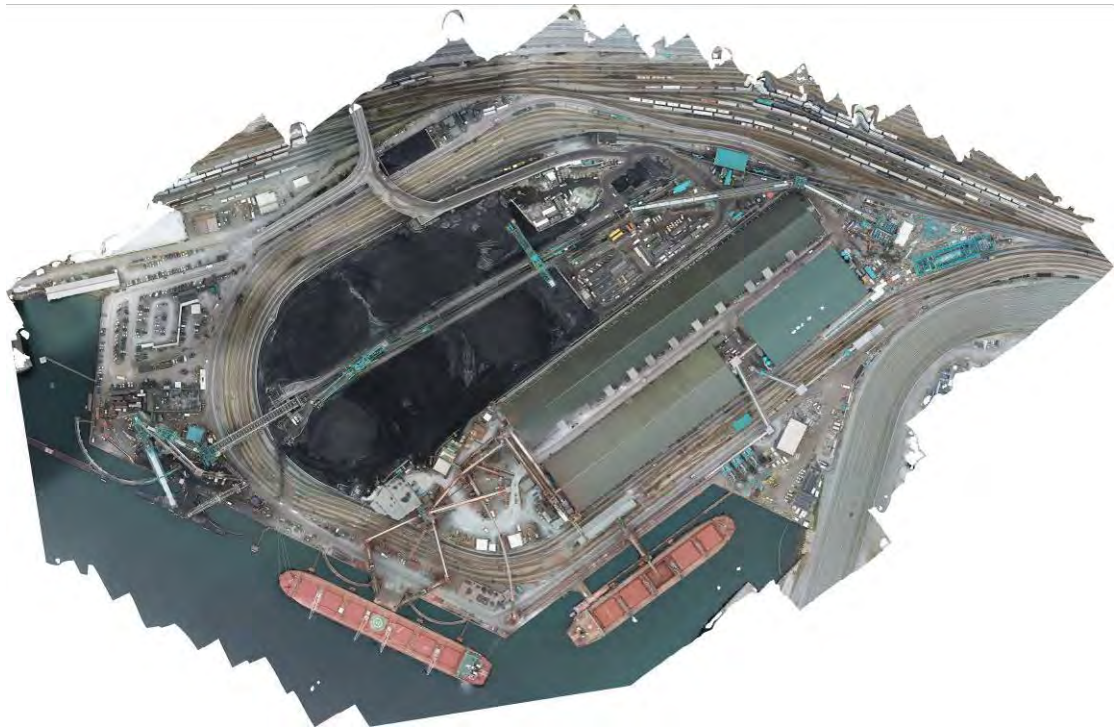


Fire Safety Plan

For: Neptune Bulk Terminals

Address: 1001 Low Level Road, North Vancouver, BC



Plan Updated By: Viking Fire Protection INC
#100-8289 North Fraser Way
Burnaby BC V5J 5M7
Tel: (604) 324 7122
Fax: (604) 324 8260

Approved Date: November 17, 2014
Approved By: Dave Biggin, Insp
Updated Date: July 1st, 2021
Approved By:

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Fire Department Information

1] Appointment of Supervisory Staff

APPOINTMENT OF THE FIRE SAFETY DIRECTOR

ANNOUNCEMENT

DATE: June 2, 2021
NAME: Jatinder Sidhu
Position: Operations Manager

METHODS OF CONTACT:

CELL PHONE: (778) 877 - 0638

I hereby appoint **Jatinder Sidhu** as Fire Safety Director, authorized to fulfil the duties as outlined in the fire safety plan for: **1001 Low Level Road, North Vancouver.**

Appointed by

NAME: Jatinder Sidhu
POSITION: Operations Manager
ADDRESS: 1001 Low Level Road, North Vancouver.
PHONE: (778) 877 - 0638

APPOINTMENT OF THE DEPUTY FIRE SAFETY DIRECTOR
ANNOUNCEMENT

DATE: June 2, 2021
NAME: Troy Litowsky
Position: Operations Superintendent

METHODS OF CONTACT:

CELL PHONE: (604) 968 - 4783

I hereby appoint **Troy Litowsky** as Fire Safety Director, authorized to fulfil the duties as outlined in the fire safety plan for: **1001 Low Level Road, North Vancouver.**

Appointed by

NAME: Troy Litowsky
POSITION: Operations Superintendent
ADDRESS: 1001 Low Level Road, North Vancouver.
PHONE: (604) 968 - 4783

2] Emergency Contacts

Emergency Agencies

Fire Department	911 (604) 980-7575 (non-Emergency)
Police Department	911 (604) 985-1311 (non-Emergency)
Lions Gate Hospital	(604) 988-3131
Fortis BC	(604) 660-4700
BC Hydro	1-800-224-9376

Fire Safety System Service

Fire Alarm	Viking Fire protection	(604) 324-7122
Sprinkler System	Viking Fire protection	(604) 324-7122
Portable Extinguishers	Viking Fire protection	(604) 324-7122

NBT Local Emergency Contact



See Full Contact list at next page.

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LOCAL EMERGENCY NUMBERS



FIRE, AMBULANCE, POLICE	911
NEPTUNE SITE SECURITY	604-985-7461 Local 250
NEPTUNE SITE FIRST AID ATTENDANT	Site Radio Channel # 2 or Local 222

24 HOUR Neptune Reporting	OPERATIONS HEAD FOREMAN (Site Radio – Channel # 1 or #2)	Office:	604-983-4446
		Cellular:	604-968-4787
	ADDITIONAL OFF HOURS/GRAVEYARD (Site Radio – Channel # 1 or #2)	Cellular:	604-968-2936 or 604-841-9763
	OPERATIONS SUPERINTENDENTS Coal Relief Superintendent (Site Radio – Channel # 1) Potash/Dry bulk (Site Radio – Channel #4/5) Troy Litowsky Scott Fleming Jatinder Sidhu - Acting Operations Manager Molly Matthews Brad Palm Lindsay Thorley James Cross Troy Wingerak	Cellular:	604-841-8373
	Cellular:	604-968-4783	
	Cellular:	604-209-2988	
	Cellular:	778-877-0638	
	Cellular:	604-313-3661	
	Cellular:	778-689-0096	
	Cellular:	778-887-6033	
	Cellular:	778-836-8621	
	Cellular:	604-968-6101	
	MECHANICAL SUPERINTENDENTS (Site Radio – Channel #3) Ryan Loi Iain Higginson	Cellular:	604-209-3398
		Cellular:	604-992-3191
	MAINTENANCE/ELECTRICAL SUPERINTENDENTS (Site Radio – Channel #3) Jason Girard Konrad Sander	Cellular:	778-990-4804
		Cellular:	604-619-3556

Issue Date	June 2, 2021		Description:	Emergency Contact List – Management Systems & Emergency Preparedness & Response Plan	
Revision	9		Approved by:	VP Projects & Environment	
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	ACTING - VICE PRESIDENT OF OPERATIONS Dave Foy	Office: Cellular:	604-983-4443 604-968-5872
	MAINTENANCE MANAGER William Robinson	Cellular:	778-873-2021
	ASSISTANT MAINTENANCE MANAGER Clinton Shaw	Cellular:	604-314-5550
	HEALTH & SAFETY MANAGER Jonathan Unrau	Cellular:	604-818-2986
	ACTING VICE PRESIDENT, MAJOR PROJECTS & ENVIRONMENT Jurgen Franke	Office: Cellular:	604-983-4412 778-838-7581
	VICE PRESIDENT, MAJOR PROJECTS & ENVIRONMENT Ron Sander	Office: Cellular:	604-983-4436 604-833-7834
	VICE PRESIDENT – OPERATIONS Duana Kipling	Cellular:	604-831-6455
	VICE PRESIDENT – HEALTH AND SAFETY Brad Walker	Office: Cellular:	Call Cell 778-888-9190
	NEPTUNE ACTING PRESIDENT – Duana Kipling	Office: Cellular:	604-983-4434 604-968-4785
	DIRECTOR OF COMMUNITY & STAKEHOLDER ENGAGEMENT Lisa Dooling	Office: Cellular:	604-983-4407 604-968-4804
COMMUNICATIONS – PUBLIC RELATIONS National Public Relations – Crisis Team	Emergency Cell #:	604-970-9113(Nicola Lambrechts)	



Issue Date	June 2, 2021		Description:	Emergency Contact List – Management Systems & Emergency Preparedness & Response Plan	
Revision	9		Approved by:	VP Projects & Environment	
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LOCAL EMERGENCY NUMBERS



External Reporting	See Reporting Guide at the end of Part I – Section 12.0 of the Emergency Preparedness & Response Plan (ERP).	
	Provincial Emergency Plan (PEP) & Environment Canada	1-800-663-3456
	Oil spill into Water	
	Canadian Coast Guard (MCTS)	604-666-6011
	Environmental (Burrard Inlet Environmental Action Program - BIEAP), Security (threats, access issues), Marine Vessels	604-665-9086
	Port Metro Vancouver (Harbour Master Office)	
	Water and sewerage emergency only Unauthorized air discharges and discharges to sewer Metro Vancouver (Greater Vancouver Regional District)	604-444-8401 604-436-6777 (0730–2330 hrs) 604-643-8488 (2330–0730 hrs)
Health & Safety Emergency		
WorkSafe BC Prevention Emergency Line Human Resources and Skills Development Canada (HRSDC)	604-276-3301 1-800-641-4049	

Spill Response Assistance	Land Response, McRae's Septic Tank Service	Emergency #	604-856-8344
		Toll Free	1-888-894-4411
	Land Response, CEDA Reactor Ltd.	Emergency #	604-540-4100
		Non-Emergency	604-540-4100
	Marine Response, Burrard Clean Operations / WCMRC	Emergency	604-294-9116
		Non-Emergency	604-294-6001
		Emergency	604-986-5911
	Vancouver Pile Driving	Non-Emergency	604-986-5911

Issue Date	June 2, 2021		Description:	Emergency Contact List – Management Systems & Emergency Preparedness & Response Plan	
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Additional Notification	I.L.W.U. Local 500	604-254-7131
	I.L.W.U. Local 514	604-298-9684
	CN Rail Lynn Creek Yardmaster	604-984-5638
	Cargill Terminal Security	604-990-2554
	BC Hydro Emergency Line	1-888-769-3766
	Fortis BC	1-800-663-9911
City of North Vancouver – Sewer & Water Emergency	604-987-7155 Daytime	604-988-2212 After Hours

Issue Date	June 2, 2021		Description:	Emergency Contact List – Management Systems & Emergency Preparedness & Response Plan	
Revision	9		Approved by:	VP Projects & Environment	
Page	Page 4 of 4		Intranet Routing		

3] Building Description

Neptune Terminals is a bulk shipping terminal located on the north shore of Burrard Inlet in the Port of Vancouver, covering 71 acres, plus adjacent water lots. The site is bordered by Western Stevedoring terminals to the east, grain terminals to the west, and Burrard Inlet to the south.

As you can see from the picture below, NBT has 3 berth docks located at west side and east side; north side is the coal storage site separated by 2 stacker reclaimers; Southeast side has the storage buildings and newly built conveyor and the dumper building.



There are many buildings on the site, varying in size and usage. Some of them are huge and used for material storage; some of them are small and used as electric rooms, valve rooms which has no staff working inside. Therefore, this kind of utility buildings are not specifically addressed in this Fire Safety Plan. The buildings specifically addressed in this Fire Safety Plan are as follows:

3.1] Operations Building



This is a 2-storey building located by the main entrance. It is built on concrete foundation, with steel frame, non-combustible cladding with combustible / noncombustible construction over. The entire structure is fully sprinklered and equipped with fire alarm system. The building dimensions are approximately 167 ft long, 68 ft wide and 27 ft high. Currently, the ground floor is used as maintenance shop and second level is used as office.

Number of Storey:	2 Storey
Occupancy:	Group D / F-2
Roof Access:	None from inside the building
Building Fire Safety Features:	Fire Alarm System Sprinkler System Emergency Lightening Fire Extinguishers

3.1.1] Fire Alarm system

Fire Alarm Main Control Panel:	Notifier AFP200
Addressable or Conventional:	Conventional
No. of stages:	Single Stage
Control Panel Location:	by the main entrance at north side.
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

- Pull Station: Located at each building exit, and change in floor level
- Smoke Detector: Hallway, utility rooms and suites
- Flow Switch: Wet sprinkler systems' risers

3.1.2] Electrical Disconnect Location

The electrical disconnection for this building is located in the ER131.

3.1.3] Fire Department Connection

The fire department connection is located at north west corner of the building. It feeds two wet systems in the building.

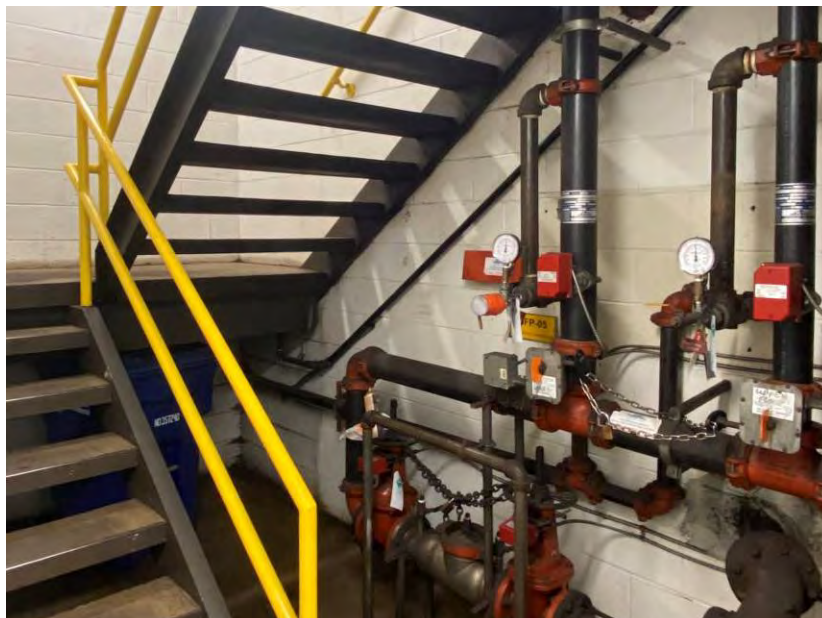
3.1.4] Special Suppression System

There is a Sapphire clean agent suppression system, along with the releasing panel installed in the building. It provides the protection for the server room at second floor.



3.1.5] Sprinkler System

The Operation building has two wet sprinkler systems, one for the ground floor and the other one for the first floor. The main sprinkler control valve is located at stairwell at stair #1.



3.1.6] Water Shut off Valve

The water shut off valve is located in the locker room by the stair #1.

3.2] Drying Room/Office Building

This is a small building attached to the Operations Building at south side. It has a drying room on the lower floor and office space on the second floor. It is built on concrete slab foundation and concrete footing, non-combustible cladding with combustible/noncombustible construction over. Roof assembly finish is torch flex on 5/8" fir plywood. Building is fully sprinklered. The building dimensions are approximately 40 ft long, 14 ft wide and 25 ft high.



Number of Storey:	2 Storey
Occupancy:	Group D
Roof Access:	None from inside the building
Building Fire Safety Features:	Fire Alarm System (Connected to Operation Building) Sprinkler System (Connected to Operation Building) Emergency Lightening Fire Extinguishers

3.3] Guard Shack

This is a 2-storey building located at north side of the Operations Building. Ground floor is used as security room and second level is used as office. The entire building is fully covered by the sprinkler system and it has fire alarm system installed.



Number of Storey:	2 Storey
Occupancy:	Group D
Roof Access:	None from inside the building
Building Fire Safety Features:	Fire Alarm System Sprinkler System Emergency Lightening Fire Extinguishers

3.3.1] Fire Alarm system

Fire Alarm Main Control Panel:	Mircom FX2000
Addressable or Conventional:	Addressable
No. of stages:	Single Stage
Control Panel Location:	Hall Way by the entrance.
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

Pull Station:	Located at each building exit, and change in floor level
Smoke Detector:	Hallway, utility rooms and suites
Flow Switch:	Wet sprinkler systems' risers

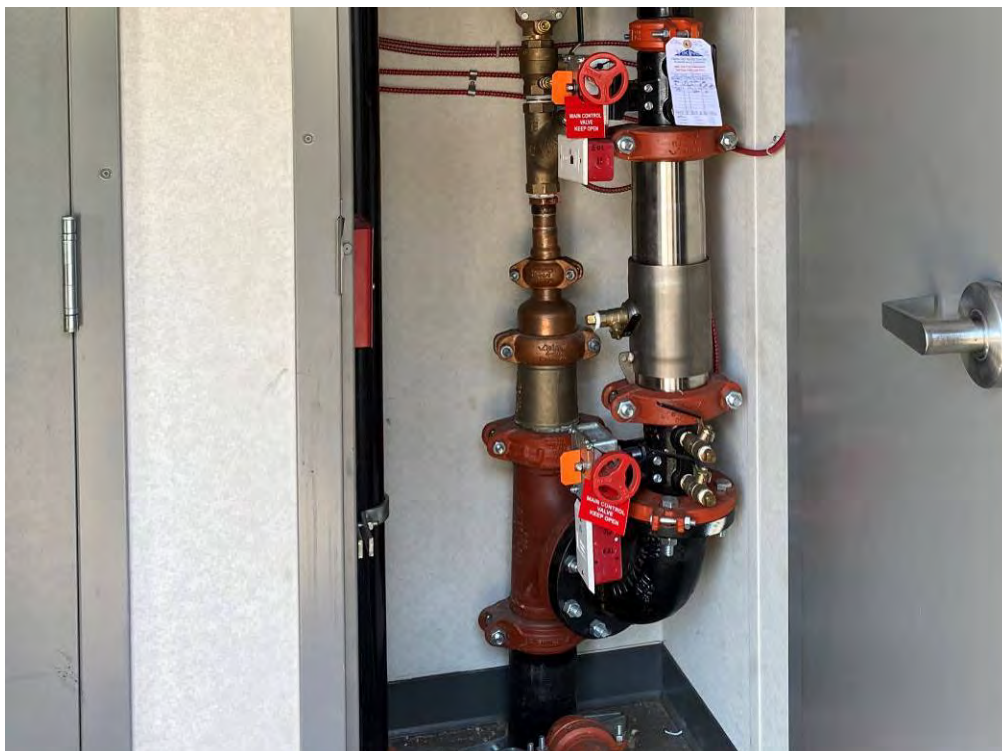
3.3.2] Sprinkler System

The building has one wet sprinkler system and the main control valve is located in the sprinkler closet by the entrance.



3.3.3] Water Shut off Valve

The water shut off valve is located in the same sprinkler closet.



3.4] Heavy Duty Shop

This building is a single storey structure with a high ceiling. It has a mixture of combustible and noncombustible construction. The building is sprinklered, but has no fire alarm system. Currently, it is used as vehicle maintenance shop. The building dimensions are approximately 100 ft long, 85 ft wide, 35 ft high.



Number of Storey:	1 Storey
Occupancy:	Group F-2
Roof Access:	None from inside the building
Building Fire Safety Features:	Fire Alarm System Sprinkler System Emergency Lightening Fire Extinguishers

3.4.1] Fire Alarm System

Fire Alarm Main Control Panel:	Notifier AFP200
Addressable or Conventional:	Conventional
No. of stages:	Single Stage
Control Panel Location:	Sprinkler room
Supervised (Monitored):	All signals go to Operation building's alarm system



Fire alarm system initiating devices and their locations:

Pressure Switch: Dry sprinkler system riser

3.4.2] Electrical Disconnect Location

The electrical disconnection for this building is located in the ER541 and ER542.

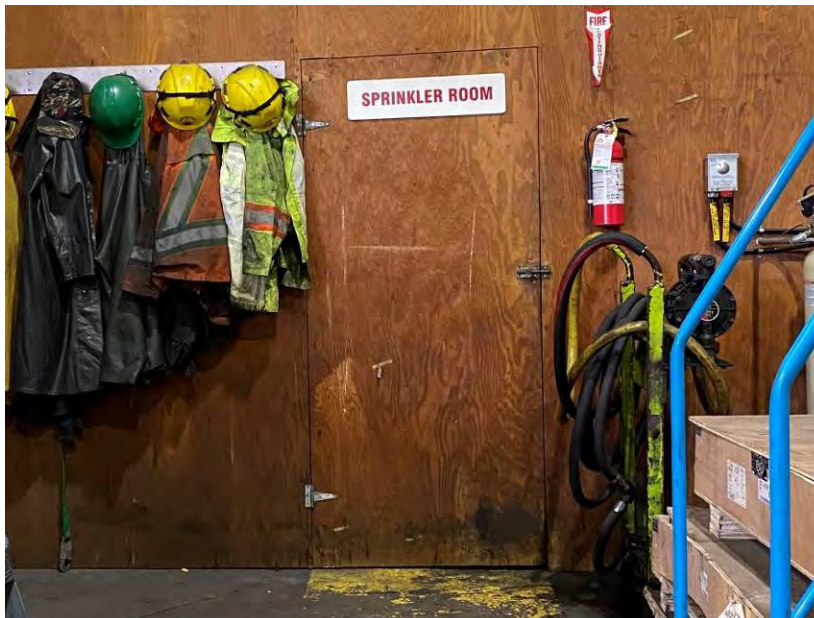
3.4.3] Fire Department Connection

The fire department connection is located at south east side by the sprinkler room. It feeds the dry sprinkler system



3.4.4] Sprinkler System

The building has one dry sprinkler system and the main control valve is located at sprinkler closet in the hallway by the entrance.



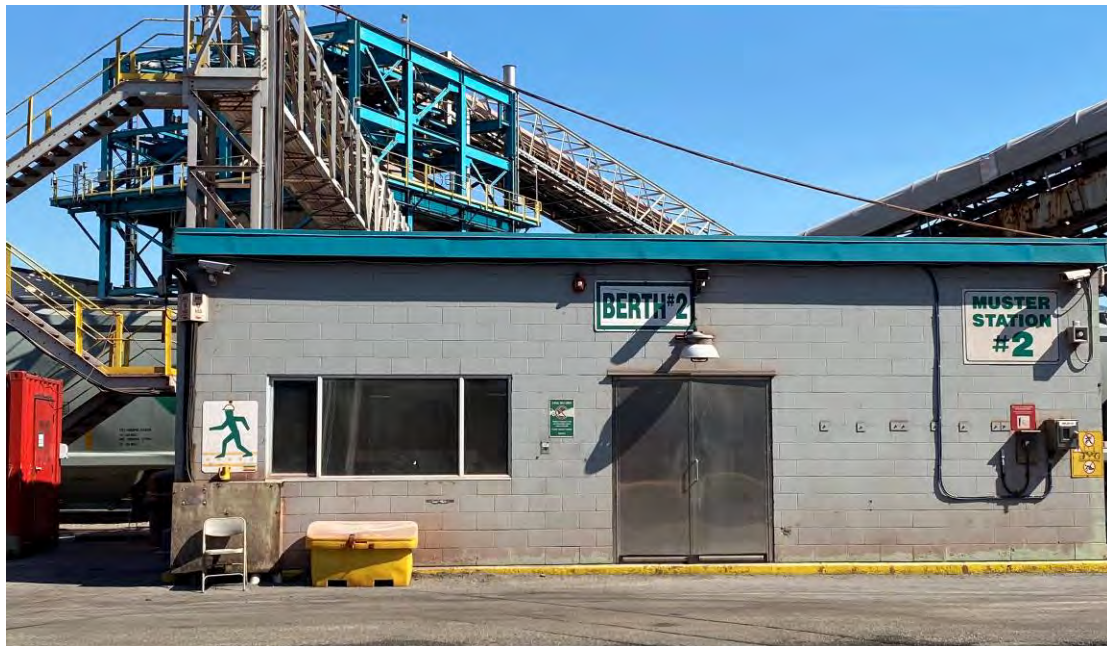
3.4.5] Water Shut off Valve

The water shut off valve is located in the same sprinkler room.



3.5] Berth 2 Dock Office

This building is a small single storey structure. It is unsprinkered and the walls are cinder block construction with a flat combustible roof. The building dimensions are approximately 35 ft long, 23 ft wide, 8 ft high.



Number of Storey:
Occupancy:

1 Storey
Group D

Roof Access:

None from inside the building

Building Fire Safety Features:

Fire Alarm System
Emergency Lightening
Fire Extinguishers

3.5.1] Fire Alarm system

Fire Alarm Main Control Panel:	EST IO Single Zone Panel
Addressable or Conventional:	Conventional
No. of stages:	Single Stage
Control Panel Location:	Electric Room 201
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

Pull Station: Located at building exit

3.6] Berth 3 Dock Office/ Old Stores Building

The Old Stores Building is a 2 storey structure, with the single storey Berth 3 Dock Office attached at the east end. Both areas are sprinklered and a mixture of combustibile and noncombustibile construction. The building dimensions are approximately 127ft long, 56 ft wide, 20 ft high for the Old Storage Building and 60 ft long, 30 ft wide, 8 ft high.



Number of Storey:	2 Storey
Occupancy:	Group F-2 / D
Roof Access:	None from inside the building
Building Fire Safety Features:	Fire Alarm System Sprinkler System Emergency Lightening Fire Extinguishers

3.6.1] Fire Alarm system

Fire Alarm Main Control Panel:	FireLite 5UD
Addressable or Conventional:	Conventional
No. of stages:	Single Stage
Control Panel Location:	in the electric room 301
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:
Pressure Switch: Dry sprinkler systems' risers

3.6.2] Electric Disconnection Location

The electric shut off for this building is located in the ER301.



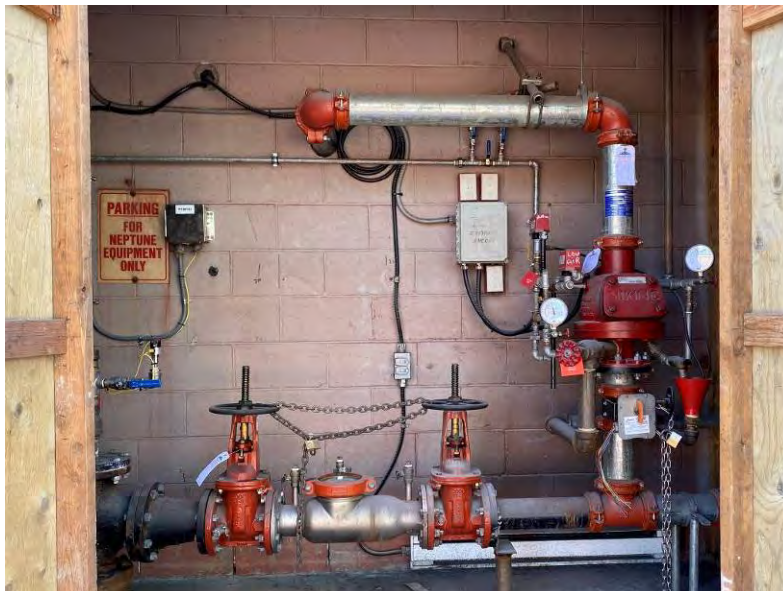
3.6.3] Fire Department Connection

The fire department connection is located at west side of the building, by the sprinkler room. It feeds the dry system.



3.6.4] Sprinkler System

The building has one dry sprinkler systems and the main control valve is located in the sprinkler shed at west side of the building.



3.6.5] Water Shut-Off

It is located in the sprinkler room at west side of the building.

3.7] Potash Shed 1

The building is a single storey structure with a high ceiling. In the centre of the ceiling is an overhead catwalk alongside a conveyor system that delivers bulk potash to the building. There is also an underground access tunnel/conveyor system under the centre of the building floor. The building is not sprinklered and is a mixture of combustible and noncombustible construction. The building dimensions are approximately 1200 ft long, 161 ft wide, 90 ft high.



Number of Storey:	1 Storey
Occupancy:	Group F-1
Roof Access:	None from inside the building
Building Fire Safety Features:	Fire Alarm System (only in the electric room 531) Fire Extinguishers

3.7.1] Electric Disconnection Location

The electric shut off for this building is located in the ER531(west) and ER571(east).

3.8] Potash Shed 2

This building is a single storey structure with a high ceiling. In the centre of the ceiling is an overhead catwalk alongside a conveyor system that delivers bulk potash to the building. There is a conveyor system on the west side of the building floor. The building is not sprinklered and is a mixture of combustible and noncombustible construction. The building dimensions are approximately 678 ft long, 213 ft wide, 109 ft high.



Number of Storey:	1 Storey
Occupancy:	Group F-1
Roof Access:	None from inside the building
Building Fire Safety Features:	Fire Alarm System Standpipe Fire Extinguishers

3.8.1] Fire alarm system

Fire Alarm Main Control Panel:	Notifier 320c
Addressable or Conventional:	Conventional
No. of stages:	Single Stage
Control Panel Location:	West end, electric room 521
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

Protectowire: In Potash Shed

3.8.2] Electric Disconnection Location

The electric shut off for this building is located in the ER525(west) and ER561(center of the building).

3.8.3] Fire Department Connection

The fire department connection is located at west side of the building, by the sprinkler room. It feeds the standpipe system to the hose stations.



3.8.4] Standpipe

There is a class 3 standpipe system installed in the building, feeding to the hose stations. The control valve is located at east side of the building.



3.9] Phosrock Shed 3

Storage shed is used as pile storage of phosrock commodity which is a noncombustible granular solid. The pile storage dominates the centre and personnel can only occupy the perimeter of the pile storage, reclaim tunnel below grade and service platform above the main floor. The building is one storey 6,900m², built of non-combustible construction and not sprinklered. Reclaim tunnel is partially sprinklered.



Number of Storey:	1 Storey with underground tunnel
Occupancy:	Group F-1
Roof Access:	None from inside the building
Building Fire Safety Features:	Partial Sprinkler Fire Alarm System Standpipe Fire Extinguishers

3.9.1] Fire alarm system

Fire Alarm Main Control Panel:	Notifier 320c
Addressable or Conventional:	Conventional
No. of stages:	Single Stage
Control Panel Location:	East end, electric room 365
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

Pull Station:	Located at each building exit, and change in floor level
Pressure Switch:	Dry sprinkler and Pre-action systems' risers



3.9.2] Electric Disconnection Location

The electric shut off for this building is located in the ER365, located at north east corner of the building.

3.9.3] Fire Department Connection

The fire department connection is located at west side of the building, by the sprinkler room. It feeds the pre-action standpipe system and tunnel dry pipe sprinkler system.



3.9.4] Sprinkler System



There are one dry system and one pre-action system installed in the building. The dry system is for the tunnel section, and pre-action system is for the hose stations. To use the hoses, the pull station, marked for pre-action, must be pulled first, which allows the pre-action valve to open and the water to fill in the standpipe.

3.10] Potash Dumper 1

The Potash Dumper building provides a cover over the underground potash tunnel/conveyor system. The building is open at both ends for trains to enter and exit and dump their cargo of potash, is partially sprinklered and is a mixture of combustible and noncombustible construction. The building dimensions are approximately 205 ft long, 22 ft wide, 18 ft high.

Number of Storey:	1 Storey
Occupancy:	Group F-1
Roof Access:	None from inside the building
Building Fire Safety Features:	Partial Sprinkler Fire Extinguishers

3.11] Potash Dumper 2

The Potash Dumper building provides a cover over the underground potash tunnel/conveyor system. The building is open at both ends for trains to enter and exit and dump their cargo of potash, is partially sprinklered and is a mixture of combustible and noncombustible construction. The building dimensions are approximately 195 ft long, 22 ft wide and 18 ft high.

