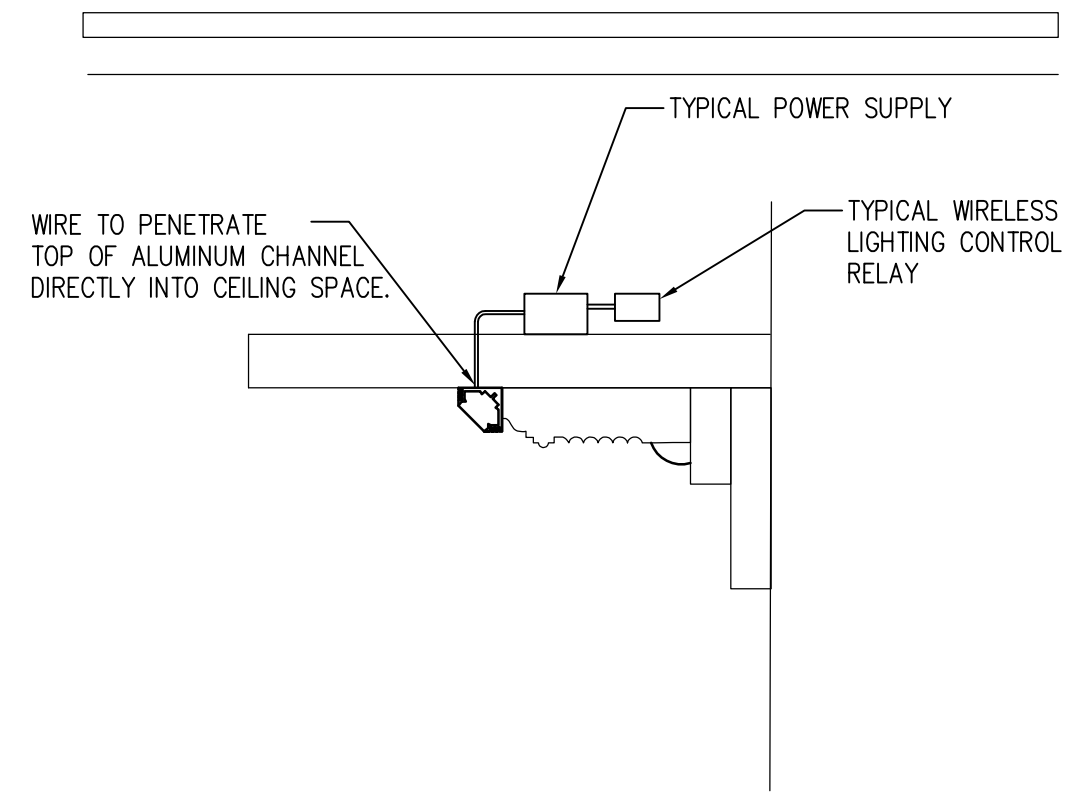
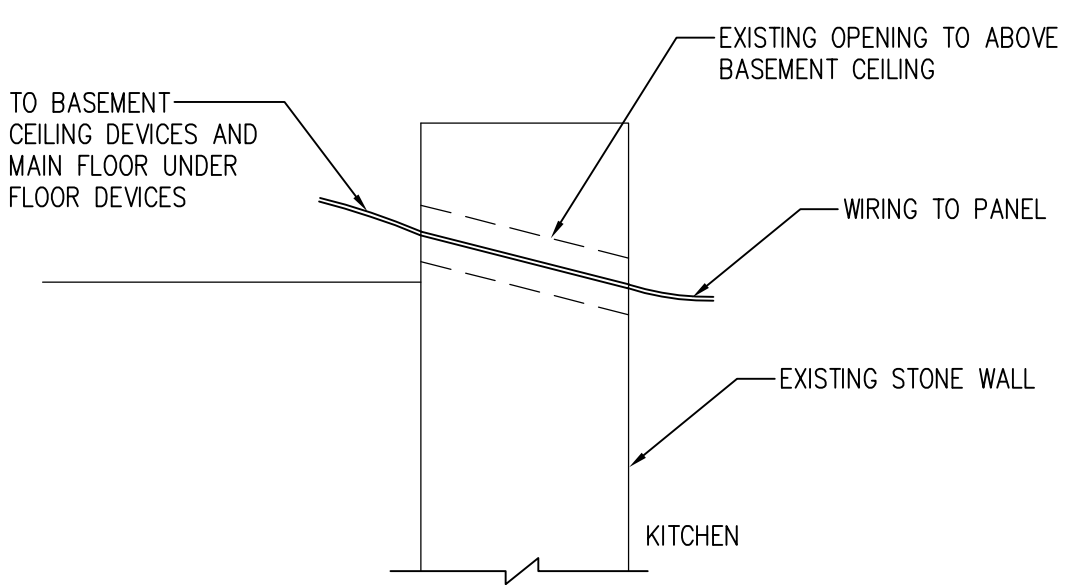


