MECHANICAL SYMBOLS ABBREVIATIONS

(SOME SYMBOLS MAY NOT BE USED ON THE DRAWINGS)

%	PERCENT
ABS	ABSOLUTE
ACC	AIR-COOLED CHILLER
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AF	AIR FOIL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTITUDE
AMB	AMBIENT
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ARI	AIR-CONDITIONING AND REFRIGERATION INSTITUTE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR-CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AVG	AVERAGE
B	BOILER
BD	BACKDRAFT DAMPER
BG	BELOW GRADE
BEMCS	BUILDING ENERGY MANAGEMENT AND CONTROL SYSTEM
BHP	BRAKE HORSEPOWER
BI	BACKWARD INCLINED
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CD	COLD DECK
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CHET	CHILLED WATER EXPANSION TANK
CMPR	COMPRESSOR
COND	CONDENSER
CRAC	COMPUTER ROOM AIR CONDITIONER
CT	COOLING TOWER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CU IN	CUBIC INCH
dB	DECIBEL
DB	DRY BULB
DCP	DISTRIBUTED CONTROL PANEL
DEG	DEGREE
DIA	DIAMETER
DWG	DRAWING
DX	DIRECT-EXPANSION
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EFF	EFFICIENCY
EL	ELEVATION
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
EXP	EXPANSION
F	FAHRENHEIT
FA	FACE AREA
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FH	FUME HOOD
FLEX	FLEXIBLE
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PIPE
FS	FLOW SWITCH
FSD	COMBINATION FIRE-SMOKE DAMPER
FT	FEET OR FOOT
FTU	FAN TERMINAL UNIT
GA	GAUGE OR GAGE
GAL	GALLONS
GALV	GALVANIZED
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GRAINS
H	ENTHALPY
HD	HEAD
HD	HOT DECK
HG	HEAT GAIN OR MERCURY
HGT	HEIGHT
HP	HORSEPOWER
HPS	HIGH PRESSURE STEAM
HR	HOUR
HTHW	HIGH TEMPERATURE HEATING WATER
HVAC	HEATING/VENTILATING/AIR-CONDITIONING
HVU	HEATING AND VENTILATING UNIT
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
HZ	FREQUENCY
ID	INSIDE DIAMETER
IPS	INTERNATIONAL PIPE STANDARD
ips	IRON PIPE SIZE
K	THERMAL CONDUCTIVITY
KH	KITCHEN HOOD
KW	KILOWATT

LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LF	LINEAR FEET
LG	LENGTH
LPS	LOW PRESSURE STEAM
LTHW	LOW TEMPERATURE HOT WATER
LWT	LEAVING WATER TEMPERATURE
MCA	MINIMUM CIRCUIT AMPACITY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MAX	MAXIMUM
MBH	BTU PER HOUR (THOUSAND)
MIN	MINIMUM
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
PD	PUMPED DISCHARGE
PBD	PARALLEL BLADE DAMPER
PH	PHASE (ELECTRICAL)
PPM	PARTS PER MILLION
PRESS	PRESSURE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	PSI GAGE
R	RANKINE
R-22	REFRIGERANT (NUMBER INDICATES TYPE)
RA	RETURN AIR
RAF	RELIEF AIR FAN
RECIRC	RECIRCULATE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SC	SHADING COEFFICIENT
SCFM	CUBIC FEET PER MINUTE-STANDARD CONDITIONS
SD	SMOKE DAMPER
SEC	SECOND
SF	SQUARE FEET
SG	SPECIFIC GRAVITY
SHG	SENSIBLE HEAT GAIN
SHR	SENSIBLE HEAT RATIO
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ	SQUARE
SSD	SUB-SOIL DRAINAGE
STD	STANDARD
SUCT	SUCTION
t	TIME
T	TEMPERATURE SENSOR
TD	TEMPERATURE DIFFERENCE
TEMP	TEMPERATURE
TOC	TOP OF CONCRETE
TOD	TOP OF DUCT
TONS	TONS OF REFRIGERATION
TOP	TOP OF PIPE
TOS	TOP OF STEEL
TSP	TOTAL STATIC PRESSURE
T-STAT	THERMOSTAT
TU	TERMINAL UNIT
TYP	TYPICAL
U	HEAT TRANSFER COEFFICIENT
UH	UNIT HEATER
UF	UNDER FLOOR
V	VOLT
VA	VOLT AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VENT	VENTILATION
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VP	VELOCITY PRESSURE
W	HUMIDITY RATIO OR WATT
W.C.	WATER COLUMN
W.G.	WATER GAUGE
WB	WET BULB
WT	WEIGHT
YR	YEAR

SHEET SYMBOLS

X **DETAIL TITLE**
SCALE: 1/?" = 1'-0"

Ref North — NORTH ARROW

DEVICE TYPE / A / 200 / AIRFLOW — NECK/CFM BUBBLE

AHU-1 OR RTU-XXX — EQUIPMENT TAG

AIR FLOW INDICATOR

1 — NOTE BY SYMBOL (KEYNOTE)

1 — REVISION

POINT OF CONNECTION (NEW TO EXISTING)

POINT OF DISCONNECTION

MECHANICAL EQUIPMENT

FSD — COMBINATION FIRE/SMOKE DAMPER

FD — FIRE DAMPER

SD — SMOKE DAMPER

FSD — COMBINATION FIRE/SMOKE DAMPER IN VERTICAL SA DUCT

FSD — COMBINATION FIRE/SMOKE DAMPER IN VERTICAL RA DUCT

NEW EQUIPMENT (SIZE, SHAPE WILL VARY)

FUTURE KITCHEN / VENTILATION EQUIPMENT (SIZE, SHAPE WILL VARY)

EQUIPMENT TO REMAIN (SIZE, SHAPE WILL VARY)

SP — DUCT STATIC PRESSURE SENSOR

DP — DIFFERENTIAL PRESSURE SENSOR

T — WALL MOUNTED THERMOSTAT

TS — TEMPERATURE SENSOR

HS — HUMIDITY SENSOR

CO2 — CARBON DIOXIDE SENSOR

OS — OCCUPANCY SENSOR

DUCTWORK

DIFFUSER FLOW ARROWS (IF NO ARROWS ARE SHOWN, DIFFUSER IS 4-WAY THROW)

SUPPLY DIFFUSER

ROUND SUPPLY DIFFUSER

RETURN REGISTER

EXHAUST REGISTER

SIDEWALL SUPPLY GRILLE

SIDEWALL RETURN GRILLE

LOUVER W/ SCREEN (IN WALL)

SLOT DIFFUSER

LINEAR DIFFUSER

RETURN AIR SLOT DEVICE

MANUAL OPPOSED BLADE DAMPER

MANUAL BLADE DAMPER

90° ELBOW W/ TURNING VANES

90° MITERED ELBOW

45° MITERED ELBOW

90° LONG RADIUS ELBOW

45° LONG RADIUS ELBOW

CONCENTRIC TRANSITION

ECCENTRIC TRANSITION

RECTANGULAR TO ROUND TRANSITION

RECTANGULAR BRANCH TAP (SMACNA 45)

CONICAL BRANCH TAP

CONICAL LATERAL BRANCH TAKE-OFFS

DUCT CAP

DUCT CONTINUATION - ROUND

DUCT CONTINUATION - RECTANGULAR

AD — DUCT ACCESS DOOR

SUPPLY DUCT (UP / DOWN)

RETURN DUCT (UP / DOWN)

EXHAUST DUCT (UP / DOWN)

ROUND DUCT (UP / DOWN)

18/14 — RECTANGULAR DUCT SIZE (WIDTH / HEIGHT)

18Ø — ROUND DUCT SIZE

FLEXIBLE DUCT CONNECTION

FLEXIBLE DUCT

M — MOTORIZED DAMPER

M — OPPOSED BLADE MOTORIZED DAMPER

BD — BACKDRAFT DAMPER

FLEXIBLE DUCT CONNECTION

MAJOR SPLIT

TRANSFER BOOT

PIPING SYMBOLS

PIPING UP

PIPING DOWN

CO — CLEANOUT

1/8"/FT — DIRECTION OF SLOPE

CD — CONDENSATE DRAIN

HVAC DESIGN CRITERIA

ASHRAE FUNDAMENTALS - 2021:

WEATHER STATION - GREENWOOD COUNTY AP, SC

ELEVATION: 631'

WINTER HEATING DESIGN (99.6%):

21.9 °F DRY BULB

SUMMER COOLING DESIGN (0.4%):

95.4 °F DRY BULB

77.6 °F WET BULB

GENERAL NOTES

1. PERFORM WORK IN ACCORDANCE WITH THE LATEST EDITIONS, REVISIONS, AMENDMENTS OR SUPPLEMENTS OF APPLICABLE STATUTES, ORDINANCES, CODES OR REGULATIONS OF FEDERAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION IN EFFECT ON THE DATE BIDS ARE RECEIVED.
2. PROVIDE ALL SYSTEMS AS COMPLETE WITH ALL REQUIRED ACCESSORIES FOR CODE COMPLIANCE.
3. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR CONSTRUCTION.
4. DUCTWORK SIZES SHOWN ARE FREE AIR STREAM DIMENSIONS.
5. INSTALL DUCTWORK AND PIPING TO PROVIDE THE MAXIMUM POSSIBLE CLEAR HEIGHT UNDERNEATH. (BETWEEN STRUCTURE OR CEILING AND TOP OF DUCT).
6. WHERE APPROVAL CODES HAVE BEEN ESTABLISHED BY OSHA, UNDERWRITER'S LABORATORY, AMERICAN CODES, ANSI; ASME, ASA, ASHRAE, ASTM, ARI, NEL, NFPA, SMACNA, OR THE STATE FIRE INSURANCE REGULATORY BODY, FOLLOW THESE STANDARDS WHETHER OR NOT INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
7. PROVIDE THE ENTIRE SYSTEM AND ITS COMPONENT ITEMS OF EQUIPMENT IN OPERATING CONDITION FREE OF OBJECTIONABLE VIBRATION OR NOISE.
8. COORDINATE WORK SO THAT INTERFERENCES BETWEEN PIPING, DUCTWORK, EQUIPMENT, PLUMBING WORK, ELECTRICAL WORK, AND BUILDING STRUCTURE WILL BE AVOIDED.
9. FURNISH ACCESS DOORS FOR INSTALLATION IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED MECHANICAL EQUIPMENT, VALVES, CONTROLS AND OTHER DEVICES.
10. COORDINATE THE EXACT LOCATION OF DRAIN AND MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL, ARCHITECTURAL, AND STRUCTURAL DRAWINGS PRIOR TO INSTALLATION.
11. RECTANGULAR ELBOWS SHALL BE LONG-RADIUS ELBOWS UNLESS OTHERWISE SHOWN OR NOTED. SUPPLY AIR STANDARD NON-RADIUS 90° ELBOWS SHALL HAVE TURNING VANES.

PREPARED FOR:

WHATABURGER

BL Companies
Architecture
Engineering
Environmental
Land Surveying

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SOUTH CAROLINA — BL COMPANIES INC 4158 — CERTIFICATE OF AUTHORIZATION

Prototype Version

PROTOTYPE RELEASE 2024 Q2 PT23X-ALT

△ Date	Description

SOUTH CAROLINA — LICENSED PROFESSIONAL ENGINEER — No. 42187 — 9/13/24 — DENNIS BURTON

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name

WHATABURGER

Date: 09.13.2024

Project Number

2302551

Description

MECHANICAL COVER SHEET

Scale

NOT TO SCALE

M0.1

9/13/2024 11:29:18 AM C:\Users\PAnderson\Documents\2302551_PT23X-ALT_MECH_Central_PZ2_panderson6QANC.rvt

MECHANICAL KEY NOTES

1. 24"x22" SUPPLY DUCT UP TO RTU-1. PROVIDE DUCT TRANSITION TO MATCH UNIT CONNECTION SIZE.
2. 22"x16" SUPPLY DUCT UP TO RTU-2. PROVIDE DUCT TRANSITION TO MATCH UNIT CONNECTION SIZE.
3. FULL SIZE RETURN DUCT UP TO RTU. PROVIDE DUCT SIZE MATCHING UNIT CONNECTION SIZE.
4. CONNECT KITCHEN EXHAUST HOOD ABOVE GRILL UP TO KEF-1 WITH 16" DIA. PRE-FABRICATED UL 1978 LISTED AND LABELED GREASE DUCT (DURAVENT DIS1 OR EQUAL). PROVIDE TRANSITION ABOVE CEILING TO MATCH HOOD CONNECTION SIZE.
5. 16" GREASE EXHAUST DUCT UP TO KEF-1 ON ROOF, RE: A2/M5.1
6. 8"x8" EXHAUST DUCT UP TO EF-1 ON ROOF, RE: A1/M5.1
7. CONNECT KITCHEN EXHAUST HOOD ABOVE FRYER UP TO KEF-2 WITH 12" DIA. PRE-FABRICATED UL 1978 LISTED AND LABELED GREASE DUCT (DURAVENT DIS1 OR EQUAL). PROVIDE TRANSITION ABOVE CEILING TO MATCH HOOD CONNECTION SIZE.
8. 12" GREASE EXHAUST DUCT UP TO KEF-2 ON ROOF, RE: A2/M5.1
9. 1" CONDENSATE DOWN TO FLOOR. TERMINATE CONDENSATE AT FLOOR DRAIN WITH 1" AIR GAP.
10. FULLY INSULATED 1" COPPER CONDENSATE PIPE UP THROUGH ROOF, RE: C4/M5.1
11. THE PILOT RDM SYSTEM CONTROLLER PANEL SHALL BE MOUNTED AND INSTALLED FLUSH IN THE MANAGER'S OFFICE AT 5' AFF TO CENTER. COORDINATE FINAL LOCATION OF PANEL WITH OWNER AND GC.
12. TEMPERATURE AND HUMIDITY SENSORS "TS" AND "HS" TO BE CEILING MOUNTED AND TIED INTO THE BUILDING CONTROL SYSTEM.
13. LISTED GREASE DUCT ACCESS DOOR ASSEMBLY. INSTALL ON SIDE OF DUCT.
14. SUPPLY AIR DUCT MOUNTED TEMPERATURE SENSOR. INSTALL ON BOTTOM OF DUCT.
15. KITCHEN COOLER EVAPORATOR UNIT. FURNISHED BY OWNER, INSTALLED BY MC IN COORDINATION WITH GC.
16. KITCHEN FREEZER EVAPORATOR UNIT. FURNISHED BY OWNER, INSTALLED BY MC IN COORDINATION WITH GC.
17. KITCHEN ICEMAKER EVAPORATOR UNIT. FURNISHED BY OWNER, INSTALLED BY MC IN COORDINATION WITH GC.
18. MECHANICAL CONTRACTOR TO PROVIDE EQUIPMENT SUPPORTS, REFRIGERANT LINES, AND COMPLETE EQUIPMENT INSTALLATION. COORDINATE EXACT LOCATION OF EQUIPMENT ON-SITE AND ROUTE REFRIGERANT PIPING THROUGH ROOF PENETRATION. COORDINATE PIPING AND UNIT INSTALLATION REQUIREMENTS AND STARTUP WITH KITCHEN EQUIPMENT MANUFACTURER AND GC.
19. REMOTE ANSUL SYSTEM MOUNTED ON WALL. CONFIRM FINAL LOCATION OF STATION WITH OWNER, ARCHITECT, AND OTHER TRADES. REFER TO DETAILS AND SPECIFICATIONS.
20. AIR CURTAIN MOUNTED ON WALL. FURNISHED BY OWNER, INSTALLED BY MC IN COORDINATION WITH GC.

