

ELECTRICAL LEGEND

ACCESS CONTROL SECURITY/DOOR OPENER SYSTEMS

Table with 2 columns: Symbol and Description. Includes items like CR CARD READER FOR ACCESS CONTROL, EL ELECTRIC LOCKSET IN DOOR FOR ACCESS CONTROL, ES ELECTRIC STRIKE IN DOOR FRAME FOR ACCESS CONTROL, FE FIRE EXIT IN DOOR FOR ACCESS CONTROL, PT POWER TRANSFER HINGE IN DOOR FRAME FOR ACCESS CONTROL, DS DOOR POSITION SWITCH FOR ACCESS CONTROL, MC MOTION DETECTION AT DOOR FOR ACCESS CONTROL, AC ACCESS CONTROL JUNCTION BOX FOR ACCESS CONTROL, PS DOOR POWER SUPPLY FOR DOOR/HARDWARE OPERATION, PE DOOR PUSHBUTTON SWITCH FOR AUTOMATIC DOOR OPENER, DC DOOR OPERATOR DIRECT CONNECTION FOR DOOR OPENER.

NOTE: PROVIDE ALL REQUIRED BOXES, RACEWAY AND WIRING FOR DOOR OPERATORS AND PUSHBUTTONS. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SYSTEM INSTALLER.

VIDEO SURVEILLANCE SECURITY SYSTEM

Table with 2 columns: Symbol and Description. Includes CA CAMERA OUTLET-CEILING MOUNT.

RATED WALLS

Table with 2 columns: Symbol and Description. Includes 1 HOUR RATED WALL, 2 HOUR RATED WALL, 4 HOUR RATED WALL.

MODIFIERS FOR DEVICES AND OUTLETS

Table with 2 columns: Symbol and Description. Includes SB DEVICE MOUNTED IN SURFACE BOX WITH SURFACE CONDUIT DIRECTLY VERTICALLY TO ABOVE FINISHED CEILING, SR DEVICE IN SURFACE RACEWAY SURFACE MOUNT BOX-SEE SURFACE RACEWAY SURFACE MOUNT BOX DETAIL-WHERE INDICATED TO BE MOUNTED ON EXISTING OUTLET, REUSE EXISTING CONDUIT FOR CIRCUITRY, OS DEVICE ON OPTIONAL STANDBY POWER-DEVICE SHALL BE RED, FB1 DEVICE OR OUTLETS MOUNTED IN A FLUSH BOX ON EXISTING MASONRY WALL-SEE FLUSH BOX DETAILS FOR INSTALLATION-TYPES (FB1, FB2, FB3) MAY VARY.

EXISTING ITEMS

Table with 2 columns: Symbol and Description. Includes outlets, devices, fixtures, equipment or circuitry shown with a dashed light line weight are existing to remain, and outlets, devices, fixtures, equipment or circuitry shown with a dashed heavy line weight are existing to be removed, or removed and relocated, or new location of existing, as indicated by 'RE', 'RR' or 'NL'.

