ABBREVIATIONS

AC	ACCESS COVER AIR CONDITIONING
AD	ACCESS DOOR AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AH	AIR HANDLING UNIT
AP	ACCESS PANEL
ATC	AUTOMATIC TEMPERATURE CONTROL
AUTO	AUTOMATIC
AV	AIR ADMITTANCE VALVE
AW	AIR WASHER
B	BOILER
BB	BASEBOARD
BDD	BACKDRAFT DAMPER
BFP	BACKFLOW PREVENTOR
BLD	BUILDING
BOD	BOTTOM OF DUCT
BOU	BOTTOM OF UNIT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CA	COMBUSTION AIR
CC	COOLING COIL
CD	CONDENSATE DRAIN CONSTRUCTION DOCUMENT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CO	CLEAN OUT
CONN	CONNECTION
CP	CIRCULATING PUMP
CR	CONDENSATE RETURN
CT	COOLING TOWER
CU	CONDENSING UNIT COPPER
CW	COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DA	DILUTION AIR
DB	DRY BULB
DCW	DOMESTIC COLD WATER
DF	DRINKING FOUNTAIN DUCT FURNACE DESTRATIFICATION FAN DOWN FLOW
DFU	DRAINAGE FIXTURE UNIT
DH	DUCT HEATER
DHW	DOMESTIC HOT WATER
DIA	DIAMETER
DM	DAMPER
DN	DOWN
DWG	DRAWING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR EVAPORATIVE COOLER
EF	EXHAUST FAN
EH	ELECTRIC HEATER EXHAUST HOSE
EL	ELEVATION
EQ	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
EW	EMERGENCY EYE WASH
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
F	FURNACE
FB	FAN POWERED VAV BOX
FC	FAN COIL UNIT
FD	FLOOR DRAIN FIRE DAMPER
FH	FIRE HYDRANT
FL	FILTER
FLR	FLOOR
FOB	FLAT ON BOTTOM
FOS	FLAT ON SIDE
FOT	FLAT ON TOP
FP	FIREPLACE
FS	FLOOR SINK
FSD	FIRE/SMOKE DAMPER
FU	FIXTURE UNIT
GA	GAUGE
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
GPM	GALLONS PER MINUTE
GRD	GRADE
GT	GREASE TRAP
GW	GREASE WASTE
HB	HOSE BIBB
HDR	HEADER
HE	HEAT EXCHANGER
HP	HEAT PUMP
HTR	HEATER
HU	HUMIDIFIER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IE	INVERT ELEVATION
IH	INTAKE HOOD
INSUL	INSULATION
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LPG	LIQUEFIED PETROLEUM GAS
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MD	MANUAL DAMPER
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MU	MAKE-UP AIR UNIT
NATGAS	NATURAL GAS
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OCEW	ON CENTER EACH WAY
ORD	OVERFLOW ROOF DRAIN
P	PUMP
PH	PENT HOUSE
PRV	PRESSURE REDUCING VALVE
P&TV	PRESSURE & TEMPERATURE RELIEF VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
QD	QUICK DISCONNECT
RA	RETURN AIR
RAG	RETURN AIR GRILLE
RD	ROOF DRAIN
RF	RELIEF AIR
RH	RELIEF HOOD RADIANT HEATER
RI	ROUGH-IN
RP	RADIANT PANEL RECIRCULATION PUMP
RT	ROOFTOP UNIT
RV	RELIEF VENT RELIEF VALVE
REQD	REQUIRED
SA	SUPPLY AIR
SC	SELF CONTAINED UNIT
SD	STORM DRAIN
SEF	SMOKE EXHAUST FAN
SF	SUPPLY FAN
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SS	STAINLESS STEEL SANITARY SEWER
ST	SOUND TRAP
STD	STANDARD
TAG	TRANSFER AIR GRILLE
TOD	TOP OF DUCT
TW	THROUGH WALL UNIT
TYP	TYPICAL
UH	UNIT HEATER
UR	URINAL
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER VAV BOX
VTR	VENT THROUGH ROOF
W/	WITH
WA	WATER HAMMER ARRESTOR
WB	WET BULB
WC	WATER CLOSET
WH	WATER HEATER