MECHANICAL GENERAL NOTES

A. REFER TO M0.1 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.

B. SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE RTU MANUFACTURER IN THE SUPPLY AND RETURN SIDES OF RTU. COORDINATE INSTALLATION AND CONNECTION OF SMOKE DETECTORS WITH FA CONTRACTOR, EC, AND GC. REFERENCE M6.1 FOR RTU SCHEDULE. ACTIVATION OF SMOKE DETECTORS SHALL SHUT DOWN RTU AND ACTIVATE THE AUDIBLE AND VISUAL SIGNAL PROVIDED.

C. PROVIDE NECESSARY ACCESS AND CLEARANCES AROUND ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATION.

D. MAINTAIN A MINIMUM DISTANCE OF 10'-0" BETWEEN ALL ROOF MOUNTED EQUIPMENT AND EDGE OF ROOF WITH THE EXCEPTION OF EQUIPMENT LOCATED BEHIND AN ARCHITECTURAL GUARD (MINIMUM 42" HIGH) OR PROVIDED WITH AN APPROVED FALL ARREST ANCHORAGE CONNECTOR DEVICE.

E. MAINTAIN A MINIMUM DISTANCE OF 10'-0" BETWEEN MECHANICAL AIR INTAKES AND ALL MECHANICAL EXHAUSTS OR PLUMBING VENTS.

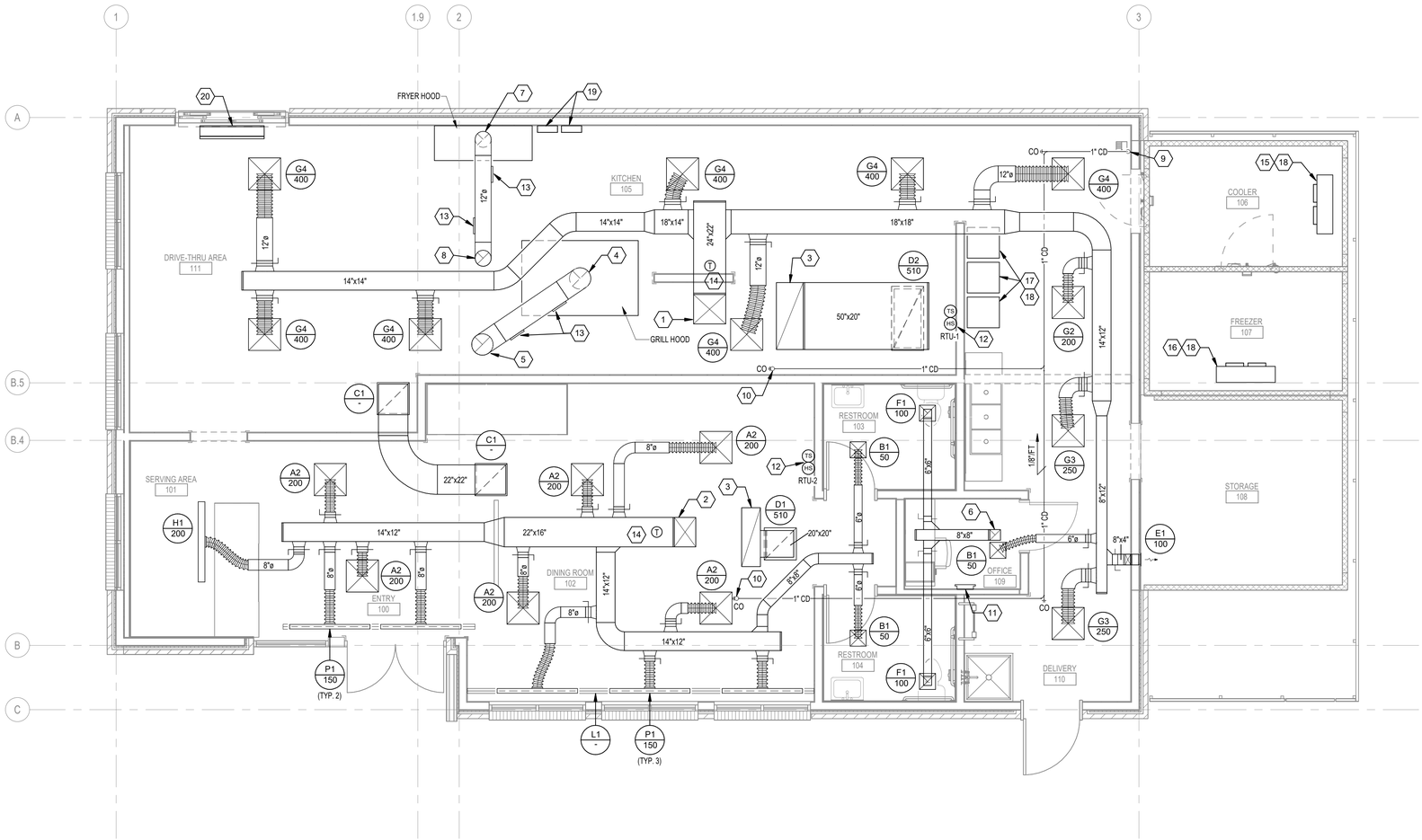
F. AN APPROVED AGENCY SHALL BE HIRED BY THE OWNER AS PART OF THIS PROJECT TO PROVIDE A COMMISSIONING PLAN THAT INCLUDES THE FOLLOWING ITEMS:
- A NARRATIVE DESCRIPTION OF THE ACTIVITIES THAT WILL BE ACCOMPLISHED DURING EACH PHASE OF COMMISSIONING, INCLUDING THE PERSONNEL INTENDED TO ACCOMPLISH EACH OF THE ACTIVITIES.
- A LISTING OF THE SPECIFIC EQUIPMENT, APPLIANCES OR SYSTEMS TO BE TESTED AND A DESCRIPTION OF THE TESTS TO BE PERFORMED.
- FUNCTIONS TO BE TESTED INCLUDING, BUT NOT LIMITED TO, CALIBRATIONS AND ECONOMIZER CONTROLS.
- CONDITIONS UNDER WHICH THE TEST WILL BE PERFORMED. TESTING SHALL AFFIRM WINTER AND SUMMER DESIGN CONDITIONS AND FULL OUTSIDE AIR CONDITIONS.
- MEASURABLE CRITERIA FOR PERFORMANCE.

G. KITCHEN HOODS, ANSUL FIRE SUPPRESSION SYSTEM AND HOOD CONTROLS SHALL BE OWNER-FURNISHED AND CONTRACTOR-INSTALLED. COORDINATE WITH GC.

H. FINAL LOCATION OF ALL TEMPERATURE AND HUMIDITY SENSORS TO BE COORDINATED IN FIELD. LOCATE SENSORS SUCH THAT THEY ARE ACCESSIBLE, PROTECTED, AND IN AN AREA OF UNOBSTRUCTED AIR CIRCULATION.

I. ALL TESTS AND BALANCES TO BE PERFORMED BY A THIRD PARTY - NOT BY MEP SUBCONTRACTOR.

J. PRIOR TO BEGINNING WORK, COORDINATE COMPLETE INSTALLATION OF ALL ROOFTOP EQUIPMENT AND ACCESSORIES WITH GC AND OTHER TRADES.



M1 MECHANICAL FLOOR PLAN
1/4" = 1'-0"

PREPARED FOR:

WHATABURGER

BL Companies
Architecture
Engineering
Environmental
Land Surveying

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SOUTH CAROLINA BL COMPANIES INC 4158 CERTIFICATE OF AUTHORIZATION

Prototype Version

PROTOTYPE RELEASE 2024 Q2 PT23X-ALT

△ Date	Description

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 42187 DENNIS BURTON

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name

WHATABURGER

Date: 09.13.2024

Project Number

2302551

Description

MECHANICAL FLOOR PLAN

Scale

1/4" = 1'-0" Ref North

M1.1

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MECHANICAL KEY NOTES

1. ROOFTOP HVAC UNIT MOUNTED ON PRE-FABRICATED CURB, RE: C3/M5.1
2. CENTRIFUGAL UPBLAST GREASE HOOD EXHAUST FAN MOUNTED ON MANUFACTURER PROVIDED ROOF CURB, RE: A2/M5.1
3. CENTRIFUGAL DOWNBLAST EXHAUST FAN MOUNTED ON MANUFACTURER PROVIDED ROOF CURB, RE: A1/M5.1
4. REQUIRED UNIT CLEARANCE PER BOD MANUFACTURER. COORDINATE EXACT CLEARANCE REQUIREMENTS WITH INSTALLED EQUIPMENT.
5. KITCHEN FREEZER CONDENSING UNIT MOUNTED ON ROOFTOP. FURNISHED BY OWNER, INSTALLED BY MC IN COORDINATION WITH GC. PROVIDE R404A REFRIGERANT, 3/8" LIQUID LINE AND 7/8" SUCTION LINE BETWEEN INDOOR AND OUTDOOR UNIT PER EQUIPMENT MFR.
6. KITCHEN COOLER CONDENSING UNIT MOUNTED ON ROOFTOP. FURNISHED BY OWNER, INSTALLED BY MC IN COORDINATION WITH GC. PROVIDE R404A REFRIGERANT, 3/8" LIQUID LINE AND 5/8" SUCTION LINE BETWEEN INDOOR AND OUTDOOR UNIT PER EQUIPMENT MFR.
7. KITCHEN ICEMAKER CONDENSING UNIT MOUNTED ON ROOFTOP. FURNISHED BY OWNER, INSTALLED BY MC IN COORDINATION WITH GC. PROVIDE R404A REFRIGERANT, 3/8" LIQUID LINE AND 7/8" SUCTION LINE BETWEEN INDOOR AND OUTDOOR UNIT PER EQUIPMENT MFR.
8. MECHANICAL CONTRACTOR TO PROVIDE EQUIPMENT SUPPORTS, REFRIGERANT LINES, AND COMPLETE EQUIPMENT INSTALLATION. COORDINATE EXACT LOCATION OF EQUIPMENT ON-SITE AND ROUTE REFRIGERANT PIPING THROUGH ROOF PENETRATION. COORDINATE PIPING AND UNIT INSTALLATION REQUIREMENTS AND STARTUP WITH KITCHEN EQUIPMENT MANUFACTURER AND GC.
9. REFRIGERATION PIPING ROOF PENETRATION, RE: C4/M5.1
10. ROUTE CONDENSATE LINE DOWN THROUGH ROOF. RE: A1/M1.1 FOR CONTINUATION AND RE: C4/M5.1 FOR DETAIL.

MECHANICAL GENERAL NOTES

A. REFER TO M0.1 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.

B. SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE RTU MANUFACTURER IN THE SUPPLY AND RETURN SIDES OF RTU. COORDINATE INSTALLATION AND CONNECTION OF SMOKE DETECTORS WITH FA CONTRACTOR, EC, AND GC. REFERENCE M6.1 FOR RTU SCHEDULE. ACTIVATION OF SMOKE DETECTORS SHALL SHUT DOWN RTU AND ACTIVATE THE AUDIBLE AND VISUAL SIGNAL PROVIDED.

C. PROVIDE NECESSARY ACCESS AND CLEARANCES AROUND ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATION.

D. MAINTAIN A MINIMUM DISTANCE OF 10'-0" BETWEEN ALL ROOF MOUNTED EQUIPMENT AND EDGE OF ROOF WITH THE EXCEPTION OF EQUIPMENT LOCATED BEHIND AN ARCHITECTURAL GUARD (MINIMUM 42" HIGH) OR PROVIDED WITH AN APPROVED FALL ARREST ANCHORAGE CONNECTOR DEVICE.

