



**1 FIRE ALARM RISER DIAGRAM**  
SCALE: N.T.S.

BUILDING 72 FIRE ALARM ZONE SCHEDULE	
ZONE #	DESCRIPTION
1	ADMINISTRATION
2	ADMINISTRATION
3	NORTH WING
4	NORTH WING
5	SPARE
6	CENTRE WING
7	HEADER HOUSE
8	HEADER HOUSE
9	PHT LAB
10	PHT LAB
11	CENTRE ROOMS
12	NORTH PENTHOUSE
13	CENTRE PENTHOUSE
14	SOUTH PENTHOUSE
15	LIBRARY
16	NORTH STAIRWELL
17	CENTRE STAIRWELL
18	SOUTH STAIRWELL
19	NORTH PENTHOUSE
20	CENTRE PENTHOUSE
21	SOUTH PENTHOUSE
22	CRAWLSPACE
23	CRAWLSPACE
24	CRAWLSPACE
25	QUEST HOOD
26	QUEST HOOD
27	CENTRE CORRIDOR
28	NORTH LABS
29	BUILDING 82
30	SPARE

LEGEND:	
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM HEAT DETECTOR
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM COMBINATION HORN/STROBE (NOTE 1)
	DENOTES CANDELA OUTPUT (TYP)
	FIRE ALARM STROBE (NOTE 1)
	DENOTES CANDELA OUTPUT (TYP)
	TIMER
	END OF LINE RESISTOR
	CONDUIT
	EQUIPMENT
	JUNCTION BOX
	FIBRE OPTIC CABLE
	IN-SLAB CONDUIT (NOTE 2)
	OVERHEAD CONDUIT
	NOTIFICATION DEVICE ADDRESS
	INITIATOR DEVICE ADDRESS

#### GENERAL NOTES:

- FIRE ALARM NOTIFICATION DEVICES SHALL BE ADDRESSABLE.
- ALL CONDUIT 21mm UNLESS NOTED.
- SUPPLY AND INSTALL FIRE ALARM SYSTEM. INSTALL AND VERIFY TO CAN/ULC-524, CAN/ULC-536 AND CAN/ULC-537.
- LABEL ALL CABLES WITHIN NEW PANEL.

#### NOTES:

- PROVIDE ALL NEW WIRE FOR RELOCATED MANUAL PULL STATION.
- NEW HORN/STROBE EXTEND WIRING FROM EXISTING NOTIFICATION CIRCUIT.
- PROVIDE NEW 6C 62.5/125 MICRON MULTI-MODE FIBRE OPTIC CABLE IN SPARE FIRE ALARM CONDUIT, NEW CONDUIT REQUIRED FROM CRAWLSPACE JUNCTION BOX TO EXISTING FIRE ALARM PANEL.
- REPLACE THE EXISTING SIMPLEX 4002 FIRE ALARM CONTROL PANEL WITH A NEW COMPATIBLE SIMPLEX 4100ES FIRE ALARM CONTROL PANEL. THE NEW CONTROL PANEL SHALL MATCH THE NUMBER OF ZONE, NAC, AUXILIARY RELAY, AND CITY CIRCUIT CONNECTIONS, AND PROVIDE A 250 POINT ADDRESSABLE ID NET INITIATING DEVICE LOOP FOR FUTURE CONVERSION TO ADDRESSABLE DETECTION DEVICES.
- REMOVE THE EXISTING BUILDING 72 MAIN ENTRANCE RCU ANNUNCIATOR AND REPLACE WITH A NEW SIMPLEX 4100-94-03 LCD ANNUNCIATOR (ATTACHED) AND INSTALL OVER THE EXISTING RECESSED REMOVED ANNUNCIATOR BACK BOX. THE ADJACENT EXISTING LED ANNUNCIATOR TO REMAIN. REFER TO DWG E00 SITE PLAN FOR MORE DETAIL.
- CONTRACTOR WITH ASSISTANCE OF THE FA TECHNICIAN (TYCO INTEGRATED FIRE & SECURITY) TO TAG ALL EXISTING ZONE, NAC, AUXILIARY RELAY, ANNUNCIATOR, AND MONITORING CONNECTION WIRING PRIOR TO REMOVING THE EXISTING 4002 CABINET.
- PROVIDE AND INSTALL A NEW ELECTRICAL TROUGH ABOVE THE EXISTING (REMOVED) 4002 PANEL AND PROVIDE SUFFICIENT CONDUITS BETWEEN THE TROUGH AND THE NEW SIMPLEX 4100ES CONTROL PANEL. THE NEW PANEL SHALL BE MOUNTED AT MAXIMUM 1830MM (72") TO THE TOP OF THE CABINET. TERMINAL STRIPS SHALL BE PROVIDED IN THE ELECTRICAL TROUGH TO EXTEND THE EXISTING CIRCUIT WIRING IN TO THE NEW CONTROL PANEL.
- PROVIDE A NEW FIBER 6C 62.5/125 MICRON MULTIMODE FA NETWORK CABLE IN CONDUIT FROM THE EXISTING HEADER HOUSE/GREENHOUSE FIRE ALARM PANEL (SIMPLEX 4100ES) TO THE NEW BUILDING 72 FIRE ALARM PANEL. PORTION OF THE EXISTING U/G FA CONDUIT MAY BE RE-USED.
- RE-CONFIGURE AND REPROGRAM THE SYSTEM INCLUDING THE GREENHOUSE MAIN FIRE ALARM PANEL, BUILDING 72 MAIN FIRE ALARM PANEL AND BUILDING 72 ANNUNCIATOR TO MATCH EXISTING AND ADDED ZONES. SYSTEM SWITCH OVER TO BE CARRIED OUT AT A TIME AND DURATION TO SUIT AAFG INCLUDING WEEKENDS AND AFTER REGULAR HOURS.
- THE FA TECHNICIAN IS TO CONNECT ALL EXISTING CIRCUIT WIRING TO THE NEW CONTROL PANEL AND PERFORM A VERIFICATION/INSPECTION OF THE ENTIRE FIRE ALARM SYSTEM AS PER CAN/LC-5537-06 REQUIREMENTS.
- PROVIDE NEW 2C #14 AWG RW90 AND 1 PR #18 TWISTED, SHIELDED CABLE FOR NEW ANNUNCIATOR COMMUNICATION CABLE TO FAS AND COLOUR RED.
- FIRE ALARM ZONES ARE BASED ON THE LATEST FIRE ALARM VERIFICATION REPORT. CONTRACTOR SHALL CONFIRM ALL FIRE ALARM ZONES WITH A FA TECHNICIAN (TYCO INTEGRATED FIRE & SECURITY) PRIOR TO ANY PANEL REPLACEMENTS. CONTRACTOR SHALL AS BUILT THE FIRE ALARM ZONES AND SEND TO ENGINEER PRIOR TO MANUFACTURERS THE NEW ANNUNCIATOR.

0	ISSUED FOR TENDER	2016/06/27
Revision	Description	Date
Client		client

**PUBLIC WORKS & GOVERNMENT SERVICES CANADA**

Project  
**MORDEN, MANITOBA  
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Project

**MORDEN RESEARCH AND DEVELOPMENT CENTRE GREENHOUSE EXTENSION**

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Drawing title	Titre du dessin

**ELECTRICAL  
FIRE ALARM RISER DIAGRAM**

Project no./No. du projet <b>R.076333.001</b>	Drawing no./No. du dessin <b>E06</b> OF 06	Revision no. <b>0</b>
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