LEGEND

AxB	BARE SHEET METAL RECTANGULAR DUCT, 'A' AND 'B' ARE INSIDE CLEAR DIMENSIONS. 'A' IS WIDTH OF DUCT IN VIEW SHOWN.
AxB	1" LINED SHEET METAL RECTANGULAR DUCT, OR 1" FIBERGLASS DUCT, SEE DRAWINGS FOR TYPE, 'A' AND 'B' ARE INSIDE CLEAR DIMENSIONS. 'A' IS WIDTH OF DUCT IN VIEW SHOW.
AxB	1 1/2" WRAPPED SHEET METAL RECTANGULAR DUCT, 'A' AND 'B' ARE INSIDE CLEAR DIMENSIONS. 'A' IS WIDTH OF DUCT IN VIEW SHOW.
A"Ø	BARE SHEET METAL ROUND MEDIUM OR LOW PRESSURE DUCT, A"Ø IS DIAMETER.
A"Ø	1 1/2" WRAPPED ROUND MEDIUM OR LOW PRESSURE DUCT, A"Ø IS DIAMETER.
	INSULATED ROUND FLEXIBLE DUCT, 5 FEET MAXIMUM.
	DIRECTION OF AIRFLOW
	SUPPLY DUCT RISER
	SUPPLY DUCT DROP
	RETURN, EXHAUST, OR OUTSIDE AIR DUCT RISER
	RETURN, EXHAUST, OR OUTSIDE AIR DUCT DROP
	ROUND DUCT DROP
	ROUND DUCT RISER
	MANUAL VOLUME DAMPERS (SQUARE OR ROUND)
	MOTORIZED DAMPER OR FIRE/SMOKE DAMPER
	DUCT ACCESS DOOR
	INTAKE LOUVER WITH BIRDSCREEN
	EXHAUST LOUVER WITH BIRDSCREEN
	FIRE DAMPER
	RECTANGULAR ELBOW WITH TURNING VANES
	SLOT DIFFUSER
	SQUARE DIFFUSER
	DUCT MOUNTED GRILLE (RECTANGULAR)
	BARE SHEET METAL ROUND MEDIUM OR LOW
	ROUND DIFFUSER
	24x24 RETURN AIR GRILLE
	24x12 RETURN AIR GRILLE
T	THERMOSTAT OR SENSOR
S	SWITCH
H	HUMIDITY SENSOR
	CLEAN OUT
A	COMPRESSED AIR
CD	CONDENSATE DRAIN
CR	CONDENSATE RETURN
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
	HOT WATER RECIRCULATION LINE
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
G	NATURAL GAS
OD	OVERFLOW ROOF DRAIN
RD	ROOF DRAIN
S	STEAM
SCW	SOFT COLD WATER
SHW	SOFT HOT WATER
V	VENT LINE
VTR	VENT THROUGH ROOF
120°	120° F. HOT WATER
140°	140° F. HOT WATER
	OXYGEN
	VACUUM
160°	160° F. HOT WATER
	BUTTERFLY VALVE
	BALL VALVE
	GATE VALVE
	CHECK VALVE
	PLUG VALVE
	PRV
	2-WAY AUTO VALVE
	3-WAY AUTO VALVE
	THERMOMETER
	GAUGE
	UNION
	STRAINER
	BALANCING VALVE
	RELIEF VALVE
	BACKFLOW PREVENTER
	PIPE ANCHOR
	DIRECTION OF FLOW
	EXPANSION JOINT
	FLEXIBLE CONNECTION
	PIPING TEE DROP TO BELOW
	PIPING ELBOW DROP
	PIPING ELBOW RISER
SS	UNDERGROUND SANITARY SEWER
SS	ABOVE GROUND SANITARY SEWER
	UNDERGROUND COLD WATER
	UNDERGROUND HOT WATER (120° F.)
	ABOVE GROUND COLD WATER
	ABOVE GROUND HOT WATER
	HOSE BIBB
SS	FLOOR DRAIN
SS	FLOOR SINK
	FIRE HYDRANT
	GLOBE VALVE
	CONNECTION OFF SIDE
	CONNECTION OFF BOTTOM
	CONNECTION OFF TOP
	WATER HAMMER ARRESTER
	CAPPED END

