

REQUEST FOR QUOTATION ("RFQ") HHSC 21-0012

August 20, 2020

TO: Valued Prospective Offerors

Kona Community Hospital of the West Hawaii Regional Health Care System, a division of Hawaii Health Systems Corporation (hereinafter "HHSC" or "KCH"), is soliciting quotations for:

Auto Transfer Switch –Life Safety Branch

This RFQ requires a performance and payment bond in the amount of the final executed agreement.

This RFQ requires wages to be paid in accordance with the then current State of Hawaii Wage Rate Schedule (WRS) located at http://labor.hawaii.gov/rs/home/wages/72-2/.

This RFQ requires that the electrical contractor and its employees possess all certifications and licensures as required by the State of Hawaii throughout the entirety of this project.

A pre-bid site visit and meeting is scheduled for Thursday, September 3 from 8:30 a.m.-9:30 a.m. While the site visit and meeting is not mandatory, it is strongly recommended that all interested offerors attend as there may be items discussed that will affect your quote.

SCOPE OF WORK

Life Safety Branch

The Kona Community Hospital requires a separate ATS to be installed for the Life Safety Branch as required by the 2017 NEC 517.30, NFPA 99-2005, and the Joint Commission. The ATS will connect from the Emergency Generator Switchboard and Utility Switchboard to the new Life Safety Panel as indicated on the drawings. The scope of work includes but is not limited to:

- 600A, 480V, 4W ATS for Life Safety Branch will be provided by hospital.
- Provide new 480v 600 amp manual transfer switch with cam lock connections
- Provide new 150kva 480v-120v transformer
- Provide new 480/277v 600amp panel with main breaker
- Provide new 120/208v 400amp panel with main breaker
- Provide new breakers in panels for all loads that will be transferred
- Provide new junction boxes for new feeders
- Provide new conduit and wire for feeders
- Provide new conduit and wire for control wire from generator to ATS
- Concrete Pad for ATS
- Removal of transfer switch and isolation bypass switch's from SSB building

ADDENDA

Discrepancies, omissions, questions or doubts as to the meaning of specifications should be communicated in writing to the contact listed below for interpretation. These questions or comments must be received no later than no later than 12:00pm HST, Thursday, September 10, 2020. Answers will be provided to offerors no later than 12:00pm HST, Wednesday, September 16, 2020.

Any supplemental instructions will be in the form of written addenda to the RFQ, which will be supplied to all prospective Offerors prior to the due date. Failure of any offeror to receive any such addendum or interpretations shall not relieve the offeror from an obligation under his quotation as submitted. All addenda so issued shall become part of the Agreement documents.

No other means of communication, whether oral or written, shall be construed as a formal or official response/statement and may not be relied upon. Offeror shall not communicate with any employee of KCH with the exception of the Contracts Manager during the RFQ process. Any communication, whether oral or written, to anyone other than the Contracts Manager may result in Offeror's disqualification.

QUESTIONS/CORRESPONDENCE

Send relevant questions, if any, and cost quotation via email to:

Yvonne S. Taylor Senior Contracts Manager Hawaii Health Systems Corporation c/o Kona Community Hospital 79-1019 Haukapila St. Kealakekua, HI 96750 Phone: 808.322.4442 ytaylor@hhsc.org

AND

Michelle Gray
Contracts Asst II
Hawaii Health Systems Corporation
c/o Kona Community Hospital
79-1019 Haukapila St.
Kealakekua, HI 96750
Phone: 808.322.5830
mgray@hhsc.org

QUOTE PREPARATION

Submit quote on table provided as Attachment 1 or on your own quote form as long as it is in a clear and concise, easy to read format.

Quotations must be received by 12:00pm HST, Wednesday, September 29, 2020.

21-0012 Auto Transfer Switch - life safety branch RFQ

HHSC is under no obligation to accept any quotations. The HHSC CEO, or a designated representative, may execute an Agreement with the Company whose quotation is determined to be the best value to HHSC. The Agreement will be subject to the State of Hawaii DAGS 1999 Interim General Conditions located at http://pwd.hawaii.gov/wp-content/uploads/2014/12/InterimGeneralConditions1999Edition.pdf. It is the vendor's responsibility to read the document and understand that it will be incorporated into the Agreement unedited.

RESPONSIBILITY OF OFFEROR

Offeror is advised that if awarded an Agreement under this RFQ, Offeror shall, prior to execution of the Agreement, furnish the following items:

- State of Hawaii Electrical Contractor license (copy)
- State of Hawaii GET license (copy)
- State of Hawaii Certificate of Vendor Compliance (print from website)
- W-9
- Signed acknowledgement page from Contractor's Handbook from each employee who will be working on site.

