

984 GORHAM STREET,
NEWMARKET,
ON L3Y 1H8



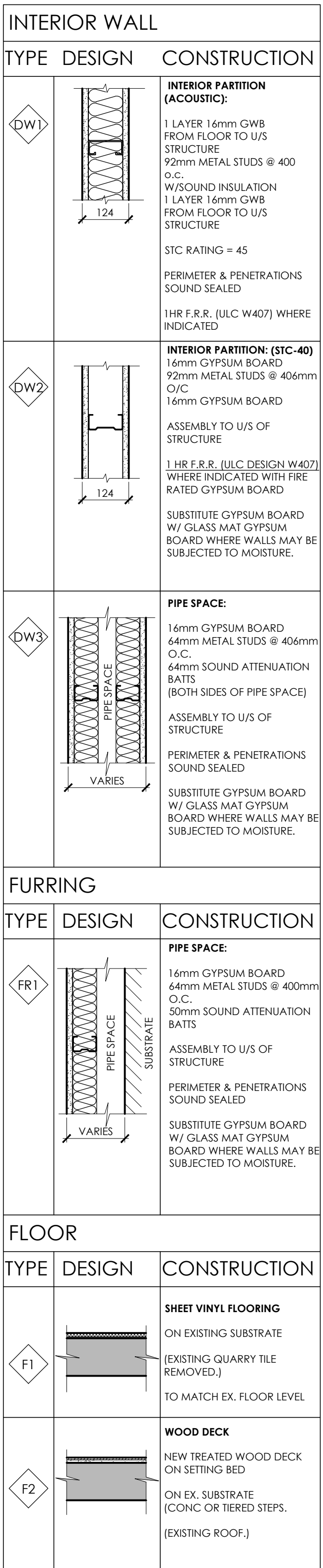
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03 SITE PLAN
A0.0 N.T.S.

D2.1



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NOTES:

KEY PLAN:




PROJECT:

Central York Firehall 4-1 Interior Renovations

ADDRESS:
984 Gorham Street
Newmarket, Ontario

ORIGINAL PAGE SIZE ARCH D - 24" x 36"


 A - DETAIL NO.
 B - DETAIL NO. ORIGIN

Filename: Z:\22528 - Newmarket Fire Station 4-1\DRAWINGS\WD-Current\22528 - A2.dwg

Plot Date: Sep 11, 2025 - 12:47pm By: ralbuquerque

1:50

PROPOSED GROUND FLOOR PLAN

A2.1

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1:50

PROPOSED GROUND FLOOR PLAN

A6 1

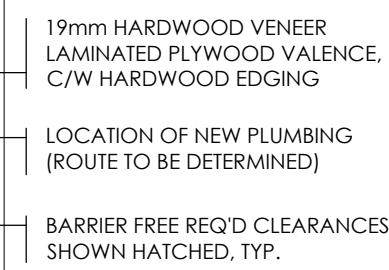
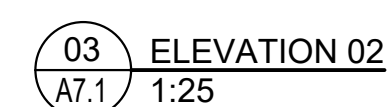
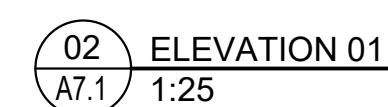
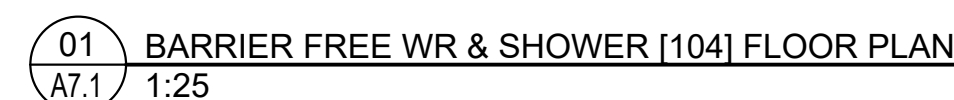
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 checked and verified by the General Contractor



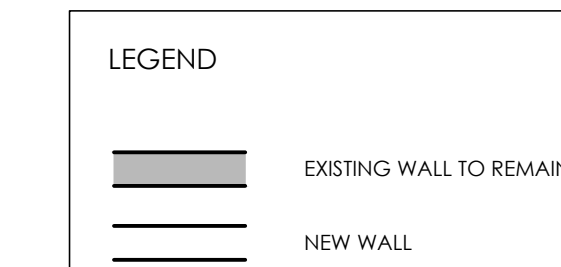
-
- CEILING AND / OR COVE LIGHTING

A6.2



FLOORING:
NEW SHEET VINYL OR SIMILAR TO
CLIENT'S APPROVAL

05 MATERIAIS
A9.5 1:10

[illegible]

3

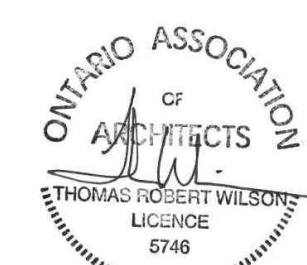


ADDRESS:
984 Gorham Street
Newmarket, Ontario

KEY TO DETAIL LOCATION:

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B - DETAIL NO. ORIGIN

 ARCHITECTS THE VENTIN GROUP LTD	HierName: /V/Z528 - Newmarket Fire Station sy, rabouderque
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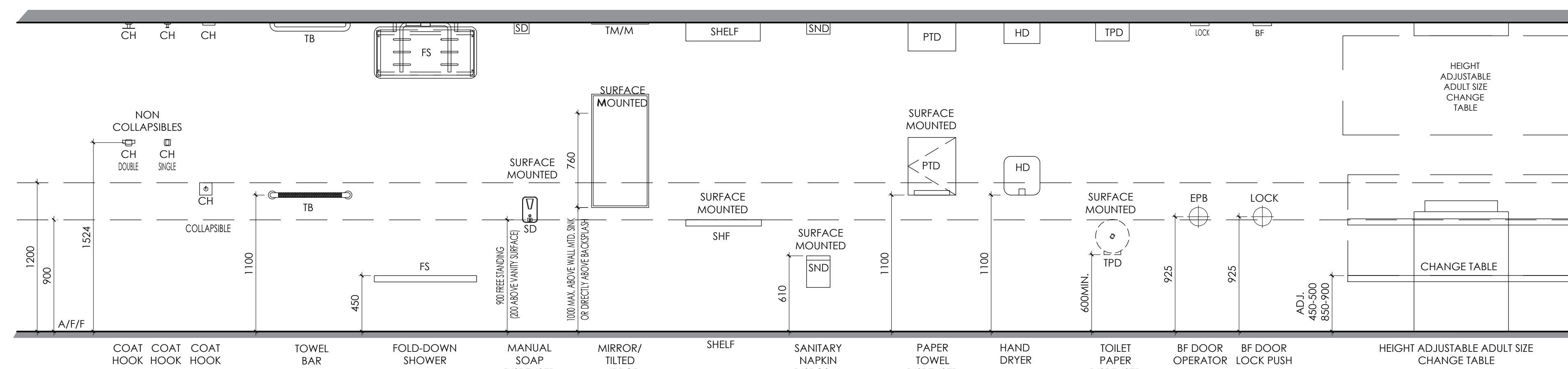


WASHROOM PLAN AND ELEVATIONS - GROUND FLOOR 1:25

A7.1

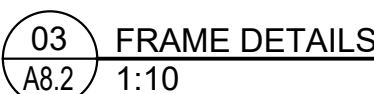


CONTRACTOR SHALL VERIFY ALL ROUGH-IN AND MOUNTING HEIGHTS FOR ALL SPACES OTHER SIMILAR NON-TYP. SPACES W/ OWNER/ OPERATOR PRIOR TO CONST. THE ABOVE NOTED HEIGHTS SHALL BE CONFIRMED TO BE IN ACCORDANCE W/ THE LATEST OBC PRIOR TO ROUGH-IN & INSTALL.



04 WASHROOM COMPONENT DIAGRAM
A7.1 1:25

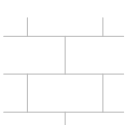





A8.1



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1. ALL FINISHES SHOWN OR EQUIVALENTS SHALL BE TO THE APPROVAL AND ACCEPTANCE BY THE OWNER PRIOR TO FABRICATION

 <p>BACKSPLASH: WHITE SUBWAY TILE PROJECT CERAMICA BY STONE TILE OR APPROVED EQUIVALENT</p>	 <p>WALLS: ICI/PAINTS, WEDDING WHITE, ORDER #A0071 #701Y 83/037</p>	 <p>FORMICA 7412 PLANKED RAW OAK OR SIMILAR TO CLIENT'S APPROVAL</p>
 <p>CEILING TILE: NEW MOISTURE RESISTANT ARMSTRONG CORTEGA LAY-IN TILE OR SIMILAR APPROVED</p>	 <p>CORIAN EVERFORM COLLECTION WHITE SPX 931 OR SIMILAR TO CLIENT'S APPROVAL</p>	 <p>FLOORING: NEW SHEET VINYL OR SIMILAR TO CLIENT'S APPROVAL</p>

04 MATERIAIS
A9.2 1:10

LEGEND

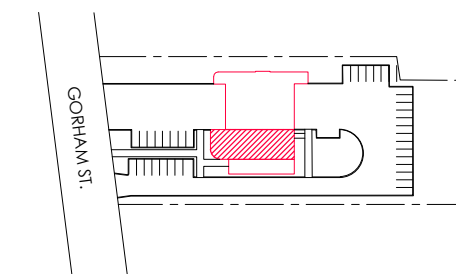
 EXISTING WALL TO REMAIN

 NEW WALL

[illegible]

NOTES:

KEY PLAN:




CLIENT:
Town of Newmarket



PROJECT:
22528

Central York Firehall 4-1 Interior Renovations

ADDRESS:
984 Gorham Street
Newmarket, Ontario

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+VG
ARCHITECTS
THE VENTIN GROUP LTD



WILLWORK DETAILS - RECEPTION

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1:20

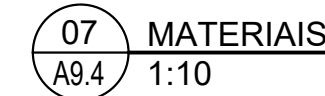
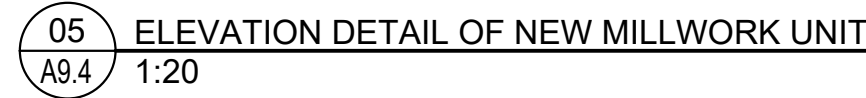
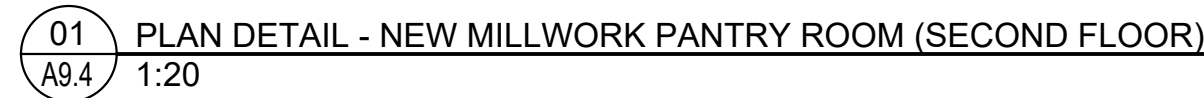
A9.2



1. ALL FINISHES SHOWN OR EQUIVALENTS SHALL BE TO THE APPROVAL AND ACCEPTANCE BY THE OWNER PRIOR TO FABRICATION

05 MATERIAIS
A9.3 1:10

A9.3



FLOORING:
NEW SHEET VINYL OR SIMILAR TO
CLIENT'S APPROVAL

NOTES:

A9.4



05 MATERIAIS
A9.5 1:10

[illegible]

A cross-sectional diagram of a pipe joint. The pipe is labeled "GORHAM ST." on the left. A red hatched sealant is applied to the joint between the pipe and the fitting.



KEY TO DETAIL LOCATION:
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ARCHITECTS
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VG+

MILLWORK DETAILS - DORMITORY

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1:20

A9.5

1. DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH THE ONTARIO BUILDING CODE LATEST EDITION AND NATIONAL BUILDING CODE LATEST EDITION.
2. CONTRACTOR SHALL CHECK ALL DIMENSIONS ON WORKING DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ANY CHANGES, ALTERATIONS OR REVISIONS MUST BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. DRAWINGS SHALL NOT BE SCALED.
3. THESE DESIGN DOCUMENTS ARE PREPARED SOLELY FOR THE USE BY THE PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS ENTERED INTO A CONTRACT AND THERE ARE NO REPRESENTATIONS OF ANY KIND MADE BY THE DESIGN PROFESSIONAL TO ANY PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS NOT ENTERED INTO A CONTRACT.
4. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, NO PROVISION HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING AND SHORING REQUIRED TO MAINTAIN STABILITY OF THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR ALL SUCH MEASURES. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY BRACING, SHORING, SHEET, PILING OR STRUCTURES AFFECTED BY THIS WORK.
5. DESIGN LIVE LOADS SHALL NOT BE EXCEEDED DURING CONSTRUCTION.
6. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS - O-REG.213.
7. THESE DRAWINGS SHALL BE COORDINATED AND READ IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
8. WHERE THERE IS A CONFLICT IN THE SPECS AND/OR DRAWINGS THE MORE STRINGENT SHALL APPLY UNLESS APPROVED OTHERWISE IN WRITING BY THE ENGINEER.
9. ALL SPECIFICATIONS LISTED ARE TO LATEST EDITIONS IN FORCE AT TIME OF TENDERING.

1. ALL MASONRY WALLS SHALL BE REINFORCED WITH DUR-O-CORE WALL LADDER DESIGN (OR APPROVED EQUAL) HOT DIPPED GALVANIZED CONTINUOUS REINFORCEMENT EVERY SECOND COURSE 400mm. REINFORCEMENT SHALL BE INSTALLED IN THE FIRST AND SECOND COURSE OF EACH JOINT. REINFORCEMENT ABOVE UNITS AND BELOW SILLS. REINFORCEMENT IN THE SECOND BED JOINT ABOVE UNITS AND BELOW SILLS SHALL EXTEND 600mm BEYOND THE JAMB. ALL OTHER REINFORCEMENT SHALL BE CONTINUOUS AND SIDE RODS SHALL BE LAPPED AT LEAST 150mm AT SPICES. REINFORCEMENT SHALL BE PLACED AS TO ASSURE 16mm MORTAR COVER ON THE EXTERIOR FACE OF WALL AND 12mm COVER ON THE INTERIOR FACE OF WALL. (SEE CONCrete BLOCK WALL REINFORCING SCHEDULE).
2. TYPE 5 MORTAR SHALL BE USED THROUGHOUT FOR ALL LOAD BEARING WALLS.
3. TYPE N MORTAR SHALL BE USED FOR NON-LOAD BEARING PARTITIONS AND BRICK OR BLOCK VENEER.
4. MORTAR COMPRESSIVE STRENGTHS: (JOB PREPARED MIX)

TYPE 5: MINIMUM 28 DAY STRENGTH = 8.5MPa, MAXIMUM 28 DAY STRENGTH = 12.5MPa
TYPE N: MINIMUM 28 DAY STRENGTH = 3.5MPa, MAXIMUM 28 DAY STRENGTH = 7.5MPa
MORTAR MIX PROPORTIONS:
MIX ACCORDING TO CURRENT CSA STANDARD A79-14.
MORTAR MIX SHALL BE TESTED FOR STRENGTH AND APPROVED BY THE ENGINEER PRIOR TO USE ON THE JOB.
FOR EXTERIOR BRICK VENEER ONLY USE PORTLAND CEMENT LIME MORTAR TYPE N - 1 PART PORTLAND, PORTLAND-LESTONITE, OR BLENDED CEMENT; 1 PART HYDRATED LIME OR LIME PUTTY; 6 PARTS SAND MEASURED IN DRY, LOOSE STATE (1:1.6 BY VOLUME) IN ACCORDANCE WITH TABLE 3.
FOR EXTERIOR BLOCK VENEER USE REGULAR TYPE N.
5. ALL MASONRY WALL TO BE CONSTRUCTED WITH FULL MORTAR JOINTS.
6. SPACING OF MASONRY CONTROL JOINTS IN ALL WALLS SHALL NOT EXCEED 6.0m (20'-0") O.C.
7. MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF LOAD BEARING CONCRETE BLOCK MASONRY UNITS SHALL BE: 20MPa FOR HOLLOW UNITS, BASED ON NET AREA.
8. ALL MASONRY UNDER CONCENTRATED LOADS SHALL HAVE VOIDS FILLED WITH 20MPa GROUT FOR WIDTH AND DEPTH EQUAL TO 3 TIMES THE LENGTH OF BEARING, MINIMUM 600mm WIDE x 400mm DEEP.
9. FOR MASONRY OPENINGS NOT SHOWN ON DRAWINGS PROVIDED (1L-89B9x6 & 4 FOR EACH 1000mm THICKNESS OF WALL OPENINGS UP TO 600mm AND 1L-89B9x9 & 5 FOR OPENINGS UP TO 1200mm, IF OPENING IS WIDER THAN 1200mm NOTIFY ENGINEER FOR UNITS, SIZE VERIFICATION PRIOR TO FABRICATION AND INSTALLATION.
10. ALL MASONRY WALL SHALL BE PROPERLY SHORED DURING CONSTRUCTION UNTIL STRUCTURAL STEEL AND SLABS ARE IN PLACE.
11. PROVIDING BEARING PLATES FOR JOISTS SUPPORTED BY MASONRY WALLS. ALL BEARING PLATES SHALL BE DESIGNED ACCORDING TO THE REQUIREMENTS OF CSA S16.1. THEY SHALL BE ANCHORED WITH MINIMUM 120mm DIAMETER x450mm HOOKED RODS WELDED TO PLATES AND EMBEDDED INTO GROUT FILL WITH A MINIMUM STRENGTH OF 20MPa. ALLOWABLE BEARING STRESS ON MASONRY FOR DESIGN OF BEARING PLATES SHALL NOT EXCEED 175PSI (1.2MPa).
12. TESTING: MORTAR AND GROUT SHALL BE TESTED IN ACCORDANCE WITH CSA STANDARD A79-14.
CONCRETE MASONRY UNITS SHALL BE TESTED IN ACCORDANCE WITH CSA STANDARD A165 SERIES-14.

1. STRUCTURAL STEEL SHALL CONFORM TO CSA G40.21 WITH ONE SHOP COAT AND FIELD TOUCH-UP OF ZINC CHROMATE PRIMER, CONFORMING TO CISC/CPPMA STANDARD 1-73A ONE-COAT PAINT AND CISC/CPPMA STANDARD 2-75 PRIMER, AND IT SHALL BE PAINTED TO OWNERS SPECIFICATIONS.
ALL W-SHAPES & S-SHAPES SECTIONS SHALL CONFORM TO ASTM A992, ASTM A572 GRADE 50 Fy=345MPa, ALL C-SHAPES SECTIONS & ANGLES SHALL CONFORM TO G40.21-350W Fy=350MPa, ALL HSS HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO G40.21-350W CLASS C Fy=350MPa, ALL OTHERS (PLATES, RODS) SHALL CONFORM TO G40.21-300W Fy=300MPa.
2. FABRICATION AND ERECTION SHALL CONFORM TO LATEST EDITION OF CSA STANDARD S16:19. NO SPlicing WILL BE PERMITTED UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS.
3. ALL FIELD BOLTS SHALL BE ASTM A325 HIGH STRENGTH BOLTS IN BEARING TYPE CONNECTIONS.
4. ALL BEAM-TO-BEAM CONNECTIONS AND BEAM-TO-COLUMN CONNECTIONS SHALL HAVE DOUBLE ANGLE CONNECTIONS UNLESS NOTED OTHERWISE AND BE IN ACCORDANCE TO CSA STANDARD CONNECTIONS.
5. WELD ALL BEAMS TO BEARING PLATES OR SUPPORTING MEMBERS WITH MINIMUM 50mm x5mm FILLET WELDS ON BOTH SIDES OF MEMBER, UNLESS NOTED OTHERWISE.
6. WELDING OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITION OF CSA STANDARD W59-18 AND SHALL BE UNDERTAKEN BY A FABRICATOR AND ERECTOR FULLY APPROVED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF LATEST EDITION OF CSA STANDARD W47.1 (9.1, DIVISION 1 OR DIVISION 2).
7. ALL ROOF OPENINGS ARE TO BE REINFORCED BY CONTINUOUS C150x12 (OR C130x10) FOR OPENINGS UP TO 1200mm) CHANNEL FRAMES AT PERIMETER OF OPENINGS UNLESS NOTED OTHERWISE.
8. ALL CONNECTIONS SHALL BE DESIGNED FOR MIN. 50% OF THE FULL SHEAR CAPACITY OF THE MEMBER UNLESS MEMBER CONNECTION LOADS ARE SHOWN ON THE DRAWINGS.
9. STEEL BEAMS AND LINTELS SHALL HAVE 200mm MINIMUM END BEARING ON MASONRY AND 65mm MINIMUM BEARING ON STEEL UNLESS INDICATED OTHERWISE.
10. UNDERSIDE OF BEAM BEARING PLATES SHALL BE GROUTED WITH 40mm NON-SHRINK GROUT.
11. WHERE STRUCTURAL STEEL MEMBERS ARE CALLED FOR ON ARCHITECTURAL DRAWINGS BUT NOT ON STRUCTURAL DRAWINGS USE 6.4mm THICKNESS MIN. FOR ANGLES AND PLATES AND MIN. BEAM WEIGHT FOR TENDERING PURPOSES.

THE FOLLOWING ITEMS SHALL BE INSPECTED OR TESTED BY INDEPENDENT INSPECTION/TESTING AGENCIES DESIGNATED BY THE CLIENT. MATERIALS AND WORKMANSHIP NOT CONFORMING TO THE SPECIFICATIONS SHALL BE REJECTED BY THE CONTRACTOR. REPORTS AND TEST RESULTS SHALL BE PROMPTLY SUBMITTED TO THE ENGINEER FOR REVIEW. TESTING SHALL INCLUDE BUT NOT BE LIMITED TO:

VISUAL INSPECTION OF ALL WELDS, TESTING OF BOLTED CONNECTIONS AND CHECK ON BEARING, PLUMBNESS AND ALIGNMENT OF STEEL STRUCTURES. INSPECTIONS SHALL CONFORM TO CSA STANDARD S16:19.

SHOP DRAWINGS AND SUBMITTALS

1. SHOP DRAWINGS SHALL BE SUBMITTED, THE ERECTION DRAWINGS SHALL BE DRAWN USING THE MINIMUM SCALE THAT WAS USED FOR THE TENDER DRAWINGS. DETAILS MUST BE OF A SCALE THAT IS LEGIBLE.
2. PRIOR TO SUBMITTING TO CONSULTANTS, CONTRACTOR'S REVIEW STAMP TO BE ON ALL SHOP DRAWINGS.
3. SEPARS OR REPRODUCTION OF THE STRUCTURAL DRAWINGS SHALL NOT BE ACCEPTED AS SHOP DRAWINGS. PROFESSIONAL ENGINEER IN THE FOLLOWING PARAGRAPHS SHALL BE REGISTERED AND LICENSED TO PRACTICE IN THE PROVINCE OF ONTARIO.
4. REVIEW OF SHOP DRAWINGS APPLIES TO THE GENERAL ARRANGEMENT FOR THE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND COMPLIANCE WITH CBC REQUIREMENTS. THIS REVIEW DOES NOT IMPLY APPROVAL OF DETAIL DESIGN OR QUANTITIES IN SUBMITTED DRAWINGS. NOR DOES IT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR MAKING THE WORK COMPLETE, ACCURATE AND IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS AND COMPLIANCE WITH CBC REQUIREMENTS. ALLOW 10 WORKING DAYS FOR SHOP DRAWING REVIEW.
5. SHOP DRAWING SUBMITTALS SHALL ALSO INCLUDE CLADDING CONNECTION DETAILS, PRECAST AND STEEL STAIR DETAILS, EXTERIOR GRATING DETAILS AND SAFETY GUARDS, WHICH SHALL SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE CURRENT ONTARIO BUILDING CODE.

1. SUBMIT WITH SHOP DRAWINGS: DECKING PLAN, PROFILE, DIMENSIONS, CORE THICKNESS, CONNECTIONS TO SUPPORTS, REQUIRED BEARINGS, CLOSURES AND ACCESSORIES.
2. SUBMIT FOR REVIEW OF ERECTION DRAWINGS FOR ALL STRUCTURAL STEEL ELEMENTS.
3. SHOP DRAWING SUBMITTALS SHALL INCLUDE STEEL BEAM CONNECTIONS.


GENERAL CONTRACTOR SHALL MAINTAIN TWO SETS OF RECORD DRAWINGS WHICH SHOW AS-BUILT DETAILS OF ALL ASPECTS OF THE STRUCTURE, FOR REVIEW DURING CONSTRUCTION AND FOR SUBMISSION AT THE END OF THE PROJECT.

GENERAL CONTRACTOR IS RESPONSIBLE TO PROVIDE PROPER TEMPORARY SHORING & BRACING FOR NEW OR EXISTING
MASONRY WALLS AND ALL OTHER STRUCTURAL ELEMENTS IN ACCORDANCE WITH RECOGNIZED CONSTRUCTION PRACTICE.

1. BRACING IS REQUIRED UNTIL FLOOR SLAB AND/OR ROOF DECK ARE IN PLACE AND PROPERLY SECURED TO BEAMS
AND/OR JOISTS.
2. SHORING IS REQUIRED UNTIL PROPOSED STRUCTURE IS PROPERLY IN PLACE.
3. SHORING & BRACING SHALL BE DESIGNED, REVIEWED AND APPROVED BY CONTRACTOR'S ENGINEER.
4. SHORING SHOP DRAWINGS SHALL BE SUBMITTED WITH ENGINEER'S STAMP FOR OUR REVIEW PRIOR TO CONSTRUCTION.

ALL DIMENSIONS FOR EXISTING STRUCTURAL ELEMENTS SHOWN ON DRAWINGS ARE APPROXIMATE ONLY. THESE DIMENSIONS SHALL BE SITE VERIFIED & ANY DISCREPANCIES SHALL BE REPORTED TO PROJECT ENGINEER BEFORE PROCEEDING WITH WORK.

