THE REGIONAL MUNICIPALITY OF YORK

YORK REGION ADMINISTRATIVE CENTRE **PROJECT NUMBER : 9900**

INTERIOR ALTERATIONS FOR YORK REGION ADMINISTRATIVE CENTRE

17250 YONGE STREET - 3RD FLOOR NEWMARKET, ONTARIO L3Y 4W5

CONTENT

MECHANICAL DRAWINGS MECHANICAL DRAWINGS

GPY+ ASSOCIATES ENGINEERING INC. MECHANICAL CONSULTING ENGINEERS

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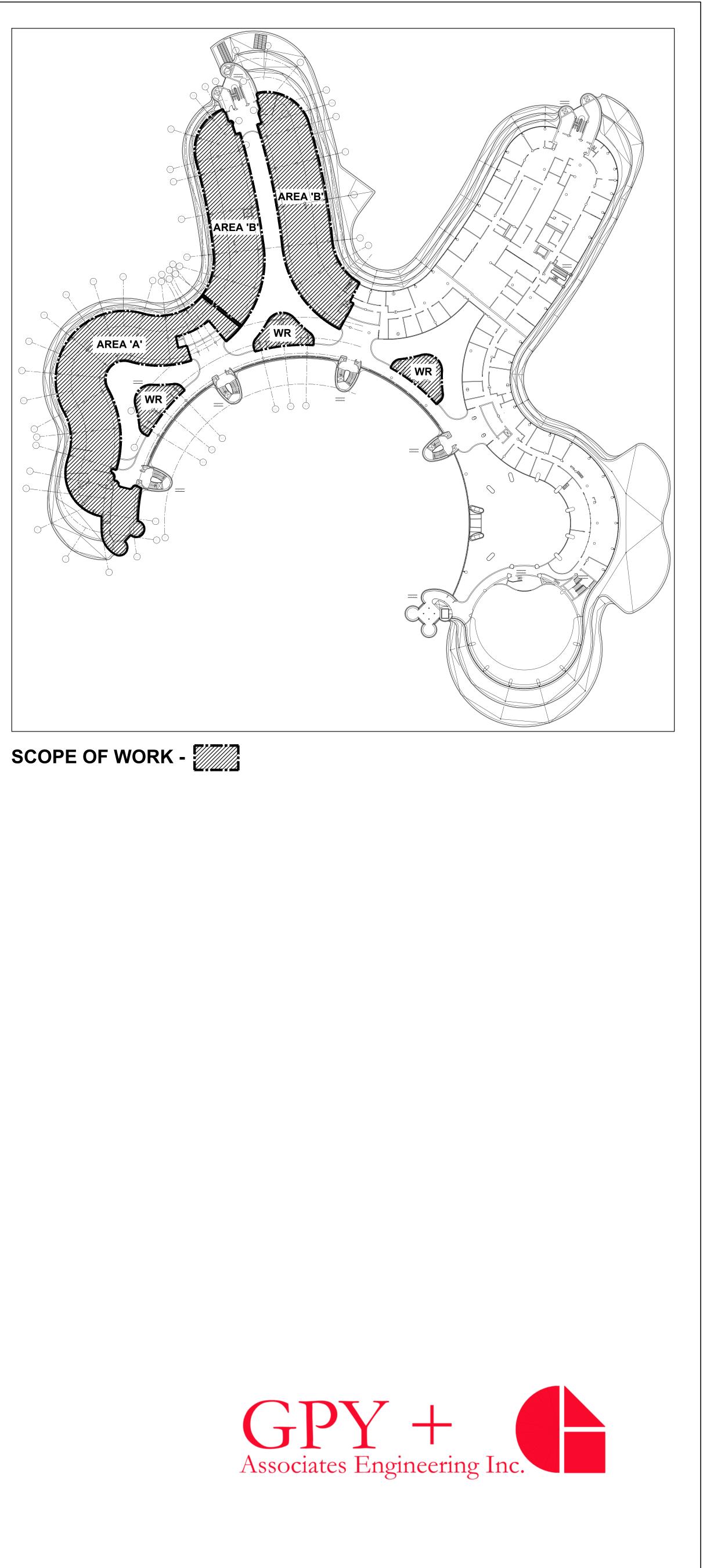
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ISSUED FOR

ISSUED FOR TENDER ISSUED FOR CONSTRUCTION DATE

NOVEMBER 5, 2020 MARCH 19, 2021



FILE No.

GPY-9900 GPY-9900

<u>'L-1'</u>	SHALL BE LOVAIR MONOLITH BASIN C/W TWO (2) SETS OF LOVAIR RIBBON SERIES (LR010 RIBBON SC
	SENSOR TAP FINISH TO BE STAINLESS STEEL.
	 * FOR EXACT SIZE AND COLOUR OF BASIN, REFER TO ARCHITECTURAL DRAWINGS. * LAVATORY SHALL ONLY BE INSTALLED BY LOVAIR TRAINED PERSONNEL. * P—TRAP SHALL BE HEAVY CAST BRASS ADJUSTABLE TRAP WITH CLEANOUT PLUG ON THE BOTTOM OF * FAUCET, HAND SOAP DISPENSER TO BE INSTALLED BY MECHANICAL TRADES AND ELECTRICAL CONNECTIONLY PROCEED WITH YORK REGION'S PM APPROVAL & DIRECTIONS.
WC-1'	WALL HUNG TOILET - VITREOUS CHINA - FOR FLUSH VALVE - EXPOSED - NO TOUCH - HARDWIRED
	AMERICAN STANDARD AFWALL MILLENNIUM FLOWISE ELONGATED #3351101.020 HET TOILET, VITREOUS SURFACE WHICH INHIBITS THE GROWTH OF STAIN AND ODOR CAUSING BACTERIA MOLD AND MILDEW, E HUNG, SIPHON JET FLUSH ACTION, OPERATES IN THE RANGE OF 4.2 L TO 6 L (1.1 US GAL TO 1.6 U CHANNEL, 305 MM X 254 MM (12" X 10") WATER SURFACE, SIPHON JET FLUSH ACTION, CONDENSATE (2–1/8") FULLY GLAZED INTERNAL TRAPWAY, TOILET SEAT NOT INCLUDED, 38 MM (1–1/2") DIA. TOP CENTOCO #500STSCC.001 TOILET SEAT, HEAVY DUTY, FOR ELONGATED BOWL, OPEN FRONT, SOLID PL/ CHECK HINGES, METAL FLAT WASHERS STAINLESS STEEL POSTS AND NUTS. AMERICAN STANDARD SEL VALVE FOR TOP SPUD TOILET, POLISHED CHROME FINISH, 4.8 L (1.28 US GAL) PER FLUSH, SELF-CLE WIPER SPRING PREVENTS CLOGGING, PROXIMITY FLUSH VALVE WITH PROGRAMMABLE, MULTI-FUNCTION OVER-RIDE BUTTON, 1" IPS BAK-CHEK ANGLE STOP, FLUSH TUBE FOR 292 MM (11–1/2") ROUGH-IN VACUUM BREAKER FOR BACK-FLOW PREVENTION, CHROME PLATE ONLY REQUIRED WHEN POWER SUPP FRONT, AC POWERED (HARD WIRED). AMERICAN STANDARD #PLATE ONLY REQUIRED WHEN POWER SUPP FRONT, CABLE. WATTS #ISCA-101-M11 SINGLE HORIZONTAL ADJUSTABLE TOILET CARTIER, MOUNTE COATED CAST IRON FITTING, ADJUSTABLE ABS SLIDE NIPPLE WITH INTEGRAL TEST CAP AND NEOPREN HARDWARE, CHROME CAP NUTS, TILING FRAME, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VI 305 MM (12") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE. CHAMPION MI-X SERIES #MI-XH NO-HUB, TYPE 304 AISI STAINLESS STEEL BAND, TYPE 304 AISI STAINLESS STEEL EYELET, ELASTOME REQUIREMENTS OF ASTM C–564, TYPE 304 AISI STAINLESS STEEL SHELD; PAINTED RED FOR EASY IE PSI MAXIMUM LINE PRESSURE AT 80 INCH LB MIN TO 100 INCH LB MAXIMUM TORQUE BOLT TIGHTNES 1680–1989 STANDARD (EXCEPT FOR MARKINGS) AND CSA B602–2010 STANDARD (UP TO 10"). THEY C1540–2011 STANDARD. PER OSHPD CODE APPLICATION NOTICE 5–311.9 REVISED 6/29/2011, SIGNED STATES THAT: "THE USE OF COUPLINGS THAT HAVE BEEN TESTED TO CONFORM TO THE PERFORMANC APPROVAL STANDARD 1680, CLASS I, BY FM APPROVALS OR BY A NATIONALLY RECOGNIZED INDEPEN ACCEPTABLE
'WC-2'	WALL HUNG TOILET - VITREOUS CHINA - FOR FLUSH VALVE - EXPOSED - NO TOUCH - HARDWIRED
	AMERICAN STANDARD AFWALL MILLENNIUM FLOWISE ELONGATED #3351101.020 HET TOILET, VITREOUS SURFACE WHICH INHIBITS THE GROWTH OF STAIN AND ODOR CAUSING BACTERIA MOLD AND MILDEW, E HUNG, SIPHON JET FLUSH ACTION, OPERATES IN THE RANGE OF 4.2 L TO 6 L (1.1 US GAL TO 1.6 U CHANNEL, 305 MM X 254 MM (12" X 10") WATER SURFACE, SIPHON JET FLUSH ACTION, CONDENSATE (2–1/8") FULLY GLAZED INTERNAL TRAPWAY, TOILET SEAT NOT INCLUDED, 38 MM (1–1/2") DIA. TOP CENTOCO #500STSCC.001 TOILET SEAT, HEAVY DUTY, FOR ELONGATED BOWL, OPEN FRONT, SOLID PL/CHECK HINGES, METAL FLAT WASHERS STAINLESS STEEL POSTS AND NUTS. AMERICAN STANDARD SEL VALVE FOR TOP SPUD TOILET, POLISHED CHROME FINISH, 4.8 L (1.28 US GAL) PER FLUSH, SELF-CLE WIPER SPRING PREVENTS CLOGGING, PROXIMITY FLUSH VALVE WITH PROGRAMMABLE, MULTI-FUNCTION OVER-RIDE BUTTON, 1" IPS BAK-CHEK ANGLE STOP, FLUSH VALVE WITH PROGRAMMABLE, MULTI-FUNCTION VACUUM BREAKER FOR BACK-FLOW PREVENTION, CHROME PLATE ONLY REQUIRED WHEN POWER SUPF FRONT, AC POWERED (HARD WIRED). AMERICAN STANDARD #PK00.HAC, HARDWIRED HARDWIRED AC – EXTENSION CABLE. WATTS #JSCA-101-M11 SINGLE HORIZONTAL ADJUSTABLE TOILET CARRIER, MOUNTE COATED CAST IRON FITTING, ADJUSTABLE ABS SLIDE NIPPLE WITH INTEGRAL TEST CAP AND NEOPREN HARDWARE, CHROME CAP NUTS, TILING FRAME, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB V3 305 MM (12") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE. CHAMPION MI-X SERIES #MI-XI NO-HUB, TYPE 304 AISI STAINLESS STEEL BAND, TYPE 304 AISI STAINLESS STEEL SHIELS, PAINTED RED FOR EASY II PSI MAXIMUM LINE PRESSURE AT 80 INCH LB MIN TO 100 INCH LB MAXIMUM TORQUE BOLT TIGHTNESS IS 804 AISI STAINLESS AND CSA B602-2010 STANDARD (UP TO 10"). THEY C1540-2011 STANDARD (EXCEPT FOR MARKINGS) AND CSA B602-2010 STANDARD (UP TO 10"). THEY STATES THAT: "THE USE OF COUPLINGS THAT HAVE BEEN TESTED TO CONFORM TO THE PERFORMANY APPROVAL STANDARD 1680, CLASS I, BY FM APPROVALS OR BY A NATIONALLY RECOGNIZED INDEPEN ACCEPTABLE
<u>'U–1'</u>	WALL HUNG URINAL - FOR FLUSHOMETER - EXPOSED - NO TOUCH - HARDWIRED
	AMERICAN STANDARD WASHBROOK FLOWISE #6590.001.020 URINAL, VITREOUS CHINA, OPERATES IN TI GAL TO 1.0 US GAL) PER FLUSH, WALL HUNG, EXTENDED SIDES FOR PRIVACY, WASHDOWN ACTION, W MM (3/4") DIA. TOP SPUD, ELONGATED RIM, INTEGRAL P-TRAP, OUTLET CONNECTION 51 MM (2"), 2 PLATED, NON-METALLIC STRAINER, WHITE FINISH. SLOAN ROYAL (SINGLE FLUSH SIDE MOUNT) #ROYAL

PLUMBING FIXTURE SPEFICATIONS

		REF		L
SHALL BE LOVAIR MONOLITH BASIN C/W TWO (2) SETS OF LOVAIR RIBBON SERIES (LR010 RIBBON SOAP DISPENSER, L-R-020 RIBBON	#EAF-37, BOX MOUNT HARDWRED TRANSFORMER, 120 VAC/ 6 VDC. WATTS #CA-321 FIXTURE CARRIER, MOUNTED ON CONCRETE FLOOR,		^{r.} No.	
SENSOR TAP FINISH TO BE STAINLESS STEEL.	STEEL HANGER PLATE, HEAVY GAUGE EPOXY COATED STEEL OFFSET UPRIGHTS WITH WELDED FEET SUPPORTS. FOR ONE UNIT: 102 MM (4") FOR TWO TO SIX UNITS IN A ROW: 152 MM (6") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE. WATTS #WUCO URINAL WALL ACCESS		SCDA	6 C
* FOR EXACT SIZE AND COLOUR OF BASIN, REFER TO ARCHITECTURAL DRAWINGS. * LAVATORY SHALL ONLY BE INSTALLED BY LOVAIR TRAINED PERSONNEL.	CLEANOUT, TWO (2) PIECE EXPANDABLE PLUG WITH 102 MM (4") DIAMETER STAINLESS STEEL ACCESS COVER, SÉCURED WITH VANDAL PROOF STAINLESS STEEL SCREW. CHAMPION MI-X SERIES #MI-XHUB DRAIN COUPLING, COUPLING, NO-HUB, TYPE 304 AISI STAINLESS STEEL BAND,			
* P-TRAP SHALL BE HEAVY CAST BRASS ADJUSTABLE TRAP WITH CLEANOUT PLUG ON THE BOTTOM OF THE TRAP. * FAUCET, HAND SOAP DISPENSER TO BE INSTALLED BY MECHANICAL TRADES AND ELECTRICAL CONNECTION BY DIV. 16. INSTALLATION SHALL	TYPE 304 AISI STAINLESS STEEL EYELET, ELASTOMERIC COMPOUND GASKET MEETING THE REQUIREMENTS OF ASTM C-564, TYPE 304 AISI			4
ONLY PROCEED WITH YORK REGION'S PM APPROVAL & DIRECTIONS.	STAINLESS STEEL SHIELD; PAINTED RED FOR EASY IDENTIFICATION, TESTED TO MAINTAIN 15 PSI MAXIMUM LINE PRESSURE AT 80 INCH LB MIN TO 100 INCH LB MAXIMUM TORQUE BOLT TIGHTNESS, TESTED BY IAPMO TO COMPLY TO FM 1680–1989 STANDARD (EXCEPT FOR MARKINGS)	B	530D	D
	AND CSA B602-2010 STANDARD (UP TO 10"). THEY ARE TESTED AND CERTIFIED TO ASTM C1540-2011 STANDARD. PER OSHPD CODE			
	APPLICATION NOTICE 5-311.9 REVISED 6/29/2011, SIGNED BY PAUL COLEMAN; SECTION I (A) STATES THAT: "THE USE OF COUPLINGS THAT HAVE BEEN TESTED TO CONFORM TO THE PERFORMANCE REQUIREMENTS OF FM APPROVALS, APPROVAL STANDARD 1680, CLASS I, BY FM	c	80 SERIES	a ISI
AMERICAN STANDARD AFWALL MILLENNIUM FLOWISE ELONGATED #3351101.020 HET TOILET, VITREOUS CHINA WITH EVERCLEAN ANTIMICROBIAL SURFACE WHICH INHIBITS THE GROWTH OF STAIN AND ODOR CAUSING BACTERIA MOLD AND MILDEW, ELONGATED BOWL, WHITE FINISH, WALL	APPROVALS OR BY A NATIONALLY RECOGNIZED INDEPENDENT TESTING AGENCY" ARE ACCEPTABLE		JENILS	<u> </u>
HUNG, SIPHON JET FLUSH ACTION, OPERATES IN THE RANGE OF 4.2 L TO 6 L (1.1 US GAL TO 1.6 US GAL) PER FLUSH, CONDENSATE	<u>'L-2'</u> WALL HUNG BASIN ELECTRONIC 'NO TOUCH' FAUCET - POINT OF USE THERMOSTATIC WATER MIXING VALVE			5
CHANNEL, 305 MM X 254 MM (12" X 10") WATER SURFACE, SIPHON JET FLUSH ACTION, CONDENSATE CHANNEL, ELONGATED BOWL, 54 MM (2–1/8") FULLY GLAZED INTERNAL TRAPWAY, TOILET SEAT NOT INCLUDED, 38 MM (1–1/2") DIA. TOP SPUD.	KOHLER WALL-MOUNT BATHROOM SINK MODEL REVE K-5027-1, SINGLE FAUCET HOLE , DEEP V-SHAPED BASIN, OVERFLOW DRAIN WITH		SCDA	C
ČENTOCÓ #500STSCC.001 TOILET SEAT, HEAVY DUTY, FOR ELONGATED BOWL, OPEN FRÓNT, SOLID PLASTIC, LESS COVER, STAINLESS STEEL CHECK HINGES, METAL FLAT WASHERS STAINLESS STEEL POSTS AND NUTS. AMERICAN STANDARD SELECTRONIC #606B.121, EXPOSED FLUSH	K-4061 POLISHED CHROME CAP, 600 MM X 305 MM X 76 MM (23 5/8" X 12" X 3") HIGH, FIRECLAY MATERIAL, WHITE FINISH, FOR CARRIER WITH CONCEALED ARMS, REAR OVERFLOW, SELF-DRAINING FAUCET LEDGE. SLOAN BASYS #EFX-250-000-0120-CP ELECTRONIC 'NO TOUCH'			
valve for top spud toilet, polished chrome finish, 4.8 L (1.28 US gal) per flush, self-cleaning brass piston with integral	BATTERY POWERED FAUCET, POLISHED CHROME FINISH, DIE CAST BODY, INTEGRAL ABOVE DECK WATER SUPPLY SHUT OFF, OPTIMAL "MID"	E	SCDA	
WIPER SPRING PREVENTS CLOGGING, PROXIMITY FLUSH VALVE WITH PROGRAMMABLE, MULTI-FUNCTION INFRARED SENSOR, TRUE MECHANICAL OVER-RIDE BUTTON, 1" IPS BAK-CHEK ANGLE STOP, FLUSH TUBE FOR 292 MM (11–1/2") ROUGH-IN, OUTLET INCLUDES 38 MM (1–1/2")	HEIGHT SPOUT FOR EFFECTIVE HAND WASHING, 167 MM (6-9/16") PROJECTION REACH, ABOVE ACCESS TO KEY COMPONENTS INCLUDING SOLENOID VALVE, WATER SHUT-OFF, BATTERY CANOPY, VANDAL PROOF BOX, ACTIVE IR SENSING, 0.5 GPM (1.9 LPM) MULTI-LAMINAR,			
VACUUM BREAKER FOR BACK-FLOW PREVENTION, CHROME PLATE ONLY REQUIRED WHEN POWER SUPPLY MUST BE INSTALLED FROM THE	ALKALINE BATTERY PROVIDED. LAWLER #570-86820, POINT OF USE THERMOSTATIC WATER MIXING VALVE, NICKEL PLATED BRONZE BODY,			
FRONT, AC POWERED (HARD WIRED). AMERICAN STANDARD #PK00.HAC, HARDWIRED HARDWIRED AC – POWER KIT, INCLUDES 10' LONG EXTENSION CABLE. WATTS #ISCA–101–M11 SINGLE HORIZONTAL ADJUSTABLE TOILET CARRIER, MOUNTED ON CONCRETE FLOOR, ALL EPOXY	TEMPERATURE ADJUSTING SPINDLE, 10 MM (3/8") INLETS AND OUTLET FNPT CONNECTIONS, INTEGRAL CHECKS, OFFER TEMPERATURE RANGE BETWEEN 35 ℃ (95 뚜) AND 46 ℃ (114.8 뚜). SET VALVE TEMPERATURE AT 46 ℃ (114.8 뚜). PROVIDE TEE, ADAPTORS AND FLEX. COPPER			Â
COATED CAST IRON FITTING, ADJUSTABLE ABS SLIDE NIPPLE WITH INTEGRAL TEST CAP AND NEOPRENE BOWL GASKET, WASTED PLATED HARDWARE, CHROME CAP NUTS, TILING FRAME, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT, 158.8 KG (350 LBS) STATIC LOAD.	TUBING TO SUIT INSTALLATION. PROVIDE TEMPERED WATER TO HOT SIDE OF FAUCET. MCGUIRE #155A OPEN GRID DRAIN, CAST BRASS ONE			
305 MM (12") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE. CHAMPION MI-X SÉRIES #MI-XHUB DRAIN COUPLING, COUPLING,	PIECE TOP, 17 GA. (1.5 MM) TUBULAR 32 MM (1–1/4") TAILPIECE. MCGUIRE #LFH165LKN3 FAUCET SUPPLIES, CHROME PLATED FINISH POLISHED BRASS, HEAVY DUTY ANGLE STOPS, 10 MM (3/8") I.P.S. INLET X 76 MM (3") LONG RIGID HORIZONTAL NIPPLES, V.P. LOOSE KEYS,			
NO-HUB, TYPE 304 AISI STAINLESS STEEL BAND, TYPE 304 AISI STAINLESS STEEL EYELET, ELASTOMERIC COMPOUND GASKET MEETING THE REQUIREMENTS OF ASTM C-564, TYPE 304 AISI STAINLESS STEEL SHIELD; PAINTED RED FOR EASY IDENTIFICATION, TESTED TO MAINTAIN 15	ESCUTCHEON AND FLEXIBLE COPPER RISERS. MCGUIRE #8872C P-TRAP, HEAVY CAST BRASS ADJUSTABLE BODY, WITH SLIP NUT, 32 MM			
PSI MAXIMUM LINE PRESSURE AT 80 INCH LB MIN TO 100 INCH LB MAXIMUM TORQUE BOLT TIGHTNESS, TESTED BY IAPMO TO COMPLY TO FM 1680—1989 STANDARD (EXCEPT FOR MARKINGS) AND CSA B602—2010 STANDARD (UP TO 10"). THEY ARE TESTED AND CERTIFIED TO ASTM	(1–1/4") SIZE, SHALLOW WALL FLANGE AND SEAMLESS TUBULAR WALL BEND. WATTS #WCA-411 BASIN CARRIER, CONCEALED ARMS, WALL FLANGES TO ATTACH TO BACKING PLATE SECURED IN WALL WITH LOCKING DEVICE AND LEVELLING SCREWS, HEAVY GAUGE STEEL UPRIGHTS			
C1540-2011 STANDARD. PER OSHPD CODE APPLICATION NOTICE 5-311.9 REVISED 6/29/2011, SIGNED BY PAUL COLEMAN; SECTION I (A)	WITH INTEGRAL WELDED FEET. FOR ONE UNIT: 102 MM (4") FOR TWO TO SIX UNITS IN A ROW: 152 MM (6") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE.			
STATES THAT: "THE USE OF COUPLINGS THAT HAVE BEEN TESTED TO CONFORM TO THE PERFORMANCE REQUIREMENTS OF FM APPROVALS, APPROVAL STANDARD 1680, CLASS I, BY FM APPROVALS OR BY A NATIONALLY RECOGNIZED INDEPENDENT TESTING AGENCY" ARE	' <u>S-1'</u> COUNTERTOP MOUNT SINK - SINGLE HANDLE FAUCET - POINT OF USE THERMOSTATIC WATER MIXING VALVE	II TA	.G TYF	^ب E
ACCEPTABLE				
🕐 WALL HUNG TOILET - VITREOUS CHINA - FOR FLUSH VALVE - EXPOSED - NO TOUCH - HARDWIRED	FRANKE COMMERCIAL #ALBS7306P-1/1 SINGLE BOWL COUNTERTOP MOUNT SINK, 1 HOLE, 651 MM (25-5/8") WIDE X 560 MM (22-1/16") LONG X 152 MM (6") HIGH DEEP, COUNTER MOUNTED, BACKLEDGE, GRADE 18-10 18 GA. (1.2 MM) TYPE 304 STAINLESS STEEL,	WF-	-1 HYDR	ONIC
AMERICAN STANDARD AFWALL MILLENNIUM FLOWISE ELONGATED #3351101.020 HET TOILET, VITREOUS CHINA WITH EVERCLEAN ANTIMICROBIAL	SELF-RIMMING, SÀTIŃ FINISH RIM AND BOWLS, MOUNTING KIT PROVIDED, FULLY UNDERCOATED TO REDUCE CONDENSATION AND RESONANCE, FACTORY APPLIED RIM SEAL, 3–1/2" (89 MM) CRUMB CUP WASTE ASSEMBLY WITH 1–1/2" (38 MM) TAILPIECE.	WF	–2 HYDR	ONIC
SURFACE WHICH INHIBITS THE GROWTH OF STAIN AND ODOR CAÜSING BACTERIA MOLD AND MILDEW, ELONGATED BOWL, WHITE FINISH, WALL HUNG, SIPHON JET FLUSH ACTION, OPERATES IN THE RANGE OF 4.2 L TO 6 L (1.1 US GAL TO 1.6 US GAL) PER FLUSH, CONDENSATE	CHICAGO FAUCETS #430-ABCP SÍNGLE HANDLE FAUCET, CHROME PLATED FINISH, CENTÉR HÒLE ONLY, ECAST CONSTRUCTION LEAD FREE			<u> </u>
CHANNEL, 305 MM X 254 MM (12" X 10") WATER SURFACE, SIPHON JET FLUSH ACTION, CONDENSATE CHANNEL, ELONGATED BOWL, 54 MM	(EQUAL OR LESS THAN 0.25%) ECAST BRASS CONSTRUCTION, VOLUME CONTROL AND HOT WATER LIMIT STOP CARTRIDGE, 5.7 LPM (1.5 GPM) PRESSURE COMPENSATING LAMINAR FLOW (NON-AERATING) OUTLET, 241 MM (9-1/2") PROJECTION RIGID CAST BRASS SPOUT, SINGLE METAL		OTES:	
(2–1/8") FULLY GLAZED INTERNAL TRAPWAY, TOILET SEAT NOT INCLUDED, 38 MM (1–1/2") DIA. TOP SPUD. CENTOCO #500STSCC.001 TOILET SEAT, HEAVY DUTY, FOR ELONGATED BOWL, OPEN FRONT, SOLID PLASTIC, LESS COVER, STAINLESS STEEL	LEVER HANDLE. LAWLER #570-86820, POINT OF USE THERMOSTATIC WATER MIXING VALVE, NICKEL PLATED BRONZE BODY, TEMPERATURE	1.	refer t Heating	
CHECK HINGES, METAL FLAT WASHERS STAINLESS STEEL POSTS AND NUTS. AMERICAN STANDARD SELECTRONIC #606B.121, EXPOSED FLUSH	ADJUSTING SPINDLE, 10 MM (3/8") INLETS AND OUTLET FNPT CONNECTIONS, INTEGRAL CHECKS, OFFER TEMPERATURE RANGE BETWEEN 35 °C (95 °F) AND 46 °C (114.8 °F). SET VALVE TEMPERATURE AT 46 °C (114.8 °F). PROVIDE TEE, ADAPTORS AND FLEX. COPPER TUBING TO SUIT	3.	REFER T	TO MEC
VALVE FOR TOP SPUD TOILET, POLISHED CHROME FINISH, 4.8 L (1.28 US GAL) PER FLUSH, SELF—CLEANING BRASS PISTON WITH INTEGRAL WIPER SPRING PREVENTS CLOGGING, PROXIMITY FLUSH VALVE WITH PROGRAMMABLE, MULTI—FUNCTION INFRARED SENSOR, TRUE MECHANICAL	INSTALLATION. PROVIDE TEMPERED WATER TO HOT SIDE OF FAUCET. MCGUIRE #LFBV170 FAUCET SUPPLIES, CHROME PLATED FINISH POLISHED	4.	PROVIDE TOP, PE	
OVER-RIDE BUTTON, 1" IPS BAK-CHEK ANGLE STOP, FLUSH TUBE FOR 292 MM (11–1/2") ROUGH-IN, OUTLET INCLUDES 38 MM (1–1/2") VACUUM BREAKER FOR BACK-FLOW PREVENTION, CHROME PLATE ONLY REQUIRED WHEN POWER SUPPLY MUST BE INSTALLED FROM THE	BRASS, COMMERCIAL DUTY 1/4 TURN BALL VALVE ANGLE STOPS, 13 MM (1/2") I.D. INLET X 127 MM (5") HORIZONTAL EXTENSION TUBES, CONVERTIBLE 1/4 TURN/LOOSE KEY HANDLES, ESCUTCHEON AND FLEXIBLE COPPER RISERS. MCGUIRE #8912CB P-TRAP, HEAVY CAST BRASS		ACCESSO	ORIES A
FRONT, AC POWERED (HARD WIRED). AMERICAN STANDARD #PK00.HAC, HARDWIRED HARDWIRED AC - POWER KIT, INCLUDES 10' LONG	ADJUSTABLE BÓDY, WITH SLIP NUT, 38 MM (1–1/2") SIZE, BOX FLANGE AND SEAMLESS TUBULAR WALL BEND. MCGUIRE PROWRAP #PW2000 SANITARY COVERING VANDAL-RESISTANT, FLEXIBLE SEAMLESS MOULDED CLOSED-CELL PVC RESIN, FORMULATED WITH ANTI-MICROBIAL		FROM M	ULLION
EXTENSION CABLE. WATTS #ISCA-101-M11 SINGLE HORIZONTAL ADJUSTABLE TOILET CARRIER, MOUNTED ON CONCRETE FLOOR, ALL EPOXY COATED CAST IRON FITTING, ADJUSTABLE ABS SLIDE NIPPLE WITH INTEGRAL TEST CAP AND NEOPRENE BOWL GASKET, WASTED PLATED	ADDITIVE TO LIMIT THE GROWTH OF FUNGUS AND BACTERIA, TO EXPOSED PIPING (TO PROTECT AGAINST HEAT/CONTUSIONS) AS PER LOCAL		1/2" WIL FOR THE	
HARDWARE, CHROME CAP NUTS, TILING FRAME, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT, 158.8 KG (350 LBS) STATIC LOAD.	CODES.	5.	REUSE E	EXISTIN
305 MM (12") FINISHED METAL STUD WALL TO BACK OF PIPE SPACE. CHAMPION MI–X SERIES #MI–XHUB DRAIN COUPLING, COUPLING, NO–HUB, TYPE 304 AISI STAINLESS STEEL BAND, TYPE 304 AISI STAINLESS STEEL EYELET, ELASTOMERIC COMPOUND GASKET MEETING THE	' <u>S-2'</u> COUNTERTOP MOUNT SINK - SINGLE HANDLE FAUCET - POINT OF USE THERMOSTATIC WATER MIXING VALVE	6.	Provide Valves.	
REQUIREMENTS OF ASTM C-564, TYPE 304 AISI STAINLESS STEEL SHIELD; PAINTED RED FOR EASY IDENTIFICATION, TESTED TO MAINTAIN 15 PSI MAXIMUM LINE PRESSURE AT 80 INCH LB MIN TO 100 INCH LB MAXIMUM TORQUE BOLT TIGHTNESS, TESTED BY IAPMO TO COMPLY TO FM	FRANKE COMMERCIAL #ALBS4006P-1/1 SINGLE BOWL COUNTERTOP MOUNT SINK, 1 HOLE, 562 MM (22-1/8") WIDE X 478 MM (18-13/16")			
1680–1989 STANDARD (EXCEPT FOR MARKINGS) AND CSA B602–2010 STANDARD (UP TO 10"). THEY ARE TESTED AND CERTIFIED TO ASTM	LONG X 152 MM (6") HIGH DEEP, COUNTER MOUNTED, BACKLEDGE, GRADE 18-10 18 GA. (1.2 MM) TYPE 304 STAINLESS STEEL,			
C1540–2011 STANDARD. PER OSHPD CODE APPLICATION NOTICE 5–311.9 REVISED 6/29/2011, SIGNED BY PAUL COLEMAN; SECTION I (A) STATES THAT: "THE USE OF COUPLINGS THAT HAVE BEEN TESTED TO CONFORM TO THE PERFORMANCE REQUIREMENTS OF FM APPROVALS,	SELF-RIMMING, SATIN FINISH RIM AND BOWLS, MOUNTING KIT PROVIDED, FULLY UNDERCOATED TO REDUCE CONDENSATION AND RESONANCE, FACTORY APPLIED RIM SEAL, 3–1/2" (89 MM) CRUMB CUP WASTE ASSEMBLY WITH 1–1/2" (38 MM) TAILPIECE.			
APPROVAL STANDARD 1680, CLASS I, BY FM APPROVALS OR BY A NATIONALLY RECOGNIZED INDEPENDENT TESTING AGENCY" ARE	CHICAGO FAUCETS #430-ABCP SÍNGLE HANDLE FAUCET, CHROME PLATED FINISH, CENTÉR HÒLE ONLY, ECAST CONSTRUCTION LEAD FREE			
	(EQUAL OR LESS THAN 0.25%) ECAST BRASS CONSTRUCTION, VOLUME CONTROL AND HOT WATER LIMIT STOP CARTRIDGE, 5.7 LPM (1.5 GPM) PRESSURE COMPENSATING LAMINAR FLOW (NON-AERATING) OUTLET, 241 MM (9–1/2") PROJECTION RIGID CAST BRASS SPOUT, SINGLE METAL			
WALL HUNG URINAL – FOR FLUSHOMETER – EXPOSED – NO TOUCH – HARDWIRED	LEVER HANDLE. LAWLER #570-86820, POINT OF USE THERMOSTATIC WATER MIXING VALVE, NICKEL PLATED BRONZE BODY, TEMPERATURE ADJUSTING SPINDLE, 10 MM (3/8") INLETS AND OUTLET FNPT CONNECTIONS, INTEGRAL CHECKS, OFFER TEMPERATURE RANGE BETWEEN 35 °C			
AMERICAN STANDARD WASHBROOK FLOWISE #6590.001.020 URINAL, VITREOUS CHINA, OPERATES IN THE RANGE OF 0.5 L TO 3.8 L (0.125 US	(95 F) AND 46 °C (114.8 F). SET VALVE TEMPERATURE AT 46 °C (114.8 F). PROVIDE TEE, ADAPTORS AND FLEX. COPPER TUBING TO SUIT			
GAL TO 1.0 US GAL) PER FLUSH, WALL HUNG, EXTENDED SIDES FOR PRIVACY, WASHDOWN ACTION, WASHBROOK FLOWISE, FLUSHING RIM, 19 MM (3/4") DIA. TOP SPUD, ELONGATED RIM, INTEGRAL P-TRAP, OUTLET CONNECTION 51 MM (2"), 2 WALL HANGERS, #7301242–100 CHROME	INSTALLATION. PROVIDE TEMPERED WATER TO HOT SIDE OF FAUCET. MCGUIRE #LFBV170 FAUCET SUPPLIES, CHROME PLATED FINISH POLISHED BRASS, COMMERCIAL DUTY 1/4 TURN BALL VALVE ANGLE STOPS, 13 MM (1/2") I.D. INLET X 127 MM (5") HORIZONTAL EXTENSION TUBES,	т.	AG	
PLATED, NON-METALLIC STRAINER, WHITE FINISH. SLOAN ROYAL (SINGLE FLUSH SIDE MOUNT) #ROYAL (SINGLE FLUSH SIDE MOUNT) 186-0.125	CONVERTIBLE 1/4 TURN/LOOSE KEY HANDLES, ESCUTCHEON AND FLEXIBLE COPPER RISERS. MCGUIRE #8912CB P-TRAP, HEAVY CAST BRASS			
SFSM HW, EXPOSED FLUSHOMETER FOR TOP SPUD URINAL, 0.5 L (0.125 US GAL) FACTORY SET FLOW, QUIET ACTION 'PERMEX' DIAPHRAGM TYPE WITH DUAL FILTER BY—PASS, INFRARED SENSOR, CIRCUITRY, TRUE MECHANICAL OVER—RIDE BUTTON, SCREWDRIVER BAK—CHEK ANGLE	ADJUSTABLE BODY, WITH SLIP NUT, 38 MM (1–1/2") SIZE, BOX FLANGE AND SEAMLESS TUBULAR WALL BEND. MCGUIRE PROWRAP #PW2000 SANITARY COVERING VANDAL-RESISTANT, FLEXIBLE SEAMLESS MOULDED CLOSED-CELL PVC RESIN, FORMULATED WITH ANTI-MICROBIAL		1_1_1-7_0	.0 11
STOP WITH FREE-SPINNING V.P. STOP CAP, FLUSH TUBE FOR 292 MM (11-1/2") ROUGH-IN, HIGH PRESSURE VACUUM BREAKER. SLOAN	ADDITIVE TO LIMIT THE GROWTH OF FUNGUS AND BACTERIA, TO EXPOSED PIPING (TO PROTECT AGAINST HEAT/CONTUSIONS) AS PER LOCAL		J—1~3, 8~ 26, 36, 5	
	CODES.			

