

GENERAL SPECIFICATIONS FOR MECHANICAL WORK

1. GENERAL

- 1.1. THE FOLLOWING SECTION APPLIES TO THE MECHANICAL AND PLUMBING WORK RELATED TO THIS PROJECT.
 - 1.2. THE INTENT OF THE SPECIFICATIONS, INCLUDING ALL APPENDICES AND DRAWINGS, SHALL BE DEEMED TO COVER THE COMPLETE INSTALLATION, READY FOR OPERATION. CONSEQUENTLY, MINOR DETAILS NOT NECESSARILY SHOWN OR SPECIFIED BUT NECESSARY FOR THE PROPER FUNCTIONING OF THE INSTALLATION, INCLUDING EQUIPMENT SERVICEABILITY, SHALL BE INCLUDED IN THE WORK.
 - 1.3. THE CONTRACTOR SHALL FURNISH ALL LABOUR, MATERIAL AND EQUIPMENT RELATED TO THE INSTALLATION OF THE WORK OUTLINED IN THE CONTRACT DOCUMENTS.
- ### 2. DEFINITIONS
- 2.1. THE TERM "OWNER" USED IN THROUGHOUT THE SPECIFICATIONS REFERS TO THE BUILDING OWNER/LANDLORD.
 - 2.2. THE TERM "TENANT" USED IN THROUGHOUT THE SPECIFICATIONS REFERS TO CHIPOTLE MEXICAN GRILL, INC.
 - 2.3. ANY REFERENCE TO THE "DESIGN AUTHORITY" OR "CONSULTANT" SHALL MEAN PRISM ENGINEERING LTD.
 - 2.4. THE WORD "PROVIDE" SHALL MEAN "SUPPLY AND INSTALL" UNLESS OTHERWISE INDICATED.
 - 2.5. THE NEW INSTALLATION SHALL MEET THE CURRENT BUILDING STANDARDS IN ALL ASPECTS.

3. GOVERNING REGULATIONS

- 3.1. THE WORK UNDER THIS CONTRACT SHALL CONFORM, BUT NOT BE LIMITED TO, THE REQUIREMENTS OF THE FOLLOWING CODES, REGULATIONS AND STANDARDS:
 - 3.1.1. BY-LAWS, STANDARDS AND CODES:
 - 3.1.1.1. LOCAL BUILDING BY-LAWS
 - 3.1.1.2. JURISDICTIONAL BUILDING BYLAWS
 - 3.1.1.3. BC BUILDING CODE (2018) PART 1 TO 11 INCLUSIVE.
 - 3.1.1.4. CURRENT NATIONAL BUILDING CODE
 - 3.1.1.5. CURRENT ASHRAE 90.1
 - 3.1.1.6. CURRENT NFPA 13
 - 3.1.1.7. CANADIAN GAS CODE CAN/CGA-B149.1-M91
 - 3.1.1.8. CANADIAN ELECTRICAL CODE C22
 - 3.1.1.9. B-52 MECHANICAL REFRIGERATION CODE
 - 3.1.2. SMACNA PUBLICATIONS:
 - 3.1.2.1. CURRENT HVAC DUCT CONSTRUCTION STANDARDS
 - 3.1.2.2. GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PIPING SYSTEMS
 - 3.1.2.3. BOCA QUALITY STANDARDS FOR MECHANICAL INSULATION MANUAL
- 3.2. LETTERS OF ASSURANCE COMPLETED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER, WILL BE REQUIRED TO BE SUBMITTED AT THE COMPLETION OF THE PROJECT FOR THE INSTALLATION OF SEISMIC RESTRAINT OF NEW EQUIPMENT INSTALLED. PAID AND SUPPLIED BY THE MECHANICAL CONTRACTOR.

- 3.3. COMPLY WITH THE OWNER'S REQUIREMENTS FOR CONSTRUCTION ACTIVITIES IN THE BUILDING.

4. PERMITS

- 4.1. OBTAIN ALL REQUIRED PERMITS, PAY ALL FEES THEREFORE, AND COMPLY WITH ALL PROVINCIAL, MUNICIPAL, AND OTHER LEGAL REGULATIONS, CODES AND BY-LAWS APPLICABLE TO THE WORK.
- 4.2. PROVIDE CERTIFICATES FOR INCLUSION IN Q&M DOCUMENTATION, AS EVIDENCE THAT THE WORK CONFORMS WITH THE LAWS AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION.

5. EXAMINATION OF SITE

- 5.1. VISIT THE SITE BEFORE TENDERING AND THOROUGHLY EXAMINE ALL AREAS WHERE EQUIPMENT, DUCTWORK AND PIPING WILL BE INSTALLED AND REPORT ANY CONDITION, THAT IN THEIR OPINION, PREVENTS THE PROPER INSTALLATION OF THE WORK.
- 5.2. NO CONSIDERATION WILL BE GRANTED FOR ANY MISUNDERSTANDING OF WORK TO BE DONE RESULTING FROM FAILURE TO VISIT THE SITE.
- 5.3. WHEN THE CONTRACT DOCUMENTS DO NOT CONTAIN SUFFICIENT INFORMATION FOR THE PROPER SELECTION OF EQUIPMENT FOR BIDDING, NOTIFY THE DESIGN AUTHORITY DURING THE TENDERING PERIOD. IF CLARIFICATION IS NOT OBTAINED, ALLOW FOR THE MOST EXPENSIVE ARRANGEMENT. FAILURE TO DO THIS SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO SUPPLY THE INTENDED EQUIPMENT.
- 5.4. CO-ORDINATE WORK WITH ALL TRADES AND MAKE CHANGES TO FACILITATE A SATISFACTORY INSTALLATION. MAKE NO DEVIATIONS TO THE DESIGN INTENT WITHOUT WRITTEN APPROVAL.
- 5.5. THE DIMENSIONS OF EXISTING WORK IS APPROXIMATE AND THE CONTRACTOR MUST TAKE ACTUAL MEASUREMENTS BEFORE ORDERING MATERIALS, EQUIPMENT, AND THE LIKE. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL MAKE THE CONTRACTOR FULLY RESPONSIBLE FOR REPLACING SUCH MATERIAL OR EQUIPMENT AT NO EXTRA COST TO THE CONTRACT.
- 5.6. A LOCKOUT AND TAGGING SYSTEM MUST BE EMPLOYED TO PREVENT THE UNEXPECTED ENERGIZING OF EQUIPMENT, MACHINERY, OR ELECTRICAL SERVICES. THIS SYSTEM MUST BE EMPLOYED BEFORE WORKING ON ELECTRICAL SERVICES TO POWER EQUIPMENT. ALL POWER EQUIPMENT MUST BE STOPPED, DISCONNECTED, AND THEN LOCKED OUT AT THE MAIN CONTROL OR BREAKER WITH TWO OR MORE LOCKS. THE SWITCH WILL THEN BE TAGGED. WHEN WORK IS COMPLETE, EACH PERSON MUST REMOVE THEIR OWN LOCK. NO ONE WILL REMOVE ANOTHER PERSON'S LOCK.

6. LIABILITY

- 6.1. ASSUME RESPONSIBILITY FOR LAYING OUT WORK AND FOR DAMAGE CAUSED BY IMPROPER EXECUTION OF WORK.
- 6.2. PROTECT FINISHED AND UNFINISHED WORK FILLINGS AND OCCUPANT'S FURNITURE AND EQUIPMENT FROM DAMAGE.
- 6.3. TAKE RESPONSIBILITY FOR CONDITION OF MATERIALS AND EQUIPMENT SUPPLIED AND PROTECT UNTIL WORK IS COMPLETED AND ACCEPTED.
- 6.4. THE OWNER SHALL HAVE RECOURSE IN TORT FOR ANY NEGLIGENT ACTION BY THE CONTRACTOR OR HIS REPRESENTATIVES.

7. EXISTING SERVICES

- 7.1. ARRANGE WORK TO AVOID SHUTDOWNS OF EXISTING SERVICES. TO MAINTAIN EXISTING SERVICES IN OPERATION, TEMPORARY RELOCATIONS AND/OR BYPASSES OF DUCTWORK AND/OR PIPING MAY BE REQUIRED. SHUTDOWNS OF SYSTEMS ARE TO BE CO-ORDINATED WITH THE MANAGER OF THE FACILITY.
- 7.2. PROTECT ALL EXISTING SERVICES FROM CONSTRUCTION DEBRIS.
- 7.3. ALL EXISTING FIRE RATINGS THROUGH FLOOR SLABS OR WALLS SHALL BE RETAINED. ALL LIFE SAFETY SYSTEMS INCLUDING EXIT/EMERGENCY LIGHTING AND FIRE ALARM SYSTEMS SHALL REMAIN IN A FUNCTIONAL STATE DURING DEMOLITION AS WELL AS DURING CONSTRUCTION.
- 7.4. UNLESS OTHERWISE SPECIFIED, COMPLETELY REMOVE ALL EQUIPMENT, WHICH BECOMES REDUNDANT AND IS NO LONGER REQUIRED DUE TO THE WORK IN THIS CONTRACT.
- 7.5. WHERE NOTED ON THE DRAWINGS, THE EQUIPMENT/MATERIAL SHALL BE HANDED OVER TO THE OWNER. A RECEIPT OF THE TRANSFER MAY BE REQUIRED BY THE TENANT, INDICATING WHERE THE MATERIAL HAS BEEN STORED.
- 7.6. THE EXISTING FIRE PROTECTION SYSTEM MUST REMAIN FUNCTIONAL DURING DEMOLITION AS WELL AS DURING CONSTRUCTION. IF THE WORK REQUIRES THE FIRE PROTECTION SYSTEM TO BE COMPROMISED DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A 24-HOUR FIRE WATCH PERSONNEL WHILE THE SYSTEM IS DOWN.
- 7.7. ALL EQUIPMENT OPERATED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE OF THE WORK, SHALL BE MAINTAINED BY THE CONTRACTOR. ALL AIR FILTERS MUST BE REPLACED PRIOR TO TURN OVER TO THE OWNER.

