

Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

ARCHITECT:  
63 Fitzroy Street  
Charlottetown, PE  
Canada C1A 1R4  
Ph: 902-566-4449  
F: 902-566-1235  
architects@bghj.com  
Web: www.bghj.com

DESIGN CONSULTANT:

LIST OF DRAWINGS:

A201 DEMOLITION PLAN, FLOOR  
PLANS & REFLECTED  
CEILING PLAN  
A202 MISCELLANEOUS DETAILS  
M1 MECHANICAL DEMOLITION  
M2 DOMESTIC WATER  
M3 SANITARY  
M4 HYDRONIC HEATING  
M5 HVAC  
E1 EXISTING ELECTRICAL  
CONDITIONS  
E2 NEW ELECTRICAL  
E3 LIGHTING PLAN  
E4 LIFE SAFETY & FIRE ALARM  
E5 PANEL SCHEDULES &  
DETAILS

F5654-170009 FII-2 PROJECT 9L651  
DESIGN FOR HARRY HACHEY CONFERENCE CENTER FIT-UP  
ST. ANDREWS BIOLOGICAL STATION, 531 BRANDY COVE RD.  
ST. ANDREWS, NB

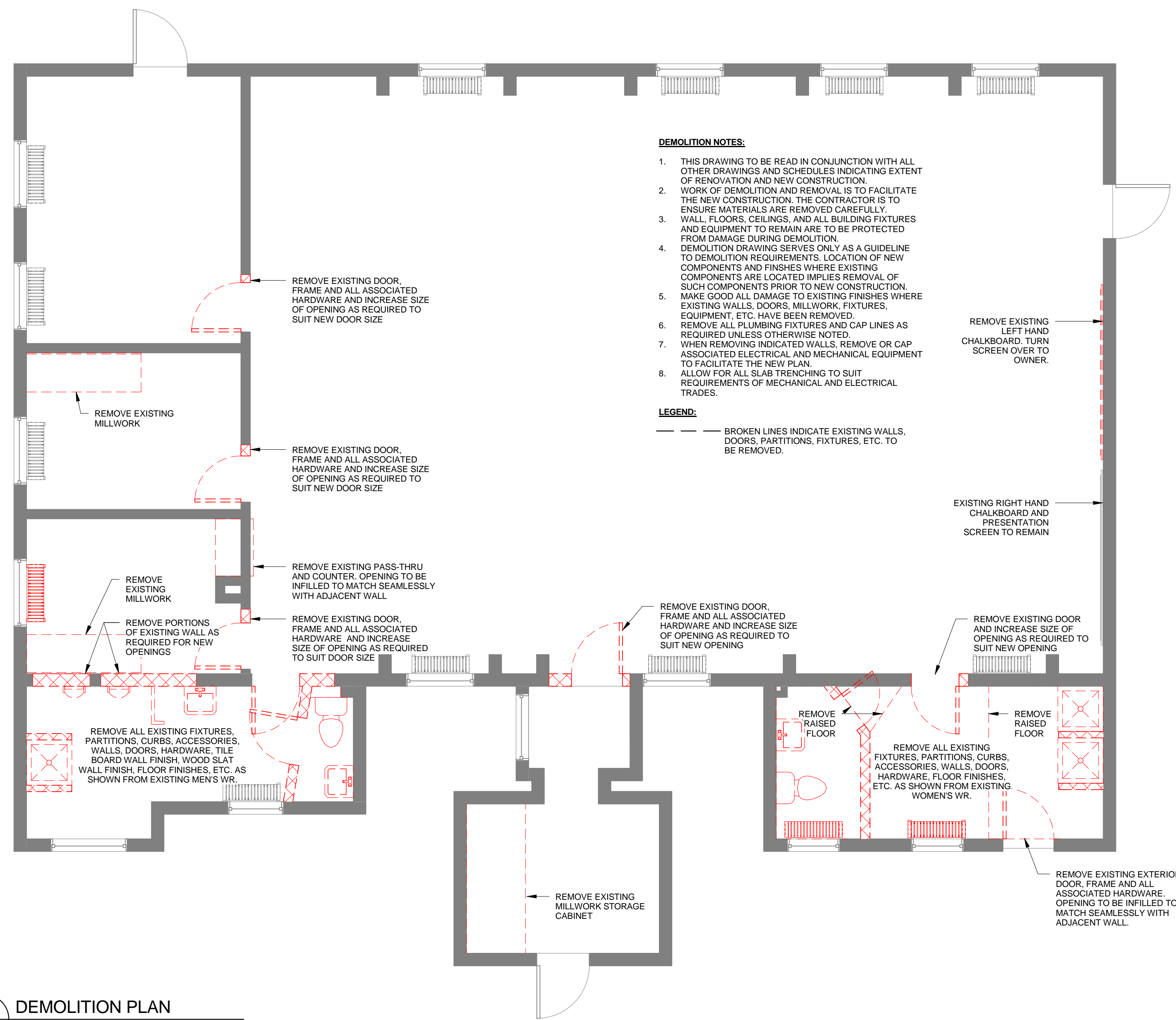
Rev. ID	Description	Date
1	Issued for Tender	06/21/17

