

File Name: P:\Projects\2016\16-0229-002\Elec\16-0229-002_E0-00.dwg - Tab: E0-00 Plotted By: dderoché 17/04/13 [Thu 1:32pm]
 24 x 36 / FLO SCALE

FIRE ALARM	
SYMBOL	DESCRIPTION
	FIRE ALARM PULL STATION
	FIRE ALARM HORN
	FIRE ALARM LOUD HORN
	FIRE ALARM BELL
	FIRE ALARM STROBE
	FIRE ALARM HORN/STROBE
	FIRE ALARM SPEAKER/STROBE
	SPRINKLER FLOW SWITCH
	SPRINKLER TAMPER SWITCH
	SPRINKLER PRESSURE SWITCH
	SMOKE DETECTOR
	DUCT SMOKE DETECTOR
	HEAT DETECTOR
	CARBON MONOXIDE DETECTOR
	ISOLATION MODULE
	ADDRESSABLE MONITORING MODULE
	RELAY ADDRESSABLE MODULE
	FIRE ALARM REMOTE ANNUNCIATOR
	FIRE ALARM CONTROL PANEL
	FIRE ALARM MAGNETIC HOLD OPEN DEVICE
	ELECTRIFIED FIRE ALARM DOOR CLOSURE
	BEAM DETECTOR RECEIVER
	BEAM DETECTOR TRANSMITTER
	EMERGENCY STOP (MUSHROOM HEAD TYPE)
	END OF LINE RESISTOR
	REMOTE CONTACT

ABBREVIATION / SYMBOL MODIFIER LIST	
ABBREVIATION	DESCRIPTION
a	MOUNTED ABOVE COUNTER/TABLE
AF	ABOVE FINISHED FLOOR
BFC	BELOW FINISHED CEILING
CM	CEILING MOUNTED
FM	FLOOR MOUNTED
WP	WEATHERPROOF
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
FT	FIXED TEMPERATURE
RR	RATE OF RISE

GENERAL NOTES

- DEVICE SYMBOLS SHOWN ON THE DRAWINGS AS A "GREY" LINE WEIGHT DENOTES THAT THEY ARE EXISTING.
- WHERE THE MECHANICAL DESIGN UTILIZES A PLENUM RETURN AIR CEILING DESIGN, ALL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE PLENUM RETURN CEILING MUST MEET THE FLAME SPREAD AND SMOKE DEVELOPED RATINGS OF 25/50 AND BE APPROVED FOR USE IN PLENUM RETURN CEILING. COORDINATE PLENUM CEILING LOCATIONS WITH THE MECHANICAL CONTRACTOR. LUMINAIRES THAT ARE MANUFACTURED WITH A METAL HOUSING MEET THIS REQUIREMENT AND ARE NOT REQUIRED TO BE PLENUM RATED UNLESS INDICATED OTHERWISE.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PRESERVING THE FIRE RATING OF ANY FIRE-RATED CEILING ASSEMBLIES BY PROVIDING THE APPROPRIATE FIRE-RATED LUMINAIRE TENTS AS MANUFACTURED BY TENMAT OR NELSON FIRESTOP OR BY BUILDING FIRE-RATED ENCLOSURES AROUND EACH LUMINAIRE THAT IS RECESSED INTO THE FIRE-RATED ASSEMBLY.
- ALL EQUIPMENT AND DEVICES SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED. EQUIPMENT MOUNTED OUTDOORS SHALL BE NEMA 3R. DEVICES MOUNTED IN DAMP OR WET LOCATIONS SHALL BE WEATHERPROOF.
- CONDUCTORS #12 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #10 AWG AND LARGER ARE PERMITTED TO BE STRANDED.
- MUA'S AND KITCHEN EXHAUST FANS TO BE INTERLOCKED WITH FIRE SUPPRESSION SYSTEM, GAS SOLENOIDS CONTROL CIRCUITS FOR COOKING EQUIPMENT ETC. FIRE SUPPRESSION SYSTEM DESIGNER TO PROVIDE SEQUENCE OF OPERATION, ELECTRICAL CONTRACTOR TO ACCOMPLISH THIS THROUGH RELAYS, INTERLOCKS AND CONTROL WIRING. ELECTRICAL CONSULTANT MAY PROVIDE ASSISTANCE ONCE SEQUENCE OF OPERATION IS KNOWN, BUT RESPONSIBILITY FOR CORRECT SEQUENCING IS WITH ELECTRICAL CONTRACTOR. ALLOW FOR ALL EQUIPMENT AND WIRING IN BASE BUILDING TENDER PRICE. NO EXTRAS WILL BE AUTHORIZED. CONTRACTORS WITH NO EXPERIENCE IN KITCHEN SYSTEM INTERLOCKS, OR WHO ARE UNWILLING TO COMPLY, SHALL NOT BID THIS PROJECT.

DUCT SMOKE DETECTORS

- INSTALL ALL NEW DUCT SMOKE DETECTORS IN THE SAME LOCATIONS AS THE EXISTING DETECTORS. ALL NEW DETECTORS SHALL BE COMPLETE WITH VISUAL INDICATORS.

ELECTROMAGNETIC LOCKS NOTES

- ELECTROMAGNETIC LOCKS SHALL RELEASE ON FIRE ALARM.
- ELECTROMAGNETIC LOCKS SHALL BE INSTALLED WITH FAIL SAFE OPERATION. LOCKS SHALL OPEN ON FAILURE TO LOCKING MECHANISM.
- ELECTROMAGNETIC LOCKS SHALL BE COMPLETE WITH A LOCAL HARDWARE RELEASE AND A GLOBAL RELEASE FUNCTION.
- ALL WIRING FOR ELECTROMAGNETIC LOCKS SHALL BE SUITABLE FOR CLASS 1 CIRCUIT.
- ALL FIRE ALARM CONNECTIONS AND RELEASE FUNCTIONS SHALL BE VERIFIED ON THE VI REPORT.

SPRINKLER SUPERVISION DEVICES

- PROVIDE AND INSTALL ALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN THE SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.
- PROVIDE AND INSTALL RED LAMACOID LABELS INDICATING THE DEVICE TAG. CONTRACTOR SHALL ENSURE ALL TAGS ARE CONSISTENT WITH THE EXISTING INSTALLATION.

FIRE STOPPING NOTES

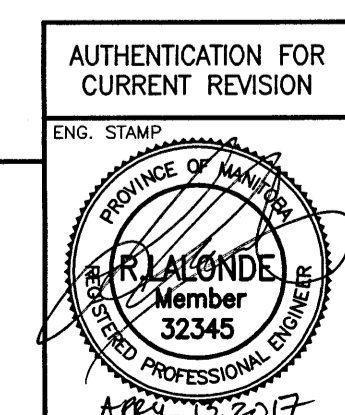
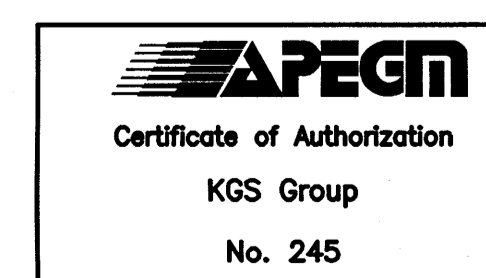
- ALL ELECTRICAL WIRES, CABLES, NON-COMBUSTIBLE RACEWAYS, OUTLET BOXES AND OTHER SIMILAR SERVICES THAT PENETRATE FIRE WALLS, FIRE SEPARATIONS OR ASSEMBLIES AND THAT ARE REQUIRED TO HAVE A FIRE RESISTANCE RATING OR FIRE SEPARATION, SHALL BE SEALED BY FIRE STOP SYSTEM WHICH HAS AN "F" AND/OR "FT" RATING NOT LESS THAN THE REQUIRED FIRE PROTECTION RATING OF FIRE SEPARATION.
- CONTRACTOR SHALL ONLY USE LISTED MATERIALS AND METHODS.
- SERVICE PENETRATION AND FIRE STOPPING OF SERVICE PENETRATION IN FIRE SEPARATION AND FIRE RATED ASSEMBLIES SHALL COMPLY WITH THE CURRENT BUILDING CODE.
- PROVIDE FOR FIRE STOPS IN CONCEALED SPACES AS REQUIRED BY THE CURRENT BUILDING CODE.
- ALL FIRE RESISTANCE RATED ASSEMBLIES (I.E. WALLS, CEILINGS, ETC.) WHICH CONTAIN PANEL BOARDS, BACK BOXES, RECESSED LIGHTING FIXTURES, ETC. SHALL BE C/W FIRE RATED BACKING TO MAINTAIN THE INTEGRITY OF THE FIRE RESISTANCE.

GENERAL DEMOLITION NOTES

- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND STANDARDS.
- PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS TO COMPLETE THE DEMOLITION SCOPE OF WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SAFE THE AREA OF DEMOLITION AND FOR ENSURING THAT SAFETY PROCEDURES, PRACTICES AND OPERATIONS ARE FOLLOWED. ALL DEMOLITION AND MATERIAL SHALL BE SAFELY REMOVED TO ALLOW FUTURE CONSTRUCTION AND ALL DEBRIS DISPOSED OF ON A DAILY BASIS.
- CONTRACTOR SHALL PROVIDE SAFETY AND DUST PROOF BARRIERS TO PROTECT ALL PUBLICLY OCCUPIED AREAS DURING THE DEMOLITION AND CONSTRUCTION PERIOD. ALL AREAS, FURNITURE, EQUIPMENT ETC. THAT ARE ADJACENT OR NOT A PART OF THE DEMOLITION AREA SHALL BE PROTECTED FROM DAMAGE.
- ALL MATERIALS REMOVED DUE TO THE DEMOLITION OF EXISTING AREAS ARE OF THE OWNER'S PROPERTY IN WHICH THE OWNER HAS THE FIRST RIGHT TO CLAIM. ALL ITEMS THAT ARE NOT CLAIMED BY THE OWNER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND DISCARD FROM SITE.
- NON-DEMOLITION ITEMS MAY BE SHOWN ON THE DRAWINGS TO DESCRIBE THE INTENT OF THE OVERALL SCOPE OF WORK AND TO AID THE CONTRACTOR WITH THEIR COORDINATION. CONTRACTOR SHALL FIELD VERIFY ALL DEVICE LOCATIONS.
- WHERE CONDUITS ARE TO BE REMOVED WITHIN THE SCOPE OF WORK, ALL CONDUITS AND ASSOCIATED WIRING (I.E. FEEDER CIRCUIT WIRING) SHALL BE REMOVED BACK TO THEIR SOURCE AND NOT JUST TO THE NEAREST JUNCTION BOX.
- ALL OBSOLETE/ABANDONED CABLING AND CONDUIT WITHIN CEILING SPACES THAT ARE AFFECTED BY THE AREA OF DEMOLITION SHALL BE COMPLETELY REMOVED.
- WHERE ELECTRICAL EQUIPMENT HAS BEEN REMOVED, ALL WALLS/CEILINGS SHALL BE REPAIRED TO EXISTING CONDITIONS. SURFACES SHALL BE PATCHED AND PAINTED TO MATCH EXISTING.

DRAWING LIST	
DWG. No.	DESCRIPTION
E0-00	SYMBOL LEGEND AND DRAWING LIST
E1-00	WPG01 - PARTIAL PARKING LEVEL - DEMO
E1-01	WPG01 - PARTIAL PARKING LEVEL - DEMO
E1-02	WPG01 - BASEMENT LEVEL - DEMO
E1-10	WPG01 - PARTIAL MAIN LEVEL - DEMO
E1-11	WPG01 - PARTIAL MAIN LEVEL - DEMO
E1-12	WPG01 - PARTIAL MAIN LEVEL - DEMO
E1-20	WPG01 - PARTIAL SECOND LEVEL - DEMO
E1-21	WPG01 - PARTIAL SECOND LEVEL - DEMO
E1-22	WPG01 - PARTIAL SECOND LEVEL - DEMO
E1-30	WPG01 - PARTIAL THIRD LEVEL - DEMO
E1-31	WPG01 - PARTIAL THIRD LEVEL - DEMO
E1-40	WPG01 - PARTIAL FOURTH LEVEL - DEMO
E1-41	WPG01 - PARTIAL FOURTH LEVEL - DEMO
E2-00	WPG02 - PARKADE LEVEL - DEMO
E2-10	WPG02 - MAIN LEVEL - DEMO
E2-20	WPG02 - SECOND LEVEL - DEMO
E2-30	WPG02 - THIRD LEVEL - DEMO
E2-40	WPG02 - FOURTH LEVEL - DEMO
E3-00	WPG01 - PARTIAL PARKING LEVEL - NEW
E3-01	WPG01 - PARTIAL PARKING LEVEL - NEW
E3-02	WPG01 - BASEMENT LEVEL - NEW
E3-10	WPG01 - PARTIAL MAIN LEVEL - NEW
E3-11	WPG01 - PARTIAL MAIN LEVEL - NEW
E3-12	WPG01 - PARTIAL MAIN LEVEL - NEW
E3-20	WPG01 - PARTIAL SECOND LEVEL - NEW
E3-21	WPG01 - PARTIAL SECOND LEVEL - NEW
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E3-40	WPG01 - PARTIAL FOURTH LEVEL - NEW
E3-41	WPG01 - PARTIAL FOURTH LEVEL - NEW
E4-00	WPG02 - PARKADE LEVEL - NEW
E4-10	WPG02 - MAIN LEVEL - NEW
E4-20	WPG02 - SECOND LEVEL - NEW
E4-30	WPG02 - THIRD LEVEL - NEW
E4-40	WPG02 - FOURTH LEVEL - NEW
E5-00	FIRE ALARM RISER - SHEET 1
E5-01	FIRE ALARM RISER - SHEET 2
E5-02	FIRE ALARM RISER - SHEET 3
E5-03	FIRE ALARM RISER - SHEET 4
E5-04	FIRE ALARM RISER - SHEET 5
E5-05	FIRE ALARM RISER - SHEET 6
E6-00	FIRE ALARM DETAILS

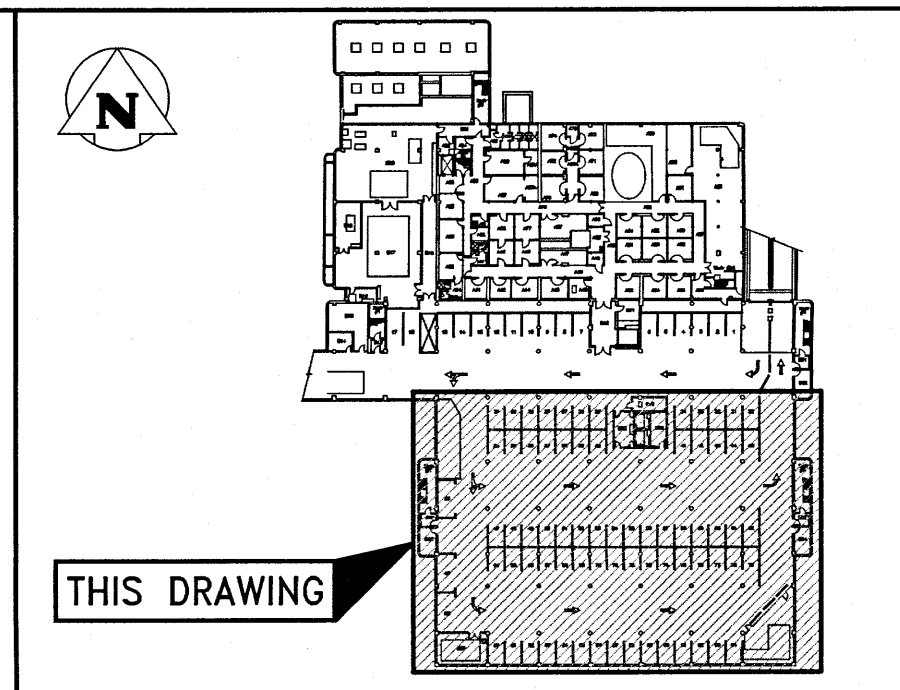
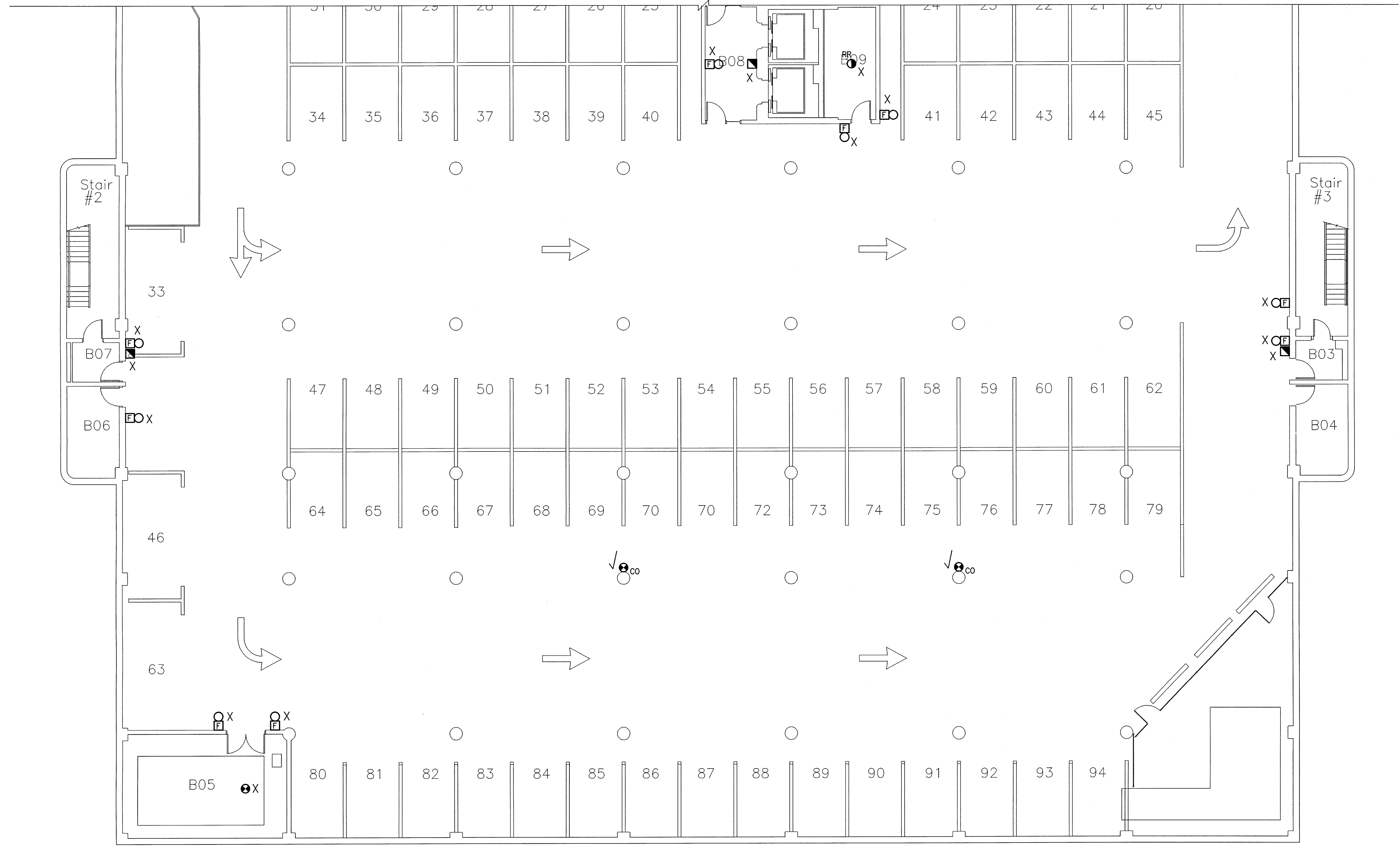
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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	DESIGN CHECK
REVISIONS / ISSUE				
CLIENT:				
National Research Council Canada / Conseil national de recherches Canada				
PROJECT:				
NATIONAL RESEARCH COUNCIL NRC 435/445 ELLICE AVE., WPG, MB FIRE ALARM UPGRADES				
DWG. DESCRIPTION:				
SYMBOL LEGEND AND DRAWING LIST				
AUTHENTICATION FOR CURRENT REVISION		DESIGN BY:	DATE (YY/MM/DD):	
ENG. STAMP		SEB	2016/10/03	
DESIGN CHECK:		RAH	17/04/13	
DRAWN BY:		RAH	2016/10/03	
DWG. CHECK:		SEB	17/04/13	
DWG. NO.		16-0229-002		REV: 0
		E0-00		

File Name: P:\Projects\2016\16-0229-002\Elec\16-0229-002_E1-00.dwg - Tab: E1-00 Plotted By: dderoché 17/04/13 [Thu 1:32pm]
 24 X 36 PLOT SCALE:

CONTINUED ON DRAWING E1-01



KEYPLAN: N.T.S.

GENERAL NOTES:

- WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
- * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
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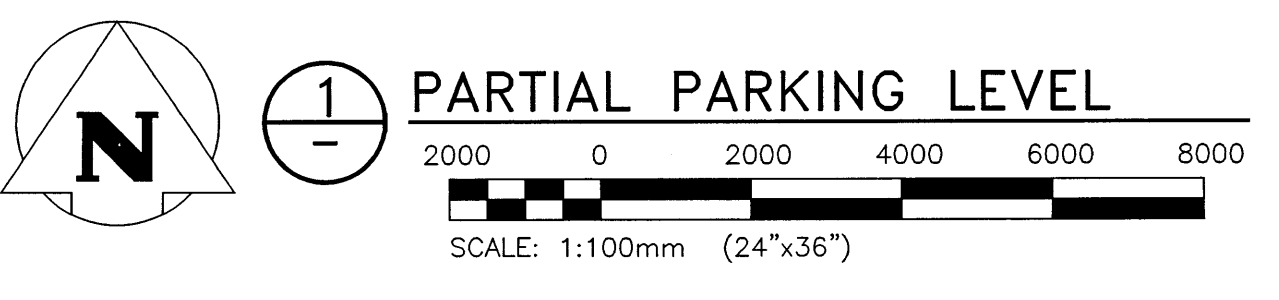
REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 BASEMENT/PARKING LEVEL - DEMO

DESIGN BY:	SEB	DATE (YY/MM/DD):	2016/10/03
DESIGN CHECK:	RAH	DATE:	17/04/13
DRAWN BY:	RAH	DATE:	2016/10/03
DWG CHECK:	SEB	DATE:	2017/04/13
DWG. NO.:	16-0229-002	E1-00	REV: 0



APEGN
 Certificate of Authorization
 KGS Group
 No. 245

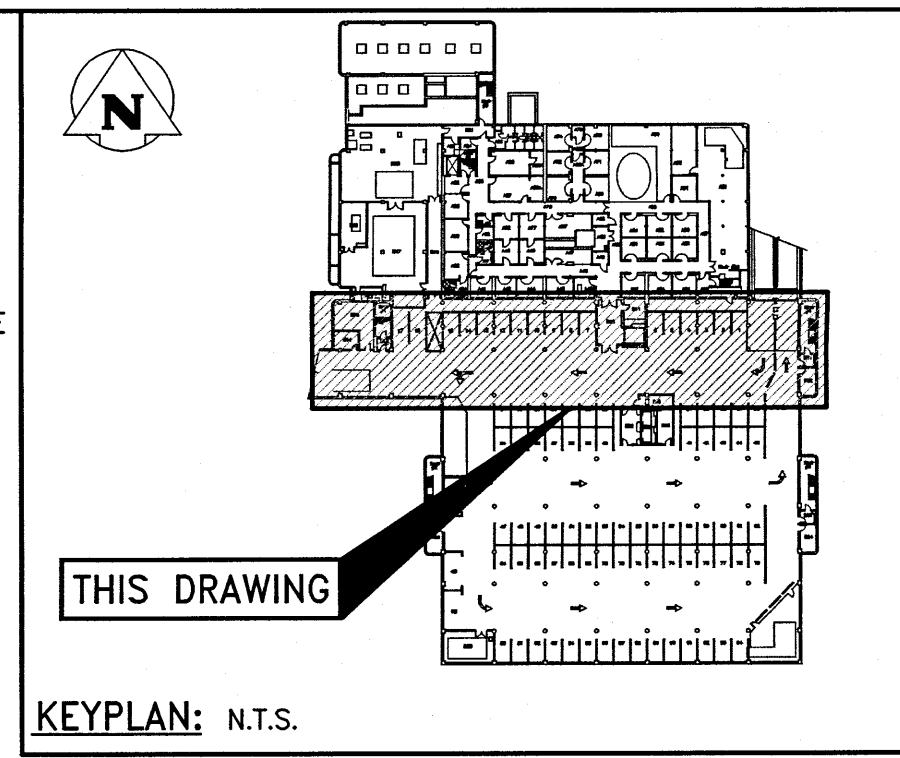
PROFESSIONAL ENGINEER
 R. J. ALONDE
 Member
 32345
 APRIL 15, 2017

RENOVATION LEGEND:

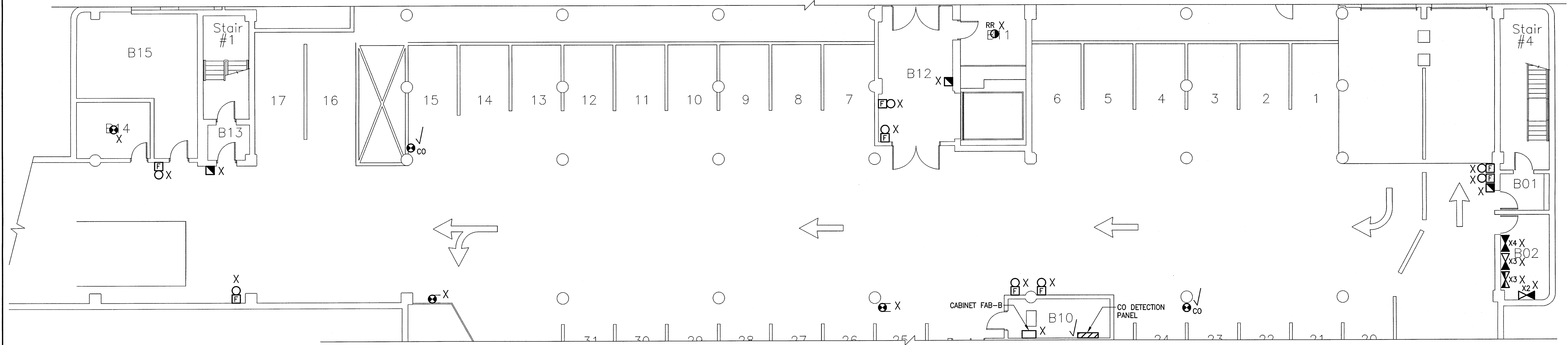
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2. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.



CONTINUED ON DRAWING E1-02



CONTINUED ON DRAWING E1-00

File Name: P:\Projects 2016\16-0229-002\Elec\16-0229-002_E1-01.dwg - Tab: E1-01 Plotted By: dderoché 17/04/13 [Thu 1:31pm] 24"x36" PLOT SCALE:

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REVISIONS / ISSUE

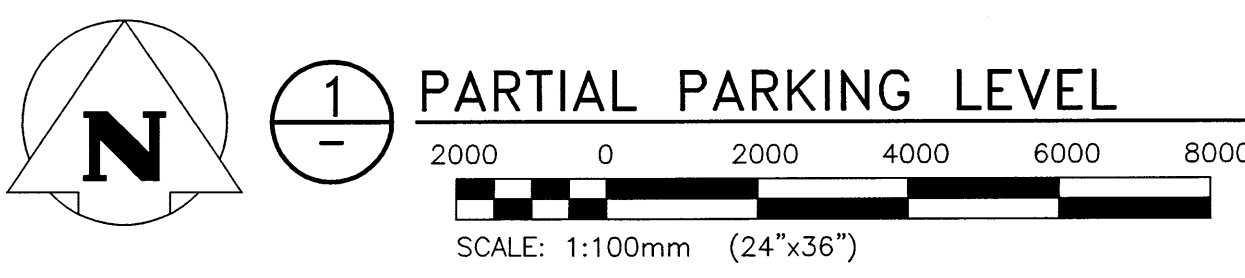
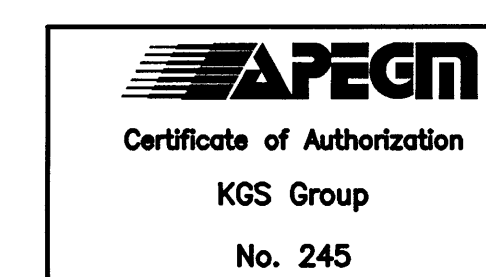
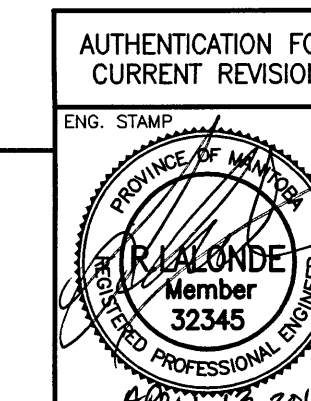
CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

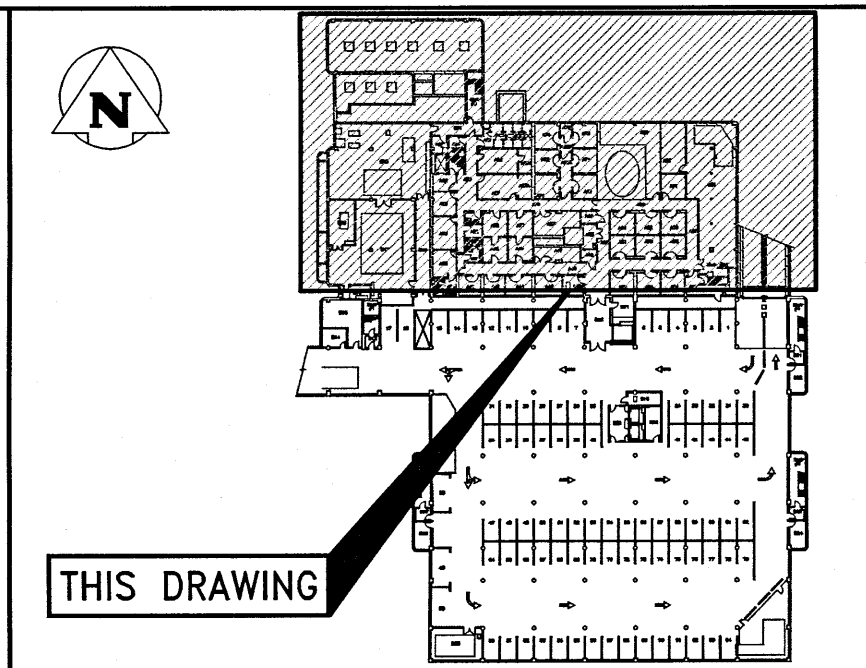
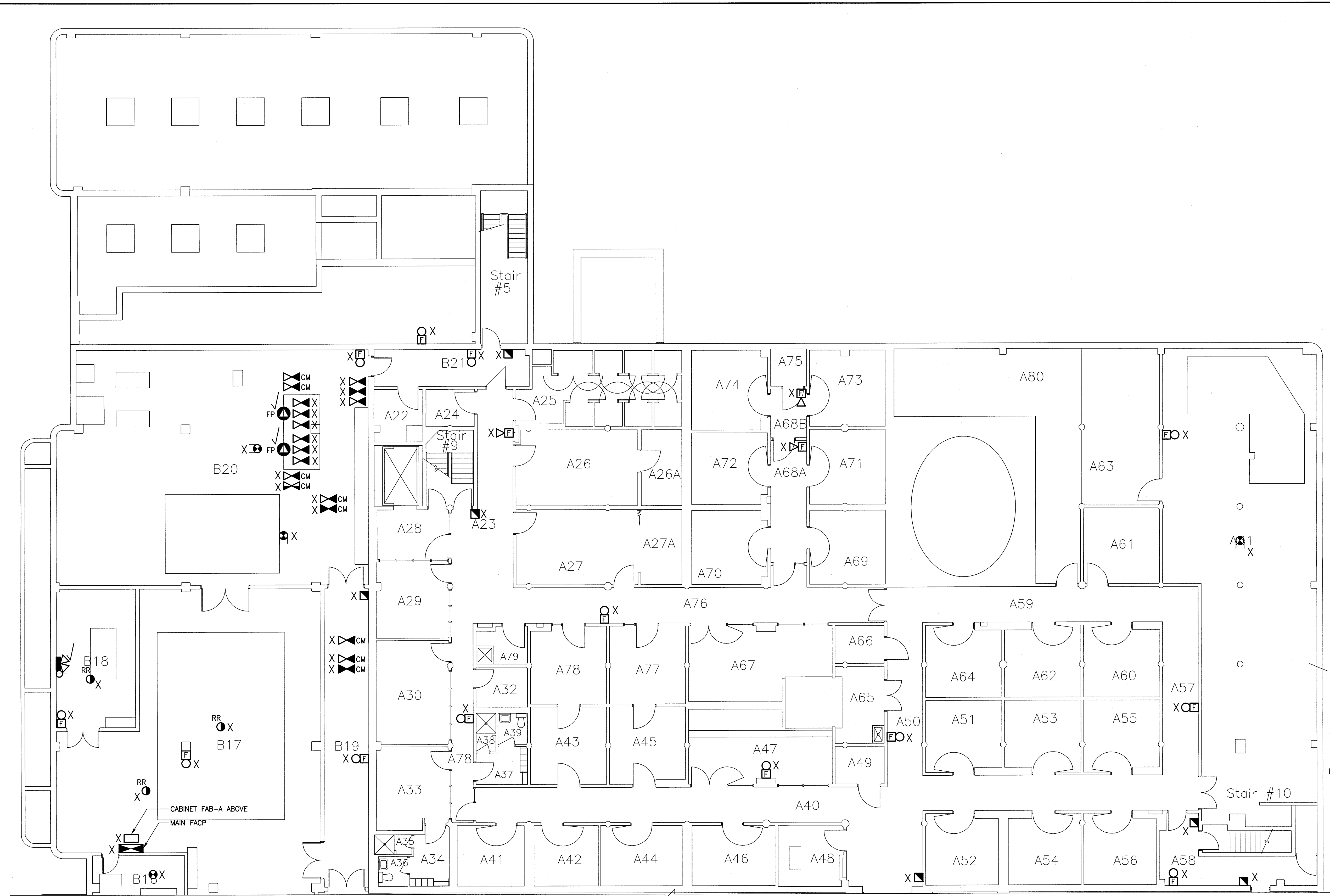
DWG. DESCRIPTION: WPG01 BUILDING
PARTIAL PARKING LEVEL -- DEMO

DESIGN BY	DATE (YY/MM/DD)
SEB	2016/10/03
DESIGN CHECK: RAH	DATE: 17/04/13
DRAWN BY: RAH	DATE: 2016/10/03
DWG CHECK: SEB	DATE: 17/04/13

DWG. NO. 16-0229-002 E1-01 REV: 0



File Name: F:\Projects\2016\16-0229-002\16-0229-002_E1-02.dwg - Tab: E1-01 Plotted By: dderoché 17/04/13 [Thu 1:31pm]
 Plot Size: 36" x 36" SCALE:



KEYPLAN: N.T.S.

