

# TURNSTILES AT TORONTO PARAMEDIC SERVICES

4330 DUFFERIN ST., TORONTO, ON M3H 5R9

ISSUED FOR TENDER  
MAY 24 2024

CHERIE NG ARCHITECT INC.

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CNG@CHERIENG.COM

SOLID GROUND ENGINEERING  
ELECTRICAL CONSULTANT

## DRAWING LIST

### ARCHITECTURAL

A0.1	DRAWING LIST / LEGEND / LOCATION MAP / GENERAL NOTES
A1.1	GROUND FLOOR – KEY PLAN
A2.1	GROUND FLOOR – EXISTING PLAN
A2.2	GROUND FLOOR – PROPOSED PLAN
A2.3	GROUND FLOOR – NORTH TURNSTILES – PLANS, ELEVATIONS AND DETAILS
A2.4	GROUND FLOOR – SOUTH TURNSTILES – PLANS AND ELEVATIONS
A2.5	GROUND FLOOR – PROPOSED RCP

### ELECTRICAL

E1	SYMBOL LEGEND, SITE LOCATION & KEY PLAN
E2	PART GROUND FLOOR PLAN EXISTING / DEMOLITION PLAN–POWER & SYSTEMS
E3	PART GROUND FLOOR PLAN PROPOSED–POWER & SYSTEMS
E4	DETAILS
E5	FIRE ALARM SYSTEM DETAILS
E6	ELECTRICAL NOTES & DETAILS
E7	PART GROUND FLOOR PROPOSED PLAN–CEILINGS & CONDUIT RUNS

## GENERAL NOTES

GENERAL NOTES & CONDITIONS THAT APPLY TO THE ENTIRE WORK:

- THESE PLANS ARE TAKEN FROM ARCHIVE DRAWINGS AND LIMITED SITE SURVEY INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE TO CONFIRM THE SITE CONDITIONS PRIOR TO SUBMITTING BID.
- ALL DIMENSIONS ARE PER SITE REVIEW AND EXISTING ARCHITECTURAL DRAWINGS. ALL DISCREPANCIES BETWEEN CONDITIONS SHOWN AND SITE CONDITIONS ARE TO BE REPORTED TO ARCHITECT.
- CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE DESIGN PROFESSIONAL WHOSE SEAL IS AFFIXED TO THIS DRAWING.
- CONTRACTOR TO SITE VERIFY ALL DIMENSIONS, CONDITIONS AND LEVELS ON SITE PRIOR TO FABRICATIONS/INSTALLATIONS.
- DRAWINGS ARE NOT TO BE SCALED.
- LOCATE AND PROTECT ALL UTILITIES.
- CONSTRUCTION MUST CONFORM TO ALL APPLICABLE CODES AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- PROVIDE SECURE CONTROL OF SURFACE INSTALLATION AND FINISH APPLICATIONS TO PREVENT PERMANENT EFFECTS OF VANDALISM DURING CONSTRUCTION.
- OBTAIN APPROVAL OF LAYOUT PRIOR TO STARTING WORK.
- PROVIDE TEMPORARY CONSTRUCTION FENCE 1.8M HIGH MODULAR METAL FENCE WITH LOCKABLE GATE AS REQUIRED TO SECURE THE WORK ZONE.
- CONTRACTOR IS RESPONSIBLE TO INCLUDE IN HIS SCOPE OF WORK DUST CONTROL FOR POTENTIAL SILICA IN CONCRETE / MORTAR.
- CONTRACTOR TO COORDINATE SITE DIMENSIONS PRIOR TO FABRICATION.
- ALL COLOURS AND MATERIALS TO BE REVIEWED BY ARCHITECT.
- READ THIS DRAWING IN CONJUNCTION WITH THE COMPLETE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND SPRINKLER DOCUMENTATION.
- REPAIR, PATCH & MAKE GOOD ALL EXISTING STRUCTURE AND FINISHES AFFECTED BY CONSTRUCTION.
- ALL NEW WORK TO MAKE GOOD EXISTING; SHALL MATCH EXISTING IN MATERIAL, CONSTRUCTION AND FINISH UNLESS OTHERWISE SPECIFIED.
- PROTECT EXISTING FINISHES TO REMAIN AS INDICATED IN DOCUMENTATION. WHERE DEMOLITION WORK IMPACTS ON THESE FINISHES, PATCH AND MAKE GOOD TO MATCH EXISTING.
- CONTRACTOR SHALL PERFORM ALL NECESSARY DEMOLITION, ALTERATIONS AND NEW CONSTRUCTIONS AS REQUIRED TO MAKE THE WORK A COMPLETE JOB, INCLUDING BUT NOT LIMITED TO WORK SHOWN ON DRAWINGS AND SPECIFICATIONS.
- ANY OPENINGS IN FIRE RATED WALLS, CEILINGS AND FLOORS, TO BE RETURNED TO EQUIVALENT CONDITION PRIOR TO THE OPENING. ALL ELECTRICAL & MECHANICAL PENETRATIONS TO BE SEALED WITH FIRE STOP MATERIAL AS PER SPECIFICATION AND OBC.
- ALL REQUIRED CUTTING & FITTING INCLUDING ELECTRICAL & MECHANICAL TO CONNECT EXISTING WORK WITH THE NEW WORK TO BE PERFORMED AS PART OF THIS CONTRACT TO FINISH THE ENTIRE WORK IN A WORKMANLIKE AND WHOLE CONDITION.
- ALL NEW WORK TO MAKE GOOD EXISTING; SHALL MATCH EXISTING IN MATERIAL, CONSTRUCTION AND FINISH UNLESS OTHERWISE SPECIFIED.
- REFER TO MECHANICAL AND ELECTRICAL DOCUMENTATION FOR SPECIFIC EQUIPMENT TO BE REMOVED. PATCH AND MAKE GOOD OF ANY DAMAGE CAUSED BY REMOVAL OF MECHANICAL AND ELECTRICAL EQUIPMENT OR BY RELATED DEMOLITION WORK.
- CONDUCT X-RAYS AND PERFORM INSPECTIONS AT AREAS WHERE CUTTING, DRILLING OR SLEEVING THROUGH EXISTING STRUCTURE IS REQUIRED TO ENSURE EXISTING SERVICES WILL NOT BE DAMAGED. REPAIR AND REINSTATE EXISTING SERVICES IMMEDIATELY IF DAMAGED.
- CONTACT CONSULTANT IMMEDIATELY IF ANY UNKNOWN SERVICES ARE UNCOVERED AND INTERFERE WITH NEW WORK.
- REMOVE ALL FURNISHINGS WITHIN THE EXTENT OF NEW WORK. CO-ORDINATE RELOCATION OR DISPOSAL WITH OWNER. ITEMS TO BE RELOCATED ARE TO BE STORED IN A PROTECTED AREA DURING CONSTRUCTION.
- ALL ITEMS INDICATED IN THE CONTRACT DOCUMENTS AS 'COORDINATION ITEMS' OR ITEMS IDENTIFIED AS N.I.C., INCLUDING BUT NOT LIMITED TO THE EQUIPMENT, SECURITY, DATA CONNECTION, SERVER, AUDIO & VISUAL AND OTHER SPECIALTY ITEMS IDENTIFIED, ARE TO BE SUPPLIED AND INSTALLED BY OTHER PARTIES OR ALLOWANCES BUT WILL REQUIRE THE COMMON ACTION OR EFFORT OF THE GENERAL CONTRACTOR IN RELATION TO THE OVERALL PROJECT. WITH RESPECT TO ALL COORDINATION ITEMS IDENTIFIED, THE GENERAL CONTRACTOR IS EXPECTED TO:
  - BUILDING ENVELOPE INSPECTIONS
  - STRUCTURAL INSPECTIONS
  - WATERPROOFING MEMBRANE INSPECTIONS
  - CITY'S SECURITY VENDOR
  - CITY'S CORPORATE SECURITY
  - BELL CANADA VOICE AND DATA CONNECTION
  - FIRE DEPARTMENT
  - CITY'S IT DEPARTMENT
- REVIEW ALL ITEMS IDENTIFIED AS 'COORDINATION ITEMS' IN THE DRAWINGS AND COMMUNICATE WITH THE REQUIRED RESPONSIBLE PARTIES OF THE DEVICES THE DETAILED REQUIREMENTS OF EACH ITEM AS IT IMPACTS THE WORK OF GENERAL CONTRACTOR AND AS IT RELATES TO THE OVERALL COMPLETION OF THE PROJECT.
- VERIFY THE EXISTING CONDITION AND ANY LIMITATIONS OF THE DEVICE AS INSTALLED IN THE PROPOSED LOCATION.
- COORDINATE WORK OF OWNER'S OWN FORCE INTO THE OVERALL CONSTRUCTION SEQUENCE.
- PROVIDE ALL REQUIRED ROUGH-INS, RELATED CONSTRUCTIONS AND CONNECTIONS REQUIRED BY THE DEVICES OF OTHERS TO SUIT THE COORDINATION ITEM AND AS INDICATED IN THE CONTRACT DOCUMENTS.
- SCHEDULE AND COORDINATE THE WORK OF OTHERS INTO THE OVERALL CONSTRUCTION SEQUENCE TO AVOID UNNECESSARY DELAY TO THE COMPLETION OF THE OVERALL PROJECT.
- ENSURE THAT THE PROPOSED ITEM IS INSTALLED AS INTENDED AND IS MADE FULLY OPERATIONAL AT THE COMPLETION OF THE WORK.
- GENERAL CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AS REQ'D TO PERFORM THE WORK INCLUDING AND NOT LIMITED TO THE FOLLOWING STREET OCCUPATION PERMIT, ESA PERMIT, STREET WORK PERMIT AND ETC.
- THE BUILDING WILL REMAIN IN OPERATION DURING THE COURSE OF CONSTRUCTION. THE BUILDING IS IN OPERATION 24 HOURS A DAY. INTERIOR AND EXTERIOR WORK IS TO OCCUR IN PHASES THROUGHOUT THE BUILDING AND MUST BE COORDINATED WITH THE BUILDING USERS AND OWNERS TO MINIMIZE DISRUPTION TO STAFF AND THE FACILITY OPERATIONS.
- COMPLY WITH THE MOST CURRENT REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, REGULATION FOR CONSTRUCTION PROJECT.
- BE RESPONSIBLE FOR THE PROTECTION AND SAFETY OF ALL PEDESTRIANS AND VEHICLES IN THE WORK AREA. PROVIDE AND INSTALL BARRICADES, SIGNS, GUARDRAILS, ETC AS REQUIRED. AT THE CONCLUSION OF EACH DAY'S WORK, ENSURE THAT ALL PRECAUTIONS NECESSARY FOR THE PROTECTION AND SAFETY OF PEDESTRIANS AND VEHICLES HAVE BEEN TAKEN.
- PROVIDE AND MAINTAIN OVERHEAD PROTECTION AT ALL BUILDING ENTRANCES, EXITS, DOORS AND PATIOS.
- DO NOT BLOCK ANY FIRE EXITS.
- PROVIDE ADEQUATE PROTECTION OF MATERIALS AND WORK FROM DAMAGE AND STAINING BY WEATHER AND OTHER CAUSES. CONTRACTOR SHALL MAKE GOOD ANY DAMAGE.
- CONTRACTOR TO ENSURE ALL WALKWAYS / PATHS TO AND FROM ALL ENTRANCE DOORS ARE FREE OF DEBRIS AND OBSTRUCTIONS AT ALL TIMES DURING THE WORK.
- MAINTAIN AT ALL TIMES CLEAR ACCESS ON DRIVE AISLES ADJACENT TO BUILDING TO THE SITE.
- MOBILIZATION, STORAGE OR ACCESS NOT PERMITTED AT ADJACENT PROPERTY.
- NO PARKING IS AVAILABLE ON SITE.
- ACCESS INTO THE BUILDING AREA IS GENERALLY RESTRICTED. NO ACCESS INSIDE THE BUILDING WITHOUT EXPRESSED WRITTEN CONSENT FROM THE CITY.
- THE BUILDING WILL BE OCCUPIED AND WILL REMAIN IN OPERATION DURING THE COURSE OF CONSTRUCTION. THE GENERAL CONTRACTOR TO COORDINATE PHASING AS REQUIRED. ALL CONSTRUCTION ACTIVITIES TO BE COMPLETED AFTER HOURS (5PM TO 6AM). CONTRACTOR TO PERFORM DAILY CLEANING OF THE SITE AND TO MAINTAIN ALL EXITS AT ALL TIMES.
- GC IS RESPONSIBLE FOR HIRING THEIR OWN FIRE WATCH BETWEEN THE HOURS OF 10PM TO 6AM MONDAY TO FRIDAY AND WEEKENDS ALL DAY WHEN BYPASS IS ACTIVATED. FIRE ALARM BYPASS MUST BE REQUESTED WITH 24 HOURS ADVANCE NOTICE.
- CONTRACTOR TO USE EXTRA PRECAUTION WHEN DRILLING HOLES INTO THE EXISTING CERAMIC TILE. CONTRACTOR TO USE A DRILL WITH A VACUUM ATTACHMENT EQUIPPED WITH A HEPA FILTER. CONTRACTOR TO USE AT A MINIMUM A N95 MASK WHEN PERFORMING THIS WORK.

## MATERIAL ABBREVIATIONS

ACRYLIC-1	13 MM CAST ACRYLIC PANEL
ACT-1	ACOUSTIC CEILING TILES
CPT-1	CARPET COLOUR 1
CPT-2	CARPET COLOUR 2
CPT-3	CARPET COLOUR 3
FILM-1	ADHESIVE FILM
GB-1	GYP SUM BOARD
GL-1	12MM THICK TEMPERED GLASS
HM-#	HOLLOW METAL
HMF-#	HOLLOW METAL FRAME
LINO-1	LINOLEUM SHEET FLOORING
MW-1	CONTINUOUS WIREMOLD COVER
PT-1	PAINT COLOUR 1
PT-2	PAINT COLOUR 2
PT-3	PAINT COLOUR 3
PT-4	PAINT COLOUR 4
B-1	BASE TO MATCH EXISTING
SOL-1	SOLID SURFACING
SS-1	STAINLESS STEEL BRUSHED FINISH
TRH-1	CARPET TRANSITION STRIP
WD-1	PLYWOOD

## SYMBOL LEGEND

	DOOR TAG DOOR NUMBER
	ROOM TAG ROOM NAME ROOM NUMBER
	DRAWING TAG DRAWING NUMBER & NAME SHEET NUMBER & SCALE
	SECTION BUBBLE DRAWING NUMBER SHEET NUMBER
	CEILING TAG CEILING TYPE CEILING HEIGHT
	MATERIAL TAG MATERIAL TYPE
	WALL/CEILING TAG WALL/CEILING TYPE
	ELEVATION TAG DRAWING NUMBER SHEET NUMBER DIRECTION
	ALIGN WITH ESTABLISHED/ ADJACENT SURFACE
	DETAIL TAG DRAWING NUMBER SHEET NUMBER AREA DETAILED
	REVISION REFERENCE NUMBER
	MAX – MAXIMUM
	MIN – MINIMUM
	MIR – DESCRIPTION OF MIRROR
	SIM – DESCRIPTION OF SIMILAR
	TYP – DESCRIPTION OF TYPICAL

## BASE TYPES

B-1 BASE	B-1 BASE TO BE USED THROUGHOUT FLOOR, EXCEPT WHERE NOTED
	FACE OF GYP.BRD PARTITION, WALL, COLUMN, CERAMIC WALL TILE PARTITION AND ETC.
	B-1
	FINISHED FLOOR

## STANDARD ABBREVIATIONS

ADJ	ADJUSTABLE
AF	ABOVE FINISHED FLOOR
BLDG	BUILDING
BLK	BLOCK
CL	CENTRELINE
CLG	CEILING
CONT	CONTINUOUS
DIA	DIAMETER
DM	DIMENSION
DWG	DRAWING
ELEV	ELEVATOR
EX/EXIST	EXISTING FLOOR
F/O	FACE OF
FRR	FIRE RESISTANCE RATING
FPR	FIRE PROTECTION RATING
HT	HEIGHT
MAX	MAXIMUM
MIN	MINIMUM
MIR	MIRROR
NIC	OWNER SUPPLIED CONTRACTOR INSTALLED
NTS	NOT TO SCALE
OC	ON CENTRE
OSCI	OWNER SUPPLIED CONTRACTOR INSTALLED
PL	PLATE
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
REV	REVERSE
RM	ROOM
SIM	SIMILAR
SHR	SHOWER
STD	STUD
T&G	TONGUE & GROOVE
T/O	TOP OF
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE OF
VIF	VERIFY IN FIELD

## MATERIAL LEGEND

	STEEL
	ALUMINUM
	ACOUSTICAL PANELS
	CONCRETE
	CONCRETE BLOCK
	CERAMIC
	PORCELAIN
	CONTINUOUS WOOD BLOCKING
	GYP SUM BOARD
	FINISH WOOD
	PLYWOOD
	RIGID INSULATION
	MORTOR
	GLASS
	WOOD VENEER

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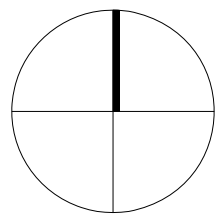
general notes :

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- Drawings are not to be scaled for construction. Contractor to verify all existing conditions and dimensions required to perform the Work and report any discrepancies with the Contract Documents to the Architect before commencing work.
- Positions of exposed or finished mechanical or electrical devices, fittings, and fixtures are indicated on the Architectural drawings. The locations shown on the Architectural drawings govern over the Mechanical and Electrical drawings. Those items not clearly located will be located as per directed by the Architect.



Corporate Real Estate Management  
Project Management Office  
New Hall, Toronto, ON  
REV 205

ISSUED FOR TENDER	24 MAY 2024
ISSUED FOR PERMIT	16 APRIL 2024
ISSUED FOR BIDDING CLIENTS REVIEW	22 JANUARY 2024
ISSUED FOR BIDDING CLIENTS REVIEW	19 DECEMBER 2023
ISSUED FOR BIDDING CLIENTS REVIEW	17 NOVEMBER 2023
ISSUED FOR CLIENTS REVIEW	8 AUGUST 2023
revision	date



TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

Address: 4330 Dufferin St., Toronto, ON

DRAWING LIST/LEGEND/  
LOCATION MAP/  
GENERAL NOTES

project no. : 2312  
scale : AS NOTED  
date : DEC 2023

drawing no. :

A0.1

general notes :

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FLOOR PLAN LEGEND:

- EXISTING PARTITIONS TO REMAIN
- DEMOLITION LINE
- OUTSIDE SCOPE OF WORK



ISSUED FOR TENDER:	24 MAY 2024
ISSUED FOR PERMIT:	15 APRIL 2024
ISSUED FOR 60% CLIENTS REVIEW:	22 JANUARY 2024
ISSUED FOR 60% CLIENTS REVIEW:	19 DECEMBER 2023
ISSUED FOR 60% CLIENTS REVIEW:	17 NOVEMBER 2023
ISSUED FOR CLIENTS REVIEW:	18 AUGUST 2023
revision	date

TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

Address: 4330 Dufferin St., Toronto, ON

GROUND FLOOR -  
KEY PLAN

project no. : 2312  
scale : 1:200  
date : DECEMBER 2023

drawing no. :

A1.1

general notes :

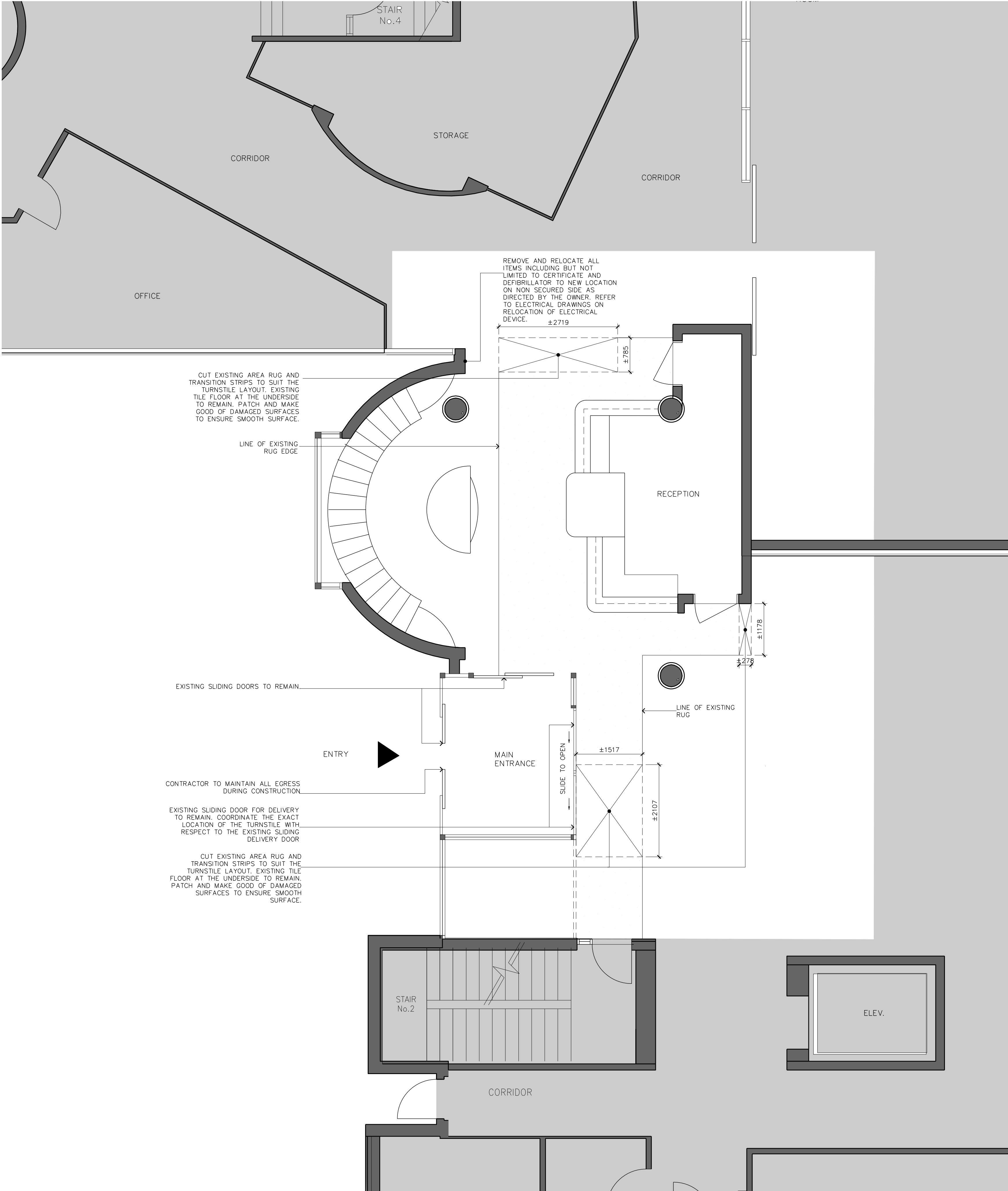
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FLOOR PLAN LEGEND:

- EXISTING PARTITIONS TO REMAIN
- DEMOLITION LINE
- OUTSIDE SCOPE OF WORK
- EXISTING RUG

GENERAL FLOOR PLAN NOTES:

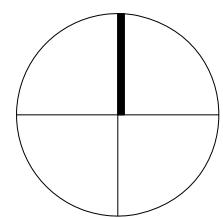
- A. PATCH AND MAKE GOOD OF ALL MATERIALS AND SURFACES (FLOOR, WALL AND CEILING) TO MATCH EXISTING FOR A SMOOTH AND UNIFORM FINISH.
- B. ALLOW FOR A DEEP STEAM CLEANING OF THE EXISTING AREA RUG.
- C. PATCH ALL WALLS AS RE'D FROM ELECTRICAL DEMOLITION OR INSTALLATION. PATCH AND MAKE GOOD WITH MATCH ADJACENT MATERIALS.