PROJECT:  
HARRY HACHEY  
CONFERENCE  
CENTER FIT-UP

St. Andrews, NB  
DRAWING TITLE:  
COVER SHEET

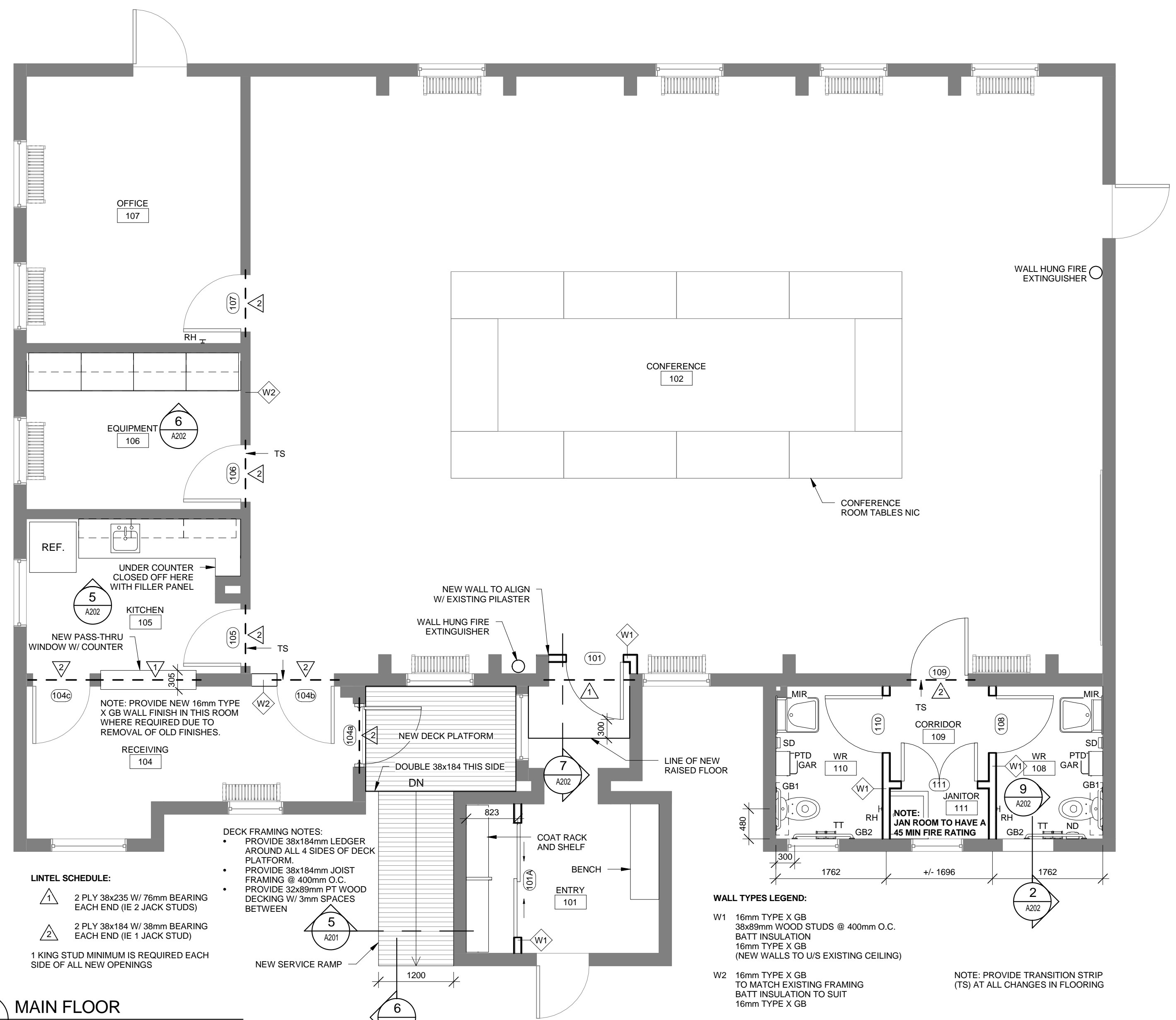
DRAWN:	FILE NO:
SM	16031

DWG:  
A000



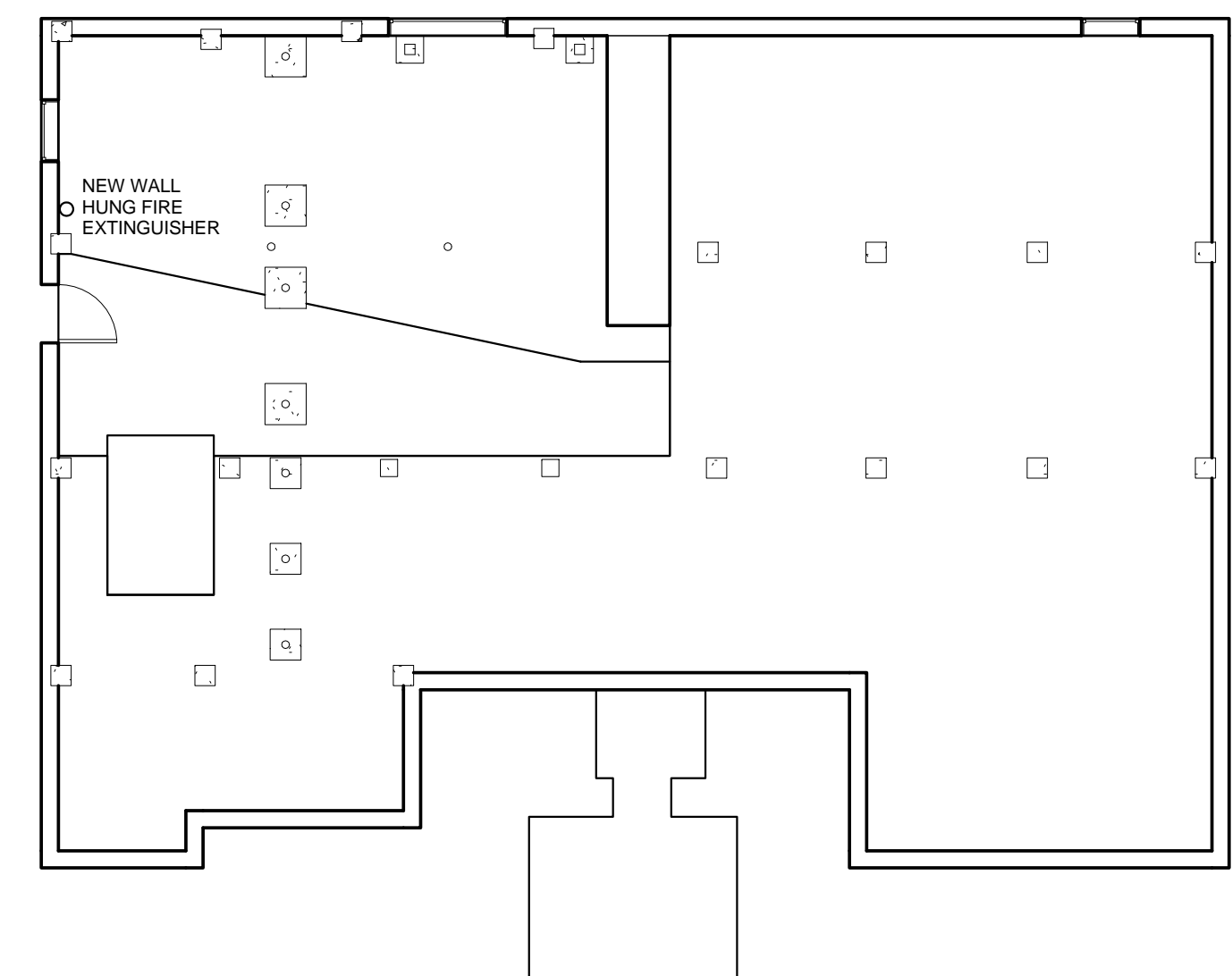
1 DEMOLITION PLAN

A201 SCALE 1:50



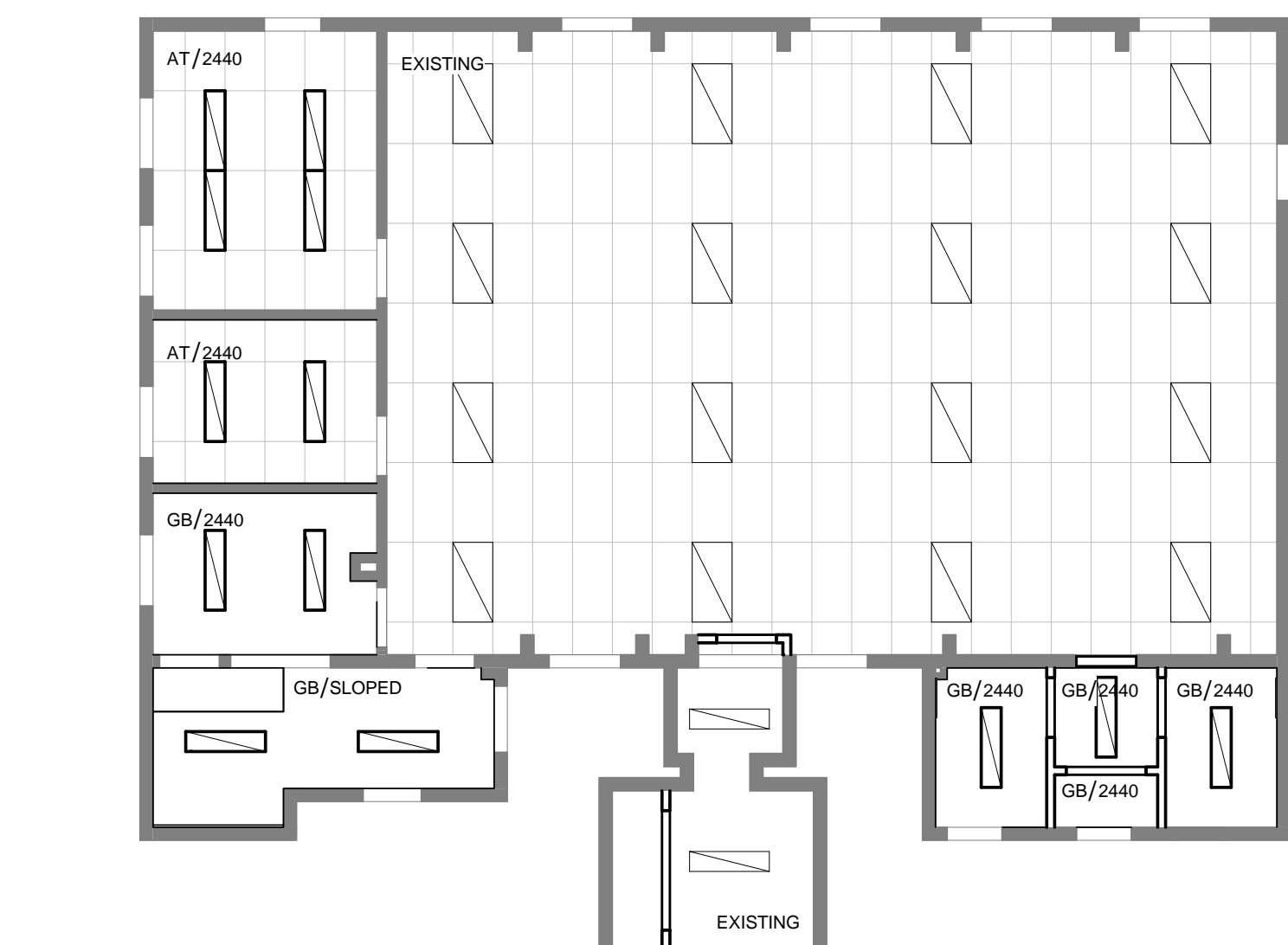
3 MAIN FLOOR

A201 SCALE 1:50



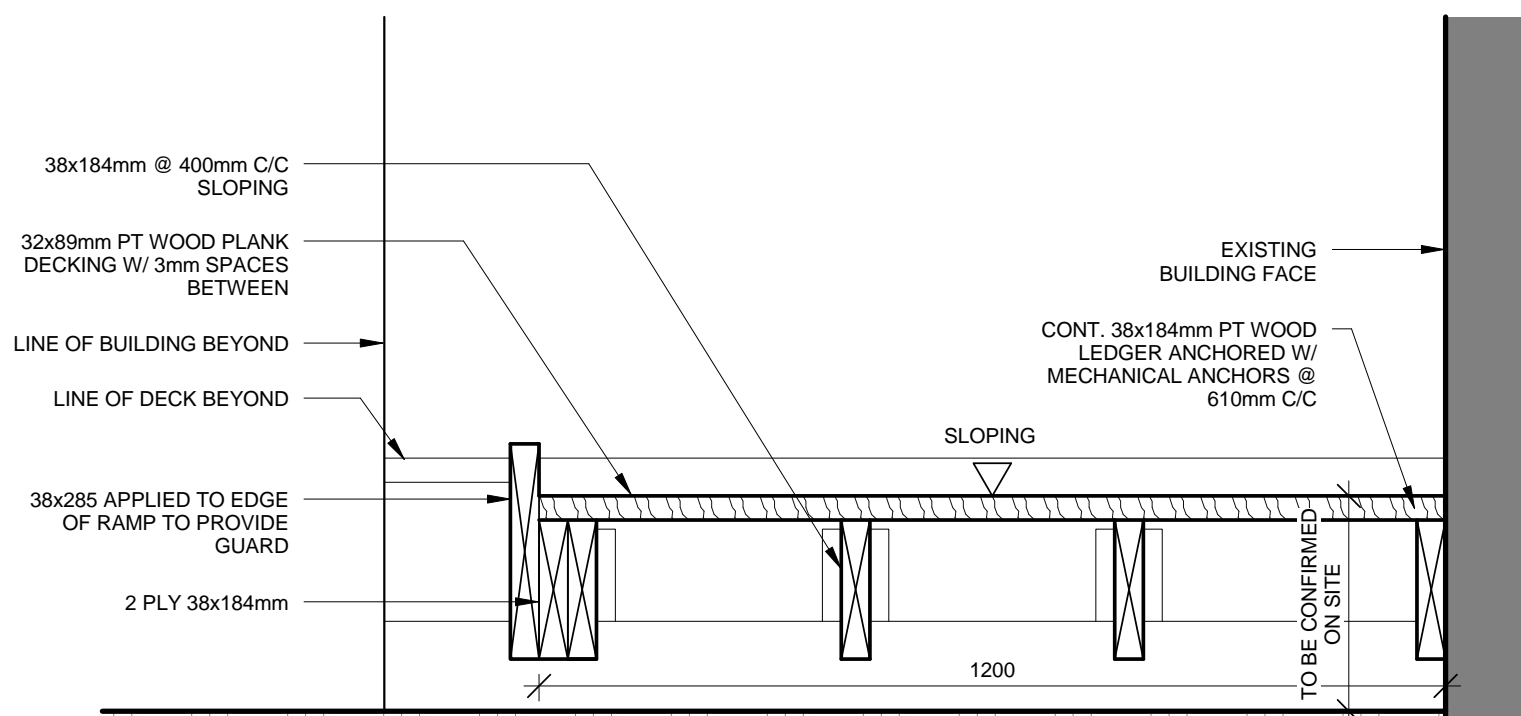
2 BASEMENT

A201 SCALE 1:100



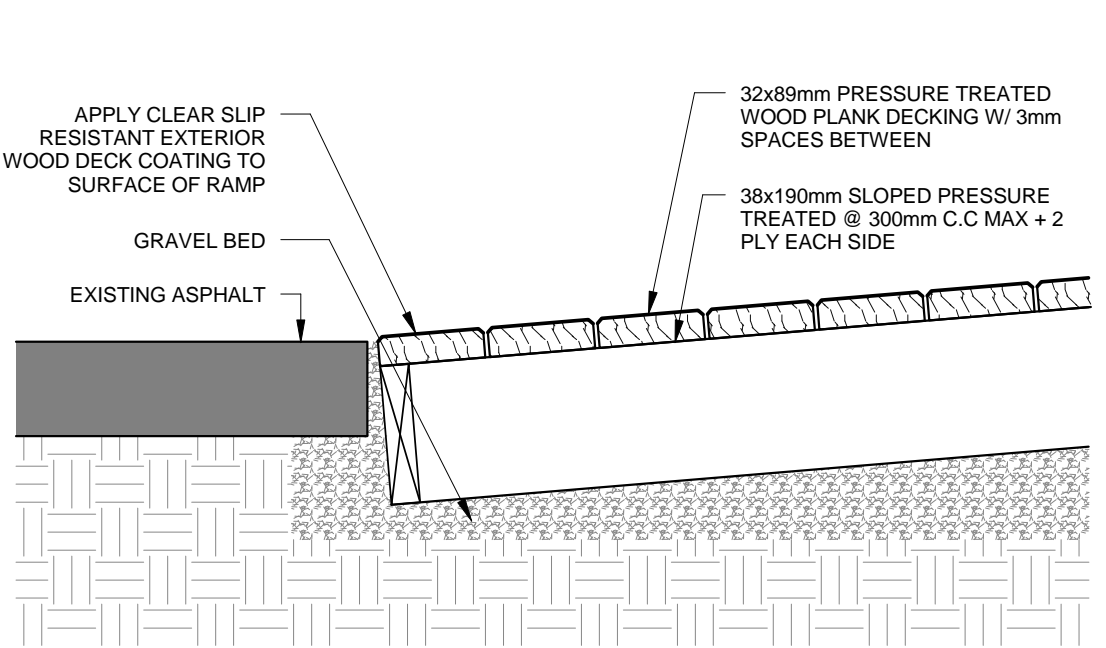
4 MAIN FLOOR REFLECTED CEILING PLAN

A201 SCALE 1:100



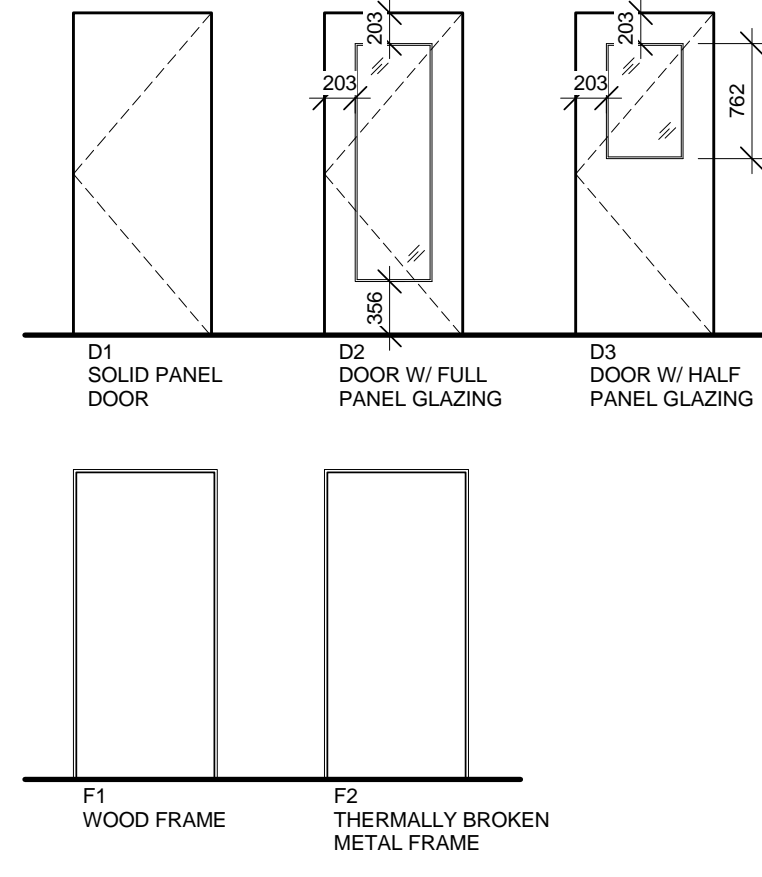
5 SECTION @ SERVICE RAMP

A201 SCALE 1:10



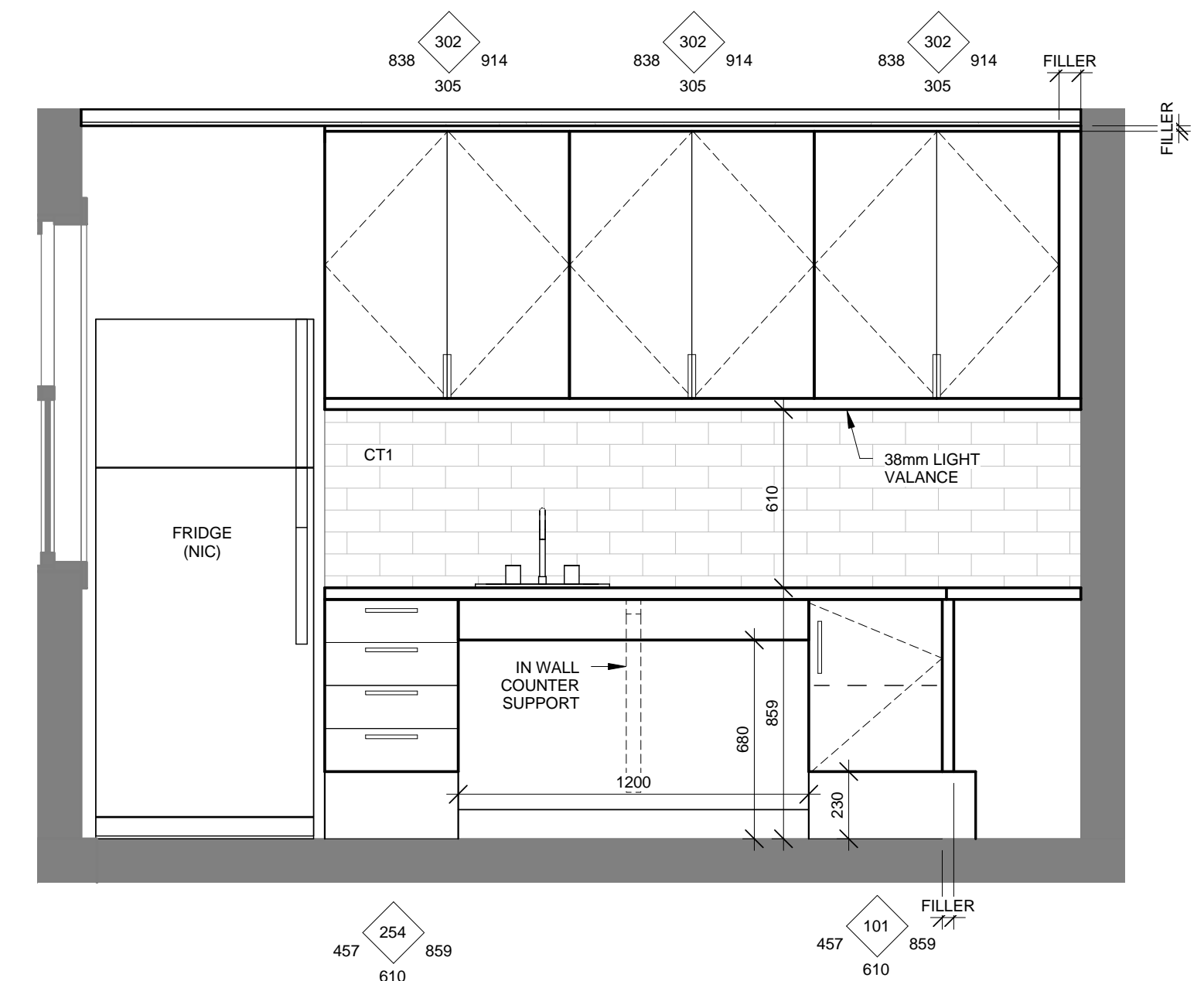
6 RAMP @ BASE/GRADE

A201 SCALE 1:10

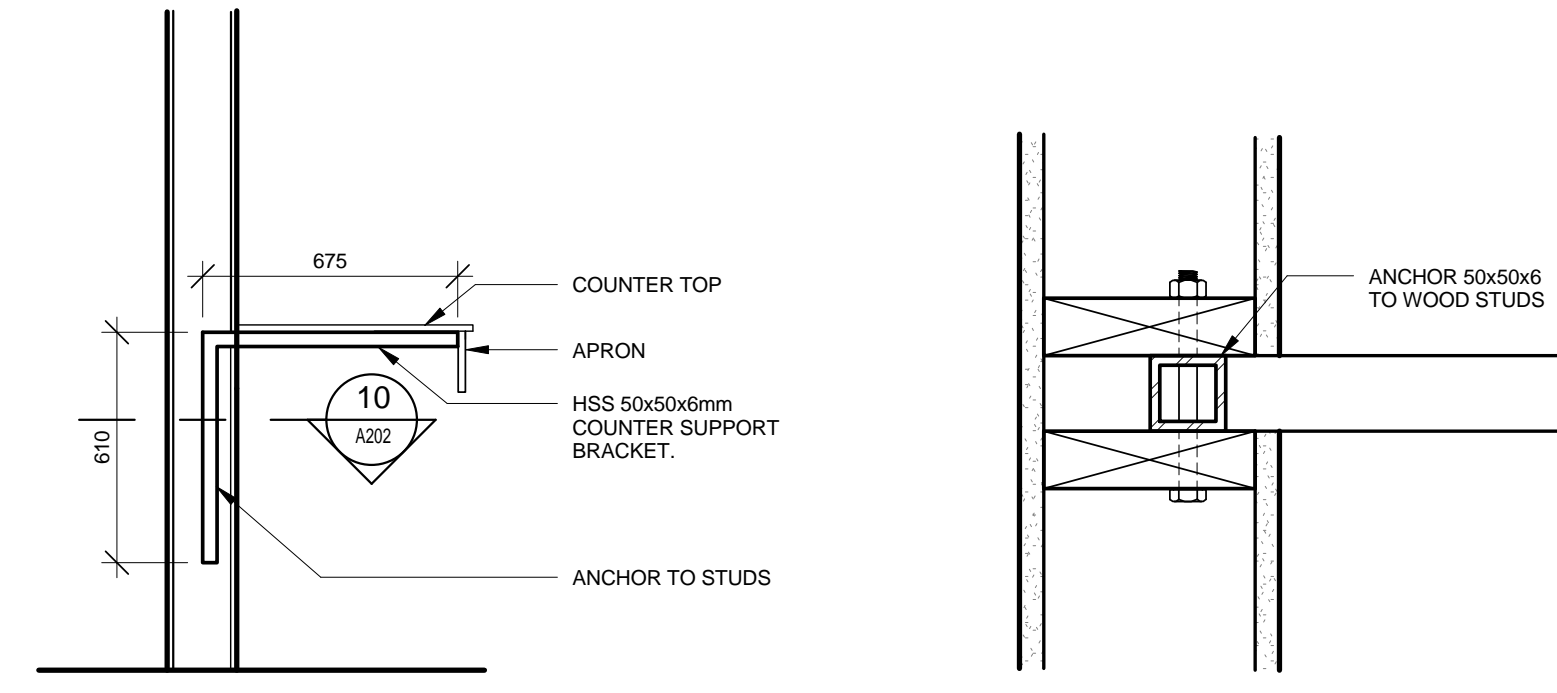


**1 DOOR AND FRAME TYPES**  
 A202 SCALE 1:50

DOOR #	ROOM NAME	DOOR INFORMATION				FRAME INFORMATION				REMARKS
		SIZE	TYPE	MATL.	FIN.	TYPE	MATL.	FIN.		
101	ENTRY	914 x 2032mm	D3	WD	ST1	F1	WD	ST1		DUAL SLIDING CLOSET DOORS
101A	ENTRY	2- 914 x 2032mm	D1	WD	ST1					
104a	RECEIVING	914 x 2032mm	D3	IM	PT	F2	IM	PT		EXTERIOR FILM ON GLASS
104b	RECEIVING	914 x 2032mm	D3	WD	ST1	F1	WD	ST1		FILM ON GLASS
104c	RECEIVING	914 x 2032mm	D2	WD	ST1	F1	WD	ST1		PASS THRU OPENING
104d	RECEIVING	1525 x 1016mm								
105	KITCHEN	914 x 2032mm	D3	WD	ST1	F1	WD	ST1		FILM ON GLASS
106	EQUIPMENT	914 x 2032mm	D3	WD	ST1	F1	WD	ST1		FILM ON GLASS
107	OFFICE	914 x 2032mm	D3	WD	ST1	F1	WD	ST1		FILM ON GLASS
108	WR	914 x 2032mm	D1	WD	ST1	F1	WD	ST1		SOUND RATED DOOR
109	CONFERENCE	914 x 2032mm	D1	WD	ST1	F1	WD	ST1		
110	WR	914 x 2032mm	D1	WD	ST1	F1	WD	ST1		
111	JANITOR	2- 610 x 2032mm	D1	WD	ST1	F1	WD	ST1		20 MIN RATED DOOR & FRAME

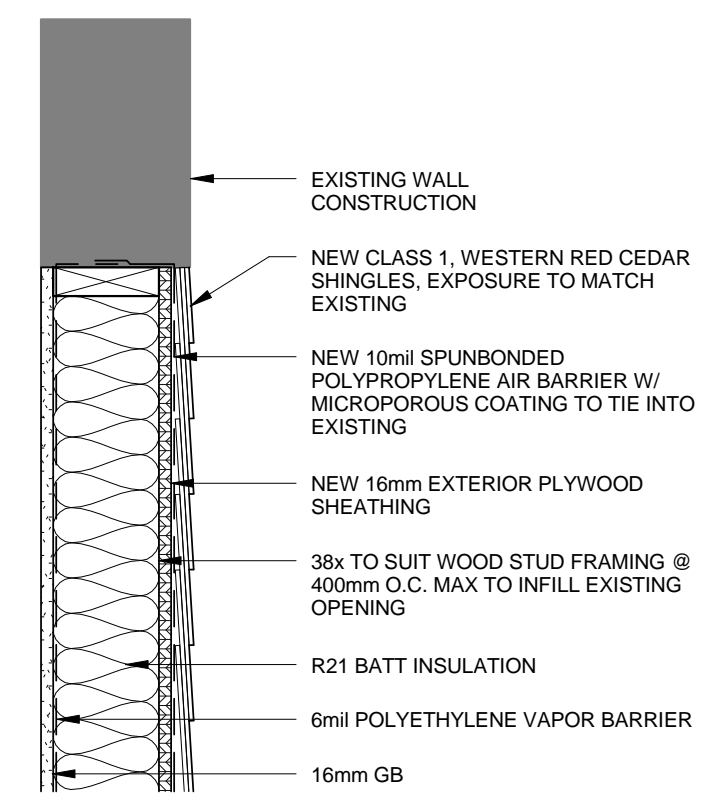


**5 KITCHEN ELEVATION**  
 A202 SCALE 1:20

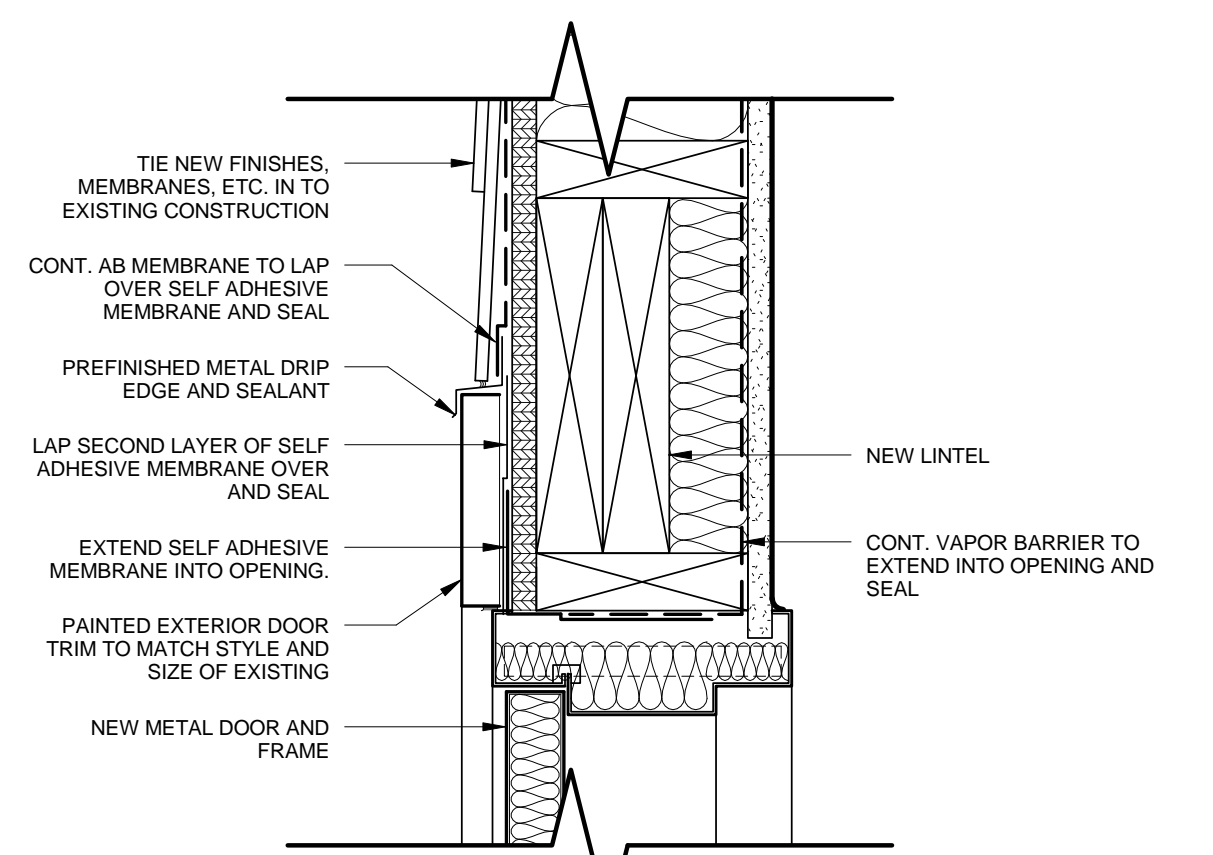


**8 TYP. IN-WALL ANGLE BRACKET @ COUNTER**  
 A202 SCALE 1:20

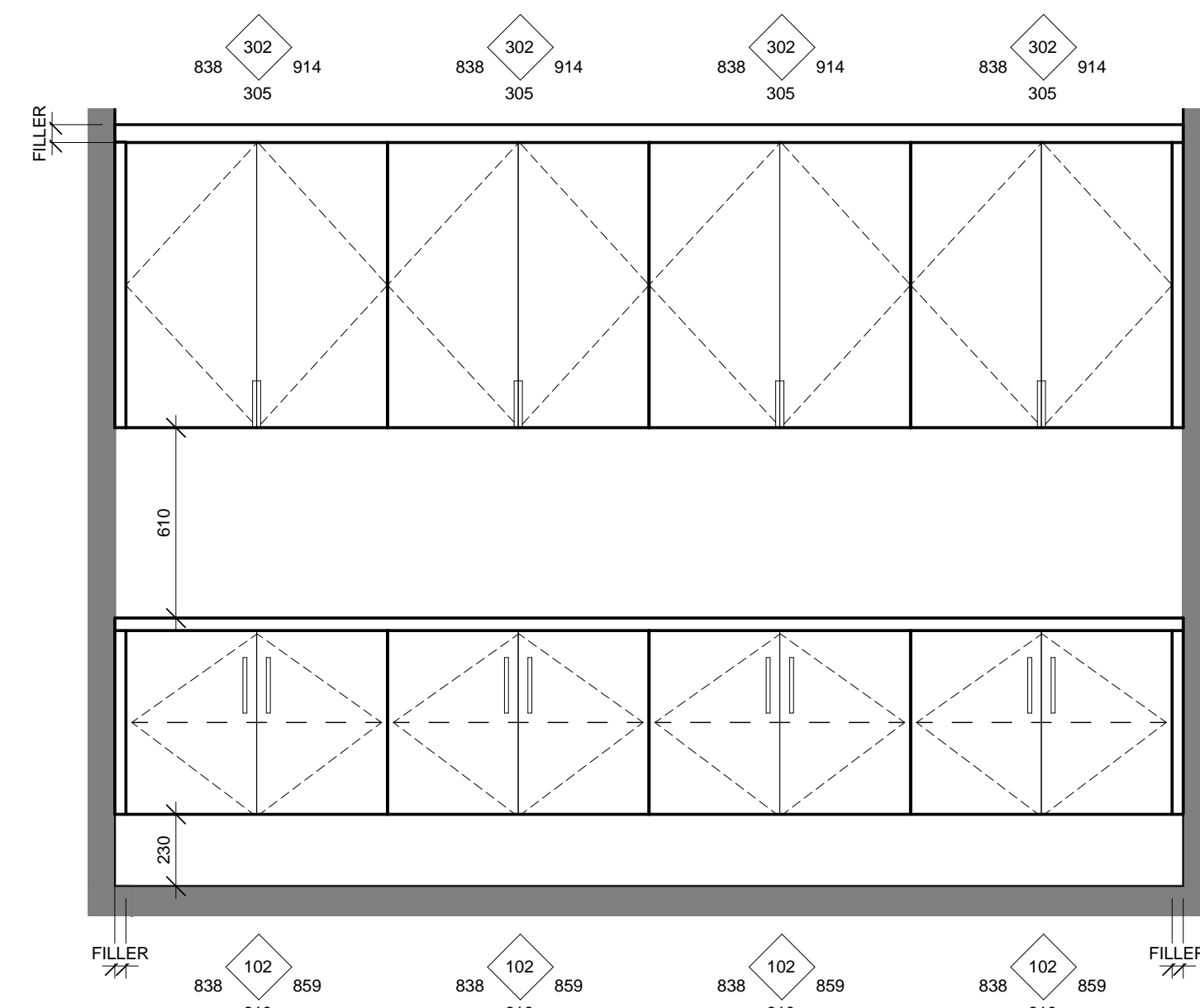
**10 STEEL ANGLE SECTION**  
 A202 SCALE 1:5



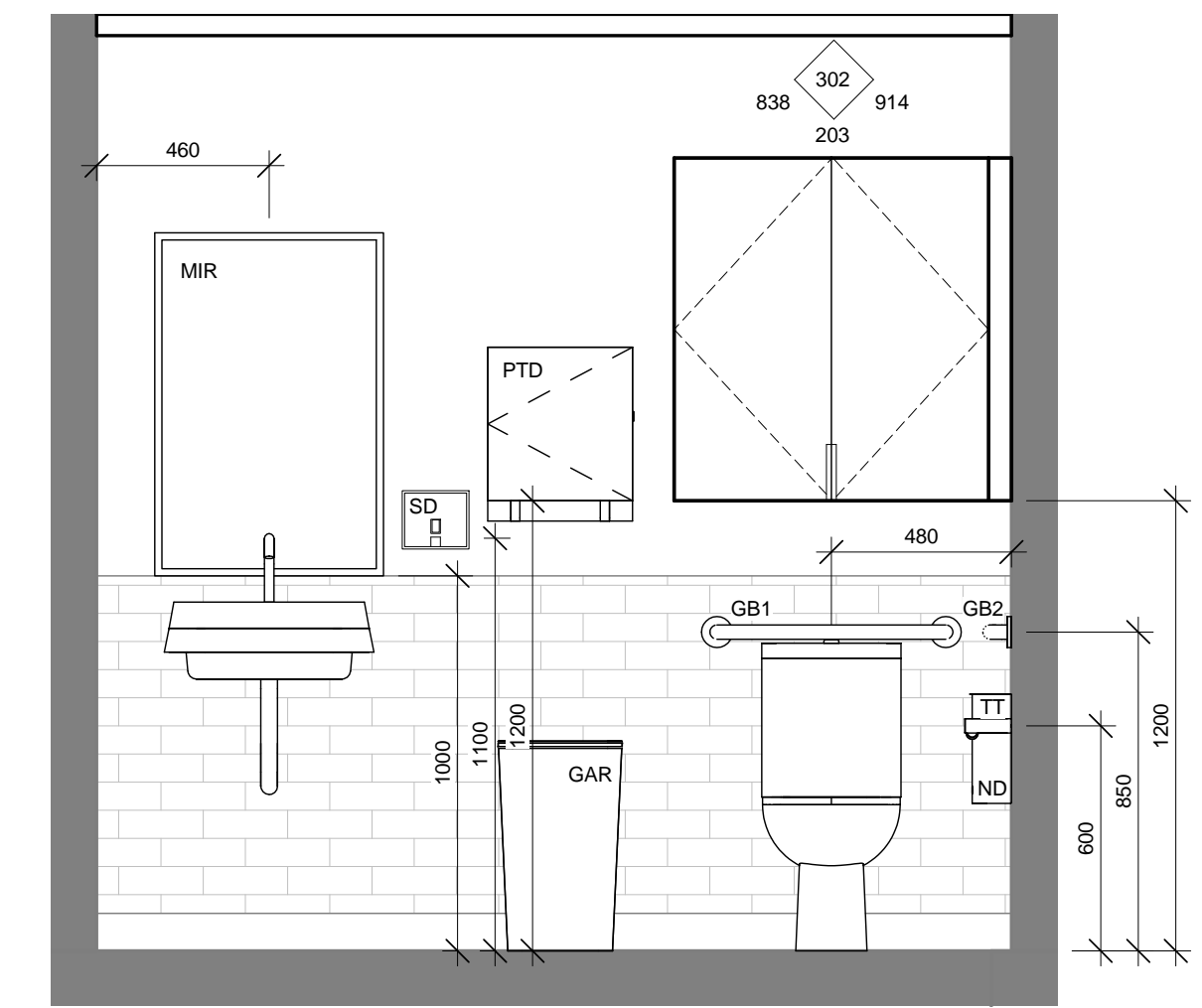
**2 INFILL @ EXISTING EXTERIOR DOOR**  
 A202 SCALE 1:10



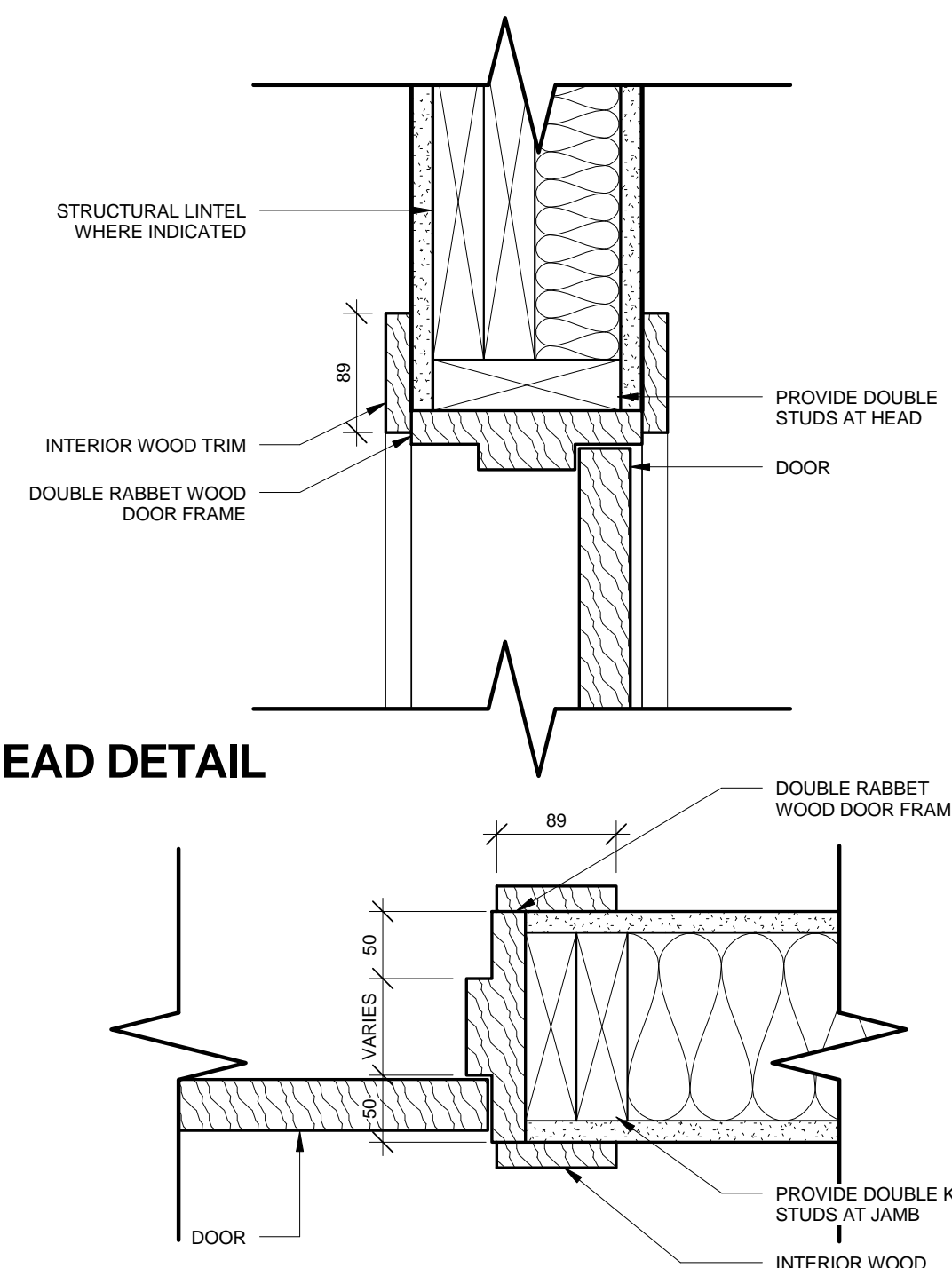
**4 EXTERIOR DOOR DETAILS**  
 A202 SCALE 1:5



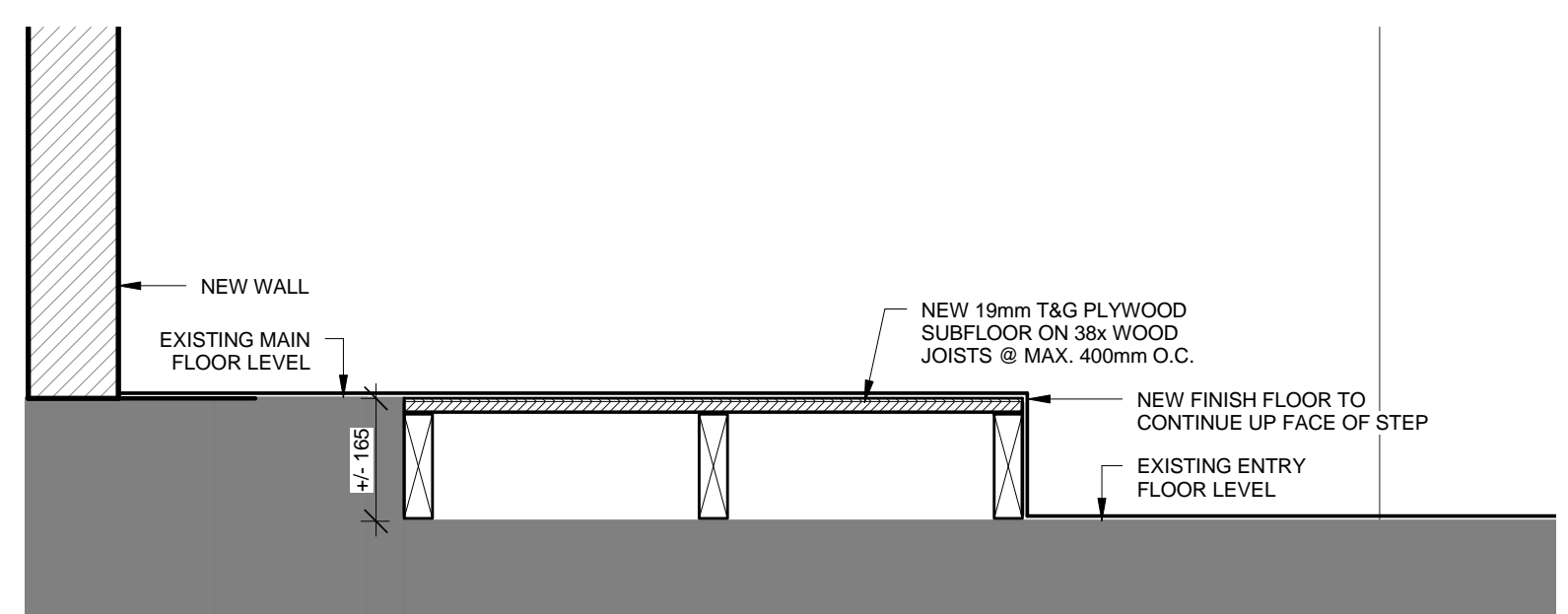
**6 EQUIPMENT ROOM ELEVATION**  
 A202 SCALE 1:20



**9 WR ELEVATION**  
 A202 SCALE 1:20



**3 TYP. INTERIOR WOOD FRAME DOOR DETAILS**  
 A202 SCALE 1:5



**7 SECTION @ NEW RAISED FLOOR**  
 A202 SCALE 1:10

ROOM #	ACCESSORY	QUANT.	COMMENTS
101	COAT RACK	1	
	LOCKER BENCH	1	
107	ROBE HOOK	RH	1
108	GRAB BAR	GB1	1
	GRAB BAR	GB2	1
	MIRROR	MIR	1
	NAPKIN DISPOSAL	ND	1
	PAPER TOWEL DISPENSER	PTD	1
	ROBE HOOK	RH	1
	SOAP DISPENSER	SD	1
	TOILET TISSUE DISPENSER	TT	1
	WASTE RECEPTACLE	GAR	1
110	GRAB BAR	GB1	1
	GRAB BAR	GB2	1
	MIRROR	MIR	1
	PAPER TOWEL DISPENSER	PTD	1
	ROBE HOOK	RH	1
	SOAP DISPENSER	SD	1
	TOILET TISSUE DISPENSER	TT	1
	WASTE RECEPTACLE	GAR	1

THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.