NOTES:

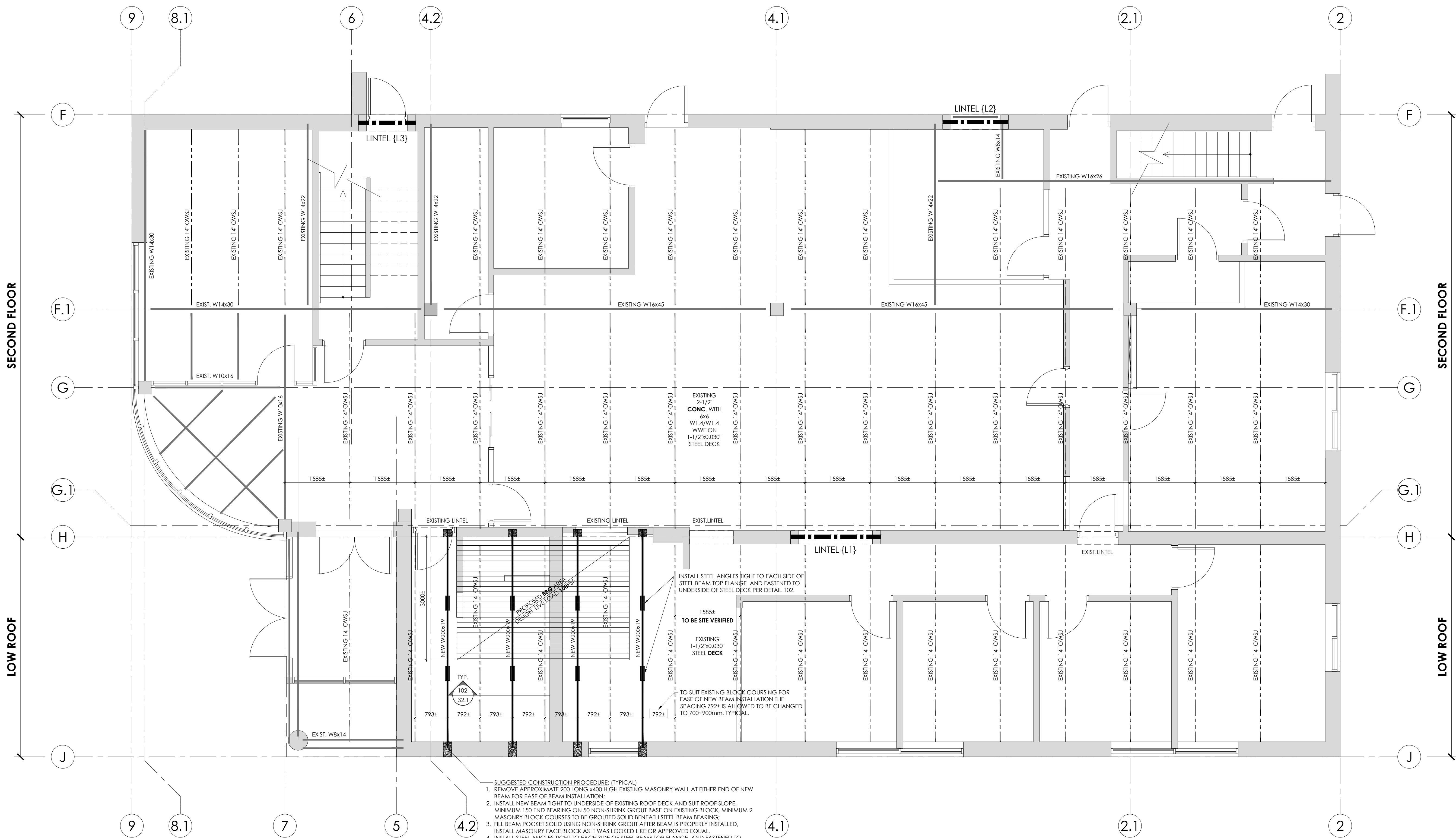
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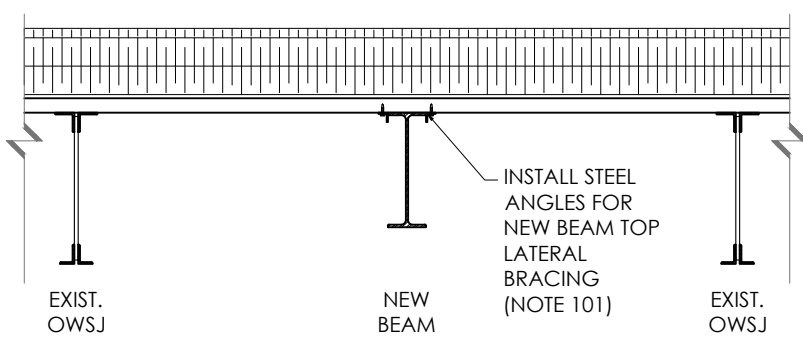
STRUCTURAL NOTES

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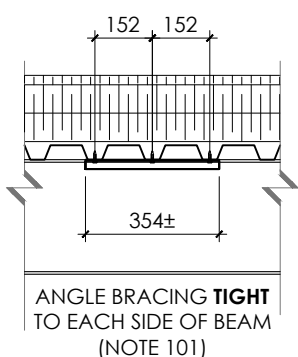
1 SECOND FLOOR & LOW ROOF FRAMING PLAN
S2.1

0 500 1000 2.5m



NOTE 101

INSTALL STEEL ANGLES 1-25x25x3.2 x354± LONG TIGHT TO EACH SIDE OF STEEL BEAM TOP FLANGE AT APPROXIMATE 1800 (6 FEET) O/C. EACH ANGLE TO BE FASTENED TO UNDERSIDE OF STEEL DECK USING THREE (3) #14 x 1\"/>



NOTE 102

INSTALL STEEL ANGLES 1-25x25x3.2 x354± LONG TIGHT TO EACH SIDE OF STEEL BEAM TOP FLANGE AT APPROXIMATE 1800 (6 FEET) O/C. EACH ANGLE TO BE FASTENED TO UNDERSIDE OF STEEL DECK USING THREE (3) #14 x 1\"/>

TYPICAL TOP LATERAL BRACING DETAIL
NEW BEAM PARALLEL TO EXISTING OWSJ
S2.1

0 200 500 1000mm

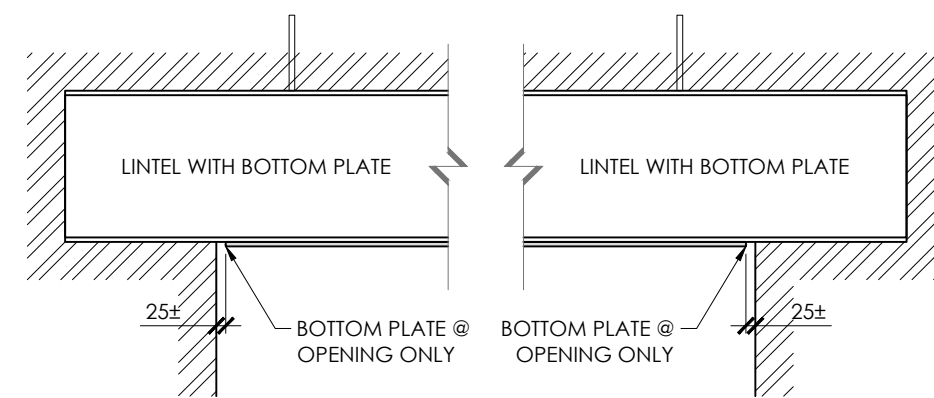
LINTEL SCHEDULE			
WALL TYPE	MARK	DESCRIPTION	DETAIL
240 (10') BLOCK	{L1}	W200x36 C/W 230x6 BOTTOM PLATE + RODS ON TOP (NOTE 5)	
290 (12') BLOCK	{L2} {L3}	W200x36 C/W 280x6 BOTTOM PLATE	

TYPICAL NOTES FOR LINTEL SCHEDULES:

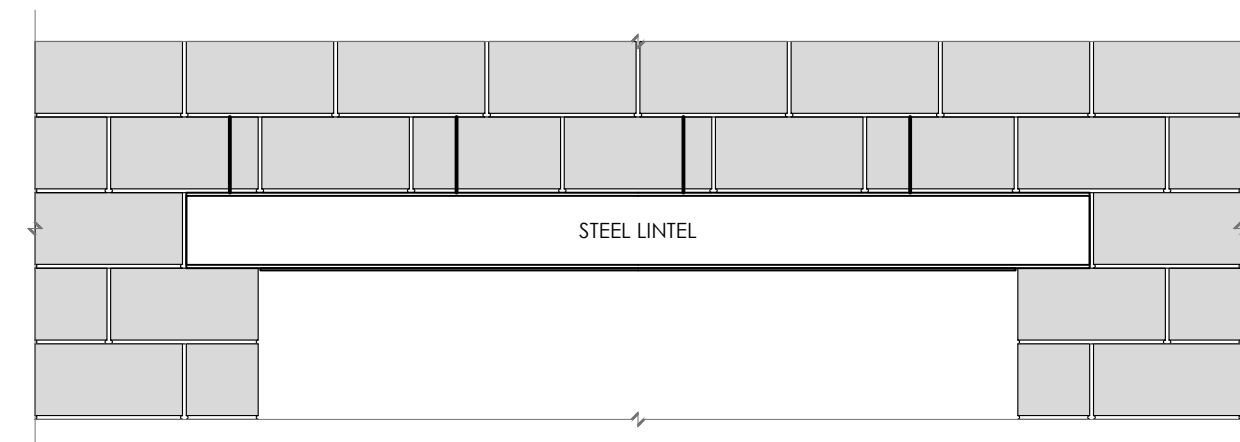
- ALL EXTERIOR LINTELS TO BE HOT DIPPED GALVANIZED.
- BACK TO BACK ANGLES SHALL BE STITCH WELDED OR BOLTED @ 600 O/C MAXIMUM.
- BOTTOM PLATE SHALL BE SHOP WELDED TO UNDERSIDE OF BEAM USING MINIMUM WELD SIZE 6mm FILLET WELD x50mm LONG AT 600mm O/C, BOTH SIDES. SEE DETAIL BELOW FOR LINTEL WITH BOTTOM PLATE.
- LINTEL BEARING LENGTH IS 200mm MINIMUM AT EACH END UNLESS NOTED OTHERWISE.
- AT ALL LINTELS FOR BLOCK WALL ABOVE WELD 15M WELDABLE RODS x150 LONG @600 O/C TO TOP FLANGE OF LINTEL.
- LINTEL BEARING PLATES ARE NOT REQUIRED UNLESS SPECIFICALLY SHOWN IN SCHEDULE/ON PLAN. ALL LINTELS SHALL BE FIELD WELDED TO BEARING PLATES USING MINIMUM 6mm FILLET WELDS ON BOTH SIDES OF MEMBER UNLESS NOTED OTHERWISE.

ADDITIONAL TYPICAL NOTES FOR LINTEL INSTALLATIONS IN EXISTING MASONRY WALLS

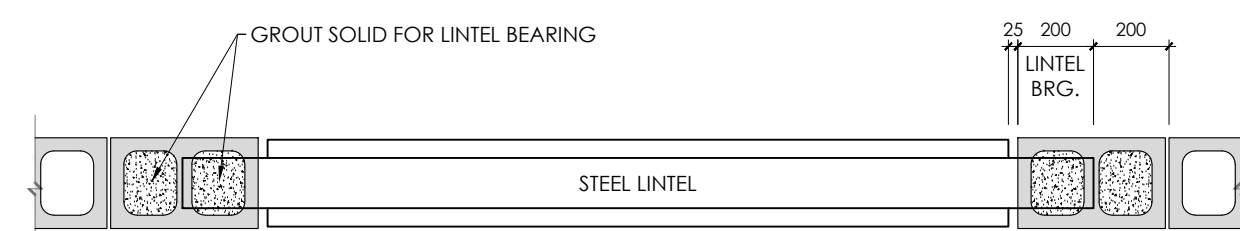
- GENERAL CONTRACTOR SHALL SITE VERIFY EACH EXISTING MASONRY WALL THICKNESS AT LINTEL LOCATION AND NOTIFY PROJECT ENGINEER OF ANY DISCREPANCIES FOR REVISIONS IF IT'S REQUIRED PRIOR TO LINTEL FABRICATION.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE PROPER TEMPORARY SHORING FOR EXISTING MASONRY WALLS, FLOORS OR ROOF.
- ENSURE SOLID BEARING FOR EACH END OF EACH LINTEL ON EXISTING MASONRY BLOCK. FILL VOIDS & ANY UNEVEN SURFACES WITH NON-SHRINK GROUT.
- ALL LINTELS ARE TO BE PROPERLY INSTALLED TIGHT TO UNDERSIDE OF EXISTING MASONRY WALL. GAPS BETWEEN U/S OF WALL AND T/O LINTEL SHALL BE GROUTED SOLID.
- INITIAL SITE MEETING WITH ARCHITECT, PROJECT ENGINEER AND CONTRACTOR TO TAKE PLACE, PRIOR TO START OF CONSTRUCTION. TO REVIEW GENERAL CONDITIONS IF IT IS REQUIRED.



101 TYPICAL DETAIL FOR LINTEL WITH BOTTOM PLATE
S2.1 N.T.S.



A TYPICAL BLOCK WALL ELEVATION @ OPENING
N.T.S.



B TYPICAL BLOCK WALL PLAN VIEW @ OPENING
N.T.S.

REVISIONS		
NO.	DATE	PARTICULAR
1	2025.09.09	ISSUED FOR TENDER & PERMIT
2		
3		
4		
5		

NOTES:

CLIENT:
TOWN OF NEWMARKET

PROJECT:
22528

Central York Firehall 4-1 Interior Renovations
Newmarket, Ontario

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
























S2.1





























DRAWN BY : ML

CHECKED BY : ML

3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE PROJECT RELATED DOOR HARDWARE SCHEDULE AS WELL AS THE PROJECT RELATED ARCHITECTURAL ELECTRICAL AND MECHANICAL DRAWINGS.
2. PROVIDE ALL ITEMS SHOWN UNLESS OTHERWISE NOTED.
3. LOCATIONS OF DEVICES SHOWN ARE APPROXIMATE. COORDINATE THE EXACT LOCATION OF EACH DEVICE ON SITE WITH OTHER TRADES.
4. COORDINATE THE INSTALLATION AND INTERFACING WITH ALL ELECTRIFIED LOCKS AND DOOR CONTACTS WITH THE DOOR HARDWARE CONTRACTOR.
5. COORDINATE THE INSTALLATION AND INTERFACING WITH ALL POWER CIRCUITS WITH THE ELECTRICAL CONTRACTOR.
6. COORDINATE EXACT MOUNTING HEIGHTS AND LOCATIONS OF CCTV CAMERAS ON SITE WITH ELECTRICAL CONTRACTOR. PROVIDE ALL MOUNTING BRACKETS TO ENSURE THAT ALL OBSTRUCTIONS ARE AVOIDED AND CLEAR VIEW OF TARGET AREAS IS ATTAINED. FOR EACH PIVOT MOUNTED CAMERA, THE LENGTH OF EACH PENDANT MOUNT IS CUSTOMIZED TO MAINTAIN BUILDING CODE CLEARANCE REQUIREMENTS WHILE ACHIEVING MAXIMUM HEIGHT AFF.
7. ALL CABLES SHALL BE HOME RUN IN CONDUITS. CABLE SPLICES SHALL NOT BE ACCEPTABLE. WHERE CABLES ARE GROUPED AND INSTALLED IN A SINGLE CONDUIT THE CONDUIT SHALL BE SIZED TO MAXIMUM 40% FILL.
8. REVIEW ALL PROJECT RELATED ARCHITECTURAL, MECHANICAL, ELECTRICAL, COMMUNICATIONS AND AV DRAWINGS AND SPECIFICATIONS, DISCERN AND COORDINATE ALL OVERLAPPING WORK WITH SECURITY SYSTEMS TO AVOID COLLISIONS AND CONFLICTS OF DEVICES.
9. DEVICES SHALL NOT BE INSTALLED IN WALL AREAS THAT ARE DESIGNATED TO HAVE MARKER BOARD, FABRIC PANELS, OR ACCENT FINISHES/DETAIL UNLESS INDICATED SPECIFICALLY ON AN ELEVATED DRAWING.
10. DEVICES SHALL NOT BE INSTALLED ABOVE ANY FURNITURE - AND SHALL BE LOCATED WHERE THERE IS ADEQUATE ACCESS FOR USE UNLESS INDICATED SPECIFICALLY ON AN ELEVATED DRAWING.
11. INFORM THE ENGINEER'S REPRESENTATIVE AND GC OF ALL DEVICE AND FURNITURE CONFLICTS PRIOR TO INSTALLATION. OBTAIN RESOLUTION TO DEVICE AND FURNITURE CONFLICTS FROM THE ENGINEER'S REPRESENTATIVE PRIOR TO INSTALLATION.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ACCESS CONTROL			
	ACCESS CONTROL SYSTEM PANEL		KEY SWITCH
	ACCESS CONTROL SYSTEM SERVER		LATCH BOLT MONITOR
	AUTOMATIC DOOR OPERATOR		LATCH REQUEST TO EXIT
	BIOMETRIC READER		MAGLOCK KEY RESET SWITCH
	CARD READER		MAGNETIC DOOR HOLD/OPEN DEVICE
	CENTRAL MANAGEMENT STATION		MAGNETIC LOCK
	DOOR ALARM		MOTION REQUEST TO EXIT
	DOOR CONTACT		POWER SUPPLY CONTROL UNIT
	ELECTRIC DOOR HOLD/OPEN DEVICE		PUSH BUTTON DOOR OPERATOR
	ELECTRIC LATCH RETRACTION		PUSH BUTTON REQUEST TO EXIT
	ELECTRIC MORTISE LOCK		REMOTE RELEASE
	ELECTRIC STRIKE		RF NODE
	GATEWAY		RF RECEIVER
	IP DOOR CONTROLLER		SECURITY DOOR TAG. XX DENOTES TYPE
	KEY ENCODER		WIRELESS LOCK
REAL TIME LOCATING SYSTEM (RTL)			
	LOW FREQUENCY EXCITER		RF READER MASTER
	INFRARED READER		RF READER
	REMOTE DISPLAY UNIT		RF ETHERNET READER
	LOCAL AREA RECEIVER		RF LONG RANGE READER
NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS			

2 SECURITY LEGEND 1 OF 2
TESS-0.1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ELECTRONIC PERSONAL PROTECTION			
	EMERGENCY PHONE STATION		DURESS ALARM STATION
	STROBE LIGHT		PANIC ALARM RECEIVER
	PANIC BUTTON		ASSISTANCE REQUIRED SIGN
INTERCOM LEGEND			
	INTERCOM		MASTER INTERCOM
	ENTRY PHONE CONSOLE		
VIDEO SURVEILLANCE			
	FIXED CAMERA		VIDEO SURVEILLANCE SYSTEM SERVER
	PAN-TILT-ZOOM CAMERA		POWER INJECTOR
	PERSONAL COMPUTER		VIDEO MONITOR
	COMPUTER MONITOR		FIXED VIDEO SURVEILLANCE CAMERA HORIZONTAL ANGLE OF VIEW
	DIGITAL VIDEO RECORDER		LCD MONITOR, SIZE AS INDICATED
	NETWORK VIDEO RECORDER		
INTRUSION DETECTION			
	SIREN		INTRUSION DETECTION SYSTEM PANEL
	BREAK GLASS SENSOR		POWER SUPPLY
	MOISTURE SENSOR		WALL MOUNTED SECURITY MOTION SENSOR
	KEYPAD		CEILING MOUNTED SECURITY 360° MOTION SENSOR

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

3 SECURITY LEGEND 2 OF 2
TESS-0.1

DRAWING No.	TITLE
TESS-0.1	DRAWING LIST, GENERAL NOTES, ABBREVIATIONS, LEGENDS AND DETAILS
TESS-0.2	SECURITY DOOR DETAILS
TESS-1.1	1ST FLOOR SECURITY LAYOUT

E	EXISTING TO REMAIN
ER	EXISTING TO BE REMOVED
R	EXISTING TO BE RELOCATED
RR	REMOVE AND REINSTALL
WP	EXTERIOR/WEATHERPROOF
JB	JUNCTION BOX
AFF	ABOVE FINISHED FLOOR
TYP	TYPICAL - TO BE INTERPRETED AS EXACTLY THE SAME AS COMPARABLE FEATURES.
V	VOLTS
KW	KILOWATTS
X	EXPLOSION PROOF DEVICE
WM XXX AFF	WALL MOUNTED AT XXXXmm AFF. XXXX INDICATES SPECIFIC HEIGHT
CM	CEILING MOUNT
ELV	ELEVATOR MOUNT
RFM	ROOF MOUNT
CAM-XX-XX	FIRST XX INDICATES FLOOR NUMBER, SECOND XX INDICATES CAMERA NUMBER
CNR XXX AFF	CORNER MOUNT AT XXXXmm AFF. XXXX INDICATES SPECIFIC HEIGHT
PM XXX AFF	PENDANT MOUNT AT XXXXmm AFF. XXXX INDICATES SPECIFIC HEIGHT
PTM XXX AFF	PARAPET MOUNT AT XXXXmm AFF. XXXX INDICATES SPECIFIC HEIGHT
PLE XXX AFF	POLE MOUNT AT XXXXmm AFF. XXXX INDICATES SPECIFIC HEIGHT
TYPE-XX	DEVICE TYPE. XX INDICATES SPECIFIC TYPE. REFER TO RELATIVE SPECIFICATIONS AND OR SCHEDULES FOR ADDITIONAL DETAILS
FUNC.-XX	FUNCTION TYPE. XX INDICATES SPECIFIC CAMERA FUNCTION DESCRIPTION. FUNC.01=DETECT, FUNC.02=OBSERVE, FUNC.03=RECOGNIZE, FUNC.04=IDENTIFY REFER TO SPECIFICATIONS AND SCHEDULES FOR ADDITIONAL DETAILS.

NOTE: NOT ALL SYMBOLS APPLY. CONTRACTOR TO REFER TO FLOOR PLANS.

STAMP:

PROJECT CONTACT

NAME: JOSHUA BLIZZARD
TEL: 416-487-8151 x1285
EMAIL: joshua.blizzard@smithandandersen.com

THIS DRAWING SHALL BE READ IN CONJUNCTION
WITH SECURITY SPECIFICATION SUBMITTED FOR
THIS PROJECT.

NORTH:



CONSULTANT:



Smith + Andersen

1100 - 100 Sheppard Ave. East, Toronto On, M2N 6N5
416 487 8151 f 416 487 9104 smithandandersen.com

PROJECT:

Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

SHEET TITLE:

DRAWING LIST, GENERAL NOTES, ABBREVIATIONS, LEGENDS AND DETAILS

PROJECT NUMBER:

25274.001.ESS.001

SCALE:

AS SHOWN

DRAWN BY:

CV

CHECKED BY:

JB

SHEET NUMBER:

TESS-0.1

PROJECT CONTACT

THIS DRAWING SHALL BE READ IN CONJUNCTION
WITH SECURITY SPECIFICATION SUBMITTED FOR
THIS PROJECT.

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416 487 8151 f 416 487 9104 smithandandersen.com

Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

SECURITY DOOR DETAILS





SCALE: AS SHOWN

DRAWN BY: CV

CHECKED BY: JB

SHEET NUMBER:
TESS-0.2

NOTE	DEVICE BY	CONDUIT BY	WIRING BY	COMMENTS
W-1	DOOR HARDWARE CONTRACTOR	ELECTRICAL CONTRACTOR	SECURITY CONTRACTOR	SECURITY CONTRACTOR SHALL PROVIDE ALL WIRING FROM THE ACCESS CONTROL SYSTEMS CONTROLLER TO THE TERMINAL STRIP AND FROM THE TERMINAL STRIP TO RESPECTIVE DEVICES. ALL WIRING FOR ALL ELECTRIFIED LOCKS INCLUDING BUT NOT LIMITED TO ELECTRIC STRIKES, ELECTRIC LATCH RETRACTION, ELECTRIC MORTISE LOCKS AND MAGLOCKS SHALL INCLUDE MINIMUM ONE (1) SPARE PAIR OF CONDUCTORS FOR LATCH MONITORING OR FUTURE USE.
W-2	SECURITY CONTRACTOR	ELECTRICAL CONTRACTOR	SECURITY CONTRACTOR	SECURITY CONTRACTOR SHALL PROVIDE ALL CONTROLLERS AND CONFIGURE THE ACCESS CONTROL SYSTEM CONTROLLERS TO ACHIEVE REQUIRED MODES OF DOOR OPERATION. THE TERMINAL STRIP SHALL BE EQUIPPED WITH QUANTITY OF TERMINALS TO FACILITATE INTERFACING OF ALL DEVICE WIRING. ALL TERMINAL STRIPS BY SECURITY CONTRACTOR.
W-3	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	WIRING FROM FIRE ALARM PULL STATION TO FIRE MAGNETIC LOCK.
W-4	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	WIRING FROM FIRE ALARM PULL STATION TO FIRE ALARM PANEL.
W-5	N/A	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	WIRING FROM 120VAC POWER SUPPLY SOURCE.
W-6	DOOR HARDWARE CONTRACTOR	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	N/A

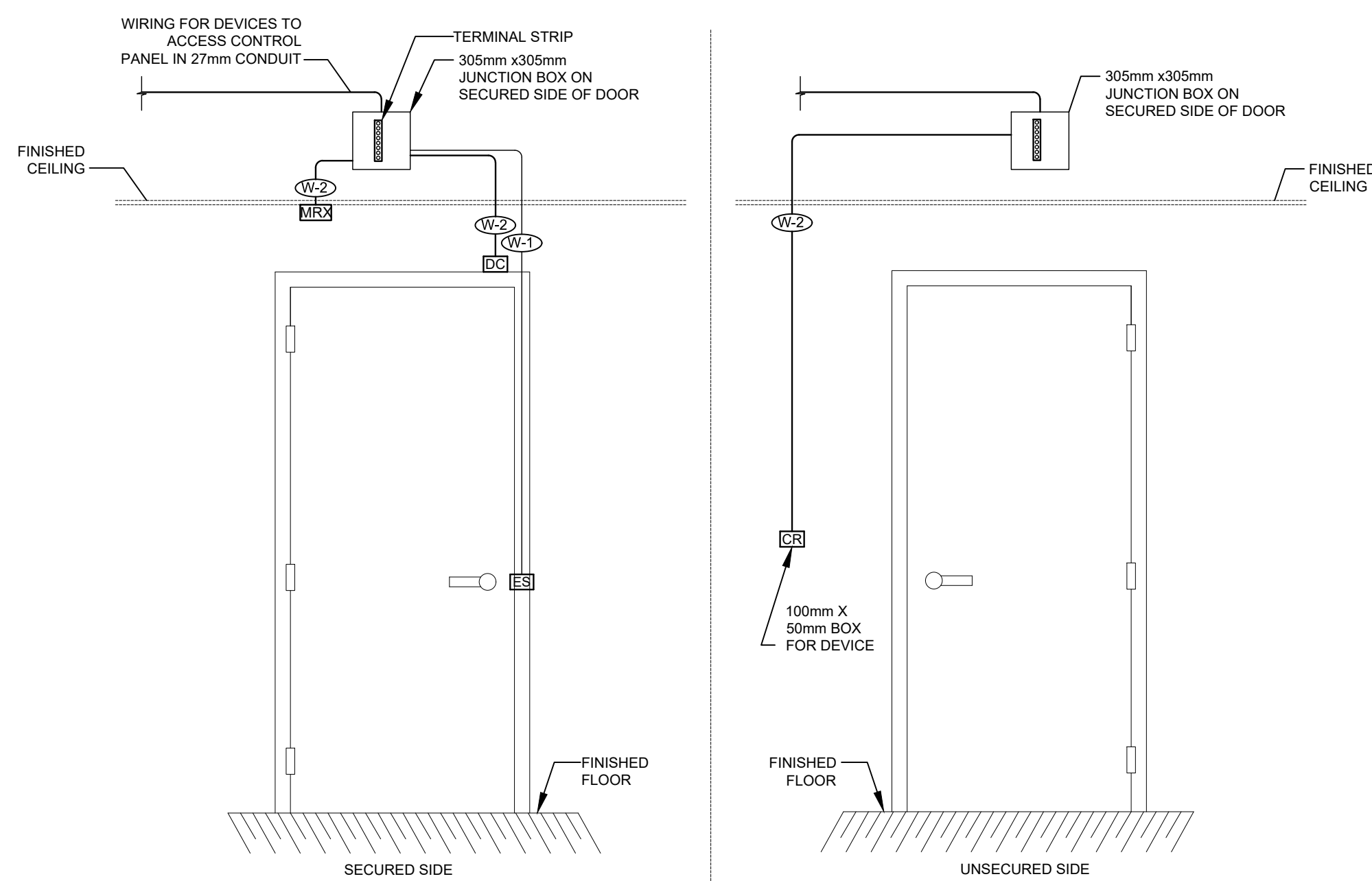
DEVICE	MOUNTING HEIGHT	DEVICE	MOUNTING HEIGHT
	1100 mm (43 IN.) AFF		WALL OR CEILING MOUNT ABOVE DOOR AS RECOMMENDED BY MANUFACTURER
	1100 mm (43 IN.) AFF		CEILING MOUNT ABOVE DOOR

FOR ALL OTHER DEVICES REFER TO RESPECTIVE DISCIPLINE CONTRACT DESIGN DOCUMENT.