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Project Management Office  
Metro Hall, Toronto, ON  
M5V 3G6

ISSUED FOR TENDER	24 MAY 2024
ISSUED FOR PERMIT	16 APRIL 2024
ISSUED FOR 90% CLIENTS REVIEW	22 JANUARY 2024
ISSUED FOR 60% CLIENTS REVIEW	19 DECEMBER 2023
ISSUED FOR 30% CLIENTS REVIEW	17 NOVEMBER 2023
ISSUED FOR CLIENTS REVIEW	16 AUGUST 2023

revision date



TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

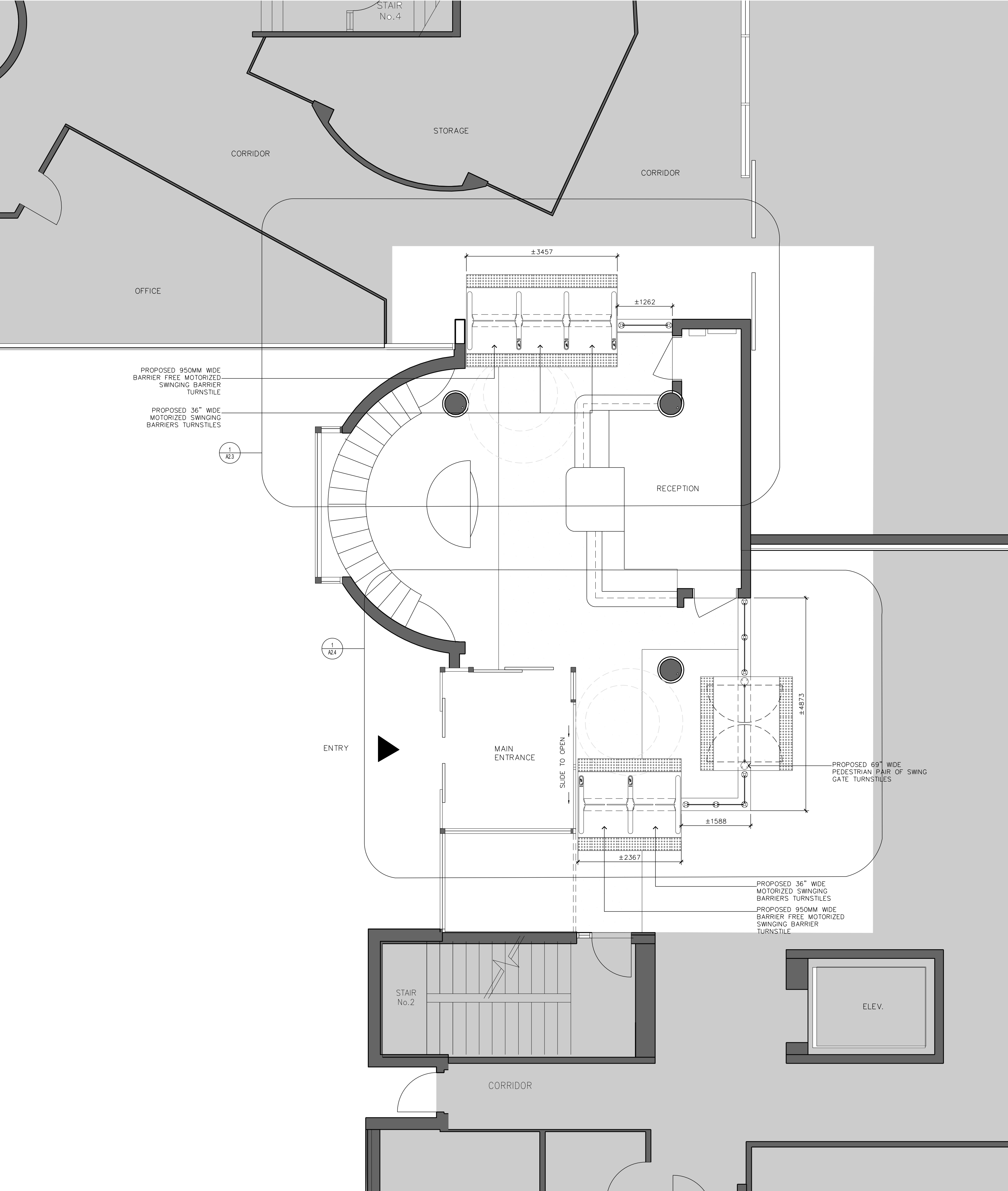
Address: 4330 Dufferin St., Toronto, ON

GROUND FLOOR -  
EXISTING PLAN

project no. : 2302  
scale : 1" = 50'  
date : DECEMBER 2023

drawing no. :

A2.1



general notes :

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FLOOR PLAN LEGEND:

- EXISTING WALL/PARTITION TO REMAIN
- PROPOSED PARTITION
- OUTSIDE SCOPE OF WORK
- EXISTING RUG

GENERAL FLOOR PLAN NOTES:

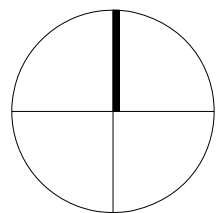
- A. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE REQUIREMENTS.
- B. ACCOUNT FOR WORKING AROUND EXISTING SERVICES.
- C. PATCH AND MAKE GOOD OF ALL MATERIALS AND SURFACES (FLOOR, WALL AND CEILING) TO MATCH EXISTING FOR A SMOOTH AND UNIFORM FINISH.
- D. PATCH ALL WALLS AS REQ'D FROM ELECTRICAL DEMOLITION OR INSTALLATION. PATCH AND MAKE GOOD WITH MATCH ADJACENT MATERIALS.
- E. PAINT ALL PREVIOUSLY PAINTED SURFACES. TYPICAL FOR ALL INTERIOR AND EXTERIOR SURFACE. ALLOW FOR 6 PAINT COLOURS (4 DARK COLOURS AND 2 LIGHT COLOURS)
- F. ALLOW FOR A DEEP STEAM CLEANING OF THE EXISTING AREA RUG.



Corporate Real Estate Management  
Project Management Office  
Metro Hall, Toronto, ON  
REV 205

ISSUED FOR TENDER	24 MAY 2024
ISSUED FOR PERMIT	05 APRIL 2024
ISSUED FOR PMO CLIENTS REVIEW	22 JANUARY 2024
ISSUED FOR PMO CLIENTS REVIEW	19 DECEMBER 2023
ISSUED FOR PMO CLIENTS REVIEW	17 NOVEMBER 2023
ISSUED FOR CLIENTS REVIEW	08 AUGUST 2023

revision date



TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

Address: 4330 Dufferin St., Toronto, ON

GROUND FLOOR -  
PROPOSED PLAN

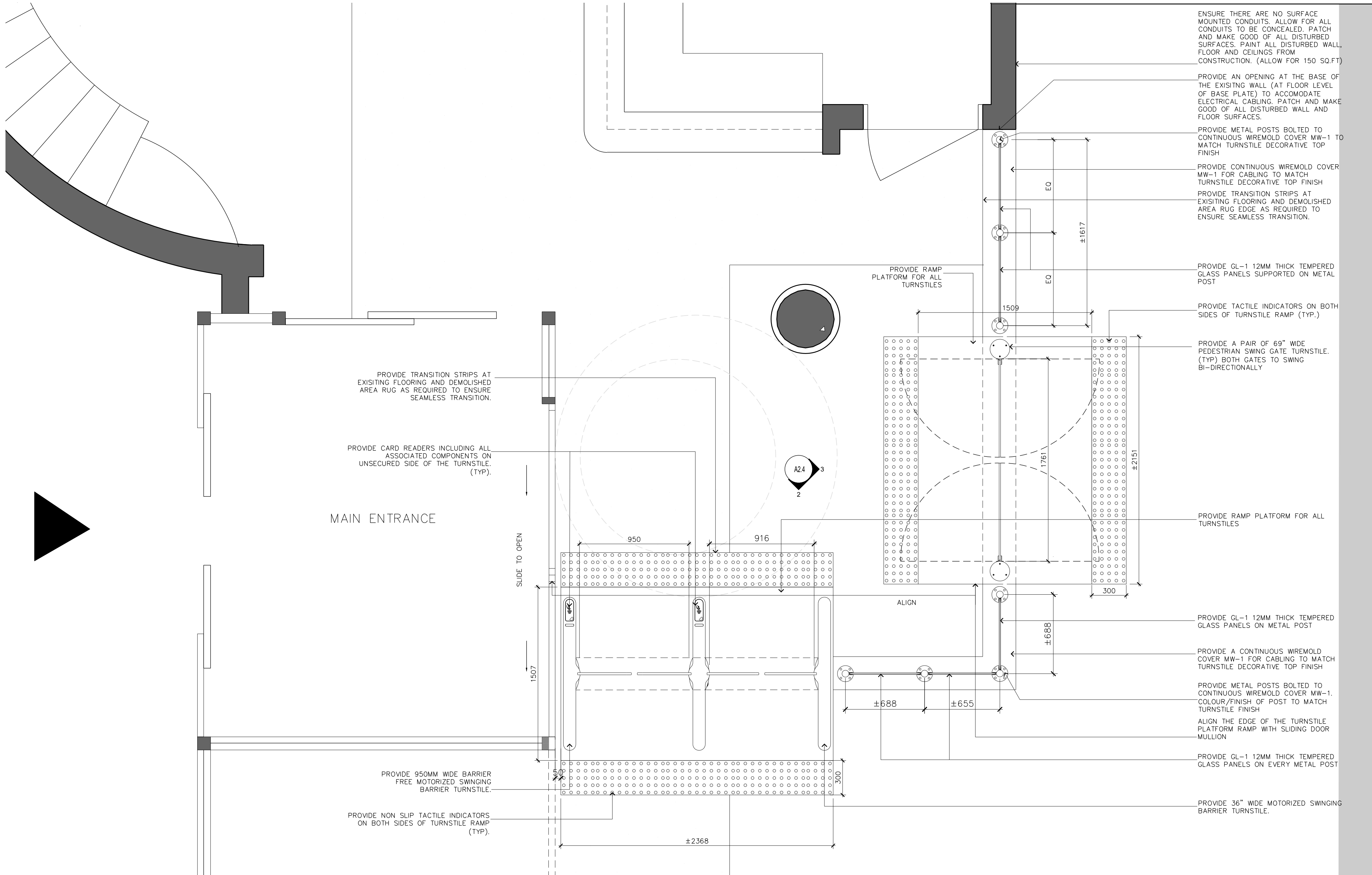
project no. : 2312  
scale : 1" = 50'  
date : DECEMBER 2023

drawing no. :

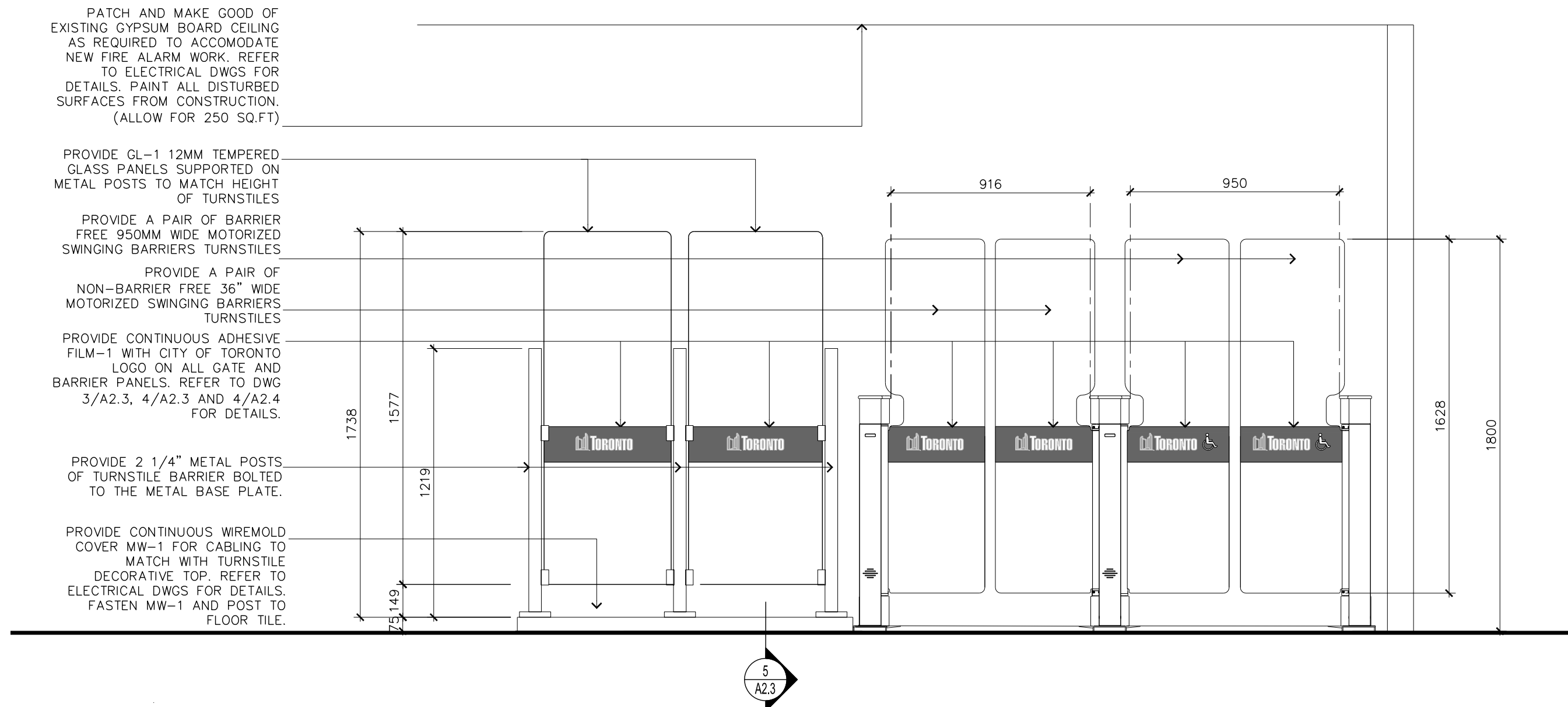
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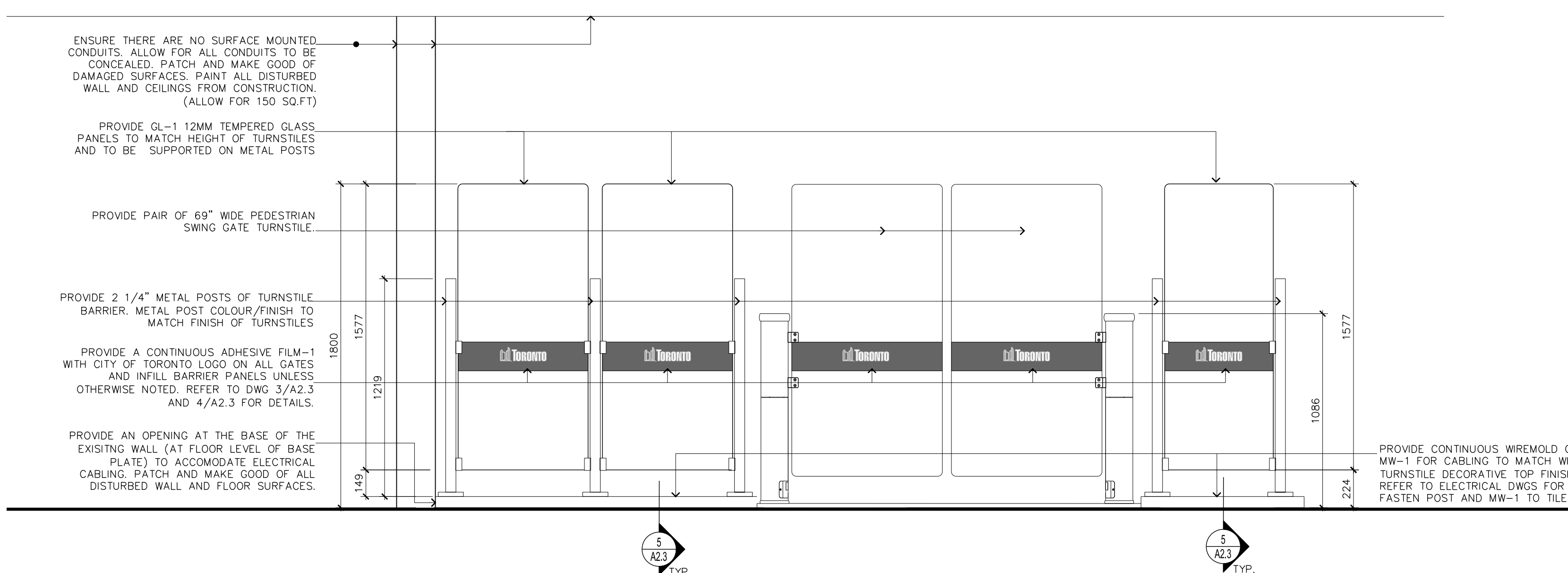




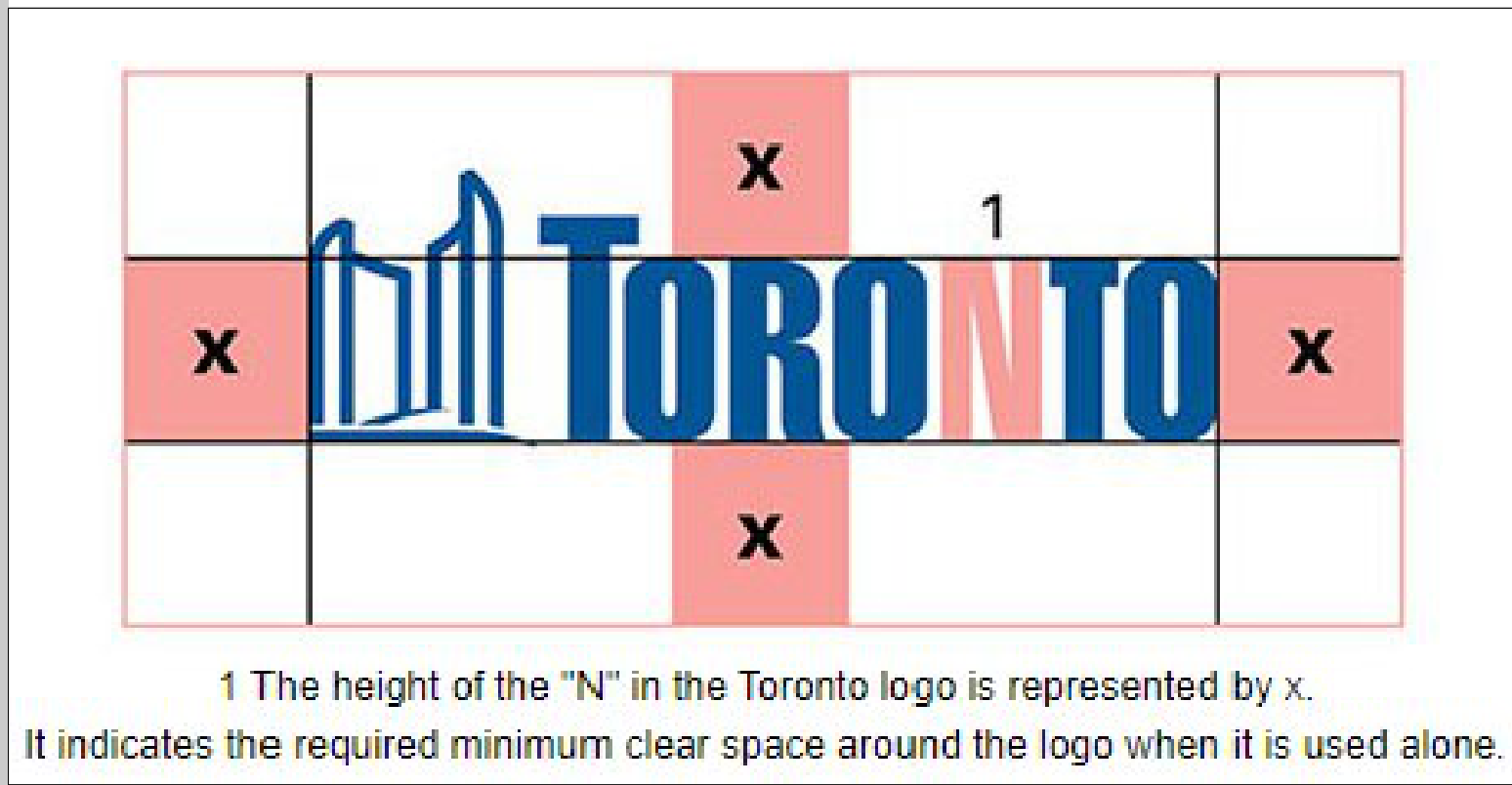
1  
A2.4  
SOUTH TURNSTILES - ENLARGED PLAN  
1:20



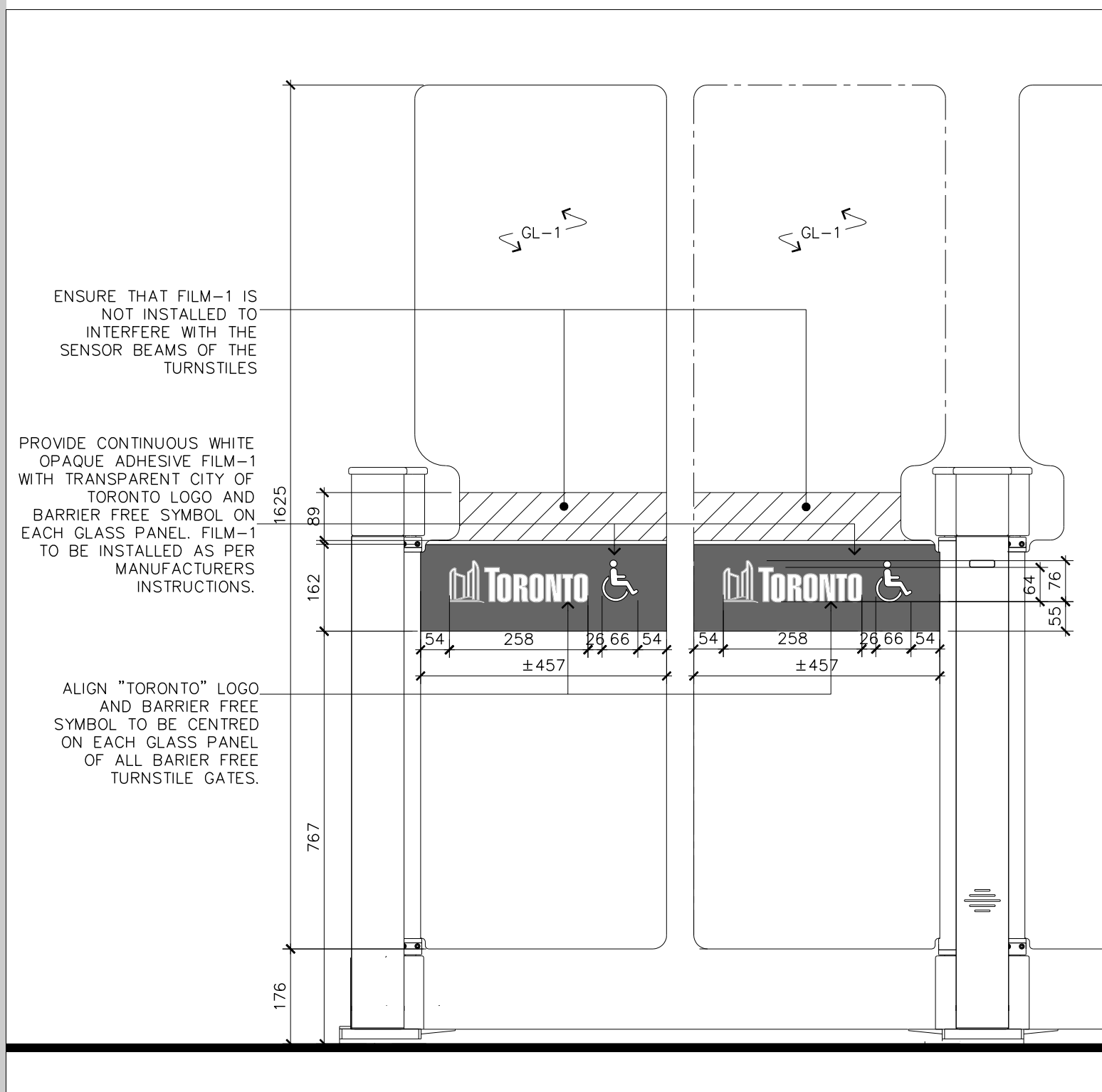
2  
A2.4  
SOUTH TURNSTILES - NORTH ELEVATION  
1:20



3  
A2.4  
SOUTH TURNSTILES - WEST ELEVATION  
1:20



5  
A2.4  
TORONTO LOGO DETAIL  
NTS



4  
A2.4  
TYPICAL BARRIER FREE TURNSTILE ELEVATION  
1:10

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FLOOR PLAN LEGEND:

- EXISTING WALL/PARTITION TO REMAIN
- PROPOSED PARTITION
- OUTSIDE SCOPE OF WORK
- EXISTING RUG

GENERAL FLOOR PLAN NOTES:

- REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE REQUIREMENTS.
- ACCOUNT FOR WORKING AROUND EXISTING SERVICES.
- PATCH AND MAKE GOOD OF ALL MATERIALS AND SURFACES (FLOOR, WALL AND CEILING) TO MATCH EXISTING FOR A SMOOTH AND UNIFORM FINISH.
- PATCH ALL WALLS AS REQ'D FROM ELECTRICAL DEMOLITION OR INSTALLATION. PATCH AND MAKE GOOD WITH MATCH ADJACENT MATERIALS.
- PAINT ALL PREVIOUSLY PAINTED SURFACES. TYPICAL FOR ALL INTERIOR AND EXTERIOR SURFACE. ALLOW FOR 6 PAINT COLOURS (4 DARK COLOURS AND 2 LIGHT COLOURS)
- ALLOW FOR A DEEP STEAM CLEANING OF THE EXISTING AREA RUG.