MODIFIERS FOR DEVICES AND OUTLETS

Table with 2 columns: Symbol and Description. Includes NP DEVICE OR OUTLET ON NORMAL POWER (NOT OPTIONAL STANDBY POWER)-DESIGNATION IS USED WHERE ALL OTHER DEVICE OUTLETS ON PLAN ARE NOTED AS OPTIONAL STANDBY, SB DEVICE IN SURFACE BOX ONLY WHERE NECESSARY-ALL NEW DEVICES SHALL BE FLUSH MOUNTED WHERE POSSIBLE-SEE 'PREFERRED METHOD' IN 'FLUSH BOX IN EXISTING MASONRY DETAIL-WHERE FLUSH MOUNTING IS NOT POSSIBLE (SUCH AS WALL IS SOLID CONCRETE OR CMU BLOCK WITH SOLID FILLED CELLS), PROVIDE SURFACE BOX PER SURFACE BOX INSTALLATION DETAIL-SEE SURFACE BOX DETAILS FOR SURFACE BOX INSTALLATION, SR DEVICE IN SURFACE RACEWAY SURFACE MOUNT BOX-SEE SURFACE RACEWAY SURFACE MOUNT BOX DETAIL-WHERE INDICATED TO BE MOUNTED ON EXISTING OUTLET, REUSE EXISTING CONDUIT FOR CIRCUITRY, OS DEVICE OR OUTLET ON OPTIONAL STANDBY POWER-DEVICE SHALL BE RED, FB DEVICE OR OUTLETS MOUNTED IN A FLUSH BOX ON EXISTING MASONRY WALL-SEE FLUSH BOX DETAILS FOR INSTALLATION, WP WEATHERPROOF, 46" MEASUREMENT ADJACENT TO A DEVICE INDICATES MOUNTING HEIGHT TO CENTER OF DEVICE.

MODIFIERS FOR ITEMS INDICATED ON THE DEMOLITION AND RENOVATION PLANS

Table with 2 columns: Symbol and Description. Includes RE INDICATES FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO REMOVE, RR INDICATES FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO REMOVE AND REINSTALL AT A NEW LOCATION-NEW LOCATION INDICATED BY 'NL', RB INDICATES REMOVE EXISTING FIXTURE, DEVICE OR EQUIPMENT AND BLANK EXISTING OUTLET, RC INDICATES REMOVE CIRCUITRY FROM FIXTURE, DEVICE, OUTLET OR EQUIPMENT-REFEED WITH NEW CIRCUITRY AS INDICATED BY 'NC', NL INDICATES NEW LOCATION OF FIXTURE, DEVICE, OUTLET OR EQUIPMENT REMOVED AND REINSTALLED-PREVIOUS LOCATION INDICATED BY 'RR', REO INDICATES REMOVE FIXTURE, DEVICE, OUTLET OR EQUIPMENT AND REUSE EXISTING OUTLET AND CONDUIT/RACEWAY, ROC INDICATES REMOVE EXISTING FIXTURE, DEVICE OR EQUIPMENT AND REUSE EXISTING OUTLET AND CIRCUITRY, REB REMOVE EXISTING BLANK ON OUTLET AND REUSE OUTLET AND/OR CIRCUITRY, NC INDICATES PROVIDE NEW CIRCUITRY FOR FIXTURE, DEVICE, OUTLET OR EQUIPMENT WHERE EXISTING CIRCUITRY HAS BEEN REMOVED-PREVIOUSLY CIRCUITRY REMOVED AS INDICATED BY 'RC', NEO INDICATES INSTALL FIXTURE, DEVICE OR EQUIPMENT AS INDICATED IN OR ON EXISTING OUTLET-REUSE EXISTING CONDUIT AND/OR INTERCEPT CONDUIT AND EXTEND AS REQUIRED, NEC INDICATES INSTALL FIXTURE, DEVICE OR EQUIPMENT AS INDICATED IN OR ON EXISTING OUTLET-RECONNECT TO EXISTING CIRCUITRY.