PLUMBING FIXTURE P	PIPING	G SCH	EDULE	
	WATER S	SUPPLY		
FIXTURE TYPE	нот	COLD	DRAIN	VENT
S.S. KITCHEN SINK	1/2 " ø	1/2 " ø	1-1/2"ø	1-1/4 " ø
LAVATORY	1/2 " ø	1/2 " ø	1-1/2"ø	1-1/4 " ø
WATER CLOSET (FLUSH VALVE)	-	1 " ø	3 " ø	1-1/2 " ø
URINAL (FLUSH VALVE)	-	1"ø	3"ø	1-1/2 " ø
FLOOR / HUB DRAIN		_	2 " ø	1-1/2 " ø

NOTES: 1. PROVIDE TRAP PRIMER LINES AND TRAP PRIMERS FOR ALL FLOOR DRAINS.

2. ALL PIPING SHALL BE CONCEALED WITHIN WALLS

3. PROVIDE SHOCK STOPS ON HOT/COLD WATER SUPPLIES TO ALL FIXTURE GROUPS.

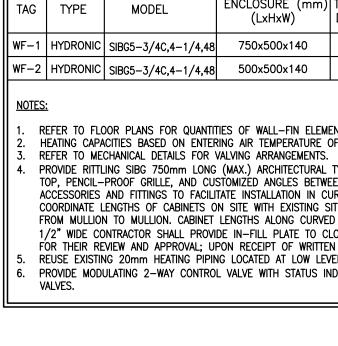
4. ALL VENTING SHALL CONFIRM TO OBC PART 7. INCREASE VENT SIZING AS REQUIRED WHERE TOTAL VENT LENGTH EXCEEDS SIZES LISTED ABOVE.

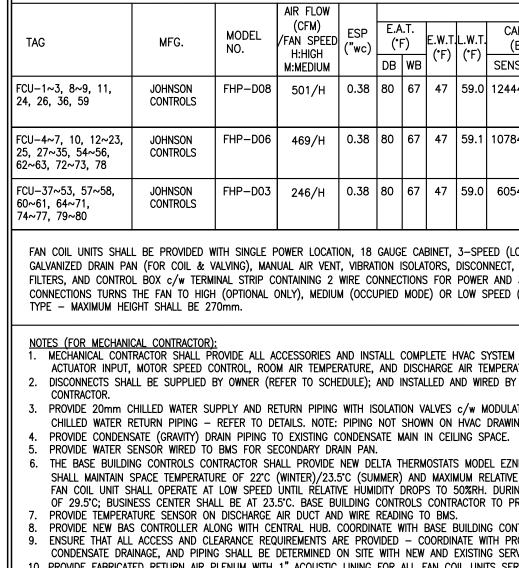
5. CONTRACTOR TO THOROUGHLY INSPECT THE SITE TO DETERMINE LOCATION OF EXISTING PIPING OF SUFFICIENT SIZE, AND EXTEND NEW VENT PIPING TO THIS LOCATION.

6. PROVIDE ISOLATION VALVES ON INCOMING PLUMBING PIPING.

7. ALL FLOOR DRAINS, FUNNEL FLOOR DRAINS, AND STANDING WASTE PIPES SHALL BE PRIMED.

RETURN AIR GRILI SERIES SIZES AS INDICAT 500MMX500MM \$ D SCDA CONTROLLER, SUI 300MMX300MM \$ E SCDA CONTROLLER, SUI _____ ARCHITECTURAL F | --ARCHITECTURAL





	FAN POWERED BOX (FPB) SCHEDULE									
TAG	UNIT SIZE	INLET SIZE (mm)	MAX. AIRFLOW (L/SEC.)	ATTENUATOR	REHEAT COIL	CONTROL PACKAGE				
FPB-1	20	200	520	900 LONG		DIRECT DIGITAL CONTROLS TO BE SUPPLIED AND INSTALLED BY BASE BUILDING BAS VENDOR (DELTA CONTROLS). ALL WIRING, INSTALLATION AND PROGRAMMING OF NEW FAN POWERED				
FPB-2	20	200	520	900 LONG		BOXES, INCLUDING UPDATING OF GRAPHICS, TO BE DONE BY DELTA CONTROLS.				
FPB-3	20	200	520	900 LONG						
REFER TO I	LOW PROFILE FAN POWERED TERMINAL UNIT C/W CONTROL TRANSFORMER, DISCONNECT SWITCH, AND 900 MM LONG ATTENUATOR. REFER TO DRAWINGS FOR FPB BOX MAXIMUM AND MINIMUM AIRFLOW SETTINGS. BASIS OF DESIGN: E.H. PRICE FDCLP2.									

 GENERAL OFFICE SPACE TEMPERATURE SENSORS SHALL MAINTAIN TEMPERATURE SE SHALL BE CONTROLLED BY THE BAS SYSTEM. THE ZONE SENSOR SHALL A WITHIN 0.5°C. THE TEMPERATURE SENSOR SHALL BE PRODUCT OF THE BA CONTROLS CONTRACTOR AND DESIGNED SPECIFICALLY FOR THE INSTALLED THE ZONE SENSOR SHALL HAVE THE FOLLOWING FEATURES: ZONE SETPOINT ADJUSTMENT NIGHT SETBACK CVERRIDE CANCEL BUTTON TO PROVIDE OCCUPIED DURING UNOCCUPIED TIMES. NIGHT SETBACK OVERRIDE CANCEL BUTTON TO END THE OVERRIDE COND D. HUMIDITY SENSOR. ALL TEMPERATURE SETTINGS, TIME DELAYS AND PERCENTAGE VALUES USE FOLLOWING SEQUENCES ARE ADJUSTABLE BY THE SYSTEM OPERATORS. TIME DELAYS ON THE DIGITAL OUTPUTS SHALL PREVENT THE EQUIPMENT F CYCLING. ON CALL FOR HEATING, HEATING CONTROL VALVE SERVING WALL-FIN HEA MODULATE TO MAINTAIN ROOM TEMPERATURE SETPOINT; AND CHILLED WA VALVE ON FAN COIL UNITS SERVING PERIMETER ZONES SHALL BE LOCKED ALARMS ARE FORWARDED TO THE FRONT END PC. SYSTEM START/STOP OCCUPIED AND UNOCCUPIED MODES WILL BE DEFINED BY A TIME OF DAY OCCUPANCY STATUS. DURING THE OCCUPIED MODE THE FAN COIL UNIT WILL BE ENABLED AND 1 OPERATE IN MEDIUM SPEED. THE BAS SHALL MODULATE THE CHILLED W VALVE, AND PERIMETER HEATING VALVE (IF APPLICABLE) TO MAINTAIN SF TEMPERATURE SETPOINT. DURING THE UNOCCUPIED MODE THE FAN COIL UNIT SHALL BE OFF. SHUT- UNIT SHALL BE 5 MINUETS DELAY UNDER UNOCCUPIED MODEL DURING OCCUPIED PERIODS, THE FAN COIL UNIT SHALL BE OFF. SHUT- UNIT SHALL BE 5 MINUETS DELAY UNDER UNOCCUPIED MODEL DURING OCCUPIED PERIONS, THE FAN COIL UNIT SHALL BE OFF. SHUT- UNIT SHALL BE 5 MINUETS DELAY UNDER UNOCCUPIED MODEL DURING OCCUPIED PERIODS, THE FAN COIL UNIT SHALL BE OFF. SHUT- UNIT SHALL BE 5 MINUETS DELAY UNDER UNDCUCHED MADEL FIE CONTROL VALVE WILL BE ENABLED AND THE CONTINUOL SPACE TEMPERATURE IS BELOW THE UNOCCUPIED MODE. SPACE TEMPERATURE SETPOINT, WHE BE SET TO: C22°C HEATING AND 24.0°C COOL
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ALARMS
AN ALARM SHALL BE ACTIVATED WHEN:

			BASIS OF DESIGN: E.H. PRICE
		DIFFUSER SCHEDULE	EQUAL IN: METALAIRE, NAILOR, TITU
REF.	MODEL No.	DESCRIPTION	REMARKS
A	SCDA	600MMX600MM SQUARE CONE DIFFUSER, STEEL CONSTRUCTION, FULLY ADJUSTABLE AIR PATTERN CONTROLLER, SUITABLE FOR 'T' BAR OR DRYWALL MOUNTING. C/W VOLUME DAMPER AT DIFFUSER NECK	B12 WHITE POWDER COAT FINISH
В	530D	45° DEFLECTION EXHAUST AIR GRILLE, FIXED LOUVERS, 3/4" BLADE SPACING, C/W OPPOSED BLADE DAMPER, FRONT BLADES PARALLEL TO LONG DIMENSION. SUITABLE FOR DRYWALL MOUNTING	B12 WHITE POWDER COAT FINISH
С	80 SERIES	RETURN AIR GRILLE 12x12x12 EGGCRATE, ALUMINUM CONSTRUCTION, SUITABLE FOR T-BAR CEILING MOUNTING. SIZES AS INDICATED ON DRAWING.	B12 WHITE POWDER COAT FINISH
D	SCDA	500MMX500MM SQUARE CONE DIFFUSER, STEEL CONSTRUCTION, FULLY ADJUSTABLE AIR PATTERN CONTROLLER, SUITABLE FOR 'T' BAR OR DRYWALL MOUNTING. C/W VOLUME DAMPER AT DIFFUSER NECK	B12 WHITE POWDER COAT FINISH
E	SCDA	300MMX300MM SQUARE CONE DIFFUSER, STEEL CONSTRUCTION, FULLY ADJUSTABLE AIR PATTERN CONTROLLER, SUITABLE FOR 'T' BAR OR DRYWALL MOUNTING. C/W VOLUME DAMPER AT DIFFUSER NECK	B12 WHITE POWDER COAT FINISH
F		ARCHITECTURAL PLENUM SLOT DIFFFUSER. DIFFUSER BY ARCHITECTURAL DIVISION. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.	COLOUR SHALL BE SELECTED BY ARCHITECT/ INTERIOR DESIGNER

	WALLFIN HEATER SCHEDULE BASIS OF DESIGN: RITTLING EQUAL IN: ENG. AIR, STERLING										
	ENCLOSURE (mm) (LxHxW)	TUBE SIZE DIA (mm)					RETURN WATER TEMP. (°C)	AVERAGE WATER TEMPERATURE (*C)	WALLFIN ELEMENT LENGTH (mm)		
,4–1/4,48	750x500x140	20	2	995	0.18	60	48.9	54.5	1000		
,4–1/4,48	500x500x140	20	2	995	0.18	60	48.9	54.5	750		

I. REFER TO FLOOR PLANS FOR QUANTITIES OF WALL-FIN ELEMENTS. HEATING CAPACITIES BASED ON ENTERING AIR TEMPERATURE OF 18°C.

4. PROVIDE RITTLING SIBG 750mm LONG (MAX.) ARCHITECTURAL TYPE ENCLOSURE CABINETS (16 GAUGE) FOR 108mmx108mm WALL-FIN HEATING ELEMENTS AND EXPOSED PIPE c/w SLOPED TOP, PENCIL-PROOF GRILLE, AND CUSTOMIZED ANGLES BETWEEN CABINETS TO MAINTAIN CONTINUOUS RUN ALONG CURVED PERIMETER WALL FROM COLUMN TO COLUMN. PROVIDE ALL REQUIRED ACCESSORIES AND FITTINGS TO FACILITATE INSTALLATION IN CURVED PERIMETER WALL. CABINETS SHALL ONLY END WHERE THERE IS A RAIN WATER LEADER BEHIND PERIMETER COLUMN. COORDINATE LENGTHS OF CABINETS ON SITE WITH EXISTING SITE CONDITIONS - LENGTH OF CABINETS, WHERE IT IS INSTALLED, SHALL BE BE NO MORE THAN HALF THE WIDTH OF GLAZING FROM MULLION TO MULLION. CABINET LENGTHS ALONG CURVED WALLS TO BE SITE MEASURED TO AVOID GAPS BETWEEN CABINET AND WALL. WHERE GAPS DO EXIST THAT ARE GREATER THAN 1/2" WIDE CONTRACTOR SHALL PROVIDE IN-FILL PLATE TO CLOSE OFF GAP. IN-FILL PLATES SHALL BE POWDER COATED TO MATCH RAD ENCLOSURE. PROVIDE SAMPLE OF CABINET TO OWNER FOR THEIR REVIEW AND APPROVAL; UPON RECEIPT OF WRITTEN APPROVAL, SHOP DRAWINGS MAY BE SUBMITTED TO MECHANICAL ENGINEER AND ARCHITECT. REUSE EXISTING 20mm HEATING PIPING LOCATED AT LOW LEVEL. ALL VALVES SHALL BE CONCEALED WITHIN CABINETS. PROVIDE MODULATING 2-WAY CONTROL VALVE WITH STATUS INDICATION FOR HEATING WATER SUPPLY PIPE AND CIRCUIT BALANCING VALVE FOR HEATING WATER RETURN PIPE c/w ISOLATION

HORIZONTAL FAN COIL UNIT SCHEDULE BASIS OF DESIGN: JOHNSON CONTROLS (905) 747-3768																				
		AIR FLOW						(COOLING	3				ELECTR	ICAL					
	MODEL (CFM) NO. (CFM) H:HIGH		ESP ("wc)	E.A.T. (*F)		E.W.T. (*F)		CAPACITY (BTUH)		NO.	FLOW (GPM)	W.P.D. (FTwc)	FAN	MCA/	AMPS	VOLTS/PH	WEIGHT (LB)	QUANTITY		
		M:MEDIUM				DB	WB	(*F) (*F)		SENS.	TOTAL	ROWS			(HP)	MSCP				
N LS	FHP-D08	501/H	0.38	80	67	47	59.0	12444	16394	4	2.8	2.68	1/4	1.50/15.0	1.20	208/1	84	10		
N LS	FHP-D06	469/H	0.38	80	67	47	59.1	10784	13414	4	2.3	1.54	1/4	1.50/15.0	1.20	208/1	69	35		
N LS	FHP-D03	246/H	0.38	80	67	47	59.0	6054	7924	4	1.3	3.47	1/4	0.88/15.0	0.70	208/1	43	35		

FAN COIL UNITS SHALL BE PROVIDED WITH SINGLE POWER LOCATION, 18 GAUGE CABINET, 3-SPEED (LOW, MEDIUM, AND HIGH) FAN WITH RELAY AND TRANSFORMER, ECM MOTOR, INTEGRAL GALVANIZED DRAIN PAN (FOR COIL & VALVING), MANUAL AIR VENT, VIBRATION ISOLATORS, DISCONNECT, CONDENSATE OVERFLOW SWITCH, LAMACOID LABEL, REAR RETURN AIR WITH MERV-13 FILTERS, AND CONTROL BOX c/w TERMINAL STRIP CONTAINING 2 WIRE CONNECTIONS FOR POWER AND 3 CONTROL WIRE CONNECTIONS, WHICH WHEN A SIGNAL IS APPLIED TO, ONE OF THE 3 CONNECTIONS TURNS THE FAN TO HIGH (OPTIONAL ONLY), MEDIUM (OCCUPIED MODE) OR LOW SPEED (UNOCCUPIED MODE OR HIGH HUMIDITY). ALL FAN COIL UNITS SHALL BE LOW PROFILE

NOTES (FOR MECHANICAL CONTRACTOR): 1. MECHANICAL CONTRACTOR SHALL PROVIDE ALL ACCESSORIES AND INSTALL COMPLETE HVAC SYSTEM INCLUDING ALL CONTROL WIRING AND DEVICES: CONDENSATE OVERFLOW, COOLING ACTUATOR INPUT, MOTOR SPEED CONTROL, ROOM AIR TEMPERATURE, AND DISCHARGE AIR TEMPERATURE. ALL FAN COIL UNITS AND SENSORS SHALL BE WIRED TO BMS. DISCONNECTS SHALL BE SUPPLIED BY OWNER (REFER TO SCHEDULE); AND INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR - COORDINATE WITH PROJECT MANAGER AND ELECTRICAL . PROVIDE 20mm CHILLED WATER SUPPLY AND RETURN PIPING WITH ISOLATION VALVES c/w MODULATING 2-WAY CONTROL VALVE AND ACTUATOR ON SUPPLY PIPING AND CIRCUIT SETTER ON CHILLED WATER RETURN PIPING - REFER TO DETAILS. NOTE: PIPING NOT SHOWN ON HVAC DRAWINGS FOR CLARITY. PROVIDE TIE-INS (HOT-TAPS) AS REQUIRED.