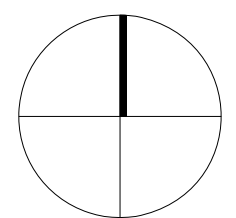
ELEVATION NOTES:

- PATCH AND MAKE GOOD AT ALL SURFACES TO MATCH EXISTING AS REQ'D FOR A SMOOTH UNIFORM FINISH.
- PATCH ALL HOLES AT CEILING WITH MATCHING ADJACENT MATERIAL.
- PAINT ALL PREVIOUSLY PAINTED SURFACES. TYPICAL FOR ALL INTERIOR AND EXTERIOR SURFACE. ALLOW FOR 6 PAINT COLOURS (4 DARK COLOURS AND 2 LIGHT COLOURS)



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Project Management Office  
Metrolia Mall, Toronto, ON  
REV 205

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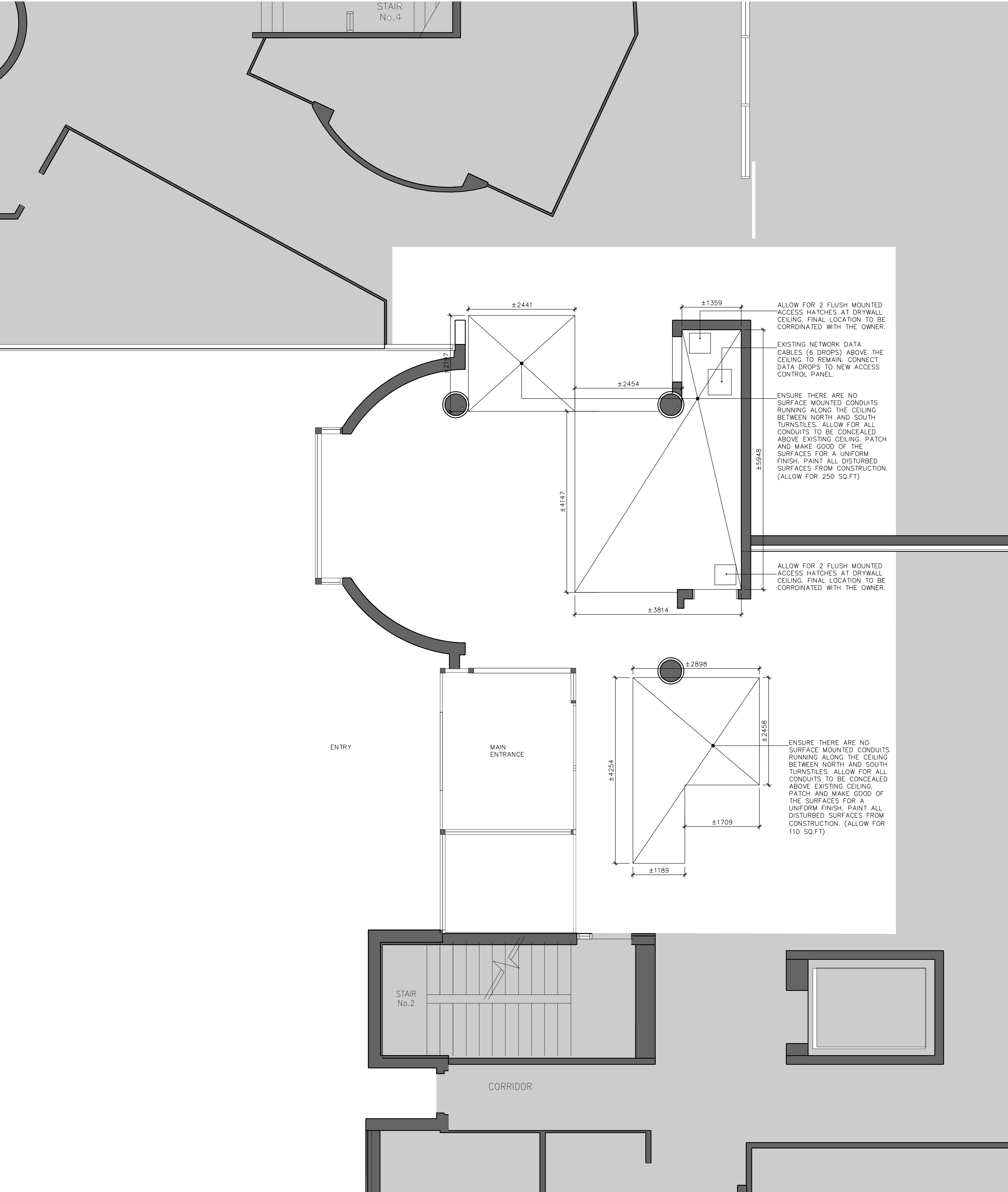
Address: 4330 Dufferin St., Toronto, ON

## GROUND FLOOR - SOUTH TURNSTILES - PLANS AND ELEVATIONS

project no.: 2302  
scale: 1:20  
date: DECEMBER 2023

drawing no.:

A2.4



general notes :

- These Contract Documents are the property of the Architect. The Architect bears no responsibility for the misinterpretations of these documents by the Contractor. Upon written application the Architect will provide written / graphic clarification or supplemental information regarding the intent of the Contract Documents. The Architect will review Shop Drawings submitted by the Contractor for design conformance only.
- Drawings are not to be scaled for construction. Contractor to verify all existing conditions and dimensions required to perform the Work and report any discrepancies with the Contract Documents to the Architect before commencing work.
- Positions of exposed or finished mechanical or electrical devices, fittings, and fixtures are indicated on the Architectural drawings. The locations shown on the Architectural drawings govern over the Mechanical and Electrical drawings. Those items not clearly located will be located as per directed by the Architect.

REFLECTED CEILING PLAN LEGEND:

- EXISTING WALL/PARTITION TO REMAIN
- PROPOSED PARTITION
- OUTSIDE SCOPE OF WORK

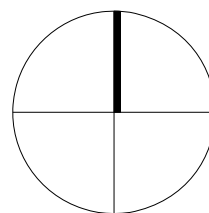
GENERAL REFLECTED CEILING NOTES:

- DO NOT DISTURB EXISTING SPRINKLER SYSTEM. EXISTING SPRINKLER SYSTEM TO REMAIN.
- REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE OF WORK.
- PROVIDE INTERIOR TOUCH UP PAINT AS REQ'D AT ALL DISTURBED WALL AND CEILING SURFACES. PAINT COLOUR TO MATCH WITH ADJACENT SURFACES.
- PATCH AND MAKE GOOD OF ALL DAMAGED EXISTING T-BAR CEILING SYSTEM (GRID) AND CEILING TILES TO ACHIEVE AN UNIFORM AND CONTINUOUS APPEARANCE.
- ENSURE THERE ARE NO SURFACE MOUNTED CONDUITS RUNNING ALONG THE CEILING FROM ELECTRICAL ROOMS. ALLOW FOR ALL CONDUITS TO BE CONCEALED ABOVE EXISTING CEILING. PATCH AND MAKE GOOD OF ALL SURFACES (WALL, CEILING AND FLOOR) DISTURBED FROM CONSTRUCTION FOR A UNIFORM FINISH. PAINT ALL DISTURBED SURFACES (WALL AND CEILING) FROM CONSTRUCTION TO MATCH ADJACENT SURFACES.



Corporate Real Estate Management  
Project Management Office  
Metro Hall, Toronto, ON  
M5V 3G6

ISSUED FOR TENDER	24 MAY 2024
revision	date



TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

Address: 4330 Dufferin St., Toronto, ON

GROUND FLOOR -  
PROPOSED RCP

project no. : 2312  
scale : 1 : 50  
date : DECEMBER 2023

drawing no. :

A2.5



ELECTRICAL SYMBOL LEGEND

- CEILING MOUNTED FLUORESCENT OR LED LIGHT FIXTURE. INSCRIBED LETTER DENOTES TYPE AS PER FIXTURE SCHEDULE.
- CEILING OR WALL MOUNTED LIGHT FIXTURE. INSCRIBED LETTER DENOTES TYPE AS PER FIXTURE SCHEDULE.
- CEILING OR WALL-MOUNTED PICTOGRAM (RUNNING MAN) EXIT LIGHT FIXTURE, SINGLE FACE. SHADED AREA DENOTES REQUIRED FACE C/W DIRECTIONAL INDICATOR WHERE REQUIRED, WHITE LED SOURCE, 120/347V POWER SUPPLY UNLESS NOTED OTHERWISE.
- EMERGENCY BATTERY UNIT AS NOTED ON DRAWINGS C/W PLUG-IN RECEPTACLE, ADJACENT (FOR 120V UNITS) AND LED LAMP HEADS AS INDICATED, 120/347V POWER SUPPLY UNLESS NOTED OTHERWISE. REFER TO NEW EMERGENCY LIGHTING BATTERY UNIT SCHEDULE.
- SINGLE, DOUBLE OR TRIPLE REMOTE EMERGENCY LAMPHEADS, WALL OR CEILING MOUNTED C/W LED LAMP(S).
- SINGLE POLE TOGGLE SILENT SWITCH (WHITE) C/W STAINLESS STEEL COVER PLATE. M.H. 48" O/C AFF. "PL" DENOTES C/W PILOT LIGHT (HUBBELL CAT. NO. HBL 1221PL OR EQUAL C/W LABEL). "K" DENOTES KEY SWITCH. "LV" DENOTES LOW VOLTAGE. "3" DENOTES 3-WAY. "4" DENOTES 4-WAY. "DP" DENOTES DOUBLE POLE.
- SAME AS ABOVE EXCEPT TWO (2) GANGED SWITCHES UNDER COMMON COVER PLATE.
- SAME AS ABOVE EXCEPT THREE (3) GANGED SWITCHES UNDER COMMON COVER PLATE.
- 15A 125V DUPLEX U-GROUND RECEPTACLE (BROWN) C/W STAINLESS STEEL COVER PLATE TO SUIT. M.H. 20" AFF O/C. "GF" INDICATES C/W GROUND FAULT INTERRUPTER. "IG" DENOTES ISOLATED GROUND. "MW" DENOTES MICROWAVE OVEN. "F" DENOTES FRIDGE OR FREEZER. "W" DENOTES CLOTHES WASHER. "DW" DENOTES DISH WASHER. "TR" DENOTES TAMPER-RESISTANT.
- SAME AS ABOVE EXCEPT MOUNTED 6" ABOVE COUNTER.
- SAME AS ABOVE EXCEPT TWO (2) DUPLEX RECEPTACLES (QUAD) GANGED C/W COVER PLATE.
- 20A, 120V DUPLEX U-GROUND RECEPTACLE (BROWN, CSA CONFIG. 5-20RA) C/W STAINLESS STEEL COVER PLATE. M.H. 6" ABOVE COUNTER C/W TYPE 'A' GROUND FAULT INTERRUPTER, DEDICATED CIRCUIT.
- SINGLE RECEPTACLE, BROWN, CSA CONFIG. AS NOTED C/W STAINLESS STEEL COVERPLATE.
- 120V MOTOR OR POWER OUTLET AS INDICATED.
- 208V, 1 PHASE MOTOR OR POWER OUTLET AS INDICATED.
- 208V, 3 PHASE MOTOR OR POWER OUTLET AS INDICATED.
- PANELBOARD, SURFACE MOUNTED.
- PANELBOARD, FLUSH MOUNTED.
- EXTRUDED ALUMINIUM CHANNEL (HORIZONTAL RUN) FOR POWER/ COMMUNICATION CABLING C/W BARRIER, RECEPTACLES ETC. AS REQUIRED, WHITE FINISH. WIREMOLD ALDS4000 SERIES, LENGTH AND DEVICES AS SHOWN ON DRAWING.
- SAME AS ABOVE EXCEPT VERTICAL RUN OF CHANNEL.
- JUNCTION BOX, TO SUIT C/W COVER PLATE.
- FUSIBLE DISCONNECT SWITCH, SIZED TO SUIT OR AS SHOWN. 'U' DENOTES UNFUSED, SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- RELAY.

- DATA COMMUNICATION OUTLET. PROVIDE A SINGLE GANG OUTLET/DEVICE BOX C/W 3/4" CONDUIT STUBBED INTO CEILING SPACE. DATA CABLING, DATA CONNECTOR, FACEPLATE AND STAINLESS STEEL COVER PLATE SHALL BE PROVIDED BY OTHERS. '2' DENOTES 2 DATA DROPS. '4' DENOTES 4 DATA DROPS. '6' DENOTES 6 DATA DROPS.
- SAME AS ABOVE EXCEPT MOUNTED ON WIREMOLD RACEWAY.
- VOICE COMMUNICATION/TELEPHONE OUTLET. PROVIDE A SINGLE GANG DEVICE/OUTLET BOX C/W 3/4" CONDUIT STUBBED INTO CEILING SPACE. TELEPHONE CABLING, CONNECTOR, FACEPLATE AND STAINLESS STEEL COVER PLATE SHALL BE PROVIDED BY OTHERS. '2' DENOTES 2 DROPS.
- SAME AS ABOVE EXCEPT MOUNTED ON WIREMOLD RACEWAY.
- COMBINATION VOICE AND DATA OUTLET. PROVIDE A SINGLE GANG DEVICE/OUTLET BOX C/W 3/4" CONDUIT STUBBED INTO CEILING SPACE. DATA AND VOICE CABLING, CONNECTORS, FACEPLATE AND STAINLESS STEEL COVER PLATE SHALL BE PROVIDED BY OTHERS.
- SAME AS ABOVE EXCEPT MOUNTED ON WIREMOLD RACEWAY.
- WIRELESS ACCESS POINT, CEILING MOUNTED (BY OTHERS). PROVIDE A FLUSH-MOUNTED 4"x4" ELECTRICAL OR OCTAGON BOX TO SUIT. DATA CABLING BY OTHERS. COORDINATE EXACT REQUIREMENTS WITH DATA NETWORK CABLING INSTALLER.
- FIRE ALARM MANUAL PULL STATION, M.H. BETWEEN 41 1/8" AND 45" A.F.F. ON CENTRE C/W CLEAR LEXAN COVER, BATTERY POWERED HORN, STI "STOPPER II" OR EQUAL.
- FIRE ALARM/VOICE COMMUNICATION SYSTEM SPEAKER (SURFACE CEILING OR WALL MOUNTED) C/W ROUND BAFFLE, BACKBOX TO SUIT.
- FIRE ALARM/VOICE COMMUNICATION SYSTEM SPEAKER (SURFACE CEILING OR WALL MOUNTED) C/W ROUND BAFFLE, BACKBOX TO SUIT AND 30 CD (UNLESS NOTED OTHERWISE) STROBE.
- CEILING MOUNTED FIRE ALARM AUTOMATIC SMOKE DETECTOR.
- CEILING MOUNTED FIRE ALARM AUTOMATIC HEAT DETECTOR, FIXED TEMPERATURE (135°F) AND RATE OF RISE.
- SAME AS ABOVE EXCEPT MOUNTED ON WALL.
- FIRE ALARM AUTOMATIC HEAT DETECTOR, FIXED TEMPERATURE (200°F).
- SECURITY SYSTEM MAGNETIC DOOR CONTACT SWITCH.
- SECURITY SYSTEM DOOR ACCESS CARD READER, PROXIMITY TYPE.
- SECURITY SYSTEM CARD READER. TO RELEASE TURNSTILE, CARD READER SHALL BE HOUSED AND CONCEALED WITHIN THE RESPECTIVE TURNSTILE CABINET, COORDINATE INSTALLATION WITH TURNSTILE INSTALLER.
- SECURITY SYSTEM CLOSED CIRCUIT TV CAMERA, CEILING MOUNTED. PROVIDE AN ELECTRICAL BOX TO SUIT FLUSH WITH CEILING C/W T-BAR SUPPORT/HANGER. DEVICE AND CABLING SHALL BE PROVIDED BY OTHERS.

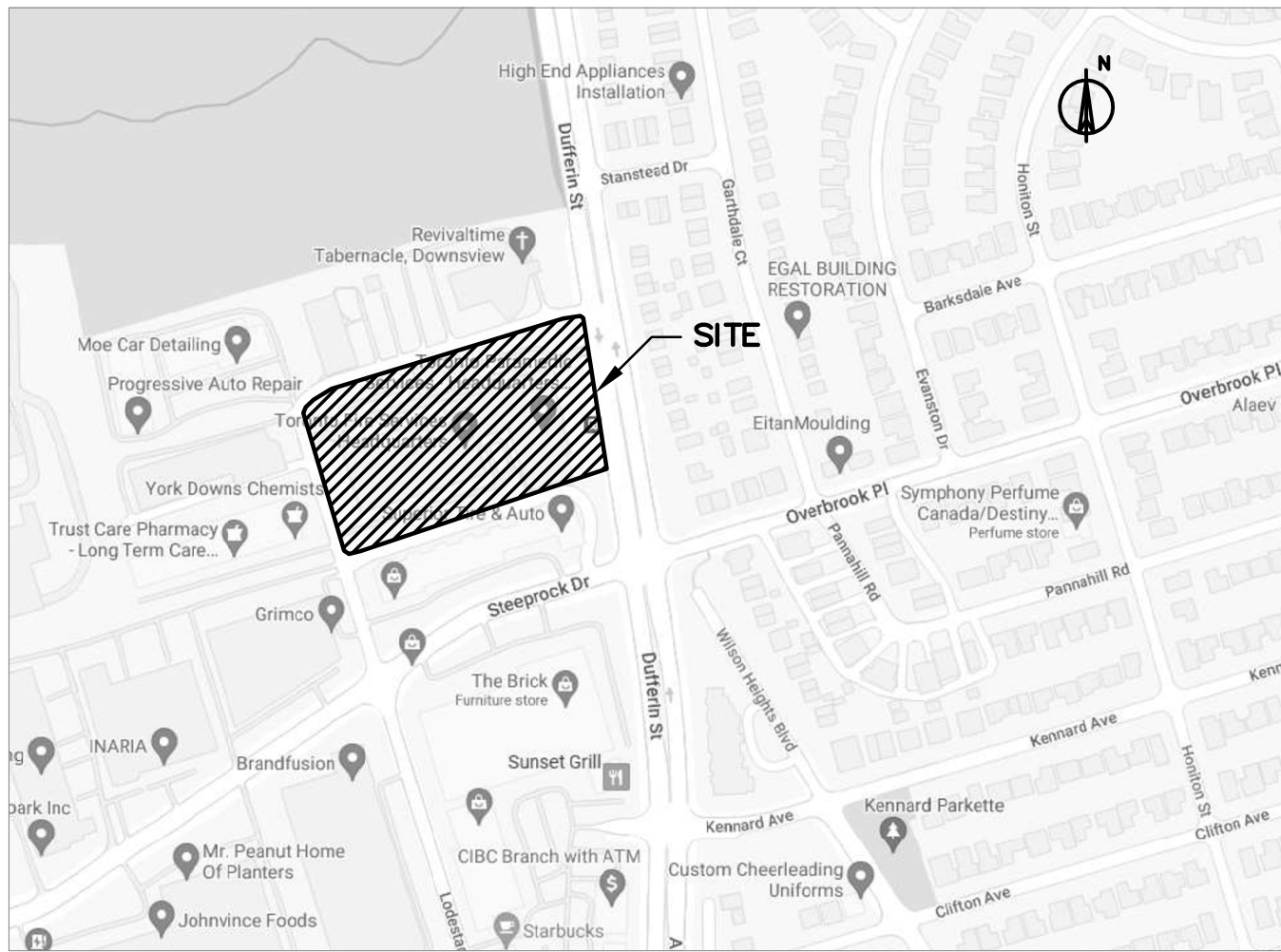
ELEVATION TAG. 1, 2, 3, 4 DENOTE ELEVATION NUMBERS, 'DWG' DENOTES DRAWING NUMBER.

WORKING HOURS

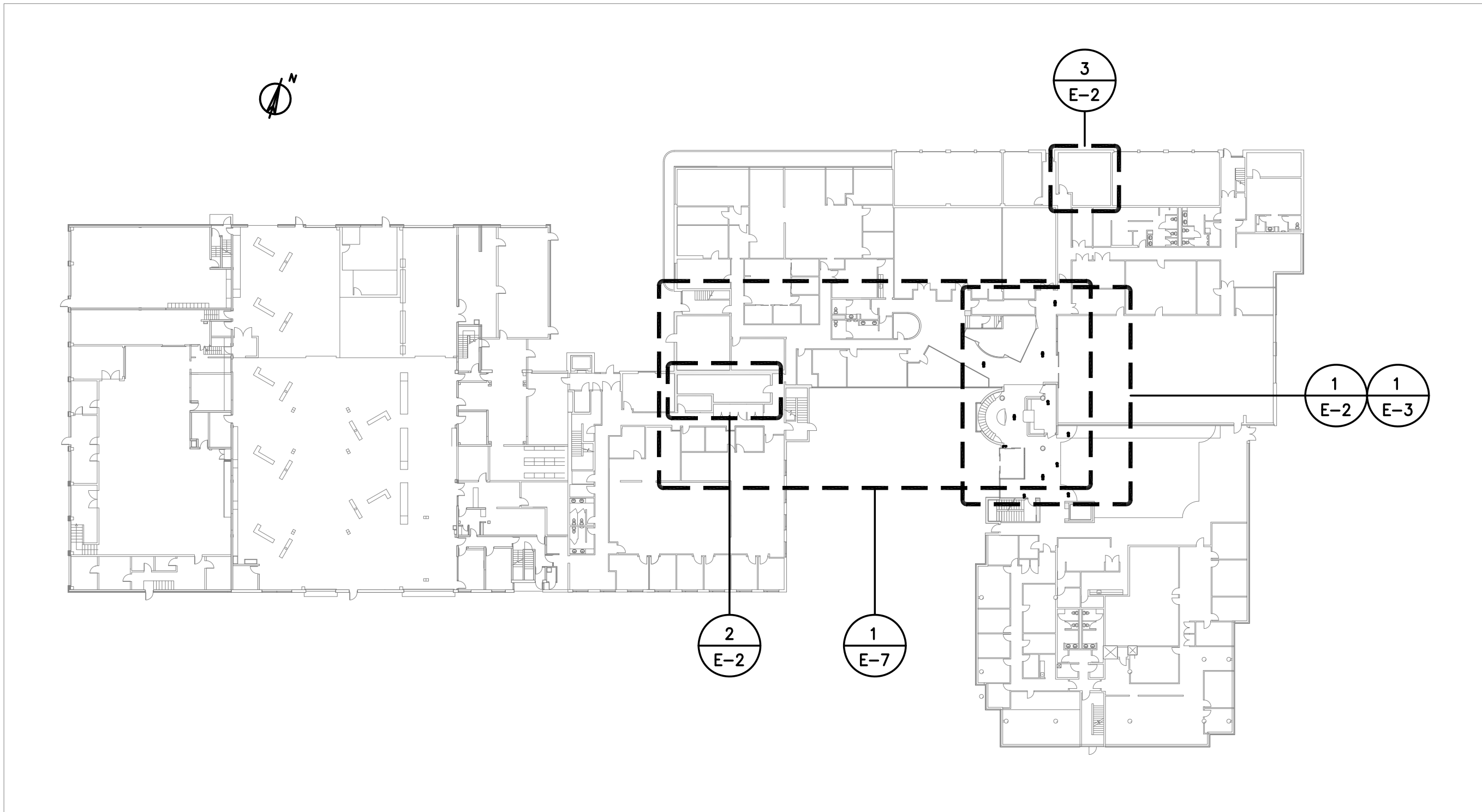
- ALL WORK SHALL BE PERFORMED AFTER NORMAL BUSINESS WORKING HOURS, I.E. BETWEEN 5:00PM AND 6:00AM, MONDAYS TO FRIDAYS (EXCLUDING STATUTORY HOLIDAYS), UNLESS NOTED OTHERWISE BELOW.
- ANY DRILLING OR CUTTING OF FLOOR SLABS AND WALLS SHALL BE PERFORMED AFTER NORMAL WORKING HOURS OR ON WEEKENDS. SCHEDULE WORK WITH CITY OF TORONTO PROJECT MANAGER AND/OR FACILITY MANAGEMENT STAFF.
- AS A WORST CASE SCENARIO, ASSUME THAT DELIVERY OF MAJOR EQUIPMENT WILL OCCUR AFTER HOURS. INCLUDE COST OF HAVING PERSONNEL ON SITE AFTER HOURS TO RECEIVE MATERIAL IN THE BASE BID.
- EXACT SCHEDULING OF AFTER-HOUR WORK SHALL BE DETERMINED AT A LATER DATE.