ABBREVIATIONS

Table with 2 columns: Symbol and Description. Includes A AMP, AIC AMPS INTERRUPTING CAPACITY, AFC ABOVE FINISHED CEILING, AFF ABOVE FINISHED FLOOR, AFG ABOVE FINISHED GRADE, AHU AIR HANDLING UNIT, AL ALUMINUM, AST ABOVEGROUND STORAGE TANK, ATS AUTOMATIC TRANSFER SWITCH, BC BARE COPPER, BFF BELOW FINISHED FLOOR, BFG BELOW FINISHED GRADE, BKR BREAKER, C CONDUIT, CDWP CONDENSER WATER PUMP, CHWP CHILLED WATER PUMP, CMU CONCRETE MASONRY UNIT, CRAHU COMPUTER ROOM AIR HANDLING UNIT, CRP COPPER, DACT DIGITAL ALARM COMMUNICATOR TERMINAL, D DEEP, D.E. DUAL ELEMENT, EF EXHAUST FAN, EMT ELECTRICAL METALLIC TUBING CONDUIT, EG EQUIPMENT GROUND, ET-LSI ELECTRONIC TRIP BREAKER WITH LONG TIME, SHORT TIME TIME AND INSTANTANEOUS TRIP ADJUSTMENT, FAA FIRE ALARM ANNUNCIATOR, FAJB FIRE ALARM JUNCTION BOX, FACP FIRE ALARM CONTROL PANEL, FANACP FIRE ALARM NOTIFICATION APPLIANCE CONTROL PANEL, FARA FIRE ALARM REMOTE ANNUNCIATOR, FATC FIRE ALARM TERMINAL CABINET, FWE FURNISHED WITH EQUIPMENT, GEC GROUNDING ELECTRODE CONDUCTOR, GEN GENERATOR, GF GROUND FAULT, H HIGH, HVAC HEATING, VENTILATING AND AIR CONDITIONING, HWP HOT WATER PUMP, IG ISOLATED GROUND, IMT INTERMEDIATE METAL CONDUIT, LFMG LIGHT TIGHT EXIBIBLE METAL CONDUIT, LS LONG TIME SHORT TIME INSTANTANEOUS TRIP BREAKER, MCB MAIN CIRCUIT BREAKER, MD MAIN DISTRIBUTION PANEL, MDS MAIN DISTRIBUTION SWITCHBOARD, MFC MAIN FUSE CENTER, MLO MAIN LUGS ONLY, MNCP MAIN NURSE CALL PANEL, MTP MAIN TELECOMMUNICATIONS PANEL, MTS MANUAL TRANSFER SWITCH, MTPV MAIN TELEVISION PANEL, NCSSBC NORTH CAROLINA STATE BUILDING CODE, NEC NATIONAL ELECTRICAL CODE, NFPA NATIONAL FIRE PROTECTION ASSOCIATION, N NEUTRAL, NCP NURSE CALL PANEL, NCTC NURSE CALL TERMINAL CABINET, PDM POWER DISTRIBUTION MODULE, PC PHOTOCELL, PVC POLYVINYL CHLORIDE CONDUIT, PF POWER FACTOR, PTS PRIORITY TRANSFER SWITCH, R.A. RETURN AIR, RMC RIGID METAL CONDUIT, S.A. SUPPLY AIR, SE SERVICE ENTRANCE, SDS SECONDARY DISTRIBUTION SWITCHBOARD, SPEC SPECIFICATION, SSBJ SUPPLY SIDE BONDING JUMPER, STP SHIELDED TWISTED PAIR, TC TIME CLOCK, TP TELECOMMUNICATIONS PANEL, TRANSF. TRANSFORMER, TYP TYPICAL, TVSS TRANSIENT VOLTAGE SURGE SUPPRESSOR, UNO UNLESS NOTED OTHERWISE, UL UNDERWRITERS LABORATORIES, UPS UNINTERRUPTIBLE POWER SYSTEM, UST UNDERGROUND STORAGE TANK, UTP UNSHIELDED TWISTED PAIR.

