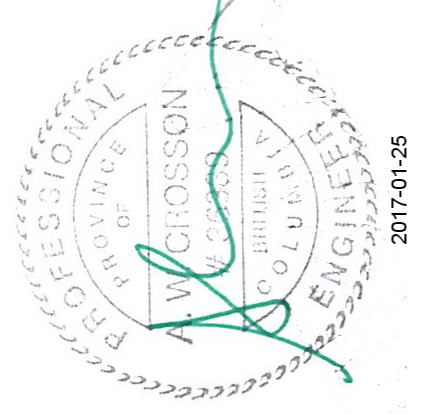
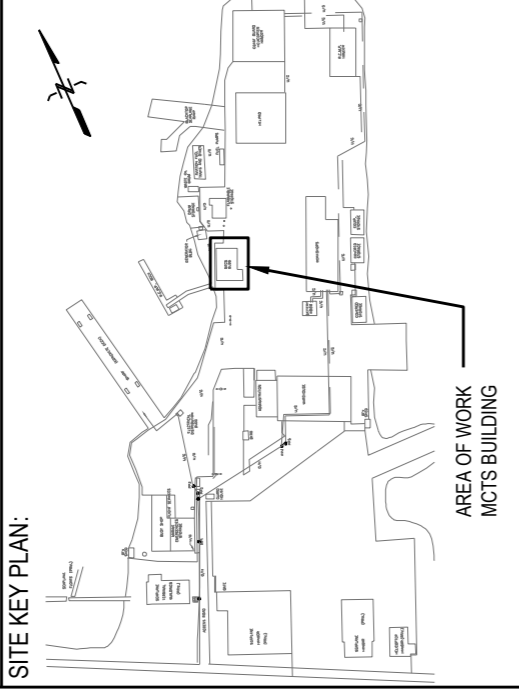


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Revision/Redaction
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FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

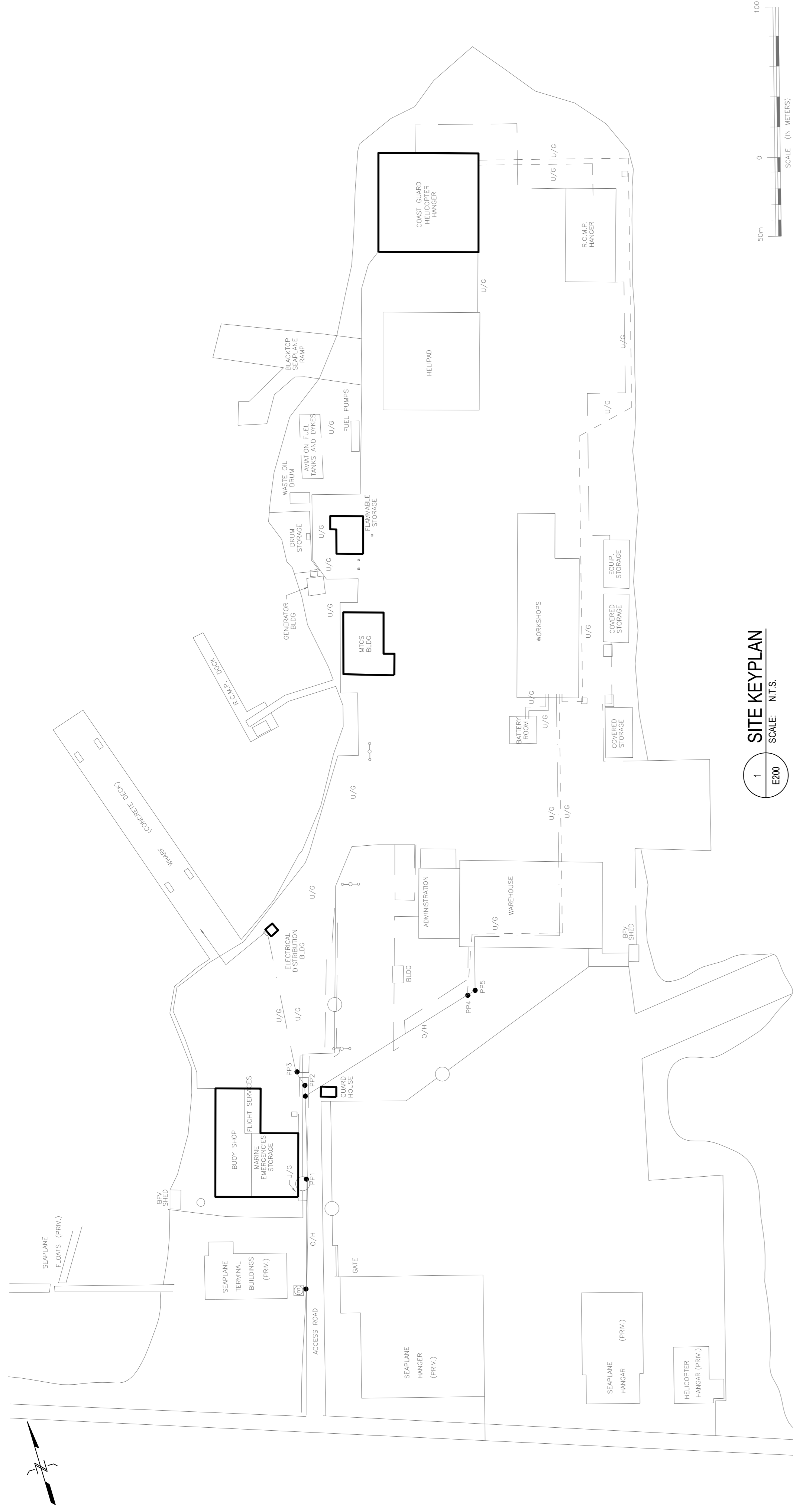
Project title/Titre du projet
PRINCE RUPERT, B.C.
**SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT**

Approved by/Approve par
Designed by/Concepé par
A.C.
Drawn by/Dessiné par
A.C./B.C./M.S.
PWSC Project Manager/Administrateur de Projet TP50C
PWSC Architectural and Engineering Resources Manager/ Ressources Architecturales et d'Ingénierie TP50C
DPO
Drawing title/Titre du dessin
COVER SHEET

Project No./No. du projet	131-12992-10	Sheet/Feuille	X001	Revision no./no. de révision	1
			1 OF 6		

DRAWING LIST

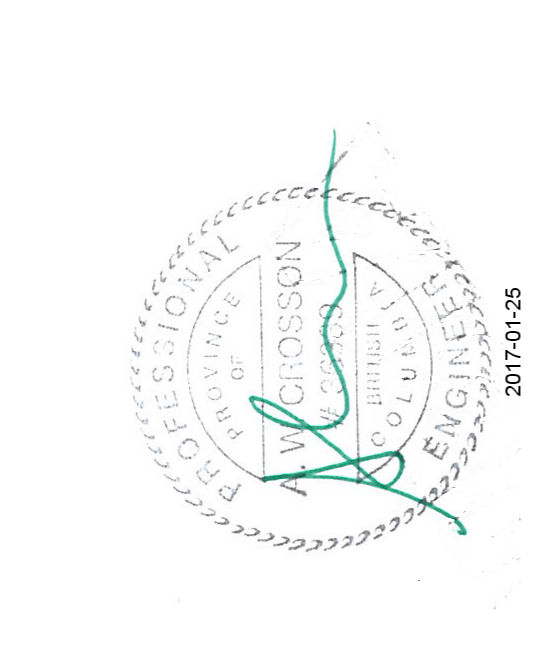
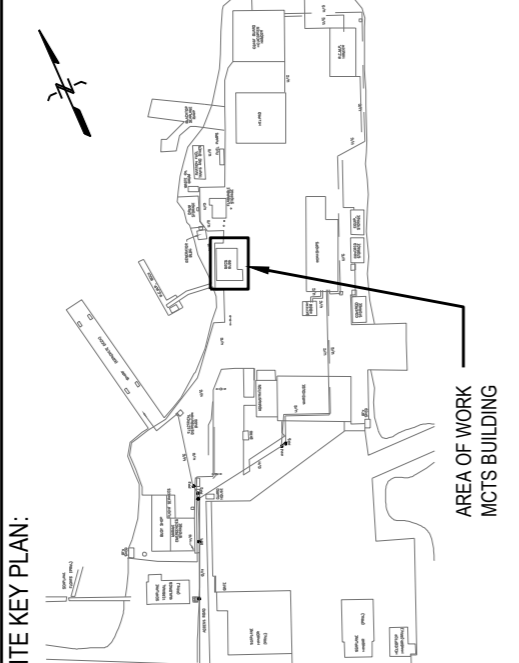
DRAWING NUMBER	DRAWING DESCRIPTION
X001	COVER SHEET
E200	SITE PLAN & LEGEND
E201	MCTS BUILDING AND FLAMMABLE STORAGE BUILDING FIRE ALARM LAYOUT
E202	BUOY MAINTENANCE MARINE EMERGENCIES FLIGHT SERVICES BUILDINGS WATCHMAN'S SHED, AND ELECTRICAL DISTRIBUTION FIRE ALARM LAYOUT
E203	HELICOPTER HANGER FIRE ALARM LAYOUT
E300	FIRE ALARM RISER DIAGRAMS
E400	FIRE ALARM SPECIFICATIONS
F-001	LEGEND AND DRAWING LIST
F-101	WORKSHOP BUILDING GROUND FLOOR AND MEZZANINE FIRE PROTECTION
F-102	ADMIN/ STORES BUILDING FIRST AND SECOND FLOOR PLAN FIRE PROTECTION
F-103	BUOY MAINTENANCE SHOP, MARINE EMERGENCY STORAGE & FLIGHT SERVICES STATION MAIN AND SECOND FLOOR FIRE PROTECTION
F-104	SCHEMATICS FIRE PROTECTION
F-105	SPECIFICATION
F-106	SPECIFICATION



CONSTRUCTION NOTES:

- EXISTING INFORMATION WITHIN THESE DRAWINGS ARE BASED ON INFORMATION PROVIDED BY OTHERS. EXTRACTED FROM HISTORICAL RECORDS, AND SITE OBSERVATION. EXISTING INFORMATION IS PROVIDED TO FACILITATE THE CONTRACTOR IN PROVIDING A FAIR AND ACCURATE TENDER BID. BY PROVIDING A GREATER UNDERSTANDING OF THE SCOPE OF WORK. BY NO MEANS SHALL THE CONTRACTOR RELY SOLELY ON THE EXISTING INFORMATION PROVIDED TO DETERMINE A COMPLETE AND FULLY ACCURATE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING INFORMATION AND RECORDS TO BE USED FOR THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING INFORMATION AND RECORDS TO BE USED FOR THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING INFORMATION AND RECORDS TO BE USED FOR THE PROJECT.
- MAKE GOOD ALL EXISTING SURFACE INCLUDING BUT NOT LIMITED TO DRYWALL, PAINT, CEILING TILES, AND FINISHES.
- INSTALLATION SHALL COMPLY WITH DEPARTMENT OF FISHERIES AND OCEANS STANDARDS (EX. LABELING, COLOUR CODING OF RACEWAYS AND BOXES).
- ALL CONDUCTORS SHALL BE RUN IN CONDUIT SUITABLE FOR APPLICATION.
- ENGAGE A STRUCTURAL ENGINEER TO ADVISE AND REVIEW SEISMIC ANCHORAGE AND RESTRAINT OF ALL NEW EQUIPMENT OR DEVICES.
- CONTRACTOR SHALL FIRE STOP ALL PENETRATIONS THROUGH FIRE WALLS AND SMOKE SEPARATIONS WITH AN APPROVED UL-C LISTED FIRE STOPPING SYSTEM. CONSULTANT TO BE PROVIDED WITH SYSTEM DRAWINGS FOR EXACT TYPE USED PRIOR TO THE FIRE STOPPING INSPECTION. ALL OTHER PENETRATIONS TO BE PATCHED TO SUIT WALL MATERIALS.
- CONTRACTOR SHALL NOTE THAT THE SEAL COVE REFURBISHMENT PROJECT HAS SEVERAL PHASES OF WORK WITH MULTIPLE SUB-PHASES OF WORK TO ACCOMMODATE AND FACILITATE RENOVATIONS. ALL IDENTIFIED WORK WILL REQUIRE METICULOUS COORDINATION WITH DPO REPRESENTATIVE AND ALL OTHER DISCIPLINES. SEVERAL PHASES OF WORK WILL REQUIRE TEMPORARY WORK AROUNDS. CONTRACTOR SHALL PROVIDE AN ALLOWANCE BASED ON EXPERIENCE FOR COORDINATION WITH OTHER TRADES AND DISCIPLINES. ALL PHASES AND TEMPORARY ELECTRICAL WORK AROUNDS, NO EXTRA FEES WILL BE PROVIDED TO CONTRACTOR FOR FAILING TO PROVIDE SUFFICIENT ALLOWANCE.
- CONTRACTOR TO PROVIDE THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) AND GET AUTHORITY FROM THE AUTHORITY HAVING JURISDICTION (AHJ) PRIOR TO COMMENCING HOT WORK. COORDINATE ON SITE WITH DPO-SCH REPRESENTATIVE. PROVIDE A SHUTDOWN SCHEDULE TO DPO-SCH TO FACILITATE THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND MODIFICATIONS TO EXISTING DISTRIBUTION AND COMMISSION.
- PHASING PLANS NOTED WITHIN ARE PROVIDED TO OFFER A GREATER UNDERSTANDING OF THE WORK REQUIRED AND A PROPOSED CONSTRUCTION METHODOLOGY. BY NO MEANS SHALL THE CONTRACTOR RELY ON THE PHASING. TIMING AND SEQUENCING OF WORK. CONTRACTOR TO PROVIDE THE NECESSARY ELECTRICAL DISTRIBUTION AND REPAIRS TO EXISTING ELECTRICAL SYSTEMS, AND WILL WORK WITH THE HOSPITALS REPRESENTATIVES TO PROVIDE ALL WORK AROUNDS, PHASES, TEMPORARY POWER AND ASSOCIATED ELECTRICAL DEVICES, OR EQUIPMENT REQUIRED TO FACILITATE THE UPGRADE TO EXISTING ELECTRICAL DISTRIBUTION.

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Revision/Redaction	Description/Description
Client/Client	Date/Date

FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project Title/Titre du projet
PRINCE RUPERT, B.C.
SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT

Approved By/Approve par
Designed by/Concepé par
Drawn by/Dessiné par
AC: BUC/MS
PWSSC Project Manager/Administrateur de Projet TP50C
PWSSC Architectural and Engineering Resources Manager/ Ressources Architecturales et de Génie Civil TP50C
Client/Client
DFO
Drawing Title/Titre du dessin
SITE PLAN & LEGEND

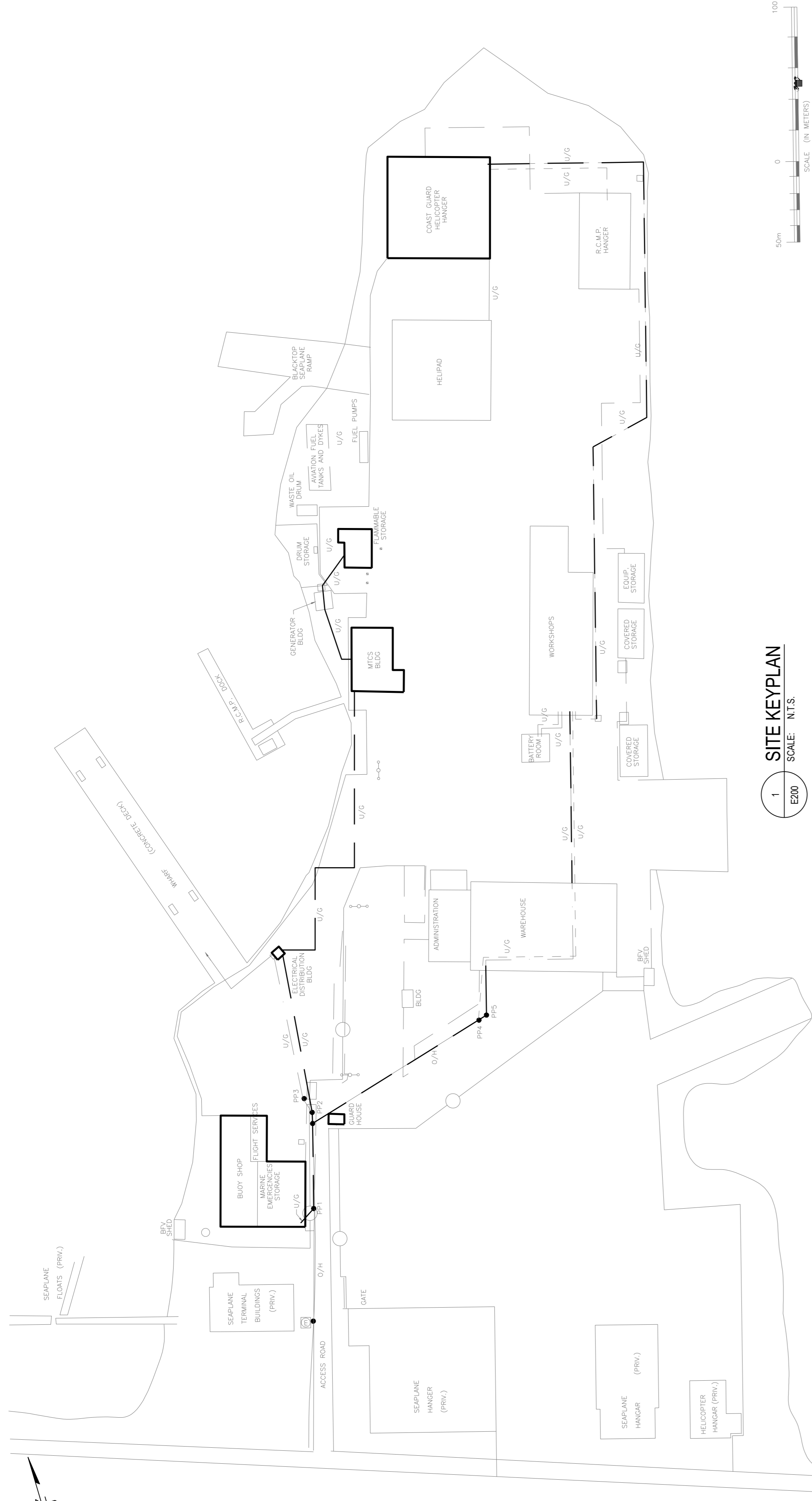
Project No./No. du projet	131-12992-10	Sheet/Feuille	E200	Revision no./no. de révision	1
			1 OF 6		

LEGEND
(NOTE: NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS)

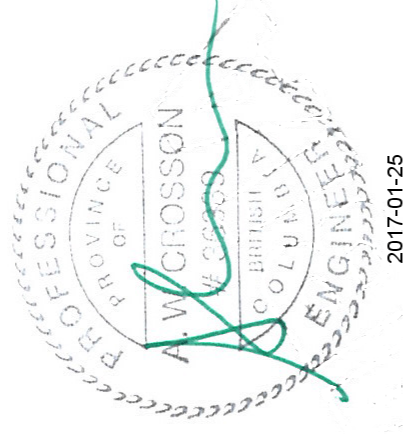
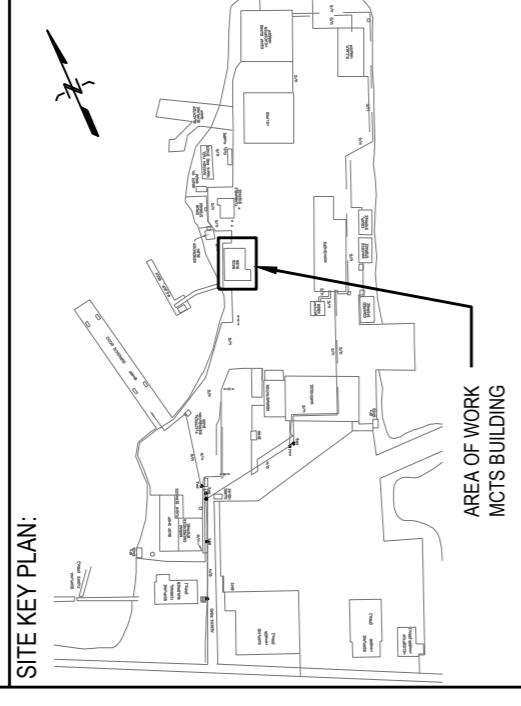
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[Symbol]	SMOKE DETECTOR
[Symbol]	DUCT SMOKE DETECTOR
[Symbol]	SMOKE ALARM (CO/CO DETECTOR COMBINATION SMOKE ALARM)
[Symbol]	FIRE ALARM BELL
[Symbol]	FIRE ALARM HORN
[Symbol]	FIRE ALARM SPEAKER
[Symbol]	FIRE ALARM STROBE
[Symbol]	FIRE ALARM HORN AND STROBE
[Symbol]	FIRE ALARM SPEAKER AND STROBE
[Symbol]	FIRE ALARM REMOTE LED INDICATOR
[Symbol]	FIRE ALARM FLOW SWITCH CONNECTION
[Symbol]	FIRE ALARM PRESSURE SWITCH CONNECTION
[Symbol]	FIRE ALARM TAMPER DEVICE CONNECTION
[Symbol]	FIRE ALARM END-OF-LINE (EOL)
[Symbol]	FIRE ALARM MONITORING MODULE
[Symbol]	FIRE ALARM CONTROL MODULE
[Symbol]	FIRE ALARM ISOLATION MODULE
[Symbol]	FIRE ALARM RELAY
[Symbol]	FIRE ALARM CONTROL PANEL
[Symbol]	FIRE ALARM ANNUNCIATOR PANEL
[Symbol]	FIRE ALARM PASSIVE GRAPHIC DISPLAY
[Symbol]	FIRE ALARM ACTIVE GRAPHIC DISPLAY
[Symbol]	FIRE ALARM HOLD OPEN DEVICE (FLOOR MOUNTED)
[Symbol]	FIRE ALARM DOOR CLOSER DEVICE
[Symbol]	FIRE ALARM EMERGENCY TELEPHONE

DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
E200	SITE PLAN & LEGEND
E201	MOTS BUILDING AND FLAMMABLE STORAGE BUILDING FIRE ALARM LAYOUT
E202	BUOY MAINTENANCE, MARINE EMERGENCIES, FLIGHT SERVICES BUILDING, WATCHMAN'S SHED, AND ELECTRICAL DISTRIBUTION FIRE ALARM LAYOUT
E203	HELICOPTER HANGER FIRE ALARM LAYOUT
E300	FIRE ALARM RISER DIAGRAM
E400	FIRE ALARM SPECIFICATIONS



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	Revision/Reduction	Description/Description	Date/Date
	Client/Client		

FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project title/Titre du projet
PRINCE RUPERT, B.C.

SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT

Approved by/Approve par
Designed by/Concep par
A.C.
Drawn by/Dessiné par
A.C./M.O./MS
PWSSC Project Manager/Administrateur de Projet TP50C

PWSSC Architectural and Engineering Resources Manager/Responsable Architectural et de Directeur d'ingénierie, TP50C
Client/Client
DFO

Drawing title/Titre du dessin
MCTS BUILDING AND
FLAMMABLE STORAGE BUILDING
FIRE ALARM LAYOUT

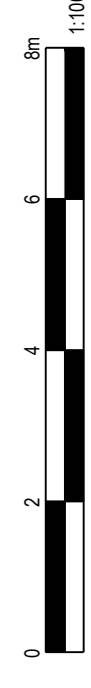
Project No./No. du projet
131-12992-10
Sheet/Feuille
E201
2 OF 6
Revision no./no. de révision
1

FIRE ALARM SYSTEM
SYMBOL SCHEDULE

[Symbol]	PULL STATION
[Symbol]	HEAT DETECTOR (F-TYPE) TEMPERATURE RRRATE OF RISE
[Symbol]	SMOKE DETECTOR
[Symbol]	DUCT SMOKE DETECTOR
[Symbol]	SMOKE ALARM (CO-CO DETECTOR COMBINATION SMOKE ALARM)
[Symbol]	FIRE ALARM BELL
[Symbol]	FIRE ALARM HORN
[Symbol]	FIRE ALARM SPEAKER
[Symbol]	FIRE ALARM STROBE
[Symbol]	FIRE ALARM SPEAKER AND STROBE
[Symbol]	FIRE ALARM SPEAKER AND STROBE
[Symbol]	FIRE ALARM REMOTE LED INDICATOR
[Symbol]	FIRE ALARM FLOW SWITCH CONNECTION
[Symbol]	FIRE ALARM PRESSURE SWITCH CONNECTION
[Symbol]	FIRE ALARM TAMPER DEVICE CONNECTION
[Symbol]	FIRE ALARM END-OF-LINE (EOL)
[Symbol]	FIRE ALARM MONITORING MODULE
[Symbol]	FIRE ALARM CONTROL MODULE
[Symbol]	FIRE ALARM ISOLATION MODULE
[Symbol]	FIRE ALARM RELAY
[Symbol]	FIRE ALARM CONTROL PANEL
[Symbol]	FIRE ALARM ANNUNCIATOR PANEL
[Symbol]	FIRE ALARM PASSIVE GRAPHIC DISPLAY
[Symbol]	FIRE ALARM DOORHOLD OPEN DEVICE (F-FLOOR MOUNTED)
[Symbol]	FIRE ALARM DOOR CLOSE DEVICE
[Symbol]	FIRE ALARM EMERGENCY TELEPHONE

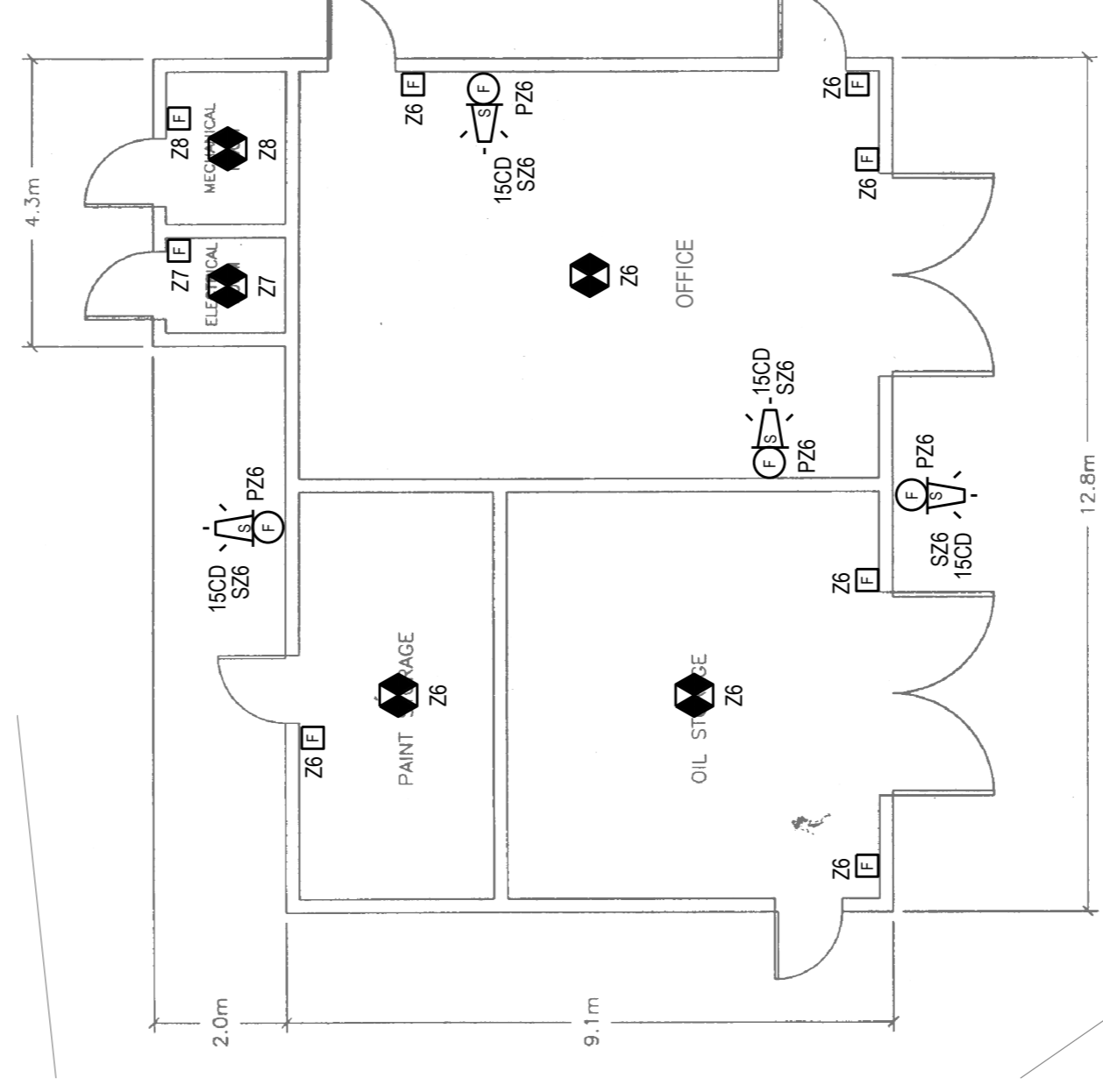
SEAL COVE REFURBISHMENTS
MCTS BUILDING AND FLAMMABLE STORAGE BUILDING

ZONE	AREA
Z1	MCTS BUILDING MAIN FLOOR
Z2	MCTS BUILDING MAIN FLOOR ELECTRICAL ROOM
Z3	MCTS BUILDING MAIN FLOOR MECHANICAL ROOM
Z4	MCTS BUILDING SECOND FLOOR
Z5	MCTS BUILDING SECOND FLOOR ELEVATOR
Z6	FLAMMABLE STORAGE BUILDING
Z7	FLAMMABLE STORAGE BUILDING ELECTRICAL ROOM
Z8	FLAMMABLE STORAGE BUILDING MECHANICAL ROOM
Z9	MAIN FLOOR SPRINKLER
Z10	SECOND FLOOR SPRINKLER
PZ1	MCTS BUILDING MAIN FLOOR - SPEAKER
SZ1	MCTS BUILDING MAIN FLOOR - STROBE
PZ4	MCTS BUILDING SECOND FLOOR - SPEAKER
SZ4	MCTS BUILDING SECOND FLOOR - STROBE
PZ6	FLAMMABLE STORAGE BUILDING
SZ6	FLAMMABLE STORAGE BUILDING

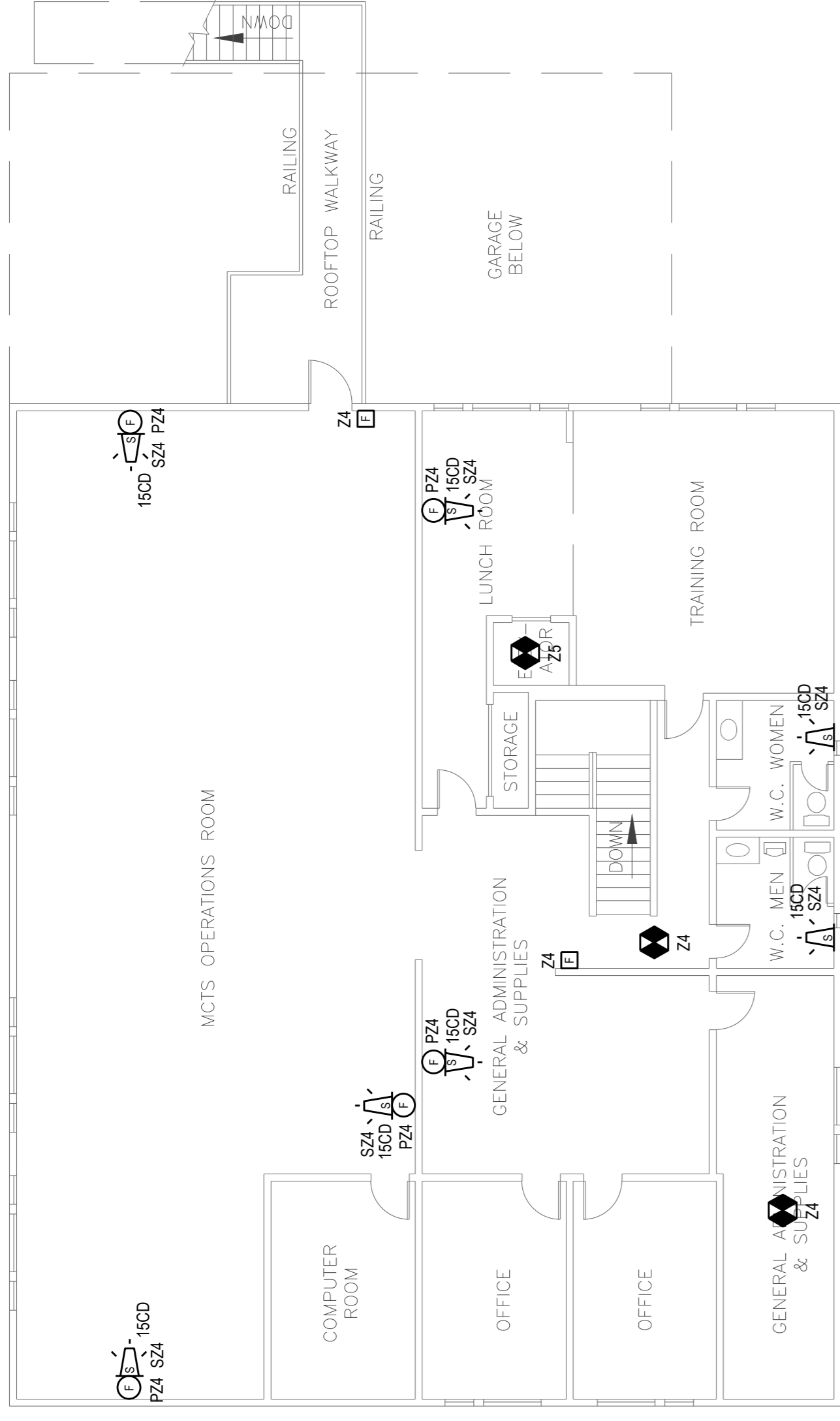


- KEYNOTES:**
1. CEILING MOUNT MAX IS 900mm.
 2. ZONES EXTEND TO FLAMMABLE STORAGE BUILDING.
 3. PROVIDE RECESSED FIRE ALARM PANEL. ALL WIRING TO BE INSTALLED TO FLUSH FINISH IN ENTRANCE AREA.

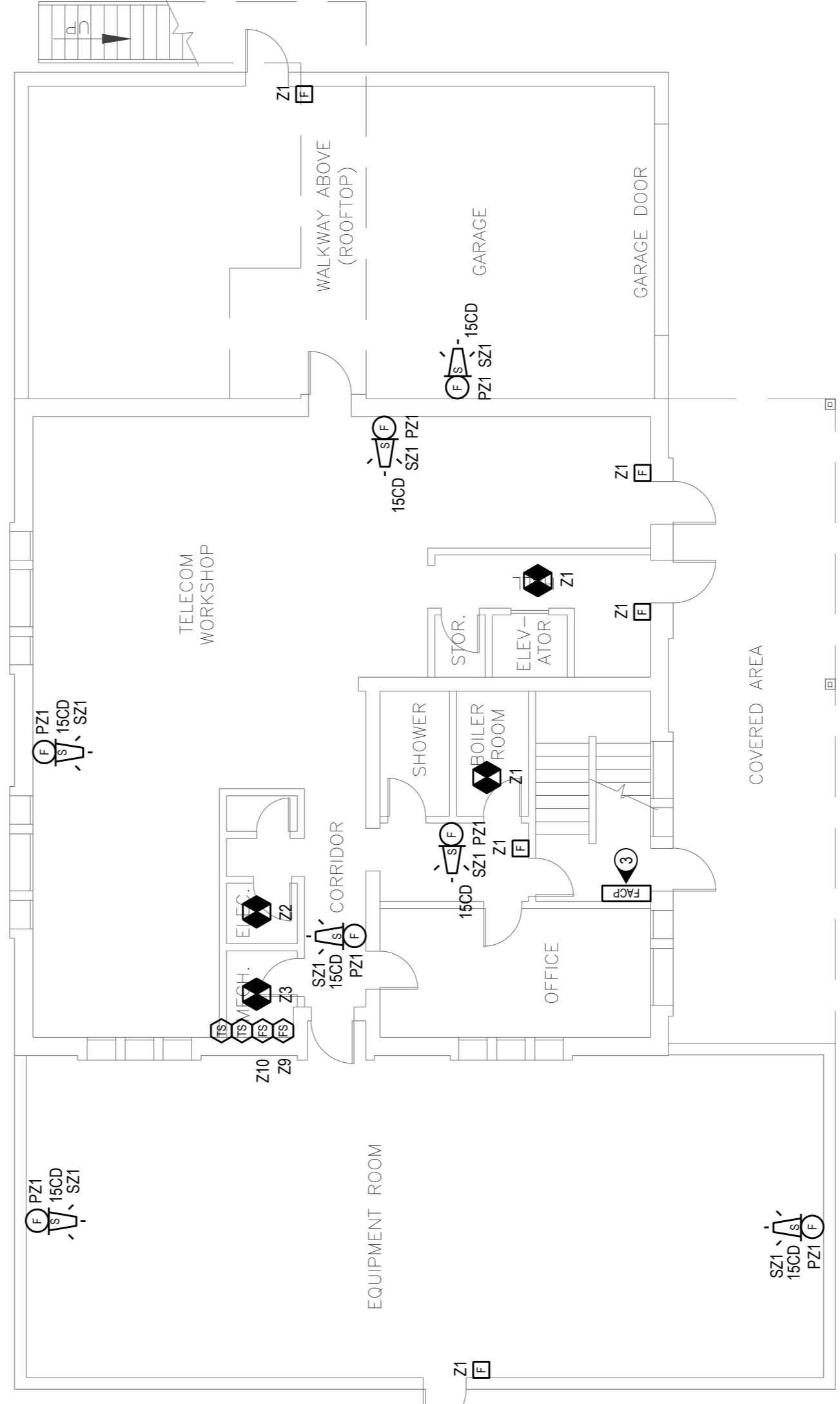
- GENERAL NOTES:**
1. FINAL LOCATION OF ALL FIRE ALARM DEVICES TO BE COORDINATED WITH EXISTING SITE CONSTRAINTS.
 2. CONTRACTOR TO PROVIDE ALL CIVIL AND STRUCTURAL WORKS.
 3. CONTRACTOR TO FIRESTOP ALL PENETRATIONS.
 4. CONTRACTOR TO SEAL ALL NEW INCOMING CONDUITS.
 5. CONTRACTOR TO REINSTATE ALL FLOOR AND WALL MATERIALS TO MATCH EXISTING.
 6. REFER TO DRAWING E200 SITE KEY PLAN FOR LOCATIONS OF BUILDINGS AND APPROXIMATE DISTANCE BETWEEN. CONTRACTOR TO ALLOW FOR ALL CABLING LENGTH REQUIRED.



2 FLAMMABLE STORAGE BUILDING
SCALE: 1:100
E201




UPPER/SECOND LEVEL




LOWER/MAIN LEVEL

1 MCTS BUILDING
SCALE: 1:100
E201




**FISHERIES AND OCEANS
CANADA**
REAL PROPERTY AND SAFETY
AND SECURITY



WSP
SUITE 400-401 GARDINIA ROAD
VICTORIA, BRITISH COLUMBIA CANADA V8T 5M6
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Revisions/Revisions	Description/Description	Date/Date	Client/Client

FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project title/Titre du projet
PRINCE RUPERT, B.C.

**SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT**

Approved by/Approve par
Designed by/Conçue par
Drawn by/Dessiné par
AC: BAC/MS
PWSC Project Manager/Administrateur de Projet TP50C
PWSC Architectural and Engineering Resources Manager/ Ressources Architecturales et de Génie Ingénierie, TP50C
Client/Client
DPO
Drawing title/Titre du dessin
BUOY MAINTENANCE, MARINE EMERGENCIES, FLIGHT SERVICES BUILDING, WATCHMANS SHED AND ELECTRICAL DISTRIBUTION SHED ALARM FIRE ALARM LAYOUT

Project No./No. du projet
131-12992-10

Sheet/Feuille
E202

Revision no./no. de révision
1

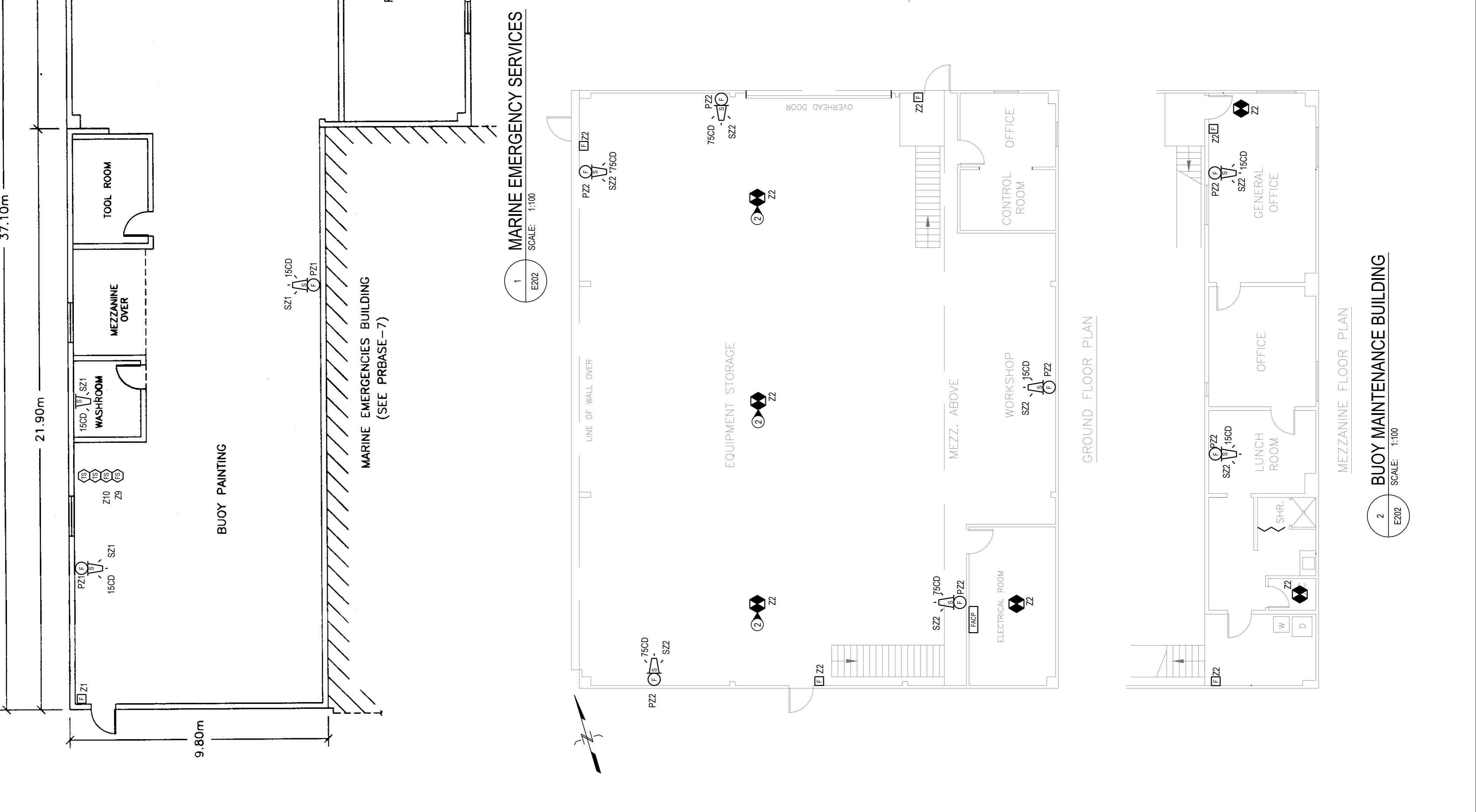
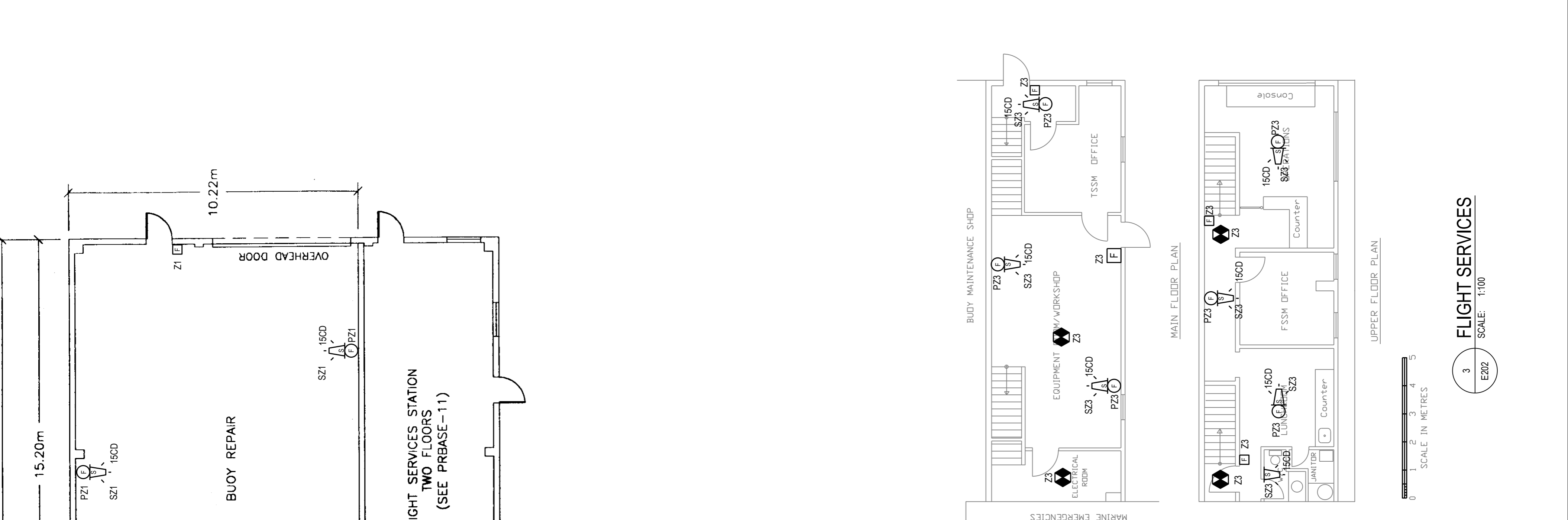
SEAL COVE REFURBISHMENTS	
BUOY MAINTENANCE, MARINE EMERGENCY AND FLIGHT SERVICES BUILDINGS AND ELECTRICAL DISTRIBUTION SHED	
ZONE	AREA
Z1	MARINE EMERGENCY SERVICES BUILDING
Z2	BUOY MAINTENANCE - BUILDING
Z3	FLIGHT SERVICES BUILDING
Z4	FLIGHT SERVICES ELECTRICAL ROOM
Z5	WATCHMANS SHED
Z6	ELECTRICAL DISTRIBUTION SHED
Z7	SPRINKLER GROUND FLOOR
Z8	SPRINKLER SECOND FLOOR
PZ1	MARINE EMERGENCIES - SPEAKER
SZ1	MARINE EMERGENCIES - STROBE
PZ2	BUOY MAINTENANCE - SPEAKER
SZ2	BUOY MAINTENANCE - STROBE
PZ3	FLIGHT SERVICES - SPEAKER
SZ3	FLIGHT SERVICES - STROBE
PZ6	ELECTRICAL DISTRIBUTION SHED - SPEAKER
SZ6	ELECTRICAL DISTRIBUTION SHED - STROBE

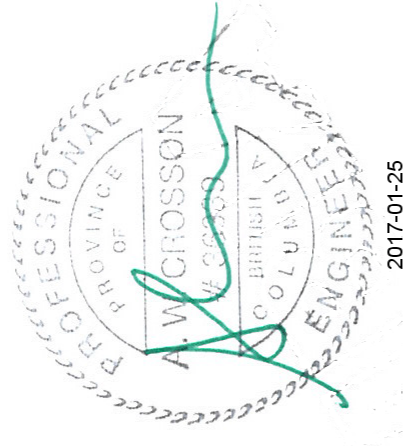
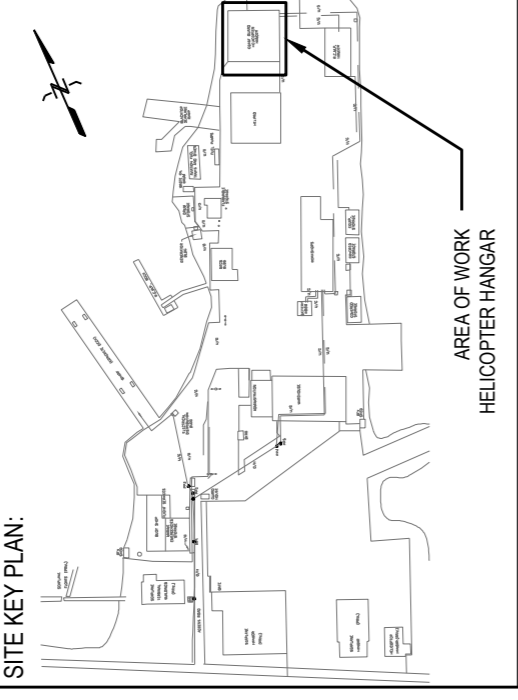
KEYNOTES:

- 1. CEILING MOUNT MAX IS 900mm.
- 2. DEVICES TO BE MOUNTED CLEAR OF EXISTING STORAGE RACKS. COORDINATE EXACT LOCATION ON SITE.

GENERAL NOTES:

1. FINAL LOCATION OF ALL FIRE ALARM DEVICES TO BE COORDINATED WITH EXISTING SITE CONSTRAINTS
2. CONTRACTOR TO PROVIDE ALL CIVIL AND STRUCTURAL WORKS
3. CONTRACTOR TO FIRESTOP ALL PENETRATIONS.
4. CONTRACTOR TO SEAL ALL NEW/INCOMING CONDUITS.
5. CONTRACTOR TO REINSTATE ALL FLOOR AND WALL MATERIALS TO MATCH EXISTING.
6. REFER TO DRAWING EX200 SITE KEYPLAN FOR LOCATIONS OF BUILDINGS AND APPROXIMATE DISTANCE BETWEEN. CONTRACTOR TO ALLOW FOR ALL CABLING LENGTH REQUIRED.





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FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project title/Titre du projet
PRINCE RUPERT, B.C.
**SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT**

Approved by/Approuve par
Designed by/Concepé par
A.C.
Drawn by/Dessiné par
A.C./R.O./M.S.
PWSSC Project Manager/Administrateur de Projets TP50C

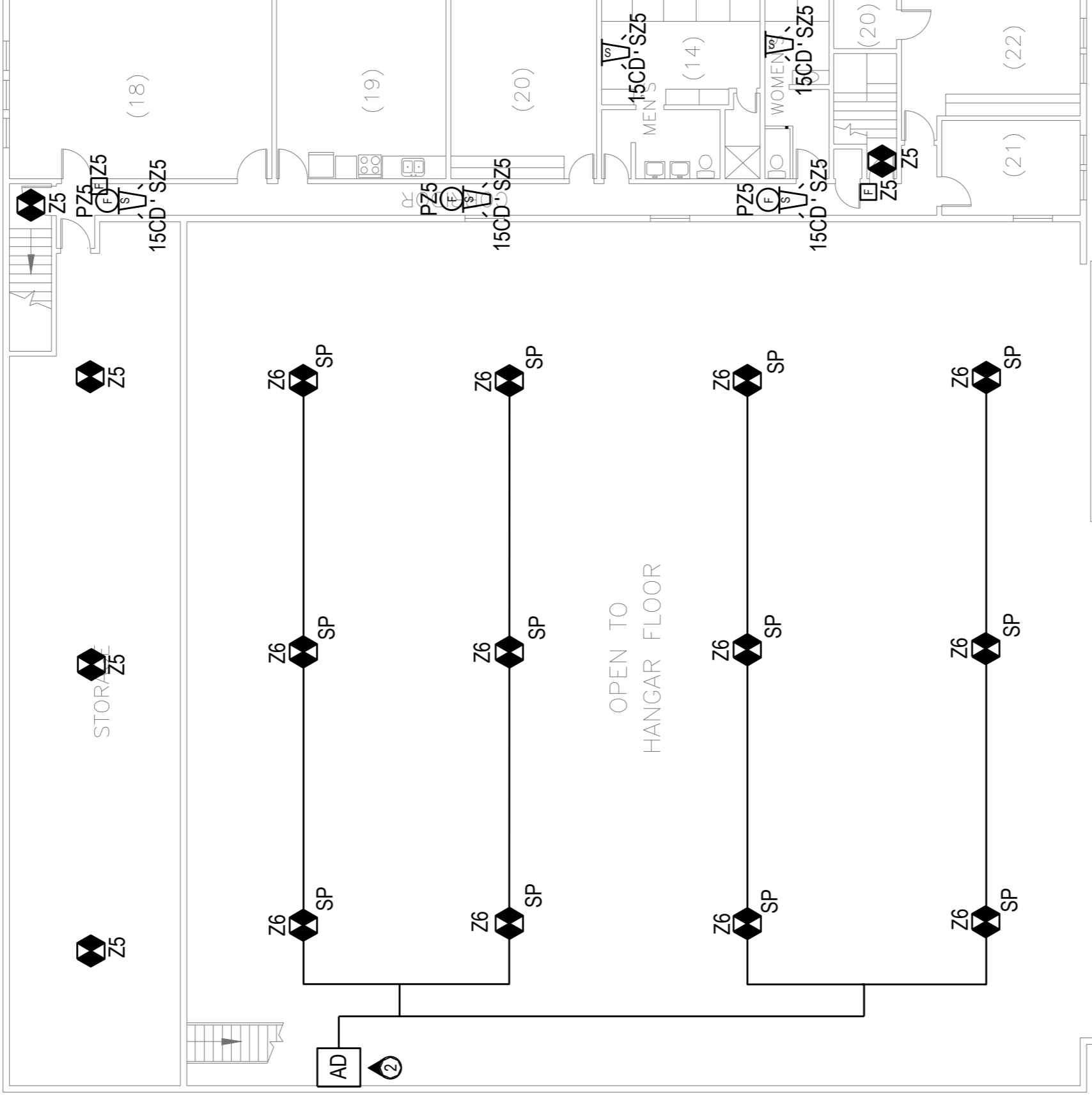
PWSSC Architectural and Engineering Resources Manager/
Resources Architectural et de Directeur d'Ingénierie, TP50C
Client/client
DFO

Drawing title/Titre du dessin
**HELICOPTER HANGAR FIRE
ALARM LAYOUT**

Project No./No. du projet	131-12992-10	Sheet/Feuille	E203	Revision no./no. de révision	1
			4 OF 6		

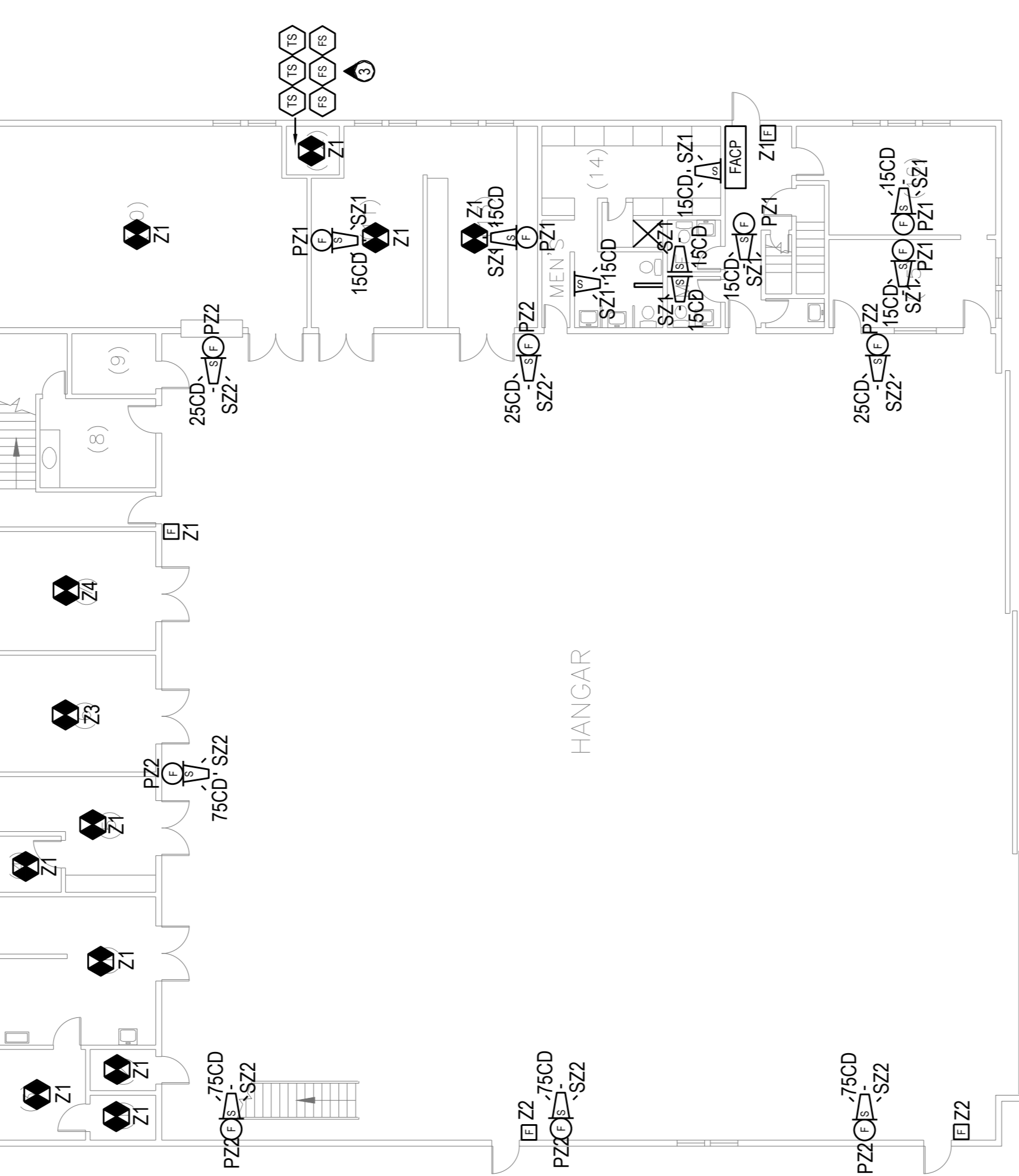
- KEYNOTES:**
1. CEILING MOUNT MAX IS 9000mm.
 2. ASPIRATOR DETECTION SYSTEM, FINAL SPACING AND CONTROL PANEL BY SUPPLIER.
 3. CONNECT EXISTING FLOW & TAMPER SWITCHES TO NEW FIRE ALARM SYSTEM. PROVIDE NEW FIRE ALARM SUPERVISION CIRCUIT TO MONITOR EXISTING LOW PRESSURE MONITOR.

- GENERAL NOTES:**
1. FINAL LOCATION OF ALL FIRE ALARM DEVICES TO BE COORDINATED WITH EXISTING SITE CONSTRAINTS.
 2. CONTRACTOR TO PROVIDE ALL CIVIL AND STRUCTURAL WORKS.
 3. CONTRACTOR TO FIRESTOP ALL PENETRATIONS.
 4. CONTRACTOR TO SEAL ALL NEW INCOMING CONDUITS.
 5. CONTRACTOR TO REINSTATE ALL FLOOR AND WALL MATERIALS TO MATCH EXISTING.
 6. REFER TO DRAWING E203 SITE KEY PLAN FOR LOCATIONS OF BUILDINGS AND APPROXIMATE DISTANCE BETWEEN CONDUITS. PROVIDE TO ALLOW FOR ALL CABLING LENGTH REQUIRED.



