	ELECTRICAL DEVICE LEGEND
SYMBOL	DESCRIPTION
 ₽	20A,125V, 2P, 3W, NEMA 5-20R, DUPLEX RECEPT. MTD. 18" A.F.F U.N.O.
PWP	SAME AS ABOVE EXCEPT WEATHERPROOF
₽ GFI	SAME AS ABOVE EXCEPT GROUND FAULT INTERRUPTER
ΦD	SAME AS ABOVE EXCEPT DEDICATED CIRCUIT
₩ CTR	SAME AS ABOVE EXCEPT MOUNTED 4" ABOVE COUNTER HEIGHT
#	SAME AS ABOVE EXCEPT QUADRUPLEX
0	SAME AS ABOVE EXCEPT RECESSED
P	3POLE DUPLEX RECEPT
Φ	SPECIAL PURPOSES RECEPT.
68	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
2	SINGLE POLE LIGHT SWITCH, 48" A.F.F. 120/277V
3 5 4 VP _{\$}	SAME AS ABOVE EXCEPT 3-WAY SWITCH
S	SAME AS ABOVE EXCEPT 4-WAY SWITCH
VP _{\$}	SAME AS ABOVE EXCEPT WEATHERPROOF
Sos	SAME AS ABOVE EXCEPT DUAL TECHNOLOGY OCCUPANCY SENSOR
FS	SINGLE POLE FAN SWITCH , 48" A.F.F. 120/277V
7	SAFETY DISCONNECT SWITCH
	ELECTRICAL PANEL
TC	PROGRAMMABLE TIMECLOCK, NUMBER OF POLES AS REQUIRED
•	HAND DRYER. PROVIDE DUAL GANG JUCTION BOX
0 0	JUNCTION BOX. SIZE AS REQUIRED TO FIT THE APPLICATION
Ø	FAN SWITCH OPERATED

	ELECTRICAL LIGHTING	DEVICE	SCHEDULE		
	DEVICE	ELECT	RICAL DATA	BASIS OF	F DESIGN*
MARK	DESCRIPTION	VA	VOLT	MANUFACTURER	MODEL OR SERIES
L-7	6" CAN LIGHT	12	UNIV	COMMERCIAL ELEC	CAT71
L-10	EXTERIOR WALL PACK LIGHT FIXTURE	40	UNIV	WILLIAMS	WPTZ-L38-UNV
L-11	UNIVERSAL MOUNTED EXIT SIGN	5	UNIV	WILLIAMS	EXIT-R-EM-WHT
L-12	UNIVERSAL MOUNTED DUAL EMERGENCY HEAD LIGHT	5	UNIV	WILLIAMS	EF43D

NOTES

* OR SIMILAR MANUFACTURER/MODEL OR SERIES

SEPARA TEPER MITS REQUIRED D

ALL FIRE PROTECTION SYSTEMS, FUEL, GAS, SIGNAGE AND OTHER BUILDING COMPONENTS REQUIRED BY LOCAL BUILDING AND FIRE AUTHORITIES TO BE INSTALLED OR MODIFIED VIA SEPARATE PERMIT, AND WHICH ARE AFFECTED BY THE WORK PROPOSED HEREIN, SHALL BE DULY INSTALLED OR MODIFIED ONLY THROUGH SEPARATE PERMIT AUTHORIZATION FROM THE AUTHORITY(S) HAVING JURISDICTION.

VOLTAGE DRO	P SCHEDULE .	VOLT	AGE DROP SO	CHEDULE - ALUMINU	М	VOLTAGE DROP SCHEDULE - COPPER				
277 VOLT BRANCH CIRCUITS UP TO 16 AMPS 120 VOLT BRANCH CIRCUITS UP TO			O IO AMPS	120 VOLT BRANCH CIRCUITS UP T	120 VOLT BRANCH CIRCUITS UP 1	TO 10 AMPS	120 VOLT BRANCH CIRCUITS UP TO 14 AMPS			
RUN DISTANCE IN FEET	WIRE SIZE AWG	TOTAL WIRE LENGTH (FEET)	WIRE SIZE (AMG)	TOTAL WIRE LENGTH (FEET)	WIRE SIZE (AMG)	TOTAL WIRE LENGTH (FEET)	WIRE SIZE (AMG)	TOTAL WIRE LENGTH (FEET)	WIRE SIZE (AWG)	
l' - 225' 226' - 345' 346' - 546'	#IO #8 #6	5 ' - 230' 23 ' - 360' 36 ' - 445'	#6 #4 #3	<i>06</i> '	#6 #4 #3 #2	' - 50' 5 ' - 240' 24 ' - 380'	#I <i>O</i> #8 #6	' - 5' 6' - 85' 86' - 290' 29 ' - 445'	# <i>O</i> #8 #6 #4	
MINIMUM BRANCH CIRCUIT WIRING SHALL INCREASE WIRE SIZE BAS	15 TO ANG. CONTRACTOR	MINIMUM BRANCH CIRCUIT WIRING CONTRACTOR SHALL INCREASE W SCHEDULE ABOVE.		39 ' - 490' 49 ' - 620' 62 ' - 140'	# # /O #2/O	MINIMUM BRANCH CIRCUIT WIRING CONTRACTOR SHALL INCREASE W SCHEDULE ABOVE.		7 446' - 565' 566' - 110' 111' - 895'	#3 #2 #	

* EMERGENCY EXIT LIGHTS ARE CONNECTED TO THE CORRESPONDING LOCAL LIGHT CIRCUIT

CONTRACTOR MUST VERIFY ALL CLEARANCES AND DIMENSIONS IN FIELD

GENERAL NOTES:

A. ALL CIRCUITS SHALL HAVE INDIVIDUAL NEUTRAL CONDUCTORS CONTINUOUS FROM PANEL. SHARED NEUTRALS ARE NOT PERMITTED

INDIVIDUAL NEUTRAL CONDUCTORS
HARED NEUTRALS ARE NOT

LIGHTING PLAN
3/16" = 1'-0"

LP□-5 →

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ING DESIGN AS SHOWN ON THESE ED BY DESIGN & SUPPORT TO THE 2020 7TH EDITION FLORIDA TIFICATION DOES NOT INCLUDE ROOWNICH THE TRUSS DESIGN ENGINEER OWTH THE 2020 7TH EDITION WITH SUPPLEMENTS.

PLAN AND AS ACCOMPANIED BY DE DOCUMENTS CONFORMS TO THE 2 BUILDING CODE. THIS CERTIFICATIONS COMPONENTS OF WHICH TIS THE ENGINEER OF RECORD. THE PREPARED IN COMPLIANCE WITH TICKNIDA BUILDING CODE WITH SURPORT CHARLOTTE, FL 33980

PH 941-391-5980



ROTONDA WEST ASSOCIATION
646 ROTONDA CIRCLE, ROTONDA WEST, FL 33947
MISC OWNER

PROJECT NAME & ADDRESS:

No. Description Date

A

A

A

A

A

DRAWN BY:

PROJECT NO: 22.2

SCALE: As indicated as indicate

SHEET TITLE:

ELECTRICAL PLAN

SHEET NUMBER:

			F	PANEL		LH	20							
VOLTAGE (L-N):	120					ENCLOSURI	ENCLOSURE TYPE: NEMA 1R						
VOLTAGE (208					MOUNTING:			SURFACE	:			
PHASES, W	IRES:	3 φ 4 V	V				AIC RATING	(A):		22000				
	US CAPACITY (A):	200 A					NOTES:							
	DEVICE (A):	200 A					1							
CKT NO	DESCRIPTION	TRIP AMPS	POLE		A		OADS (VA)		С	POLE	TRIIP AMPS	DESCRI	PTION	CKT NO
1	LIGHT OPEN OFFICE AREA	20	1	140	73		Б			1	20	HALLWAY/STORAGE		2
3	LIGHT CONFERENCE ROOM	20	1			586	58			1	20	OFFICE		4
5	LIGHT EXT.	20	1					170	1200	1	20	SIGN		6
7	FACP	20	1	500	0					1	20	SPARE		8
9	SPARE	20	1			0	1800			1	20	RECEPT, OPEN OFFI	CE AREA	10
11	RECEPT. STORAGE	20	1				1000	900	1620	1	20	RECEPT. CONFERENCE		12
13	RECEPT. OFFICE	20	1	1080	0				1020	1	20	SPARE	<u> </u>	14
15	SPARE	20	1	1000		0	0			1	20	SPARE		16
17	SPARE	20	1			ů	Ü	0	0	2	20	SPARE		18,20
19,21	SPARE	20	2	0	0				Ü	2	20	SPARE		18,20
19,21	SPARE	20	2	0	0	0	0			2	20	SPARE		22,24
23,25	SPARE	20	2			0		0	0	2	20	SPARE		22,24
23,25	SPARE	20	2	0	0			0	0	2	20	SPARE		26,28
27,29	SPARE	20	2	0		0	0			2	20	SPARE		26,28
27,29	SPARE	20	2					0	0	2	20	SPARE		30,32
31,33	SPARE	20	2	0	0			0	0	2	20	SPARE		30,32
31,33	SPARE	20	2	0	0	0	5500			3	45	AHU 1		34,36,38
35,37,39						0	5520	4600	EE00					34,36,38
	CU 1	40	3	4000	0			4600	5520	3	45	AHU 1		
35,37,39	CU 1	40	3	4600	0					3	45	AHU 1		34,36,38
35,37,39	CU 1	40	3			0	0			3	20	SPARE		40,42,44
									0	3	20	SPARE		40,42,44
					0	OTER LOAD	DULAGE TOT			3	20	SPARE		40,42,44
							PHASE TOTALS (VA)			-				
			l	63	393	79	964	14	010					
					TED LOAD				()			DEMAND LOAD	28.8 KVA	
				•	VA)		FACTOR		_OAD (KVA)			SPARE CAPACITY	86.4 KVA	
	Lighting				1.8		25		2.2			SPARE CAPACITY	239.9 AMPS	
	Motors				0.3		.00		0.3			SPARE CAPACITY	75 %	
	Motors (Largest)				0.1		25		0.2			PHASE BALANCE		
	Receptacles (0 - 10 KVA)				5.4		.00		5.4			A TO B	80 %	
	Cooling				9.2		.00		9.2			в то с	57 %	
	Cooling and Heating				1.0		.00		1.0			C TO A	46 %	
	Equipment			(0.5	1.	.00		0.5					
	TOTAL:			28	3.4	-		2	8.8	-				
	LOAD (AMPS):			78	8.7			8	0.1					

NO	TES:							
*	TC	=	INDICATES	CIRCUIT	ΤD	ΒE	TIMECLOCK	CONTROLLED

	5,5070,011,05,455,4505,17
	ELECTRICAL DEVICE LEGEND
SYMBOL	DESCRIPTION
P	20A,125V, 2P, 3W, NEMA 5-20R, DUPLEX RECEPT. MTD. 18" A.F.F U.N.O
ФWР	SAME AS ABOVE EXCEPT WEATHERPROOF
₽GFI	SAME AS ABOVE EXCEPT GROUND FAULT INTERRUPTER
ФD	SAME AS ABOVE EXCEPT DEDICATED CIRCUIT
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#	SAME AS ABOVE EXCEPT QUADRUPLEX
100	SAME AS ABOVE EXCEPT RECESSED
Ψ	3POLE DUPLEX RECEPT
Φ	SPECIAL PURPOSES RECEPT.
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FS	SINGLE POLE FAN SWITCH , 48" A.F.F. 120/277V
_	SAFETY DISCONNECT SWITCH
	ELECTRICAL PANEL
TC	PROGRAMMABLE TIMECLOCK, NUMBER OF POLES AS REQUIRED
•	HAND DRYER. PROVIDE DUAL GANG JUCTION BOX
<u> </u>	JUNCTION BOX. SIZE AS REQUIRED TO FIT THE APPLICATION
Ø	FAN SWITCH OPERATED

NOTES:

- * LOW VOLTAGE AND DATA PLANS NOT INCLUDED, PROVIDED BY OTHERS. * ELECTRICAL CONTRACTOR TO PROVIDE CLEARANCES FOR ELECTRICAL
- EQUIPMENT PER NEC110.26
- * CIRCUIT NUMBERS FROM ELECTRICAL PANEL LPO U.N.O
- * Electrical outlets at ALL counters to be mounted horizontal with the lower portion of the box at 38" above F.F

(SEPARATE PERMITS REQUIRED ALL FIRE PROTECTION SYSTEMS, FUEL, GAS, SIGNAGE AND OTHER BUILDING COMPONENTS REQUIRED BY LOCAL BUILDING AND FIRE AUTHORITIES TO BE INSTALLED OR MODIFIED VIA SEPARATE PERMIT, AND WHICH ARE AFFECTED BY THE WORK PROPOSED HEREIN, SHALL BE DULY INSTALLED OR MODIFIED ONLY THROUGH SEPARATE PERMIT AUTHORIZATION FROM THE AUTHORITY(S) HAVING JURISDICTION.

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No. Description Date

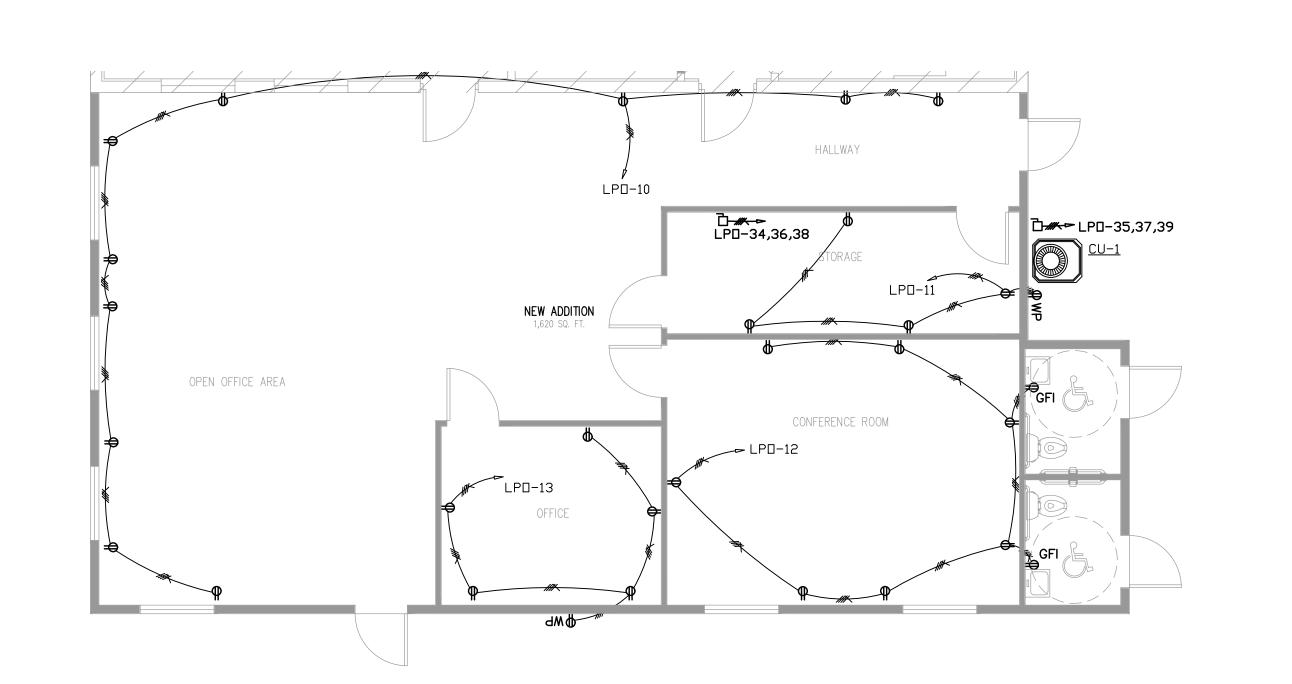
DRAWN BY:

PROJECT NO:

SHEET TITLE:

ELECTRICAL PLAN

SHEET NUMBER:



WIRING METHODS:

- 1. <u>BELOW GRADE</u>: SINGLE— OR MULTI—CONDUCTOR COPPER WIRE WITH GROUND, MEETING N.E.C. AND NEMA REQUIREMENTS, IN APPROVED NONMETALLIC CONDUIT. CONDUIT MAY BE RUN IN OR BELOW CONCRETE, AND CONCEALED IN WALLS TO FIRST BOXES. ALL PVC COMPONENTS (PIPING, FITTINGS, CEMENT, ETC.) SHALL BE FROM THE SAME MANUFACTURER.
- 2. <u>EXTERIOR ABOVE GRADE</u>: SINGLE— OR MULTI—CONDUCTOR COPPER WIRE WITH GROUND, MEETING N.E.C. AND NEMA REQUIREMENTS, IN APPROVED METALLIC OR NONMETALLIC CONDUIT. ALL COMPONENTS (PIPING, FITTINGS, ETC.) SHALL BE FROM THE SAME MANUFACTURER.

NOTE: MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL BE SIX FEET (6').

3. <u>EXTERIOR EQUIPMENT</u>: SINGLE— OR MULTI—CONDUCTOR COPPER WIRE WITH GROUND, MEETING N.E.C. AND NEMA REQUIREMENTS, IN APPROVED LIQUIDTIGHT FLEXIBLE METALLIC OR NONMETALLIC CONDUIT (MINIMUM 3/4"). ALL COMPONENTS (PIPING, FITTINGS, ETC.) SHALL BE FROM THE SAME MANUFACTURER.

NOTE: MAXIMUM LENGTH OF FLEXIBLE CONDUIT BETWEEN MEANS OF DISCONNECT (OR JUNCTION BOX) AND EQUIPMENT SHALL BE THREE FEET (3').

4. <u>INTERIOR</u>: SINGLE— OR MULTI-CONDUCTOR COPPER WIRE WITH GROUND, MEETING N.E.C. AND NEMA REQUIREMENTS, IN APPROVED METALLIC (EMT) CONDUIT. ALL COMPONENTS (PIPING, FITTINGS, ETC.) SHALL BE FROM THE SAME MANUFACTURER. CONDUITS SHALL BE CONCEALED IN OR BEHIND CEILINGS, WALLS, OR FLOORS, EXCEPT WHERE EXPOSED RACEWAYS ARE

NOTE: EMT SHALL NOT BE INSTALLED IN LOCATIONS (1) SUBJECT TO SEVERE DAMAGE, (2) IN CONTACT WITH EARTH, (3) IN CONCRETE SLABS ON GRADE, (4) OTHER LOCATIONS AS LISTED IN N.E.C. 2014, ARTICLE 358.12.

EXCEPTION: NON-METALLIC SHEATHED CABLE (NM, NMC, NMS) MAY BE USED WITHIN DWELLING UNITS, IN COMPLIANCE WITH N.E.C. 2014, ARTICLE 334.

5. <u>ELECTRICAL SYSTEM EXPANSION</u>: ANY PANELBOARD MOUNTED SO THAT ITS FRONT FACE IS FLUSH WITH THE FINISHED WALL SHALL HAVE ONE (1) 3/4" EMT CONDUIT INSTALLED FROM PANELBOARD TO ACCESSIBLE CEILING SPACE FOR EVERY FOUR (4) OR MAJOR FRACTION THEREOF, POLES INDICATED AS "SPACE" OR "SPARE" IN THE PANELBOARD SCHEDULE PER THESE DOCUMENTS.

EXCEPTION NO. 1: PANELBOARDS INSTALLED ON A WALL SURFACE, WHERE AT LEAST THREE (3) SIDES, NOT INCLUDING THE FRONT, REMAIN ACCESSIBLE AFTER CERTIFICATE OF OCCUPANCY SHALL NOT BE REQUIRED TO

EXCEPTION NO. 2: DWELLING UNITS SHALL NOT BE REQUIRED TO MEET #16320.5.

5. <u>ELECTRICAL BOXES</u>: ALL OUTLET, DEVICE, AND JUNCTION BOXES SHALL BE STANDARD 4" SQUARE GALVANIZED STEEL OR APPROVED PLASTIC, 1–1/2" DEEP, WITH DEVICE RINGS OF THE SAME MATERIAL, UNLESS OTHERWISE NOTED. GALVANIZED BOXES SHALL BE MANUFACTURED BY APPLETON, NATIONAL, STEEL CITY, RACO OR APPROVED EQUAL. PLASTIC BOXES SHALL BE ALLIED, NELCO, CARLON, OR EQUAL. ALL ELECTRICAL BOXES MUST BE ACCESSABLE AFTER CERTIFICATE OF OCCUPANCY.