After award and at least two (2) weeks prior to commencement of work, all employees who will be working onsite more than ten (10) hours per week are required to read the Contractors' Guidelines Handbook and sign the last page acknowledging that they have read it. Contained in the Handbook are the requirements that must be met before starting work at KCH (i.e. background checks, TB test, drug screen, etc.) Delay in meeting the requirements may result in a delay of starting work.

NOTICE OF AWARD

Your quotation will be reviewed and notice of acceptance or rejection will be provided electronically, as soon as practical.

BASIS OF AWARD

Cost is a major factor for award, but is subject to review only after review of the technical proposal and the best qualified Offeror is determined. Agreement award is based solely on HHSC's determination of the best overall value to HHSC. Best value to HHSC includes but is not limited to: experience of working in a hospital, thoroughness of submitted quote and project summary response. HHSC reserves the right to further negotiate cost.

Thank you for your interest in doing business with KCH.

ATTACHMENT 1

OFFEROR'S INFORMATION SUMMARY

Legal Name of Company	
Principal's Name & Title	
Address & Phone Number	
Years in Business	
Type of Business (LLP, Corp, Sole Proprietorship)	
State of Incorporation	
Federal Tax ID #	
GET License Number	
Number of electricians on company payroll	
Payment Terms Requested	

ATTACHMENT 2

PRICING SUMMARY TEMPLATE

Item	Price	
Project Management		
Miscellaneous		
General Excise Tax @4.712%		
Performance Bond		
Payment Bond		
Total:		

Definition of Cost Categories:

Project Management: If there are project management fees associated with your proposed solution, list and describe them here.

Miscellaneous: List and describe any other costs associated with your proposed solution.

Itemized or detailed pricing, if applicable, should be attached behind the Pricing Summary Template.

SUBCONTRACTOR TABLE (IF APPLICABLE)

*Any changes with your subcontractor must be requested in writing to the Hospital Technical Representative prior to starting that phase of work.

TRADE	COMPANY NAME	COMPANY ADDRESS	LICENSE NUMBER	YEARS IN BUSINESS

ATTACHMENT 4

PROJECT SUMMARY

PROJECT SUMMARY
Provide a projected project timeline from date of contract award through project completion:
Provide a summary of how your company will perform the requirements of the project as detailed in the specifications and drawings to ensure a successful project that it completed on-time and within budget:

ATTACHMENT 5

CONTRACTOR'S HANDBOOK



Contractor Guidelines



care You can count on

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Introduction

This Contractor Guidelines Booklet is designed for contractors and sub-contractors who provide services to Kona Community Hospital.

This booklet provides requirements and expectations of the contractors and sub-contractors that are contracted to perform work in the hospital.

Contractors and sub-contractors working in the hospital must successfully complete all requirements listed in the booklet prior to any project work beginning on-site at Kona Community Hospital.

Each General / Primary Contractor is responsible for any of their Sub-contractors activities and is expected to ensure compliance with all applicable regulatory or compliance guidelines set out in this booklet.

Failure to comply with the requirements of this booklet may result in the halting of the project and/or termination of the contract.

To ask questions about the booklet or its contents or to obtain additional copies please contact:

KCH Maintenance at 808-322-4592

Important Phone Numbers

Human Resources	322-4458
Employee Health	322-4478
Infection Prevention	322-4478
Facility Director	322-4495
Maintenance Clerk	322-4592
Risk Manager	322-6976
Hospital Supervisor	322-4594
Patient Access (Admitting)	322-5803
Security	322-4525
Maintenance Supervisor	322-4566
Housekeeping	322-4521
ICU Manager	322-5824
Emergency Room Manager	322-4484
Medical/Surgical Manager	322-4477
Surgical Services (OR) Manager	322-6909
First Floor Acute Manager	322-4407
Behavior Health Manager	322-4573
Obstetrics Manager	322-4598
Imaging Manager	322-5872
Pharmacy Manager	322-4402
Clinical Labs Manager	322-4422
Dietary Manager	322-4415
Administration (CEO, CNE)	322-6970
IT Department	322-5887
Contracts Management	322-4442

Human Resource Requirements

Contact Human Resources to schedule an appointment to pick up and review documents listed below:

- Read the Contractor Guideline booklet. Return Contractor Guidelines Confirmation of Understanding to Human Resources.
- ▲ Drug Screening: Each contractor / sub-contractor will have to complete a five panel drug screen within six months of the project start date. Negative drug screening results are to be submitted to Human Resources. Additionally, if management has a reasonable individualized suspicion that a contractor is currently violating the Hospital Drug Free workplace policy, a urine drug screen may be requested. Arrangements to complete a drug screening can be made through Human Resources at a fee of \$17.00 per person. Contact Human Resources to schedule an appointment (page 4).
- ▲ State and Federal Criminal History Record Check: Each contractor / sub-contractor will have to complete a State and Federal criminal background check within six months of project start date. Background check results are to be submitted to Human Resources. Persons with any criminal charges pending or with any felony convictions shall not be eligible to work in the Hospital. Arrangements to complete a background check can be made through Human Resources at a fee of \$50.00 per person. Contact Human Resources to schedule an appointment (page 4).
- **♦** Complete **Request for State Federal Criminal History Record Check** form
- ▲ Complete and return the **Acknowledgement and Understanding.**
- ▲ Camera Surveillance and Image Recording form. Initial, sign, and date **Appendix A**. Policy is for your records.

Employee Health Requirements

Contact Employee Health / Infection Control to review documents listed below: All documents can be picked up at Human Resources.

- ▲ Complete the following forms:
 - -Contractor Health Evaluation
 - -Immunization Declination Requirements for Maintenance and Construction Contractors
- ▲ Submit a completed annual Tuberculosis test. Arrangements to complete a TB test can be made through your primary care physician or contact the Hawaii Department of Health at 808-322-1522.
- ▲ Completion of an annual influenza vaccine (or declination form) during the flu season of October through March.



Request for Records and Documentation

Contractor will cooperate with and make available to Kona Community Hospital any records and documentation required by such authorities within eight (8) hours upon request. Kona Community Hospital will make such requests during normal business hours.

Confidentiality

At Kona Community Hospital, privacy of patients is valued and protected by law. Although contractor employees will never have reason to use private health information, they may come into contact with documents and computer screens, or overhear conversations that contain private information. Please remember that this information is protected and private and should not be discussed or shared.

Not all areas of the hospital are open to the public for reasons of safety or privacy. If contractors are required to work in clinical areas they must observe specific HIPPA security/confidentially rules.

General Safety

Kona Community Hospital is committed to the safety of employees, students, visitors, and patients. All employees, including contractor employees, are expected to take safety seriously and follow good safety practices. If there is any doubt regarding the safety of a job or task, notify the Facilities Director.

If you are feeling ill stay home. You are more prone to germs from others and more likely to spread your germs to patients who are already sick and have little defenses left to use against them. You will get better faster and you won't get anyone else sick either.

Kona Community Hospital has adopted and follows a safety plan designed to provide a safe environment. The goal of this plan is to create a workplace that is free from hazards and where risks of injuries to employees, patients, visitors, and contractors is at a minimum.

Since safety is a team effort, everyone working at Kona Community Hospital must look out for themselves and each other by watching for unsafe practices and correcting or reporting them if encountered.

Contractor Check-In

Upon the daily arrival of a contractor to Kona Community Hospital, the contractor is required to check-in and sign-in at the Maintenance Office. Contractors must also check-out and sign-out daily at the Maintenance Office. Hours of normal operations are 0600 to 1430 Mondays thru Fridays. Any off shift, holiday and weekend work requires prior approval and 48 hours notice arranged with the Facilities Director. Arrangements for card access to project areas requires 48 hours notice.

Identification Badges and Basic Security

All contractor employees must wear a KCH badge (permanent / temporary). Badges are issued from HR after all HR and Employee Health requirements are completed. Badges are signed out and back in daily through the Maintenance Department. The badge must be worn above the waist. Contractor employees without badges will be asked to check in at the Maintenance Department. Off shift, holiday and weekend arrangements will be made with the Maintenance Clerk and approval of the Facilities Director to have the badges sent to Patient Access to be signed in and returned at end of shift.

Parking

Parking at Kona Community Hospital is at a premium. Contractors must park in areas designated by the facility.

Smoking and Tobacco Use

Kona Community Hospital is a Smoke and Tobacco Free Campus. Use of tobacco products including cigarettes, chew and electronic cigarettes is not allowed on campus.

Personal Appearance

- ▲ A shirt displaying the contractor's name is preferred. Long work pants or jeans and covered shoes are required
- ▲ Identification badge must be worn above the waist.
- ▲ Not allowed are slippers, shorts and sleeveless shirts with holes, and / or offensive language and / or artwork.