DRAWING INDEX

SHEET NUMBER/DRAWING TITLE

MECHANICAL PLANS

M001 TITLE SHEET (LEGEND and ABBREVIATIONS)

M201 MECHANICAL PLAN

M701 MECHANICAL DETAILS & SCHEDULES

PLUMBING PLANS

P201 PLUMBING DEMO PLAN
P202 PLUMBING PLAN

P701 PLUMBING DETAILS & SCHEDULES.

GENERAL NOTES

A) THESE DRAWINGS WERE PREPARED USING THE 2015 IBC, 2015 IMC, 2015 IPC, 2015 IFGC, AND THE 2015 IECC.

B) ALL INSTALLATIONS SHALL BE PER THE 2015 IBC, 2015 IMC, 2015 IPC, 2015 IFGC, AND THE 2015 IECC.

C) THESE DRAWINGS ARE TO SHOW THE GENERAL CONCEPT OF THE SYSTEMS. FIELD VERIFY ALL LOCATIONS AND COORDINATE EXACT ROUTING WITH ALL TRADES.

D) REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES, LIGHTS, CEILING DIFFUSERS, AND FIRE SPRINKLERS.

E) ALL DUCT SIZES LISTED IN THESE DRAWINGS ARE INSIDE CLEAR DIMENSIONS UNLESS NOTED OTHERWISE.

F) SLOPE ALL HORIZONTAL SANITARY WASTE AND VENT PIPING A MINIMUM OF A 1/4" PER FOOT FOR 2 1/2" AND SMALLER, 1/8" PER FOOT FOR 3" TO 6", AND 1/16" FOR 8" AND LARGER.

G) SLOPE ALL HORIZONTAL ROOF DRAINAGE PIPING A MINIMUM OF A 1/8" PER FOOT UNLESS NOTED OTHERWISE.

H) ALL MATERIALS INSTALLED IN AN AREA ABOVE THE CEILING DESIGNATED AS A RETURN AIR PLENUM MUST BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

J) ALL UNDERGROUND DUCT SHALL SLOPE TO ALLOW DRAINAGE TO A POINT PROVIDED WITH ACCESS.

K) PROVIDE CLEANOUTS EVERY 100 FEET ON HORIZONTAL WASTE LINES, EVERY CHANGE OF DIRECTION GREATER THAN 45°, AT THE BASE OF WASTE STACKS, AND NEAR THE POINT THE SEWER ENTERS THE BUILDING.

L) SEISMIC RESTRAINTS ARE REQUIRED PER 2015 IBC. ENGINEERING AND RESTRAINT SELECTION ARE THE RESPONSIBILITY OF THE MECHANICAL AND PLUMBING CONTRACTORS.

M) FIRESTOPPING DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.

N) AS-BUILT DRAWINGS SHALL BE PROVIDED TO THE OWNER OR OWNERS REPRESENTATIVE WITHIN 90 DAYS OF CERTIFICATION OF OCCUPANCY.

O) O&M MANUALS FOR THE PROJECT SHALL BE PROVIDED TO THE OWNER OR OWNERS REPRESENTATIVE WITHIN 90 DAYS OF CERTIFICATION OF OCCUPANCY AND INCLUDE THE FOLLOWING ITEMS: EQUIPMENT SUBMITTALS, MANUFACTURES O&M'S, NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY, HVAC AND SERVICE HOT WATER CONTROLS MAINTENANCE AND CALIBRATION INFORMATION, AND A NARRATIVE OF HOW EACH PIECE OF EQUIPMENT IS TO OPERATE INCLUDING SETPOINTS.