3	Revised Hydrone Heating	June 20, 2017
2	Issued for Tender	June 2, 2017
1	Issued for 90% Review	May 25, 2017
0	Issued for Permit and Pricing	Jan. 27, 2017
Rev	Description	Date

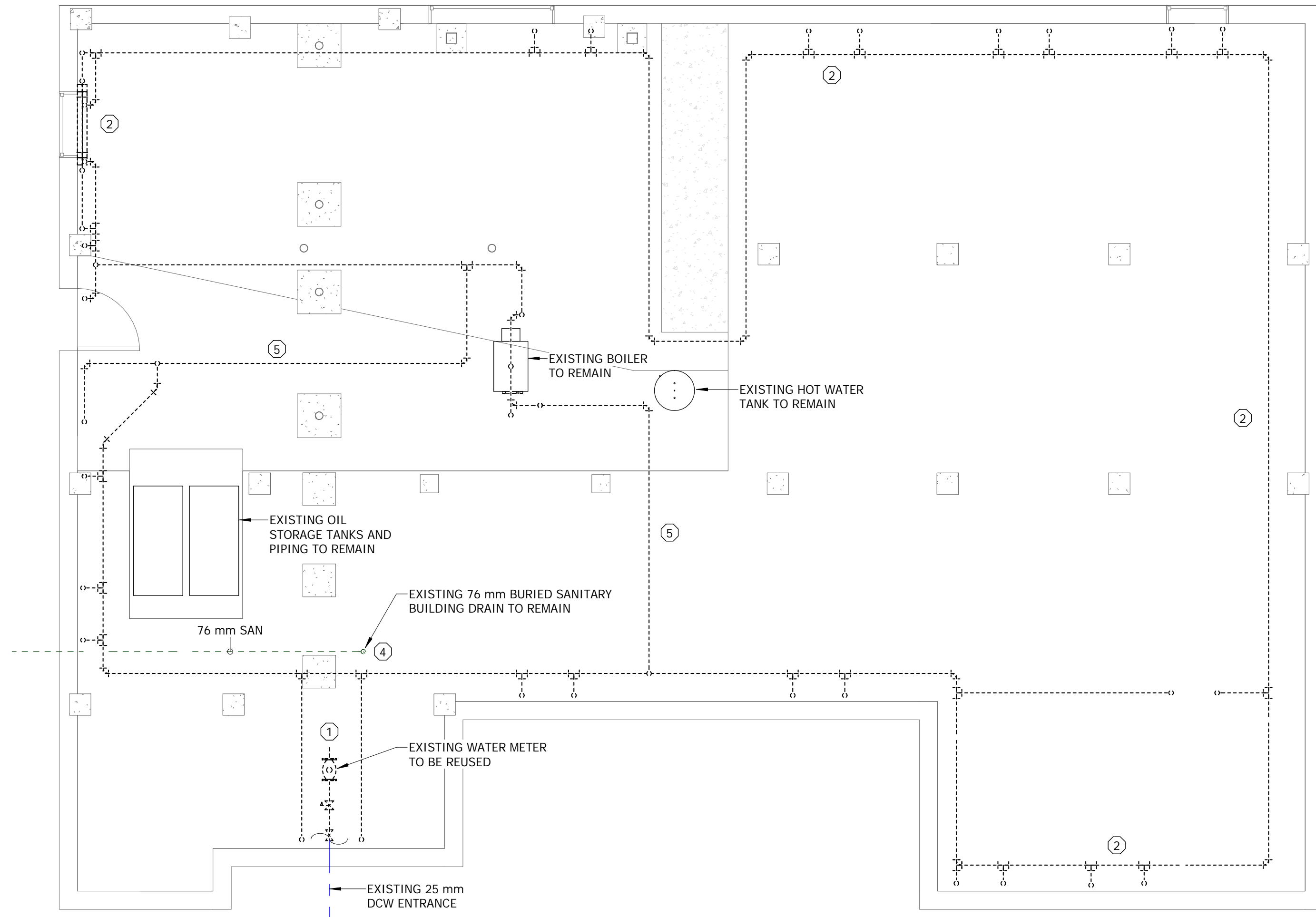
21-6-2017  
21-6-2017

PROJECT:  
**Harry Hachey  
 Conference Center**

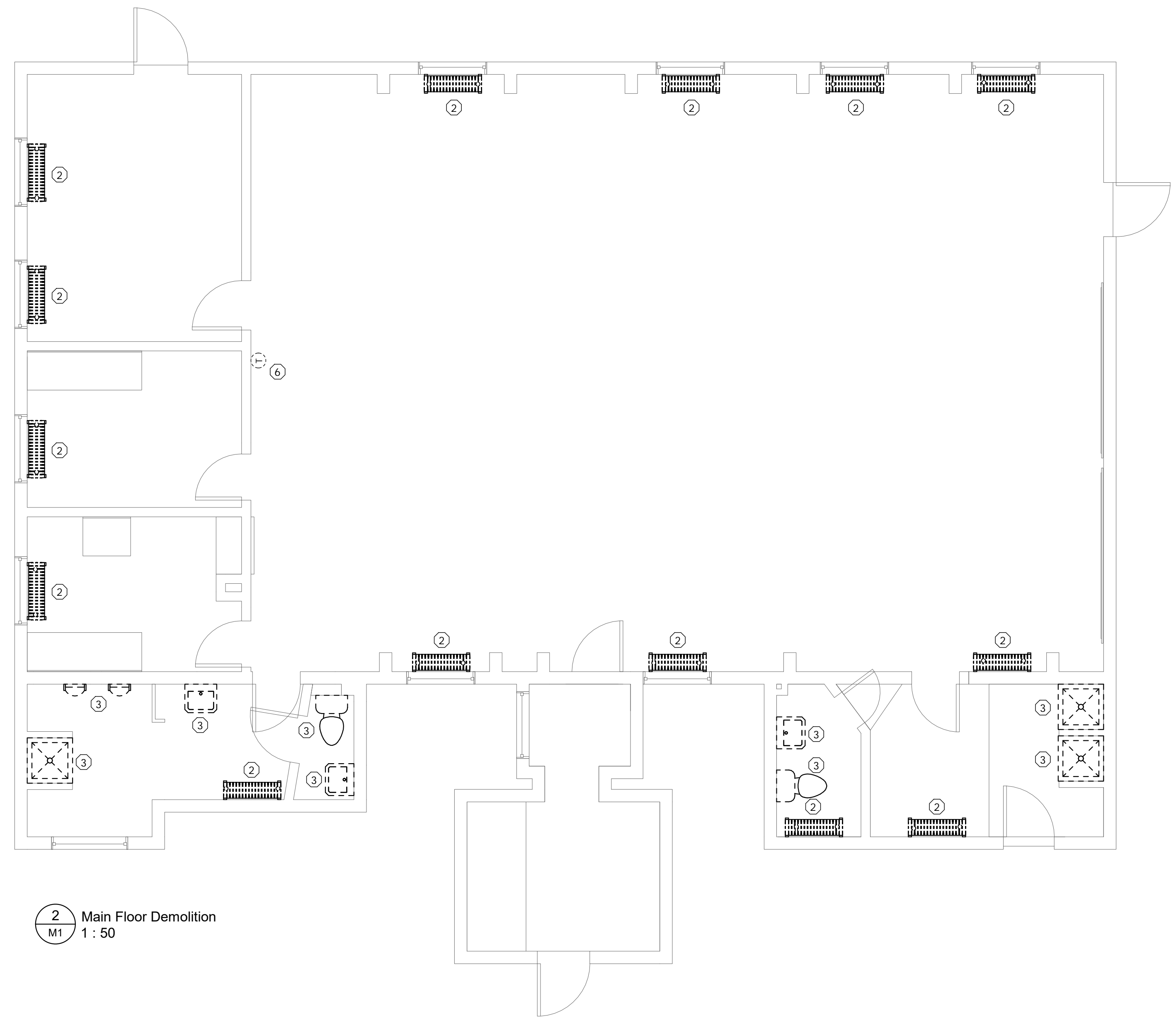
DRAWING TITLE:  
**Mechanical  
 Demolition**

DRAWN: FILE NO:  
 Author 12225

DWG:  
**M1**



**1**  
 M1  
 Basement Demolition  
 1 : 50



**2**  
 M1  
 Main Floor Demolition  
 1 : 50

**DEMOLITION NOTES**

1. THESE DRAWINGS ARE PARTIALLY SCHEMATIC IN CHARACTER AND MUST NOT BE SCALED. THE CONTRACTOR SHALL FIT THE WORK TO THE JOB, CAREFULLY INVESTIGATING THE STRUCTURAL, ELECTRICAL, ARCHITECTURAL SPACES AND FINISH CONDITIONS AFFECTING THE WORK ACCORDINGLY AND FURNISHING NECESSARY BENDS, OFFSETS, FITTINGS, JUNCTIONS, ETC. WHETHER SPECIFICALLY SHOWN OR CALLED FOR OR NOT, AND SEEING THAT THERE ARE NO INTERFERENCES BETWEEN THIS WORK AND THE WORK OF ANY OTHER TRADE.
2. ALL PIPING INDICATED ON DRAWINGS TO BE DEMOLISHED SHALL BE REMOVED BY THIS CONTRACTOR, INCLUDING ALL PLUMBING FIXTURES AND ASSOCIATED VALVES AND FITTINGS.
3. THIS CONTRACTOR SHALL REMOVE FROM THE SITE AND PROPERLY DISPOSE OF ALL DEMOLISHED PIPING, FIXTURES, EQUIPMENT, ETC. UNLESS OTHERWISE NOTED.
4. THE FULL EXTENT OF CUTTING, PATCHING AND TRENCHING IS NOT NECESSARILY INDICATED IN THE DEMOLITION NOTES. REFER AS WELL TO THE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR RELATED WORK. INFORMATION PRESENTED IN THE DEMOLITION NOTES IS TO BE COORDINATED AND READ IN CONJUNCTION WITH ARCHITECTURAL AND ELECTRICAL DETAILS, DRAWINGS AND SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF EXISTING CONDITIONS AND INVERT ELEVATIONS PRIOR TO COMMENCING WORK. ANY ERRORS OR OMISSIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND THE ENGINEER IMMEDIATELY.
6. DEMOLITION NOTES/DRAWINGS ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE TO INDICATE THE GENERAL EXTENT OF DEMOLITION WORK AND AS SUCH DO NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THE EXTENT OF DEMOLITION WORK WILL BE THAT WHICH IS NECESSARY TO COMPLETE THE WORK DESCRIBED BY THE CONTRACT DOCUMENTS.
7. INFORMATION PRESENTED IN DEMOLITION NOTES AND ON DRAWINGS IS TO BE COORDINATED AND READ IN CONJUNCTION WITH ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DETAILS/DRAWINGS AND SPECIFICATIONS.
8. PROVIDE TEMPORARY COVERS, CAPS, OR PLUGS ON SANITARY SEWER SYSTEM THROUGHOUT THE DURATION OF CONSTRUCTION. RAG WADS, DUCT TAPE, OR OTHER SIMILAR METHODS OF TEMPORARY COVERS SHALL NOT BE UTILIZED. UPON COMPLETION OF CONSTRUCTION, COMPLETELY REMOVE ANY AND ALL OBSTRUCTIONS INSIDE THE ENTIRE SYSTEM.

Demolition Keynotes	
①	DISCONNECT AND REMOVE DOMESTIC HOT AND COLD WATER PIPING, INCLUDING TEES, VALVES, WATER METER, PRESSURE-REDUCING VALVE AND OTHER COMPONENTS BACK TO THE MAIN ENTRANCE. WATER METER TO BE REUSED.
②	REMOVE AND DISPOSE OF ALL EXISTING RADIANT HEATER. REMOVE ALL HYDRONIC PIPING, PATCH UNUSED FLOOR PENETRATIONS TO MATCH EXISTING. REFER TO ARCHITECTURAL DRAWINGS.
③	REMOVE AND DISPOSE OF ALL PLUMBING FIXTURES IN THIS ROOM. DISCONNECT AND REMOVE ALL ASSOCIATED PIPING, TEES, VALVES AND OTHER COMPONENTS BACK TO THE WATER ENTRANCE IN BASEMENT.
④	DISCONNECT AND REMOVE ALL SANITARY PIPING BACK TO BURIED SANITARY BUILDING DRAIN IN BASEMENT.
⑤	DISCONNECT AND REMOVE PIPING, FITTINGS AND ASSOCIATED COMPONENTS AS SHOWN.
⑥	REMOVE EXISTING THERMOSTAT.

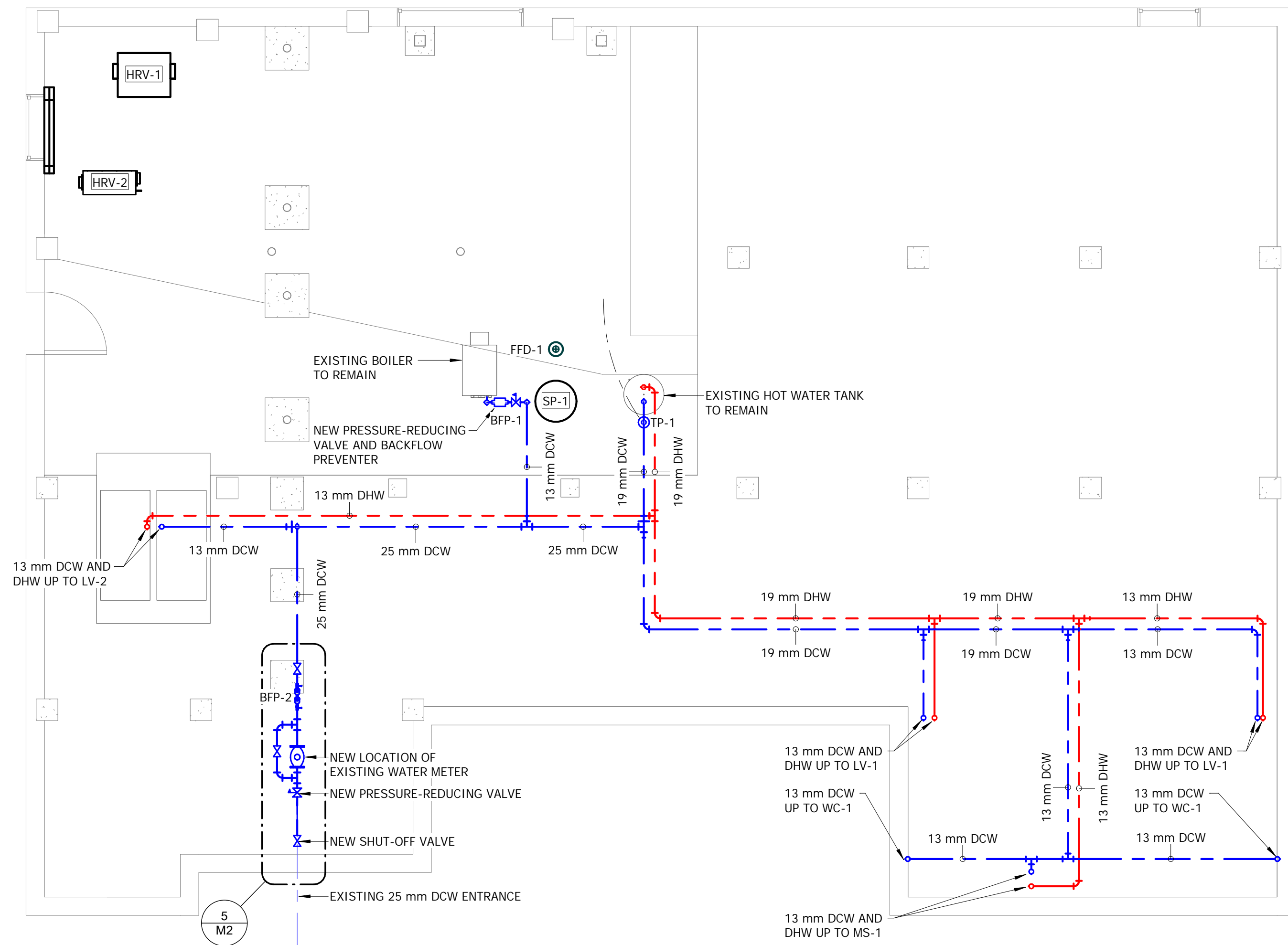
THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

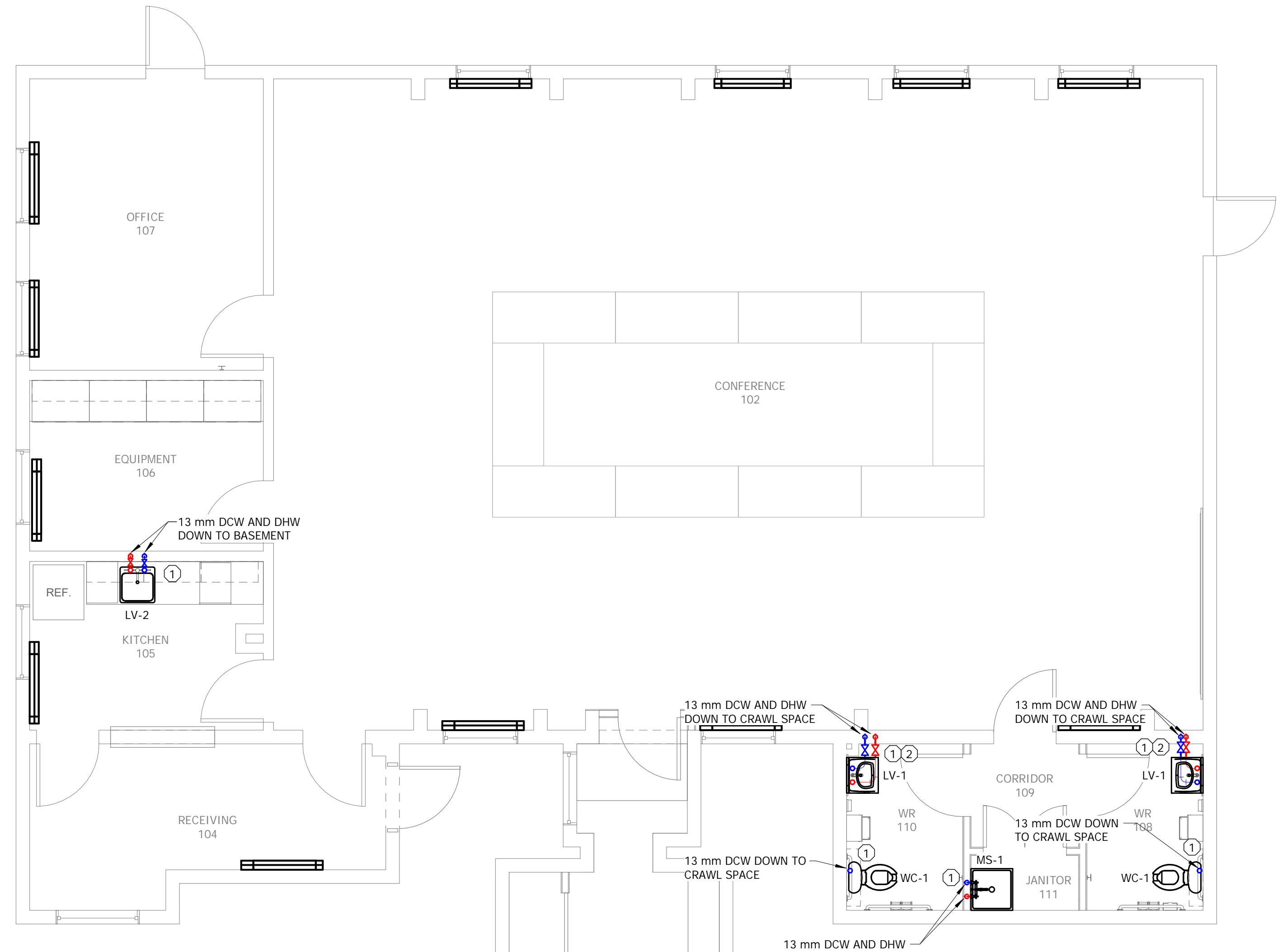
"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

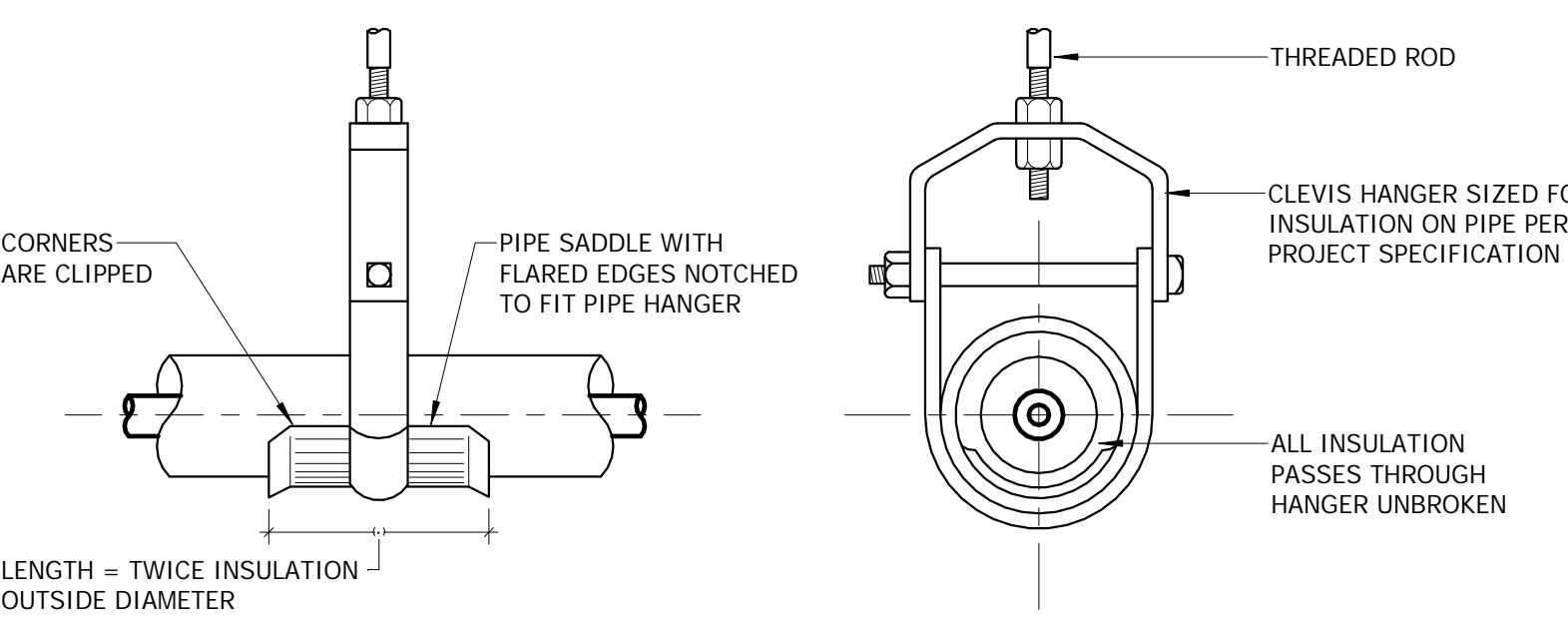
THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.



1 Basement Domestic Water New Conditions  
1 : 50

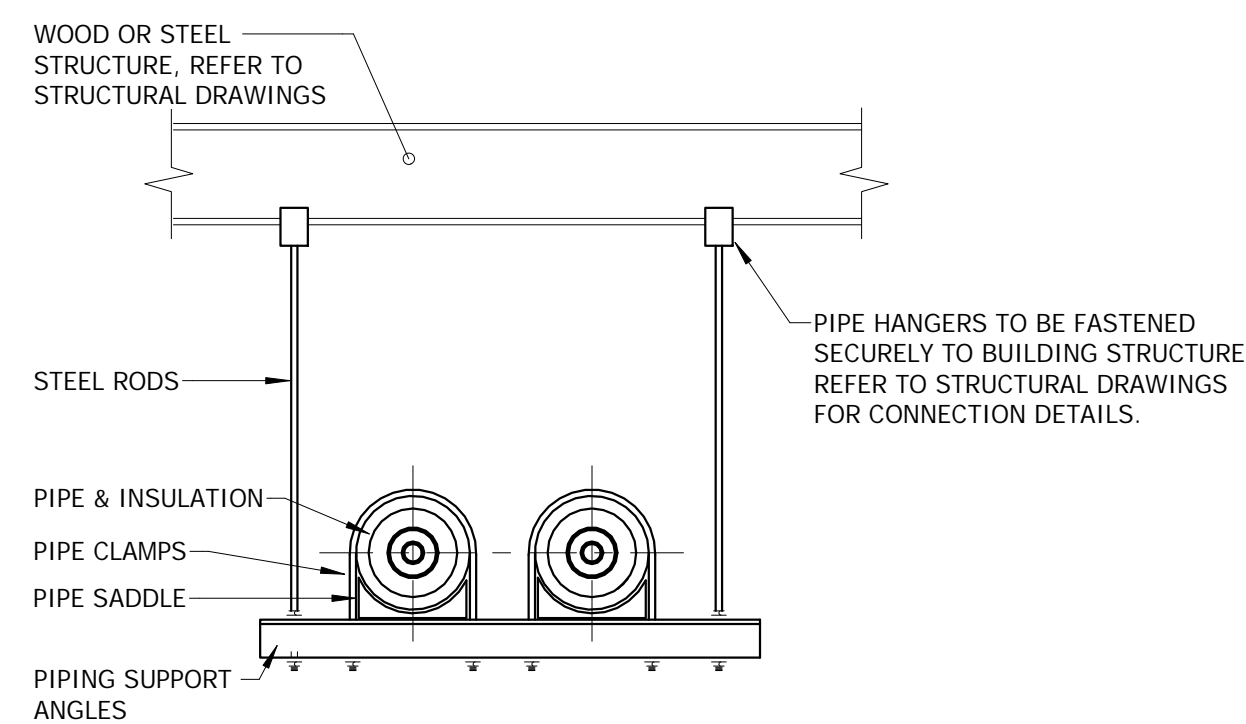


2 Main Floor Domestic Water New Conditions  
1 : 50

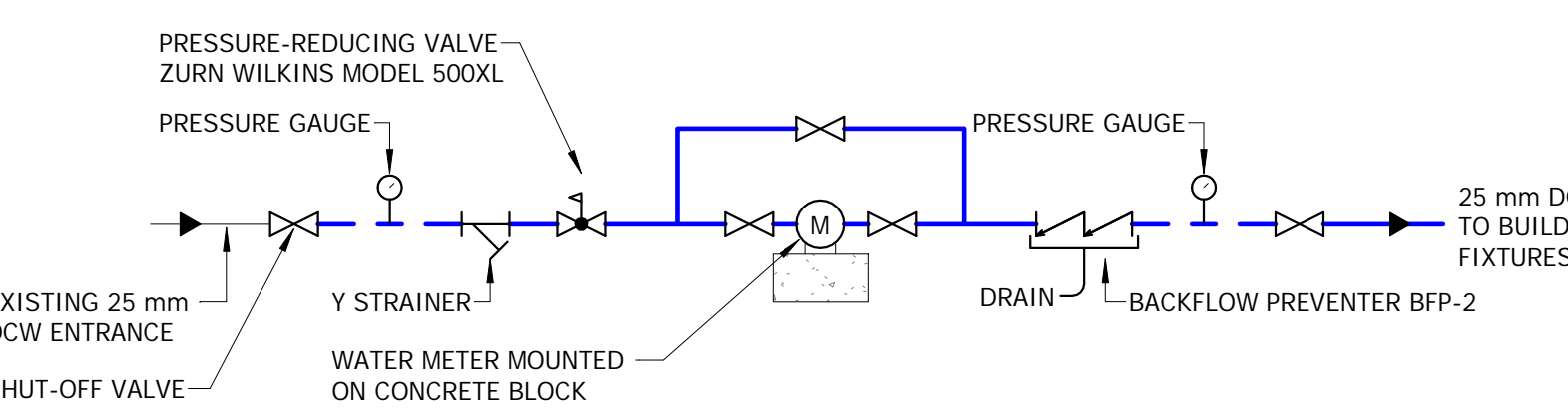


- NOTES
- WHEN SPECIFIED FILLER IS NOT OF PROPER THICKNESS, SUBSTITUTE FULL-LENGTH TURNED WOOD BLOCK FOR CALCIUM SILICATE.
  - FOR FIBERGLASS, USE FOAMGLASS OR CALCIUM SILICATE THROUGH HANGER. VAPOR SEAL EDGES TO PIPE INSULATION.
  - PROVIDE PIPE SADDLE MINIMUM TWO TIMES INSULATION DIAMETER FOR INSULATION LINES. UNINSULATED LINES TO NOT REQUIRE SADDLE.

