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|-------------------------|------------------|--------------------|-----------------------|----------------|------------------|-----------------------|-------------|------------|----------------|--------------|---------------------|----------------------------|----------------|--------------------|----------------------|------------------------|----------------------|-----------------------------------|----------------|-------------------------|----------------|------------|---------------------|-----------------|-------------|-----------------------|---------------|------------------|---|
| FILTER AND FILTER FRAME | SPEED CONTROLER | THERMOSTAT CONTROL | EXH. DUCT | BIRDSCREEN | BACKDRAFT DAMPER | CONSTRUCTION | FIRE DAMPER | APPROVED) | SERVICE SWITCH | MODEL NUMBER | DESIGN MANUFACTURER | SONES | W X L X H (IN) | ELECTRICAL SERVICE | STARTER FURNISHED BY | FAN MOTOR STARTER TYPE | FAN MOTOR AMPS/WATTS | TOTAL STATIC PRESSURE, IN OF W.C. | FAN SPEED, RPM | FAN TIP SPEED, FPM MAX. | FAN WHEEL TYPE | DRIVE TYPE | TOTAL AIR, CFM | FAN TYPE | LOCATION | OPERATING WEIGHT, LBS | AREA SERVED | UNIT DESIGNATION | |
| 8 | YES | 8 | တ အ | NO | YES | ALUM/STEEL | | NO | YES | SP-A70 | GREENHECK | 1.2 | 14 × 11 × 9 | 120-1-60 | MC | MAGNETIC | 0.27 / 20.2 | 0.125" | 850 | | CENTRIFUGAL | DIRECT | 60 | CEILING EXHAUST | BATHROOM | 12 | BATHROOM | EF-1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MOT | ð | RTU | S | OHA | C. | } } | Β U Α | 6 | (×) # | AXA B | \in |) | Z |] | <u>/</u> | 了 -1 | REF. S&R | - | 7 | | | | X | SYMBOL | | HVAC SYI | | |
| | MOTORIZED DAMPER | VOLUME DAMPER | ROOF TOP PACKAGE UNIT | CONDENSER UNIT | AIR HANDLER UNIT | CUBIC FEET PER MINUTE | AFICAN AIX | SUPPLY AIR | # CFM | AXB: SIZE | X: AIR DEVICE TYPE | COOLING/ HEATING THERMOSTA | | EXHAUST REGISTER | 7. (1 | #: CEM #: CEM | | REFRIGERANT SUCTION | | ELBOW W/ TURNING VALVES | רבאופנב סטכו | | RETURN/EXHAUST DUCT | SUPPLY DUCT | DESCRIPTION | | SYMBOL LEGEND | | |

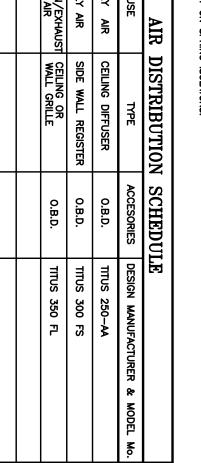
3. PROVIDE TYPE "B" FIRE DAMPERS IN ALL DUCTS OR OPENINGS PENETRATING FIRE RATED WALLS, MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS. TENANT SEPARATION, PARTITIONS, FLOORS OR ROOF SLABS AND AT FRESH AIR INTAKES (SEE ARCHITECTS PLANS FOR RATINGS). PROVIDE RADIATION DAMPERS IN RATED CEILINGS FOR ALL CEILINGS OPENINGS, CEILING FANS, DIFFUSERS OR GRILLES RATED FOR USE IN THE CEILING ASSEMBLY AS SPECIFIED BY ARCHITECT. IF APPLICABLE.