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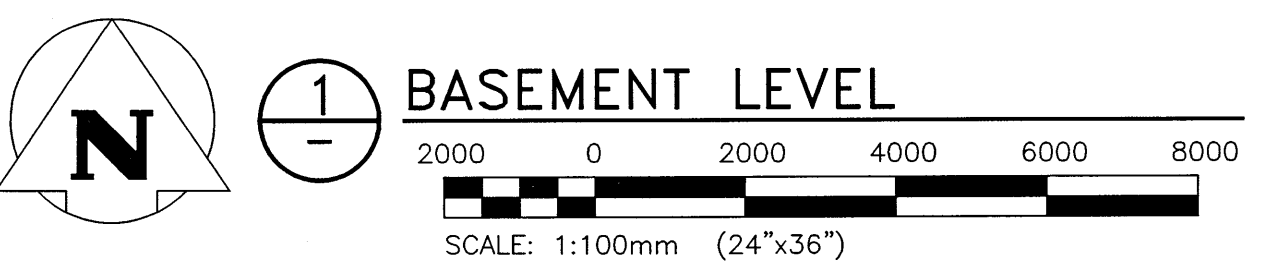
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REVISIONS / ISSUE

CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 BASEMENT LEVEL - DEMO

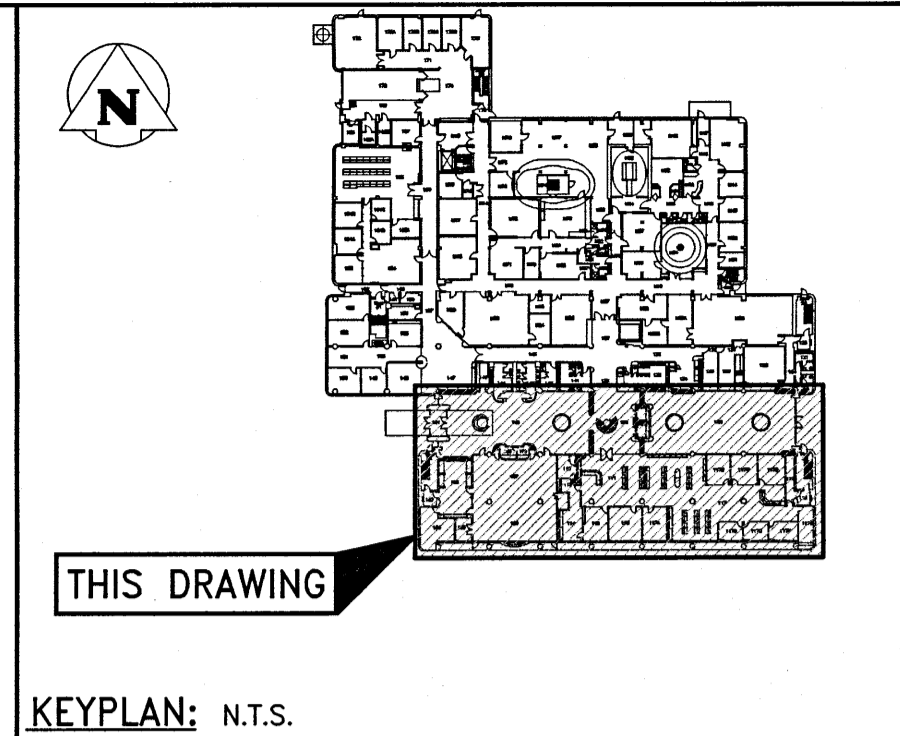
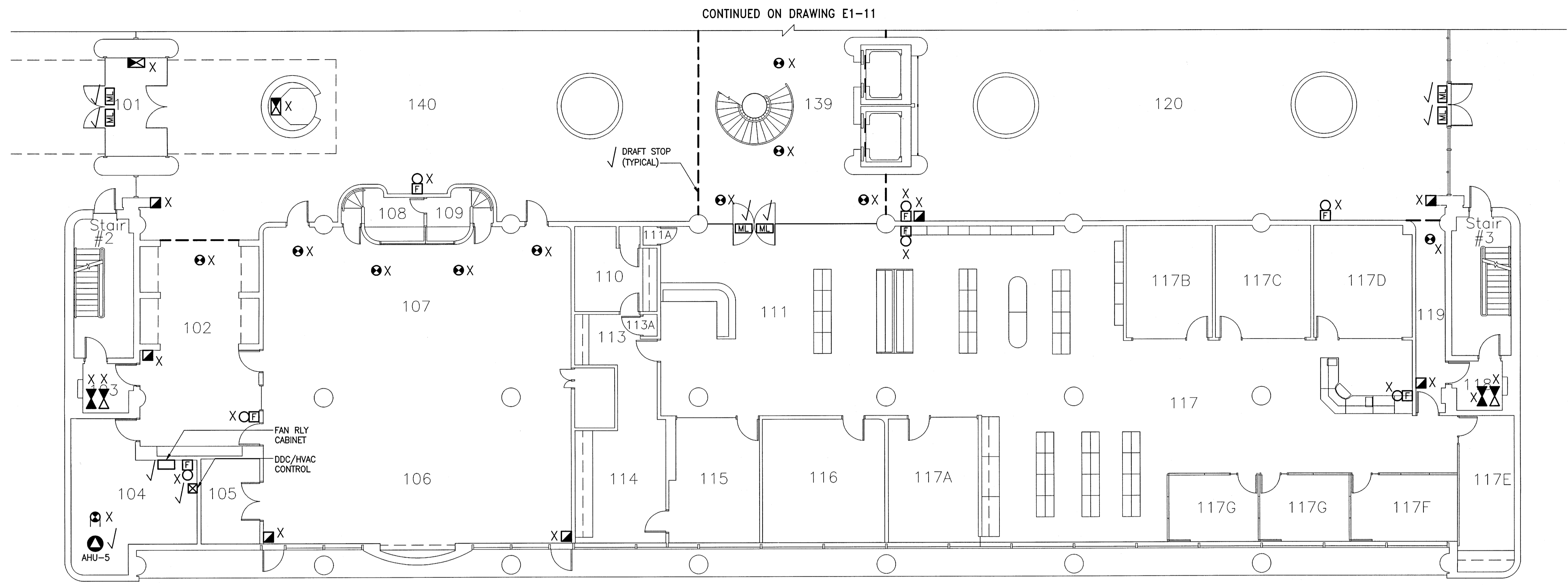


APEGM
 Certificate of Authorization
 KGS Group
 No. 245

PROVINCE OF MANITOBA
 R. ALONDE
 Member
 32345
 REGISTERED PROFESSIONAL ENGINEER

DESIGN BY:	DATE (YY/MM/DD):
SEB	2016/10/03
DESIGN CHECK:	DATE:
RAH	17/04/13
DRAWN BY:	DATE:
RAH	2016/10/03
DWG CHECK:	DATE:
SEB	17/04/13
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16-0229-002	E1-02
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 24"x36" PLOT SCALE:



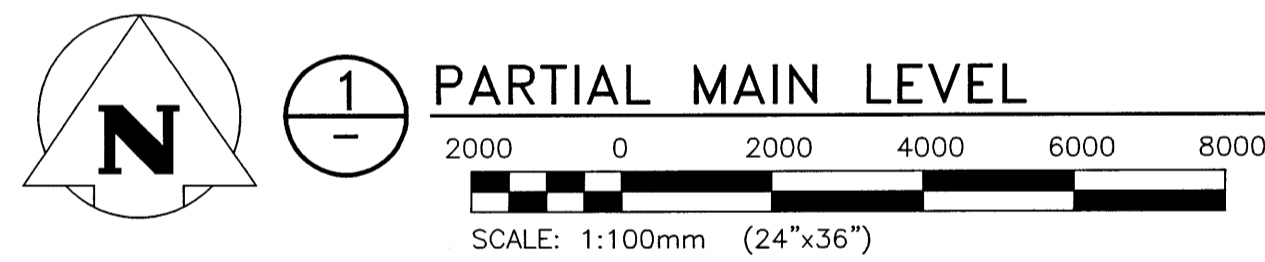
KEYPLAN: N.T.S.

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0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL MAIN LEVEL - DEMO

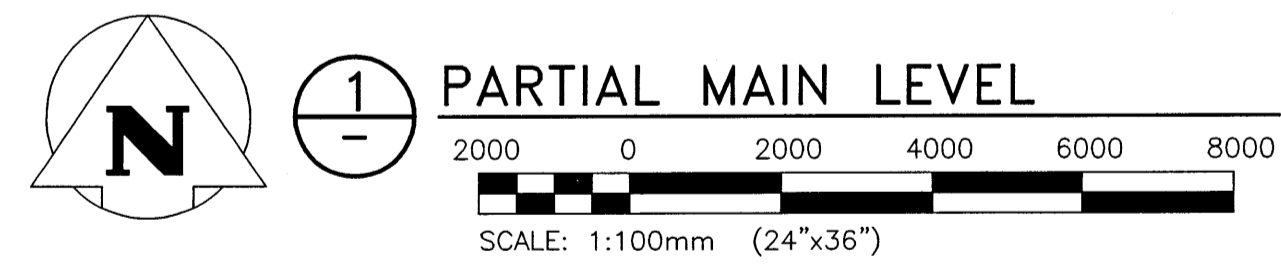
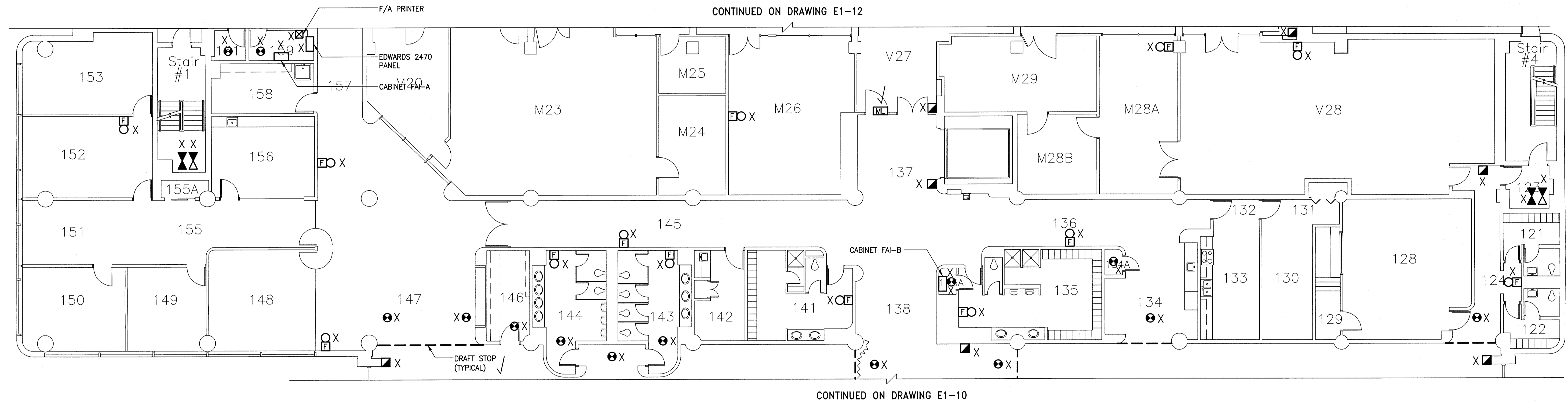
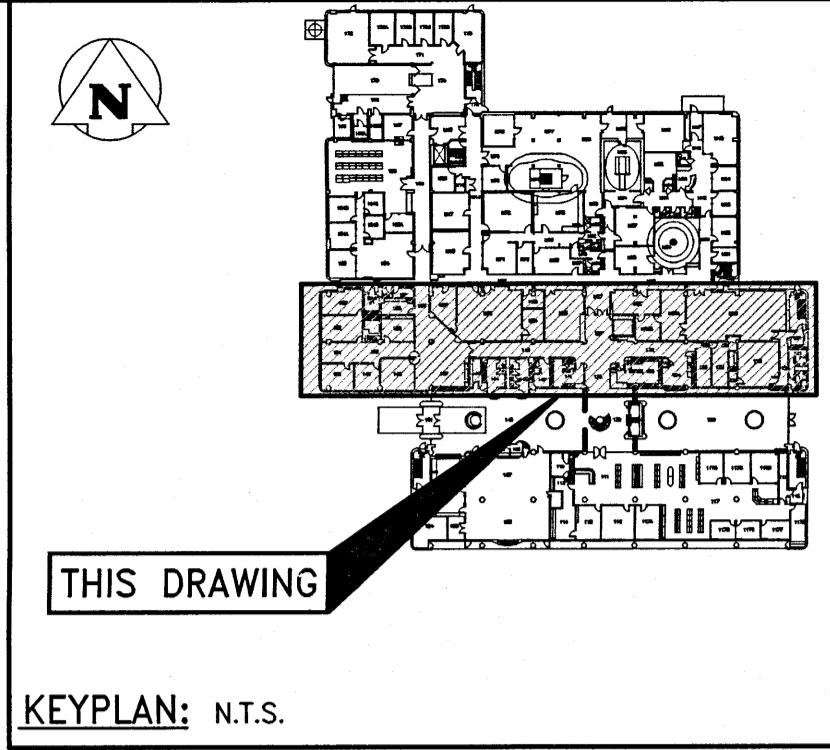
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	DWG CHECK: SEB	DATE: 2017/04/13
DWG. NO.: 16-0229-002		E1-10
REV: 0		

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GENERAL NOTES:

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 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
2. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.



File Name: F:\Projects\2016\16-0229-002\DWG\Elec\16-0229-002_E1-11.dwg - Tab: E1-11 Plotted By: dderoché 17/04/13 [Thu 1:30pm]
 Plot Size: 36" x 24"

0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / DESIGN CHECK

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

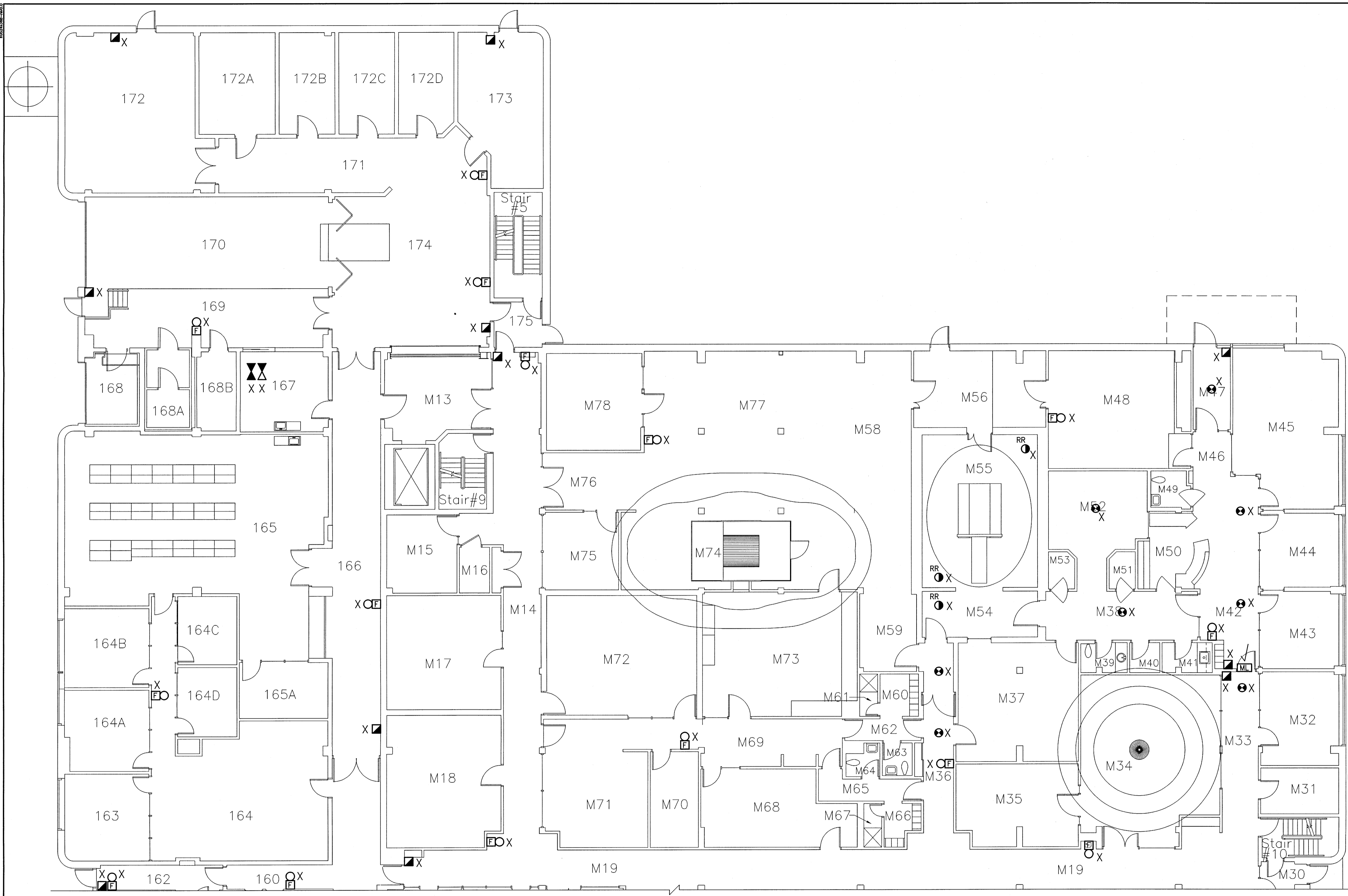
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 PARTIAL MAIN LEVEL - DEMO

AUTHENTICATION FOR CURRENT REVISION
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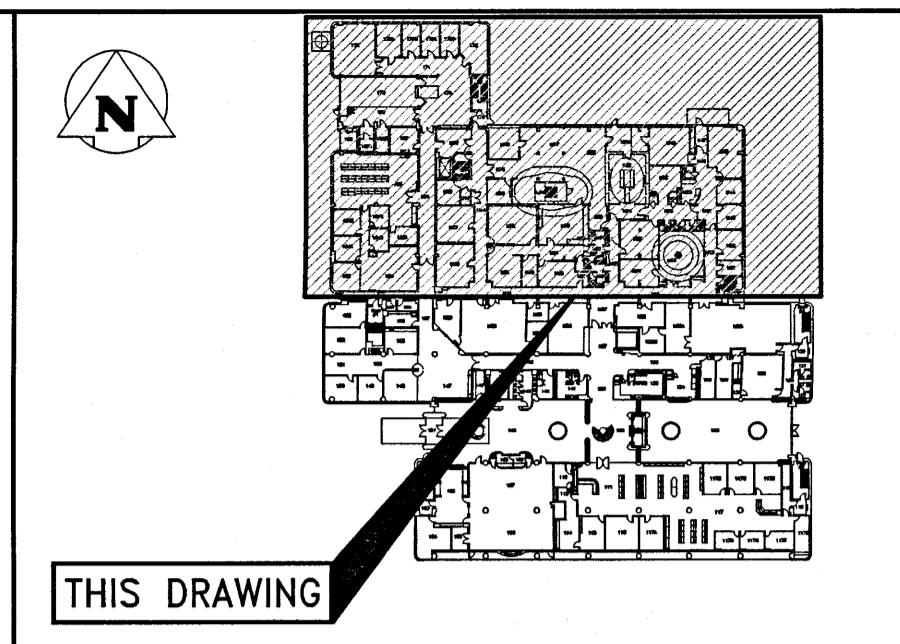
APEGM
 Certificate of Authorization
 KGS Group
 No. 245

DESIGN BY: SEB	DATE: 2016/10/03
DESIGN CHECK: RAH	DATE: 17/04/13
DRAWN BY: RAH	DATE: 2016/10/03
DWG. CHECK: SEB	DATE: 04/10/13
DWG. NO. 16-0229-002	E1-11
REV: 0	

File Name: P:\Projects\2016\16-0229-002\DWG\Elec\16-0229-002_E1-12.dwg - Tab: E1-12 Plotted By: dderoché 17/04/13 [Thu 1:30pm]
 Plot Size: 24"x36" PLOT SCALE:



CONTINUED ON DRAWING E1-11



THIS DRAWING

KEYPLAN: N.T.S.

GENERAL NOTES:

- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
- WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
- * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN IT'S PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.

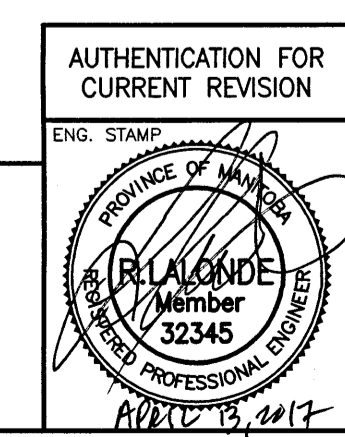
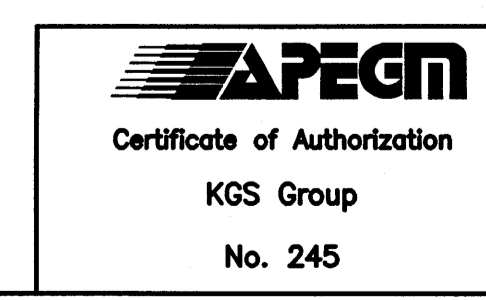
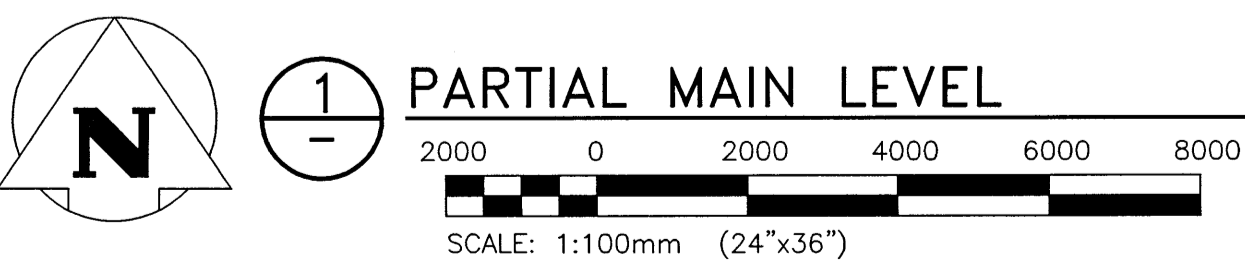
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	DESIGN CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

REVISIONS / ISSUE

CLIENT: **National Research Council Canada** / **Conseil national de recherches Canada**

PROJECT: **NATIONAL RESEARCH COUNCIL**
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

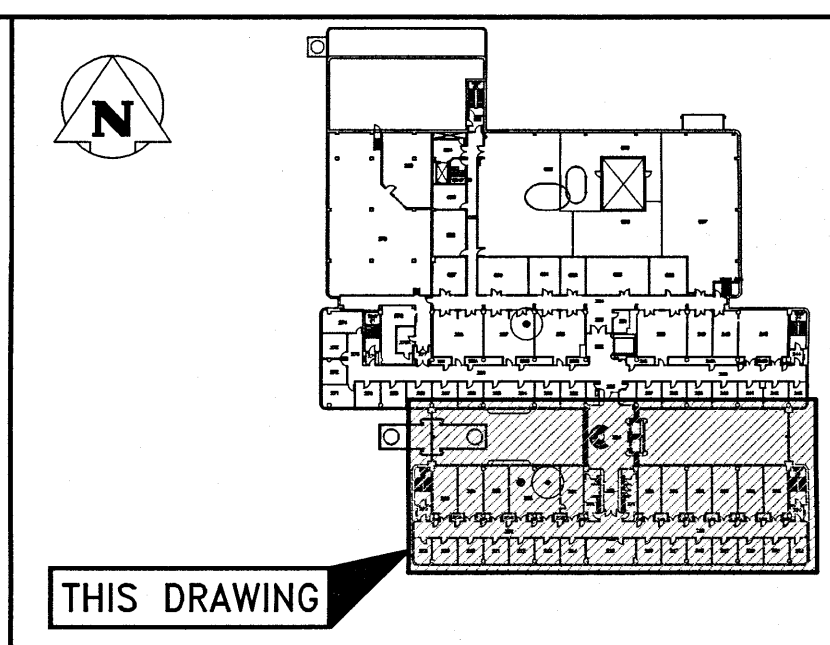
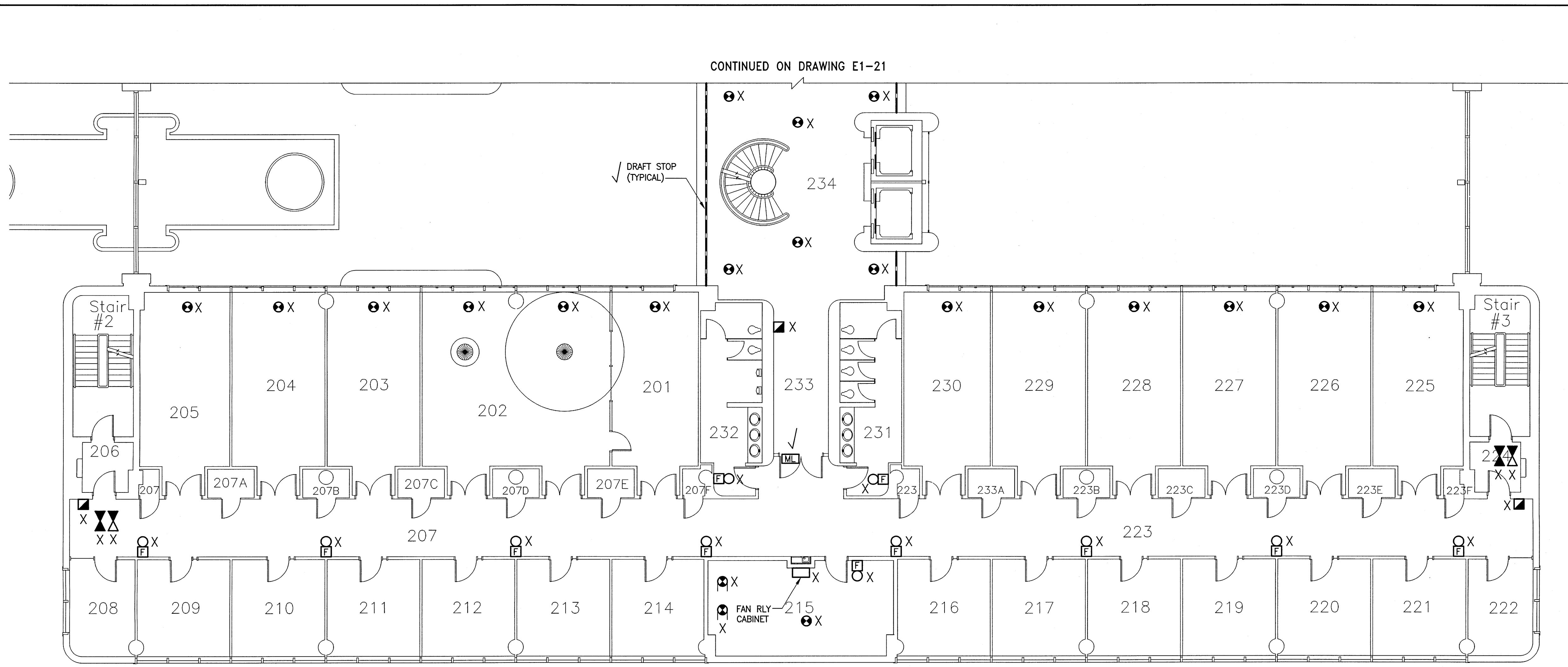
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PARTIAL MAIN LEVEL - DEMO



DESIGN BY:	DATE (YY/MM/DD):
SEB	2016/10/03
DESIGN CHECK:	DATE:
RAH	17/04/13
DRAWN BY:	DATE:
SEB	2016/10/03
DWG CHECK:	DATE:
SEB	2017/04/13

DWG. NO. 16-0229-002 E1-12 REV: 0

File Name: R:\Projects\2016\16-0229-002\Drawg\Elec\16-0229-002_E1-20.dwg - Tab: E1-20 Plotted By: dderoché 17/04/13 [Thu 1:30pm]
 Plot Scale: 1/100mm (24"x36")



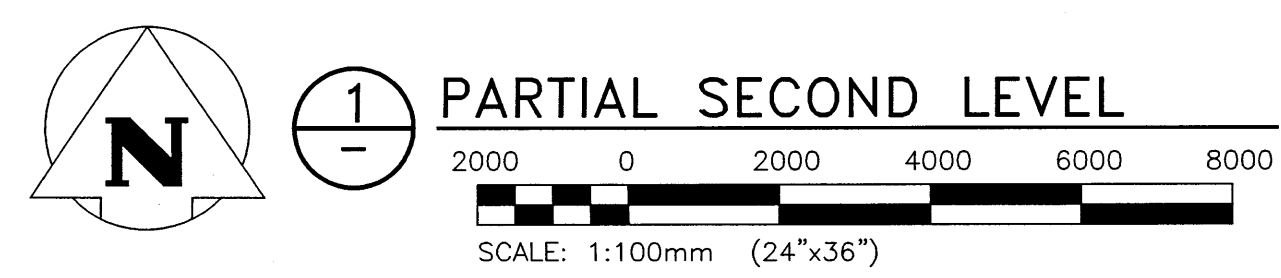
KEYPLAN: N.T.S.

GENERAL NOTES:

- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL, CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL, PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
- WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
- * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN ITS PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.



NO.	YY/MM/DD	DESCRIPTION	ISSUED FOR CONSTRUCTION	BY	CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION		SEB	

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL SECOND LEVEL - DEMO

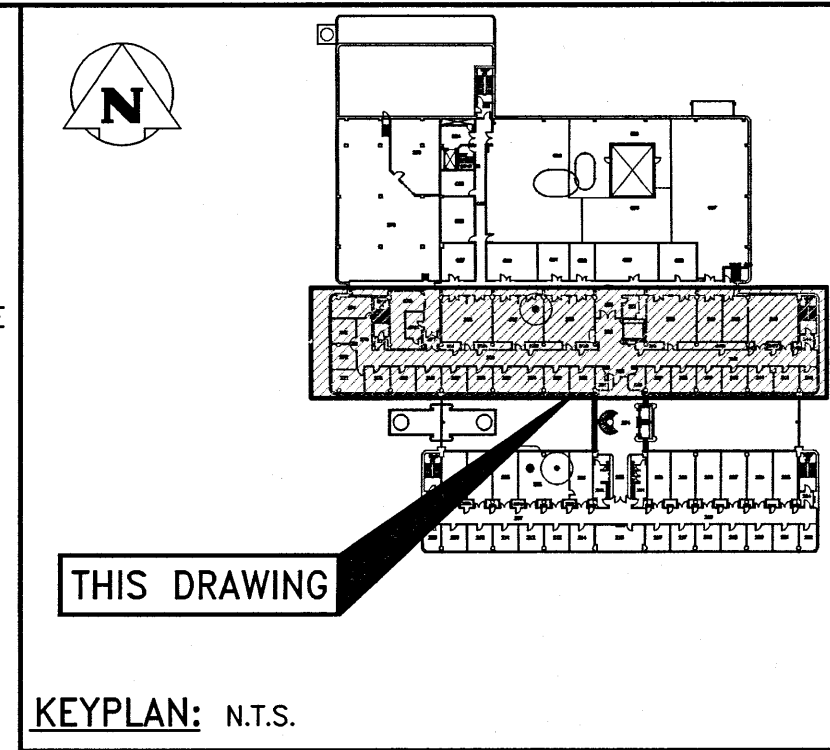
 Certificate of Authorization KGS Group No. 245	AUTHENTICATION FOR CURRENT REVISION ENG. STAMP:	DESIGN BY: SEB DATE: 2016/10/03
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DWG. NO.: 16-0229-002 E1-20		REV.: 0

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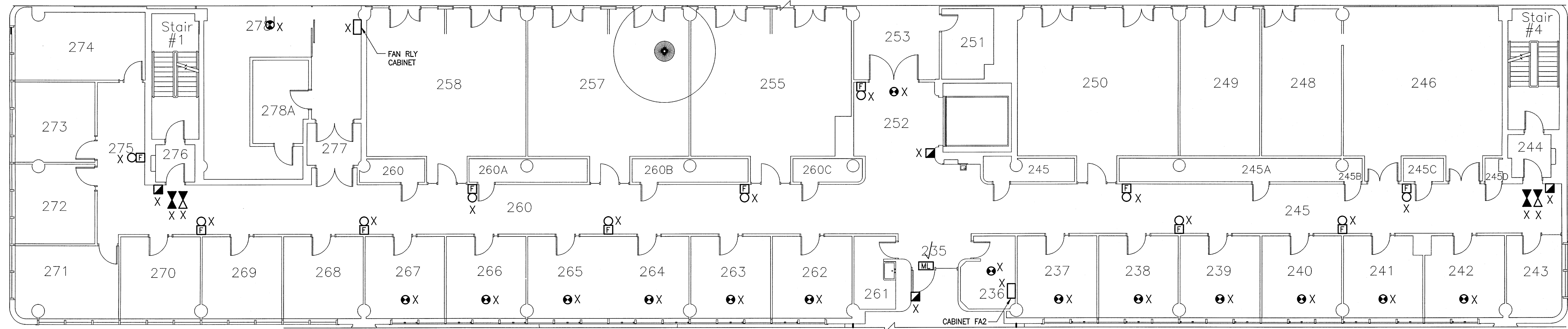
- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
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- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN IT'S PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.

GENERAL NOTES:

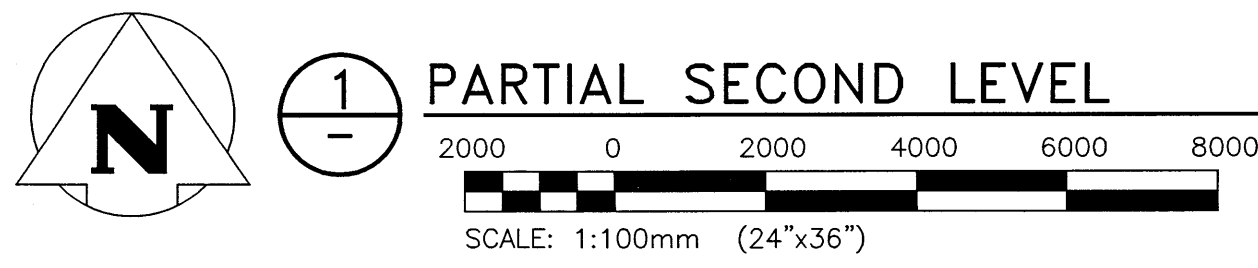
1. WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
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2. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.