3 Pipe Hanger Support Detail  
NTS



4 Typical Piping Floor Penetration  
NTS



5 Water Entrance Schematic  
NTS

Domestic Water Keynotes			
1	INSTALL SHUT-OFF VALVES ON DOMESTIC HOT AND COLD WATER PIPING FEEDING TERMINAL FIXTURE.		
2	PROVIDE STAINLESS STEEL CHASE TO CONCEAL HORIZONTAL DOMESTIC WATER AND DRAINAGE PIPING. REFER TO ARCHITECTURAL FOR DETAILS.		

Backflow Preventer Schedule			
ID	Description	Manufacturer	Model
BFP-1	REDUCED PRESSURE BACKFLOW PREVENTER	ZURN WILKINS	760
BFP-2	REDUCED PRESSURE BACKFLOW PREVENTER	ZURN WILKINS	975XL2-AG

Plumbing Fixture Schedule							
ID	Description	Manufacturer	Model	DCW	DHW	Sanitary	Comments
CO-1	FLOOR CLEANOUT	ZURN	ZN-1444				SIZE TO MATCH PIPING AT INSTALL LOCATION. SUITABLE FOR WOOD FLOOR CONSTRUCTION.
CO-2	BACKWATER VALVE WITH FLOOR CLEANOUT	ZURN	Z1095-15			76 mm	
FFD-1	FUNNEL FLOOR DRAIN	ZURN	ZN-211-BF-P	13 mm		102 mm	OVAL FUNNEL FLOOR DRAIN C/W 13 mm TRAP PRIMER CONNECTION
LV-1	BARRIER-FREE WALL-HUNG LAVATORY	AMERICAN STANDARD	LUCERNE 0356	13 mm	13 mm	38 mm	C/W CHROME DOMESTIC WATER AND SANITARY BRANCH PIPING
LV-2	BARRIER-FREE SINGLE POT SINK	KINDRED	ALBS6806P-1	13 mm	13 mm	38 mm	C/W DELTA 27C2944 FAUCET WITH 102 mm HOODED BLADE HANDLES
MS-1	JANITOR SINK	STERN WILLIAMS	MTB2424	13 mm	13 mm	76 mm	C/W MANUFACTURER'S T-10-VB FAUCET, T35 HOSE AND WALL HOOK, T-40 MOP HANGER AND BP SPLASH PANELS. INSTALL BFP-1 ON DHW AND DCW SUPPLY.
TP-1	TRAP PRIMER	PRECISION PLUMBING PRODUCTS	PR-500	13 mm			INSTALL MINIMUM 600 mm ABOVE TRAP BEING SERVED
WC-1	WATER CLOSET	ZURN	Z5562	13 mm		76 mm	DUAL FLUSH, PRESSURE ASSIST, BARRIER-FREE

PLUMBING GENERAL NOTES

- THESE DRAWINGS INDICATE GENERAL LOCATIONS FOR ALL PLUMBING FIXTURES AND EQUIPMENT PIPING CONNECTIONS. THIS CONTRACTOR SHALL VERIFY ALL EQUIPMENT AND FIXTURE LOCATIONS ON SITE PRIOR TO INSTALLATION. USE MANUFACTURE'S SPECS AND TEMPLATES FOR ALL PIPING CONNECTIONS TO PLUMBING FIXTURES AND EQUIPMENT PER SCHEDULE.
- THE COMPLETE INSTALLATION OF THE PLUMBING SYSTEMS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE CODES AND STANDARDS.
- ALL VENT PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CANADIAN PLUMBING CODE. THIS CONTRACTOR SHALL SUBMIT TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW OF THE PROPOSED VENT PIPING AND STACK RISER ARRANGEMENTS. THE LOCAL AUTHORITY HAVING JURISDICTION SHALL APPROVE PRIOR TO INSTALLATION.
- VENT SYSTEM MUST TERMINATE MIN. 12" ABOVE ROOF LEVEL. MINIMUM 10 FEET FROM ANY OPENINGS OR AIR INTAKES.
- ALL PIPING SHALL BE RUN CONCEALED IN WALLS, CEILING, BULKHEADS, AND FURRED OUT PIPE CHASES PROVIDED BY OTHERS UNLESS OTHERWISE INDICATED.
- THIS CONTRACTOR SHALL PROVIDE ALL REQUIRED CLEARANCES AS RECOMMENDED BY MANUFACTURER TO ALLOW FOR PROPER OPERATION AND SERVICING OF ALL MECHANICAL EQUIPMENT.
- THIS CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS FOR CONNECTION OF SANITARY DRAINS AND STORM DRAINS TO SITE SERVICES TO PROVIDE FOR OPERATIONAL PLUMBING SYSTEMS.
- ALL PENETRATIONS THROUGH FLOOR SLAB SHALL BE SEALED WITH WATERPROOF GROUTING COMPOUND.
- ALL PIPING SHALL BE RUN CONCEALED IN WALLS, CEILING, BULKHEADS, AND FURRED OUT PIPE CHASES PROVIDED BY OTHERS UNLESS OTHERWISE INDICATED.
- ALL PIPING SHALL BE PROPERLY SUPPORTED WITH PROPER PIPE HANGERS SECURELY ATTACHED TO THE BUILDING STRUCTURE. FURNISH AND INSTALL CODE-COMPLIANT SEISMIC RESTRAINT, WHERE APPLICABLE.
- VALVES AND UNIONS SHALL BE INSTALLED AS NECESSARY TO ALLOW FOR ISOLATION AND SERVICING OF MECHANICAL EQUIPMENT. PROVIDE ACCESSIBLE ISOLATION VALVES FOR CW AND DHW SUPPLY PIPING TO ALL PLUMBING FIXTURES.
- THIS CONTRACTOR SHALL CONDUCT A SITE SURVEY TO VERIFY ALL LOCATIONS ON SITE PRIOR TO INSTALLATION AND TO DETERMINE THE EXTENT OF SYSTEM INSTALLATION.
- ALL PENETRATIONS THROUGH FIRE RATED SEPARATIONS SHALL BE SEALED WITH AN APPROVED FIRE STOPPING AND INSTALLED IN ACCORDANCE WITH NFPA.
- PROVIDE TRAP SEAL PRIMERS TO PRIME ALL TRAPS AND FLOOR DRAINS.
- CONTRACTOR SHALL INSTALL ALL NECESSARY WALL AND/OR FLOOR CLEANOUTS TO BE ACCESSIBLE FOR MAINTENANCE PURPOSES. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH LATEST FIXTURE PLANS PRIOR TO STARTING ANY WORK.
- PLUMBING CONTRACTOR SHALL FLUSH ALL SANITARY LINES AT THE END OF THE PROJECT.
- ALL TRENCH DRAINS SHALL HAVE THE COVERS INSTALLED WITH NO GAPS AND THE MINIMUM COVER LENGTH IS 12".
- ALL WATER SUPPLY PIPING BELOW SLAB SHALL BE PEX. NO FITTINGS BELOW SLAB ALLOWED.
- ALL FIXTURES SHALL HAVE A BALL VALVE SHUTOFF AT THE FIXTURE CONNECTION.
- UNDERSLAB HORIZONTAL CONNECTIONS OF VENT PIPING TO WASTE SEWER SYSTEM PIPELINE SHALL NOT BE ALLOWED. CONTRACTOR SHALL INSTALL WASTE AND VENT PIPING AS REQUIRED PER APPLICABLE CODES.
- CONTRACTOR SHALL COORDINATE EXACT LOCATION OF VENTS THROUGH ROOF WITH ALL CONSTRUCTION TRADES PRIOR TO INSTALLATION.
- MINIMUM SLOPE FOR DRAINAGE PIPING SHALL BE 1:100.
- ALL DCW AND DHW PIPING SHALL BE THERMALLY INSULATED AND CLAD WITH WHITE PVC JACKETING.

Rev	Description	Date
2	Issued for Tender	June 2, 2017
1	Issued for 90% Review	May 25, 2017
0	Issued for Permit and Pricing	Jan. 27, 2017

6-21-2017

PROJECT:  
**Harry Hachey  
 Conference Center**

DRAWING TITLE:  
**Domestic Water**

DRAWN: FILE NO:  
 RAF 12225

DWG:  
**M2**

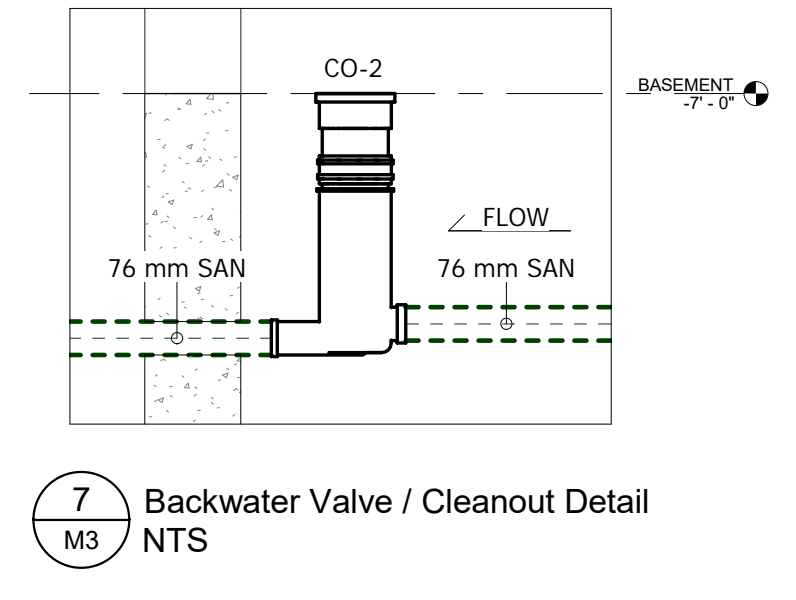
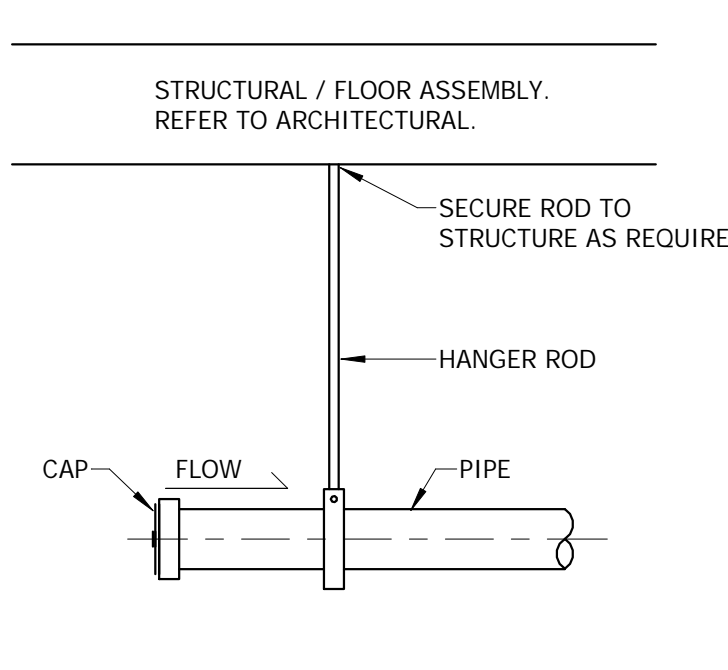
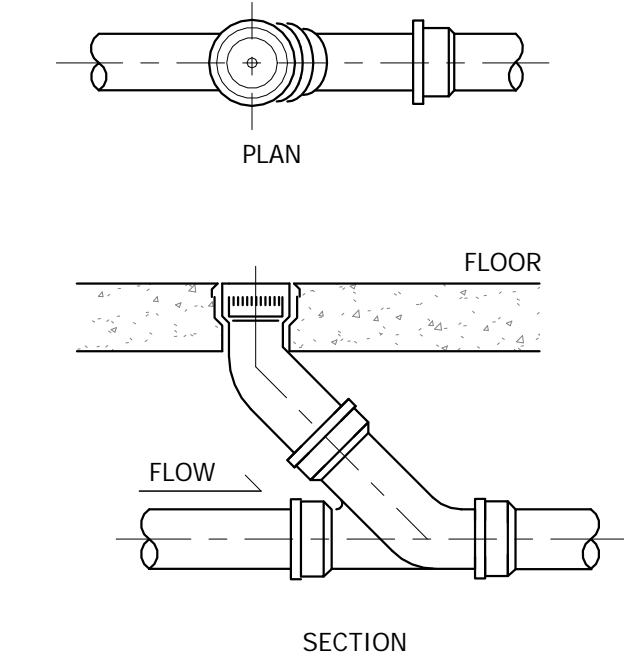
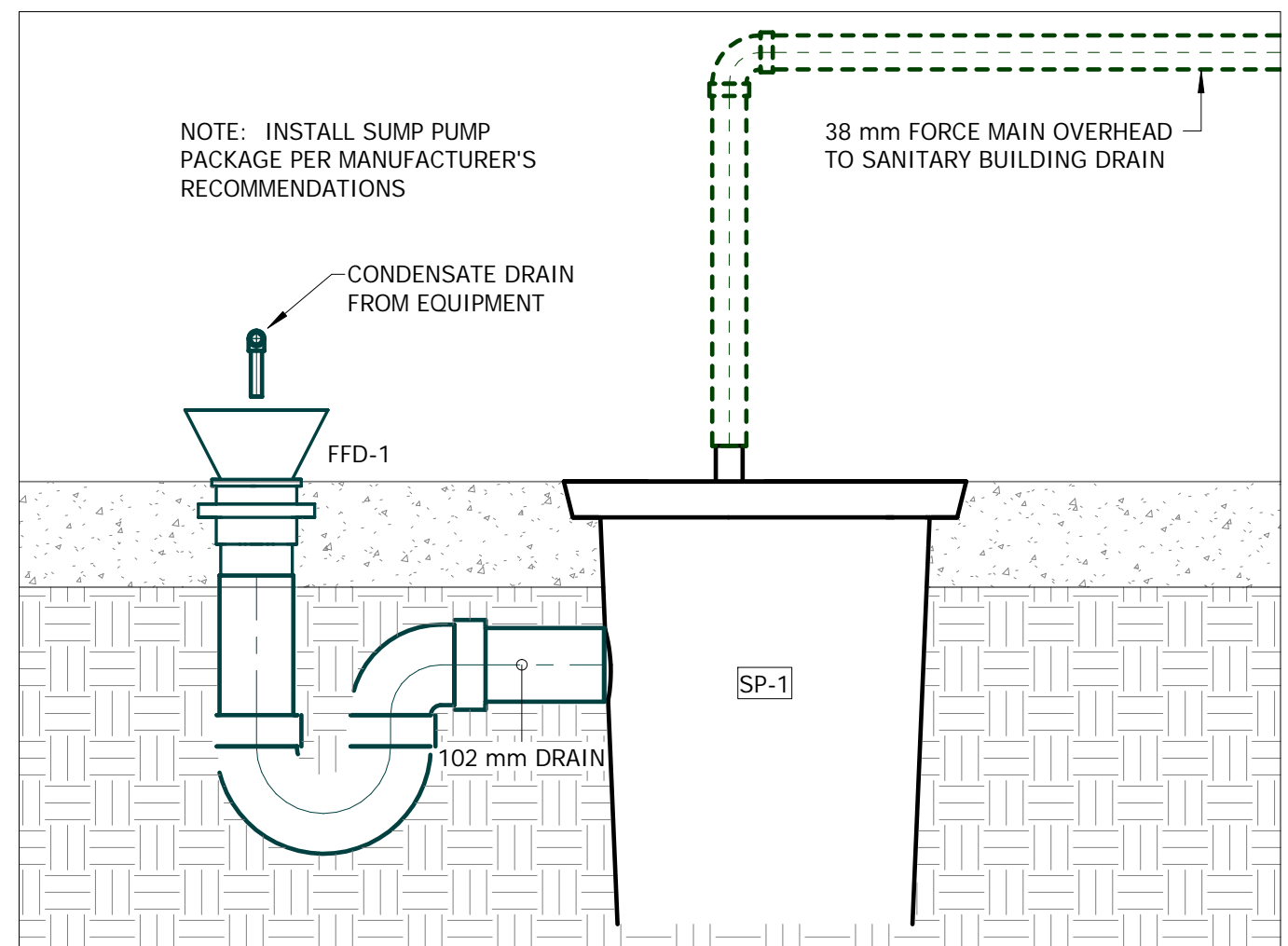
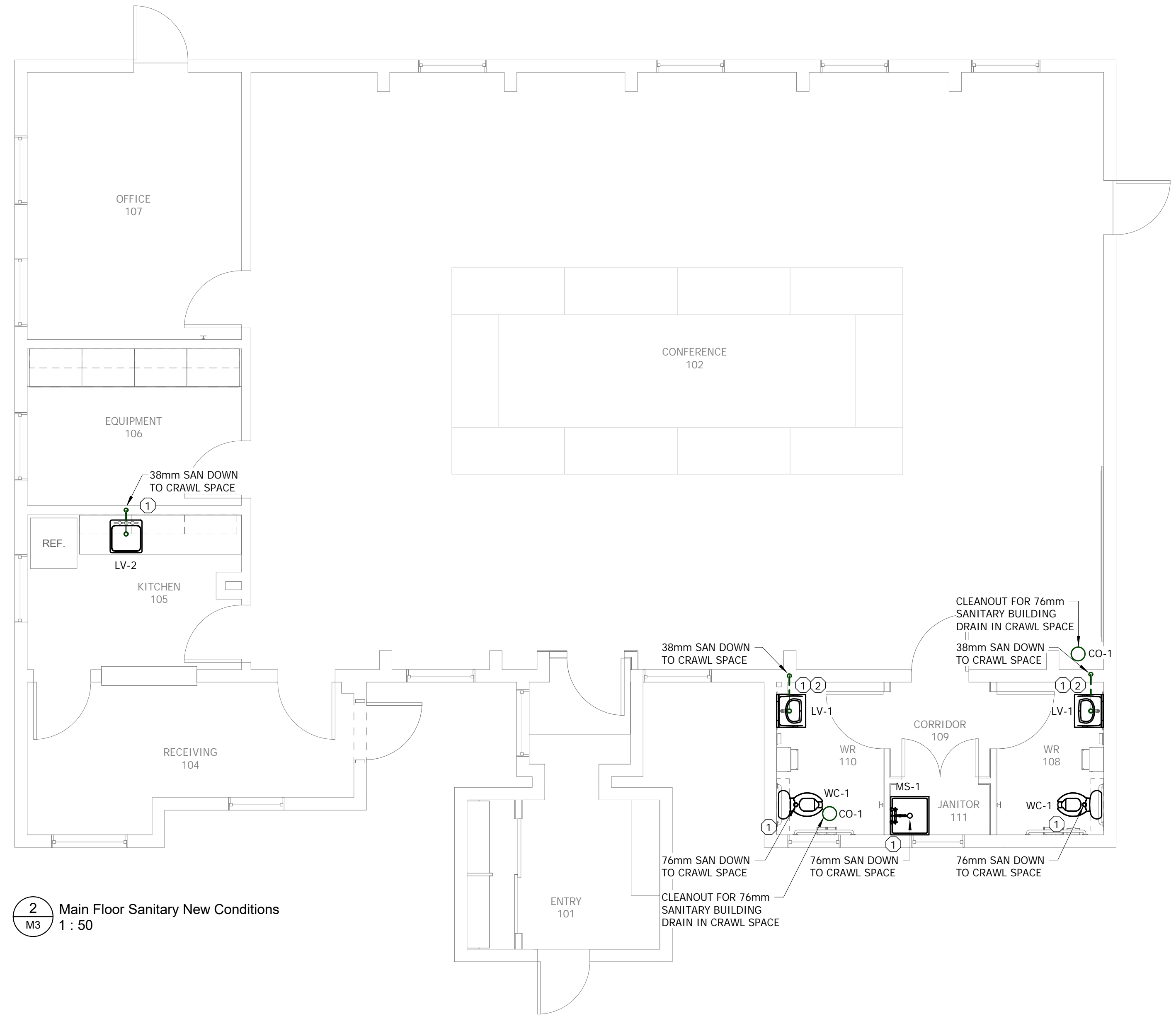
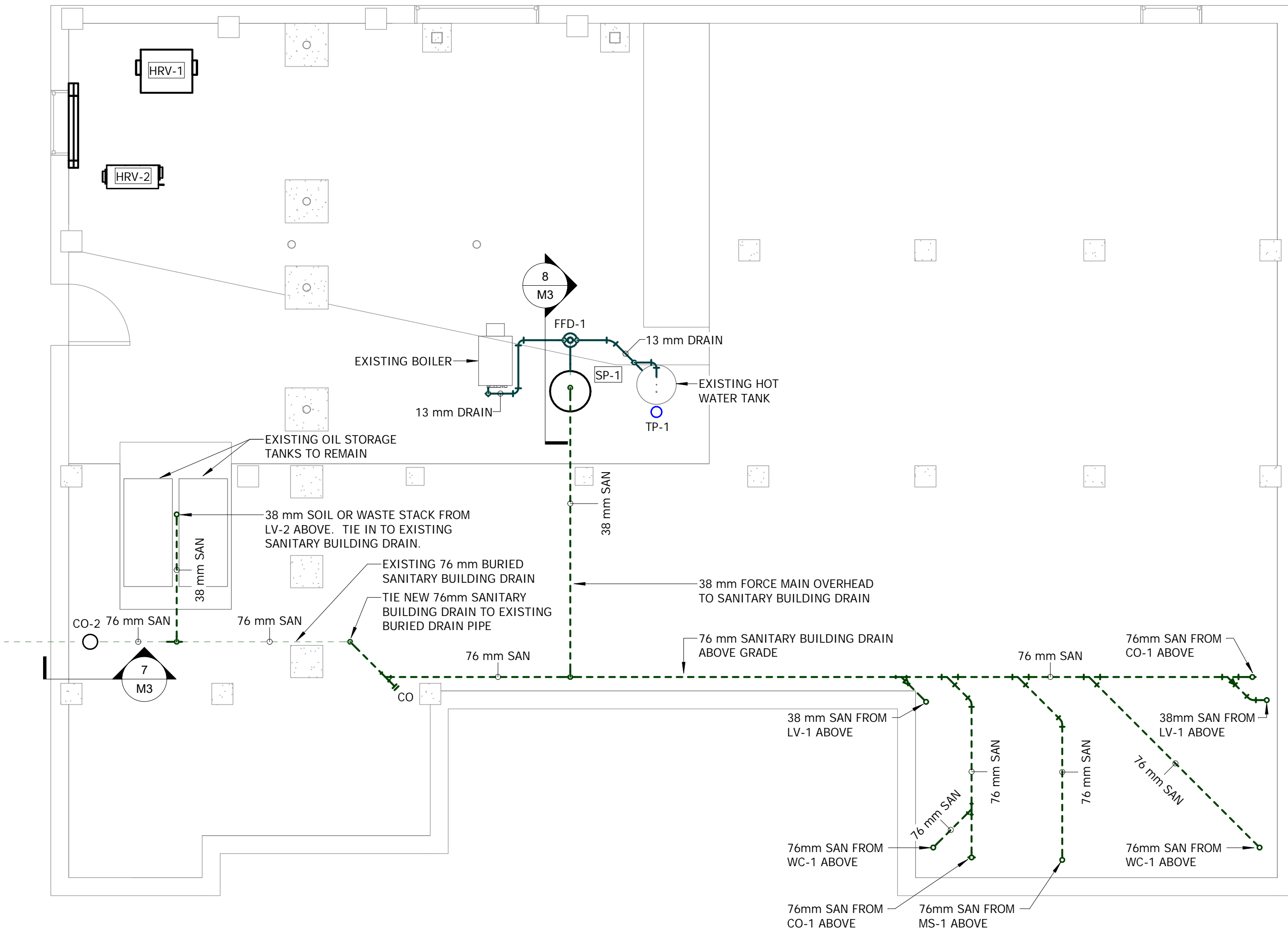
THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.



SANITARY PIPING / VALVE LEGEND	
---	SANITARY PIPING
---	CONDENSATE DRAIN PIPING
○ CO	FLOOR-MOUNTED CLEANOUT
---	HORIZONTAL END CLEANOUT

Sanitary Keynotes	
①	CONNECT VENT TO EXISTING VENT SYSTEM AS PER THE NATIONAL PLUMBING CODE.
②	PROVIDE STAINLESS STEEL CHASE TO CONCEAL HORIZONTAL DOMESTIC WATER AND DRAINAGE PIPING. REFER TO ARCHITECTURAL FOR DETAILS.