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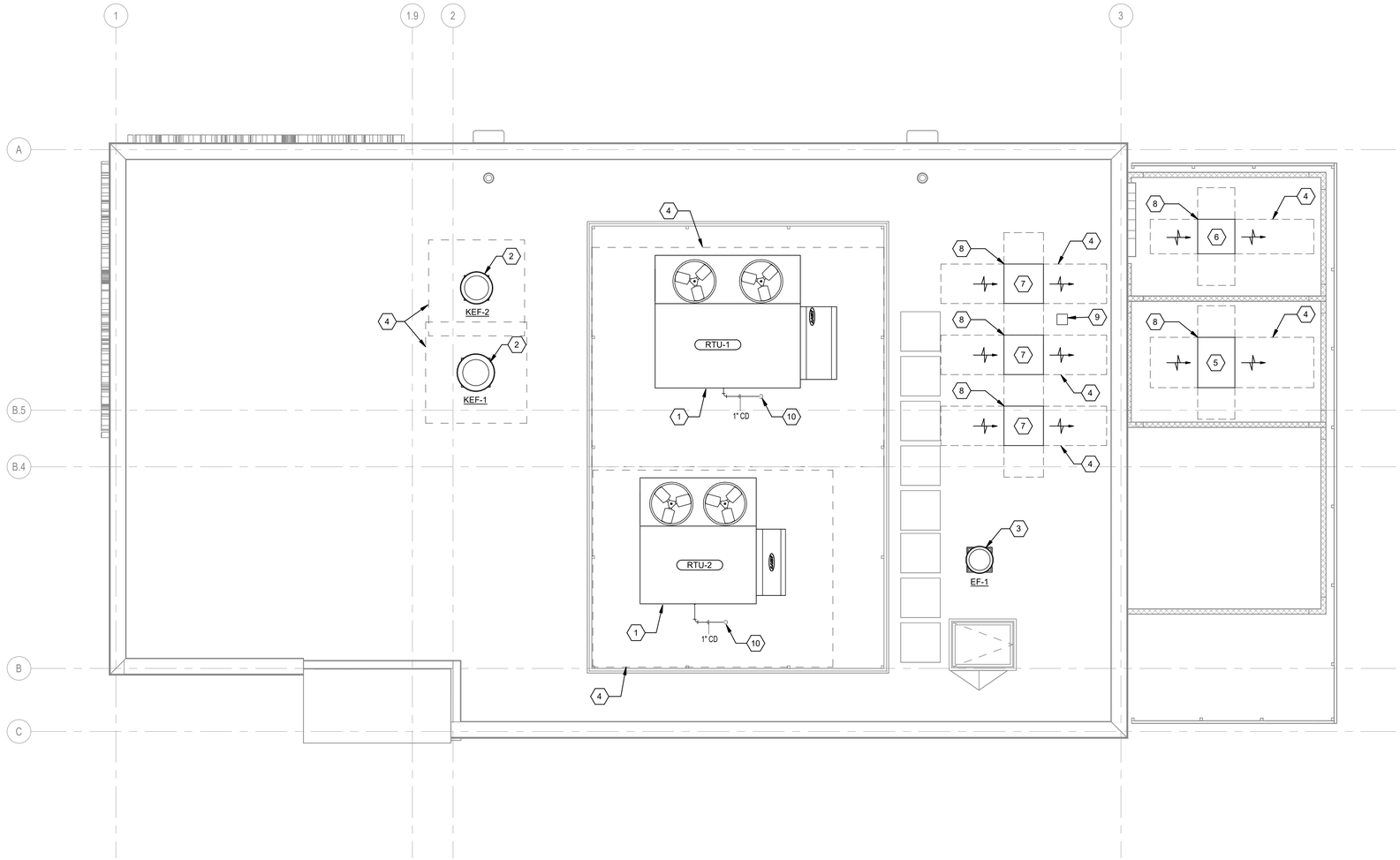
- CONDITIONS UNDER WHICH THE TEST WILL BE PERFORMED. TESTING SHALL AFFIRM WINTER AND SUMMER DESIGN CONDITIONS AND FULL OUTSIDE AIR CONDITIONS.
- MEASURABLE CRITERIA FOR PERFORMANCE.

G. KITCHEN HOODS, ANSUL FIRE SUPPRESSION SYSTEM AND HOOD CONTROLS SHALL BE OWNER-FURNISHED AND CONTRACTOR-INSTALLED. COORDINATE WITH GC.

H. FINAL LOCATION OF ALL TEMPERATURE AND HUMIDITY SENSORS TO BE COORDINATED IN FIELD. LOCATE SENSORS SUCH THAT THEY ARE ACCESSIBLE, PROTECTED, AND IN AN AREA OF UNOBSTRUCTED AIR CIRCULATION.

I. ALL TESTS AND BALANCES TO BE PERFORMED BY A THIRD PARTY - NOT BY MEP SUBCONTRACTOR.

J. PRIOR TO BEGINNING WORK, COORDINATE COMPLETE INSTALLATION OF ALL ROOFTOP EQUIPMENT AND ACCESSORIES WITH GC AND OTHER TRADES.



M1 MECHANICAL ROOF PLAN
1/4" = 1'-0"

PREPARED FOR:

WHATABURGER

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Prototype Version

PROTOTYPE RELEASE 2024 Q2 PT23X-ALT

△ Date	Description

SOUTH CAROLINA LABOR, LICENSING & REGULATION PROFESSIONAL ENGINEER No. 42187 9/13/24 DENNIS BURTON

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name

WHATABURGER

Date: 09.13.2024

Project Number

2302551

Description

MECHANICAL ROOF PLAN

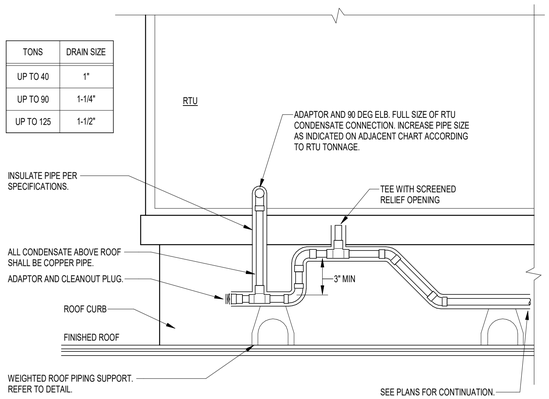
Scale

1/4" = 1'-0" Ref North

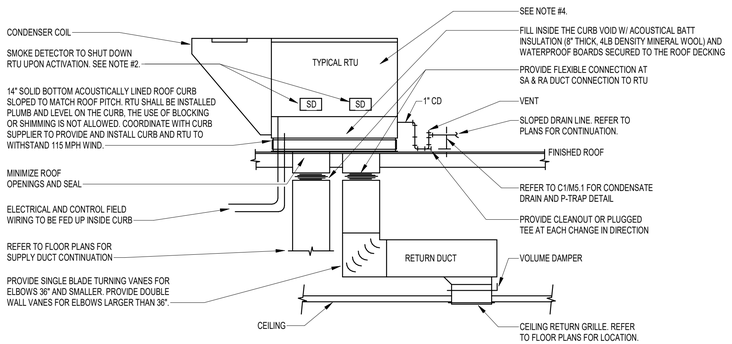
M2.1

9/13/2024 11:29:20 AM C:\Users\PAnderson\Documents\2302551_PT23X-ALT_MECH_Central_R22_panderson6Q4NC.rvt

TONS	DRAIN SIZE
UP TO 40	1"
UP TO 90	1-1/4"
UP TO 125	1-1/2"

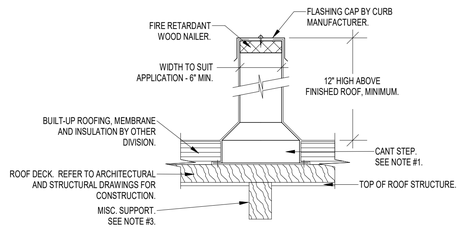


C1 RTU CONDENSATE DRAIN DETAIL
N.T.S.



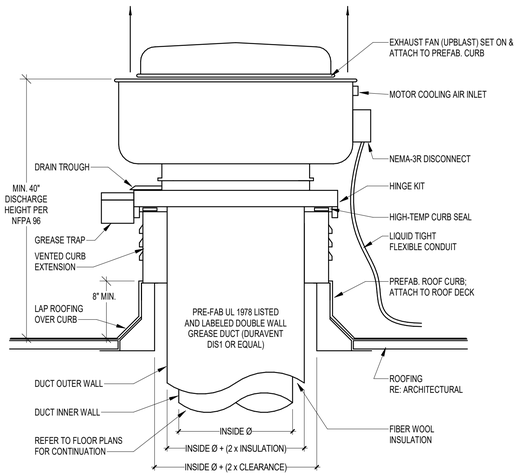
NOTES:
1. DIMENSIONS OF CURB DIFFER FROM DIMENSIONS OF UNIT DUE TO THE SLOPED CONDENSER COIL.
2. SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE RTU MANUFACTURER IN THE SUPPLY AND RETURN SIDES OF RTU. COORDINATE INSTALLATION AND CONNECTION OF SMOKE DETECTORS WITH FA CONTRACTOR, EC, AND GC. REFERENCE M6.1 FOR RTU SCHEDULE. ACTIVATION OF SMOKE DETECTORS SHALL SHUT DOWN RTU AND ACTIVATE THE AUDIBLE AND VISUAL SIGNAL PROVIDED.

C3 ROOFTOP HVAC UNIT DETAIL
N.T.S.



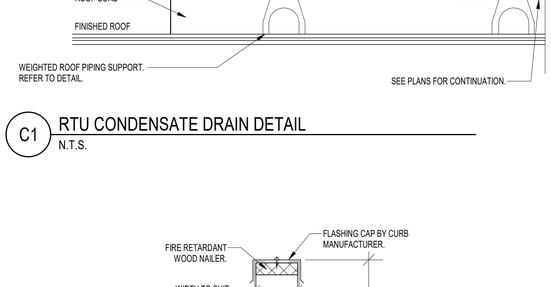
NOTES:
1. THE RAISED CANT STEP HEIGHT SHALL BE COORDINATED WITH THICKNESS OF ROOF INSULATION ON ARCHITECTURAL DRAWINGS AND WITH THE ROOFING CONTRACTOR. SECURE RAIL TO THE ROOF DECK WITH LOAD RATED, RUST RESISTANT FASTENERS.
2. THE RAIL SHALL BE DESIGNED AND FABRICATED TO THOROUGHLY SUPPORT ITS RESPECTIVE COMPONENT. AS A MINIMUM, RAILS SHALL BE FABRICATED OF 18 GAUGE GALVANIZED STEEL WITH BUILT-IN CANT, MONOLITHIC CONSTRUCTION WITH INTEGRAL BASE PLATE AND CONTINUOUS MITERED AND WELDED CORNER SEAMS, WITH FACTORY INSTALLED FIRE RETARDANT WOOD NAILER. EACH RAIL SHALL INCLUDE A MATCHING 18 GAUGE GALVANIZED STEEL COUNTERFLASHING CAP WITH INTEGRAL DRIP EDGE. ALL CORNERS MITERED AND WELDED, AND SCREWS FOR ATTACHMENT. EQUIPMENT CURBS OVER 3 FEET LONG SHALL INCORPORATE 14 GAUGE INTERNAL GUSSET REINFORCING. SECURELY FASTEN TO ROOF DECK AND INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHEN THE UNIT IS TO BE INSTALLED ON A PITCHED ROOF, COORDINATE WITH THE RAIL MANUFACTURER TO PROVIDE A PITCHED RAIL TO MATCH THE PITCH OF THE ROOF. THE EQUIPMENT/PIPING/DUCTWORK SHALL BE INSTALLED LEVEL AND PLUMB.
3. THE MECH. CONTRACTOR SHALL COORDINATE THE ORIENTATION OF THE EQUIP. RAILS TO SPAN A MINIMUM OF TWO ROOF BEAMS/JOISTS BELOW. PROVIDE MISC. FRAMING TO CONTINUOUSLY SUPPORT THE RAILS FROM BELOW.
4. REFER TO THE KITCHEN EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE MOUNTING REQUIREMENTS TO DETERMINE THE FINAL LOCATION OF THE EQUIPMENT SUPPORT RAILS AND THEIR LENGTH. SECURE EQUIPMENT AS RECOMMENDED BY MANUFACTURER.

C2 ROOFTOP CONDENSING UNIT SUPPORT RAILS
N.T.S.



NOTE : INSTALL FLEXIBLE DUCTWORK SUPPORTS AT ALL ROUND NECK OUTLETS/INLETS UNLESS OTHERWISE NOTED ON DRAWINGS.

B1 PLENUM SLOT DIFFUSER DETAIL
N.T.S.

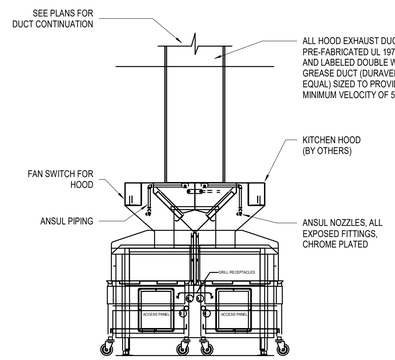


NOTES:
1. COORDINATE FINAL DIMENSIONS WITH ROOF INSTALLER.
2. THE FAN SHALL BE MOUNTED PLUMB AND LEVEL ON THE ROOF CURB. THE USE OF BLOCKING OR SHIMMING UNDER THE ROOF CURB IS NOT ACCEPTABLE. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE CURB MANUFACTURER TO COMPENSATE FOR ANY ROOF PITCH.
3. PROVIDE ALL COMPONENTS REQUIRED TO INSTALL AND SECURE THE ROOF CURB AND EXHAUST FAN IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

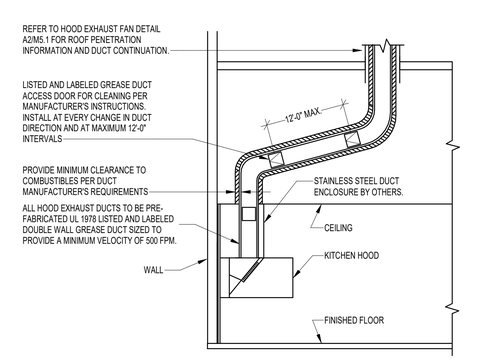
A1 ROOF MOUNTED EXHAUST FAN AND CURB DETAIL
N.T.S.

