

**ELECTRICAL INSTALLATION NOTES:**

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ABBAS STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS ON THIS PAGE FOR ADDITIONAL INFORMATION.
2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
3. SURFACE MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
4. SURFACE MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
5. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
6. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
7. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90° ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
8. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE.
9. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
10. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
12. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE CONTRACTING OFFICER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE CONTRACTING OFFICER RESERVE THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
13. REFER TO OTHER REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
14. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING ANY WORK.
15. THE CONTRACTING OFFICER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL EQUIPMENT DESIGNATED BY OWNER TO BE RETAINED IS TO BE REMOVED IN GOOD CONDITION, LABELED, BOXED AND DELIVERED TO OWNER.
16. MINIMUM CONDUIT SIZE SHALL BE 3/4" NOMINAL, UNLESS NOTED OTHERWISE.
17. PROTECT ALL EXISTING SITE UTILITIES REQUIRED TO REMAIN IN OPERATION AND AS REQUIRED FOR JOB SITE SAFETY. ANY DEVIATIONS FOUND SHALL BE MADE KNOWN TO THE CONTRACTING OFFICER PRIOR TO WORK COMMENCING. COMMENCEMENT OF WORK INDICATES ACCEPTANCE OF DRAWINGS AND SITE CONDITIONS.
18. COORDINATE ALL WORK WITH OTHER TRADES, OFFSET PANELS, LIGHTS, RECEPTACLES AND CONDUIT AS REQUIRED. APPROVAL MUST BE OBTAINED FROM ARCHITECT PRIOR TO OFFSETTING ANY DEVICE OR EQUIPMENT.
19. CONTRACTOR SHALL RELABEL AND UPDATE SCHEDULES IN ALL REPLACED AND EXISTING TO REMAIN PANELBOARDS AND DISTRIBUTION PANELS AT THE COMPLETION OF THE PROJECT.
20. AFTER COMPLETION OF NEW WORK, REMOVE ALL TEMPORARY EQUIPMENT, CONDUIT, AND WIRING NOT REQUIRED TO REMAIN.
21. CONTRACTOR SHALL ENSURE THAT ALL PENETRATIONS IN FLOORS, WALLS AND CEILINGS THAT ARE ABANDONED OR LEFT UNUSED BECAUSE OF DEMOLITION, ARE FILLED WITH RATED MATERIAL TO MEET THE DESIGNATED CODE REQUIREMENTS. FIRE-STOPPING REQUIRED AT ALL FIREWALL CONDUIT AND/OR CABLE PENETRATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
22. ALL GFI DUPLEX RECEPTACLES SHALL BE CONNECTED DOWNSTREAM ON ALL SHARED BRANCH CIRCUITS HAVING GENERAL DUPLEX RECEPTACLES.
23. ALL EMPTY CONDUITS INDICATED SHALL BE FURNISHED AND INSTALLED WITH PULLWIRES AND INSULATED BUSHINGS.
24. VERIFY ALL OUTLETS, J-BOXES, PULLBOXES AND LIGHTING LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL CASEWORK AND REFLECTED CEILING PLANS, INCLUDING OWNER FURNISHED EQUIPMENT AND/OR FURNITURE, PRIOR TO ROUGH-IN.
25. ALL OUTLET BOXES SHALL BE PROVIDED AS FLUSH MOUNTING HAVING CONDUIT CONCEALED IN CONSTRUCTION AS REQUIRED, UNLESS NOTED OTHERWISE. ALL BOXES UTILIZED SHALL BE COMPATIBLE WITH ALL WALL CONSTRUCTION. PROVISION SHALL BE MADE FOR "SHALLOW-TYPE" AND "STANDARD" OUTLET BOXES AS REQUIRED FOR FLUSH INSTALLATION.
26. ALL CONDUIT SHALL BE CONCEALED IN CONSTRUCTION IN FINISHED AREAS. EXPOSED CONDUIT SHALL BE ROUTED AT BUILDING STRUCTURE ABOVE AT CEILING, THEN DROP TO EACH FIXTURE OR DEVICE LOCATION INDICATED AS DIRECTED BY ARCHITECT.
27. FOR PURPOSES OF VOLTAGE DROP, PROVIDE #10 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUN BEYOND 70 FT FROM SOURCE PANEL AND #8 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUNS BEYOND 120FT FROM SOURCE PANEL.
28. VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS OF ALL HVAC, HVAC CONTROL, PLUMBING, FIRE ALARM, FIRE PROTECTION, I.T., SECURITY, COMMUNICATIONS AND OWNER FURNISHED EQUIPMENT PER EQUIPMENT MANUFACTURER INSTRUCTIONS AND COORDINATE WITH ASSOCIATED EQUIPMENT CONTRACTORS. PROVIDE ALL NECESSARY DEVICES AND CONNECTIONS AS REQUIRED.
29. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN LIGHTLY AND NOTED ARE EXISTING TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND DASHED TO BE REMOVED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
30. ALL EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND SOLID IS NEW WORK TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
31. IN EXISTING RENOVATED FINISHED AREAS WHERE NEW CONDUIT AND WIRING ARE NOT ABLE TO BE INSTALLED CONCEALED IN CONSTRUCTION, FURNISH AND INSTALL SURFACE MOUNTED RACEWAY AS MANUFACTURED BY LEGRAND/WIREMOLD, OR APPROVED EQUIVALENT. RACEWAY SIZE AND USAGE SHALL BE KEPT TO A MINIMUM. THE ROUTING FOR ALL SURFACE MOUNTED CONDUIT SHALL BE APPROVED IN ADVANCE OF INSTALLATION BY ARCHITECT. VERIFY EXISTING CONDITIONS AND COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN.
32. PROVIDE NEW BREAKERS IN EXISTING PANELBOARDS, IF REQUIRED. MATCH RATINGS AND MATE WITH EXISTING SIZE, IF REQUIRED.