6. THRU-FEEDS: MAINTAIN THRU-FEEDS ON ALL ELECTRICAL DEVICES AT C.O.

GENERAL ELECTRICAL NOTES

CONTRACTOR SHALL VERIFY ALL REQUIREMENTS FOR TELEPHONE AND POWER SERVICES WITH RESPECTIVE UTILITY COMPANIES PRIOR TO SUBMITTING THE BID. IF THEIR REQUIREMENTS ARE AT A VARIANCE WITH THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL INFORM THE ARCHITECT IMMEDIATELY. ALL COSTS INCURRED WITH THE UTILITY COMPANIES FOR SERVICES SHALL BE INCLUDED IN THE BID PRICE. IF SUCH COSTS ARE NOT AVAILABLE AT BID TIME, THE CONTRACTOR SHALL INCLUDE WITH BID, A LETTER FROM A RESPONSIBLE PARTY WITH THE UTILITY COMPANY STATING SUCH, AND COSTS WILL THEN BE EXCLUDED FROM THE BID PRICE.

THIS CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS FOR MECHANICAL EQUIPMENT FROM MANUFACTURERS RECOMMENDATIONS PRIOR TO ROUGHING IN CONDUIT SIZE, WIRE SIZE AND CIRCUIT PROTECTION SIZE ACCORDINGLY. IF REQUIREMENTS ARE LARGER THAN CALLED FOR ON THE ELECTRICAL PLANS, NOTIFY THE ARCHITECT IMMEDIATELY.

CONTRACTOR SHALL VISIT THE SITE OF THE WORK PRIOR TO SUBMITTING BID TO EXAMINE CAREFULLY LOCAL CONDITIONS AND DIFFICULTIES TO BE ENCOUNTERED. ANY DISCREPANCY BETWEEN PLANS AND EXISTING CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

COMPLIANCE STATEMENT

ELECTRICAL SHALL COMPLY WITH ALL PROVISIONS OF THE 2017 NEC, NFPA 70 AND OTHER APPLICABLE CODES AND ORDINANCES.

CLARIFICATION NOTES

ALL GENERAL PURPOSE RECEPTACLES WITHIN 6 FEET OF A SINK SHALL BE GFCI PROTECTED. ALL 125V SINGLE PHASE EQUIPMENT RECEPTACLES TO BE GFCI PROTECTED ON GFCI BREAKER CIRCUIT.

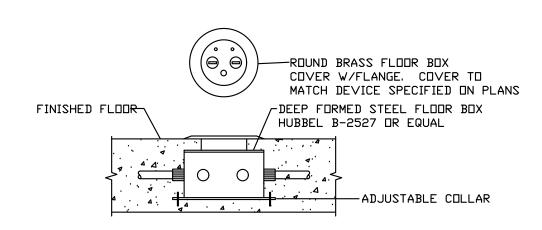
VOLTAGE DROF

THE PLANS REFLECT SYSTEM VOLTAGES DROP AS PER FBC ENERGY CONSERVATION 2020 SIXTH C405.6.3. FEEDER CONDUCTORS ARE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2 PERCENT AT DESIGN LOAD. BRANCH CIRCUIT CONDUCTORS ARE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3 PERCENT AT DESIGN LOAD.

FLECTRICAL NOTES

ALL ELECTRICAL WIRING EXPOSED TO VIEW IN EMT
ALL ELECTRICAL IN CONDUITS, ARMORED CABLE OR BLUE CARLON CONDUIT
ALL 110V EQUIPMENT RECEPTACLES MUST BE GFCI PROTECTED PER NEC 210.8(B)(2).
ALL CONDUITS RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL FRAMING.
ALL LO-VOLT WIRING BY OTHERS UNDER SEPARATE PERMIT.

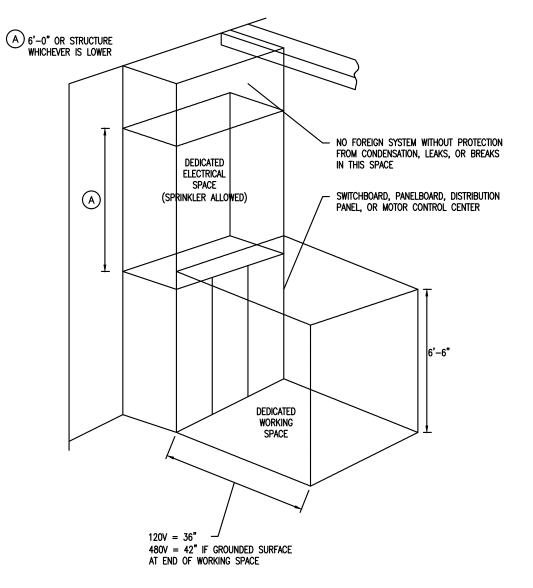
INCREASE WIRE SIZES FOR RUNS OVER 100' PER NEC 2017.



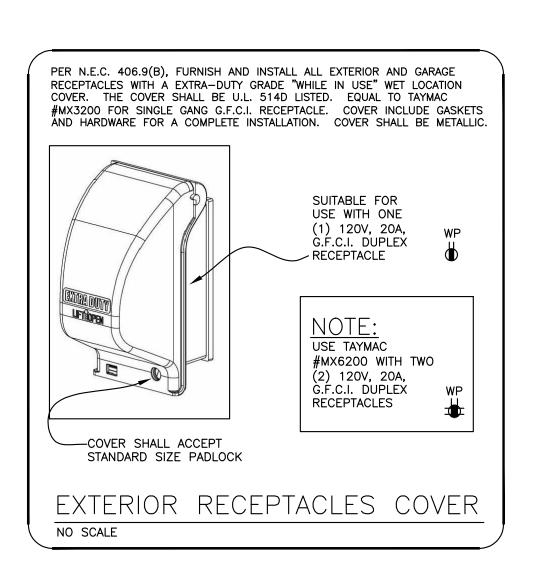
IN-FLOOR JUNCTION/OUTLET

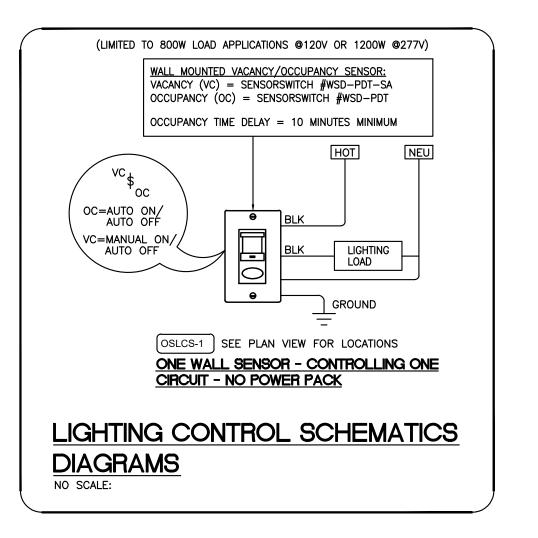
BOX DETAIL

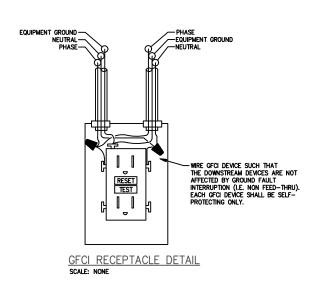
NOT TO SCALE

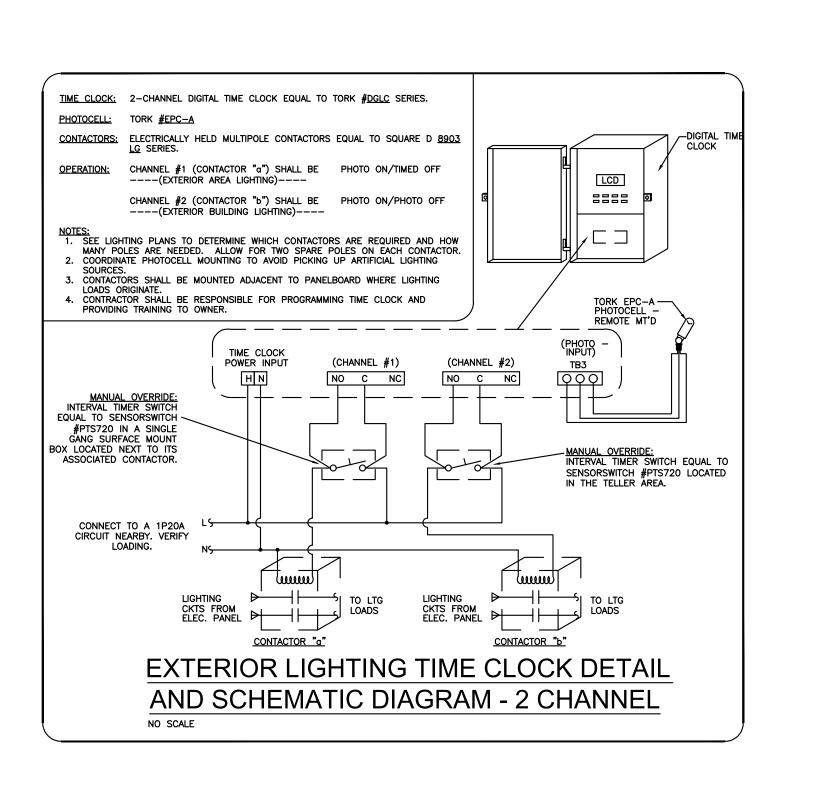


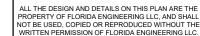
WORKING SPACE DETAIL











IGN AS SHOWN ON THESE ESIGN & SUPPORT 2020 7TH EDITION FLORIDA ON DOES NOT INCLUDE ROOF HE TRUSS DESIGN ENGINEER IS PLAN HAVE BEEN THE 2020 7TH EDITION PPLEMENTS.

DRD, THAT THE BUILDING DESIGN AS 3 I AND AS ACCOMPANIED BY DESIGN & JMENTS CONFORMS TO THE 2020 7TH DING CODE. THIS CERTIFICATION DOE SS COMPONENTS OF WHICH THE TRUISE ENGINEER OF RECORD. THIS PLAN PARED IN COMPLIANCE WITH THE 2020 RIDA BUILDING CODE WITH SUPPLEME TAMIAMI TRAIL UNIT 101,



33947 FLOR

> ROLONDA WEST ASSUCIA 646 ROTONDA CIRCLE, ROTONDA WEST

PROJECT NAME

& ADDRESS:

W. Descri

No.
Description
Date

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DRAWN BY:
JPP

PROJECT NO:
22 200 24

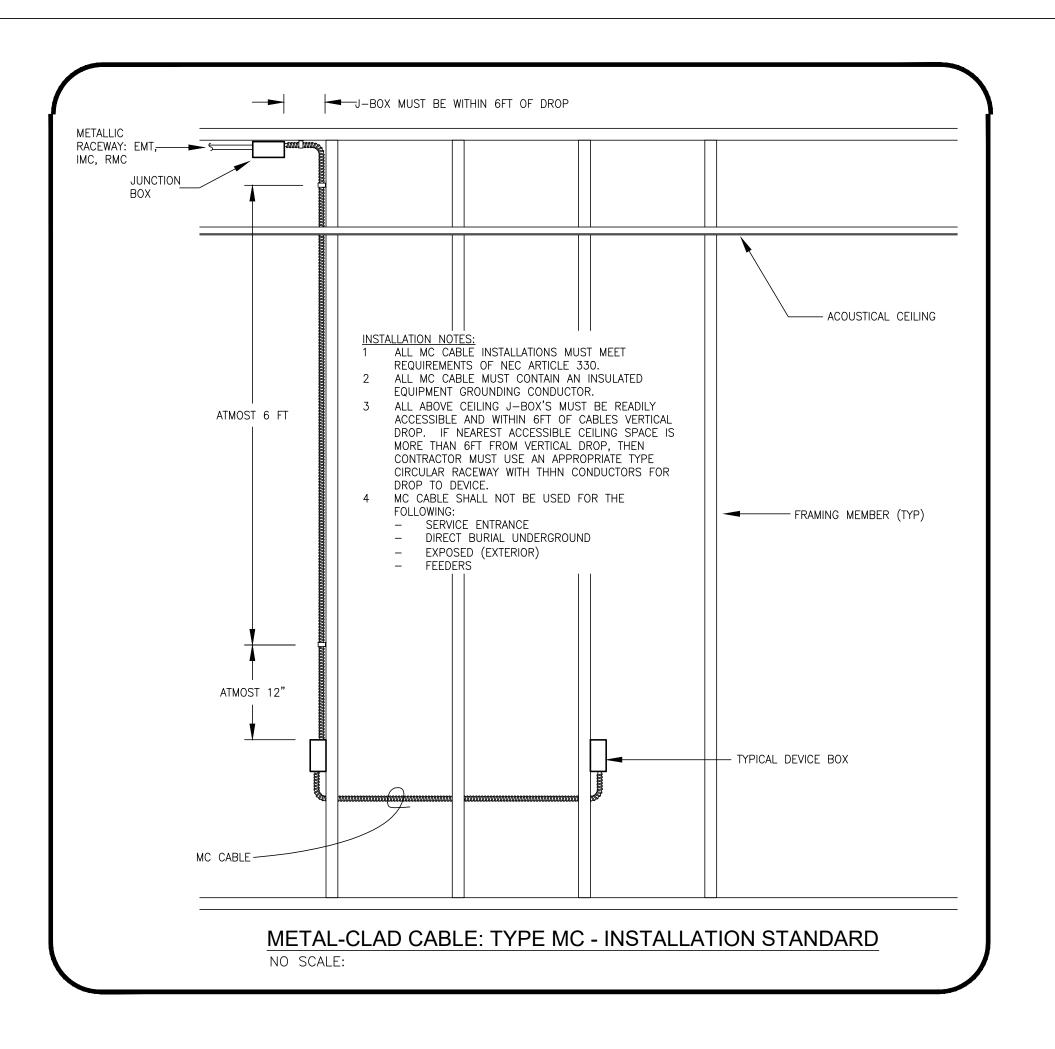
SCALE:
As indicated

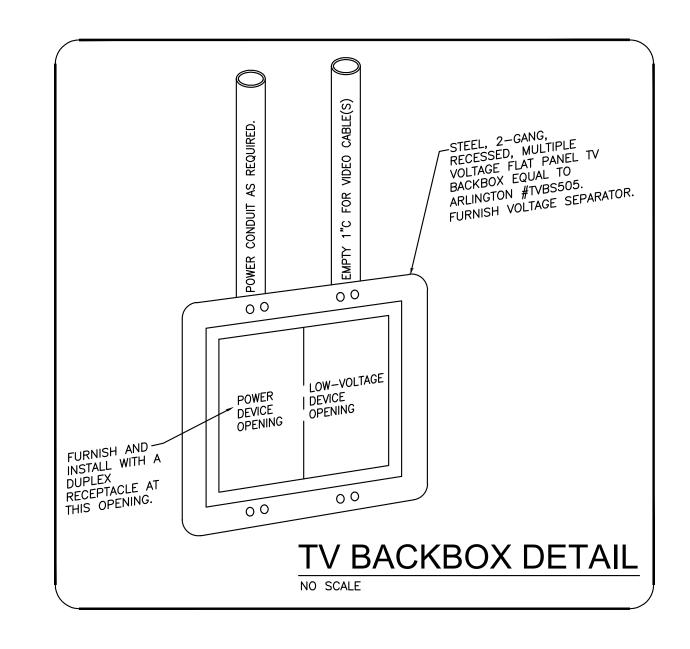
ELECTRICAL

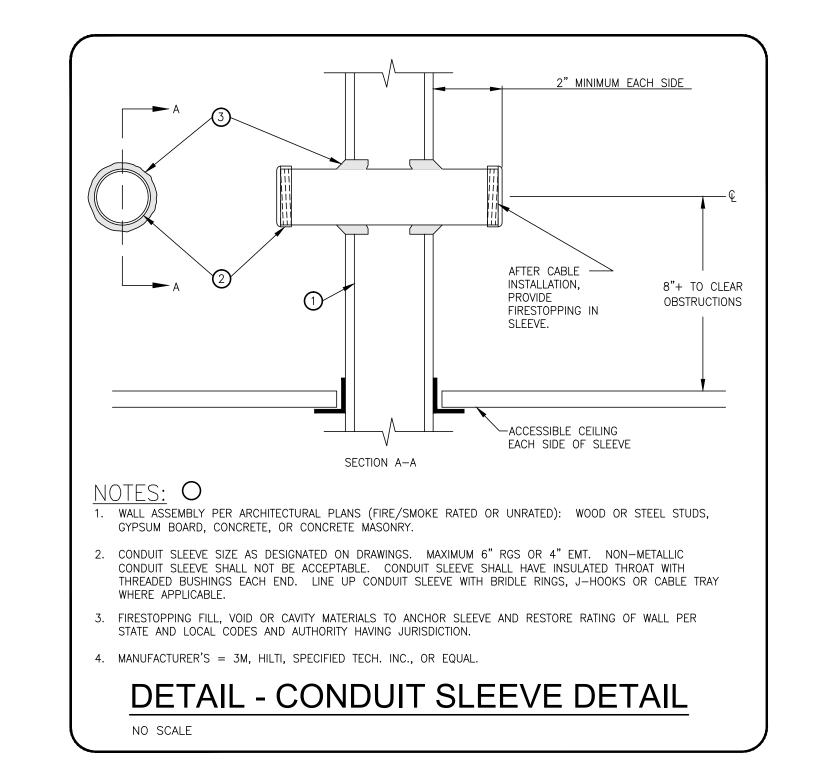
DETAILS

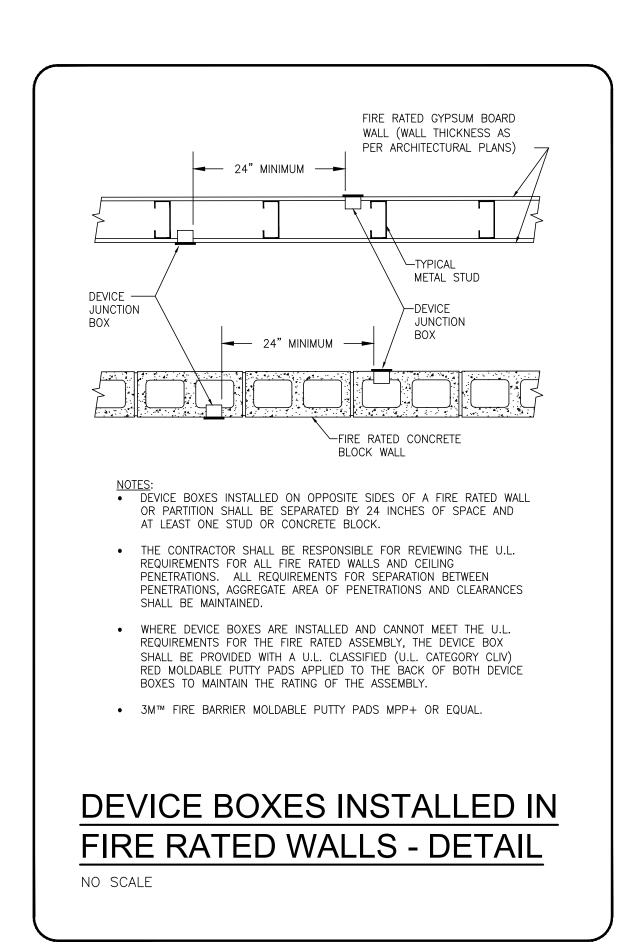
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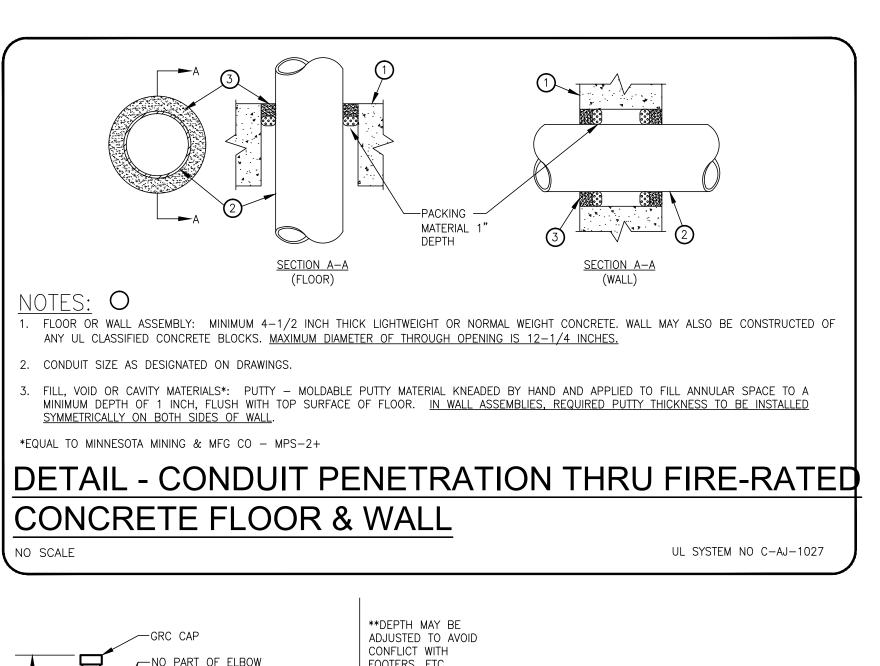
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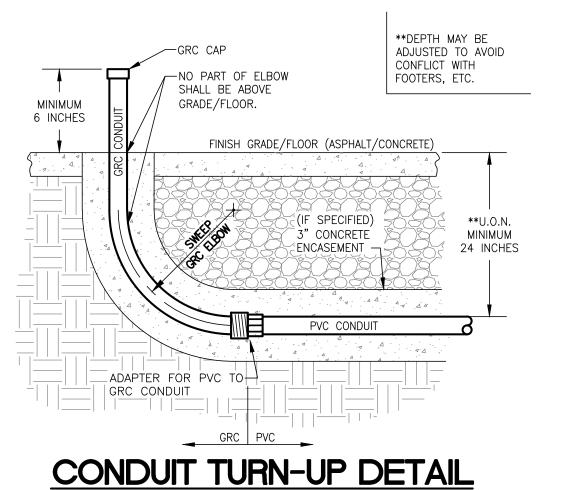