. THE BASE BUILDING CONTROLS CONTRACTOR SHALL PROVIDE NEW DELTA THERMOSTATS MODEL EZNF-X c/w LIGHTING CONTROL BUTTON, CO2 SENSOR, AND HUMIDITY SENSOR. THERMOSTAT SHALL MAINTAIN SPACE TEMPERATURE OF 22°C (WINTER)/23.5°C (SUMMER) AND MAXIMUM RELATIVE HUMIDITY OF 60%RH. IF RELATIVE HUMIDITY REACHES A SETPOINT HIGHER THAN 60%, THE FAN COIL UNIT SHALL OPERATE AT LOW SPEED UNTIL RELATIVE HUMIDITY DROPS TO 50% RH. DURING UNOCCUPIED MODE, THERMOSTAT SHALL MAINTAIN A MINIMUM OF 15°C AND A MAXIMUM OF 29.5°C; BUSINESS CENTER SHALL BE AT 23.5°C. BASE BUILDING CONTROLS CONTRACTOR TO PROVIDE ALL LOW VOLTAGE CONTROL WIRING. PROVIDE TEMPERATURE SENSOR ON DISCHARGE AIR DUCT AND WIRE READING TO BMS. 3. PROVIDE NEW BAS CONTROLLER ALONG WITH CENTRAL HUB. COORDINATE WITH BASE BUILDING CONTROLS CONTRACTOR. 9. ENSURE THAT ALL ACCESS AND CLEARANCE REQUIREMENTS ARE PROVIDED - COORDINATE WITH PROJECT MANAGER AND ALL OTHER TRADES. EXACT LOCATION OF FAN COIL UNIT, DUCTWORK, CONDENSATE DRAINAGE, AND PIPING SHALL BE DETERMINED ON SITE WITH NEW AND EXISTING SERVICES AND EXISTING STRUCTURAL.

. PROVIDE FABRICATED RETURN AIR PLENUM WITH 1" ACOUSTIC LINING FOR ALL FAN COIL UNITS SERVING INTERIOR 70NFS WITH A HARD DUCT (VENTILATION) CONNECTION. 1. FILTER FOR FAN COIL UNIT SHALL BE LIMITED TO NOMINAL SIZES LISTED BELOW: . 31" x 10.5" x 1" FOR MODEL FHP-D06 2. 19" x 10.5" x 1" FOR MODEL FHP-D03 & 2 SETS FOR MODEL FHP-D08

FAN COIL UNITS CONTROL SEQUENCES

SENSORS SHALL MAINTAIN TEMPERATURE SETPOINTS AND THE BAS SYSTEM. THE ZONE SENSOR SHALL BE ACCURATE TO TURE SENSOR SHALL BE PRODUCT OF THE BASE BUILDING DESIGNED SPECIFICALLY FOR THE INSTALLED CONTRACTOR. HAVE THE FOLLOWING FEATURES:

TURE OVERRIDE BUTTON TO PROVIDE OCCUPIED CONDITIONS CANCEL BUTTON TO END THE OVERRIDE CONDITION.

TIME DELAYS AND PERCENTAGE VALUES USED IN THE ADJUSTABLE BY THE SYSTEM OPERATORS.

OUTPUTS SHALL PREVENT THE EQUIPMENT FROM SHORT ATING CONTROL VALVE SERVING WALL-FIN HEATER SHALL

DOM TEMPERATURE SETPOINT; AND CHILLED WATER CONTROL SERVING PERIMETER ZONES SHALL BE LOCKED OUT.) THE FRONT END PC.

MODES WILL BE DEFINED BY A TIME OF DAY SCHEDULE AND

E THE FAN COIL UNIT WILL BE ENABLED AND FAN SHALL . THE BAS SHALL MODULATE THE CHILLED WATER CONTROL ATING VALVE (IF APPLICABLE) TO MAINTAIN SPACE

IODE THE FAN COIL UNIT SHALL BE OFF. SHUT-OFF FAN COIL DELAY UNDER UNOCCUPIED MODEL THE FAN COIL UNIT WILL OPERATE CONTINUOUSLY. WHEN THE ELOW THE UNOCCUPIED HEATING SETPOINT OR ABOVE THE POINT, THE HEATING (PERIMETER WALL-FIN) OR COOLING (FAN BE ENABLED AND THE CONTROLLER WILL SEND A REQUEST. OPERATE UNTIL THE SPACE TEMPERATURE HAS RISEN 2°C ATING SETPOINT OR DROPPED 2°C BELOW THE UNOCCUPIED

DINTS WILL BE SET TO: COOLING IN THE OCCUPIED MODE.

2. THE SPACE TEMPERATURE IS 2°C ABOVE SETPOINT (10 MINUTE TIME DELAY). 3. THE SPACE TEMPERATURE DROPS BELOW 10°C. TRENDS

1. THE SPACE TEMPERATURE IS 4°C BELOW SETPOINT (10 MINUTE TIME DELAY).

THE FOLLOWING POINTS WILL BE TRENDED: 1. ALL INPUTS, OUTPUTS AND USER ADJUSTABLE SETPOINTS.

PERIMETER HEATING: GENERAL

NOTE

- 1. ALL TEMPERATURE SETTING, TIME DELAYS AND PERCENTAGE VALUES USED IN THE FOLLOWING SEQUENCES ARE ADJUSTABLE BY THE SYSTEM OPERATORS.
- 2. HEATING REQUESTS SHALL BE SENT TO THE HEATING SYSTEM. A HEATING REQUEST WILL BE GENERATED WHEN THE HEATING VALVE IS MORE THAN 80% OPEN.
- 3. ALL DIGITAL OUTPUTS ARE EQUIPPED WITH ON/OFF TIME DELAYS TO PREVENT SHORT CYCLING
- 4. ALL ALARMS WILL BE FORWARDED TO THE OPERATOR WORKSTATION. 5. ON CALL FOR HEATING, HEATING CONTROL VALVE SERVING WALL-FIN HEATER SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE SETPOINT; AND CHILLED WATER CONTROL VALVE ON FAN COIL UNITS SERVING PERIMETER ZONES SHALL BE LOCKED OUT.
- ALARMS
- AN ALARM SHALL BE ACTIVATED WHEN: ROOM TEMPERATURE DROPS 4°C BELOW SETPOINT (10 MINUTE DELAY).
- ROOM TEMPERATURE IS ABOVE 31.5°C. 3. ROOM TEMPERATURE IS BELOW 10°C. TRENDS

THE FOLLOWING POINTS WILL BE TRENDED: 1. ALL INPUTS, OUTPUTS AND USER ADJUSTABLE SETPOINTS.

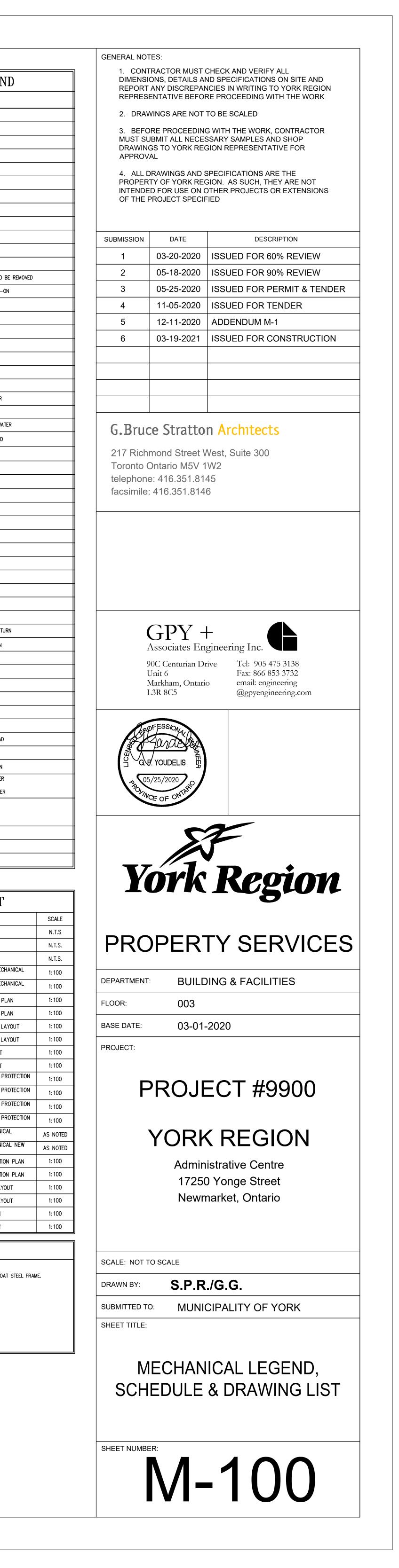
- . CONTROLS SHALL BE SUITABLE FOR BASE BUILDING SYSTEM AND SHALL BE COMPLETED BY OWNER'S APPROVED CONTROLS CONTRACTOR. 2. PROVIDE ALL CONTROL DEVICES AND WIRING FOR A PROPER AND FUNCTIONAL CONTROLS SYSTEM.
- 3. CONTROLS CONTRACTOR SHALL PROVIDE ALL LOW-VOLTAGE WIRING. 4. COORDINATE WITH PROJECT MANAGER AND ELECTRICAL CONTRACTOR.

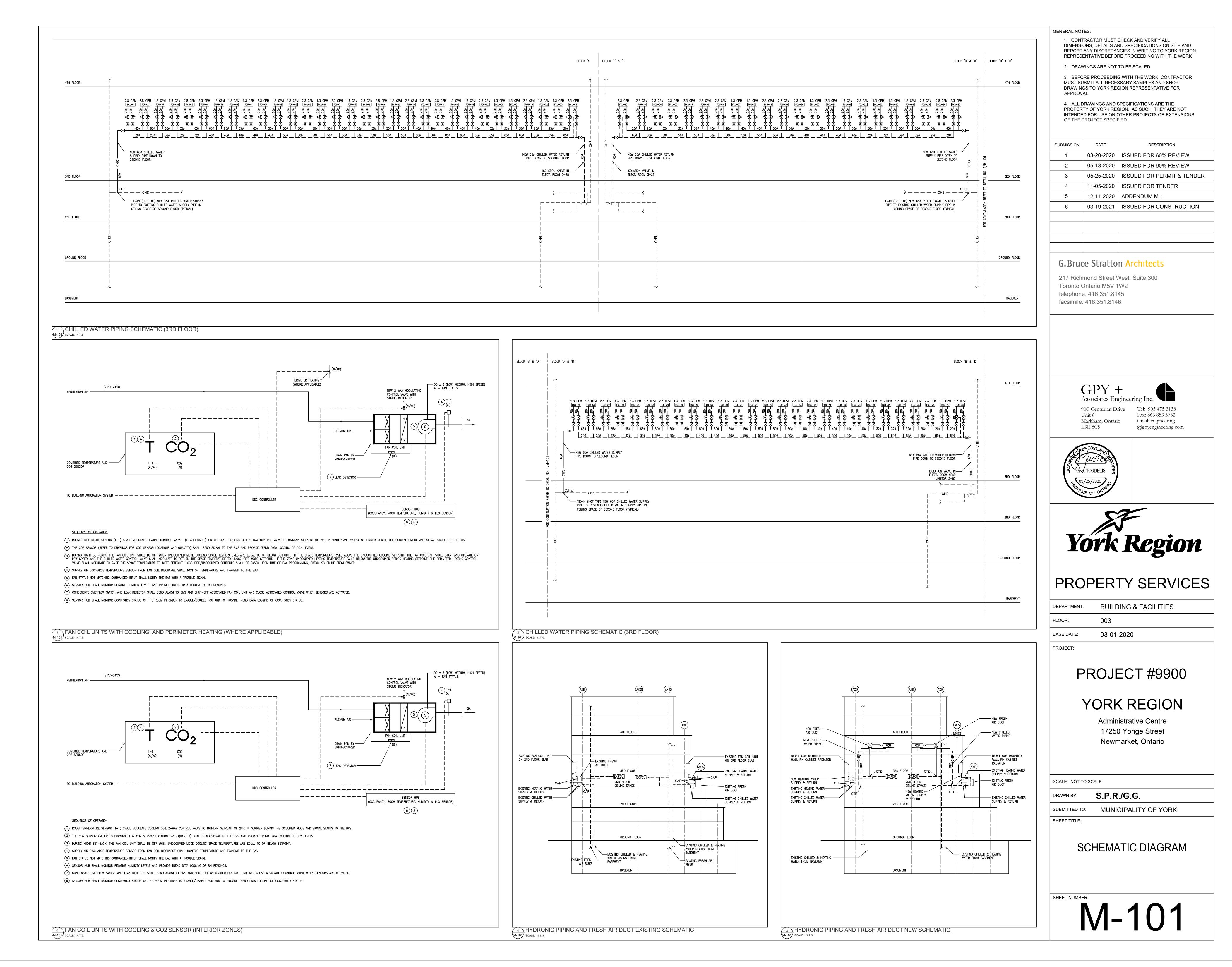
ME	CHANICAL LEGEND
SYMBOL	DESCRIPTION
	SUPPLY AIR DUCT UP
	SUPPLY AIR DUCT DOWN
	RETURN/EXHAUST AIR DUCT UP
	RETURN/EXHAUST AIR DUCT DOWN.
	Square supply air diffuser
	RETURN AIR GRILLE
	LINEAR SLOT SUPPLY AIR DIFFUSER
<u>z z z</u> 2	NEW SUPPLY AIR DUCTWORK
	ACOUSTICALLY-LINED DUCTWORK
£}	EXISTING DUCTWORK TO REMAIN.
	EXISTING DUCTWORK / EQUIPMENT TO BE
	FLEXIBLE DUCT COMPLETE WITH SPIN-ON
CTE	CONNECT TO EXISTING
<u>©</u>	NEW CO2 SENSOR
·CU-2	EQUIPMENT DESIGNATION
ſ	BALANCING DAMPER
<u> </u>	FIRE DAMPER
 []	EXISTING TEMPERATURE SENSOR
 	NEW TEMPERATURE SENSOR
E	EXISTING/NEW DOMESTIC COLD WATER
E 5	EXISTING/NEW DOMESTIC HOT WATER
E 5 ۲ 5 5 N	EXISTING/NEW DOMESTIC REC. HOT WATER
SAN	SANITARY PIPE BELOW GRADE, BURIED
SAN	SANITARY ABOVE GRADE
v	SANITARY VENT
۶ c۶	CONDENSATE DRAIN
<u> </u>	EXISTING HEATING SUPPLY/RETURN
<u>}- </u>	NEW HEATING SUPPLY/RETURN
<u>ج</u> ۶ <u></u>	NEW FIRE LINE
<u> </u>	GATE VALVE
<2>	DRAWING NOTES
🖨 FD	FLOOR DRAIN
数	EXISTING DIFFUSER TO BE REMOVED
F.H.C.	EXISTING/NEW FIRE HOSE CABINET
<u> </u>	EXISTING CHILLED WATER SUPPLY/RETURN
<u> </u>	NEW CHILLED WATER SUPPLY/RETURN
C.O.	CLEAN OUT
—— ∳ ——⊃	PIPE UP, PIPE DOWN
þ	TRAP
	CLEANOUT
● F.E.	FIRE EXTINGUISHER
ٌ ^{`N'}	NEW CONCEALED SPRINKLER HEAD
`N' ●	NEW SEMI-RECESSED SPRINKLER HEAD
o ^{EX}	REMOVE EXISTING SPRINKLER HEAD
^{EX} ●	EXISTING SPRINKLER HEAD TO REMAIN
A C	A-SIZE OF DIFFUSER/GRILLE/REGISTER B-AIR QUANTITY (L/S)
B	C-TYPE OF DIFFUSER/GRILLE/REGISTER
AB	A—SIZE OF FAN POWERED BOX B—MIN AIR QUANTITY (L/S)
	C-MAX AIR QUANTITY (L/S)
'R'	RELOCATE

	DRAWING LIST
NO.	DESCRIPTION
M-100	MECHANICAL LEGEND, SCHEDULE & DRAWING LIST
M-101	SCHEMATIC DIAGRAM
M-102	MECHANICAL DETAILS
M-200	PARTIAL 2ND FLOOR CEILING SPACE AREA 'A' – MECH/ DEMOLITION PLAN
M-201	PARTIAL 2ND FLOOR CEILING SPACE AREA 'B' - MECHA DEMOLITION PLAN
M-202	PARTIAL 3RD FLOOR AREA 'A' - HVAC DEMOLITION PLA
M-203	PARTIAL 3RD FLOOR AREA 'B' - HVAC DEMOLITION PLA
M-204	PARTIAL 2ND FLOOR AREA 'A' - MECHANICAL NEW LAY
M-205	PARTIAL 2ND FLOOR AREA 'B' - MECHANICAL NEW LAY
M-206	PARTIAL 3RD FLOOR AREA 'A' – HVAC NEW LAYOUT
M-207	PARTIAL 3RD FLOOR AREA 'B' – HVAC NEW LAYOUT
M-300	PARTIAL 3RD FLOOR AREA 'A' – PLUMBING & FIRE PRO DEMOLITION PLAN
M-301	PARTIAL 3RD FLOOR AREA 'B' – PLUMBING & FIRE PRO DEMOLITION PLAN
M-302	PARTIAL 3RD FLOOR AREA 'A' – PLUMBING & FIRE PRONEW LAYOUT
M-303	PARTIAL 3RD FLOOR AREA 'B' - PLUMBING & FIRE PRONEW LAYOUT
M-304	3RD FLOOR WASHROOMS 3-88 TO 3-93 - MECHANICA DEMOLITION PLAN
M-305	3RD FLOOR WASHROOMS 3-88 TO 3-93 - MECHANICA LAYOUT
M-400	PARTIAL 3RD FLOOR AREA 'A' - HYDRONIC DEMOLITION
M-401	PARTIAL 3RD FLOOR AREA 'B' - HYDRONIC DEMOLITION
M-402	PARTIAL 3RD FLOOR AREA 'A' - HYDRONIC NEW LAYOL
M-403	PARTIAL 3RD FLOOR AREA 'B' – HYDRONIC NEW LAYOU
M-500	PARTIAL 3RD FLOOR AREA 'A' – CONTROLS LAYOUT
M-501	PARTIAL 3RD FLOOR AREA 'B' – CONTROLS LAYOUT
	ACCESS PANEL

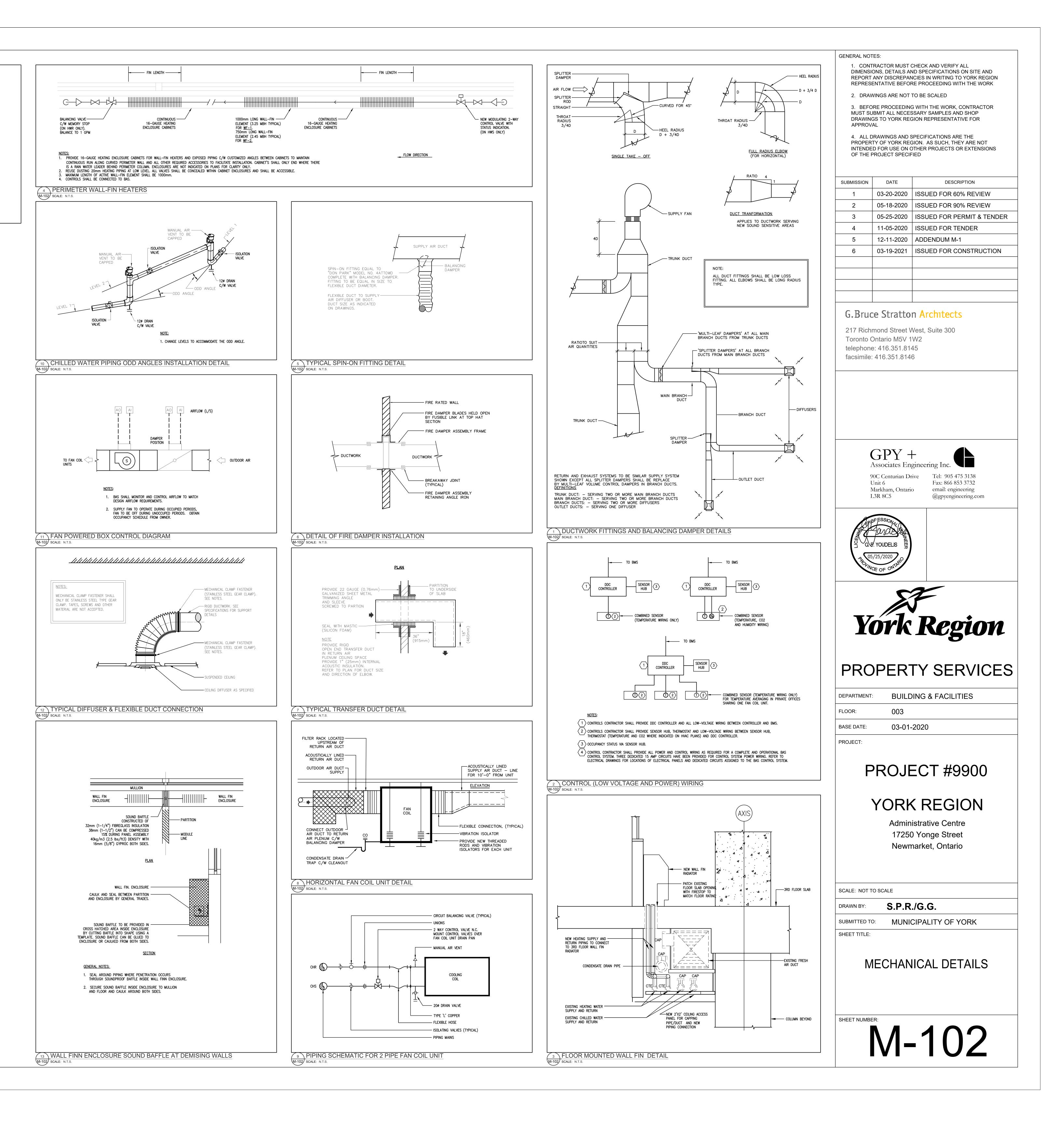
MIFAB MDW SERIES DRYWALL BEAD ACCESS PANEL MDW SERIES 16 GAGE SATIN COAT STEEL DOOR AND 16 GAGE SATIN COAT STEEL FRAME.