GENERAL NOTES

1. REFER TO SECURITY PLAN DRAWINGS, ELECTRICAL DRAWINGS AND DOOR HARDWARE SCHEDULE FOR ADDITIONAL DETAILS.
2. COORDINATE EXACT LOCATIONS OF DEVICES ON SITE WITH ELECTRICAL AND DOOR HARDWARE CONTRACTOR.
3. ALL TERMINAL STRIPS SHALL BE PROVIDED AND INSTALLED BY THE SECURITY CONTRACTOR.
4. THIS DIAGRAM SHALL BE READ IN CONJUNCTION WITH THE DOOR AND HARDWARE SCHEDULE.
5. ALL WIRING SHALL BE INSTALLED IN CONDUITS. ALL CONDUIT SHALL BE 19mm UNLESS OTHERWISE NOTED.
6. PRIOR TO INTERFACING WITH DEVICES AND DEVICE ASSOCIATED WIRING THAT ARE PROVIDED BY ELECTRICAL AND DOOR AND HARDWARE (D.H.) CONTRACTORS, COORDINATE WITH THE ELECTRICAL AND DOOR AND HARDWARE (D.H.) CONTRACTORS AND ENSURE THAT ALL DEVICES AND WIRING PROVIDED ARE CERTIFIED BY THE RESPECTIVE TRADE TO BE IN PROPER WORKING ORDER.
7. PROVIDE ALL ACTIVE AND PASSIVE HARDWARE, ALL WIRING AND PROGRAMING OF SECURITY SYSTEM SOFTWARE TO FACILITATE EACH MODE OF OPERATION FOR EACH DOOR.
8. ALL DOOR HARDWARE DEVICES PROVIDED SHALL MEET ALL REQUIREMENTS LISTED IN THE ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT (AODA).
9. FOR ALL DOORS THAT ARE EQUIPPED WITH AUTOMATIC DOOR OPERATORS PROVIDE ALL ACCESS CONTROL CONTROLLERS AND WIRING REQUIRED TO INTEGRATE THE AUTOMATIC DOOR OPERATORS AND PUSH BUTTON OPERATORS WITH THE ACCESS CONTROL CONTROLLERS TO FACILITATE THE SEQUENCE OF OPERATION.

 SECURITY DOOR NOTES



GENERAL NOTES:

1. REFER TO DOOR DETAIL NOTES FOR ADDITIONAL INFORMATION.
2. DOOR HANDLES SHOWN ARE DIAGRAMMATIC. REFER TO DOOR HARDWARE SCHEDULE FOR EXACT DOOR HANDLE TYPE.

2 TESS-0.2	SECURITY SINGLE DOOR NON-IP ELECTRIC STRIKE SCALE: N.T.S.
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1. GENERAL

- a. THIS SPECIFICATION SHALL BE READ IN CONJUNCTION WITH PROJECT RELATED ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS INCLUDING DOOR HARDWARE SCHEDULES AND SPECIFICATIONS.
- b. CONFORM TO THE REQUIREMENTS OF DIVISIONS 0 AND 1, WHICH APPLY TO AND FORM PART OF ALL SECTIONS OF THE WORK.
- c. WHERE THERE IS A CONFLICT IN THE REQUIREMENTS OUTLINED IN THIS ELECTRONIC SAFETY AND SECURITY SPECIFICATIONS DOCUMENT, DIVISIONS 0 AND 1, ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS INCLUDING DOOR HARDWARE SCHEDULES AND SPECIFICATIONS THE MORE STRINGENT AND OR MORE ONEROUS REQUIREMENT SHALL APPLY.
- d. READ AND COMPLY WITH ALL SECTIONS OF THIS DOCUMENT.
- e. REFER TO OTHER DIVISIONS AND SECTIONS TO ENSURE A COMPLETE AND OPERATIONAL SYSTEM.
- f. PROVIDE ELECTRONIC SAFETY AND SECURITY COMPONENTS AND ACCESSORIES WHICH MAY NOT BE LOGICALLY SHOWN ON THE DRAWINGS OR STIPULATED IN THE SPECIFICATIONS, BUT ARE REQUIRED TO ENSURE COMPLETE, TURKEY AND OPERATIONAL SYSTEMS.
- g. PROVIDE ALL LABOUR, MATERIALS, TOOLS, AND EQUIPMENT REQUIRED FOR THE COMPLETE INSTALLATION, COMMISSIONING AND START-UP OF ELECTRONIC SAFETY AND SECURITY SYSTEMS CALLED FOR IN ALL SECTIONS OF THE CONTRACT DOCUMENTS
- h. PROVIDE ALL NECESSARY WIRING, CABLEING, LABOUR, TOOL EQUIPMENT AND ANCILLARY MATERIALS REQUIRED TO FURNISH AND INSTALL COMPLETE AND OPERATIONAL ELECTRONIC SAFETY AND SECURITY SYSTEMS.
2. SCOPE
 - a. THE ELECTRONIC SAFETY AND SECURITY SYSTEMS SHALL INCLUDE ALL COMPUTER HARDWARE AND SOFTWARE, CONTROL PANELS, INTERFACES, CARD READERS/KEYPADS, ACCESS CARDS, ALARM SENSING DEVICES, COMMUNICATION DEVICES, ELECTRIC DOOR HARDWARE, POWER SUPPLIES, CABLE/WIRE, CONDUIT, RACEWAYS, ENCLOSURES, MOUNTING HARDWARE, AND ALL OTHER EQUIPMENT AS INDICATED ON CONTRACT DRAWINGS AND AS SPECIFIED HEREIN. EXCEPT WHERE NOTED TO REUSE EXISTING, ALL MATERIALS SHALL BE NEW, COMMERCIAL GRADE AND OF GOOD QUALITY.
 - b. ALL ELECTRONIC SAFETY AND SECURITY SYSTEMS SHALL BE TURNED COMPLETE AND FULLY OPERATIONAL. ALL ELECTRONIC SAFETY AND SECURITY SYSTEMS SHALL BE INTEGRATED AS PER THE CONTRACT DRAWINGS AND SPECIFICATIONS.
 - c. ALL CABLES SHALL BE INSTALLED VIA CONDUITS.
 - d. PROVIDE ALL CONDUIT UNLESS OTHERWISE NOTED.
 - e. SUPPLY AND INSTALL ALL CABLE SUPPORTS FOR ALL CABLEING. ALL CABLE SUPPORTS SHALL BE INSTALLED FOLLOWING BUILDING LINES, AND IN ACCORDANCE WITH THE BUILDING'S REQUIREMENTS / GUIDELINES.
 - f. CO-ORDINATE ON SITE FOR INTERFERENCES AND WITH OTHER DISCIPLINES / TRADES. SUPPLY AND INSTALLATION OF ALL ACTIVE AND PASSIVE HARDWARE AND CABLES AS SPECIFIED WITHIN THIS DOCUMENT TO SUPPORT THE ELECTRONIC SAFETY AND SECURITY SYSTEMS.
 - g. WHERE ACTIVE AND PASSIVE HARDWARE AND CABLEING IS NOT SPECIFIED BUT ARE REQUIRED TO MAKE THE ELECTRONIC SAFETY AND SECURITY SYSTEMS TURKEY AND TO MEET THE INTENT, SUPPLY AND INSTALL SUCH ACTIVE AND PASSIVE HARDWARE AND CABLEING AT NO EXTRA COST.
 - h. SUPPLY AND INSTALL ALL EQUIPMENT CABINETS, COMPLETE WITH ALL ACCESSORIES.
 - i. SUPPLY AND INSTALL ALL FIRE STOP MATERIALS / MECHANISMS FOR ALL PENETRATIONS.
 - j. WHILE EVERY ATTEMPT HAS BEEN MADE TO ENSURE ALL INFORMATION IS CORRECT AT THE TIME OF PUBLICATION, THE PRODUCTS SPECIFIED ARE AVAILABLE AND THAT THE PART NUMBERS IDENTIFIED ARE CORRECT, IT IS THE RESPONSIBILITY OF THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR TO VERIFY ALL PART NUMBERS AND TO REPORT ANY ERRORS AND OR OMISSIONS IN THIS SPECIFICATION WITH THEIR BID SUBMISSIONS.
 - k. DIMENSIONS SHOWN ON CONTRACT DRAWINGS ARE APPROXIMATE. VERIFY DIMENSIONS BY REFERENCE TO SHOP DRAWINGS AND FIELD MEASUREMENTS.
 - l. QUANTITIES OR LENGTHS INDICATED IN ANY OF THE CONTRACT DOCUMENTS ARE APPROXIMATE ONLY AND SHALL NOT BE HELD TO GAUGE OR LIMIT THE WORK.
 - m. INCLUDE IN BID ALL LABOUR, MATERIALS, PLANT, TRANSPORTATION, STORAGE COSTS, TRAINING, EQUIPMENT, INSURANCE, TEMPORARY PROTECTION, PERMITS, REVIEWS, BONDING, TAXES AND ALL NECESSARY AND RELATED ITEMS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL ELECTRONIC SAFETY AND SECURITY SYSTEMS.
3. INTENT
 - a. MENTION IN THE SPECIFICATIONS OR INDICATION ON THE DRAWINGS OF EQUIPMENT, MATERIALS, OPERATION AND METHODS, REQUIRES PROVISION OF THE QUALITY OF THE QUANTITY OF THE TRADES, AND THE SYSTEMS COMPLETE, IN EVERY RESPECT.
 - b. THE SPECIFICATIONS ARE AN INTEGRAL PART OF THE ACCOMPANYING DRAWINGS. ANY ITEM OR SUBJECT OMITTED FROM ONE OR THE OTHER, BUT WHICH IS EITHER MENTIONED OR REASONABLY IMPLIED, SHALL BE CONSIDERED AS PROPERLY AND SUFFICIENTLY SPECIFIED.
 - c. BE COMPLETELY RESPONSIBLE FOR THE ACCEPTABLE CONDITION AND OPERATION OF ALL SYSTEMS, EQUIPMENT AND COMPONENTS. COVERING PART OF THE INSTALLATION OR DIRECTLY ASSOCIATED WITH IT. PROMPTLY REPLACE DEFECTIVE MATERIAL, EQUIPMENT AND REPAIR RELATED DAMAGES. THE REPLACEMENT OF EQUIPMENT AND REPAIR TO DAMAGES SHALL BE COORDINATED WITH OTHER TRADES COMPLETED IN A TIMELY FASHION SO AS NOT TO AFFECT THE COMPLETE CONSTRUCTION OF THE ELECTRONIC SAFETY AND SECURITY SYSTEMS AND OR WORK BY OTHERS.
4. LABOUR
 - a. COMPLY WITH ALL PROJECT JOB-SITE REQUIREMENTS FOR THE DURATION OF THE PROJECT.
 - b. DO NOT ASSIGN OR SUB-CONTRACT ANY WORK WITHOUT THE PRIOR WRITTEN CONSENT OF THE

PROJECT MANAGER. A LIST OF SUB-CONTRACTORS SHALL BE SUBMITTED WITH THE TENDER RESPONSE.

- FOR ALL WORK RELATED TO THIS PROJECT, THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL USE ONLY TRADESMEN WHO ARE FULLY TRAINED, QUALIFIED AND EXPERIENCED ON THE INSTALLATION AND COMMISSIONING OF THE ELECTRONIC SAFETY AND SECURITY SYSTEMS.
5. PROJECT MANAGEMENT
- a. PROVIDE COMPLETE PROJECT MANAGEMENT FOR THIS PROJECT.
- b. DEVELOP A DETAILED GANTT CHART PROJECT PLAN AND SUBMIT TO OWNER AND ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT.
- c. ATTEND AND CHAIR BIWEEKLY CONSTRUCTION MEETINGS FOR THE DURATION OF THE PROJECT. CONSTRUCTION MEETINGS SHALL BE ON SITE OR VIA CONFERENCE CALL AT THE OWNER'S AND OR ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE'S DISCRETION.
- d. GENERATE AND SUBMIT DETAILED BIWEEKLY CONSTRUCTION PROGRESS REPORTS TO OWNER AND ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE. EACH PROGRESS REPORT SHALL INCLUDE ITEMIZED DETAILED DESCRIPTION AND EXTENT OF TASKS COMPLETED, ITEMIZED DETAILED DESCRIPTION AND QUANTIFICATION OF MATERIALS INSTALLED AND LABELED PHOTOS THAT CLEARLY SHOW THE EXTENT OF CONSTRUCTION PROGRESS.
6. DRAWINGS, CHANGES AND INSTALLATION
- a. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND SCOPE OF THE WORK AND NOT THE EXACT DETAILS OF THE INSTALLATION. THE INSTALLATION SHALL BE COMPLETE WITH ALL ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIVE INSTALLATION.
- b. THE LOCATION, ARRANGEMENT AND CONNECTION OF EQUIPMENT AND MATERIAL AS SHOWN ON THE DRAWINGS REPRESENT A CLOSE APPROXIMATION TO THE INTENT AND REQUIREMENTS OF THE CONTRACT. THE RIGHT IS RESERVED BY THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE TO MAKE REASONABLE CHANGES REQUIRED TO ACCOMMODATE CONDITIONS ARISING DURING THE PROGRESS OF THE WORK, AT NO EXTRA COST.
- c. CERTAIN DETAILS INDICATED ON THE DRAWINGS ARE GENERAL IN NATURE AND SPECIFIC LABELED DETAIL REFERENCES TO EACH AND EVERY OCCURRENCE OF USE ARE NOT INDICATED, HOWEVER, SUCH DETAILS SHALL BE APPLICABLE TO EVERY OCCURRENCE ON THE DRAWINGS.
- d. THE LOCATION AND SIZE OF EXISTING SERVICES SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION OF EXISTING SERVICES IN THE FIELD BEFORE WORK IS COMMENCED.
- e. CHANGES AND MODIFICATIONS NECESSARY TO ENSURE CO-ORDINATION AND TO AVOID INTERFERENCE AND CONFLICTS WITH OTHER TRADES, OR TO ACCOMMODATE EXISTING CONDITIONS, SHALL BE MADE AT NO EXTRA COST TO THE CLIENT.
- f. LEAVE AREAS CLEAR WHERE SPACE IS INDICATED AS RESERVED FOR FUTURE EQUIPMENT, AND EQUIPMENT FOR OTHER TRADES.
- g. ADEQUATE SPACE AND PROVISIONS SHALL BE LEFT FOR REMOVAL OF IMPROPER AND SERVING OF EQUIPMENT, WITH MINIMUM INCONVENIENCE TO THE OPERATION OF SYSTEMS.
- h. WHERE EQUIPMENT IS SHOWN TO BE 'ROUGHED IN ONLY' OBTAIN ACCURATE INFORMATION FROM THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
- i. LOCATION OF OUTLETS, LUMINARIES, DIFFUSERS, GRILLES, REGISTERS, THERMOSTATS, SPRINKLERS AND ALL OTHER EQUIPMENT SHOWN ON DRAWINGS (IF SHOWN) IS DIAGRAMMATIC.
- j. THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR, AT HIS EXPENSE, SHALL REMEDY ANY WORK NOT INSTALLED IN CORRECT LOCATION (AT THE SOLE DISCRETION OF THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE). THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR IS RESPONSIBLE TO MARK-OUT HIS WORK AND FULLY CO-ORDINATE WITH ALL OTHER TRADES. REVIEW WITH ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE PRIOR TO ROUGH IN. PREPARE DIMENSIONED LAYOUTS OF EACH ROOM PRIOR TO ROUGH IN FOR REVIEW BY ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE. DO NOT PROCEED WITH ANY WORK UNTIL THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE HAS REVIEWED AND APPROVED THE LAYOUT DRAWINGS.
7. APPROVED EQUAL
- a. WHEREVER THE TERM "OR APPROVED EQUAL" IS USED HEREIN, IT IS TO BE UNDERSTOOD THAT REFERENCE TO THE SPECIFIED TRADE NAME, BRAND NAME, MANUFACTURER'S NAME, MODEL NUMBER AND OR CATALOGUE NUMBER HAS BEEN MADE SOLELY FOR THE PURPOSE OF INDICATING THE MINIMUM STANDARD OF QUALITY REQUIRED IN MATERIAL, WORKMANSHIP AND SERVICE. ANY PROPOSED ALTERNATE SHALL BE SUBMITTED FOR REVIEW AND ACCEPTANCE PRIOR TO PROCUREMENT AND INSTALLATION. THE REVIEW AND ACCEPTANCE SHALL BE AT THE SOLE DISCRETION OF THE OWNER AND THEIR ENGINEER'S REPRESENTATIVES.
8. PROPOSED SUBSTITUTIONS IN ORDER TO BE ASSESSED MUST INCLUDE THE FOLLOWING:
- a. DESCRIPTION OF PROPOSED SUBSTITUTION.
- b. RESPECTIVE COST OF ITEMS ORIGINALLY SPECIFIED AND THE PROPOSED SOLUTION.
- c. COMPLIANCE WITH THE APPLICABLE BUILDING CODES, STANDARDS AND THE REQUIREMENTS OF JURISDICTIONAL AUTHORITIES.
- d. AFFECT CONCERNING COMPATIBILITY WITH AND INTERFACE WITH ADJACENT BUILDING MATERIALS AND COMPONENTS.
- e. COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS.
- f. REASONS FOR THE REQUEST.
- g. THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE'S DECISION REGARDING THE ACCEPTANCE OR REJECTION OF THE PROPOSED SUBSTITUTION SHALL BE FINAL. SUBSTITUTIONS MAY BE ACCEPTED IF THE DELIVERY OF THE COMPONENT OR ITEM IS SUCH THAT IT WILL NOT JEOPARDIZE THE CONSTRUCTION SCHEDULE. OTHERWISE SUBSTITUTION
10. ALL EQUIPMENT AND MATERIAL FOR WHICH THERE IS A LISTING SERVICE SHALL BEAR A UL/ULC AND OR CSA LABEL.
11. EQUIPMENT SHALL MEET ALL APPLICABLE FCC/CRTC REGULATIONS.
12. MATERIALS SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS, IN ACCORDANCE WITH NFPA 255.
13. CO-OPERATION WITH OTHER DIVISION
- a. ELECTRONIC SAFETY AND SECURITY CABLING SHALL NOT TOUCH OR BE SUPPORTED FROM PIPING, DUCTWORK, CONDUIT, CEILING SUPPORTS OR ANY OTHER STRUCTURE / EQUIPMENT. ELECTRONIC SAFETY AND SECURITY CABLING SHALL BE SUPPORTED BY LADDER TRAY (WHERE PROVIDED) OR SHALL BE INSTALLED WITHIN CONDUIT (WHERE PROVIDED).
- b. SUPPLY ALL ITEMS TO BE BUILT IN AMPLE TIME FOR RAPID PROGRESS OF THE WORK. SCHEDULE AND PROCEED WITH WORK AS REQUIRED TO SATISFY THE CONSTRUCTION SCHEDULE.
14. ALL CHANGES AND CONNECTIONS TO EXISTING SERVICES SHALL BE MADE ONLY IN A MANNER AND AT A TIME APPROVED BY THE SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE AND OR THE CLIENT SO TO AVOID ANY INTERRUPTION OF SUCH SERVICES DURING NORMAL WORKING HOURS. IF NECESSARY, CHANGES AND CONNECTIONS TO EXISTING SERVICES SHALL BE MADE OUTSIDE OF NORMAL WORKING HOURS, AT NO EXTRA COST TO THE CONTRACT.
15. WHERE CONNECTIONS ARE MADE TO EXISTING SERVICES, EXISTING FIRE STOPPING SHALL BE MADE GOOD UNDER THIS DIVISION.
16. PARTICULAR CARE SHALL BE TAKEN WITH IMPERIAL VERSUS METRIC CONNARS AND REPAIR RELATED TO THE SERVICES INCLUDING, BUT NOT LIMITED TO, EQUIPMENT, MATERIAL AND SITE SERVICES IN BOTH NEW AND EXISTING INSTALLATIONS.
17. SCHEDULE, ACCESS, PROTECTION AND CLEAN-UP
- a. THE CONSTRUCTION SCHEDULE PLACES RESTRICTIONS ON THE DURATION OF CONSTRUCTION WITHIN AREAS AND THE DURATION OF SHUT-DOWN OF EQUIPMENT. REFER TO THE GENERAL CONDITIONS FOR ALL REQUIREMENTS.
- b. REFER TO THE GENERAL CONDITIONS AND CONFORM TO ALL REQUIREMENTS.
- c. REFER TO THE SECURITY AND PROTECTION REQUIREMENTS IN THE GENERAL CONDITIONS AND CONFORM TO ALL REQUIREMENTS. THERE SHALL BE NO SMOKING, AND THE SITE SHALL BE KEPT CLEAN AT ALL TIMES.
18. CUTTING, PATCHING AND REPAIRING
- a. IT IS THE RESPONSIBILITY OF THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR TO PERFORM ALL CUTTING, PATCHING AND REPAIR RELATED TO THE ELECTRONIC SAFETY AND SECURITY SYSTEMS WORK INCLUDING ANY PENETRATIONS THROUGH WALLS OR FLOORS.
- b. WHERE CUTTING, PATCHING AND REPAIR IS THE RESPONSIBILITY OF OTHER TRADES THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH CUTTING AND REPAIR. THE ELECTRONIC SAFETY AND SECURITY SYSTEMS WORK INCLUDING ANY PENETRATIONS THROUGH WALLS OR FLOORS.
- c. THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL PAINT ALL VISIBLE ELECTRONIC SAFETY AND SECURITY SYSTEMS CONDUIT TO MATCH EXISTING.
- d. THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL COORDINATE THE COLOUR AND LOCATION OF ALL CONDUITS, SECURITY DEVICES AND THEIR HOUSING WITH ARCHITECT AND ARCHITECTURAL DRAWINGS ON SITE PRIOR TO INSTALLATION.
19. THIS DIVISION SHALL PROVIDE ITS OWN HOISTING FACILITIES.
20. HOISTING FACILITIES PROVIDED BY THE GENERAL CONTRACTOR MAY BE AVAILABLE FOR SUBCONTRACTORS' USE AT NO COST (VERIFY WITH GENERAL CONTRACTOR PRIOR TO BID, OR ASSUME THAT NO HOISTING FACILITIES ARE PROVIDED). IF HOIST FACILITIES ARE INADEQUATE THEN ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL PROVIDE AS REQUIRED. ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL INFORM GENERAL CONTRACTOR(S) OF REQUIREMENTS BEFORE TENDER CLOSING DATE.
21. ALL EQUIPMENT, MATERIAL AND INSTALLATION SHALL CONFORM TO THE LATEST VERSION OF THE APPLICABLE CODES, STANDARDS AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. IN THE CASE OF CONFLICT OR DISCREPANCY THE MORE STRINGENT CODE, STANDARD OR REGULATION SHALL APPLY.
22. PROVIDE SECURITY TAMPERPROOF FASTENERS FOR ALL VISIBLE EXPOSED DEVICES, EQUIPMENT AND COMPONENTS IN ALL AREAS. COORDINATE FASTENER TYPE WITH THE OWNER.
23. FIRE STOP
- a. PROVIDE FIRE STOP AROUND ALL CABLES AND ALL CONDUITS IN ALL FIRE RATED SEPARATIONS AND FIREWALLS TO FORM TIGHT BARRIERS TO RETARD THE PASSAGE OF FLAME AND SMOKE.
- b. FIRE STOP MATERIALS AND SMOKE SEAL MATERIALS SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS, NATIONAL FIRE PROTECTION ASSOCIATION (NFPA CLASS "A").
- c. ALL FIRE STOP SYSTEMS SHALL BE TESTED TO THE LATEST APPLICABLE STANDARDS.
24. OBTAIN AND PAY FOR ALL PERMITS AND REVIEW REQUIRED FOR WORK PERFORMED INCLUDING BUT NOT LIMITED TO REVIEWS AND APPROVAL BY CSA AND OR LOCAL AUTHORITIES HAVING JURISDICTION. SUBMIT REQUIRED DOCUMENTS AND SHOP DRAWINGS TO AUTHORITIES HAVING JURISDICTION IN ORDER TO OBTAIN APPROVAL FOR THE WORK. PREPARE ANY ADDITIONAL INFORMATION, DETAILS AND DRAWINGS THAT THESE AUTHORITIES MAY REQUIRE.
25. SUBMIT DETAILED BIWEEKLY CONSTRUCTION PROGRESS REPORTS TO OWNER AND ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE. EACH PROGRESS REPORT SHALL INCLUDE ITEMIZED DETAILED DESCRIPTION AND EXTENT OF TASKS COMPLETED, ITEMIZED DETAILED DESCRIPTION AND QUANTIFICATION OF MATERIALS INSTALLED AND LABELED PHOTOS THAT CLEARLY SHOW THE EXTENT OF CONSTRUCTION PROGRESS.
26. KEEP THE SITE AND SURROUNDING AREA CLEAN, SAFE AND FREE FROM DEBRIS AT ALL TIMES.
27. ALLOW FOR THE REMOVAL AND RE-INSTALLATION OF ALL