Number of Storey:	1 Storey
Occupancy:	Group F-1
Roof Access:	None from inside the building
Building Fire Safety Features:	Partial Sprinkler Fire Extinguishers

3.11.1] Sprinkler systems for Dumper 1 and 2

There are dry systems installed in the Potash Dumper 1 and 2, one for each building. The control valves are installed in the ER525, west side of the Potash Shed 2.



3.12] Main Electrical Distribution Building (ER701)

This building is located adjacent to the site access driveway off Low Level Road. It is a 3-storey building of non-combustible construction. There are two high voltage transformer located on the lower floors, and the main Computer Network Room on the top floor. The Computer Network Room has a Novec 1230 clean Agent Fire Suppression System.



Number of Storey:	2 Storey with Mezzanine
Occupancy:	Group F-2
Roof Access:	ladder from the second level
Building Fire Safety Features:	Fire Alarm System Sprinkler System Fire Extinguisher Emergency Lightening

3.12.1] Fire Alarm system

Fire Alarm Main Control Panel:	Simplex 4010ES
Addressable or Conventional:	Addressibel
No. of stages:	Single Stage
Control Panel Location:	main floor, south centre wall.
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

Pull Station: Located at each building exit, and change in floor level

Smoke Detector: Hallway, utility rooms and suites

3.12.2] Novec Special Suppression System

The building has one Novec Suppression two sprinkler systems, used for Mezzanine level electric room.



3.13] Railcar Dumper Building (built 2021)

As part of the Coal Capacity Project, this building is founded 2021. It is a newly built dumper building, used to unload the coal or potash from the train. The building is about 40 feet high, with an underground 21m deep vault to house dumper barrel and associated equipment. It is classified as a non-combustible structure of steel and concrete construction.



Number of Storey:	1 Storey with Mezzanine
Number of Underground levels:	3
Structure:	Non-Combustible
Occupancy:	Group F-2
Roof Access:	ladder from the second level
Building Fire Safety Features:	Fire Alarm System Sprinkler System Standpipe Fire Extinguisher Emergency Lightening

3.13.1] Fire Alarm Description and Location

Fire Alarm Main Control Panel:	Notifier 3030
Addressable or Conventional:	Addressable
No. of stages:	Single Stage
Control Panel Location:	outside, by the valve room.
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

Pull Station: Located at each building exit, and change in floor level

Pressure Switch: Preaction system

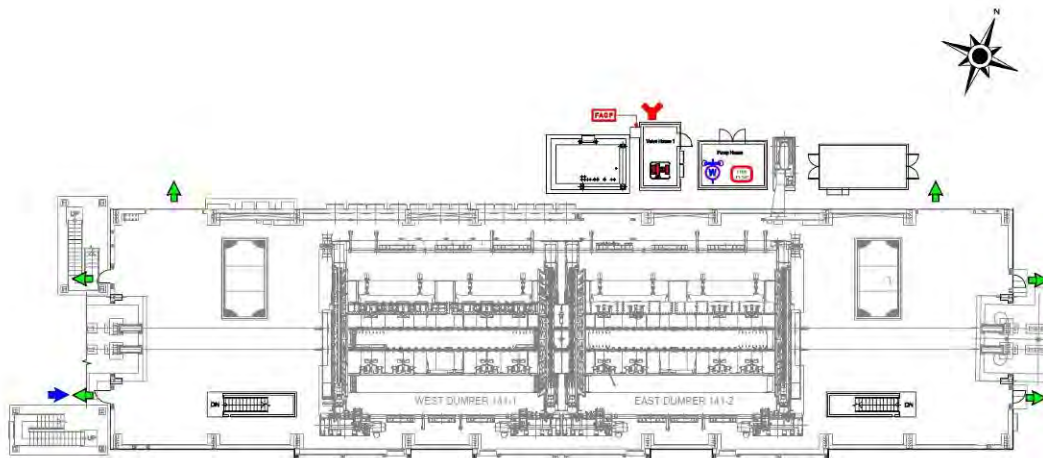
Flow Switch: Wet sprinkler systems' risers

3.13.2] Electrical Disconnect Location

The main electrical shut off for is Railcar Dumper Building located in the electrical room 611 and 613, which is at north side of the building.



3.13.3] Entrance, Exiting and Stairs



Entrance

The main entrance is located on the west side of the building.

Exits

There are several exits around the building, please refer to the floor plan for the locations.

Stairs

There are 2 stairs inside the building, leading to the underground levels.

Stair 1: Southwest, it serves from ground floor to tail end level

Stair 2: Southeast, it serves from ground floor to tail end level

There are 2 stairs outside the building, leading to the roof transfer tower.

Stair 3: Northwest, it serves from ground floor to roof transfer tower

Stair 4: Southwest, it serves from ground floor to roof transfer tower

3.13.4] Fire Department Connection

There is a sprinkler valve room located at north side of the building. FD connection is located at the entrance of the valve room. The standpipe feeds the wet sprinkler system and pre-action system.



3.13.5] Sprinkler System

This building has one wet system and one pre-action system, plus fire monitors (water cannons) at each underground level. The wet system is for the mezzanine and roof transfer tower. The pre-action system is for the hose valve stations at each underground floor. Once the pull station was pulled, the pre-action valve opens to charge the standpipe.



3.13.6] Fire Pump

There is a diesel fire pump installed for the building's sprinkler systems. The fire pump is located inside the pump house by the sprinkler room.



3.14] Coal Surge Bin

The Coal Surge Bin is located adjacent to Berth 1. Conveyor belt systems take the coal from the coal storage piles to the Coal Surge Bin, which in turn sends the coal on to conveyors to the ship. The building is not sprinklered and is of noncombustible construction. The ER111 room is beside the Coal Surge Bin, equipped with fire alarm system and special suppression system.



Number of Storey:	4 Storey for the Bin
Structure:	Non-Combustible
Occupancy:	Group F-2
Roof Access:	ladder from the second level
Building Fire Safety Features:	Fire Extinguisher

3.15] Coal Dumper

The Coal Dumper building provides a cover over the rail car tipping equipment and the 4-level underground coal tunnel/conveyor system. The building is open at both ends for trains to enter and exit and dump their cargo of coal, is partially sprinklered and is noncombustible construction. The building dimensions are approximately 102 ft long, 56 ft wide, 20 ft high.



Number of Storey:	1 Storey
Number of Underground levels:	4
Structure:	Non-Combustible
Occupancy:	Group F-2
Roof Access:	No access from inside of the building
Building Fire Safety Features:	Fire Alarm System Sprinkler System Fire Extinguisher Emergency Lightening

3.15.1] Fire Alarm

Fire Alarm Main Control Panel:	Honeywell
Addressable or Conventional:	Conventional
No. of stages:	Single Stage
Control Panel Location:	outside, ER 651
Supervised (Monitored):	Local Monitored by PLC system



Fire alarm system initiating devices and their locations:

Pressure Switch: Dry sprinkler system

This alarm system is only for the dry sprinkler system

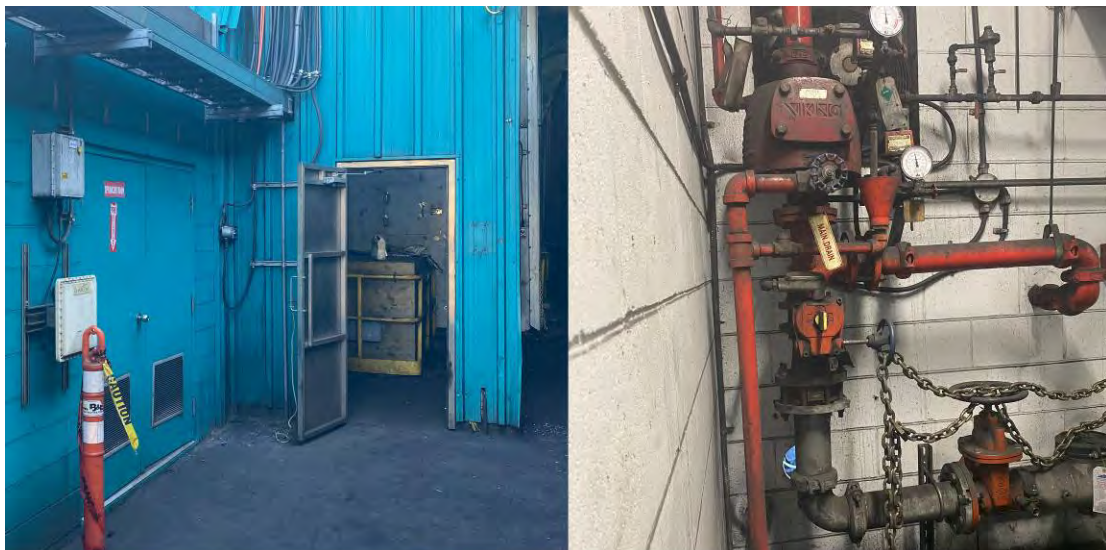
3.15.2] Electrical Disconnect Location

The main electrical shut off for is coal dumper building is located in 2 electric room outside, 651 and 652.



3.15.3] Sprinkler System

The building has one dry system and the main control valve is located in the sprinkler room outside.



3.15.4] Fire Department Connection

The FDC is located at north side of the building, by the sprinkler room. It feeds the dry system.



4] Fire Alarm System Description and Location

By 2021 June, there are about 35 fire alarm panels installed at site. Please refer to the previous section for the fire alarm panels installed in the major buildings. The rest panels are installed in the each electric room and used as releasing panel for the suppression system. Please see next page for the list of the fire alarm panels and involved building.

All fire alarm panel at Neptune Bulk Terminal are local monitored by their own PLC system. (A PROGRAMMABLE LOGIC CONTROLLER (PLC) is an industrial computer control system that continuously monitors the state of input devices and makes decisions based upon a custom program to control the state of output devices. is Most of these panels are installed in the electric rooms to protect the)

Typical Panel installed at site:



Please see attached fire alarm panels installed at site by June 2021.

Neptune Projects - Fire Alarm Involvement

Building	Panel Type - Equipment
Operations Building - Old stores and heavy duty shop devices report to this panel.	Notifier - AFP-200 - Discontinued
Operations Building - Releasing system	Notifier RP-2002 - Server room - Does not report to base building
ER-111	Notifier NFS-320C
ER-121	Firelite - MS-5UD - Conventional
ER-131 OMC	Main Building - Ops Building panel
ER-132 OMC	Sprinklered only - Main Building - Ops Building Panel
ER-144 East Coal Ship Loader	No fire alarm
ER-145	No fire alarm - ER-145 replaces this system
ER-151	Firelite - MS-5UD - 3 zones - 2 bells zones
ER-201	Honeywell - MS-5UD-7C & Edwards EST IO - Single Zone - Conventional
MR-211 - Shiploader	Notifier - SFD-5UD
MR-214	Notifier - SFD-5UD
ER-301	Honeywell MS-5UD - 1 zone / 1 bell zone
ER-311	Honeywell MS-5UD - 1 zone / 1 bell zone
ER-351 - Travelling hopper	Firelite - 2401B - Conventional - 1 Nac/1 Zone
ER-352 - Travelling hopper	Firelite - 2401B - Conventional - 1 Nac/1 Zone
ER-353 - Travelling hopper	Firelite - 2401B - Conventional - 1 Nac/1 Zone
ER-354 - Travelling hopper	Firelite - 2401B - Conventional - 1 Nac/1 Zone
ER-365 - Shed 3	Notifier 320C - Covers Tunnel R4 & R5, Reports to ER-390
ER-375	Firelite - 2401B - Conventional - 1 Nac/1 Zone
ER-390	Firelite - 2401B - Conventional - 1 Nac/1 Zone
ER-511/514, 515 & ER551	Panel located in 514 - Notifier - NFS-320C
ER-521	Notifier NFS-320 SYS - Includes the compressor building - Includes protect-a-wire Shed 2 - Covers Devices in 601 Potash
ER-525	Notifier - 320C
ER-531	Honeywell - MS SUD
ER-561 Portal reclaimers	Notifier - NFS-320C
ER-571 - North end of Shed 1	Smoke alarm to PLC
ER-623	Siemens - TXL-1000
ER-624	Siemens - TXR-320
ER-625	Currently building - Notifier
ER-651	NFS-320C
ER-651 - 101 - Coal dumper	Honeywell - Dry sprinkler system
ER-652	Notifier - NFS-320
MCC-655	Notifier 5UD
ER-656/657	NFS-320
ER-701	Simplex 4010ES
ER-701 Releasing Panel	4004R - Server room and Sapphire system
ER-781	Smoke alarm to PLC
Guard House	Mircom - FX2000 - 2 bell zones - Addressable loop

5] Electrical Disconnect Location

There are about 40 electric room at site and each one is controlling certain area. Please refer to the PIP drawings. The main electrical distribution electric room is inside the ER701 building.

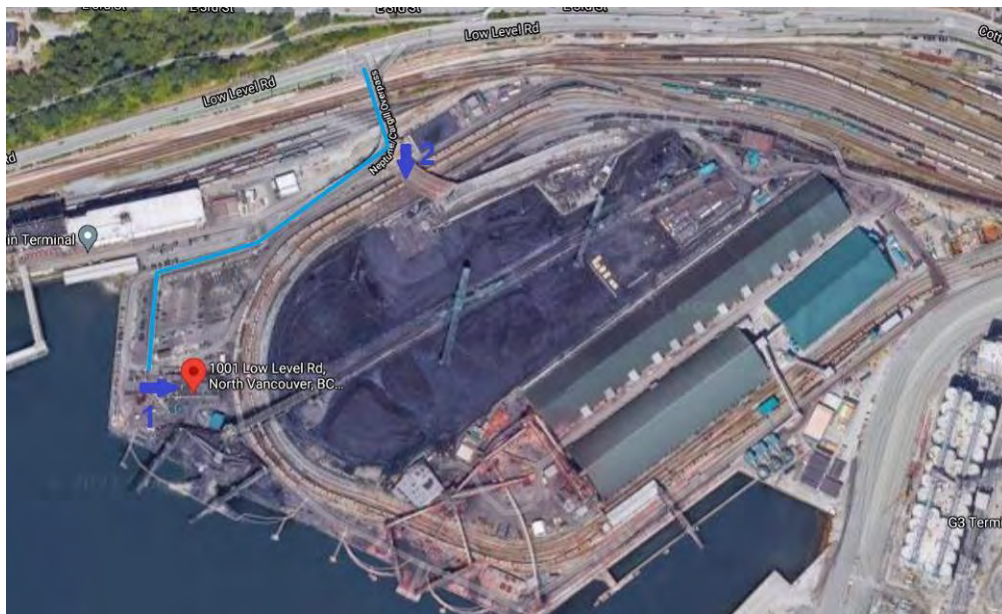
See the drawings for the electric rooms' locations.

6] Exiting and Stairs

Please refer to the PIP drawings for each building.

7] Fire Department Access Routes

Fire department can access Neptune Bulk Terminals by 2 entrances. The main entrance is located at west side of the property, by the security guard house. The second entrance is located at north side, just over the bridge.



Prime: By the security guard house

Alter: North side, via the security gate

8] Fire Department Connection

Please refer to the PIP Drawings for each buildings.

9] Fire Pump

There is only one fire diesel pump installed at site, which is only for the new Railcar dumper building. The pump is feeding to all sprinkler systems in the building.



Model:	Centrifugal Fire Pump 393H8100
Controller:	Tornatech
G.P.M:	500
Oil Tank:	450L

10] Fire Hydrant and Location

By June 2021, there are 25 private hydrants installed at site and 4 more will be installed in near future. Please see next page for the fire hydrant locations.



11] Gas Shut-Off

For gas line locations and shut off valves, please refer to the Gas Line drawings at PIP Drawings section.

For each buildings' shut-off location:

Operation building: northside, by the entrance

Heavy Duty Shop: south east side, by the sprinkler room

12] Hazards

Neptune Bulk Terminals is an industrial work site, and it contains heavy machines, ship docks, railway loadings... All visitors must have their site orientation at security house first before entering.

Fire Department shall come to the security house first to meet the security team, then entering the site.

1) Oil Storage

Diesel Tanks are located at north side of Heavy Duty Shop;

Gasoline Tanks are located at parking lot, west side of property.

2) Chemical Storage

Please refer to the next page for the items stocked at site.

3) Hazards in each building.

Please refer to the PIP drawings.

13] Sprinkler System

Please refer to the section 3 Building Description for the details and photos.

14] Water Shut-off

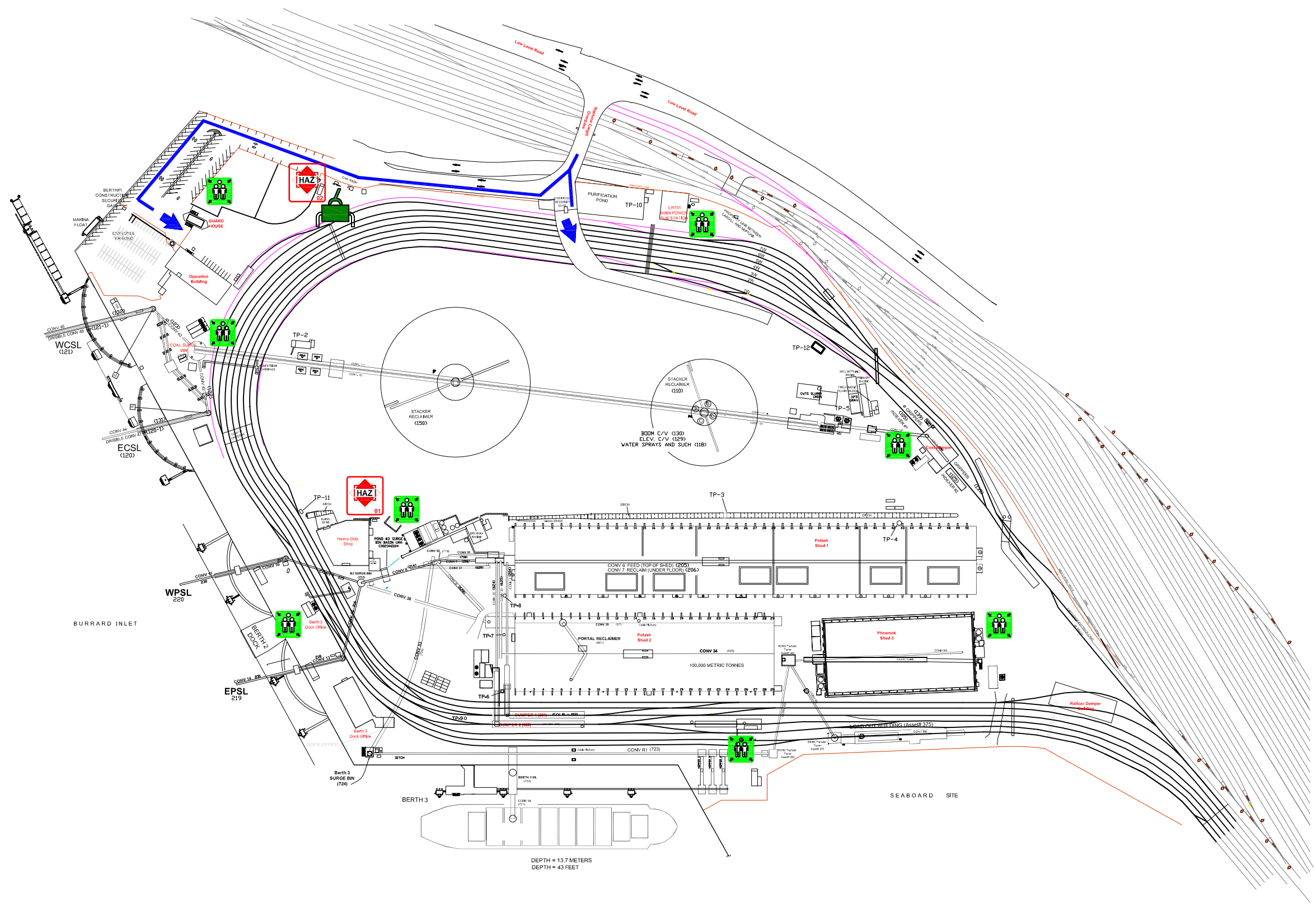
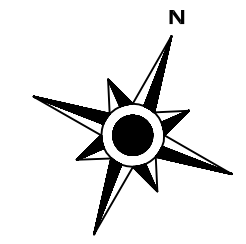
Please refer to the PIP drawings for the sprinkler shut off valve. And please refer to the next page for the sprinkler line shut off at Neptune Bulk Terminals Site.

15] Muster Station







There are 8 muster stations located at Neptune Bulk Terminals. In case of emergency, employees shall swipe their Pot Pass at nearby muster station.



Site Plan Drawings



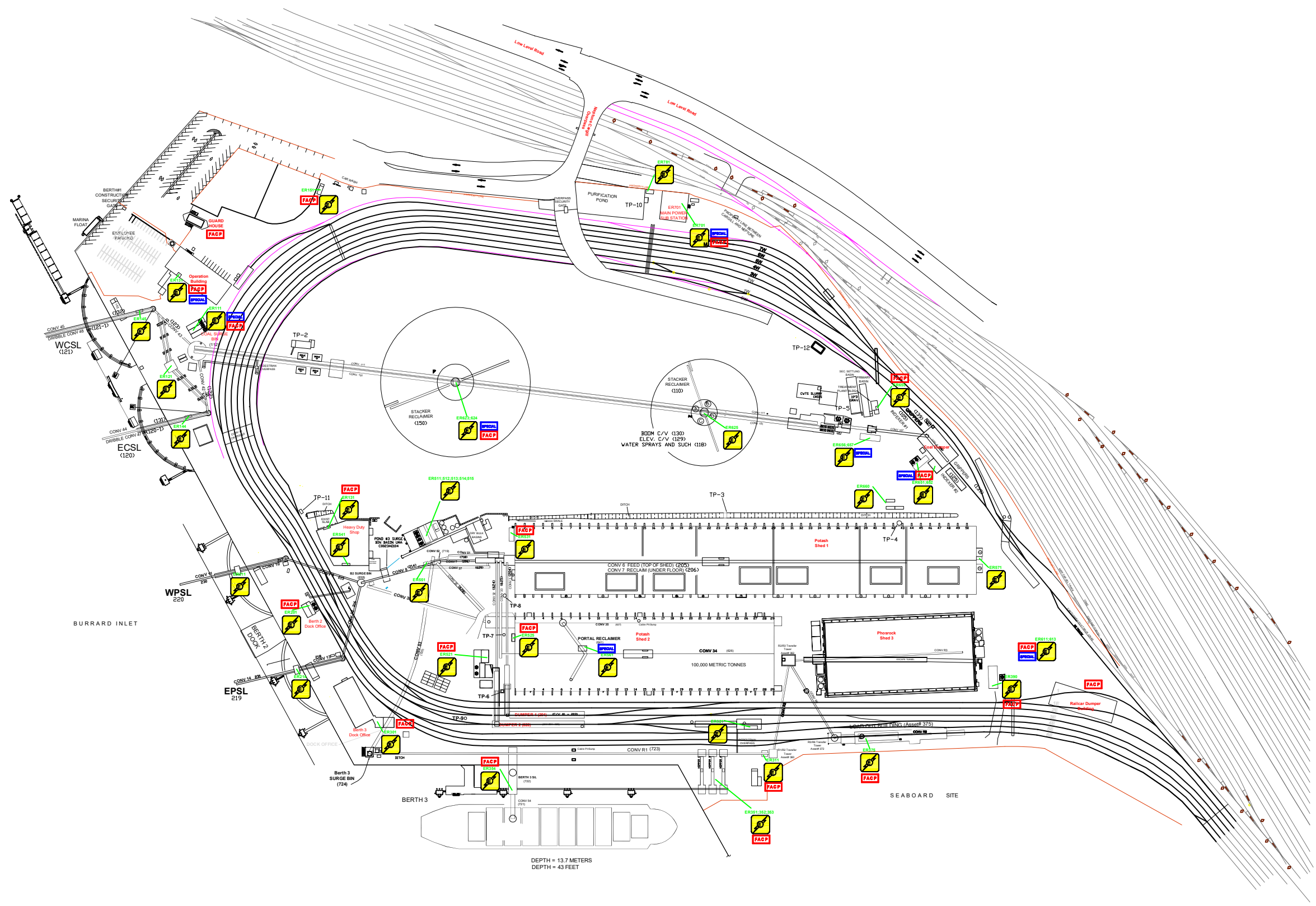
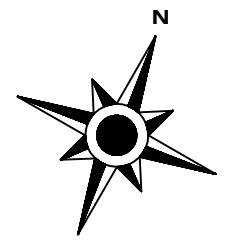
LEGEND

-  Fire Department Entrance
-  Fire Department Access Route
-  MUSTER STATION
-  Gas Shut-Off
-  Diesel Tank
-  Gasoline Tank







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 Site Plan
 1001 Low Level Road, North Vancouver, BC
 Site Plan



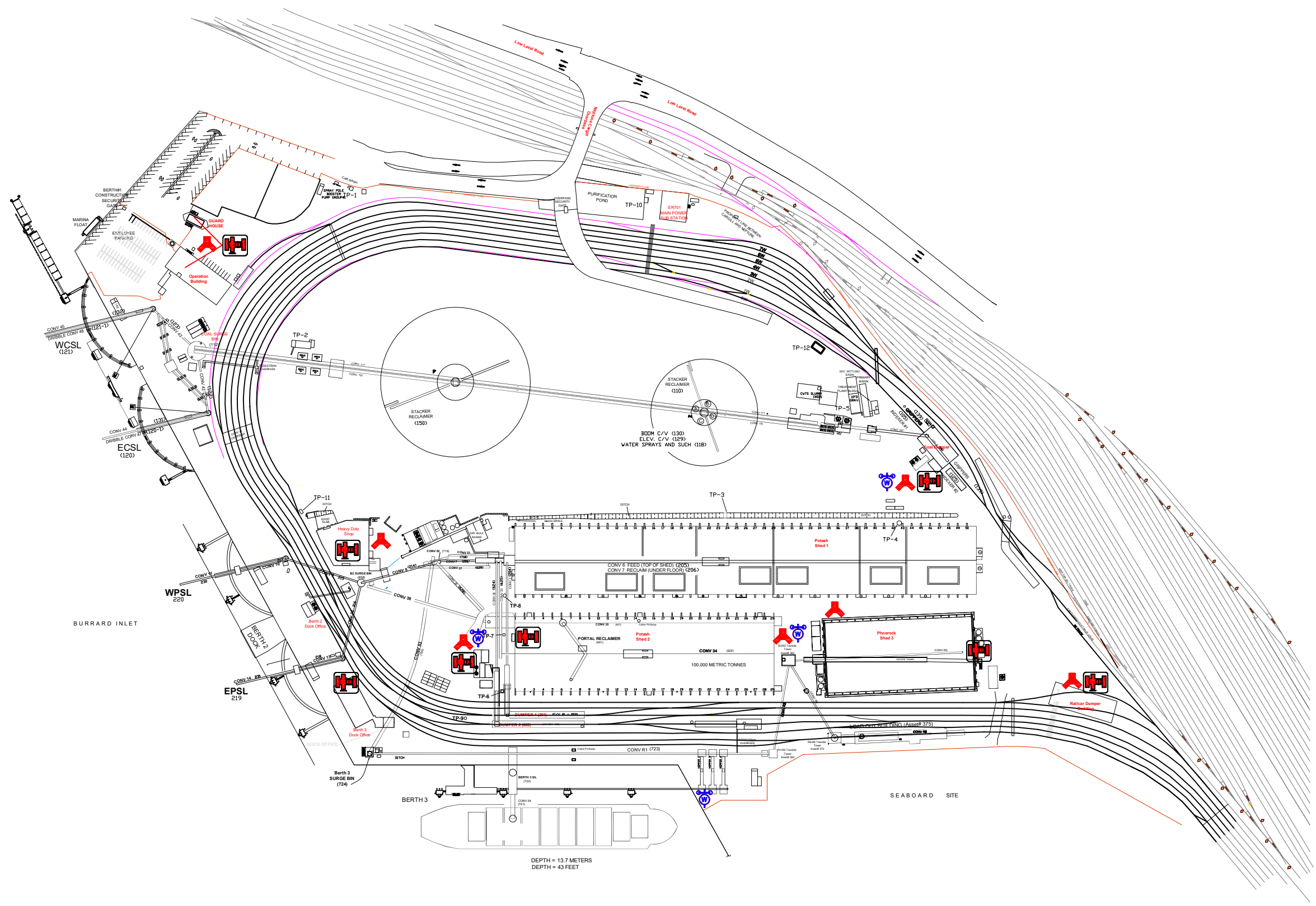
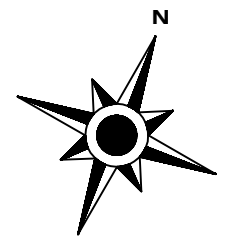
LEGEND

-  **MAIN ELECTRICAL SHUT-OFF**
-  **ELECTRICAL SHUT-OFF**
-  **FIRE ALARM CONTROL PANEL**
-  **SPECIAL SUPPRESSION SYSTEM**




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 Site Plan
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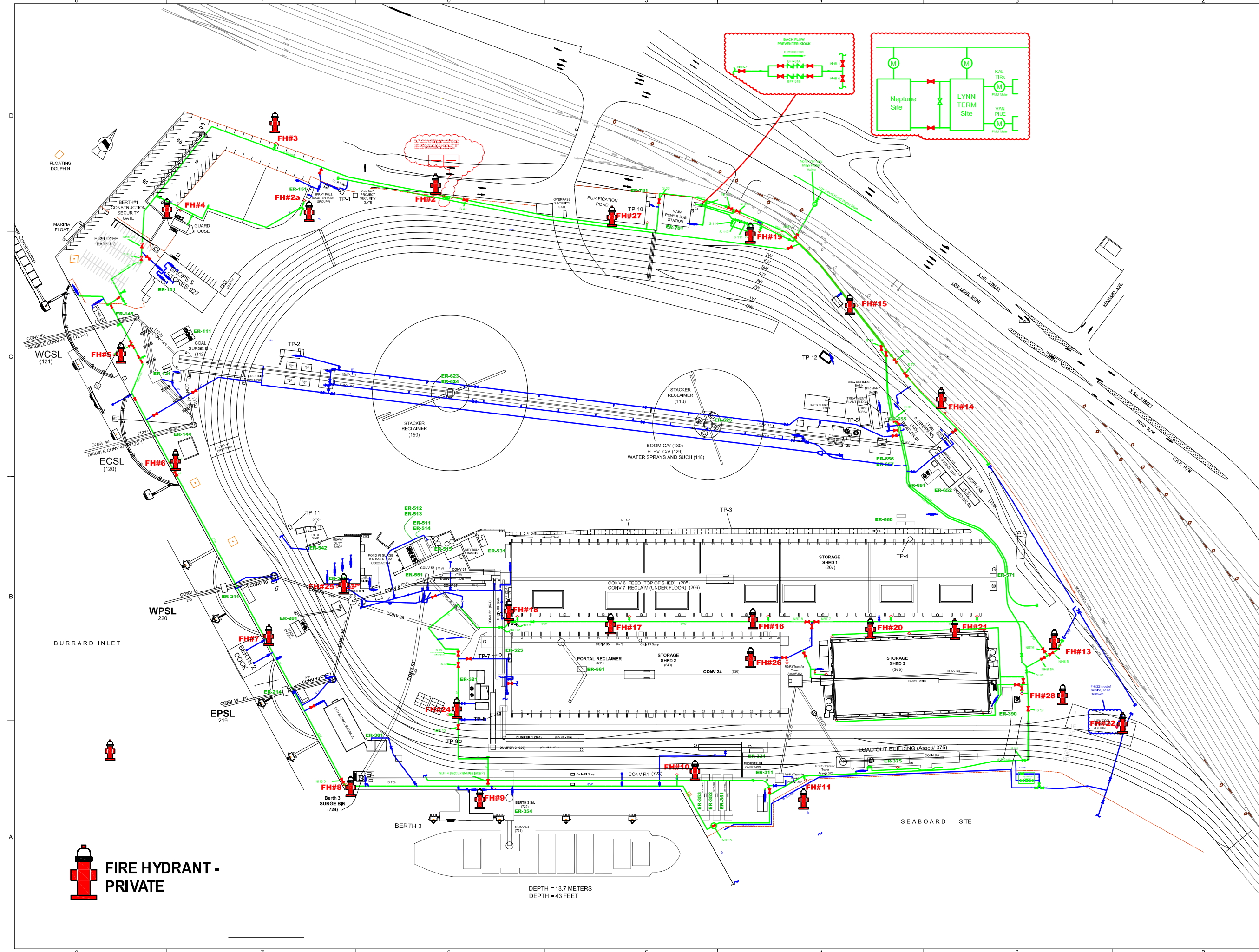
LEGEND

