated chemicals have been removed and disposed of off site.

There are some hazardous materials that are used in consumer quantities found in the garage bays. A metal cabinet in one of the bays provided storage for the materials.

All chemicals that are in larger than consumer quantities should be labeled according to WHIMIS labeling requirements and unidentified materials should be disposed of as hazardous waste.

### 6.4.1 Emergency Response Contingency Plan

An emergency response plan for the site is in place. There is a team of experts in Rescue, Safety and Environmental Response that are trained and equipped in responding to emergency spill situations. Interviews with the staff in 1996 indicated that if a spill was to occur it would be reported first to the Superintendent of Facility Services, who would then take necessary actions to deal with the incident. The NWT under the Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, requires that the person in charge of the facility update the spill contingency plan yearly.

As the Fisheries and Oceans management building and the CCG buildings are considered a non-sector specific site, it is feasible that this emergency plan could extend to include the DFO management building.

## 6.5 Hazardous Wastes

Officially the Regional Occupational Health and Safety Advisor (ROHSA) is responsible for the handling, storage and disposal of hazardous wastes. Guidelines for the disposal of hazardous wastes and a chemical disposal report form have been developed by DFO. Generators of hazardous wastes are required to prepare an inventory of wastes and submit it to the ROHSA for review of disposal requirements. Containers of wastes for disposal must have a WHMIS label and a record of the disposal report attached to them. The ROHSA then makes the necessary arrangements for storage and/or disposal. Hazardous wastes at the building consist of old paint containers, consumer quantity chemical containers and other small amounts of wastes that are shipped south for appropriate disposal.

The Hay River landfill is an open trench system with a clay bottom. After the trench is full it is covered with a clay material several centimetres thick. An interview with the Director of Public Works and planning for the Town of Hay River in 1996 indicated that no hazardous materials are accepted in the landfill. A separate designated area is present which accepts paint and batteries, however, all other hazardous waste generated by a commercial or industrial facility must be shipped south to the appropriate disposal location. Some hazardous waste such as vinyl asbestos tiles or asbestos cement may be accepted, however, this must be approved by the town council and the Department of Renewable Resources. The Town of Hay River does have hazardous waste collection days for residential waste only.

Every effort should be made to ensure that, where possible, materials are recycled or reused. Where disposal becomes necessary, a proper storage site should be established prior to the shipping and acceptable disposal of wastes.

#### **6.6 Polychlorinated Biphenyls (PCBs)**

A PCB containing light ballast removal project was conducted at the site between 1990 and 1991. These removed ballasts were transported and stored at the Transport Canada registered PCB storage site in Hay River. The serial numbers have been verified against Environment Canada's list of serial numbers. According to Environment Canada staff in Yellowknife, all of the waste material at the Transport Canada site, including the PCBs, were transported to Swan Hills disposal facility in 1994 and destroyed.

There are no PCBs at the facility, therefore no recommendations are required.

#### **6.7 Fuel Storage Tanks**

All bulk fuel storage tanks are to be in compliance with all applicable regulations and best practices according to the CCG EMF. The upgrading and registering of all tanks, both AST and UST, were to be in place by October 1997 and in accordance with federal Codes of Practice. Federal storage tanks (both aboveground and underground) are regulated through the Canadian Environmental Protection Act (CEPA) and its regulations. CEPA regulations require departments to maintain a registry of their storage tanks and to report annually on the state of compliance of these storage tanks systems with the CEPA Federal Aboveground/Underground Storage Tank Technical Guidelines.

##### **6.7.1 Underground Fuel Storage Tanks**

An environmental audit conducted in 1993 indicated that four underground storage tanks were historically located at the Fisheries and Oceans Management Office. Two of the tanks were waste water and two contained petroleum hydrocarbons. One of the waste water tanks is still in use and is located to the rear of the building. A 13,600 litre underground tank was used to store the fuel oil for the complex's two oil burning boilers until approximately 1984, when the heating system was converted to propane. No records could be found to indicate whether proper procedures were

---

followed in removing the tank. It should therefore, be assumed that the site has not been properly evaluated for potential contamination.

The other underground tank was a 27,300 litre gasoline tank. During the 1995 audit of the building information regarding the removal of the tank and the associated dispenser was being held by the Department of Justice in connection to an ongoing legal action regarding the new aboveground gasoline storage and dispensing facility.

#### **6.7.2 Aboveground Fuel Storage Tanks**

A 45 000L aboveground propane tank services the F&O Administration/CCG and Telecom building and is located to the south of the CCG maintenance building. There is one AST unit that is unit located on the F&O property that supply the facility (both CCG and F&O) with gasoline and diesel products. The system is relatively new and is of double walled construction. All units have been registered under the Government of the Northwest Territories Fire Marshalls Office, however only underground storage tanks are registered through this office. An 1100 litre aboveground fuel oil tank was located on the back of one of the historic residents trailer. No signs of leakage were noted during the 1993 audit inspection, the trailer and AST are no longer on site.

A spill of unleaded gasoline from this facility occurred in May of 1991. It was estimated that approximately 1000 litres of fuel product was spilled in and around the spill containment pit which encompasses the piping and the dispensing unit. As a result of the spill, Environmental Services Product Sector was retained to conduct an assessment of the site. The July 3, 1991 report entitled "*Contamination Assessment DFO Compound Hay River, NWT*" recommended that more sampling of the site was required to complete an assessment.

There is no further information that indicates soil sampling was conducted and it is therefore recommended that sampling be completed (deficiency report 6.7.2 in Appendix D) to delineate the extent of contamination at the site.

A fuel tank leak detection and compliance program is currently being conducted on the ASTs to ensure their conformance to the federal Codes of Practice. A fuel storage tank compliance report will be released shortly, however, findings were not available at the time of the Building Condition Report.

#### **6.8 Asbestos**

Asbestos is a mineral fiber, often found in materials of buildings constructed prior to 1983. It is considered a toxic substance affecting environmental and human health as it can destroy lung tissue. An asbestos management plan is required for those buildings that



---

contain asbestos prior to undertaking any construction, renovation or maintenance work in accordance with federal regulations under the Canadian Labour Code and the Transportation of Dangerous Goods Act.

An asbestos removal program was initiated and removal of the majority of asbestos was conducted. There is still asbestos in the building in the renovated area of Telecommunications area and along some of the stairwells.

The asbestos board is currently contained and no friable asbestos is in the building. In discussion with a F&O representative, an inspection of the facility by Labour Canada did not indicate that the asbestos board was a health hazard.

It is recommended that the asbestos board be monitored to ensure that it remains in good condition. Any signs of deterioration indicates that the material should be removed and replaced. A procedure for ensuring that every person working in the complex (DFO employees, cleaners, contractors, etc.) is made aware of the location of the asbestos containing materials and takes appropriate action to protect themselves and the occupants of the facility when dealing with asbestos. Under the Canada Labour code employees have the right to know about potentially dangerous conditions.

No recommendations are required for asbestos management.

#### **6.9 Radioactive Materials**

No radioactive materials were found at the Fisheries and Oceans Management Office.

#### **6.10 Pesticides**

There are no pesticides used at the Fisheries and Oceans Management Office.

#### **6.11 Ozone-depleting Substances (ODS)**

The use of all halo carbons (CFCs, HCFCs, and HFCs) at federal facilities will be regulated by pending Federal Halocarbon Regulations pursuant to the Canadian Environmental Protection Act that are to be promulgated very shortly. All equipment over 5 tons of refrigeration will be subject to the upcoming Federal Halocarbon Regulations calling for improved containment, recover, annual leak testing, release reporting and record keeping. The Montreal Protocol on Substances that Deplete the Ozone Layer (1987) is an international agreement reached by the scientific community on ozone depleting substances. The objective of the Protocol is to control emission of substances such as CFCs (Chlorofluorocarbons) that significantly contribute to the depletion of the ozone layer. In response to the Protocol, Canada's Green Plan was established to set a national target for the phasing-out of certain CFCs by 1997, and of methyl chloroform and other major ozone-depleting substances by 2000. The Canadian Council of the Minister of the Environment released a document in October of 1992 entitled the National Action Plan for

---

Recovery, Recycling, and Reclamation of Chlorofluorocarbons (CFCs). These articles should be referenced when dealing with CFCs.

There is one piece of equipment at the management office that contains CFCs. A window mount air conditioning unit in the Telecommunications office is slated for removal and a new air system for the building is currently being investigated. Two refrigerate units were recently upgraded to non-depleting substances.

The CFC containing equipment should be assessed and a plan for eventual conversion to non-depleting substances be considered (deficiency report in Appendix ). As mentioned, upgrading of the air systems in the Fisheries and Oceans management office is being examined for potential replacement.

#### **6.12 Lead Containing Materials**

There was no information in the previous audit investigations that indicated the historical use of lead-based paints at the facility. The building is currently sheathed with pre-finished metal siding.

#### **6.13 Non Hazardous Waste Disposal**

The Fisheries and Oceans management office recycles paper that is collected twice a week by a local company. The town of Hay River recycles only paper and liquor bottles.

No recommendations are required for the recycling program at the office.

#### **6.14 Mercury**

No mercury containing equipment was located at the facility during the inspection.

#### **6.15 Indoor Working Environment**

Indoor Air Quality (IAQ) is defined as the physical, chemical and biological characteristics of indoor air in non-residential workplaces with no internal industrial processes or operations, that can affect the comfort or health of the occupant. Human Resources Canada is the regulatory agency of the federal government with respect to occupational health and safety for federal employees. Regulations under Part X of the Canada Occupational Safety and Health Regulations require that government departments ensure a safe, healthy and comfortable workplace for the occupants of buildings under federal jurisdiction.

There have been no recorded indoor air quality studies completed at the Fisheries and Oceans management Office. Complaints have been issued from the employees at the management office regarding some IAQ issues.

---

It was determined through the interviews in the 1993 audit of the building that gasoline fumes were often noticeable on the second floor of the building. A noticeable odour was evident during the audit investigations and it was suspected that the storage of fuels inside the garage area, combined with an inadequate seal between the first and second floors, around the perimeter of the building, contributes to the problem. The follow up audit conducted in 1995 confirmed that the fumes were still permeating into the office area. The management office has recently undergone renovations to the facility. The perimeter of the building was sealed to eliminate the migration of fumes from the garage bays. There has also been a reduction in the use of the garage as all mechanical concerns are now addressed in the CCG mechanical shop.

Prevention of IAQ problems are in the best interest of the employer and consist of conducting periodic inspections of systems and addressing and correcting deficiencies during these inspections.

An annual follow up is advised to ensure that IAQ problems are being addressed.

#### **6.16 Site Contamination**

The Auditor General's 1995-96 audit of management of contaminated sites found that departments were lacking in their approach to this problem. The Treasury Board Secretariat (TBS) has responded by requiring an assessment of, and reporting of, expected liabilities. A national contaminated sites management strategy is being developed in accordance with the interdepartmental Contaminated Sites Management Working Group approach on the management of Contaminated Sites, guidance from a proposed "Federal Framework" and the recent Treasury Board Policy "Accounting for Costs and Liabilities Related to Contaminated Sites".

There is a concern that potential contamination exists at the site due to reported fuel spills and the historical operations at the site. The removal of the two underground storage tanks is also a concern as there is no documentation indicating that confirmatory sampling was completed on the soils upon tank removal.

It is recommended that the extent of the contamination be delineated to ensure that there is no potential contamination that is migrated due to the proximity of the Hay River (deficiency report 6.7.2 in Appendix D). There was no indication in the 1995 audit that the site was creating any environmental harm, however, the potential should be evaluated. Before this is undertaken, the location of underground utilities should be defined and marked to ensure that drilling does not break any of the lines.

#### **6.17 Energy Management**

A documented energy management plan is not currently in place at the facility and there is no record of an energy audit having ever been conducted on the base. Some of the recent renovations to the building have potentially assisted in addressing energy consumption.



---

These include the upgrading of the heating system by replacing the fuel oil tank and boilers with a propane system in the mid 1980's, the re-insulation of the building and replacement of the windows in 1990 and the replacement of all light ballasts and bulbs with a more energy efficient type.

It should be noted that the conditions in the NWT which affect energy management include high fuel costs, high maintenance costs, extremely cold temperatures, and long winters. These conditions, combined with the type of facilities at the base, result in significant energy use.

Review of fuel consumption should continue to be monitored and energy saving opportunities should continue to be pursued.

---

## 7 BUILDING COMPONENT SUMMARY

The Recommended Expenditures Summary chart (Appendix A, Short Asset Management Plan) shows the investments that would be required to prolong the life of the building(s) for another 25 years and the sequence of implementation of the program for each of its main components.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 3.3	<b>SYSTEM:</b> Mechanical
---------------------	---------------------------

<b>COMPONENT:</b>	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b>		
<b>OBSERVATION:</b> An IAQ survey has never been done.		
<b>RECOMMENDATION:</b> Provide for an IAQ survey to be performed on the building from time to time, starting after the new ventilating system is installed on the second floor.		
<b>IMPACT:</b> Unknown condition of the IAQ.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCY:</b>	1,500
<b>TOTAL:</b>	7,500

<b>PRIORITY:</b> Mandatory, C2	<b>YEAR:</b> 2002, 2012, 2022
--------------------------------	-------------------------------

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.2.2.1

**SYSTEM:** Building Envelope

**COMPONENT:** Windows

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Windows are in good condition, no deficiencies were observed.

**RECOMMENDATION:**

For budgeting purposes, an allowance is provided annually for replacement of the glazed sealed units.

**IMPACT:**

**COSTS**

**CONSTRUCTION:** 1,000 (annual)

**FEES:** 200

**CONTINGENCY:** 250

**TOTAL:** 1,450

**PRIORITY:** OPTIONAL, D1

**YEAR:** 2001 to 2025

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.2.2.2 **SYSTEM:** Building Envelope

<b>COMPONENT:</b> Exterior Doors	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b>  Doors are in good condition, no deficiencies were observed.		
<b>RECOMMENDATION:</b>  Repaint doors in five year intervals.		
<b>IMPACT:</b>  Deterioration of condition		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	100
<b>FEES:</b>	20
<b>CONTINGENCY:</b>	25
<b>TOTAL:</b>	145

**PRIORITY:** CYCLICAL, D1 **YEAR:** 2001, 2005, 2010, 2015, 2020, 2025

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.2.3 **SYSTEM:** Building Envelope

<b>COMPONENT:</b> Roof	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Not checked		
<b>OBSERVATION:</b>  Condition of roof could not be determined due to snow cover. It is estimated asphalt shingles should have life expectancy till 2014.		
<b>RECOMMENDATION:</b>  Projected replacement in 2014.		
<b>IMPACT:</b>  Deterioration of the condition, damage to interiors and hence, the value of the property.		

<i><b>COSTS</b></i>	
<b>CONSTRUCTION:</b>	40,740
<b>FEES:</b>	8,148
<b>CONTINGENCY:</b>	10,185
<b>TOTAL:</b>	59,073

**PRIORITY:** CYCLICAL, D1 **YEAR:** 2014

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.1.1

**SYSTEM:** Interior Elements

**COMPONENT:** Concrete  
floor in Cutting Room

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Concrete floor finish in Cutting Room shows deterioration.

**RECOMMENDATION:**

Repair and repaint floor finish in Cutting Room in 2001.

**IMPACT:**

Deterioration of the condition and hence, the value of the property.

**COSTS**

**CONSTRUCTION:** 500

**FEES:** 100

**CONTINGENCY:** 125

**TOTAL:** 725

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2001

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.1.2

**SYSTEM:** Interior Elements

**COMPONENT:** Carpet  
flooring

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Carpet was installed in 1995 and is in good condition. No deficiencies were observed.

**RECOMMENDATION:**

Projected replacement of carpet in 2005, 2015, 2025. .

**IMPACT:**

Deterioration of the condition and hence, the value of the property.

**COSTS**

**CONSTRUCTION:**

18,000

**FEES:**

3,600

**CONTINGENCY:**

4,500

**TOTAL:**

26,100

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025



**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.1.3

**SYSTEM:** Interior Elements

**COMPONENT:** Resilient  
flooring

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Resilient flooring is in good condition, no deficiencies were observed

**RECOMMENDATION:**

Projected replacement of resilient flooring in 2007, 2017.

**IMPACT:**

Deterioration of the condition and hence, the value of the property.

**COSTS**

**CONSTRUCTION:** 6,900

**FEES:** 1,380

**CONTINGENCY:** 1,725

**TOTAL:** 10,005

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2007, 2017

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.1.4

**SYSTEM:** Interior Elements

**COMPONENT:** Concrete  
floors

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Concrete floor is in good condition, no deficiencies were observed

**RECOMMENDATION:**

Projected repainting of concrete floor finish in 2005, 2015, 2025.

**IMPACT:**

Deterioration of the condition and hence, the value of the property.

**COSTS**

**CONSTRUCTION:** 1,700

**FEES:** 340

**CONTINGENCY:** 425

**TOTAL:** 2,465

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.3.2	<b>SYSTEM:</b> Interior Elements
-----------------------	----------------------------------

<b>COMPONENT:</b> Ceilings	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b>  Tiles replaced in 1994 are in good condition, and no deficiencies were observed.		
<b>RECOMMENDATION:</b>  Projected replacement of all tiles in 2010 and 2025.		
<b>IMPACT:</b>  Deterioration of the condition and hence, the value of the property.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	20,370
<b>FEES:</b>	4,074
<b>CONTINGENCY:</b>	5,093
<b>TOTAL:</b>	29,537

<b>PRIORITY:</b> CYCLICAL, D1	<b>YEAR:</b> 2010, 2025
-------------------------------	-------------------------

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.3

**SYSTEM:** Interior Elements

<b>COMPONENT:</b> Walls	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b>  Walls at second floor were painted initially in 1993 and in progressive years at times renovation work was underway.		
<b>RECOMMENDATION:</b>  Projected repainting of walls in 2003, 2013 and 2023.		
<b>IMPACT:</b>		

COSTS	
CONSTRUCTION:	17,460
FEES:	3,492
CONTINGENCY:	4,365
TOTAL:	25,317

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2003,2013, 2023

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: DFO MANAGEMENT BUILDING**

**REF NO.:** 5.3.4

**SYSTEM:** Interior Elements

**COMPONENT:** Interior  
Doors

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Doors are in good condition, no deficiencies were observed.

**RECOMMENDATION:**

Repainting of doors to coincide with repainting of walls.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:** 1,500

**FEES:** 300

**CONTINGENCY:** 375

**TOTAL:** 2,175

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.4.1

**SYSTEM:** Exterior Elements

**COMPONENT:** Site  
Signage

**PHOTO:**

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

No building sign has been observed.

**RECOMMENDATION:**

Provide new building sign.

**IMPACT:**

Lack of building identity

**COSTS**

**CONSTRUCTION:**

500

**FEES:**

100

**CONTINGENCY:**

125

**TOTAL:**

725

**PRIORITY:** OPTIONAL, D2

**YEAR:** 2001

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.7.2.1	<b>SYSTEM:</b> Mechanical
-------------------------	---------------------------

<b>COMPONENT:</b> Domestic Water	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> The domestic water heater is approximately 13 years old.		
<b>RECOMMENDATION:</b> Replace the domestic water heater at the end of its 25 year expected service life.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	1,500
<b>FEES:</b>	500
<b>CONTINGENCY:</b>	500
<b>TOTAL:</b>	2,500

<b>PRIORITY:</b> Cyclical, C2	<b>YEAR:</b> 2012
-------------------------------	-------------------

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.7.2.2

**SYSTEM:** Mechanical

**COMPONENT:** Plumbing

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

The plumbing fixtures are dated.

**RECOMMENDATION:**

Provide an allowance for plumbing fixture and valves replacement.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:**

3,000

**FEES:**

600

**CONTINGENCY:**

900

**TOTAL:**

4,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2012



**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.7.3.1

**SYSTEM:** Mechanical

**COMPONENT:** Ventilation

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

The second floor administration offices have no means of mechanical ventilation, cooling or humidification.

**RECOMMENDATION:**

Install a new ventilation system for the Office Area to meet the requirements of Treasury Board Guidelines.

