ELECTRICAL NOTES:

(1) ALL CIRCUIT AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
(2) WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "STORAGE AREA" AS DEFINED BY NEC 410-8(a)
(3) WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
(4) HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY READILY ACCESSIBLE CIRCUIT BREAKER
(5) PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
(6) THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
(7) ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES OR CABLE CONNECTORS
(8) FIRE ALARM PULL STATION OPERABLE DEVICE SHALL BE LOCATED 42 TO 45 INCHES ABOVE THE FLOOR. FIRE ALARM HORN/STROBE DEVICE SHALL BE WALL MOUNTED WITH THE BOTTOM EDGE 80 INCHES ABOVE THE FLOOR
(9) ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (WP) ENCLOSURES, THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED. ALL 15 AMP AND 20 AMP RECEPTACLES INSTALLED ON THE EXTERIOR OF THE BUILDING SHALL BE LISTED AS 'WEATHER RESISTANT'
(10) ALL EXTERIOR LIGHTS SHALL BE EQUIPPED WITH PHOTOCELLS FOR AUTOMATIC SHUT-OFF WHEN DAYLIGHT IS AVAILABLE.
(11) ALL FLUORESCENT LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS SHALL HAVE A DISCONNECTING MEANS FROM THE CIRCUIT EITHER INTERNAL OR EXTERNAL OF THE LUMINAIRE.
(12) OCCUPANCY SENSOR RECEPTACLES SHALL BE PERMANENTLY MARKED TO VISUALLY DIFFERENTIATE THEM FROM OTHER RECEPTACLES AND MUST HAVE AN OCCUPANCY SENSOR THAT WILL TURN THE RECEPTACLES OFF WITHIN 20 MINUTES OF THE OCCUPANTS LEAVING THE SPACE.
(13) OCCUPANCY SENSOR SWITCHES SHALL PROVIDE BILEVEL LIGHTING CONTROL TO PROVIDE EITHER CONTINUOUS DIMMING OR AT LEAST ONE INTERMEDIATE STEP IN LIGHTING POWER BETWEEN 30% AND 70% OF FULL POWER IN ADDITION TO FULL ON AND FULL OFF. OCCUPANCY SENSOR SWITCHES MUST TURN THE LIGHTS OFF WITHIN 20 MINUTES OF THE OCCUPANTS LEAVING THE SPACE.
(14) DUPLEX RECEPTACLES PROVIDED WITH AN OCCUPANCY SENSOR TO HAVE ONLY ONE OF THE TWO RECEPTACLES CONTROLLED BY THE SENSOR.

MECHANICAL NOTES:

(1) ALL SUPPLY AIR REGISTERS SHALL BE 10 INCHES BY 10 INCHES ADJUSTABLE WITH 6 INCHES x 30 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCTS, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES AND VENTILATED ATTICS SHALL HAVE R-6 MINIMUM INSULATION AND DUCTS LOCATED OUTSIDE THE BUILDING ENVELOPE AND IN CRAWL SPACES SHALL HAVE R-8 MINIMUM INSULATION
(2) RESTROOM VENT FANS SHALL PROVIDE 75 CFM OR MORE EXHAUST PER WATER CLOSET OR URINAL
(3) VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
(4) HVAC SYSTEM SHALL BE DESIGNED TO PROVIDE 5 CFM FRESH AIR FOR EACH OCCUPANT IN ACCORDANCE WITH THE IMC.
(5) OFFICE INTERIOR DOORS TO BE UNDERCUT 2 INCHES.
(6) HVAC THERMOSTAT MUST PROVIDE A DEAD BAND OF AT LEAST 5 DEGREES F. WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE SPACE IS SHUT OFF OR REDUCED TO A MINIMUM. HVAC CONTROLS SHALL START AND STOP THE SYSTEM UNDER DIFFERENT TIME SCHEDULES FOR SEVEN DIFFERENT DAY TYPES PER WEEK AND MUST BE CAPABLE OF RETAINING PROGRAMMING DURING LOSS OF POWER FOR A PERIOD OF AT LEAST 10 HOURS AND INCLUDE AN ACCESSIBLE MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF SYSTEM FROM UP TO TWO HOURS.
(7) HVAC SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH ACCEPTED ENGINEERING STANDARDS.
(8) HEATING SYSTEMS SHALL HAVE CONTROLS TO AUTOMATICALLY RESTART AND TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN TEMPERATURES ABOVE AN ADJUSTABLE HEATING SETPOINT AND AT LEAST 10 DEGREES F. BELOW THE OCCUPIED HEATING SETPOINT. COOLING SYSTEMS SHALL HAVE CONTROLS TO AUTOMATICALLY RESTART AND TEMPORARILY OPERATE THE COOLING SYSTEM TO MAINTAIN TEMPERATURE BELOW AN ADJUSTABLE COOLING SETPOINT AND AT LEAST 5 DEGREES F. ABOVE THE OCCUPIED COOLING SETPOINT OR TO PREVENT HIGH SPACE HUMIDITY LEVELS.
(9) THE HVAC EQUIPMENT FANS MUST OPERATE CONTINUOUSLY AND DELIVER THE REQUIRED FRESH AIR VENTILATION AT ALL TIMES THE BUILDING IS OCCUPIED.

