PROJECT NO. 19-027
COMPLETE 100%

CERTIFICATE OF AUTH.
ENGINEERING ELEMENTS, PLLC
No. 1227
ARKANSAS-ENGINEER

## H.V.A.C. LEGEND

WD-20 ← DIFFUSER DESIGNATION
600 CFM ← DIFFUSER C.F.M.

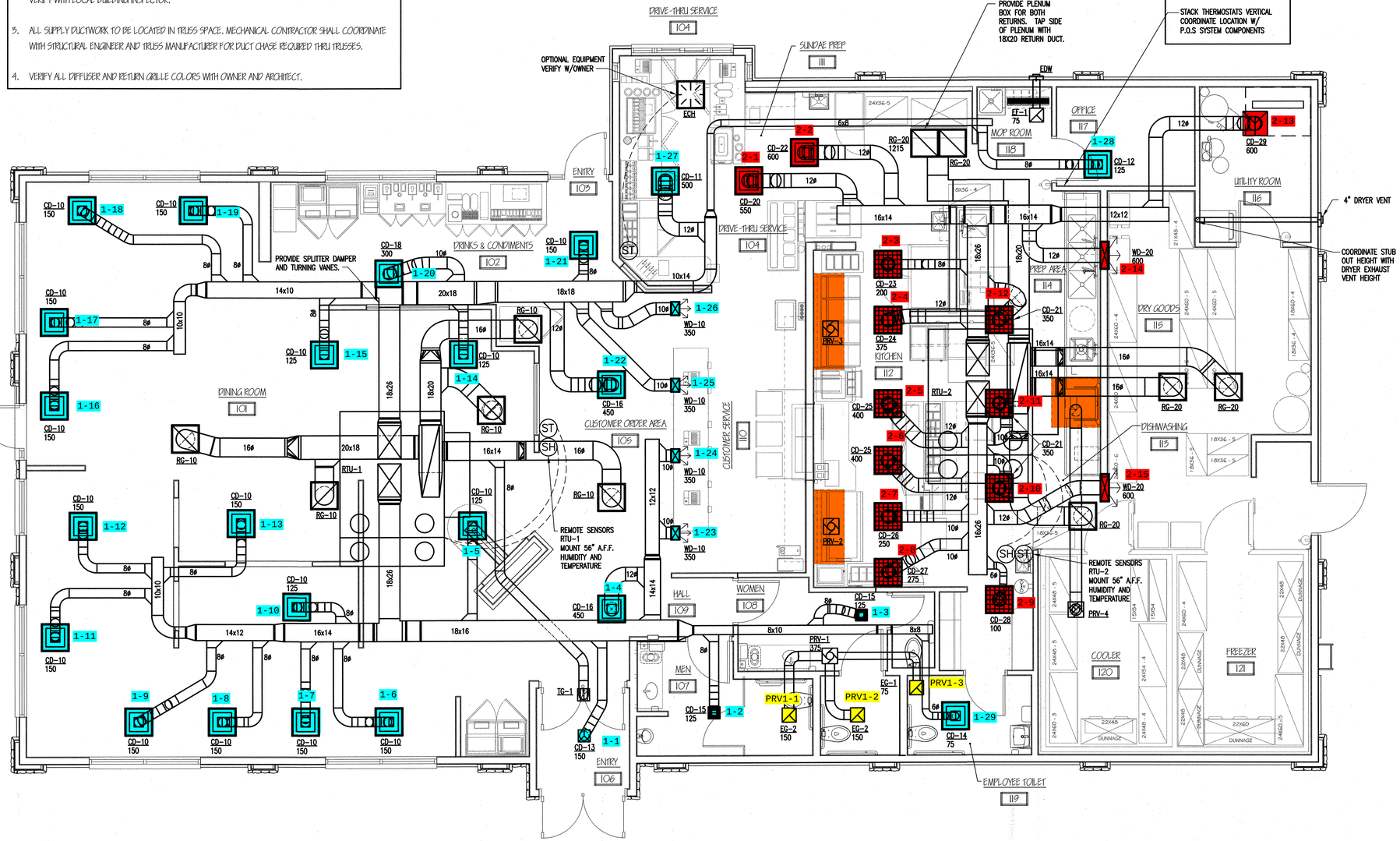
- CD — CEILING DIFFUSER W/ C.F.M. - 4 WAY
- CD — PERFORATED CEILING DIFFUSER
- CD — CEILING DIFFUSER W/ C.F.M. - 3 WAY
- CD — CEILING DIFFUSER W/ C.F.M. - 2 WAY
- RG — RETURN DIFFUSER - SUSP. CEILING
- EG — EXHAUST GRILLE
- PRV — POWER ROOF VENT
- ECH — ELECTRIC CEILING HEATER
- WD - WALL OR BULKHEAD SUPPLY GRILLE - LINEAR
- TG - TRANSFER GRILL
- SH - SENSOR HUMIDITY
- ST - SENSOR TEMPERATURE

## GENERAL NOTES:

1. VERIFY ALLOWABLE FLEX DUCT LENGTHS WITH LOCAL CODES AND MODIFY ACCORDINGLY. ATTACH FLEXIBLE AIR CONNECTOR TO RIGID DUCT w/ STEEL DRAW BANDS, NOT DUCT TAPE OR SCREWS. CLASS 1 FLEXIBLE AIR CONNECTOR PER U.L.181 - MAX LENGTH 8'-0". PROVIDE SUPPORT AT 4'-0" O.C.
2. VENTING OF ANY COMBUSTIBLE BY-PRODUCTS IS PROHIBITED WITHIN 10 FEET OF ROOF TOP UNITS. VERIFY WITH LOCAL BUILDING INSPECTOR.
3. ALL SUPPLY DUCTWORK TO BE LOCATED IN TRUSS SPACE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH STRUCTURAL ENGINEER AND TRUSS MANUFACTURER FOR DUCT CHASE REQUIRED THRU TRUSSES.
4. VERIFY ALL DIFFUSER AND RETURN GRILLE COLORS WITH OWNER AND ARCHITECT.

## RECOMMENDED HVAC SET POINTS:

1. DINING HEATING 70°, COOLING 72°
2. KITCHEN HEATING 68°, COOLING 74°




A MECHANICAL PLAN
SCALE: 1/4" = 1'-0"

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10054
07/15/19
SHANE R. LANNING

| Revision | Date |
|---|---|
| | |

Culver Franchising System, LLC 1240 Water Street Prairie du Sac, WI 53578 608-643-7980

Culver's BUTTERBURGERS & FROZEN CUSTARD

**4204 S. 42ND ST**
**ROGERS, AR**

**ARCHITECTURE PLUS, INC.**
907 South 21st Street Fort Smith, Arkansas 479/783-8395

Engineering Elements, PLLC
2458 East Joyce Boulevard, Suite 1, Fayetteville, AR 72703
Phone: 479-695-1333

MECHANICAL / PLUMBING / ELECTRICAL PLAN

PROJECT 19-06.2
DATE 7/15/2019
SHEET **M-1**

ARCHITECTS · PLANNERS

PROJECT NO. 19-027
COMPLETE 100%

# PACKAGED AIR CONDITIONING UNIT SCHEDULE

| TAG | DESCRIPTION | MANU. MODEL | AREA SERVED | NOM. TONS | MIN. EFF. | CFM | ESP | MIN OSA | HEAT MBH IN/OUT | COIL MBH TOT/SENS | FAN HP | VOLTS, PHASE | FLA, MCA, MOCP | WT. (LBS) | ECONOMIZER TYPE | CONTROL TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTU-2 | PACKAGED AIR CONDITIONING UNIT, 2 SPEED FAN, GAS HEAT, 2 STAGE DX COOLING | LENNOX LGH036S4T | SEE PLANS | 3 | 11.6 EER | 1200 | 0.5" | 120 | 65<br>52 | 34.8<br>26.4 | 3/4 | 208<br>3 | 16<br>19<br>30 | 568 | N/A | PROGRAMMABLE T-STAT | HORIZONTAL DUCT CONNECTIONS |
| RTU-1,3 | PACKAGED AIR CONDITIONING UNIT, 2 SPEED FAN, 2 STAGE GAS HEAT, 2 STAGE DX COOLING | LENNOX LGH048S4T | SEE PLANS | 4 | 11.6 EER | 1600 | 0.5" | 160 | 108<br>86 | 48<br>36 | 3/4 | 208<br>3 | 19.2<br>23<br>35 | 598 | N/A | PROGRAMMABLE T-STAT | HORIZONTAL DUCT CONNECTIONS |

**ACCESSORIES**

a. OUTDOOR AIR DAMPERS
b. HOT GAS REHEAT
c. LOW AMBIENT CONTROLS
d. HAIL GUARD
e. PROVIDE NEMA 3R FACTORY MOUNTED DISCONNECT, FIELD POWERED CONVENIENCE OUTLET, TXV, AND 2" PLEATED FILTER.
f. 14" TALL FLAT ROOF CURB FOR GROUND MOUNTED UNITS.
g. FOR ROOF MOUNTED UNITS PROVIDE ROOF CURB THAT IS FORM FITTED TO METAL BUILDING ROOF. DO NOT USE THE UNIT MANUFACTURER'S ROOF CURB FOR ANY METAL BUILDING PROJECT.

# FAN SCHEDULE

| TAG | DESCRIPTION | MANU. MODEL | DRIVE | AREA SERVED | CFM, SP | TS, RPM | HP, WATTS | VOLT, PHASE | SONES | WT (LBS) | CONTROL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-1, 2,3 | EXHAUST FAN, CEILING MOUNTED | ACME VQ0080 | DIRECT | SEE PLANS | 50<br>.25 | 1445<br>1051 | 48 WATTS | 120<br>1 | 2.5 | 7 | SWITCHED WITH LIGHTS |

**FAN ACCESSORIES**

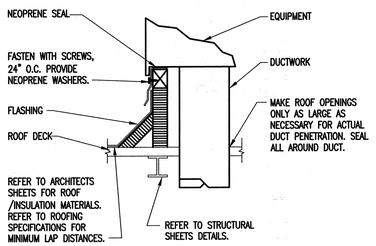
a. PROVIDE VIBRATION ISOLATING MOUNTING KIT AND ALL REQUIRED MOUNTING ACCESSORIES.
b. PROVIDE BACKDRAFT DAMPER FOR ALL FANS
c. FACTORY MOUNTED NEMA 1 (INDOORS) OR NEMA 3R (OUTDOORS) DISCONNECT SWITCH.
d. PROVIDE INSECT SCREEN.
e. PROVIDE FACTORY INSTALLED FAN SPEED CONTROLLER.
f. PROVIDE ALUMINUM GRILLE CEILING MOUNTED FANS.
g. PROVIDE WALL CAP EQUAL TO ACME'S MODEL 641 FOR EF-1

# MECHANICAL INSULATION SCHEDULE

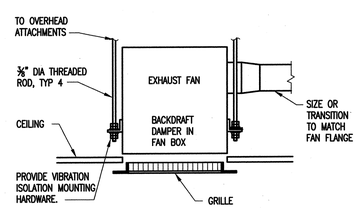
| DESCRIPTION | TYPE | THICKNESS |
|---|---|---|
| RECTANGULAR SUPPLY, RETURN AND OUTSIDE AIR DUCTS | DUCT WRAP | 2" |
| ROUND SUPPLY AIR DUCTS, RESTROOM EXHAUST DUCTS, OUTSIDE AIR DUCTS | DUCT WRAP | 2" |
| SUPPLY CEILING DIFFUSERS AND GRILLES | DUCT WRAP | 2" |
| REFRIGERANT PIPING, COPPER CONDENSATE DRAIN PIPING, CONDENSER WATER PIPING | ELASTOMERIC | 1/2" |

# MECHANICAL DUCTWORK SCHEDULE

| DESCRIPTION | DUCT TYPE |
|---|---|
| RESTROOM EXHAUST DUCTS | ROUND OR RECTANGULAR DUCT WITH DUCT WRAP INSULATION |
| LOW PRESSURE SUPPLY AND RETURN RECTANGULAR DUCTS | RECTANGULAR WITH 2" WRAP |
| LOW PRESSURE ROUND RUNOUTS TO SUPPLY DIFFUSERS AND RETURN GRILLES | ROUND DUCT WITH WRAP INSULATION |
| INTERIOR EXPOSED DUCTS | SPIRAL PAINTED, NO INSULATION |




B ROOF CURB
N.T.S.



