

Township of Woolwich – Building Permit Cover Letter <u>Essential Construction Projects can only start</u>

The issuance of this building permit is subject to all restrictions and prohibitions under the law. More specifically, this permit does not mean that construction can be carried out in contravention of any Act, Regulation and/or provincial order prohibiting construction deemed non-essential. Please note that you must review the list of construction projects deemed essential and it is recommended that you seek legal opinion to determine whether the project is deemed essential under the Emergency Management and Civil Protection Act (EMCPA) and its Regulations, as amended, before proceeding with construction in order to avoid contravention of the law. Construction projects deemed non-essential are prohibited. Please further note that Inspections will only be carried out on construction projects deemed essential under Ontario Regulation 82/20 Rules for Areas in Stage 1 under the Reopening Ontario (A Flexible Response to COVID-19) Act, 2020, as amended.

If you have any questions, please contact us.

Sincerely,

Dave Heuchert
Chief Building Official
Township of Woolwich
dheuchert@woolwich.ca

D. Keucles

Phone: 519-669-6036

ELMIRA DISTRICT SECONDARY SCHOOL - WINDOW, ROOF, HVAC & SANITARY UPGRADES

4 UNIVERSITY AVENUE WEST, ELMIRA, ONTARIO N3B 1K2



SCOPE OF WORK

THE PROJECT INVOLVES 7 PRINCIPLE PHASES OF WORK, AND ONE OPTIONAL PHASE. RE-ROOFING OF THE EXISTING HIGH ROOF AND THE WEST PORTION OF THE GYMNASIUM

- REPLACEMENT OF SOUTHWEST WING WINDOWS AND ENTRANCE DOOR RE-ROUTING OF EXISTING SANITARY LINE FROM UNDER THE GYNMASIUM, WITH
- PROVISION OF NEW RTUS FOR AIR CONDITIONING TO THE CAFETERIA PROVISION OF NEW RTUS FOR

OPTIONAL PHASE: REMOVAL OF BASEMENT BOILER

- A002 ANNOTATION LEGEND, ABBREVIATIONS & GENERAL NOTE A005 WINDOW SCHEDULE & SCREEN SCHEDULE
- A012 SITE DETAILS & PHASING PLAN

- LOCKER REFURBISHEMENT DECOMMMISSIONING OF EXISTING BOILER AND RELOCATION OF SERVICES TO A NEW GROUND FLOOR PUMP ROOM

OBC MATRIX PART 11

DRAWING LIST - ARCHITECTURAL

- A000 COVER SHEET AND SHEET LIST, OBC MATRIX A001 ASSEMBLIES & DOOR SCHEDULE
- 11 SITE PLAN & SITE DATA
- ASSOCIATE SITE WORK.
- AIRCONDITIONING TO THE CAFETERIA

- A020 BASEMENT FLOOR PLAN DEMOLITION 1 GROUND FLOOR PLAN - DEMOLITION
- SECOND FLOOR PLAN DEMOLITION
- 3 THIRD FLOOR PLAN DEMOLITION 4 ROOF PLAN - DEMOLITION
- A025 PARTIAL EXTERIOR ELEVATIONS DEMOLITION A100 BASEMENT PLAN - PROPOSED
- GROUND FLOOR PLAN PROPOSE 2 SECOND FLOOR PLAN - PROPOSED
- THIRD FLOOR PLAN PROPOSED
 - 4 ROOF PLAN PROPOSED A301 EXTERIOR ELEVATIONS - NEW FENESTRATION
 - A501 PLAN DETAILS
 - A510 ROOF DETAILS
 A521 SECTION DETAILS

DRAWING LIST - ELECTRICAL

- EA-001 ELECTRICAL LEGEND AND DRAWING LIST
- L-101 CAFETERIA LIGHTING PLANS P-101 CAFETERIA POWER & SYSTEMS PLANS
- P-102 BOILER & PUMP ROOM PLANS ELECTRICAL P-103 GYM MECHANICAL ROOM PLANS - ELECTRICAL EP-104 HIGH ROOF PLAN - ELECTRICAL

DRAWING LIST - MECHANICAL

M-002 MECHANICAL KEYPLANS M-100 BOILER ROOM - DEMOLITION & NEW WORK PLAN

M-101 HVAC DUCTWORK - CAFETERIA - DEMO AND NEW WORK PLAN M-102 HVAC - CAFETERIA RCOF - DEMO AND NEW WORK PLAN

M-110 GYM DRAINAGE - DEMOLITION & NEW WORK PLAN

M-112 GYM HVAC - NEW WORK PLAN

M-120 HIGH ROOF - DEMOLITION & NEW WORK PLAN M-300 MECHANICAL DETAILS 1

M-301 MECHANICAL DETAILS 2 M-302 MECHANICAL DETAILS 3 M-400 MECHANICAL SCHEDULES

DRAWING LIST - STRUCTURAL

S2 SECTIONS AND DETAILS

DRAWING LIST - CIVIL

C1 NOTES, LEGEND, AND DETAILS

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NOTE: This drawing is the property of the architect and may not be

reproduced or used without the expressed consent of the architect. The

contractor shall be responsible for checking and verifying all levels and

dimensions and shall report all discrepancies to the architect and obtain

clarification prior to commencing work. Not for construction unless stamped by

DO NOT SCALE DRAWINGS

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4	2021.04.09	ISSUED FOR PERMIT	
3	2021.03.30	ISSUED FOR ADDENDUM #5	
2	2021.03.16	ISSUED FOR TENDER	
1	2021	DD REVIEW	

DESCRIPTION

NO. DATE

Elmira District Secondary School – Window, Roof, **HVAC & Sanitary** Upgrades

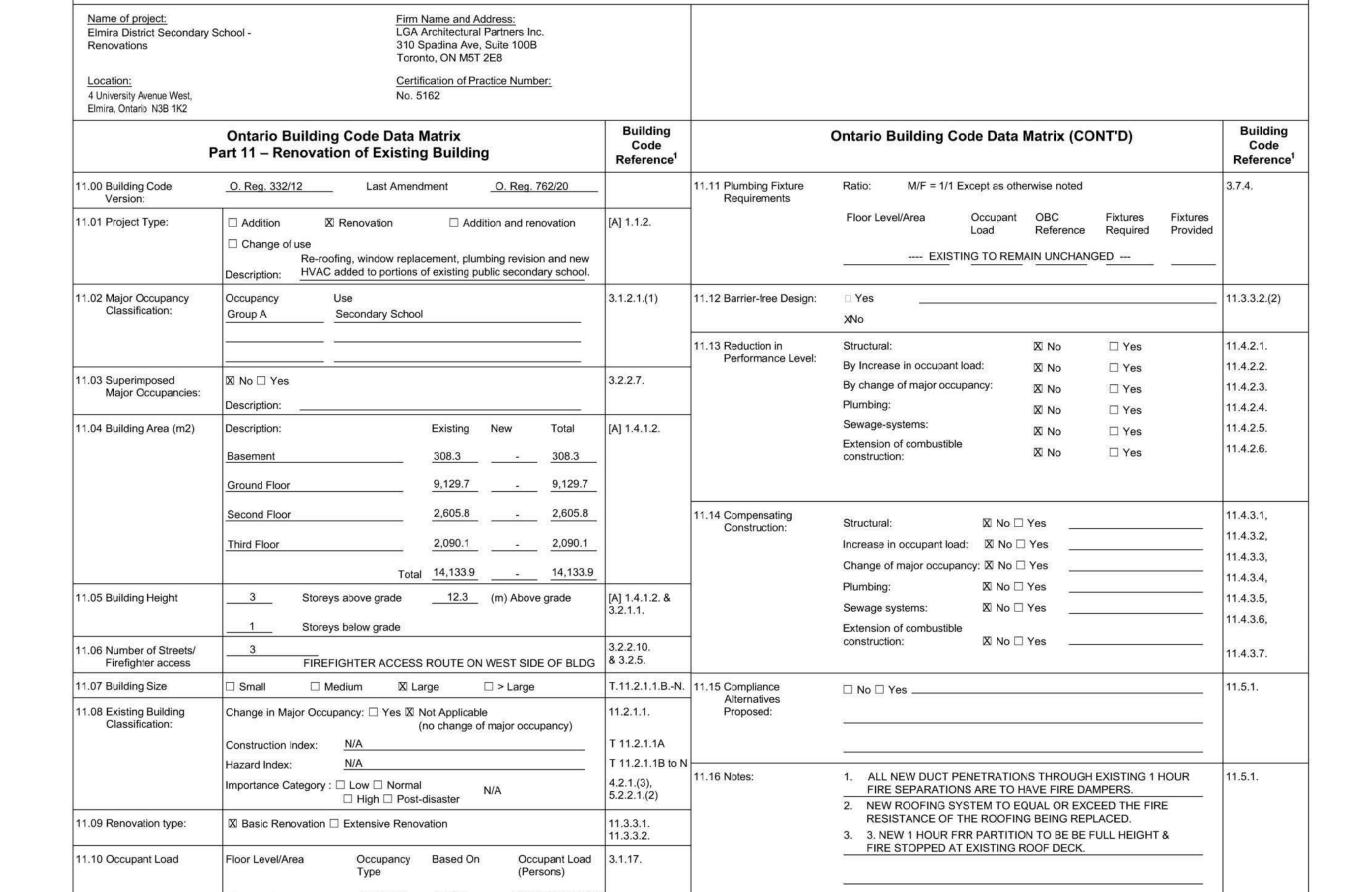
COVER SHEET SHEET LIST AND **OBC MATRIX**

PROJECT NO: **AS NOTED** SCALE: DRAWN BY:

REVIEWED BY: JC-B

DRAWING NO:

A000



MECHANICAL/ELECTRICAL CONSULTANT

¹ All references are to Division B of the OBC unless preceded by [A] for Division A and [C] for Division C

Quasar Consulting Group 250 Rowntree Dairy Road Woodbridge, Ontario L4L 9J7 905.507.0800

Strik Baldinelli Moniz Ltd. 1415 Huron Rd. Unit 225 Kitchener, Ontario N2R 0L3 519.725.8093

CIVIL CONSULTANT

OWNER ARCHITECT

Waterloo Region District School Board 51 Ardelt Avenue Kitchener, Ontario N2C 2S9 519.570.0003

LGA Architectural Partners 310 Spadina Ave, Suite 100B Toronto, Ontario M5T 2E8 416. 203.7600

Witzel Dyce Engineering Inc. 826 King St. N., Unit 20 Waterloo, Ontario N2J 4G8 519.594.0182

STRUCTURAL CONSULTANT

ASSEMBLIES SCHEDULE

W - EXTERIOR WALL ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION		DIAGRAM DESCRIPTION ASSE		ASSEMBLY-SPECIFIC NOTES	PERFORM	MANCE	
₩1>	EXTERIOR INTERIOR	90mm 50mm 190mm	EXISTING BRICK MASONRY VENEER CLADDING W/ 190mm LOADBEARING CMU BACKUP EX BRICK MASONRY VENEER MASONRY CAVITY LOADBEARING CMU BLOCK INTERIOR FINISH, REFER TO FINISH PLANS	NOTE: CONTRACTOR IS TO VERIFY DIMENSIONS AND CONDITION OF CAVITY ON SITE AND NOTIFY CONSULATANTS OF VARIATIONS PRIOR TO WINDOW INSTALLATION NOTE: REFER TO STRUCTURAL DRAWINGS FOR EXTERIOR OPENING LINTEL SUPPORT DETAILS.	CATEGORY R-VALUE RSI-VALUE	REQUIRED N/A N/A	PROVIDED N/A N/A		

P - INTERIOR PARTITION AND FURRING ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION	ASSEMBLY-SPECIFIC NOTES	PERFORM	ANCE	
(P1)		152mm 16 Ga STEEL STUDS WITH 16mm FIRE RATED MOISTURE-RESISTANT GYPSUM BOARD	BASIS OF DESIGN CUL W453 OR SIMILAR PER OBC	CATEGORY	REQUIRED	PROVIDED
		(BOTH SIDES)	SB-2	FRR	SEE SHEET A.01	1HR PER OBC SB-2
~		VAR FINISH, REFER TO FINISH PLANS 16mm MOISTURE-RESISTANT TYPE X GWB 152mm NON-LOADBEARING STEEL STUD FRAMING	NOTES: 1. COORDINATE INSTALLATION WITH 152mm CONCRETE CURB BASE. REFER TO A101	STC	-	-
		@ 406mm O.C. C/W 89mm INS-03 BATT INSULATION 16mm MOISTURE-RESISTANT TYPE X GWB VAR FINISH, REFER TO FINISH PLANS	2. UNLESS NOTED OTHERWISE, SPECIFIED INSULATION TO FILL ENTIRE DEPTH AND HEIGHT OF STUD CAVITY			
		190mm LOADBEARING CMU	NOTE: REFER TO STRUCTURAL DRAWINGS FOR	CATEGORY	REQUIRED	PROVIDED
P2		VAR FINISH, REFER TO FINISH PLANS	LATERAL SUPPORT CONNECTIONS AND DETAILS NOTE: REFER TO STRUCTURAL DRAWINGS FOR	FRR	SEE SHEET A.01	1HR PER OBC SB-2
*		190mm INTERIOR LOADBEARING CMU HOLLOW BLOCK, NORMAL WEIGHT TYPE "N"	INTERIOR OPENING LINTEL SUPPORT DETAILS.	STC RATING	=	*
		REFER TO STRUCTURAL VAR FINISH, REFER TO FINISH PLANS	NOTE: TYPICAL HORIZONTAL AND VERTICAL MORTAR JOINT SPACING TO BE 10mm UNLESS NOTED OTHERWISE.		I.	1
			NOTE: PROVIDE BULLNOSE BLOCK AT ALL EXPOSED CORNER, JAMB, AND HEAD CONDITIONS			

FOR ALL ASSEMBLIES IN THE CONTRACT DOCUMENTS WITH A DESIGNATED LISTING FROM A TESTING AUTHORITY (E.G. ULC) IT IS THE FULL RESPONSIBILITY OF THE TRADE CONTRACTOR AND/OR CONSTRUCTION MANAGER TO INDEPENDENTLY RESEARCH, PROVIDE, AND CONSTRUCT THE COMPLETE PUBLISHED ASSEMBLY AS DESCRIBED BY THE ASSOCIATED TESTING AUTHORITIES. THE DESCRIPTION OF THE ASSEMBLIES IN THE CONTRACT DOCUMENTS ARE NOTED "AS BASIS OF DESIGN" AND MAY NOT REPRESENT THE FULL CRITERIA AS DEFINED BY THE TESTING AUTHORITY.

R - ROOF ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION	ASSEMBLY-SPECIFIC NOTES	PERFORMANCE		
	EXTERIOR	3 PLY COLD BUILT UP ROOF SYSTEM ON EXIST.	NOTE: PROVIDE 2440 x 2400mm SUMPS (2%) AT	CATEGORY	REQUIRED	PROVIDED
	9399999 64 50 x 46 x 4	1 PLY POWERPLY ENDURE 200 FR GRANULATED CAP	OWERPLY ENDURE 200 FR GRANULATED CAP	R-VALUE	R-35 (CI) SB-10	R-22.8 (CI) NET*
R1		SHEET INTO COLD RUBBERIZED ADHESIVE 2 PLY COMPOSITE PLY HT INTO COLD RUBBERIZED ADHESIVE		RSI-VALUE	RSI-6.2 (CI) SB-10	RSI-4.04 (CI) NET*
		13mm ASPHALT COATED FIBERBOARD ADHERED W/ LOW RISE FOAM ADHESIVE	CONDITIONS (2% SLOPE MINIMUM), REFER TO ROOF PLAN.		0 RQUIREMENTS	
		VAR TAPERED PERIMETER BACK SLOPE POLYISO ADHERED W/ LOW RISE FOAM ADHESIVE	NOTE: ALL INSULATION BOARD JOINTS (HORIZONTAL AND VERTICAL) TO BE STAGGERED.	PERFORMAN	EXISTING BUILD NCE EQUALS OR SSEMBLY TO BE	EXCEEDS
		76mm POLYISO ADHERED W/ LOW RISE FOAM ADHES.	AND VERTICAL) TO BE STAGGERED.	(PER PART 1		REPLACED
	INTERIOR	AVC MEMBRANE (VAPOR BARRIER) & PRIMER 13mm DENSDECK ADHERED W/ LOW RISE FOAM ADHS. VAR EXISTING ROOF DECK: REFER TO DWGS	NOTE:COORDINATE WORK WITH MECHANICAL TRADES. REFER TO MECHANICAL DRAWINGS	MINIMUM AV	ERAGED VALUE 29.4 / RSI 5.21	S WITH

C - SUSPENDED CEILING ASSEMBLIES

DIAGRAM

Control of the second section

C1	SUPPORTING STRUCTURE	VAR	WITH SUPPORT GRID SYSTEM (DRY AREAS) NEW (WHERE NOTED) MAIN BEAM & CROSS TEE DRYWALL GRID SYSTEM SUPPPORT FRAMING AS REQUIRED C/W WIRE TIE HANGERS. EXISTING TO REMAIN SHALL BE MADE GOOD. ACOUSTIC CEILING TILE: REFER TO SPEC	FRAMING, HANGERS AND TIE WIRE TO BE HOT- DIPPED GALVANIZED. NOTE: WIRE TIE HANGERS ARE NOT TO BE FASTENED BACK TO PLYWOOD ROOF DECKING. CONTRACTOR TO PROVIDE ADDITIONAL ENGINEERED FRAMING AS REQUIRED TO SUPPORT CEILING ASSEMBLY AND ASSOCIATED FIXTURES.
C3	SUPPORTING STRUCTURE	VAR	SUSPENDED GYPSUM BOARD CEILING WITH SUPPORT GRID SYSTEM OR STUD FRAMING (WET AREAS) MAIN BEAM AND CROSS TEE DRYWALL GRID SYSTEM SUPPPORT FRAMING AS	NOTE: ALL DRYWALL GRID SYSTEM SUPPORT FRAMING, HANGERS AND TIE WIRE TO BE HOT- DIPPED GALVANIZED. NOTE: WIRE TIE HANGERS ARE NOT TO BE

DESCRIPTION

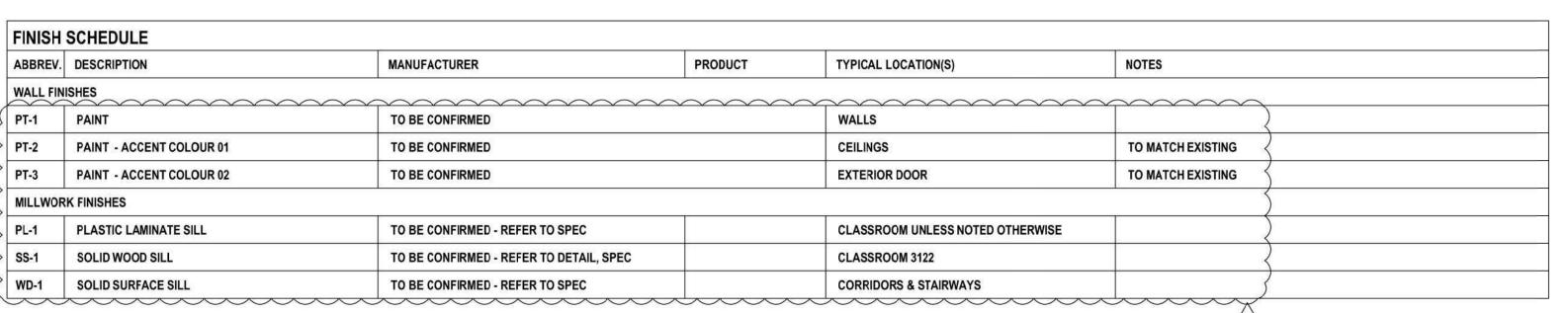
SUSPENDED ACOUSTIC TILE CEILING

REQUIRED C/W WIRE TIE SUPPORTS

16mm GB GYPSUM BOARD TO ALIGN WITH

EXISTING ADJACENT

VAR FINISH, REFER TO FINISH PLANS



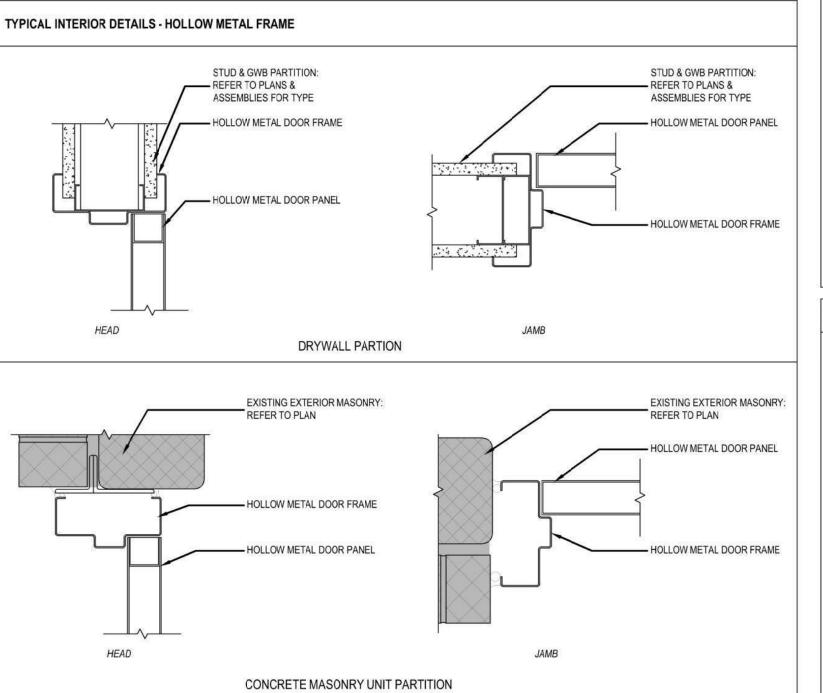
DOOR SCHEDULE DOOR SIZE DOOR NO. FROM ROOM: TO ROOM: PANEL CONSTRUCTION FRAME CONSTRUCTION TYPE | FIRE RATING ROOM # ROOM NAME ROOM# REBATE WIDTH REBATE HEIGHT THICKNESS HARDWARE **ROOM NAME** TYPE MATERIAL MATERIAL FINISH SOUTHWEST EXIT AT STAIR D | EXIT 3 | EXTERIOR ALUM/GLASS | CLEAR ANOD. CLEAR ANOD. TG ENTRANCE DP, ED, WS 1830 2134 45 MINUTES STORERM LS, CL, SMOKESEAL NEW PUMP/UTILITY ROOM D1406c STAIR G A1 HM PAINT D03 2134 PAINT STORERM LS, WS, TH FAN ROOM DOOR EXTERIOR (ROOF 1090 44 PAINT

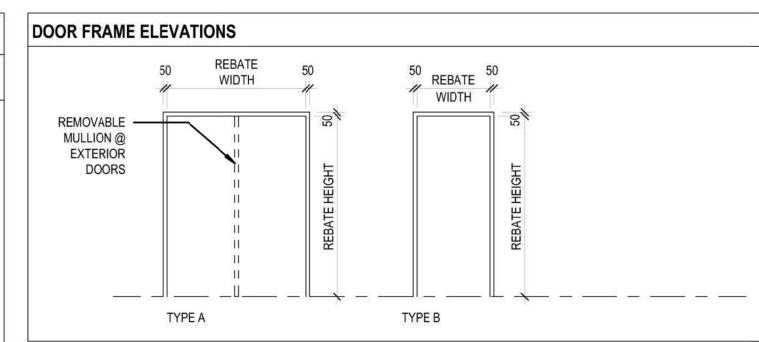
ALUM/GLASS CLEAR ANOD.

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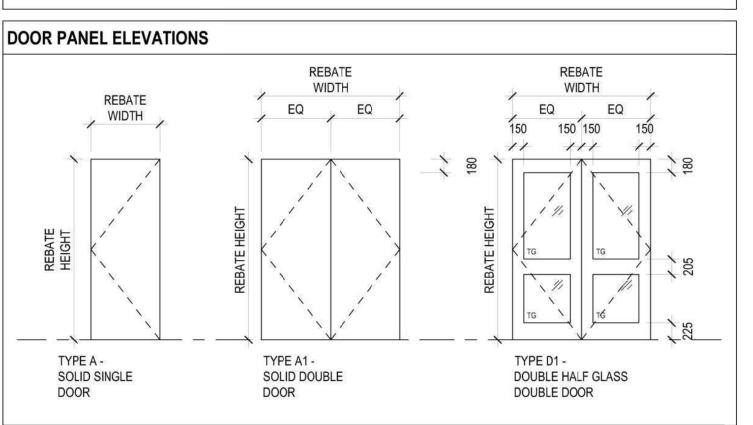
1850





ALUMINUM | CLEAR ANOD. | TG

ENTRANCE DP, ED, WS



LEGEND

ASSEMBLY-SPECIFIC NOTES

NOTE: ALL CEILING GRID SYSTEM SUPPORT

AL	ALUMINUM
AN	CLEAR ANODIZED
BA	BATT INSULATION
HM	HOLLOW METAL
PI	POLYISO INSULATION
PN	PAINT
SCW	SOLID CORE WOOD
ST	STAIN
CF	CLEAR FINISH
WD	WOOD
TG	TEMPERED GLASS

SOUTH EXIT AT STAIR C

TYPICAL DOOR FRAME DETAILS

EXIT 4 EXTERIOR

HARDWARE LEGEND

NOTE: ALL DRYWALL GRID SYSTEM SUPPORT FRAMING, HANGERS AND TIE WIRE TO BE HOT-DIPPED GALVANIZED.	AO CC CH CL CLF	AUTOMATIC DOOR OPENER CONCEALED CLOSER COAT HOOK CLOSER CLASSROOM LOCK FUNCTION
NOTE: WIRE TIE HANGERS ARE NOT TO BE FASTENED BACK TO PLYWOOD ROOF DECKING. CONTRACTOR TO PROVIDE ADDITIONAL ENGINEERED FRAMING AS REQUIRED TO SUPPORT CEILING ASSEMBLY AND ASSOCIATED FIXTURES	CM CS DC DP DS ED	CEASSROOM LOCK FONCTION CENTRE MULLION CARD SWIPE DOOR CONTACT DOOR PULL DOOR STOP PANIC BAR EXIT DEVICE ELECTRIC HOLD OPEN

WS

TRIC HOLD OPEN ELECTRIC LATCH **ESC** ELECTRIC SCREAMER EST **ELECTRIC STRIKE** HO HOLD OPEN, MAGNETIC KP KICKPLATE, SS. LATCH, LOCKSET OFFICE FUNCTION LOCKSET OFL **PUSH BUTTON** PANIC HARDWARE PANIC HARDWARE W/ ALARM OVERRIDE PUSH / PULL PRV PRIVACY LOCKSET

DOOR SIGNAGE THRESHOLD

WEATHER STRIPPING

DOOR & FRAME NOTES

1. CONTRACTOR TO CONFIRM ALL FINISHES, LOCATIONS, AND QUANTITIES AND NOTIFY CONSULTANT OF ANY DISCREPANCIES.

2. ALL FIRE RATED DOORS REQUIRE DOOR CLOSERS.

ALL EXIT DOORS TO HAVE HARDWARE IN CONFORMANCE TO O.B.C EXIT REQUIREMENTS. GENERAL CONTRACTOR TO CO-ORDINATE INSTALLATION AND LOCATIONS WITH DOOR AND HARDWARE MANUFACTURER.

4. ALL EXTERIOR DOORS TO BE INSULATED & HAVE THERMALLY BROKEN FRAMES. FILL FRAMES AND SPACE BETWEEN FRAMES AND ADJACENT MATERIALS W/ SRPAY FOAM INSULATION TO FULLY SEAL AGAINST ALL AIR INFILTRATION.

5. FOR DOOR SWINGS REFER TO PLAN.

6. FOR PAINT COLOURS REFER TO FINISH SCHEDULE AND ELEVATIONS.

7. PROVIDE ACOUSTIC SEALANT AND FILL FRAME AT ALL DOORS IN ACOUSTICALLY RATED WALL ASSEMBLIES AND ALL DOORS AT OFFICES.

8. ALL GLAZING IN DOORS & SCREENS TO BE TEMPERED.

9. COORDINATE THROAT SIZE TO WALL SCHEDULE AND MANUFACTURES TOLERANCES. FOR DOORS TO BE INSTALLED IN EXISTING WALLS, VERIFY EXISTING WALL THICKNESS ON SITE. COORDINATE SIZE OF FRAME TO ACCOMODATE EXISTING WALL THICKNESS.

10. CONTRACTOR TO COORDINATE JAMB WIDTHS AND DETAILS WITH ON-SITE CONDITIONS. CONTRACTOR TO PRODUCE SHOP-DRAWINGS OF JAMB DETAILS FOR ARCHITECTS REVIEW AND APPROVAL.

11. PROVIDE MANUFACTURERS FLOOR ANCHOR STRAPS FOR ALL HOLLOW METAL JAMB FRAMES AND MULLION FLOOR ANCHORS FOR HOLLOW METAL MULLIONS. ANCHORS TO BE FIRE RATED

12 PROVIDE THERMALLY BROKEN THRESHOLDS AT ALL EXTERIOR DOORS.

13. PROVIDE WEATHER STRIPPING ON ALL EXTERIOR DOORS.

14. IN FRAME DETAILS GRAPHIC OF WALL ASSEMBLIES ARE GENERIC ONLY-CONTRACTOR MUST REFERENCE ASSEMBLY TYPES FOR EXACT WIDTH & COMPOSITION OF WALLS

15. ALL SCREEN FRAMES ARE TO BE PAINTED HOLLOW METAL, UNLESS OTHERWISE NOTED. REFER TO INTERIOR ELEVATIONS, DOOR & FINISH SCHEDULES FOR PAINT COLOURS.

ASSEMBLY GENERAL NOTES

- REFER TO FIRE SEPARATION DRAWINGS FOR REQUIRED FIRE SEPARATION RATINGS. THE CONTRACTOR IS TO ENSURE THE CONTINUITY OF ALL FIRE SEPARATIONS AS REQUIRED.
- THE CONTRACTOR IS TO PROVIDE ULC-LISTED FIRESTOP SYSTEMS AS REQUIRED FOR ALL BUILDING SERVICE PENTRATIONS THROUGH RATED ASSEMBLIES, REFER TO MECHANICAL AND ELECTRICAL DRAWINGS.
- THE CONTRACTOR IS TO PROVIDE ULC-LISTED FIRESTOP SYTEMS AS REQUIRED FOR ALL RATED PARTITION ASSEMBLY CONDITIONS.
- UNLESS NOTED OTHERWISE, ALL PARTITION AND FURRING ASSEMBLIES ARE TO EXTEND FROM STRUCTURAL DECK/SLAB TO U/S OF STRUCTURAL DECK/SLAB ABOVE.
- HEIGHT LIMITS FOR NON-LOADBEARING INTERIOR AND EXTERIOR CONCRETEBLOCK MASONRY IS TO CONFORM TO OBC 9.20.10.1. REFER TO STRUCTURAL DRAWINGS FOR REINFORCING, LINTELS, AND LATERAL SUPPORT.
- HEIGHT LIMITS OF INTERIOR AND FURRING PARTITION STEEL STUD FRAMING IS TO CONFORM TO OBC 9.24.2.1, OR STEEL STUD SUPPLIER HEIGHT TABLES.
- THE CONTRACTOR IS TO PROVIDE ENGINEERED SHOP DRAWINGS, SIGNED AND SEALED BY A P.ENG LICENSED WITHIN THE PROVICE OF ONTARIO FOR ALL STEEL STUD FRAMING DENOTED AS "WIND-BEARING" OR "STRUCTURAL".
- THE CONTRACTOR IS TO PROVIDE STRUCTURAL STUD FRAMING AS REQUIRED TO SUPPORT ALL EXTERIOR CURTAINWALL, STOREFRONT GLAZING AND PUNCH WINDOW SYSTEMS, IN ADDITION TO ALL INTERIOR SCREENS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE STUD SPACING AND CONFIGURATION AS REQUIRED TO MEET CURTAINWALL, STOREFRONT, PUNCH WINDOW, AND INTERIOR SCREEN SUPPLIER
- PROVIDE CONT. ACOUSTICAL SEALANT (BOTH SIDES) AT TOP AND BOTTOMOF ALL INTERIOR STUD AND GypSUM BOARD PARTITIONS. PROVIDE ULC-LISTED SEALANT AT ALL RATED PARTITIONS AS REQUIRED, REFER TO FIRE SEPARATION DRAWINGS.
- ACCESS PANELS LOCATED WITHIN SUSPENDED GYPSUM BOARD CEILING ASSEMBLIES ARE TO BE PAINTED OUT TO MATCH THE SURROUNDING CEILING FINISH. PROVIDE ULC-LISTED ACCESS PANEL WHERE PANEL IS LOCATED IN A RATED CEILING, REFER TO FIRE SEPARATION DRAWINGS.
- UNLESS NOTED OTHERWISE, ASSEMBLIES ABOVE DOORS, WINDOWS, EXTERIOR OPENINGS AND INTERIOR SCREENS IS TO BE THE SAME AS THE TYPE DENOTED ON EITHER SIDE.
- ALL R AND RSI VALUES SHOWN ARE NOMINAL. REFER TO PROJECT MANUAL FOR FULL LISTING OF INSULATION TYPES AND WEATHER BARRIER TYPES.



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1	2021	DD REVIEW

NO.	DATE	DESCRIPTION

PROJECT:

Elmira District Secondary School – Window, Roof, **HVAC & Sanitary** Upgrades

DRAWING TITLE:

ASSEMBLIES & DOOR SCHEDULE

PROJECT NO: 20931 **AS NOTED** SCALE: DRAWN BY: JG REVIEWED BY: JC-B

DRAWING NO:

GRAPHICS LEGEND TAGS DRAWING TAGS ASSEMBLY TAGS WALL ASSEMBLY TAG 101 DOOR TAG DETAIL NUMBER DRAWING SHEET NUMBER SCREEN NUMBER TAG SC **SECTION NUMBER** (REFER TO SCREEN SCHEDULE) ROOF ASSEMBLY TAG DRAWING SHEET NUMBER WINDOW UNIT TAG W10 FLOOR ASSEMBLY TAG (REFER TO WINDOW SCHEDULE) EXTERIOR ELEVATION NUMBER DRAWING SHEET NUMBER CL1 CURTAIN WALL UNIT TAG **CEILING TAG** CW (REFER TO WINDOW SCHEDULE) INTERIOR ELEVATION NUMBER (REFER TO ASSEMBLIES SCHEDULES) 4 ((A101)) MATERIAL FINISH TAG DRAWING SHEET NUMBER (REFER TO FINISH SCHEDULE) 20 R @ 100mm STAIR TAG GRID BUBBLE - XXX.XX SPOT ELEVATION (ABOVE FINISH FLOOR) ROOM TAG WITH AREA **REVISION TAG** CENTRELINE

GENERAL NOTES

- 1. THE CONTRACTOR WILL VERIFY ALL DIMENSIONS FOR THE WORK AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO COMMENCEMENT OF THE WORK.
- 2. DRAWINGS ARE NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
- 3. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF LGA ARCHITECTURAL PARTNERS. ALL COPYRIGHT CONDITIONS ARE RESERVED BY THE ARCHITECT WITH RESPECT TO THESE DOCUMENTS. THESE DOCUMENTS SHALL NOT BE DUPLICATED OR USED FOR OTHER THAN THE PURPOSE FOR WHICH THEY WERE ISSUED.
- 4. NO CHANGES OR SUBSTITUTIONS SHALL BE MADE TO THE WORK DESCRIBED IN THESE DRAWINGS OR SPECIFICATIONS WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF THE ARCHITECT. REFER TO THE SPECIFICATION FOR THE FULL LIST OF REQUIREMENTS AND PROCEDURES THAT MUST BE FOLLOWED TO MAKE ANY SUBSTITUTIONS. THE ARCHITECT RESERVES THE RIGHT TO REFUSE ANY REQUEST FOR SUBSTITUTION.
- 5. THE ARCHITECTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE LANDSCAPE, STRUCTURAL, ELECTRICAL, MECHANICAL, CIVIL, GEOTECHNICAL, ENVIRONMENTAL CONSULTANTS DOCUMENTS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT PRIOR TO ANY EXECUTION OF RELATED WORK.
- 6. THE CONTRACTORS SHALL ENSURE THAT MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- 7. THE CONTRACTORS SHALL ENSURE THAT THE LOCATIONS OFALL UNDERGROUND SERVICES ARE IDENTIFIED PRIOR TO THE COMMENCEMENT OF WORK AND EXCAVATIONS. THE CONTRACTOR IS FULLY RESPONSIBLE TO REPAIR ANY DAMAGE TO UNDERGROUND SERVICES THEY HAVE COMMITTED.
- 8. ALL STRUCTURAL COMPONENTS TO BE TAKEN OFF THE STRUCTURAL DOCUMENTS. NO STRUCTURAL DESIGN INFORMATION SHALL BE INFERRED FROM THE ARCHITECTURAL DRAWINGS.
- 9. ALL MECHANICAL COMPONENTS TO BE TAKEN OFF THE MECHANICAL DOCUMENTS. NO MECHANICAL DESIGN INFORMATION SHALL BE INFERRED FROM THE ARCHITECTURAL DRAWINGS.
- 10. ALL ELECTRICAL COMPONENTS TO BE TAKEN OFF THE ELECTRICAL DOCUMENTS. NO ELECTRICAL DESIGN INFORMATION SHALL BE INFERRED FROM THE ARCHITECTURAL DRAWINGS.
- 11. ALL CIVIL COMPONENTS TO BE TAKEN OFF THE CIVIL DOCUMENTS. NO CIVIL DESIGN INFORMATION SHALL BE INFERRED FROM THE ARCHITECTURAL DRAWINGS.
- 12. ALL LANDSCAPE COMPONENTS TO BE TAKEN OFF THE LANDSCAPE DOCUMENTS. NO LANDSCAPE DESIGN INFORMATION SHALL BE INFERRED FROM THE ARCHITECTURAL DRAWINGS.

ARCHITECTURAL ABBREVIATIONS LEGEND

ABBREVIATIONS MAY OR MAY NOT INCLUDE PERIOD PUNCTUATION. ABBREVIATIONS APPLY TO ARCHITECTURAL DOCUMENTS ONLY.

DDREVIATIONS AF	PLY TO ARCHITECTURAL DOCUMENTS ONLY.				
@	AT	FE	FIRE EXTINGUISHER	REQ	REQUIRED
@ &	AND	FF	FLOOR FINISH	REV	REVERSE
AB	AIR BARRIER	FFL	FINISHED FLOOR LEVEL	RF	RESISLIENT FLOORING
ACH	ADULT CHANGE TABLE	FH	FIRE HYDRANT	RL	RECESSED LIGHTING
ACM	ALUMINUM COMPOSITE PANEL\	FG	FIXED GLASS	RM	ROOM
ADO	AUTOMATIC DOOR OPENER	FHC	FIRE HOSE CABINET	RO	ROUGH OPENING
AFF	ABOVE FINISH FLOOR	FIN	FINISHED	ROW	RIGHT-OF-WAY
AG	ABOVE GRADE	F/O	FACE OF	RP	REMOVABLE PANEL
ALUM	ALUMINUM	FR. GL	FROSTED GLASS	RR	REMOVE & REPLACE
ANOD	ANODIZED	FRR	FIRE RESISTANCE RATING	RTU	ROOF TOP UNIT
APOLL	ACCESS PANEL	FS	FIRE SHUTTER	RWL	RAIN WATER LEADER
ARCH	ARCHITECTURAL	G	GARBAGE BIN	S	SEALER
AVB	AIR & VAPOUR BARRIER	G1S	GOOD ONE SIDE	SB	SANITARY BIN
BB	BULLETIN BOARD	G2S	GOOD TWO SIDES	SC	SEALED CONCRETE
BCH	BABY CHANGE TABLE	GA	GAUGE	SCH	SCHEDULE
BD	BOARD	GALV	GALVANIZED	SCR	SWIPE CARD READER
BF	BARRIER FREE	GB	GRAB BAR	SCW	SOLID CORE WOOD
BG/AS	BELOW GRADE/ABOVE SLAB	GYP	GYPSUM	SD	SOAP DISPENSER
BLDG	BUILDING	GWB	GYPSUM WALL BOARD	SF	SQUARE FEET
BLK	BULKHEAD	HB	HOSEBIB	SG	SUPPLEMENTARY GUIDELINES
BOTT	BOTTOM	HD	HAND DRYER		OF OBC
BTF	BOTTLE FILLER	HM	HOLLOW METAL	SH	SILL HEIGHT
BTLS	BLUETOOTH LOCKSET	H/O	HOLD OPEN	SIM	SIMILAR
BTWN	BETWEEN	HOR	HORIZONTAL	SL	SLIDING DOORS
CAB	CABINET	HR	HOUR	SM	SQUARE METER(S)
CAT	CATEGORY	HSS	HOLLOW STEEL SECTION	SMK	SMOKE SEAL
CB	CATCH BASIN	HT	HEIGHT	SND	SANITARY NAPKIN DISPOSAL
C/C	CENTRE TO CENTRE	ID	INSIDE DIAMETER	SOG	SLAB ON GRADE
	CONCEALED CLOSER			SPEC	SPECIFICATION
CC		INSUL	INSULATION		
CF	CEILING FINISH	KLS	KEYLATCH SET	SQ	SQUARE
CG	CORNER GUARD	KP	KICKPLATE	SS	STAINLESS STEEL
CH	COAT HOOK	LF	LIGHT FIXTURE	SSF	STAINLESS STEEL FRAME
CHW	CUSTOM HARDWARE	LK	LOCKERS	SSG	STRUCTURAL SILICON GLAZING
CJ	CONTROL JOINT	LLS	LEVER LATCH SET	SSM	SOLID SURFACE
CL	CENTER LINE	M&E	MECHANICAL & ELECTRICAL	ST	STEEL
CLG	CEILING	MAG	MAGLOCK	STC	SOUND TRANSMISSION CLASS
CLOS	CLOSER	MAS	MASONRY	STD	STANDARD
CLR	CLEAR	MATL	MATERIAL	ST GR	STAIN GRADE
CO	CLEAR OPENING	MAX	MAXIMUM	STRUCT	STRUCTURAL
COL	COLUMN	MB	MOISTURE BARRIER	SUPP	SUPPLEMENTARY
CONC	CONCRETE	MDF	MEDIUM DENSITY FIBREBOARD	T	TREADS
CONT	CONTINUOUS	MECH	MECHANICAL	TB	THERMALLY BROKEN
CONST	CONSTRUCTION	MFR	MANUFACTURER	TBD	TO BE DETERMINED
COORD	COORDINATE	MHO	MAGNETIC HOLD OPEN	TG	TEMPERED GLAZING
COR	CORROSION	MI	MIRROR	THK	THICK
CPT	CARPET TILE	MIN	MINIMUM	TH	THRESHOLD
CR	CARD READER	MO	MASONRY OPENING	TL	TILE
CST	CONCRETE STAIN	MTL	METAL	TM	TILT MIRROR
			NOT APPLICABLE		TOP OF
CW	COMPLETE WITH	N/A		T/O	
D	DRYER	NIC	NOT IN CONTRACT	TP	TOILET PAPER DISPENSER
DB	DEADBOLT	NO.	NUMBER	TS	TRANSITION STRIP
DC	DOOR CONTACT	NTS	NOT TO SCALE	TYP	TYPICAL
DF	DRINKING FOUNTAIN	OBC	ONTARIO BUILDING CODE	TWB	TOWEL BAR
DIA	DIAMETER	O.C.	ON CENTRE	TWF	THROUGH WALL FLASHING
DIM	DIMENSION	OD	OUTSIDE DIAMETER	ULC	UNDERWRITER'S LABORATORY
DLO	DAYLIGHT OPENING (GLAZING)	ОН	OVERHEAD		OF CANADA
DN	DOWN	OTA	OPEN TO ABOVE	UNO	UNLESS NOTED OTHERWISE
DW	DISHWASHER	OTB	OPEN TO BELOW	U/S	UNDERSIDE
DWG	DRAWING	OPG	OPENING	VERT	VERTICAL
EB	EXIT BUTTON	OPP	OPPOSITE	VB	VAPOUR BARRIER
EF	EXHAUST FAN	OWSJ	OPEN WEB STEEL JOIST	VC	VENEER CORE
ELEC	ELECTRICAL	BFPB	BARRIER FREE PUSH BUTTON	VCT	VINYL COMPOSITE TILE
ELEV	ELEVATION	PH	PANIC HARDWARE	VIF	VERIFY IN FIELD
ELVR	ELEVATOR	PL	PROPERTY LINE	VP	VAPOUR PERMEABLE
EP	ELECTRICAL PANEL	PLAM	PLASTIC LAMINATE	VR	VAPOUR RETARDER
EQ	EQUAL	PLS	PRIVACY LOCKET	W	WASHER
EQUIP	EQUIPMENT	PLY	PLYWOOD	W/	WITH
ES	ELECTRIC STRIKE	PSF	PRESSED STEEL FRAME	WB	WALL BASE
EXIST	EXISTING	PT	PAINT	W/C	WASHROOM
EXP	EXPOSED	PTD	PAINTED	WD	WOOD
			PAPER TOWEL		WOOD VENEER
EXT F	EXTERIOR	PTWR		WDV	WEAR STOCKETON TAX SENSON TAINS
***	REFRIGERATOR	D	& WASTE RECEPTACLE	WG	WIRED GLASS
FAAP	FIRE ANNUNCIATOR & ALARM PANEL	R	RISER	WM	WATERMAIN
FAN EX	FAN EXHAUST	RAD	RADIATOR	WRB	WATER RESISTANT BARRIER
FB	FLASHBOLT	RCP	REFLECTED CEILING PLAN	WS	WEATHERSTRIP
FCL	FINISHED CEILING ELEVATION	RD	ROOF DRAIN	WSH	WINDOW SHADE
FD	FLOOR DRAIN	RE-INF	RE-INFORCED	WTB	WHITE BOARD



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3	2021.04.09	ISSUED FOR PERMIT
2	2021.03.16	ISSUED FOR TENDER
1	2021	DD REVIEW
NO.	DATE	DESCRIPTION

PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

ANNOTATION LEGEND, ABBREVIATIONS, & GENERAL NOTES

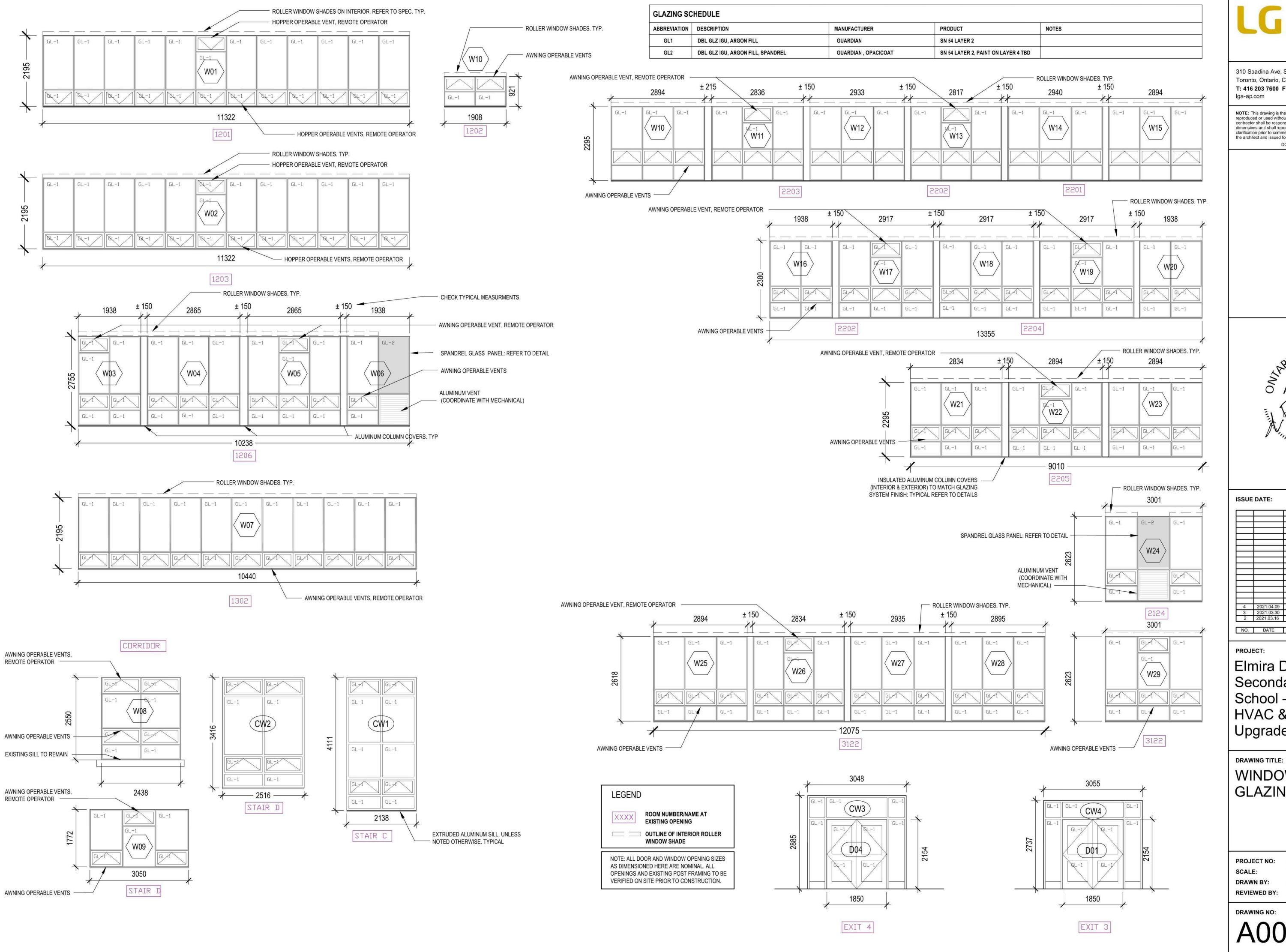
PROJECT NO: 20931

SCALE: AS NOTED

DRAWN BY: JG

REVIEWED BY: JC-B

DRAWING NO:

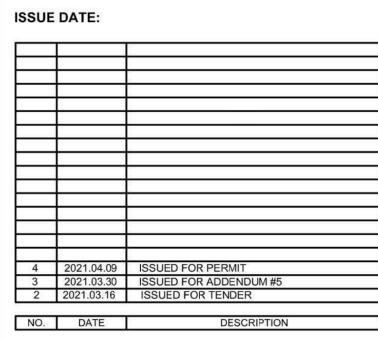




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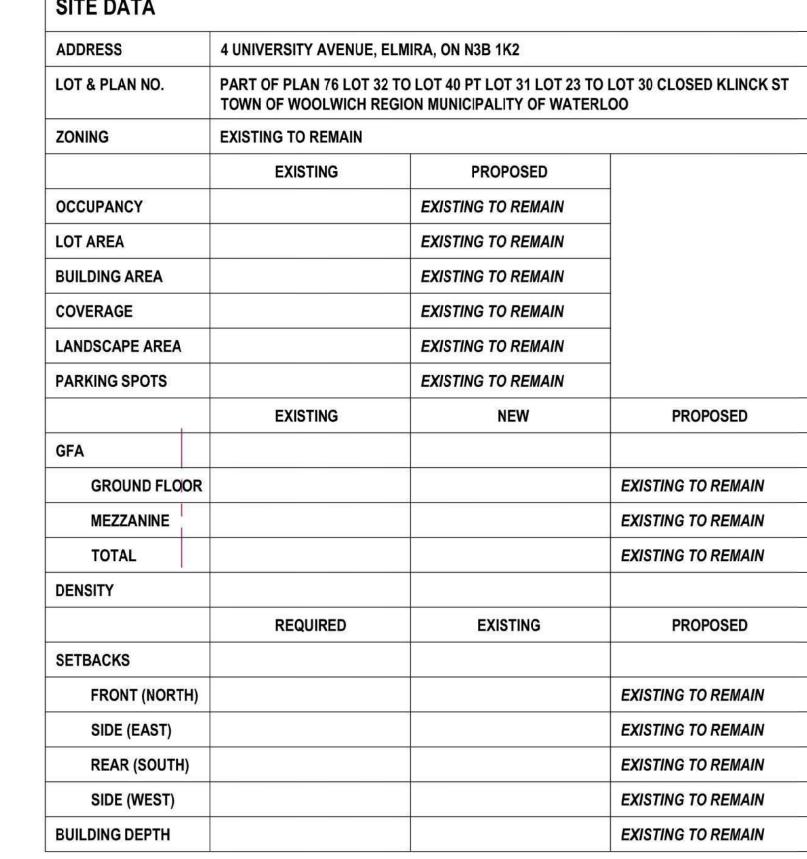


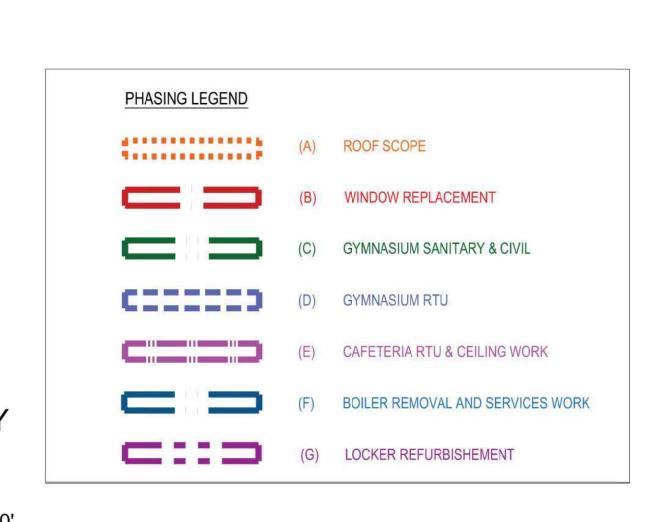


Elmira District Secondary School – Window, Roof, **HVAC & Sanitary** Upgrades

WINDOW SCHEDULE & **GLAZING SCHEDULE**

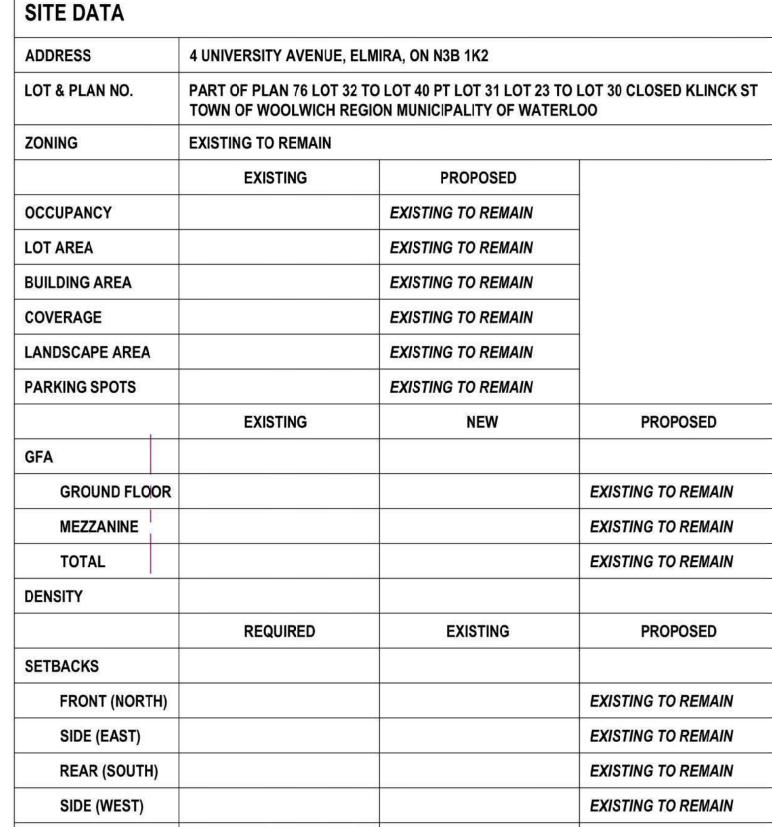
PROJECT NO: 20931 DRAWN BY: XX REVIEWED BY: XX





SECOND STREET

GAS





partners

310 Spadina Ave, Suite 100B

lga-ap.com

Toronto, Ontario, Canada M5T 2E8

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NO.	DATE	DESCRIPTION	

PROJECT:

Elmira District Secondary School – Window, Roof, **HVAC & Sanitary** Upgrades

DRAWING TITLE:

SITE PLAN & SITE DATA

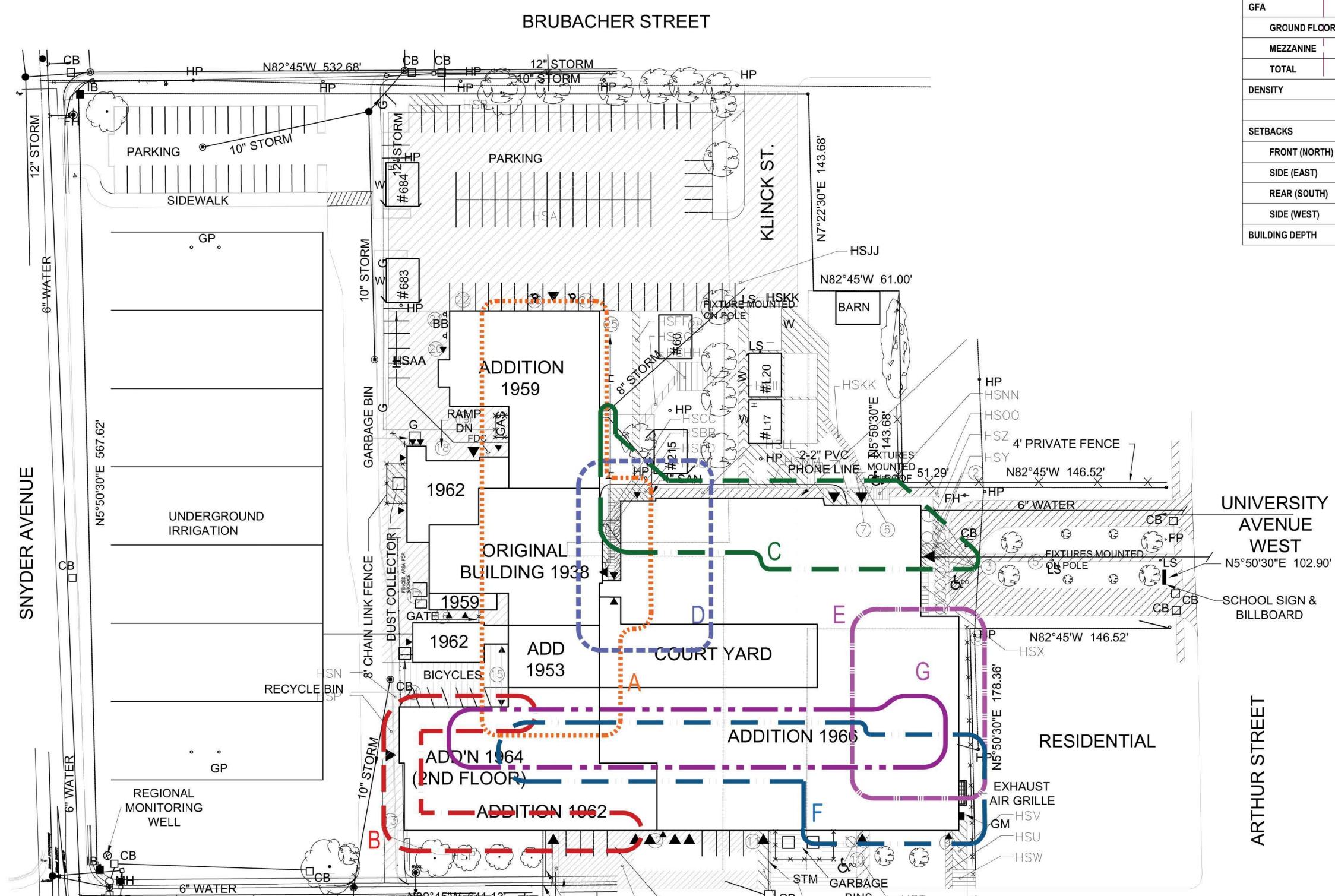
PROJECT NO:	20931
SCALE:	AS NOTED
DRAWN BY:	JG
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REVIEWED BY: JC-B

PROJECT NORTH:

DRAWING NO:

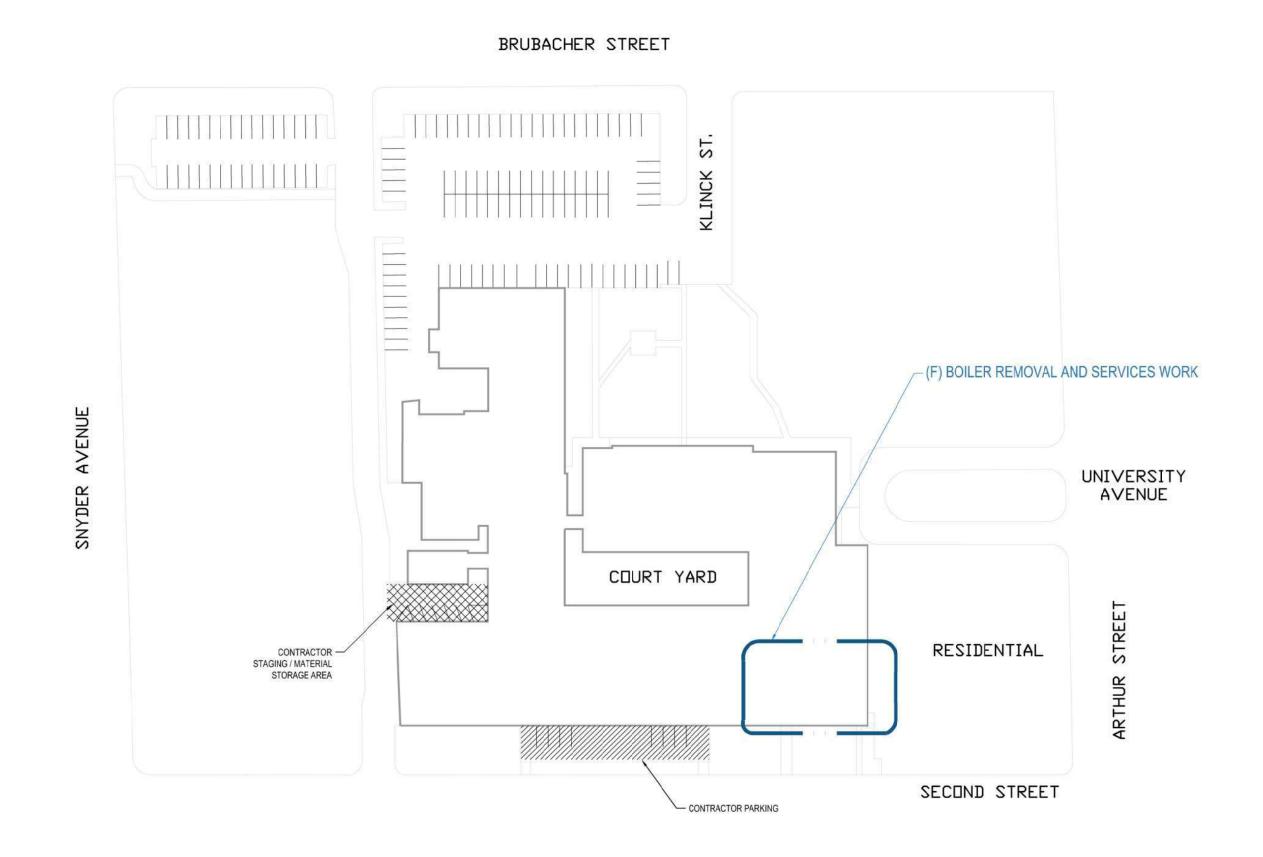
A011



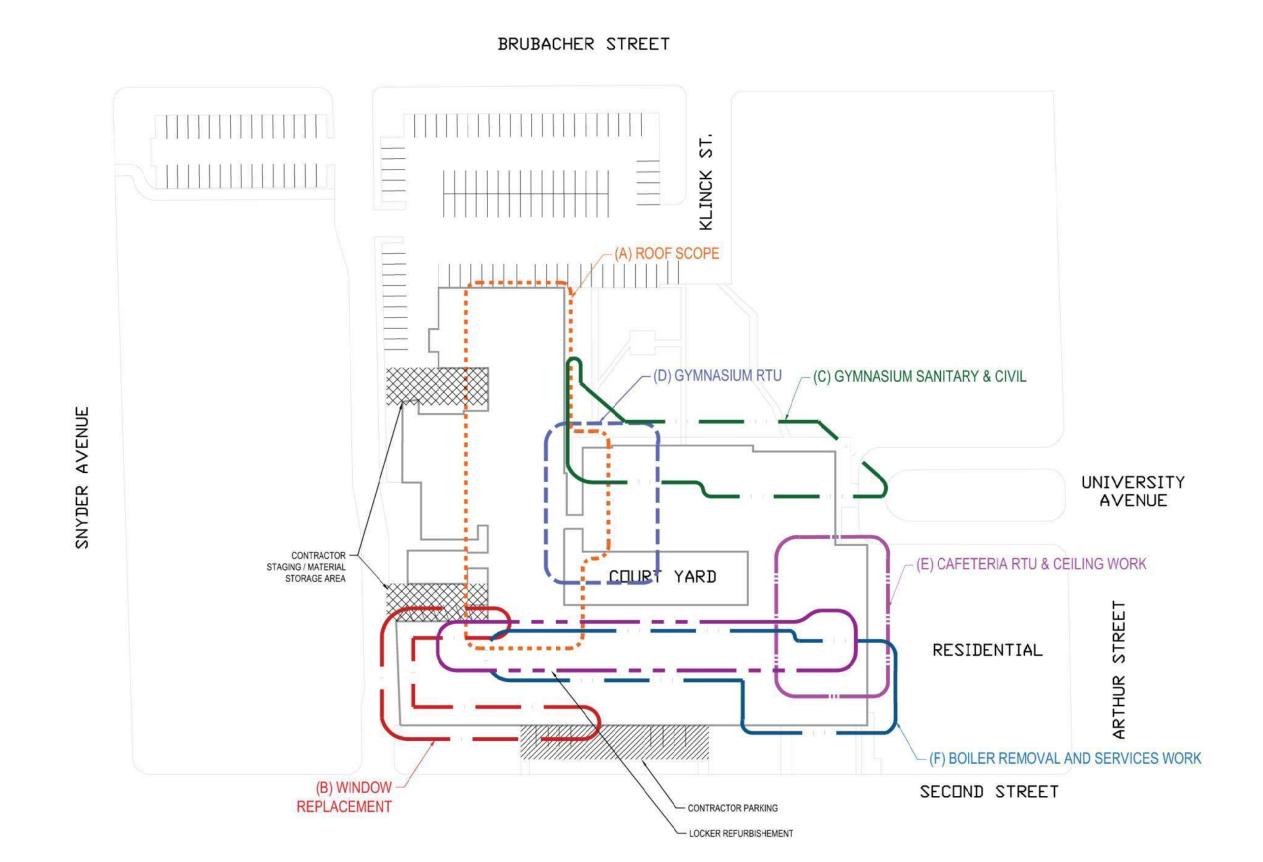
HPARKING (3 SPOTS) HSR

6" SANTTARY

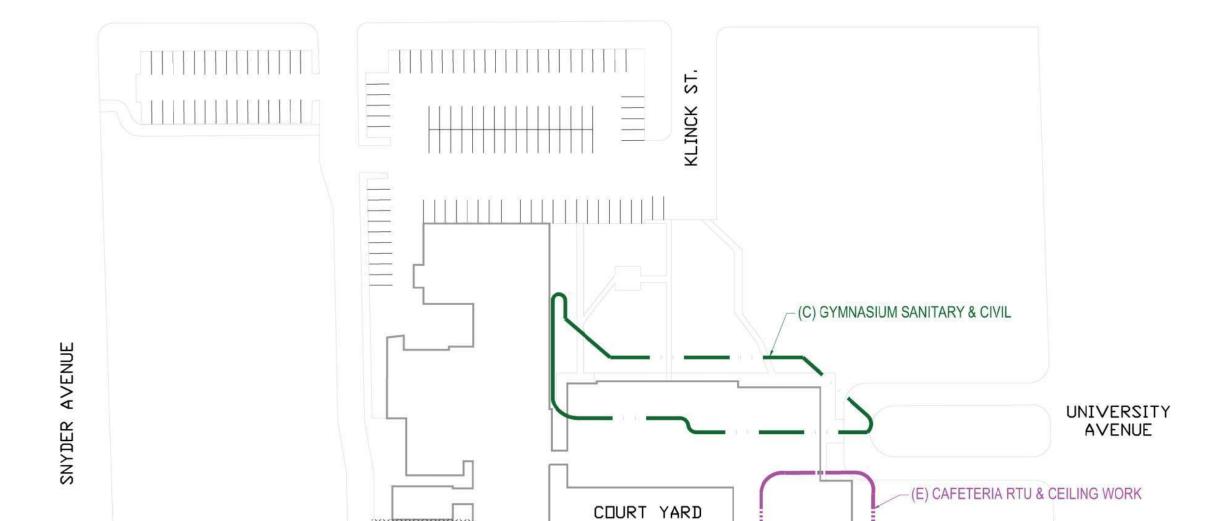
8" SAN



APRIL PHASE



SUMMER PHASE A012 1 : 1000



CONTRACTOR PARKING

RESIDENTIAL

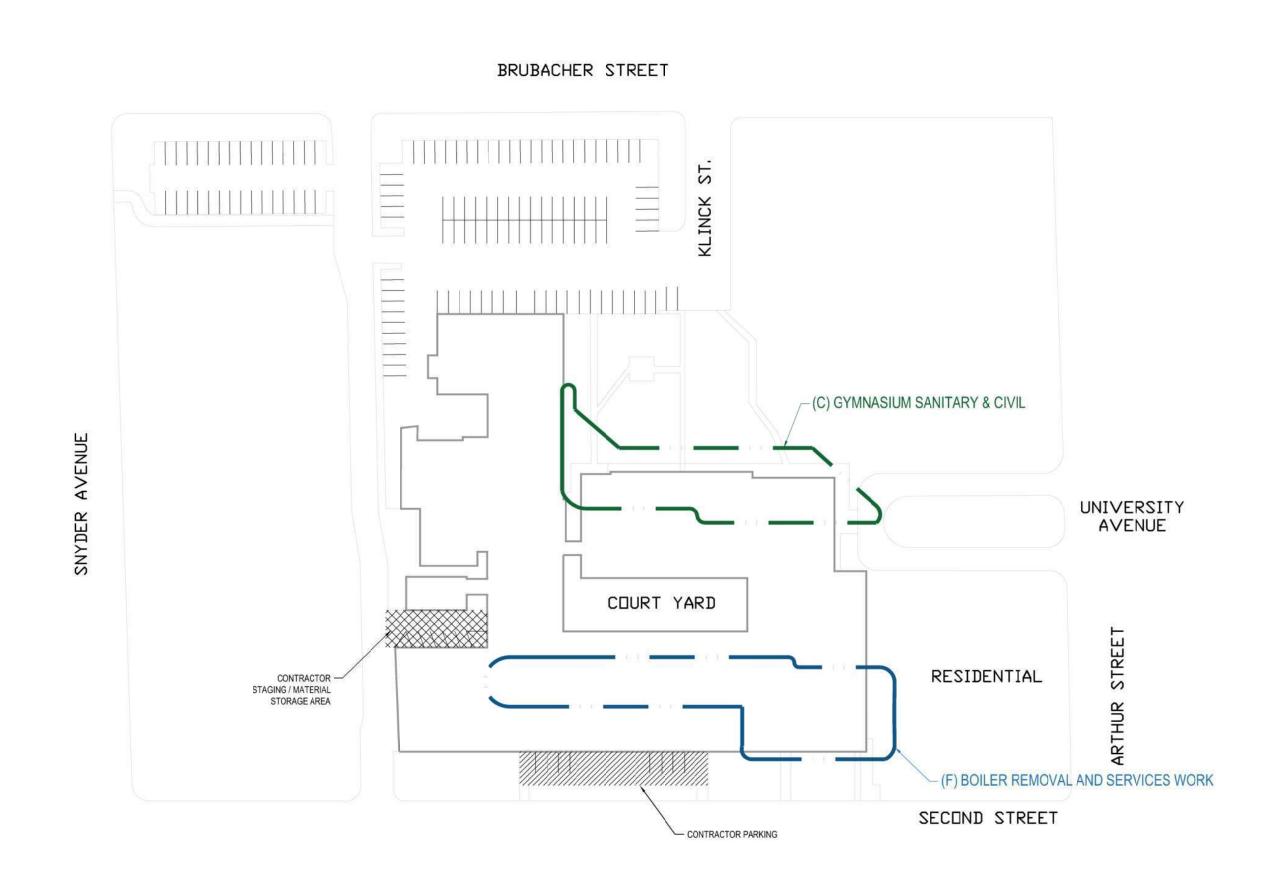
SECOND STREET

BRUBACHER STREET

JUNE PHASE

STAGING / MATERIAL

STORAGE AREA



SEPTEMBER PHASE A012 1 : 1000



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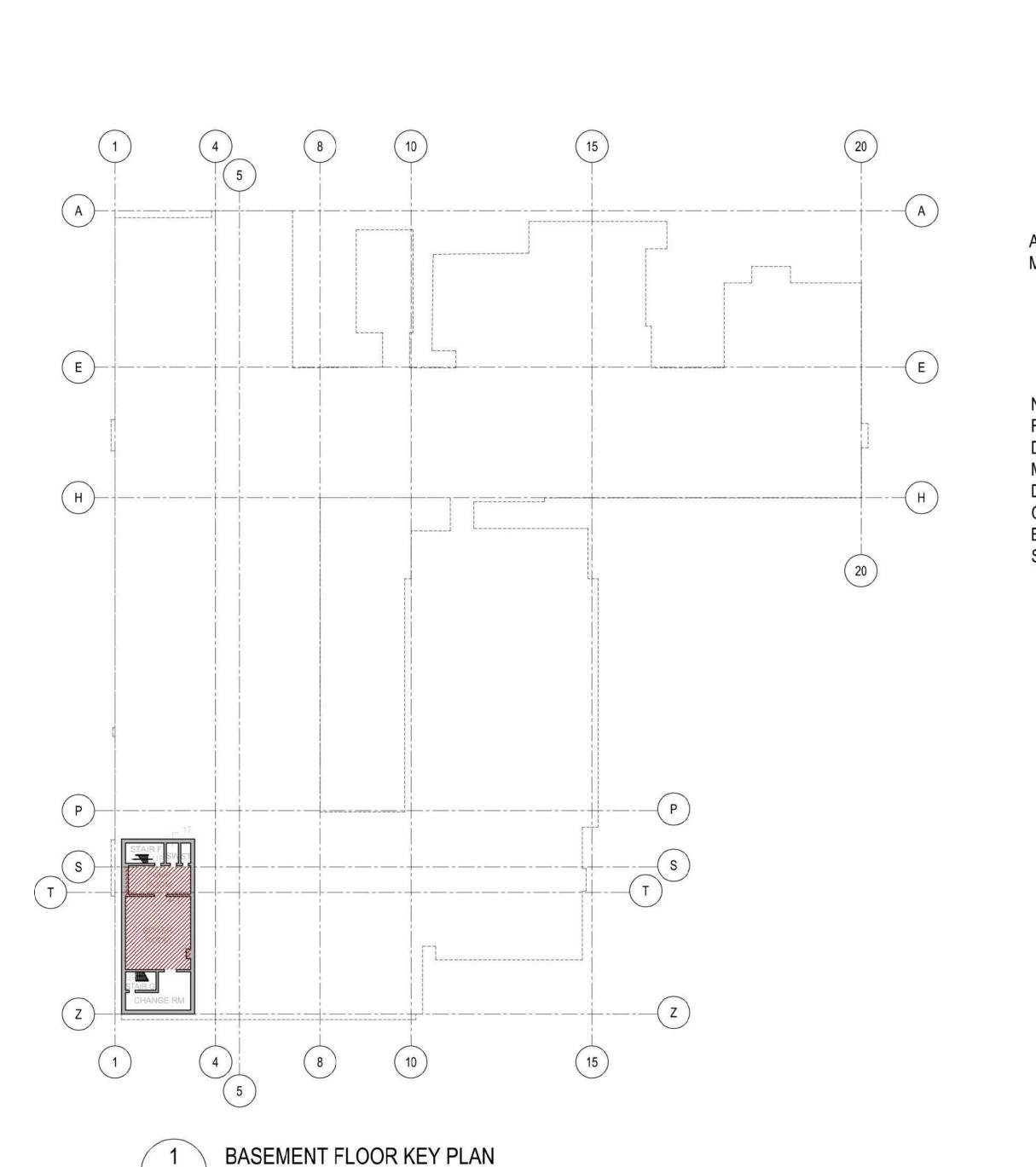
Elmira District Secondary School – Window, Roof, HVAC & Sanitary Upgrades

DRAWING TITLE:

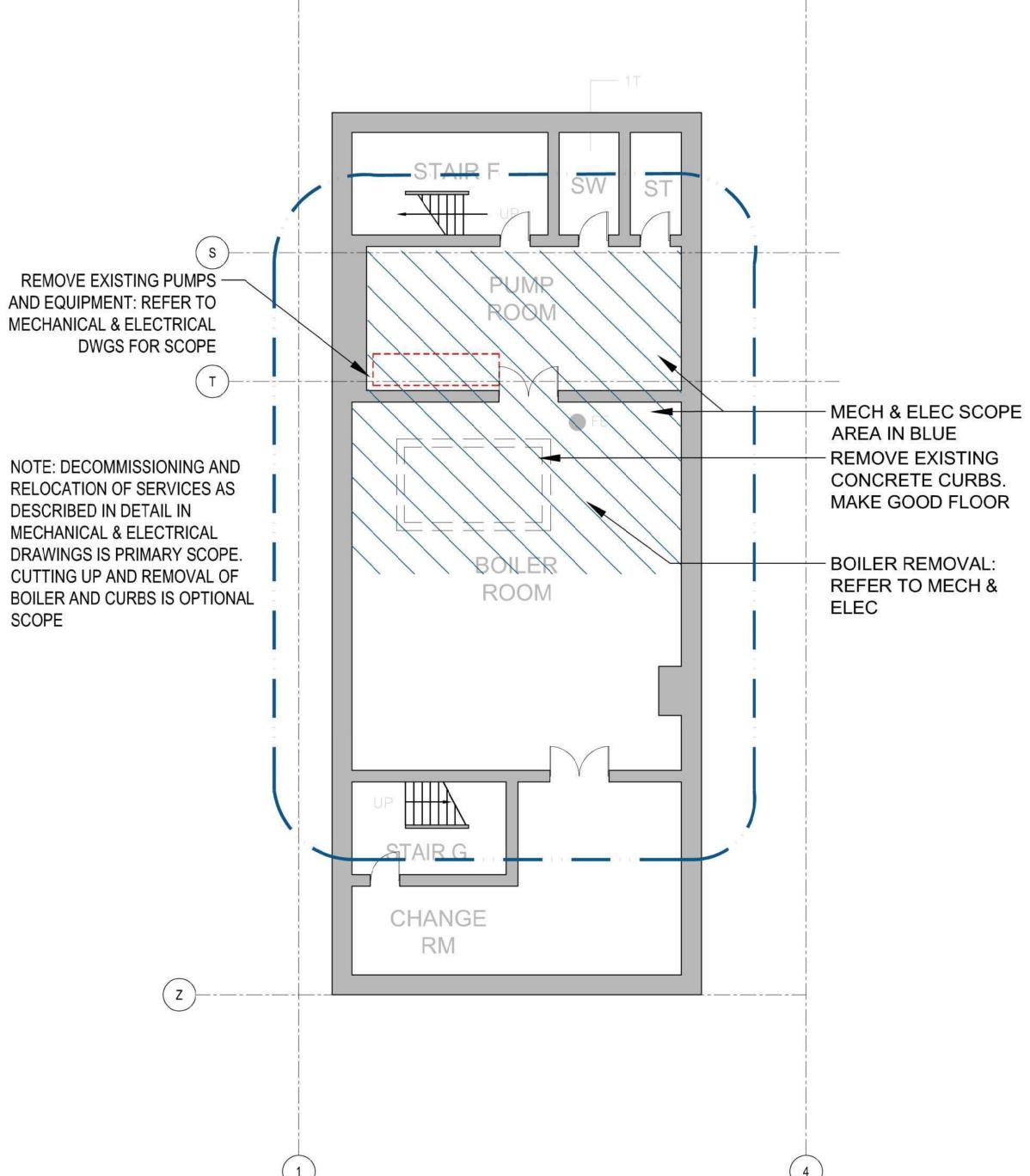
SITE DETAILS PHASING PLAN

PROJECT NO: 20931 PROJECT NORTH: **AS NOTED** SCALE: DRAWN BY: REVIEWED BY: JC-B

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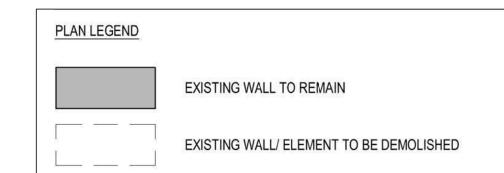


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BASEMENT FLOOR PARTIAL PLAN: BOILER ROOM

A021 1:100



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4	2021.04.09	ISSUED FOR PERMIT
3	2021.03.30	ISSUED FOR ADDENDUM #5
2	2021.03.16	ISSUED FOR TENDER
1	2021	DD REVIEW

PROJECT:

Elmira District Secondary School – Window, Roof, HVAC & Sanitary Upgrades

DRAWING TITLE:

BASEMENT FLOOR PLAN DEMOLITION

PROJECT NO: 20931

SCALE: AS NOTED

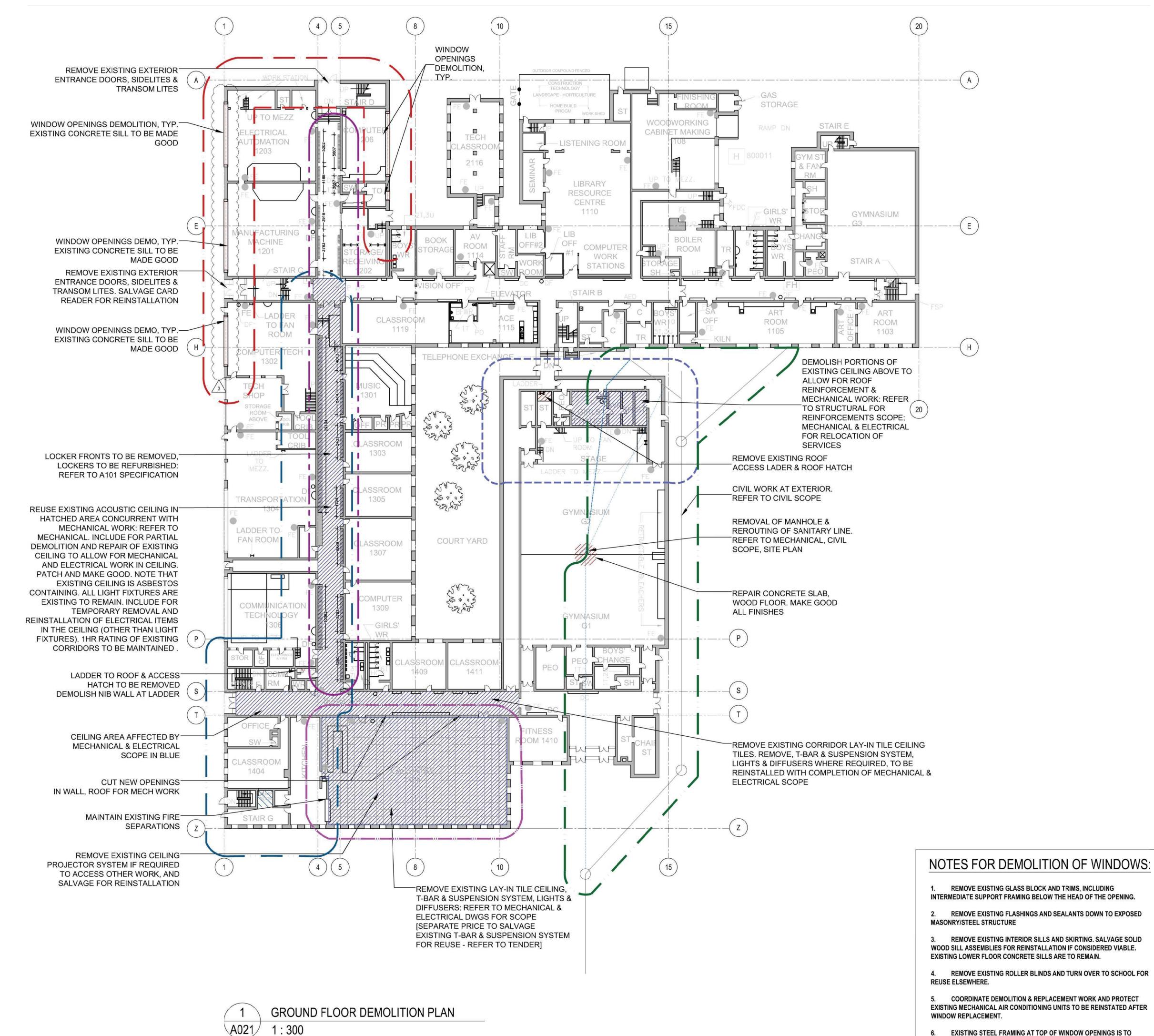
DRAWN BY: JG

PROJECT NORTH:

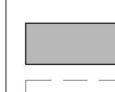
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A020

REVIEWED BY: JC-B



PLAN LEGEND



EXISTING WALL TO REMAIN



EXISTING WALL/ ELEMENT TO BE DEMOLISHED

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PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

GROUND FLOOR PLAN DEMOLITION

PROJECT NO: 20931

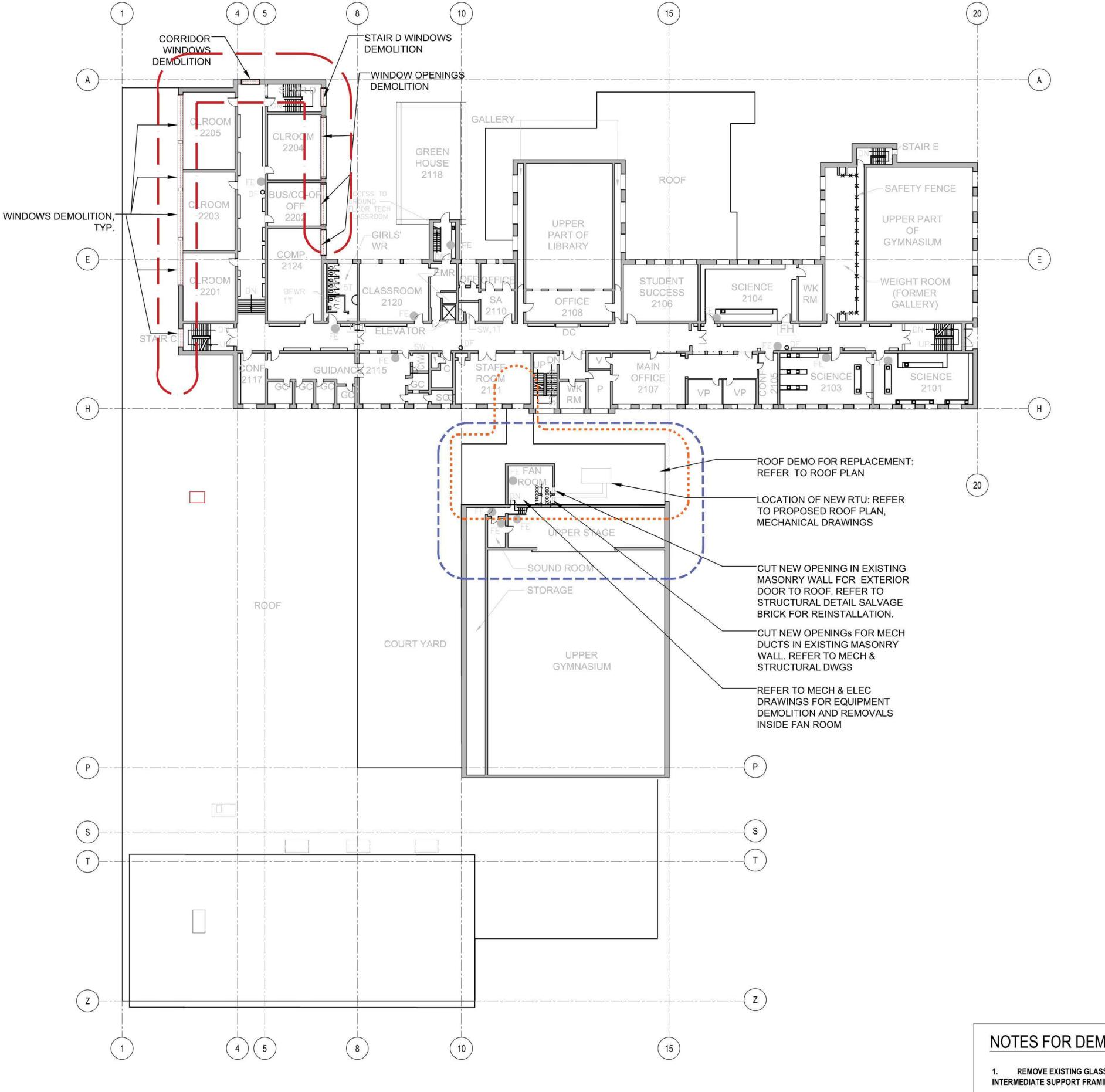
SCALE: AS NOTED

DRAWN BY: JG

REVIEWED BY: JC-B

PROJECT NORTH:

DRAWING NO:



NOTES FOR DEMOLITION OF WINDOWS:

- 1. REMOVE EXISTING GLASS BLOCK AND TRIMS, INCLUDING INTERMEDIATE SUPPORT FRAMING BELOW THE HEAD OF THE OPENING.
- 2. REMOVE EXISTING FLASHINGS AND SEALANTS DOWN TO EXPOSED MASONRY/STEEL STRUCTURE
- 3. REMOVE EXISTING INTERIOR SILLS AND SKIRTING. SALVAGE SOLID WOOD SILL ASSEMBLIES FOR REINSTALLATION IF CONSIDERED VIABLE. EXISTING LOWER FLOOR CONCRETE SILLS ARE TO REMAIN.
- 4. REMOVE EXISTING ROLLER BLINDS AND TURN OVER TO SCHOOL FOR REUSE ELSEWHERE.
- 5. COORDINATE DEMOLITION & REPLACEMENT WORK AND PROTECT EXISTING MECHANICAL AIR CONDITIONING UNITS TO BE REINSTATED AFTER WINDOW REPLACEMENT.
- 6. EXISTING STEEL FRAMING AT TOP OF WINDOW OPENINGS IS TO REMAIN UNLESS NOTED OTHERWISE.

PLAN LEGEND



EXISTING WALL TO REMAIN



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- 9. REMOVE & DISPOSE OF ALL EXISTING CEILING FINISHES AND SUPPORT SYSTEMS AS NOTED. FOR CLARITY OF DRAWINGS CEILING IS NOT DASHED IN DEMOLITION DRAWINGS, HOWEVER THEY MUST BE REMOVED AS NOTED HERE. REMOVAL OF EXISTING CEILING FINISHES SHALL INCLUDE ALL CEILING LAYERS, MATERIALS, SUPPORT SYSTEMS, MECHANICAL AND ELECTRICAL, AND ABANDONED DEBRIS IN THE CEILING SPACE. REMOVE ALL DOUBLE CEILINGS, WHERE OLDER CEILING REMAINS OBSCURED BY EXISTING CEILING.
- 10. REMOVE ALL ROOFING ASSEMBLY TO TOP OF DECK.
- 11. SALVAGE CEILING TILES FOR REUSE WHERE NOTED.
- 12. REMOVE & DISPOSE OF ALL ABANDONED SERVICES FIXTURES, EQUIPMENT, CONDUITS, PIPE, WIRING, ETC. (INTERIOR AND EXTERIOR).
- 13. REMOVE & DISPOSE OF ALL EXISTING MILLWORK, FURNITURE, LOOSE MISCELLANEOUS ARTICLES AND EQUIPMENT UNLESS OTHERWISE NOTED.
- 14. REMOVE & DISPOSE ALL EXISTING SIGNAGE UNLESS OTHERWISE NOTED.

REQUIRED TO ACCOMMODATE THE WORK.

- 15. DEMOLISH ALL EXISTING ELEMENTS SHOWN HERE AS WELL AS ANY EXISTING ELEMENT WHERE DEMOLITION OF THE ELEMENT IS
- 16. REMOVE ALL MECHANICAL SYSTEMS, FIXTURES, EQUIPMENT, PIPING, CONDUIT, DUCTWORK, ETC., UNLESS NOTED (IN AREA OF WORK)
- 17. THIS IS NOT AN EXHAUSTIVE LIST. TO BE READ WITH ALL DRAWINGS AND SPECIFICATIONS (INCLUDING BUT NOT LIMITED TO DEMOLITION DRAWINGS AND SPEC SECTIONS).
- 18. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 19. REMOVE EXISTING DOORS, GRILLES, INCLUDING ALL FRAMING AS NOTED ON DEMO PLANS. ALL EXISTING LOCKS MUST BE RETURNED TO THE OWNER.

NOTES ON DESIGNATED SUBSTANCES:

PRIOR TO COMMENCING WORK, READ 2017 ASBESTOS AUDIT UPDATE PREPARED BY MTE MARCH 15, 2017

- 1. THE SCOPE OF WORK <u>DOES NOT</u> ENTAIL THE REMOVAL OF DESIGNATED SUBSTANCES.
- 2. IN NO WAY SHOULD THE CONTRACTOR ASSUME IT OTHERWISE TO BE 100% FREE OF DESIGNATED SUBSTANCES AND AS SUCH THE CONTRACTOR SHOULD TAKE EVERY PRECAUTION WHEN WORKING IN THE BUILDING.
- 3. IF THE CONTRACTOR ENCOUNTERS TOXIC OR HAZARDOUS SUBSTANCES, OR HAS REASONABLE GROUNDS TO BELIEVE THAT TOXIC OR HAZARDOUS SUBSTANCES ARE PRESENT, THE CONTRACTOR SHALL TAKE ALL REASONABLE STEPS, INCLUDING STOPPING THE WORK, TO ENSURE THAT NO PERSON'S EXPOSURE TO ANY TOXIC OR HAZARDOUS SUBSTANCES EXCEEDS ANY APPLICABLE TIME WEIGHTED LEVELS PRESCRIBED BY APPLICABLE LEGISLATION AT THE PLACE OF THE WORK AND IMMEDIATELY REPORT THE CIRCUMSTANCES TO THE OWNER IN WRITING.



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DO NOT SCALE DRAWINGS



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NO. DATE DESCRIPTION

4 2021.04.09 ISSUED FOR PERMIT 3 2021.03.30 ISSUED FOR ADDENDUM #5 2 2021.03.16 ISSUED FOR TENDER

1 2021 DD REVIEW

PROJECT:

ICCLIE DATE.

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

SECOND FLOOR PLAN DEMOLITION

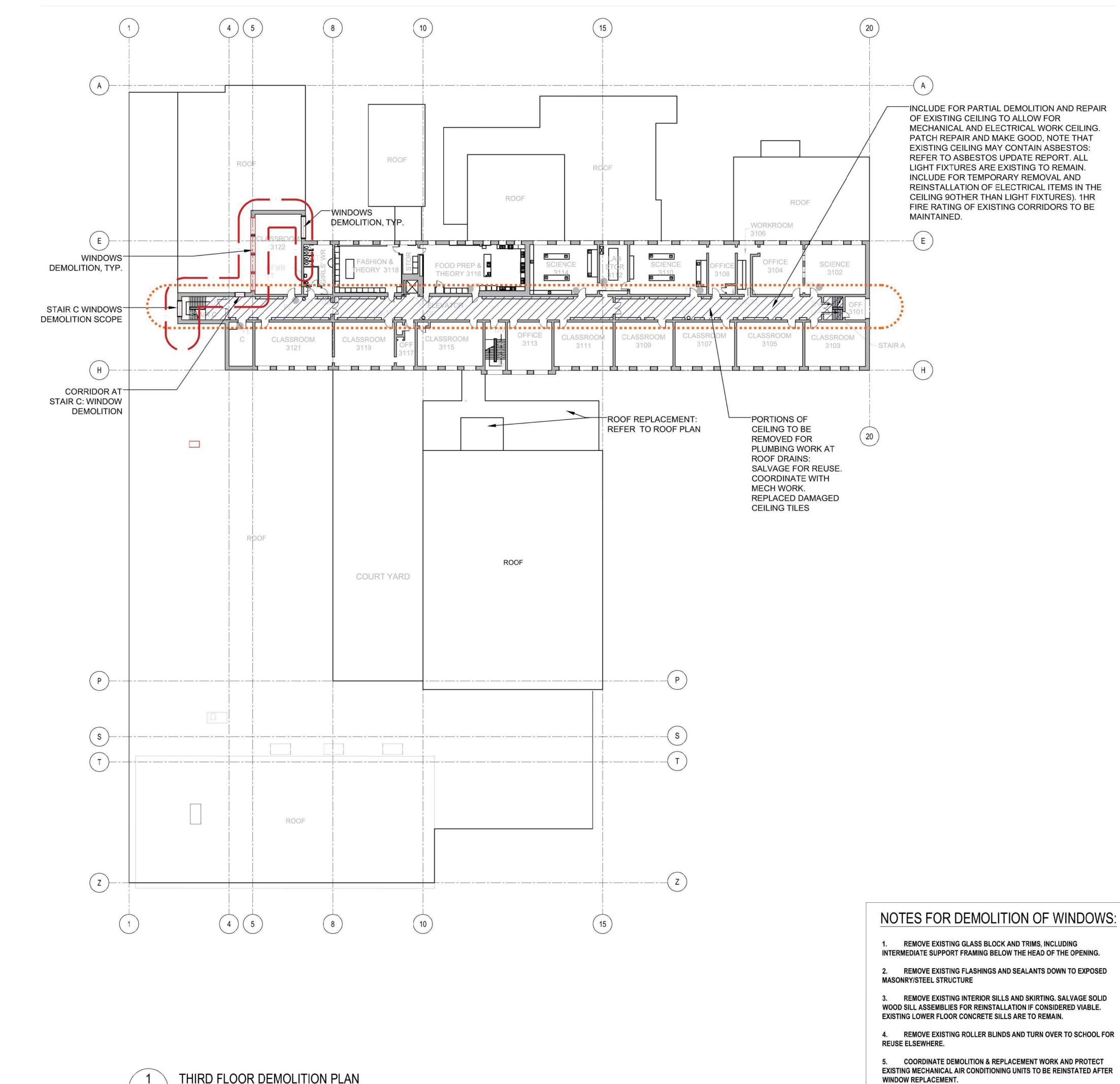
PROJECT NO: 20931
SCALE: AS NOTED
DRAWN BY: JG

REVIEWED BY: JC-B

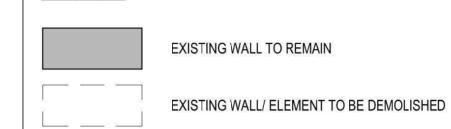
PROJECT NORTH:

DRAWING NO:





PLAN LEGEND



GENERAL DEMOLITION NOTES:

THE DEMOLITION DRAWINGS ILLUSTRATE A GENERAL SCOPE OF WORK. IT IS THE FULL RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE FULL SCOPE OF DEMOLITION REQUIRED USING EXISTING CONDITIONS AND THE COMPLETE CONTRACT DOCUMENT SETS INCLUSIVE OF ALL DISCIPLINES INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL TO ACHIEVE THE FINAL SCOPE OF WORK.

- 1. CONTRACTOR TO REVIEW AND FOLLOW 'H.A.S.P." (HEALTH AND SAFETY PROCEDURES) AS DICTATED IN THE SPECIFICATION BEFORE BEGINNING ANY WORK.
- 2. INFORMATION SHOWN ON THE DEMOLITION DRAWINGS IS BASED ON INFORMATION AVAILABLE FROM EXISTING BUILDING DRAWINGS AND A LIMITED VISUAL INSPECTION.
- 3. CONTRACTOR TO CHECK ALL DRAWINGS AGAINST ACTUAL CONDITIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- 4. ALL DIMENSIONS ARE TO BE DETERMINED USING THE PROPOSED CONTRACT DOCUMENTS. NO DIMENSIONS ARE TO BE INFERRED FROM THE DEMOLITION DRAWINGS.
- 5. CONTRACTOR TO MAKE GOOD ALL WALLS, CEILINGS AND FLOORING TO REMAIN THAT ARE AFFECTED BY DEMOLITION. WHERE EXISTING SURFACES ARE DISTURBED MAKE GOOD EXISTING SURFACE OR ENTIRE PLANE OF SURFACE BACK TO NEAREST CORNER OR CHANGE IN MATERIAL.
- 6. CONTRACTOR TO SUPPLY AND INSTALL ALL NECESSARY HOARDING TARPS, ETC TO PROTECT WORK AND MAINTAIN A DUST FREE ENVIRONMENT IN SURROUNDING AREAS.
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NOTES ON DESIGNATED SUBSTANCES:

PRIOR TO COMMENCING WORK, READ 2017 ASBESTOS AUDIT UPDATE PREPARED BY MTE MARCH 15, 2017

THE SCOPE OF WORK DOES NOT ENTAIL THE REMOVAL OF DESIGNATED SUBSTANCES.

WINDOW REPLACEMENT.

REMAIN UNLESS NOTED OTHERWISE.

EXISTING STEEL FRAMING AT TOP OF WINDOW OPENINGS IS TO

- 2. IN NO WAY SHOULD THE CONTRACTOR ASSUME IT OTHERWISE TO BE 100% FREE OF DESIGNATED SUBSTANCES AND AS SUCH THE CONTRACTOR SHOULD TAKE EVERY PRECAUTION WHEN WORKING IN THE BUILDING.
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DO NOT SCALE DRAWINGS



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4	2021.04.09	ISSUED FOR PERMIT
3	2021.03.30	ISSUED FOR ADDENDUM #5
2	2021.03.16	ISSUED FOR TENDER
1	2021	DD REVIEW

PROJECT:

NO. DATE

Elmira District Secondary School – Window, Roof, **HVAC & Sanitary** Upgrades

DESCRIPTION

DRAWING TITLE:

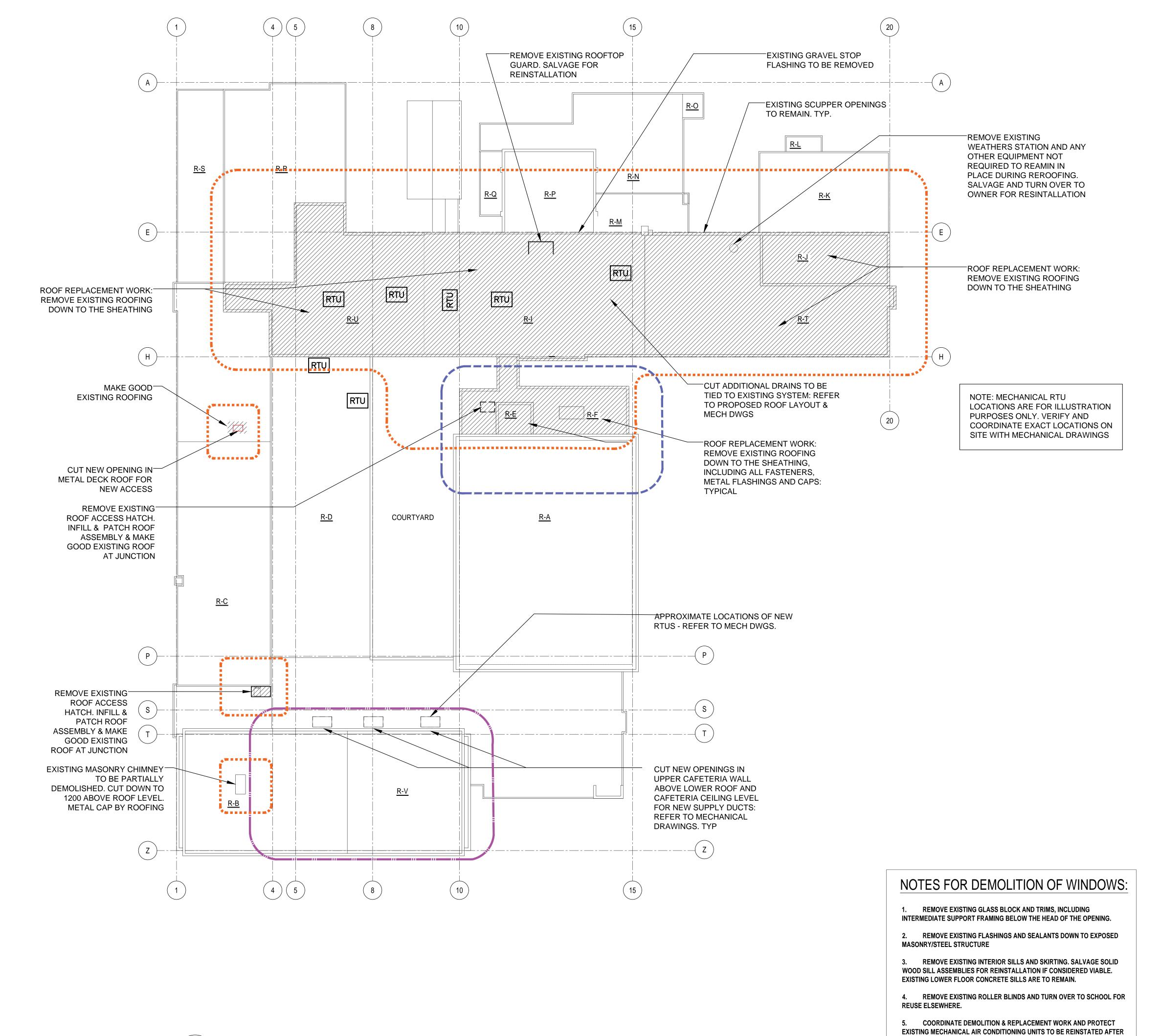
THIRD FLOOR PLAN DEMOLITION

PROJECT NO: 20931 SCALE: **AS NOTED** DRAWN BY:

PROJECT NORTH:

DRAWING NO:

REVIEWED BY: JC-B



ROOF DEMOLITION PLAN

1:300

PLAN LEGEND

EXISTING WALL TO REMAIN

EXISTING WALL/ ELEMENT TO BE DEMOLISHED

GENERAL DEMOLITION NOTES:

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PRIOR TO COMMENCING WORK, READ 2017 ASBESTOS AUDIT UPDATE PREPARED BY MTE MARCH 15, 2017

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WINDOW REPLACEMENT.

REMAIN UNLESS NOTED OTHERWISE.

6. EXISTING STEEL FRAMING AT TOP OF WINDOW OPENINGS IS TO

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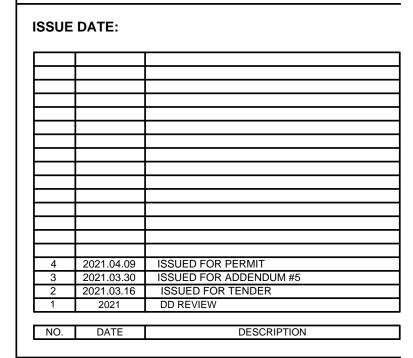


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DO NOT SCALE DRAWINGS





PROJECT:

Elmira District
Secondary
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HVAC & Sanitary
Upgrades

DRAWING TITLE:

ROOF PLAN DEMOLITION

PROJECT NO: 20931

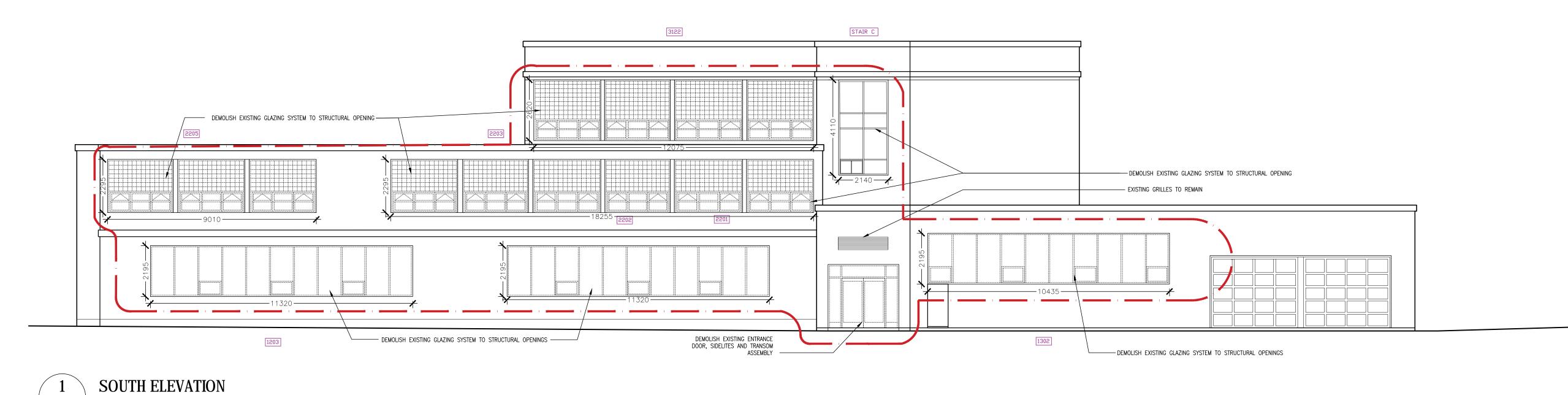
SCALE: AS NOTED

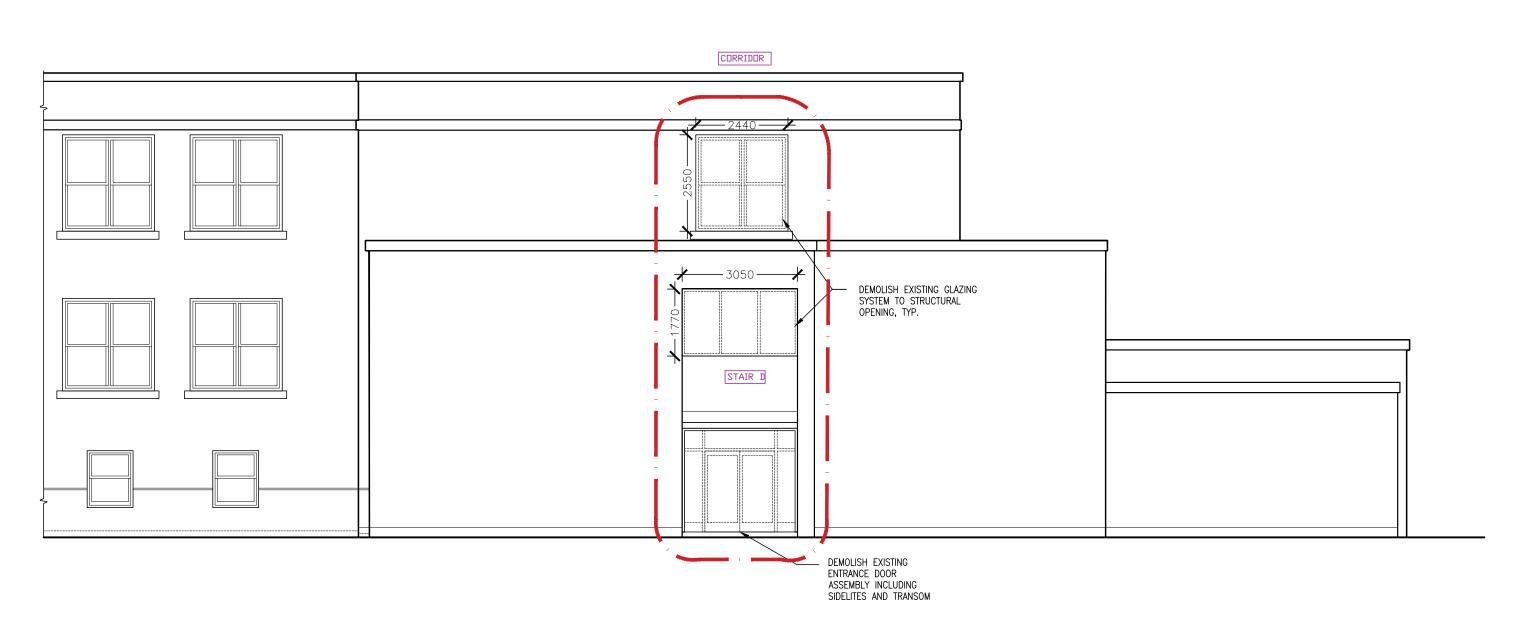
DRAWN BY: JG

REVIEWED BY: JC-B

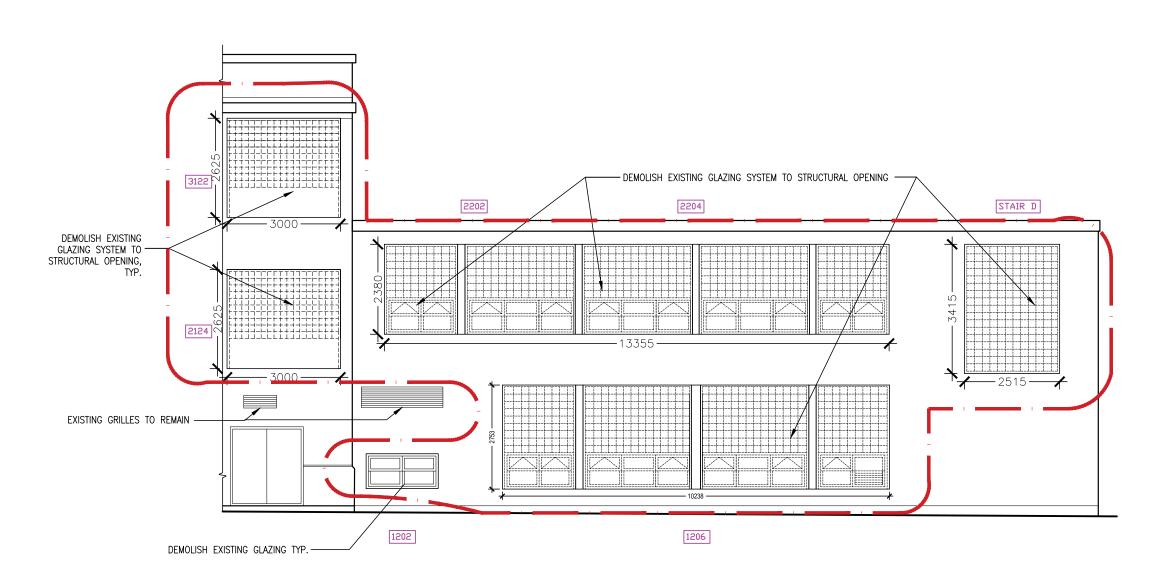
PROJECT NORTH:

DRAWING NO:





A201/1:100



3 NORTH ELEVATION A201 1:100

2 WEST ELEVATION A201 1:100

NOTES FOR DEMOLITION OF WINDOWS:

1. REMOVE EXISTING GLASS BLOCK AND TRIMS, INCLUDING INTERMEDIATE SUPPORT FRAMING BELOW THE HEAD OF THE OPENING.

XXXX ROOM NUMBER AT EXISTING OPENING SCOPE

- 2. REMOVE EXISTING FLASHINGS AND SEALANTS DOWN TO EXPOSED MASONRY/STEEL STRUCTURE
- 3. REMOVE EXISTING INTERIOR SILLS AND SKIRTING. SALVAGE SOLID WOOD SILL ASSEMBLIES FOR REINSTALLATION IF CONSIDERED VIABLE. EXISTING LOWER FLOOR CONCRETE SILLS ARE TO REMAIN.
- 4. REMOVE EXISTING ROLLER BLINDS AND TURN OVER TO SCHOOL FOR REUSE ELSEWHERE.
- 5. COORDINATE DEMOLITION & REPLACEMENT WORK AND PROTECT EXISTING MECHANICAL AIR CONDITIONING UNITS TO BE REINSTATED AFTER WINDOW REPLACEMENT.
- 6. EXISTING STEEL FRAMING AT TOP OF WINDOW OPENINGS IS TO REMAIN UNLESS NOTED OTHERWISE.



