

ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR - MOUNTING HEIGHT TO CENTERLINE OF DEVICE / OUTLET UNLESS NOTED OTHERWISE
BFC	BELOW FINISHED CEILING - MOUNTING HEIGHT TO CENTERLINE OF DEVICE / OUTLET UNLESS NOTED OTHERWISE
C	CONDUIT
CU	COPPER
G	GROUND
LFMC	LIQUIDTITE FLEXIBLE METAL CONDUIT
NA	NOT APPLICABLE
NF	NON-FUSED
RGS	RIGID GALVANIZED STEEL
UNO	UNLESS NOTED OTHERWISE
WP	WEATHER PROOF (NEMA 3R)

SYSTEMS LEGEND	
SYMBOL	DESCRIPTION
	TELECOMM OUTLET JUNCTION BOX, MOUNT 18" AFF WITH 3/4"EMT TO ABOVE FINISHED CEILING WITH INSULATING BUSHING
	TELECOMM OUTLET JUNCTION BOX WALL SET, MOUNT 4'-0" AFF WITH 3/4"EMT TO ABOVE FINISHED CEILING WITH INSULATING BUSHING
	TELECOMM OUTLET JUNCTION BOX, MOUNT 3" ABOVE COUNTER OR BACKSPLASH OR 3'-8" AFF IF NO COUNTER WITH 3/4"EMT TO ABOVE FINISHED CEILING WITH INSULATING BUSHING
	TELECOMM BACKBOARD, SEE TELECOMM RISER DIAGRAM FOR DETAILS
	TELECOMM GROUND BAR, SEE TELECOMM RISER DIAGRAM FOR DETAILS

LIGHTING LEGEND	
SYMBOL	DESCRIPTION
	SINGLE POLE FLUSH TYPE SWITCH, 20A, 120/277V AC ONLY, QUIET TYPE, MOUNT AT 42" AFF UNLESS NOTED OTHERWISE
	TWO POLE FLUSH TYPE SWITCH, 30A, 120/277V AC ONLY, QUIET TYPE, MOUNT AT 42" AFF UNLESS NOTED OTHERWISE
	THREE-WAY FLUSH TYPE SWITCH, 20A, 120/277V AC ONLY, QUIET TYPE, MOUNT AT 42" AFF UNLESS NOTED OTHERWISE
	FLUSH TYPE SWITCH THAT CONTROLS OUTLET "9" ETC. REFER TO OTHER SYMBOLS FOR POLES AND ADDITIONAL INFORMATION, MOUNT AT 42" AFF UNLESS NOTED OTHERWISE
	INCANDESCENT DIMMER, 120V AC, WATTAGE AS REQ'D, FOR MULTIGANGS INSTALLATION USE MULTIGANG FACEPLATE AND REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR J-BOX REQUIREMENTS (GUIDE: LUTRON NOVA SERIES), MOUNT AT 42" AFF UNLESS NOTED OTHERWISE
	WALL SWITCH OCCUPANCY SENSOR, PASSIVE DUAL TECHNOLOGY, SENSOR SWITCH #WSD-PDT-VERIFY COLOR, MOUNT AT 42" AFF UNLESS NOTED OTHERWISE
	LINE VOLTAGE CEILING MOUNTED OCCUPANCY SENSOR, PASSIVE DUAL TECHNOLOGY, SENSOR SWITCH #CMR-PDT
	SURFACE MOUNTED LIGHT FIXTURE, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	SURFACE MOUNTED LIGHT FIXTURE WITH SELF-CONTAINED EMERGENCY BACKUP BATTERY PACK, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	2x2 RECESSED MOUNTED LIGHT FIXTURE, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	2x2 RECESSED MOUNTED LIGHT FIXTURE WITH SELF-CONTAINED EMERGENCY BACKUP BATTERY PACK, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	2x4 RECESSED MOUNTED LIGHT FIXTURE, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	RECESSED MOUNTED LIGHT FIXTURE WITH SELF-CONTAINED EMERGENCY BACKUP BATTERY PACK, SEE LIGHTING FIXTURE SCHEDULE AND FLOOR PLANS FOR SPECIFIC REQUIREMENTS
	SURFACE MOUNTED OR CHAIN HUNG STRIP LIGHT FIXTURE WITH WIRE GUARD, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	SURFACE MOUNTED OR CHAIN HUNG STRIP LIGHT FIXTURE WITH WIRE GUARD, AND SELF-CONTAINED EMERGENCY BACKUP BATTERY PACK, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	CEILING MOUNTED DOWNLIGHT FIXTURE, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	WALL MOUNTED LIGHT FIXTURE, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS
	CEILING MOUNTED EXIT LIGHT, NUMBER AND DIRECTION OF FACES AS SHOWN BY COLORED IN SECTION, PROVIDE CHEVRON ARROWS AS INDICATED ON PLANS, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS

POWER LEGEND	
SYMBOL	DESCRIPTION
	SIMPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT 18" AFF UNLESS NOTED OTHERWISE
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT 18" AFF UNLESS NOTED OTHERWISE
	DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT 3" ABOVE COUNTER OR BACKSPLASH, OR 3'-8" AFF IF NO COUNTER
	DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT INTERRUPTER, MOUNT AT 18" AFF UNLESS NOTED OTHERWISE
	DUPLEX RECEPTACLE, NEMA 5-20R, SAFETY TYPE (TAMPER PROOF), MOUNT AT 18" AFF UNLESS NOTED OTHERWISE
	DUPLEX RECEPTACLE, NEMA 5-20R, WITH IN-USE WEATHERPROOF COVER, MOUNT AT 18" AFF UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT 18" AFF UNLESS NOTED OTHERWISE
	SIMPLEX RECEPTACLE, NEMA 5-20R, FOR ELECTRIC WATER COOLER, MOUNT CONCEALED WITHIN COOLER HOUSING, OUT OF VIEW, COORDINATE WITH DIVISION 15
	FLUSH FLOOR MOUNTED OUTLET BOX WITH DUPLEX RECEPTACLE, CAST IRON SINGLE GANG WITH BRUSHED ALUMINUM FLANGE AND COVER PLATE
	COMBINATION FLUSH FLOOR MOUNTED OUTLET BOX WITH DUPLEX RECEPTACLE AND TELECOMM OUTLET, CAST IRON TWO GANG WITH BRUSHED ALUMINUM FLANGE AND COVER PLATE WITH 1"EMT TO ABOVE FINISHED CEILING WITH INSULATING BUSHING
	JUNCTION BOX MOUNTED IN OR ABOVE ACCESSIBLE CEILING
	WALL MOUNTED JUNCTION BOX, MOUNT AT 18" AFF UNLESS NOTED OTHERWISE
	HEAVY DUTY DISCONNECT SWITCH, SIZE, TYPE AND FUSED AS SHOWN ON PLANS
	120/208V SURFACE MOUNTED PANELBOARD, SEE PANELBOARD SCHEDULE FOR SPECIFIC REQUIREMENTS
	TRANSIENT VOLTAGE SURGE SUPPRESSION ASSEMBLY
	LIGHTING CONTACTOR, SEE LIGHTING CONTROL DETAIL FOR REQUIREMENTS
	TIME CLOCK, SEE LIGHTING CONTROL DETAIL FOR REQUIREMENTS
	RELAY - RATING AS SHOWN
	CONNECT TO EXHAUST FAN, PROVIDED AND INSTALLED BY OTHERS.
	CONNECT TO ELECTRIC WATER HEATER, PROVIDED AND INSTALLED BY OTHERS.