**IMPACT:**

Does not comply with Treasury Board Guidelines. Health and safety.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	150,000
<b>FEES:</b>	15,000
<b>CONTINGENCY:</b>	15,000
<b>TOTAL:</b>	180,000

**PRIORITY:** Mandatory, C1

**YEAR:** 2001

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.7.3.2	<b>SYSTEM:</b> Mechanical
-------------------------	---------------------------

<b>COMPONENT:</b> HVAC	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> The boiler is approximately 1 year old.		
<b>RECOMMENDATION:</b> Replace the boiler at the end of its 25 year expected service life.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

COSTS	
CONSTRUCTION:	15,000
FEES:	3,000
CONTINGENCY:	5,000
TOTAL:	23,000

<b>PRIORITY:</b> Cyclical, C2	<b>YEAR:</b> 2024
-------------------------------	-------------------

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.7.3.3	<b>SYSTEM:</b> Mechanical
-------------------------	---------------------------

<b>COMPONENT:</b> Maintenance	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b>		
<b>OBSERVATION:</b> Maintenance is done on an as required basis.		
<b>RECOMMENDATION:</b> Implement a preventative maintenance management system which will systematically track maintenance requirements and costs.		
<b>IMPACT:</b> Equipment malfunction. Insufficient documentation.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCY:</b>	1,500
<b>TOTAL:</b>	7,500

<b>PRIORITY:</b> Cyclical, C2	<b>YEAR:</b> 2001
-------------------------------	-------------------

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.7.4	<b>SYSTEM:</b> Mechanical
-----------------------	---------------------------

<b>COMPONENT:</b> Controls	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> Controls are DDC. There is no means of remote monitoring the various components within the building.		
<b>RECOMMENDATION:</b> Update the controls system to provide remote monitoring and provide for modernization of the controls system from time to time.		
<b>IMPACT:</b> Deterioration of the property and hence the value of the property.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	6,000
<b>FEES:</b>	1,200
<b>CONTINGENCY:</b>	1,500
<b>TOTAL:</b>	8,700

<b>PRIORITY:</b> Cyclical, C2	<b>YEAR:</b> 2002, 2017
-------------------------------	-------------------------

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.8.1

**SYSTEM:** Electrical

**COMPONENT:** Main  
Service

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair to Poor

**OBSERVATION:**

Main electrical service and CDP are old and they are reaching their useful life.

**RECOMMENDATION:**

Replace main service and CDP.

**IMPACT:**

**COSTS**

<b>CONSTRUCTION:</b>	\$30,000
<b>FEES:</b>	\$6,000
<b>CONTINGENCE:</b>	\$7,500
<b>TOTAL:</b>	\$43,500

**PRIORITY:** Mandatory D-1

**YEAR:** 2006-2007

Building Condition Report (BCR)  
Canadian Coast Guard

F&O Administration/CCG  
Telecom Building  
Hay River, N.W.T.

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.8.4

**SYSTEM:** Electrical

**COMPONENT:** Lighting

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair to Poor

**OBSERVATION:**

Lighting system is very old and needs replacement.

**RECOMMENDATION:**

Replace the lighting fixtures complete with all wiring in the next 5 to 7 years.

**IMPACT:**

**COSTS**

**CONSTRUCTION:**

\$40,000

**FEES:**

\$8,000

**CONTINGENCE:**

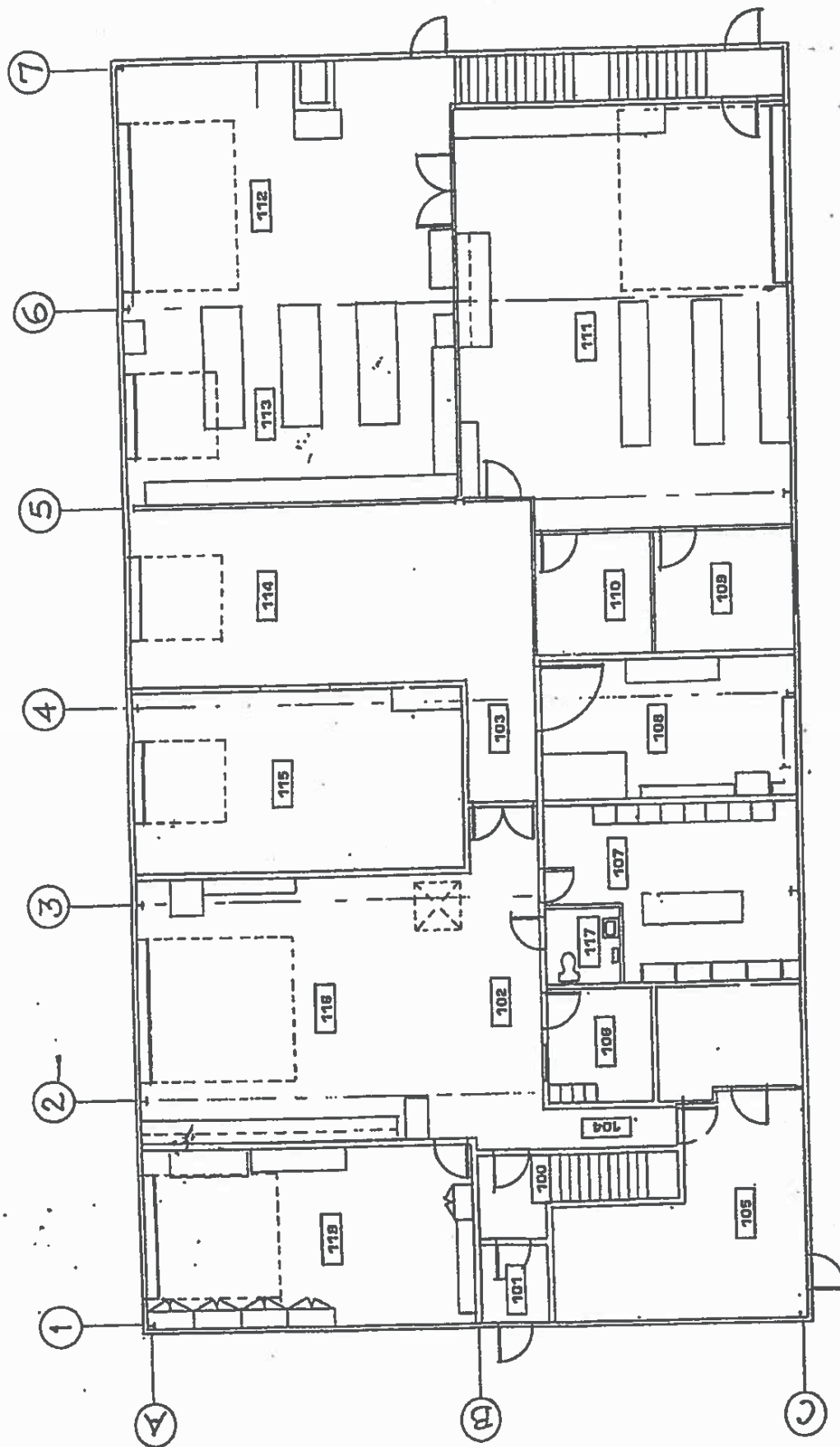
\$10,000

**TOTAL:**

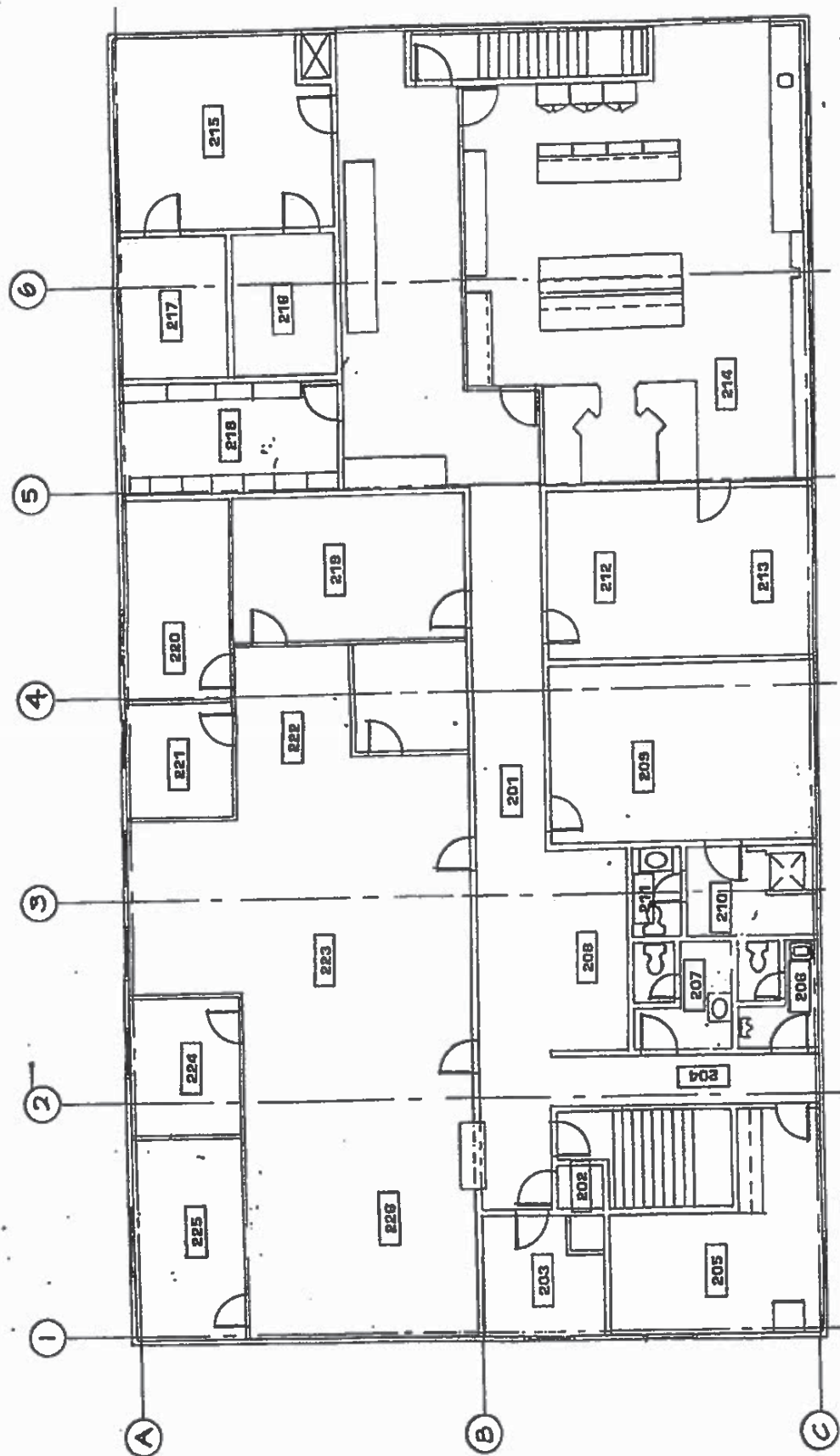
\$58,000

**PRIORITY:** Optional - D-1

**YEAR:** 2006-2008



MAIN FLOOR PLAN



SECOND FLOOR PLAN



**FAOCCG NON-SECTOR SPECIFIC BASE HAY RIVER, NW  
5 & 25 YEAR WORKPLAN**

Base building name	Gross square metres	Heated square metres	Cold Storage square metres	Proportional Share Gross metres	Proportional Share Heated metres	Proportional Share Cold storage
F&O - CCG Takecom Building	1864	1164		31.31%	38.95%	0.00%
Administration Building	462	462		12.43%	14.11%	0.00%
RSE/F&O Storage	634	381	243	16.78%	11.94%	6.47%
Maintenance Shop/RSSR Storage	804	804		21.62%	24.55%	0.00%
Flammable Storage	145	145		2.90%	4.43%	0.00%
Carpeting Shop	318	318		6.55%	9.71%	0.00%
Heliporter Operations/General Storage	174		174	4.55%	0.00%	38.19%
Groundwater Shield	10		10	0.48%	0.00%	4.85%
Boat Storage Shed	18		18	0.24%	0.00%	2.03%
Total Gross	3718	3274	444	100.00%	100.00%	100.00%
Discount Rate March 2000				6.365%		
OAM Escalator-CPI				2.2%		
Tax Escalator				2.1%		
Construction/Cyclical Repair Escalator				2.8%		
Design Allowance -20% of net construction				20%		
Contingency allowance of 25%				25%		
(INCLUDES P/LT for all of Lot 648 and F&OCCG Takecom building)						
Building Summary	1999A00 forecast average (note 1)	1999 BOMA (note 2)	2000B1 forecast	2001I02 forecast	2002C03 forecast	2003D04 forecast
Cleaning category 1	\$9,650.00	\$11,972.16	\$10,096.70	\$10,298.17	\$10,514.51	\$10,745.83
Maintenance/Repair category 2	\$17,640.00	\$17,765.92	\$9,650.00	\$9,024.34	\$9,222.86	\$9,425.78
sub-total categories 1, 2	\$18,460.00	\$29,738.08	\$18,896.78	\$19,312.51	\$19,737.38	\$20,171.61
Utilities - Electrical - category 3A	\$12,076.00	\$12,076.00	\$11,206.23	\$11,452.77	\$11,704.73	\$11,962.23
Utilities - Propene - category 3B	\$0.00	\$0.00	\$12,341.67	\$12,813.19	\$12,890.88	\$13,174.27
Utilities - Fuel Oil - category 3C	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities - Hot Water/Steam - category 3D	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities - Chilled Water - category 3E	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities - Wwdr & Sewage - category 3F	\$1,567.00	\$1,567.00	\$1,801.47	\$1,858.71	\$1,872.71	\$1,709.51
sub-total category 3	\$24,606.00	\$25,060.92	\$25,149.38	\$25,726.66	\$26,584.12	\$27,456.63
Roads/Grounds/Security - category 4	\$1,800.00	\$3,761.80	\$1,839.60	\$1,880.07	\$1,921.43	\$1,963.70
Administrative/Property Mgmt. - cat. 5	\$12,391.43	\$9,277.08	\$46,635.60	\$46,710.13	\$46,781.76	\$50,875.95
sub-total categories 4, 5	\$13,892.43	\$12,391.43	\$48,475.20	\$48,591.65	\$50,703.19	\$51,745.46
sub-total categories 1, 2, 3, 4, 5	\$81,004.27	\$89,657.88	\$99,521.35	\$99,458.82	\$98,637.07	\$99,763.09
Taxes - P/L T - category 6	\$13,025.00	\$40,600.32	\$13,208.74	\$13,588.22	\$13,737.57	\$14,164.92
sub-total expenditures	\$94,029.27	\$130,458.20	\$105,820.09	\$109,145.04	\$110,374.64	\$112,928.00
Repaired/maintained/capital						
Mandatory Cyclical	\$18,470.00		\$155,000.00	\$100.00	\$17,460.00	\$1,000.00
Optional	\$16,470.00		\$500.00	\$1,000.00	\$17,460.00	\$1,000.00
Net Construction/ sub-total Repaired/capital	\$0.00		\$156,000.00	\$101.00	\$17,460.00	\$1,000.00
Design Allowance 20% of net construction			\$31,400.00	\$2,420.00	\$3,582.00	\$200.00
Confingency allowance 25% of net construction			\$39,250.00	\$4,515.00	\$250.00	\$4,460.00
TOTAL REPAIR/M&M/CAPITAL			\$277,650.00	\$17,545.00	\$25,767.00	\$2,362.00
TOTAL	\$12,539.27	\$110,468.20	\$333,480.09	\$123,980.04	\$137,277.64	\$114,277.00
						\$147,731.25
						\$189,890.93
						\$155,000.00
						\$27,660.00
						\$18,000.00
						\$22,300.00
						\$210,960.00
						\$4,460.00
						\$5,515.00
						\$32,346.00
						\$189,890.93
						\$20,000.00
						\$71,100.00
						\$7,900.00
						\$14,220.00
						\$1,580.00
						\$200.00
						\$250.00
						\$1,460.00
						\$30,986.50
						\$189,570.78
						\$132,992.05

Date of Analysis: March 31, 2000  
**F&O - CCG TELECOM BUILDING**

Base building names

- F&O - CCG Telecom Building
- Administration Building
- RESERVED Storage
- Maintenance Shop/RESER Storage
- Flammable Storage
- Carpentry Shop
- Helicopter Operations/General Storage
- Groundkeeper Shed
- Boat Storage Shed
- Total Gross

Discount Rate March 2000

CGM Escalator-CPI

Flat Escalator

Construction/Cyclical Repair Escalator

Design Allowance -20% of net construction

Contingency Allowance of 25%

Building Summary	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total 25 yr.
Cleaning category 1	\$12,789.31	\$13,070.67	\$13,358.23	\$13,652.11	\$13,952.45	\$14,259.41	\$14,573.11	\$14,893.72	\$15,221.38	\$15,556.25	\$15,898.49	\$16,248.26	\$16,605.72	\$16,971.05	\$330,804.88
Maintenance/Repair category 2	\$11,218.23	\$11,485.04	\$11,717.27	\$11,978.05	\$12,258.50	\$12,557.74	\$12,782.91	\$13,004.14	\$13,251.55	\$13,543.28	\$13,845.48	\$14,252.28	\$14,565.83	\$14,886.28	\$290,168.02
sub-total categories 1, 2	\$24,007.54	\$24,555.71	\$25,075.49	\$25,630.15	\$26,190.95	\$26,767.15	\$27,356.02	\$27,957.86	\$28,572.93	\$29,201.54	\$29,843.97	\$30,500.54	\$31,171.55	\$31,857.33	\$580,972.01
Utilities - Electricity - category 3A	\$14,237.03	\$14,550.24	\$14,870.35	\$15,197.50	\$15,531.84	\$15,873.54	\$16,222.76	\$16,579.86	\$16,944.41	\$17,317.19	\$17,698.17	\$18,087.53	\$18,485.45	\$18,892.13	\$368,251.43
Utilities - Pumps - category 3B	\$15,678.56	\$16,024.51	\$16,377.05	\$16,737.34	\$17,105.57	\$17,481.88	\$17,866.48	\$18,259.55	\$18,661.26	\$19,071.81	\$19,481.39	\$19,892.20	\$20,305.45	\$20,805.35	\$405,583.55
Utilities - Fuel Oil - category 3C	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities - Hot Water/Steam - category 3D	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities - Chilled Water - category 3E	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities - Water & Sewer - category 3F	\$2,034.60	\$2,079.36	\$2,125.11	\$2,171.88	\$2,219.64	\$2,268.48	\$2,318.36	\$2,369.38	\$2,421.51	\$2,474.79	\$2,529.23	\$2,584.88	\$2,641.74	\$2,699.86	\$52,606.54
sub-total category 3	\$31,951.19	\$32,654.12	\$33,372.51	\$34,106.70	\$34,857.05	\$35,623.81	\$36,407.63	\$37,208.60	\$38,027.18	\$38,863.79	\$39,718.79	\$40,592.60	\$41,485.64	\$42,398.23	\$828,441.52
Food/Grounds/Security - category 4	\$2,337.13	\$2,388.55	\$2,441.10	\$2,494.80	\$2,549.68	\$2,605.78	\$2,663.11	\$2,721.70	\$2,781.57	\$2,842.77	\$2,905.31	\$2,969.22	\$3,034.55	\$3,101.31	\$60,451.67
Administration/Property Mgmt. - cat. 5	\$59,248.50	\$60,551.87	\$61,894.11	\$63,246.56	\$64,638.87	\$66,052.48	\$67,512.28	\$68,997.55	\$70,515.49	\$72,068.83	\$73,652.30	\$75,272.66	\$76,928.65	\$78,621.08	\$1,532,506.82
sub-total categories 4, 5	\$61,585.64	\$62,940.42	\$64,335.21	\$65,740.37	\$67,188.55	\$68,664.74	\$70,175.38	\$71,719.24	\$73,297.07	\$74,909.60	\$76,557.61	\$78,241.88	\$79,963.20	\$81,722.39	\$1,592,958.60
sub-total categories 1, 2, 3, 4, 5	\$117,544.27	\$120,130.24	\$122,779.21	\$125,474.22	\$128,234.85	\$131,055.82	\$133,939.05	\$136,865.70	\$139,837.18	\$142,874.53	\$146,120.38	\$149,335.02	\$152,803.29	\$155,978.04	\$3,040,373.13
Taxes - P.L.T. - category 6	\$16,727.07	\$17,078.34	\$17,436.89	\$17,803.16	\$18,177.03	\$18,558.75	\$18,948.48	\$19,346.40	\$19,752.67	\$20,167.48	\$20,591.00	\$21,023.41	\$21,464.90	\$21,916.66	\$431,769.31
sub-total expenditures	\$134,271.44	\$137,208.58	\$140,215.20	\$143,277.38	\$146,411.88	\$149,614.56	\$152,887.53	\$156,232.10	\$159,649.86	\$163,142.41	\$166,711.37	\$170,358.43	\$174,085.29	\$177,893.71	\$3,472,142.44
Repairs/Upgrades/Capital															
Mandatory	\$4,500.00	\$17,460.00	\$40,740.00	\$21,200.00	\$100.00	\$5,900.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$5,000.00	\$18,980.00	\$15,000.00	\$40,070.00	\$170,000.00
Cyclical	\$8,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$13,900.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$6,000.00	\$19,980.00	\$18,000.00	\$41,070.00	\$215,260.00
Optional	\$10,480.00	\$18,460.00	\$41,740.00	\$22,200.00	\$1,080.00	\$2,780.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$6,000.00	\$19,980.00	\$18,000.00	\$41,070.00	\$209,280.00
Net Construction/ sub-total Repairs/Capital	\$2,000.00	\$3,660.00	\$8,740.00	\$4,440.00	\$220.00	\$2,780.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$1,200.00	\$3,980.00	\$3,980.00	\$8,214.00	\$101,872.00
Design Allowance 20% of net construction	\$2,600.00	\$4,635.00	\$10,455.00	\$5,550.00	\$276.00	\$3,475.00	\$2,600.00	\$2,600.00	\$2,600.00	\$2,600.00	\$1,560.00	\$5,172.00	\$4,776.00	\$10,685.20	\$127,240.00
Contingency Allowance 25% of net construction	\$15,225.00	\$26,375.00	\$20,825.00	\$23,180.00	\$1,595.00	\$20,155.00	\$1,450.00	\$1,450.00	\$1,450.00	\$1,450.00	\$6,700.00	\$28,942.00	\$23,200.00	\$59,551.50	\$738,572.00
TOTAL REPAIRS/UPGRADE/CAPITAL	\$148,486.44	\$163,978.58	\$200,733.20	\$173,467.38	\$148,006.58	\$189,769.58	\$154,337.53	\$187,682.10	\$151,039.86	\$184,737.41	\$175,411.37	\$199,300.43	\$187,285.28	\$237,445.21	\$4,270,712.44