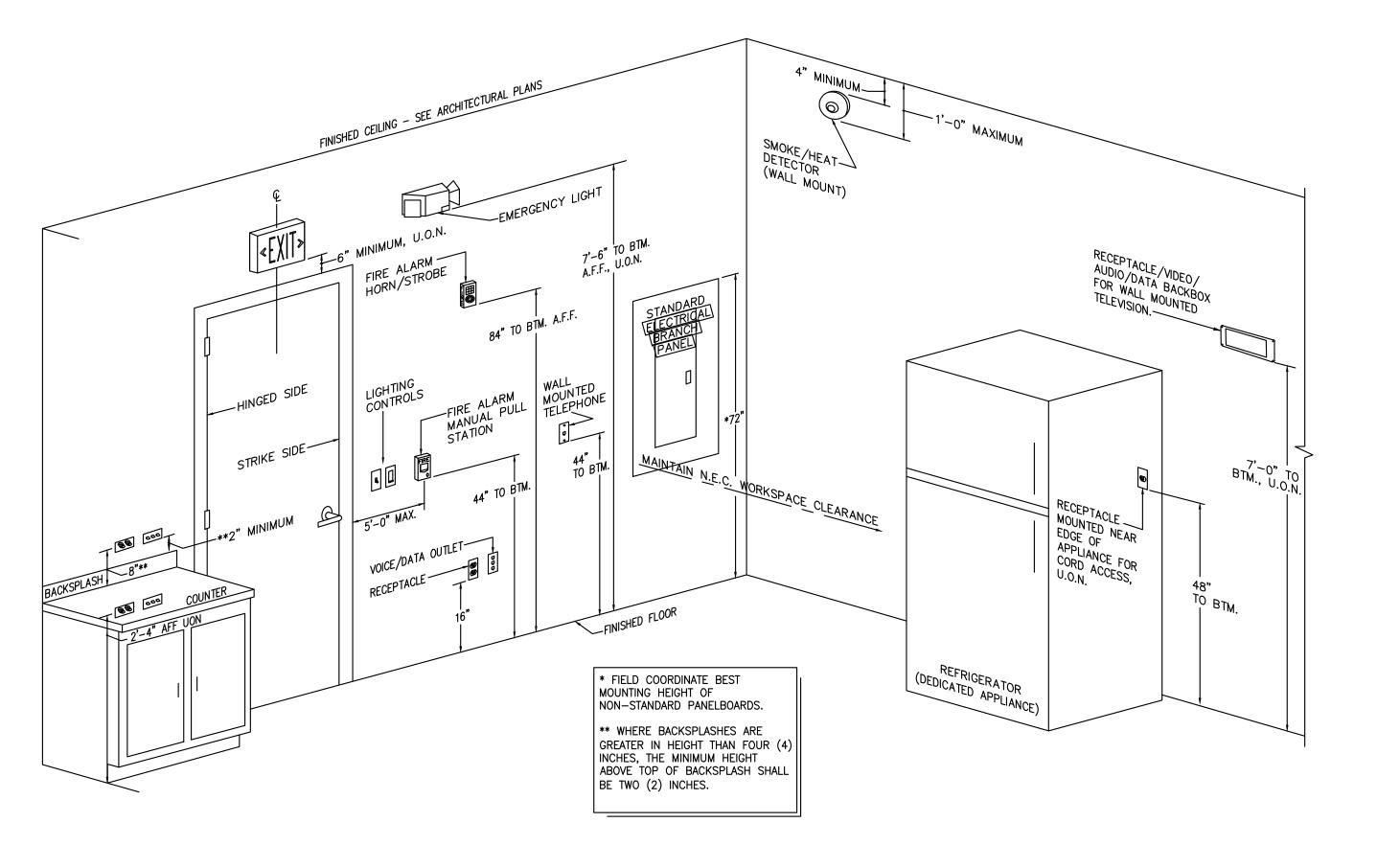












TYPICAL DEVICE INSTALLATION REQUIREMENTS

SEE NFPA 72 AND A.D.A. FOR ADDITIONAL REQUIREMENTS

ALL THE DESIGN AND DETAILS ON THIS PLAN ARE THE



3394

No. Description Date

DRAWN BY:

PROJECT NO:

SCALE: SHEET TITLE:

ELECTRICAL DETAILS

SHEET NUMBER:

COMPLIANCE STATEMENT

DESIGN CRITERIA, APPLICATION CODES, REGULATIONS & STANDARDS FOR THE LIFE SAFETY PLAN SHALL COMPLY WITH ALL PROVISIONS OF THE NFPA & 101 CODE, OTHER APPLICABLE CODES AND ORDINANCES.

APPLICABLE CODES:

2020 FLORIDA BUILDING CODE , 7th EDITION 2020 FLORIDA BUILDING CODE , 7th EDITION, BUILDING 2020 FLORIDA BUILDING CODE, 7th EDITION, EXISTING BUILDING 2020 FLORIDA BUILDING CODE, 7th EDITION, MECHANICAL 2020 FLORIDA BUILDING CODE, 7th EDITION, PLUMBING 2020 FLORIDA BUILDING CODE, 7th EDITION, ACCESSIBILITY CODE 2020 FLORIDA BUILDING CODE, 7th EDITION, ENERGY CONSERVATION 2017 NATIONAL ELECTRIC CODE, NFPA 70 2018 NFPA 1 CODE / FFPC 7TH EDITION 2018 NFPA 101-LIFE SAFETY CODE

LIFE SAFETY CODE COMPLIANCE

LIFE SAFETY CODE: 2020

MEANS OF EGRESS SHALL COMPLY WITH CHAPTER 7 AND CHAPTER 39

LIFE SAFETY-MEANS OF EGRESS CHAPTER 39.2 GROUP B

CONSTRUCTION TYPE: V-B

OCCUPANT LOAD FACTOR TABLE 7.3.1.2

OCCUPANCY TABLE - NFPA 101TABLE 7.3.1.2					
ROOM	AREA	OCCUPANT FACTOR	OCCUPANCY		
CONFERENCE ROOM	336	150	3		
STORAGE	158	300	1		
OFFICE	143	150	1		
OPEN OFFICE	847	150	6		
TOTAL OCCUPANT LOAD 11					

COMMON PATH LIMIT - ACTUAL: 15'-0" MAX DEAD END LIMIT - ACTUAL: 0'-0" TRAVEL DISTANCE - ACTUAL: 62'- 0" MAX

(COMPLIES) MAXIMUM 75 ft. (COMPLIES) MAXIMUM 20 ft. (COMPLIES) MAXIMUM 200 ft.

SECTION 906 FBC

PORTABLE FIRE EXTINGUISHER CALC: MAX 1500 S.F. PER UNIT (1621 S.F. / 1,500 = 3.25 = 1) # OF FIRE EXTINGUISHERS REQUIRED: 1

OF FIRE EXTINGUISHERS PROVIDED: 1

MAX DISTANCE BETWEEN: 50'

* SEPARATE PERMIT REQUIRED FOR FIRE SPRINKLER SYSTEM MODIFICATIONS. - PERMIT BY OTHERS

* SEPARATE PERMIT REQUIRED FOR FIRE ALARM SYSTEM MODIFICATIONS. - PERMIT BY OTHERS

LIFE SAFETY NOTES

- * MINIMUM 36" DOOR LEAF AS REQUIRED FOR EXIT
- * EXITS SHALL BE MARKED BY AN APPROVED SIGN AND READILY
- VISIBLE FROM ANY DIRECTION OF EXIT ACESS * EMERGENCY LIGHTING SHALL BE PROVIDED
- * ONE PORTABLE FIRE EXTINGUISHER TO BE PROVIDED FOR EVERY
- 1500 SF OF FLOOR AREA OR PORTION THEREOF

H.C. COMPLIANCE NOTES

CHANGES IN LEVEL AT DOOR THRESHOLDS BETWEEN 1/4" AND 1/2" EDGE SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2 WITH MAXIMUM 1/2" THRESHOLD. DOOR CLEARANCES FOR FRONT APPROACH & PULL SIDE, PROVIDE 18" BEYOND LATCH SIDE OF DOOR, 60" PERPENDICULAR TO DOOR WAY. DOOR HANDLES, PULLS, LATHES, LOCKS AND OTHER OPERATING DEVICES SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. CONTRACTOR TO PROVIDE ALL HANDICAPPED TOILET FIXTURES AND ACCESSORIES PER CODE, CONTRACTOR TO MAINTAIN 60" DIAMETER CLEARANCE MINIMUM TO ALL FINISH SURFACES WHERE INDICATED ON THE DRAWINGS.

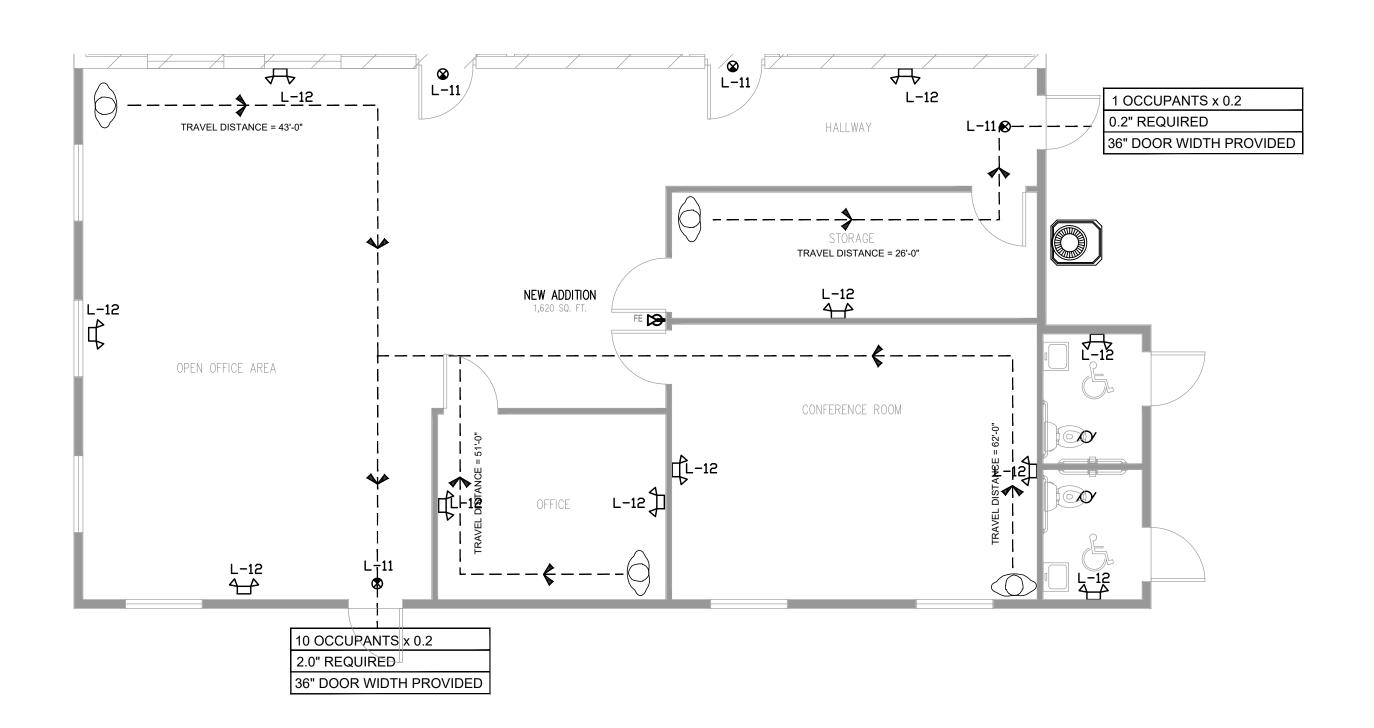
LIFE SAFETY LEGEND

DIRECTION OF TRAVEL



	ELECTRICAL LIGHTING	DEVICE	SCHEDULE	•	
	DEVICE	ELECT	RICAL DATA	BASIS OF	DESIGN*
MARK	DESCRIPTION	VA	VOLT	MANUFACTURER	MODEL OR SERIES
L-7	6" CAN LIGHT	12	UNIV	COMMERCIAL ELEC	CAT71
L-10	EXTERIOR WALL PACK LIGHT FIXTURE	40	UNIV	WILLIAMS	WPTZ-L38-UNV
L-11	UNIVERSAL MOUNTED EXIT SIGN	5	UNIV	WILLIAMS	EXIT-R-EM-WHT
L-12	UNIVERSAL MOUNTED DUAL EMERGENCY HEAD LIGHT	5	UNIV	WILLIAMS	EF43D

* OR SIMILAR MANUFACTURER/MODEL OR SERIES



LIFE SAFETY PLAN 3/16" = 1'-0"

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3394

No. Description Date

DRAWN BY:

PROJECT NO: 22 200 24

SCALE: As indicated SHEET TITLE:

LIFE SAFETY PLAN

SHEET NUMBER:

LS-100

	MIN. REQUIRED PER TA	ABLE AN	SI/ASHRA	E STAN	NDARD	62.1	& 62.2		
SPACE NAME	OCCUPANCY CLASSIFICATION	SF	KNOWN OCCUPANT	RP	RA	EX	REQ. OA (CFM)	REQ. EX (CFM)	PROVIDED BY
CONFERENCE ROOM	OFFICE SPACE	336	3	5	0.06	_	36.0	_	AHU-1
OFFICE	OFFICE SPACE	143	1	5	0.06	_	14.0	_	AHU-1
OPEN OFFICE AREA	OFFICE SPACE	847	9	5	0.06	_	96.0	_	AHU-1
HALL	OFFICE SPACE	137	1	5	0.06	_	14.0	_	AHU-1
STORAGE	STORAGE	158	1	5	0.06	_	15.0	_	AHU-1
TOILET ROOM-PUBLIC	TOILET ROOM-PUBLIC	_	_	_	_	50/70*	_	140	EF-1
	TOTAL						175.0	140	

* RATES ARE PER WATER CLOSET OR URINAL. THE HIGHER RATE SHALL BE PROVIDED WHERE THE EXHAUST SYSTEM IS DESIGNED TO OPERATE INTERMITTENTLY. THE LOWER RATE SHALL BE PERMITTED ONLY WHERE THE EXHAUST SYSTEM IS DESIGNED TO OPERATE CONTINUOUSLY WHILE OCCUPIED

- NOTES:

 * COORDINATE LOUVERS LOCATION WITH ARCHITECTURAL ELEVATIONS.
- * CONTRACTOR TO LOCATE ALL PROGRAMMABLE THERMOSTAT PER 308.1 GENERAL. FBC-A 7TH EDITION:
- THERMOSTAT REACH RANGES SHALL COMPLY WITH TABLE 308 (48") * COORDINATE HVAC DUCTS WITH INTERIOR DESIGN PLAN
- * DUCT SMOKE DETECTOR CONNECTED TO FIRE ALARM SYSTEM
- * ALL DUCT INSIDE DIMENSIONS AS NOTED

SEE M-20	FOR EXHAUST FAN, AHU, CU DETAILS

			AIR	BALANCE S	CHEDULE			
			С	.A PROVIDED				
UNIT	HVAC SUPPLY	HVAC RETURN	HVAC OA MIN REQ.	HVAC OA BALANCE	TOTAL O.A	EXHAUST	GENERAL	AREA SERVED
ONT	DESIGN	DESIGN	DESIGN	DESIGN	PROVIDED	DESIGN	DESIGN	ARLA SLIVED
AHU-1	2000	1825	175		175			OFFICE/ASSE
EF						140		
TOTAL	2000	1825	175	0	175	140		
						TOTAL	35	BUILDING PRESSURE

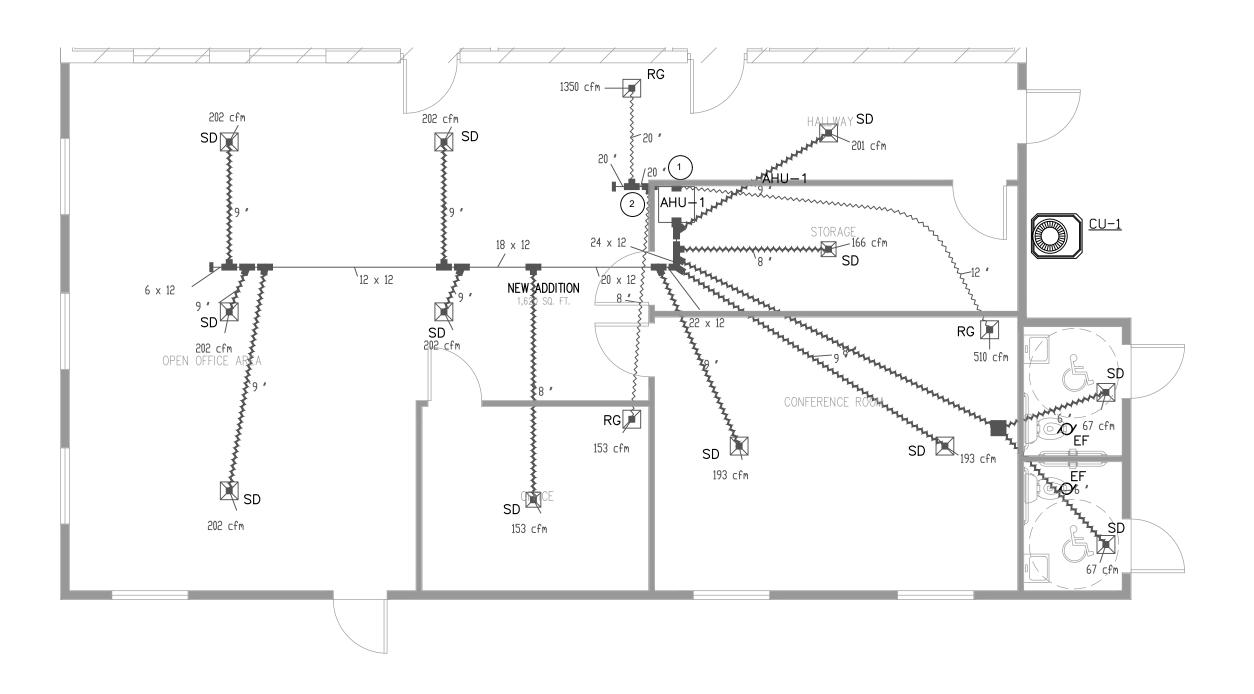
	NOTES LEGEND								
	1	8" O.A DUCT. SEE DETAILS ON SHEET M-201							
	2	3/4" DEDICATED CONDENSATION DRAIN. CONNECT TO DOWNSPOUT (INDIRECT CONNECTION)							
	3	NOT USED							
	4	NOT USED							
	5	NOT USED							
٠									

	MECHANICAL AIR HANDLER UNIT (ELECTRIC HEAT) SCHEDULE									
		FLOW RATE	ELECTRICAL DATA			ELECTRIC HEATING	DACIC OF DECION*			
TAG	TON	SUPPLY	MCA	моср	VOLTAGE	COIL	BASIS OF DESIGN*		WEIGHT	NOTES
		CFM	AMPS	AMPS	VOLIAGE	KW	MANUFACTURER	MODEL	LBS	
AHU-1	5	2,000	54.0	60	240/1/60	10	CARRIER	FX4DNF061	201	

_															
					MECHANICAL	CON	NDEN:	SING U	INIT (A	R COOLED)	SCHEDULE				
	TAG	CAPACITY	TOTAL	FAN DATA	COMPRESSO	R DA	.TA	ELF	ECTRICA	AL DATA	BASIS OF DESIGN*		WEIGHT		
				FAN	COMPRESSOR	LO	AD	MCA	МОСР	VOLTAGE	BASIS OF L	JESIGN	WEIGHT 	SEER	NOTES
		TONS	MBH	QTY	QUANTITY	FLA	LRA	AMPS	AMPS	VOLIAGE	MANUFACTURER	MODEL	LBS		
	CU-1	5	60	1	1	2.9	153	32.4	50	208/1/60	CARRIER	24ABC660	280	16	

		MECHANICA	L AIR TERMINAL	DEVICES SCHEE	DULE	
TAG	SIZE	DESCRIPTION	CONSTRUCTION	BASIS	NOTES	
IAG	SIZE	DESCRIPTION	FINISH	MANUFACTURER	MODEL OR SERIES	NOTES
SD	12 X 12	SQUARE PLAQUE	ALUMINUM	PRICE	ASPD	OR SIMILAR
RG	PER PLAN	SINGLE DEFLECTION	ALUMINUM	PRICE	630	OR SIMILAR

* OR SIMILAR MANUFACTURER WITH THE SAME PERFORMANCE/SPECS



SEPARATE PERMITS REQUIRED ALL FIRE PROTECTION SYSTEMS, FUEL, GAS, SIGNAGE AND OTHER BUILDING COMPONENTS REQUIRED BY LOCAL BUILDING AND FIRE AUTHORITIES TO BE INSTALLED OR MODIFIED VIA SEPARATE PERMIT, AND WHICH ARE AFFECTED BY THE WORK PROPOSED HEREIN, SHALL BE DULY INSTALLED OR MODIFIED ONLY THROUGH SEPARATE PERMIT AUTHORIZATION FROM THE AUTHORITY(S) HAVING JURISDICTION.