8. CUTTING, CORING AND PATCHING

- 8.1. LAYOUT ALL CUTTING, PATCHING, DIGGING, CANNING AND CORING REQUIRED TO ACCOMMODATE THE MECHANICAL SERVICES. THE PERFORMANCE OF ACTUAL CUTTING AND PATCHING IS BY THE GENERAL CONTRACTOR. BE RESPONSIBLE FOR ALL OPENINGS REQUIRED UNDER THIS CONTRACT, INCLUDING DUCT OPENINGS. ALLOW OVERSIZED OPENINGS FOR FIRE DAMPERS.
- 8.2. VERIFY THE LOCATIONS OF EXISTING SERVICE RUNS AND STRUCTURAL REINFORCEMENT WITHIN EXISTING CONCRETE WALLS AND FLOORS PRIOR TO CORE DRILLING AND CUTTING. PROVIDE X-RAY OR PENETRATING RADAR (GPR) FOR EACH PROPOSED OPENING THROUGH CONCRETE FLOORS AND WALLS, AS REQUIRED BY THE STRUCTURAL CONSULTANT.
- 8.3. CORING AND CUTTING OF STRUCTURAL BUILDING COMPONENTS SHALL ONLY TAKE PLACE UPON THE RECEIPT OF SPECIFIC WRITTEN APPROVAL OF A STRUCTURAL ENGINEER PAID BY THE MECHANICAL CONTRACTOR.

9. ACCESS DOORS AND PANELS

- 9.1. SUPPLY AND INSTALL ALL NECESSARY ACCESS DOORS FOR MECHANICAL EQUIPMENT, INCLUDING DAMPERS, FILTERS, CONTROL CONNECTIONS, ETC. WHERE NECESSARY, DOORS SHALL BE RATED TO SUITE FIRE ASSEMBLY RATING.
- 9.2. ALL ACCESS DOORS SHALL, IN ANY EVENT, BE SIZED TO SATISFY THE MINIMUM ACCESS REQUIREMENTS AS REQUIRED BY THE BUILDING CODE BUT SHALL BE INCREASED IN SIZE WHEREVER NECESSARY TO SUIT ARCHITECTURAL BLOCK OR OTHER CONSTRUCTION MODULES TO PROVIDE A COMPLETE MODULAR FINISHED APPEARANCE.
- 9.3. DO NOT LOCATE ACCESS DOORS IN FEATURE WALLS OR CEILINGS WITHOUT THE PRIOR APPROVAL OF THE CONSULTANT AND/OR OWNER. LOCATE IN SERVICE AREAS AND STORAGE ROOMS WHERE POSSIBLE.
- 9.4. PROVIDE APPROVED ACCESS PANEL FOR SERVICING AND INSPECTION OF FIRE DAMPERS.
- 9.5. WHERE ACCESS PANELS ARE INSTALLED IN FIRE RATED ASSEMBLIES, THE ACCESS PANEL SHALL CARRY THE APPROPRIATE FIRE RATING.
- 9.6. ACCESS PANELS SHALL BE 14 GAUGE BONDERIZED STEEL, WITH HINGED DOORS.
- 9.7. CONTRACTOR SHALL LEAVE ACCESS PANELS UNINSTALLED DURING FINAL REVIEW.

10. PENETRATIONS

- 10.1. SHOULD PIPES OR DUCT WORK PENETRATE FIRE RATED WALLS AND FLOORS, THE CONTRACTOR SHALL FURNISH LABOUR, MATERIAL, EQUIPMENT, AND SERVICES NECESSARY TO PROVIDE FIRE STOPPING AND SEALANT AROUND THE PENETRATION.
- 10.2. PENETRATIONS THROUGH NON-RATED WALL ASSEMBLIES MUST HAVE SEALANT INSTALLED AROUND THE SERVICE TO PREVENT AIR LEAKAGE. FLOOR PENETRATIONS THROUGH NON-RATED ASSEMBLIES MUST HAVE WATER RESISTANT SEALANT INSTALLED AROUND THE SERVICE.

11. FIRE STOPPING

- 11.1. PROVIDE LABOUR, MATERIAL, EQUIPMENT, AND SERVICES NECESSARY TO PROVIDE FIRE STOPPING AND SMOKE SEALS AROUND MECHANICAL SERVICE PIPING AND DUCT PENETRATIONS THROUGH FIRE RATED WALL AND FLOOR ASSEMBLIES.
- 11.2. INSTALLER SHALL HAVE PERSONNEL SPECIALIZING IN FIRE STOPPING INSTALLATIONS, WITH MINIMUM OF 3 YEARS DOCUMENTED EXPERIENCE APPROVED BY THE MANUFACTURER. THE MANUFACTURER SHALL PROVIDE INSTRUCTION, TRAINING, AND INSPECTION SERVICES OF THE INSTALLATIONS TO ENSURE THAT THE FIRE MATERIAL IS CORRECTLY INSTALLED.
- 11.3. EXAMINE SIZES AND CONDITIONS OF VOIDS TO BE FILLED TO ESTABLISH CORRECT THICKNESSES AND INSTALLATION OF MATERIALS. PREPARE SURFACES IN CONTACT WITH FIRE STOPPING MATERIALS AND SMOKE SEALS TO MANUFACTURER'S INSTRUCTIONS. MASK WHERE NECESSARY TO AVOID SPILLAGE AND COVER COATING ONTO ADJOINING SURFACES; REMOVE STAINS ON ADJACENT SURFACES.
- 11.4. LOCATION AND EXTENT OF FIRE SEPARATIONS SHALL BE COORDINATED WITH EITHER, THE ARCHITECTURAL DRAWINGS OR ON SITE.
- 11.5. SERVICE PENETRATION FIRESTOP COMPONENTS: CERTIFIED BY ULC IN ACCORDANCE WITH CAN-5115 AND LISTED IN ULC GUIDE NO. 40 U19.13 AND ULC GUIDE NO. 40 U19.15 UNDER THE LABEL SERVICE OF ULC OR EQUIVALENT APPROVED TESTS BY WARNOCK HERSEY.
- 11.6. FIRE RESISTANCE RATING OF INSTALLED FIRE STOPPING ASSEMBLY IN ACCORDANCE WITH BCBC.
- 11.7. SUBMIT SHOP DRAWINGS TO SHOW LOCATION OF PENETRANT, PROPOSED MATERIAL, REINFORCEMENT, ANCHORAGE, AND METHOD OF INSTALLATION, PRIOR TO CONSTRUCTION. CONSTRUCTION DETAILS MUST ACCURATELY REFLECT ACTUAL JOB CONDITIONS.

11.8. ACCEPTABLE FIRE STOPPING SYSTEMS: HILTI, 3M

12. WORKMANSHIP

- 12.1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH ESTABLISHED PRACTICE AND STANDARDS ACCEPTED AND RECOGNIZED BY DESIGN AUTHORITIES AND THE TRADE. EMPLOY ONLY TRADESMEN HOLDING VALID PROVINCIAL TRADE QUALIFICATION CERTIFICATES. TRADESMEN SHALL PERFORM ONLY WORK THAT THEIR CERTIFICATE PERMITS.
- 12.2. ALL ROOFING WORK SHALL BE CARRIED OUT BY A REGISTERED RABC CONTRACTOR.
- 12.3. THE CONTRACTOR SHALL CLEANUP THE WORK AREA AT THE END OF EACH SHIFT. UPON COMPLETION OF THE WORK, REMOVE ALL TOOLS, DEBRIS, SURPLUS AND WASTE MATERIALS.

13. REFRIGERANT DISPOSAL

- 13.1. REMOVAL OF ANY REFRIGERANT AC EQUIPMENT, REQUIRES REFRIGERANT TO BE PUMPED OUT BY A LICENSED REFRIGERANT MECHANIC IN ACCORDANCE WITH THE REFRIGERANT CODE OF PRACTISE. PROVIDE CERTIFIED REPORT ON REFRIGERANT DISPOSAL OR RECYCLING TO ENGINEER.

14. MATERIAL

- 14.1. WHERE TWO OR MORE ITEMS OF EQUIPMENT AND/OR MATERIAL, OF THE SAME TYPE, ARE REQUIRED, THEY SHALL BE THE PRODUCTS OF A SINGLE MANUFACTURER.
- 14.2. MATERIAL CONSIDERED TO SATISFY THE SPECIFICATION, BUT OF A MANUFACTURER OTHER THAN THOSE NAMED, MAY BE SUBMITTED TO THE DESIGN AUTHORITY FOR CONSIDERATION.

15. SHOP DRAWINGS

- 15.1. PRIOR TO ORDERING EQUIPMENT AND MATERIAL, SUBMIT DIGITAL SETS OF SHOP DRAWINGS FOR ALL MECHANICAL COMPONENTS TO THE CONSULTANT FOR APPROVAL. AT A MINIMUM, DRAWINGS SHOULD BE PROVIDED FOR FANS, AIR HANDLING UNITS (IE: ROOF TOP UNITS, HEAT PUMPS, FANCOILS, ETC), LOUVRES, GRILLES, DIFFUSERS, FIRE DAMPERS, AND CONTROLS).
- 15.2. EACH SHOP DRAWINGS SUBMITTAL SHALL BE STAMPED BY THE CONTRACTOR VERIFYING THAT THE SUBMITTED SHOP DRAWINGS HAVE BEEN REVIEWED FOR CONFORMANCE WITH THE SPECIFICATIONS AND MUST INCLUDE THE PROJECT IDENTIFICATION NUMBER, PROJECT NAME, PROJECT ADDRESS, SELECTED EQUIPMENT INCLUDING ALL ACCESSORIES AND QUANTITY OF PRODUCT..

