

HVAC GENERAL NOTES

- WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, AND LOCAL CODES INCLUDING:
 - 2010 FLORIDA BUILDING CODE
 - 2010 FLORIDA MECHANICAL CODE
 - 2010 FLORIDA ENERGY CODE
 - ALL APPLICABLE NFPA CODES
- DEFINITIONS: "FURNISH" SHALL MEAN TO PURCHASE AND LOCATE AN ITEM ON THE JOBSITE. "INSTALL" SHALL MEAN TO PHYSICALLY INSTALL AN ITEM, AND TO CONNECT ALL REQUIRED SERVICES TO MAKE THAT ITEM FULLY FUNCTIONAL. "PROVIDE" SHALL MEAN TO BOTH FURNISH AND INSTALL AN ITEM.
- TEST AND BALANCE SHALL BE PERFORMED BY A TEST AND BALANCE AGENCY WHICH IS A MEMBER OF AABC OR NEBB, AND APPROVED BY THE ENGINEER. THE MECHANICAL CONTRACTOR SHALL HAVE ALL SYSTEMS FULLY INSTALLED AND OPERATIONAL, WITH CLEAN FILTERS PRIOR TO TEST AND BALANCE. TEST AND BALANCE SHALL BE PERFORMED WITH ALL AIR HANDLERS RUNNING SIMULTANEOUSLY. THE TEST AND BALANCE COMPANY SHALL VERIFY THAT ALL DAMPERS ARE FULLY OPEN BEFORE ANY BALANCING.
- THE SPACE ABOVE THE CEILING & BELOW THE GYPSUM ON THE UNDERSIDE OF THE TRUSSES IS A RETURN AIR CEILING PLENUM. ALL MATERIALS IN THIS SPACE MUST BE PLENUM RATED.
- ALL RETURN, OUTSIDE AIR & EXHAUST DUCTWORK SHALL BE UNINSULATED SHEET METAL. THE BASE BID FOR THE SUPPLY DUCTWORK SHALL BE EXTERNALLY WRAPPED FIBERGLASS DUCTBOARD FOR THE SUPPLY DUCTWORK. SEE DETAILS ON SHEET M2.01

HVAC EQUIPMENT

- CARRIER IS THE BASIS OF DESIGN FOR THE AIR CONDITIONING EQUIPMENT. FRAME IS THE APPROVED ALTERNATE MANUFACTURER. IF FRAME IS USED, IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE ALL ELECTRICAL AND SERVICE CLEARANCE DIFFERENCES FROM THE BASIS OF DESIGN.
- ALL AIR CONDITIONING UNITS SHALL INCLUDE A ONE YEAR UNIT WARRANTY AND AN EXTENDED 4-YEAR COMPRESSOR WARRANTY.
- ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED.
- ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- THE AIR CONDITIONING EQUIPMENT SHALL BE OPERATED DURING CONSTRUCTION WITH THROWAWAY FILTERS. FILTERS SHALL BE CHANGED DURING CONSTRUCTION IF THEY BECOME RESTRICTION FOR NORMAL OPERATION. PROVIDE REPLACEABLE MEDIA FILTERS, WITH METAL FILTER FRAMES JUST PRIOR TO TEST AND BALANCE.
- THE MECHANICAL SUBCONTRACTOR SHALL PREPARE PLANS SHOWING THE LOCATIONS AND SIZES OF ALL WALL PENETRATIONS AND ROOF OPENINGS, FOR USE BY THE GENERAL CONTRACTOR.
- SUBMITTALS SHALL BE REVIEWED BY THE ELECTRICAL SUBCONTRACTOR, FOR IMPACT ON THE ELECTRICAL, PRIOR TO ORDERING EQUIPMENT. ANY SUBSTITUTED EQUIPMENT SHALL BE PROTECTED BY EITHER FUSES OR AN HACR BREAKER.