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DO NOT SCALE DRAWINGS



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4	2021.04.09	ISSUED FOR PERMIT
3	2021.03.30	ISSUED FOR ADDENDUM #5
2	2021.03.16	ISSUED FOR TENDER
1	2021	DD REVIEW

PROJECT:

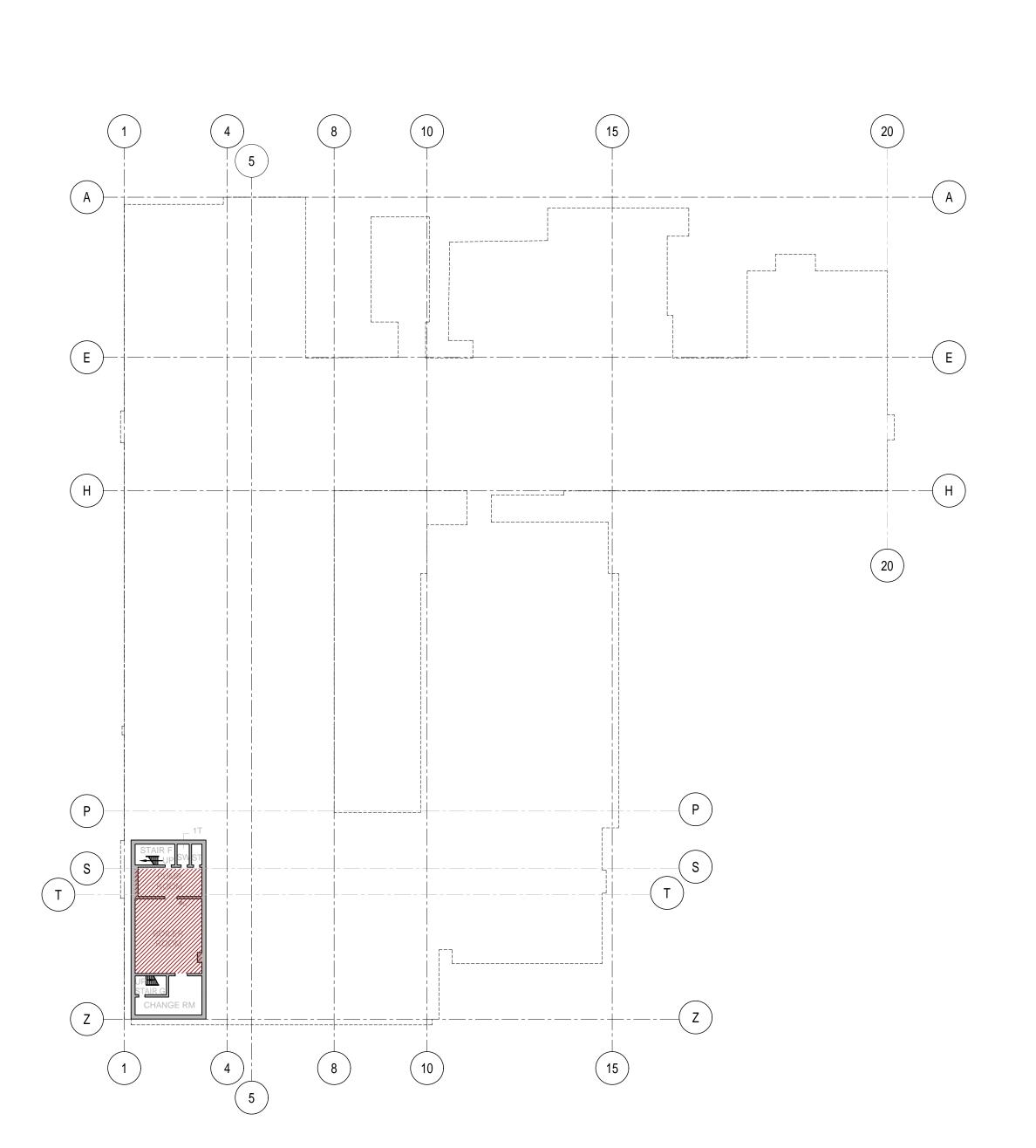
Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

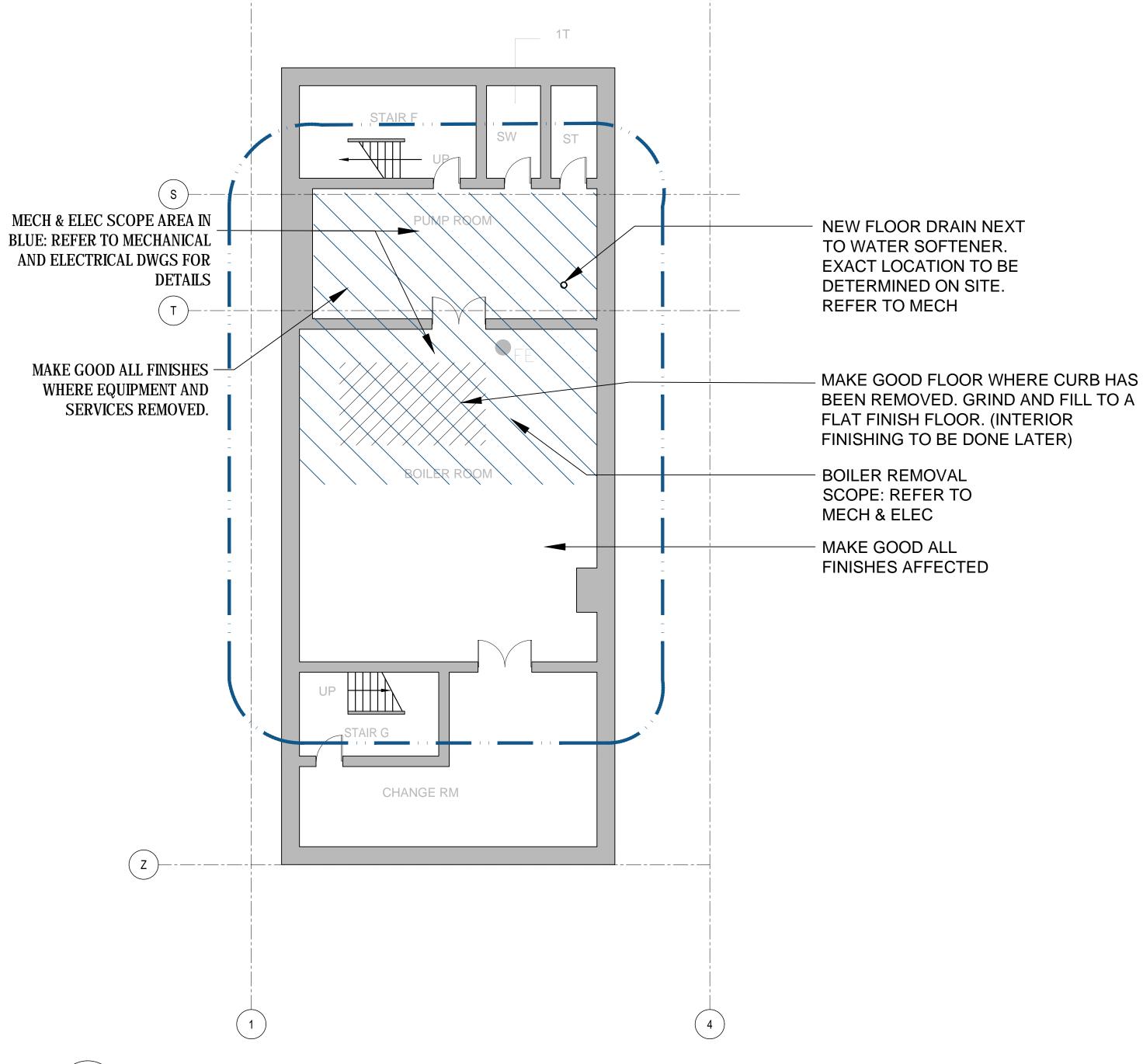
DRAWING TITLE:

PARTIAL EXTERIOR ELEVATIONS DEMOLITION

PROJECT NO: 20931
SCALE: AS NOTED
DRAWN BY: JG
REVIEWED BY: JC-B

DRAWING NO:





1 BASEMENT FLOOR KEY PLAN
1:500

2 BASEMENT FLOOR PROPOSED PLAN
1:100

architectura partners

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1	2021	DD REVIEW

PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

BASEMENT FLOOR PLAN PROPOSED

PROJECT NO: 20931

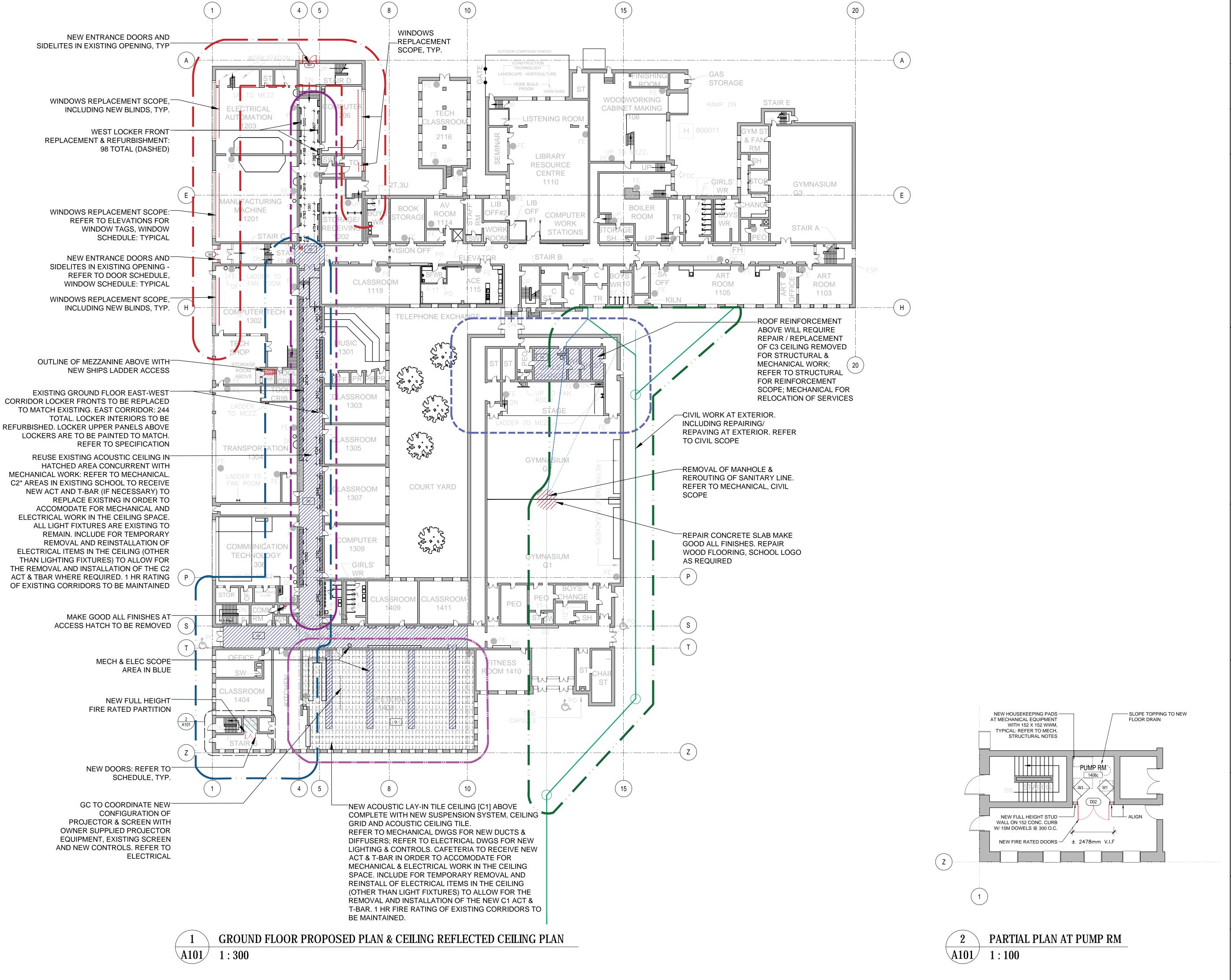
SCALE: AS NOTED

DRAWN BY: JG

REVIEWED BY: JC-B

PROJECT NORTH:

DRAWING NO:



architectural partners

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1	2021	DD REVIEW

PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

GROUND FLOOR PLAN PROPOSED

PROJECT NO: 20931

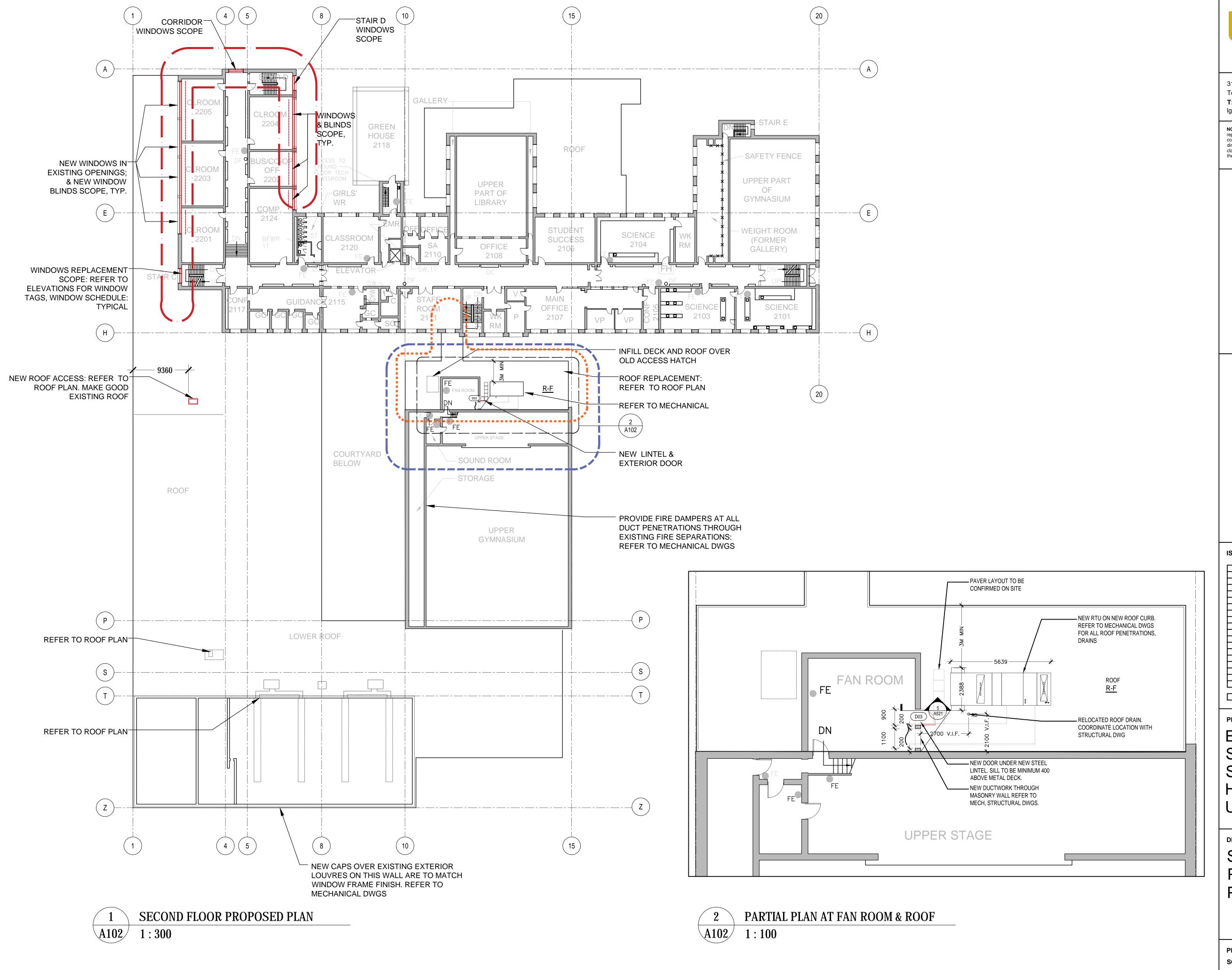
SCALE: AS NOTED

DRAWN BY: JG

REVIEWED BY: JC-B



DRAWING NO:



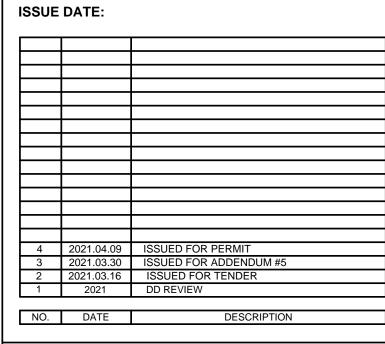


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PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

SECOND FLOOR PLAN PROPOSED

PROJECT NO: 20931

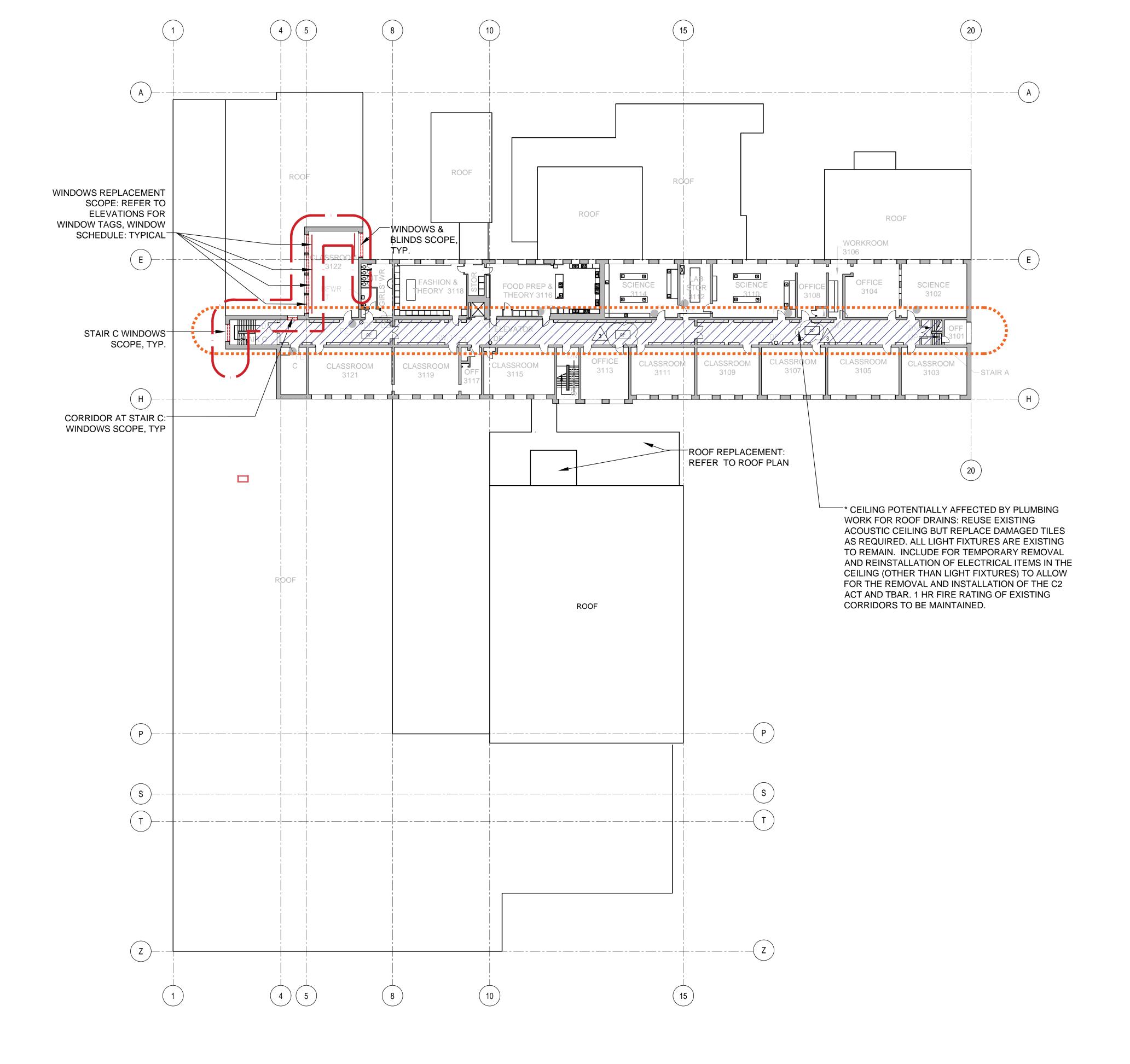
SCALE: AS NOTED

DRAWN BY: JG

REVIEWED BY: JC-B

PROJECT NORTH:

DRAWING NO:







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1	2021	DD REVIEW

PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

THIRD FLOOR PLAN PROPOSED

PROJECT NO: 20931

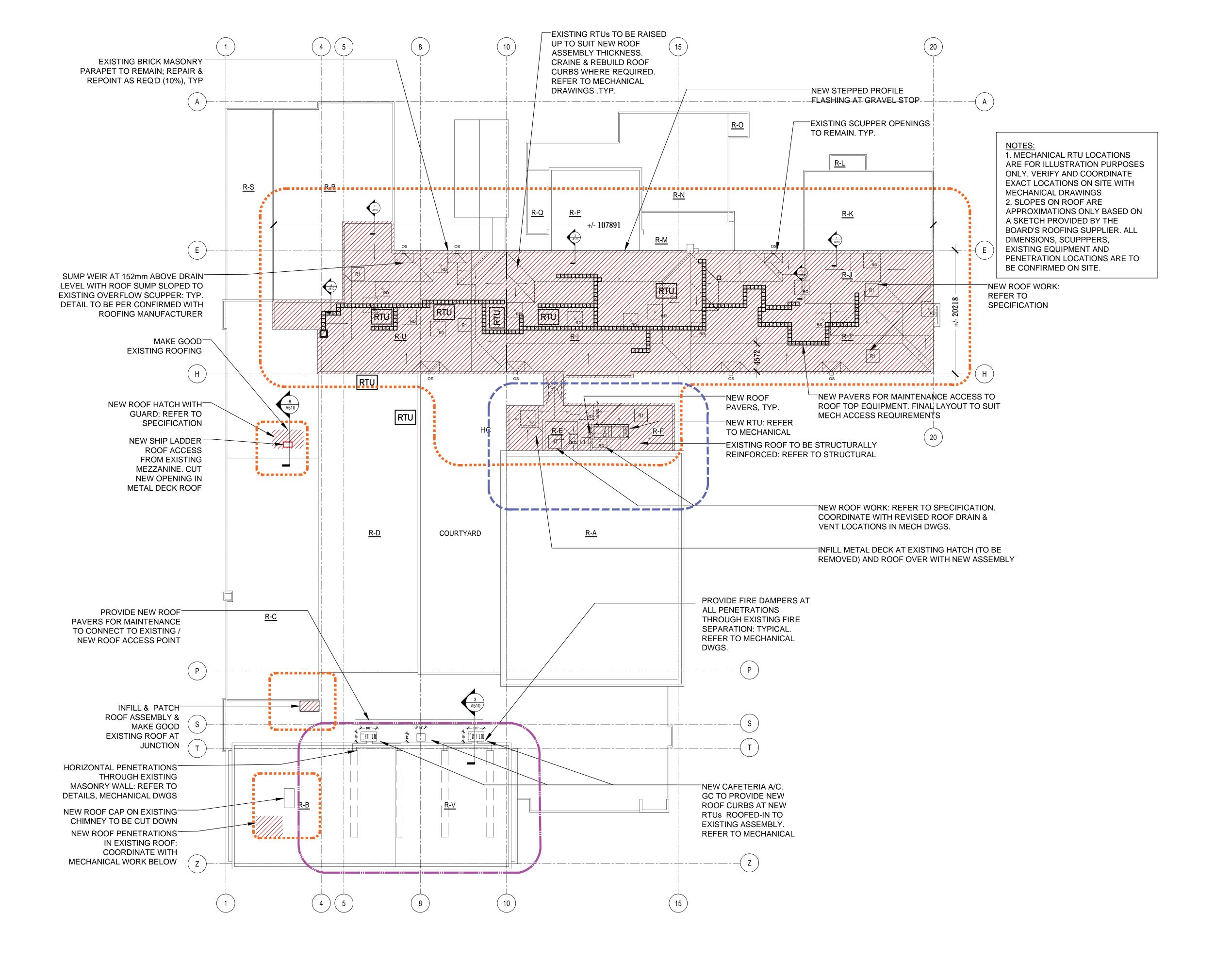
SCALE: AS NOTED

DRAWN BY: JG

REVIEWED BY: JC-B

PROJECT NORTH:

DRAWING NO:



1 ROOF PROPOSED PLAN
A104 1:300



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PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

ROOF PLAN PROPOSED

PROJECT NO: 20931

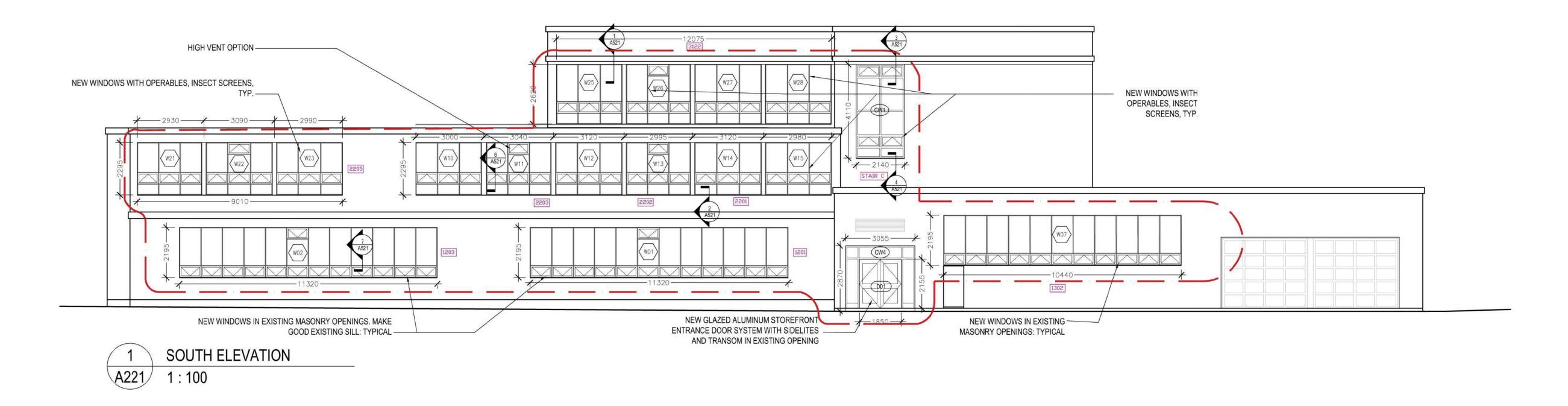
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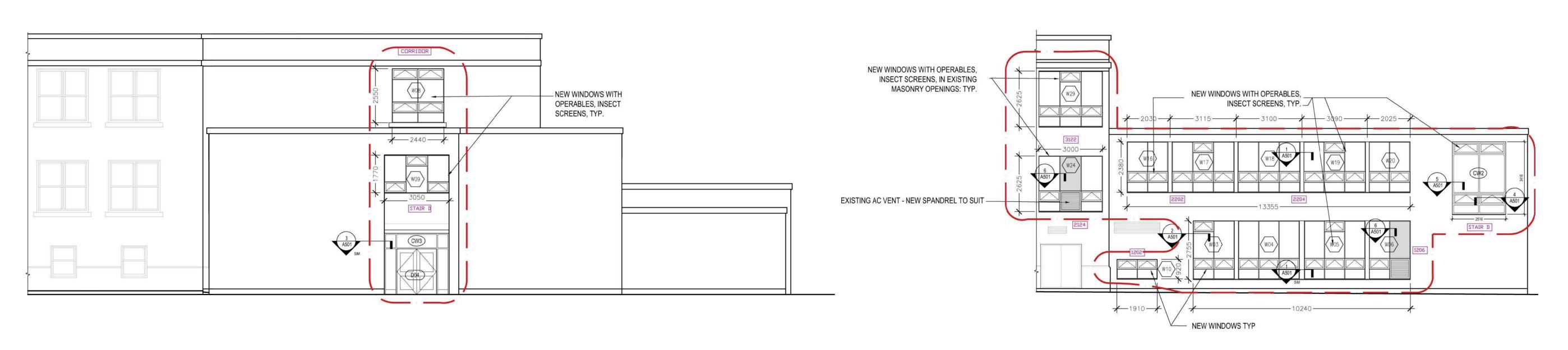
DRAWN BY: JG

REVIEWED BY: JC-B

PROJECT NORTH:

DRAWING NO:





WEST ELEVATION
1:100

3 EAST ELEVATION A221 1:100



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1	2021	DD REVIEW
NO.	DATE	DESCRIPTION

PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

PARTIAL EXTERIOR ELEVATIONS -NEW FENESTRATION

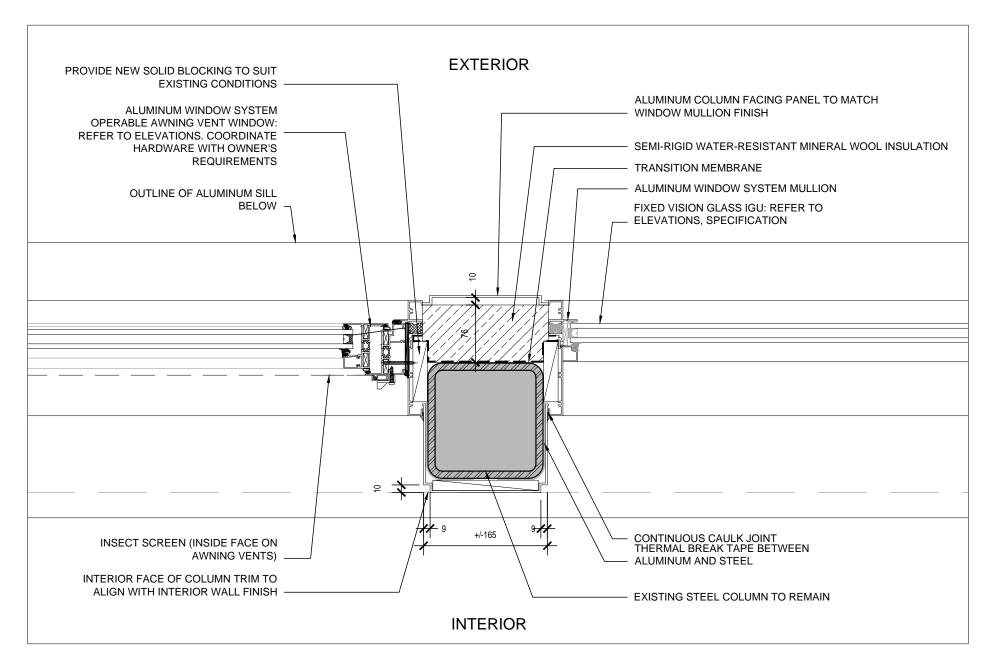
PROJECT NO: 20931

SCALE: AS NOTED

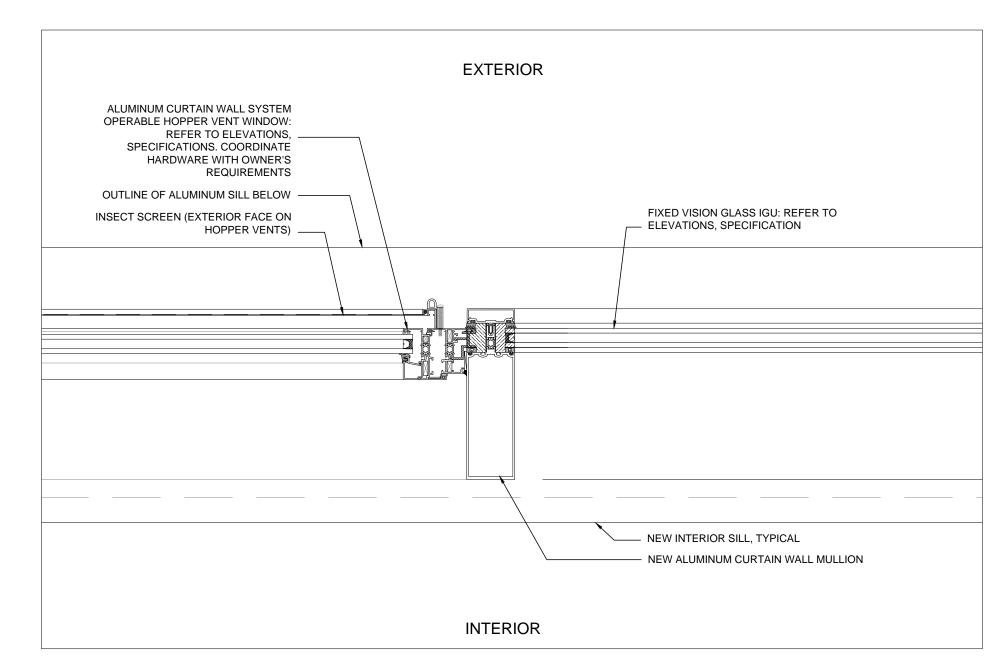
DRAWN BY: JG

REVIEWED BY: JC-B

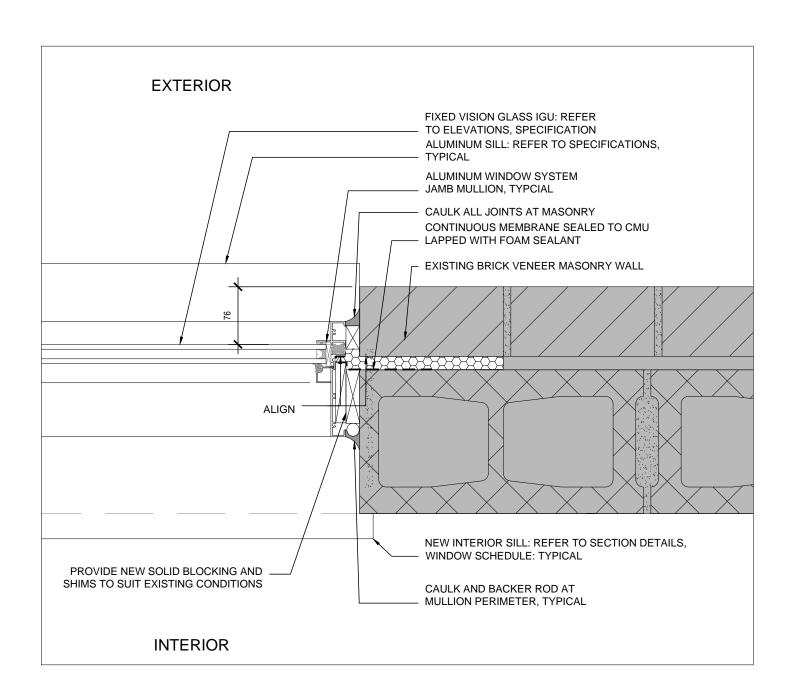
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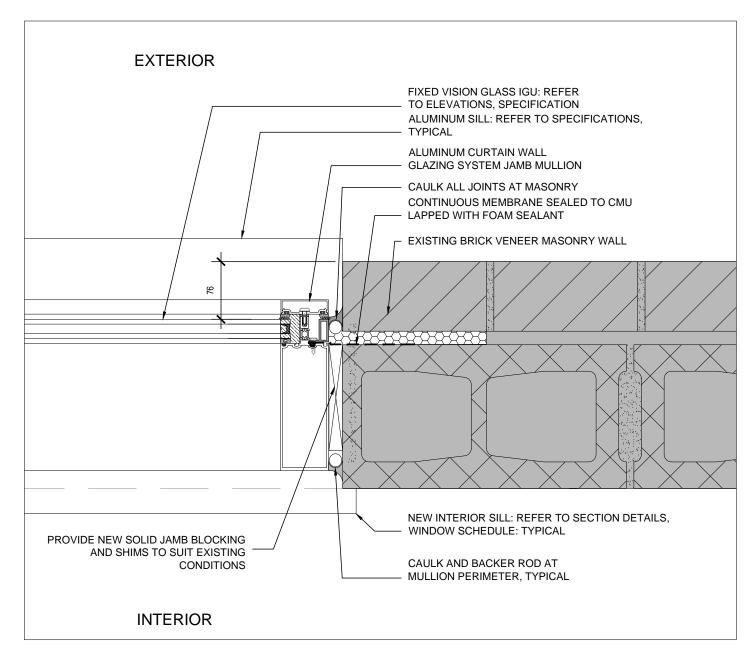




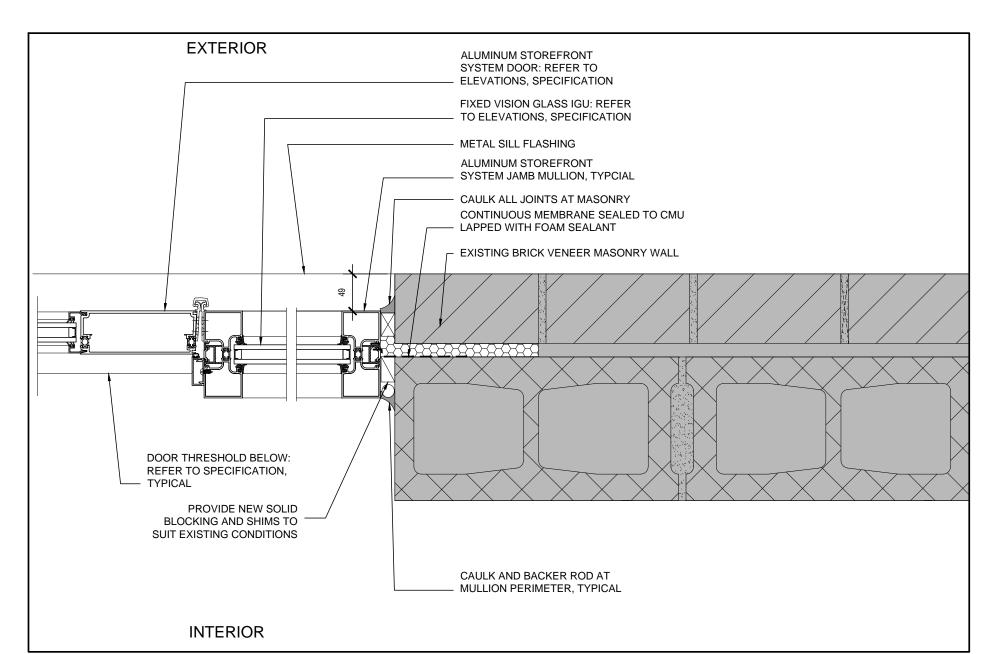




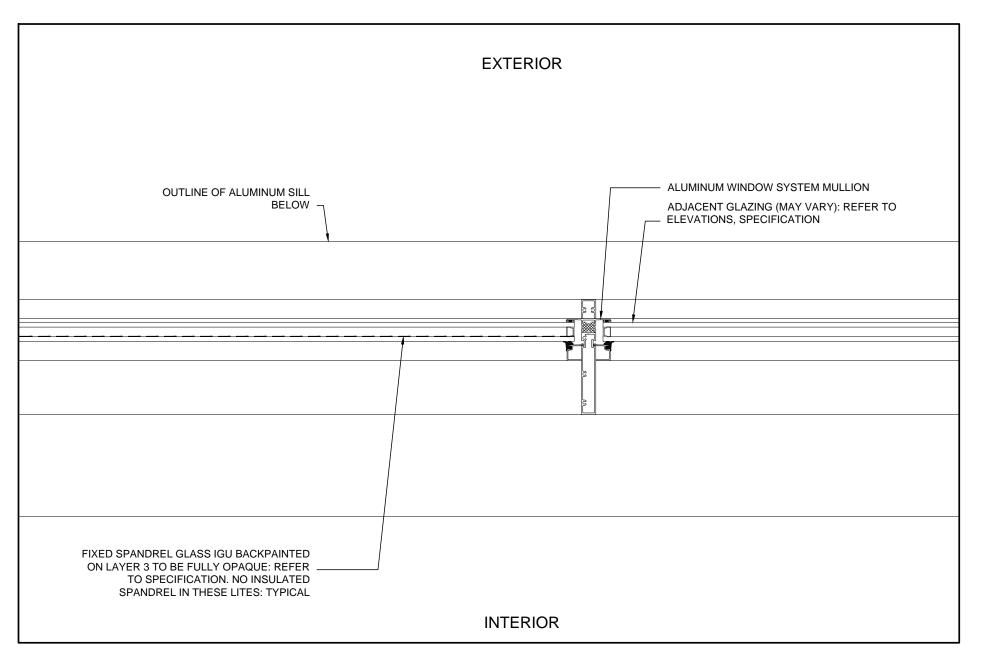












6 TYPICAL JAMB DETAIL: SPANDREL
A500 1:5

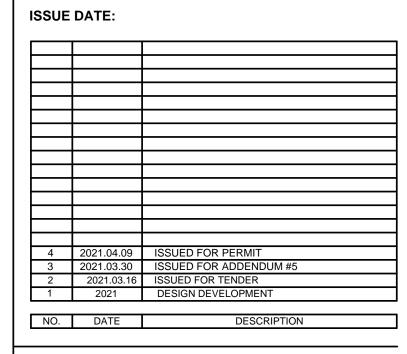


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DO NOT SCALE DRAWINGS





PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

PLAN DETAILS

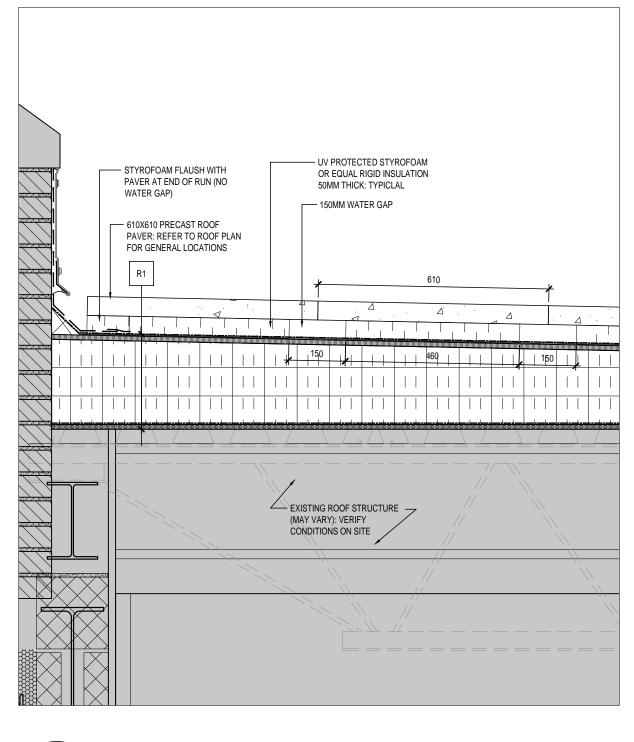
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SCALE: AS NOTED

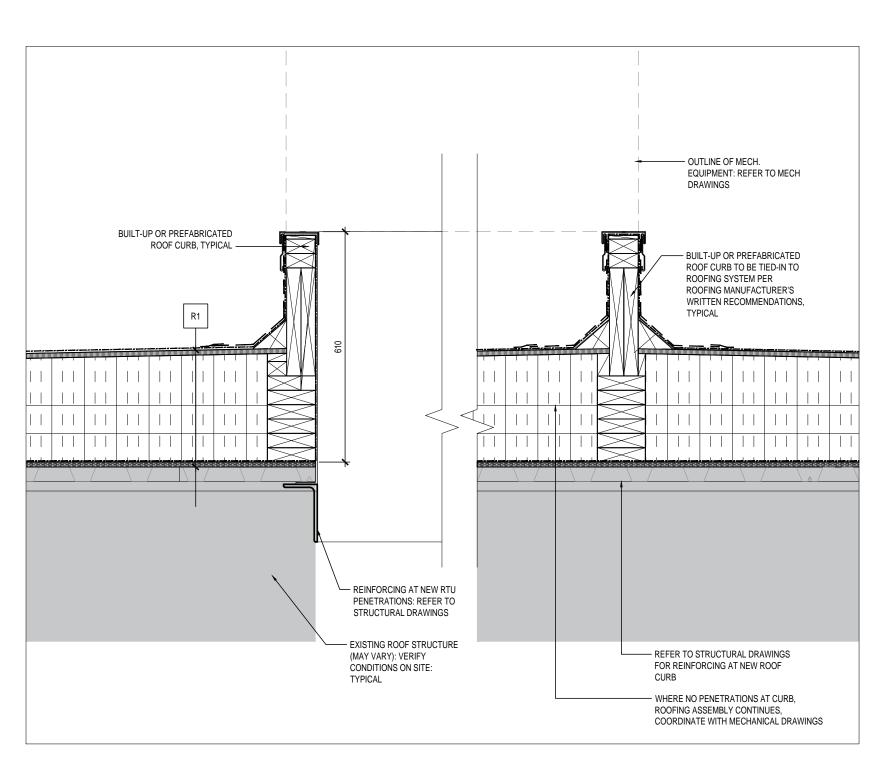
DRAWN BY: JG

REVIEWED BY: JC-B

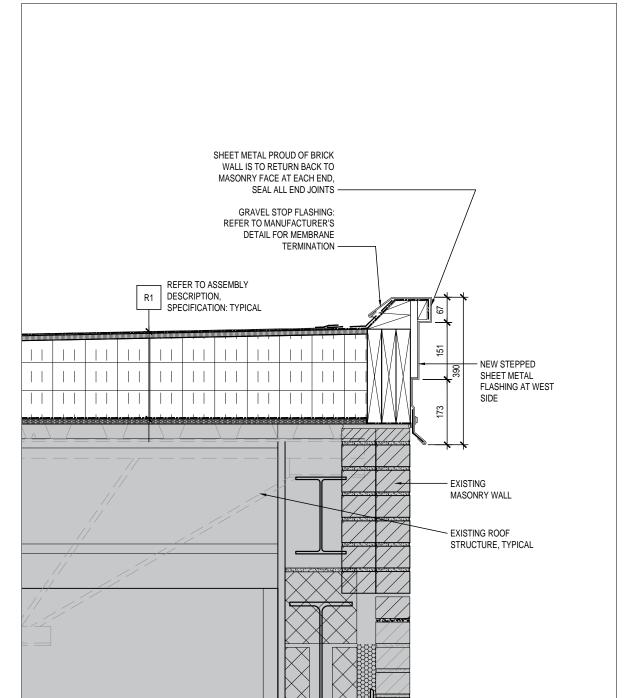
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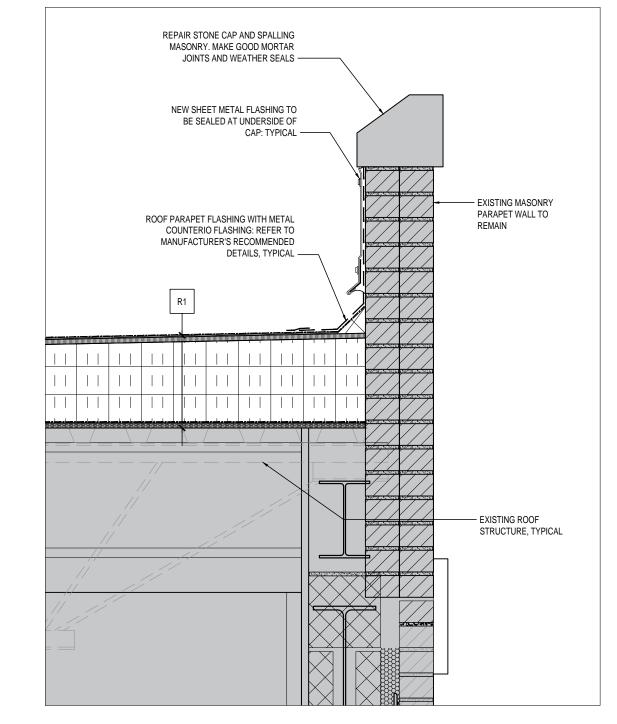




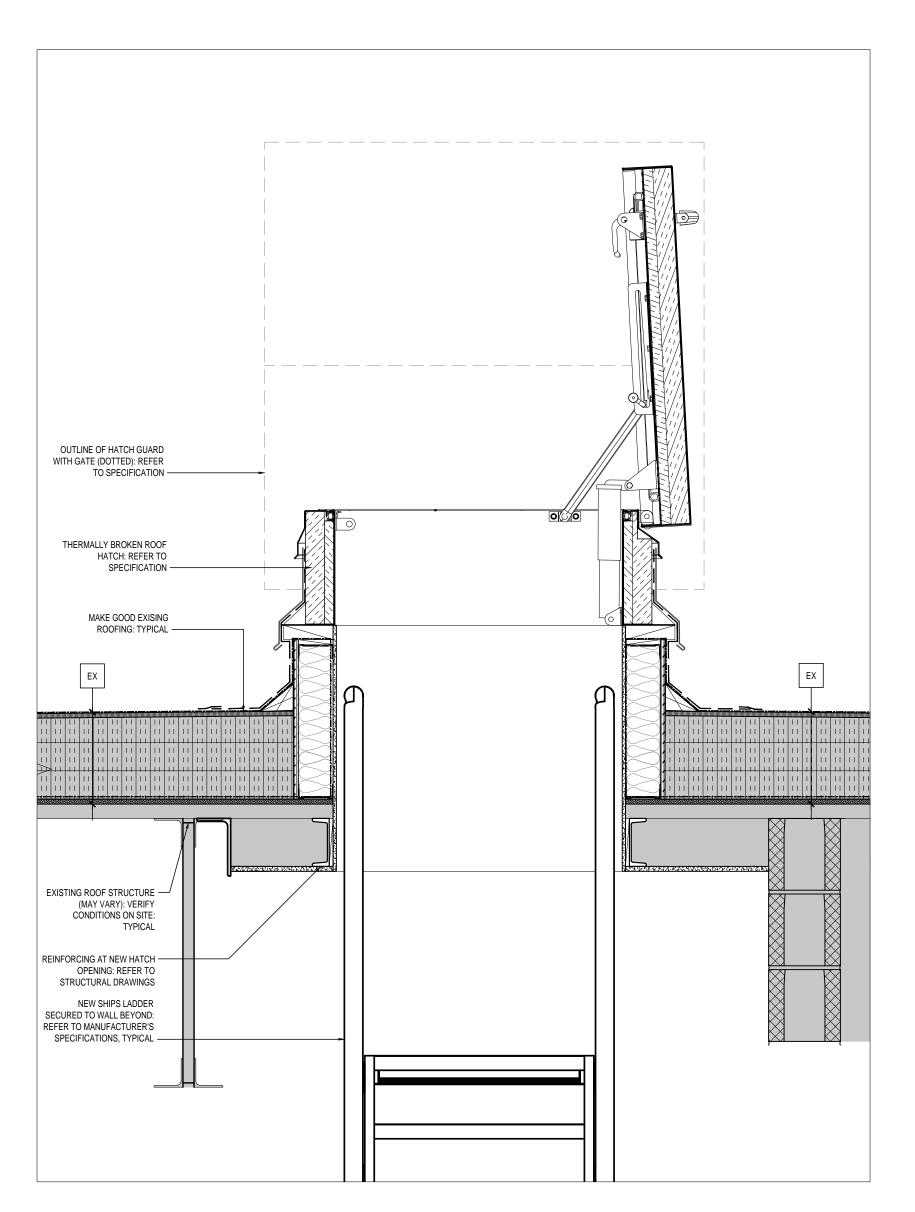
3 TYPICAL ROOF CURB DETAIL 1:10



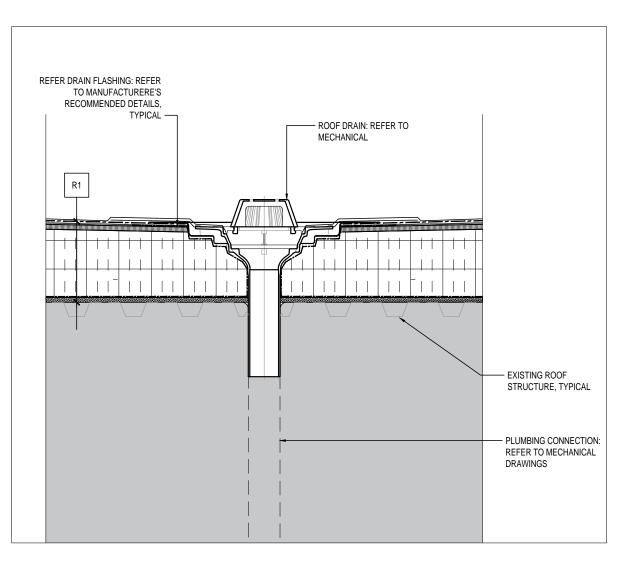
2 TYPICAL GRAVEL STOP FLASHING DETAIL
A510 1:10



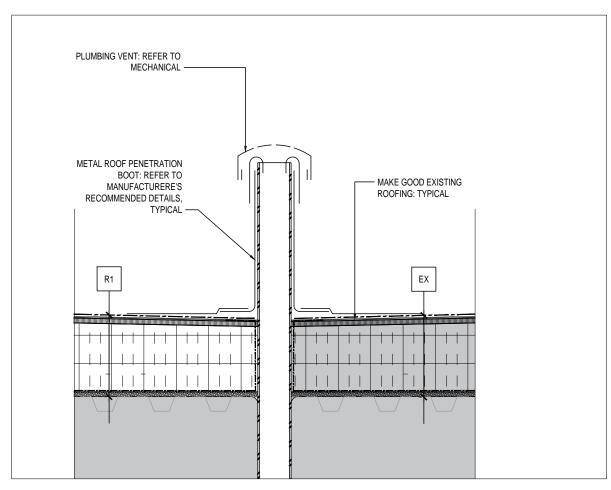
1 TYPICAL DETAIL AT PARAPET
A510 1:10



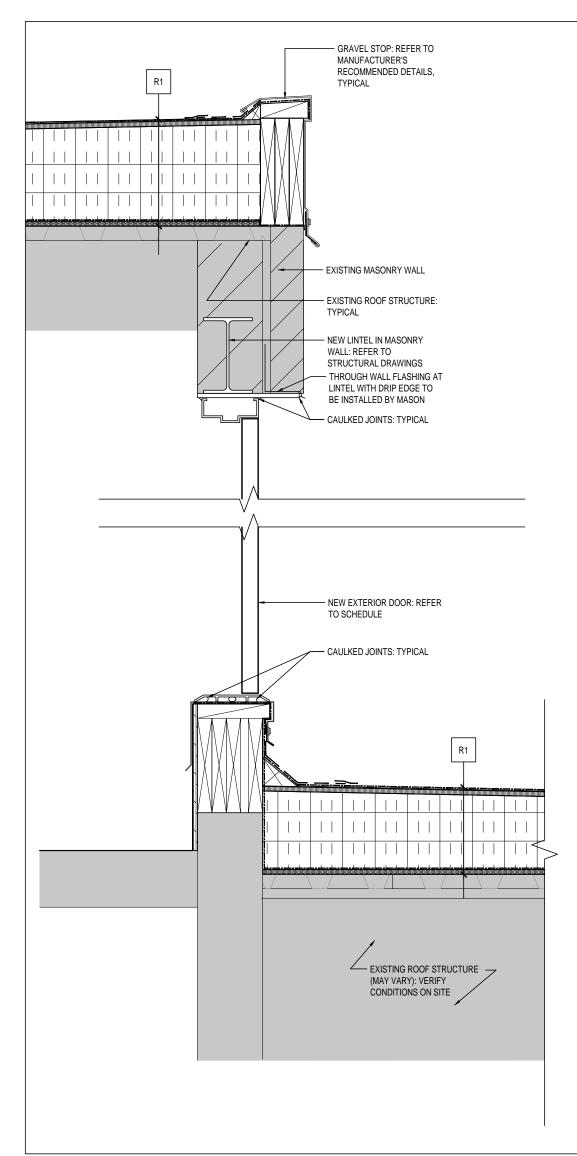




6 TYPICAL ROOF DRAIN DETAIL
A510 1:10



7 TYPICAL ROOF PENETRATION DETAIL A510 1:10



5 TYPICAL DETAIL - FAN ROOM DOOR A510 1:10

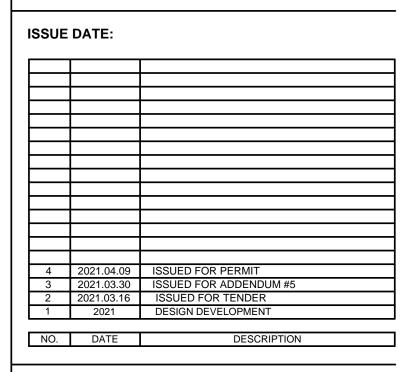


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DO NOT SCALE DRAWINGS





PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

SECTION DETAILS

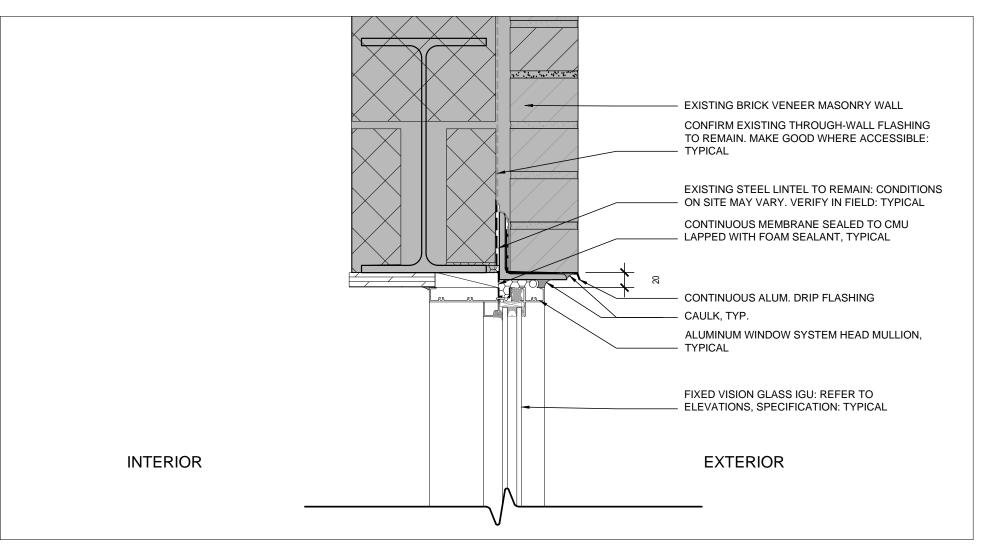
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SCALE: AS NOTED

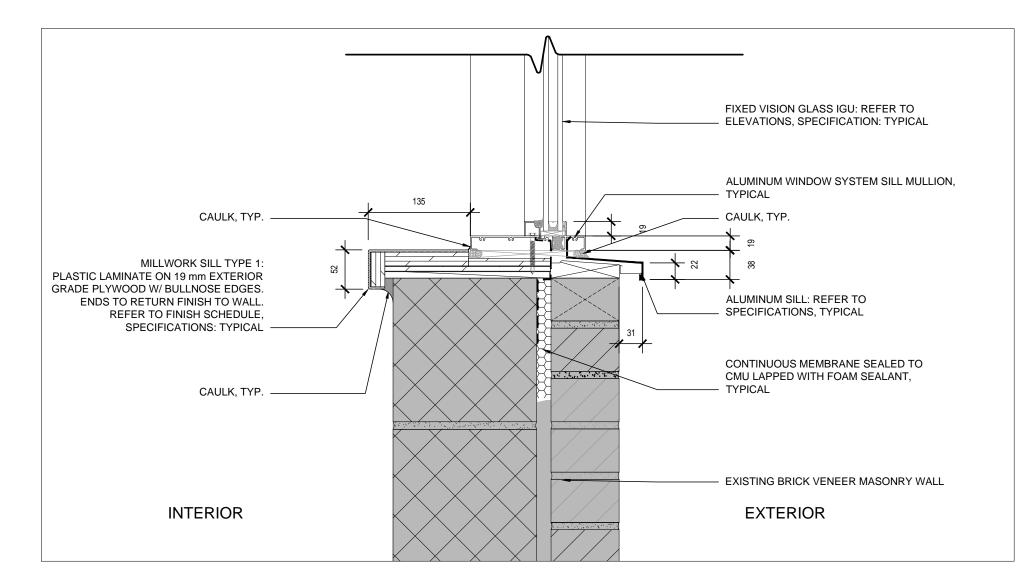
DRAWN BY: JC

REVIEWED BY: JC-B

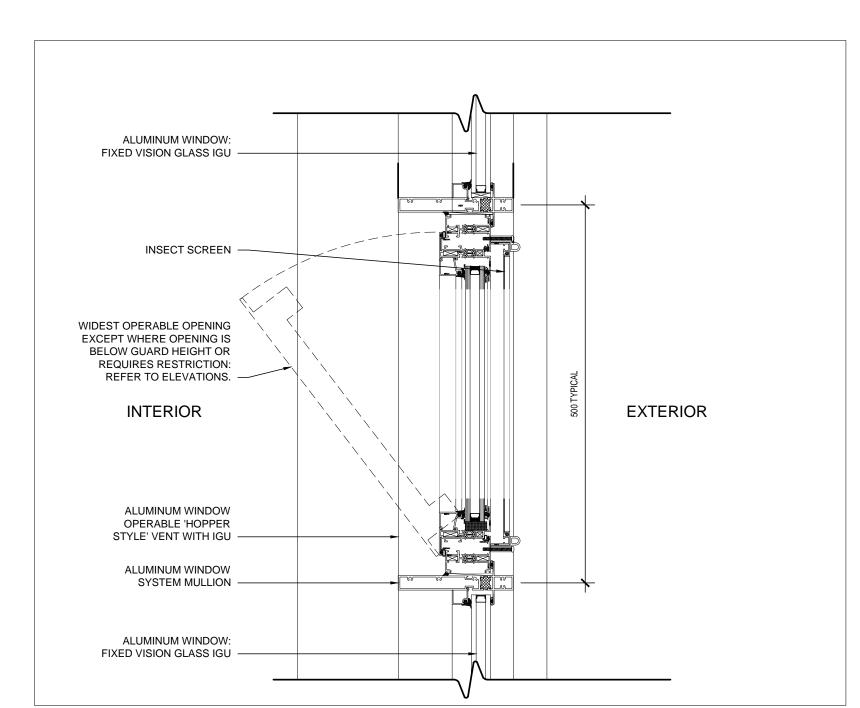
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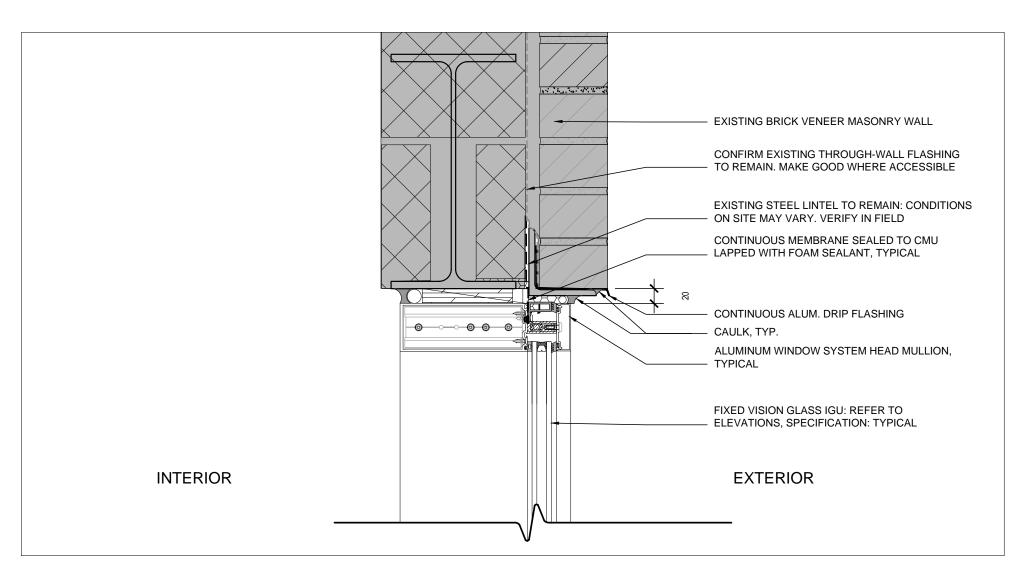




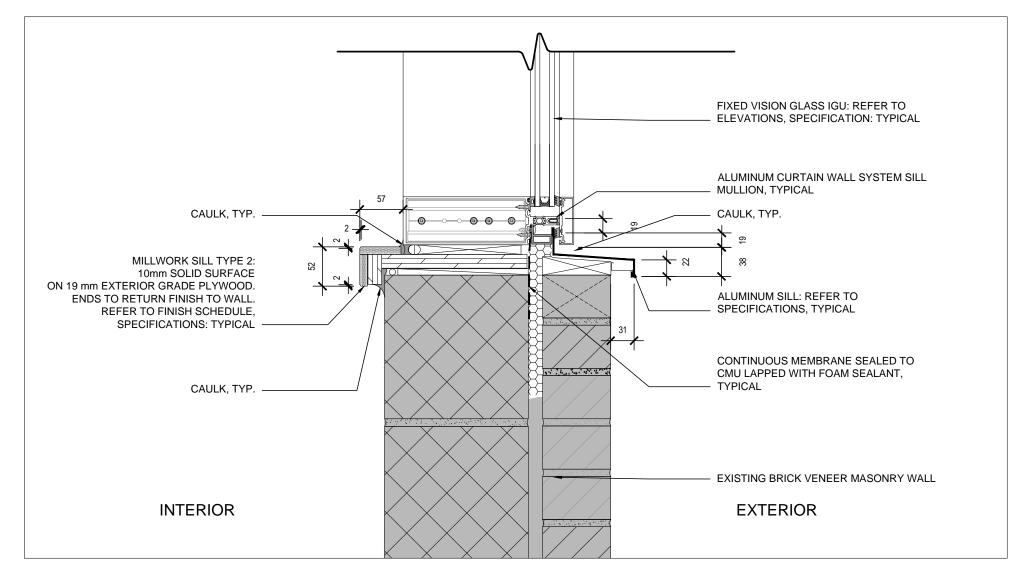
2 TYPICAL SILL DETAIL: WINDOW 1:5



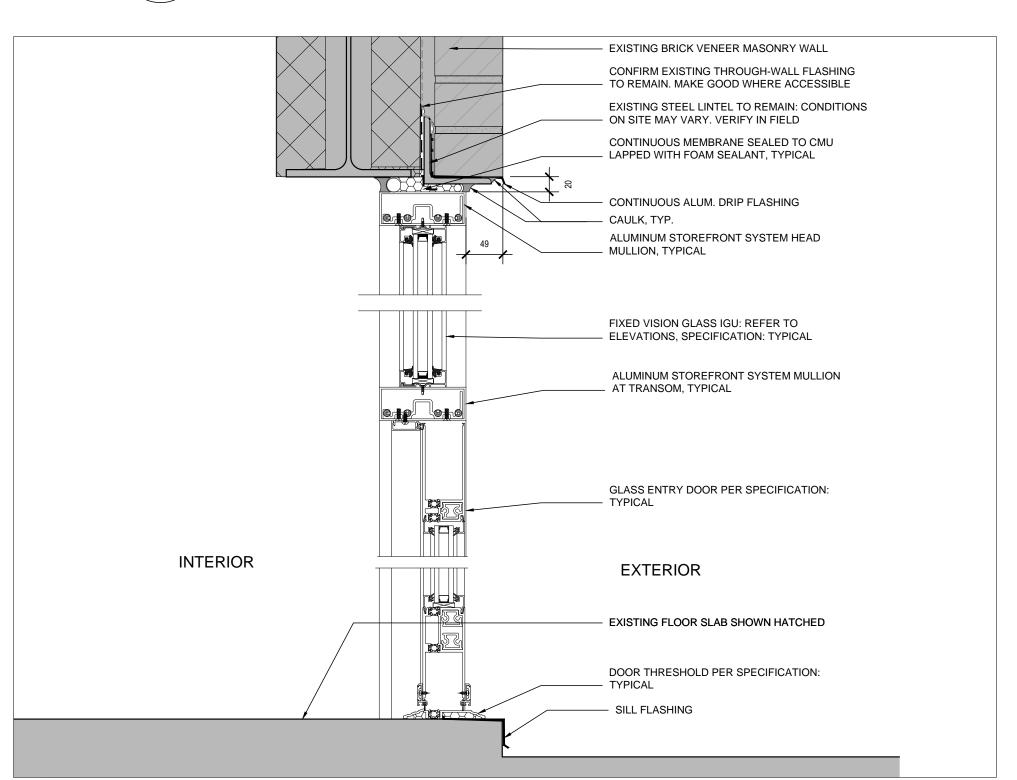
7 TYPICAL VENT WINDOW: HOPPER STYLE



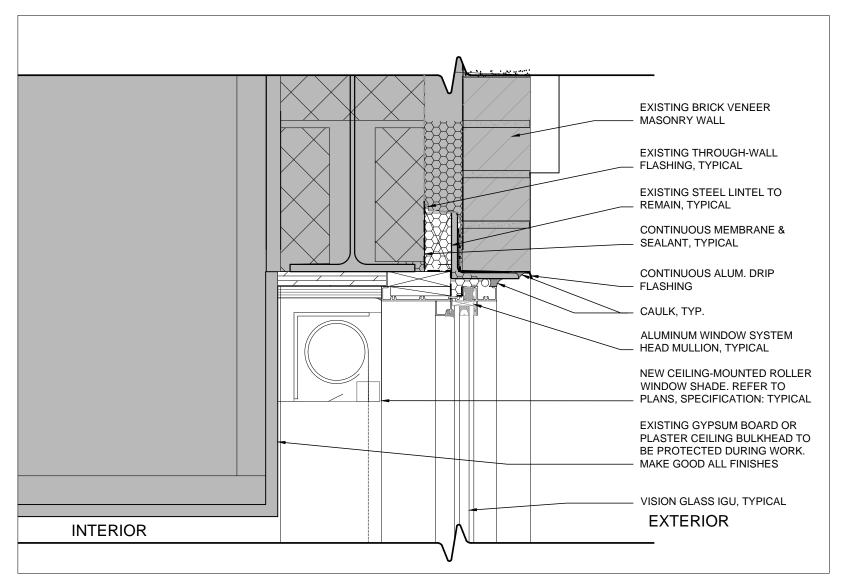
3 TYPICAL HEAD DETAIL: CURTAIN WALL
A521 1:5