GENERAL CONTRACTOR'S RESPONSIBILITIES

- THE GENERAL CONTRACTOR SHALL TAKE RESPONSIBILITY OF ALL TRADES AND OVERALL CONSTRUCTION MANAGEMENT.
- COORDINATE ALL TRADES INVOLVED.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AS DESCRIBED IN THE ELECTRICAL NOTES ON DRAWING E-6.
- COORDINATE ALL POWER INTERRUPTIONS REQUIRED TO PERFORM THE WORK WITH THE ELECTRICAL CONTRACTOR, PROJECT MANAGER AND FACILITY MANAGEMENT STAFF. SCHEDULE THE WORK IN ORDER TO MINIMIZE THE NUMBER OF REQUIRED POWER INTERRUPTIONS.



1 SITE LOCATION PLAN  
E-1 SCALE: N.T.S.



2 PART GROUND FLOOR KEY PLAN  
E-1 SCALE: 1:500

ELECTRICAL DRAWING SCHEDULE	
E-1	SYMBOL LEGEND, SITE LOCATION & KEY PLAN
E-2	PART GROUND FLOOR EXISTING/DEMOLITION PLAN-POWER & SYSTEMS
E-3	PART GROUND FLOOR PROPOSED PLAN-POWER & SYSTEMS
E-4	DETAILS
E-5	FIRE ALARM SYSTEM DETAILS
E-6	ELECTRICAL NOTES & DETAILS
E-7	PART GROUND FLOOR PROPOSED PLAN-CEILINGS & CONDUIT RUNS

Solid Ground Engineering

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NO.	DESCRIPTION	DATE
7	FOR TENDER	MAY 3/24
6	FOR BUILDING PERMIT	APR 15/24
5	FOR COORDINATION	JAN 22/24
4	FOR COORDINATION	DEC 19/23
3	FOR COORDINATION	NOV 16/23
2	FOR COORDINATION	AUG 30/23
1	FOR COORDINATION	AUG 7/23

REVISIONS / ISSUES



STAMP	NORTH

Project Name

TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

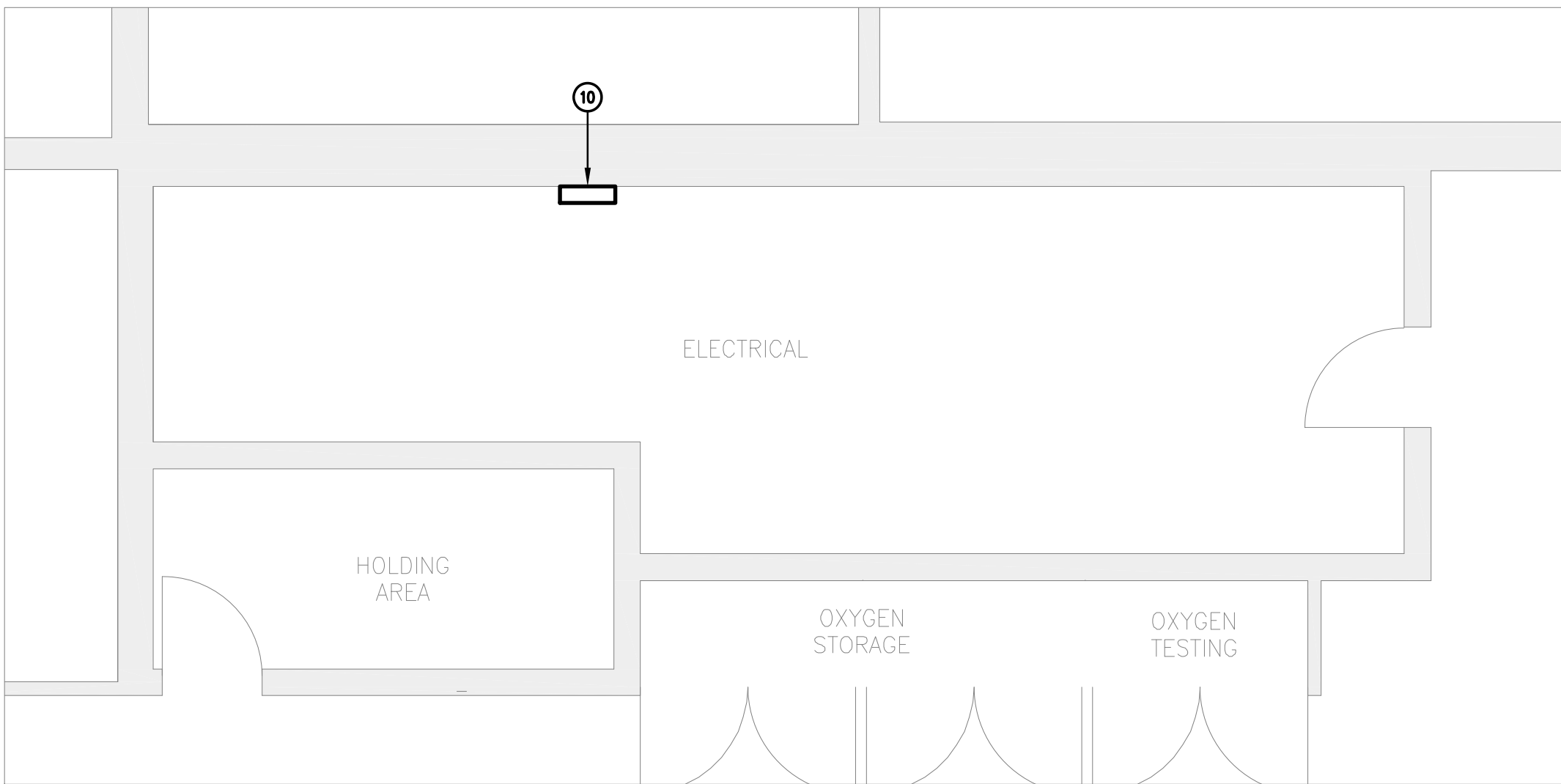
4330 DUFFERIN STREET  
NORTH YORK ON

Drawing Title

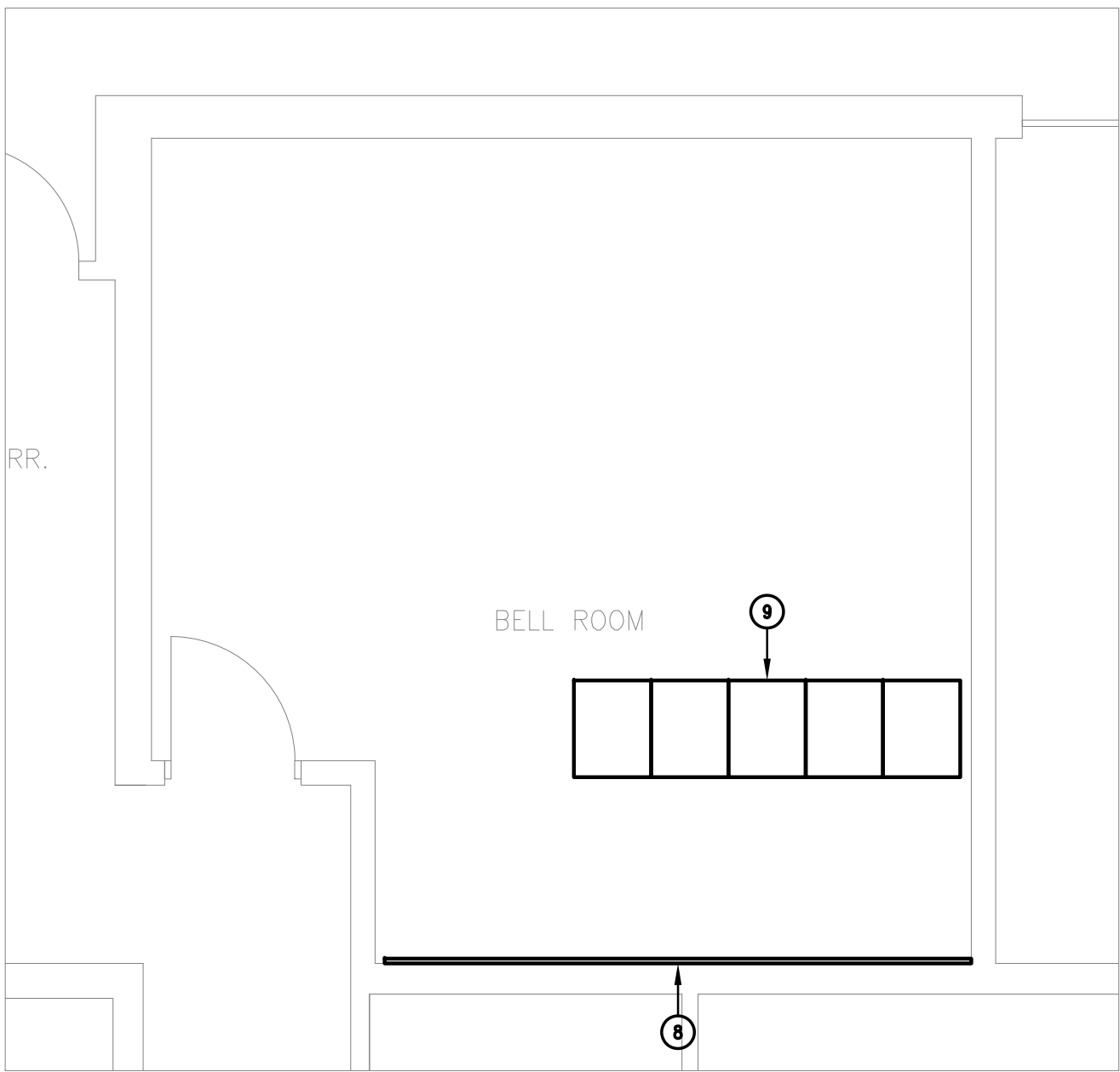
SYMBOL LEGEND, SITE LOCATION,  
& KEY PLAN

Graphic Scale		Sheet no.
Drawn	Checked R.B.	E-1
CAD File	Scale AS NOTED	
Date AUG 2023	Project No. 02304	Revision No.





2 PART GROUND FLOOR EXISTING PLAN-POWER & SYSTEMS  
SCALE: 1:50



3 PART GROUND FLOOR EXISTING PLAN-POWER & SYSTEMS  
SCALE: 1:50

DRAWING LEGEND:

- 1 EXISTING MIRCOM "FLEXNET" FIRE ALARM VOICE COMMUNICATION SYSTEM CONTROL PANELS (2), TO REMAIN.
- 2 EXISTING TELEPHONE SYSTEM BACKBOARD C/W BIX BLOCKS, TO REMAIN.
- 3 EXISTING SECURITY & DOOR ACCESS SYSTEM CONTROL PANELS (SOFTWARE HOUSE ISTAR EDGE) & POWER SUPPLIES, TO REMAIN.
- 4 EXISTING REMOTE FIRE ALARM VOICE COMMUNICATION SYSTEM ANNUNCIATOR PANEL AND PASSIVE GRAPHIC DISPLAY, TO REMAIN.
- 5 EXISTING FIRE ALARM SYSTEM PASSIVE GRAPHIC DISPLAY, TO REMAIN.
- 6 EXISTING SIMPLEX 4010ES COMPUTER ROOM FIRE SUPPRESSION RELEASE PANEL, TO REMAIN.
- 7 EXISTING MIRCOM STROBE LIGHT BOOSTER PANEL, TO REMAIN.
- 8 EXISTING TELEPHONE SYSTEM DEMARCATION POINT & SERVICE BACKBOARDS C/W TELEPHONE SERVICE EQUIPMENT, BIX BLOCKS, TO REMAIN.
- 9 EXISTING NETWORK DATA COMMUNICATION SYSTEM EQUIPMENT RACKS, TO REMAIN.
- 10 EXISTING SQUARE D CAT. NO. NQ46429484170040001 PANEL "SP", 120/208V, 3Φ, 4W, 100A, 30 CCTS (SUPPLIED BY UPS) TO REMAIN.
- 11 EXISTING FLUSH MOUNTED ACCESS DOOR IN EXISTING DRYWALL CEILING, TO REMAIN.
- 12 EXISTING NETWORK DATA CABLES (6 SPARE DROPS) COILED IN CEILING SPACE ABOVE ACCESS DOOR, TO REMAIN.

GENERAL DEMOLITION NOTES

- 1. ALL OUTLETS, DEVICES, FIXTURES, RACEWAYS AND ASSOCIATED WIRING IN CONDUIT ARE EXISTING TO BE REMOVED UNLESS NOTED OTHERWISE.
- 2. DISCONNECT ALL MECHANICAL EQUIPMENT TO BE REMOVED, INCLUDING ALL ASSOCIATED WIRING AND CONDUIT.
- 3. WIRING AND CONDUIT TO BE REMOVED SHALL BE REMOVED ALL THE WAY TO THEIR TERMINATION POINT WHERE PRACTICAL. WHERE NOT PRACTICAL, CONTRACTOR SHALL MAKE SAFE WIRING AND CONDUIT IN CONCEALED CEILING SPACES.
- 4. THE ELECTRICAL CONTRACTOR SHALL TRACE AND DETERMINE CIRCUITS FOR ALL DEVICES AND FIXTURES AFFECTED BY THE WORK. REVISE EXISTING PANEL SCHEDULES ACCORDINGLY.
- 5. DO NOT REMOVE WIRING SUPPLYING EXISTING DEVICES THAT ARE TO REMAIN OR BE RELOCATED OR REPLACED.
- 6. ENSURE THE DEMOLITION WORK DOESN'T AFFECT THE GENERAL OPERATION OF THE BUILDING WITH REGARD TO LIGHTING, CONTROLS, SECURITY SYSTEM, FIRE ALARM ETC.
- 7. ALL ABANDONED CIRCUITS SHALL BE DEENERGIZED AND COMPLETELY DISCONNECTED FROM THEIR SOURCE OF POWER.
- 8. REMOVE ALL REDUNDANT POWER, VOICE, DATA, CABLE TV, P.A. SYSTEM CABLING IN CEILING SPACE. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE EXTENT OF THE DEMOLITION WORK.
- 9. CONTRACTOR SHALL DISPOSE ALL REMOVED DEVICES, FIXTURES, CONDUIT, WIRING ETC. TO SCRAP.


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NO.	DESCRIPTION	DATE

REVISIONS / ISSUES



STAMP

NORTH

Project Name

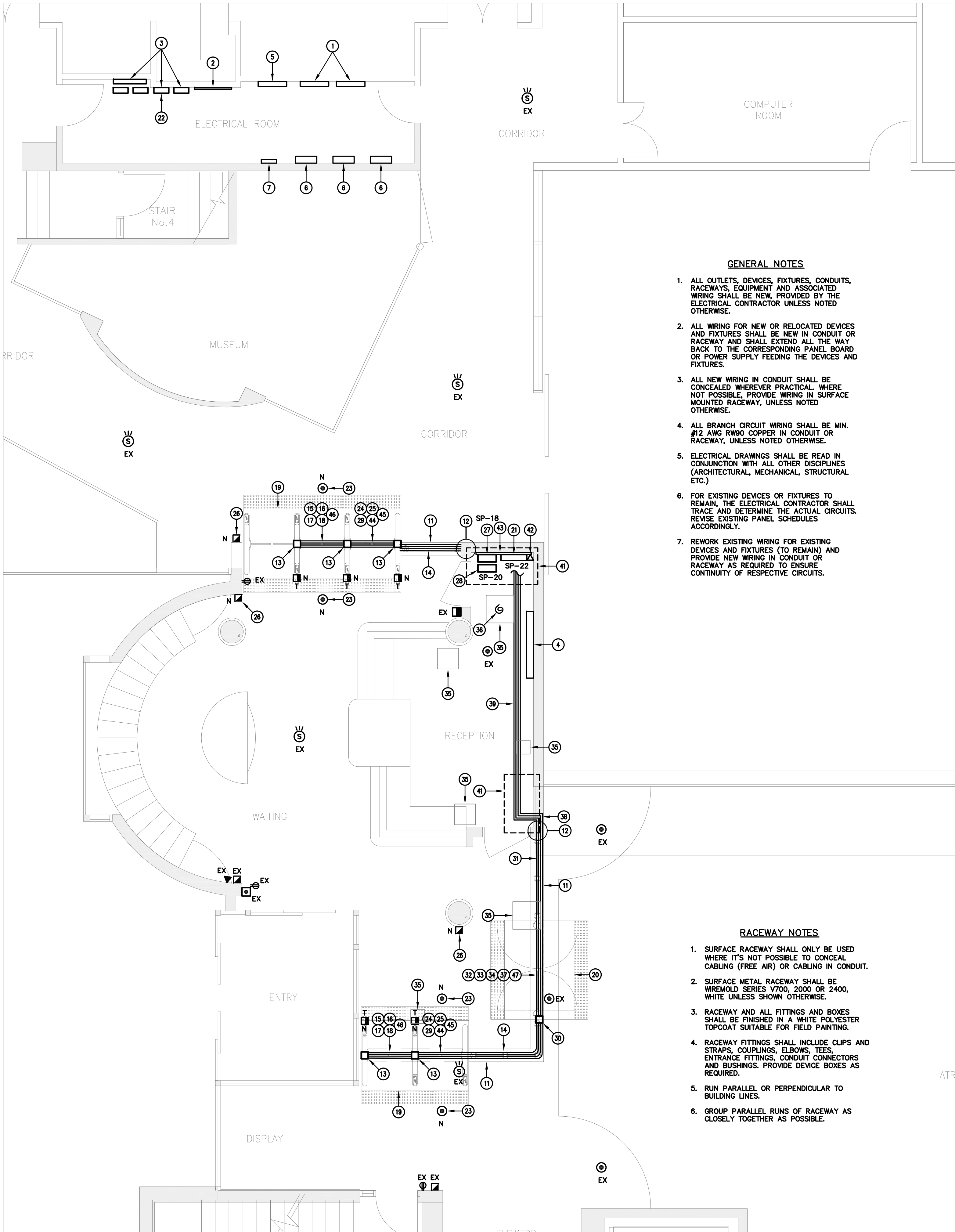
TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

4330 DUFFERIN STREET  
NORTH YORK ON

Drawing Title

PART GROUND FLOOR EXISTING/  
DEMOLITION PLAN-POWER & SYSTEMS

Graphic Scale		Sheet no.
Drawn	Checked R.B.	E-2
CAD File	Scale AS NOTED	
Date AUG 2023	Project No. 02304	Revision No.



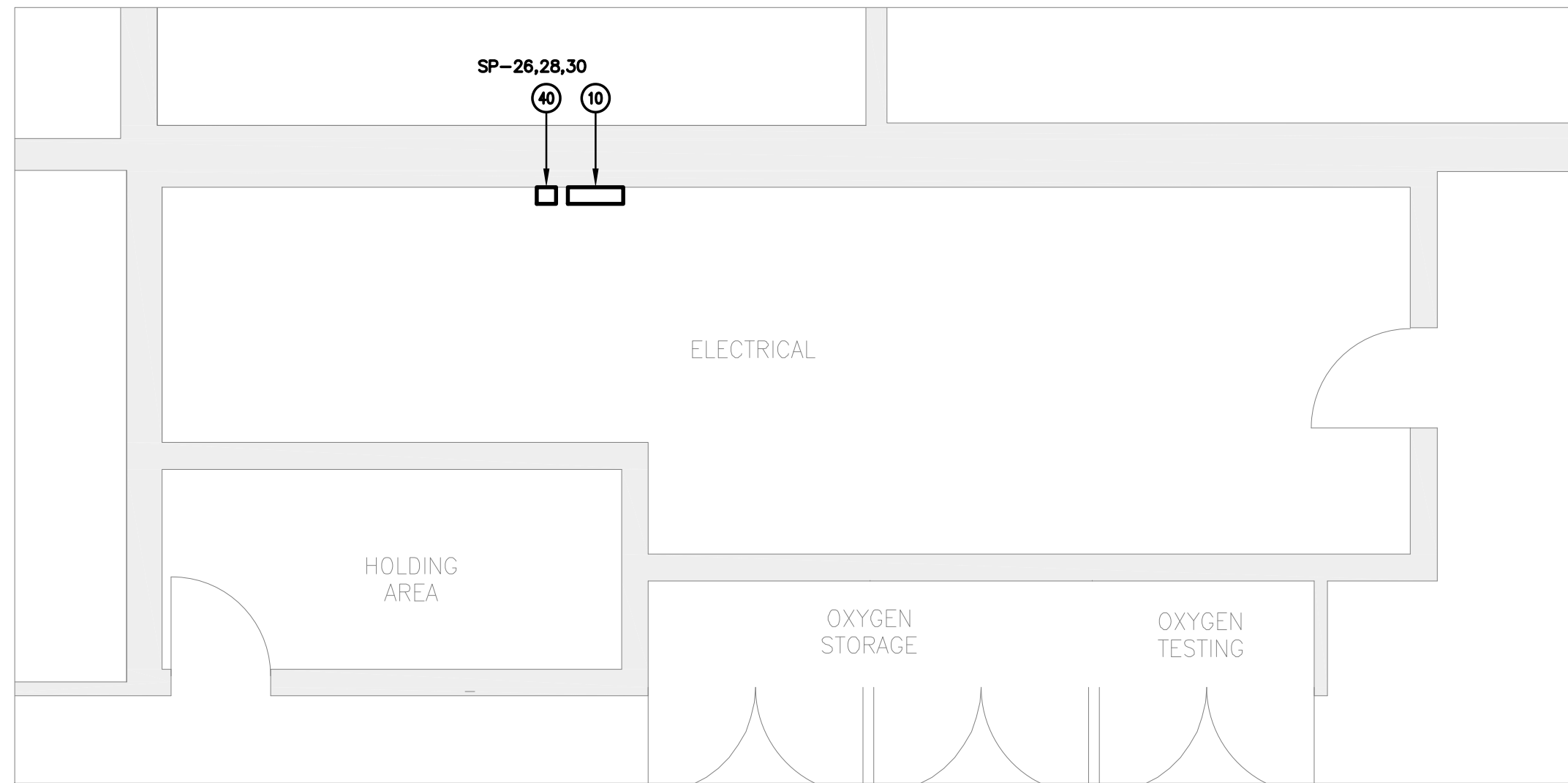
1 PART GROUND FLOOR PROPOSED PLAN-POWER & SYSTEMS  
E-3 SCALE: 1:50

GENERAL NOTES

- ALL OUTLETS, DEVICES, FIXTURES, CONDUITS, RACEWAYS, EQUIPMENT AND ASSOCIATED WIRING SHALL BE NEW, PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- ALL WIRING FOR NEW OR RELOCATED DEVICES AND FIXTURES SHALL BE NEW IN CONDUIT OR RACEWAY AND SHALL EXTEND ALL THE WAY BACK TO THE CORRESPONDING PANEL BOARD OR POWER SUPPLY FEEDING THE DEVICES AND FIXTURES.
- ALL NEW WIRING IN CONDUIT SHALL BE CONCEALED WHEREVER PRACTICAL. WHERE NOT POSSIBLE, PROVIDE WIRING IN SURFACE MOUNTED RACEWAY, UNLESS NOTED OTHERWISE.
- ALL BRANCH CIRCUIT WIRING SHALL BE MIN. #12 AWG RW90 COPPER IN CONDUIT OR RACEWAY, UNLESS NOTED OTHERWISE.
- ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DISCIPLINES (ARCHITECTURAL, MECHANICAL, STRUCTURAL ETC.)
- FOR EXISTING DEVICES OR FIXTURES TO REMAIN, THE ELECTRICAL CONTRACTOR SHALL TRACE AND DETERMINE THE ACTUAL CIRCUITS. REVISE EXISTING PANEL SCHEDULES ACCORDINGLY.
- REWORK EXISTING WIRING FOR EXISTING DEVICES AND FIXTURES (TO REMAIN) AND PROVIDE NEW WIRING IN CONDUIT OR RACEWAY AS REQUIRED TO ENSURE CONTINUITY OF RESPECTIVE CIRCUITS.