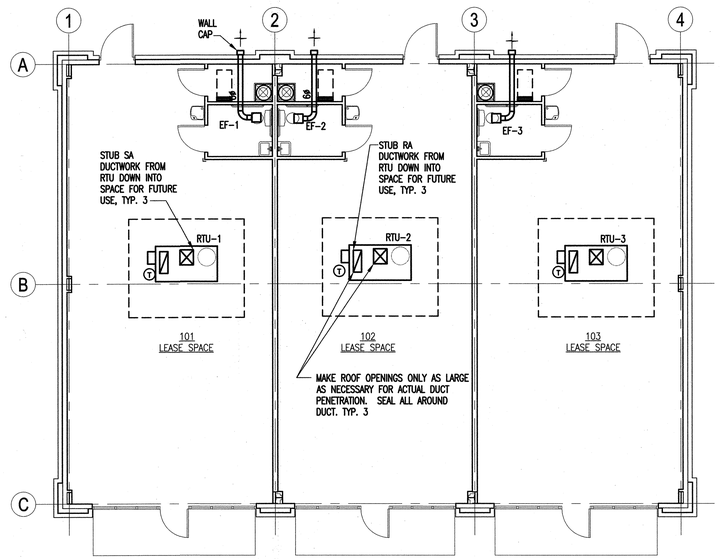

C CEILING EXHAUST FAN
N.T.S.

# MECHANICAL NOTES

1. THIS SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND REGULATIONS.
2. PROVIDE ACCESS PANELS AT ALL CONCEALED DEVICES (DAMPERS, VALVES, ETC.) REQUIRING ACCESSIBILITY FOR OPERATION OR MAINTENANCE. COORDINATE ACCESS PANEL LOCATION WITH OTHER TRADES TO AVOID CONFLICTS. DO NOT INSTALL ANY MAINTENANCE ITEMS ABOVE HARD CEILINGS IF IT CAN BE AVOIDED. PROVIDE MINIMUM 12X12 ACCESS DOOR OR 18X18 IF PERSONNEL ACCESS IS REQUIRED.
3. NO RIGID CONNECTIONS SHALL BE MADE BETWEEN SPRING MOUNTED EQUIPMENT AND THE STRUCTURE. ALL FANS SHALL BE CONNECTED TO DUCTS WITH FLEXIBLE SLEEVES AT LEAST 6" WIDE WITH SLACK. THE MECHANICAL SYSTEM SHALL OPERATE QUIETLY WITH ALL NOISE LEVELS BELOW ASHRAE RECOMMENDED GUIDELINES. PROVIDE CORRECTIVE ACTION TO REMOVE ALL OBJECTIONABLE NOISE AND VIBRATION.
4. ALL DUCT RUNOUTS TO DIFFUSERS AND GRILLES SHALL CONSIST OF A 45° TAKEOFF FITTING AND VOLUME DAMPER. LOCATE THE DAMPERS IN AN ACCESSIBLE LOCATION AS FAR AS PRACTICAL FROM THE AIR DEVICE.
5. ALL EQUIPMENT FURNISHED SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ALL DRAINS, VENTS, CONNECTIONS, VIBRATION ISOLATION, ETC. TO EQUIPMENT IN ACCORDANCE WITH SAID INSTRUCTIONS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE, OPERATING SYSTEM. THIS INCLUDES ALL INCIDENTAL ITEMS, FITTINGS, HARDWARE AND CONNECTIONS NECESSARY FOR PROPER OPERATION EVEN IF THOSE ITEMS ARE NOT SPECIFICALLY INDICATED ON THE DRAWINGS.
6. WHERE MOUNTING HEIGHTS ARE NOT SPECIFIED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE MAXIMUM HEADROOM POSSIBLE.
7. THESE DRAWINGS INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND ARE TO BE FOLLOWED INSOFAR AS POSSIBLE. THE CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS AND SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES TO AVOID CONFLICT OR DELAY.
8. ALL DUCT SIZES SHOWN ON THESE DRAWINGS ARE THE METAL DIMENSIONS. REFER TO MECHANICAL DUCTWORK AND INSULATION SCHEDULE FOR INSULATION REQUIREMENTS. THE DIMENSION SHOWN IS THE INSIDE METAL DIMENSION FOR ALL DUAL WALL DUCTS.
9. PIPE CONDENSATE DRAINS FROM ALL AIR HANDLING UNITS TO NEAREST ROOF DRAIN, GUTTER AND TURN DOWN TO AN AIR GAP. DO NOT DISCHARGE ANY CONDENSATE DIRECTLY ONTO ROOF.
10. ALL RUNOUT DUCT SIZES ON THE DRAWING SHALL BE THE SAME SIZE AS THE DIFFUSER NECK SIZE. REFER TO THE MECHANICAL SCHEDULE FOR ALL NECK SIZES PRIOR TO CONSTRUCTION.
11. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR THE FINAL LOCATION OF ALL CEILING MOUNTED DEVICES. MOUNTING HEIGHTS AND FINAL LOCATIONS OF ALL WALL MOUNTED DEVICES SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
12. UNLESS OTHERWISE NOTED, SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH INDUSTRY-ACCEPTED PROCEDURES TO WITHIN 10% OF DESIGN AIRFLOW RATES.
13. THE ROOF CURB FOR ALL ROOF MOUNTED EQUIPMENT (EXHAUST FANS, ROOFTOP UNITS, HOODS, ETC.) SHALL BE AS MANUFACTURED BY LM CURBS. DO NOT USE THE UNIT MANUFACTURER'S ROOF CURB FOR ANY METAL BUILDING PROJECT.
14. ALL DEVICES TO BE INSTALLED BY THIS TRADE SHALL BE COORDINATED WITH ALL TRADES (ARCHITECTURAL, MILLWORK, MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, ETC.) DURING CONSTRUCTION TO AVOID CONFLICTS AND TO PROVIDE A QUALITY PROJECT. IF YOU NOTICE ANY DISCREPANCY BETWEEN THIS WORK AND A SEPARATE TRADE, NOTIFY THE ENGINEER IMMEDIATELY FOR DIRECTION. ANY COORDINATION WORK THAT OCCURS WITHOUT APPROVAL FROM THE ENGINEER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL MOUNTING HEIGHTS SHALL BE CONFIRMED WITH ARCHITECTURAL ELEVATIONS IN EACH ROOM.
15. PROVIDE A RADIUS ELBOW ON ALL RECTANGULAR FITTINGS WITH ASPECT RATIO R/W=1. IF RADIUS ELBOW IS NOT PRACTICAL OR CREATES CONFLICT, THEN INSTALL TURNING VANES IN FITTING. USE ACOUSTIC STYLE PERFORATED VANES IN DUCTS WIDER THAN 20-INCHES.

## MECHANICAL LEGEND

| | | | |
|---|---|---|---|
| 12X12 | DUCT RISER, FIRST DIMENSION IS SIDE POINTED TO | T | THERMOSTAT, MOUNT ON UNIT, PROVIDE 50' OF COILED UP CONTROL WIRING FOR FUTURE LOCATION OF THERMOSTAT. |
| 20X20 | DUCT, FIRST DIMENSION IS SIDE SHOWN | | |




A MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

STATE OF ARKANSAS
SHANE R. LANNING
No. 10054
REGISTERED PROFESSIONAL ENGINEER
07/15

**CULVER'S RETAIL CENTER**
4204 SOUTH 42ND ST
ROGERS, ARKANSAS

CERTIFICATE OF AUTH.
ENGINEERING ELEMENTS, PLLC
No. 1227
ARKANSAS-ENGINEER


**ARCHITECTURE PLUS, INC.**
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Phone: 479-695-1333


REVISIONS:

PROJECT: 19-06.02

DATE: 07-15-2019

**M1.1**

ARCHITECTS · PLANNERS

PROJECT NO.: 19-027
COMPLETE: 100%

# GENERAL NOTES

1. DEVIATIONS FROM THE HVAC PLANS ARE THE RESPONSIBILITY OF THE HVAC CONTRACTOR & WILL NOT RESULT IN ADDITIONAL COSTS TO THE OWNER UNLESS WRITTEN CHANGE ORDERS ARE APPROVED BY THE OWNER.
2. ALL WORK TO BE PERFORMED TO STATE AND LOCAL CODES & SMACNA GUIDELINES.
3. INSTALL UNITS ACCORDING TO MANUFACTURERS GUIDELINES.
4. PROVIDE OWNER w/OPERATION & MAINTENANCE MANUALS & SYSTEM SCHEMATICS.
5. CONTRACTOR TO CONFIRM VOLTAGES & PHASES OF EQUIPMENT PRIOR TO INSTALLATION
6. EXHAUST FANS AND ROOF TOP UNIT FANS TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
7. VERIFY w/ OWNER EXACT HEATER LOCATION TO AVOID BUILDING FUNCTION INTERFERENCE.
8. NIGHT SET BACK THERMOSTATS TO BE INSTALLED ON ALL HVAC EQUIPMENT.
9. INSULATE DUCT WORK TO SMACNA GUIDELINES AND STATE CODES.
10. INSTALL VOLUME CONTROL DAMPERS AS INDICATED ON PLANS.
11. MAINTAIN AT LEAST 10 FEET CLEARANCE FROM INTAKES OR WINDOWS ON ALL EXHAUST VENTS
12. RETURN AIR DUCT WORK TO BE LINED FOR SOUND ATTENUATION
13. FLEXIBLE ROUND DUCT WORK NOT TO EXCEED 8 FEET IN LENGTH. AVOID UNNECESSARY. TURNS & SLACK.
14. DUCT WORK TO BE STANDARD GAUGE SHEET METAL (FIBROUS DUCT NOT ALLOWED).
15. COORDINATE WORK & GENERAL CONTRACTOR & OWNER TO MAXIMIZE CEILING HEIGHT & AVOID CONFLICTS
16. TEST, ADJUST & CALIBRATE CONTROL SYSTEMS AS REQUIRED. PROVIDE SCHEMATICS & DESCRIPTION TO THE OWNER PRIOR TO INSTALLATION.
17. INSULATE EXHAUST DUCT FOR EXHAUST FAN TO EXTERIOR TERMINATION.
18. CONTRACTOR TO VERIFY GAS METER CAPACITY WITH LOCAL GAS SUPPLIER.
19. VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION (DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT REFLECT EXACT LOCATIONS OF EQUIPMENT OR OTHER APPARATUSES.)
20. PROVIDE SHOP DRAWINGS TO THE ARCHITECT/DESIGNER FOR EQUIPMENT, FANS, REGISTERS ETC. PRIOR TO PROCUREMENT
21. PROVIDE OWNER WITH COLOR CHOICES FOR SWITCHES AND OTHER APPARATUSES WHERE APPLICABLE
22. VENT OWNERS WATER HEATERS AS REQUIRED
23. VENT DRYER TO EXTERIOR AS REQUIRED. MAINTAIN CLEARANCES FROM INTAKES AS NOTED ABOVE.
24. HANG AND SUPPORT MATERIALS SHALL BE INSTALLED THE LATEST EDITION OF THE ASHREA HANDBOOK OF FUNDAMENTALS
25. HVAC CONTRACTOR RESPONSIBLE FOR A COMPLETE AND FULLY WORKING SYSTEM
26. REPLACE ALL AIR FILTERS PRIOR TO TURNING SYSTEM OPERATIONS OVER TO OWNER.
27. INSTALLER IS RESPONSIBLE FOR FINAL TEST & BALANCING DURING TRAINING WEEK & PROVIDE A WRITTEN REPORT TO OWNER.
28. HVAC CONTRACTOR TO INSTALL #2 GAS w/ 14" WATER COLUMN MAX. PER STATE CODE & AGA GUIDELINES (LABEL AS REQUIRED).
29. DUCT DIMENSIONS LISTED ARE NET FREE – CLEAR INSIDE DIMENSIONS.
30. VERIFY DUCT LOCATIONS PRIOR TO FABRICATION. VERIFY LIMITED AREA FOR DUCTWORK & OTHER APPARATUSES.
31. S/S WALL PANELS FOR THE KITCHEN AREA ARE TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. PANELS ARE TO BE 18 GA. TYPE 304 S/S. SEE DETAILS AND LOCATIONS ON THE A6 DRAWING.