16. RECORD DRAWINGS

- 16.1. MAINTAIN ONE CONTRACT DRAWING WHITE PRINT ON SITE, SOLELY FOR THE PURPOSE OF RECORDING, IN RED, ANY CHANGE AND/OR DEVIATION FROM THE CONTRACT DRAWING AS IT OCCURS. SUBMIT A COPY OF AS-INSTALLED DRAWINGS TO THE CONSULTANT UPON SUBSTANTIAL COMPLETION OF THIS CONTRACT IN PDF FORMAT OR HARD COPY.
- 16.2. MECHANICAL CONTRACTOR SHALL SUBMIT MECHANICAL RECORD

DRAWINGS ("AS-BUILTS") MARKUPS TO PRISM ENGINEERING LTD. FOR REVIEW. THE HAND MARK UP CHANGES SHALL BE IMPLEMENTED INTO AUTOCAD BY PRISM ENGINEERING LTD TO PRODUCE RECORD DRAWINGS ON BEHALF OF CHIPOTLE MEXICAN GRILLE, INC.

17. OPERATING & MAINTENANCE MANUALS

- 17.1. REFER TO SECTION 01700 EXECUTION REQUIREMENTS ON DRAWING G010.

18. WARRANTY

- 18.1. PROVIDE A WRITTEN AND SIGNED WARRANTY IN THE NAME OF THE TENANT. THE WARRANTY IS TO INCLUDE THE NECESSARY MATERIALS AND LABOUR TO COVER REPAIR OR REPLACEMENT OF SPECIFIED WORK, AS A RESULT OF FAULTY MATERIALS OR WORKMANSHIP. THE WARRANTY IS TO COVER ONE YEAR FROM THE DATE OF THE CERTIFICATE OF SUBSTANTIAL COMPLETION.

19. SEISMIC RESTRAINTS

- 19.1. NEW EQUIPMENT, DUCTWORK, GRILLES AND PIPING SHALL BE SEISMICALLY RESTRAINED. REFER TO STRUCTURAL DRAWING S000 FOR SEISMIC REQUIREMENTS.

20. SITE VISITS

- 20.1. INTERIM FIELD REVIEWS ARE TO BE COORDINATED WITH PRISM ENGINEERING WITHIN 7 DAYS BEFORE THE PLANNED SITE VISIT. VIRTUAL SITE VISITS ARE NOT PERMITTED UNLESS PREVIOUSLY COORDINATED WITH THE CONSULTANT TEAM AND TENANT DUE TO UNFORESEEN CIRCUMSTANCES (IE: HEALTH RISK, TRAVEL RESTRICTIONS, RESOURCE SHORTAGES, ETC).
- 20.2. IF A VIRTUAL SITE VISIT IS AGREED TO BY THE CONSULTANT AND TENANT, THE HOST OF THE MEETING MUST PROVIDE A RECORDING OF THE VIDEO WITHIN 24 HOURS OF THE MEETING TO ENSURE PROPER RECORDS ARE MAINTAINED.
- 20.3. THE CONTRACTOR SHALL ADVISE THE CONSULTANT SEVEN (7) DAYS BEFORE THE PLANNED FINAL SITE REVIEW TO ARRANGE A MUTUALLY AGREEABLE TIME AND DATE TO CONDUCT THE FINAL SITE REVIEW. ALL SYSTEMS MUST BE FULLY OPERATIONAL BEFORE THE SCHEDULED SITE VISIT. IF IT IS DETERMINED AT THE TIME OF THE SITE VISIT THAT WORK IS NOT COMPLETE AND WARRANTS A SECOND SITE VISIT, ALL COSTS INCURRED WILL BE BILLED DIRECTLY TO THE MECHANICAL CONTRACTOR.
- 20.4. THE CONTRACTOR IS TO PROVIDE THE REQUIRED RESOURCES AND STAFF TO REVIEW THE INSTALLATION WORK AND DEMONSTRATE THE OPERATION OF EQUIPMENT.
- 20.5. THE CONSULTANT WILL ISSUE A DEFICIENCY LIST WITHIN FIVE (5) DAYS OF THE SITE VISIT. ALL DEFICIENCIES SHALL BE COMPLETED WITHIN TWO (2) WEEKS OF THE REPORT ISSUED DATE AND A LETTER SUBMITTED TO THE CONSULTANT ADVISING THAT THE WORK IS COMPLETE. FAILURE TO COMPLETE THE WORK WILL RESULT IN WORK BEING COMPLETED BY THE OWNER AND THE COSTS DEDUCTED FROM THE FINAL PAYMENT.

21. BALANCING AIR SYSTEMS

- 21.1. INDEPENDENT AIR BALANCE CONTRACTOR OR QUALIFIED MECHANICAL CONTRACTOR SHALL ACCURATELY BALANCE THE SUPPLY, RETURN, OUTSIDE AND EXHAUST AIR TO PROVIDE AIR VOLUME QUANTITIES INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS. BALANCER SHALL BE QUALIFIED FOR TAB WORK PER NEBB STANDARDS.
- 21.2. ADJUST DUCT AND TERMINAL BALANCE DAMPERS TO BALANCE BOTH THE HEATING AND COOLING SUPPLY AIR SYSTEM TO PROVIDE THE DESIGN AIR QUANTITIES WITHIN +/- 10% AT EACH OUTLET AND MAINTAIN THE DESIGN RELATIONSHIP BETWEEN THE SUPPLY AND RETURN AIR SYSTEMS.
- 21.3. ADJUST DIFFUSERS TO OBTAIN THE OPTIMUM AIR DISTRIBUTION PATTERN. SET FINAL BALANCE POSITION ON ALL BALANCE DAMPERS AND ADJUSTABLE AIR TURNING DEVICES PRIOR TO AIR FLOW TESTING AND BALANCE REPORT WRITE-UP.
- 21.4. SUBMIT A REPORT TO THE CONSULTANT INDICATING FINAL AIR QUANTITIES (SUPPLY, OUTDOOR AND EXHAUST AIR) OBTAINED. PROVIDE SINGLE LINE DUCT LAYOUT WITH TERMINAL DEVICES WITH DESIGN AND ACTUAL AIRFLOWS.

22. BALANCING WATER SYSTEMS

- 22.1. MEASURE AND ADJUST THE WATER FLOW TO THE SPECIFIED GPM BY ADJUSTING THE FLOW CONTROL VALVES ON THE OUTLET OF THE PUMPS AFTER BALANCING INDIVIDUAL HEATING DEVICES.
- 22.2. SUBMIT WATER BALANCING REPORT TO CONSULTANT AT SUBSTANTIAL COMPLETION.

23. COMMISSIONING AND DEMONSTRATION

- 23.1. THE CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND COMMISSIONING OF ALL EQUIPMENT SUPPLIED AND REUSED IN THE SCOPE OF THE MECHANICAL WORK.
- 23.2. CONFIRM OPERATION OF ALL NEW EQUIPMENT AND REVIEW CONDITION OF ALL EXISTING HVAC EQUIPMENT BEING REUSED.
- 23.3. AT THE CONCLUSION OF THE COMMISSIONING, DEMONSTRATE THE OPERATION OF THE MECHANICAL SYSTEMS AT ALL LOADS TO THE ENGINEER AND OWNERS OPERATING STAFF.
- 23.4. AT THE COMPLETION OF THE COMMISSIONING AND TESTING AND BALANCING, SUBMIT A REPORT TO THE ENGINEER CERTIFYING THAT ALL OF THE WORK UNDER THE CONTRACT IS COMPLETE, CLEAN AND OPERATIONAL AND IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- 23.5. COMMISSIONING REPORT TO BE INSERTED IN THE OPERATING AND MAINTENANCE MANUAL.

END OF GENERAL SPECIFICATIONS

HVAC GENERAL NOTES

- GENERAL NOTES APPLY TO HVAC SHEETS.
- WORK SHALL COMPLY WITH CURRENT BUILDING CODES AND LOCAL BYLAWS AND AMENDED BY THE AUTHORITY HAVING JURISDICTION, INCLUDING APPLICABLE SECTIONS OF NFPA, BUILDING BYLAWS AND PROVINCIAL CODE. PERMITS ASSOCIATED WITH THE WORK SHALL BE PAID FOR BY THE MECHANICAL CONTRACTOR. CONTRACTOR SHALL OBTAIN ALL INSPECTIONS REQUIRED.
- CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
- COORDINATE WORK WITH THE WORK OF OTHER TRADES, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND OF THE EXISTING CONDITIONS AT THE PROJECT SITE.
- DRAWINGS FOR THE MECHANICAL WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWING SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, OFFSETS, ACCESSORIES, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
- DUCT DIMENSIONS ON PLANS INDICATE DIMENSIONS OF INTERNAL FREE AREA.
- PERFORATED CEILING DIFFUSERS SHALL BE 4-WAY UNLESS NOTED OTHERWISE.
- COORDINATE ROOF WORK WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- UNLESS NOTED OTHERWISE, RECTANGULAR DUCT ELBOWS GREATER THAN 45° SHALL BE MITERED ELBOWS WITH DOUBLE-THICKNESS TURNING VANES AND RECTANGULAR DUCT ELBOWS 45° OR LESS SHALL HAVE RADIUS ELBOWS WITH AN INSIDE RADIUS OF AT LEAST 1/2 THE WIDTH OF THE DUCT.
- REPLACE AIR FILTERS WITH NEW, CLEAN MERV 8 AIR FILTERS AT TURNOVER.
- THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- PROVIDE LABELING CALLED FOR IN THE HVAC DRAWINGS USING ENGRAVED PHENOLIC PLATES.
- PROVIDE P3000 12 GA. UNISTRUT WITH PG FINISH FOR DUCT SUPPORTS AND OTHER UNISTRUT IN AREAS EXPOSED TO VIEW. SLOTTED UNISTRUT AND OTHER UNISTRUT WITH HOLES IS NOT ACCEPTABLE.

