

OUTSIDE AIR CALCULATIONS						
THE FOLLOWING IS BASED ON 2012 NCMB TABLE 403.3 MINIMUM VENTILATION RATES FOR OUTSIDE AIR REQUIREMENTS						
UNIT LABEL	OCCUPANCY CATEGORY	AREA	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)	E _z	TOTAL
AHU #1	OFFICE	914	5 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	$\left(\frac{5 \times 5}{\text{AREA}} \right) + \left(\frac{914 \times .06}{\text{TOTAL}} \right) = 55$		↓
AHU #1	RECEPTION	394	30 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	$\left(\frac{12 \times 5}{\text{AREA}} \right) + \left(\frac{394 \times .06}{\text{TOTAL}} \right) = 84$		
				AHU #1 TOTAL = 139	0.8	139/0.8 = 174
AHU #2	OFFICE	1110	5 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	$\left(\frac{6 \times 5}{\text{AREA}} \right) + \left(\frac{1110 \times .06}{\text{TOTAL}} \right) = 97$		↓
AHU #2	CORRIDOR	490	0.06 CFM PER SQUARE FOOT.	$\left(\frac{\text{AREA}}{\text{TOTAL}} \right) + \left(\frac{490 \times .06}{\text{TOTAL}} \right) = 29$		
				AHU #2 TOTAL = 126	0.8	126/0.8 = 158
AHU #3	OFFICE	196	5 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	$\left(\frac{1 \times 5}{\text{AREA}} \right) + \left(\frac{196 \times .06}{\text{TOTAL}} \right) = 17$		↓
AHU #3	PROCEDURE AREAS	605	20 PEOPLE PER 1,000 S.F./15 CFM PER PERSON	$\left(\frac{13 \times 15}{\text{AREA}} \right) + \left(\frac{\text{TOTAL}}{\text{TOTAL}} \right) = 195$		
AHU #3	RECOVERY AREA	94	20 PEOPLE PER 1,000 S.F./15 CFM PER PERSON	$\left(\frac{2 \times 15}{\text{AREA}} \right) + \left(\frac{\text{TOTAL}}{\text{TOTAL}} \right) = 30$		↓
AHU #3	CORRIDOR	225	0.06 CFM PER SQUARE FOOT.	$\left(\frac{\text{AREA}}{\text{TOTAL}} \right) + \left(\frac{225 \times .06}{\text{TOTAL}} \right) = 14$		
				AHU #3 TOTAL = 256	0.8	256/0.8 = 320

* E₂ (SYSTEM VENTILATION EFFICIENCY) AS PER 2012 NCMC TABLE 403.3.2.3.2

SUPPLY DIFFUSER SCHEDULE					
	DESIGNATES LABEL FOR DIFFUSER TYPE		ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
	DESIGNATES CFM QUANTITY FOR DIFFUSER				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS	
A	TITUS TDC-AA	6"ø	0 - 125	12X12 LOUVERED FACE	
B	TITUS TDC-AA	6"ø	0 - 125	24X24 LOUVERED FACE	
C	TITUS TDC-AA	8"ø	130 - 200	24X24 LOUVERED FACE	
D	TITUS TDC-AA	10"ø	205 - 325	24X24 LOUVERED FACE	

RETURN GRILLE			SCHEDULE	
100	DESIGNATES LABEL FOR GRILLE TYPE		FILTER SHALL BE PROVIDED AT UNIT.	
	DESIGNATES CFM QUANTITY FOR GRILLE			
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	10X10	0 ~ 400	LOUVER FACE
2	TITUS 355FL	12X12	400 ~ 600	LOUVER FACE
3	TITUS 355FL	18X18	600 ~ 1200	LOUVER FACE

	THERMOSTAT, MTD +47" AFF
	EXHAUST FAN
	SECTION "A"—"A"
	REMOTE BULB SENSOR
	DUCT SMOKE DETECTOR
	TRANSITION
	TURNING VANE
	45° BRANCH DUCT TAKE-OFF
	FIRE DAMPER
	VOLUME CONTROL DAMPER
	RETURN REGISTER
	SUPPLY DIFFUSER
	RETURN AIR GRILLE
	SUPPLY REGISTER
	DUCTWORK TRANSITION
	ROOF MTD. EXH. FAN
	DUCT TURN DOWN
	DUCT TURN UP
	FLEXIBLE DUCT

H.V.A.C. ABBREVIATION LEGEND			
A/C	AIR CONDITIONER	REV.	REVISION
D.N.	DOWN	N.T.S.	NOT TO SCALE
EXH.	EXHAUST	NFOR.	NOT FOR
EXT.	EXTERIOR	R/A	RETURN AIR
E.F.	EXHAUST FAN	GR.	GRILLE
K.F.F.	KITCHEN FINISH FLOOR	C.D.	CEILING DIFFUSER
F.F.	FINISH FLOOR	REG.	REGISTER
TYP.	TYPICAL	C.U.	CONDENSING UNIT
		A.H.U.	AIR HANDLING UNIT
		D.G.	DOOR GRILLE
		F.D.	FIRE DAMPER
		V.C.D.	VOLUME CONTROL DAMPER
		F.R.	FRESH AIR
		S.P.	SAFE PAN
		C.D.	CONDENSATE DRAIN

CONTRACTOR TO UTILIZE THREE OF THE EIGHT REFRIGERATION
LINE SETS WHICH ARE EXISTING TO SERVE THE NEW THREE HVAC
SYSTEM OF THIS WORK. VERIFY SIZING MEETS ALL MANUFACTURER -
REQUIREMENTS FOR THIS EQUIPMENT. SET NEW CU ON EXISTING
ROOF RACK SYSTEMS. FIELD VERIFY ALL EXISTING CONDITIONS

EXISTING 18x18 OUTSIDE
AIR DUCT STUBBED IN A
THE FLOOR LEVEL ABOVE

EXTEND 18x18 DUCT HORIZONTALLY
INTO SPACE AND LEAVE CAPPED
OFF FOR FUTURE USE.

NEW CONDENSING UNITS TO BE SET ON EXISTING ROOF RACKS. FIELD VERIFY ALL EXISTING CONDITIONS.

12x12 O/A
DUCT

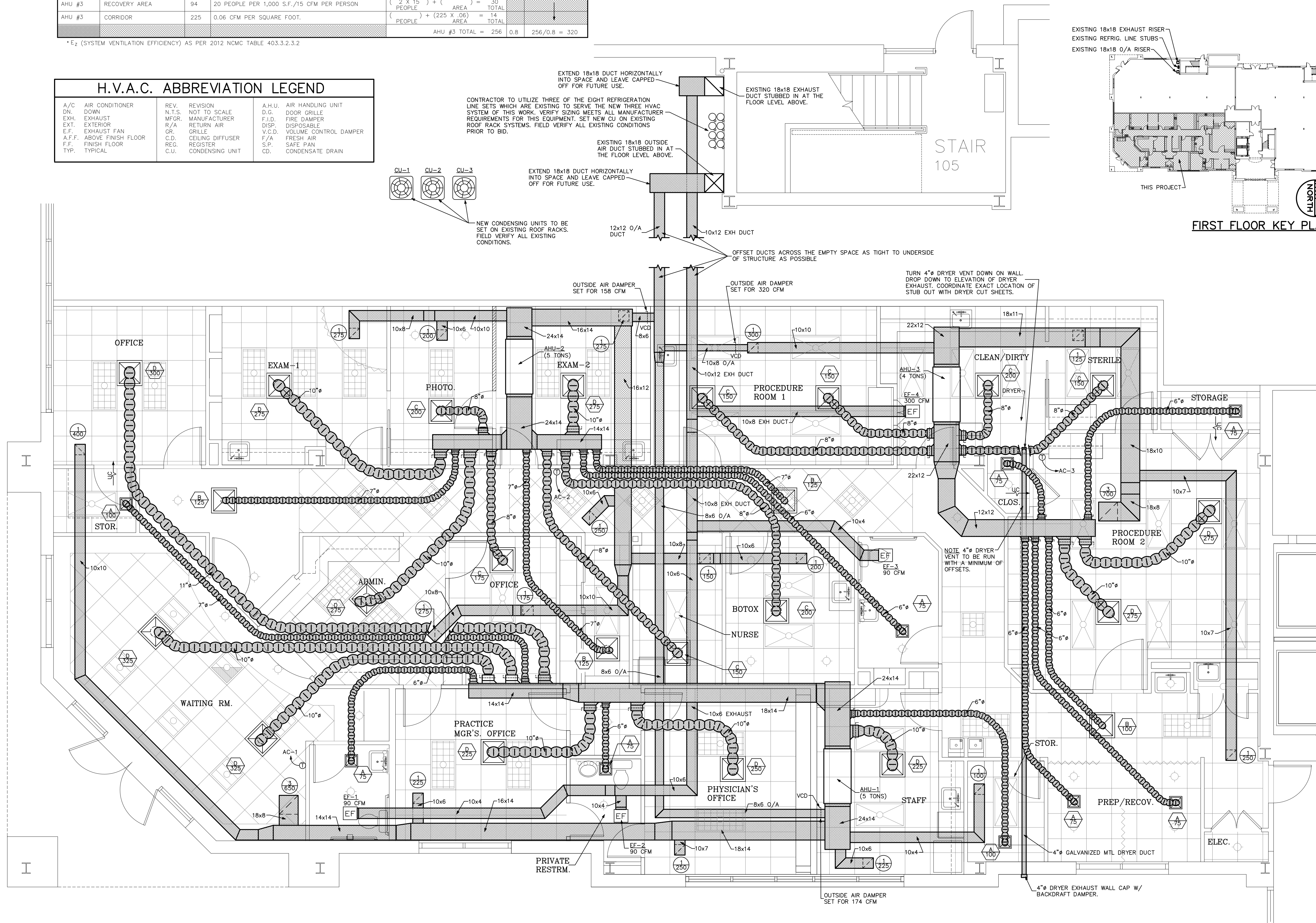
EXISTING 18x18 EXHAUST
DUCT STUBBED IN AT T
FLOOR LEVEL ABOVE.