RACEWAY NOTES

- SURFACE RACEWAY SHALL ONLY BE USED WHERE IT'S NOT POSSIBLE TO CONCEAL CABLING (FREE AIR) OR CABLING IN CONDUIT.
- SURFACE METAL RACEWAY SHALL BE WIREMOLD SERIES V700, 2000 OR 2400, WHITE UNLESS SHOWN OTHERWISE.
- RACEWAY AND ALL FITTINGS AND BOXES SHALL BE FINISHED IN A WHITE POLYESTER TOPCOAT SUITABLE FOR FIELD PAINTING.
- RACEWAY FITTINGS SHALL INCLUDE CLIPS AND STRAPS, COUPLINGS, ELBOWS, TEES, ENTRANCE FITTINGS, CONDUIT CONNECTORS AND BUSHINGS. PROVIDE DEVICE BOXES AS REQUIRED.
- RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
- GROUP PARALLEL RUNS OF RACEWAY AS CLOSELY TOGETHER AS POSSIBLE.



2 PART GROUND FLOOR PROPOSED PLAN-POWER & SYSTEMS  
E-3 SCALE: 1:50

DRAWING LEGEND:

- EXISTING MIRCOM "FLEXNET" FIRE ALARM VOICE COMMUNICATION SYSTEM CONTROL PANELS (2), TO REMAIN.
- EXISTING TELEPHONE SYSTEM BACKBOARD C/W BIX BLOCKS, TO REMAIN.
- EXISTING SECURITY & DOOR ACCESS SYSTEM CONTROL PANELS (SOFTWARE HOUSE ISTAR EDGE) & POWER SUPPLIES, TO REMAIN.
- EXISTING REMOTE FIRE ALARM VOICE COMMUNICATION SYSTEM ANNUNCIATOR PANEL AND PASSIVE GRAPHIC DISPLAY, TO REMAIN.
- EXISTING FIRE ALARM SYSTEM PASSIVE GRAPHIC DISPLAY, TO REMAIN.
- EXISTING SIMPLEX 4010CS COMPUTER ROOM FIRE SUPPRESSION RELEASE PANEL, TO REMAIN.
- EXISTING MIRCOM STROBE LIGHT BOOSTER PANEL, TO REMAIN.
- (RESERVED).
- (RESERVED).
- EXISTING SQUARE D CAT. NO. N046429484170040001 PANEL "SP", 120/208V, 3Ø, 4W, 100A, 30 CCTS (POWERED BY UPS) TO REMAIN.
- METAL BASE PLATE FOR SIDE PANELS (BY TURNSTILE SUPPLIER).
- PROVIDE AN OPENING/CHASE AT BASE OF EXISTING WALL (AT FLOOR LEVEL) TO ACCOMMODATE CABLING FOR NEW TURNSTILES. PROVIDE A CUSTOM BUSHING AT SIDE OF WALL AND A TRANSITION FITTING BETWEEN WALL AND METAL BASE PLATE FOR SIDE PANEL TO CONCEAL AND PROTECT CABLES.
- 24 VDC CONNECTIONS, FIRE ALARM RELAY CONNECTION, I/O SIGNAL CONNECTIONS AND TOP/IP COMMUNICATION CONNECTION TO TURNSTILE I/O CONTROL BOARD INSIDE TURNSTILE CABINET. PROVIDE DEDICATED 24 VDC CABLE CONNECTIONS FROM EXTERNAL DC POWER SUPPLIES, CABLE CONNECTION FROM RELAY AT FIRE ALARM VOICE COMMUNICATION SYSTEM CONTROL PANEL, I/O CONTROL CABLING AND TOP/IP COMMUNICATION CABLING CONNECTIONS FROM NEW ACCESS CONTROL SYSTEM PANEL.
- NEW HORIZONTAL RUNS OF CABLING FOR 24 VDC POWER, FIRE ALARM (RELAY) SYSTEM, CARD READERS, I/O CONTROL CABLING AND TOP/IP COMMUNICATION CABLING FOR ACCESS CONTROL SYSTEM FOR NEW TURNSTILES AND PEDESTRIAN GATES. CONCEAL CABLING INSIDE CHANNELS OF METAL BASE PLATE FOR SIDE PANELS.
- PROVIDE ACCESS CONTROL SYSTEM CARD READER CABLING IN 3/4" (2 RUNS) UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- PROVIDE 24 VDC POWER WIRING (UP TO 2 RUNS AS REQUIRED) IN 3/4" UNDER BASE PLATE OF TURNSTILE PLATFORM.
- PROVIDE 24 VDC POWER WIRING (UP TO 8 RUNS AS REQUIRED) IN 3/4" UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- PROVIDE FIRE ALARM (RELAY) SYSTEM WIRING (3 RUNS) IN 3/4" UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- EXISTING FLUSH MOUNTED ACCESS DOOR IN EXISTING DRYWALL CEILING, TO REMAIN.
- EXISTING NETWORK DATA CABLES (6 SPARE DROPS) COILED IN CEILING SPACE ABOVE ACCESS DOOR, TO REMAIN. CONNECT ONE DATA DROP TO NEW ACCESS CONTROL PANEL.
- PROVIDE ACCESS CONTROL SYSTEM I/O CONTROL CABLING IN 1" (2 RUNS) UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- INSTALL NEW CABLING (FOR CARD READERS, I/O CONTROL AND TOP/IP COMMUNICATION FOR ACCESS CONTROL SYSTEM, 24 VDC POWER, FIRE ALARM RELAY) FOR SOUTH TURNSTILES AND PEDESTRIAN GATES CONCEALED INSIDE EXISTING DRYWALL PARTITION.
- INSTALL NEW CABLING (FOR CARD READERS, I/O CONTROL AND TOP/IP COMMUNICATION FOR ACCESS CONTROL SYSTEM, 24 VDC POWER, FIRE ALARM RELAY) FOR SOUTH TURNSTILES AND PEDESTRIAN GATES CONCEALED ABOVE EXISTING DRYWALL CEILING.
- NEW FIRE ALARM SYSTEM SMOKE DETECTOR (CEILING MOUNTED TO MATCH EXISTING) CONTRACTOR SHALL PROVIDE NEW WIRING IN CONDUIT AND CONNECT TO EXISTING "FA ZONE 10 - SOUTH BUILDING FIRST FLOOR DEVICES" ALARM ZONE IN EXISTING FIRE ALARM VOICE COMMUNICATION CONTROL PANEL.
- PROVIDE ACCESS CONTROL SYSTEM CABLING FOR CARD READERS (2 RUNS) IN 3/4" UNDER BASE PLATE OF TURNSTILE PLATFORM.
- PROVIDE I/O CONTROL CABLING FOR ACCESS CONTROL SYSTEM (2 RUNS) IN 1" UNDER BASE PLATE OF TURNSTILE PLATFORM.
- NEW FIRE ALARM SYSTEM PULL STATION TO MATCH EXISTING. CONTRACTOR SHALL PROVIDE NEW WIRING IN CONDUIT AND CONNECT TO EXISTING "FA ZONE 10 - SOUTH BUILDING FIRST FLOOR DEVICES" ALARM ZONE IN EXISTING FIRE ALARM VOICE COMMUNICATION CONTROL PANEL. INSTALL WIRING TO PULL STATION FROM CEILING IN SURFACE MOUNTED WIREMOLD V700 SERIES RACEWAY.
- EXTERNAL 24 VDC POWER SUPPLIES (UP TO 2 AS REQUIRED) FOR NORTH TURNSTILES, BY TURNSTILE SUPPLIER. CONFIRM AND COORDINATE EXACT LOCATION AND WIRING REQUIREMENTS WITH TURNSTILE INSTALLER. PROVIDE A NEW CIRCUIT FROM EXISTING PANEL "SP" AS INDICATED.
- EXTERNAL 24 VDC POWER SUPPLIES (UP TO 2 AS REQUIRED) FOR SOUTH TURNSTILES AND PEDESTRIAN GATES, BY TURNSTILE SUPPLIER. CONFIRM AND COORDINATE EXACT LOCATION AND WIRING REQUIREMENTS WITH TURNSTILE INSTALLER. PROVIDE A NEW CIRCUIT FROM EXISTING PANEL "SP" AS INDICATED.
- PROVIDE 24 VDC POWER WIRING (UP TO 4 RUNS AS REQUIRED) IN 3/4" UNDER BASE PLATE OF TURNSTILE PLATFORM.
- 24 VDC CONNECTIONS, FIRE ALARM RELAY CONNECTION, I/O SIGNAL CONNECTIONS AND TOP/IP COMMUNICATION CONNECTION TO PEDESTRIAN GATE I/O CONTROL BOARD INSIDE GATE POST. PROVIDE DEDICATED 24 VDC CABLE CONNECTIONS FROM EXTERNAL DC POWER SUPPLIES, CABLE CONNECTION FROM RELAY AT FIRE ALARM VOICE COMMUNICATION SYSTEM CONTROL PANEL AND I/O CONTROL CABLING AND TOP/IP COMMUNICATION CABLING CONNECTION FROM NEW ACCESS CONTROL SYSTEM PANEL.
- NEW HORIZONTAL RUNS OF CABLING FOR 24 VDC POWER, FIRE ALARM (RELAY) SYSTEM, CARD READERS, I/O CONTROL CABLING AND TOP/IP COMMUNICATION CABLING FOR ACCESS CONTROL SYSTEM FOR NEW TURNSTILES AND PEDESTRIAN GATES. CONCEAL CABLING INSIDE CHANNELS OF METAL BASE PLATE FOR SIDE PANELS.
- PROVIDE ACCESS CONTROL SYSTEM CARD READER CABLING IN 3/4" (2 RUNS) UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- PROVIDE 24 VDC POWER WIRING (UP TO 8 RUNS AS REQUIRED) IN 3/4" UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- PROVIDE FIRE ALARM (RELAY) SYSTEM WIRING (3 RUNS) IN 3/4" UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- EXISTING FLUSH MOUNTED ACCESS DOOR IN EXISTING DRYWALL CEILING, TO REMAIN.
- EXISTING NETWORK DATA CABLES (6 SPARE DROPS) COILED IN CEILING SPACE ABOVE ACCESS DOOR, TO REMAIN. CONNECT ONE DATA DROP TO NEW ACCESS CONTROL PANEL.
- PROVIDE ACCESS CONTROL SYSTEM I/O CONTROL CABLING IN 1" (2 RUNS) UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- INSTALL NEW CABLING (FOR CARD READERS, I/O CONTROL AND TOP/IP COMMUNICATION FOR ACCESS CONTROL SYSTEM, 24 VDC POWER, FIRE ALARM RELAY) FOR SOUTH TURNSTILES AND PEDESTRIAN GATES CONCEALED INSIDE EXISTING DRYWALL PARTITION.
- INSTALL NEW CABLING (FOR CARD READERS, I/O CONTROL AND TOP/IP COMMUNICATION FOR ACCESS CONTROL SYSTEM, 24 VDC POWER, FIRE ALARM RELAY) FOR SOUTH TURNSTILES AND PEDESTRIAN GATES CONCEALED ABOVE EXISTING DRYWALL CEILING.
- NEW SURGE PROTECTION DEVICE "SPD-1". INSTALL AS CLOSE AS POSSIBLE TO EXISTING PANEL "SP". REFER TO SPECIFICATION ON DRAWING E-6. PROVIDE A NEW CIRCUIT FROM EXISTING PANEL "SP" AS INDICATED.
- GENERAL CONTRACTOR TO REMOVE PART OF WALL AND CEILING INSIDE RECEPTION AREA AS REQUIRED TO CONCEAL NEW CABLING. RESTORE AND MAKE GOOD ALL SURFACES AS REQUIRED.
- PROVIDE A NEW DATA OUTLET AS REQUIRED FOR CONNECTION OF NEW ACCESS CONTROL PANEL. USE ONE EXISTING SPARE DATA DROP LOCATED IN CEILING SPACE.
- NEW 48"x96"x3/4" PLYWOOD BACKBOARD C/W GREY FIRE-RETARDANT PAINT FOR NEW ACCESS CONTROL PANEL, POWER SUPPLY AND TURNSTILE REMOTE POWER SUPPLIES.
- PROVIDE TOP/IP COMMUNICATION CABLING (2 RUNS) IN 3/4" UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- PROVIDE FIRE ALARM (RELAY) SYSTEM WIRING (2 RUNS) IN 3/4" UNDER BASE PLATE OF TURNSTILE PLATFORM.
- PROVIDE TOP/IP COMMUNICATION CABLING (1 RUN) IN 3/4" UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.
- PROVIDE TOP/IP COMMUNICATION CABLING (3 RUNS) IN 3/4" UNDER BASE PLATE OF PEDESTRIAN GATE PLATFORM.

NOTES RE: POWER FAILURES

- ELECTROMAGNETIC LOCKS AND ASSOCIATED KEY SWITCHES THROUGHOUT THE BUILDING ARE NOT SHOWN ON THE DRAWINGS.
- UPON FAILURE OF POWER SUPPLY TO THE TURNSTILES, THE TURNSTILES SHALL BE INACTIVATED AND MAY BE OPENED MANUALLY.
- AFTER POWER IS RESTORED FROM A POWER FAILURE, THE TURNSTILES SHALL REMAIN OPEN (OR INACTIVATED) UNTIL ELECTROMAGNETIC LOCKS IN THE BUILDING HAVE BEEN RESET.

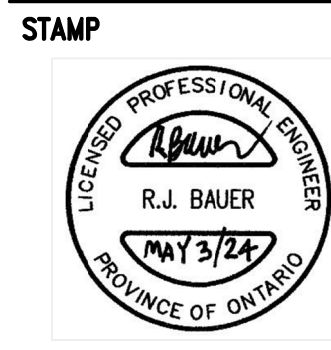
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NOTE: REFER TO DRAWING E-7 FOR CONDUIT RUNS TO ALL NEW DEVICES AND EQUIPMENT AND RELEVANT CEILING TYPES.

NO.	DESCRIPTION	DATE
7	FOR TENDER	MAY 3/24
6	FOR BUILDING PERMIT	APR 15/24
5	FOR COORDINATION	JAN 22/24
4	FOR COORDINATION	DEC 19/23
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1	FOR COORDINATION	AUG 7/23

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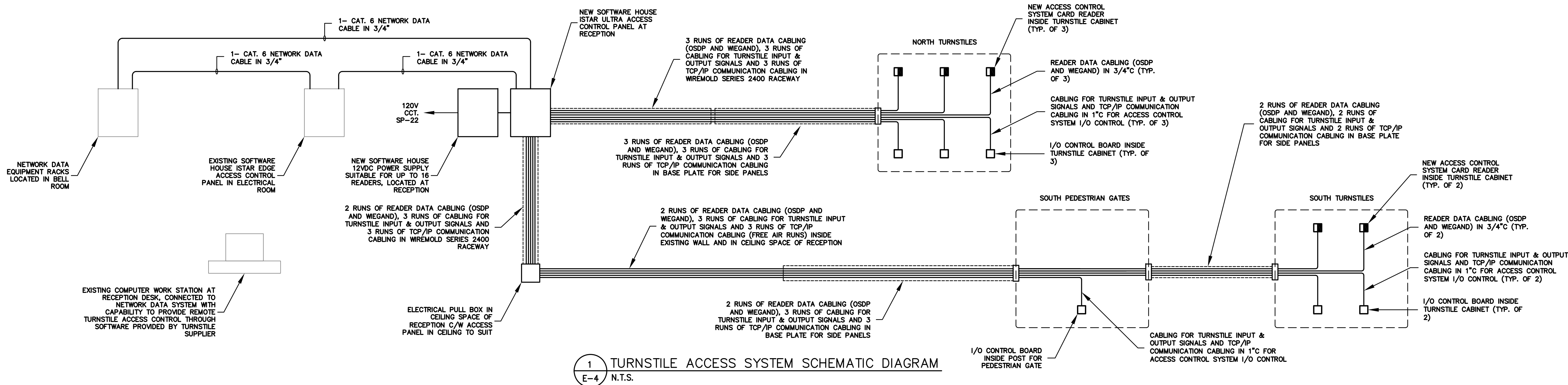
TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

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NORTH YORK ON

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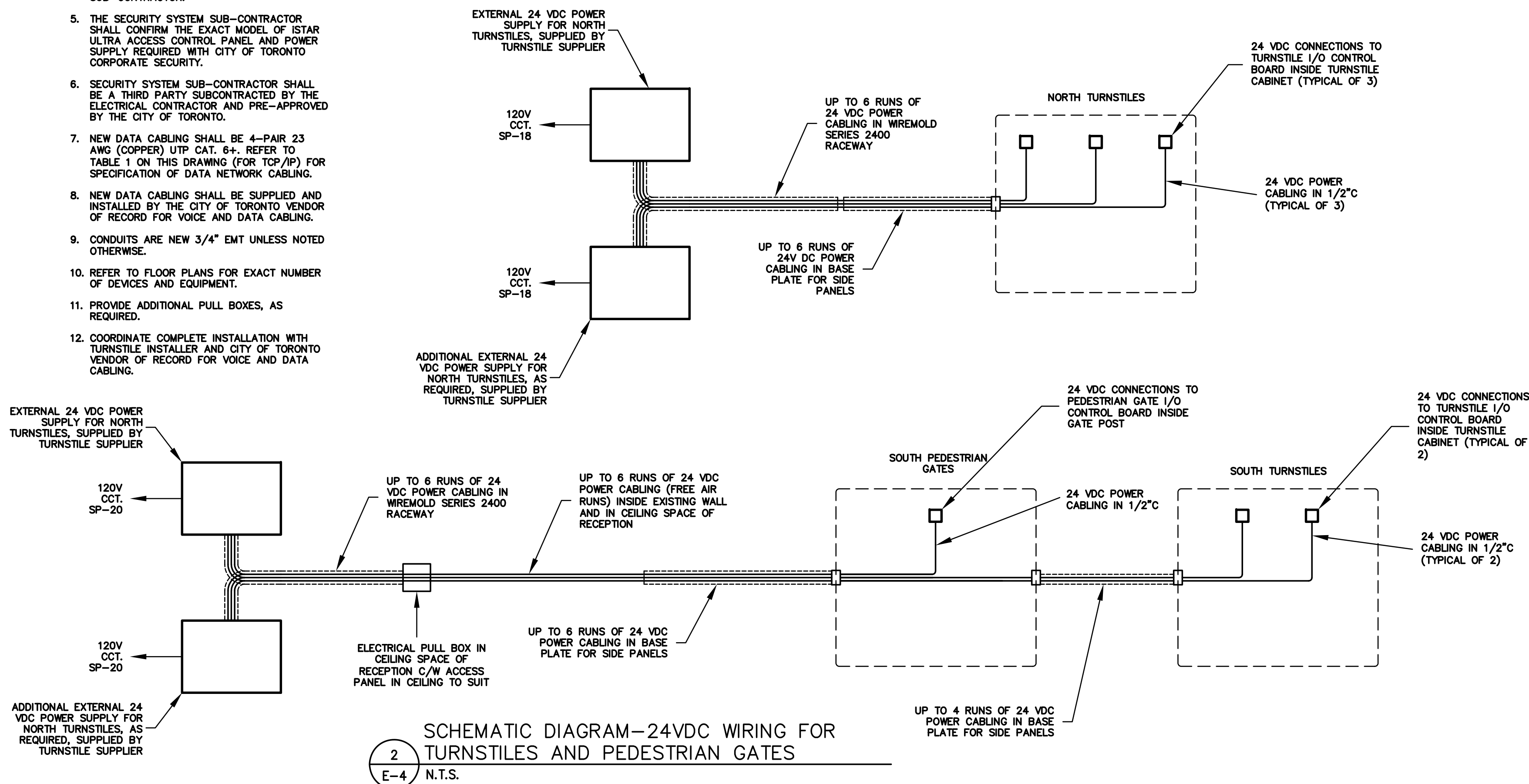
PART GROUND FLOOR  
PROPOSED PLAN-POWER & SYSTEMS

Graphic Scale		Sheet no.
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Date	Scale	Revision No.
AUG 2023	AS NOTED	
	Project No.	
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TURNSTILE ACCESS SYSTEM NOTES

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW ELECTRICAL BOXES, EMT CONDUIT AND WIREMOLD RACEWAY AND ALL WIRING AND CABLING UNLESS NOTED OTHERWISE.
2. REFER TO TABLE 1 ON THIS DRAWING FOR CABLING SPECIFICATIONS.
3. NEW CARD READERS AT TURNSTILES SHALL BE HID SIGNO 40 (NO ALTERNATE ACCEPTED).
4. CARD READERS, NEW ISTAR ULTRA ACCESS CONTROL PANEL, POWER SUPPLIES AND ACCESS SYSTEM CABLING SHALL BE NEW, PROVIDED BY THE SECURITY SYSTEM SUB-CONTRACTOR.
5. THE SECURITY SYSTEM SUB-CONTRACTOR SHALL CONFIRM THE EXACT MODEL OF ISTAR ULTRA ACCESS CONTROL PANEL AND POWER SUPPLY REQUIRED WITH CITY OF TORONTO CORPORATE SECURITY.
6. SECURITY SYSTEM SUB-CONTRACTOR SHALL BE A THIRD PARTY SUBCONTRACTED BY THE ELECTRICAL CONTRACTOR AND PRE-APPROVED BY THE CITY OF TORONTO.
7. NEW DATA CABLING SHALL BE 4-PAIR 23 AWG (COPPER) UTP CAT. 6+; REFER TO TABLE 1 ON THIS DRAWING (FOR TCP/IP) FOR SPECIFICATION OF DATA NETWORK CABLING.
8. NEW DATA CABLING SHALL BE SUPPLIED AND INSTALLED BY THE CITY OF TORONTO VENDOR OF RECORD FOR VOICE AND DATA CABLING.
9. CONDUITS ARE NEW 3/4" EMT UNLESS NOTED OTHERWISE.
10. REFER TO FLOOR PLANS FOR EXACT NUMBER OF DEVICES AND EQUIPMENT.
11. PROVIDE ADDITIONAL PULL BOXES, AS REQUIRED.
12. COORDINATE COMPLETE INSTALLATION WITH TURNSTILE INSTALLER AND CITY OF TORONTO VENDOR OF RECORD FOR VOICE AND DATA CABLING.



2  
E-4  
N.T.S.

NOTES

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW ELECTRICAL BOXES, EMT CONDUIT AND WIREMOLD RACEWAY AND ALL WIRING AND CABLING UNLESS NOTED OTHERWISE.
2. REFER TO TABLE 1 ON THIS DRAWING FOR CABLING SPECIFICATIONS.
3. COORDINATE COMPLETE INSTALLATION WITH TURNSTILE INSTALLER.
4. REFER TO FLOOR PLAN FOR EXACT NUMBER OF DEVICES AND EQUIPMENT.
5. PROVIDE ADDITIONAL FITTINGS AND PULL BOXES, AS REQUIRED.