GALVANIZED DRYWALL TAPING BEAD







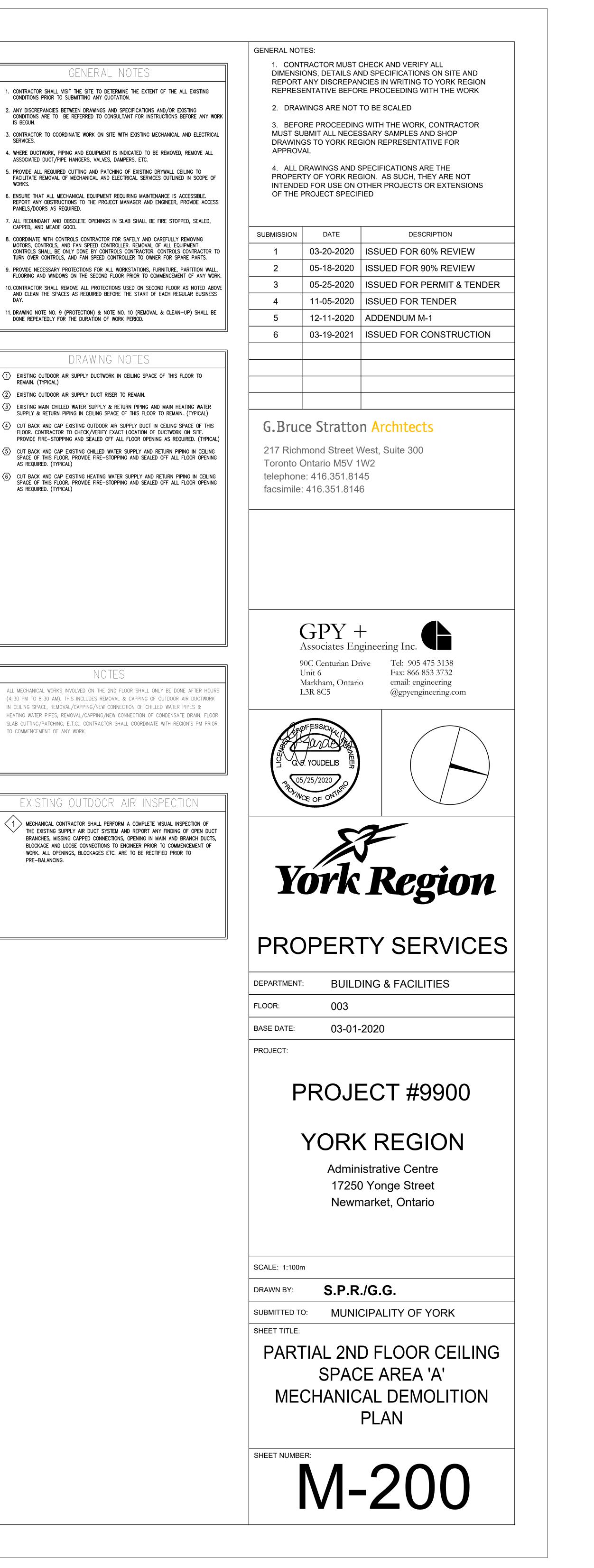


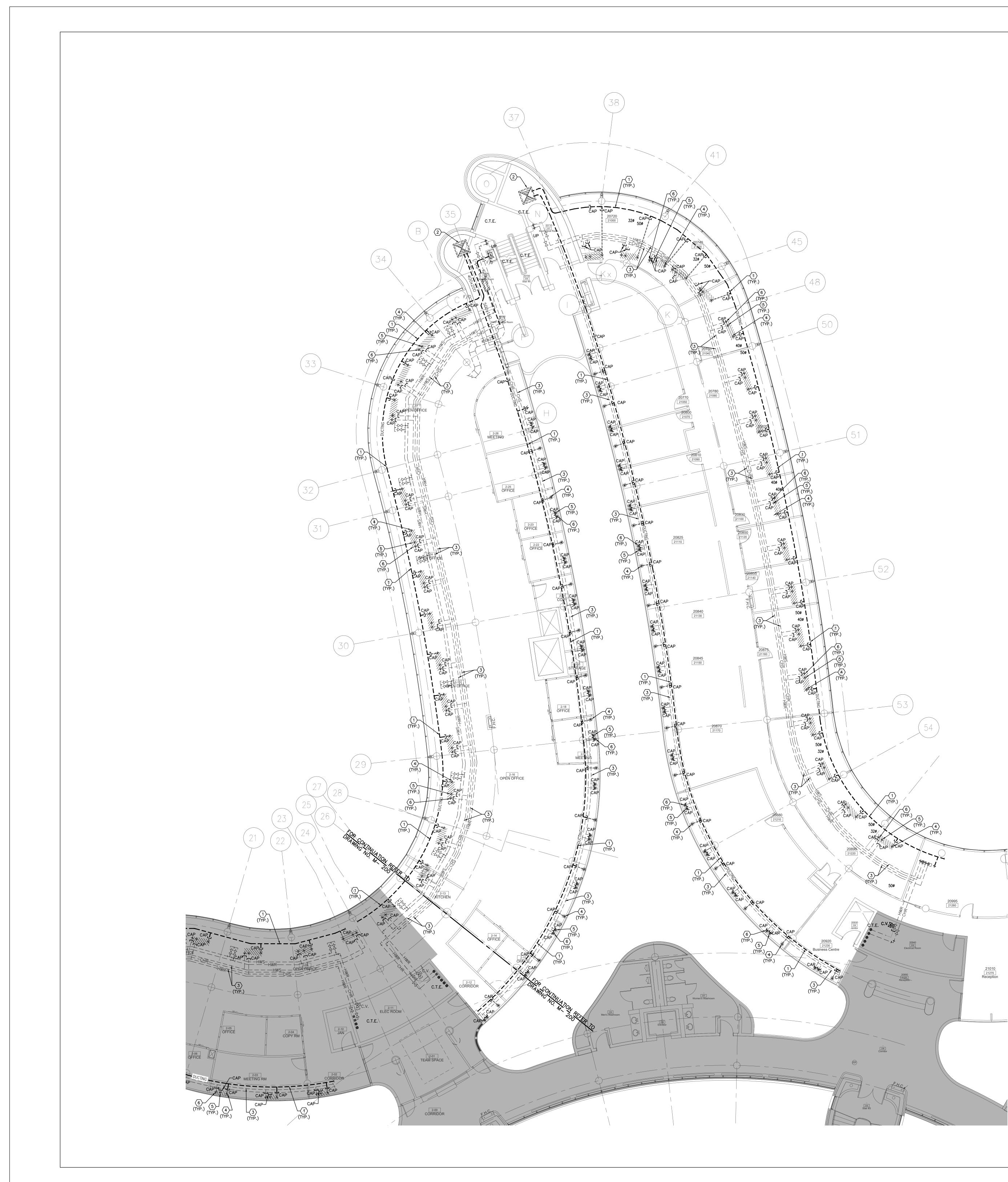
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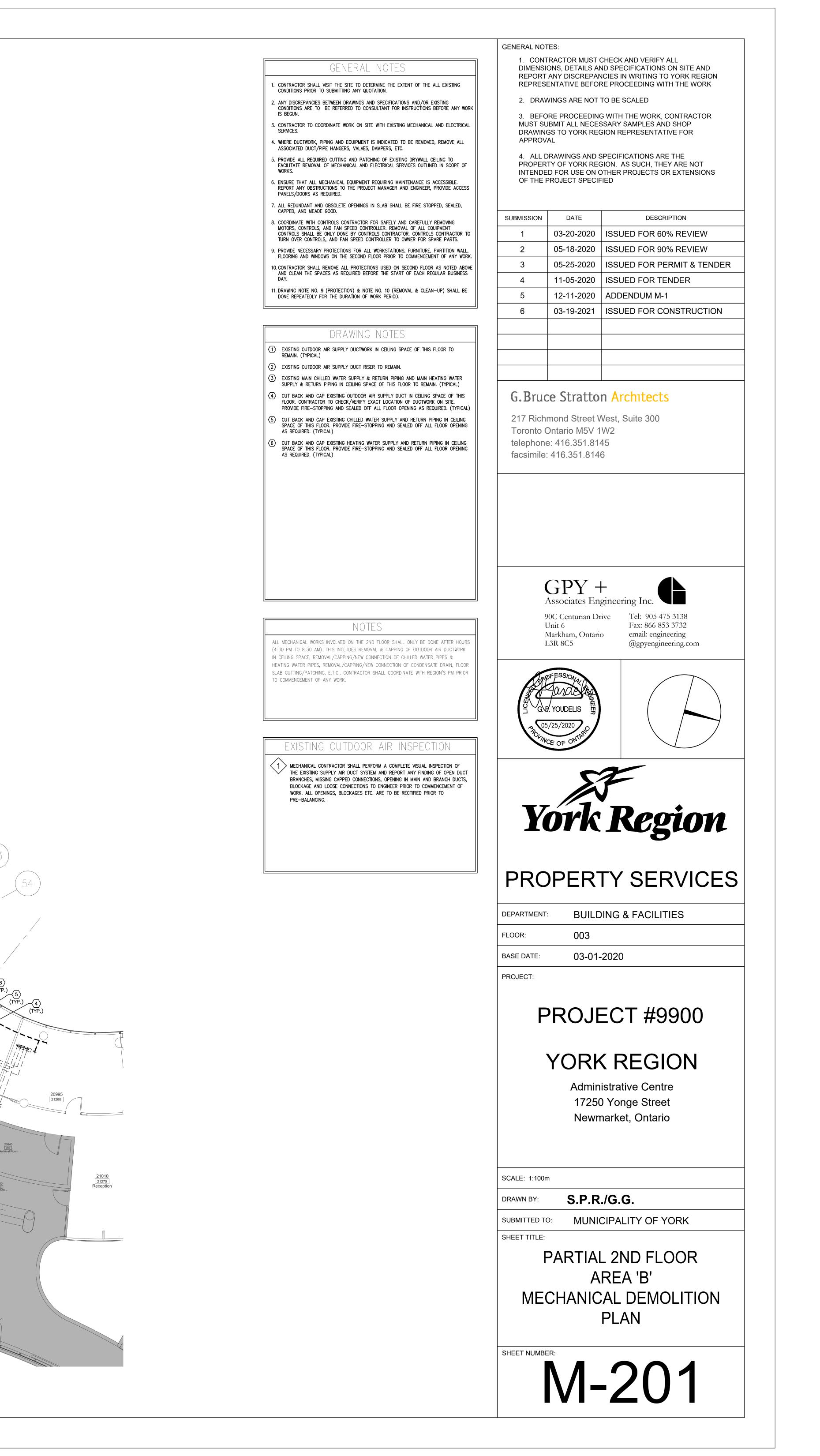


3. CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING MECHANICAL AND ELECTRICAL SERVICES 4. WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC. 5. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS. 6. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE ACCESS PANELS/DOORS AS REQUIRED. 7. ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MEADE GOOD. 8. COORDINATE WITH CONTROLS CONTRACTOR FOR SAFELY AND CAREFULLY REMOVING MOTORS, CONTROLS, AND FAN SPEED CONTROLLER. REMOVAL OF ALL EQUIPMENT CONTROLS SHALL BE ONLY DONE BY CONTROLS CONTRACTOR. CONTROLS CONTRACTOR TO TURN OVER CONTROLS, AND FAN SPEED CONTROLLER TO OWNER FOR SPARE PARTS. 9. PROVIDE NECESSARY PROTECTIONS FOR ALL WORKSTATIONS, FURNITURE, PARTITION WALL, FLOORING AND WINDOWS ON THE SECOND FLOOR PRIOR TO COMMENCEMENT OF ANY WORK. 10. CONTRACTOR SHALL REMOVE ALL PROTECTIONS USED ON SECOND FLOOR AS NOTED ABOVE AND CLEAN THE SPACES AS REQUIRED BEFORE THE START OF EACH REGULAR BUSINESS 11. DRAWING NOTE NO. 9 (PROTECTION) & NOTE NO. 10 (REMOVAL & CLEAN-UP) SHALL BE DONE REPEATEDLY FOR THE DURATION OF WORK PERIOD. DRAWING NOTES EXISTING OUTDOOR AIR SUPPLY DUCTWORK IN CEILING SPACE OF THIS FLOOR TO REMAIN. (TYPICAL) 2 EXISTING OUTDOOR AIR SUPPLY DUCT RISER TO REMAIN. angle existing main chilled water supply & return piping and main heating water SUPPLY & RETURN PIPING IN CEILING SPACE OF THIS FLOOR TO REMAIN. (TYPICAL) (4) CUT BACK AND CAP EXISTING OUTDOOR AIR SUPPLY DUCT IN CEILING SPACE OF THIS FLOOR. CONTRACTOR TO CHECK/VERIFY EXACT LOCATION OF DUCTWORK ON SITE. PROVIDE FIRE-STOPPING AND SEALED OFF ALL FLOOR OPENING AS REQUIRED. (TYPICAL) 5 CUT BACK AND CAP EXISTING CHILLED WATER SUPPLY AND RETURN PIPING IN CEILING SPACE OF THIS FLOOR. PROVIDE FIRE-STOPPING AND SEALED OFF ALL FLOOR OPENING AS REQUIRED. (TYPICAL) 6 CUT BACK AND CAP EXISTING HEATING WATER SUPPLY AND RETURN PIPING IN CEILING SPACE OF THIS FLOOR. PROVIDE FIRE-STOPPING AND SEALED OFF ALL FLOOR OPENING AS REQUIRED. (TYPICAL) NOTES ALL MECHANICAL WORKS INVOLVED ON THE 2ND FLOOR SHALL ONLY BE DONE AFTER HOU (4:30 PM TO 8:30 AM). THIS INCLUDES REMOVAL & CAPPING OF OUTDOOR AIR DUCTWORK IN CEILING SPACE, REMOVAL/CAPPING/NEW CONNECTION OF CHILLED WATER PIPES & HEATING WATER PIPES, REMOVAL/CAPPING/NEW CONNECTION OF CONDENSATE DRAIN, FLOOR SLAB CUTTING/PATCHING, E.T.C.. CONTRACTOR SHALL COORDINATE WITH REGION'S PM PRIOR TO COMMENCEMENT OF ANY WORK. EXISTING OUTDOOR AIR INSPECTION MECHANICAL CONTRACTOR SHALL PERFORM A COMPLETE VISUAL INSPECTION OF THE EXISTING SUPPLY AIR DUCT SYSTEM AND REPORT ANY FINDING OF OPEN DUCT BRANCHES, MISSING CAPPED CONNECTIONS, OPENING IN MAIN AND BRANCH DUCTS, BLOCKAGE AND LOOSE CONNECTIONS TO ENGINEER PRIOR TO COMMENCEMENT OF WORK. ALL OPENINGS, BLOCKAGES ETC. ARE TO BE RECTIFIED PRIOR TO PRE-BALANCING.

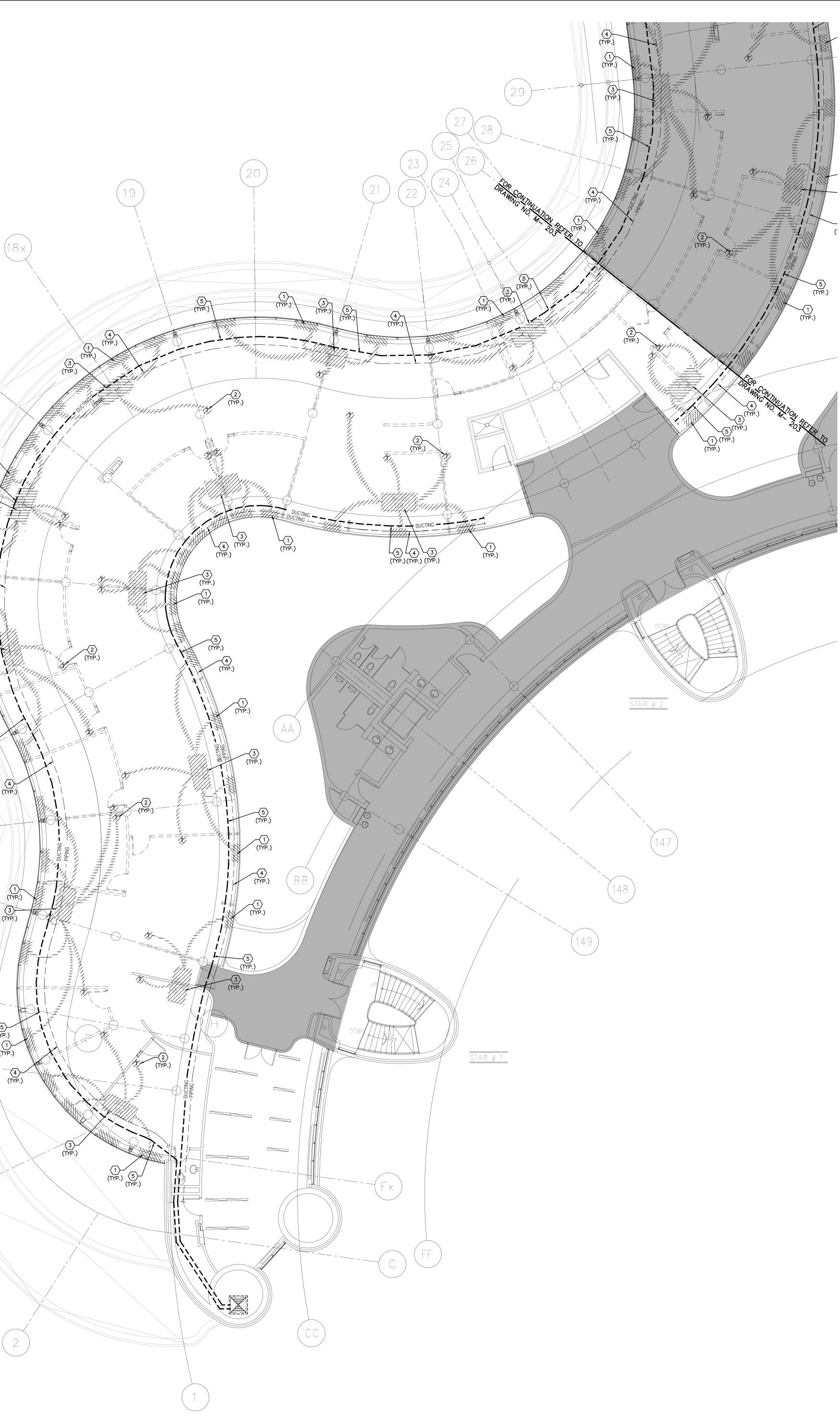
GENERAL NOTES











- GENERAL NOTES
 CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY QUOTATION.
 ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE REFERRED TO CONSULTANT FOR INSTRUCTIONS BEFORE ANY WORK IS BEGUN.
 CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING MECHANICAL AND ELECTRICAL SERVICES.
 WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC.
 PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
- 6. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE ACCESS PANELS/DOORS AS REQUIRED.
- ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MADE GOOD.
 COORDINATE WITH CONTROLS CONTRACTOR FOR SAFELY AND CAREFULLY REMOVING MOTORS, CONTROLS, AND FAN SPEED CONTROLLER. REMOVAL OF ALL EQUIPMENT CONTROLS SHALL BE ONLY DONE BY CONTROLS CONTRACTOR. CONTROLS CONTRACTOR TO TURN OVER CONTROLS, AND FAN SPEED CONTROLLER TO OWNER FOR SPARE PARTS.

DRAWING NOTES

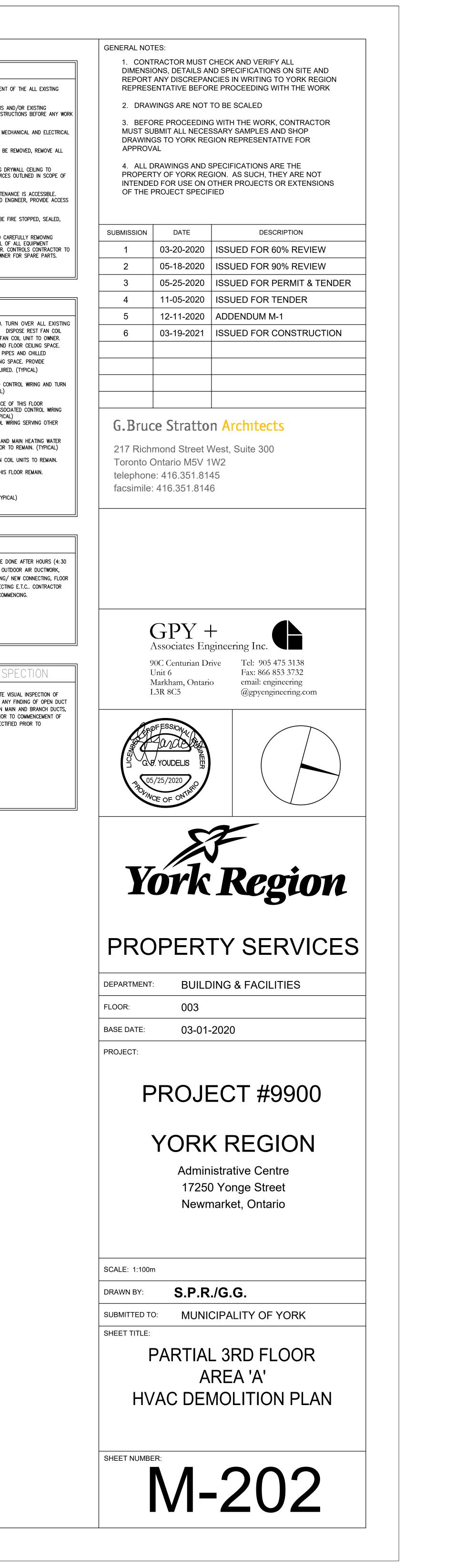
- EXISTING FLOOR-MOUNTED FAN COIL UNIT TO BE REMOVED. TURN OVER ALL EXISTING FLOOR-MOUNTED FAN COIL UNITS TO YORK REGION. DISPOSE REST FAN COIL MOTORS AND TURN OVER THE DIAL SWITCH MOUNTED ON FAN COIL UNIT TO OWNER. REMOVE AND CAP OUTDOOR AIR SUPPLY DUCT BACK IN 2ND FLOOR CEILING SPACE. REMOVE AND CAP BACK HEATING SUPPLY/RETURN WATER PIPES AND CHILLED SUPPLY/RETURN WATER PIPES BACK TO 2ND FLOOR CEILING SPACE. PROVIDE FIRE-STOPPING AND SEALED ALL FLOOR OPENING AS REQUIRED. (TYPICAL)
- REMOVE EXISTING TEMPERATURE SENSOR C/W ASSOCIATED CONTROL WIRING AND TURN OVER THE TEMPERATURE SENSOR TO THE OWNER. (TYPICAL)
 REMOVE EXISTING DELTA BAS CONTROLLER IN CEILING SPACE OF THIS FLOOR CONNECTED TO EXISTING FAN COIL UNITS. REMOVE ALL ASSOCIATED CONTROL WIRING AND TURN OVER DELTA BAS CONTROLLER TO OWNER. (TYPICAL) MECHANICAL CONTRACTOR IDENTIFY AND PROTECT CONTROL WIRING SERVING OTHER
- FLOORS DURING DEMOLITION.
 EXISTING MAIN CHILLED WATER SUPPLY & RETURN PIPING AND MAIN HEATING WATER SUPPLY & RETURN PIPING IN CEILING SPACE OF THIS FLOOR TO REMAIN. (TYPICAL)
- SUPPLET & RETURN PIPING IN CEILING SPACE OF THIS FLOOR TO REMAIN. (TYPICAL)
- (6) EXISTING DELTA BAS CONTROLLER IN CEILING SPACE OF THIS FLOOR REMAIN. (7) EXISTING THERMOSTAT C/W CONTROL WRING TO REMAIN
- (7) EXISTING THERMOSTAT C/W CONTROL WIRING TO REMAIN.
 (8) EXISTING FLOOR-MOUNTED FAN COIL UNITS TO REMAIN. (TYPICAL)

NOTES

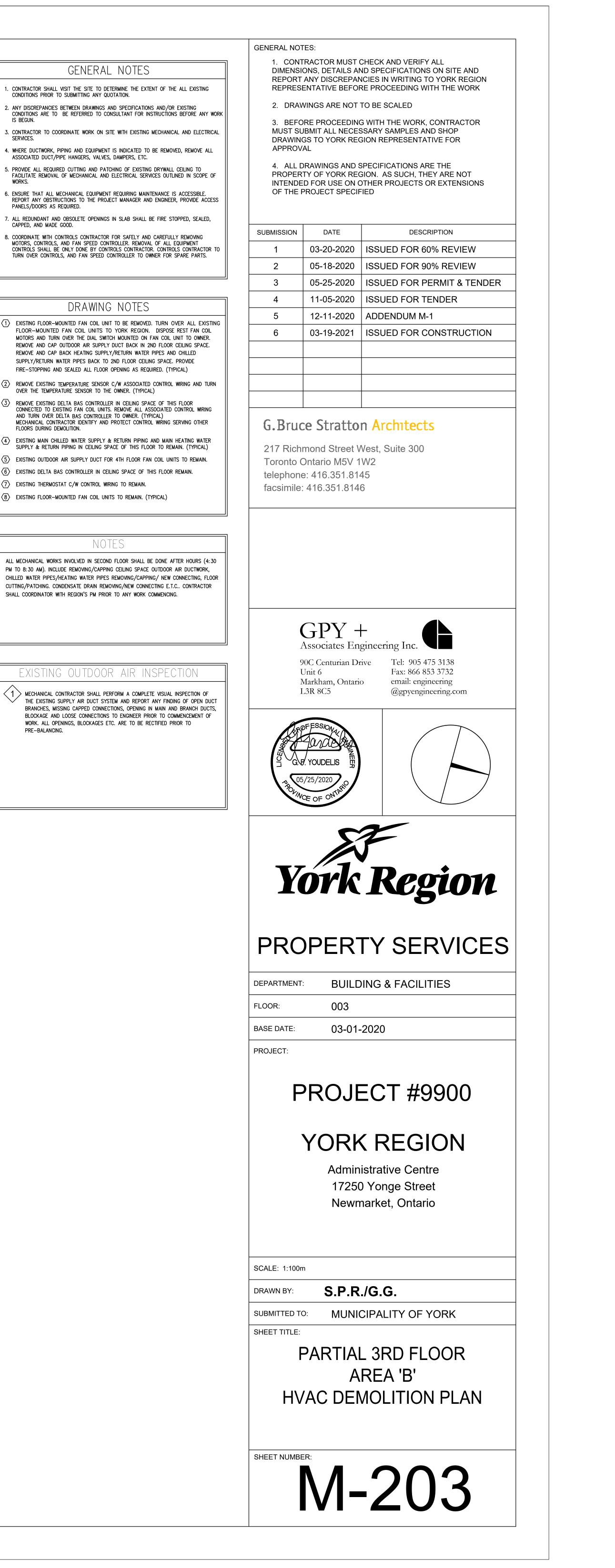
ALL MECHANICAL WORKS INVOLVED IN SECOND FLOOR SHALL BE DONE AFTER HOURS (4:30 PM TO 8:30 AM). INCLUDE REMOVING/CAPPING CEILING SPACE OUTDOOR AIR DUCTWORK, CHILLED WATER PIPES/HEATING WATER PIPES REMOVING/CAPPING/ NEW CONNECTING, FLOOR CUTTING/PATCHING. CONDENSATE DRAIN REMOVING/NEW CONNECTING E.T.C.. CONTRACTOR SHALL COORDINATOR WITH REGION'S PM PRIOR TO ANY WORK COMMENCING.

1 MECHANICAL CONTRACTOR SHALL DEDEODY & OCUDIETT MOUTH

MECHANICAL CONTRACTOR SHALL PERFORM A COMPLETE VISUAL INSPECTION OF THE EXISTING SUPPLY AIR DUCT SYSTEM AND REPORT ANY FINDING OF OPEN DUCT BRANCHES, MISSING CAPPED CONNECTIONS, OPENING IN MAIN AND BRANCH DUCTS, BLOCKAGE AND LOOSE CONNECTIONS TO ENGINEER PRIOR TO COMMENCEMENT OF WORK. ALL OPENINGS, BLOCKAGES ETC. ARE TO BE RECTIFIED PRIOR TO PRE-BALANCING.









- CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY QUOTATION.
- 2. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE REFERRED TO CONSULTANT FOR INSTRUCTIONS BEFORE ANY WORK IS BEGUN.
- BEGUN.
 CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING MECHANICAL AND ELECTRICAL SERVICES
- 4. WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC.
- 5. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
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- 7. ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MEADE GOOD.
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 PROVIDE NECESSARY PROTECTIONS FOR ALL WORKSTATIONS ELIDINITURE PARTITION WALL
- PROVIDE NECESSARY PROTECTIONS FOR ALL WORKSTATIONS, FURNITURE, PARTITION WALL, FLOORING AND WINDOWS ON THE SECOND FLOOR PRIOR TO COMMENCEMENT OF ANY WORK.
 CONTRACTOR SHALL REMOVE ALL PROTECTIONS USED ON SECOND FLOOR AS NOTED ABOVE AND CLEAN THE SPACES AS REQUIRED BEFORE THE START OF EACH REGULAR BUSINESS
- DAY.
 I1. DRAWING NOTE NO. 9 (PROTECTION) & NOTE NO. 10 (REMOVAL & CLEAN-UP) SHALL BE DONE REPEATEDLY FOR THE DURATION OF WORK PERIOD.

DRAWING NOTES

- EXISTING OUTDOOR AIR SUPPLY DUCTWORK IN CEILING SPACE OF THIS FLOOR TO REMAIN. (TYPICAL) 2 EXISTING OUTDOOR AIR SUPPLY DUCT RISER TO REMAIN. angle existing main chilled water supply & return piping and main heating water SUPPLY & RETURN PIPING IN CEILING SPACE OF THIS FLOOR TO REMAIN. (TYPICAL) CONNECT NEW OUTDOOR AIR SUPPLY DUCT TO EXISTING DUCTWORK AND MAKE GOOD INSULATION. NEW OUTDOOR AIR SUPPLY DUCT UP TO 3RD FLOOR, PROVIDE FIRE DAMPER AT FLOOR SLAB PENETRATION. PROVIDE AN ALLOWANCE FOR FLOOR SLAB CUTTING/DRILLING AS REQUIRED. FOR CONTINUATION REFER TO DRAWING NO. M-206 & M-207. CONNECT NEW CHILLED WATER SUPPLY PIPE TO EXISTING SAME SERVICE PIPING AT THIS POINT AND MAKE GOOD INSULATION. angle run new chilled water supply pipe up to 3rd floor. For continuation refer TO DRAWING NO. M-206 & M-207. DISCONNECT AND CAP EXISTING HOT WATER RETURN PIPING. CONNECT EXISTING VALVED HOT WATER RETURN PIPE TO EXISTING RISER AS SHOWN. MAKE GOOD INSULATION AS REQUIRED. (9) DISCONNECT AND CAP EXISTING HOT WATER SUPPLY PIPING. CONNECT EXISTING VALVED HOT WATER SUPPLY PIPE TO EXISTING SERVICES AS SHOWN. MAKE GOOD INSULATION AS REQUIRED. PROVIDE NEW 200 HEATING WATER SUPPLY/RETURN PIPE AND CONNECT TO EXISTING SERVICES. EXTEND NEW HEATING WATER SUPPLY/RETURN PIPE UP TO 3RD FLOOR AND CONNECT TO NEW FLOOR MOUNTED WALL FIN HEATER. RE-USE EXISTING FLOOR SLAB OPENINGS. PROVIDE AN ALLOWANCE FOR FLOOR SLAB CUTTING/ DRILLING/ FIRE-STOPPING AS REQUIRED. (TYPICAL) PROVIDE NEW 20Ø BY-PASS LINE BETWEEN HEATING SUPPLY AND RETURN PIPE C/W EOL BY-PASS ACTUATOR WITH 2-WAY VALVE. BY-PASS ACTUATOR SHALL BE INTERLOCKED WITH BUILDING AUTOMATION SYSTEM. (12) CONNECT NEW HOT WATER SUPPLY PIPE TO EXISTING SAME SERVICE PIPING AT THIS POINT AND MAKE GOOD INSULATION. PROVIDE SHUT-OFF VALVE. EXACT CONNECTION TO BE VERIFIED ON SITE.
- TO BE VERIFIED ON SITE. (13) DISCONNECT AND CAP EXISTING HOT WATER RETURN PIPING. CONNECT NEW VALVED HOT WATER SUPPLY PIPE TO EXISTING SERVICES AS SHOWN. MAKE GOOD INSULATION AS REQUIRED.
- 14) INSTALL NEW HEATING WATER SUPPLY AND RETURN PIPING C/W INSULATION. SIZES OF NEW HEATING PIPING SHALL MATCH EXISTING HEATING PIPING SIZES. NEW HEATING PIPING SHALL BE SCHEDULE 40 BLACK STEEL. VICTAULIC PIPE FITTINGS ARE PERMITTED IN ACCESSIBLE SPACES ONLY. PROVIDE NEW PIPE HANGERS AS REQUIRED. INSTALL NEW HEATING PIPING TIGHT TO EXISTING SLAB AND BEAMS TO ALLOW FOR FUTURE HVAC EQUIPMENT/ TERMINAL UNITS/ DUCTWORK/ DIFFUSERS INSTALLATIONS.
- 15 REMOVE CAP OF EXISTING VALVED MAIN HWS/HWR PIPING AND CONNECT TO NEW HWS/HWR PIPING AS SHOWN.
- (16) PRESSURE TEST ALL NEW PIPING FOR 24 HOURS WITH NO LOSS OF PRESSURE PRIOR TO INSULATING FITTINGS AND OPENING MAIN VALVES. (TYPICAL)

ALL MECHANICAL WORKS INVOLVED ON THE 2ND FLOOR SHALL ONLY BE DONE AFTER HOURS

(4:30 PM TO 8:30 AM). THIS INCLUDES REMOVAL & CAPPING OF OUTDOOR AIR DUCTWORK IN CEILING SPACE, REMOVAL/CAPPING/NEW CONNECTION OF CHILLED WATER PIPES & HEATING WATER PIPES, REMOVAL/CAPPING/NEW CONNECTION OF CONDENSATE DRAIN, FLOOR SLAB CUTTING/PATCHING, E.T.C.. CONTRACTOR SHALL COORDINATE WITH REGION'S PM PRIOR TO COMMENCEMENT OF ANY WORK.

