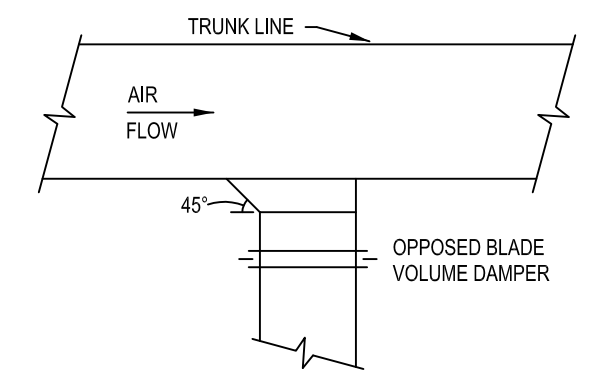
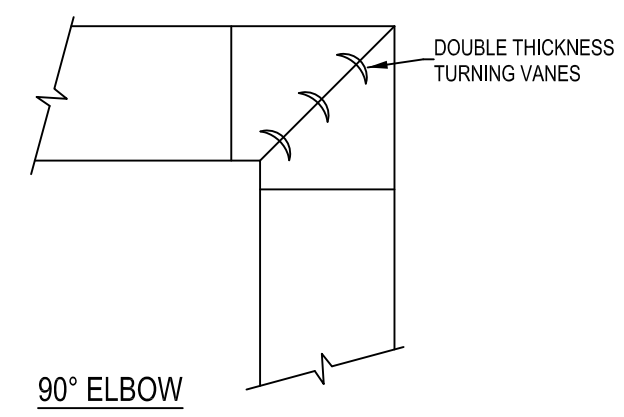


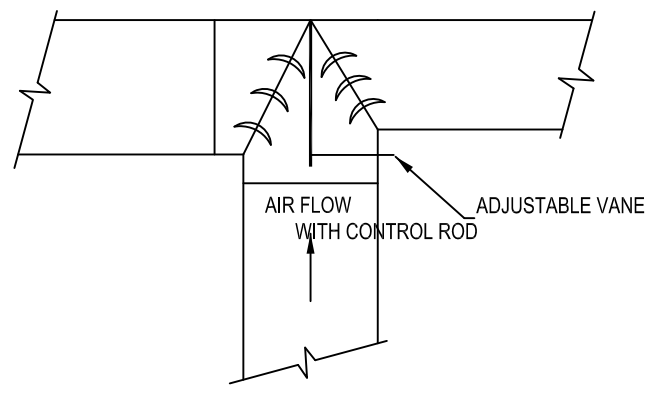
**1 FLOOR PLAN - HVAC**  
M-1 scale: 1/8" = 1'-0"



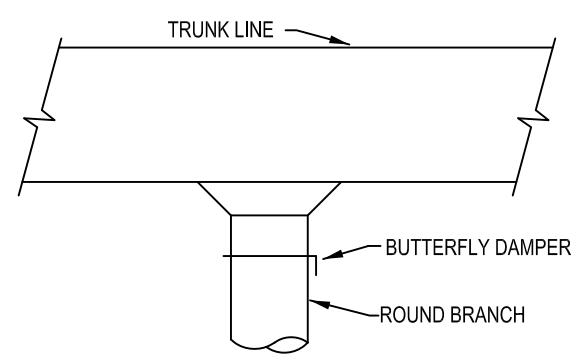
**RECTANGULAR BRANCH DUCT TAKE-OFF**



**90° ELBOW**

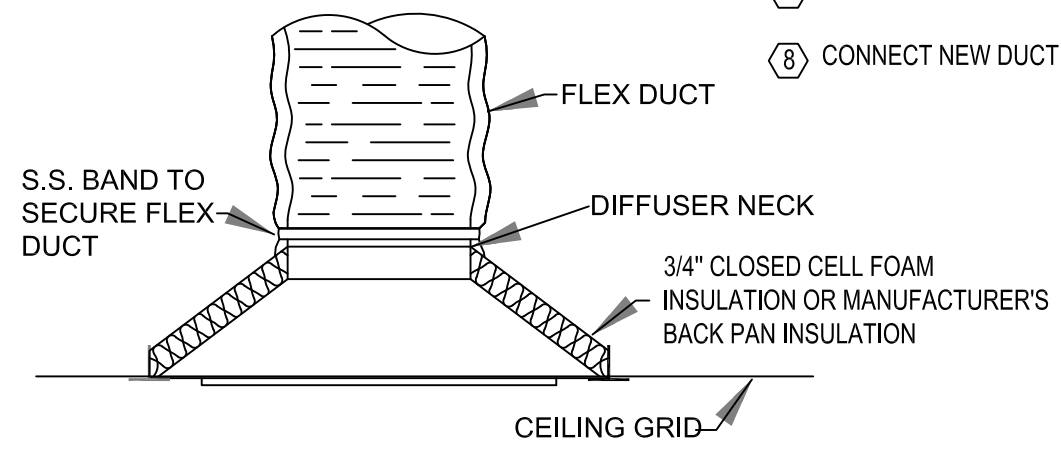


**SPLITTER DAMPER**



**ROUND BRANCH DUCT TAKE-OFF**

**DUCT DETAILS**



**NOTE:** ALL SEAMS SHALL BE PROPERLY SEALED AND INSULATION GLUED TO BACK OF DIFFUSER. INSULATION SHALL COVER ENTIRE DIFFUSER AND NECK.

**DIFFUSER INSULATION DETAIL**  
NO SCALE

**GENERAL NOTES THIS SHEET:**

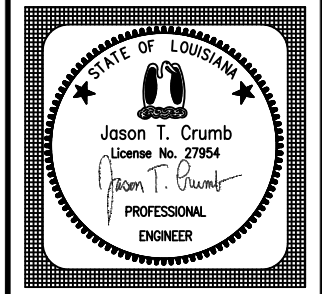
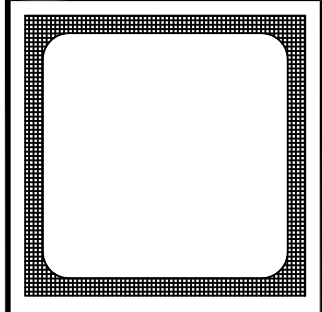
- DUCT SIZES SHOWN ARE FREE AREA SIZES. SEE SPECIFICATIONS FOR DUCT MATERIALS AND INSULATION.
- ALL DUCTWORK SHALL BE EXTERNALLY WRAPPED UNLESS NOTED OTHERWISE. INTERNALLY LINE ALL DUCTWORK FOR FIRST 5' OF SUPPLY AND RETURN FROM UNIT.
- PROVIDE VOLUME DAMPERS AT ALL TAPS INTO MAIN DUCT RUNS.
- INSULATE THE BACK OF ALL DIFFUSERS. SEE DETAIL.
- NO FLEX DUCT RUN SHALL EXCEED 8 FEET.
- FLEX DUCT RUN OUTS TO DIFFUSERS SHALL BE SIZED SAME AS DIFFUSER NECK SIZE. FASTEN THE INNER HELIX AND OUTER JACKET OF FLEX DUCTS TO DIFFUSERS AND DUCTS WITH NYLON TIE WRAPS.
- PROVIDE FLEXIBLE CONNECTIONS AT SUPPLY AND RETURN CONNECTIONS TO AC UNITS. COORDINATE WITH OTHER TRADES AND MAKE OFFSETS WHERE REQUIRED.
- PROVIDE ACCESS TO ALL EQUIPMENT, INCLUDING ACCESS PANELS WHERE REQUIRED. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE WALLS AND PROVIDE FIRE DAMPERS IN ALL RATED WALLS AND FLOORS. PROVIDE FIRE DAMPERS IN ALL OUTSIDE AIR INTAKES.
- REMOVE ALL EXISTING DUCTBOARD AND DUCTWORK FROM AC UNITS TO DIFFUSERS, GRILLES, AND REGISTERS. ALL DIFFUSERS, GRILLES, AND REGISTERS TO BE REMOVED UNLESS OTHERWISE NOTED.
- NEW DUCTWORK SIZES AND ROUTING SHOWN ON THIS PLAN.

**SPECIFIC NOTES THIS SHEET:**

- EXISTING THERMOSTAT AND WIRING TO REMAIN.
- EXISTING HEATER TO REMAIN. CLEAN GRILLE AND SET IN NEW GRID.
- EXISTING FAN TO REMAIN. CLEAN FAN AND SET IN NEW GRILLE.
- CONNECT NEW DUCT TO EXISTING AC UNIT.
- STUB-OUT DUCT IN ROOM. PROVIDE VOLUME DAMPER AT END.
- STUB-OUT DUCT IN ROOM. PROVIDE VOLUME DAMPER AND BACKDRAFT DAMPER AT END.
- CONNECT NEW DUCT TO EXISTING GRILLE.
- CONNECT NEW DUCT TO EXISTING LOUVER.

DIFFUSER	GRILLE	&	REGISTER	SCHEDULE
MARK	DESCRIPTION			
D	ARCHITECTURAL PLAQUE ALUMINUM CEILING DIFFUSER WITH 4-WAY PATTERN, 24"X24" LAY-IN FRAME, ROUND NECK AND OFF WHITE FINISH TITUS OMNI			
SD	ARCHITECTURAL PLAQUE ALUMINUM CEILING DIFFUSER WITH 4-WAY PATTERN, 12"X12" SURFACE MOUNT FRAME, ROUND NECK AND OFF WHITE FINISH TITUS OMNI			
R-1	PERFORATED ALUMINUM RETURN AIR GRILLE WITH 18"X18" SQUARE NECK FOR LAY-IN CEILING, 2'x2' MODULE SIZING TITUS MODEL PAR			
R-2	PERFORATED ALUMINUM RETURN AIR GRILLE WITH 36"X18" SQUARE NECK FOR LAY-IN CEILING, 4'x2' MODULE SIZING TITUS MODEL PAR			
S-1	DOUBLE DEFLECTION ALUMINUM SIDEWALL GRILLE WITH 3/4" BLADE SPACING AND FRONT BLADES PARALLEL TO SHORT DIMENSION TITUS 300 FS			

- NOTES:**
- PROVIDE PLASTER FRAME FOR DIFFUSERS/GRILLES IN SHEETROCK CEILINGS.
  - PROVIDE PLENUM BOX AT REAR OF ALL RETURN GRILLES SIZED FOR GRILLE NECK FOR CONNECTION OF RETURN DUCTS.
  - INSULATE BACK OF ALL DIFFUSERS. SEE DETAIL ON DRAWINGS OR AT CONTRACTOR'S OPTION PROVIDE FACTORY BACK PAN INSULATION.
  - ADJUST LOCATION OF DIFFUSERS AS REQUIRED FOR ANY LIGHT CONFLICTS.



**BURGDahl & Graves**  
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A PROFESSIONAL CORPORATION · PHONE (504) 366-4433  
WAGGAMAN, LA

RENOVATIONS TO  
**LIVE OAK LIBRARY**  
FOR  
**JEFFERSON PARISH**  
125 ACADIA DRIVE

DATE: 01.30.2015  
DRAWN BY: YRB  
REVISIONS:

**M-1**  
SHEET 10 of 13

**Crumb Engineering, LLC**

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