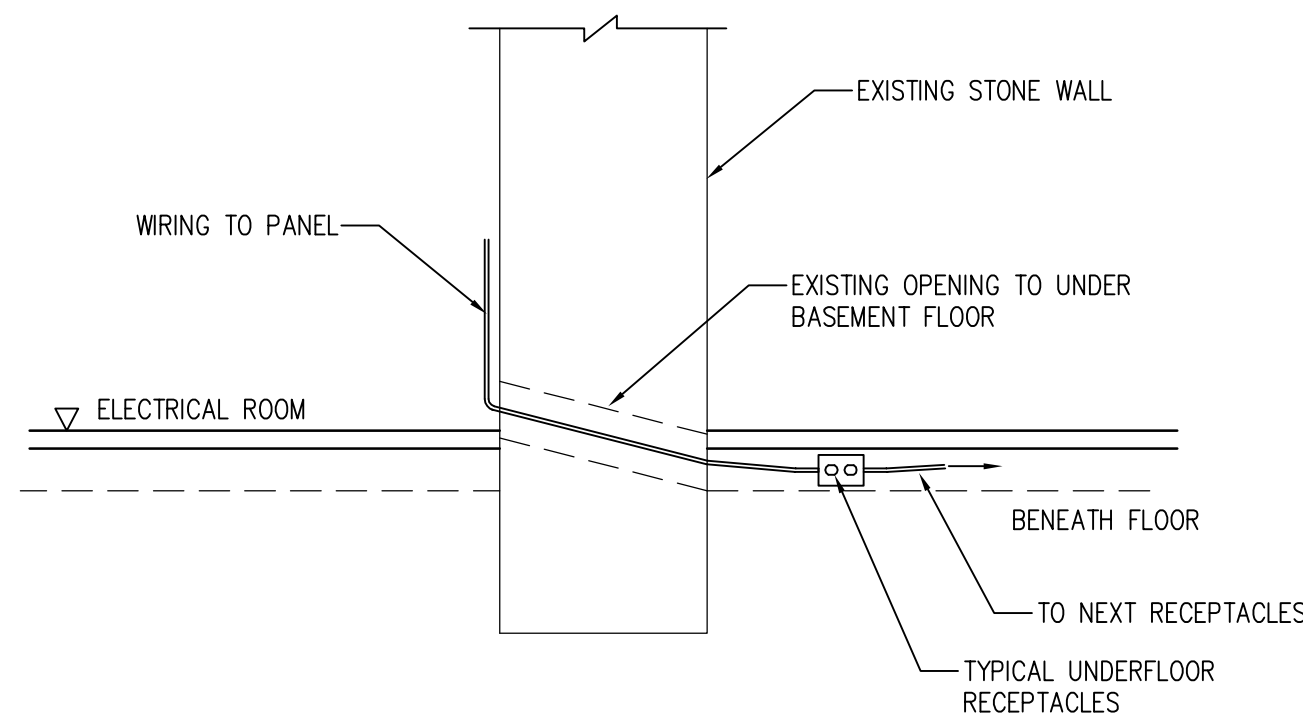
1 BIGHOUSE BASEMENT TO ATTIC WIREWAY DETAIL
E20 NTS