WILL NOT BE ALLOWED

- MATERIALS AND EQUIPMENT SUPPLIED BY THIS DIVISION SHALL BE NEW AND FREE FROM DEFECTS.
10. ALL EQUIPMENT AND MATERIAL FOR WHICH THERE IS A LISTING SERVICE SHALL BEAR A UL/ULC AND OR CSA LABEL.
11. EQUIPMENT SHALL MEET ALL APPLICABLE FCC/CRTC REGULATIONS.
12. MATERIALS SHALL HAVE A FLAME SPREAD RATING OF 2 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS, IN ACCORDANCE WITH NFPA 255.
13. CO-OPERATION WITH OTHER DIVISION
- a. ELECTRONIC SAFETY AND SECURITY CABLING SHALL NOT TOUCH OR BE SUPPORTED FROM PIPING, DUCTWORK, CONDUITS, CEILING SUPPORTS OR ANY OTHER STRUCTURE / EQUIPMENT. ELECTRONIC SAFETY AND SECURITY CABLING SHALL BE SUPPORTED BY LADDER TRAY (WHERE PROVIDED) OR SHALL BE INSTALLED WITHIN CONDUIT (WHERE PROVIDED).
- b. SUPPLY ALL ITEMS TO BE BUILT IN AMPLE TIME FOR RAPID PROGRESS OF THE WORK. SCHEDULE AND CO-ORDINATE WITH WORK AS REQUIRED TO SATISFY THE CONSTRUCTION SCHEDULE.
14. ALL CHANGES AND CONNECTIONS TO EXISTING SERVICES SHALL BE MADE ONLY IN A MANNER AND AT A TIME APPROVED BY THE SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE AND OR THE CLIENT SO AS TO AVOID ANY INTERRUPTION OF SUCH SERVICES DURING NORMAL WORKING HOURS. IF NECESSARY, CHANGES AND CONNECTIONS TO EXISTING SERVICES SHALL BE MADE OUTSIDE OF NORMAL WORKING HOURS, AT NO EXTRA COST TO THE CONTRACTOR.
15. WHERE CONNECTIONS ARE MADE TO EXISTING SERVICES EXISTING FIRE STOPPING SHALL BE MADE GOOD UNDER THIS DIVISION.
16. PARTICULAR CARE SHALL BE TAKEN WITH IMPERIAL VERSUS METRIC CONVERSIONS, THIS APPLIES TO ALL SERVICES INCLUDING, BUT NOT LIMITED TO, EQUIPMENT MATERIAL AND SITE SERVICES IN BOTH NEW AND EXISTING INSTALLATIONS.
17. SCHEDULE, ACCESS, PROTECTION AND CLEAN-UP
- a. THE CONSTRUCTION SCHEDULE PLACES RESTRICTIONS ON THE DURATION OF CONSTRUCTION WITHIN AREAS AND THE DURATION OF SHUT-DOWN FOR EQUIPMENT REFERRED TO THE GENERAL CONDITIONS OF EQUIPMENT REQUIREMENTS.
- b. REFER TO THE GENERAL CONDITIONS AND CONFORM TO ALL REQUIREMENTS.
- c. REFER TO THE SECURITY AND PROTECTION REQUIREMENTS FOR THE GENERAL CONDITIONS AND CONFORM TO ALL REQUIREMENTS. THERE SHALL BE NO SMOKING, AND THE SITE SHALL BE KEPT CLEAN AT ALL TIMES.
18. CUTTING, PATCHING AND REPAIRING
- a. IT IS THE RESPONSIBILITY OF THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR TO PERFORM ALL CUTTING, PATCHING AND REPAIR RELATED TO THE ELECTRONIC SAFETY AND SECURITY SYSTEMS WORK INCLUDING ANY PENETRATIONS THROUGH WALLS OR FLOORS.
- b. WHERE CUTTING, PATCHING AND REPAIR IS THE RESPONSIBILITY OF OTHER TRADES THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH CUTTING AND PATCHING RELATED TO THE ELECTRONIC SAFETY AND SECURITY SYSTEMS WORK INCLUDING ANY PENETRATIONS THROUGH WALLS OR FLOORS.
- c. THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL PAINT ALL VISIBLE ELECTRONIC SAFETY AND SECURITY SYSTEMS CONDUIT TO MATCH EXISTING.
- d. THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL COORDINATE THE COLOUR AND LOCATION OF ALL CONDUITS, SECURITY DEVICES AND THEIR HOUSING WITH ARCHITECT AND ARCHITECTURAL DRAWINGS ON SITE PRIOR TO INSTALLATION.
19. THIS DIVISION SHALL PROVIDE ITS OWN HOISTING FACILITIES.
20. HOISTING FACILITIES PROVIDED BY THE GENERAL CONTRACTOR MAY BE AVAILABLE FOR SUBCONTRACTORS USE AT NO COST (VERIFY WITH GENERAL CONTRACTOR PRIOR TO BID, OR ASSUME THAT NO HOISTING FACILITIES ARE PROVIDED). IF HOIST FACILITIES ARE INADEQUATE THEN ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL PROVIDE SUFFICIENT HOISTING FACILITIES. THE ELECTRONIC SAFETY AND SECURITY CONTRACTOR SHALL INFORM GENERAL CONTRACTOR(S) OF REQUIREMENTS BEFORE TENDER CLOSING DATE.
21. ALL EQUIPMENT, MATERIAL AND INSTALLATION SHALL CONFORM TO THE LATEST VERSION OF THE APPLICABLE CODES, STANDARDS AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. IN THE CASE OF CONFLICT OR DISCREPANCY THE MORE STRINGENT CODE, STANDARD OR REGULATION SHALL APPLY.
22. PROVIDE SECURITY TAMPERPROOF FASTENERS FOR ALL VISITORS DEVICES, EQUIPMENT AND COMPONENTS IN ALL AREAS. COORDINATE FASTENER TYPE WITH THE OWNER.
23. FIRE STOP
- a. PROVIDE FIRE STOP ABOVE ALL CABLES AND ALL CONDUITS IN ALL FIRE RATED SEPARATIONS AND FIREWALLS TO FORM TIGHT BARRIERS TO RETARD THE PASSAGE OF FLAME AND SMOKE.
- b. FIRE STOP MATERIALS AND SMOKE SEAL MATERIALS SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS, NATIONAL FIRE PROTECTION ASSOCIATION (NFPA CLASS "A").
- c. ALL FIRE STOP SYSTEMS SHALL BE TESTED TO THE LATEST APPLICABLE STANDARDS.
24. OBTAIN AND PAY FOR ALL PERMITS AND REVIEW REQUIRED FOR WORK PERFORMED INCLUDING BUT NOT LIMITED TO REVIEW AND APPROVAL BY CSA AND OR LOCAL AUTHORITIES HAVING JURISDICTION. SUBMIT REQUIRED DOCUMENTS AND SIGNATURES TO THE AUTHORITIES HAVING JURISDICTION IN ORDER TO OBTAIN APPROVAL FOR THE WORK. PREPARE ANY ADDITIONAL INFORMATION, DETAILS AND DRAWINGS THAT THESE AUTHORITIES MAY REQUIRE.
25. SUBMIT DETAILED BIWEEKLY CONSTRUCTION PROGRESS REPORTS TO OWNER AND ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE. EACH PROGRESS REPORT SHALL INCLUDE ITEMIZED DETAILED DESCRIPTION AND EXTENT OF TASKS COMPLETED, ITEMIZED DESCRIPTION AND QUANTIFICATION OF MATERIALS INSTALLED AND LABELED PHOTOS THAT CLEARLY SHOW THE EXTENT OF CONSTRUCTION PROGRESS.
26. KEEP THE SITE AND SURROUNDING AREA CLEAN, SAFE AND FREE FROM DEBRIS AT ALL TIMES.
27. ALLOW FOR THE REMOVAL AND RE-INSTALLATION OF

FLOOR/CEILING TILES IN AREAS AFFECTED BY THE INSTALLATION, THIS SHALL BE DONE ON A DAILY BASIS FOR ALL AREAS THAT ARE OCCUPIED DURING THE CONSTRUCTION PERIOD. OTHERWISE REMOVE AND RE-INSTALL THE TILES AFTER INSTALLATION IS COMPLETE.

8. REPLACE ALL SOILED AND OR DAMAGED CEILING TILES DURING THE INSTALLATION OF ANY WORK DESCRIBED IN THIS DOCUMENT. DAMAGES INCLUDE CHIPPING, BREAKING OR FINGERPRINTS.
29. RECTIFY ALL DAMAGES CAUSED DURING INSTALLATION. RECTIFICATION SHALL INCLUDE COMPLETE REPLACEMENT OF DAMAGED MATERIAL.
30. PROVIDE COMPLETE AND ADEQUATE TRAINING TO THE OWNER ON ALL ELECTRONIC SAFETY AND SECURITY SYSTEMS. TRAINING SHALL INCLUDE BUT NOT LIMITED TO THE OPERATIONS PERSONNEL ON THE OPERATION AND MAINTENANCE OF ALL ELECTRONIC SAFETY AND SECURITY SYSTEMS. ALL TRAINING SESSIONS ON MINIMUM 4 FLASH DRIVES FOR LATER USE BY OWNER.
31. RECORD DRAWINGS
- a. PROVIDE DETAILED RECORD DRAWINGS OF ALL INSTALLED SYSTEMS. RECORD DRAWINGS SHALL INCLUDE, BUT NOT LIMITED TO, DETAILED RISER SCHEMATIC DRAWINGS SHOWING CONNECTIVITY OF EACH SYSTEM, DETAILED FLOOR PLAN DRAWINGS SHOWING ALL INSTALLED DEVICES, DEVICES SCHEDULES, PROGRAMMING SCHEDULES, ETC. RECORD DRAWINGS SHALL BE PROVIDED IN AUTOCAD FORMAT ON FLASH DRIVE.
32. SHOP DRAWINGS
- a. PROVIDE SHOP DRAWINGS FOR ALL MATERIALS FOR REVIEW AND APPROVAL PRIOR TO PROCUREMENT OF MATERIALS.
- b. SHOP DRAWINGS SHALL INCLUDE BUT NOT LIMITED TO:
- CATALOGUE DATA SHEETS FOR EACH PRODUCT THAT WILL BE PROVIDED BY THE CONTRACTOR
 - DETAILED SCHEMATIC RISER DRAWINGS CLEARLY INDICATING THE PHYSICAL AND LOGICAL CONNECTIVITY OF EACH SYSTEM AND HOW EACH PRODUCT WILL BE IMPLEMENTED IN THE PHYSICAL AND LOGICAL CONNECTIVITY OF EACH SYSTEM.
 - AN ITEMIZED SHOP DRAWING INDEX WITH A SUMMARY LIST OF ITEMS BEING SUBMITTED FOR REVIEW. THE LIST SHALL INDICATE ITEM NUMBER, ITEM MANUFACTURE AND MODEL NUMBER AND ITEM NAME AND A REVIEW COMMENTS COLUMN.
 - ALL ADDITIONAL REQUESTED INFORMATION AS DETERMINED BY THE ENGINEER'S REPRESENTATIVE
- c. INSTALLATION OF ANY EQUIPMENT SHALL NOT START UNTIL AFTER THE ENGINEER'S REPRESENTATIVE HAS REVIEWED SHOP DRAWINGS.
- d. WHEN REQUESTED, SHOP DRAWINGS SHALL BE SUPPLEMENTED BY DATA EXPLAINING THE THEORY OF OPERATION.
33. GROUNDING
- a. ALL CABLES, AND EQUIPMENT SHALL BE BONDED TO GROUND AS PER APPLICABLE CODES AND STANDARDS
34. PATHWAYS
- a. NOT USED.
35. LABELING
- a. A CLASS 3 SYSTEM OF ADMINISTRATION AS PER ANSI/TIA/EIA 606 STANDARDS SHALL BE UTILIZED.
- b. ALL ELEMENTS OF EACH SYSTEM SHALL BE LABELED WITH UNIQUE IDENTIFIERS.
- c. ALL CABLE AND EQUIPMENT LABELS SHALL MEET THE LEGIBILITY, DEFACEMENT, AND ADHESION REQUIREMENTS SPECIFIED IN ANSI/UL 969. IN ADDITION THE LABELS SHALL MEET THE GENERAL EXPOSURE REQUIREMENTS IN ANSI/UL 969 FOR INDOOR AND OUTDOOR USE.
- d. CABLE LABELS SHALL BE OF SELF-LAMINATING VINYL CONSTRUCTION WITH A WHITE PRINTING AREA AND A CLEAR COAT THAT SELF LAMINATES THE PRINTED AREA WHEN WRAPPED AROUND A CABLE. THE CLEAR AREA SHOULD BE OF SUFFICIENT LENGTH TO WRAP AROUND THE CABLE AT LEAST ONE AND ONE-HALF TIMES. THE WIDTH SHALL BE SUFFICIENT TO ACCOMMODATE THE APPROPRIATE LABEL DESIGNATION.
- e. ALL BACKBONE AND HORIZONTAL CABLES INCLUDING PATCH CORD LABELS SHALL BE PRINTED IN 10 POINT Arial NARROW, BLACK, BOLD FONT.
- f. ALL EQUIPMENT LABELS SHALL BE PRINTED IN 14 POINT Arial NARROW, BLACK, BOLD FONT.
- g. ALL HUB AND MAIN CABINETS LABELS SHALL BE BLACK LAMACON PLATE WITH WHITE 60 POINT Arial NARROW, ENGRAVED UPPER CASE LETTERS ENCLOSED BY WHITE BORDER ON.
- h. ALL LABELS SHALL BE MECHANICALLY PRINTED USING A LASER PRINTER. HAND-WRITTEN LABELS ARE NOT PERMITTED.
- i. ALL LABELS SHALL BE VISIBLE WHEN INSTALLED.
37. COMMISSIONING
- a. ALL DEVICES INCLUDING ALL WIRING SHALL BE TESTED INDIVIDUALLY AND AS INTEGRATED SYSTEMS.
- b. IDENTIFY ALL COMPONENTS, FUNCTIONS AND SYSTEMS THAT SHALL BE COMMISSIONED.
- c. DEVELOP DEVICE CHECKLISTS, FUNCTIONAL TEST FORMS AND SYSTEM INTEGRATION TEST FORMS THAT SHALL BE EXECUTED.
- d. PERFORM PRE-START-UP TESTS, DEVICE TESTS, FUNCTIONAL TESTS, SYSTEM INTEGRATION TESTS. PERFORM RETESTS AS NECESSARY.
- e. PROVIDE TESTING AND COMMISSIONING DOCUMENTATION IN SOFT AND HARD FORMAT FOR ALL SYSTEMS AND THEIR RELATED COMPONENTS TO THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE PRIOR TO THE COMPLETION OF THE PROJECT OR AT THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVES REQUEST. INCLUDE MAINTENANCE MANUALS AND OPERATING INSTRUCTIONS FOR CLIENT'S STAFF USE.
- ## 2. PRODUCT:
1. CONDUCTORS AND CABLES
- a. SUPPLY AND INSTALL CONDUCTORS AND CABLES AS DETAILED IN CONTRACT DOCUMENTS AND AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER TO ENSURE PROPER OPERATION ALL DEVICES AND SYSTEMS.
- b. CONDUCTORS AND CABLES SHALL BE CMR WHERE INSTALLED, COMPLETELY IN CONDUIT AND OR WHERE

INSTALLED IN NON-PLENUM RATED AREAS. CONDUCTORS AND CABLES SHALL BE CMP WHERE NOT COMPLETELY INSTALLED IN CONDUIT AND OR INSTALLED IN PLENUM RATED AREAS. ALL CABLE SHALL CONFORM TO THE RECOMMENDATIONS OF THE MANUFACTURERS OF THE ELECTRONIC SAFETY AND SECURITY SYSTEMS.

- CONDUCTORS AND CABLES SHALL BE OUTDOOR RATED WHERE INSTALLED OUTDOOR AND OR INSTALLED IN LOCATIONS WHERE THEY WILL BE EXPOSED TO WEATHER ELEMENTS.
- d. PROVIDE AND INSTALL SHIELDED CABLES WHERE REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER OF THE ELECTRONIC SAFETY AND SECURITY SYSTEMS.
- e. ALL WIRING SHALL BE OF PROPER GAUGE, TYPE AND QUANTITY OF CONDUCTORS AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER TO ENSURE PROPER OPERATION OF ELECTRONIC SAFETY AND SECURITY SYSTEMS AND PERIPHERAL DEVICES.
- f. MAKE ANY NECESSARY CHANGES OR ADDITIONS TO ROUTING OF CABLES, PATHWAYS TO ACCOMMODATE STRUCTURAL, MECHANICAL, ELECTRICAL AND ARCHITECTURAL CONDITIONS. WHERE PATHWAYS OR CABLES ARE SHOWN DIAGRAMMATICALLY RUN THEM PARALLEL TO BUILDING COLUMNS. IF IT IS NECESSARY TO RUN CABLES OTHERWISE TO ACCOMMODATE ACCEPTABLE CABLE LENGTHS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE ELECTRONIC SAFETY AND SECURITY ENGINEER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- g. ALL CONDUCTORS AND CABLES SHALL BE CSA APPROVED AND SHALL BE STAMPED ACCORDINGLY.
- DOOR CONTACT: MINIMUM 4 CONDUCTOR, AWG 22 OR AS REQUIRED BASED ON DISTANCE FROM CONTROLLER.
 - CARD READER: MINIMUM 6 CONDUCTOR, AWG 22 SHIELDED CABLE.
 - ELECTRIC STRIKES, MAGLOCKS: MINIMUM 4 CONDUCTOR, AWG 18 CABLE.
- ### ACCESS CONTROL SYSTEM
- a. THE ACCESS CONTROL SYSTEM SHALL BE AS DESCRIBED IN THIS SPECIFICATION AND ILLUSTRATED ON THE DRAWINGS.
- b. THE ACCESS CONTROL SYSTEM SHALL BE AN EXTENSION OF AND SHALL BE INTEGRATED WITH THE EXISTING ACCESS CONTROL SYSTEM.
- c. THE SYSTEM SHALL HAVE OF THE FOLLOWING FUNCTIONS:
- REGULATE AND MONITOR ACCESS AT SYSTEM CONTROLLED DOORS.
 - MONITOR CONNECTED DETECTORS (SUPERVISED AND AUXILIARY INPUTS) WITH THE ABILITY TO MANUALLY OR AUTOMATICALLY ARM AND DISARM THEM.
 - CONTROL EVENT INITIATED DEVICES CONNECTED TO SYSTEM OUTPUTS, SUCH AS ALARMS OR VIDEO RECORDERS, WITH THE ABILITY TO AUTOMATICALLY OR MANUALLY ARM OR DISARM THEM.
 - REPORT AN ALARM CONDITION.
 - ESTABLISH A HIERARCHY OF ALARM TYPES TO PRIORITIZE HANDLING ALARM CONDITIONS.
 - MAINTAIN A COMPREHENSIVE DATABASE RECORDING ALL SITE ACTIVITY.
- d. PROVIDE ALL ACCESS CONTROL SYSTEM CONTROL PANELS AND ASSOCIATED EQUIPMENT, POWER SUPPLY, CABLEING, CONNECTORS, ENCLOSURES, AND ALL OTHER HARDWARE AND SOFTWARE TO PROVIDE A FULLY OPERATIONAL SYSTEM.
- e. ALL COMPONENTS SHALL BE GOOD QUALITY COMMERCIAL GRADE.
- f. CONTROLLER: COMPATIBLE WITH THE EXISTING ACCESS CONTROL SYSTEMS.
- g. CREDENTIAL READER: COMPATIBLE WITH THE EXISTING ACCESS CONTROL SYSTEMS.
- h. MOTION REQUEST TO EXIT DEVICE: COMPATIBLE WITH THE EXISTING ACCESS CONTROL SYSTEMS
- i. DOOR CONTACTS: FLUSH MOUNTED AND COMPATIBLE WITH THE EXISTING ACCESS CONTROL SYSTEMS
- j. PROVIDE CONTROLLER ENCLOSURES FOR ALL CONTROLLERS. ALL CONTROLLER ENCLOSURES SHALL BE A SINGLE KEY LOCKING METAL BOX. EQUIPPED WITH A TAMPER SWITCH.
- k. POWER SUPPLY: PROVIDE ALL POWER SUPPLIES AS REQUIRED TO FACILITATE COMPLETE TURNKEY SYSTEMS. POWER SUPPLIES SHALL INCLUDE UNINTERRUPTIBLE POWER SUPPLY BATTERY BACKUP TO SUSTAIN OPERATIONS OF ALL SYSTEMS AND RELATED DEVICES FOR MINIMUM 20 MINUTES AFTER POWER FAIL.
- ### INTRUSION DETECTION SYSTEM
- a. PROVIDE ALL INTRUSION DETECTION SYSTEM CONTROL PANELS AND ASSOCIATED EQUIPMENT, POWER SUPPLY, CABLEING, CONNECTORS, ENCLOSURES, AND ALL OTHER HARDWARE AND SOFTWARE TO PROVIDE A FULLY OPERATIONAL SYSTEM.
- b. ALL COMPONENTS SHALL BE GOOD QUALITY COMMERCIAL GRADE CONSISTING OF BUT NOT LIMITED TO THE FOLLOWING DEVICES:
- c. CONTROLLERS,COMMUNICATORS AND ASSOCIATED ENCLOSURES, PERIPHERAL DEVICES, SENSORS AND ACCESSORIES, KEYPADS, POWER SUPPLIES.
- d. SYSTEM FUNCTION REQUIREMENTS
- REGULATE AND MONITOR ACCESS AT SYSTEM CONTROLLED DOORS.
 - MONITOR CONNECTED DETECTORS (SUPERVISED AND AUXILIARY INPUTS) WITH THE ABILITY TO MANUALLY OR AUTOMATICALLY ARM AND DISARM THEM.
 - CONTROL EVENT INITIATED DEVICES CONNECTED TO SYSTEM OUTPUTS, SUCH AS ALARMS OR VIDEO RECORDERS, WITH THE ABILITY TO AUTOMATICALLY OR MANUALLY ARM OR DISARM THEM.
 - REPORT AN ALARM CONDITION.
 - DISTRIBUTE AN ANNUNCIATE DETAILED ZONE SPECIFIC AND SYSTEM TROUBLE ALARM CONDITIONS VIA THE INTERNET, PLAIN OLD TELEPHONE SERVICE (POTS), GSM/GPRS AND EMAIL NOTIFICATION TO REMOTE ALARM MONITORING STATIONS.

- THE INTRUSION DETECTION SYSTEM SHALL PROVIDE THE ABILITY TO ARM OR DISARM INTRUSION ZONES BY: KEYPAD, ACCESS CONTROL, READER, USING CARD AND KEYPAD, DIGITAL INPUT STATE CHANGE, MANUAL OPERATOR CONTROL.

- ALL EXTERIOR EQUIPMENT SHALL BE SEALED AND PROTECTED AND SHALL BE RATED FOR ALL WEATHER CONDITIONS INCLUDING HEAT, COLD, MOISTURE, DUST, AND SAND.
- f. PROVIDE CONTROLLER ENCLOSURES FOR ALL CONTROLLERS. ALL CONTROLLER ENCLOSURES SHALL BE A SINGLE KEY LOCKING METAL BOX. EQUIPPED WITH DOOR TAMPER SWITCH.
- g. COMMUNICATORS: DSC INTERNET AND HSPA DUAL-PATH ALARM COMMUNICATOR TL2803G(R)(E) OR BASE BUILDING EQUIVALENT.
- h. POWER SUPPLY: PROVIDE ALL POWER SUPPLIES AS REQUIRED TO FACILITATE COMPLETE TURKEY SYSTEMS. POWER SUPPLIES SHALL INCLUDE UNINTERRUPTIBLE POWER SUPPLY BATTERY BACKUP TO SUSTAIN OPERATIONS OF ALL SYSTEMS AND RELATED DEVICES FOR MINIMUM 20 MINUTES AFTER POWER FAIL.
- ## EXECUTION:
- ALL EQUIPMENT SHALL BE INSTALLED AND CONFIGURED ACCORDANCE WITH DEVICE AND SYSTEM MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, AS PER THE OWNERS' REQUIREMENTS AND AS PER CONTRACT DRAWINGS AND SPECIFICATIONS.
- COORDINATE THE EXACT MOUNT LOCATION OF ALL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR TO ENSURE THAT ALL CONDUITS AND BACK BOXES ARE INSTALLED IN THE OPTIMAL LOCATIONS.
- COORDINATE EXACT MOUNTING LOCATIONS OF ALL EQUIPMENT ON SITE WITH SECURITY ENGINEER'S REPRESENTATIVE AND OWNER.
- SUPPLY AND INSTALL ALL EQUIPMENT WHERE INDICATED ON CONTRACT DRAWINGS AND DOCUMENTS AND AS REQUIRED FOR COMPLETE AND OPERATIONAL SYSTEMS.
- ALL EQUIPMENT SHALL BE INTER-COMPATIBLE.
- BUNDLE AND TIE WIRE AND CABLE WITH CABLE TIES.
- SEPARATE HIGH VOLTAGE (120 VAC AND ABOVE) CABLES FROM LOW VOLTAGE CABLES WITHIN ENCLOSURES.
- RUN WIRE AND CABLE CONTINUOUS FROM DEVICE LOCATION TO THE FINAL POINT OF TERMINATION. NO MID-RUN CABLE SPLICES WILL BE ALLOWED.
- NEATLY ROUTE CABLES PARALLEL OR PERPENDICULAR TO BUILDING LINES.
- PROVIDE J HOOKS AND OTHER CABLE SUPPORT SYSTEMS (SPACED AT REGULAR INTERVALS) WITHIN ACCESSIBLE CEILING SPACES. FASTEN CABLES TO THE CABLE SUPPORT SYSTEMS AND PROVIDE STRAIN RELIEF TO PROTECT CABLES AND ENSURE COMPLIANCE WITH REQUIRED CABLE BENDS.
- SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT TO THE SECURITY ENGINEER'S REPRESENTATIVE FOR APPROVAL PRIOR TO PROCUREMENT AND INSTALLATION.
- SUPPLY AND INSTALL POWER SUPPLIES AS REQUIRED FOR FULLY FUNCTIONAL SYSTEMS. POWER SUPPLIES SHALL INCLUDE BUT NOT LIMITED TO ALL CONTROLLER POWER SUPPLIES, ALL PERIPHERAL DEVICE POWER SUPPLIES. ALL POWER SUPPLIES SHALL BE INSTALLED TO MANUFACTURERS RECOMMENDATIONS AND AS REQUIRED TO FURNISH FULLY FUNCTIONAL SYSTEMS.
- THE SYSTEMS SHALL HAVE A MINIMUM OF CONTROL PRIMARY POWER AND BACKUP BATTERY. THE BATTERY SHALL BE ABLE TO SUPPORT THE SYSTEM AND DEVICES FOR 24 HOURS' CONTINUOUS OPERATION. THE BATTERY INPUT, AUXILIARY, AND ALARM OUTPUTS SHALL BE PROTECTED USING PTC CIRCUIT BREAKERS. ALL OUTPUTS SHALL BE POWER LIMITED.
- ALLOW FOR NEEDS ASSESSMENT SESSIONS WITH THE OWNER AND DETERMINE THE EXACT OWNER REQUIRED MODES OF OPERATION OF EACH DEVICE AND SYSTEM. CONFIGURE EACH CONFIGURE DEVICE AND SYSTEM TO SUIT THE OWNERS' REQUIREMENTS.
- ALL EQUIPMENT SHALL BE INSTALLED WITH SUFFICIENT CLEARANCE TO MEET ALL APPLICABLE CODES AND FACILITATE OBSERVATION AND TESTING. ALL EQUIPMENT SHALL BE SECURELY FASTENED WITH APPROPRIATE FITTINGS TO ENSURE POSITIVE GROUNDING AND BE FREE OF GROUND LOOPS.
- PROVIDE AND INSTALL ALL SOFTWARE AND SOFTWARE LICENSES, HOUSINGS, MOUNTING BRACKETS AND ACCESSORIES FOR COMPLETE OPERATION OF ALL SYSTEMS.
- COORDINATE THE EXACT MOUNT LOCATION OF DEVICES WITH THE ELECTRICAL CONTRACTOR TO ENSURE THAT ALL CONDUITS AND BACK BOXES ARE INSTALLED IN THE OPTIMAL LOCATIONS.
- ### WARRANTY
- a. PROVIDE WARRANTY FOR THE COMPLETED WORK TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF TWO YEARS FROM THE DATE OF SYSTEM ACCEPTANCE.
- b. IF THE WORKMANSHIP OR MATERIALS IS FOUND TO BE DEFECTIVE OR NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS DURING THE WARRANTY PERIOD, THE CONTRACTOR SHALL CORRECT IT PROMPTLY WITH FACTORY CERTIFIED TECHNICIANS AT NO COST TO THE OWNER. ALL LABOUR AND MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.