STAIR
105

EXISTING 18x18 EXHAUST RISER
EXISTING REFRIG. LINE STUBS
EXISTING 18x18 O/A RISER

THIS PROJECT-

FIRST FLOOR KEY PLAN



RESIDENTIAL STYLE DRYER SPECIFICATION FOR DIRTY/CLEAN ROOM

DRYER SHALL BE A GE LONG VENT ELECTRIC DRYER "GE" MODEL DLSR483EGWW. DRYER SHALL BE SUPPLIED WITH A 4"Ø RIGID METAL FLUE, NO BOOSTER FAN REQUIRED. THIS DRYER MODEL WILL ALLOW UP TO 115 FT. (W/UP TO 3 ELBOWS) TO TERMINATION POINT.

* <http://products.geappliances.com/App/Products/Dispatcher?REQUEST=SpecPage&Sku=DLSR483EGWW>

1 FLOOR PLAN - MECHANICAL

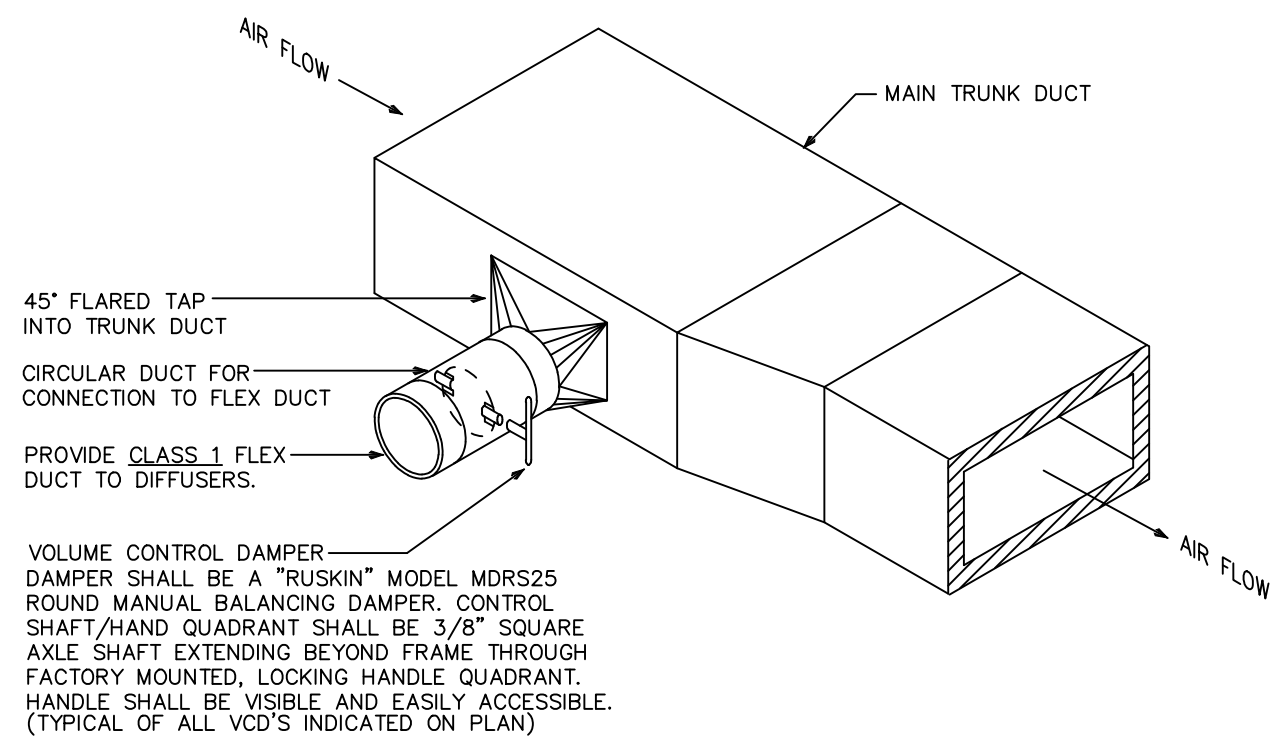
M1.1

FAN SCHEDULE										
LABEL	TYPE OF UNIT -- AREA SERVED	MANUFACTURER & MODEL NO.	CFM	SP	MOUNTING ARRANGEMENT	MOTOR H.P.	ENCLOSURE TYPE	RPM	VOLTAGE	NOTES
EF-1	CABINET FAN -- REFER TO PLANS	PENN ZEPHYR Z6	90	.125"	CEILING MOUNTED	50 WATTS	OPEN DRIP PROOF	1055	277V/1Ø	1, 2
EF-2	CABINET FAN -- REFER TO PLANS	PENN ZEPHYR Z6	90	.125"	CEILING MOUNTED	50 WATTS	OPEN DRIP PROOF	1055	277V/1Ø	1, 2
EF-3	CABINET FAN -- REFER TO PLANS	PENN ZEPHYR Z6	90	.125"	CEILING MOUNTED	50 WATTS	OPEN DRIP PROOF	1055	277V/1Ø	1, 2
EF-4	CABINET FAN -- REFER TO PLANS	PENN ZEPHYR Z81	300	.125"	CEILING MOUNTED	124 WATTS	OPEN DRIP PROOF	1115	115V/1Ø	1
NOTES: 1.) REFER TO ELECTRICAL PLANS FOR CONTROL. 2.) PROVIDE A 277V TO 120V STEPDOWN TRANSFORMER FOR FAN										

AIR COOLED HEAT PUMP SCHEDULE																						
HEAT PUMP											AIR HANDLING UNIT							DUCT MTD. ELECTRIC HEATING				
CU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CAPACITY COOLING	SENSIBLE CAPACITY COOLING	TOTAL CAPACITY HEATING	COMP. RLA	FAN FLA	VOLTAGE	MOCP	EER/SEER	WEIGHT	AHU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CFM	O/A CFM	E.S.P. BLOWER SPEED	FAN HP	VOLTAGE	WEIGHT	HEATER KW	VOLTAGE	NOTES	
CU #1	CARRIER 25HBB360A006	59,260	44,220	43,770	7.8	0.6	480V/3ø	20A	13.0	295 lbs.	AHU #1	CARRIER FX4CNF06015	2,000	SEE SCH	.25" HIGH	3/4 HP	240V/1ø	168 lbs.	15 KW	480V/3ø	1 THRU 6	
CU #2	CARRIER 25HBB360A006	59,260	44,220	43,770	7.8	0.6	480V/3ø	20A	13.0	295 lbs.	AHU #2	CARRIER FX4CNF06015	2,000	SEE SCH	.25" HIGH	3/4 HP	240V/1ø	168 lbs.	10 KW	480V/3ø	1 THRU 6	
CU #3	CARRIER 25HBB348A006	47,500	35,360	35,850	6.2	0.6	480V/3ø	20A	13.0	295 lbs.	AHU #3	CARRIER FX4DNF048010	1,600	SEE SCH	.25" HIGH	3/4 HP	240V/1ø	168 lbs.	10 KW	480V/3ø	1 THRU 6	
GENERAL NOTES: * ALL RATINGS ARE AT ARI ENTERING CONDITIONS UNLESS OTHERWISE NOTED. * PROVIDE VIBRATION ISOLATION FOR UNITS. * EXTERNAL STATIC PRESSURE DOES NOT INCLUDE COIL OR FILTER PRESSURE DROP. * CONTRACTOR MAY SUBSTITUTE MANUFACTURER FOR APPROVED EQUAL. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ANY CLEARANCE REQUIREMENTS ARE MET FOR ANY SUBSTITUTIONS.					ABBREVIATION LEGEND: O/A – OUTSIDE AIR HP – HORSE POWER RLA – RUNNING LOAD AMPS FLA – FULL LOAD AMPS MOCP – MAX. OVERCURRENT PROTECTION (DUAL ELEMENT TYPE FUSE) E.S.P. – EXTERNAL STATIC PRESSURE EER – ENERGY EFFICIENCY RATIO SEER – SEASONAL ENERGY EFF. RATIO						SPECIFIC NOTES: 1) SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS. 2) INSULATE REFRIGERANT SUCTION LINE WITH 3/4" ARMAFLEX OR APPROVED EQUAL. 3) INSTALL FILTER DRYER AND STRAINER IN REFRIGERANT LIQUID LINE. 4) PROVIDE FIELD INSTALLED ACCESSORIES, AND 5 MINUTE TIME DELAY SWITCH. 5) PROVIDE 5 YEAR WARRANTY ON COMPRESSOR AND 1 YEAR WARRANTY ON ALL PARTS AND LABOR. 6) PROVIDE A 480V/1ø STRIP HEATER WITH AN INTEGRAL 480V/1ø TO 240V/1ø STEPDOWN TRANSFORMER TO FEED 240V/1ø AHU FAN MOTOR, WARREN CO. OR EQUAL.							SEQUENCE OF OPERATION FOR HEATING FIRST STAGE WHEN THE THERMOSTAT CALLS FOR HEATING, THE INDOOR FAN MOTOR, OUTDOOR FAN MOTORS AND THE COMPRESSOR (FULLY LOADED) ARE ENERGIZED. THE REVERSING VALVE SOLENOID IS ENERGIZED IN THE HEATING MODE. SECOND STAGE IF ADDITIONAL HEAT IS REQUIRED, THE ELECTRIC HEAT SHALL BE ENERGIZED.				