## APPENDIX D

### DEFICIENCY REPORTS

Alex

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 3.3	<b>SYSTEM:</b> Mechanical
---------------------	---------------------------

<b>COMPONENT:</b>	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b>		
<b>OBSERVATION:</b> An IAQ survey has never been done.		
<b>RECOMMENDATION:</b> Provide for an IAQ survey to be performed on the building from time to time, starting after the new ventilating system is installed on the second floor.		
<b>IMPACT:</b> Unknown condition of the IAQ.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCY:</b>	1,500
<b>TOTAL:</b>	7,500

<b>PRIORITY:</b> Mandatory, C2	<b>YEAR:</b> 2002, 2012, 2022
--------------------------------	-------------------------------

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.2.2.1

**SYSTEM:** Building Envelope

**COMPONENT:** Windows

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Windows are in good condition, no deficiencies were observed.

**RECOMMENDATION:**

For budgeting purposes, an allowance is provided annually for replacement of the glazed sealed units.

**IMPACT:**

**COSTS**

**CONSTRUCTION:**

1,000 (annual)

**FEES:**

200

**CONTINGENCY:**

250

**TOTAL:**

1,450

**PRIORITY:** OPTIONAL, D1

**YEAR:** 2001 to 2025

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.2.2.2

**SYSTEM:** Building Envelope

<b>COMPONENT:</b> Exterior Doors	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b>  Doors are in good condition, no deficiencies were observed.		
<b>RECOMMENDATION:</b>  Repaint doors in five year intervals.		
<b>IMPACT:</b>  Deterioration of condition		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	100
<b>FEES:</b>	20
<b>CONTINGENCY:</b>	25
<b>TOTAL:</b>	145

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2001, 2005, 2010, 2015, 2020, 2025

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.2.3

**SYSTEM:** Building Envelope

**COMPONENT:** Roof

**PHOTO:**

**DATE:** January 2000

**RATING:** Not checked

**OBSERVATION:**

Condition of roof could not be determined due to snow cover. It is estimated asphalt shingles should have life expectancy till 2014.

**RECOMMENDATION:**

Projected replacement in 2014.

**IMPACT:**

Deterioration of the condition, damage to interiors and hence, the value of the property.

**COSTS**

**CONSTRUCTION:** 40,740

**FEES:** 8,148

**CONTINGENCY:** 10,185

**TOTAL:** 59,073

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2014

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.3.1.1	<b>SYSTEM:</b> Interior Elements
-------------------------	----------------------------------

<b>COMPONENT:</b> Concrete floor in Cutting Room	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Fair		
<b>OBSERVATION:</b>  Concrete floor finish in Cutting Room shows deterioration.		
<b>RECOMMENDATION:</b>  Repair and repaint floor finish in Cutting Room in 2001.		
<b>IMPACT:</b>  Deterioration of the condition and hence, the value of the property.		

<i><b>COSTS</b></i>	
<b>CONSTRUCTION:</b>	500
<b>FEES:</b>	100
<b>CONTINGENCY:</b>	125
<b>TOTAL:</b>	725

<b>PRIORITY:</b> CYCLICAL, D1	<b>YEAR:</b> 2001
-------------------------------	-------------------



**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.1.2

**SYSTEM:** Interior Elements

**COMPONENT:** Carpet  
flooring

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Carpet was installed in 1995 and is in good condition. No deficiencies were observed.

**RECOMMENDATION:**

Projected replacement of carpet in 2005, 2015, 2025. .

**IMPACT:**

Deterioration of the condition and hence, the value of the property.

**COSTS**

**CONSTRUCTION:** 18,000

**FEES:** 3,600

**CONTINGENCY:** 4,500

**TOTAL:** 26,100

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.1.3

**SYSTEM:** Interior Elements

<b>COMPONENT:</b> Resilient flooring	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> Resilient flooring is in good condition, no deficiencies were observed		
<b>RECOMMENDATION:</b> Projected replacement of resilient flooring in 2007, 2017.		
<b>IMPACT:</b> Deterioration of the condition and hence, the value of the property.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	6,900
<b>FEES:</b>	1,380
<b>CONTINGENCY:</b>	1,725
<b>TOTAL:</b>	10,005

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2007, 2017

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.3.1.4

**SYSTEM:** Interior Elements

<b>COMPONENT:</b> Concrete floors	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> Concrete floor is in good condition, no deficiencies were observed		
<b>RECOMMENDATION:</b>  Projected repainting of concrete floor finish in 2005, 2015, 2025.		
<b>IMPACT:</b>  Deterioration of the condition and hence, the value of the property.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	1,700
<b>FEES:</b>	340
<b>CONTINGENCY:</b>	425
<b>TOTAL:</b>	2,465

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

REF NO.: 5.3.2	SYSTEM: Interior Elements
----------------	---------------------------

COMPONENT: Ceilings	PHOTO:	DATE: January 2000
RATING: Satisfactory		
OBSERVATION:  Tiles replaced in 1994 are in good condition, and no deficiencies were observed.		
RECOMMENDATION:  Projected replacement of all tiles in 2010 and 2025.		
IMPACT:  Deterioration of the condition and hence, the value of the property.		

COSTS	
CONSTRUCTION:	20,370
FEES:	4,074
CONTINGENCY:	5,093
TOTAL:	29,537

PRIORITY: CYCLICAL, D1	YEAR: 2010, 2025
------------------------	------------------

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.3.3	<b>SYSTEM:</b> Interior Elements
-----------------------	----------------------------------

<b>COMPONENT:</b> Walls	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b>  Walls at second floor were painted initially in 1993 and in progressive years at times renovation work was underway.		
<b>RECOMMENDATION:</b>  Projected repainting of walls in 2003, 2013 and 2023.		
<b>IMPACT:</b>		

<i><b>COSTS</b></i>	
<b>CONSTRUCTION:</b>	17,460
<b>FEES:</b>	3,492
<b>CONTINGENCY:</b>	4,365
<b>TOTAL:</b>	25,317

<b>PRIORITY:</b> CYCLICAL, D1	<b>YEAR:</b> 2003,2013, 2023
-------------------------------	------------------------------

**DEFICIENCY REPORT: DFO MANAGEMENT BUILDING**

<b>REF NO.:</b> 5.3.4	<b>SYSTEM:</b> Interior Elements
-----------------------	----------------------------------

<b>COMPONENT:</b> Interior Doors	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b>  Doors are in good condition, no deficiencies were observed.		
<b>RECOMMENDATION:</b>  Repainting of doors to coincide with repainting of walls.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	1,500
<b>FEES:</b>	300
<b>CONTINGENCY:</b>	375
<b>TOTAL:</b>	2,175

<b>PRIORITY:</b> CYCLICAL, D1	<b>YEAR:</b> 2005, 2015, 2025
-------------------------------	-------------------------------

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.4.1

**SYSTEM:** Exterior Elements

**COMPONENT:** Site  
Signage

**PHOTO:**

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

No building sign has been observed.

**RECOMMENDATION:**

Provide new building sign.

**IMPACT:**

Lack of building identity

**COSTS**

**CONSTRUCTION:**

500

**FEES:**

100

**CONTINGENCY:**

125

**TOTAL:**

725

**PRIORITY:** OPTIONAL, D2

**YEAR:** 2001

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.7.2.1

**SYSTEM:** Mechanical

<b>COMPONENT:</b> Domestic Water	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> The domestic water heater is approximately 13 years old.		
<b>RECOMMENDATION:</b> Replace the domestic water heater at the end of its 25 year expected service life.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	1,500
<b>FEES:</b>	500
<b>CONTINGENCY:</b>	500
<b>TOTAL:</b>	2,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2012



**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.7.2.2

**SYSTEM:** Mechanical

**COMPONENT:** Plumbing

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

The plumbing fixtures are dated.

**RECOMMENDATION:**

Provide an allowance for plumbing fixture and valves replacement.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:** 3,000

**FEES:** 600

**CONTINGENCY:** 900

**TOTAL:** 4,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2012

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.7.3.1

**SYSTEM:** Mechanical

**COMPONENT:** Ventilation

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

The second floor administration offices have no means of mechanical ventilation, cooling or humidification.

**RECOMMENDATION:**

Install a new ventilatory system for the Office Area to meet the requirements of Treasury Board Guidelines.

**IMPACT:**

Does not comply with Treasury Board Guidelines. Health and safety.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	150,000
<b>FEES:</b>	15,000
<b>CONTINGENCY:</b>	15,000
<b>TOTAL:</b>	180,000

**PRIORITY:** Mandatory, C1

**YEAR:** 2001

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

<b>REF NO.:</b> 5.7.3.2	<b>SYSTEM:</b> Mechanical
-------------------------	---------------------------

<b>COMPONENT:</b> HVAC	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> The boiler is approximately 1 year old.		
<b>RECOMMENDATION:</b> Replace the boiler at the end of its 25 year expected service life.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	15,000
<b>FEES:</b>	3,000
<b>CONTINGENCY:</b>	5,000
<b>TOTAL:</b>	23,000

<b>PRIORITY:</b> Cyclical, C2	<b>YEAR:</b> 2024
-------------------------------	-------------------

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.7.3.3

**SYSTEM:** Mechanical

**COMPONENT:**  
Maintenance

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Maintenance is done on an as required basis.

**RECOMMENDATION:**

Implement a preventative maintenance management system which will systematically track maintenance requirements and costs.

**IMPACT:**

Equipment malfunction. Insufficient documentation.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCY:</b>	1,500
<b>TOTAL:</b>	7,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2001

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.7.4

**SYSTEM:** Mechanical

**COMPONENT:** Controls

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Controls are DDC. There is no means of remote monitoring the various components within the building.

**RECOMMENDATION:**

Update the controls system to provide remote monitoring and provide for modernization of the controls system from time to time.

**IMPACT:**

Deterioration of the property and hence the value of the property.

**COSTS**

**CONSTRUCTION:** 6,000

**FEES:** 1,200

**CONTINGENCY:** 1,500

**TOTAL:** 8,700

**PRIORITY:** Cyclical, C2

**YEAR:** 2002, 2017

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.8.1

**SYSTEM:** Electrical

**COMPONENT:** Main  
Service

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair to Poor

**OBSERVATION:**

Main electrical service and CDP are old and they are reaching their useful life.

**RECOMMENDATION:**

Replace main service and CDP.

**IMPACT:**

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$30,000
<b>FEES:</b>	\$6,000
<b>CONTINGENCE:</b>	\$7,500
<b>TOTAL:</b>	\$43,500

**PRIORITY:** Mandatory D-1

**YEAR:** 2006-2007

**DEFICIENCY REPORT: F&O Administration/CCG Telecom Building**

**REF NO.:** 5.8.4

**SYSTEM:** Electrical

**COMPONENT:** Lighting

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair to Poor

**OBSERVATION:**

Lighting system is very old and needs replacement.

**RECOMMENDATION:**

Replace the lighting fixtures complete with all wiring in the next 5 to 7 years.

**IMPACT:**

**COSTS**

**CONSTRUCTION:** \$40,000

**FEES:** \$8,000

**CONTINGENCE:** \$10,000

**TOTAL:** \$58,000

**PRIORITY:** Optional - D-1

**YEAR:** 2006-2008

## APPENDIX D

### DEFICIENCY REPORTS



**DEFICIENCY REPORT: RSER and F&O Storage Building**

**REF NO.:** 5..2.2.2

**SYSTEM:** Building Envelope

**COMPONENT:** Exterior  
Doors

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Hollow metal personnel doors have no paint finish.

**RECOMMENDATION:**

Paint doors in 2001 and repaint in five year intervals.

**IMPACT:**

Deterioration of condition

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$200.00
<b>FEES:</b>	\$40.00
<b>CONTINGENCY:</b>	\$50.00
<b>TOTAL:</b>	\$290.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2001, 2010, 2015, 2020, 2025

*In House - Spring of 01*  
March 31, 2000

**DEFICIENCY REPORT: RSER and F&O Storage Building**

**REF NO.:** 5..2.3

**SYSTEM:** Building Envelope

**COMPONENT:** Roof

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Minimum attic ventilation observed.

**RECOMMENDATION:**

Provide additional attic ventilation.

**IMPACT:**

Deterioration of condition

**COSTS**

**CONSTRUCTION:**

\$1,000.00

**FEES:**

\$200.00

**CONTINGENCY:**

\$250.00

**TOTAL:**

\$1,450.00

**PRIORITY:** OPTIONAL, D1

**YEAR:** 2001

*In House - Spring 01*

**DEFICIENCY REPORT: RSER and F&O Storage Building**

**REF NO.:** 5.6

**SYSTEM:** Structural

**COMPONENT:** Floor

**PHOTO:** # 5 to # 10

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

Slab-on-grade concrete shows large settlement and extensive cracking.

**RECOMMENDATION:**

Replace slab with structural concrete slab supported on piles.

**IMPACT:**

**COSTS**

**CONSTRUCTION:** \$227,440.00

**FEES:** \$45,400.00

**CONTINGENCY:** \$56,860.00

**TOTAL:** \$329,700.00

**PRIORITY:** Mandatory , B1

**YEAR:** 2001

P.W.G.S.C. - 6011

March 31, 2000

D-3

**DEFICIENCY REPORT: RSER and F&O Storage Building**

**REF NO.:** 5.7.2

**SYSTEM:** Mechanical

**COMPONENT:**  
Maintenance Management

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

There are no maintenance records.

**RECOMMENDATION:**

Insufficient documentation.

**IMPACT:**

Deterioration of condition

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$5,000.00
<b>FEES:</b>	\$1,000.00
<b>CONTINGENCY:</b>	\$1,500.00
<b>TOTAL:</b>	\$7,500.00

**PRIORITY:** Cyclical, C2

**YEAR:** 2001

*IN House - doing*  
March 31, 2000

**DEFICIENCY REPORT: RSER and F&O Storage Building**

REF NO.: 5.7.3

SYSTEM: Mechanical

COMPONENT: Controls

PHOTO: N/A

DATE: January 2000

RATING:

OBSERVATION:

There is no remote monitoring.

RECOMMENDATION:

Upgrade the controls to provide for simple DDC and remote monitoring of the site.

IMPACT:

Deterioration of condition

COSTS	
CONSTRUCTION:	\$5,000.00
FEES:	\$1,000.00
CONTINGENCY:	\$1,500.00
TOTAL:	\$7,500.00

PRIORITY: Cyclical, C2

YEAR: 2002

~~In House~~  
Electrical control.  
01/02

- M.C.

RSEER R/O Storage Bldg

MAN

ETCL.

OPT.

. 227.4

. 2 (even)  
5

1.0

5.0

5.0

janer

dec. 11/08

## APPENDIX D

### DEFICIENCY REPORTS

~~Background~~ (Jan. 2009)  
Hay River Maint. Bldg

M	OpCL	OpT.
400	500	6000
20100	100	5000
2100	2000	2500
5000	2000	
8000	5000	
35000.	5000	
\$88.4 K	\$14.6 K	\$13.5 K

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.2.2.1

**SYSTEM:** Building Envelope

**COMPONENT:** Windows

**PHOTO:**

**DATE:** January 2000

**RATING:**

Satisfactory

**OBSERVATION:**

Windows are in good condition, no deficiencies were observed

**RECOMMENDATION:**

For Budgeting purposes an allowance is provided annually for replacement of the glazed sealed units.

**IMPACT:**

Condensation and ghosting in air cavity of glazed sealed units;  
Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$100 (annual)
<b>FEES:</b>	\$20
<b>CONTINGENCY:</b>	\$25
<b>TOTAL:</b>	\$145

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2001 to 2025

*In House*

*O.K. Till Review 5 yr.*

March 31, 2000

D-1



**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.2.2.2.1

**SYSTEM:** Building Envelope

<b>COMPONENT:</b> Exterior Doors	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> Door hardware does not meet barrier free standards.		
<b>RECOMMENDATION:</b> Replace hardware to meet barrier free standards in 2001.		
<b>IMPACT:</b> Building is not barrier free accessible.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$400
<b>FEES:</b>	\$80
<b>CONTINGENCY:</b>	\$100
<b>TOTAL:</b>	\$580

**PRIORITY:** MANDATORY, C1

**YEAR:** 2001

Hardware Purchased See 5.5.1

In House - 00-01

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.2.2.2.2

**SYSTEM:** Building Envelope

**COMPONENT:** Exterior  
Doors

**PHOTO:**

**DATE:** January 2000

**RATING:**  
Satisfactory

**OBSERVATION:**  
Doors are generally in good condition.

**RECOMMENDATION:**  
Budget provision for regular maintenance of personnel and overhead doors in 2005, 2010, 2015, 2020, 2025.