NOTE: ROOF OPENING DIMENSIONS BASED ON DUCT MANUFACTURER'S CLEARANCE REQUIREMENTS. MC TO PROVIDE FAN CURB WITH OPENING SIZE TO MEET GREASE DUCT CLEARANCE REQUIREMENTS.

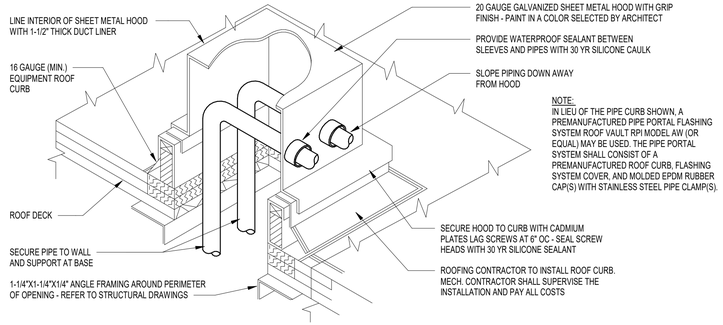
A2 ROOFTOP GREASE EXHAUST FAN DETAIL
N.T.S.



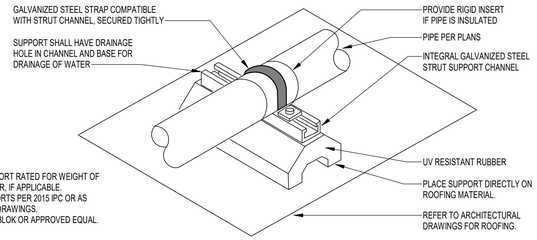
A3 LOW PROFILE HOOD DETAIL
N.T.S.



A4 HOOD EXHAUST DUCT DETAIL
N.T.S.



C4 PIPING THROUGH ROOF DETAIL
N.T.S.



NOTES:
1. SELECT SUPPORT RATED FOR WEIGHT OF PIPE AND WATER, IF APPLICABLE.
2. SPACE SUPPORTS PER 2015 IPC OR AS INDICATED ON DRAWINGS.
3. B-LINE DURA-BLOK OR APPROVED EQUAL.

C5 ROOFTOP PIPE SUPPORT DETAIL
N.T.S.

NOTE: INSTALL FLEXIBLE DUCTWORK SUPPORTS AT ALL ROUND NECK OUTLETS/INLETS UNLESS OTHERWISE NOTED ON DRAWINGS.

B2 DIFFUSER CONNECTION DETAIL
N.T.S.

PREPARED FOR:

WHATABURGER

BL Companies
Architecture
Engineering
Environmental
Land Surveying

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

SOUTH CAROLINA BL COMPANIES INC 4158 CERTIFICATE OF AUTHORIZATION

Prototype Version

PROTOTYPE RELEASE 2024 Q2 PT23X-ALT

△ Date	Description

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 42187 9/13/24 DENNIS BURTON

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name

WHATABURGER

Date: 09.13.2024

Project Number

2302551

Description

MECHANICAL DETAILS

Scale

NOT TO SCALE

M5.1

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ROOFTOP UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	AREA SERVED	OA CFM	SUPPLY FAN				COOLING SECTION								HOT GAS REHEAT (MBH)	HEATING SECTION								ELECTRICAL				FILTER TYPE	WEIGHT (LBS)	NOTES
					CFM	ESP ("WG)	RPM	HP	TYPE	REFRIG. TYPE	AMBIENT (°F) DB/WB	TOTAL OUTPUT (MBH)	SENS. OUTPUT (MBH)	MAT (°F) DB/WB	LAT (°F) DB/WB	EER / IEER		TYPE	AMBIENT (°F) DB/WB	INPUT (MBH)	OUTPUT (MBH)	STAGES	GAS PRESS. MIN / MAX (" WC)	MAT (°F) DB/WB	LAT (°F) DB/WB	VOLTS	PH	MCA	MOP			
RTU-1	AAON	RNA-018-C-A-8-BAB04-CB1L0	KITCHEN	2110	3650	0.75	1008	3.0	DX	R-410A	95.4/77.6	210.9	123.1	86.6/71.7	54.5/54.0	12.0 / 19.2	82.0	NAT. GAS	21.9/21.0	270.0	218.7	3:1	3.5 / 10.5	43.6/41.3	101.8/65.4	208	3	90	110	2" MERV 8	2525	ALL
RTU-2	AAON	RN-013-8-0-GB04-3F9	DINING	1740	2250	0.75	1235	2.0	DX	R-410A	95.4/77.6	158.4	87.3	90.6/74.5	53.9/53.4	12.2 / 17.6	46.1	NAT. GAS	21.9/21.0	195.0	156.0	3:1	3.5 / 10.5	32.0/32.0	99.9/62.9	208	3	68	80	2" MERV 8	1950	ALL

NOTES:
1. PROVIDE WITH PREMIUM EFFICIENCY MOTORS IN ACCORDANCE WITH NEMA MG-1.
2. PROVIDE WITH SUPPLY AND RETURN SMOKE DETECTORS TO SHUT DOWN UNIT UPON SMOKE DETECTION. COORDINATE CONNECTION TO FIRE ALARM SYSTEM WITH FA CONTRACTOR AND GC.
3. PROVIDE WITH TERMINAL STRIP FOR FIELD INSTALLED CONTROLS.
4. UNITS TO BE 2" DOUBLE WALL R-13 CONSTRUCTION WITH 2500-HOUR SALT SPRAY RESISTANT PAINT.
5. UNIT TO HAVE MODULATING HOT GAS REHEAT AND MODULATE HEAT CONTROL. MECHANICAL CONTRACTOR RESPONSIBLE FOR INSTALLING (2) FACTORY PROVIDED SUPPLY AIR TEMPERATURE SENSORS.
6. PROVIDE FACTORY INSTALLED HAIL GUARDS.
7. PROVIDE 6-ROW DX COIL AND STAINLESS STEEL DRAIN PAN.
8. PROVIDE FACTORY MOUNTED AND WIRED CONDENSATE FLOW SWITCH.
9. PROVIDE ULTRA-LOW LEAKAGE ECONOMIZER WITH BAROMETRIC RELIEF DAMPER, AND FAULT DETECTION AND DIAGNOSTIC.
10. PROVIDE STAINLESS STEEL GAS HEAT EXCHANGER WITH MODULATING CONTROL.
11. PROVIDE FACTORY POWERED GFCI CONVENIENCE OUTLET AND NON-FUSED DISCONNECT.
12. PROVIDE 14" HIGH INSULATED, SOLID BOTTOM CURB FOR PITCHED ROOF. MECHANICAL CONTRACTOR TO FIELD CUT SUPPLY AND RETURN OPENINGS AS REQUIRED.
13. AAON UNITS PROVIDED BY WHATABURGER. FACTORY STARTUP IS INCLUDED. CONTACT AARON HUMPHRIES @ 210-954-6657 OR aaron.humphries@texasairsystems.com TO COORDINATE STARTUP.

FLEX DUCT SCHEDULE

CFM RANGE	SIZE (DIAMETER)
< 50	5
50 - 99	6
100 - 249	8
250 - 399	10
400 - 649	12
650 - 899	14
900 - 1299	16
1300 - 1799	18
1800 - 2300	20

NOTES:
1. ALL FLEX DUCT SHALL BE SIZED IN ACCORDANCE WITH FLEX DUCT SCHEDULE. PROVIDE RIGID REDUCER AT NECK OF AIR DEVICE TO TRANSITION FROM FLEX DUCT SIZE TO DIFFUSER INLET CONECTION SIZE. FLEX DUCT LENGTH NOT TO EXCEED 5 FT.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	AIRFLOW (CFM)	TSP ("WG)	RPM	BHP	HP	DRIVE TYPE	VOLTS	PH	WEIGHT (LBS.)	NOTES
EF-1	GREENHECK	G-080-VG	ROOF-MOUNTED CENTRIFUGAL DOWNBLAST	200	0.50	1514	0.05	0.10	DIRECT	120	1	44	1,2,3
KEF-1	GREENHECK	CUE-140-VG	ROOF-MOUNTED CENTRIFUGAL UPBLAST	1994	1.00	1519	0.66	1.00	DIRECT	208	1	148	3,4,5,6
KEF-2	GREENHECK	CUE-120-VG	ROOF-MOUNTED CENTRIFUGAL UPBLAST	1216	0.75	1539	0.33	0.50	DIRECT	208	1	115	3,4,5,6

NOTES:
1. PROVIDE INSULATED 18" HIGH ROOF CURB WITH DAMPER TRAY AND MOTORIZED DAMPER WITH END SWITCHES AND SPRING RETURN ACTUATOR.
2. PROVIDE ALUMINUM BIRD SCREEN.
3. PROVIDE WITH INTEGRAL DISCONNECT SWITCH NEMA-3R.
4. PROVIDE GREASE BOX.
5. PROVIDE INSULATED AND VENTED 24" HIGH ROOF CURB AND HIGH TEMPERATURE CURB SEAL.
6. PROVIDE HINGED ACCESS KIT.

AIR DEVICE SCHEDULE

MARK	MANUFACTURER	MODEL	FACE SIZE (IN.)	NECK SIZE (IN.)	MAX NC	PATTERN	MOUNTING	SLOT LENGTH	SLOT WIDTH	SLOT QTY	SYSTEM CLASS.	COMMENTS
A2	TITUS	TMS-AA	24x24	8	30	4-WAY	LAY-IN	-	-	-	SUPPLY AIR	1
B1	TITUS	TMS-AA	12x12	6	30	4-WAY	FLANGE	-	-	-	SUPPLY AIR	1,2
C1	TITUS	350FL	24x24	22x22	30	-	LAY-IN	-	-	-	TRANSFER AIR	
D1	TITUS	350FLF1	24x24	20x20	30	-	LAY-IN	-	-	-	RETURN AIR	5
D2	TITUS	350FLF1	24x48	20x44	30	-	LAY-IN	-	-	-	RETURN AIR	5
E1	TITUS	300FL	10x8	8x6	30	1-WAY	SIDEWALL				SUPPLY AIR	
F1	TITUS	50F	12x12	6x6	30	-	FLANGE	-	-	-	EXHAUST AIR	2
G2	TITUS	PAS-AA	24x24	8	30	4-WAY	LAY-IN	-	-	-	SUPPLY AIR	1
G3	TITUS	PAS-AA	24x24	10	30	4-WAY	LAY-IN	-	-	-	SUPPLY AIR	1
G4	TITUS	PAS-AA	24x24	12	30	4-WAY	LAY-IN	-	-	-	SUPPLY AIR	1
H1	TITUS	TBDI-80	60x5	8	30	2-WAY	FLANGE	60	1-1/2	2	SUPPLY AIR	2,3
L1	TITUS	FL-15-JT	SEE PLANS	-	30	1-WAY	LAY-IN	CONTINUOUS	1-1/2	1	SUPPLY AIR	4
P1	TITUS	FBPI	60 X 3-1/2	8	30	-	FLANGE	60	-	-	SUPPLY AIR	3

NOTES:
1. PROVIDE MOLDED INSULATION BLANKET (R-6).
2. PROVIDE PLASTER FRAME FOR MOUNTING IN GYP. CEILING.
3. PROVIDE INSULATED PLENUM.
4. CONTINUOUS LINEAR SLOT DIFFUSER TO BE INSTALLED IN GYP. CEILING. PROVIDE INSULATED SUPPLY AIR PLENUMS AS SCHEDULED FOR A COMPLETE SYSTEM.
5. PROVIDE 1" MERV-4 THROWAWAY FILTER.

COM*check* Software Version 4.1.5.1

Mechanical Compliance Certificate

Section 1: Project Information

Energy Code: 2009 IECC
Project Title: Whataburger
Project Type: New Construction

Construction Site:
262 Bypass 72NW & Montague Ave
Greenwood, SC 29649

Owner/Agent:
Whataburger

Designer/Contractor:
BL Companies
355 Research Pkwy
Meriden, CT, SC 06450
(203) 630-1406

Section 2: General Information

Building Location (for weather data): Greenwood (Greenwood), South Carolina
Climate Zone: 3a

Section 3: Mechanical Systems List

Quantity	System Type & Description
1	RTU-1 (Single Zone) : Heating: 1 each - Central Furnace, Gas, Capacity = 270 kBtu/h Proposed Efficiency = 81.00% Ec, Required Efficiency: 80.00 % Ec Cooling: 1 each - Single Package DX Unit, Capacity = 211 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.00 EER, Required Efficiency: 10.80 EER Fan System: FAN SYSTEM 1 | RTU-1 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 1 Supply, Constant Volume, 3650 CFM, 3.0 motor nameplate hp
1	RTU-2 (Single Zone) : Heating: 1 each - Central Furnace, Gas, Capacity = 195 kBtu/h Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et (or 78% AFUE) Cooling: 1 each - Single Package DX Unit, Capacity = 158 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.20 EER, Required Efficiency: 10.80 EER Fan System: FAN SYSTEM 2 | RTU-2 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 2 Supply, Constant Volume, 2250 CFM, 2.0 motor nameplate hp
1	GWH-1: Gas Storage Water Heater, Capacity: 50 gallons, Input Rating: 100 kBtu/h w/ Circulation Pump Proposed Efficiency: 96.00 % Et, Required Efficiency: 80.00 % Et

Requirements Specific To: RTU-1 :
- ☑ 1. Equipment minimum efficiency: Central Furnace (Gas): 80.00 % Ec
- ☑ 2. Equipment minimum efficiency: Single Package Unit: 10.80 EER
- ☑ 3. Integrated economizer is required for this location and system.
- ☑ 4. Cooling system provides a means to relieve excess outdoor air during economizer operation.
- ☑ 5. Hot gas bypass prohibited unless system has multiple steps of unloading or continuous capacity modulation
- ☑ 6. Hot gas bypass limited to 50% of total cooling capacity

Requirements Specific To: RTU-2 :
- ☑ 1. Equipment minimum efficiency: Central Furnace (Gas): 80.00 % Et (or 78% AFUE)
- ☑ 2. Equipment minimum efficiency: Single Package Unit: 10.80 EER
- ☑ 3. Integrated economizer is required for this location and system.
- ☑ 4. Cooling system provides a means to relieve excess outdoor air during economizer operation.
- ☑ 5. Hot gas bypass prohibited unless system has multiple steps of unloading or continuous capacity modulation
- ☑ 6. Hot gas bypass limited to 50% of total cooling capacity

Requirements Specific To: GWH-1 :
- ☑ 1. Water heating equipment meets minimum efficiency requirements: Gas Storage Water Heater efficiency: 80.00 % Et (140 SL, kBtu/h)
- ☑ 2. All piping in circulating system insulated
- ☑ 3. Hot water storage temperature controls that allow setpoint of 90°F for non-dwelling units and 110°F for dwelling units.
- ☑ 4. Automatic time control of heat tapes and recirculating systems present
- ☑ 5. Controls will shut off operation of circulating pump between water heater/boiler and storage tanks within 5 minutes after end of heating cycle

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2009 IECC requirements in COMcheck Version 4.1.5.1 and to comply with the mandatory requirements in the Requirements Checklist.