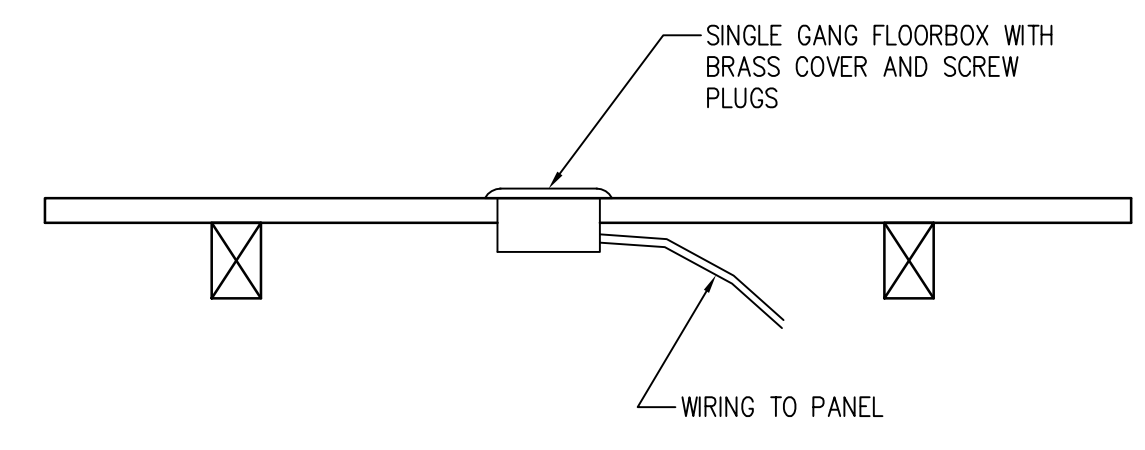
2 LUMINAIRE WIRING DETAIL
E20 NTS



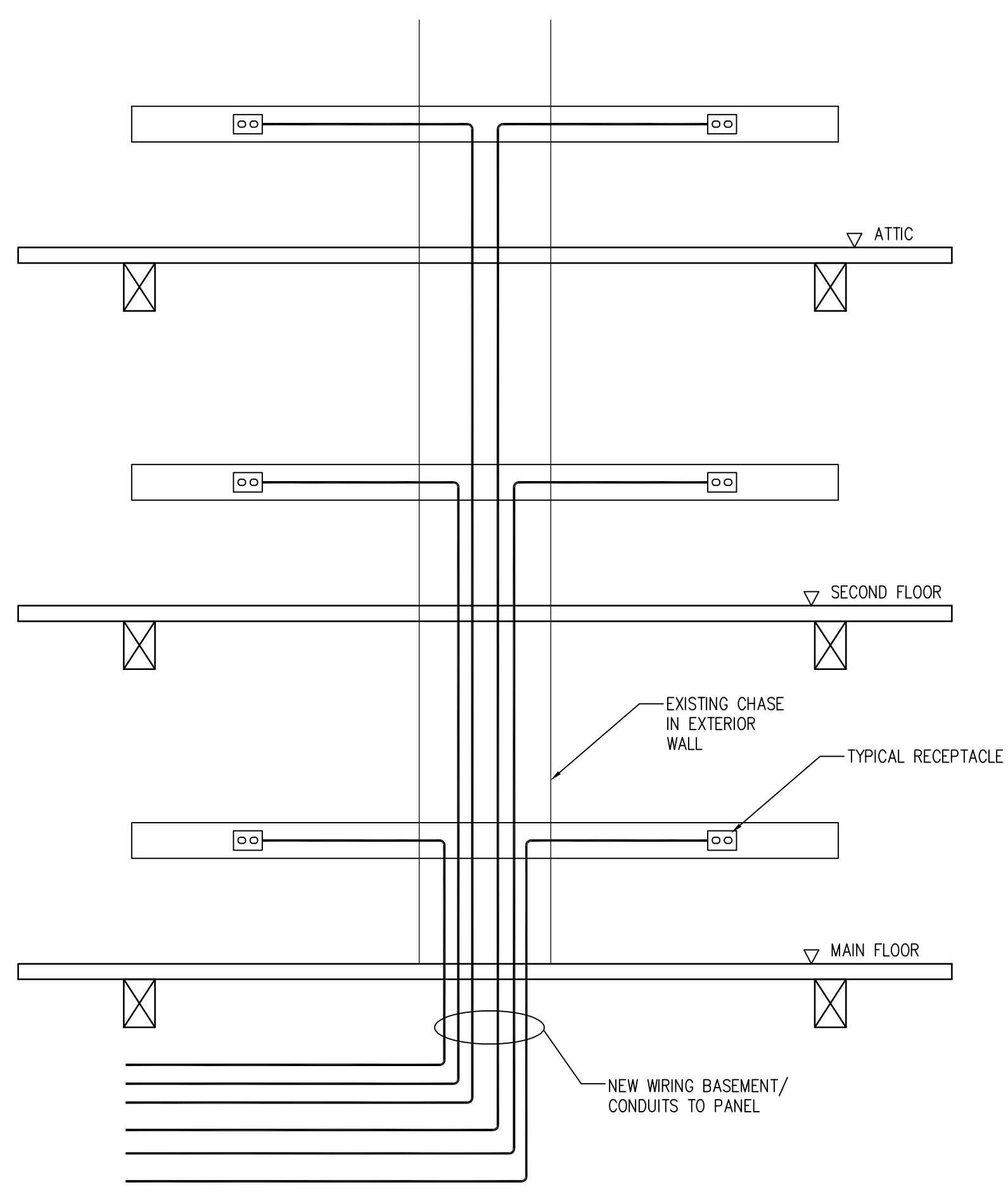
4 BIGHOUSE ELECTRICAL ROOM TO BASEMENT CEILING WIREWAY DETAIL
E20 NTS



5 BIGHOUSE ELECTRICAL ROOM TO BENEATH BASEMENT FLOOR WIREWAY DETAIL
E20 NTS



3 FLOOR BOX DETAIL (ROOM 19)
E20 NTS



6 FURLOFT WALL CHASE DETAIL
E20 NTS

SYSTEM DESCRIPTION

SUPPLY AND INSTALL FIRE SUPPRESSION SYSTEM FREEZE PROTECTION SYSTEM FOR ENTIRE LENGTH OF THE WATER ENTRY LINE DOWN TO THE FROST LINE.

ENTIRE SYSTEM TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE ALL WORK WITH DEPARTMENTAL REPRESENTATIVE, PARKS CANADA AND GENERAL CONTRACTOR.

LOCATION OF ELECTRONIC CONTROLLERS TO BE CONFIRMED ON SITE.

COMPONENT LIST:

- FIRE SUPPRESSION SYSTEM FREEZE PROTECTION SYSTEM TO INCLUDE, BUT NOT LIMITED TO THE FOLLOWING COMPONENTS:
 - SELF REGULATING HEATING CABLE C/W FLUOROPOLYMER OUTER JACKET AT 39 WATTS PER METRE.
 - POWER CONNECTION KITS
 - SPlice/TEE KITS
 - END SEAL KITS
 - SINGLE POINT HEAT TRACING CONTROL SYSTEMS.
 - REMOTE TEMPERATURE PROBES.
- PROVIDE ALL REQUIRED MOUNTING HARDWARE, SPlice, TEE KITS, LABELS, TAPE, ETC. AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- CABLES TO BE RUN AT 15A, 208V/1Ø. MAXIMUM CABLE LENGTH PER CIRCUIT TO NOT EXCEED 70 METERS.
- INCLUDE ONE ADDITIONAL HEAT TRACE CABLE FOR EACH ZONE INSTALLED THE ENTIRE LENGTH OF PIPE. LABEL CABLE AS SPARE.

