GENERAL NOTES:

A. EVERYTHING SHOWN IS NEW UNLESS OTHERWISE NOTED.

B. FOR GENERAL DUCT CONSTRUCTION SEE DETAILS.

C. ALL WORK SHALL BE IN ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE, AND SHALL CONFORM WITH ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS.

D. THE CONTRACTOR SHALL INCLUDE IN BID PROPOSAL ALL COSTS REQUIRED TO COMPLETELY AND PROPERLY INSTALL ALL WORK REQUIRED FOR THE PROJECT, AND SHALL EXAMINE THE SCOPE OF WORK OF OTHER TRADES PRIOR TO SUBMITTING A BID PROPOSAL.

E. CONSTRUCTION DOCUMENTS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE, HOWEVER, SYSTEMS HAVE BEEN SHOWN DIAGRAMMATICALLY AND IN SOME CASES, ENLARGED FOR CLARITY. ANY OFFSETS, ADDITIONAL FITTINGS, AND/OR APPURTENANCES REQUIRED TO PROVIDE A COMPLETE AND COORDINATED SYSTEM SHALL BE BORNE BY THE CONTRACTOR.

F. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF CEILING MOUNTED MATERIALS INCLUDING ALL DIFFUSERS, GRILLES, AND REGISTERS. THE H.C. SHALL COORDINATE DUCTWORK INSTALLATIONS WITH OTHER TRADES. LIGHTING AND DUCTWORK DESIGNS INDICATED ON CONTRACT DRAWINGS WERE COORDINATED, HOWEVER CONFLICTS WITH DUCTWORK AND LIGHTS MAY ARISE DUE TO GRID INSTALLATION. H.C. SHALL BE RESPONSIBLE FOR ALL DUCTWORK MODIFICATIONS AND OFFSETS REQUIRED TO AVOID FIELD CONDITIONS.

G. BALANCE DAMPERS SHALL BE LOCATED AT BRANCH CONNECTION TO THE MAIN.

H. FLEXIBLE DUCTWORK IS LIMITED TO A MAXIMUM LENGTH OF 3 FEET, WITH NO DIPS, SAGS, OR TIGHT ELBOWS; AND ON SUPPLY DUCTWORK ONLY. FLEXIBLE DUCTWORK SHALL BE AN INSULATED, SEMI-RIGID AND LIGHT WEIGHT AIR DUCT, MANUFACTURED BY USING DEAD SOFT ALUMINUM STRIP WHICH IS SPIRALLY WOUND AND MECHANICALLY JOINED TOGETHER FORMING AN AIR TIGHT-LEAKPROOF TRIPLE LOCK SEAM. DUCT TO BE SELF-SUPPORTING AND CORROSIVE RESISTANT UL-181 CLASS I PRODUCT, WITH A POLYETHYLENE VAPOR BARRIER. FLEXIBLE DUCTWORK TO BE LIKE MASTERFIT UPC-018 (ACOUSTICAL) OR AN APPROVED EQUAL.

I. LABEL ALL THERMOSTAT, SENSOR, ETC. AS TO WHAT THE DEVICE CONTROLS WITH AN ENLARGED, PLASTIC LABEL; MOUNTED UNDER OR ON THE DEVICE.

J. PROVIDE NECK PLENUMS ON RETURN AND EXHAUST GRILLES AS REQUIRED. SEE DETAILS.

K. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS. SEE DETAILS.

L. ALL EQUIPMENT INCLUDING BUT NOT LIMITED TO DUCTWORK, PIPING, UNIT HEATERS, ETC. SHALL BE HUNG FROM THE TOP CHORD OF THE STRUCTURAL STEEL.

M. ALL EXTERIOR PENETRATIONS SHALL BE WEATHER AND WATER TIGHT.

N. PROVIDE DUCT CLEANOUTS AS REQUIRED.

O. REFRIGERANT PIPE SIZING AND CONFIGURATION BY UNIT MANUFACTURER.

P. HVAC CONTRACTOR SHALL COORDINATE DUCT, DIFFUSERS, REGISTERS AND GRILLES WITH LIGHT FIXTURE LOCATIONS.

Q. CONTRACTORS ARE TO REVIEW STRUCTURAL PLANS AND ACTUAL LAYOUT OF BEAMS, JOISTS, ETC. TO AVOID CONFLICT BETWEEN DUCT. ADJUST DUCT ROUTING TO ACCEPT STRUCTURAL CONDITIONS.

R. ALL EXHAUST DISCHARGES AND GAS FLUES WHERE INDICATED SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM OUTSIDE AND COMBUSTION AIR INTAKES UNLESS LOCAL AND STATE CODES MANDATE ADDITIONAL DISTANCE.

S. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL MECHANICAL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO PLACING EQUIPMENT ON ORDER.

T. WHERE WALL TYPE LOUVERS ARE INDICATED, MECHANICAL CONTRACTOR SHALL SEAL WATER-TIGHT ALL AROUND LOUVER WITH SILICON CAULKING. CONTRACTOR SHALL COORDINATE PAINTING REQUIREMENTS FOR LOUVERS WITH GENERAL CONTRACTOR PRIOR TO SUBMITTING BID.

DAIKIN

VRV 6-6

Submittal Data Sheet
3.0-Ton Round Flow Sensing Cassette
FXFQ36TVJU

FEATURES

- True 360° airflow distribution and three room sensors enables optimized occupant comfort and efficiency
- Optional self-cleaning filter panel to further increase efficiency and reduce maintenance costs
- Individually controlled supply air louvers for comfortable air supply
- Improved efficiency with new DC fan motor and auto logic that adjusts fan speed based on space load
- Industry leading flexibility with 23 possible airflow patterns
- Integral condensate pump with up to 26-1/2" lift
- Standard Limited Warranty: 10-year warranty on compressor and all parts

BENEFITS

- Compact design to allow for installation in small ceiling voids
- Very low sound levels increases flexibility regarding location of the unit
- Increased indoor air quality with high efficiency filter options & ventilation connection kit
- Automatic occupancy dependant Set back function to save energy

Daikin City Generated Submittal Data
Daikin North America LLC, 5151 San Felipe, Suite 500, Houston, TX, 77056
www.daikinac.com www.daikincomfort.com
(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)
Submittal Date: 9/28/2018 4:43:12 AM
Page 1 of 3

DAIKIN

Submittal Data Sheet
3.0-Ton Round Flow Sensing Cassette
FXFQ36TVJU

PERFORMANCE			
Indoor Unit Model No.	FXFQ36TVJU	Indoor Unit Name:	3.0-Ton Round Flow Sensing Cassette
Type:	Cassette	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	36,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	28,200	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.190	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	40,000		
Heating Input Power (kW):	0.18		

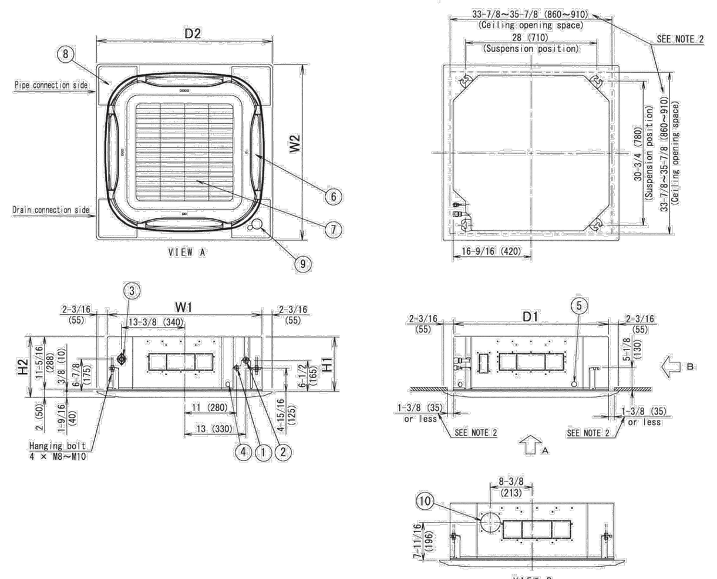
INDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (HH/H/L) (CFM):	1,165/918/671
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	1.5	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	11-5/16 x 33-1/16 x 33-1/16	Condensate Connection (inch):	1-1/4
Net Weight (lb):	58	Sound Pressure (H/L) (dBA):	38/32
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Daikin City Generated Submittal Data
Daikin North America LLC, 5151 San Felipe, Suite 500, Houston, TX, 77056
www.daikinac.com www.daikincomfort.com
(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)
Submittal Date: 9/28/2018 4:43:12 AM
Page 2 of 3

DAIKIN

Submittal Data Sheet
3.0-Ton Round Flow Sensing Cassette
FXFQ36TVJU

DIMENSIONAL DRAWING



Unit : in. (mm)

ITEM	PART NAME	REMARK
1	Liquid pipe connection	φ3/8 (φ9.5) Flare connection
2	Gas pipe connection	φ5/8 (φ15.9) Flare connection
3	Drain pipe connection	VP25(O.D. φ1-1/4 (φ32), I.D. φ1 (φ25))
4	Power supply entry hole	
5	Transmission wiring entry hole	
6	Air Outlet	
7	Air Inlet grille	
8	Corner decoration cover	
9	Sensor	Infrared presence sensor Infrared floor sensor
10	Knock out hole	φ3-15/16 (φ100)

Without panel	H1	11-3/4 (298)
	W1	33-1/16 (840)
	D1	33-1/16 (840)
With panel	H2	13-5/16 (338)
	W2	37-3/8 (950)
	D2	37-3/8 (950)

Notes) 1. Location of the nameplates:
- Unit body: on the control box cover.
- Decoration panel: on the panel frame at the motor side under the corner cover.

2. Make sure the spacing between the ceiling and the cassette is no more than 1-3/8" (35mm). MAX ceiling opening: 35-7/8" (910mm).

3. When the conditions exceed 86°F (30°C) and RH 80% in the ceiling or fresh air is inducted into the ceiling an additional insulation is required (polyethylene foam, thickness 3/8" (10mm) or more).

Note: For additional dimensional data and clearance information, refer to Engineering Data

Daikin City Generated Submittal Data
Daikin North America LLC, 5151 San Felipe, Suite 500, Houston, TX, 77056
www.daikinac.com www.daikincomfort.com
(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)
Submittal Date: 9/28/2018 4:43:12 AM
Page 3 of 3

DUCT INSULATION SCHEDULE

SYSTEM	INTERIOR CONCEALED SUPPLY	EXTERIOR SUPPLY	EXTERIOR RETURN
FLUID TEMP. RANGE (°F)	40 & BELOW	100-300	40-75
INSULATION TYPE	MF OR FE	MF OR FE	MF OR FE
JACKET TYPE	FP	FP	FP
VAPOR BARRIER REQ'D	-	-	-
INSULATION THICKNESS (IN)	1-1/2"	2"	2"

ABBREVIATIONS

INSULATION TYPES

- FE FLEXIBLE ELASTOMERIC
- CG CELLULAR GLASS
- MF MINERAL FIBER (FIBERGLASS)
- PO POLYOLEFIN
- CS CALCIUM SILICATE
- CCF CLOSED-CELL FOAM

JACKETTYPES

- FP FOIL & KRAFT PAPER
- PVC CELLULAR GLASS
- AL ALUMINUM
- SS STAINLESS STEEL

EQUIPMENT NOTES:

EF-1 AND EF-2 TO BE 100 CFM @ 0.35"ESP, LIKE COOK GC-144, 120V

BF-1, BOOSTER FAN TO BE LIKE FANTECH DEDPV705, 120V.

DF-1 TO BE LIKE TITUS TMS OR SIMILAR.

DAE
D E S I G N - A I R E   E N G I N E E R I N G ,   I N C .
2707 Rand Road
Indianapolis, Indiana 46241
voice (317) 464-9090
fax (317) 464-9393
www.daengineering.com
Email: dae@design-aire.com
Mechanical, Electrical, and Energy Engineering

NEW CLASSROOM RENOVATION
NORTHWEST CONSOLIDATED SCHOOL
DISTRICT OF SHELBY COUNTY
FAIRLAND, IN 46126

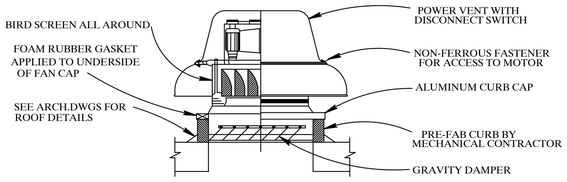
PROJECT: 23036
DATE: 04-20-2023
CONCEPTUAL DESIGN

MECHANICAL NOTES & SCHEDULES

DRAWING INDEX

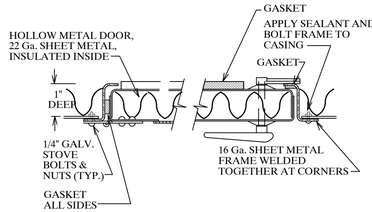
DRAWING No.	DRAWING TITLE
M001	MECHANICAL NOTES AND SCHEDULES
M002	MECHANICAL DETAILS
M101	MECHANICAL FLOORPLAN

M001



ROOF MOUNTED EXHAUST FAN DETAIL

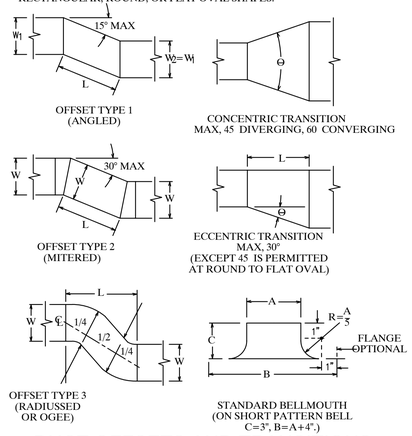
NOT TO SCALE



DUCT ACCESS DOOR DETAIL

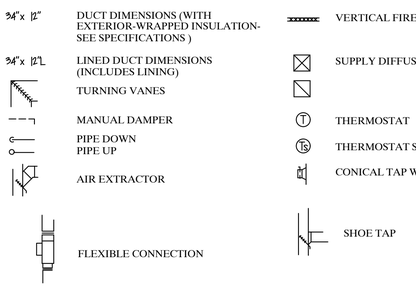
NOT TO SCALE

OFFSETS 2 AND 3 AND TRANSITIONS MAY HAVE EQUAL OR UNEQUAL INLET AND OUTLET AREAS. TRANSITIONS MAY CONVERT DUCT PROFILES TO ANY COMBINATION FOR RECTANGULAR, ROUND, OR FLAT OVAL SHAPES.



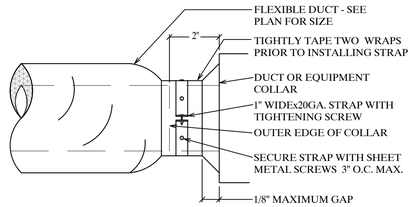
DUCT OFFSETS AND TRANSITIONS

NOT TO SCALE



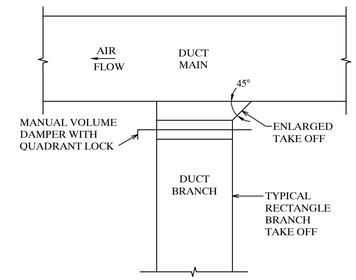
HVAC - TYPICAL SYMBOLS

NOT TO SCALE



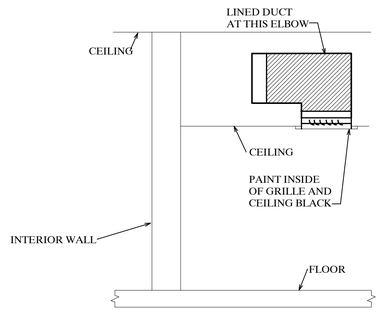
FLEXIBLE DUCT CONNECTION

NOT TO SCALE



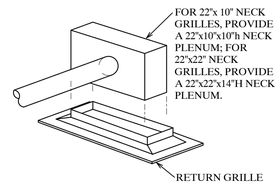
TYPICAL RECTANGLE BRANCH SUPPLY AIR TAKE OFF DETAIL

NOT TO SCALE



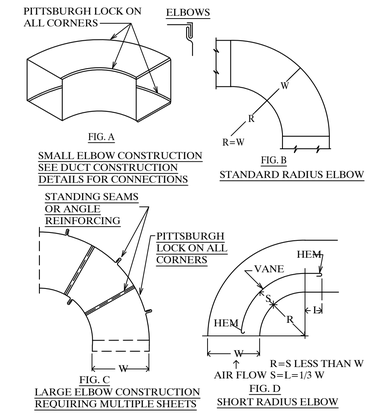
TRANSFER GRILLE DETAIL

NOT TO SCALE



RETURN GRILLE NECK PLENUM DETAIL

NOT TO SCALE



ELBOW DETAILS

NOT TO SCALE

DAE
DESIGN-AIRE ENGINEERING, INC.
Indianapolis, Indiana 46241
2707 Rand Road
voice (317) 464-9090
fax (317) 464-9393
www.daeengineering.com
Email: dae@design-aire.com
Mechanical, Electrical, and Energy Engineering

A

NEW CLASSROOM RENOVATION
NORTHWEST CONSOLIDATED SCHOOL
DISTRICT OF SHELBY COUNTY
FAIRLAND, IN 46126

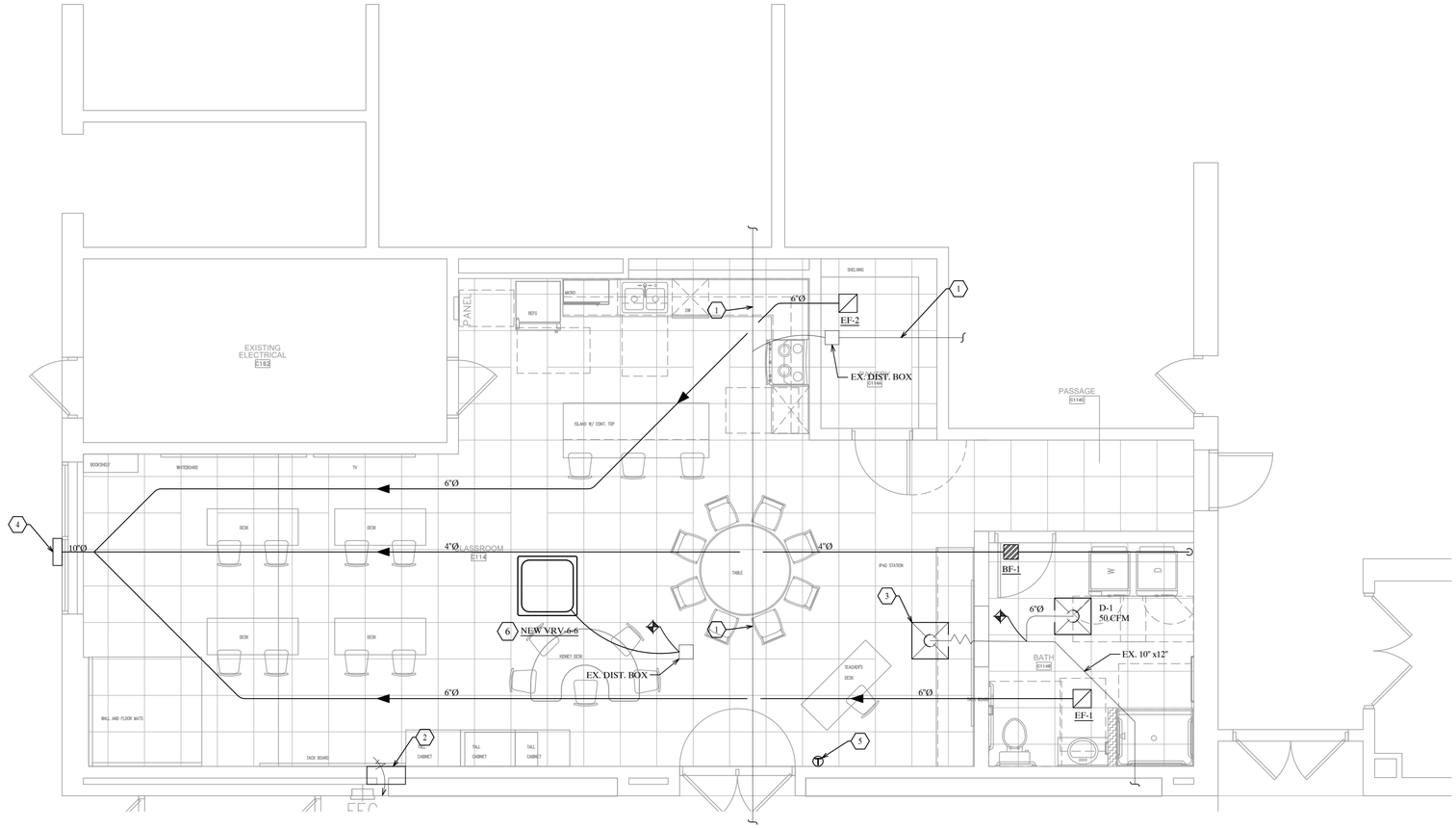
B

PROJECT: 23036
DATE: 04-20-2023
CONCEPTUAL DESIGN

C

MECHANICAL DETAILS

M002



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

PLAN NOTES:

1. EXISTING SETS OF REFRIGERANT PIPING
2. EXISTING ABOVE CEILING RETURN OPENING.
3. EXISTING DIFFUSER RELOCATED INTO NEW CEILING AS REQUIRED.
4. WALL EXHAUST HOOD.
5. RELOCATE EXISTING THERMOSTAT. RECONNECT TO NEW VRV-6-6 AS REQUIRED.
6. CONNECT CONDENSATE DRAIN TO NEAREST WASTE/VENT LINE AS REQUIRED.

DESIGN-AIRE ENGINEERING, INC.
Indianapolis, Indiana 46241
2707 Rand Road
voice (317) 464-9090
fax (317) 464-9393
www.daeengineering.com
Email: dae@design-aire.com
Mechanical, Electrical, and Energy Engineering

NEW CLASSROOM RENOVATION
NORTHWEST CONSOLIDATED SCHOOL
DISTRICT OF SHELBY COUNTY
FAIRLAND, IN 46126

PROJECT: 23036
DATE: 04-20-2023
CONCEPTUAL DESIGN

HVAC PLAN

M101