Appropriate Behavior

Kona Community Hospital promotes a healthy work environment and expects appropriate behavior by everyone on campus.

Reports of inappropriate behavior will be investigated and disciplinary action may result.

Whistling, inappropriate language and any other gesture that is perceived to be offensive to Kona Community Hospital employees and guests will not be tolerated and will be cause for dismissal.

All contractors are responsible for adhering to these guidelines and must report inappropriate actions to the Nursing Supervisor, Facilities Director, or Risk Manager.

Workplace Violence Prevention

Violence, threat of violence, intimidation, harassment or coercion is not tolerated on the KCH campus.

Contractor employees are responsible for adhering to these guidelines and for reporting disruptive or violent behavior to Security, Nursing Supervisor, Facilities Director or the Risk Manager.

Interacting with Patients and Hospital Staff

The employees of Kona Community Hospital are proud of their facilities and are always careful to ensure the comfort and welfare of patients, visitors and co-workers. Even if only temporarily, contractor employees will become part of the KCH work force and may even be viewed as KCH employees by patients, guests or visitors.

All contact with patients, staff and visitors must demonstrate respect for the individual. Any action or words that suggest bias or prejudice are not appropriate.

Healthcare Personal Protective Equipment Requirements

Personal protective equipment (PPE) is provided in an assortment of sizes and includes the following examples: gloves, isolation gown, mask, face shield, shoe covers and jumpsuits. Observe sterile work zone requirements and restrictions. Do not enter sterile corridors or rooms without appropriate attire required (ie. Scrubs, hats, booties, face mask, etc.) Do not wear this clothing out of the sterile area and re-enter, if you have exited area replace with clean PPE's prior to re-entry into area. You must coordinate with unit manager if you are unsure of appropriate attire or procedure required.



Hand-washing and Disinfection

In the Hospital setting any surfaces (phones, elevator buttons, tool handles etc.) can become a breeding ground for germs. Anyone that comes into contact with these surfaces can then transmit the germs to other areas in the hospital and potentially to our vulnerable patients. Every year thousands of people die from infections acquired at the hospital. The best defense against germs is hand washing; frequent hand washing in a healthcare setting will keep patients, staff and you safe from potential life threatening germs and spread of disease. KCH has alcohol hand washing stations throughout the facility for your convenience; to use just apply the foam/gel to your hands and rub until dry. If you like the traditional soap and water method please remember to scrub your hands for at least 20 seconds and use a paper towel to dry your hands and another one to turn off the faucet. Hand washing is expected during the following activities:

- ▲ When entering and exiting the facility and construction locations
- ▲ Before and after working on hospital equipment/locations
- ▲ When entering and exiting patient care areas
- ▲ Before applying and immediately after removing personal protective equipment.
- ♠ After removing gloves
- ▲ After using the restroom
- ♠ Before eating meals





<u>Clothing and Construction Personal</u> <u>Protective Equipment</u>

While working at KCH, your personal protective equipment protects you as a worker, but also alerts our patients and staff to potential hazards in the area. To maintain the healing environment, please ensure all clothing is clean and dust free and is in a respectful condition.

While working at KCH the following OSHA guidelines must be followed:

- 29 CFR 1926 Construction Industry
- 1926 Subpart C, General safety and health provisions
- 1926.28, Personal protective equipment
- -1926 Subpart E, Personal protective and life saving equipment •1926.95, Criteria for personal protective equipment
- 1926.96, Occupational foot protection
- 1926.100, Head protection
- 1926.101, Hearing protection
- 1926.102, Eye and face protection
- 1926.103, Respiratory protection
- 1926.104, Safety belts, lifelines, and lanyards
- 1926.105, Safety nets
- 1926.106, Working over or near water
- 1926.107, Definitions applicable to this subpart
- 1926 Subpart M, Fall protection [related topic page]
- 1926.500, Scope, application, and definitions applicable to this subpart

<u>Clothing and Construction Personal</u> <u>Protective Equipment</u>

- 1926.501, Duty to have fall protection
- 1926.502, Fall protection systems criteria and practices
- 1926.503, Training requirements
- 1926 Subpart P, Excavations [related topic page]
- 1926.651, Specific excavation requirements
- 1926.652, Requirements for protective systems

First Aid

Contractors must provide adequately stocked first aid kits on their job sites for use by their employees and any injury requiring more than on site first aid must be reported to the Facilities Director as soon as possible.