4. EXECUTION:

1. ALL EQUIPMENT SHALL BE INSTALLED AND CONFIGURED IN ACCORDANCE WITH DEVICE AND SYSTEM MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, AS PER THE OWNERS' REQUIREMENTS AND AS PER CONTRACT DRAWINGS AND SPECIFICATIONS.
2. COORDINATE THE EXACT MOUNT LOCATION OF ALL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR TO ENSURE THAT ALL CONDUITS AND BACK BOXES ARE INSTALLED IN THE OPTIMAL LOCATIONS.
3. COORDINATE EXACT MOUNTING LOCATIONS OF ALL EQUIPMENT ON SITE WITH SECURITY ENGINEER'S REPRESENTATIVE AND OWNER.
4. SUPPLY AND INSTALL ALL EQUIPMENT WHERE INDICATED ON CONTRACT DRAWINGS AND DOCUMENTS AND AS REQUIRED FOR COMPLETE AND OPERATIONAL SYSTEMS.
5. ALL EQUIPMENT SHALL BE INTER-COMPATIBLE.
6. BUNDLE AND TIE WIRE AND CABLE WITH CABLE TIES.
7. SEPARATE HIGH VOLTAGE (120 VAC AND ABOVE) CABLES FROM LOW VOLTAGE CABLES WITHIN ENCLOSURES.
8. RUN WIRE AND CABLE CONTINUOUS FROM DEVICE LOCATION TO THE FINAL POINT OF TERMINATION. NO MID-RUN CABLE SPLICES WILL BE ALLOWED.
9. NEATLY ROUTE CABLES PARALLEL OR PERPENDICULAR TO BUILDING LINES.
10. PROVIDE J HOOKS AND OTHER CABLE SUPPORT SYSTEMS (SPACED AT REGULAR INTERVALS) WITHIN ACCESSIBLE CEILING SPACES. FASTEN CABLES TO THE CABLE SUPPORT SYSTEMS AND PROVIDE STRAIN RELIEF TO PROTECT CABLES AND ENSURE COMPLIANCE WITH REQUIRED CABLE BENDS.
11. SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT TO THE SECURITY ENGINEER'S REPRESENTATIVE FOR APPROVAL PRIOR TO PROCUREMENT AND INSTALLATION.
12. SUPPLY AND INSTALL POWER SUPPLIES AS REQUIRED FOR FULLY FUNCTIONAL SYSTEMS. POWER SUPPLIES SHALL INCLUDE BUT NOT LIMITED TO ALL CONTROLLER POWER SUPPLIES, AND PERIPHERAL DEVICE POWER SUPPLIES. ALL POWER SUPPLIES SHALL BE INSTALLED TO MANUFACTURERS RECOMMENDATIONS AND AS REQUIRED TO FURNISH FULL FUNCTIONAL SYSTEMS.
13. THE SYSTEMS SHALL HAVE A MINIMUM OF CONTROL. PRIMARY POWER AND BACKUP BATTERY. THE BATTERY SHALL BE ABLE TO SUPPORT THE SYSTEM AND DEVICES FOR 24 HOURS CONTINUOUS OPERATION. THE BATTERY INPUT, OUTPUT AND ALARM OUTPUTS SHALL BE PROTECTED USING PTC CIRCUIT BREAKERS. ALL OUTPUTS SHALL BE POWER LIMITED.
14. ALLOW FOR NEEDS ASSESSMENT SESSIONS WITH THE OWNER AND DETERMINE THE EXACT OWNER REQUIRED MODES OF OPERATION OF EACH DEVICE AND SYSTEM. CONFIGURE EACH CONFIGURE DEVICE AND SYSTEM TO SUIT THE OWNERS' REQUIREMENTS.
15. ALL EQUIPMENT SHALL BE INSTALLED WITH SUFFICIENT CLEARANCE TO MEET ALL APPLICABLE CODES AND FACILITATE OBSERVATION AND TESTING. ALL EQUIPMENT SHALL BE SECURELY FASTENED WITH APPROPRIATE FITTINGS. ENDS OF POSITIVE GROUNDING AND BE FREE OF GROUND LOOPS.
16. PROVIDE AND INSTALL ALL SOFTWARE AND SOFTWARE LICENSES, HOUSINGS, MOUNTING BRACKETS AND ACCESSORIES FOR COMPLETE OPERATION OF ALL SYSTEMS.
17. COORDINATE THE EXACT MOUNT LOCATION OF DEVICES WITH THE ELECTRICAL CONTRACTOR TO ENSURE THAT ALL CONDUITS AND BACK BOXES ARE INSTALLED IN THE OPTIMAL LOCATIONS.
18. WARRANTY

3. INTRUSION DETECTION SYSTEM

- a. PROVIDE ALL INTRUSION DETECTION SYSTEM CONTROL PANELS AND ASSOCIATED EQUIPMENT, POWER SUPPLY, CABLEING, CONNECTORS, ENCLOSURES, AND ALL OTHER HARDWARE AND SOFTWARE TO PROVIDE A FULLY OPERATIONAL SYSTEM.
- b. ALL COMPONENTS SHALL BE GOOD QUALITY COMMERCIAL GRADE CONSISTING OF BUT NOT LIMITED TO THE FOLLOWING DEVICES:
 - c. CONTROLLERS AND ASSOCIATED ENCLISURES, COMMUNICATORS AND ASSOCIATED ENCLOSURES, PERIPHERAL DEVICES, SENSORS AND ACCESSORIES, KEYPADS, POWER SUPPLIES.
- d. SYSTEM FUNCTION REQUIREMENTS
 - REGULATE AND MONITOR ACCESS AT SYSTEM CONTROLLED DOORS.
 - MONITOR CONNECTED DETECTORS (SUPERVISED AND AUXILIARY INPUTS) WITH THE ABILITY TO MANUALLY OR AUTOMATICALLY ARM AND DISARM THEM.
 - CONTROL EVENT INITIATED DEVICES CONNECTED TO SYSTEM OUTPUTS, SUCH AS ALARMS OR RECORDERS WITH THE ABILITY TO AUTOMATICALLY OR MANUALLY ARM OR DISARM THEM.
 - REPORT AN ALARM CONDITION.
 - DISTRIBUTE AN ANNUNCIATE DETAILED ZONE SPECIFIC AND SYSTEM TROUBLE ALARM CONDITIONS VIA TIE INTERNET, PLAIN OLD TELEPHONE SERVICE (POTS), GSM/GPRS AND EMAIL NOTIFICATION TO REMOTE ALARM MONITORING STATIONS.



REVISIONS

[illegible]

STAMP:

PROJECT CONTACT

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TEL: 416-487-8151 x1285

EMAIL: joshua.blizzard@smithondandersen.com

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SECURITY SPECIFICATION SUBMITTED FOR THIS PROJECT.

NORTH:



CONSULTANT:



Smith + Andersen

1100 - 100 Sheppard Ave. East, Toronto On, M2N 6N5
416 487 8151 f 416 487 9104 smithandandersen.com

PROJECT:

Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

SHEET TITLE:

SECURITY DRAWING SPECIFICATIONS

PROJECT NUMBER:

25274.001.ESS.001

SCALE:

AS SHOWN

DRAWN BY:

CV

CHECKED BY:

JB

SHEET NUMBER:

TESS-0.3






































NAME: JOSHUA BLIZZARD
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Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

1ST FLOOR SECURITY LAYOUT

SHEET NUMBER:
TESS-1.1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ISOLATION TRANSFORMER - DELTA-WYE UNLESS OTHERWISE NOTED.		GROUND FAULT ALARM RELAY
	ISOLATION TRANSFORMER WITH ELECTROSTATIC SHIELD - DELTA-WYE UNLESS OTHERWISE NOTED.		IP BASED POWER QUALITY DIGITAL METER PROVIDE 21mm(3/4") CONDUIT TO NEAREST TELECOM ROOM.
	MOLDED CASE CIRCUIT BREAKER, SIZE AS SHOWN		EMERGENCY GENERATOR
	LOW VOLTAGE, DRAW-OUT CIRCUIT BREAKER, TRIP PLUG AND FRAME SIZE AS SHOWN		GROUND CONNECTION POINT
	DRAW-OUT VACUUM CIRCUIT BREAKER, PROTECTIVE RELAY FUNCTIONS AND FRAME SIZE AS SHOWN		ELECTRONIC TRIP SETTING CONTROL (GROUND FAULT)
	FUSIBLE LOAD BREAK ISOLATION SWITCH, VOLTAGE, FUSE AND FRAME SIZE AS SHOWN.		GROUND LOOP
	FUSE		HIGH RESISTANCE GROUND FAULT SYSTEM
	INSULATED CASE CIRCUIT BREAKER		LIGHTNING SURGE ARRESTOR
	INTEGRAL BREAKER AND STARTER UNIT, BREAKER AND FRAME SIZE AS SHOWN		LOAD BANK
	INTEGRAL SWITCH AND FUSE UNIT, FUSE AND FRAME SIZE AS SHOWN		ELECTRONIC TRIP SETTING CONTROL (LONG, SHORT)
	LOAD BREAK ISOLATION SWITCH, VOLTAGE AND FRAME SIZE AS SHOWN.		ELECTRONIC TRIP SETTING CONTROL (LONG, SHORT, INSTANTANEOUS)
	AUTOMATIC TRANSFER SWITCH WITH BY-PASS		ELECTRONIC TRIP SETTING CONTROL (LONG, SHORT, INSTANTANEOUS, GROUND FAULT)
	AUTOMATIC TRANSFER SWITCH WITHOUT BY-PASS		METERING SOCKET
	FIRE PUMP AUTOMATIC TRANSFER SWITCH AND STARTER UNIT (BY OTHERS)		METERING CABINET
	MANUAL TRANSFER SWITCH OR DOUBLE THROW SWITCH		DIGITAL ELECTRONIC METER
	AMMETER		SURGE PROTECTION DEVICE
	AUTO-TRANSFORMER		
	BATTERY		
	CONTACTOR		
	CURRENT TRANSFORMER		
	CURRENT TRANSFORMER (Z.S. - DENOTES ZERO SEQUENCE)		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

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TE-0.1

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












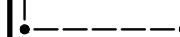











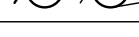
8
TE-0.1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		WALL MOUNTED COMBINATION COMMS / QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, REFER TO DETAIL
	WALL MOUNTED ABOVE COUNTER DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		FLOOR OR CEILING MOUNTED (AS SHOWN) COMBINATION COMMUNICATION / QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, REFER TO CORRESPONDING DETAIL
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R (T-SLOT)		FLOOR POKE THROUGH COMBINATION COMMUNICATION / QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, REFER TO CORRESPONDING DETAIL
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, DEDICATED CIRCUIT		FLOOR POKE THROUGH AS ABOVE WITH AUDIOVISUAL REQUIREMENT, REFER TO DETAIL
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R, DEDICATED CIRCUIT		WALL MOUNTED COMBINATION COMMS / DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, REFER TO DETAIL
	WALL MOUNTED, SPLIT SWITCH CONTROLLED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		FLOOR OR CEILING MOUNTED (AS SHOWN) COMBINATION COMMUNICATION / DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, REFER TO CORRESPONDING DETAIL
	WALL MOUNTED ABOVE COUNTER DUPLEX GROUND FAULT RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		FLOOR POKE THROUGH COMBINATION COMMUNICATION / DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, REFER TO CORRESPONDING DETAIL
	WALL MOUNTED DUPLEX GROUND FAULT RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R		FLOOR POKE THROUGH COMBINATION COMMUNICATION / DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, REFER TO CORRESPONDING DETAIL
	WALL MOUNTED ABOVE COUNTER DUPLEX GROUND FAULT RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R		FLOOR POKE THROUGH AS ABOVE WITH AUDIOVISUAL REQUIREMENT, REFER TO DETAIL
	WALL MOUNTED QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		SYSTEMS FURNITURE FEED POINT FOR POWER & COMMS, CABLING, LETTER DENOTES FEED LOCATION: W= WALL, F= FLOOR, P= PAC POLE, WM = WIREMOLD
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, 2 POLE, SPLIT CIRCUIT		CEILING MOUNTED DUPLEX RECEPTACLE 250 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED ABOVE COUNTER DUPLEX RECEPTACLE 120 VOLT, 15 AMP, 2 POLE, SPLIT CIRCUIT		CEILING MOUNTED SIMPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 15 AMP, 30 CSA 15-15R		CEILING MOUNTED QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED SIMPLEX RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R		FLOOR MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 30 AMP, CSA 14-30R		FLOOR MOUNTED QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED SIMPLEX RECEPTACLE 120 VOLT, 30 AMP, CSA 5-30R		RACEWAY RECEPTACLE, TYPE AS SPECIFIED CW QUANTITY OF DEVICES INDICATED
	WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 50 AMP, CSA 14-50R		SERVICE POLE, TYPE AS SPECIFIED CW QUANTITY OF DEVICES INDICATED

NOTE: NOT ALL SYMBOLS APPLY. REFER TO FLOOR PLANS AND DRAWINGS

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5 POWER LEGEND 1 OF 2
TE-0.1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLUSH MOUNTED SINGLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		CONTACTOR
	FLUSH MOUNTED DOUBLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		GROUND ROD WITH INSPECTION PIT
	SURFACE MOUNTED SINGLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		THERMOSTAT-16mm (1/2") CONDUIT TO ACCESSIBLE CEILING SPACE
	SURFACE MOUNTED DOUBLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		JUNCTION BOX (SIZE SPECIFIED ON DRAWING)
	TRANSFORMER (SIZE NOTED ON SINGLE LINE DIAGRAM)		ELECTRIC UNIT HEATER
	DISCONNECT		ELECTRIC BASEBOARD HEATER. "X" DENOTES TYPE. REFER TO BASEBOARD HEATER SCHEDULE.
	COMBINATION MANUAL STARTER WITH INTEGRAL DISCONNECT		GROUND BAR
	COMBINATION STARTER WITH INTEGRAL DISCONNECT		HAND DRYER HARD WIRED CONNECTION
	DIRECT CONNECTION		METER
	DIRECT CONNECTION CAV DISCONNECT		RELAY
	MOTOR AND DISCONNECT		PULL BOX
	MOTOR AND RELAY DISCONNECT DISCONNECT		GROUND BUS
	MOTOR AND COMBINATION STARTER WITH INTEGRAL DISCONNECT		DENOTES RECEPTACLE TYPE. REFER TO RECEPTACLE SCHEDULE.
	STARTER WITH FREQUENCY DRIVE AND VFD CABLE CONNECTION TO MOTOR. LINE AND LOAD SIDE WIRING OF HARMONIC FILTER AND VFD BY ELECTRICAL CONTRACTOR. MOTOR, VFD AND HARMONIC FILTER SUPPLIED BY MECHANICAL DIVISION.		UTILITY METERING CABINET
	STARTER WITH FREQUENCY DRIVE. LINE AND LOAD SIDE WIRING OF HARMONIC FILTER AND VFD BY ELECTRICAL CONTRACTOR. LOAD SIDE WIRING OF VFD TO BE VFD CABLE, VFD AND HARMONIC FILTER SUPPLIED BY MECHANICAL DIVISION.		DOOR BELL/CHIME
			CLOCK WALL MOUNTED
	HARMONIC FILTER (SUPPLIED BY MECH. CONTRACTOR UNLESS NOTED. OTHERWISE, LINE AND LOAD SIDE WIRING OF HARMONIC FILTER BY ELECTRICAL CONTRACTOR.		CLOCK CEILING MOUNTED
			PUSH BUTTON
			MOTOR

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




















6 POWER LEGEND 2 OF 2
TE-0.1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING MOUNTED LINEAR LUMINAIRE. DIMENSIONS AS SHOWN. REFER TO SCHEDULE FOR TYPE.		CEILING MOUNTED WALL WASHER LUMINAIRE. ILLUMINATION DIRECTION DENOTED BY HATCHED SIDE.
	DENOTES FIXTURE ON EMERGENCY/NIGHT LIGHT CIRCUIT.		CEILING MOUNTED TRACK LIGHTING C/W NUMBER OF FIXTURES.
	WALL MOUNTED LINEAR LUMINAIRE. DIMENSIONS AS SHOWN. REFER TO SCHEDULE FOR TYPE.		WALL MOUNTED LUMINAIRE
	CEILING MTD. LUMINAIRE OR BASKET LUMINAIRE. LAMP ORIENTATION AS SHOWN. REFER TO SCHEDULE FOR TYPE.		PENDANT FIXTURE
	EXISTING LUMINAIRE TO BE REMOVED		CEILING MOUNTED LUMINAIRE
	EXISTING LUMINAIRE TO REMAIN		FLOOR MOUNTED LUMINAIRE
	POLE MOUNTED LUMINAIRE. NUMBER OF HEADS SHOWN. REFER TO SCHEDULE FOR FIXTURE AND POLE TYPE.		TRACK LIGHT WITH PENDANT LUMINAIRE AS INDICATED
	CEILING MOUNTED LUMINAIRE WITH GIMBALED HEADS. REFER TO SCHEDULE FOR TYPE AND NUMBER OF HEADS.		BOLLARD LUMINAIRE
	VERTICAL WALL MOUNTED FLUORESCENT LUMINAIRE		
	CONTINUOUS STRIP LIGHT. REFER TO SCHEDULE FOR FIXTURE TYPE.		
	STAGGERED COVE LIGHT. DIMENSIONS AND NUMBER OF FIXTURES SHOWN. REFER TO SCHEDULE FOR FIXTURE TYPE.		
	RECESSED CEILING MOUNTED REMOTE ADJUSTABLE LUMINAIRE CONNECTED TO EMERGENCY LIGHTING BATTERY UNIT.		EMERGENCY LIGHTING BATTERY UNIT C/W NUMBER OF HEADS SHOWN
	WALL MOUNTED EMERGENCY SINGLE REMOTE HEAD		EMERGENCY LIGHTING BATTERY UNIT
	WALL MOUNTED EMERGENCY DOUBLE REMOTE HEAD		EMERGENCY LIGHTING BATTERY + EXIT LIGHT COMBINATION UNIT C/W NUMBER OF HEADS SHOWN
	CEILING MOUNTED EMERGENCY SINGLE REMOTE HEAD		EXIT LIGHT CEILING MOUNTED C/W FACES AND ARROWS AS INDICATED
	CEILING MOUNTED EMERGENCY DOUBLE REMOTE HEAD		EXIT LIGHT WALL MOUNTED C/W FACES AND ARROWS AS INDICATED

NOTE: NOT ALL SYMBOLS APPLY. REFER TO FLOOR PLANS AND DRAWINGS

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

3
TE-0.1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SINGLE POLE LINE VOLTAGE LIGHT SWITCH		
	2 GANG - LINE VOLTAGE LIGHT SWITCH		
	3 GANG - LINE VOLTAGE LIGHT SWITCH		
	3 WAY - LINE VOLTAGE LIGHT SWITCH		
	4 WAY - LINE VOLTAGE LIGHT SWITCH		
	LOW VOLTAGE LIGHT SWITCH		
	KEY OPERATED LINE VOLTAGE SWITCH		
	MASTER SWITCH		
	ALL-OFF SWITCH		
	SINGLE POLE 347V SWITCH		
	DIMMER TYPE TO SUIT LOAD		
	CEILING MOUNTED PHOTO CELL SWITCH		
	WALL MOUNTED PHOTO CELL SWITCH		
	DAY LIGHT PHOTO SENSOR		
	TIME SWITCH		
	CEILING MOUNTED OCCUPANCY SENSOR. TYPE DENOTED BY 'X'. REFER TO OCCUPANCY SENSOR SCHEDULE.		
	WALL MOUNTED OCCUPANCY SENSOR. TYPE DENOTED BY 'X'. REFER TO OCCUPANCY SENSOR SCHEDULE.		
	LIGHTING CONTROL MODULE		
	MULTI-ZONE LIGHTING CONTROL PANEL		
	REMOTE STATION WITH PRESET SCENE SELECTION BUTTON		
	PARTITION POSITION INFRARED SENSOR FOR LIGHTING CONTROL		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

4 LIGHTING LEGEND 2 OF 2
TE-0.1

ELECTRICAL DRAWING LIST	
Drawing No.	DRAWING NAME
TE-0-1	DRAWING LIST AND ELECTRICAL LEGENDS
TE-0-2	ELECTRICAL LEGENDS AND DETAILS
TE-0-3	ELECTRICAL DETAILS
TE-0-4	ELECTRICAL DETAILS
TE-1-1	1ST FLOOR LIGHTING AND FIRE ALARM LAYOUT
TE-1-2	1ST FLOOR POWER AND SYSTEMS LAYOUT
TE-1-3	1ST FLOOR LIGHTING AND FIRE ALARM DEMOLITION LAYOUT
TE-1-4	1ST FLOOR POWER AND SYSTEMS DEMOLITION LAYOUT
TE-2-1	2ND FLOOR LIGHTING AND FIRE ALARM LAYOUT
TE-2-2	2ND FLOOR POWER AND SYSTEMS LAYOUT
TE-2-3	2ND FLOOR LIGHTING AND FIRE ALARM DEMOLITION LAYOUT
TE-2-4	2ND FLOOR POWER AND SYSTEMS DEMOLITION LAYOUT
CLOSEOUT DOCUMENT CHECKLIST	
ELECTRICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING DOCUMENTS <u>FIVE (5) DAYS PRIOR TO OCCUPANCY</u> :	
<ul style="list-style-type: none"> • ESA INSPECTION (NOTING ALL NEW DEVICE TYPES AND QUANTITIES TESTED) • EMERGENCY LIGHTING LETTER (LETTER SHALL STATE EMERGENCY LIGHTING HAS BEEN INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS AND LATEST EDITION OF THE ONTARIO BUILDING CODE) • CHAIN HUNG LIGHTING LETTER (WRITTEN CONFIRMATION ALL NEW AND RELOCATED CEILING LIGHTING FIXTURES HAVE BEEN SUPPORTED FROM THE STRUCTURE INDEPENDENT FROM SUSPENDED CEILING) 	

PANEL TYPE: ←

SWGR-MAIN SWITCHGEAR

SWBD-SWITCHBOARD

DP-347/600V DISTRIBUTION PANELBOARD

PP-120/208V DISTRIBUTION PANELBOARD

RP-120/208V RECEPTACLE LIGHTING PANELBOARD

LP-LIGHTING PANELBOARD (120V OR 347V, AS INDICATED)

SP-SPLITTER

LV-LV LOW VOLTAGE RELAY PANEL

TX-TRANSFORMER

DR-BXA 11/1

- LIGHTING SWITCH/RELAY
- NUMBER
- CIRCUIT NUMBER
- PANEL LETTER
- "BLANK" NORMAL POWER
- X-LIFE SAFETY EMERG
- E-NON-LIFE SAFETY EMERG.
- U-UPS
- FLOOR LOCATION:
- B-BASEMENT
- G-GROUND FLOOR
- 2-SECOND FLOOR
- :
- PH-PENTHOUSE

LAST
CHARACTERS
ONLY
SHOWN
ON
FLOOR
PLANS
FOR
CIRCUITING

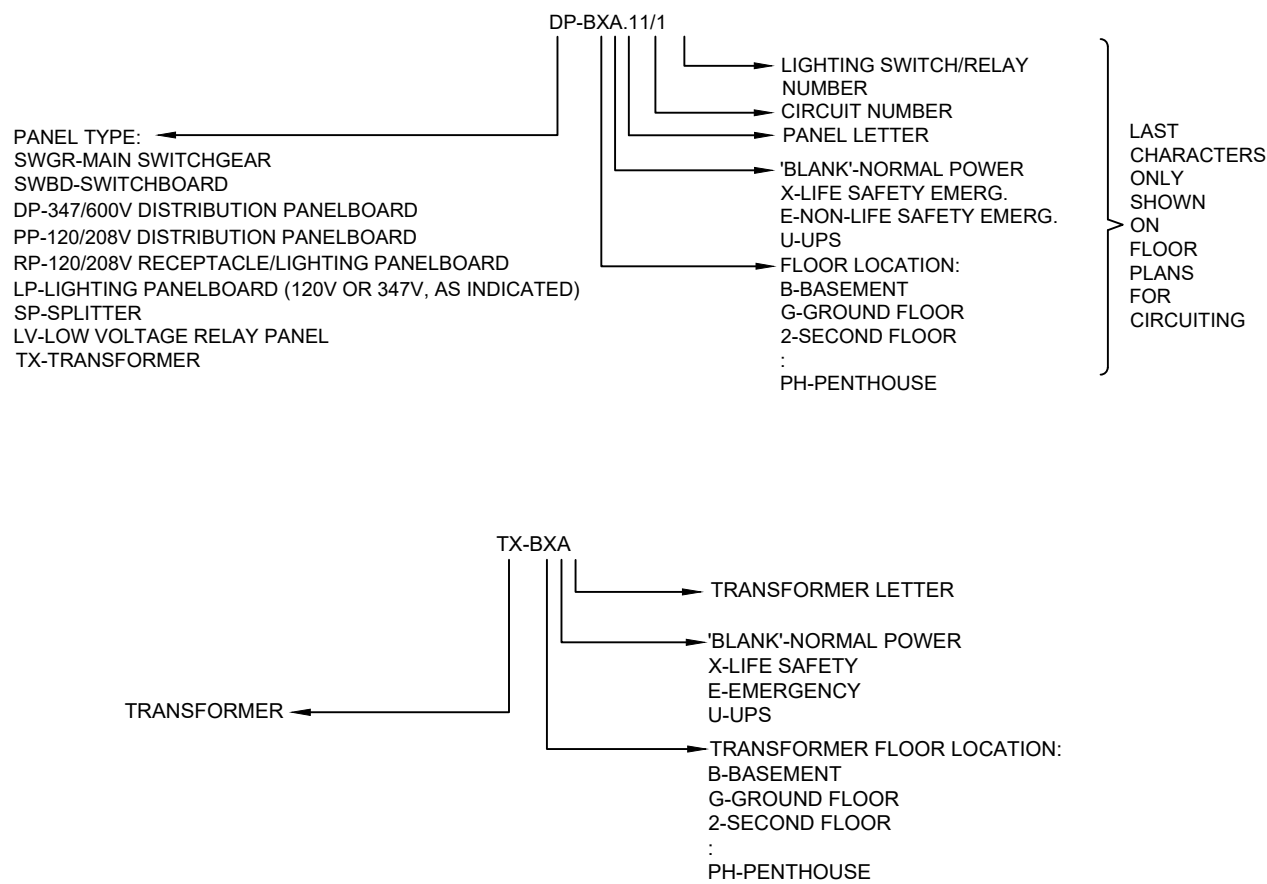
← TRANSFORMER

TX-BXA

- TRANSFORMER LETTER
- "BLANK" NORMAL POWER
- X-LIFE SAFETY
- E-EMERGENCY
- U-UPS
- TRANSFORMER FLOOR LOCATION:
- B-BASEMENT
- G-GROUND FLOOR
- 2-SECOND FLOOR
- PH-PENTHOUSE

ELECTRICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING DOCUMENTS FIVE (5) DAYS PRIOR TO OCCUPANCY:

- **ESA INSPECTION**
(NOTING ALL NEW DEVICE TYPES AND QUANTITIES TESTED)
- **EMERGENCY LIGHTING LETTER**
LETTER SHALL STATE EMERGENCY LIGHTING HAS BEEN INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS AND LATEST EDITION OF THE ONTARIO BUILDING CODE.
- **CHAN HUNG LIGHTING LETTER**
WRITTEN CONFIRMATION ALL NEW AND RELOCATED CEILING LIGHTING FIXTURES HAVE BEEN SUPPORTED FROM THE STRUCTURE (INDEPENDENT FROM SUSPENDED CEILING)



1
TE-0.1

DRAWING LIST, CLOSEOUT DOCUMENT, AND DESIGNATION DIAGRAM

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DETAIL NUMBER		SECTION NUMBER
	DRAWING NUMBER		DRAWING NUMBER
A	AMPS	MO	REVISION BUBBLE
AD	ACCESS DOOR	MOD	MOTOR OPERATED
AFCI	ARC FAULT CIRCUIT INTERRUPTER	MW	MOTOR OPERATED DAMPER
AFF	ABOVE FINISHED FLOOR	N	MICROWAVE
BBH	BASEBOARD HEATER	NC	NEW
BU	BATTERY UNIT	N	NORMALLY CLOSED
C	CONDUIT	NIC	NOT IN CONTRACT
CD	CANDELA	NL	NIGHT LIGHT
CL	CEILING MOUNTED	OC	NORMALLY OPEN
CS	CHARGING STATION	OL	OVER COUNTER
CV	CONVENTIONAL STYLE DEVICE	P	OBSTRUCTION LIGHT
D	DEDICATED	P	PARABOLIC LOUVE
DG	DEDICATED GROUND	PL	PATIENT LIFT
DHWT	DOMESTIC HOT WATER TANK	R	RELOCATE
DNC	DEDICATED NEUTRAL + BOND	RA	RANGE
DR	LAUNDRY DRYER	RC	REVISE EXISTING CIRCUIT
DW	DISHWASHER	RH	RANGE HOOD
E	EXISTING	RIC	ROUGH IN AND CONNECT
EF	EXHAUST FAN	RO	ROUGH IN ONLY
EM	EMERGENCY CIRCUIT	RR	REMOVE AND REINSTALL
EP	ELECTRICAL SUITE PANEL	SC	SEPARATE CIRCUIT
ER	EXISTING TO BE REMOVED	SF	SYSTEM FURNITURE
FF	FLOOR FEED	SP	SUITE ALARM PANEL
FFH	FORCE FLOW HEATER	SS	FLAVE SUITE ALARM PANEL
FL	FLOOR MOUNTED	TP	TYPICAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	U	UNDER CABINET MOUNTED
GFI	GROUND FAULT INTERRUPTER	UH	UPS CIRCUIT
GND	GROUND	U	UNIT HEATER
HK	HOUSE KEEPING	UPS	UNINTERRUPTIBLE POWER SUPPLY
HMT	HARMONIC MITIGATING TRANSFORMER	V	VOLTS
ICE	ICE MACHINE	W	WATTS
IG	ISOLATED GROUND	WG	WIRE GUARD
JB	JUNCTION BOX	WAP	WIRELESS ACCESS POINT
KW	KILOWATTS	WF	WALL FEED
LV	LOW VOLTAGE	WP	WEATHERPROOF
		X	EXPLOSION PROOF DEVICE + BACK BOX
		ZSCT	ZERO SEQUENCE CURRENT TRANSFORMER

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

2 GENERAL AND SYMBOLS AND ABBREVIATIONS
TE-0.1

+V G ARCHITECTS
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[illegible]

STAMP:



PROJECT CONTACT

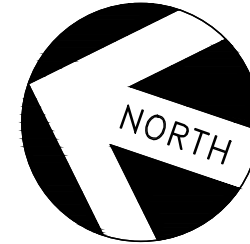
NAME: Wun Yan Chow

TEL: 437 225 6526

EMAIL: Wunyan.Chow@smithandandersen.com

THIS DRAWING SHALL BE READ IN CONJUNCTION
WITH ELECTRICAL SPECIFICATION SUBMITTED FOR
THIS PROJECT.

