28. AIR HANDLING DEVICES IN EXCESS OF 2000 CFM WILL HAVE A DUCT SMOKE DETECTOR TO STOP THE FAN AND ACTIVATE A HORN AND STROBE LIGHT. ALL EQUIPMENT SHALL BE INTERLOCKED AS REQUIRED BY LOCAL CODES OR FIRE SAFETY OFFICIALS. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE ALL CONTACTORS, STARTERS, RELAYS, AND THERMOSTATS. THE ELECTRICAL SHALL PROVIDE ALL SWITCHES, DISCONNECTS, POWER WIRING AND CONTROL WIRING.
 THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE 1" THICK FARR 30/30 (THROW-AWAY TYPE) FILTERS WITH EACH A/C UNIT.
 ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR UNDERWRITERS LABEL WHERE APPLICABLE. 22. TERMINAL AIR DISTRIBUTION DEVICES SHALL BE TITUS, METALAIRE OR NAILOR-HART OR EQUAL AS SCHEDULED:
ALL VOLUME DAMPERS SHALL BE OPPOSED BLADE TYPE WITH SCREWDRIVER ADJUSTMENT.
23. ALL SUPPLY AND RETURN FIBERGLASS AIR DUCTWORK SHALL BE JOHNS MANVILLE FIBERGLASS (1.5" THICK). TYPE 475 OR 800 OR SHEET METAL WITH MINIMUM R-6 EXTERIOR FOILBACK INSULATION, UNLESS OTHERWISE NOTED ON PLANS ALL DUCTS SHALL BE SUPPORTED IN AS STRAIGHT AND LEVEL AS FASHION AS POSSIBLE. THE ENTIRE INSTALLATION SHALL BE INSTALLED IN ACCORDANCE WITH ASHRAE, SMACNA, AND LOCAL CODES.
FLEXIBLE DUCTS SHALL BE UL-181 RATED, NONMETALLIC, CLASS 1, R-6 – INSTALLED IN ACCORDANCE WITH FBC-M 304.1
FLEXIBLE DUCTS SHALL NOT BE LIMITED IN LENGTH PER FBC-M 603.5.1.1 30. THE AIR CONDITIONING CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY. 27. ALL PENETRATIONS OF FIRE-RATED WALLS, FLOORS OR CEILINGS SHALL BE FIREPROOFED BY A SEALING METHOD AND RATING AS SPECIFIED ON THE DRAWINGS OR AS REQUIRED BY THE LOCAL OR STATE CODES. 11. THE AIR CONDITIONING CONTRACTOR SHALL RUN ALL CONDENSATE DRAINS PER PLUMBING SPECIFICATIONS. (SEE PLUMBING SHEETS)
12. INTERIOR CONDENSATE DRAIN PIPING AND REFRIGERANT SUCTION LINES SHALL BE INSULATED WITH 5/8" THICK IMCOLOCK OR ARMAF
13. COMBUSTIBLE PIPING IS NOT PERMITTED IN RETURN AIR PLENUMS OR CEILING SPACES USED FOR RETURN AIR. 29. ALL WORK SHALL COMPLY WITH BASE BUILDING LIFE SAFETY/SMOKE CONTROL SYSTEM REQUIREMENTS. PROVIDE ALL NECESSARY WIRING, CONTACTORS, RELAYS, ETC., AS REQUIRED FOR INTERFACE WITH BASE BUILDING SYSTEM. . SALVAGED MATERIALS, EQUIPMENT, AND DIFFUSERS SHALL BE DELIVERED TO THE OWNER AT HIS PROPERTY AND STORED WITHIN THE BUILDING WHERE DIRECTED. ANY REMOVED MATERIALS OR EQUIPMENT WHICH THE OWNER DOES NOT WISH TO KEEP SHALL BE DISPOSED OF BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE OWNER.). AIR CONDITIONING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, AND ALL GUARANTEES AND WARRANTIES SHALL BE DELIVERED TO THE OWNER. COMPRESSORS SHALL HAVE EXTENDED FIVE YEAR WARRANTIES. AIR CONDITIONING CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS, MATERIALS, ELEVATIONS AND COUNTS AS SHOWN AND/OR NOTED ON THE DRAWINGS AND INCLUDE IN THE BID ANY AND ALL FABRICATION REQUIRED PRIOR TO INSTALLATION. THE CONTRACTOR SHALL VERIFY SIZE, ELEVATION, AND PRESENT STATE OF ALL EXISTING UTILITIES. . PRESENT AIR CONDITIONING EQUIPMENT WHERE INDICATED ON THE DRAWINGS IS FOR INFORMATION ONLY AND THE CONTRACTOR SHALI INCLUDE THE INSTALLATION OF CONDUIT AND WIRE AS REQUIRED. THE INSTALLATION OF NEW EQUIPMENT THAT INTERFERES WITH EXISTING SHALL BE REMOVED, RELOCATED, OR RE-ROUTED TO PERMIT COMPLETION OF SUCH WORK. . PRIOR TO INSTALLATION, THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EQI REPRESENTATIVE AND THE ACTUAL EQUIPMENT BEING FURNISHED. LOCATION OF AIR CONDITIONING DUCTS AND AIR DEVICES MAY CHANGE. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION. DRAWINGS ARE DIAGRAMMATIC, DO NOT SCALE FOR THE EXACT LOCATION OF DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES. . ALL REFRIGERANT PIPING SHALL BE TYPE "L" OR TYPE "K" COPPER WI STEEL VALVES ARE NOT PERMITTED. THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR TO ORIGINAL CONDITION ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT, AND FURNISHINGS CAUSED BY THE CONTRACTOR DURING THE PERFORMANCE OF WORK.