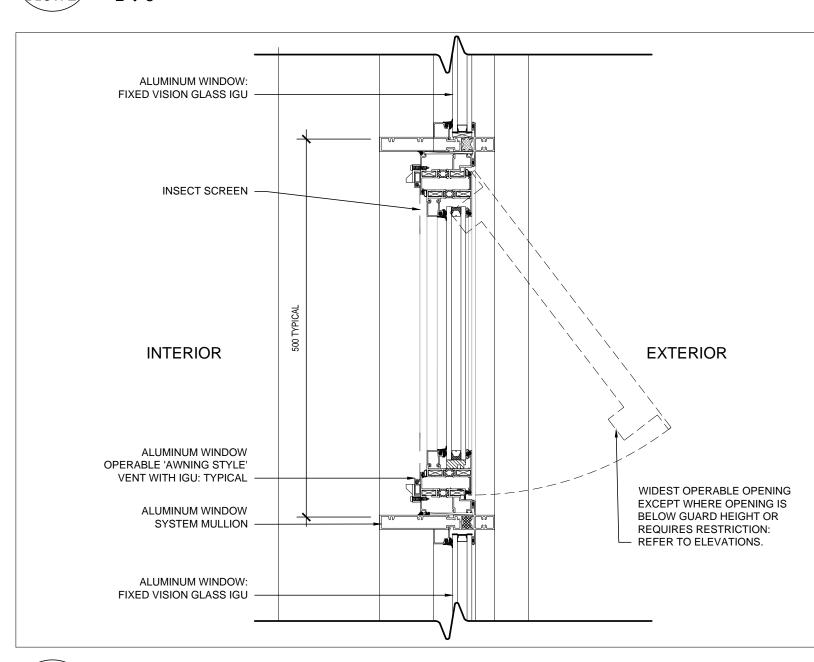
4 TYPICAL SILL DETAIL: CURTAIN WALL 1:5



8 TYPICAL DETAIL: ENTRY DOORS & TRANSOM A521 1:5



5 TYPICAL HEAD DETAIL: WINDOW WITH BLIND 1:5



6 TYPICAL VENT WINDOW: AWNING STYLE
A521 1:5

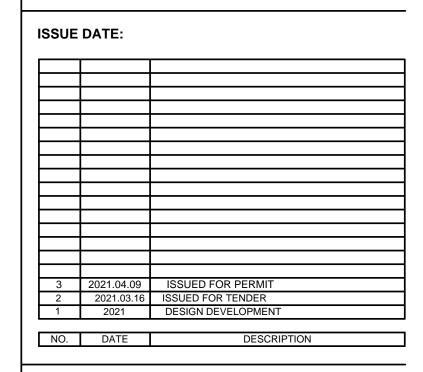


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DO NOT SCALE DRAWINGS





PROJECT:

Elmira District
Secondary
School – Window, Roof,
HVAC & Sanitary
Upgrades

DRAWING TITLE:

SECTION DETAILS

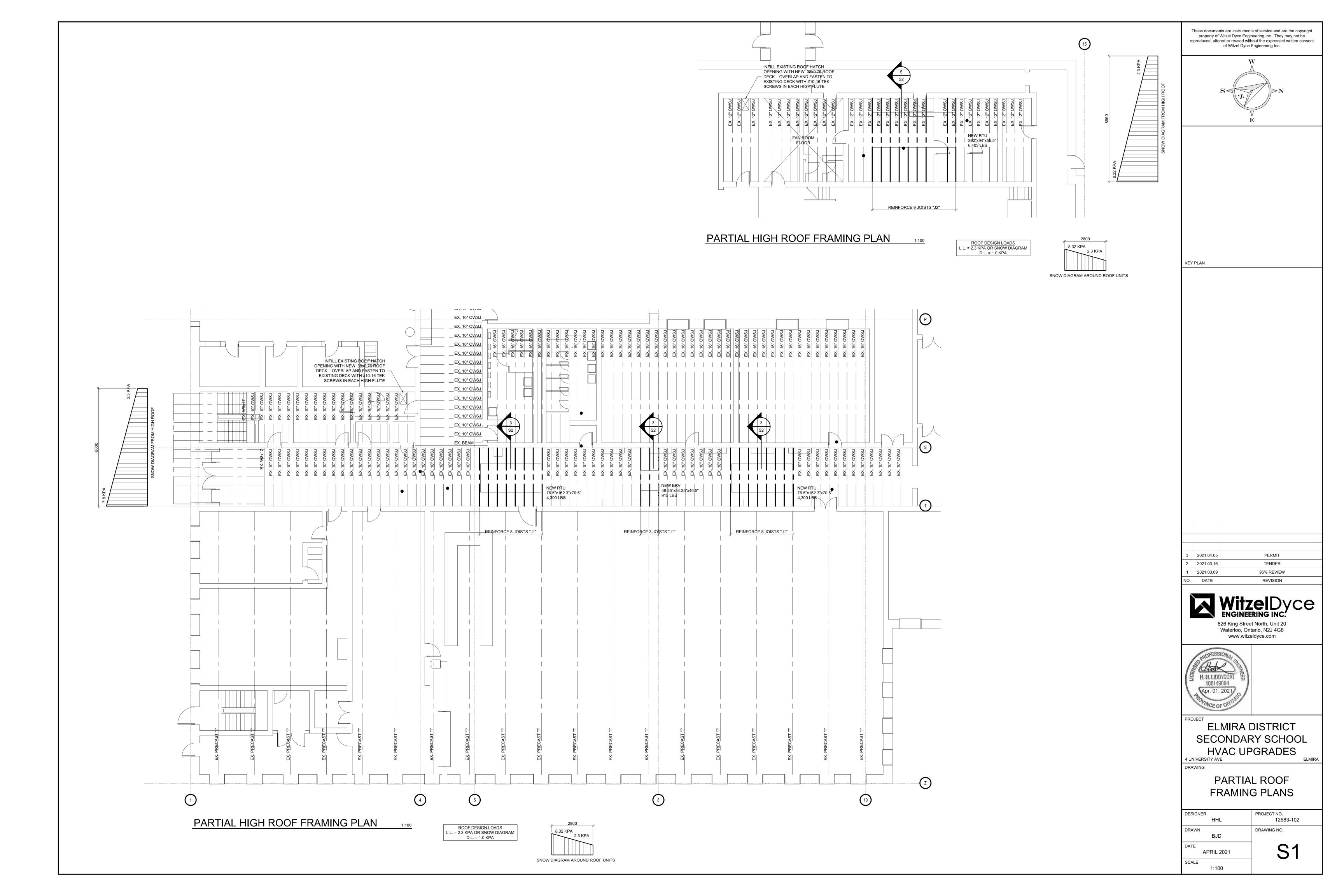
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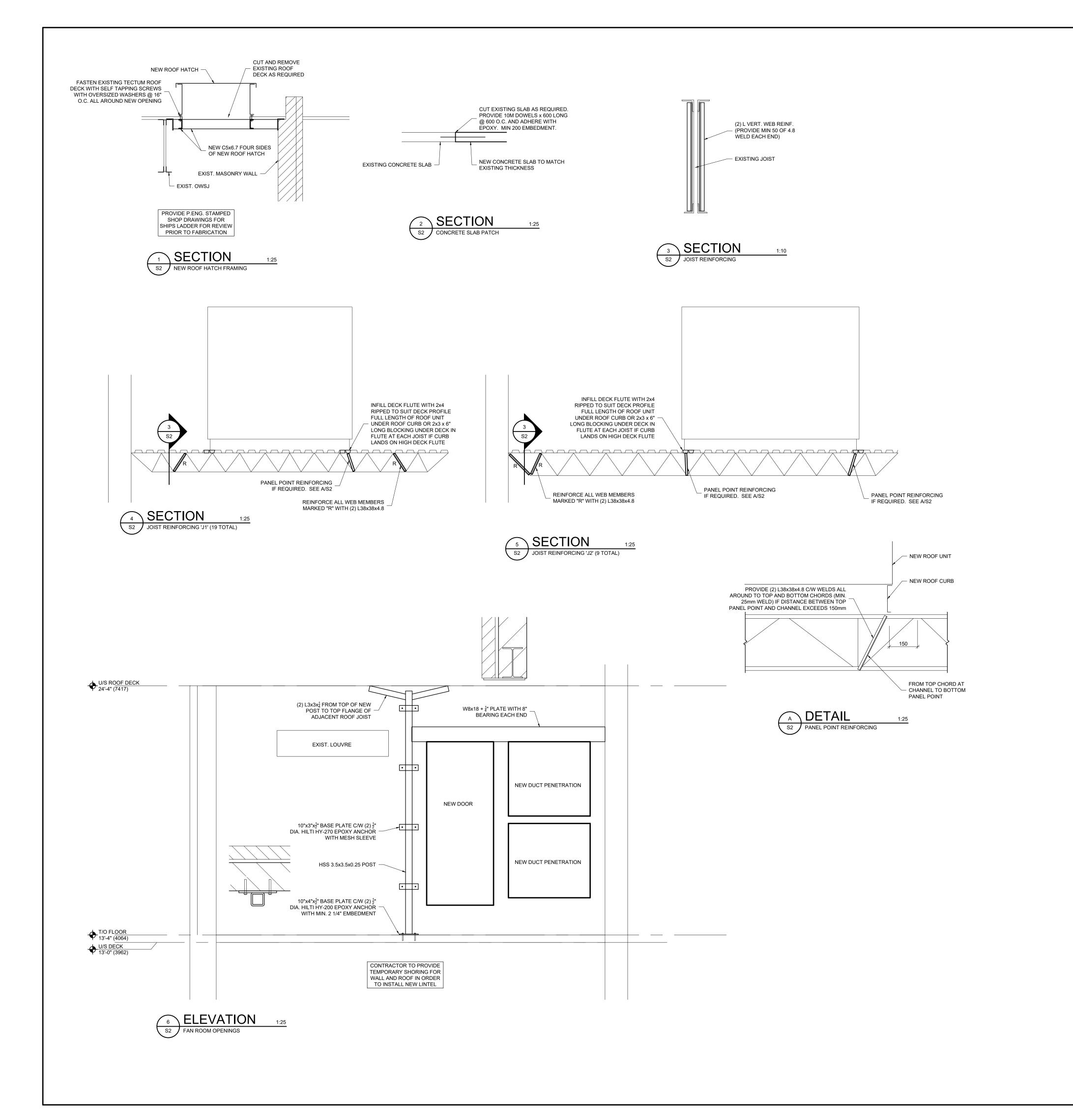
SCALE: AS NOTED

DRAWN BY: JG

REVIEWED BY: JC-B

DRAWING NO:





CONSTRUCTION NOTES:

PROCEEDING WITH THE WORK.

A. <u>GENERAL</u>

- 1. ALL WORK SHALL CONFORM TO THE ONTARIO BUILDING CODE AND ALL STANDARDS REFERENCED WITHIN, LOCAL REGULATIONS AND BYLAWS, AND THE
- OCCUPATIONAL HEALTH AND SAFETY ACT FOR CONSTRUCTION PROJECTS. THE LATEST VERSIONS OF STANDARDS SHALL APPLY.

 2. READ THESE DRAWINGS IN CONJUNCTION WITH ALL RELATED CONTRACT DOCUMENTS AND CONSULTANT DRAWINGS
- DOCUMENTS AND CONSULTANT DRAWINGS.

 3. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS IN RELATION TO THE

DRAWINGS AND NOTIFY THE ENGINEER TO ALL DISCREPANCIES PRIOR TO

- DRAWINGS ARE NOT TO BE SCALED.
 THE DESIGN DOCUMENTS ARE PREPARED SOLELY FOR THE USE WITH THE PARTY WHOM THE ENGINEER HAS ENTERED INTO CONTRACT. THERE ARE NO REPRESENTATIONS MADE TO ANY PARTY WITH WHOM THE ENGINEER HAS NOT
- ENTERED INTO CONTRACT.

 6. THE CONTRACTOR SHALL RETAIN AN INDEPENDENT TESTING AND INSPECTION COMPANY TO ENSURE THAT THE WORK IS DONE IN ACCORDANCE WITH THE
- CONTRACT DOCUMENTS FOR ONSITE WELDING OF STRUCTURAL STEEL.

 7. THE ENGINEER SHALL BE GIVEN MINIMUM 24 HOURS NOTICE BY THE CONTRACTOR FOR ALL CONSTRUCTION REVIEWS. SITE VISITS AND REVIEWS BY THE ENGINEER OR HIS REPRESENTATIVE ARE INTENDED FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT. THE REVIEWS SHALL NOT MEAN THAT THE ENGINEER HAS SEEN ALL CONSTRUCTION PROCEDURES. REVIEW BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS AND FOR MEETING ALL THE REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS.
- 8. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION LOADS AND TEMPORARY BRACING TO ENSURE SAFETY AND THE BUILDING IS PLUMB AND IN TRUE ALIGNMENT AT ALL PHASES OF CONSTRUCTION AS PER O.REG 213/91. ALL BRACING MEMBERS SHOWN ON THE DRAWINGS ARE DESIGNED FOR THE FINISHED STRUCTURE AND MAY NOT BE SUFFICIENT FOR ERECTION PURPOSES. SHORING AND BRACING IS REQUIRED UNTIL PROPOSED STRUCTURE IS PROPERLY IN PLACE. SHORING AND BRACING SHALL BE DESIGNED, REVIEWED AND APPROVED BY A PROFESSIONAL ENGINEER. SHOP DRAWINGS SHALL BE SUBMITTED WITH P.ENG'S STAMP FOR OUR REVIEW PRIOR TO CONSTRUCTION.
- NO SUBSTITUTIONS FROM THE SPECIFIED PRODUCTS AND MATERIALS ARE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

B. CONCRETE

CONCRETE WORK SHALL CONFORM TO THE LATEST VERSION OF CAN/CSA-A23.1, A23.2 AND A23.3.
 CONCRETE PROPERTIES: (MINIMUM COMPRESSIVE STRENGTH MEASURED AT 28 DAYS UNLESS NOTED)
 a) ALL CONCRETE UNLESS NOTED OTHERWISE - 25 MPa

a) ALL CONCRETE UNLESS NOTED OTHERWISE - 25 MPa b) SEE CHART FOR CONCRETE TYPES

CONCRETE PROPERTIES	CSA CLASS	3 DAY COMP. TRENGTH MPa	AX. W/C 4TIO	AIR CONTENT %	AX. GGREGATE mm	LUMP mm
LOCATION	Ö	28 ST	≥ 2	A	A Ğ	SLI
INTERIOR CONCRETE SLABS	N	25	0.50	NA	20	80 ±30

- CONCRETE DESIGN IS BASED ON COMPRESSIVE STRENGTH. PHYSICAL PROPERTIES (SLUMP, AGGREGATE SIZE, ETC.) TO SUIT INSTALLATION (BY OTHERS) NOT TO AFFECT STRENGTH SPECIFIED.
- 4. SLUMP OF CONCRETE TO BE 80mm ±30mm PRIOR TO SUPER PLASTICIZERS BEING
- 5. DO NOT ADD WATER TO THE CONCRETE.6. REINFORCING STEEL SHALL CONFORM TO THE LATEST VERSIONS OF
- CAN/CSA-G30.18. REINFORCING BARS SHALL BE DEFORMED, GRADE 400 MPa.

 7. MAINTENEN FOR CONTROL OF THE FOLLOWING CONTROL OF
- a) 75mm (3") FOR CONCRETE CAST AGAINST EARTH
 b) 38mm (1 1/2") FOR CONCRETE CAST AGAINST FORMWORK
- c) 64mm (2 1/2") FOR CONCRETE EXPOSED TO DE-ICING CHEMICALS
 8. ALL REINFORCING STEEL, DOWELS AND ANCHOR BOLTS ARE TO BE CLEAN AND FREE OF RUST, DIRT, FORM RELEASE AGENT, ETC. PRIOR TO POURING CONCRETE.

C. MASONRY

1. MASONRY TO CONFORM TO THE LATEST VERSION OF CAN/CSA-S304.1 AND CSA

- 2. STRENGTH OF LOAD-BEARING MASONRY UNITS TO BE MINIMUM 15 MPa FOR
- HOLLOW UNITS BASED ON NET AREA.

 3. TYPE 'S' MORTAR SHALL BE USED FOR CONCRETE BLOCK. TYPE 'N' MORTAR SHALL BE USED FOR BRICK AND DECORATIVE BLOCK. GROUT STRENGTH SHALL BE 20 MPa UNLESS NOTED OTHERWISE. MORTAR AND GROUT TO CONFORM TO THE LATEST
- VERSION OF CSA A179.

 4. ALL STEEL BEAMS AND JOISTS SHALL BE SUPPORTED BY BEARING PLATES DESIGNED TO THE LATEST VERSION OF CAN/CSA S16. BEARING PLATES SHALL HAVE MINIMUM (2) 12mm (1/2") DIAMETER x 450mm (18") LONG ANCHORS WITH 50mm
- 5. FOR MASONRY OPENINGS NOT SHOWN ON THE FRAMING PLANS UP TO 1200mm (48") WIDE, PROVIDE ONE L89x89x6.4 (L3.5x3.5x0.25) FOR EACH 90mm (3 1/2") THICKNESS OF MASONRY.

D. STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST VERSION OF CAN/CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE.
 STRUCTURAL STEEL SHALL CONFORM TO THE LATEST VERSION OF CAN/CSA G40.20, G40.21 GRADE 350W CLASS C FOR H.S.S., G40.21 GRADE 350W FOR W SHAPE SECTIONS AND G40.21 GRADE 350W FOR CHANNELS, ANGLES AND
- MISCELLANEOUS METAL.

 3. BOLTED CONNECTIONS SHALL USE GRADE A325 BOLTS.

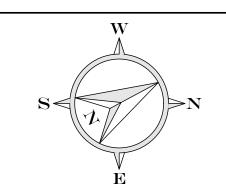
 4. WELDING SHALL CONFORM TO CSA W59 AND CSA W47 DIVISION 1 OR DIVISION 2.1
- BY THE CANADIAN WELDING BUREAU. WELDING SHALL BE COMPLETED BY CWB
 CERTIFIED FABRICATOR AND ERECTOR TO THE CSA STANDARDS W178.1 AND
 W178.2.

 5. WHERE FORCES ARE NOT SHOWN ON THE DRAWINGS BEAM REACTIONS SHALL BE
- 1/2 THE TOTAL UNIFORM DISTRIBUTED FACTORED LOADS NOTED IN THE BEAM LOAD TABLES OF PART 5 OF THE CISC'S HANDBOOK OF STEEL CONSTRUCTION.
 6. COLUMN BEARING GROUT SHALL BE 40 MPa MINIMUM, NON-SHRINK AND 38mm (1
- 1/2") MINIMUM THICK.5. STRUCTURAL STEEL MEMBERS SHALL NOT BE SPLICED WITHOUT THE APPROVAL OF THE ENGINEER.
- STEEL BEAMS AND LINTELS SHALL HAVE MINIMUM 200mm (8") BEARING ON MASONRY UNLESS OTHERWISE NOTED. WELD BEAMS AND LINTELS TO BEARING PLATES WHERE PROVIDED WITH MINIMUM 4.8mm x 50mm (3/16"x2") FILLET WELD EACH SIDE.
 ALL ROOF OPENINGS IN METAL DECK ARE TO BE REINFORCED WITH C130x10
- (C5x6.7) CHANNEL FRAMES UNLESS NOTED OTHERWISE.

 10. ALL STRUCTURAL STEEL IS TO BE SHOP PRIME PAINTED UNLESS NOTED OTHERWISE. STRUCTURAL STEEL WHICH IS TO BE PROTECTED WITH SPRAY APPLIED FIREPROOFING IS TO BE KEPT CLEAN AND UNCOATED. STRUCTURAL STEEL EXPOSED TO WEATHER IS TO BE HOT DIP GALVANIZED CONFORMING TO THE LATEST VERSION OF CAN/CSA-G164. ALL COATINGS ARE TO BE TOUCHED UP ON SITE WITH APPROVED PAINT FOR PRIMED STEEL AND ZINC RICH PAINT FOR GALVANIZED STEEL.

TESTING REQUIREMENTS	
TEST	COMMENTS
STRUCTURAL STEEL CONNECTIONS	INSPECT ALL FIELD WELDS
ALL TESTING TO BE COMPLETED BY A CE INSPECTION COMPANY. COPIES OF ALL FENGINEER FOR REVIEW.	RTIFIED INDEPENDENT TESTING AND REPORTS ARE TO BE FORWARDED TO THE

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KEY PLAN

3 2021.04.05 PERMIT
2 2021.03.16 TENDER
1 2021.03.09 95% REVIEW
NO. DATE REVISION

826 King Street North, Unit 20

Waterloo, Ontario, N2J 4G8



ELMIRA DISTRICT
SECONDARY SCHOOL
HVAC UPGRADES

SECTIONS AND DETAILS

DESIGNER PROJECT NO.

HHL 12583-102

DRAWN DRAWING NO.

DATE
APRIL 2021

SCALE
1:25

DRAWING

S2

GENERAL NOTES:

- THE OWNER'S PROFESSIONAL ENGINEER IS REQUIRED TO FIELD REVIEW THE INSTALLATION OF SERVICES INCLUDED IN THIS PROJECT IN ACCORDANCE WITH THE GENERAL REVIEW COMMITMENT CERTIFICATION PROCESS. THE OWNER'S CONTRACTOR IS TO PROVIDE AT LEAST 48 HOURS NOTICE PRIOR TO COMMENCING CONSTRUCTION OF THE
- THE OWNER/OWNER'S CONTRACTOR SHALL HAVE ITS PROFESSIONAL ENGINEER PROVIDE FULL-TIME ONSITE REVIEW DURING CONSTRUCTION ON AN EXISTING MUNICIPAL STREET OR EASEMENT AND PROVIDE A CERTIFICATE OF COMPLETION OF WORKS UPON COMPLETION OF ALL WORKS TO BE CONSTRUCTED.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE CURRENT ONTARIO BUILDING CODE (OBC) AND ANY APPLICABLE STATUTES, REGULATIONS, CODES AND BY-LAWS.
- . STRIK, BALDINELLI, MONIZ LTD. (SBM) IS NOT RESPONSIBLE FOR THE INFORMATION (EXISTING TOPOGRAPHY, BENCHMARKS, PROPERTY BOUNDARY, ETC.) PROVIDED BY

CONSTRUCTION NOTES:

- 1. REFER TO THE SERVICING PLAN FOR LAYOUT DIMENSIONING.
- 2. THE OWNER'S CONTRACTOR IS TO CONTACT THE CONSULTING ENGINEER (SBM) FOR FINAL ONSITE REVIEW. THE CONTRACTOR IS TO PROVIDE AT LEAST 48 HOURS NOTICE PRIOR TO REQUIRED ONSITE REVIEW.
- THE OWNER'S CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES UNDER THE OCCUPATIONAL HEALTH AND SAFETY ACT AS REQUIRED BY THE MINISTRY OF LABOUR TO EXECUTE THE WORK.
- 4. THE OWNER'S CONTRACTOR IS TO REVIEW AND CONFIRM ALL EXISTING CONDITION INFORMATION & INFORM SBM OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. SBM IN NO WAY ACCEPTS RESPONSIBILITY FOR ANY INACCURACIES FOUND ON THIS PLAN RELATIVE TO EXISTING CONDITIONS FOR THE SITE.
- 5. PRIOR TO COMMENCING ANY CONSTRUCTION, ALL SEWER OUTLET INFORMATION, BENCHMARKS, ELEVATIONS, DIMENSIONS, GRADES, ETC. MUST BE CHECKED BY THE
- CONTRACTOR AND VERIFIED AND ANY DISCREPANCIES REPORTED TO THE ENGINEERS. 6. PRIOR TO COMMENCING ANY WORK ON THE INSTALLATION OF SERVICES & GRADING, AN APPROVED SET OF PLANS AND SPECIFICATIONS MUST BE AVAILABLE ON THE
- JOB AND SHALL REMAIN THERE WHILE WORK IS BEING DONE. STRIP FULL DEPTH OF TOPSOIL IN AREAS TO BE DISTURBED AND STOCK PILE FOR RE-USE IN GRASSED/LANDSCAPED AREAS.
- 8. OWNER'S CONTRACTOR IS RESPONSIBLE FOR ALL AS-BUILT INVERTS AND GRADES, RECORD ANY DEVIATION OF PIPE OR STRUCTURE LOCATION INVOLVED WITH THIS PROJECT AND OWNER'S CONTRACTOR TO PROVIDE A COPY OF THE AS-BUILT DRAWING SHOWING ALL CHANGES CLEARLY MARKED IN RED.
- 9. THE OWNER'S CONTRACTOR SHALL CONSTRUCT TEMPORARY MEASURES TO CONTROL SILT ENTERING THE STORM DRAINAGE SYSTEM TO THE SPECIFICATIONS OUTLINED IN THE GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES PREPARED BY THE MINISTRY OF NATURAL RESOURCES. THESE MEASURES ARE TO BE INSTALLED PRIOR TO COMMENCING ANY CONSTRUCTION FOR THIS PROJECT AND ARE TO REMAIN IN PLACE UNTIL CONSTRUCTION HAS BEEN COMPLETED TO BASE ASPHALT AND SOD OR THE SATISFACTION OF THE MUNICIPAL ENGINEER.
- 10. THE CONTRACTOR SHALL INFORM GRAND RIVER TRANSIT (GRT) AT LEAST ONE WEEK PRIOR TO COMMENCING CONSTRUCTION ON ANY STREET THAT IS A GRT BUS ROUTE THAT WILL BE AFFECTED BY CONSTRUCTION. 11. THE CONTRACTOR IS RESPONSIBLE FOR:

. CONNECTING ANY EXISTING SEWER OR DRAIN ENCOUNTERED DURING CONSTRUCTION TO A NEW SEWER OF SIMILAR TYPE, SIZE AND MATERIAL OR INTO ANOTHER

- EXISTING SEWER OF THE SAME TYPE AND TO REPORT ON AS-BUILT DRAWINGS. 11.2. ENSURING THAT THERE IS NO INTERRUPTION OF ANY SURFACE OR SUBSURFACE DRAINAGE FLOW THAT WOULD ADVERSELY AFFECT NEIGHBOURING PROPERTIES. 12. NO FOUNDATION DRAIN CONNECTIONS WILL BE PERMITTED INTO THE SANITARY SEWERS AND NO DIRECT GRAVITY CONNECTIONS FROM THE FOUNDATION DRAINS WILL BE PERMITTED TO THE STORM SYSTEM UNLESS THE STORM SYSTEM HAS THE CAPACITY TO PROVIDE FOR SUCH CONNECTIONS TO THE SATISFACTION OF THE MUNICIPAL
- 13. WORK ON OR ADJACENT TO THE MUNICIPAL CITY RIGHT OF WAY (R.O.W.) SHALL BE COMPLETED IN ACCORDANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 CURRENT EDITION AND THE ONTARIO TRAFFIC MANUAL BOOK 18 CURRENT EDITION.

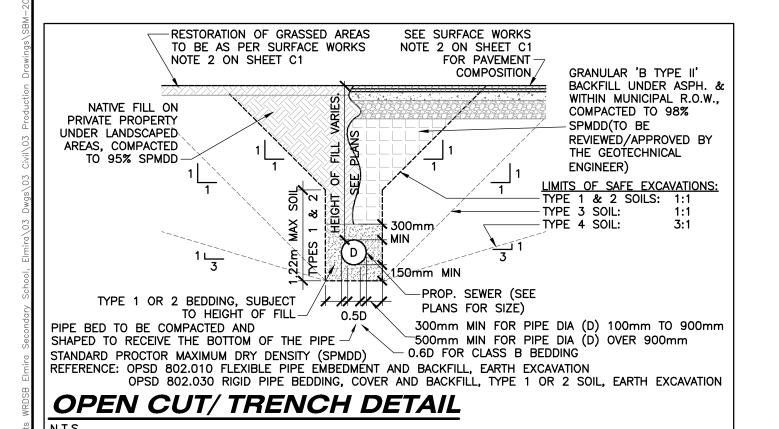
SURFACE WORKS NOTES:

- 1. ALL WORK IN THE TOWN ROAD ALLOWANCE SHALL MEET THE MINIMUM STANDARDS AND SPECIFICATIONS OF REGION OF WATERLOO ENVIRONMENTAL AND ENGINEERING SERVICES DEPARTMENT. THE GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS, STANDARD SPECIFICATIONS, STANDARD SPECIAL PROVISIONS AND STANDARD DRAWINGS FOR UNIT PRICE CONTRACTS AND THE REGION OF WATERLOO AND AREA MUNICIPALITIES DESIGN GUIDELINES AND SUPPLEMENTAL SPECIFICATIONS ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE MUNICIPAL ENGINEER. THE CONTRACTOR IS REQUIRED TO OBTAIN & PAY FOR PERMIT TO WORK IN MUNICIPAL R.O.W.
- ALL SURFACES WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION AT LEAST AS GOOD AS ORIGINAL, OR AS PER BELOW (WHICHEVER IS GREATER) OR IF WITHIN THE MUNICIPAL RIGHT OF WAY TO THE SATISFACTION OF THE MUNICIPAL ENGINEER, ALL AT NO COST TO THE MUNICIPALITY.
- 2.1. GRASSED AREAS TO BE RESTORED w/ 100mm TOPSOIL + SOD.
- CONCRETE SIDEWALK TO OPSD STANDARD 310.010.
- CONCRETE CURB AND GUTTER TO OPSD 600.040 (ASSUMED EXISTING ON-SITE CURB). 2.4. ANY ASPHALT AREA DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS FOLLOWS:
 - 2.4.1. PROOF ROLL SUBGRADE (TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER) PRIOR TO PLACEMENT OF GRANULARS (98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD) MIN.).
 - 2.4.2. MILL ADJACENT ASPHALT TO BE TIED INTO 50mm DEEP x 500mm WIDE PRIOR TO RESTORATION SEE DETAIL ON SHEET C1.
 - 2.4.3. ASSUMED EXISTING DRIVING LANE PAVEMENT STRUCTURE (TO BE REVIEWED & APPROVED BY THE GEOTECHNICAL ENGINEER)
 - 40mm HL3 SURFACE ASPHALT COMPACTED TO 97% MARSHALL MIX DESIGN BULK DENSITY - 50mm HL8 BINDER ASPHALT COMPACTED TO 97% MARSHALL MIX DESIGN BULK DENSITY
 - ASPHALT TO BE SUPPLIED AND PLACED IN ACCORDANCE WITH OPSS 310 & 1150 - 150mm OF GRANULAR 'A' COMPACTED TO 100% SPMDD
 - 300mm OF GRANULAR 'B' COMPACTED TO 100% SPMDD
- 2.5. RESTORE ALL PAVEMENT MARKINGS TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS AND MARKINGS SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 710 'CONSTRUCTION SPECIFICATION FOR PAVEMENT MARKING' 2.6. ALL EXTERIOR HORIZONTAL CONCRETE SHALL BE MIN 125mm THICK, 32 MPa AT 28 DAYS c/w 5-8% AIR ENTRAINMENT AND TEMPERATURE BETWEEN 10-28°C.
- ON MIN 150mm THICK GRANULAR 'A' COMPACTED TO 100% SPMDD. 3. ALL AREAS OUTSIDE THE CONSTRUCTION LIMITS SHALL NOT BE DISTURBED. ANY DAMAGED TO THOSE AREAS ARE TO BE REPAIRED AT THE CONTRACTORS EXPENSE.

SERVICING NOTES:

AS CONSTRUCTED SERVICES COMPLETION

- 1. ALL STORM AND/OR SANITARY SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT REGION OF WATERLOO'S STANDARDS AND SPECIFICATIONS AND THE CURRENT EDITION OF THE ONTARIO BUILDING CODE.
- ALL SITE SERVICES SHALL BE INSTALLED TO 1.0m OUTSIDE FOUNDATION WALL, MECHANICAL TRADES WILL TAKE THE SERVICES FROM THAT POINT INTO THE BUILDING. ALL ORGANIC, UNSTABLE OR UNSUITABLE MATERIALS BENEATH THE ROAD ALLOWANCE, SERVICES, UTILITIES, OR FOUNDATIONS MUST BE REMOVED AND THESE AREAS BACKFILLED WITH AN APPROVED FILL MATERIAL, ALL TO THE SATISFACTION OF A GEOTECHNICAL ENGINEER AND SHOULD BE PLACED IN LIFTS NOT EXCEEDING 300mm (LOOSE) THAT ARE COMPACTED TO 95% SPMDD (100% FOR PAVED SURFACES). THE FILL MATERIAL SHOULD COMPRISE OF CLEAN, COMPACTIBLE FILL WITHIN 3% OF THE
- REMOVE ALL TRENCH WATER WHEN PIPE LAYING IS IN PROGRESS. ALL REQUIREMENTS FOR DEWATERING PERMITS (INCLUDING THE MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS (M.E.C.P.)'S PERMIT TO TAKE WATER AND REGISTRY, IF REQUIRED) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONNECTIONS FROM FOUNDATIONS, WEEPING TILE, SUMP PUMP, AND ROOF DRAINS ARE NOT PERMITTED TO ENTER THE SANITARY SEWER SYSTEM AND SHALL BE IN ACCORDANCE WITH THE REGION OF WATERLOO'S DRAINAGE BY-LAW 1-90.
- 6. ALL PROPOSED SANITARY SEWER PIPE TO BE PVC SMOOTH WALL (CSA B182.2) (1000 TO 6000) OR RIBBED (CSA B182.4) (2000 TO 6000) OR NON-REINFORCED CONCRETE (CAN/CSA 257.1) (1000 TO 6000) OR REINFORCED CONCRETE (CAN/CSA 257.2). PVC PIPE SHALL BE LAID WITH TYPE I BEDDING UNDER 4.5m OF COVER AND TYPE II BEDDING OVER 4.5m OF COVER. CONCRETE PIPE SHALL BE LAID WITH CLASS B (B1 OR B2) BEDDING. ALL SEWER BACKFILL MUST BE COMPACTED TO 95% STANDARD MAXIMUM DRY DENSITY (MINIMUM) (100% FOR PAVED AREAS). REFER TO THE REGION OF WATERLOO'S DRAWING E1-01.
- CLASS B1 BEDDING (CRUSHED STONE) TO EXTEND FROM THE INLET AND OUTLET PIPES OF ANY MAINTENANCE HOLE FOR A DISTANCE OF 5.0m. REFER TO REGION OF
- ALL STORM AND SANITARY SEWERS/SERVICES LEADS SHALL HAVE APPROVED RUBBER GASKET JOINTS + BE INSTALLED USING A LASER LEVEL. 9. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL PRECAST CONCRETE STRUCTURES. 10. MAINTENANCE HOLES TO BE CONSTRUCTED OF PRE-CAST CONCRETE. ALL MAINTENANCE HOLES TO BE INSTALLED IN ACCORDANCE WITH THE ONTARIO PROVINCIAL
- STANDARDS (OPSD) DIVISION 700 DETAILS AND REQUIREMENTS, SEE LIST OF COMMON DETAILS. ALL STRUCTURES TO BE DESIGNED TO RESIST BUOYANCY IF REQUIRED.
- 11. ENSURE MINIMUM OF 1 ADJUSTMENT UNIT FOR ALL STRUCTURES. MAXIMUM TOTAL ADJUSTMENT UNITS HEIGHT: 300mm. 12. RUNG SPACING IN MAINTENANCE HOLES TO BE 300mm MIN. AND A MAX. OF 600mm DISTANCE BETWEEN THE LID AND THE FIRST RUNG.
- 13. ALL SUBSTITUTIONS MUST BE APPROVED BY THE MANAGER OF ENGINEERING. 14. THE ELEVATION OF THE GROUND WATER TABLE IS UNKNOWN. CONTRACTOR TO ADVISE SBM IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION OPERATIONS; FURTHER REVIEW/INVESTIGATION BY A GEOTECHNICAL ENGINEER MAY BE REQUIRED. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION OPERATIONS, CIVIL STRUCTURES ARE TO BE DESIGNED FOR HYDROSTATIC PRESSURE AND UPLIFT/BUOYANCY FORCES. PROVIDE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO FOR REVIEW.



CHECKED

cad 20-4137

D/M/Y STRIK ISSUED FOR CLIENT REVIEW 26/02/21 BALDINELLI 16/03/21 JSF ISSUED FOR TENDER ISSUED FOR BUILDING PERMIT 05/04/21 JSF APPROVED LS/NGu DATE 10/02/2021



TORONTO, ON

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SBM-20-4137 ELMIRA SECONDARY SCHOOL 4 UNIVERSITY AVENUE WEST PLAN FILE No. ELMIRA, ON.

- ALL WORK FOR COORDINATION, DESIGN, AND CONSTRUCTION OF UTILITIES IS BY OTHERS. SBM DESIGN AND DRAWINGS ARE FOR MUNICIPAL SERVICING ONLY. ANY UTILITY INFORMATION SHOWN IS FOR REFERENCE/COORDINATION PURPOSES ONLY AND MAY NOT BE ACCURATE. THE UTILITIES COORDINATING COMMITTEE MUST BE INFORMED AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION ON ANY EXISTING MUNICIPAL ROAD ALLOWANCE. ALL EXISTING UNDERGROUND SERVICE OR UTILITIES WITHIN THE LIMITS OF THE CONSTRUCTION SITE SHALL BE LOCATED AND MARKED. ANY UTILITIES, DAMAGED OR
- DISTURBED DURING CONSTRUCTION. SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE GOVERNING BODY AT THE CONTRACTOR'S EXPENSE. ALL EXISTING UNDERGROUND UTILITY (TELEPHONE, HYDRO, GAS, CABLE, SEWER, WATERMAINS, ETC.) THAT WILL BE CROSSED UNDER DURING THE INSTALLATION OF SERVICES FOR THIS DEVELOPMENT SHALL BE SUPPORTED, AS MAY BE REQUIRED BY THE OWNERS OF THE UTILITY BEING CROSSED UNDER.
- OWNER'S CONTRACTOR TO LOCATE/FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. OWNER'S CONTRACTOR TO COORDINATE WITH UTILITIES PROVIDER FOR BRACING, DECOMMISSIONING AND/OR RELOCATION OF EXISTING GAS, HYDRO, TELEPHONE, CABLE,

ETC. SERVICES, IF REQUIRED. **REFERENCE DOCUMENTS:**

EXISTING SPOT ELEVATION

EXISTING SPOT ELEVATION

PROPOSED SPOT ELEVATION

PROPOSED SWALE ELEVATION

EXISTING CATCH BASIN

PROPOSED CATCH BASIN

EXISTING CLEANOUT

PROPOSED CLEANOUT

MAINTENANCE HOLE

PROPOSED SWALE

PROPOSED SLOPE

- EXISTING WATERMAIN

EXISTING FIRE HYDRANT

EXISTING WATER VALVE

PROPOSED WATER VALVE

EXISTING WATER METER

PROPOSED WATER METER

PROPOSED SUMP PUMP (SEE

ARCHITECTURAL DRAWINGS)

GROUND ELEVATION AT TOP

BOTTOM OF RETAINING WALL

PROPOSED LIGHT-DUTY ASPHALT

PROPOSED HEAVY-DUTY ASPHALT

PROPOSED CURB STOP

PROPOSED RAMP

BOTTOM OF CURB

OF RETAINING WALL GROUND ELEVATION AT

BUILDING ENTRANCE

PROPOSED CONCRETE

PROPOSED RETAINING WALL

MILL/PAVE LAP JOINT AS PER

PROPOSED STRAW BALE BARRIER

(DESIGNED BY OTHERS)

DETÁIL ON THIS PAGE

PROPOSED SILT SACK

EXISTING BUILDING

PROPOSED TREE

TO BE REMOVED

PRESERVATION FENCE

LIMITS OF SUBJECT PROPERTY

DECIDUOUS/CONIFEROUS TREE

DECIDUOUS/CONIFEROUS TREE

PROPOSED BUILDING

LIMITS OF DRAINAGE AREA

1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8

Tel: (519) 471-6667 Fax: (519) 471-0034

Email: sbm@sbmltd.ca

OVERHEAD DOOR

TOP OF CURB

TOP OF LID

PROPOSED FIRE HYDRANT

20.0-3000 ST @ 1.0% EXISTING STORM SEWER

20.0-3006 ST 6 1.0% PROPOSED STORM SEWER

20.0-150 SA @ 1.0% EXISTING SANITARY SEWER

20.0-150 SA ● 1.0% PROPOSED SANITARY SEWER

150 PVC WSC PROPOSED WATERMAIN

PROPOSED CATCH BASIN

EXISTING MAINTENANCE HOLE

PROPOSED MAINTENANCE HOLE

PROPOSED DRAINAGE DIRECTION

PROPOSED SIGN, TYPE OF SIGN

(TO REMAIN)

UTILITIES NOTES:

LEGEND:

271.00

 \bigcirc

 \bigcirc

150 PVC WSC

2.0%

LIST OF STANDARD DETAILS:

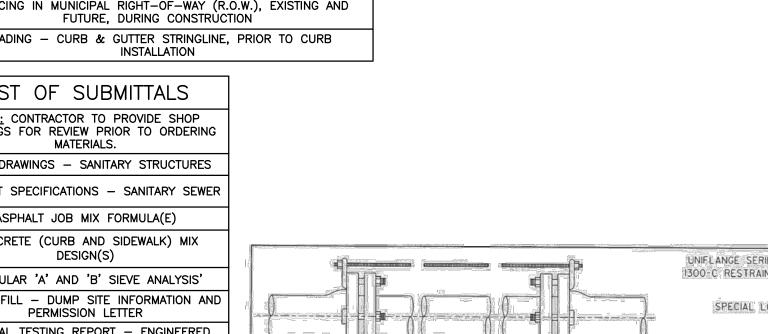
TOPOGRAPHIC INFORMATION, LEGAL LINEWORK, AND EXISTING SERVICING ONTARIO PROVINCIAL STANDARDS INFORMATION OBTAINED FROM PLANS BY MACDONALD AND TAMBLYN LORD OPSD 219.110 SURVEYING DRAWING NO. 20-40-014-00 DATED JANUARY 20, 2021. OPSD 310.010 CONCRETE SIDEWALK

EXISTING UTILITY/SERVICING INFORMATION OBTAINED FROM PLANS BY ONSITE OPSD 401.010 CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES LOCATES REFERENCE NUMBER 20-46-30781 DATED FEBRUARY 18, 2021. CONCRETE BARRIER CURB WITH STANDARD GUTTER OPSD 600 040 PRECAST CONCRETE MAINTENANCE HOLE, 1200mm DIAMETER

LIST OF ITEMS REQUIRING ENGINEER'S REVIEW NOTE: CONTRACTOR TO PROVIDE MIN. 48 HOURS NOTICE PRIOR TO REQUESTED FIELD REVIEW TIME. EROSION AND SEDIMENT CONTROL MEASURES, UPON COMPLETION SERVICING IN MUNICIPAL RIGHT-OF-WAY (R.O.W.), EXISTING AND FUTURE, DURING CONSTRUCTION GRADING - CURB & GUTTER STRINGLINE. PRIOR TO CURB

LIST OF SUBMITTALS NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING **MATERIALS** SHOP DRAWINGS - SANITARY STRUCTURES PRODUCT SPECIFICATIONS - SANITARY SEWER ASPHALT JOB MIX FORMULA(E) CONCRETE (CURB AND SIDEWALK) MIX DESIGN(S) GRANULAR 'A' AND 'B' SIEVE ANALYSIS' EXCESS FILL - DUMP SITE INFORMATION AND MATERIAL TESTING REPORT - ENGINEERED EXISTING OVERLAND FLOW ROUTE FILL SOURCE LETTER (RE CONTAMINANTS. PROPOSED OVERLAND FLOW ROUTI MATERIAL TESTING REPORT - ENGINEERED FILL COMPACTION MATERIAL TESTING REPORT - ENGINEERED FILL PLAN MATERIAL TESTING REPORT - SUBGRADE COMPACTION/PREPARATION MATERIAL TESTING REPORT - GRANULAR COMPACTION MATERIAL TESTING REPORT - CONCRETE CYLINDERS

OPSD 701.010



1300-C RESTRAINER SPECIAL LONG T-BOUT -RESTRAINER ASSEMBL FOR P.V.C. PIPE FOR D.I. AND P.V.C. PIPE RESTRAINER MATERIAL TESTING REPORT - ASPHALT MINIMUM CLEARANCE AS PER M.E.C.P. WATERMAIN COMPACTION MATERIAL TESTING REPORT - ASPHALT SAMPLES . ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SHOWN. SEWER OR OTHER AS-BUILT SURVEY FOR EARTHWORKS 2. THIS DETAIL TO BE USED FOR OFFSETS ON 100, 150 & QUANTITIES OBSTRUCTION 200 DIA: MAINS, OFFSETS ON LARGER MAINS REQUIRE EXISTING WATERMAIN CCTV OF SANITARY SEWERS 3. IF OFFSET IS INSTALLED IN HORIZONTAL OR INVERTED APPROVED CLAM REQUIRED M.J. BEND POSITION, MINIMUM COVER TO BE DECIDED BY ENGINEER.

APPROVED TIERODI (THREADED COR-TEN STEEL)

APPROVED TIEBOUT JOINT RESTRAINER

APPROVED TIENUT 6. ALL RESTRAINERS MUST BE APPROVED BY THE REGION OF TYPICAL MECHANICAL JOINT OFFSET INSTALLATION USING TIEBOLT COUPLINGS

WATERLOO SEWER PIPE OVERCUT HOLE PARGE SOLID WITH NON-SHRINKABLE PARGING DETAIL PROPOSED INSPECTION MAINTENANCE HOLE

SUBJECT

KEY PLAN

BRUBACHER ST

LEGAL INFORMATION

PLAN 76

LOT 32 TO LOT 40 PT LOT 31

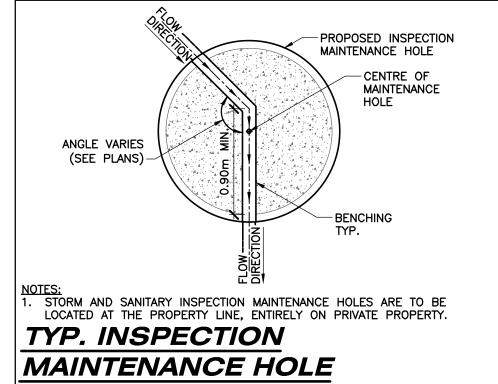
LOT 23 TO LOT 30 CLOSED KLINCK

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IN THE

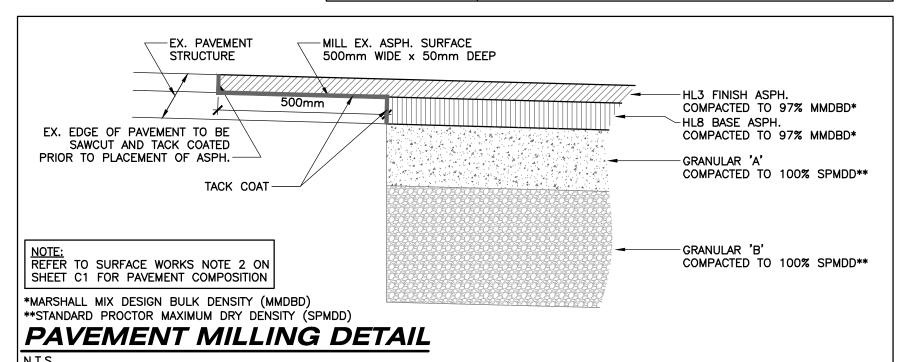
TOWN OF WOOLWICH

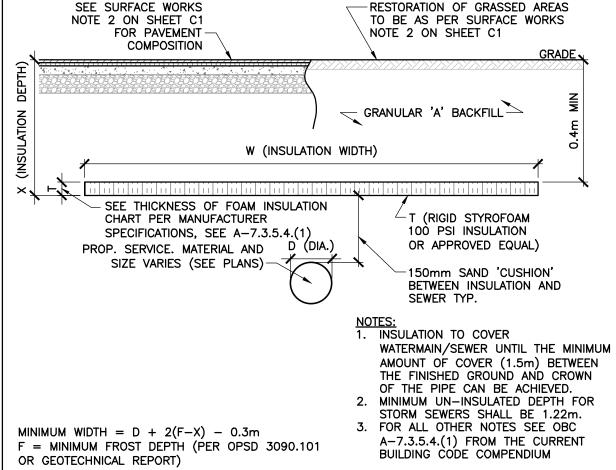
REGION MUNICIPALITY OF



LIST OF DRAWINGS

SHEET C1	NOTES, LEGEND, AND DETAILS
SHEET C2	EXISTING CONDITIONS, REMOVALS, AND SEDIMENT & EROSION CONTROL PLAN
SHEET C3	SITE ENGINEERING PLAN





BENCHING DETAIL

SEWER INSULATION DETAIL

NOTES, LEGEND, AND DETAILS

(CONTRACTOR TO CONFIRM BENCHMARK ELEVATIONS)

SITE BENCHMARK:

GEODETIC ELEVATION: 362.940m (CGVD28:78)

GEODETIC ELEVATION: 362.937m (CGVD28:78)

(CONTRACTOR TO CONFIRM BENCHMARK ELEVATIONS)

LOCATION: TWO STOREY RED BRICK HOUSE (#254) ON THE WEST SIDE OF WATERLOO REG RD 21, 1.3 KM SOUTH OF JCT

OF WATERLOO REG RD 86 AND 21 IN ELMIRA, 1.3 KM NORTH

OF THE JCT OF WATERLOO REG RD 21 AND HYWS 85 AND

61.0 M WEST OF CENTERLINE OF WATERLOO REG RD 21

TABLET IS SET HORIZONTALLY IN SOUTH FACE OF CONCRETE

FOUNDATION, 4.08 M WEST OF W.E. CORNER AND 12 CM

LOCATION: RED BRICK CHURCH (EMMANUEL MISSIONARY) ON

THE WEST SIDE OF WATERLOO REG RO 21. 0.8 KM SOUTH OF

THE JCT OF WATERLOO REG RDS 86 AND 21 IN ELMIRA, 1.8

KM NORTH OF THE JCT OF WATERLOO REG RD 21 AND HWYS

85 AND 86, 27.4 M NORTH OF CENTERLINE OF FIRST ST AND

16.9 M WEST OF CENTERLINE OF WATERLOO REG RD 21.

TABLET IS SET HORIZONTALLY IN EAST FACE OF CONCRETE

FOUNDATION, 91 CM SOUTH OF N.E. CORNER AND 27 CM

86. 42.0 M SOUTH OF CENTERLINE OR ORIOLE PKWY AND

MONUMENT TYPE: BENCHMARK

MONUMENT TYPE: BENCHMARK

BELOW BRICKWORK.

4. ONE PAIR OF 20mm DIA. RODS FOR 100, 150 & 200 DIA. PIPE.

5. COVER TIEBOLT ASSEMBLY WITH DENSO PASTE MASTIC

AND TAPE ALL TO MANUFACTURER'S SPECIFICATIONS.

BRICKWORK

LGA ARCHITECTURAL PARTNERS 310 SPADINA AVENUE, SUITE 100B

SEDIMENT & EROSION CONTROL MEASURES: SITE BENCHMARK: <u>OFF—SITE WORKS NOTE:</u> PERMIT OF APPROVED WORKS FOR ALL EXTERNAL WORKS IS REQUIRED. **UTILITIES NOTE:** TOPSOIL STOCKPILE SIZES/LOCATIONS TO BE DETERMINED IN THE FIELD. SILT FENCE FOR CLARITY, NOT ALL EXISTING UTILITIES MAY BE SHOWN. THE OWNER'S CONTRACTOR SHALL BE CONSTRUCTED ÁT TOE OF DOWNGRADE EDGES OF TOPSOIL STOCKPILE IS RESPONSIBLE FOR OBTAINING ALL UTILITY LOCATES PRIOR TO CONSTRUCTION. BRUBACHER PROTECT ALL EXPOSED SURFACES AND CONTROL ALL RUNOFF DURING CONSTRUCTION. MONUMENT TYPE: BENCHMARK SEDIMENT AND EROSION CONTROL MEASURES TO BE REMOVED AT COMPLETION OF PROJECT (FOLLOWING *EXISTING SERVICING NOTE:
INVERTS OF THE EX. SANITARY & STORM SEWERS © CONNECTION POINTS SHALL BE ALL NATIVE FILL PLACED SHALL MEET THE REQUIREMENTS FOR ENGINEERED FILL, LOCATION: TWO STOREY RED BRICK HOUSE (#254) ON THE SEDIMENT AND EROSION CONTROL MEASURES MAY ONLY BE REMOVED UPON COMPLETION OF BASE ASPHALT AND SOD). COMPACTED TO 100% SPMDD OR AS OUTLINED IN THE GEOTECHNICAL REPORT. WEST SIDE OF WATERLOO REG RD 21, 1.3 KM SOUTH OF STABILIZATION OF CONTRIBUTING CATCHMENT AREA AND SUBJECT TO APPROVAL OF MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION. CONFIRMED BY THE OWNER'S CONTRACTOR PRIOR TO THE START OF ALL COLLECTED SEDIMENT TO BE DISPOSED OF AT AN APPROVED LOCATION. JCT OF WATERLOO REG RD 86 AND 21 IN ELMIRA, 1.3 KM ENGINEER/MUNICIPALITY. CONSTRUCTION/ORDERING STRUCTURES. THE CONSULTANT IS TO BE INFORMED IF NORTH OF THE JCT OF WATERLOO REG RD 21 AND HYWS BOULEVARD AREAS AND CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION OF MINIMIZE AREA DISTURBED DURING CONSTRUCTION. DIFFERENT THAN NOTED. 85 AND 86, 42.0 M SOUTH OF CENTERLINE OR ORIOLE ALL DEWATERING TO BE DISPOSED OF IN AN APPROVED SEDIMENTATION BASIN. SERVICES SHALL BE RESTORED TO MATCH EX. CONDITION OR SURFACE WORKS NOTES UNLESS OTHERWISE NOTED ON THE PLANS, GEOTEXTILE SHALL BE NON-WOVEN TO PKWY AND 61.0 M WEST OF CENTERLINE OF WATERLOO ON SHEET C1, WHICHEVER IS GREATER, ALL AT NO COST TO THE MUNICIPALITY. PROTECT ALL CATCH BASINS, MAINTENANCE HOLES AND PIPE ENDS FROM SEDIMENT INTRUSION WITH RESTORATION NOTE:
ALL WORK IN THE ROAD ALLOWANCE SHALL MEET THE MINIMUM SPECIFICATIONS OF MEET CLASS 2-OPSS 1860.07.02 (I.E. TERRAFIX 270R, OR APPROVED EQUAL) WITH REG RD 21. TABLET IS SET HORIZONTALLY IN SOUTH FACE GEOTEXTILE FABRIC (TERRAFIX 270 R), SILT SACKS, OR APPROVED EQUAL. 300mm MIN. OVERLAPS. OF CONCRETE FOUNDATION, 4.08 M WEST OF W.E. CORNER KEEP ALL SUMPS CLEAN DURING CONSTRUCTION. DISPOSAL NOTE: THE REGION OF WATERLOO ENVIRONMENTAL AND ENGINEERING SERVICES DEPARTMENT. AND 12 CM BRICKWORK. PREVENT WIND-BLOWN DUST. ALL ITEMS NOTED AS "TO BE REMOVED" SHALL BE DISCARDED OFF-SITE AT AN THE GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS, STANDARD SILT SACKS (OR APPROVED EQUAL) SHALL BE INSTALLED AND MAINTAINED IN ALL OF THE ABOVE NOTES AND ANY SEDIMENT & EROSION CONTROL MEASURES ARE AT THE MINIMUM TO BE APPROVED FACILITY. SPECIFICATIONS. STANDARD SPECIAL PROVISIONS AND STANDARD DRAWINGS FOR UNIT IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT GEODETIC ELEVATION: 362.940m (CGVD28:78) EXISTING CB's AND PROPOSED CB'S AND CBMH'S FOR DURATION OF PROJECT UNTIL PRICE CONTRACTS AND THE REGION OF WATERLOO AND AREA MUNICIPALITIES DESIGN CONTROL FOR URBAN CONSTRUCTION SITES. SURFACES ARE PAVED AND BOULEVARDS ARE SODDED. GUIDELINES AND SUPPLEMENTAL SPECIFICATIONS ARE TO BE APPLIED TO WORKS SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE INSPECTED WEEKLY OR FOLLOWING SIGNIFICANT (CONTRACTOR TO CONFIRM BENCHMARK ELEVATIONS) OWNER'S CONTRACTOR TO CLEAR AND GRUB SITE PRIOR TO CONSTRUCTION AND WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE RAINFALL EVENTS. DISPOSE OF ALL DEBRIS AND EXCESS FILL/TOPSOIL OFF-SITE AT AN APPROVED SILT FENCE TO BE CONSTRUCTED ON PROPERTY LINE. LINE WORK IS SHOWN AS 12. ON-SITE SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE REVIEWED AND MODIFIED TO MEET THE OFFSET FOR CLARITY MONUMENT TYPE: BENCHMARK CHANGING SITE. SITE PREPARATION NOTE:
THIS PLAN HAS BEEN PREPARED TO IDENTIFY REMOVALS, EROSION & SEDIMENT SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REPAIRED WITHOUT DELAY BY THE OWNERS THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN CONTRACTOR AS INSTRUCTED BY THE CONTRACT ADMINISTRATOR/ENGINEER AT NO EXPENSE TO THE OWNER. OWNER'S CONTRACTOR SHALL BE RESPONSIBLE FOR REGULAR MONITORING & LOCATION: RED BRICK CHURCH (EMMANUEL MISSIONARY) MUD MATS TO BE PROVIDED ON-SITE AT CONSTRUCTION ENTRANCE LOCATIONS WHERE CONSTRUCTION ON THE WEST SIDE OF WATERLOO REG RO 21, 0.8 KM | KEY PLAN CONTROL MEASURES AND TEMPORARY CONSTRUCTION WORKS FOR THE BENEFIT OF COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN CLEANUP OF TRACKED MUD/DEBRIS ON ADJACENT LANDS & PUBLIC ROADS TO THE VEHICLES EXIT THE SITE. MUD MAT SHALL BE A MINIMUM OF 6.7m WIDE, 11.0m LONG (LENGTH MAY VARY SOUTH OF THE JCT OF WATERLOO REG RDS 86 AND 21 IN THE OWNER'S CONTRACTOR IN ADVANCE OF SERVICING WORKS. IT IS NOT INTENDED THE MUNICIPAL RIGHT-OF-WAY. THE OWNER'S OWNER'S CONTRACTOR SHALL SUBMIT SATISFACTION OF THE ENGINEER/MUNICIPALITY. TO IDENTIFY PERMANENT GRADING PATTERNS. DEPENDING ON SITE LAYOUT) AND 0.3m DEEP AND SHALL CONSIST OF 200mm CLEAR STONE MATERIAL OR ELMIRA, 1.8 KM NORTH OF THE JCT OF WATERLOO REG RD TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO APPROVED EQUIVALENT. CONTRACTOR TO ENSURE ALL VEHICLES LEAVE THE SITE VIA THE MUD MAT AND THAT 21 AND HWYS 85 AND 86, 27.4 M NORTH OF CENTERLINE PROCEEDING WITH CONSTRUCTION OWNER'S CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO AVOID MIXING OF FIRST ST AND 16.9 M WEST OF CENTERLINE OF STORM DRAINAGE NOTE: STORM DRAINAGE MAY TEMPORARILY NEED TO BE CONTROLLED AND PUMPED FROM IT IS MAINTAINED IN A MANNER TO MAXIMIZE ITS EFFECTIVENESS AT ALL TIMES. TOPSOIL WITH SUBSOIL, WHERE REQUIRED FOR REUSE ON-SITE. LEGAL INFORMATION WATERLOO REG RD 21. TABLET IS SET HORIZONTALLY IN EAST FACE OF CONCRETE FOUNDATION, 91 CM SOUTH OF STORM SEWER SYSTEM. ANY SUCH TEMPORARY MEASURES SHALL BE CONDUCTED AT N.E. CORNER AND 27 CM BELOW BRICKWORK. NO EXTRA COST TO THE CONTRACT AND BE BASED UPON THE OWNER'S PLAN 76 CONTRACTOR'S WATER CONTROL PLANS. WHICH MUST BE APPROVED BY THE GEODETIC ELEVATION: 362.937m (CGVD28:78) CONTRACT ADMINISTRATOR/ENGINEER PRIOR TO CONSTRUCTION. LOT 32 TO LOT 40 PT LOT 31 (CONTRACTOR TO CONFIRM BENCHMARK ELEVATIONS) LOT 23 TO LOT 30 CLOSED KLINCK ST IN THE TOWN OF WOOLWICH EX. ASPHALT PARKING LOT REGION MUNICIPALITY OF WATERLOO EX. B.F. EX. WOODEN EX. PORTABLE CLASSROOM EXISTING BUILDING 0.6 DIA EX. PORTABLE CLASSROOM 0.85 ,DIA 0.7, DIA O.4 DIA INV.=360.40 EXISTING ±54.6m-200ø SANITARY SEWER @ ±0.37% SILT FENCE PER OPSD 219-110 HATCHING DENOTES APPROXIMATE EXTENT EX. DIVIDER WALL S OF EXISTING LANDSCAPED AREA TO BE DISTURBED AND RESTORED PER SURFACE WORKS NOTES ON SHEET C1 AS REQUIRED EXISTING ±54.6m-200ø SANITARY SEWER @ ±0.37% FOR INSTALLATION OF SANITARY DIVERSION EX. PORTABLE CLASSROOM SEWER. ALL ADDITIONAL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AT NO COST TO THE CONTRACT. N POOR EXISTING MAINTENANCE HOLE CURB CUT TO BE PROVIDED EXISTING BOARD FENCE TO AT SITE ACCESS MUD MAT. BE REMOVED AND EX. PORTABLE CLASSROOM THICKER LINEWORK DENOTES RE-INSTALLED AS REQUIRED SILT FENCE PER OPSD 219-110 (TO BE APPROXIMATE EXTENT OF 11.0m LONG x 6.7m WIDE INSTALLED ON AGAINST PORTABLE FOR INSTALLATION OF CURB & GUTTER (ASSUMED SANITARY SEWER CLASSROOM, SHOWN OFFSET FOR CLARITY) OPSD 600.040) TO BE REMOVED AND RÉSTORED - SILT FENCE PER EXISTING HYDRO POLE TO BE MUD MAT PER SEDIMENT & RELOCATED FOR SANITARY OPSD 219-110 EROSION CONTROL MEASURES INSTALLATION (FUTURE NOTES ON THIS SHEET LOCATION BY OTHERS) 300 THICK - 200ø MIRAFI P-250 EX. 2-2" PHONE LINE (LOCATION CLEAR STONE -FILTER FABRIC -TEMPORARY MUD MAT DETAIL EX. ASPHALT WALKWAY EX. ASPHALT WALKWAY EX \ CSW EXISTING SANITARY SERVICE TO 50x50x1200mm WOOD STAKE TYP.-BE CAPPED AT BUILDING FACE -50x50x1200mm (SANITARY TO BE ABANDONED WOOD STAKE TYP. IN PLACE) -EXISTING LOCATION OF UTILITIES AND 000R SILL 363.48 SERVICING FROM PLANS BY ONSITE LOCATES, SEE REFERENCE DOCUMENT - GEOTEXTILE HATCHING DENOTES HATCHING DENOTES APPROXIMATE EXTENT OF EXISTING ASPHALT OR GEOTEXTILE TO BE 1 ON SHEET C1 (TYP), SBM TO BE APPROXIMATE EXTENT SIDEWALK TO BE REMOVED AND REPLACED WITH CONCRETE PER SURFACE SECURELY STAPLED/ NOTIFIED TO ADJUST PROPOSED OF 0.50m WIDE LAP WORKS NOTES ON SHEET C1 AS REQUIRED FOR INSTALLATION OF SANITARY FASTENED TO 50x50x JOINT PER DETAIL SANITARY ALIGNMENT AS REQUIRED. DIVERSION SEWER. ALL ADDITIONAL AREAS DISTURBED DURING CONSTRUCTION *ASSUMED EXISTING 150 SANITARY SEWER 1200mm WOOD STAKES-SHALL BE RESTORED AT NO EXTRA COST TO THE CONTRACT. ON SHEET C1 DIRECTION OF FLOW EXISTING SANITARY SERVICE TO BE EXISTING BUILDING CAPPED AT BUILDING FACE (SANITARY → 200mm TO BE ABANDONED TO BE PARGED SOLID WITHIN THE BUILDING AND GEOTEXTILE TO BE ABANDONED IN PLACE OUTSIDE) BURIED AS SHOWN *ASSUMED EXISTING 200Ø EXISTING SANITARY CLEANOUT SANITARY SEWER (LOCATION TO BE CONFIRMED) [≟] 200mm *ASSUMED EXISTING 150¢ SANITARY SEWER EXISTING SANITARY CLEANOUT (LOCATION TO BE CONFIRMED) SILT FENCE PER OPSD PROPOSED CONCRETE 219-110 (TO BE INSTALLED SIDEWALK TO BE EXISTING SANITARY SERVICE TO ON BACK OF CURB, SHOWN 2.3m MAX SPACING RAMPED TO EXISTING BE CAPPED AT BUILDING FACE OFFSET FOR CLARITY) GYMNASIUM RESTORATION BY BETWEEN STAKES EXISTING RAMP TO BE REMOVED AND DOOR SILL. (SANITARY TO BE ABANDONED OTHERS, ONLY INTERNAL PLUMBING REPLACED AFTER CONSTRUCTION -WATERPROOFING O BE FILLED WITH ENTERING OR EXITING THE $\stackrel{<}{-}$ EXISTING BLOCK PAVERS TO BE REMOVED, SIDE VIEW FRONT ELEVATION REQUIREMENT TO BE NON-SHRINKABLE GROUT SOLID BUILDING SHOWN, SEE MECHANICAL RESTORE EXISTING SIDEWALK SALVAGED, AND RELAID AFTER CONSTRUCTION, CONFIRMED BY THE WITHIN THE BUILDING AND DRAWINGS (BY OTHERS). CONTRACTOR TO INCLUDE APPROPRIATE SUBBASE SILT FENCE DETAIL ABANDONED IN PLACE OUTSIDE) FOR REINSTALLATION (APPROXIMATE EXTENTS) REFERENCE: OPSD 219.110 AS CONSTRUCTED SERVICES COMPLETION REVISIONS D/M/Y STRIK BALDINELLI EXISTING CONDITIONS, REMOVALS, AND LGA ARCHITECTURAL PARTNERS SBM-20-4137 ISSUED FOR CLIENT REVIEW 26/02/21 DESIGN LS/JSF SEDIMENT & EROSION CONTROL PLAN ISSUED FOR TENDER 16/03/21 JSF 310 SPADINA AVENUE, SUITE 100B SCALE - 1:200 2.0 0 4.0m ISSUED FOR BUILDING PERMIT 05/04/21 JSF CHECKED TORONTO, ON ELMIRA SECONDARY SCHOOL APPROVED LS/NGu C2 DATE 09/02/2021 100147337 M5T 2E8 4 UNIVERSITY AVENUE WEST 1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8 P: 416.203.7600 cad 20-4137 PLAN FILE No. Tel: (519) 471-6667 Fax: (519) 471-0034 ELMIRA, ON. E: jose@lga-ap.com Email: sbm@sbmltd.ca

WATERMAIN & SEWER CROSSING NOTE:

1. UNDER PRACTICAL CONDITIONS, WATERMAINS SHALL CROSS ABOVE SEWERS WITH SUFFICIENT VERTICAL SEPARATION TO ALLOW FOR PROPER BEDDING AND

STRUCTURAL SUPPORT OF THE WATERMAIN AND SEWER. WHEN IT IS NOT POSSIBLE FOR THE WATERMAIN TO CROSS ABOVE THE SEWER, THE WATERMAIN PASSING UNDER A SEWER SHALL BE PROTECTED BY: 2.1. PROVIDING A VERTICAL SEPARATION OF AT LEAST 0.5 METRES BETWEEN THE

INVERT OF THE SEWER AND THE CROWN OF THE WATERMAIN; PROVIDING ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING; AND

ENSURING THAT THE LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.