UPPER FLOOR PLAN

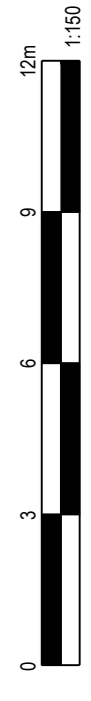
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E203
SCALE: 1:150
HELICOPTER HANGAR LEVEL 2



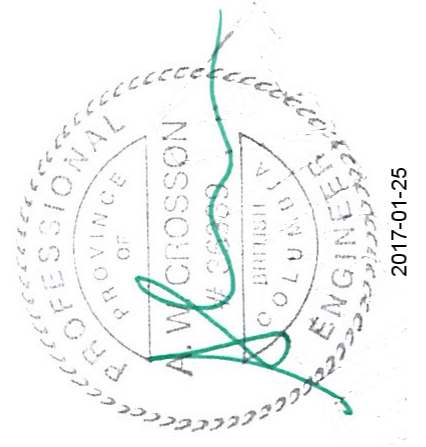
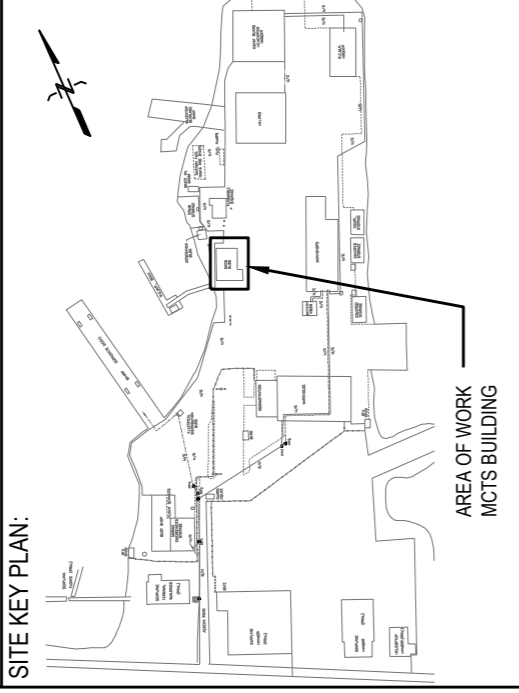
LOWER FLOOR PLAN

1
E203
SCALE: 1:150
HELICOPTER HANGAR LEVEL 1

- ROOM LEGEND**
- 1) PAINT STORAGE SHOP
 - 2) OIL STORAGE
 - 3) STORAGE (FLAMMABLE)
 - 4) BATTERY CHARGING
 - 5) ELECTRICAL SHOP
 - 6) ENGINE ROOM
 - 7) MECHANICAL ROOM
 - 8) FIRST AID
 - 9) TOOL CRIB
 - 10) PARTS & STORAGE
 - 11) MACHINE SHOP
 - 12) MECH. (SPRINKLER)
 - 13) ENGINE SHOP
 - 14) LOCKER ROOMS
 - 15) CHIEF ENGINEER
 - 16) PASSENGER WAITING
 - 17) PASSENGER ROOM
 - 18) LUNCH ROOM
 - 19) PILOTS READY ROOM
 - 20) FAC'S & COPIER
 - 21) CHIEF PILOT
 - 22) GENERAL OFFICE



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Client/Client	

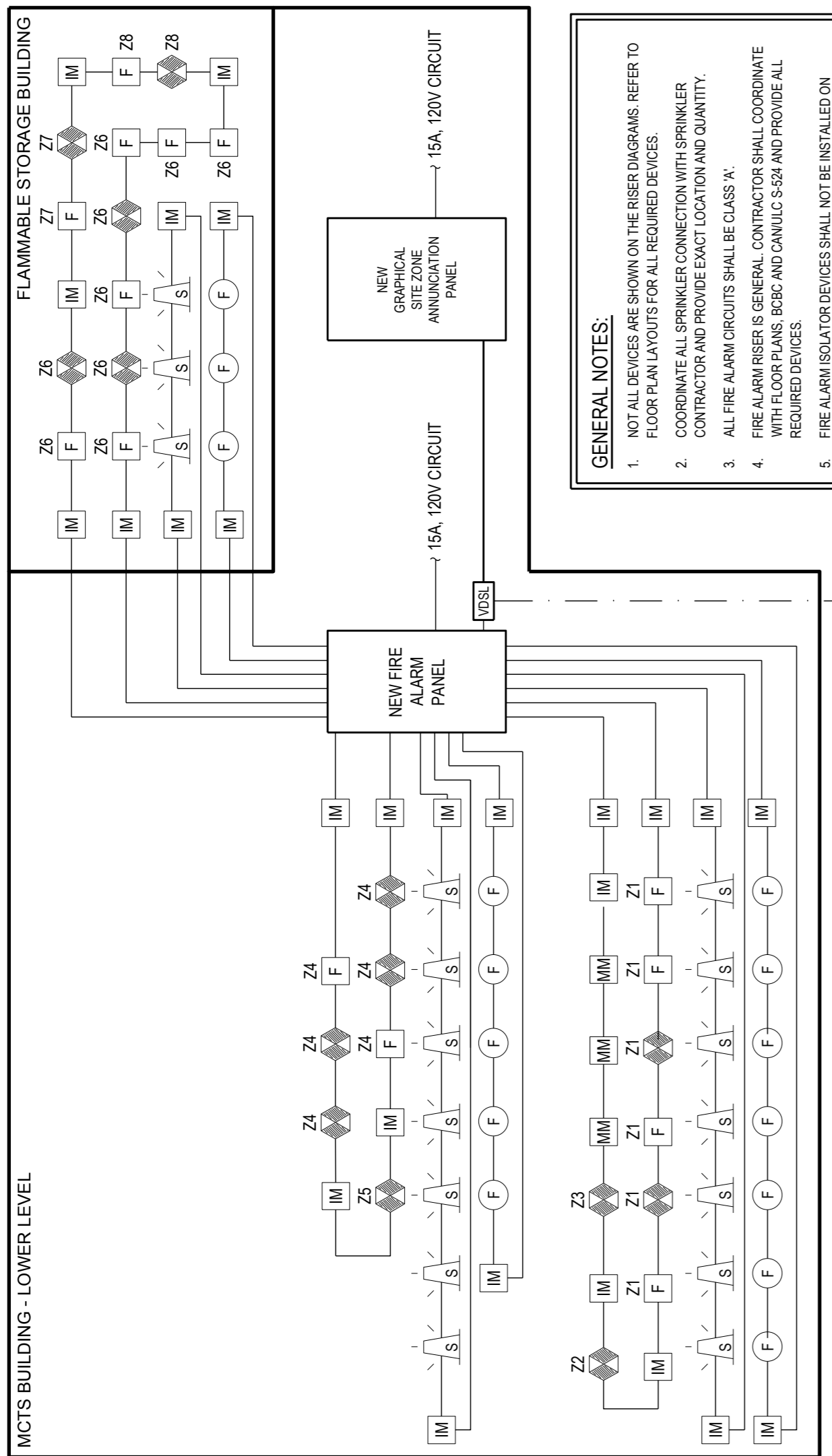
FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project Title/Titre du projet
PRINCE RUPERT, B.C.

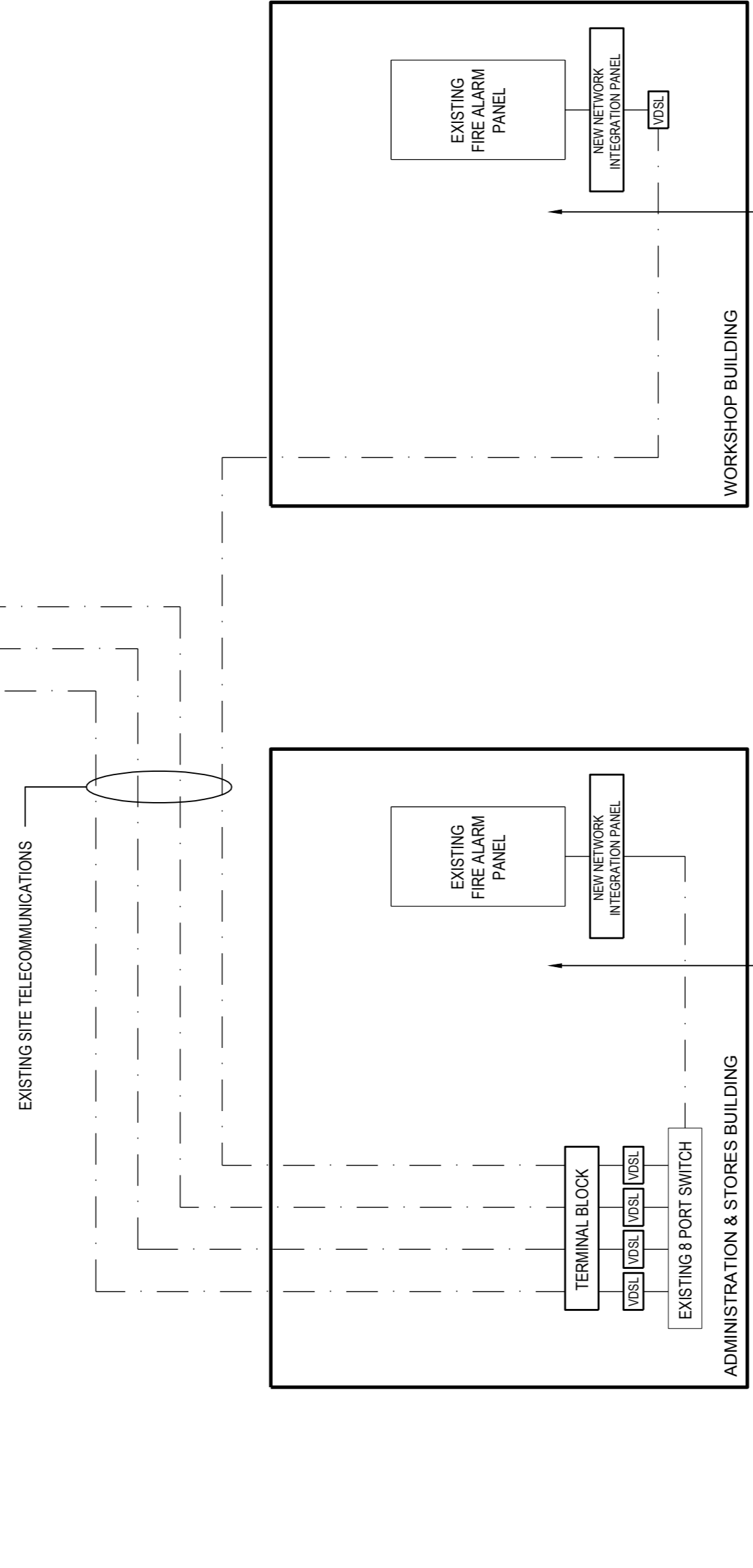
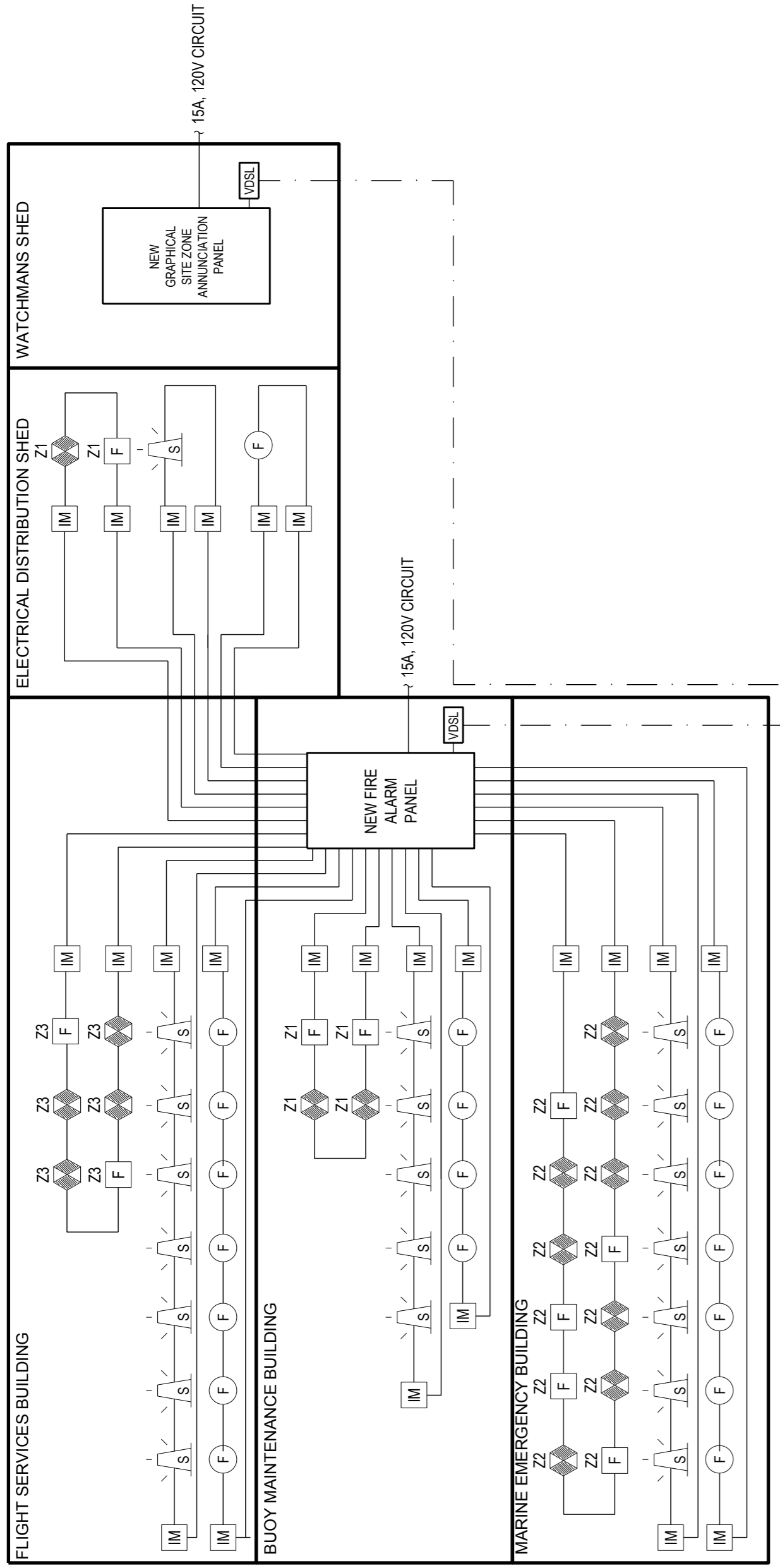
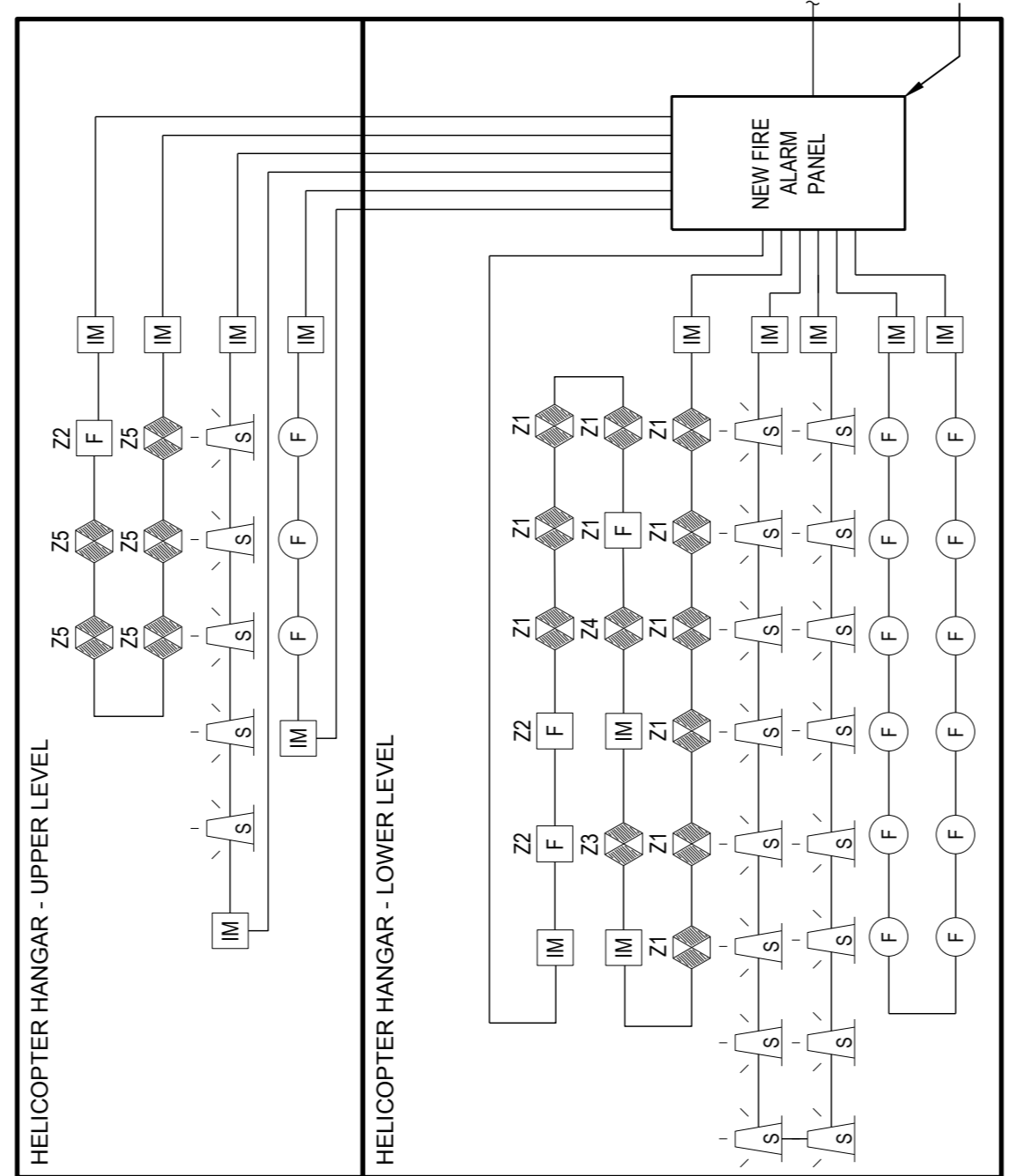
**SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT**

Approved by/Approve par
Designed by/Concepé par
Drawn by/Dessiné par
Checked by/Vérifié par
Project Manager/Administrateur de Projet TP50C
PWSSC Architectural and Engineering Resources Manager/ Ressources Architecturales et de Génie Civil TP50C
Client/Client
DPO
Drawing Title/Titre du dessin
FIRE ALARM RISER DIAGRAMS

Project No./No. du projet	131-12992-10
Sheet/Feuille	E300
Revision no./no. de révision	1
	5 OF 6



- GENERAL NOTES:**
- NOT ALL DEVICES ARE SHOWN ON THE RISER DIAGRAMS. REFER TO FLOOR PLAN LAYOUTS FOR ALL REQUIRED DEVICES.
 - COORDINATE ALL SPRINKLER CONNECTION WITH SPRINKLER CONTRACTOR AND PROVIDE EXACT LOCATION AND QUANTITY.
 - ALL FIRE ALARM CIRCUITS SHALL BE CLASS 'K'.
 - FIRE ALARM RISER & GENERAL CONTRACTOR SHALL COORDINATE WITH FLOOR PLANS, BCCB AND CANULIC S-524 AND PROVIDE ALL REQUIRED DEVICES.
 - FIRE ALARM ISOLATOR DEVICES SHALL NOT BE INSTALLED ON EXTERIOR WALKWAY.
 - AS PER CANULIC S24-48, PROVIDE LINE ISOLATORS BETWEEN ZONES CONTAINED ON SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS. REFER TO CANULIC S24-48 FOR FURTHER DETAILS ON THE LOCATION OF LINE ISOLATORS. REFER TO CANULIC S24-48 FOR FURTHER DETAILS ON THE LOCATION OF LINE ISOLATORS. REFER TO CANULIC S24-48 FOR FURTHER DETAILS ON THE LOCATION OF LINE ISOLATORS. REFER TO CANULIC S24-48 FOR FURTHER DETAILS ON THE LOCATION OF LINE ISOLATORS.
 - PROVIDE CATS LINK FROM EACH NEW PANEL TO EXISTING VOLS LAN EXTENDER IN BUILDING COMMUNICATIONS CLOSET.