-  **SPRINKLER CONTROL VALVE**
-  **DOMESTIC WATER SHUT-OFF**
-  **FIRE DEPARTMENT CONNECTION**

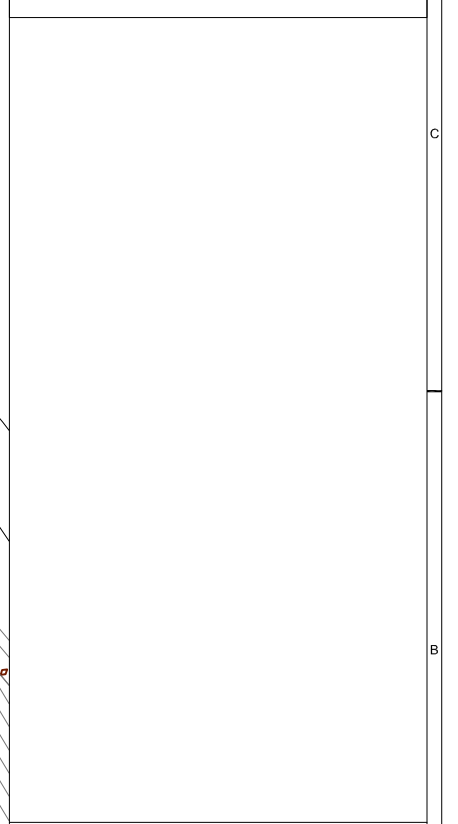
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FIRE HYDRANT LIST		
ITEM	HYDRANT VALVE#	LOCATION
1	FH#1	
2	FH#2	NORTH WEST OF TP-1
3	FH#2A	NORTH EAST OF TP-1
4	FH#3	BETWEEN PARKING ARE BORDER OF NBT AND CARGILL
5	FH#4	NORTH OF GUARD HOUSE
6	FH#5	WCSL QUADRANT
7	FH#6	ECSL QUADRANT
8	FH#7	BERTH#2 DOCK
9	FH#8	SOUTH OF SURGE BIN TOWER #3 NEAR EA WALL
10	FH#9	BERTH#3 DOCK
11	FH#10	NORTH MID OF R1 CONVEYOR
12	FH#11	BY ER-311 AND R1 TOWER
13	FH#12	
14	FH#13	NORTH OF SHED #3
15	FH#14	NORTH OF COAL DUMPER #1
16	FH#15	BY LOCI SPUR
17	FH#16	BETWEEN SHED 1 AND 2 EAST SIDE
18	FH#17	BETWEEN SHED 1 AND 2 EAST SIDE
19	FH#18	BETWEEN SHED 1 AND 2 EAST SIDE
20	FH#19	NORTH WEST OF MAIN SUB STATION BUILDING
21	FH#20	BETWEEN SHED 1 AND 2 WEST SIDE
22	FH#21	BETWEEN SHED 1 AND 2 WEST SIDE
23	FH#22	NORTH OF C/D #2 (OUT OF SERVICE TBR)
24	FH#23 (Removed)	EAST OF TRAVELING HOPPERS
25	FH#24	NEAR CRUD BINS IN DRY BULK INNER CIRCLE
26	FH#25	SOUTH OF HEAVY DUTY SHOP
27	FH#26	BETWEEN SHED 2 AND 3
28	FH#27	BY PURIFICATION POND TP-10
29	FH#28	NORTH OF SHED #3
30	FH#29	C/D #2 (RESERVED FOR ALLISON PROJECT)
31	FH#30	C/D #2 (RESERVED FOR ALLISON PROJECT)
32	FH#31	NORTH OF SHED 1 NEAR UNDERPASS
33	FH#32	SOUTH OF C/D #1



Revision			
Number	Date	Issue	By
98	2021-01-13	Updated BFP	AF
99	2020-09-08	Updated BFP	AF
99	2020-05-12	Updated AED	AF/NEJU

No.	DRAWING NO.	DRAWING TITLE

REV. DATE ISSUED FOR DRAWN CHECK SUPR. APPROVED

Neptune Terminals
 1000 West Broadway, Suite 1000
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 Phone: (604) 985-7461 Fax: (604) 985-8941

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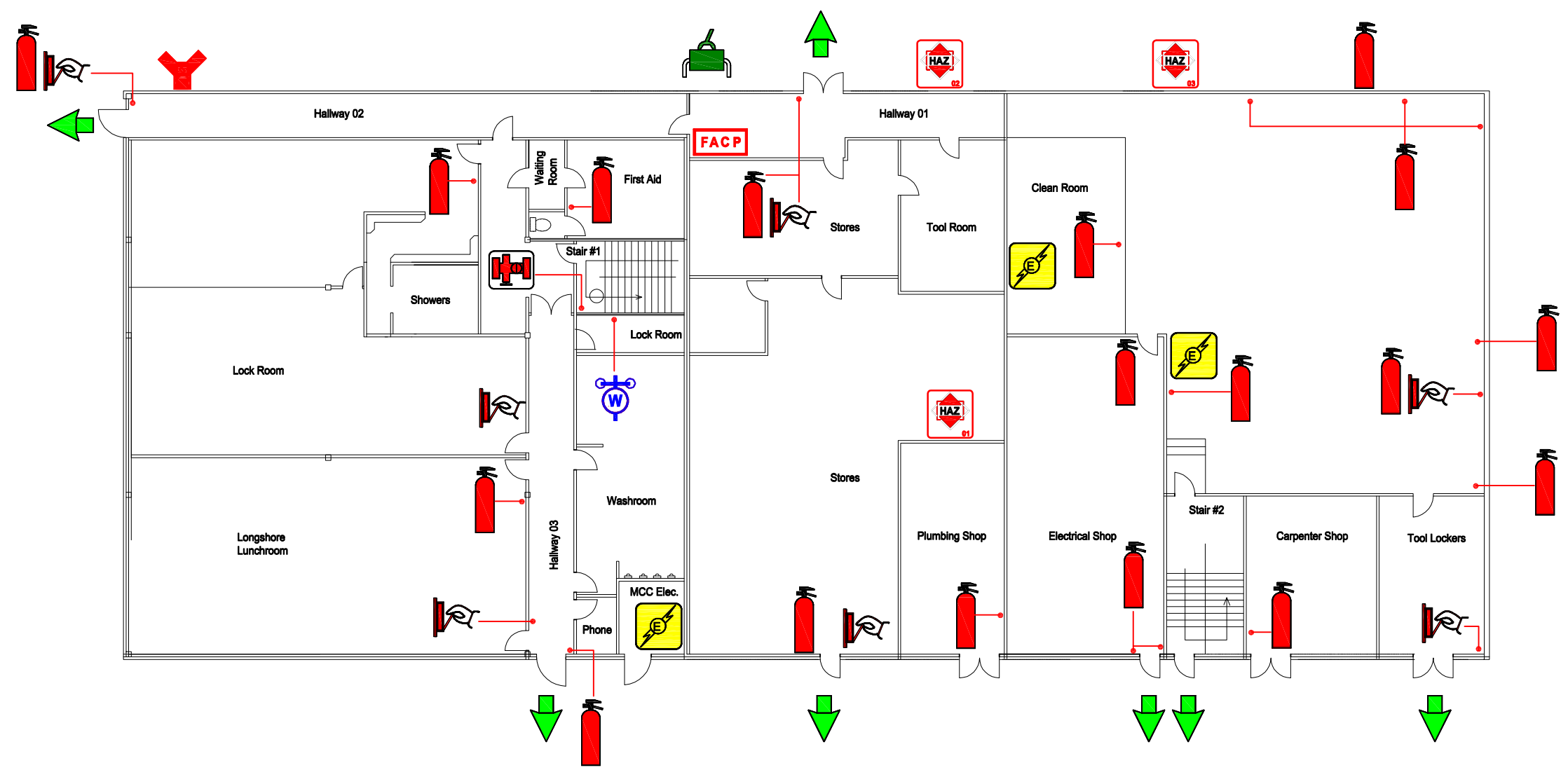
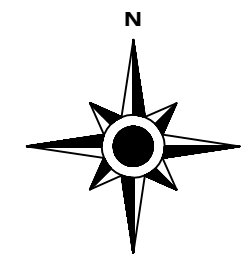
ASSET TITLE:

DRAWING TITLE: **FIRE HYDRANTS**

SH: OF: DWG No. **09-917-1-008** SCALE: 1:1200



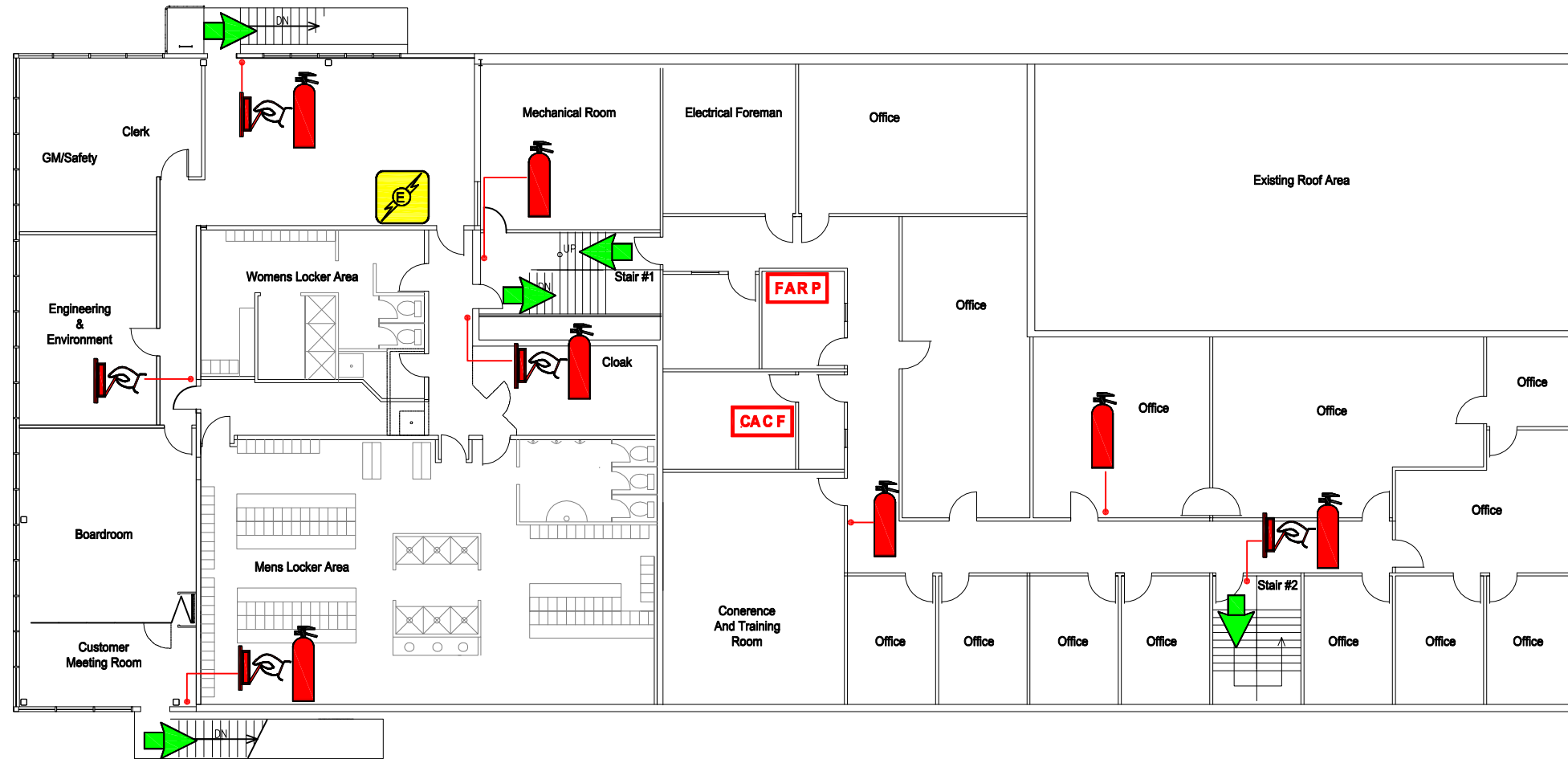
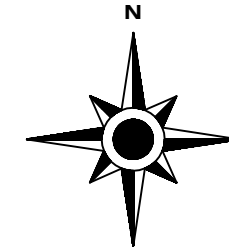
Floor Plan Drawings



LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL
	FIRE DEPARTMENT CONNECTION
	SPRINKLER CONTROL VALVE
	ELECTRICAL SHUT OFF
	DOMESTIC WATER SHUT-OFF
	GAS SHUT-OFF
	Flammable Storage
	Propane Storage
	Compressed Gas Cylinders

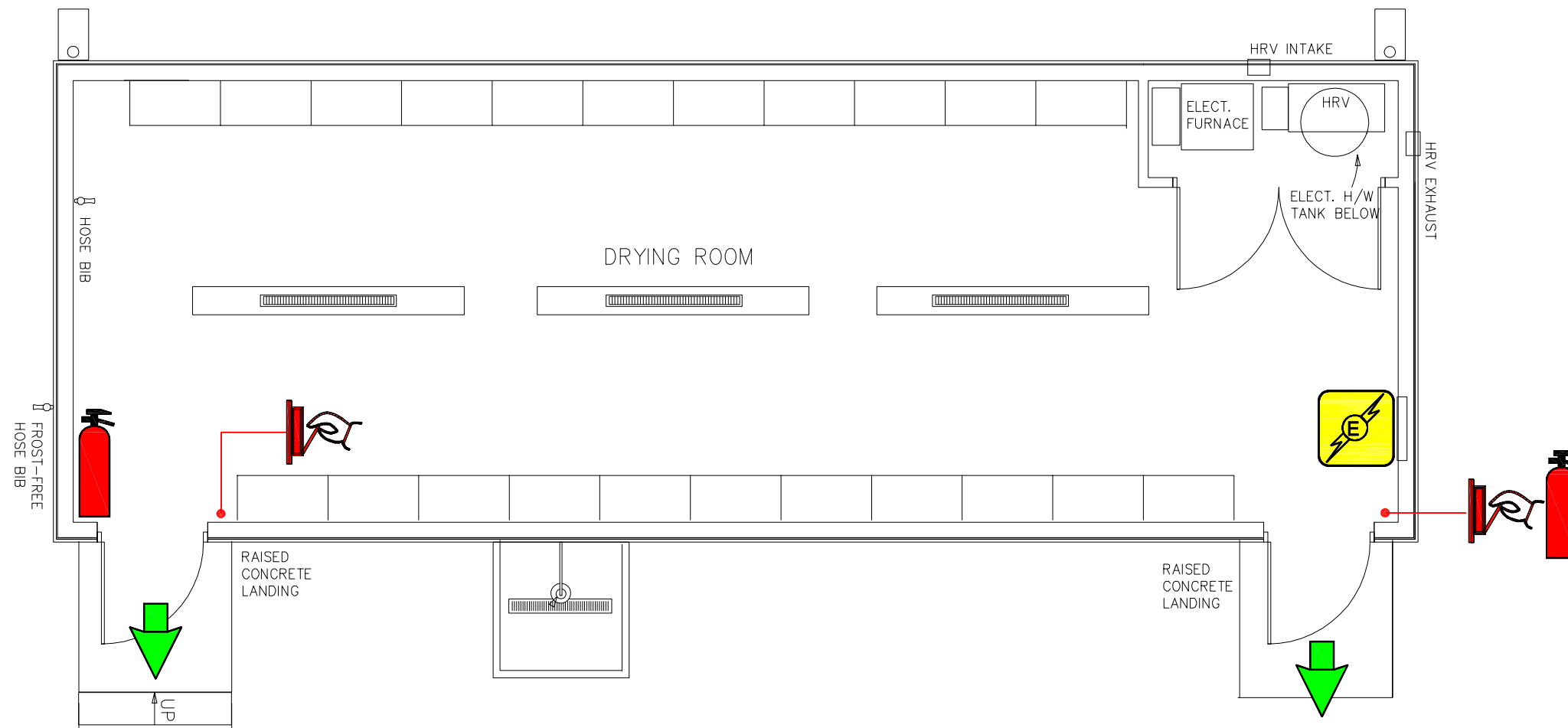
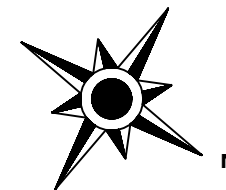
Neptune Bulk Terminals LTD
 Operations & Maintenance Building
 1001 Low Level Road, North Vancouver, BC
 Ground Floor
 Fire Safety Plan

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LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	NOVEC 1230 RELEASING PANEL
	CENTRAL ALARM CONTROL FACILITY
	ELECTRICAL SHUT OFF

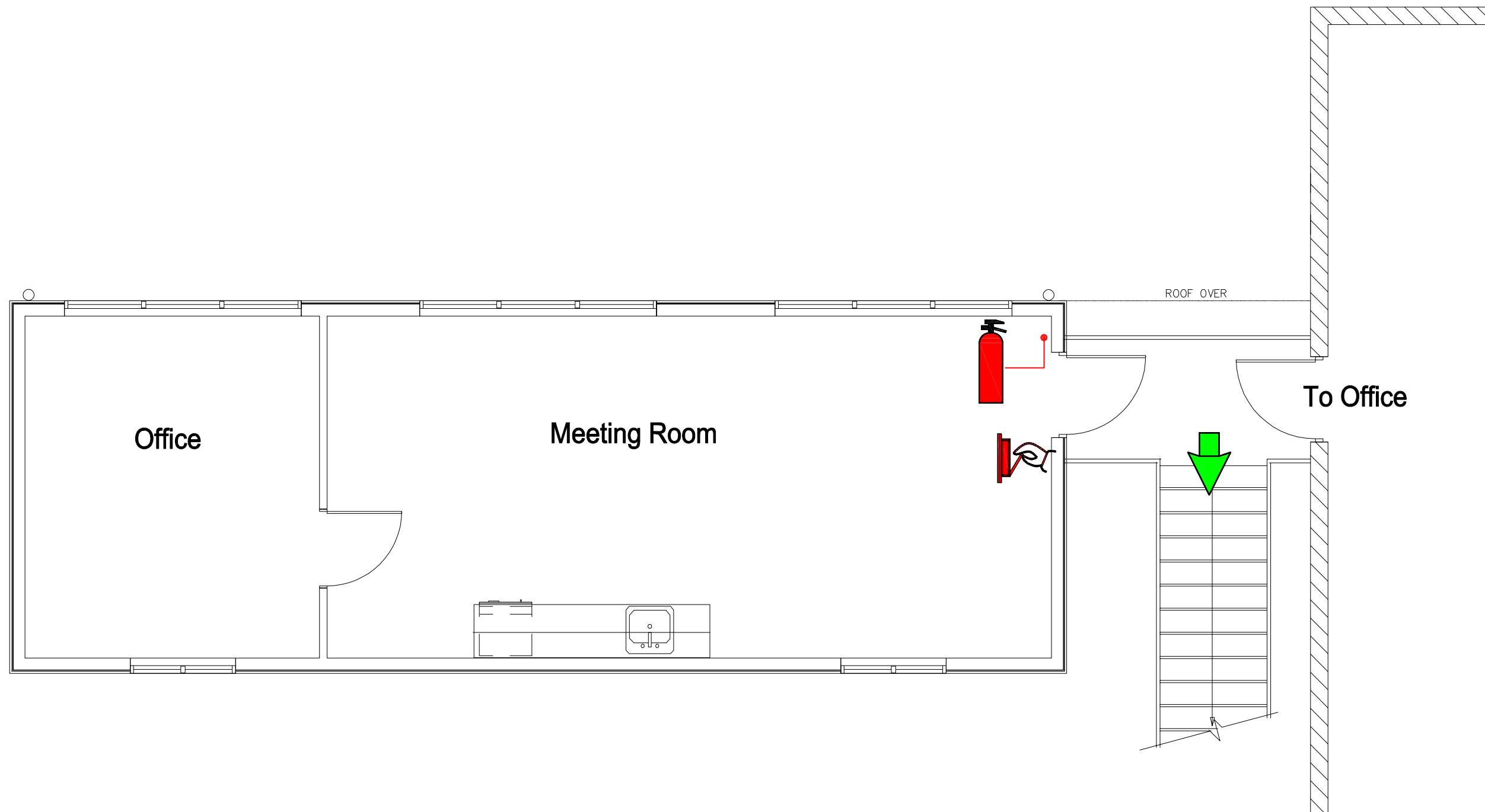
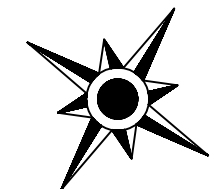
Neptune Bulk Terminals LTD
 Operations & Maintenance Building
 1001 Low Level Road, North Vancouver, BC
 First Floor
 Fire Safety Plan



LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	ELECTRICAL SHUT OFF

Neptune Bulk Terminals LTD
O&M Drying Room
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan

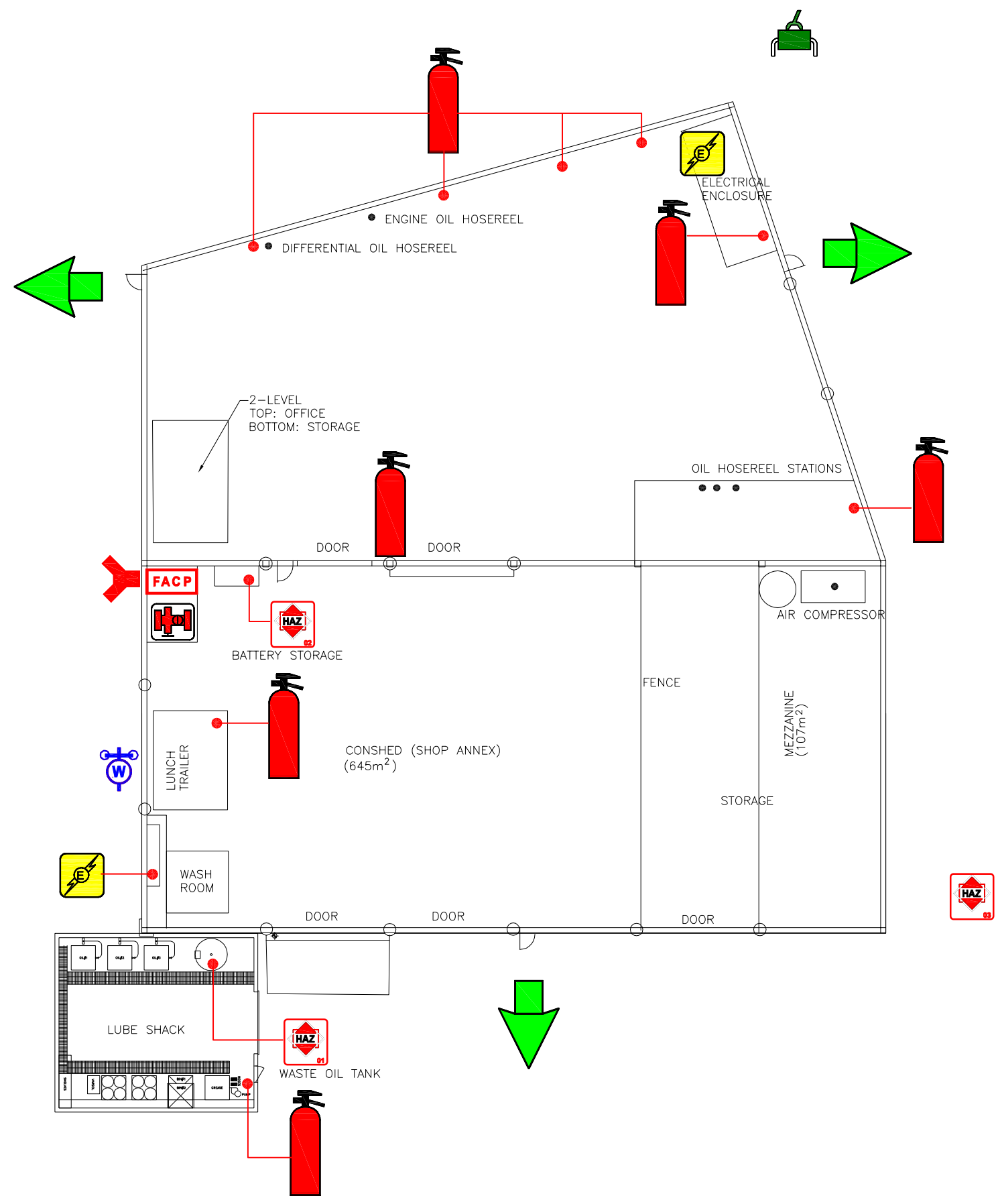
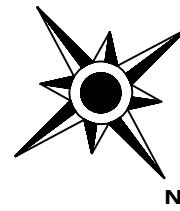




LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER

Neptune Bulk Terminals LTD
O&M Drying Room
1001 Low Level Road, North Vancouver, BC
First Floor
Fire Safety Plan

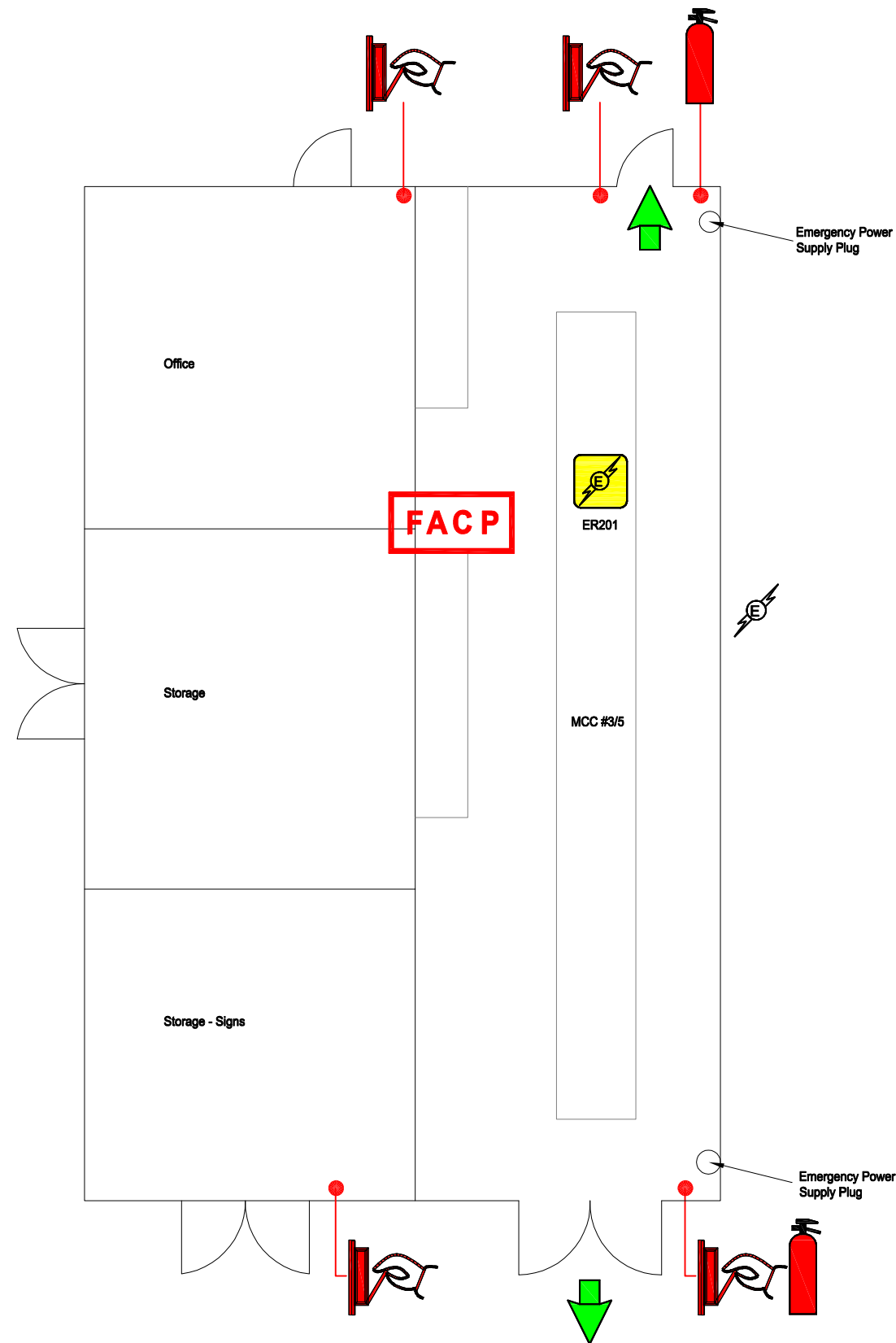
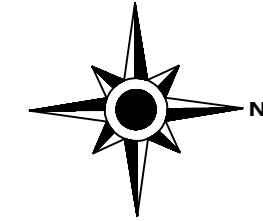




LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL
	FIRE DEPARTMENT CONNECTION
	SPRINKLER CONTROL VALVE
	ELECTRICAL SHUT OFF
	DOMESTIC WATER SHUT-OFF
	GAS SHUT-OFF
	Waste Oil Tank
	Battery Storage
	Diesel Tank 13600L