#### SITE WORK NOTES:

- COORDINATE ALL WORK WITH WORK SHOWN ON CIVIL SITE PLANS.
- REFER TO ALL OTHER SITE AND UTILITY PLANS AND RELATED WORK TO COORDINATE WITH OTHER TRADES.
- FURNISH AND INSTALL SERVICE LATERALS, SERVICE ENTRANCES, AND EQUIPMENT WHERE INDICATED ON THE DRAWINGS.
- WORK DONE UNDER THIS SECTION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA 70) AND THE NATIONAL ELECTRIC SAFETY CODE (ANSI C2).
- ELECTRICAL SERVICE SHALL BE 3 PHASE, 4 WIRE, 120/208 VOLT WYE AND SHALL BE UNDERGROUND TO THE SERVICE ENTRANCE DISCONNECT SWITCH. SERVICE SHALL ORIGINATE AT THE PAD MOUNTED TRANSFORMER.
- THE CONTRACTOR SHALL EXTEND SECONDARY CONDUIT A MINIMUM OF 2" ABOVE THE PAD AND LEAVE FIVE (5) FEET OF SECONDARY CONDUCTORS ABOVE THE PAD MOUNTED TRANSFORMER.
- THE CONTRACTOR SHALL FURNISH ALL SECONDARY RACEWAY AND CONDUCTORS FROM THE BUILDING, WITH 24" MINIMUM COVER, TO THE PAD MOUNTED TRANSFORMER. SEE POWER RISER DIAGRAM, FOR DETAILS.
- SECONDARY CONDUIT MAY BE EITHER RGS OR SCHEDULE 40 (OR HEAVIER) PVC, UNLESS NOTED OTHERWISE. ALL RGS BELOW GRADE MUST BE PAINTED WITH TWO COATINGS OF BITUMINOUS PAINT. ALL CONDUIT TURNS MUST UTILIZE LONG-SWEEP (36" RADIUS) BENDS. ALL 90 DEGREE BENDS SHALL BE RGS.
- THE CONTRACTOR SHALL PROVIDE A GALVANIZED OR ALUMINUM CT CABINET WITH PLYWOOD BACKBOARD, SIZED PER POWER COMPANY REQUIREMENTS.
- THE METERING DEPARTMENT SHALL FURNISH METER CAN AND CONTRACTOR SHALL INSTALL SECURELY ON THE CT CABINET WITH 1" NIPPLE.
- METER LOCATION SHALL BE APPROVED BY COT METERING DEPARTMENT. THE DRAWINGS INDICATE A PROPOSED LOCATION.
- PROVIDE CONDUIT FROM THE TELEPHONE TERMINAL BOARD TO BOTH THE TELEPHONE PEDESTAL AND CATV PEDESTAL AT THE UTILITY RIGHT-OF-WAY. PROVIDE A NYLON PULLCORD IN ALL CONDUITS.
- BURY CONDUITS FOR TELECOMM SERVICE A MINIMUM OF 24" BELOW FINAL GRADE.
- STUB OUT CONDUITS AND CAP AT THE PEDESTALS AND 4" ABOVE THE FLOOR AT THE TELEPHONE TERMINAL BOARD. USE STANDARD ELECTRICAL SWEEPS AS NEEDED. 90 DEGREE BENDS ARE NOT ALLOWED.
- POINT OF SERVICE AT THE PEDESTAL SHALL BE DETERMINED BY THE TELEPHONE COMPANY. THIS SHOULD BE STAKED BY THE TELEPHONE COMPANY ENGINEER.
- NOTIFY THE TELEPHONE COMPANY ENGINEERING DEPARTMENT, PREFERABLY IN WRITING, SO THAT ENTRANCE CABLE CAN BE PLACED 30 DAYS PRIOR TO THE ESTABLISHMENT OF THE NEW TELEPHONE SERVICE TO THE BUILDING.
- ALL CONDUITS SHALL BE FOR THE EXCLUSIVE USE OF THE SERVICE FOR WHICH THEY WERE PROVIDED. ALL SERVICES (CATV, POWER, ETC.) SHOULD UTILIZE A SEPARATE CONDUIT AND MAINTAIN SEPARATIONS AS REQUIRED BY THE NATIONAL ELECTRIC CODE (NEC).

