

REVISIONS	BY

MECHANICAL A/C UNIT SCHEDULE		
SYMBOL	RTU No. 1	RTU No. 2
LOCATION	ROOF	ROOF
E.E.R./I.E.E.R.	11.2/13.0	11.2/13.0
MAKE	TRANE	TRANE
MODEL	TSC-092F3	TSC-092F3
NOM. TONS	7.5	7.5
C.F.M.	3,000	3,000
EXT. S.P.	0.5"	0.5"
ENT. AIR TEMP.	DB °F WB °F	78.7 66.2
AMBIENT AIR °F	91.0	91.0
COOL CAP BTUH	SENSIBLE TOTAL (NET)	72,400 96,650
HEATING INPUT KW	13.5	6.8
HEATER AMPS	-	-
FAN MOTOR	HP F.L.A.	1.0 3.6
G.P.M.	-	-
COMPRESSOR MOTOR	NO. R.L.A. (EACH) L.R.A. (EACH)	2 14.5/13.6 98.0/83.0
CONDENSER FAN	HP (EACH) F.L.A. (EACH)	3/4 4.0
VOLTS	208	208
PH	3	3
HZ	60	60
M.C.A.	51.4	39.3
M.O.C.P.	60	50
OUTSIDE SUPPLY AIR	600	300
WT LBS.	928	928
BASE UNIT DIMENSIONS W-D-H	53"x88.5"x47"	53"x88.5"x47"
REMARKS	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8

DUCT MATERIAL LEGEND				
SYMBOL	MATERIAL	LINER	SMACNA PRESSURE RATING	SMACNA SEAL CLASS
	FIBER GLASS	TYPE 475	1" WG	
	DOUBLE-WALLED METAL	1-1/2"	2" WG	D
	FLEXIBLE			
	METAL	1-1/2"	1" WG	D

EXHAUST FAN SCHEDULE			
SYMBOL	EF-1,2	EF-3	
LOCATION	CEILING	CEILING	
SERVICE	RESTROOM	RESTROOM	
MAKE	GREENHECK	GREENHECK	
MODEL	SP-B80	SP-B80	
BLOWER DATA	C.F.M.	70	70
	S.P.	0.35	0.35
MOTOR DATA	TYPE	CEILING EXHAUST	CEILING EXHAUST
	DRIVE	DIRECT	DIRECT
MECH	H.P.	54 WATTS	54 WATTS
	R.P.M.	900	900
ELEC	V	120	120
	PH	1	1
SONES	Hz	60	60
	WT LBS.	12	12
CONNECTION SIZE	6"ø	6"ø	
REMARKS	BACKDRAFT DAMPER DISCONNECT SWITCH VIBRATION ISOLATORS. WALL/ROOF CAP INTERLOCK WITH MOTION SENSOR	BACKDRAFT DAMPER DISCONNECT SWITCH VIBRATION ISOLATORS. WALL/ROOF CAP INTERLOCK WITH WALL SWITCH	

NOTE: MANUFACTURER MODELS WITH EQUIVALENT AIR FLOW QUANTITIES AND FEATURES ARE ACCEPTABLE SUBSTITUTIONS.

AIR DISTRIBUTION SCHEDULE			
SYMBOL	SERVICE	DESCRIPTION	MFG. MODEL NO.
A	CEILING SUPPLY REGISTERS	LOUVERED SUPPLY CEILING DIFFUSER. ALUMINUM CONSTRUCTION, FLUSH FACE PANEL. FINISH SHALL BE WHITE ENAMEL. 24" x 24" MODULE SIZE WITH ROUND NECK SIZES AS SHOWN ON PLANS.	TITUS INDUSTRIES INC. MODEL NO. 100A-AA
B	RETURN CEILING DIFFUSER	LOUVERED RETURN CEILING GRILLE. ALUMINUM CONSTRUCTION, FLUSH FACE PANEL. FINISH SHALL BE WHITE ENAMEL. 3/4" SPACING, SURFACE MOUNTED. 35° DEFLECTION.	TITUS INDUSTRIES INC. MODEL NO. 350-FL
C	CEILING SUPPLY REGISTERS	LOUVERED SUPPLY CEILING GRILLE. ALUMINUM CONSTRUCTION, FLUSH FACE PANEL. FINISH SHALL BE WHITE ENAMEL. 3/4" SPACING, SURFACE MOUNTED. 35° DEFLECTION.	TITUS INDUSTRIES INC. MODEL NO. 301-FL
D	SPIRAL DUCT MOUNTED SUPPLY REGISTERS	SPIRAL DUCT MOUNTED SUPPLY GRILLE. ALUMINUM CONSTRUCTION. FINISH SHALL BE WHITE ENAMEL. ADJUSTABLE BLADES, SURFACE MOUNTED. DOUBLE DEFLECTION, OPTIONAL EXTRACTOR.	TITUS INDUSTRIES INC. MODEL NO. S300-FL
E	RETURN SIDEWALL REGISTER	LOUVERED RETURN GRILLE. ALUMINUM CONSTRUCTION, FLUSH FACE PANEL. FINISH SHALL BE WHITE ENAMEL. 3/4" SPACING, SURFACE MOUNTED. 35° DEFLECTION.	TITUS INDUSTRIES INC. MODEL NO. 350-FL