# MECHANICAL EQUIPMENT SPECIFICATIONS

**RTU - 1** **LENNOX ENERGENCE SERIES PACKAGED ROOFTOP UNITS WITH PRODIGY CONTROLLER**
15 TON, 6000 CFM SUPPLY AIR, 1900 CFM OUTSIDE AIR COMBINATION GAS WITH TWO STAGE HEATING AND COOLING ROOFTOP UNIT WITH HUMIDITROL AND S/S HEAT EXCHANGERS.HEATING CAPACITY DESIGNED PER LOCATION. 80%V AFUE THERMAL EFF. COOLING CAPACITY DESIGNED PER LOCATION. 11 EER MINIMUM. CONSTANT AIR VOLUME SUPPLY FAN. SUPPLY AND OUTSIDE AIR REQUIREMENTS DESIGNED PER LOCATION. UNIT TO BE 208/3/60 POWER. VERIFY AMPERAGE AND COORDINATE WITH ELECTRICAL CONTRACTOR. IN ADDITION TO OPTIONS LISTED ABOVE INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED/FIELD POWERED GFCI, RETURN AND/OR SUPPLY SMOKE DETECTORS AS REQUIRED BY LOCAL CODES, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS, BLOWER BELT AUTO TENSIONER. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV8 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL 13H15 PROGRAMMABLE THERMOSTAT
**NO SUBSTITUTIONS.**

**RTU - 2** **LENNOX ENERGENCE SERIES PACKAGED ROOFTOP UNITS WITH PRODIGY CONTROLLER**
15 TON, 6000 CFM SUPPLY AIR, 1900 CFM OUTSIDE AIR COMBINATION GAS WITH TWO STAGE HEATING AND COOLING ROOFTOP UNIT WITH HUMIDITROL AND S/S HEAT EXCHANGERS.HEATING CAPACITY DESIGNED PER LOCATION. 80%V AFUE THERMAL EFF. COOLING CAPACITY DESIGNED PER LOCATION. 11 EER MINIMUM. CONSTANT AIR VOLUME SUPPLY FAN. SUPPLY AND OUTSIDE AIR REQUIREMENTS DESIGNED PER LOCATION. UNIT TO BE 208/3/60 POWER. VERIFY AMPERAGE AND COORDINATE WITH ELECTRICAL CONTRACTOR. IN ADDITION TO OPTIONS LISTED ABOVE INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED/FIELD POWERED GFCI, RETURN AND/OR SUPPLY SMOKE DETECTORS AS REQUIRED BY LOCAL CODES, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS, BLOWER BELT AUTO TENSIONER. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV8 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL 13H15 PROGRAMMABLE THERMOSTAT
**NO SUBSTITUTIONS.**

**PRV - 1** ACCUREX MODEL **XRED-090-D** CONDENSATE DOWNBLAST EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER. **375 CFM** AT **.5" SP, .0667 HP MOTOR,** 115 VOLTS, SINGLE PHASE. FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. **NO SUBSTITUTIONS.**

**PRV - 2** (ITEM #49) ACCUREX MODEL **XRUB-161XP-15 KITCHEN FAN** UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE, & AUTO BELT TENSIONER, SPARE BELT, & ROOF CURB WITH CURB EXTENSION. **1500 CFM** AT **2.33" SP, 1.5 HP MOTOR,** 208 VOLTS, THREE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. **NO SUBSTITUTIONS.**

**PRV - 3** (ITEM #59) ACCUREX MODEL **XRUB-141-7 KITCHEN FAN** UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE, & AUTO BELT TENSIONER, SPARE BELT, & ROOF CURB WITH CURB EXTENSION. **1500 CFM** AT **1.00" SP, .75 HP MOTOR,** , 208 VOLTS, THREE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. **NO SUBSTITUTIONS.**

**PRV - 4** (ITEM #29) ACCUREX MODEL **XRED-090-D** CONDENSATE DOWNBLAST EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER. **350 CFM** AT **.6" SP, .0667 HP MOTOR,** 115 VOLTS, SINGLE PHASE. FAN TO RUN w/STARTING OF DISHWASHER & FOR ONE MINUTE AFTER THE CYCLE IS COMPLETE. **NO SUBSTITUTIONS.**

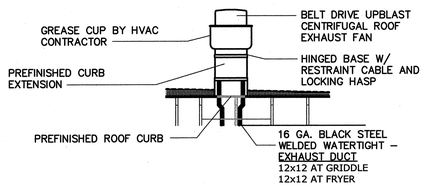
**EF - 1** ACCUREX MODEL **XCR-B80** CEILING EXHAUST FAN, SPEED CONTROL & MODEL WC-4 HOODED WALL CAP. PAINT WALL CAP TO MATCH EXTERIOR FINISH. **75 CFM** AT **.125" SP,** 115 VOLT, SINGLE PHASE. FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. **NO SUBSTITUTIONS.**

**ITEM #49** **GRIDDLE EXHAUST HOOD -** ACCUREX MODEL **XGEP-5.33S** 64" X 26" X 36" HIGH, LOW PROXIMITY w/FLUE BYPASS. **1500 CFM** AT **1.918" SP, 12" x 12" DUCT COLLAR.** INCLUDES THE 3" INTEGRAL AIR SPACE ON BACK OF HOOD & AN ADDITIONAL 3" REAR FILLER PANEL. STAINLESS STEEL WHERE EXPOSED, w/ **GREASE GRABBER** TWO-STAGE FILTRATION SYSTEM. 26" HIGH ENCLOSURE PANELS, FRONT, LEFT AND RIGHT SIDES. GREASE TROUGH SHALL BE PITCHED TO THE LEFT END OF THE HOOD. APPROVALS SHALL INCLUDE UL LISTING AND THE NSF SEAL. THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF **NFPA-96** & TO ALL PREVAILING LOCAL CODE REQUIREMENTS.
**NO SUBSTITUTIONS.**

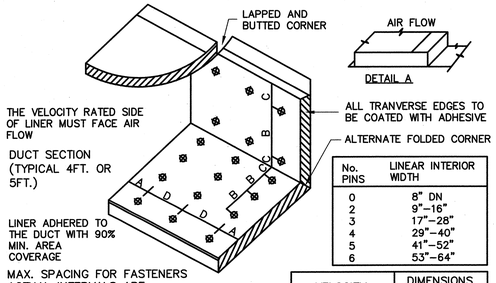
**ITEM #59** **FRYER EXHAUST HOOD -** ACCUREX MODEL **XXEP-FB-6.92-S** 83" X 26" X 36" HIGH, LOW PROXIMITY w/FLUE BYPASS. **1500 CFM** AT **.518" SP, 12" x 12" DUCT COLLAR.** INCLUDES THE 3" INTEGRAL AIR SPACE ON BACK OF HOOD & AN ADDITIONAL 3" REAR FILLER PANEL. STAINLESS STEEL WHERE EXPOSED, w/ **X-TRACTOR STAINLESS STEEL FILTERS** TWO-STAGE FILTRATION SYSTEM. 26" HIGH ENCLOSURE PANELS, FRONT, LEFT AND RIGHT SIDES. GREASE TROUGH SHALL BE PITCHED TO THE LEFT END OF THE HOOD. APPROVALS SHALL INCLUDE UL LISTING AND THE NSF SEAL. THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF **NFPA-96**
**NO SUBSTITUTIONS.**

**ITEM #25A** **DISHWASHER CONDENSATE HOOD -** ACCUREX MODEL **XD3-3.5-S** CONDENSATE HOOD w/BAFFLE, 42" X 42" X 24" HIGH, STAINLESS STEEL WHERE EXPOSED. **350 CFM** AT **.127 SP, 7 x 7 DUCT COLLAR.** COLLAR. APPROVALS SHALL INCLUDE THE NSF SEAL. (UL LABEL NOT REQUIRED FOR NON-GREASE APPLICATION). THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF **NFPA-96** & TO ALL PREVAILING LOCAL CODE REQUIREMENTS. **NO SUBSTITUTIONS.**

**ECH** **ELECTRIC CEILING HEATER -** Q-MARK OR EQUAL CDF-548 ELECTRIC CEILING HEATER & CDF RECESSED MOUNTING FRAME, CDF-TR4 TRANSFORMER & THERMOSTAT. 208/240 VOLT SINGLE PHASE. **19.2 AMPS.** (SUPPLIED & INSTALLED BY ELECTRICAL CONTRACTOR)




KITCHEN HOOD EXHAUST FAN DETAIL
N.T.S.




| No. PINS | LINEAR INTERIOR WIDTH |
|---|---|
| 0 | 8" DN |
| 2 | 9"–16" |
| 3 | 17"–28" |
| 4 | 29"–40" |
| 5 | 41"–52" |
| 6 | 53"–64" |

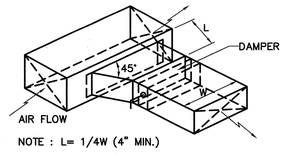
| VELOCITY | DIMENSIONS A | B | C | D |
|---|---|---|---|---|
| 0–2500 FPM | 3" | 12" | 4" | 18" |
| 2500–6000 FPM | 3" | 6" | 4" | 18" |

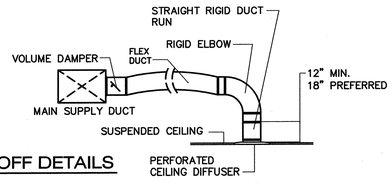
DUCT LINER INSTALLATION DETAIL
N.T.S. NOTE: USE ONLY ON VERTICAL DROP FROM RTU TO WITHIN 9'–10" A.F.F., DUCT LINER WILL NOT BE PERMITTED ON ANY HORIZ. RUNS.

## NATIONAL ACCOUNT PROGRAM

1. **LENNOX INDUSTRIES, INC. - ROOFTOP HVAC EQUIPMENT**
   National Accounts Sales: (800) 367-6285 Option #1 lennoxind.com
   National Account Technical Support: (800) 367-6285 Option #2 lennoxind.com
2. **ACCRUREX/ GREENHECK FAN CORPORATION - KITCHEN HOODS, EXHAUST FANS, ROOF CURBS, ANSUL SYSTEMS, AND ACCESSORIES**
   CONTACT Andy Jacobs @ 1-715-301-6022 or andrew.jacobs@accurex.com
   Secondary contact Sara Block @ 1-877-377-2548
3. **CARNES COMPANY - DIFFUSERS AND GRILLES**
   National Accounts Sales: Chris Stratton @ (608) 845-6411 cstratton@carnes.com
   National Accounts Rep: Brian Baker @ (608) 845-6411 bbaker@carnes.com

**NOTE : KITCHEN HOODS AND FANS SUPPLIED AND INSTALLED BY HVAC CONTRACTOR - - MINUMUM FOUR WEEK LEAD TIME.**




BRANCH DUCT TAKEOFF DETAILS
N.T.S.