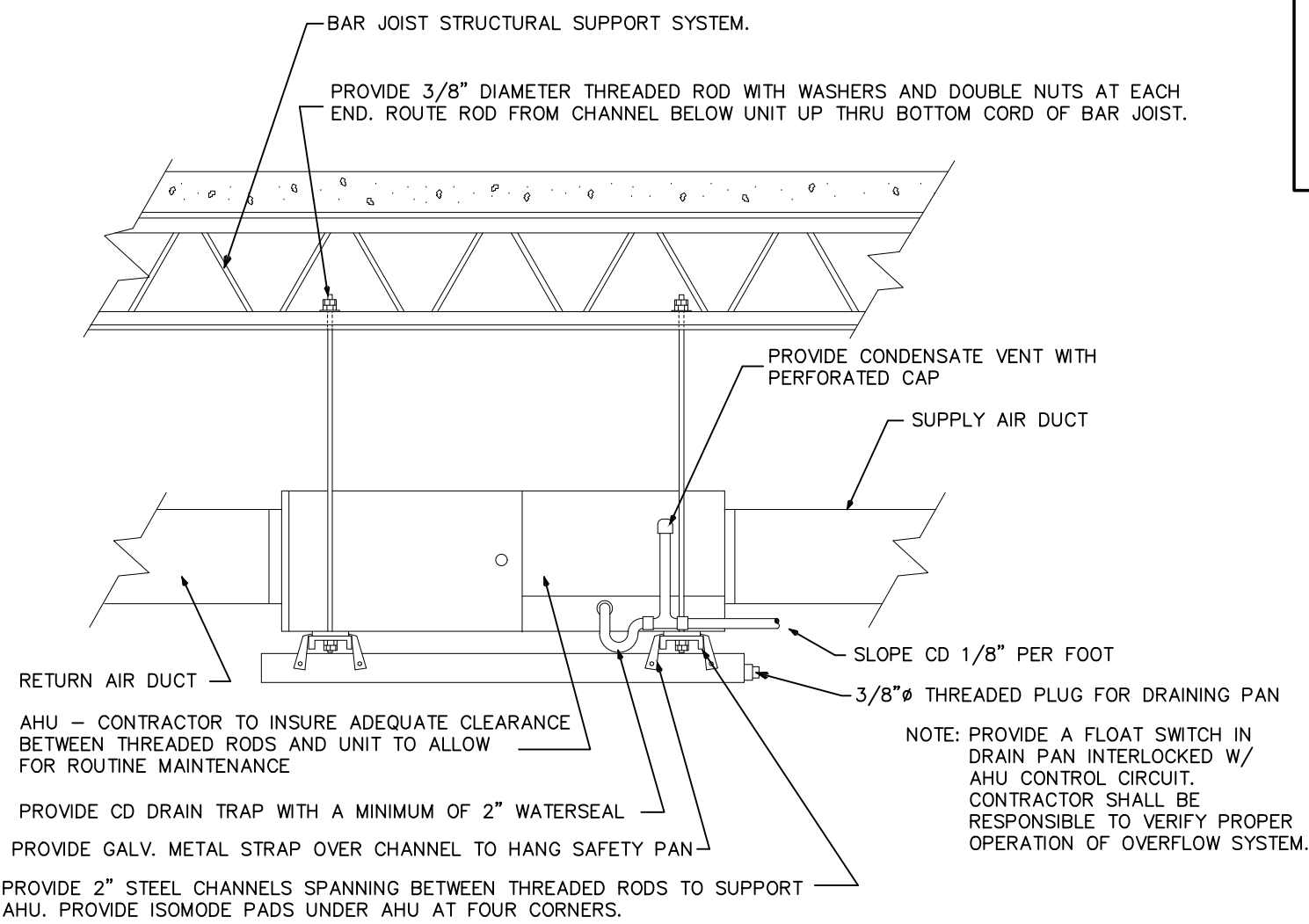
GENERAL MECHANICAL NOTES

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE APPLICABLE BUILDING CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST ADDITION OF THE FOLLOWING PUBLICATIONS: SMACNA, ASHRAE, NFPA 90A, 90B, 91 & ANSI B-9.1. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND SUPPORTED AS PER SMACNA STANDARDS.
- THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
- THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES TO INSURE AN ORDERLY PROGRESS OF THIS WORK.
- THE CONTRACTOR SHALL SUPPLY THE OWNER WITH ONE SET OF "AS-BUILT" DRAWINGS UPON COMPLETION OF THIS PROJECT. CONTRACTOR SHALL ALSO LEAVE FOR ONE AT LEAST ONE SET OF THE MANUFACTURER'S INSTALLATION AND OPERATIONS MANUALS FOR ALL EQUIPMENT PROVIDED ON THE PROJECT.
- ALL PROVIDED MATERIALS SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.
- CONTRACTOR SHALL SUBMIT, FOR APPROVAL A COPY OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT. IT IS STRONGLY PREFERRED THAT THE SUBMITTALS BE MADE IN THE FORM OF AN ELECTRONIC SUBMITTAL IN A PDF TYPE FORMAT.
- ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE GALVANIZED SHEET STEEL EXTERNALLY WRAPPED WITH WITH A MIN. OF R5 INSULATION OR R6 IF DUCTWORK IS LOCATED EXTERIOR TO BLDG INSULATION ENVELOPE. ALL FLEX DUCT SHALL BE "THERMOFLEX" OR APPROVED EQUAL AND SHALL HAVE EQUIVALENT INSULATION.
- ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.
- DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS, METALAIR, AIRGUIDE. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
- THERMOSTAT SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES. PROVIDE PROGRAMMABLE TYPE THERMOSTAT. * CONTRACTOR SHALL FULLY INSTRUCT OWNER ON HOW TO PROPERLY PROGRAM INSTALLED THERMOSTATS. * PROGRAMMABLE THERMOSTAT SHALL BE BY MANUFACTURER OF INSTALLED AIR HANDLING UNIT. IT IS RECOMMENDED THAT DURING OCCUPIED HOURS, THE FANS BE SET TO "ON" IN LIEU OF "AUTO". * THERMOSTATS SHALL BE MOUNTED A MAX. OF 48" A.F.F.
- REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL SIZED AS PER MANUFACTURER RECOMMENDATIONS.
- SPLIT SYSTEMS (IF APPLICABLE) SHALL HAVE ARMAFLEX 3/4" INSULATION (OR APPROVED EQUAL) USED FOR SUCTION LINES. INSTALLATION SHALL BE AS PER MANUFACTURERS INSTRUCTIONS. PRE-INSULATED LINES SETS ARE ACCEPTABLE.
- ALL BRANCH TAKE-OFFS TO BE PROVIDED W/MANUAL VOLUME DAMPERS AND TAPS AS PER PLANS REQUIREMENTS.
- PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY OWNER.
- PROVIDE SMOKE DETECTORS WITH ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FANS AND AHU'S SERVING A COMMON DESIGN SUPPLY OR RETURN PLENUM OF ABOVE 2000 CFM. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURER, COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.
- HVAC CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS. THE T & B SHALL BE IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLS, RETURN GRILLS, AND EXHAUST GRILLS, AND THE LEAVING AND ENTERING AIR TEMPERATURE (°F) FROM SUPPLY GRILLS AND EVAPORATORS.
- THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER BEFORE INSTALLATION.
- ALL INSULATION SHALL HAVE FIRE/SMOKE RATING LESS THAN 25/50.
- MECHANICAL PLANS IN GENERAL, ARE DIAGRAMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND WIND LOADING FORCES AS REQUIRED BY LOCAL CODES. REFER TO STRUCTURAL PLANS BY OTHERS FOR STRUCTURAL DETAILS.
- PROVIDE ALL NECESSARY CONTACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING SYSTEM.
- THROUGHOUT THE COURSE OF THE WORK, MINOR CHANGES AND ADJUSTMENTS TO THE PLANS AND SPECIFICATIONS MAY BE REQUESTED BY THE TENANT. THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS WITHOUT ADDITIONAL COST TO THE TENANT, WHERE SUCH ADJUSTMENTS ARE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE SYSTEMS, AND WITHIN THE INTENT OF THE CONTRACT DOCUMENTS.
- NOTWITHSTANDING ANY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR BEARS ULTIMATE RESPONSIBILITY FOR COMPLIANCE OF THE INSTALLATION WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- IF ANY ERRORS, DISCREPANCIES OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH ERROR OR OMISSION. IN THE EVENT OF THE CONTRACTOR FAILING TO GIVE SUCH NOTICE BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS, DISCREPANCIES OR OMISSIONS AND THE COST OF RECTIFYING SAME.



2 BRANCH DUCT DETAIL

NO SCALE



1 A.H.U. MOUNTING DETAIL

NO SCALE

APPENDIX B BUILDING CODE SUMMARY (MECHANICAL SUMMARY) MECHANICAL SYSTEMS, SERVICE SYSTEMS, AND EQUIPMENT

METHOD OF COMPLIANCE:
Prescriptive ☒ Energy Cost Budget ☐

Thermal Zone Zone 3A

Exterior Design Conditions
winter dry bulb 20° F
summer dry bulb 97° F

Interior Design Conditions
winter dry bulb 68° F
summer dry bulb 74° F
relative humidity 52.9%

Building Heating Load 93,000 BTU
Building Cooling Load 160,800 BTU

Mechanical Spacing Conditioning System
Unitary
Description of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
heating efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
cooling efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
heat output of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
cooling output of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.

Boiler N/A
total boiler output, If oversized, state reason.

Chiller N/A
total chiller capacity, If oversized, state reason.

List equipment efficiencies
Equipment schedules with motors (mechanical systems) REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
motor horsepower REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
number of phases REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
minimum efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
motor type REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
of poles REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipment requirements of the North Carolina Energy Code 2012.

SIGNED: _____
NAME: TODD W. CAREY
TITLE: N.C. PROFESSIONAL ENGINEER #9079

NOTE:
COMPLIANCE TO NC ENERGY
SECTION 506 IS MADE BY
LIGHTING LEVEL REDUCTION.