CONTINUED ON DRAWING E1-22



CONTINUED ON DRAWING E1-20



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	DESIGN CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

REVISIONS / ISSUE

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 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL SECOND LEVEL - DEMO

AUTHENTICATION FOR CURRENT REVISION
 ENG. STAMP

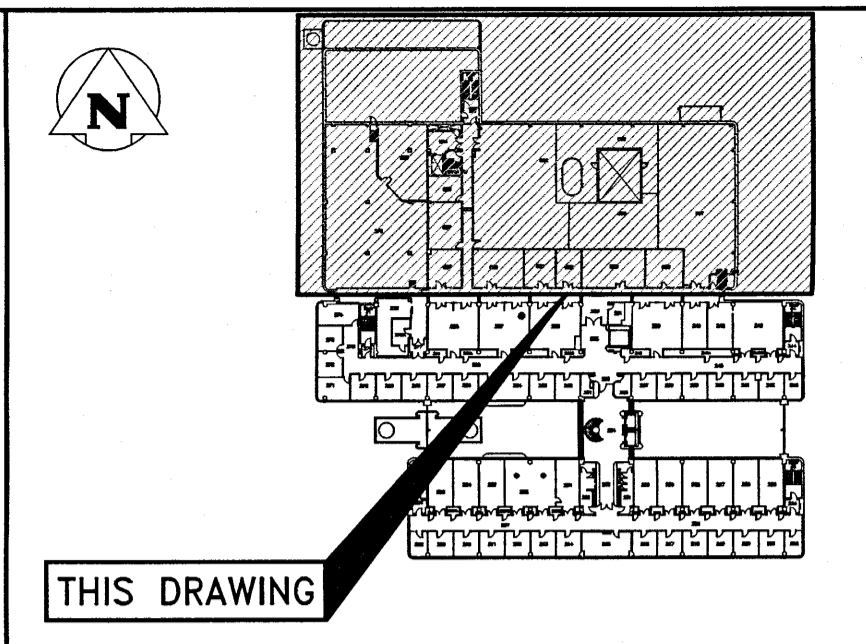
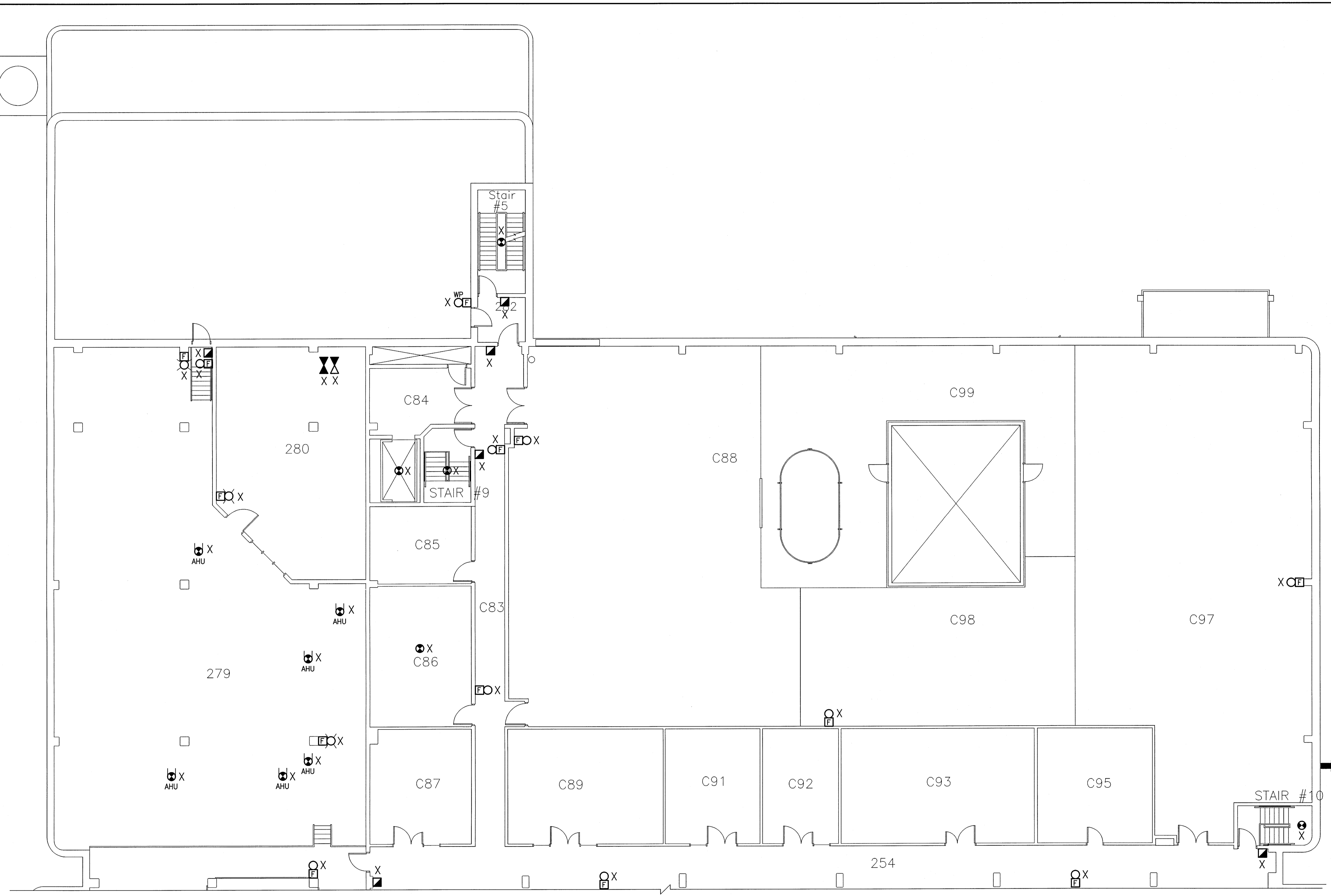
 R. ALONDE
 Member
 32345
 PROVINCE OF MANITOBA
 REGISTERED PROFESSIONAL ENGINEER

APEGM
 Certificate of Authorization
 KGS Group
 No. 245

DESIGN BY:	DATE (YY/MM/DD):
SEB	2016/10/03
DESIGN CHECK:	DATE:
RAH	17/04/13
DRAWN BY:	DATE:
RAH	2016/10/03
DWG CHECK:	DATE:
SEB	2017/04/13
DWG. NO.:	REV:
16-0229-002	E1-21
	0

File Name: F:\Projects\2016\16-0229-002\Draw\Elec\16-0229-002_E1-21.dwg - Tab: E1-21 Plotted By: dderoché 17/04/13 [Thu 1:29pm]
 24"x36" PLOT SCALE:

File Name: F:\Projects\2016\16-0229-002\Elec\16-0229-002_E1-22.dwg - Tab: E1-22 Plotted By: dderoché 17/04/13 [Thu 1:29pm]
 Plot Size: 36" x 36" Scale:



KEYPLAN: N.T.S.

GENERAL NOTES:

- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
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- WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
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- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN ITS PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.

CONTINUED ON DRAWING E1-21

NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	DESIGN CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

REVISIONS / ISSUE

CLIENT:

National Research Council Canada / Conseil national de recherches Canada

PROJECT:

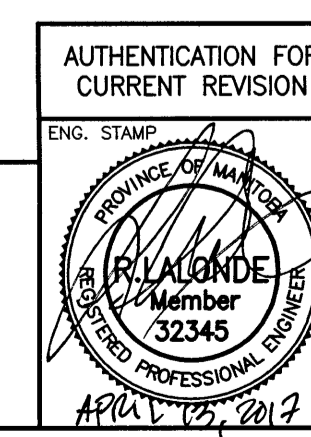
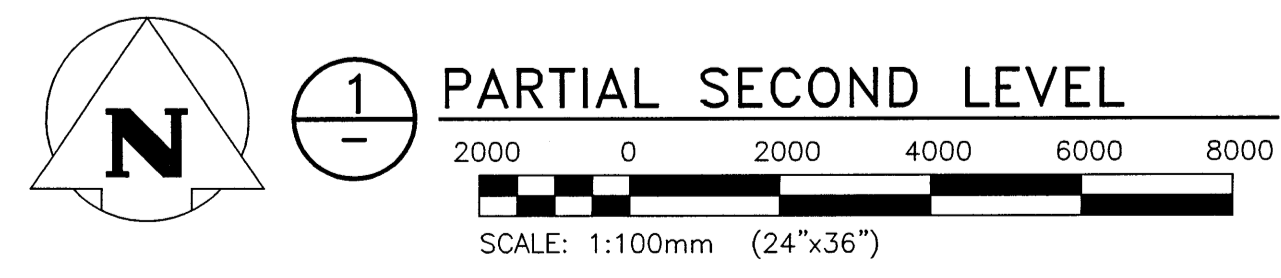
NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:

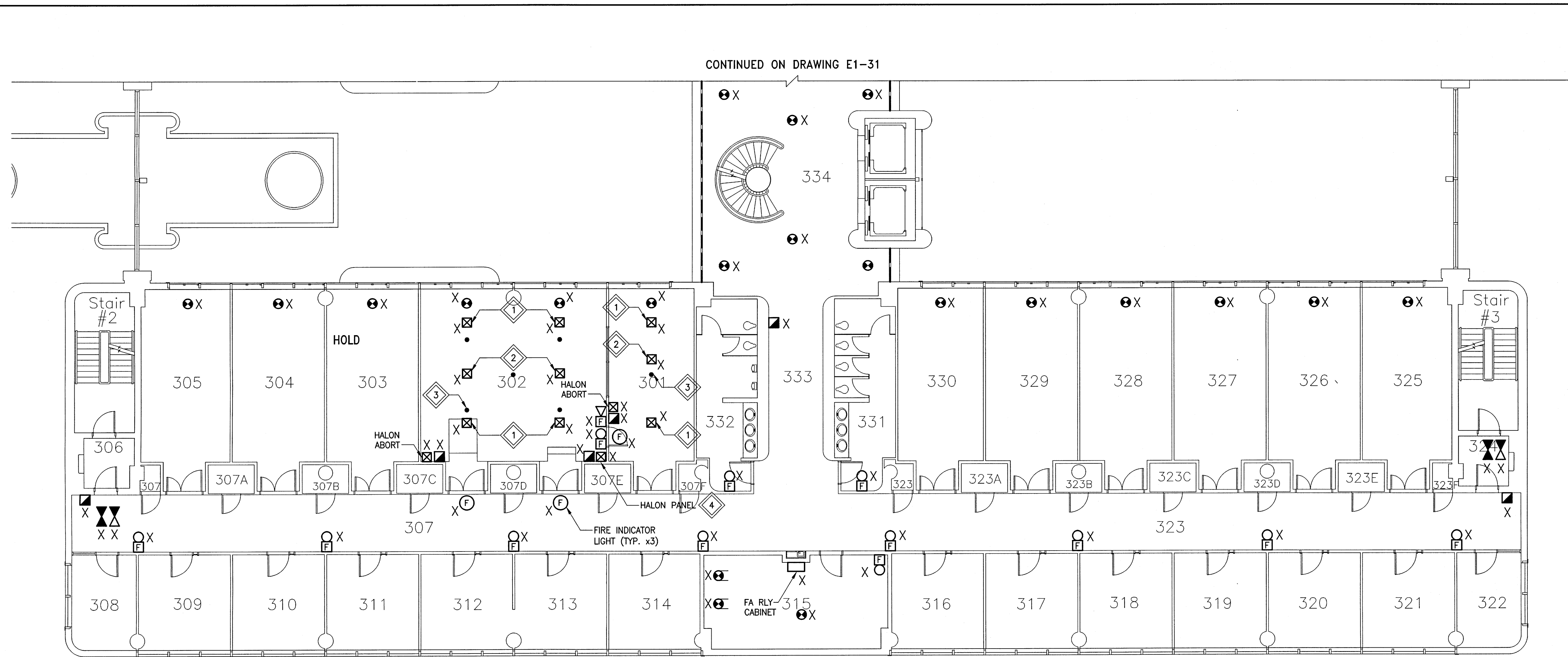
WPG01 BUILDING
 PARTIAL SECOND LEVEL - DEMO

DESIGN BY:	DATE (YY/MM/DD):
SEB	2016/10/03
DESIGN CHECK:	DATE:
RAH	17/04/13
DRAWN BY:	DATE:
RAH	2016/10/03
ENG. CHECK:	DATE:
SEB	2017/04/13

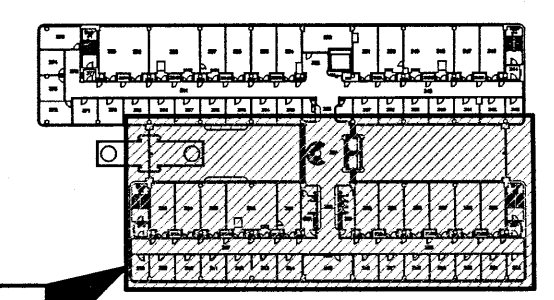
DWG. NO.	REV.
16-0229-002 E1-22	0



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THIS DRAWING

KEYPLAN: N.T.S.

GENERAL NOTES:

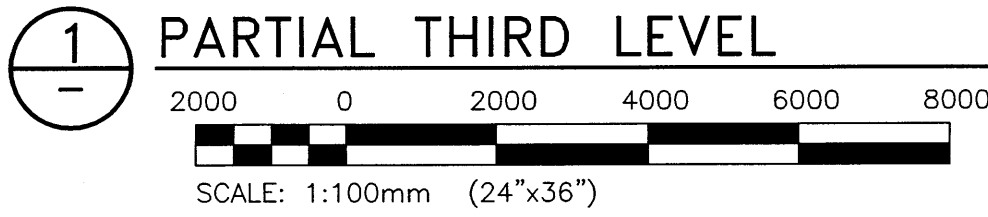
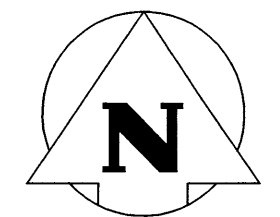
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 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
- WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

KEYNOTES:

- REMOVE DETECTION DEVICES MOUNTED WITHIN PLENUM ACCESS FLOOR SPACE AND ASSOCIATED CEILING MOUNTED LED INDICATOR ABOVE.
- REMOVE DETECTION DEVICES MOUNTED WITHIN ACCESSIBLE CEILING SPACE AND ASSOCIATED CEILING MOUNTED LED BELOW INDICATING APPROXIMATE LOCATION.
- DISCONNECT AND REMOVE SUPPRESSION SYSTEM NOZZLE AND ALL PIPING.
- DISCONNECT AND REMOVE CLEAN AGENT SUPPRESSION SYSTEM INCLUDING BUT NOT LIMITED TO:
 - DETECTION ABOVE THE CEILING AND BELOW RAISED FLOOR
 - PIPING AND NOZZLES FOR CLEAN AGENT
 - PULL STATIONS AND E-STOP BUTTONS
 - THE SUPPRESSION SYSTEM PANEL
 - STROBES
 - ALL ASSOCIATED WIRING

RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
- * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN IT'S PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.



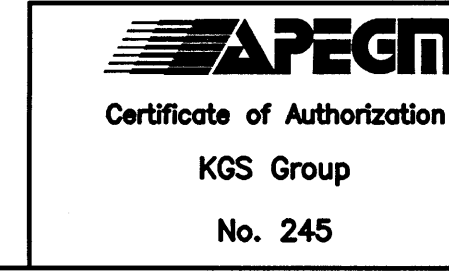
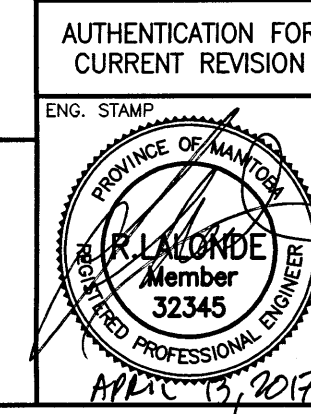
PARTIAL THIRD LEVEL

NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL THIRD LEVEL -- DEMO



DESIGN BY:	DATE (YY/MM/DD):
SEB	2016/10/03
DESIGN CHECK:	DATE:
RAH	17/04/13
DRAWN BY:	DATE:
RAH	2016/10/03
DWG CHECK:	DATE:
SEB	2017/04/13
DWG. NO.:	REV:
16-0229-002	E1-30
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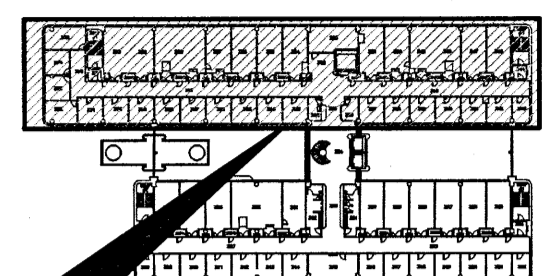
RENOVATION LEGEND:

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- * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN IT'S PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.

GENERAL NOTES:

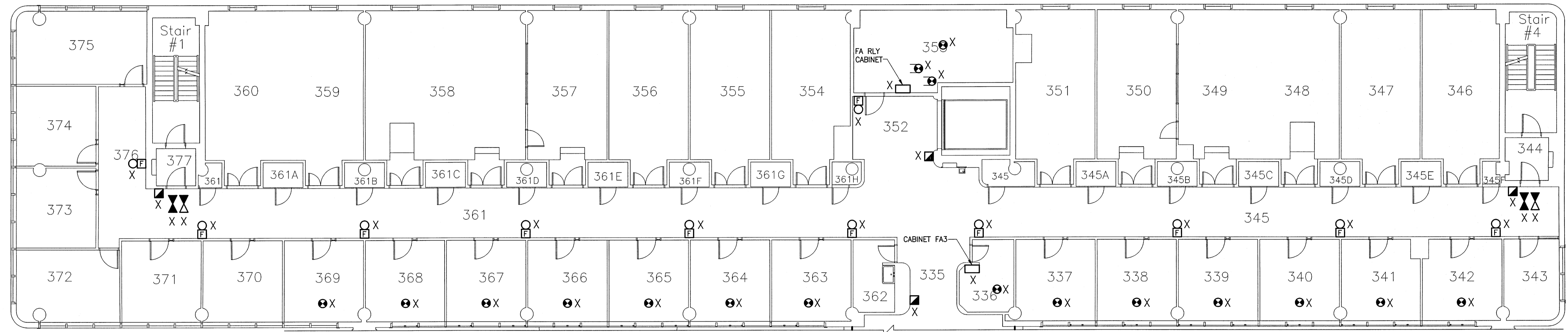
1. WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
2. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

N



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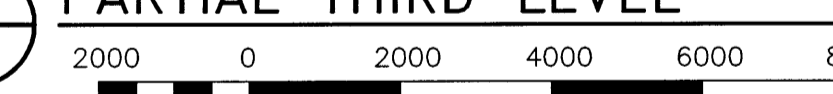
KEYPLAN: N.T.S.



CONTINUED ON DRAWING E1-30


N

1 PARTIAL THIRD LEVEL



SCALE: 1:100mm (24"x36")

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NO.	YY/MM/DD	DESCRIPTION	ISSUED BY / CHECKED
REVISIONS / ISSUE			

CLIENT:
 National Research Council Canada Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

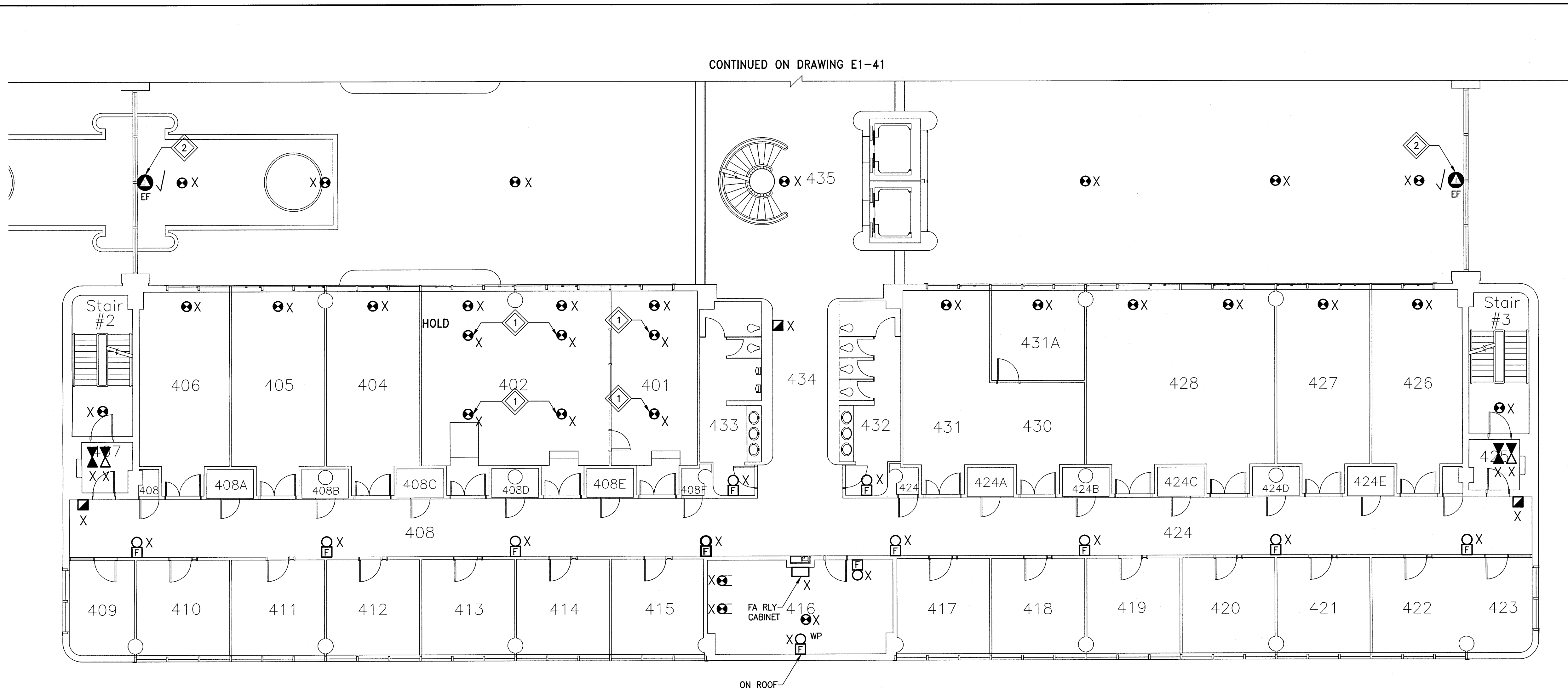
DWG. DESCRIPTION:
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 PARTIAL THIRD LEVEL -- DEMO

AUTHENTICATION FOR CURRENT REVISION		DESIGN BY: SEB	DATE: 2016/10/03
ENG. STAMP	DESIGN CHECK: [Signature]	DRAWN BY: RAH	DATE: 17/04/13
PROVINCE OF MANITOBA REGISTERED PROFESSIONAL ENGINEER Member 32345	DWG. CHECK: SEB	DATE: 2016/10/03	DATE: 2017/04/13
DWC. NO. 16-0229-002		E1-31	REV: 0

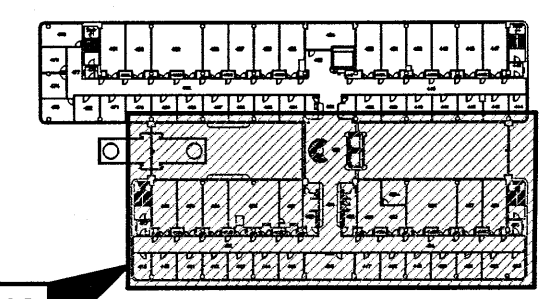
APEGM
 Certificate of Authorization
 KGS Group
 No. 245

File Name: F:\Projects\2016\16-0229-002\Draw\Elec\16-0229-002_E1-31.dwg - Tab: E1-31 Plotted By: dderoché 17/04/13 [Thu 1:28pm]
 Plot Size: 24" x 36" / PLOT SCALE

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KEYPLAN: N.T.S.

GENERAL NOTES:

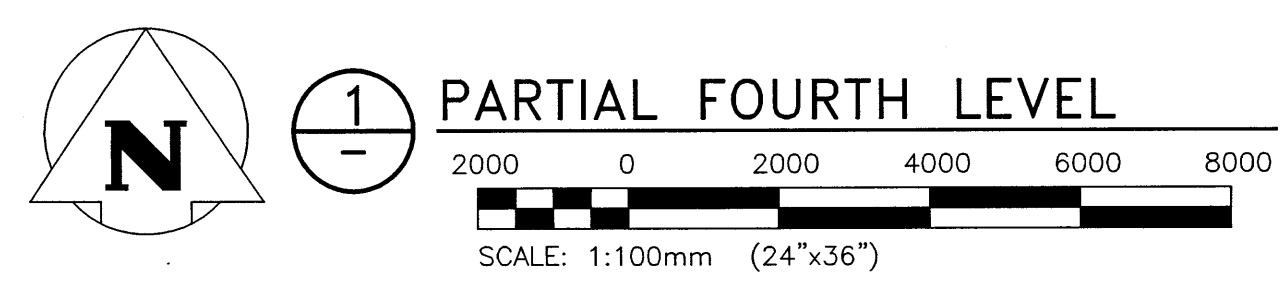
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 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
- WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

KEYNOTES:

- REMOVE DETECTION DEVICE MOUNTED WITHIN PLENUM ACCESS FLOOR SPACE AND ASSOCIATED MOUNTED LED INDICATOR ABOVE.
- THE TWO (2) EXHAUST FANS SHOWN ARE FOR THE ATRIUM SMOKE EVACUATION SYSTEM. THESE FANS ARE ACTIVATED MANUALLY AT THE MAIN FLOOR ANNUNCIATOR LOCATED IN VESTIBULE 101. EXHAUST FANS SHALL REMAIN. NEW FIRE ALARM SYSTEM SHALL MAINTAIN THE SAME FUNCTIONING.

RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
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0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY
REVISIONS / ISSUE			

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL FOURTH LEVEL - DEMO

		AUTHENTICATION FOR CURRENT REVISION ENG. STAMP: [Signature]	DESIGN BY: SEB DATE: 2016/10/03
	DESIGN CHECK: [Signature] DATE: 17/04/13	DRAWN BY: RAH DATE: 2016/10/03	DWG CHECK: SEB DATE: 2017/04/13
DWG. NO.: 16-0229-002		E1-40	
No. 245		REV: 0	

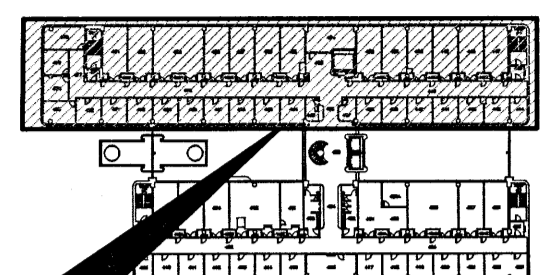
RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
- * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN IT'S PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.

GENERAL NOTES:

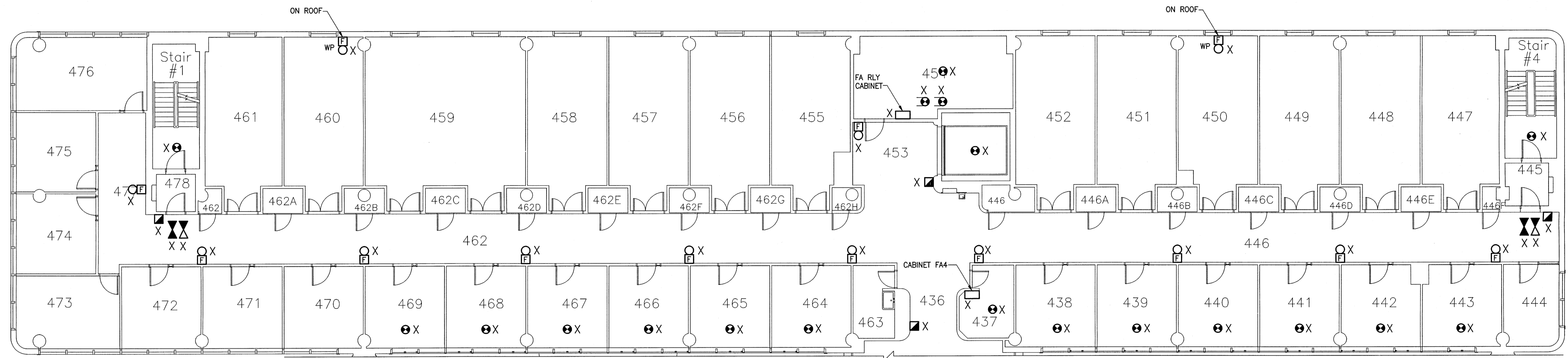
1. WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
2. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

N



THIS DRAWING

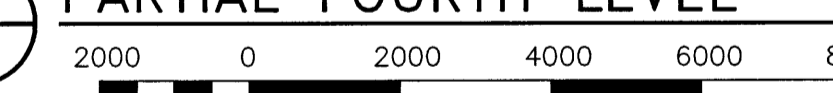
KEYPLAN: N.T.S.



CONTINUED ON DRAWING E1-40

N

1 PARTIAL FOURTH LEVEL



SCALE: 1:100mm (24"x36")

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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY

REVISIONS / ISSUE

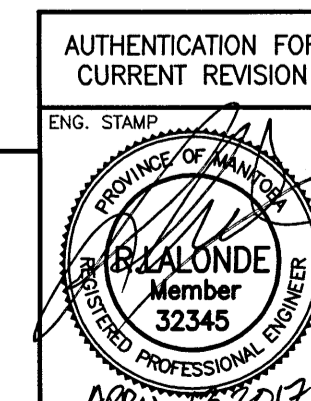
CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

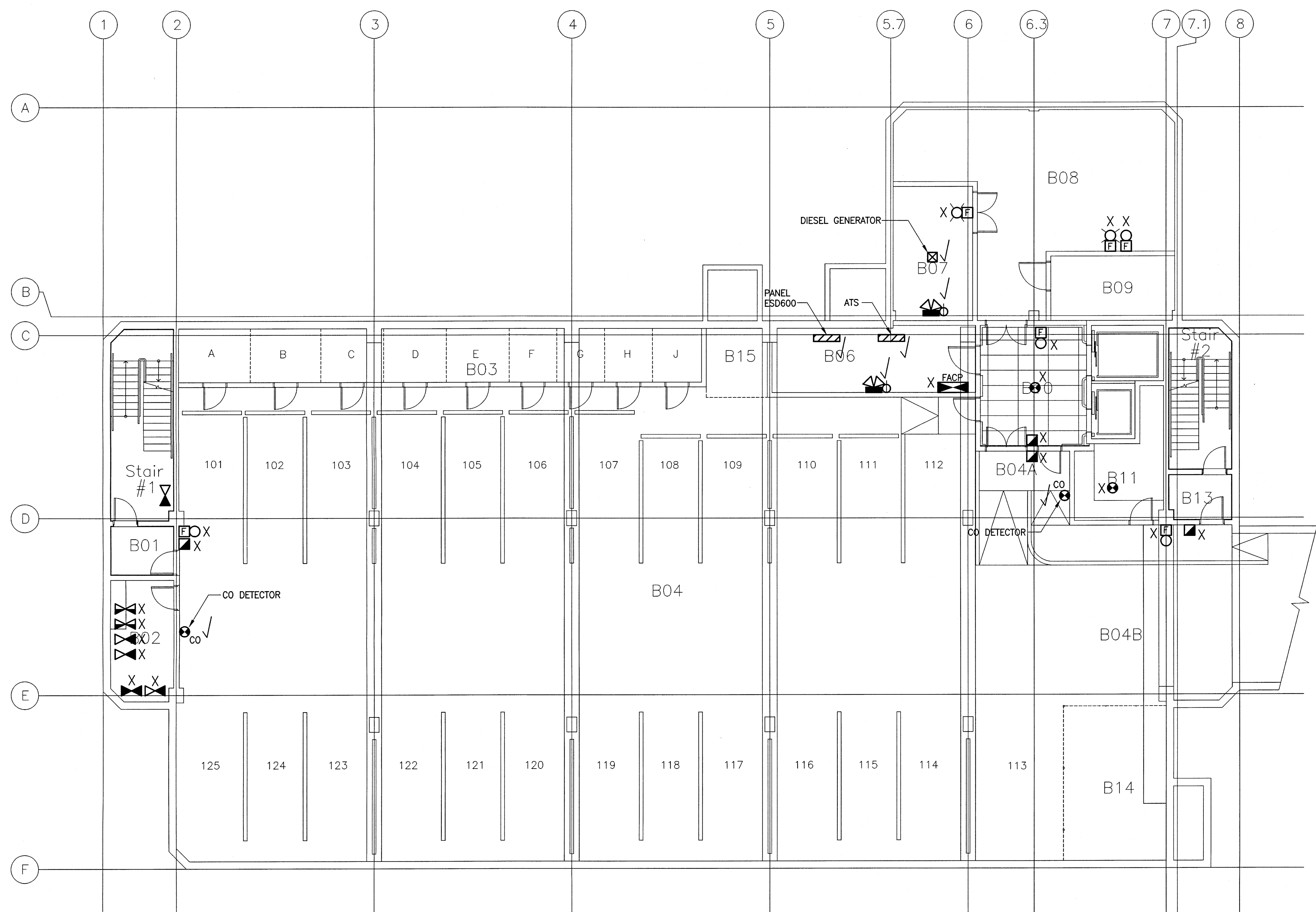
DWG. DESCRIPTION: WPG01 BUILDING
PARTIAL FOURTH LEVEL - DEMO

DESIGN BY: SEB	DATE: 2016/10/03
DESIGN CHECK: [Signature]	DATE: 17/04/13
DRAWN BY: RAH	DATE: 2016/10/03
DWG CHECK: SEB	DATE: 2017/04/13
DWG. NO: 16-0229-002	REV: 0

APEGN
Certificate of Authorization
KGS Group
No. 245

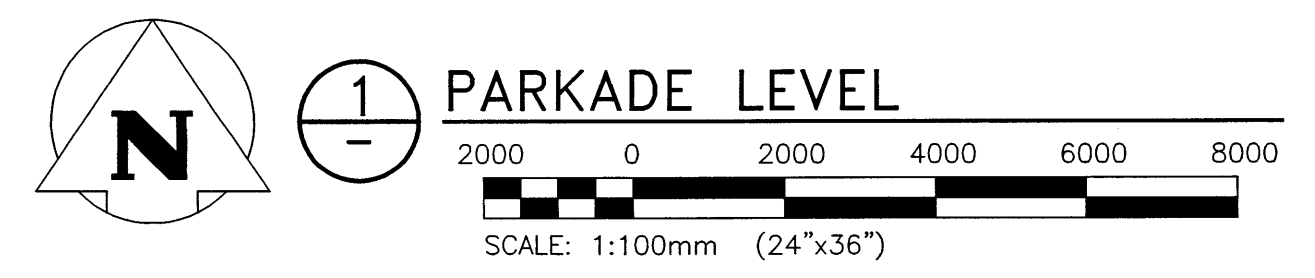


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 Plot Size: 24"x36" SCALE:



- GENERAL NOTES:**
- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

- RENOVATION LEGEND:**
- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
 - * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
 - ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN ITS PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.