GENERAL NOTES

- 1- ALL ELECTRICAL DEVICES, FIXTURES, EQUIPMENT, CIRCUITRY AND ASSOCIATED APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, THE AMERICAN DISABILITIES ACT AND WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND PROVIDE ALL MATERIALS AND INSTALL EQUIPMENT TO MEET ALL NECESSARY REQUIREMENTS.
2- COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION SO AS TO AVOID CONFLICT DURING CONSTRUCTION, IN ORDER TO PROVIDE REQUIRED CODE AND MANUFACTURER'S CLEARANCE OF ELECTRICAL AND OTHER EQUIPMENT, AND TO PREVENT THE OPERATION OF ELECTRICAL OR OTHER EQUIPMENT FROM HAVING A DETRIMENTAL AFFECT UPON ANY OTHER EQUIPMENT.
3- VERIFY CEILING SYSTEMS AND PROVIDE MOUNTING ACCESSORIES, TRIMS AND ALL REQUIRED MOUNTING HARDWARE TO SUIT THE PARTICULAR INSTALLATION.
4- MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, OUTLET, FIXTURE OR EQUIPMENT UNLESS NOTED OTHERWISE.
5- RECEPTACLES AND TELECOMMUNICATION OUTLETS SHOWN ADJACENT ON DRAWINGS SHALL BE MOUNTED 8" APART ON CENTER HORIZONTALLY.
6- COORDINATE RECEPTACLES, DISCONNECTS AND OUTLETS FOR EQUIPMENT WHICH IS PROVIDED BY OTHERS (OWNER, GENERAL, MECHANICAL OR PLUMBING CONTRACTOR, LAB EQUIPMENT SUPPLIER, ETC.). VERIFY EXACT LOCATION OF REQUIRED RECEPTACLE, DISCONNECT OR OUTLET, EQUIPMENT CIRCUIT REQUIREMENTS, VOLTAGE, PHASE AND WIRING CONFIGURATION, RECEPTACLE NEMA CONFIGURATION, OVERCURRENT PROTECTION REQUIREMENTS, RECOMMENDED MOUNTING HEIGHT OF OUTLET, AND ASSOCIATED EQUIPMENT CONNECTION REQUIREMENTS AND PROVIDE SUCH REQUIREMENTS AS RECOMMENDED BY EQUIPMENT MANUFACTURER AND/OR SUPPLIER.
7- THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE PARTICULAR ACCESS CONTROL (CARD READER) SYSTEM SUPPLIER AND DOOR HARDWARE SUPPLIER THE ENTIRE ACCESS CONTROL SYSTEM. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION OF THE CARD READER DEVICE, THE ELECTROMAGNETIC/DOOR LOCK DEVICE, INTERCONNECTED TO THE FIRE ALARM SYSTEM FOR DOOR RELEASE, ELECTRICAL POWER REQUIREMENTS, REMOVE SYSTEM DOOR RELEASE SWITCH LOCATED AT NURSE STATION/MONITOR AREA, AND ASSOCIATED CONDUIT, BOX AND WIRING REQUIREMENTS. COORDINATE WITH THE HARDWARE SPECIFICATIONS AND PROVIDE OPERATION OF THE ACCESS CONTROL SYSTEM TO ACCOMMODATE THE REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE SUCH CONDUIT, BOX AND WIRING AT SUCH LOCATIONS AS TO MEET THE REQUIREMENTS OF THE PARTICULAR SYSTEM.