REFERENCE: JUNE 2012 MINISTRY OF THE ENVIRONMENT'S 'WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATION AUTHORIZED UNDER A DRINKING WATER WORKS

ALL CLEARANCES TO ELECTRICAL CONDUCTORS AS SET OUT IN THE CURRENT OBC DIV. B-3.1.19.1 'ELECTRICAL CONDUCTOR CLEARANCES TO BUILDINGS' SHALL BE

FOR CLARITY, NOT ALL EXISTING UTILITIES MAY BE SHOWN. THE OWNER'S CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL UTILITY LOCATES PRIOR TO CONSTRUCTION.

OWNER'S CONTRACTOR SHALL SUPPORT ALL EXISTING UTILITIES AS REQUIRED DURING THE INSTALLATION OF SERVICES TO THE SATISFACTION OF THE UTILITY OWNER AT NO EXTRA COST TO THE CONTRACT.

ALL SUMP PIT CONFIGURATIONS SHALL MEET, AT MINIMUM, OBC SECTION 7. ALL PUMPS ARE TO INCLUDE A CHECK VALVE.

BOULEVARD AREAS AND CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION OF SERVICES SHALL BE RESTORED TO MATCH EX. CONDITION OR SURFACE WORKS NOTES ON SHEET C1, WHICHEVER IS GREATER, ALL AT NO COST TO THE MUNICIPALITY.

OFF-SITE WORKS NOTE:
PERMIT OF APPROVED WORKS FOR ALL EXTERNAL WORKS IS REQUIRED.

*EXISTING SERVICING NOTE: INVERTS OF THE EX. SANITARY & STORM SEWERS @ CONNECTION POINTS SHALL BE

CONFIRMED BY THE OWNER'S CONTRACTOR PRIOR TO THE START OF CONSTRUCTION/ORDERING STRUCTURES. THE CONSULTANT IS TO BE INFORMED IF DIFFERENT THAN NOTED.

ALL WORK IN THE ROAD ALLOWANCE SHALL MEET THE MINIMUM SPECIFICATIONS OF THE REGION OF WATERLOO ENVIRONMENTAL AND ENGINEERING SERVICES DEPARTMENT. THE GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS, STANDARD SPECIFICATIONS, STANDARD SPECIAL PROVISIONS AND STANDARD DRAWINGS FOR UNIT PRICE CONTRACTS AND THE REGION OF WATERLOO AND AREA MUNICIPALITIES DESIGN GUIDELINES AND SUPPLEMENTAL SPECIFICATIONS ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE

SUMP PUMP AND DRAIN LOCATIONS ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. REFER TO ARCHITECTS PLANS FOR SUMP PUMP DESIGN.

SERVICE STUBS TO BE CAPPED AT 1.0m O/S FROM BUILDING ENVELOPE FOR CONNECTION ONCE BUILDING SERVICES ARE INSTALLED.

OWNER'S CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY CONSTRUCTION MEASURES SUCH AS, BUT NOT LIMITED TO, PIPE COVER AT NO ADDITIONAL CHARGE TO THE CONTRACT.

PROCEEDING WITH CONSTRUCTION.

STORM DRAINAGE NOTE:
STORM DRAINAGE MAY TEMPORARILY NEED TO BE CONTROLLED AND PUMPED FROM STORM SEWER SYSTEM. ANY SUCH TEMPORARY MEASURES SHALL BE CONDUCTED AT NO EXTRA COST TO THE CONTRACT AND BE BASED UPON THE OWNER'S CONTRACTORS WATER CONTROL PLANS. WHICH MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR/ENGINEER PRIOR TO CONSTRUCTION.

THE SUBJECT SITE HAS BEEN DESIGNED UNDER A SINGLE OWNERSHIP. IF ONE OF THE LAND PARCELS IS SOLD TO ANOTHER OWNER, AN ECA FOR SHARED SEWER WILL BE REQUIRED FROM THE M.E.C.P..

IT IS RECOMMENDED THAT SUMP DRAINAGE BE DIRECTED TO THE BUILDING STORM DRAIN VIA EJECTOR PUMP w/ ELEVATED DISCHARGE LOOP.

THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN THE MUNICIPAL RIGHT-OF-WAY. THE OWNER'S OWNER'S CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO

INSULATION NOTE:
INSULATE SEWERS + WATER PIPES AS PER THE ONTARIO BUILDING CODE A-7.3.5.4.(1) FROM THE CURRENT BUILDING CODE COMPENDIUM WHERE 1.70m (1.22m FOR ON-SITE SEWERS) COVER CAN NOT BE PROVIDED.

PRIOR TO ANY CONSTRUCTION, ALL GRADES AND ELEVATIONS MUST BE CHECKED AND VERIFIED AND ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEERS.

NOTE: ALL THE SERVICING SHOWN INSIDE THE SUBJECT PROPERTY IS DIRECTLY DERIVED FROM THE DRAWINGS PROVIDED BY LGA ARCHITECTS IN EMAIL DATED

NOVEMBER 23, 2020 AND IS NOTED AS "ASSUMED"

THE ASSUMED UNDERSIDE OF FOOTING ELEVATIONS ARE BASED OFF 1.22m (4') COVER FROM THE LOWEST SURFACE ELEVATION AT THE BUILDING PERIMETER.

	PI	PĒ	CROS	SINGS	& VE	RTICA	AL CLI	EARAN	CES	
CROSSING No. SEWER/WATERMAIN ELEVATIONS VERTICAL CLEARANCES OFFSET										
CR1	150mm	WM	INV.	361.16	200mm	SAN	OBV.	360.66	0.50	YES*
	*SEE MECH	IANICAL	. OFFSET	DETAIL OF	N SHEET C	1 AND A	SSUMPTIO	N NOTE O	N THIS SHEET	

EX. ASPHALT PARKING LOT

EX. PORTABLE CLASSROOM

DOOR SILL 364.23

363.63

W EX. WELL

363.73

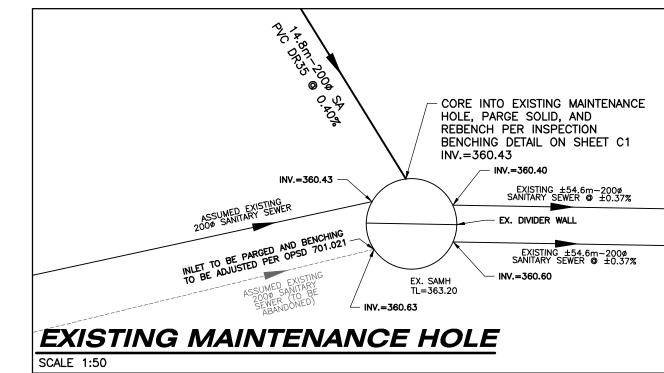
SA INVERT=361.26 RADIUS SWEEP

(MATCH)

363.74

(TO BE CONFIRMED BY

MECHANICAL ENGINEER)



0.6 DIA

0.85 DIA

EX. B.F.

EX. WOODEN BARN

HATCHING DENOTES APPROXIMATE EXTENT

DISTURBED AND RESTORED PER SURFACE

WORKS NOTES ON SHEET C1 AS REQUIRED

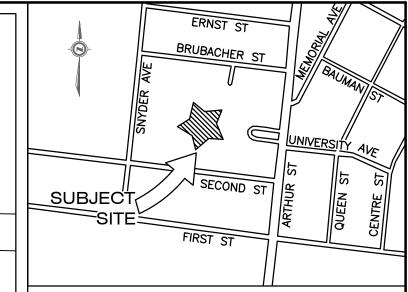
FOR INSTALLATION OF SANITARY DIVERSION

SEWER. ALL ADDITIONAL AREAS DISTURBED

RESTORED AT NO COST TO THE CONTRACT.

DURING CONSTRUCTION SHALL BE

OF EXISTING LANDSCAPED AREA TO BE



KEY PLAN

LEGAL INFORMATION

PART OF PLAN 76 LOT 32 TO LOT 40 PT LOT 31 LOT 23 TO LOT 30 CLOSED KLINCK

> TOWN OF WOOLWICH REGION MUNICIPALITY OF WATERLOO

SITE BENCHMARK:

MONUMENT TYPE: BENCHMARK

LOCATION: TWO STOREY RED BRICK HOUSE (#254) ON THE WEST SIDE OF WATERLOO REG RD 21, 1.3 KM SOUTH OF JCT OF WATERLOO REG RD 86 AND 21 IN ELMIRA, 1.3 KM NORTH OF THE JCT OF WATERLOO REG RD 21 AND HYWS 85 AND 86, 42.0 M SOUTH OF CENTERLINE OR ORIOLE PKWY AND 61.0 M WEST OF CENTERLINE OF WATERLOO REG RD 21. TABLET IS SET HORIZONTALLY IN SOUTH FACE OF CONCRETE FOUNDATION, 4.08 M WEST OF W.E. CORNER AND 12 CM

GEODETIC ELEVATION: 362.940m (CGVD28:78)

(CONTRACTOR TO CONFIRM BENCHMARK ELEVATIONS)

MONUMENT TYPE: BENCHMARK

LOCATION: RED BRICK CHURCH (EMMANUEL MISSIONARY) ON THE WEST SIDE OF WATERLOO REG RO 21, 0.8 KM SOUTH OF THE JCT OF WATERLOO REG RDS 86 AND 21 IN ELMIRA, 1.8 KM NORTH OF THE JCT OF WATERLOO REG RD 21 AND HWYS 85 AND 86, 27.4 M NORTH OF CENTERLINE OF FIRST ST AND 16.9 M WEST OF CENTERLINE OF WATERLOO REG RD 21. TABLET IS SET HORIZONTALLY IN EAST FACE OF CONCRETE FOUNDATION, 91 CM SOUTH OF N.E. CORNER AND 27 CM BELOW BRICKWORK.

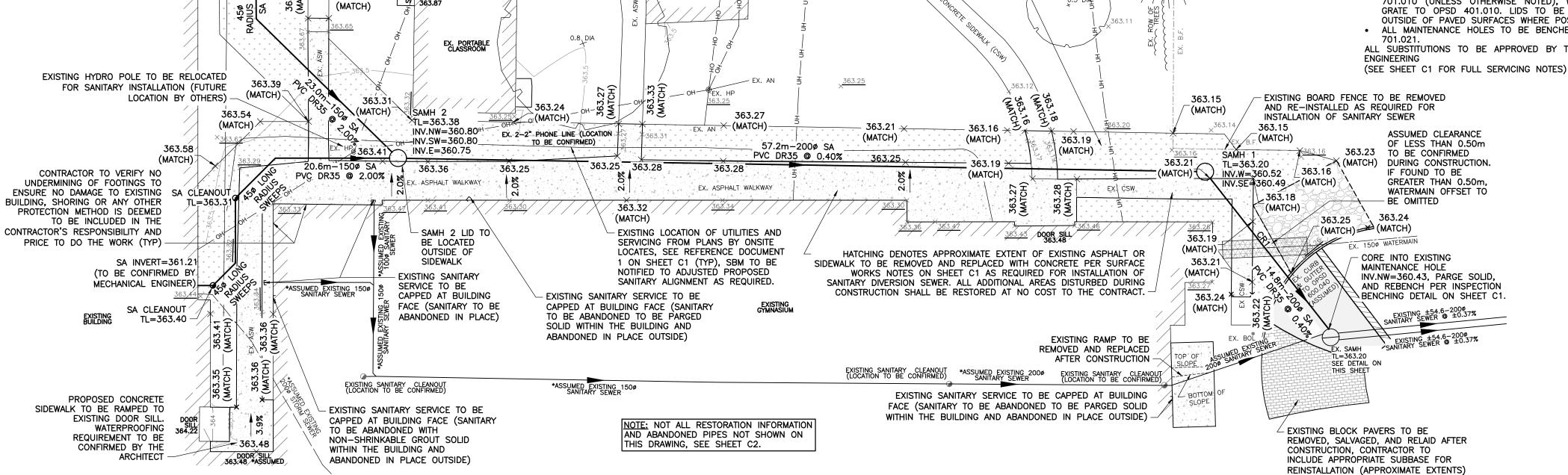
GEODETIC ELEVATION: 362.937m (CGVD28:78)

(CONTRACTOR TO CONFIRM BENCHMARK ELEVATIONS)

STRUCTURE NOTES:

 ALL MAINTENANCE HOLES (SAMH) TO BE 1200Ø TO OPSD 701.010 (UNLESS OTHERWISE NOTED), WITH FRAME AND GRATE TO OPSD 401.010. LIDS TO BE LOCATED TO BE OUTSIDE OF PAVED SURFACES WHERE POSSIBLE. ALL MAINTENANCE HOLES TO BE BENCHED AS PER OPSD

ALL SUBSTITUTIONS TO BE APPROVED BY THE MANAGER OF



EX. PORTABLE CLASSROOM

EX. PORTABLE CLASSROOM

A Arcr	AS CONSTRUCTED SERVICES	COMPLETION			No.	REVISIONS	D/M/Y	BY	CONS
5			DESIGN	LS/JSF	1	ISSUED FOR CLIENT REVIEW	26/02/21	JSF	
13/			DRAWN	JSF	2	ISSUED FOR TENDER	16/03/21	JSF	
7-4			CHECKED	LS	3	ISSUED FOR BUILDING PERMIT	05/04/21	JSF	j
7-1			APPROVED	LS/NGu					
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1		DATE	10/02/2021					
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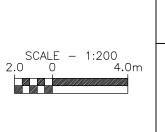


Email: sbm@sbmltd.ca

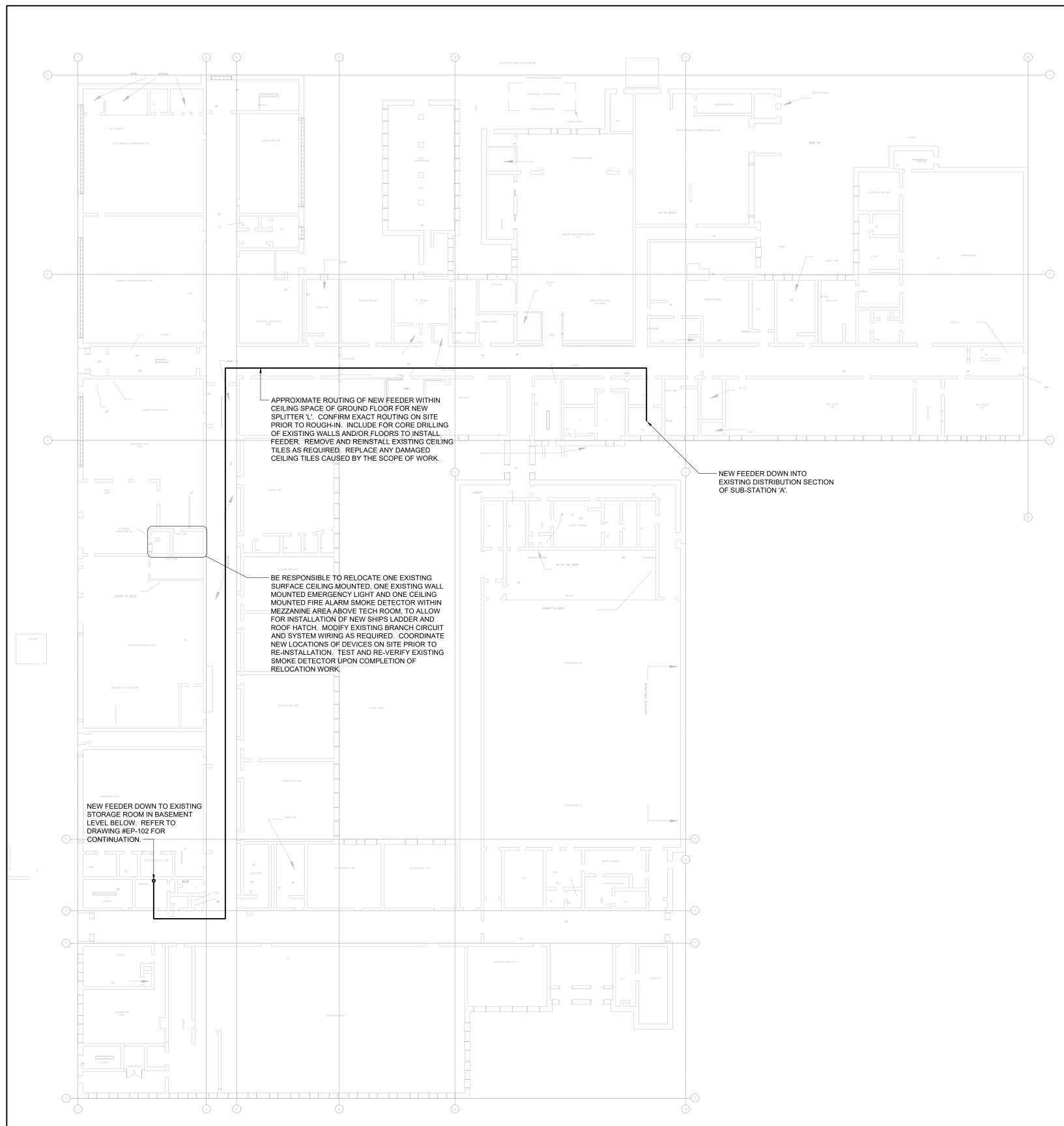


LGA ARCHITECTURAL PARTNERS 310 SPADINA AVENUE, SUITE 100B TORONTO, ON M5T 2E8

P: 416.203.7600 E: jose@lga-ap.com



SITE ENGINEERING PLAN	SBM-20-413
ELMIRA SECONDARY SCHOOL	SHEET No.
4 UNIVERSITY AVENUE WEST	
ELMIRA, ON.	PLAN FILE No.



KEY PLAN - ELECTRICAL

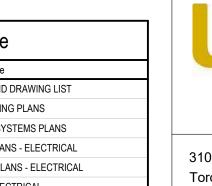
SCALE: 1:300

	ELECTRICAL LEGEND
SYMBOL	DESCRIPTION
	LINETYPES NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
E	ABBREVIATIONS EXISTING TO REMAIN
D	EXISTING TO BE DEMOLISHED/REMOVED
R	EXISTING TO BE RELOCATED/IN RELOCATED POSITION
ER	EXISTING TO BE REMAIN AND REPLACED WITH NEW
RR RL	REMOVE AND REINSTALL IN SAME POSITION REMOVE AND RELOCATE
С	CEILING MOUNTED CONNECTION
W F	WALL MOUNTED CONNECTION FLOOR MOUNTED CONNECTION
Ę.	CENTRE LINE
AFF	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE
O/C	OVER COUNTER
U/C U/F	UNDER CABINET UNDER RAISED FLOOR
CCT	CIRCUIT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI IG	GROUND FAULT INTERRUPTER ISOLATED GROUND
TL	TWIST LOCK
TR WG	TAMPER RESISTANT WIRE GUARD
WP	WEATHER PROOF
R/I NIC	ROUGH-IN ONLY NOT IN CONTRACT
SIM. TYP.	SIMILAR TO TYPICAL
IIF.	ABBREVIATIONS - CODES AND STANDARDS
OBC OESC	ONTARIO BUILDING CODE ONTARIO ELECTRICAL SAFETY CODE
0100	ANNOTATIONS
CL	ROOM NUMBER CLOSET
WR	WASHROOM
	FIRE PROTECTION FIRE EXTINGUISHER
SPK	SPRINKLER HEAD
FHC	STANDPIPE FIRE HOSE CABINET HVAC
① BBH	THERMOSTAT OR TEMPERATURE SENSOR ELECTRIC BASEBOARD HEATER (BBH)
FFH	FORCED FLOW HEATER
ERV HRU	ENERGY RECOVERY VENTILATOR HEAT RECOVERY UNIT
MUA	MAKE-UP AIR UNIT
	CONDUIT AND BOXES CONDUIT WITH END BUSHING
	CONDUIT UP
—⇒ [JB]	JUNCTION BOX
PB	PULL BOX
	CONNECTIONS TO EQUIPMENT
DW FR	DISHWASHER FRIDGE
MW	MICROWAVE
HD	HAND DRYER. ALLOW UP TO 208V-1PH-20A
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS) PLUMBING TRAP PRIMER
\Diamond	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.
(A)	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.
W	ADJACENT TO 3-PHASE DIRECT CONNECTION, DENOTES WALL
6	SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS SINGLE PHASE MOTOR, HP (KW) AS NOTED.
9	THREE PHASE MOTOR, HP (KW) AS NOTED.
0	CLOCK.
REFER TO SPECIFI	LIGHTING CONTROLS ICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENT
<u> </u>	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON
	LIGHTING CONTROLS SCHEDULE.
	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH. ADJACENT TO SWITCH, DENOTES KEY SWITCH.
DIM	·
К	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL
	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED.
К	
K M	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED. WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED
K M	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED. WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT.
K M PPR PP	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED. WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT. POWER PACK TIMER SWITCH.
K M PPR T	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED. WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT. POWER PACK TIMER SWITCH. CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIV INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY'. WALL MOUNTED OCCUPANCY SENSOR.
K M PPR PP T (DT)	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED. WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT. POWER PACK TIMER SWITCH. CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIVINFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY'.
K M PPR PP T (DT)	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED. WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT. POWER PACK TIMER SWITCH. CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIV INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY'. WALL MOUNTED OCCUPANCY SENSOR. DISTRIBUTION EQUIPMENT

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

	ELECTRICAL LEGEND		ELECTRICAL LEGEND
OL	DESCRIPTION	SYMBOL	DESCRIPTION
	LINETYPES NEW WORK	\Leftrightarrow	120V U-GROUND DUPLEX RECEPTACLE. 120V U-GROUND DUPLEX RECEPTACLE - CONTROLLED (ASHRAE
	WORK TO BE DEMOLISHED, OR REMOVED	45	90.1-2010, 8.4.2).
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN	*	120V U-GROUND QUAD RECEPTACLE. SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR 1
	ABBREVIATIONS		ROUGH-IN. 120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE
	EXISTING TO REMAIN EXISTING TO BE DEMOLISHED/REMOVED		COUNTER TOP OR AS INSTRUCTED ON SITE. LIGHTING FIXTURES
	EXISTING TO BE RELOCATED/IN RELOCATED POSITION		CORDANCE WITH IES DG-3-00 WHERE NOT DETAILED OTHERWISE HER TING FIXTURE SCHEDULE FOR FURTHER DETAILS AND EXACT FIXTUR
	EXISTING TO BE REMAIN AND REPLACED WITH NEW		REQUIREMENTS. SURFACE MOUNTED LINEAR LUMINAIRE
	REMOVE AND REINSTALL IN SAME POSITION		RECESSED MOUNTED LUMINAIRE
	REMOVE AND RELOCATE CEILING MOUNTED CONNECTION	\bigcirc	RECESSED DOWNLIGHT
	WALL MOUNTED CONNECTION	Z1, Z2, ETC.	DENOTES ZONING/CIRCUTING ASSIGNMENTS FOR LUMINAIRES
	FLOOR MOUNTED CONNECTION CENTRE LINE		AND CONTROLS IN THE SAME SPACE. EMERGENCY LIGHTING
	ABOVE FINISHED FLOOR	REFER TO	EMERGENCY LIGHTING FIXTURE SCHEDULE FOR EXACT FIXTURE REQUIREMENTS.
i	ABOVE FINISHED GRADE		CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL
	OVER COUNTER UNDER CABINET		ARROWS AS INDICATED ON PLANS. EMERGENCY LIGHTING BATTERY UNIT.
	UNDER RAISED FLOOR	_0 •_0	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	CIRCUIT CONNECT TO EXISTING	EM	DENOTES 'EMERGENCY"
I	ARC FAULT CIRCUIT INTERRUPTER		COMMUNICATIONS WALL MOUNTED DATA (D) OR VOICE (V) OUTLET. PROVIDE 1V AND
	GROUND FAULT CIRCUIT INTERRUPTER GROUND FAULT INTERRUPTER	◆	UNLESS NOTED OTHERWISE.
	ISOLATED GROUND	◀	WALL MOUNTED VOICE (TELEPHONE) OUTLET. PROVIDE 1V UNLE NOTED OTHERWISE.
	TWIST LOCK	\triangleleft	WALL MOUNTED DATA OUTLET. PROVIDE 1D UNLESS NOTED OTHERWISE.
	TAMPER RESISTANT WIRE GUARD	WAP	WIRELESS ACCESS POINT (WIFI)
	WEATHER PROOF	⟨PA⟩	PUBLIC ADDRESS SPEAKER, CEILING AND WALL MOUNTED, RESPECTIVELY.
	ROUGH-IN ONLY NOT IN CONTRACT	CR	ACCESS CONTROL
	SIMILAR TO	DC	CARD READER DOOR CONTACT
	TYPICAL ABBREVIATIONS - CODES AND STANDARDS	ES	ELECTRIC STRIKE
<u>,</u>	ONTARIO BUILDING CODE	•	MUSHROOM HEAD PUSH BUTTON FOR MAGLOCK RELEASE, OR OTHER PUSH BUTTON AS INDICATED
C	ONTARIO ELECTRICAL SAFETY CODE	•	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	ANNOTATIONS ROOM NUMBER		INTRUSION DETECTION
	CLOSET	(MD)	GLASS BREAK (GB)
	WASHROOM FIRE PROTECTION	MD 7	MOTION DETECTOR (MD)
	FIRE EXTINGUISHER	KP N	KEYPAD (KP) SOUNDER
	SPRINKLER HEAD		FIRE DETECTION AND ALARM
	STANDPIPE FIRE HOSE CABINET HVAC	FACP FAAP	FIRE ALARM CONTROL PANEL FIRE ALARM ANNUNICIATOR PANEL
	THERMOSTAT OR TEMPERATURE SENSOR	FAPG	FIRE ALARM PASSIVE GRAPHIC
	ELECTRIC BASEBOARD HEATER (BBH) FORCED FLOW HEATER	FAZ	FIRE ALARM ZONE
1	ENERGY RECOVERY VENTILATOR	FSZ EOL	FIRE ALARM SUPERVISORY ZONE END OF LINE DEVICE
<u> </u>	HEAT RECOVERY UNIT MAKE-UP AIR UNIT	WG	WIRE GUARD
	CONDUIT AND BOXES		MANUAL PULL STATION (MPS)
= 0	CONDUIT WITH END BUSHING CONDUIT UP	CG	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTE PULL STATION C/W LEXAN COVER.
-	CONDUIT DOWN		FIRE ALARM HORN
	JUNCTION BOX		FIRE ALARM HORN/STROBE, WALL MOUNTED. FIRE ALARM WALL MOUNTED STROBE LIGHT
	PULL BOX	•	PHOTOELECTRIC SMOKE DETECTOR
	CONNECTIONS TO EQUIPMENT DISHWASHER	А	ADJACENT TO SMOKE DETECTOR, INDICATES C/W AUXILIARY RELAY
	FRIDGE	SA	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR,
	MICROWAVE		INDICATES RESIDENTIAL SMOKE ALARM DUCT MOUNTED SMOKE DETECTOR
	HAND DRYER. ALLOW UP TO 208V-1PH-20A PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS)	EOL	END OF LINE (EOL) DEVICE ON ZONE INITIATION OR SIGNAL
	PLUMBING TRAP PRIMER	IM	CIRCUITS ISOLATOR MODULE
	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.	•	HEAT DETECTOR - FIXED TEMPERATURE
	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.	НО	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN
	ADJACENT TO 3-PHASE DIRECT CONNECTION, DENOTES WALL	FS PS	FLOW SWITCH PRESSURE SWITCH
	SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS.	SV	SUPERVISED VALVE
	SINGLE PHASE MOTOR, HP (KW) AS NOTED.		SINGLE LINE DIAGRAM
	THREE PHASE MOTOR, HP (KW) AS NOTED. CLOCK.	• • •	CIRCUIT BREAKER DISCONNECT (UNFUSED)
	LIGHTING CONTROLS		FUSE
SPECIF	ICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS	M	METER
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.	3 8	TRANSFORMER
	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.	C C	CONTACTOR
	ADJACENT TO SWITCH, DENOTES KEY SWITCH.	DP	DISTRIBUTION PANELBOARD
	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL	PP SPD	POWER PANELBOARD SURGE PROTECTIVE DEVICE
	LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED.	SWBD	SWITCHBOARD
₹	WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE	TX	TRANSFORMER
	INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT.		DETAIL REFERENCES
	POWER PACK	(1)	SHEET KEYNOTE
	TIMER SWITCH. CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE	1	REVISION NUMBER
	INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY'.		S GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS
)	WALL MOUNTED OCCUPANCY SENSOR.	PROJECT. REFE	ER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT
	DISTRIBUTION EQUIPMENT		

	Sheet List Table
Sheet Number	Sheet Title
EA-001	ELECTRICAL LEGEND AND DRAWING LIST
EL-101	CAFETERIA LIGHTING PLANS
EP-101	CAFETERIA POWER & SYSTEMS PLANS
EP-102	BOILER & PUMP ROOM PLANS - ELECTRICAL
EP-103	GYM MECHANICAL ROOM PLANS - ELECTRICAL
EP-104	ROOF PLANS - ELECTRICAL
EX-101	ELECTRICAL SCHEDULES AND SINGLE LINE DIAGRAM
EX-102	ELECTRICAL DETAILS





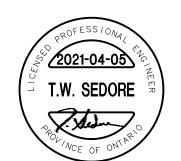
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ISSUE	DATE:	
4	06-APR-21	ISSUED FOR PERMIT
	25-MAR-21	ISSUED WITH ADDENDUM E-1
3	17-MAR-21	ISSUED FOR TENDER
2	08-MAR-21	ISSUED FOR 95% TENDER REVIEW
1	18-FEB-21	ISSUED FOR 80% CD
NO	DATE	DESCRIPTION

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

ELECTRICAL LEGEND AND DRAWING LIST

PROJECT NO: ED-20-300 NOT TO SCALE SCALE: DRAWN BY: CW

REVIEWED BY: BD/TWS

PROJECT NORTH:

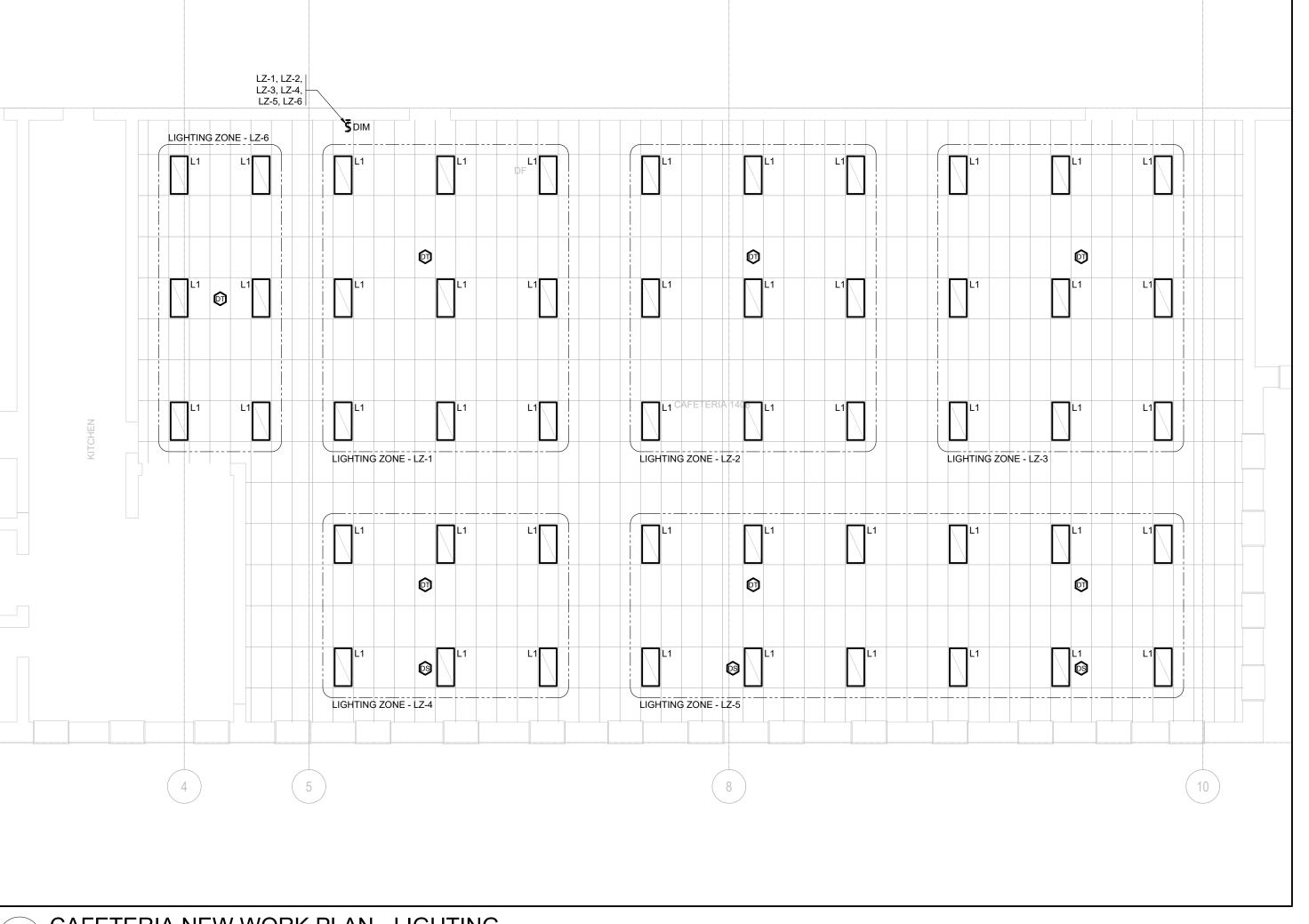
DRAWING NO: EA-001

PROJECT GENERAL NOTES

LOCATION OF DEVICES AND LUMINAIRES IS NOTED FOR DIAGRAMMATIC PURPOSES, CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS AND SITE CONDITIONS FOR EXACT DEVICE AND LUMINAIRE PLACEMENT.

ALL NEW BRANCH FEEDERS TO NEW WIRING DEVICES SHALL BE 2#10 + GROUND IN 21mm CONDUIT UNLESS NOTED OTHERWISE.

DEVICES SHOWN ON NEW WALL CONSTRUCTION SHALL BE INSTALLED FLUSH MOUNTED WITH CONCEALED CONDUITS. DEVICES SHOWN ON EXISTING WALL CONSTRUCTION SHALL BE INSTALLED SURFACE MOUNTED ON FS TYPE BACK BOXES WITH SURFACE RACEWAY (LEGRAND WIREMOLD 400 SERIES OR EQUIVALENT - WHITE), FROM DEVICE UP TO CEILING SPACE. CONDUIT SHALL BE PROVIDED ABOVE CEILING SPACE IN ALL LOCATIONS.



DEMOLITION KEY NOTES:

RETAIN EXISTING LIGHTING BRANCH CIRCUIT WIRING WITHIN THIS ROOM, MODIFY AS REQUIRED AND RECONNECT TO NEW LIGHTING AND SWITCHING ARRANGEMENT WITHIN THIS SPACE AS SHOWN ON NEW WORK DRAWING

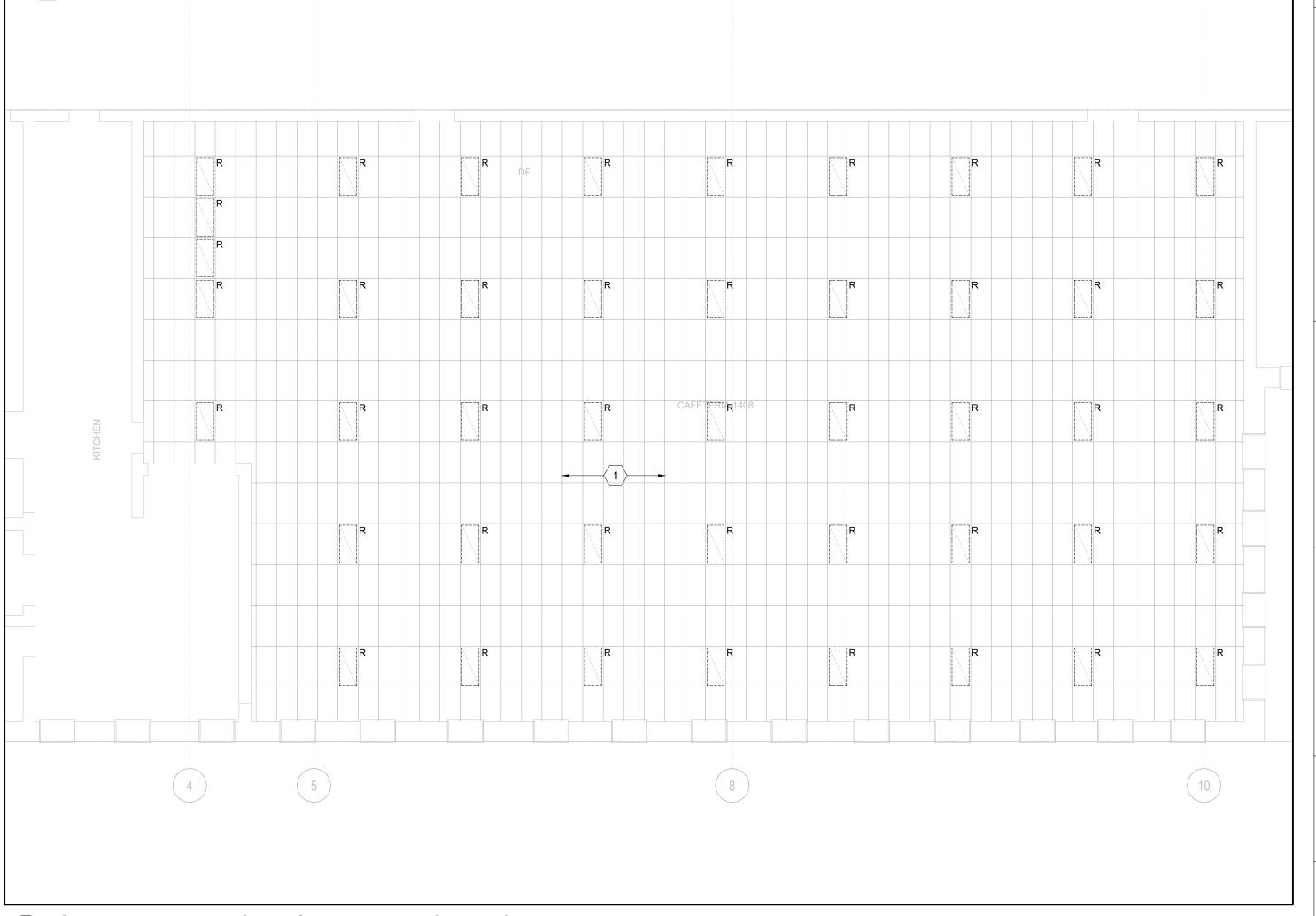
PROJECT GENERAL NOTES

THIS DRAWING IS ISSUED TO SHOW SCOPE OF WORK ONLY. THE CONTRACTOR MUST PERFORM A SITE INSPECTION (INCLUDING CEILING SPACES) DURING THE TENDER PERIOD AND ENSURE THAT ALL WORK THAT IS VISIBLE IS INCLUDED IN THE DEMOLITION SCOPE OF WORK. ALL EXISTING SERVICES THAT PASS THROUGH THE RENOVATION AREA (UNLESS OBSOLETE) ARE TO BE MAINTAINED AND/OR RELOCATED TO SUIT THE SCOPE OF WORK

SUIT THE SCOPE OF WORK.

FOR ALL WIRING DEVICES (NOT INCLUDING LIGHTING FIXTURES)
DESIGNATED 'R' ON THE FLOOR PLANS. BE RESPONSIBLE TO REMOVE
EXISTING DEVICE AND ASSOCIATED WIRING AND CONDUIT BACK TO
SOURCE JUNCTION BOX OR PANELBOARD. WHERE CIRCUIT WIRING
EXTENDS BACK TO PANELBOARD, REMOVE EXISTING BREAKERS AS

CAFETERIA NEW WORK PLAN - LIGHTING SCALE: 1:100



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PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

CAFETERIA LIGHTING PLANS

PROJECT NO: ED-20-300
SCALE: AS SHOWN
DRAWN BY: CW

REVIEWED BY: BD/TWS

PROJECT NORTH:

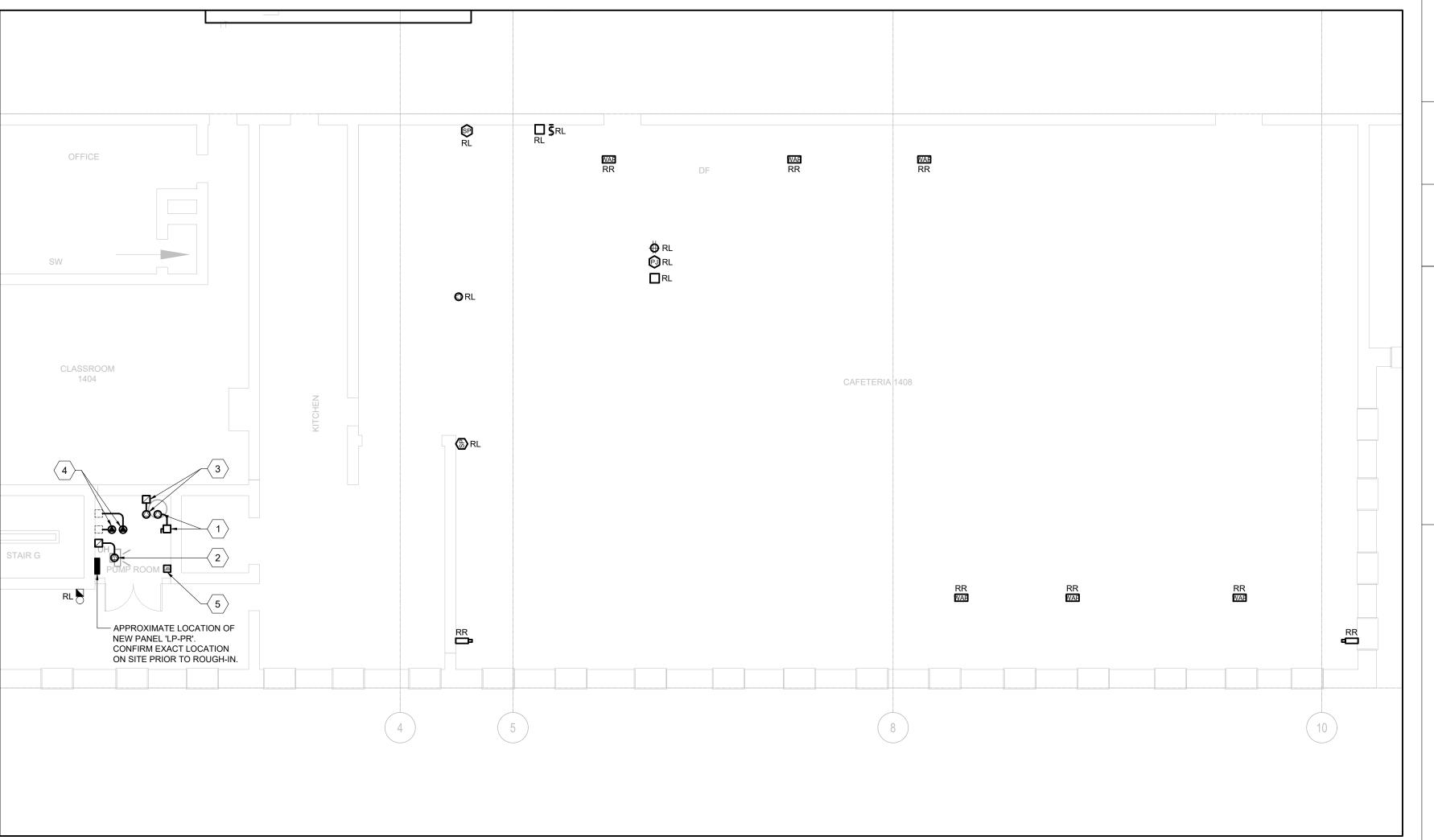
DRAWING NO:
EL-101

1 CAFETERIA DEMOLITION PLAN - LIGHTING
SCALE: 1:100

NEW WORK SHEET KEYNOTES

CONNECTION TO RELOCATED DOMESTIC HOT WATER TANK. EXTEND 2#10 + GROUND IN 21mm $\binom{3}{4}$ ") CONDUIT FROM DHW TANK TO BREAKER IN NEW PANEL 'LP-PR' AND CONNECT COMPLETE. REFER TO PANEL SCHEDULES FOR FURTHER DETAILS. CONNECTION TO NEW UNIT HEATER 'UH-1'. EXTEND 2#12 + GROUND IN 21mm CONDUIT FROM BREAKER IN NEW PANEL 'LP-PR' TO UNIT HEATER LOCATION AND CONNECT COMPLETE. INCLUDE FOR REQUIRED LINE AND LOAD CONNECTIONS BETWEEN UNIT HEATER AND ASSOCIATED STARTER BEING

- SUPPLIED BY MECHANICAL CONTRACTOR. CONNECTION TO NEW DOMESTIC HOT WATER RECIRC PUMP 'C11'. EXTEND 2#10 + GROUND IN 21mm (3_4 ") CONDUIT FROM RECIRC. PUMP TO ASSOCIATED BREAKER IN NEW PANEL 'LP-PR' AND CONNECT COMPLETE. INCLUDE FOR REQUIRED LINE AND LOAD CONNECTIONS TO ASSOCIATED STARTER. STARTER TO BE SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. REFER TO PANEL SCHEDULES FOR
- FURTHER DETAILS. CONNECTION TO NEW PUMPS 'C9' AND 'C10' AND ASSOCIATED VARIABLE FREQUENCY DRIVES, FED FROM NEW SPLITTER 'L' IN BASEMENT. INCLUDE FOR REQUIRED LINE AND LOAD CONNECTIONS TO ASSOCIATED VFDs. REFER TO SINGLE LINE DRAWING FOR BRANCH FEEDER REQUIREMENTS.



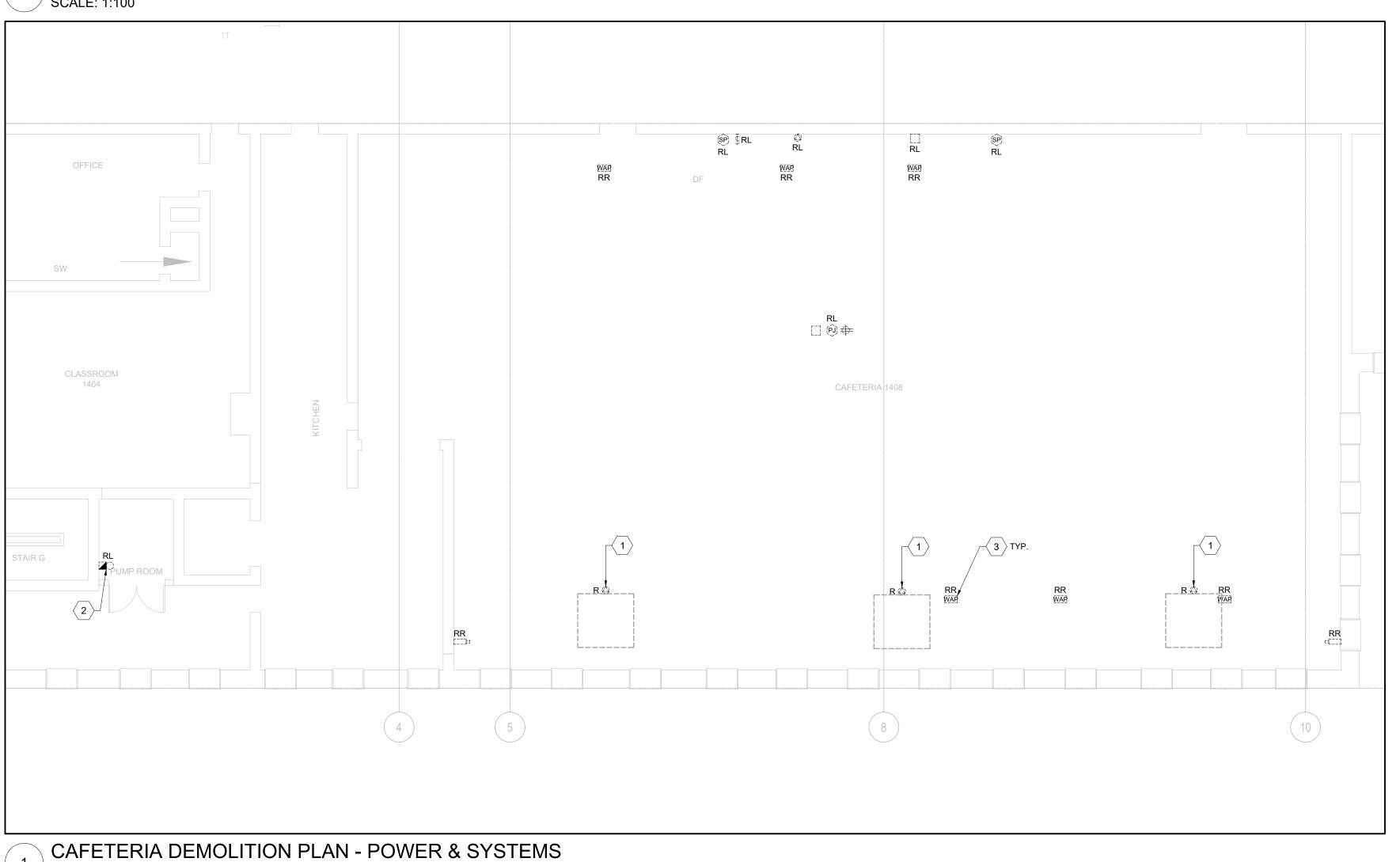
CAFETERIA NEW WORK PLAN - POWER & SYSTEMS

SCALE: 1:100

DEMOLITION SHEET KEYNOTES

CONNECTION TO EXISTING FAN COIL UNIT WITHIN CEILING SPACE OF CAFETERIA TO BE REMOVED IN ITS ENTIRETY, INCLUDING ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE ELECTRICAL DISTRIBUTION. CONDUIT EMBEDDED WITHIN WALLS OR FLOORS CAN BE ABANDONED. RETAIN EXISTING BREAKERS IN PANELBOARD AS SPARE.

- EXISTING FIRE ALARM BELL TO BE RELOCATED TO ACCOMMODATE ENCLOSING OF SPACE TO CREATE A NEW PUMP ROOM. BE RESPONSIBLE TO MODIFY EXISTING SYSTEM WIRING AS REQUIRED TO SUIT NEW LOCATION OF DEVICE AS SHOWN ON NEW WORK PLANS. TEST AND VERIFY DEVICE UPON COMPLETION OF WORK.
- EXISTING WIRELESS ACCESS POINT TO BE DISCONNECTED AND REMOVED, STORED ON SITE AND RE-INSTALLED IN SAME LOCATION BY OWNER'S (WRDSB) PREFERRED SYSTEM VENDOR AS PART OF A PRIME COST ALLOWANCE CARRIED BY THE GENERAL CONTRACTOR. BE RESPONSIBLE TO CONFIRM ON SITE IF EXISTING BACKBOXES EXIST BEHIND ACCESS POINT AND PROVIDE NEW, AS REQUIRED, FOR REINSTALLATION OF ACCESS





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17-MAR-21	ISSUED FOR TENDER
08-MAR-21	ISSUED FOR 95% TENDER REVIEW
18-FEB-21	ISSUED FOR 80% CD
DATE	DESCRIPTION
	06-APR-21 17-MAR-21 08-MAR-21 18-FEB-21

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

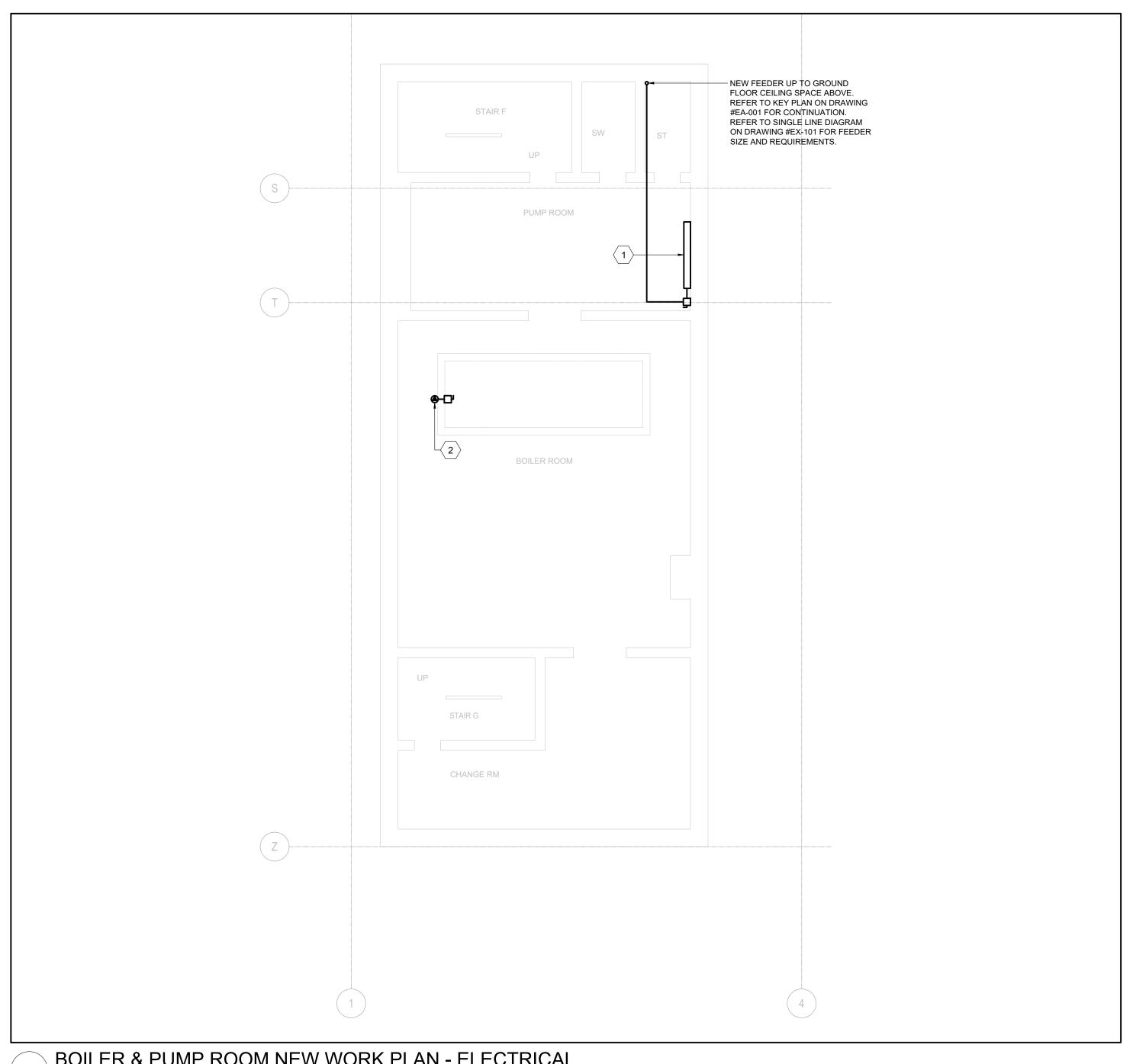
DRAWING TITLE:

CAFETERIA POWER & SYSTEMS PLANS

PROJECT NO: ED-20-300 SCALE: AS SHOWN **DRAWN BY: REVIEWED BY:**

PROJECT NORTH:

DRAWING NO: EP-101





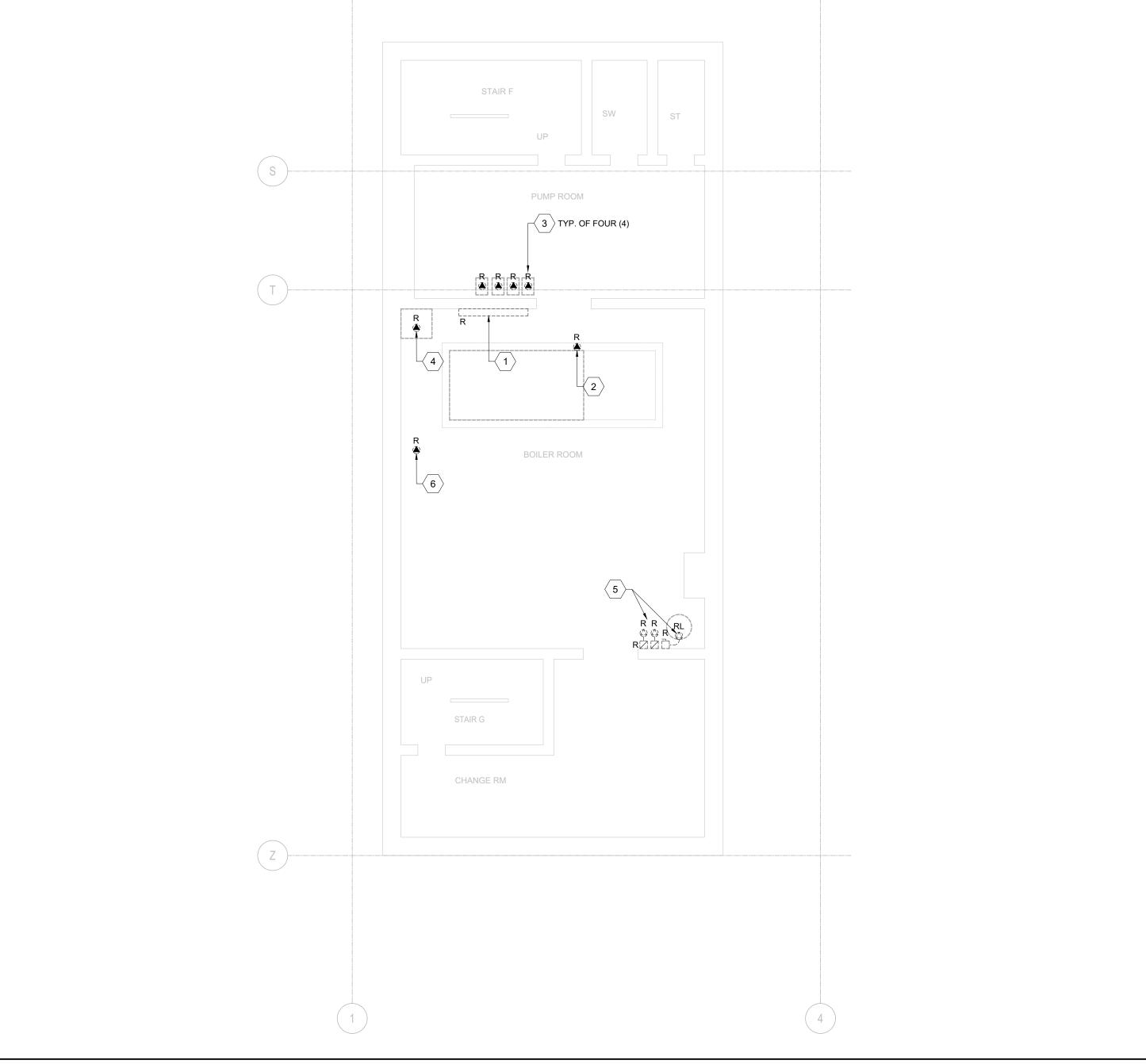
NEW WORK SHEET KEYNOTES

NEW SPLITTER 'L' AND ASSOCIATED DISCONNECT SWITCH MOUNTED ON WALL. BE RESPONSIBLE TO RECONNECT ALL EXISTING LOADS TO NEW DISCONNECT SWITCHES AND/OR STARTERS COMPLETE AND CONNECT ALL NEW LOADS TO NEW DISCONNECT SWITCHES AND/OR STARTERS COMPLETE. REFER TO SINGLE LINE DIAGRAM FOR FURTHER DETAILS. PROVIDE CONNECTION TO NEW EXHAUST FAN 'EF-1', FED FROM NEW SPLITTER 'L', INCLUDING ALL REQUIRED LINE AND LOAD CONNECTIONS TO ASSOCIATED STARTER. REFER TO SINGLE

LINE DIAGRAM FOR BRANCH FEEDER REQUIREMENTS. STARTER

TO BE SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED

AND CONNECTED BY ELECTRICAL CONTRACTOR.