PLUMBING
SYMBOLS LEGEND

	FLOOR DRAIN
	HOSE BIBB
	CLEANOUT
	RELIEF VALVE
	AIR CHAMBER
	UNION
	SOIL OR WASTE LINE
	SANITARY VENT LINE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC WATER RECIRCULATION
	PRESSURE & TEMP. RELIEF LINE
	CONDENSATE DRAIN LINE
	RAIN WATER LEADER
	GAS LINE
	SAFEWASTE LINE
	FIRE PROTECTION
	SHUT OFF VALVE
	SAFEPAN LINE
	FIRE SPRINKLER HEAD
	PIPE TURN UP
	PIPE TURN DOWN
	P-TRAP

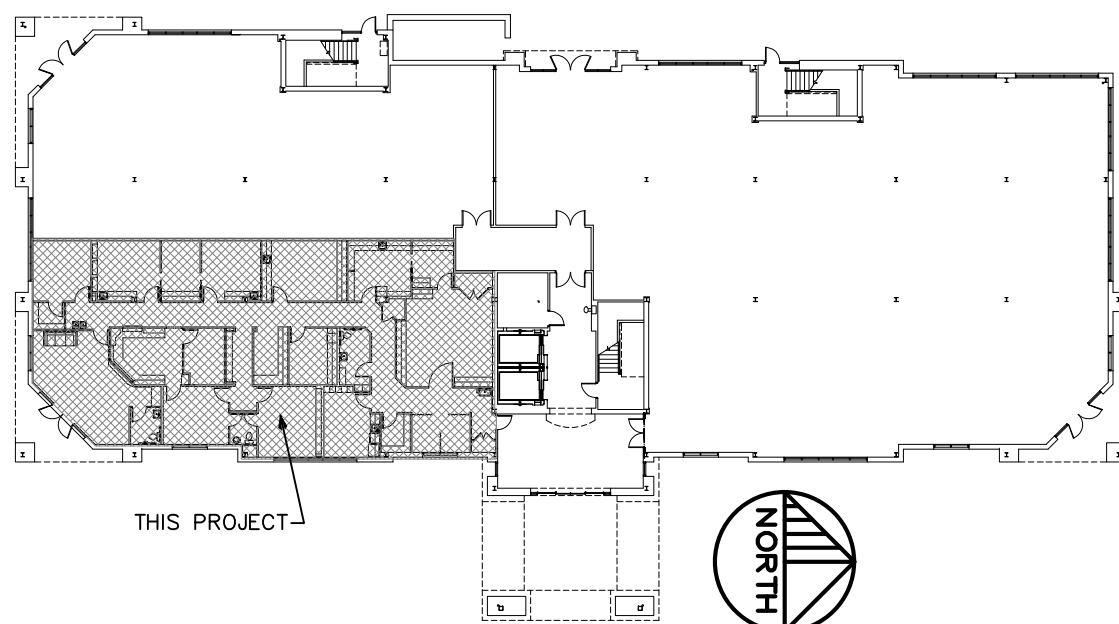
PLUMBING ABBREVIATION LEGEND

D.N.	DOWN	C.C.	CENTER TO CENTER	F.U.	FIXTURE UNITS
EXT.	EXTERIOR	N.T.S.	NOT TO SCALE	H.B.	HOSE BIBBS
F.D.	FLOOR DRAIN	MFG.	MANUFACTURER	C.O.	CLEANOUT
F.F.	FINISH FLOOR	S.O.V.	SHUT OFF VALVE	E.W.H.	ELECTRIC WATER HEATER
A.F.F.	ABOVE FINISH FLOOR	W.C.	WATER CLOSET	JAN.SK.	JANITOR SINK
V.T.R.	VENT THRU ROOF	LAV.	LAVATORY	P & T	PRESSURE & TEMPERATURE
TYP.	TYPICAL	SK.	SINK	RWL	RAIN WATER LEADER
R.D.	ROOF DRAIN	D.W.	DISH WASHER		
REV.	REVISION	E.D.F.	ELECTRIC DRINKING FOUNTAIN		
O.C.	ON CENTER	UR.	URINAL		

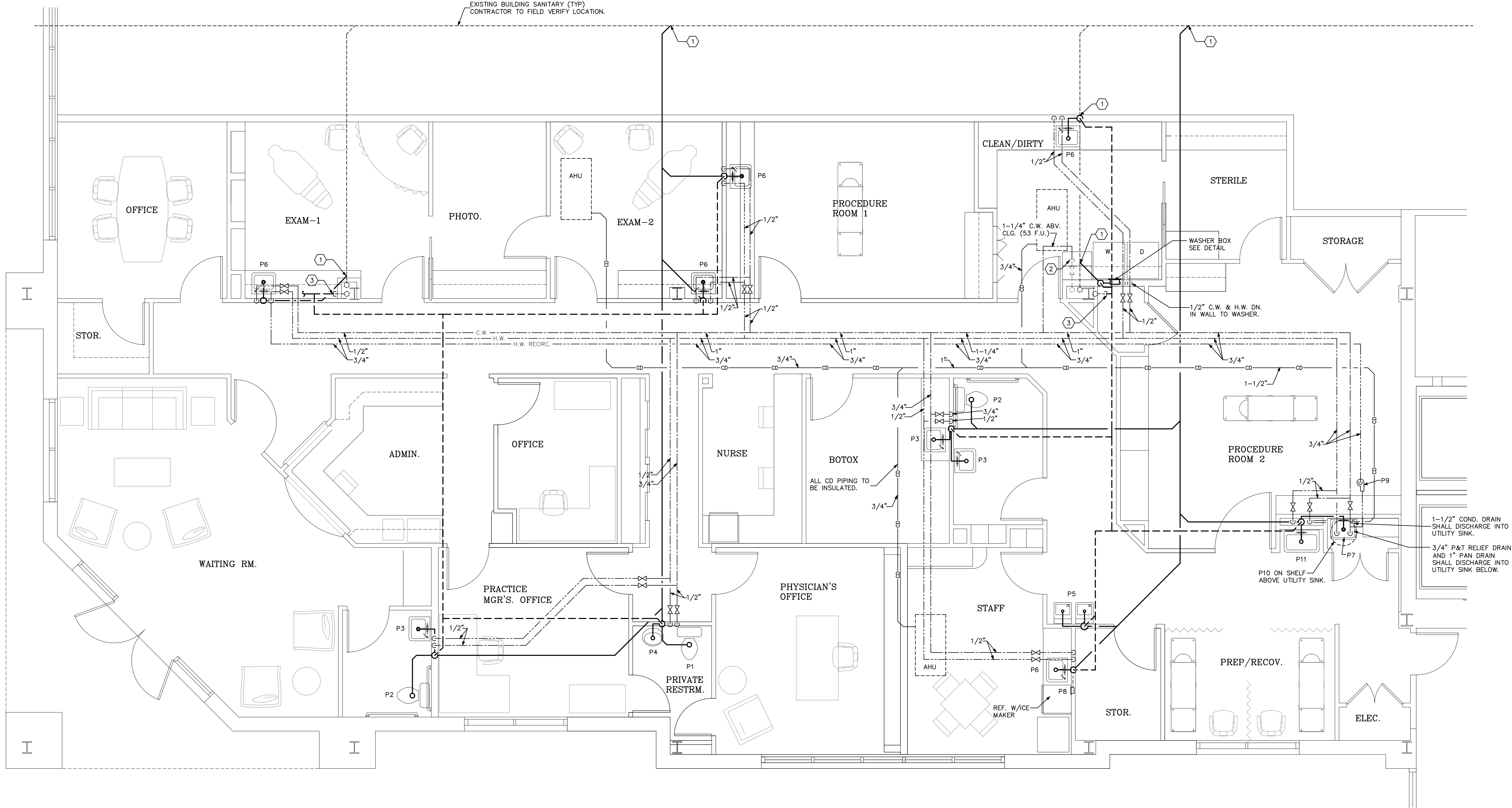
SPECIFIC PLUMBING NOTES

- CONNECT TO EXISTING SANITARY PIPING BELOW FLOOR IN THIS AREA. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.
- CONNECT TO EXISTING C.W. PIPING ABOVE CEILING IN THIS AREA. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.
- CONNECT TO EXISTING VENT PIPING ABOVE CEILING IN THIS AREA. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.

NOTE: THIS IS AN EXISTING FACILITY WHICH HAS EXISTING SANITARY AND WATER DISTRIBUTION SYSTEMS. ALTERATIONS TO EXISTING WORK BEING OF SUCH NATURE THAT ALL FACETS OF THE WORK ARE IMPOSSIBLE TO DETAIL AND SPECIFY. IT IS THEREFORE THE RESPONSIBILITY OF THE CONTRACTOR TO CAREFULLY EXAMINE THE EXISTING BUILDING AND FAMILIARIZE HIMSELF WITH THE CONDITIONS AND RELATE THESE CONDITIONS TO THE SCOPE OF THE PROPOSED NEW WORK. ALL BIDS ARE EXPECTED TO ENCOMPASS THE TOTAL WORK SCOPE NEEDED TO PLACE THE COMPLETED SYSTEM IN WORKING CONDITION.