8- THE CONTRACTOR SHALL VISIT THE BUILDING AND SITE, AND FAMILIARIZE HIMSELF WITH EXISTING ARCHITECTURAL, STRUCTURAL, PLUMBING, SPRINKLER, MECHANICAL AND ELECTRICAL CONDITIONS IN ORDER TO GAIN A FULL UNDERSTANDING OF REQUIREMENTS TO PERFORM WORK WITH REGARDS TO EXISTING CONDITIONS. THE CONTRACTOR SHALL OBSERVE AND INSPECT THESE CONDITIONS PRIOR TO BEGINNING WORK AND SHALL PERFORM HIS WORK IN A MANNER TO ACCOMMODATE THE EXISTING CONDITIONS.
9- THE CONTRACTOR SHOULD READ AND UNDERSTAND THE SPECIFICATIONS/CONSTRUCTION MANUAL PORTION OF THE CONSTRUCTION DOCUMENTS SO THAT HE MAY CONVEY THE PROPER REQUIRED MATERIAL AND METHOD OF INSTALLATION TO THE ESTIMATORS, SUPPLIERS AND INSTALLERS.
10- MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE DESIGNER WILL BE ACCEPTED. WHERE ONE MANUFACTURER IS INDICATED, THAT PARTICULAR MANUFACTURER SHALL BE USED.
11- THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE CONDUIT ROUTING SPACE WITH OTHER CONTRACTORS SUCH THAT CONDUIT IS MOUNTED ABOVE THE MECHANICAL DUCTWORK AND THE PLUMBING/FIRE PROTECTION PIPING. ALL CONDUIT SHALL BE MOUNTED TIGHT TO THE STRUCTURE OR AS CLOSE TO THE STRUCTURE AS POSSIBLE. LOCATIONS OF PULL BOXES AND JUNCTION BOXES SHALL BE COORDINATED SUCH THAT DUCTWORK IS NOT MOUNTED DIRECTLY BELOW THESE BOXES. CONDUIT SHALL NOT BE MOUNTED BELOW DUCTWORK OR PLUMBING/FIRE PROTECTION PIPING UNLESS SPECIFIC PERMISSION HAS BEEN GRANTED BY THE DESIGNER.
12- CLASS 2 WIRING, SUCH AS WIRING FOR 0-10VDC LIGHTING/DIMMER CONTROL, SHALL NOT BE INSTALLED IN CONDUIT OR OTHER RACEWAY WITH POWER/LINE VOLTAGE WIRING.
13- WHERE DEVICES ARE NOT AVAILABLE IN THE REQUIRED COLOR (SUCH AS RED) THEN PROVIDE A PAINTED STAINLESS STEEL COVER IN THE REQUIRED COLOR.
14- EXISTING DEVICES AT THE NRB BUILDING ARE IVORY COLOR (EXCEPT WHERE REQUIRED TO BE RED) WITH STAINLESS STEEL COVER/PLATES. ALL NEW DEVICES SHALL MATCH THE EXISTING COLOR AND COVER/PLATE SCHEME.
15- ELECTRICAL SYSTEM SHUTDOWNS WHICH AFFECT THE ENTIRE BUILDING, INCLUDING NORMAL/EMERGENCY/STANDBY POWER, TELECOM, FIRE ALARM AND ANY OTHER ELECTRICAL SYSTEM SERVICES, SHALL BE COORDINATED WITH THE OWNER THREE WEEKS IN ADVANCE, WITH NO EXCEPTIONS. ELECTRICAL SYSTEM SHUTDOWNS WHICH AFFECT PARTIAL SYSTEM SHUTDOWNS OF THE SAME SERVICES ABOVE SHALL BE COORDINATED MINIMUM SEVEN DAYS IN ADVANCE.
16- DEMOLITION AND RENOVATION DRAWINGS HAVE BEEN CREATED FROM RECORD DRAWINGS AND A SURVEY OF THE BUILDING WHILE THE SPACES ARE OCCUPIED INCLUDING A CONSIDERABLE AMOUNT OF OWNER INSTALLED FURNISHINGS AND EQUIPMENT. EQUIPMENT AND CONDITIONS MAY BE FOUND WHICH ARE NOT REFLECTED ON THE DRAWINGS.