FINAL AIR BALANCING NOTE PROVIDE FINAL AIR BALANCING AFTER COMPLETION OF MECHANICAL WORK, INCLUDING ALL EXISTING AND NEW OUTDOOR SUPPLY AIR BRANCH DUCTS SUPPLIED TO GROUND FLOOR, 2ND FLOOR, 3RD FLOOR, 4TH FLOOR AND 5TH FLOOR. SUBMIT THREE (3) COPIES OF THE AIR BALANCE REPORT TO THE CONSULTANT FOR REVIEW





- 1. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY QUOTATION.
- 2. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE REFERRED TO CONSULTANT FOR INSTRUCTIONS BEFORE ANY WORK IS BEGUN.
- IS BEGUN. 3. CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING MECHANICAL AND ELECTRICAL SERVICES
- 4. WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC.
- 5. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
- 6. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE ACCESS PANELS/DOORS AS REQUIRED.
- 7. ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MEADE GOOD. 8. COORDINATE WITH CONTROLS CONTRACTOR FOR SAFELY AND CAREFULLY REMOVING
- COORDINATE WITH CONTROLS CONTRACTOR FOR SAFELY AND CAREFULLY REMOVING MOTORS, CONTROLS, AND FAN SPEED CONTROLLER. REMOVAL OF ALL EQUIPMENT CONTROLS SHALL BE ONLY DONE BY CONTROLS CONTRACTOR. CONTROLS CONTRACTOR TO TURN OVER CONTROLS, AND FAN SPEED CONTROLLER TO OWNER FOR SPARE PARTS.
 PROVIDE NECESSARY PROTECTIONS FOR ALL WORKSTATIONS, FURNITURE, PARTITION WALL, FLOORING AND WINDOWS ON THE SECOND FLOOR PRIOR TO COMMENCEMENT OF ANY WORK.
- FLOORING AND WINDOWS ON THE SECOND FLOOR PRIOR TO COMMENCEMENT OF ANY WORK. 10. CONTRACTOR SHALL REMOVE ALL PROTECTIONS USED ON SECOND FLOOR AS NOTED ABOVE AND CLEAN THE SPACES AS REQUIRED BEFORE THE START OF EACH REGULAR BUSINESS
- 11. DRAWING NOTE NO. 9 (PROTECTION) & NOTE NO. 10 (REMOVAL & CLEAN-UP) SHALL BE DONE REPEATEDLY FOR THE DURATION OF WORK PERIOD.

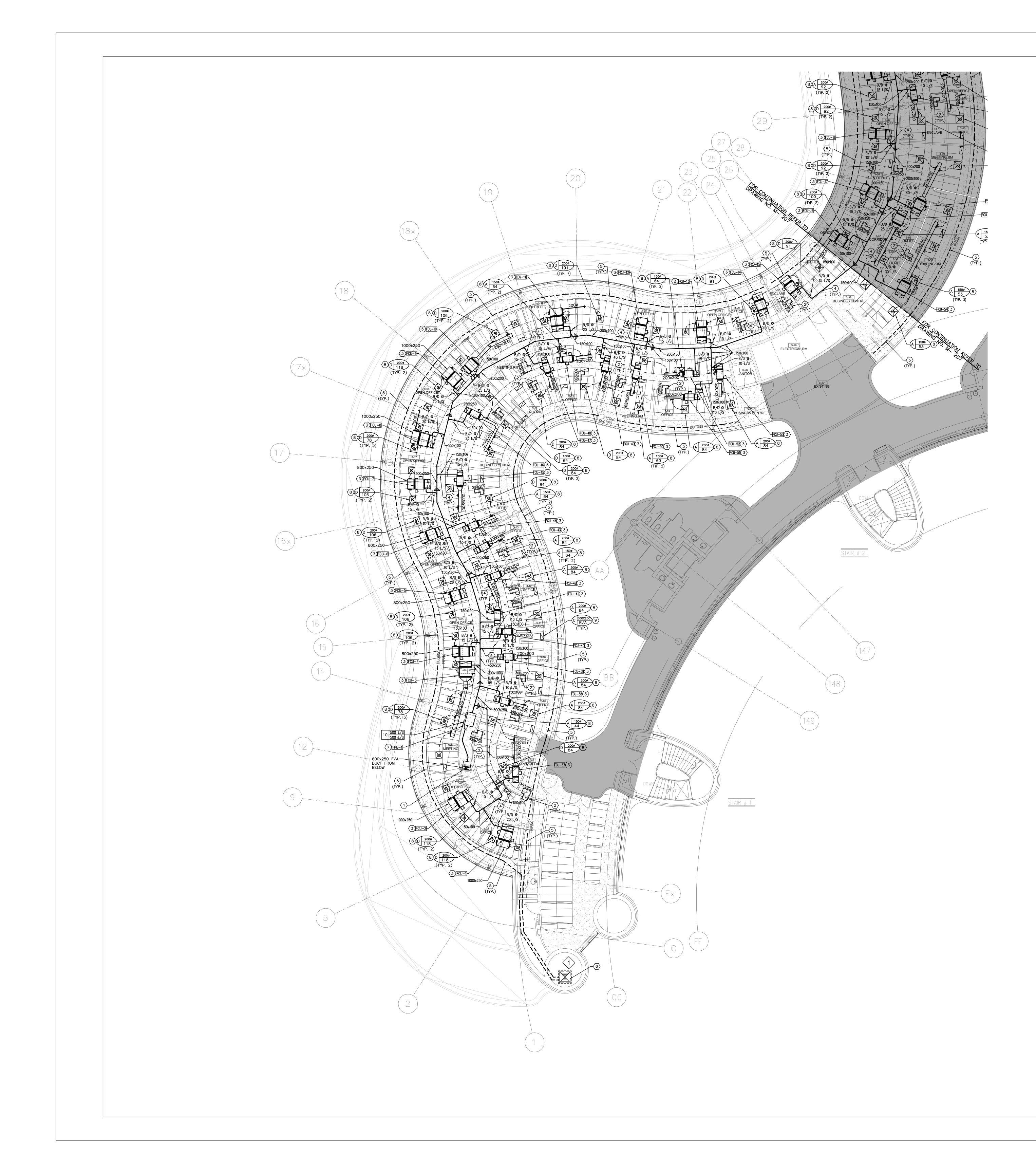
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- 14) INSTALL NEW HEATING WATER SUPPLY AND RETURN PIPING C/W INSULATION. SIZES OF NEW HEATING PIPING SHALL MATCH EXISTING HEATING PIPING SIZES. NEW HEATING PIPING SHALL BE SCHEDULE 40 BLACK STEEL. VICTAULIC PIPE FITTINGS ARE PERMITTED IN ACCESSIBLE SPACES ONLY. PROVIDE NEW PIPE HANGERS AS REQUIRED. INSTALL NEW HEATING PIPING TIGHT TO EXISTING SLAB AND BEAMS TO ALLOW FOR FUTURE HVAC EQUIPMENT/ TERMINAL UNITS/ DUCTWORK/ DIFFUSERS INSTALLATIONS.
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GENERAL NOTES CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY QUOTATION.

- . CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING MECHANICAL AND ELECTRICAL
- SERVICES . WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC.
- 5. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
- 6. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE ACCESS PANELS/DOORS AS REQUIRED.
- 7. ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MADE GOOD. 8. COORDINATE WITH CONTROLS CONTRACTOR FOR SAFELY AND CAREFULLY REMOVING MOTORS, CONTROLS, AND FAN SPEED CONTROLLER. REMOVAL OF ALL EQUIPMENT
- CONTROLS SHALL BE ONLY DONE BY CONTROLS CONTRACTOR. CONTROLS CONTRACTOR TO TURN OVER CONTROLS, AND FAN SPEED CONTROLLER TO OWNER FOR SPARE PARTS. 9. INSTALLATION HEIGHT OF TEMPERATURE SENSORS SHALL BE 4'-0". EXACT LOCATION TO BE COORDINATED ON SITE WITH THE ARCHITECT. (TYPICAL FOR ALL)

DRAWING NOTES

- 1> NEW OUTDOOR AIR SUPPLY DUCT FROM SECOND FLOOR C/W FIRE DAMPER. 2) NEW RETURN AIR TRANSFER DUCT. SIZE AS INDICATED. REFER TO DETAIL NO. 14/M–102 FOR DETAILS. (TYPICAL) > PROVIDE NEW FAN COIL UNIT IN CEILING SPACE C/W ASSOCIATED CONTROLS, HANGERS, SUPPORTS, ISOLATORS AND SUPPLY/RETURN AIR DUCTWORK. REFER TO DRAWING NO. M-100, M-101 & M-102 For specifications & details. Install unit tight to ceiling slab as high as possible. (Typical)
- \rangle NEW OUTDOOR AIR SUPPLY DUCT CONNECT TO NEW FAN COIL UNIT RETURN AIR DUCT. BALANCE TO AIR QUANTITIES AS INDICATED. (TYPICAL) $\overline{5}$ existing outdoor air supply duct for 4th floor fan coil units to remain.
- 5 Existing outdoor air supply riser in mechanical room to remain.
- > PROVIDE NEW FAN POWERED BOX IN CEILING SPACE C/W ASSOCIATED CONTROLS, HANGERS, SUPPORTS, ISOLATORS AND DUCTWORK. REFER TO DRAWING NO. M-100 & M-102 FOR SPECIFICATIONS & DETAILS. PROVIDE NEW SQUARE CONE DIFFUSER AND BALANCE TO AIR QUANTITY AS INDICATED.
- REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS. (TYPICAL) angle provide New Return air grilles. Refer to drawing NO. M–100 for
- SPECIFICATIONS. (TYPICAL) (10) EXISTING DELTA BAS CONTROLLER IN CEILING SPACE OF THIS FLOOR REMAIN.
- $\langle 11 \rangle$ EXISTING THERMOSTAT C/W CONTROL WIRING TO REMAIN. (2) EXISTING FLOOR-MOUNTED FAN COIL UNITS TO REMAIN. (TYPICAL)

NOTES

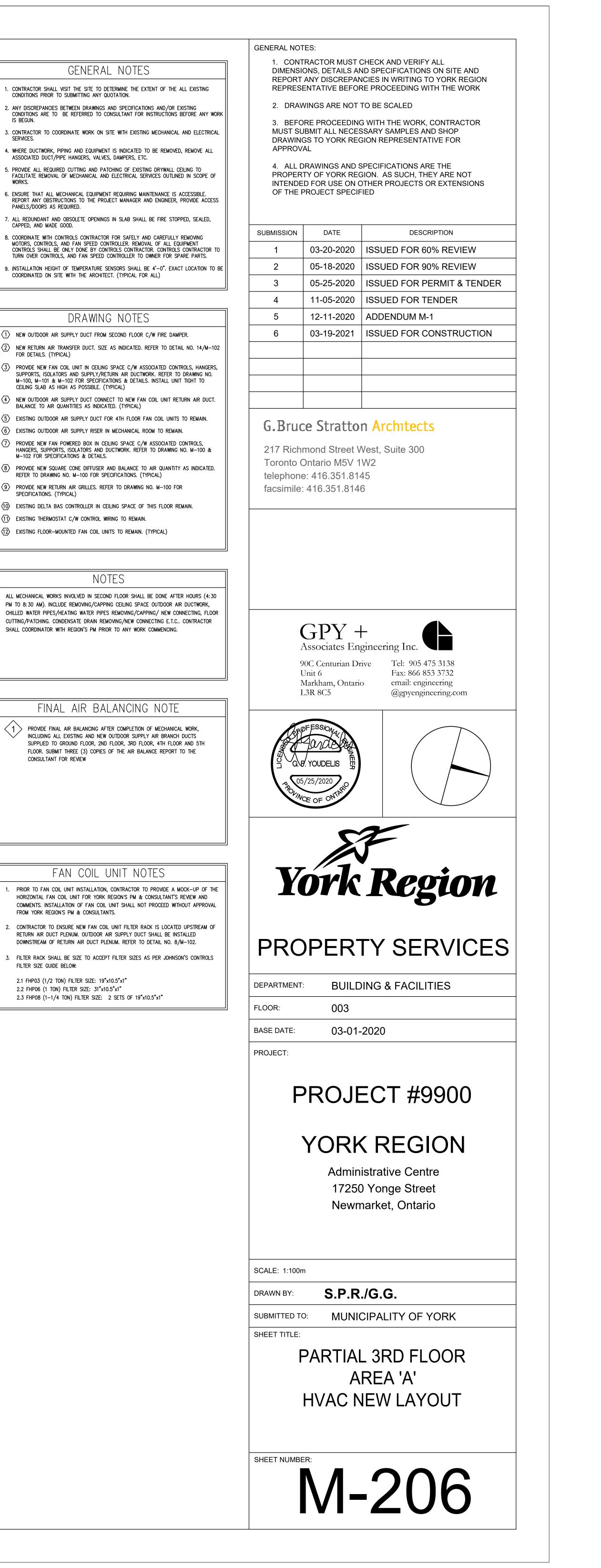
ALL MECHANICAL WORKS INVOLVED IN SECOND FLOOR SHALL BE DONE AFTER HOURS (4:30 PM TO 8:30 AM). INCLUDE REMOVING/CAPPING CEILING SPACE OUTDOOR AIR DUCTWORK, CHILLED WATER PIPES/HEATING WATER PIPES REMOVING/CAPPING/ NEW CONNECTING, FLOOR CUTTING/PATCHING. CONDENSATE DRAIN REMOVING/NEW CONNECTING E.T.C.. CONTRACTOR SHALL COORDINATOR WITH REGION'S PM PRIOR TO ANY WORK COMMENCING.

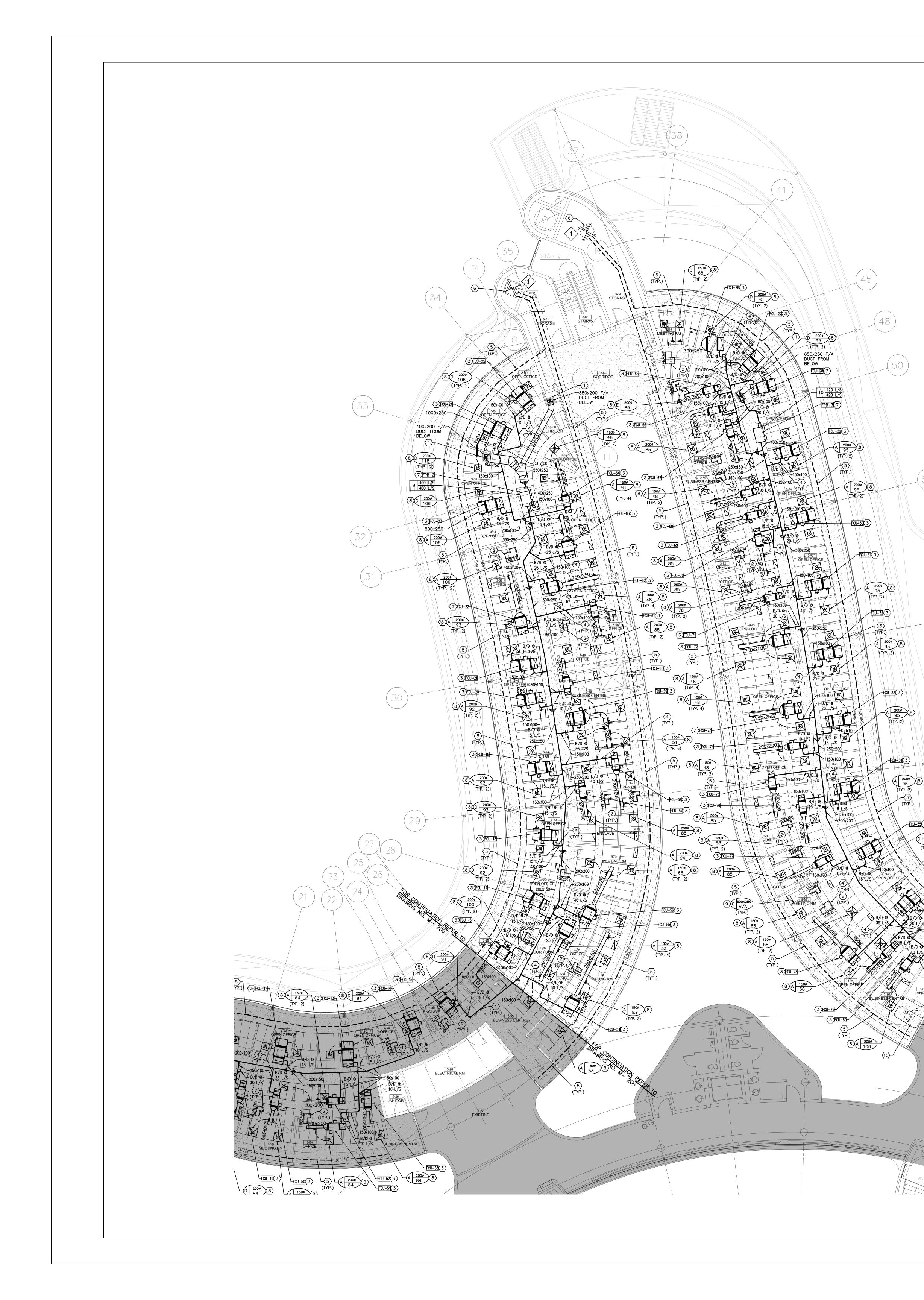
FINAL AIR BALANCING NOTE

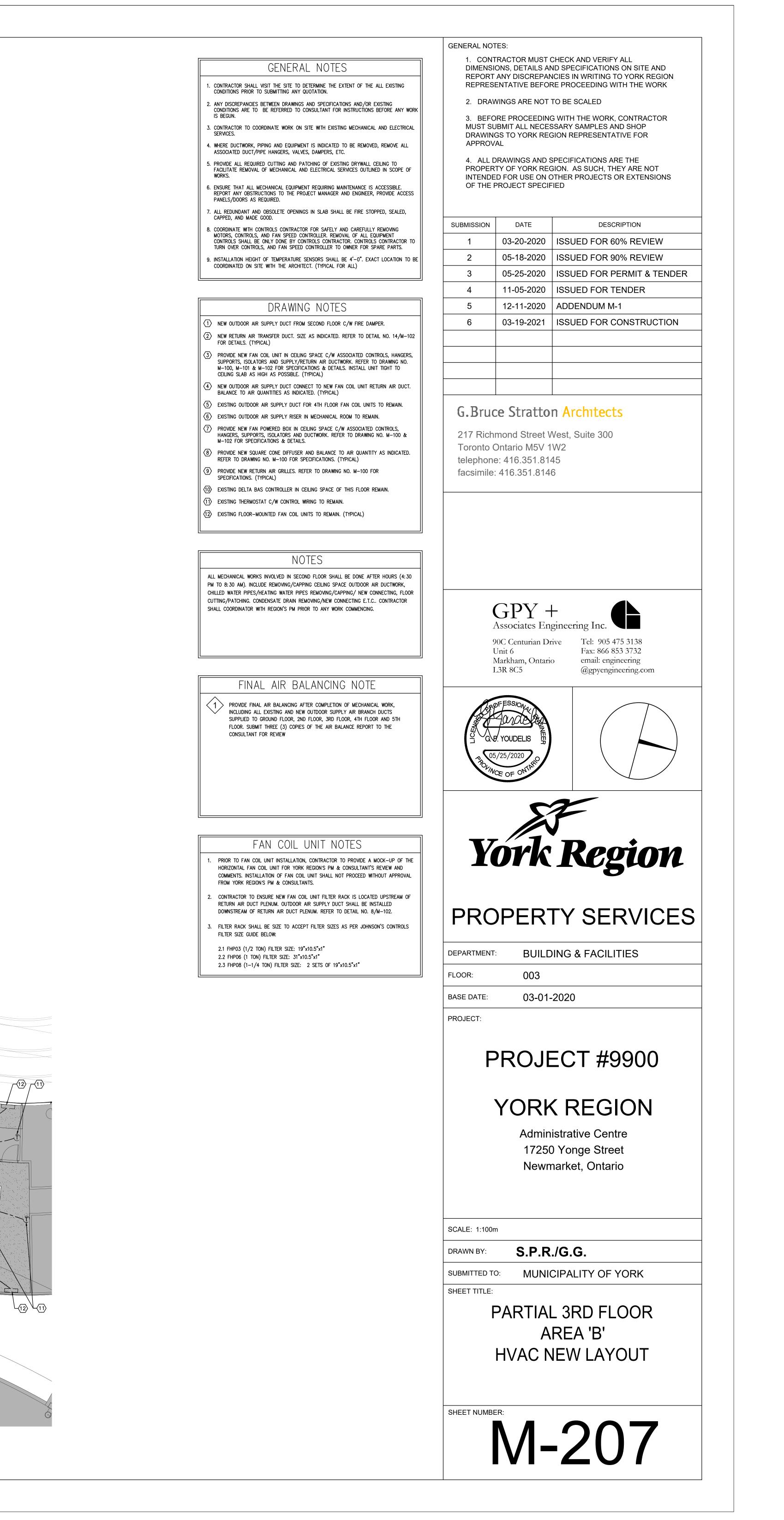
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FAN COIL UNIT NOTES

- PRIOR TO FAN COIL UNIT INSTALLATION, CONTRACTOR TO PROVIDE A MOCK-UP OF THE HORIZONTAL FAN COIL UNIT FOR YORK REGION'S PM & CONSULTANT'S REVIEW AND COMMENTS. INSTALLATION OF FAN COIL UNIT SHALL NOT PROCEED WITHOUT APPROVAL FROM YORK REGION'S PM & CONSULTANTS.
- CONTRACTOR TO ENSURE NEW FAN COIL UNIT FILTER RACK IS LOCATED UPSTREAM OF RETURN AIR DUCT PLENUM. OUTDOOR AIR SUPPLY DUCT SHALL BE INSTALLED DOWNSTREAM OF RETURN AIR DUCT PLENUM. REFER TO DETAIL NO. 8/M-102. 3. FILTER RACK SHALL BE SIZE TO ACCEPT FILTER SIZES AS PER JOHNSON'S CONTROLS
- FILTER SIZE GUIDE BELOW: 2.1 FHP03 (1/2 TON) FILTER SIZE: 19"x10.5"x1"
- 2.2 FHP06 (1 TON) FILTER SIZE: 31"x10.5"x1" 2.3 FHP08 (1-1/4 TON) FILTER SIZE: 2 SETS OF 19"x10.5"x1"







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ELECTRICAL RM



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- 4. CONTRACTOR IS RESPONSIBLE TO MAKE SITE MEASUREMENTS AND TO ENSURE THAT ALL CLEARANCES AND ACCESS NECESSARY ARE PROVIDED.
- 5. MECHANICAL CONTRACTOR SHALL ARRANGE WORK IN SUCH WAY THAT OTHER SERVICES ARE NOT DISRUPTED.
- 6. PROVIDE ALL NECESSARY SYSTEM SHUTDOWN, DRAIN DOWN OR LOCAL PIPE FREEZING AS REQUIRED.
- 7. SPRINKLER CONTRACTOR SHALL DRAIN DOWN AND FILL-UP THE SPRINKLER SYSTEM WITHIN THE HOURS OF 7.00AM TO 3.00PM ONLY. YORK REGION OPERATOR TEAM MUST BE PRESENT DURING THE DRAINING DOWN AND FILLING-UP OF THE SPRINKLER SYSTEM WITHIN THE AREA OF WORK.
- 8. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
- 9. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE ACCESS PANELS/DOORS AS REQUIRED.
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- 11. MECHANICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
- 12. ALL SPRINKLER WORK SHALL BE DONE AS PER NFPA 13.