HVAC CONTROLS

- THE CONTROLS SHALL BE BY A SEPARATE CONTROLS CONTRACTOR. SEE SHEET C-1.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR:
 - ROUTING CONTROL WIRING FROM AIR HANDLERS TO CONDENSING UNITS.
 - PROVIDE DIGITAL, NON-PROGRAMMABLE, LINE VOLTAGE THERMOSTAT TO CONTROL THE ATM ROOM TRANSFER FAN, "EF-2". THIS FAN AND THERMOSTAT IS INTENDED TO LIMIT THE TEMPERATURE OF THE ATM DURING NON-BUSINESS HOURS. SET TO 82 F.
 - PROVIDING MOTORIZED OUTSIDE AIR DAMPER AND INTERLOCK TO FULLY OPEN WHEN EXHAUST FAN "EF-1" IS RUNNING AND CLOSE SHUT WHEN "EF-1" IS OFF.
 - PROVIDE VARIABLE VOLUME DIFFUSER FOR LOUNGE, THERMOSTAT & WIRING. COORDINATE CONTROL POWER WITH ELECTRICAL.
 - PROVIDING AND WIRING THE SMOKE DETECTORS AND REMOTE TEST STATIONS IN THE FOLLOWING LOCATIONS:
 - SUPPLY AND RETURN DUCTS OF AHU-1,2,3
 - SMOKE DETECTORS SHALL BE APC MODEL #SL-2000, DUCT MOUNTED, IN THE MECHANICAL ROOM & SHALL SHUT DOWN THE AHU UPON DETECTION OF SMOKE. PROVIDE A REMOTE TEST STATION FOR EACH DETECTOR, APC MODEL #MS-RH/KA/P/A/T WITH TEST/RESET, ALARM SIREN, ALARM LED, FAULT LED AND PILOT LED. SMOKE DETECTORS SHALL DISABLE THE AIR HANDLER UNIT UPON DETECTION OF SMOKE. MOUNT TEST STATIONS ON PARTITION AS SHOWN ON PLAN. FOR EACH TEST STATION, PROVIDE A FLUOROPOLYMER UNIT SERVED & DUCT (E.G. "AHU-1 SUPPLY"). CONTROLS CONTRACTOR TO CONNECT TO DETECTOR.
- ALL CONTROL WIRING SHALL BE RETURN AIR PLENUM RATED.

AIR DISTRIBUTION SCHEDULE

TAG	DESCRIPTION	PRICE MODEL	MOUNTING FRAME	CORE
CD1	CEILING DIFFUSER	APDC	LAY-IN	PERFORATED FACE, ADJUSTABLE CURVED BLADE.
CD2	CEILING DIFFUSER	AMX	SURFACE	EXTRUDED, DIRECTIONAL, FIXED LOUVER.
CD3	CEILING DIFFUSER	AAG100	SURFACE	EXTRUDED, DIRECTIONAL, FIXED LOUVER.
CD4	SIDEWALL DIFFUSER	AIRCONCEPTS APL-A	SURFACE	EXTRUDED, DIRECTIONAL.
VVD	VARIABLE VOLUME DIFFUSER	PPD2	LAY-IN	DIGITAL CONTROL DIFFUSER. HEAT/COOL CHANGE-OVER SHALL BE FURNISHED WITH FACTORY WALL MOUNTED THERMOSTAT (MASTER ONLY)
RG1	RETURN GRILLE	APRRF	LAY-IN	PERFORATED PANEL. NO NECK, NO FRAME, OPEN TO CEILING PLENUM.
EG1	EXHAUST GRILLE	APDDR	LAY-IN	PERFORATED FACE.
TG1	TRANSFER GRILLE	APDDR	LAY-IN	PERFORATED FACE.
EG2	EXHAUST GRILLE	630	SURFACE	FIXED LOUVER.
RR2	RETURN REGISTER	630	SURFACE	FIXED LOUVER. OPPOSED BLADE DAMPER
L	WALL LOUVER	-	WALL NO FLANGE	RUSKIN 6375DXD MIAMI-DADE APPROVED DRAINABLE STATIONARY LOUVERS W/ FIELD FABRICATED PLENUM PROVIDE EXTENDED SILL & CLEAR ALUMINUM ANODIZED FINISH

- NOTES:**
- APPROVED MANUFACTURERS: CARNES, KRUEGER, METALAIR, TITUS AND PRICE.
 - APPROVED MANUFACTURERS OF LOUVERS ARE GREENHECK & RUSKIN
 - MATCH RUN-OUT SIZE TO NECK SIZE IF NOT NOTED
 - ALL AIR DISTRIBUTION SHALL INCLUDE: ALUMINUM CONSTRUCTION AND OFF-WHITE COLOR.