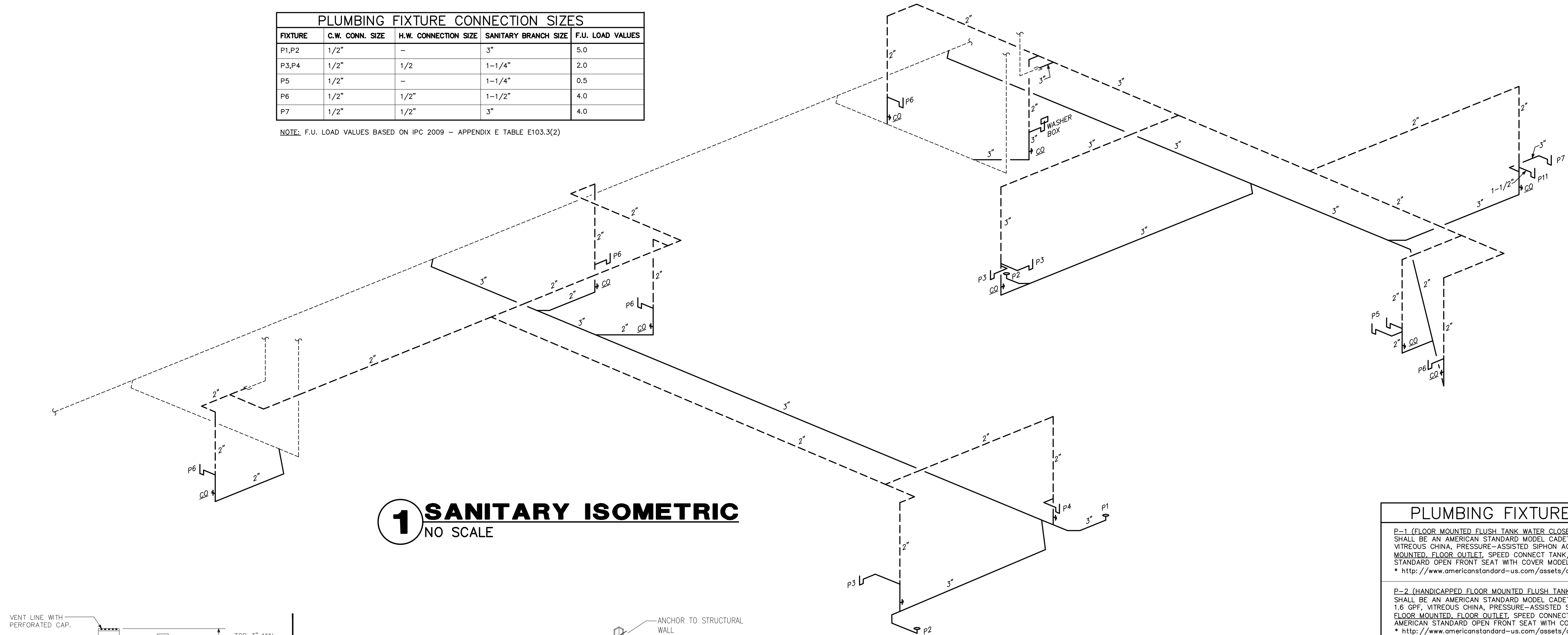
FIRST FLOOR KEY PLAN



1 FLOOR PLAN - PLUMBING
SCALE: 1/4"=1'-0"

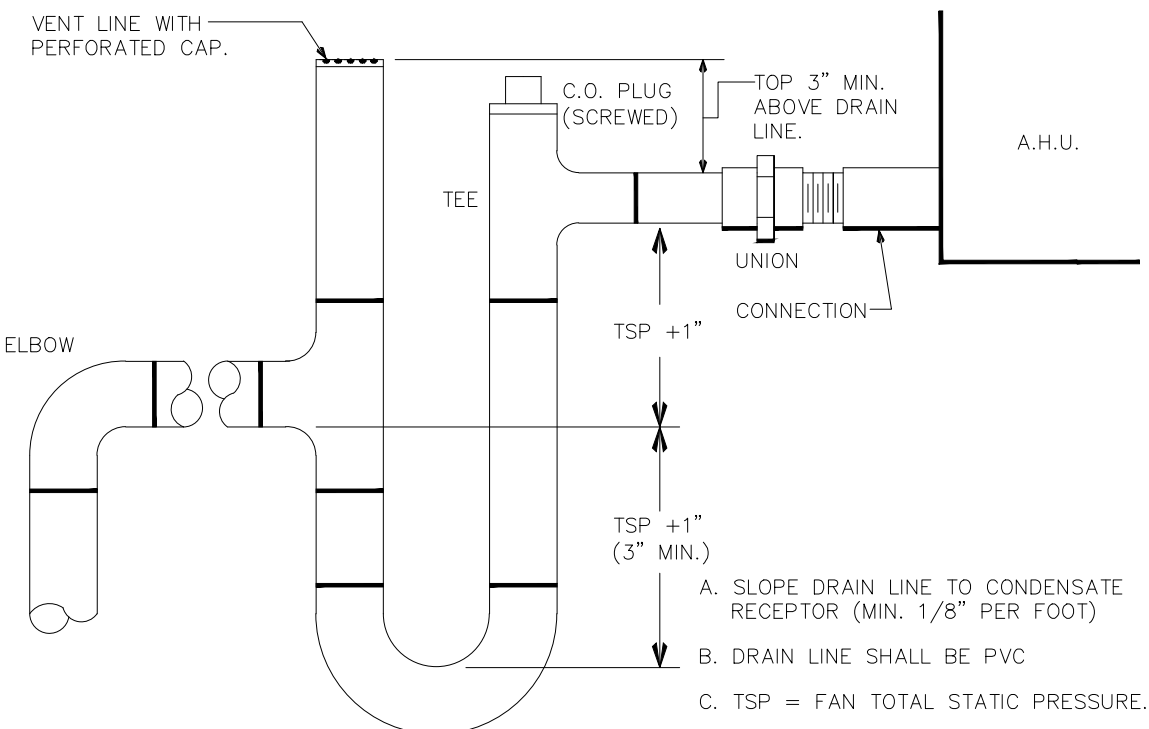
PLUMBING FIXTURE CONNECTION SIZES				
FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE	F.U. LOAD VALUES
P1,P2	1/2"	—	3"	5.0
P3,P4	1/2"	1/2	1-1/4"	2.0
P5	1/2"	—	1-1/4"	0.5
P6	1/2"	1/2"	1-1/2"	4.0
P7	1/2"	1/2"	3"	4.0

NOTE: F.U. LOAD VALUES BASED ON IPC 2009 – APPENDIX E TABLE E103.3(2)