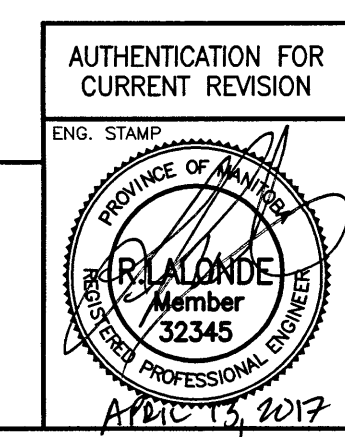
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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

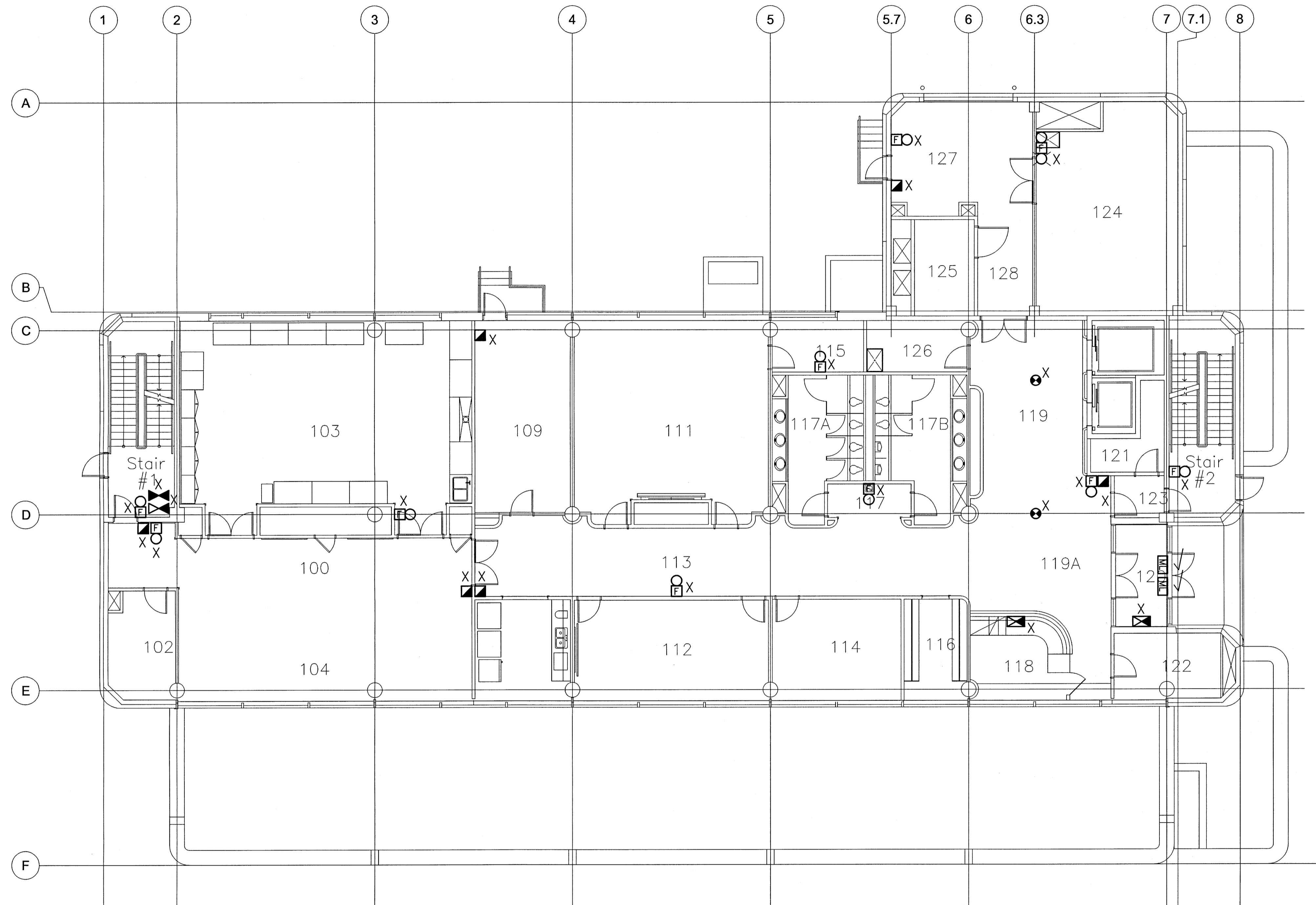
PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
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 PARKADE LEVEL - DEMO



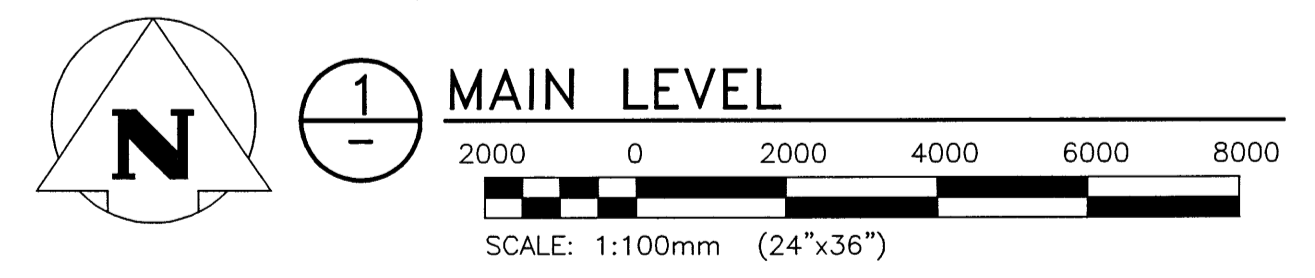
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ENG. STAMP	SEB	2016/10/03	
DESIGN CHECK:	RAH	DATE:	17/04/13
DRAWN BY:	SEB	DATE:	2016/10/03
DWG CHECK:	SEB	DATE:	2017/04/13
DWG. NO.:	16-0229-002	E2-00	REV: 0

File Name: P:\Projects\2016\16-0229-002\Draws\Elec\16-0229-002-E2-10.dwg - Tab: E2-10 Plotted By: dderoche 17/04/13 [Thu 1:27pm]
 24 x 36 / PLOT SCALE:



- GENERAL NOTES:**
- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

- RENOVATION LEGEND:**
- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
 - * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
 - ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN ITS PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	REVISION CHECK
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REVISIONS / ISSUE

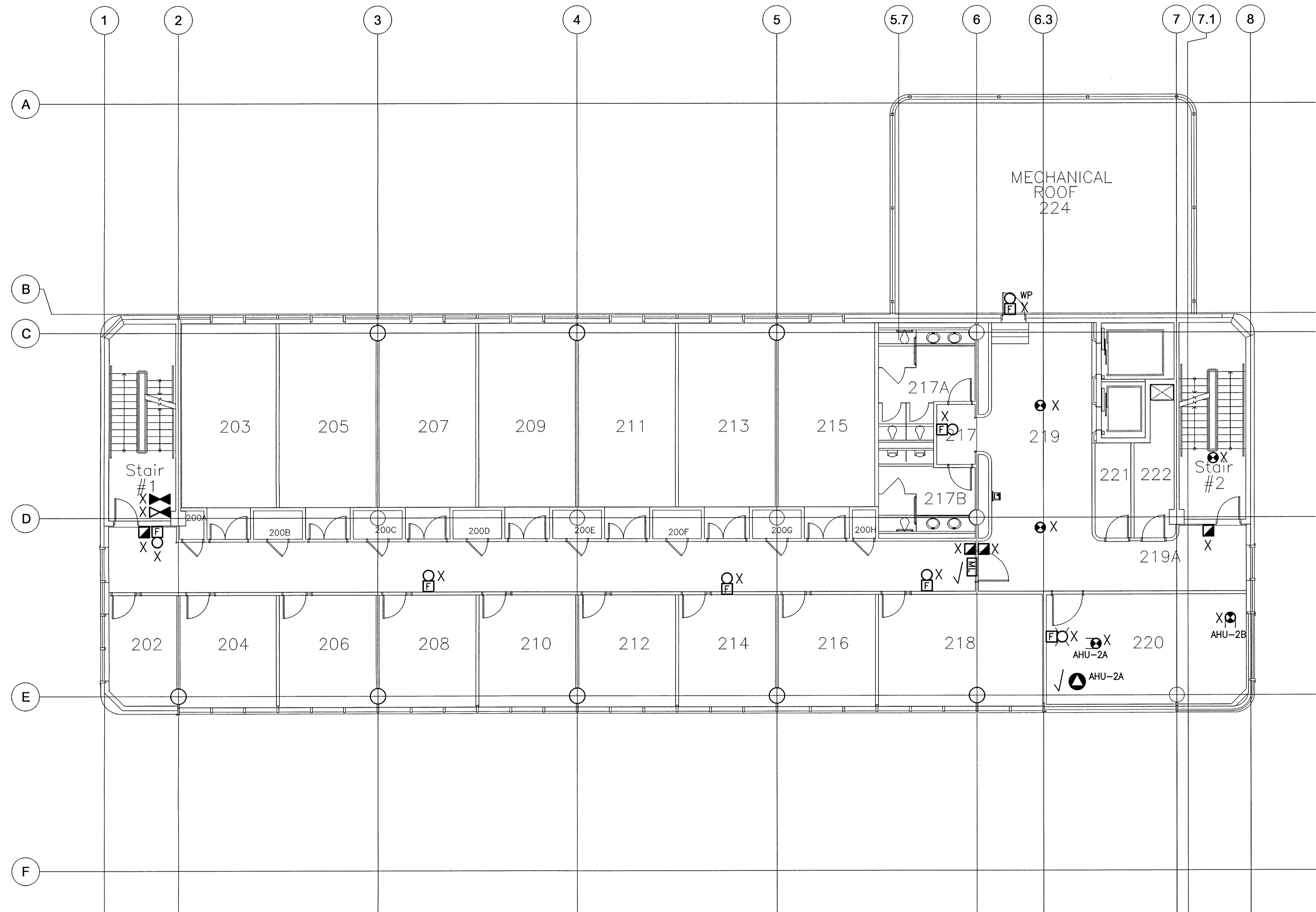
CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION: WPG02 BUILDING
 MAIN LEVEL - DEMO

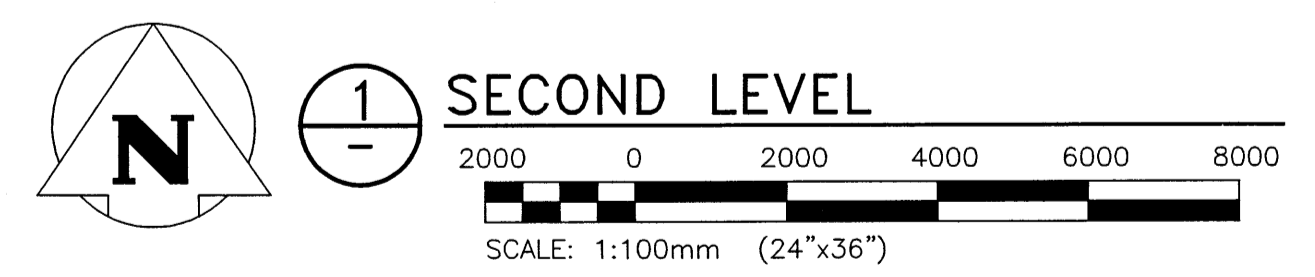
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	DWG. NO.: 16-0229-002 E2-10 REV: 0		

File Name: F:\Projects\2016\16-0229-002\Elec\16-0229-002_E2-20.dwg - Tab: E2-20 Plotted By: dderoché 17/04/13 [Thu 1:27pm]
 24 x 36 / PLOT SCALE:



- GENERAL NOTES:**
- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

- RENOVATION LEGEND:**
- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
 - * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
 - ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN ITS PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.



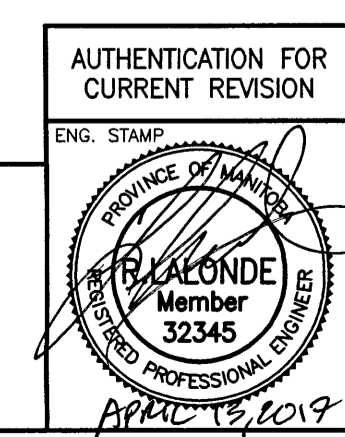
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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / CHECK

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

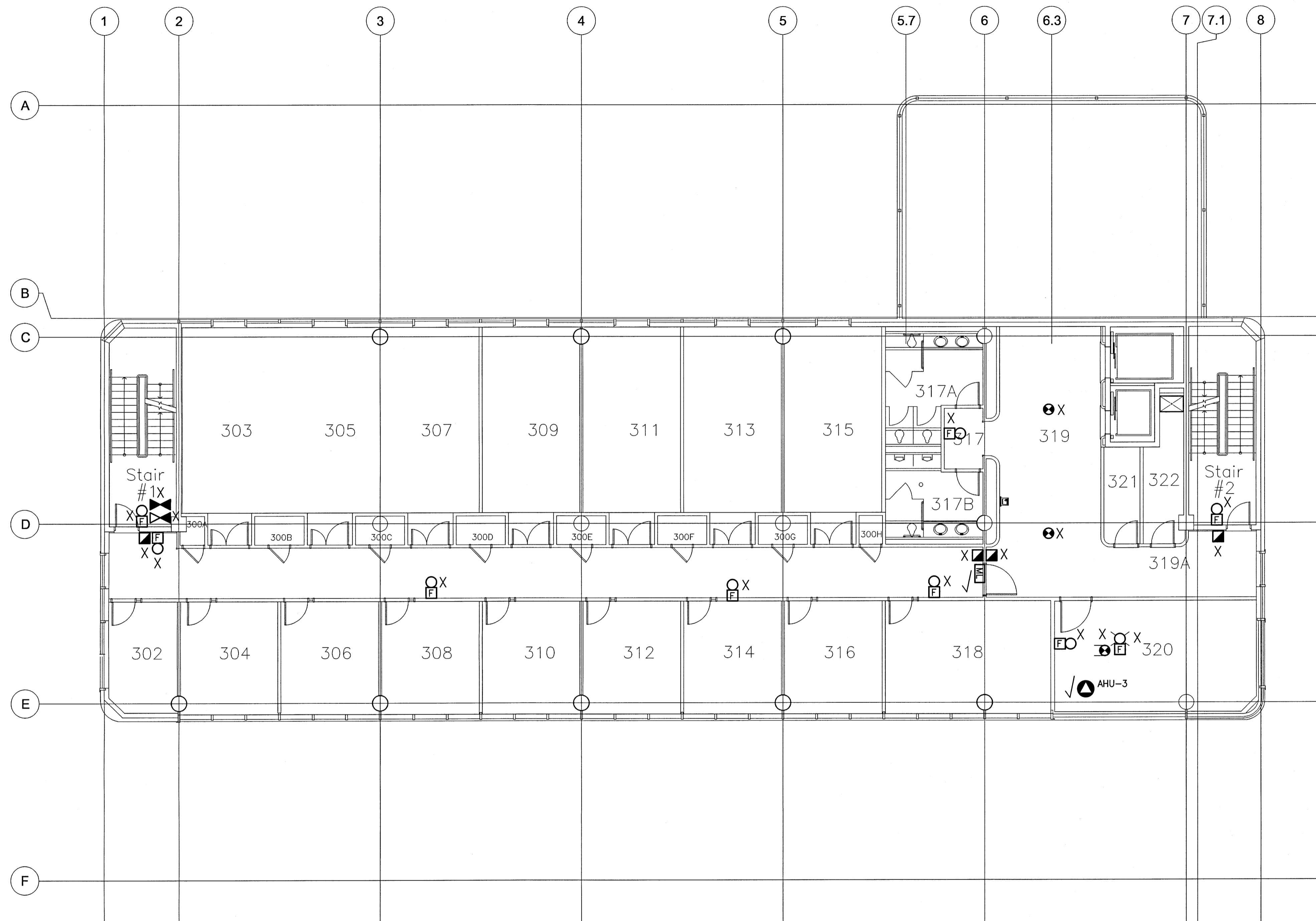
PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG02 BUILDING
 SECOND LEVEL -- DEMO



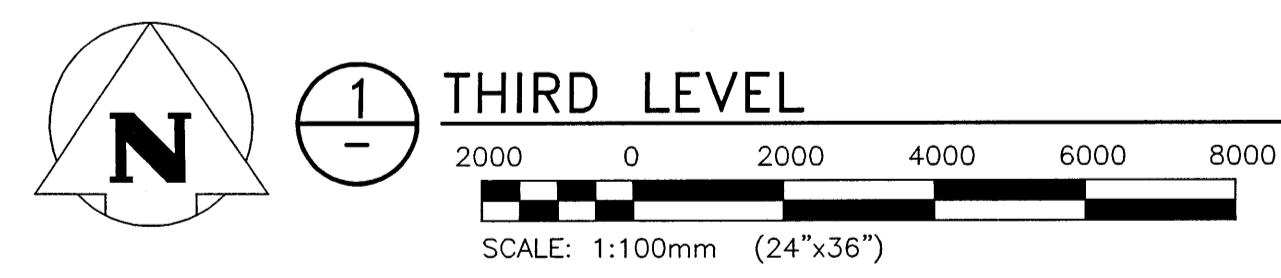
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DESIGN CHECK:	RAH	DATE:	17/04/13
DRAWN BY:	RAH	DATE:	2016/10/03
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DWG. NO.:	16-0229-002	E2-20	REV: 0

File Name: P:\Projects\2016\16-0229-002\Drawings\Elec\16-0229-002_E2-30.dwg - Tab: E2-30 Plotted By: dderoché 17/04/13 [Thu 1:26pm]
 24 X 36 / FLOT SCALE:



- GENERAL NOTES:**
- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

- RENOVATION LEGEND:**
- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
 - * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
 - ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN ITS PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	DESIGN CHECK
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REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG02 BUILDING
 THIRD LEVEL -- DEMO

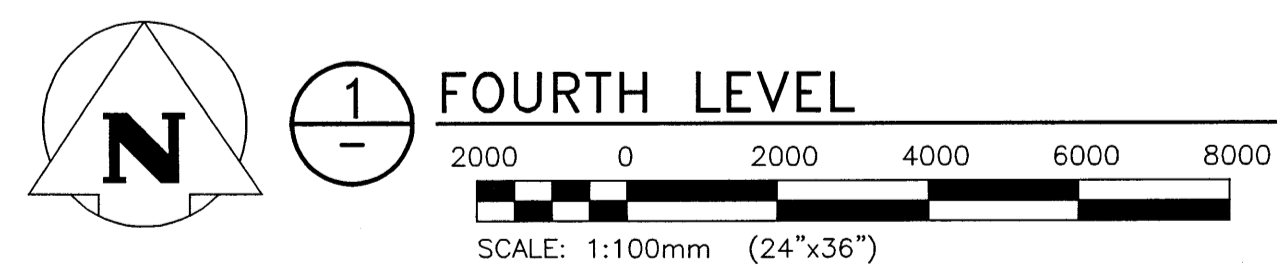
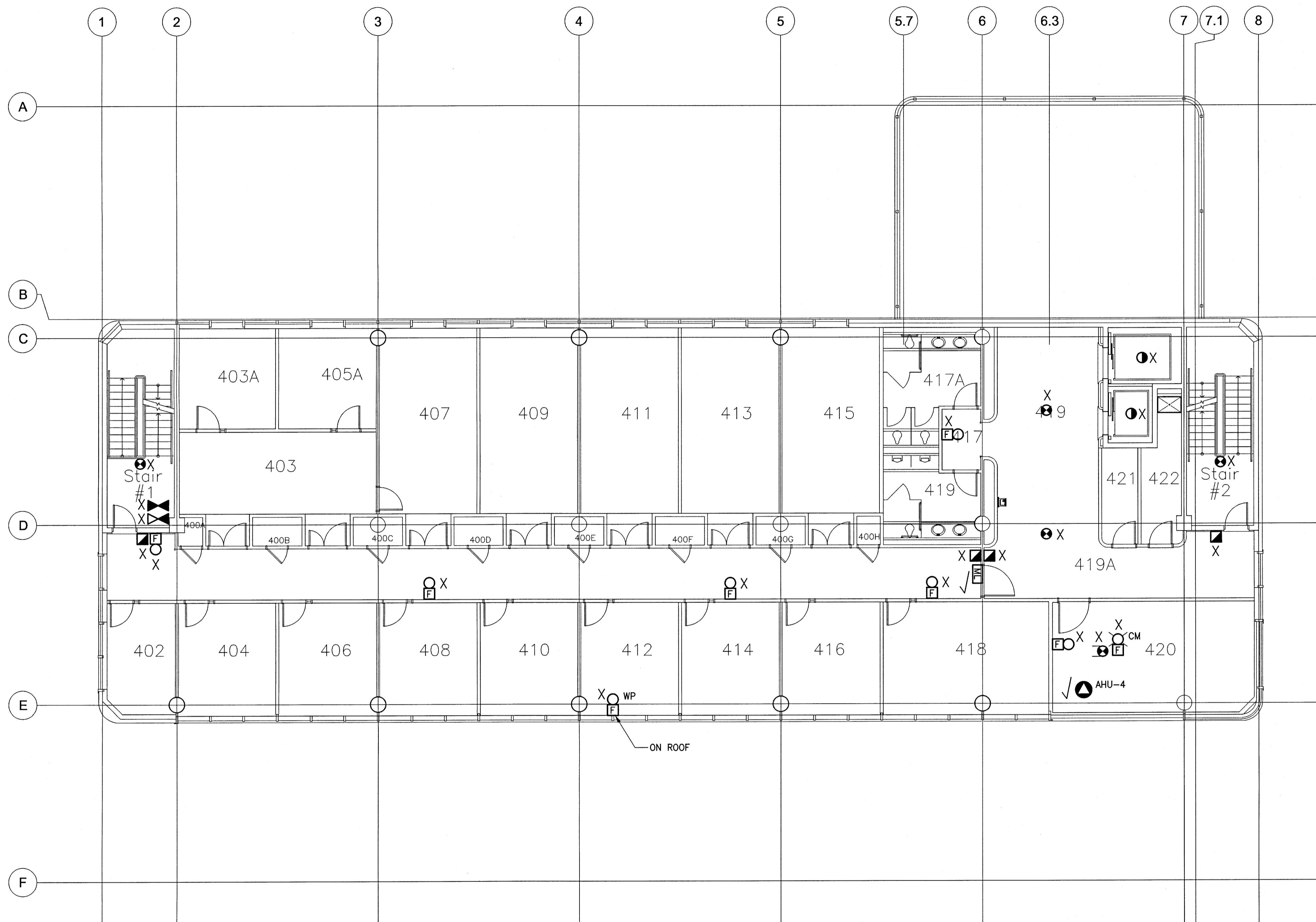
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	DWG. NO.: 16-0229-002 E2-30 REV: 0	

GENERAL NOTES:

- WHERE AN EXISTING DEVICE IS REMOVED AND NO NEW DEVICE IS INSTALLED IN THE SAME LOCATION:
 - WHERE THE WALL CONSTRUCTION IS DRYWALL: CONTRACTOR SHALL PATCH AND PAINT TO MATCH.
 - WHERE THE WALL CONSTRUCTION IS ANYTHING OTHER THAN DRYWALL: PROVIDE AND INSTALL NEW STAINLESS STEEL COVERPLATE
- WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

RENOVATION LEGEND:

- X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND TURNED OVER TO THE OWNER OR AS DIRECTED BY THE ENGINEER. REMOVE, BLANK OFF, EXTEND OR RELOCATE ALL ASSOCIATED WIRING AND MAKE SAFE.
- * EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND REINSTALLED OR RELOCATED AS SHOWN UPON COMPLETION OF NEW CEILING OR WALL CONSTRUCTION. RE-WIRE OR EXTEND WIRING AS REQUIRED.
- ✓ EXISTING ELECTRICAL EQUIPMENT TO REMAIN IN ITS PRESENT LOCATION. REWIRE OR EXTEND WIRING AS REQUIRED.



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECK
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REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

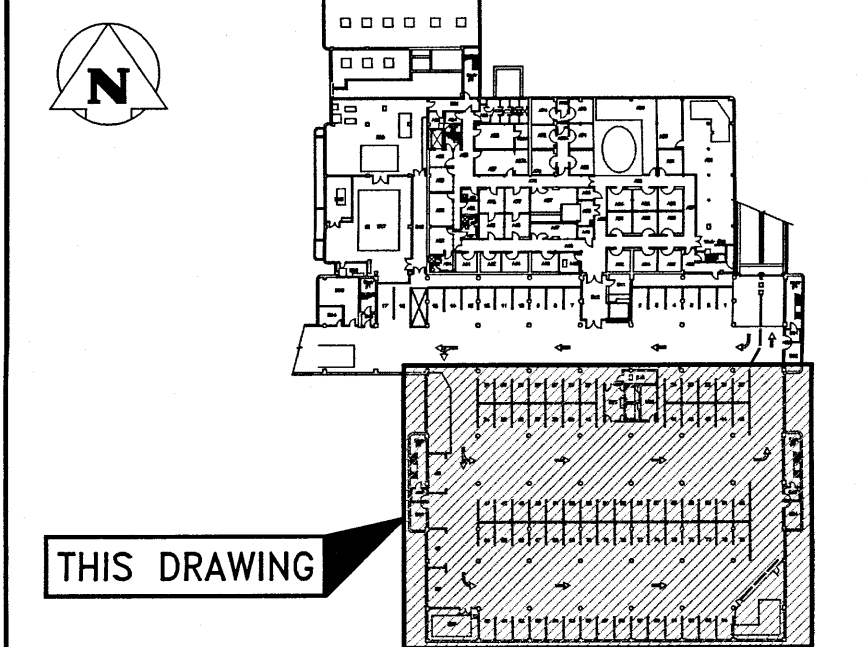
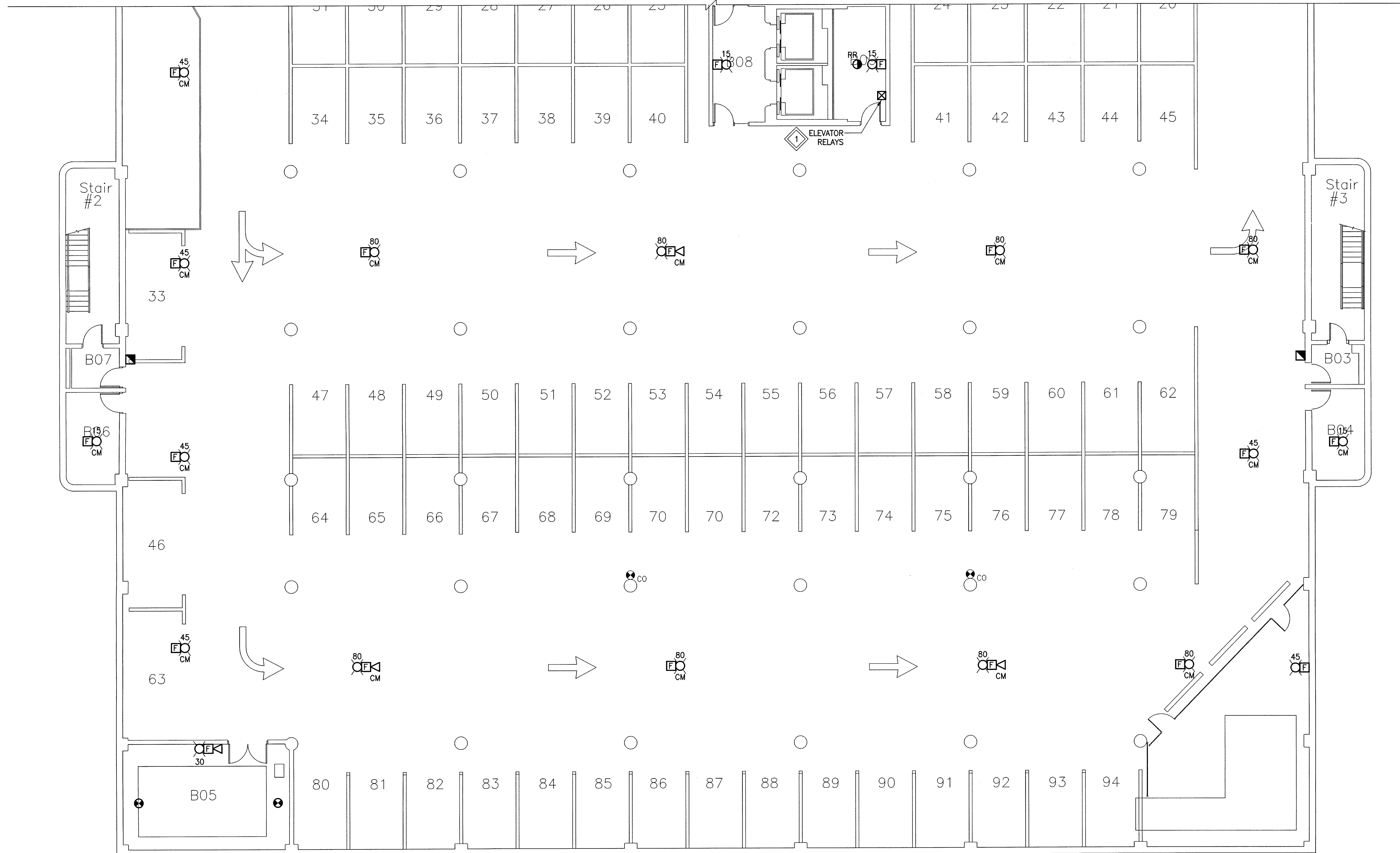
DWG. DESCRIPTION:
 WPG02 BUILDING
 FOURTH LEVEL - DEMO

 Certificate of Authorization KGS Group No. 245	AUTHENTICATION FOR CURRENT REVISION ENG. STAMP:	DESIGN BY: SEB DATE: 2016/10/03
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	DWG CHECK: SEB DATE: 04/04/13	DATE: 17/04/13
DWG. NO.: 16-0229-002 E2-40		REV: 0

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 Scale: 1:100mm (24"x36")

File Name: P:\Projects\2016\16-0229-002\Elec\16-0229-002_E3-00.dwg - Tab: E3-00 Plotted By: dderoché 17/04/13 [Thu 1:26pm] 24 x 36 / PLOT SCALE:

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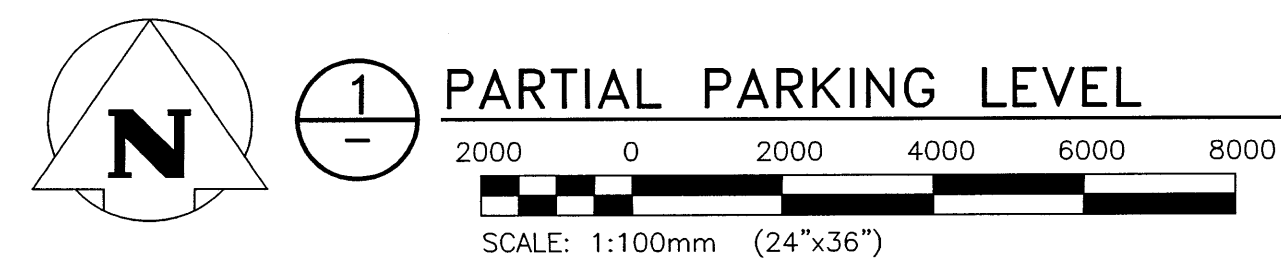
KEYPLAN: N.T.S.

GENERAL NOTES:

1. ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR, WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
2. ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING IN CONDUIT. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
3. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

KEYNOTES:

1. CONTRACTOR TO COORDINATE WITH OWNER FOR FINAL INSTALLATION LOCATION OF THE ELEVATOR RELAYS. THESE RELAYS WILL BE UTILIZED IN THE FUTURE FOR ANY ELEVATOR CONTROLLER UPGRADES



0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / CHECK

REVISIONS / ISSUE

CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

DWG. DESCRIPTION: WPG01 BUILDING BASEMENT/PARKING LEVEL -- NEW

AUTHENTICATION FOR CURRENT REVISION
ENG. STAMP
PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
32345
HARRIS 13 4219

APEGM
Certificate of Authorization
KGS Group
No. 245

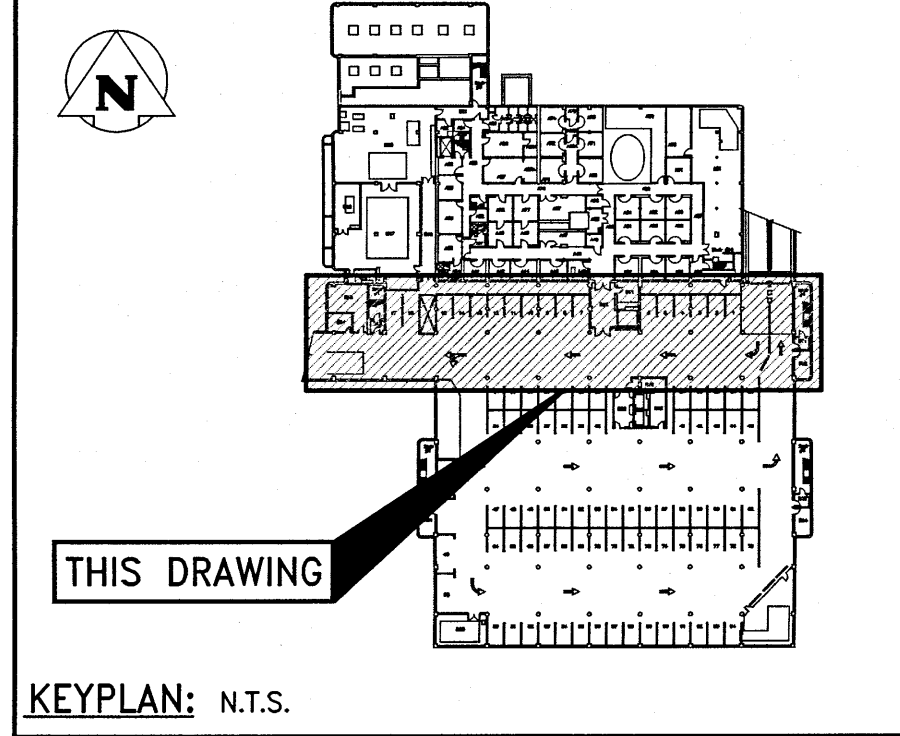
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DRAWN BY:	RAH	DATE:	2016/10/03
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DWG. NO.	16-0229-002	E3-00	REV: 0

KEYNOTES:

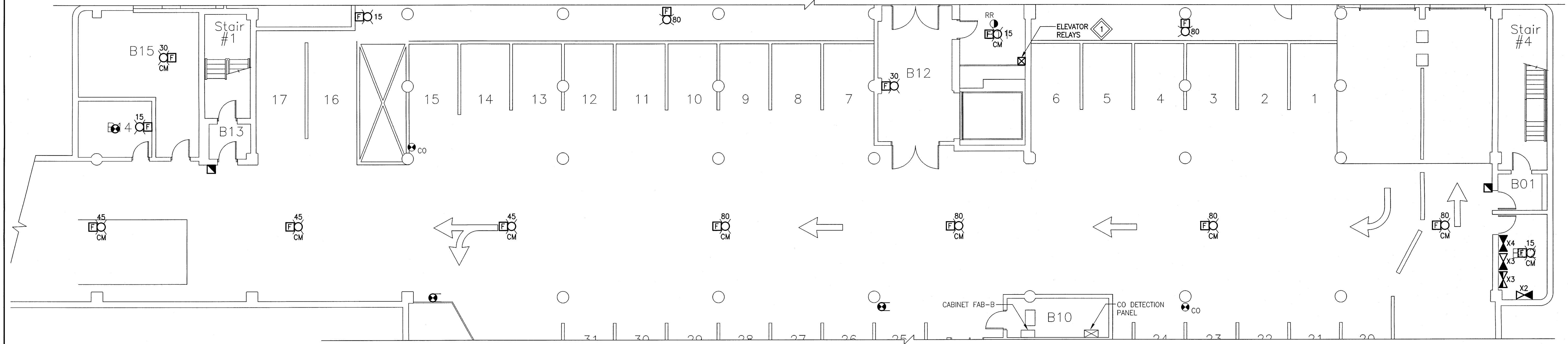
1. CONTRACTOR TO COORDINATE WITH OWNER FOR FINAL INSTALLATION LOCATION OF THE ELEVATOR RELAYS. THESE RELAYS WILL BE UTILIZED IN THE FUTURE FOR ANY ELEVATOR CONTROLLER UPGRADES

GENERAL NOTES:

1. ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
2. ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
3. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.



