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ISSUES/REVISIONS		
No.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	NOV 13 2013
2	ISSUED FOR TENDER	FEB 21 2014
3	ISSUED FOR PERMIT	FEB 27 2014
4	RE-ISSUED FOR PERMIT & TENDER	MAR 4 2014

- FIRE ALARM SCOPE OF WORK:**
1. PROVIDE A NEW CONVENTIONAL FIRE ALARM SYSTEM. INSTALL IN CONFORMANCE WITH THE ONTARIO BUILDING CODE AND CAN/ULC-S524-M "STANDARD FOR THE INSTALLATION OF FIRE ALARM SYSTEMS". PROVIDE NEW RECESSED FIRE ALARM CONTROL PANEL (FACP), BATTERIES, DETECTORS, AUDIBLE SIGNALS, VISUAL SIGNALS AND ALL OTHER DEVICES AS PER DRAWINGS AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
 2. ADD HORN/STROBES AS INDICATED.
 3. ALL DEVICE AND SIGNAL CIRCUITS TO BE WIRED AS CLASS B.
 4. INCLUDE FOR ALL CUTTING, CORING, AND PATCHING NECESSARY FOR THE INSTALLATION.
 5. SUBMIT SHOP DRAWINGS ELECTRONICALLY IN PDF FORMAT FOR THE COMPLETE FIRE ALARM SYSTEM INCLUDING FIRE ALARM CONTROL PANEL, DETECTORS, PULL STATIONS, AUDIBLE & VISUAL DEVICES, MODULES, ALL OTHER DEVICES AND ASSOCIATED COMPONENTS TO THE CONSULTANT FOR REVIEW.
 6. PROVIDE NEW AND COORDINATE SIGNAL TO FIRE ALARM DEPARTMENT WITH MONITORING COMPANY.
 7. TEST AND VERIFY THE FIRE ALARM SYSTEM IN CONFORMANCE WITH CAN/ULC-S537-M "STANDARD FOR THE VERIFICATION OF FIRE ALARM SYSTEMS" TO ENSURE SATISFACTORY OPERATION. VERIFICATION DOES NOT NEED TO BE FROM FIRE ALARM MANUFACTURER, THIRD PARTY VERIFICATION IS ACCEPTABLE. CONTRACTOR TO PROVIDE WARRANTY ON FIRE ALARM PRODUCTS EQUAL TO MANUFACTURER'S WARRANTY IF THIRD PARTY VERIFICATION NEGATES MANUFACTURER'S WARRANTY.
 8. TEST AND VERIFY FAN SHUTDOWN AND INCLUDE IN VERIFICATION REPORT.
 9. PERFORM AUDIBILITY TESTS AS PER ONTARIO FIRE CODE (MINIMUM 65DBA, MAXIMUM 100DBA THROUGHOUT) AND PROVIDE REPORT TO THE CONSULTANT.
 10. PROVIDE VERIFICATION REPORT AND AUDIBILITY TESTS TO THE CONSULTANT FOR REVIEW. SUBMIT FINAL COPY OF REPORT TO THE BUILDING DEPARTMENT/FIRE PREVENTION.
 11. ARRANGE FOR A SITE INSPECTION BY THE BUILDING DEPARTMENT/FIRE PREVENTION, CONSULTANT AND ESA AT COMPLETION OF THE PROJECT FOR FINAL ACCEPTANCE. PERFORM ADDITIONAL AUDIBILITY TESTS AS REQUESTED.
 12. TRAIN THE OWNER ON OPERATION OF THE FIRE ALARM SYSTEM. PROVIDE INSTRUCTION AS REQUIRED. INSTRUCTION SHALL BE MADE AVAILABLE TO THE LOCAL MUNICIPAL FIRE DEPARTMENT IF REQUESTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