**IMPACT:**  
Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$100
<b>FEES:</b>	\$20
<b>CONTINGENCY:</b>	\$25
<b>TOTAL:</b>	\$145

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2010, 2015, 2020, 2025

*I v House*

March 31, 2000

D-3

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.3.1.1

**SYSTEM:** Interior Elements

**COMPONENT:** ~~Carpet~~ &  
resilient flooring

**PHOTO:**

**DATE:** January 2000

**RATING:**  
Satisfactory

**OBSERVATION:**  
Carpet flooring is in good condition, no deficiencies were observed

**RECOMMENDATION:**  
Budget provision for carpet replacement in 2010, 2025

**IMPACT:**  
Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$5,320
<b>FEES:</b>	\$1,064
<b>CONTINGENCY:</b>	\$1,330
<b>TOTAL:</b>	\$7,714

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2025

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.3.1.2

**SYSTEM:** Interior Elements

**COMPONENT:** Concrete  
floors

**PHOTO:**

**DATE:** January 2000

**RATING:**  
Satisfactory

**OBSERVATION:**

Floor finish is in good condition, no deficiencies were observed

**RECOMMENDATION:**

Budget provision repainting of concrete floors in 2005, 2010, 2015, 2020, 2025

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$2,000
<b>FEES:</b>	\$400
<b>CONTINGENCY:</b>	\$500
<b>TOTAL:</b>	\$2,900

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2010, 2015, 2020, 2025

*In House*

March 31, 2000

D-5

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.3.2

**SYSTEM:** Interior Elements

**COMPONENT:** Ceilings

**PHOTO:**

**DATE:** January 2000

**RATING:**

Satisfactory

**OBSERVATION:**

Acoustic tile ceiling is in good condition, no deficiencies were observed

**RECOMMENDATION:**

Budget provision for replacement in 2010, 2025.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:**

\$4,170

**FEES:**

\$834

**CONTINGENCY:**

\$1,043

**TOTAL:**

\$6,047

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2025

*I 10/2000 -*

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.3.3

**SYSTEM:** Interior Elements

**COMPONENT:** Walls

**PHOTO:**

**DATE:** January 2000

**RATING:**

Satisfactory

**OBSERVATION:**

Walls are generally in good condition ( except deficiency listed in Deficiency Report 5.6.1)

**RECOMMENDATION:**

Budget provision for repainting of walls in 2005, 2015, 2025.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$2,000
<b>FEES:</b>	\$400
<b>CONTINGENCY:</b>	\$500
<b>TOTAL:</b>	\$2,900

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025

*In House*

March 31, 2000

D-7

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.3.4

**SYSTEM:** Interior Elements

<b>COMPONENT:</b> Interior Doors	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> Doors are generally in good condition (except refer to Deficiency Report 5.5.1)		
<b>RECOMMENDATION:</b> Budget provision for maintenance in 2005, 2010, 2015, 2020, 2025.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$100
<b>FEES:</b>	\$20
<b>CONTINGENCY:</b>	\$25
<b>TOTAL:</b>	\$145

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2010, 2015, 2020, 2025

*In House*

**DEFICIENCY REPORT: Maintenance Shop**

REF NO.: 5.5.1

SYSTEM: Building Code  
Compliance

COMPONENT: Barrier Free  
Accessibility

PHOTO:

DATE: January 2000

RATING:  
Poor

**OBSERVATION:**

There are several steps outside the front entry with no ramp provision; Doors in entire building are equipped with door knobs and other hardware not complying to standards. There is insufficient space for wheelchair at a number of doorways; None of the three washrooms are barrier free accessible. Lunch room located at mezzanine level has no provision for barrier free access.

**RECOMMENDATION:**

Provide ramp at front entry; Modify washrooms to meet barrier free standards; Modify space at doorways for wheel chair access; Provide secondary lunch room at ground floor level; Replace door hardware to meet barrier free standards

**IMPACT:**

Building is not barrier free accessible.

COSTS	
CONSTRUCTION:	\$20,100
FEES:	\$4,020
CONTINGENCY:	\$5,025
TOTAL:	\$29,145

PRIORITY: MANDATORY, C1

YEAR: 2002

- 1- Door Sign - Washroom
- 1- Toilet
- 1- Door ? Interior, Entrance - Hardware
- 1- M/S entry & ramp.
- 1- Parking stall

See- 5.3.4

- ID House - 04/2001



**DEFICIENCY REPORT: Maintenance Shop**

<b>REF NO.:</b> 5.5.2	<b>SYSTEM:</b> Building Code Compliance
-----------------------	-----------------------------------------

<b>COMPONENT:</b> Fire Separation	<b>PHOTO:</b>	<b>DATE:</b> January 2000
-----------------------------------	---------------	---------------------------

**RATING:** Fair

**OBSERVATION:**

Secure Storage door is not fire rated and the fan mounted above the door, does not have a fire damper; Door between RSER Storage Workshop and corridor of Welding Workshop area, bearing a sign "Fire Door Keep Closed", has a door grille with no fire damper and is equipped with hardware, which is not in compliance with fire regulations.

**RECOMMENDATION:**

Provide new fire rated door for Secure Storage; Modify door between RSER Workshop and corridor;

**IMPACT:**

Deficiencies create unsafe condition

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$2,110
<b>FEES:</b>	\$422
<b>CONTINGENCY:</b>	\$528
<b>TOTAL:</b>	\$3,060

<b>PRIORITY:</b> MANDATORY, C1	<b>YEAR:</b> 2002
--------------------------------	-------------------

- 1 - Check Door
- 1 - Fire Damper
- 1 - Fire Damper
- 1 - Fire Door

To contact Fire Marshall  
- Kelly

**DEFICIENCY REPORT:** Maintenance Shop (1968 construction)

**REF NO.:** 5.6.1

**SYSTEM:** Structural

**COMPONENT:** Concrete  
block

**PHOTO:** # 5 , # 6

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Cracks at head of a recent made opening in concrete block wall at Grid Line 2.

**RECOMMENDATION:**

Provide proper size steel lintel, grout and repoint.

**IMPACT:**

**COSTS**

**CONSTRUCTION:** \$2,000.00

**FEES:** \$400.00

**CONTINGENCY:** \$500.00

**TOTAL:** \$2,900.00

**PRIORITY:** Mandatory , C3

**YEAR:** 2001

Completed  
Work Order # BS:94  
Jan 17/01  
Cost - \$44.00

In House - Dec. 00

**DEFICIENCY REPORT:** Stores and Maintenance Shop (1968 construction)

REF NO.: 5.6.2

SYSTEM: Structural

COMPONENT: Piling

PHOTO: # 15 ,#16 , #17

DATE: January 2000

RATING: Fair

**OBSERVATION:**

Upper part (750 to 900 mm) of steel piles just below concrete pile caps are exposed and show heavy rusting.

**RECOMMENDATION:**

Clean all rust thoroughly from top to at least 450 mm below crawl space floor level, and heat the pile with primer and two coats of coal tar epoxy paint.

**IMPACT:**

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$8,040.00
<b>FEES:</b>	\$1,600.00
<b>CONTINGENCY:</b>	\$2,010.00
<b>TOTAL:</b>	\$11,640.00

PRIORITY: Mandatory , C3

YEAR: 2001

Material Purchased - \$33,31  
- Completion 2001.

In House - March 01

March 31, 2000

D-12

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.7.2.1

**SYSTEM:** Mechanical

**COMPONENT:** Domestic  
Water

**PHOTO:** #24

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

The domestic water heater is approximately 8 years old.

**RECOMMENDATION:**

Replace the domestic water heater at the end of its 25 year expected service life.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	1,500
<b>FEES:</b>	500
<b>CONTINGENCY:</b>	500
<b>TOTAL:</b>	2,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2017

*In House*

March 31, 2000

D-13

**DEFICIENCY REPORT: Maintenance Building**

**REF NO.:** 5.7.2.2

**SYSTEM:** Mechanical

**COMPONENT:** Plumbing

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Plumbing fixtures and fittings are dated.

**RECOMMENDATION:**

Replace the plumbing fixtures and valves on a cyclical basis.

**IMPACT:**

Deterioration of the property and hence the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$5,000
<b>FEES:</b>	\$1,000
<b>CONTINGENCY:</b>	\$1,500
<b>TOTAL:</b>	\$7,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2001, 2016

*In House - As Required*

**DEFICIENCY REPORT: Maintenance Shop**

REF NO.: 5.7.3.1

SYSTEM: Mechanical

COMPONENT:

Compressor

PHOTO: N/A

DATE: January 2000

RATING: Fair

OBSERVATION:

Insufficient capacity.

RECOMMENDATION:

Replace the compressor with a larger unit.

IMPACT:

Poor operation.

COSTS

CONSTRUCTION:

\$6,000

FEES:

\$1,200

CONTINGENCY:

\$1,500

TOTAL:

\$8,700

PRIORITY: Optional, C2

YEAR: 2001

- CONTACT DAP Primeau

In House.

March 31, 2000

D-15

\* Dong

**DEFICIENCY REPORT: Maintenance Shop**

<b>REF NO.:</b> 5.7.3.2	<b>SYSTEM:</b> Mechanical
-------------------------	---------------------------

<b>COMPONENT:</b> Heating Water	<b>PHOTO:</b> #22	<b>DATE:</b> January 2000
<b>RATING:</b> Satisfactory		
<b>OBSERVATION:</b> The boilers are approximately 8 years old.		
<b>RECOMMENDATION:</b> Replace the boiler at the end of its 25 year expected service life.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$10,000
<b>FEES:</b>	\$1,000
<b>CONTINGENCY:</b>	\$1,000
<b>TOTAL:</b>	\$12,000

<b>PRIORITY:</b> Cyclical, C2	<b>YEAR:</b> 2017
-------------------------------	-------------------

P. W. GSC -

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.7.3.3

**SYSTEM:** Mechanical

**COMPONENT:** Heating  
Water System

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

Combustion air inlet is blocked.

**RECOMMENDATION:**

Improve the combustion air heating system to allow for proper combustion air volume into the mechanical room

**IMPACT:**

Improper boiler operation.

COSTS	
<b>CONSTRUCTION:</b>	\$5,000
<b>FEES:</b>	\$1,000
<b>CONTINGENCE:</b>	\$1,500
<b>TOTAL:</b>	\$7,500

**PRIORITY:** Mandatory, C2

**YEAR:** 2001

Heat Control Damper

March 31, 2000

D-17



**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.7.3.4

**SYSTEM:** Mechanical

**COMPONENT:**  
Maintenance

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Maintenance is done on an as required basis.

**RECOMMENDATION:**

Implement a preventative maintenance management system which will systematically track maintenance requirements and costs.

**IMPACT:**

Equipment malfunction. Insufficient documentation.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCE:</b>	1,500
<b>TOTAL:</b>	7,000

**PRIORITY:** Cyclical, C2

**YEAR:** 2001

*In House*

*BCR Report & Records*

March 31, 2000

D-18

**DEFICIENCY REPORT: Maintenance Building**

**REF NO.:** 5.7.4.1

**SYSTEM:** Mechanical

**COMPONENT:** Heating  
Water System

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Heating water temperature is controlled by directly controlling the firing of the boilers

**RECOMMENDATION:**

Pipe the heating water system to meet the boiler manufacturer's recommendation, and re-pipe the heating water pumps.

**IMPACT:**

Deterioration of the property and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCE:</b>	1,500
<b>TOTAL:</b>	7,500

**PRIORITY:** Optional, C2

**YEAR:** 2001

? what & why - new 92

Minor Capital - 01/02

March 31, 2000

D-19

**DEFICIENCY REPORT: Maintenance Shop**

**REF NO.:** 5.7.4.2

**SYSTEM:** Mechanical

**COMPONENT:** Controls

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

The building controls should be modernized and the building's systems status should be monitored from a central system

**RECOMMENDATION:**

Update the controls and provide for remote monitoring of the building by a facility central monitoring system.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$8,000
<b>FEES:</b>	\$1,600
<b>CONTINGENCE:</b>	\$2,000
<b>TOTAL:</b>	\$11,600

**PRIORITY:** Cyclical, C2

**YEAR:** 2002, 2017

Low Temp Dialer  
Fire Alarm - Direct P.D

O.K  
To be updated

met. Doug - Jack met Cell

Mar. 01

March 31, 2000

D-20

**DEFICIENCY REPORT: MAINTENANCE SHOP**

REF NO.: 5.8.1

SYSTEM: Electrical

COMPONENT: Main  
Incoming Service

PHOTO:

DATE: January 2000

RATING: Poor

**OBSERVATION:**

The main incoming service is "hot split" inside the building and it violates the code.

**RECOMMENDATION:**

This work must be done immediately. The work for renovation of distribution system to be done at the same time.

**IMPACT:**

Main incoming and distribution are integral. Though the work for renovation for distribution is recommended to be done within the next 5 years, it would be more appropriate if both projects are done at the same time. (Note: costs identified below shows cost of new service only. Cost of the new distribution is identified in a separate deficiency sheet).

COSTS	
CONSTRUCTION:	\$25,000
FEES:	\$5,000
CONTINGENCE:	\$6,250
TOTAL:	\$36,250

1 cot.

PRIORITY: Mandatory - C2

YEAR: 2001/2002

P.W.G.S.C. contract 00101

MacKenzie Electric  
14,000.00

combined with 5.8.2

March 31, 2000

D-21

BASED ON THIS  
| ASSUME THIS WAS  
COMPLETED JAMES  
2008

**DEFICIENCY REPORT: MAINTENANCE SHOP**

REF NO.: 5.8.2

SYSTEM: Electrical

COMPONENT: Main  
Distribution

PHOTO:

DATE: January 2000

RATING: Poor

**OBSERVATION:**

Main distribution equipment inside the Electrical Room is very old, near the end of its useful life.

**RECOMMENDATION:**

This work to be combined with renovation to the main incoming service, which must be done immediately. (Cost identified below shows cost of new distribution equipment only. Cost of the new service is identified in a separate deficiency sheet).

**IMPACT:**

COSTS	
CONSTRUCTION:	\$35,000
FEES:	\$7,000
CONTINGENCE:	\$8,700
TOTAL:	\$50,700

PRIORITY: Mandatory D-1

YEAR: 2007

P.W.G.S.C.  
00101

Combined with 5.8.1

**Mackenzie Electric Ltd.**

1 Studney Drive  
Hay River, NT XOE OR6  
Ph. (867) 874-6806  
Fx. (867) 874-2368

**Quotation**

Date: January 23, 2001

G. K.

To: Public Works & Govt. Services Canada  
1004, 4920 - 52 Street  
P.O. Box 518  
Yellowknife, NT X1A 2N4

Attn: Russell Heslep, R.P.A.

Project: Electrical upgrade to Canadian Coast Guard  
Maintenance Shop in Hay River, NT

**OPTION #2**

This quote is to relocate all CDP panels in Electrical Room off existing rack. To utilize extra space behind panels, some conduits are in the concrete floor and they will have to be run overhead to feed panels in other areas of the building. The cement floor will have to be cut to extend existing trench to the wall for teck cables entering building under floor. The new main breaker & distribution panel is bottom entry, c/w 600 amp frame breaker, with 400 amp trip unit will be installed. And two 200 amp breakers, one for ship's panel and one for building service.

Material:  
Labour:  
Wiring Permit:  
TOTAL:

21,273.07  
6,950.00  
630.00  
28,853.07

Note: This quote does not allow for new teck cable underground from Northland Utilities Power Pole, existing parallel cables will be used. All three distribution panels with breakers will be installed in electrical room. This option allows for increase of service from 400 amp, 480 volt to 600 amp if required in the future, the trip coil in the breaker will have to be changed.

We thank you for the opportunity of submitting the above Quotation.

Per: Douglas Powder / Douglas Powder

Note: Quotation is valid for 30 days. GST is not included in price.

**Total****\$28,853.07**

450-900  
5,000

**DEFICIENCY REPORT: MAINTENANCE SHOP**

**REF NO.:** 5.9.3

**SYSTEM:** Electrical

**COMPONENT:** Fire Alarm

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

The fire alarm system is non-addressable and is getting old, and replacement parts are getting difficult to find, since the new technology for addressable system is taking over.

**RECOMMENDATION:**

It is recommended that the existing system be replaced within the next 7 to 10 years.

**IMPACT:**

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$25,000
<b>FEES:</b>	\$5,000
<b>CONTINGENCE:</b>	\$6,200
<b>TOTAL:</b>	\$31,200

**PRIORITY:** Optional D-1

**YEAR:** 2008 - 2011

*minor Capital - 01/02*



## APPENDIX D

### DEFICIENCY REPORTS

Backlogged (Jan. 2000)  
Hay River. Flamm. Stor. Bldg

m	CYCL.	opt.
3000. 4000	500 5000	500 5000
\$ 7.0 k	\$ 5.5 k	\$ 5.5 k



**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.2.2.2

**SYSTEM:** Building Envelope

**COMPONENT:** Doors

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

No deficiencies were observed

**RECOMMENDATION:**

Annual budget provision for maintenance

**IMPACT:**

Deterioration of the condition and hence the value of property

**COSTS**

**CONSTRUCTION:**

100 (annual)

**FEES:**

20

**CONTINGENCY:**

25

**TOTAL:**

145

**PRIORITY:** CYCLICAL, C1

**YEAR:** 2001 to 2025

*In House*

**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.3.1

**SYSTEM:** Interior Elements

**COMPONENT:** Floors

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

No deficiencies were observed

**RECOMMENDATION:**

Budget provision for refinishing in 2010 and 2025.

**IMPACT:**

Deterioration of the condition and hence the value of property

**COSTS**

**CONSTRUCTION:**

1,380

**FEES:**

276

**CONTINGENCY:**

345

**TOTAL:**

2,001

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2025

*In House*

March 31, 2000

D-2

**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.3.2

**SYSTEM:** Interior Elements

**COMPONENT:** Ceilings

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

No deficiencies were observed

**RECOMMENDATION:**

Budget provision for repainting in 2010 and 2020.

**IMPACT:**

Deterioration of the condition and hence the value of property

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	500
<b>FEES:</b>	100
<b>CONTINGENCY:</b>	125
<b>TOTAL:</b>	725

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2020

*T. N. House*

March 31, 2000

D-3

**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.3.3

**SYSTEM:** Interior Elements

**COMPONENT:** Walls

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

No deficiencies were observed

**RECOMMENDATION:**

Budget provision for repainting in 2010 and 2020.

**IMPACT:**

Deterioration of the condition and hence the value of property

**COSTS**

**CONSTRUCTION:**

1,000

**FEES:**

200

**CONTINGENCY:**

250

**TOTAL:**

1,450

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2020

*Ev House*

**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.4.1

**SYSTEM:** Exterior Elements

**COMPONENT:** Site  
Signage

**PHOTO:**

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

No building sign was observed.

**RECOMMENDATION:**

Budget provision for new building sign in 2002

**IMPACT:**

Lack of building identity

**COSTS**

**CONSTRUCTION:**

500

**FEES:**

100

**CONTINGENCY:**

125

**TOTAL:**

725

**PRIORITY:** OPTIONAL, D2

**YEAR:** 2002

*In House - march 01*

March 31, 2000

D-5

**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.7.3.1

**SYSTEM:** Mechanical

**COMPONENT:** HVAC

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

The ventilation does not comply with DFC requirements

**RECOMMENDATION:**

Upgrade the ventilation to meet DFC requirements.

**IMPACT:**

Health & Safety

**COSTS**

**CONSTRUCTION:** 15,000

**FEES:** 3,000

**CONTINGENCY:** 4,000

**TOTAL:** 22,000

**PRIORITY:** Mandatory, C1

**YEAR:** 2013

*Minor Capital 2013*

**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.7.3.2

**SYSTEM:** Mechanical

**COMPONENT:** Heating  
Water

**PHOTO:** #7

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

The boiler is approximately 12 years old.

**RECOMMENDATION:**

Replace the boiler at the end of its 25 year expected service life.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	8,000
<b>FEES:</b>	1,600
<b>CONTINGENCY:</b>	200
<b>TOTAL:</b>	11,600

**PRIORITY:** Cyclical, C2

**YEAR:** 2013

*Pw GSC - Cda.*

*Minor Capital 2013*

**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.7.3.3

**SYSTEM:** Mechanical

**COMPONENT:**

Maintenance

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Maintenance is done on an as required basis.

**RECOMMENDATION:**

Implement a preventative maintenance management system which will systematically track maintenance requirements and costs.

**IMPACT:**

Equipment malfunction. Insufficient documentation.

**COSTS**

**CONSTRUCTION:**

5,000

**FEES:**

1,000

**CONTINGENCY:**

1,500

**TOTAL:**

7,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2001

*In House - Records*



**DEFICIENCY REPORT: Flammable Stores Building**

**REF NO.:** 5.7.4

**SYSTEM:** Mechanical

**COMPONENT:** Controls

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

The ventilation in the flammable storage room does not meet the Fire Commissioner's requirements.