NORTH:



CONSULTANT:



Smith + Andersen

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PROJECT:

Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

SHEET TITLE:

DRAWING LIST AND LEGENDS

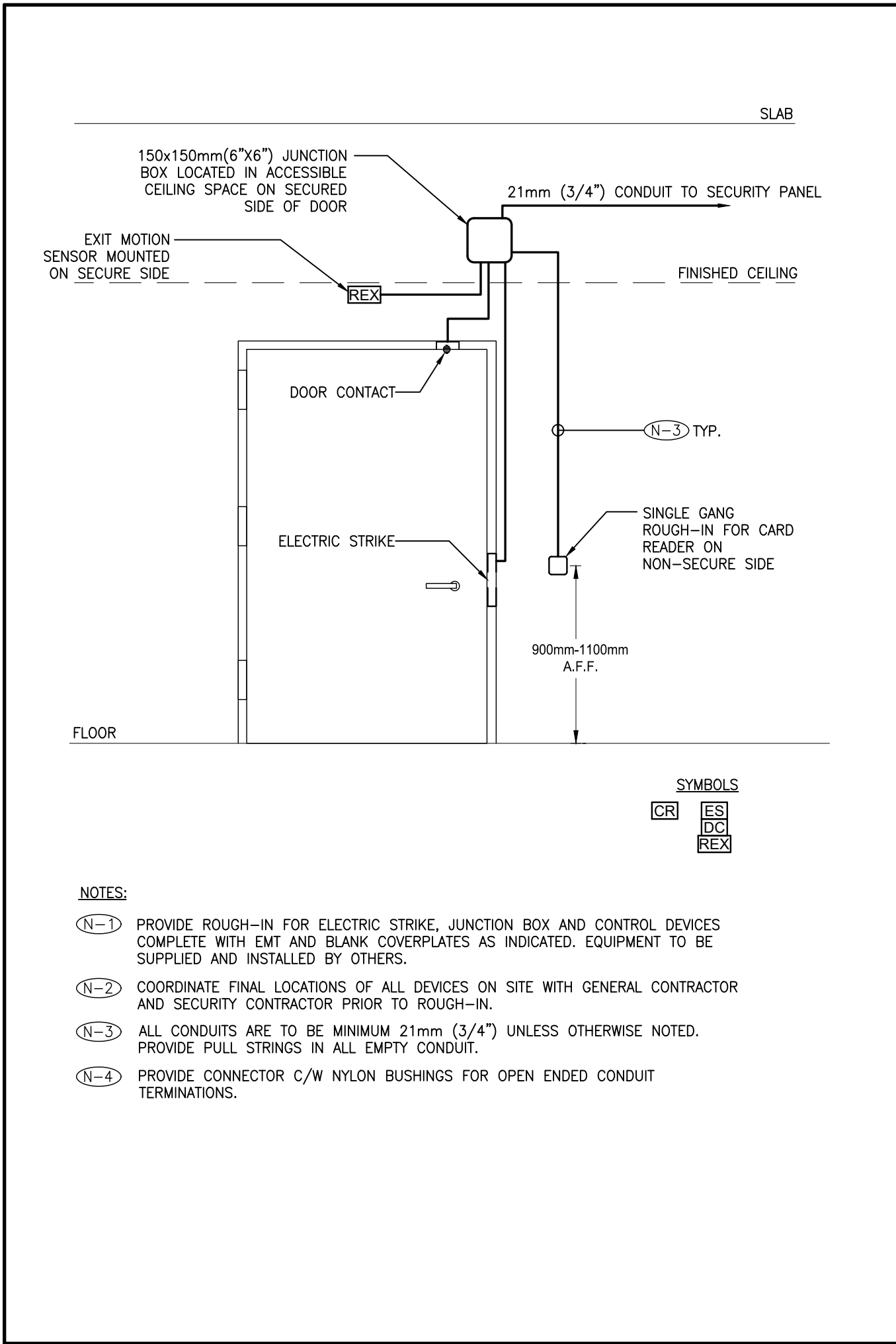
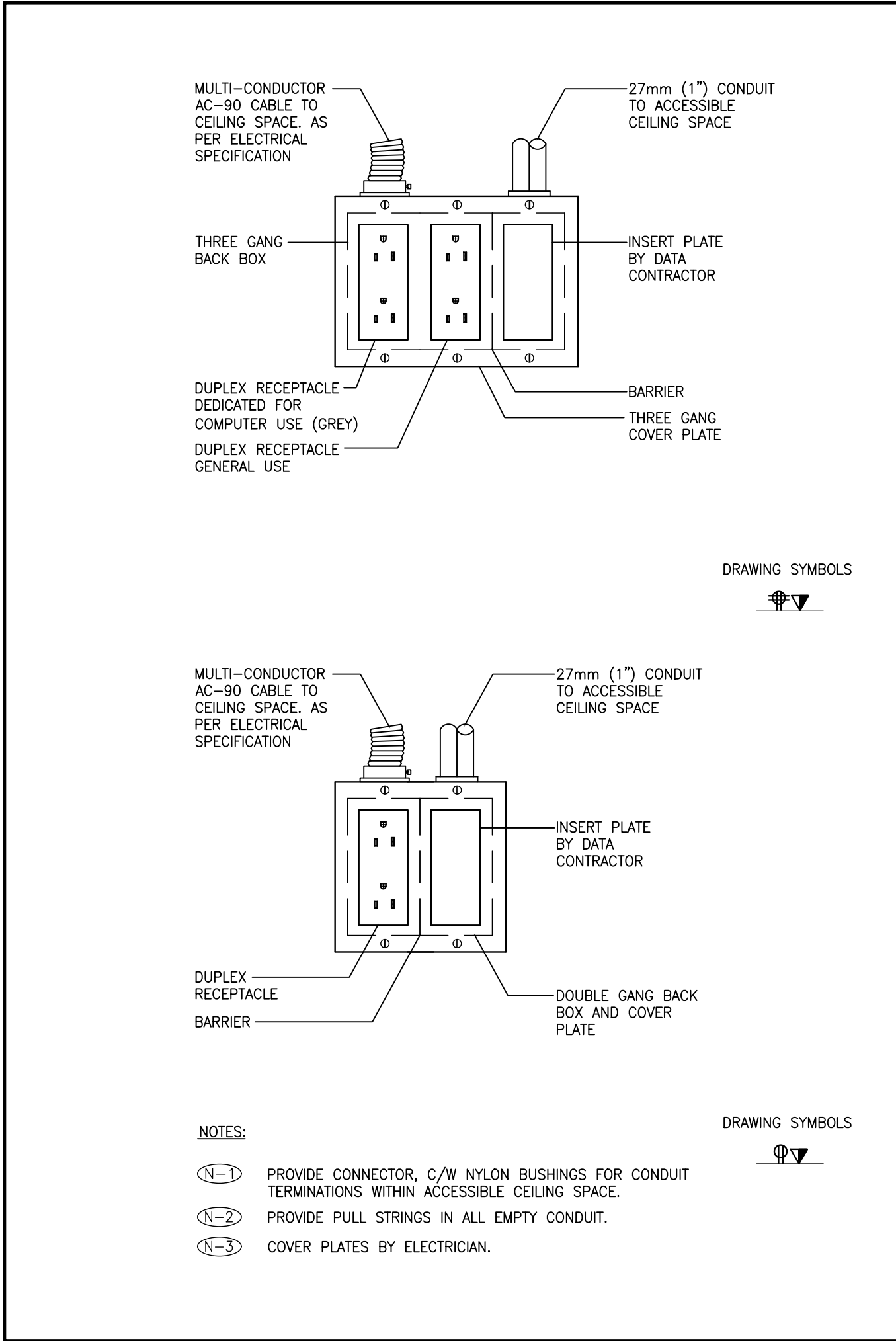
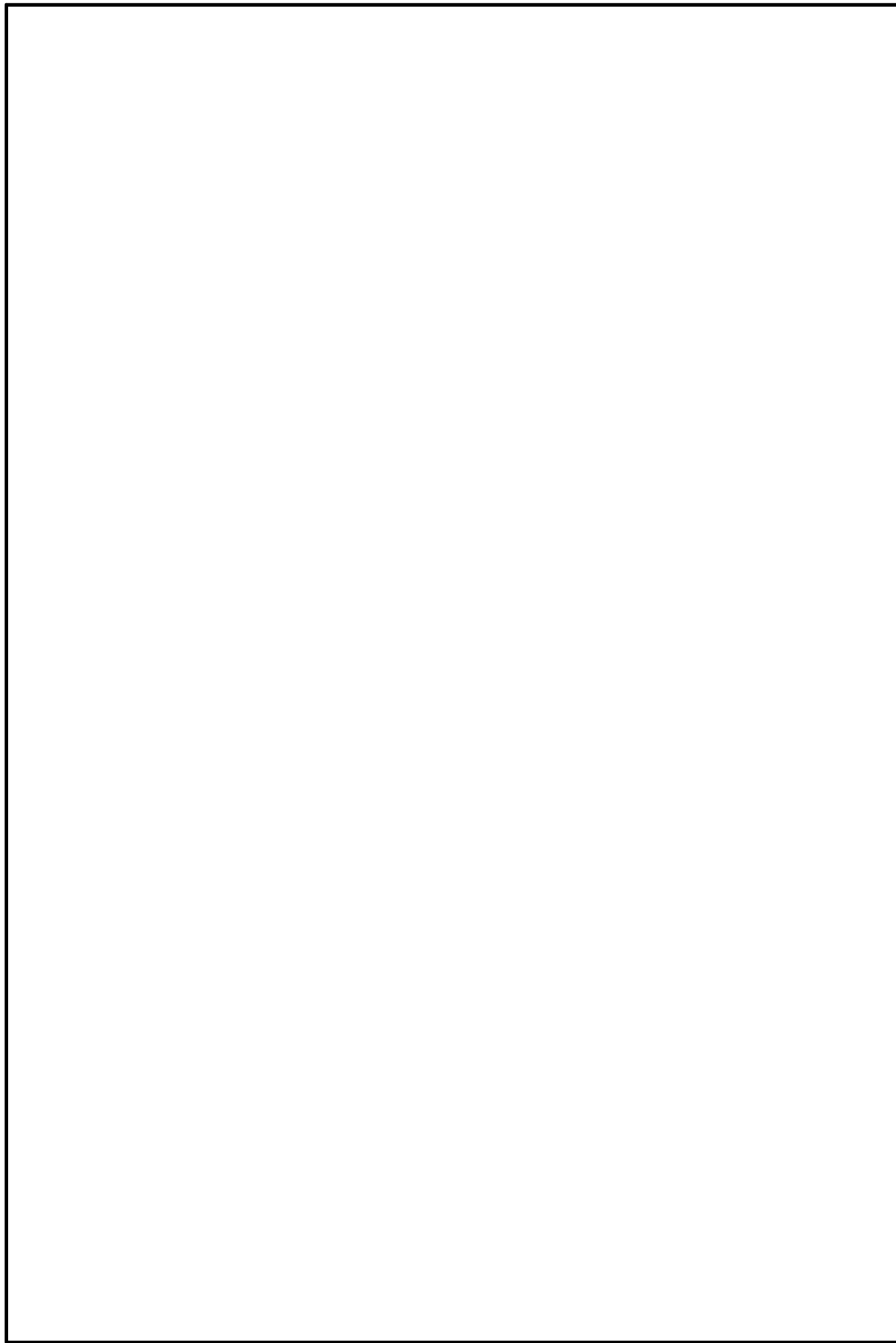
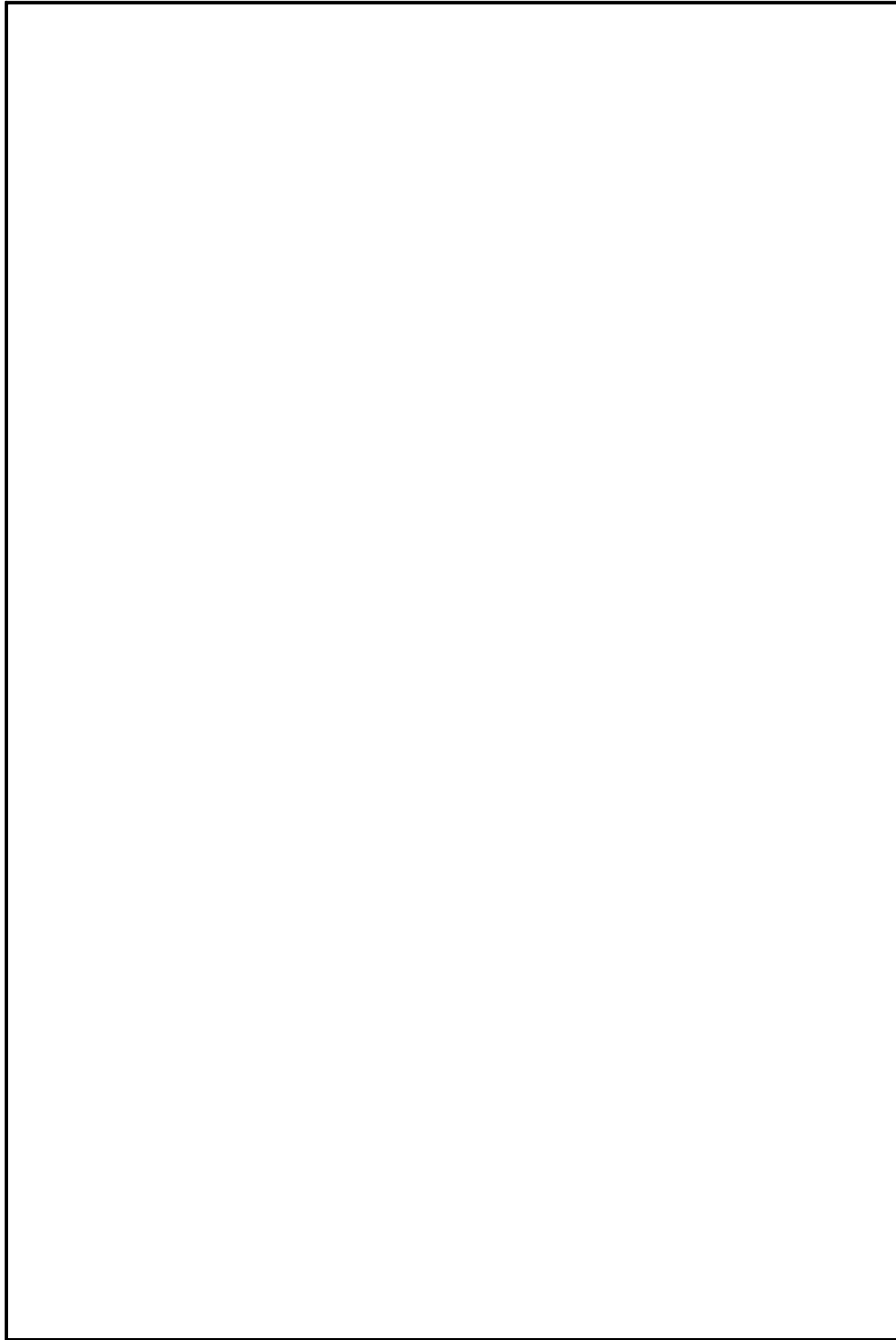
PROJECT NUMBER:
25274.001.E.001

SCALE: NTS

DRAWN BY: WYC
































CHECKED BY: NC

SHEET NUMBER: **TE-0.1**



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ALARM INITIATING DEVICES			
	CEILING MOUNTED PHOTO-ELECTRIC SMOKE DETECTOR		AIR SAMPLING SYSTEM C/W SUPERVISORY AND ALARM ZONE
	WALL MOUNTED PHOTO-ELECTRIC SMOKE DETECTOR		MANUAL PULL STATION
	CEILING MOUNTED PHOTO-ELECTRIC SMOKE DETECTOR C/W RELAY BASE		ALARM FLOW SWITCH (SUPPLIED BY OTHERS)
	CEILING MOUNTED RATE-OF-RISE HEAT DETECTOR		ALARM PRESSURE SWITCH (SUPPLIED BY OTHERS)
	WALL MOUNTED RATE-OF-RISE HEAT DETECTOR		ALARM CHECK VALVE (SUPPLIED BY OTHERS)
	CEILING MOUNTED FIXED TEMPERATURE HEAT DETECTOR		ALARM DRY PIPE VALVE (SUPPLIED BY OTHERS)
	WALL MOUNTED FIXED TEMPERATURE HEAT DETECTOR		BEAM SMOKE DETECTOR (TRANSMITTER)
	DUCT TYPE PHOTO-ELECTRIC SMOKE DETECTOR		BEAM SMOKE DETECTOR (RECEIVER)
	CEILING MOUNTED COMBINATION HEAT + SMOKE DETECTOR		FLAME DETECTOR
	LOCAL 120V SMOKE ALARM		
	LOCAL 120V COMBINATION CARBON MONOXIDE AND SMOKE ALARM		
	LOCAL 120V CARBON MONOXIDE DETECTOR		
	LOCAL 120V COMBINATION STROBE AND SMOKE ALARM		
SUPERVISORY INITIATING DEVICES			
	LOW PRESSURE SUPERVISED SWITCH (SUPPLIED BY OTHERS)		
	SPRINKLER SUPERVISED VALVE (SUPPLIED BY OTHERS)		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
SIGNALING DEVICES			
	HORN		CEILING MOUNTED EMERGENCY EVACUATION SPEAKER
	DOUBLE SIDED HORN		WALL MOUNTED EMERGENCY EVACUATION SPEAKER
	HORN+STROBE COMBINATION. STROBE INTENSITY TO BE MIN. 15CD UNLESS OTHERWISE NOTED.		CEILING MOUNTED EMERGENCY EVACUATION SPEAKER + STROBE COMBINATION. STROBE INTENSITY TO BE MIN. 15CD UNLESS OTHERWISE NOTED.
	DOUBLE SIDED HORN+STROBE COMBINATION. STROBE INTENSITY TO BE MIN. 15CD UNLESS OTHERWISE NOTED.		
	MINI HORN		WALL MOUNTED EMERGENCY EVACUATION SPEAKER + STROBE COMBINATION. STROBE INTENSITY TO BE MIN. 15CD UNLESS OTHERWISE NOTED.
	SPEAKER HORN		
	FIRE ALARM BELL. 103mm(4") UNLESS OTHERWISE NOTED.		CEILING MOUNTED FIRE ALARM STROBE. STROBE INTENSITY TO BE MIN. 15CD UNLESS OTHERWISE NOTED.
	FIRE ALARM BELL+STROBE. 103mm(4") BELL UNLESS OTHERWISE NOTED. 15CD INTENSITY UNLESS OTHERWISE NOTED.		WALL MOUNTED FIRE ALARM STROBE. STROBE INTENSITY TO BE MIN. 15CD UNLESS OTHERWISE NOTED.
	10 MINUTES SILENCE SWITCH FOR SPEAKERS IN SUITES		
ANCILLARY DEVICES			
	ISOLATION MODULE		TROUBLE AND ALARM CONNECTION TO PRE-ACTION CONTROL PANEL
	FIELD INSTALLED ADDRESSABLE CONTROL POINT		FLOOR MOUNTED DOOR HOLD OPEN DEVICE
	"FIRE, DO NOT ENTER" SIGN		WALL MOUNTED DOOR HOLD OPEN DEVICE
	FIRE ALARM PASSIVE GRAPHIC		FIRE ALARM PANEL CONTROL, DGP OR ANNUNCIATOR AS NOTED.
	VIDEO DISPLAY TERMINAL FOR BUILDING OPERATIONS PERSONNEL		END-OF-LINE RESISTOR TERMINATION
	SUPERVISED FIRE FIGHTERS HAND SET		SMOKE DAMPER, USED IN CONJUNCTION WITH MONITORING DEVICE FOR POSITION ANNUNCIATION AND CONTROL DEVICE
	FIRE ALARM SHUT DOWN		
	FIRE ALARM START UP		
	REMOTE TESTING STATION FOR DUCT SMOKE DETECTORS		
	FIELD INSTALLED MONITORING MODULE FOR ALARM OR SUPERVISORY		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

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STAMP:



PROJECT CONTACT

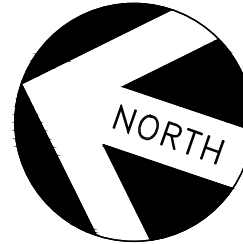
NAME: Wun Yan Chow

TEL: 437 225 6526

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THIS PROJECT.

NORTH:



CONSULTANT:



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PROJECT:

Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

SHEET TITLE:

ELECTRICAL LEGENDS AND DETAILS

PROJECT NUMBER:

25274.001.E.001

SCALE:

NTS

DRAWN BY:

WYC

CHECKED BY:

NC

SHEET NUMBER:

TE-0.2

5 BATTERY UNIT SCHEDULE
TE-0.3



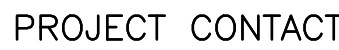
6 LIGHTING CONTROL SCHEDULE

4
TE-0.3

3
TE-0.3

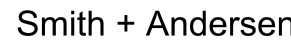
2 PANEL SCHEDULE

STAMP:



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NORTH:



PROJECT:

Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

SHEET TITLE:

ELECTRICAL DETAILS

PROJECT NUMBER:
25274.001.E.001

SCALE:

NTS

DRAWN BY:

WYC

CHECKED BY

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SHEET NUMBER:

TE-0.3



REVISIONS

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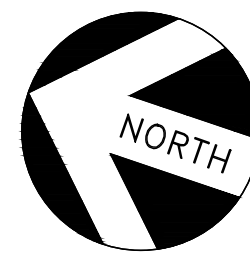


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PROJECT:

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984 Gorham Street
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SHEET TITLE:

ELECTRICAL DETAILS

PROJECT NUMBER:

25274.001.E.001

SCALE:

NTS

DRAWN BY:





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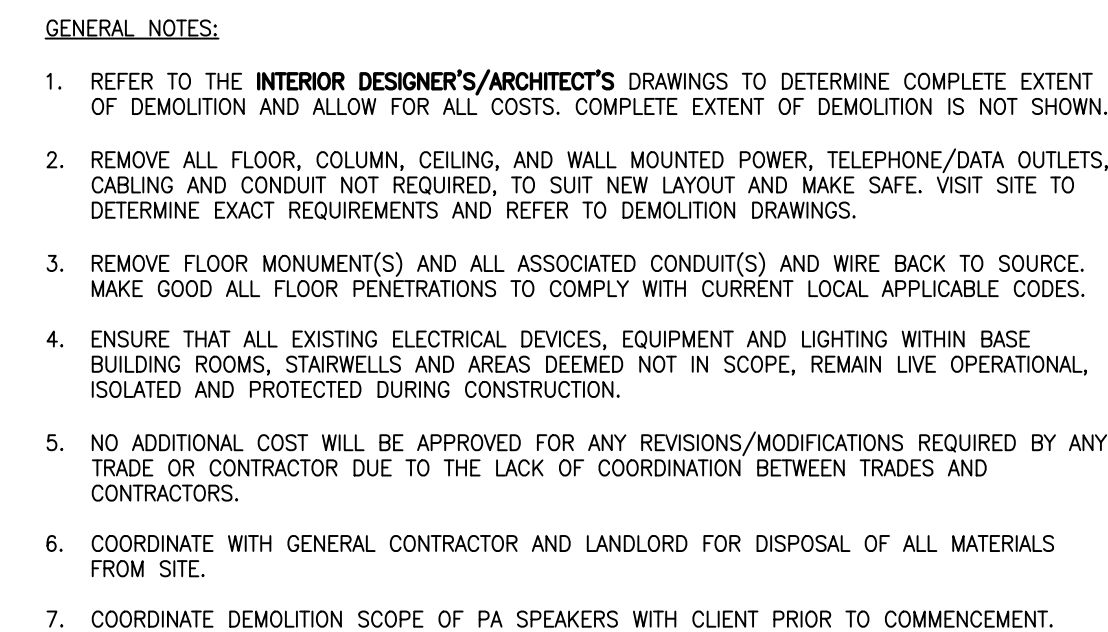
SHEET NUMBER:

TE-0.4

Section 26 06 05.16 - LUMINAIRE SCHEDULE				LED Luminaire Schedule
Project Name: CENTRAL YORK FIREHALL				
Project number: 25274.001.E.001				
TYPE	VOLT.	LAMP(S)	DESCRIPTION	MANUFACTURER/CATALOGUE NUMBER
LED: AMBIENT / GENERAL PURPOSE LIGHTING				
L1	120V	40.2W 4550LM 3500K	2X4 LED EDGE LIT RECESSED MOUNTED PANEL.	COOPER METALUX 24FPSL2SCT3
L2	120V	40.2W 4550LM	2X4 LED EDGE LIT SURFACE MOUNTED PANEL.	COOPER METALUX 24FPSL2SCT3 C/W ACCESSORIES FOR SURFACE MOUNTING
L3	120V	27W 4550LM 3500K	1X4 LED EDGE LIT RECESSED MOUNTED PANEL.	COOPER METALUX 14FPSL1SCT3
L4	120V	27W 3050LM 3500K	1X4 LED EDGE LIT SURFACE MOUNTED PANEL.	COOPER METALUX 14FPSL1SCT3 C/W ACCESSORIES FOR SURFACE MOUNTING
L5-2FT	120V	11W 785LM 3000K	UNDERCABINET LIGHT WITH LENGTH AS INDICATED ON DRAWING	COOPER HU11 HU1124D9SP
L5-3FT	120V	15.5W 1125LM 3000K	UNDERCABINET LIGHT WITH LENGTH AS INDICATED ON DRAWING	COOPER HU11 HU1136D9SP
L6	120V	9.9W 985LM 3500K	6" DIA LED DOWNLIGHT	COOPER HALO HLBPH609FS6
L7	120V	21.6W 2420LM 3500K	2X2 LED EDGE LIT RECESSED MOUNTED PANEL.	COOPER HALO 22FPSL2SCT3
L8	120V	35W 4581LM 3500K	WALL MOUNTED LED STRIP LIGHT	COOPER METALUX 4SNLED-LD5-46SL-LN-UNV-L835-CD1-U
EMERGENCY LIGHTING				
R1 	24VDC	6W LED-MR16	NEW WALL/ CEILING MOUNTED 2X 6W MR16 LED 24V EMERGENCY DOUBLE REMOTE HEAD	Lumacell - MT/MQ/MQM Series MQM-2-LD14 Stanpro or Emergi-lite approved equal
X1 	24VDC	2.5W LED	NEW UNIVERSAL MOUNTED ALL METAL PICTOGRAM (RUNNING MAN) LED EXIT SIGN. C/W 120V CONSTANT POWER SUPPLY REFER TO DESIGNER DRAWINGS FOR MOUNTING HEIGHT.	Lumacell LS Series LS-1/2/3-W-U Stanpro or Emergi-lite approved equal
X2 	24VDC		NEW COMBO LED EXIT SIGN C/W REMOTE HEADS.	Lumacell LAC Series LAC-X-W-1250-2-LD10 Stanpro or Emergi-lite approved equal
BU-XX 	24 VDC	6W LED-MR16	NEW EMERGENCY BATTERY UNIT (120V INPUT) C/W CONSTANT POWER SUPPLY, CONNECTED TO NIGHT LIGHT CIRCUIT AS-NOTED. MINIMUM 2 HOUR RUNTIME. REFER TO DESIGNER DRAWINGS FOR MOUNTING HEIGHT.	Lumacell -RGS Series RG24S-432-2-LD14-TMBD Stanpro or Emergi-lite approved equal Refer to battery unit schedule for battery
NOTES:				
1. All luminaires need to be consistent on technology and must match reference standard description regardless of catalogue number. Where finishes are not indicated, allow for special finish. Manufacturer/Catalogue number not listed will not be considered.				
2. The Electrical Contractor is responsible for the supply and installation of all fixed per unit cost luminaires as part of the base electrical contract. The Electrical Contractor is responsible for the installation of all cash allowance luminaires as part of the base electrical contract. Refer to specification 16505 or 26 51 13.00 for more details.				
3. LEDs are to be latest technology to proved maximum lumens, binned, best colour and longest life at time of purchase. Drivers are to be the latest technology at time of purchase.				
4. LED luminaire dimensions listed are the maximum size allowed. Luminaires provided can be smaller than the dimension listed.				
5. All luminaire diameters and depths listed are the maximum size allowed. Luminaires provided can be smaller than the dimension listed.				
6. All LED luminaires that present signs of failure on site, within the warranty period, must be replaced at no cost to the owner. If temporary luminaires are required to replace any failed LED luminaires, during the waiting time for parts (i.e. drivers, boards, heat sinks, etc.), the labour cost including installation, temporary luminaire supply, temporary luminaire removal and reinstallation of the LED fixture must be provided at no cost of the owner. Additional electrical costs, associated with higher wattage temporary luminaires, must be reimbursed with interest to the owner by the manufacturer.				
7. In case of failure of an LED luminaire, whether complete failure or partial failure, a independent third party testing Laboratory (approved by Smith + Andersen) shall be commissioned by the manufacturer or vendor to perform tests on samples taken from the failed luminaires installed on corresponding site. All reporting including the test results must be submitted to Smith + Andersen for evaluation and final approval.				
8. Any additional time (related to luminaire manufacturing issues) spent by Smith + Andersen will be billed at our hourly rates to the manufacturer or vendor.				
9. All LED parts and accessories must be replaceable on site without removal of the luminaire.				