TABLE 1  
TURNSTILE & ACCESS CONTROL SYSTEM CABLING REQUIREMENTS

DESCRIPTION	FROM	TO	QUANTITY, NUMBER OF RUNS	CABLE MANUFACTURER	CAT. NO	CABLE DESCRIPTION	NO. OF CABLES PER RUN
24VDC POWER	TURNSTILE EXTERNAL POWER SUPPLY	TURNSTILE POWER TERMINAL BLOCK	UP TO 12	HONEYWELL "GENESIS"	3125	12 AWG 2 STRANDED CONDUCTORS CL3P FPLP FT6	1
READER DATA (WEGAND)	TURNSTILE CARD READER	ISTAR ULTRA CONTROLLER ACCESS CONTROL MODULE	5	BELDEN	6508FE	#22-10C BC SHIELDED CMP	1
READER DATA (OSDP)	TURNSTILE CARD READER	ISTAR ULTRA CONTROLLER ACCESS CONTROL MODULE	5	BELDEN	6541FD	2 PR #22 STR TC FEP OVERALL SHIELD RS485 OSDP READERS CMP	1
TURNSTILE SIGNAL INPUTS FOR ACCESS CONTROL SYSTEM	TURNSTILE I/O CONTROL BOARD	ISTAR ULTRA CONTROLLER ACCESS CONTROL MODULE	6	HONEYWELL "GENESIS"	3102	22 AWG 2/C STR CMP/CL2P	9
TURNSTILE SIGNAL OUTPUTS FOR ACCESS CONTROL SYSTEM	TURNSTILE I/O CONTROL BOARD	ISTAR ULTRA CONTROLLER ACCESS CONTROL MODULE	6	HONEYWELL "GENESIS"	3106	22 AWG 6/C STR CMP/CL2P	3
TCP/IP COMMUNICATION	TURNSTILE I/O CONTROL BOARD	ISTAR ULTRA CONTROLLER ACCESS CONTROL MODULE	6	BELDEN	2433	CATEGORY 6+ ENHANCED 4 BONDED PAIRS 23 AWG U/UT, CMP	1

TURNSTILE & ACCESS CONTROL SYSTEM CABLING NOTES

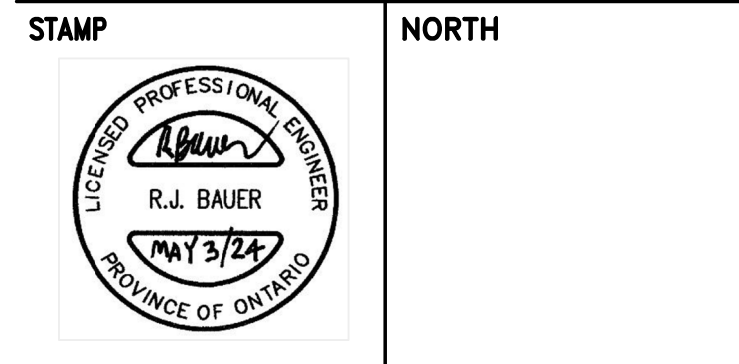
1. THE SECURITY SYSTEM SUB-CONTRACTOR SHALL PROVIDE ALL CABLING REQUIRED FOR THE TURNSTILE AND ACCESS CONTROL SYSTEMS INSTALLATION.
2. ALL CABLING SHALL BE IN CONFORMANCE WITH THE LATEST CITY OF TORONTO DESIGN GUIDE FOR STRUCTURED CABLING SYSTEMS FOR COMMERCIAL FACILITIES.
3. THE SECURITY SYSTEM SUB-CONTRACTOR SHALL CONFIRM THAT THE CABLING SPECIFIED IS SUFFICIENT FOR THE PURPOSE AND AS REQUIRED FOR THE INSTALLATION. ALTERNATE CABLE MANUFACTURERS ARE PERMITTED PROVIDED THEY MEET THE SPECIFICATION AND REQUIRED FUNCTIONALITY.
4. ALL CABLING SHALL COMPRISE COPPER CONDUCTORS.
5. ALL CABLING SHALL BE PLENUM (CSA FT6 OR CMP) RATED.
6. PROVIDE ADDITIONAL GROUND CONDUCTORS AS REQUIRED.
7. SUBMIT DATA SHEETS OF ALL CABLING TYPES TO THE CONSULTANT FOR REVIEW.

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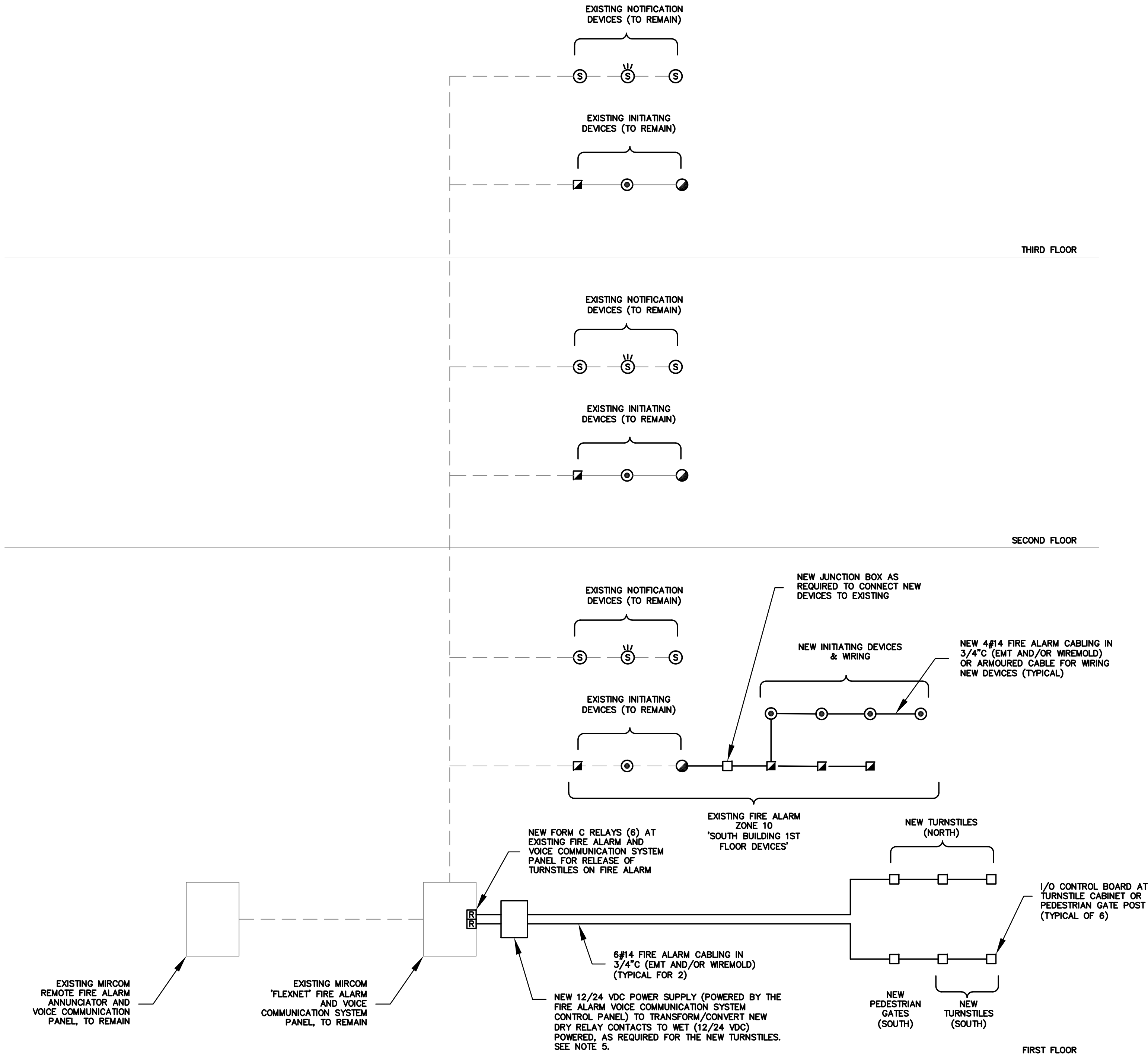
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Graphic Scale		Sheet no.
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**FIRE ALARM/ VOICE COMMUNICATION SYSTEM RISER DIAGRAM**

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**FIRE ALARM/ VOICE COMMUNICATION SYSTEM RISER NOTES**

1. PROVIDE NEW WIRING IN CONDUIT FOR ALL NEW INITIATING AND ANCILLARY DEVICES AND EXTEND TO EXISTING FIRE ALARM CONTROL PANEL.
2. FIRE ALARM CABLING SHALL BE CSA TYPE FAS 105C TYPE PER CSA STANDARD C22.2 No. 208-03, 105°C, 300V RATED C/W ALUMINUM SHIELD AS REQUIRED.
3. REFER TO FLOOR PLANS FOR EXACT LOCATION AND QUANTITY OF NEW FIRE ALARM INITIATION DEVICES.
4. PROVIDE NEW MODULES, POWER SUPPLIES AND RELAYS IN EXISTING FIRE ALARM VOICE COMMUNICATION CONTROL PANEL AS REQUIRED TO ACCOMMODATE NEW INITIATING AND ANCILLARY DEVICES.
5. FOR NEW POWER SUPPLIES, PROVIDE 120VAC WIRING (2#12 + #14 GND) AND CONNECTIONS (IN PARALLEL) FROM EXISTING CIRCUIT FOR THE FIRE ALARM VOICE COMMUNICATION SYSTEM CONTROL PANEL, AS REQUIRED.
6. THIS RISER DIAGRAM IS DIAGRAMMATIC ONLY. THE FIRE ALARM SYSTEM INSTALLER AND ELECTRICAL CONTRACTOR SHALL DETERMINE THE EXACT CONDUIT AND CABLING RUNS AND QUANTITY AND PLACEMENT OF ZONE ISOLATORS.
7. CLASS A OR CLASS B WIRING MAY BE USED FOR NEW DEVICES BUT MUST BE INSTALLED IN STRICT COMPLIANCE WITH STANDARD CAN/ULC-5524. PROVIDE ADDITIONAL ZONE ISOLATORS AS REQUIRED FOR CLASS OF WIRING USED.
8. PROVIDE VERIFICATION OF ALL NEW DEVICES AND EXISTING DEVICES AFFECTED BY THE CONSTRUCTION IN WRITING. SUBMIT VERIFICATION REPORT TO CONSULTANT AND FIRE DEPARTMENT AS REQUIRED.

**FIRE ALARM/ VOICE COMMUNICATION SYSTEM NOTES**

1. INSTALLATION SHALL BE IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE AND THE LATEST APPLICABLE VERSION OF STANDARD CAN/ULC-5524 "STANDARD FOR INSTALLATION OF FIRE ALARM SYSTEMS".
2. THE INSTALLED SYSTEM SHALL MEET ALL REQUIREMENTS OF THE CITY OF TORONTO BUILDING AND FIRE DEPARTMENTS.
3. THE FIRE ALARM AND VOICE COMMUNICATION WORK SHALL BE PERFORMED BY THE FACILITY'S (CITY OF TORONTO) APPROVED FIRE ALARM SYSTEM CONTRACTOR AS A THIRD PARTY (NO EXCEPTIONS). INCLUDE ALL COSTS OF THE FIRE ALARM CONTRACTOR'S SERVICES IN THE SCOPE OF WORK.
4. ELECTRICAL CONDUIT, OUTLET BOXES, JUNCTION BOXES FOR ALL FIRE ALARM AND VOICE COMMUNICATION SYSTEM DEVICES SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
5. ALL NEW FIRE ALARM AND VOICE COMMUNICATION DEVICES AND CABLING SHALL BE PROVIDED BY THE FACILITY'S (CITY OF TORONTO) FIRE ALARM SYSTEM CONTRACTOR. INCLUDE ALL COSTS IN THE SCOPE OF WORK.
6. COORDINATE WORK WITH THE FACILITY'S REPRESENTATIVE ON SITE. MAKE ALL ARRANGEMENTS AS REQUIRED.
7. THE ELECTRICAL CONTRACTOR SHALL ASSIST THE FIRE ALARM CONTRACTOR IN THE INSTALLATION, PROGRAMMING AND VERIFICATION OF THE NEW INITIATING, ANCILLARY AND VOICE COMMUNICATION DEVICES.
8. ALL DEVICES, WIRING, EQUIPMENT, CONDUIT ETC. SHALL BE NEW UNLESS NOTED OTHERWISE.
9. ALL DEVICES SHALL BE ADDRESSABLE IN ACCORDANCE WITH THE EXISTING FIRE ALARM VOICE COMMUNICATION SYSTEM.
10. ALL WIRING SHALL BE C/W COPPER CONDUCTORS.
11. CLASS A OR CLASS B WIRING MAY BE USED FOR NEW FIRE ALARM, VOICE COMMUNICATION AND ANCILLARY DEVICES BUT MUST BE INSTALLED IN STRICT COMPLIANCE WITH STANDARD CAN/ULC-5524 AND TO SUIT THE EXISTING SYSTEM. PROVIDE ADDITIONAL ZONE ISOLATORS AS REQUIRED FOR CLASS OF WIRING USED.
12. ALL WIRING SHALL BE INSTALLED IN CONCEALED CONDUIT AND CONFORM WITH THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE AND AS PER MANUFACTURER'S INSTRUCTIONS.
13. WIRING IN CONDUIT SHALL BE CONCEALED WHEREVER PRACTICAL.
14. MINIMUM CONDUIT SIZE SHALL BE 3/4" EMT.
15. DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATION OF DEVICES SHALL BE DETERMINED ON SITE.
16. CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF "AS-BUILT" DRAWINGS.
17. REFER TO FLOOR PLANS FOR EXACT LOCATION AND QUANTITY OF FIRE ALARM INITIATION, NOTIFICATION/VOICE COMMUNICATION AND ANCILLARY DEVICES.
18. PROVIDE NEW MODULES, POWER SUPPLIES, RELAYS ETC. IN EXISTING FIRE ALARM VOICE COMMUNICATION CONTROL PANELS. TRANSDUCERS AND/OR DATA GATHERING PANELS AS REQUIRED TO ACCOMMODATE NEW INITIATING DEVICES, NOTIFICATION/VOICE COMMUNICATION AND ANCILLARY DEVICES. PROVIDE NEW SYNCHRONIZING MODULES FOR NEW STROBES AND SPEAKER STROBES, AS REQUIRED.
19. CONNECT NEW RELAYS IN THE FIRE ALARM VOICE COMMUNICATION SYSTEM PANEL PANEL TO RELEASE NEW TURNSTILES IN THE EVENT OF A FIRE ALARM.
20. PROVIDE VERIFICATION OF ALL NEW DEVICES AND EXISTING DEVICES AFFECTED BY THE CONSTRUCTION IN WRITING. SUBMIT VERIFICATION REPORT TO THE ENGINEER AND FIRE DEPARTMENT AS REQUIRED.
21. VERIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE VERSION OF STANDARD CAN/ULC-5537 "STANDARD FOR VERIFICATION OF FIRE ALARM SYSTEMS".

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4	FOR TENDER	MAY 3/24
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FIRE ALARM SYSTEM DETAILS

Graphic Scale		Sheet no.
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CAD File	Scale AS NOTED	
Date AUG 2023	Project No. 02304	Revision No.

ELECTRICAL NOTES

1. APPLY FOR, OBTAIN AND PAY FOR ALL PERMITS, LICENSES, INSPECTIONS, EXAMINATIONS AND FEES REQUIRED FOR THE ELECTRICAL WORK.
2. ARRANGE FOR INSPECTION OF THE WORK BY ALL AUTHORITIES HAVING JURISDICTION OVER THE WORK, ON COMPLETION OF THE WORK, PRESENT TO THE CONSTRUCTION MANAGER THE FINAL CERTIFICATES OF APPROVAL.
3. COMPLY WITH THE LATEST REQUIREMENTS OF CSA, UL, C, APPLICABLE FEDERAL, PROVINCIAL AND MUNICIPAL CODES.
4. DO COMPLETE INSTALLATION IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE, 28TH EDITION (2021).
5. INSTRUCT OPERATING PERSONNEL AND STAFF IN THE OPERATION, CARE AND MAINTENANCE OF EQUIPMENT.
6. EQUIPMENT AND MATERIAL TO BE CSA CERTIFIED, WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT WHICH IS NOT CSA CERTIFIED, OBTAIN SPECIAL APPROVAL FROM ELECTRICAL INSPECTION DEPARTMENT.
7. CLEAN AND TOUCH UP SURFACES OF SHOP-PAINTED EQUIPMENT SCRATCHED OR MARKED DURING SHIPMENT OR INSTALLATION, TO MATCH ORIGINAL PAINT.
8. IF MOUNTING HEIGHT OF EQUIPMENT IS NOT SPECIFIED OR INDICATED, VERIFY BEFORE PROCEEDING WITH INSTALLATION, THE CONTRACTOR SHALL MAKE ABSOLUTELY SURE OF THE EXISTING CONDITIONS AND LOCATION OF EXISTING ELECTRICAL EQUIPMENT PRIOR TO SUBMITTING A BID.
9. ALL CUTTING AND PATCHING REQUIRED AS A RESULT OF THE ELECTRICAL WORK SHALL BE BY OTHERS AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR. OBTAIN THE APPROVAL OF THE CONSTRUCTION MANAGER BEFORE DOING ANY CUTTING.
10. SUPPORTING MEMBERS OF ANY FLOOR, WALL OR THE BUILDING STRUCTURE SHALL BE CUT ONLY IN A MANNER APPROVED BY THE ARCHITECT AND/OR STRUCTURAL CONSULTANT. ARRANGE TO HAVE ALL THE PATCHING DONE BY THE RESPECTIVE TRADES (EG. MASONRY, CARPENTRY ETC.) WHOSE WORK IS AFFECTED.
11. IF CORE DRILLING THROUGH A FLOOR SLAB IS REQUIRED, X-RAY SLAB BEFORE ANY DRILLING IS TO TAKE PLACE. ARRANGE WITH THE GENERAL CONTRACTOR TO HAVE THE SLAB X-RAYED AFTER HOURS WHEN THE BUILDING IS VACATED.
12. PROVIDE ULC LISTED FIRESTOP MATERIAL TO SEAL ANY OPENINGS WHERE CONDUITS PENETRATE A FLOOR SLAB OR OTHER FIRE RATED SEPARATION.
13. COORDINATE ELECTRICAL WORK WITH ALL OTHER TRADES ON SITE. INFORM ALL OTHER TRADES IN THE CONCERNING REQUIRED OPENINGS, WHERE THIS IS NOT MET, BEAR ALL THE COST OF CUTTING AND PATCHING.
14. EXACT LOCATION OF OWNER'S EQUIPMENT AND MECHANICAL EQUIPMENT SHALL BE VERIFIED ON SITE PRIOR TO ROUGHING IN.
15. ALL EXISTING PANEL, SCHEDULES AND DISTRIBUTION EQUIPMENT IDENTIFICATION SHALL BE REMOVED TO REFLECT ANY CHANGES MADE BY DEMOLITION AND RENOVATION.
16. MAXIMUM VOLTAGE DROP BETWEEN THE FURTHEST OUTLET OF A FULLY LOADED CIRCUIT AND THE PANEL TO WHICH IT IS CONNECTED SHALL NOT EXCEED 2% FOR NORMAL POWER CIRCUITS AND 5% FOR EMERGENCY LIGHTING.
17. INSTALL ALL OUTLETS FLUSH WITH FINISHED WALL.
18. COORDINATE ANY POWER INTERRUPTIONS REQUIRED AS A RESULT OF THIS WORK THAT WILL AFFECT THE BUILDING OPERATION, OTHER TRADES AND OTHER TRADES INVOLVED.
19. (RESERVED).

20. THE DRAWINGS FOR THE ELECTRICAL WORK ARE PERFORMANCE DRAWINGS, DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENT AND APPROXIMATE LOCATION OF APPARATUS, FIXTURES AND APPROXIMATE SIZES AND LOCATIONS OF EQUIPMENT AND OUTLETS. THE DRAWINGS ARE NOT INTENDED TO SHOW ARCHITECTURAL, STRUCTURAL OR INTERIOR DESIGN DETAILS.
21. DO NOT SCALE DRAWINGS BUT OBTAIN INFORMATION INVOLVING ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS AND FIELD MEASUREMENT. FOLLOW THE ELECTRICAL DRAWINGS IN LAYING OUT THE WORK. CONSULT GENERAL CONSTRUCTION DRAWINGS AS WELL AS DETAIL DRAWINGS TO BECOME FAMILIAR WITH ALL CONDITIONS AFFECTING THE WORK AND VERIFY THE SPACES IN WHICH THE WORK WILL BE INSTALLED.

22. WORKMANSHIP AND SUPERVISION
23. WORKMANSHIP AND INSTALLATION METHODS SHALL CONFORM TO THE BEST STANDARD PRACTICE. WORK SHALL BE PERFORMED BY SKILLED TRADESMEN UNDER THE SUPERVISION OF FULLY QUALIFIED PERSONNEL.
24. INSTALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN REQUIREMENTS AND RECOMMENDATIONS.
25. WHEN REQUESTED, SUBMIT SAMPLES OF MATERIALS PROPOSED FOR REVIEW BEFORE PROCEEDING WITH WORK.
26. CONCEAL CONDUIT IN FINISHED AREAS, WHERE EXPOSED CONDUIT IS USED, RUN STRAIGHT AND PERPENDICULAR OR PARALLEL TO BUILDING LINES.
27. ATTEND JOB MEETINGS AS CALLED FOR BY THE PROJECT OR CONSTRUCTION MANAGER.
28. (RESERVED).

- RECORD DRAWINGS
29. THE ELECTRICAL CONTRACTOR SHALL KEEP A SET OF WHITE PRINTS ON THE SITE AT ALL TIMES.
30. THESE PRINTS SHALL BE MARKED UP BY THE CONTRACTOR TO RECORD ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS.
31. UPON COMPLETION OF THE PROJECT, PROVIDE A HARD COPY OF THE "AS-BUILT" MARK-UP DRAWINGS WITH ALL CHANGES IN RED INDICATED TO THE CONSTRUCTION MANAGER.

- DEMOLITION
32. ELECTRICAL CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID TO ASCERTAIN FULL EXTENT OF SCOPE OF WORK.
33. CONTRACTOR SHALL ASSESS WHAT WORK IS REQUIRED FOR EXISTING ELECTRICAL FACILITIES IN AREAS AFFECTED BY THE CONSTRUCTION. EXTRAS WILL NOT BE ALLOWED WHERE THE WORK WAS VISIBLE PRIOR TO CONSTRUCTION.
34. ELECTRICAL CONTRACTOR SHALL REMOVE AND MAKE SAFE ALL EXISTING WIRING, CONDUIT, RECEPTACLES, DEVICES, FIXTURES ETC. IN EXISTING AREAS WHICH ARE AFFECTED BY THE CONSTRUCTION.
35. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL REMOVED WIRING, CONDUIT, BOXES AND ASSOCIATED MATERIAL FROM SITE.
36. (RESERVED).

- TEMPORARY SERVICE
37. PROVIDE A TEMPORARY ELECTRICAL SERVICE FOR CONSTRUCTION PURPOSES. EXACT DESCRIPTION OF SERVICES SHALL BE NEGOTIATED WITH THE CONSTRUCTION MANAGER.
38. USED WIRING AND EQUIPMENT MAY BE UTILIZED FOR TEMPORARY WIRING, ALL TEMPORARY WIRING AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE ELECTRICAL CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AT THE TIME DIRECTED BY THE CONSTRUCTION MANAGER.

- NOISE AND VIBRATION
39. CONNECTORS TO ROTATING, VIBRATING, MAGNETIC OR OTHER NOISE-PRODUCING EQUIPMENT SUCH AS MOTORS, TRANSFORMERS AND CONTACTORS SHALL BE BY WAY OF LOOPED FLEXIBLE CONDUIT.
40. COMPLETION OF CONTRACT
41. SYSTEMS SHALL BE COMPLETE, TESTED AND READY FOR USE WITH ALL EQUIPMENT OPERATING SATISFACTORILY.
42. ALL CIRCUIT BREAKERS AND SWITCHES AT LIGHTING, POWER AND DISTRIBUTION PANELS SHALL BE CLEARLY IDENTIFIED AS TO THE OUTLETS, FEEDERS ETC. CONTROLLED.
43. PROVIDE A GUARANTEE OF WORKMANSHIP, MATERIALS AND EQUIPMENT FOR ONE YEAR AFTER THE DATE OF ISSUE OF THE ARCHITECT'S CERTIFICATE OF SUBSTANTIAL PERFORMANCE. REPAIR AND/OR REPLACE WITHOUT CHARGE TO THE OWNER, ALL DEFECTS DUE TO IMPERFECT MATERIALS OR WORKMANSHIP WHICH APPEAR DURING THE WARRANTY PERIOD AND IN SUCH A MANNER THAT THE REAPPEARANCE OF THE DEFECTS AT A LATER DATE WILL NOT BE PRACTICALLY POSSIBLE.
44. INSTRUCT ALL SUPPLIERS AND MANUFACTURERS THAT THEIR WARRANTIES WILL COMMENCE AT THE DATE INDICATED ABOVE AND NOT FROM THE DATE THAT THE EQUIPMENT IS ACTUALLY PUT INTO OPERATION.