HVAC MATERIAL SCHEDULE

	APPLICATION	ALLOWABLE MATERIAL
DUCT		
	CONCEALED, GENERAL EXHAUST	RECT. OR ROUND AS SHOWN
	CONCEALED, RETURN	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, SUPPLY	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, TYPE I HOOD EXHAUST	RECTANGULAR 16 GA. BLACK IRON W/ WRAP OR UL 1978 FACTORY-MANUFACTURED DUCT W/ WRAP (SUBMIT SHOP DRAWINGS FOR FACTORY-MANUFACTURED DUCT PRIOR TO ORDERING FOR APPROVAL)
	EXPOSED GENERAL EXHAUST	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED RETURN	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED SUPPLY	RECT. LINED OR ROUND AS SHOWN, NO EXPOSED DUCT-SEALING MASTIC
PIPE		
	REFRIGERANT	TYPE 'L' COPPER
	HEATING WATER (SUPPLY & RETURN)	SCH.40 BLACK STEEL, GRADE B
	CHILLED WATER (SUPPLY & RETURN)	SCH.40 BLACK STEEL, GRADE B
	CLOSED CIRCUIT HEAT PUMP	SCH.40 BLACK STEEL, GRADE B
	CONDENSING WATER (SUPPLY & RETURN)	SCH.80 BLACK STEEL, GRADE B

HVAC SYMBOLS

	DEMOLITION
	DUCTWORK
	ACOUSTICALLY INSULATED DUCT
	SUPPLY AIR DUCT RISER - UP
	RETURN AIR DUCT RISER - UP
	SUPPLY AIR DUCT RISER - DOWN
	RETURN AIR DUCT RISER - DOWN
	SUPPLY AIR GRILLE - NEW
	RETURN/EXHAUST AIR GRILLE - NEW
	SUPPLY AIR GRILLE - EXISTING
	RETURN/EXHAUST AIR GRILLE - EXISTING
	DOOR UNDERCUT
	DOOR GRILLE
	TURNING VANES
	ACCESS HATCH
	ACCESS PANEL
	HEAT TRACE CABLE
	EXHAUST FAN - CEILING MTD.
	EXHAUST FAN - INLINE
	FIRE DAMPER - NEW
	FIRE DAMPER - EXISTING
	SMOKE DAMPER - NEW
	SMOKE DAMPER - EXISTING
	MOTORIZED DAMPER
	BALANCING DAMPER
	BACK DRAFT DAMPER
	PROGRAMMABLE THERMOSTAT
	TEMPERATURE SENSOR
	GAS METER
	WATER METER
	AIR FLOW (CFM / L/S)
	PLAN NOTE

	A 24x24 145	← DIFFUSER/GRILLE TAG
	↓	↑
	L	← AIR FLOW (CFM/L/S)
	—CWS—	CONDENS. WATER SUPPLY
	—CWR—	CONDENS. WATER SUPPLY
	—CHWS—	CHILLED WATER SUPPLY
	—CHWR—	CHILLED WATER SUPPLY
	—HWS—	HEATING WATER SUPPLY
	—HWR—	HEATING WATER RETURN
	—RL—	REFRIGERANT LIQUID
	—RV—	REFRIGERANT VAPOR

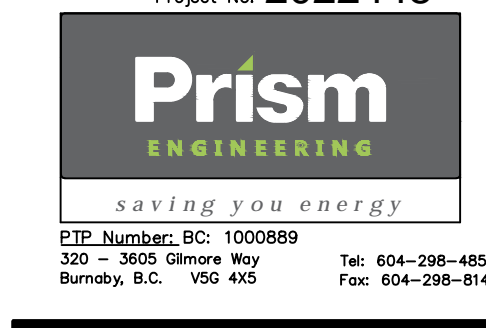
ABBREVIATIONS

(E)	EXISTING
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
ADJ	ADJACENT
AHJ	AUTHORITY HAVING JURISDICTION
APPROX	APPROXIMATELY
BLDG	BUILDING
CIE	CONNECT INTO EXISTING
CLG	CEILING
CO	CLEAN OUT
CIE	CONNECT INTO EXISTING
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRC
DN	DOWN
DWG(S)	DRAWING(S)
EXT'G	EXISTING
ELEC	ELECTRICAL
F&I	FURNISH AND INSTALL
FA	FROM ABOVE
FB	FROM BELOW
FD	FLOOR DRAIN
FT	FOOT/FEET
GC	GENERAL CONTRACTOR
HB	HOSE BIB
HD	HUB DRAIN
HVAC	HEATING, VENTILATION, AIR CONDITIONING
LL	LANDLORD
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
OA	OUTSIDE AIR
RA	RETURN AIR
RE&RE	REMOVE & REINSTALL
REQD	REQUIRED
REV	REVISION
RL	RELOCATE
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY
RWL	RAIN WATER LEADER
SA	SUPPLY AIR
SF	SQUARE FEET
TA	TO ABOVE
TB	TO BELOW
TR	TO REMAIN
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
VSC	VARIABLE SPEED CONTROLLER
VENT	VENT TO ROOF
W/	WITH
WIC	WALK-IN COOLER

Consultant:



Project No: 2022448



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NEWPORT BEACH, CA 92660
TELEPHONE: 714.874.7392
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 52-4546
KING GEORGE HUB
9900 KING GEORGE BLVD., CRU #50
SURREY, V3T 4Y3
B.C., CANADA

DESIGN BULLETIN: DB 03/ 2022

REVISION SCHEDULE

Rev	Date	Description	By
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3	28/NOV/22	TENDER	PE

Drawn: Checked:

CYL/ MHP SKO

Project No.

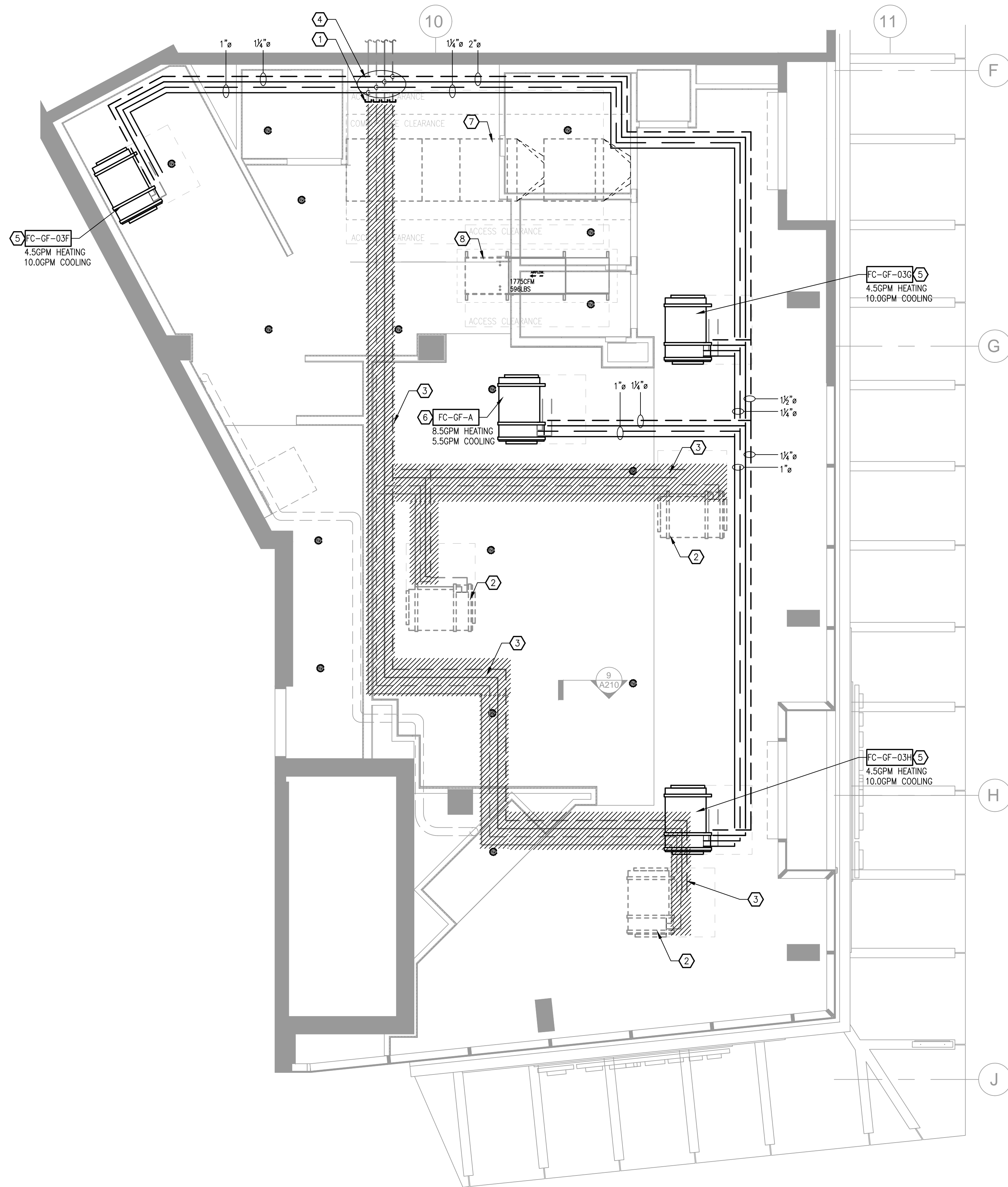
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GENERAL
SPECIFICATIONS