1
E300
SCALE: N.T.S.

ALLOW FOR SUPPLY, INSTALLATION, WIRING AND CONDUIT FOR 2 FLOW SWITCHES, 2 TAMPER SWITCHES AND MODIFICATIONS TO EXISTING PANEL AND PROGRAMMING / VERIFICATION OF SAME. EACH FLOW SWITCH TO BE PROVIDED AS A SEPARATE ZONE AND FOR INSTALLATION IN THE EXISTING SYSTEM TO PROVIDE NEW 30A 208/360 POWER SUPPLY TO COMPRESSOR. POWER SUPPLY TO COMPRISE NEW 3P BREAKER, NEW 27mmC AND #6 WIRING. THE EXISTING FIRE ALARM PANEL TO PROVIDE A DEDICATED SUPERVISORY CONTACT FOR THE COMPRESSOR POWER SUPPLY. CONTRACTOR TO ALLOW FOR ALL PARTS, LABOUR FOR INSTALLATION AND TESTING, COMMISSIONING, VERIFICATION.

SEAL COVE REFURBISHMENTS

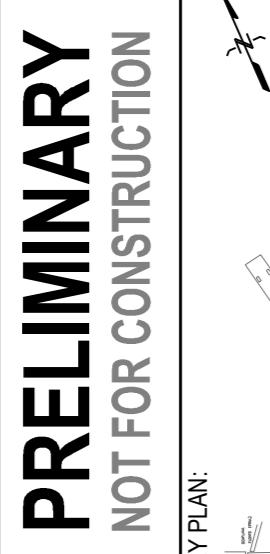
ZONE SCHEDULE	
ZONE	AREA
Z1	LEVEL 1 STORAGE OFFICES
Z2	LEVEL 1 HANGAR
Z3	LEVEL 1 ELECTRICAL ROOM
Z4	LEVEL 1 MECHANICAL ROOM
Z5	LEVEL 2 STORAGE OFFICES
Z6	LEVEL 2 HANGAR
Z7	SPRINKLER LOWER FLOOR
Z8	SPRINKLER UPPER FLOOR
Z9	SPRINKLER HANGAR FLOOR
SZ1	STROBE LEVEL 1 STORAGE OFFICES
PZ1	SPEAKER LEVEL 1 STORAGE OFFICES
SZ2	STROBE LEVEL 1 HANGAR
PZ2	SPEAKER LEVEL 2 STORAGE OFFICES
PZ5	STROBE LEVEL 2 STORAGE OFFICES

SEAL COVE REFURBISHMENTS

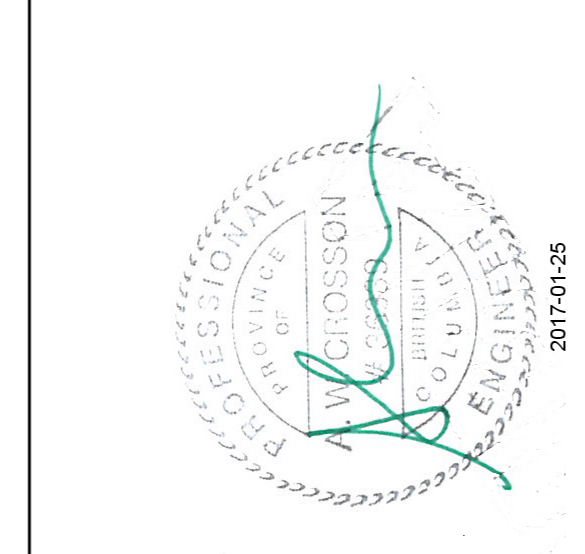
ZONE SCHEDULE	
ZONE	AREA
Z1	MARINE EMERGENCY SERVICES BUILDING
Z2	BIUY MAINTENANCE - BUILDING
Z3	FLIGHT SERVICES BUILDING
Z4	FLIGHT SERVICES ELECTRICAL ROOM
Z5	WATCHMANS SHED
Z6	ELECTRICAL DISTRIBUTION SHED
Z7	SPRINKLER GROUND FLOOR
Z8	SPRINKLER SECOND FLOOR
PZ1	MARINE EMERGENCIES - SPEAKER
SZ1	MARINE EMERGENCIES - STROBE
PZ2	BIUY MAINTENANCE - SPEAKER
SZ2	BIUY MAINTENANCE - STROBE
PZ3	BIUY MAINTENANCE - SPEAKER
SZ3	FLIGHT SERVICES - SPEAKER
PZ6	FLIGHT SERVICES - STROBE
SZ6	ELECTRICAL DISTRIBUTION SHED - SPEAKER
	ELECTRICAL DISTRIBUTION SHED - STROBE

SEAL COVE REFURBISHMENTS

ZONE SCHEDULE	
ZONE	AREA
Z1	MCTS BUILDING MAIN FLOOR
Z2	MCTS BUILDING MAIN FLOOR ELECTRICAL ROOM
Z3	MCTS BUILDING MAIN FLOOR MECHANICAL ROOM
Z4	MCTS BUILDING SECOND FLOOR
Z5	MCTS BUILDING SECOND FLOOR ELEVATOR
Z6	FLAMMABLE STORAGE BUILDING
Z7	FLAMMABLE STORAGE BUILDING ELECTRICAL ROOM
Z8	FLAMMABLE STORAGE BUILDING MECHANICAL ROOM
Z9	SPRINKLER MAIN FLOOR
Z10	SPRINKLER SECOND FLOOR
PZ1	MCTS BUILDING MAIN FLOOR - SPEAKER
SZ1	MCTS BUILDING MAIN FLOOR - STROBE
PZ4	MCTS BUILDING SECOND FLOOR - SPEAKER
SZ4	MCTS BUILDING SECOND FLOOR - STROBE
PZ6	FLAMMABLE STORAGE BUILDING
SZ6	FLAMMABLE STORAGE BUILDING



SUITE 000-001 GARBALLY ROAD VICTORIA BRITISH COLUMBIA CANADA V8T 5A9 TEL: 250-364-5610 FAX: 250-364-1329/10



2017-01-25

Table with 2 columns: Revision/Referral, Description/Description, Date/Date

FISHERIES AND OCEANS 401 BURRARD STREET, SUITE 200 VANCOUVER, BC

Client/Client PRINCE RUPERT, B.C.

SEAL COVE BASE FIRE ALARM AND FIRE SUPPRESSION REFURBISHMENT

Approved by/Approve par

Designed by/Conceptr par A.C.

Drawn by/Designé par A.C./B.O./M.S

PWSSC Project Manager/Administrateur de Projet TP50C

PWSSC: Architectural and Engineering Resources Architectures et Génie Informatique, TP50C

Drawing Title/Titre du dessin FIRE ALARM SPECIFICATIONS

Table with 3 columns: Project No./No. du projet 131-12992-10, Sheet/Feuille 6 OF 6, Revision no./Révision no. 1

15 PROVIDE ADDRESSABLE FIRE ALARM SOUNDERS... 16 PROVIDE ADDRESSABLE LED VISUAL STROBE NOTIFICATION... 17 PROVIDE REMOTE COLOUR TOUCH SCREEN LID SITE... 18 ANY VISUAL DEVICE ACTIVATED WILL RESULT IN AN AUDIBLE AND VISUAL ALARM SIGNAL THROUGHOUT THE BUILDING...

19 PERFORMANCE VERIFICATION... 20 THE ELECTRICAL CONTRACTOR TO INCLUDE IN THE TENDER ALL... 21 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW...

22 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW... 23 ALL REVISIONS RESULTING IN COSTS TO THE OWNER SHALL BE SUBMITTED WITHIN A FULL BREAKDOWN OF MATERIALS AND LABOR... 24 THE GENERAL CONTRACTOR SHALL FINISH TO THE ELECTRICAL CONTRACTOR ONE FULL SET OF DRAWINGS TO BE USED FOR RECORD...

25 BEFORE CALLING FOR SUBSTANTIAL COMPLETION REVIEW THE PULLBOXES SHALL CONFORM TO CANADIAN ELECTRICAL CODE... 26 THE ELECTRICAL CONTRACTOR SHALL SEAL ALL OPENINGS IN THE FLOOR OR RATED FLOOR WALLS WITH FIRE BARRIER MATERIAL... 27 THE CONTRACTOR SHALL INCLUDE IN THEIR TENDER A VISUAL MANUFACTURER WALK-THROUGH DURING CONSTRUCTION...

28 GROUNDING AND BONDING... 29 IDENTIFICATION AND LABELLING... 30 THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW... 31 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW...

32 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW... 33 ALL REVISIONS RESULTING IN COSTS TO THE OWNER SHALL BE SUBMITTED WITHIN A FULL BREAKDOWN OF MATERIALS AND LABOR...

34 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW... 35 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW...

36 FIRE ALARM SYSTEM... 37 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW... 38 THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW...

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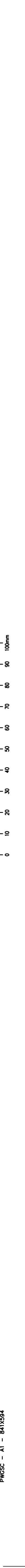
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FIRE PROTECTION LEGEND

DRAWING SYMBOLS:

- EXISTING SPRINKLER PIPE (WET)
- - - EXISTING SPRINKLER PIPE TO BE REMOVED/RESIZED AS INDICATED
- F — FIRE WATER SUPPLY PIPE (WET)
- WP — SPRINKLER SYSTEM WATER SUPPLY PIPE (WET)
- DS — SPRINKLER SYSTEM WATER SUPPLY PIPE (DRY)

- PENDENT SPRINKLER HEAD
- K FIRE DEPARTMENT CONNECTION

ABBREVIATIONS:

- CTE CONNECT INTO EXISTING
- FDC FIRE DEPARTMENT CONNECTION
- FHC FIRE HOSE CABINET
- FHVC FIRE HOSE VALVE CABINET
- LPD LOW POINT DRAIN
- TS TAMPER SWITCH
- WG WIRE GUARD
- OH-2 ORDINARY HAZARD GROUP 2 - NFPA 13

MECHANICAL DRAWING LIST		
DRAWING NO.	DRAWING NAME	SCALE
F-001	LEGEND AND DRAWING LIST	N/A
F-101	WORKSHOP BUILDING GROUND FLOOR AND MEZZANINE - FIRE PROTECTION PLAN	1:100
F-102	ADMIN/STORES BUILDING FIRST AND SECOND FLOOR - FIRE PROTECTION PLAN	1:100
F-103	BUOY MAINTENANCE SHOP, MARINE EMERGENCY STORAGE ELECTRICAL CONTROL ROOM AND SECOND FLOOR - FIRE PROTECTION SCHEMATICS	1:100
F-104	SCHEMATICS - FIRE PROTECTION	AS NOTED
F-105	SPECIFICATION	N/A
F-106	SPECIFICATION	N/A

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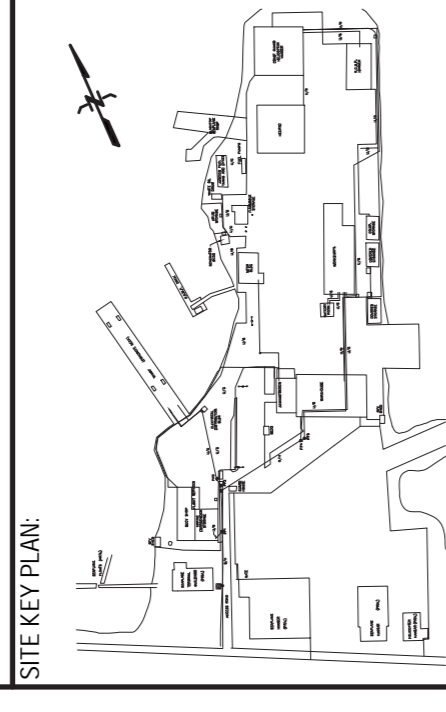
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|---|------------------|---|------------------------|----|---------------------------------|
| — | PIPE CONNECTION | ▷ | REDUCER (PIPE OR DUCT) | ▷ | GLOBE VALVE |
| — | PIPE TEE DOWN | | FLANGE | FS | FLOW SWITCH |
| — | PIPE OFFSET UP | ∩ | UNION | PS | PRESSURE SWITCH |
| — | PIPE OFFSET DOWN | ∩ | ISOLATION VALVE | Q | PRESSURE GAUGE |
| — | PIPE CAP | ⊥ | CHECK VALVE | TS | CONTROL VALVE O/W TAMPER SWITCH |
| — | PIPE CONTINUES | ↔ | STRAINER | ▷ | 65 ANGLE HOSE GATE VALVE |
| | | | | ⊙ | DRAWING NOTE |
| | | | | ⊙ | REFERENCE CALLOUT |

1 VIEW TITLE
M-1 SCALE

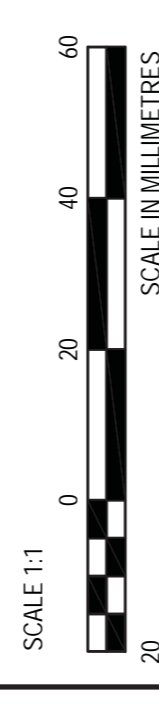
GENERAL NOTES:

- PROVIDE THE WORK INDICATED IN THE CONTRACT DOCUMENTS AND AS REQUIRED TO PROVIDE COMPLETE, TESTED AND FULLY OPERATIONAL SYSTEMS INCLUDING ALL WORK NOT NORMALLY INDICATED BUT NECESSARY FOR A COMPLETE AND OPERATIONAL INSTALLATION.
- THE CONTRACTOR IS EXPECTED TO BE EXPERIENCED AND COMPETENT AND KNOWLEDGEABLE ABOUT THE TRADES AND APPLICABLE CODES, ORDINANCES AND INDUSTRY STANDARDS AND SHALL PERFORM THE WORK ACCORDINGLY, ON SCHEDULE AND FULLY COORDINATED WITH ALL OTHER TRADES.
- THE CONTRACT DOCUMENTS FOR THIS DIVISION ARE AN INTEGRAL PART OF THE COMPLETE CONTRACT DOCUMENTS FOR THE PROJECT AND WILL BE INTERPRETED IN CONJUNCTION WITH ALL OTHER DIVISIONS.
- SCOPE OF WORK PERTAINS TO THE FIRE PROTECTION SYSTEMS AND FIRE PROTECTION WATER SUPPLY TO A CONNECTION POINT BEYOND THE EXTERIOR FACE OF THE BUILDING AT THE FIRE WATER MAIN AS DESCRIBED IN THE CONTRACT DOCUMENT DRAWINGS FOR THE BUOY MAINTENANCE SHOP, MARINE EMERGENCIES STORAGE, FLIGHT SERVICES STATION BUILDING. THIS BUILDING COMPLEX IS EXISTING AND WITHOUT FIRE PROTECTION SYSTEMS. A COMPLETE AND INSTALLED WET FIRE PROTECTION SYSTEM TO NFPA 13 CURRENT EDITION IS REQUIRED.
- SCOPE OF WORK PERTAINS TO THE FIRE PROTECTION SYSTEMS FROM THE POINT OF CONNECTION TO THE WATER MAIN AT THE BACKFLOW PREVENTION UNIT, INCLUDING THE BACKFLOW PREVENTION UNIT FOR THE ADMINISTRATION AND STORES AND WORKSHOP BUILDINGS.
- ALL EQUIPMENT, ELBOWS, FITTINGS, DRAINS, TEST CONNECTIONS AND ALL ACCESSORY PIPEWORK FOR A COMPLETE AND OPERATIONAL FIRE PROTECTION SYSTEM IS TO BE INCLUDED IN THE WORK WITHIN THE BASIC TENDER PRICE.
- NO EXTRA COST WILL BE CONSIDERED BASED ON FAILURE OF CONTRACTOR TO ALLOW FOR ALL REQUIRED EQUIPMENT, PIPING AND FITTINGS. THIS SHALL INCLUDE EXTRA FITTINGS AND PIPEWORK AS REQUIRED DURING CONSTRUCTION TO AVOID EXISTING STRUCTURE, DUCTWORK OR OTHER OBSTACLES WHETHER SHOWN ON DRAWINGS OR NOT.

PRELIMINARY
NOT FOR CONSTRUCTION



N.T.S.



DO NOT SCALE DRAWINGS

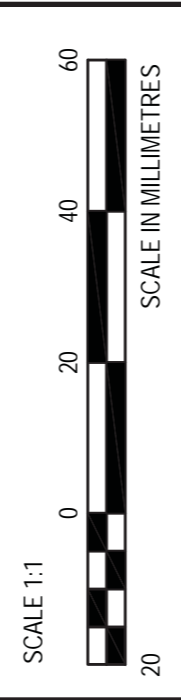
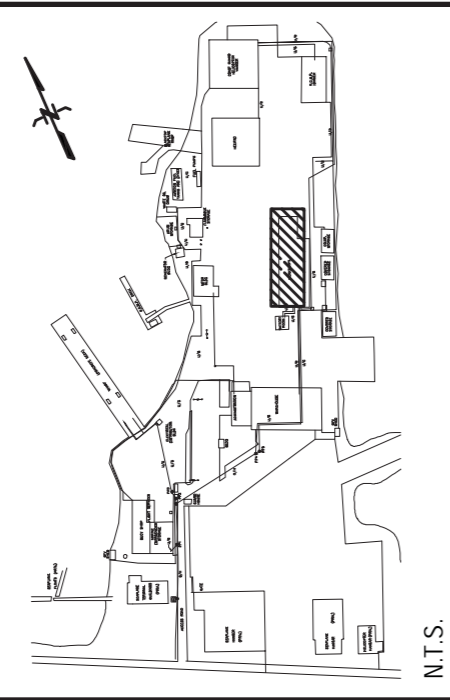
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2	ISSUED FOR TENDER	2017/01/19
1	ISSUED FOR REVIEW	2016/12/16
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FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project file/Titre du projet
PRINCE RUPERT, B.C.
SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT

Approved by/Approuvé par
Designed by/Conçue par
IMB
Drawn by/Dessiné par
HCP, DM
PWSSC Project Manager/Administrateur de Projets TPSSC
PWSSC Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSSC
Client/client
DPO
Drawing file/Titre du dessin
LEGEND & DRAWING LIST

Project No./No. du projet
131-12992-10
Sheet/Feuille
F-001
Revision no./La Révision
1
1 OF 7



DO NOT SCALE DRAWINGS

5		
4		
3		
2	ISSUED FOR TENDER	2017/01/13
1	ISSUED FOR REVIEW	2016/12/16
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Revision	Description/Description	Date/Date
Client/client		

FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project file/Titre du projet
PRINCE RUPERT, B.C.
SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT

Approved by/Approuvé par
Designed by/Conçue par
IMD
Drawn by/Dessiné par
HCP, DM
PWSSC Project Manager/Administrateur de Projets TPSSC
PWSSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSSC
Client/client
DPO

Drawing file/Titre du dessin
WORKSHOP BUILDING
GROUND FLOOR AND MEZZANINE
FIRE PROTECTION

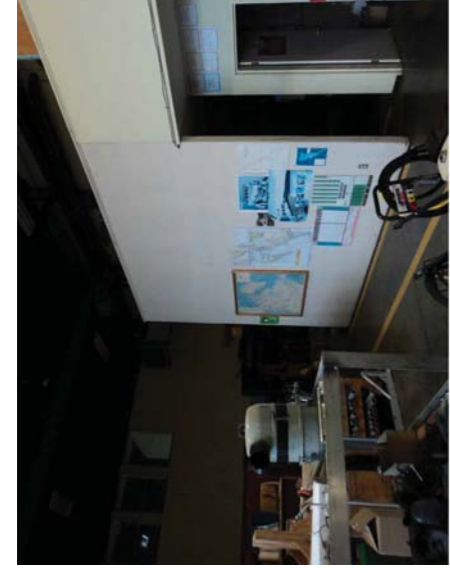
Project No./No. du projet	131-12992-10	Sheet/Feuille	F-101	Revision no./La Révision no.	1
			2 OF 7		



D PHOTO
F101 SCALE N.T.S.



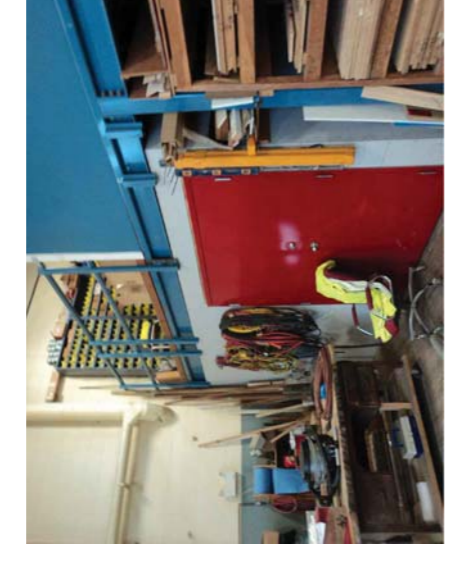
C PHOTO
F101 SCALE N.T.S.