Philip Anderson - Project Engineer — *Philip Anderson* — 09/05/2024
Name - Title — Signature — Date

AIR BALANCE AND VENTILATION CALCULATION:

TOTAL OUTSIDE AIR INTAKE = 3850 CFM

TOTAL GREASE HOOD EXHAUST = 3210 CFM
TOTAL RESTROOM EXHAUST = 200 CFM

OUTSIDE AIRFLOW - (GREASE HOOD EXHAUST AIRFLOW + RESTROOM EXHAUST AIRFLOW) = NET POSITIVE AIRFLOW

3850 CFM - (3210 + 200) = 440 CFM

BALANCE REPORT TO BE PROVIDED TO INSPECTOR, OWNER, AND ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.

VENTILATION CALCULATION PER IMC 2015, TABLE 403.3.1.1:

HVAC UNIT	AREA SERVED	CLASSIFICATION	OCCUPANT LOAD	REQUIRED VENTILATION	O.A./E.A. REQUIRED (CFM)	O.A./E.A. DESIGN (CFM)	REMARKS
RTU-1	KITCHEN 105	KITCHENS (COOKING)	17 (843 SQFT)	7.5 CFM / PERSON 0.12 CFM / SQFT	229	1272	
	STORAGE 108	STORAGE ROOMS	0 (152 SQFT)	0 CFM / PERSON 0.12 CFM / SQFT	18	58	
	OFFICE 109	OFFICE SPACES	1 (40 SQFT)	5 CFM / PERSON 0.06 CFM / SQFT	8	29	
	DELIVERY 110	STORAGE ROOMS	0 (178 SQFT)	0 CFM / PERSON 0.12 CFM / SQFT	22	289	
	DRIVE-THRU AREA 111	KITCHENS (COOKING)	4 (179 SQFT)	7.5 CFM / PERSON 0.12 CFM / SQFT	52	462	
	CALCULATED OUTSIDE AIR FOR SYSTEM TOTAL				329	2110	OA ADDED FOR KITCHEN EXHAUST MAKEUP
RTU-2	ENTRY 100	CAFETERIA, FAST FOOD	13 (127 SQFT)	7.5 CFM / PERSON 0.18 CFM / SQFT	121	541	
	SERVING AREA 101	RECEPTION AREAS	3 (97 SQFT)	5 CFM / PERSON 0.06 CFM / SQFT	21	155	
	DINING ROOM 102	CAFETERIA, FAST FOOD	50 (498 SQFT)	7.5 CFM / PERSON 0.18 CFM / SQFT	465	967	
	RESTROOM 103 / 104	TOILET ROOMS (INTERMITTENT)	0 (108 SQFT)	0 CFM / PERSON 0 CFM / SQFT	0	77	
	CALCULATED OUTSIDE AIR FOR SYSTEM TOTAL				607	1740	OA ADDED FOR KITCHEN EXHAUST MAKEUP
EF-1	RESTROOM 103	TOILET ROOMS (INTERMITTENT)	1 W.C.	70 CFM / W.C.	70	100	
	RESTROOM 104	TOILET ROOMS (INTERMITTENT)	1 W.C.	70 CFM / W.C.	70	100	
	CALCULATED EXHAUST AIR FOR SYSTEM TOTAL				140	200	
KEF-1, KEF-2	TOTAL KITCHEN AREAS	KITCHENS (COOKING)	1022 SQFT	0.7 CFM / SQFT	715	3210	
	CALCULATED EXHAUST AIR FOR SYSTEM TOTAL				715	3210	EA ADDED FOR GREASE HOOD OPERATION

PREPARED FOR:

WHATABURGER

BL Companies
Architecture
Engineering
Environmental
Land Surveying

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

SOUTH CAROLINA BL COMPANIES INC 4158 CERTIFICATE OF AUTHORIZATION

Prototype Version
PROTOTYPE RELEASE 2024 Q2 PT23X-ALT

△ Date	Description

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 42187 DENNIS BURTON 9/13/24

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name
WHATABURGER

Date: 09.13.2024

Project Number
2302551

Description
MECHANICAL SCHEDULES

Scale
NOT TO SCALE

M6.1

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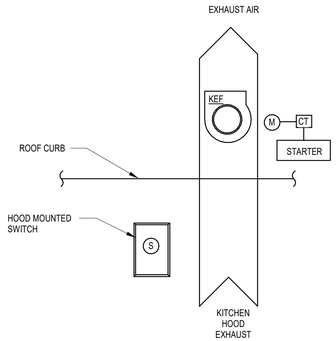
CONTROL SYMBOLS

AE	ANALYZER ELEMENT
DDC	DIRECT DIGITAL CONTROL
BMS	BUILDING MANAGEMENT SYSTEM
RDC	ROOFTOP UNIT DDC CONTROLLER
FACP	FIRE ALARM CONTROL PANEL
DPI	DIFFERENTIAL PRESSURE INDICATOR
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
FE	FLOW ELEMENT
FLTR	FILTER
FS	FLOW SWITCH
H	HUMIDISTAT
HL	HIGH TEMPERATURE LIMIT SWITCH
M	MOTOR
PCV	PRESSURE CONTROL VALVE
PT	PRESSURE TRANSMITTER
SMK	SMOKE DETECTOR
T	TEMPERATURE SENSOR
TCV	TEMPERATURE CONTROL VALVE
TSL	LOW LIMIT THERMOSTAT (FREEZESTAT)
TT	TEMPERATURE TRANSMITTER
VFD	VARIABLE FREQUENCY DRIVE
STARTER	MOTOR STARTER (PROVIDE CONTROL RELAY)
CT	CURRENT TRANSDUCER
OS	OCCUPANCY SENSOR
CO	CARBON MONOXIDE SENSOR
	COMMUNICATION SIGNAL
HPS	HIGH STATIC PRESSURE SENSOR
DA	DAMPER ACTUATOR
CV	CONTROL VALVE
DX	DX COOLING COIL
HC	NATURAL GAS HEATING COIL
HGR	HOT GAS REHEAT
SF	SUPPLY AIR FAN



SEQUENCE OF OPERATION

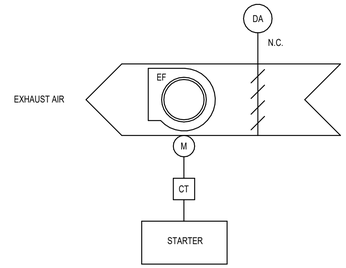
OPERATING CONDITIONS - CONTINUOUS 24/7:
THE KITCHEN HOOD EXHAUST FAN SHALL RUN CONTINUOUSLY WHEN THE KITCHEN HOOD MOUNTED SWITCH IS ON.

INTEGRATED ANSUL FIRE SUPPRESSION SYSTEM
UPON ACTIVATION OF THE INTEGRATED ANSUL FIRE SUPPRESSION SYSTEM DURING NORMAL KITCHEN OPERATION, THE KITCHEN HOOD EXHAUST FAN SHALL REMAIN ENERGIZED.

FIRE/SMOKE CONTROL:
UPON SENSING DUCT SMOKE, THE KITCHEN EXHAUST FAN SHALL BE CYCLED OFF. FAN STATUS SHALL BE REPORTED TO THE BAS.

B1 KITCHEN HOOD EXHAUST FAN CONTROL DIAGRAM

N.T.S.



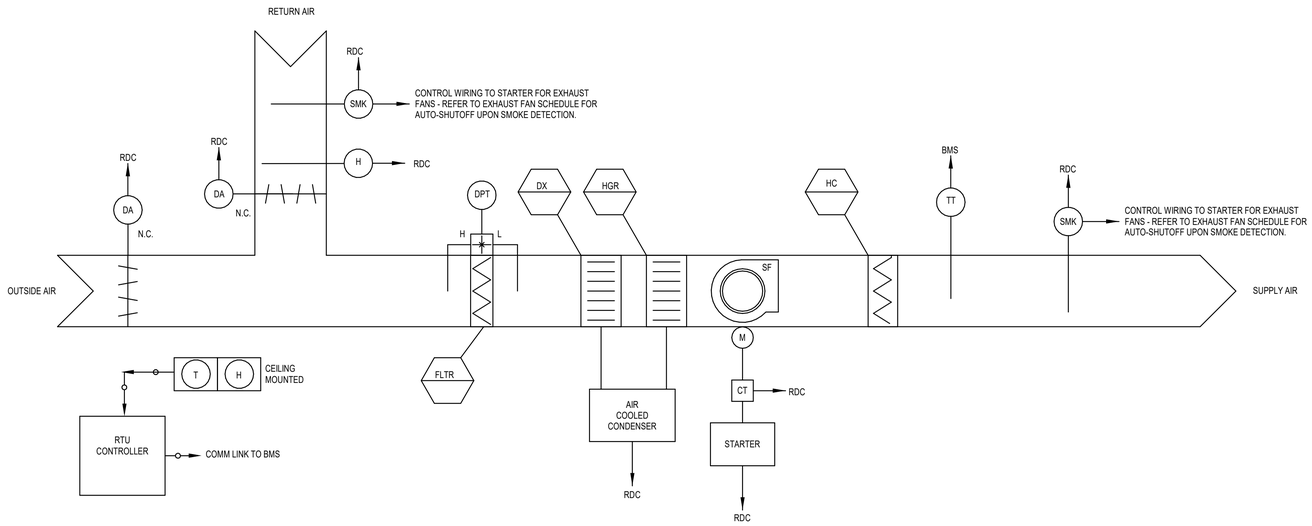
SEQUENCE OF OPERATION

OPERATING CONDITIONS:
THE GENERAL EXHAUST FAN SHALL BE INTERLOCKED WITH THE RESTROOM OCCUPANCY SENSORS. THE EXHAUST FAN SHUTOFF DAMPER SHALL BE INTERLOCKED WITH THE EXHAUST FAN TO OPEN WHEN THE FAN IS ENERGIZED AND CLOSE WHEN THE FAN IS DE-ENERGIZED.

ALARMS:
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. FAN FAILURE: FAN COMMANDED ON BUT STATUS IS OFF.
2. FAN IN HAND: FAN COMMANDED OFF BUT STATUS IS ON.
3. FAN BELT FAILURE: MOTOR AMPERAGE READS ZERO AS MEASURED BY CURRENT TRANSDUCER.

B2 GENERAL EXHAUST FAN CONTROL DIAGRAM

N.T.S.



SEQUENCE OF OPERATION

OPERATING CONDITION - CONTINUOUS 24/7

THE PILOT RTU CONTROLLER (RDC) SHALL PERFORM ALL CONTROL, SAFETY AND INTERLOCKS AS DESCRIBED IN THE SEQUENCE OF OPERATION. THE BMS SHALL MONITOR THE RTU DDC CONTROLLER VIA BMS PROTOCOL COMMUNICATION AND/OR COMBINATION OF DISCRETE INPUT/OUTPUT POINTS. THE BMS SHALL OPERATE THE UNIT CONTINUOUS 24/7. WHEN THE UNIT IS DE-ENERGIZED BY THE BMS, THE FAN SHALL SHUT DOWN, THE OA DAMPER SHALL CLOSE. THE REFRIGERATION SYSTEM SHALL ALSO BE DE-ENERGIZED AND THE HEATING SYSTEM LOCKED OUT OF HEATING MODE.

THE BMS SHALL BE PROGRAMMED SO THAT THE HEATING AND COOLING SYSTEMS SHALL NEVER OPERATE SIMULTANEOUSLY.

TEMPERATURE CONTROL
OCCUPIED MODE - THE BMS WILL MAINTAIN THE FOLLOWING SPACE TEMPERATURE SETPOINTS:
- COOLING: 75°F, 55% RH (ADJUSTABLE)
- HEATING: 70°F (ADJUSTABLE)

SETBACK MODE - THE BMS WILL MAINTAIN THE FOLLOWING SPACE TEMPERATURE SETPOINTS:
- COOLING: 85°F (ADJUSTABLE) (ADJUST TO 80°F 1-HR PRIOR TO OCCUPANCY)
- HEATING: 60°F (ADJUSTABLE) (ADJUST TO 65°F 1-HR PRIOR TO OCCUPANCY)

THERE SHALL BE A DEADBAND OF +/- 5°F ON ALL TEMPERATURE CONTROL.