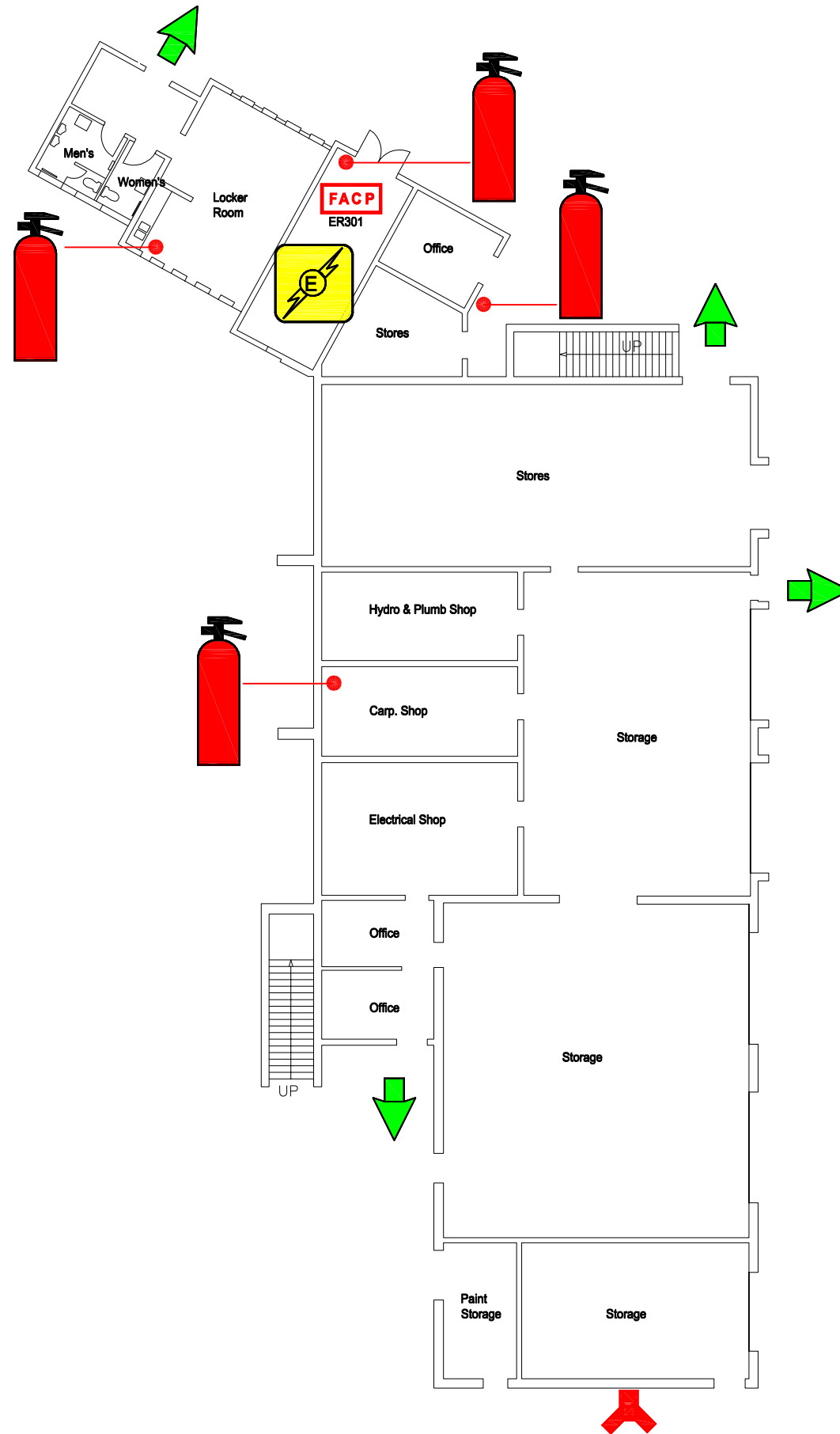
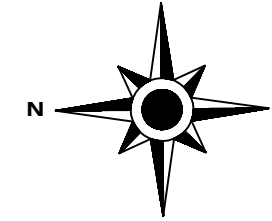
Neptune Bulk Terminals LTD
 Heavy Duty Shop
 1001 Low Level Road, North Vancouver, BC
 Ground Floor
 Fire Safety Plan





LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL
	ELECTRICAL HAZARD
	ELECTRICAL SHUT OFF

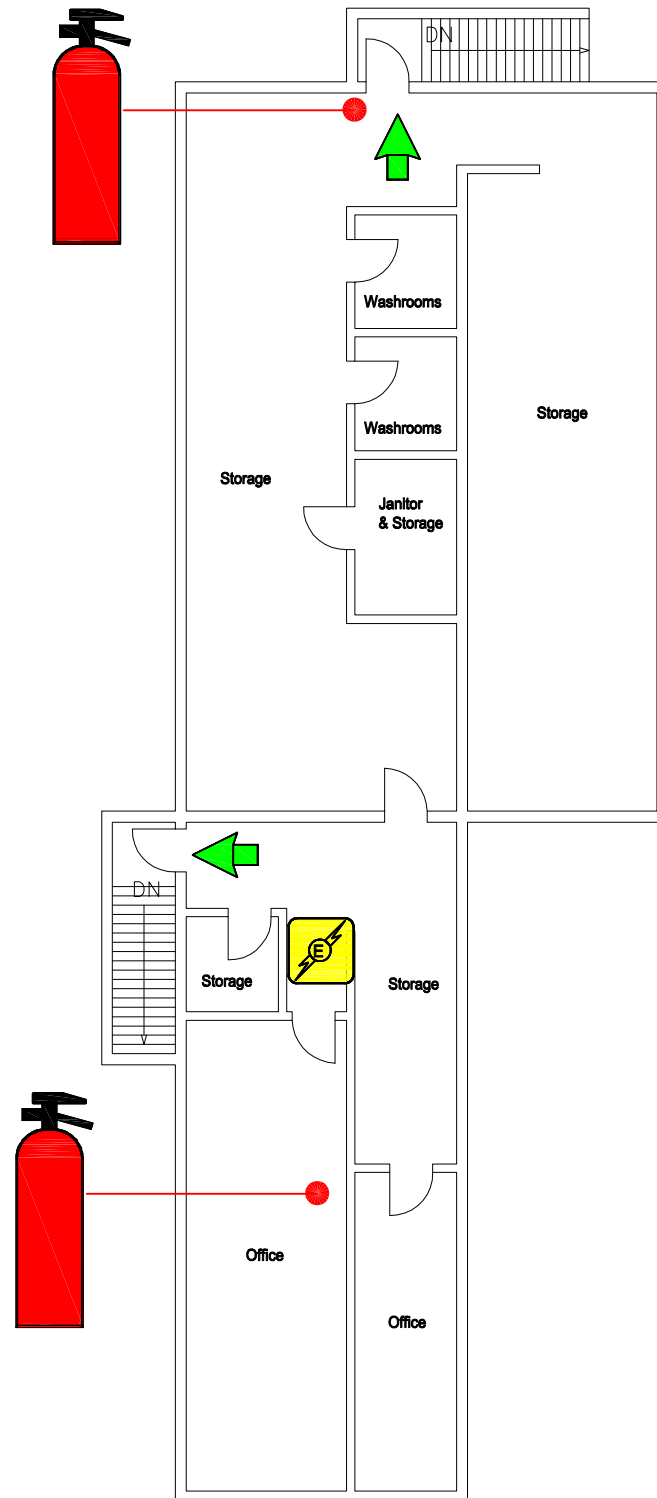
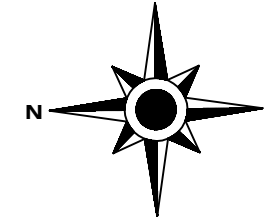
Neptune Bulk Terminals LTD
Berth 2 Dock Office
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan






LEGEND	
	FIRE EXIT
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL
	FIRE DEPARTMENT CONNECTION
	ELECTRICAL SHUT OFF

Neptune Bulk Terminals LTD
Old Stores Berth 3 Dock Office
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan

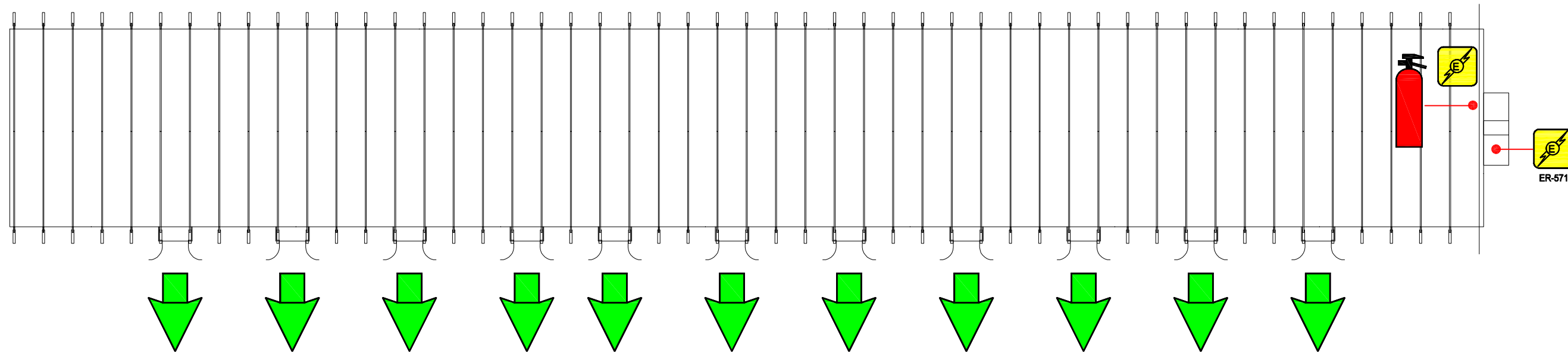
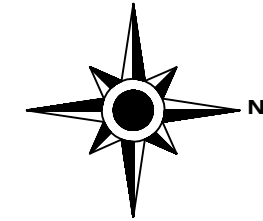




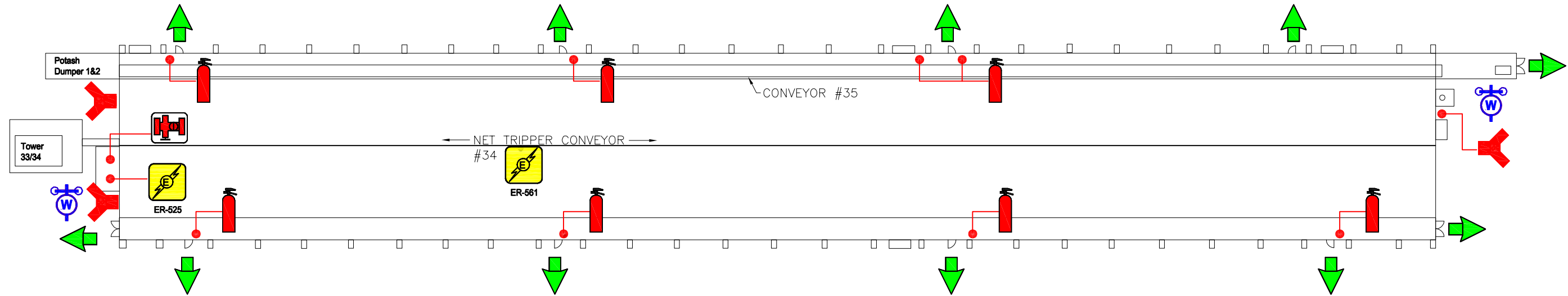
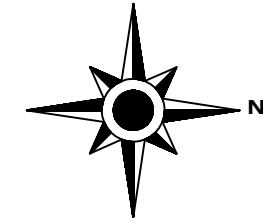
LEGEND

-  FIRE EXIT
-  FIRE EXTINGUISHER
-  ELECTRICAL SHUT OFF

Neptune Bulk Terminals LTD
Old Stores Berth 3 Dock Office
1001 Low Level Road, North Vancouver, BC
First Floor
Fire Safety Plan



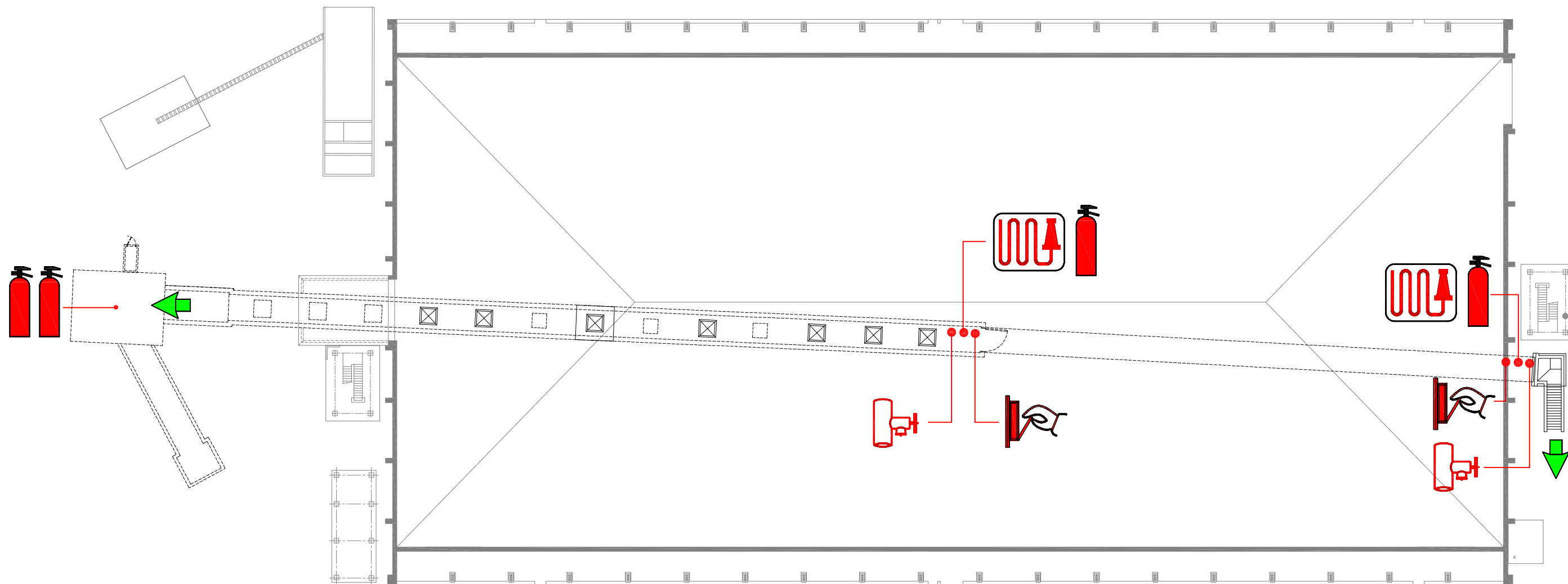
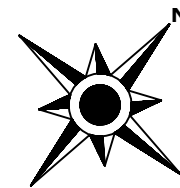
Neptune Bulk Terminals LTD
Potash Shed 1
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan



LEGEND

- | | | | | | |
|--|-------------------|--|-------------------------|--|----------------------------|
| | FIRE EXIT | | DOMESTIC WATER SHUT-OFF | | FIRE DEPARTMENT CONNECTION |
| | FIRE EXTINGUISHER | | ELECTRICAL SHUT OFF | | SPRINKLER CONTROL VALVE |

Neptune Bulk Terminals LTD
 Potash Shed 2
 1001 Low Level Road, North Vancouver, BC
 Ground Floor
 Fire Safety Plan



LEGEND



FIRE EXIT



FIRE PULL STATION



STANDPIPE CONNECTION



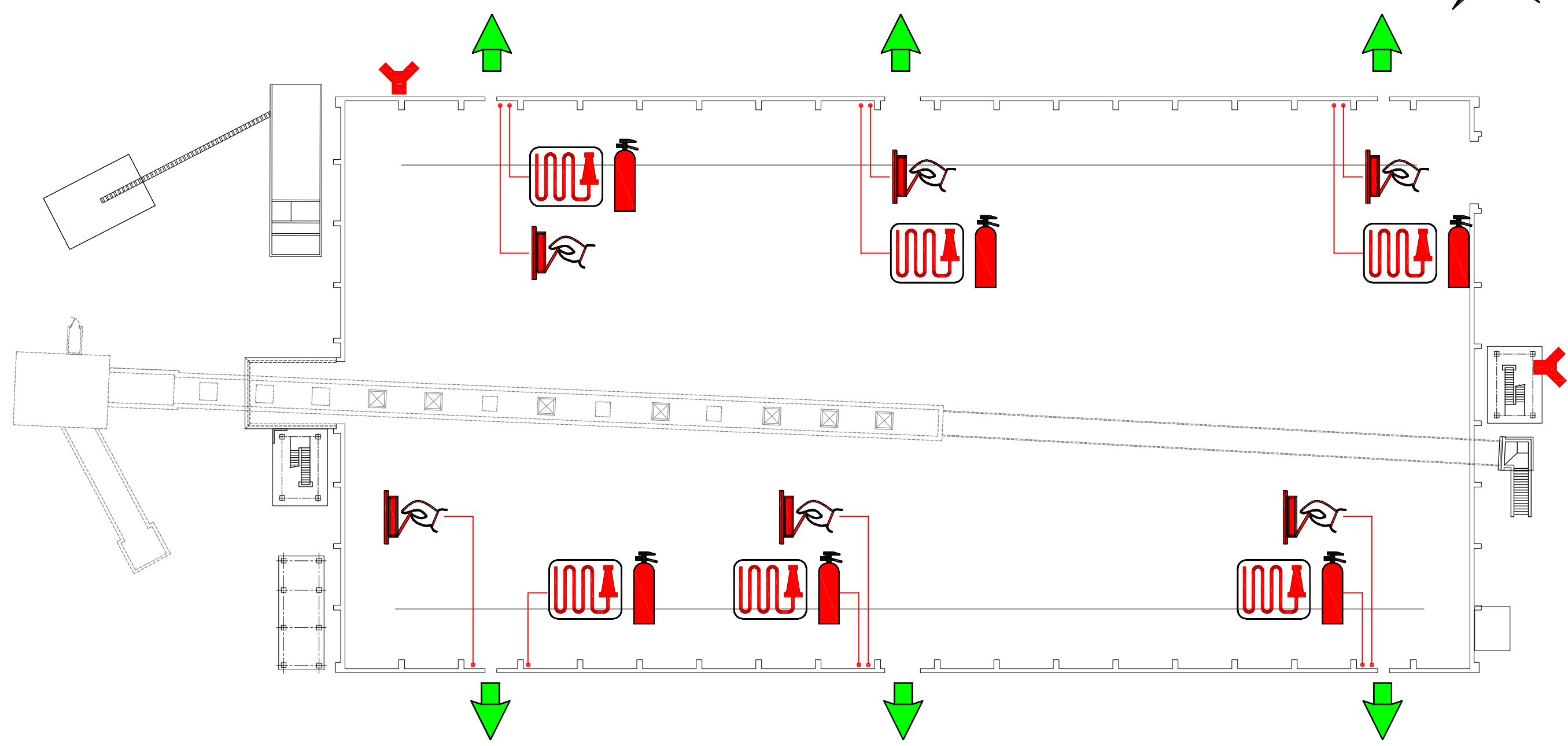
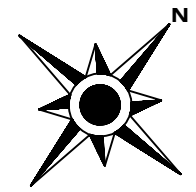
FIRE EXTINGUISHER



FIRE HOSE IN CABINET



Neptune Bulk Terminals LTD
Phosrock Shed 3
1001 Low Level Road, North Vancouver, BC
Underground Tunnel
Fire Safety Plan



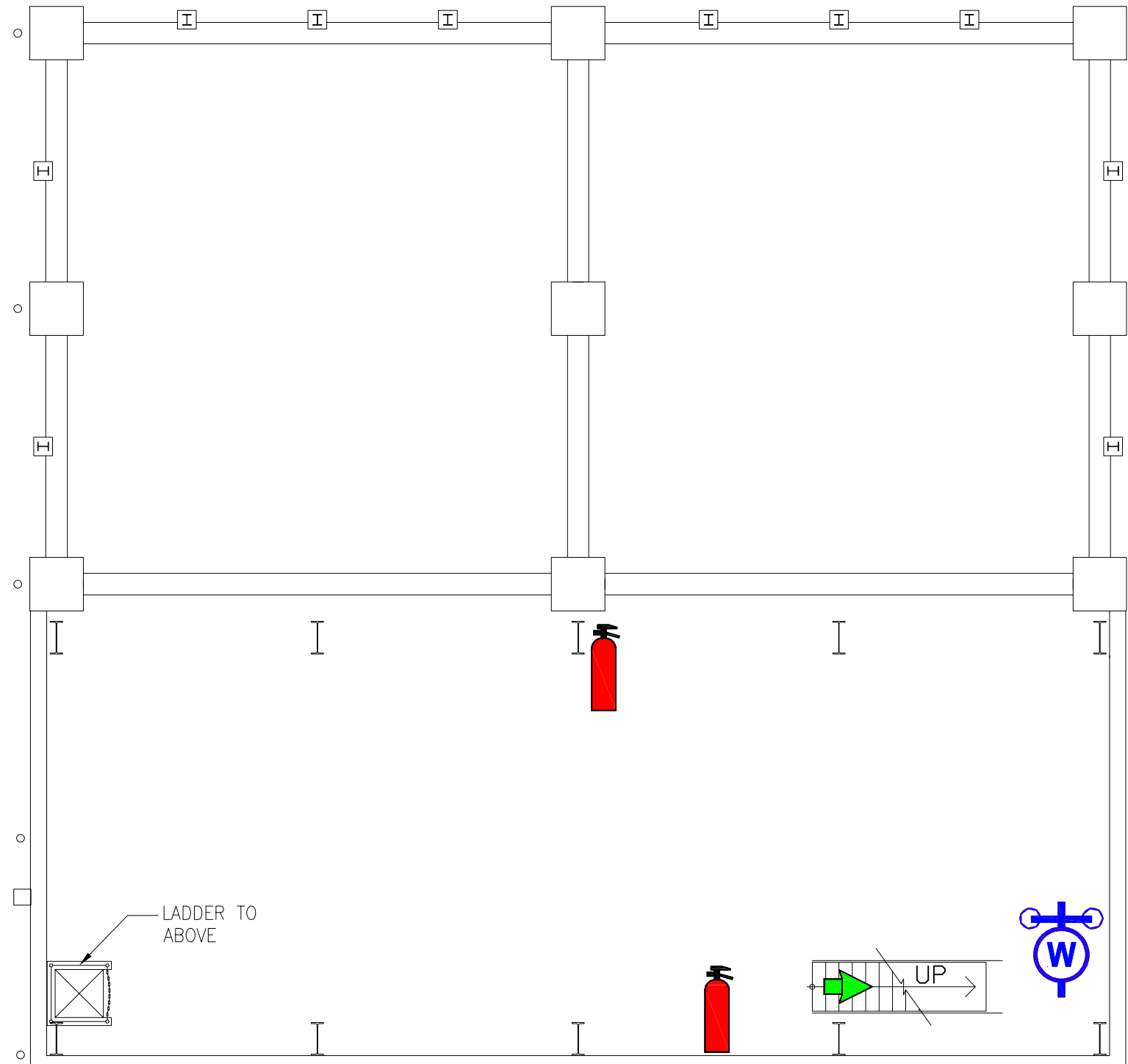
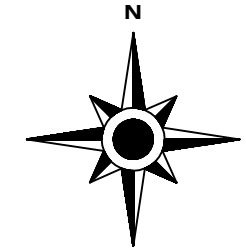
LEGEND

- | | | | | | |
|---|-------------------|---|----------------------|---|----------------------------|
|  | FIRE EXIT |  | FIRE PULL STATION |  | FIRE DEPARTMENT CONNECTION |
|  | FIRE EXTINGUISHER |  | FIRE HOSE IN CABINET | | |

Neptune Bulk Terminals LTD
Phosrock Shed 3
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan



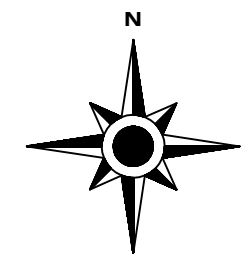
VIKING FIRE PROTECTION INC
140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
TEL: (604)-324-7122 FAX: (604)-324-8280



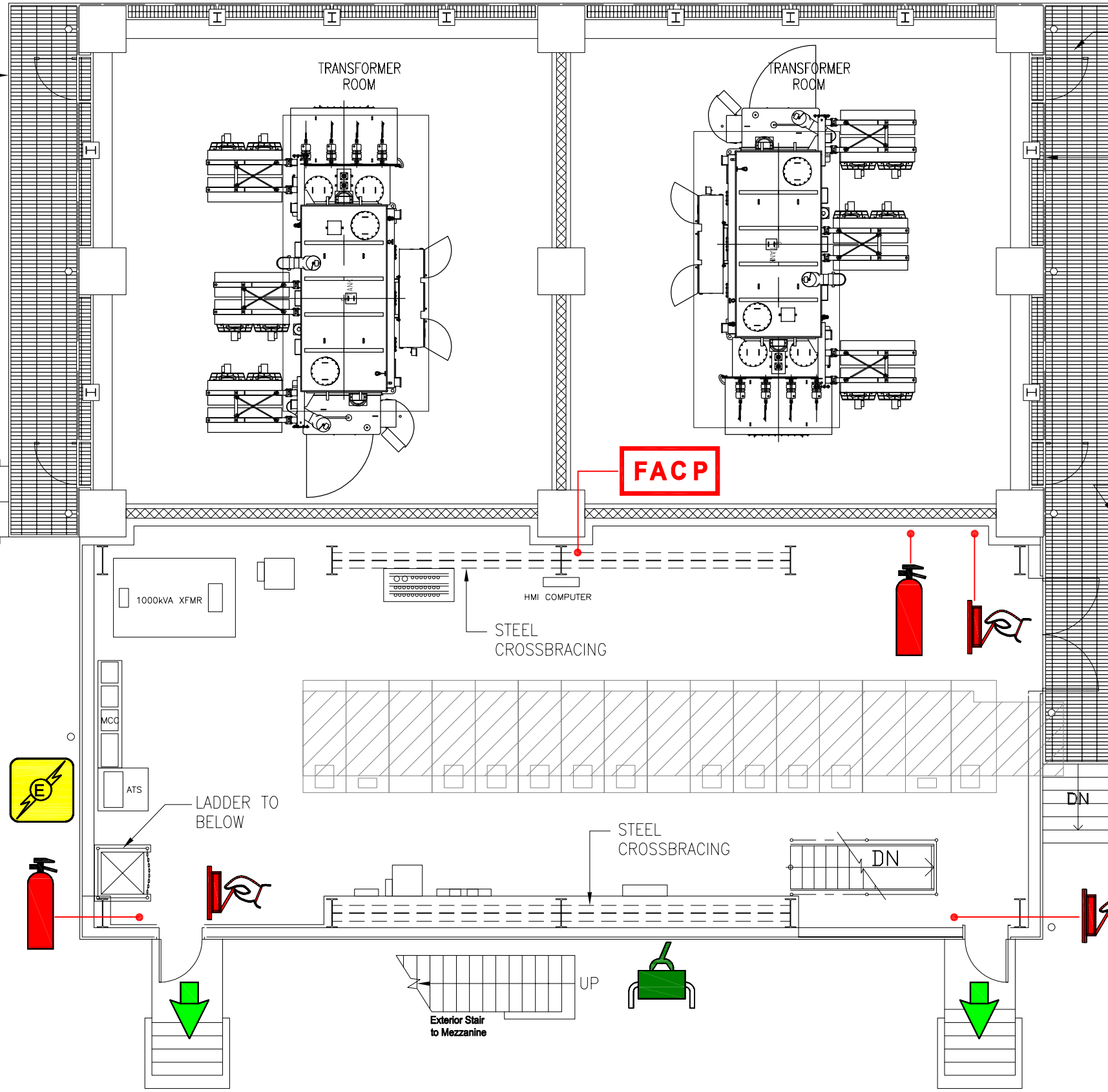
LEGEND	
	FIRE EXIT
	FIRE EXTINGUISHER
	DOMESTIC WATER SHUT-OFF

Neptune Bulk Terminals LTD
ER701
1001 Low Level Road, North Vancouver, BC
Basement
Fire Safety Plan



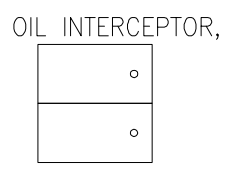


TYPICAL
REMOVABLE
WALKWAY
GUARDRAIL




GALVANIZED BAR
GRATE

STAINLESS STEEL
WIRE SCREEN
SHOWN DASHED



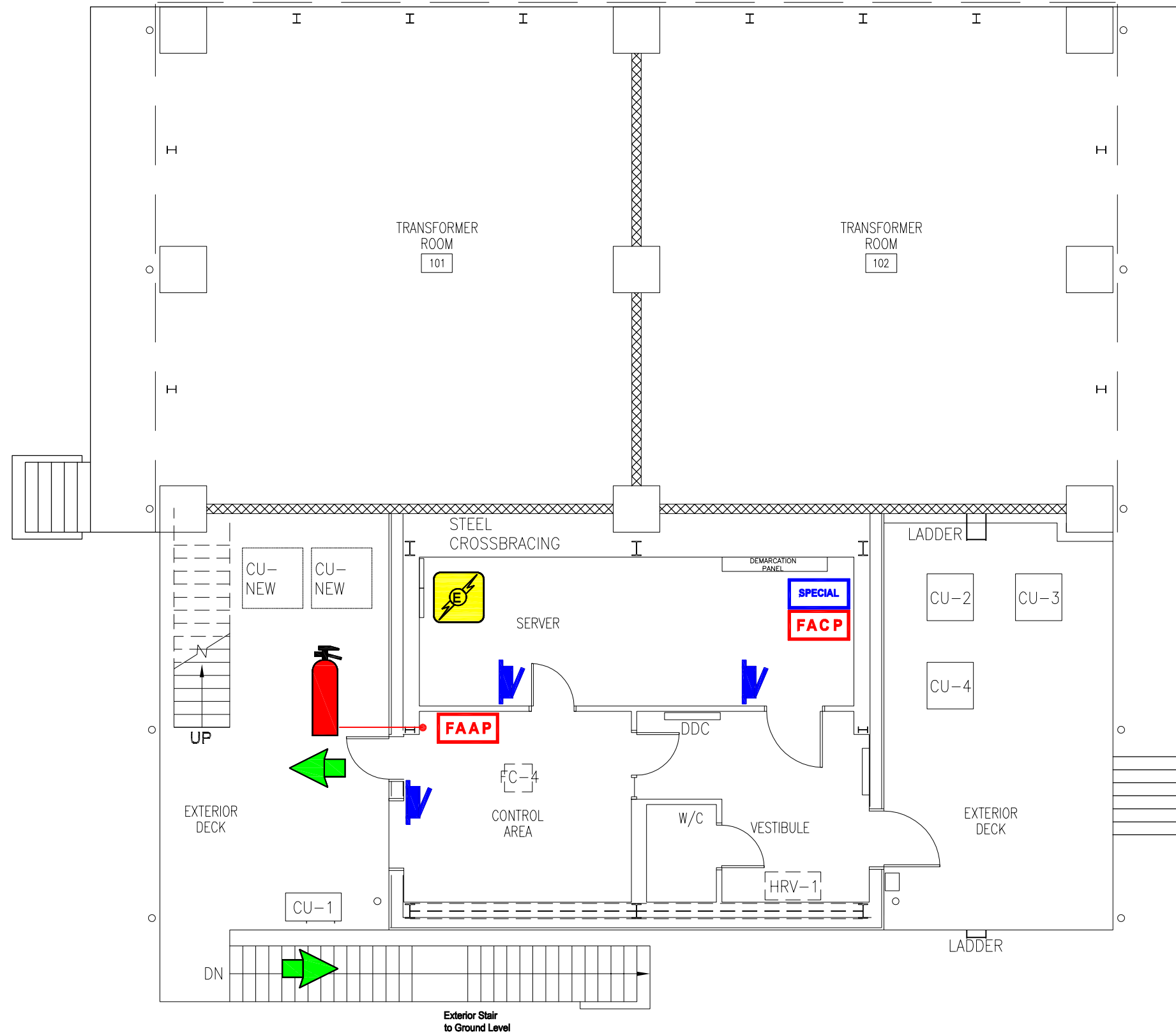
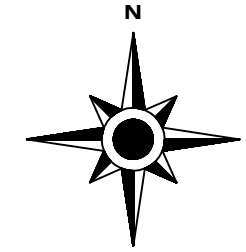
TYPICAL
REMOVABLE
WALKWAY
GUARDRAIL

LEGEND








-  FIRE EXIT
-  FIRE PULL STATION
-  FIRE EXTINGUISHER
-  FIRE ALARM CONTROL PANEL
-  ELECTRICAL SHUT OFF
-  GAS SHUT-OFF



Neptune Bulk Terminals LTD
ER701
1001 Low Level Road, North Vancouver, BC
Ground Level
Fire Safety Plan