Sump Pump Schedule										
ID	Application	Manufacturer	Model	Fluid	Flow	Head	Horsepower	Voltage	Frequency	Phase
SP-1	SUMP PUMP	LIBERTY PUMPS	SPA-237	WATER	10 GPM	15 ft	0.33 hp	115 V	60 Hz	1

Rev	Description	Date
2	Issued for Tender	June 2, 2017
1	Issued for 90% Review	May 25, 2017
0	Issued for Permit and Pricing	Jan. 27, 2017

21-6-2017

PROJECT:  
**Harry Hachey  
 Conference Center**

DRAWING TITLE:  
**Sanitary**

DRAWN: FILE NO:  
 RAF 12225

DWG:  
**M3**

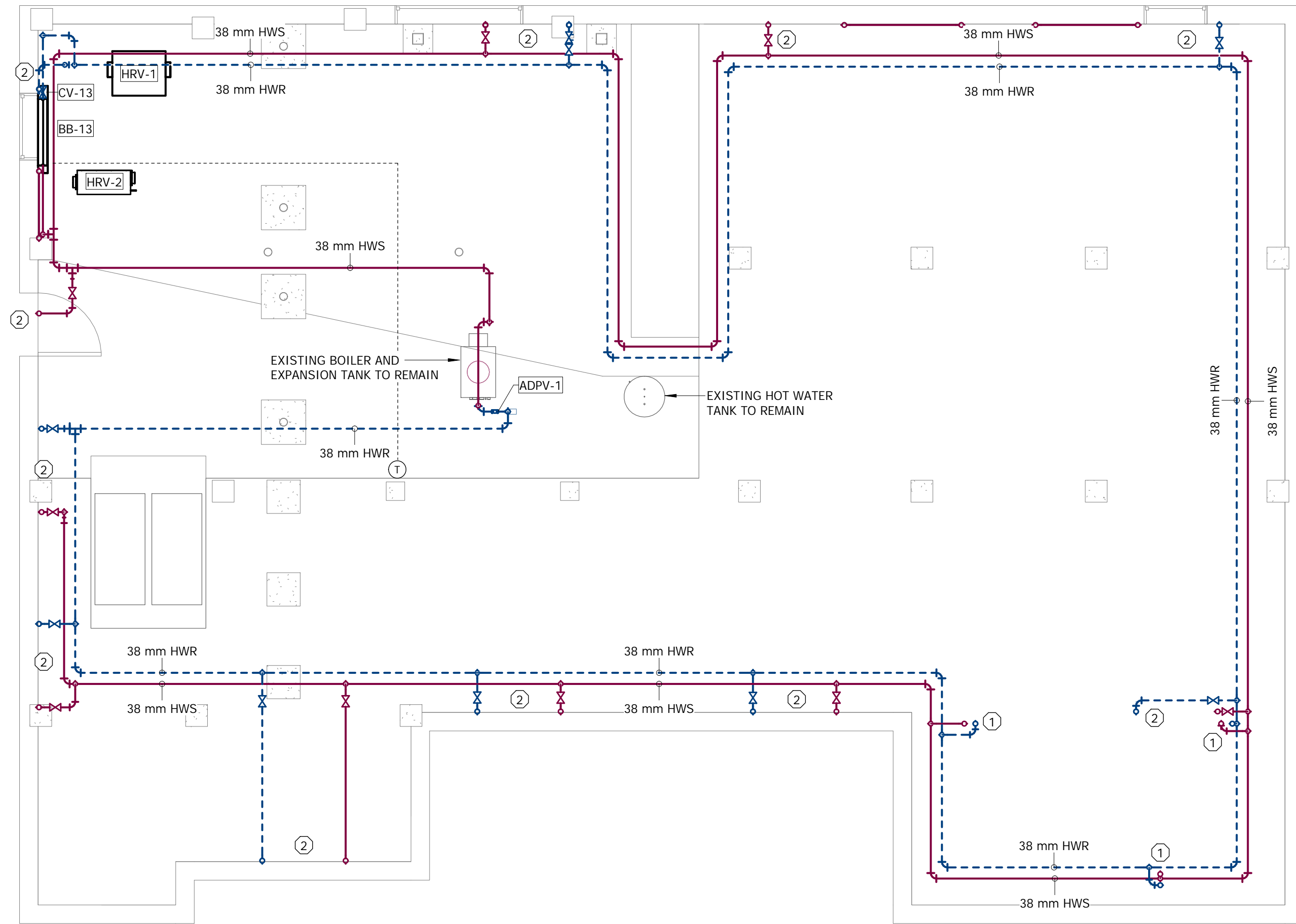
THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

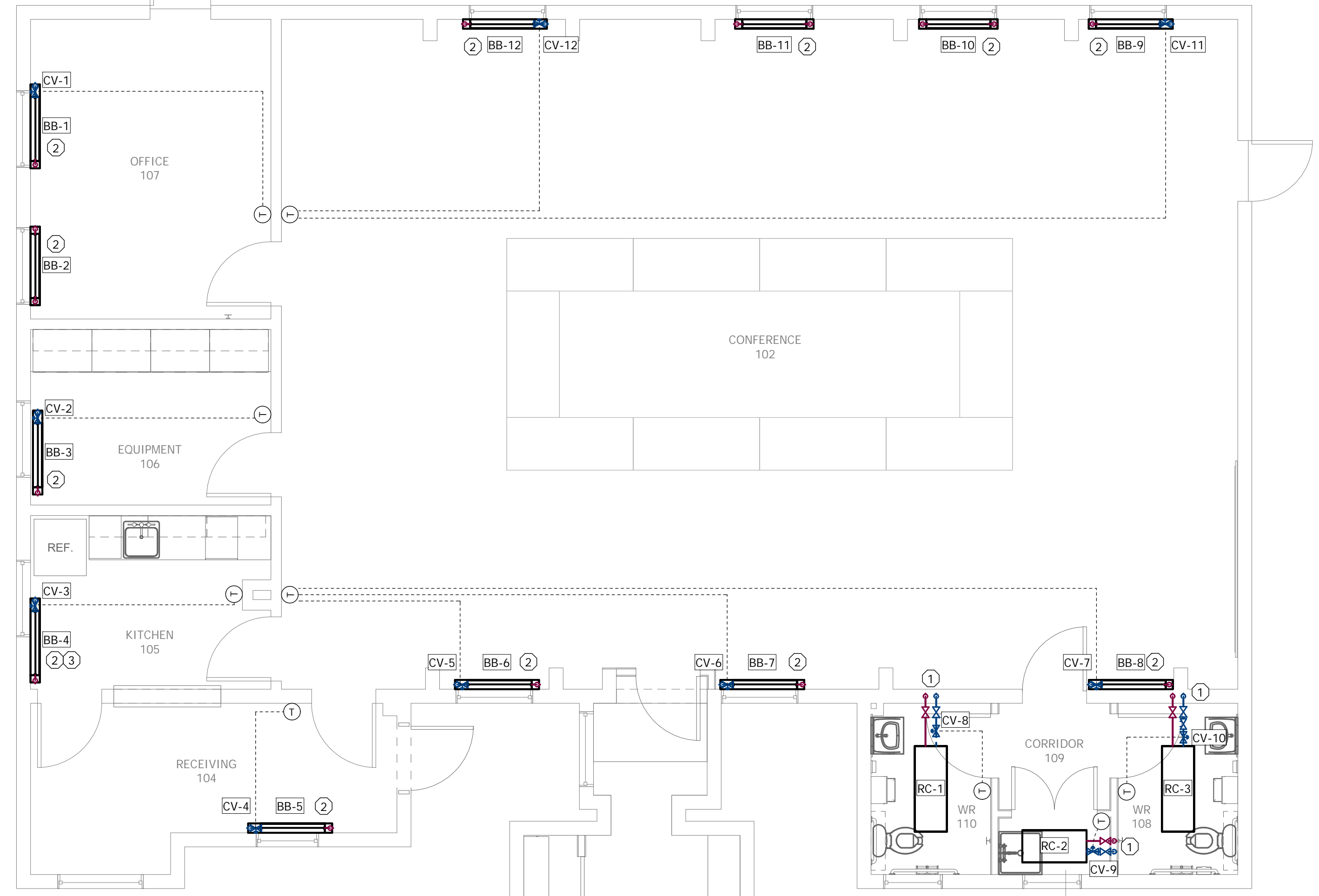
"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

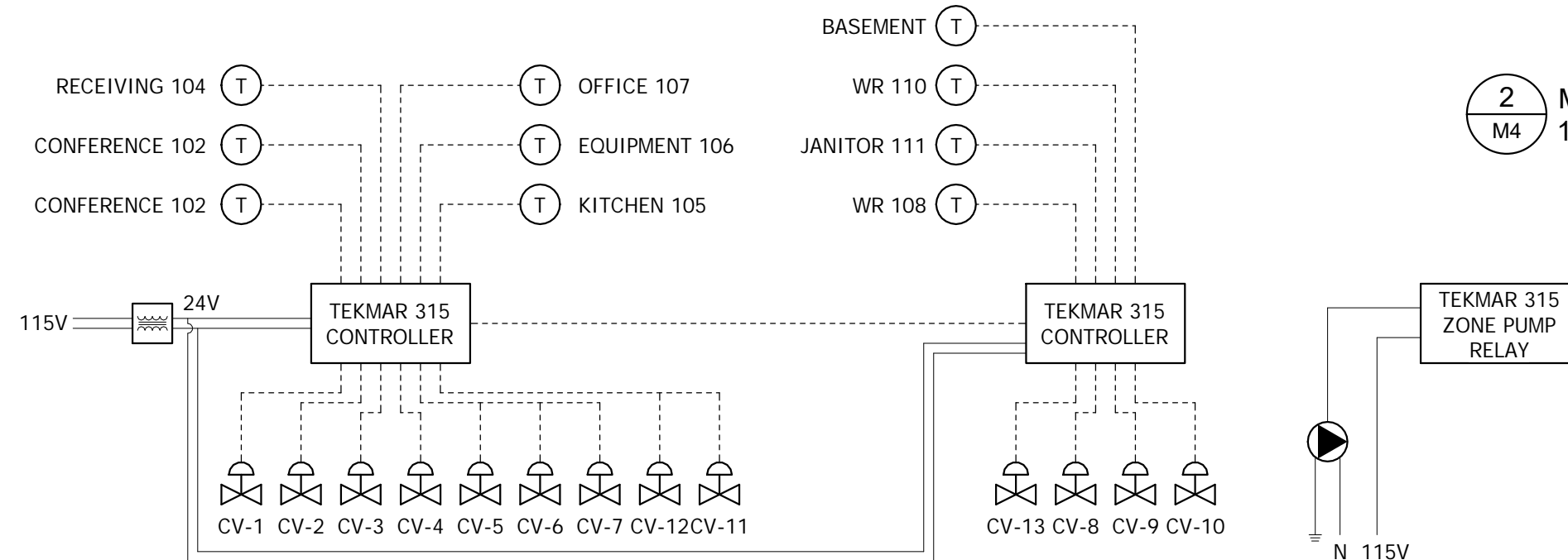
THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.



1 M4 Basement Hydronic Heating  
1 : 50



2 M4 Main Floor Hydronic Heating  
1 : 50



6 M4 Zone Valve Control Schematic  
NTS

- Hydronic Heating Keynotes**
- 13 mm HYDRONIC SUPPLY AND RETURN BRANCH PIPING FROM MAIN LINE IN BASEMENT UP TO RADIANT HEATING CEILING PANEL ON MAIN FLOOR. REFER TO DETAIL ON THIS DRAWING.
  - 19 mm HYDRONIC SUPPLY AND RETURN BRANCH PIPING FROM MAIN LINE IN BASEMENT UP TO BASEBOARD HEATER ON MAIN FLOOR. REFER TO DETAIL ON THIS DRAWING.
  - LOCATE NEW HYDRONIC BASEBOARD HEATER CLEAR OF REFRIGERATOR DOOR SWING.

**Automatic Differential Pressure Valve**

ID	Description	Manufacturer	Model	Comments
ADPV-1	AUTOMATIC DIFFERENTIAL PRESSURE VALVE	DANFOSS	ADPV-25	25 mm, SET TO 10-15 psi

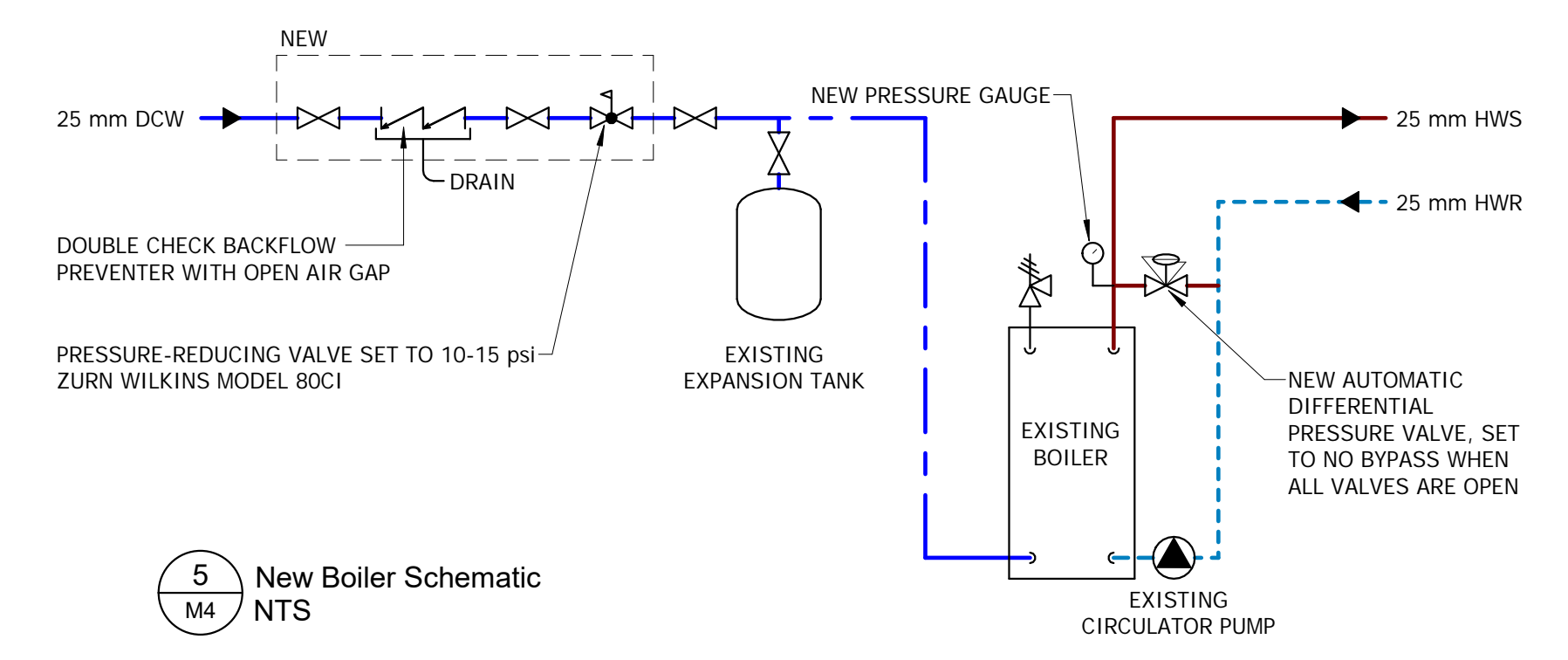
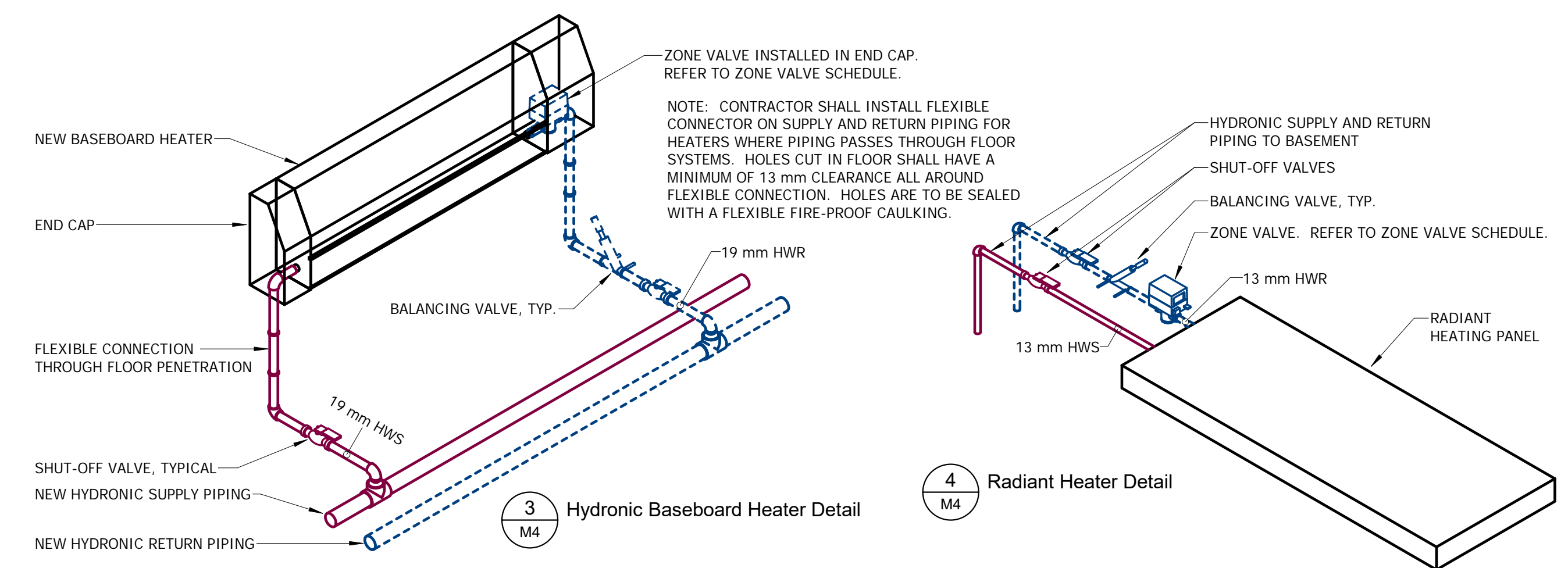
**Control Valve Schedule**

ID	Description	Application	Manufacturer	Model	Nominal Size	CV	Actuator
CV-1	ZONE VALVE	OFFICE 107	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-2	ZONE VALVE	EQUIPMENT 106	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-3	ZONE VALVE	KITCHEN 105	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-4	ZONE VALVE	RECEIVING 104	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-5	ZONE VALVE	CONFERENCE 102	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-6	ZONE VALVE	CONFERENCE 102	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-7	ZONE VALVE	CONFERENCE 102	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-8	ZONE VALVE	WR 110	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-9	ZONE VALVE	JANITOR 111	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-10	ZONE VALVE	WR 108	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-11	ZONE VALVE	CONFERENCE 102	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-12	ZONE VALVE	CONFERENCE 102	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER
CV-13	ZONE VALVE	BASEMENT	BELIMO	Zone215N-10-S	13 mm	1	24V ACTUATOR, CONTROLLED VIA TEKMAR 315 CONTROLLER

**Radiant Heater Schedule**

ID	Description	Location	Manufacturer	Model	Length	Flow	Total Heat Output	EWT	LWT
BB-1	WALL-MOUNTED HYDRONIC RADIATOR	OFFICE 107	SIGMA	SWE-12S 24C075	3'-0"	0.30 GPM	3100 Btu/h	170 °F	150 °F
BB-2	WALL-MOUNTED HYDRONIC RADIATOR	OFFICE 107	SIGMA	SWE-12S 24C075	3'-0"	0.00 GPM	3100 Btu/h	170 °F	150 °F
BB-3	WALL-MOUNTED HYDRONIC RADIATOR	EQUIPMENT 106	SIGMA	SWE-12S 24C075	3'-0"	0.30 GPM	2600 Btu/h	170 °F	150 °F
BB-4	WALL-MOUNTED HYDRONIC RADIATOR	KITCHEN 105	SIGMA	SWE-12S 24C075	3'-0"	0.30 GPM	2600 Btu/h	170 °F	150 °F
BB-5	WALL-MOUNTED HYDRONIC RADIATOR	RECEIVING 104	SIGMA	SWE-12S 24C075	3'-0"	0.40 GPM	4500 Btu/h	170 °F	150 °F
BB-6	WALL-MOUNTED HYDRONIC RADIATOR	CONFERENCE 102	SIGMA	SWE-12S 24C075	3'-0"	0.40 GPM	3500 Btu/h	170 °F	150 °F
BB-7	WALL-MOUNTED HYDRONIC RADIATOR	CONFERENCE 102	SIGMA	SWE-12S 24C075	3'-0"	0.40 GPM	3500 Btu/h	170 °F	150 °F
BB-8	WALL-MOUNTED HYDRONIC RADIATOR	CONFERENCE 102	SIGMA	SWE-12S 24C075	3'-0"	0.40 GPM	3500 Btu/h	170 °F	150 °F
BB-9	WALL-MOUNTED HYDRONIC RADIATOR	CONFERENCE 102	SIGMA	SWE-12S 24C075	3'-0"	0.40 GPM	3500 Btu/h	170 °F	150 °F
BB-10	WALL-MOUNTED HYDRONIC RADIATOR	CONFERENCE 102	SIGMA	SWE-12S 24C075	3'-0"	0.00 GPM	3500 Btu/h	170 °F	150 °F
BB-11	WALL-MOUNTED HYDRONIC RADIATOR	CONFERENCE 102	SIGMA	SWE-12S 24C075	3'-0"	0.00 GPM	3500 Btu/h	170 °F	150 °F
BB-12	WALL-MOUNTED HYDRONIC RADIATOR	CONFERENCE 102	SIGMA	SWE-12S 24C075	3'-0"	0.40 GPM	3500 Btu/h	170 °F	150 °F
BB-13	WALL-MOUNTED HYDRONIC RADIATOR	BASEMENT	SIGMA	SWE-12S 24C075	3'-0"	0.40 GPM	4500 Btu/h	170 °F	150 °F
RC-1	CEILING-MOUNTED HYDRONIC RADIANT HEATING PANEL	WR 110	SIGMA	SLC 18-6	4'-0"	0.20 GPM	1500 Btu/h	170 °F	150 °F
RC-2	CEILING-MOUNTED HYDRONIC RADIANT HEATING PANEL	JANITOR 111	SIGMA	SLC 18-6	3'-0"	0.10 GPM	1500 Btu/h	170 °F	150 °F
RC-3	CEILING-MOUNTED HYDRONIC RADIANT HEATING PANEL	WR 108	SIGMA	SLC 18-6	4'-0"	0.20 GPM	1500 Btu/h	170 °F	150 °F

- HEATING GENERAL NOTES**
- THESE DRAWINGS INDICATE GENERAL LOCATION FOR MECHANICAL EQUIPMENT, PIPING & CONTROL DEVICES. THIS CONTRACTOR SHALL VERIFY ALL EQUIPMENT LOCATIONS ON SITE PRIOR TO INSTALLATION. PIPING MAY HAVE TO BE OFFSET, RAISED, OR LOWERED DUE TO SITE CONDITIONS AND TRADE COORDINATION. USE MANUFACTURER'S SPECS & TEMPLATES FOR PIPING CONNECTIONS.
  - THE COMPLETE INSTALLATION OF THE HEATING SYSTEMS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE CODES AND STANDARDS.
  - THIS CONTRACTOR SHALL PROVIDE ALL LABOUR, MATERIAL, TOOLS, EQUIPMENT, ETC. REQUIRED FOR THE COMPLETE INSTALLATION/MODIFICATIONS OF THE HEATING SYSTEMS.
  - ALL HEATING EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATION AND INSTALLATION MANUALS. PROVIDE ALL REQUIRED CLEARANCES AS RECOMMENDED BY MANUFACTURER TO ALLOW FOR PROPER OPERATION AND SERVICING OF ALL EQUIPMENT.
  - ALL EQUIPMENT & PIPING SHALL BE NEW AND CSA APPROVED. PIPING SHALL BE ACCURATELY CUT TO MEASUREMENTS TAKEN ON SITE, PROPERLY SUPPORTED, AND INSTALLED WITHOUT SPRINGING AND FORCING. PIPING SHALL BE SQUARELY CUT, PROPERLY REAMED, & THREADED AND INSTALLED FREE FROM RUST, SCALE, DIRT AND OIL. INSTALLATION SHALL PERMIT FREE EXPANSION AND CONTRACTION, WITHOUT EXCESSIVE STRESS ON THE PIPING, VALVES, AND FITTINGS.
  - VALVES AND UNIONS SHALL BE INSTALLED AS NECESSARY TO ALLOW FOR ISOLATION AND SERVICING OF MECHANICAL EQUIPMENT.
  - AUTOMATIC AIR VENTS SHALL BE INSTALLED AS REQUIRED TO VENT ALL POINTS WHERE HEATING WATER PIPES TURN DOWNWARD IN THE DIRECTION OF FLOW.
  - CONTRACTOR SHALL FURNISH AND INSTALL ALL HEATING WATER SUPPLY, HEATING WATER RETURN, PIPING VALVES, FITTINGS, ETC. TO PROVIDE AN OPERATIONAL HEATING SYSTEM. HEATING LOOPS SHALL BE BASED ON A TWO-PIPE REVERSE RETURN PIPING ARRANGEMENT.
  - ALL MAIN HEATING WATER SUPPLY, HEATING WATER RETURN PIPING AND RISERS SHALL BE THERMALLY INSULATED IN ACCORDANCE WITH THE MECHANICAL SPECIFICATION.
  - THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ATTENDING COORDINATION MEETINGS AS REQUESTED BY THE GENERAL CONTRACTOR. PROVIDE THE GENERAL CONTRACTOR ANY INFORMATION REQUIRED FOR THE PREPARATION OF COORDINATION / INTERFERENCE DRAWINGS UPON REQUEST.
  - THE MECHANICAL AND ELECTRICAL CONTRACTORS WILL BE RESPONSIBLE FOR PROVIDING MOCK-UPS (PRE-INSTALLED PIPE, DUCT, CONDUIT HANGERS) IN CONGESTED AREAS PRIOR TO THE INSTALLATION OF PIPING, DUCTWORK AND/OR CONDUIT TO VERIFY THAT SERVICES WILL CONFORM TO REQUIRED DIMENSIONS AND CLEARANCES IN RELATION TO AVAILABLE SPACES.
  - INSTALL ISOLATION VALVES, BALANCING VALVES, CONTROL VALVES, ETC. IN ACCESSIBLE LOCATIONS, WHERE VALVES ARE TO BE CONCEALED, INSTALL ABOVE REMOVABLE CEILING TILES OR PROVIDE HINGED ACCESS PANEL SIZED TO PERMIT VALVE REPLACEMENT.
  - ALL MAIN HOT WATER SUPPLY AND RETURN PIPING SHALL BE RUN IN CEILING SPACES AND/OR CHASES PROVIDED. NO PIPING IS PERMITTED IN NON-HEATED SPACES.
  - CONTRACTOR SHALL REFER TO PROJECT PHASING DETAILS SHOWN ON ARCHITECTURAL DRAWING TO GAIN A COMPLETE UNDERSTANDING OF THE SEQUENCE OF CONSTRUCTION.
  - HEATING SYSTEMS SHALL BE RE-BALANCED UPON COMPLETION OF EACH PHASE OF CONSTRUCTION.



5 M4 New Boiler Schematic  
NTS

**HYDRONIC HEATING PIPING / VALVE LEGEND**

	EXISTING HYDRONIC SUPPLY PIPING TO REMAIN
	NEW HYDRONIC SUPPLY PIPING
	NEW HYDRONIC RETURN PIPING
	ZONE VALVE
	BALL VALVE
	PRESSURE GAUGE
	DOUBLE CHECK VALVE
	PRESSURE-REDUCING VALVE
	RELIEF VALVE
	AUTOMATIC DIFFERENTIAL PRESSURE VALVE
	NEW THERMOSTAT: TEKMAR NET4

1	Revised Hydronic Heating	June 20, 2017
2	Issued for Tender	June 2, 2017
3	Issued for 90% Review	May 25, 2017
4	Issued for Permit and Pricing	Jan. 27, 2017
Rev	Description	Date

21-6-2017  
 PROJECT:  
**Harry Hachey  
 Conference Center**

DRAWING TITLE:  
**Hydronic Heating**  
 DRAWN: FILE NO:  
 RAF 12225  
 DWG.  
**M4**

THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.