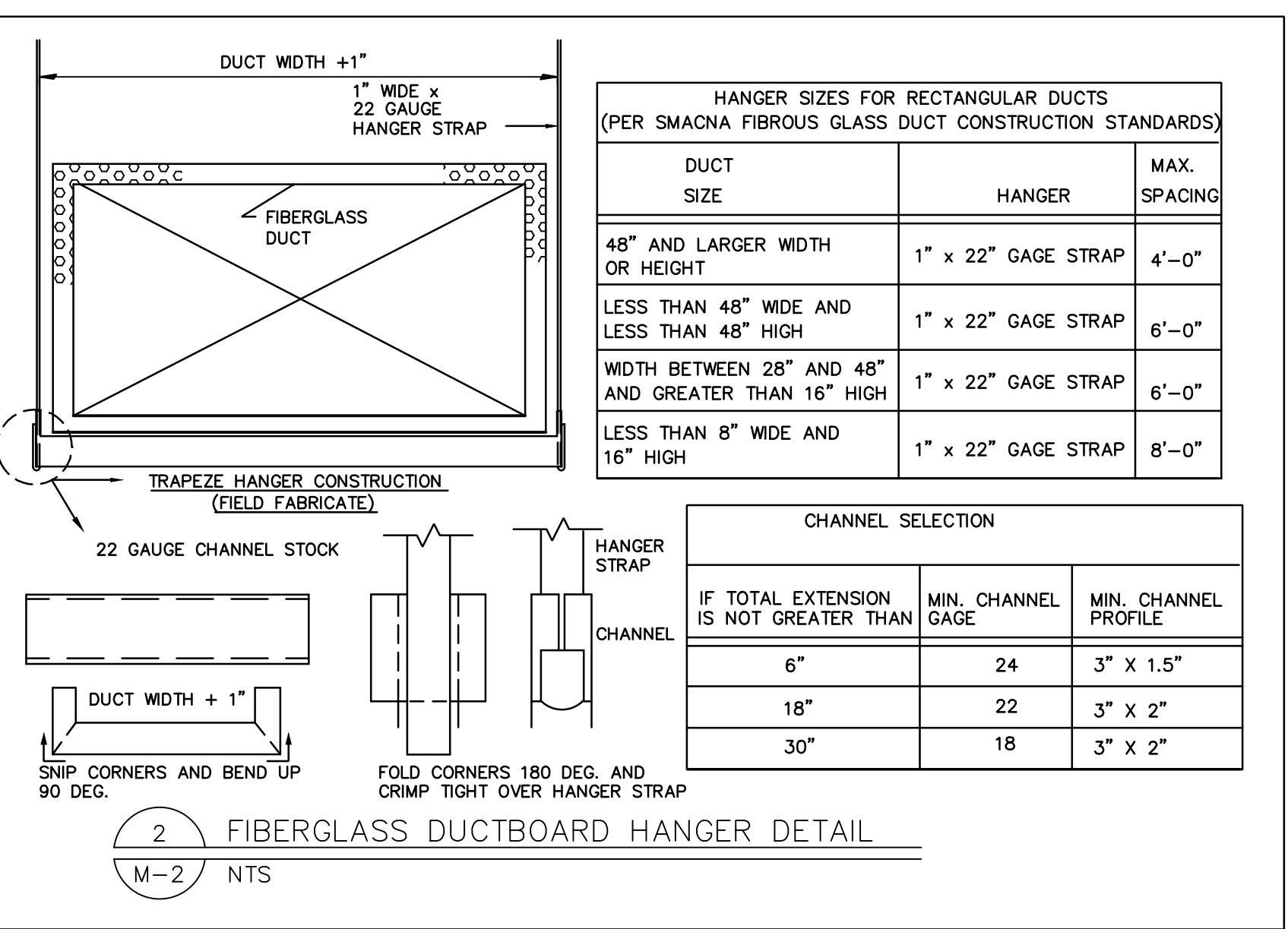
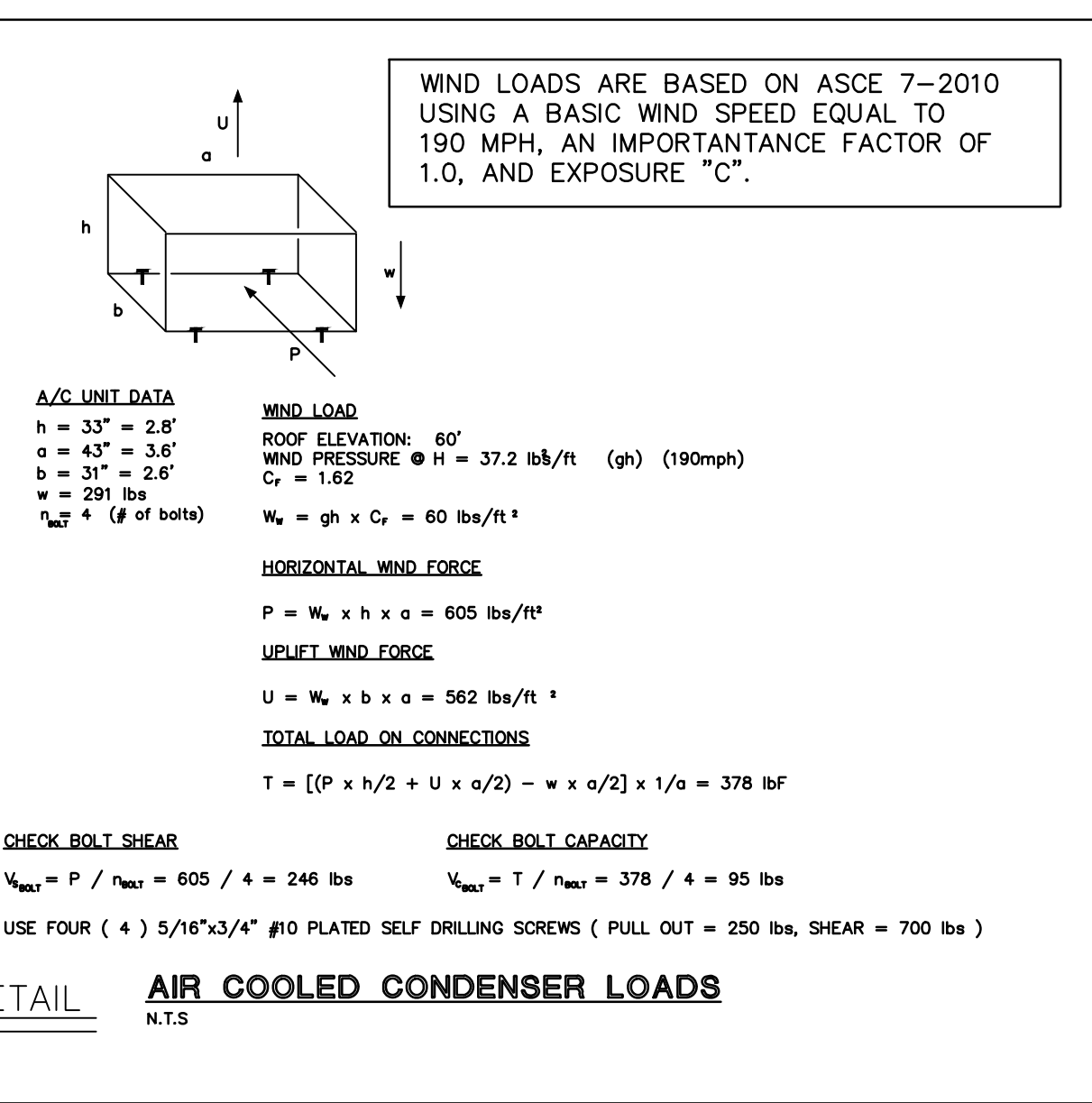
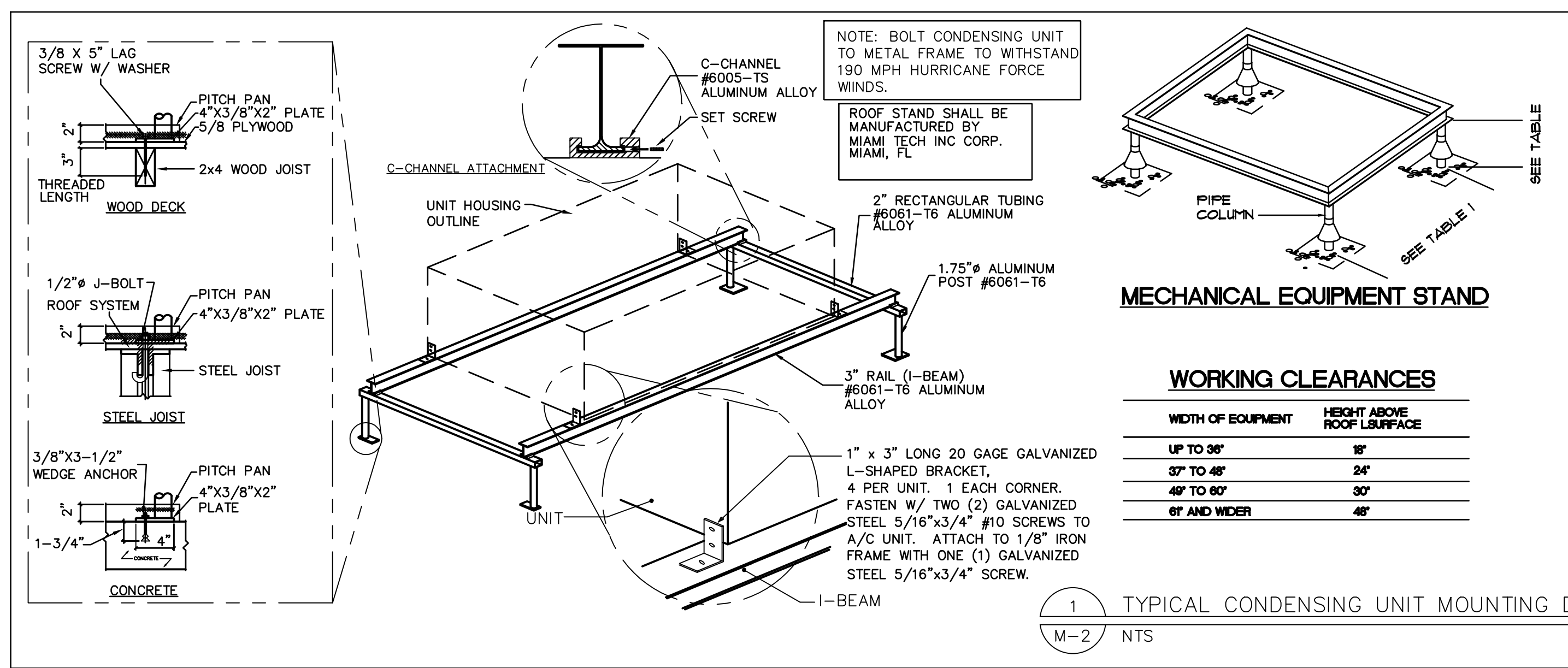
HVAC DESIGN REQUIRES	YES	NO
DUCT SMOKE DETECTOR	X	
FIRE DAMPERS		X
RADIANT DAMPER		X
FIRE RATED ENCLOSURE		X
FIRE RATED ROOF/FLOOR CEILING ASSEMBLY		X
FIRE STOPPING		X