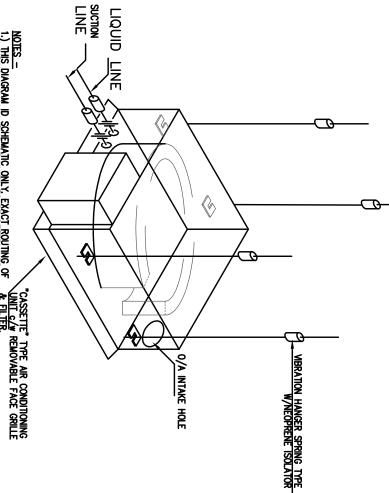
ALL MECHANICAL EQUIPMENT SHALL BE ARI & U.L. LISTED WHERE APF AND RATED FOR THE REQUIRED SERVICE, PRESSURES, TEMPERATURES, BE PROVIDED WITH ALL NECESSARY TRANSFORMERS, SEALS, VALVES, CONNECTIONS, ETC. TO FUNCTION PROPERLY.

FILTERS SHALL BE IN PLACE DURING CONSTRUCTION. PROVIDE A NEW SET PRIOR TO TEST AND BALANCE AND A FINAL SET AT THE END OF ONE YEAR SERVICE PERIOD. IF APPLICABLE.

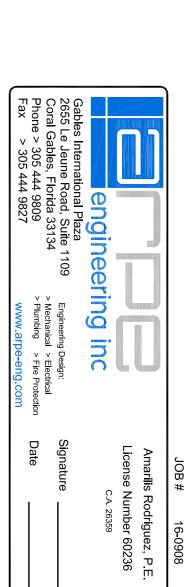
AIR QUALITY SHOULD BE TESTED BEFORE OCCUPANCY AND SHOULD BE INSTRUMENTED AND MONITORED THEREAFTER, OR AT LEAST AT REGULAR INTERVALS TEST AND ADJUST SUPPLY AND RETURN AIR TEMPERATURES TO BE WITHIN 5% OF DESIGN REQUIREMENTS.

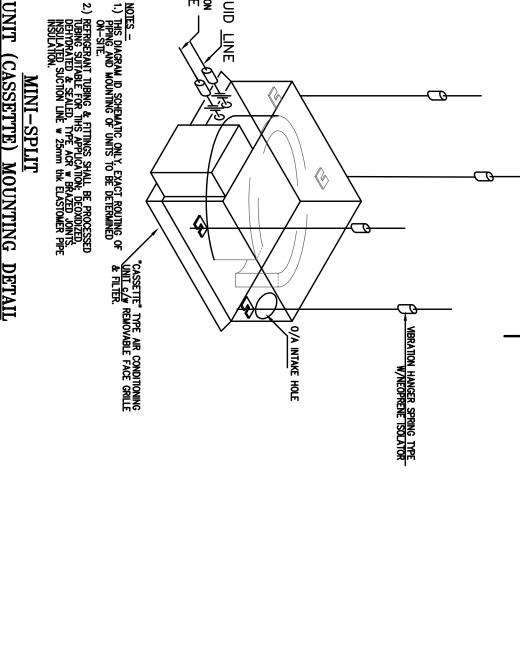
| | AIR | AIR DISTRIBUTION SCHEDULE | SCHEDU | LE . |
|-----------|---|---------------------------|------------|--|
| ВОГ | USE | TYPE | ACCESORIES | ACCESORIES DESIGN MANUFACTURER & MODEL M |
| (2) | SUPPLY AIR | CEILING DIFFUSER | O.B.D. | TITUS 250-AA |
| • | SUPPLY AIR | SIDE WALL REGISTER | O.B.D. | TITUS 300 FS |
| \otimes | RETURN/EXHAUST CEILING OR AIR WALL GRILLE | CEILING OR WALL GRILLE | O.B.D. | TITUS 350 FL |
| | | | | |
| | | | | |











EDRAWINGS ARE SCOPE DOCUMENTS WHICH INDICATE.