BOILER & PUMP ROOM DEMOLITION PLAN - ELECTRICAL

DEMOLITION SHEET KEYNOTES

EXISTING SPLITTER PANEL 'L' TO BE REMOVED AND REPLACED IN ITS ENTIRETY. BE RESPONSIBLE TO REMOVE EXISTING FEEDER (CONDUIT AND WIRE) BACK TO SOURCE SUBSTATION 'A' IN ITS ENTIRETY AND RETAIN EXISTING BREAKER AS SPARE. ANY CONDUIT CONCEALED WITHIN EXISTING WALL OR FLOOR CONSTRUCTION SHALL BE ABANDONED. FOR EXISTING LOADS BEING RETAINED, BE RESPONSIBLE TO SPLICE AND EXTEND EXISTING FEEDERS TO NEW SPLITTER LOCATION AND CONNECT TO ASSOCIATED NEW DISCONNECT SWITCH/STARTER COMPLETE REFER TO SINGLE LINE DRAWING FOR FURTHER DETAILS. REFER TO KEYPLAN ON DRAWING #EA-001 FOR LOCATION OF EXISTING SUBSTATION 'A'.

- CONNECTION TO EXISTING BOILER TO BE REMOVED IN ITS ENTIRETY, INCLUDING ALL ASSOCIATED CONDUIT, CABLING BACK TO SOURCE AND ASSOCIATED STARTER WITHIN EXISTING SPLITTER PANEL 'L'.
- CONNECTION TO EXISTING PUMP TO BE REMOVED IN ITS ENTIRETY, INCLUDING ALL ASSOCIATED CONDUIT, CABLING BACK TO SOURCE AND ASSOCIATED STARTER WITHIN EXISTING SPLITTER PANEL 'L'.
- CONNECTION TO EXISTING OIL PUMP TO BE REMOVED IN ITS ENTIRETY, INCLUDING ALL ASSOCIATED CONDUIT, CABLING BACK TO SOURCE AND ASSOCIATED STARTER WITHIN EXISTING SPLITTER PANEL 'L'.
- CONNECTIONS TO EXISTING DOMESTIC HOT WATER TANK AND ASSOCIATED RECIRC. PUMPS TO BE REMOVED IN THEIR ENTIRETY, INCLUDING ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE. EXISTING STARTERS AND ASSOCIATED LINE AND LOAD CONNECTIONS TO RECIRC. PUMPS TO BE REMOVED IN THEIR ENTIRETY.
- CONNECTION TO EXISTING BOILER ROOM SUPPLY FAN TO BE REMOVED IN ITS ENTIRETY, INCLUDING ALL ASSOCIATED CONDUIT AND CABLING BACK TO SOURCE AND ASSOCIATED STARTER WITHIN EXISTING SPLITTER PANEL 'L'.



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2	08-MAR-21	ISSUED FOR 95% TENDER REVIEW
1	18-FEB-21	ISSUED FOR 80% CD
JO.	DATE	DESCRIPTION

PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

BOILER & PUMP ROOM PLANS -ELECTRICAL

SCALE: **DRAWN BY:**

PROJECT NORTH:

DRAWING NO: EP-102

PROJECT NO: ED-20-300 AS SHOWN **REVIEWED BY:**

NEW WORK SHEET KEYNOTES

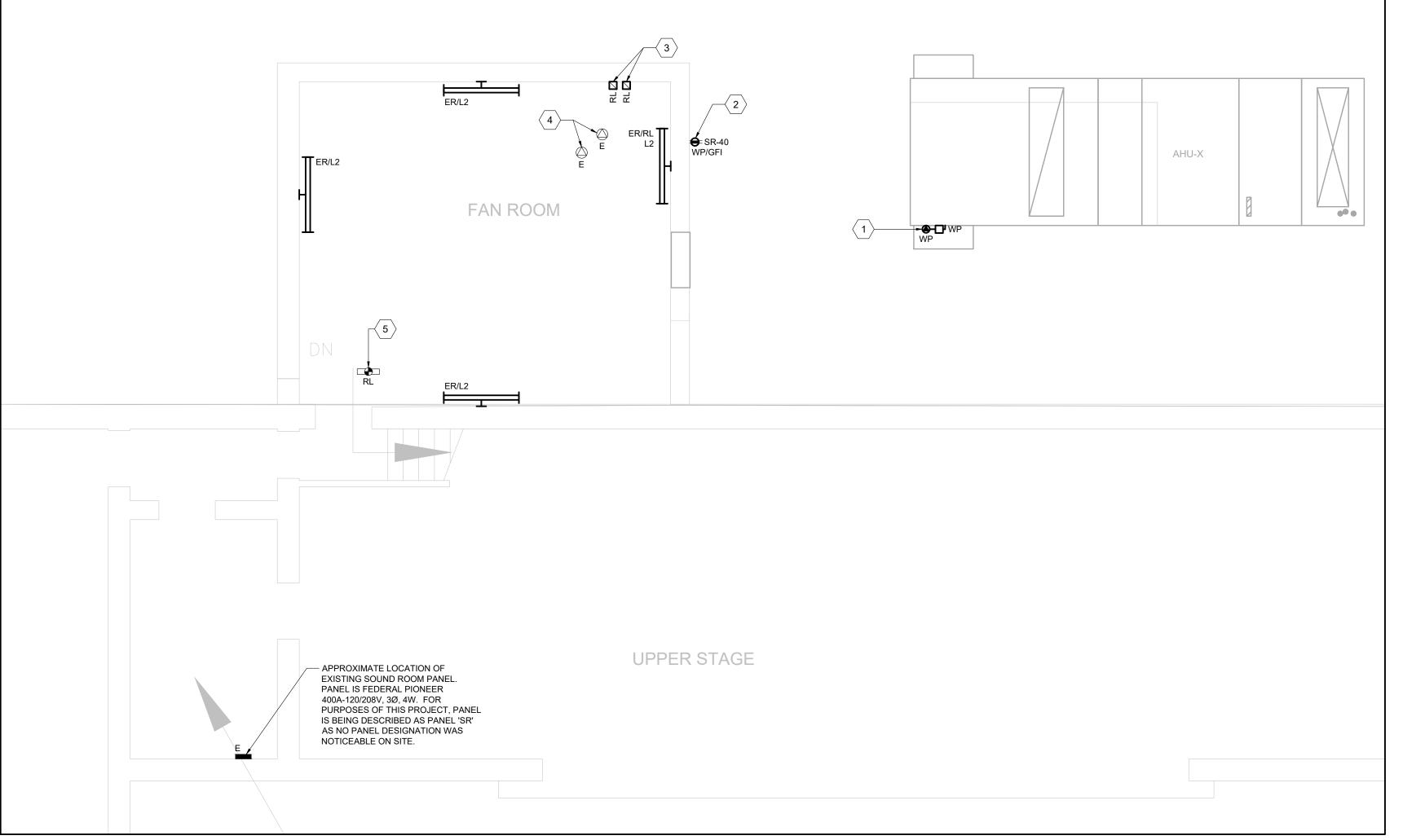
- CONNECTION TO NEW ROOF TOP UNIT 'HV-27'. EXTEND NEW FEEDER FROM UNIT TO NEW SPLITTER 'L' WITHIN EXISTING PUMP ROOM AS SHOWN ON DRAWING #EP-102. REFER TO SINGLE DIAGRAM FOR FEEDER REQUIREMENTS.

 PROVIDE NEW WALL MOUNTED SERVICE RECEPTACLE. PROVIDE A 20A-1P GFI TYPE BREAKER WITHIN EXISTING PANEL IN SOUND ROOM AND EXTEND 2#10 + GROUND IN 21mm CONDUIT FROM BREAKER TO RECEPTACLE LOCATION AND CONNECT COMPLETE. RECEPTACLE SHALL BE INSTALLED MINIMUM 750mm ABOVE
- FINISHED ROOF LEVEL.

 3. EXISTING STARTERS FOR EXISTING WASHROOM AND CHANGE ROOM EXHAUST FANS IN RELOCATED POSITION.

 4. CONNECTIONS TO EXISTING WASHROOM AND CHANGE ROOM
 - EXHAUST FANS TO REMAIN.

 RE-INSTALL EXISTING FIRE ALARM DUCT DETECTOR WITHIN NEW DUCTWORK AND RECONNECT TO EXISTING SYSTEM WIRING COMPLETE. TEST AND VERIFY DEVICE UPON COMPLETION OF



GYM MECHANICAL ROOM NEW WORK PLAN - ELECTRICAL

DEMOLITION SHEET KEYNOTES

CONNECTION TO EXISTING SUPPLY AIR UNIT TO BE REMOVED IN ITS ENTIRETY, INCLUDING ALL ASSOCIATED CONDUIT, CABLING BACK TO SOURCE AND ASSOCIATED STARTER WITHIN EXISTING SPLITTER PANEL WITHIN EXISTING BOILER ROOM.

CONNECTION TO EXISTING RETURN FAN TO BE REMOVED IN ITS

ENTIRETY, INCLUDING ALL ASSOCIATED CONDUIT, CABLING BACK

TO SOURCE AND ASSOCIATED STARTER WITHIN EXISTING SPLITTER PANEL WITHIN EXISTING BOILER ROOM.

3. CONNECTION TO EXISTING HOT WATER CIRCULATION PUMP TO BE REMOVED IN ITS ENTIRETY INCLUDING ALL ASSOCIATED CONDUIT, WIRING AND DISCONNECT SWITCH/STARTER BACK TO

- BE REMOVED IN ITS ENTIRETY INCLUDING ALL ASSOCIATED CONDUIT, WIRING AND DISCONNECT SWITCH/STARTER BACK TO SOURCE ELECTRICAL DISTRIBUTION. EXISTING CONDUIT EMBEDDED WITHIN EXISTING WALL OR FLOOR CONSTRUCTION CAN BE ABANDONED.

 4. STARTERS FOR EXISTING GYM SUPPLY AIR AND RETURN AIR UNITS TO BE DISCONNECTED AND REMOVED IN THEIR ENTIRETY.

 5. STARTERS FOR EXISTING WASHROOM AND CHANGE ROOM
- WIRING AS REQUIRED TO REROUTE EXISTING FEEDERS AWAY FROM NEW DOOR, INCLUDING ACCESSING CEILING SPACE OF FLOOR BELOW. REFER TO TO NEW WORK DRAWINGS FOR NEW LOCATION OF STARTERS.

 CONNECTIONS TO EXISTING WASHROOM AND CHANGE ROOM

EXHAUST FANS TO BE RELOCATED TO ACCOMMODATE NEW

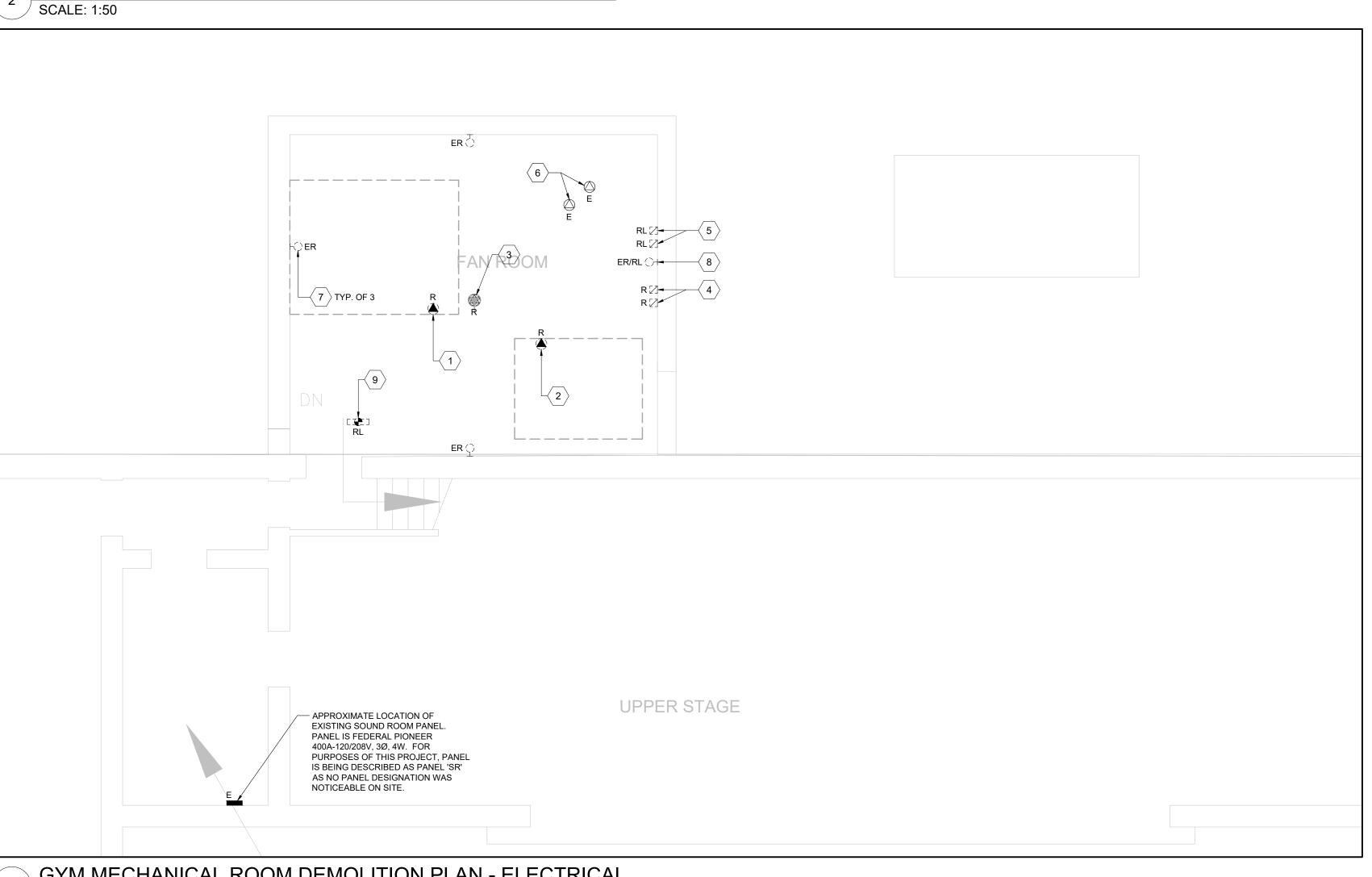
DOOR. BE RESPONSIBLE TO MODIFY EXISTING BRANCH CIRCUIT

- EXHAUST FANS TO REMAIN.

 7. EXISTING WALL MOUNTED LUMINAIRES TO BE REMOVED AND REPLACED WITH NEW. BE RESPONSIBLE TO MODIFY EXISTING LIGHTING BRANCH CIRCUIT(S) AS REQUIRED TO ACCOMMODATE
- NEW LUMINAIRES.

 8. EXISTING WALL MOUNTED LUMINAIRE TO BE RELOCATED AND REPLACED WITH NEW TO ACCOMMODATE NEW DOOR. BE RESPONSIBLE TO MODIFY EXISTING LIGHTING BRANCH CIRCUIT(S) AS REQUIRED TO ACCOMMODATE NEW LUMINAIRE.
- REFER TO NEW WORK PLAN FOR NEW LOCATION OF LUMINAIRE.

 EXISTING FIRE ALARM DUCT DETECTOR TO BE REMOVED FROM EXISTING DUCTWORK BEING DEMOLISHED AND RE-INSTALLED WITHIN NEW DUCTWORK INSTALLATION. BE RESPONSIBLE TO MODIFY EXISTING SYSTEM WIRING AS REQUIRED TO ACCOMMODATE REMOVAL AND REINSTALLATION OF DUCT DETECTOR. RE-VERIFY DEVICE UPON COMPLETION OF WORK.



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185UE DATE:

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PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

GYM MECHANICAL ROOM PLANS
- ELECTRICAL

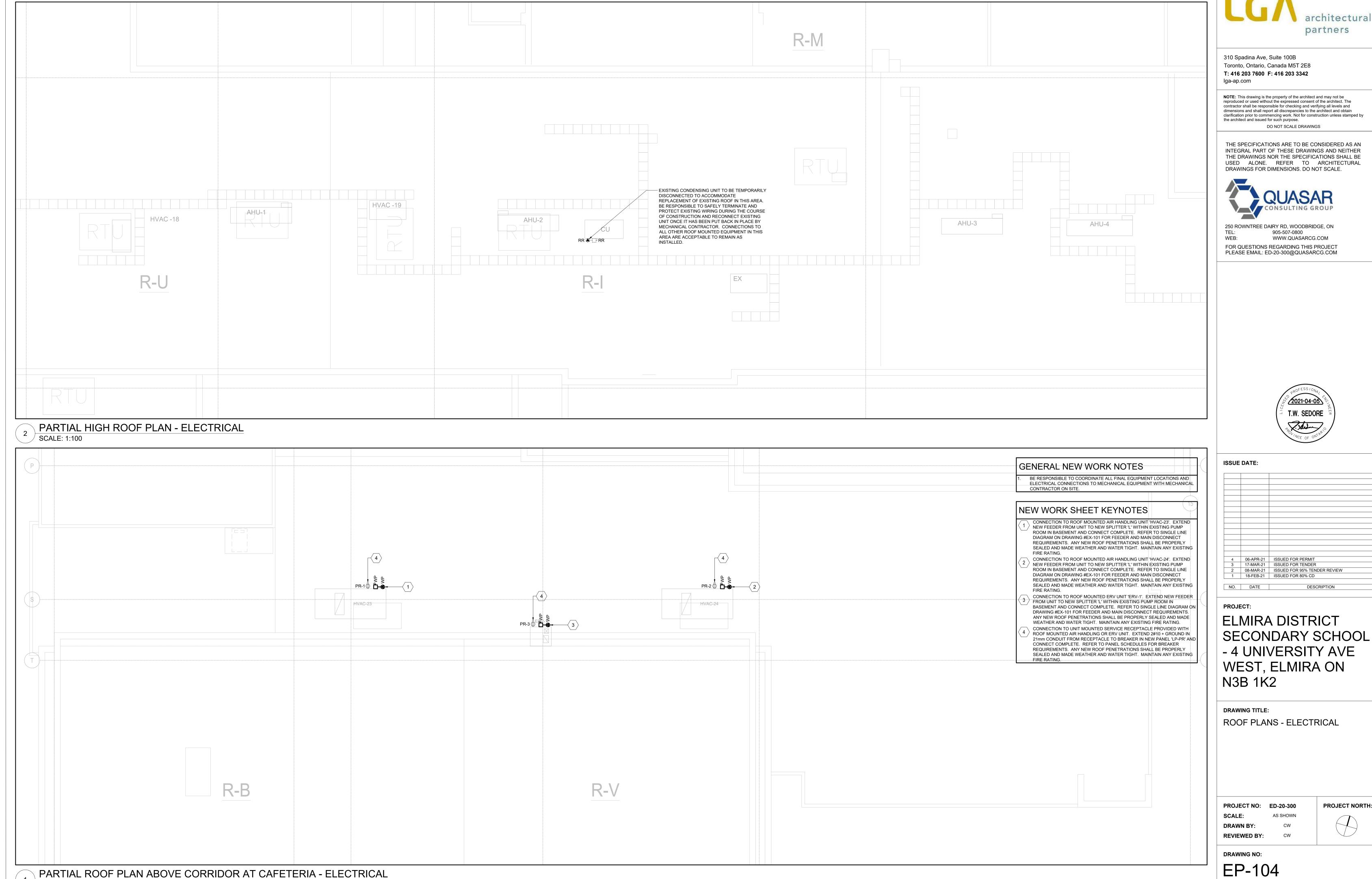
PROJECT NO: ED-20-300
SCALE: AS SHOWN
DRAWN BY: CW

PROJECT NORTH:

DRAWING NO:
EP-103

REVIEWED BY:

GYM MECHANICAL ROOM DEMOLITION PLAN - ELECTRICAL SCALE: 1:50



SCALE: 1:100

	PANEL ID: LP-P	R		V	VOLTS: 120/208V LOCATION: NEW PUMP ROOM							
	MAIN BUS: 100	A		PHASE: 3				FE	D FROM	: NEW S	SPLITTER 'L' (BASEMEN	IT)
MAIN BREAKER: NONE					WIRE	:: 4			FEE	DER EN	TRY AT: BOTTOM	
TYPE:					NTING: F	RECES	SSED		FEED	ER: REF	ER TO SINGLE LINE	
INTERRUPTING CAPACITY: 10KA MIN					LOSURE	RE RATING: REMARKS:						
R	WATTAGE			BRK	Ø	BRK	V	VATTAG	E	DESCRIPTION	CIR	
Ο.	DESCRIPTION	ØA	ØB	ØC	R	2	R	ØA	ØB	ØC	DESCRIPTION	NO.
1	'HVAC-23' SERVICE RECEPTACLE	1500	-	-	20**	Α	20**	1500	-	-	'HVAC-23' SERVICE RECEPTACLE	2
3	'ERV-1' SERVICE RECEPTACLE	-	1500	-	20**	В	15	-	150	-	UNIT HTR 'UH-1'	4
5	DHW RECIRC. PUMP 'C11'	-	-	150	15	С	15	-	-	500	DHW TANK	6
7	SPARE BRKR	-	-	-	20	Α	15	-	-	-	SPARE BRKR	8
9	SPARE BRKR	-	-	_	20	В	15	-	-	-	SPARE BRKR	10
1	SPARE BRKR	-	-	-	15	С	15	-	-	-	SPARE BRKR	12
3	SPARE BRKR	-	-	-	15	Α	15	-	-	-	SPARE BRKR	14
5	SPACE	-	-	-		В		-	-	-	SPACE	16
7	SPACE	-	-	-		С		-	-	-	SPACE	18
9	SPACE	-	-	-		Α		-	-	-	SPACE	20
!1	SPACE	-	-	-		В		-	-	-	SPACE	22
3	SPACE	-	-	-		С		-	-	-	SPACE	24
:5	SPACE	-	-	-		Α		-	-	-	SPACE	26
7	SPACE	-	-	-		В		-	-	-	SPACE	28
29	SPACE	-	-	-		С		-	-	-	SPACE	30
_		T	OTAL ØA	.:W	, TOTAL	ØB:	W ,	TOTAL &	ØC:	W	•	

CIRCUIT NUMBERS ARE GIVEN FOR GROUPING ONLY. SITE VERIFY AVAILABLE CIRCUIT BREAKER SPACES IN PANELS DURING TENDER WALKTHROUGH.

SCALE: NOT TO SCALE

L - LIGHTING

SYMBOL	TYPE	DESCRIPTION	BASIS OF DESIGN MANUFACTURER AND CAT NO. SEE NOTE 1	VOLTAGE/ INPUT WATTS	LUMEN PACKAGE (3500 K CCT UNLESS NOTED OTHERWISE) MINIMUM 80 CRI	MOUNTING	REFERENCE	REMARKS
	L1	RECESSED 2' x 4' LED TROFFER STYLE LUMINAIRE COMPLETE WITH WHITE FINISH, AND K12 ACRYLIC PRISMATIC LENS, 0.125" THICK.	PEERLESS ELECTRIC (OMNILUMEN) PEERLUX SERIES CAT.#LACH3-24G-48-40K-12P-MV	120V	4800 LUMEN 4000K	RECESSED T-BAR CEILING		
	L4-4	WALL MOUNTED 4'-0" LONG LED LUMINAIRE COMPLETE WITH ROUNDED EXTRUDED RIBBED FROSTED EXTRUDED LENS AND WHITE FINISH.	PEERLESS ELECTRIC (OMNILUMEN) PEERLUX SERIES CAT.#NSL-RA-4-40-40K-W-MV	120V	4000 LUMEN 4000K	SURFACE WALL MOUNT		

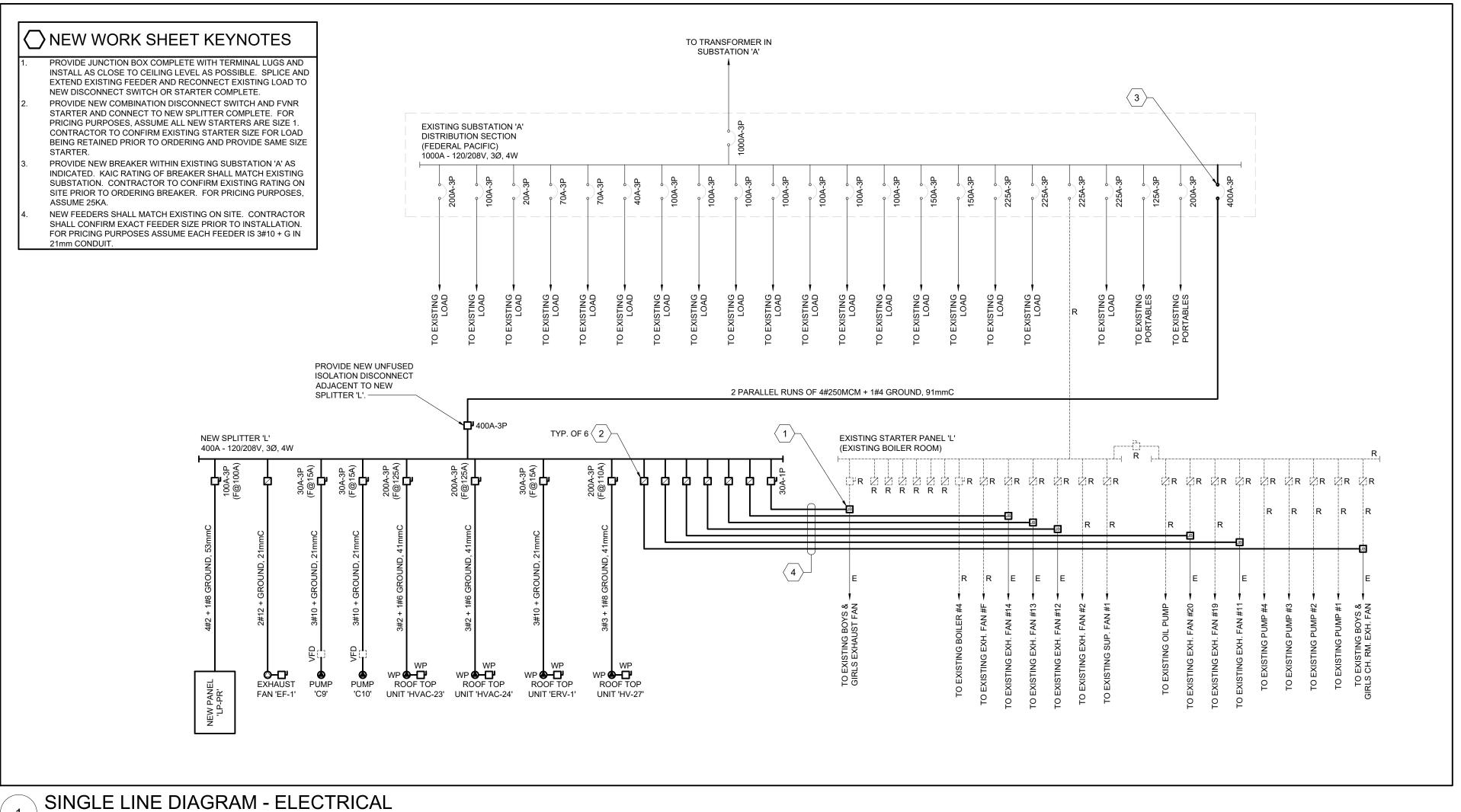
SYMBOL	TYPE	DESCRIPTION	BASIS OF DESIGN MANUFACTURERS AND	CONTROL	VOLTAGE	MOUNTING	SPECIFICATION	SPACES SERVED	REMARKS
TIMBOL	1112	BESONI HON	PRODUCT SERIES	WIRING	OUTPUT	MOGIVING	SECTION	OF NOLO CLICVED	TEMP IT IT
. Z1 , Z2	UI-DIM-NV-X B	DIMMING WALL STATION, MULTI-BUTTON WALL INTERFACE CONTROL C/W ENGRAVED BUTTONS. BUTTONS: EACH ZONE CONTROLLED (SEE PLANS), DIM UP, DIM DOWN, ALL OFF, ALL ON 'X' DENOTES NUMBER OF CONTROLLED ZONES	ACUITY BRANDS CONTROLS/nLIGHT NPODM SERIES PHILIPS REVOLUTION SERIES DR2PA	DIGITAL	-	WALL	26 09 43		
o ग	DT-W-2V	WALL MOUNT OCCUPANCY SENSOR, 24 V, DUAL TECHNOLOGY SENSOR, MIN 1200 SQ FT COVERAGE	PHILIPS OCCUSWITCH CLASSIC LRM2265 SERIES WATTSTOPPER DT-200 SERIES		24 V	WALL, +/- 12 FEET AFF	26 09 23		
)S	DH-C	CEILING MOUNTED PHOTOCELL SENSOR FOR INTERIOR DAYLIGHT HARVESTING			24 V		26 09 23		

. LIGHTING CONTROLS OF ONE MANUFACTURER THROUGH PROJECT TO ENSURE PRODUCT COMPATIBILITY.

2. ALTERNATE MANUFACTURERS: ACUITY BRANDS LIGHTING (SENORSWITCH, nLIGHT), COOPER LIGHTING SOLUTIONS, DOUGLAS LIGHTING CONTROLS, LUTRON, SIGNIFY (FORMERLY PHILIPS LIGHTING), WATTSTOPPER-LEGRAND. 3. DUAL TECHNOLOGY SENSORS: PASSIVE INFRARED/ULTRASONIC, OR PASSIVE INFRARED/MICROPHONIC, DEPENDING ON MANUFACTURER. MICROPHONIC SENSORS ACCEPTABLE IN LIEU OF ULTRASONIC. 4. POSITION CEILING MOUNTED OCCUPANCY SENSORS A MINIMUM 1200 mm (4'-0") FROM NEAREST AIR DIFFUSER, HVAC OUTLETS, HEATING BLOWERS, ETC. 5. CONFIRM INSTALLATION REQUIREMENTS, WIRING DIAGRAMS, ETC. WITH MANUFACTURER'S DETAILS.
6. SUBMIT SHOP DRAWINGS FOR CONSULTANT'S REVIEW PRIOR TO PLACING ANY ORDER.

7. CONFIRM FINISH COLOUR WITH CONSULTANT DURING SUBMITTAL REVIEW.

ELECTRICAL LIGHTING AND PANEL SCHEDULES
SCALE: NOT TO SCALE



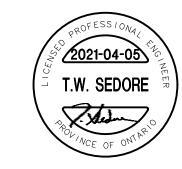
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4	06-APR-21	ISSUED FOR PERMIT
3	17-MAR-21	ISSUED FOR TENDER
2	08-MAR-21	ISSUED FOR 95% TENDER REVIEW
1	18-FEB-21	ISSUED FOR 80% CD
NO.	DATE	DESCRIPTION

PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

ELECTRICAL SCHEDULES AND SINGLE LINE DIAGRAM

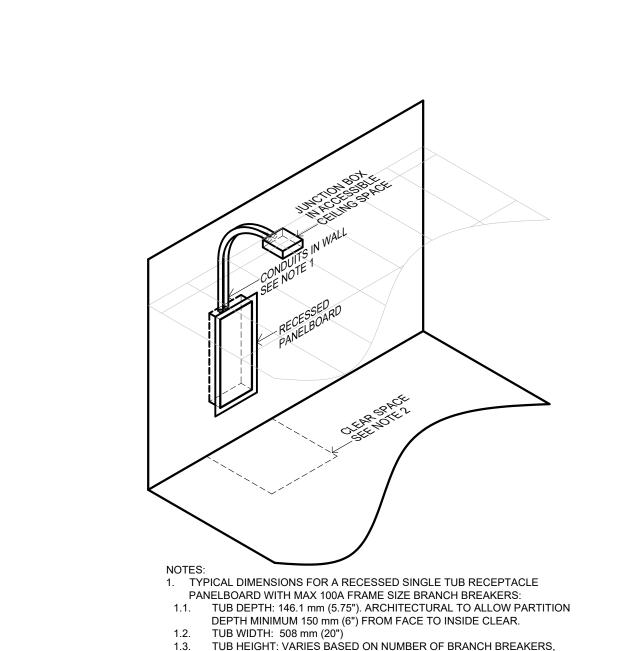
PROJECT NO: ED-20-300 SCALE: NOT TO SCALE **DRAWN BY:**

PROJECT NORTH:

DRAWING NO:

EX-101

REVIEWED BY:



POLE), BUT CAN ALSO BE TALLER.

ELECTRICAL SAFETY CODE RULE 2-308(1)).

OR WALL, REINSTATE WALL AND CEILING.

CIRCUITS AS FOLLOWS:

TYPICALLY RANGES BETWEEN 48 INCH (30 POLE), AND 72 INCH (42

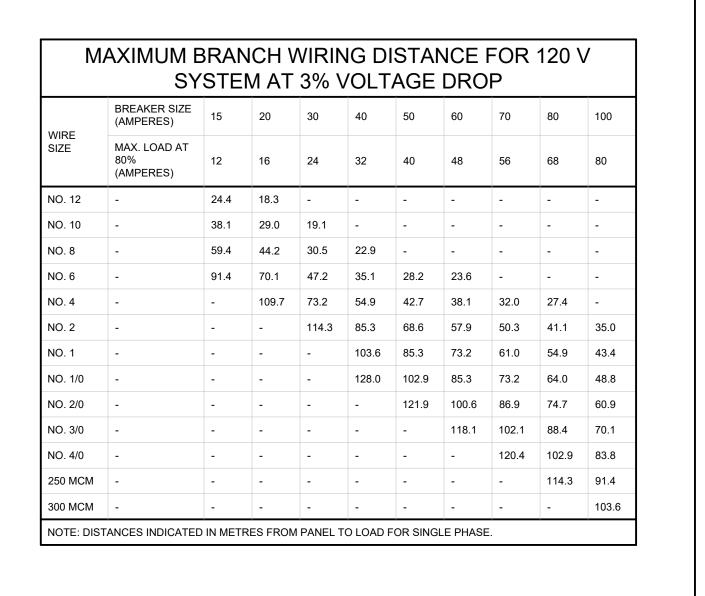
1.4. RECESSED PANELBOARD TRIM PLATE: TYPICALLY TUB DIMENSIONS

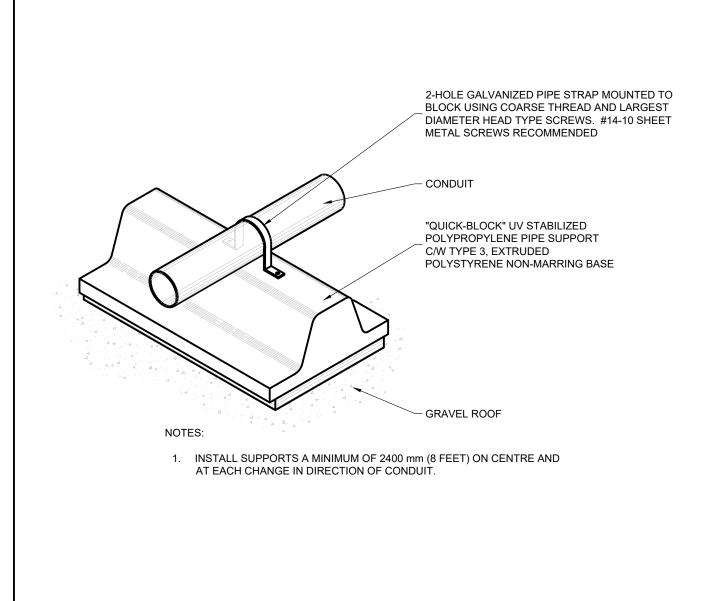
3. BRANCH CIRCUIT CONDUIT QUANTITY AND SIZE TO ACCOMMODATE

3.1. UP TO 100A, 42 CIRCUIT PANELBOARD: 2 x 41 mm (1-1/2") Ø
3.2. UP TO 225A, 42 CIRCUIT PANELBOARD: 2 x 41 mm (1-1/2") Ø
3.3. UP TO 400A, 42 CIRCUIT PANELBOARD: 2 x 53 mm (2") Ø
3.4. UP TO 600A, 42 CIRCUIT PANELBOARD: 3 x 53 mm (2") Ø
4. MINIMUM JUNCTION BOX SIZE: 600 mm BY 600 mm BY 75 mm.

CLEAR SPACE: MINIMUM 1000 mm BY 1000 mm SQUARE BY 2000 mm HIGH. PANEL NEED NOT BE CENTRED IN THE CLEAR SPACE (ONTARIO

WHEN INSTALLING NEW RECESSED PANELBOARD IN EXISTING PARTITION





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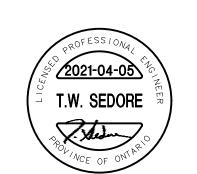
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NO.	DATE	DESCRIPTION
IU.	DAIL	DESCRIPTION

PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

ELECTRICAL DETAILS

PROJECT NO: ED-20-300
SCALE: NOT TO SCALE

NOT TO SCALE
CW

PROJECT NORTH:

REVIEWED BY: BD/TWS

DRAWN BY:

DRAWING NO:

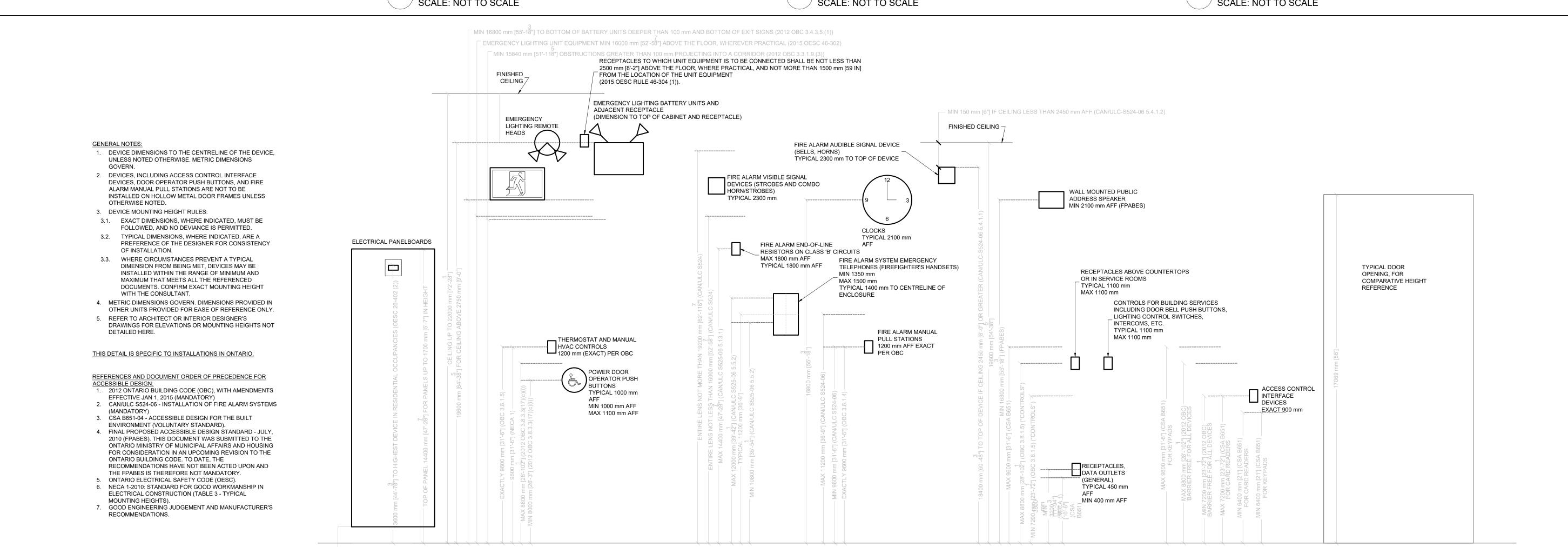
EX-102

4 PANEL BOARD DETAIL SCALE: NOT TO SCALE

MAXIMUM WIRING DISTANCE AT 3% VOLTAGE DROP

SCALE: NOT TO SCALE

ROOF TOP CONDUIT SUPPORT DETAIL
SCALE: NOT TO SCALE



GENERAL	
SYMBOL	DESCRIPTION
	EXISTING TO REMAIN
	EXISTING TO BE DEMOLISHED
[]R	EXISTING TO BE REMOVED FOR RELOCATION
R	EXISTING RELOCATED IN NEW WORK
	NEW WORK
CTE	CONNECT TO EXISTING
⊣ ico	CLEAN OUT
——) _{DN}	PIPE TURNING DOWN
	PIPE TURNING UP
\swarrow	PRESSURE REDUCING VALVE
Ō	ROOM THERMOSTAT
Θ	ROOM HUMIDISTAT
	PUMP
Š	AUTOMATIC CONTROL VALVE - TWO WAY
Ŕ	AUTOMATIC CONTROL VALVE - THREE WAY
\bowtie	ISOLATION VALVE
₩	BALANCING VALVE
•	CHECK VALVE
$\overline{\forall}$	STRAINER - OVER 50MM WITH VALVED FLUSHING DRAIN
J	PIPE BRANCH OFF TOP
Ç	PIPE BRANCH OFF BOTTOM
\$	RELIEF VALVE (PIPE TO DRAIN)
\Diamond	PRESSURE GUAGE
	THERMOMETER
CAP	CAP

VENTILATION	
SYMBOL	DESCRIPTION
₽ F D	FUSIBLE LINK FIRE DAMPER (DOUBLE LINE)
FD FD	FUSIBLE LINK FIRE DAMPER (SINGLE LINE)
BDD	DACK DRAFT DAMBER (DOUBLE LINE)
BDD BDD	BACK DRAFT DAMPER (DOUBLE LINE) BACK DRAFT DAMPER (SINGLE LINE)
. ¬BD .	BACK BIVAL I BAWLER (SINGLE LINE)
₹ BD	BALANCING DAMPER (DOUBLE LINE)
- -	BALANCING DAMPER (SINGLE LINE)
600x300	RECTANGULAR DUCTWORK - DIMENSION AS SHOWN
<u>600Ø</u>	ROUND DUCTWORK - DIMENSION AS SHOWN
₹ <u>600x300</u>	DUCTWORK (SINGLE LINE) - DIMENSION AS SHOWN
X	SUPPLY RISER UP
	EXHAUST/RETURN RISER UP
\boxtimes	SUPPLY RISER DOWN
	EXHAUST/RETURN RISER DOWN
	MITRED ELBOW WITH AIR TURNING VANES
{ 	DUCT RISE (DOUBLE LINE)
<u> </u>	DUCT RISE (SINGLE LINE)
MD N###	MOTORIZED DAMPER
├	SUPPLY GRILLE
-	EXHAUST/RETURN GRILLE
\square	CEILING SUPPLY AIR DIFFUSER
	CEILING EXHAUST/RETURN GRILLE
	BRANCH TAKE-OFF WITH ADJUSTABLE SPLITTER DAMPER IN SUPPLY DUCT (DOUBLE LINE)
Ţ,	BRANCH TAKE-OFF WITH ADJUSTABLE SPLITTER DAMPER IN SUPPLY DUCT (SINGLE LINE)
O.E.D.	OPEN ENDED DUCT WITH BALANCING DAMPER AND BELLMOUTH. DIRECTION AS SHOWN (DOUBLE LINE)
O.E.D.	OPEN ENDED DUCT WITH BALANCING DAMPER AND BELLMOUTH. DIRECTION AS SHOWN (SINGLE LINE)
	FLEXIBLE DUCT CONNECTION
A-200Ø-100 AIRFLOW IN L/s	DIFFUSER TAG
A-100 AIRFLOW IN L/s	GRILLE TAG
	ACOUSTICALLY LINED DUCTWORK (DOUBLE LINE)
	ACOUSTICALLY LINED DUCTWORK (SINGLE LINE)
SL	SILENCER (ATTENUATOR)
SIIIIIIIIIIII S	FLEXIBLE DUCT (DOUBLE LINE)
~ / ~	FLEXIBLE DUCT (SINGLE LINE)
	DUCT TRANSITION FROM RECTANGULAR TO ROUND
	RECTANGULAR DUCT BREAK
3	ROUND DUCT BREAK
<u></u>	SINGLE LINE DUCT BREAK

SYMBOL	DESCRIPTION
— HWR— —	- HEATING WATER RETURN
HWS-	- HEATING WATER SUPPLY
— HGR — —	- HEATING GLYCOL RETURN
HGS-	- HEATING GLYCOL SUPPLY
CNDR-	- CONDENSATE DRAIN
REFR—	- REFRIGERANT GAS
REFS-	- REFRIGERANT LIQUID
G	- GAS
BB - XXX	ELECTRIC BASEBOARD HEATER OUTPUT AS SHOWN (KW)
ECH	ELECTRIC CABINET HEATER
CUH	CABINET HEATER
UH	UNIT HEATER
CV 1200-5.6	CONVECTOR - LENGTH - HEAT OUTPUT (KW)
WF 1200-5.6	WALL FIN - LENGTH - HEAT OUTPUT (KW)
——————————————————————————————————————	UNION
X	MANUAL AIR VENT
Ŷ	AUTOMATIC AIR VENT
== ==	EXPANSION COMPENSATOR
<u>== </u>	EXPANSION SWING
X	PIPE ANCHOR
==	PIPE GUIDE
	PIPE SLEEVE
 ⊗≀	FLOAT & THERMOSTATIC TRAP
· · ·	INVERTED BUCKET TRAP
≀	ELECTRIC TRACING
8C-600-1100 = 2.1	RADIANT PANEL - 8 DENOTES DEPTH, 600mm DENOTES HEIGHT, 1100mm DENOTES LENGTH & 2.1 HEAT OUTPUT (KW

CONTROLS	
SYMBOL	DESCRIPTION
SF	SUPPLY FAN
RF	RETURN EXHAUST FAN
EF	EXHAUST FAN
H/C	HEATING COIL
	COOLING COIL
PC	PRE-HEAT COIL
	FILTERS
	HUMIDIFIER
<u> </u>	THERMOMETER
SA	SUPPLY AIR
EA_	EXHAUST AIR
OA OA	OUTDOOR AIR
RA	RETURN AIR
MD D	MOTORIZED DAMPER
VFD VFD	VARIABLE FREQUENCY DRIVE
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
P EP	ELECTRO-PNEUMATIC SWITCH
P E	PRESSURE ELECTRIC SWITCH
Ψ	HUMIDITY SENSOR
Φ	TEMPERATURE SENSOR
BAS	BUILDING AUTOMATED SYSTEM
Al	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
<u>os</u>	OCCUPANCY SENSOR

GENERAL NOTES

- 1. THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID. THIS SHALL BE DONE IN ORDER TO CONFIRM THAT EQUIPMENT AND SERVICES CAN BE INSTALLED AS SHOWN ON DRAWINGS AND THAT ADDITIONAL COSTS ARE INCLUDED IN BID TO FACILITATE INSTALLATION. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE ENGINEERS OF ANY DISCREPANCIES, OMISSIONS, AND INTERFERENCES. CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS TO CONSULTANT FOR REVIEW AND DIRECTION.
- 2. ENSURE THAT ALL NEW AND EXISTING MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW OR EXISTING SERVICES AND STRUCTURE. COORDINATE WITH PROJECT MANAGER AND ALL OTHER TRADES. INSTALL MECHANICAL EQUIPMENT IN SUCH A WAY AS TO PROVIDE ALL ACCESS REQUIREMENTS. REFER TO SHOP DRAWINGS AND/OR MANUFACTURER'S RECOMMENDATIONS FOR ACCESS REQUIREMENTS. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND MECHANICAL ENGINEER. PROVIDE ACCESS DOORS/PANELS TO BE AS SPECIFIED.
- 3. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING CEILINGS AND WALLS TO FACILITATE DEMOLITION AND THE INSTALLATION OF THE MECHANICAL SERVICES OUTLINED FOR THIS SCOPE OF WORK.
- 4. WELDING TO BE PERFORMED WITH STRINGENT ENVIRONMENTAL CONDITIONS FOR SMOKE AND FUME EVACUATION.
- 5. THE MECHANICAL DRAWINGS ARE PERFORMANCE DRAWINGS, DIAGRAMMATIC, AND SHOW APPROXIMATE LOCATIONS OF EQUIPMENT AND CONNECTING SERVICES. ANY INFORMATION REGARDING ACCURATE MEASUREMENT OF THE BUILDING ARE TO BE TAKEN AT THE SITE. DO NOT SCALE THE DRAWINGS, AND DO NOT USE THE DRAWINGS FOR PREFABRICATION WORK.
- 6. FOR CLARITY, NOT ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. HAS BEEN SHOWN ON THE DRAWINGS. THE EXISTING EQUIPMENT, PIPES, DUCTS AND SERVICES ARE SHOWN FOR REFERENCE ONLY. EXACT LOCATIONS, SIZES AND DIMENSIONS SHALL BE DETERMINED ON SITE. WHERE INTERFERENCES EXIST, CONTRACTOR SHALL REROUTE THE NEW WORK TO SUIT THE EXISTING PIPING.
- 7. NOT ALL CONNECTIONS TO EQUIPMENT ARE SHOWN. REFER TO THE MANUFACTURERS LITERATURE FOR ALL PIPING CONNECTIONS.
- 8. CONTRACTOR IS TO BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL PIPING AND EQUIPMENT AS SHOWN ON THE DEMOLITION PLAN.
- 9. COORDINATE ALL TEMPORARY SHUT DOWNS WITH THE OWNER. PROVIDE ISOLATION VALVES AS REQUIRED.
- 10. SURVEY ALL AFFILIATED WORK AREAS AND REPORT ABNORMALITIES AND DISCREPANCIES TO CONSULTANT.
- 11. WHERE CEILING, FLOOR, WALL OR ROOF OPENINGS ARE REQUIRED TO RUN MECHANICAL AND ELECTRICAL SERVICES, INCLUDE ALL COSTS FOR REINSTATING THE CEILING, FLOOR, WALL, OR ROOF. SEAL ALL OPENINGS WITH APPROVED FIRE-STOPPING MATERIALS AS REQUIRED. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 12. HOUSEKEEPING PADS FOR EQUIPMENT SHALL BE AMPLY SIZED TO EXTEND A MINIMUM OF 4" BEYOND THE FOOTPRINT OF THE EQUIPMENT IT SUPPORTS.
- 13. IF ASBESTOS CONTAINING MATERIAL IS SUSPECTED OR IDENTIFIED IN THE WORK AREA AND REQUIRED TO BE HANDLED AS PART OF THE DEMOLITION PHASE OF THE PROJECT, CONTRACTOR SHALL HALT WORK AND INFORM CONSULTANT OF SUCH CONDITIONS. CONTRACTOR SHALL NOT PROCEED WITH DEMOLITION OF SUCH AREAS WITHOUT AUTHORIZATION BY CONSULTANT. REMOVAL OF SUCH MATERIALS TO ACCOMMODATE THE WORK DESCRIBED AND OUTLINED IN THESE DRAWINGS SHALL BE ARRANGED THROUGH THE OWNER. ASBESTOS ABATEMENT, IF ANY, IS EXCLUDED FROM THIS CONTRACT AND WILL BE HANDLED SEPARATELY BY OWNER.
- 14. ALL ABANDONED OR OBSOLETE MECHANICAL SERVICES SUCH AS VALVES, PIPING, EQUIPMENT, INSTRUMENTATION, ETC. SHALL BE REMOVED WITHIN THE WORK AREA TO FACILITATE ALL NEW MECHANICAL WORK.
- 15. CONTRACTOR SHALL IDENTIFY AND LABEL CLEARLY ALL PIPING, SERVICES AND EQUIPMENT INSTALLED UNDER THE SCOPE OF WORK OF THIS PROJECT. IDENTIFICATION SHALL BE AS PER THE SPECIFICATIONS AND OWNER REQUIREMENTS.
- 16. INSULATE ALL NEW PIPING AND ANY EXISTING PIPING WHERE INSULATION HAS BEEN REMOVED OR DAMAGED BY THIS WORK. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 17. ALL PIPE WORK IN MECHANICAL ROOM TO BE TESTED FOR LEAKS WHEREVER NEW CONNECTIONS ARE MADE.
- 18. WHERE CONNECTIONS ARE MADE TO EXISTING SERVICES, CONTRACTOR SHALL MATCH ALL EXISTING PIPE SIZES UNLESS OTHERWISE NOTED.