**ELECTRICAL LIGHTING DEMOLITION NOTES:**

1. THE ELECTRICAL LIGHTING DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED.
2. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
3. BALLASTS MANUFACTURED PRIOR TO 1980 CONTAIN PCBs AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
4. HID AND FLUORESCENT LAMPS CONTAIN MERCURY AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
5. VERIFY MANUFACTURERS INSTALLATION GUIDELINES WITH EXISTING FIELD CONDITIONS PRIOR TO BIDDING AND ORDERING NEW LIGHT FIXTURES AND INSTALLATION MATERIAL.
6. MATCH EXISTING PAINTED SURFACES, WHERE REPLACED LUMINAIRE DOES NOT FULLY COVER EXISTING JUNCTION BOX OR PAINTED SURFACE. PROVIDE CUSTOM BACK PLATE WHERE NECESSARY TO COVER ANY FIELD CONDITIONS THAT WOULD ALLOW INTRUSION OF WATER AND CAULK WHERE NECESSARY.
7. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
8. FOR REASONS OF CLARITY ALL EXISTING CONDUIT, WIRING, EQUIPMENT, ETC. IS NOT SHOWN. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
9. CONDUIT AND CABLE ROUTING SHALL NOT BLOCK SERVICE TO EXISTING OR NEW EQUIPMENT. CONTRACTOR SHALL ROUTE CONDUIT AND CABLE AS NECESSARY TO AVOID CONFLICTS WITH EXISTING CONDITIONS.
10. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES AND CIRCUITS INDICATED ARE TAKEN FROM AS-BUILT DRAWINGS AND CURSORY SITE SURVEY. VERIFY EXISTING CONDITIONS.

**TYPICAL NEW CONSTRUCTION:**

1. WHERE LUMINAIRE QUANTITIES OR LAYOUT DIFFER BETWEEN ELECTRICAL LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS, HIGHER QUANTITY SHALL TAKE PRECEDENCE. CONTRACTOR SHALL CONFIRM QUANTITY AND LAYOUT WITH DESIGN TEAM.
2. COORDINATE LUMINAIRE IN MECHANICAL ROOMS WITH DUCTWORK, PIPING AND ANY MECHANICAL EQUIPMENT. PROVIDE LUMINAIRE WITH CHAINS OR HANGAR KIT WHERE REQUIRED. BOTTOM OF FIXTURE TO ALIGN WITH BOTTOM OF NEAREST BEAM/TRUSS. COORDINATE MOUNTING PRIOR TO ORDERING LUMINAIRES.

**TYPICAL REMODEL:**

1. ALL LUMINAIRES SHOWN TO BE DEMOLISHED SHALL BE DISPOSED OF UNLESS NOTED OTHERWISE.
2. COORDINATE HOURS OF ACCESS WITH CONTRACTING OFFICER.
3. REMOVE EXISTING LUMINAIRE AND PREPARE FOR INSTALLATION OF NEW LUMINAIRE IN SAME LOCATION OR NEW LOCATION.
4. WHERE WALL SWITCH DEVICE IS REMOVED AND NOT REPLACED. PROVIDE WITH BLANK SWITCH PLATE.
5. NEW OCCUPANCY SENSORS TO BE INSTALLED IN A MANUAL ON/AUTO OFF CONFIGURATION.
6. COORDINATE LOCATIONS OF NEW LUMINAIRES WITH EXISTING DUCT, PIPING, ARCHITECTURAL, STRUCTURAL AND CEILING MOUNTED DEVICES.

**ELECTRICAL RENOVATION NOTES:**

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. ALL EXISTING WIRING SHALL BE REMOVED.
2. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
3. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK.
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR AND ARCHITECT/ENGINEER PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH ALL WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS ASSOCIATED WITH AREAS OF ALL WORK.



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A/E FIRMS  ARCH: <b>QUINN EVANS</b> 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888  MEP/ENG: <b>IMEG CORP.</b> 1400 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: ZMB	SUB SHEET NO.  <div style="font-size: 2em; font-weight: bold; text-align: center;">02 E0.1</div>	TITLE OF SHEET <b>LIBBEY BATHHOUSE ELECTRICALCOVERSHEET</b>  REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. <b>128</b> <b>182951</b>
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