B PHOTO
F101 SCALE N.T.S.



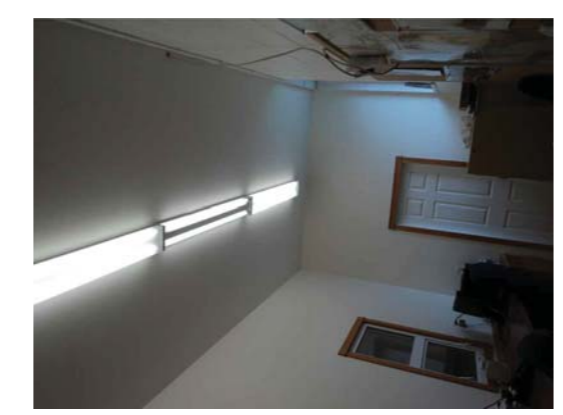
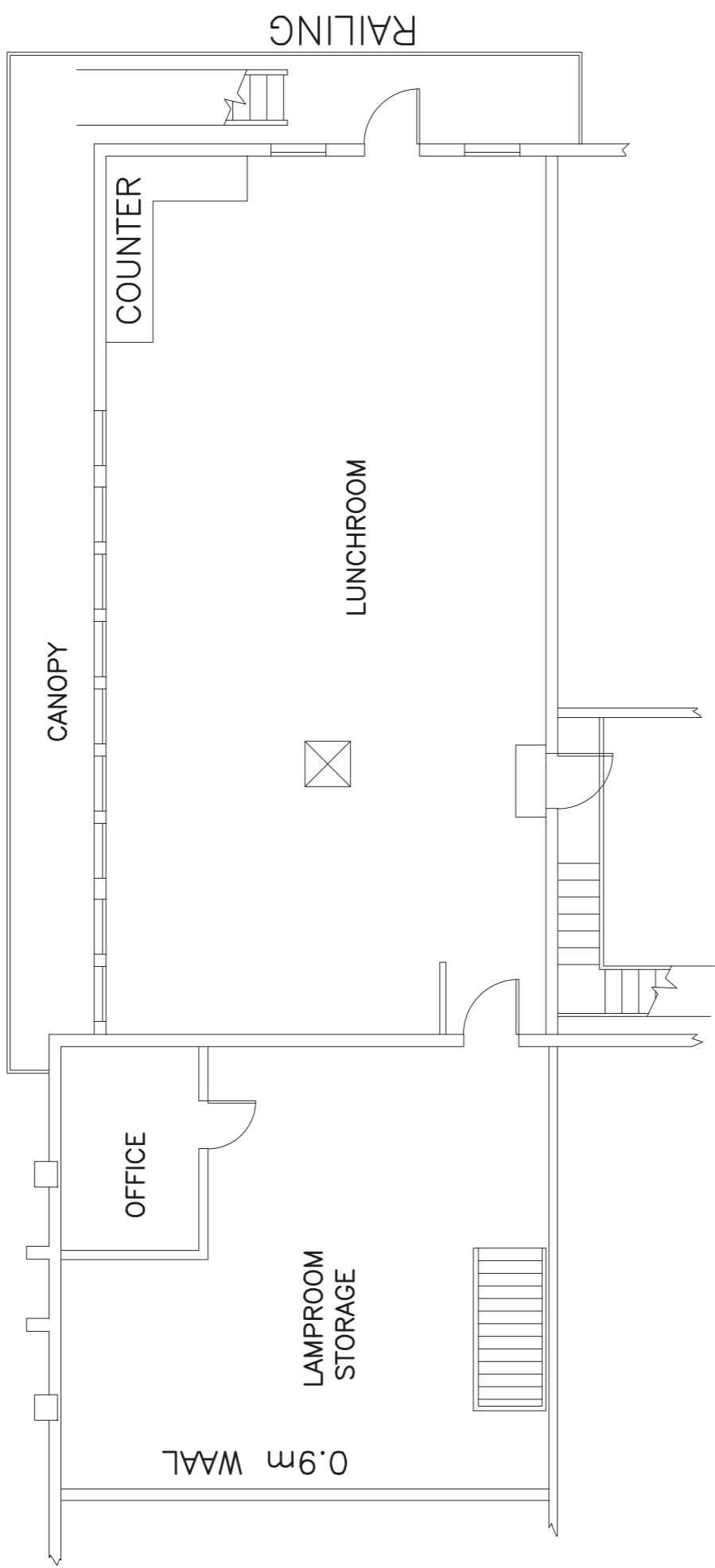
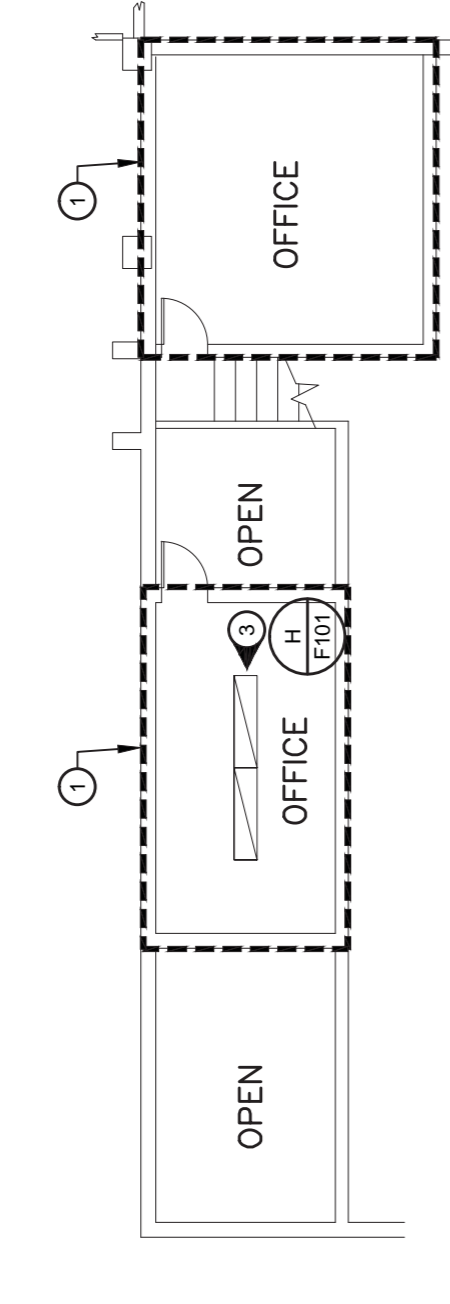
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F101 SCALE N.T.S.



F PHOTO
F101 SCALE N.T.S.



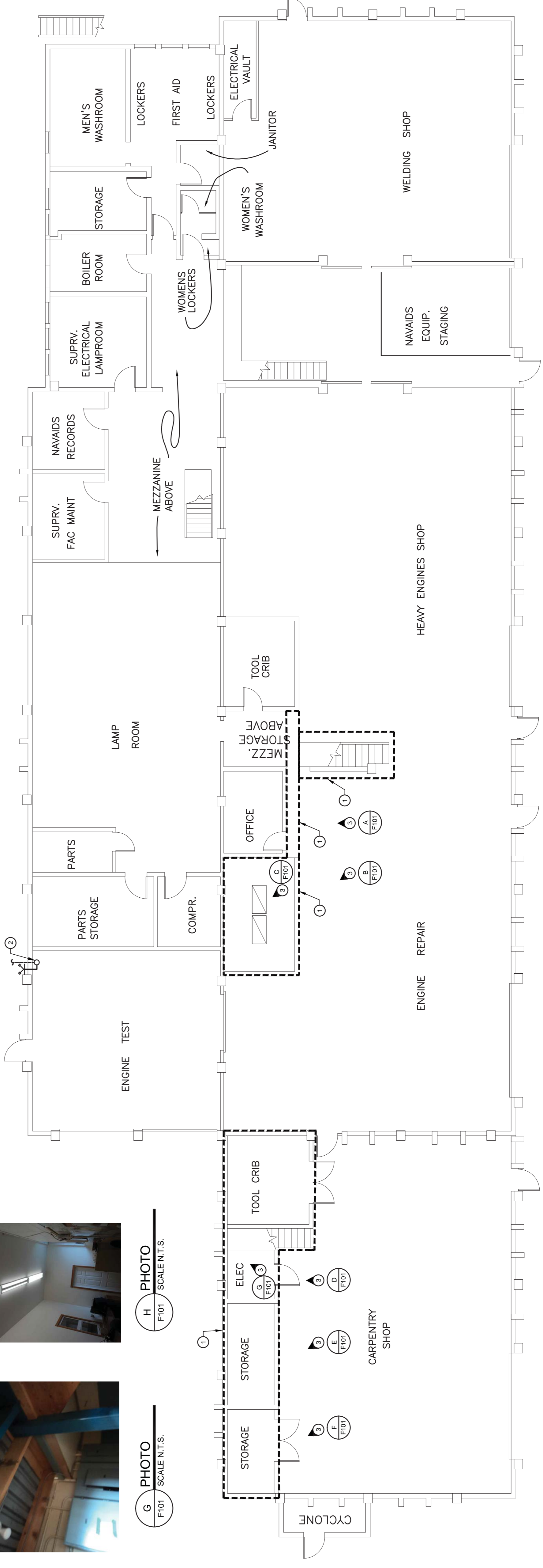
E PHOTO
F101 SCALE N.T.S.



H PHOTO
F101 SCALE N.T.S.

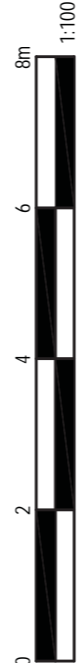
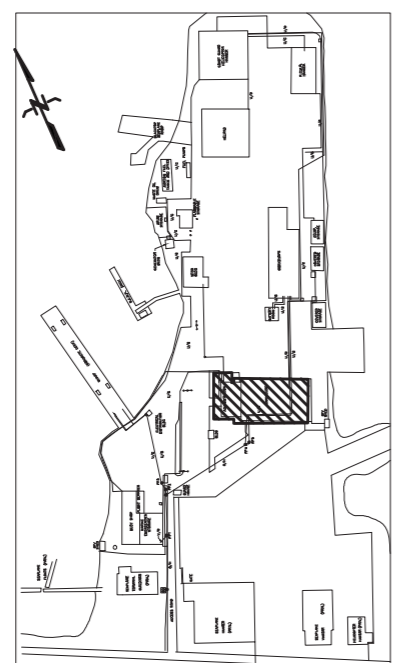


G PHOTO
F101 SCALE N.T.S.



DRAWING NOTES:

- ADD SPRINKLERS TO OH-2, NFA-13 FROM EXISTING OVERHEAD WET SPRINKLER SYSTEM. MATCH EXISTING HEAD TYPES.
- LOCATION OF FIRE WATER ENTRY STATION. REFER TO SCHEMATICS 2/F-104 AND 3/F-104 FOR DEMOLITION AND NEW WORK.
- REFER TO PHOTO



DO NOT SCALE DRAWINGS

NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER	2017/01/15
1	ISSUED FOR REVIEW	2016/12/16
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Project files/Titre du projet

FISHERIES AND OCEANS

401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Principe Rupert, B.C.

**SEAL COVER BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT**

Approved by/Approve par

Designed by/Concept par

Drawn by/Dessiné par

PWSSC Project Manager/Administrateur de Projet TPSSC

PWSSC Architectural and Engineering Resources Manager/

Resources Architectural et de Directeur d'ingénierie, TPSSC

Client/client

DFPO

Drawing title/Titre de dessin

ADMIN/STORES BUILDING

FIRST AND SECOND FLOOR PLAN

FIRE PROTECTION



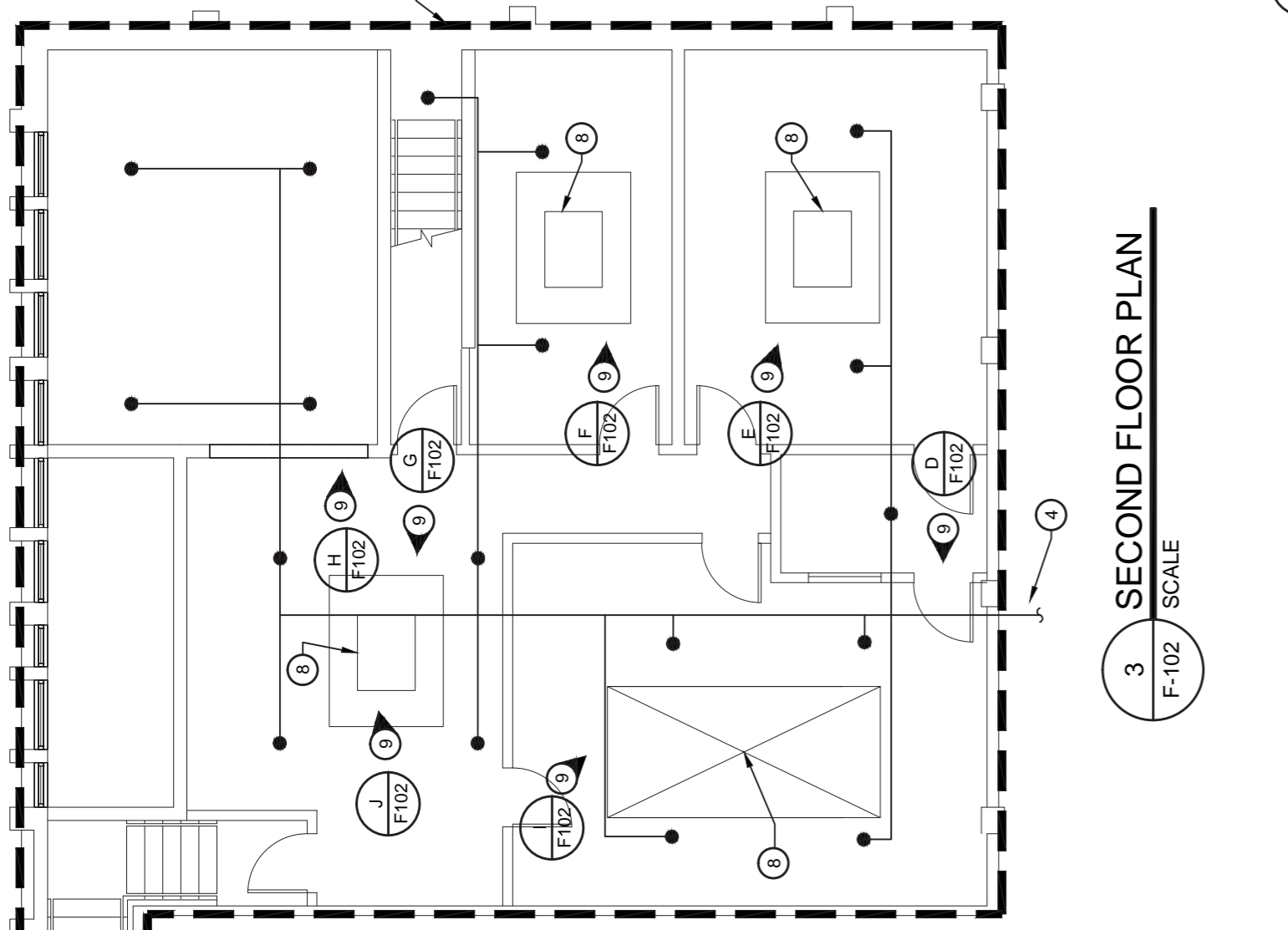
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3 SECOND FLOOR PLAN
SCALE F-102

- DRAWING NOTES:**
- ADD SPRINKLERS TO OH-2 NFPA 13 FROM EXISTING OVERHEAD WET SPRINKLER SYSTEM MATCH EXISTING HEAD TYPES.
 - LOCATION OF FIRE WATER ENTRY STATION. REFER TO SCHEMATICS 4/ F-104 AND 5/ F-104 FOR DEMOLITION AND NEW WORK.
 - PROVIDE PENDANT DRY EXTENDED SPRINKLER HEADS (TYCO MODEL DS-1) TO EACH STAND ALONE FREEZER FROM WET SYSTEM ABOVE.
 - ISOLATE SECOND FLOOR SPRINKLER SYSTEM WITH SEPARATE FLOW SWITCH. REFER TO SCHEMATICS 5/ F-104 FOR DEMOLITION AND NEW WORK. REFER TO SCHEMATICS 4/ F-104 AND 5/ F-104 FOR DEMOLITION AND NEW WORK. PROVIDE SINGLE SUPPLY TO THE AREA WAS NOTED. CONFIRM DISTRIBUTION AND PROVIDE FULL COVERAGE TO 2ND LEVEL WHERE DEFICIENT.
 - PROVIDE UPRIGHT SPRINKLER COVERAGE ABOVE 2ND LEVEL DROPPED CEILING TO PROTECT COMBUSTIBLE CEILING SPACE AS PER NFPA 13.
 - EXTEND EXISTING WET SPRINKLER SYSTEM TO VESTIBULE AREA TO PROVIDE COVERAGE TO NFPA 13.
 - PROVIDE DRY SPRINKLER SYSTEM TO PROVIDE SPRINKLER COVERAGE OF COMBUSTIBLE OVERHANGS MORE THAN 1.2m WIDE. CONCEAL PIPING IN SOFFIT. PROVIDE DRY PENDENT HEADS.
 - PROVIDE SPRINKLER COVERAGE UNDER SKYLIGHTS AS PER NFPA 13.
 - REFER TO PHOTO



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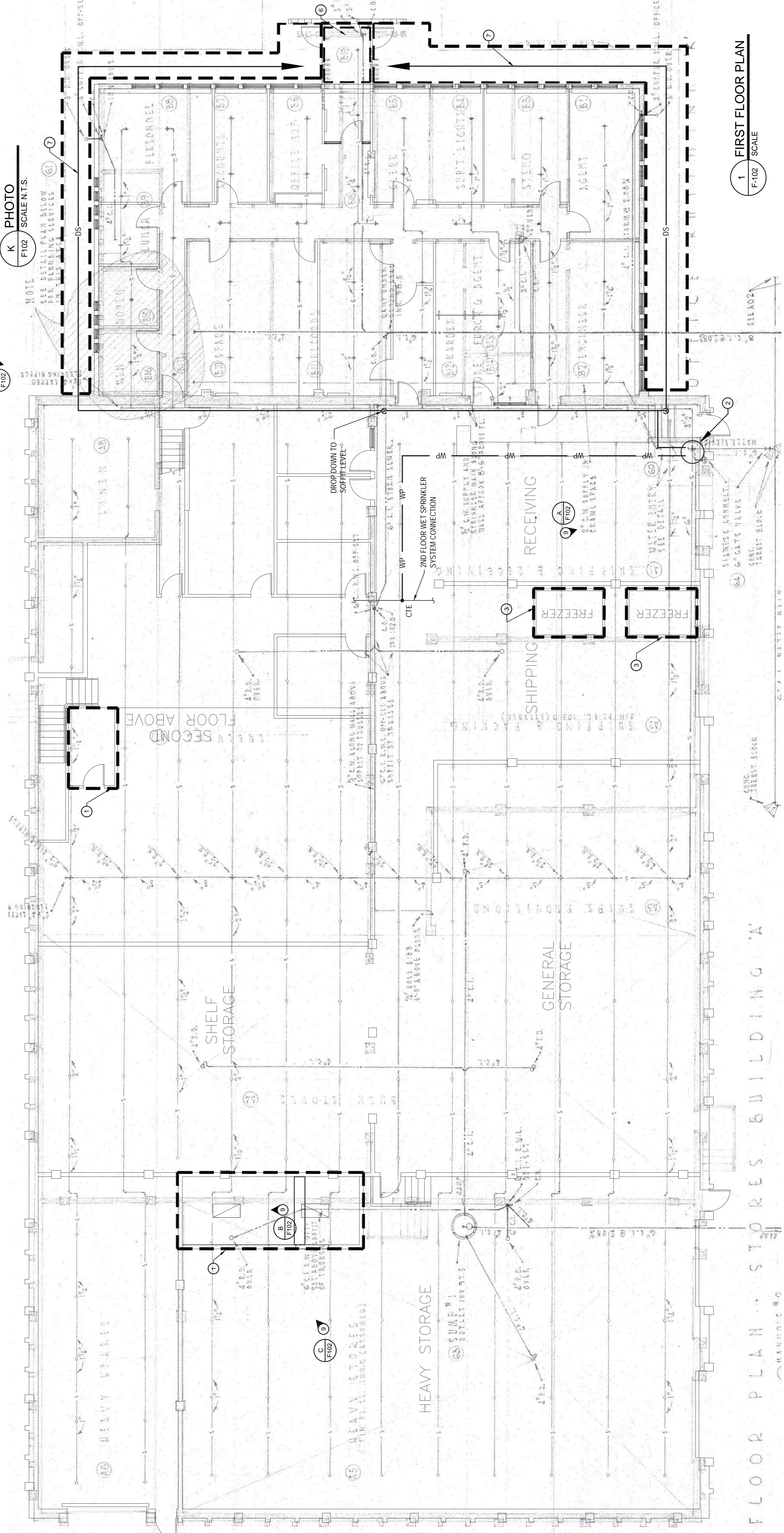
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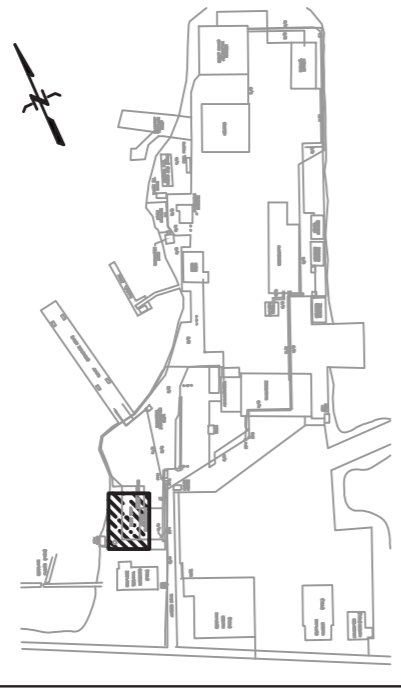
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1 FIRST FLOOR PLAN
SCALE F-102

SITE KEY PLAN:



N.T.S.