LEGEND

-  FIRE EXIT
-  PULL STATION FOR SPECIAL SUPPRESSION SYSTEM
-  FIRE EXTINGUISHER
-  FIRE ALARM ANNOUNCIATOR
-  FIRE ALARM CONTROL PANEL
-  SAPPHIRE CLEAN AGENT SUPPRESSION SYSTEM
-  ELECTRICAL SHUT OFF

Neptune Bulk Terminals LTD

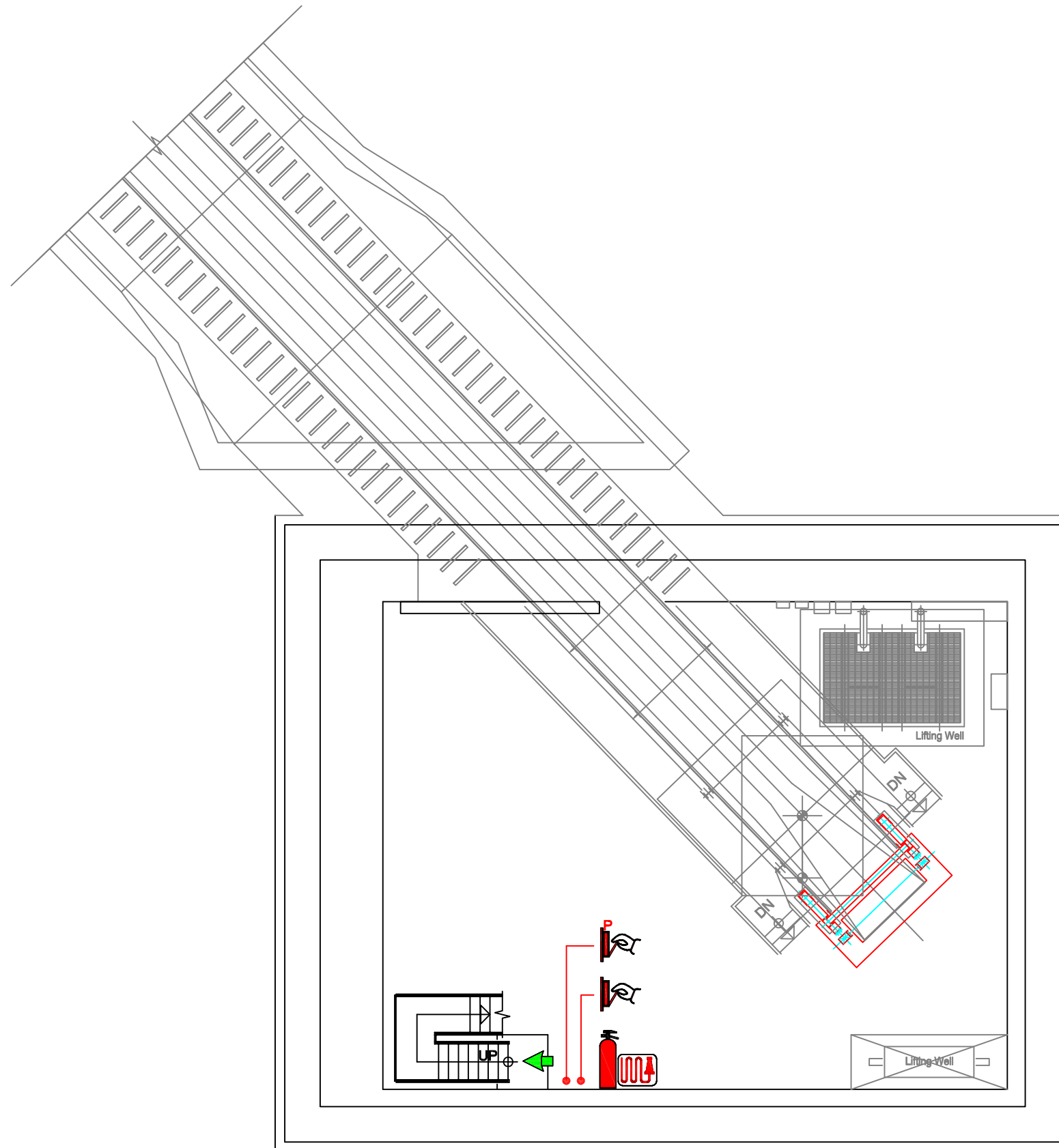
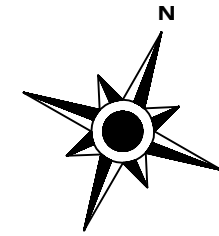
ER701

1001 Low Level Road, North Vancouver, BC






First Floor

Fire Safety Plan

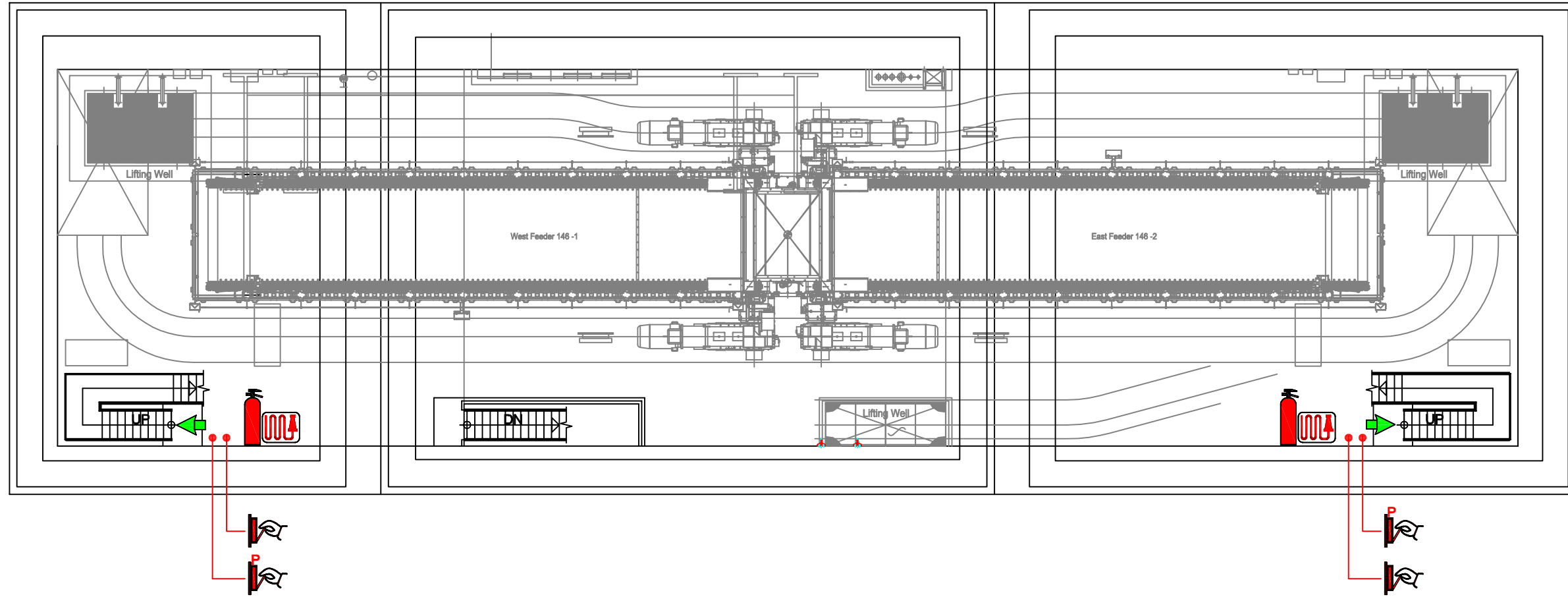
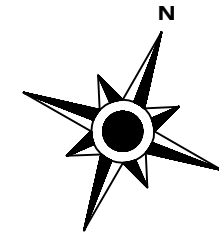









LEGEND

-  FIRE EXIT
-  FIRE PULL STATION ALSO OPEN PRE-ACTION VALVE
-  FIRE PULL STATION
-  FIRE EXTINGUISHER
-  FIRE HOSE IN CABINET

Neptune Bulk Terminals LTD
Allison Project - Conveyor Rail/Dumper Building
1001 Low Level Road, North Vancouver, BC
Tail End Level
Fire Safety Plan



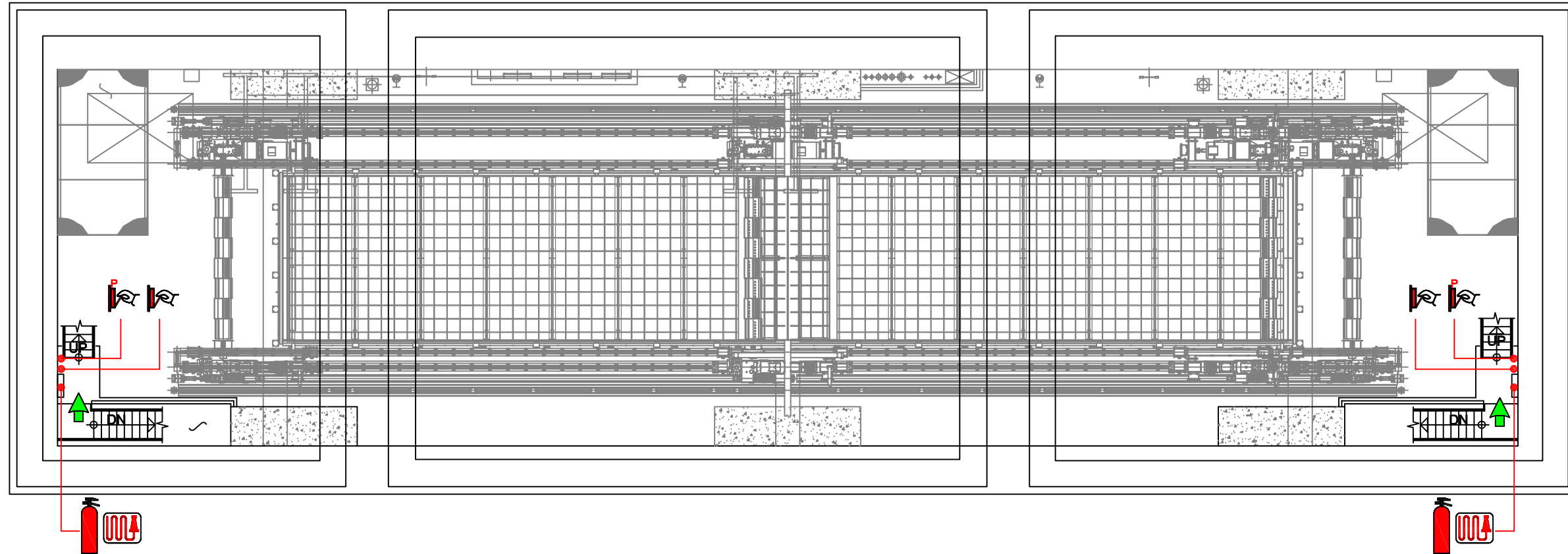
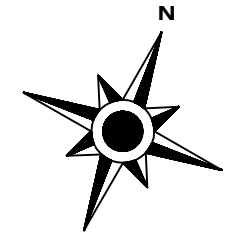
LEGEND

-  FIRE EXIT
-  FIRE PULL STATION ALSO OPEN PRE-ACTION VALVE
-  FIRE PULL STATION
-  FIRE EXTINGUISHER
-  FIRE HOSE IN CABINET






Neptune Bulk Terminals LTD
Allison Project - Conveyor Rail/Dumper Building
1001 Low Level Road, North Vancouver, BC
Feeders Level
Fire Safety Plan



VIKING FIRE PROTECTION INC
140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
TEL: (604)-324-7122 FAX: (604)-324-8280

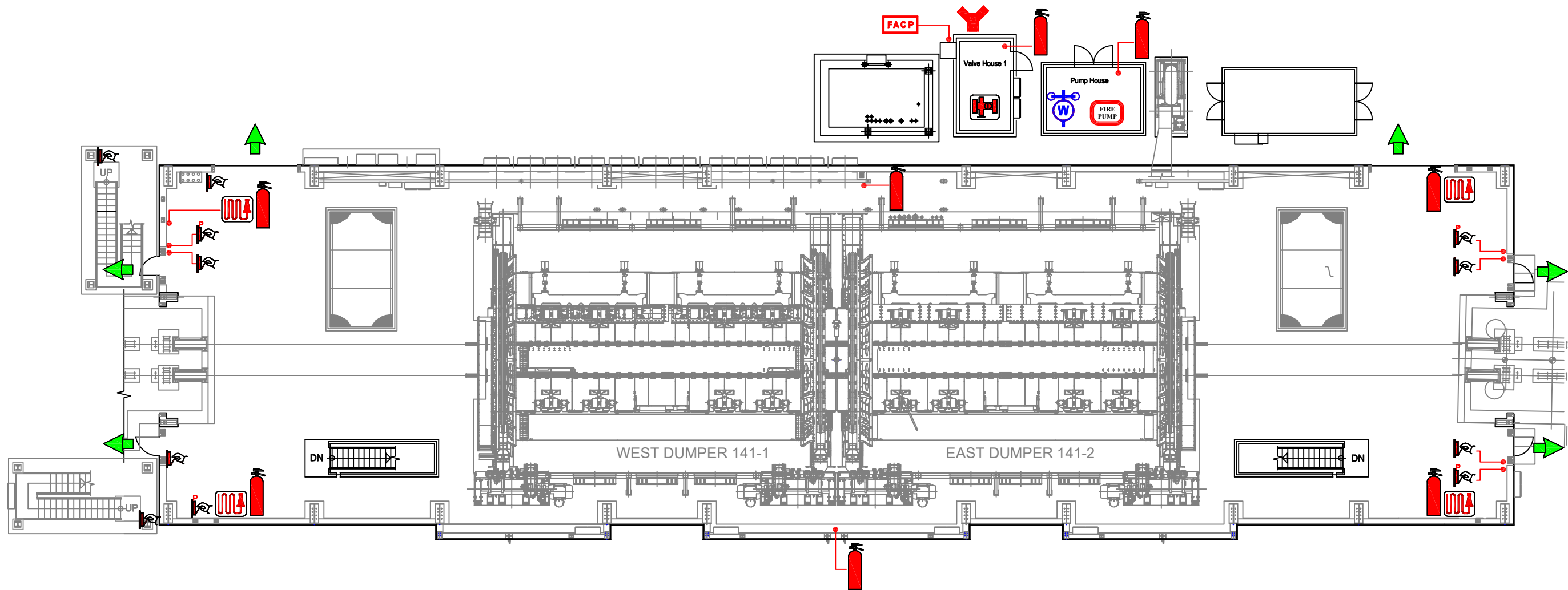
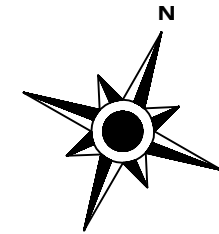


LEGEND

-  FIRE EXIT
-  FIRE PULL STATION ALSO OPEN PRE-ACTION VALVE
-  FIRE PULL STATION
-  FIRE EXTINGUISHER
-  FIRE HOSE IN CABINET

Neptune Bulk Terminals LTD

Allison Project - Conveyor Rail/Dumper Building
1001 Low Level Road, North Vancouver, BC
Ice Crushers/ Grizzly Level
Fire Safety Plan



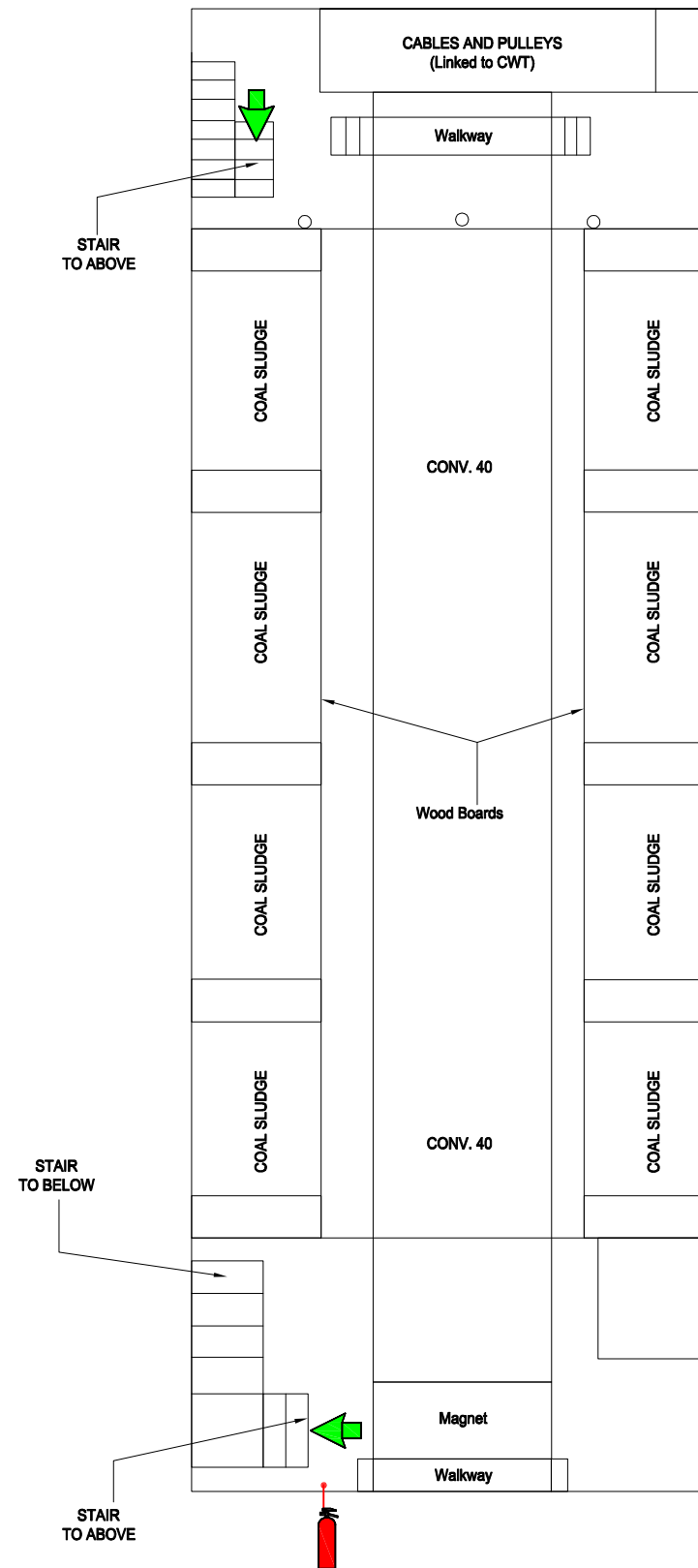
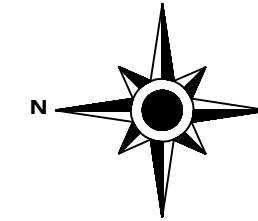
LEGEND

- | | | | | | | | | | |
|--|--|--|-------------------|--|--------------------------|--|-------------------------|--|----------------------------|
| | FIRE EXIT | | FIRE EXTINGUISHER | | FIRE ALARM CONTROL PANEL | | DOMESTIC WATER SHUT-OFF | | FIRE DEPARTMENT CONNECTION |
| | FIRE PULL STATION ALSO OPEN PRE-ACTION VALVE | | FIRE PULL STATION | | FIRE HOSE IN CABINET | | FIRE PUMP | | SPRINKLER CONTROL VALVE |

Neptune Bulk Terminals LTD

Allison Project - Conveyor Rail/Dumper Building
 1001 Low Level Road, North Vancouver, BC
 Rail/Dumper Level (Ground Level)
 Fire Safety Plan

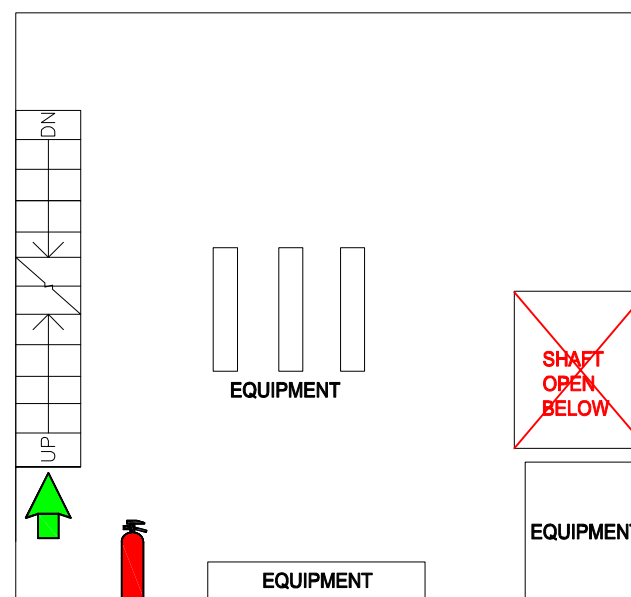
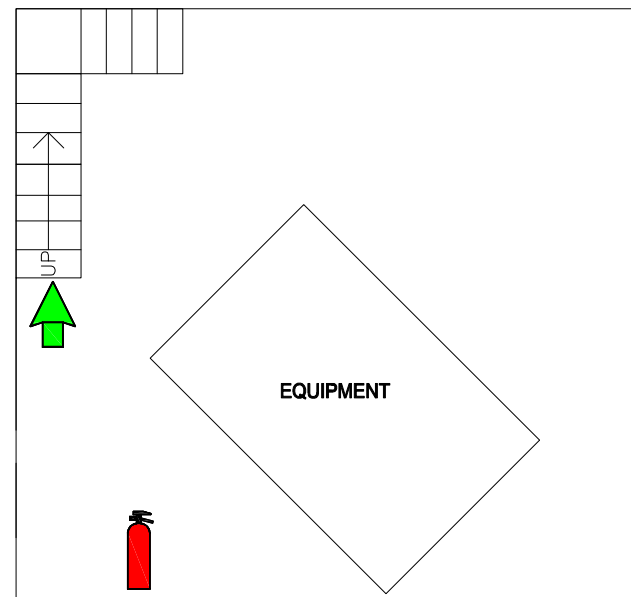
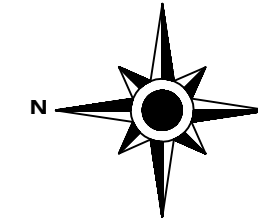





LEGEND	
	FIRE EXIT
	FIRE EXTINGUISHER


Neptune Bulk Terminals LTD
Coal Dumper
1001 Low Level Road, North Vancouver, BC
U/G Floor 4
Fire Safety Plan

VIKING FIRE PROTECTION INC
140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
TEL: (604)-324-7122 FAX: (604)-324-8280



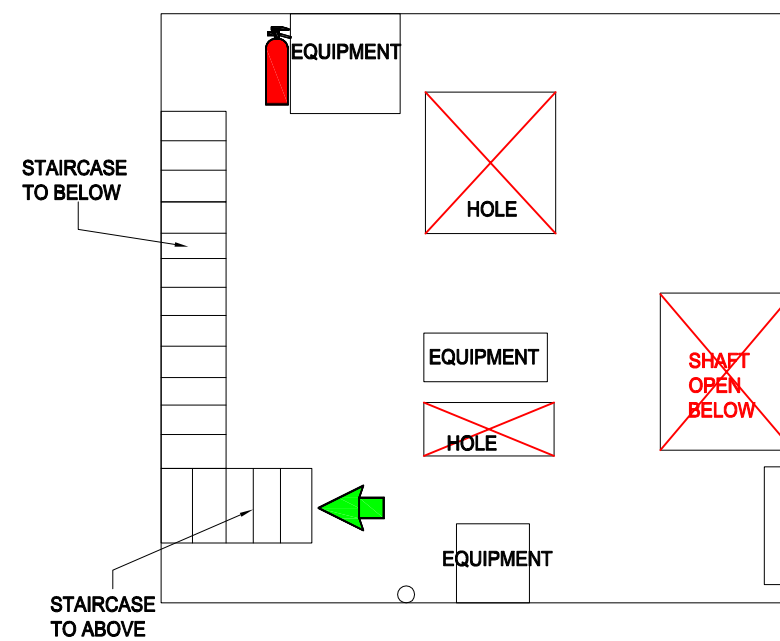
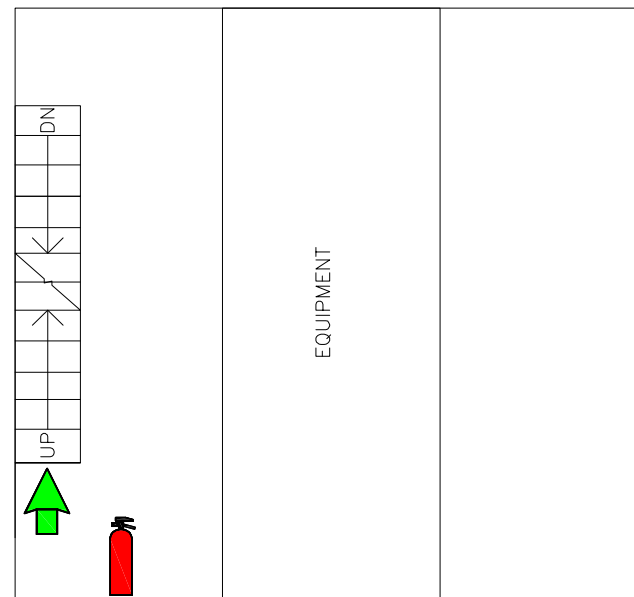
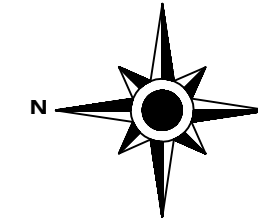
LEGEND

 FIRE EXIT

 FIRE EXTINGUISHER

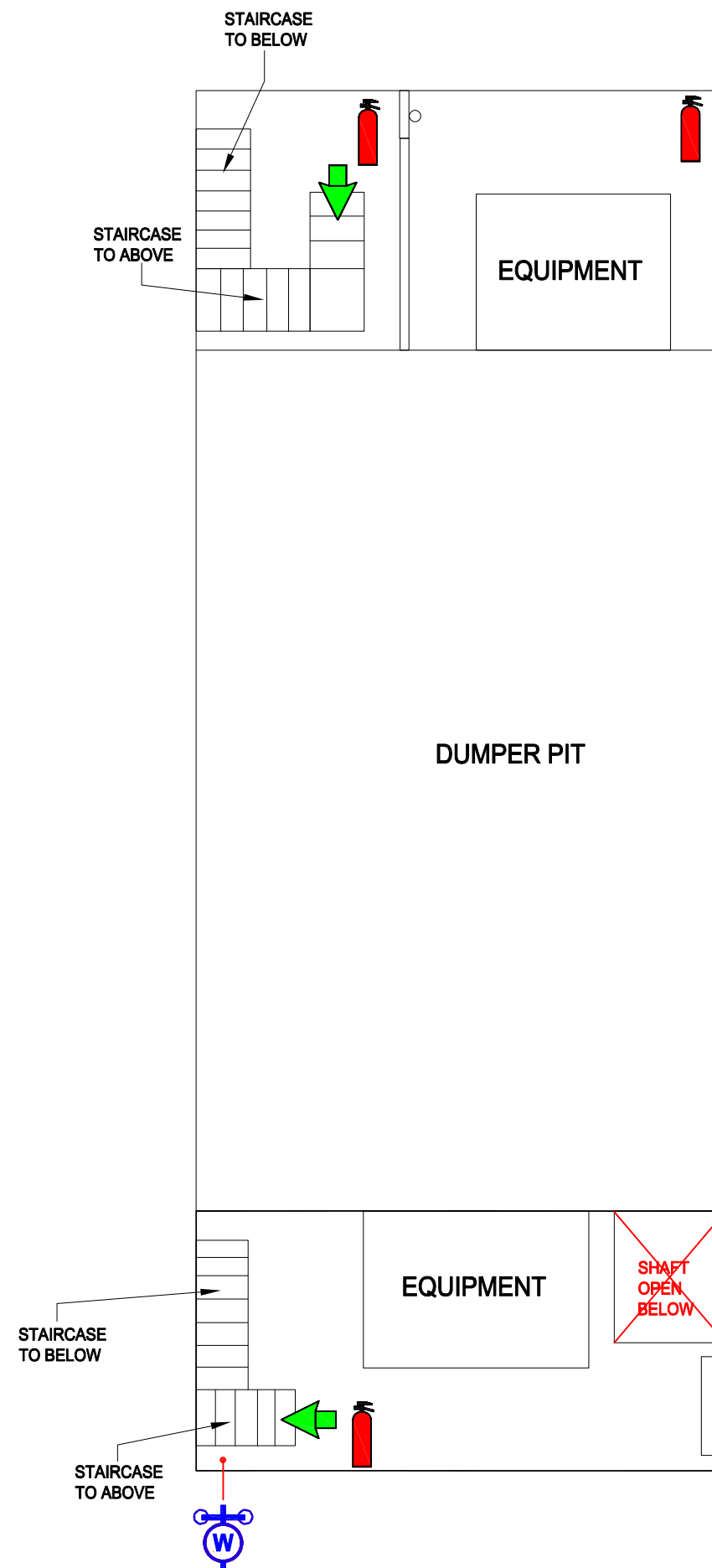
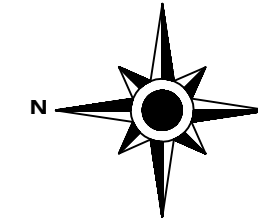
Neptune Bulk Terminals LTD
Coal Dumper
1001 Low Level Road, North Vancouver, BC
U/G Floor 3
Fire Safety Plan

VIKING
VIKING FIRE PROTECTION INC
140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
TEL: (604)-324-7122 FAX: (604)-324-8280