M010

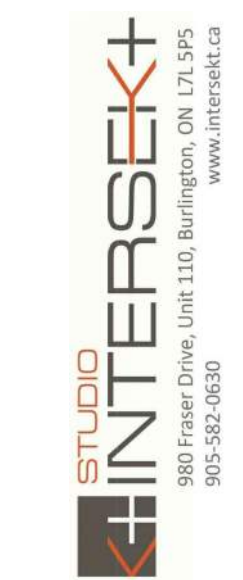
HVAC PLAN NOTES

- EXISTING HWS/R AND CHWS/R PIPING TO BE CAPPED TO APPROXIMATELY 24" FROM DEMISING WALL. ENSURE EXISTING PIPES DO NOT CONFLICT WITH THE INSTALLATION OF PCU-1 AND ASSOCIATED CLEARANCES TO COMBUSTIBLE MATERIALS.
- EXISTING FANCOIL TO BE RELOCATED C/W ASSOCIATED VALVES, SENSORS, ETC.
- EXISTING HWS/R AND CHWS/R PIPING TO BE REMOVED.
- CONNECT NEW HWS/R AND CHWS/R PIPING AT TOP OF EXISTING MAINS AND RUN NEW SYSTEM PIPING AS TIGHT TO U/S SLAB AS POSSIBLE, TO KEEP PIPES OUT OF THE WAY OF DUCTS AND NEW EQUIPMENT.
- CONNECT NEW HWS/R AND CHWS/R PIPING TO RELOCATED FANCOIL.
- INSTALL NEW FANCOIL TIGHT TO U/S OF SLAB AND PROVIDE NEW HWS/R AND CHWS/R PIPING C/W NEW VALVES AS SHOWN ON DETAIL 4/M700.
- NEW PCU SUSPENDED U/S OF STRUCTURE. REFER TO DWG.M101 FOR LOCATION. PIPING TO AVOID CROSSING THIS EQUIPMENT.
- NEW MAU UNIT SUSPENDED U/S OF STRUCTURE. REFER TO DWG.M101 FOR LOCATION. COORDINATE PIPE ROUTING AROUND UNIT TO MAINTAIN CLEARANCE REQUIREMENTS.

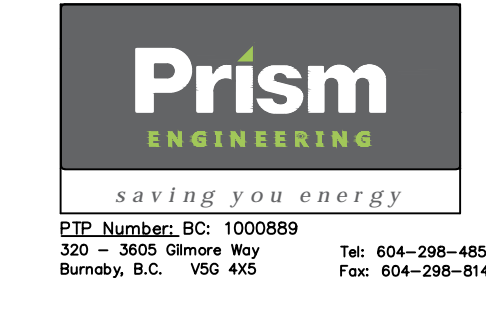


1 HVAC DEMO PLAN
M100 SCALE: 1/4" = 1'-0"

Consultant:



Project No: 2022448



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610 NEWPORT CENTER DR. SUITE 1300
NEWPORT BEACH, CA 92660
TELEPHONE: 714.284.7392
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 52-4546
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9900 KING GEORGE BLVD., CRU #50
SURREY, V3T 4V3
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3	28/NOV/22	TENDER	PE

Drawn: CYL/MHP
Checked: SKO

Project No.

Contents:
HVAC DEMO PLAN

M100

GRILLE AND DIFFUSER SCHEDULE

TAG	DESCRIPTION	FACE SIZE	MATERIAL	FINISH	MOUNTING	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL NO.	SPECIFICATION
BS-1	BATHROOM AIR PURIFICATION UNIT	NA	STAINLESS STEEL	STAINLESS STEEL	SURFACE MTD	TUV	GC	RGF ENVIRONMENTAL GROUP	BRU ASSEMBLY	REFER TO ELECTRICAL DRAWINGS FOR CONNECTION.
CD-1	PERFORATED CEILING DIFFUSER	24"X24"	ALUMINUM	WHITE	LAY-IN	GC	GC	NALCOR	4320A TYPE L	PROVIDE WITH INTEGRAL OBD.
SR-1	ROUND AIR NOZZLE DIFFUSER	SEE DWGS	ALUMINUM	WHITE	WALL MTD	GC	GC	NALCOR	RAND-SM	SURFACE MOUNTED ROUND AIR NOZZLE. STANDARD AW APPLIANCE FINISH.
ER-1	PERFORATED CEILING EXHAUST	12"X12"	ALUMINUM	WHITE	SURFACE MTD	GC	GC	NALCOR	4330R TYPE S	PROVIDE WITH INTEGRAL OBD.
RG-1	PERFORATED CEILING RETURN	SEE DWGS	ALUMINUM	WHITE	LAY-IN	GC	GC	NALCOR	4340RA	PERFORATED RETURN GRILLE WITH EXTRUDED FRAME.

FAN SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NO.	AIR FLOW MIN/MAX (CFM)	E.S.P (IN WC)	POWER (V/PHHZ)	MOTOR HP	RPM	WEIGHT (LBS)	SPECIFICATION
MAU-1	MAKEUP AIR FAN	CAPTIVEAIRE	A1D.250-15D	1000/1775	0.5	208/360	2	1957	602	FLA 2.1, MCA 2.7A, MOCF 15A, SONES 18. REFER TO CAPTIVEAIRE DRAWINGS FOR EQUIPMENT DIMENSIONS.
SF-1	SUPPLY FAN	COOK	100SQN-D GALV EC	700	0.75	208/160	0.33	1902	100	DIRECT DRIVE SUPPLY FAN C/W OSHA GUARD AND MOTOR COVER, VIBRATION ISOLATORS, BACKDRAFT DAMPER, DISCONNECT AND STARTER.
EF-2	WASHROOM EXHAUST FAN	CAPTIVEAIRE	CFA 500CA	250	0.5	120/160	0.31	643	40	FLA 2.2, GENERAL PURPOSE INLINE FAN.
ROL-1	KITCHEN EXHAUST	CAPTIVEAIRE	SF20DD	2925	1.75	600/360	5	1684	2078	FLA 14.5, SONES 23. REFER TO CAPTIVEAIRE DRAWINGS FOR EQUIPMENT DIMENSIONS.

HOOD SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NO.	LENGTH (CFM)	EXHAUST (CFM)	MAKE UP AIR (CFM)	SUPPLY (CFM)	DESIGN CFM/FT	WEIGHT (LBS)	SPECIFICATION
HD-1	KITCHEN EXHAUST HOOD	CAPTIVEAIRE	5424 ND-2-A CPSR-F	13'-0"	2925	1775	798	225		SEE CAPTIVEAIRE DRAWINGS

HEATED AIR CURTAIN SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NO.	AIRFLOW (CFM)	HEATING OUTPUT (KW)	FLA (A)	LENGTH (INCHES)	POWER (V/PHHZ)	WEIGHT (LBS)	SPECIFICATION
HAC-1	MAIN ENTRY AIR CURTAIN	FRICO	PAEC3200CE-208-NA	2250	44MEH	39	82.7	208/360	112	INSTALLATION HEIGHT MAXIMUM 10.5FT (3.2m). 3 STEP FAN, 2 ELECTRICAL HEATING STEPS, WALL BRACKET, WHITE.
HAC-2	SECONDARY ENTRY AIR CURTAIN	FRICO	PAEC3200CE-208-NA	2250	44MEH	39	82.7	208/360	112	INSTALLATION HEIGHT MAXIMUM 10.5FT (3.2m). 3 STEP FAN, 2 ELECTRICAL HEATING STEPS, WALL BRACKET, WHITE.

FANCOIL SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL NO.	AIR VOLUME (CFM)	COOLING CAPACITY (TON)	COOLING CAPACITY (BTUH)	HEATING CAPACITY (BTUH)	POWER (V/PHHZ)	WEIGHT (LBS)	SPECIFICATION
FC-GF-A	KITCHEN ZONE	CARRIER	42CAA08BPEY6YAR	800	2	20,227	82,371	120/160	64	HEATING WATER FLOW: 8.4GPM (82,371 BTUH), COOLING WATER FLOW: 5.5GPM (20,227 BTUH), 4 ROW COOLING COIL, 0.5" EXTERNAL STATIC PRESSURE, 2.4 FLA, 3 MCA, 15A.

Consultant:



Project No: 2022448



ETP Number: BC: 1000889
320 - 3600 Gilmore Way
Burnaby, B.C. V5G 4K5
Tel: 604-298-4558
Fax: 604-298-8143