HUMIDITY CONTROL
IF THE RELATIVE HUMIDITY OF THE RETURN AIR EXCEEDS 60% (ADJUSTABLE) AND THERE IS NO CALL FOR COOLING IN THE SPACE, THE RDC SHALL ENABLE DEHUMIDIFICAITON MODE OF THE RTU BASED ON ITS OWN INTERNAL CONTROLS UTILIZING HOT GAS REHEAT.

SEQUENCE OF OPERATION [CONTINUED]

ECONOMIZER OPERATION
BASED ON THE RTU INTERNAL DIFFERENTIAL ENTHALPY CONTROLS, THE RDC SHALL VARY THE OUTSIDE AIR DAMPER POSITION, BASED ON CALL FOR COOLING IN THE SPACE. THERE SHALL BE ONE FAN SPEED. THE RDC SHALL LOAD AND UNLOAD COMPRESSORS BASED ON THE UNIT INTERNAL CONTROLS TO CONDITION OR DEHUMIDIFY THE SPACE AS NEEDED.

UNIT SHUTDOWN
UNIT SHALL BE DE-ENERGIZED UPON DETECTION OF SMOKE IN UNIT OR BUILDING FIRE ALARM.

ALARMS
THE BMS SHALL MONITOR ALL SAFETIES ON THE REFRIGERATION SYSTEM AND THE HEATING SYSTEM THROUGH THE RDC COMMUNICATION PROTOCOL. ALL ABNORMAL CONDITIONS SHALL BE ALARMED AT THE BMS.

A. FILTERS:
THE RDC SHALL MONITOR THE STATIC PRESSURE DROP ACROSS THE FILTER BANK AND ALARM ON HIGH STATIC PRESSURE DROP. A DIFFERENTIAL PRESSURE SWITCH ACROSS THE FILTER SHALL INITIATE FILTER ALARM WHEN THE PRESSURE DROP ACROSS THE FILTER REACHES THE SETPOINT OF 1.0 INCHES W.C. (ADJUSTABLE).

B. FIRE/SMOKE CONTROL:
UPON ACTIVATION OF A DUCT SMOKE DETECTOR, THE BMS SHALL RECEIVE AN ALARM.

C. GENERAL ALARM:
ANY TROUBLE ALARM OR FAULT WITHIN THE UNIT ONBOARD CONTROLS WILL GENERATE A GENERAL ALARM TO THE BMS.

A1 PACKAGED ROOFTOP UNIT CONTROLS DIAGRAM

N.T.S.

PREPARED FOR:

WHATABURGER

BL Companies
Architecture
Engineering
Environmental
Land Surveying

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

SOUTH CAROLINA BL COMPANIES INC 4158 CERTIFICATE OF AUTHORIZATION

Prototype Version

PROTOTYPE RELEASE 2024 Q2 PT23X-ALT

△ Date	Description

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 42187 DENNIS BURTON 9/19/24

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name

WHATABURGER

Date: 09.13.2024

Project Number

2302551

Description

MECHANICAL CONTROLS

Scale

NOT TO SCALE

M7.1

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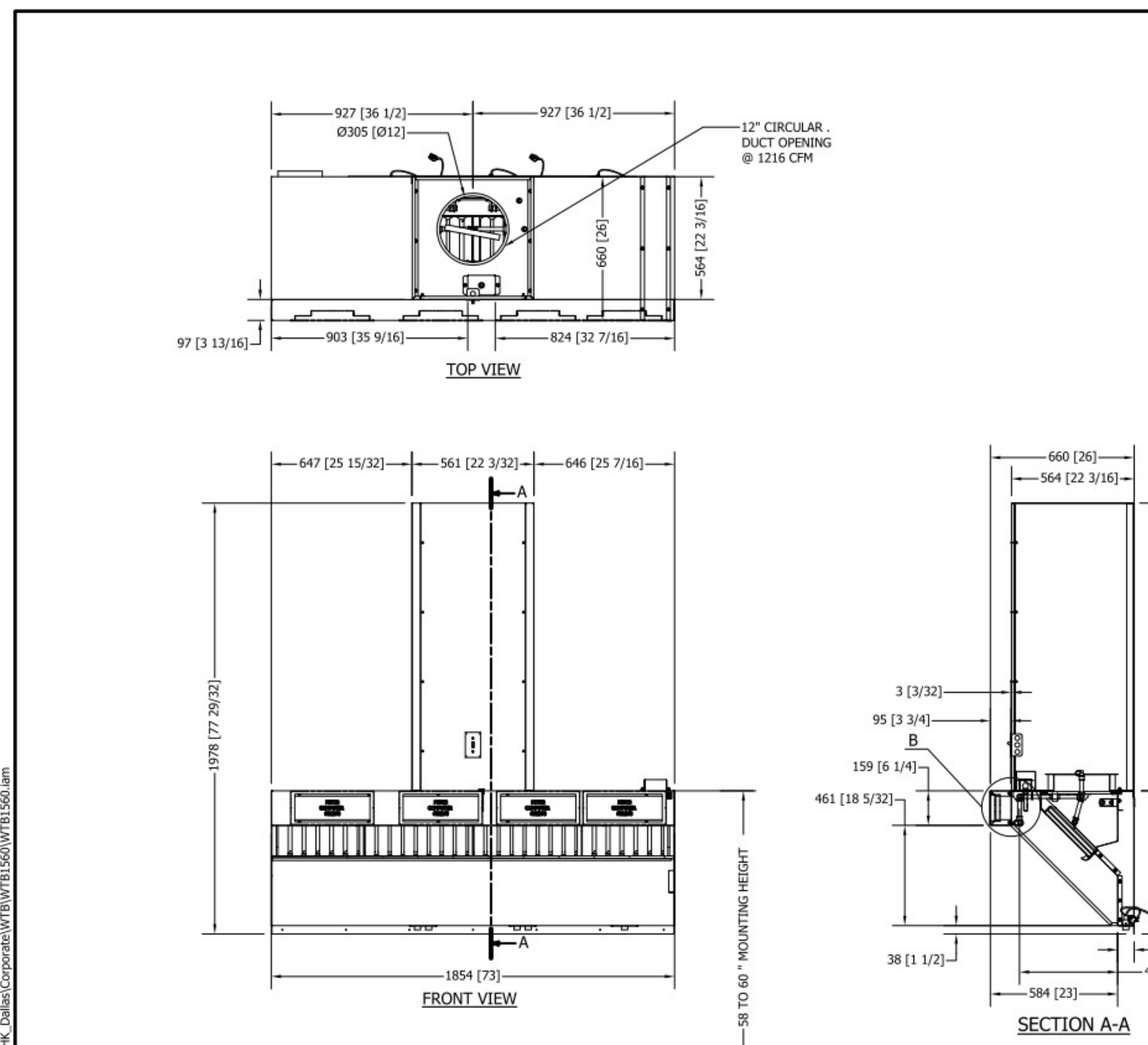


APPROVALS / CERTIFICATIONS
· THIS HOOD COMPLIES WITH THE FOLLOWING:
UL710 / ULC-S646
STANDARD FOR EXHAUST HOOD AND RELATED CONTROLS FOR COMMERICAL AND INSTITUTIONAL COOKING EQUIPMENT
NFPA96
NATIONAL FIRE PROTECTION ASSOCIATION - STD 96
NSF2:
NATIONAL SANITATION FOUNDATION NO. 2 "FOOD SERVICE EQUIPMENT"

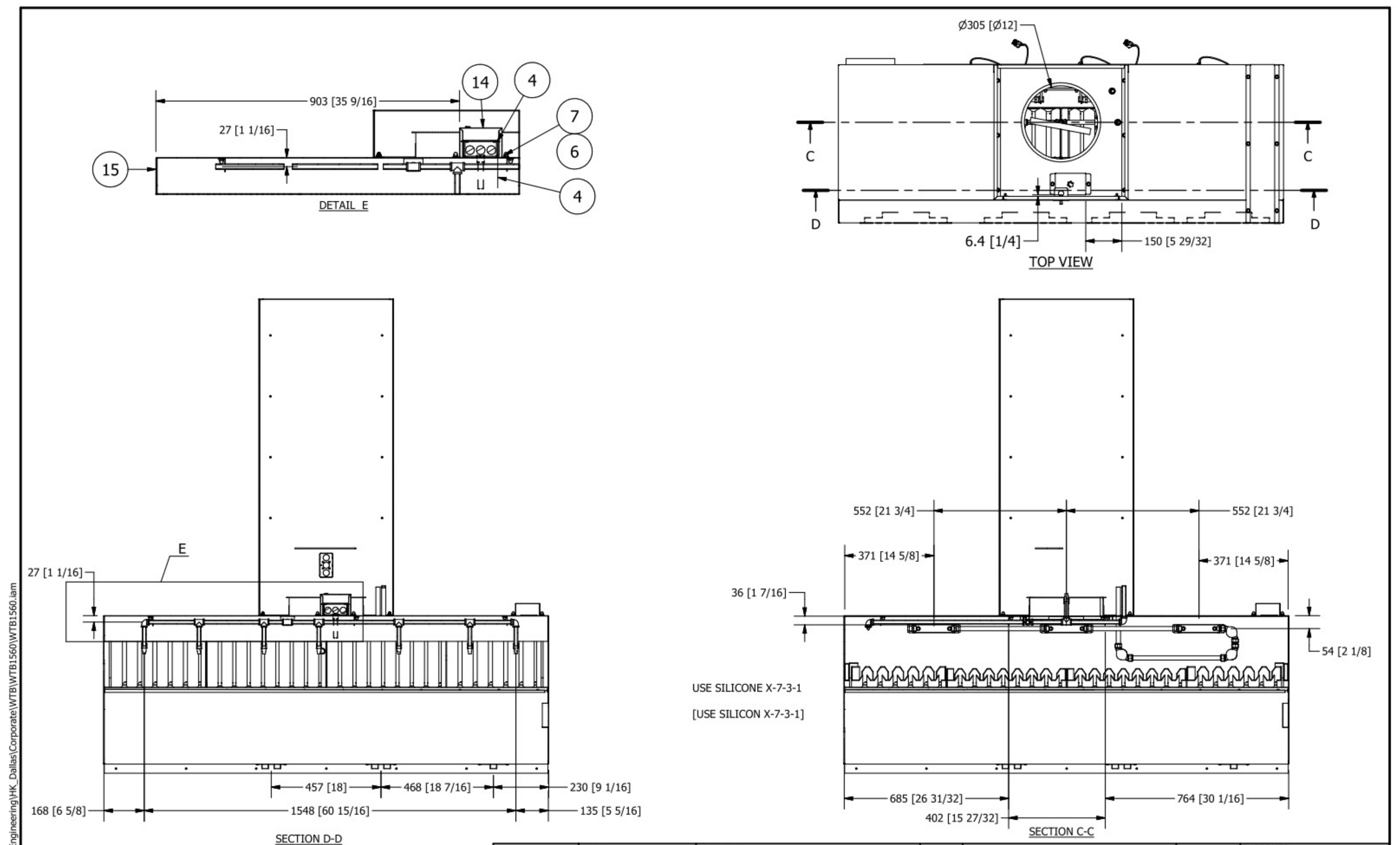
NOTE: THE EXHAUST AIR FLOW RATES WERE ESTABLISHED UNDER CONTROLLED LABORATORY CONDITIONS. GREATER EXHAUST RATES MAY BE REQUIRED FOR COMPLETE VAPOR AND SMOKE REMOVAL IN SPECIFIC INSTALLATIONS.

FILTERS/GREASE REMOVAL
· THIS HOOD UTILIZES A COMBINATION OF FLAMEGUARD SS TYPE-5 12X16 AND/OR 12X20 ARE KASON TRAPPER S/S FILTERS 7001 SERIES 12X16 &12X20 MUST BE UL LISTED STAINLESS STEEL GREASE FILTERS

· THEY MUST BE INSTALLED AT ALL TIMES DURING VENTILATION HOOD OPERATION
THIS UNIT REQUIRES: (2) 12X20 AND (2) 12X16
FLAMGUARD FILTER, S/S BAFFLE TYPE VI
(NOTE) HOOD INCLUDES TEMPERATURE INTERLOCK SYSTEM

H&K DALLAS #HKD023
FRY HOOD U.L. #MH16346
(STANDARD USED U.L. 710)