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2	ISSUED FOR TENDER	2017/06/13	
1	ISSUED FOR REVIEW	2016/12/16	
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	Revisions/Description	Date/Date	
	Client/Client		

FISHERIES AND OCEANS

401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project title/Titre du projet
**PRINCE RUPERT, B.C.
SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT**

Approved by/Approve par
Designed by/Concepté par
MMB
Drawn by/Dessiné par
HCP, DM
PWSSC Project Manager/Administrateur de Projets TPSSC
PWSSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSSC
Client/client

Drawing title/Titre du dessin
**BUOY MAINTENANCE SHOP,
MARINE EMERGENCY STORAGE,
FLIGHT SERVICE STATION
MAIN AND SECOND FLOOR
FIRE PROTECTION**

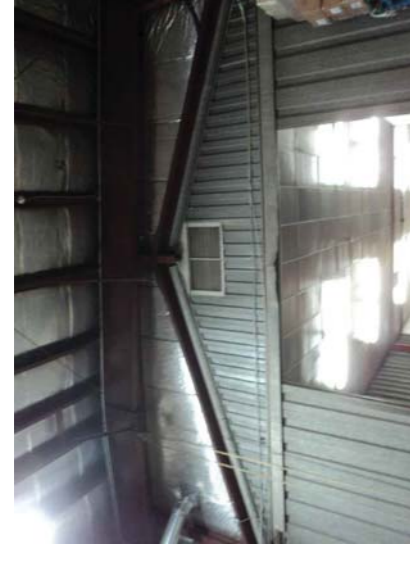
Project No./No. du projet
131-12992-10
Sheet/Feuille
F-103
Revision no./
No. Révision
1
4 OF 7



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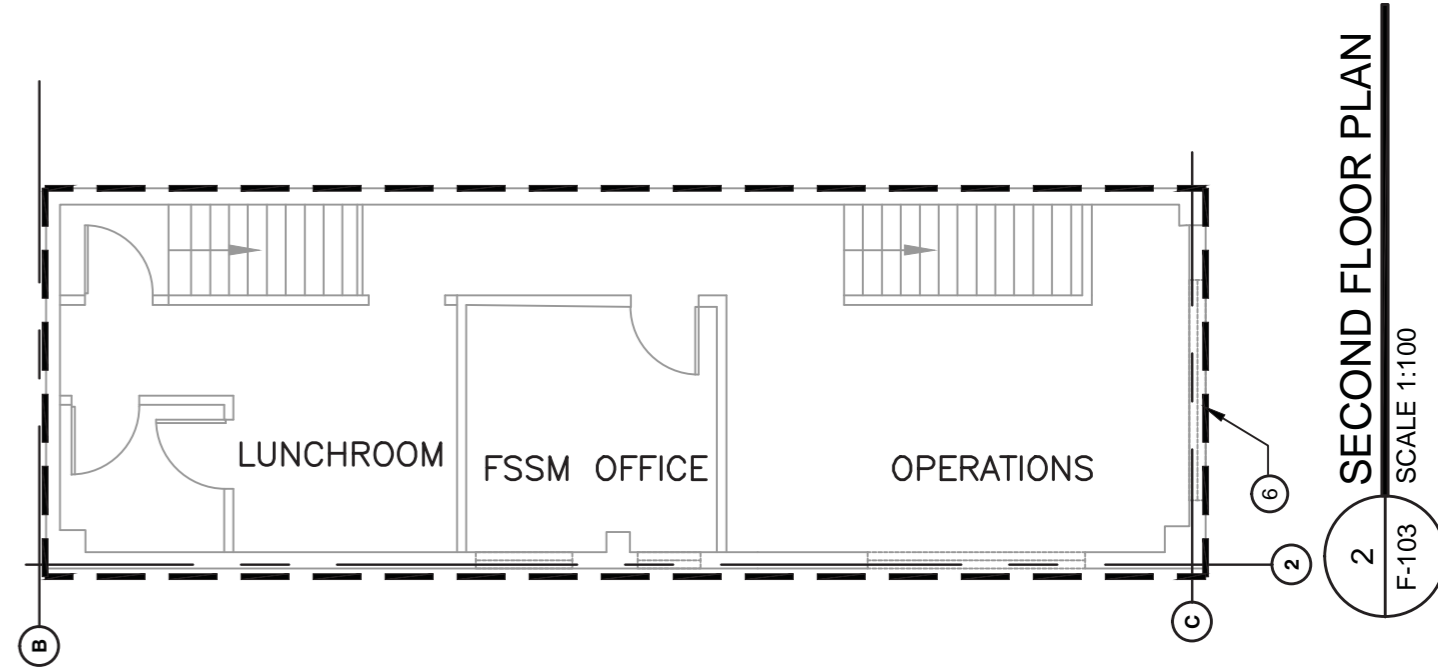
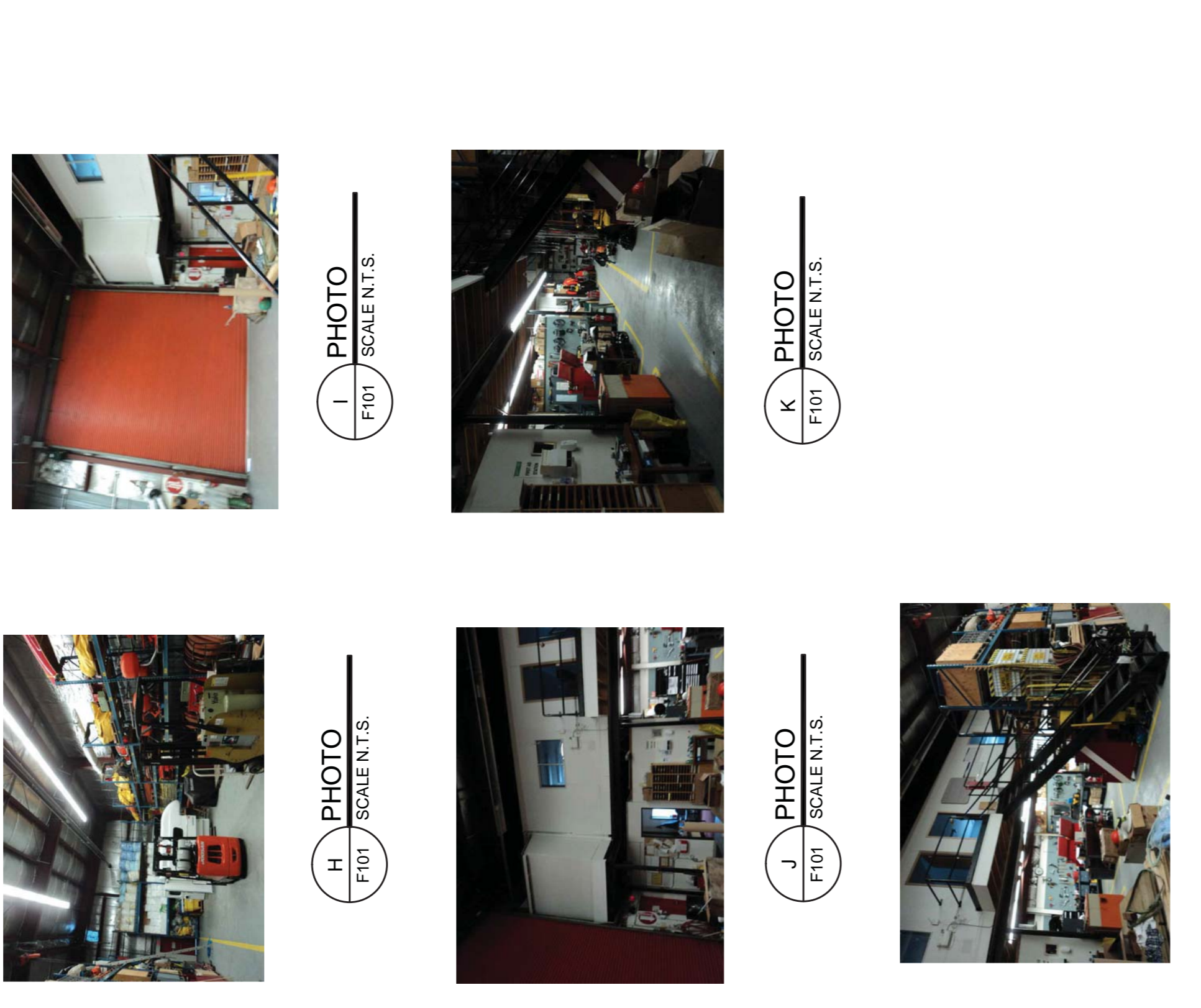
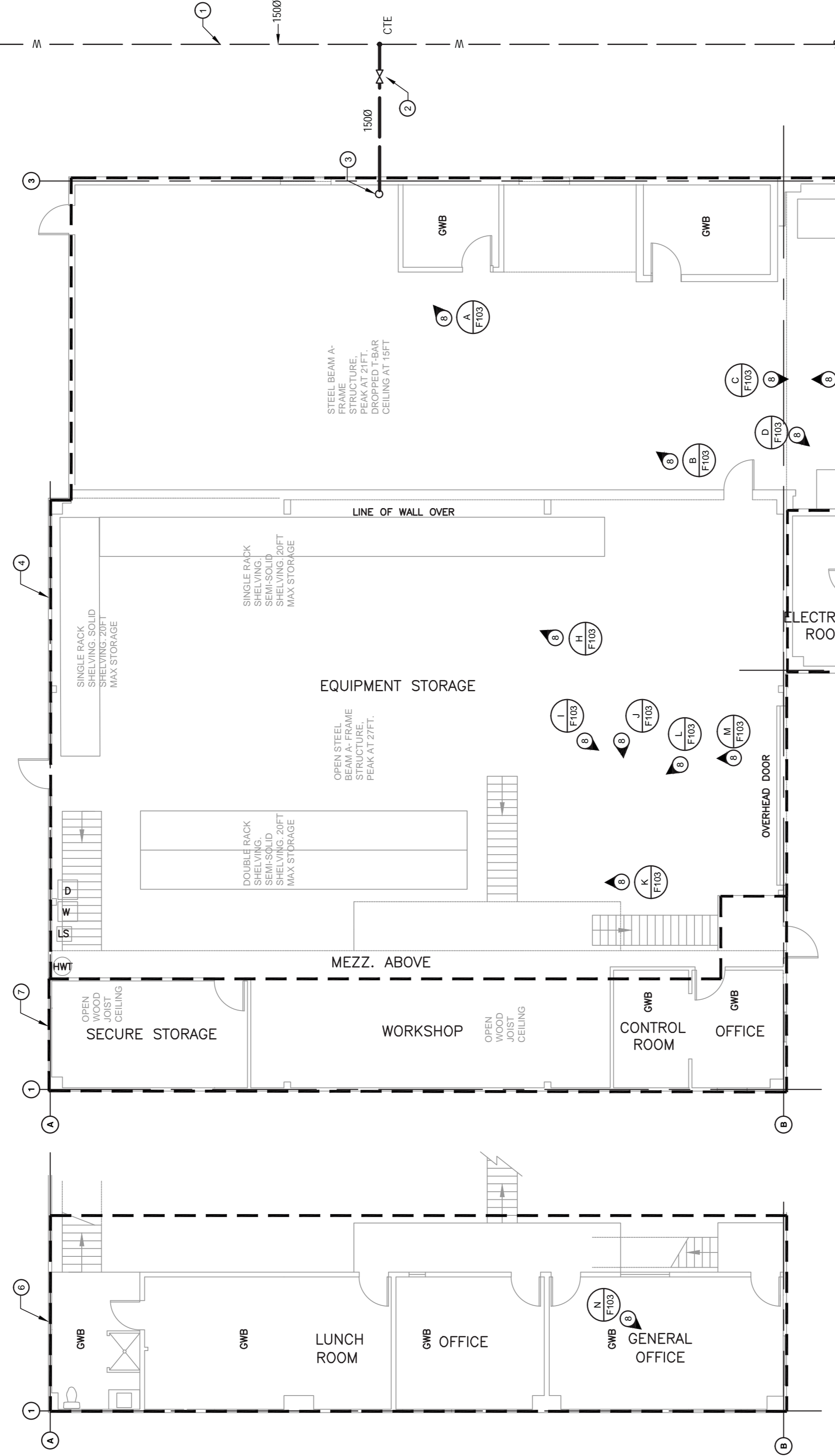
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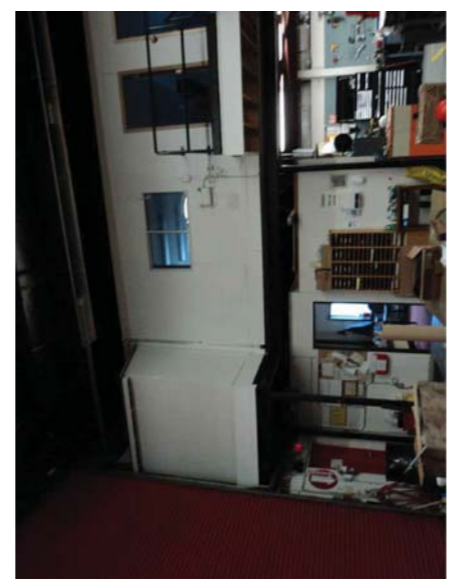
- DRAWING NOTES:**
- EXISTING 1500 SITE WATER SUPPLY. VERIFY LOCATION ON SITE BEFORE CONNECTION TO.
 - NEW LISTED SHUT OFF VALVE.
 - NEW FIRE WATER ENTRY STATION. REFER TO SCHEMATIC 6F-104 FOR DETAILS.
 - PROVIDE WET FIRE SUPPRESSION SYSTEM COVERAGE TO ENTIRE COMPLEX MAIN FLOOR TO NFPA 13. MISCELLANEOUS STORAGE. COMMODITIES IN/ LESS THAN 20FT HIGH DOUBLE AND SINGLE RACK STORAGE. CRITERIA UNLESS OTHERWISE NOTED.
 - PROVIDE WET FIRE SUPPRESSION SYSTEM COVERAGE TO MAIN FLOOR OFFICE SPACE TO NFPA 13 LIGHT HAZARD FROM MAIN FLOOR SPRINKLER ZONE. PROVIDE RECESSED QUICK RESPONSE SPRINKLER HEADS.
 - PROVIDE WET FIRE SUPPRESSION SYSTEM COVERAGE TO 2ND FLOOR OFFICE SPACE TO NFPA 13 LIGHT HAZARD FROM 2ND FLOOR SPRINKLER ZONE. PROVIDE RECESSED QUICK RESPONSE SPRINKLER HEADS.
 - PROVIDE WET FIRE SUPPRESSION SYSTEM COVERAGE TO MAIN FLOOR OFFICE AND WORK SPACES TO NFPA 13 LIGHT HAZARD AND OH-2 FROM MAIN FLOOR SPRINKLER ZONE. PROVIDE STANDARD RESPONSE SPRINKLER HEADS TO MATCH MAIN FLOOR HEADS.
 - REFER TO PHOTO



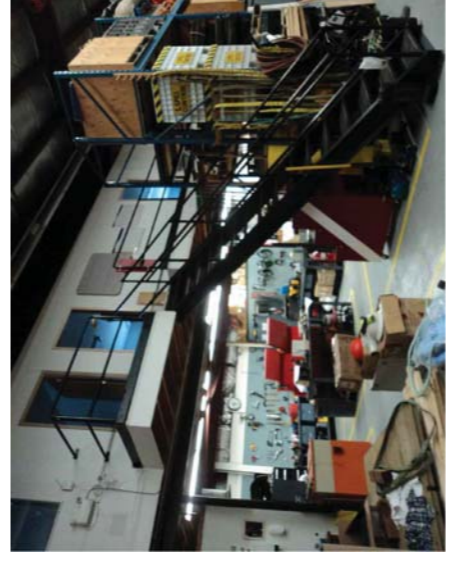
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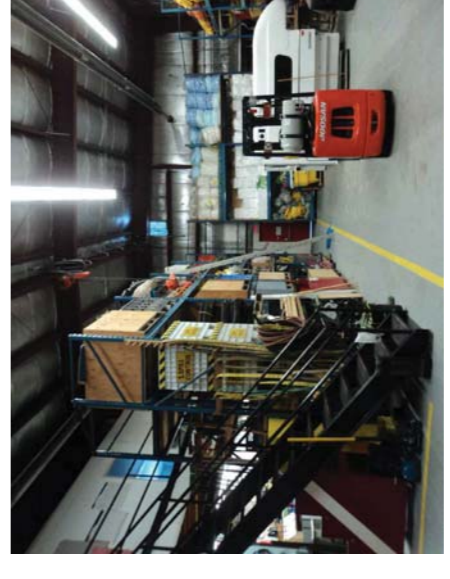
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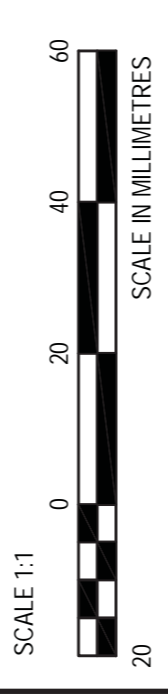
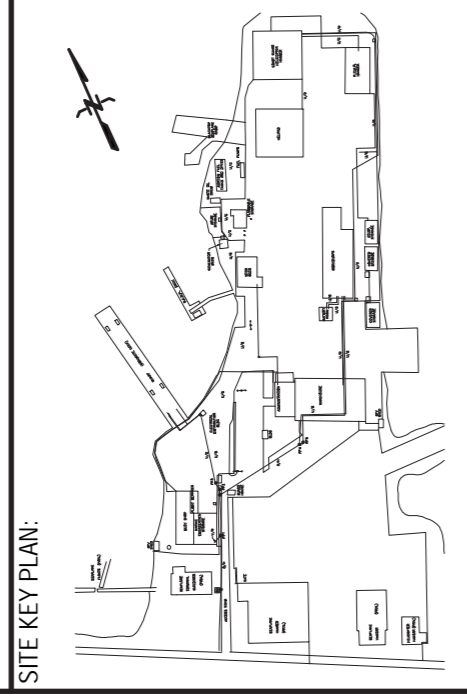
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1	ISSUED FOR REVIEW	06/16/12/16
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NO. / Revision / Description / Date / Client