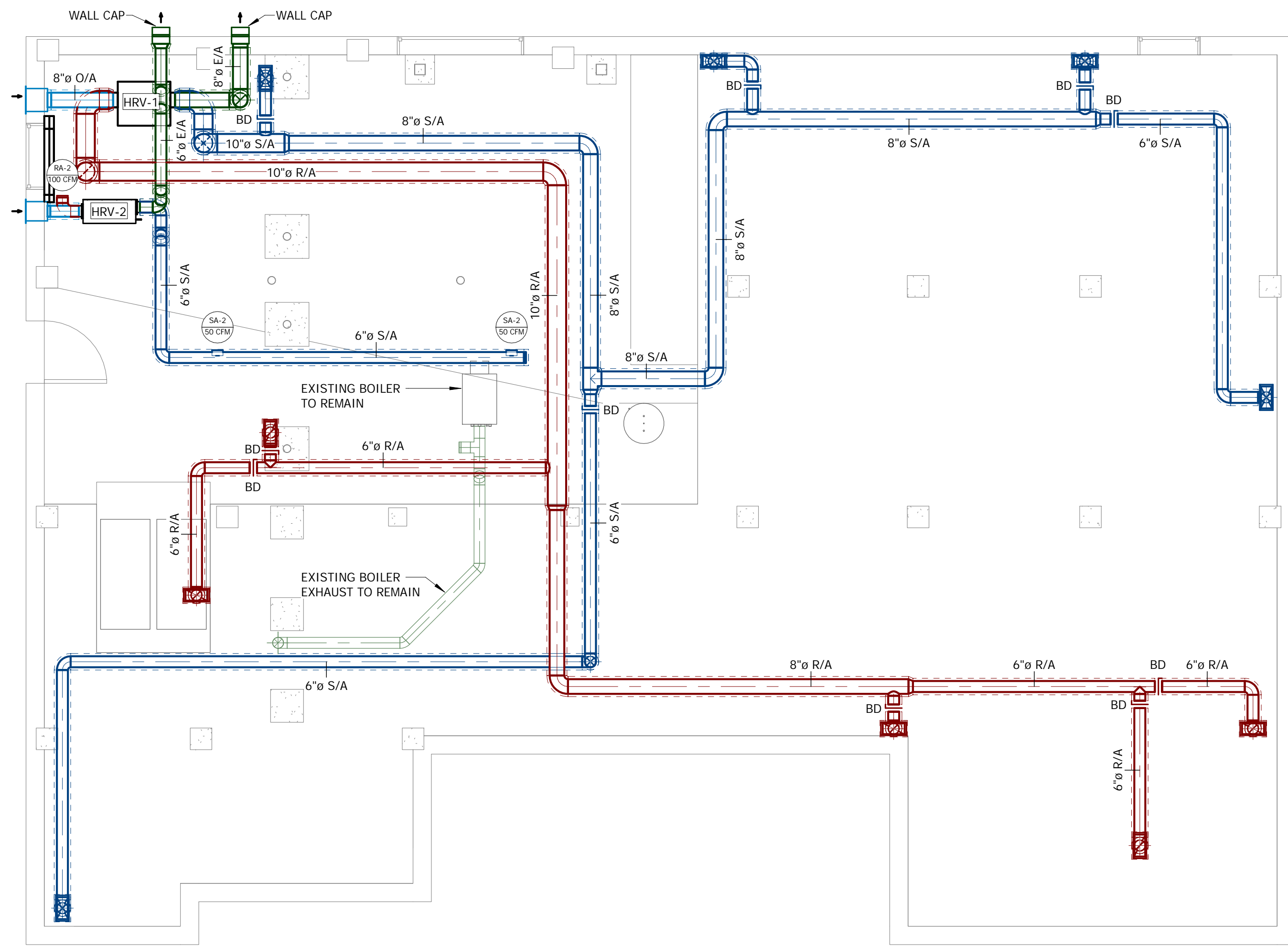
2	Issued for Tender	June 2, 2017
1	Issued for 90% Review	May 25, 2017
0	Issued for Permit and Pricing	Jan. 27, 2017
	Rev. Description	Date

PROJECT:  
**Harry Hachey  
 Conference Center**

DRAWING TITLE:  
**HVAC**

DRAWN: FILE NO:  
 RAF 12225

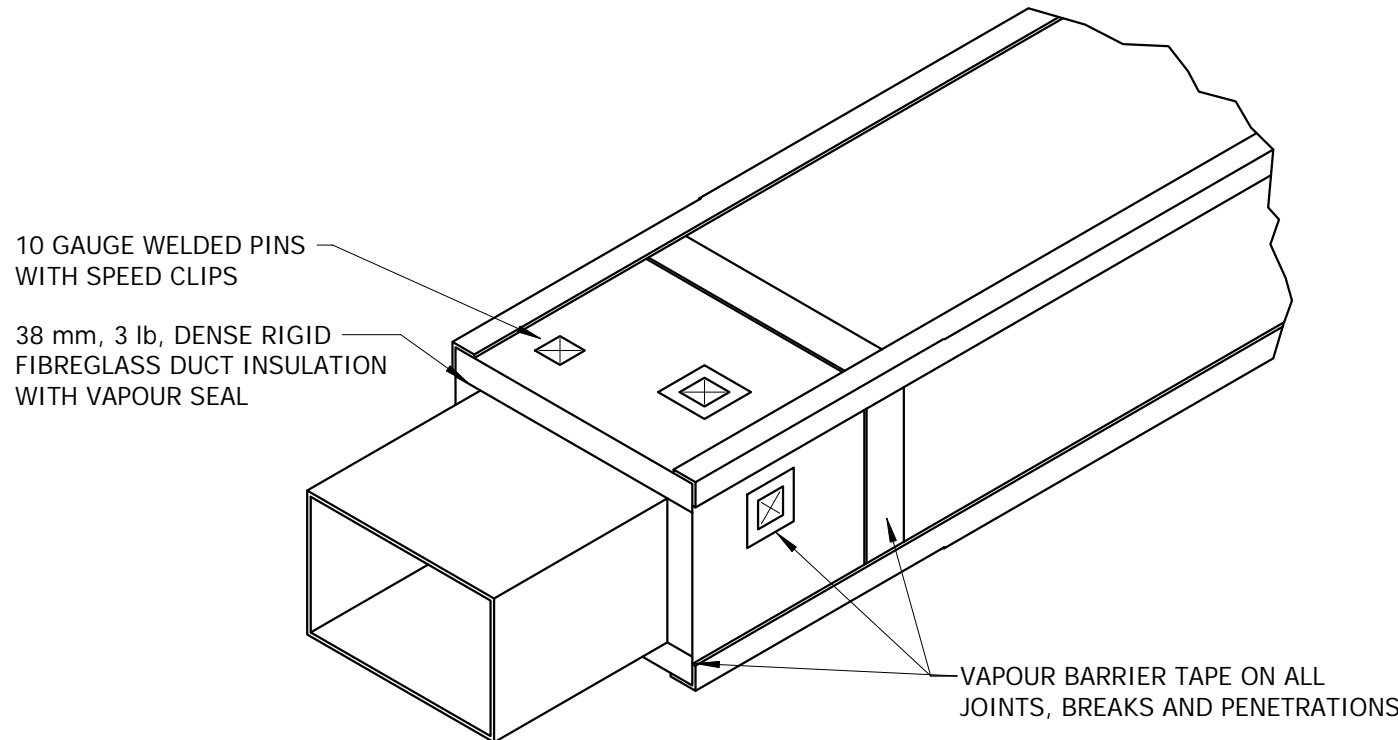
DWG:  
**M5**



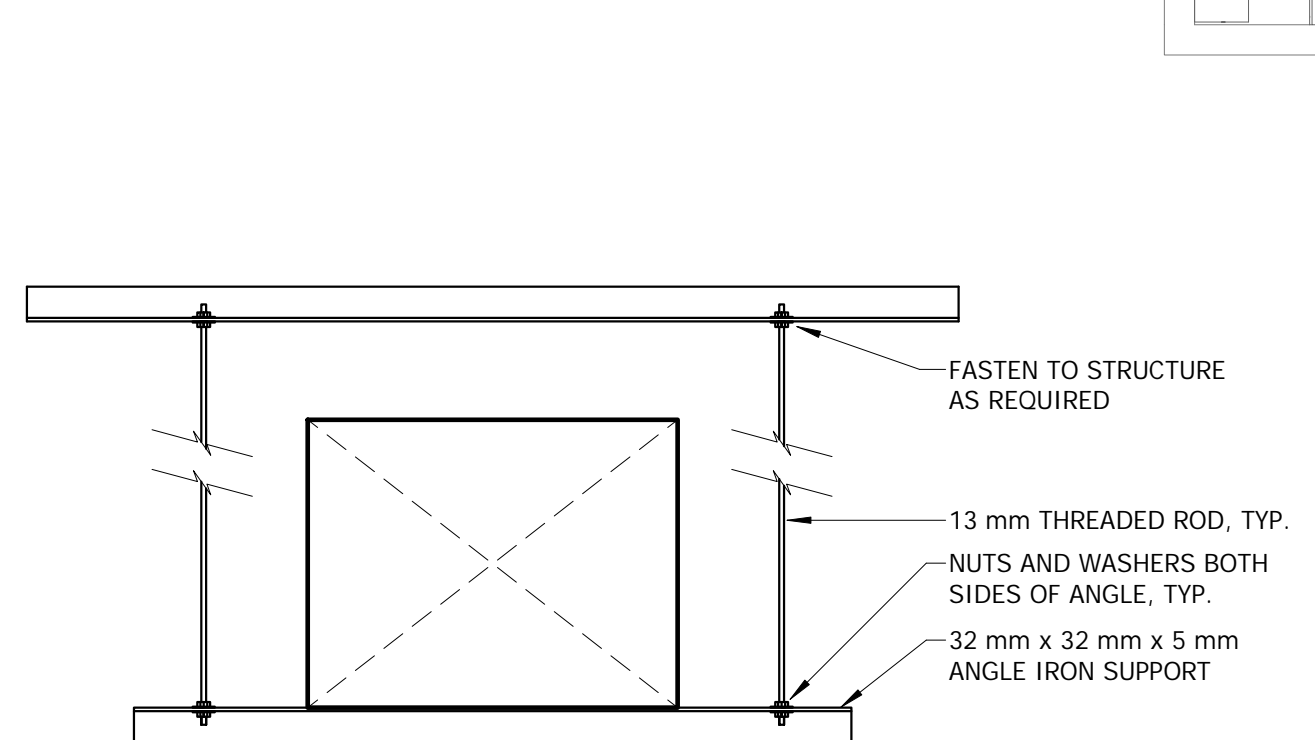
1  
 M5  
**Basement HVAC**  
 1 : 50

**HVAC GENERAL NOTES**

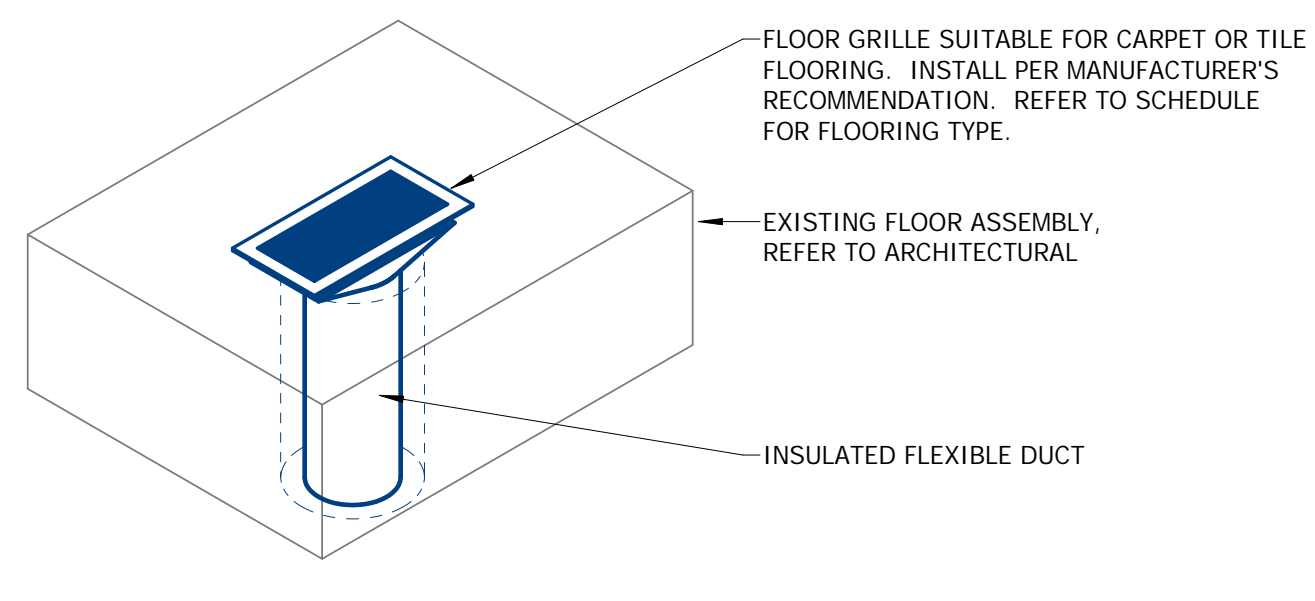
- THESE DRAWINGS INDICATE THE GENERAL LOCATIONS OF EQUIPMENT, DUCTWORK AND CONTROL DEVICES. THIS CONTRACTOR SHALL VERIFY ALL EQUIPMENT LOCATIONS ON SITE PRIOR TO INSTALLATION AND SHALL COORDINATE THE LOCATIONS SO AS NOT TO CAUSE INTERFERENCE WITH THE WORK OF OTHER TRADES.
- THIS CONTRACTOR SHALL PROVIDE ALL LABOUR, MATERIAL, TOOLS, EQUIPMENT, ETC. REQUIRED FOR THE INSTALLATION OF THE HVAC SYSTEMS AS SHOWN TO PROVIDE A COMPLETE AND OPERATING SYSTEM.
- VISIT THE JOB SITE AND EXAMINE ALL DRAWINGS AND CONDITIONS WHICH COULD AFFECT THE WORK. NO EXTRA COST WILL BE ALLOWED DUE TO FAILURE TO TAKE SITE CONDITIONS INTO CONSIDERATION. BE FAMILIAR WITH ALL RELATED WORK TO AVOID CONFLICTS WITH OTHER TRADES.
- THE COMPLETE INSTALLATION OF THE HVAC SYSTEMS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE CODES AND STANDARDS.
- OBTAIN PERMITS AND PAY ALL FEES FOR WORK AND ALL REQUIRED INSPECTIONS.
- ALL DUCTWORK FOR SUPPLY AND RETURN DUCT COLLARS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASHRAE AND SMACNA RECOMMENDATIONS AND SHALL BE GALVANIZED STEEL C/W DAMPERS AND LOCKING QUADRANT.
- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. WHERE INTERNAL INSULATION IS REQUIRED, INCREASE DUCT SIZE TO SUIT. ALL MAIN SUPPLY AIR DUCTWORK SHALL BE THERMALLY INSULATED.
- SUPPLY AND LOCATE ALL SUPPORTS, SLEEVES, ROOF CURBS ETC., REQUIRED FOR THIS WORK.
- ALL DUCTWORK SHALL BE PROPERLY SUPPORTED WITH SPECIFIED DUCT HANGERS SECURELY ATTACHED TO THE BUILDING STRUCTURE. FURNISH AND INSTALL CODE-COMPLIANT SEISMIC RESTRAINT WHERE REQUIRED BY CODE.
- THIS CONTRACTOR SHALL PROVIDE ALL LABOUR, MATERIALS & TOOLS REQUIRED FOR COMMISSIONING, CALIBRATION, ADJUSTMENT, AND SETTING OF ALL CONTROL DEVICES FOR PROPER OPERATION OF SYSTEMS. PROVE ALL MODES OF OPERATION PRIOR TO FINAL INSPECTION TO THE SATISFACTION OF THE ENGINEER.
- THIS CONTRACTOR SHALL ENSURE THAT ALL REQUIRED CLEARANCES AS RECOMMENDED BY THE MANUFACTURER ARE PROVIDED TO ALLOW FOR PROPER OPERATION AND SERVICING OF MECHANICAL EQUIPMENT.
- THIS CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR (GC) WHEN THE ROOF OR WALL OPENING LOCATIONS HAVE BEEN DETERMINED AND PRIOR TO CUTTING. THE GC OR HIS REPRESENTATIVE SHALL SUPERVISE CUTTING OF ALL OPENINGS.
- FURNISH AND INSTALL FIRE DAMPERS WHERE SHOWN ON DRAWING AND WHERE REQUIRED BY THE LOCAL FIRE DEPARTMENT. FIRE DAMPER RATING TO MATCH THE RATING OF THE SEPARATION CROSSED. INSTALLATION MUST CONFORM TO LATEST NFPA/CSA 90A SPECIFICATIONS. ONLY USE UL/C APPROVED EQUIPMENT.
- WHERE APPLICABLE, ALL MATERIALS SHALL CONFORM TO CSA, NFPA AND CEC REQUIREMENTS AND BEAR A CSA LABEL.
- BEFORE FINAL PAYMENT IS MADE, GUARANTEE ALL MATERIALS AND WORKMANSHIP SUPPLIED IN THE PERFORMANCE OF THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AND BE RESPONSIBLE WHEN CALLED UPON TO MAKE GOOD WITHOUT FURTHER COST TO THE OWNER, SUCH DEFECTS AS MAY APPEAR WITHIN THIS PERIOD.
- KEEP ACCURATE RECORD "AS-BUILT" DRAWINGS AND SUBMIT THESE BEFORE FINAL CERTIFICATE OF COMPLETION.
- BE RESPONSIBLE FOR CARE OF THE BUILDING, COORDINATE ALL CORE DRILLING WITH OWNER'S SITE REPRESENTATIVE AND EFFECTIVE TENANTS. DO ALL CUTTING, PATCHING AND PAINTING REQUIRED FOR THE WORK OF THIS TRADE. CLEAN UP ALL DEBRIS DAILY AND REMOVE FROM THE SITE ON OR BEFORE COMPLETION OF THE CONTRACT. COORDINATE WITH ALL OTHER TRADES.
- ON COMPLETION OF PROJECT, SUBMIT TWO (2) HARD COVER "OPERATING AND MAINTENANCE MANUALS" FOR APPROVAL. THE MANUALS SHALL CONTAIN AN INDEX PAGE AND TABBED DIVIDER PAGES, A LIST OF THE SUPPLIER'S NAMES, ADDRESSES AND TELEPHONE NUMBERS, OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT, COPIES OF TEST CERTIFICATES, ETC. AND INCLUDING A COMPLETE SET OF "APPROVED SHOP DRAWINGS".
- THESE DRAWINGS ARE PARTIALLY SCHEMATIC IN CHARACTER AND MUST NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS TO DETERMINE WHERE NEW EQUIPMENT AND FIXTURES ARE TO BE LOCATED. THE CONTRACTOR SHALL FIT THE WORK TO THE JOB CAREFULLY INVESTIGATING THE STRUCTURAL, ELECTRICAL, ARCHITECTURAL SPACES AND FINISH CONDITIONS AFFECTING THE WORK ACCORDINGLY AND FURNISHING NECESSARY BENDS, OFFSETS, FITTINGS, JUNCTIONS, ETC. WHETHER SPECIFICALLY SHOWN OR CALLED FOR OR NOT, AND SEEING THAT THERE IS NO INTERFERENCE BETWEEN THIS WORK AND THE WORK OF ANY OTHER TRADE.



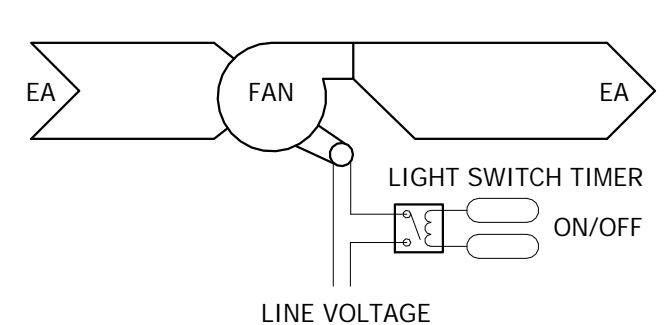
4  
 M5  
**Duct Insulation Detail**  
 NTS



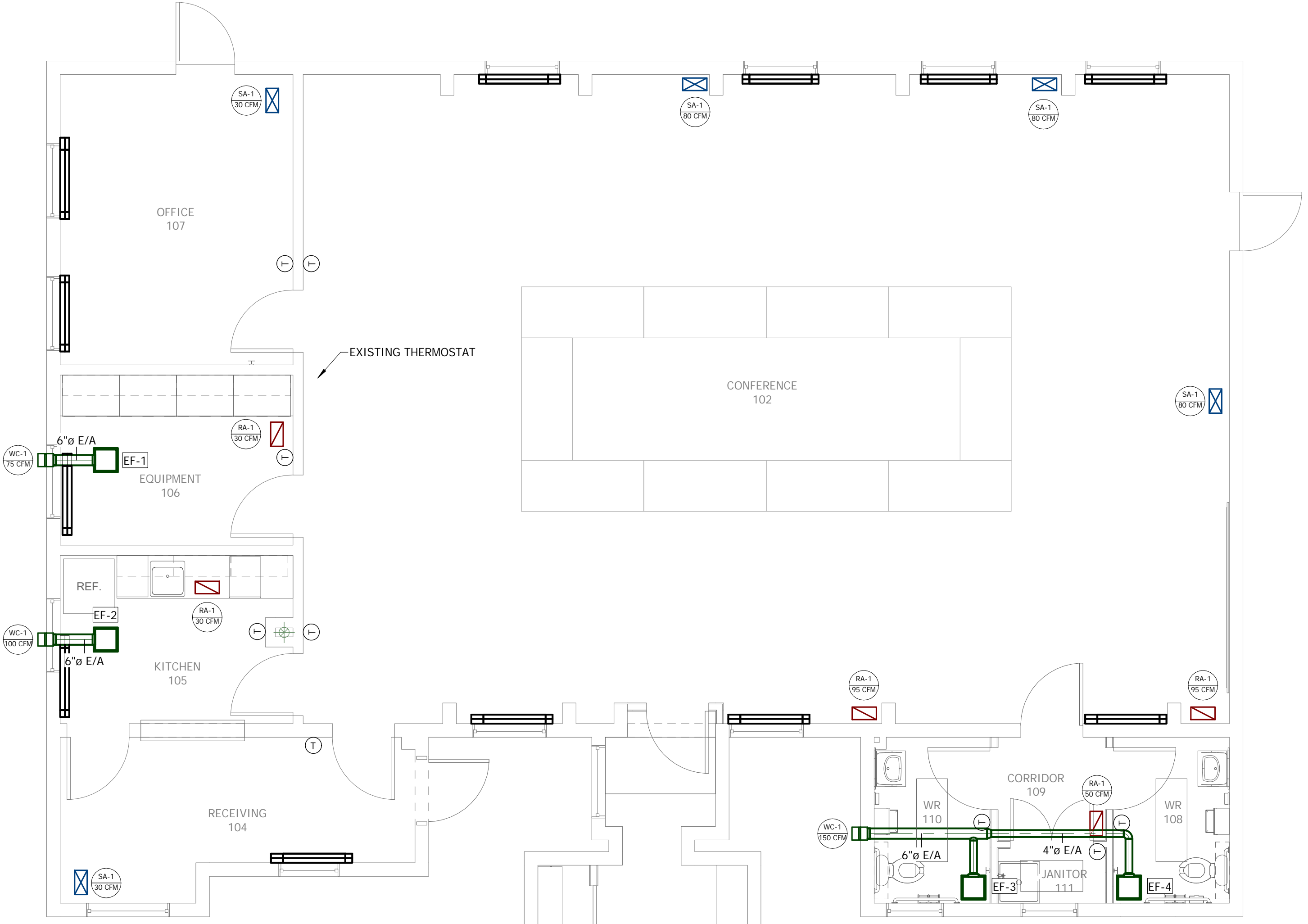
5  
 M5  
**Typical Duct Hanger Detail**  
 NTS



6  
 M5  
**Floor Diffuser Detail**  
 NTS



7  
 M5  
**Exhaust Fan Control**  
 NTS



2  
 M5  
**Main Floor HVAC**  
 1 : 50

Heat Recovery Ventilator Schedule											
ID	Description	Area Served	Manufacturer	Model	Air Flow	Static Pressure	Motor Horsepower	Voltage	Phase	Full Load Ampacity	Accessories and Comments
HRV-1	HEAT RECOVERY VENTILATOR	MAIN FLOOR	RENEWAIRE	EV 300	300 CFM	0.40 in-wg	0.2 hp	120 V	1	3.3 A	C/W 8" BACKDRAFT DAMPER, 8" WALL CAP, 12"x8" LOUVER, INTERLOCK WITH HP-1 (CONTINUOUS OPERATION)
HRV-2	HEAT RECOVERY VENTILATOR	BASEMENT	RENEWAIRE	EV 130	165 CFM	0.10 in-wg	0.1 hp	120 V	1	1.3 A	C/W 8" BACKDRAFT DAMPER, 8" WALL CAP, 12"x8" LOUVER, INTERLOCK WITH HP-1 (CONTINUOUS OPERATION)

Exhaust Fan Schedule											
ID	Description	Manufacturer	Model	Air Flow	Static Pressure	Power	Voltage	Phase	Frequency	Amperage	Control Method
EF-1	CEILING EXHAUST FAN	PANASONIC	FV-05-11VK1	75 CFM	0.25 in-wg	16.1 W	120 V	1	60 Hz	0.16 A	WALL SWITCH
EF-2	CEILING EXHAUST FAN	PANASONIC	FV-05-11VK1	100 CFM	0.25 in-wg	16.1 W	120 V	1	60 Hz	0.16 A	WALL SWITCH
EF-3	CEILING EXHAUST FAN	PANASONIC	FV-05-11VK1	75 CFM	0.25 in-wg	16.1 W	120 V	1	60 Hz	0.16 A	INTERLOCKED WITH LIGHT SWITCH, C/W 15 MIN DELAY TIMER
EF-4	CEILING EXHAUST FAN	PANASONIC	FV-05-11VK1	75 CFM	0.25 in-wg	16.1 W	120 V	1	60 Hz	0.16 A	INTERLOCKED WITH LIGHT SWITCH, C/W 15 MIN DELAY TIMER

Grille and Diffuser Schedule										
ID	System	Description	Manufacturer	Model	Width	Height	Neck Size	Max Flow	Finish	Accessories
RA-1	RETURN AIR	LINEAR FIXED BAR DIFFUSER	TITUS	CT-581-26	152 mm	305 mm		200 CFM	BLACK	MOUNTING HARDWARE SUITABLE FOR FLOOR FINISH. REFER TO ARCHITECTURAL.
RA-2	RETURN AIR	DUCT-MOUNTED RETURN GRILLE	TITUS	TMRA	152 mm			100 CFM	WHITE	
SA-1	SUPPLY AIR	LINEAR FIXED BAR DIFFUSER	TITUS	CT-581-26	152 mm	305 mm		150 CFM	BLACK	MOUNTING HARDWARE SUITABLE FOR FLOOR FINISH. REFER TO ARCHITECTURAL.
SA-2	SUPPLY AIR	DUCT-MOUNTED SUPPLY DIFFUSER	TITUS	TMRA	152 mm			100 CFM	WHITE	



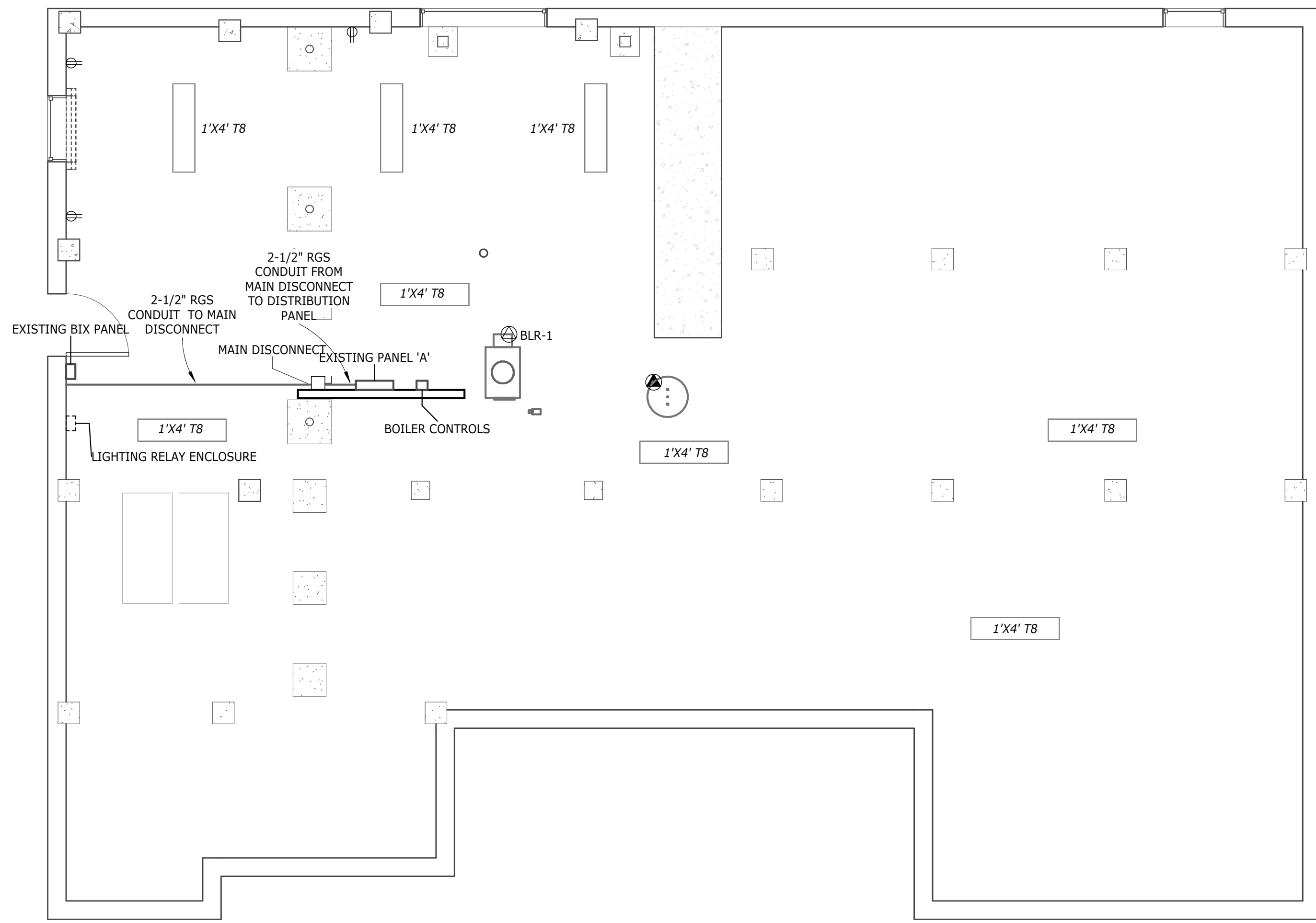
THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

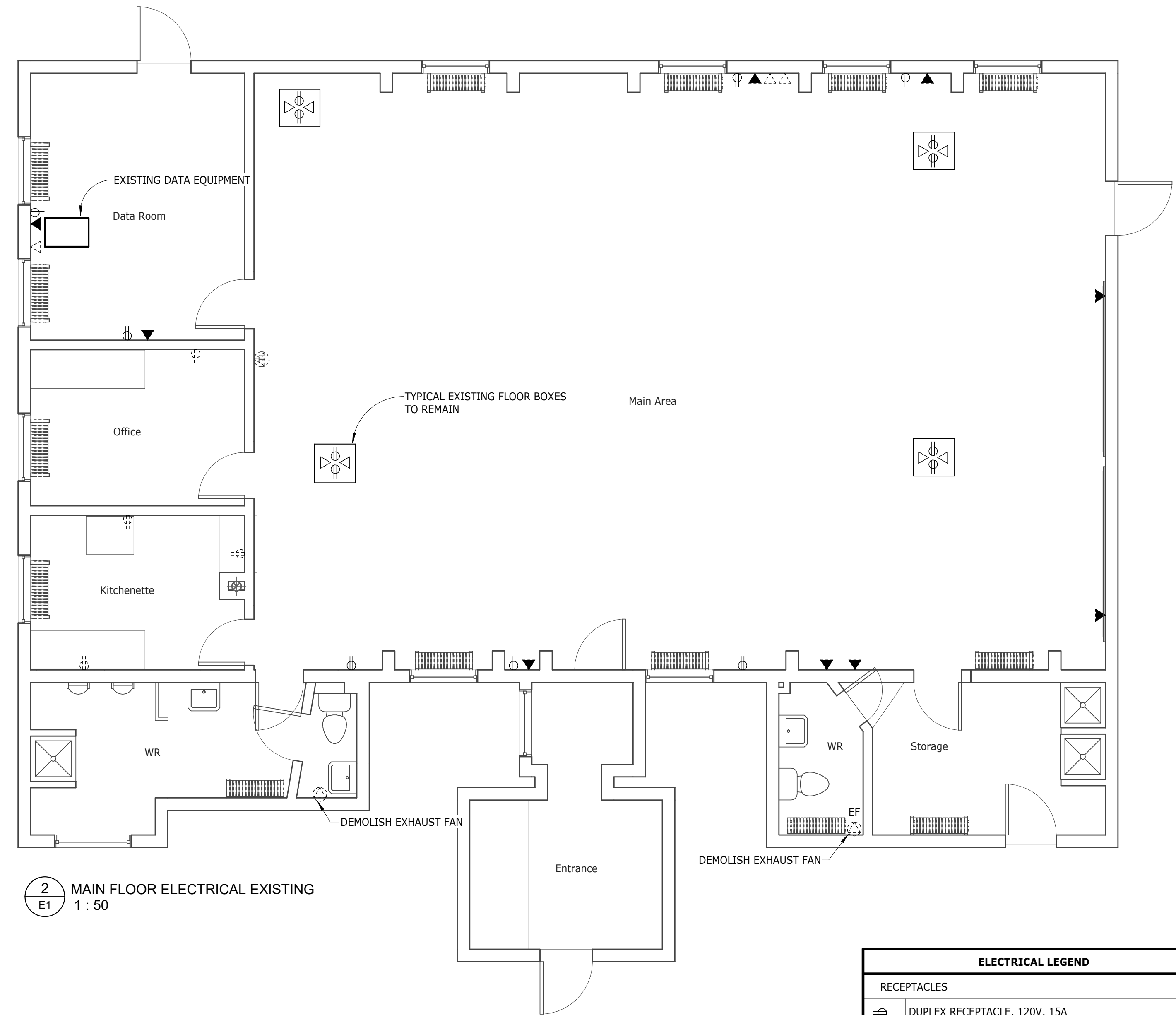
"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.