PE OF WORK, AND SUCH, DO NOT NECESSARILY DESCRIBE ALL WORK
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PE OF THE FULL PERFORMANCE AND COMPLETION OF THE
RK. GENERAL CONTRACTOR IS TO FURNISH AND INSTALL ALL ITEMS
PULIED FOR THE PROPER COMPLETION OF ITS WORK WITHOUT
USTMENT TO THE CONTRACT AMOUNT UNLESS SCOPE OF WORK
NGES FROM THAT INDICATED ON THE DRAWNINGS. IN THE EVENT OF
DNELLCT WITHIN OR AMONG THE CONTRACT DOCUMENTS, THAT
THACTOR SHALL GOVERN. THE GENERAL CONTRACTOR SHALL
STRUCTOR SHALL FROCEED IN UNCERTAINTY.

| <u>!</u>) | | AL: |
|------------------------|---|-----|
| WESLEY ART CASTELLANOS | | |
| RT CASTE | | |
| LLANOS | / | |
| | | |

SCHEDULES PLAN DETAILS +

MECHANICAL

CLIENT:

701 4th Street

Interior Renovations

ALL MECHANICAL SYSTEMS ARE TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE NFPA STANDARDS, ANSI STANDARDS, THE LOCAL BUILDING CODE, NOISE & HEIGHT ORDINANCES, PLANS AND SPECIFICATIONS.

ALL OUTDOOR EQUIPMENT SHALL COMPLY WITH LOCAL ZONING NOISE ORDINANCES OR NOT EXCEED A NOISE LEVEL OF 65 DB AS MEASURED RADIALLY 30 FEET FROM THE EQUIPMENT IN ALL DIRECTIONS.

FOR ALL BELT DRIVEN AHU'S PROVIDE ONE SET OF ADJUSTABLE PULLEY'S FOR PRELIMINARY BALANCE, AND REPLACE WITH FIXED PULLEYS AFTER FINAL FAN RPM BEEN SET.

FERIFY WITH ARCHITECT ALL LOCATIONS OF LOUVERS, GRILLES, SWITCHES, ACCESS PANELS ETC... BEFORE INSTALLATION.

HVAC NOTES:

. MATERIALS SHALL BE NEW AND ALL WORKMANSHIP AND MATERIALS SHALL BE STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, PRODUCT APPROVAL, ES AND ORDINANCES, ANY DAMAGED EQUIPMENT SHALL BE REPLACED OR STORED TO ORIGINAL CONDITION.

ALL LOUVERS, GRILLES, PIPING, ETC. SHALL BE PAINTED TO MATCH
SURROUNDING COLOR AND TEXTURES AS REQUIRED BY ARCHITECT. VERIFY COLOR
AND TEXTURE WITH ARCHITECT. PAINT ALL EXPOSED MECHANICAL EQUIPMENT
WITH BENJAMIN MOORE EPOXY ENAMEL 182.

HE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, ACCESS ANELS, CONTROL SYSTEMS, DEVICES, PERMITS AND SERVICES NECESSARY FOR URNISHING AND INSTALLING A COMPLETE OPERABLE MECHANICAL SYSTEM.

NL CUTTING, PATCHING, STRUCTURAL STEEL, WEATHER PROOFING, PAINTING, ND WALL OPENINGS SHALL BE BY THE GENERAL CONTRACTOR.

REFER TO ARCHITECTURAL PLANS FOR CEILING TYPE.

PROVIDE OFF WHITE FINISH (SUBLECT TO ARCHITECT'S APPROVAL).

USE SPIN IN COLLAR WITH VOLUME DAMPER AT TRUNK TO FLEX DUCT CONNECTION. (SEE DETAIL)

ALL DUCTWORK WHERE ALLOWED BY LOCAL CODES AND CEILING RATING SHALL BE AS FOLLOWS:

SUPPLY AIR - RIGID FIBER GLASS DUCT BOARD 1-1/2" THICK (R-6) INSULATION. OPERATING STATIC PRESSURE ±2 IN. WG. (500 PA)

RETURN AIR - SAME AS SUPPLY AIR DUCT WORK.

EXHAUST AIR - MINIMUM 30 GAGE, GALVANIZED METAL OR MINIMUM 26

GAGE ALUMINUM.

OUT SIDE AIR - NOT LIGHTER THAN 30 GAGE, GALVANIZED METAL OR 26

GAGE MINIMUM ALUMINUM INSULATED (R-6).

APPLICABLE.