LEGEND

- TYPE OF AIR DISTRIBUTION
- NECK SIZE / RUNOUT SIZE
- CFM AIRFLOW

NOTE:
PER SECTION 13-409.1 ABC 3.3 FBC 2010, PROVIDE MOTORIZED SHUTOFF CONTROL DAMPERS ON AHU'S WITH CFM'S IN EXCESS OF 300 CFM. GRAVITY DAMPERS ARE SUFFICIENT FOR LESS THAN 300 CFM OF OUTSIDE AIR.

LEGEND

- BALANCING DAMPER (BD)
- MOTORIZED DAMPER
- SMOKE DUCT DETECTOR
- SMOKE DETECTOR REMOTE TEST STATION
- THERMOSTAT BY CONTROLS CONTRACTOR
- THERMOSTAT BY MECHANICAL CONTRACTOR

NOTE:
CEILING SPACE IS A COMMON PLENUM NO COMBUSTIBLE MATERIALS ALLOWED.

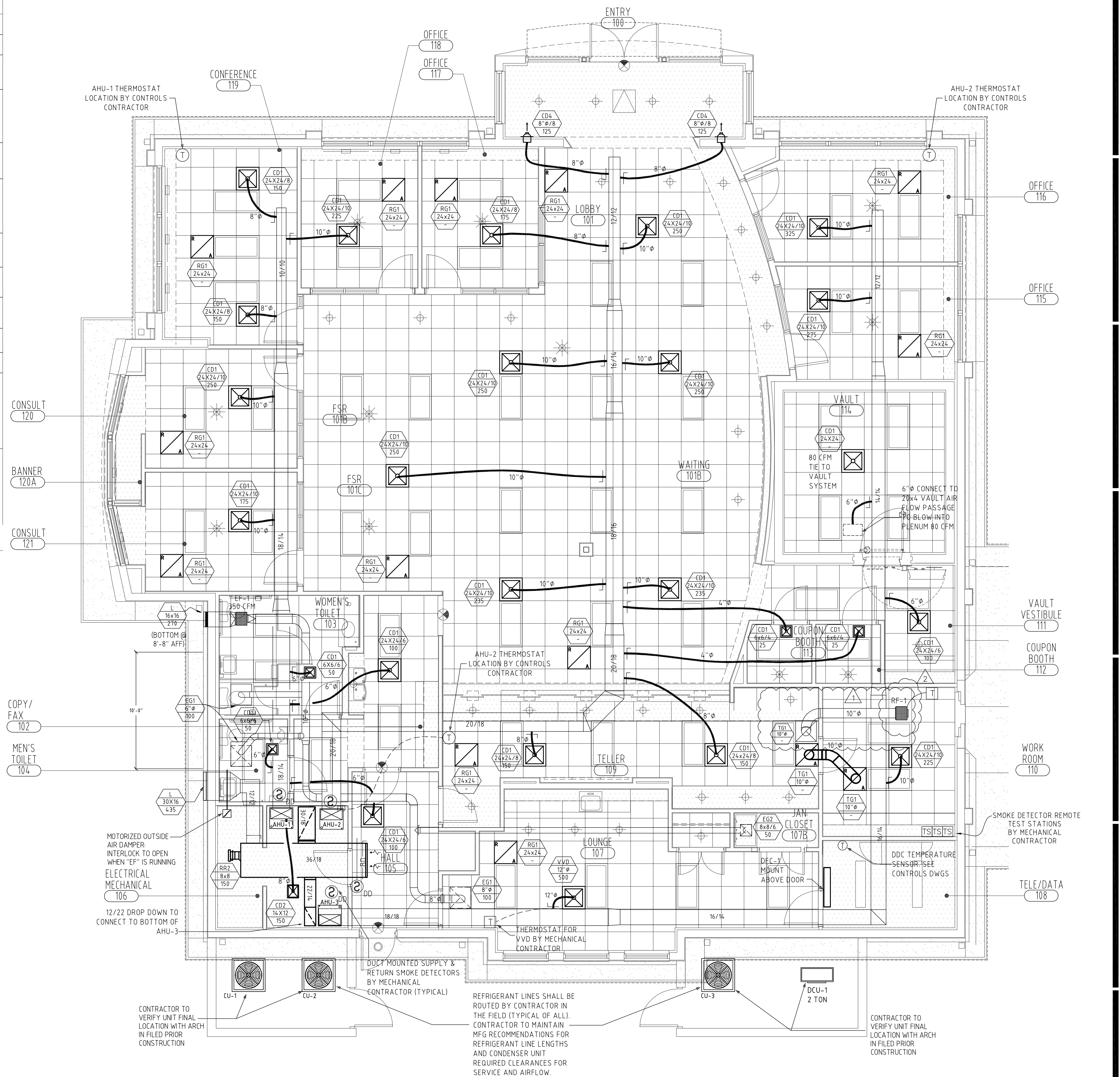
A/C LEGEND

- | | | | |
|--|---------------------------------------|----------------------|----------------------------------|
| | 4W - DIFFUSER | ABBREVIATIONS | A.F.F. ABOVE FINISHED FLOOR |
| | 2W - DIFFUSER | R.A. | RETURN AIR |
| | TRANSITION | R.C. | ROOF CAP |
| | MANUAL VOLUME DAMPER (M.V.D.) | W.C. | WALL CAP |
| | FIRE DAMPER (F.D.) | O/A | OUTSIDE AIR |
| | THERMOSTAT | S.A.D. | SUPPLY AIR DUCT |
| | TEMPERATURE & HUMIDITY CONTROL SENSOR | R.A.D. | RETURN AIR DUCT |
| | L/S - LIQUID/SUCTION LINE | R.A.G. | RETURN AIR GRILLE |
| | DIFFUSER TYPE CFM | E.A.G. | EXHAUST AIR GRILLE |
| | AUTOMATED VOLUME DAMPER | T.E.D. | TOILET EXHAUST DUCT |
| | RETURN AIR GRILLE | AVD | AUTOMATED VOLUME DAMPER |
| | EXHAUST FAN | F.H.P. | FLORIDA HEAT PUMP |