# DIFFUSER/GRILLE SCHEDULE

| Mark | Manuf. | Model | Type | Mounting | Diffuser | Neck | CFM | Zone | Notes |
|---|---|---|---|---|---|---|---|---|---|
| CD-10 | CARNES | SFTB24 | SUPPLY | GRID | 4-WAY | 8" | 150 | RTU-1 | 2 |
| CD-11 | CARNES | SJTB24 | SUPPLY | GRID | 4-WAY | 12" | 500 | RTU-1 | 1 |
| CD-12 | CARNES | SJTB24 | SUPPLY | GRID | 4-WAY | 8" | 125 | RTU-1 | 1 |
| CD-13 | CARNES | SKSA | SUPPLY | CEILING | 3-WAY | 8" | 150 | RTU-1 | 3 |
| CD-14 | CARNES | SFTB24 | SUPPLY | GRID | 4-WAY | 8" | 75 | RTU-1 | |
| CD-15 | CARNES | SKSA | SUPPLY | CEILING | 4-WAY | 8" | 125 | RTU-1 | 3 |
| CD-16 | CARNES | SFTB24 | SUPPLY | GRID | 4-WAY | 12" | 450 | RTU-1 | |
| CD-18 | CARNES | SFTB24 | SUPPLY | GRID | 4-WAY | 10" | 300 | RTU-1 | 6 |
| CD-20 | CARNES | SFTB24 | SUPPLY | GRID | 4-WAY | 12" | 550 | RTU-2 | |
| CD-21 | CARNES | SPRB22412 | SUPPLY | GRID | PERFORATED | 12" | 350 | RTU-2 | 7 |
| CD-22 | CARNES | SFTB24 | SUPPLY | GRID | 4-WAY | 12" | 600 | RTU-2 | |
| CD-23 | CARNES | SPRB22410 | SUPPLY | GRID | PERFORATED | 8" | 200 | RTU-2 | 7 |
| CD-24 | CARNES | SPRB22412 | SUPPLY | GRID | PERFORATED | 12" | 375 | RTU-2 | 7 |
| CD-25 | CARNES | SPRB22412 | SUPPLY | GRID | PERFORATED | 12" | 400 | RTU-2 | 7 |
| CD-26 | CARNES | SPRB22410 | SUPPLY | GRID | PERFORATED | 10" | 250 | RTU-2 | 7 |
| CD-27 | CARNES | SPRB22410 | SUPPLY | GRID | PERFORATED | 10" | 275 | RTU-2 | 7 |
| CD-28 | CARNES | SPRB22406 | SUPPLY | GRID | PERFORATED | 6" | 100 | RTU-2 | |
| CD-29 | CARNES | SKEA | SUPPLY | GRID | 3-WAY | 12" | 600 | RTU-2 | |
| EG-1 | CARNES | RAPAH | EXHAUST | GRID | 24 x 24 | 8" | 75 | RTU-1 | |
| EG-2 | CARNES | RTLAH | EXHAUST | CEILING | 12 x 12 | 8" | 150 | RTU-1 | 4 |
| RG-10 | CARNES | RAPMF | RETURN | GRID | RETURN | 12 x 12" | 1220 | RTU-1 | 8 |
| RG-20 | CARNES | RAPMF | RETURN | GRID | RETURN | 14" | 1215 | RTU-2 | 8 |
| TG-1 | CARNES | RSABH | TRANSFER | WALL | 12 x 4" | 12" x 4" | 0 | RTU-1 | 5 |
| WD-10 | CARNES | RTDBH | SUPPLY | WALL | 12 x 6" | 10" | 350 | RTU-1 | |
| WD-20 | CARNES | RTDBH | SUPPLY | WALL | 24 x 6" | 12" | 600 | RTU-2 | |

DIFFUSER NOTES:

1. PROVIDE KXDA EXTENSION ROD WITH KNOB
2. 4 OF THE CD-10 DIFFUSERS ARE TO BE FLAT BLACK. SEE REFLECTED CEILING PLAN FOR LOCATIONS.
3. 12X12 NOMINAL PANEL SIZE.
4. PROVIDE WITH ADJUSTABLE OPPOSED BLADE DAMPER
5. MOUNT SO THE OCCUPANT CAN NOT SEE INTO THE DUCT
6. FLAT BLACK FINISH
7. DESIGN CFM MUST BE MAINTAINED FOR PROPER HOOD OPERATION
8. REMOVABLE CORE DIFFUSERS

## CONTROL NOTES

1. WIRE RTU-1, RTU-2 TO SHUT-DOWN & EXHAUST HOOD FANS TO CONTINUE TO RUN UPON ACTIVATION OF THE ANSUL SYSTEM.
2. WIRE RTU-1 & RTU-2 TO SHUT-DOWN UPON ACTIVATION OF ANY IN-DUCT SMOKE DETECTOR.
3. OCCUPIED MODE: FANS IN RTU-1 & RTU-2, EXHAUST FANS PRV-1, 2 & 3 AND EF-1 TO RUN CONTINUOUSLY.
4. UNOCCUPIED MODE: FANS IN RTU-1 & RTU-2 TO RUN ONLY WHEN COOLING OR HEATING IS CALLED FOR AND OUTSIDE AIR DAMPERS SHALL BE CLOSED.

## LENNOX SETTINGS FOR CULVERS

### Kitchen Unit

Parameter 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 Pg. 92
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO "GLOBAL" MODE. 1=ON 2=OFF (PG. 5 FIG 8)
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER. (Pg. 52 FIG 33)
BOTH THE THERMOSTAT AND THE HOOD FANS MUST BE TIED INTO TB1 TERMINAL 8&9 FOR OCC/UNOCC CONTROL.
FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=160 "-55F" (KITCHEN IS USUALLY IN COOLING MODE)
(PARAMETER 6.20 Pg 99; x CHARTS Pg 109)

### Dining Room Unit

PARAMETER 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 Pg 92
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO ECONOMIZER TYPE PURCHASED/INSTALLED. 1=? 2=?
(Pg 5 FIGURE 8)
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER. (Pg 52 FIGURE 33)
THE THERMOSTAT MUST BE TIED INTO TB1 TERMINAL 8&9 FOR OCC/UNOCC CONTROL
FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=142 "68F" (ROOM NEUTRAL)
(PARAMETER 6.20 PAGE 99; x CHARTS PAGE 109)

OTHER PARAMETERS THAT WE DIDN'T SET, BUT ARE PART OF START-UP:
ROOM SET POINT
REMOTE SENSOR OPERATION
TEMP DEADBANDS

CHECK FOR CORRECT OPERATION AND WIRING OF ALL SENSORS.

## TEST AND BALANCE NOTE:

ACCUREX WILL PROVIDE BALANCED AIRFLOW AND FUNCTIONAL CHARACTERISTICS OF THE HVAC AS THEY RELATE TO AIRFLOW AND RESISTANCE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM AND ITS MANAGING GROUP – NATIONAL TAB

CERTIFICATE OF AUTH. ENGINEERING ELEMENTS, PLLC No. 1227 ARKANSAS-ENGINEER

STATE OF ARKANSAS SHANE R. LANNING REGISTERED PROFESSIONAL ENGINEER No. 10054 07/15/19

| Date | Revision |
|---|---|
| | |

Culver Franchising System, LLC 1240 Water Street Prairie du Sac, WI 53578 608-643-7980

4204 S. 42ND ST
ROGERS, AR


ARCHITECTURE PLUS, INC.
907 South 21st Street Fort Smith, Arkansas 479/783-8395
Engineering Elements, PLLC
2456 East Joyce Boulevard, Suite 1, Fayetteville, AR 72703
Phone: 479-695-1333


MECHANICAL / PLUMBING / ELECTRICAL PLAN

PROJECT 19-06.2
DATE 7/15/2019
SHEET M-2

ARCHITECTS · PLANNERS

PROJECT NO.: 19-027
COMPLETE: 100%

CERTIFICATE OF AUTHORITY
ENGINEERING ELEMENTS, PLLC
No. 1227
ARKANSAS–ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10054
SHANE R. LANNING
7/15/19

| Revision | | | | | | |
|---|---|---|---|---|---|---|
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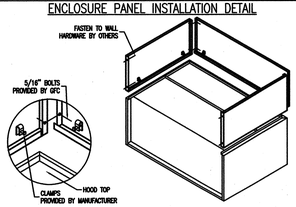
MECHANICAL / PLUMBING / ELECTRICAL PLAN

## ENCLOSURE PANEL INSTALLATION DETAIL




## HOOD HANGING HEIGHT FOR FIRE SYSTEMS

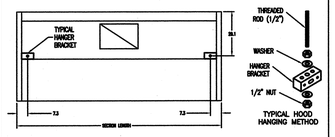
VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

☐ RECOMMENDED HANGING HEIGHT = 60" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.

☐ OTHER HANGING HEIGHT = _____" FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

## HOOD HANGER BRACKET DETAIL

FOR BACKSHELF HOODS




## GENERAL DRAWING NOTES

Verify building entry conditions or limitations for equipment access to space.

Verify type and height of finished ceiling and if hood(s) may extend above finished ceiling (if required).

Seismic installation and bracing of equipment is by others.

Greenheck will not accept liability for problems that result from sub–standard installation. Including field electrical wiring that deviate from supplied diagrams, jobsite conditions (ductwork, fuel types and structural conditions) that GFC has not been notified of at the time of ordering. Or use of this equipment other than that for which it is designed.

It is the responsibility of the purchaser to hire qualified personnel for installation and start–up of all equipment. Installation and start–up information is shipped with all equipment via the Installation, Operation and Maintenance Manual (IOM), also included is a troubleshooting guide. Have all start–up info available prior to any warranty claims and/or factory technical support.

## VENTILATION SYSTEM NOTES

Greenheck ventilators are designed in compliance with all national codes: NFPA # 96, national electric code. BOCA, uniform mechanical code, international mechanical code, and southern building conference. See national evaluation report #436 for allowable values, and/or conditions of use concerning material presented in this document. Local codes may vary. It is the responsibility of the purchaser to submit drawings to local authorities.

Exhaust and supply air volumes are to be maintained within –5% to +10% tolerance of values indicated. Static pressure(s) indicated are for the ventilator at the duct connection(s) only.

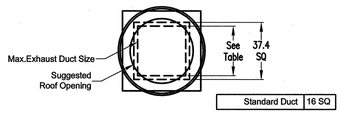
The grease filter face velocities are based on the filter manufacturers recommendations for maximum greaseextraction. Inlet opening air velocities for waterwash, dry cartridge and high velocity cartridge filters manufactured by Greenheck are designed to deliver maximum grease extraction.

Hoods installation (by others unless otherwise noted) shall be in accordance with NFPA # 96 and applicable building codes.