ACCESSIBILITY NOTES:

(1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
(2) ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY IN BENDING.
(3) WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS, AND DRAWERS ARE PROVIDED AT LEAST ONE OF EACH TYPE PROVIDED SHALL CONTAIN STROAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS, ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (ie. TOUCH LATCHES, U-SHAPED PULLS); SPACES SHALL BE WITHIN 15 INCHES MINIMUM AND 48 INCHES MAXIMUM OF THE FLOOR FOR FORWARD APPROACH OR 15 INCHES MINIMUM AND 48 INCHES MAXIMUM, OF THE FLOOR FOR SIDE REACH; CLOTHES RODS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (44 INCHES MAXIMUM WHEN DISTANCE FROM WHEELCHAIR TO ROD EXCEEDS 10 INCHES)
(4) CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 45 INCHES ABOVE THE FLOOR FOR FRONT APPROACH OR 48 INCHES ABOVE THE FLOOR FOR SIDE APPROACH. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT INTENDED OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
(5) WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGHOUT, INCLUDING RESTROOM, AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW THE CEILING, MEASURED TO THE BOTTOM OF THE DEVICE, WHICHEVER IS LOWER.
(6) DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (ie. LEVER-OPERATED, PUSH-PULL, U-SHAPED) MOUNTED 30 INCHES TO 48 INCHES ABOVE THE FLOOR
(7) FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT, CHANGES IN LEVEL BETWEEN 0.25 AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GRATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 INCH MAX. GRATING IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
(8) ACCESSIBLE WATER CLOSETS SHALL BE 17 INCHES TO 19 INCHES FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG MINIMUM WHEN LOCATED ON THE REAR WALL BEHIND THE WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG THE SIDE OF THE WATER CLOSET, AND SHALL BE MOUNTED 33 INCHES TO 36 INCHES ABOVE THE FLOOR. THE SIDEWALL GRAB BAR SHALL BE MOUNTED WITH THE FAR END LOCATED A MAXIMUM OF 12 INCHES FROM THE WALL BEHIND THE WATER CLOSET AND THE REAR WALL GRAB BAR SHALL BE MOUNTED WITH THE END OF THE BAR LOCATED 6 INCHES FROM THE SIDE WALL (ALL DIMENSIONS TO BE TO THE CENTERLINE OF THE BAR.)
(9) ACCESSIBLE URINALS SHALL BE STALL-TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR AND 14 INCHES FROM THE WALL
(10) ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 29 INCHES ABOVE THE FLOOR TO THE BOTTOM OF THE APRON.
(11) ACCESSIBLE SINKS SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 27 INCHES HIGH, 30 INCHES WIDE, AND 19 INCHES DEEP UNDER NEATH SINK. THE SINK DEPTH 6.5 INCHES MAX.
(12) HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR PROTECTION MATERIAL MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.
(13) ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (ie. LEVER-OPERATED, PUSH-TYPE, ELECTRONICALLY CONTROLLED).
(14) WHERE MIRRORS ARE PROVIDED IN RESTROOM, AT LEAST ONE SHALL BE PROVIDED WITH ITS BOTTOM EDGE NO HIGHER THAN 40 INCHES ABOVE THE FLOOR
(15) WHERE MEDICINE CABINETS ARE PROVIDED, AT LEAST ONE SHALL BE LOCATED WITH ITS BOTTOM EDGE NO HIGHER THAN 44 INCHES ABOVE THE FLOOR.
(16) GRAB BARS REQUIRED FOR ACCESSIBILITY SHALL BE 1.25 TO 1.5 INCHES IN DIAMETER WITH 1.5 INCHES CLEAR SPACE BETWEEN THE BAR AND THE WALL.
(17) ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. THE MAXIMUM FORCE REQUIRED TO OPEN A DOOR SHALL NOT EXCEED 8.5 LBS. FOR EXTERIOR SWINGING DOORS AND 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR SWINGING DOORS.
(18) WATER CLOSETS FLUSH CONTROL SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREA.
(19) ALL GRAB BARS MUST SUPPORT A 250 LBS LOAD APPLIED IN ANY DIRECTION ANYWHERE ALONG ITS LENGTH.
(20) VERTICAL GRAB BARS ADJACENT TO WATER CLOSETS MUST BE MOUNTED WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES ABOVE THE FLOOR AND WITH THE CENTER OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES FROM THE REAR WALL.
(21) ALL DOOR VIEW BLOCKS MUST BE INSTALLED WITH THE BOTTOM OF THE VIEW BLOCK INSTALLED WITHIN 43 INCHES OF THE FINISHED FLOOR OR THE VIEW BLOCK MUST BE LOCATED WITH THE BOTTOM EDGE OF THE VIEW BLOCK MORE THAN 66 INCHES ABOVE THE FINISHED FLOOR.