1 BASEMENT ELECTRICAL EXISTING  
 E1 1 : 50



2 MAIN FLOOR ELECTRICAL EXISTING  
 E1 1 : 50

DATA/COMMUNICATIONS	
	120V, 15A RECEPTACLE 1 DATA, 1 TELEPHONE IN-FLOOR BOX
	DATA/TELEPHONE OUTLET 1-CAT6 DATA TO EQUIPMENT ROOM DATA EQUIPMENT 1-CAT6 TELEPHONE TO BASEMENT TELEPHONE PANEL
	RESIDENT DATA OUTLET 1-CAT6 DATA TO EQUIPMENT ROOM DATA EQUIPMENT
	TELEPHONE OUTLET 1-CAT6 TELEPHONE TO BASEMENT TELEPHONE PANEL
	WiFi ROUTER
<b>DATA ANNOTATION</b> A = ABOVE COUNTER	

ELECTRICAL LEGEND	
RECEPTACLES	
	DUPLEX RECEPTACLE, 120V, 15A
	QUADRUPLEX RECEPTACLE (TWO DUPLEX) ON COMMON COVERPLATE, 120V, 15A
	SINGLE RECEPTACLE 208V
	GFCI RECEPTACLE, 120V, 15A
	T-SLOT RECEPTACLE, 120V, 20A, NEMA 5-20RA
	SURFACE-MOUNTED RECEPTACLE, 120V, 15A
	EXTERIOR, WEATHERPROOF GFCI RECEPTACLE
	FLOOR BOX MOUNTED RECEPTACLE, 120V, 15A
GENERAL RECEPTACLE ANNOTATIONS G = GFCI T = TAMPERPROOF TVSS = SURGE PROTECTION 208V = 208V RECEPTACLE F = FRIDGE RECEPTACLE	
ELECTRICAL CONNECTIONS	
	DIRECT CONNECTION, 120V
	DIRECT CONNECTION, 120V IN WALL BOX
	DIRECT CONNECTION, 240V, 2 POLE
	DISCONNECT: AMPERAGE, VOLTAGE AND NUMBER OF POLES TO MATCH LOAD CONNECTED
	JUNCTION BOX C/W 120V CIRCUITS
	IN-LINE RESISTANCE HEATER THERMOSTAT
	CEILING-MOUNTED OCCUPANCY SENSOR LIGHTING CONTROL SYSTEM
	ELECTRICAL PANEL OR ELECTRICAL EQUIPMENT AS DESIGNATED
	FORCE FLOW HEATER
EQUIPMENT DESIGNATIONS EF - EXHAUST FAN FF - FORCE-FLOW ELECTRIC HEATER AC - AIR CONDITIONER TX - TRANSFORMER	
<b>LINE-WORK LEGEND:</b>	
	EXISTING TO REMAIN: _____
	DEMOLISH ELECTRICAL: - - - - -
	NEW ELECTRICAL: _____

Rev	Description	Date
2	Re-issued For Tender	Sept. 25 2017
1	Issued For 95% Review	May 25 2017
0	Issued For Permit and Pricing	Jan. 27 2017



PROJECT:  
**HARRY HACHEY  
 CONFERENCE  
 CENTER**

ST. ANDREWS, NB  
 DRAWING TITLE:  
**EXISTING  
 ELECTRICAL  
 CONDITIONS**

DRAWN: JDB  
 FILE NO: 12225

DWG:  
**E1**

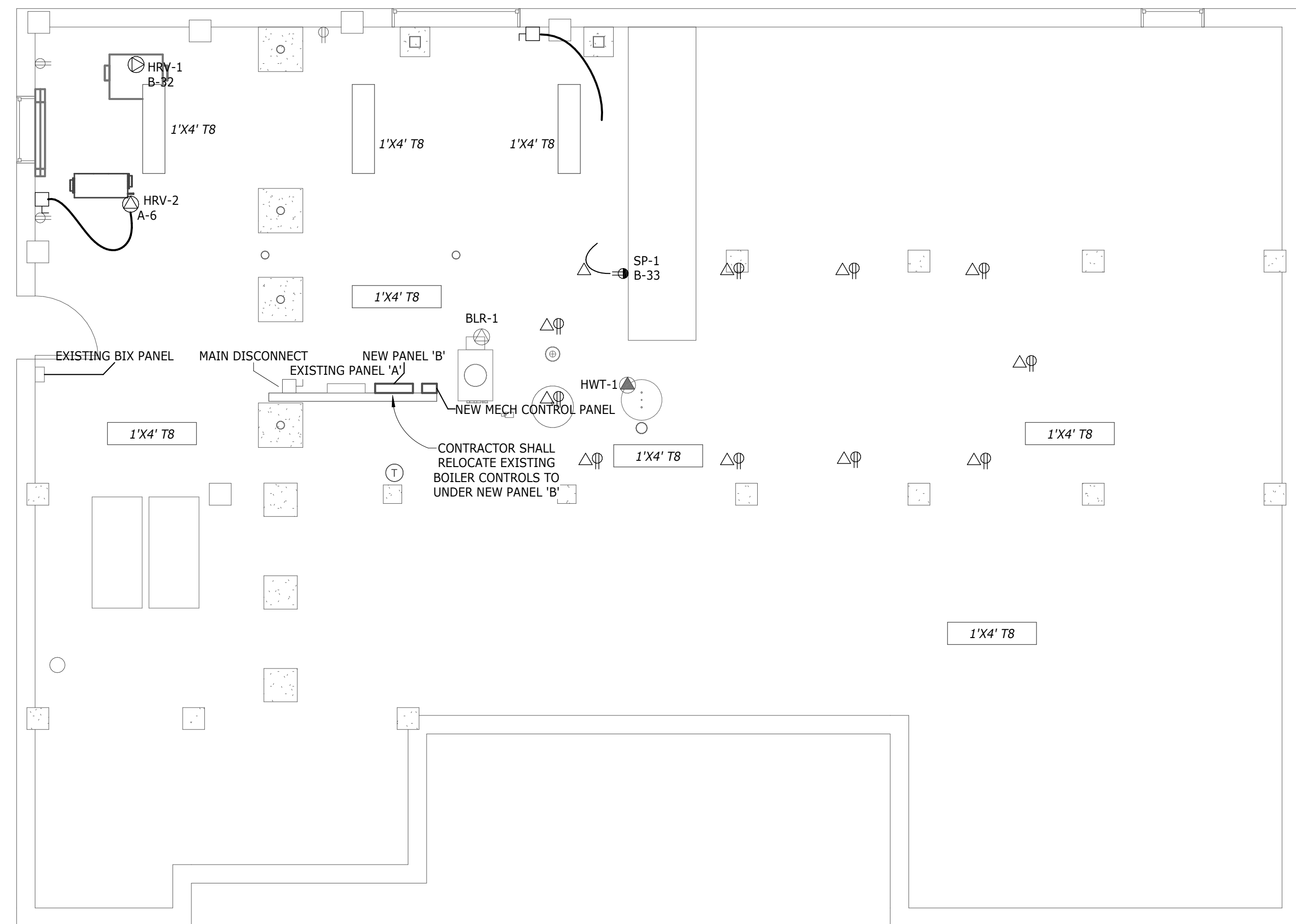
THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

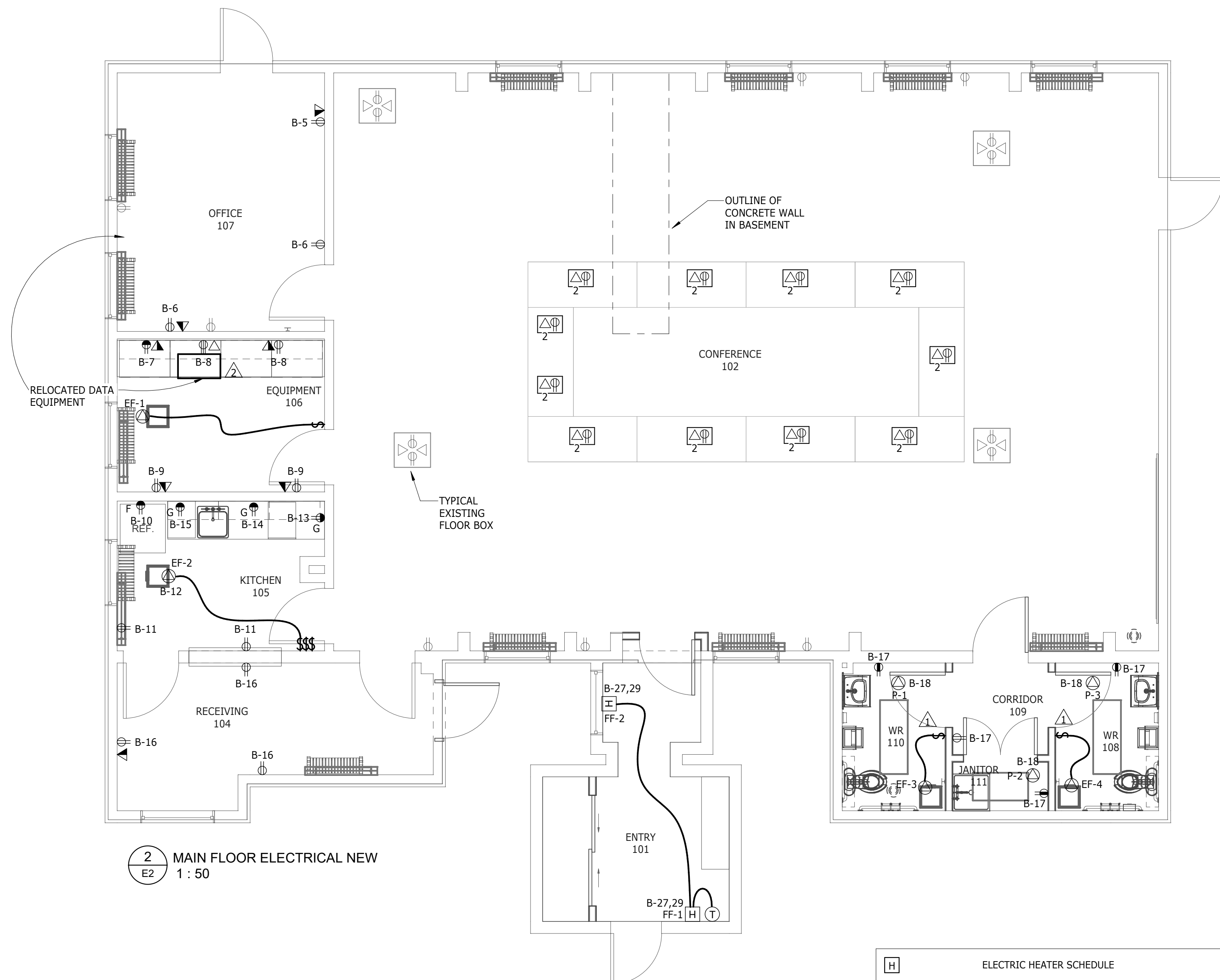
"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

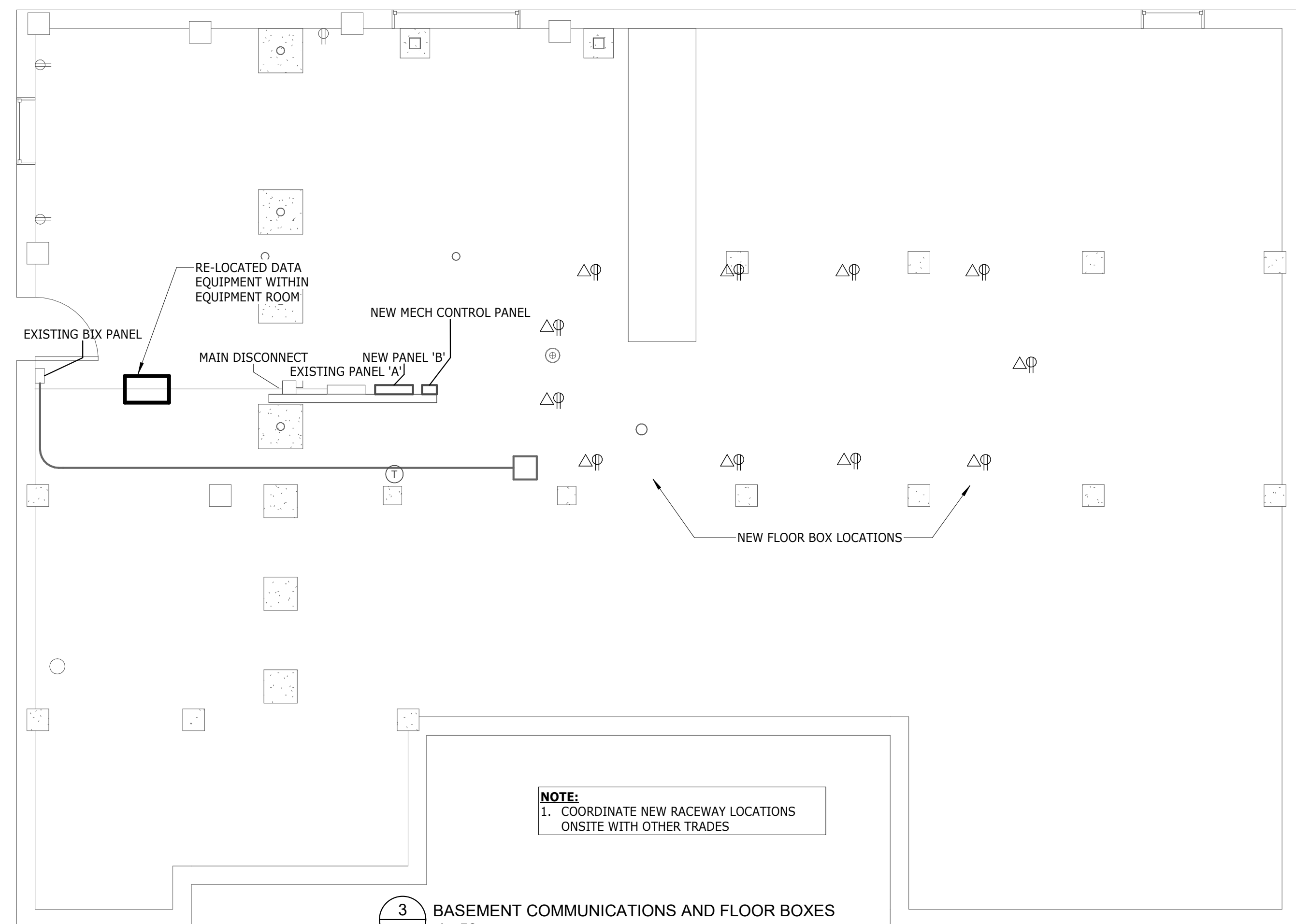
THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.



1 BASEMENT ELECTRICAL NEW  
 E2 1 : 50



2 MAIN FLOOR ELECTRICAL NEW  
 E2 1 : 50



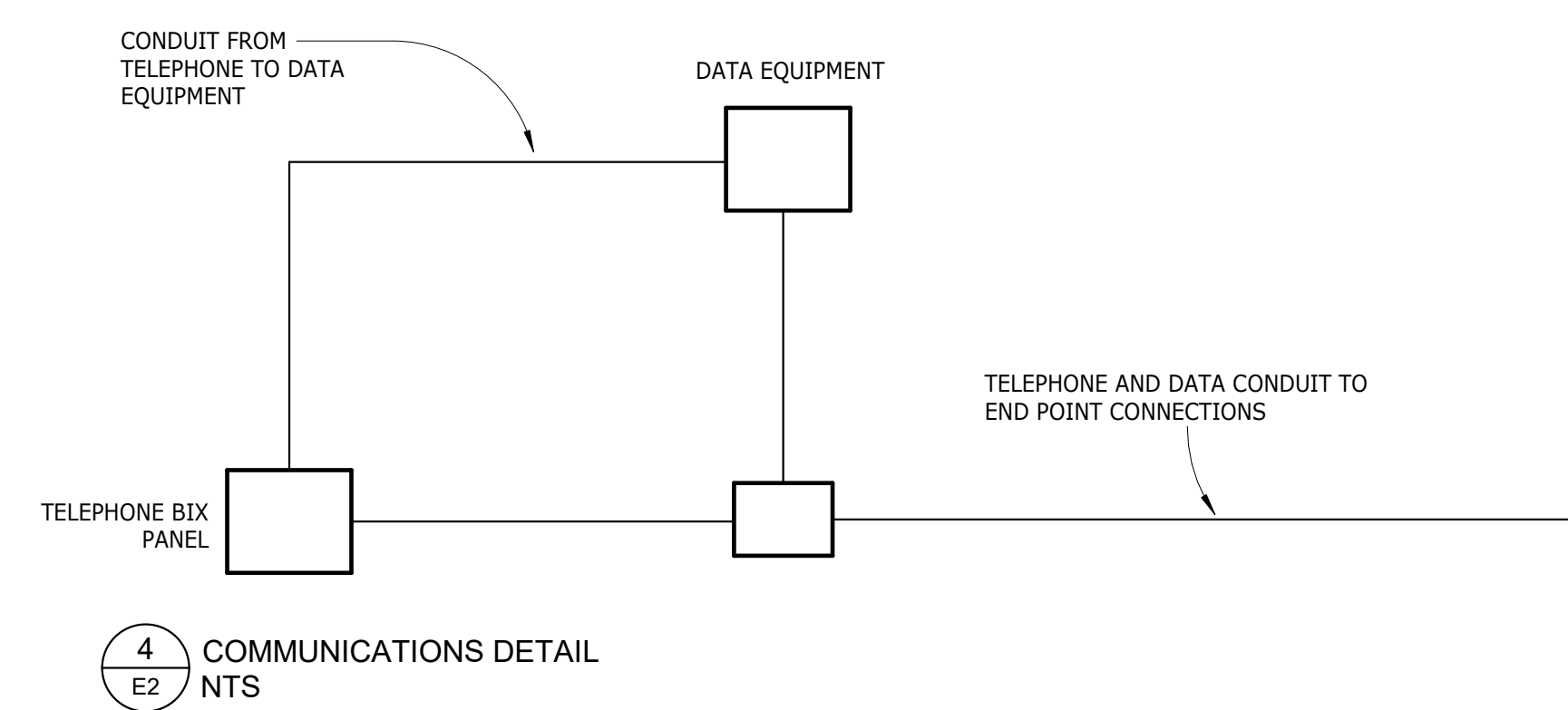
3 BASEMENT COMMUNICATIONS AND FLOOR BOXES  
 E2 1 : 50

FLOOR BOX LEGEND	
	NEW FLOOR BOX - STEEL CITY 60W SERIES FLOOR BOXES (FLUSH SERVICE FLOOR BOXES) FOR WOOD FLOOR INSTALLATIONS.
	FLOOR BOX COMPLETE WITH: DOUBLE GANGED - 1X DUPLEX RECEPTACLE, AND 1 X DATA OUTLET WITH 2 JACKS (2 DATA DROPS) NUMBER INDICATES DATA DROP QUANTITY

ELECTRIC HEATER SCHEDULE		
HEATER TYPE	DESCRIPTION	PLAN TAG
FORCE-FLOW HEATER	750W 240V 2P	FF-1
FORCE-FLOW HEATER	750W 240V 2P	FF-2

NEW ELECTRICAL KEYNOTES	
Tag	DESCRIPTION
1	EQUIPMENT ROOM 106 SWITCH: ONE SWITCH FOR BOTH LIGHTING AND EXHAUST FAN. SWITCH SHALL SHUT OFF EXHAUST FAN AFTER 15 MINUTES DELAY.
2	EQUIPMENT ROOM: RELOCATE DATA & COMMUNICATIONS EQUIPMENT AND ASSOCIATED FEEDERS (ENTRANCE LINES) TO NEW ADJACENT EQUIPMENT ROOM.



4 COMMUNICATIONS DETAIL  
 E2 NTS

Rev	Description	Date
2	Re-issued For Tender	Sept. 25 2017
1	Issued For 90% Review	May 29 2017
0	Issued For Permit and Pricing	Jan. 27 2017



PROJECT:  
**HARRY HACHEY  
 CONFERENCE  
 CENTER**

ST. ANDREWS, NB  
 DRAWING TITLE:  
**NEW ELECTRICAL**

DRAWN: JDB  
 FILE NO: 12225

DWG:  
**E2**

THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.