SYMBOL LEGEND:

 DUCT SMOKE DETECTOR SD — SUPPLY DIFFUSER RG — RETURN GRILLE TG — TRANSFER GRILLE

EF — EXHAUST FAN (EF-X) 70 CFM OCCUPANCY LIGHT SWITCH OPERATED, UNLESS NOTED OTHERWISE.

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33947

No. Description Date

DRAWN BY:

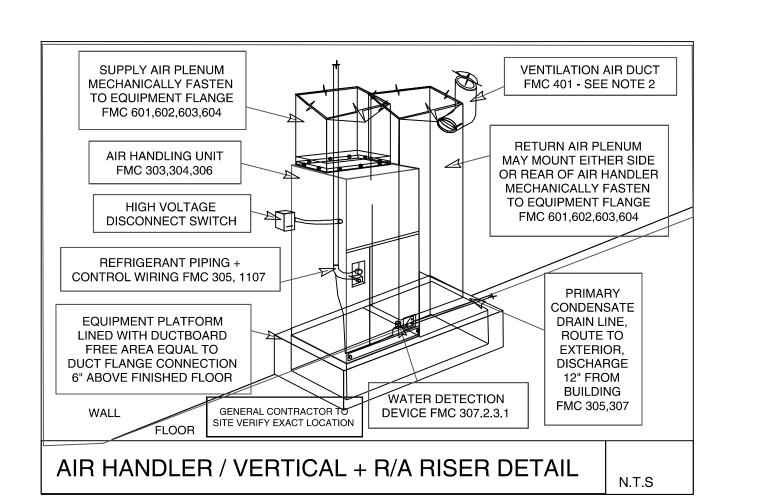
PROJECT NO: SCALE: As indicated

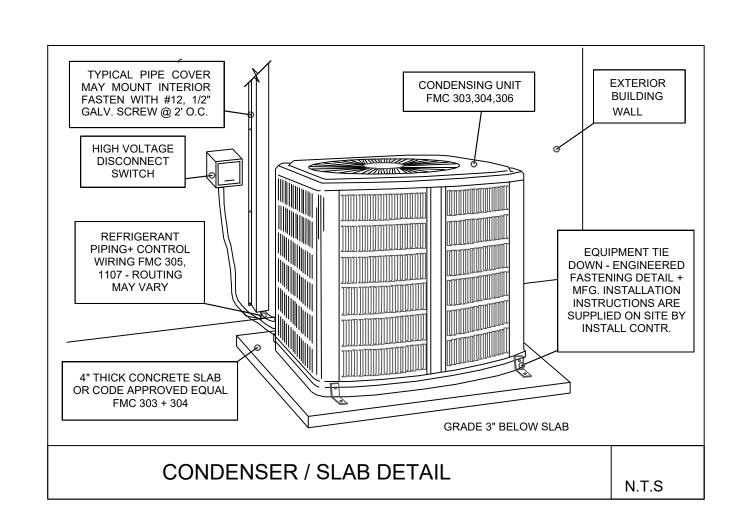
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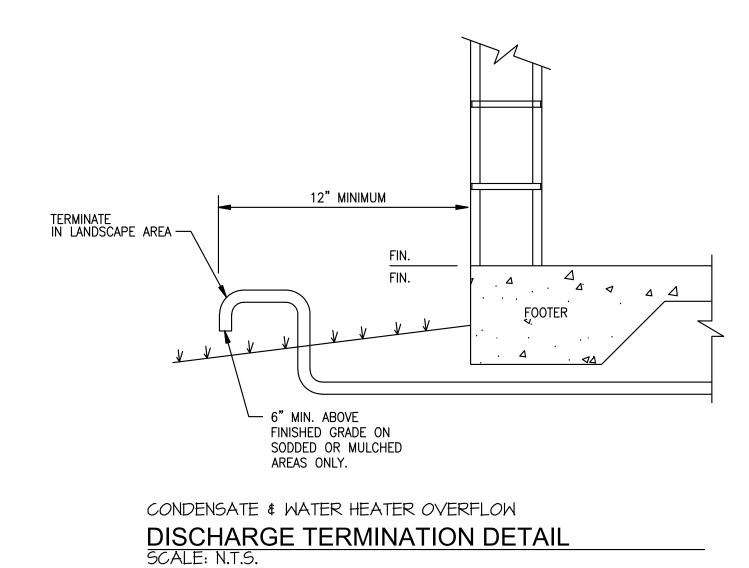
MECHANICAL PLAN

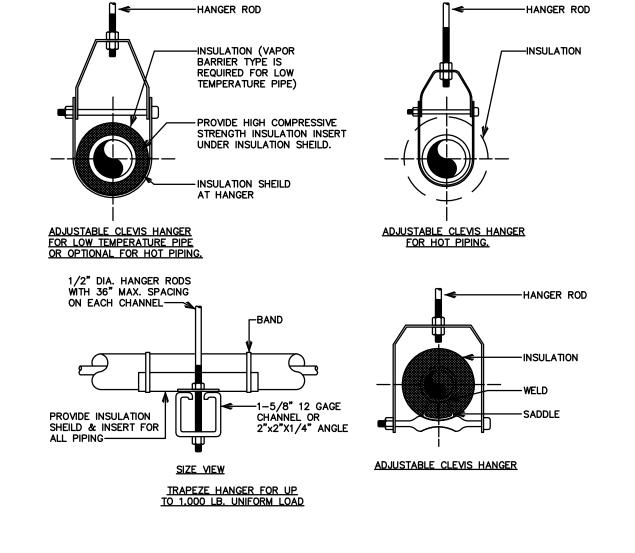
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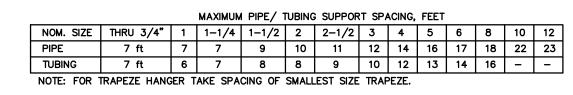
M-100

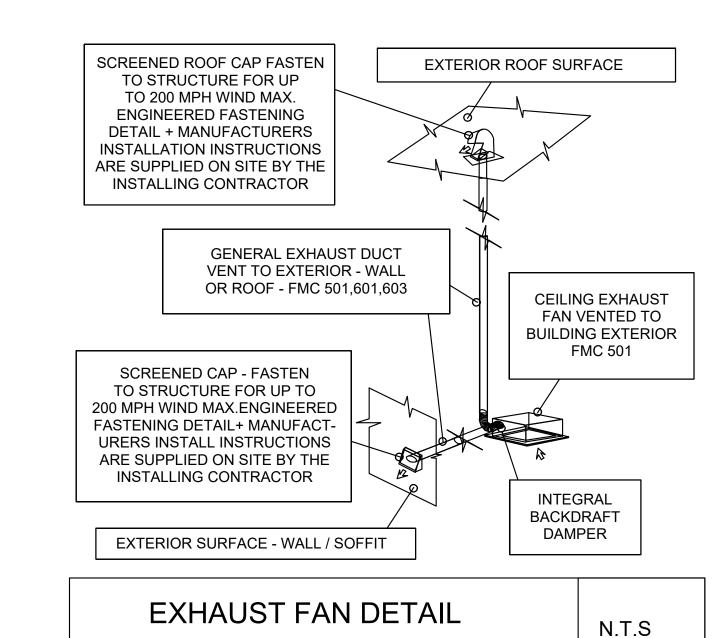


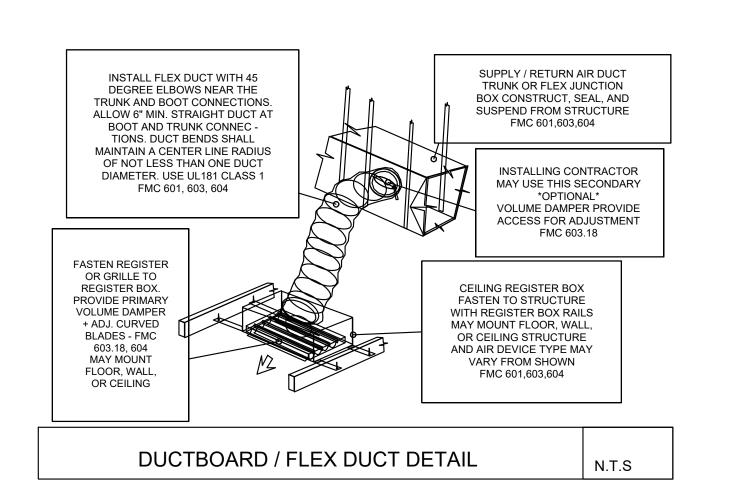


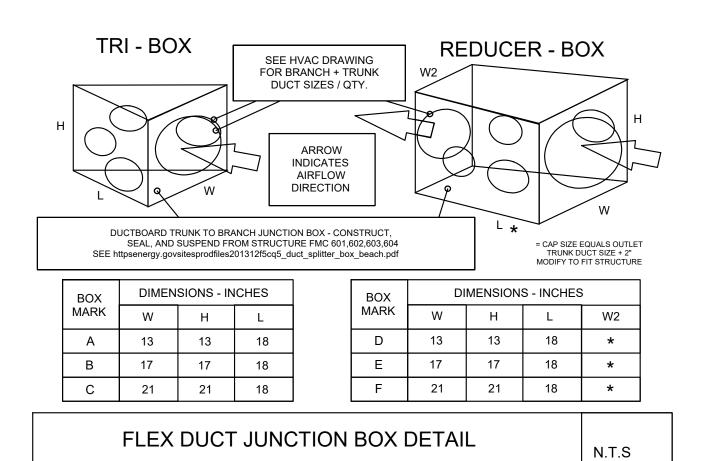


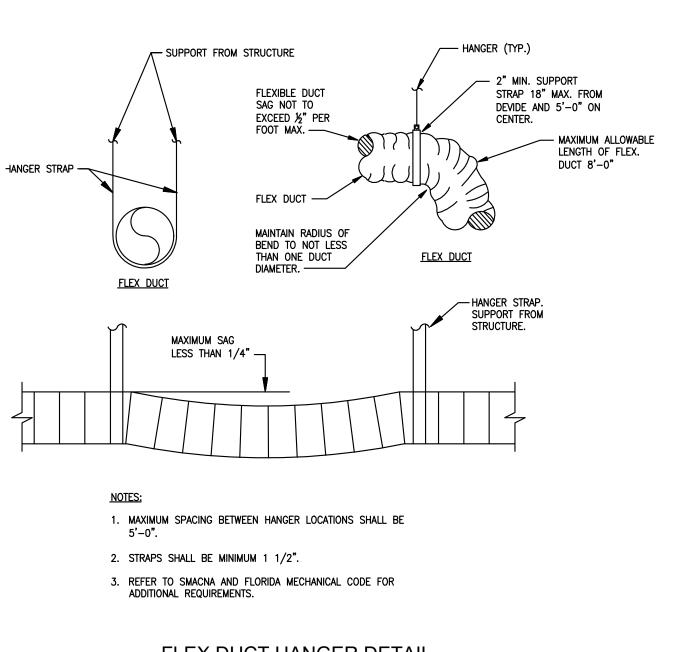




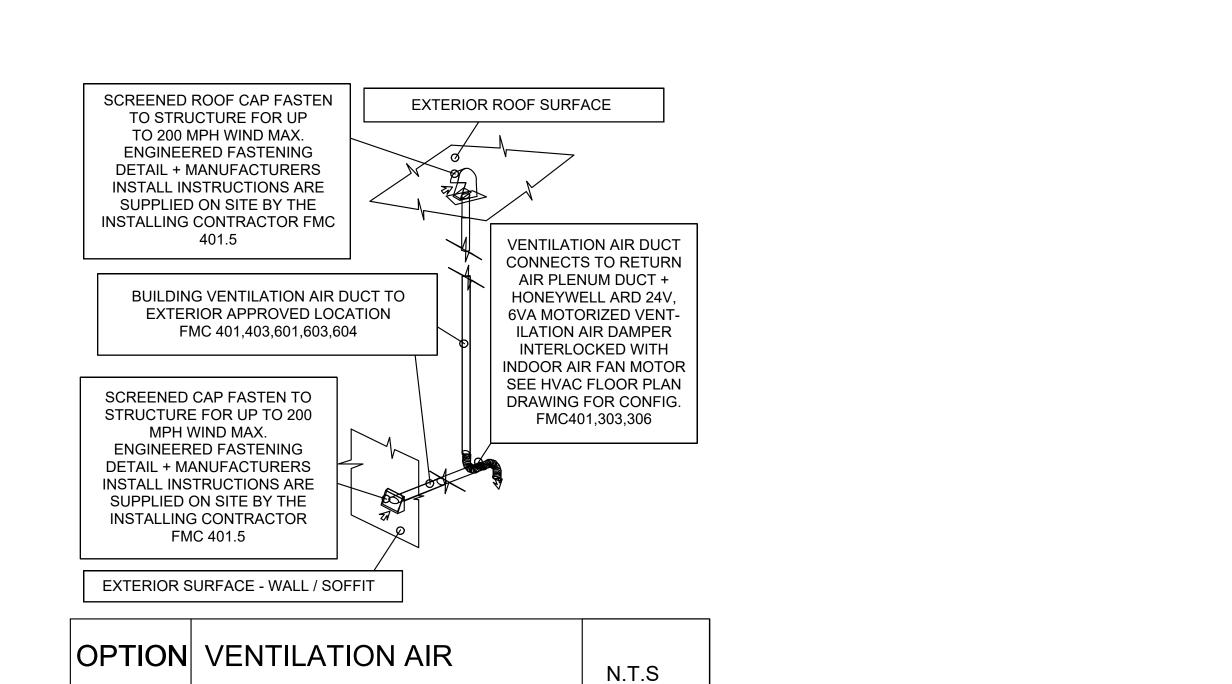








FLEX DUCT HANGER DETAIL	
SCALE: N.T.S.	





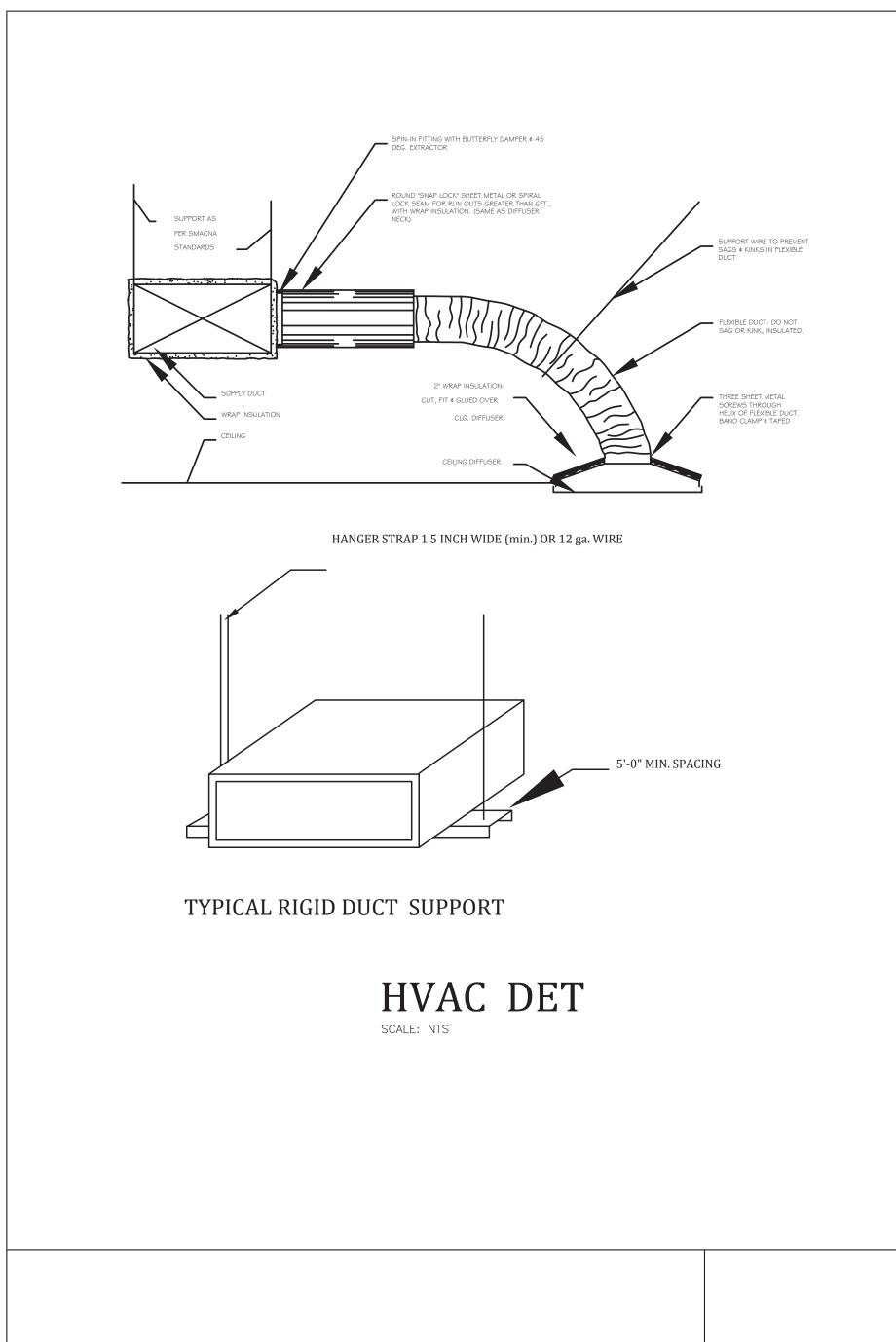
3394

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No. Description Date DRAWN BY: PROJECT NO: SCALE: As indicated SHEET TITLE:

MECHANICAL DETAILS

SHEET NUMBER: M-200



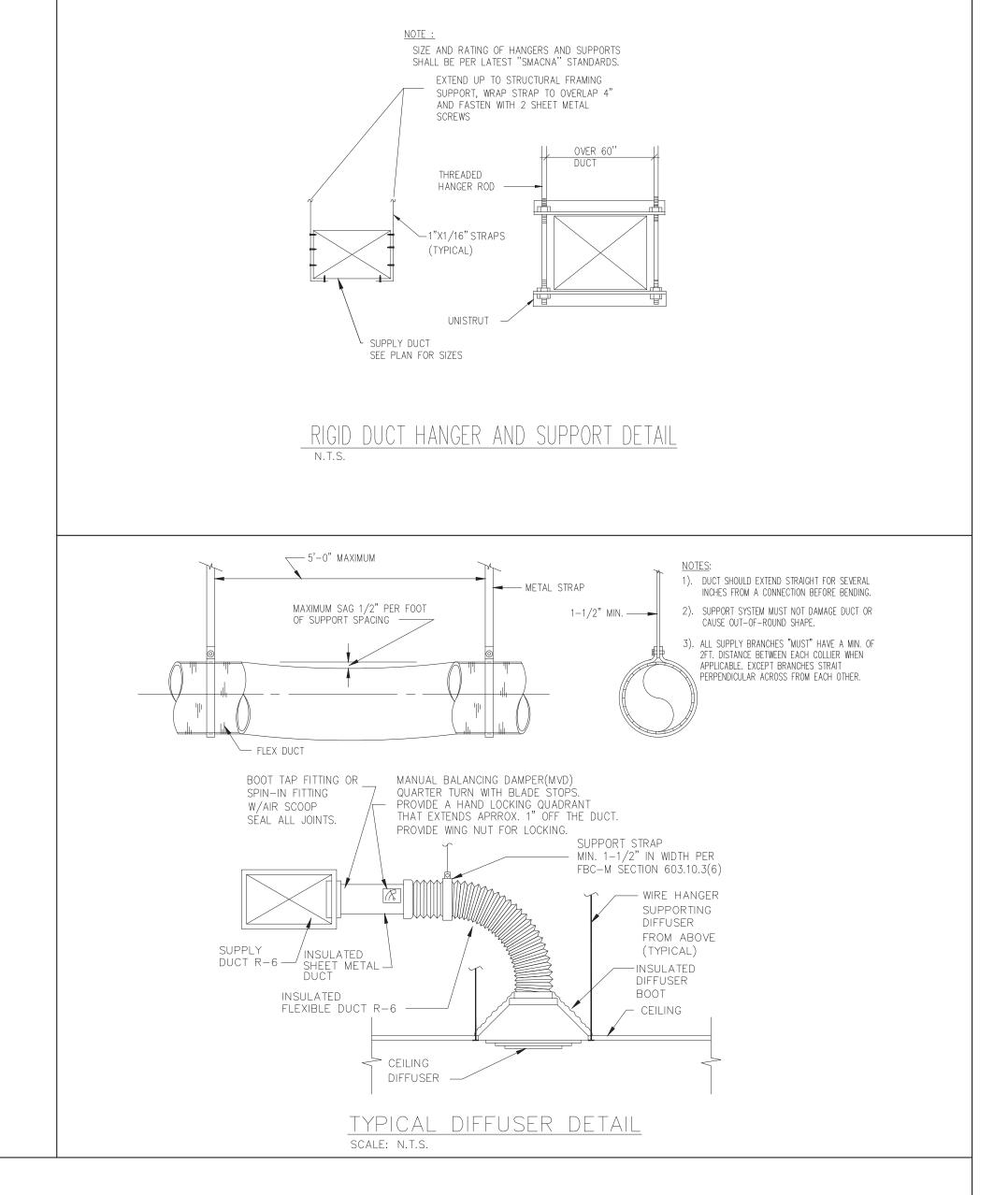
_ 1 1/2" STRAP @ 5' O.C. MAX

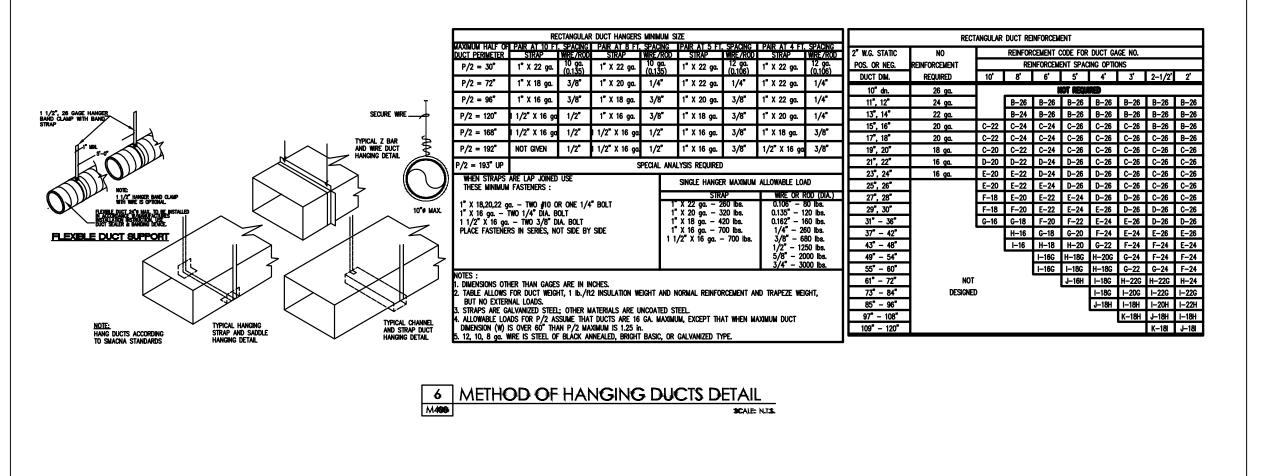
INSULATED FLEX DUCT

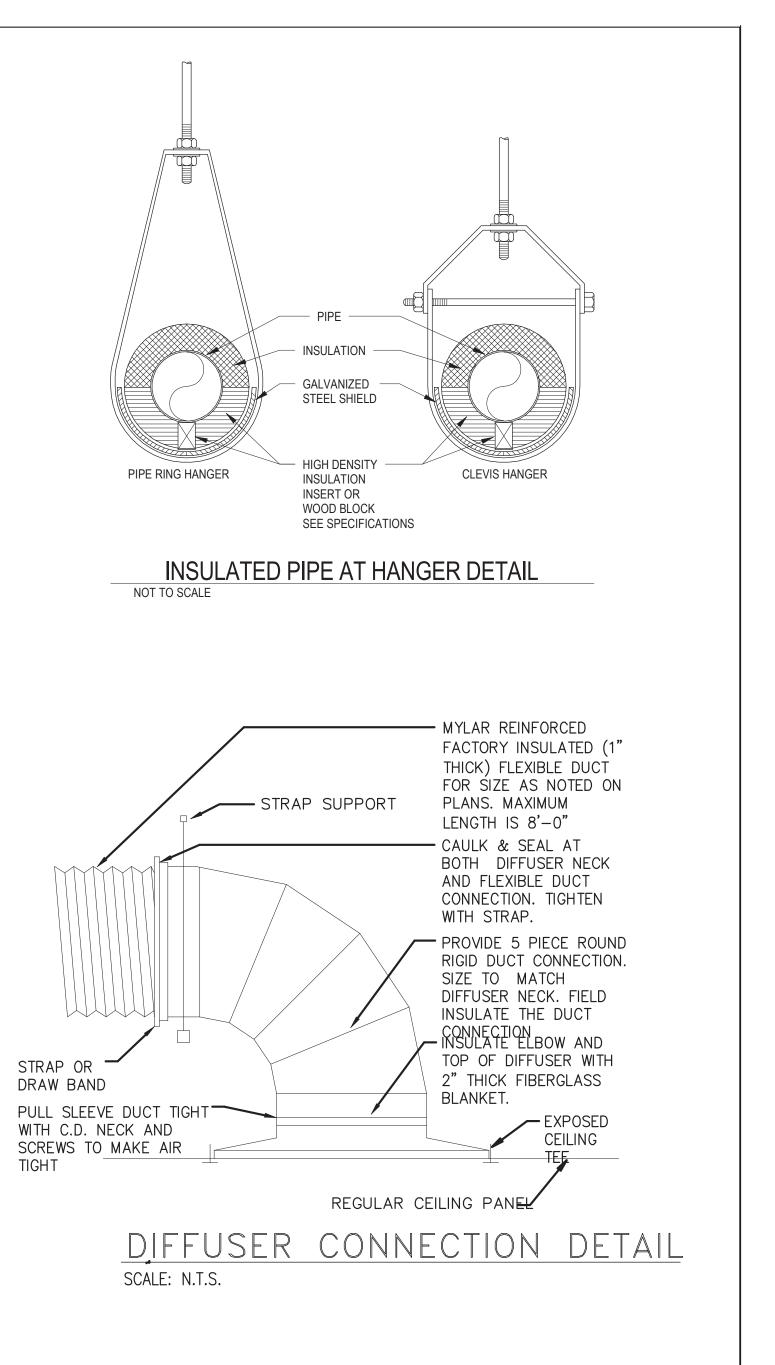
12 GA WIRE

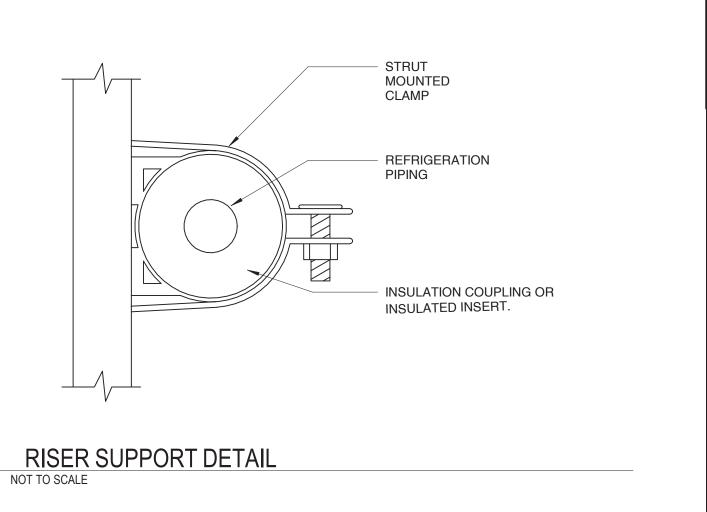
HANGER (TYP.)

TYPICAL FLEX DUCT SUPPORT









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3394

ROTONDA W

No. Description Date DRAWN BY:

PROJECT NO: SCALE: As indicated

SHEET TITLE:

MECHANICAL DETAILS

SHEET NUMBER: M-201 THE GENERAL MECHANICAL SPECIFICATIONS APPLY TO THE WORK SPECIFIED IN THIS SECTION. PROVIDE ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED FOR THE FABRICATION, INSTALLATION, AND/OR RENOVATION OF MECHANICAL SYSTEMS INCLUDING HEATING, VENTILATING, AIR CONDITIONING AND MISCELLANEOUS SYSTEMS AS INDICATED IN DESIGN DRAWINGS AND AS OUTLINED IN THESE SPECIFICATIONS.

SCOPE OF WORK:

FURNISH AND INSTALL COMPLETE AIR CONDITIONING SYSTEMS AS INDICATED ON THE DESIGN DRAWINGS AND AS OUTLINED WITHIN THESE SPECIFICATIONS. WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FABRICATION AND/OR INSTALLATION OF THE SCHEDULED AIR CONDITIONING UNITS, EXHAUST FANS, AIR DISTRIBUTION AND DUCTWORK.

CLEANING, TESTING AND ADJUSTING:

THE MECHANICAL CONTRACTOR, AT HIS EXPENSE, SHALL CLEAN, REPAIR, ADJUST, CHECK, BALANCE, AND PLACE IN SERVICE THE VARIOUS SYSTEMS HEREIN SPECIFIED WITH THEIR RESPECTIVE EQUIPMENT, ACCESSORIES AND PIPING. HE SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND TOOLS REQUIRED TO PERFORM TESTS REQUIRED BY THESE SPECIFICATIONS AND BY THE GOVERNING

NO WORK SHALL BE COVERED OR CONCEALED UNTIL PROPERLY INSPECTED AND TESTED.

ADJUST THE AIR CONDITIONING SYSTEMS, VENTILATING SYSTEMS, FANS, ETC., TO DELIVER NOT LESS THAN THE REQUIRED AIR QUANTITY WITH QUANTITIES IN EXCESS TO BE SUBJECT TO THE APPROVAL OF THE ENGINEER IF FOUND TO NOT HAVE OBJECTIONABLE EFFECTS SUCH AS NOISE, DRAFTS, OR MOTOR

PRIOR APPROVAL BY THE ENGINEER OF TESTING AND BALANCING CONTRACTOR IS REQUIRED. THIS CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A TEST AND BALANCE REPORT TO THE ENGINEER AT TIME OF SUBSTANTIAL COMPLETION INSPECTION. THE REPORT SHALL BE PREPARED BY A CONTRACTOR CERTIFIED BY ASSOCIATED AIR BALANCE COUNCIL OR NATIONAL ENVIRONMENTAL BALANCING

THE TEST AND BALANCE REPORT SHALL BE TYPEWRITTEN AND CONTAIN THE FOLLOWING DATA:

- 1. DATE, TIME, WEATHER, WHEN TEST TAKEN. 2. AIR CAPACITIES AT EACH UNIT INCLUDING OUTSIDE AIR. (ENTERING AND LEAVING DB/WB)
- 3. STATIC PRESSURE THROUGH UNITS AND UNIT COMPONENTS. 4. MOTOR OPERATING VOLTAGE AND AMPERAGE.
- 5. DRIVE TYPES, SIZES AND SPEED RANGE.
- 6. IDENTIFICATION OF ALL AIR TERMINAL DEVICES WITH DESIGN CFM AND ACTUAL CFM.

ADDITIONALLY, SYSTEMS DRAWING CLEARLY MARKED TO IDENTIFY LOCATION OF EQUIPMENT AND AIR DEVICES TESTED SHALL BE PROVIDED ALONG WITH THE WRITTEN TEST AND BALANCE REPORT.

MAINTENANCE MANUALS

PROVIDE COMPLETE MAINTENANCE MANUALS (3 REQUIRED) ON ALL NEW EQUIPMENT. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA INTO INDIVIDUAL, HEAVY-DUTY, 2-INCH, 3-RING VINYL COVERED BINDERS WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER. INCLUDE THE FOLLOWING TYPES OF INFORMATION. THE INFORMATION WILL BE TURNED OVER TO THE OWNER AT TIME OF SUBSTANTIAL COMPLETION:

- OPERATING AND MAINTENANCE INSTRUCTIONS
- SPARE PARTS LIST
- COPIES OF WARRANTIES
- WIRING DIAGRAMS INSPECTION REPORTS AND APPROVALS
- SHOP DRAWINGS AND PRODUCT DATA TEST AND BALANCE INFORMATION

THOROUGHLY INSTRUCT THE OWNER'S REPRESENTATIVE IN THE OPERATION OF ALL EQUIPMENT FURNISHED AND LOCATION OF ALL VALVES AND CONTROL DEVICES.

TRAIN BUILDING OWNER'S PERSONNEL DURING NORMAL WORKING HOURS ON STARTUP AND SHUTDOWN PROCEDURES, TROUBLESHOOTING PROCEDURES, SERVICING AND PREVENTATIVE MAINTENANCE SCHEDULE AND PROCEDURES. REVIEW WITH THE OWNER'S PERSONNEL, THE DATA CONTAINED IN THE OPERATING AND MAINTENANCE MANUALS. SCHEDULE TRAINING WITH OWNER, PROVIDE AT LEAST 7-DAYS PRIOR NOTICE TO ARCHITECT/ENGINEER.

HANGERS AND SUPPORTS

PROVIDE ALL NECESSARY HANGER RODS, CLAMPS AND ATTACHMENTS TO PROPERLY INSTALL AND SUPPORT DUCTWORK, PIPING AND EQUIPMENT FROM THE BUILDING STRUCTURE.

PROVIDE ANY ANGLE IRON OR UNISTRUT AND SUSPENSION RODS REQUIRED TO INSTALL EQUIPMENT, PIPING AND DUCTWORK. SUPPORTED LOADS SHALL NOT BE APPLIED TO CANTILEVERED ENDS OF UNISTRUT

ALL SUPPORTS EXPOSED TO OUTDOORS SHALL BE CLEANED, PRIMED AND PAINTED TO PREVENT

RUSTING. FINISH COLOR AS SELECTED BY OWNER. THE USE OF BALING WIRE OR PERFORATED METAL STRAPPING IS NOT ACCEPTABLE FOR SUPPORTS.

<u>WARRANTY/GUARANTEE:</u>

THE CONTRACTOR SHALL WARRANTY/GUARANTEE AND MAINTAIN THE STABILITY OF WORK AND MATERIALS AND KEEP SAME IN PERFECT REPAIR AND CONDITION FOR THE PERIOD OF ONE (1) YEAR.

DEFECTS OF ANY KIND DUE TO FAULTY WORK OR MATERIALS APPEARING DURING THE ABOVE MENTIONED PERIOD MUST BE IMMEDIATELY MADE GOOD BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE ENTIRE SATISFACTION OF THE OWNER AND ARCHITECT AND ENGINEER. SUCH RECONSTRUCTION AND REPAIRS SHALL INCLUDE ALL DAMAGE TO THE FINISH OR FURNISHING OF THE BUILDING RESULTING FROM THE ORIGINAL DEFECT OR REPAIRS THERETO.

SUBSTITUTIONS:

EQUIPMENT AND DESIGN OF SYSTEMS INDICATED ON THE DRAWINGS AND WITHIN THESE SPECIFICATIONS SHALL BE CONSIDERED AS "STANDARD OF QUALITY". NO SUBSTITUTIONS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER. ALL EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED, FREE OF DEFECTS, AS SHOWN ON THE DRAWINGS OR INDICATED IN SPECIFICATIONS.

DEVIATIONS FROM SPECIFIED EQUIPMENT AFFECTING ELECTRICAL REQUIREMENTS SHALL BE COORDINATED BETWEEN VENDOR, MECHANICAL CONTRACTOR, AND ELECTRICAL CONTRACTOR PRIOR TO SUBMITTING BIDS. FAILURE TO DO SO WILL NOT BE CAUSE FOR CHANGE OF BID AT A LATER TIME. IN ADDITION, THE MECHANICAL CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR ANY AND ALL CHANGES TO ENGINEERING PLANS REQUIRED BY AUTHORITY HAVING JURISDICTION.

SHOP DRAWINGS AND SUBMITTALS:

SUBMIT SHOP DRAWINGS AND MANUFACTURER'S DATA FOR ALL NEW EQUIPMENT FOR ENGINEER'S APPROVAL PRIOR TO PURCHASE AND/OR FABRICATION. SHOP DRAWINGS FOR EQUIPMENT REQUIRING ELECTRIC POWER OR CONTROL WIRING SHALL INCLUDE COMPLETE WIRING DIAGRAMS.

HVAC CONTRACTORS SHALL SUBMIT COMPLETE DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. SHOP DRAWINGS SHALL INCLUDE COORDINATION WITH GENERAL CONTRACTOR REGARDING EXACT OPENINGS REQUIRED IN EXTERIOR WALLS. THE DUCTWORK SHOP DRAWINGS WILL ONLY BE REVIEWED FOR COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS. DRAWINGS WILL NOT BE CHECKED FOR COORDINATION WITH OTHER TRADES OR BUILDINGS STRUCTURE. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO COORDINATE AND VERIFY ROUTING AND EXACT LOCATION OF SYSTEM COMPONENTS.

SYSTEM IDENTIFICATION:

PROVIDE IDENTIFICATION LABELS ON OR NEAR EACH PIECE OF MAJOR EQUIPMENT AND EACH OPERATION DEVICE AND DISCONNECT. LABELS SHALL BE CONSTRUCTED OF ENGRAVED PLASTIC LAMINATE SIGN OR PLASTIC EQUIPMENT MARKER PERMANENTLY SECURED TO EQUIPMENT. LETTERING SHALL BE A MINIMUM OF 1/2 INCH HIGH FOR EQUIPMENT NAME AND 3/8 INCH HIGH FOR EQUIPMENT INFORMATION.

VALVES SHALL BE TAGGED USING PLASTIC LAMINATE TAGS SECURED WITH BRASS CHAINS INDICATING THE VALVE SIZE, SERVICE AND FUNCTION.