- FIRE ALARM SPECIFICATIONS:**
1. THE CONTRACTOR SHALL FURNISH NEW LABOUR, SERVICES AND MATERIALS NECESSARY TO PROVIDE A COMPLETE, FUNCTIONAL LIFE SAFETY FIRE SYSTEM. THE SYSTEM SHALL COMPLY IN ALL RESPECTS WITH ALL PERTINENT CODES, RULES, REGULATIONS AND LAWS OF THE LOCAL JURISDICTION. THE SYSTEM SHALL COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE SPECIFICATIONS, MANUFACTURER'S RECOMMENDATIONS AND UNDERWRITERS LABORATORIES OF CANADA (ULC) LISTINGS. ALL COMPONENTS SHALL BE ULC LISTED.
 2. THE EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE CURRENT PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
 - .1 LOCAL AND PROVINCIAL BUILDING CODES
 - .2 LOCAL AND PROVINCIAL FIRE CODES
 - .3 LOCAL, PROVINCIAL AND CANADIAN ELECTRICAL CODES
 - .4 NFPA 72 - NATIONAL FIRE ALARM CODE
 - .5 NFPA 101 - LIFE SAFETY CODE
 - .6 CAN/ULC-S524 AND OTHER APPLICABLE ULC STANDARDS
 - .7 AUTHORITY HAVING JURISDICTION
 3. WORKING HOURS SHALL BE AS INDICATED IN TENDER DOCUMENTS.
 4. THE FIRE ALARM SYSTEM MANUFACTURER SHALL SUPPLY A ONE (1) YEAR WARRANTY FROM DATE OF VERIFICATION FOR ALL CONTROL SYSTEM, FIELD DEVICES, AND APPLIANCES. THE CONTRACTOR SHALL WARRANT THE INSTALLED SYSTEM TO BE FREE FROM ANY DEFECTS OF MATERIAL AND INSTALLATION FOR A PERIOD OF ONE (1) YEAR FROM ACCEPTANCE BY THE CONSULTANT.
 5. DEVICE MOUNTING HEIGHT:
 - .1 PULL STATION(S) TO BE MOUNTED 1200mm (47") A.F.F.
 - .2 WALL MOUNTED AUDIBLE SIGNAL TO BE MOUNTED MINIMUM 150mm (6") BELOW CEILING.
 - .3 STROBE(S) TO BE MOUNTED 2000mm (78") A.F.F.
 - .4 COMBINATION HORN/STROBE(S) TO BE MOUNTED AT A MINIMUM OF 150mm (6") BELOW CEILING AND 2000-2400mm (78"-94") A.F.F.
 - .5 END OF LINE RESISTORS TO BE MOUNTED LESS THAN 1800mm (70") A.F.F.
 6. CONDUIT AND WIRE:
 - .1 WIRING SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL AND NATIONAL CODES, AND AS RECOMMENDED BY THE MANUFACTURER OF THE FIRE ALARM SYSTEM.
 - .2 NUMBER AND SIZE OF CONDUCTORS SHALL BE AS RECOMMENDED BY THE FIRE ALARM SYSTEM MANUFACTURER, BUT NOT LESS THAN 18 AWG (1.02 MM) FOR INITIATING DEVICE CIRCUITS AND SIGNALING LINE CIRCUITS, AND 14 AWG (1.63 MM) FOR NOTIFICATION APPLIANCE CIRCUITS.
 - .3 ALL WIRE AND CABLE SHALL BE LISTED AND/OR APPROVED BY A RECOGNIZED TESTING AGENCY FOR USE WITH A PROTECTIVE SIGNALING SYSTEM.
 - .4 ALL FIELD WIRING SHALL BE ELECTRICALLY SUPERVISED FOR OPEN CIRCUIT AND GROUND FAULT.
 - .5 ALL WIRE SHALL BE INSTALLED IN CONDUIT. FLEXIBLE CABLE (BX) IS ONLY ACCEPTABLE ABOVE DRYWALL CEILINGS IN DRYWALL WALLS. PROVIDE WIREMOLD FOR ALL WIRING IN EXPOSED AREAS.
 - .6 WIRE AND CABLE NOT INSTALLED IN CONDUIT SHALL HAVE A FIRE RESISTANCE RATING SUITABLE FOR THE INSTALLATION AS INDICATED IN NFPA 70 (E.G., FPLR) AND AS PER OBC.
 - .7 ALL PENETRATIONS OF FIRE SEPARATIONS SHALL BE FIRE STOPPED IN ACCORDANCE WITH OBC.