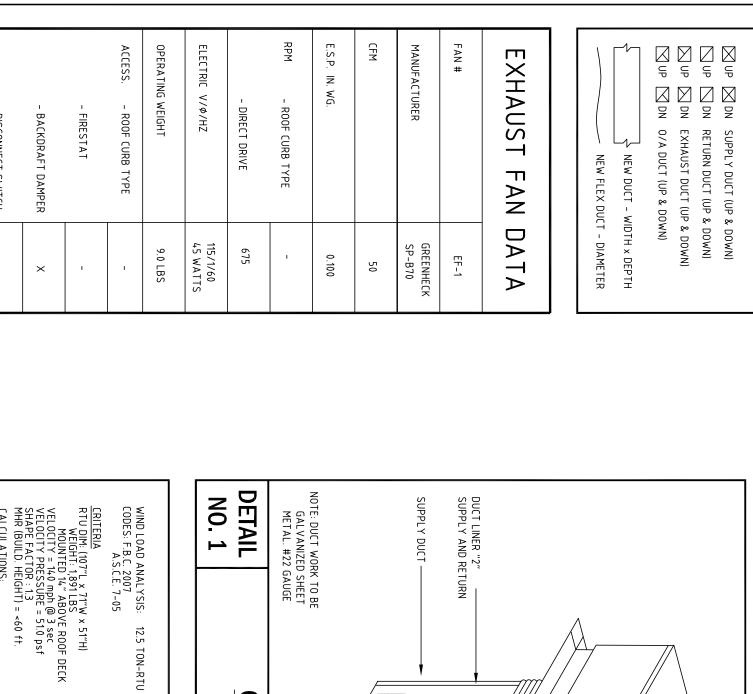
CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, TESTS, AND ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK SHOWN AND/OR NOTED ON THE DRAWINGS. THE DRAWINGS ARE DIAGRAMMATIC: DO NOT SCALE FOR EXACT LOCATIONS. THE AIR CONDITIONING CONTRACTOR SHALL INSTALL ALL DECESSARY OFFSETS, BENDS, AND TRANSITIONS AS REQUIRED TO PROVIDE A COMPLETE AND FULLY OPERATIVE SYSTEM. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL NOTIFY ENGINEER IF DUCT SIZE CHANGES ARE REQUIRED BECAUSE OF EXISTING CONDITIONS. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY AND ALL EXISTING FIELD CONDITIONS WHICH DEVIATE FROM WHAT WAS SHOWN ON THE PLANS. CONTRACTOR IS RESPONSIBLE TO PROVIDE PRICING FOR A COMPLETE INSTALLATION INCLUDING ANY COSTS ASSOCIATED WITH FIELD CONDITIONS AT THE TIME OF BIDDING. . THE AIR CONDITIONING CONTRACTOR SHALL DETERMINE THE EXTENT TO WHICH EXISTING DUCTWORK AND PIPING WILL HAVE TO BE RE-ROUTED, RELOCATED, OR RECONNECTED, AND THE AMOUNT OF ADDITIONAL WORK WHICH MAY BE REQUIRED DUE TO THE PHYSICAL CONDITIONS OF THE DUCTWORK & PIPING SHALL BE PERFORMED UNDER THIS CONTRACT WITHOUT ADDITIONAL CHARGES TO THE OWNER. . ALL PRESENT DUCTWORK AND PIPING IN EXISTING AREAS TO BE ALTERED, WHICH WILL HAVE NO USE UPON COMPLETION OF THE ALTERATIONS SHALL BE REMOVED. WHENEVER DUCTS OR PIPING ARE OR WILL BECOME EXPOSED TO VIEW, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER, . IF THE NATURE OF THIS CONTRACT INVOLVES EXTENSIVE REMODELING OF THE EXISTING BUILDING. THE AIR CONDITIONING CONTRACTOF PRIOR TO BID, SHALL INSPECT THE EXISTING CONDITIONS AT THE JOB SITE AND ACQUAINT HIMSELF WITH THE CONDITIONS THAT WILL AFFECT HIS WORK. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT PER FBC 2007, CH 13, 410.1.ABCD.4
FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS FOR ALL PROJECTS. FOR PROJECTS TOTALING 10 TONS OR MORE,
A CERTIFIED INDEPENDENT TEST AND BALANCE REPORT SHALL BE PERFORMED. THE T & B REPORT SHALL BE IN ACCORDANCE WITH AIR BALANCE
COUNCIL STANDARDS AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLES, RETURN GRILLES, AND EXHAUST GRILLES AND THE LEAVING