DRAWING NOTES

- (1) EXISTING SPRINKLER HEAD TO REMAIN. (TYPICAL)
- (2) EXISTING FIRE HOSE CABINET C/W 22 METER LONG FIRE HOSE TO REMAIN. (TYPICAL) (3) EXISTING SPRINKLER HEAD TO BE REMOVED. CAP ASSOCIATED SPRINKLER PIPE AS
- REQUIRED. (TYPICAL)
- (4) REMOVE EXISTING SINK C/W ASSOCIATED FAUCET. 5 Plumbing & Sanitary drain piping to remain and modify to suit installation of
- NEW SINK. (TYPICAL)
- PLUMBING LINES & SANITARY VENT PIPING TO BE REMOVED, CUT BACK AND CAP IN CEILING SPACE. SANITARY DRAIN PIPING TO BE REMOVED AND CAP ON FLOOR BELOW.
- T EXISTING LAVATORY C/W ASSOCIATED FAUCET AND P-TRAP TO BE REMOVED. EXISTING PLUMBING & SANITARY DRAINAGE PIPING TO REMAIN FOR INSTALLATION OF NEW PLUMBING FIXTURE.
- (8) EXISTING WATER CLOSET C/W FLUSH VALVE, CARRIER & FLOOR FLANGE TO BE REMOVED. EXISTING PLUMBING & SANITARY DRAINAGE PIPING TO REMAIN FOR
- INSTALLATION OF NEW PLUMBING FIXTURE. (9) EXISTING FIRE HOSE CABINET TO BE REMOVED AND BE ROTATED. (TYPICAL)

NOTES

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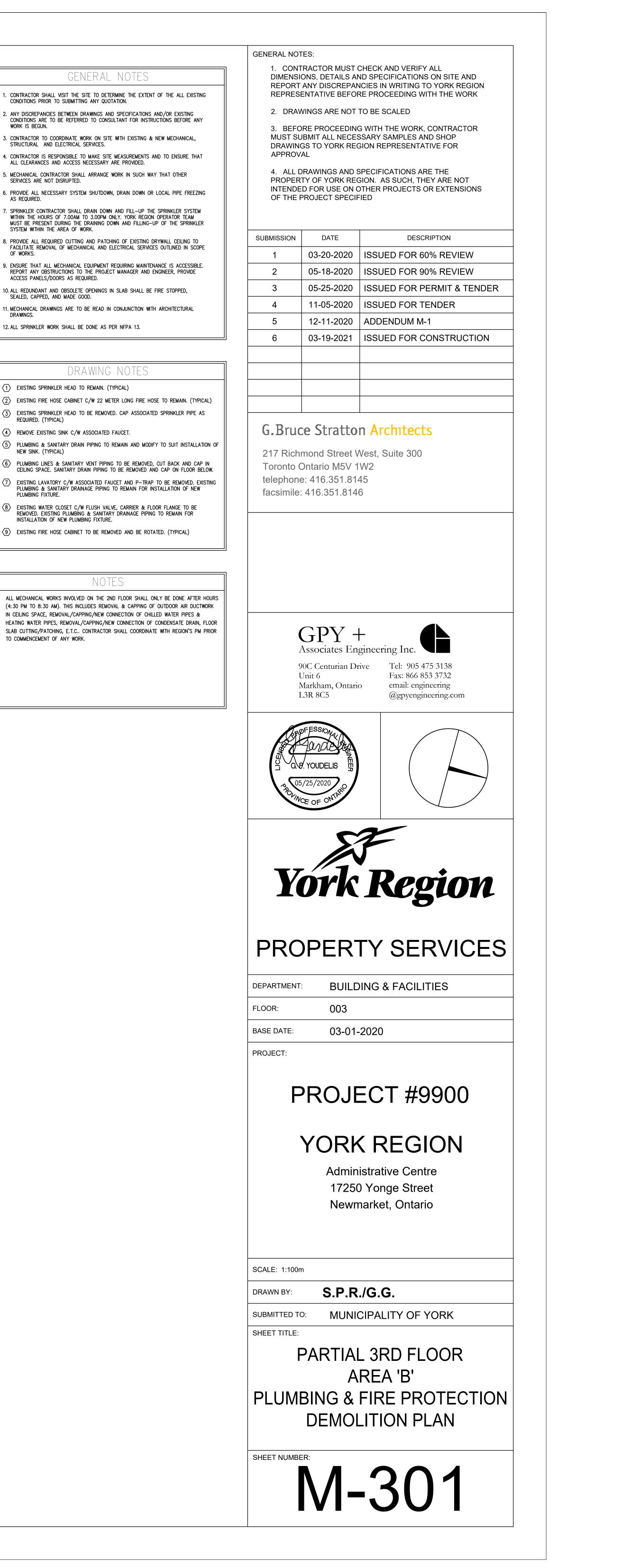
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- 8. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
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- (4) REMOVE EXISTING SINK C/W ASSOCIATED FAUCET.
- $\overline{5}$ plumbing & sanitary drain piping to remain and modify to suit installation of |NEW SINK. (TYPICAL)
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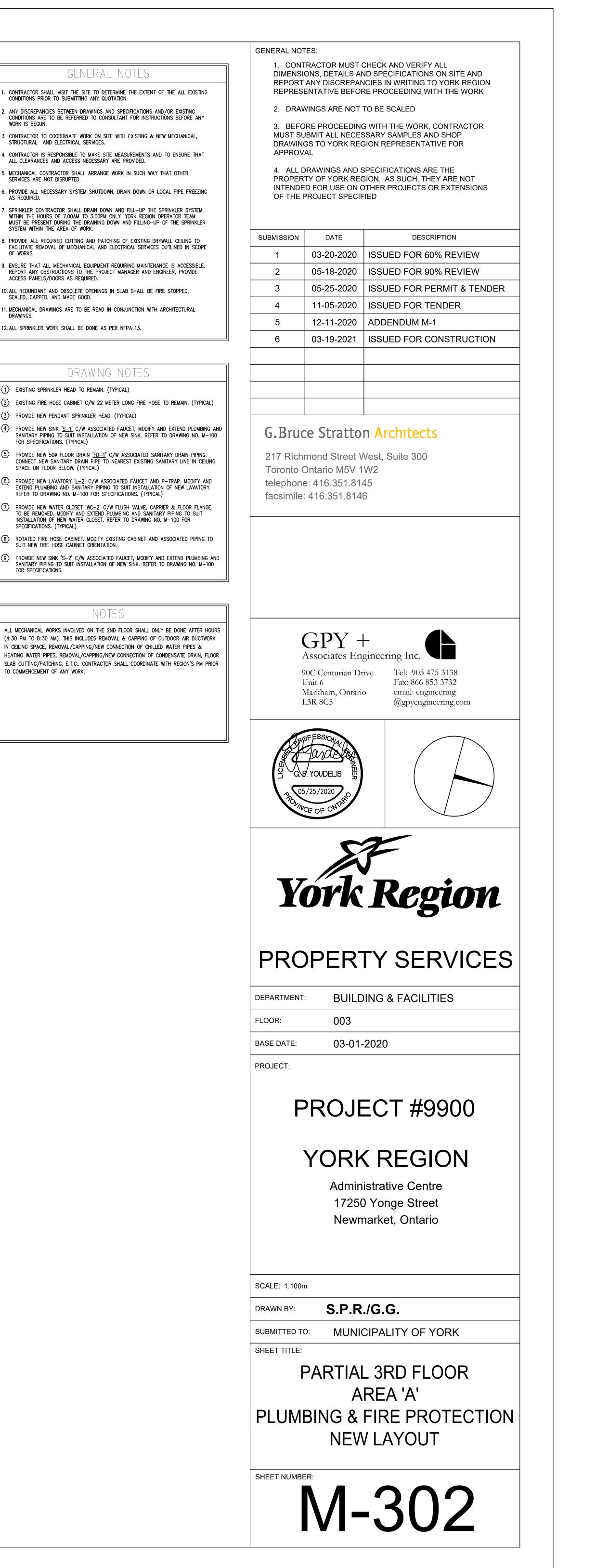
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- 3 PROVIDE NEW PENDANT SPRINKLER HEAD. (TYPICAL)
- PROVIDE NEW SINK <u>'S-1'</u> C/W ASSOCIATED FAUCET, MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT INSTALLATION OF NEW SINK. REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS. (TYPICAL)
- $\overline{5}$ provide New 500 floor drain $\underline{FD-1}$ C/W associated sanitary drain piping. Connect New Sanitary drain pipe to nearest existing sanitary line in ceiling space on floor below. (Typical)
- PROVIDE NEW LAVATORY '<u>L-2'</u> C/W ASSOCIATED FAUCET AND P-TRAP. MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT INSTALLATION OF NEW LAVATORY. REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS. (TYPICAL)
- \sim PROVIDE NEW WATER CLOSET <u>WC-2</u> C/W FLUSH VALVE, CARRIER & FLOOR FLANGE. TO BE REMOVED. MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT INSTALLATION OF NEW WATER CLOSET. REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS. (TYPICAL)
- (8) ROTATED FIRE HOSE CABINET. MODIFY EXISTING CABINET AND ASSOCIATED PIPING TO SUIT NEW FIRE HOSE CABINET ORIENTATION.
- (9) PROVIDE NEW SINK 'S-2' C/W ASSOCIATED FAUCET, MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT INSTALLATION OF NEW SINK. REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS.

NOTES

(4:30 PM TO 8:30 AM). THIS INCLUDES REMOVAL & CAPPING OF OUTDOOR AIR DUCTWORK IN CEILING SPACE, REMOVAL/CAPPING/NEW CONNECTION OF CHILLED WATER PIPES & HEATING WATER PIPES, REMOVAL/CAPPING/NEW CONNECTION OF CONDENSATE DRAIN, FLOOR SLAB CUTTING/PATCHING, E.T.C.. CONTRACTOR SHALL COORDINATE WITH REGION'S PM PRIOR TO COMMENCEMENT OF ANY WORK.





- 1. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY QUOTATION.
- 2. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE REFERRED TO CONSULTANT FOR INSTRUCTIONS BEFORE ANY
- WORK IS BEGUN. 3. CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING & NEW MECHANICAL, STRUCTURAL AND ELECTRICAL SERVICES.
- 4. CONTRACTOR IS RESPONSIBLE TO MAKE SITE MEASUREMENTS AND TO ENSURE THAT ALL CLEARANCES AND ACCESS NECESSARY ARE PROVIDED.
- 5. MECHANICAL CONTRACTOR SHALL ARRANGE WORK IN SUCH WAY THAT OTHER SERVICES ARE NOT DISRUPTED.
- 6. PROVIDE ALL NECESSARY SYSTEM SHUTDOWN, DRAIN DOWN OR LOCAL PIPE FREEZING AS REQUIRED.
- 7. SPRINKLER CONTRACTOR SHALL DRAIN DOWN AND FILL-UP THE SPRINKLER SYSTEM WITHIN THE HOURS OF 7.00AM TO 3.00PM ONLY. YORK REGION OPERATOR TEAM MUST BE PRESENT DURING THE DRAINING DOWN AND FILLING-UP OF THE SPRINKLER SYSTEM WITHIN THE AREA OF WORK.
- 8. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
- 9. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE
- ACCESS PANELS/DOORS AS REQUIRED. 10. ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MADE GOOD.
- 11. MECHANICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
- 12. ALL SPRINKLER WORK SHALL BE DONE AS PER NFPA 13.

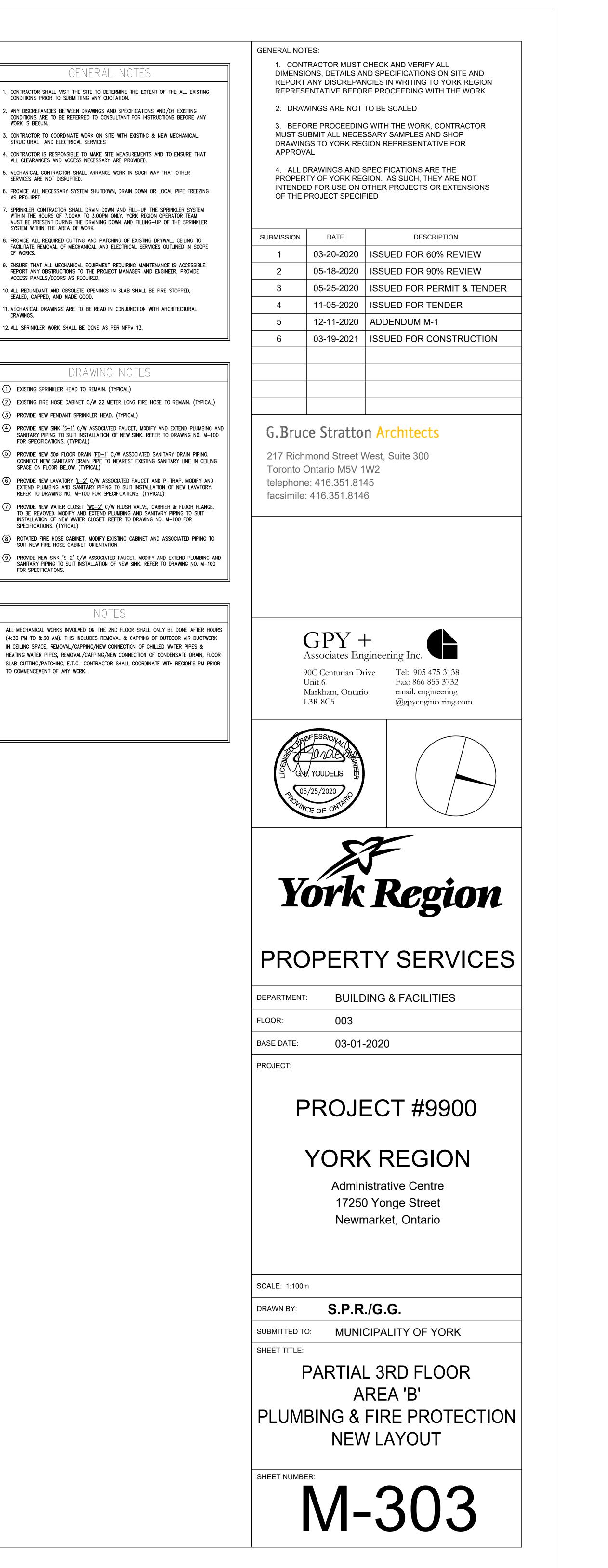
DRAWING NOTES

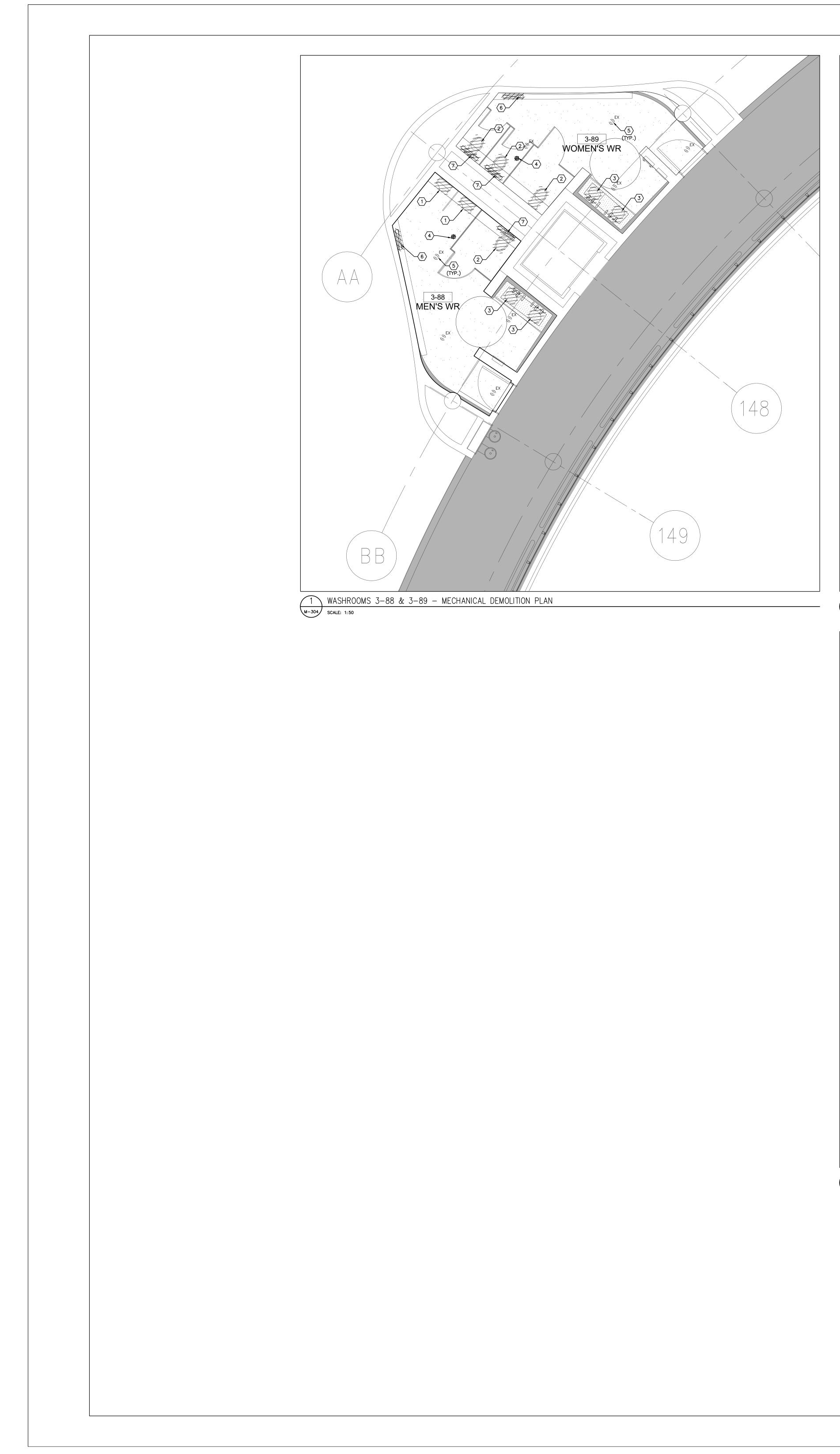
- (1) EXISTING SPRINKLER HEAD TO REMAIN. (TYPICAL) (2) EXISTING FIRE HOSE CABINET C/W 22 METER LONG FIRE HOSE TO REMAIN. (TYPICAL)
- 3 PROVIDE NEW PENDANT SPRINKLER HEAD. (TYPICAL)
- PROVIDE NEW SINK <u>'S-1'</u> C/W ASSOCIATED FAUCET, MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT INSTALLATION OF NEW SINK. REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS. (TYPICAL)
- 5 PROVIDE NEW 500 FLOOR DRAIN <u>'FD-1'</u> C/W ASSOCIATED SANITARY DRAIN PIPING. CONNECT NEW SANITARY DRAIN PIPE TO NEAREST EXISTING SANITARY LINE IN CEILING SPACE ON FLOOR BELOW. (TYPICAL)
- 6 PROVIDE NEW LAVATORY '<u>L-2'</u> C/W ASSOCIATED FAUCET AND P-TRAP. MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT INSTALLATION OF NEW LAVATORY.
- REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS. (TYPICAL) $\overline{2}$ PROVIDE NEW WATER CLOSET <u>WC-2</u> C/W FLUSH VALVE, CARRIER & FLOOR FLANGE. TO BE REMOVED. MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT
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- 9 PROVIDE NEW SINK 'S-2' C/W ASSOCIATED FAUCET, MODIFY AND EXTEND PLUMBING AND SANITARY PIPING TO SUIT INSTALLATION OF NEW SINK. REFER TO DRAWING NO. M-100 FOR SPECIFICATIONS.

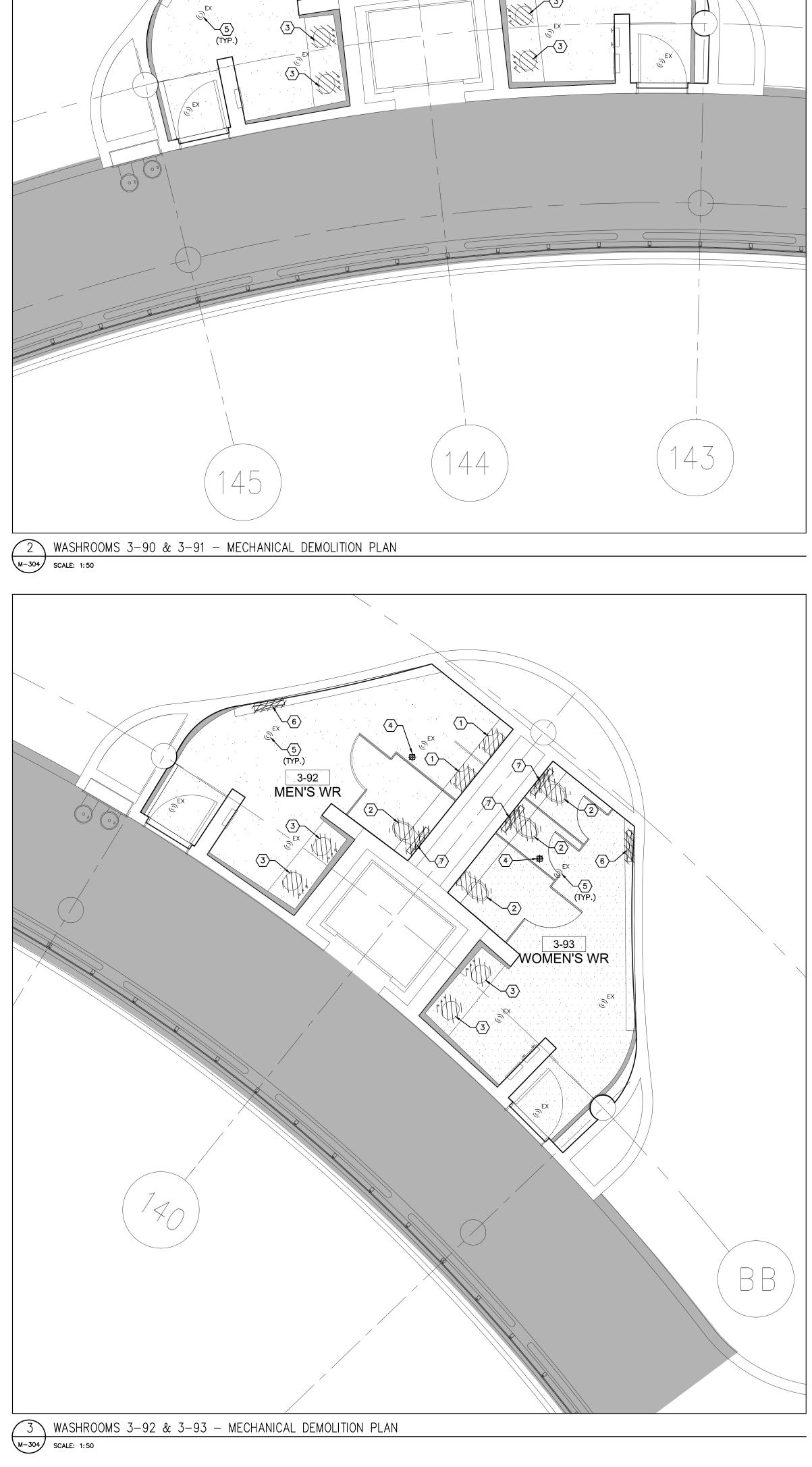
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TO COMMENCEMENT OF ANY WORK.









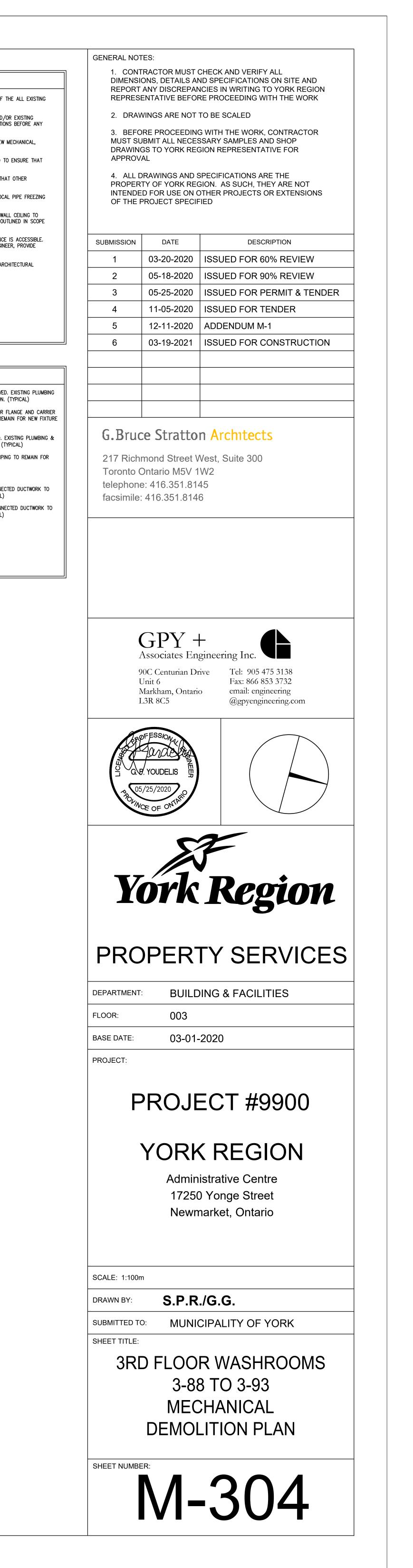
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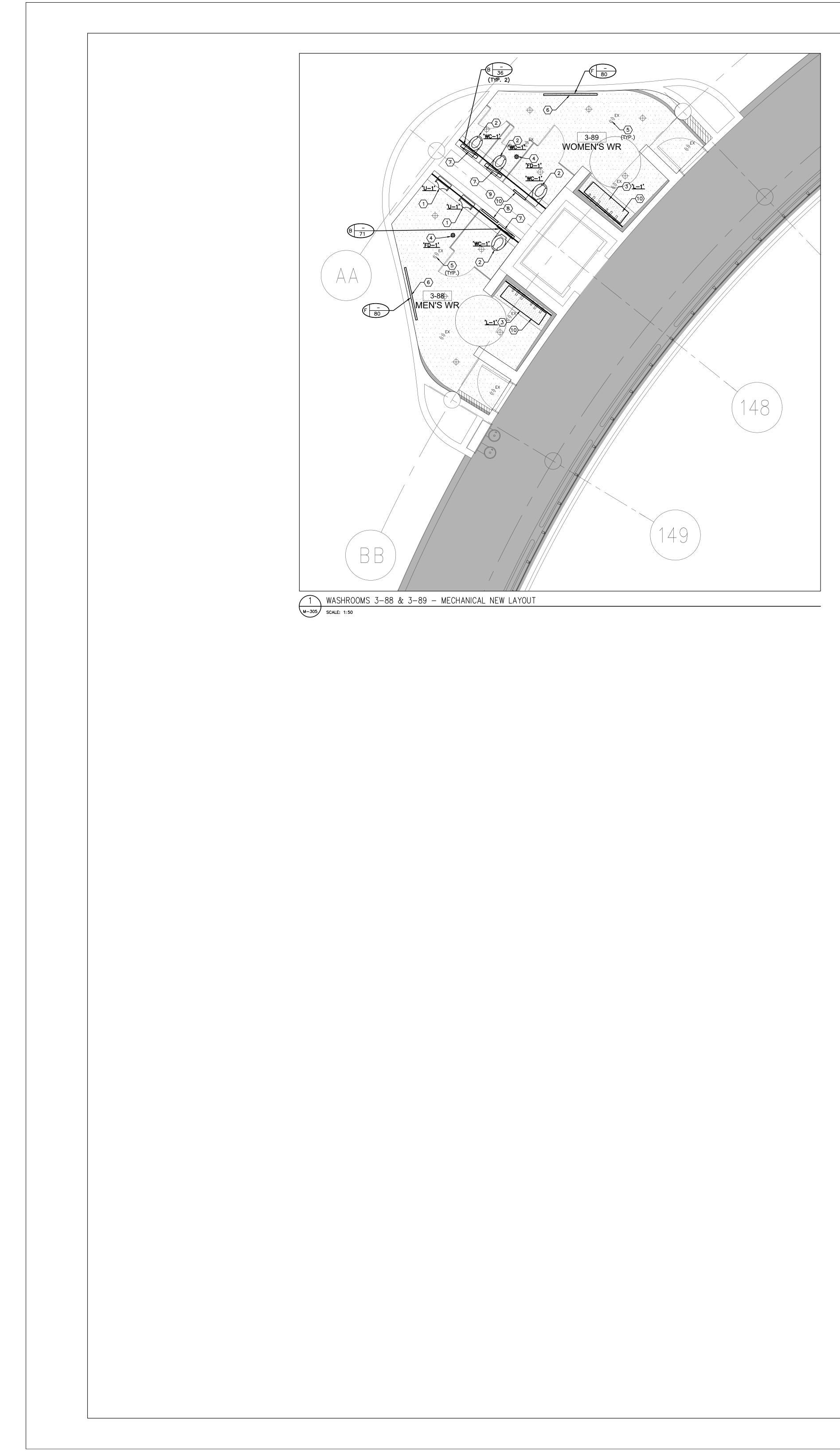
GENERAL NOTES

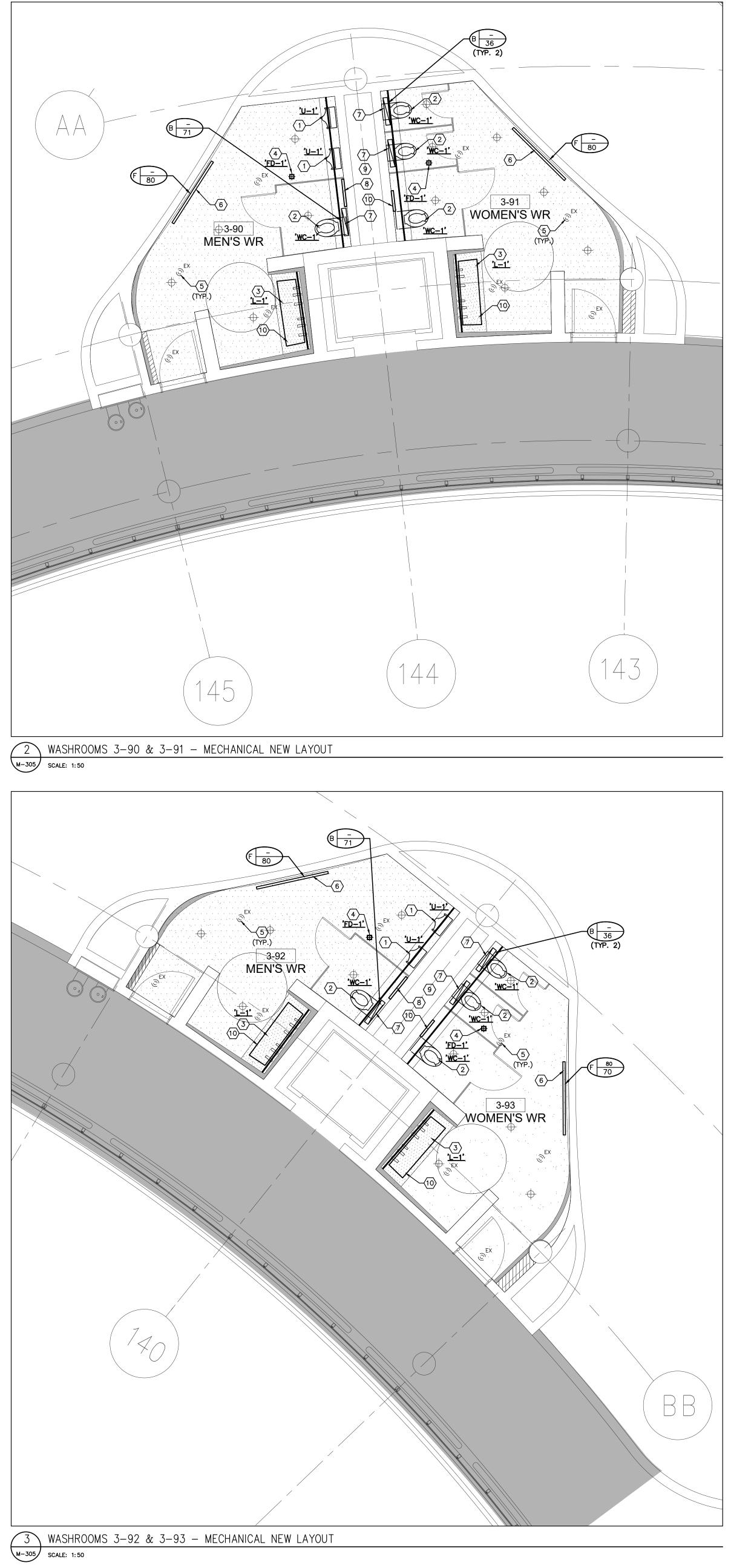
- 1. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY QUOTATION.
- 2. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE REFERRED TO CONSULTANT FOR INSTRUCTIONS BEFORE ANY
- WORK IS BEGUN. 3. CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING & NEW MECHANICAL, STRUCTURAL AND ELECTRICAL SERVICES.
- 4. CONTRACTOR IS RESPONSIBLE TO MAKE SITE MEASUREMENTS AND TO ENSURE THAT ALL CLEARANCES AND ACCESS NECESSARY ARE PROVIDED.
- 5. MECHANICAL CONTRACTOR SHALL ARRANGE WORK IN SUCH WAY THAT OTHER SERVICES ARE NOT DISRUPTED.
- 6. PROVIDE ALL NECESSARY SYSTEM SHUTDOWN, DRAIN DOWN OR LOCAL PIPE FREEZING AS REQUIRED.
- PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
- 8. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE ACCESS PANELS/DOORS AS REQUIRED.
- 9. MECHANICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.