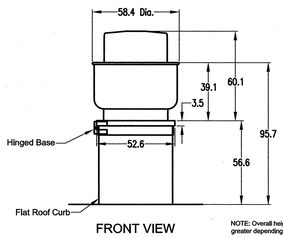
## PROPRIETARY INFORMATION NOTICE



## PRV-2 Griddle Fan




TOP VIEW

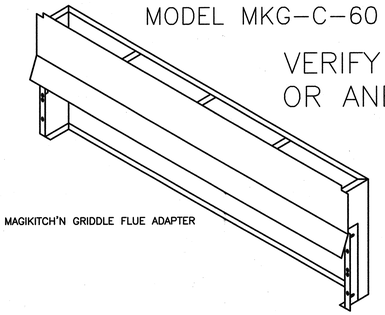



FRONT VIEW

NOTE: Overall height may be greater depending on motor

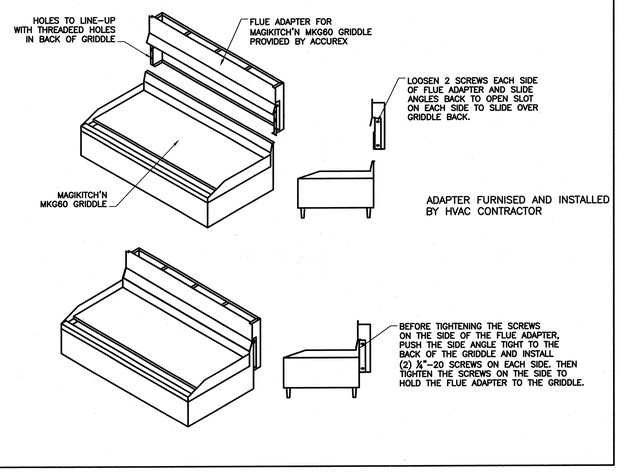
MUST USE WITH MAGIKITCH'N MODEL MKG–C–60

VERIFY MAGIKITCH'N OR ANETS GRILL

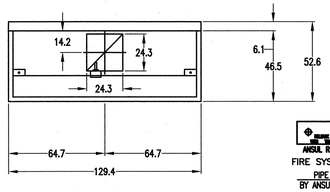


60" MAGIKITCH'N GRIDDLE FLUE ADAPTER

## MAGIKITCH'N MKG–C–60 GRIDDLE FLUE ADAPTER MOUNTING INSTRUCTIONS

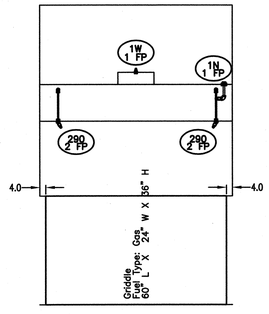



FOOD SERVICE EQUIPMENT #49

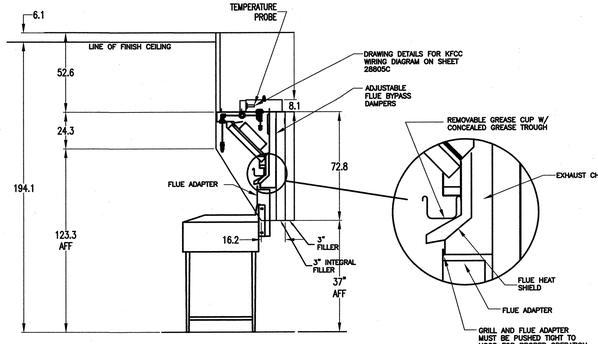



FIRE SYSTEM MARK: FS FOR GRILL HOOD

MARK: ITEM #49
PLAN VIEW




MARK: ITEM #49
ELEVATION VIEW




MARK: ITEM #49
SECTION VIEW

## EQUIPMENT SCHEDULE

### TYPE 1 KITCHEN HOOD

MARK: ITEM#49

| HOOD NO. | ACCUREX MODEL STYLE / CONFIGURATION | HOOD DIMENSIONS: SECTION LENGTH | WIDTH | HEIGHT | GREASE CUP OR DRAIN | HOOD TEMP. RATING | TOTAL WEIGHT | SECTION LOCATION |
|---|---|---|---|---|---|---|---|---|
| 1 | SSEF–84–S SINGLE WALL EXHAUST ONLY LOW PROXIMITY | 84 IN. | TOP 23 IN. BOT 8 IN. | FRONT 12 IN. BACK 36 IN. | RIGHT | 600 DEG F | 136.0 LBS. | SINGLE |

| HOOD NO. | ILLUMINATION DETAILS: FIXTURE TYPE BULB / LAMP INFO | QTY | INTENSITY FT CANDLES | GREASE FILTRATION DETAILS: TYPE / MODEL MATERIAL | QTY | LENGTH | HEIGHT |
|---|---|---|---|---|---|---|---|
| 1 | NONE | NA | 0 / 0 IN. OC | GREASE GRABBER STAINLESS STEEL | 4 | 16 IN. | 16 IN. |
| | | | | | 6 | 20 IN. | |

| HOOD SECTION # COLLAR # | EXHAUST PLENUM COLLARS: DISTANCE TO END (IN.) | WIDTH (IN.) | LENGTH (IN.) | DIAMETER (IN.) | VOLUME (CFM) | S.P. (IN. WC) | VELOCITY (FT/MIN) |
|---|---|---|---|---|---|---|---|
| 1 / 1 | 32 | 12 | 12 | NA | 1500 | 1.918 | 1500 |
| TOTAL EXHAUST CFM - SECTION 1 | | | | | 1500 | = | 281 CFM / FT |

OPTIONS AND ACCESSORIES

430 STAINLESS STEEL WHERE EXPOSED
UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
BACK NON-INTEGRAL AIR SPACE - 3 IN WIDE
26 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLAR(S)
THIS HOOD IS PART OF A TEMPERATURE INTERLOCK CONTROL SYSTEM
INCLUDES PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH
EMBOSSED STAINLESS STEEL FINISH FOR HIGH CORROSION RESISTANCE
EQUIPMENT SPECIFIC S/S FLUE ADAPTER

SPECIAL DESIGN REQUESTS

SDR #K1100145 - FLUE BYPASS HOOD

### FIRE SUPPRESSION SYSTEM

MARK: FS FOR GRILL HOOD

| MANUFACTURER / MODEL SUPPRESSANT TYPE | FLOW POINTS | SUPPLY LINE | DETECTION | MOUNTING |
|---|---|---|---|---|
| ANSUL R-102 WET CHEMICAL | 6 UTILIZED 11 AVAILABLE | CONTINUOUS | FUSIBLE LINK | RIGHT END REMOTE MOUNTED |

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
SUPPRESSION AGENT - INCLUDED - 3 GAL. - (1) 3 TANK(S)
GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, SUPPLIED UP TO 2"
REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS
METAL BLOW-OFF CAPS - INCLUDED
FIRE SYSTEM PERMIT - REQUIRED - FEE INCLUDED
360°F. FUSIBLE LINK OR AS TESTED AND INSTALLED BY LOCAL INSTALLER PER UL MANUAL

FIRE SYSTEM PROTECTED HOOD(S) (UL-300) (MARK NAME / SECTION#)

GRILL HOOD SECTION 1 - (LENGTH 64.0 IN.) - LOW PROXIMITY HOOD - GREASE GRABBER FILTRATION SYSTEM

### Belt Drive Upblast Centrifugal Roof Exhaust Fan

MARK: PRV-2

| Qty | Accurex Model | Volume (CFM) | SP (in wg) | FRPM | Operating Power (hp) | Weight (Lb.) | Motor Information: Size (hp) | V/C/P | Encl. | Motor RPM | Windings | FLA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | XRUB-161XP-15 | 1500 | 2.337 | 2,411 | 1.29 | 171 | 1.5 | 208/60/3 | OP | 1725 | 1 | 6.6 |

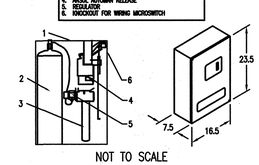
OPTIONS AND ACCESSORIES

UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"
Switch, NEMA-1, (PN:N1TSNO-3-30) Toggle, Shipped with unit
Larger curb cap size - 26" Square
Roof curb-Galv., GPF-26-G28, Under sized 1.5" Total
Hinged Base (Attached)
High Temp Curb Seal Rated for Continuous duty at 2000F (Attached)
Clean-out Port
Grease Trap with Drain Connection (PN 475538)
Heat Baffle (Attached)
Bearings with Grease Fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs)

## ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM – MODEL FSSC

CONTROL PANEL

1. STAINLESS STEEL ENCLOSURE
2. AGENT STORAGE TANK
3. EXPELLENT GAS CARTRIDGE
4. ANSUL AUTOMAN RELEASE
5. REGULATOR
6. KNOCKOUT FOR WIRING MICROSWITCH

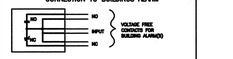



NOT TO SCALE

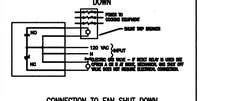
WIRING DIAGRAMS W/DPDT MICRO SWITCH

DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.

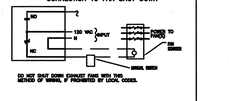
CONNECTION TO BUILDINGS ALARM




CONNECTION TO COOKING EQUIPMENT SHUT DOWN




CONNECTION TO FAN SHUT DOWN




NOTES:

Wet chemical fire protection system to be Ansul R–102, designed in compliance with UL 300 requirements.
–Verification of all cooking equipment make, model and location required for all fire protection systems.
–All fire system piping is standardly to the right end of the hood unless a wall is located on the right end.
–Ansul Automan Release to be located within 60" of hood.

The basic fire system will include the following:
–Gas shut–off valve, if required, to be supplied by Manufacturer (up to 2" diameter as standard), and installed by a licensed plumber.
–Micro switch to be supplied by Manufacturer for connection to, but not limited to, building alarm system(s), exhaust and supply fans and electrical power shut down. Field wiring and connections to be performed by a licensed electrician.

The basic fire system does NOT include the following:
–Full dump test other than what is specified per the installation manual, or to satisfy a state or local code. Permit and testing fees are not included unless noted under the equipment schedule for the fire system.
–More then two trips to the jobsite or special transportation, or overnight lodging requirements in remote areas. Normal travel distance is first 50 mi. (80.5 km) from office.
– Special cleaner or additional labor for access to security sensitive areas.
–Installation of gas shut–off valve.
–Special drawings required to satisfy state or local code. Plan examination fees, PE or FS Approval Stamp.
–Union labor, Government labor, or Prevailing wages required for final field hook–up.
–Any and all electrical components/connections required to shut down fans, shut off device for electric cooking equipment (shunt trip breaker), or activate an alarm system, etc.
–Any dismantling or incasembly required to gain access to the fire suppression piping located on the top of the hood.
–Rough–in hidden conduit for remote pull station or gas valve (flush mounted pull station).
–Installation of more than (1) remote pull stations or distances greater than 20 ft (6.1M.)
–Parts or labor required to correct piping due to cooking equipment changes or deviation from plans. OR Any charges for missing or additional parts other then those indicated on the Fire Suppression Detail.

NOTES:
1. ——— DENOTES FIELD INSTALLATION.
——— DENOTES FACTORY INSTALLATION.
3. DO NOT USE BLACK WIRE ON SNAP–ACTION SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTRANEOUS ALARM, LIGHT CIRCUITS, ETC.

UL NSF
CONSTRUCTION COMPLIES WITH NFPA 96

Thank you for your interest in Accurex

## SUBMITTAL

Please return one approved print to your Greenheck Representative including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

☐ APPROVED AS SUBMITTED
☐ APPROVED AS NOTED
☐ REJECTED – REVISE AND RESUBMIT

SIGNATURE DATE

| REV | DESCRIPTION | DATE |
|---|---|---|
| | | |

ACCUREX

TITLE: CULVER'S MASTER TEMPLATE

DRAWN BY: GNH
DATE: 01/31/17
SUPERVISOR:
SCALE: 1/24
CAD DRAWING NO.: C28805A
ECO:
JOB NO.:

PROJECT 19–06.2
DATE 7/15/2019
SHEET M-3

ARCHITECTS · PLANNERS

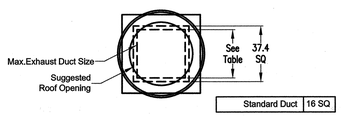
PROJECT NO.: 19-027
COMPLETE: 100%

CERTIFICATE OF AUTH.
ENGINEERING ELEMENTS, PLLC
No. 1227
ARKANSAS–ENGINEER

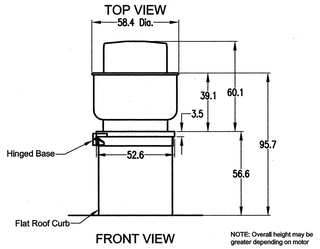
STATE OF ARKANSAS
SHANE R. LANNING
REGISTERED PROFESSIONAL ENGINEER
No. 10054
7/15/19

| Revision | | | | | | |
|---|---|---|---|---|---|---|
| Date | | | | | | |

## PRV-3 Fryer Fan




| Standard Duct | 16 SQ |
|---|---|

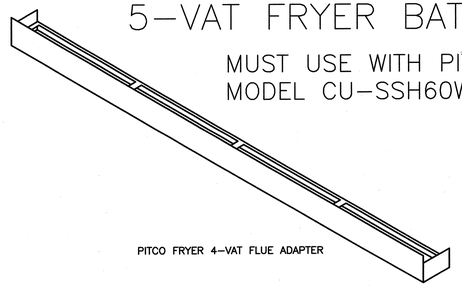



NOTE: Overall height may be greater depending on motor

FOOD SERVICE EQUIPMENT #59

# VERIFY 4–VAT OR 5–VAT FRYER BATTERY

## MUST USE WITH PITCO MODEL CU–SSH60W



PITCO FRYER 4–VAT FLUE ADAPTER

## EQUIPMENT SCHEDULE

### TYPE 1 KITCHEN HOOD

MARK: ITEM #59

| HOOD NO. | ACCUREX MODEL STYLE / CONFIGURATION | HOOD DIMENSIONS: SECTION LENGTH | WIDTH | HEIGHT | GREASE CUP OR DRAIN | HOOD TEMP. RATING | TOTAL WEIGHT | SECTION LOCATION |
|---|---|---|---|---|---|---|---|---|
| 1 | XDEF–83–S SINGLE WALL EXHAUST ONLY LOW PROXIMITY | 83 IN. | TOP 23 IN. BOT 3 IN. | FRONT 12 IN. BACK 36 IN. | RIGHT | 600 DEG F | 169.0 LBS. | SINGLE |

| HOOD NO. | ILLUMINATION DETAILS: FIXTURE TYPE BULB / LAMP INFO | QTY | INTENSITY FT CANDLES | GREASE FILTRATION DETAILS: TYPE / MODEL MATERIAL | QTY | LENGTH | HEIGHT |
|---|---|---|---|---|---|---|---|
| 1 | NONE | NA | 0 / 0 IN. OC | X–TRACTOR STAINLESS STEEL | 5<br>0 | 16 IN.<br>20 IN. | 16 IN. |

| HOOD SECTION # COLLAR # | EXHAUST PLENUM COLLARS: DISTANCE TO END (IN.) | WIDTH (IN.) | LENGTH (IN.) | DIAMETER (IN.) | VOLUME (CFM) | S.P. (IN. WC) | VELOCITY (FT/MIN) |
|---|---|---|---|---|---|---|---|
| 1 / 1 | 41.5 | 12 | 12 | NA | 1500 | 0.518 | 1500 |
| TOTAL EXHAUST CFM - SECTION 1 | | | | | 1500 | = | 217 CFM / FT |

**OPTIONS AND ACCESSORIES**

430 STAINLESS STEEL WHERE EXPOSED
UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
BACK NON-INTEGRAL AIR SPACE - 3 IN WIDE
26 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLAR(S)
THIS HOOD IS PART OF A TEMPERATURE INTERLOCK CONTROL SYSTEM
INCLUDES PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH
EMBOSSED STAINLESS STEEL FINISH FOR HIGH CORROSION RESISTANCE
EQUIPMENT SPECIFIC S/S FLUE ADAPTER

**SPECIAL DESIGN REQUESTS**

SDR #K1100559 - NEW 4L FRYER SYSTEM

### FIRE SUPPRESSION SYSTEM

MARK: FS FOR FRYER HOOD

| MANUFACTURER / MODEL SUPPRESSANT TYPE | FLOW POINTS | SUPPLY LINE | DETECTION | MOUNTING |
|---|---|---|---|---|
| ANSUL R-102 WET CHEMICAL | 18 UTILIZED 22 AVAILABLE | CONTINUOUS | FUSIBLE LINK | RIGHT END REMOTE MOUNTED |

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
SUPPRESSION AGENT - INCLUDED - 6 GAL. - [(2) 3.0 TANK(S)]
GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, SUPPLIED UP TO 2"
REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS
METAL BLOW-OFF CAPS - INCLUDED
FIRE SYSTEM PERMIT - REQUIRED - FEE INCLUDED
500°F, FUSIBLE LINK OR AS TESTED AND INSTALLED BY LOCAL INSTALLER PER UL MANUAL

**FIRE SYSTEM PROTECTED HOOD(S) (UL-300)** (MARK NAME / SECTION#)

FRYER HOOD SECTION 1 - (LENGTH 83.0 IN.) - LOW PROXIMITY HOOD

## EQUIPMENT SCHEDULE

### Belt Drive Upblast Centrifugal Roof Exhaust Fan

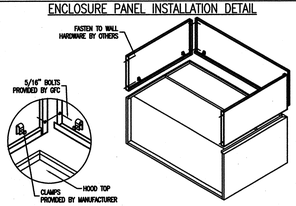
MARK: PRV-3

| Qty | Accurex Model | Volume (CFM) | SP (in wg) | FRPM | Operating Power (hp) | Weight (Lb.) | Motor Information: Size (hp) | V/C/P | Encl. | Motor RPM | Windings | FLA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | XPUB-141-7 | 1500 | 1 | 1377 | 0.5 | 160 | 0.75 | 208/60/3 | OP | 1725 | 1 | 3.5 |

**OPTIONS AND ACCESSORIES**

UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"
Switch, NEMA-1, Toggle, Shipped with unit
Larger curb cap size - 26" square
Roof curb-Galv., GPF-26-G28, Undersized 1.5" total
Hinged Base (Attached)
Curb Seal (Attached)
Clean-out Port
Grease Trap with Drain Connection (PN 475538)
Heat Baffle (Attached)

## ENCLOSURE PANEL INSTALLATION DETAIL




## HOOD HANGING HEIGHT FOR FIRE SYSTEMS

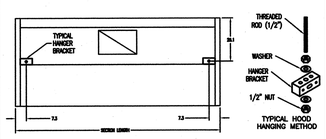
VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

☐ RECOMMENDED HANGING HEIGHT = 60" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.

☐ OTHER HANGING HEIGHT = _____" FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

## HOOD HANGER BRACKET DETAIL

FOR BACKSHELF HOODS




## GENERAL DRAWING NOTES

Verify building entry conditions or limitations for equipment access to space.

Verify type and height of finished ceiling and if hood(s) may extend above finished ceiling (if required).

Seismic installation and bracing of equipment is by others.

Greenheck will not accept liability for problems that result from sub–standard installation. Including field electrical wiring that deviate from supplied diagrams, jobsite conditions (ductwork, fuel types and structural conditions) that GFC has not been notified of at the time of ordering. Or use of this equipment other than that for which it is designed.

It is the responsibility of the purchaser to hire qualified personnel for installation and start–up of all equipment. Installation and start–up information is shipped with all equipment via the Installation, Operation and Maintenance Manual (IOM), also included is a troubleshooting guide. Have all start–up info available prior to any warranty claims and/or factory technical support.

## VENTILATION SYSTEM NOTES

Greenheck ventilators are designed in compliance with all national codes: NFPA # 96, national electric code. BOCA, uniform mechanical code, international mechanical code, and southern building conference. See national evaluation report #436 for allowable values, and/or conditions of use concerning material presented in this document. Local codes may vary. It is the responsibility of the purchaser to submit drawings to local authorities.

Exhaust and supply air volumes are to be maintained within –5% to +10% tolerance of values indicated. Static pressure(s) indicated are for the ventilator at the duct connection(s) only.

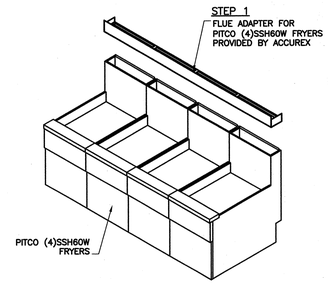
The grease filter face velocities are based on the filter manufacturers recommendations for maximum greaseextraction. Inlet opening air velocities for waterwash, dry cartridge and high velocity cartridge filters manufactured by Greenheck are designed to deliver maximum grease extraction.

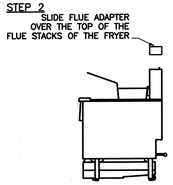
Hoods installation (by others unless otherwise noted) shall be in accordance with NFPA # 96 and applicable building codes.

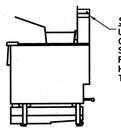
## PROPRIETARY INFORMATION NOTICE

This document is and contains confidential trade secret information of the company and remains property of the company and is to be returned upon request. Neither it nor information is contains may be reproduced or disclosed to persons not having a need–to–know consistent with the purpose of the loan document without written permission.

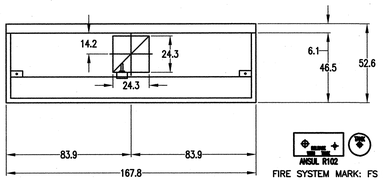
## PITCO CU–SSH60W FRYERS FLUE ADAPTER MOUNTING INSTRUCTIONS



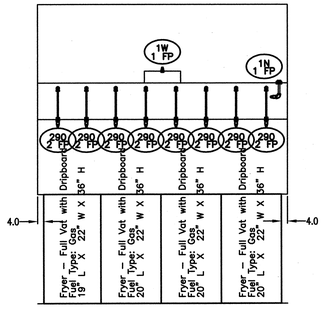




ADAPTER FURNISHED AND INSTALLED BY HVAC CONTRACTOR

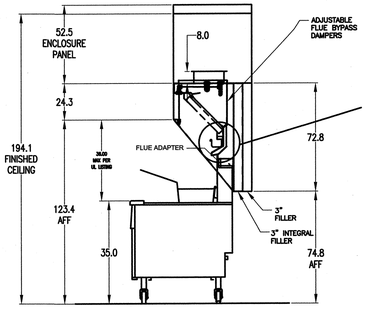



FIRE SYSTEM MARK: FS FOR FRYER HOOD

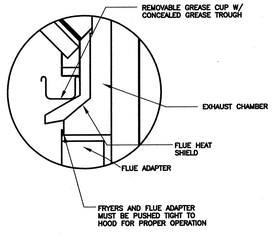
MARK: ITEM #59
PLAN VIEW




MARK: ITEM #59
ELEVATION VIEW



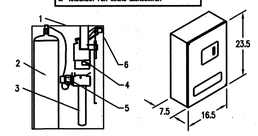

MARK: ITEM #59
SECTION VIEW




## ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM – MODEL FSSC

CONTROL PANEL

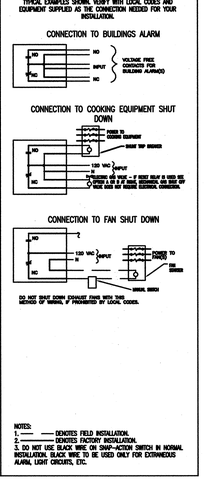
1. STAINLESS STEEL ENCLOSURE
2. AGENT STORAGE TANK
3. EXPELLENT GAS CARTRIDGE
4. ANSUL AUTOMAN RELEASE
5. REGULATOR
6. KNOCKOUT FOR WIRING MICROSWITCH




NOT TO SCALE

WIRING DIAGRAMS W/DPDT MICRO SWITCH

DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.




NOTES:

Wet chemical fire protection system to be Ansul R–102, designed in compliance with UL 300 requirements.
–Verification of all cooking equipment make, model and location required for all fire protection systems.
–All fire system piping is standardly to the right end of the hood unless a wall is located on the right end.
–Ansul Automan Release to be located within 60" of hood.

The basic fire system will include the following:
–Gas shut–off valve, if required, to be supplied by Manufacturer (up to 2" diameter as standard), and installed by a licensed plumber.
–Micro switch to be supplied by Manufacturer for connection to, but not limited to, building alarm system(s), exhaust and supply fans and electrical power shut down. Field wiring and connections to be performed by a licensed electrician.

The basic fire system does NOT include the following:
–Full dump fast other than what is specified per the installation manual, or to satisfy a state or local code. Permit and testing fees are not included unless noted under the equipment schedule for the fire system.
–More than two trips to the jobsite or special transportation, or overnight lodging requirements in remote areas. Normal travel distance is first 50 mi. (80.5 km) from office.
– Special cleaner or additional labor for access to security sensitive areas.
–Installation of gas shut–off valve.
–Special drawings required to satisfy state or local code. Plan examination fees, PE or FS Approval Stamp.
–Union labor, Government labor, or Prevailing wages required for final field hook–up.
–Any and all electrical components/connections required to shut down fans, shut off device for electric cooking equipment (shunt trip breaker), or activate an alarm system, etc.
–Any dismantling or reassembly required to gain access to the fire suppression piping located on the top of the hood.
–Rough–in hidden conduit for remote pull station or gas valve (flush mounted pull station).
–Installation of more than (1) remote pull stations or distances greater than 20 ft (6.1M.)
–Parts or labor required to correct piping due to cooking equipment changes or deviation from plans. OR Any charges for missing or additional parts other than those indicated on the Fire Suppression Detail

NOTES:
1. —— DENOTES FIELD INSTALLATION.
2. - - - - DENOTES FACTORY INSTALLATION.
3. DO NOT USE BLACK WIRE ON SNAP–ACTION SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTRANEOUS ALARM, LIGHT CIRCUITS, ETC.

UL NSF
CONSTRUCTION COMPLIES WITH NFPA 96

Thank you for your interest in Accurex

## SUBMITTAL

Please return one approved print to your Greenheck Representative including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

☐ APPROVED AS SUBMITTED
☐ APPROVED AS NOTED
☐ REJECTED – REVISE AND RESUBMIT

SIGNATURE DATE

| REV | DESCRIPTION | DATE |
|---|---|---|
| | | |

ACCUREX

DRAWN BY: GNH
DATE: 01/31/17
SUPERSEDES
SCALE: 1/24
JOB DRAWING NO.: C28805B

TITLE: CULVER'S MASTER TEMPLATE

Culver Franchising System, LLC 1240 Water Street Prairie du Sac, WI 53578 608-643-7980

4204 S. 42ND ST
ROGERS, AR


ARCHITECTURE PLUS, INC.
907 South 21st Street Fort Smith, Arkansas 479/783-8395
Engineering Elements, PLLC
2450 East Joyce Boulevard, Suite 1, Fayetteville, AR 72703
Phone: 479-695-1333


MECHANICAL / PLUMBING / ELECTRICAL PLAN

PROJECT 19–06.2
DATE 7/15/2019
SHEET M–4

ARCHITECTS · PLANNERS

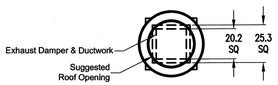
PROJECT NO. 19–027
COMPLETE: 100%

CERTIFICATE OF AUTHORITY
ENGINEERING ELEMENTS, PLLC
No. 1227
ARKANSAS–ENGINEER

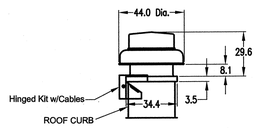
STATE OF ARKANSAS
Grant A. Lanning
REGISTERED PROFESSIONAL ENGINEER
07/15/19
No. 10054
SHANE R. LANNING

| Revision | Date |
|---|---|
| | |

MARK: PRV-1 Restroom

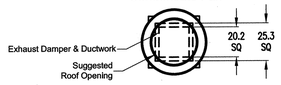



TOP VIEW

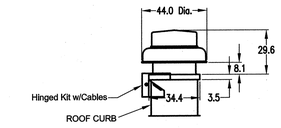



FRONT VIEW

MARK: PRV-4
Condensate Fan

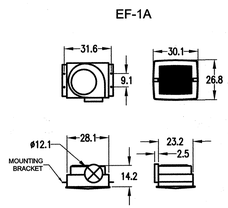



TOP VIEW




FRONT VIEW

EF-1A




## EQUIPMENT SCHEDULE

### ELECTRICAL CONTROL BOX — MARK: KFCC

| DESCRIPTION / ACCUREX MODEL<br>MOUNTING LOCATION (CONTROL PANEL / SWITCHES) | EXHAUST FAN QTY | SUPPLY FAN QTY | POWER FREQUENCY |
|---|---|---|---|
| KITCHEN FAN CONTROL CENTER / XFCC<br>SHIP LOOSE / SHIP LOOSE FOR REMOTE MOUNTING | 2 | 0 | 60 CYCLE |

CONTROL PANEL ENCLOSURE - 16 GA 304 STAINLESS STEEL ENCLOSURE (NEMA-1) - DIMENSIONS 12 X 18 X 6
WIRING DIAGRAM #: T100- 2 -20
STARTERS PROVIDED IN CONTROL PANEL - QTY 2
2 POSITION FAN SWITCH - QTY 1
INTEGRATED EXHAUST TEMPERATURE INTERLOCK SYSTEM
-FACTORY MOUNTED EXHAUST TEMPERATURE SENSORS - QTY 2
-COMPLIES WITH INTERNATIONAL MECHANICAL CODE 2006 SECTION 507.2.1.1
TURN ON EXHAUST IN FIRE
THERMAL OVERLOADS IN CABINET
1 SPEED FAN(S)

### SPECIAL DESIGN REQUESTS

SDR #K0800240 - USE KIT #852883, WIRING DIAG. #ZZ905336

### TYPE 2 KITCHEN HOOD — MARK: ITEM #25

| HOOD NO. | ACCUREX MODEL STYLE / CONFIGURATION | HOOD DIMENSIONS: SECTION LENGTH | WIDTH | HEIGHT | GREASE CUP OR DRAIN | HOOD TEMP. RATING | TOTAL WEIGHT | SECTION LOCATION |
|---|---|---|---|---|---|---|---|---|
| 1 | XD3–42–S<br>CONDENSATE HOOD – DOUBLE BAFFLE | 42.0 IN. | 42 IN. | 24 IN. | RIGHT | NA | 224.0 LBS. | NA |

| HOOD SECTION # / COLLAR # | EXHAUST PLENUM COLLARS: DISTANCE TO END (IN.) | WIDTH (IN.) | LENGTH (IN.) | DIAMETER (IN.) | VOLUME (CFM) | S.P. (IN. WC) | VELOCITY (FT/MIN) |
|---|---|---|---|---|---|---|---|
| 1 / 1 | 21 | 7 | 7 | NA | 350 | 0.127 | 1029 |
| TOTAL EXHAUST CFM - SECTION 1 | | | | | 350.0 | = | 100.0 CFM / FT |

### OPTIONS AND ACCESSORIES

304 STAINLESS STEEL 100% CONSTRUCTION
FACTORY MOUNTED EXHAUST COLLAR(S)

## EQUIPMENT SCHEDULE

Direct Drive Centrifugal Roof Exhaust Fan — MARK: PRV-1 Restroom

| Qty | Accurex Model | Volume (CFM) | SP (in wg) | FRPM | Operating Power (hp) | Weight (Lb.) | Motor Information: Size (hp) | V/C/P | Encl. | Motor RPM | Windings | FLA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | XRED-090-D | 375 | 0.5 | 1479 | 0.060 | 43 | 0.0667 | 115/60/1 | OP | 1550 | 1 | NA |

### OPTIONS AND ACCESSORIES

UL/cUL 705 Listed - "Power Ventilators"
Switch, NEMA-1, Toggle, Shipped with unit
Hinged Curb Cap Kit w/Cables (PN 851018) (Shipped Loose)
Curb Seal (Attached)
Damper, WD-100-PB-10X10, Gravity Operated (Loose)
Solid State Speed Control, Shipped Loose (PN 5WSSC)
Roof Curb-Galv., GPI-17-10-G12, Undersized 1.5" total

## EQUIPMENT SCHEDULE

Direct Drive Centrifugal Roof Exhaust Fan — MARK: PRV-4 Condensate Fan

| Qty | Accurex Model | Volume (CFM) | SP (in wg) | FRPM | Operating Power (hp) | Weight (Lb.) | Motor Information: Size (hp) | V/C/P | Encl. | Motor RPM | Windings | FLA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | XRED-090-D | 350 | 0.5 | 1455 | 0.07 | 43 | 0.0667 | 115/60/1 | OP | 1550 | 1 | NA |

### OPTIONS AND ACCESSORIES

UL/cUL 705 Listed - "Power Ventilators"
Switch, NEMA-1, Toggle, Shipped with unit
Hinged Curb Cap Kit w/Cables (PN 851018) (Shipped Loose)
Curb Seal (Attached)
Damper, WD-100-PB-10X10, Gravity Operated (Loose)
Solid State Speed Control, Shipped Loose (PN 5WSSC)
Roof Curb-Galv., GPI-17-10-G12, Undersized 1.5" total

## EQUIPMENT SCHEDULE

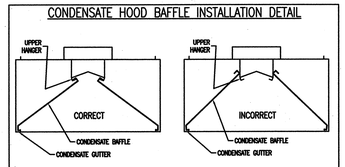
Ceiling Exhaust Fan — MARK: PRV-4 Condensate Fan

| Qty | Accurex Model | Volume (CFM) | SP (in wg) | FRPM | Operating Power (hp) | Weight (Lb.) | Motor Information: Size (hp) | V/C/P | Encl. | Motor RPM | Windings | FLA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | XCR-880 | 75 | 0.125 | 885 | 0.01 | 10 | 0.0 | 115/60/1 | OP | 900 | 1 | NA |

### OPTIONS AND ACCESSORIES

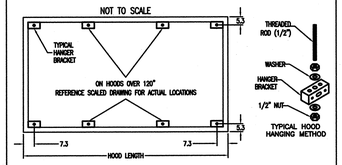
UL/cUL 705 Listed - Electric fan
Solid State Speed Control. 6.0 amp, shipped loose
Round Hooded Wall cap, (PN: WC-6) Shiped loose)
Designer Grille
Round duct connection
Polypropylene Wheel Material
Energy Star Rated

## CONDENSATE HOOD BAFFLE INSTALLATION DETAIL




NOTES:
1. THE CONDENSATE BAFFLES MUST HOOK ONTO THE UPPER HANGER AND REST IN THE CONDENSATE GUTTER FOR PROPER OPERATION.

## HOOD HANGER BRACKET DETAIL




## GENERAL DRAWING NOTES

Verify building entry conditions or limitations for equipment access to space.

Verify type and height of finished ceiling and if hood(s) may extend above finished ceiling (if required).

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It is the responsibility of the purchaser to hire qualified personnel for installation and start–up of all equipment. Installation and start–up information is shipped with all equipment via the Installation, Operation and Maintenance Manual (IOM), also included is a troubleshooting guide. Have all start–up info available prior to any warranty claims and/or factory technical support.

## VENTILATION SYSTEM NOTES

Greenheck ventilators are designed in compliance with all national codes: NFPA # 96, national electric code. BOCA, uniform mechanical code, international mechanical code, and southern building conference. See national evaluation report #436 for allowable values, and/or conditions of use concerning material presented in this document. Local codes may vary. It is the responsibility of the purchaser to submit drawings to local authorities.

Exhaust and supply air volumes are to be maintained within –5% to +10% tolerance of values indicated. Static pressure(s) indicated are for the ventilator at the duct connection(s) only.

The grease filter face velocities are based on the filter manufacturers recommendations for maximum greaseextraction. Inlet opening air velocities for waterwash, dry cartridge and high velocity cartridge filters manufactured by Greenheck are designed to deliver maximum grease extraction.

Hoods installation (by others unless otherwise noted) shall be in accordance with NFPA # 96 and applicable building codes.

## PROPRIETARY INFORMATION NOTICE

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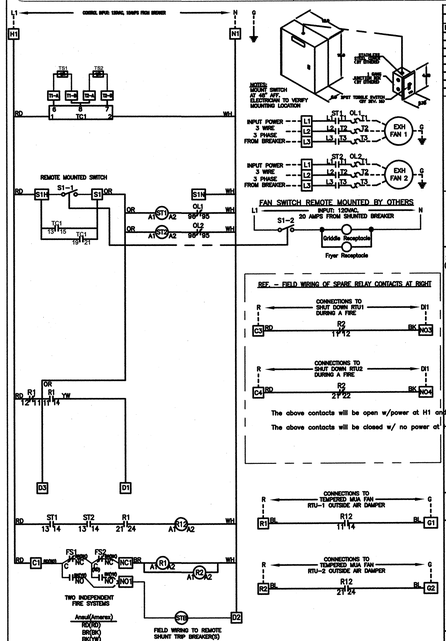
## XFCC WIRE DIAGRAM
CULVER'S

GREENHECK
PART NO. — REV. — SIZE — DRAWING NO. — SCH




Panel Mark: CONTROLS
Hood Mark(s): FRYER HOOD, GRILL HOOD

| Motor | Fan Mark | HP | Volt | PH | FLA | Wire | Breaker |
|---|---|---|---|---|---|---|---|
| F1 | Over Fan 1 | 0.75 | 208 | 3 | 3.5 | Cu | Comp |
| F2 | Over Fan 2 | 0.75 | 208 | 3 | 3.5 | Cu | Comp |

Spare Fire Switch Contact (dry contacts for building alarms)
Spare Relay Contacts (activated by FS1) (can be used for shunt trip, alarms, etc.)
open w/power at H1/N1 & fire system armed
closed on fire or no power
closed w/power at H1/N1 & fire system armed
open on fire or no power

TORQUE: TERMINAL STRIPS = 18 IN/LB. GROUNDING BAR = 20 IN/LB.
FIELD WIRING: use minimum 60° Copper Wire
ALL WIRING 60°C MIN. UL 6A UNLESS SPECIFIED

WIRE COLOR: BLK – black; BL – blue; BRN – brown; OR – orange; PR – purple; RD – red; YW – yellow; WHT – white

NOTES:
Drawing shown de–energized at L1 (term. #5), w/ Fire System armed (non–fire mode), (in normal operation, R1 & R2 are energized)
If wall mounted presets, or field installed fire system, the fire system microswitches must be field wired.

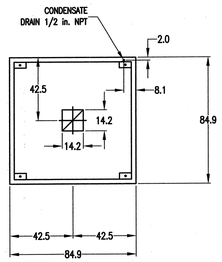
UL LISTED — UNDER SUBJECT 891 FILE #E200616

Wiring Diagram #
100–2MXZ–320

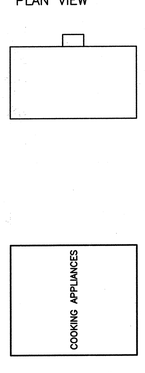
### TEMPERATURE INTERLOCK CALIBRATION

1. PRESS THE SET BUTTON TO SEE THE FIRST SET POINT. (PRESS THE SET BUTTON TWICE, SLOWLY TO SEE THE SECOND SET POINT)
2. PRESS THE UP/DOWN ARROW BUTTON TO CHANGE THE SET POINT.
3. PRESS THE SET BUTTON TO VIEW THE CURRENT TEMPERATURE.
4. CHECK SYSTEM OPERATION BEFORE MAKING ADDITIONAL ADJUSTMENTS

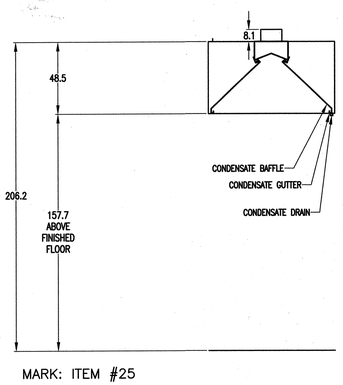
FOR TECHINCAL SUPPORT ON THE KFCC
(KITCHEN FAN CONTROL CENTER)
CALL EITHER:
AARON VAN KREY 715.841.8521
TYLER SCHILLING 715.841.8749




MARK:ITEM #25A
PLAN VIEW




MARK: ITEM #25A
ELEVATION VIEW




MARK: ITEM #25
SECTION VIEW

CONSTRUCTION COMPLIES WITH NFPA 96

Thank you for your interest in Accurex

**SUBMITTAL**

Please return one approved print to your Greenheck Representative including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

☐ APPROVED AS SUBMITTED
☐ APPROVED AS NOTED
☐ REJECTED – REVISE AND RESUBMIT

SIGNATURE — DATE

| REV | DESCRIPTION | DATE |
|---|---|---|
| | | |

ACCUREX

TITLE: CULVER'S MASTER TEMPLATE

DRAWN BY: GNH
DATE: 01/31/17
SUPERSEDES
SCALE: 1/24
CAD DRAWING NO. C28805C
REV: D
ENG. REV.

Culver Franchising System, LLC 1240 Water Street Prairie du Sac, WI 53578 608-643-7980

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Phone: 479-695-1333


MECHANICAL / PLUMBING / ELECTRICAL PLAN

PROJECT 19–06.2
DATE 7/15/2019
SHEET M-5

ARCHITECTS · PLANNERS

PROJECT NO.: 19-027
COMPLETE: 100%

CERTIFICATE OF AUTH.
ENGINEERING ELEMENTS, PLLC
No. 1227
ARKANSAS-ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10054
7/15/19
SHANE R. LANNING

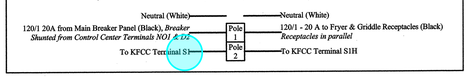
| Revision | | | | | | |
|---|---|---|---|---|---|---|
| Date | | | | | | |


Culver Franchising System, LLC 1240 Water Street Prairie du Sac, WI 53578 608-643-7980


# CULVER'S ELECTRICAL FIELD CONNECTION INSTALLATION INSTRUCTIONS

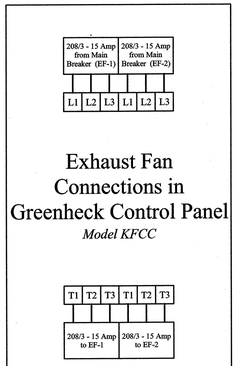
## Remote Mount DPST Switch

*Fryer & Griddle Receptacles, Kitchen Exhaust Fans*




## Exhaust Fan Connections in Greenheck Control Panel

*Model KFCC*




## Key

——Designates Field Connection

## Greenheck Control Panel Connections

*Model KFCC*

| | | Torque to 18 in-lbs | |
|---|---|---|---|
| Power from Main Breaker Panel (Black), *Non-shunted* | H1 | 120/1 - 15 Amp | H1 |
| Neutral from Main Breaker Panel (White) | N1 | NEUTRAL | N1 |
| | H2 | NOT USED | H2 |
| | N2 | NOT USED | N2 |
| | W2 | NOT USED | W2 |
| | B2 | NOT USED | B2 |
| To Pole 2 of Remote Mount DPST Switch | S1 | Fan Switch Connection | S1 |
| To Pole 2 of Remote Mount DPST Switch | S1H | Fan Switch Connection | S1H |
| | S1N | NOT USED | S1N |
| To Fire Sytem Microswitch (Red) | C1 | Fire System Common | C1 |
| To Fire System Microswitch (Black) | NO1 | Fire System N/O | NO1 |
| To Fire System Mircoswitch (Brown) | NC1 | Fire System N/C | NC1 |
| | C2 | Spare Fire Sys. Common | C2 |
| | NO2 | Spare Fire Sys. N/O | NO2 |
| | NC2 | Spare Fire Sys. N/C | NC2 |
| To RTU 1 Shutdown in Fire (*Contact will open in fire*) | C3 | RTU 1 Fire Shutdown | C3 |
| | NO3 | OPEN | NO3 |
| To RTU 1 Shutdown in Fire (*Contact will open in fire*) | NC3 | RTU 1 Fire Shutdown | NC3 |
| To RTU 2 Shutdown in Fire (*Contact will open in fire*) | C4 | RTU 2 Fire Shutdown | C4 |
| | NO4 | OPEN | NO4 |
| To RTU 2 Shutdown in Fire (*Contact will open in fire*) | NC4 | RTU 2 Fire Shutdown | NC4 |
| | D1 | 120/1 "Off in Fire" | D1 |
| To Griddle & Fryer Shunt Trip Breaker at Main Panel | D2 | 120/1- Shunt Trip Breaker | D2 |
| | D3 | 120/1 | D3 |
| To RTU 1 Outside Air Damper (*Contact will close when exhaust fans are running*) | R1 | RTU-1 Outside Air Damper | R1 |
| To RTU 1 Outside Air Damper (*Contact will close when exhaust fans are running*) | G1 | RTU-1 Outside Air Damper | G1 |
| To RTU 2 Outside Air Damper (*Contact will close when exhaust fans are running*) | R2 | RTU-2 Outside Air Damper | R2 |
| To RTU 2 Outside Air Damper (*Contact will close when exhaust fans are running*) | G2 | RTU-2 Outside Air Damper | G2 |

To Griddle & Fryer Shunt Trip Breaker at Main Panel

## Culver's Installation and Operation Guide

*Greenheck Control Panel and Exhaust Fan & Receptacle Switch*

Mechanical Scope of work

1) Mechanical contractor to mount Greenheck Control Panel (*Model KFCC, 12"W x 18"H x 6"W*) in specified location above drop ceiling.
2) Mechanical Contractor to start up fans and electrical outlet by turning fan switch to the "ON" position. Verify power to fryer & griddle receptacles and exhaust fans.

Electrical Scope of Work

1) Electrical contractor shall provide one 120 Volt - 20 Amp circuit with shunt trip breaker (120V trip) for fryer and griddle receptacles. This circuit will have two receptacles, one for the fryer and one for the griddle. Circuit will be controlled using a DPST (Double Pole Single Throw) switch for exhaust fan and electrical outlet control. Switch to be mounted on wall where specified on drawings.
2) Electrical Contractor to provide and install DPST switch on wall. Wire one pole of switch to the receptacle outlet circuit. Wire other pole of DPST switch to terminals S1H and S1 in Greenheck Control Panel (Model KFCC) to complete fan control circuit.
3) Electrical Contractor to run a separate 120 Volt - 15A circuit to KFCC terminals H1 and N1 to power KFCC controls.
4) Two 208/60/3 - 15A circuits must be run from the main breaker panel to each motor starter in the KFCC (L1, L2, & L3). Run power from Terminals T1, T2, & T3 on the bottom of motor starter in KFCC to kitchen exhaust fans.
5) Electrical Contractor to make connections from terminals NO1 and D2 (120 Volt normally open contact) to shunt-trip breaker for fryer and griddle receptacles.
6) Electrical Contractor to wire fire system mircoswitch in fire system cabinet to KFCC terminals C1, NC1, and NO1 as indicated on Greenheck drawing.
7) Electrical Contractor to wire RTU 1 & 2 damper control to KFCC terminals R1 and G1 and R2 and G2 as indicated on Greenheck drawing.
8) Electrical Contractor to wire RTU 1 & 2 control (10 amp max) circuits to KFCC dry contacts C3 and NC3 for RTU 1 and C4 and NC4 for RTU 2 to shutdown units in a fire.

Sequence of Operation

1) Turn fan switch on. Fans and fryer and griddle receptacles will be energized.
2) Turn on RTU 1 & RTU 2.
3) Before fire system agent tanks are installed, manually trigger fire system while fan switch is on. This should accomplish the following:
   - Shunt trip breaker will trip causing a loss of power to fryer and griddle receptacles.
   - Gas valve will close shutting gas off to the fryer and griddle.
   - Exhaust fans will remain on.
   - RTU 1 & 2 will shut down.
1) Put fire system in the "cocked" position and reset shunt trip breaker. Power will be restored to equipment and RTU's.
2) Turn fan switch to "OFF" position. This will shut down power to receptacles and exhaust fans. RTU outside air dampers will close. RTU's will remain operational providing 100% return air only.

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Phone: 479-695-1333


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