AND ENTERING AIR TEMP (°F) FROM SUPPLY GRILLES AND EVAPORATORS. THE AIRCONDITIONING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS BUILT DRAWINGS TO THE ENGINEER UPON COMPLETION OF INSTALLATION. IF FIELD CHANGES ARE MADE WHICH DEVIATE FROM ENGINEERING DRAWINGS TO THE EXTENT THAT THE BUILDING DEPARTMENT REQUIRES THESE CHANGES BE INCORPORATED PRIOR TO INSPECTION, THE CONTRACTOR SHALL PROVIDE SKETCHES TO THE ENGINEER FOR INCORPORATION INTO THE BUILDING PLANS. ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THAT CONTRACTOR. AFTER BID SELECTION AND PRIOR TO COMMENCEMENT OF WORK, THE AIR CONDITIONING CONTRACTOR SHALL SUBMIT (6 COPIES) OF EQUIPMENT CUTS FOR ALL DUCT WORK, EXHAUST FANS, AIR DEVICES, AND EQUIPMENT AS STATED ON SCHEDULES AND OR NOTES. IF THE CONTRACTOR PROPOSES TO USE ANY ARTICLE, DEVICE, PRODUCT, OR MATERIAL WHICH IS NOT AS SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVE TO THE ENGINEER THAT THE PROPOSED SUBSTITUTION IS EQUAL AND WILL FIT ALLOCATED SPACE IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS SO THAT DELIVERY WILL NOT INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE FLEXIBLE DUCT CONNECTIONS TO ALL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT, EXCEPT FOR EXHAUST HOODS. ALL WORK SHALL BE PERFORMED BY A LICENSED AIR CONDITIONING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. ALL WORK MANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES AND ORDINANCES. ALL EXHAUST AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE, SMACNA, AND LOCAL CODES. ALL OUTSIDE AIR DUCTS SHALL HAVE 1" INSULATION IN AIR CONDITIONED SPACES. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID ANY CONFLICTS IN LOCATIONS FOR DUCTS, DIFFUSERS GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC., INORDER TO NOT INTERFERE WITH THE PROGRESS OF CONSTRUCTION. THE AIR CONDITIONING CONTRACTOR SHALL USE VANED ELBOWS OR APPROVED 3 PIECE ELBOWS, SPLITTER DAMPERS WHERE INDICATED, VOLUME CONTROLS IN ALL BRANCH LINES AND SUPPLY AND RETURN AIR DEVICES. THE AIR CONDITIONING CONTRACTOR SHALL MOUNT ALL ROOFTOP EQUIPMENT ON FACTORY FABRICATED CURBS AND ANCHORS FOR A MINIMUM OF 140 MPH WIND LOADS. WIND LOADS AT MOUNTING HEIGHTS SHALL BE AS REQUIRED BY LOCAL CODES. ING CONTRACTOR SHALL SEAL ALL DUCTS IN AN APF EHT COPPER OR BRASS FITTINGS IPMENT WITH THE OWNER'S E.S.P. ELECTRIC V/ø/HZ OPERATING WEIGHT MANUFACTURER **EXHAUS** z NEW
EXISTING TO REMAIN
EXISTING TO BE DEMOLISH
EXISTING TO BE RELOCATED CONDENSING UNIT
WALL MOUNTED AIR HANDLER UNIT
CEILING MOUNTED AIR HANDLER UNIT TRANSITION