#### GENERAL

- ELECTRICAL INSTALLATION MUST MEET LOCAL CODES AND THE REQUIREMENTS CONTAINED IN THE 2008 NEC.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, SERVICES, AND LABOR TO COMPLETE THE ELECTRICAL LIGHTING, POWER, AND SPECIAL SYSTEMS ACCORDING TO THE SCOPE OF WORK HEREIN SPECIFIED.
- ALL MATERIALS AND EQUIPMENT SHALL BEAR THE UNDERWRITER'S LABORATORIES, INC. (UL) LABEL.
- QUALITY ASSURANCE: SAFETY TESTS: ALL SYSTEMS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUND. SHALL BE FREE FROM MECHANICAL AND ELECTRICAL DEFECTS AND SHALL SHOW AND INSULATION RESISTANCE BETWEEN PHASE CONDUCTORS AND GROUND OF NOT LESS THAN THAT REQUIRED BY THE NATIONAL ELECTRICAL CODE. ALL SYSTEMS SHALL SHOW PROPER NEUTRAL CONNECTIONS.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF WORK TO BE FURNISHED AND INSTALLED UNDER THE CONTRACT. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- ALL WORK SHALL BE INSTALLED IN A WORKMANLIKE MANNER BY EXPERIENCED TRADESMEN.
- ANY DAMAGE TO THE BUILDING OR EQUIPMENT BY THE ELECTRICAL WORKERS SHALL BE REPAIRED BY WORKERS SKILLED IN THIS TYPE OF WORK AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL WORK INDICATED IS FOR THE COMPLETE WORKING SYSTEM. ALL MISCELLANEOUS ITEMS ARE TO BE INCLUDED, INCLUDING ALL LABOR AND MATERIALS TO COMPLETE THE SYSTEM.
- PHASING SHALL BE COORDINATED AND IN COMPLIANCE WITH ALL PHASING DRAWINGS AND NOTES.
- PRIOR TO ANY ROUGH-IN CONTRACTOR TO PROVIDE SCALED DRAWINGS (WITH ACTUAL DIMENSIONS OF APPROVED EQUIPMENT) SHOWING LOCATIONS AND PROPER CLEARANCES OF ALL ELECTRICAL PANELS, TRANSFORMERS, COMMUNICATION CABINETS, ETC, FOR APPROVAL. DRAWINGS WILL SHOW MECHANICAL, PLUMBING AND ARCHITECTURAL AS WELL AS ELECTRICAL EQUIPMENT.
- PRIOR TO ROUGH-IN CONTRACTOR TO PROVIDE SCALED WALL ELEVATIONS WHERE ALL ALARM, SIGNAL, CABINETS, ETC ARE INSTALLED IN OTHER THAN MECHANICAL AND ELECTRICAL CLOSETS FOR APPROVAL.
- ALL ITEMS ON PLANS ARE NEW UNLESS NOTED OTHERWISE.
- ALL EXTERIOR ELECTRICAL EQUIPMENT SHALL BE WEATHERPROOF.