ALL LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC., INDICATED ON THE DRAWINGS IS DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE TO THE PLANS SUBJECT TO BUILDING CONSTRUCTION AND INTERFERENCES WITH OTHER TRADES. CONTRACTOR IS RESPONSIBLE FOR ANY FIELD MEASUREMENTS REQUIRED TO PROVIDE AN APPROVED AND FUNCTIONAL INSTALLATION.

COORDINATE WITH OTHER TRADES AND FIELD-VERIFY EXISTING CONDITIONS FOR EXACT LOCATION AND ROUTING OF SYSTEMS. PROVIDE OFFSETS, TRANSITIONS AND ADAPTORS AS REQUIRED.

NOT ALL COMPONENTS REQUIRED FOR A COMPLETE INSTALLATION ARE SHOWN ON THESE DRAWINGS. REFER TO EQUIPMENT INSTALLATION INSTRUCTION, SCHEDULES AND APPLICABLE CODES FOR ADDITIONAL INFORMATION, INCLUDING REQUIRED CONNECTION LOCATIONS, TYPES AND SIZES.

PERFORM ALL WORK NECESSARY TO PREPARE THE STRUCTURE FOR THE INSTALLATION OF THE WORK. ALL HOLES, OPENINGS AND DAMAGED MATERIALS CREATED DURING CONSTRUCTION SHALL BE REPAIRED. ALL PENETRATIONS SHALL BE SLEEVED AND SEALED SO AS TO BE WATER AND AIR TIGHT.

CONDENSATE PIPE TO BE TYPE L COPPER OR SCHEDULE 40 PVC. ROUTE AS INDICATED ON PLANS. UNITS 3 TONS AND SMALLER MAY DRAIN TO GRADE, ELSE COORDINATE WITH PLUMBER TO PROVIDE HUB DRAIN(S) IN MECHANICAL ROOM AND DRYWELL(S). HVAC CONTRACTOR TO PROVIDE P-TRAP AT UNIT SIZED FOR 2" GREATER THAN UNIT STATIC PRESSURE. PROVIDE CLEANOUT AT UNIT FOR SUSPENDED HORIZONTAL AIR HANDLERS. INSULATE CONDENSATE PIPE WITH 1/2" ARMAFLEX (OR EQUAL) INSULATION RATED FOR PLENUM APPLICATION. CONDENSATE DRAIN LINE SHALL BE NOT LESS THAN THE EQUIPMENT DRAIN LINE SIZE AND IN NO CASE LESS THAN 3/4" PIPE SIZE. DRAIN LINE SHALL SLOPE A MINIMUM OF 1/8" PER FOOT TOWARDS DRAIN. TERMINATION POINT SHALL BE COMPLY WITH FBCM 2010 SECTION 307.2

PIPING SHALL BE FIELD FABRICATED ASTM B280 MUELLER STREAMLINE ACR OR READING HARD DRAWN FACTORY SEALED NITROGEN CHARGED SPECIAL REFRIGERATION DUTY COPPER TUBING. FITTINGS SHALL BE MUELLER OR NIBCO WROUGHT COPPER LONG RADIUS REFRIGERATION TYPE.

WORKMANSHIP ON THESE SYSTEMS MUST BE GOOD. AND CLEANLINESS OF PIPING SYSTEMS IS MANDATORY. WORK THAT DOES NOT MEET THESE CRITERIA SHALL BE REMOVED AND REPLACED AT NO COST TO THE OWNER. THE ENGINEER SHALL DETERMINE WHETHER THE WORK MEETS THESE CRITERIA.

COVER ALL EXPOSED LIQUID LINES AND ALL SUCTION PIPING (INDOORS AND OUTDOORS), FITTINGS, VALVES, ETC., CONTINUOUS THROUGH SLEEVES, HANGERS, ETC., WITH 3/4" FR/ARMAFLEX. INSTALLATION SHALL BE CONDENSATION FREE AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PAINT ALL INSULATION EXPOSED TO OUTDOORS WITH UV PROTECTIVE PAINT PER MANUFACTURERS RECOMMENDATIONS.

REFRIGERANT PIPING BELOW GRADE SHALL BE ROUTED THROUGH MINIMUM 4" DIAMETER PVC PIPE SLEEVES TO EACH CONDENSING UNIT. ALL UNDERGROUND REFRIGERANT PIPING SHALL BE CONTINUOUS SOFT DRAWN TUBING WITH NO UNDERGROUND JOINTS ALLOWED. REFRIGERANT PIPE SIZES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATION BASED ON LENGTH OF RUN BETWEEN CONDENSING UNITS AND AHU'S. REFRIGERANT PIPING SHALL NOT BE LOCATED IN A MEANS OF EGRESS

PIPING ROUTED ALONG BUILDING EXTERIOR WALL SHALL BE PROTECTED BY SHEET METAL HOUSING SECURELY ATTACHED TO WALL AT 8'-0" INTERVALS AND PAINTED TO MATCH BUILDING EXTERIOR.

TRAP OIL IN SUCTION LINE AT EVAPORATOR COIL. NO OTHER COIL TRAPS PERMITTED. PROVIDE SUCTION RISERS, CHECK VALVES, SOLENOID VALVES, OR OTHER DEVICES REQUIRED IN PIPING SYSTEM BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.

FURNISH ALL LABOR AND MATERIALS TO REPLACE REFRIGERANT LOST DURING THE ONE YEAR WARRANTY PERIOD.

PIPE HANGERS AND SUPPORTS:

PIPE HANGERS, WHERE NEEDED, SHALL BE GRINNEL #260 CLEVIS TYPE, 5'-0" ON CENTER, SECURELY ATTACHED TO BUILDING CONSTRUCTION. SPACE AT MIN. 5'-0" INTERVALS.

PIPE SUPPORT: ATTACH LINES SECURELY ALONG PAD/FLOOR/EQUIPMENT/STRUCTURE TO PREVENT MOVEMENT. SUPPORT IN A MANNER THAT LINES DO NOT HANG FROM EVAPORATOR CONNECTIONS OR BLOCK ACCESS TO FILTERS, CONTROLS, ETC.

SUPPORT AT MIN. 8'-0" INTERVALS FOR VERTICAL PIPES, 5'-0" FOR SUSPENDED HORIZONTAL PIPING.

<u>VIBRATION ISOLATION:</u>

ALL BLOWER UNITS AND VIBRATING TYPE EQUIPMENT SHALL BE PROPERLY FITTED WITH MASON INDUSTRIES VIBRATION ISOLATION EQUIPMENT SIZED IN ACCORDANCE WITH EQUIPMENT WEIGHT AND DUTY.

PROVIDE FLEXIBLE CONNECTORS AT ALL SUPPLY AND RETURN CONNECTIONS TO AIR HANDLING EQUIPMENT CONSISTING OF HEAVY CANVAS OR NEOPRENE FABRIC WITH AIRTIGHT SEAMS AND CONNECTIONS TO THE EQUIPMENT.

AIR FILTERS:

FILTERS SHALL BE 1" FIBERGLASS MEDIA THROW AWAY TYPE IN A RIGID FRAME WITH A SUPPORTING MAZE ACROSS BOTH ENTERING AND LEAVING SURFACES. SUPPLY ONE COMPLETE SET OF FILTERS AFTER OWNER'S FINAL ACCEPTANCE. FARR 30/30 OR EQUAL.

ALL DIMENSIONS ARE INSIDE NET FREE AREA.

MATERIALS: LOW PRESSURE SUPPLY AND RETURN DUCTWORK SHALL BE FIBERBOARD EQUAL TO MANSVILLE FR-800 (SUPERDUCT). PROVIDE MINIMUM "R" VALUE OF 4.2 FOR DUCTS INSTALLED IN CONDITIONED SPACE AND 6.0 FOR DUCT INSTALLED IN UNCONDITIONED SPACE. DUCTWORK SHALL BE LINED WITH ANTI MICROBIAL COATING. SEAL ALL JOINTS WITH GLASS FABRIC AND MASTIC. TAPE ALONE IS NOT ALLOWED.

MEDIUM PRESSURE DUCT SHALL BE STEEL SHEET METAL.

GENERAL EXHAUST DUCTS SHALL BE GALVANIZED OR STAINLESS STEEL SHEET METAL.

WET EXHAUST DUCTS SHALL BE ALUMINUM OR STAINLESS STEEL SHEET METAL

ADJUSTABLE SPLITTERS AND DAMPERS SHALL BE INSTALLED IN EVERY SPLIT AND BRANCH DUCT AND SHALL BE PROVIDED WITH LOCKING QUADRANTS ON EXPOSED OR IN ACCESSIBLE AREAS OF THE DUCT FOR EASE OF OPERATION. ACCESS PANELS OR YOUNG REGULATORS SHALL BE PROVIDED WHERE DAMPERS ARE INSTALLED ABOVE HARD CEILINGS OR IN SOFFITS.

ELBOWS OR CHANGES IN DUCT DIRECTION GREATER THAN 45 DEGREES SHALL BE FITTED WITH AIR TURNS CONSISTING OF CURVED AIRFOIL BLADES OR VANES WHICH WILL PERMIT THE AIR TO MAKE ABRUPT TURNS WITHOUT APPRECIABLE TURBULENCE.

FLEXIBLE DUCTWORK SHALL BE ACOUSTICAL LOW PRESSURE TYPE WITH INTERIOR LINER, METAL HELIX, FIBERGLASS INSULATION WITH AN R-VALUE OF 6.0 OR GREATER, AND COPOLYMER SEAMLESS OUTSIDE SLEEVE. THE ENTIRE FLEXIBLE DUCT ASSEMBLY SHALL BE LISTED IN ACCORDANCE WITH UL-181 CLASS 1 AIR DUCT MATERIAL. THE MAXIMUM LENGTH OF ANY FLEX DUCT SHALL BE 7'-0". FLEXIBLE DUCTWORK SHALL MEET THE FLORIDA MODEL ENERGY EFFICIENCY CODE. ALL JOINTS AT CONNECTIONS TO DIFFUSERS AND DUCTWORK SHALL BE SEALED WITH GLASS FABRIC AND MASTIC.

INSTALL DUCTWORK INDICATED ON DRAWINGS, MAKING NECESSARY CHANGES IN CROSS-SECTIONS AND OFFSETS, WHETHER OR NOT SPECIFICALLY INDICATED.

SPIRAL DUCTWORK SHALL BE SIMILAR TO "SEMCO" MODEL SL(85)P LOW PRESSURE.

PROVIDE U.L.LISTED FIRE, SMOKE OR COMBINATION FIRE SMOKE DAMPER IN ALL PENETRATIONS OF RATED SURFACES PER APPLICABLE CODE AND IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE U.L. LISTING REQUIREMENTS. INTERLOCK THE UNIT WITH FIRE ALARM SYSTEM.

SHALL BE AS MANUFACTURED BY CERTAINTEED, OWENS-CORNING, MANVILLE, PITTSBURGH CORNING, ARMSTRONG, OR APPROVED EQUAL. INSULATION SUNDRIES AND ADHESIVES SHALL BE AS MANUFACTURED BY BENJAMIN FOSTER, CHILDERS, VIMASCO, OR APPROVED EQUAL. ALL INSULATION SHALL BE SUITABLE FOR INSTALLATION IN A RETURN AIR PLENUM.

INSULATE ALL SHEETMETAL DUCTWORK EXCEPT EXHAUST DUCTWORK EXTERNALLY WITH MANVILLE R SERIES MICROLITE TYPE 75 OR 100 INSULATION OR APPROVED. INSULATION TO HAVE TYPE II FSK FACING AND UL FIRE HAZARD CLASSIFICATION OF FLAME SPREAD 25/SMOKE DEVELOPED 50/FUEL CONTRIBUTED 50. INSTALL INSULATION PER SMACNA, FLORIDA MODEL ENERGY EFFICIENCY CODE AND MANUFACTURER'S RECOMMENDATIONS. ALL INSULATION JOINTS SHALL BE SEALED WITH GLASS FABRIC

MINIMUM INSULATION REQUIREMENTS AS FOLLOWS:

- SUPPLY AND RETURN AIR UNCONDITIONED: 2" (R-6 MIN) - OUTSIDE AIR: 2" (R-6 MIN)

PROVIDE ALL EXTERIOR INSULATION DUCTWORK OR PIPING EXPOSED TO THE OUTDOORS WITH A MINIMUM 8 MIL THICK ALUMINUM OR PVC JACKET.

CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ADEQUATE AND PROPER INSULATION AND MOISTURE-SEAL IN A MANNER THAT WILL PERMANENTLY PREVENT THE ACCUMULATION OF ANY OBJECTIONABLE MOISTURE ON THE EXTERIOR OF AIR CONDITIONING UNITS, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING, AIR DUCTS OR OTHER PARTS OF THE SYSTEM. CONTRACTOR SHALL CORRECT THE CAUSE OF ANY CONDENSATION AND FULLY REPAIR, WITHOUT COST TO THE OWNER, ANY DAMAGES TO BUILDING SURFACES, FURNISHINGS OR EQUIPMENT CAUSED BY CONDENSATION FROM THIS SYSTEM, FOR THE FULL PERIOD OF GUARANTEE.

CONTROLS:

FACTORY MOUNTED CONTROL SHALL BE PROVIDED TO ACCOMPLISH THE SEQUENCE OF OPERATION. ALL INTERIOR CONTROLS SHALL BE FACTORY FURNISHED AND INSTALLED.

PROVIDE ALL 24 VOLT WIRING BETWEEN CONTROL DEVICES AS NECESSARY TO MAKE COMPLETE AND OPERATION SYSTEM. PROVIDE 110/24 VAC TRANSFORMERS AS REQUIRED. COORDINATE WITH DIVISION 16 FOR 120V POWER ROUGH-IN, CONTROL, POWER AND WIRING. 24 VOLT WIRING SHALL BE PLENUM RATED CABLE.

AIR CONDITIONING UNITS (DX SPLIT):

UNITS SHALL BE SPLIT SYSTEM AIR-TO-AIR ELECTRIC AIR CONDITIONING UNITS AND HEAT PUMPS AS SCHEDULED ON DRAWINGS. UNITS WITH INTEGRAL ELECTRIC RESISTANCE HEATERS SHALL HAVE A SINGLE-POINT ELECTRIC CONNECTION.

TOTAL COOLING CAPACITY OF THE UNITS SHALL BE AS SCHEDULED ON DRAWINGS. UNIT CABINET SHALL BE CONSTRUCTED OF GALVANIZED STEEL, BONDED AND COATED WITH BAKED ENAMEL. CABINET INSULATION SHALL COMPLY WITH FLORIDA ENERGY CODE.

FANS AND MOTORS - THE INDOOR AIR FANS SHALL BE OF THE FORWARD-CURVED CENTRIFUGAL CLASS 1 TYPE. MOTOR AND DRIVE TO PROVIDE HIGHER FAN OUTPUT WHEN JOB REQUIREMENTS EXCEED STANDARD FAN CAPACITY SHALL BE PROVIDED.

COOLING SYSTEM SHALL BE PROTECTED BY LOSS OF CHARGE PROTECTION, HIGH AND LOW PRESSURE SENSORS, COMPRESSOR MOTOR OVERLOADS, AND A TIMING DEVICE WHICH WILL PROHIBIT THE COMPRESSOR MOTOR FROM BEING SUBJECTED TO A STARTING CURRENT MORE THAN ONCE EVERY FIVE

HEAT PUMP/CONDENSING UNIT INSTALLATION:

PROVIDE CONCRETE PADS FOR GRADE MOUNTED CONDENSING UNITS. PADS SHALL BE A MINIMUM OF 4" THICK, 3,000 PSI CONCRETE, AND SHALL BE 4" LARGER ON EACH SIDE THAN THE FOOTPRINT OF THE CONDENSING UNIT. VERIFY UNIT DIMENSIONS WITH APPROVED SHOP DRAWINGS PRIOR TO FABRICATION OF PADS.

EXHAUST FANS:

FURNISH EXHAUST FANS WITH PERFORMANCE AND CAPACITIES AS LISTED ON THE DESIGN DRAWINGS

COORDINATE WITH ARCHITECT TO LOCATE EXHAUST FANS. EXHAUST GRILLES, WALL OR ROOF CAPS A MINIMUM DISTANCE OF 10'-0" FROM ANY OPERABLE WINDOW, DOOR OR FRESH AIR INTAKE.

AIR DISTRIBUTION EQUIPMENT:

FURNISH SUPPLY AIR GRILLES AND RETURN AIR REGISTERS WITH OPPOSED BLADE BALANCING DAMPERS AS SCHEDULED ON THE DESIGN DRAWINGS.

GRILLES, REGISTERS, AND CEILING DIFFUSERS SHALL BE FURNISHED AS SCHEDULED ON THE DESIGN DRAWINGS AND SHALL BE ALL ALUMINUM CONSTRUCTION UNLESS NOTED OTHERWISE. AIR DISTRIBUTION SHALL NOT EXCEED NC-30 NOISE CRITERIA AS DEFINED IN THE LATEST ASHRAE GUIDE.

MECHANICAL SPECIFICATION

SCALE: NTS

ALL THE DESIGN AND DETAILS ON THIS PLAN ARE TH

'AS THE BUILDING DESIGN ENGIN E BUILDING DESIGN AS SHOWN O OMPANIED BY DESIGN & SUPPOF FORMS TO THE 2020 7TH EDITIOI HIS CERTIFICATION DOES NOT IN NTS OF WHICH THE TRUSS DESIG OF RECORD. THIS PLAN HAVE BE APLIANCE WITH THE 2020 7TH EDIS S CODE WITH SUPPLEMENTS.



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No. Description Date

DRAWN BY:

SCALE: As indicated

22 200 24

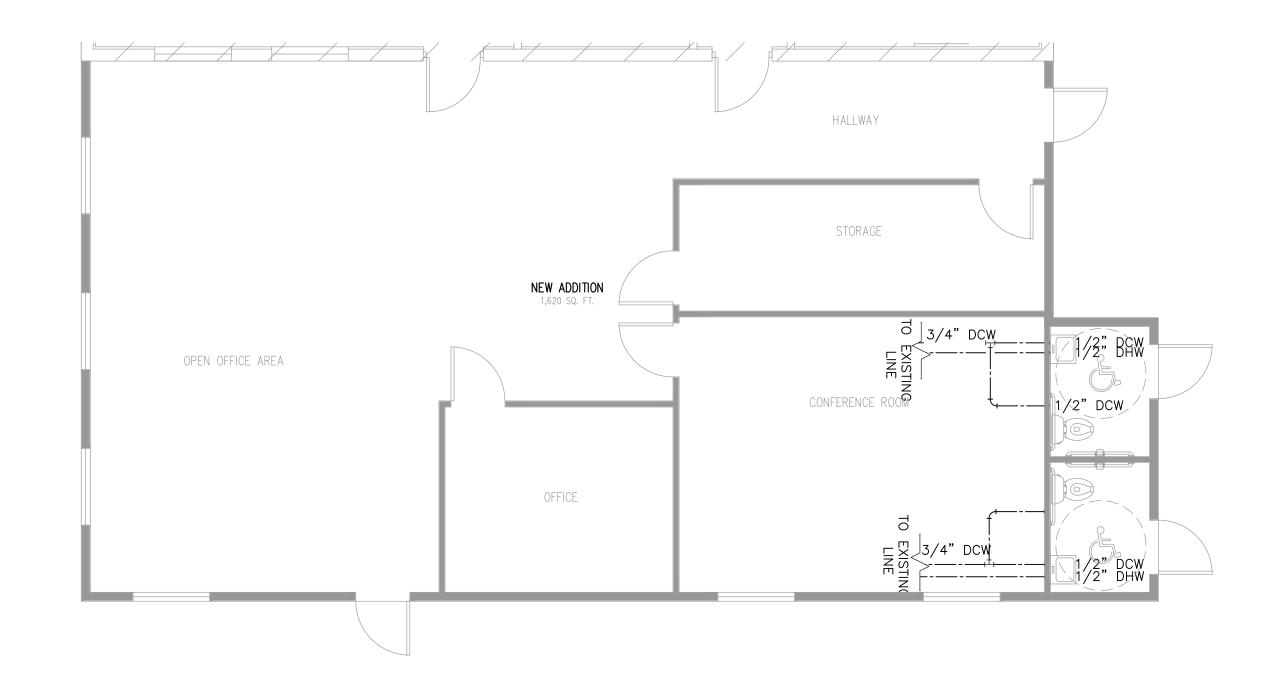
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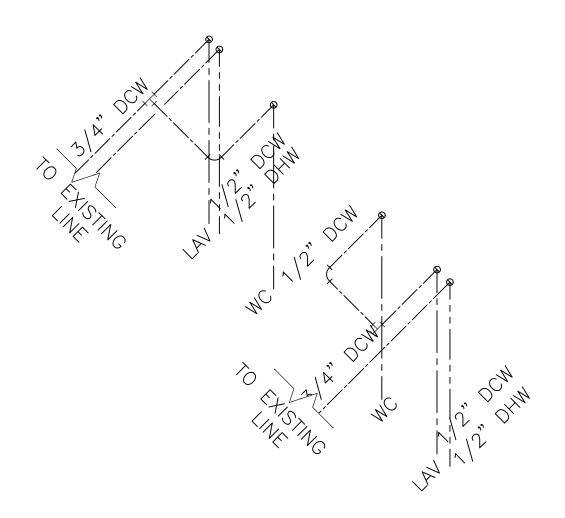
MECHANICAL DETAILS

SHEET NUMBER:

- * MAXIMUM DEVELOPMENT LENGTH (FEET) 40
- * TOTAL WSFU DEMAND REQUIRES 1/2" METER/SERVICE PIPE AND 1/2" DISTRIBUTION PIPE (PER TABLE E201.1, PRESSURE RANGE 40 TO 49 PSI).
- 1/2″(U.N.□) - 1/2″(U.N.□) * COLD WATER SUPPLY (DCW)
- * HOT WATER SUPPLY (DHW)
- * MIXING VALVE (ASSE1070) REQUIRED FOR LAVATORIES PER FPC 416.5 * RECOMMENDED MIXING VALVES FOR HANDSINKS TO PREVENT SCALDING
- * TEMPER ALL WASTE DISCHARGING INTO DRAINAGE SYSTEM THAT IS GREATER THAN 140F
- * PROVIDE ACCESS PANEL FOR PLUMBING VALVES



DOMESTIC WATER PLAN 3/16" = 1'-0"



DOMESTIC WATER ISOMETRIC VIEW N.T.S

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DRAWN BY:

PROJECT NO: SCALE:

SHEET TITLE:

PLUMBING PLAN

SHEET NUMBER:

P-100

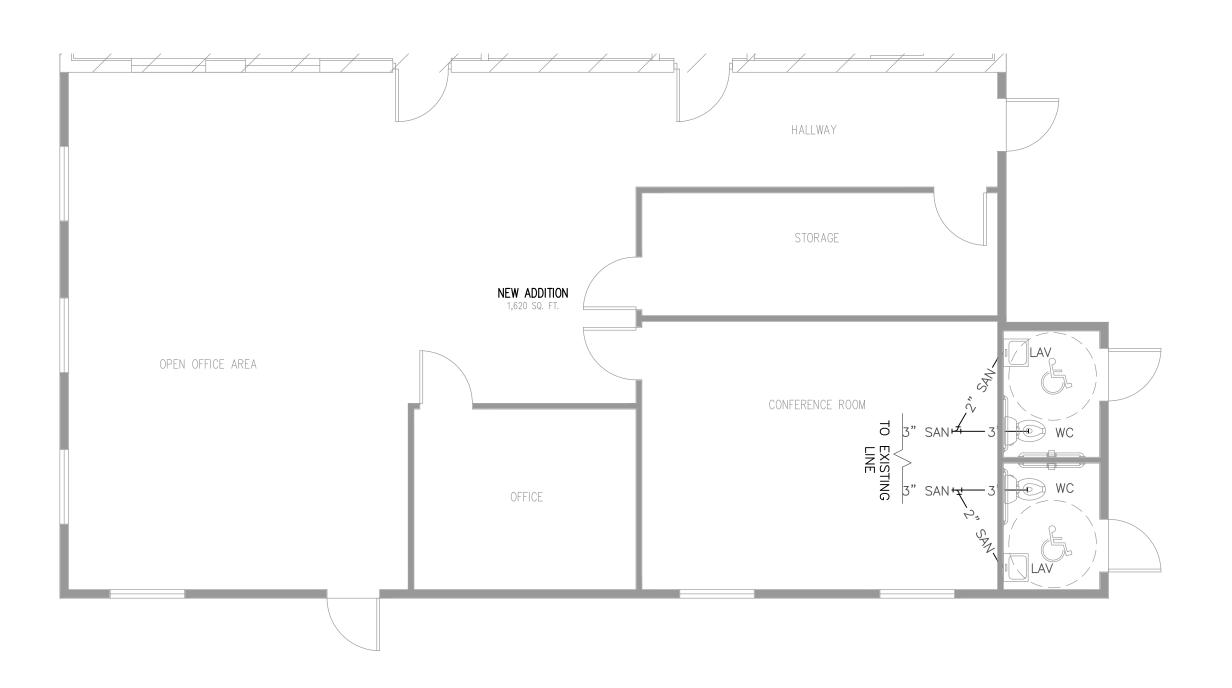
	FIXTURE LEGEN	ND & CON	INEC	TION	SIZE (INCH)
LEGEND	NAME	OCCUPANCY	QTY	SAN	MIN.TRAP SIZE	DFU	TOTAL(DFU)
WC	WATER CLOSET	PUBLIC	2	3		4	8
LAV	LAVATORY	PUBLIC	2	2	1 1/4	1	2
VTR	VENT THROUGH ROOF						
AAV	AIR ADMITTANCE VALVE						
	TOTAL						10

- * REQUIRED DRAINAGE PIPE DIAMETER 3" AND 1/8" SLOPE PER TABLE 710.1 * MAIN SANITARY SEWER (SAN) 3"(U.N.O) * SEE TRAP PRIMER DETAIL ON SHEET P-200

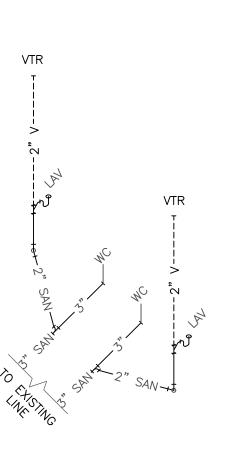
DISTANCE TO VENT
6'
8
12'
16'

FBCP: 909.1 Maximum Distance of Fixture

Trap From Vent



SANITARY SEWER PLAN 3/16" = 1'-0"



SANITARY SEWER ISOMETRIC VIEW N.T.S

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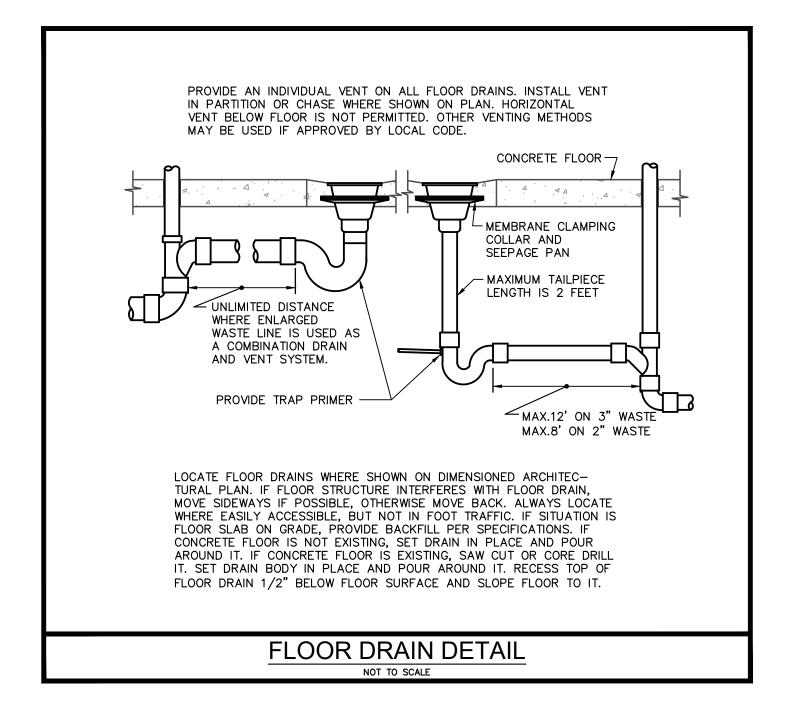
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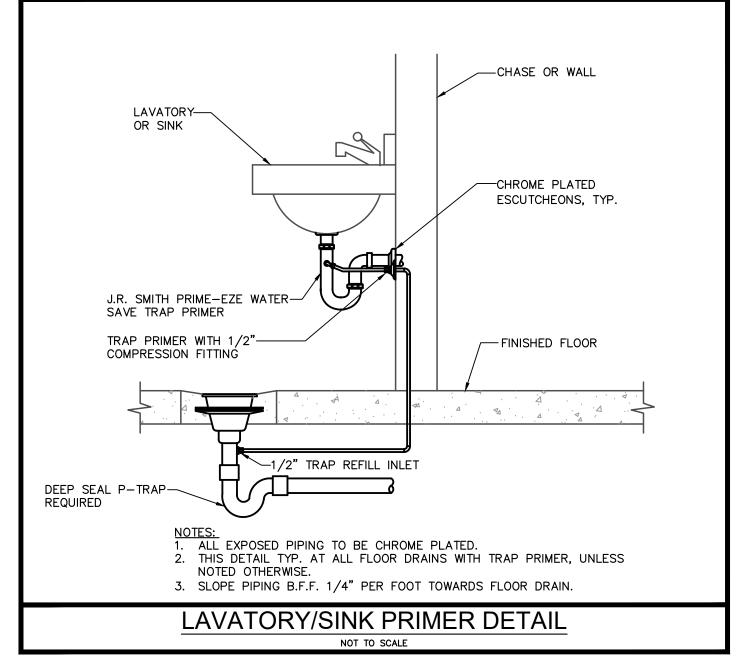
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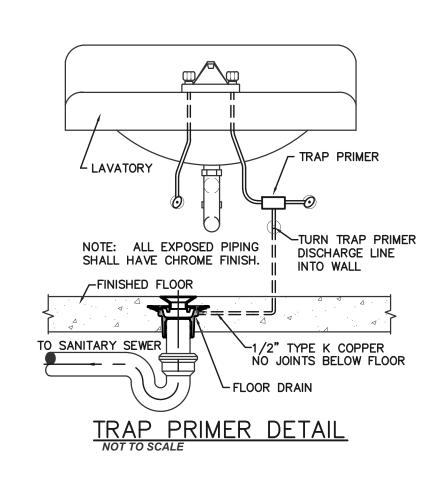
PLUMBING PLAN

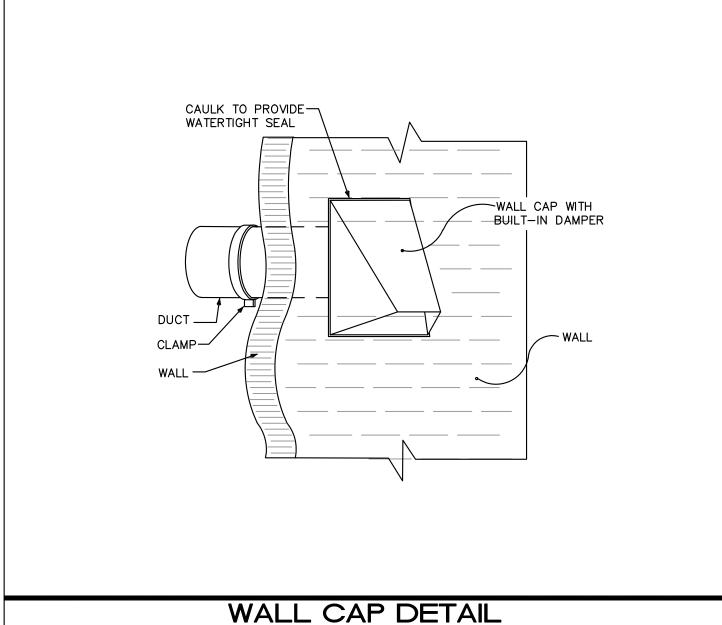
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P-101

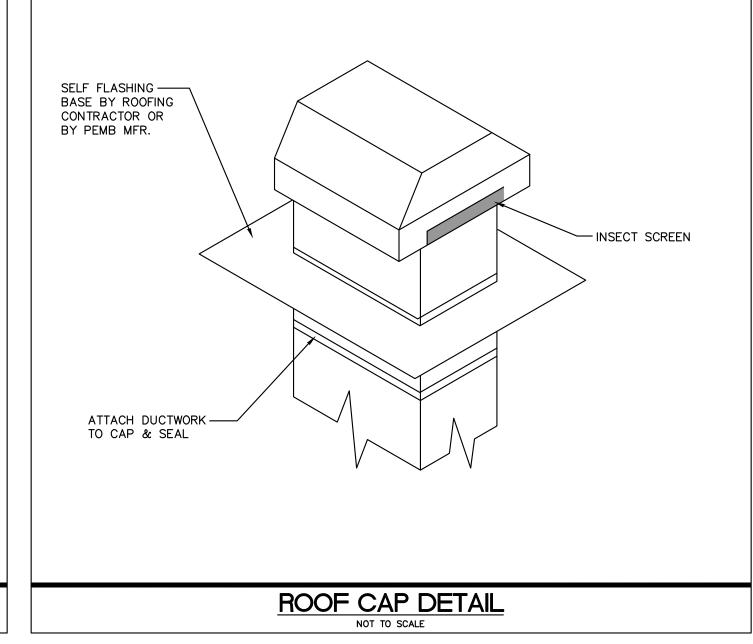


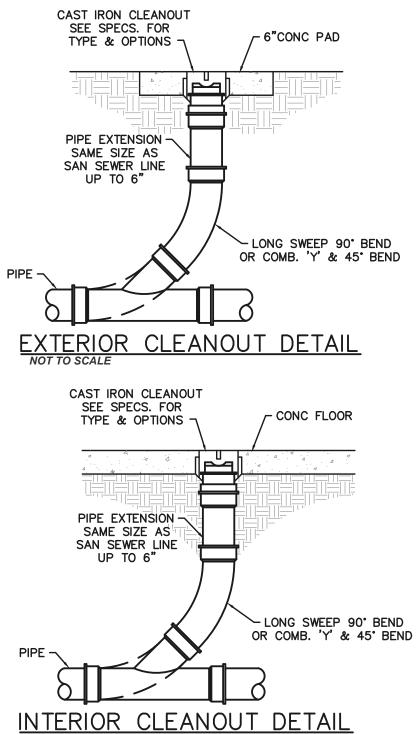


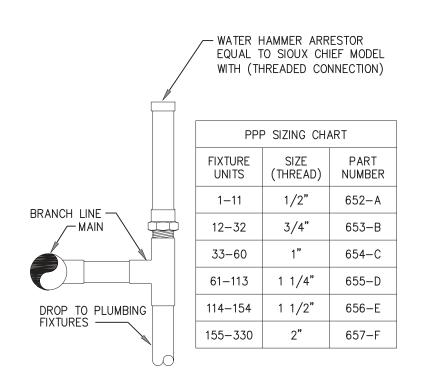




NOT TO SCALE

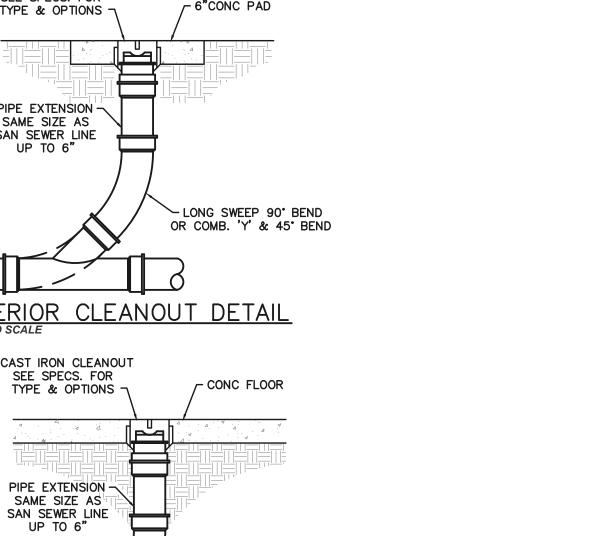


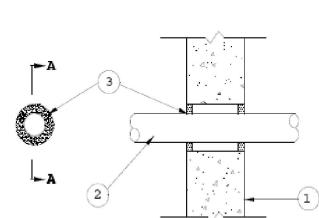




- 1. PROVIDE A WATER HAMMER ARRESTOR ON EACH HOT
- WATER AND COLD WATER DROP. 2. ARRESTORS SHOULD ALWAYS BE INSTALLED SO THAT THERE
- IS AN UNOBSTRUCTED SHOCK PATH TO THE ARRESTOR.
- 3. ARRESTORS SHOULD ALWAYS BE PLACED AS NEAR TO THE SOURCE OF SHOCK AS POSSIBLE.

WATER HAMMER ARRESTOR DETAIL SCALE: NONE





System No.W-J-1156

November 25, 2003 F Rating — 2 Hr T Rating — 0 Hr

1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Diam of opening to be min 1/2 in. (13 mm) to max 4 in.

(102 mm) greater than outside diam of through-penetrant. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants — One metallic pipe, conduit or tubing centered within opening. Annular space between penetrant and periphery of opening to be min 1/4 in. (6 mm) to max 2 in. (51 mm). Penetrant to be rigidly supported on both sides of wall. The

following types and sizes of penetrants may be used: A. Steel Pipe - Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe — Nom 6 in. (152 mm) diam (or smaller) cast or ductile

C. Conduit - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 6 in. (152 mm) rigid steel

conduit. D. Copper Tubing - Nom 3 in. (76 mm) diam (or smaller) Type L (or heavier) copper tubing.

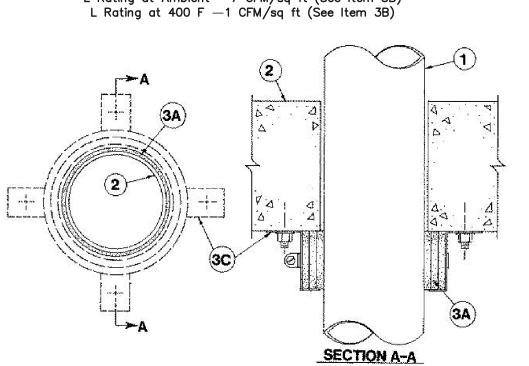
E. Copper Pipe - Nom 3 in. (76 mm) diam (or smaller) Regular (or heavier) copper pipe.

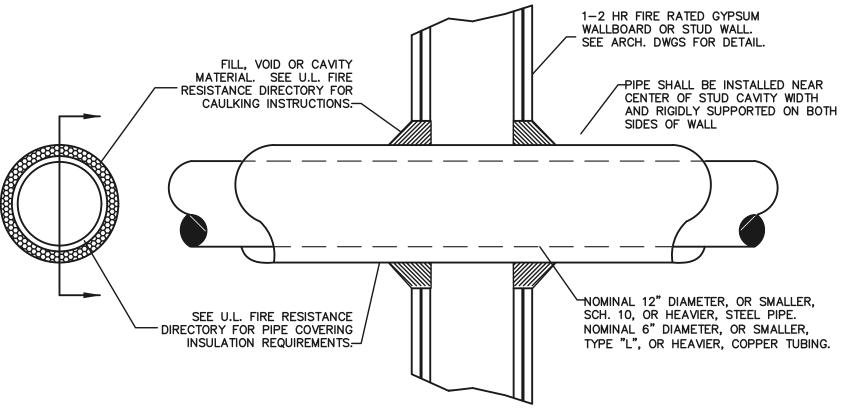
3. Fill, Void or Cavity Material* - Sealant - Min 5/8 in. (16 mm) thickness of sealant applied within annulus, flush with both surfaces of wall.

3M COMPANY - FB-1000 NS

*Bearing the UL Classification Marking

System No. C-AJ-2001 May 18, 2005 F Rating —2 Hr T Ratings -0, 1-1/2 and 2 Hr (See Item 3) L Rating at Ambient -7 CFM/sq ft (See Item 3B)





NOT TO SCALE

DETAIL IS BASED ON THROUGH PENETRATION FIRESTOP SYSTEM NO. WL5001 AS DESCRIBED IN U.L. FIRE RESISTANCE DIRECTORY. MATERIALS OTHER THAN THOSE INDICATED IN THE DIRECTORY SHALL NOT BE USED.