Drawing List					
Sheet Number	Sheet Title				
M-001	MECHANICAL LEGEND AND DRAWING LIST				
M-002	MECHANICAL KEYPLANS				
M-100	BOILER ROOM - DEMOLITION & NEW WORK PLAN				
M-101	HVAC DUCTWORK - CAFETERIA - DEMO AND NEW WORK PLAN				
M-102	HVAC - CAFETERIA ROOF - DEMO AND NEW WORK PLAN				
M-103	HVAC PIPING - CAFETERIA - DEMO AND NEW WORK PLAN				
M-104	HVAC PIPING - CAFETERIA CORRIDOR - DEMO AND NEW WORK PLAN				
M-105	HVAC PIPING - GYM - DEMO AND NEW WORK PLAN				
M-110	GYM DRAINAGE - DEMOLITION & NEW WORK PLAN				
M-111	GYM MECHANICAL ROOM & ROOF - DEMOLITION & NEW WORK PLAN				
M-112	GYM HVAC - NEW WORK PLAN				
M-120	HIGH ROOF - DEMOLITION & NEW WORK PLAN				
M-300	MECHANICAL DETAILS 1				
M-301	MECHANICAL DETAILS 2				
M-302	MECHANICAL DETAILS 3				
M-400	MECHANICAL SCHEDULES				



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PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

MECHANICAL LEGEND AND DRAWING LIST

PROJECT NO: ED-20-300
SCALE: AS SHOWN
DRAWN BY: RH

REVIEWED BY:

PROJECT NORTH

MH

DRAWING NO:





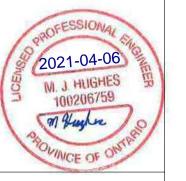
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NO.	DATE	DESCRIPTION

PROJECT

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

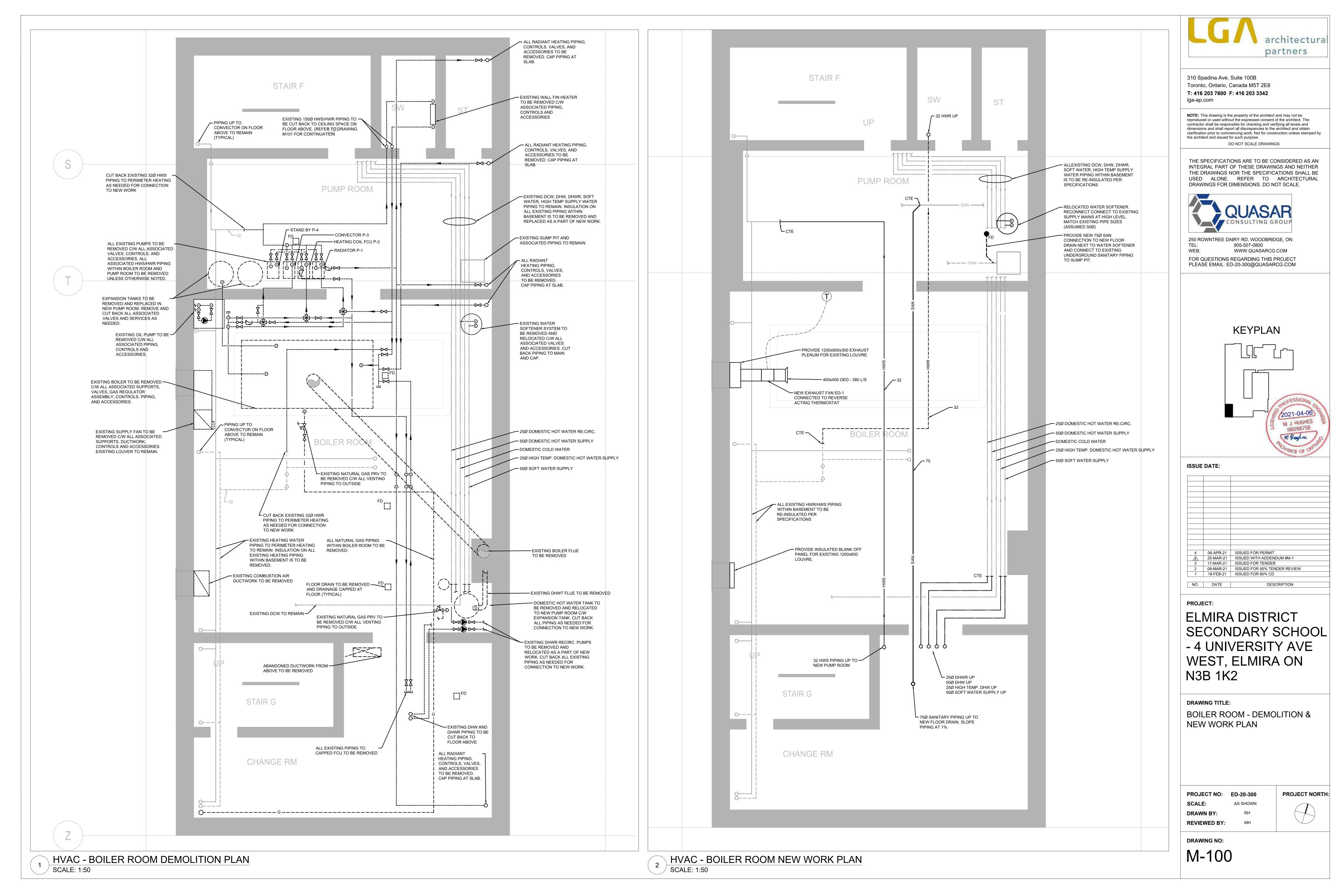
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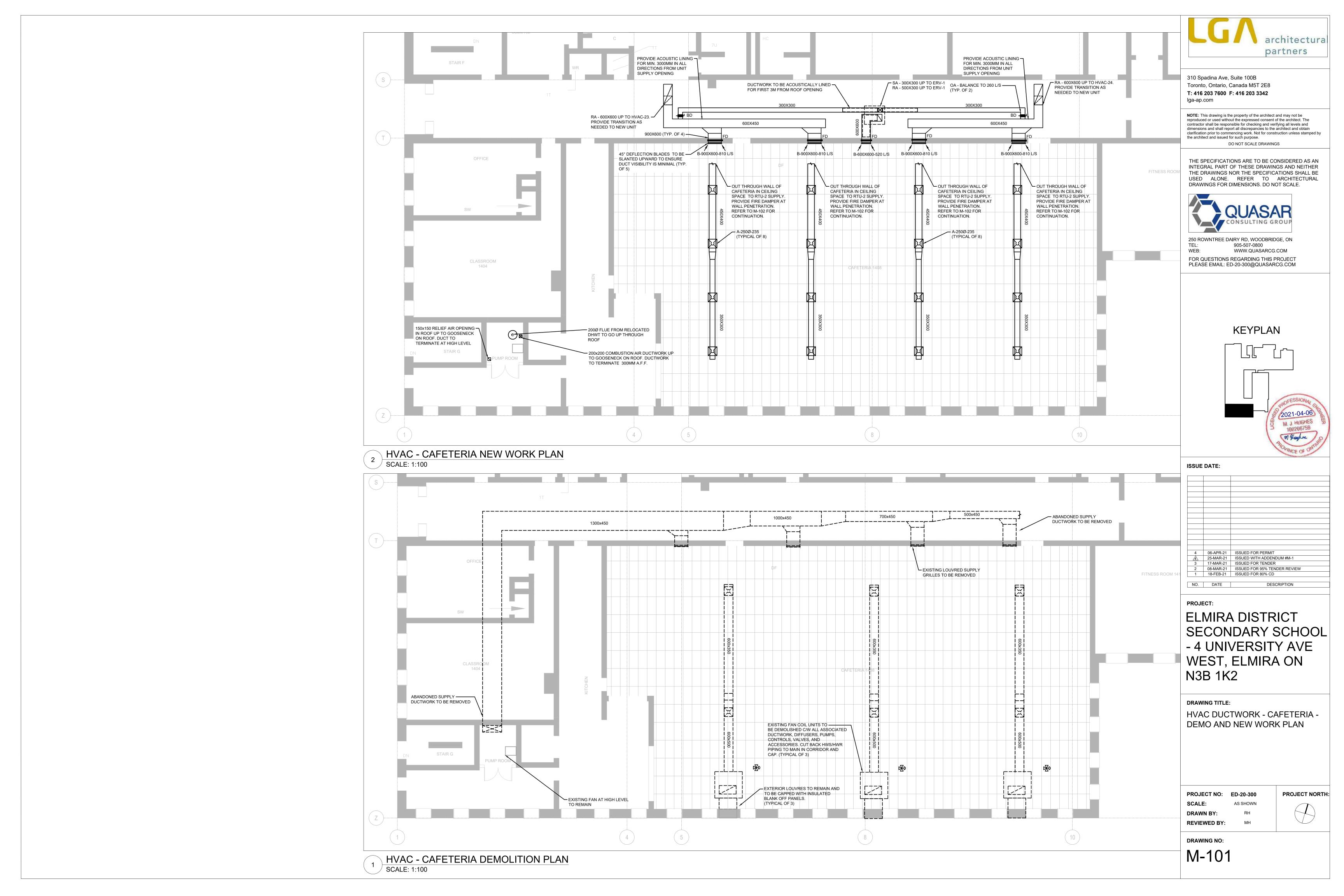
MECHANICAL KEYPLANS

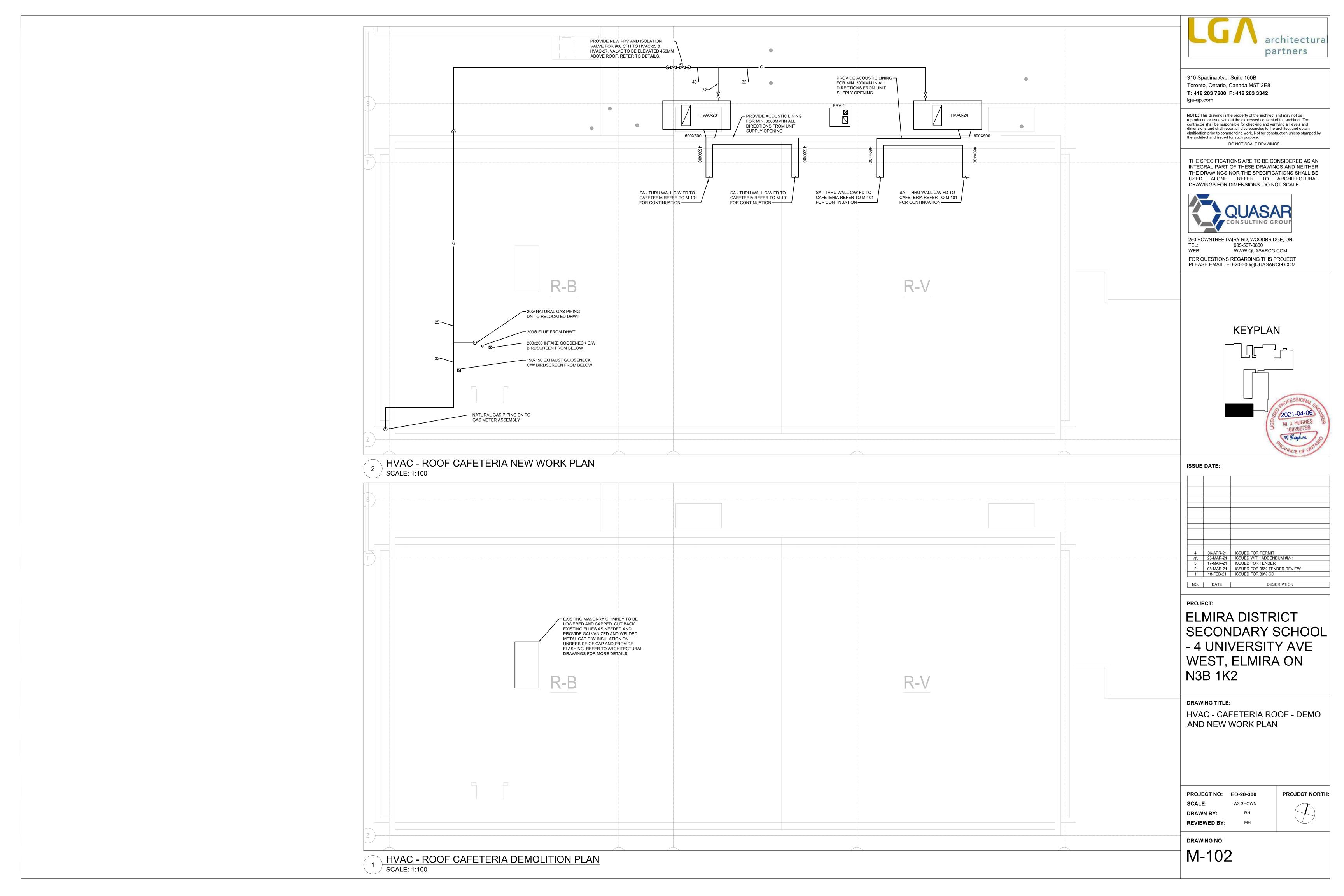
PROJECT NO: ED-20
SCALE: AS SH
DRAWN BY: F
REVIEWED BY:

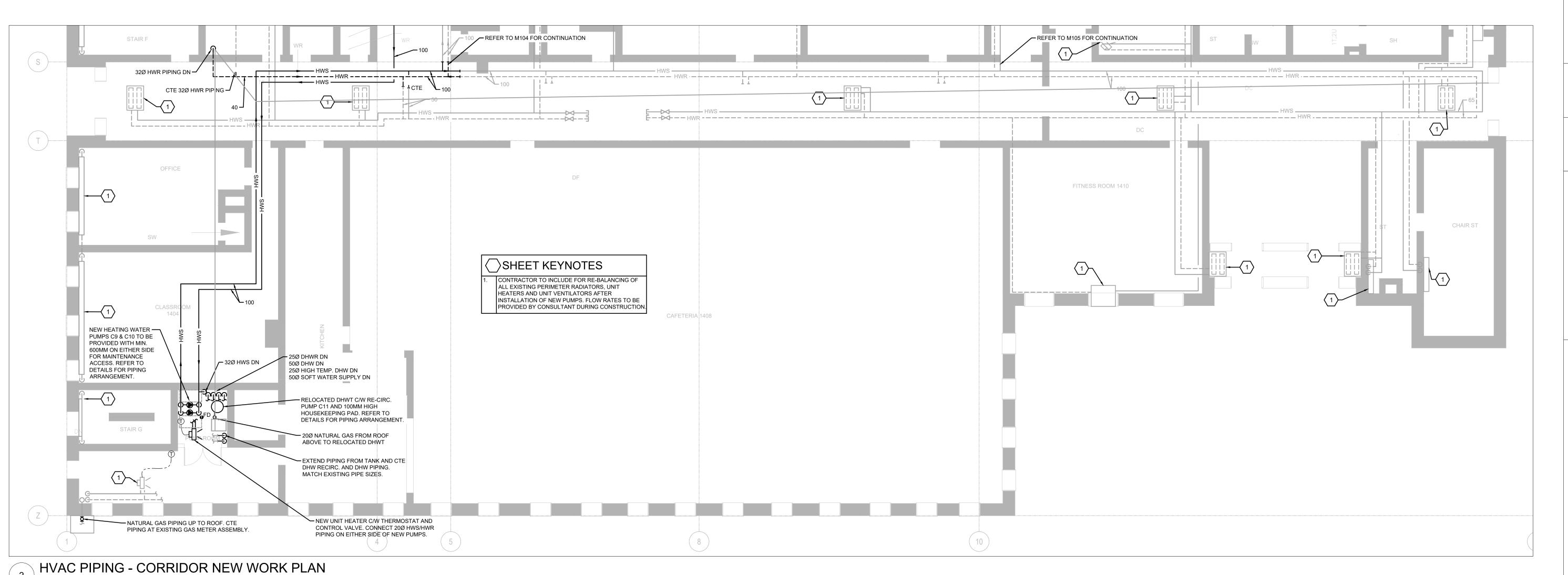
PROJECT NORTH

DRAWING NO:

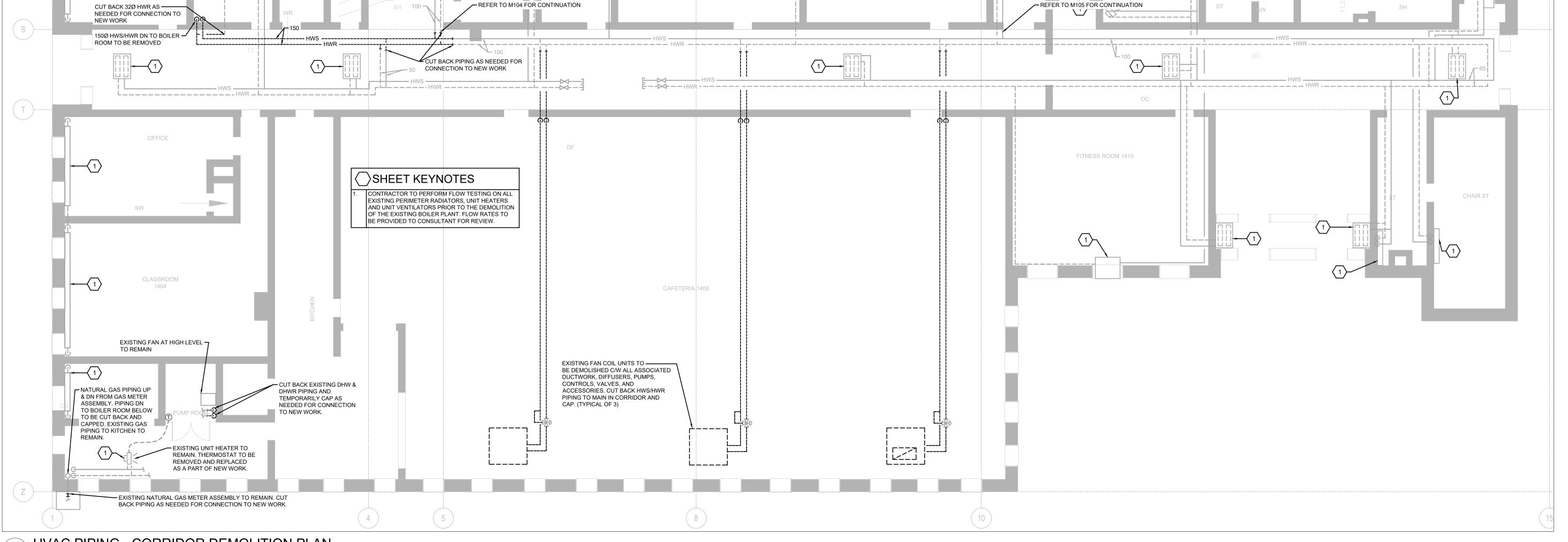














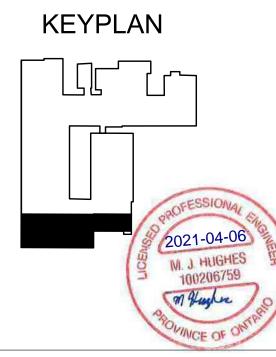
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PROJECT: ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

HVAC PIPING - CAFETERIA -DEMO AND NEW WORK PLAN

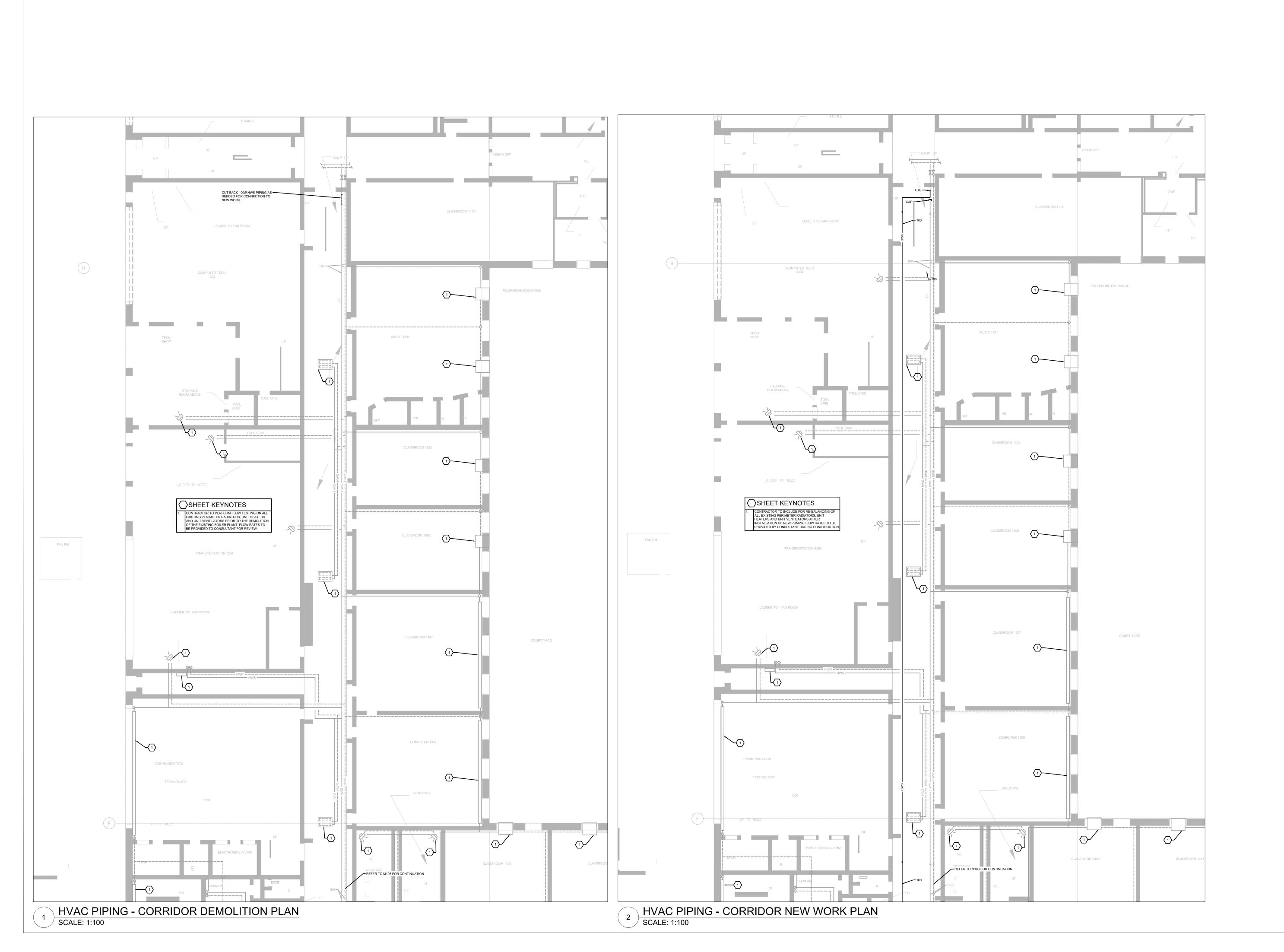
PROJECT NO: ED-20-300 AS SHOWN **DRAWN BY: REVIEWED BY:**

PROJECT NORTH

DRAWING NO:

M-103

HVAC PIPING - CORRIDOR DEMOLITION PLAN SCALE: 1:100



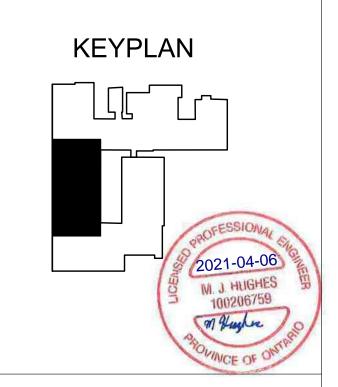


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ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

HVAC PIPING - CAFETERIA CORRIDOR - DEMO AND NEW **WORK PLAN**

PROJECT NO:	FD 20 200
PROJECT NO.	ED-20-300
SCALE:	AS SHOWN
DRAWN BY:	RH
REVIEWED BY	/· MH

PROJECT NORTH:

DRAWING NO:





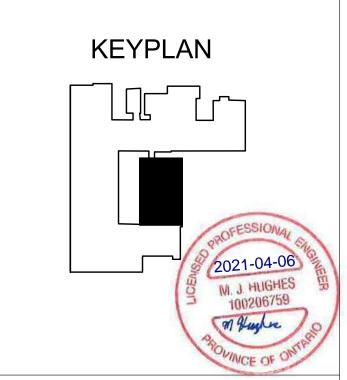
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WEB: WWW.QUASARCG.COM
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ISSUE	DATE:	
4	06-APR-21	ISSUED FOR PERMIT
4	25-MAR-21	ISSUED WITH ADDENDUM #M-1
3	17-MAR-21	ISSUED FOR TENDER
2	08-MAR-21	ISSUED FOR 95% TENDER REVIEW
1	18-FEB-21	ISSUED FOR 80% CD
	·	
NO.	DATE	DESCRIPTION

PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

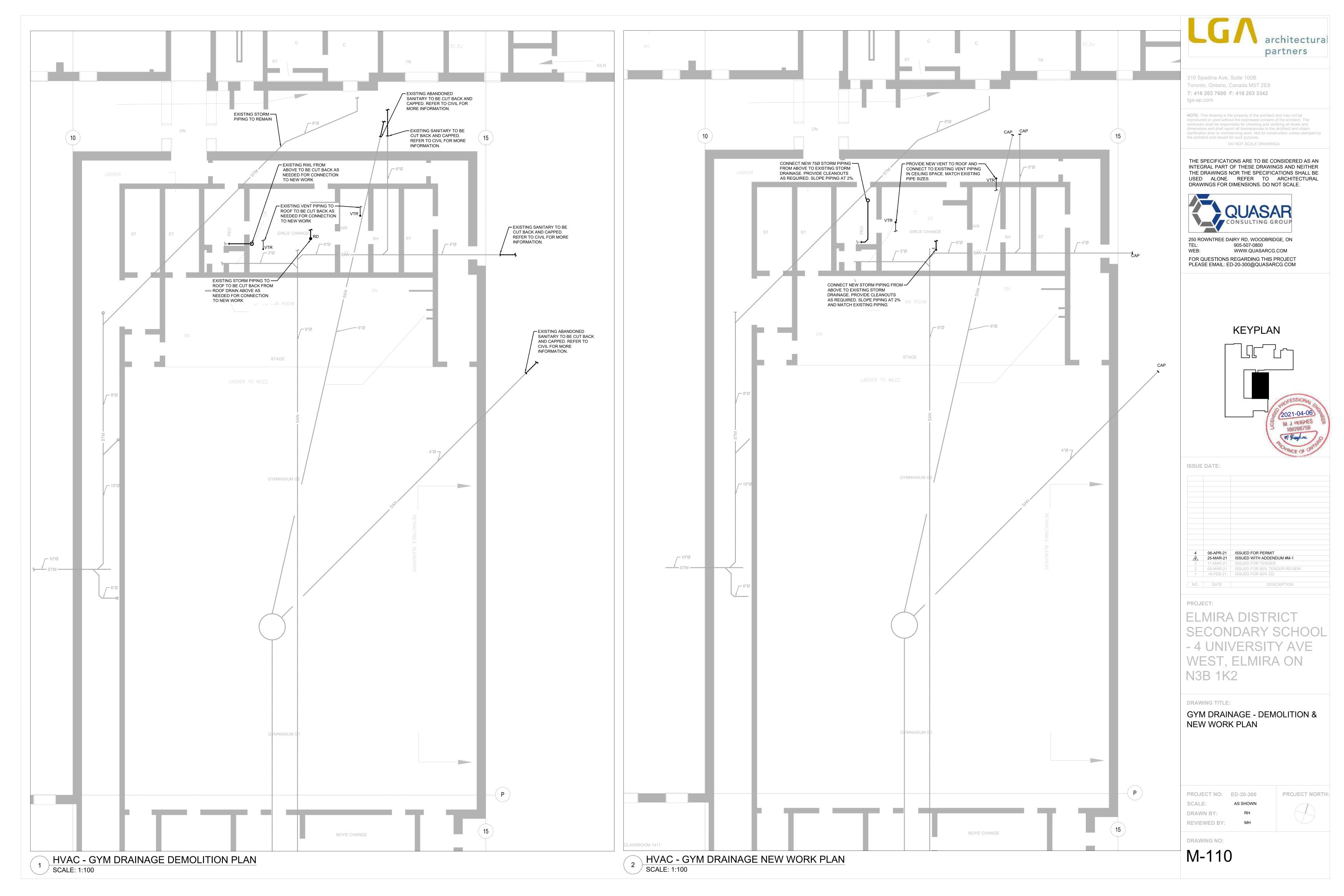
DRAWING TITLE:

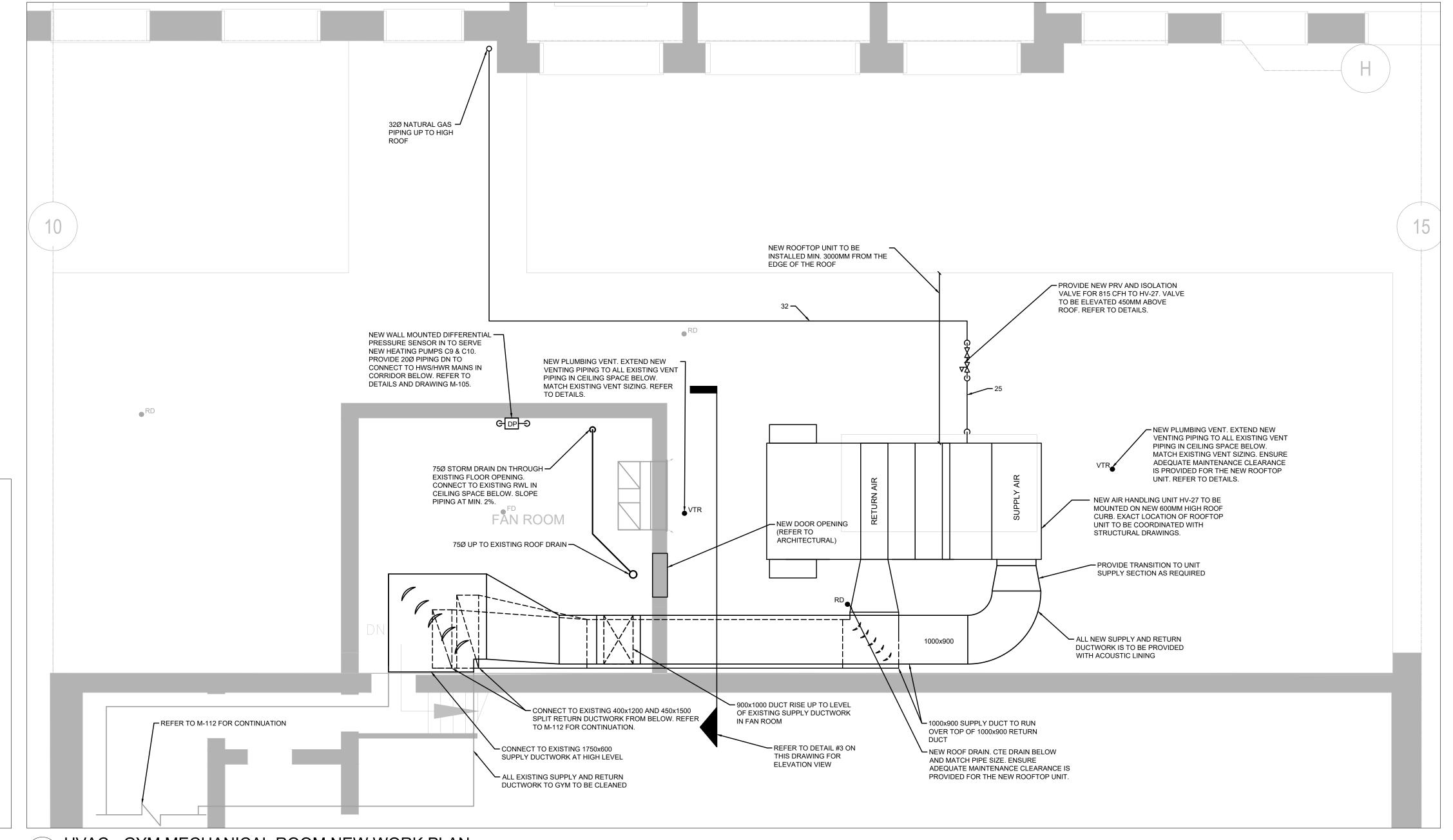
HVAC PIPING - GYM - DEMO AND NEW WORK PLAN

PROJECT NO: ED-20-300
SCALE: AS SHOWN
DRAWN BY: RH
REVIEWED BY: MH

PROJECT NORTH

DRAWING NO:





3 ELEVATION OF NORTH FAN ROOM WALL N.T.S.

NEW SUPPLY DUCTWORK - WALL PENETRATION. REFER

NEW RETURN DUCTWORK

WALL PENETRATION TO BE MINIMUM 450MM

FOR MORE DETAILS.

ABOVE ROOF

TO STRUCTURAL DRAWINGS

OUTLINE OF NORTH -

L EXHAUST LOUVRE

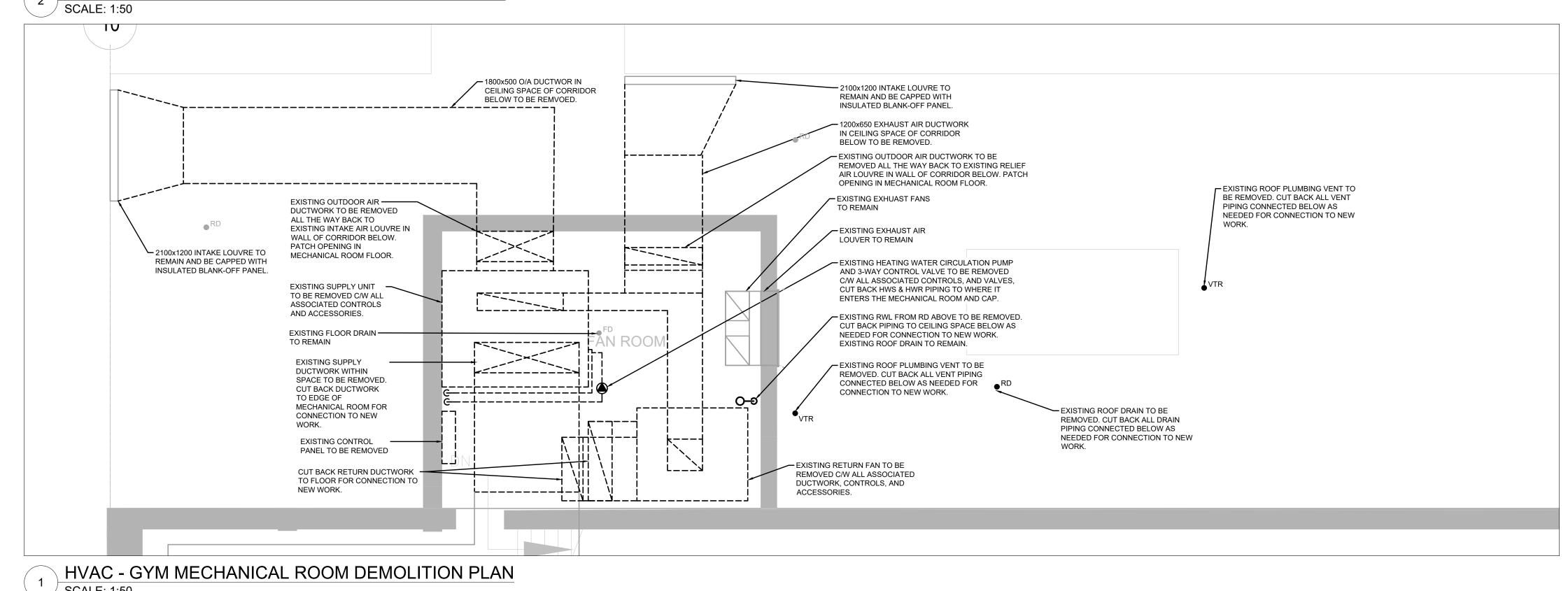
TO REMAIN

NEW DOOR

FAN ROOM WALL

1000x900

HVAC - GYM MECHANICAL ROOM NEW WORK PLAN



architectura partners

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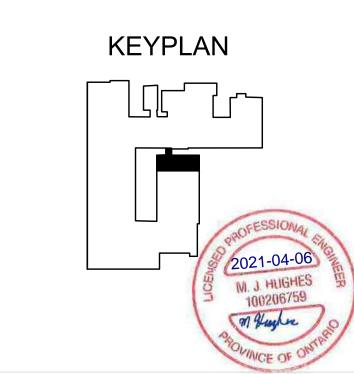
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PROJECT:

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SECONDARY SCHOOL
- 4 UNIVERSITY AVE
WEST, ELMIRA ON
N3B 1K2

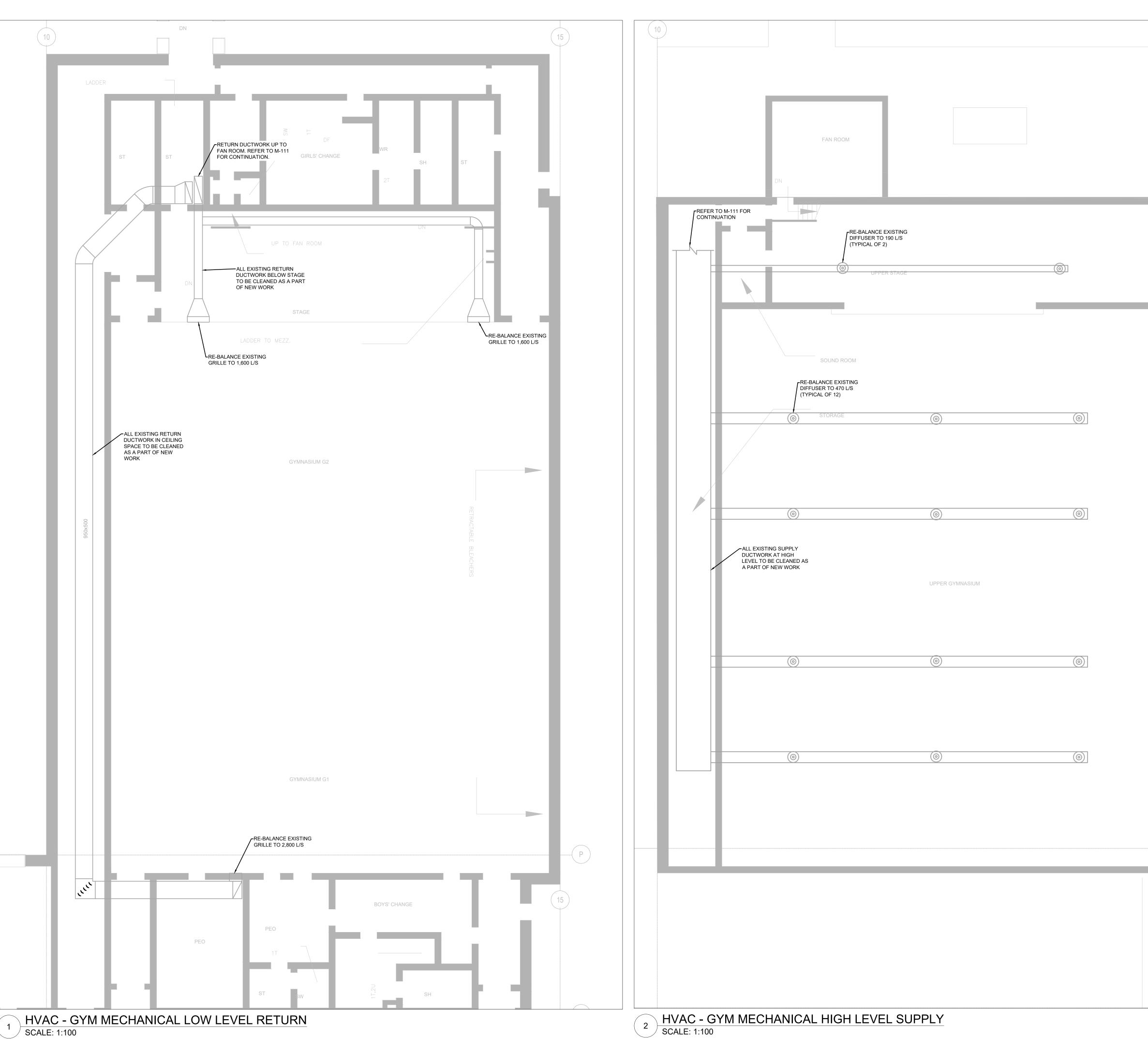
DRAWING TITLE:

GYM MECHANICAL ROOM & ROOF - DEMOLITION & NEW WORK PLAN

PROJECT NO: ED-20-300
SCALE: AS SHOWN
DRAWN BY: RH
REVIEWED BY: MH

PROJECT NORTH:

DRAWING NO:



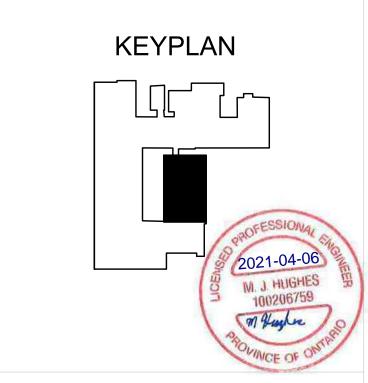
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1	18-FEB-21	ISSUED FOR 80% CD
		'
NO.	DATE	DESCRIPTION

PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

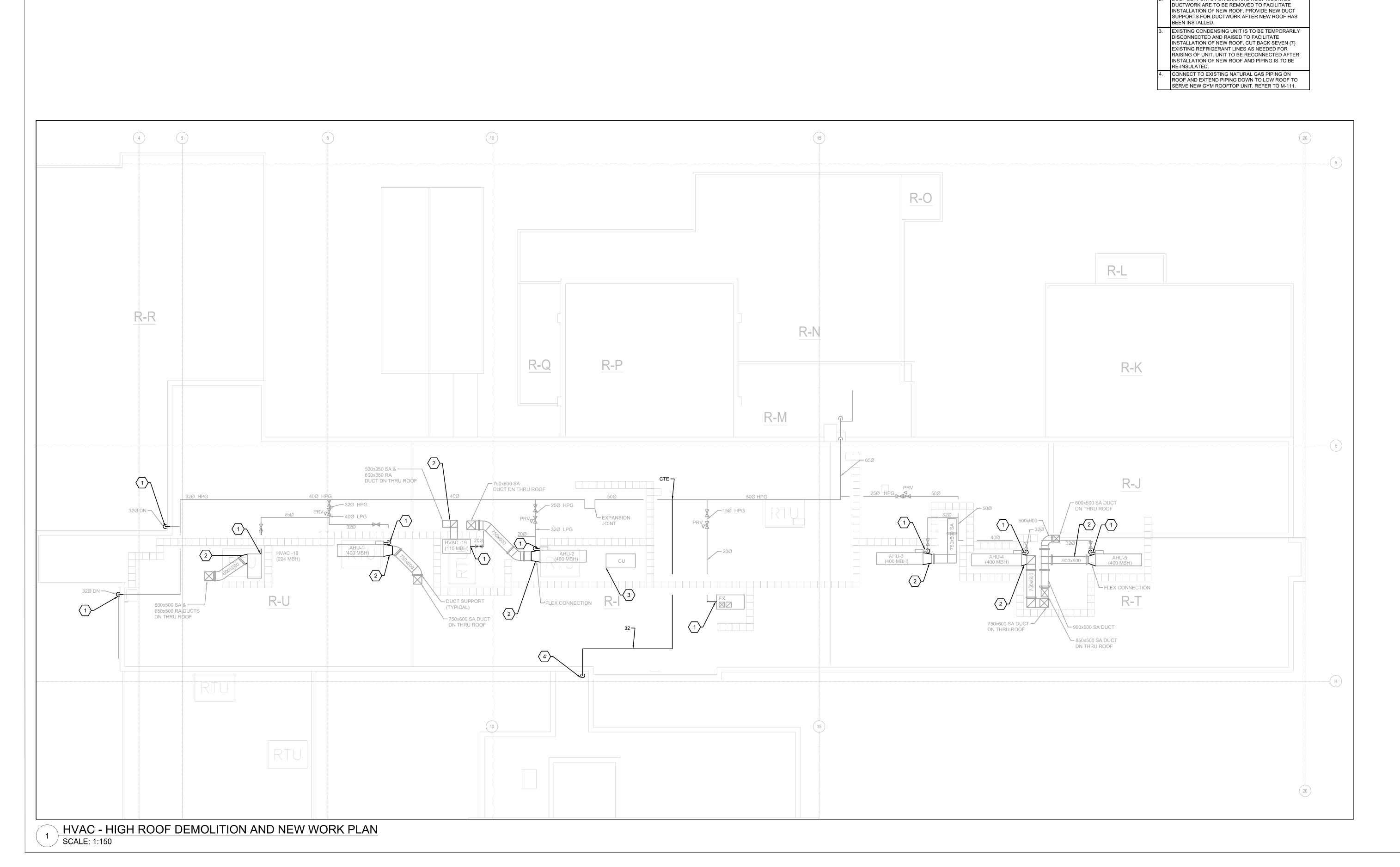
DRAWING TITLE:

GYM HVAC - NEW WORK PLAN

PROJECT NO: ED-20-300

PROJECT NORTH:

DRAWING NO:





PART OF THIS WORK.

EXISTING NATURAL GAS PIPING ON ROOF TO BE DISCONNECTED FROM EQUIPMENT AND TEMPORARILY RAISED TO FACILITATE INSTALLATION OF NEW ROOF.

PIPING IS TO BE RECONNECTED TO EXISTING UNITS AFTER NEW ROOF HAS BEEN INSTALLED. THE SURFACE OF ALL EXISTING NATURAL GAS PIPING ON

HIGH ROOF IS TO BE CLEANED AND RE-PAINTED AS A

DUCT SUPPORTS FOR EXISTING ROOF MOUNTED

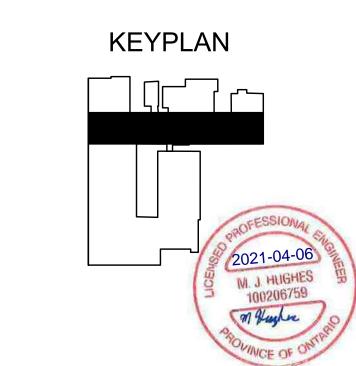
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NO.	DATE	DESCRIPTION

PROJE

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

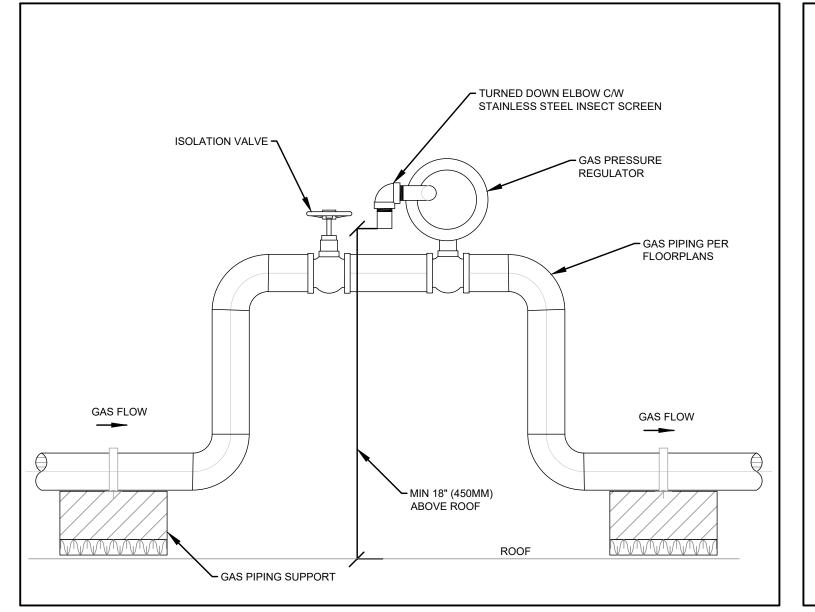
HIGH ROOF - DEMOLITION & NEW WORK PLAN

PROJECT NO: ED-20-300
SCALE: AS SHOWN
DRAWN BY: RH
REVIEWED BY: MH

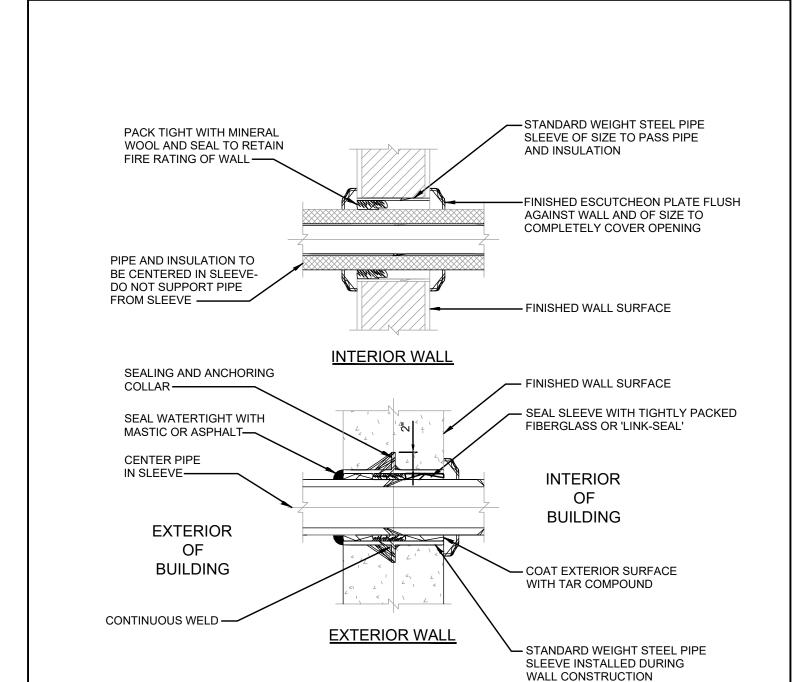
PROJECT NORTH

: мн

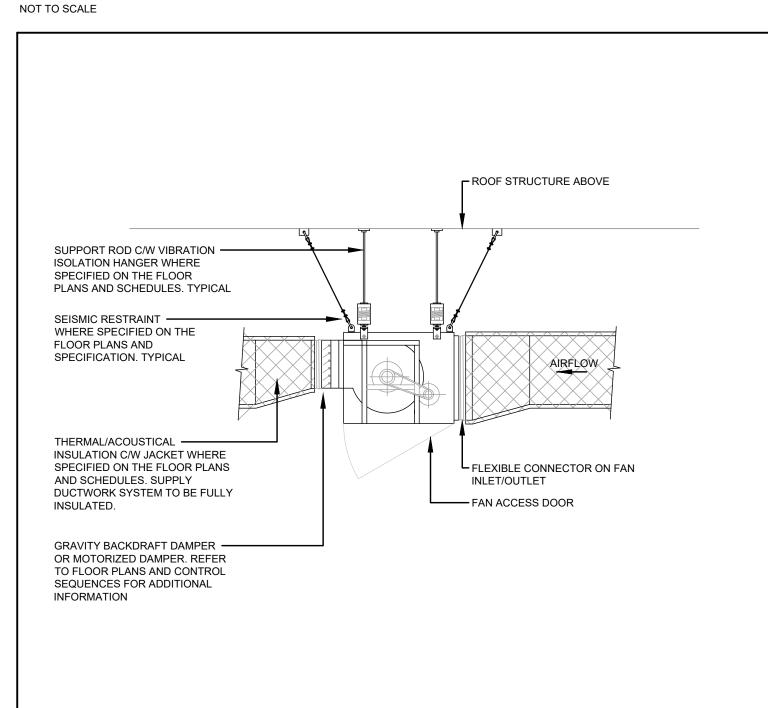
DRAWING NO:



23 30 00.10 ROOF MOUNTED GAS PRESSURE REGULATOR INSTALL NOT TO SCALE



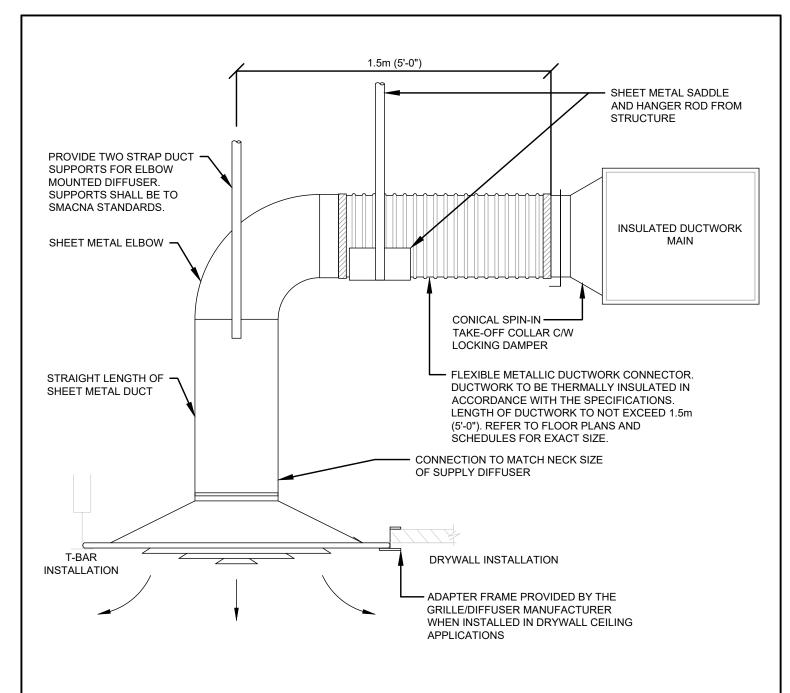
20 05 00.12 DETAIL OF PIPING PENETRATION THROUGH WALL



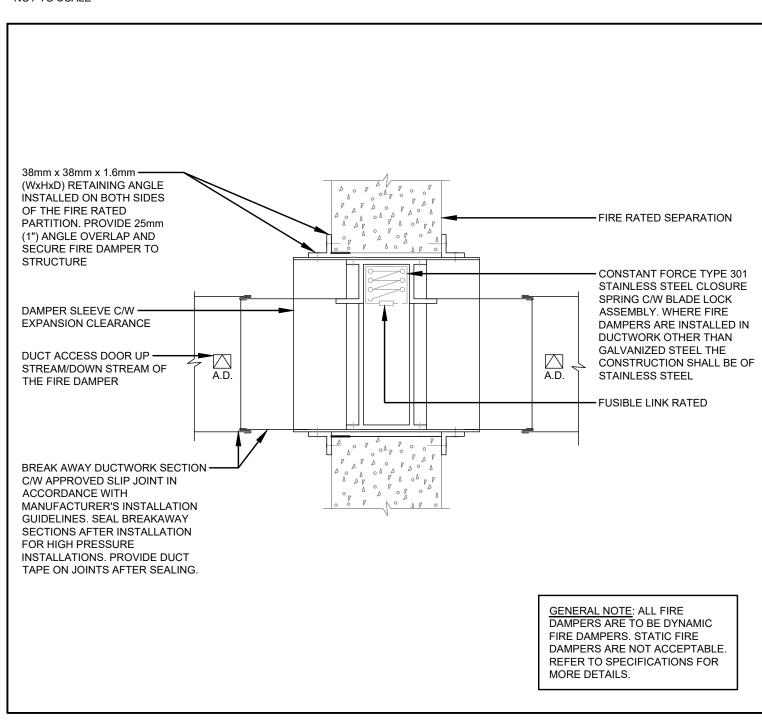
23 34 00.10 CENTRIFUGAL INLINE FAN

CLEAN OUT PLUG C/W SCREW CAP CONDENSATE DRAIN OUTLET PIPE "D" FROM AIR HANDLING UNIT CABINET SECTION THREADED UNION. TYPICAL → AIR HANDLING UNIT STEEL SUPPORT CHANNEL TERMINATE DRAINAGE PIPING OVER FINISHED ROOF. PROVIDE AN AIR GAP OF 25mm (1") - 300mm (1'-0") MEASURED FROM THE OUTLET PIPING TO THE TOP OF THE FINISHED ROOF - METAL FLASHING AND COUNTER FLASHING TO BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATIONS ROOF CURB PROVIDED BY AIR HANDLING UNIT MANUFACTURER AND INSTALLED BY CONTRACTOR. EXACT ROOF CURB HEIGHT TO BE CONFIRMED BY AIR HANDLING UNIT MANUFACTURER BASED ON MINIMUM CONDENSATE DRAIN TRAP HEIGHT

23 74 13.02 CONDENSATE DRAIN TRAP HEIGHT - OUTDOOR AIR HANDLING UNIT
NOT TO SCALE



23 30 09.01 FLEXIBLE METALLIC DUCTWORK



23 30 29.01 FUSIBLE LINK DAMPER

REQUIRED CONDENSATE DRAIN TRAP HEIGHT NEGATIVE STATIC PRESSURE POSITIVE STATIC PRESSURE DIAMETER "D" STATIC PRESSURE T (MINIMUM) STATIC PRESSURE T (MINIMUM) 248 Pa (-1" W.C.) 104mm (4.1") 248 Pa (1" W.C.) 104mm (4.1") 20mm (3/4") 497 Pa (-2" W.C.) 142mm (5.6") 497 Pa (2" W.C.) 129mm (5.1") 248 Pa (-1" W.C.) 114mm (4.5") 248 Pa (1" W.C.) 114mm (4.5") 497 Pa (-2" W.C.) 152mm (6.0") 497 Pa (2" W.C.) 25mm (1") 140mm (5.5") 747 Pa (3" W.C.) 747 Pa (-3" W.C.) 190mm (7.5") 165mm (6.5") 248 Pa (-1" W.C.) 135mm (5.3") 248 Pa (1" W.C.) 135mm (5.3") 497 Pa (-2" W.C.) 173mm (6.8") 497 Pa (2" W.C.) 160mm (6.3") 747 Pa (-3" W.C.) 211mm (8.3") 747 Pa (3" W.C.) 185mm (7.3")

T = TOTAL TRAP HEIGHT = X + H*(1.5*D)

NEGATIVE STATIC PRESSURES

 H = 25mm (1") + UNIT STATIC PRESSURE IN AIR HANDLING UNIT CABINET SECTION (MINIMUM) • D = PIPE DIAMETER

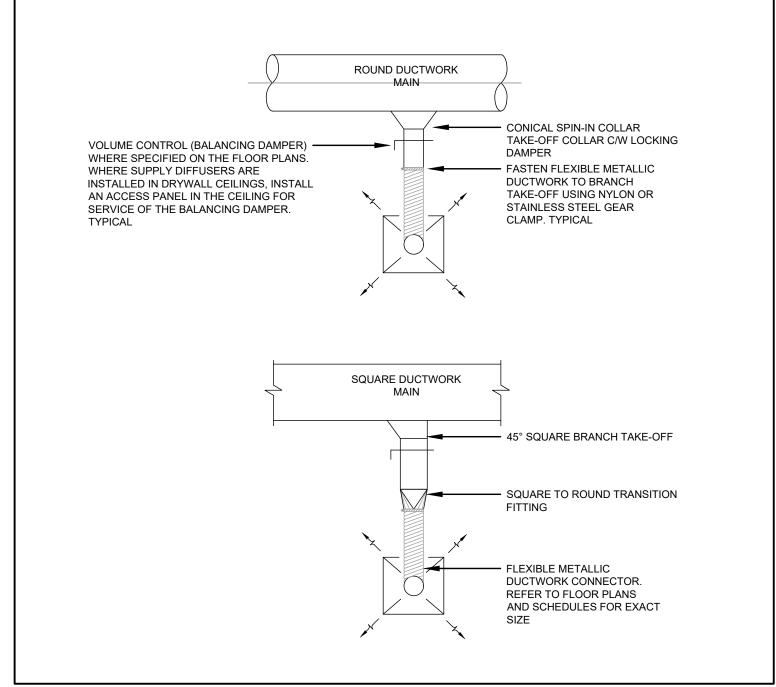
POSITIVE STATIC PRESSURES:

• X = 25mm (1") + UNIT STATIC PRESSURE IN AIR HANDLING UNIT CABINET SECTION (MINIMUM)

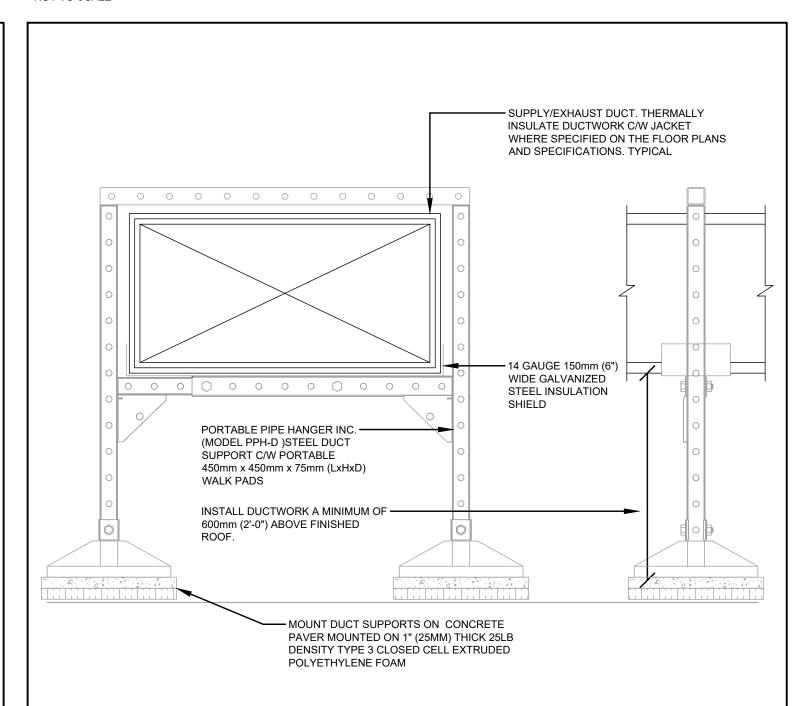
H = 25mm (1") (MINIMUM)

D = PIPE DÌAMÈTER

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23 30 09.02 FLEXIBLE METALLIC DUCTWORK CONNECTION



23 30 32.01 ROOF DUCT SUPPORT



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17-MAR-21 ISSUED FOR TENDER 08-MAR-21 ISSUED FOR 95% TENDER REVIEW 1 18-FEB-21 ISSUED FOR 80% CD NO. DATE DESCRIPTION

PROJECT:

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

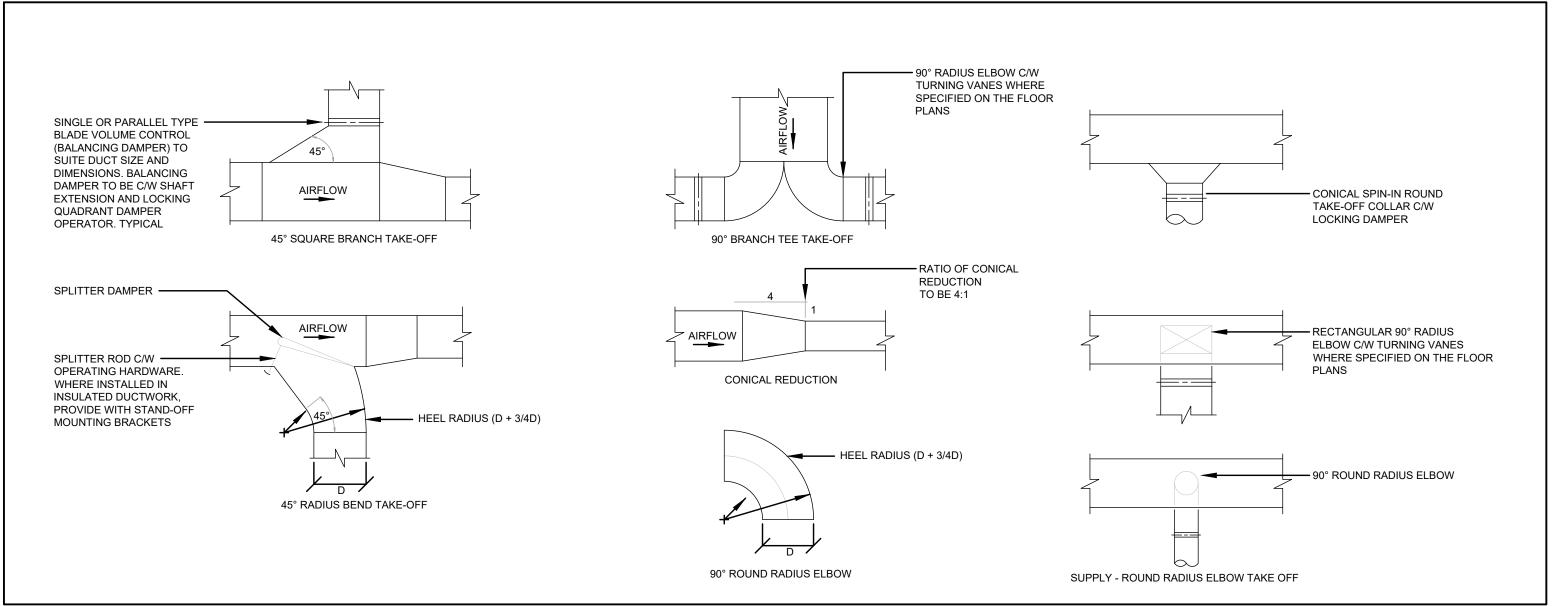
MECHANICAL DETAILS 1

PROJECT NO: ED-20-300 AS SHOWN DRAWN BY:

PROJECT NORTH:

DRAWING NO:

REVIEWED BY:



600mm (2'-0") BRAIDED ---STAINLESS STEEL FLEXIBLE CONNECTOR.

THREADED UNION.

VERTICAL

HEATER

AIRFLOW

HORIZONTAL

HEATER

TYPICAL

ADJUSTABLE -

VERTICAL AIR

DEFLECTOR. TYPICAL

HORIZONTAL AND

23 30 00.02 DUCT THROUGH ROOF PENETRATION & TERMINATION

AIRFLOW

TERMINATE EXHAUST

STACK A MINIMUM OF

FINISHED ROOF UNLESS

OTHERWISE SPECIFIED

No A o A o A o A

ROOF CURB AND METAL FLASHING. REFER TO DUCTWORK ROOF PENETRATION & FLASHING DETAIL FOR ADDITIONAL INFORMATION

- ANGLE SUPPORT BRACKET SEALED AT

JOINTS AND SECURED TO ROOF STRUCTURE

GRAVITY BACKDRAFT DAMPER OR MOTORIZED DAMPER. REFER TO FLOOR PLANS AND CONTROL SEQUENCES FOR ADDITIONAL INFORMATION

- INSTALL ACCESS PANEL UPSTREAM OF THE MOTORIZED DAMPER WHERE

10 0 000 0 000 0 000 0

900mm (3'-0") ABOVE

ON DRAWINGS

HEEL RADIUS (D + 3/4D) ———

GOOSENECK DISCHARGE -

C/W 5mm WIRE MESH

BALANCING VALVE (VICTAULIC. MODEL SERIES 787H/786) C/W PRESSURE TAPS

MODULATING CONTROL VALVE.