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NEWPORT BEACH, CA 92660
TELEPHONE: 714.284.7392
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 52-4546
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SURREY, V3T 4Y3
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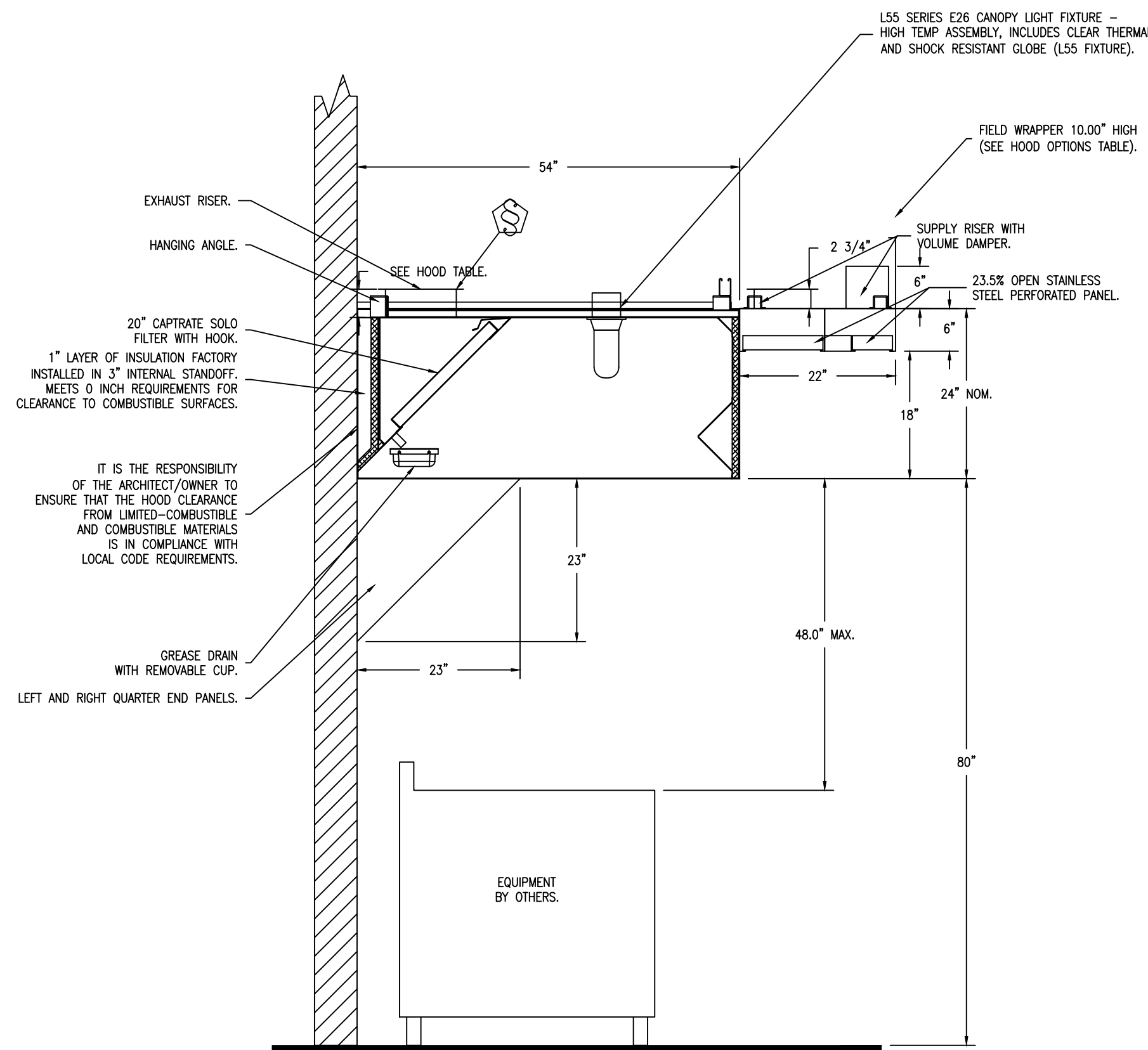
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Project No.

Contents:

HVAC SCHEDULES

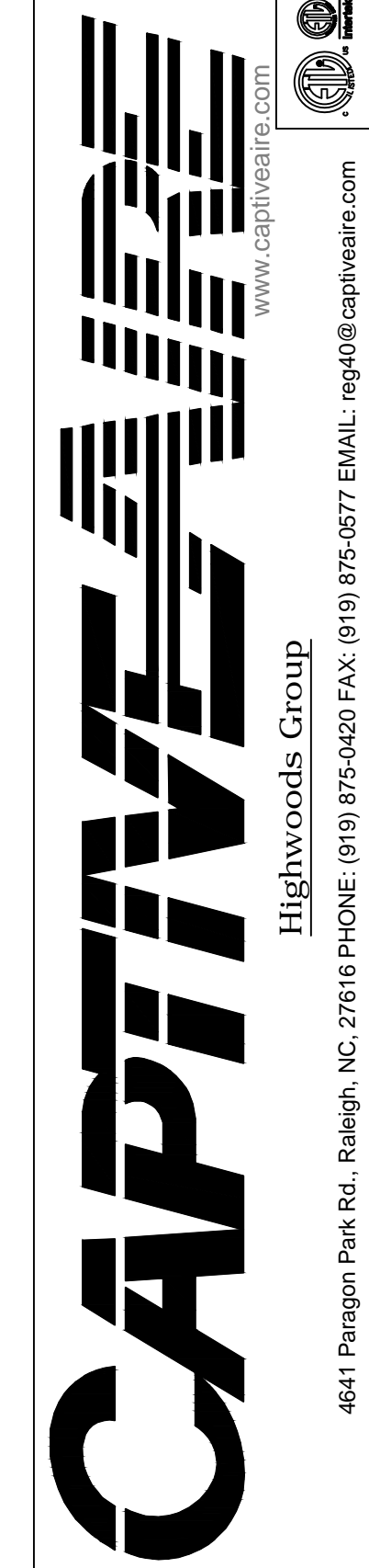
M600



SECTION VIEW - MODEL 5424ND-2-ACPSP-F
HOOD - #1

KITCHEN EXHAUST SYSTEM VENDOR DRAWINGS HAVE BEEN INCLUDED FOR REFERENCE PURPOSES ONLY. EQUIPMENT AND COMPONENTS AS DETAILED ABOVE TO BE SUPPLIED DIRECTLY BY THE OWNER FOR INSTALLATION UNDER THIS CONTRACT

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DESCRIPTION	DATE

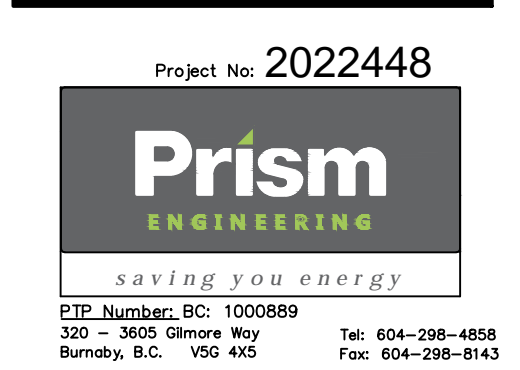


CHIPOTLE KING GEORGE HUB #4546
SURREY, BC, V3T 4Y3

DATE: 9/16/2022
DWG.#: 5600858
DRAWN BY: JMB-40
SCALE: NTS
MASTER DRAWING

SHEET NO.
2

4641 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 975-0420 FAX: (919) 975-0577 EMAIL: rsg40@captiveair.com



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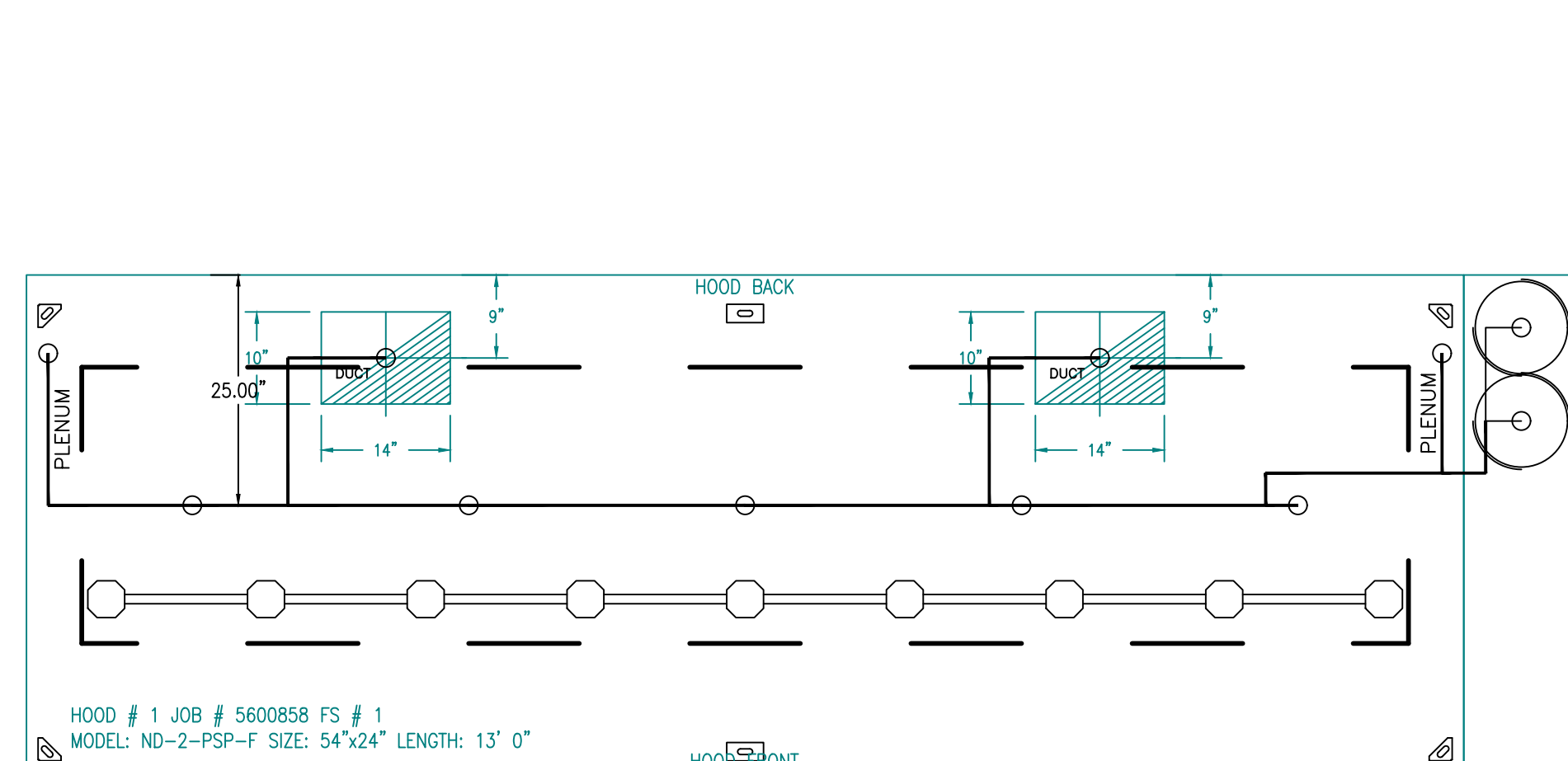
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Project No.
Contents:
KITCHEN EXHAUST SYSTEM DETAILS