Entering Patient Rooms

Non-healthcare contract workers may enter patient rooms only after making arrangements with the Facilities Director and the Maintenance Supervisor. They will coordinate with the nursing staff as applicable.

Patients on Special Precautions

Sometimes there are patients who are on special precautions such as Contact, Droplet, Airborne, GI Contact, and Neutropenic. If so, color coded signage will be posted outside their door. **You must wear** specific personal protective equipment to protect yourself, other patients and staff from potential infections. **YOU MUST** coordinate entry and exit from these rooms with the unit manager. Wear all required protective equipment (gloves, gown and/or mask) prior to entering rooms and remove all equipment before you leave the room. Most importantly be sure to perform good hand washing upon exiting the room. (Images of these signs are located on pages **33 - 35**)

Contractor employees must be aware that patients with suppressed immune systems may be found just about anywhere in the buildings. To these individuals, a simple virus could be very serious. For this reason all employees, contractor and staff, are expected to observe basic infection control procedures.

Contractor employees must protect patients by following standard precautions at all times. These include hand washing, wearing of gloves, gowns, masks, and shoe covers as appropriate. The Hospital Maintenance Department, or nursing staff will assist you in selecting the appropriate personal protection.

Designated Entrance and Exit Routes

The Facilities Director shall define entrance and exit routes for contractors that provide the least amount of interference with activities in that area. These routes must accommodate the safe transport of construction equipment/debris, construction workers, staff, patients, and guests. No egress can be blocked or restricted without the approval and coordination with the Facilities Director. Any routes blocking egress must have signage and alternative egress pathways incorporated.

Workplace Set-up

All work areas must be marked off with cones, tape, barriers, or other traffic diverters. More than 50 percent of the width of a hallway may never be blocked without making arrangements with the Facilities Director.

No impairments to the fire alarm, fire suppression, or egress routes can be made unless approved by the Facilities Director three working days in advance.

Tools and materials must be safely secured or packaged when unattended. Items must not be left in a way that could injure staff, patient(s), or visitor(s).

Tools and materials must also be safeguarded in such a manner to minimize the risk to everyone. The responsibility for safeguarding all materials/equipment from theft is the responsibility of every individual.

Patients, staff, and public areas must be protected from dust, dirt, and other construction-related contamination. The use of non-combustible dust barriers and air filtration systems with HEPA filters may be required. Transport of tools, equipment and construction debris must be done in a way to minimize dust and dirt. All transported materials must be covered and secured at all times.

Traffic Control

When a project includes motorized and pedestrian traffic control the Facilities Director and Contractor will determine the safest routes and procedures to facilitate this traffic. Whistles and other devices used to control traffic shall be used respectfully, and for the purpose of traffic control only. Three (3) days notice must be give prior to restriction of any roadway at KCH & must be coordinated through the Facilities Director and KCH Security Department.

Housekeeping & Waste Disposal

Contractor employees are expected to maintain an orderly and safe jobsite. Daily cleanup of the jobsites is required. Temporary storage of construction waste can not exceed 50 Cubic feet of materials.

Keep floors and walkways clear by cleaning up spilled liquids, and keeping cords and other obstacles out of the way of pedestrian

traffic. Continually sweep and mop as necessary per requirements in the infection control risk assessment/permit. Remove construction debris daily in the following manner: during transport of materials, both in and out of the facility ensure they are properly secured and covered, ensure all dump carts (including wheels) are cleaned up prior to entering patient care areas. Transport of materials in and out of work areas should occur at the beginning and end of shifts whenever possible. **NEVER** clean up an unidentified spill; notify housekeeping immediately if you believe there may be a hazardous (body fluid) or chemical spill.

All entry ways need sticky mats, sticky mats need to be changed frequently and upon the discovery that the sticky mats are no longer sticky. Contractors are responsible for their own waste hauling receptacles. Reference Hawaii County waste hauling guidelines and separation of solid wastes. Contractors are responsible for removing and disposing of their hazardous waste via a certified hazardous waste hauler. A manifest is required for disposal and evidence to KCH the waste was disposed of properly.





Hot Work Permits

Any work that involves use of an open flame, such as torch smoldering, welding, grinding or cutting requires a Hot Work Permit. To obtain a hot work permit the welding/cutting equipment and the individuals performing the work must be on the job site. A serviceable 10 pound ABC fire extinguisher must be at each location. Please contact the Facilities Director to request a Hot Work Permit. Example of permit is located on page 43-44.

An individual will be dispatched to issue the permit.