FLOOR/STRUCTURE CUTTING AND CORING NOTES

- 1- THERE ARE MECHANICAL CHASES WITHIN THE BUILDING FOR ROUTING FEEDER AND CIRCUITRY RISERS FROM FLOOR TO FLOOR. THE CONTRACTOR SHALL UTILIZE THESE MECHANICAL CHASES TO THE GREATEST EXTENT POSSIBLE. WHERE IT IS REQUIRED TO INSTALL FEEDER OR CIRCUITRY RISERS OUTSIDE THE CHASE AREA AND CORE OR DRILL THE FLOOR OR STRUCTURE THE CONTRACTOR SHALL EXERCISE GREAT CAUTION. COORDINATE WITH THE STRUCTURAL ENGINEER TO ENSURE INTEGRITY OF THE STRUCTURE TO BE DRILLED OR CORED WILL BE MAINTAINED.
2- THE CONTRACTOR SHALL X-RAY, UTILIZE GROUND PENETRATING RADAR OR SOME OTHER SUITABLE METHOD ON HOLLOW CORE CONCRETE FLOOR TO LOCATE REBAR STEEL AND/OR UTILITIES INSTALLED WITHIN CONCRETE PRIOR TO CUTTING OR CORING CONCRETE. COORDINATE WITH OWNER, ARCHITECT AND STRUCTURAL ENGINEER UPON DETERMINATION OF PROPOSED LOCATION TO BE CUT OR CORED AND VERIFY LOCATION IS SUITABLE FOR THE ELECTRICAL INSTALLATION PRIOR TO CUTTING OR CORING CONCRETE.