- RECEPTACLES
45. RECEPTACLES SHALL BE SPECIFICATION GRADE, 15 OR 20 AMPS, 120V, U-GROUND HARD USE TYPE FOR SIDE OR BACK WIRING, WHITE OR AS SHOWN ON THE DRAWINGS C/W STAINLESS STEEL COVER PLATE, "DECORA" STYLE OR EQUIVALENT, NYLON FACE EXCEPT WHERE NOTED OTHERWISE. CONFIRM COLOUR WITH ARCHITECT AND/OR INTERIOR DESIGNER PRIOR TO ORDERING.
46. PROVIDE SPECIAL PURPOSE RECEPTACLES WHERE NOTED ON DRAWING.
47. GENERAL PURPOSE SWITCHES
48. SWITCHES SHALL BE SPECIFICATION GRADE, HARD USE TYPE, 20 AMPS, 120/277V, SINGLE POLE, DOUBLE POLE, 3-WAY OR 4-WAY, WHITE OR AS SHOWN ON THE DRAWINGS C/W STAINLESS STEEL COVER PLATE, "DECORA" STYLE OR EQUIVALENT, FOR SIDE OR BACK WIRING, NYLON FACE EXCEPT WHERE NOTED OTHERWISE. CONFIRM COLOUR WITH ARCHITECT AND/OR INTERIOR DESIGNER PRIOR TO ORDERING.
49. MOUNT SWITCHES IN GROUPS BEHIND COMMON COVER PLATES.
50. MOUNT SWITCHES AT LATCH SIDE OF DOORS. CHECK DOOR SWINGS IN EACH CASE PRIOR TO ROUGHING IN.

- WIRE AND CABLE
51. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL POWER WIRING, TURNSTILE ACCESS CONTROL SYSTEM AND FIRE ALARM VOICE COMMUNICATION SYSTEM CABLEING AS REQUIRED.
52. ALL WIRING SHALL BE INSTALLED IN CONDUIT AND CONCEALED WHEREVER POSSIBLE, WHERE OUTLETS ARE LOCATED ON EXISTING WALLS AND IT IS NOT PRACTICAL TO CONCEAL CONDUITS, PROVIDE SURFACE MOUNTED RACEWAY, WIREMOLD V700, 2000 OR 2400 SERIES C/W DEVICE BOXES, WHITE FINISH.
53. ALL POWER WIRING SHALL BE NEW WITH COPPER CONDUCTORS, MINIMUM SIZE 12 AWG, STRANDED FOR 10 AWG AND LARGER, WITH 600 V INSULATION OF CHEMICALLY CROSS-LINKED THERMOSETTING POLYETHYLENE MATERIAL RATED RW90, INSTALLED IN CONDUIT UNLESS OTHERWISE NOTED.
54. CORTEX OR TEC90 CABLE ARE ALLOWED WHERE STATED ON THE DRAWINGS. WHERE INSTALLED IN RETURN AIR PLENUMS, CABLES SHALL BE PLENUM RATED.
55. AC90 (BX) OR ARMoured CABLE SIZE #12AWG MAY BE USED WHERE PERMITTED BY CODE BUT SHALL NOT BE USED FOR ISOLATED GROUND CIRCUITS, IN FINISHED AREAS, IT MAY ONLY BE USED WHERE CONCEALED.
56. ISOLATED GROUND CONDUCTORS SHALL BE RW90 INSULATED (GREEN) COPPER.
57. CABLE CONNECTIONS TO ALL ENCLOSURES, BOXES AND PANELS SHALL BE BY MEANS OF A WATER-TIGHT, MALLEABLE ALUMINUM CONNECTOR.
58. MAXIMUM VOLTAGE DROP BETWEEN THE FURTHEST OUTLET OF A FULLY LOADED CIRCUIT AND THE PANEL TO WHICH IT IS CONNECTED SHALL NOT EXCEED 2%.
59. ALL WIRING SHALL BE IDENTIFIED.
60. THE VENDOR ON RECORD FOR THE CITY OF TORONTO SHALL SUPPLY AND INSTALL ALL NEW VOICE AND DATA CABLEING AS SHOWN ON DRAWINGS AT NO EXPENSE TO THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL CONDUIT, PULL BOXES, PULL STRINGS AND OUTLET BOXES AS REQUIRED.
61. ALL VOICE AND DATA CABLEING SHALL BE PLENUM-RATED (FT6) INSTALLED IN CONDUIT.
62. VOICE (TELEPHONE) CABLEING SHALL BE CAT. 5E, 4-PAIR 24AWG, COPPER UTP, WHITE JACKET, SUPPLIED AND INSTALLED BY VENDOR ON RECORD.
63. NETWORK (DATA) CABLEING SHALL BE CAT. 6, 4-PAIR 23AWG, COPPER UTP, BLUE JACKET, SUPPLIED AND INSTALLED BY VENDOR ON RECORD.
64. THE ACTUAL TERMINATIONS OF THE VOICE AND DATA CABLEING SHALL BE BY THE VENDOR ON RECORD.
65. CONDUIT AND FITTINGS
66. DRAWINGS DO NOT INDICATE ALL CONDUIT RUNS, THOSE INDICATED ARE IN DIAGRAMMATIC FORM ONLY.
67. ELECTRICAL METALLIC TUBING (EMT) SHALL BE STEEL. COUPLINGS SHALL BE WITH CAPTIVE SET SCREWS.
68. USE EMT IN ALL DRY LOCATIONS SUCH AS CEILING SPACES AND SERVICE ROOMS. ALL CONDUITS SHALL BE CONCEALED.
69. ANY EXPOSED RUNS SHALL BE PARALLEL TO BUILDING LINES.
70. USE ONE HOLE STEEL STRAPS TO SECURE SURFACE CONDUITS 2" AND SMALLER. USE CHANNEL TYPE SUPPORTS FOR TWO OR MORE CONDUITS AT 1.5 M ON CENTER.
71. INSTALL CONDUITS TO CONSERVE HEADROOM IN EXPOSED LOCATIONS AND CAUSE MINIMUM INTERFERENCE IN SPACES THROUGH WHICH THEY PASS.
72. IN FINISHED AREAS WHERE CONDUIT IS EXPOSED, PROVIDE A COAT OF PRIMER AND TWO COATS OF ENAMEL PAINT ON ALL NEW CONDUITS. FINISH SHALL MATCH AS CLOSELY AS POSSIBLE TO WALL FINISH. SEE ARCHITECTURAL SPECIFICATIONS.
73. FOR THE FINAL CONNECTION OF WIRING TO VIBRATING EQUIPMENT SUCH AS MOTORS, TRANSFORMERS IN DRY AND NON-SPRINKLERED AREAS, USE STANDARD FLEXIBLE CONDUIT.

- CIRCUIT BREAKERS
74. PROVIDE NEW MOLDED CASE CIRCUIT BREAKERS FOR ALL NEW CIRCUITS IN EXISTING PANEL BOARDS. BREAKERS SHALL BE EQUAL TO EXISTING.
75. PROVIDE NEW PANEL DIRECTORIES FOR ALL EXISTING PANELS AFFECTED BY CONSTRUCTION.
76. PANEL DIRECTORIES SHALL BE TYPEWRITTEN OR MACHINE PRINTED.
77. DISCONNECT SWITCHES
78. HEAVY-DUTY, QUICK-MAKE, QUICK-BREAK, GENERAL PURPOSE ENCLOSURE C/W LOOKABLE OPERATING MECHANISM, INTERLOCK PREVENTING COVER FROM BEING REMOVED WHEN SWITCHED ON WITH SOLENOID-DRIVEN OVERRIDE, CAPABLE OF ACCEPTING NEMA 'J' FUSES.
79. PROVIDE IDENTIFICATION FOR EACH DISCONNECT SWITCH USING LAMACOD PLATES.
80. FUSES
81. CLASS 'J' DUAL ELEMENT TIME DELAY TYPE JHC 600V AC FOR ALL MOTOR APPLICATIONS.
82. CLASS 'J' FAST-ACTING TYPE CJ 600V AC OR LESS UP TO 600 AMPS FOR FEEDER PROTECTION ON RESISTANCE LOADS.
83. ALL FUSES SHALL BE HRC-I RATED.

- GROUNDING
84. ALL GROUND WIRES SHALL BE STRANDED COPPER. PROVIDE BARE OR INSULATED GROUND WIRES AS SPECIFIED HEREIN OR AS SHOWN ON THE DRAWINGS.
85. USE ONLY GROUNDING METHODS WHICH PROVIDE A LOW IMPEDANCE GROUND RETURN PATH.
86. PROVIDE ALL SYSTEM GROUNDING AND BONDING FOR POWER DISTRIBUTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE.
87. INTEGRATED FIRE ALARM VOICE COMMUNICATION SYSTEM
88. INSTALLATION OF NEW SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH THE APPLICABLE ELECTRICAL SAFETY CODE AND LATEST CAN 4 S-524-14. IF ANY REQUIREMENT OF THESE SPECIFICATIONS ARE DIFFERENT, OMITTED, OR CONTRARY TO THE ULC-S524, THEN THE ULC CODE GOVERNS AND OVERRIDES THESE SPECIFICATIONS.
89. ALL NEW DEVICES AND WIRING SHALL BE COMPATIBLE WITH THE EXISTING MIRCROM FLEXNET FIRE ALARM VOICE COMMUNICATION SYSTEM AND SHALL BE LISTED BY UNDERWRITERS LABORATORIES OF CANADA.
90. DEVICES SHALL BE ADDRESSABLE WHERE REQUIRED AND WIRING SHALL BE CLASS 'A' OR 'B' TO SUIT THE EXISTING SYSTEM.
91. INSTALL DEVICES CAREFULLY, ALIGNED COMPLETE WITH ALL MOUNTING HARDWARE AND IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
92. ALL NEW WIRING SHALL BE INSTALLED IN CONDUIT AND CONFORM WITH THE REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE, PART 1 AND APPLICABLE PROVINCIAL CODES, CSA AND AS PER MANUFACTURER'S INSTRUCTIONS.
93. USE ONLY CSA APPROVED FIRE ALARM WIRING IN CONDUIT. CONDUCTORS SHALL BE SOLID COPPER.
94. ELECTRICAL CONTRACTOR SHALL INCLUDE THE SERVICES OF THE FACILITY'S FIRE ALARM INSTALLER/ VENDOR OF RECORD AS A THIRD PARTY. INCLUDE ALL COSTS OF THESE SERVICES IN THE BASE BID.
95. THE FACILITY'S FIRE ALARM INSTALLER/ VENDOR OF RECORD SHALL BE A LICENSED AND CERTIFIED INSTALLER OF FIRE ALARM SYSTEMS.
96. THE FACILITY'S FIRE ALARM INSTALLER/ VENDOR OF RECORD SHALL MAKE AN INSPECTION OF ANY NEW FIRE ALARM COMPONENTS AND ANY EXISTING COMPONENTS WHICH HAVE BEEN REMOVED AND REINSTALLED AND VERIFY THE COMPONENTS IN WRITING. THE CONTRACTOR SHALL ASSIST THE FIRE ALARM INSTALLER IN THE VERIFICATION.
97. PROVIDE THE CONSULTANT WITH COPIES OF THE VERIFICATION REPORTS, INCLUDE THE FINAL VERIFICATION REPORT IN THE OPERATION AND MAINTENANCE MANUALS.
98. PROVIDE THE MUNICIPAL, BUILDING AND FIRE DEPARTMENTS WITH A COPY OF THE FINAL VERIFICATION REPORT.
99. (RESERVED).

- TURNSTILE ACCESS SECURITY SYSTEM
100. PROVIDE NEW DEVICES, HARDWARE, SOFTWARE, PROGRAMMING AND CABLEING FOR THE NEW TURNSTILES TO ENHANCE AND EXPAND THE EXISTING ACCESS CONTROL SYSTEM UNDER THE ELECTRICAL EXPENSE OF THE WORK.
101. THE INSTALLATION OF DEVICES AND FINAL PROGRAMMING OF THE ACCESS SYSTEM SHALL BE AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR. THE ACTUAL WORK SHALL BE PERFORMED BY THE CITY OF TORONTO/ FACILITY'S VENDOR OF RECORD, A THIRD PARTY SECURITY CONTRACTOR THAT IS AN AUTHORIZED INSTALLER OF THE SPECIFIED MANUFACTURER'S EQUIPMENT AND APPROVED BY CITY OF TORONTO CORPORATE SECURITY.
102. THE SECURITY VENDOR OF RECORD MUST BE A SOFTWARE HOUSE CERTIFIED INTEGRATOR. REFER TO LIST OF CERTIFIED DEALERS ON THIS DRAWING.
103. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE WORK OF THE SECURITY SUBCONTRACTOR AND PROVIDE ASSISTANCE AS REQUIRED.
104. THE SECURITY SUBCONTRACTOR SHALL COMPLY WITH ALL THE REQUIREMENTS OF THE CITY OF TORONTO CORPORATE SECURITY.
105. THE SECURITY CONTRACTOR SHALL APPLY FOR ANY RELEVANT PERMITS REQUIRED BY THE CITY AND SHALL ARRANGE FOR ANY INSPECTIONS BY THE RELEVANT AUTHORITIES.
106. THE NEW CARD READERS FOR THE TURNSTILES SHALL BE PROXIMITY TYPE WITH MULTI-LAYERED SECURITY, OPEN SUPERVISED DEVICE PROTOCOL (OSDP), ADAPTABLE TO SUPPORT FUTURE TECHNOLOGY, OUTDOOR AND INDOOR RATED, HDI<sup>®</sup> SIGNUM<sup>®</sup> MODEL 40. NEW CARD READERS SHALL BE CONCEALED WITHIN THE CABINETS FOR THE TURNSTILES. COORDINATE THE ENTIRE INSTALLATION WITH THE TURNSTILE INSTALLER.
107. PROVIDE A NEW SOFTWARE HOUSE ISTAR ULTRA NETWORK-READY ACCESS CONTROLLER TO ACCOMMODATE UP TO 32 CARD READERS. THE CONTROLLER SHALL BE COMPATIBLE WITH THE EXISTING SOFTWARE HOUSE C-CURE 9000 ACCESS CONTROL SYSTEM PLATFORM.
108. PROVIDE NEW HARDWARE, SOFTWARE AND PROGRAMMING AS REQUIRED TO EXPAND THE EXISTING C-CURE 9000 SYSTEM TO ACCOMMODATE THE NEW TURNSTILES.
109. CONTROLLER SHALL BE WALL-MOUNTED, LOCATED ON THE SECURE SIDE OF THE TURNSTILES IN AN INCONSPICUOUS LOCATION AS SHOWN ON THE DRAWINGS.

- TURNSTILE ACCESS SECURITY SYSTEM (CONTINUED)
110. PROVIDE A NEW 4 TWISTED PAIR 23 AWG CAT. 6 NETWORK CABLE FROM THE NEW CARD CONTROLLER TO THE EXISTING SOFTWARE HOUSE C-CURE 9000 ACCESS CONTROL SYSTEM IN THE EXISTING ELECTRICAL ROOM AS SHOWN ON THE PLANS OR AS REQUIRED.
111. CONNECT THE NEW CARD CONTROLLER TO THE DATA NETWORK HUB/ SERVER ROOM USING AN EXISTING DATA CABLE LOCATED IN THE CEILING SPACE AT THE RECEPTION DESK AS SHOWN ON THE PLANS OR AS REQUIRED.
112. PROVIDE ALL REQUIRED CABLEING FOR THE NEW SYSTEM COMPONENTS AND NEW DEVICES. ALL NEW CABLEING SHALL BE PLENUM RATED AND INSTALLED IN CONDUIT.
113. ANY NEW ENCODED CARDS REQUIRED FOR SYSTEM TESTING SHALL BE SUPPLIED BY THE CITY OF TORONTO CORPORATE SECURITY.
114. INSTALL EQUIPMENT, DEVICES AND CABLEING TO THE MANUFACTURER'S REQUIREMENTS.
115. PROVIDE SYSTEM DEMONSTRATION AND TRAINING TO CITY OF TORONTO STAFF. ALLOW FOR UP TO 10 HOURS IN TOTAL WITH TRAINING PERSONNEL.
116. (RESERVED).
117. (RESERVED).

- CONTRACTORS
118. CONTRACTORS SHALL BE ELECTRICALLY HELD, CONTROLLED BY THE TIME SWITCH, COMPLETE WITH CONTROL TRANSFORMERS AS REQUIRED AND CONTACTS RATED FOR HIGH INTENSITY DISCHARGE LIGHTING USE.
119. MOUNT CONTACTORS IN CSA 1 ENCLOSURE. PROVIDE IDENTIFICATION LABELS.
120. SHOP DRAWING SUBMISSIONS
121. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH CITY OF TORONTO GENERAL REQUIREMENTS.
122. BE RESPONSIBLE FOR PRESENTING THE PROCESSING OF SHOP DRAWINGS TO SUIT MANUFACTURING SCHEDULE OF EQUIPMENT AND CONSTRUCTION SCHEDULE OF BUILDING.
123. SUBMIT SHOP DRAWINGS TO THE AUTHORITIES HAVING JURISDICTION, AS REQUIRED.
124. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
125. NEW FIRE ALARM VOICE COMMUNICATION SYSTEM DEVICES AND EQUIPMENT.
126. NEW ACCESS CONTROL SYSTEM CONTROL PANELS.
127. NEW ACCESS CONTROL SYSTEM POWER SUPPLIES.
128. NEW ACCESS CONTROL SYSTEM CARD READERS.
129. NEW CABLEING FOR ACCESS CONTROL, 24 VDC POWER AND FIRE ALARM VOICE COMMUNICATION SYSTEMS.
130. NEW WIREMOLD (OR EQUIVALENT) RACEWAY.
131. NEW SURGE SUPPRESSION EQUIPMENT/DEVICES.
132. OPERATION AND MAINTENANCE MANUALS
133. SUBMIT OPERATION AND MAINTENANCE MANUALS IN ACCORDANCE WITH CITY OF TORONTO GENERAL REQUIREMENTS. SUBMIT AT LEAST THREE (3) COPIES OF THE MANUAL.
134. SUBMIT OPERATION AND MAINTENANCE MANUALS TO THE CONSULTANT FOR REVIEW UPON COMPLETION OF WORK. MANUALS SHALL BE IN A THREE-RING HARD-COVERED BINDER.
135. MANUALS SHALL INCLUDE THE FOLLOWING INFORMATION AND DOCUMENTATION:
136. ALL APPROVED SHOP DRAWINGS.
137. ESA CERTIFICATE.
138. WARRANTIES.
139. FIRE ALARM CERTIFICATE AND VERIFICATION REPORT.
140. "AS-BUILT" DRAWINGS (MARK UPS).
141. THE CONTRACTOR SHALL OBTAIN ELECTRONIC FILES FROM THE CONSULTANT IN ORDER TO PRODUCE THE FINAL "AS-BUILTS".

- GENERAL CONTRACTOR'S RESPONSIBILITIES
142. GENERAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL EQUIPMENT NOT PROVIDED BY THE ELECTRICAL CONTRACTOR BUT REQUIRING POWER (EG. TURNSTILES, MECHANICAL EQUIPMENT ETC.) WITH THE ELECTRICAL CONTRACTOR PRIOR TO ROUGHING IN.
143. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF EXISTING ACOUSTIC CEILING TILES AT FIRST FLOOR TO FACILITATE INSTALLATION OF NEW ELECTRICAL POWER AND SIGNAL CONDUCTORS AND CONDUITS FOR NEW TURNSTILES AND ACCESS CONTROL SYSTEM.
144. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF EXISTING DRYWALL AT CEILINGS AND BULKHEADS AS REQUIRED TO ACCOMMODATE NEW ELECTRICAL JUNCTION AND PULL BOXES.
145. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF EXISTING DRYWALL AT WALLS AND CEILING AT THE RECEPTION AREA TO FACILITATE INSTALLATION OF NEW ELECTRICAL POWER AND SIGNAL CONDUCTORS FOR NEW TURNSTILES AND ACCESS CONTROL SYSTEM.
146. GENERAL CONTRACTOR SHALL MAKE ARRANGEMENTS FOR ALL FIRE WATCHES REQUIRED AS A RESULT OF FIRE ALARM AND SPRINKLER WORK. REFER TO NOTES RE: FIRE WATCHES.

- SITE VISIT
147. THE CONTRACTOR SHALL VISIT THE FACILITY IN ACCORDANCE WITH GENERAL REQUIREMENTS AS OUTLINED FOR THE CITY OF TORONTO.
148. THE CONTRACTOR SHALL MAKE ABSOLUTELY SURE OF THE EXISTING SITE CONDITIONS AND LOCATION OF EXISTING AND NEW ELECTRICAL EQUIPMENT PRIOR TO SUBMITTING A BID.
149. FIRE WATCHES
150. PROVIDE FIRE WATCHES IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF TORONTO.
151. ALL FIRE WATCHES SHALL BE PERFORMED BY THE FACILITY'S CURRENT FIRE ALARM SYSTEM CONTRACTOR/VENDOR.
152. THE GENERAL CONTRACTOR SHALL PROVIDE AT LEAST 24 HOURS ADVANCE NOTICE TO THE FACILITY SUPERVISOR AND PROJECT MANAGER WITH RESPECT TO THE BYPASS OR DISABLING OF THE FIRE ALARM SYSTEM.
153. THE FIRE WATCH SHALL BE THE CONTRACTOR'S RESPONSIBILITY FROM 10PM UNTIL 6AM MONDAY TO FRIDAY AND ON WEEKENDS.
154. THE FACILITY'S CURRENT FIRE ALARM SYSTEM VENDOR IS J.D. COLLINS FIRE PROTECTION COMPANY, 101 INNOVATION DRIVE, UNIT 1, WOODBRIDGE ON L4H 0S3, PHONE 905-860-4535, www.jdcollins.ca .
155. WHEN REQUIRED, FIRE WATCHES SHALL BE PROVIDED 24 HOURS PER DAY, 7 DAYS PER WEEK INCLUDING HOLIDAYS.
156. PROVIDE A FIRE WATCH IN THE EVENT THAT ANY FIRE ALARM SYSTEM INITIATING OR NOTIFICATION DEVICES IS DISABLED AS A RESULT OF THE PROPOSED CONSTRUCTION.