#### COORDINATION:

- ELECTRICAL CONTRACTOR IS TO COORDINATE WITH MECHANICAL CONTRACTOR TO AVOID CONFLICTS BETWEEN LOCATIONS OF DIFFUSERS AND LIGHT FIXTURES.
- CONTRACTOR SHALL VERIFY LOCATION AND ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT FURNISHED BY OTHER TRADES PRIOR TO ROUGH-IN.
- COORDINATE WITH ALL MECHANICAL TRADES FOR SPACE REQUIREMENTS IN MECHANICAL ROOMS, CORRIDORS, SHAFTS, ABOVE CEILING, ETC. THIS INCLUDES SPACE ABOVE PANELS WHERE DUCTS AND PIPING ARE PROHIBITED.
- FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT, SEE MECHANICAL PLANS.
- SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT.
- ALL CEILING MOUNTED AND WALL MOUNTED EQUIPMENT OR DEVICES SHALL BE LOCATED TO AVOID DOOR SWINGS WHERE REQUIRED.
- AVAILABLE SPACE ABOVE CEILING IS EXTREMELY LIMITED. SEE ARCHITECTURAL DRAWINGS FOR SCHEDULED CEILING HEIGHTS. COMPLETE COORDINATION AND CO-OPERATION WITH ALL TRADES IS MANDATORY FAILURE TO COORDINATE WORK UNDER THIS REQUIREMENT IS REASON FOR REMOVAL AND REPLACEMENT OF ANY/ALL WORK WITHIN SUBJECT AREA AT NO ADDITIONAL COST TO THE OWNER. ANY CEILING WHICH MAY HAVE TO BE LOWERED BELOW SCHEDULED CEILING HEIGHT SHALL BE APPROVED BY THE ARCHITECT BEFORE PROCEEDING WITH WORK.
- CONTRACTOR IS TO VERIFY DOOR SWINGS WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING IN SWITCHES. SWITCHES SHALL BE MOUNTED ON THE STRIKE SIDE OF THE DOOR, UNLESS OTHERWISE NOTED (UON).
- THE ELECTRICAL CONTRACTOR SHALL ADJUST DEVICES AND OUTLETS AS NECESSARY TO COORDINATE WITH VARIOUS ARCHITECTURAL ELEMENTS SUCH AS COUNTER TOPS, BACK SPLASHES, CASEWORK, MARKER BOARDS, EQUIPMENT, ETC. AS SHOWN ON ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.

#### LIGHTING:

- PROVIDE EMERGENCY AND EXIT LIGHTING TO CONFORM TO OCCUPANCY LOAD REQUIREMENTS PER NFPA 101.
- WIRE RATED AT 90°C IS REQUIRED FOR ALL INCANDESCENT LIGHT FIXTURES.
- THE LOCATION OF FIXTURES IN MECHANICAL, ELECTRICAL, COMMUNICATIONS, MACHINE ROOMS, ETC. ARE SHOWN FOR BID PURPOSES ONLY. FIXTURES SHALL BE INSTALLED SO AS TO COORDINATE WITH ALL TRADES AND SHALL BE ARRANGED FOR MAXIMUM LIGHTING DISTRIBUTION OF THE AREA.