2	Re-issued For Tender	Sept. 25 2017
1	Issued For 90% Review	May 29 2017
0	Issued For Permit and Pricing	Jan. 27 2017
Rev.	Description	Date

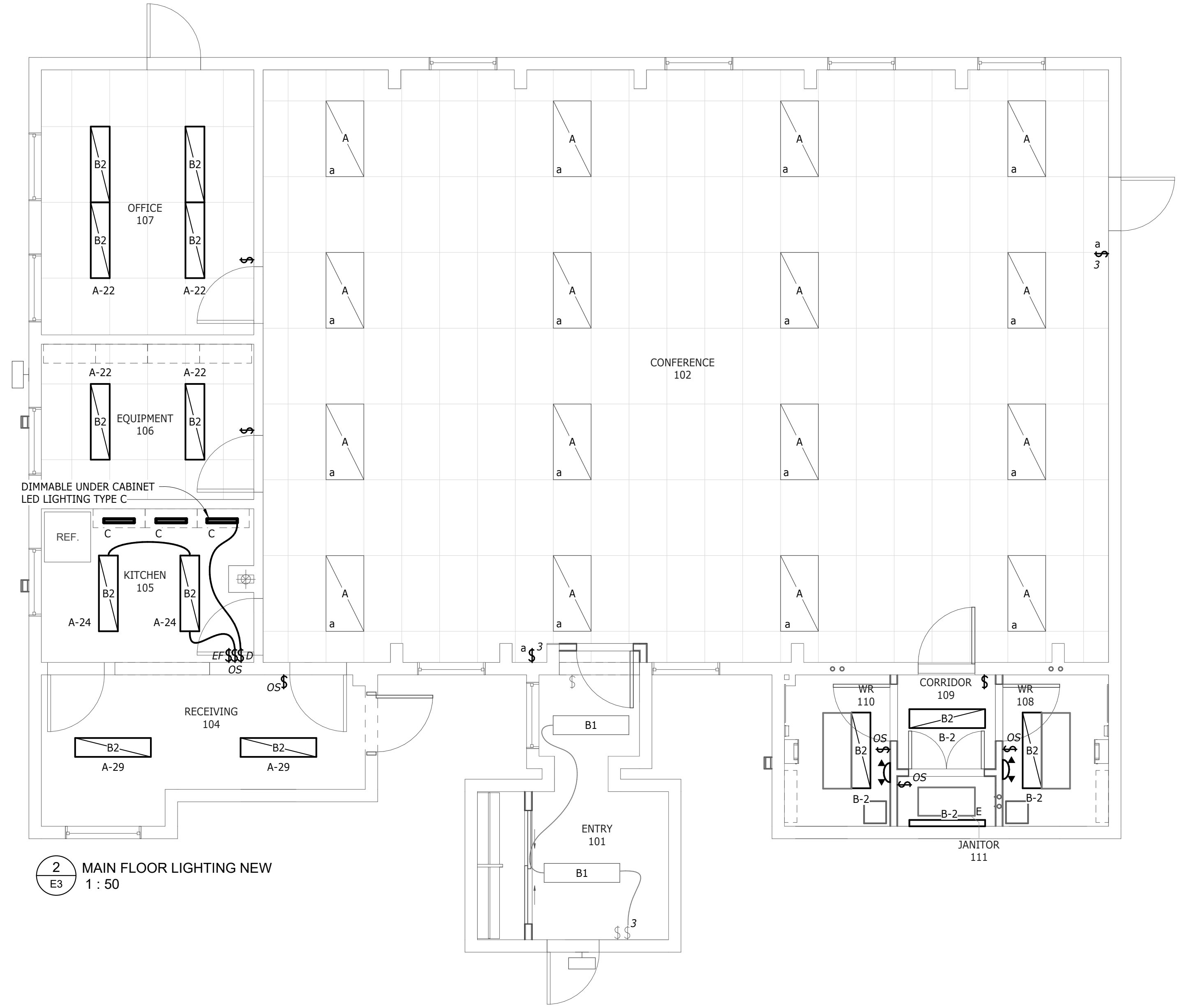
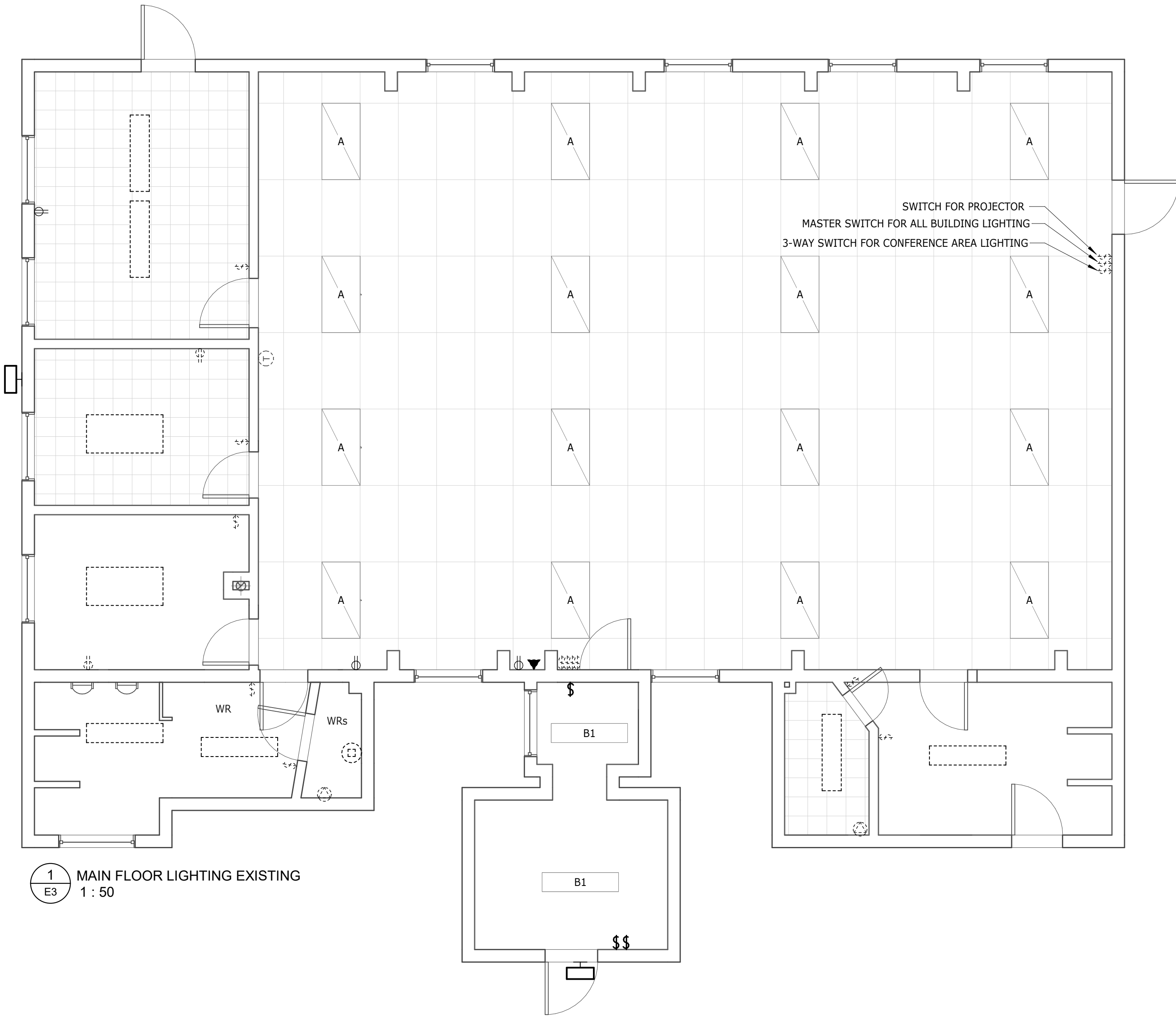


PROJECT:  
**HARRY HACHEY  
 CONFERENCE  
 CENTER**

ST. ANDREWS, NB  
 DRAWING TITLE:  
**LIGHTING PLAN**

DRAWN: JDB FILE NO: 12225

DWG:  
**E3**



LIGHT FIXTURE LEGEND			
SYMBOL	DESCRIPTION	MANUFACTURER	LAMP
	T8 FLOURESCENT RECESSED PRISMATIC LIGHT FIXTURE	EXISTING FIXTURE TYPE	T8 32W
	T8 FLOURESCENT SURFACE PRISMATIC LIGHT FIXTURE	EXISTING FIXTURE TYPE	T8 32W
	LED RECESSED 300mm X 1200mm FIXTURE	PHILIPS DAY-BRITE 1AVEG38L840-4-ACR-UNV-DIM	3800 LUMEN LED, 4000K 40W
	LED UNDERCABINET LIGHT FIXTURE	PHILIPS eW PROFILE POWERCORE	480 LUMEN LED, 4000K 10W
	LED STRIP LIGHT WALL MOUNTED	PHILIPS SF4C38A50UUS C/W MOTION SENSOR	4000 LUMEN LED, 4000K 40W
	EXIT SIGN AND EMERGENCY LIGHT COMBO UNIT	AIMLITE CARPW1250-2-M-2MD	2-4LR
	EMERGENCY LIGHT BATTERY UNIT 12VDC/120AC, 44W	AIMLITE EBST-12050-2MD-4WLR	2-4WLR
	EMERGENCY LIGHT REMOTE HEAD COMPATIBLE WITH BATTERY UNIT	AIMLITE EBST-REMOTE HEAD	2-4WLR
	<b>SWITCH LETTER DESIGNATIONS:</b> a - LOWERCASE LETTER INDICATES SWITCH ID AND ASSOCIATED LIGHT FIXTURES EF - INDICATES SWITCH USED FOR EXHAUST FAN IN ASSOCIATED SPACE OS - INDICATES SWITCH IMPLEMENTS OCCUPANCY SENSOR D - INDICATES DIMMER SWITCH		

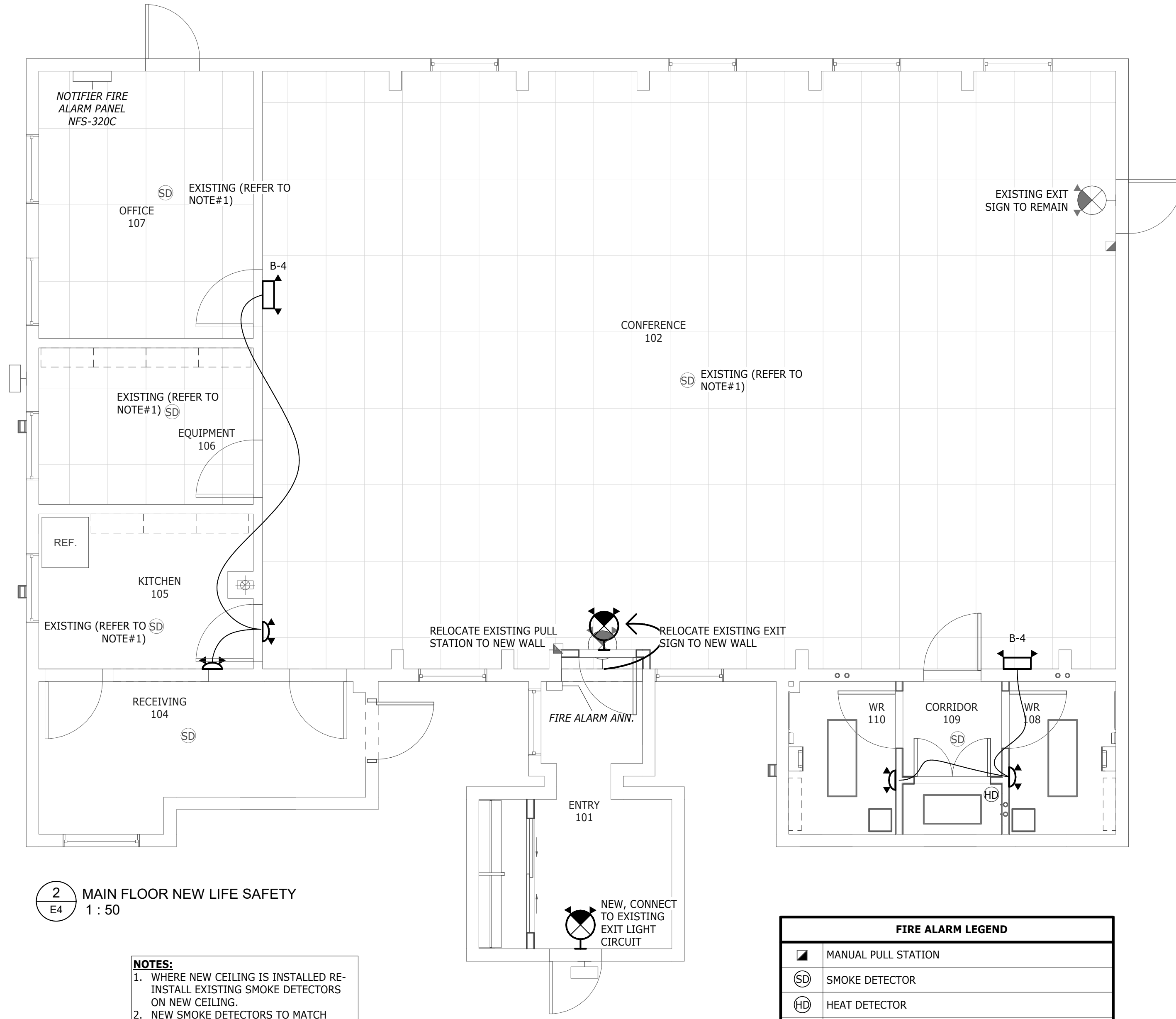
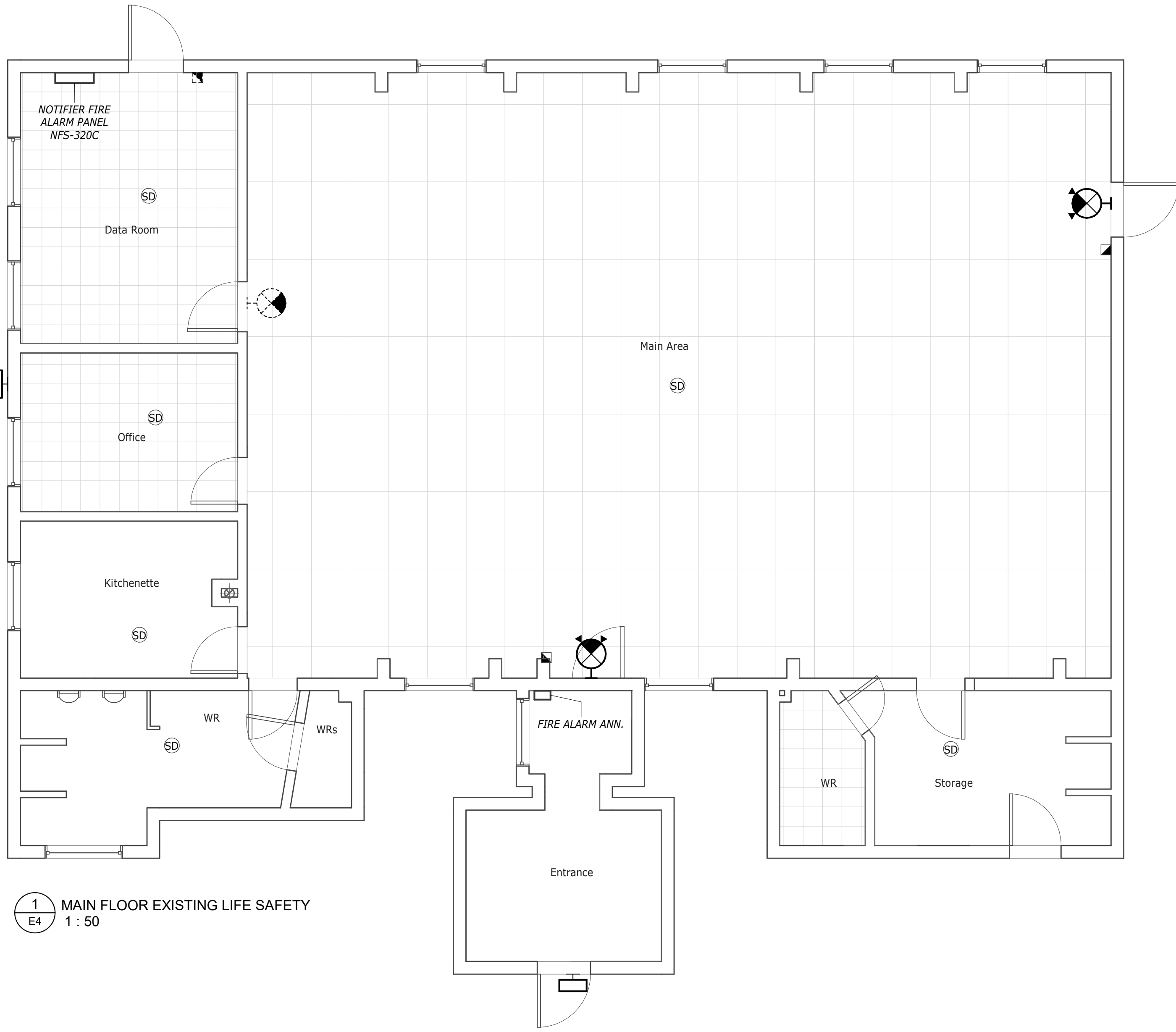
THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.

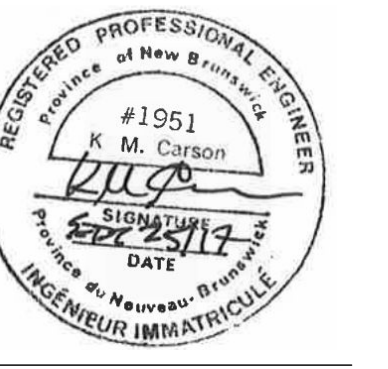


**NOTES:**  
 1. WHERE NEW CEILING IS INSTALLED RE-INSTALL EXISTING SMOKE DETECTORS ON NEW CEILING.  
 2. NEW SMOKE DETECTORS TO MATCH EXISTING.  
 3. ALL FIRE ALARM PULL STATIONS SHALL BE LOWERED TO 1400mm.

FIRE ALARM LEGEND	
	MANUAL PULL STATION
	SMOKE DETECTOR
	HEAT DETECTOR
	FIRE ALARM PANEL
	FIRE ALARM ANNUNCIATOR

**NOTE:**  
 FIRE ALARM SYSTEM SHALL BE RE-CERTIFIED

Rev	Description	Date
2	Re-issued For Tender	Sept. 25 2017
1	Issued For 90% Review	May 29 2017
0	Issued For Permit and Pricing	Jan. 27 2017



PROJECT:  
**HARRY HACHEY  
 CONFERENCE  
 CENTER**

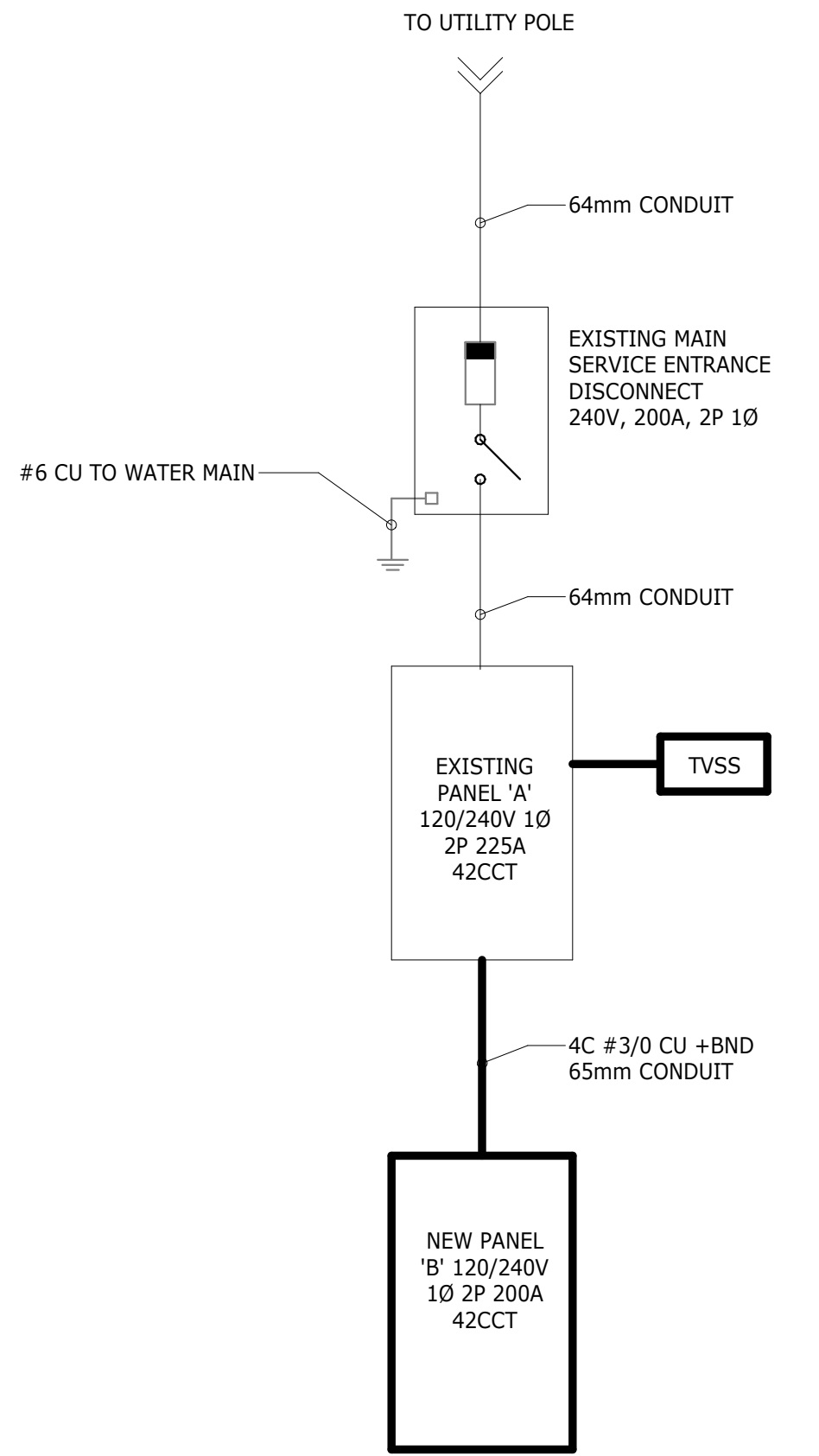
ST. ANDREWS, NB  
 DRAWING TITLE:  
**LIFE SAFETY &  
 FIRE ALARM**

DRAWN: JDB  
 FILE NO: 12225

DWG:  
**E4**

Panel ID: EXISTING PANEL 'A'				Panel Totals					
Location: BASEMENT		Supply From: MAIN DISC.		Total Phase A: 10103 W		Total Phase B: 7840 W			
Mounting: Surface		Enclosure: Type 1		Total Phase C: 0 W		Total Conn. Load: 17943 W			
Volts: 120/240 Single		A.I.C. Rating: 3		Phases: 1		Wires: 3			
Mains Rating: 200 A		Panel To be CW: Label ID and Directory (Typed)		Total Conn. Load: 17943 W		Amps: 75 A			
Main Type: MLO									
CCT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CCT
A-1	LIGHTING ENTRANCE	15 A	1	128 W	540 W		1	RECEPTACLES BASEMENT	A-2
A-3					540 W		1	EXISTING CORRIDOR RECEPTACLES	A-4
A-5				350 W			1	HRV-2 BASEMENT	A-6
A-7									A-8
A-9									A-10
A-11									A-12
A-13	PANEL 'B'	200 A	2	5495 W					A-14
A-15	--	--	--		4360 W				A-16
A-17									A-18
A-19				450 W					A-20
A-21	BLR-1	20 A	1		600 W	90 W	1	LIGHTING OFFICE 107	A-22
A-23	LIGHTING BASE BUILDING...	15 A	1	600 W			1	LIGHTING KITCHEN 105	A-24
A-25									A-26
A-27	LIGHTING QUIET ROOM 104	15 A	1	90 W					A-28
A-29									A-30
A-31									A-32
A-33									A-34
A-35									A-36
A-37				200 W			1	FIRE ALARM PANEL	A-38
A-39	TVSS	20 A	2		0 W	2250 W	2	HOT WATER TANK (HWT-1)	A-40
A-41	--	--	--	0 W	2250 W		--	--	A-42
				<b>Total Load:</b>	10103 W	7840 W			

Panel ID: NEW PANEL 'B'				Panel Totals					
Location: BASEMENT		Supply From: EXISTING PANEL 'A'		Total Phase A: 5495 W		Total Phase B: 4360 W			
Mounting: Surface		Enclosure: Type 1		Total Phase C: 0 W		Total Conn. Load: 9855 W			
Volts: 120/240 Single		A.I.C. Rating: 3		Phases: 1		Wires: 3			
Mains Rating: 200 A		Panel To be CW: Label ID and Directory (Typed)		Total Conn. Load: 9855 W		Amps: 41 A			
Main Type: MLO									
CCT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CCT
B-1				525 W			1	LIGHTING WASHROOMS	B-2
B-3					300 W		1	NEW EMERGENCY LIGHTING	B-4
B-5	RECEPTACLES OFFICE 107	15 A	1	180 W	360 W		1	RECEPTACLES OFFICE 107	B-6
B-7	EQUIPMENT 106 PRINTER	20 A	1		400 W	800 W	1	RECEPTACLES EQUIPMENT 106	B-8
B-9	RECEPTACLES EQUIPMENT 106	15 A	1	360 W	500 W		1	FRIDGE KITCHEN 105	B-10
B-11	RECEPTACLES KITCHEN 105	15 A	1		360 W	180 W	1	EXHAUST FAN KITCHEN 105	B-12
B-13	RECEPTACLES COUNTER KITCHEN 105	20 A	1	180 W	1200 W		1	MIRCOWAVE RECEPTACLE KITCHEN...	B-14
B-15	RECEPTACLES COUNTER KITCHEN 105	20 A	1		500 W	540 W	1	RECEPTACLES QUIET ROOM	B-16
B-17	WASHROOMS RECEPTACLES	15 A	1	720 W	540 W		1	Mech Circ Pumps In WR's	B-18
B-19									B-20
B-21									B-22
B-23									B-24
B-25									B-26
B-27	Heating ENTRY 101	20 A	2		750 W				B-28
B-29	--	--	--	750 W					B-30
B-31	HEATING SINGLE POINT CIRC PUMPS	15 A	1		180 W	350 W	1	HRV-1	B-32
B-33	SUMP PUMP SP-1	15 A	1	180 W					B-34
B-35	Spare	15 A	1		0 W	0 W	1	Spare	B-36
B-37	Spare	15 A	1	0 W	0 W		1	Spare	B-38
B-39	Spare	15 A	1		0 W	0 W	1	Spare	B-40
B-41	Spare	15 A	1	0 W	0 W		1	Spare	B-42
				<b>Total Load:</b>	5495 W	4360 W			



**NOTES:**  
 1. NAMING OF EXISTING PANEL(S) IS FOR REFERENCE.  
 2. SEE PANEL SCHEDULES FOR A COMPLETE LIST OF ALL ASSOCIATED PANEL LOADS.  
 3. NEW PANEL 'B' FED FROM PANEL 'A' SHALL FEED ALL NEW ELECTRICAL LOADS.

**ELECTRICAL DIAGRAM LINE LEGEND:**  
 EXISTING TO REMAIN: \_\_\_\_\_  
 DEMOLISHED ELECTRICAL: - - - - -  
 NEW ELECTRICAL: \_\_\_\_\_

1  
ES  
EXISTING ELECTRICAL SINGLE LINE  
NTS

Mechanical Equipment Schedule						
Mechanical ID	Voltage	Electrical Load	Circuit Number	Panel	Phase Created	Wire Size (H,N,G)
BLR-1	120 V	600 W	A-23	EXISTING PANEL 'A'	Existing	1-#12, 1-#12, 1-#12
EF-1	120 V	180 W	A-22	EXISTING PANEL 'A'	New Construction	1-#12, 1-#12, 1-#12
EF-2	120 V	180 W	B-12	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12
EF-3	120 V	180 W	B-2	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12
EF-4	120 V	180 W	B-2	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12
HRV-1	120 V	350 W	B-32	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12
HRV-2	120 V	350 W	A-6	EXISTING PANEL 'A'	New Construction	1-#12, 1-#12, 1-#12
HWT-1	240 V	4500 W	A-40,42	EXISTING PANEL 'A'	Existing	2-#10, 1-#10, 1-#10
P-1	120 V	180 W	B-18	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12
P-2	120 V	180 W	B-18	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12
P-3	120 V	180 W	B-18	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12
P-12	120 V	180 W	B-31	NEW PANEL 'B'	New Construction	1-#12, 1-#12, 1-#12

ARCHITECT:  
 63 Fitzroy Street  
 Charlottetown, PE  
 Canada C1A 1R4  
 Ph: 902-566-4449  
 Fax: 902-566-1235  
 architects@bghj.com  
 Web: www.bghj.com

DESIGN CONSULTANT:  
**FUNDY Engineering**  
 27 Wellington Row  
 P.O. Box 9028  
 Saint John, NB  
 E2C 4E1  
 Tel: (506) 635-1566  
 Fax: (506) 635-0206  
 fundy@fundyeng.com  
 822-451  
 Keeping Our Clients' Needs First

THIS DRAWING IS PROVIDED TO REFLECT THE GENERAL EXTENT OF WORK AND AS SUCH DOES NOT NECESSARILY INDICATE THE ENTIRE SCOPE OF WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELATED ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND/OR MECHANICAL DRAWINGS, DETAILS, SPECIFICATIONS, TENDER AND/OR OTHER CONTRACT DOCUMENTS, AS APPLICABLE.

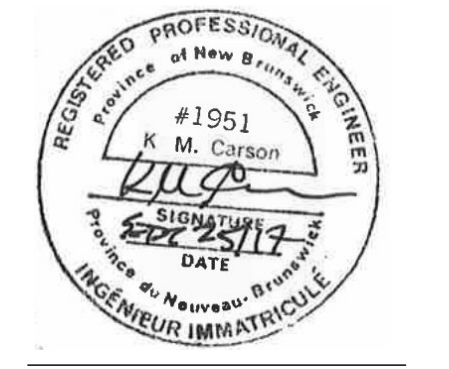
THIS DRAWING AND ITS RELATED DESIGNS, CALCULATIONS AND SPECIFICATIONS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THE EXECUTION OF THE WORK ON THIS PROJECT ONLY. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR LOSSES, DAMAGES OR COSTS ARISING OUT OF ANY USE OR REUSE OF THIS DRAWING NOT SPECIFICALLY AUTHORIZED BY THE ENGINEER IN WRITING.

"RECORD" OR "AS-BUILT" VERSIONS OF THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND THE ENGINEER NEITHER EXPRESSLY NOR IMPLICITLY WARRANTS THE ACCURACY OR COMPLETENESS OF SAID DOCUMENTS.

EXCEPT AS MAY BE CERTIFIED OTHERWISE IN WRITING BY THE ENGINEER, ONLY THE REPRODUCIBLE HARD COPY BEARING THE ENGINEER'S SEAL AND ORIGINAL SIGNATURE SHALL CONSTITUTE THE ORIGINAL OF THIS DRAWING.

THIS DRAWING IS NOT TO BE SCALED. OBTAIN ACCURATE DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR SITE MEASUREMENTS.

Rev.	Description	Date
2	Re-issued For Tender	Sept. 25 2017
1	Issued For 90% Review	May 25 2017
0	Issued For Permit and Pricing	Jan. 27 2017



PROJECT:  
**HARRY HACHEY  
 CONFERENCE  
 CENTER**

ST. ANDREWS, NB  
 DRAWING TITLE:  
**PANEL  
 SCHEDULES &  
 DETAILS**

DRAWN: JDB  
 FILE NO: 12225

DWG:  
**E5**