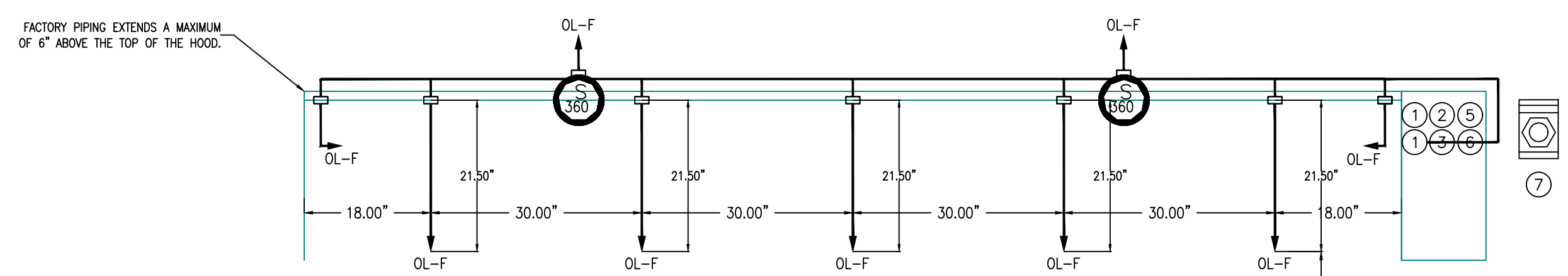
M801



SYSTEM REQUIRES A MINIMUM OF 7 FT OF EQUIVALENT PIPE LENGTH BETWEEN TANK AND NEAREST APPLIANCE NOZZLE FOR MOST APPLIANCES. EACH 90 DEGREE ELBOW ADDS 1.3 FT OF EQUIVALENT LENGTH. SEE MANUAL FOR DETAILS

- NOTES
- FIELD PIPE DROPS AS SHOWN
 - PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
 - FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
 - SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELING, SALAMANDERS, ETC.
 - OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
 - IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
 - FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

HOOD # 1 JOB # 5600858 FS # 1
MODEL: ND-2-PSP-F SIZE: 54"x24" LENGTH: 13' 0"



- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.
- OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

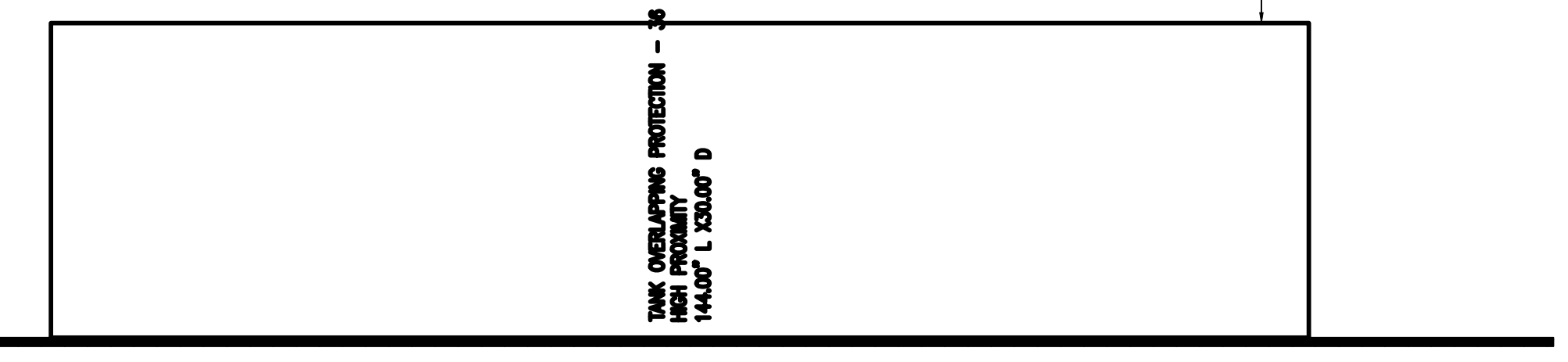
JOB #: 5600858.
JOB NAME: CHIPOTLE KING GEORGE HUB #4546.

SYSTEM SIZE: TANK-SP-2 TOTAL FP REQUIRED: 36.
HOOD # 1 13' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 10" x 14".
RISER # 2 SIZE: 10" x 14".
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

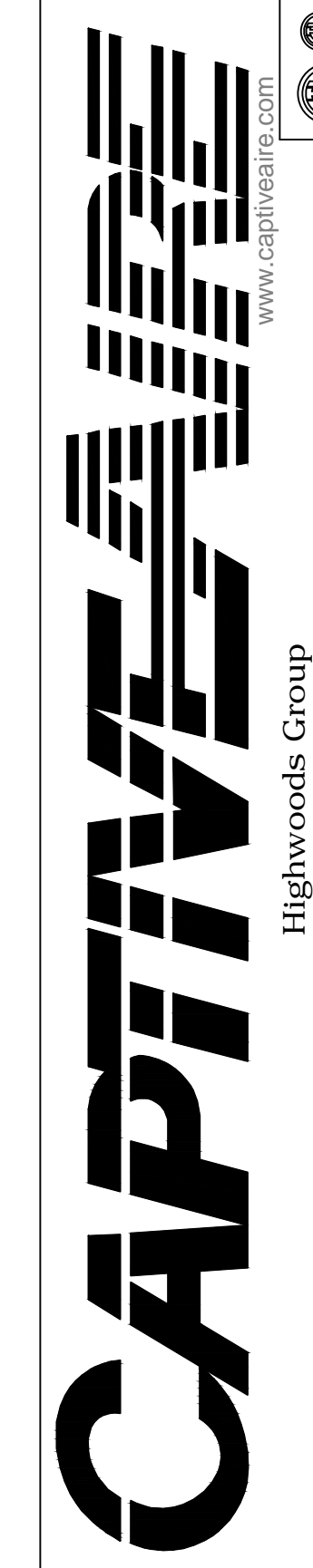
LEGEND - FIRE CABINET TANK SYSTEM

- 4 GALLON TANK.
- PRIMARY ACTUATOR RELEASE.
- SECONDARY ACTUATOR RELEASE.
- PRESSURE SUPERVISION SWITCH.
- PRIMARY HOSE ASSEMBLY.
- SECONDARY HOSE ASSEMBLY.
- REMOTE MANUAL ACTUATION DEVICE.



INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE, TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR ONE TEST; ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES), ONE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

REVISIONS	
DESCRIPTION	DATE

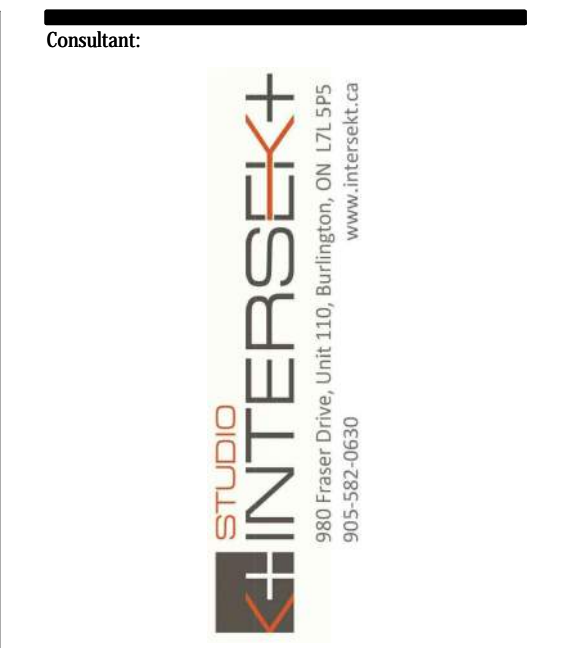


CHIPOTLE KING GEORGE HUB #4546
SURREY, BC, V3T 4Y3

DATE: 9/16/2022
DWG.#: 5600858
DRAWN BY: JMB-40
SCALE: NTS
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SHEET NO. 6

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saving you energy
ETP Number: BC: 1000889
320 - 3605 Gilmore Way
Burnaby, B.C. V5G 4K5
Tel: 604-298-4558
Fax: 604-298-8143

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610 NEWPORT CENTER DR. SUITE 1300
NEWPORT BEACH, CA 92660
TELEPHONE: 714.284.7392
INTERNET: WWW.CHIPOTLE.COM

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Project No.