AIR VENT AND PRESSURE/ TEMPERATURE PORT

- ISOLATION VALVE

BALL VALVE TYPE C/W

TEMPERATURE/PRESSURE

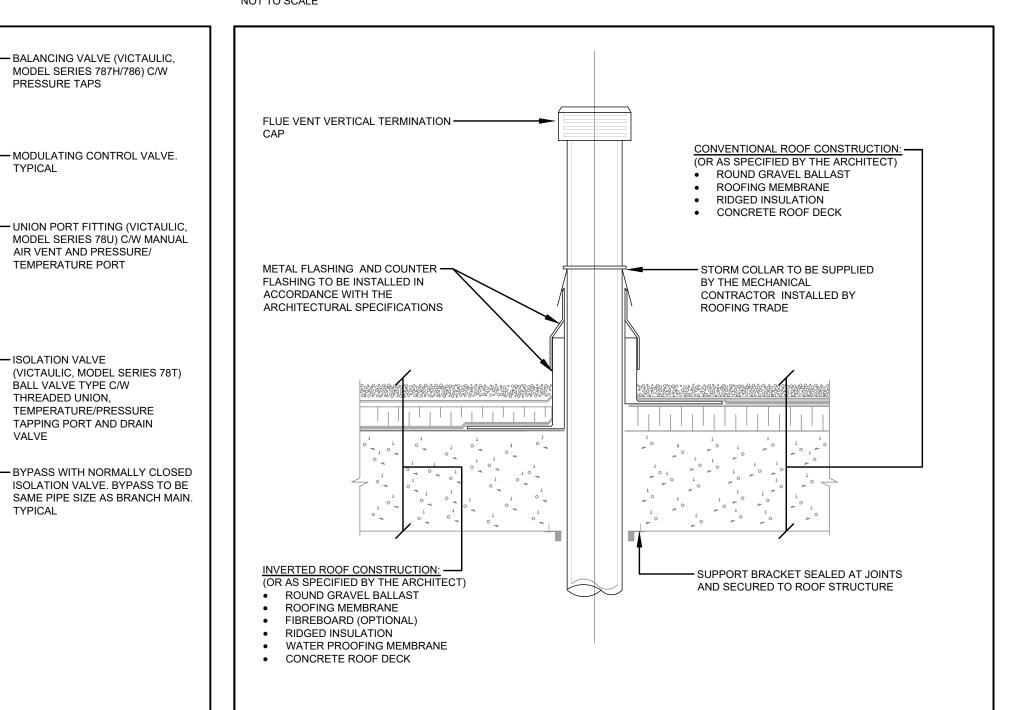
TAPPING PORT AND DRAIN

THREADED UNION,

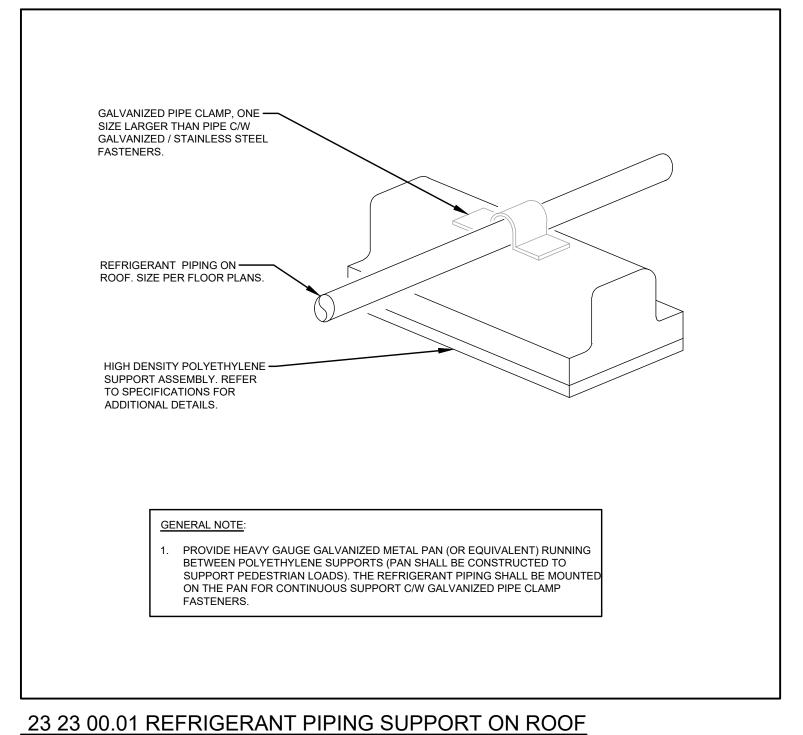
VALVE

TYPICAL

TYPICAL



23 30 00.01 DUCTWORK FITTINGS & TAKE-OFF'S



WHERE PIPE SIZE IS 40mm (1-1/2") AND LARGER

INSULATION SHIELD BETWEEN THE INSULATION

AND THE HANGER. SHIELD IS TO BE INSTALLED

IMMEDIATELY AFTER THE INSULATION JACKET.

WHERE PIPE SIZE IS 50mm (2") AND LARGER PROVIDE A FACTORY FABRICATED SECTION OF PHENOLIC FOAM PIPE INSULATION WITH INTEGRAL

VAPOUR BARRIER JACKET AND CAPTIVE

GALVANIZED STEEL SHIELD

- 40mm (1-1/2") AND LARGER

THERMAL INSULATION C/W

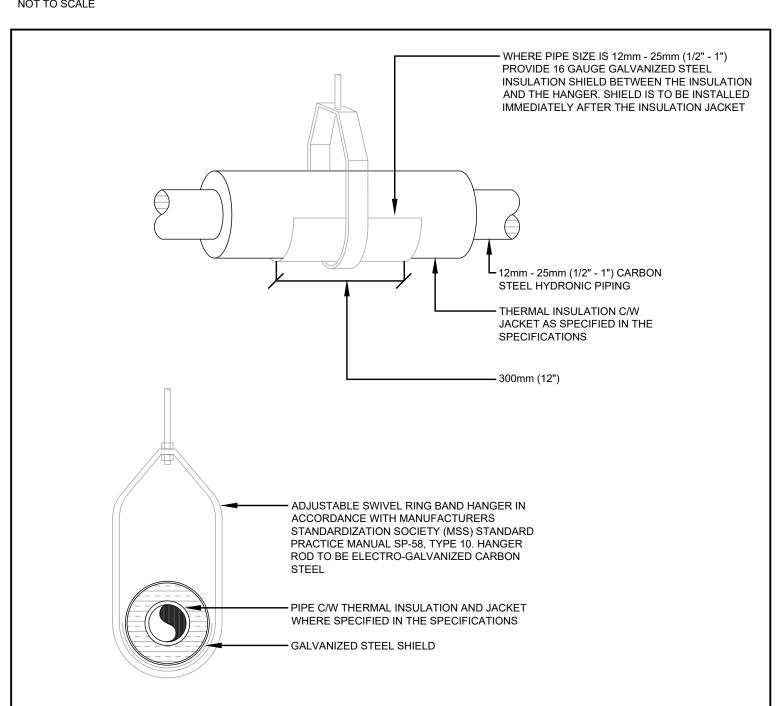
SPECIFICATIONS

CARBON STEEL HYDRONIC PIPING

JACKET WHERE SPECIFIED IN THE

PROVIDE 16 GAUGE GALVANIZED STEEL

23 82 39.01 HYDRONIC UNIT HEATER



20 05 00.03 PIPING HANGERS AND SUPPORTS

CONVENTIONAL ROOF CONSTRUCTION: (OR AS SPECIFIED BY THE ARCHITECT) ROUND GRAVEL BALLAST THERMAL INSULATION C/W JACKET - ROOFING MEMBRANE WHERE SPECIFIED ON THE FLOOR RIDGED INSULATION PLANS AND IN THE SPECIFICATIONS CONCRETE ROOF DECK METAL FLASHING AND COUNTER -■ APPLY NON- HARDENING WATER FLASHING TO BE INSTALLED IN PROOFING SILICON DUCT ACCORDANCE WITH THE SEALANT AT METAL FLASHING ARCHITECTURAL SPECIFICATIONS AND DUCTWORK JOINT

_ SUPPORT BRACKET SEALED AT JOINTS

23 51 00.01 EXHAUST FLUE VENT ROOF PENETRATION & FLUE VENT CAP

SCALE: DRAWN BY:

DRAWING NO: M-301

20 05 00.04 PIPING HANGERS AND SUPPORTS

- ADJUSTABLE CLEVIS HANGER IN

ACCORDANCE WITH MANUFACTURERS

STANDARDIZATION SOCIETY (MSS) STANDARD

PRACTICE MANUAL SP-58, TYPE 1. HANGER

ROD TO BE ELECTRO-GALVANIZED CARBON

PIPE C/W THERMAL INSULATION AND JACKET

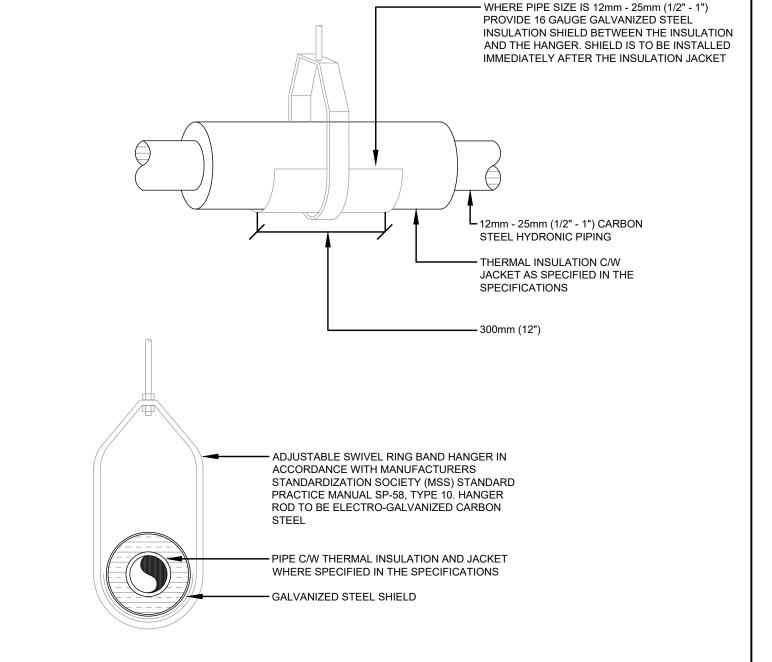
WHERE SPECIFIED IN THE SPECIFICATIONS

- GALVANIZED STEEL SHIELD OR PHENOLIC

GALVANIZED STEEL SHIELD AS REQUIRED

FOAM PIPE INSULATION WITH INTEGRAL

VAPOUR BARRIER JACKET AND CAPTIVE



— HTWS -

20 05 00.02 HVAC PIPE ROOF PENETRATION & FLASHING

INVERTED ROOF CONSTRUCTION: (OR AS SPECIFIED BY THE ARCHITECT)

WATER PROOFING MEMBRANE

ROUND GRAVEL BALLAST

ROOFING MEMBRANE

RIDGED INSULATION

FIBREBOARD (OPTIONAL)

CONCRETE ROOF DECK

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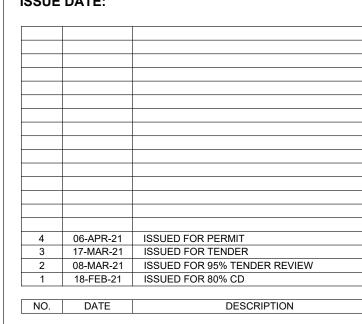
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PROJECT:

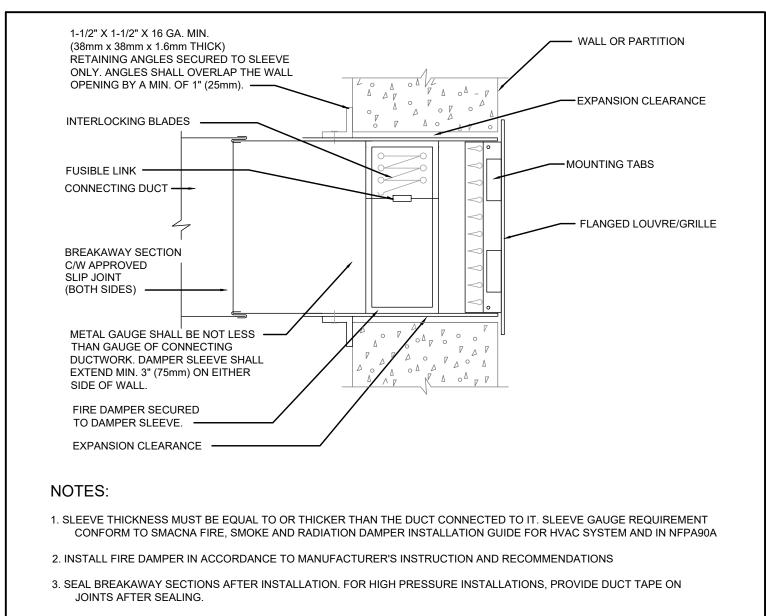
ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

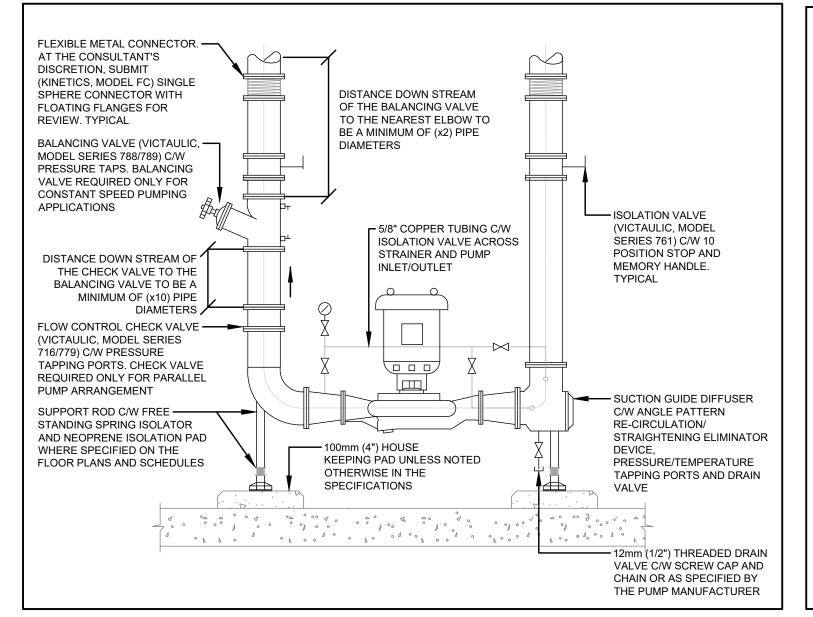
DRAWING TITLE:

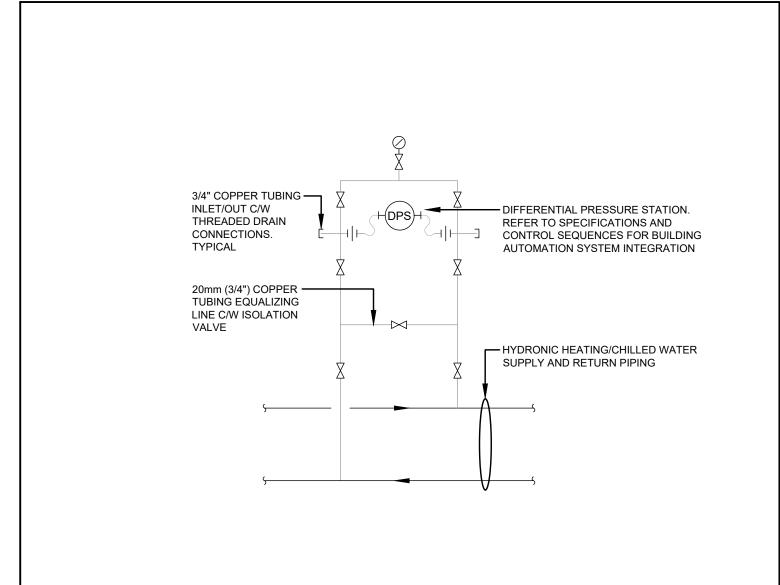
MECHANICAL DETAILS 2

PROJECT NO: ED-20-300 AS SHOWN **REVIEWED BY:**

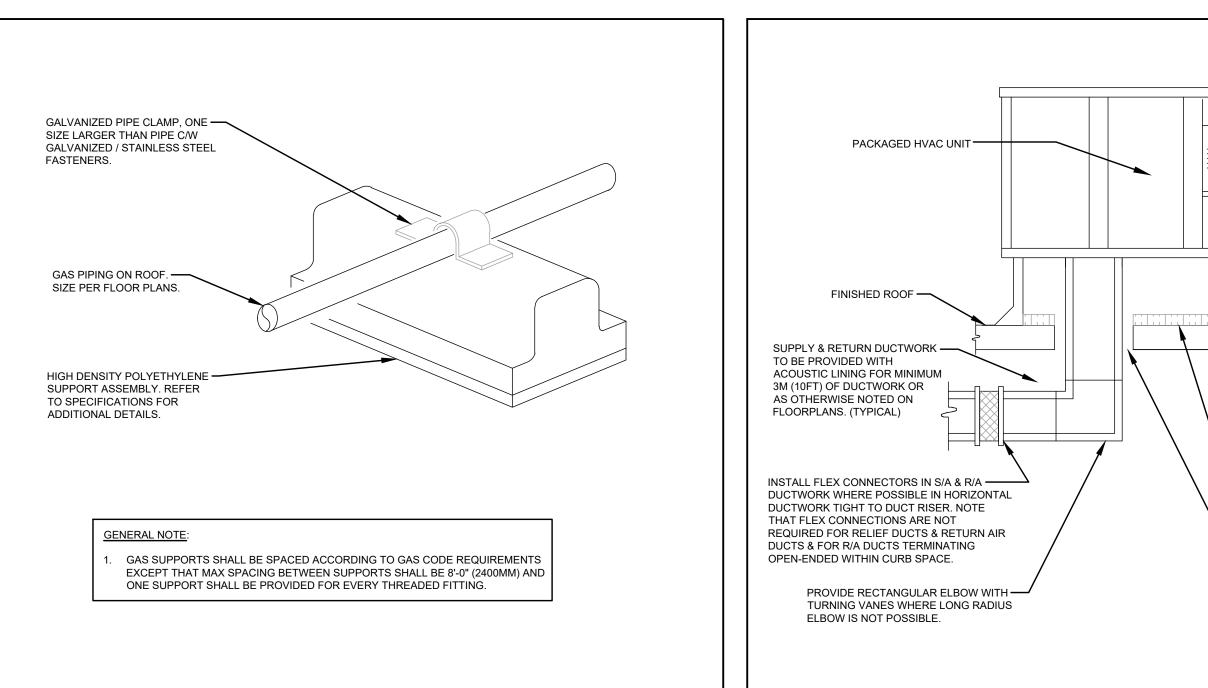
PROJECT NORTH:





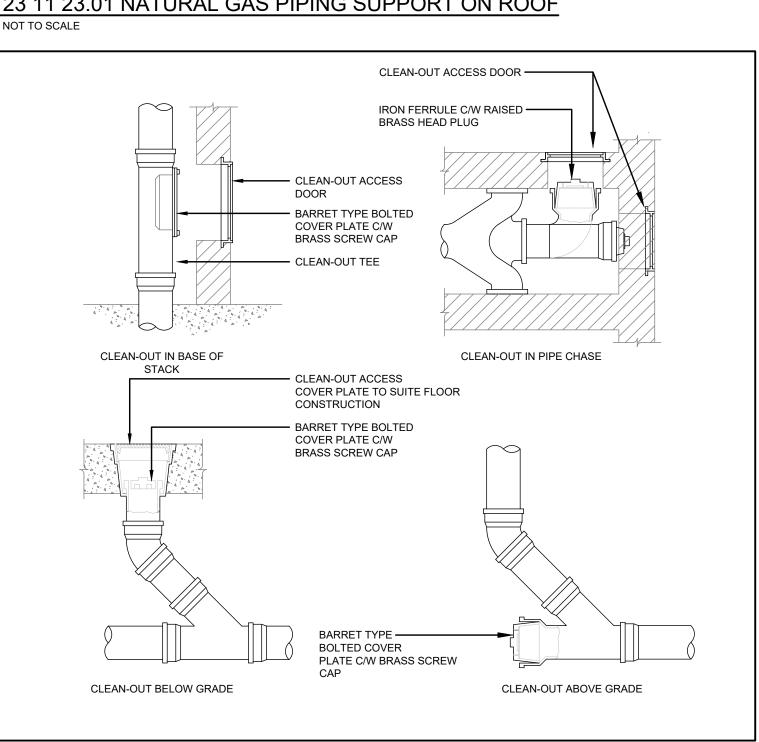


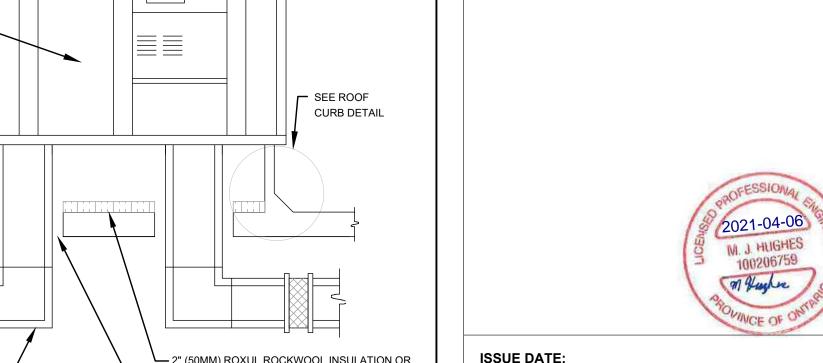
23 21 00.01 DIFFERENTIAL PRESSURE STATION



23 11 23.01 NATURAL GAS PIPING SUPPORT ON ROOF

23 21 00.01 VERTICAL INLINE PUMP





APPROVÉD EQUAL. SECURE IN PLACE, FULL

SIZE OF ROOF CURB. SEAL ALL JOINTS.

(REQUIRED FOR HORIZONTAL DISCHARGE

— CONTRACTOR TO CUT ROOF DECK TO MATCH

S/A & R/A DUCTS WHERE POSSIBLE. WHERE

BLANK OFFS C/W ACOUSTIC DUCT INSULATION

NOT POSSIBLE, PROVIDE SHEET METAL

NEOPRENE SEALANT AROUND

TERMINATE VENT

150mm (6") ABOVE FINISHED ROOF UNLESS

THE DRAWINGS

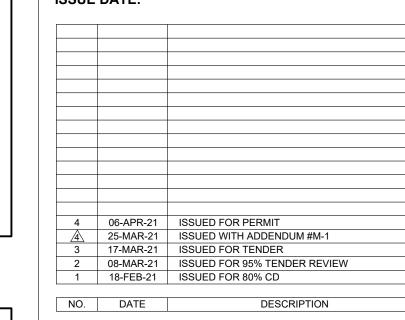
STACK A MINIMUM OF

NOTED OTHERWISE ON

- DRAIN WASTE VENT (DWV)

RIM OF VENT STACK COVER TO SECURE COVER TO PIPE

OVER RESULTING OPENINGS.



partners

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PROJECT: ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON

DRAWING TITLE: MECHANICAL DETAILS 3

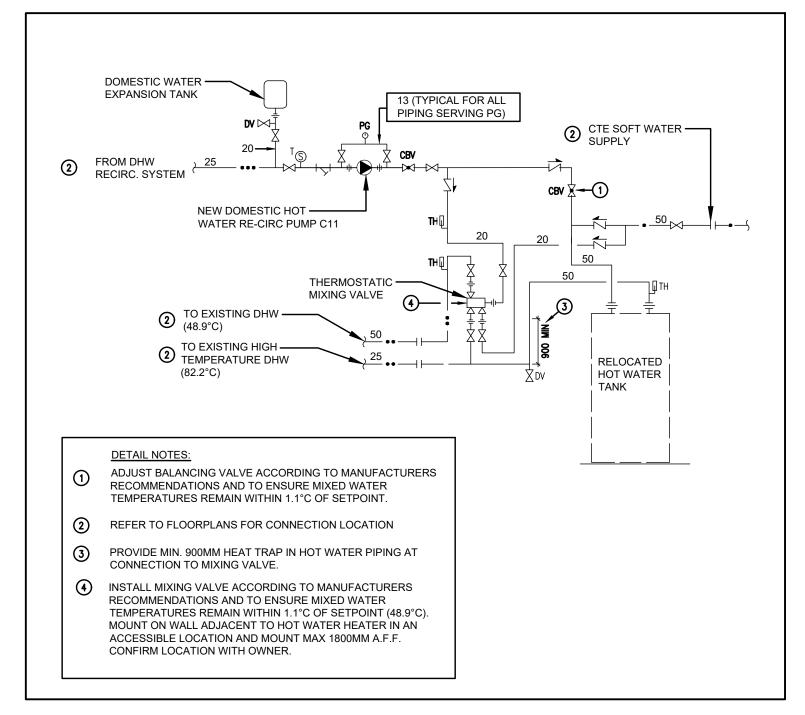
N3B 1K2

PROJECT NO:	ED-20-300	
SCALE:	AS SHOWN	
DRAWN BY:	RH	
REVIEWED BY:	MH	

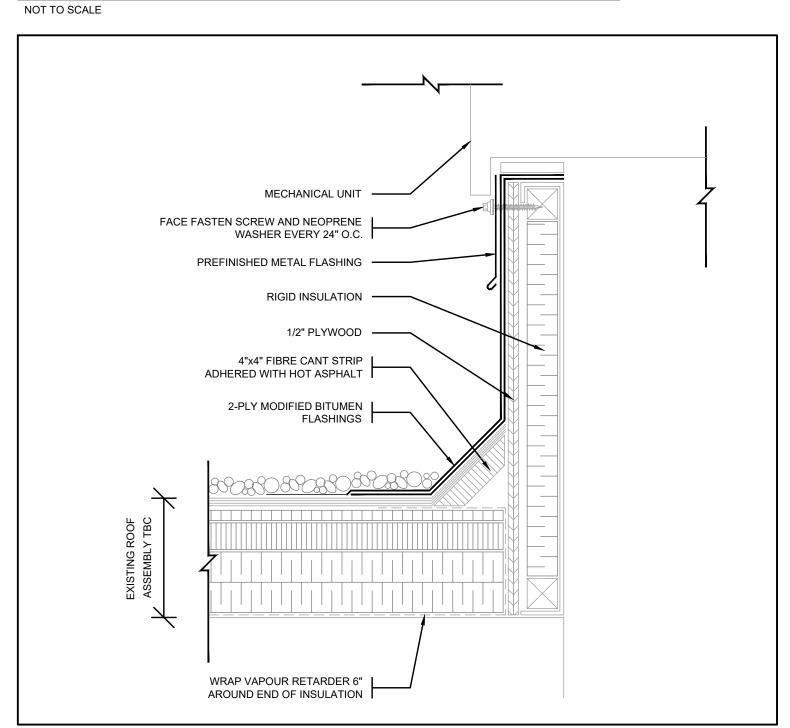
PROJECT NORTH

DRAWING NO: M-302

23 30 29.02 FIRE RATED LOUVRE/GRILLE INSTALLATION



22 30 00.01 HOT WATER HEATER INSTALLATION DETAIL



20 05 00.15 DETAIL OF PREFABRICATED ROOF CURB

22 13 00.02 SANITARY & STORM WATER CLEANOUTS NOT TO SCALE

23 74 13.01 DETAIL OF ROOFTOP UNIT INSTALLATION

INSULATED VENT STACK COVER C/W -

COATING. VENT STACK TO BE C/W VANDAL

PROOF CAP UNLESS NOTED OTHERWISE IN

FLANGED INSULATION SLEEVE. HEIGHT TO -

MASTIC CUP FLASHING SUITABLE FOR VENT —— PIPE C/W 50mm (2") WIDE FLANGE AND TO BE

FACTORY APPLIED ASPHALT PRIMER

MATCH ELEVATION OF VENT MEASURE FROM FINISHED ROOF

INSTALLED BY ROOFING CONTRACTOR

22 13 00.01 DWV ROOF PENETRATION & VENT CAP COVER

								ENI	ERGY I	REC	OVE	RY	VEN	TILA	TOR S	SCHE	DULE	ı									
					SUPPLY	AN	EXHAU	ST FAN				SUMMER							WINTER				ELI	ECTRICAL			
SYSTEM	AREA	LOCATION	MANUFACTURER	MODEL NO.					ENTE	RING AIR	TEMP (°C)			AIR TEMP °C)	TOTAL HEAT	ENTE	ERING AIR T	EMP (°C)		LEAVIN	IG AIR TEMP (°C)	TOTAL				WEIGHT	REMARKS
SISILM	SERVED	LOCATION	WANOFACTORER	WODEL NO.	AIRFLOW (L/s)	ESP (PA)	AIRFLOW (L/s)	ESP (PA)	OUTDOOR	AIR	RETU	RN AIR	SUPP	PLY AIR	RECOVERY	OUTDOOF	R AIR	RETU	RN AIR	SUP	PPLY AIR	HEAT RECOVERY	MCA (A)	MOCF (A)	V/ф/Hz	(KG)	KLIMAKAS
									Db	Wb	Db	RH %	Db	Wb	(KW)	Db	Wb	Db	RH %	Db	Wb	(KW)					
ERV-1	CAFETERIA	ROOF	соок	ERV-1500	1,100	125	1,000	125	31.1	22.7	23.8	50.0	25.6	18.6	9.3	-17.1	-18.3	22.2	35.0	12.9	7.6	21.0	9.73	15	208/1/60	432	SEE NOTES

1. NEW ROOF CURB TO BE MINIMUM 600MM HIGH

2. C/W 2" MERV 8 FILTERS.

3. ROOFTOP UNIT SHALL HAVE SINGLE POINT POWER FEED, AND 120V/1ø/60Hz FIELD WIRED RECEPTACLE. RECEPTACLE SHALL BE 20A, GFI PROTECTED AND INSTALLED WITHIN WEATHERPROOF ENCLOSURE.

4. EACH UNIT SHALL BE IN CONFORMANCE WITH ASHRAE 90.1 - 2010 EFFICIENCY.

5. EACH FAN TO BE COMPLETE WITH INTERNAL VIBRATION ISOLATION SPRINGS & FLEXIBLE CONNECTION.

6. UNIT DISCONNECT TO BE FIELD SUPPLIED.

7. REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

												SCH	IEDULE	E OF F	ROOF	TOF	PAI	R HA	ND	LING L	JNITS												
							COOLI	NG COIL		HEA ⁻	TEXCHAN	IGER			5	UPPLY FA	N							RETUR	N FAN				FILTERS		ELECTRIC	SAL	
SYSTEM	AREA SERVICED	MODEL NO. (DAIKIN)	UNIT WEIGHT (KG)	AIRFLOW (L/s)	% FRESH AIR	NOMINAL (TONS)	CAPACITY GROSS (KW)	SENSIBLE (KW)	COIL TYPE	INPUT (KW)		INLET PRESSURE (INWC)	FAN TYPE	SUPPLY AIR (L/S)	TSP (Pa)	ESP (Pa)	R.P.M.	MOTOR (KW)	VFD	DISCHARGE ORIENTATION	FAN TYPE	RETURN AIR (L/s)	TSP (Pa)	ESP (Pa)	R.P.M.	MOTOR (KW)	VFD	DISCHARGE ORIENTATION	RETURN AIR FILTER	MCA	MOCP	ELECTRICAL V/ф/Hz	REMARKS
HV-27	GYM	RDS802C	1,323	6,040	25		UNIT IS HE	ATING ONLY		238.1	190.5	7"-14"	FIXED DRIVE	6,038	948.7	498.0	1,479	11.2	YES	SIDE	FIXED DRIVE	6,040	374	374	1132	7.46	YES	воттом	MERV 8	84.2	110.0	208/3/60	1,3,4,5,6,7,9
HVAC-23 & HVAC-24	CAFETERIA	DPS016A	1,583	1,888	50	15.6	54.8	35.7	DX	131.9	105.5	7"-14"	DIRECT DRIVE	1,887	672.3	423.3	1,724	5.6	YES	SIDE	DIRECT DRIVE	1,888	125	125	2033	2.98	YES	SIDE	MERV 8	100.2	125.0	208/3/60	1,2,3,4,5,6,8,9

- 1. ROOFTOP UNITS TO BE PROVIDED WITH STAINLESS STEEL GAS FIRED HEAT EXCHANGER.
- 2. HVAC-23 & HVAC-24 DX COOLING COIL PERFORMANCE IS BASED ON R-410A REFRIGERANT.
- 3. EACH UNIT SHALL BE IN CONFORMANCE WITH ASHRAE 90.1 2010 EFFICIENCY.
- 4. NEW ROOF CURBS TO BE MINIMUM 600MM HIGH.
- 5. ROOFTOP UNIT SHALL HAVE SINGLE POINT POWER FEED.
- 6. EACH FAN TO BE COMPLETE WITH INTERNAL VIBRATION ISOLATION SPRINGS & FLEXIBLE CONNECTION.
- 7. HV-27 C/W SIDE-DISCHARGE KITS AND FIELD MODIFIED TO SUIT SIDE DISCHARGE.
- 8. HVAC-23 & HVAC-24 C/W BOTTOM DISCHARGE KITS AND FIELD MODIFIED TO SUIT BOTTOM RETURN AND SIDE SUPPLY.
- 9. HV-27, HVAC-23 & HVAC-24 C/W ECONOMIZER.
- 10. PROVIDE FLUE EXTENSION KITS TO BURNER FLUES.

	S	CHEDULE	OF GR	ILLES AND DIFFUSERS		
TAG	SERVICE	MANUFACTURER	MODEL NO.	SIZE (MMxMM)	FINISH	REMARKS
А	CEILING SUPPLY DIFFUSER	E.H. PRICE	ASCD	600x600, REFER TO FLOORPLAN FOR NECK CONNECTION	BY ARCH	ADJUSTABLE DIFFUSER
В	LOUVRED FACE RETURN	E.H. PRICE	530	PER FLOOR PLAN	BY ARCH	SEE NOTE 1
	NOTES: 1. RETURN/EXHAUST GRILES TO HAVE A	NGLED BLADES ORIEN	NTED UPWARDS TO	PREVENT VISIBILITY OF DUCTWORK.		

	301	IEDULE (OF MISCI		NEO	U3	LAN	•	
				Р	ERFORMA	NCE DAT	A	ELECTRICAL	
TAG	AREA SERVED	MODEL NO.	MANUFACTURER	CAPACITY	E.S.P.	FAN	MOTOR	V/ф/Hz	REMARKS
				(L/s)	(PA)	RPM	(kW)	ν/φ/112	
EF-1	BOILER ROOM EXHAUST	SQI-D-90SQ15D	COOK	375	75	1550	0.23	120/1/60	1,2,3

- 1. BACKDRAFT DAMPER
- 2. REVERSE ACTING THERMOSTAT 3. PROVDIE WITH ISOLATION HANGERS

	SCHEDULE OF PUMPS										
TAG	TAG SYSTEM LOCATION MAKE MODEL NO. CAPACITY HEAD RPM MOTOR MOTOR ELECTRICAL RE									REMARKS	
C9 & C10	HEATING WATER PUMPS	PUMP ROOM	ARMSTRONG	4300 1505-005.0	10.4	215	2331	3.3	3.73	208/3/60	2,3,4
C11	DOMESTIC RECIRC PUMP	PUMP ROOM	GRUNDFOS	UPS 32-80 F	0.41	62	1800	0.28	0.158	115/1/60	1

- INLINE PUMP TO BE MOUNTED ON PIPING.
- 2. C/W SUCTION GUIDE AND LONG RADIUS ELBOW.
- 3. PUMPS TO OPERATE AS DUTY STAND-BY.
- 4. C/W VFD.



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THE SPECIFICATIONS ARE TO BE CONSIDERED AS AN INTEGRAL PART OF THESE DRAWINGS AND NEITHER THE DRAWINGS NOR THE SPECIFICATIONS SHALL BE USED ALONE. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. DO NOT SCALE.



250 ROWNTREE DAIRY RD, WOODBRIDGE, ON 905-507-0800 WWW.QUASARCG.COM FOR QUESTIONS REGARDING THIS PROJECT PLEASE EMAIL: ED-20-300@QUASARCG.COM



4	06-APR-21	ISSUED FOR PERMIT
4\	25-MAR-21	ISSUED WITH ADDENDUM #M-1
3	17-MAR-21	ISSUED FOR TENDER
2	08-MAR-21	ISSUED FOR 95% TENDER REVIEW
1	18-FEB-21	ISSUED FOR 80% CD

ELMIRA DISTRICT SECONDARY SCHOOL - 4 UNIVERSITY AVE WEST, ELMIRA ON N3B 1K2

DRAWING TITLE:

MECHANICAL SCHEDULES

PROJECT NO: ED-20-300 AS SHOWN SCALE: DRAWN BY: **REVIEWED BY:**

PROJECT NORTH:

DRAWING NO: M-400

Air System Sizing Summary for Cafeteria

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

Air System Information				
Air System Name Cafeteri		Number of zones	1	•
Equipment Class PKG ROO				m²
Air System TypeSZCA	V	Location	Kitchener, Ontario	
Sizing Calculation Information				
Calculation Months Jan to De	С	Zone L/s Sizing	Sum of space airflow rates	
Sizing DataCalculate	d		Individual peak space loads	
Central Cooling Coil Sizing Data				
Total coil load	8 kW	Load occurs at	Jul 1400	
Sensible coil load			30.7 / 22.7	°C
Coil L/s at Jul 1400 372			28.8 / 21.7	
Max block L/s			16.8 / 16.2	
Sum of peak zone L/s372	9 L/s		15.5	
Sensible heat ratio0.67			0.100	
L/(s kW)		Resulting RH	63	%
m²/kW 7.			14.4	
W/m²136.		Zone T-stat Check	1 of 1	OK
Water flow @ 5.6 K rise	A		viation 0.0	
Central Heating Coil Sizing Data				
Max coil load149.	3 kW	Load occurs at	Des Htg	
Coil L/s at Des Htg			264.8	
Max coil L/s372			-6.4 / 28.2	°C
Water flow @ 11.1 K drop		· • • • • • • • • • • • • • • • • • • •		
Supply Fan Sizing Data				
Actual max L/s372	9 L/s	Fan motor BHP	0.00	BHP
Standard L/s357	9 L/s		0.00	
Actual max L/(s·m²)		Fan static	0	Pa
Outdoor Ventilation Air Data				
Design airflow L/s241	4 L/s	L/s/person	6.04	L/s/pers
L/(s·m²)				



Zone Sizing Summary for Cafeteria

Project Name: ED-20-300 - EDSS

04-01-2021 Prepared by: Quasar 03:24PM

Air System Information

Air System Name	Cafeteria	Number of zones	1
Equipment Class	PKG ROOF	Floor Area	563.9 m²
Air System Type	SZCAV	Location	Kitchener, Ontario

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone L/s Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space L/s Sizing	Individual peak space loads

Zone Terminal Sizing Data

	Dagian	Minimum		Debest	Reheat	Zone	Zone	Missing
	Design Supply	Minimum Supply		Reheat Coil	Coil Water	Htg Unit Coil	Htg Unit Water	Mixing Box Fan
	Airflow	Airflow	Zone	Load	L/s	Load	L/s	Airflow
Zone Name	(L/s)	(L/s)	L/(s·m²)	(kW)	@ 11.1 K	(kW)	@ 11.1 K	(L/s)
Zone 1	3729	3729	6.61	0.0	-	0.0	-	0

Zone Peak Sensible Loads

	Zone Cooling Sensible	Time of Peak Sensible	Zone Heating Load	Zone Floor Area
Zone Name	(kW)	Cooling Load	(kW)	(m²)
Zone 1	35.0	Jul 1500	33.3	563.9

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (kW)	Time of Peak Sensible Load	Air Flow (L/s)	Heating Load (kW)	Floor Area (m²)	Space L/(s·m²)
Zone 1							
Cafeteria	1	35.0	Jul 1500	3729	33.3	563.9	6.61

Hourly Analysis Program 5.11 Page 2 of 12

Ventilation Sizing Summary for Cafeteria

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

1. Summary

Ventilation Sizing Method	ASHRAE Std 62.1-2013	
Design Condition	Heating operation	
Occupant Diversity (D)	1.000	
Uncorrected Outdoor Air Intake (Vou)	1931	L/s
System Ventilation Efficiency (Ev)	1.000	
Outdoor Air Intake (Vot)	2414	L/s

2. Space Ventilation Analysis

					Time	People			Breathing	
			Space Floor	Area Outdoor	Averaged	Outdoor Air	Air	Space	Zone	Space
		Supply Air	Area	Air Rate	Occupancy	Rate	Distribution	Outdoor Air	Outdoor Air	Ventilation
		(L/s)	(m²)	(L/(s·m²))	(Occupants)	(L/s/person)	Effectiveness	(L/s)	(L/s)	Efficiency
Zone Name / Space Name	Mult.	(Vpz)	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(Voz)	(Vbz)	(Evz)
Zone 1										
Cafeteria	1	3729	563.9	0.91	400.0	3.54	0.8	2414	1931	1.000
Totals (incl. Space Multipliers)		3729							1931	1.000

Hourly Analysis Program 5.11 Page 3 of 12

Air System Design Load Summary for Cafeteria

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

	DE	SIGN COOLING	3	DES	SIGN HEATING	
	COOLING DATA	AT Jul 1400		HEATING DATA A	T DES HTG	
	COOLING OA DE	3 / WB 30.7 °C	/ 22.7 °C	HEATING OA DB /	WB -21.1 °C / -2	1.8 °C
		Sensible	Latent		Sensible	Latent
ZONE LOADS	Details	(W)	(W)	Details	(W)	(W)
Window & Skylight Solar Loads	71 m²	4544	-	71 m²	-	-
Wall Transmission	174 m²	2682	-	174 m²	11461	-
Roof Transmission	576 m²	3486	-	576 m²	7942	-
Window Transmission	71 m²	893	-	71 m²	8733	-
Skylight Transmission	0 m²	0	-	0 m²	0	-
Door Loads	0 m²	0	-	0 m²	0	-
Floor Transmission	564 m²	0	-	564 m²	2112	-
Partitions	0 m²	0	-	0 m²	0	-
Ceiling	0 m²	0	-	0 m²	0	-
Overhead Lighting	0 W	0	-	0	0	-
Task Lighting	0 W	0	-	0	0	-
Electric Equipment	1500 W	1399	-	0	0	-
People	400	21605	14067	0	0	0
Infiltration	-	0	0	-	0	0
Miscellaneous	-	0	0	-	0	0
Safety Factor	0% / 0%	0	0	10%	3025	0
>> Total Zone Loads	-	34608	14067	-	33273	0
Zone Conditioning	-	35995	14067	-	32410	0
Plenum Wall Load	0%	0	-	0	0	-
Plenum Roof Load	0%	0	-	0	0	-
Plenum Lighting Load	0%	0	-	0	0	-
Return Fan Load	3579 L/s	0	-	3579 L/s	0	-
Ventilation Load	2414 L/s	15588	11101	2414 L/s	116893	0
Supply Fan Load	3729 L/s	0	-	3729 L/s	0	-
Space Fan Coil Fans	-	0	-	-	0	-
Duct Heat Gain / Loss	0%	0	-	0%	0	-
>> Total System Loads	-	51583	25168	-	149303	0
Central Cooling Coil	-	51583	25167	-	0	0
Central Heating Coil	-	0	-	-	149303	-
>> Total Conditioning	_	51583	25167	_	149303	0
Key:	Positive	values are clg	loads	Positive v	alues are htg loa	ıds
		values are htg			values are clg loa	

Hourly Analysis Program 5.11 Page 4 of 12

Zone Design Load Summary for Cafeteria

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

Zone 1	DI	ESIGN COOLIN	G		ESIGN HEATING	G	
	COOLING DATA	AT Jul 1500		HEATING DATA AT DES HTG			
	COOLING OA D	B / WB 31.1 °C	/ 22.8 °C	HEATING OA D	B / WB -21.1 °C	: / -21.8 °C	
	OCCUPIED T-ST	ГАТ 24.0 °C		OCCUPIED T-S	TAT 22.0 °C		
		Sensible	Latent		Sensible	Latent	
ZONE LOADS	Details	(W)	(W)	Details	(W)	(W)	
Window & Skylight Solar Loads	71 m²	4403	-	71 m²	-	-	
Wall Transmission	174 m²	2903	-	174 m²	11461	-	
Roof Transmission	576 m²	3383	-	576 m²	7942	-	
Window Transmission	71 m²	977	-	71 m²	8733	-	
Skylight Transmission	0 m²	0	-	0 m²	0	-	
Door Loads	0 m²	0	-	0 m²	0	-	
Floor Transmission	564 m²	0	-	564 m²	2112	-	
Partitions	0 m²	0	-	0 m²	0	-	
Ceiling	0 m²	0	-	0 m²	0	-	
Overhead Lighting	0 W	0	-	0	0	-	
Task Lighting	0 W	0	-	0	0	-	
Electric Equipment	1500 W	1405	-	0	0	-	
People	400	21957	14067	0	0	0	
Infiltration	-	0	0	-	0	0	
Miscellaneous	-	0	0	-	0	0	
Safety Factor	0% / 0%	0	0	10%	3025	0	
>> Total Zone Loads	-	35029	14067	-	33273	0	

Hourly Analysis Program 5.11 Page 5 of 12

Space Design Load Summary for Cafeteria

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

TABL				In Zone "Zone			
	DE	SIGN COOLING	3	DESIGN HEATING			
	COOLING DATA	AT Jul 1500		HEATING DATA	AT DES HTG		
	COOLING OA DB	/ WB 31.1 °C	/ 22.8 °C	HEATING OA DB	/ WB -21.1 °C	/ -21.8 °C	
	OCCUPIED T-STA	AT 24.0 °C		OCCUPIED T-ST	AT 22.0 °C		
		Sensible	Latent		Sensible	Latent	
SPACE LOADS	Details	(W)	(W)	Details	(W)	(W)	
Window & Skylight Solar Loads	71 m²	4403	-	71 m²	-	-	
Wall Transmission	174 m²	2903	-	174 m²	11461	-	
Roof Transmission	576 m²	3383	-	576 m²	7942	-	
Window Transmission	71 m²	977	-	71 m²	8733	-	
Skylight Transmission	0 m²	0	-	0 m²	0	-	
Door Loads	0 m²	0	-	0 m²	0	-	
Floor Transmission	564 m²	0	-	564 m²	2112	-	
Partitions	0 m²	0	-	0 m²	0	-	
Ceiling	0 m²	0	-	0 m²	0	-	
Overhead Lighting	0 W	0	-	0	0	-	
Task Lighting	0 W	0	-	0	0	-	
Electric Equipment	1500 W	1405	-	0	0	-	
People	400	21957	14067	0	0	0	
Infiltration	-	0	0	-	0	0	
Miscellaneous	-	0	0	-	0	0	
Safety Factor	0% / 0%	0	0	10%	3025	0	
>> Total Zone Loads	_	35029	14067	-	33273	0	

	TABLE 1.1.B. Er	nvelope Lo	ads For Space "C	Cafeteria"	In Zone "Zone 1	"	
					COOLING	COOLING	HEATING
		Area	U-Value	Shade	TRANS	SOLAR	TRANS
		(m²)	(W/(m ² ·K))	Coeff.	(W)	(W)	(W)
NNE EXPOSURE							
WALL		42	1.529	-	319	-	2743
WINDOW 1		18	2.839	0.460	244	787	2183
ESE EXPOSURE							
WALL		132	1.529	-	2585	-	8718
WINDOW 1		54	2.839	0.460	733	3617	6550
H EXPOSURE							
ROOF		576	0.320	-	3383	-	7942

Hourly Analysis Program 5.11 Page 6 of 12

Air System Sizing Summary for Gym

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

Sizing Calculation Information Calculation Months Jan to Dec Sizing Data Calculated Space L/s Sizing Sum of space airflow rates Space L/s Sizing Individual peak space loads	Air System Information Air System Name Equipment Class Air System Type	PKG ROOF		Floor Area	1 	m²
Central Cooling Coil Sizing Data Total coil load 53.9 kW Load occurs at Jul 1500 Sensible coil load 31.5 kW OA DB / WB 31.1 / 22.8 °C Coil L/s at Jul 1500 1810 L/s Entering DB / WB 30.3 / 22.7 °C Max block L/s 1810 L/s Leaving DB / WB 15.2 / 14.6 °C Sum of peak zone L/s 1810 L/s Coil L/s & Coil ADP 13.5 °C Sensible heat ratio 0.585 Bypass Factor 0.100 L/s kW) 33.5 Resulting RH 76 % m²/kW 13.9 Design supply temp. 14.4 °C W/m² 71.7 Zone T-stat Check 1 of 1 OK Water flow @ 5.6 K rise N/A Max zone temperature deviation 0.0 K Central Heating Coil Sizing Data Max coil load 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A Sensible read occurs at Des Htg Water flow @ 11.1 K drop N/A Fan	Calculation Months			Zone L/s Sizing	Sum of space airflow rates	
Total coil load	,			opass dis sizing	marriada pour opuos ioudo	
Sensible coil load						
Coil L/s at Jul 1500						
Max block L/s 1810 L/s Leaving DB / WB 15.2 / 14.6 °C Sum of peak zone L/s 1810 L/s Coil ADP 13.5 °C Sensible heat ratio 0.585 Bypass Factor 0.100 L/(s kW) 33.5 Resulting RH 76 % m²/kW 13.9 Design supply temp. 14.4 °C W/m² 71.7 Zone T-stat Check 1 of 1 OK Water flow @ 5.6 K rise N/A Max zone temperature deviation 0.0 K Central Heating Coil Sizing Data Max coil load 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A N/A Sent. DB / Lvg DB -14.8 / 26.4 °C Supply Fan Sizing Data Actual max L/s 1810 L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa						
Sum of peak zone L/s						
Sensible heat ratio						
L/(s kW) 33.5 Resulting RH 76 % m²/kW 13.9 Design supply temp. 14.4 °C W/m² 71.7 Zone T-stat Check 1 of 1 OK Water flow @ 5.6 K rise N/A Max zone temperature deviation 0.0 K Central Heating Coil Sizing Data Max coil load 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB 114.8 / 26.4 °C Water flow @ 11.1 K drop N/A Supply Fan Sizing Data Actual max L/s 1810 L/s Fan motor BHP 0.000 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s⋅m²) 2.40 L/(s⋅m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 17.08 L/s/person 17.08 L/s			L/S			C
m²/kW 13.9 Design supply temp. 14.4 °C W/m² 71.7 Zone T-stat Check 1 of 1 OK Water flow @ 5.6 K rise N/A Max zone temperature deviation 0.0 K Central Heating Coil Sizing Data Max coil load 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A N/A C Supply Fan Sizing Data Actual max L/s 1810 L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 17.08 L/s/perso 17.08 L/s/perso						0/_
W/m² 71.7 Zone T-stat Check 1 of 1 OK Water flow @ 5.6 K rise N/A Max zone temperature deviation 0.0 K Central Heating Coil Sizing Data Max coil load 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A Supply Fan Sizing Data Actual max L/s 1810 L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/perso	,					
Water flow @ 5.6 K rise N/A Max zone temperature deviation 0.0 K Central Heating Coil Sizing Data 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A Supply Fan Sizing Data -14.8 / 26.4 °C Actual max L/s 1810 L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/perso						
Max coil load 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A Ent. DB / Lvg DB -14.8 / 26.4 °C Supply Fan Sizing Data Actual max L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/perso						
Max coil load 86.3 kW Load occurs at Des Htg Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A Ent. DB / Lvg DB -14.8 / 26.4 °C Supply Fan Sizing Data Actual max L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/perso	Central Heating Coil Sizing Data					
Coil L/s at Des Htg 1810 L/s W/m² 114.7 Max coil L/s 1810 L/s Ent. DB / Lvg DB -14.8 / 26.4 °C Water flow @ 11.1 K drop N/A Ent. DB / Lvg DB -14.8 / 26.4 °C Supply Fan Sizing Data Actual max L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/person		86.3	kW	Load occurs at	Des Htg	
Water flow @ 11.1 K drop N/A Supply Fan Sizing Data 1810 L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s⋅m²) 2.40 L/(s⋅m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/person						
Water flow @ 11.1 K drop N/A Supply Fan Sizing Data 1810 L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s⋅m²) 2.40 L/(s⋅m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/person				Ent. DB / Lvg DB	-14.8 / 26.4	°C
Actual max L/s 1810 L/s Fan motor BHP 0.00 BHP Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/person				Ç		
Standard L/s 1737 L/s Fan motor kW 0.00 kW Actual max L/(s⋅m²) 2.40 L/(s⋅m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/person	Supply Fan Sizing Data					
Actual max L/(s·m²) 2.40 L/(s·m²) Fan static 0 Pa Outdoor Ventilation Air Data Design airflow L/s 1538 L/s L/s/person 17.08 L/s/person		1810	L/s	Fan motor BHP	0.00	BHP
Outdoor Ventilation Air Data Design airflow L/s1538 L/s L/s/person17.08 L/s/perso	Standard L/s	1737	L/s			
Design airflow L/s1538 L/s L/s/person17.08 L/s/perso	Actual max L/(s·m²)	2.40	L/(s·m²)	Fan static	0	Pa
= U	Outdoor Ventilation Air Data					
	Design airflow L/s	1538	L/s	L/s/person	17.08	L/s/persor

Hourly Analysis Program 5.11 Page 7 of 12

Zone Sizing Summary for Gym

Project Name: ED-20-300 - EDSS

04-01-2021 Prepared by: Quasar 03:24PM

Air System Information

Air System Name _____ Gym
Equipment Class _____ PKG ROOF Number of zones Floor Area .. **752.5** m² Location Kitchener, Ontario

Sizing Calculation Information

Zone L/s Sizing _____Sum of space airflow rates Space L/s Sizing ____Individual peak space loads Calculation Months Jan to Dec Sizing Data _____Calculated

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (L/s)	Minimum Supply Airflow (L/s)	Zone L/(s⋅m²)	Reheat Coil Load (kW)	Reheat Coil Water L/s @ 11.1 K	Zone Htg Unit Coil Load (kW)	Zone Htg Unit Water L/s @ 11.1 K	Mixing Box Fan Airflow (L/s)
Zone 1	1810	1810	2.40	0.0	-	0.0	-	0

Zone Peak Sensible Loads

	Zone Cooling Sensible	Time of Peak Sensible	Zone Heating Load	Zone Floor Area
Zone Name	(kW)	Cooling Load	(kW)	(m²)
Zone 1	20.0	Jul 1500	11.3	752.5

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (kW)	Time of Peak Sensible Load	Air Flow (L/s)	Heating Load (kW)	Floor Area (m²)	Space L/(s·m²)
Zone 1							
Gym	1	20.0	Jul 1500	1810	11.3	752.5	2.40

Hourly Analysis Program 5.11 Page 8 of 12

Ventilation Sizing Summary for Gym

04-01-2021 03:24PM Project Name: ED-20-300 - EDSS Prepared by: Quasar

1. Summary

ASHRAE Std 62.1-2013	
Cooling operation	
1.000	
1538	L/s
1.000	
1538	L/s
	Cooling operation 1.000 1538 1.000

2. Space Ventilation Analysis

					Time	People			Breathing	
			Space Floor	Area Outdoor	Averaged	Outdoor Air	Air	Space	Zone	Space
		Supply Air	Area	Air Rate	Occupancy	Rate	Distribution	Outdoor Air	Outdoor Air	Ventilation
		(L/s)	(m²)	(L/(s·m²))	(Occupants)	(L/s/person)	Effectiveness	(L/s)	(L/s)	Efficiency
Zone Name / Space Name	Mult.	(Vpz)	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(Voz)	(Vbz)	(Evz)
Zone 1										
Gym	1	1810	752.5	0.91	90.0	9.44	1.0	1538	1538	1.000
Totals (incl. Space Multipliers)		1810							1538	1.000

Hourly Analysis Program 5.11 Page 9 of 12

Air System Design Load Summary for Gym

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

	DI	ESIGN COOLIN	G	DESIGN HEATING			
	COOLING DATA	AT Jul 1500		HEATING DATA	AT DES HTG		
	COOLING OA D	B / WB 31.1 °C	/ 22.8 °C	HEATING OA DE	3 / WB -21.1 °C	/ -21.8 °C	
		Sensible	Latent		Sensible	Latent	
ZONE LOADS	Details	(W)	(W)	Details	(W)	(W)	
Window & Skylight Solar Loads	0 m²	0	-	0 m²	-	-	
Wall Transmission	0 m²	0	-	0 m²	0	-	
Roof Transmission	576 m²	3383	-	576 m²	7942	-	
Window Transmission	0 m²	0	-	0 m²	0	-	
Skylight Transmission	0 m²	0	-	0 m ²	0	-	
Door Loads	0 m²	0	-	0 m ²	0	-	
Floor Transmission	753 m²	0	-	753 m²	2318	-	
Partitions	0 m²	0	-	0 m ²	0	-	
Ceiling	0 m²	0	-	0 m ²	0	-	
Overhead Lighting	0 W	0	-	0	0	-	
Task Lighting	0 W	0	-	0	0	-	
Electric Equipment	1500 W	1405	-	0	0	-	
People	90	15250	28750	0	0	0	
Infiltration	-	0	0	-	0	0	
Miscellaneous	-	0	0	-	0	0	
Safety Factor	0% / 0%	0	0	10%	1026	0	
>> Total Zone Loads	-	20039	28750	-	11285	0	
Zone Conditioning	-	21468	28750	-	11072	0	
Plenum Wall Load	0%	0	-	0	0	-	
Plenum Roof Load	0%	0	-	0	0	-	
Plenum Lighting Load	0%	0	-	0	0	-	
Return Fan Load	1660 L/s	0	-	1660 L/s	0	-	
Ventilation Load	1538 L/s	10074	-6345	1538 L/s	75272	0	
Supply Fan Load	1810 L/s	0	-	1810 L/s	0	-	
Space Fan Coil Fans	-	0	-	-	0	-	
Duct Heat Gain / Loss	0%	0	-	0%	0	-	
>> Total System Loads	-	31542	22405	-	86344	0	
Central Cooling Coil	-	31542	22405	-	0	0	
Central Heating Coil	-	0	-	-	86344	-	
>> Total Conditioning	-	31542	22405	-	86344	0	
Key:	Positiv	e values are clo	loads	Positive	e values are htg	loads	
	Negativ	e values are ht	loads	Negativ	e values are clg	loads	

Hourly Analysis Program 5.11 Page 10 of 12

Zone Design Load Summary for Gym

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

Zone 1	DE	ESIGN COOLING	G	D	ESIGN HEATING	G
	COOLING DATA	AT Jul 1500		HEATING DATA	AT DES HTG	
	COOLING OA DI	B / WB 31.1 °C	/ 22.8 °C	HEATING OA D	B / WB -21.1 °C	C / -21.8 °C
	OCCUPIED T-ST	AT 24.0 °C		OCCUPIED T-S	TAT 22.0 °C	
		Sensible	Latent		Sensible	Latent
ZONE LOADS	Details	(W)	(W)	Details	(W)	(W)
Window & Skylight Solar Loads	0 m²	0	-	0 m²	-	-
Wall Transmission	0 m²	0	-	0 m²	0	-
Roof Transmission	576 m²	3383	-	576 m²	7942	-
Window Transmission	0 m²	0	-	0 m²	0	-
Skylight Transmission	0 m²	0	-	0 m²	0	-
Door Loads	0 m²	0	-	0 m²	0	-
Floor Transmission	753 m²	0	-	753 m²	2318	-
Partitions	0 m²	0	-	0 m²	0	-
Ceiling	0 m²	0	-	0 m²	0	-
Overhead Lighting	0 W	0	-	0	0	-
Task Lighting	0 W	0	-	0	0	•
Electric Equipment	1500 W	1405	-	0	0	-
People	90	15250	28750	0	0	0
Infiltration	-	0	0	-	0	0
Miscellaneous	-	0	0	-	0	0
Safety Factor	0% / 0%	0	0	10%	1026	0
>> Total Zone Loads	-	20039	28750	-	11285	0

Hourly Analysis Program 5.11 Page 11 of 12

Space Design Load Summary for Gym

Project Name: ED-20-300 - EDSS Prepared by: Quasar 04-01-2021 03:24PM

TAE	BLE 1.1.A. Compone	ent Loads For S	Space "Gym" I	n Zone "Zone 1"				
	DE	SIGN COOLING	3	DESIGN HEATING				
	COOLING DATA	AT Jul 1500		HEATING DATA AT DES HTG				
	COOLING OA DE	3 / WB 31.1 °C	/ 22.8 °C	HEATING OA DB	/ WB -21.1 °C /	-21.8 °C		
	OCCUPIED T-ST	AT 24.0 °C		OCCUPIED T-ST	AT 22.0 °C			
		Sensible	Latent		Sensible	Latent		
SPACE LOADS	Details	(W)	(W)	Details	(W)	(W)		
Window & Skylight Solar Loads	0 m²	0	-	0 m²	-	-		
Wall Transmission	0 m²	0	-	0 m²	0	-		
Roof Transmission	576 m²	3383	-	576 m²	7942	-		
Window Transmission	0 m²	0	-	0 m²	0	-		
Skylight Transmission	0 m²	0	-	0 m²	0	-		
Door Loads	0 m²	0	-	0 m²	0	-		
Floor Transmission	753 m²	0	-	753 m²	2318	-		
Partitions	0 m²	0	-	0 m²	0	-		
Ceiling	0 m²	0	-	0 m²	0	-		
Overhead Lighting	0 W	0	-	0	0	-		
Task Lighting	0 W	0	-	0	0	-		
Electric Equipment	1500 W	1405	-	0	0	-		
People	90	15250	28750	0	0	0		
Infiltration	-	0	0	-	0	0		
Miscellaneous	-	0	0	-	0	0		
Safety Factor	0% / 0%	0	0	10%	1026	0		
>> Total Zone Loads	_	20039	28750	_	11285	0		

TABLE 1.1.B. Envelope Loads For Space "Gym" In Zone "Zone 1"										
			COOLING	HEATING						
	Area	U-Value	Shade	TRANS	SOLAR	TRANS				
	(m²)	(W/(m²·K))	Coeff.	(W)	(W)	(W)				
H EXPOSURE										
ROOF	576	0.320	-	3383	-	7942				

Hourly Analysis Program 5.11 Page 12 of 12