CONTINUED ON DRAWING E3-02



CONTINUED ON DRAWING E3-00

File Name: P:\Projects\2016\16-0229-002\Draw\Elec\16-0229-002_E3-01.dwg - Tab: E3-01 Plotted By: dderoché 17/04/13 [Thu 1:25pm] 24 x 36 / PLOT SCALE:

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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECK

REVISIONS / ISSUE

CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

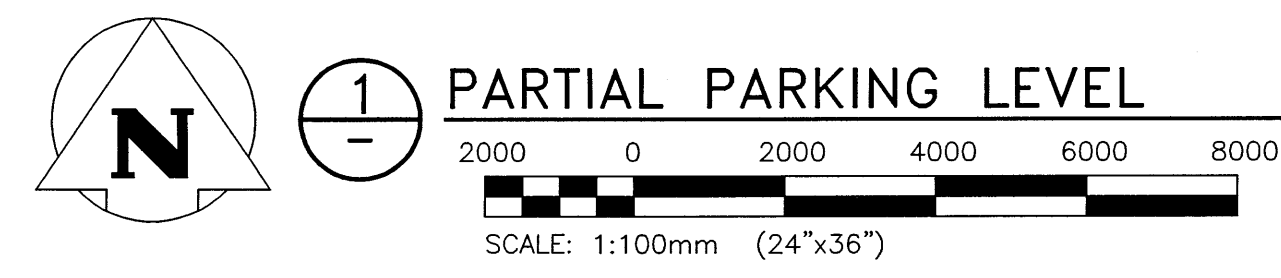
DWG. DESCRIPTION: WPG01 BUILDING
PARTIAL PARKING LEVEL - NEW

AUTHENTICATION FOR CURRENT REVISION

ENG. STAMP: [Professional Engineer Seal]

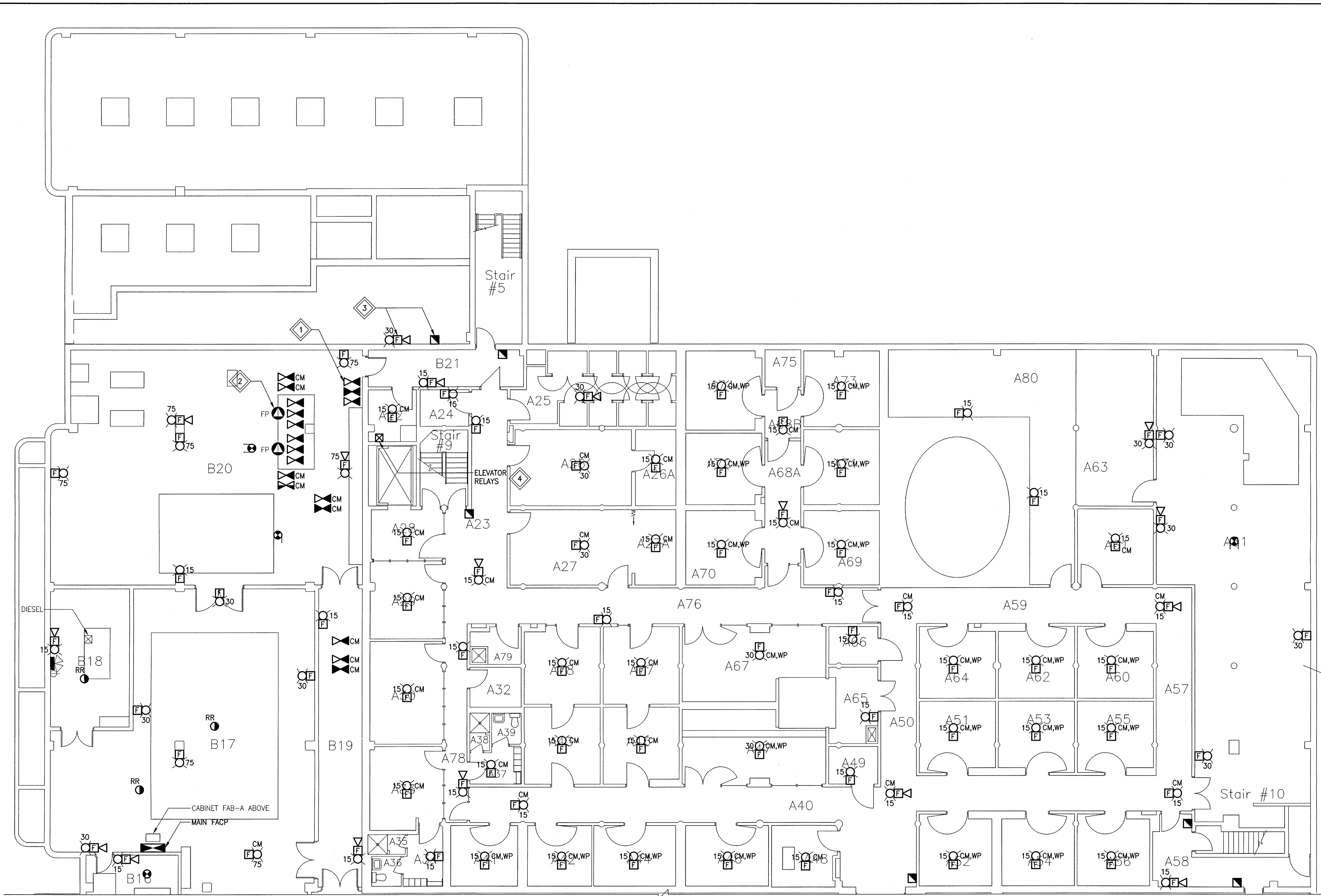
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DESIGN CHECK: RAH	DATE: 17/04/13
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DWG. CHECK: SEB	DATE: 2017/04/13

APEGM
Certificate of Authorization
KGS Group
No. 245

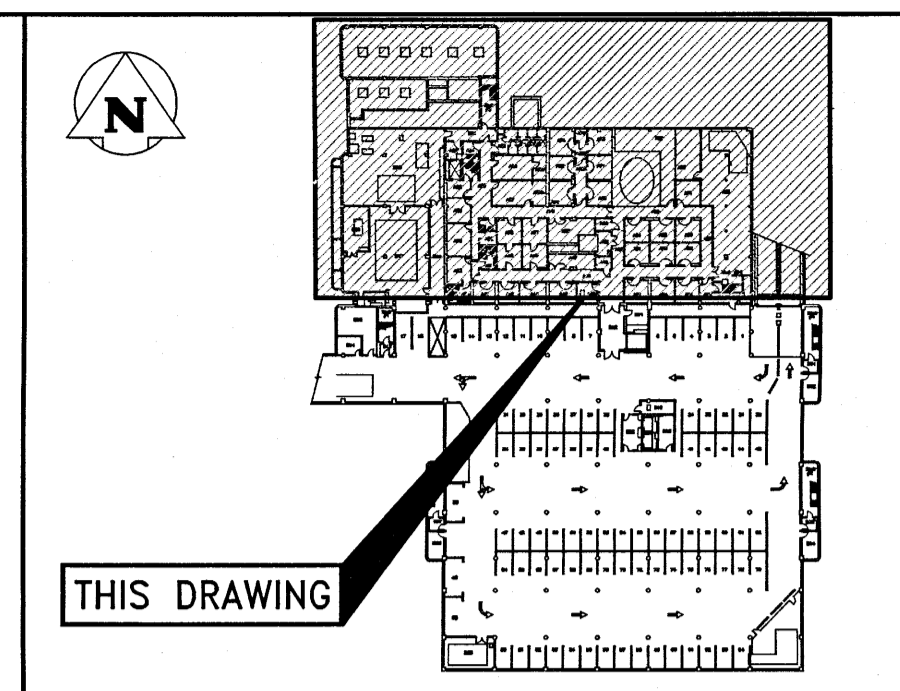


DWG. NO. 16-0229-002	E3-01	REV. 0
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 24"x36" PLOT SCALE:



CONTINUED ON DRAWING E3-01



KEYPLAN: N.T.S.

GENERAL NOTES:

1. ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
2. ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
3. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

KEYNOTES:

- 1 PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE. WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.
- 2 MAINTAIN EXISTING FIRE PUMPS.
- 3 INSTALL PULLSTATION AND HORN-STROBE DEVICES IN THE CRAWLSPACE ADJACENT TO THE DOOR.
- 4 CONTRACTOR TO COORDINATE WITH OWNER FOR FINAL INSTALLATION LOCATION OF THE ELEVATOR RELAYS. THESE RELAYS WILL BE UTILIZED IN THE FUTURE FOR ANY ELEVATOR CONTROLLER UPGRADES

NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

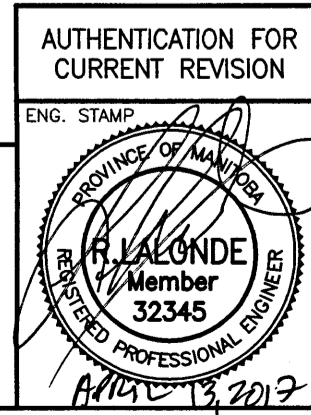
REVISIONS / ISSUE

CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION: WPG01 BUILDING
 BASEMENT LEVEL - NEW

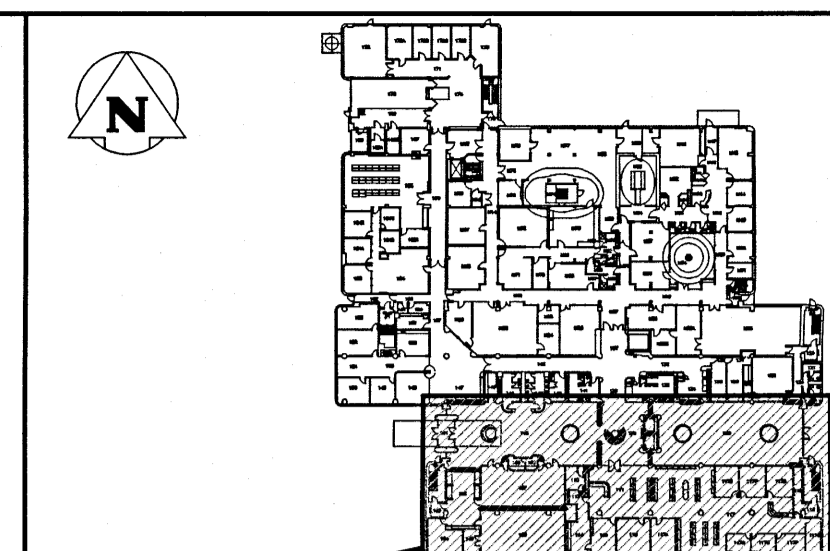
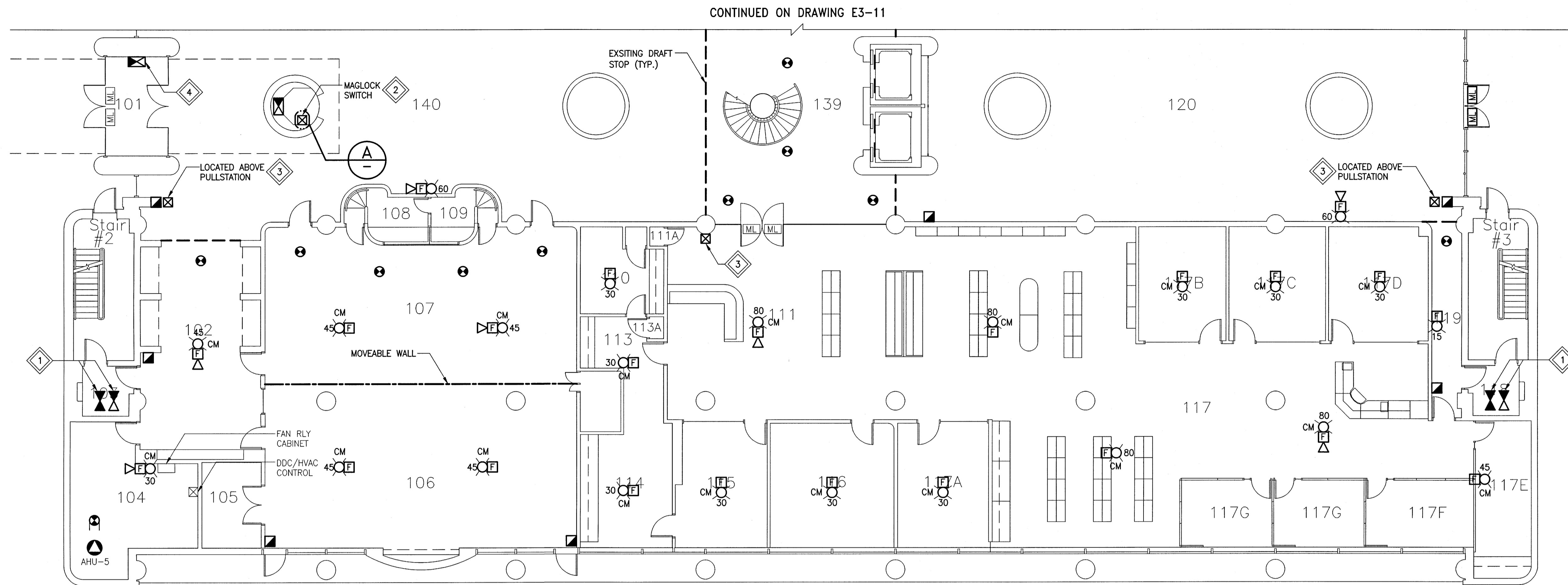
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DESIGN CHECK: [Signature]	DATE: 17/04/13
DRAWN BY: RAH	DATE: 2016/10/03
DWG CHECK: SEB	DATE: 2017/04/13



KGS GROUP
 CONSULTING ENGINEERS

DWG. NO. 16-0229-002 E3-02 REV: 0

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 24"x36" PLOT SCALE:



THIS DRAWING

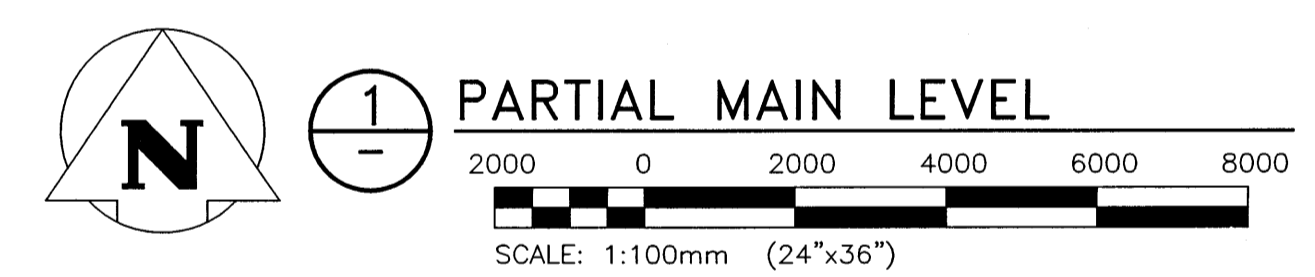
KEYPLAN: N.T.S.

GENERAL NOTES:

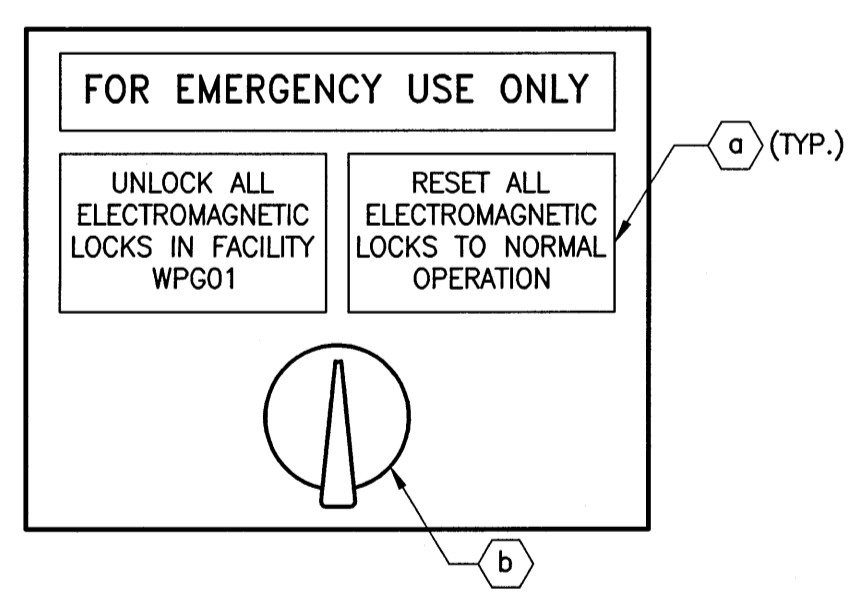
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2. ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
3. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

KEYNOTES:

1. PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.
2. INSTALL A KEY SWITCH AT THE SECURITY DESK. CONFIRM LOCATION WITH OWNER PRIOR TO INSTALLATION. UPON ACTIVATION OF THE KEY SWITCH ALL ELECTROMAGNETIC LOCKS WITHIN THE WPG01 FACILITY ONLY SHALL RELEASE. LOCKS SHALL BE RESET BY THE SAME KEY SWITCH. FURNISH OWNER WITH FIVE (5) COPIES OF THE KEY. THERE IS A SEPARATE KEYSWITCH FOR EACH FACILITY WPG01 AND WPG02, THAT SWITCH SHALL CONTROL THE LOCAL FACILITY ONLY.
3. PROVIDE A RED NON LATCHING MUSHROOM HEAD PUSHBUTTON. PUSHBUTTON SHALL BE COMPLETE WITH RED LAMACOID LABEL WITH TEXT STATING "FOR EMERGENCY USE ONLY PUSHBUTTON DOOR SHALL OPEN AFTER 15 SECOND DELAY." PUSHBUTTON SHALL ACTIVATE LOCAL DOOR ONLY. PUSHBUTTON SHALL REQUIRE NOT MORE THAN 90N OF FORCE TO ACTIVATE.
4. ANNUNCIATOR SHALL INCLUDE MANUAL SWITCH FOR THE ACTIVATION OF THE ATRIUM SMOKE EVACUATION EXHAUST SYSTEM. PROVIDE LABEL INDICATING SWITCH FUNCTION. ALL FAN CONTROL WIRING BETWEEN THE EXISTING FACP SHALL BE EXTENDED TO THE NEW FACP AS REQUIRED.



1 PARTIAL MAIN LEVEL



A MANUAL SWITCH FOR THE RELEASE OF ALL LOCKS IN EMERGENCY CONDITION
SCALE: N.T.S.

BILL OF MATERIALS	
ITEM	DESCRIPTION
a	RED LAMACOID LABEL. TEXT AS INDICATED.
b	TWO POSITION KEY SWITCH.

0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / DESIGN CHECK

REVISIONS / ISSUE

CLIENT: **National Research Council Canada** / **Conseil national de recherches Canada**

PROJECT: **NATIONAL RESEARCH COUNCIL**
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

DWG. DESCRIPTION: **WPG01 BUILDING**
PARTIAL MAIN LEVEL - NEW

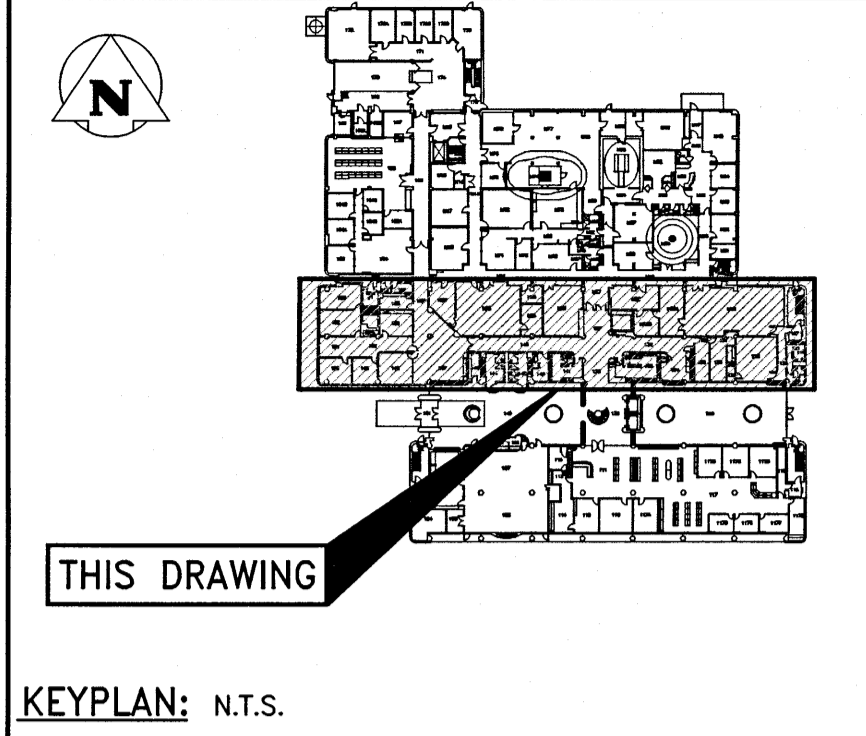
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	KGS GROUP CONSULTING ENGINEERS			

KEYNOTES:

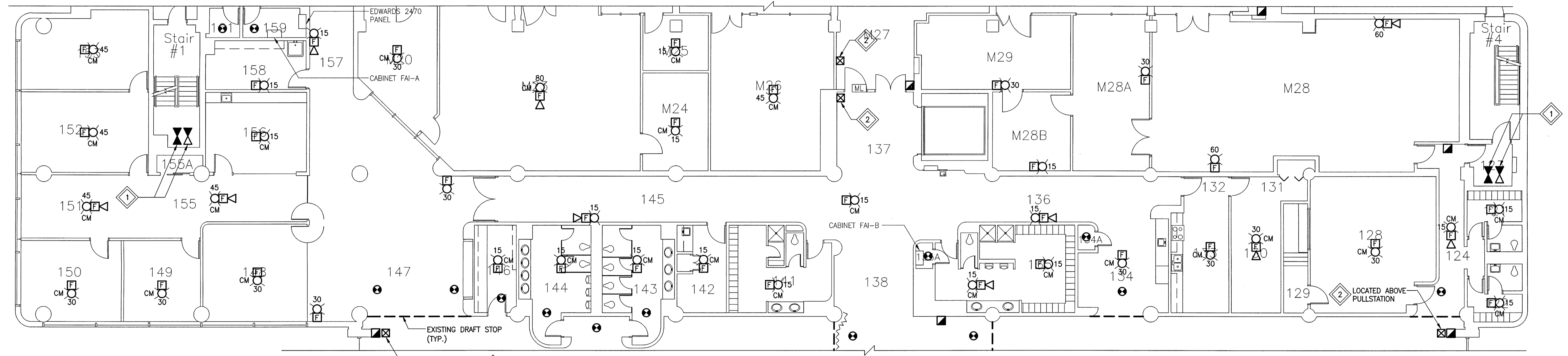
- 1. PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.
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GENERAL NOTES:

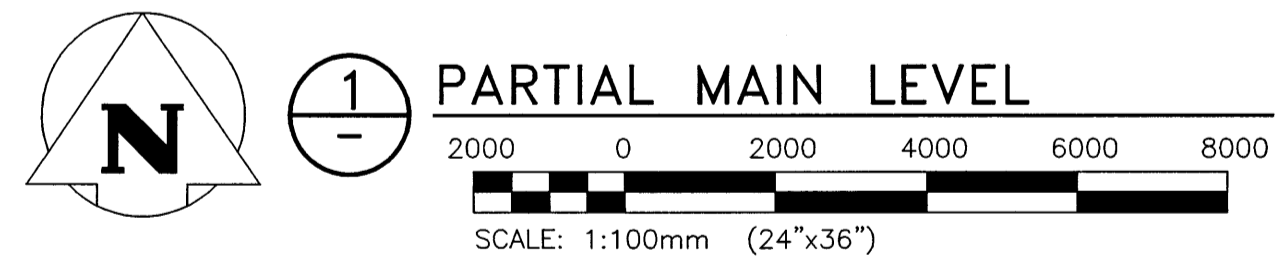
- 1. ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
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- 3. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.



CONTINUED ON DRAWING E3-12



CONTINUED ON DRAWING E3-10



0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / CHECK
REVISIONS / ISSUE			

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL MAIN LEVEL - NEW

AUTHENTICATION FOR CURRENT REVISION
 ENG. STAMP

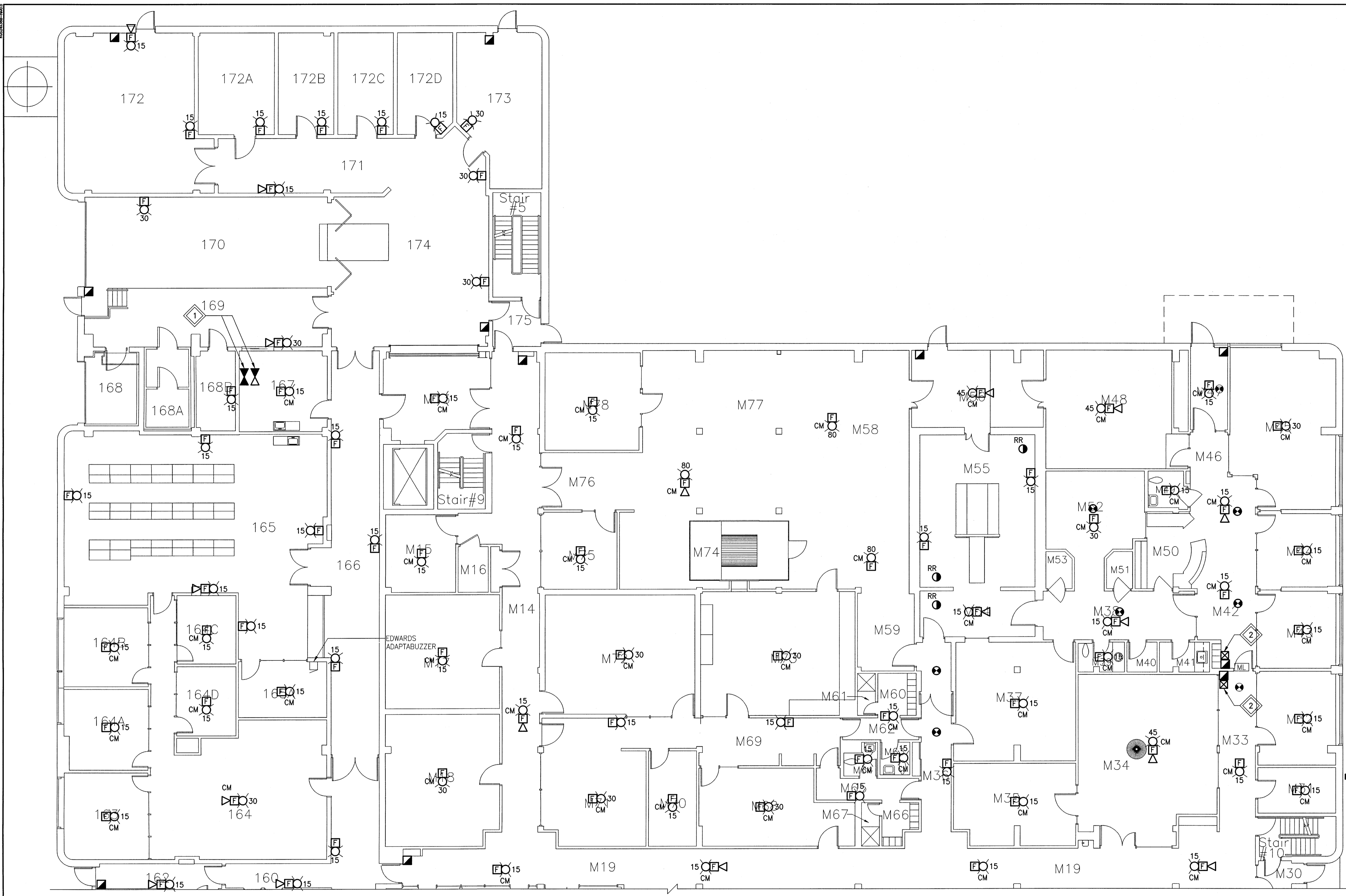
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APEGM
 Certificate of Authorization
 KGS Group
 No. 245

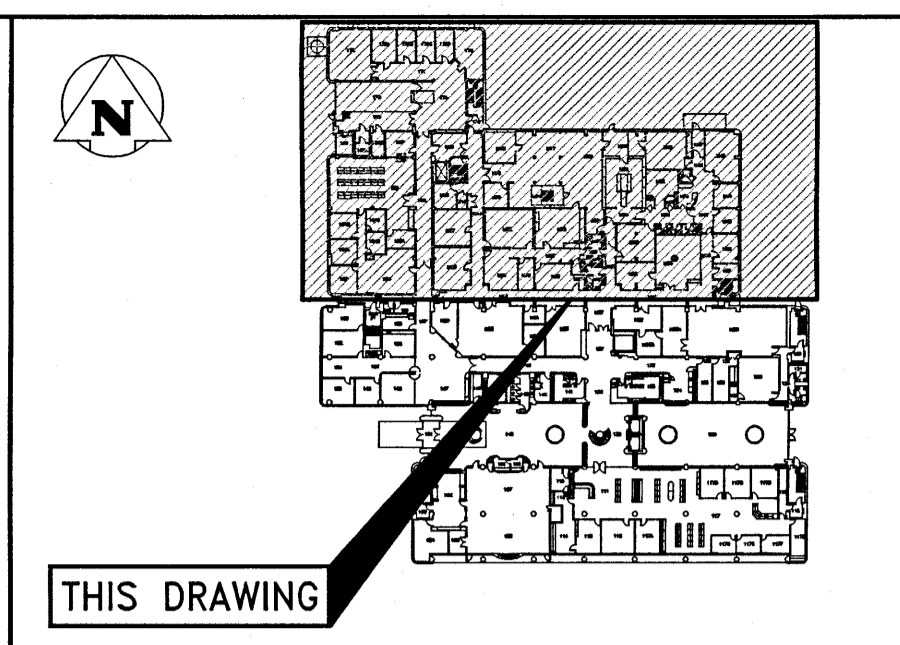
DWG. NO.:	16-0229-002	E3-11	REV:	0
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 Plot Size: A3 / FLOT SCALE



CONTINUED ON DRAWING E3-11



KEYPLAN: N.T.S.

GENERAL NOTES:

1. ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECURE WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
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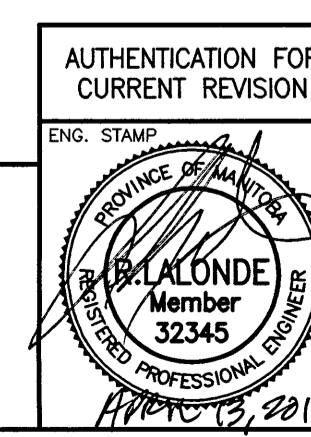
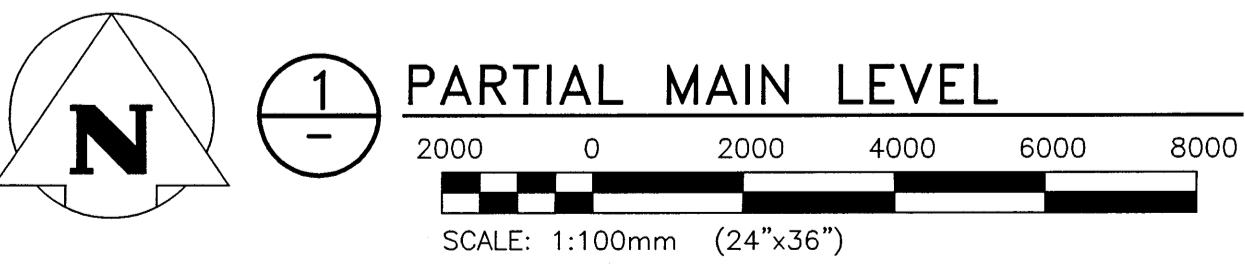
NO.	YY/MM/DD	DESCRIPTION	DESIGN	CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

REVISIONS / ISSUE

CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

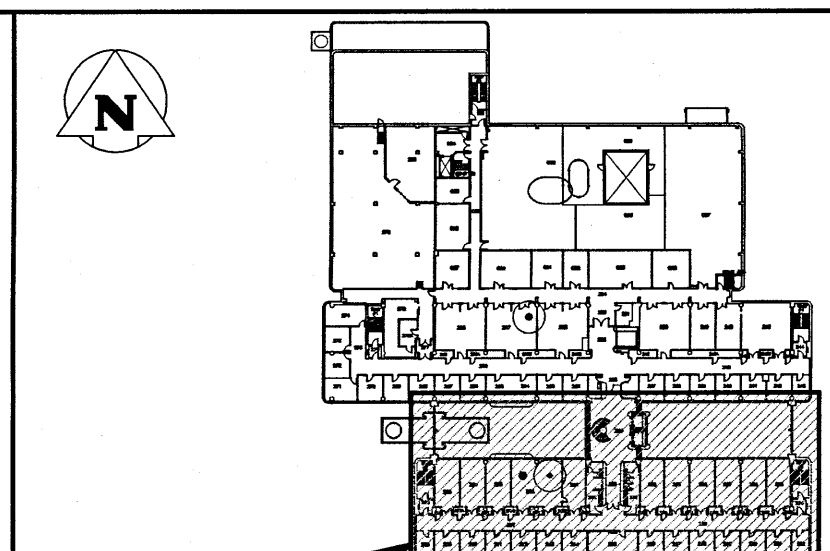
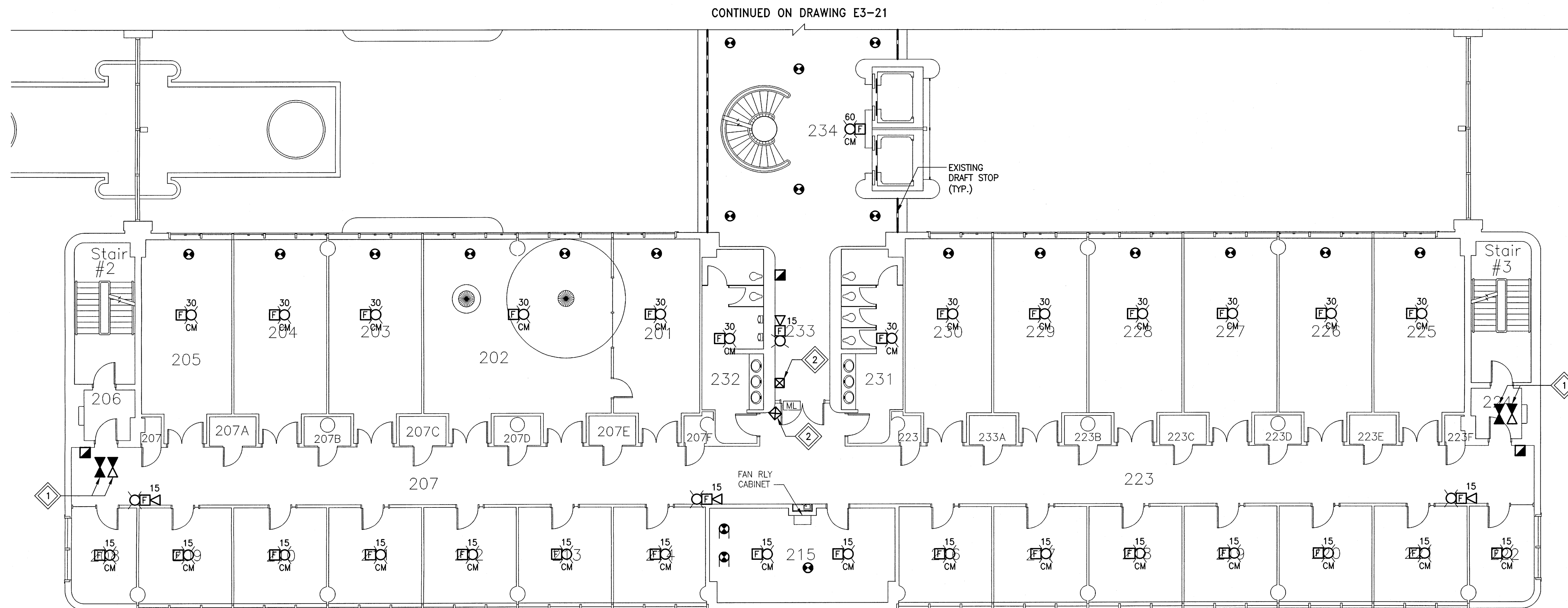
DWG. DESCRIPTION:
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 PARTIAL LEVEL - NEW



DESIGN BY:	DATE (YY/MM/DD):
SEB	2016/10/03
DESIGN CHECK:	DATE: 17/04/13
DRAWN BY:	DATE: 2016/10/03
RAH	
DWG. CHECK:	DATE: 2017/04/13
SEB	

DWG. NO. 16-0229-002 E3-12 REV. 0

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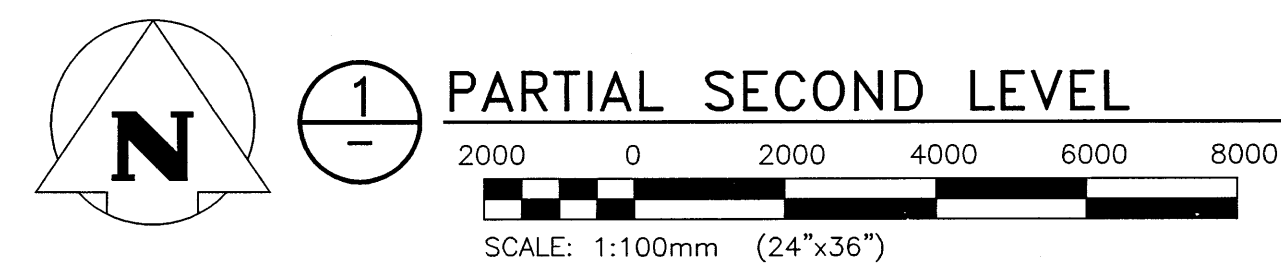
KEYPLAN: N.T.S.