- ALL FLUORESCENT FIXTURES SHALL CONFORM TO UL 1570. ALL INCANDESCENT FIXTURES SHALL CONFORM TO UL 1571. ALL HIGH INTENSITY DISCHARGE FIXTURES SHALL CONFORM TO UL 1572.
- ALL FLUORESCENT FIXTURES, INCLUDING COMPACT FLUORESCENT TYPES, ARE TO BE PROVIDED WITH ELECTRONIC BALLASTS UNLESS SPECIFICALLY INDICATED OTHERWISE.
- ALL FLUORESCENT CHANNEL FIXTURES SHALL BE INSTALLED WITH MANUFACTURER'S STANDARD WIRE GUARD.
- ALL DOWNLIGHT FIXTURES SHALL BE INSTALLED WITH MANUFACTURER PROVIDED BAR HANGERS.
- MOUNTING HEIGHTS INDICATED ARE ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- SEE LIGHTING CONTROL DETAIL FOR LIGHTING CIRCUITS THAT ARE TIMECLOCK CONTROLLED.
- FLUORESCENT EMERGENCY BATTERY BALLAST SHALL BE CAPABLE OF DRIVING (1) FOUR FOOT LAMP TO APPROXIMATELY 1100 LUMENS. BALLAST SHALL BE FACTORY INSTALLED AND MOUNTED WITHIN FIXTURE. PROVIDE TEST SWITCH AND CHARGING INDICATOR LIGHT IN FIXTURE OR CEILING ADJACENT TO FIXTURE.
- ALL EXIT SIGNAGE AND EMERGENCY UNIT EQUIPMENT SHALL BE SUITABLE FOR OPERATION AT 120 OR 277 VOLTS.
- INSTALL EXIT LIGHTS WITH 4" MINIMUM FMC CONNECTION TO OUTLET BOX. RIGID CONDUIT OR TUBING SHALL NOT BE ATTACHED DIRECTLY TO EXIT FIXTURE HOUSING.
- ALL RECESSED FIXTURES SHALL BE COMPLETE WITH APPROPRIATE FRAME FOR THE CEILING TYPE IN WHICH IT SHALL BE INSTALLED. A PARTICULAR FIXTURE MARK MAY BE SHOWN IN MORE THAN ONE TYPE CEILING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH CEILING TYPES.
- ALL FLUSH MOUNTED FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE AND SHALL NOT BE DEPENDENT ON THE HUNG CEILING OR CEILING GRIDS FOR THEIR SUPPORT.
- SUPPORT RECESSED TROFFER FIXTURES FROM EACH CORNER USING STEEL SUSPENSION WIRES TO THE STRUCTURE OR SECURELY FASTENED TO THE CEILING FRAMING MEMBER BY MECHANICAL MEANS SUCH AS SCREWS.
- STEEL USED IN FABRICATION OF LIGHT FIXTURES SHALL BE NOT LESS THAN 22 GA. TROFFER PRE-PAINTED STEEL HOUSING IS ACCEPTABLE.
- ALL LENSES USED IN RECESSED TROFFERS SHALL BE PREMIUM NO. 12 PATTERN, NOMINAL 0.125" THICKNESS.
- DOORS ON LENSED TROFFERS SHALL BE POST PAINTED STEEL WITH MITERED CORNERS. PRE-PAINTED HOUSINGS ARE ACCEPTABLE.