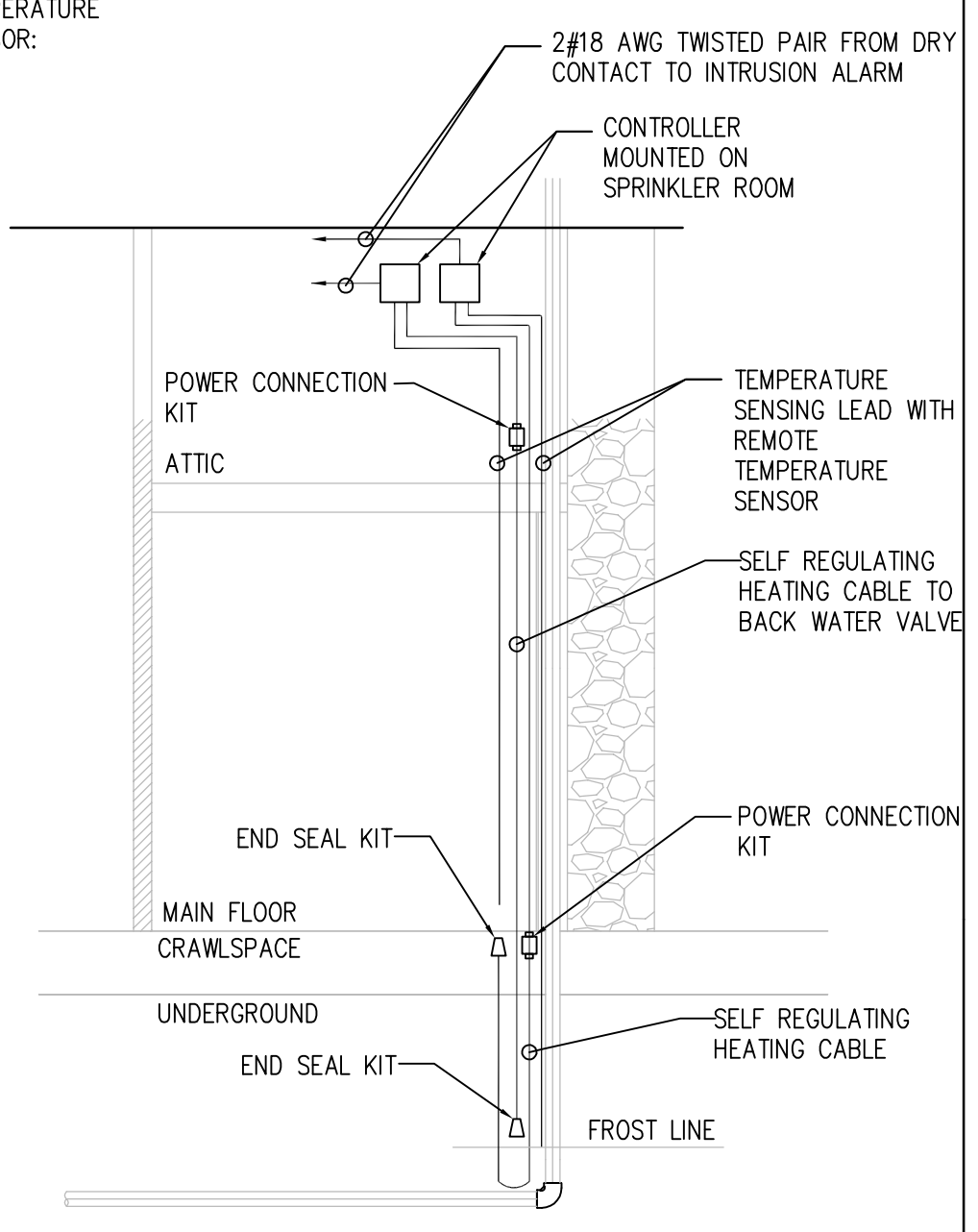
COMPONENT DESCRIPTIONS:

SINGLE POINT HEAT TRACING CONTROL SYSTEM:

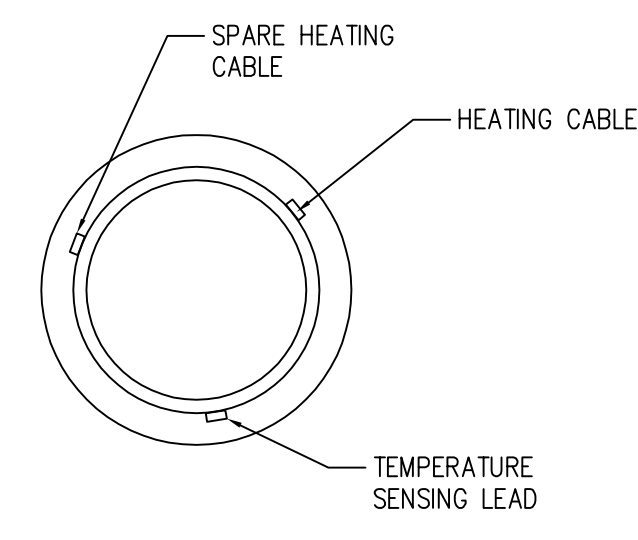
PROVIDES GROUND FAULT AND LINE CURRENT SENSING, ALARMING, SWITCHING (MECHANICAL RELAYS). RELAY TO BE RATED FOR 30A AT 277VAC. CONTROL SYSTEM TO INCLUDE ALARM OUTPUT VIA DRY CONTACT.

REMOTE TEMPERATURE SENSOR:

MEASURES TEMPERATURE REMOTELY.



7 FIRE SUPPRESSION SYSTEM FREEZE PROTECTION SYSTEM
E20 NTS



8 WATER ENTRY PIPE SECTION DETAIL
E20 NTS

SCHEMATIC DIAGRAM IS A GRAPHICAL REPRESENTATION OF THE ROOF AND GUTTER DE-ICING SYSTEM AND DOES NOT INDICATE ALL COMPONENTS, DEVICES, CONDUIT, WIRING, ETC. REFER TO ROOF PLAN FOR DEVICE LOCATIONS

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

REPUBLIC ARCHITECTURE INC.

374 Donald Street, First Floor
Winnipeg, MB R3B 2Z1
T 204 989 0102
F 204 989 0094
www.republicarchitecture.ca

HDK

HDK CONSULTING INCORPORATED
2633 Portage Avenue
Winnipeg, Manitoba
Canada, R3J 0P7
T: 204.818.0390
T: 204.818.0388
www.hdkconsulting.com
info@hdkconsulting.com
Mechanical | Electrical | Communications | Security Engineering

PROVINCE OF MANITOBA
H.A. CEA CANAS
Member
22882
REGISTERED PROFESSIONAL ENGINEER

Certificate of Authorization
HDK Consulting Incorporated
No. 5539 Date: 04/30/2017

0	ISSUED FOR TENDER	Sept 12, 18
Revision/	Description/Description	Date/Date
Client/client		
Public Works and Government Services Canada		
100 - 167 Lombard Avenue Winnipeg, Manitoba		
Project title/Titre du projet Lower Fort Garry (LFG) National Historic Site, Manitoba		
HERITAGE BUILDING RECAPITALIZATION		
Approved by/Approuve par HCC		
Designed by/Concept par PL		
Drawn by/Dessine par RD		
PWGSC Project Manager/Administrateur de Projets TPSC CHRISTINA KOVACS		
PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSC		
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Drawing title/Titre du dessin		
ELECTRICAL DETAILS-2		
Project No./No. du projet R.075212.001	Sheet/Feuille E20 OF 24	Revision no./La Révision no. 0