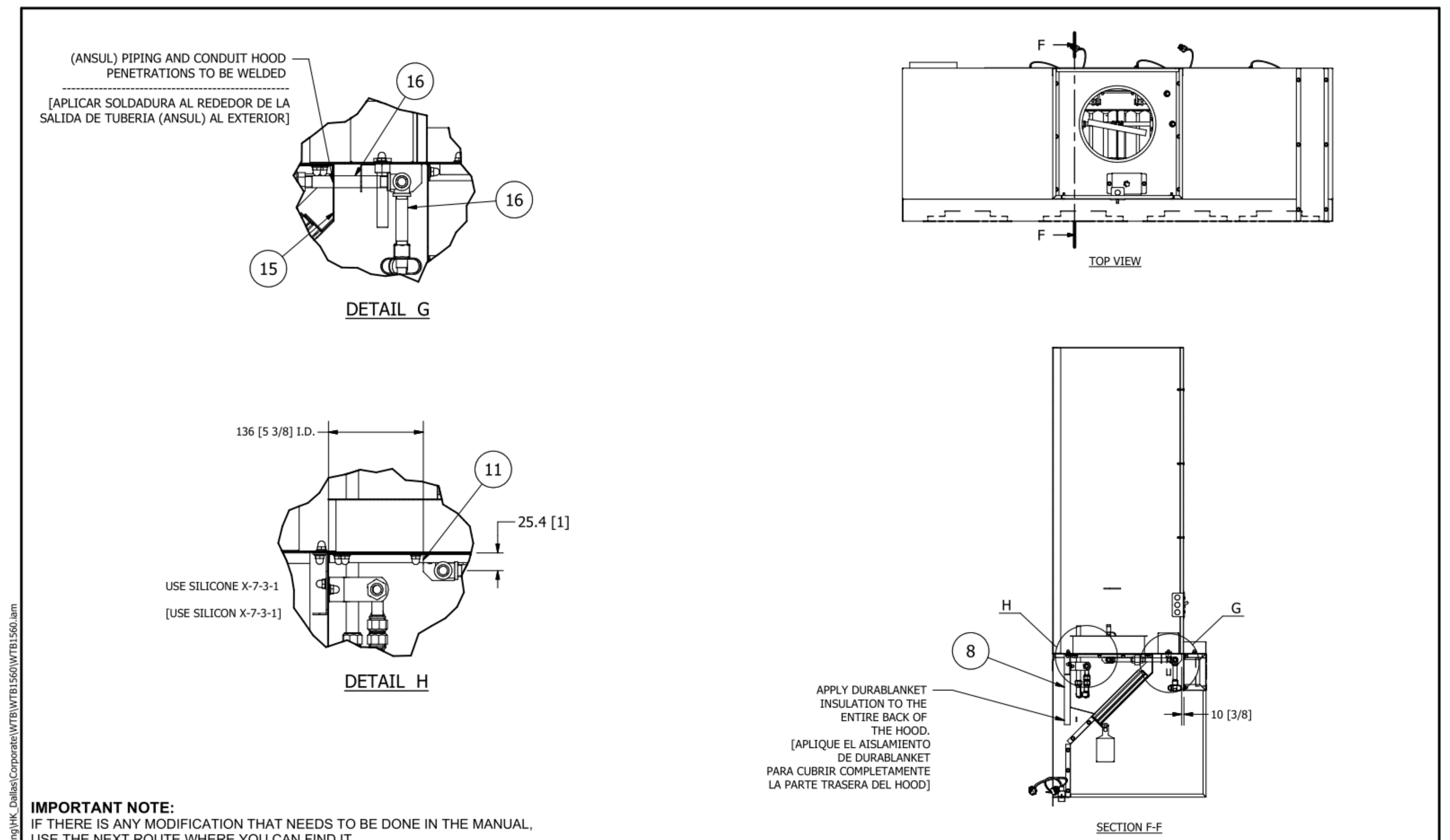
DATE: 6/15/2021 | DRAWN: HArredondo | WEIGHT: 133.54 kg | WIDTH: N/A | GRAIN LENGTH: N/A | UNITS: mm [in] | SIZE: A3 | SHEET 1 OF 4 | TITLE: WALL MOUNT FRY HOOD WITH CIRCULAR DUCT | ITEM NO: WTB1560



DATE: 6/16/2021 | DRAWN: HArredondo | WEIGHT: 133.54 kg | WIDTH: N/A | GRAIN LENGTH: N/A | UNITS: mm [in] | SIZE: A3 | SHEET 2 OF 4 | TITLE: WALL MOUNT FRY HOOD WITH CIRCULAR DUCT | ITEM NO: WTB1560

FOR REFERENCE ONLY

THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AUTOMATIC FIRE PROTECTION SYSTEM FOR THE RANGE HOODS APPROVED EQUAL TO ANSUL SYSTEM. COMPLETE HOOD AND ANSUL SYSTEM INFORMATION TO BE SUBMITTED BY OTHERS IN FUTURE SUBMISSION.

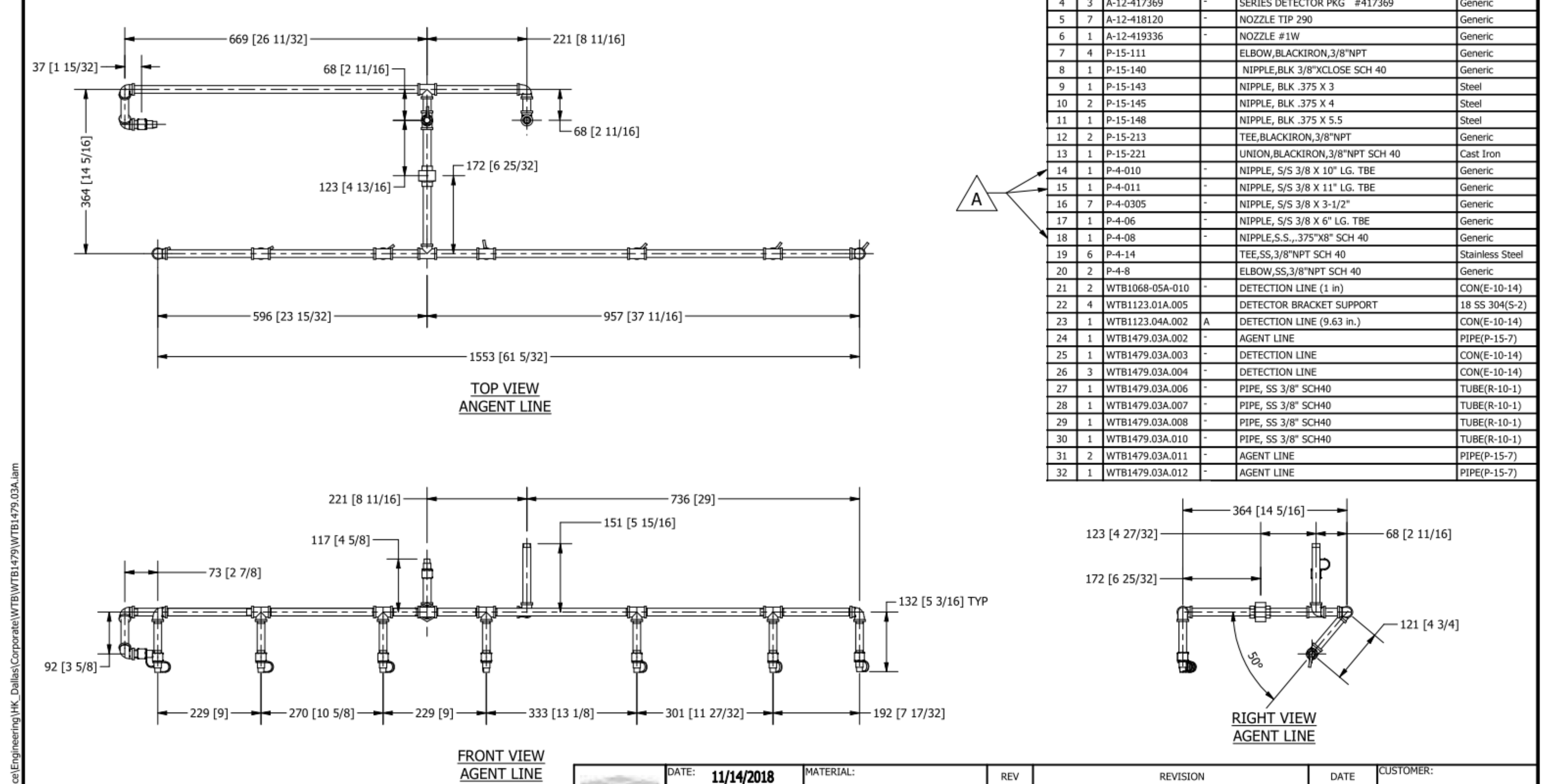


IMPORTANT NOTE:
IF THERE IS ANY MODIFICATION THAT NEEDS TO BE DONE IN THE MANUAL, USE THE NEXT ROUTE WHERE YOU CAN FIND IT.
L:\Certification Files\HKD GENERIC HOOD MANUAL

NOTA IMPORTANTE:
SI EXISTE CUALQUIER MODIFICACION QUE NECESITE SER HECHA EN EL MANUAL,
USAR LA SIGUIENTE RUTA DONDE PODRAS ENCONTRARLO
L:\Certification Files\HKD GENERIC HOOD MANUAL

DATE: 6/16/2021 | DRAWN: HArredondo | WEIGHT: 133.54 kg | WIDTH: N/A | GRAIN LENGTH: N/A | UNITS: mm [in] | SIZE: A3 | SHEET 3 OF 4 | TITLE: WALL MOUNT FRY HOOD WITH CIRCULAR DUCT | ITEM NO: WTB1560

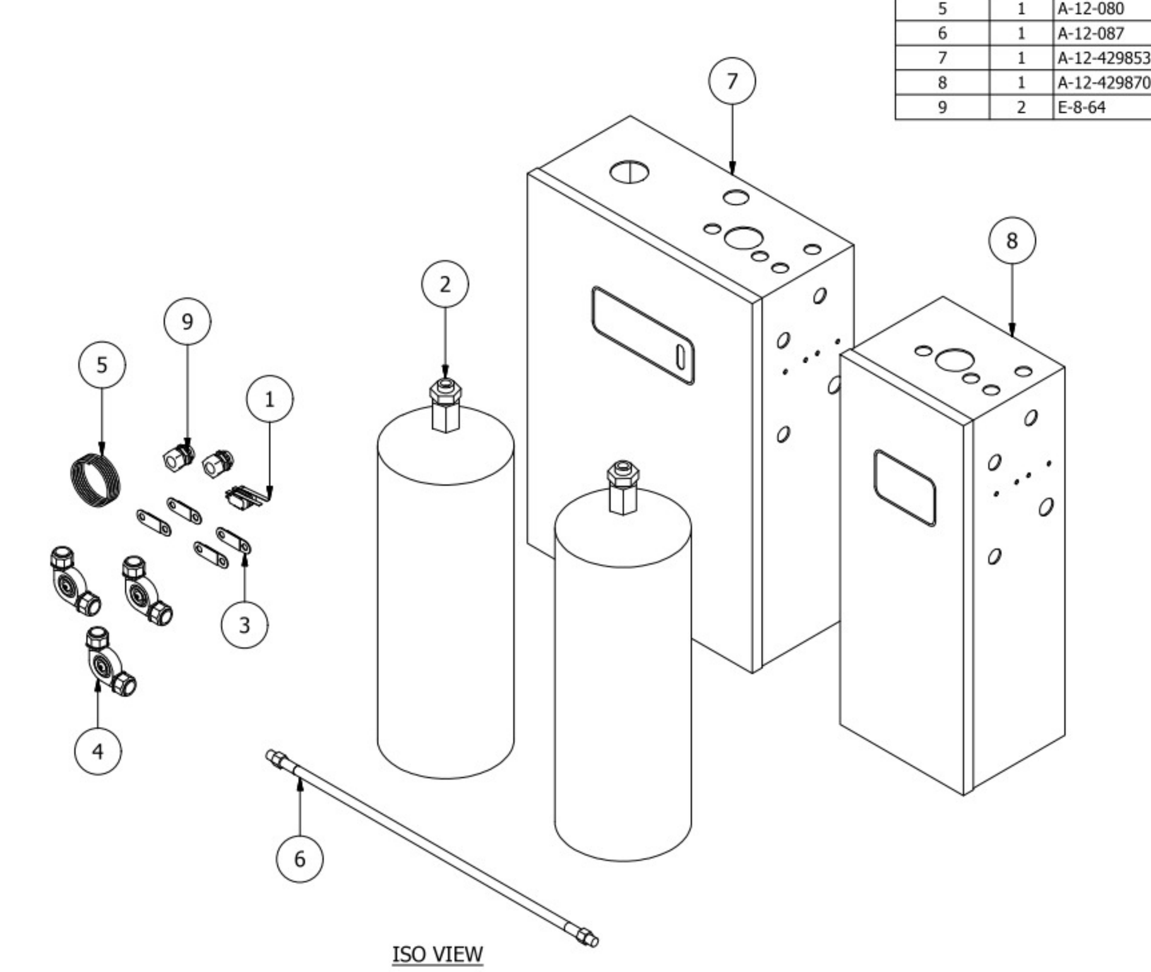
ITEM	QTY	PART NUMBER	REVIS	DESCRIPTION	MATERIAL
1	3	A-12-045	-	PULLEY ELBOW #423251	Generic
2	1	A-12-060	-	NOZZLE,APPL. #1N (25/BX) #419335(419346)	Generic
3	1	A-12-417368	-	TERMINAL DETECTOR PKG #417368	Generic
4	3	A-12-417369	-	SERIES DETECTOR PKG #417369	Generic
5	7	A-12-418120	-	NOZZLE TIP 290	Generic
6	1	A-12-419336	-	NOZZLE #1W	Generic
7	4	P-15-111		ELBOW,BLACKIRON,3/8"NPT	Generic
8	1	P-15-140		NIPPLE,BLK 3/8"XCLOSE SCH 40	Generic
9	1	P-15-143		NIPPLE, BLK .375 X 3	Steel
10	2	P-15-145		NIPPLE, BLK .375 X 4	Steel
11	1	P-15-148		NIPPLE, BLK .375 X 5.5	Steel
12	2	P-15-213		TEE,BLACKIRON,3/8"NPT	Generic
13	1	P-15-221		UNION,BLACKIRON,3/8"NPT SCH 40	Cast Iron
14	1	P-4-010	-	NIPPLE, S/S 3/8 X 10" LG. TBE	Generic
15	1	P-4-011	-	NIPPLE, S/S 3/8 X 11" LG. TBE	Generic
16	7	P-4-0305	-	NIPPLE, S/S 3/8 X 3-1/2"	Generic
17	1	P-4-06	-	NIPPLE, S/S 3/8 X 6" LG. TBE	Generic
18	1	P-4-08	-	NIPPLE,S.S.,.375"X8" SCH 40	Generic
19	6	P-4-14		TEE,SS,3/8"NPT SCH 40	Stainless Steel
20	2	P-4-8		ELBOW,SS,3/8"NPT SCH 40	Generic
21	2	WTB1068-05A-010	-	DETECTION LINE (1 in)	CON(E-10-14)
22	4	WTB1123.01A.005		DETECTOR BRACKET SUPPORT	18 SS 304(S-2)
23	1	WTB1123.04A.002	A	DETECTION LINE (9.63 in.)	CON(E-10-14)
24	1	WTB1479.03A.002	-	AGENT LINE	PIPE(P-15-7)
25	1	WTB1479.03A.003	-	DETECTION LINE	CON(E-10-14)
26	3	WTB1479.03A.004	-	DETECTION LINE	CON(E-10-14)
27	1	WTB1479.03A.006	-	PIPE, SS 3/8" SCH40	TUBE(R-10-1)
28	1	WTB1479.03A.007	-	PIPE, SS 3/8" SCH40	TUBE(R-10-1)
29	1	WTB1479.03A.008	-	PIPE, SS 3/8" SCH40	TUBE(R-10-1)
30	1	WTB1479.03A.010	-	PIPE, SS 3/8" SCH40	TUBE(R-10-1)
31	2	WTB1479.03A.011	-	AGENT LINE	PIPE(P-15-7)
32	1	WTB1479.03A.012	-	AGENT LINE	PIPE(P-15-7)