10. Equivalents will only be considered at Smith + Andersen discretion prior to tender close. Sample must be supplied with plug and cord for mock-up.				
11. When a mock-up is requested, the full order of luminaires are on hold until approval and verification of the mock-up findings.				
12. Poles and bases are to be designed to accommodate wind conditions to avoid damage due to wind-induced vibrations. Shop Drawings are to be signed by a structural engineer registered in the local jurisdiction.				
13. Alternates are acceptable for all luminaires under the Ambient / General Purpose Lighting and Landscape / Exterior - General Purpose sections.				
14. Alternates are not acceptable for all luminaires under the Specialty / Decorative / High Performance or Landscape / Exterior - Specialty / Decorative / High Performance sections.				
15. Be responsible for providing the required quantity of LED drivers to suit the luminaire layout shown on the Drawings.				
16. Where continuous LED linear luminaires cross from interior to exterior spaces, provide separate drivers for the interior and exterior portions of the continuous run.				

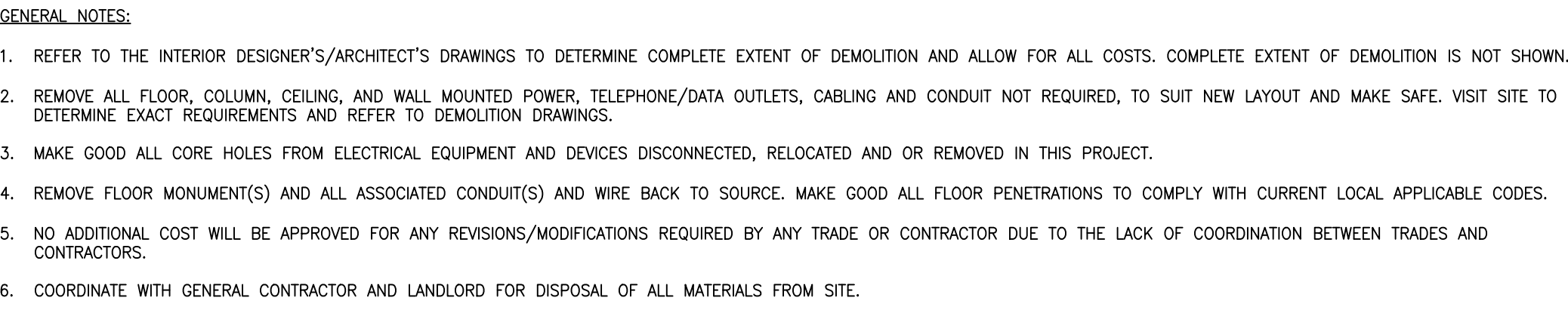
TE-1.2

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THIS DRAWING SHALL BE READ IN CONJUNCTION
WITH ELECTRICAL SPECIFICATION SUBMITTED FOR
THIS PROJECT.

1100 - 100 Sheppard Ave. East, Toronto On, M2N 6N5
416 487 8151 f 416 487 9104 smithandandersen.com


SHEET NUMBER: **TE-1.3**

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PROJECT CONTACT	
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THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ELECTRICAL SPECIFICATION SUBMITTED FOR THIS PROJECT.

CONSULTANT:



Smith + Andersen

1100 – 100 Sheppard Ave. East, Toronto On, M2N 6N5
416 487 8151 f 416 487 9104 smithandandersen.com

PROJECT:
Central York Firehall 4-1 Interior Renovation
984 Gorham Street
Newmarket, Ontario

SHEET TITLE:
1ST FLOOR POWER AND
SYSTEMS DEMOLITION
LAYOUT

PROJECT NUMBER:
25274.001.E.001

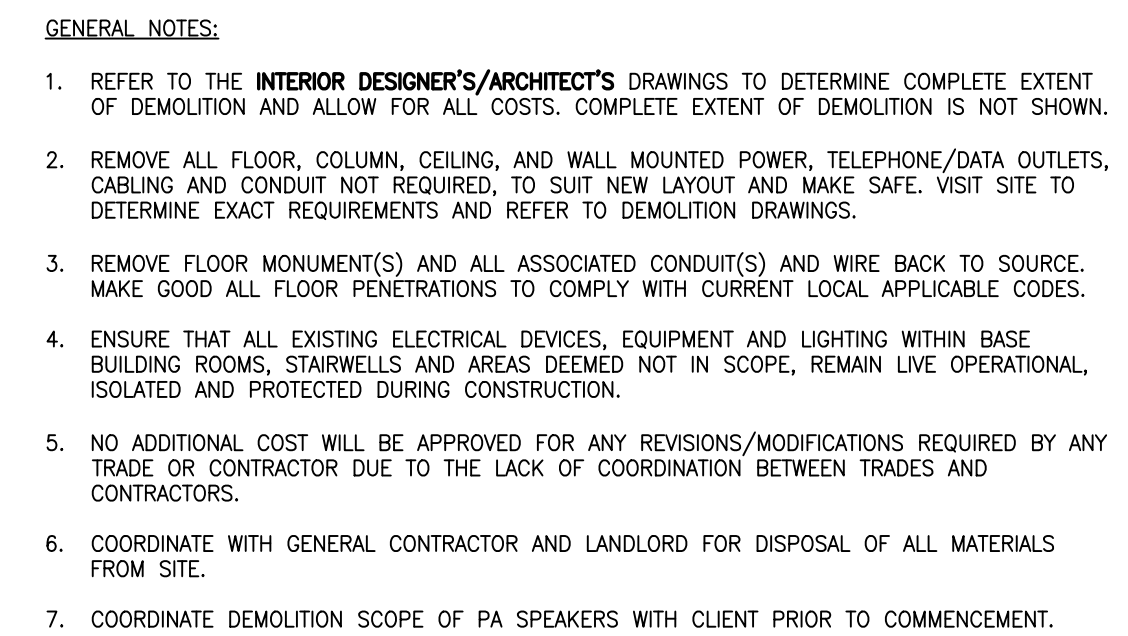
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DRAWN BY: WYC

CHECKED BY: NC

SHEET NUMBER: **TE-1.4**

TE-2.2

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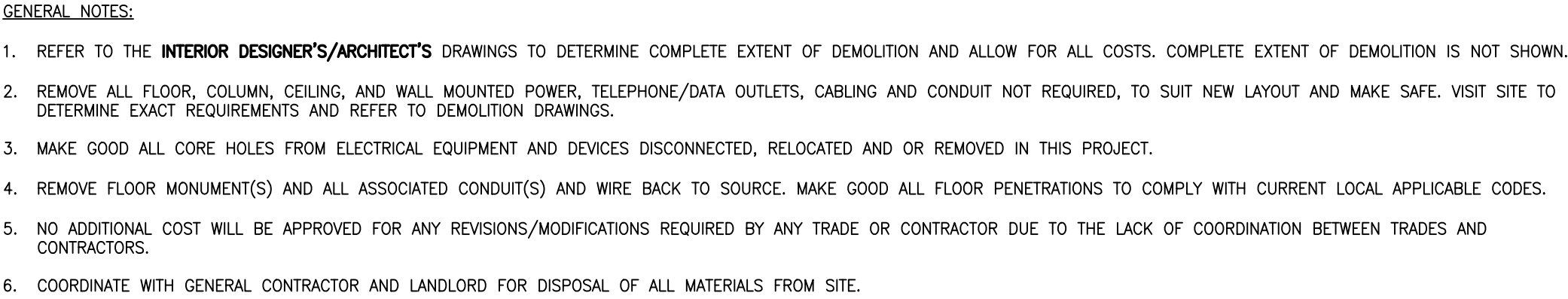
THIS DRAWING SHALL BE READ IN CONJUNCTION
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416 487 8151 f 416 487 9104 smithandandersen.com

Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

2ND FLOOR LIGHTING AND FIRE ALARM DEMOLITION LAYOUT

TE-2.3

[illegible]

SHEET NUMBER: **TE-2.4**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DETAIL NUMBER		SECTION NUMBER
	DRAWING NUMBER		REVISION BUBBLE
	ELBOWS		PIPING SERVICE CONTINUES
	TEE		REFER TO STANDARD DETAIL DRAWINGS FOR ADDITIONAL REQUIREMENTS OF EQUIPMENT NOTED
	BRANCH OFF BOTTOM OF MAIN		AIR QUANTITY C.F.M. (L/s)
	BRANCH OFF TOP OF MAIN		NAMING OF EXISTING EQUIPMENT DENOTES EXISTING EQUIPMENT DESIGNATION FLOOR NUMBER SEQUENTIAL NUMBER
	DIRECTION OF FLOW		

NOTE: EXISTING EQUIPMENT, PIPING, VALVES, DUCTWORK SHOWN LIGHT TO REMAIN			
	EXISTING DUCT, FLEX. DUCT AND AIR SUPPLY TO REMAIN	EX	EXISTING CONCEALED SPRINKLER HEAD & PIPING TO REMAIN
	EXISTING ELECTRIC/PNEUMATIC THERMOSTAT/TEMPERATURE SENSOR AND SPEED CONTROL SWITCH TO REMAIN	EX	EXISTING PENDANT SPRINKLER HEAD & PIPING TO REMAIN
	EXISTING UPRIGHT SPRINKLER HEAD & PIPING TO REMAIN	EX	EXISTING SIDEWALL OR WINDOW SPRINKLER HEAD & PIPING TO REMAIN
NOTE: EXISTING EQUIPMENT SHOWN HATCHED TO BE REMOVED AND/OR RELOCATED.			
	EXISTING DUCT, FLEX. DUCT AND AIR SUPPLY TO BE REMOVED	EX	EXISTING CONCEALED SPRINKLER HEAD TO BE REMOVED/RELOCATED
	EXISTING ELECTRIC/PNEUMATIC THERMOSTAT/TEMPERATURE SENSOR AND SPEED CONTROL SWITCH TO BE REMOVED/RELOCATED	EX	EXISTING PENDANT SPRINKLER HEAD TO BE REMOVED/RELOCATED
	EXISTING SIDEWALL OR WINDOW SPRINKLER HEAD TO BE REMOVED/RELOCATED	EX	EXISTING UPRIGHT SPRINKLER HEAD TO BE REMOVED/RELOCATED
NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS			

7 GENERAL SYMBOLS AND ABBREVIATIONS (MSD-012.13)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ISOLATION VALVE (REFER TO SPECIFICATION FOR SPECIFIC TYPE AS REQUIRED)		PIPE GUIDE (REFER TO SPECIFICATIONS)
	GLOBE VALVE		PIPE SLEEVE
	BALL VALVE		ANCHOR
	LOCKSHIELD VALVE		STRAINER
	FLOW BALANCING VALVE		UNION
	PRESSURE INDEPENDENT FLOW BALANCING VALVE		FLANGE FITTING
	PLUG VALVE		ECCENTRIC FITTING
	NATURAL GAS PRESSURE REDUCING VALVE ASSEMBLY		CONCENTRIC FITTING
	CHECK VALVE		PRESSURE GAUGE
	SOLENOID VALVE		THERMOMETER
	SAFETY RELIEF VALVE		PRESSURE GAUGE COCK ASSEMBLY
	FLOW METERING STATION		THERMOMETER WELL
	BACKFLOW PREVENTOR		EXPANSION JOINT
	ANGLE VALVE		MANUAL AIR VENT
	BUTTERFLY VALVE		AUTOMATIC AIR VENT
	2-WAY BUTTERFLY VALVE		AIR SEPARATOR
	TEMPERED MIXING VALVE		SIGHT GLASS
	FLEXIBLE JOINT		PUMP
	VACUUM BREAKER		DOMESTIC WATER PRV STATION
	WATER HAMMER ARRESTOR		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

8 VALVES AND APPURTENANCES (MSD-012.06)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FIRE DAMPER		SMOKE DAMPER
	MOTOR OPERATED DAMPER		POSITIVE SEAL DAMPER
	MANUAL DAMPER		GRAVITY OR BACKDRAFT DAMPER
	BALANCING DAMPER		REMOTE OPERATED BALANCING DAMPER
	COMBINATION SMOKE AND FIRE DAMPER		VOLUME EXTRACTOR
VAV, FVAV, AND AFS TAGS			
V.A.V. BOX TYPE		V.A.V. BOX TYPE	
MIN. PRIMARY FLOW FAN POWERED V.A.V. BOX TYPE		MAX. PRIMARY FLOW (L/s) SECONDARY FLOW (L/s) REHEAT COIL CAPACITY (KW)	
MIN. FLOW (L/s) HEATING/COOLING RHC		MAX. FLOW (L/s) HEATING/COOLING REHEAT COIL CAPACITY (KW)	
IMPERIAL: CFM [INS.] METRIC: L/s [mm]			
	V.A.V. BOX (VARIABLE AIR VOLUME)		V.A.V. BOX WITH ATTENUATOR
	V.A.V. BOX WITH REHEAT COIL		INDUCTION V.A.V. BOX
	V.A.V. BOX WITH REHEAT COIL AND ATTENUATOR		PRESSURE INDEPENDENT AIR VALVE (LAB)
	TERMINAL UNIT (SEE NOTE 2)		

HEATING ELEMENT TAG	
A 1200W 1944	HEATING CAPACITY ACTIVE ELEMENT LENGTH ENCLOSURE TYPE
	HORIZONTAL UNIT HEATER
	DOWN BLAST UNIT HEATER
	RADIANT HEATING PANEL
	DUCT COIL
	RADIATION HEATING RISER NUMBERS (S=SUPPLY AND R=RETURN)
	WALL FIN ELEMENT IN CONTINUOUS ENCLOSURE

NOTE: 1. - NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS
NOTE: 2. - SYMBOLS ARE DIAGRAMMATIC IN NATURE, REFER TO SPECIFICATION/SCHEDULES FOR EXACT DIMENSIONS/CLEARANCES

5 AIR HANDLING SYMBOLS (MSD-012.09)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY DUCT UP OR FROM ABOVE		ACOUSTICALLY LINED TRANSFER AIR DUCT
	SUPPLY DUCT DOWN OR FROM BELOW		SILENCER
	RETURN OR EXHAUST DUCT UP OR FROM ABOVE		CROSSTALK SILENCER
	RETURN OR EXHAUST DUCT DOWN OR FROM BELOW		DUCT WITH MINIMUM CLEARANCE FIRE RATED ENCLOSURE
	ROUND DUCT UP OR FROM ABOVE		DUCT WITH SLEEVE, INSULATION AND DAMPER
	ROUND DUCT DOWN OR FROM BELOW		CAPPED CONNECTION
	ACOUSTIC LINED DUCT		RISE IN DUCT
	FLEXIBLE CONNECTION		DROP IN DUCT
	SQUARE ELBOW DUCT WITH TURNING VANE		SOUND BAFFLE
	RADIUS ELBOW WITH TURNING VANES		PROPELLER FAN WITH PROTECTIVE SCREEN
	AXIAL FAN/INLINE FAN MIXED FLOW OR CENTRIFUGAL		

DIFFUSER GRILLE OR REGISTER TYPE		NECK OR FACE SIZE (MM)	
IMPERIAL: CFM [INS.] METRIC: L/s [mm]		AIR FLOW (L/S)	
IMPERIAL: CFM [INS.] METRIC: L/s [mm]		NECK SIZE AND LINEAR DIFFUSER LENGTH (MM)	
	ROUND SUPPLY DIFFUSER		LINEAR SUPPLY AIR DIFFUSER C/W FLEXIBLE DUCT
	DUCTED RETURN OR EXHAUST REGISTER OR GRILLE		LIGHT TROFFER DIFFUSER TOP INLET C/W FLEXIBLE DUCT
	SQUARE OR RECTANGULAR DIFFUSER		LIGHT TROFFER DIFFUSER SIDE INLET C/W FLEXIBLE DUCT
	RETURN OR EXHAUST GRILLE		DUCT MOUNTED SUPPLY OR RETURN GRILLE
	ROUND RETURN OR EXHAUST GRILLE		LINEAR SUPPLY OR RETURN GRILLE
	SQUARE DIFFUSER		
	DIFFUSERS WITH BLANK-OFF PORTION (QTY SHOWN)		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

6 AIR HANDLING SYMBOLS (MSD-012.10)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FIRE LINE		PENDANT/SEMI-RECESSED SPRINKLER HEAD
	WET SPRINKLER LINE		UPRIGHT SPRINKLER HEAD
	DRY SPRINKLER LINE		CONCEALED SPRINKLER HEAD
	WET FIRE LINE		NON-FREEZE SPRINKLER HEAD
	DRY FIRE LINE		HIGH TEMPERATURE SPRINKLER HEAD
	SUPERVISED VALVE		SIDEWALL SPRINKLER HEAD
	FIRE VALVE		WINDOW SPRINKLER HEAD
	FIRE STANDPIPE		
	FLOW SWITCH		
	DELUGE SYSTEM VALVE		
	WET PIPE VALVE		
	DRY SYSTEM VALVE		
	PREACTION SYSTEM VALVE		
	FIRE HYDRANT		
	FIRE GONG		
	FIRE DEPARTMENT CONNECTION		
	FIRE PUMP TEST HEADER		
	FIRE HOSE CABINET AND TYPE		FIRE VALVE CABINET AND TYPE
	SPRINKLER SHUT-OFF VALVE CABINET AND TYPE		
	FIRE EXTINGUISHER AND TYPE		
	FIRE EXTINGUISHER CABINET AND TYPE		FIRE HOSE-LESS CABINET

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

3 FIRE PROTECTION (MSD-012.07)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	HEATING WATER SUPPLY		FUEL OIL SUPPLY
	HEATING WATER RETURN		FUEL OIL RETURN
	CHILLED WATER SUPPLY		EMERGENCY FUEL OIL VENT
	CHILLED WATER RETURN		FUEL OIL VENT
	GLYCOL SUPPLY		FUEL OIL FILL
	GLYCOL RETURN		PUMPED STEAM CONDENSATE
	GLYCOL HEATING SUPPLY		REFRIGERATION SUCTION
	GLYCOL HEATING RETURN		REFRIGERATION LIQUID
	GLYCOL COOLING SUPPLY		REFRIGERATION HOT GAS
	GLYCOL COOLING RETURN		DUAL TEMPERATURE SUPPLY
	CONDENSER WATER SUPPLY		DUAL TEMPERATURE RETURN
	CONDENSER WATER RETURN		BUCKET TYPE STEAM TRAP
	LOW PRESSURE STEAM		FLOAT AND THERMOSTAT TYPE STEAM TRAP
	MEDIUM PRESSURE STEAM		STEAM VACUUM BREAKER
	LOW PRESSURE CONDENSATE		REFRIGERATION THERMAL EXPANSION VALVE
	MEDIUM PRESSURE CONDENSATE		REFRIGERATION SOLENOID LIQUID VALVE
	HIGH PRESSURE CONDENSATE		REFRIGERATION FILTER DRYER
	PRESSURE INDEPENDENT CONTROL VALVE		6 WAY CONTROL VALVE ELECTRIC
	2 WAY CONTROL VALVE		6 WAY CONTROL VALVE
	3 WAY CONTROL VALVE		CONTROL VALVE (WHERE SYMBOL NOT SHOWN)


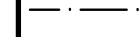

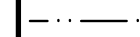

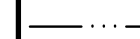




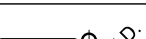

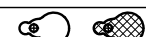
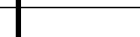
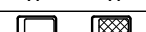
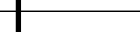
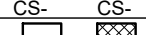

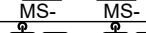
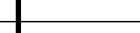
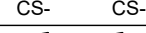
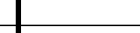






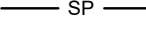

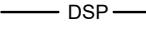

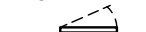

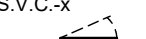



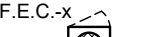

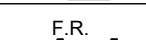
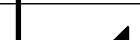
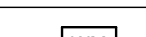
NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

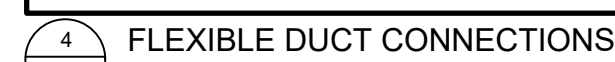
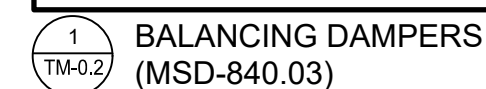
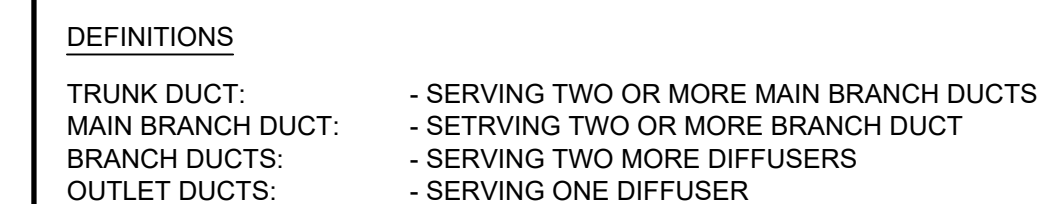
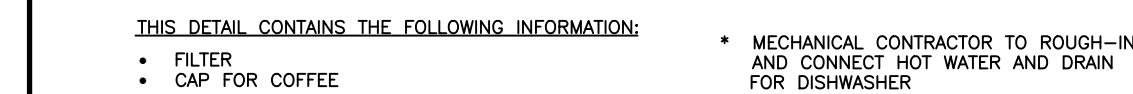
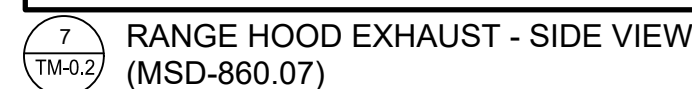
4 MECHANICAL PIPING (MSD-012.08)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FIRE LINE		PENDANT/SEMI-RECESSED SPRINKLER HEAD
	WET SPRINKLER LINE		UPRIGHT SPRINKLER HEAD
	DRY SPRINKLER LINE		CONCEALED SPRINKLER HEAD
	WET FIRE LINE		NON-FREEZE SPRINKLER HEAD
	DRY FIRE LINE		HIGH TEMPERATURE SPRINKLER HEAD
	SUPERVISED VALVE		SIDEWALL SPRINKLER HEAD
	FIRE VALVE		WINDOW SPRINKLER HEAD
	FIRE STANDPIPE		
	FLOW SWITCH		
	DELUGE SYSTEM VALVE		
	WET PIPE VALVE		
	DRY SYSTEM VALVE		
	PREACTION SYSTEM VALVE		
	FIRE HYDRANT		
	FIRE GONG		
	FIRE DEPARTMENT CONNECTION		
	FIRE PUMP TEST HEADER		
	FIRE HOSE CABINET AND TYPE		FIRE VALVE CABINET AND TYPE
	SPRINKLER SHUT-OFF VALVE CABINET AND TYPE		
	FIRE EXTINGUISHER AND TYPE		
	FIRE EXTINGUISHER CABINET AND TYPE		FIRE HOSE-LESS CABINET

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS			
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1 MECHANICAL DRAWING LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLOOR DRAIN SIZE AS NOTED REFER TO SPECIFICATION FOR TYPES		DOMESTIC COLD WATER (DOM. COLD WATER)
	FUNNEL FLOOR DRAIN SIZE AS NOTED REFER TO SPECIFICATION FOR TYPES		DOMESTIC HOT WATER (DOM. HOT WATER)
	UPTURNED CLEANOUT		DOMESTIC HOT WATER RECIRCULATION (DOM. HOT WATER RECIRC.)
	HORIZONTAL CLEANOUT		TEMPERED DOMESTIC HOT WATER
	FLOOR DRAIN FROM ABOVE WITH TRAP		NATURAL GAS
	FUNNEL FLOOR DRAIN FROM ABOVE WITH TRAP		NATURAL GAS VENT
	WATER CLOSET AS NOTED REFER TO SPECIFICATION FOR TYPES		VENT
	SINGLE COMPARTMENT KITCHEN SINK		SANITARY ABOVE GRADE OR FLOOR
	MOP SINK		SANITARY BELOW GRADE OR FLOOR
	DOUBLE COMPARTMENT SINK		GATE OR ISOLATION VALVE (REFER TO SPECIFICATION)
	DRINKING FOUNTAIN		GLOBE VALVE
	URINAL		BALL VALVE
	WALL HUNG LAVATORY		PENDANT SPRINKLER HEAD
	WET SPRINKLER		DRY PENDANT SPRINKLER HEAD
	DRY SPRINKLER		UPRIGHT SPRINKLER HEAD
	FIRE HOSE CABINET AND TYPE		CONCEALED SPRINKLER HEAD
	SPRINKLER SHUT-OFF VALVE CABINET AND TYPE		NON-FREEZE SPRINKLER HEAD
	FIRE EXTINGUISHER AND TYPE		HIGH TEMPERATURE SPRINKLER HEAD
	FIRE EXTINGUISHER CABINET AND TYPE		CHEMICAL SPRINKLER HEAD
	FIRE REEL		SIDEWALL SPRINKLER HEAD
	WATER METER		WINDOW SPRINKLER HEAD
	BACK FLOW PREVENTOR	NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS	

TM-0.2

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THIS PROJECT.