PLUMBING NOTES:

(1) TOILETS SHALL BE ELONGATED WITH NONABSORBENT OPEN FRONT SEATS.
(2) RESTROOM WALLS SHALL BE COVERED WITH NONABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES A.F.F. (72 INCHES MINIMUM IN SHOWERS) AND THE FLOOR SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE THAT EXTENDS UPWARDS ONTO THE WALLS AT LEAST 6 INCHES A.F.F.
(3) CUSTOMER ASSUMES ALL RESPONSIBILITY FOR DRINKING WATER FACILITIES AND SERVICE SINK WHEN NOT SHOWN ON FLOOR PLAN.
(4) ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES.
(5) WATER HEATER SHALL HAVE A T & P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT OFF VALVE WITHIN 3 FEET ON THE COLD WATER SUPPLY LINE.
(6) DWV SYSTEM SHALL BE EITHER ABS, PVC, OR HARD DRAWN COPPER WITH BRASS FITTINGS – DWV
(7) WATER SUPPLIES LINES SHALL BE COPPER (TYPE L), CPVC, OR PEX
(8) WATER CLOSETS ARE TANK TYPE AND URINALS ARE FLUSHOMETER VALVE TYPE (3/4")
(9) BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHER, SUBJECT TO TO LOCAL JURISDICTION APPROVAL
(10) SHOWERS SHALL BE CONTROLLED BY AND APPROVED MIXING VALVE WITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120°F (48.8°C)
(11) THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF NOT SHOWN ON PLUMBING PLAN, IS DESIGNED AND SITE INSTALLED BY OTHER, SUBJECT TO LOCAL APPROVAL
(12) STORAGE WATER HEATERS MUST BE PROVIDED WITH INSULATED HEAT TRAPS ON BOTH THE INLET AND OUTLET WHEN THE WATER HEATERS ARE NOT PROVIDED WITH INTEGRAL HEAT TRAPS AND MUST HAVE THE WATER SUPPLY PIPE WITHIN 8 FEET OF THE WATER HEATER OUTLET AND BETWEEN THE HEAT TRAP AND WATER HEATER INLET INSULATED WITH MINIMUM 1 INCH THICK PIPE INSULATION WITH A CONDUCTIVITY BETWEEN .22 AND .28 BTU-IN/(H-SQ.FT.-DEG. F.)
(13) STORAGE WATER HEATERS SHALL HAVE A CONTROL TO ALLOW FOR WATER TEMPERATURE ADJUSTMENT FROM MAXIMUM 120 DEGREES F. OR LOWER TO A MAXIMUM TEMPERATURE COMPATIBLE WITH THE INTENDED USE.

SYMBOLS

- SMOKE DETECTOR
- DUPLEX RECEPTACLE 120 V.
- OCCUPANT SENSOR DUPLEX RECEPTACLE 120 V.
- SINGLE RECEPTACLE 240 V.
- FLUORESCENT LIGHT WITH 1-15 W. BULB
- VENT FAN
- COMBO. VENT FAN & LIGHT W/ 1-13W. BULB/FIXTURE
- SUPPLY AIR REGISTER
- RETURN AIR REGISTER
- FLOOD LIGHT 2-150W BULBS
- WALL MOUNT FLUORESCENT FIXTURE W/ 1-13W. BULB
- J BOX FOR SITE INSTALLED COMPUTER OUTLET WITH 3/4" DIA. CONDUIT THROUGH FLOOR

J BOXES ONLY

- P FIRE ALARM PULL STATION
- H FIRE ALARM HORN/STROBE
- S FIRE ALARM STROBE LIGHT

- THERMOSTAT (PROGRAMMABLE)
- FLUORESCENT FIXTURE W/ 2-32W. 48" T8 TUBES W/ ELEC. BALLAST
- EXIST SIGNS (LED) W/ BATTERY BACKUP
- JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN)
- OCCUPANCY SENSOR SWITCH
- SWITCH & 3 WAY SWITCH
- EMERGENCY LIGHT WITH BATTERY BACKUP
- EXITS SIGN (LED) & EMERGENCY LIGHT W/ BATTERY BACKUP
- WEATHERPROOF EMERGENCY LIGHT REMOTE HEAD

EMC

APPROVED

09 09 2016

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09-16
AR1.0013243
LICENSED ARCHITECT

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