REVISION HISTORY: REV A — WTB1479.03A.001 was changed by P-4-08, WTB1479.03A.005 was changed by P-4-010, WTB1479.03A.009 was changed by P-4-011 — 03/26/2019; First check in

DATE: 11/14/2018 | DRAWN: KURIAS | WIDTH: N/A | GRAIN LENGTH: N/A | REV A: 20190616 GRs — 3/26/2019 | SIZE: B | SHEET 1 OF 4 | TITLE: ASSEMBLY ANSUL | ITEM NO: WTB1479.03A

BILL OF MATERIALS					
ITEM NO.	QTY R	PART NUMBER	RE	DESCRIPTION	MATERIAL
1	1	A-12-006L		SWITCH, DUAL SNAP ACTION #423879 WITH LEADS	Generic
2	2	A-12-013	-	3 GAL. TANKSHELL W/ADAPTER #429862	Generic
3	4	A-12-022	-	FUSIBLE LINK 165 DEG #415739 (1)	Generic
4	3	A-12-045	-	PULLEY ELBOW #423251	Generic
5	1	A-12-080		WIRE ROPE (50' STAINLESS STEEL)	Generic
6	1	A-12-087		HOSE GROMMET PACKAGE #418511	Generic
7	1	A-12-429853	-	R102 MECH. RELEASE ASSY #429853	Generic
8	1	A-12-429870		R102 1/2 BOX SHPG ASM #429870	Generic
9	2	E-8-64	-	CONNECTOR,1/2 STR.R/T #TC601	Generic



REVISION HISTORY: First check in

DATE: 1/8/2019 | DRAWN: achavez | WIDTH: N/A | GRAIN LENGTH: N/A | SIZE: B | SHEET 1 OF 1 | TITLE: REMOTE ANSUL SYSTEM | ITEM NO: A-WTB1479

PREPARED FOR:

WHATABURGER

BL Companies — Architecture, Engineering, Environmental, Land Surveying
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

SOUTH CAROLINA BL COMPANIES INC 4158 CERTIFICATE OF AUTHORIZATION

Prototype Version
PROTOTYPE RELEASE 2024 Q2 PT23X-ALT

△ Date	Description

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 42187 DENNIS BURTON 9/13/24

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name
WHATABURGER

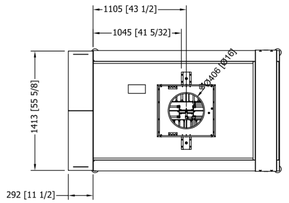
Date: 09.13.2024

Project Number
2302551

Description
HOOD DRAWINGS

Scale
NOT TO SCALE

M8.1



TOP VIEW

NOTE: 275 CFM'S PER LINEAR FOOT
INCLUDES BOTH SIDES MINIMUN
REQD. 1994 CFM'S

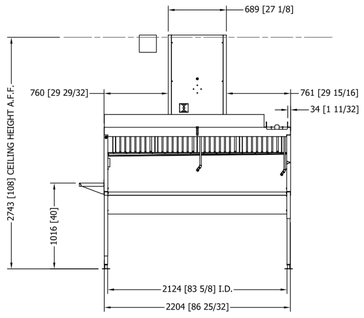
APPROVALS / CERTIFICATIONS
· THIS HOOD COMPLIES WITH THE FOLLOWING:
UL710 / ULC-S646
STANDARD FOR EXHAUST HOOD AND RELATED CONTROLS
FOR COMMERICAL AND INSTITUTIONAL COOKING EQUIPMENT
NFPA96
NATIONAL FIRE PROTECTION ASSOCIATION - STD 96
NSF2:
NATIONAL SANITATION FOUNDATION NO. 2 "FOOD SERVICE EQUIPMENT"

NOTE: THE EXHAUST AIR FLOW RATES WERE ESTABLISHED UNDER CONTROLLED LABORATORY CONDITIONS. GREATER EXHAUST RATES MAY BE REQUIRED FOR COMPLETE VAPOR AND SMOKE REMOVAL IN SPECIFIC INSTALLATIONS.

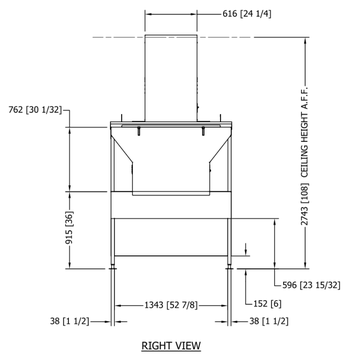
FILTERS/GREASE REMOVAL
· THIS HOOD UTILIZES A COMBINATION OF FLAMEGUARD SS TYPE-5 12X16 AND/OR 12X20 ARE KASON TRAPPER S/S FILTERS 7001 SERIES 12X16 &12X20 MUST BE UL LISTED STAINLESS STEEL GREASE FILTERS

· THEY MUST BE INSTALLED AT ALL TIMES DURING VENTILATION HOOD OPERATION

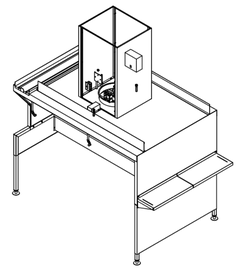
THIS UNIT REQUIRES: FILTERS (8)
FLAMGUARD FILTER, S/S BAFFLE TYPE VI
(8) 12X20
(NOTE) HOOD INCLUDES TEMPERATURE INTERLOCK SYSTEM



FRONT VIEW



RIGHT VIEW



ISOMETRIC BACK VIEW

GRILL HOOD U.L. #MH16346
(STANDARD USED U.L. 710)

DATE: 8/11/2022	MATERIAL:	REV	REVISION	DATE	CUSTOMER:		
DRAWN: GOviedo	WIDTH: N/A	B	20230019 FR	1/10/2023			
WEIGHT: N/A	GRAIN LENGTH: N/A		THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED: TOLERANCES: X[X X/X"] ±1.00 mm ±0.039" X.X[X.XXX"] ±0.75 mm ±0.029"	UNITS: mm [in]		
COMMENTS:							
THESE DRAWINGS AND SPECIFICATION ARE THE PROPERTY OF HMK AND SHALL NOT BE REPRODUCED OR COPIED OR TRANSFERRED TO A THIRD PARTY WITHOUT THE WRITTEN PERMISSION OF HMK.	SIZE: A3	SHEET 2 OF 3	TITLE: 87" DOUBLE SIDED CLAM SHELL GRILL HOOD			ITEM NO: WTB1603	

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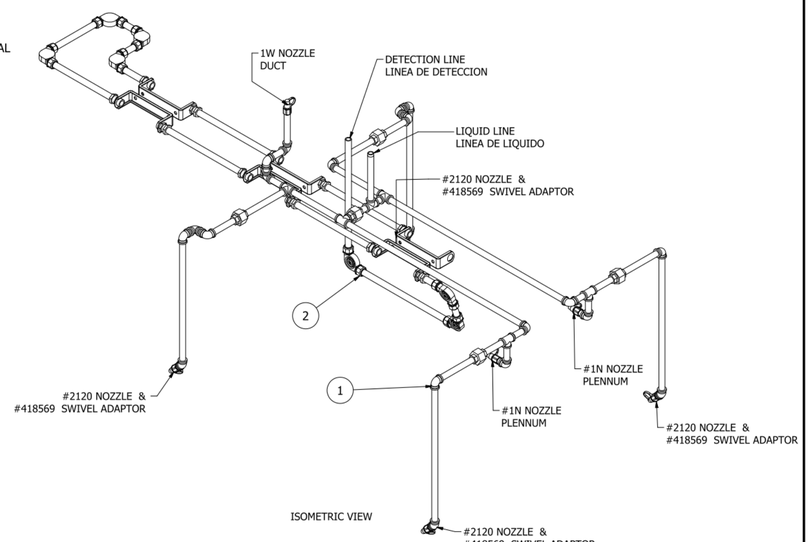
metric — ALL DOCUMENTATION RELATED TO THIS UNIT IS RELEASED ON METRIC SYSTEM (TODA LA DOCUMENTACION RELACIONADA CON ESTA UNIDAD ESTA LIBERADA EN SISTEMA METRICO)

DOUBLE SIDE GRILL HOOD
SUPPLIED WITH (1) 3.0 GAL TANK

DOUBLE SIDE GRILL HOOD
INCLUIDO CON (1) TANQUE DE 3.0 GAL

BILL OF MATERIALS					
ITEM NO.	QTY REQD.	PART NUMBER	REV	DESCRIPTION	MATERIAL
1	1	WTB1603.5100	-	LIQUID LINE ASSEMBLY	
2	1	WTB1603.5200	-	DETECTION LINE ASSEMBLY	



ISOMETRIC VIEW

REVISION HISTORY			
REV	CHANGE DESC	REV DATE	ENG
-	First Check In		

DATE: 8/9/2022	MATERIAL:	REV	REVISION	DATE	CUSTOMER:		
DRAWN: GOviedo	WIDTH: N/A	-					
WEIGHT: 5.25 kg	GRAIN LENGTH: N/A		THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED: TOLERANCES: X[X X/X"] ±1.00 mm ±0.039" X.X[X.XXX"] ±0.75 mm ±0.029"	UNITS: mm [in]		
COMMENTS:							
THESE DRAWINGS AND SPECIFICATION ARE THE PROPERTY OF HMK AND SHALL NOT BE REPRODUCED OR COPIED OR TRANSFERRED TO A THIRD PARTY WITHOUT THE WRITTEN PERMISSION OF HMK.	SIZE: A3	SHEET 1 OF 1	TITLE: ANSUL ASSY			ITEM NO: WTB1603.5000	

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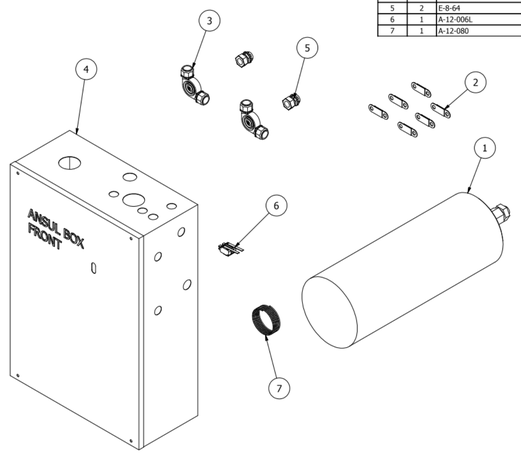
BILL OF MATERIALS					
ITEM N	QTY R	PART NUMBER	RE	DESCRIPTION	MATERIAL
1	1	A-12-013	-	3 GAL. TANKSHELL W/ADAPTER #429862	Generic
2	6	A-12-022	-	FUSIBLE LINK, 165F DEG, #415739	Generic
3	2	A-12-045	-	PULLEY ELBOW #423251	Generic
4	1	A-12-429853	-	R102 MECH. RELEASE ASSY #429853	Generic
5	2	E-8-64	-	CONNECTOR,1/2 STR.R/T #TC601	Generic
6	1	A-12-006L	-	SWITCH, DUAL SNAP ACTION #423879 WITH LEADS	Generic
7	1	A-12-080	-	WIRE ROPE (50' STAINLESS STEEL)	Generic



DATE: 6/3/2013	MATERIAL:	SYM	REVISION	DATE	CUSTOMER:		
DRAWN: D.BOOTE	WIDTH: N/A						
SCALE:	GRAIN LENGTH: N/A						
COMMENTS:							
THESE DRAWINGS AND SPECIFICATION ARE THE PROPERTY OF HMK AND SHALL NOT BE REPRODUCED OR COPIED OR TRANSFERRED TO A THIRD PARTY WITHOUT THE WRITTEN PERMISSION OF HMK.	SIZE: B	SHEET 1 OF 1	TITLE: REMOTE ANSUL SYSTEM			ITEM NO: A-WTB1263	

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FOR REFERENCE ONLY

THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AUTOMATIC FIRE PROTECTION SYSTEM FOR THE RANGE HOODS APPROVED EQUAL TO ANSUL SYSTEM. COMPLETE HOOD AND ANSUL SYSTEM INFORMATION TO BE SUBMITTED BY OTHERS IN FUTURE SUBMISSION.

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PREPARED FOR:

WHATABURGER

BL Companies
Architecture
Engineering
Environmental
Land Surveying

355 Research Parkway
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(203) 630-1406
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SOUTH CAROLINA BL COMPANIES INC 4158 CERTIFICATE OF AUTHORIZATION

Prototype Version

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△ Date	Description

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 42187 DENNIS BURTON 9/13/24

Seal / Signature

WHATABURGER GREENWOOD, SC

Project Name
WHATABURGER

Date: 09.13.2024

Project Number
2302551

Description
HOOD DRAWINGS

Scale
NOT TO SCALE

M8.2