26 GA, MIN. GALVINIZED STEEL, HAVING A LOOTH INTERIOR SURFACE WITH JOINTS RUNNING IN THE DIRECTION ADOTH INTERIOR SURFACE WITH JOINTS RUNNING IN THE DIRECTION THE AIR STREAM. MAXIMUM LENGTH SHALL NOT EXCEED 25 FEET.

ALL CAPS SHALL BE PROVIDED WITH BACKDRAFT DAMPER. NO SCREEN APPLICABLE.

IL OPENINGS IN BUILDING STRUCTURE, FOR DUCTWORK, PIPING, ETC /2" LARGER (ON ALL SIDES) THEN THE OUTSIDE DIMENSIONS. FILL ITH FIRE RETARDANT SILICONE FOAM (I.E. CHASE—FOAM CTC PR—85 ECHNOLOGY CORP.).

INDOOR DESIGN: SUMMER 75 DDB/50% RH, WINTER 70 DDB.
OUTDOOR DESIGN: SUMMER 95 DDB/79 DWB, WINTER 46 DDB.
BUILDING CONDITIONS:
GLASS U VALUE
0.90
GLASS S.C.
0.57
WALL U VALUE
0.20
ROOF U VALUE
0.05

STORAGE ROOMS, TOTLETS, ETC., WILL HAVE UNDERCUT DOORS TO PROVIDE ITILATION REQUIRED WHEN DOOR OR TRANSFER GRILLES ARE NOT SHOWN. IF ALICABLE.

OVIDE THERMOSTAT CONTROL OF ALL FANS THAT EXHAUST MECHANICAL AND CIRICAL ROOMS. IF APPLICABLE.

OVIDE FLEXIBLE DUCT CONNECTORS, RATED AS REQUIRED, TO ALL FANS, A/C

THE THE TONITROL OF ALL FANS THAT EXICAL ROOMS. IF APPLICABLE.

DE FLEXIBLE DUCT CONNECTORS, RATED AS REQUOR MECHANICAL EQUIPMENT.

EMPERATURE SPECIFIED AND AS REQUIRED BY THE CELLING SYSTEM RATING.

ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH
"SMACMA" STANDARDS AND LOCAL BUILDING CODES.

7. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.

8. SEAL ALL DUCTS, JOINTS AND SEAMS IN AN APPROVED MANNER AND INSURE

8. AGAINST LEAKAGE.

9. PROVIDE ACCESS DOORS AS REQUIRED FOR ALL MECHANICAL EQUIPMENT TO
SERVICE AND VISUALLY CHECK ROTATION OF FANS AND MOTORS, POSITION OF
DAMPERS, REPLACE FIRE DAMPER LINKS, ADJUST OR REPLACE CONTROLS, ETC.

IDE MAINTENANCE AND OPERATION MANUAL ON ALL MECHANICAL EQUIPMENT IYSTEMS. PROVIDE 5 SETS OF SUBMITTALS ON ALL HVAC EQUIPMENT. IITTALS SHALL HAVE A SUMMARY SHEET SHOWING ALL SCHEDULED RMATION.

CONTRACTOR WILL WARRANTY ALL MECHANICAL SYSTEMS, DUCTWORK, OSTATS, AND ALL OTHER EQUIPMENT,PARTS AND LABOR UNDER THESE NGS AND SPECIFICATIONS FOR A PERIOD OF ONE (1) YEAR AFTER C.O. OF ING. ANY REPAIRS REQUIRING SYSTEM SHUT DOWN WILL BE DONE DURING PERATIONAL PERIODS.

PROVIDE VANED ELBOWS IN ALL CASES, SPLITTER DAMPERS WHERE INDICATED ON DRAWINGS AND VOLUME CONTROL DAMPERS IN ALL BRANCH DUCTS OR DIFFUSER CONNECTIONS.

MINAL AIR DISTRIBUTION DEVICES SHALL BE AS FOLLOWS: CEILING DIFFUSER: IV. TO TITUS AS SPECIFIED IN AIR DISTRIBUTION SCHEDULE; RETURN ISTER: EQUIV. TO TITUS AS SPECIFIED IN AIR DISTRIBUTION SCHEDULE (NEW DIFF/GRILLES SHALL MATCH EXISTING; IF APPLICABLE).