- FIRE WATCHES (CONTINUED)
157. PROVIDE A FIRE WATCH DURING THE SHUTDOWN OF MAIN BUILDING POWER OR ANY "LIVE" WORK ON THE MAIN BUILDING POWER DISTRIBUTION SWITCHBOARD.
158. THE COST OF FIRE WATCHES SHALL BE CARRIED BY THE GENERAL CONTRACTOR AND SHALL BE INCLUDED IN THE BASE BID CONTRACT PRICE.
159. SECURITY SYSTEM DEALERS
160. THE FOLLOWING SOFTWARE HOUSE VENDORS ARE FAMILIAR WITH CITY OF TORONTO ACCESS CONTROL SYSTEMS. "CERTIFIED DEALER" DENOTES THAT THE VENDOR IS ENTERPRISE LEVEL.
161. AC TECHNICAL SYSTEMS LIMITED (CERTIFIED DEALER)  
6-2100 FORBES STREET  
WHITBY ON L1M 9T3  
CONTACT: DOMINIC BURNS  
EMAIL: dburns@actechnical.com  
PHONE: 905-666-8676
162. BOND SECURCOM  
1-41 SCARSDALE ROAD  
TORONTO ON M3B 2R2  
CONTACT: CESAR TRAVERSO  
EMAIL: ctraverso@bondsecur.com  
PHONE: 416-256-8666
163. CHUBB SECURITY SYSTEMS  
5001 EXPLORE DRIVE  
MISSISSAUGA ON L4W 4H1  
CONTACT: CHRIS MIDDLETON  
EMAIL: chris.middleton@chubb.ca  
PHONE: 905-629-2600
164. CONVERGENT TECHNOLOGIES  
5716 COOPERS AVENUE  
MISSISSAUGA ON L4Z 2E8  
CONTACT: ERIC HEAGLE  
EMAIL: eric.heagle@convergent.com  
PHONE: 905-602-8622
165. DELCO SECURITY  
CONTACT: MARK PETERSON  
EMAIL: mpeter@delcosecurity.com  
PHONE: 416-346-8628
166. FITCH SECURITY INTEGRATION INC.  
14 METEOR DRIVE  
TORONTO ON M9W 1A4  
CONTACT: ED FITCHETT  
EMAIL: edfitch@fitch.ca  
PHONE: 416-235-1818
167. JERSON CONTROLS L.P. (CERTIFIED DEALER)  
1-41 LEON CRESSENT  
RICHMOND HILL ON L4B 1H1  
CONTACT: KEITH PORTER  
EMAIL: keith.porter@jcs.com  
PHONE: 647-657-8710
168. MET-SCAN CANADA LTD. (CERTIFIED DEALER)  
104-30 KERN ROAD  
TORONTO ON M3B 1T1  
CONTACT: RICK HOLDER  
EMAIL: rholder@met-scan.com  
PHONE: 416-391-2200x111  
416-709-3102
169. PALADIN TECHNOLOGIES  
4-2210 MARKHAM ROAD  
TORONTO ON M1B 5V6  
CONTACT: MARIO KINSBURRY  
EMAIL: mkingabury@paladinsecurity.com  
PHONE: 416-916-6767
170. PROFILE SECURITY  
110-5525 EGLINTON AVENUE WEST  
TORONTO ON M9C 5K5  
CONTACT: JASON CHASSIE  
EMAIL: jasonc@profileinc.com  
PHONE: 416-695-1260x225
171. QUINN DIGITAL ASSET PROTECTION  
3-7065 TRAMMERE DRIVE  
MISSISSAUGA ON L5S 1M2  
CONTACT: ROB QUINN  
EMAIL: rob.quinn@quinnigital.ca  
PHONE: 416-441-3770x223  
416-303-8255
172. SIEMENS BUILDING TECHNOLOGIES LTD.  
1577 NORTH SERVICE ROAD  
OMNIVILLE ON L8H 0H6  
CONTACT: MANNY LOPES  
EMAIL: mmanuel.lopes@siemens.com  
PHONE: 905-799-9937
173. SECURITAS ELECTRONIC SECURITY CANADA (CERTIFIED DEALER)  
100-15 MARMAC DRIVE  
TORONTO ON M9W 1E7  
CONTACT: JOE FENN  
EMAIL: joefenn@securitas.ca  
PHONE: 647-616-3183
174. STANLEY CONVERGENT SECURITY SOLUTIONS (CERTIFIED DEALER)  
1-2495 MEADOWHIRE BOULEVARD  
MISSISSAUGA ON L5N 6C3  
CONTACT: SCOTT JUPP  
EMAIL: scott.jupp@sdinc.com  
PHONE: 289-290-7100
175. VERIDIN SYSTEMS CANADA INC.  
13-245 MATHESON BOULEVARD EAST  
MISSISSAUGA ON L4Z 3C9  
CONTACT: MIKE FINELLI  
EMAIL: mfinelli@veridin.ca  
PHONE: 905-568-9100
176. VIPOND INC. (CERTIFIED DEALER)  
6380 VIPOND DRIVE  
MISSISSAUGA ON L5T 1A1  
CONTACT: MARK GILL  
EMAIL: mark.gill@vipond.ca  
PHONE: 905-564-7080x297  
647-527-6339
177. THE CITY OF TORONTO CORPORATE SECURITY MUST BE CONTACTED DIRECTLY TO CONFIRM THE CURRENT STATUS OF AN AUTHORIZED VENDOR.

- CONTRACTORS
118. CONTRACTORS SHALL BE ELECTRICALLY HELD, CONTROLLED BY THE TIME SWITCH, COMPLETE WITH CONTROL TRANSFORMERS AS REQUIRED AND CONTACTS RATED FOR HIGH INTENSITY DISCHARGE LIGHTING USE.
119. MOUNT CONTACTORS IN CSA 1 ENCLOSURE. PROVIDE IDENTIFICATION LABELS.
120. SHOP DRAWING SUBMISSIONS
121. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH CITY OF TORONTO GENERAL REQUIREMENTS.
122. BE RESPONSIBLE FOR PRESENTING THE PROCESSING OF SHOP DRAWINGS TO SUIT MANUFACTURING SCHEDULE OF EQUIPMENT AND CONSTRUCTION SCHEDULE OF BUILDING.
123. SUBMIT SHOP DRAWINGS TO THE AUTHORITIES HAVING JURISDICTION, AS REQUIRED.
124. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
125. NEW FIRE ALARM VOICE COMMUNICATION SYSTEM DEVICES AND EQUIPMENT.
126. NEW ACCESS CONTROL SYSTEM CONTROL PANELS.
127. NEW ACCESS CONTROL SYSTEM POWER SUPPLIES.
128. NEW ACCESS CONTROL SYSTEM CARD READERS.
129. NEW CABLEING FOR ACCESS CONTROL, 24 VDC POWER AND FIRE ALARM VOICE COMMUNICATION SYSTEMS.
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133. SUBMIT OPERATION AND MAINTENANCE MANUALS IN ACCORDANCE WITH CITY OF TORONTO GENERAL REQUIREMENTS. SUBMIT AT LEAST THREE (3) COPIES OF THE MANUAL.
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151. ALL FIRE WATCHES SHALL BE PERFORMED BY THE FACILITY'S CURRENT FIRE ALARM SYSTEM CONTRACTOR/VENDOR.
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153. THE FIRE WATCH SHALL BE THE CONTRACTOR'S RESPONSIBILITY FROM 10PM UNTIL 6AM MONDAY TO FRIDAY AND ON WEEKENDS.
154. THE FACILITY'S CURRENT FIRE ALARM SYSTEM VENDOR IS J.D. COLLINS FIRE PROTECTION COMPANY, 101 INNOVATION DRIVE, UNIT 1, WOODBRIDGE ON L4H 0S3, PHONE 905-860-4535, www.jdcollins.ca .
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119. MOUNT CONTACTORS IN CSA 1 ENCLOSURE. PROVIDE IDENTIFICATION LABELS.
120. SHOP DRAWING SUBMISSIONS
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123. SUBMIT SHOP DRAWINGS TO THE AUTHORITIES HAVING JURISDICTION, AS REQUIRED.
124. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
125. NEW FIRE ALARM VOICE COMMUNICATION SYSTEM DEVICES AND EQUIPMENT.
126. NEW ACCESS CONTROL SYSTEM CONTROL PANELS.
127. NEW ACCESS CONTROL SYSTEM POWER SUPPLIES.
128. NEW ACCESS CONTROL SYSTEM CARD READERS.
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132. OPERATION AND MAINTENANCE MANUALS
133. SUBMIT OPERATION AND MAINTENANCE MANUALS IN ACCORDANCE WITH CITY OF TORONTO GENERAL REQUIREMENTS. SUBMIT AT LEAST THREE (3) COPIES OF THE MANUAL.
134. SUBMIT OPERATION AND MAINTENANCE MANUALS TO THE CONSULTANT FOR REVIEW UPON COMPLETION OF WORK. MANUALS SHALL BE IN A THREE-RING HARD-COVERED BINDER.
135. MANUALS SHALL INCLUDE THE FOLLOWING INFORMATION AND DOCUMENTATION:
136. ALL APPROVED SHOP DRAWINGS.
137. ESA CERTIFICATE.
138. WARRANTIES.
139. FIRE ALARM CERTIFICATE AND VERIFICATION REPORT.
140. "AS-BUILT" DRAWINGS (MARK UPS).
141. THE CONTRACTOR SHALL OBTAIN ELECTRONIC FILES FROM THE CONSULTANT IN ORDER TO PRODUCE THE FINAL "AS-BUILTS".

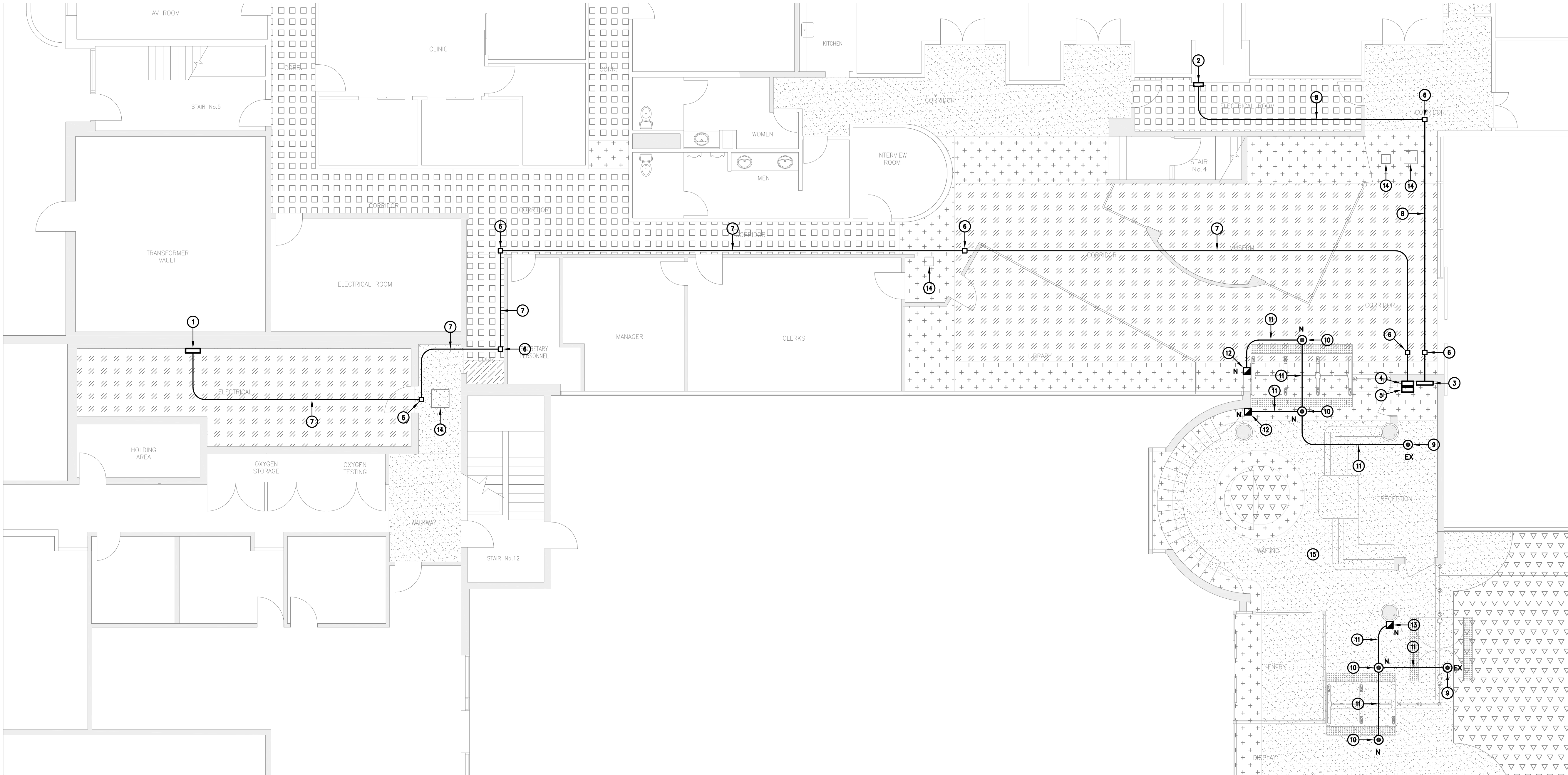
- GENERAL CONTRACTOR'S RESPONSIBILITIES
142. GENERAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL EQUIPMENT NOT PROVIDED BY THE ELECTRICAL CONTRACTOR BUT REQUIRING POWER (EG. TURNSTILES, MECHANICAL EQUIPMENT ETC.) WITH THE ELECTRICAL CONTRACTOR PRIOR TO ROUGHING IN.
143. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF EXISTING ACOUSTIC CEILING TILES AT FIRST FLOOR TO FACILITATE INSTALLATION OF NEW ELECTRICAL POWER AND SIGNAL CONDUCTORS AND CONDUITS FOR NEW TURNSTILES AND ACCESS CONTROL SYSTEM.
144. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF EXISTING DRYWALL AT CEILINGS AND BULKHEADS AS REQUIRED TO ACCOMMODATE NEW ELECTRICAL JUNCTION AND PULL BOXES.
145. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF EXISTING DRYWALL AT WALLS AND CEILING AT THE RECEPTION AREA TO FACILITATE INSTALLATION OF NEW ELECTRICAL POWER AND SIGNAL CONDUCTORS FOR NEW TURNSTILES AND ACCESS CONTROL SYSTEM.
146. GENERAL CONTRACTOR SHALL MAKE ARRANGEMENTS FOR ALL FIRE WATCHES REQUIRED AS A RESULT OF FIRE ALARM AND SPRINKLER WORK. REFER TO NOTES RE: FIRE WATCHES.

- SITE VISIT
147. THE CONTRACTOR SHALL VISIT THE FACILITY IN ACCORDANCE WITH GENERAL REQUIREMENTS AS OUTLINED FOR THE CITY OF TORONTO.
148. THE CONTRACTOR SHALL MAKE ABSOLUTELY SURE OF THE EXISTING SITE CONDITIONS AND LOCATION OF EXISTING AND NEW ELECTRICAL EQUIPMENT PRIOR TO SUBMITTING A BID.
149. FIRE WATCHES
150. PROVIDE FIRE WATCHES IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF TORONTO.
151. ALL FIRE WATCHES SHALL BE PERFORMED BY THE FACILITY'S CURRENT FIRE ALARM SYSTEM CONTRACTOR/VENDOR.
152. THE GENERAL CONTRACTOR SHALL PROVIDE AT LEAST 24 HOURS ADVANCE NOTICE TO THE FACILITY SUPERVISOR AND PROJECT MANAGER WITH RESPECT TO THE BYPASS OR DISABLING OF THE FIRE ALARM SYSTEM.
153. THE FIRE WATCH SHALL BE THE CONTRACTOR'S RESPONSIBILITY FROM 10PM UNTIL 6AM MONDAY TO FRIDAY AND ON WEEKENDS.
154. THE FACILITY'S CURRENT FIRE ALARM SYSTEM VENDOR IS J.D. COLLINS FIRE PROTECTION COMPANY, 101 INNOVATION DRIVE, UNIT 1, WOODBRIDGE ON L4H 0S3, PHONE 905-860-4535, www.jdcollins.ca .
155. WHEN REQUIRED, FIRE WATCHES SHALL BE PROVIDED 24 HOURS PER DAY, 7 DAYS PER WEEK INCLUDING HOLIDAYS.
156. PROVIDE A FIRE WATCH IN THE EVENT THAT ANY FIRE ALARM SYSTEM INITIATING OR NOTIFICATION DEVICES IS DISABLED AS A RESULT OF THE PROPOSED CONSTRUCTION.

- CONTRACTORS
118. CONTRACTORS SHALL BE ELECTRICALLY HELD, CONTROLLED BY THE TIME SWITCH, COMPLETE WITH CONTROL TRANSFORMERS AS REQUIRED AND CONTACTS RATED FOR HIGH INTENSITY DISCHARGE LIGHTING USE.
119. MOUNT CONTACTORS IN CSA 1 ENCLOSURE. PROVIDE IDENTIFICATION LABELS.
120. SHOP DRAWING SUBMISSIONS
121. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH CITY OF TORONTO GENERAL REQUIREMENTS.
122. BE RESPONSIBLE FOR PRESENTING THE PROCESSING OF SHOP DRAWINGS TO SUIT MANUFACTURING SCHEDULE OF EQUIPMENT AND CONSTRUCTION SCHEDULE OF BUILDING.
123. SUBMIT SHOP DRAWINGS TO THE AUTHORITIES HAVING JURISDICTION, AS REQUIRED.
124. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
125. NEW FIRE ALARM VOICE COMMUNICATION SYSTEM DEVICES AND EQUIPMENT.
126. NEW ACCESS CONTROL SYSTEM CONTROL PANELS.
127. NEW ACCESS CONTROL SYSTEM POWER SUPPLIES.
128. NEW ACCESS CONTROL SYSTEM CARD READERS.
129. NEW CABLEING FOR ACCESS CONTROL, 24 VDC POWER AND FIRE ALARM VOICE COMMUNICATION SYSTEMS.
130. NEW WIREMOLD (OR EQUIVALENT) RACEWAY.
131. NEW SURGE SUPPRESSION EQUIPMENT/DEVICES.
132. OPERATION AND MAINTENANCE MANUALS
133. SUBMIT OPERATION AND MAINTENANCE MANUALS IN ACCORDANCE WITH CITY OF TORONTO GENERAL REQUIREMENTS. SUBMIT AT LEAST THREE (3) COPIES OF THE MANUAL.
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141. THE CONTRACTOR SHALL OBTAIN ELECTRONIC FILES FROM THE CONSULTANT IN ORDER TO PRODUCE THE FINAL "AS-BUILTS".

- PANEL : (EXISTING) SP VOLTAGE: 120/208V
- LOCATION : ELEC RM LOAD: 36, 4W
- MOUNT : SURFACE AMP: 10





PART GROUND FLOOR PROPOSED PLAN  
CEILINGS & CONDUIT RUNS

1  
E-7  
SCALE: 1:75

DRAWING LEGEND:

- EXISTING SQUARE D CAT. NO. NQ46429484170040001 PANEL "SP", 120/208V, 3ø, 4W, 100A, 30 CCTS (POWERED BY UPS) TO REMAIN.
- EXISTING ISTAR EDGE CONTROL PANEL, TO REMAIN.
- NEW SOFTWARE HOUSE ISTAR ULTRA ACCESS CONTROL PANEL C/W POWER SUPPLY FOR NEW TURNSTILE CARD READERS.
- NEW EXTERNAL 24 VDC POWER SUPPLY FOR NORTH TURNSTILES.
- NEW EXTERNAL 24 VDC POWER SUPPLY FOR SOUTH TURNSTILES.
- NEW 4"x4"x2-1/8" DEEP SQUARE ELECTRICAL PULL BOX C/W COVER PLATE.
- NEW 6#10AWG + 3#12AWG (GROUND) RW90 CONDUCTORS IN 1" EMT FOR NEW BRANCH CIRCUITS SP-18, SP-20, SP-22.
- NEW 4-PAIR 22AWG CAT. 6 UTP CABLE IN 3/4" EMT.
- EXISTING FIRE ALARM AUTOMATIC SMOKE DETECTOR, TO REMAIN.
- NEW FIRE ALARM AUTOMATIC SMOKE DETECTOR, TO MATCH EXISTING.
- NEW FIRE ALARM WIRING (4/C #14AWG + GND TYPE FAS, 105°C, 300V RATED) INSTALLED IN 3/4" EMT (OR EQUIVALENT ARMoured CABLE) CONCEALED IN CEILING TO MATCH EXISTING.
- NEW FIRE ALARM MANUAL PULL STATION, TO MATCH EXISTING C/W SURFACE MOUNTED BOX TO SUIT. INSTALL FIRE ALARM CABLING IN SURFACE MOUNTED WIREMOLD V700 RACEWAY ON WALL FROM CEILING.
- NEW FIRE ALARM MANUAL PULL STATION, TO MATCH EXISTING C/W SURFACE MOUNTED BOX TO SUIT. INSTALL FIRE ALARM CABLING IN SURFACE MOUNTED WIREMOLD V700 RACEWAY ON COLUMN FROM CEILING.
- EXISTING FLUSH MOUNTED ACCESS DOOR IN EXISTING DRYWALL CEILING OR BULKHEAD, TO REMAIN.
- REFER TO DRAWING 1/E-3 FOR LOCATION OF EXISTING ACCESS DOORS AT CEILING OF WAITING AND RECEPTION AREAS.

ACCESS DOOR NOTES

- PROVIDE A FLUSH-MOUNTED FIRE-RATED ACCESS DOOR FOR EACH JUNCTION AND PULL BOX CONCEALED INSIDE A DRYWALL CEILING, WALL OR BULKHEAD OR IN OTHER LOCATIONS AS NOTED.
- PROVIDE ADDITIONAL ACCESS DOORS WHERE REQUIRED.
- ACCESS DOORS SHALL BE SUITABLE FOR FLUSH MOUNTING C/W 20 GAUGE STEEL DOOR, 18 GAUGE MOUNTING FRAME, CONCEALED HINGES, UNIVERSAL SELF-LATCHING BOLT-OPERATED BY FLUSH KEY WITH INSIDE TURN RELEASE, FINISHED WITH PRIME COAT OF WHITE BAKED ENAMEL. ACUDOR FW-5050 SERIES OR EQUAL.
- ACCESS DOORS SHALL BE C/W 2" FIRE-RATED INSULATION, ULC 1-1/2 HOUR LABEL.
- ACCESS DOORS SHALL BE 16"x16" OR SIZED TO SUIT.

CONDUIT & CEILING NOTES

- ALL OUTLETS, DEVICES, FIXTURES, CONDUITS, RACEWAYS, EQUIPMENT AND ASSOCIATED WIRING SHALL BE NEW, PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- ALL NEW WIRING IN CONDUIT SHALL BE CONCEALED WHEREVER PRACTICAL. WHERE NOT POSSIBLE, PROVIDE WIRING IN SURFACE MOUNTED RACEWAY, UNLESS NOTED OTHERWISE.
- ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DISCIPLINES (ARCHITECTURAL, MECHANICAL, STRUCTURAL ETC.)
- REWORK EXISTING WIRING FOR EXISTING DEVICES AND FIXTURES (TO REMAIN) AND PROVIDE NEW WIRING IN CONDUIT OR RACEWAY AS REQUIRED TO ENSURE CONTINUITY OF RESPECTIVE CIRCUITS.
- PROVIDE FLUSH MOUNTED ACCESS DOORS IN DRYWALL CEILINGS AND BULKHEADS AS REQUIRED AND WHERE NEW PULL BOXES ARE TO BE PROVIDED. REFER TO ACCESS DOOR NOTES.
- PROVIDE TRAPEZE TYPE HANGERS AND UNISTRUT CHANNELS AND SUPPORT FROM EXISTING STRUCTURAL ELEMENTS WHERE REQUIRED TO SUSPEND NEW CONDUITS.
- DO NOT SUSPEND OR SUPPORT NEW CONDUITS TO EXISTING CONDUITS OR MECHANICAL PIPING.

CEILING LEGEND

- |  |  |
|--|--|
|  | SUSPENDED (FLAT) DRYWALL CEILING               |
|  | SUSPENDED (SLOPED) DRYWALL CEILING             |
|  | SUSPENDED DRYWALL BULKHEAD                     |
|  | SUSPENDED INVERTED T-BAR ACOUSTIC TILE CEILING |
|  | EXPOSED CEILING, OPEN TO 2ND FLOOR SLAB ABOVE  |
|  | EXPOSED CEILING, OPEN TO SKYLIGHT ABOVE        |

Solid Ground Engineering

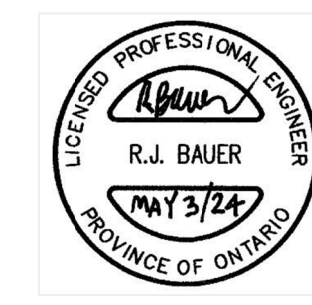
59 Rosslyn Avenue North  
Hamilton ON L8L 7P3  
phone: 416-807-6054  
e-mail: rjbauermw@gmail.com

3	FOR TENDER	MAY 3/24
2	FOR BUILDING PERMIT	APR 15/24
1	FOR COORDINATION	JAN 22/24
NO.	DESCRIPTION	DATE

REVISIONS / ISSUES



STAMP



NORTH



Project Name

TURNSTILES AT TORONTO  
PARAMEDIC SERVICES

4330 DUFFERIN STREET  
NORTH YORK ON

Drawing Title

PART GROUND FLOOR PROPOSED  
PLAN-CEILINGS & CONDUIT RUNS

Graphic Scale		Sheet no.
Drawn	Checked R.B.	E-7
CAD File	Scale AS NOTED	
Date AUG 2023	Project No. 02304	Revision No.