GENERAL NOTES:

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1 PARTIAL SECOND LEVEL

0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / CHECK

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL SECOND LEVEL - NEW

AUTHENTICATION FOR CURRENT REVISION
 ENG. STAMP

APEGM
 Certificate of Authorization
 KGS Group
 No. 245

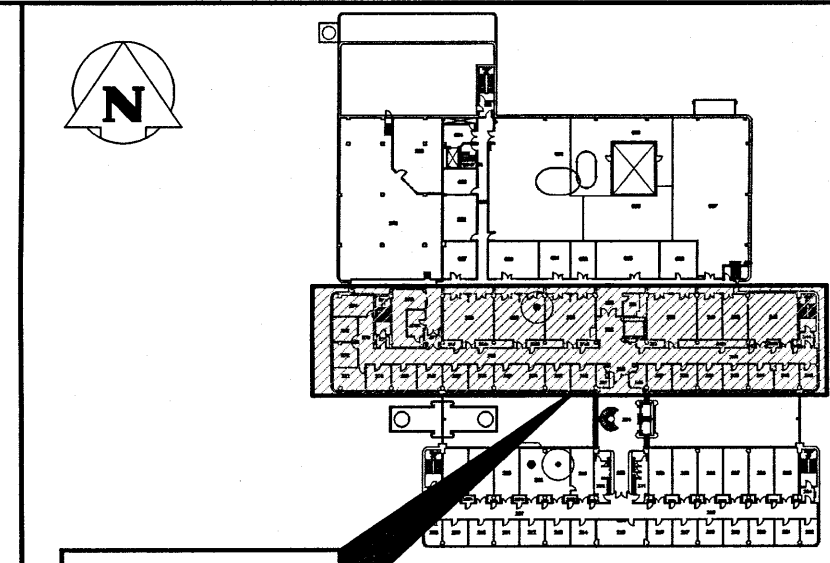
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DRAWN BY:	RAH	DATE:	2016/10/03
DWG CHECK:	SEB	DATE:	2017/04/13
DWG. NO.	16-0229-002	E3-20	REV: 0

KEYNOTES:

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GENERAL NOTES:

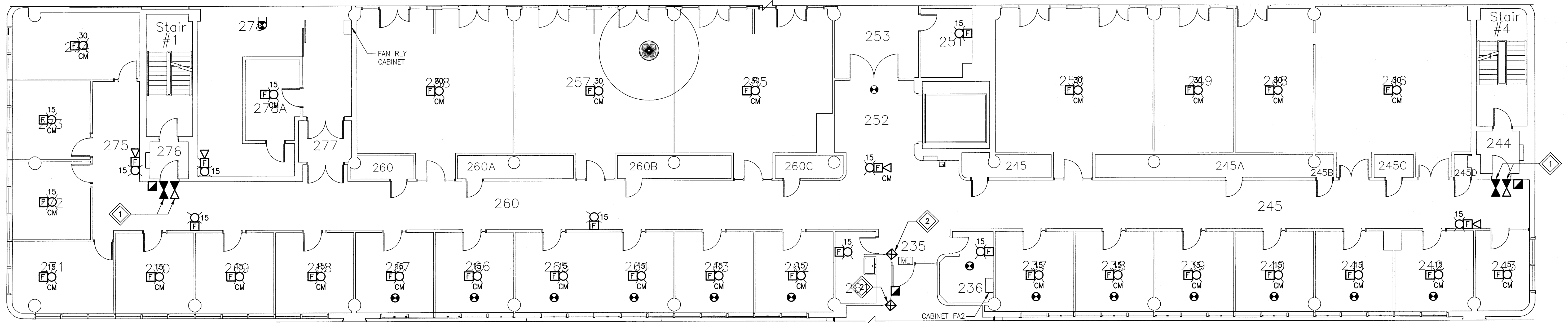
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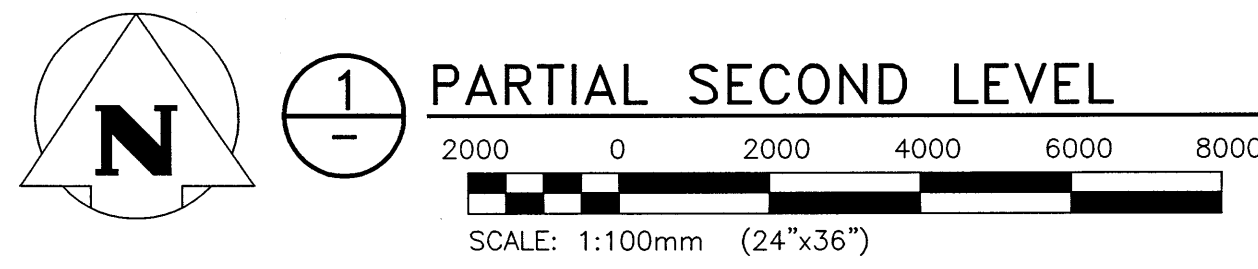
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KEYPLAN: N.T.S.

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CONTINUED ON DRAWING E3-20



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECK
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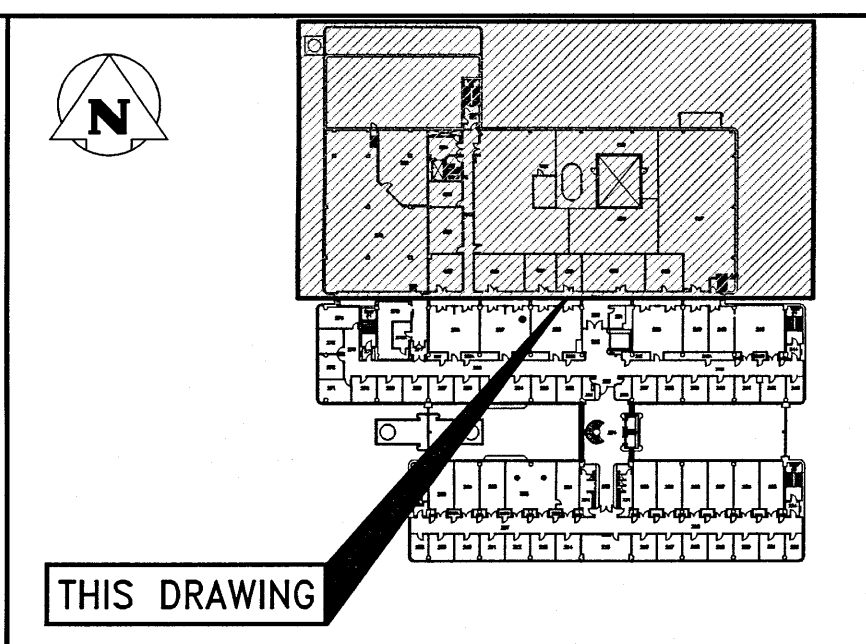
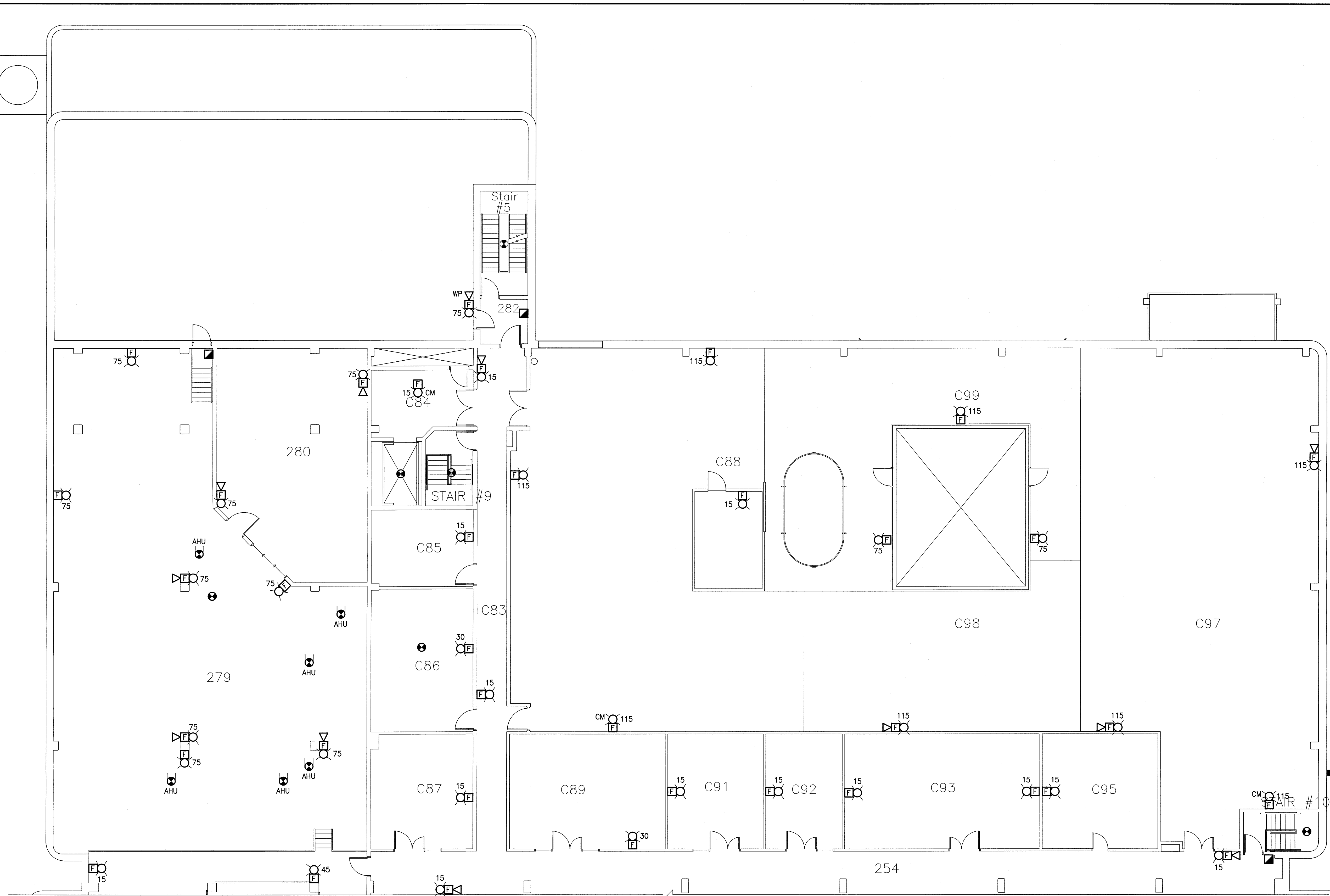
PROJECT: NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

DWG. DESCRIPTION: WPG01 BUILDING
PARTIAL SECOND LEVEL - NEW

<p>Certificate of Authorization KGS Group No. 245</p>		AUTHENTICATION FOR CURRENT REVISION ENG. STAMP	DESIGN BY: SEB DATE: 2016/10/03
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DWG. NO.: 16-0229-002 E3-21		REV: 0	

File Name: P:\Projects\2016\16-0229-002\16-0229-002_Elec\16-0229-002_E3-21.dwg - Tab: E3-21 Plotted By: dderoché 17/04/13 [Thu 1:23pm]
 24"x36" PLOT SCALE:

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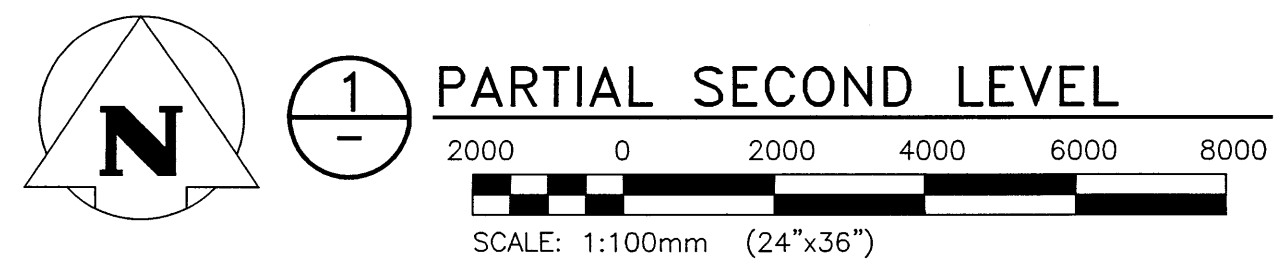


KEYPLAN: N.T.S.

GENERAL NOTES:

1. ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
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3. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

CONTINUED ON DRAWING E3-21



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

CLIENT:
National Research Council Canada / **Conseil national de recherches Canada**

PROJECT:
NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

DWG. DESCRIPTION:
WPG01 BUILDING
PARTIAL SECOND LEVEL -- NEW

AUTHENTICATION FOR CURRENT REVISION
 ENG. STAMP

APEGM
 Certificate of Authorization
KGS Group
 No. 245

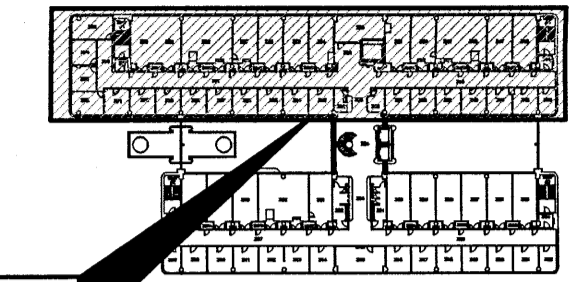
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DRAWN BY:	DATE: 2016/10/03
DWG. CHECK:	DATE: 17/04/13
DWG. NO.:	REV:
16-0229-002	E3-22
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KEYNOTES:

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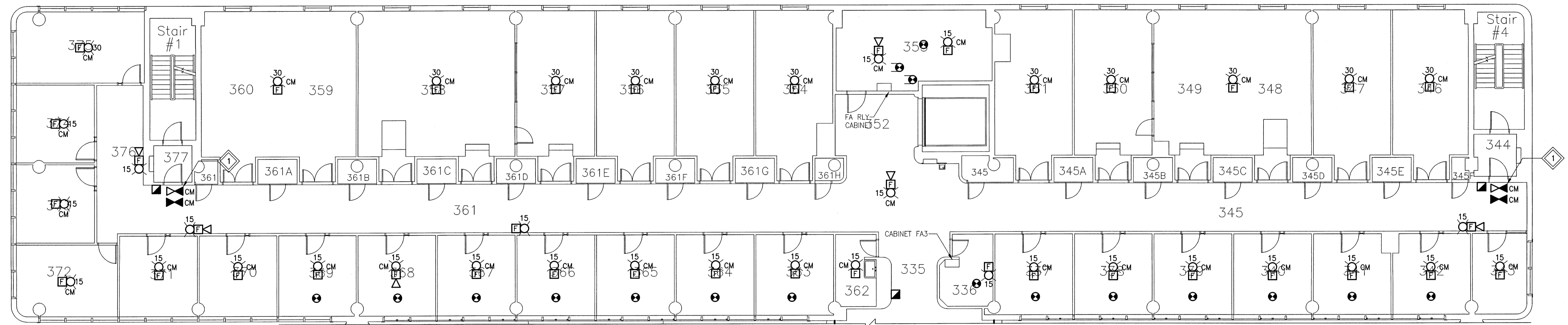
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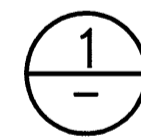
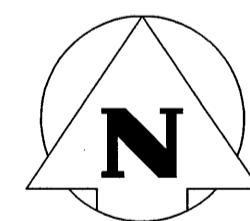


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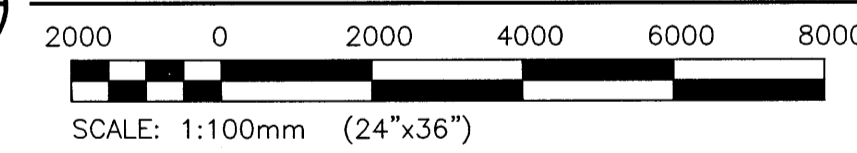
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PARTIAL THIRD LEVEL



SCALE: 1:100mm (24"x36")

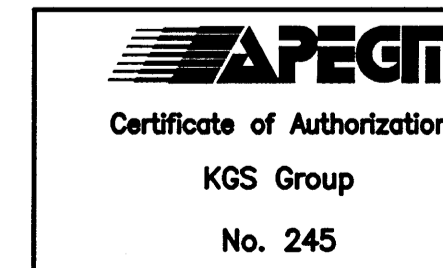
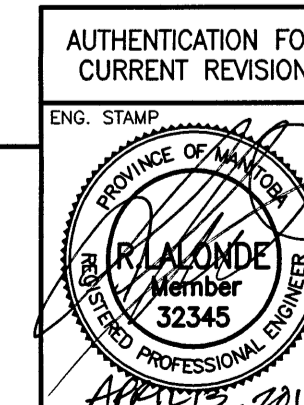
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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / ISSUE CHECK

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

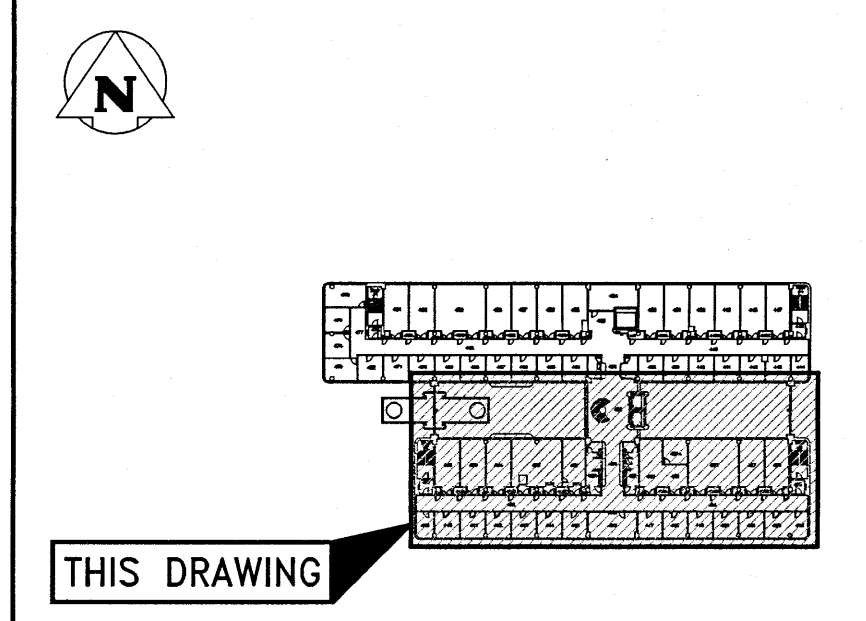
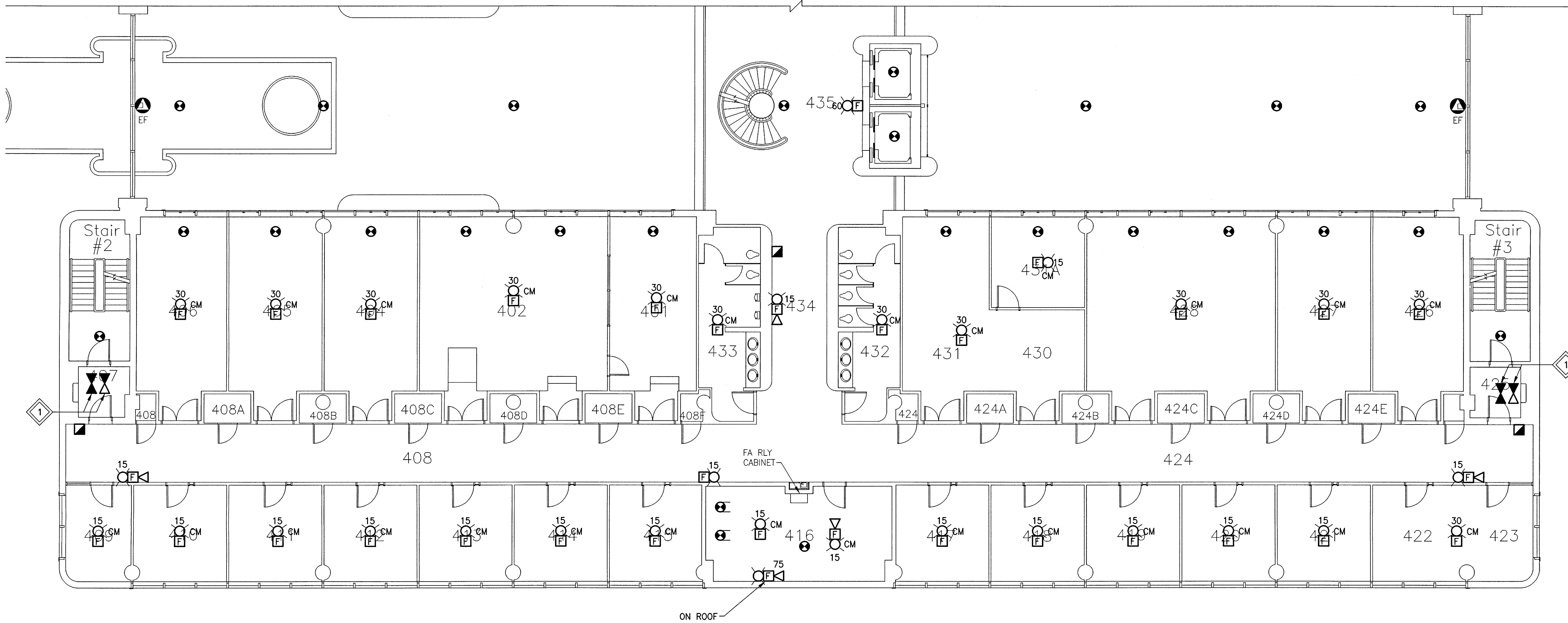
PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL THIRD LEVEL -- NEW



DESIGN BY:	SEB	DATE (YY/MM/DD):	2016/10/03
DESIGN CHECK:	<i>[Signature]</i>	DATE:	7/04/13
DRAWN BY:	RAH	DATE:	2016/10/03
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DWG. NO.:	16-0229-002	E3-31	REV: 0

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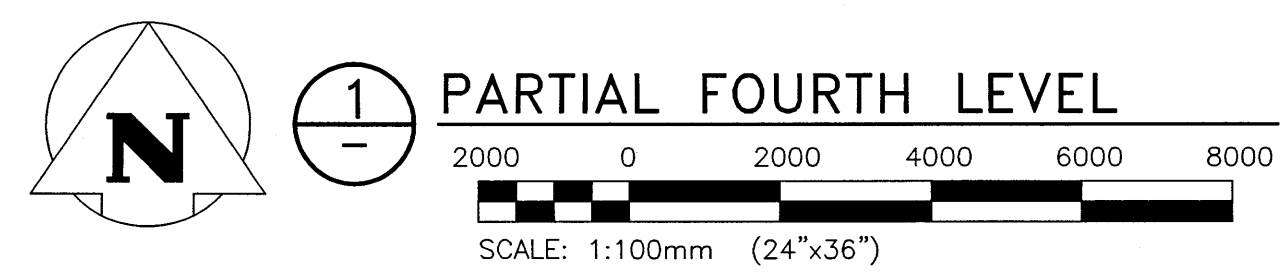
KEYPLAN: N.T.S.

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KEYNOTES:

1. PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.



File Name: F:\Projects\2016\16-0229-002\Draw\Elec\16-0229-002_E3-40.dwg - Tab: E3-40 Plotted By: dderoches 17/04/13 [Thu 1:22pm]
 Plot Scale: 1:100mm (24"x36")

0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY

REVISIONS / ISSUE

CLIENT: National Research Council Canada / Conseil national de recherches Canada

PROJECT: NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG01 BUILDING
 PARTIAL FOURTH LEVEL -- NEW

AUTHENTICATION FOR CURRENT REVISION
 ENG. STAMP

APEGM
 Certificate of Authorization
 KGS Group
 No. 245

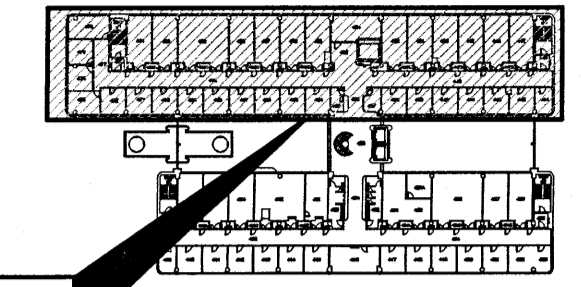
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DESIGN CHECK:		DATE:	17/04/13
DRAWN BY:	RAH	DATE:	2016/10/03
DWG CHECK:	SEB	DATE:	2017/04/13
DWG. NO.:	16-0229-002	E3-40	REV: 0

KEYNOTES:

- 1. PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.

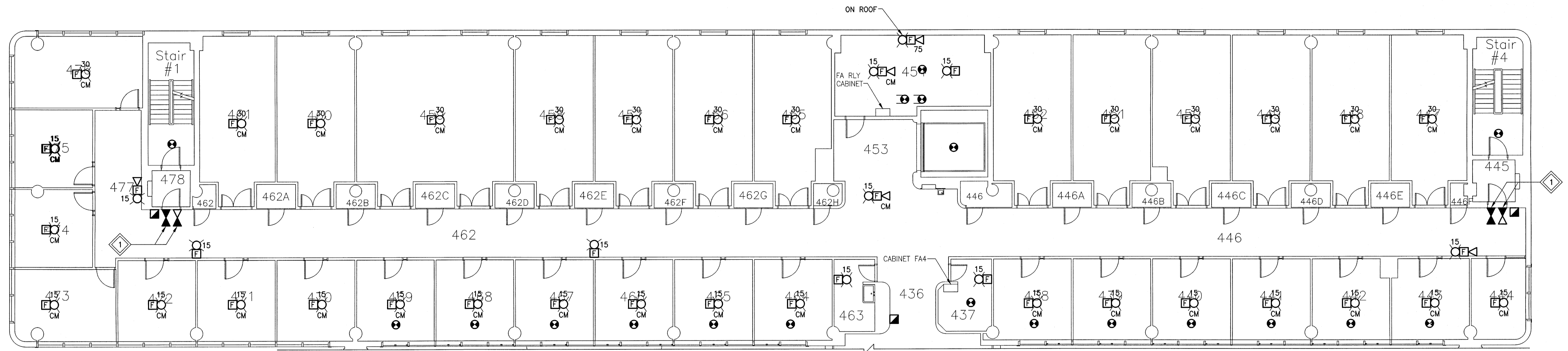
GENERAL NOTES:

- 1. ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
- 2. ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
- 3. WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

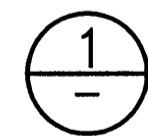
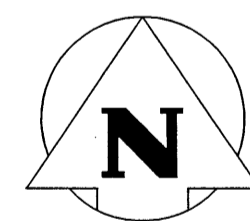


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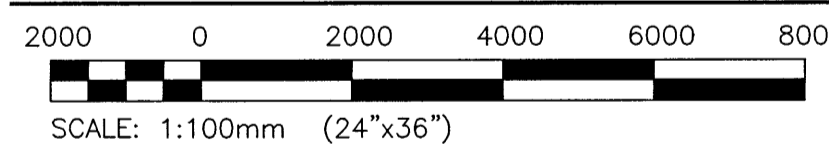
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PARTIAL FOURTH LEVEL



SCALE: 1:100mm (24"x36")

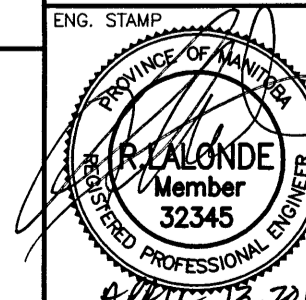
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN / CHECK BY
REVISIONS / ISSUE			

CLIENT:
National Research Council Canada / **Conseil national de recherches Canada**

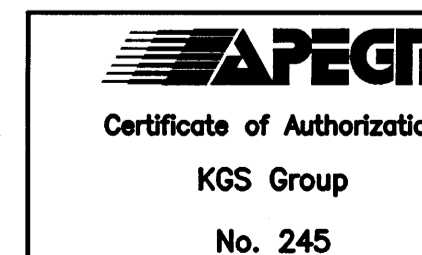
PROJECT:
NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

DWG. DESCRIPTION:
WPG01 BUILDING
PARTIAL FOURTH LEVEL -- NEW

AUTHENTICATION FOR CURRENT REVISION

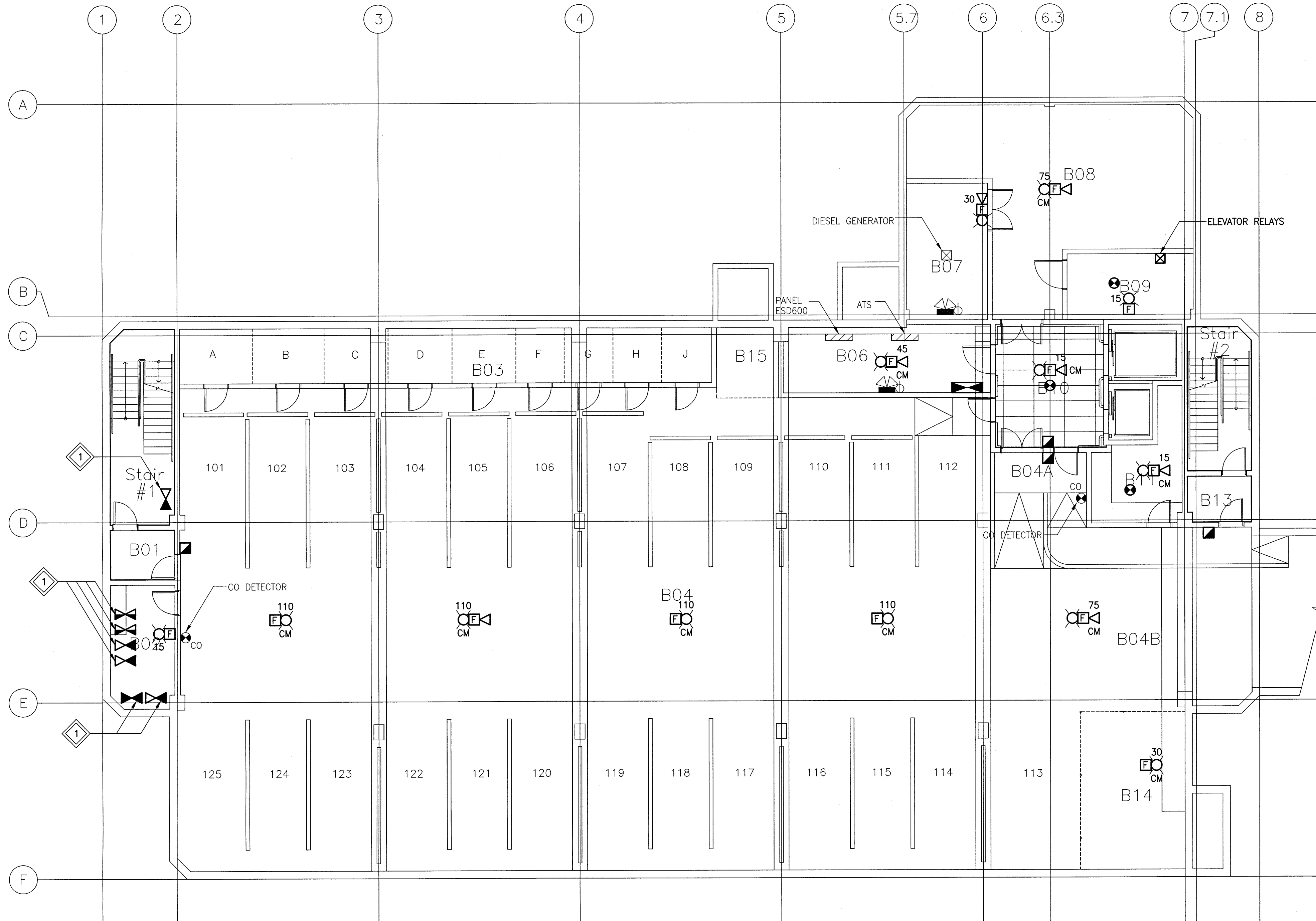


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DESIGN CHECK:	RAH	DATE:	17/04/13
DRAWN BY:	RAH	DATE:	2016/10/03
DWG CHECK:	SEB	DATE:	2017/04/13

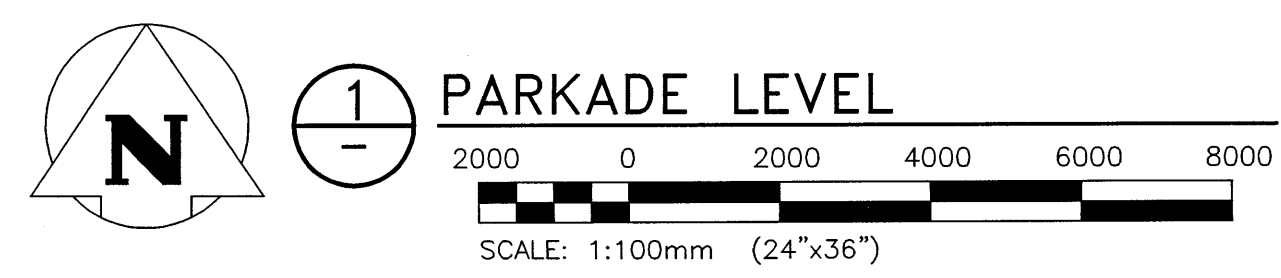


DWG. NO.	16-0229-002	E3-41	REV:	0
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File Name: F:\Projects\2016\16-0229-002\Elec\16-0229-002_E4-00.dwg - Tab: E4-00 Plotted By: sderoché 17/04/13 [Thu 1:21pm]
 24 X 36 / FLOOR SCALE



- GENERAL NOTES:**
- ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
 - ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.
- KEYNOTES:**
- 1 PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN THE SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.



