

15100 MECHANICAL REQUIREMENTS:

DO ALL WORK IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS AND ORDINANCES, THE STANDARD BUILDING CODE AND THE REGULATIONS OF THE LOCAL UTILITY COMPANIES. OBTAIN AND PAY FOR ANY AND ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES OF INSPECTIONS.

COOPERATE WITH OTHER TRADES AND CONTRACTORS AT JOB. PERFORM WORK IN SUCH MANNER AND AT SUCH TIMES AS NOT TO DELAY WORK OF OTHER TRADES.

OBTAIN MANUFACTURER'S DATA ON ALL EQUIPMENT, THE DIMENSIONS OF WHICH MAY AFFECT INSTALLATION. USE THIS DATA TO COORDINATE PROPER SERVICE CHARACTERISTICS, ENTRY LOCATIONS, ETC., AND TO INSURE MINIMUM CLEARANCES ARE MAINTAINED.

WORKMAN SHALL BE EXPERIENCED IN THEIR RESPECTIVE TRADE. WORKMANSHIP OF INSTALLED WORK SHALL BE FIRST CLASS AND WILL BE SO JUDGED. SUBSTANDARD WORK SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL AND DOES HEREBY WARRANT ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS SECTION TO BE FREE FROM DEFECTS AND TO FUNCTION OR OPERATE SATISFACTORILY FOR ONE YEAR AFTER FINAL ACCEPTANCE OF THE WORK, AND THAT ANY ITEMS NOT MEETING THIS REQUIREMENT WILL BE MADE GOOD BY HIM WITHOUT ANY COST TO THE OWNER.

PROVIDE ONLY NEW, STANDARD FIRST-GRADE MATERIALS THROUGHOUT, CONFORMING TO STANDARDS ESTABLISHED BY UNDERWRITER LABORATORIES INC., AND SO MARKED AND LABELED, TOGETHER WITH MANUFACTURER'S BRAND OR TRADEMARK. ALL LIKE ITEMS SHALL BE OF ONE MANUFACTURER.

ALL WORK SHALL BE EXECUTED IN A MANNER THAT SHALL PRESENT A NEAT APPEARANCE UPON COMPLETION. CARE SHALL BE EXERCISED THAT ALL ITEMS ARE PLUMB, STRAIGHT AND LEVEL.

UPON COMPLETION OF WORK, ALL SYSTEMS SHALL BE TESTED, AND SHALL BE SHOWN TO BE IN PERFECT WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS.

ANY WALLS, CEILINGS, EQUIPMENT, ETC., DAMAGED BY THE CONTRACTOR IN CONSTRUCTION OF THIS PROJECT SHALL BE REPAIRED, RESTORED AND/OR REPLACED BY THE CONTRACTOR TO ITS ORIGINAL CONDITION, OR TO PERFORM ITS INTENDED FUNCTION, AT NO ADDITIONAL COST TO OWNER.

15055 PIPING:

PIPING SHALL BE NEW AND IN GOOD CONDITION. ALL PIPING SHALL CONFORM TO ALL APPLICABLE STATE, COUNTY AND LOCAL CODES.

DOMESTIC WATER PIPING ABOVE AND BELOW GRADE SHALL BE TYPE "L" COPPER WITH WROUGHT OR FORGED COPPER FITTINGS AND 95-5 SOLDER JOINTS.

SANITARY WASTE AND VENT PIPING ABOVE AND BELOW GRADE SHALL BE SCH. 40 PVC-DWV PIPE AND FITTINGS, ASTM D2665-82 (PVC AND ASTM D2661-82(DWV)). USE CAST IRON HUBLESS PIPE & FITTING IN RETURN AIR PLENUM CAVITY.

PIPING SHALL BE INSTALLED PARALLEL TO BUILDING LINES.

PIPING SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION. OFFSETS AS REQUIRED TO COORDINATE WITH STRUCTURE AND OTHER TRADES SHALL BE MADE AT NO ADDITIONAL COST.

PIPING SHALL BE TESTED IN ACCORDANCE WITH INDUSTRY ACCEPTED METHODS. LEAKS SHALL BE REPAIRED AND ANY LOST REFRIGERANT SHALL BE REPLACED AT NO ADDITIONAL COST.

DIELECTRIC UNIONS SHALL BE INSTALLED IN ALL COPPER AND FERROUS PIPING CONNECTIONS.

15891 DUCTWORK:

ALL DUCTWORK MATERIALS AND INSTALLATION SHALL CONFORM TO APPLICABLE STATE, COUNTY AND LOCAL CODES. DUCTWORK SHALL BE ALL NEW AND IN GOOD CONDITION.

DUCT DIMENSIONS NOTED ARE INSIDE DIMENSIONS AND DO NOT INCLUDE INSULATION OR LINER.

DUCTWORK SHALL BE INSTALLED TO AVOID CONFLICT WITH OTHER TRADES. ANY OFFSETS REQUIRED SHALL BE INSTALLED AT NO ADDITIONAL COST.

FABRICATE DUCTWORK FROM SHEET METAL. DUCT SHALL BE INSULATED WITH 2-1/2" DUCT WRAP INSULATION. DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCTWORK STANDARDS.

FABRICATE DUCTWORK FROM 1-1/2" FIBERGLASS DUCT BOARD EQUAL TO PITTSBURGH CORNING. ALL DUCT BOARD SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SMACNA STANDARDS FOR INSTALLATION OF FIBROUS GLASS DUCTWORK.

15990 TEST AND BALANCE:

CONTRACTOR SHALL BE CERTIFIED BY NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR BY ASSOCIATED AIR BALANCE COUNCIL (AABC).

TEST AND BALANCE ALL AIR SYSTEMS IN ACCORDANCE WITH AABC AND/OR NEBB REQUIREMENTS. ALL EQUIPMENT USED FOR TESTING SHALL BE IN PROPER WORKING ORDER.

THE CONTRACTOR SHALL REGULATE AND ADJUST ALL SPLITTERS, DEFLECTORS AND DAMPERS SO THAT THE INLET OR OUTLET SHALL DELIVER OR REMOVE THE REQUIRED NUMBER OF CUBIC FEET OF AIR PER MINUTE (CFM) AT THE RESPECTIVE OPENINGS.

ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE CONSTRUCTION SUPERINTENDENT, OR HIS REPRESENTATIVE.

THE CONTRACTOR SHALL FURNISH ALL INSTRUMENTS, TESTING EQUIPMENT AND PERSONNEL THAT MAY BE REQUIRED FOR THE TESTS.

15991 VIBRATION AND NOISE:

PROVIDE VIBRATION ISOLATORS AND ACOUSTIC INSULATION AS REQUIRED TO ELIMINATE ANY OBJECTIONABLE NOISE OR VIBRATION.

AIR DISTRIBUTION DEVICE SCHEDULE

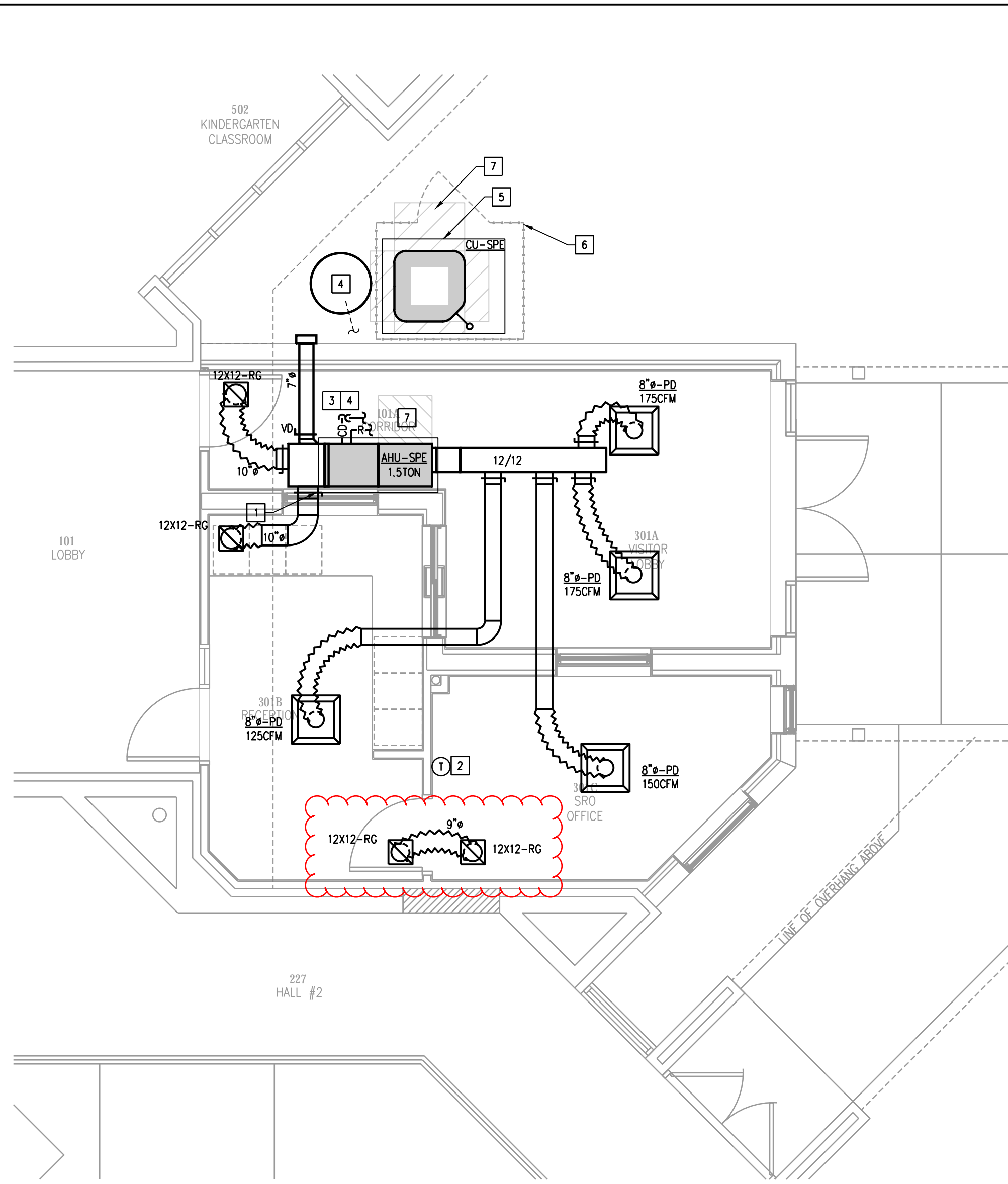
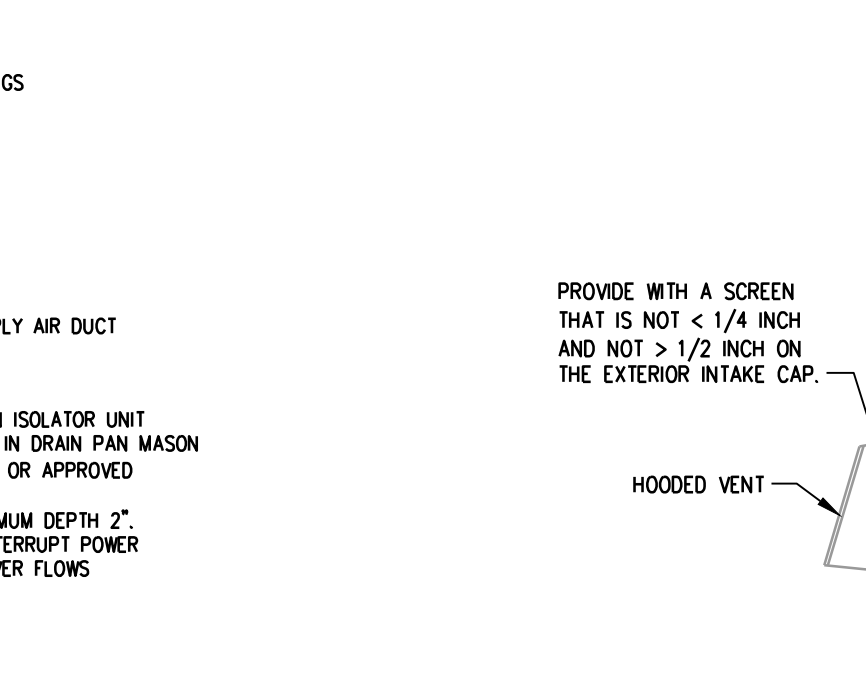
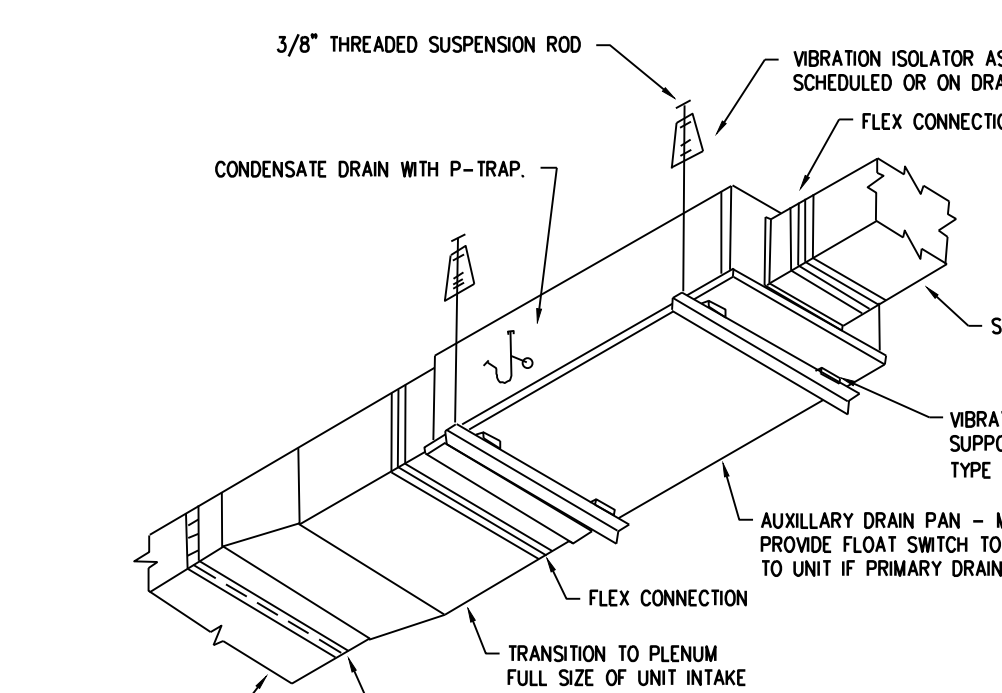
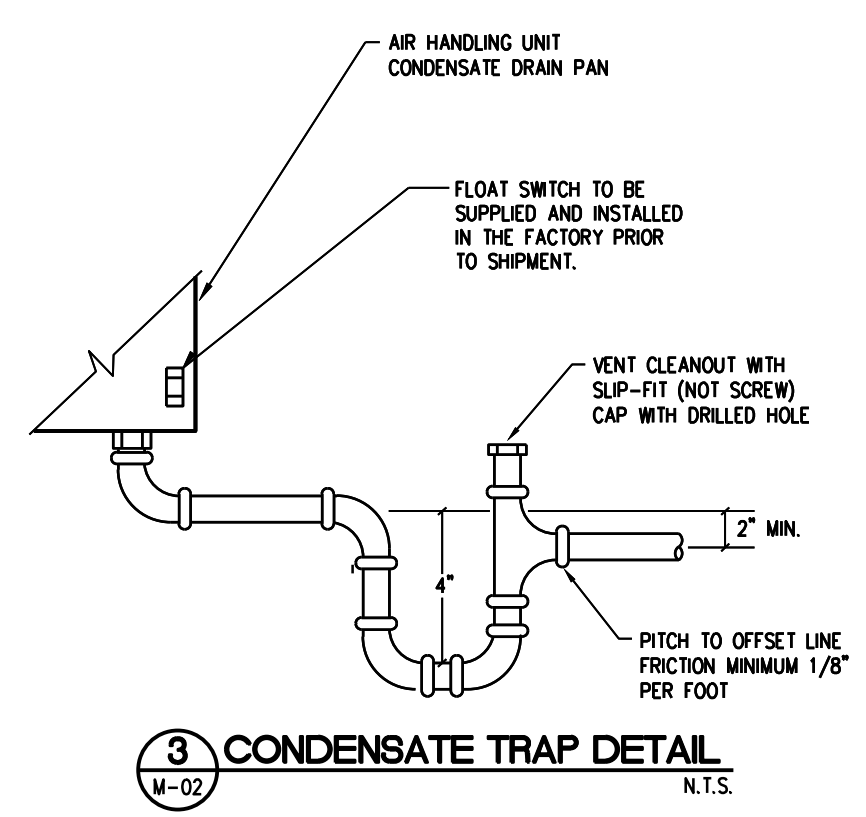
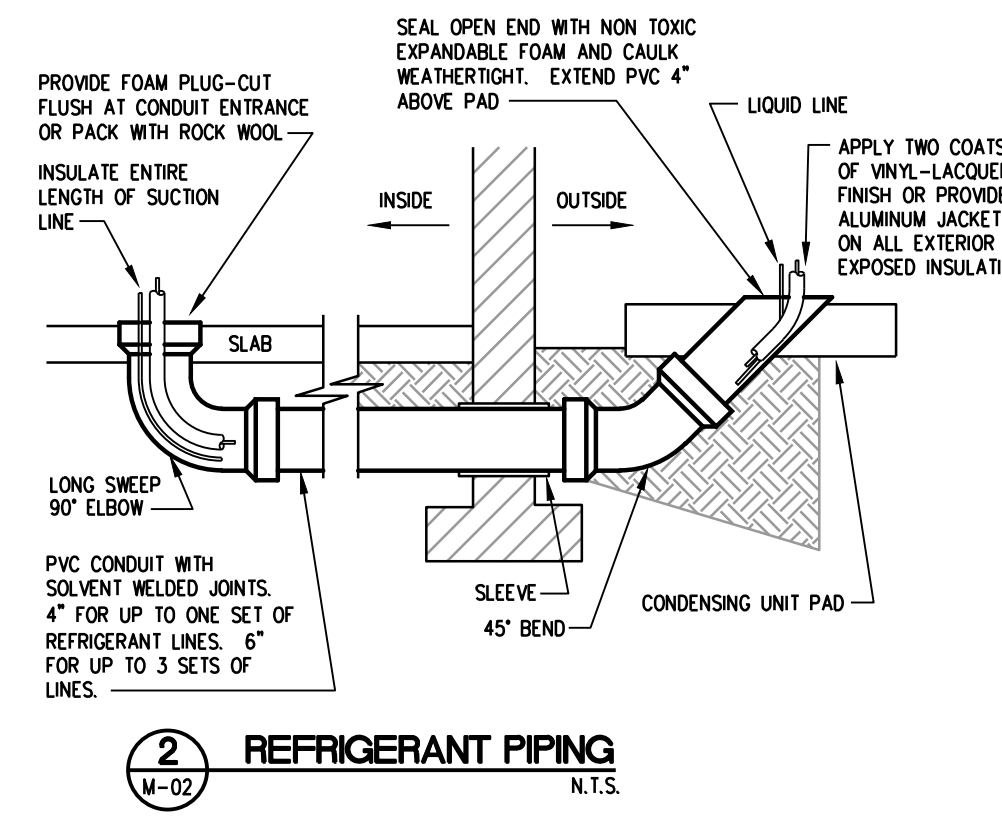
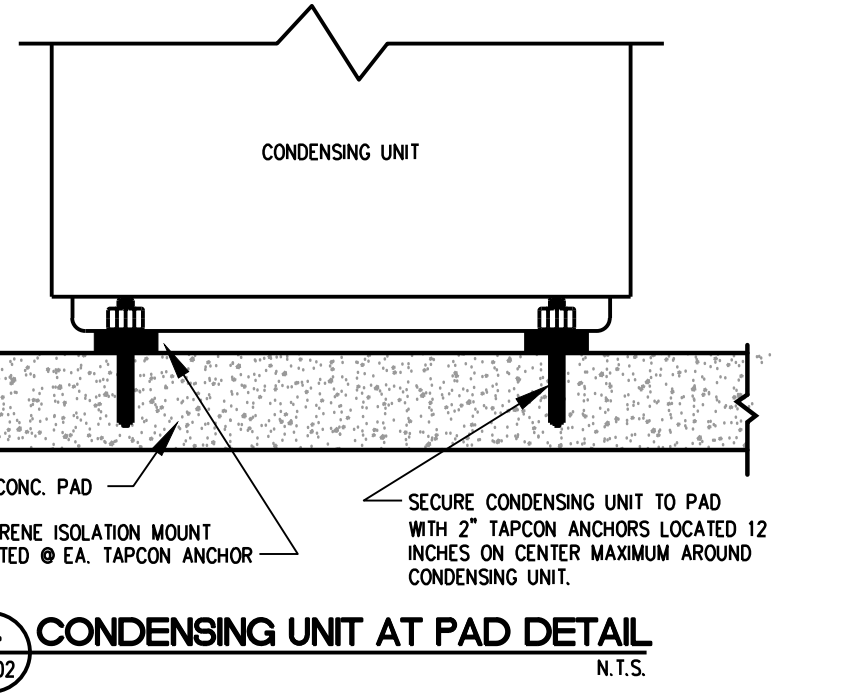
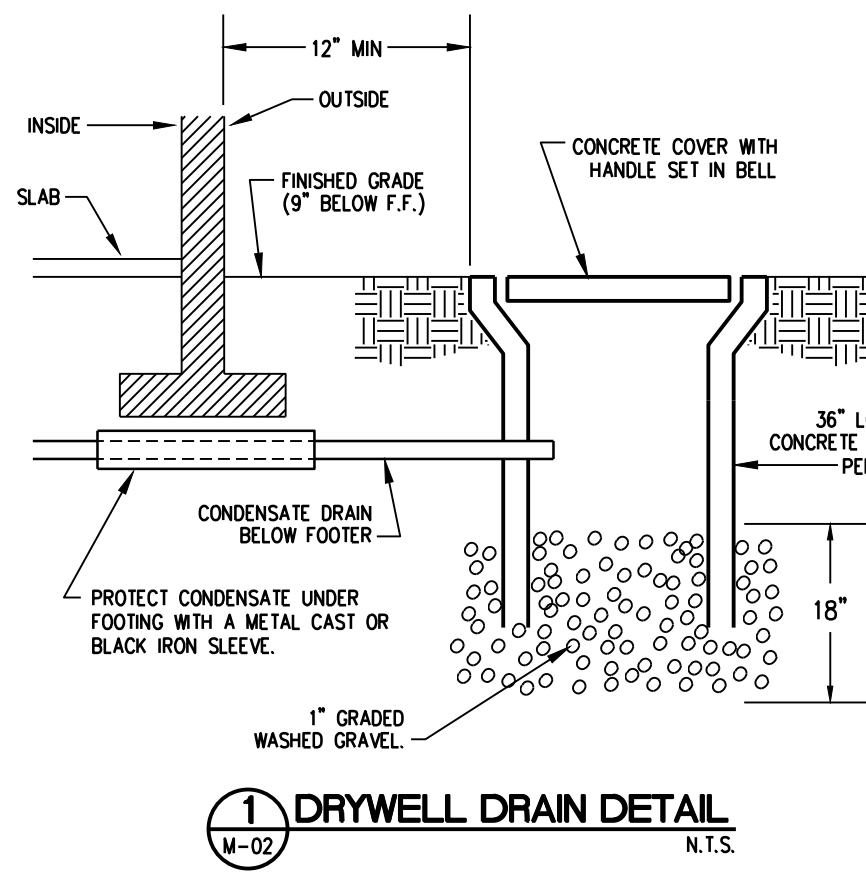
MARK / LEGEND	TYPE	MFG.	MODEL	NOTES
LENGTH → 10" 8-PD AIR QUANTITY → 200CFM	24X24 CEILING MOUNTED SQUARE PLAQUE DIFFUSER	PRICE	ASPD	(2)(4)(5)(6)(7)(8)
NECK SIZE → 12X12-RG AIR QUANTITY → 200CFM	CEILING MOUNTED RETURN AIR GRILLE	PRICE	630	(1)(2)(3)(5)(6)(8)
NECK SIZE → 12X12-TG AIR QUANTITY → 200CFM	CEILING MOUNTED TRANSFER AIR GRILLE	PRICE	630	(1)(2)(3)(5)(6)(8)

- NOTES:
- PROVIDE WITH OPPOSED BLADE VOLUME DAMPER.
 - ALL DIFFUSERS / GRILLES INSTALLED IN LAYIN TILE CEILINGS SHALL HAVE LAYIN STYLE BORDERS WITH FULL 24X24 MODULES. GRILLES LOCATED IN PARTIAL TILE SPACES SHALL BE PROVIDED WITH 24X12 MODULE SIZE.
 - ALL RETURN GRILLES ARE 22X22 FULLY LOUVERED FACE UNLESS NOTED OTHERWISE ON THE PLANS.
 - PROVIDE SQUARE TO ROUND NECK TRANSITION WHERE APPLICABLE.
 - COORDINATE BORDER TYPES WITH ARCHITECTURAL FLOOR PLAN AND REFLECTED CEILING PLAN.
 - COORDINATE FINISH WITH ARCHITECT.
 - COORDINATE THROW PATTERN WITH FLOOR PLANS.
 - PRIME AND PAINT TO MATCH ADJACENT SURFACES.

SPLIT SYSTEM AIR HANDLING UNIT SCHEDULE

MARK	AHU-SPE / CU-SPE	SINGLE POINT ENTRY	
		AREA SERVED	TONNAGE
		700	
		100	
		2.0	
INDOOR UNIT			
FAN DATA	AIR FLOW (CFM)	700	
	ESP (IN H2O)	0.5	
	FAN SPEED	VARIABLE	
	HP (WATTS)	0.33	
HEATER	VOLTAGE/PHASE	208/1	
	FLA (FAN)	2.8	
	TYPE	ELECTRIC	
	KW	3.6	
COOLING CAPACITY	# OF STEPS	1	
	VOLTAGE/PHASE	208/1	
	MCA	25.0	
	MOCPP	25	
OUTDOOR UNIT	WEIGHT (LBS.)	155	
	OA ENTERING AIR TEMP (DB)	92.0	
	OA ENTERING AIR TEMP (WB)	79.0	
	RETURN AIR TEMP (DB)	75.0	
	RETURN AIR TEMP (WB)	62.5	
	LEAVING AIR TEMP (DB)	55.0	
	LEAVING AIR TEMP (WB)	55.0	
	TOTAL CAPACITY (MBH)	24.4	
	SENSIBLE CAPACITY (MBH)	17.1	
	COMPRESSORS	QUANTITY OF FANS	1
VOLTAGE/PHASE		208/1	
FLA (EACH)		0.74	
EFFICIENCY RATINGS	QUANTITY	1	
	VOLTAGE/PHASE	208/1	
	RLA (EACH)	13.0	
	LRA (EACH)	52.0	
DESIGN BASIS	MCA	18.0	
	MOCPP	20	
	WEIGHT (LBS.)	250	
INDOOR UNIT	EER		
	SEER (IEER)	16.5	
OUTDOOR UNIT	AHRI #	8626099	
	MANUFACTURER	TRANE	
	MODEL	TEM6A0B24	
	MANUFACTURER	TRANE	
	MODEL	4TTR6024A	
	NOTES	ALL	

- NOTES:
- COORDINATE REFRIGERANT PIPING LENGTH WITH MANUFACTURER.
 - PROVIDE WITH ALL REQUIRED ACCESSORIES FOR SPECIFIC INSTALLATION.
 - PROVIDE WITH A SINGLE POINT OF CONNECTION FOR ELECTRIC HEATER AND FAN FOR INDOOR UNIT.
 - PROVIDE ALL COILS WITH SEA COAST PROTECTION THAT IS RATED FOR 5000 HOURS OF EXPOSURE.
- General: EACH AIR HANDLER AND ASSOCIATED CONDENSING UNIT SHALL BE PROVIDED WITH AN ENGRAVED NAMEPLATE SHOWING SPECIFIC UNIT DESIGNATION.



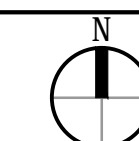
H.V.A.C. KEYNOTES:

- PROVIDE AUXILIARY DRAIN PAN UNDER AIR HANDLING UNIT MOUNTED ABOVE CEILING. PAN SHALL BE 2\"/>
- MOUNT THERMOSTAT 4'-0\"/>
- REFRIGERANT LINES. INSULATE SUCTION. ROUTE FROM AHU, DOWN IN WALL, BELOW GRADE, AND UP THRU CU PAD. ROUTE IN PVC CHASE BELOW GRADE. CHASE SHALL BE SIZED AS TO NOT ALLOW INSULATION TO BE COMPRESSED BEYOND ALLOWANCES. SEAL STUB-UP OF THE PVC AT THE CU PAD WITH FOAM AND CAULK. PROTECT EXPOSED INSULATION WITH 2 COATS OF VINYL LACQUER FINISH. REFER TO DETAIL FOR REFRIGERANT PIPING DETAIL. SIZE AND INSULATE PER MANUFACTURER'S RECOMMENDATIONS.
- 3/4\"/>
- PROVIDE 4\"/>
- PROVIDE FENCING AROUND CONDENSING UNITS. COORDINATE WITH ARCHITECTURAL.
- AREAS INDICATED ARE ELECTRICAL CLEARANCES PER MANUFACTURER. COORDINATE FINAL UNIT SELECTION TO ENSURE COMPLIANCE IS STILL MAINTAINED.

PARTIAL NEW FLOOR PLAN - H.V.A.C.

02

1/4\"/>



宋

Song + Associates

Architecture • Planning • Interior Design

1545 Centrepark Drive North
West Palm Beach, Florida 33401
Telephone: 561-655-2423
Fax: 561-655-1482

AA - 0003165 IB - 0001095

Seal :

JASON L. SMITH, P.E.
600 S. ORLANDO AVE., SUITE #100
MAITLAND, FL 32751
FL REG. NO.: PE57743

OCI ASSOCIATES, INC.
Consulting Engineers
151 Maitland Lane
Maitland, FL 32751
Phone: (772) 466-1166 Fax: (772) 466-1134
www.ociassociates.com
CERTIFICATE OF AUTHORIZATION #0801

COPYRIGHT © 2017 SONG & ASSOCIATES, INC. ALL RIGHTS RESERVED. These drawings and specifications are instruments of service and shall remain the property of Song & Associates, Inc. Neither the project for which they were prepared nor the drawings or specifications shall be used in any manner on other projects or extensions to this project except by agreement in writing with the appropriate permission of Song & Associates, Inc. Reproduction of drawings or specifications without the prior consent of Song & Associates, Inc. is prohibited.

THE SCHOOL DISTRICT OF INDIAN RIVER COUNTY
OFFICE OF FACILITIES & CONSTRUCTION



SINGLE POINT OF ENTRY RENOVATION

FELLSMERE ELEMENTARY SCHOOL
50 N CYPRESS ST.
FELLSMERE, FL 32948

Revisions :

Date : 01/10/2019

S+A Project No : 18031

Owner Project No :

Drawn By : JD

Checked By : JLS

Phase :
100% CONSTRUCTION DOCUMENTS

Sheet Title :

DEMOLITION & NEW FLOOR PLAN, ROOF PLAN - H.V.A.C.

Sheet # :

M-02