OCCUPANCY SENSOR NOTES

- 1- THE CONTRACTOR SHALL SET ALL OCCUPANCY SENSORS AS INDICATED BELOW PRIOR TO INSTALLATION OF THE DEVICE. SEE THE PARTICULAR MANUFACTURER'S INSTALLATION AND SETUP INSTRUCTIONS FOR A FULL UNDERSTANDING ON SETTINGS.
TIME DELAY - TURN AUTOSSET FUNCTION OFF ('SMARTSET' FOR WATTSTOPPER); SET TIME DELAY TO 20 MINUTES
PIR (PASSIVE INFRARED) SENSITIVITY - HIGH/MAX
VISIBLE ALERT - DISABLED
AUDIBLE ALERT - ENABLED; COORDINATE WITH OWNER TO DETERMINE IF AN AUDIBLE ALERT WOULD BE A NUISANCE, AND IF SO, DISABLE AUDIBLE ALERT.
ON MODE (RELAY 1) - AUTO
ON MODE (RELAY 2-WHERE PROVIDED) - MANUAL
WALK-THROUGH (WHERE PROVIDED) - ENABLED (UNLESS NOTED OTHERWISE)
DUAL TECHNOLOGY TRIGGERS - INITIAL ON REQUIRES BOTH MAINTAIN & RE-TRIGGER TIME REQUIRES EITHER
2- ULTRASONIC SENSORS SHALL HAVE THE ULTRASONIC SENSITIVITY ADJUSTED SUCH THAT THE ENTIRE ROOM IS COVERED UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL LIMIT THE SENSITIVITY AS MUCH AS POSSIBLE WITH THE SETTINGS SUCH THAT MOTION BEYOND THE ROOM (PASSING BY AN OPEN DOOR) DOES NOT TRIGGER OPERATION OF THE ROOM LIGHTS. THE CONTRACTOR SHALL TRIM THE ULTRASONIC SETTINGS TO THE LOWEST SETTING POINT WHERE OPERATION OF THE LIGHTING IS STILL INITIATED.
3- SENSORS IN RESTROOMS SHALL BE SETUP SIMILAR TO ABOVE EXCEPT TIME DELAY SHALL BE MINIMUM 20 MINUTES, AND 'WALK-THROUGH' SETTING SHALL BE DISABLED.
4- PIR SENSORS WHICH ARE LOCATED SUCH THAT THE SENSOR IS ACTIVATED BY ACTIVITY OUTSIDE THE ROOM (SUCH AS PIR SENSORS MOUNTED PERPENDICULAR TO THE DOORWAY BESIDE THE DOOR OPENING) SHALL BE MASKED WITH SUPPLIED TAPE SUCH THAT THE SENSOR DOES NOT RESPOND TO ACTIVITY BEYOND THE ROOM BEING CONTROLLED. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR MASKING THE DEVICE.
5- THE CONTRACTOR SHALL INSTALL, SETUP, OPERATE AND TEST ALL SENSORS FOR PROPER OPERATION BASED ON THE SETTINGS AND SHALL MAKE ADJUSTMENTS WHERE REQUIRED TO OBTAIN THE DESIRED RESULTS FOR THE PROPER OPERATION OF THE SYSTEM.
6- THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE OWNER ON OPERATION OF THE OCCUPANCY SENSOR SYSTEM AND SHALL REVIEW WITH THE OWNER THE OPERATION, CAPABILITIES AND LIMITATIONS OF THE SYSTEM UPON PROJECT COMPLETION. THE CONTRACTOR SHALL MAKE THE OWNER AWARE THAT HE WILL BE RETURNING FOR REVIEW OF THE SYSTEM AND TO MAKE ANY REQUIRED ADJUSTMENTS TO THE SYSTEM AFTER 30 DAYS OF OCCUPANCY AND NORMAL USE. THE CONTRACTOR SHALL DIRECT THE OWNER THAT THE OWNER SHOULD MONITOR AND DOCUMENT ANY AREAS/SENSORS WHICH MAY REQUIRE READJUSTMENT DURING THE FIRST 30 DAYS OF NORMAL OPERATION.
7- INFORM THE OWNER THAT FOR PROPER OPERATION OF ULTRASONIC OR DUAL TECHNOLOGY SENSORS THE DOOR TO A ROOM MAY BE REQUIRED TO BE CLOSED OR AT LEAST PARTIALLY CLOSED IN ORDER FOR THE SENSOR TO MAINTAIN THE LIGHTS OFF. ULTRASONIC SENSORS DO NOT OPERATE ON 'LINE OF SIGHT' TECHNOLOGY AND MAY TURN LIGHTS ON UNNECESSARILY IF MOTION IS PERCEIVED OUTSIDE OF THE ROOM WHEN THE DOOR IS OPEN.
8- THE CONTRACTOR SHALL INCLUDE IN HIS WORK A RETURN VISIT TO THE SITE AND MEET WITH THE OWNER AND USERS OF THE BUILDING AFTER THE BUILDING HAS BEEN OCCUPIED UNDER NORMAL USE FOR 30 DAYS. DURING THE MEETING THE CONTRACTOR SHALL REVIEW WITH THE USERS THE AUTOMATIC AND MANUAL OPERATION OF THE OCCUPANCY SENSORS, SENSITIVITIES, AND LIMITATIONS OF THE SENSORS. THE CONTRACTOR SHALL DETERMINE THE SATISFACTION OF THE SETTINGS AND OPERATION OF THE SENSORS, AND SHALL MAKE ADJUSTMENTS AT THAT TIME FOR THE PROPER OPERATION OF THE SYSTEM BASED UPON USER COMMENTS.
9- WHERE DIMMING IS INCLUDED WITH THE OCCUPANCY SENSOR, THE CONTROLLER SHALL BE SETUP SUCH THAT UPON OCCUPANCY OF THE SPACE THE DIMMER SHALL REVERT TO THE LAST DIMMING LEVEL SET.
10- WHERE THERE ARE MULTIPLE SENSORS IN A SPACE WHICH CONTROL THE LIGHTS THE SENSORS SHALL BE WIRED IN PARALLEL SUCH THAT ANY INDIVIDUAL SENSOR CAN MAINTAIN THE LIGHTING TO BE 'ON'. THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTALLATION AND WIRING INSTRUCTIONS FOR THIS TYPE OF OPERATION.