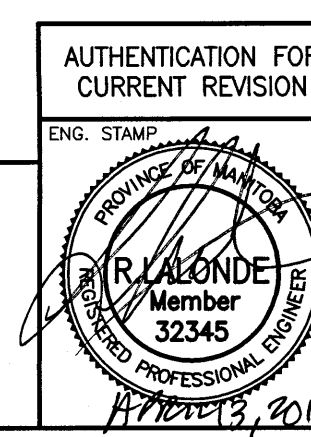
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	DESIGN CHECK
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB	

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

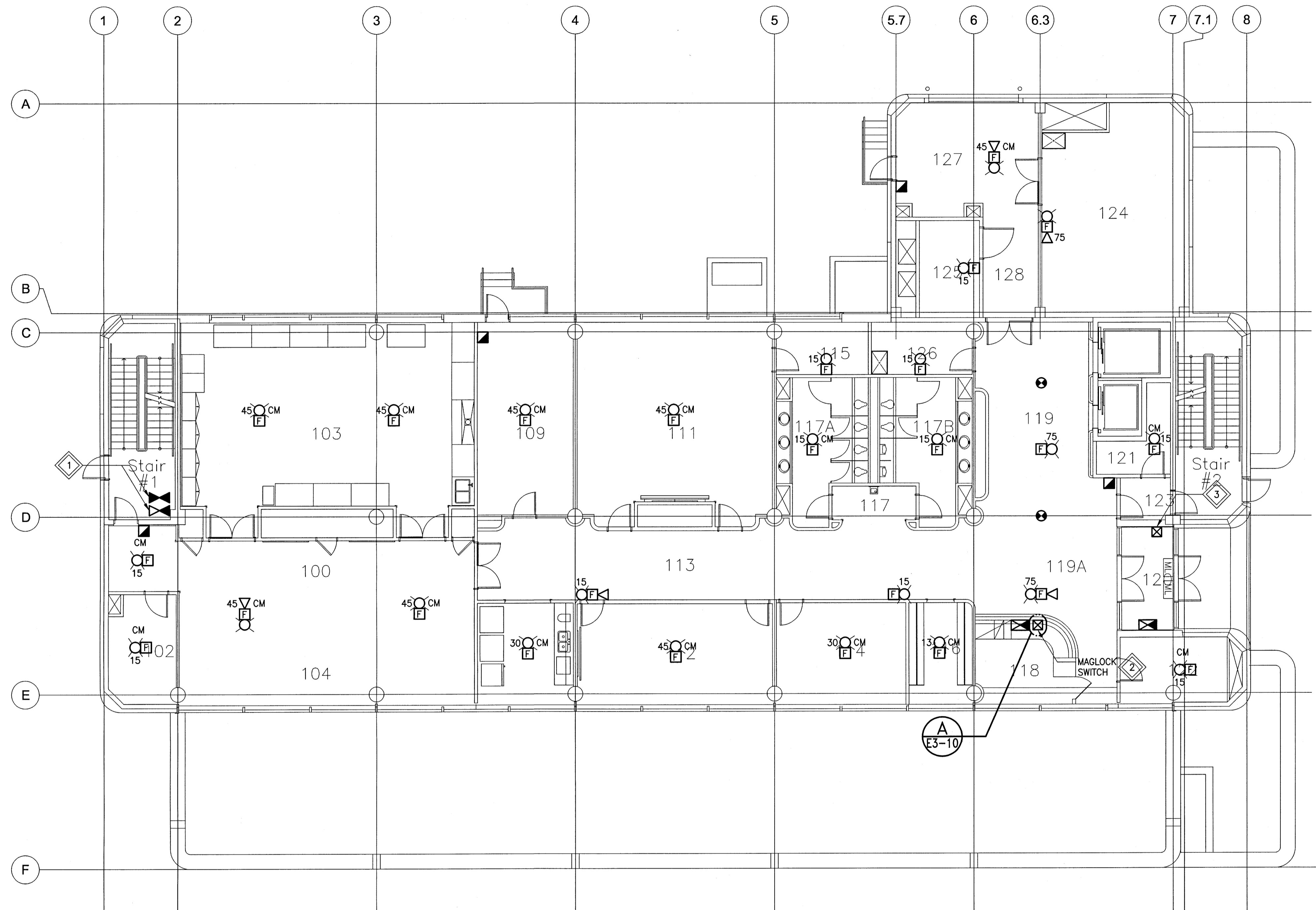
PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG DESCRIPTION:
 WPG02 BUILDING
 PARKADE LEVEL - NEW



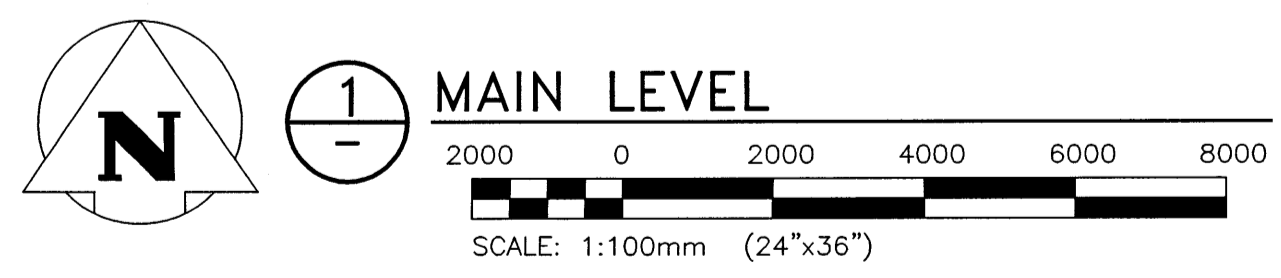
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DESIGN CHECK:	DATE:
RAH	17/04/13
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RAH	2016/10/03
DWG CHECK:	DATE:
SEB	2017/04/13
DWG. NO.:	REV:
16-0229-002 E4-00	0

File Name: P:\Projects\2016\16-0229-002\Elec\16-0229-002_E4-10.dwg - Tab: E4-10 Plotted By: dderochte 17/04/13 [Thu 1:21pm]
 24"x36" PLOT SCALE



- GENERAL NOTES:**
- ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
 - ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

- KEYNOTES:**
- PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN THE SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.
 - INSTALL A KEY SWITCH AT THE SECURITY DESK. CONFIRM LOCATION WITH OWNER PRIOR TO INSTALLATION. UPON ACTIVATION OF THE KEY SWITCH ALL ELECTROMAGNETIC LOCKS WITHIN THE WPG01 FACILITY ONLY SHALL RELEASE. LOCKS SHALL BE RESET BY THE SAME KEY SWITCH. FURNISH OWNER WITH FIVE (5) COPIES OF THE KEY. THERE IS A SEPARATE KEYSWITCH FOR EACH FACILITY WPG01 AND WPG02. THAT SWITCH SHALL CONTROL THE LOCAL FACILITY ONLY.
 - PROVIDE A RED NON LATCHING MUSHROOM HEAD PUSHBUTTON. PUSHBUTTON SHALL BE COMPLETE WITH RED LAMACOID LABEL WITH TEXT STATING "FOR EMERGENCY USE ONLY PUSHBUTTON DOOR SHALL OPEN AFTER 15 SECOND DELAY." PUSHBUTTON SHALL ACTIVATE LOCAL DOOR ONLY. PUSHBUTTON SHALL REQUIRE NOT MORE THAN 90N OF FORCE TO ACTIVATE.



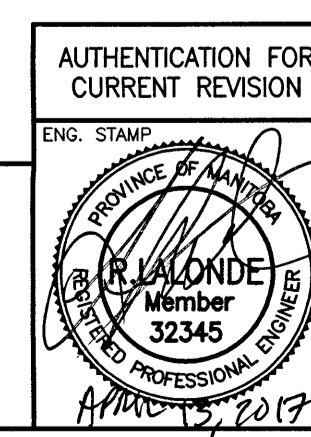
0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY

REVISIONS / ISSUE

CLIENT: National Research Council Canada / Conseil national de recherches Canada

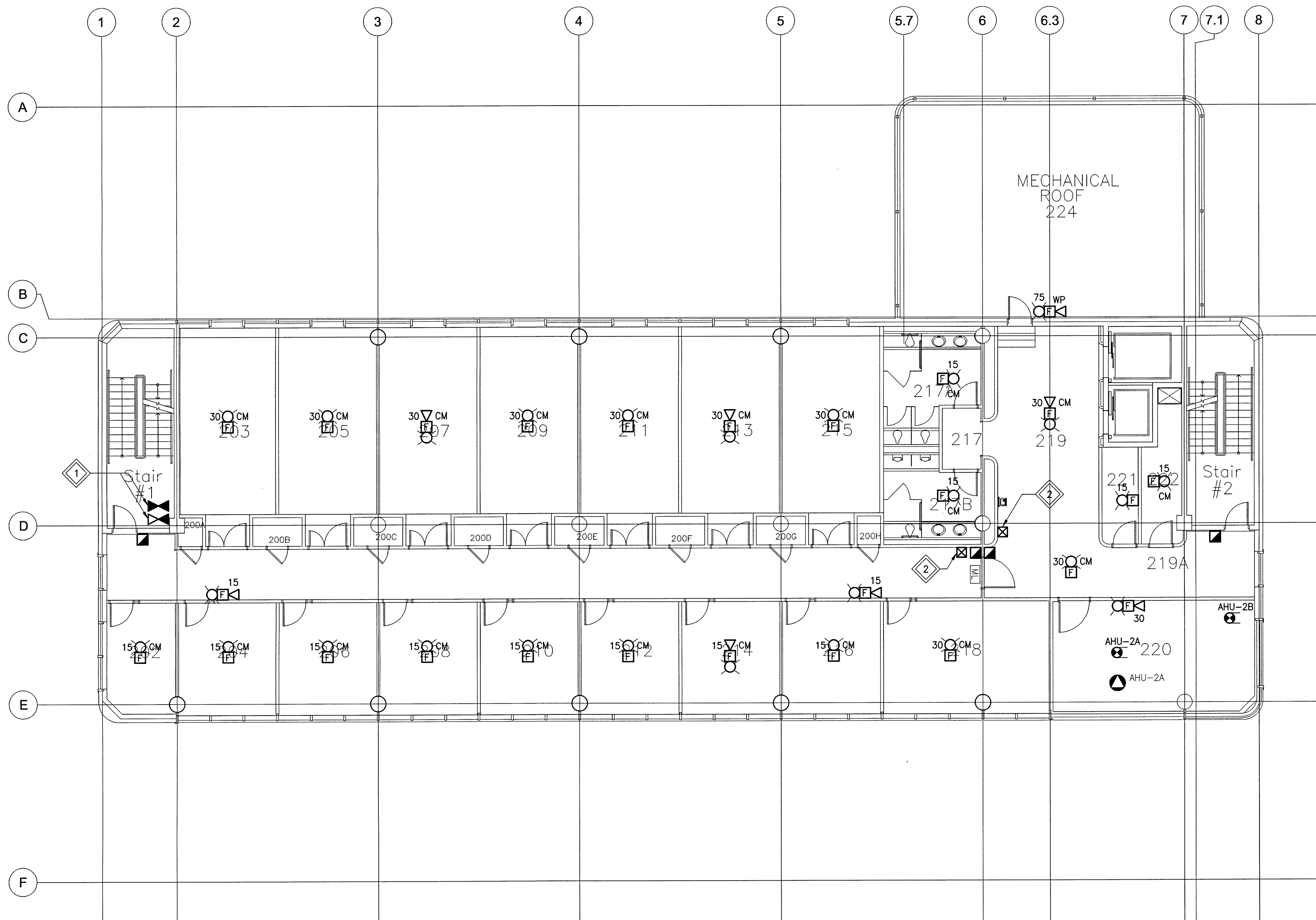
PROJECT: NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION: WPG02 BUILDING
 MAIN LEVEL - NEW



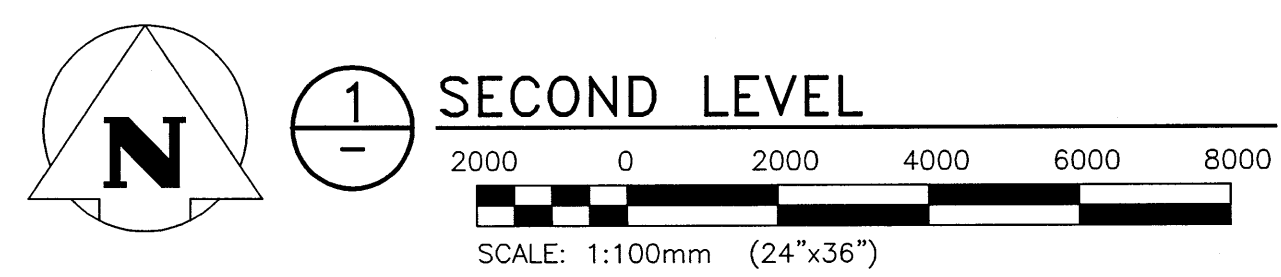
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ENG. STAMP	DESIGN CHECK: [Signature]	DATE: 17/04/13
	DRAWN BY: RAH	DATE: 2016/10/03
	DWG CHECK: SEB	DATE: 2017/04/13
DWG. NO. 16-0229-002	E4-10	REV: 0

File: \\wings-01\Projects\2016\16-0229-002\Elec\16-0229-002_E4-20.dwg - Tab: E4-20 Plotted By: sderoche 17/04/13 [Thu 1:20pm] 243387/1/01 SCALE



- GENERAL NOTES:**
- ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
 - ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

- KEYNOTES:**
- PROVIDE AND INSTALL NEW PRESSURE, FLOW AND TAMPER SWITCHES WHERE SHOWN. DEVICES SHALL BE INSTALLED IN THE SAME LOCATION AS EXISTING DEVICES. INSTALL NEW DEVICES IN ACCESSIBLE CEILING SPACE WHERE EXISTING DEVICES ARE IN ACCESSIBLE CEILING SPACE.
 - PROVIDE A RED NON LATCHING MUSHROOM HEAD PUSHBUTTON. PUSHBUTTON SHALL BE COMPLETE WITH RED LAMACOID LABEL WITH TEXT STATING "FOR EMERGENCY USE ONLY PUSHBUTTON DOOR SHALL OPEN AFTER 15 SECOND DELAY." PUSHBUTTON SHALL ACTIVATE LOCAL DOOR ONLY. PUSHBUTTON SHALL REQUIRE NOT MORE THAN 90N OF FORCE TO ACTIVATE.



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECK
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REVISIONS / ISSUE

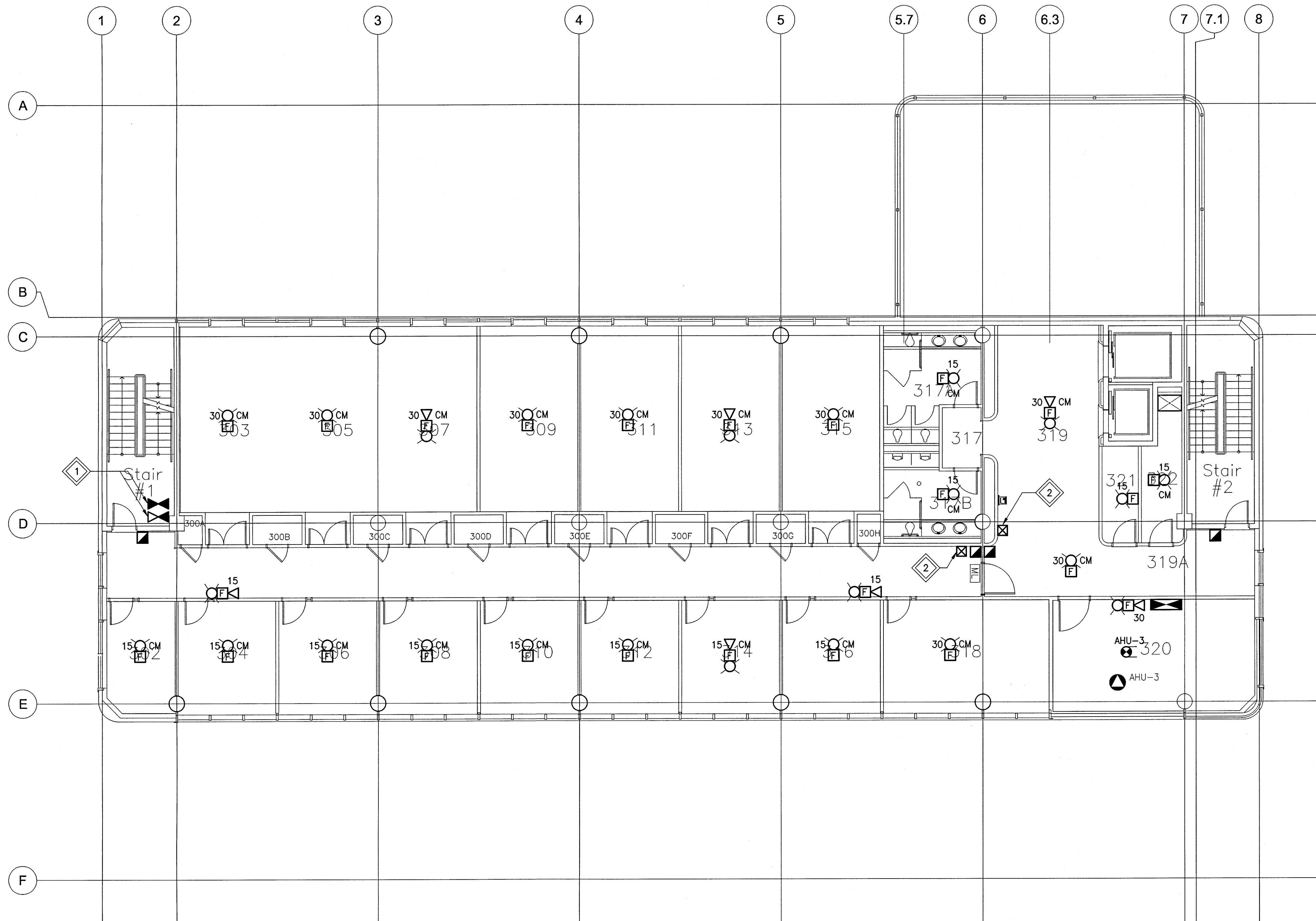
CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG02 BUILDING
 SECOND LEVEL -- NEW

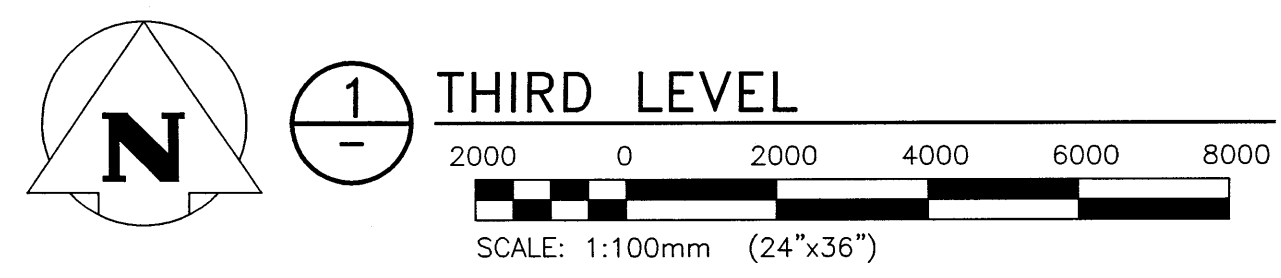
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DWG. NO.: 16-0229-002		E4-20

File Name: P:\Project\2016\16-0229-002\Elec\16-0229-002_E4-30.dwg - Tab: E4-30 Plotted By: dderoché 17/04/13 [Thu 1:20pm]
 24 365 / FLOT SCALE



- GENERAL NOTES:**
- ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
 - ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
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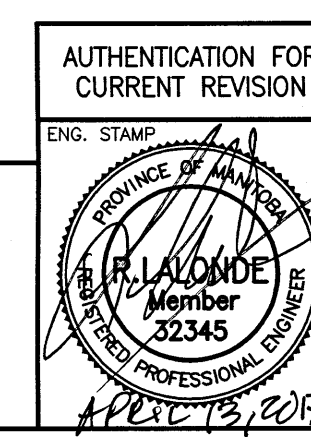
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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

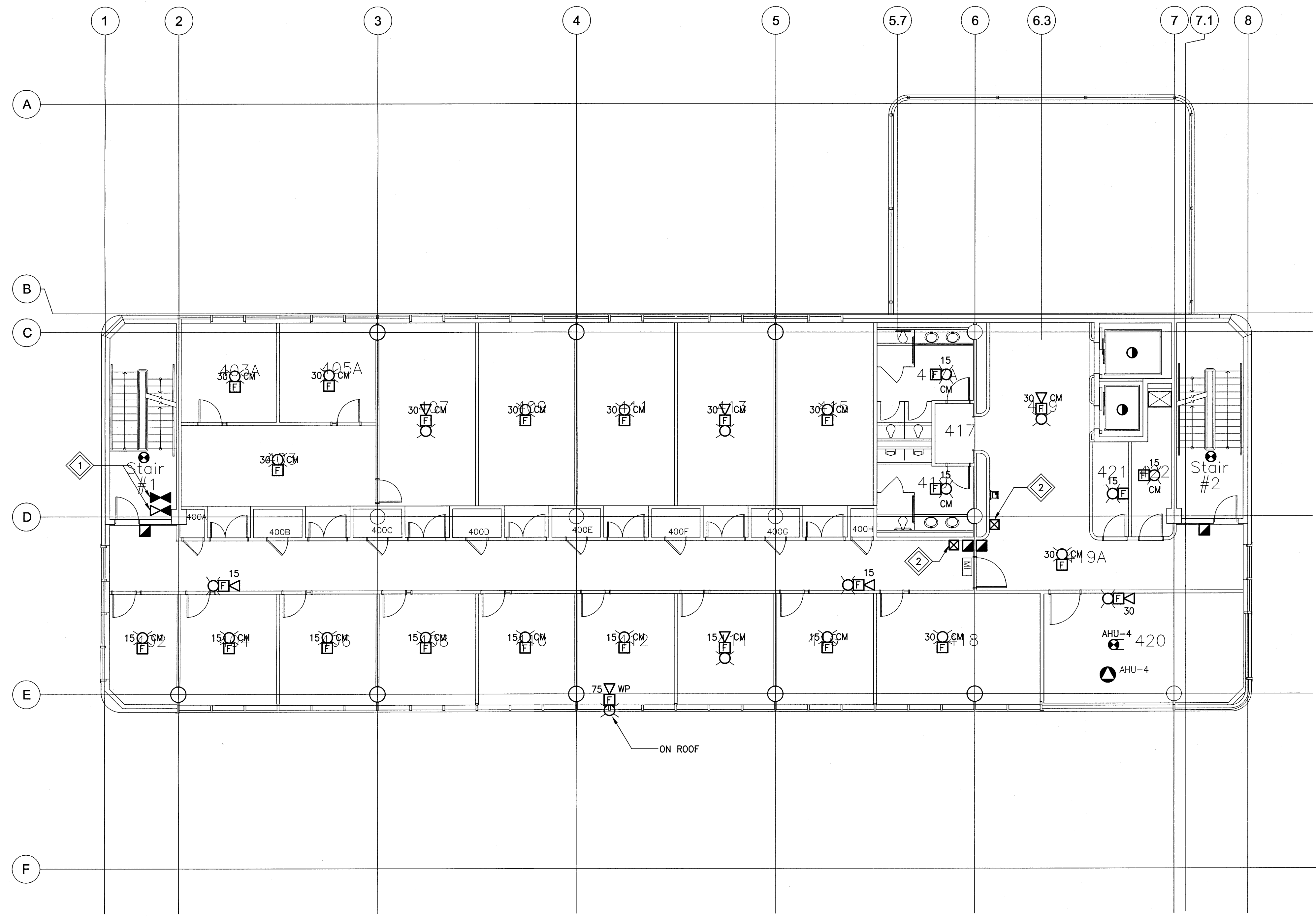
PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 WPG02 BUILDING
 THIRD LEVEL - NEW



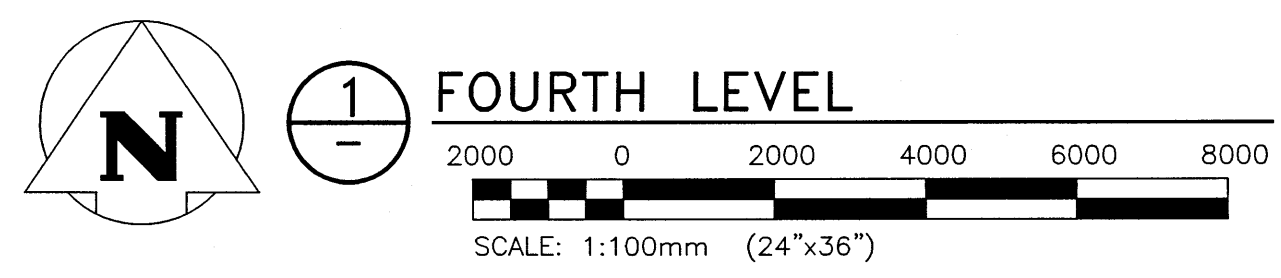
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DWG. CHECK:	SEB	DATE:	17/04/13
DWG. NO.:	16-0229-002	E4-30	REV: 0

File Name: P:\Projects\2016\16-0229-002\Elec\16-0229-002-E4-40.dwg - Tab: E4-40 Plotted By: adroche 17/04/13 [Thu 1:20pm]
 24"x36"/FLOT SCALE:



- GENERAL NOTES:**
- ALL NEW MANUAL PULL STATIONS SHALL BE INSTALLED AT 1200mm ABOVE FINISHED FLOOR. WHERE THE EXISTING MANUAL PULL STATION WAS AT A DIFFERENT ELEVATION, INSTALL SECUREX WITHIN WALL TO NEW DEVICE LOCATION. PATCH AND PAINT WALL.
 - ALL NEW DEVICES SHALL BE FED BY NEW FAS WIRING. ALL WIRING SHALL BE CONCEALED WITHIN ACCESSIBLE CEILING SPACE AND/OR WITHIN THE EXISTING WALLS.
 - WHERE REQUIRED, CONTRACTOR TO REWIRE EXISTING RELAY MODULES AND MONITORING MODULES TO A NEW RELAY CABINET AND/OR A NEW NODE CONTROL PANEL LOCATION.

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 - PROVIDE A RED NON LATCHING MUSHROOM HEAD PUSHBUTTON. PUSHBUTTON SHALL BE COMPLETE WITH RED LAMACOID LABEL WITH TEXT STATING "FOR EMERGENCY USE ONLY PUSHBUTTON DOOR SHALL OPEN AFTER 15 SECOND DELAY." PUSHBUTTON SHALL ACTIVATE LOCAL DOOR ONLY. PUSHBUTTON SHALL REQUIRE NOT MORE THAN 90N OF FORCE TO ACTIVATE.



NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	CHECKED
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REVISIONS / ISSUE

CLIENT:

National Research Council Canada / Conseil national de recherches Canada

PROJECT:

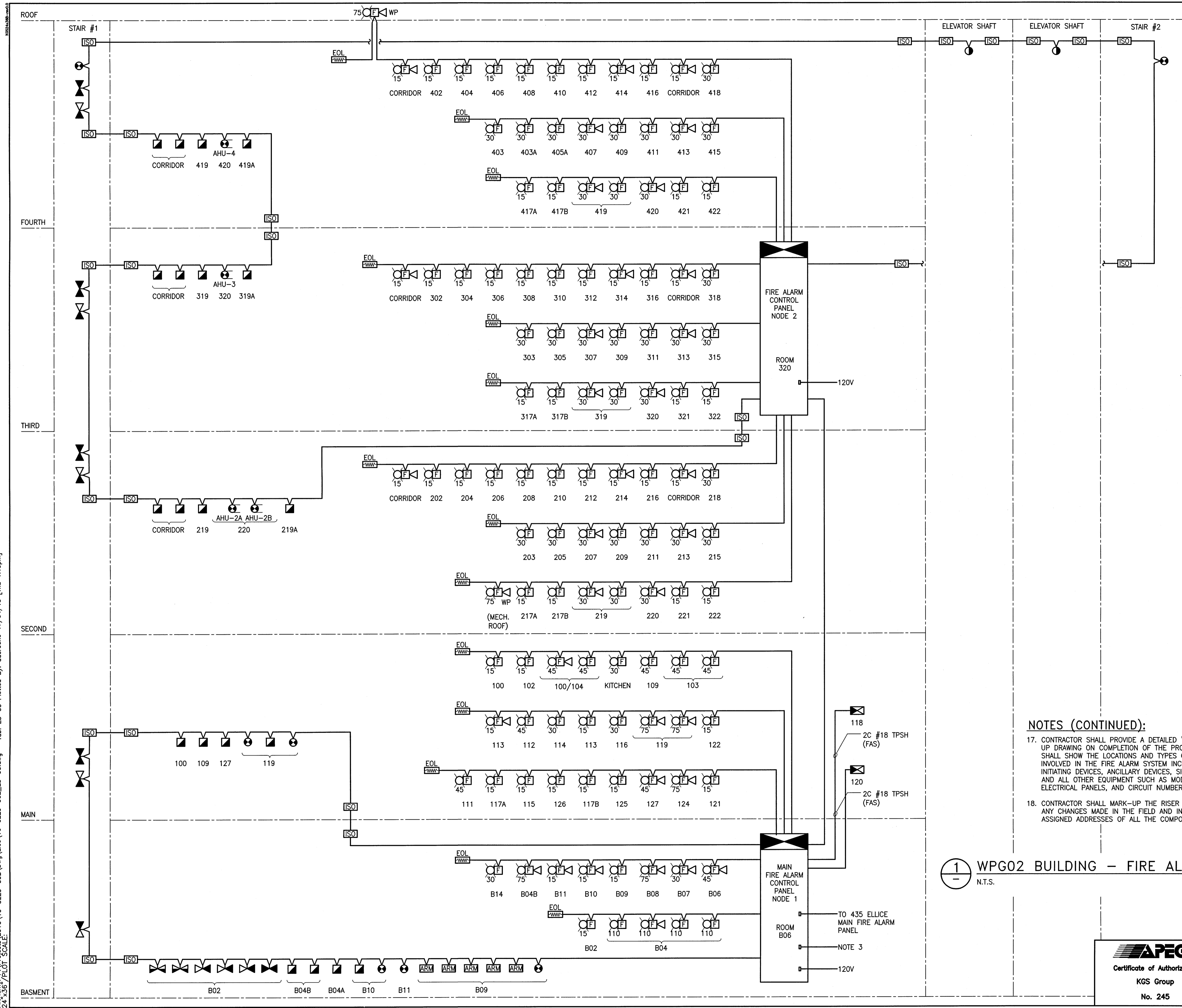
NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:

WPG02 BUILDING
 FOURTH LEVEL - NEW

 KGS Group No. 245	AUTHENTICATION FOR CURRENT REVISION ENG. STAMP 	DESIGN BY: SEB DESIGN CHECK: DRAWN BY: RAH DWG CHECK: SEB	DATE (YY/MM/DD): 2016/10/03 DATE: 17/04/13 DATE: 2016/10/03 DATE: 2017/04/13
	DWG. NO.: 16-0229-002		REV: 0

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 24.3x35.7/PLT SCALE



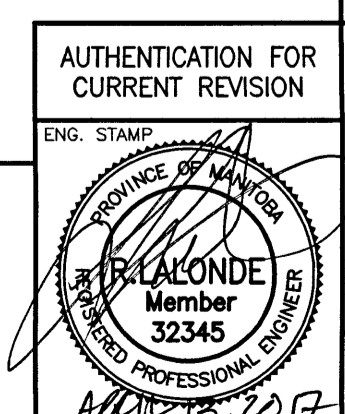
- NOTES:**
- ISOLATION MODULES ARE SHOWN FOR DESIGN PURPOSES, BUT WHERE MANUFACTURER'S HAVE ISOLATION BASES THAT CAN BE UTILIZED WITH THE SMOKE AND HEAT SENSORS; THE INDEPENDENT ISO MODULE CAN BE REMOVED AND INTEGRATED WITH THE SENSORS TO MAINTAIN THE DESIGN AND CODE INTENT.
 - THE INTENT OF THE UPGRADE IS TO MAINTAIN ALL EXISTING FUNCTIONALITY. ALL CONNECTIONS TO EXISTING EQUIPMENT INCLUDING BUT NOT LIMITED TO THE ATRIUM SMOKE EVACUATION EXHAUST SYSTEM, AIR HANDLER SHUTDOWN INTERLOCKS, DOOR HOLD OPENS, KITCHEN EXHAUST SYSTEMS AND MAKEUP AIR UNITS SHALL BE MAINTAINED AND ALL WIRING EXTENDED BACK TO THE NEW FIRE ALARM CONTROL PANEL.
 - CONTRACTOR TO PROVIDE A DEDICATED FIRE ALARM RELEASING CIRCUIT FOR ALL ELECTROMAGNETIC LOCKS WITHIN EACH BUILDING.
 - NOTIFICATION SYSTEM IS DESIGNED AS A NON-ADDRESSABLE NOTIFICATION SYSTEM WITH CONVENTIONAL DEVICES. WHERE ADDRESSABLE DEVICES ARE USED AND APPROVED BY ENGINEER AN END-OF-LINE (EOL) MAY NOT BE REQUIRED. IF ADDRESSABLE NOTIFICATION IS USED, CONTRACTOR SHALL COORDINATE WITH MANUFACTURER FOR ALL WIRING METHODS. FOR EXAMPLE T-TAPPING WOULD BE ACCEPTABLE.
 - FIRE ALARM SYSTEM TO BE A FULL ADDRESSABLE SYSTEM.
 - CONTRACTOR SHALL WIRE ALL FIRE ALARM SYSTEM ADDRESSABLE CIRCUITS WITH A CLASS 'A' ORIENTATION. NO ADDRESSABLE LOOP CIRCUIT SHALL BE LOADED MORE THAN 80% PER CIRCUIT.
 - CONTRACTOR SHALL PROVIDE AN ISOLATION MODULE ON EACH SIDE OF A FIRE SEPARATION WALL TO ENSURE SHORT CIRCUIT ISOLATION IS PRESENT THROUGHOUT ENTIRE LOOP CIRCUIT.
 - RISER DIAGRAM IS DIAGRAMMATICAL ONLY. WIRING PATH AND CONNECTIONS BETWEEN DEVICES TO BE AS REQUIRED TO SUIT THE LOCATION OF DEVICES IN THE FIELD. QUANTITY OF DEVICES INSTALLED PER ADDRESSABLE LOOP SHALL BE CONFIRMED WITH MANUFACTURERS RECOMMENDATIONS, REQUIREMENTS AND POWER LOAD.
 - PROVIDE A NETWORKED CONNECTION BETWEEN THE ANNUNCIATOR AND THE MAIN FIRE ALARM CONTROL PANEL.
 - ALL FIRE ALARM DEVICES SHALL BE INSTALLED AS PER CAN/ULC 5524 AND FULL VERIFICATION AS PER CAN/ULC 5537.
 - FIRE ALARM WIRING SHALL BE MINIMUM #18 TYPE RW90 FOR DETECTION CIRCUITS AND MINIMUM #14 TYPE RW90 FOR NOTIFICATION CIRCUITS. ALL WIRING SHALL BE FREE OF GROUNDS AND SHORTS. APPROVED FIRE ALARM CABLE CAN BE USED WITH FT RATING AS REQUIRED FOR PARTICULAR TYPE OF CONSTRUCTION.
 - ALL FIRE ALARM INTERLOCKS WITH OTHER EQUIPMENT (RECIRCULATING AIR EQUIPMENT, MAGNETIC DOOR HOLDERS, ETC.) AS SHOWN AND/OR REQUIRED SHALL BE TESTED AND CLEARLY INDICATED ON FIRE ALARM VERIFICATION REPORT. VERIFY ALL REQUIRED INTERLOCKS AND SEQUENCE OF OPERATION WITH MECHANICAL ENGINEER BEFORE FINAL PROGRAMMING.
 - FIRE ALARM VERIFICATION REPORT AND CERTIFICATE OF VERIFICATION SHALL BE SUBMITTED TO THE ELECTRICAL CONSULTANT FOR REVIEW AND APPROVAL.
 - ALL BREAKERS REQUIRED FOR THE NEW FIRE ALARM SYSTEM SHALL BE PAINTED RED AND BE LOCKABLE IN THE 'ON' POSITION. ALL JUNCTION BOX COVERS SHALL BE PAINTED RED AND LABELED WITH A PERMANENT MARKER ITS FUNCTION.
 - THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS FOR ALL INSTALLATIONS.
 - ALL ISOLATION MODULES SHALL BE INSTALLED IN SEPARATE ENCLOSURES (EXCEPT WHERE NOTED OTHERWISE) AND BE LOCATED IN ACCESSIBLE AND VISIBLE LOCATIONS.