INSULATED METALLIC PIPE THROUGH STUD FIREWALL DETAIL

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BY CERTIFY AS THE BUILDING DESIGN ENGIN (D) THAT THE BUILDING DESIGN AS SHOWN O (ND AS ACCOMPANIED BY DESIGN & SUPPOFINENTS CONFORMS TO THE 2020 7TH EDITIOI NG CODE. THIS CERTIFICATION DOES NOT IN COMPONENTS OF WHICH THE TRUSS DESIGEN ENGINEER OF RECORD. THIS PLAN HAVE BE RED IN COMPLIANCE WITH THE 2020 7TH EDITION (A) BUILDING CODE WITH SUPPLEMENTS.

No. Description Date ⋬ DRAWN BY:

PROJECT NO: 22 200 24 SCALE: As indicated

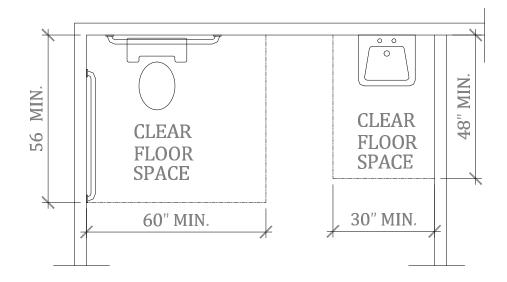
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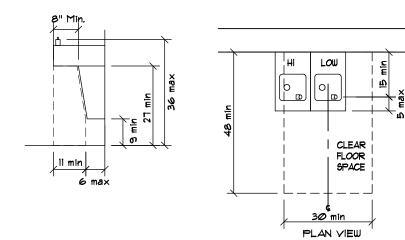
PLUMBING DETAILS

SHEET NUMBER: P-200

TABLE 604.4 MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY
LAVATORY, PUBLIC, (METERING)	0.25 GALLON PER METERING CYCLE
LAVATORY, PUBLIC, (OTHER THAN METERING)	0.5 GPM AT 60 PSI
URINAL	1.0 GALLON PER FLUSHING CYCLE
SINK FAUCET	2.2 GPM AT 60 PSI
WATER CLOSET	1.6 GALLONS PER FLUSHING CYCLE





WATER CLOSET CLEAR FLOOR SPACE N.T.S

HI-LO DRINKING FOUNTAIN DETAIL

WATER

- ALL WATER PIPING TO BE SCHED 40 CPVC.
- PROVIDE ISOLATION VALVES TO ALL PLUMBING FIXTURES INSTALLED.
- PROVIDE BACK FLOW PREVENTION DEVICE TO ALL EQUIPMENT WATER CONNECTIONS.
- COLD WATER ONLY.
- NO UNDER SLAB JOINTS IN WATER PIPING.
- PROVIDE ISOLATION VALVES TO CW AND HW FOR MOP SINK. PROVIDE WATER HAMMER ARRESTOR TO ICE CUBE MACHINE.

SANITARY

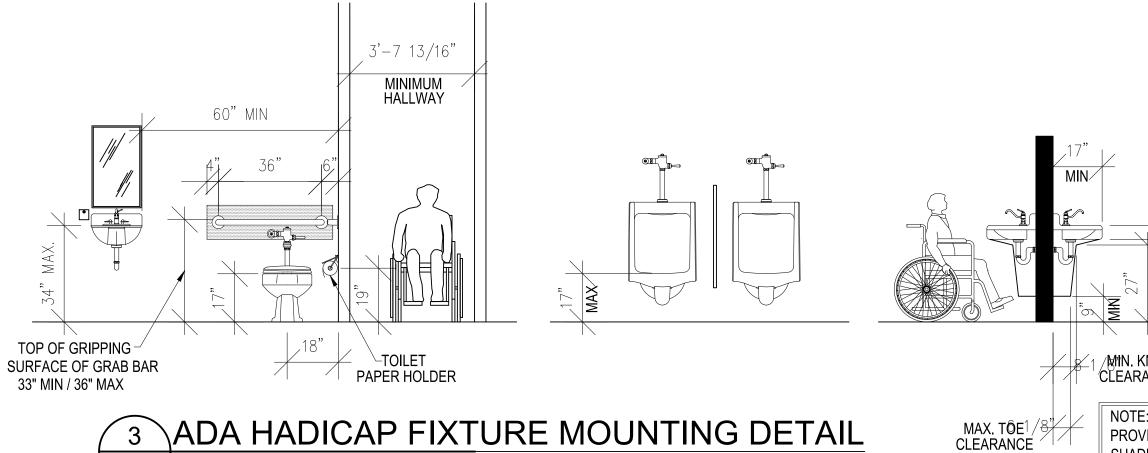
ALL DWV SANITARY LINES TO BE SCHED 40 PVC.

ALL WORK SHALL COMPLY WITH FBC PLUMBING.

TEMPERED WATER SHALL BE DELIVERED FROM LAVATORIES THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3.

FBCP: 1002.1 - FIXTURE TRAPS

EACH PLUMBING FIXTURE SHALL BE SEPARATELY TRAPPED BY A LIQUID-SEAL TRAP, EXCEPT AS OTHERWISE PERMITTED BY THIS CODE. THE VERTICAL DISTANCE FROM THE FIXTURE OUTLET TO THE TRAP WEIR SHALL NOT EXCEED 24 INCHES (610 MM), AND THE HORIZONTAL DISTANCE SHALL NOT EXCEED 30 INCHES (610 MM) MEASURED FROM THE CENTERLINE OF THE FIXTURE OUTLET TO THE CENTERLINE OF THE INLET OF THE TRAP. THE HEIGHT OF A CLOTHES WASHER STANDPIPE ABOVE A TRAP SHALL CONFORM TO SECTION 802.3.3. A FIXTURE SHALL NOT BE DOUBLE TRAPPED.



3 ADA HADICAP FIXTURE MOUNTING DETAIL (P-001) SCALE: NTS

TOP OF GRIPPING 1 /MIN. KNEE CLEARANCE SURFACE OF GRAB BAR PAPER HOLDER 33" MIN / 36" MAX

PROVIDE 2 x 12 CONCEALED WOOD BLOCKING BETWEEN STUDS EXTENDING TO LIMITS OF SHADED AREAS FOR ATTACHMENT OF HANDICAP GRAB BARS. ENDS OF BLOCKING MUST OCCUR AT A STUD. ALL WOOD BLOCKING IS TO BE FIRE TREATED.

ALL FIRE PROTECTION SYSTEMS, FUEL, GAS, SIGNAGE AND OTHER BUILDING COMPONENTS REQUIRED BY LOCAL BUILDING AND FIRE AUTHORITIES TO BE INSTALLED OR MODIFIED VIA SEPARATE PERMIT, AND WHICH ARE AFFECTED BY THE WORK PROPOSED HEREIN, SHALL BE DULY INSTALLED OR MODIFIED ONLY THROUGH SEPARATE PERMIT AUTHORIZATION FROM THE AUTHORITY(S) HAVING JURISDICTION.

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No. Description Date

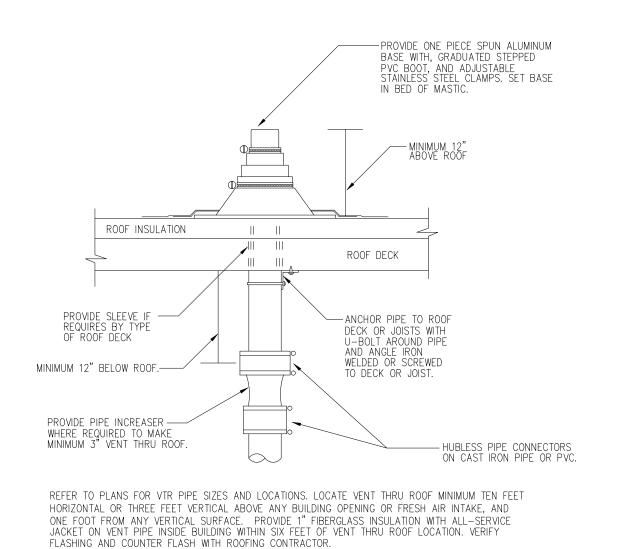
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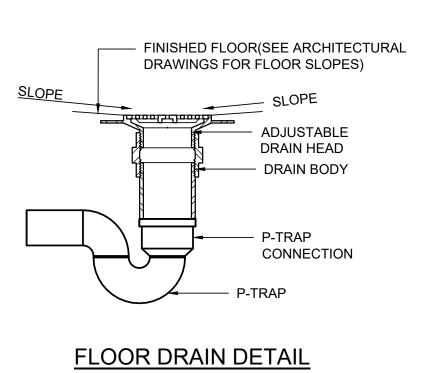
PLUMBING DETAILS

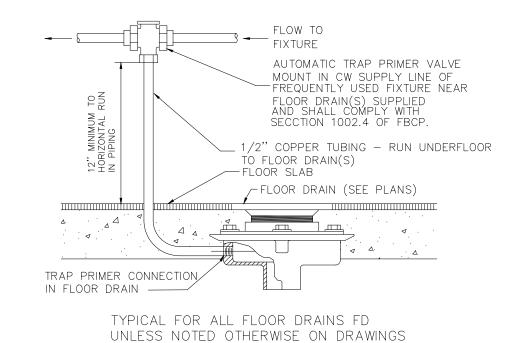
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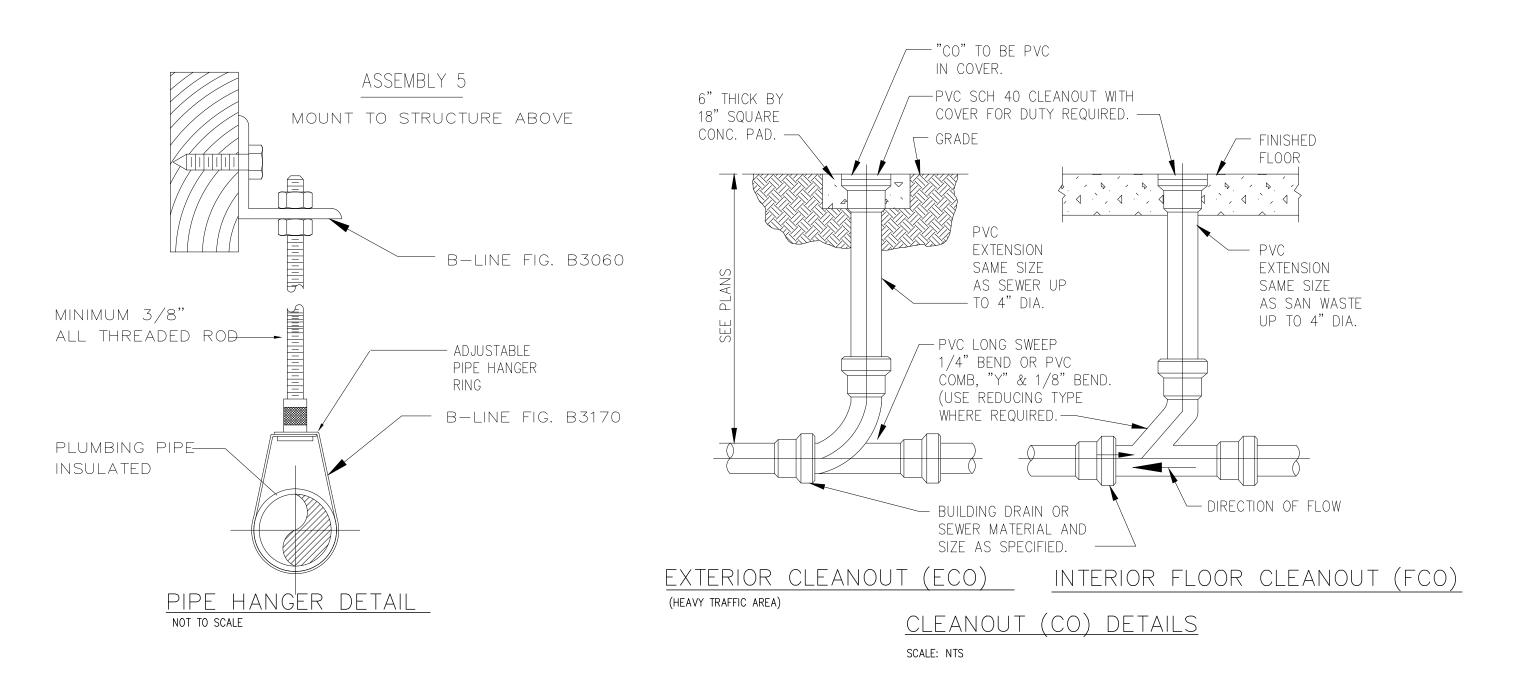
VENT THRU ROOF (VTR) DETAIL

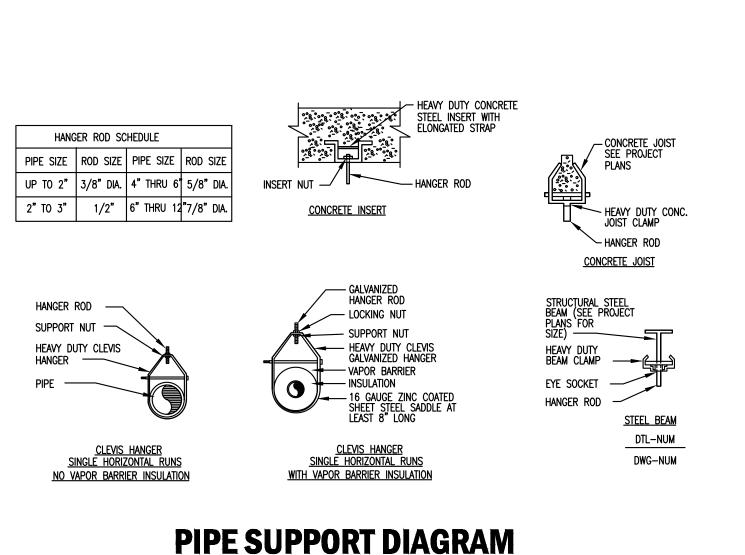
NOT TO SCALE

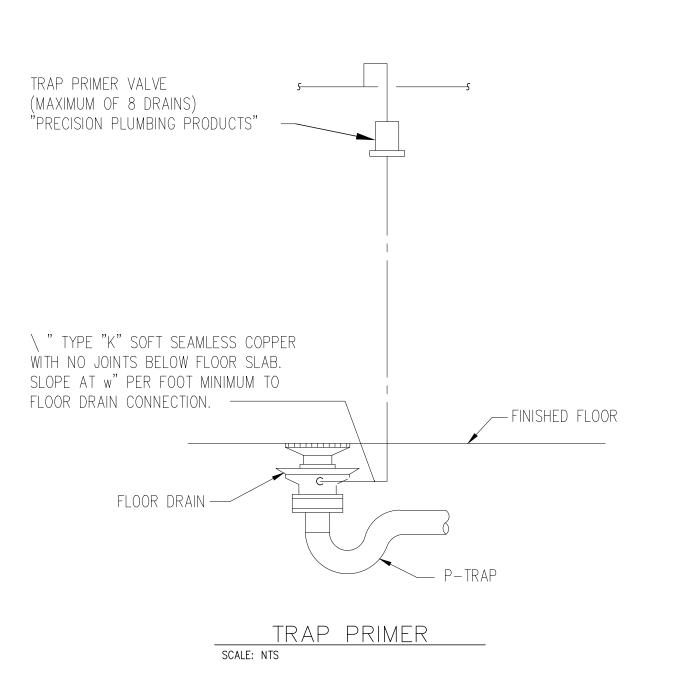




TRAP PRIMER (TPV) CONNECTION DETAIL







Plumbing General Notes

1: Coordinate All Pipe Routing With All Other Trades Prior To Installation. Route All Piping To Avoid Ductwork, Electrical Raceways, and Building If Penetrations Through Structural Members Are Required For Plumbing Notify Architect and Structural Engineer Prior To installation To Ensure That Integrity is Maintained

This Contractor Shall Base His Proposal Upon The Equipment As Scheduled Or Specified, Using The Manufacturers Specifications and Scheduled on The Drawings

3: The Contractor Is Expected To Order All Materials In Sufficient Time To Avoid Delaying
The Completion Of The Project. Delay In Deliveries Will Not Be Considered a
Justifiable Reason For Submission Of Substitute Materials.

4: Route All Piping Concealed Above Ceiling, Within Walls, or In Chases Except as Specifically Noted, or In Mechanical Rooms. Piping Shall Not Be Run Thru Electrical Rooms or Closets.

5: Sleeve and Fire Stop All Penetrations Of Rated Walls, Ceilings, Floors, Etc. In Accordance With Applicable UL Standards and Local Codes To Maintain Rating. See Specifications. See Architectural Drawings For Rated

6: Pipe Routing Shown Is Schematic and Is Intended To Indicate General Routing. Plumbing Contractor Shall Provide Any Additional Offsets and Fittings Required For Proper Installation and To Maintain Clearances As

7: All Plumbing Installation and Materials Shall Be In Strict Accordance 14: Position Roof Drains at Low Points. For Exact Location See Architectural With All Local, State, and Federal Codes and Applicable Standards, Drawings. Regulations, and Authorities Having Jurisdiction Over The Project.

8: Provide Access Panels To All Valves Within Chases or Above Non—Accessible Ceilings. Refer To Architectural Drawings For Ceiling Types. 9: Install Water Hammer Shock Arrestors At Each Fixture or Battery Of Fixtures Where Required. Arrestors Shall Be Factory Fabricated. Install Arrestors and Size Per Plumbing and Drainage Institute Standard P.D.I. WH—201. Accepted Manufacturers, Sioux Chief, Josam, Jay R. Smith, Watts (NO.15 Series), Wade. Air Chambers Are Not Acceptable.

10: Site Connections Shall Be Provided On Civil Site Utilities Drawings. All Services Shown On This Set Of Plans Terminate 5'-0" From Building, Unless Shown Otherwise on Drawings. This Contractor Shall Make All Final Plumbing Service Connections To Site Work Utilities.

12: Furnish and Install Hose Bibbs and Wall Hydrants 24" Above Finished And Proved Vacuum Breakers as Shown on Drawings With

150' Minimum Perimeter Intervals. 13: See Architectural Drawings For Exact Plumbing Fixture Locations,

Mounting Heights, Dimensions, and Handicapped Requirements.

15: Plumber Shall Be Licensed By State And Local Authorities To Install

Verify Invert Elevations and Exact Locations Of Sewers To Which New Sewer Lines Are To Be Connected Before Installation.

NOT TO SCALE

All Vents Through Roof Shall Be A Min. 10'-0" From Any Air Intakes. 18: Plumbing Contractor Shall Install Dielectric Unions At All Connections Of

All Wastes And Supplies To Special Equipment In Strict Accordance With Manufactures Recommendations And Make Final Connections. All Supplies Shall Be Valved. Install Vacuum Breakers Where 20: Submit Shop Drawings (Including Pipe Routing and Equipment Location)

To Architect/Engineer For Review Prior To The Installation or Purchasing Of Any Piping And/Or Equipment. 21: Provide 'Minimum Air Gap' as Defined In ANSI A112.1.2 For All Water Distribution System Outlets. Where It Is Not Possible To Provide Minimum Air Gap, The Outlet Shall Be Equipped With An Accessible Minimum Air Gap, The Outlet

Back flow Prevent Complying With The Requirements Of The Standard Plumbing Code; Table 608.1.

22: All Water Piping Installed in Exterior Walls Shall Be Placed On The Interior Side Of The Wall, The Wall Insulation Shall Be Placed On The Exterior Side Of The Pipina.

23: Pressure Reducing Valves Shall Be Installed On Branch Lines Serving Fixtures And/Or Equipment When The Pressure In The Line Exceeds 60 P.S.I. It Is Recommended That A Velocity Between 5 and 8 Feet Per Second Be

24: Do Not Penetrate Wall Footings With Piping. Coordinate With General Contractor To Drop Footing For Sleeved Stem Wall Penetrations As Required To Clear Plumbing Services Where Absolutely Necessary. 25: Fixture P-Trap Distance From Fixture Outlet To Trap Weir Shall Not

Exceed 24 Inches. 26: Plumbing Contractor Shall Install Horizontal Combination Waste And Vent Systems In Strict Accordance With Florida Building Code Plumbing

27: Any Piping In Unconditioned Spaces Shall Be Fully Insulated And Protected From Freezing Temperatures. 28: Absolutely No PVC or CPVC Piping Will Be Allowed In Return Air

29: Indirect Waste Per FBCP 802.1.1 And 801.2.

ALL THE DESIGN AND DETAILS ON THIS PLAN ARE THE



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No. Description Date ◬

DRAWN BY: PROJECT NO:

SCALE: As indicated SHEET TITLE:

> **PLUMBING DETAILS**

SHEET NUMBER:

P-202