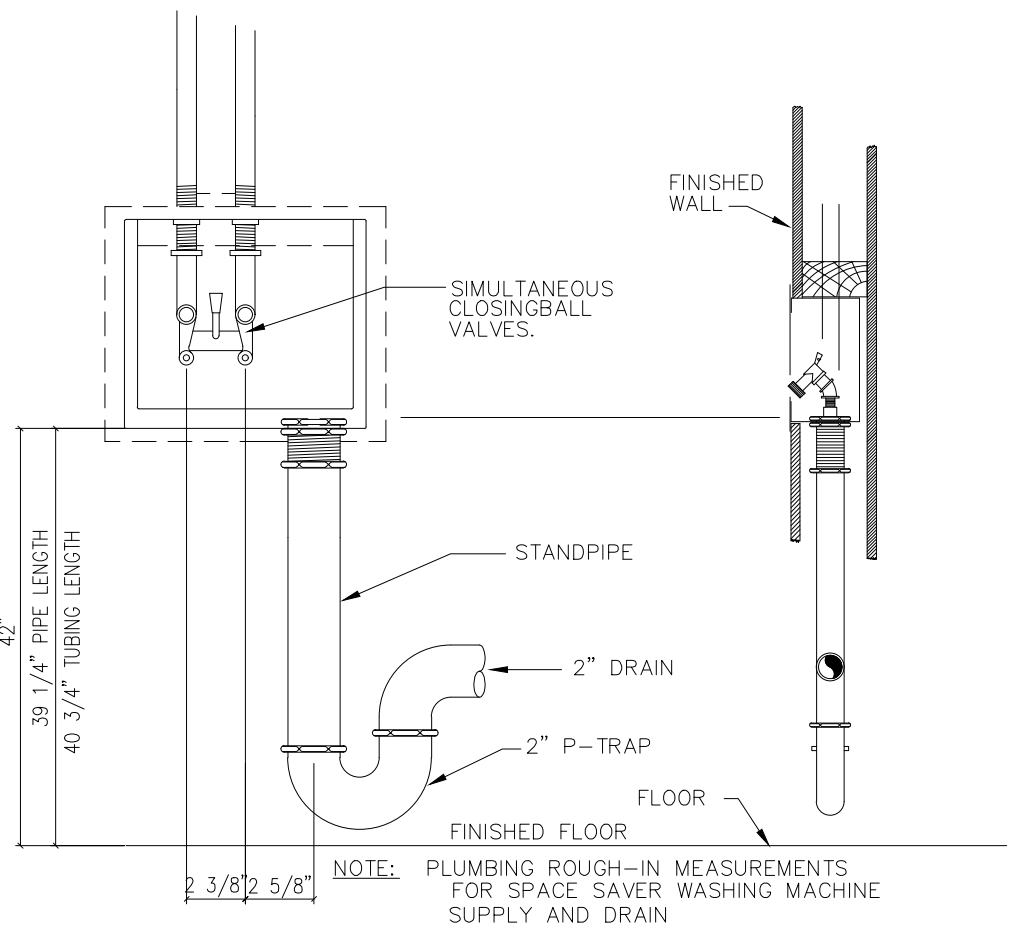
1 SANITARY ISOMETRIC

NO SCALE



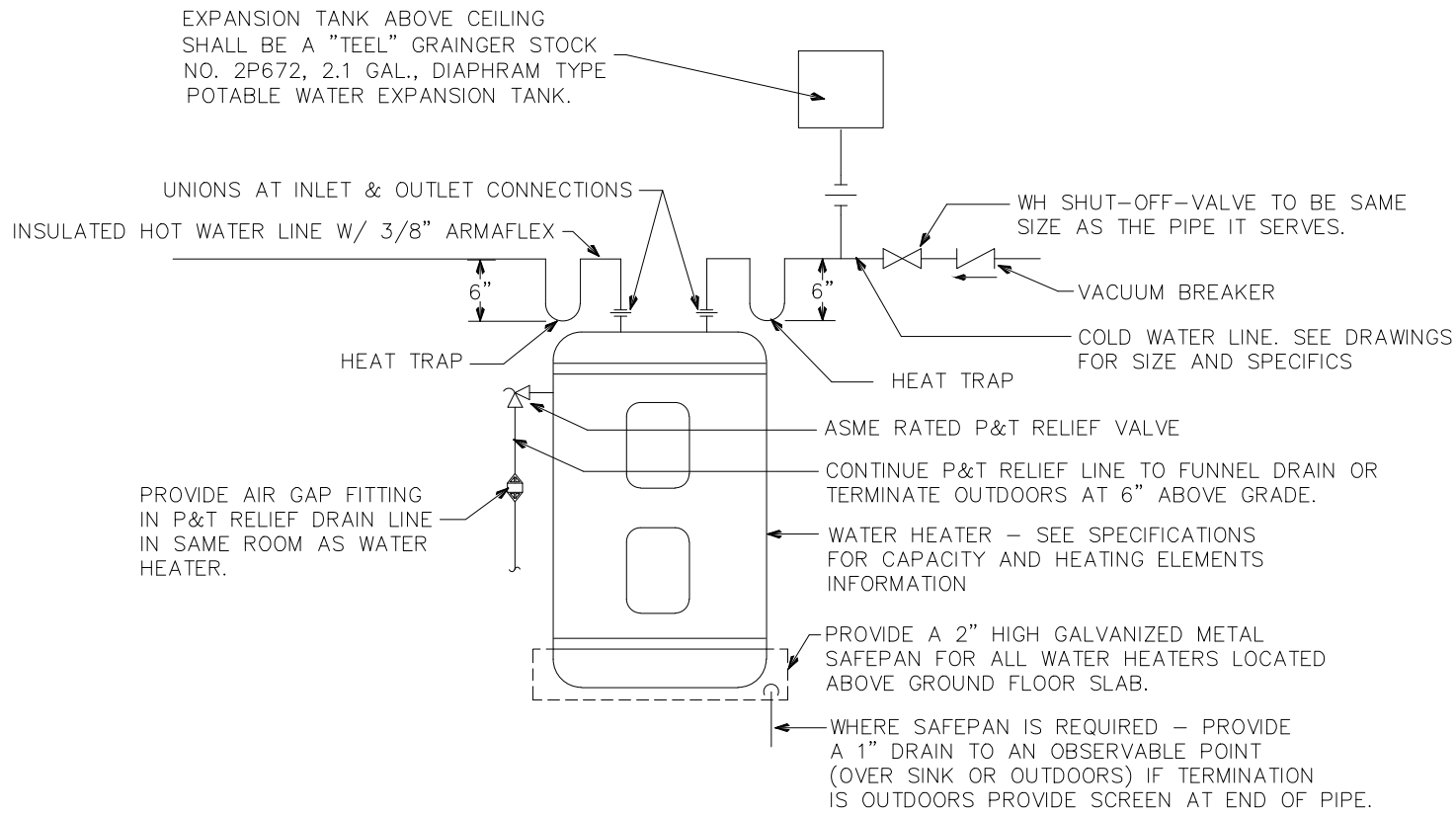
2 CONDENSATE P-TRAP DETAIL

NOT TO SCALE



3 WATER HEATER MTG. DETAIL

NO SCALE



4 WASHER CONN. DETAIL

NO SCALE

5 WATER HEATER DETAIL

NO SCALE

GENERAL PLUMBING NOTES

- Drawings are diagrammatic and shall not be scaled. Refer to architectural plans and elevations for exact location of all plumbing fixtures, equipment, etc.. Plumbing contractor shall furnish and install all items required for a complete and acceptable working installation. Contractor is responsible to install all fixtures and equipment in strict compliance with the manufactures installation instructions. This requirement is to supersede any details or information contained on these drawings.
- All work and materials shall comply with the latest edition of the National, State, and all local codes and Ordinances having jurisdiction.
- The plumbing contractor shall visit the site and thoroughly familiarize himself with all existing conditions. All execution and backfill as required for this phase of construction shall be a part of this contract.
- All material shall be new.
- All work shall be performed by a licensed plumbing contractor in a first class workmanlike manner. The completed system shall be fully operative and accepted by engineer/architect.
- All required insurance shall be provided for protection against public liability or property damage for the duration of the work.
- The plumbing contractor shall secure and pay all permit fees, inspections, and tests.
- All work shall be coordinated with other trades to avoid interference with the progress of construction.
- The plumbing contractor shall guarantee all materials and workmanship free from defects for a period of not less than (1) one year from date of acceptance. Correction of any defects shall be completed without additional charge and shall include replacement or repair of any other phase of the installation which may have been damaged thereby.
- Verify location, size and inverts of all existing utilities prior to start of construction. Advise architect/engineer of any discrepancies.
- All fixtures shall be provided with readily accessible stops.
- All below floor slab water piping shall be flexible "temprite pex (cross-linked polyethylene)" installed as per manufacturers recommendations found here: www.lubrizon.com. All above slab water piping shall be "FlowGuard Gold CPVC" installed as per manufacturers recommendations found here: www.flowguardgold.com. All water piping as specified or approved equal. All water piping larger than 1" shall be CPVC.
- Soil, wastes and vent piping shall be PVC #40 DMV. Waste and vent piping above slab shall be PVC, if approved by local authorities having jurisdiction, otherwise cast iron. PVC shall not be installed in A/C return or plenum or penetrate fire rated walls or floors.
- Air conditioning condensate drain piping shall be PVC #40 or copper drain waste and bent pipe and fittings. Insulate all condensate piping except exterior piping. Install all condensate piping for air conditioning units as required per local codes.
- Furnish and install approved water hammer arrestors at each plumbing fixture and PDI approved shock arrestors on main lines and risers.
- Provide chrome plated combination covered plate and cleanout plug for all wall cleanouts, Josam 58890.
- Insulate lines as follows:
 - 1" thick armaflex preformed insulation shall be provided on both c.w. & h.w. when piping is located outside of the insulated building envelope.
 - 1/2" thick armaflex preformed insulation shall be provided on hw piping & h.w. recirc. piping, only when there is a h.w. recirculating piping system.
 - Condensate piping: 1/2" thick armaflex preformed or approved equal.

PLUMBING FIXTURE SCHEDULE

P-1 (FLOOR MOUNTED FLUSH TANK WATER CLOSET)
SHALL BE AN AMERICAN STANDARD MODEL CADET MODEL 2333.100 ELONGATED 1.6 GPF, VITREOUS CHINA, PRESSURE-ASSISTED SIPHON ACTION BOWL, CLOSE-COUPLED TANK, FLOOR MOUNTED, FLOOR OUTLET, SPEED CONNECT TANK/BOWL COUPLING SYSTEM, WITH AMERICAN STANDARD OPEN FRONT SEAT WITH COVER MODEL 5325.024.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_722.pdf

P-2 (HANDICAPPED FLOOR MOUNTED FLUSH TANK WATER CLOSET)
SHALL BE AN AMERICAN STANDARD MODEL CADET RIGHT HEIGHT 16-1/2" 2377.100 ELONGATED 1.6 GPF, VITREOUS CHINA, PRESSURE-ASSISTED SIPHON ACTION BOWL, CLOSE-COUPLED TANK, FLOOR MOUNTED, FLOOR OUTLET, SPEED CONNECT TANK/BOWL COUPLING SYSTEM, WITH AMERICAN STANDARD OPEN FRONT SEAT WITH COVER MODEL 5325.024.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1006.pdf

P-3 (HANDICAPPED WALL HUNG LAVATORY)
SHALL BE AN AMERICAN STANDARD MISSOURI LAVATORY MODEL 0436.004US, VITREOUS CHINA, WALL MOUNT WITH CONCEALED ARMS SUPPORT. PROVIDE AN AMERICAN STANDARD MONTERREY MODEL 6331.170 CENTERSET FAUCET WITH 4" WRIST BLADE HANDLES. WATER PIPING AND P-TRAP SHALL BE COVERED WITH AN UNDERSINK PROTECTIVE PIPE COVER KIT BY TRUEBRO ([HTTP://WWW.TRUEBRO.COM](http://www.truebro.com)) OR APPROVED EQUAL.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_426.pdf

P-4 (FLOOR MOUNTED PEDESTAL LAVATORY AND FAUCET)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO BID.

P-5 (HANDICAPPED ELECTRIC WATER COOLER COMBINATION H/A/O)
SHALL BE AN ELKAY MODEL EMABFTL8C, SPLIT LEVEL TWO STATION WATER COOLER WITH BARRIER FREE ACCESS. MODEL EMABFTL8C, 8.8 GPH, 4.0 FLA AT 120 VOLT.
* http://www.elkaysa.com/cps/rde/xbr/elkay/12-538_EMABFTL8C_EMABFTLDDC.pdf

P-6 (SINGLE BOWL STAINLESS STEEL SINK)
SHALL BE A "JUST" MODEL SLF-2125-A-GR, 21"x35"x8" SEAMLESS DIE-DRAWN CONSTRUCTION OF TYPE 304, 18-8 STAINLESS STEEL. INTERIOR AND TOP SURFACES POLISHED TO A NONPOROUS HAND-BLENDED JUST FINISH WITH HIGHLIGHTED BOWL RIM. FULLY COATED UNDERSIDE INSULATED FOR SOUND AND REDUCES CONDENSATION. STRAIGHT-SIDED COMPARTMENT WITH RADIUS CORNERS PROVIDES GREATER CAPACITY. SELF-RIMMING TOPMOUNT GRIP-RIMPLUS WITH STAINLESS STEEL MOUNTING CHANNELS. CONFORMS TO ASME/ANSI A112.19.3M, CERTIFIED CONFORMANCE WITH ASME A112.19.3/CSA B45.4. FAUCET SHALL BE A "JUST" MODEL JWF-201.
* <http://www.justmfg.com/PDF/SLF2125A.pdf>
* <http://www.justmfg.com/PDF/7-119.pdf>

P-7 (WALL MOUNT JANITORS SINK)
SHALL BE AN "AMERICAN STANDARD" LAKEWELL SERVICE SINK MODEL 7692.008, ENAMELED CAST IRON WITH DRILLED BACK 2 HOLES ON 8" CENTERS AND RIM GUARD. FAUCET SHALL BE AN "AMERICAN STANDARD" MODEL 8351.076 EXPOSED YOKE WALL-MOUNT UTILITY FAUCET 3" CAST BRASS SPOUT WITH VACUUM BREAKER, INTEGRAL SUPPLY STOPS, OFFSET SHANKS WITH INTEGRAL CHECK VALVES, VANDAL-RESISTANT METAL LEVER HANDLES. BUCKET HOOK, 3/4" THREADED HOSE END, 1/2" NPT FEMALE INLETS.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1475.pdf
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4430.pdf

P-8 (WATER CONNECTION BOX)
SHALL BE A HIGH QUALITY CONNECTION BOX AS SPECIFIED ON [PLUMBINGSUPPLY.COM](http://www.plumbingsupply.com) LOCATED ON THIS PAGE "http://www.plumbingsupply.com/icemaker-outlet-boxes.html" SHALL INCLUDE 2 SUPPORT BRACKETS, HIGH IMPACT POLYSTYRENE, 1/4" BRASS BALL VALVE WITH 1/2" SWEAT CONNECTION, OR APPROVED EQUAL.