DRAWING NOTES

- (1) EXISTING URINAL C/W ASSOCIATED FLUSH VALVE TO BE REMOVED. EXISTING PLUMBING & DRAINAGE PIPING TO REMAIN FOR NEW FIXTURE INSTALLATION. (TYPICAL)
- 2 EXISTING WATER CLOSET C/W ASSOCIATED FLUSH VALVE, FLOOR FLANGE AND CARRIER TO BE REMOVED. EXISTING PLUMBING & DRAINAGE PIPING TO REMAIN FOR NEW FIXTURE INSTALLATION. (TYPICAL)
- (3) EXISTING LAVATORY C/W ASSOCIATED FAUCET TO BE REMOVED. EXISTING PLUMBING & DRAINAGE PIPING TO REMAIN FOR NEW FIXTURE INSTALLATION. (TYPICAL)
- EXISTING FLOOR DRAIN TO BE REMOVED. EXISTING DRAINAGE PIPING TO REMAIN FOR NEW FLOOR DRAIN INSTALLATION. (TYPICAL) 5 EXISTING SPRINKLER HEAD TO REMAIN. (TYPICAL)
- 6 EXISTING SUPPLY AIR GRILLES TO BE REMOVED. EXISTING CONNECTED DUCTWORK TO REMAIN FOR INSTALLATION OF NEW SUPPLY AIR SLOT. (TYPICAL)
- 7> EXISTING EXHAUST AIR GRILLES TO BE REMOVED. EXISTING CONNECTED DUCTWORK TO REMAIN FOR INSTALLATION OF NEW EXHAUST GRILLES. (TYPICAL)







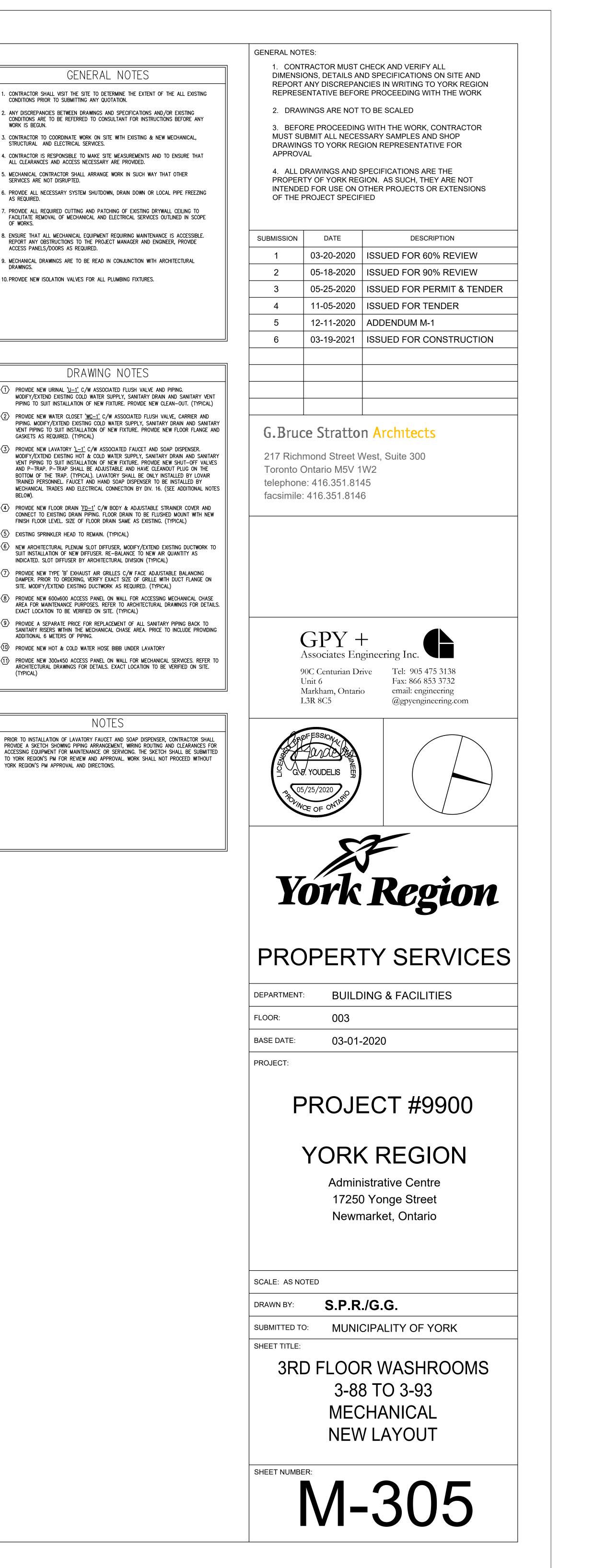
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- 9. MECHANICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. 10. PROVIDE NEW ISOLATION VALVES FOR ALL PLUMBING FIXTURES.

DRAWING NOTES

- PROVIDE NEW URINAL $\frac{2U-1}{2}$ C/W ASSOCIATED FLUSH VALVE AND PIPING. MODIFY/EXTEND EXISTING COLD WATER SUPPLY, SANITARY DRAIN AND SANITARY VENT PIPING TO SUIT INSTALLATION OF NEW FIXTURE. PROVIDE NEW CLEAN-OUT. (TYPICAL)
- GASKETS AS REQUIRED. (TYPICAL) PROVIDE NEW LAVATORY '<u>L-1'</u> C/W ASSOCIATED FAUCET AND SOAP DISPENSER. MODIFY/EXTEND EXISTING HOT & COLD WATER SUPPLY, SANITARY DRAIN AND SANITARY VENT PIPING TO SUIT INSTALLATION OF NEW FIXTURE. PROVIDE NEW SHUT-OFF VALVES
- AND P-TRAP. P-TRAP SHALL BE ADJUSTABLE AND HAVE CLEANOUT PLUG ON THE BOTTOM OF THE TRAP. (TYPICAL). LAVATORY SHALL BE ONLY INSTALLED BY LOVAIR TRAINED PERSONNEL. FAUCET AND HAND SOAP DISPENSER TO BE INSTALLED BY MECHANICAL TRADES AND ELECTRICAL CONNECTION BY DIV. 16. (SEE ADDITIONAL NOTES BELOW). 4 PROVIDE NEW FLOOR DRAIN <u>'FD-1'</u> C/W BODY & ADJUSTABLE STRAINER COVER AND CONNECT TO EXISTING DRAIN PIPING. FLOOR DRAIN TO BE FLUSHED MOUNT WITH NEW
- FINISH FLOOR LEVEL. SIZE OF FLOOR DRAIN SAME AS EXISTING. (TYPICAL) 5 EXISTING SPRINKLER HEAD TO REMAIN. (TYPICAL)
- 6 NEW ARCHITECTURAL PLENUM SLOT DIFFUSER, MODIFY/EXTEND EXISTING DUCTWORK TO SUIT INSTALLATION OF NEW DIFFUSER. RE-BALANCE TO NEW AIR QUANTITY AS INDICATED. SLOT DIFFUSER BY ARCHITECTURAL DIVISION (TYPICAL)
- PROVIDE NEW TYPE 'B' EXHAUST AIR GRILLES C/W FACE ADJUSTABLE BALANCING DAMPER. PRIOR TO ORDERING, VERIFY EXACT SIZE OF GRILLE WITH DUCT FLANGE ON SITE. MODIFY/EXTEND EXISTING DUCTWORK AS REQUIRED. (TYPICAL)
- 8 PROVIDE NEW 600x600 ACCESS PANEL ON WALL FOR ACCESSING MECHANICAL CHASE AREA FOR MAINTENANCE PURPOSES. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS. EXACT LOCATION TO BE VERIFIED ON SITE. (TYPICAL)
- 9 PROVIDE A SEPARATE PRICE FOR REPLACEMENT OF ALL SANITARY PIPING BACK TO SANITARY RISERS WITHIN THE MECHANICAL CHASE AREA. PRICE TO INCLUDE PROVIDING ADDITIONAL 6 METERS OF PIPING.
- PROVIDE NEW HOT & COLD WATER HOSE BIBB UNDER LAVATORY PROVIDE NEW 300x450 ACCESS PANEL ON WALL FOR MECHANICAL SERVICES. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS. EXACT LOCATION TO BE VERIFIED ON SITE. (TYPICAL)

NOTES PRIOR TO INSTALLATION OF LAVATORY FAUCET AND SOAP DISPENSER, CONTRACTOR SHALL PROVIDE A SKETCH SHOWING PIPING ARRANGEMENT, WIRING ROUTING AND CLEARANCES FOR ACCESSING EQUIPMENT FOR MAINTENANCE OR SERVICING. THE SKETCH SHALL BE SUBMITTED TO YORK REGION'S PM FOR REVIEW AND APPROVAL. WORK SHALL NOT PROCEED WITHOUT

YORK REGION'S PM APPROVAL AND DIRECTIONS.



(17)



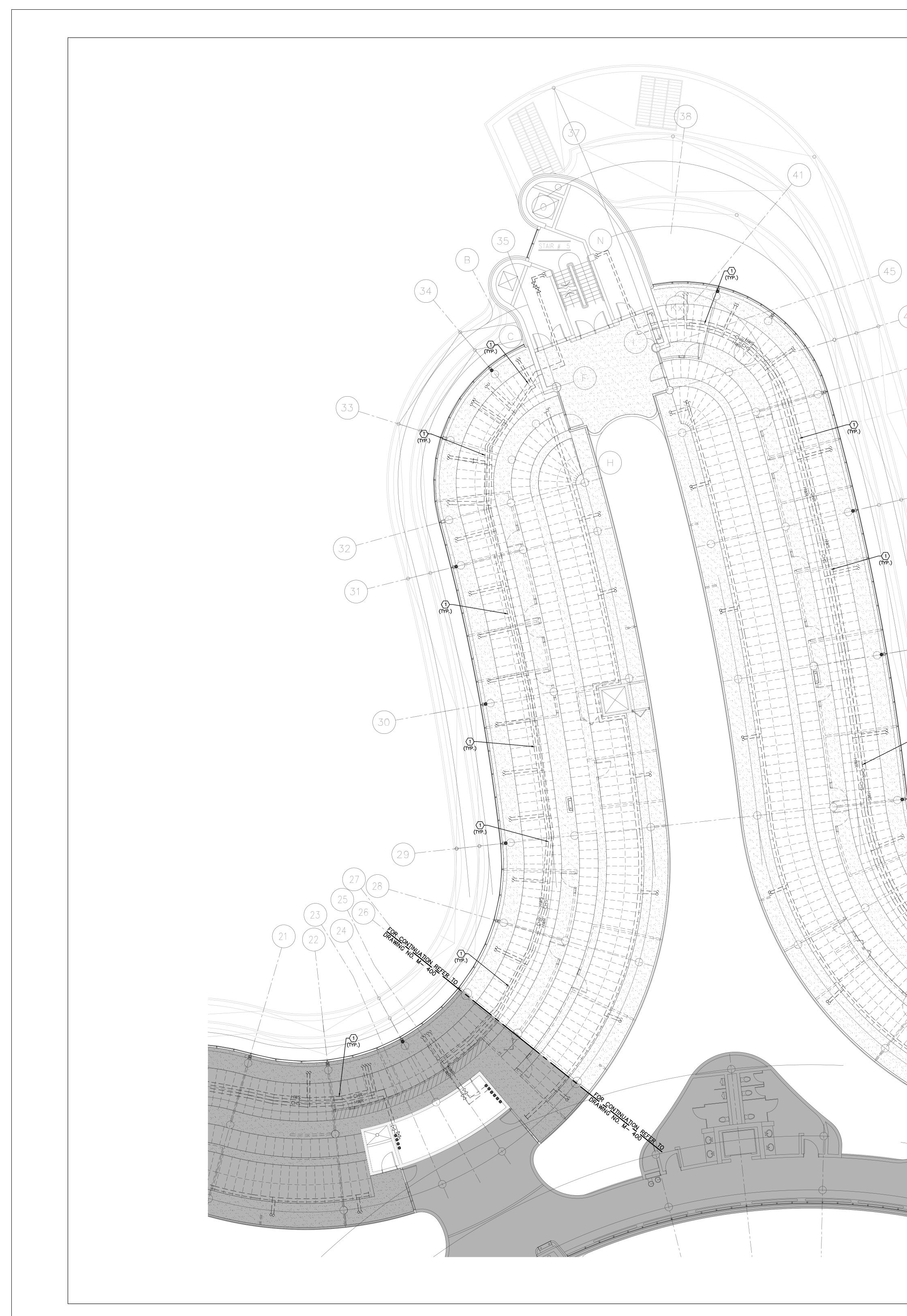
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- 9. WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC.

DRAWING NOTES \bigcirc existing heating water supply & return piping to remain. (typical).

NOTES

(4:30 PM TO 8:30 AM). THIS INCLUDES REMOVAL & CAPPING OF OUTDOOR AIR DUCTWORK IN CEILING SPACE, REMOVAL/CAPPING/NEW CONNECTION OF CHILLED WATER PIPES & HEATING WATER PIPES, REMOVAL/CAPPING/NEW CONNECTION OF CONDENSATE DRAIN, FLOOR SLAB CUTTING/PATCHING, E.T.C.. CONTRACTOR SHALL COORDINATE WITH REGION'S PM PRIOR TO COMMENCEMENT OF ANY WORK.



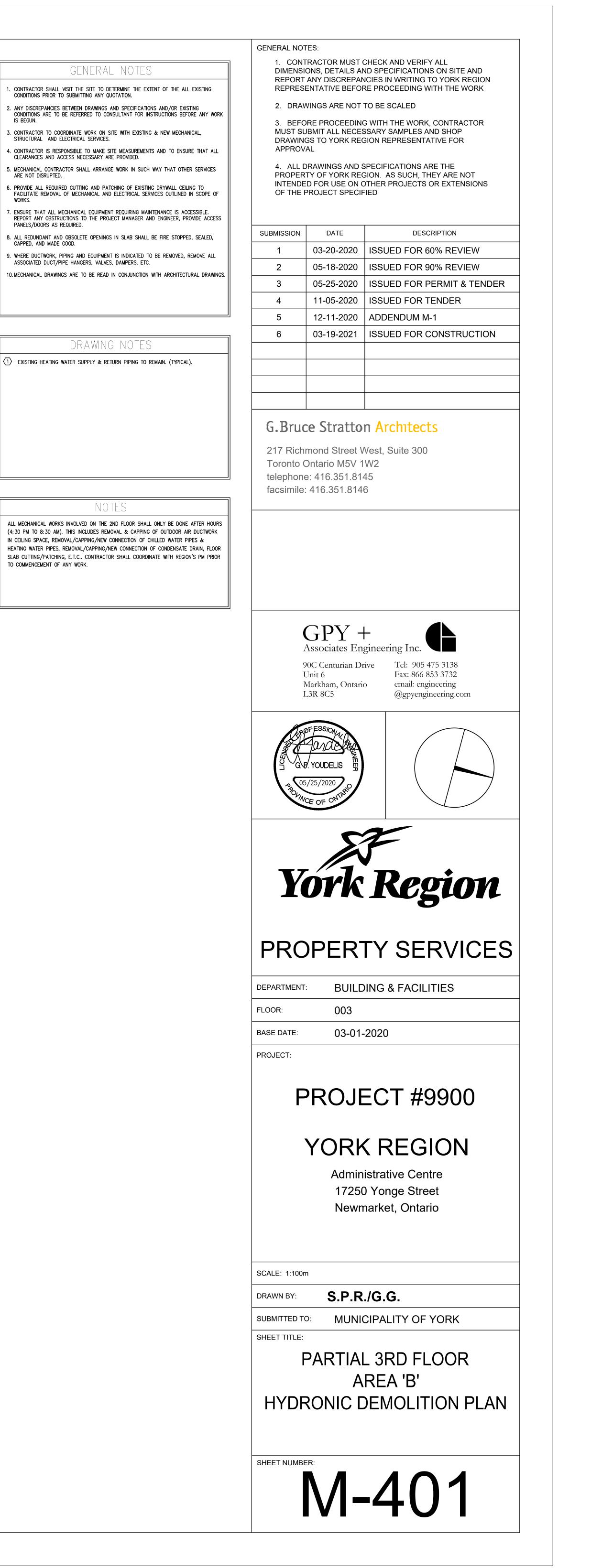


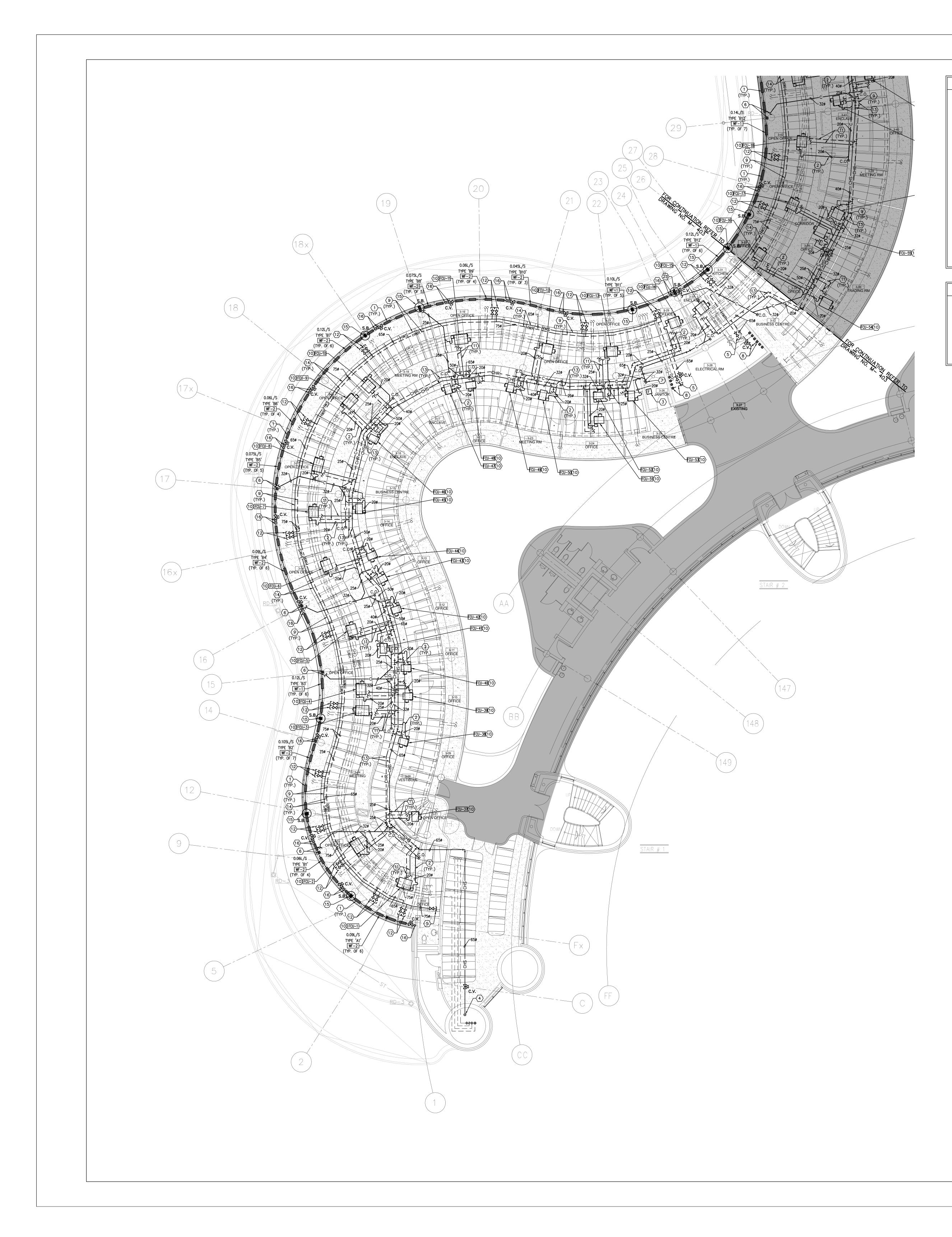
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DRAWING NOTES

NOTES

TO COMMENCEMENT OF ANY WORK.