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02-16-17 RTC

ALL PIPING AND DUCTWORK SHALL BE SLEEVED THRU WALLS, BEAMS, SLABS, ETC, AS REQUIRED AND COORDINATED WITH THE STRUCTURAL ENGINEER. REWORK BAR JOIST CROSS BRACKING AND PROVIDE NECESSARY TRANSITIONS AS REQUIRED FOR DUCTWORK INSTALLATION.

ALL INSULATION WILL HAVE FIRE/SMOKE RATING LESS THAN 25/50.

PROVIDE A MIN. OF 3' CLEARANCE IN FRONT OF ALL 120–240 VOLT PANELS AND 4' CLEARANCE IN FRONT OF 480 VOLT PANEL. PROVIDE ADEQUATE SIDE CLEARANCE PER NEC.

NDED BY

THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING, ORDERING, FABRICATION OR INSTALLATION OF MATERIALS OR EQUIPMENT.

MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND ICTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO TIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE VIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

CONTROLS / EQUIPMENT SEQUENCE OF OPERATION:
ALL THERMOSTATS SHALL BE INSTALLED 42° TO 55° A.F.F. VERIFY EXACT LOCATION WITH ARCHITECT / INTERIOR DESIGNER.

UPON DETECTION OF SMOKE. SMOKE DETECTORS SHALL SHUT DOWN REQUIRED ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.

FALL ROOFTOP EQUIPMENT FOR WIND LOADS AND MOUNTING HE

COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS, SPRINKLERS AND ARCHITECTURAL ELEMENTS.

COORDINATE LOCATION OF A/C UNITS, THERMOSTATS, FANS AND DUCTWORK WITH BUILDING STRUCTURE AND OTHER TRADES SO THAT NO INTERFERENCES OCCUR.

IN GENERAL, DUCT OFFSETS HAVE NOT BEEN SHOWN. A/C CONTRACTOR TO COORDINATE THESE AS REQUIRED.

OSTAT LOCATION SHALL BE APPROVED BY OWNER, ENGINEER AND TECT/INTERIOR DESIGNER BEFORE INSTALLATION.

NSULATED FIRE RATED CONDENSATE DRAINS AS PER MECHANICAL NGS. IF APPLICABLE.

ENCY). OR EXHAUST

CALLED FOR -LINE FANS.

A/C CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE HIS WORK FOR SIZE, LOCATION, CLEARANCE, ACCESS AND ELECTRICAL CHARACTERISTICS WITH ALL OTHER TRADES AND TO PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW BEFORE INSTALLATION OF DICTWORK OR EQUIPMENT. SHOP DRAWING WILL INCLUDE BEAM OR STRUCTURE ELEVATION & REQUIRED EQUIPMENT ACCESS AREAS

WALL, ROOF, AND CEILING OPENINGS INDICATED ON CONTRACTOR DRAWINGS ARE NOMINAL DIMENSIONS ONLY AND ALL DUCT, PIPE OR EQUIPMENT PENETRATIONS SHALL BE SLEEVED AND FIRE RATED AS REQUIRED, ADJUST OPENINGS

INDEPENDENT CONTRACTOR SHALL TEST AND BALANCE ALL MECHANICAL EQUIPMENT AIR DEVICES, EXTRACTORS, DAMPERS, AHU'S & FAN RATES, ETC. TO PROVIDE THE DESIGN QUANTITIES AS SHOWN ON THE PLANS OR SCHEDULES. PROVIDE T & B REPORT IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, SIGNED AND SEALED BY A RECISTERED FLORIDA ENGINEER. PROVIDE FINAL BALANCING FOR ALL SYSTEMS TO SATISFACTION OF OWNER AND ENGINEER.T & B CONTRACTOR SHALL VISIT JOB SITE DURING CONSTRUCTION TO ENSURE THAT ALL DUCTS, DAMPERS, ETC. ARE INSTALLED FOR PROPER AND QUIET AIR DELIVERY.

CHECKED BY : **A.R.**DRAWN BY : O.F
SCALE: AS SHOWN
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