#### BRANCH CIRCUITS:

- ALL WIRING AND BRANCH CIRCUITS ARE TO BE IN ACCORDANCE WITH THE 2008 EDITION OF THE NATIONAL ELECTRICAL CODE, NFPA 101, AND ALL STATE, LOCAL AND FEDERAL CODES AND THE FOLLOWING DESIGN CRITERIA:
  - NO WIRING SMALLER THAN #12AWG SHALL BE USED FOR ANY LIGHTING OR RECEPTACLE CIRCUIT.
  - IF DISTANCE FROM ELECTRICAL PANEL TO ANY FIXTURE CONNECTED TO A CIRCUIT EXCEEDS 70 FEET, USE ONE (1) TRADE SIZE LARGER, BUT NOT SMALLER THAN #10 AWG.
  - ALL CONDUCTORS ARE TO BE COPPER, TYPE THHN/THWN OR XHHW UNLESS NOTED OTHERWISE.
  - ALL WIRING IS TO BE CONCEALED WITHIN WALLS, OR ABOVE CEILING, SECURE RACEWAYS TO OVERHEAD STRUCTURE WHEN INSTALLED ABOVE CEILING. DO NOT ALLOW RACEWAYS TO BE LOOSE ABOVE CEILING.
  - NEC REQUIREMENT REGARDING PIPE FILL AND CONDUCTORS INSIDE PANELS SHALL BE STRICTLY ENFORCED.
- CONDUCTOR AMPACITIES ARE BASED ON 60° C INSULATION FOR CONDUCTORS OF #1 AWG AND SMALLER AND ARE BASED ON 75° C INSULATION FOR CONDUCTORS OF #10 AWG AND LARGER. THIS IS TO CONFORM TO UL'S TESTING OF EQUIPMENT TERMINATIONS AND NEC 110. CONDUCTOR SIZES SHALL NOT BE REDUCED FOR HIGHER RATED TEMPERATURE INSULATION USED.
- FEEDERS OF NOMINAL AMPACITY 250 AMPS OR GREATER MAY UTILIZE EQUIVALENT PARALLEL CIRCUITS. IN SUCH CASES EACH INDIVIDUAL GROUNDING CONDUCTOR SHALL BE FULL SIZE AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC.
- BRANCH CIRCUITS AND HOMERUNS SHALL BE #12 WIRE AND 1/2" CONDUIT MINIMUM. EVERY CONDUIT SHALL HAVE A GREEN GROUND WIRE (#12 MINIMUM).
- NO MORE THAN 3 PHASE CONDUCTORS SHALL BE INSTALLED IN ONE CONDUIT UNLESS NOTED OTHERWISE.
- NO SHARED NEUTRALS SHALL BE PERMITTED.
- ALL CONDUCTORS SHALL BE INSTALLED IN RIGID METAL CONDUIT OR ELECTRICAL METALLIC TUBING. CONDUIT FOR BURIAL IN SOIL OR UNDER CONCRETE SHALL BE RIGID NONMETALLIC CONDUIT (PVC SCHED. 40). FLEXIBLE CONDUIT FOR FINAL CONNECTIONS INSTALLED OUT-OF-DOORS, IN ANY MECHANICAL EQUIPMENT ROOM, OR IN NORMALLY WET AREAS, SHALL BE LIQUID TIGHT FLEXIBLE METALLIC CONDUIT WITH SUITABLE FITTINGS.
- ALL BOXES AND RACEWAYS INSTALLED ABOVE GRADE SHALL BE FABRICATED OF METAL. ALL CONNECTORS, COUPLING AND FITTINGS SHALL BE STEEL COMPRESSION TYPE. CONNECTORS SHALL BE INSULATED THROAT TYPE.
- ALL ELECTRICAL BOXES SHALL HAVE SUPPORT BLOCKING AND SHALL BE FULLY SECURED.
- 4"x4"x1-1/8" DEEP BOXES SHALL BE USED WITH PLASTER RING OF PROPER DEPTH TO MATCH.
- PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.
- OUTLET BOXES OVER 16 SQUARE INCHES IN SMOKE AND FIRE WALLS MUST BE 5 SIDED WITH SAME CONSTRUCTION AS WALL SYSTEM. WHERE RECEPTACLES ARE ON OPPOSITE SIDES OF A FIRE WALL THERE MUST BE A 24" HORIZONTAL SEPARATION BETWEEN THEM.
- DO NOT MOUNT OUTLETS BACK TO BACK. THEY SHALL BE INSTALLED IN SEPARATE STUD SPACES.
- CONDUIT SHALL PASS THROUGH WALLS AT 90 DEGREES AND SHALL BE RUN PARALLEL AND PERPENDICULAR TO WALLS.
- ALL UNDERGROUND CONDUIT RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE AND GASES.
- CONDUIT FOR RECEPTACLE CIRCUITS SHALL BE RUN OVERHEAD UNLESS NOTED OTHERWISE.
- ALL CONDUITS PENETRATING ROOF SHALL BE SEALED BY THE ELECTRICAL CONTRACTOR, USING SEALING METHOD APPROVED BY THE ROOFING INSTALLER.
- ALL WALL AND FLOOR PENETRATIONS SHALL BE SEALED TO MAINTAIN THE RATING OF THE WALL OR FLOOR.
- CONDUIT SIZES ARE BASED ON SCHEDULE 40 PVC AND "THW" INSULATION AND SHALL NOT BE REDUCED FOR DIFFERENT CONDUIT OR INSULATION TYPES.