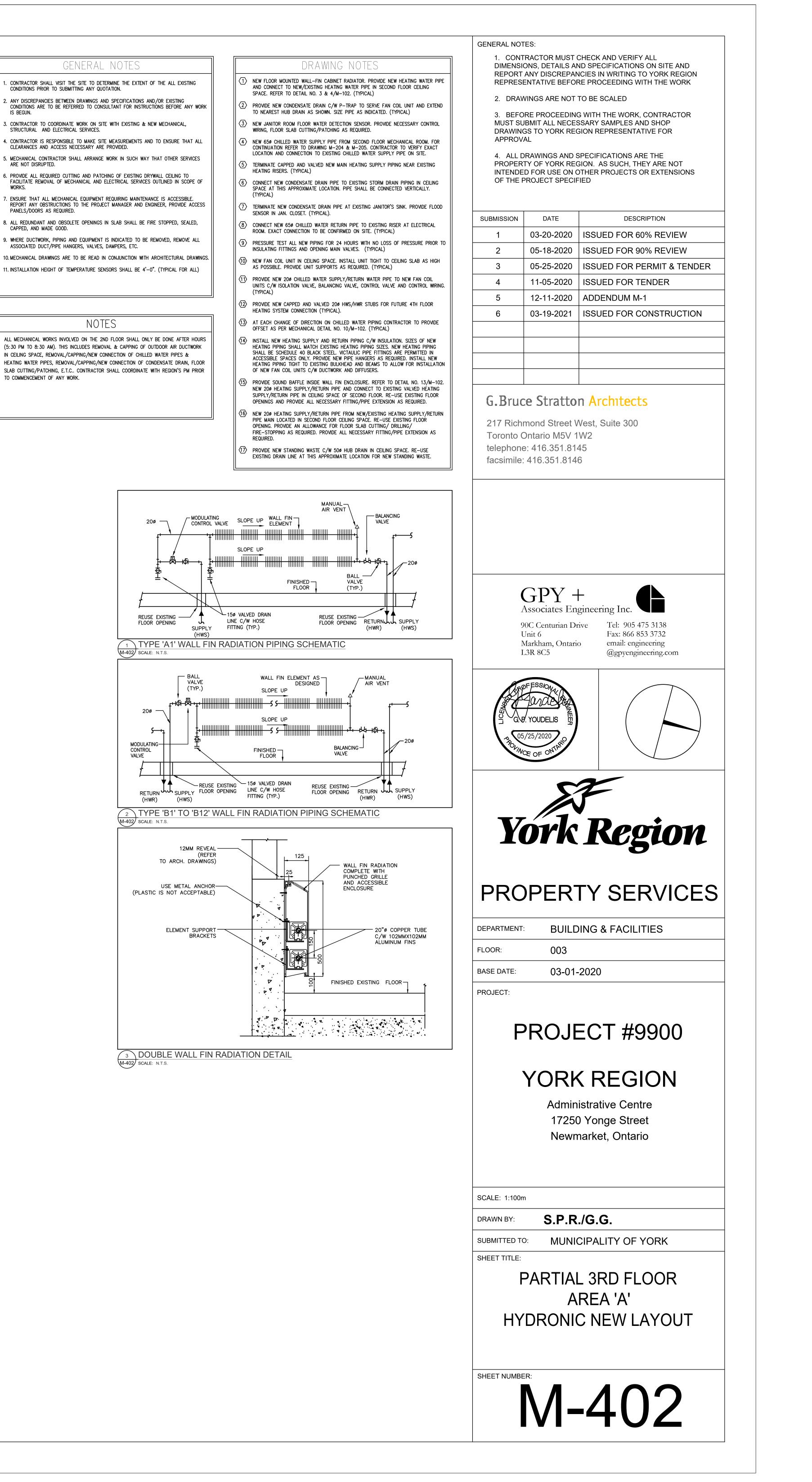


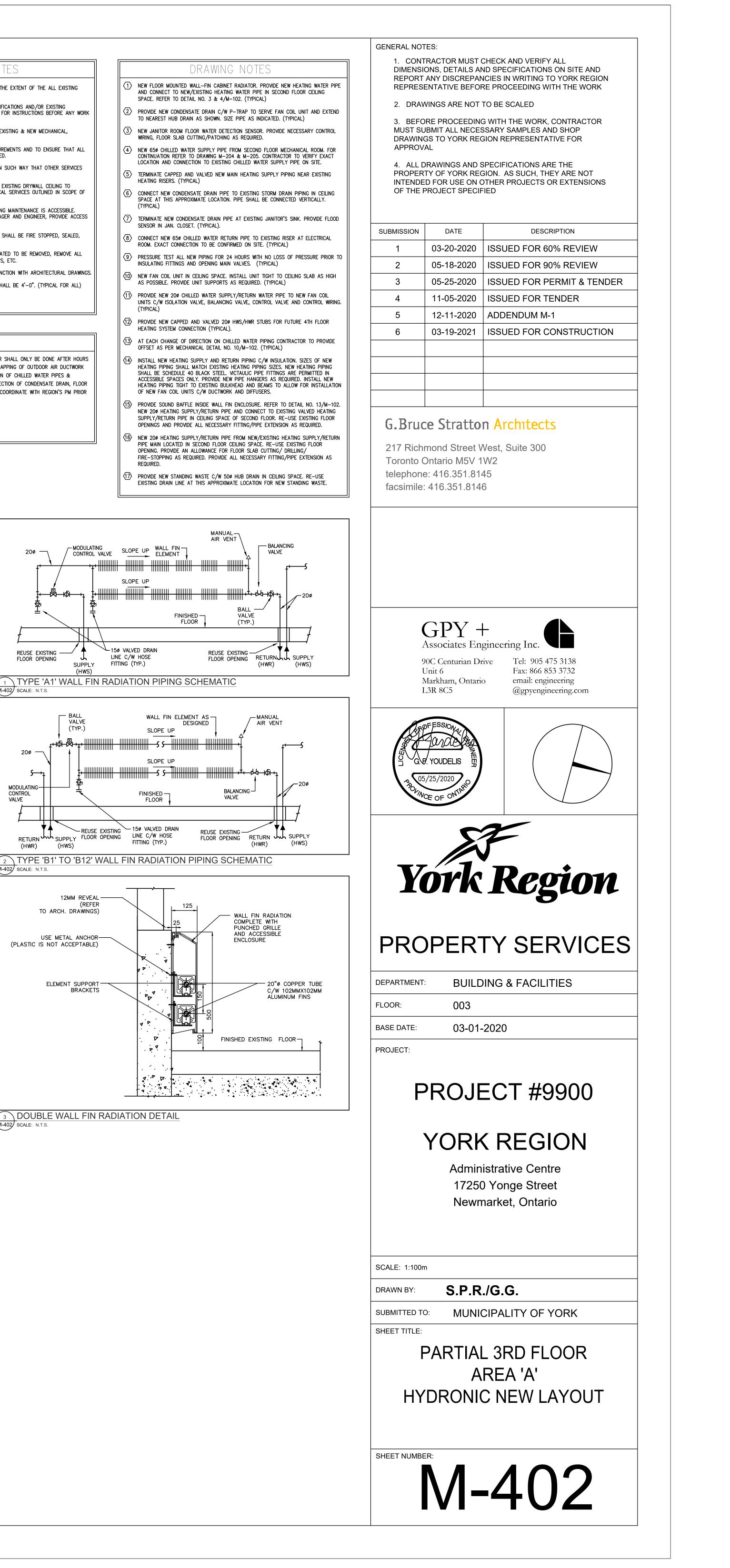
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- 9. WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC. 10. MECHANICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
- 11. INSTALLATION HEIGHT OF TEMPERATURE SENSORS SHALL BE 4'-0". (TYPICAL FOR ALL)

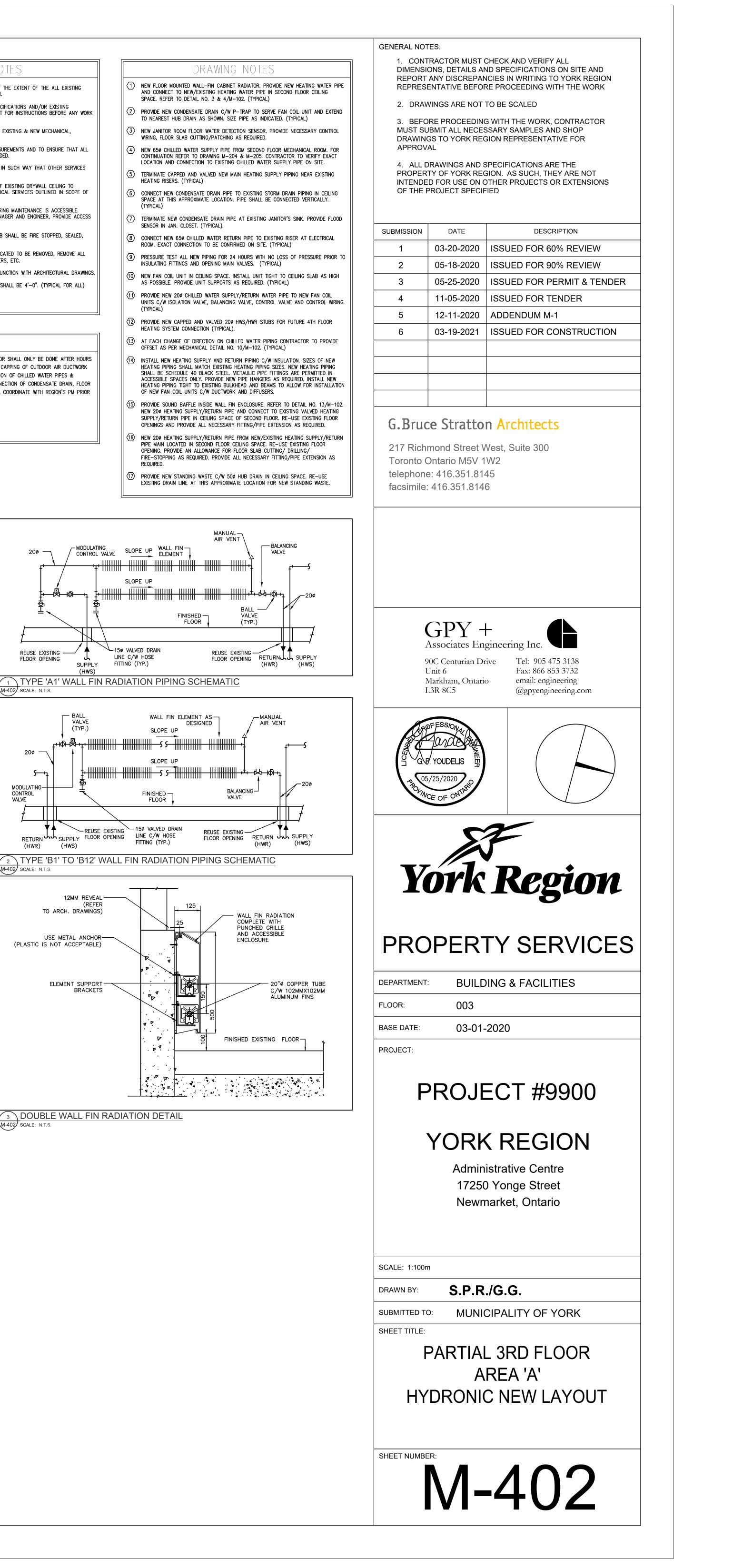
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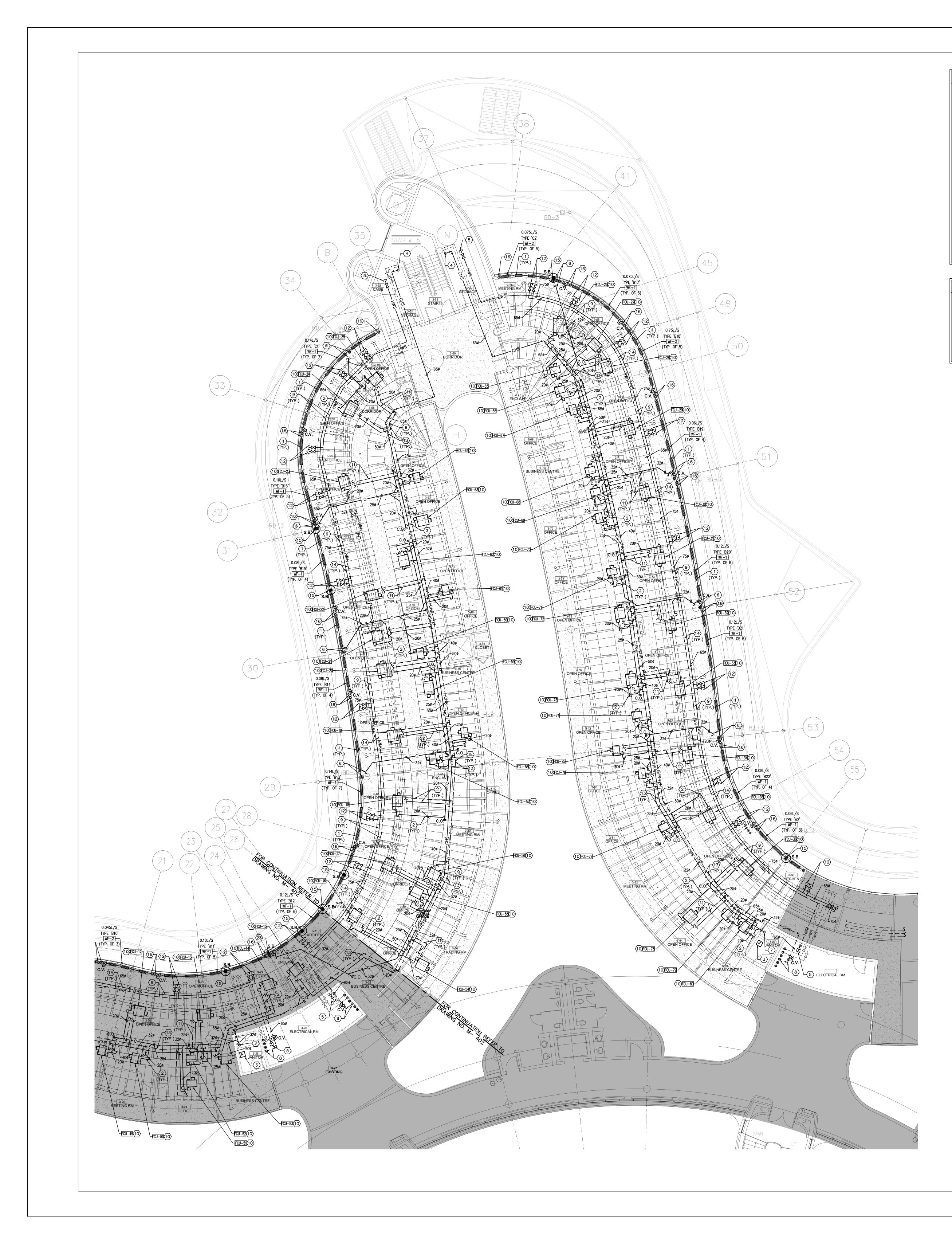
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	TERMINATE CAPPED AND VALVED NEW MAIN HEATING SUPPLY I HEATING RISERS. (TYPICAL)
6	CONNECT NEW CONDENSATE DRAIN PIPE TO EXISTING STORM D SPACE AT THIS APPROXIMATE LOCATION. PIPE SHALL BE CONN (TYPICAL)
	TERMINATE NEW CONDENSATE DRAIN PIPE AT EXISTING JANITOF SENSOR IN JAN. CLOSET. (TYPICAL).
8	CONNECT NEW 650 CHILLED WATER RETURN PIPE TO EXISTING ROOM. EXACT CONNECTION TO BE CONFIRMED ON SITE. (TYPIC.
9	PRESSURE TEST ALL NEW PIPING FOR 24 HOURS WITH NO LOS INSULATING FITTINGS AND OPENING MAIN VALVES. (TYPICAL)
10	NEW FAN COIL UNIT IN CEILING SPACE. INSTALL UNIT TIGHT TO AS POSSIBLE. PROVIDE UNIT SUPPORTS AS REQUIRED. (TYPICA
	PROVIDE NEW 200 CHILLED WATER SUPPLY/RETURN WATER PIF UNITS C/W ISOLATION VALVE, BALANCING VALVE, CONTROL VAL (TYPICAL)
12	PROVIDE NEW CAPPED AND VALVED 200 HWS/HWR STUBS FOR HEATING SYSTEM CONNECTION (TYPICAL).
13	AT EACH CHANGE OF DIRECTION ON CHILLED WATER PIPING CO OFFSET AS PER MECHANICAL DETAIL NO. $10/M-102$. (TYPICAL)
(14)	INSTALL NEW HEATING SUPPLY AND RETURN PIPING C/W INSUL HEATING PIPING SHALL MATCH EXISTING HEATING PIPING SIZES SHALL BE SCHEDULE 40 BLACK STEEL. VICTAULIC PIPE FITTING ACCESSIBLE SPACES ONLY. PROVIDE NEW PIPE HANGERS AS R HEATING PIPING TIGHT TO EXISTING BULKHEAD AND BEAMS TO OF NEW FAN COIL UNITS C/W DUCTWORK AND DIFFUSERS.
15	PROVIDE SOUND BAFFLE INSIDE WALL FIN ENCLOSURE. REFER NEW 200 HEATING SUPPLY/RETURN PIPE AND CONNECT TO EX SUPPLY/RETURN PIPE IN CEILING SPACE OF SECOND FLOOR. R OPENINGS AND PROVIDE ALL NECESSARY FITTING/PIPE EXTENS
(16)	NEW 200 HEATING SUPPLY/RETURN PIPE FROM NEW/EXISTING PIPE MAIN LOCATED IN SECOND FLOOR CEILING SPACE. RE-US OPENING. PROVIDE AN ALLOWANCE FOR FLOOR SLAB CUTTING/ FIRE-STOPPING AS REQUIRED. PROVIDE ALL NECESSARY FITTIN REQUIRED.





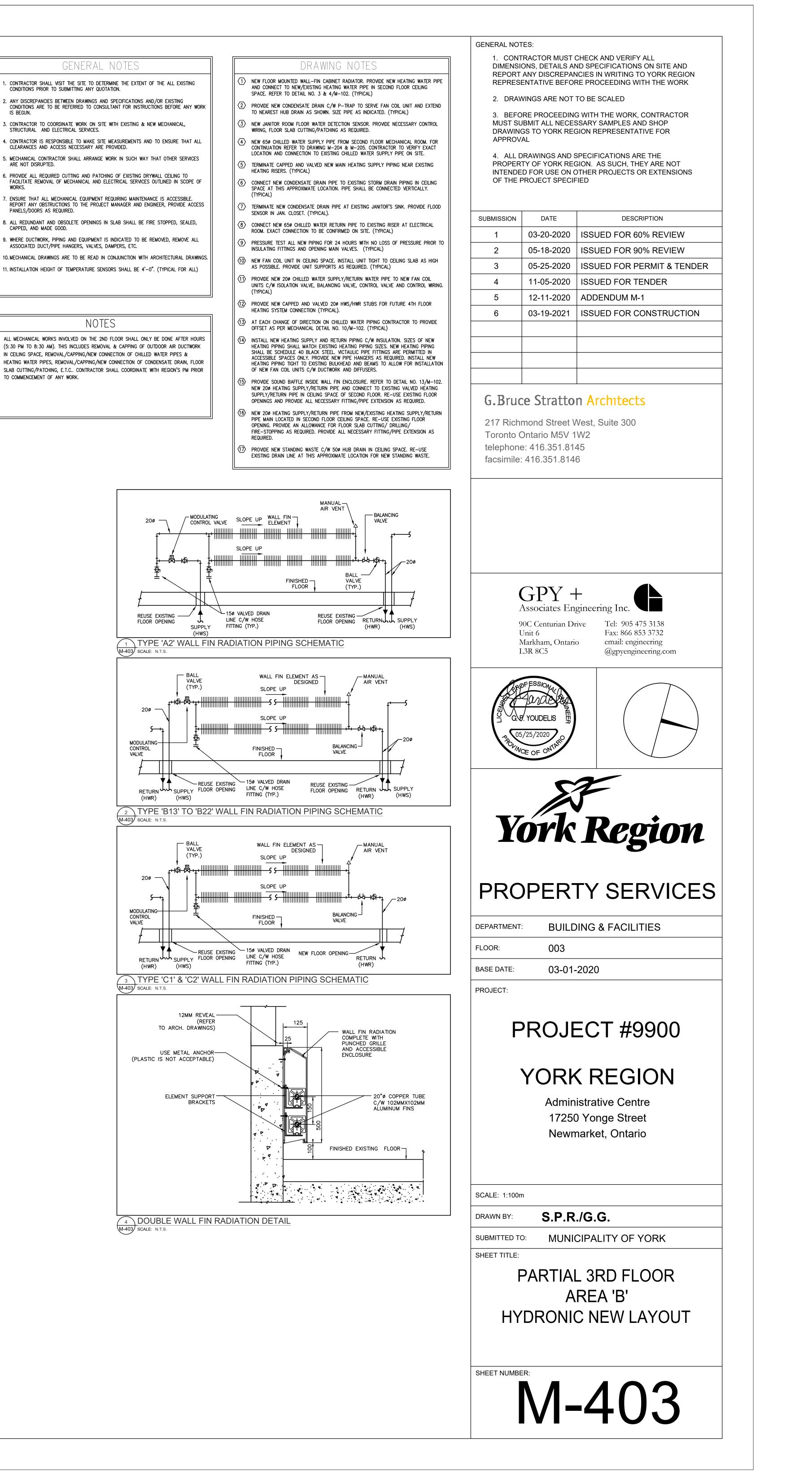




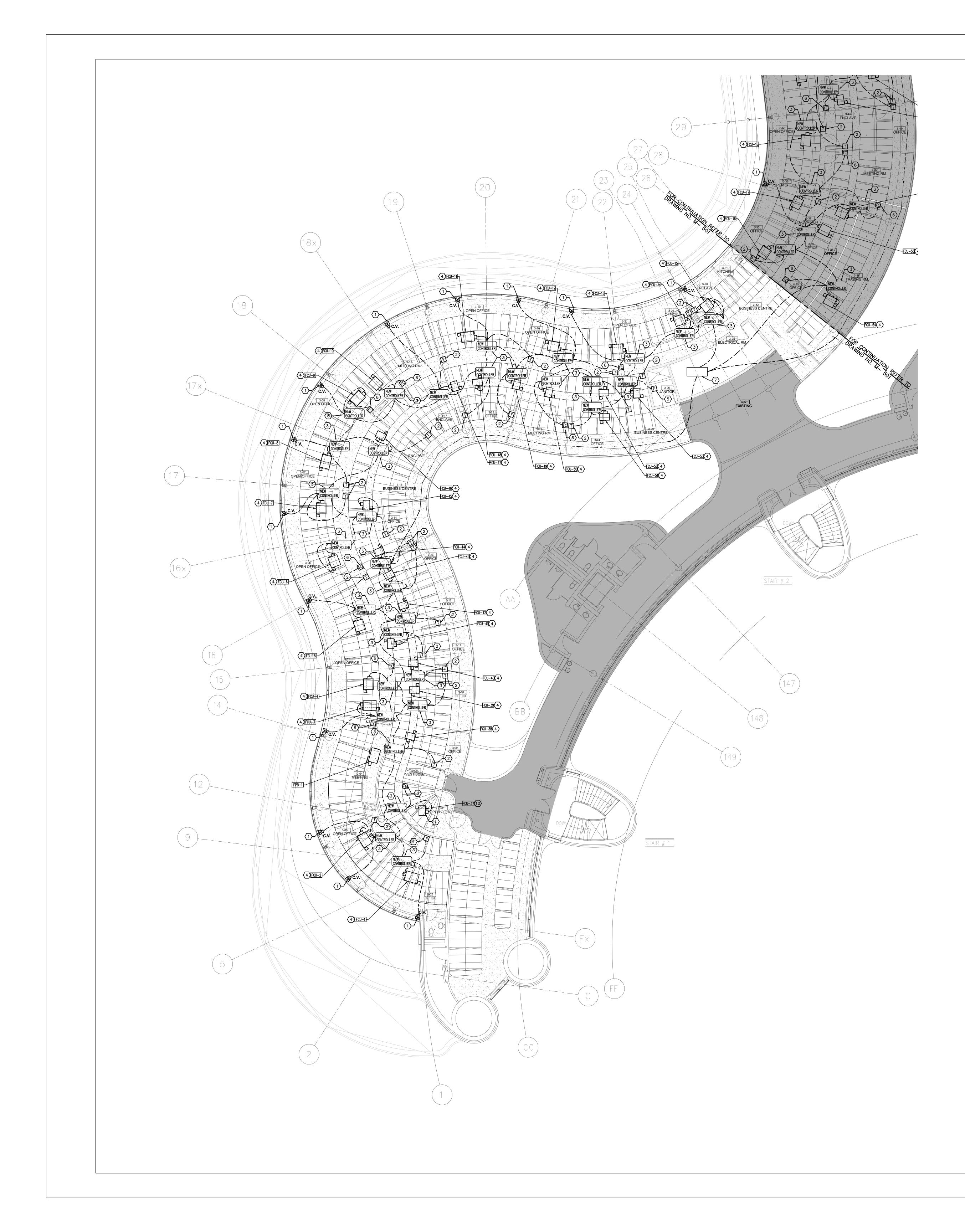
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- 8. ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MADE GOOD. 9. WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL
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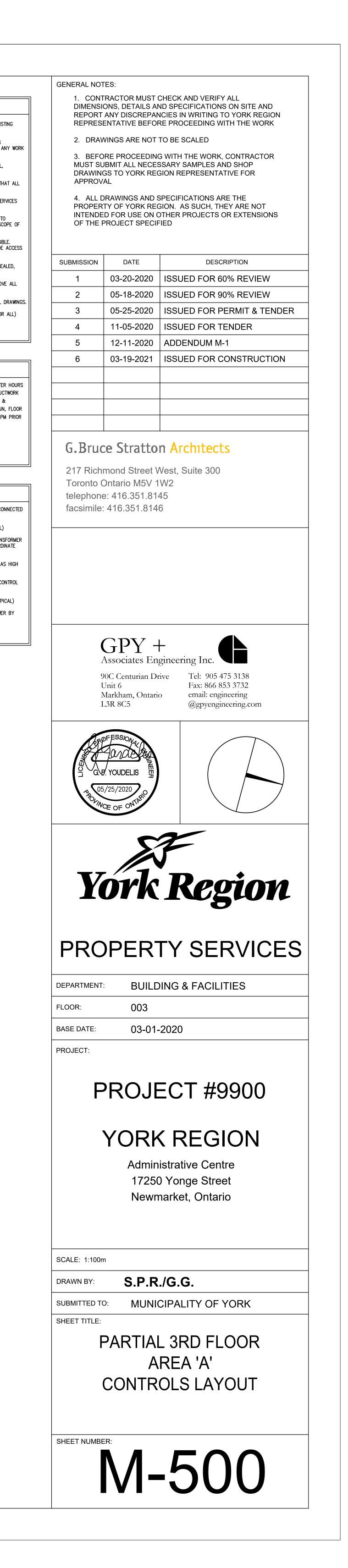
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- INSTALLATION HEIGHT OF TEMPERATURE SENSORS SHALL DE 4 -

NOTES

ALL MECHANICAL WORKS INVOLVED ON THE 2ND FLOOR SHALL ONLY BE DONE AFTER HOURS (5:30 PM TO 8:30 AM). THIS INCLUDES REMOVAL & CAPPING OF OUTDOOR AIR DUCTWORK IN CEILING SPACE, REMOVAL/CAPPING/NEW CONNECTION OF CHILLED WATER PIPES & HEATING WATER PIPES, REMOVAL/CAPPING/NEW CONNECTION OF CONDENSATE DRAIN, FLOOR SLAB CUTTING/PATCHING, E.T.C.. CONTRACTOR SHALL COORDINATE WITH REGION'S PM PRIOR TO COMMENCEMENT OF ANY WORK.

DRAWING NOTES

- NEW CONTROL VALVE FOR PERIMETER RADIATOR. CONTROL VALVE SHALL BE CONNECTED TO ASSOCIATED CONTROLLER AS SHOWN. (TYPICAL)
 NEW TEMPERATURE SENSOR. PROVIDE CONTROL WIRING AS REQUIRED. (TYPICAL)
- (3) NEW BAS CONTROLLER IN CEILING SPACE. PROVIDE CONTROL WIRING AND TRANSFORMER AS REQUIRED. CONTROLLER SHALL BE INSTALLED INSIDE FAN COIL UNIT. COORDINATE WORK WITH FAN COIL UNIT MANUFACTURER. (TYPICAL)
- ANEW FAN COIL UNIT IN CEILING SPACE. INSTALL UNIT TIGHT TO CEILING SLAB AS HIGH AS POSSIBLE. PROVIDE UNIT SUPPORTS AS REQUIRED. (TYPICAL)
- 5 NEW JANITOR ROOM FLOOR WATER DETECTION SENSOR. PROVIDE NECESSARY CONTROL WIRING, FLOOR SLAB CUTTING/PATCHING AS REQUIRED.
- NEW TEMPERATURE SENSOR WITH CO₂ SENSOR. PROVIDE CONTROL WIRING. (TYPICAL)
 NEW CONTROLS PANEL IN ELECTRICAL ROOM BY CONTROLS CONTRACTOR. POWER BY DIV. 16.





- 1. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF THE ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY QUOTATION.
- 2. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE REFERRED TO CONSULTANT FOR INSTRUCTIONS BEFORE ANY WORK IS BEGUN.
- 3. CONTRACTOR TO COORDINATE WORK ON SITE WITH EXISTING & NEW MECHANICAL, STRUCTURAL AND ELECTRICAL SERVICES. 4. CONTRACTOR IS RESPONSIBLE TO MAKE SITE MEASUREMENTS AND TO ENSURE THAT ALL CLEARANCES AND ACCESS NECESSARY ARE PROVIDED.
- 5. MECHANICAL CONTRACTOR SHALL ARRANGE WORK IN SUCH WAY THAT OTHER SERVICES ARE NOT DISRUPTED.
- PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING DRYWALL CEILING TO FACILITATE REMOVAL OF MECHANICAL AND ELECTRICAL SERVICES OUTLINED IN SCOPE OF WORKS.
- 7. ENSURE THAT ALL MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND ENGINEER, PROVIDE ACCESS
- PANELS/DOORS AS REQUIRED. 8. ALL REDUNDANT AND OBSOLETE OPENINGS IN SLAB SHALL BE FIRE STOPPED, SEALED, CAPPED, AND MADE GOOD.
- 9. WHERE DUCTWORK, PIPING AND EQUIPMENT IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED DUCT/PIPE HANGERS, VALVES, DAMPERS, ETC.
- 10. MECHANICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
- 11. INSTALLATION HEIGHT OF TEMPERATURE SENSORS SHALL BE 4'-0". (TYPICAL FOR ALL)

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