P) PROVIDE AIR AND WATER BALANCING REPORTS TO BUILDING INSPECTOR PRIOR TO FINAL INSPECTION.

THIS DRAWING SHEET AND ALL INFORMATION HEREON IS COPYRIGHTED AND THE PROPERTY OF JTB HVAC & PLUMBING ENGINEERING, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION FROM JTB HVAC & PLUMBING ENGINEERING, INC.

MATERIAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS (UNLESS NOTED OTHERWISE ON PLANS)

LOW PRESSURE RECTANGULAR DUCT

SUPPLY DUCT - SINGLE WALL SHEET METAL WITH 1" LINER.
RETURN DUCT - SINGLE WALL SHEET METAL WITH 1" LINER.
EXHAUST DUCT - SINGLE WALL SHEET METAL.

LOW PRESSURE ROUND DUCT

SUPPLY DUCT - SINGLE WALL SHEET METAL WITH 1 1/2" INSULATION WRAP.
RETURN DUCT - SINGLE WALL SHEET METAL WITH 1 1/2" INSULATION WRAP.
EXHAUST DUCT - SINGLE WALL SHEET METAL.
COMBUSTION AIR DUCT - SINGLE WALL SHEET METAL.

BELOW GRADE DUCT (ROUND OR RECTANGULAR)

SUPPLY DUCT - SINGLE WALL SHEET METAL WITH PVS COATING.
RETURN DUCT - SINGLE WALL SHEET METAL WITH PVS COATING.

FLUE PIPING

SINGLE WALL - ALUMINUM SINGLE WALL (SEE DRAWINGS FOR LOCATIONS).
DOUBLE WALL - ALUMINUM B-VENT PIPE.

PLUMBING SPECIFICATIONS (UNLESS NOTED OTHERWISE ON PLANS)

ABOVE GRADE PIPING

SANITARY WASTE - SCH40 PVC DWV PIPE WITH SOLVENT GLUED DWV FITTINGS.
SANITARY VENT - SCH40 PVC DWV PIPE WITH SOLVENT GLUED DWV FITTINGS.
DOMESTIC COLD WATER - 2" AND SMALLER - BLUE PEX TUBING WITH POLYALLOY CRIMPED FITTINGS.
DOMESTIC COLD WATER - 2" AND LARGER - AQUATHERM OR CPVC PIPE WITH GLUED FITTINGS
DOMESTIC HOT WATER - RED PEX TUBING WITH POLY ALLOY CRIMPED FITTINGS. 1" FIBERGLASS INSULATION.
CONDENSATE DRAINS - (INSIDE) SCH40 PVC WITH SOLVENT CEMENT JOINTS.
CONDENSATE DRAINS - (OUTSIDE) TYPE 'M' CU TUBING WITH SOLDER JOINTS.
NATURAL GAS - 2" AND UNDER SCH 40 BLACK PIPE WITH THREADED JOINTS.
NATURAL GAS - 2 1/2" AND OVDER SCH 40 BLACK PIPE WITH WELDED JOINTS.

BELOW GRADE PIPING

SANITARY WASTE - SCH40 PVC DWV PIPE WITH SOLVENT GLUED DWV FITTINGS.
ROOF DRAINS - SCH40 PVC DWV PIPING WITH SOLVENT GLUED DWV FITTINGS.
DOMESTIC WATER - TYPE 'K' COPPER TUBING WITH LEAD-FREE SOLDER JOINTS.

PERMIT SET

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
A	01/19/2018	RELEASED FOR PERMIT

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PROJECT NAME:

LA CAILLE- BANQUET SUPPORT REMODEL

ADDRESS
9565 WASATCH BLVD
SANDY, UT 84092

DRAWING TITLE:

TITLE SHEET

JOB NO.:	18.005
DATE:	01/19/2018
DRAWN BY:	JTB
SCALE:	NTS

SHEET NUMBER

M001