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Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

1ST FLOOR - PLUMBING AND PIPING DEMOLITION LAYOUT

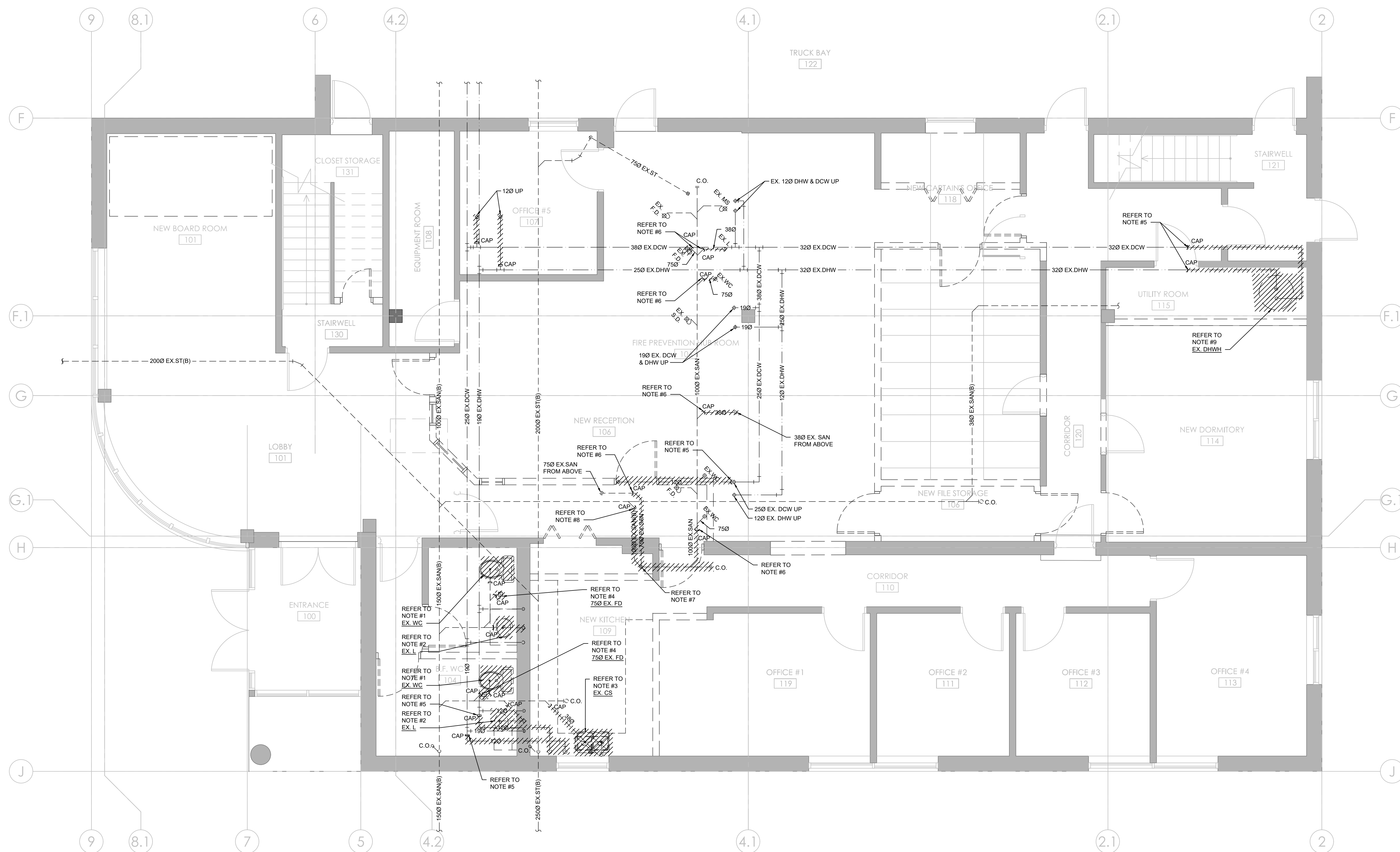
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HW

MG/RC

TM-1.1.2



- DO NOT SCALE DRAWINGS. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR SPECIFIED THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE. DETERMINE THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS BASED ON THE SITE CONDITIONS. REVIEW ALL REVISIONS WITH THE CONSULTANT.
- VERIFY STRUCTURAL INTEGRITY OF ALL TEMPORARY AND PERMANENT OPENINGS. PROVIDE ADDITIONAL FRAMING TO ENSURE STRUCTURAL INTEGRITY AS REQUIRED.
- REFER TO STANDARD DETAILS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.

1. REMOVE EXISTING WATER CLOSET. REMOVE AND CAP ASSOCIATED EXISTING 120 DOMESTIC COLD WATER PIPE. EXISTING 750 SANITARY DRAIN PIPE AS INDICATED. PRICE FOR REMOVAL OF 3M OF EXISTING 500 VENT PIPE.
2. REMOVE EXISTING LAVATORY AND TRIM. REMOVE AND CAP ASSOCIATED EXISTING 120 DOMESTIC HOT AND COLD WATER PIPES. EXISTING 320 SANITARY DRAIN PIPE BELOW SLAB AS INDICATED. PRICE FOR REMOVAL OF 3M OF EXISTING 320 VENT PIPE.
3. REMOVE EXISTING COUNTER SINK AND TRIM. REMOVE AND CAP ASSOCIATED EXISTING 120 DOMESTIC HOT AND COLD WATER PIPES. EXISTING 360 SANITARY DRAIN PIPE BELOW SLAB AS INDICATED. PRICE FOR REMOVAL OF 3M OF EXISTING 320 VENT PIPE.
4. REMOVE EXISTING 750 FLOOR DRAIN COMPLETE WITH EXISTING TRAP AND TRAP PRIMER.
5. REMOVE AND CAP EXISTING DOMESTIC HOT AND COLD WATER PIPES AS INDICATED. SIZE AS SHOWN ON DRAWING.
6. REMOVE AND CAP EXISTING SANITARY DRAIN PIPE WITHIN CEILING SPACE OF THIS FLOOR. SIZE AS SHOWN ON DRAWING.
7. REMOVE EXISTING 1000 SANITARY RISER FROM FLOOR ABOVE AND DOWN TO BELOW SLAB. PRICE FOR REMOVAL OF 5M OF EXISTING 1000 SANITARY RISER.
8. REMOVE AND CAP EXISTING 1000 SANITARY DRAIN PIPE BELOW SLAB AS INDICATED.
9. REMOVE EXISTING FLOOR MOUNTED DOMESTIC HOT WATER HEATER COMPLETE WITH ALL APPURTENANCES. REMOVE AND CAP EXISTING SERVICES AS INDICATED. REFER TO DRAWING T-1.2 FOR CONNECTION.

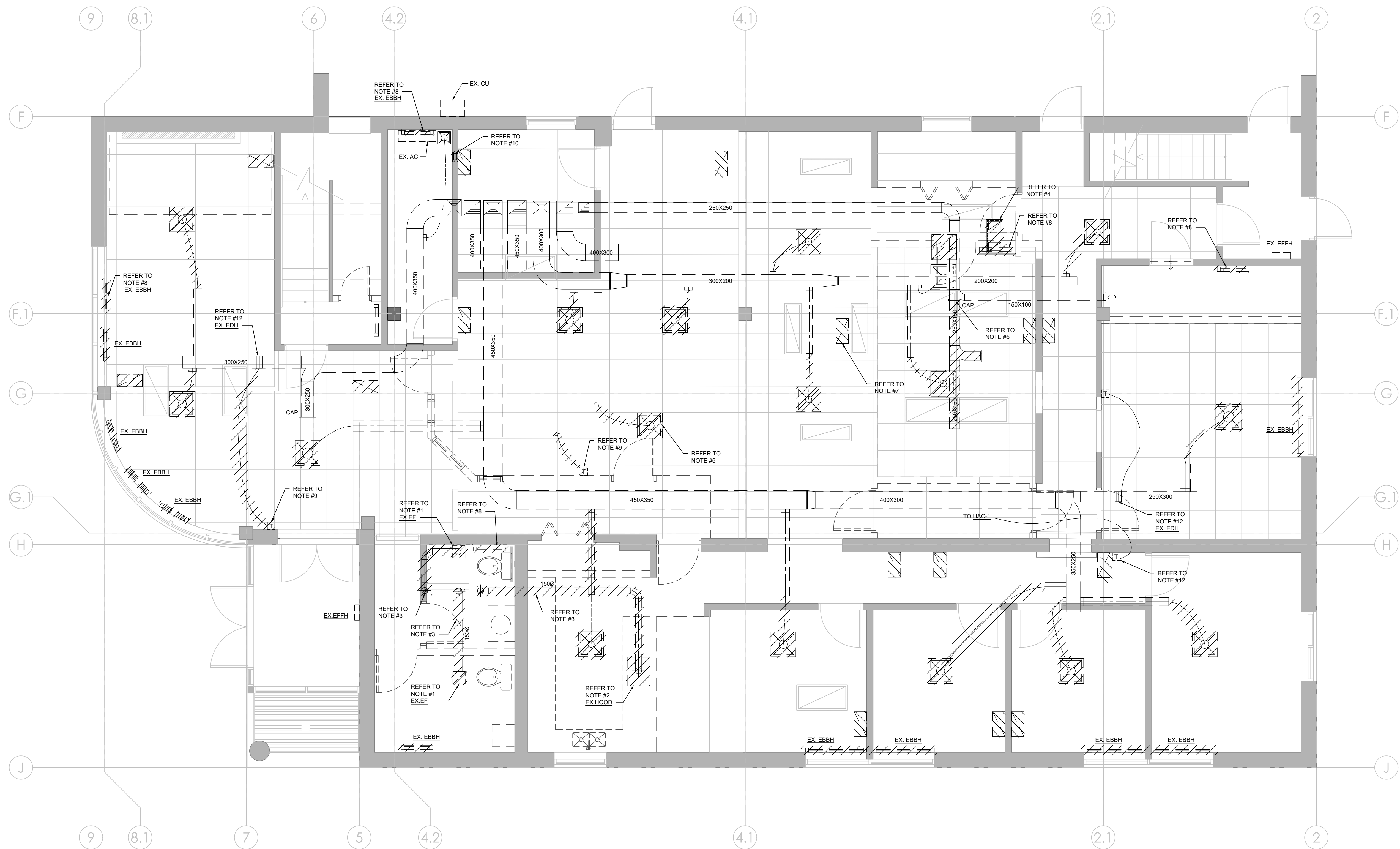
10. PRICE FOR SCANNING/XRAY, TRENCHING AND BACKFILL AS REQUIRED. (TYPICAL)

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TM-1.1.3



1. REMOVE EXISTING EXHAUST FAN COMPLETE WITH EXISTING HANGERS, SUPPORTS, CONTROLS, ETC. ELECTRICAL SERVICE DISCONNECTION BY THE ELECTRICAL DIVISION.
2. REMOVE EXISTING RESIDENTIAL TYPE KITCHEN HOOD COMPLETE WITH ALL HANGERS SUPPORTS, CONTROLS, ETC. ELECTRICAL SERVICE DISCONNECTION BY THE ELECTRICAL DIVISION.
3. REMOVE EXISTING 1500W EXHAUST DUCT UP TO ROOF. PRICE FOR REMOVAL OF 2M OF EXISTING 1500V ELECTRICAL EXHAUST DUCT. COORDINATE WITH GENERAL CONTRACTOR FOR ROOF PATCHING.
4. REMOVE EXISTING 300X300 TRANSFER AIR DUCT COMPLETE WITH HANGERS AND SUPPORTS.
5. REMOVE AND CAP EXISTING 250X150 SANITARY EXHAUST DUCT AS INDICATED. ENSURE EXISTING DUCT TO REMAIN IS SECURE IN PLACE. PROVIDE NEW HANGERS AND SUPPORTS AS REQUIRED.
6. REMOVE AND RELOCATE EXISTING SUPPLY AIR DIFFUSER. REMOVE EXISTING ASSOCIATED 2000 FLEX/RIGID DUCT AS INDICATE. (TYPICAL)
7. REMOVE EXISTING 600X300 RETURN AIR GRILLE. (TYPICAL)
8. REMOVE EXISTING ELECTRIC BASEBOARD HEATER. ELECTRICAL SERVICE DISCONNECTION BY THE ELECTRICAL DIVISION. (TYPICAL)

9. REMOVE AND RELOCATE EXISTING THERMOSTAT. REMOVE EXISTING CONTROL WIRING. PRICE FOR REMOVAL OF 10M OF EXISTING CONTROL WIRING.
10. COORDINATE WITH GENERAL CONTRACTOR TO PATCH EXISTING 200X150 WALL OPENING.
11. PRIOR TO CONSTRUCTION, INSPECT AND VERIFY THE OPERATION OF ALL EXISTING THERMOSTATS, DUCT HEATERS AND ASSOCIATED CONTROLS. PROVIDE A WRITTEN REPORT IDENTIFYING ALL INOPERATIONAL OR DAMAGED DEVICE AND PROVIDE AN ITEMIZED COST ASSOCIATED WITH REPAIR OR REPLACEMENT AS REQUIRED. (TYPICAL)
12. PROVIDE A WRITTEN REPORT IDENTIFYING ALL DAMAGED EXISTING ELECTRICAL BASEBOARD HEATER ENCLOSURE AND PROVIDE AN ITEMIZED COST ASSOCIATED WITH REPAIR OR REPLACEMENT AS REQUIRED. (TYPICAL)

TM-2.1.2

TM-2.1.3

TM-1.2


TM-2.2

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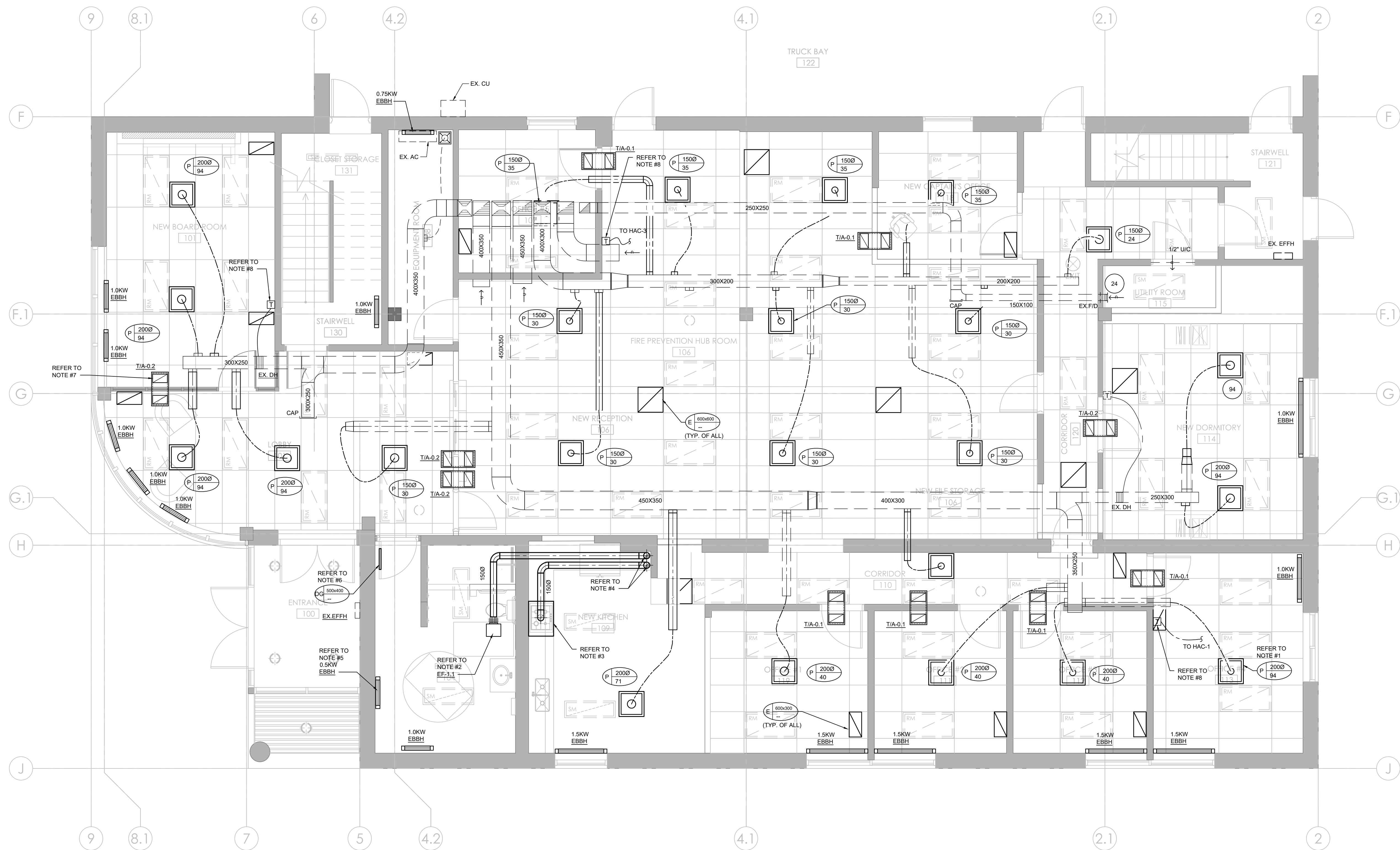


Smith + Andersen

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1ST FLOOR - H.V.A.C.
LAYOUT

SHEET NUMBER:
TM-1.3



10. INSTALL THERMOSTATS AT NOMINALLY 1200MM A.F.F. ABOVE THE FINISHED FLOOR UNLESS INDICATED OTHERWISE.

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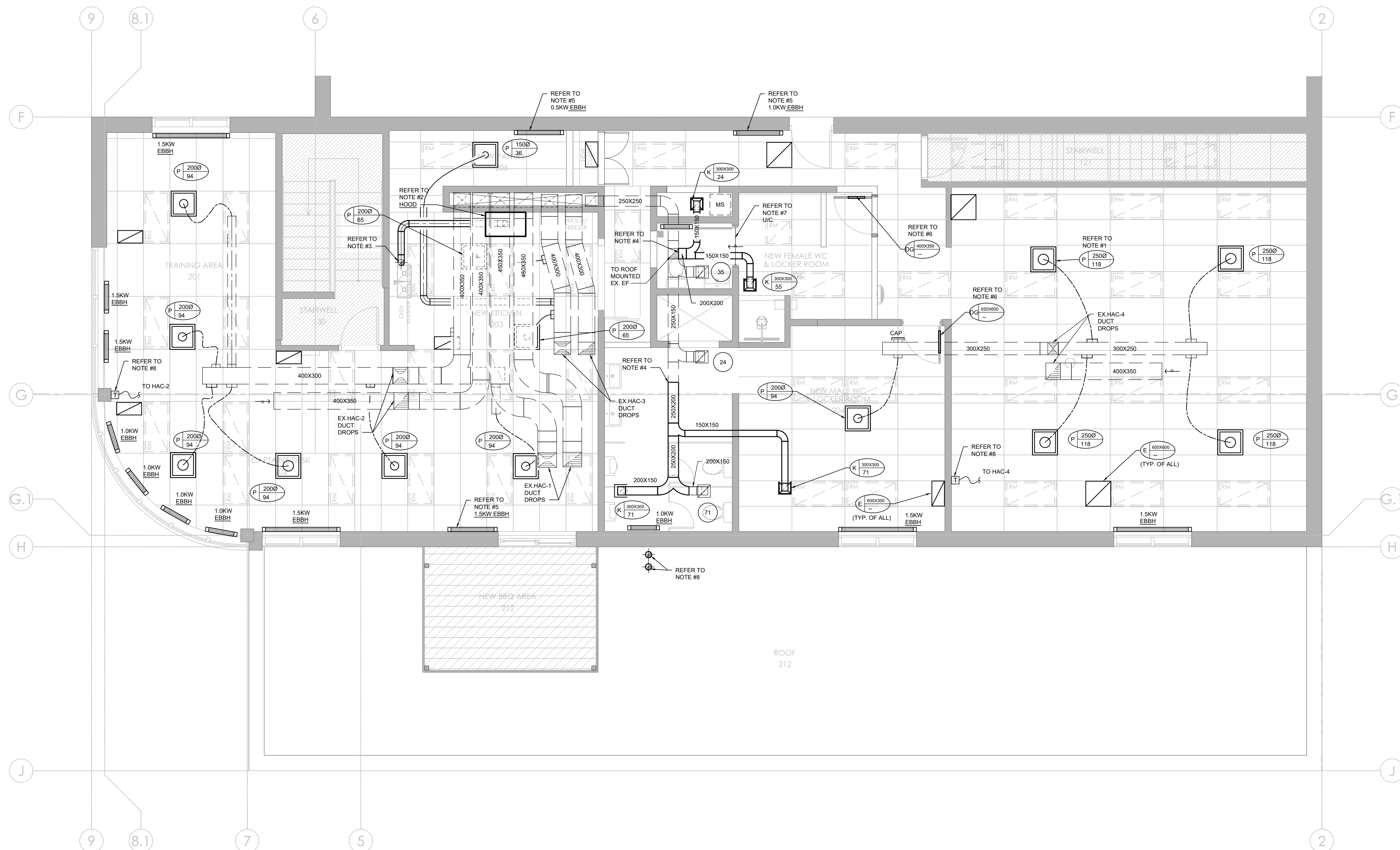
Central York Firehall 4-1 Interior Renovations
984 Gorham Street
Newmarket, Ontario

2ND FLOOR - H.V.A.C. LAYOUT

SCALE: 1:50

CHECKED BY: MG/RC

SHEET NUMBER:
TM-2.3



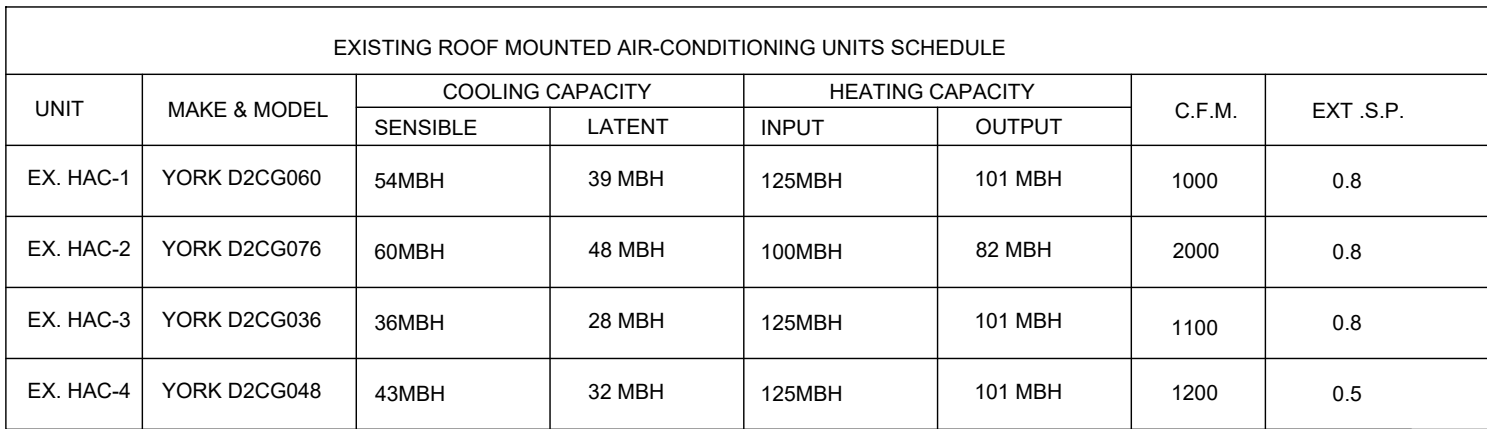
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- VERIFY STRUCTURAL INTEGRITY OF ALL TEMPORARY AND PERMANENT OPENINGS. PROVIDE ADDITIONAL FRAMING TO ENSURE STRUCTURAL INTEGRITY AS REQUIRED.
- REFER TO STANDARD DETAILS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.

1. NEW/RELOCATED SQUARE PLAQUE DIFFUSER COMPLETE WITH FLEX/RIGID DUCTS. DO NOT REUSE EXISTING FLEX DUCT. PROVIDE DIFFUSER DUCT RUN-OUT THE SAME SIZE AS THE DIFFUSER INLET UNLESS INDICATED OTHERWISE. (TYPICAL)

2. NEW RESIDENTIAL KITCHEN HOOD SUPPLIED BY OTHERS, INSTALLED BY THIS CONTRACTOR.
3. CONNECT NEW 1500 EXHAUST AIR DUCT TO EXISTING 1500 EXHAUST AIR DUCT AND EXTEND AS INDICATED. DESIGN IS BASED ON RESIDENTIAL TYPE COOKTOP APPLANCE AND NOT MEANT FOR COMMERCIAL USE. RE-INSULATE THE EXHAUST AIR DUCT MINIMUM 10" AWAY FROM THE ROOF PENETRATION.
4. CONNECT NEW SANITARY EXHAUST AIR DUCT TO EXISTING SANITARY EXHAUST AIR DUCT AND EXTEND AS INDICATED. DUCT SIZE INDICATED ON PLAN.
5. NEW ELECTRIC BASEBOARD HEATER. POWER REQUIREMENTS BY ELECTRICAL DIVISION. OUELLET OF STANDARD BASEBOARD HEATER, 347V, COMPLETE WITH BUILT-IN THERMOSTAT. (TYPICAL)
6. NEW DOOR GRILLE. SIZE AS SHOWN ON DRAWING.
7. 3/4" DOOR UNDERCUT. (NOT BY MECHANICAL)
8. 1500 EXHAUST AIR DUCT UP TO ROOF EXTEND EXHAUST DUCT MINIMUM 24" ABOVE ROOF LEVEL AND TERMINATE WITH GOOSENECK COMPLETE WITH BIRDSCREEN. ENGAGE BASE BUILDING ROOFING CONTRACTOR FOR ALL FLASHING AND SEALING WORK.

9. RELOCATED THERMOSTAT COMPLETE WITH NEW CONTROL WIRING.
10. THERMOSTATS ARE LOCATED TO AID IN PRICING ONLY AND ALL REQUIRED THERMOSTATS MAY NOT BE SHOWN (REFER TO SPECIFICATIONS). COORDINATE FINAL LOCATION WITH THE INTERIOR DESIGNER WITHIN 1000MM OF LOCATION SHOWN. ALL RELOCATIONS OUTSIDE OF THIS RANGE SHALL BE REVIEWED WITH THE CONSULTANT.
11. INSTALL THERMOSTATS AT NOMINALLY 1200MM A.F.F. ABOVE THE FINISHED FLOOR UNLESS INDICATED OTHERWISE.



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- VERIFY STRUCTURAL INTEGRITY OF ALL TEMPORARY AND PERMANENT OPENINGS. PROVIDE ADDITIONAL FRAMING TO ENSURE STRUCTURAL INTEGRITY AS REQUIRED.
- REFER TO STANDARD DETAILS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.

1. EXISTING ROOF EXHAUST FAN TO REMAIN. PRIOR TO CONSTRUCTION, VERIFY AND INSPECT THE OPERATION OF EXISTING ROOF EXHAUST FAN. PROVIDE AN AUDIT REPORT. IF THE EXISTING AIRFLOW VALUE DO NOT MEET THE REQUIREMENT OF 800CFM @0.625" W.G., PROVIDE AN ITEMIZED COST ASSOCIATED WITH REPAIR OR REPLACEMENT AS REQUIRED.
2. EXISTING ROOFTOP UNIT TO REMAIN. PRIOR TO CONSTRUCTION, AIR BALANCING CONTRACTOR SHALL RECORD SUPPLY AND OUTDOOR AIRFLOW RATE OF EXISTING ROOF TOP UNIT AND SUPPLY AIRFLOW RATE OF EXISTING ASSOCIATED DIFFUSERS. PROVIDE AIR AUDIT REPORT TO CONSULTANT.

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Central York Firehall 4-1 Interior Renovation
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Newmarket, Ontario

ROOF LAYOUT

25274.001.M.001

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HW

MG/RC

TM-R.3

TM-2.4