**EXHAUST AIR CALCULATION**  
AS PER FLORIDA MECHANICAL CODE, TABLE 403.3, EXHAUST AIR REQUIREMENTS ARE:  
**EF-1, 2 TOILETS**  
NUMBER OF FIXTURES = 1 TOILET  
TOTAL EXHAUST AIR REQUIRED = 1 TOILET X (70 CFM/TOILET) = **70 CFM**

**OUTDOOR AIR CALCULATION**  
AS PER FLORIDA MECHANICAL CODE, TABLE 403.3, OUTDOOR AIR REQUIREMENTS ARE:  
**RTU-1**  
AREA SERVED = 1,405 SQ.FT.  
**(DINING)**  
TOTAL AREA = 1,258 SQ. FT.  
TOTAL OCCUPANCY = 47 PEOPLE  
TOTAL OUTSIDE AIR = 47 PEOPLE X (7.5 CFM PER PERSON) = **353 CFM**  
TOTAL OUTSIDE AIR = 1,258 SQ. FT. X (0.18 CFM/FT) = **226 CFM**  
TOTAL OUTSIDE AIR PROVIDED = **579 CFM**  
TOTAL OUTSIDE AIR REQUIRED = **600 CFM**  
**RTU-2**  
AREA SERVED = 1,259 SQ.FT.  
**(KITCHEN)**  
TOTAL AREA = 957 SQ. FT.  
TOTAL OCCUPANCY = 10 PEOPLE  
TOTAL OUTSIDE AIR = 10 PEOPLE X (7.5 CFM PER PERSON) = **75 CFM**  
TOTAL OUTSIDE AIR = 957 SQ. FT. X (0.18 CFM/FT) = **172 CFM**  
**(OFFICE)**  
TOTAL AREA = 55 SQ. FT.  
TOTAL OCCUPANCY = 1 PERSON  
TOTAL OUTSIDE AIR = 1 PERSON X (5 CFM PER PERSON) = **5 CFM**  
TOTAL OUTSIDE AIR = 55 SQ. FT. X (0.06 CFM/FT) = **3 CFM**  
**(STORAGE)**  
TOTAL AREA = 247 SQ. FT.  
TOTAL OUTSIDE AIR = 247 SQ. FT. X (0.12 CFM/FT) = **30 CFM**  
TOTAL OUTSIDE AIR REQUIRED = **285 CFM**  
TOTAL OUTSIDE AIR PROVIDED = **300 CFM**