P-9 (HOT WATER RECIRCULATING PUMP)
SHALL BE A BELL & GOSSETT MODEL #PL-36B, GRAINGER STOCK #51PC3, INLINE CIRCULATOR PUMP, OPEN LOOP SYSTEM, 1/6 HP, 1 PHASE, VOLTAGE 115, INLET/OUTLET FLANGED, HOUSING MATERIAL BRONZE, MAX. TEMP. 225 F, MAX. WORKING PRESSURE 150 PSI, SHUT-OFF 37 FT., 3300 RPM, IMPELLER MATERIAL NORYL, THERMAL PROTECTION MECHANICAL SEAL CARBON/SILICON CARBIDE, ADDITIONAL FEATURES MAINTENANCE-FREE, WARRANTY LENGTH 3 YEARS.
* <http://www.grainger.com/Grainger/BELL-GOSSETT-Circulator-Pump-5JPC39Pid=search>

P-10 (WATER HEATER – LIGHT DUTY)
SHALL BE A LOCHINVAR MODEL ESW040KD, 40 GALLON GLASSINED STORAGE TANK, JUNIOR TYPE WATER HEATER WITH (2) – 4.5 KW ELECTRIC ELEMENTS WIRED FOR NON-CONCURRENT INDEPENDENT OPERATION AT 277 VOLTS, SINGLE PHASE INCOMING POWER, 3 YEAR LIMITED WARRANTY ON STORAGE TANK AGAINST TANK FAILURE. WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE STANDARD 90-90A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION.
* http://www.lochinvar.com/_linefiles/CLD-03.pdf

P-11 (SCRUB SINK AND HANDS FREE FAUCET)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO BID.

NOTES:

- ALL PLUMBING FIXTURES SHALL BE AS SPECIFIED OR APPROVED EQUAL.
- PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.

LIGHTING FIXTURE SCHEDULE							
LABEL	TYPE OF FIXTURE	FINISH	LENS TYPE	VOLTAGE	LAMP	MANUFACTURER & MODEL NO.	REMARKS
A	RECESSED 2'X2' TROFFER	WHITE	ACRYLIC	277	(2) 17W T8	LITHONIA MDLDS 22--G9-2T8-EB-277-SWR	DIRECT/INDIRECT
B	RECESSED 2'X4' TROFFER	WHITE	PARABOLIC	277	(3) 32W T8	LITHONIA 2PM3GB-332-18LD-MVOLT	
C	RECESSED 2'X4' TROFFER	WHITE	PRISMATIC	277	(2) 32W T8	LITHONIA 2SP8G-232-FWA12-MVOLT	
D	RECESSED 2'X4' TROFFER	WHITE	PRISMATIC	120	(3) 32W T8	LITHONIA 2SRH-G-332-FSSFV-A12125V-MVOLT	MEDICAL GRADE SEALED W/ WHITE STAINLESS STEEL DOOR. PROVIDE (2) BALLASTS.
E	RECESSED 2'X2' TROFFER	WHITE	PARABOIC	277	(3) 17W T8	LITHONIA 2PM3GB-317-9LD-MVOLT	
EM	EMERGENCY EGRESS	WHITE		277	INCLUDED	LITHONIA ELM2	W/ BATTERY BACKUP
EM1	EMERG EGRESS w/ REM HEAD	WHITE		277	INCLUDED	LITHONIA ELM6-12	W/ MODEL NX DUAL REMOTE HEAD. 90 MIN BATTERY
EX	EXIT SIGN	WHITE	RED	277	INCLUDED	LITHONIA LE-SW2R-120/277-ELN	W/ BATTERY BACKUP
F	RECESSED FLUORESCENT	WHITE		120/277	(2) 13W DTT	LITHONIA LP6N 2/13DTT F602A MVOLT	
G	RECESSED INCANDESCENT	WHITE		120	(1) 90W PAR38	LITHONIA LP6N 609A	
H	INCANDESCENT LIGHT BAR	CHROME		120	(4) 75W	SEAGULL LIGHTING 4701-962	24" POLISHED CHROME W/ 4 LAMPS
K	4' FLUORESCENT STRIP	WHITE		277	(2) 32W T8	LITHONIA C-232-MVOLT	
L	SURGERY LIGHT	PEBBLE GREY		120	(2) 100W HALOGEN	RITTER 355-036 DUAL MOUNT	UL LISTED 2601-1. FOR USE IN PROCEEDURE ROOM 1. VERIFY SPECIFICS WITH OWNER .
M	SURGERY LIGHT	WHITE		120	(1) 90W HALOGEN	DRE VISION EXCEL SURGERY LIGHT	UL LISTED 2601-1. FOR USE IN PROCEEDURE ROOM 2. VERIFY SPECIFICS WITH OWNER

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE

PREScriptive☒

PERFORMANCE☐

ENERGY COST BUDGET☐

PROVIDE A STANDARD RISER DIAGRAM WHICH INDICATES DESIGNATED POINTS FOR CHECK METERING. PROVIDE A STANDARD PANEL SCHEDULE DESCRIPTION WHICH IDENTIFIES DIFFERENT ENDUSE LOADS.

LIGHTING SCHEDULE

LAMP TYPE REQUIRED IN FIXTURE

NUMBER OF LAMPS IN FIXTURE

BALLAST TYPE USED IN FIXTURE

NUMBER OF BALLASTS IN FIXTURE

TOTAL WATTAGE PER FIXTURE

TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED

TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED

TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED

EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)

MOTOR HORSEPOWER

NUMBER OF PHASES

MINIMUM EFFICIENCY

MOTOR TYPE

NUMBER OF POLES

SEE SCHEDULE ON DRAWINGS

SEE SCHEDULE ON DRAWINGS

SEE SCHEDULE ON DRAWINGS

SEE SCHEDULE ON DRAWINGS

SEE SCHEDULE ON DRAWINGS

0.91 VS 1.10 (OFFICE)

1.59 VS 1.69 (PROCEDURE ROOMS)

N/A

N/A

N/A

N/A

N/A

N/A

DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA ENERGY CODE 2009, CHAPTER 5.

SIGNED:

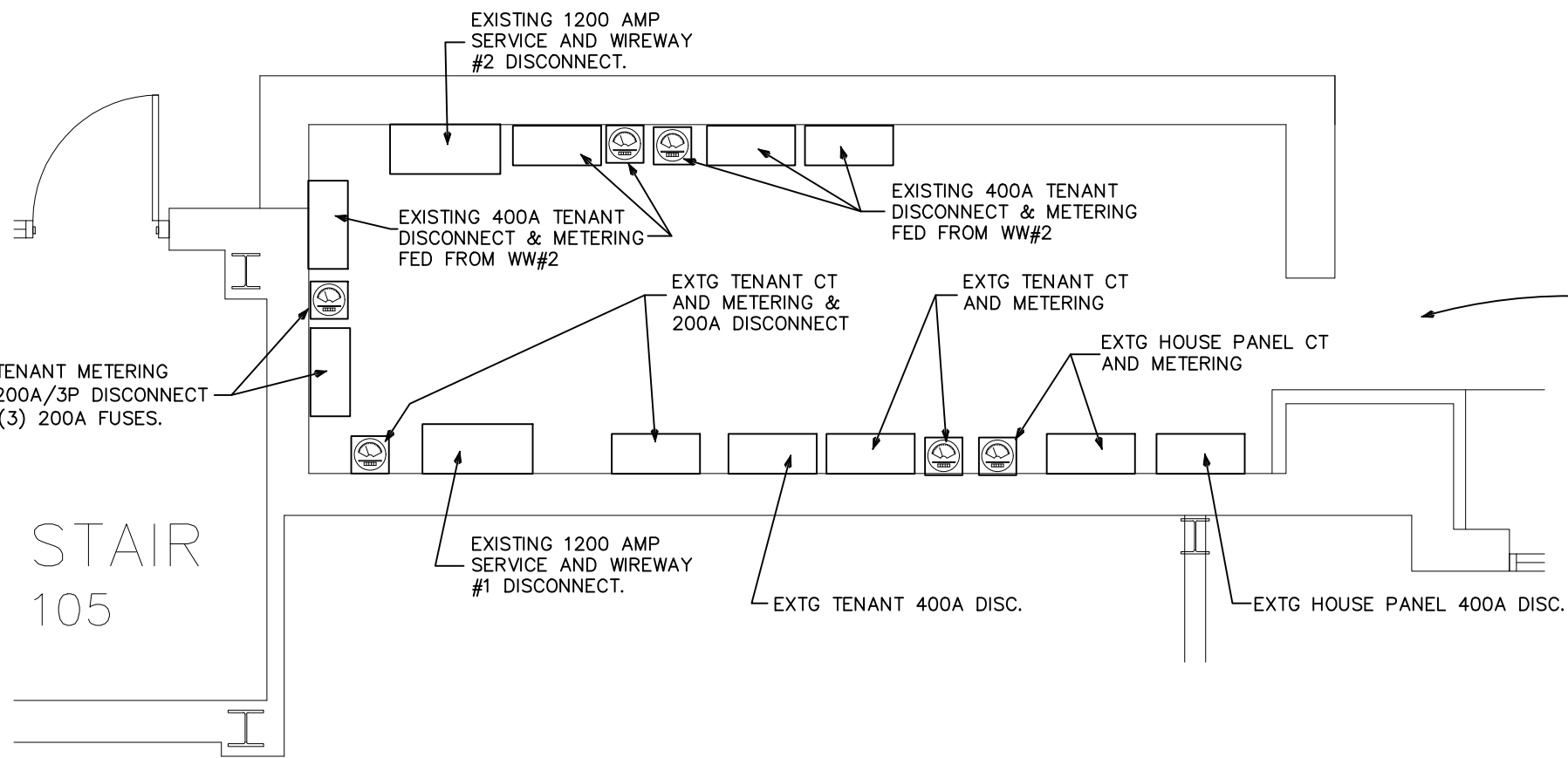
NAME: TODD W. CAREY, P.E.