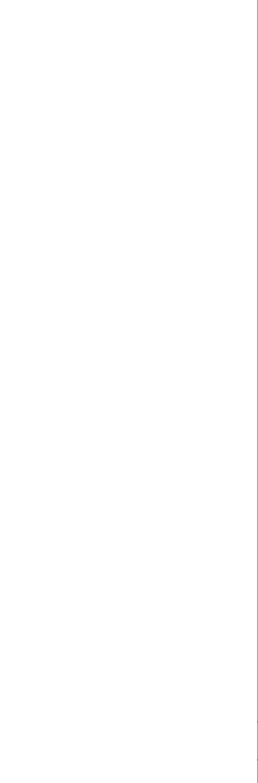
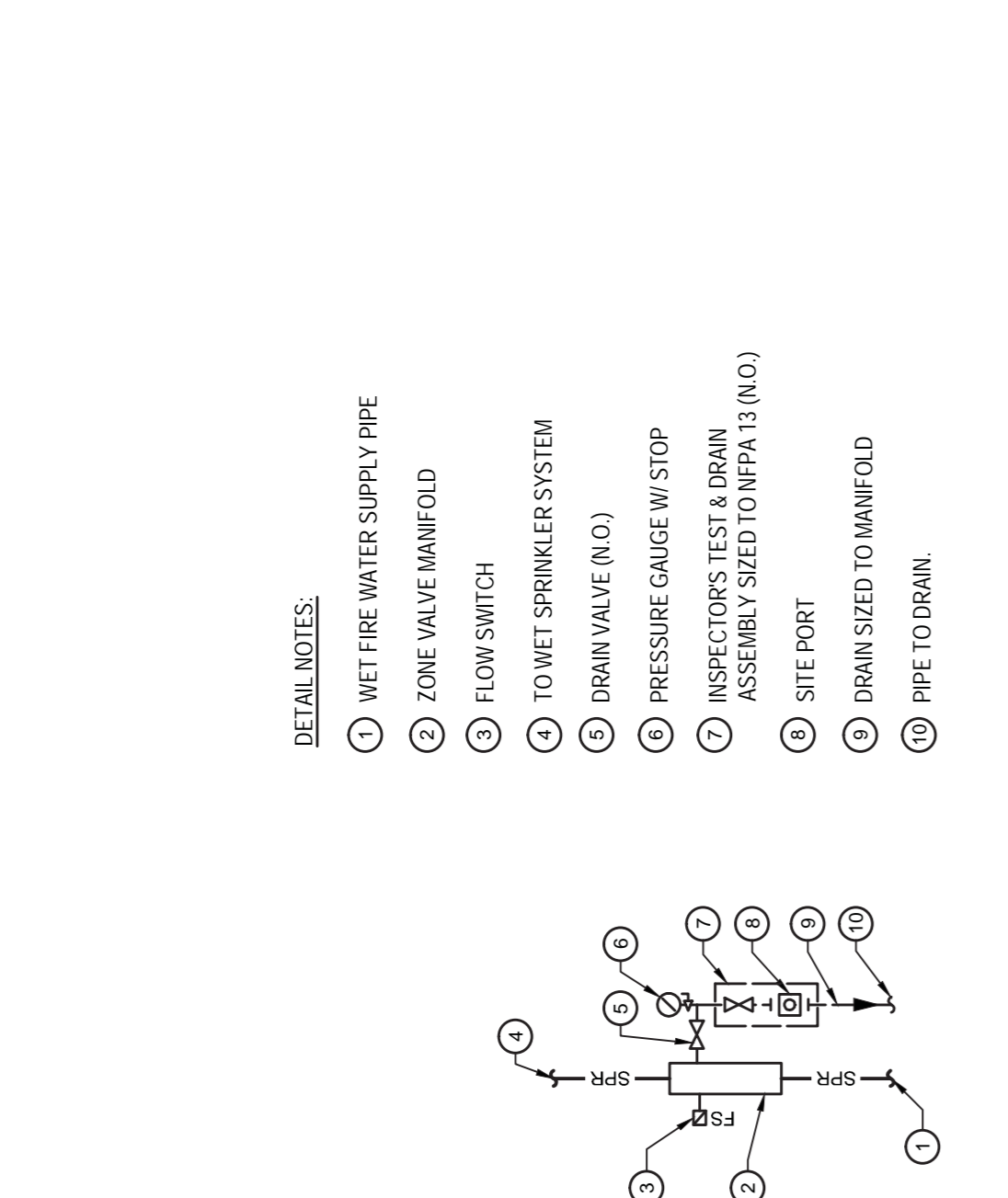
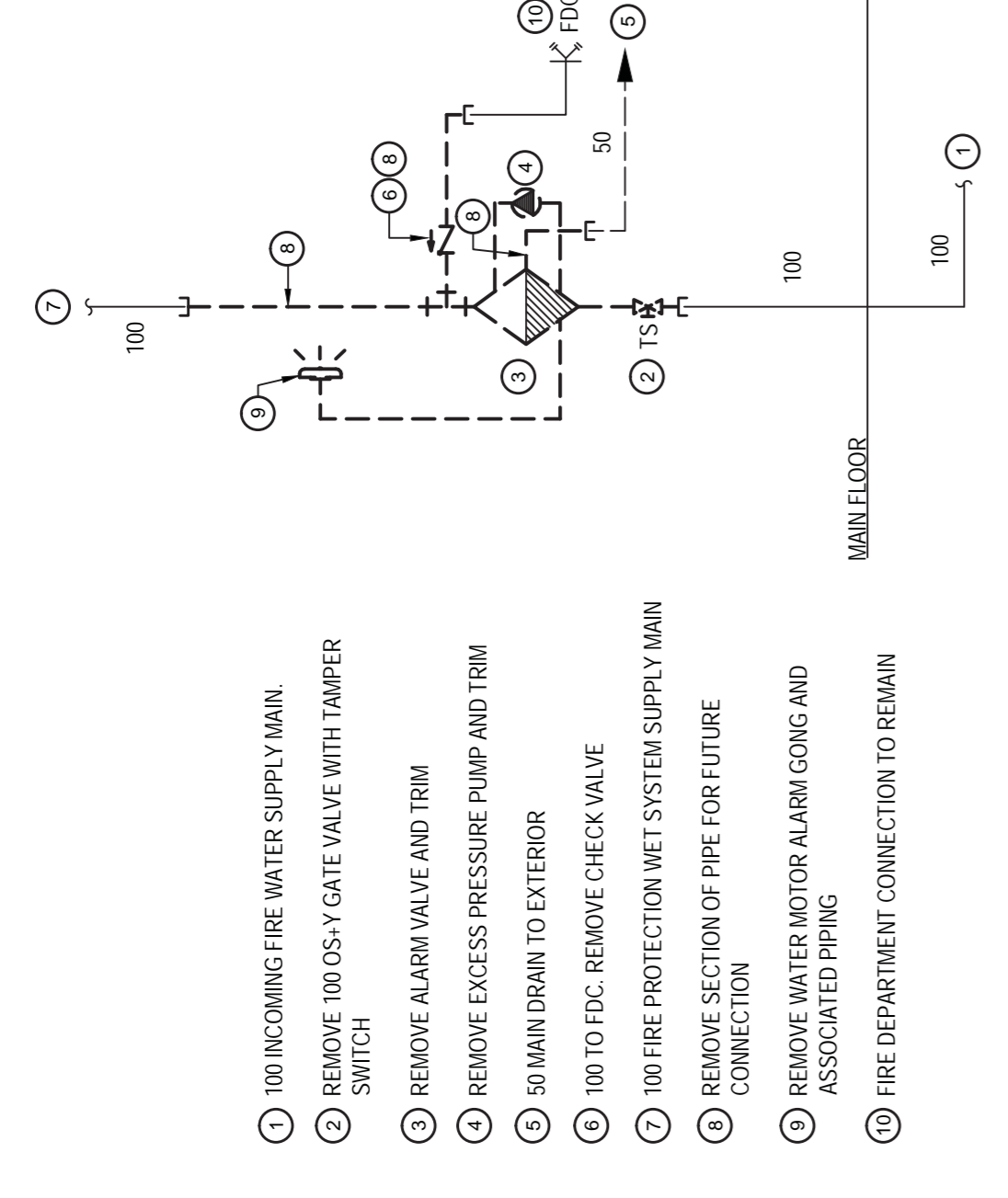
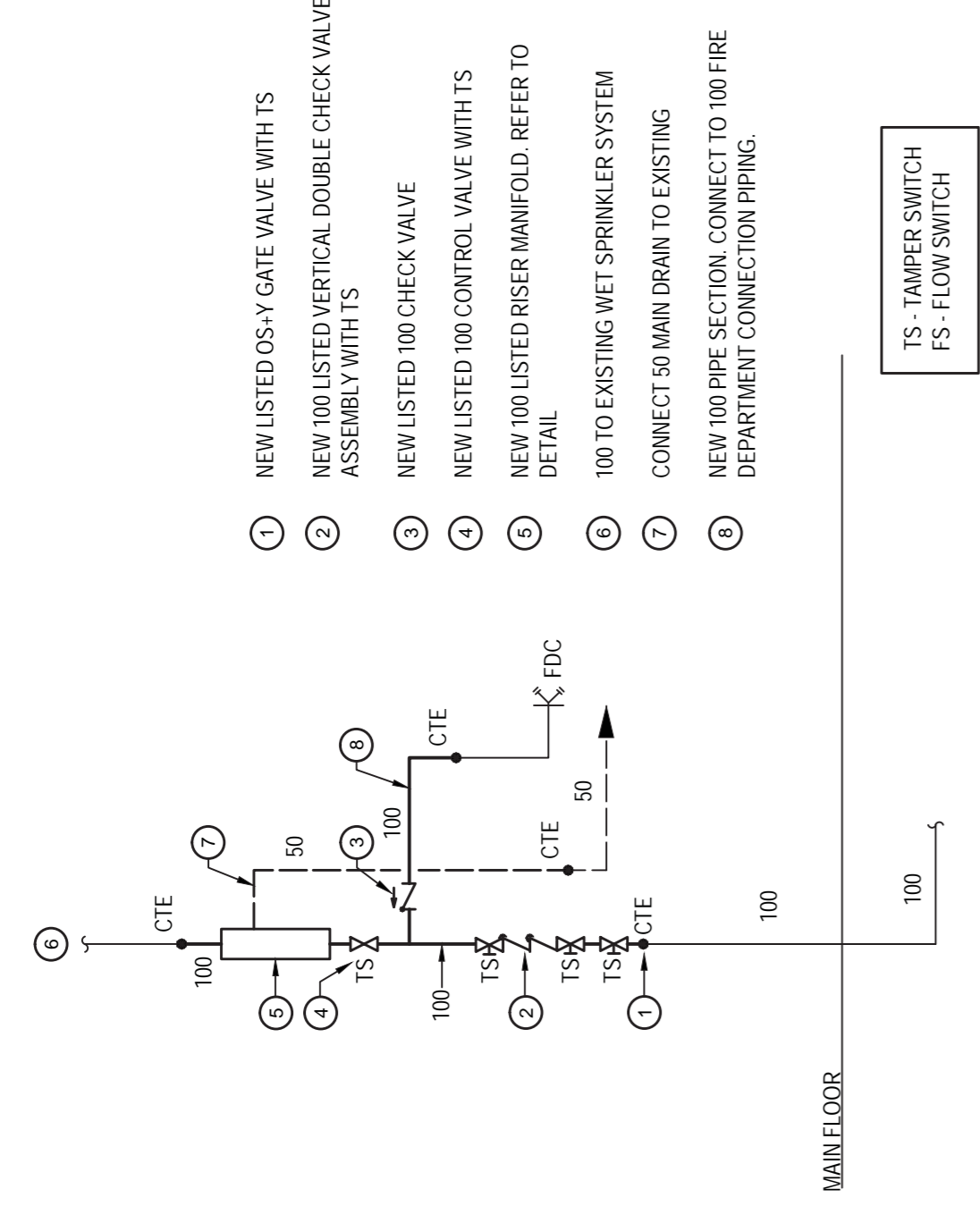
FISHERIES AND OCEANS
401 BURRARD STREET, SUITE 200
VANCOUVER, BC

Project files/Titre du projet:
PRINCE RUPERT, B.C.
SEAL COVE BASE
FIRE ALARM AND FIRE
SUPPRESSION REFURBISHMENT

Approved by/Approve par MMB
Designed by/Concept par HCP-DM
Drawn by/Dessiné par HCP-DM
Project Manager/Administrateur de Projet TPSSC
Resource Manager/Administrateur des Ressources TPSSC
Client/Client DFO

Drawing title/Titre du dessin
SCHEMATICS
FIRE PROTECTION

Project No./No. du projet 131-12992-10	Sheet/Feuille F-104	Revision no./No. de Révision 1
		5 OF 7



3. Flow Switch Type:
 1. Two sets of SPDT contacts or one set normally open and one set normally closed contacts and supervisory capability.
 2. The flow switch shall be certified for automatic transfer of alarm in case of alarm system.
 3. Contact shall be made of brass.
 4. Contacts of switch: Section 28.51.03 - Fire Detection and Alarm.
 5. Alarm actuating device: mechanical diaphragm controlled relay device adjustable from 10 to 60 seconds, and normally recycle.
 6. Time delay feature and paddle indicator.
 7. Provide a dry-glass in accordance with NFPA with drain connection. Alternatively, provide a "Victaulic" "TefloMaster".
 8. Standard of Acceptance: Polys VSR 4 with reset.
 9. Approved valves with integral supervisors are acceptable alternatives.
 10. 24V DC contact rating unless noted otherwise.
 11. Loopout cable devices are not acceptable.

2.11 FIRE DEPARTMENT CONNECTION
 1. Provide connections approximately 1.5 m above finish grade, location as indicated.
 2. To NFPA 13 and LULC listed Siemens type.
 3. Provide bronze exposed or approved low way pipe with 2.5 inch National Standard female hose threads with plug, chain, and escutcheon mounted on the exterior wall of the building.
 4. Flush mount pipe with double capnut valves.
 5. Integral ball stop.
 6. Escutcheon method "sprinklers" with plugs and chains.
 7. Bronze finish.
 8. Thread specifications: compatible with local fire department.
 9. Install a 90 degree elbow with drain connection at the low point near each fire department connection to allow for system drainage.
 10. Provide fire department connection: Standard Fire Equipment Model 229.
 11. Acceptable Product: Impastan.

2.12 AUTOMATIC AIR COMPRESSOR
 1. Air compressors for each dry pipe system shall be sized to suit the system.
 2. Air compressors may serve more than one system in which case it shall be sized for the single largest system volume.
 3. Air Compressor shall be sized as follows:
 System Volume (Litres/USgal) Compressor Size
 Up to 700 (188) 250 watts [1.0 hp, 107160
 701 - 950 (188 - 249) 375 watts [1.2 hp, 200360
 951 - 1450 (250 - 384) 560 watts [1.4 hp, 200360
 1451 - 2600 (385 - 549) 750 watts [1.0 hp, 600360
 2601 - 3300 (690 - 848) 1120 watts [1.5 hp, 600360
 3301 - 5100 (850 - 1249) 1400 watts [2.0 hp, 600360
 5101 - 7200 (1250 - 1900) 2200 watts [3.0 hp, 600360
 4. Automatic Air Maintenance Device: Provide all necessary piping, valves, fittings to provide a complete workable automatic compressor air pressure maintenance system.
 5. Provide a control panel with indicator and transformer for low voltage wiring to pressure switch.
 6. Acceptable Products: Central Alarm Or Automatic Air Maintenance Device; Wang, Central, Automatic, Star, Heca, Reliable.

2.13 PIPE SLEEVES
 1. Provide pipe sleeves where piping passes through walls and floors.
 2. Secure sleeves in position and location during construction.
 3. Provide sleeves of sufficient length to pass through entire thickness of walls and floors.
 4. Provide 2.5 cm minimum clearance between exterior of piping and interior of sleeve or core of finished floor.
 1. Empty jacket space with mineral wool insulation.
 2. Seal space at both ends of sleeve or core of finished floor and provide mechanically adjustable, gasketed, elastomeric seal.
 3. In the walls and fire floors, seal both ends of pipe sleeves or core drilled holes with LULC listed fill, used, or corky material.
 4. Sleeves in Masonry and Concrete: Walls and Floors.
 1. Provide cork fire sleeves.
 2. Core drilling of masonry and concrete may be provided in lieu of pipe sleeves when cavities in core drilled hole are completely grouted.
 6. Sleeves in Other Than Masonry and Concrete: Walls and Floors.
 1. Provide 6 mm thick galvanized steel sheet.

2.14 SPRINKLER HEADS
 1. Govern to NFPA 13 and LULC listed for fire services.
 2. Sprinkler heads shall be LULC listed for use in occupancies and hazard types for which they are evaluated. Temperature rating on sprinkler listing; glass bulb and fusible link. Still not fully specified, listed dry soon.
 3. Provide dry pipe heads for ceiling, wall, and floor.
 4. Provide wet pipe or ceiling heads in Mechanical and Electrical Rooms and fire areas susceptible to mechanical damage or vandalism, i.e. Storage Rooms.
 5. Provide sheet metal sheets to prevent cold soldering of sprinkler head, as indicated on drawings and as required by NFPA 13.
 6. Colour of threads to match general area. Size and install as per NFPA 13 requirements.
 7. Colour of threads to match general area. Size and install as per NFPA 13 requirements. Deflector: not more than 75 mm [3"] above sprinkler head.
 8. All sprinklers except where noted shall be in satin chrome finish with polished chrome escutcheons except natural brass finish may be used in the following areas:
 1. Warehouses, Mechanical rooms, Electrical rooms, Corridor spaces, Service spaces.
 2. Escutcheons used on 1" bar ceilings shall allow ceiling panel removal without removing the sprinkler head.
 3. Escutcheons shall be provided by the sprinkler manufacturer to suit the model of sprinkler and maintain the aesthetics.
 10. Ceiling pipes: not more than 25 mm diam.
 11. Ballies: Ballies to be located and installed as per NFPA 13 requirements.
 12. Sprinkler Head Type:
 1. Wet System sprinkler head finishes:
 1. Wet System
 2. Dry System
 3. Dry System
 4. Horizontal SideWall (flushhead areas)
 5. Horizontal SideWall (flushhead areas)
 6. Horizontal SideWall (flushhead areas)
 7. Acceptable Products: Asia, Automatic, Grmel, Reliable, Star, Gem, Tyco.

2.15 SPARE PARTS CABINET
 1. Provide metal cabinet with extra sprinkler heads and sprinkler head wrench adjacent to new BUDY Maintenance fire water entry station.
 2. Spare Sprinkler Heads
 1. Number and types of extra sprinkler heads as specified in NFPA 13 (minimum 6 heads).
 2. Provide a minimum of two spare sprinklers for each type installed.
 3. Provide a special sprinkler wrench to be kept in the cabinet for maintenance use in the removal and installation of sprinklers.

2.16 INSPECTORS TEST CONNECTION
 1. Provide test connection piping to location where discharge will be readily visible and where water may be discharged without property damage.
 2. Provide test connection piping to location where discharge will be readily visible and where water may be discharged without property damage.
 3. Provide discharge orifice of same size as corresponding sprinkler orifice.

Part 3
MANUFACTURER'S INSTRUCTIONS
 1. Compliance with manufacturer's written recommendations or specifications, including product technical bulletin, handling, storage and installation instructions, and data sheet.

3.2 PIPE INSTALLATION
 1. Install, inspect and test to acceptance in accordance with NFPA 13 and NFPA 25.
 2. All ground test valves, fittings and couplings are: shall be of one manufacturer.
 3. Provide inspector's test valves and pipes at all water zone floor assemblies in the system.
 4. Flanged fittings shall be used at all valve stations and at fire department connections.
 5. Install monitor valves and flow switches for all zones. Electrical Division 21 shall wire mentioned valves and flow switches to the core of the alarm system. Identify each portion of the system each valve connects.
 6. Install piping straight and true to bear evenly on hangers and supports. Do not hang piping from plaster ceiling.
 7. Keep interior ends of new piping and existing piping thoroughly cleaned of water and foreign matter.
 8. Keep pipe open ends of piping covered with caps or other approved means. When work is not in progress, cap pipe open ends of piping to prevent entry of dirt and foreign matter.
 9. Inspect piping before placing in position.
 10. Field welding is permitted.
 11. Adjust sprinkler piping up or down if conflicts occur between structure, lighting, electrical, plumbing piping or ductwork.
 12. Arrange piping routing to provide sufficient access to mechanical and electrical equipment.
 13. Arrange around hanger or other approved means shall be provided at the end of each branch sprinkler line to prevent excessive movement.

3.3 Pressure gauges: