

# RENOVATIONS TO THE EXISTING HAIR SALON/ TENET SPACE

507 N. Olive Ave.  
WEST PALM BEACH, FLORIDA

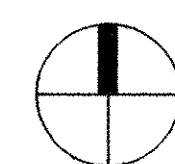
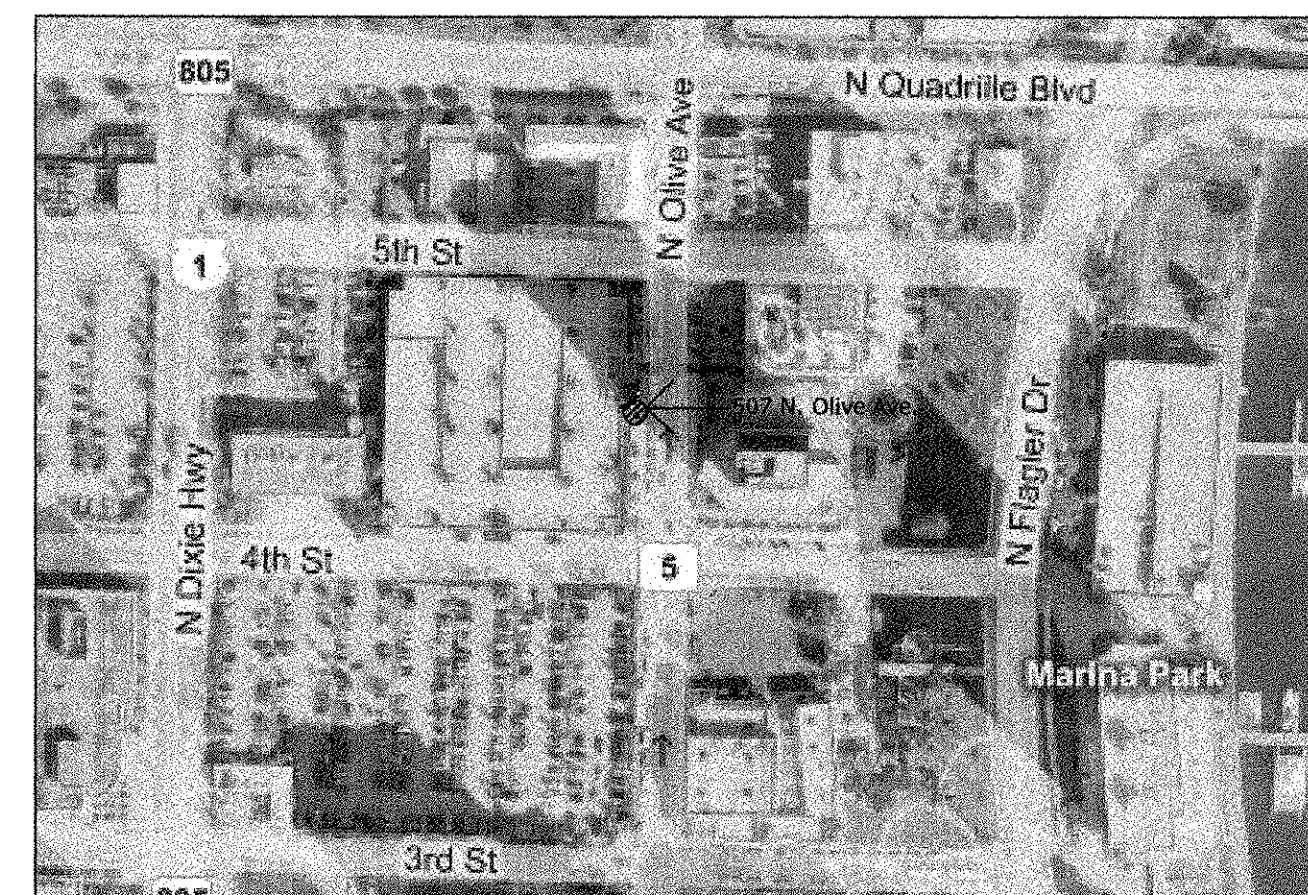
(ALTERATION-LEVEL 2)

## AREA CALCULATIONS

EXISTING  
FLOOR AREA TO REMAIN 870 S.F.

## SHEET INDEX

A10 COVER SHEET  
A11 DEMO PLAN, FLOOR PLAN, SYMBOL PLAN, CEILING PLAN  
A12 DETAILS  
E1.01 POWER PLAN  
E2.01 LIGHTING PLAN  
M1.01 MECHANICAL  
P1.01 PLUMBING



LOCATION MAP

NOT TO SCALE

## PROJECT TEAM

### ARCHITECT

ACI ARCHITECTURAL CONSULTANTS, INC.  
1717 NORTH FLAGLER DRIVE, SUITE 11  
WEST PALM BEACH, FLORIDA 33407

VOICE 561.659.8800  
FAX 561.687.4708

### MECHANICAL ENGINEER

F&E CONSULTING  
1640 NW 2ND AVENUE  
BOCA RATON, FLORIDA 33432

VOICE 1.561.391.9292  
FAX 1.561.391.9898

## SCOPE OF WORK

RENOVATE EXISTING TENET SPACE  
(ALTERATION-LEVEL 2)

## GENERAL NOTES:

01. THE PROJECT WAS DESIGNED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE WITH THE 2009 SUPPLEMENTS.
02. VISIT THE SITE BEFORE DETERMINING THE CHARACTERISTICS OF THE EXISTING FACILITIES WHICH WILL AFFECT PERFORMANCE OF THE WORK, BUT WHICH ARE NOT SHOWN ON THE DRAWINGS OR THE SPECIFICATIONS.
03. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AS THE WORK PROGRESSES AND SHALL REPORT ANY INCONSISTENCIES WITH THE CONSTRUCTION DOCUMENTS TO THE ARCHITECT BEFORE CONTINUING WORK.
04. ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANLIKE MANNER, COMPLETE, IN PLACE AND READY FOR USE.
05. ALL AREAS AFFECTED BY THE WORK SHALL BE PATCHED TO MATCH EXISTING.
06. SPACE HAS EXISTING FIRE SPRINKLER SYSTEM
07. TYPE 3 CONSTRUCTION
08. BUSINESS GROUP B OCCUPANCY
09. OCCUPANCY = 20 MAX PEOPLE
10. TABLE 1005.1 EGRESS WIDTH PER OCCUPANT SERVED (INCHES PER OCCUPANT) = 0.2 IN.
11. TRAVEL DISTANCE LESS THAN 75'-0"

REV # DATE DESCRIPTION

SEAL

9-10-2010

ROGER HANSROTE, ARCHITECT  
FLAR # 14300

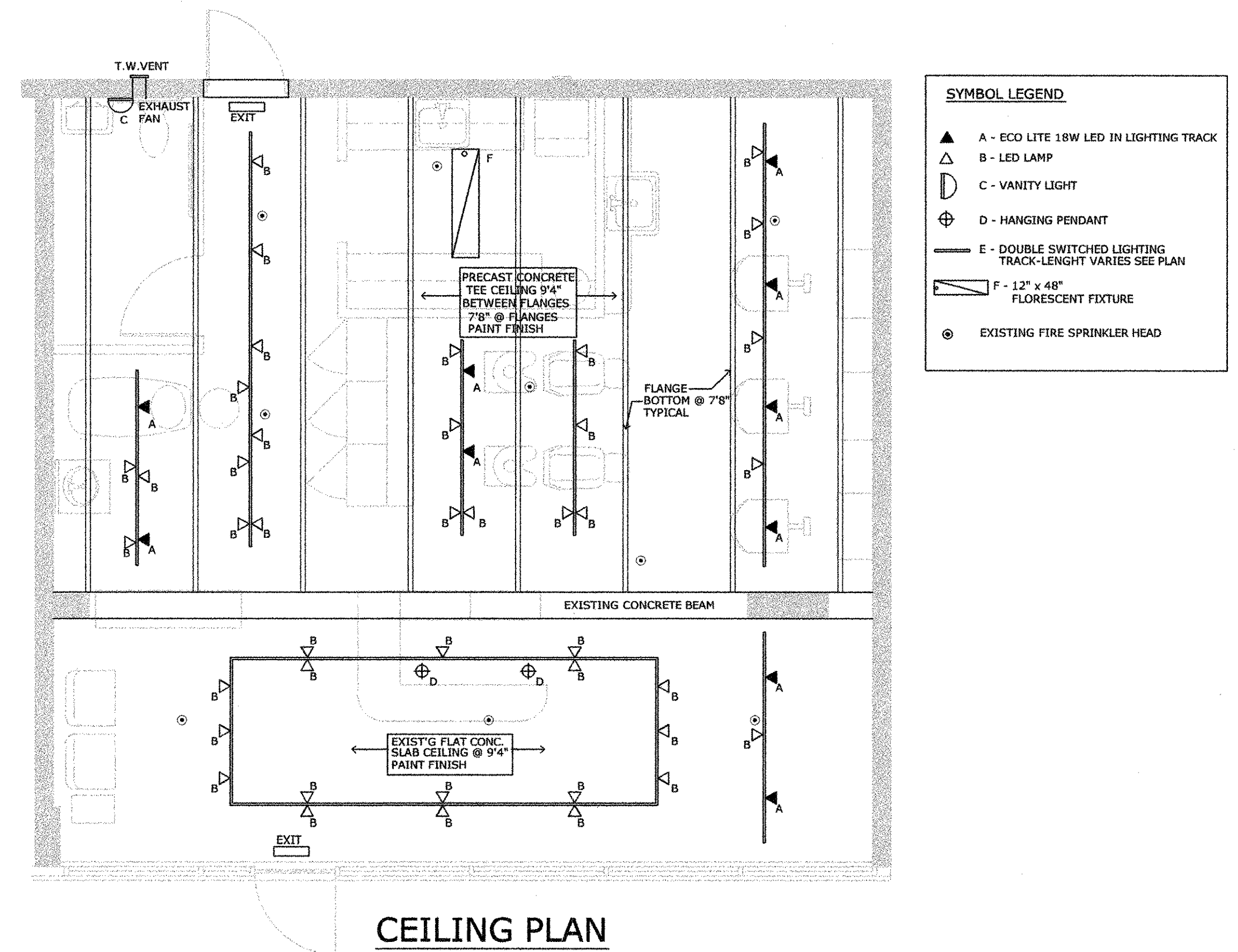
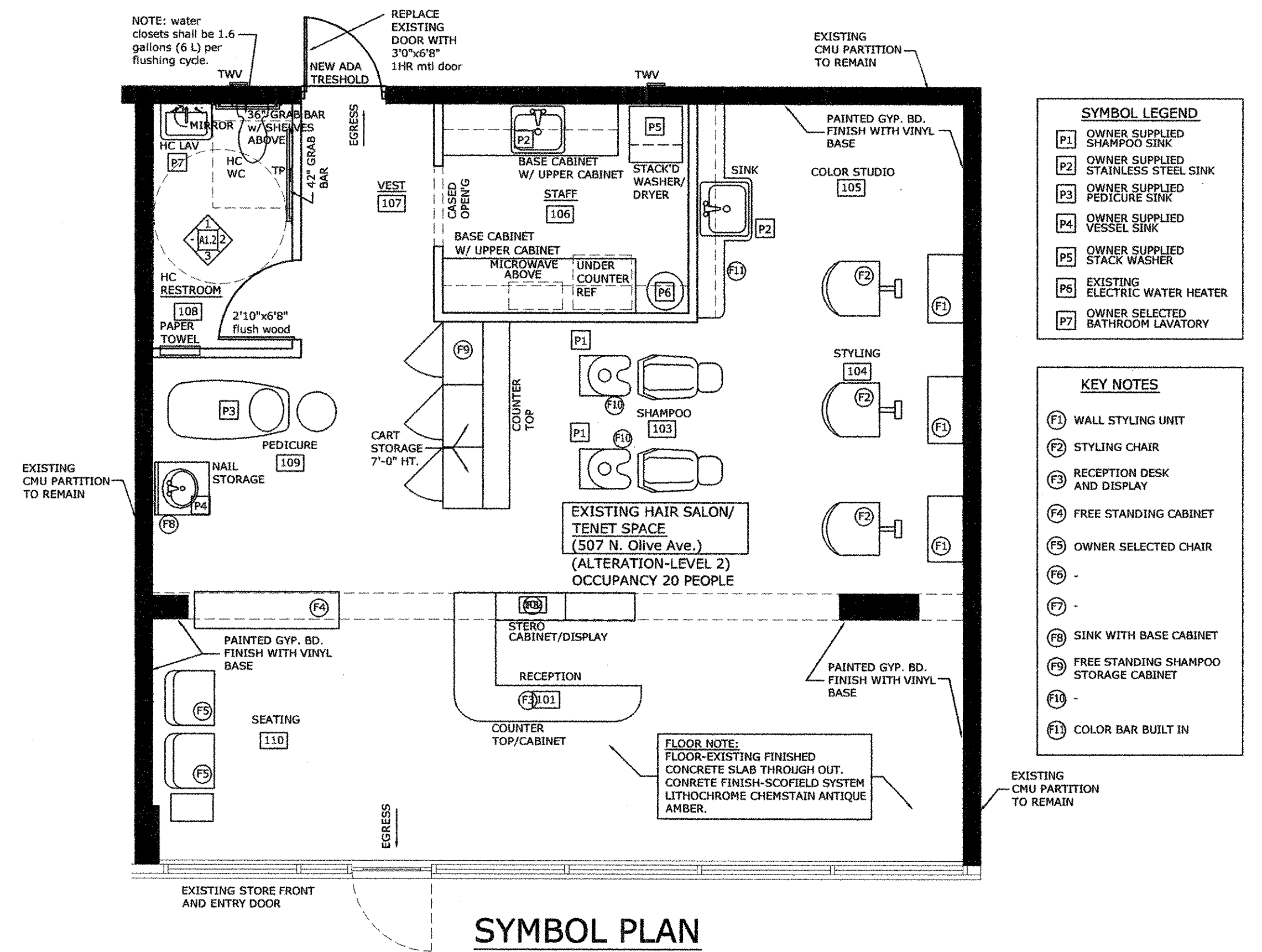
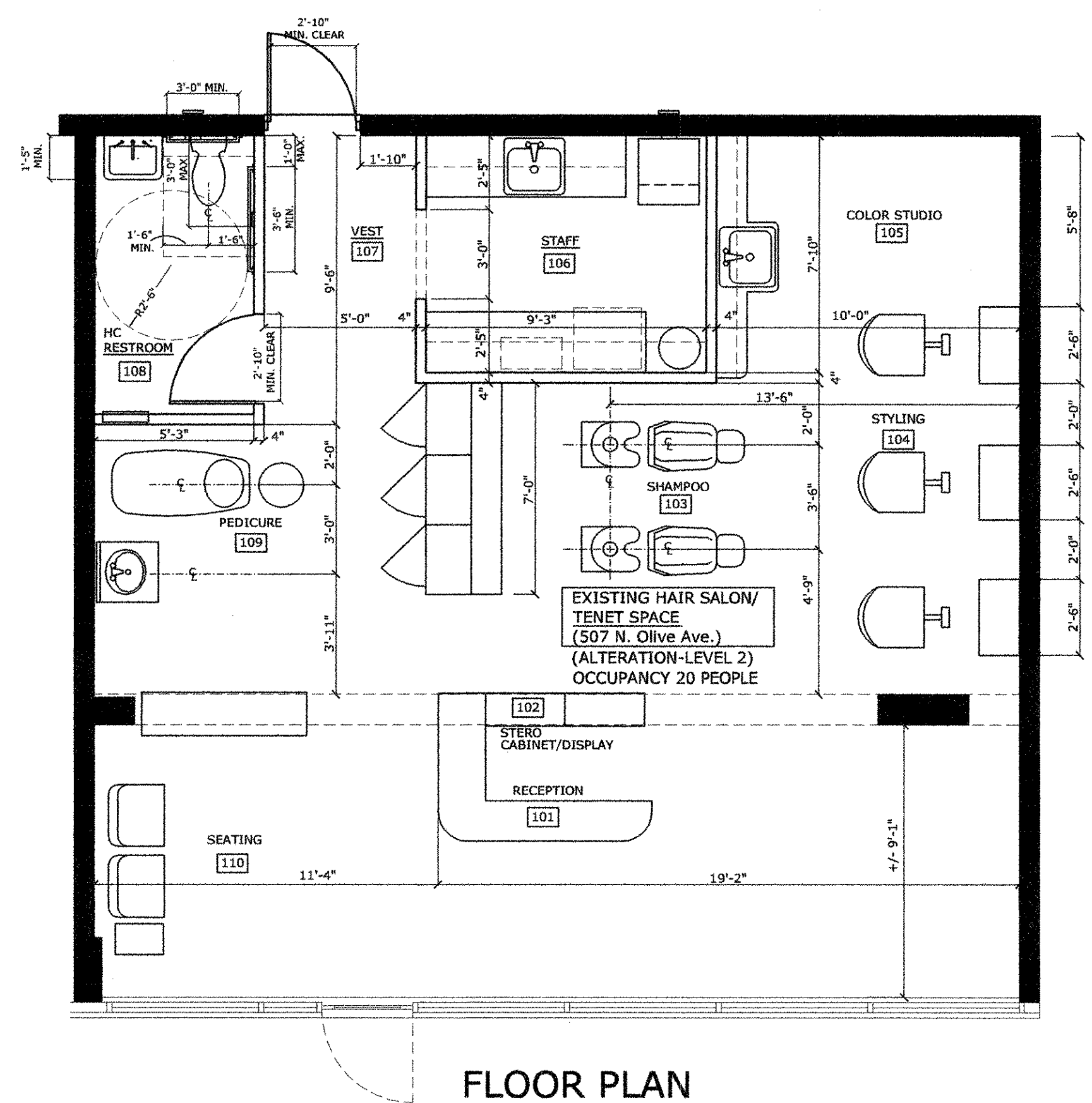
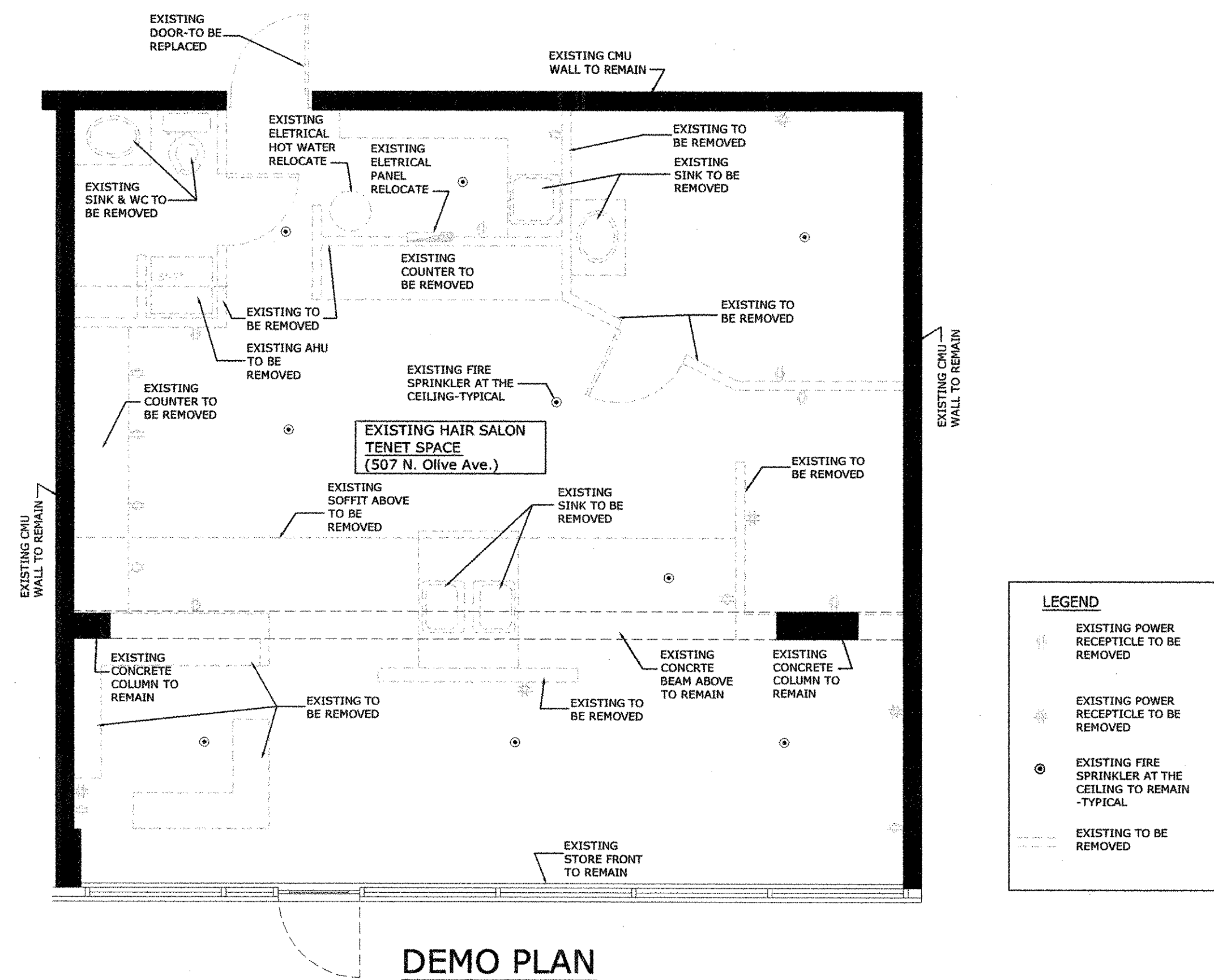
JOB NUMBER:  
DATE: 9-8-2010  
DRAWN BY: RH  
APPROVED BY: RH

SHEET TITLE

COVER

SHEET NUMBER

A1.0



REV #	DATE	DESCRIPTION
		SEAL

*[Signature]*  
9-16-2010

ROGER HANSROTE, ARCHITECT  
FLAR # 14300

JOB NUMBER:  
DATE: 9-8-2010  
DRAWN BY: RH  
APPROVED BY: RH

SHEET TITLE

PLANS

SHEET NUMBER

A1.1

<p>SCALE: 3/8" = 1'-0"</p>	<p>SCALE: 3/8" = 1'-0"</p>	<p>SCALE: 3/8" = 1'-0"</p>
<p>① H.C. LAV.</p>	<p>② H.C. LAV. AND W.C.</p>	<p>③ H.C. W.C.</p>
<p>BOBRICK B-39003 PAPER TOWEL DISPENSER &amp; WASTE UNIT - TRI-MLINE RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE</p> <p>NTS</p>	<p>SIZE AND SPACING OF S.S. GRAB BAR</p> <p>N.T.S.</p>	<p>① PARALLEL APPROACH ② FORWARD APPROACH</p> <p>N.T.S.</p>
<p>④ H.C. P.T. DISPENSER</p>	<p>⑤ S.S. GRAB BAR</p>	<p>⑥ MOUNT'G HT'S</p>
<p>NOTES:</p> <ol style="list-style-type: none"> <li>1/2" MAXIMUM TOTAL HEIGHT WITH 1/4" MAXIMUM VERTICAL CHANGE AT EDGE</li> <li>1 : 2 SLOPED BEVEL REQUIRED IF LEVEL CHANGE IS OVER 1/4" VERTICAL LEVEL CHANGE.</li> <li>1/4" MAXIMUM VERTICAL LEVEL CHANGE.</li> </ol> <p>NTS</p>	<p>SIGN MOUNTING DETAIL</p> <p>NOTE: PROVIDE (1) SIGN PER TOILET COMPLYING WITH ADA LOCAL CODE. SIGN TO HAVE RAISED AND GRADE 2 BRAILLE CHARACTERS AND PICTORIAL SYMBOL OF ACCESSIBILITY. SIGN SIZE: 8" X 8". COLOR: GREY WITH WHITE CHARACTERS.</p> <p>N.T.S.</p>	<p>⑦ THRESHOLD TRANSITIONS</p>
<p>⑦ THRESHOLD TRANSITIONS</p>	<p>⑧ H.C. SIGNS</p>	<p>⑨</p>

KEY NOTES

- Ⓐ BOBRICK B-39003 PAPER TOWEL PAPER TOWEL DISPENSER AND WASTE RECEPTACLE
- Ⓑ RECESSED SOAP DISPENSER
- Ⓒ NOT USED
- Ⓓ NOT USED
- Ⓔ ASI 0264-1 DOUBLE ROLL TOILET TISSUE DISPENSER

REV # DATE DESCRIPTION

SEAL

9-10-2010

ROGER HANSROTE, ARCHITECT  
FLAR # 14300

JOB NUMBER:  
DATE: 9-8-2010  
DRAWN BY: RH  
APPROVED BY: RH

SHEET TITLE

DETAILS

SHEET NUMBER

A1.2



OUTSIDE AIR SCHEDULE per ASHRAE 62.1-2004								
SPACE	NET OCCUPIED AREA	OCCUPANCY DENSITY PER 1000 SQFT	ESTIMATED OCCUPANCY	ACTUAL OCCUPANCY	VENTILATION RATE CFM PER PERSON + SQFT	VENTILATION REQUIRED	VENTILATION PROVIDED	NOTES
STAFF	70	5	1	-	5 + 0.06	5 + 5 = 10	360	AHU-1
SALON	480	25	12	-	20 + 0.12	240 + 58 + 298	360	AHU-1
CORRIDOR	45	-	-	-	0.06	3	360	AHU-1
RECEPTION	215	30	7	-	5 + 0.06	35 + 19 + 48	360	AHU-1

NOTES:  
1) OCCUPANT DENSITIES & VENTILATION RATES ARE BASED ON ASHRAE STANDARD 62.1, 2004 & 2006 SUPPLEMENT, PER SECTION 403, SUBSECTION 403.4 OF FLORIDA BUILDING CODE MECHANICAL 2007  
2) ACTUAL OCCUPANCY IS BASED ON EITHER SEATING ARRANGEMENT OR INFORMATION PROVIDED BY OWNER AND/OR ARCHITECT.

AIR CONDITIONING DATA												
QTY.	UNIT NO.	MFG.	CONDENSING UNIT MODEL NO.	AIR HANDLER UNIT MODEL NO.	TOTAL	SENSIBLE	SEER	TOTAL	O/A	FAN E.S.P. - IN WATER	HEAT	SUCTION & LIQUID LINES
1	AHU-1A	LG	ARUN04BGS2	ARNU238HA2	12,300	9,300	17.0	375	375	0.30	13,500 BTU/h	SEE MANUFACTURERS SPECS
1	AHU-1B	LG	ARUN04BGS2	ARNU238TRC2	9,600	6,800	-	375	-	-	10,500 BTU/h	SEE MANUFACTURERS SPECS
1	AHU-1C	LG	ARUN04BGS2	ARNU238TRC2	9,600	6,800	-	375	-	-	10,500 BTU/h	SEE MANUFACTURERS SPECS
1	AHU-1D	LG	ARUN04BGS2	ARNU238TRC2	9,600	6,800	-	375	-	-	10,500 BTU/h	SEE MANUFACTURERS SPECS

A/C EQUIPMENT NOTES:  
1) VERIFY ALL A/C ELECTRICAL REQUIREMENTS WITH MANUFACTURERS SPEC. PRIOR TO INSTALLATION.  
2) PROVIDE R-410A REFRIGERANT.  
3) PROVIDE SIMPLE WIRED REMOTE CONTROLLER WITHOUT MODEL LG THERMOSTAT MODEL NUMBER: PQRFCF50  
4) AHU-1A SHALL BE PROGRAMMED TO READ RETURN AIR TEMPERATURE SENSOR FOR COOLING CONTROL. THERMOSTAT PROVIDED TO ADJUST FAN SPEED ONLY NOT TO SENSE TEMPERATURE.

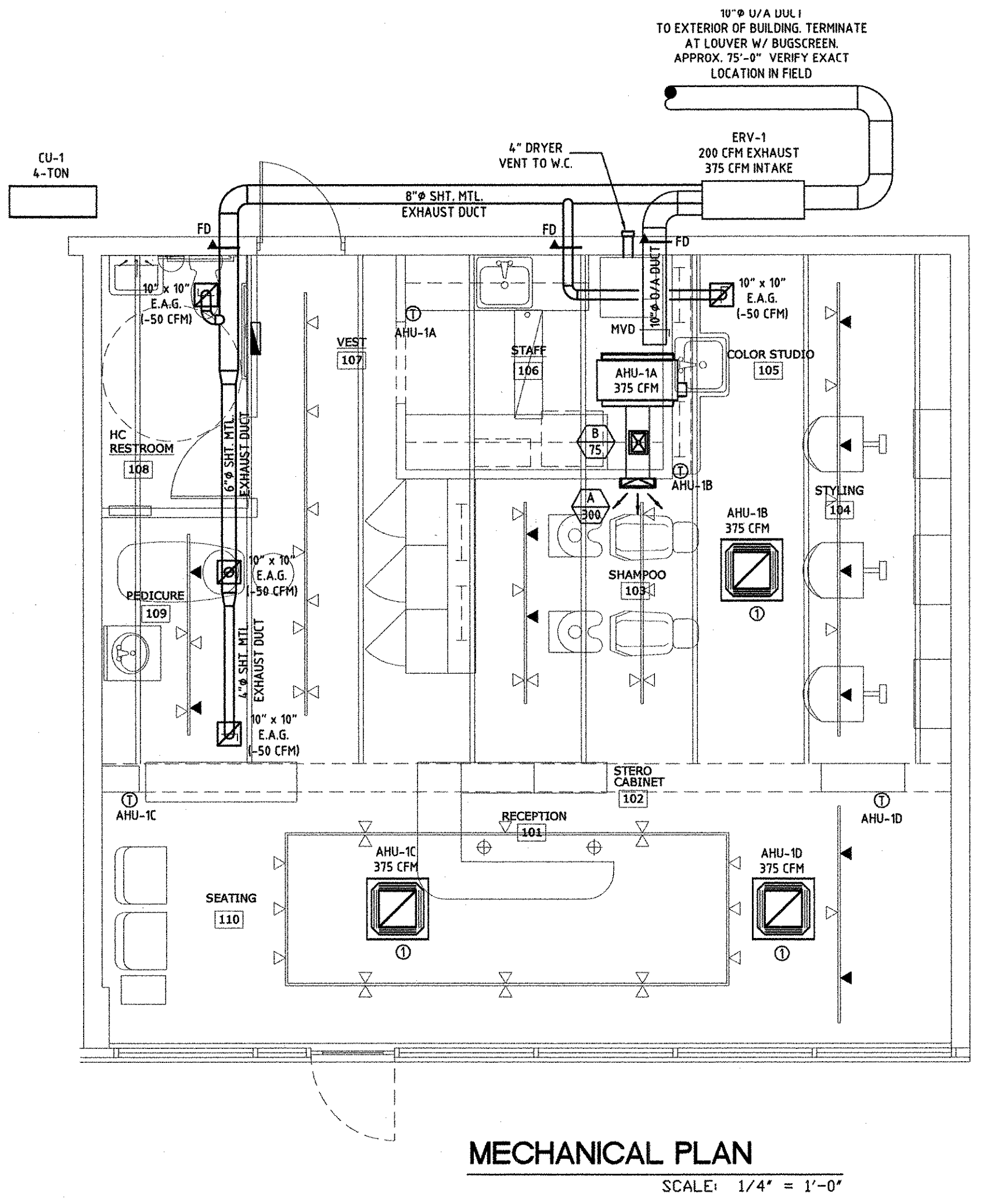
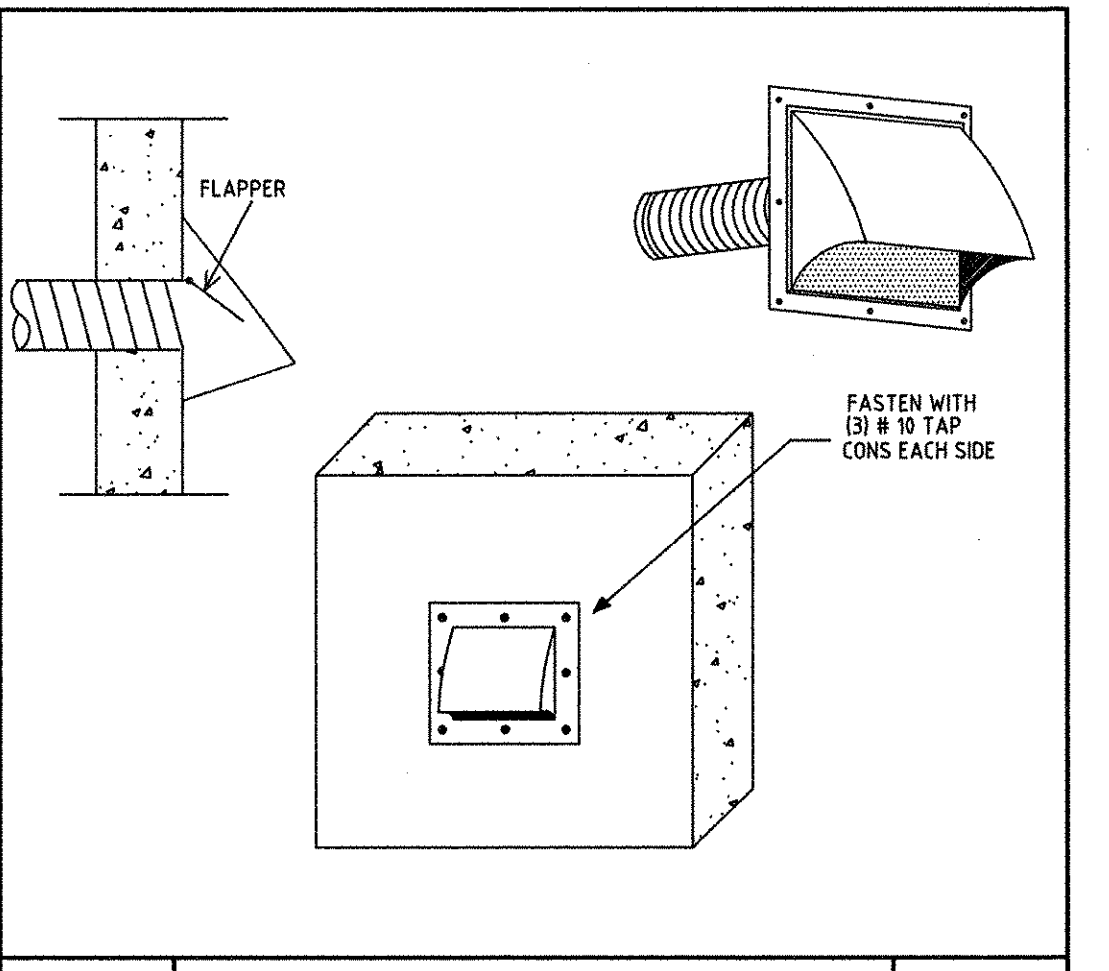
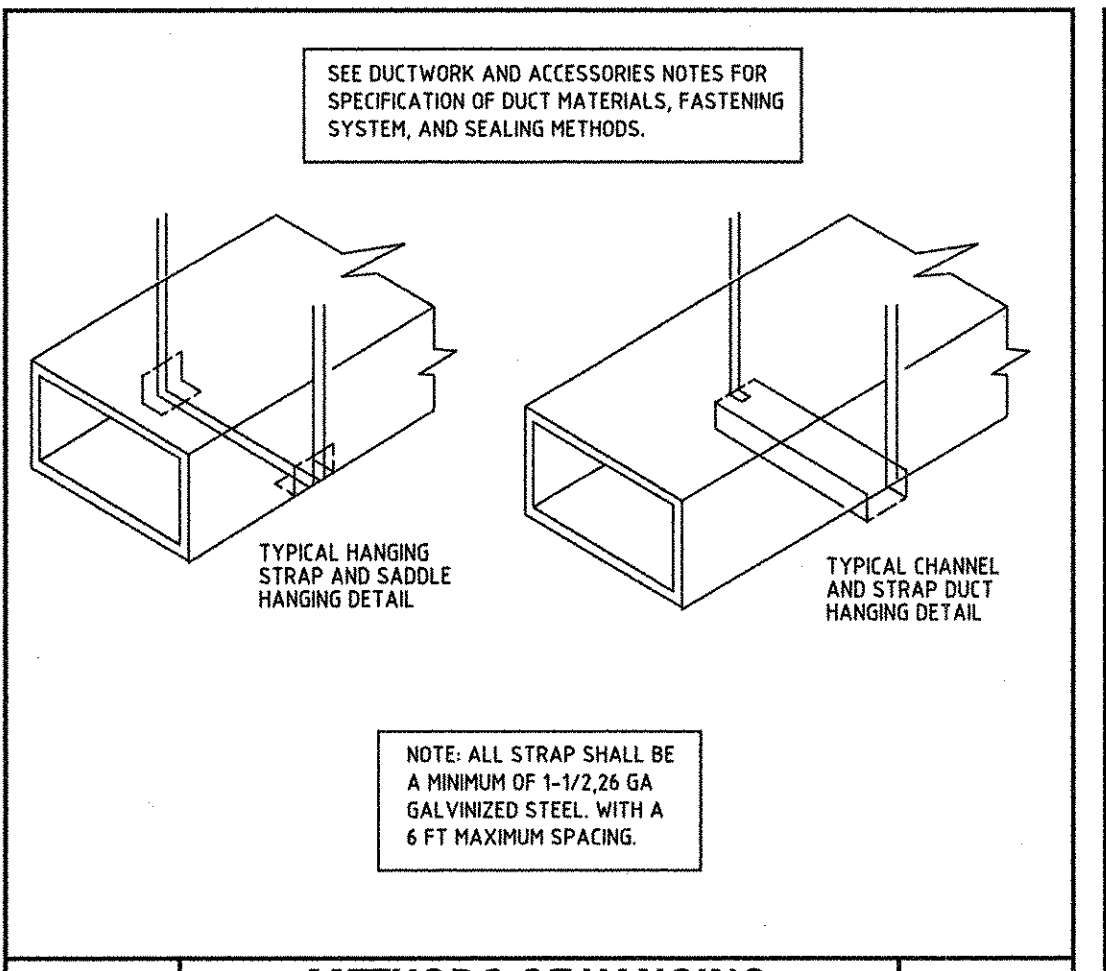
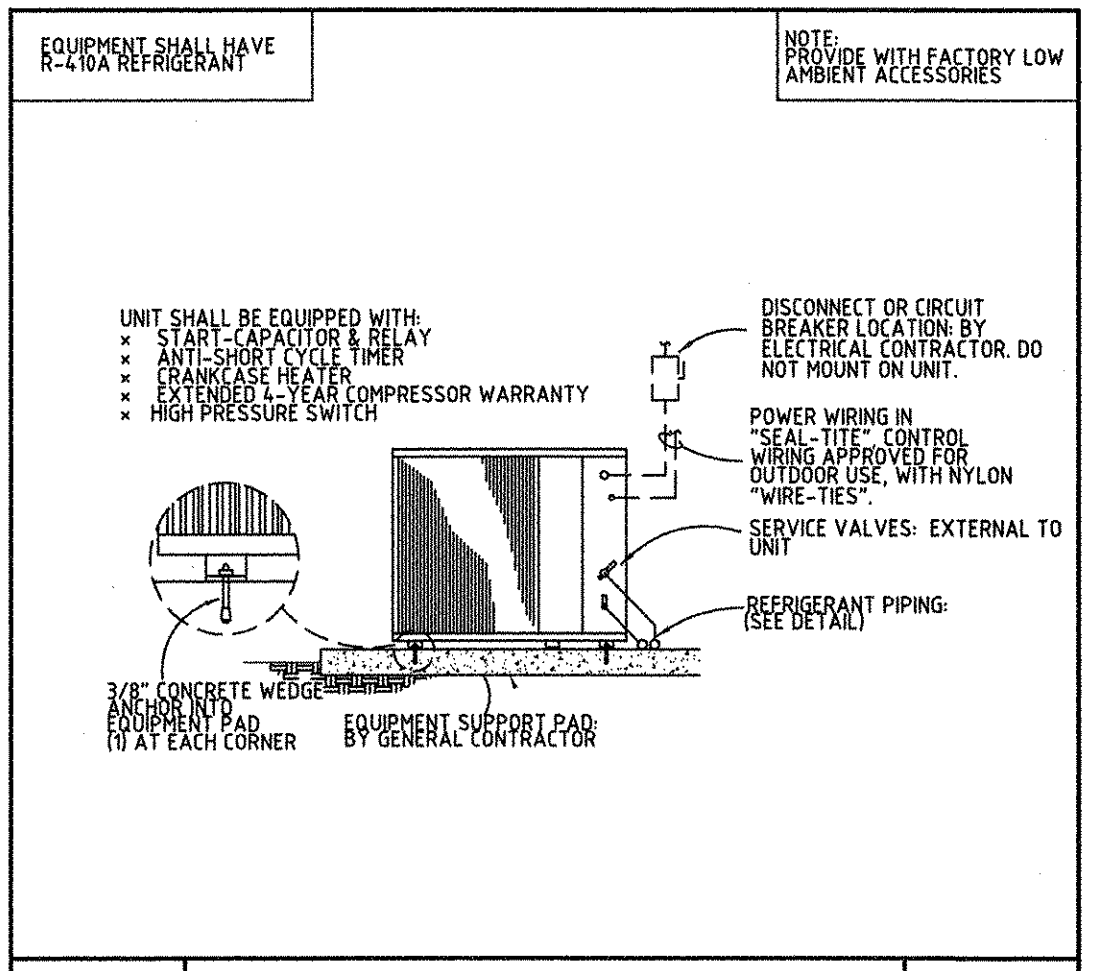
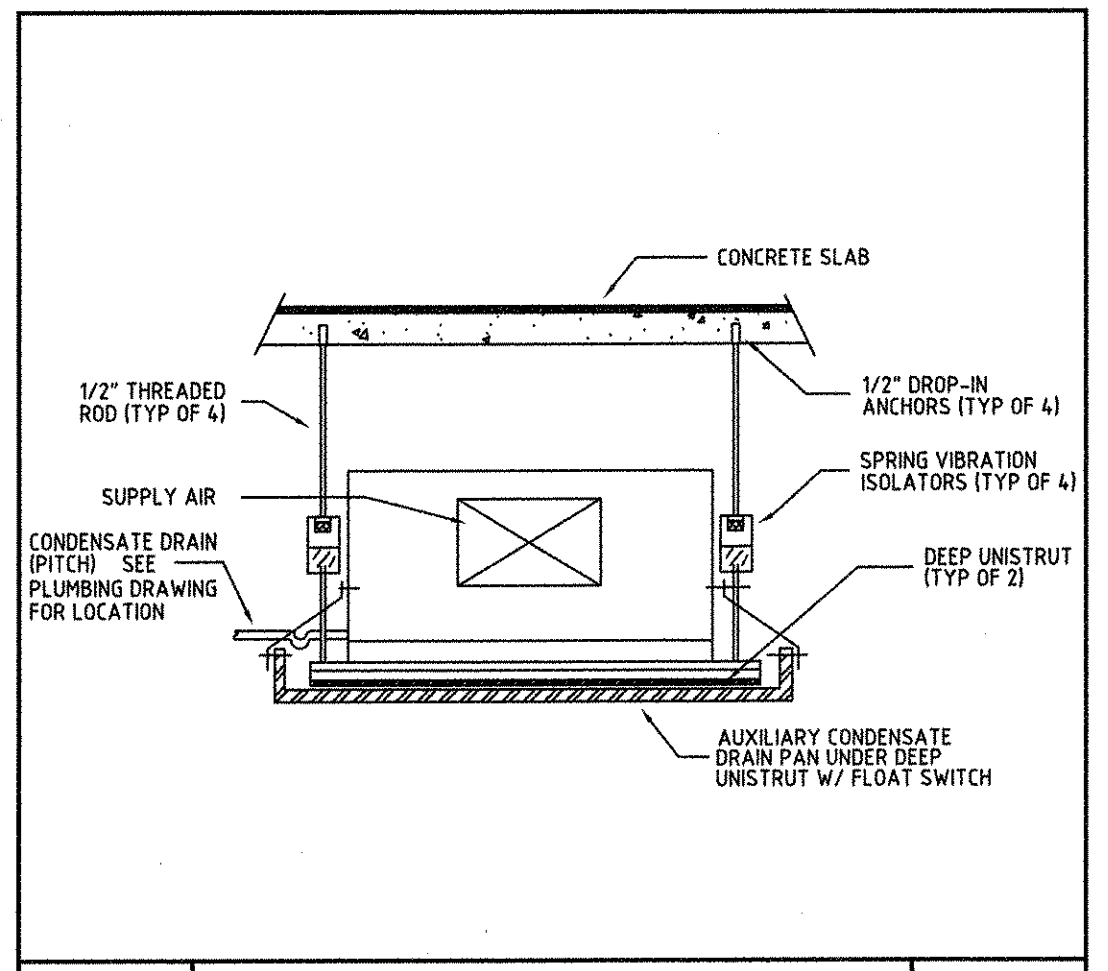
ELECTRICAL DATA															
UNIT NO.	V/P/Hz	COMPRESSOR			O/FM			ELECTRIC			CONDENSING UNIT			AIR HANDLER UNIT	
		QTY	FLA	LRA	QTY	FLA	HP	HEAT	MIN. CAPACITY	MAX FUSE	MIN. CAPACITY	MAX FUSE	QTY	FLA	MAX FUSE
AHU-1A (CU-1)	208/1/60	1	19.6	-	1	0.72	-	1.06	-	24.1	4.28	2.32	15		
AHU-1B, C, D	208/1/60											1.32	15		

AIR TERMINAL SCHEDULE						
SERVICE	SYSTEM	LOCATION	ACCESSORIES	MANUFACTURE	MODEL	DESCRIPTION
A	SUPPLY	CEILING	O.B.D.	TITUS	MODEL NO. 300FS	12" x 6"
B	SUPPLY	CEILING	O.B.D.	TITUS	MODEL NO. 250AA	8" x 6" 1-WAY

AIR TERMINAL NOTES:  
1) STANDARD FINISH TO BE WHITE FOR ALL DEVICES.  
2) ALL DIFFUSER TYPES MIGHT NOT BE USED.

ERV DATA													
QTY.	UNIT NO.	MFG.	MODEL NO.	CORE	FRESH AIR SUPPLY	EXHAUST AIR	MERV	VOLTAGE	SUPPLY HP/FLA	EXHAUST HP/FLA	MIN. CAPACITY	MAX. FUSE	WEIGHT
1	ERV-1	RENEW-AIRE	EV450N	G5 + J	375 CFM @ 0.6 E.S.P.	200 CFM @ 0.6 E.S.P.	8	208/1/60	0.6/3.5	0.6/3.5	18.3	20	141 lbs

A/C EQUIPMENT NOTES:  
1) VERIFY ALL A/C ELECTRICAL REQUIREMENTS WITH MANUFACTURERS SPEC. PRIOR TO INSTALLATION.  
2) PROVIDE VENSTAR T2900 TO BE USED AS A TIME CLOCK. (OWNER TO SPECIFY OCCUPIED HOURS)



### A/C LEGEND

- 4W - DIFFUSER
- 2W - DIFFUSER
- TRANSITION
- MANUAL VOLUME DAMPER (M.V.D)
- FIRE DAMPER (F.D.)
- THERMOSTAT
- TEMPERATURE & HUMIDITY CONTROL (T.H.C.)
- L/S - LIQUID/SUCTION LINE
- DIFFUSER TYPE
- EXHAUST AIR GRILLE WITH DAMPER
- CONDENSING UNIT
- AIR HANDLER UNIT
- CEILING MOUNTED AIR HANDLER UNIT
- ENERGY RECOVERY VENTILATOR (ERV)

ABBREVIATIONS:  
A.F.F. ABOVE FINISHED FLOOR  
R.A. RETURN AIR  
R.C. ROOF CAP  
W.C. WALL CAP  
O/A OUTSIDE AIR  
S.A.D. SUPPLY AIR DUCT  
R.A.D. RETURN AIR DUCT  
R.A.G. RETURN AIR GRILLE  
A.H.U. AIR HANDLER UNIT  
E.A.G. EXHAUST AIR GRILLE  
T.E.D. TOILET EXHAUST DUCT  
A.V.D. AUTOMATED VOLUME DAMPER  
F.H.P. FLORIDA HEAT PUMP  
A.H.U. AIR HANDLER UNIT  
C.U. CONDENSING UNIT  
W.H.U. WALL MOUNTED AIR HANDLER UNIT  
C.A.H.U. CEILING MOUNTED AIR HANDLER UNIT

EXISTING TO BE DEMOLISH (D)  
EXISTING TO BE RELOCATED (R)

NEW DUCT - WIDTH x DEPTH  
NEW FLEX DUCT - DIAMETER

### SEQUENCE OF OPERATION:

ERV-1 SHALL BE PROVIDED WITH A VENSTAR T2900 USED AS A TIME CLOCK. TIME OF DAY SCHEDULING SHALL BE BY OWNERS SPECIFIED HOURS OF OPERATION.

NOTE TO CONTRACTOR  
CONTRACTOR TO VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY EXISTING CONDITIONS. NOTIFY ARCHITECT/ENGINEER OF ANY SIGNIFICANT DEVIATION FROM PLANS. CONTRACTOR TO COORDINATE ALL MECHANICAL, ELECTRICAL, PLUMBING, STRUCTURAL AND FIRE SPRINKLER WITH EXISTING CONDITIONS.

### AIR CONDITIONING SPECIFICATION

A. GENERAL

- AIR CONDITIONING CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS, MATERIALS, ELEVATIONS AND COUNTS AS SHOWN AND/OR NOTED ON THE DRAWINGS AND INCLUDE THE BID ANY AND ALL FABRICATION REQUIRED PRIOR TO INSTALLATION. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND PRESENT STATE OF ALL EXISTING UTILITIES.
- THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY AND ALL EXISTING FIELD CONDITIONS WHICH DEVIATE FROM WHAT WAS SHOWN ON THE PLANS. CONTRACTOR IS RESPONSIBLE TO PROVIDE PERMITS FOR A COMPLETE INSTALLATION INCLUDING ANY COSTS ASSOCIATED WITH FIELD CONDITIONS AT THE TIME OF BIDDING.
- IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS SO THAT DELIVERY WILL NOT INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME.
- IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND SUPERVISION NECESSARY TO COMPLETE THE WORK SHOWN AND/OR NOTED ON THE DRAWINGS. THE DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR EXACT LOCATIONS. THE AIR CONDITIONING CONTRACTOR SHALL INSTALL ALL NECESSARY OFFSETS, BENDS, AND TRANSITIONS AS REQUIRED TO PROVIDE A COMPLETE AND FULLY OPERATIVE SYSTEM. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL NOTIFY ENGINEER IF DUCT SIZE CHANGES ARE REQUIRED BECAUSE OF EXISTING CONDITIONS.
- CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, TESTS, AND ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- AFTER BID SELECTION AND PRIOR TO COMMENCEMENT OF WORK, THE AIR CONDITIONING CONTRACTOR SHALL SUBMIT (5 COPIES) OF EQUIPMENT CUTS FOR ALL DUCT WORK, EXHAUST FANS, AIR DEVICES, AND EQUIPMENT AS STATED ON SCHEDULES AND/OR NOTES. IF THE CONTRACTOR PROPOSES TO USE ANY ARTICLE, DEVICE, PRODUCT, OR MATERIAL WHICH IS NOT AS SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVE TO THE ENGINEER THAT THE PROPOSED SUBSTITUTION IS EQUAL AND WILL FIT ALLOCATED SPACE.
- WORKMANSHIP
- ALL WORK SHALL BE PERFORMED BY A LICENSED AIR CONDITIONING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES AND ORDINANCES.
- THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR TO ORIGINAL CONDITION ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT, AND FURNISHINGS CAUSED BY THE CONTRACTOR DURING THE PERFORMANCE OF WORK.
- 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.

C. PIPING

- ALL REFRIGERANT PIPING SHALL BE TYPE "L" OR TYPE "K" COPPER WITH WROUGHT COPPER OR BRASS FITTINGS. STEEL VALVES ARE NOT PERMITTED.
- THE AIR CONDITIONING CONTRACTOR SHALL RUN ALL CONDENSATE DRAINS PER PLUMBING SPECIFICATIONS. (SEE PLUMBING SHEETS)
- INTERIOR CONDENSATE DRAIN PIPING AND REFRIGERANT SUCTION LINES SHALL BE INSULATED WITH 5/8" THICK MCKLOCK OR ARMAFLEX.
- COMBUSTIBLE PIPING IS NOT PERMITTED IN RETURN AIR PLENUMS OR CEILING SPACES USED FOR RETURN AIR.

D. INSTALLATION

- LOCATION OF AIR CONDITIONING DUCTS AND AIR DEVICES MAY CHANGE. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES.
- THE AIR CONDITIONING CONTRACTOR SHALL MOUNT ALL ROOFTOP EQUIPMENT ON FACTORY FABRICATED CURBS AND ANCHORS FOR A MINIMUM OF 14.0 MPH WIND LOADS. WIND LOADS AT MOUNTING HEIGHTS SHALL BE AS REQUIRED BY LOCAL CODES.
- THE AIR CONDITIONING CONTRACTOR SHALL USE VANED ELBOWS OR APPROVED 3 PIECE ELBOWS, SPLITTER DAMPERS WHERE INDICATED, VOLUME CONTROLS IN ALL BRANCH LINES AND SUPPLY AND RETURN AIR DEVICES.
- THE AIR CONDITIONING CONTRACTOR SHALL SEAL ALL DUCTS IN AN APPROVED MANNER TO INSURE AGAINST LEAKAGE.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID ANY CONFLICTS IN LOCATIONS FOR DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC. IN ORDER TO NOT INTERFERE WITH THE PROGRESS OF CONSTRUCTION.

E. EQUIPMENT AND MATERIALS

- THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE FLEXIBLE DUCT CONNECTIONS TO ALL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT. REFER TO EXHAUST HOODS.
- ALL EXHAUST AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE, SMACNA, AND LOCAL CODES. ALL OUTSIDE AIR DUCTS SHALL HAVE 1" INSULATION IN AIR CONDITIONED SPACES.
- UNLESS NOTED AS EXISTING, ALL EQUIPMENT, PIPING, DUCTS, REGISTERS, ETC. SHALL BE NEW.
- TERMINAL AIR DISTRIBUTION DEVICES SHALL BE TITUS, METALARE OR MATOR-HART OR EQUAL AS SCHEDULED. ALL VOLUME DAMPERS SHALL BE OPPOSED BLADE TYPE WITH SCREWDRIIVER ADJUSTMENT.
- ALL SUPPLY AND RETURN FIBERGLASS AIR DUCTWORK SHALL BE JOHNS MANVILLE FIBERGLASS (1 1/2" THICK). TYPE 475 OR 800 OR SHEET METAL WITH MINIMUM R-6 EXTERIOR FOULBACK INSULATION. UNLESS OTHERWISE NOTED ON PLANS ALL DUCTS SHALL BE SUPPORTED IN AS STRAIGHT AND LEVEL AS FASHION IS POSSIBLE. THE ENTIRE INSTALLATION SHALL BE INSTALLED IN ACCORDANCE WITH ASHRAE, SMACNA, AND LOCAL CODES. FLEXIBLE DUCTS SHALL BE UL-91 RATED, NONMETALLIC, CLASS 1, R-6 - INSTALLED IN ACCORDANCE WITH FBC-1304.1 FLEXIBLE DUCTS SHALL NOT BE LIMITED IN LENGTH PER FBC-1603.5.11
- THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE ALL CONTACTORS, STARTERS, RELAYS, AND THERMOSTATS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SWITCHES, DISCONNECTS, POWER WIRING AND CONTROL WIRING.
- THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE 1" THICK FARR 300/30 (THROW-AWAY TYPE) FILTERS WITH EACH A/C UNIT.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR UNDERWRITERS LABEL WHERE APPLICABLE.

F. SAFETY

- PENETRATIONS OF FIRE-RATED WALLS, FLOORS OR CEILINGS SHALL BE FIREPROOFED BY A SEALING METHOD AND RATING AS SPECIFIED ON THE DRAWINGS OR AS REQUIRED BY THE LOCAL OR STATE CODES.
- AIR HANDLING DEVICES IN EXCESS OF 2000 CFM WILL HAVE A DUCT SMOKE DETECTOR TO STOP THE FAN AND ACTIVATE A HORN AND STROBE LIGHT. ALL EQUIPMENT SHALL BE INTERLOCKED AS REQUIRED BY LOCAL CODES OR FIRE SAFETY OFFICIALS.
- ALL WORK SHALL COMPLY WITH BASE BUILDING LIFE SAFETY/SMOKE CONTROL SYSTEM REQUIREMENTS. PROVIDE ALL NECESSARY WIRING, CONTACTORS, RELAYS, ETC., AS REQUIRED FOR INTERFACE WITH BASE BUILDING SYSTEM.
- THE AIR CONDITIONING CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.

G. COMPLETION

- THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS BUILT DRAWINGS TO THE ENGINEER UPON COMPLETION OF INSTALLATION. IF FIELD CHANGES ARE MADE WHICH DEVIATE FROM ENGINEERING DRAWINGS TO THE EXTENT THAT THE BUILDING DEPARTMENT REQUIRES THESE CHANGES BE INCORPORATED PRIOR TO INSPECTION, THE CONTRACTOR SHALL PROVIDE SKETCHES TO THE ENGINEER FOR INCORPORATION INTO THE BUILDING PLANS. ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THAT CONTRACTOR.
- THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT PER FBC 2007, CH 13, 410.1A(BCD) & FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS FOR ALL PROJECTS. FOR PROJECTS TOTALING 10 TONS OR MORE, A CERTIFIED INDEPENDENT TEST AND BALANCE REPORT SHALL BE PERFORMED. THE T & B REPORT SHALL BE IN ACCORDANCE WITH AIR BALANCE COUNCIL STANDARDS AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLES, RETURN GRILLES, RETURN GRILLES AND THE LEAVING AND ENTERING AIR TEMP (T) FROM SUPPLY GRILLES AND EVAPORATORS.
- AIR CONDITIONING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, AND ALL WARRANTIES AND WARRANTIES SHALL BE DELIVERED TO THE OWNER. COMPRESSORS SHALL HAVE EXTENDED FIVE YEAR WARRANTIES.

H. EXISTING CONDITIONS

- IF THE NATURE OF THIS CONTRACT INVOLVES EXTENSIVE REMODELING OF THE EXISTING BUILDING, THE AIR CONDITIONING CONTRACTOR, PRIOR TO BID, SHALL INSPECT THE EXISTING CONDITIONS AT THE JOB SITE AND ACQUAINT HIMSELF WITH THE CONDITIONS THAT WILL AFFECT HIS WORK.
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EQUIPMENT WITH THE OWNER'S REPRESENTATIVE AND THE ACTUAL EQUIPMENT BEING FURNISHED.
- PRESENT AIR CONDITIONING EQUIPMENT WHERE INDICATED ON THE DRAWINGS IS FOR INFORMATION ONLY AND THE CONTRACTOR SHALL INCLUDE THE INSTALLATION OF CONDENSATE DRAIN AND WIRE AS REQUIRED. THE INSTALLATION OF NEW EQUIPMENT THAT INTERFERES WITH EXISTING SHALL BE REMOVED, RELOCATED, OR RE-ROUTED TO PERMIT COMPLETION OF SUCH WORK.
- SALVAGED MATERIALS, EQUIPMENT, AND DIFFUSERS SHALL BE DELIVERED TO THE OWNER AT HIS PROPERTY AND STORED WITHIN THE BUILDING WHERE DIRECTED. ANY REMOVED MATERIALS OR EQUIPMENT WHICH THE OWNER DOES NOT WISH TO KEEP SHALL BE DISPOSED OF BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE OWNER.
- ALL PRESENT DUCTWORK AND PIPING IN EXISTING AREAS TO BE ALTERED, WHICH WILL HAVE NO USE UPON COMPLETION OF THE ALTERATIONS SHALL BE REMOVED, WHENEVER DUCTS OR PIPING ARE OR WILL BECOME EXPOSED TO VIEW, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
- THE AIR CONDITIONING CONTRACTOR SHALL DETERMINE THE EXTENT TO WHICH EXISTING DUCTWORK AND PIPING WILL HAVE TO BE RE-ROUTED, RELOCATED, OR RECONNECTED, AND THE AMOUNT OF ADDITIONAL WORK WHICH MAY BE REQUIRED DUE TO THE PHYSICAL CONDITIONS OF THE DUCTWORK & PIPING SHALL BE PERFORMED UNDER THIS CONTRACT WITHOUT ADDITIONAL CHARGES TO THE OWNER.
- INTERRUPTION OF EXISTING FACILITIES OR SERVICES SHALL BE KEPT TO A MINIMUM AND THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR REQUIRED WHENEVER TEMPORARY CONDITIONS ARE NECESSARY TO MAINTAIN CONTINUITY OF SERVICE. INTERRUPTION OF SERVICES, THE INSTALLATION OF TEMPORARY FACILITIES, AND THE WORK OF MAKING FINAL CONNECTIONS TO NEW WORK SHALL BE DONE ONLY AT SUCH TIMES AS PERMITTED AND SCHEDULED BY THE OWNER WITHOUT ADDITIONAL COST. THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE SERVICE INTERRUPTIONS WITH THE OWNER & GENERAL CONTRACTOR.

PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND HE SHALL INCLUDE IN HIS BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFYABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

PERMIT SET: 09-07-10

**FAE CONSULTING**

1640 N.W. BOCA RATON BLVD.  
BOCA RATON, FL 33432  
TEL: (561) 391-9292 FAX: (561) 391-9898  
CERTIFICATE OF AUTHORIZATION NO. 28107  
HAROLD R. TUMBLER, P.E., LICENSE #19315  
E-MAIL: INFO@FAEBUILDING.COM



PLUMBING SPECIFICATIONS

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2007 EDITION PLUMBING SECTION, WITH 2009 AMENDMENTS, AND SHALL COMPLY WITH ALL LOCAL RULES AND ORDINANCES.

1. ALL WORKMANSHIP & MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL, STATE, LOCAL CODES, RULES & ORDINANCES.
2. CONTRACTOR SHALL VISIT THE JOB SITE & THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS.
3. ALL MATERIALS SHALL BE NEW.
4. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE.
5. ALL EXCAVATION & BACK FILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
6. REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY & PROPERTY DAMAGE FOR THE DURATION OF WORK.
7. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS & TESTS. SUBSTITUTIONS BY THE CONTRACTOR SHALL HAVE PRIOR APPROVAL. ANY CHANGES MADE WITHOUT APPROVAL WILL BE PAID BY THE CONTRACTOR TO RETURN TO THE ORIGINAL DESIGN.
8. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROCESS OF CONSTRUCTION.
9. THE CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR REVIEW OF THE GENERAL NOTES, SPECIFICATIONS, AND ALL OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS.
10. DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. FIELD VERIFY FINAL LOCATIONS FOR EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND EXACT LOCATION OF PLUMBING FIXTURES. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS.
11. DRAWINGS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
12. VERIFY LOCATION, SIZE, TRAPS, INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES. ANY COST RESULTING FROM DISCREPANCIES NOT REPORTED AT THIS TIME SHALL BE PAID BY THE CONTRACTOR.
13. INSTALL AIR CHAMBERS OR SHOCK ABSORBERS IN PIPING SYSTEM TO PREVENT NOISE AND DAMAGE DUE TO WATER HAMMER.
14. PROVIDE SHUT-OFF VALVES IN THE SUPPLY PIPING TO EVERY FIXTURE.
15. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS.
16. IN AREAS WHERE AN EXISTING FIXTURE IS TO BE REMOVED AND THE SANITARY LINE IS TO BE CAPPED, THE LINE MUST BE CAPPED WITH-IN 2 FEET OF AN ACTIVE SANITARY LINE. NO DEAD ENDS PERMITTED.
17. CAP ALL PIPING OPENINGS DURING CONSTRUCTION UNTIL FINAL CONNECTIONS TO EQUIPMENT AND ACCESSORIES ARE MADE.
18. SANITARY PIPE 3" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT. SANITARY PIPE 4" AND LARGER SHALL BE SLOPED AT 1/8" PER FOOT. CONDENSATE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT.
19. ALL FLOOR PENETRATIONS MUST BE SLEEVED, FIRE STOPPED, GROUTED, SEALED AND MADE WATERPROOF IN ACCORDANCE WITH THE LANDLORDS REQUIREMENTS. SLEEVES MUST EXTEND A MINIMUM OF 4" A.F.F. COORDINATE ALL CONCRETE TRENCHING/CORING TO ENSURE THAT ANY UNDER SLAB UTILITIES, ETC. ARE NOT DAMAGED DURING FLOOR CUT. ANY DAMAGE TO BE REPAIRED AT CONTRACTOR EXPENSE. CUTTING AND PATCHING ACTIVITIES WHICH CREATE NOISE MUST BE PERFORMED AFTER-HOURS SO LONG AS ANY OTHER TENANTS ARE OCCUPYING THE BUILDING. PRIOR APPROVAL AND COORDINATION WITH PROPERTY MANAGEMENT IS REQUIRED FOR ALL CONCRETE CUTTING.
20. DO NOT ROUTE ANY WET PIPING OVER ELECTRICAL EQUIPMENT.
21. WATER PIPING TO BE TYPE "M" OR TYPE "L" COPPER ABOVE OR BELOW SLAB.
22. SOIL, WASTE & VENT PIPING TO BE PVC #40 DWV.
23. HOT AND HOT WATER RETURN LINES SHALL BE INSULATED WITH 1/2" T.I. THICK ARMAFLEX INSULATION FROM THE WATER HEATER TO THE FURTHEST FIXTURE PER FBC 2007 CHAPTER 13, (WITH 2009 SUPPLEMENTS) SECTION 13-4.2.4(1) AND TABLE 13-4.11.AB.2.
24. WHERE DISSIMILAR METALS ARE TO BE JOINED, APPROVED INSULATING UNIONS SHALL BE USED.
25. NO PVC PIPING TO BE USED IN COMMON PLENUM AREAS.
26. CONDENSATE LINES TO BE COPPER/PVC DEPENDING ON PROJECT REQUIREMENTS. INSULATE WITH 1/2" THICK ARMAFLEX INSULATION.
27. CONTRACTOR SHALL GUARANTEE ALL MATERIALS & WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) 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.
28. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BID AND INSTALLATION. INFORM THE ENGINEER OF RECORD OF ANY DISCREPANCY BETWEEN THE DOCUMENTS AND THESE CONDITIONS AND HE SHALL INCLUDE IN HIS BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFYABLE EXISTING CONDITIONS DISCOVERED AFTER THE CONTRACT HAS BEEN AWARDED.
29. CONTRACTOR SHALL KEEP AS-BUILTS AND SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW. ALL CHANGES SHALL BE FORWARDED A MINIMUM OF 10 WEEKS PRIOR TO FINAL INSPECTION. ANY EXPENSES, SUCH AS REVISIONS OR AS-BUILTS, NECESSARY FOR FINAL C.O. SHALL BE AT THE EXPENSE OF THE OWNER.

NOTES:

1. PLUMBING CONTRACTOR TO VERIFY EXACT LOCATION, INVERT, SIZE, DIRECTION OF FLOW & CONNECTION POINT OF EXISTING SANITARY LINE IN FIELD PRIOR TO CONSTRUCTION.
2. PLUMBING CONTRACTOR TO VERIFY EXACT LOCATION OF COLD WATER LINE IN FIELD PRIOR TO CONSTRUCTION.
3. PLUMBING CONTRACTOR TO COORDINATE PIPE ROUTING WITH OTHER TRADES.
4. PLUMBING CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY CHANGES NECESSARY TO COMPLETE NEW CONSTRUCTION.
5. NO CHANGES SHALL BE IMPLEMENTED WITHOUT WRITTEN CONSENT OF THE ARCHITECT/ENGINEER.
6. POTABLE WATER LINES TO BE RUN OVERHEAD UNLESS OTHERWISE INDICATED.
7. PROVIDE SHOCK ARRESTORS ON ALL WASHING MACHINE WATER LINES. SIOUX CHIEF MOD.# 652-A/653-B
8. HOT WATER LINES SHALL BE INSULATED WITH 1" THICK ARMAFLEX INSULATION FROM THE WATER HEATER TO THE FURTHEST FIXTURE.
9. ANY SANITARY PIPE 2 1/2" OR SMALLER TO HAVE 1/4" SLOPE PER FOOT. ALL OTHER TO BE 1/8" SLOPE PER FOOT.
10. CAP ALL UNUSED EXISTING SANITARY OPENINGS BELOW THE SLAB. EXISTING FIXTURE TO BE REMOVED AND SANITARY LINE TO BE CAPPED BELOW SLAB. LINE MUST BE CAPPED WITH-IN 2 FEET OF AN ACTIVE LINE. NO DEAD ENDS PERMITTED. VERIFY EXACT LOCATION OF EXISTING SANITARY LINE IN FIELD PRIOR TO CONSTRUCTION.
11. PLUMBING CONTRACTOR TO OFFSET VENT PIPING AS NECESSARY.
12. ALL PLUMBING FIXTURES TO COMPLY WITH TABLE 604.4 FBC. 2007 (PLUMBING)
13. NO COMBUSTIBLE MATERIALS ALLOWED IN COMMON PLENUM.
14. ALL CLEANOUTS SHALL BE LOCATED IN ACCORDANCE WITH SECTIONS 708.3.1 THROUGH 708.3.6 F.B.C. 2007 (PLUMBING)

KEY NOTES:

1. CONNECT NEW 2" SANITARY TO EXISTING SANITARY LINE BELOW SLAB. CONTRACTOR TO VERIFY EXACT LOCATION, SIZE, INVERT, DIRECTION OF FLOW & CONNECTION POINT IN FIELD PRIOR TO CONSTRUCTION.
2. CONNECT NEW 3" SANITARY TO EXISTING SANITARY LINE BELOW SLAB. CONTRACTOR TO VERIFY EXACT LOCATION, SIZE, INVERT, DIRECTION OF FLOW & CONNECTION POINT IN FIELD PRIOR TO CONSTRUCTION.
3. EXISTING COLD WATER LINE OVERHEAD. CONTRACTOR TO VERIFY EXACT SIZE & LOCATION IN FIELD PRIOR TO CONSTRUCTION.
4. CONNECT NEW COLD WATER LINE TO EXISTING COLD WATER SERVICE OVERHEAD. PLUMBER TO VERIFY EXACT LOCATION, SIZE & CONNECTION POINT IN FIELD PRIOR TO CONSTRUCTION.
5. CONNECT NEW 1/2" HOT WATER LINE TO EXISTING LAVATORY HOT WATER LINE OVERHEAD. PLUMBER TO VERIFY EXACT LOCATION, SIZE & CONNECTION POINT IN FIELD PRIOR TO CONSTRUCTION.
6. CONNECT 1" CONDENSATE TO EXISTING CONDENSATE LINE BELOW SLAB. CONTRACTOR TO VERIFY EXACT LOCATION, SIZE, INVERT, DIRECTION OF FLOW & CONNECTION POINT IN FIELD PRIOR TO CONSTRUCTION.
7. REPLACE EXISTING FIXTURE WITH NEW. CONNECT EXISTING PLUMBING LINE IN WALL AND BELOW SLAB TO NEW FIXTURE. PLUMBER TO VERIFY EXACT LOCATION, SIZE, INVERT, DIRECTION OF FLOW & CONNECTION POINT IN FIELD PRIOR TO CONSTRUCTION.
8. EXISTING WATER HEATER TO BE RELOCATED (VERIFY EXACT LOCATION WITH OWNER/ARCH) VERIFY SYSTEM COMPONENTS & CONNECTIONS WITH EQUIPMENT MANUFACTURER.

**PLUMBING LEGEND**

---	COLD WATER LINE
---	HOT WATER LINE
---	SANITARY LINE
---	CONDENSATE LINE
---	FLOOR DRAIN
⊗	SHUT-OFF VALVE
A.A.V.	AIR ADMITTANCE CHAMBER

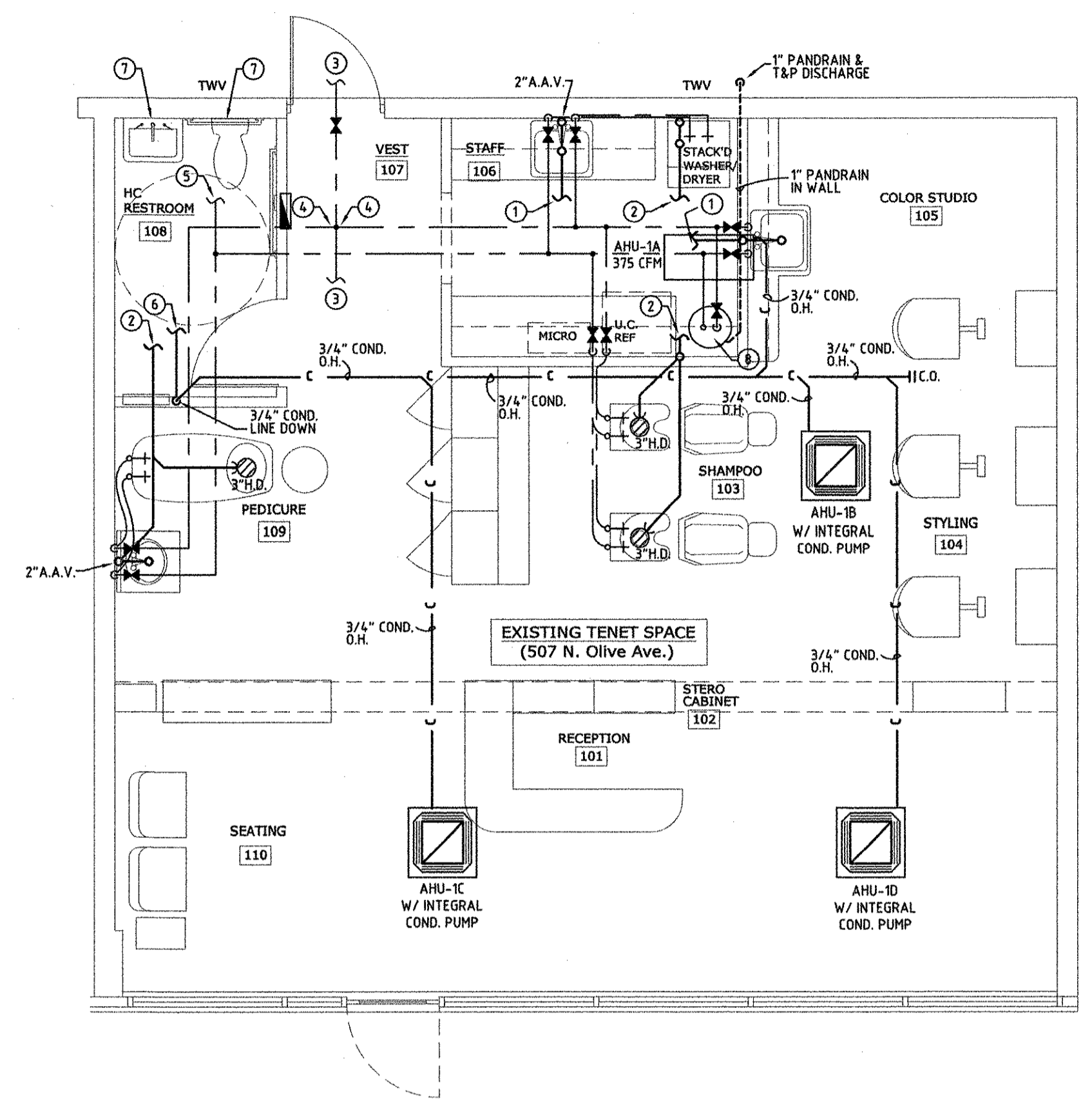
PROJECT: PAUL JAMES SALON

SANITARY SIZING	FIXTURE TYPE	NO.	F.U./EACH	TOTAL	MIN. TRAP SIZE
	WATER CLOSET	1	4.0	4.0	3"
	LAVATORY	1	1.0	1.0	1 1/4"
	HAND SINK	2	2.0	4.0	1 1/2"
	LOUNGE SINK	1	2.0	2.0	1 1/2"
	CLOTHES WASHER	1	2.0	2.0	3"
	FLOOR DRAIN	3	2.0	6.0	2"
	<b>TOTAL</b>	<b>9</b>	<b>-</b>	<b>19.0</b>	<b>-</b>

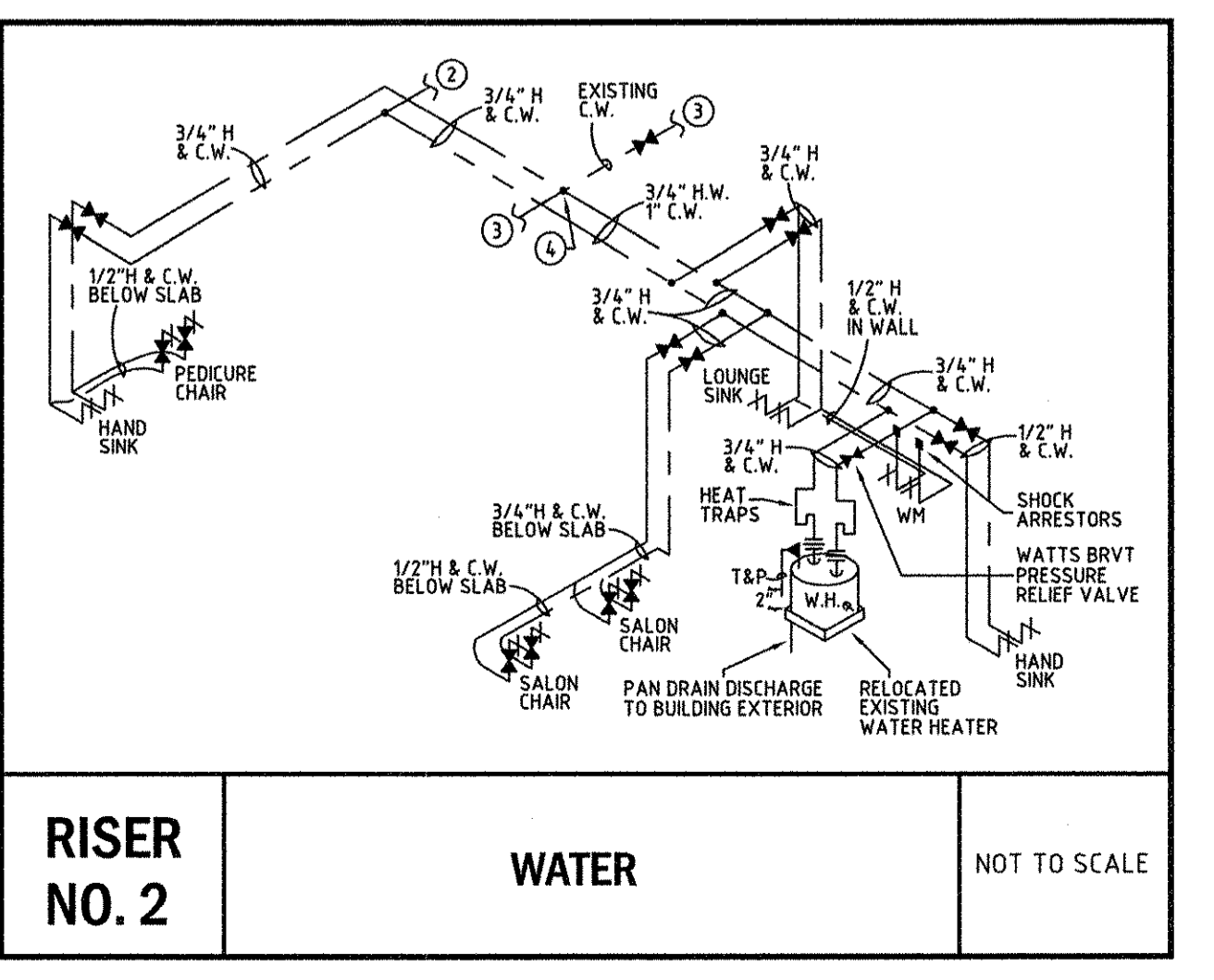
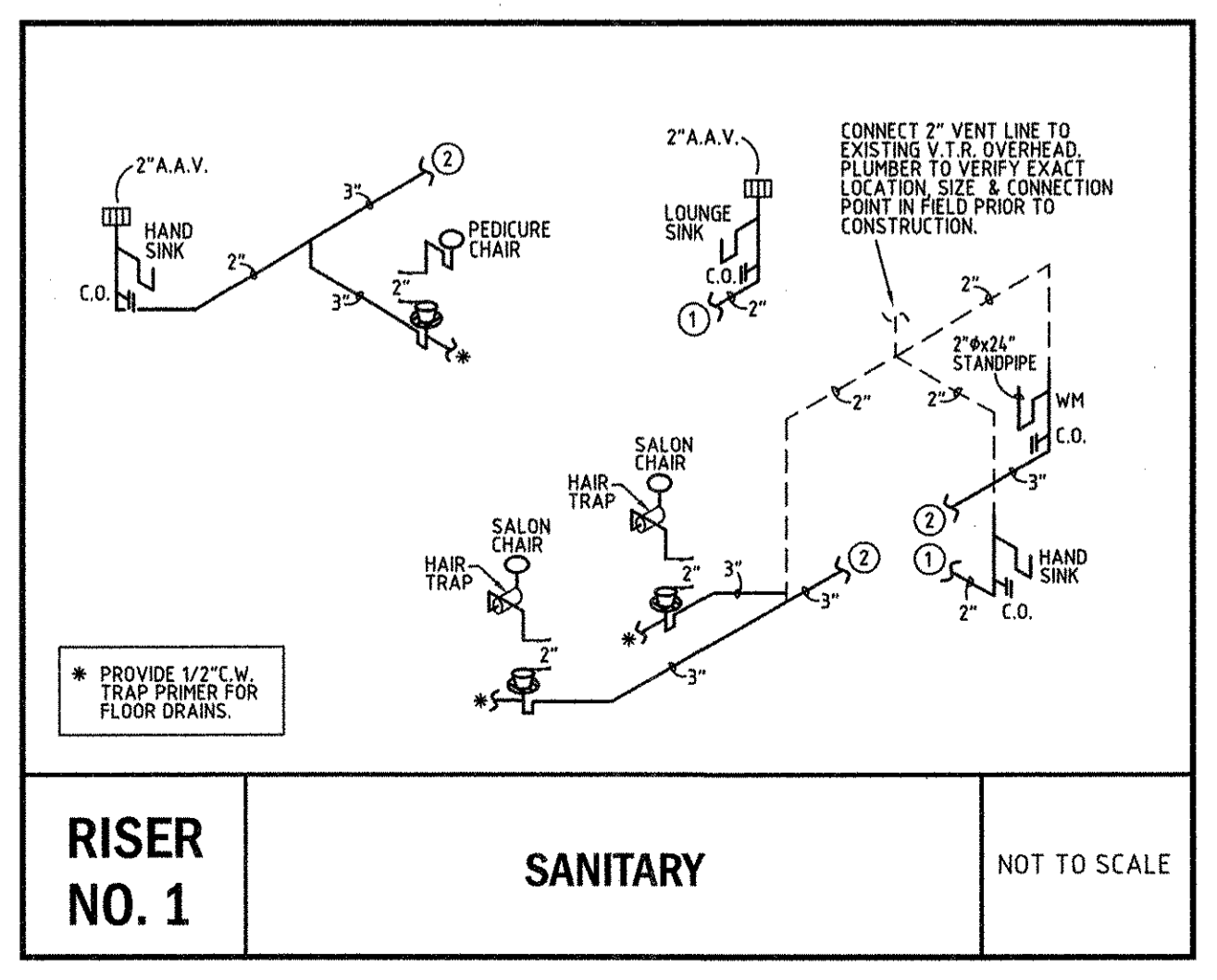
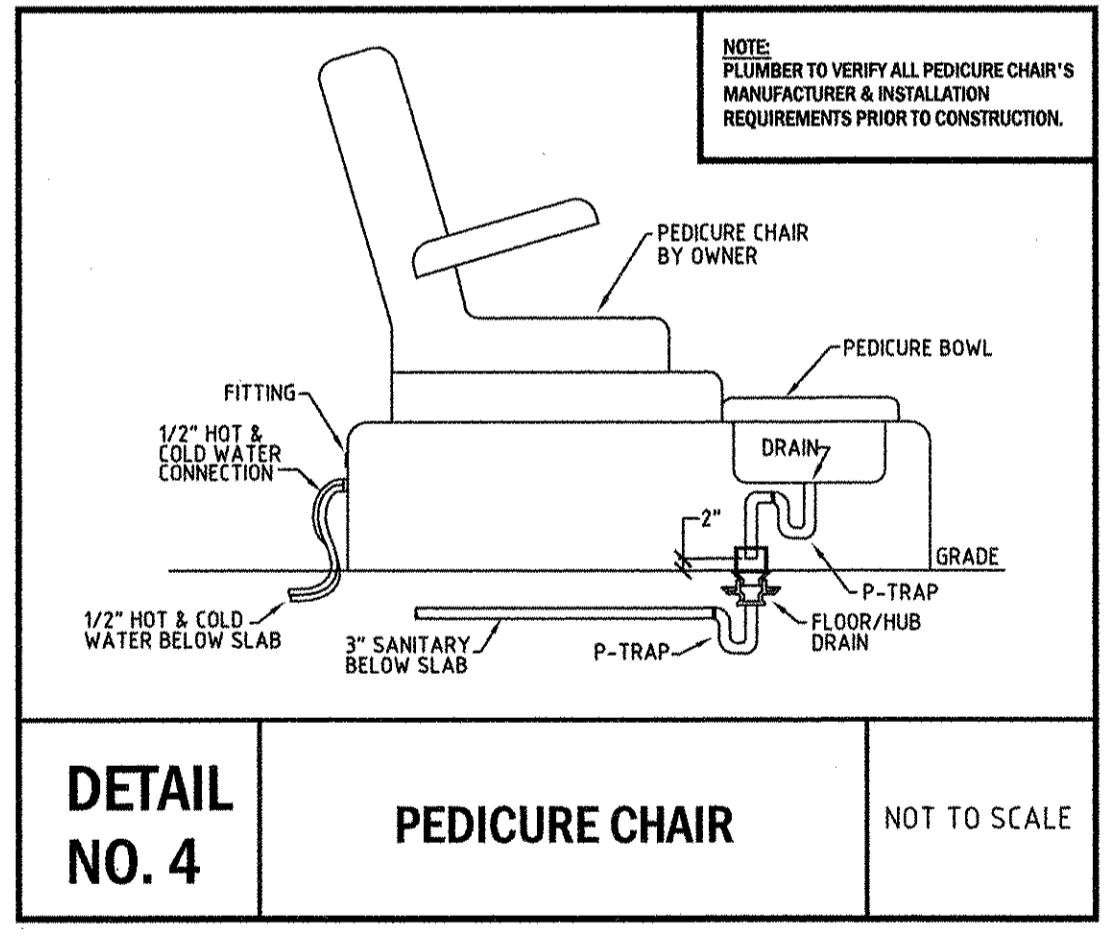
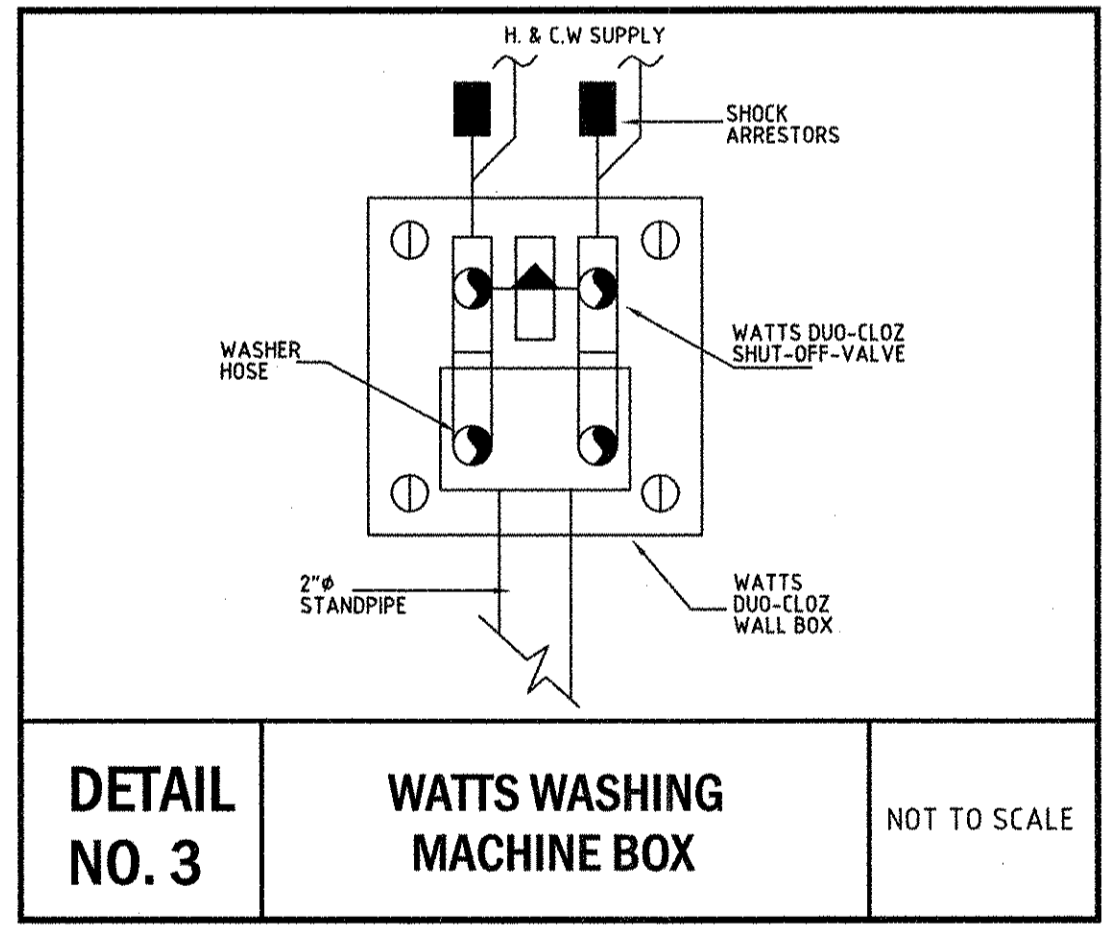
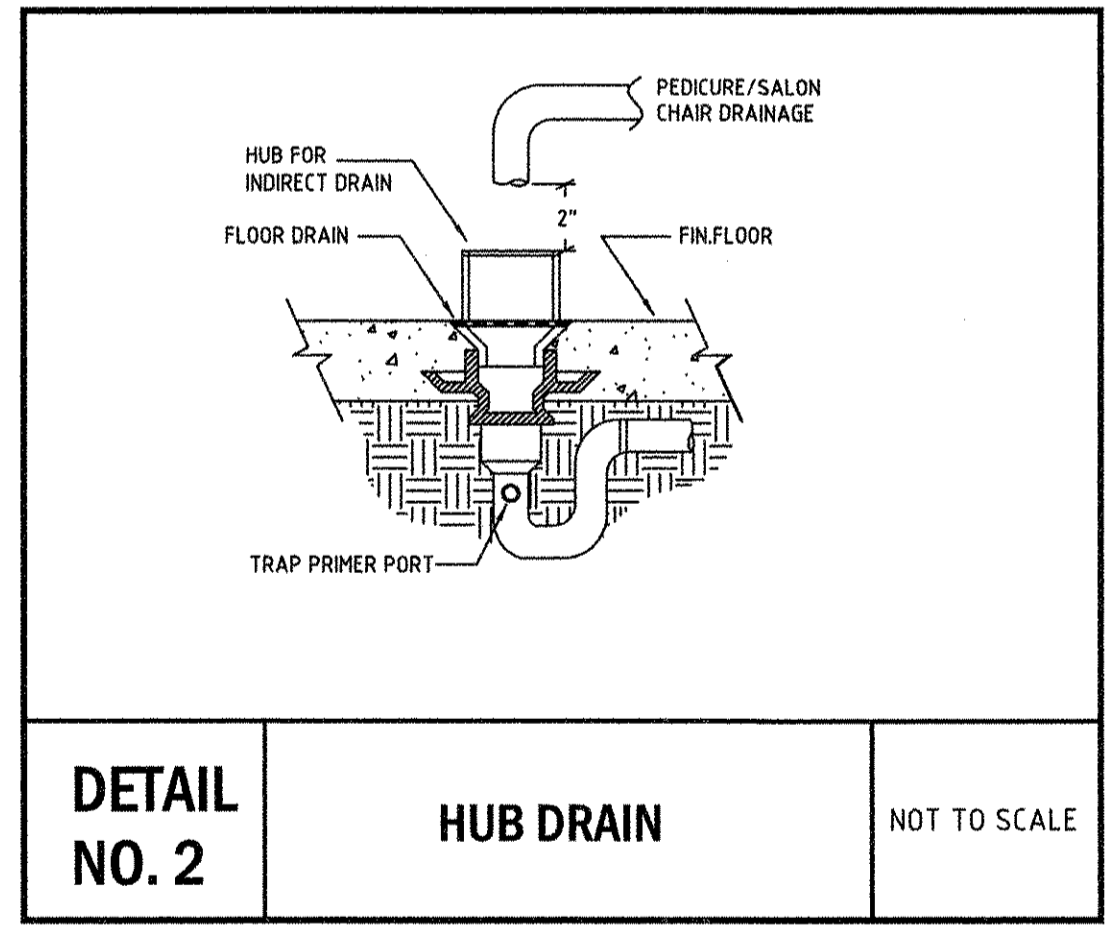
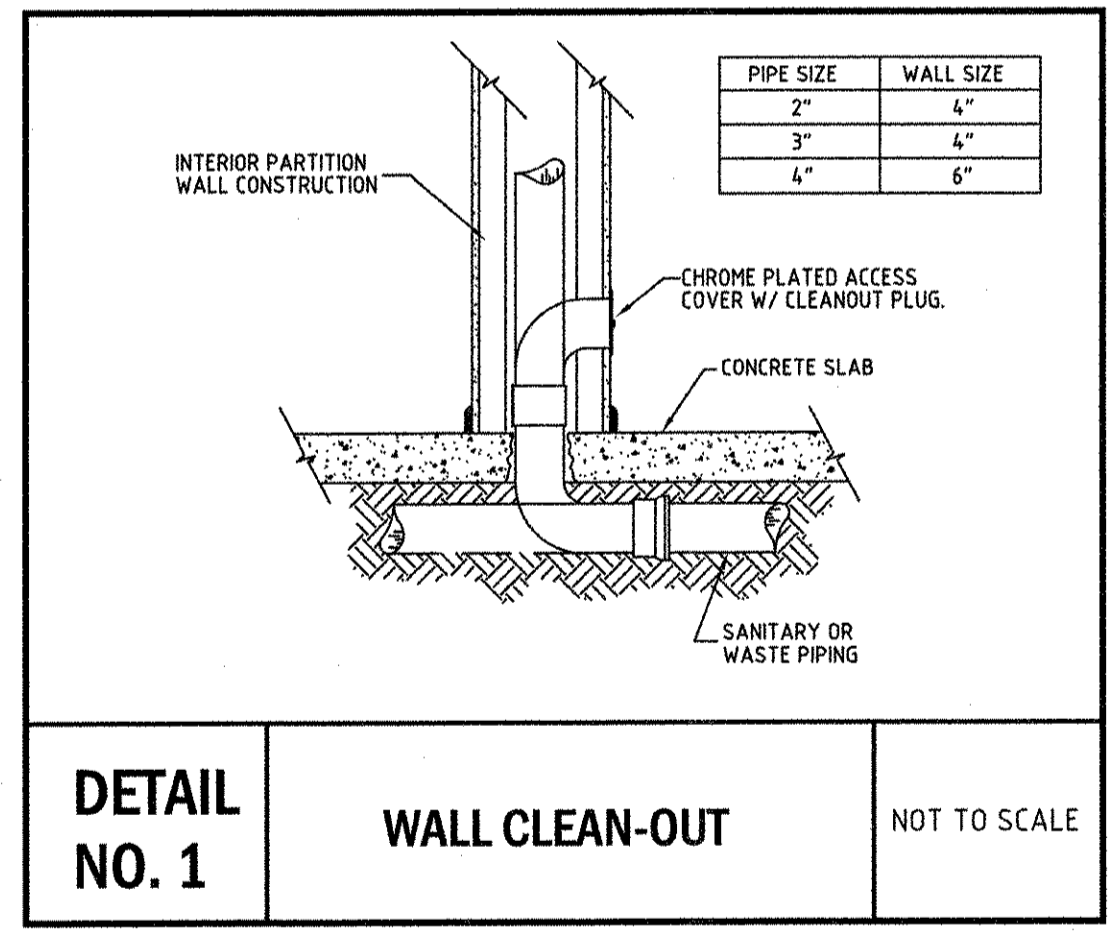
TOTAL SANITARY FIXTURE UNITS = 19.0  
MINIMUM SIZE SANITARY LINE @ 1/8" SLOPE = 3"

HOT & COLD WATER SIZING PER TABLE E103.3(2) F.B.C. 2007 (PLUMBING)	FIXTURE TYPE	NO.	C.W.F.U./EA.	H.W.F.U./EA.	PER FIXTURE TOTAL	MULTIPLIED TOTAL
	WATER CLOSET	1	5.0	-	5.0	5.0
	LAVATORY	1	1.5	1.5	2.0	2.0
	HAND SINK	2	1.5	1.5	2.0	4.0
	LOUNGE SINK	1	1.5	1.5	2.0	2.0
	CLOTHES WASHER	1	2.25	2.25	3.0	3.0
	SALON CHAIR	2	1.5	1.5	2.0	4.0
	PEDICURE CHAIR	1	1.5	1.5	2.0	2.0
	<b>TOTAL</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>22.0</b>

TOTAL C.W.F.U. = 22.0  
MINIMUM SIZE WATER SERVICE = 1"



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



PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND HE SHALL INCLUDE IN HIS BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFYABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION.

PERMIT SET: 09-07-10

**F&E CONSULTING**

1640 N.W. BOCA RATON BLVD.  
BOCA RATON, FL 33432  
TEL: (561) 391-9292 FAX: (561) 391-9898  
CERTIFICATE OF AUTHORIZATION NO. 28107  
HAROLD R. TUSBIER, P.E. LICENSE #19315  
E-MAIL: INFO@FAECONSULTING.COM

SEAL

JOB NUMBER: 10274  
DATE: 09-07-10  
DRAWN BY: CI/CG/AN  
APPROVED BY: HRT

SHEET TITLE

PLUMBING PLAN

SHEET NUMBER

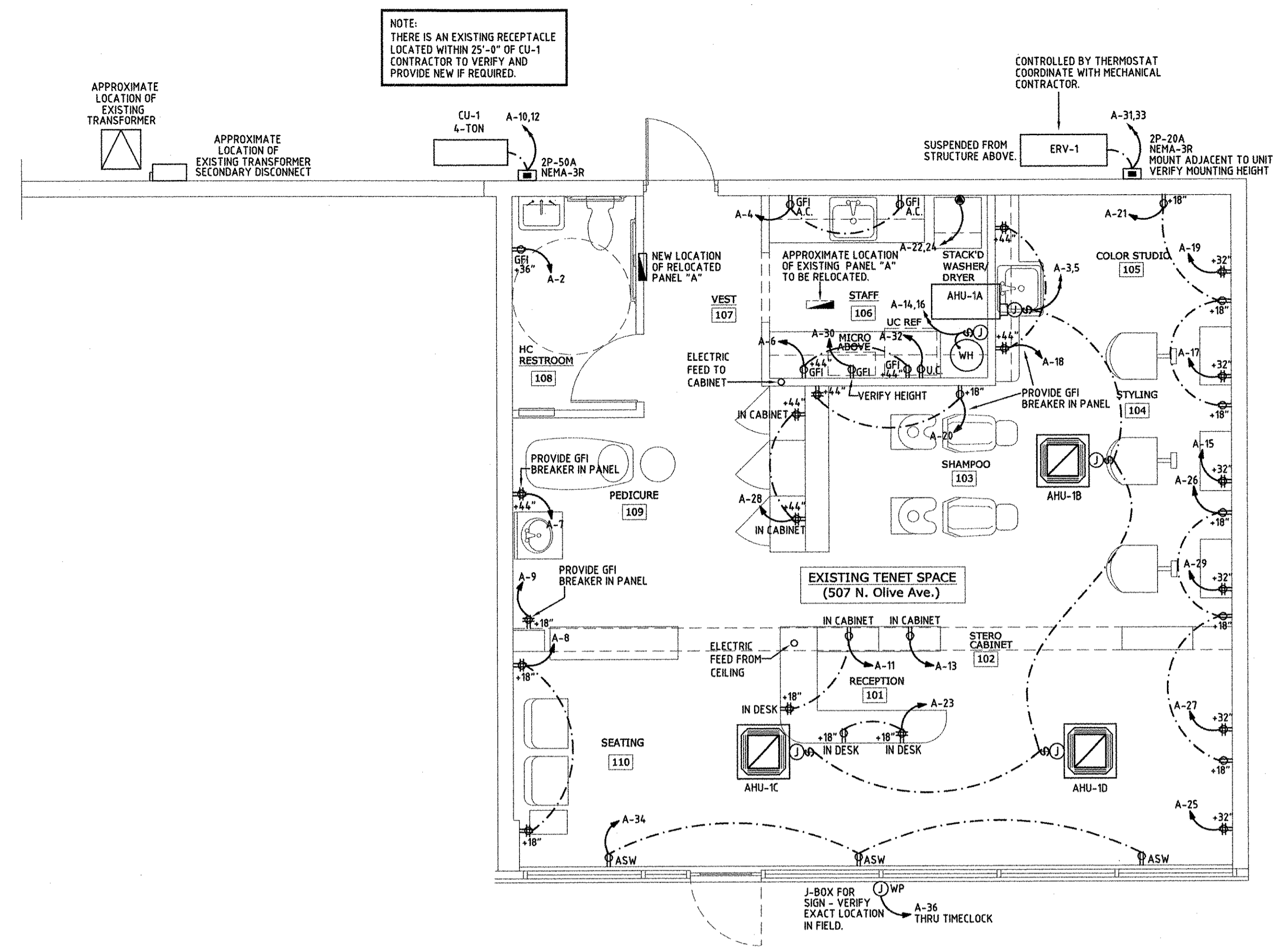
P1.01



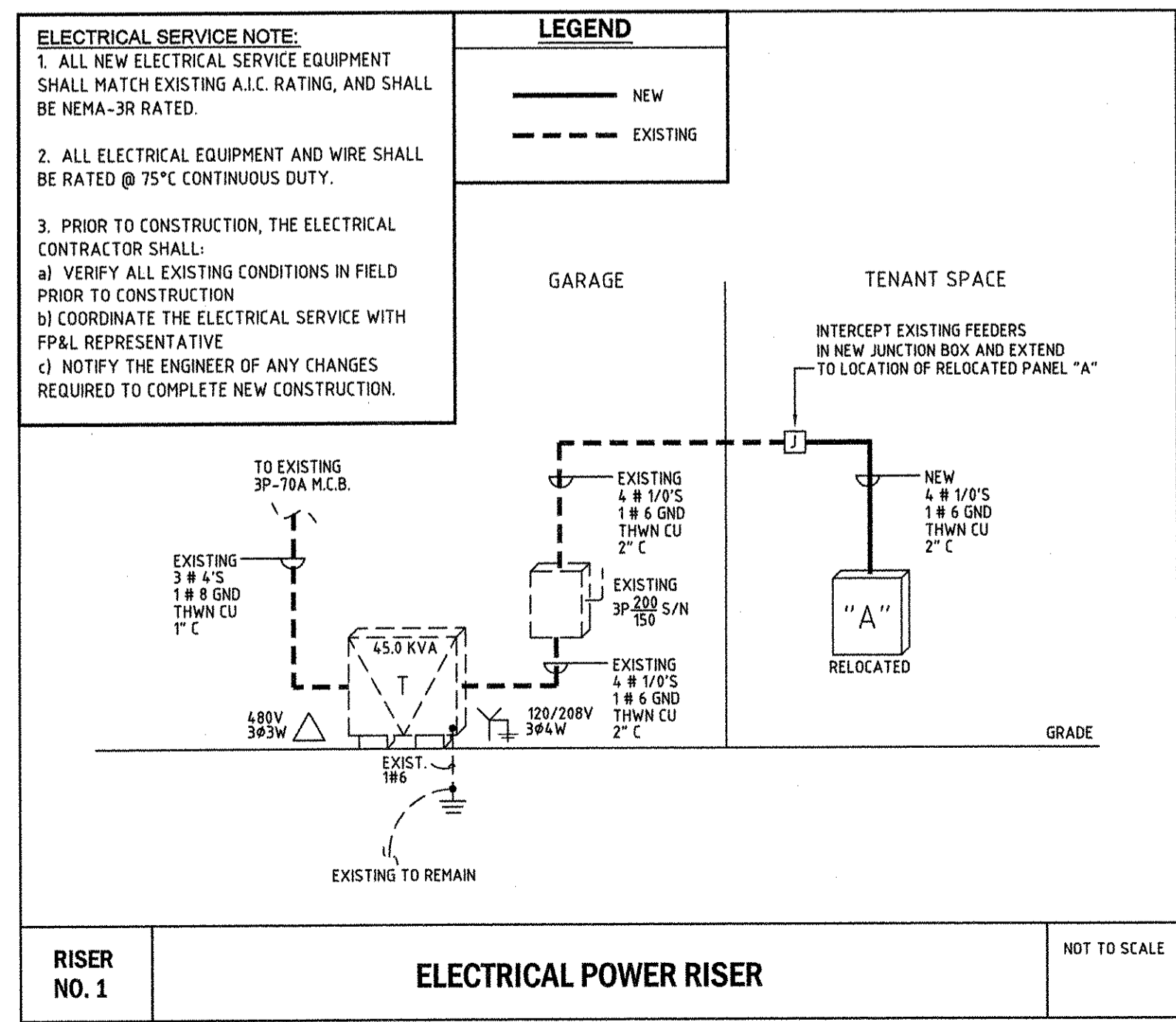
ELECTRICAL SYMBOL LEGEND			
⊕	110V RECEPTACLE	⊔	FUSE DISCONNECT
⊕	QUAD-PLEX RECEPTACLE	⊔	#POLES FRAME SIZE FUSE SIZE NEMA ENCLOSURE
⊕ WP	WATER PROOF RECEPTACLE	⊔	ELECTRICAL CIRCUIT BREAKER
⊕ GFI	GROUND FAULT CIRCUIT INTERRUPTER	⊔	ELECTRICAL PANEL
⊕	FLOOR RECEPTACLE WITH BRASS COVER PLATE, FLUSH WITH FLOOR	⊔	ELECTRICAL METER
⊕	220V RECEPTACLE	⊔	FACTORY INSTALLED DISCONNECT
⊕	JUNCTION BOX	⊔	THERMOSTAT
⊕	TELE/FAX/DATA PORT	⊔	SWITCH
⊕	TELEPHONE BOARD	⊔	3-WAY SWITCH
⊕	EXHAUST FAN	⊔	DIMMER SWITCH
		A.F.F.	ABOVE FINISHED FLOOR
		A.C.	ABOVE COUNTER

\* NOTE: ALL SYMBOLS MAY NOT BE USED FOR THIS PROJECT  
\*\* PROVIDE 3/4" C WITH PULL WIRE. STUB ABOVE CEILING.

- ### ELECTRICAL SPECIFICATIONS
- DO NOT SCALE THE ELECTRICAL DRAWING. REFER TO THE ARCHITECTURAL PLAN AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT AND CONFIRM WITH OWNERS REPRESENTATIVES.
  - ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2008 EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70), 2002 EDITION OF NFPA 72, 2003 EDITION OF NFPA 75, 2006 EDITION OF NFPA 101, 2002 EDITION OF NFPA 110, AND 2007 EDITION OF FBC W/ 2009 SUPPLEMENT.
  - UNLESS OTHERWISE NOTED, ALL CONDUCTORS SHALL BE COPPER, WITH "THHN" INSULATION FOR SIZE #10 AND SMALLER. CONDUCTORS LARGER THAN #10 SHALL HAVE "THWN" INSULATION. ALL CONDUCTORS IN WET LOCATIONS MUST HAVE "THWN" INSULATION. ALL CONDUCTORS #10 AND SMALLER MAY BE SOLID. ALL CONDUCTORS #8 AND LARGER SHALL BE STRANDED. ALL CONDUCTORS MUST COMPLY WITH ARTICLE 310 OF THE 2008 NEC.
  - OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
  - DISCONNECT SWITCHES SHALL BE HP, RATED, HEAVY DUTY, QUICK MAKE, QUICK BREAK, WITH ENCLOSURES AS REQUIRED BY EXPOSURE.
  - THESE PLANS DO NOT SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND MEET ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
  - THE ELECTRICAL SYSTEM SHALL BE COMPLETELY AND EFFECTIVELY GROUNDED AS REQUIRED IN ARTICLE 250, NATIONAL ELECTRICAL CODE. THE GROUNDING SYSTEM SHALL BE TESTED AND SHALL MEASURE A MAXIMUM OF 5 OHMS. PROVIDE A COPY OF THE TEST REPORT TO ENGINEER.
  - ALL MATERIALS SHALL BE NEW AND SHALL BEAR UL LABELS WHERE APPLICABLE.
  - ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANSHIP MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY ENGINEER/ARCHITECT MUST BE A CONDITION OF THE SUBCONTRACTOR.
  - THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER, LIGHT COMPANY AND TELEPHONE COMPANY.
  - CIRCUITS SHOWN ON PLANS ARE TO DETERMINE LOAD DATA AND PANEL SIZE. THE CONTRACTOR SHALL PROVIDE CIRCUITS TO SUIT JOB CONDITIONS.
  - SEE NOTES ON PLANS FOR OTHER REQUIREMENTS.
  - FURNISH AND INSTALL LIGHTING FIXTURES AND LAMPS AS CALLED FOR ON PLANS, OR AS SELECTED BY OWNER.
  - ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROCESS OF CONSTRUCTION.
  - CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY PHASE OF THE INSTALLATION WHICH MAY BE DAMAGED.
  - ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OF PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
  - CHECK ALL EQUIPMENT FOR PROPER VOLTAGE, PHASE, AND CURRENT BEFORE CONNECTION TO CIRCUITS.
  - ELECTRICAL CONTRACTOR SHALL CHECK AND VERIFY EQUIPMENT FURNISHED AGAINST THOSE SPECIFIED OR INTENDED AND REVISE BRANCH CIRCUITS AS MAY BE REQUIRED WITH PRIOR APPROVAL OF ENGINEER/ARCHITECT.
- #### AIR CONDITIONING EQUIPMENT AND CONTROLS SPECIFICATION
- ELECTRICAL CONTRACTOR SHALL INSTALL ALL CONTROL RACEWAY (CONDUIT), WIRE INSTALLATION, CONNECTIONS ETC. IN ACCORDANCE WITH WIRING DIAGRAMS ON AIR EQUIPMENT.
  - A/C / ELECTRICAL PLANS OR DIAGRAMS FURNISHED BY MANUFACTURER OF THE EQUIPMENT, INSTALLED AND CONNECTED UNDER THIS SECTION OF THE SPECIFICATION.
  - ALL POWER WIRING FOR THE AIR CONDITIONING EQUIPMENT SHALL BE FURNISHED, INSTALLED AND CONNECTED UNDER THIS SECTION OF THE SPECIFICATION.
  - MECHANICAL CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR ALL AIR CONDITIONING EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONNECTIONS TO AIR CONDITIONING EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.
  - AIR CONDITIONING EQUIPMENT INCLUDES CONDENSER, COMPRESSOR AND FAN, FAN COIL UNITS, ELECTRICAL STRIP HEATER, THERMOSTAT, ETC.



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



RISER NO. 1  
ELECTRICAL POWER RISER  
NOT TO SCALE

MFG. EXISTING	TYPE EXISTING	PANEL RATING EXISTING	LOAD	BUS KVA
VOLTS 120/208V	PANEL "A"	POS 42		A B C
1.3L	(2) 1/2"	12	1 20 1	0.2
	(3) 0.6	12	2 15 3	0.8
0.8			6 20 1 12 1/2"	0.8
0.8			8 20 1 12 1/2"	0.8
0.4			10 50 2 8 3/4"	2.5
0.8			12 5 5 5 5	2.5
0.8			14 30 2 10 3/4"	2.25
0.8			16 5 5 5 5	2.25
0.8			18 20 1 12 1/2"	0.8
0.6			20 20 1 12 1/2"	0.6
0.8			22 30 2 10 3/4"	2.5
0.8			24 5 5 5 5	2.5
0.8			26 20 1 12 1/2"	0.6
0.8			28 20 1 12 1/2"	0.8
1.9			30 20 1 12 1/2"	15
			32 20 1 12 1/2"	0.5
			34 20 1 12 1/2"	12
			36 20 1 12 1/2"	12
			37	
			38	
			40	
			41	
			42	

REMARKS & KEY NOTES:  
 ① EXISTING MAIN LUGS ONLY.  
 ② REMOVE EXISTING BRANCH CIRCUIT. RE-USE EXISTING BREAKER FOR NEW BRANCH CIRCUIT AS SCHEDULED.  
 ③ REMOVE EXISTING BRANCH CIRCUIT AND BREAKER. PROVIDE NEW AS SCHEDULED.  
 ④ PROVIDE NEW BRANCH CIRCUIT AND BREAKER IN EXISTING SPACE IN PANEL.  
 ⑤ PROVIDE GFI BREAKER.  
 ⑥ NON-CONCURRENT LOAD. PROVIDE "HACR" RATED BREAKER.  
 ⑦ WIRE CIRCUIT THRU TIMELOCK FOR CONTROL.  
 ⑧ PROVIDE "HACR" RATED BREAKER.  
 ⑨ VERIFY ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO BID/CONSTRUCTION.

LOAD CALCULATIONS PER NEC:  
 CALCULATED LIGHTING = 134 KVA @ 125% = 1.7 KVA  
 LARGEST MOTOR = 5.0 KVA @ 125% = 6.3 KVA  
 REMAINING LOADS @ 100% = 31.7 KVA  
 TOTAL DEMAND = 39.7 KVA  
 I<sub>L</sub> = 39.7 KVA / 208√3 V = 110.2 AMPS

SEE LOAD CALCULATIONS

FEEDER SIZE: 4 # 1/0'S THWN CU  
 CONDUIT SIZE: 2"

PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND HE SHALL INCLUDE IN HIS BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

PERMIT SET: 09-07-10

**FAC CONSULTING**

1640 N.W. BOGA RATON BLVD.  
BOGA RATON, FL 33432  
TEL: (561) 391-9292 FAX: (561) 391-9898  
IDENTIFICATE OF AUTHORIZATION NO. 28107  
HAROLD R. TUBBIER, P.E. LICENSE #19315  
E-MAIL: INFO@FACCONSULTING.COM

SEAL

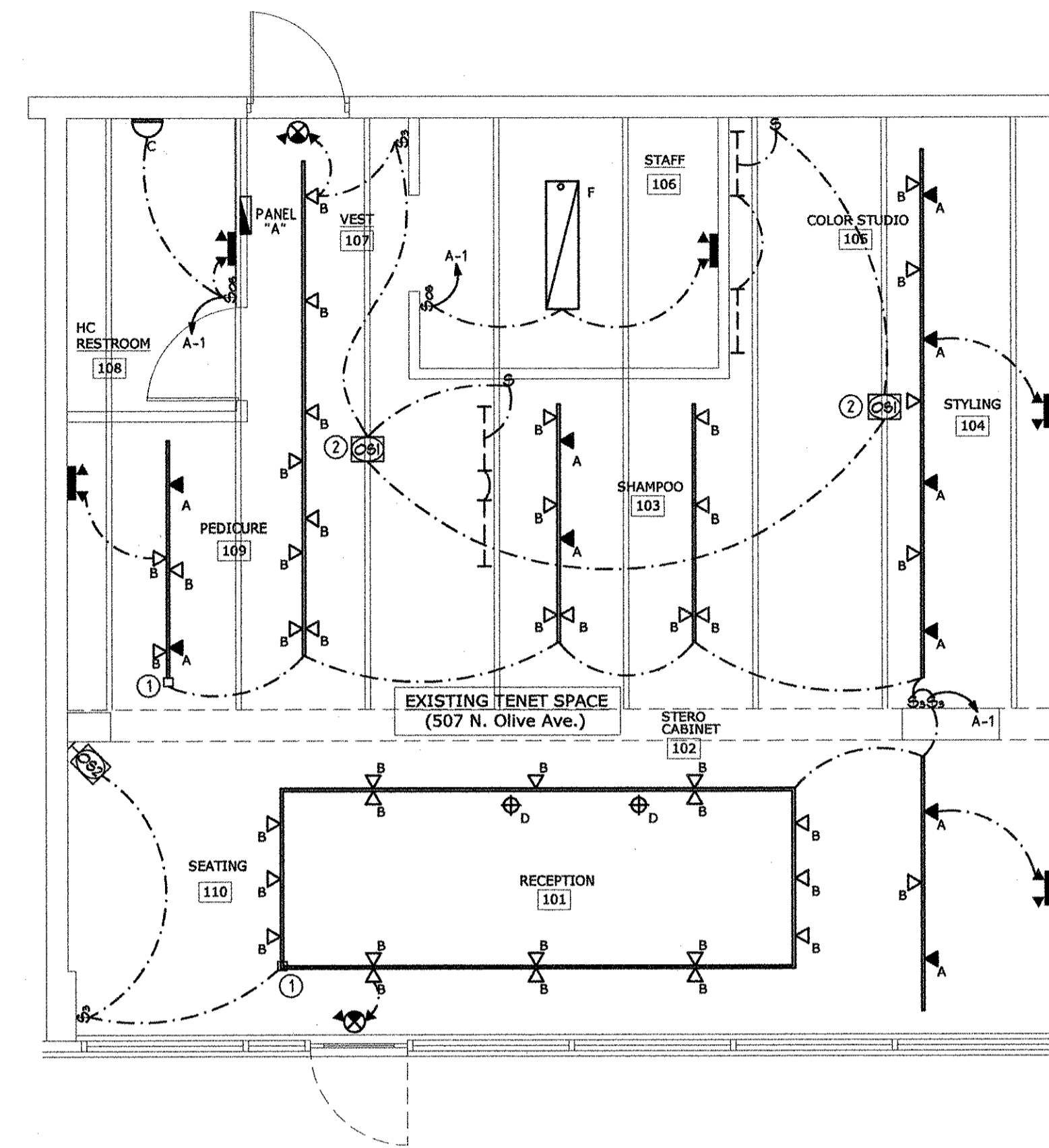
JOB NUMBER: 10274  
DATE: 09-07-10  
DRAWN BY: CJ/CG/AN  
APPROVED BY: HRT

SHEET TITLE

POWER PLAN,  
RISER, PANEL,  
& SPECS

SHEET NUMBER

E1.01



**LIGHTING PLAN**

SCALE: 1/4" = 1'-0"

**LIGHTING SYMBOL LEGEND**  
ALL FIXTURES ARE TO BE SELECTED BY OWNER/ARCHITECT.

- ▲ A - ECO LITE 18W LED TRACK FIXTURE
- △ B - LED LAMP TRACK FIXTURE
- D C - 2'-0" VANITY LIGHT - W LAMP
- ⊕ D - HANGING PENDANT TRACK FIXTURE
- E - SINGLE CIRCUIT TRACK-LENGTH VARIES SEE PLAN
- F - 1' x 4' FLORESCENT FIXTURE
- ⊕ EMERGENCY/EXIT COMBO W/ 90 MINUTE BATTERY
- ⊕ EMERGENCY LIGHT W/ 90 MINUTE BATTERY

NOTE: TRACK LIGHTING IS TO BE PROVIDED WITH CURRENT LIMITING TRANSFORMERS TO LIMIT THE AMOUNT OF WATTAGE AVAILABLE.

**INTERIOR LIGHTING POWER ALLOWANCE**  
PER FLORIDA BUILDING CODE, CHAPTER 13, METHOD B

CALCULATIONS HAVE BEEN MADE TO VERIFY THAT LIGHTING LEVELS COMPLY WITH CHAPTER 13, ENERGY SECTION OF THE 2007 FLORIDA BUILDING CODE, WITH 2009 SUPPLEMENT  
LIGHTING POWER DENSITIES PER TABLE 13-4.15.8.1

	ALLOWED	USED
RECEPTION/SEATING (RETAIL):	1.7 W/SQ FT x 186 SQ FT = 312 WATTS	600 WATTS
SHAMPOO/HAIR/PEDI/COLOR (TREATMENT):	1.5 W/SQ FT x 590 SQ FT = 885 WATTS	656 WATTS
STAFF (LOUNGE):	1.2 W/SQ FT x 79 SQ FT = 95 WATTS	56 WATTS
RESTROOM:	0.9 W/SQ FT x 56 SQ FT = 50 WATTS	28 WATTS
ALL TRACK LIGHTING IS PROVIDED WITH CURRENT LIMITING TRANSFORMERS.		
	TOTAL ALLOWED:	1343 WATTS
	TOTAL USED:	1340 WATTS

- LIGHTING NOTES**
1. ALL EXIT, EMERGENCY, AND BATTERY PACKS IN FLUORESCENT FIXTURES TO BE WIRED AHEAD OF CONTROL SWITCH.
  2. ALL EMERGENCY LIGHT FIXTURES SHALL BE MOUNTED AT 7'-6" A.F.F.
  3. ALL DIMMER SWITCHES SHALL HAVE A PRESET MINIMUM RATING OF 1.0 KW.
  4. ALL FIXTURE COUNTS, SELECTIONS, AND EXACT LOCATIONS MUST BE VERIFIED WITH OWNER/ARCHITECT PRIOR TO PURCHASE. LOCATIONS OF ALL SWITCHES, PENDANT/TRACK LIGHTING, AND WALL SCOVES TO BE VERIFIED WITH OWNER.
  5. CONTRACTOR TO VERIFY IF ANY LOW VOLTAGE LIGHT FIXTURES REQUIRE STEP-DOWN TRANSFORMERS. QUANTITY AND LOCATION TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
  6. ALL FIXTURES TO HAVE UL CERTIFICATION.
  7. PROVIDE (6) SETS OF CUT-SHEETS FOR APPROVAL PRIOR TO PURCHASE.
  8. ALL LUMINAIRES SHALL COMPLY WITH SECTION 410.13.G DISCONNECTING MEANS OF THE NEC.

- ENERGY COMPLIANCE NOTE**
1. OCCUPANCY SENSORS SHALL BE THE MEANS OF AUTOMATIC LIGHTING SHUTOFF PER FBC 13-415.8.1 FOR ALL AREAS. OCCUPANCY SENSORS MUST TURN LIGHTS OFF WITHIN 30 MINUTES AFTER AN OCCUPANT LEAVES THE SPACE.
  2. RECORD DRAWINGS OF INSTALLATION AND OPERATION MANUALS ARE TO BE PROVIDED TO THE OWNER WITHIN 30 DAYS AS SPECIFIED IN THE FLORIDA BUILDING CODE SECTION 13-413.1.ABC.2.

**LIGHTING CONTROL SYMBOL LEGEND**

- ⊕ SENSOR SWITCH (WALL MOUNTED OCCUPANCY SENSOR) MODEL: WSD-PDT
- ⊕ SWITCH
- ⊕ THREE-WAY SWITCH
- ⊕ CEILING MOUNTED OCCUPANCY SENSOR - LOW VOLTAGE SENSOR SWITCH ICH-PDT (STANDARD RANGE) (POWER PACK: PP-20, VERIFY QUANTITY)
- ⊕ WALL MOUNTED OCCUPANCY SENSOR - LOW VOLTAGE SENSOR SWITCH WAW-PDT - MOUNT 7'-6" A.F.F. (POWER PACK: PP-20, VERIFY QUANTITY)

NOTE:  
1. ALL SYMBOLS MAY NOT BE USED FOR THIS PROJECT.

- LIGHTING PLAN KEY NOTES**
1. PROVIDE 600VA CURRENT LIMITING TRANSFORMER FOR TRACK LIGHTING TO COMPLY WITH FBC CHAPTER 13.
  2. CONTRACTOR TO MOUNT OCCUPANCY SENSOR TO BOTTOM OF BEAM. COORDINATE EXACT LOCATION IN FIELD.

SEAL

JOB NUMBER: 10274  
DATE: 09-07-10  
DRAWN BY: CI/CG/AN  
APPROVED BY: HRT

SHEET TITLE

LIGHTING PLAN

SHEET NUMBER

E2.01

PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND HE SHALL INCLUDE IN HIS BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

PERMIT SET: 09-07-10

**FAE CONSULTING**

1640 N.W. BOCA RATON BLVD.  
BOCA RATON, FL 33432  
TEL: (561) 391-9292 FAX: (561) 391-9898  
CERTIFICATE OF AUTHORIZATION NO. 28107  
HAROLD R. TUBSLER, P.E. LICENSE #19315  
E-MAIL: INFO@FAECONSULTING.COM