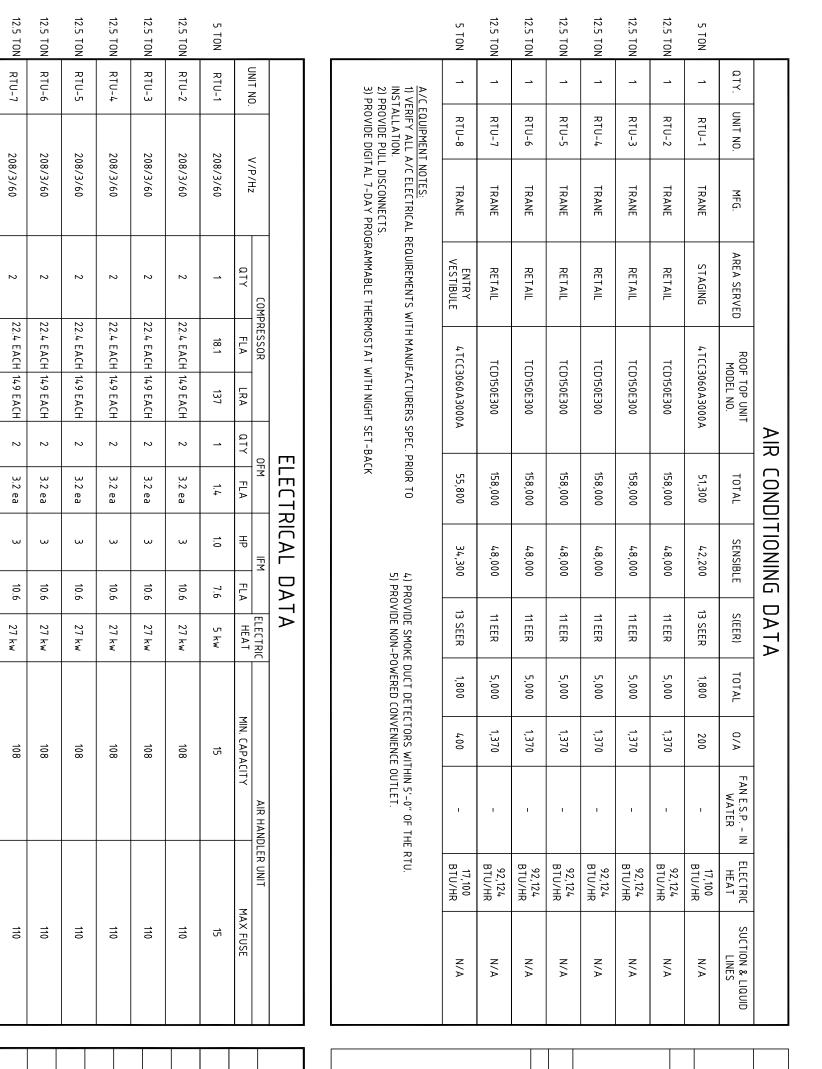
MANUAL VOLUME DAMPER

(M.V.D.)

FIRE DAMPER

(F.D.) THERMOSTAT DIFFUSER TYPE CFM - ROOF CURB FIRESTAT AUTOMATED VOLUME DISCONNECT SWITCH BACKDRAFT DAMPER TEMPERATURE & HUI /SENSOR REMOTE ALARM TEST STATION SMOKE DUCT DETECTOR EXHAUST FAN RETURN AIR GRILLE ROOF TOP UNIT JID/SUCTION LINE \dashv





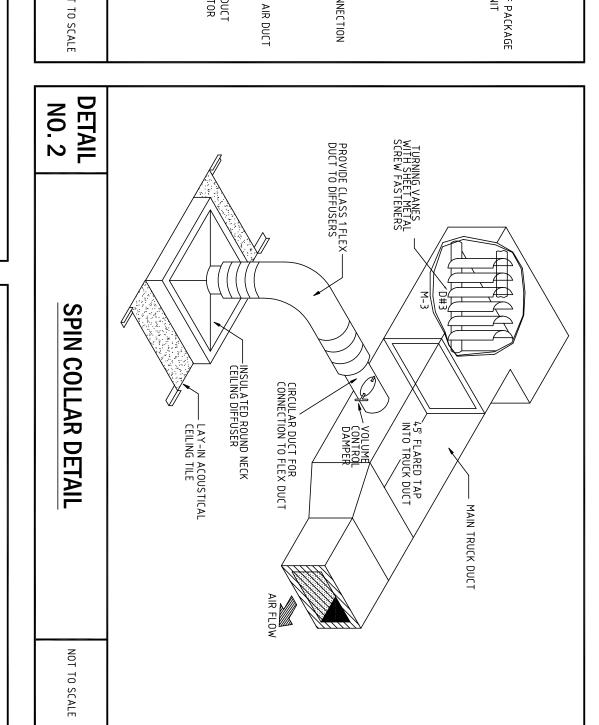
2) ACTUAL OCCUPANCY IS BASED ON ARCHITECT.

1) OCCUPANT DENSITIES & VENTILA SECTION 403, SUBSECTION 403.4 OF

AIR CONDITIONING SPECIFICATION

A/C LEGEND

2W - DIFFUSER 4W - DIFFUSER



RA G	SUPPLY	CEILING	0.B.D.	TITUS SUTIT	MODEL NO: 300FL	18" x 36" 22-1/2° DEFLECTION SIENT SIER PLANS FOR SIER PLANS FOR SIER SIER SIER SIER SIER SIER SIER SIE
RA	RETURN	CEILING	O.B.D.	TITUS	MODEL NO: 350FL	SEE PLANS FOR SI
AIR TERMINAL NOTES: 1) STANDARD FINISH TO	<u>AIR TERMINAL NOTES:</u> 1) STANDARD FINISH TO BE WHITE FOR ALL DEVICES.		2) ALL DIFFUSUER TYPES MIGHT NOT BE USED.	NOT BE USED.		

			J L
NOT TO SCALE	SMOKE DUCT DETECTOR MOUNTING DETAIL	DETAIL NO. 3	m
TH TH	 SMOKE DUCT DETECTOR REQUIRED FOR UNITS WITH 2,000 CFM OR GREATER. LOCATE SMOKE DUCT DETECTOR IN SUPPLY DUCT AT UNIT. SEE FLOOR PLAN FOR EXACT LOCATION. PROVIDE ACCESS PANEL FOR DETECTOR INSPECTION/REPAIR. CONNECT DUCT DETECTOR TO BUILDINGS FIRE ALARM SYSTEM IN ACCORDANCE WITH FBC-M 606.4.1 		
– ACCESS	3/4" C GASKET GASKET GASKET GASKET STATION STATION HOLE FOR 3/4" HOLE FOR 3/4" CONDUIT (BOTH SIDES) TATION MOD # SIGA-SD / REMOTE ALARM TEST TATION MOD # SD-TRK R EQUAL) SUPPLY DUCT	UNIT THE STATE OF	

TO SCALE	
NO. 3 SMOKE DUCT DETECTOR MOUNTING DETAIL	3/4" C BETWEN TUBE GASKET GASKET GASKET SIT STATION LOCATE NEXT TO WIT THERMOSTAT HOLE FOR 3)/4" SONDE DUCT DETECTOR STATION MOD # SD-TRK (OR EQUAL) STATION MOD # SD-TRK STATION MOD # SD-TRK STATION MOD # SD-TRK CONDUIT (BOTH SIDES) STATION MOD # SD-TRK STATION MOD # SD-TRK CONDUIT BOTH SIDES) STATION MOD # SD-TRK STATION ACCORDANCE WITH 2 000 CFM OR GREATER. LOCATE SMOKE DUCT DETECTOR REQUIRED FOR UNITS WITH 2 000 CFM OR GREATER. LOCATE SMOKE DUCT DETECTOR REQUIRED FOR UNITS WITH 2 000 CFM OR GREATER. LOCATE SMOKE DUCT DETECTOR REQUIRED FOR UNITS WITH 2 000 CFM OR GREATER. LOCATE SMOKE DUCT DETECTOR REQUIRED FOR UNITS WITH 2 000 CFM OR GREATER. LOCATE SMOKE DUCT DETECTOR TO BUILDINGS FIRE ALARM SYSTEM IN ACCORDANCE WITH FBC-M 606.4.1
NOT TO SCALE	ACCESS

AG CONDITIONS AND E DOCUMENTS AND		L RTU MOU	FOR THE RTU MOUNTING DETAIL TO ATTACHED (NOA) DOCUMENT.
	PERMIT SET:	RTU MOUNTING DETAIL	FOR THE RTU MOUNTING DETAIL REFER TO ATTACHED (NOA) DOCUMENT.
CONSULTING	12/30/10	NOT TO SCALE	
SPECS, DATA & DETAILS		DETAIL METHODS OF HANGING NO. 5 RIGID FIBERGLASS DUCT DETAIL	SEE DUCT WORK AND ACCESSORIES NOTES FOR SPECIFICATION OF DUCT MATERIALS, FASTENING SYSTEM, AND SEALING METHODS. TYPICAL HANGING STRAP SHALL BE A MINIMUM OF 1-172,26 GA GALVINIZED STEEL. WITH A 6 FT MAXIMUM SPACING. STAP SHALL STRAP SHALL BE A MINIMUM SPACING.

CALCULATIONS:

AREA 1 (FRONT) = (51) × (107) / (144) = 38 sq. ft.

AREA 2 (SIDE) = (51) × (71) / (144) = 25 sq. ft.

P₁ = (51.0) × (0.85) × (1.3) × (38) = 2,141 lbs.

P₂ = (51.0) × (0.85) × (1.3) × (25) = 1,408 lbs.

= 63.5 lbs.

O: OF SCREWS HOLDING STRAPS.
USING # 10 TEK SCREW.
@ 400 lbs. HOLDING CAPACITY
REQ. SCREWS = (14) / (400) = 0.0

MINIMUM OF (2) STRAPS ARE REQUIRED PER SIDE.

<u>OF STRAPS HOLDING CU</u> USING A 11/2" WIDE 22 GAUGE GALV. STRAP. STRAP STRENGTH = (1.5) (.032) (24,000)= 1,152 lbs

MINIMUM OF (2) TAC SCREWS TO SECURE BOTH THE TOP & BOTTOM OF STRAP.

12.5 TON-

COCENTRIC DIFFUSER

CONCENTRIC BOX
DIFFUSER
(TYPICAL FOR ALL 4 SIDES)

MOUNTING DETAIL

M₁= (38) x (39.5) / (12) = 125 lbs.-ft WIND UPLIFT FORCE 1: F₁ = (125 x (12) / (107) = 14 lbs.

DETAIL

NO.

4

16' 32'			A A & UE AILY	> 기 기	
	*				
· (5)				Z	
		1			
	$\overline{\Box}$				

sheet title: MECHANICAL PLAN file name: 10306 M1.01(2).DWG

project no: 10306 12/30/10 drawn by AN/DC/AB checked by: MW

revisions:

TENANT IMPROVEMENTS FOR: West Marine

Shoppes at City Centre (North Palm Marketplace) 11241 U.S. HIĞHWAY ÖNE NORTH PALM BEACH, FLORIDA



SUPPLY

CEILING
ROUND CEILING
ROUND CEILING
CEILING

0.B.D.

0.B.D. 0.B.D.

MODEL NO: TDC-AA

MODEL NO: TMR-AA

MODEL NO: TMR-AA

MODEL NO: 300FL

A_R

TERMINAL

SCHEDULE

(TITUS)

GLIDDEN • SPINA & PARTNERS ARCHITECTURE • INTERIOR DESIGN, INC.

8820.0

8620 85 50 65

TOTAL EXHAUST RATE PROVIDE

50

PHONE: 561.684.6844 • FAX: 561.684.5594 • E-MAIL: info@gsp-architects.com 1401 FORUM WAY, SUITE 100 · WEST PALM BEACH, FLORIDA 33401 FL License: #AA26001602

Benjamin John Glidden, III #AR6536 Keith M. Spina #AR13419

8695.2 8820 33,600 26.3

VENTILATION RATE/PERSON

VENTILATION RATE CFM/SQF

EXHAUST RATE PROVIDED

OA RATE PROVIDED