**RECOMMENDATION:**

Upgrade the controls to current standard and provide for remote monitoring.

**IMPACT:**

Deterioration of the condition.

**COSTS**

**CONSTRUCTION:**

5,000

**FEES:**

1,500

**CONTINGENCE:**

1,500

**TOTAL:**

8,000

**PRIORITY:** Cyclical, C2

**YEAR:** 2002, 2017

Contact Fire Com - Kelly

minor Capital 01/02

March 31, 2000

D-9

**DEFICIENCY REPORT: Site / Base Requirements**

**REF NO.:** 6.5

**SYSTEM:** Flammable Storage

**COMPONENT:**

**PHOTO:**

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

No dyking in fenced compound at the rear of the Flammable Storage building.

**RECOMMENDATION:**

Should be a dyke installed/constructed to contain any spillage that may occur from the storage of hazardous wastes prior to disposal.

**IMPACT:**

Contributes to soil contamination at the site.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$3,000.00
<b>FEES:</b>	\$2,000.00
<b>CONTINGENCY:</b>	\$1,000.00
<b>TOTAL:</b>	\$6,000.00

**PRIORITY:** Mandatory C1

**YEAR:** 2000

*Fabricate Drip Tray*

*In House*

**DEFICIENCY REPORT: Site / Base Requirements**

REF NO.: 6.17.35

SYSTEM: Flammable Storage

COMPONENT:

PHOTO:

DATE: January 2000

RATING:

OBSERVATION:

Soil contamination at rear of Flammable Storage building.

RECOMMENDATION:

Sampling program to delineate the extent of contamination.

IMPACT:

Possible migration of contaminants through soils and groundwater to Hay River.

COSTS	
CONSTRUCTION:	\$4,000.00
FEES:	\$3,000.00
CONTINGENCE:	\$1,000.00
TOTAL:	\$8,000.00

PRIORITY: Mandatory C1

YEAR: 2000

Contract P.W.G.S.C - 00101

P.W.G.S.C. Doing - Laurie Washington

BACKLOGGED (JAN-2009)

HAY RIVER CARPENTRY SHOP

M	C	O
<del>8000</del>	8000	500.
20000	1000	3000
	2000	
	10000.	
	5000	
	10000	
\$20 K	\$27 K	\$3.5 K

## APPENDIX D

## DEFICIENCY REPORTS

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.2.2.1

**SYSTEM:** Building Envelope

**COMPONENT:** Windows

**PHOTO:**

**DATE:** January 2000

**RATING:**

Satisfactory

**OBSERVATION:**

No deficiencies were observed.

**RECOMMENDATION:**

For budgeting purposes an allowance of \$250 should be provided annually for replacement of glazed sealed units.

**IMPACT:**

Condensation and ghosting in air cavity of glazed sealed units.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	250 (annual)
<b>FEES:</b>	50
<b>CONTINGENCY:</b>	63
<b>TOTAL:</b>	363

**PRIORITY:** ~~OPTIONAL~~ D1

**YEAR:** 2001 to 2025

C7CL

In House -

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.2.2.2

**SYSTEM:** Building Envelope

**COMPONENT:** Exterior  
Doors

**PHOTO:**

**DATE:** January 2000

**RATING:**  
Satisfactory

**OBSERVATION:**  
No deficiencies were observed.

**RECOMMENDATION:**  
For budgeting purposes an allowance of \$250 should be provided annually for repair and maintenance of exterior doors and overhead doors.

**IMPACT:**  
Deterioration of condition

**COSTS**

**CONSTRUCTION:** 250 (annual)

**FEES:** 50

**CONTINGENCY:** 63

**TOTAL:** 363

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2001 to 2025

*Ir House*

March 31, 2000

D-2

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.3.1

**SYSTEM:** Interior Elements

**COMPONENT:** Floors

**PHOTO:**

**DATE:** January 2000

**RATING:**

Satisfactory

**OBSERVATION:**

No deficiencies were observed except minor hairline cracks.

**RECOMMENDATION:**

Monitor cracks and seal as required.

**IMPACT:**

Deterioration of condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	1,000
<b>FEES:</b>	200
<b>CONTINGENCY:</b>	250
<b>TOTAL:</b>	1,450

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2,001,2010,2020

In House  
March 31, 2000

D-3

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.3.3

**SYSTEM:** Interior Elements

**COMPONENT:** Walls

**PHOTO:**

**DATE:** January 2000

**RATING:**

Satisfactory

**OBSERVATION:**

Walls are in good condition and no deficiencies were observed.

**RECOMMENDATION:**

Cyclical painting is foreseen on a 10 year cycle, beginning 2005.

**IMPACT:**

Deterioration of condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:** 2,000

**FEES:** 400

**CONTINGENCY:** 500

**TOTAL:** 2,900

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025

*In House*

March 31, 2000

D-4



**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.3.4.1

**SYSTEM:** Interior Elements

**COMPONENT:** Mechanical  
Room Door

**PHOTO:**

**DATE:** January 2000

**RATING:**

Fair

**OBSERVATION:**

Door to Mechanical Room does not have required fire-rating.

**RECOMMENDATION:**

Replace door to Mechanical Room with 1 hour fire-rated hollow metal door and frame in 2001.

**IMPACT:**

Does not meet fire regulations

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	2,000
<b>FEES:</b>	400
<b>CONTINGENCY:</b>	500
<b>TOTAL:</b>	2,900

**PRIORITY:** MANDATORY, C1

**YEAR:** 2001

Completed - confirm with Kelly.

\$ 528.58

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.3.4.2

**SYSTEM:** Interior Elements

**COMPONENT:** Doors

**PHOTO:**

**DATE:** January 2000

**RATING:**

Fair

**OBSERVATION:**

Interior doors are generally in fair to satisfactory condition.

**RECOMMENDATION:**

Cyclical painting of all doors is foreseen on a 5 year cycle, beginning 2005.

**IMPACT:**

Deterioration of condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:**

500

**FEES:**

100

**CONTINGENCY:**

125

**TOTAL:**

725

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2010, 2015, 2020, 2025

March 31, 2000

D-6

In House

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.3.6

**SYSTEM:** Interior Elements

**COMPONENT:** Washroom

**PHOTO:**

**DATE:** January 2000

**RATING:**

Fair

**OBSERVATION:**

Room is combined as washroom and janitor room in one. No lavatory was observed, only a slop sink, serving number of purposes

**RECOMMENDATION:**

Provide separate janitor room and upgrade existing washroom to accommodate new lavatory.

**IMPACT:**

Deterioration of condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:**

3,000

**FEES:**

600

**CONTINGENCY:**

750

**TOTAL:**

4,350

**PRIORITY:** MANDATORY, C1

**YEAR:** 2001

*Not Required*

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.4.1

**SYSTEM:** Exterior Elements

<b>COMPONENT:</b> Site Signage	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Poor		
<b>OBSERVATION:</b> No building sign has been observed		
<b>RECOMMENDATION:</b> Provide new building sign		
<b>IMPACT:</b> Inadequate building identity		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	500
<b>FEES:</b>	100
<b>CONTINGENCY:</b>	125
<b>TOTAL:</b>	725

**PRIORITY:** OPTIONAL, D2

**YEAR:** 2001

In House

mark ok

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.7.2.1

**SYSTEM:** Mechanical

**COMPONENT:** Domestic  
Water

**PHOTO:** #5

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

The domestic water heater is approximately 8 years old.

**RECOMMENDATION:**

Replace the domestic water heater at the end of its 25 year expected service life.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	1,000
<b>FEES:</b>	500
<b>CONTINGENCY:</b>	500
<b>TOTAL:</b>	2,000

**PRIORITY:** Cyclical, C2

**YEAR:** 2017

*In House*  
March 31, 2000

D-9

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.7.2.2

**SYSTEM:** Mechanical

**COMPONENT:** Plumbing

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

The plumbing fixtures are dated.

**RECOMMENDATION:**

Provide an allowance for plumbing fixture and valves replacement.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:** 1,000

**FEES:** 200

**CONTINGENCY:** 250

**TOTAL:** 1,450

**PRIORITY:** Cyclical, C2

**YEAR:** 2001, 2015

March 31, 2000

D-10

*In House*

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.7.3.1

**SYSTEM:** Mechanical

**COMPONENT:** Air  
Compressor

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Insufficient capacity.

**RECOMMENDATION:**

Provide an allowance for replacement.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	3,000
<b>FEES:</b>	600
<b>CONTINGENCY:</b>	900
<b>TOTAL:</b>	4,500

**PRIORITY:** Optional, C2

**YEAR:** 2001

minor Capital- 01/02

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.7.3.2

**SYSTEM:** Mechanical

**COMPONENT:** Heating  
Water

**PHOTO:** #5

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

The boiler is approximately 8 years old.

**RECOMMENDATION:**

Replace the boiler at the end of its 25 year expected service life.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCE:</b>	1,500
<b>TOTAL:</b>	7,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2017

*Minor Capital*  
March 31, 2000



**DEFICIENCY REPORT: Carpentry Shop**

REF NO.: 5.7.3.3

SYSTEM: Mechanical

COMPONENT: Ventilation

PHOTO: #6

DATE: January 2000

RATING: Poor

**OBSERVATION:**

Paint storage ventilation does not meet code and the paint booth might not meet user requirements.

**RECOMMENDATION:**

Modify the ventilation for the paint storage area to meet code and ensure that the ventilation in the paint booth meets user requirements.

**IMPACT:**

Health and safety.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	20,000
<b>FEES:</b>	4,000
<b>CONTINGENCE:</b>	5,000
<b>TOTAL:</b>	29,000

PRIORITY: Mandatory, C1

YEAR: 2001

Electrical + Mechanical Quote  
- Mackenzie Electric

00-01 - Funding? / Minor Capital 01/02

**DEFICIENCY REPORT: Carpentry Shop**

March 31, 2000

D-13

REF NO.: 5.7.3.4	SYSTEM: Mechanical
------------------	--------------------

COMPONENT: Maintenance	PHOTO: N/A	DATE: January 2000
RATING:		
OBSERVATION: Maintenance is done on an as required basis.		
RECOMMENDATION: Implement a preventative maintenance management system which will systematically track maintenance requirements and costs.		
IMPACT: Equipment malfunction. Insufficient documentation.		

COSTS	
CONSTRUCTION:	5,000
FEES:	1,000
CONTINGENCE:	1,500
TOTAL:	7,500

PRIORITY: Cyclical, C2	YEAR: 2001
------------------------	------------

*In House - Records*

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.7.4 **SYSTEM:** Mechanical

<b>COMPONENT:</b> Controls	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b> Fair		
<b>OBSERVATION:</b> Controls are local simple electric.		
<b>RECOMMENDATION:</b> Update the DDC controls to provide for remote monitoring. Update the controls from time to time.		
<b>IMPACT:</b> Deterioration of the condition and hence the value of the property.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	10,000
<b>FEES:</b>	2,000
<b>CONTINGENCE:</b>	2,500
<b>TOTAL:</b>	14,500

**PRIORITY:** Cyclical, C2 **YEAR:** 2002, 2017

Day Primar ?  
DDC

March 31, 2000

D-15

Does check

Minor Capital - 01/02

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.8.1

**SYSTEM:** Electrical

**COMPONENT:**

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

The electrical distribution inside the building will be required to be changed in the next 10 to 15 years.

**RECOMMENDATION:**

**IMPACT:**

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$5,000
<b>FEES:</b>	\$1,000
<b>CONTINGENCE:</b>	\$1,250
<b>TOTAL:</b>	\$7,250

**PRIORITY:** ~~Optional~~ D-1

**YEAR:** 2011 to 2016

March 31, 2000

D-16

**DEFICIENCY REPORT: Carpentry Shop**

**REF NO.:** 5.8.5

**SYSTEM:** Electrical

**COMPONENT:**

**PHOTO:**

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

There are no heat detectors in Spray Booth area.

**RECOMMENDATION:**

Install heat detectors in Spray Booth area.

**IMPACT:**

**COSTS**

**CONSTRUCTION:**

\$500

**FEES:**

\$100

**CONTINGENCE:**

\$100

**TOTAL:**

\$700

**PRIORITY:** Mandatory A-1

**YEAR:** 2001

~~1-2~~

Mackenzie Electric - pricing

Completed

March 08/01

March 01

## APPENDIX D

### DEFICIENCY REPORTS

**DEFICIENCY REPORT:** Helicopter Operation/General Storage

**REF NO.:** 5.2.1

**SYSTEM:** Building Envelope

**COMPONENT:** Exterior  
Walls

**PHOTO:**

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

Wall consists of approximately 1" of batt insulation sandwiched between inner and outer metal cladding; poor insulation value. Galvanized finish has oxidized, colour of building foreign to the colour scheme of other buildings.

**RECOMMENDATION:**

Upgrade walls with additional insulation, minimum R20 and new cladding on inner and outer face, matching adjacent buildings' colour scheme.

**IMPACT:**

High O&M costs; deterioration of the property, and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$32,160
<b>FEES:</b>	6,432
<b>CONTINGENCY:</b>	8,040
<b>TOTAL:</b>	46,632

**PRIORITY:** OPTIONAL, D1

**YEAR:** 2001

\* not Required  
Siding To be priced & re Funding

Cost of Battery Rm.

**DEFICIENCY REPORT:** Helicopter Operation/General Storage

March 31, 2000

D-1

REF NO.: 5.2.2.1	SYSTEM: Building Envelope
------------------	---------------------------

COMPONENT: Windows	PHOTO:	DATE: January 2000
RATING: Fair		
OBSERVATION:  Windows are original, low thermal resistance. Frames have no thermal break.		
RECOMMENDATION:  Replace windows with double glazed sealed units in vinyl frame.		
IMPACT:  High O&M costs; deterioration of the property, and hence the value of the property.		

COSTS	
CONSTRUCTION:	\$1,000
FEES:	200
CONTINGENCY:	250
TOTAL:	1,450

PRIORITY: OPTIONAL, D1	YEAR: 2001
------------------------	------------

Not Required unless up graded



**DEFICIENCY REPORT:** Helicopter Operation/General Storage

**REF NO.:** 5.2.2.2

**SYSTEM:** Building Envelope

**COMPONENT:** Exterior  
Doors

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Entry door is original, has low R value and should be replaced. Overhead doors are 5 years old and are in good condition.

**RECOMMENDATION:**

Replace entry door with insulated hollow metal door and thermally broken steel frame.

**IMPACT:**

Increased O&M costs due to higher heat loss.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$1,250
<b>FEES:</b>	250
<b>CONTINGENCY:</b>	313
<b>TOTAL:</b>	1,813

**PRIORITY:** OPTIONAL, D1

**YEAR:** 2001

*NOT Required*

**DEFICIENCY REPORT:** Helicopter Operation/General Storage

**REF NO.:** 5.2.3

**SYSTEM:** Building Envelope

**COMPONENT:** Roof

**PHOTO:**

**DATE:** January 2000

**RATING:** Poor

**OBSERVATION:**

Roof consists of approximately 1" of insulation sandwiched between inner liner and metal roof. Roof has low R value.

**RECOMMENDATION:**

Upgrade roof providing additional insulation (RAO) and new metal roof matching adjacent building's colour scheme.

**IMPACT:**

Increased O&M costs due to poor insulation value.

COSTS	
CONSTRUCTION:	\$6,090
FEES:	1,218
CONTINGENCY:	1,523
TOTAL:	8,831

**PRIORITY:** OPTIONAL, D1

**YEAR:** 2001

*not required unless upgraded*

**DEFICIENCY REPORT:** Helicopter Operation/General Storage

**REF NO.:** 5.3.1

**SYSTEM:** Interior Elements

**COMPONENT:** Floors

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Concrete floor is in satisfactory to fair condition.

**RECOMMENDATION:**

Minor repairs to finish and maintenance provision is recommended.

**IMPACT:**

Deterioration of the property and hence the value of the property.

**COSTS**

**CONSTRUCTION:**

\$525

**FEES:**

105

**CONTINGENCY:**

131

**TOTAL:**

761

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2001, 2010, 2020

I n House

**DEFICIENCY REPORT: Helicopter Operations/ General Storage Building**

REF NO.: 5.7.2

SYSTEM: Mechanical

COMPONENT: Domestic Water System

PHOTO: #8

DATE: January 2000

RATING:

**OBSERVATION:**

The domestic water storage tank, water heater, pumps and pressure tank have been decommissioned but not removed.

235.39

**RECOMMENDATION:**

Remove the redundant equipment.

**IMPACT:**

Deterioration of the property and hence the value of the property.

**COSTS**

CONSTRUCTION:	2,000
FEES:	1,000
CONTINGENCY:	1,000
TOTAL:	4,000

PRIORITY: Optional, D1

YEAR: 2001

Upgrade - 1159.95  
235.39

In House completed March 01

**DEFICIENCY REPORT: Helicopter Operations/General Storage Building**

<b>REF NO.:</b> 5.7.3	<b>SYSTEM:</b> Mechanical
-----------------------	---------------------------

<b>COMPONENT:</b> Maintenance	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b>		
<b>OBSERVATION:</b> Maintenance is done on an as required basis.		
<b>RECOMMENDATION:</b> Implement a preventative maintenance management system which will systematically track maintenance requirements and costs.		
<b>IMPACT:</b> Equipment malfunction. Insufficient documentation.		

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCY:</b>	1,500
<b>TOTAL:</b>	7,500

<b>PRIORITY:</b> Cyclical, C2	<b>YEAR:</b> 2001
-------------------------------	-------------------

*I n House Records*

## DEFICIENCY REPORT

REF NO.: 5.8.1/5.8.3

SYSTEM: Electrical

COMPONENT:

PHOTO:

DATE: January 2000

RATING: Poor

### OBSERVATION:

The electrical service and distribution is at or near the end of their useful life.

### RECOMMENDATION:

The distribution system must be replaced in the next 5 to 6 years. If planned renovations occurs, the distribution system must be replaced in 2001/2002, i.e. In conjunction with the other renovations.

### IMPACT:

If the building is to be classified as not requiring any electrical service, then the power supply to this building is to be disconnected at the source (i.e. at the Carpentry Shop).

### COSTS

CONSTRUCTION:	\$10,000
FEES:	\$2,000
CONTINGENCE:	\$2,500
TOTAL:	\$14,500

PRIORITY: Optional D-1

YEAR: 2006-2007

Minor Capital 01/02

## DEFICIENCY REPORT

REF NO.: 5.8.4

SYSTEM: Electrical

COMPONENT:

PHOTO:

DATE: January 2000

RATING: Poor

### OBSERVATION:

Lighting system is very poor.

### RECOMMENDATION:

The lighting system is very old and it needs replacement. If the planned renovations occur, the lighting system must be replaced in 2001/2002. I.e. In conjunction with the other renovations.

### IMPACT:

- The ballasts are "normal temperature" type, by which fluorescent lighting does not switch on in cold weather.
- The incandescent fixtures remain operational in all seasons, and fluorescent fixtures remain operational during warm weather.

COSTS	
CONSTRUCTION:	\$10,000
FEES:	\$2,000
CONTINGENCE:	\$2,500
TOTAL:	\$14,500

PRIORITY: Optional D-1

YEAR: 2001/2002

AS Required  
In House

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 3.3

**SYSTEM:** Mechanical

<b>COMPONENT:</b>	<b>PHOTO:</b> N/A	<b>DATE:</b> January 2000
<b>RATING:</b>		
<b>OBSERVATION:</b> An IAQ survey has never been done. <i>Indoor Air Quality</i>		
<b>RECOMMENDATION:</b> Provide for an IAQ survey to be performed on the building from time to time.		
<b>IMPACT:</b> Unknown condition of the IAQ.		

COSTS	
CONSTRUCTION:	5,000
FEES:	1,000
CONTINGENCY:	1,500
TOTAL:	7,500

**PRIORITY:** Mandatory, C2

**YEAR:** 2001, 2011, 2021

?

*Minor Capital*  
March 31, 2000

D-1

*Done*



**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.2.2.1

**SYSTEM:** Building Envelope

**COMPONENT:** Windows

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Windows are in good condition and no deficiencies were observed.

**RECOMMENDATION:**

For budgeting purposes, an allowance of \$1,000 should be provided annually for replacement of the glazed sealed units.