| | REMOTE ALARM TEST STATION | A.H.U. | AIR HANDLER UNIT |
| | SMOKE DUCT DETECTOR | CU | CONDENSING UNIT |
| | CONDENSING UNIT | WAHU | WALL MOUNTED AIR HANDLER UNIT |
| | AIR HANDLER UNIT | CAHU | CEILING MOUNTED AIR HANDLER UNIT |
| | ROOF TOP UNIT | (NI) | NEW |
| | | (EI) | EXISTING TO REMAIN |
| | | (RE) | EXISTING TO BE DEMOLISH |
| | | (IRP) | EXISTING TO BE REPLACED |
| | | UP | SUPPLY DUCT (UP & DOWN) |
| | | DN | RETURN DUCT (UP & DOWN) |
| | | UP | EXHAUST DUCT (UP & DOWN) |
| | | DN | O/A DUCT (UP & DOWN) |
| | | | NEW DUCT - WIDTH x DEPTH |
| | | | NEW FLEX DUCT - DIAMETER |

OUTSIDE AIR SCHEDULE per 2010 FMC TABLE 403.3

SPACE	NET OCCUPIED AREA	OCCUPANCY DENSITY PER 1000 SQFT	ESTIMATED OCCUPANCY	ACTUAL OCCUPANCY	VENTILATION REQUIRED	VENTILATION PROVIDED	NOTES
AHU-1	1170	-	-	11	130	100	2
AHU-2	2110	-	-	23	242	242	2
AHU-3	830	-	-	9	95	100	2

- NOTES:**
- OCCUPANT DENSITIES & VENTILATION RATES ARE BASED ON TABLE 403.3 OF THE 2010 FLORIDA MECHANICAL CODE
 - ACTUAL OCCUPANCY IS BASED ON EITHER SEATING ARRANGEMENT OR INFORMATION PROVIDED BY OWNER AND/OR ARCHITECT.



MECHANICAL PLAN

SCALE: 3/8" = 1'-0"

REVISION SET: 11-22-13

PERMIT SET: 08-05-13

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.

date	description
08-05-13	ISSUED FOR PERMIT
08-03-13	1. BUILDING DEPARTMENT COMMENTS
11-22-13	2. BUILDING DEPARTMENT COMMENTS