- GENERAL NOTES:**
1. OBTAIN, ARRANGE AND PAY FOR BUILDING PERMIT, ESA PERMIT, NOTICE OF PROJECT AND ANY INSPECTIONS REQUIRED.
 2. OBTAIN AND REVIEW THE BUILDING'S ASBESTOS REPORT FROM THE CLIENT AND COORDINATE ANY ASBESTOS ISSUES WITH THE CLIENT PRIOR TO ANY WORK BEING DONE.
 3. PROVIDE ELECTRONIC SHOP DRAWINGS IN PDF FORMAT TO CONSULTANT FOR REVIEW. ALL SHOP DRAWINGS MUST BE REVIEWED, STAMPED AND SIGNED BY THE ELECTRICAL CONTRACTOR PRIOR TO SUBMITTING TO THE CONSULTANT. REVIEW SHALL INCLUDE, BUT NOT LIMITED TO, VERIFYING VOLTAGE, RATING, DIMENSIONS AND CLEARANCES.
 4. INSTALL ALL WORK IN CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
 5. MAINTAIN RECORD DRAWINGS ON AN ON-GOING BASIS. DRAWINGS SHALL BE AVAILABLE FOR PERIODIC REVIEW BY THE CONSULTANT DURING CONSTRUCTION.
 6. ALL WORK SHALL COMPLY WITH APPLICABLE CODES.
 7. REMOVE ALL REDUNDANT EQUIPMENT AND MATERIALS FROM SITE AND DISPOSE OF IN AN APPROVED MANNER. REDUNDANT EQUIPMENT AND MATERIALS SHALL NOT BE ABANDONED IN PLACE.
 8. ALL CONDUIT SHALL BE CONCEALED AND RUN THROUGH ATTIC WHERE NECESSARY. ANY SURFACE MOUNTED WORK SHALL BE CONFIRMED WITH AND APPROVED BY THE CONSULTANT PRIOR TO INSTALLATION.
 9. MAINTAIN REQUIRED ACCESS AND CLEARANCE TO ALL EQUIPMENT AND SYSTEMS AS REQUIRED BY CODE AND AS PER MANUFACTURER'S REQUIREMENTS.
 10. TAG ALL EQUIPMENT AND PANELS WITH LAMACOID NAMEPLATES. PROVIDE TYPED PANEL SCHEDULES IN ALL PANELS.
 11. PAINT ALL JUNCTION BOXES RED FOR FIRE ALARM.
 12. PERFORM TESTING OF ALL SYSTEMS AS REQUIRED BY CODE AND THE CONSULTANT.
 13. INSTRUCT AND TRAIN THE OWNER ON PROPER OPERATION OF THE SYSTEM.
 14. PROVIDE ONE (1) YEAR WARRANTY ON ALL MATERIAL AND LABOUR.
 15. PROVIDE AN ELECTRONIC COPY OF MAINTENANCE MANUALS (ON A USB DRIVE OR CD) C/W TABLE OF CONTENTS, CONTRACTOR INFORMATION, WARRANTY LETTER, ESA CERTIFICATE, FIRE ALARM VERIFICATION REPORT WITH AUDIBILITY RESULTS, SHOP DRAWINGS (STAMPED COPY), ANY OTHER REQUIRED REPORTS AND AS-BUILT DRAWINGS INCLUDING ALL PANEL SCHEDULES. AS-BUILT DRAWINGS SHALL INCLUDE COMPLETE DRAWING SET WITH ANY CHANGES MARKED CLEARLY AND NEATLY IN COLOUR. SUBMIT TO CONSULTANT FOR REVIEW. MAKE ANY REQUIRED CHANGES THEN SUBMIT TO OWNER.

EMERGENCY LIGHTING LEGEND

	EXISTING LUMACELL BATTERY UNIT TO REMAIN
	EXISTING WALL MOUNTED OR CEILING MOUNTED EMERGENCY LIGHT TO REMAIN
	ALL METAL PICTOGRAM SIGN, LED LIGHT SOURCE, FACTORY WHITE, GREEN RUNNING MAN, UNIVERSAL MOUNTING (WALL, END OR CEILING), SINGLE FACE (SF), 120/347V AC INPUT (NORMAL), 12V DC INPUT (EMERGENCY), EQUAL TO BEGHELLI MICRA RM MC-RM-L-1-D-UDC
	WALL MOUNTED REMOTE SINGLE HEAD 12W EMERGENCY LIGHT, INJECTION MOLDED IMPACT RESISTANT FLAME RETARDANT THERMOPLASTIC, ADJUSTABLE LENSES, SUITABLE FOR INSTALLATION ON 4" OCTAGON BOX, EQUAL TO BEGHELLI SRT-12V12W (OR VOLTAGE TO MATCH EXISTING BATTERY UNIT)

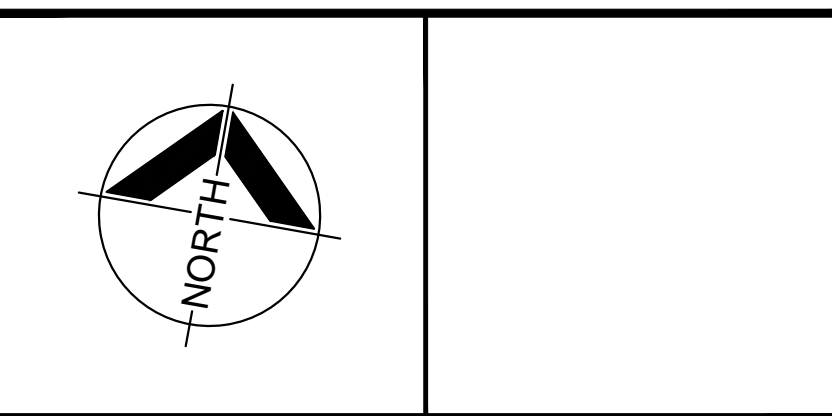
FIRE ALARM LEGEND

	HEAT DETECTOR
	FIRE ALARM PULL STATION
	FIRE ALARM MINI-HORN
	FIRE ALARM HORN/STROBE

ZONES

ALARM	
MAIN BUILDING	
DINING HALL	
CIRCUITS	
HORN CIRCUIT A	FAN SHUTDOWN
STROBE CIRCUIT A	

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Millenium Park Boathouse
Life Safety Upgrades
 1 King Street
 Peterborough, Ontario

DATE:	MARCH 2014	SCALE:	3/8"=1'
DRAWN BY:	MRC/LC	CHECKED BY:	LC/LNS
DES PROJECT NUMBER:	13-671	SHEET SIZE:	D

Emergency Lighting and Fire Alarm Layout