**IMPACT:**

Deterioration of the condition and hence the value of the the property

<i><b>COSTS</b></i>	
<b>CONSTRUCTION:</b>	\$1,000.00 (annual)
<b>FEES:</b>	\$200.00
<b>CONTINGENCY:</b>	\$250.00
<b>TOTAL:</b>	\$1,450.00

**PRIORITY:** OPTIONAL, D1

**YEAR:** 2001 to 2025

*In House*

March 31, 2000

D-2

**DEFICIENCY REPORT:** Administration Building

**REF NO.:** 5.2.2.2.1

**SYSTEM:** Building Envelope

**COMPONENT:** Exterior  
Doors

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

Doors are not equipped with lever handles and other hardware to meet barrier free accessibility requirements.

**RECOMMENDATION:**

Replace hardware on 3 exterior doors in 2001

**IMPACT:**

Poor barrier free accessibility

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$210.00
<b>FEES:</b>	\$42.00
<b>CONTINGENCY:</b>	\$53.00
<b>TOTAL:</b>	\$305.00

**PRIORITY:** MANDATORY, C1

**YEAR:** 2001

See S.S.1

In House March 01

March 31, 2000

D-3

**DEFICIENCY REPORT:** Administration Building

**REF NO.:** 5.2.2.2.2

**SYSTEM:** Building Envelope

**COMPONENT:** Exterior  
Doors

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Doors are in good condition no deficiencies were observed

**RECOMMENDATION:**

Budget provision for maintenance in 2005, 2010, 2015, 2020, 2025

**IMPACT:**

Deterioration of the condition and hence the value of the the property

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$100.00
<b>FEES:</b>	\$20.00
<b>CONTINGENCY:</b>	\$25.00
<b>TOTAL:</b>	\$145.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2010, 2015, 2020, 2025

*In House*

March 31, 2000

D-4

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.2.3

**SYSTEM:** Building Envelope

**COMPONENT:** Roof

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Not Checked

**OBSERVATION:**

Roof was not inspected due to snow cover. DFO reported no repairs were done to original membrane. Life expectancy should be of approximately 5 additional years.

**RECOMMENDATION:**

Projected replacement in 2005 and 2025.

**IMPACT:**

Deterioration of the condition, damage to interiors and hence, the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$43,890.00
<b>FEES:</b>	\$8,778.00
<b>CONTINGENCY:</b>	\$10,973.00
<b>TOTAL:</b>	\$63,641.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2025

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.3.1.1

**SYSTEM:** Interior Elements

**COMPONENT:** Carpet  
flooring

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

No deficiencies were observed. Life expectancy 5 to 10 years.

**RECOMMENDATION:**

Projected replacement in 2005, 2015 and 2025.

**IMPACT:**

Deterioration of condition and hence, the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$21,950.00
<b>FEES:</b>	\$4,390.00
<b>CONTINGENCY:</b>	\$5,488.00
<b>TOTAL:</b>	\$31,828.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2015, 2025

*Minor Capital - 2005*

**DEFICIENCY REPORT:** Administration Building

**REF NO.:** 5.3.1.2

**SYSTEM:** Interior Elements

**COMPONENT:** Resilient &  
quarry tile flooring

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

No deficiencies were observed. Life expectancy 15 years.

**RECOMMENDATION:**

Projected replacement in 2010 and 2025.

**IMPACT:**

Deterioration of condition and hence, the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$5,000.00
<b>FEES:</b>	\$1,000.00
<b>CONTINGENCY:</b>	\$1,250.00
<b>TOTAL:</b>	\$7,250.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2025

*Minor Capital 2010*  
March 31, 2000

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.3.2

**SYSTEM:** Interior Elements

**COMPONENT:** Ceilings

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Except several tiles were found to be slightly damaged, due to removal of tiles to access ceiling space.

**RECOMMENDATION:**

Replace damaged tiles. Projected replacement of all tiles in 2010 and 2025.

**IMPACT:**

Deterioration of the condition, and hence, the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$16,170.00
<b>FEES:</b>	\$3,234.00
<b>CONTINGENCY:</b>	\$4,043.00
<b>TOTAL:</b>	\$23,447.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2025

*minor Capital - 2010*

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.3.3.1

**SYSTEM:** Interior Elements

**COMPONENT:** Walls with  
vinyl wall covering

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Walls are in good condition. No deficiencies were observed.

**RECOMMENDATION:**

Projected replacement of vinyl wall covering in 2010 and 2025.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$2,500.00
<b>FEES:</b>	\$500.00
<b>CONTINGENCY:</b>	\$625.00
<b>TOTAL:</b>	\$3,625.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2010, 2025

*Minor Capital 2010*



**DEFICIENCY REPORT:** Administration Building

**REF NO.:** 5.3.3.2

**SYSTEM:** Interior Elements

**COMPONENT:** Walls with  
paint finish

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

Walls are in good condition. No deficiencies were observed.

**RECOMMENDATION:**

Cyclical painting of permanent walls in 2005, 2015, 2025.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$6,000.00
<b>FEES:</b>	\$1,200.00
<b>CONTINGENCY:</b>	\$1,500.00
<b>TOTAL:</b>	\$8,700.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2010, 2015, 2025

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.3.4

**SYSTEM:** Interior Elements

<b>COMPONENT:</b> Interior Doors	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b> Fair		
<b>OBSERVATION:</b>  All doors are equipped with door knobs, not meeting barrier free accessibility requirements.		
<b>RECOMMENDATION:</b>  Replace hardware to lever handles in 2002		
<b>IMPACT:</b>  Building does not meet barrier free accessibility requirements.		

COSTS	
CONSTRUCTION:	\$700.00
FEES:	\$140.00
CONTINGENCY:	\$175.00
TOTAL:	\$1,015.00

**PRIORITY:** MANDATORY, C1

**YEAR:** 2001

*7.5. Total Funding  
See 5.5.1*

*IN House*

*March 01*

March 31, 2000

D-11

**DEFICIENCY REPORT:** Administration Building

**REF NO.:** 5.3.6

**SYSTEM:** Interior Elements

<b>COMPONENT:</b> Washrooms	<b>PHOTO:</b> # 7	<b>DATE:</b> January 2000
<b>RATING:</b> Fair		
<b>OBSERVATION:</b>  Male and female washrooms do not meet barrier free accessibility requirements.		
<b>RECOMMENDATION:</b>  Remove toilet partitions. Remove lavatory c/w countertop and install barrier free lavatory.		
<b>IMPACT:</b>  Washroom not meet barrier free accessibility requirements.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$1,500.00
<b>FEES:</b>	\$300.00
<b>CONTINGENCY:</b>	\$375.00
<b>TOTAL:</b>	\$2,175.00

**PRIORITY:** MANDATORY, C1

**YEAR:** 2001

2.5 See 5.5.1

I n House

march 01

**DEFICIENCY REPORT:** Administration Building

**REF NO.:** 5.5.2

**SYSTEM:** Fire Separations

**COMPONENT:** Janitor  
Room and Mechanical  
Room

**PHOTO:**

**DATE:** January 2000

**RATING:** Fair

**OBSERVATION:**

From record drawings it was observed Janitor Room and Mechanical Room's south wall do not have required 1 hour fire separation from remainder of building.

**RECOMMENDATION:**

Upgrade walls around both rooms to required 1 hr fire separation.

**IMPACT:**

Unsafe condition

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	\$4,100.00
<b>FEES:</b>	\$820.00
<b>CONTINGENCY:</b>	\$1,025.00
<b>TOTAL:</b>	\$5,945.00

**PRIORITY:** MANDATORY , C1

**YEAR:** 2001

P.W.G.S.C. To clarify

March 31, 2000

D-13

Don

**DEFICIENCY REPORT: Administration Building**

REF NO.: 5.7.2.1

SYSTEM: Mechanical

COMPONENT: Domestic  
Water

PHOTO: #12

DATE: January 2000

RATING: Satisfactory

**OBSERVATION:**

The domestic water heater is approximately 13 years old.

**RECOMMENDATION:**

Replace the domestic water heater at the end of its 25 year expected service life.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<i>COSTS</i>	
CONSTRUCTION:	1,500
FEES:	500
CONTINGENCY:	500
TOTAL:	2,500

PRIORITY: Cyclical, C2

YEAR: 2012

*In House*

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.7.2.2

**SYSTEM:** Mechanical

**COMPONENT:** Plumbing

**PHOTO:** N/A

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

The plumbing fixtures are in good condition.

**RECOMMENDATION:**

Provide an allowance for plumbing fixture and valves replacement.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	3,000
<b>FEES:</b>	600
<b>CONTINGENCY:</b>	900
<b>TOTAL:</b>	4,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2012

*In House*

March 31, 2000

D-15

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.7.3.1

**SYSTEM:** Mechanical

**COMPONENT:** Heating  
Water

**PHOTO:** #12

**DATE:** January 2000

**RATING:** Satisfactory

**OBSERVATION:**

The boiler is approximately 13 years old.

**RECOMMENDATION:**

Replace the boiler at the end of its 25 year expected service life.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:** 8,000

**FEES:** 1,600

**CONTINGENCY:** 2,000

**TOTAL:** 11,600

**PRIORITY:** Cyclical, C2

**YEAR:** 2012

March 31, 2000

D-16

*Minor Capital 2012*

**DEFICIENCY REPORT: Administration Building**

REF NO.: 5.7.3.2

SYSTEM: Mechanical

COMPONENT: HVAC

PHOTO:

DATE: January 2000

RATING:

**OBSERVATION:**

The computer room has no means of mechanical cooling.

**RECOMMENDATION:**

Provide a new computer room air conditioning system.

**IMPACT:**

Unable to properly cool the electrical equipment, and must run the basebuilding HVAC system 24 hours a day.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	10,000
<b>FEES:</b>	2,000
<b>CONTINGENCY:</b>	2,500
<b>TOTAL:</b>	14,500

PRIORITY: Optional, C2

YEAR: 2001

*DAN Primeau*

*To be reviewed*

*Minor Capital*

March 31, 2000

D-17



**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.7.3.3

**SYSTEM:** Mechanical

**COMPONENT:**

Maintenance

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Maintenance is done on an as required basis.

**RECOMMENDATION:**

Implement a preventative maintenance management system which will systematically track maintenance requirements and costs.

**IMPACT:**

Equipment malfunction. Insufficient documentation.

**COSTS**

**CONSTRUCTION:**

5,000

**FEES:**

1,000

**CONTINGENCY:**

1,500

**TOTAL:**

7,500

**PRIORITY:** Cyclical, C2

**YEAR:** 2001

*In House Records*

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.7.3.4

**SYSTEM:** Mechanical

**COMPONENT:** Air  
Conditioning

**PHOTO:** N/A

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

The roof mounted condensing unit is approximately 13 years old.

**RECOMMENDATION:**

Replace the condensing unit at the end of its 25 year expected service life.

**IMPACT:**

Deterioration of the condition and hence the value of the property.

<b>COSTS</b>	
<b>CONSTRUCTION:</b>	8,000
<b>FEES:</b>	1,600
<b>CONTINGENCY:</b>	2,000
<b>TOTAL:</b>	9,600

**PRIORITY:** Cyclical, C2

**YEAR:** 2012

March 31, 2000

D-19

*Minor Capital 2012*

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.7.4.1

**SYSTEM:** Mechanical

**COMPONENT:** Heating  
System

**PHOTO:** #11

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Modulation of the heating water temperature is done by the regulation of the boilers burner.  
The redundant fuel oil day tank has not been removed from the mechanical room.

**RECOMMENDATION:**

Pipe the heating water system to meet the boiler manufacturer's recommendation, and  
remove redundant equipment from the mechanical room.

**IMPACT:**

Deterioration of the property and hence the value of the property.

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	5,000
<b>FEES:</b>	1,000
<b>CONTINGENCY:</b>	1,500
<b>TOTAL:</b>	7,500

**PRIORITY:** Optional, C2

**YEAR:** 2001

March 31, 2000

D-20

*Minor Capital - 01*

*Done*

**DEFICIENCY REPORT: Administration Building**

**REF NO.:** 5.7.4.2

**SYSTEM:** Mechanical

**COMPONENT:** Controls

**PHOTO:**

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

Controls are local pneumatic.

**RECOMMENDATION:**

Update the controls system to simple DDC to provide enhanced system functionality, improved occupant comfort and more economical system operation. Update the controls system from time to time.

**IMPACT:**

The existing controls system is becoming dated and does not allow for modern functionality. Deterioration of the property and hence the value of the property.

COSTS	
CONSTRUCTION:	20,000
FEES:	4,000
CONTINGENCY:	5,000
TOTAL:	29,000

**PRIORITY:** Cyclical, C2

**YEAR:** 2001, 2017

*P. WGSC - Enplair*

*Doug*

**DEFICIENCY REPORT: Site / Base Requirements**

**REF NO.:** 5.0.1

**SYSTEM:** Exterior Elements

**COMPONENT:**

Landscaping

**PHOTO:**

**DATE:** January 2000

**RATING:** Not Checked

**OBSERVATION:**

Condition of site landscaping could not be determined, due to snow cover. DFO reported yearly maintenance budget is at \$3,000.

**RECOMMENDATION:**

Projected annual budget at \$3,000.00

**IMPACT:**

Deterioration of condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:**

\$3,000.00 (annual)

**FEES:**

\$600.00

**CONTINGENCY:**

\$750.00

**TOTAL:**

\$4,050.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2001 to 2025

I → House

DO NOT INCL IN  
BCR SUMMARY  
THIS IS A MAINTENANCE  
CONTRACT i.e. NOT REPAIR  
CAPITAL  
JAMES  
JAN '09

**DEFICIENCY REPORT:** Site / Base Requirements

REF NO.: 5.0.2

SYSTEM: Exterior Elements

COMPONENT: Asphalt Paving	PHOTO:	DATE: January 2000
RATING: Not Checked		
OBSERVATION:  Condition of asphalt paving could not be determined, due to snow cover. DFO reported paving was done in 1998 at \$60,000.		
RECOMMENDATION:  Re-pavement is budgeted in 7 year cycles; in 2005, 2012, 2019, 2025.		
IMPACT:  Deterioration of accessibility; condition and hence the value of the property.		

COSTS	
CONSTRUCTION:	\$60,000.00
FEES:	\$12,000.00
CONTINGENCY:	\$15,000.00
TOTAL:	\$87,000.00

PRIORITY: CYCLICAL, D1

YEAR: 2005, 2012, 2019, 2025

March 31, 2000

D-2

*Minor Capital - 2005*

**DEFICIENCY REPORT: Site / Base Requirements**

**REF NO.:** 5.0.3

**SYSTEM:** Exterior Elements

**COMPONENT:**

Fencing

**PHOTO:**

**DATE:** January 2000

**RATING:** Satisfactory where visible

**OBSERVATION:**

Condition of fencing could not be fully evaluated due to snow cover.

**RECOMMENDATION:**

Projected maintenance in 2005, 2010, 2015, 2020, 2025

**IMPACT:**

Deterioration of condition and hence the value of the property.

**COSTS**

**CONSTRUCTION:**

\$3,000.00

**FEES:**

\$600.00

**CONTINGENCY:**

\$750.00

**TOTAL:**

\$4,350.00

**PRIORITY:** CYCLICAL, D1

**YEAR:** 2005, 2010, 2015, 2020, 2025

*In House*

March 31, 2000

D-3

**DEFICIENCY REPORT: Site / Base Requirements**

**REF NO.:** 6.5

**SYSTEM:** Flammable Storage

**COMPONENT:**

**PHOTO:**

**DATE:** January 2000

**RATING:**

**OBSERVATION:**

No dyking in fenced compound at the rear of the Flammable Storage building.

**RECOMMENDATION:**

Should be a dyke installed/constructed to contain any spillage that may occur from the storage of hazardous wastes prior to disposal.

**IMPACT:**

Contributes to soil contamination at the site.

**COSTS**

**CONSTRUCTION:** \$3,000.00

**FEES:** \$2,000.00

**CONTINGENCY:** \$1,000.00

**TOTAL:** \$6,000.00

**PRIORITY:** Mandatory C1

**YEAR:** 2000

See Flammable Stores  
G. 5.

Ip House - March 01



**DEFICIENCY REPORT: Site / Base Requirements**

**REF NO.:** 6.7.2

**SYSTEM:** Site Contamination

<b>COMPONENT:</b> Aboveground Storage Tanks	<b>PHOTO:</b>	<b>DATE:</b> January 2000
<b>RATING:</b>		
<b>OBSERVATION:</b>  Removal of aboveground and underground fuel storage tank in the past may have contributed to soil contamination.		
<b>RECOMMENDATION:</b>  Soil sampling program from historical aboveground storage tank locations.		
<b>IMPACT:</b>  Site contamination causing potential soil and groundwater contamination.		

<i>COSTS</i>	
<b>CONSTRUCTION:</b>	\$4,000.00
<b>FEES:</b>	\$3,000.00
<b>CONTINGENCE:</b>	\$1,000.00
<b>TOTAL:</b>	\$8,000.00

Note: This can be completed at the same time as the Flammable Storage building soil delineation.

**PRIORITY:** Mandatory C1

**YEAR:** 2000

P.W G.S.C. See G.17.35  
Contract  
00/01



**Wieterman, Douglas**

**From:** Ring, Mairin  
**Sent:** May 16, 2000 1:48 PM  
**To:** Wieterman, Douglas  
**Subject:** RE: BCR Report

Doug - here's TB's policy for this (it's on TB website),



Treasury Board Real  
Property A...

you'll see that if the public don't have to have access and an employee would have to be fully able bodied to work there, we can be exempt (see appendix), e.g. if it's a site where a worker has to climb towers, it could be exempt, but if it's a site where you have office workers it can't be exempt as many people with some disability can work there - I'm not sure about 'in-betweens' like workshops (?).

The technical standard (also mentioned in appendix) is a CSA standard - we have a copy but you might want to get your own. PW's has a workbook which they fill in using all the standard dimensions in the CSA standard (we have a copy - I'll fax you some pages).

Depending on how many of your buildings are exempt this might be a minor project (if only your admin bldg has to be reviewed for example).

How old are your buildings? In Prescott & Parry Sd., which were built in late 80s, they have some minor deficiencies in this area but only because there were some changes to the CSA standard,

we can talk again about this once you've had a chance to digest,

M.

-----Original Message-----

**From:** Wieterman, Douglas  
**Sent:** May 11, 2000 5:00 PM  
**To:** Ring, Mairin  
**Subject:** BCR Report

Mairin,

In this report PWGSC goes on about an accessibility audit and further investigation to determine whether accessibility exemption criteria can be applied.

They have it for almost all buildings in one form or another.

Is this a big project to get exempt from this requirement or is it straight forward paperwork?

Your thoughts and recommendation would be appreciated.

Doug Wieterman  
Supervisor Facility Services  
Hay River, NWT  
Ph. 867-874-5564  
Fax: 867-874-5508  
Cell 867-874-1254  
Email: [WietermanD@DFO-MPO-GC.CA](mailto:WietermanD@DFO-MPO-GC.CA)

[

○ [

[

[

[

[

[

[

[

○ [

[

[

[

[

[

[

○ [

[



## Treasury Board Real Property Accessibility Policy

(Publié aussi en français sous le titre *Politique du Conseil du Trésor sur l'accessibilité aux biens immobiliers*)

### Table of Contents

1. Effective date .....	Error! Bookmark not defined.
2. Policy objective .....	Error! Bookmark not defined.
3. Policy statement.....	Error! Bookmark not defined.
4. Application.....	Error! Bookmark not defined.
5. Policy requirements .....	Error! Bookmark not defined.
6. Responsibilities.....	Error! Bookmark not defined.
7. Monitoring.....	Error! Bookmark not defined.
8. References .....	Error! Bookmark not defined.
8.1 Authority.....	Error! Bookmark not defined.
8.2 Treasury Board publications .....	Error! Bookmark not defined.
9. Enquiries .....	Error! Bookmark not defined.
Appendix – Barrier-free Design: Implementation Requirements	Error! Bookmark not defin



Treasury Board of Canada Secretariat  
Treasury Board Real Property Accessibility Policy

## 1. Effective date

This document contains the policy as revised June 30, 1998. It replaces the version dated November 15, 1993.