LEGEND	
	FIRE EXIT
	FIRE EXTINGUISHER

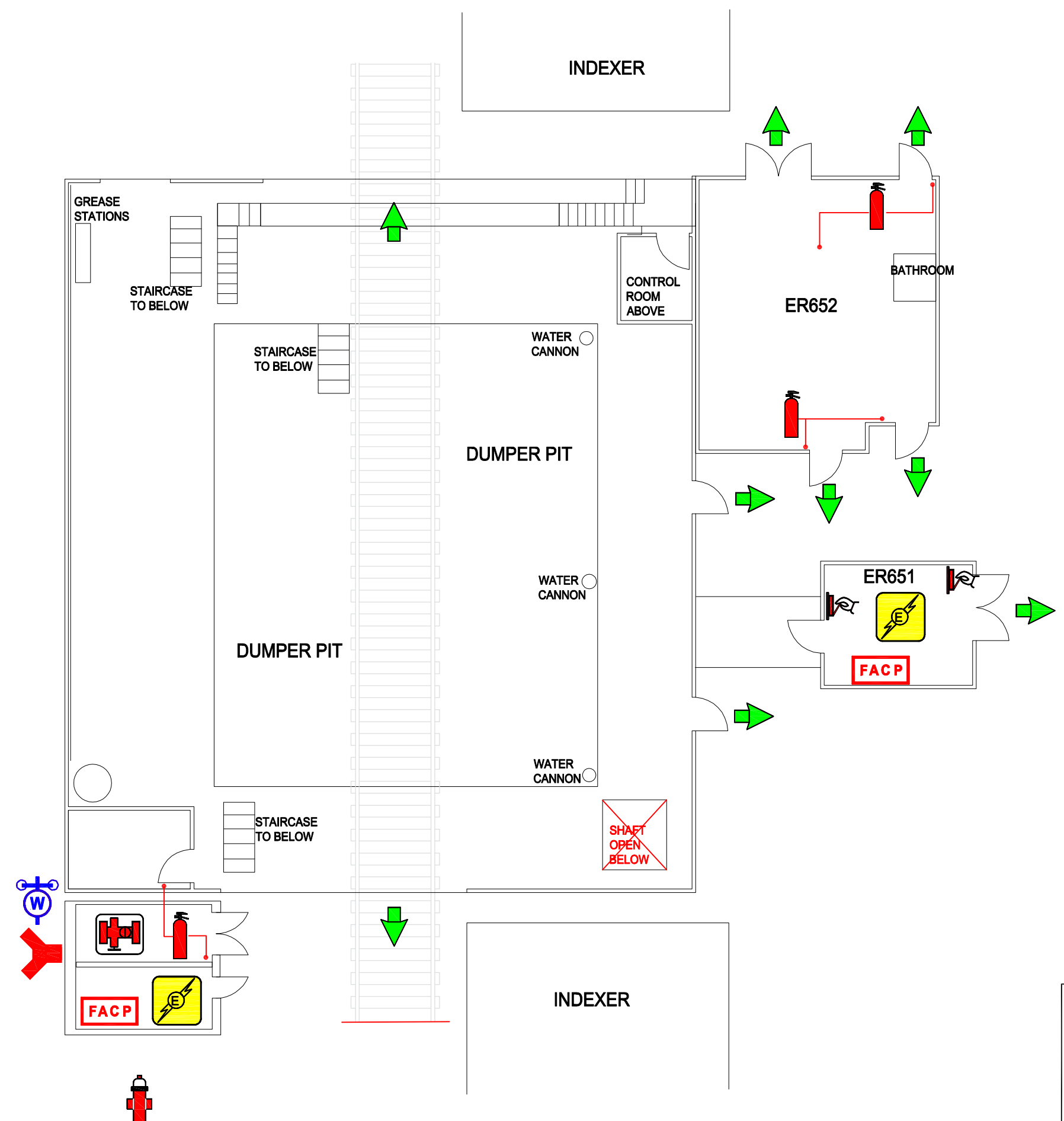
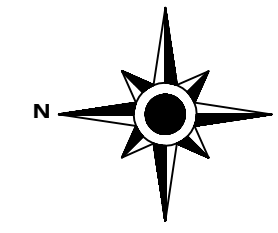
Neptune Bulk Terminals LTD
Coal Dumper
1001 Low Level Road, North Vancouver, BC
U/G Floor 2
Fire Safety Plan



LEGEND

-  FIRE EXIT
-  FIRE PULL STATION
-  FIRE EXTINGUISHER
-  DOMESTIC WATER SHUT-OFF

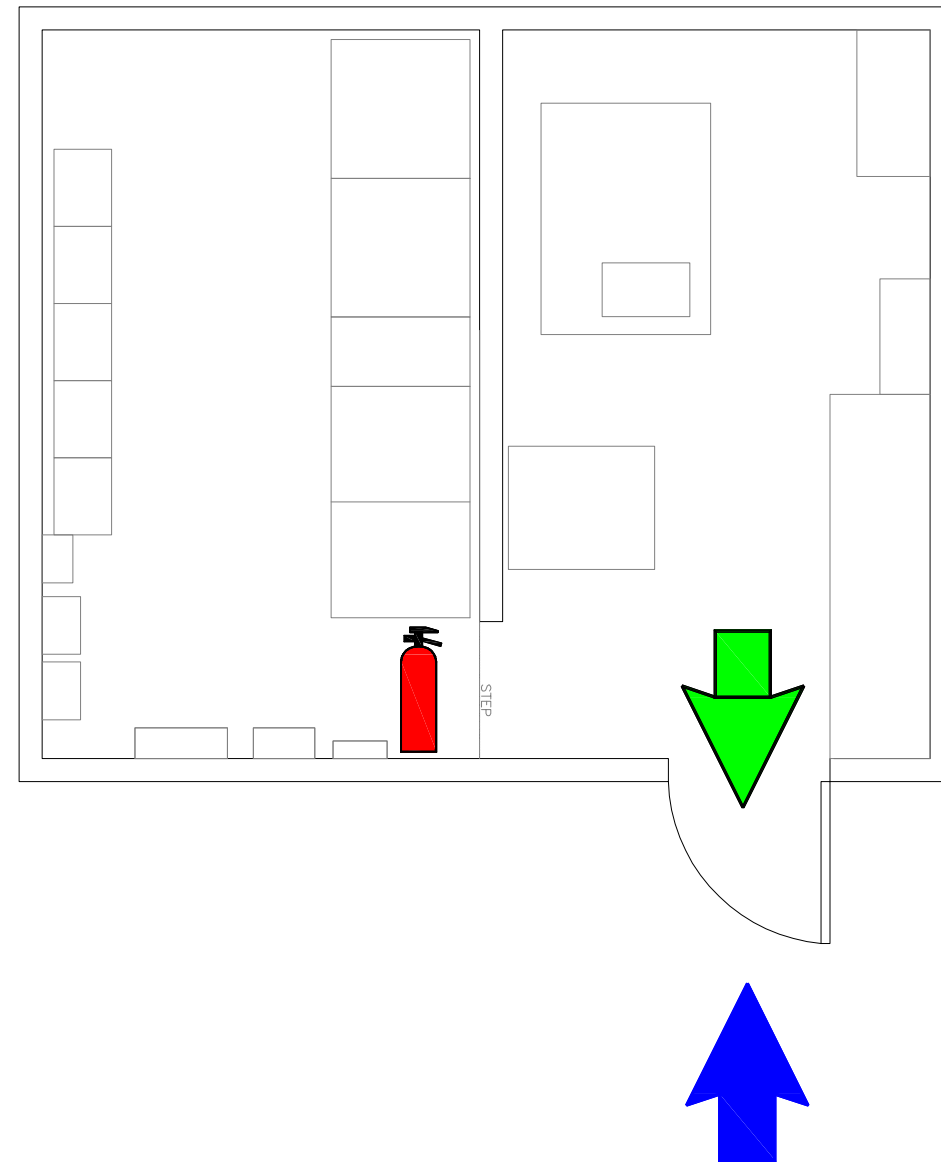
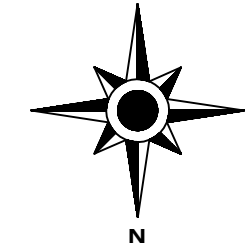
Neptune Bulk Terminals LTD
Coal Dumper
1001 Low Level Road, North Vancouver, BC
U/G Floor 1
Fire Safety Plan





LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL
	FIRE DEPARTMENT CONNECTION
	SPRINKLER CONTROL VALVE
	ELECTRICAL SHUT OFF
	DOMESTIC WATER SHUT-OFF
	FIRE HYDRANT PRIVATE

Neptune Bulk Terminals LTD
 Coal Dumper and ER651&652
 1001 Low Level Road, North Vancouver, BC
 Ground Floor
 Fire Safety Plan

VIKING FIRE PROTECTION INC
 140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
 TEL: (604)-324-7122 FAX: (604)-324-8280

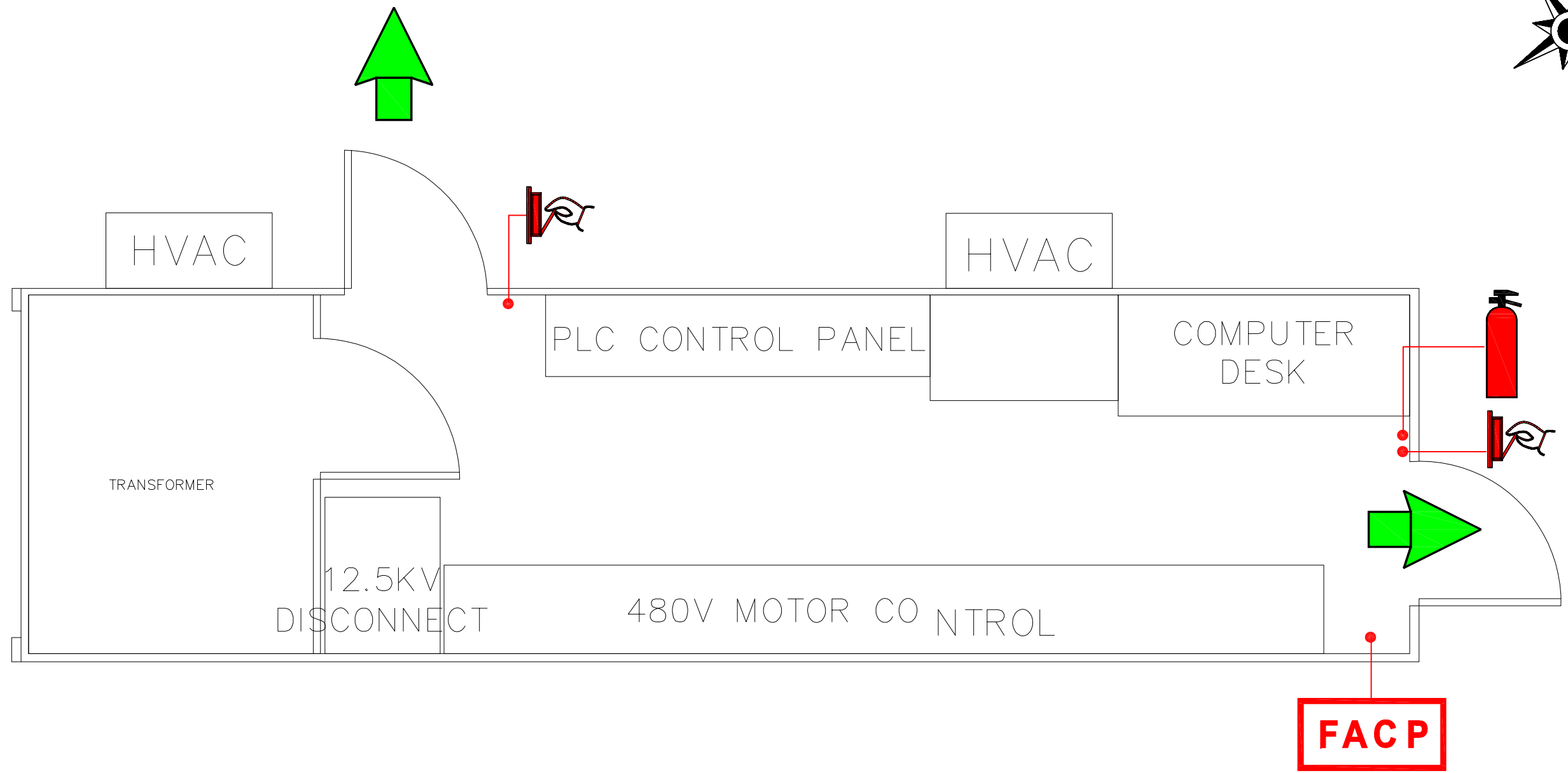
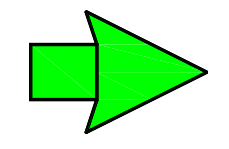
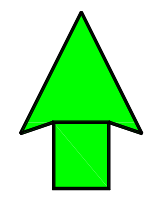
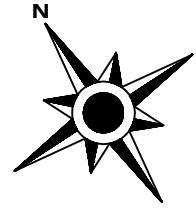


LEGEND	
	FIRE EXIT
	FIRE EXTINGUISHER

Neptune Bulk Terminals LTD
ER271
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan



VIKING FIRE PROTECTION INC
140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
TEL: (604)-324-7122 FAX: (604)-324-8280

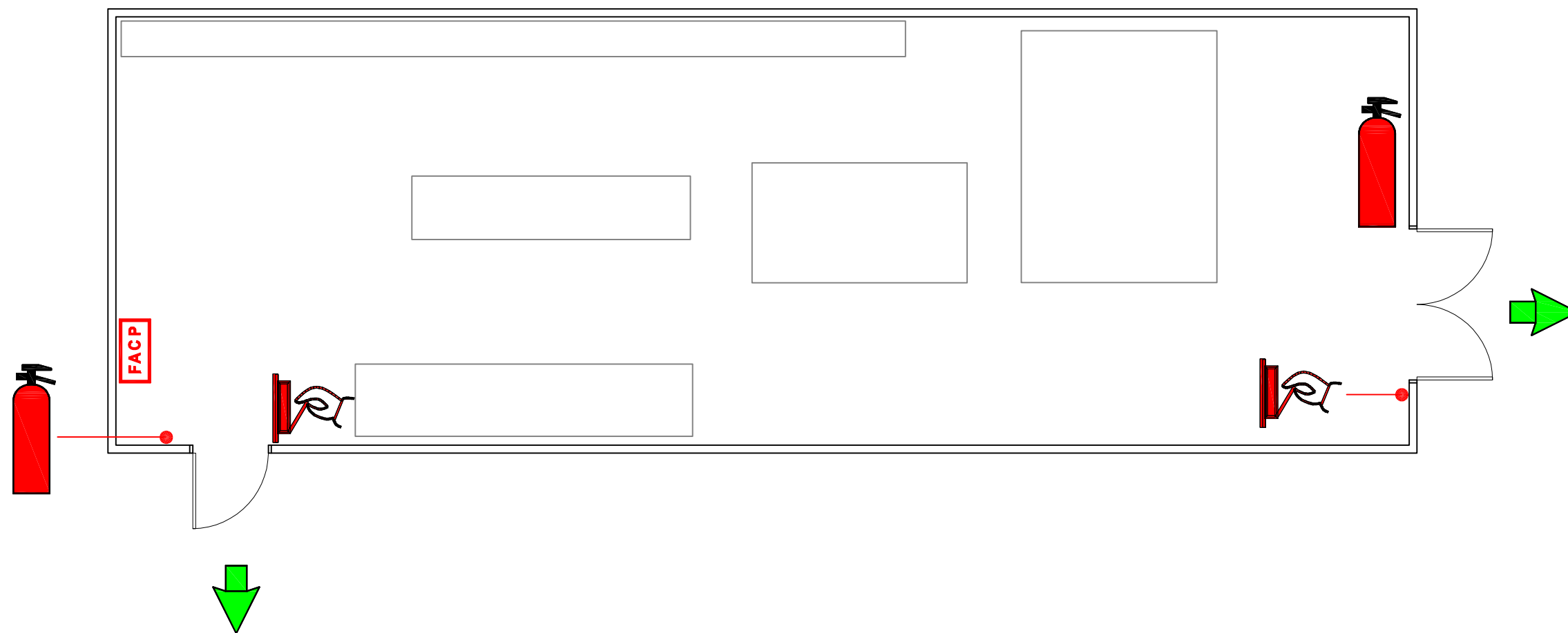
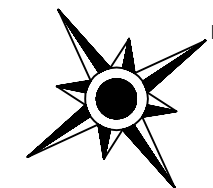


LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL

Neptune Bulk Terminals LTD
 ER351-353
 1001 Low Level Road, North Vancouver, BC

Fire Safety Plan



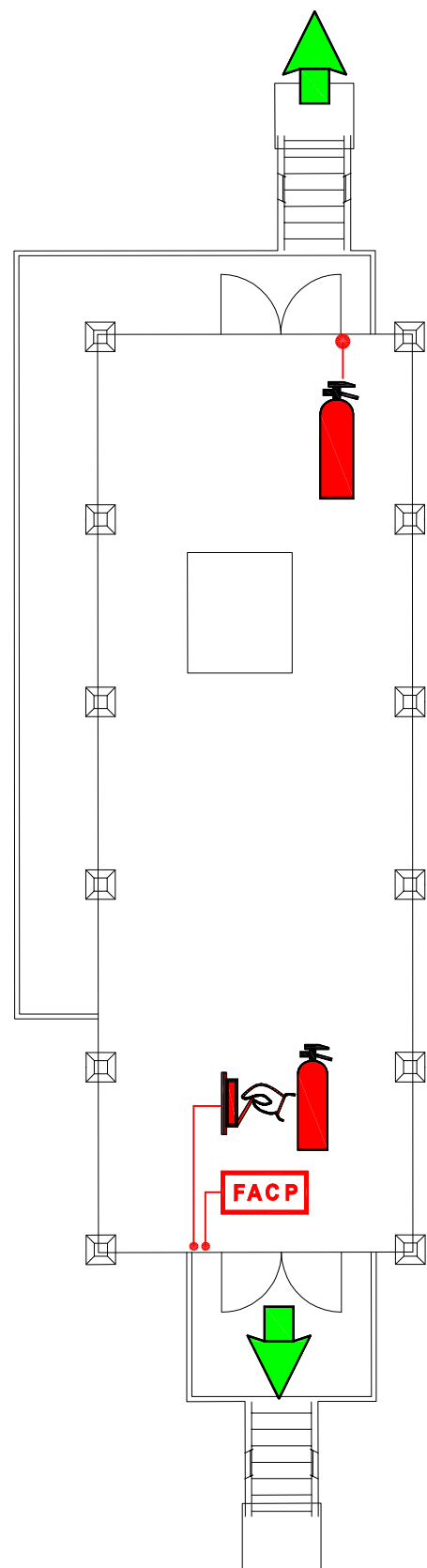
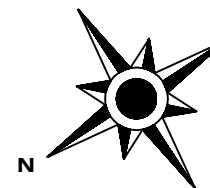


LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL

Neptune Bulk Terminals LTD
ER375
1001 Low Level Road, North Vancouver, BC

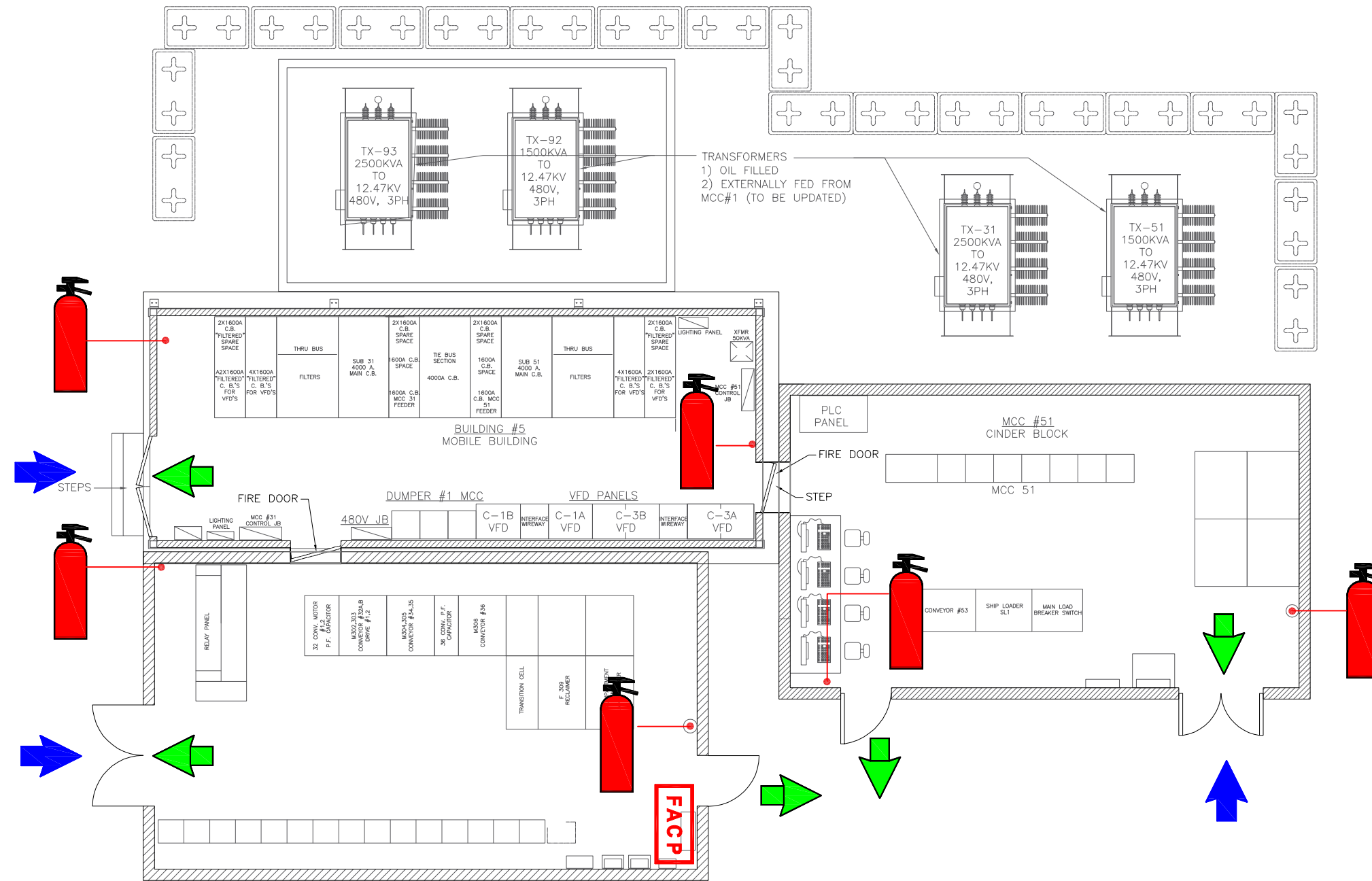
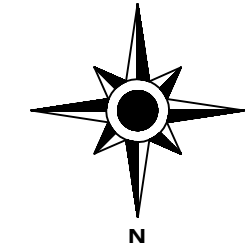
Fire Safety Plan








LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL

Neptune Bulk Terminals LTD
ER390
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan



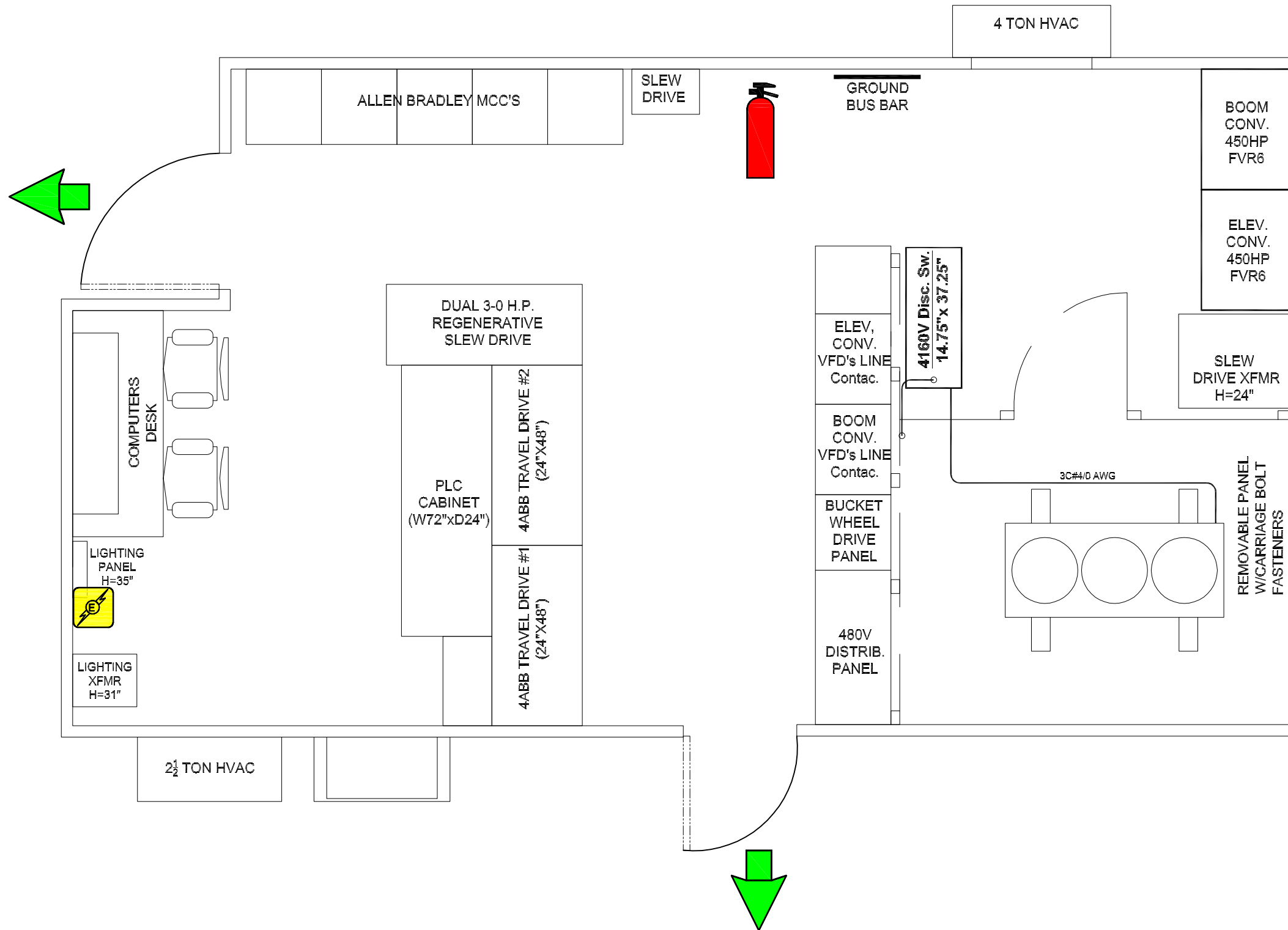
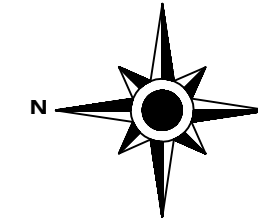
LEGEND

-  FIRE EXIT
-  FIRE EXTINGUISHER
-  FIRE ALARM CONTROL PANEL

Neptune Bulk Terminals LTD
 ER521
 1001 Low Level Road, North Vancouver, BC
 Ground Floor
 Fire Safety Plan



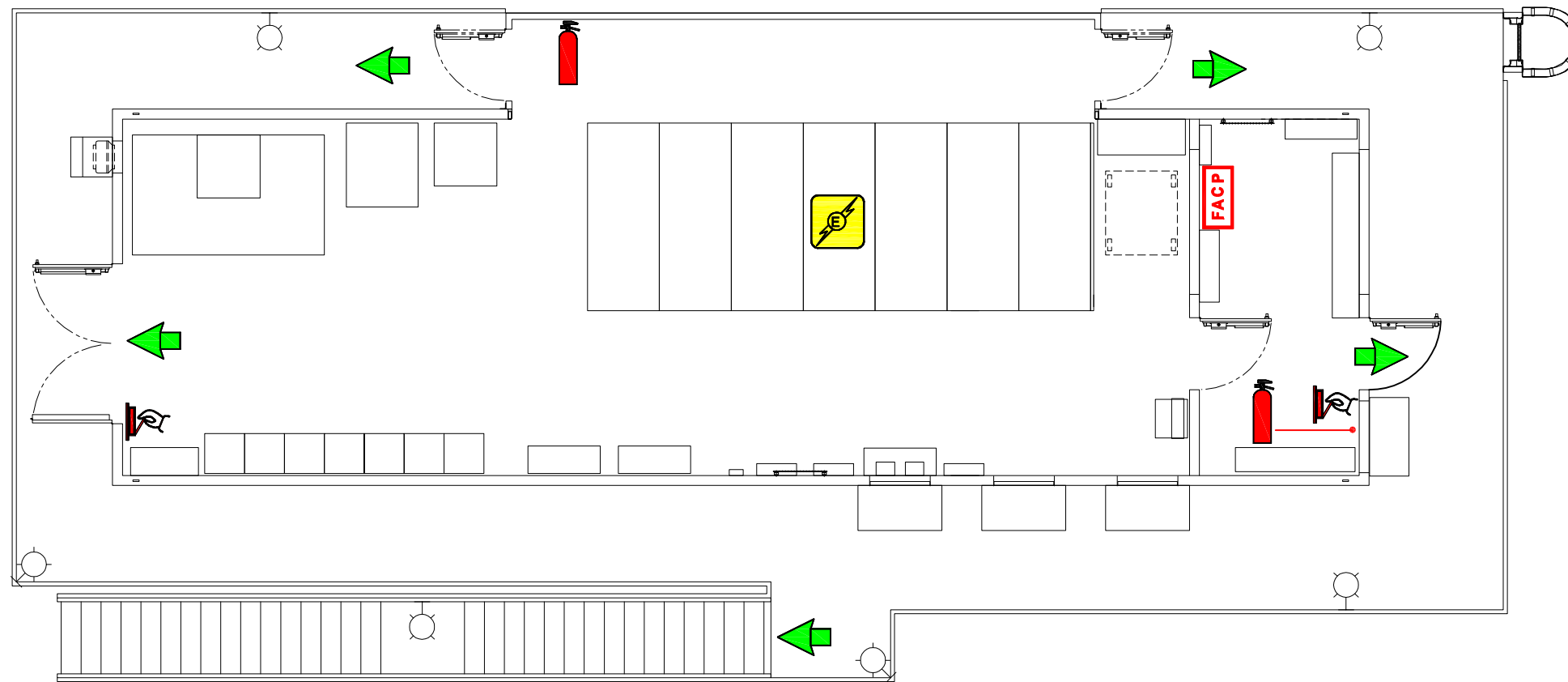
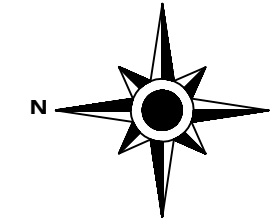
VIKING FIRE PROTECTION INC
 140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
 TEL: (604)-324-7122 FAX: (604)-324-8280



LEGEND	
	FIRE EXIT
	FIRE EXTINGUISHER
	ELECTRICAL SHUT OFF

Neptune Bulk Terminals LTD
ER625
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan

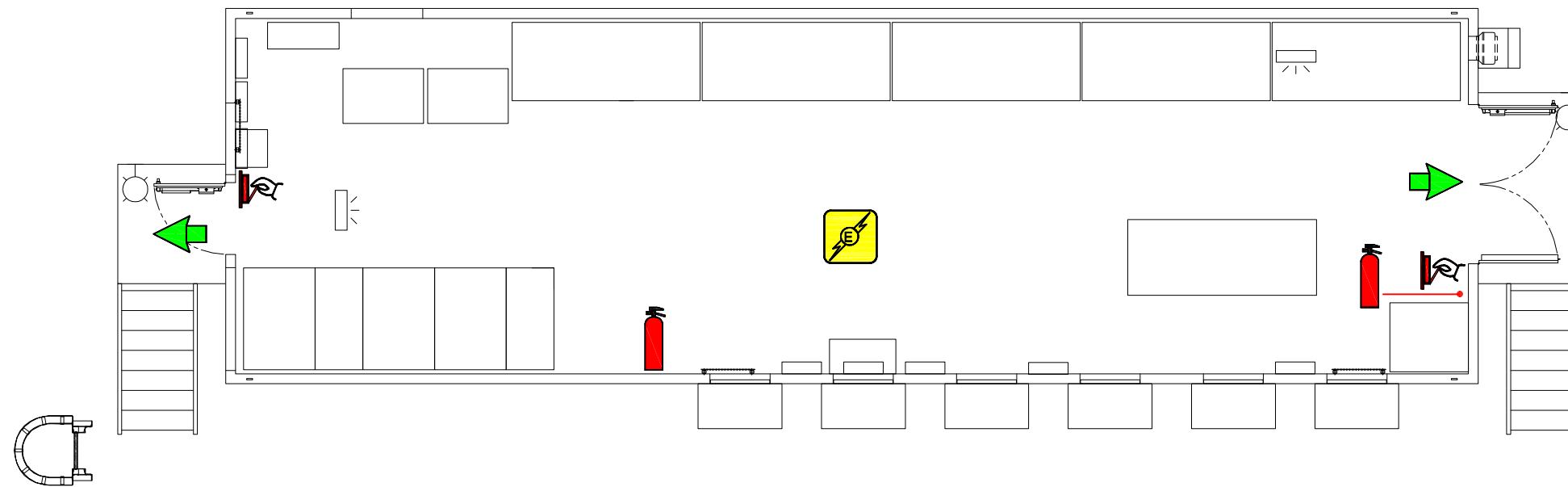
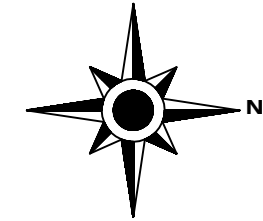
VIKING FIRE PROTECTION INC
140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
TEL: (604)-324-7122 FAX: (604)-324-8280



LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	FIRE ALARM CONTROL PANEL
	ELECTRICAL SHUT OFF

Neptune Bulk Terminals LTD
ER656
1001 Low Level Road, North Vancouver, BC
Ground Floor
Fire Safety Plan





LEGEND	
	FIRE EXIT
	FIRE PULL STATION
	FIRE EXTINGUISHER
	ELECTRICAL SHUT OFF

Neptune Bulk Terminals LTD
ER656
1001 Low Level Road, North Vancouver, BC
First Floor
Fire Safety Plan

VIKING
VIKING FIRE PROTECTION INC
140-7885 North Fraser Way, Burnaby, BC. V5J 5M7
TEL: (604)-324-7122 FAX: (604)-324-8280

PART 1: Objectives of the Fire Safety Plan

1.1] Objectives

Fire safety is an important responsibility for everyone at Neptune Bulk Terminals, 1001 Low Level Road, North Vancouver. The consequences of poor fire safety practices and a lack of emergency planning could pose a serious threat, not only to our business and employees, but also to the community and environment in the event of an emergency.