Contents:
KITCHEN EXHAUST SYSTEM DETAILS

M805

EXHAUST FAN INFORMATION - JOB#5600858

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	WEIGHT (LBS)	SONES
1	PCU-1	1	SIF20DD	CAPTIVEAIRE	2925	1.750	1684	TEFC,PREMIUM	5.000	2.8860	3	575	5.1	2078	23.5
2	EF-2	1	CFA 500CA	CAPTIVEAIRE	250	0.500	643	GENERALPURPOSE	0.310	0.1530	1	115	2.2	40	N/A

MUA FAN INFORMATION - JOB#5600858

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
3	MAU-1	1	A1-D-250-15D	15MF-1-MOD	A1-D-250	1000	1775	0.500	1957	ODP,PREMIUM	2.000	1.0510	3	575	2.1	2.7A	15A	602	18.7

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
3	MAU-1	201717	185580	110F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

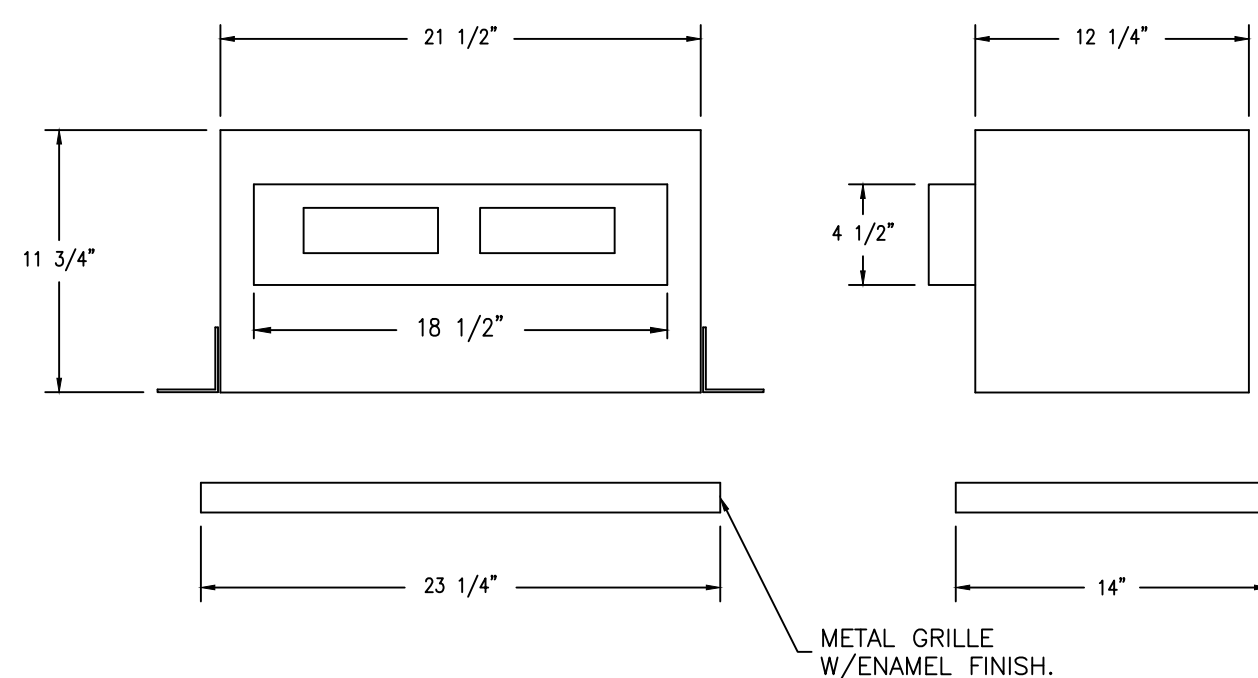
FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION		
1	PCU-1	1	SIF 20- SS LOW SP STRAIGHT DISCHARGE- SQUARE TO ROUND DISCHARGE ADAPTER		
		1	SIF20 - INLET - STANDARD 20" DUCT CONNECTION		
		1	PCU-SIZE 4 SIF-20 HESS		
		1	RUBBER VIBRATION ISOLATORS (SET OF 4), ISO16 THRU ISO22		
		1	SIF - HORIZONTAL FLOOR MOUNT - PRE-INSTALLED MOUNTS (11-36)		
		1	OPPOSITE SIDE CONTROLS- SIF		
		1	POLLUTION CONTROL UNIT WITH PREFILTER, HIGH EFFICIENCY, AND DUAL ODOR CONTROL WITH INSTALLED ELECTRICAL DETECTION SYSTEM. SIZE 4		
		1	2 YEAR PARTS WARRANTY		
		2	EF-2	1	982L IN LINE KIT
				1	STRAIGHT THROUGH DISCHARGE - ASSEMBLY - CFA INLINE
1	CEILING VIBRATION HANGERS				
3	MAU-1	1	FAN CONTROL - 3 AMP FAN MOUNTED SPEED CONTROL FOR CFA CEILING FANS		
		1	2 YEAR PARTS WARRANTY		
		1	INLET PRESSURE GAUGE, 0-35"		
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC		
		1	LOW FIRE START		
		1	SHIP LOOSE GAS STRAINER 3/4"		
		1	AC INTERLOCK RELAY - 24VAC COIL		
		1	UPSTREAM PILOT FOR SIZES 1-3		
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING		
		1	INSULATION OPTION FOR VBANK FILTER SECTION		
		1	DF1 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT		
		1	EXHAUST CONTACTOR AFTER AIRFLOW SWITCH - FIELD WIRED		
		1	FREZZESTAT (10)		
1	LOAD REACTOR MOUNTED IN FAN				
1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY				
1	UNIT MOUNTED VFD FOR USE WITH ECPM03				
1	2 YEAR PARTS WARRANTY				

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST				SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT	
1	PCU-1								
2	EF-2								
3	MAU-1				YES		YES		

FAN #2 CFA 500CA - EXHAUST FAN (EF-2)



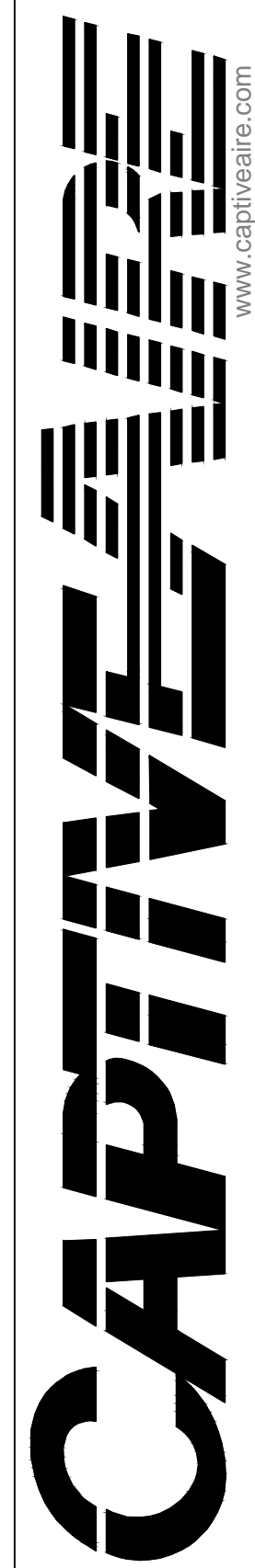
FEATURES:

- 1/2" ACOUSTIC HOUSING INSULATION.
- 20 GA. GALVANIZED STEEL HOUSING.
- PLUG TYPE DISCONNECT.
- BUILD IN AUTOMATIC BACKDRAFT DAMPER.
- AMCA SOUND & AIR CERTIFIED.
- UL LISTED.
- CAN BE INSTALLED IN CEILING OR WALL.
- 8 POSITION MOUNTING BRACKETS.

OPTIONS

- 982L IN LINE KIT.
- STRAIGHT THROUGH DISCHARGE - ASSEMBLY - CFA INLINE.
- CEILING VIBRATION HANGERS.
- FAN CONTROL - 3 AMP FAN MOUNTED SPEED CONTROL FOR CFA CEILING FANS.
- 2 YEAR PARTS WARRANTY.

REVISIONS	
DESCRIPTION	DATE



CHIPOTLE KING GEORGE HUB #4546
SURREY, BC, V3T 4Y3

DATE: 9/16/2022

DWG.#: 5600858

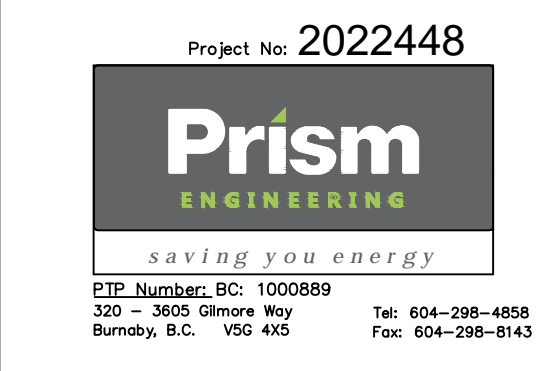
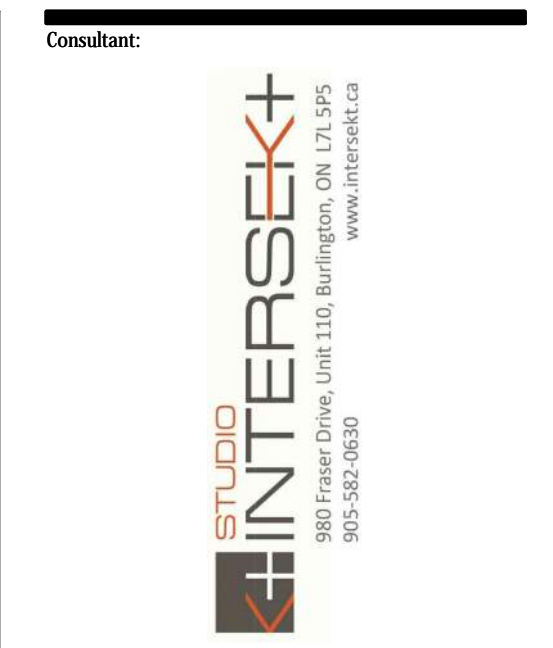
DRAWN BY: JMB-40

SCALE: NTS

MASTER DRAWING

SHEET NO. 9

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STORE NO.: 52-4546
KING GEORGE HUB
9900 KING GEORGE BLVD., CRU #50
SURREY, V3T 4Y3
B.C., CANADA

DESIGN BULLETIN: DB 03/ 2022

Rev	Date	Description	By
1	08/SEP/22	COORDINATION	PE
2	16/SEP/22	FOR ILL APPROVAL	PE
3	02/NOV/22	IFP & IFT	PE
3	28/NOV/22	TENDER	PE

Drawn:	Checked:
CYL/ MHP	SKO

Project No.

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KITCHEN EXHAUST SYSTEM DETAILS

M808