## 2. Policy objective

To ensure that persons with disabilities can gain access to, and use, federal real property.

## 3. Policy statement

It is government policy to ensure barrier-free access to, and use of, real property it owns or leases.

## 4. Application

This policy applies to all departments within the meaning of section 2 of the *Financial Administration Act* unless specific Acts or regulations override it.

### Notes:

- (a) All departments should be aware that the *Canadian Human Rights Act* prohibits discrimination in the provision of goods, services, facilities and accommodation.
- (b) The Treasury Board Human Resources Management group of policies provide information on the provision of services to employees with disabilities.

## 5. Policy requirements

- (a) Custodian departments must provide barrier-free access to, and use of, real property they administer using the technical standards and implementation requirements in the Appendix.
- (b) Certain elements of real property may be exempted from the full-accessibility requirements in accordance with the provisions of the Appendix. Custodian departments must identify those real properties within their custody that are to be made accessible and those that are to be partially or fully exempted.
- (c) Departments must take steps to provide appropriate access and use where this policy does not satisfy a special need of a federal employee with a disability, does not deal satisfactorily with access in particular properties, or adversely affects certain employees.
- (d) Wherever practicable, persons with disabilities must be offered the same level of access to, and use of, federal real property as persons without disabilities.
- (e) All departments must take temporary action to meet the requirements of persons with disabilities while planning and implementing permanent adjustments.
- (f) Tenant departments must ensure:
  - (i) that the lease, in the case of a private-sector landlord, or occupancy agreement in the case of a federal custodian landlord, clearly states that the landlord must adhere to the accessibility requirements of this policy; and
  - (ii) that their tenant operations, as well as fit-up parameters requested by them, do not negate the efforts of the custodian or landlord in providing accessibility in accordance with this policy.
- (g) In leasing out federal real property to a tenant who is located on or in the same property as a government service and serving either the same employees or the same users as the government service





**Treasury Board of Canada Secretariat**  
**Treasury Board Real Property Accessibility Policy**

offered in that property, custodian departments must require, in the lease agreement, that the tenant adhere to this policy. For existing leases, departments must make every effort to ensure that tenants adhere to this policy.

(h) Annual reports are to be submitted to the Bureau of Real Property Management, Treasury Board of Canada Secretariat, and should reflect changes made to accessibility plans and implementation progress. Accessibility improvements completed to real property in the preceding year should also be described.

## **6. Responsibilities**

(a) Custodian departments have primary responsibility for ensuring that the real property they administer is accessible to persons with disabilities, and for planning appropriate capital and maintenance programs to ensure implementation of the accessibility policy.

(b) **The Accessibility Subcommittee of the Treasury Board Advisory Committee on Real Property is responsible for:**

(i) advising on policy issues concerning accessibility improvements within Crown-owned or Crown-leased real property;

(ii) addressing departmental concerns about achieving policy objectives;  
and

(iii) reporting to the Treasury Board Advisory Committee on Real Property about its activities.

(c) Public Works and Government Services Canada (PWGSC) provides technical support; architectural and engineering support and services; and guidance on best practices as they apply to accessibility for persons with disabilities on an optional, cost-recoverable basis. PWGSC maintains a technical library for the benefit of the federal government and other interested parties.

(d) The Treasury Board of Canada Secretariat:

(i) consults with representatives of tenant and custodian departments and other interested parties, especially persons or groups concerned with accessibility issues regarding this policy; and

(ii) prepares reports for the Treasury Board that provide an overview of the progress made as measured against departmental plans.

## **7. Monitoring**

The Secretariat will determine how effective this policy is, find out how it is applied in departments and decide whether it needs to be revised. It will do this through ongoing contact with departments, consulting with the Treasury Board Advisory Committee on Real Property, and noting audits and reviews conducted by departments or the Auditor General. The *Treasury Board Guide to Monitoring Real Property Management* provides information so that departments themselves can monitor and assess policy implementation.



## 8. References

### 8.1 Authority

This policy is issued pursuant to the *Financial Administration Act*, subsections 7(1), 9(1.1) and 9(2) and the *Federal Real Property Act*, subsections 16(1) and 16(4).

### 8.2 Treasury Board publications

*Treasury Board Guide to Monitoring Real Property Management*  
*Treasury Board Real Property Glossary*

## 9. Enquiries

Please direct enquiries about this policy to:

Senior Analyst  
Real Property Management Division  
Treasury Board of Canada Secretariat  
8<sup>th</sup> Floor, West Tower  
L'Esplanade Laurier  
300 Laurier Avenue West  
Ottawa, Ontario  
K1A 0R5  
Telephone: (613) 957-9941  
Facsimile: (613) 957-2405



## Appendix – Barrier-free Design: Implementation Requirements

### 1. Technical standard

The technical standard to be applied in implementing the requirements within Crown-owned or Crown-leased real property, referred to in the policy as the 'technical standard,' is found in the publication entitled, *Barrier-free Design Standard* (CAN/CSA-B651-M95 or subsequent editions)

### 2. Minor variations

In applying the technical standard or the detailed implementation requirements to existing owned or leased real property, custodian departments may allow minor variations from the standard or implementation requirements. Such variations must be consistent with the general intent of this policy but must not affect the general accessibility of a specific property.

### 3. Supplemental standards

Custodian departments, when developing standards that either supplement or are a substitute for the technical standard, must consult on these with technical experts at both the developmental and final stages. These changes should be described in the department's annual accessibility report to the Treasury Board of Canada Secretariat.

## Scheduling

Federal real property must be made accessible in the following sequence:

- (i) sites (or locations) where the public and/or employees in large numbers require access;
- (ii) other Crown-owned real property;
- (iii) other Crown-leased real property.

### 5. Implementation requirements for new construction

#### Note:

This section refers to all Crown-owned and lease-purchase real property. The decision to make a building or other facility accessible should be based on occupancy requirements as well as the type of property and its expected use during its life.

5.1.1 If parking spaces are provided for employees or visitors, accessible spaces must be provided in conformance with municipal by-laws and the following table. If these parking spaces are reserved for government employees only, then the accessible parking spaces may be assigned on a temporary basis to employees in general. These spaces must be relinquished, however, should employees with disabilities require them:



Treasury Board of Canada Secretariat  
Treasury Board Real Property Accessibility Policy

Total parking spaces	Minimum no. of accessible spaces
up to 25	1
26 – 50	2
51 – 75	3
76 – 100	4
101 – 150	5
151 – 200	6
201 – 300	7
301 – 400	8
401 – 500	9
more than 500	2% of total

The accessible parking spaces may be distributed among distinct parking areas but must be within a reasonable and safe proximity of the federal facility.

5.1.2 Where applicable, accessibility must include routes from accessible parking areas, local public transit stops and all drop-off areas to main entrances.

5.1.3 Where applicable, access to, and use of, the following must be provided:

- (i) entrances to the real property. Frequently used points of access to the property must be equipped with a power door operator. Where access or egress to the facility is through doors in series (in a vestibule-like arrangement), at least one complete set of doors allowing access through the vestibule area must be so equipped;
- (ii) passenger elevators;
- (iii) public areas (including, but not limited to, cafeterias, lounges, recreation areas, eating areas, patios, libraries and walkways);
- (iv) federal work areas (including, but not limited to, offices, on-floor storage areas, meeting and training rooms, computer rooms and spaces for business machines);
- (v) interior doors and corridors;
- (vi) washrooms;
- (vii) public telephones. When banks of public telephones are provided, there must be at least one public telephone per bank accessible to persons in wheelchairs and one public telephone per bank accessible to persons with hearing impairments. All direct-line telephones and at least one charge-a-call telephone, when provided, must be similarly accessible;
- (viii) one accessible water cooler or drinking fountain in each location where a water cooler or drinking fountain is provided; and
- (ix) emergency egress from all accessible areas.





Treasury Board of Canada Secretariat  
**Treasury Board Real Property Accessibility Policy**

- 5.1.4 Where applicable, emergency egress must be accessible by means of an area of refuge, a horizontal exit or an accessible route to the exterior.
- 5.1.5 Where applicable, detectable warnings must be provided at the top of all stairs except exit stairs in a separate stairwell.
- 5.1.6 Tactile signage must be used for washrooms, emergency egress, elevators, stairwells and doors off main corridors.
- 5.1.7 Accessible seating spaces must be provided within auditoriums, theatres, and other general assembly areas in conformance with the *National Building Code of Canada*.
- 5.1.8 Classrooms, auditoriums, meeting rooms, and theatres with an area of more than 100 square metres must be equipped with an assistive listening system encompassing the entire seating area.
- 5.1.9 Fit-up parameters must not detract from the efforts of the custodian department or landlord to provide accessibility in accordance with this policy.
- 5.1.10 All new residential units must either conform to the technical standard or be designed to be easily adaptable when employees or their immediate dependents require accessibility.

## **6. Exemptions for new construction**

- 6.1 Custodian departments are solely responsible for establishing internal procedures for identifying and approving any exemption in accordance with this section. As part of this procedure, custodian departments should consult users as well as experts in addressing accessibility issues. When evaluating the factors for exemptions, custodian departments should consider that restrictions for one disability do not automatically apply to all disabilities. Exemptions should be considered on an individual basis. A justified exemption from one type of accessibility requirement does not mean that exemption from other accessibility requirements will be granted.
- 6.2 Various new buildings or structures, due to their specialized design function or requirements, may be candidates for a reduced level of accessibility or can be completely exempted from barrier-free design requirements. Such facilities include, but are not limited to, the following: naturally inaccessible facilities in remote locations; unattended monitoring stations; facilities that are designed and constructed to accommodate able-bodied personnel (i.e. where being able-bodied is a specific part of the job requirement); and facilities where operational requirements preclude reasonable access by persons with disabilities. If the specialized design or operational requirement that justified the exemption changes, then the custodian department must reassess the facility against the policy to ensure that the exemption is still justified.
- 6.3 In some cases, access need not be provided to certain parts of a facility such as boiler rooms, roofs, elevator pits, elevator penthouses, mechanical rooms, electrical vaults, piping or equipment catwalks, or areas of hazardous occupancy (as defined by the *National Building Code of Canada* and the *National Fire Code of Canada*), unless the intended use requires public access or the job requirements are such that a person with a disability could meet these requirements.

## **7. Existing Crown-owned real property**

### **Note:**

The decision to make Crown-owned real property accessible should be based on occupancy requirements as well as the type of property and its use during its life expectancy.

- 7.1 All existing Crown-owned real property must meet the following requirements:
- (i) all the requirements in sections 5.1.1 and 5.1.2;
  - (ii) all the requirements in section 5.1.3 with the following differences:
    - In the case of entrances to the property, the door for at least one entrance from the outdoors at sidewalk level or from a ramp leading



from a sidewalk must be equipped with a power door operator, where appropriate. Wherever possible, this door must be the main entrance to the facility. Where access or egress to the facility is through a series of doors in a vestibule-like arrangement, at least one complete set of doors allowing access through the vestibule area must be so equipped.

– In the case of washrooms, there must be at least one accessible men's washroom and one accessible women's washroom or one accessible individual washroom for each occupied floor where washrooms are provided.

(iii) all requirements in section 5.1.4. In existing real property, however, suitable operational procedures can be used where accessible egress facilities are impractical; and

(iv) all requirements in sections 5.1.5 to 5.1.9.

7.2 Generally, existing Crown-owned residential units need not be accessible. Custodian departments must be prepared, however, to make units accessible when required by employees or their immediate dependents.

## **8. Exemptions for existing Crown-owned real property**

8.1 No barrier-free access is required to the second storey of a two-storey building if the area of the second storey is less than 600 rentable square metres and there is full access to government services and employment opportunities on the ground floor. The same provisions apply to single-storey buildings where the basement is used as an operational second floor.

8.2 The exemptions listed for new construction apply.

8.3 Real property that the government will permanently vacate, or that will be removed from the federal inventory within 12 months, may be exempted completely. Custodian departments must be prepared, however, to take temporary action in the interim in cases where people with disabilities are employed or served.

8.4 Custodian departments must adapt existing residential units when employees or their immediate dependents require accessibility.

## **9. Heritage facilities**

The requirements for heritage facilities are the same as those for other Crown-owned facilities except where these requirements will significantly reduce the heritage quality of the facility. Some deviation from the standard is permitted provided a local or regional committee consisting of experts in accessibility issues and the Federal Heritage Building Review Office, which represents federal heritage considerations, have agreed to the accessibility requirements and the following requirements are met:

(i) access must be provided to at least one main level in the facility;

(ii) there must be full access to government services and employment opportunities;

(iii) where washroom facilities are provided in an inaccessible location, equivalent facilities that are accessible must also be provided; and



Treasury Board of Canada Secretariat  
**Treasury Board Real Property Accessibility Policy**

- (iv) for inaccessible exhibitions, another version of the exhibition, such as a video display, must be provided in an accessible area.

## **10. Leased real property**

### **Note:**

In this section, 'leased' means space leased to the federal government, not space owned by the federal government and leased to the private sector. The decision to require a leased property to be rendered accessible should be based on occupancy requirements as well as the type of property and its use during the lease term.

10.1 Where applicable and subject to the following, all leased space must be rendered accessible in accordance with sections 5 and 6, relating to existing Crown-owned real property.

10.2 Where custodian departments are expressly permitted to exercise discretion or flexibility in applying the technical standard or the implementation requirements, it must be exercised in such a way so as not to nullify the general intent of this policy or the general accessibility of the specific property. Custodian departments are also required to take whatever temporary action is necessary in cases where persons with disabilities are employed or served.

10.3 For existing leases where:

- (i) people with disabilities are employed or served; and
- (ii) the landlord does not agree to alter the facility or to have the facility altered in accordance with the requirement, even at the Crown's expense;

departments should take whatever alternative or temporary action the landlord will permit and vacate the premises at the end of the lease term.

10.4 For all new lease tender calls or exercised lease options with terms of more than two years, access to and use of facilities must be in accordance with article 10.1. When the requirement would unduly restrict the competitive process, or when such facilities are not readily available on the market, custodian departments may:

- (i) exercise minor discretion in applying the technical standard or the detailed implementation requirements, based on building configuration; or
- (ii) consider bidders who agree to make the leased space conform with article 10.1 within one year of the lease being signed. Based on building configuration, minor deviations may be acceptable.

10.5 For non-renewable new leases and lease options for temporary space having a duration of less than two years, custodian departments may exercise an increased level of flexibility in applying the requirements, based on the building configuration.

10.6 Generally, leased residential units need not be accessible. Custodian departments must be prepared, however, to lease accessible premises or render the existing premises accessible when required by employees or their immediate dependents.



Treasury Board of Canada Secretariat  
**Treasury Board Real Property Accessibility Policy**

## 11. Enquiries

- (a) Technical enquiries about making federal facilities accessible should be directed to PWGSC:
- Accessibility Office  
Architectural and Engineering Services  
Public Works and Government Services Canada  
Place du Portage, Phase IV  
Level 1, Architecture and Engineering Services Buildings Directorate  
Hull, Québec  
K1A 0M3  
Telephone: (819) 775-4660  
Facsimile: (819) 775-4914  
E-mail: [verityj@pwgsc.gc.ca](mailto:verityj@pwgsc.gc.ca)
- (b) Enquiries about disability policy and co-ordination issues, the Federal Task Force on Disability Issues, and non-government organizations contacts for disability issues should be directed to:
- Office for Disability Issues  
Human Resources Investment Branch  
Human Resources Development Canada  
Suite 100, 25 Eddy Street  
Hull, Québec  
K1A 0M5  
Telephone and teletypewriter (TTY) telephone device for the hearing impaired: 1-800-561-9706  
Voice mail for voice and TTY in the National Capital Region:  
(819) 994-7514  
Voice mail for voice and TTY outside the National Capital Region:  
1-800-665-9017
- (c) Enquiries about the *Barrier-free Design Standard* referenced in this Appendix should be directed to either the nearest Canadian Standards Association regional office or to the head office.
- Head Office:**
- Standards Sales and Customer Service  
Canadian Standards Association  
178 Rexdale Boulevard  
Etobicoke, Ontario  
M9W 1R3  
Telephone: (416) 747-4044 or 1-800-463-6727  
Facsimile: (416) 747-2475  
E-mail: [sales@csa.ca](mailto:sales@csa.ca)  
Web site: [www.csa.ca](http://www.csa.ca)

**Regional Offices:**





**Treasury Board of Canada Secretariat**  
**Treasury Board Real Property Accessibility Policy**

Canadian Standards Association  
Pacific Office  
3799 Commerce Parkway  
Richmond, British Columbia  
C6V 2N9  
Telephone: (604) 273-4581  
Facsimile: (604) 273-5815

Canadian Standards Association  
Western Office  
1709-94<sup>th</sup> Street  
Edmonton, Alberta  
T6N 1E6  
Telephone: (403) 450-2111  
Facsimile: (403) 461-5322

Canadian Standards Association  
Eastern Office  
865, rue Ellingham  
Pointe-Claire, Québec  
H9R 5E8  
Telephone: (514) 694-8110  
Facsimile: (514) 694-5001



** PWGSC Contracts year 00/01												
**CCG to do year 00/01, Contracted out or Material & Equipment Purchased & completion date 2001												
** Future years												
Warehouse	Ref NO.	Component	Description	Const. Cost	Fees	Contingency	Total	Priority	PWGSC - Year	CCG	PWGSC	Completion Date
PWGSC - CONTRACT-60K												
5.6	Structural		Concrete Floor-Pump Foam Insulation lift material to level floor.	\$ -	\$ -	\$ -	\$ 60,000.00	Mandatory, B1	2001	X		Mar-01
Maintenance Shop		Component	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	CCG	PWGSC	Completion Date
Approved 7.5K, TO			Ext. Doors to meet Barrier free Standards	\$ 400.00			\$	400.00	Mandatory, C1	2001	X	Mar-01
Do In House	5.2.2.1	Building	Barrier Free Accessibility - Ramp, Door Hardware, P/Stall	\$ 20,100.00			\$	20,100.00	Mandatory, C1	2002	X	Mar-01
Approved 7.5K, TO	5.5.1	Building Code	Secure Storage - Fire Rated									
Do In House			Door, Fire damper - RSER/Shop Door	\$ 2,110.00			\$	2,110.00	Mandatory, C1	2002	X	Mar-01
CCG - IN HOUSE	5.5.2	Building Code	Concrete Block wall-metal framing and grouting	\$ 2,000.00			\$	2,000.00	Mandatory, C3	2001	X	Mar-01
CCG - IN HOUSE	5.6.1	Structural	Gravel Space Piling - Clean & Prime	\$ 8,040.00			\$	8,040.00	Mandatory, C3	2001	X	Mar-01
CCG - IN HOUSE	5.6.2	Structural										
MINOR CAPITAL PWGSC -												
5.8.1	Electrical		Main Service -has not split that violates Code.	\$ 25,000.00	\$ 5,000.00	\$ 6,250.00	\$ 36,250.00	Mandatory, C2	2001/2002		X	Mar-01
				\$ 57,650.00	\$ 5,000.00	\$ 6,250.00	\$ 68,900.00					
Flammable Storage Bldg.		Component	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	CCG	PWGSC	Completion Date
CCG - IN HOUSE	5.3.3	Interior	Walls - LJC maintenance	\$ 1,000.00			\$	1,000.00	Cyclical, D1	2010/2020	X	Mar-01
CCG - IN HOUSE	5.4.1	Exterior	Building Sign Required	\$ 500.00			\$	500.00	Optional, D2	2002	X	Mar-01
CCG - IN HOUSE	6.5	Exterior	Storage-Cement Dyke fenced area., Drip Tray Only	\$ 3,000.00			\$	3,000.00	Mandatory, C1	2000	X	Mar-01
MINOR CAPITAL PWGSC - Laurie Washington												
6.17.35	Exterior		CEAA - Soil Samples- Storage area.	\$ 4,000.00	\$ 3,000.00	\$ 1,000.00	\$ 8,000.00	Mandatory, C1	2006		X	Mar-01
				\$ 8,500.00	\$ 3,000.00	\$ 1,000.00	\$ 12,500.00					
Carpenter Shop		Component	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	CCG	PWGSC	Completion Date
CCG - IN HOUSE	5.3.4.1	Mechanical	Doors require Fire Rating	\$ 2,000.00			\$	2,000.00	Mandatory, C1	2001	X	Dec-00
CCG - IN HOUSE	5.4.1	Exterior	Building Sign Required	\$ 500.00			\$	500.00	Optional, D2	2001	X	Mar-01
CCG - IN HOUSE	5.8.5	Electrical	Install Heat Decora - Paint Rm	\$ 500.00			\$	500.00	Mandatory, A1	2001	X	Mar-01
Helicopter Shop Bldg				\$ 3,000.00	\$ -	\$ -	\$ 3,000.00					
		Component	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	CCG	PWGSC	Completion Date