#### DEVICES:

- ALL RECEPTACLES AND LIGHT SWITCHES ARE TO BE SPECIFICATION GRADE WIRING DEVICES, SIDE WIRED ONLY, WITH SCREW FASTENER.
- ALL DEVICES SHALL BE 20 AMP DEVICES.
- ALL CONVENIENCE OUTLETS IN TOILETS, WITHIN 6'-0" OF SINKS, AND INSTALLED IN EXTERIOR LOCATIONS SHALL BE GFL.
- ALL RECEPTACLES BESIDE SINKS SHALL BE LOCATED AT LEAST 6" HORIZONTALLY FROM THE TOWEL DISPENSER. UNDER NO CONDITION SHALL A RECEPTACLE BE LOCATED UNDER A TOWEL DISPENSER.
- COLOR OF ALL RECEPTACLES, SWITCHES, ETC. SHALL BE GRAY. COVERPLATES SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.
- PROVIDE CONDUIT AND OUTLET BOXES AS REQUIRED FOR THERMOSTATS. THERMOSTATS ARE SHOWN ON MECHANICAL DRAWINGS.
- WHERE RECEPTACLES ARE INDICATED TO BE EQUIPPED WITH GROUND FAULT INTERRUPTING CIRCUITRY, IT SHALL BE INTEGRAL TO THE DEVICE AND HAVE A TEST/RESET MECHANISM INTEGRAL WITH THE DEVICE. REMOTE TEST/RESET OR THE INTERWIRING OF ADDITIONAL RECEPTACLES UTILIZING OF SENSING OF A SINGLE RECEPTACLE IS NOT ACCEPTABLE.

#### GROUNDING:

- RACEWAYS ARE TO BE BONDED TO PROVIDE ELECTRICAL CONTINUITY.
- PROVIDE BONDING JUMPER CONNECTING GROUND BUS TO ENCLOSURE IN PANELS.
- AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED AT ALL POINTS OF THE ELECTRICAL SYSTEM. GROUNDING TO MEET OR EXCEED NEC REQUIREMENTS.
- ALL CONDUIT SHALL INCLUDE GROUND WIRE SIZED PER ARTICLE 250 NEC.
- RACEWAY SYSTEMS CONTAINING SECONDARY SERVICE CONDUCTORS AND GROUNDING ELECTRODE CONDUCTORS SHALL BE BONDED PER ARTICLE 250 NEC.

#### GEAR:

- ALL PANELS TO BE LABELED CORRECTLY AND HAVE TYPED DIRECTORIES.
- MAINTAIN NEC MINIMUM CLEARANCE IN FRONT OF ALL SAFETY SWITCHES AND PANELBOARDS.
- PROVIDE 5 #8 AWG CONDUCTORS TO THE TVSS DEVICES. ALL TVSS CONDUCTORS SHALL BE EXACTLY THE SAME LENGTH AND NO LONGER THAN 12". CONDUCTORS SHALL BE TWISTED TOGETHER AND FREE OF ANY SHARP BENDS OR KINKS.
- ALL GEAR SHALL BE HEAVY DUTY GRADE.
- ALL PANELS / BREAKERS SHALL BE BOLT-IN STYLE.

MECHANICAL  
ELECTRICAL  
PLUMBING  
FIRE PROTECTION

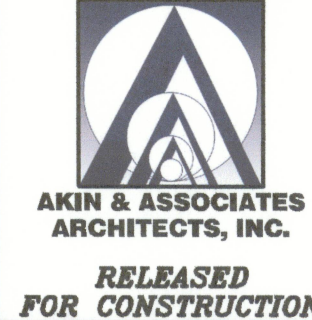
www.MEPSoutheast.com  
3116 Capital Circle NE, Suite 9  
Tallahassee, FL 32309

TEL: (850) 668 - 0188  
FAX: (850) 668 - 1451  
FL 0427200  
FL PE 50772

**M E P**  
S O U T H E A S T  
P L C

ARCHITECTURAL ENGINEERS

COPYRIGHT 2008



RELEASED  
FOR CONSTRUCTION

JOB NO.: 0908  
DRAWN: THG  
CHECKED: THG  
DATE: 03/10/10

REVISIONS :	
1	5/22/10 ADDENDUM #1

NEW FT. WHITE BRANCH LIBRARY  
FT. WHITE, FLORIDA

CLIENT:  
COLUMBIA COUNTY  
BOARD OF  
COUNTY  
COMMISSIONERS

PROJ. PHASE:  
100%  
CONSTRUCTION  
DOCUMENTS

SHEET TITLE:  
ELECTRICAL  
LEGEND &  
NOTES

SCALE:  
AS SHOWN

SHEET NO.:  
E0.1