NOTES (CONTINUED):

- CONTRACTOR SHALL PROVIDE A DETAILED "AS BUILT" MARKED UP DRAWING ON COMPLETION OF THE PROJECT. THIS DRAWING SHALL SHOW THE LOCATIONS AND TYPES OF ALL THE DEVICES INVOLVED IN THE FIRE ALARM SYSTEM INCLUDING ALL INITIATING DEVICES, ANCILLARY DEVICES, SIGNALING DEVICES, AND ALL OTHER EQUIPMENT SUCH AS MODULES, RELAYS, ELECTRICAL PANELS, AND CIRCUIT NUMBERS.
- CONTRACTOR SHALL MARK-UP THE RISER DIAGRAM IDENTIFYING ANY CHANGES MADE IN THE FIELD AND INDICATE THE ASSIGNED ADDRESSES OF ALL THE COMPONENTS.

1 WPG02 BUILDING - FIRE ALARM RISER
N.T.S.

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NO.	YY/MM/DD	DESCRIPTION	DESIGN BY
REVISIONS / ISSUE			
CLIENT: National Research Council Canada / Conseil national de recherches Canada			
PROJECT: NATIONAL RESEARCH COUNCIL NRC 435/445 ELLICE AVE., WPG, MB FIRE ALARM UPGRADES			
DWG. DESCRIPTION: FIRE ALARM RISER SHEET 1			
DESIGN BY:	DATE (YY/MM/DD):	DESIGN CHECK:	DATE:
SEB	2016/10/03	RAH	07/04/13
DRAWN BY:	DATE:	DWG. CHECK:	DATE:
RAH	2016/10/03	SEB	2017/04/13
DWG. NO. 16-0229-002 E5-00		REV. 0	



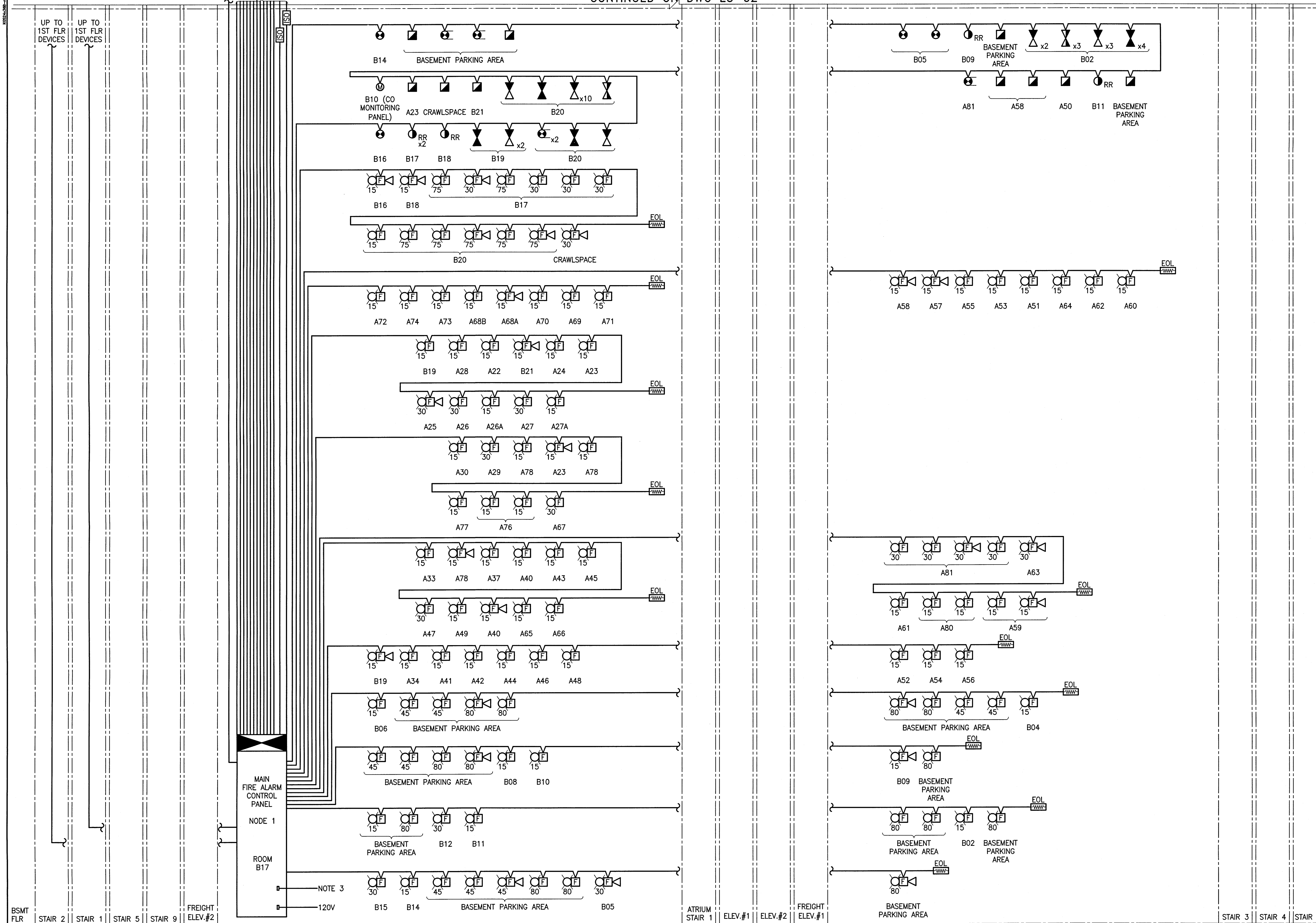
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 24 X36 / FLOOR SCALE

TO FACP NODE 2 TO 1ST FLR DEVICES

CONTINUED ON DWG E5-02

NOTES:

1. REFER TO DRAWING E5-00 FOR NOTES.



0	17/04/13	ISSUED FOR CONSTRUCTION	SEB
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / CHECK

REVISIONS / ISSUE

CLIENT:
 National Research Council Canada / Conseil national de recherches Canada

PROJECT:
 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION:
 FIRE ALARM RISER
 SHEET 2

1 WPG01 BUILDING - BASEMENT / PARKING FLOOR - FIRE ALARM RISER
 N.T.S.

APEGM
 Certificate of Authorization
 KGS Group
 No. 245

AUTHENTICATION FOR CURRENT REVISION
 ENG. STAMP

DESIGN BY: SEB	DATE: 2016/10/03
DESIGN CHECK:	DATE: 17/04/13
DRAWN BY: RAH	DATE: 2016/10/03
DWG CHECK: SEB	DATE: 0017/04/13
DWG. NO. 16-0229-002	REV: 0

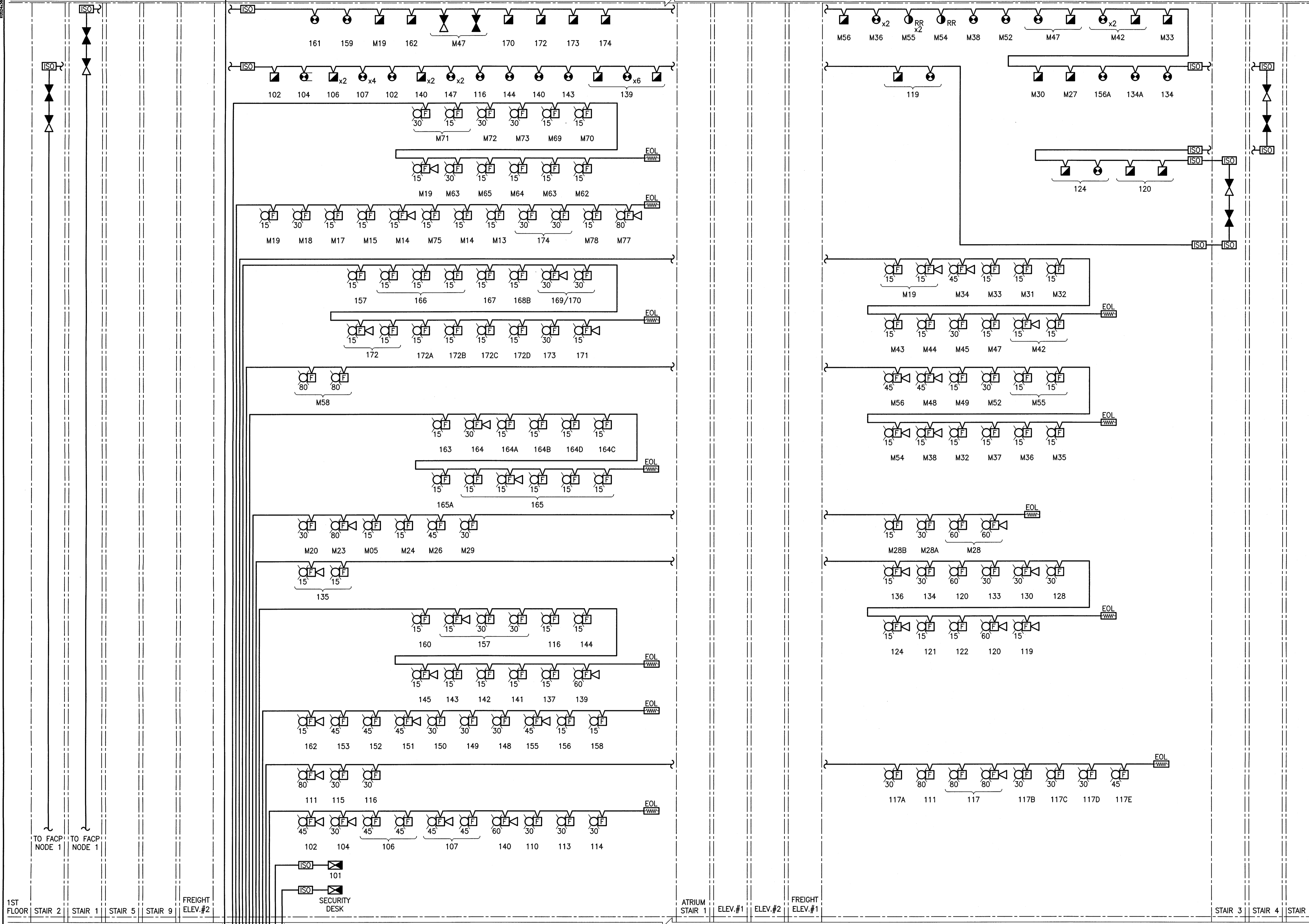
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 Plot Size: A3 / FLOOR SCALE

TO FACP NODE 2

CONTINUED ON DWG E5-03

NOTES:

1. REFER TO DRAWING E5-00 FOR NOTES.



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PROJECT:
NATIONAL RESEARCH COUNCIL
NRC 435/445 ELLICE AVE., WPG, MB
FIRE ALARM UPGRADES

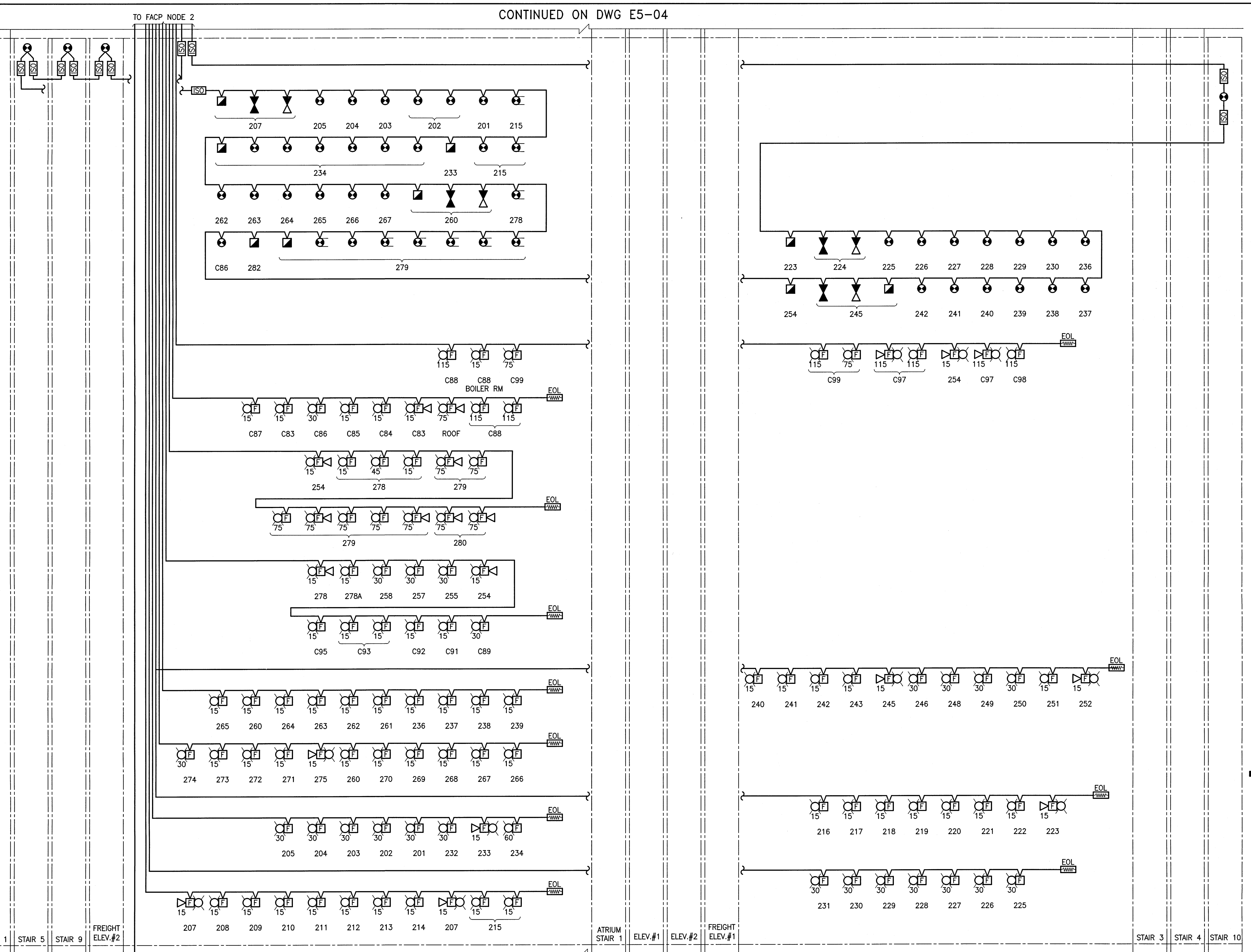
DWG. DESCRIPTION:
FIRE ALARM RISER
SHEET 3

1 WPG01 BUILDING - FIRST FLOOR - FIRE ALARM RISER
 N.T.S.

CONTINUED ON DWG E5-01

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 24/05/17/04/13



NOTES:
 1. REFER TO DRAWING E5-00 FOR NOTES.

1 WPG01 BUILDING - SECOND FLOOR - FIRE ALARM RISER
 N.T.S.

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 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

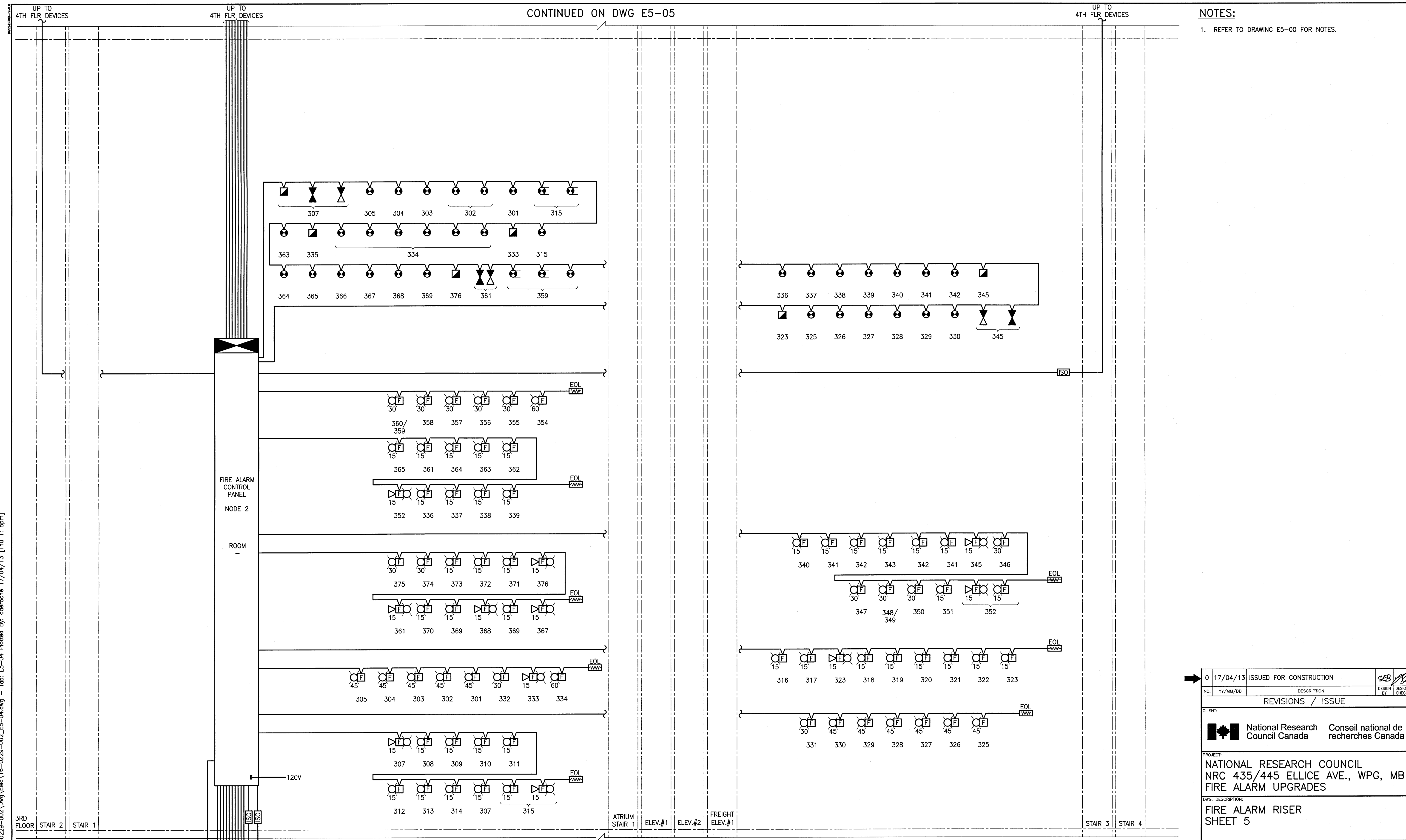
DWG DESCRIPTION:
 FIRE ALARM RISER
 SHEET 4

AUTHENTICATION FOR
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DWG CHECK:	SEB	DATE:	2017/04/13
DWG. NO.:	16-0229-002	E5-03	REV: 0

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File Name: P:\Projects\2016\16-0229-002\DWG\Elec\16-0229-002_E5-04.dwg - Tab: E5-04 Plotted By: dderoché 17/04/13 [Thu 1:18pm]
 24 x 35 / PLOT SCALE:



NOTES:
 1. REFER TO DRAWING E5-00 FOR NOTES.

1 WPG01 BUILDING - THIRD FLOOR - FIRE ALARM RISER
 N.T.S.

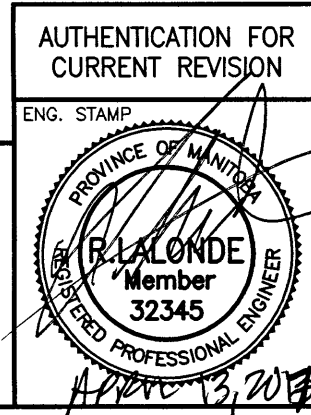
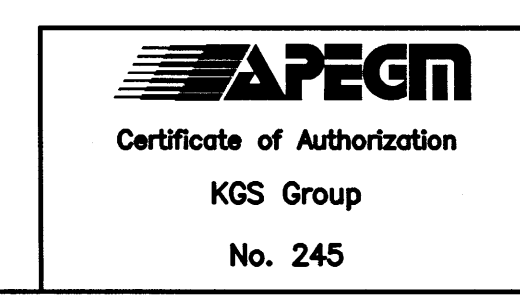
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 FIRE ALARM UPGRADES

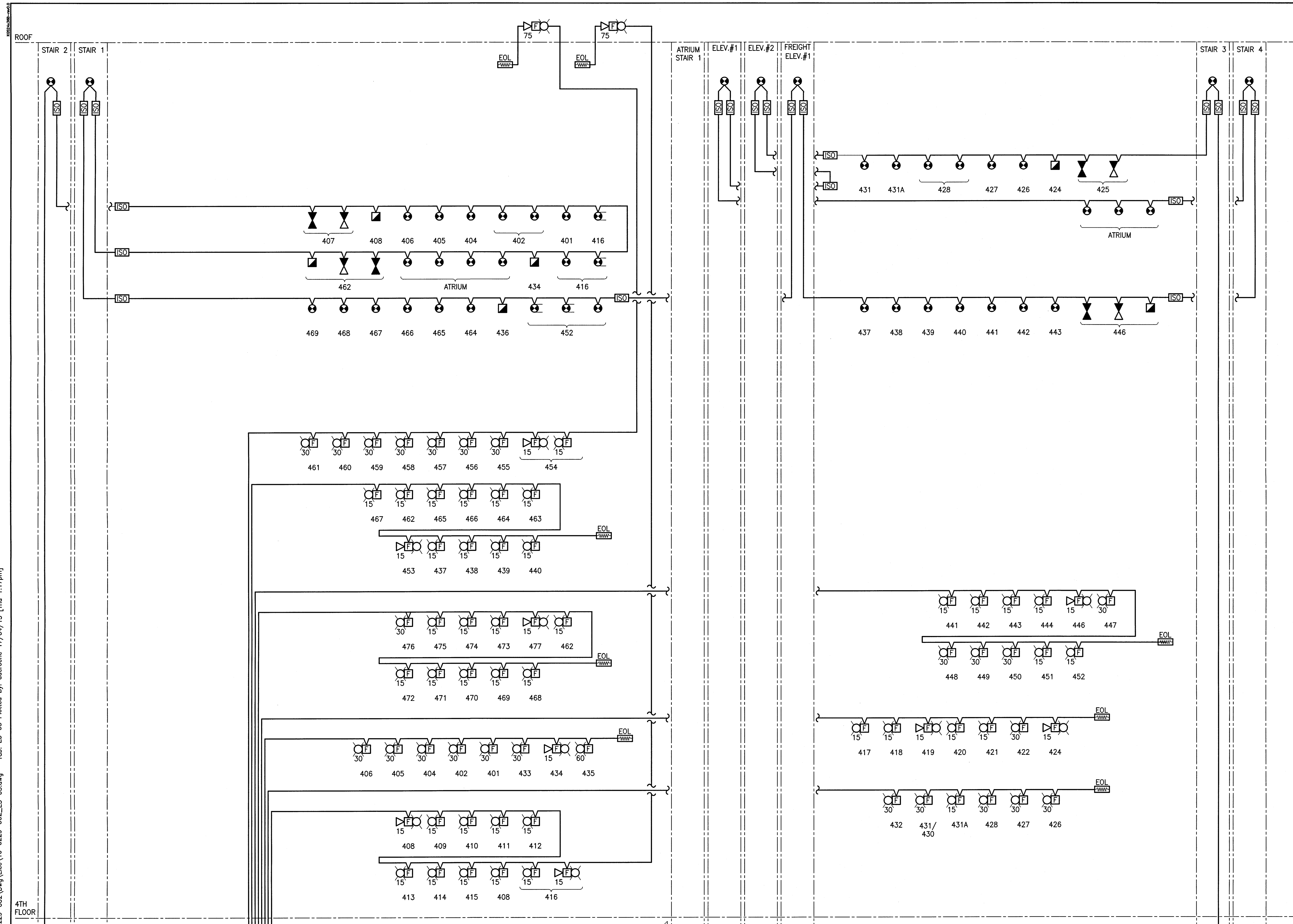
DWG. DESCRIPTION:
 FIRE ALARM RISER
 SHEET 5



DESIGN BY: SEB	DATE (YY/MM/DD): 2016/10/03
DESIGN CHECK: [Signature]	DATE: 17/04/13
DRAWN BY: RAH	DATE: 2016/10/03
DWG CHECK: SEB	DATE: 2017/04/13
DWG. NO.: 16-0229-002	REV: 0

NOTES:

1. REFER TO DRAWING E5-00 FOR NOTES.



CONTINUED ON DWG E5-04

1 WPG01 BUILDING - FOURTH FLOOR - FIRE ALARM RISER
N.T.S.

TO FACP
NODE 2

TO FACP
NODE 2

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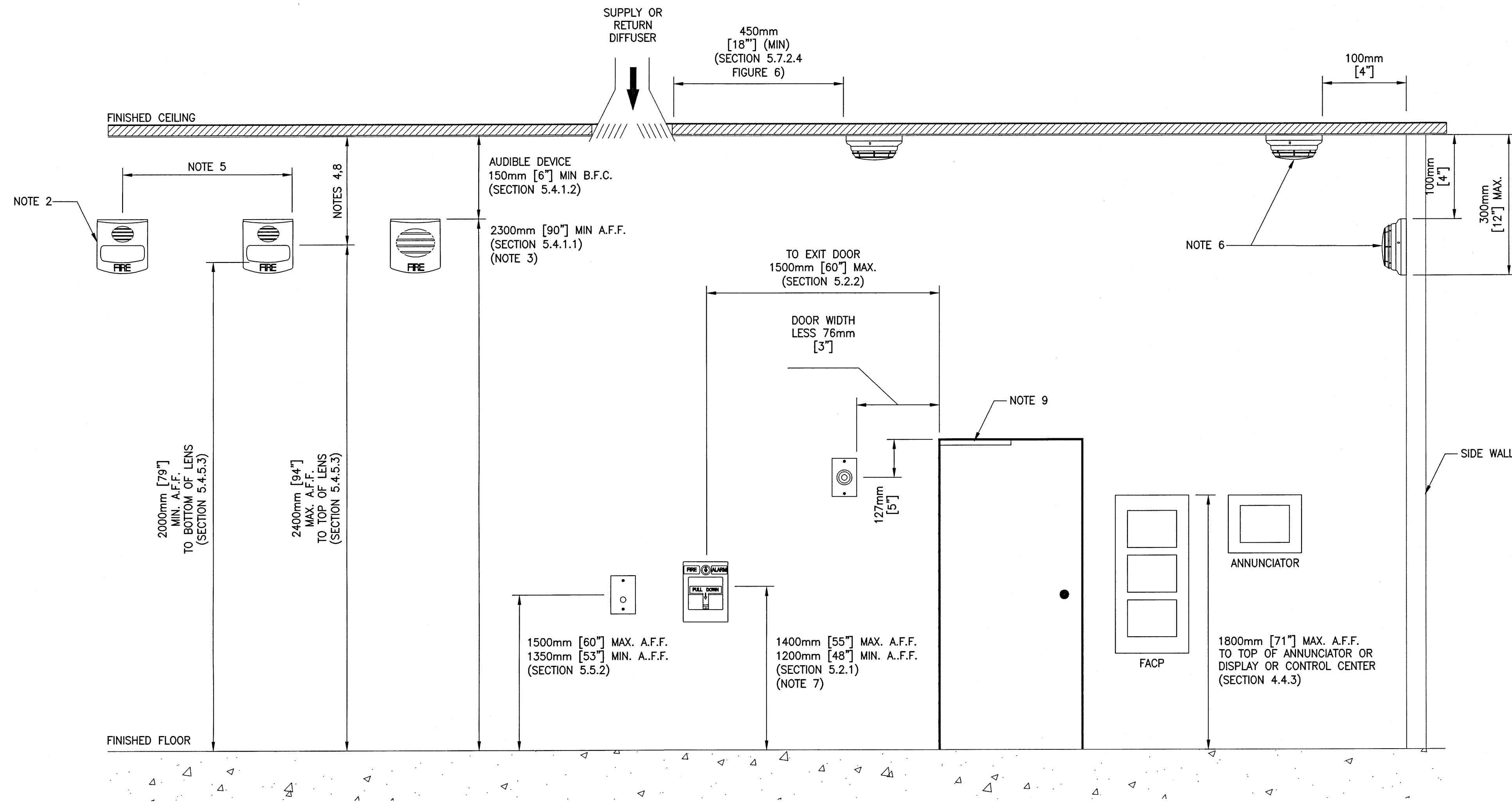
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 NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG DESCRIPTION:
 FIRE ALARM RISER
 SHEET 6

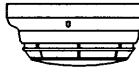


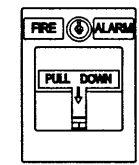


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DESIGN CHECK:	RAH	DATE:	17/04/13
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DWG CHECK:	SEB	DATE:	2017/04/13
DWG NO.:	16-0229-002	E5-05	REV: 0

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 24 238 / PLOT SCALE



LEGEND

-  SMOKE/HEAT DETECTOR
-  AUDIBLE DEVICE
-  AUDIBLE/VISUAL OR VISUAL DEVICE
-  MANUAL PULL STATION
-  FIRE EMERGENCY / FIREFIGHTER TELEPHONE OR PHONE JACK
-  MAGNETIC DOOR HOLDER
- A.F.F. ABOVE FINISHED FLOOR
- B.F.C. BELOW FINISHED CEILING


NOTES:

1. ALL CODE SECTION REFERENCES SHOWN WITHIN THIS DETAIL ARE FOR THE INSTALLATION OF FIRE ALARM SYSTEMS CAN/ULC-S524.
2. REFER TO THE PROPER DEVICE INSTALLATION INSTRUCTIONS FOR BACKBOX MOUNTING HEIGHT. TYPICAL FOR ALL FIRE ALARM DEVICES.
3. OTHER MOUNTING HEIGHTS FOR AUDIBLE APPLIANCES SHALL BE PERMITTED BY THE AHJ PROVIDING IT MEETS THE SOUND LEVEL OUTPUT REQUIRED.
4. FOR CEILING HEIGHTS LESS THAN 2180mm [86\"], THE VISUAL LENS MOUNTING HEIGHT SHALL BE WITHIN 150mm [6\" OF THE CEILING.
5. SYNCHRONIZE TWO OR MORE APPLIANCES IN ANY FIELD OF VIEW. (SECTION 5.4.5.2)
6. MEASUREMENTS SHOWN ARE TO THE CLOSEST EDGE OF THE DETECTOR. (SECTION 5.7.5.1.1 FIGURE 19)
7. MANUAL PULL STATION SHALL BE INSTALLED TO 1200mm [48\" WITHIN THE CITY OF WINNIPEG AS PER "MOUNTING HEIGHTS OF ELECTRICAL CONTROLS IN BARRIER-FREE PATHS OF TRAVEL" NOTICE ISSUED SEPTEMBER 24, 2008. MANITOBA BUILDING CODE SECTION 3.8.1.5.
8. VISUAL APPLIANCE MOUNTING HEIGHT CONSIDERATIONS IN SLEEPING ROOMS
 - MIN DISTANCE IN SLEEPING ROOMS IS 610mm [24\" FROM CEILING TO TOP OF LENS FOR 110CD STROBES WITHIN 4877mm [192\" OF THE PILLOW.
 - 177CD STROBES, USED IN SLEEPING ROOMS, CAN BE WITHIN THE 610mm [24\" MINIMUM DISTANCE FROM THE CEILING. THE HIGHER INTENSITY IS TO COMPENSATE FOR A POSSIBLE SMOKE LAYER.
9. MAGNETIC DOOR HOLDER TO BE EITHER A SURFACE MOUNTED DEVICE OR INTEGRATED/INTERLOCK WITH THE DOOR OPERATOR. REFER TO ARCHITECTURAL DRAWINGS AND DOOR SCHEDULE FOR DETAILS.

1 FIRE ALARM DEVICE MOUNTING HEIGHT DETAIL (PER CAN/ULC-S524)
 SCALE: N.T.S.

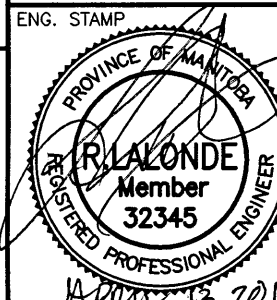
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NO.	YY/MM/DD DESCRIPTION	REVISION BY


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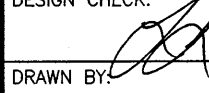
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PROJECT: NATIONAL RESEARCH COUNCIL
 NRC 435/445 ELLICE AVE., WPG, MB
 FIRE ALARM UPGRADES

DWG. DESCRIPTION: FIRE ALARM DETAILS

AUTHENTICATION FOR CURRENT REVISION
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 Certificate of Authorization
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 No. 245

DESIGN BY:	SEB	DATE (YY/MM/DD):	2016/10/03
DESIGN CHECK:		DATE:	17/04/13
DRAWN BY:	RAH	DATE:	2016/10/03
DWG CHECK:	SEB	DATE:	2017/04/13
DWG. NO.:	16-0229-002	E6-00	REV: 0