[illegible]



PWGSC  
BCR Report  
Minor Capital Requirements

RSR/F&O Warehouse	Ref NO.	Component	Description	Const. Cost	2001/2002 Fees	Contingency	Total	Priority	PWGSC - Year	CCG	PWGSC	Completion Date
CCG - IN HOUSE	5.2.2.2	Exterior Doors	Paint	\$ 200.00	\$ -	\$ -	\$ 200.00	Cyclical, D1	5 years	X		Mar-01
CCG - IN HOUSE	5.2.3	Roof	Attic Ventilation -	\$ 1,000.00	\$ -	\$ -	\$ 1,000.00	Optional, D1	2001	X		Mar-01
PWGSC - CONTRACT - 60K	5.6	Structural	Concrete Floor-Pump Foam insulation lift material to level floor.				\$ 60,000.00	Mandatory	2001		X	Mar-01
CCG - IN HOUSE	5.7.2	Mechanical	Maintenance Records Documentation	\$ 5,000.00	\$ -	\$ -	\$ 5,000.00	Cyclical, C2	2001	X		ON GOING
MINOR CAPITAL	5.7.3	Mechanical	Controls to provide DDC and remote monitoring.	\$ 5,000.00	\$ 1,000.00	\$ 1,500.00	\$ 7,500.00	Cyclical, C2	2002		X	Mar-02
Maintenance Shop		Component	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	CCG	PWGSC	Completion Date
CCG - IN HOUSE	5.7.2.2	Mechanical	P/Fixtures/Valves L/C Replacement	\$ 5,000.00			\$ 5,000.00	Cyclical, C2	2001/2016	X		On going
Minor Capital	5.7.3.1	Mechanical	Boiler Comp. Replacement	\$ 8,000.00	\$ 1,200.00	\$ 1,500.00	\$ 8,700.00	Optional, C1	2001		X	Mar-03
MINOR CAPITAL	5.7.3.3	Mechanical	Heating, Water System- Air inlet blocked.	\$ 5,000.00	\$ 1,000.00	\$ 1,500.00	\$ 7,500.00	Mandatory	2001		X	Mar-02
MINOR CAPITAL	5.7.4.1	Mechanical	Heating Water System- Repipe the heating water pumps	\$ 5,000.00	\$ 1,000.00	\$ 1,500.00	\$ 7,500.00	Optional, C1	2001		X	?
CCG - IN HOUSE	5.7.4.2	Mechanical	Controls- remote monitoring system, Fire Alarm, Low Temp	\$ 8,000.00			\$ 8,000.00	Cyclical, c2	2002/2017	X		Mar-01
MINOR CAPITAL	5.8.2	Electrical	Main Distribution L/C Replacement	\$ 35,000.00	\$ 7,000.00	\$ 8,700.00	\$ 50,700.00	Mandatory	2007		X	Jun-05
CCG - IN HOUSE	5.4.1	Exterior	Building Sign Required	\$ 500.00			\$ 500.00	Optional, D1	2002	X		Mar-01
MINOR CAPITAL	5.7.4	Mechanical	Ventilation, - Controls upgrade to current standard	\$ 5,000.00	\$ 1,500.00	\$ 1,500.00	\$ 8,000.00	Cyclical, C2	2002/2017		X	Mar-02
Carpenter Shop		Component	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	CCG	PWGSC	Completion Date
CCG - IN HOUSE	5.3.6	Interior	Washroom/Junior Rm - Upgrade to separate Lavatory	\$ 3,000.00			\$ 3,000.00	Mandatory	2001	X		Nol Required
CCG - IN HOUSE	5.4.1	Exterior	Building Sign Required	\$ 500.00			\$ 500.00	Optional, D1	2001	X		Mar-01
CCG - IN HOUSE	5.7.2.2	Mechanical	P Fixtures/Valves L/C Replacement	\$ 1,000.00			\$ 1,000.00	Cyclical, C2	2001/2015	X		On going
MINOR CAPITAL	5.7.3.1	Mechanical	Boiler Comp. Replacement	\$ 3,000.00	\$ 600.00	\$ 900.00	\$ 4,500.00	Optional, C1	2001		X	Mar-03
MINOR CAPITAL	5.7.4	Mechanical	Update to DDC Controls for Remote Monitoring	\$ 10,000.00	\$ 2,000.00	\$ 2,500.00	\$ 14,500.00	Cyclical, C2	2002/2017		X	Mar-03
Helicopter Shop Bldg		Component	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	CCG	PWGSC	Completion Date





## Minor Capital Requirements

ONLY IF UPGRADED	5.2.1	Building	Exterior Walls- Upgrade Insulation	\$ 32,160.00	2001/2002	\$ 32,160.00	Optional, D	2001 X		Not Required
ONLY IF UPGRADED	5.2.2.1.	Building	Windows Replacement	\$ 1,000.00		\$ 1,000.00	Optional, D	2001 X		Not Required
ONLY IF UPGRADED	5.2.2.2	Building	Replace E/Doors to Raled	\$ 1,250.00		\$ 1,250.00	Optional, D	2001 X		Not Required
CCG - IN HOUSE	5.2.3	Building	Thermal Value	\$ 6,090.00		\$ 6,090.00	Optional, D	2001 X		On going
CCG - IN HOUSE	5.3.1	Interior	Floors - L/C Maintenance	\$ 525.00		\$ 525.00	Cyclical, D1	2001/2010	X	On going
MINOR CAPITAL	5.8.1 5.8.3	Electrical	E/Distribution L/C Upgrade	\$ 10,000.00	\$ 2,000.00	\$ 2,500.00	Optional, D1	2006/7	X	Mar-02
CCG - IN HOUSE	5.8.4	Electrical	Lighting - L/C Upgrade	\$ 10,000.00		\$ 10,000.00	Optional, D1	2001/2	X	On going
Administration Building										
Minor Capital	3.3	Mechanical	Description	Const. Cost	Fees	Contingency	Total	Priority	Year	Completion Date
Minor Capital	5.5.2	Fire Separations	IAQ Survey	\$ 5,000.00	\$ 1,000.00	\$ 1,500.00	\$ 7,500.00	Mandatory, C1	21/11/01	Mar-02
MINOR CAPITAL	5.7.3.2	Mechanical	HVAC	\$ 4,100.00	\$ 820.00	\$ 1,025.00	\$ 5,945.00	Mandatory, C1	2001 X	Mar-02
Minor Capital	5.7.4.1	Mechanical	Heating System	\$ 10,000.00	\$ 2,000.00	\$ 2,500.00	\$ 14,500.00	Optional, C1	2001	Mar-02
Minor Capital	5.7.4.2	Mechanical	Controls	\$ 5,000.00	\$ 1,000.00	\$ 1,500.00	\$ 7,500.00	Optional, C1	2001 X	Mar-02
Site/Base Requirements				\$ 20,000.00	\$ 4,000.00	\$ 5,000.00	\$ 29,000.00	Cyclical, C2	2001/17	Mar-02
CCG - In House	5.01	Landscaping	Description	Const. Cost	Fees	Contingency	Total	Priority	PWGSC - Year	Completion Date
Minor Capital	5.02	Asphalt Paving	Yearly Maintenance	\$ 3,000.00	\$ 600.00	\$ 750.00	\$ 4,050.00	Cyclical, D1	2001 - 2025	On Going
			Paving	\$ 60,000.00	\$ 12,000.00	\$ 15,000.00	\$ 87,000.00	Cyclical, D1	2005/2012/2019/ 2025	Require 10,000



PWGSC  
Energy Audit  
March 2001

1.1.3	CCG Administration Building		Cost	Savings	Payback
	<b>Description</b>				
1.1.3.1	Electrical, Refit Fluorescent Fixtures with T 8 lamps and Electronic ballasts		\$ 7,500.00	5525 KWH/YR	11.3 Yr.
1.1.3.2.	Mechanical - 1. Reduce Boiler stand by losses, 2. Provide Dedicated server room HVAC System, 3. Upgrade Mechanical Systems Controls				
1.1.3.2.1.	Boiler Stand by Losses, A primary/secondary piping scheme where fluid is pumped to the boiler only on a call for heat by the system would eliminate this situation.		\$ 8,200.00	\$960.00 yr.	8.54 Yr.
1.1.2.2.2.	Server Room Needs - Dedicated Ventilation System to control heating, cooling and Humidification should be provided		\$ 15,200.00		
1.1.3.2.3	Controls - The building system should be modernized to allow close control of heating, ventilation and cool systems		\$ 31,500.00		
1.1.3.3.	Architectural - Exterior Door pairs be fitted with removable mullions and new weather stripping		\$ 4,000.00		
3.1.3	<b>Description</b>		Cost	Savings	Payback
	RSER/F&O Warehouse				
	<b>Description</b>		Cost	Savings	Payback
3.1.3.1	Electrical - Provide Fluorescent lighting switched separately from the main building lighting		\$ 1,500.00	6600 KWH/YR	1.9 Yr.
3.1.3.2	Mechanical - TBD				
3.1.3.3	Architectural - All doors be fitted with new weather-strip & thresholds.		\$ 4,000.00		
4.1.3	<b>CCG Maintenance Building</b>				
	<b>Description</b>		Cost	Savings	Payback
4.1.3.1	Electrical - 1. Provide Fluorescent lighting switched separately from the main building lighting		\$ 1,500.00	4950KWH/YR	2.5
	2. Provide Occupancy Sensor Switches		\$ 2,500.00	9507KWH/Yr	2.2
	3. Refit Fluorescent Fixtures with T 8 lamps and Electronic ballasts & retrofit existing incandescent fixtures with compact fluorescent.		\$ 5,135.00	4300 KWH/YR	9.9
	4. Provide Intermittent control and temperature override of exterior carplug receptacles		\$ 2,000.00	2400KWH/YR	6.9



PWGSC

Energy Audit

March 2001

	4. Pilot Project using photovoltaic energy to supplement utility power April - August.	TBD	TBD	TBD
4.1.3.2.	<b>Mechanical</b> - Reduce Stand by losses. Shut down air handler pumps during unoccupied times. Provide CO detector for shop area. Upgrade mechanical controls			
4.1.3.2.1.	<b>Boiler Stand by Losses</b> , A primary/secondary piping scheme where fluid is pumped to the boiler only on a call for heat by the system would eliminate this situation.	\$ 8,200.00		5.2 Yrs
4.1.3.2.2.	<b>Air Handler Pumps</b> , Controls added to allow pumps to shut down while the air system is not in use.	\$ 6,200.00	13,140 KWH/YR	13.1 Yr.
4.1.3.2.3	<b>Provide a CO detector to control AS-1</b> - The shop area should have a ventilation system controlled by a CO detector.	\$ 6,500.00	Safety Issue	
4.1.3.2.4.	<b>Controls</b> - Control system should be modernized to allow close control of heating and ventilation systems.	\$ 14,500.00		
4.1.3.3	<b>Architectural</b> - Adjust O/H doors - weather stripping. Replace single glazed lights with double. Exterior doors be provided with new weather strip and threshold.	\$ 8,000.00		
5.1.3	<b>Flammable Storage Building</b>			
5.1.3.1	<b>Description</b>	<b>Cost</b>	<b>Savings</b>	<b>Payback</b>
5.1.3.2.	<b>Electrical</b> - No Recommendations			
	<b>Mechanical</b> -			
5.1.3.2.1.	<b>Boiler Stand by Losses</b> , A primary/secondary piping scheme where fluid is pumped to the boiler only on a call for heat by the system would eliminate this situation.	\$ 3,200.00		
5.1.3.2.3.	<b>Controls</b> - Control system should be modernized to allow close control of heating and ventilation systems.			
5.1.3.2.	<b>Architectural</b> - No Recommendations	\$ 9,000.00		
6.1.3	<b>Carpenter Shop</b>			
	<b>Description</b>	<b>Cost</b>	<b>Savings</b>	<b>Payback</b>



PWGSC  
Energy Audit  
March 2001

6.1.3.1	Electrical. Refit Fluorescent Fixtures with T 8 lamps and Electronic ballasts. Remove existing mercury vapor fixtures in the lumber storage and replace with Metal halide.	\$ 2,900.00	4200KWH/YR	5.7 Yr.
6.1.3.2	Mechanical - Boiler Stand by Losses, A primary/secondary piping scheme where fluid is pumped to the boiler only on a call for heat by the system would eliminate this situation.	\$ 3,200.00		11.8 Yr.
	Controls - Control system should be modernized to allow close control of heating and ventilation systems.	\$ 9,000.00		
	Architectural - Exterior personnel doors be replaced with Insulated hollow metal type with thermal broken steel frames	\$ 7,000.00		
7.1.3	Helicopter Operation/General Storage			
	Description	Cost	Savings	Payback
7.1.3.1	Electrical. Refit Fluorescent Fixtures with T 8 lamps and Electronic ballasts. Remove existing mercury vapor fixtures in the lumber storage and replace with Metal halide.	\$ 1,000.00	1220KWH/YR	6.8
7.1.3.2.	Mechanical - To be Completed? Upgrade building to Thermal resistance of RSI 3.5 and replace personnel door with insulated hollow metal type with thermal broken frames. Windows be replaced with glazed ujis in Thermal broken vinyl frames.	\$ 25,000.00		
7.1.3.3.		\$ 186,735.00		





Sandy  
J. v.

**Wieterman, Douglas**

**From:** Willert, Cheryl  
**Sent:** March 9, 2001 5:46 AM  
**To:** Wieterman, Douglas  
**Subject:** RE: Forecasts

coding for a journal voucher and the contracts will be to debit 49240 520 210 xxxx 00000 6.  
Thanks Doug for the info. Please send copies of the paperwork/journal vouchers.

**Cheryl Willert**  
**Administrative Assistant**  
**Facilities**  
**519-383-1858**

-----Original Message-----

**From:** Wieterman, Douglas  
**Sent:** Thursday, March 08, 2001 5:33 PM  
**To:** Willert, Cheryl; Kathan, Sandy  
**Subject:** RE: Forecasts

Cheryl,  
As highlighted below. Do you have a cost code I can use to j.v. the costs as other than PWGSC contracts everything is on Master Card.

Doug Wieterman  
Supervisor Facility Services  
Hay River, NWT  
Ph. 867-874-5564  
Fax: 867-874-5508  
Cell 867-874-1254  
Email: WietermanD@DFO-MPO-GC.CA

-----Original Message-----

**From:** Willert, Cheryl  
**Sent:** Thursday, March 08, 2001 1:16 PM  
**To:** Wieterman, Douglas; Kathan, Sandy  
**Subject:** Forecasts

Could I please get a forecast and purchase order numbers/copies of SSA's for the following Hay River projects.

**Emergency Response Building floor retrofit** **Budget \$60k**  
PWGSC is looking at this and is suppose to have an answer today. Last Estimate I had was 70 k and Mairin is taking care of the funding. Will Advise as soon as I hear anything

**Barrier Free Access** **Budget \$7.5k**  
Waiting for last invoice - Total should be close to \$7,700.00 - Charged to Master Card - Need Coding.

**Mechanical/Electrical Upgrades** **Budget \$72k**  
One contract through PWGSC for \$14,000.00

**Carpenter Shop - Mechanical Ventilation Upgrade** **Budget \$29k**  
Finishing up - waiting for invoice - Need Coding as charged to Master Card.  
Cost \$8,357.00



**PWGSC / TPSGC**

PWGSC / TPSGC

Phone: (867) 766-7105  
FAX: (867) 873-5885  
email: [Russell.Heslep@pwgsc.gc.ca](mailto:Russell.Heslep@pwgsc.gc.ca)

# *Facsimile*

To: Doug Wieterman  
@Fax: (867) 874-5508  
From: RUSS HESLEP  
Date: Tuesday, November 14, 2000 @ 9:18AM  
Re: project work approved  
Pages: 3, including this

Please see the attached letter and project beakdown as per our phone conversation this AM. I will be in Hay River Wednesday and Thursday. I can be reached on my Cell Pone @ 1-867-873-1723.

Thanks

*Russ*





Canadian  
Coast Guard

Garde côtière  
canadienne

Central and Arctic Region    Région du Centre et de l'Arctique

201 N. Front Street,  
Suite 703,  
Sarnia, Ontario  
N7T 8B1

201 rue Front N.,  
pièce 703  
Sarnia (Ontario)  
N7T 8B1

November 6, 2000

Your file    Votre référence

Our file    Notre référence

PWGSC,  
100 - 123 Main Street  
Winnipeg, Manitoba  
R3C 2Z1

Attn: Mr. Peter Mayberry, Regional Director, CSU

*Russ HESLER - YELLOWKNIFE*

Dear Sir,

**Re: Coast Guard Facilities - Minor Capital projects.**

I am writing to request your assistance with the implementation of capital projects for which we recently received funding from the Real Property directorate in Ottawa. These projects had been submitted for funding by the region and are mainly based on projects identified and recommended by PWGSC in the short AMPs carried out earlier this year.

Attached please find the listing of projects by site for your PW's region. The projects need to be completed within the fiscal year.

SSAs for these projects should be forwarded for signature to:

Ron Whitehorne, Superintendent, Technical Field Services,  
401 King St., Prescott, Ontario  
K0E 1T0  
Ph: (613)-925-2865 Ext: 112 Fax: (613)-925-5540

The local contacts for managing projects on site is:

Mr. Doug Wieterman, Supervisor, Technical Field Services, Hay River, NWT  
Ph: (867)-874-5564 Fax: (867)-874-5508

Thank you for your assistance with these projects,

Yours sincerely,



Canada

1



Coast Guard Major Bases, Central & Arctic, NWT  
Minor Capital approved projects, October, 2000.

Hay River Coast Guard Base.

<u>Building</u>	<u>Project Description</u>	<u>Priority</u>	<u>Cost (\$)</u>	<u>Details</u>	<u>Reference</u>
RSER/ F&O warehouse	Emergency Response Building floor retrofit.	A	60,000	This building was designed for use as an unheated facility. Heating was later added, resulting in heaving of the floor. The slabs have tilted and it is not possible to retrieve the Emergency Response equipment using the fork lift for spill response activities.	PW AMP
1) Maintenance Shop 2) Flammable Storage Bldg. 3) Carpenter Shop	Mechanical/Electrical Upgrades (Code Compliance)	A1-C1	72,000	Fire rated doors / blockage of heating system air inlet / non-compliant 'hot-split' in main electrical service / boiler replacement / installation of heat detectors in paint room. <u>Maint. Shop</u> \$7.5K + 3.0K (mech.), \$36.25K (elect.). / <u>Flammable Storage Bldg:</u> 22K (M) / <u>Carpenter Shop</u> 2.9K (M), 0.7 (E).	PW AMP

36.2

Total value: \$132,000.00

- MAINT. MECH SHOP - <sup>done</sup> INSTALL FIRE RATED DOORS - 3.0 K (M)  
 - BLOCKAGE of HEATING SYST. AIR - 3.5 K (M)  
 - "HOT SPLIT" IN ELER SERVICE MAIN - 36. K (E)
- ✓ <sup>???</sup> FLAMMABLE STORAGE BLDG - BOILER REPLACEMENT - 22 K (M)  
 - CARPENTER SHOP - HEAT DETECTORS IN PAINT RM - 2.9 K (M)  
 - 0.7 K (E)
- RSER WARE HOUSE - LEVEL CONCRETE FLOOR - 60 K.