HAZARDOUS AND UNIVERSAL WASTE NOTES

- ALL HAZARDOUS/UNIVERSAL WASTE SHALL BE HANDLED USING APPLICABLE FEDERAL AND STATE LAWS, INCLUDING EPA REGULATIONS CODIFIED IN THE 40 CODE OF FEDERAL REGULATIONS, AND NCGS 130A-310.60. FOR ASSISTANCE, CONTACT UNC-CH DEPARTMENT OF ENVIRONMENT, HEALTH AND SAFETY (EHS).
CONTACT EHS FOR A LIST OF UNIVERSITY APPROVED DISPOSAL VENDORS, OR VISIT OUR WEBSITE AT WWW.EHS.UNC.EDU FOR MORE INFORMATION.
A. LAMPS/TUBES/BULBS
THE FOLLOWING PROCEDURE IS TO BE USED FOR 4 AND 8-FOOT FLUORESCENT LAMPS, HIGH INTENSITY DISCHARGE LAMPS (MERCURY LAMPS), AND U-TUBES.
1. LAMPS SHOULD BE PLACED IN MANUFACTURED BOXES.
2. WHEN YOU PUT THE FIRST LAMP IN THE BOX, A UNIVERSAL WASTE LABEL SHALL BE PLACED ON THE OUTSIDE OF THE BOX. FILL IN CONTENTS AND DATE.
3. WHEN NOT ACTIVELY PUTTING LAMPS IN THE BOX, THE LID SHALL BE CLOSED AND SEALED.
4. KEEP BOX INSIDE, AND AWAY FROM ANY WATER.
5. EHS DOES NOT APPROVE OF THE USE OF A FLUORESCENT LAMP CRUSHER.
B. BALLASTS: PCB AND NON-PCB BALLAST
1. PCB BALLASTS SHALL BE PLACED INTO UNC APPROVED 55-GALLON DRUMS FOR DISPOSAL, AND SHIPPED ON A HAZARDOUS WASTE MANIFEST. ALSO, THE LID ON THE DRUM SHALL BE SECURED UNLESS ACTIVELY ADDING TO THE DRUM. A CLASS 9 LABEL MUST BE PLACED ON THE DRUM WITH A DATE SHOWING WHEN THE FIRST BALLAST WENT INTO THE DRUM. THERE IS A ONE-YEAR TIME LIMIT TO DISPOSE OF THE DRUM FROM WHEN THE FIRST BALLAST WENT INTO IT. A BALLAST IS CONSIDERED TO BE A PCB BALLAST IF THE LABEL SAYS IT IS, OR THE LABEL DOES NOT SAY AT ALL.
2. NON-PCB BALLASTS WILL HAVE "NON-PCB BALLASTS" WRITTEN ON THE BALLASTS. THESE SHOULD BE PLACED IN A SEPARATE DRUM, (UNC APPROVED), FOR RECYCLING. FOR LARGER QUANTITIES, USE A 20 CUBIC YARD, COVERED ROLL-OFF THAT YOU CAN SEND TO THE RECYCLER.
3. WHEN PLANNING STORAGE, KEEP IN MIND THAT A FULL BALLAST DRUM WEIGHS APPROX. 700 POUNDS.
C. BROKEN FLUORESCENT LAMPS
1. FLUORESCENT , HID, OR U-TUBE LAMPS THAT ARE UNINTENTIONALLY BROKEN, SHALL BE PLACED INTO A UNC APPROVED POLY DRUM. THESE ARE CONSIDERED HAZARDOUS WASTE AND SHOULD BE TREATED AS SUCH DUE TO THE POSSIBLE RELEASE OF MERCURY VAPORS. WHEN NOT ACTIVELY ADDING TO THE DRUM, THE LID SHALL BE ON, AND SECURE. ALSO, THE DRUM NEEDS TO HAVE A CLASS 8, CORROSIVE STICKER AFFIXED TO THE TOP AND SIDE OF THE DRUM, A LABEL THAT SAYS BROKEN FLUORESCENT LAMPS, AND THE DATE THE FIRST ITEM WAS PLACED INSIDE THE DRUM. THE ONE-YEAR TIME LIMIT FOR DISPOSAL APPLIES TO THIS WASTE AS WELL.
** WHEN IN DOUBT, CONTACT EHS AT 919-962-5507 OR FRANK STILLO AT 919-962-5723.
** DO NOT SHIP ANY HAZARDOUS/UNIVERSAL WASTES WITHOUT EHS NOTIFICATION AND APPROVAL.



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