In an effort to prevent fires and minimize the damage from fires when they occur, we have developed this Fire Safety Plan (FSP). It is a detailed document designed to deal with all aspects of fire safety relating to our specific buildings and property. As such, it becomes our reference manual outlining the fire safety practices that we will routinely use.

Our FSP allows us to achieve three objectives:

1. **Fire Prevention** – To prevent the occurrence of fire through the control of fire hazards and the proper maintenance of the building's fire protection systems and facilities.
2. **Occupant Safety** – To establish a systematic method for safe and orderly evacuation of the building in the case of fire or other emergency.
3. **Fire Control and Extinguishment** – To establish procedures that will maximize the probability of controlling and extinguishing a fire in the safest and most efficient manner.

To achieve those objectives, we train some personnel to assume supervisory duties to:

1. Effectively implement our fire prevention program.
2. Direct and assist the orderly movement of employees in the event of a fire.
3. Perform fire control until the fire department arrives.

1.2] Our Fire Safety Plan

Our FSP not only reflects the unique characteristics of our buildings and property, and any hazardous processes and operations it contains, but also considers the available firefighting infrastructure in our community. For this reason, we have consulted with our local fire department and other applicable regulatory authorities, such as WorkSafeBC and the BC Safety Authority.

We review and update our FSP after any changes to our operation and structures, or annually, whichever comes first, to remain in conformance with all the fire safety plan requirements of the current edition of the BC Fire Code.

Our FSP includes the following information to achieve the three objectives of fire prevention, occupant safety, and fire control and extinguishment:

- Emergency procedures to be used in case of fire, including: sounding the alarm, notifying the fire department, provisions for access for firefighting, instructing employees on procedures to be followed when the fire alarm sounds, evacuating endangered persons, and confining, controlling and extinguishing the fire.
- The means to prevent fires and the methods to control fire hazards throughout the business.
- Instructions to ensure means, implemented to prevent fires and methods to control fire hazards throughout the business, are followed.
- Information about the appointment, organization and instruction of designated supervisory staff and other occupants, including their related fire safety duties and responsibilities.
- The method and frequency of conducting fire drills.
- Detailed maintenance procedures for fire protection systems and building facilities, systems, equipment and devices;
- The identification of alternate fire safety measures in the event of a temporary shutdown of fire protection equipment or systems, so that occupant safety can be assured.
- Instructions and schematic diagrams describing the type, location and operation of building fire emergency systems.

1.3] Benefits of Implementing our Fire Safety Plan

Our efforts to develop and implement this fire safety plan will:

- Reduces the incidence of fire;
- Promotes fire hazard identification and elimination;
- Promotes employee safety and awareness;
- Increases employee morale by allaying safety concerns;
- Coordinates business and fire department resources during a fire emergency;
- Reduces the potential impact of a fire on our business and employees (injuries, dollar losses, liability, etc.) should a fire occur;
- Assist with BC Fire Code compliance.

Part of our FSP implementation is ensuring it remains a “living” document, meaning each year the plan is reviewed. At minimum new training and inspection dates are added and fire safety plan supervisory personnel selected and confirmed. Our plan is revised accordingly and the changes documented in the Noteworthy Changes section of the plan.

PART 2: Supervisory Staff

The BC Fire Code defines supervisory staff as those occupants of a building who have some delegated responsibility for the fire safety of other occupants under the fire safety plan.

The effectiveness of our Fire Safety Plan depends largely upon the ability, energy, and experience of our emergency response supervisory staff pointed fire safety responsibilities. Neptune Bulk Terminals has clearly defined their authority so that our employees may be safeguarded against fire. They are instructed in the fire emergency procedures as described in our Fire Safety Plan before they are given any responsibility for fire safety.

2.1] Appointed Supervisory Staff



Neptune Bulk Terminals hereby appoint and authorized the following personnel to fulfill the supervisory duties outlined in the fire safety plan at 1001 Low Level Road.

This document is uncontrolled until compared against the Electronic Version

LOCAL EMERGENCY NUMBERS



FIRE, AMBULANCE, POLICE	911
NEPTUNE SITE SECURITY	604-985-7461 Local 250
NEPTUNE SITE FIRST AID ATTENDANT	Site Radio Channel # 2 or Local 222

24 HOUR Neptune Reporting	OPERATIONS HEAD FOREMAN (Site Radio – Channel # 1 or #2)	Office:	604-983-4446
		Cellular:	604-968-4787
	ADDITIONAL OFF HOURS/GRAVEYARD (Site Radio – Channel # 1 or #2)	Cellular:	604-968-2936 or 604-841-9763
	OPERATIONS SUPERINTENDENTS Coal Relief Superintendent (Site Radio – Channel # 1) Potash/Dry bulk (Site Radio – Channel #4/5) Troy Litowsky Scott Fleming Jatinder Sidhu - Acting Operations Manager Molly Matthews Brad Palm Lindsay Thorley James Cross Troy Wingerak	Cellular:	604-841-8373
	Cellular:	604-968-4783	
	Cellular:	604-209-2988	
	Cellular:	778-877-0638	
	Cellular:	604-313-3661	
	Cellular:	778-689-0096	
	Cellular:	778-887-6033	
	Cellular:	778-836-8621	
	Cellular:	604-968-6101	
MECHANICAL SUPERINTENDENTS (Site Radio – Channel #3) Ryan Loi Iain Higginson	Cellular:	604-209-3398	
	Cellular:	604-992-3191	
MAINTENANCE/ELECTRICAL SUPERINTENDENTS (Site Radio – Channel #3) Jason Girard Konrad Sander	Cellular:	778-990-4804	
	Cellular:	604-619-3556	

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	ACTING - VICE PRESIDENT OF OPERATIONS Dave Foy	Office: Cellular:	604-983-4443 604-968-5872
	MAINTENANCE MANAGER William Robinson	Cellular:	778-873-2021
	ASSISTANT MAINTENANCE MANAGER Clinton Shaw	Cellular:	604-314-5550
	HEALTH & SAFETY MANAGER Jonathan Unrau	Cellular:	604-818-2986
	ACTING VICE PRESIDENT, MAJOR PROJECTS & ENVIRONMENT Jurgen Franke	Office: Cellular:	604-983-4412 778-838-7581
	VICE PRESIDENT, MAJOR PROJECTS & ENVIRONMENT Ron Sander	Office: Cellular:	604-983-4436 604-833-7834
	VICE PRESIDENT – OPERATIONS Duana Kipling	Cellular:	604-831-6455
	VICE PRESIDENT – HEALTH AND SAFETY Brad Walker	Office: Cellular:	Call Cell 778-888-9190
	NEPTUNE ACTING PRESIDENT – Duana Kipling	Office: Cellular:	604-983-4434 604-968-4785
	DIRECTOR OF COMMUNITY & STAKEHOLDER ENGAGEMENT Lisa Dooling	Office: Cellular:	604-983-4407 604-968-4804
COMMUNICATIONS – PUBLIC RELATIONS National Public Relations – Crisis Team	Emergency Cell #:	604-970-9113(Nicola Lambrechts)	



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LOCAL EMERGENCY NUMBERS



External Reporting	See Reporting Guide at the end of Part I – Section 12.0 of the Emergency Preparedness & Response Plan (ERP).	
	Provincial Emergency Plan (PEP) & Environment Canada	1-800-663-3456
	Oil spill into Water	
	Canadian Coast Guard (MCTS)	604-666-6011
	Environmental (Burrard Inlet Environmental Action Program - BIEAP), Security (threats, access issues), Marine Vessels	604-665-9086
	Port Metro Vancouver (Harbour Master Office)	
	Water and sewerage emergency only Unauthorized air discharges and discharges to sewer Metro Vancouver (Greater Vancouver Regional District)	604-444-8401 604-436-6777 (0730–2330 hrs) 604-643-8488 (2330–0730 hrs)
Health & Safety Emergency		
WorkSafe BC Prevention Emergency Line Human Resources and Skills Development Canada (HRSDC)	604-276-3301 1-800-641-4049	

Spill Response Assistance	Land Response, McRae's Septic Tank Service	Emergency #	604-856-8344
		Toll Free	1-888-894-4411
	Land Response, CEDA Reactor Ltd.	Emergency #	604-540-4100
		Non-Emergency	604-540-4100
	Marine Response, Burrard Clean Operations / WCMRC	Emergency	604-294-9116
		Non-Emergency	604-294-6001
		Emergency	604-986-5911
	Vancouver Pile Driving	Non-Emergency	604-986-5911

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Additional Notification	I.L.W.U. Local 500	604-254-7131
	I.L.W.U. Local 514	604-298-9684
	CN Rail Lynn Creek Yardmaster	604-984-5638
	Cargill Terminal Security	604-990-2554
	BC Hydro Emergency Line	1-888-769-3766
	Fortis BC	1-800-663-9911
	City of North Vancouver – Sewer & Water Emergency	604-987-7155 Daytime 604-988-2212 After Hours

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2.3] Supervisory Staff Duties

The delegated responsibility for fire safety for each position is identified in this section.

2.3.1] Neptune Bulk Terminal

Neptune Bulk Terminals is responsible for preparing a Fire Safety Plan and must ensure that the building and facilities comply with the provisions of the Fire Code including:

1. Establishment of emergency procedures to be followed at the time of an emergency.
2. Appointment and organization of designated supervisory staff to carry out fire safety duties.
3. Instruction of supervisory staff and other occupants so that they are aware of their responsibilities for fire safety.
4. Assuring that checks, tests, and inspections as required by the Fire Code are completed on schedule and records are retained and maintained.
5. Notification of the local fire department or local government regarding changes to the Fire Safety Plan.

2.3.2] Fire Safety Director (FSD)

Our appointed FSD is not expected to be in the building on a continuous basis; however, the FSD should be available to respond to the building on notification of a fire emergency, in order to provide assistance as described in our plan. In the event that our FSD is unavailable, our Deputy Fire Safety Director will be available to perform the obligations of the absent director.

Our Fire Safety Director has the following responsibilities and duties:

1. Administering and maintaining the Fire Safety Plan. This should include:
 - a. Updating the plan when alterations are made to the building or processes.
 - b. Developing appropriate policies and procedures, or ensuring they are developed, e.g., Hot Work, Renovation, Fire Safety System Repairs, Storage of Dangerous Products and Materials, Storage and Dispensing of Fuel, etc.
2. Training of Deputy Fire Safety Director(s) and other appointed supervisory staff.
3. Ensuring that those expected to use the portable fire extinguishers are trained.
4. Maintaining records on the following:
 - a. Fire incidents
 - b. False alarms
 - c. Fire drills
 - d. Discharge or operation of fire equipment
 - e. Training events

- f. Name, location, and persons requiring assistance and their volunteer assistants (specify assistance required).
 - g. Minutes of fire safety meetings (if applicable)
 - h. Accountability list and shift attendance list
5. Ensuring that fire protection systems are inspected, maintained and serviced in accordance with the plan and the fire code, and where an inspection, maintenance or testing procedure is beyond in-house capabilities, to have qualified 3rd party personnel complete the procedure.
 6. Ensuring that additional precautions are taken to offset the hazard to occupants when fire protection systems are inoperable. This should include:
 - a. Checking the fire safety plan and fire code when fire systems are in need of repair.
 - b. Advising the fire department of the system status.
 7. Ensuring that building maintenance, alteration or renovation does not expose the building or occupants to undue fire hazards, and precautions are taken to ensure building and occupant safety. This should include:
 - a. Checking the fire safety plan and the fire code when such activities take place to ensure that they meet the requirements of the fire safety plan and fire code regulations.
 - b. Ensuring that, where a fire watch is required, that the fire watch is provided with the appropriate equipment to properly fulfill the duties.
 8. Ensuring that supervisory staffs are available to respond to the premises in the event of notification of an emergency. This should include:
 - a. Ensuring the Deputy Fire Safety Director available when the FSD is not.
 9. Providing information to occupants on general fire safety and evacuation procedures. This should include:
 - a. Providing new occupants with an overview of our Fire Safety Plan and education on Part "Instruction to Occupants" of the plan.
 - b. Providing the appropriate level of education and training, based on job duties, on policies and procedures designed to control fire hazards, e.g., Hot Work, Compressed Gas Use, Fuel Storage and Dispensing, Storage of Dangerous Goods, etc.
 - c. Notifying occupants whenever the Fire Safety Director or Deputy Fire Safety Director appointments change.
 10. Resolving any fire hazards which are reported by residents, inspection contractor or the fire department.
 11. Maintaining familiarity with the buildings fire protection systems.
 12. Maintaining familiarity with fire regulations. This should include:
 - a. Obtaining and reviewing a copy of the B.C. Fire Code.
 - b. Ensuring that the electrical rooms are not used for storage.
 - c. Ensuring that established policies are adhered to.
 - d. Ensuring that the sprinkler room is not used for storage.

13. Considering other emergency situations which could affect the building such as earthquakes, or natural gas leaks.

2.3.3] Deputy Fire Safety Director

The responsibilities and duties include:

1. Assisting the FSD in implementing the fire safety plan.
2. Assuming the position of Fire Safety Director in the absence of the appointed FSD.
3. Perform duties assigned by FSD.

2.3.4] Fire (or Floor) Wardens

The Fire/Floor Warden's primary responsibility is to manage the evacuation of personnel from his/her designated area during a fire or other emergency. During normal business operation, our fire wardens will conduct daily checks to ensure our fire prevention efforts and emergency evacuation routes are in a good state of repair.

We will assign and train individuals to fulfill fire/floor warden role. The responsibilities and duties are task specific and include:

The following duties have been assigned during an emergency:

- Advise all personnel within their area to evacuate by the nearest safe exit during a fire or other emergency
- Assist in the evacuation of persons with disabilities
- Check washrooms and rest areas and inform any personnel of the emergency situation
- Close all doors (do not lock) behind you as you exit the building
- Leave the building
- Ensure that the entrance to the building is not congested by directing persons away from the entrance
- Co-operate with Security and fire officials
- Obey promptly any instructions you may receive from Security or Fire Department personnel
- Co-operate with Security and the Integrated Risk Management department in any debriefings resulting from an evacuation

The Fire/Floor warden will conduct daily checks for:

- Accumulation of combustible materials, rubbish or flammable liquids.
- Dangerous ignition sources, i.e. worn extension cords, oily rags, overheating equipment.
- Exit lights in good order and adequate lighting in public corridors and stairwells.
- Fire and exit doors and their self-closing hardware to ensure that they are in good operating condition. Doors must not be wedged open for

- any reason.
- Unobstructed exit routes.
- Condition of firefighting equipment.

2.3.5] Fire Watch

Fire Watch is a temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more individuals for the purposes of identifying and controlling fire hazards, detecting early signs of fire, raising an alarm for fire, and notifying occupants and the fire department.

- (1) A Fire Watch is required when any Life Safety System is taken out of service, requires servicing, has been silenced or shut down, or as otherwise directed by Fire Department personnel.
- (2) When a Fire Watch has been initiated, it is the owner's responsibility to ensure that all of the below provisions are complied with:
 - (a) be able to communicate effectively with building occupants and emergency personnel;
 - (b) have the means and ability to notify the fire department in the event of a fire emergency;
 - (c) have the means and ability to notify the building occupants in the event of a fire emergency;
 - (d) patrol all floors/areas of the building according to the owners instructions (i.e.: the entire building, all rooms, including mechanical rooms, storages rooms, basements, roof, etc.);
 - (e) patrol the floors/areas of the building as identified by the owner at a frequency of at least once every 45 minutes;
 - (f) maintain a logbook on the premises, to be immediately available for inspection by the Fire Chief;
 - (g) relay any special orders or pertinent information to relief personnel and management;
 - (h) remain on duty until properly relieved;
 - (i) Have some visible means of identification, such as an armband or nametag;

(j) The fire watch shall not be stopped until the owner provides information/notification to Fire Department personnel indicating that the life safety systems are back in service.

2.3.6] Assigned Fire Related Inspections

Our Fire Safety Director and others are assigned fire related inspections. These inspections include inspections to determine:

1. The state of repair of the building, other structures, equipment and stored materials.
2. The state of repair of the fire protection equipment.

The responsibilities and duties include:

1. Conduct all required inspections as per the Fire Safety Plan's outlined frequencies.
2. Complete and submit an inspection report for each inspection.
3. Ensure that all corrective actions and recommendation are acted upon.
4. Report to the Fire Safety Director all actions and recommendations not acted upon in a timely fashion.

2.4] Conducting Fire Drills

Once each 6 months our Fire Safety Director shall conduct a fire drill. The drill will not test any evacuation skills of the occupants; however, it will provide the Fire Safety director, Deputies, and Occupants with the opportunity to hear the fire alarm gongs, and consider their actions in the event that the fire were real. We will use the following procedure when conducting the fire drill:

- Notify occupants of the date and time of the drill.
- Notify the fire department, on their non-emergency phone numbers, that you are planning to have a non-evacuation fire drill, and that you will call them back when the drill is complete.
- Discuss evacuation procedures with Deputy FSD and those occupants willing to participate.
- Have the Deputy FSD perform the If You Discover a Fire scenario and the In Case of Fire procedures for occupants. The FSD should perform his or her duties as detailed in the plan.
- Notify the fire department that the fire drill is complete.
- Discuss drill with occupants in an attempt to identify problems.
- Complete the Incident/Activity Report.

PART 3: Instruction to Occupants

3.1] General Fire Prevention Instruction

- Smoke is not allowed within the property.
- Be alert around electrical equipment. If electrical equipment is not working properly or if it gives off an unusual odor - often the first sign of a problem that could cause a fire - disconnect the equipment and call an appropriate maintenance contractor.
- Promptly replace any electrical cord that is cracked or has a broken connection.
- When using extension cords, protect them from damage; do not put them across doorways or any place where they will be stepped on or chafed.
- Do not plug one extension cord into another, and do not plug more than one extension cord into one outlet.
- Keep all heat-producing appliances away from the wall and away from anything that might burn. Leave plenty of space for air to circulate around equipment that normally gives off heat.
- Make sure all appliances in your area - such as coffee makers and hot plates - are turned off when not in use. It's best to assign one person to make this check every day.
- Do your part to keep storage areas, stairway landings and other out-of-way locations free of waste paper, empty cartons, dirty rags and other material that could fuel a fire.
- Keep stairways, landings, hallways, passageways and exits (inside and out) clear of any obstructions at all times.
- Promptly remove all combustible waste from all areas where waste is placed for disposal.
- Report fire hazards to the Fire Safety Director.

3.2] Fire Preparedness

- Know the location of the two exits closest to your area. Count the number of doors between you and each of those exits - in case you must escape through a darkened, smoke filled corridor where you can't read the names on the doors.
- Learn where the nearest pull station is located and how to activate it.
- Post Company Internal emergency number on your telephone.
- Learn the sound of your building's fire alarm.
- During the annual fire drill which will be conducted by the Fire Safety Director, do the following:
 - Review the basic IN CASE OF FIRE procedures posted in the corridors, and Evacuation Procedures.
 - Ensure you know who the Fire Safety Director and Deputies are, and how to contact them.

- ■ Read the other information provided in our Fire Safety Plan.
- Volunteer to be one of two designated persons who will assist a person requiring assistance.

3.3] Fire Evacuation

- Use a telephone only if you are safe from the fire.
- While exiting, walk, and do not run. Shut all doors behind you and alert those who have difficulty hearing that an emergency evacuation of the building is under-way. Proceed along corridors and through exits in a quiet and orderly manner. High heeled shoes are hazardous while proceeding down stairs, and it is advisable to remove them before entering the stairwell. Do not push or jostle.
- Assist persons requiring assistance to reach the nearest safe exit:
 - ■ Try to keep exits clear by permitting others to pass. It may be necessary to hold persons requiring assistance in or near the exit, and wait for fire department assistance.
- If you encounter smoke use an alternate route.
- If you must use an escape route where there is smoke, stay as low as possible. Crawling lets you breathe the cleaner air near the floor as you move toward the exit.
- Before you open a closed door, feel it with the back of your hand. If it is hot, leave it closed and use your alternate escape route. If it feels normal, brace your body against the door and open it a crack - be prepared to slam it shut if heat or smoke starts to rush in.
- If all exits are blocked by fire or smoke, enter a room preferably with an exterior window, and seal the cracks in the door with available materials to prevent smoke entering the room.
- Phone 9-1-1 or to report your situation, and attract the attention of someone outside the building by any possible means.
- When you have reached the outside of the building, move away from the exit allowing others behind you to emerge.
- Do not attempt to drive your vehicle from the parking area.
- Do not enter the building again until permitted by a fire department officer or the fire safety director.

Caution

- If smoke is heavy in the corridor, it may be safer to stay in your area, close the door and place a wet towel at the base of the door.
- Crouch low to the floor if smoke enters the room
- Move to the most protected room and partially open the window for air. Close the window if smoke comes in.
- Wait to be rescued – Remain calm – Do not panic and jump.

3.4] Using A Portable Fire Extinguisher

Portable fire extinguishers are useful only if you know how to use them, if they are right for the type of fire you are fighting, and if the fire is discovered immediately. You should not attempt to fight even a small fire until people have been evacuated from the area and the Fire Department has been called.

Never attempt to fight a fire if any of the following is true:

- You are uncertain about how to use the extinguisher.
- The fire is spreading beyond the immediate area where it started.
- The fire could block your escape route.
- You are alone.
- The Fire Department has not been called.

To operate an extinguisher,

Remember: PASS!

(Pull – Aim – Squeeze – Sweep)

If fire breaks out again, repeat use of the extinguisher.



3.5] Emergency Procedures

Please refer to the appendix section

3.6] Methods to assist persons with physical disabilities

In most cases people with physical disabilities should be placed under the supervision of designated personnel until the Fire Department can rescue them. If it is life threatening for the people with physical disabilities and their supervisors to remain on that floor, it is recommended that the people with physical disabilities be transported via the stairwell to a grade level exit.

Below are some techniques which may be used to perform this transport:

3.6.1] The Back Pack Lift

The Rescuer would kneel at the front of the person being assisted and place the person's arms up and over the rescuer's shoulders and chest. The rescuer would then lean forward before raising slowly, to a full standing position. (Figure 1)



Figure 1



Figure 2

3.6.2] Two Rescuer Extremities Carry:

The person being assisted would be placed on the stairwell landing. One rescuer would lift at the legs, under the knees, while the other would lift under the shoulders with fingers locked across the individual's chest. Rescuers, with backs erect, would lift together, rising slowly to a standing position (Figure 2).

3.6.3] Two Rescuer Seat Carry

Two rescuers position themselves next to the wheelchair (or beside the person being assisted) in order to grasp each other's upper arm or shoulder (Figs. 3 & 4). The person being assisted would place his/her arms firmly around both rescuers' necks as per Fig. 5. The two rescuers would then lean forward placing their free arm under the individual's legs, firmly grasping each other's wrists as per Fig. 6. Working together, both rescuers lift, using legs, and carefully step forward.

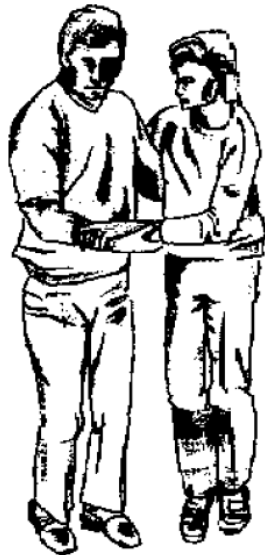


Figure 3



Figure 4



Figure 5



Figure 6

These are but a few examples of transporting a person down a stairwell.

**PART 4: Inspections, Testing & Maintenance of Fire Protection
Equipment**

Our FSP contains a detailed schedule identifying the required checks, inspections and tests of all fire safety systems and features we provided. Through our Fire Safety Director, we will:

- Ensure that all fire protection features provided are checked, inspected, tested and maintained in accordance with the frequencies specified in the BC Fire Code, Division B, Parts 2 and 6, and all applicable referenced standards; if not specified in the fire code, then, in accordance with manufacturer's operating instructions and/or good engineering practices.
- Ensure, when using contract to conduct some of the checks, inspections and tests, they are ASTT certified as the requirement of the City of North Vancouver Bylaw.
- Keep permanent records of all tests and corrective measures taken:
 - Include those completed by the Fire Safety Director or designate, qualified personnel, or a 3rd party contractor.
 - Maintain for a period of two years after they are made. If time intervals between tests exceed two years, the records shall be retained for the period of the test interval plus one year. The records are to be made available upon request to the local fire department, supervisory staff and other personnel.
 - Maintain copies in the Fire Safety Plan for review by the local fire department (i.e., the Authority Having Jurisdiction)

Note: Activities on the Daily Inspection Report are exempt from this requirement.

- Make provisions for notification of the fire department and building occupants in the event of tests, repairs or alterations of fire protection installations.
- Ensure that alternative measures are employed for fire safety of occupants during shut down of fire protection equipment & systems or part thereof. See below for details.

4.1] Precautions during maintenance, repairs, alterations and Renovations

BC Fire Code, Division B, sentence 6.1.1.4 (1) – Protection during Shutdown – states:

“When any portion of a fire protection system is temporarily shut down, alternative measures shall be taken to ensure that protection is maintained.”

Interruption of normal operation of a fire protection system for any purpose constitutes a “temporary shutdown.” Types of interruptions include, but are not limited to, periodic inspection or testing, maintenance, and repairs. During a

shutdown, alternative measures are necessary to ensure that the level of safety intended by the Code is maintained.

When a sprinkler system is shut down, measures that can be taken include the, extra fire watch service and Full sprinkler protection shall be restored or the provisions of additional precautions during shutdowns shall be maintained when work on the system is temporarily discontinued, as at night time or during holidays.

4.1.1] Inoperable or Temporary Shut Down of Fire Alarm System

When the system cannot be repaired and returned to full operation, the following precautions should be implemented:

- Notify the fire department of the system status and develop alternative measures in cooperation with the fire department to ensure that, should a fire occur while the alarm system is out of service:
 - All persons in the building can be promptly informed
 - The fire department is notified.
- Notify all supervisory staff that the fire alarm system is temporarily shut down and review emergency evacuation procedures including notification procedures of all persons in the building.
- Appoint a fire watch to conduct a sequential tour of the building in areas normally served by fire detection devices (i.e., rooms or spaces protected by sprinklers, heat detectors, smoke detectors or some other form of fire detection devices). Persons conducting the fire watch would record their patrols and be provided some means of communication to notify the fire department in the event of a fire.

4.1.2] Temporary Shut down of Sprinkler System

- Notify the Fire Department using the non-emergency number. (see section of Emergency Contacts)
- Tag or identify closed sprinkler control valves in a manner apparent to the responding fire department.
- Notify all supervisory staff that the sprinkler system is temporarily shut down and the temporary precautions.
- Schedule the work on the sprinkler system to enable the system to be operational as quickly as is possible in the circumstances.
- Employ additional temporary precautions:
 - Where practicable, provide temporary water connections to the sprinkler system.
 - Provide emergency hose lines and portable extinguishers.
 - Have a fire watch patrol the area until the sprinkler system has been restored.
- Prohibit “Hot works” such as welding or cutting in the area where the sprinkler protection is impaired unless it can be limited to areas where precautions have been put into place.

- When work on the system is temporarily discontinued, such as at night time or during holidays, restore full sprinkler protection or maintain the provisions of additional precautions.

4.1.3] Temporary Removal of Portable Fire Extinguisher

Where a service company removes a fire extinguisher from the building for an extended length of time, a fire extinguisher of the same type should be provided temporarily in its place.

4.1.4] Temporarily Shut down of Special Suppression System

Everyone, working in an area where a special extinguishing system is shutdown, and all supervisory staffs must be notified of the temporary shutdown. The fire department should also be notified.

4.1.5] Building Alterations and Repairs

During alterations and repairs ensure that the building and its occupants are not exposed to undue fire hazards created by contractors' equipment or supplies which are brought into the building. Frequent inspection of the affected area will occur in order to ensure the following:

- Exits are free of obstructions.
- Dangerous work areas are inaccessible to the building occupants
- Contractors have obtained necessary building and operation permits.
- Flammable and combustible liquids are handled and stored safely.
- Heat producing equipment such as welding/cutting equipment and portable heaters are used safely.
- Damage to fire separations (e.g., walls, doors & related hardware) are repaired.

Where a problem is suspected the Fire Department should be contacted in order to provide advice or perform an inspection.

4.2] Procedure after Fire Safety Equipment has Operated

4.2.1] Fire Detection & Alarm System

Procedure for false alarm:

- ENSURE the fire department is aware of incident.
- DO NOT SILENCE OR RESET the fire alarm system.
- When the fire department is satisfied that the alarm was false, RESTORE any activated manual pull stations and RESET the system (if qualified).
- COMPLETE the Incident/Activity Report.

Where a fire has occurred and damaged system wiring and/or detection devices, or you are unsure of the reset procedures, it is likely that "trouble" will

be indicated on the system. In this case a qualified contractor should be contacted to make the necessary repairs.

4.2.2] Portable Fire Extinguishers

When extinguishers have been used, they should be serviced by qualified personnel.

4.2.3] Automatic Sprinkler System

Where a sprinkler has activated during a fire condition or accidentally through mechanical damage it is necessary to place the system back in operation as soon as possible. This procedure should be conducted by a qualified sprinkler contractor; however, where a contractor is not immediately available, the following procedure could be followed in the interim:

- Ensure that the fire department is aware of the incident.
- Close the system shut-off valve.
- Open the drain serving the floor.
- Use the special sprinkler wrench and replace the damaged sprinkler with a new one of the same types.
- Close the drain.
- Open the shut-off valve.
- Perform an inspection and main drain tests.
- Contact a qualified contractor to check work

4.2.4] Dry Automatic Sprinkler System

Where a sprinkler has activated during a fire condition or accidentally through mechanical damage it is necessary to place the system back in operation as soon as possible. This procedure should be conducted by a qualified contractor however, where a contractor is not immediately available, the following procedure could be followed in the interim:

- Ensure that the fire department is aware of the incident.
- Close the main shut-off valve.
- Turn-off the air compressor.
- Open the main system drain.
- Use the special sprinkler wrench and replace the damaged sprinkler with a new one of the same types.
- Close the main system drain.
- Slowly open the main shut-off valve.
- Perform main drain test.
- Leave the compressor off as the system is fully charged with water. The system should remain this way until properly reset by a qualified contractor.
- Leave the fire alarm system silenced until the system is properly restored by a qualified contractor.