- MECHANICAL NOTES**
- DO NOT SCALE THE DRAWINGS. REFER TO ARCHITECTURAL PLANS FOR ALL DIMENSIONS.
  - COORDINATE EXACT LOCATION OF ALL DIFFUSERS AND RETURNS WITH EXISTING REFLECTED CEILING PLAN.
  - ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA BUILDING AND MECHANICAL CODE FBC-2014-MECHANICAL, NFPA-90A, AND LOCAL CODE AMENDMENTS.
  - ALL DAMPER CONTROLS SHALL BE ACCESSIBLE.
  - ALL OUTSIDE AIR DUCTS OR INTAKES SHALL HAVE DAMPERS.
  - ALL VENTILATION DUCTS SHALL BE SHEET METAL, INSTALLED, SEALED AND SUPPORTED IN ACCORDANCE WITH THE LATEST EDITION "SMACNA" LOW VELOCITY DUCT CONSTRUCTION STANDARDS AND DETAILS ON THESE PLANS.
  - ALL EXHAUST DUCTS SHALL BE SHEET METAL, INSTALLED, SEALED AND SUPPORTED IN ACCORDANCE WITH THE LATEST EDITION OF "SMACNA" LOW VELOCITY DUCT CONSTRUCTION STANDARDS AND DETAILS ON THESE PLANS.
  - AIR CONDITIONING SUPPLY & RETURN DUCTS SHALL BE FIBERGLASS TYPE 800 EI INSTALLED, SEALED AND REINFORCED IN ACCORDANCE WITH THE LATEST EDITION OF "NAIMA" FIBROUS GLASS DUCT CONSTRUCTION STANDARDS AND DETAILS ON THESE PLANS. 0-1" STATIC PRESSURE CLASS, (+/-), UNLESS OTHERWISE NOTED. ALL DUCT IN ATTIC SPACE SHALL BE R-6.0 MINIMUM. DUCT WORK BETWEEN FLOOR OR CONDITIONED SPACE SHALL BE R-4.2 MINIMUM. FLEX DUCT R-4.2/6.0 SHALL BE USED IF THERE IS LIMITED SPACE.
  - FLEXIBLE DUCTS SHALL BE R-6.0 MINIMUM UL 181 CLASS 1 CONSTRUCTED WITH A POLYESTER LAMINATED SMOOTH INNER CORE THAT ENCAPSULATES A STEEL WIRE HELIX. THE DOUBLE CORE IS WRAPPED IN A THICK BLANKET OF FIBERGLASS INSULATION AND SHEATHED IN A REINFORCED METALLIZED POLYESTER JACKET.
  - REFRIGERANT PIPING SHALL BE COPPER, REFRIGERATION GRADE, SOFT TEMPER, SEALED AT THE MILL. INSULATE SUCTION PIPE INDOORS: WITH 3/8" IMCOA POLYOLEFIN INSULATION; OUTDOORS: 3/4" IMCOA POLYOLEFIN INSULATION. CIRCULATE DRY NITROGEN THROUGH PIPING WHEN SOLDERING. TEST FOR LEAKS PRIOR TO CHARGING SYSTEM WITH R-22 REFRIGERANT.
  - CONDENSATE DRAINS SHALL BE SCHEDULE 40 PVC PIPING OR COPPER IF LOCATED IN A RETURN AIR PLENUM. INTERIOR CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH 1/2" ARMAFLEX SELF-SEAL.
  - EXPOSED ROUND METAL DUCT WORK SHALL BE LINED WITH CERTAINTED TOUGHGARD "ULTRA" OR JOHNS-MANVILLE "SPIRACOUSTIC" DUCT LINER 1 (ONE) INCH THICK. ALL DROPS AND FITTINGS SHALL ALSO BE LINED.
  - AS PER 2014 FLORIDA BUILDING CODE-ENERGY CONSERVATION, SECTION 503.2.5.4, BOTH OUTDOOR AIR SUPPLY AND EXHAUST SYSTEMS SHALL BE EQUIPPED WITH DAMPERS THAT WILL AUTOMATICALLY SHUT WHEN THE SYSTEMS OR SPACES SERVED ARE NOT IN USE. VENTILATION OUTSIDE AIR DAMPERS SHALL BE CAPABLE OF AUTOMATICALLY SHUTTING OFF DURING PREOCCUPANCY BUILDING WARMUP, COOLDOWN, AND SETBACK, EXCEPT WHEN VENTILATION REDUCES ENERGY COSTS (E.G., NIGHT PURGE) OR WHEN VENTILATION MUST BE SUPPLIED TO MEET CODE REQUIREMENTS. MOTORIZED DAMPERS SHALL BE NOT LESS THAN A CLASS I LEAKAGE-RATED DAMPER WITH A MAXIMUM LEAKAGE RATE OF 4 CFM PER S.F. AT 1" W.G. WHEN TESTED IN ACCORDANCE WITH AMCA 500D.

MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
O.A.	OUTSIDE AIR
O.A.L.	OUTSIDE AIR LOUVER
R.A.	RETURN AIR
S.A.	SUPPLY AIR
T.A.	TRANSFER AIR
E.A.	EXHAUST AIR
C.F.M.	CUBIC FEET PER MINUTE
⊕	THERMOSTAT
⊖	HUMIDISTAT
⊙	SMOKE DETECTOR
⊗	REMOTE TEST STATION
FD	UL LISTED FIRE DAMPER
VD	VOLUME DAMPER
BD	BACKDRAFT DAMPER
MVD	MANUAL VOLUME DAMPER
MOD	MOTOR OPERATED DAMPER
	TWIST-IN COLLAR WITH DAMPER
	CEILING DIFFUSER - SUPPLY AIR
	SIDE-WALL DIFFUSER - SUPPLY AIR
	TURNING VANES - SUPPLY AIR
	DISTRIBUTION TRIANGLE - SUPPLY AIR
	FIBERGLASS DUCTWORK - SUPPLY AIR
	EXISTING DUCT WORK
	EXISTING FLEXIBLE DUCT
	NEW METAL OUTDOOR AIR DUCT
EF	CEILING MOUNTED EXHAUST FAN



**KUOPPALA & ASSOCIATES, P.A.**  
ARCHITECTS  
LICENSE #AC-001689  
ROBERT E. KUOPPALA  
FLORIDA ARCHITECT #9481  
925 SOUTH MILITARY TRAIL, SUITE D-10  
WEST PALM BEACH, FLORIDA 33415  
(561) 662-1909-0FF.  
(561) 662-1976-FAX.

INTERIOR IMPROVEMENTS  
**FIRE UP PIZZA**  
8170 OKRECHORBE BLDY. - SUITES 1 & 2  
SEDONA COMMONS - BUILDING #7  
WEST PALM BEACH, FLORIDA

DRAWN: MB  
CHECKED: MB  
DATE: APRIL 26, 2016  
SCALE: AS NOTED  
COMM. NO: 16-071  
SHEET: M-2  
OF 2 SHEETS

**MICHAEL A. BASSFORD**  
2107 N.E. 17TH AVENUE  
WELTON MAHORS, FL 33505  
PHONE: (854) 288-0700  
Email: mbassford@aol.com  
MICHAEL A. BASSFORD  
FLORIDA LICENSE #57390