TITLE: NORTH CAROLINA PROFESSIONAL ENGINEER #9079

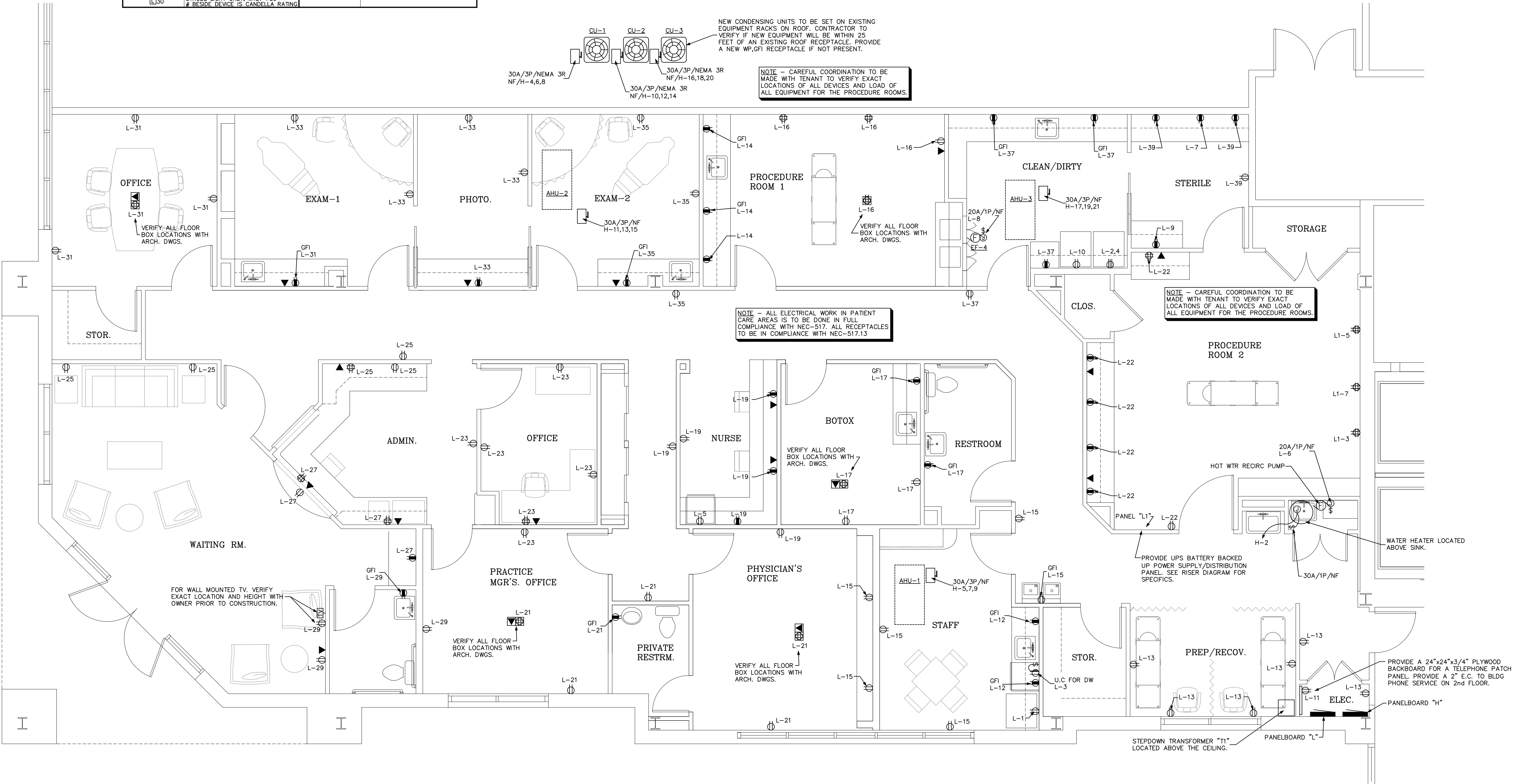
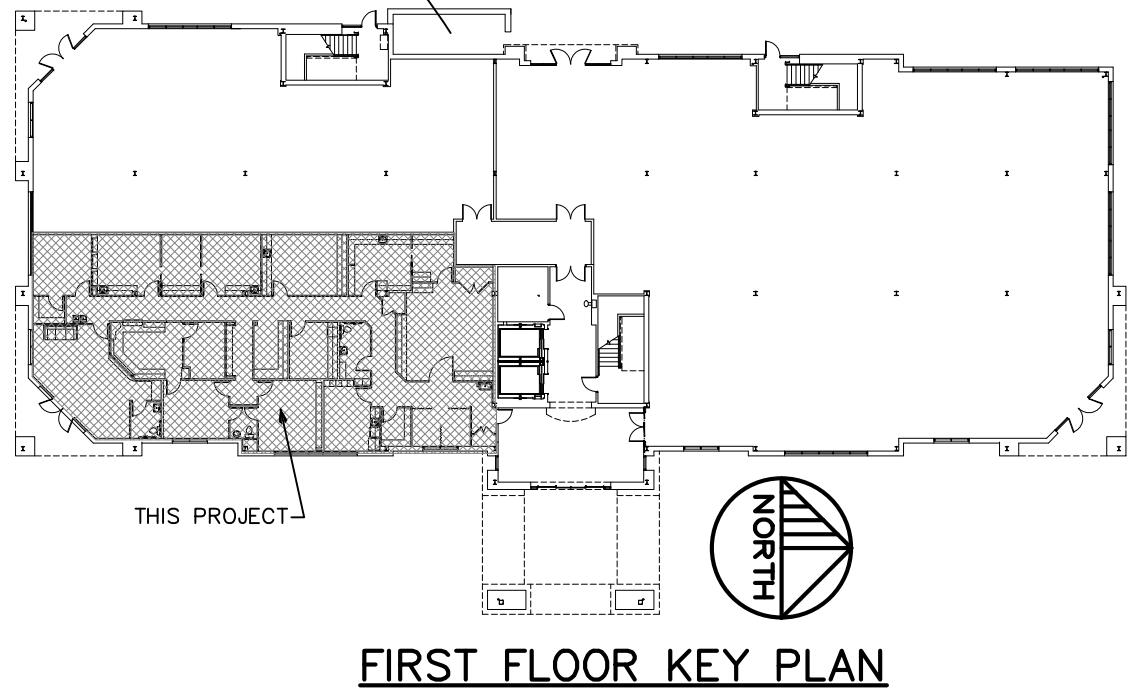
NOTE:
COMPLIANCE TO NC ENERGY
SECTION 506 IS MADE BY
LIGHTING LEVEL REDUCTION.

FIRST FLOOR KEY PLAN

ELECTRICAL SYMBOLS LEGEND			
SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	DUPLEX RECEPTACLE, MTD, +18" AFF		TRANSFORMER - SIZE AS NOTED
	240 VOLT RECEPTACLE (HT. AS REQ.)		PANEL - SIZE AS NOTED
	QUADRUPLUX RECEPTACLE, MTD, +18" AFF		MOMENTARY CONTACT PUSH BUTTON
	COUNTERTOP HT. RECEPTACLE +42" AFF		F-FAN; M-MOTOR; P-PUMP
	SINGLE POLE SWITCH, MTD +47" AFF		SPECIAL OUTLET - AS REQUIRED
	THREE-WAY SWITCH, MTD +47" AFF		EXIT SIGN, ONE SIDED, OR TWO SIDED
	MANUAL STARTER SWITCH		EMERGENCY LIGHTING
	DIMMER SWITCH, MTD +47" AFF		RECESSED MOUNTED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	SWITCH W/ ILLUM. WHEN ON +47" AFF		OVERHEAD OCCUPANCY SENSOR
	THREE-WAY SWITCH W/ OCCU SENSOR MTD +47" AFF		HIGHBAY HID LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	SWITCH W/ OCCU SENSOR MTD +47" AFF		FLUORESCENT LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	JUNCTION BOX, FLUSH IF POSSIBLE		FLUORESCENT LIGHTING NIGHT LIGHT B DESIGNATES FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18" AFF		FLUORESCENT STRIP LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	DED. COMPUTER TERM. OUTLET +18" AFF		ISOLATED GROUND
	DISCONNECT SWITCH W/ STARTER		WEATHER-PROOF
	DISCONNECT SWITCH		BELOW COUNTER
	FLR. MTD. FLUSH DUPLEX RECEPTACLE		TIME CLOCK - 24 HOUR
	FLR. MTD. FLUSH QUAD. RECEPTACLE		GFI
	FLR. MTD. FLUSH PHONE/DATA OUTLET		AFF
	FLR. MTD. FLUSH COMPUTER OUTLET		EWC
	AREA SMOKE DETECTOR		ASW
	HEAT DETECTOR		BSW
	DUCT SMOKE DETECTOR		FACP
	FIRE ALARM MAN. PULL STATION +47" AFF		FAAP
	HORN WITH STROBE LIGHT, MTD, +80" AFF		
	STROBE LIGHT ONLY, MTD, +80" AFF		
	# BESIDE DEVICE IS CANDELLA RATING		
	# BESIDE DEVICE IS CANDELLA RATING		



2 ELECTRICAL SERVICE AREA PLAN
SCALE: 1/4"=1'-0"



1 FLOOR PLAN - POWER
SCALE: 1/4"=1'-0"

PANEL H DIVERSIFICATION CALCULATIONS		
RECEPTACLES (114) -	20520 VA TOTAL	
	FIRST 10 KVA AT 100% -	10000
	REMAINDER AT 50% -	5260
LIGHTING -	5650 X 125% -	7063
HVAC LOAD AT 100% -		58603
MOTOR LOADS AT 100% -		1332
PLUS 25% OF THE LARGEST MOTOR -		1621
MISC NON-CONTINUOUS LOADS AT 100% -		15505
TOTAL DIVERSIFIED PANEL LOAD -		99384
LOAD AT 277/480V/3-PHASE/4-WIRE -		119.6A

PANEL L DIVERSIFICATION CALCULATIONS	
RECEPTACLES (107) -	19260 VA TOTAL
FIRST 10 KVA AT 100% -	10000
REMAINDER AT 50% -	4630
LIGHTING -	1800 X 125% = 2250
MOTOR LOADS AT 100% -	1332
PLUS 25% OF THE LARGEST MOTOR -	167
MISC NON-CONTINUOUS LOADS AT 100% -	11005

TOTAL DIVERSIFIED PANEL LOAD -	29384
LOAD AT 120/208V/3-PHASE/4-WIRE -	81.6A