During freezing weather, the system cannot be left charged with water; therefore, the following procedure should be followed:

- Ensure that the fire department is aware of the incident.
- Close the main shut-off valve.
- Turn-off the air compressor.
- Open the main system drain.
- Use the special sprinkler wrench and replace the damaged sprinkler with a new one of the same types.
- Close the main system drain.
- Leave the main shut-off valve closed and “tag it” out of service.
- Leave the compressor off.
- Notify the fire department that the system is down and that the fire department pumper connection outside the building is available for use while awaiting the qualified contractor.
- Leave the fire alarm system silenced until the system is properly restored.

Have a fire watch patrol the area until the sprinkler system has been restored.

4.3] Inspection, Testing & Maintenance of Fire Protection Equipment

BC fire code requires that building fire protection and life safety systems receive a variety of regular inspections, service, and maintenance.

- Check – means a visual observation to ensure that devices or systems are in place, and no obvious damage or obstructions to proper operation exist.
- Inspect – means a physical examination to determine that the devices or systems will apparently perform in accordance with its intended function.
- Test – means operation of the devices or systems to ensure that it will perform in accordance with its intended operating functions. It is generally required to have a certified system technician perform tests.

The majority of inspections are generally quick checks to ensure that the particular system is operational and not in need of service. Some inspections do not require a high degree of technical knowledge of the particular system, but rather the ability to check for a specific problem, and have it corrected. Such inspections could be adequately performed by selected supervisory staff on a daily basis.

Semi-Annual and Annual Inspection, Testing and Maintenance procedures generally involve technical procedures and will be performed by qualified individuals or private contractors specializing in the particular field. Contractors may perform their own unique inspection and testing procedures; however, their procedures must meet the minimum requirements set by the applicable code. The repair or cleaning of equipment and the periodic replacement of components must be as per manufacturer's specifications and recommendations and must not reduce the level of performance of the equipment.

When the system or any part of it is shut down the supervisory staffs are to be notified and alternative measures are to be followed as outlined in this approved fire safety plan in accordance with BC Fire Code, Division B, sentence 6.1.1.4 (1) – Protection during Shutdown.

4.3.1] Portable Fire Extinguishers

Reference: NFPA 10, Standard for Portable Fire Extinguishers

- An inspection of an extinguisher is a quick check that an extinguisher is available and will operate. It is intended to give reasonable assurance that the extinguisher is fully charged and operable.
- Maintenance is a thorough check of an extinguisher which is intended to give maximum assurance that an extinguisher will operate effectively and safely, and will normally reveal the need for hydrostatic pressure testing.
- Recharging is the replacement of the extinguishing agent.

Monthly Inspection

Responsibility: Fire Safety Director

Procedure:

Check portable fire extinguishers for the following:

- Located in designated place
- No obstruction to access or visibility
- Operating instructions on nameplate legible and facing outward
- Seals and tamper indicators not broken or missing
- Determine fullness by weighing or hefting
- Examine for obvious physical damage, corrosion, leakage, or clogged nozzle
- Pressure gauge reading or indicator in the operable range or position

Record Keeping on the Monthly Inspection & Testing Report

- Serial number of extinguishers requiring maintenance should be recorded on report for qualified contractor.
- Fill-out extinguisher tag with following information:
 - 1) Date extinguisher was inspected
 - 2) Initials of person performing inspection

Annual Maintenance

Responsibility: Qualified Contractor

Procedure:

- Perform maintenance in accordance with the B.C. Fire Code Regulations and NFPA 10, including any necessary hydrostatic pressure testing.

Record Keeping on the Annual Inspection & Testing Report

4.3.2] Means of Egress

Daily Inspection

Responsibility: Fire Safety Director

Procedure:

- Doors in fire separations shall be inspected to ensure that they remain closed and latched unless the door is equipped with an acceptable hold open device that will permit the door to close and latch automatically in the event of fire.
- Corridors used by the public and exits shall be maintained free of obstructions
- Exterior passageway and exterior exit stairs shall be maintained free of snow and ice accumulations.

Record Keeping: None

Monthly Inspection

Responsibility: Fire Safety Director

Procedure:

- Doors in fire separations shall be operated to ensure that they are properly maintained.
- Doors equipped with a hold open device must release automatically in the event of a fire.

Record Keeping: Monthly Inspection & Testing Report

4.3.3] Fire Department Access to Building

Daily Inspection

Responsibility: Fire Safety Director

Procedure:

- Streets, yards and roadways provided for fire department access shall be maintained so as to be ready for use at all times by fire department vehicles.
- Vehicles shall not be parked to obstruct access of fire department vehicles and signs shall be posted prohibiting such parking.
- Access panels or windows provided to facilitate access for firefighting operations shall be maintained free of obstructions at all times.

Record Keeping: no formal record keeping required.

4.3.4] Heating Ventilating & Air Conditioning Systems

Annual Testing and Servicing

Responsibility: Qualified Contract

Procedure:

- Inspect and service as necessary to ensure that these systems do not create a fire hazard.
- Except for self-contained systems within dwelling units, disconnect switches for mechanical air-conditioning and ventilating systems shall be operated to establish that the system can be shut down in an emergency.

Record Keeping: Annual Inspection & Testing Report.

4.3.5] Emergency Lighting Units

Monthly Inspection

Responsibility: Fire Safety Director

Procedure:

Self-contained emergency lighting unit equipment shall be inspected to ensure that:

- pilot lights are functioning and not obviously damaged or obstructed,
- the terminal connections are clean, free of corrosion and lubricated when necessary,
- the terminal clamps are clean and tight as per manufacturer's specifications,
- the battery surface is kept clean and dry

Record Keeping: Monthly Inspection and Testing Report

Monthly Testing

Responsibility: Fire Safety Director

Procedure:

- Self-contained emergency lighting unit shall be tested at intervals not greater than one month to ensure that the emergency lights will function upon failure of the primary power supply.

Record Keeping: Monthly Inspection & Testing Report

Annual Testing

Responsibility: Qualified Contract

Procedure:

- Self-contained emergency lighting unit equipment shall be tested at intervals not greater than twelve months to ensure that the unit will provide emergency lighting for duration equal to the design criterion under simulated power failure conditions.

- After completion of the test, the charging conditions for voltage and current and the recovery period shall be tested to ensure that the charging system is functioning in accordance with the manufacturer's specifications.

Note: Operation time for units is as follows: 30 minutes for this building.

Record Keeping: Annual Inspection and Testing Report

4.3.6] Fire Detection & Alarm System

Reference standard: ULC S536, Inspection and Testing of Fire Alarm Systems.

Daily Inspection

Responsibility: Fire Safety Director

Procedure:

- Check both Fire Alarm AC power lam
- Check both Fire Alarm trouble lamps
- Check central alarm (ER701) and control facility

Record Keeping: None

Monthly Inspection

Responsibility: Qualified Contractor

Procedure:

- Notify the tenants in the building that you are testing the system. Notify all parties when you have completed testing.
- Under emergency power, one manual alarm initiating device shall be operated on a rotation basis and shall initiate an alarm condition
- Intended function of all alarm audible signal appliances shall be ensured
- The annunciator panel shall be checked to ensure that the tested devices annunciate correctly
- Intended function of the audible and visual trouble signals shall be ensured
- Fire alarm batteries shall be checked to ensure that:
 - 1) Terminals are clean and lubricated where necessary
 - 2) Terminal clamps are clean and tight where necessary
 - 3) Electrolyte level and specific gravity, where applicable, are specified by the Manufacturer

Record Keeping: Monthly Inspection & Testing Report

Annual Inspection

Responsibility: Qualified Contractor

Procedure: Contractor shall perform service in accordance with ULCS536

Record Keeping: Annual Inspection & Testing Report

4.3.7] Sprinkler System

Reference Standard: B.C. Fire Code Regulation and NFPA 25

Notification: Prior notification of water flow or other tests to be made to a sprinkler system shall be given to parties who could be affected by an alarm.

Daily Inspection

Responsibility: Fire Safety Director

Procedure:

- Dry-pipe valve rooms or enclosures in unheated building shall be inspected at intervals not greater than 24 hours during periods of freezing weather and measures shall be taken to ensure that the temperature of the room or enclosure is maintained above 4 degrees C.

Record Keeping – no formal record keeping required.

Weekly Inspection

Responsibility: Fire Safety Director

Procedure:

- Valves controlling sprinkler water supplies or alarms shall be inspected at intervals not greater than 7 days to ensure that they are in the open position.

Note: For valves locked in the open position see Monthly Inspection & Test. For electrical supervised valves see Quarterly Test & Inspection.

- Dry pipe system air pressure shall be read at intervals not greater than 7 days and the system shall be maintained at the required pressure.

Record Keeping: Weekly Inspection Report

Monthly Inspection & Tests

Responsibility: Fire Safety Director

Procedure:

- When the alarm line discharge is subject to freezing, water flow alarm tests using the alarm test connection located at the sprinkler valve shall be performed on sprinkler systems at intervals not greater than one month. (This test operates mechanical or electrical gong.)
- On monitored system, the water flow actuated devices may be tested every 3 months.
- On electrically supervised systems, the water flow actuated devices may be tested every 6 months.
- Valves which are locked open shall be inspected at intervals not greater than one month.
- Check the priming water supply for dry-pipe systems to ensure that it is at the proper level above the dry-pipe valve.

Record Keeping: Monthly Inspection & Testing Report

Quarterly Test and Inspection

Responsibility: Qualified Contract

Procedure:

All Sprinkler Systems

- Transmitters & water flow actuated devices shall be tested at intervals not greater than 3 months for system connected to electrical supervisory signal service.
- Inspect all electrically supervised control valves.

Record Keeping on Quarterly Testing Report

Semi-annual Tests

Responsibility: Qualified Contract

Procedure:

All Systems

- Control valve supervisory switches, wet system flow switches, dry system pressure switches and other sprinkler supervisory devices shall be tested at intervals not greater than 6 months.

Record Keeping on Semi-Annual Inspection & Testing Report

Annual Tests & Maintenance

Responsibility: Qualified Contract

Procedure:

Wet Systems

- Water flow alarm tests using the inspector's test connection shall be performed on wet pipe sprinkler systems at intervals not greater than twelve months.

Dry Systems

- Dry-pipe valves shall be trip tested at intervals not greater than 12 months with the control valve partially open. (Dry-pipe valves shall be trip tested at least once every 3years with the control valve fully open using the inspector's test valve.)
- Auxiliary drains shall be drained before each winter.

All Systems

- Water flow tests using the main drain shall be conducted at intervals not greater than 12 months to ensure that water supply available has not deteriorated.
- Drainage facilities shall be tested to ensure that the drains are capable of taking the full flow from the main drain pipe without causing damage.
- Sprinkler control valves are accessible.
- Pits containing sprinkler control valves are free of water and protected from freezing.
- Sprinkler piping and hangers are in good repair.
- Sprinklers are inspected for damage, corrosion or accumulations of

grease, paint or other deposits and are replaced where such conditions would impair the operation of the sprinkler.

- Spare sprinklers shall be checked to ensure that the stock on hand is not less than 6 spare sprinklers (this building has no more than 300 sprinklers) or 12 spare sprinklers (between 301 - 1 000 sprinklers)
- Spare sprinklers shall correspond to the types and temperature ratings of the sprinklers in use.
- A sprinkler wrench shall be kept in the cabinet where the spare sprinklers are stored.

Record Keeping on Annual Inspection & Testing Report

Three Year Test

Responsibility: Qualified Contract

Procedure:

Dry System

- Dry-pipe valve shall be trip tested with the control valve fully open using the inspector's test pipe (dry-pipe valve shall be trip tested annually with the control valve partially open).
- Dry system air leakage test shall be performed no greater than 3 years.

Record Keeping on 3 Year Test Report

Five Year Inspection

Responsibility: Qualified Contract

Procedure: To examine the insides of the sprinkler piping. The purpose of this inspection is to ensure there are no blockage in the piping that hinder the effective and free flow of water through the piping when needed in the event of a fire.

All System

- The inspection will take place at a minimum of four points in each of the sprinkler system: System Valve, Riser, Cross Main and Branch Line.

Record Keeping on Five Year Inspection Report

Ten Year Test

Responsibility: Qualified Contract

Procedure:

- Dry type sprinklers from sprinkler systems which have been in service more than 10 years shall be sent to UL LLC, a recognized testing laboratory for testing, and this procedure shall be repeated at intervals not greater than 10 years thereafter.
- When sprinklers are required to be tested in conformance with Sentence (1), no fewer than 6 sprinklers of each type shall be tested, except that no fewer than 2 sprinklers per floor per individual system shall be tested.
- All sprinklers shall be replaced in sprinkler systems from which sample

sprinklers have been tested and found defective.
Record Keeping on Twenty Year Test Report

Twenty Year Test

Responsibility: Qualified Contract

Procedure:

- Quick Response Type sprinklers from sprinkler systems which have been in service more than 20 years shall be sent to UL LLC, a recognized testing laboratory for testing, and this procedure shall be repeated at intervals not greater than 10 years thereafter.
- When sprinklers are required to be tested in conformance with Sentence (1), no fewer than 6 sprinklers of each type shall be tested, except that no fewer than 2 sprinklers per floor per individual system shall be tested.
- All sprinklers shall be replaced in sprinkler systems from which sample sprinklers have been tested and found defective.

Record Keeping on Twenty Year Test Report

4.3.8] Standpipe & Hose System

Reference Standard: NFPA 14, Installation of Standpipe and Hose System.

Alterations - Standpipe systems that have been modified or extended or are being restored to service after a period of disuse exceeding twelve months, shall be flow and pressure tested at the highest and most remote hose connection to ensure the availability of the water supply for which the system was designed.

Monthly Inspection

Responsibility: Fire Safety Director

Procedure:

- Hose cabinets shall be inspected to ensure that the hose is in proper position and that all of the equipment is in place and in operable condition.
- Hose valves shall be checked to ensure they are tight.
- Main shut off valve shall be checked to ensure that it is open.

Record Keeping on Monthly Inspection & Testing Report

Annual Inspection

Responsibility: Qualified Contract

Procedure:

- All portions of the system shall be inspected.

Record Keeping on Annual Inspection & Testing Report

Five Year Test

Responsibility: Qualified Contract

Procedure:

- The standpipe system shall be flow tested at intervals not greater than 5 years to ensure that the design flow can be delivered.
- If during the flow test there is an identification of the presence of debris in the piping, the entire system shall be flushed of foreign material.

Record Keeping on the Five Year Test Report.

4.3.9] Fire Pumps

Reference Standard: B.C. Fire Code Regulation and NFPA 25

Weekly Inspection

Responsibility: Fire Safety Director

Procedure:

- The water level in the fire pump reservoir shall be observed at intervals not greater than 7 days and maintained at the proper level.
- Operate internal combustion engine fire pump at rated speed and observe the discharge pressure, suction pressure, lubricating oil level, operative condition of relief valve, and general operating conditions at intervals not greater than 7 days.
- Internal-combustion engine fire pumps shall be operated for a sufficient time to bring the engines up to normal operating temperatures. The storage batteries and fuel supplies shall be maintained at the correct levels.

Record Keeping on the Weekly Inspection & Testing Report

Monthly Test

Responsibility: Qualified Contract

Procedure:

- Test fire pumps driven by electric motor at rated speed until satisfactory performance of the pump, driver and controller is verified at intervals not greater than one month. (An indication of the satisfactory performance of the controller can be obtained by starting the pump by reducing the water pressure in the controller sensing line. The operating conditions of the relief valve, and the discharge and suction pressures, lubricating oil levels and priming water levels, are further indications of the performance of the fire pump and related equipment.)

Record Keeping on the Monthly Inspection & Testing Report.

Annual Testing

Responsibility: Qualified Contract

Procedure:

- Fire pumps shall be tested at full rated capacity at intervals not greater than 12 months to ensure that they are capable of delivering the rated flow.

Record Keeping on the Annual Inspection & Testing Report.

4.3.10] Fire Hydrant

Reference Standard: B.C. Fire Code Regulation and NFPA 291

Semi-annual Inspection

Responsibility: Qualified Contract

Procedure:

- Hydrants shall be inspected to ensure that hydrant caps are in place and caps with worn, rusted or obstructed threads, which might hamper easy removal, are repaired or replaced.
- Hydrant barrels shall be inspected to determine if water has accumulated as a result of a leaking main valve or a plugged or damaged drain valve.
- Main valves which are leaking and drains which are plugged or damaged shall be repaired.

Exception: Where it is not practical to repair faulty drain valves or where drain valves are intentionally plugged, measures shall be taken to prevent the freezing of accumulated water.

Record Keeping on the Semi-annual Inspection & Testing Report.

Annual Flushing

Responsibility: Qualified Contract

Procedure:

- Conduct in conjunction with one of the semi-annual inspections lists previously.
- Hydrants shall be flushed at intervals not greater than 12 months with the main valve and any outlet valves fully opened until the water runs clear.

Record Keeping on the Annual Inspection & Testing Report

PART 5: Reports and Checklists

PART 6: Legal Basis for Fire Safety Planning

6.1] General

The 2018 BC Fire Code, Division C, Part 2 (Administrative Provisions), Sentence 2.2.1.1 (1) states “Unless otherwise specified, the owner or the owner’s authorized agent shall be responsible for carrying out the provisions of this code.

One such provision is the preparation, implementation and maintenance of a Fire Safety Plan (FSP) when required by the BC Fire Code.

Our buildings and property are required to have a Fire Safety Plan in conformance with the 2018 BC Fire Code Division B, Article 2.8.1.1. It has been prepared to meet the requirements of Subsection 2.8.2 and any other applicable fire safety plan requirements due to our specific operation.

Articles, in other sections of Division B identify additional specific items that exist in our operation, require additional information in our FSP. They include but not limited to:

- <Article 2.8.2.4 – additional information for high buildings within the scope of BC Building Code subsection 3.2.6.>
- <Article 3.1.2.6 –additional information if dangerous goods (e.g., radioactive, explosives, compressed gases, reactive) are stored or handled;>
- <Article 3.2.2.5 – additional information if certain products (see section 3.2.1.1) are stored indoors;>
- <Article 3.2.7.14(5) – additional information required for individual storage areas;>
- <Article 3.3.2.9 – additional information if certain products (see section 3.3.1.1) are stored outdoors;>
- <Sentence 4.1.6.1.(4) – additional information for spill control and drainage systems if flammable and combustible liquids stored, handled, used, and/or processed in your operations;>
- <Article 4.3.14.5 – additional information for storage tanks containing flammable or combustible liquids;>
- <Article 5.1.5.1 - additional information if processes and operations involve a risk from explosion, high flammability or related conditions that create a hazard to life safety. Hot Works, Dust-Producing Processes, Special Processes involving Flammable and Combustible Liquids and Materials, and Laboratories are examples of processes and operations captured in this section;>
- <Article 5.2.3.7 – additional information required for hot works>
- <Article 5.6.1.3 - additional information, prior to commencement of construction, alteration or demolition, is required.>

Our FSP must meet all of the requirements of the applicable sections in the BC Fire Code. We have vested interest in promoting fire safety. In return for resources used to develop a FSP, our incidence and impact of fire will be reduced. The FSP is crucial for worker and public safety; it is much more than a template document produced just to meet a regulatory requirement. To that

end, fire officials recommended we use experienced and trained employees, contractors or other individuals who are familiar with the content and design of FSPs .

Our Fire Safety Director or other individual with intimate knowledge of the workings and hazards associated with our facility or operation was involved to ensure specific issues related to our business were addressed. In addition, Viking Fire Protection, was consulted to assist with development of the plan or portions of the plan. Finally, communications with the local fire department occurred to help ensure congruency with their expectations and operations, as well as providing them knowledge of our facility.

The completed FSP was reviewed by the local fire department. A copy is retained on site in a location accepted by our local fire department. We are responsible for implementing all aspects of our FSP, for keeping it current and applicable at all times, and for ensuring our employees are well trained in its expectations

6.2] Excerpt From 2018 BC Fire Code – Section 2.8 Emergency Planning

2.8.1.1. Application

- (1) Fire emergency procedures conforming to this Section shall be provided for
- a) every building containing an assembly or a care or detention occupancy
 - b) every building required by the B.C. Building Code to have a fire alarm system,
 - c) demolition and construction sites regulated under Section 5.6.,
 - d) storage areas required to have a fire safety plan in conformance with Article 3.3.2.5. and 3.3.2.9.,
 - e) areas where flammable liquids or combustible liquids are stored or handled, in conformance with Article 4.1.5.5., and
 - f) areas where hazardous processes or operations occur, in conformance with Article 5.1.5.1.

2.8.1.2. Training of Supervisory Staff

- (1) Supervisory staff shall be trained in the fire emergency procedures described in the fire safety plan before they are given any responsibility for fire safety. (See Appendix A)

2.8.1.3. Keys and Special Devices

- (1) Any keys or special devices needed to operate the fire alarm system or provide access to any fire protection systems or equipment shall be readily available to on-duty supervisory staff.

SUBSECTION 2.8.2. FIRE SAFETY PLAN

2.8.2.1. Measures in a Fire Safety Plan

(1) In buildings or areas described in Article 2.8.1.1., a fire safety plan conforming to this Section shall be prepared in cooperation with the fire department and other applicable regulatory authorities and shall include

- (a) the emergency procedures to be used in case of fire, including
 - (i) sounding the fire alarm, (See Appendix A)
 - (ii) notifying the fire department,
 - (iii) instructing occupants on procedures to be followed when the fire alarm sounds,
 - (iv) evacuating occupants, including special provisions for persons requiring assistance
 - (v) confining, controlling and extinguishing the fire,
- (b) the appointment and organization of designated supervisory staff to carry out fire safety duties,
- (c) the training of supervisory staff and other occupants in their responsibilities for fire safety,
- (d) documents, including diagrams, showing the type, location and operation of the building fire emergency systems,
- (e) the holding of fire drills,
- (f) the control of fire hazards in the building,
- (g) the inspection and maintenance of building facilities provided for the safety of occupants.

(2) The fire safety plan shall be reviewed at intervals not greater than 12 months to ensure that it takes account of changes in the use and other characteristics of the building.

2.8.2.2. Care or Detention Occupancies

(1) A sufficient number of supervisory staff shall be on duty in care or detention occupancies to perform the tasks outlined in the fire safety plan described in Clause 2.8.2.1.(1)(a).

2.8.2.3. Assembly Occupancies

(1) In Group A, Division 1 assembly occupancies containing more than 60 occupants, there shall be at least one supervisory staff member on duty in the building to perform the tasks outlined in the fire safety plan in Clause 2.8.2.1.(1)(a) whenever the building is open to the public.

2.8.2.4. High Buildings

(1) In buildings within the scope of Subsection 3.2.6. of the B.C.

Building Code, the fire safety plan shall, in addition to the requirements of Sentence 2.8.2.1.(1), include

- (a) the training of supervisory staff in the use of the voice communication system,
- (b) the procedures for the use of elevators,
- (c) the action to be taken by supervisory staff in initiating any smoke control or other fire emergency systems installed in a building in the event of fire until the fire department arrives,
- (d) instructions to the supervisory staff and fire department for the operation of the systems referred to in Clause (c), and,
- (e) the procedures established to facilitate fire department access to the building and fire location within the building.

2.8.2.5. Retention of Fire Safety Plans

(1) The fire safety plan shall be kept in the building for reference by the fire department, supervisory staff and other personnel.

(2) The fire safety plan for a building within the scope of Subsection 3.2.6. of the B.C. Building Code shall be kept at the central alarm and control facility.

2.8.2.6. Distribution

(1) A copy of the fire emergency procedures and other duties for supervisory staff, as laid down in the fire safety plan, shall be given to all supervisory staff.

2.8.2.7. Posting of Fire Emergency Procedures

(1) At least one copy of the fire emergency procedures shall be prominently posted on each floor area.

(2) In every hotel and motel bedroom, the fire safety rules for occupants shall be posted showing the locations of exits and the paths of travel to exits.

(3) Where a fire alarm system has been installed with no provisions to transmit a signal to the fire department, a sign shall be posted at each manually actuated signaling box requesting that the fire department be notified, and including the telephone number of that department.

(4) All buildings served by one or more elevators shall have a permanently mounted fire safety sign or symbol on each floor level at each elevator entrance, which indicates that the elevator is not to be used in case of fire.

(5) The sign or symbol required by Sentence (4) shall be at least 100 mm in height and width and shall be designed in accordance with NFPA 170 "Standard for Fire Safety Symbols."

SUBSECTION 2.8.3.FIRE DRILLS

2.8.3.1. Fire Drill Procedures

(1) The procedure for conducting fire drills shall be determined by the person responsible in charge of the building, taking into consideration

- (a) the building occupancy and its fire hazards,
- (b) the safety features provided in the building,
- (c) the desirable degree of participation of occupants other than supervisory staff,
- (d) the number and degree of experience of participating supervisory staff,
- (e) the features of fire emergency systems installed in buildings within the scope of Subsection 3.2.6. of the B.C. Building Code, and.
- (f) the requirements of the fire department

(See Appendix A)

2.8.3.2. Fire Drill frequency

(1) Fire drills as described in Sentence 2.8.3.1.(1) shall be held at intervals not greater than 12 months for the supervisory staff, except that

drills shall be held at intervals not greater than one month

be held at least 3 times in each of the fall and spring school terms,

and

- (a) in day-car centers and in Group B major occupancies, such
- (b) in schools attended by children, total evacuation fire drills shall
- (c) in buildings within the scope of Subsection 3.2.6. of the B.C. Building Code, such drills shall be held at intervals not greater than 2 months.

PART 7: Definitions

Access to Exit - Part of a means of egress with a floor area that provides access to an exit serving the floor area

Alarm Signal - An audible signal transmitted throughout the building to advise occupants that a fire emergency exists

Apparatus - Apparatus means any vehicle machinery, device, equipment or material used for fire protection or assistance response and any vehicle used to transport members or supplies.

ASTTBC - Applied Science Technologists & Technicians of BC. As per City of North Vancouver Bylaw #7709, fire protection devices shall be serviced by ASTTBC.

Building - It means any structure used or intended for supporting or sheltering any use or occupancy.

Building Code Subsection 3.2.6. - A subsection of the building code which has requirements applicable only to high buildings such as high rises and some large institutions.

Class A fire - A fire involving combustible materials such as wood, cloth and paper.

Class B fire - A fire involving flammable or combustible liquid, fat, or grease.

Class C fire - A fire involving energized electrical equipment.

Closure - A device or assembly for closing an opening through a fire separation (such as a door), and includes all components such as hardware, closing devices, frames and anchors.

Combustible material - It means any material capable of being ignited.

Combustible liquid - It means any liquid having a flash point at or above 37.8 deg C and below 93.3 deg C.

Deputy Fire Safety Director (D.F.S.D) - It means a person appointed in writing by a building owner, business owner or a Fire Safety Director and given the responsibility and necessary authority to supervise and maintain a fire safety plan in the absence of the Fire Safety Director.

Exit - That part of a means of egress that leads from the floor area it serves, including any doorway leading directly from a floor area, to an open public thoroughfare or to an exterior open space protected from fire exposure from the building and having access to an open public thoroughfare.

Emergency access Route - It means portion of a roadway or yard providing and access route for fire department vehicles from a public thoroughfare, as required under the building.

Fire Alarm System - It means a device or devices installed on or in real property and designed to issue a warning of a fire by activating an audible alarm signal or alerting a monitoring facility but does not include a fire alarm system that is intended to alert only the occupants of the dwelling unit in which it is installed.

Fire Chief - It means the Director or Fire and Rescue Service for the City, acting as head of the Fire Department, or a person designated to act in the place of the Director.

Fire code - The British Columbia Fire Code Regulations 2018, pursuant to the Fire Services Act.

Fire Safety Plan - A plan which provides occupant information for control of fire hazards, maintenance of fire protection systems, and evacuation procedures for their building.

Fire Safety Director (F.S.D) - A person appointed by the owner or authorized agent of the owner in writing and will assume to implement and maintain the Fire Safety Plan

Fire protection systems - A general term used in this document which includes sprinkler and fire alarm systems, hose stations, portable fire extinguishers, fire dampers, emergency lights, exit signs, fire doors, smoke control equipment, and voice communication systems.

Fire stop flap - A device intended for use in horizontal assemblies required to have a fire resistance rating and incorporating protective ceiling membranes, which operates to close off a duct opening through the membrane in the event of a fire.

Flammable liquid - Any liquid having a flash point below 37.8 °C and having a vapor pressure not exceeding 275.8 kPa (absolute) at 37.8 °C.

Flash Point - The minimum temperature at which a liquid within a container gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.

Flue - An enclosed passageway for conveying flue gases

Flue pipe - The pipe connecting the flue collar of an appliance to a chimney.

Fire dampers - A device intended for use in horizontal assemblies required to have a fire-resistance rating and incorporating protective ceiling membranes, which operates to close off a duct opening through the membrane in the event of a fire.

Group C Occupancy - The occupancy or use of a building or part thereof by persons for whom sleeping accommodation is provided but who are not harbored for the purpose of receiving care or treatment and are not involuntarily detained.

Means of egress - A continuous path of travel provided by a doorway, hall-way, corridor, exterior passage-way, balcony, lobby, stair, ramp, or other egress facility or combination thereof, for the escape of persons from any point in a building, room, or contained open space to a public thoroughfare or other acceptable open space (means of egress includes exits and access to exits).

Occupancy - It means the use or intended use of a building or part thereof for the shelter or support of persons, animals or property.

Premises - It includes the whole or any part of real property and any buildings or structures on the property.

Qualified Contractor – Qualified contractor must be certified by ASTTBC to service fire protection devices as required by in the City of North Vancouver (Bylaw #7709).

Smoke alarm - A combined smoke detector and audible alarm device designed to sound an alarm within the room or suite in which it is located upon the detection of smoke within the room or suite.

Story - It means that portion of a building which is situated between the top of any floor and the top of floor next above it, and if there is no floor above it, that portion between the top of such and the ceiling above it.

Supervisory staff - Those occupants of a building who have been appointed to take responsibility for some aspect of the fire safety plan (Fire Safety Director & Deputies).

Wet Sprinkler System – It is a fire sprinkler system which has sprinkler supply piping containing water. Such a system cannot be installed in areas subjected to freezing conditions as water is always in the sprinkler piping.

Zone – an area of a building designated as part of a fire alarm system or sprinkler system.

ABBREVIATIONS

CSA: Canadian Standards Association

NFPA: National Fire Protection Association

ULC: Underwriters Laboratories of Canada

Appendix

Fire Incident Report

1. Incident Type		
<input type="checkbox"/> Report of Fire Hazard <input type="checkbox"/> Fire Prevention Equipment Failure	<input type="checkbox"/> Fire <input type="checkbox"/> False Alarm	
2. Details		
Date:	Time:	Location:
Description of Incident	(include device/equipment involved, floor & alarm zone, # of injuries)	
Cause/Reason for Incident		
Description of Damage/Loss		
3. Action		
Who discovered or reported incident:		Time:
Corrective Action Taken:		
If fire related, did Fire Department attend? <input type="checkbox"/> Yes <input type="checkbox"/> No If not, why not?		
Who operated company fire equipment (e.g., portable fire extinguishers)?		
4. Comments / Recommendations		
Signed:	Name:	Date:
5. Distribution:		
<input type="checkbox"/> Fire Department	<input type="checkbox"/> Fire Safety Director	<input type="checkbox"/> Real Star Office
<input type="checkbox"/> Police	<input type="checkbox"/> Site Manager	<input type="checkbox"/> Tenants or other