Torches: No Liquefied Petroleum Gas, Mapp Gas or oxygen acetylene bottles over 5 lbs of volume are allowed in the facility.

Smoke detectors will require a manufacturers cover to be applied during work & cover will be removed after the project is completed for the day. A Interim Life Safety Deficiency Form must be created. See attached form and policy on pages 46 - 47.

Fire Sprinkler Heads: Must be protected when working within 4 feet of a head. Contact the Facilities Director.

If the fire sprinkler is impaired an Interim Safety Life Measure (page 46 - 47) must be created.

Smoke detectors: The following procedures apply:

- 1. Use a zip lock bag and cut the bottom of the bag off.
- 2. Use blue painter's tape to secure the bottom of the zip lock bag to the base of smoke detector. **Bag must be dated and contractors name listed.**
- 3. At the start of each shift the zip lock bag is closed and at the end of the shift the bag either removed or the zip lock is opened.

NOTE: Hot Work Permits CAN NOT be issued if fire suppression systems are not functional. If hot work must be performed a fire watch is required.

A fire watch is defined as:

- 1. The assignment of a person or persons to the area for the express purpose of notifying the Fire Department, the building occupants, or both, of an emergency.
- 2. Preventing a fire from happening.
- 3. Extinguishing small fires.
- 4. Protecting the public from fire or life safety dangers.

This/ these personnel must be specially trained in fire prevention techniques, and they should understand the particular fire safety situation. All fire watch(es) must be coordinated prior to the event with the Facilities Director.

Fire Blankets/Welding Pads/Smoke Eaters: May be required depending on the area that work is being performed in.

Infection Control Permits

Infection Control is taken very seriously and applies to all areas of the KCH facility. It applies both to how construction projects affect our patients as well as how our patients and the environment affect you. To ensure we are providing a safe healing environment for our patients and staff the following requirements shall be strictly followed:

You will be required to obtain an Infection Control Permit from Maintenance prior to performing construction related tasks within all patient care, laboratory or any other areas where the services rendered are directly related to patient care. There are four types of construction that are associated with four risk levels. This information defines the criteria for an Infection Control Permit.

You may <u>not</u> begin your work until the appropriate authorization has been completed and the permit is posted at/near the entrance of the worksite. Posting of this permit is required over the construction period. Please see Facilities Director to determine if a permit is required for your tasks.

All Infection Control requirements will be followed at all times as defined by the Infection Control Permit. Daily Infection Control compliance surveys will be completed by KCH maintenance staff. If at any time contractors are not meeting infection control risk assessment/permit requirements the job site can be shut down until the proper requirements are satisfactorily met. Repeat offenses can result in KCH stopping contractors work on the project. Example of Infection Control Risk Assessment and permit can be viewed on pages 37 - 40.

Dust Containment:

Negative Air Machines with HEPA filters are required in all construction areas.

- ▲ Sticky mats must be placed outside of the construction area and changed frequently.
- Plastic zip wall and/or temporary barriers must be in place prior to start of project.
- ▲ Coveralls must be worn over any soiled/contaminated clothing.
- ▲ Dusty or contaminated shoes must be covered with paper booties.
- ▲ Appropriate PPE and/or jumpsuits/scrubs will be used when entering "clean or sterile" work areas such as OR suites.
- ♠ All negative air exhaust shall be exhausted outside of the building unless circumstances deem this impossible/unreasonable.
 Discharge of exhaust air within the facility is a last resort and must be pre-approved by the Facilities & Infection Prevention Directors.
- ▲ Discharge of negative air exhaust into the hospital HVAC system is strictly prohibited.
- ▲ You may inspect ceiling spaces by removing one 2x2 tile or one 2x4 tile. If multiple tiles removed or any work is completed a containment unit (ie: Aire Guardian) and ladder permit (example page 42) must be in place. You are responsible for immediate clean up of any debris resulting in tile removal.

Dust Contamination:

- ▲ HEPA filters and pre-filters will be supplied by the contractor. A written log must be kept with the contractor owned air scrubber. Pre filters must be changed when visually dirty and at the beginning of each new project.
- ▲ Discharge of exhaust is required and must be pre-approved by the Facilities and Infection Control Directors.





Fire and Smoke Barrier Penetration Permits

All fire and smoke barriers must be sealed as specified in the construction documents. When working within KCH any cutting, opening, or otherwise penetrating **ANY** wall requires a wall penetration permit (Example on page 41) from the Maintenance Department. Never penetrate any walls without coordinating with the Facilities Director to obtain a permit.

Dig Permits

Prior to beginning excavation, a utility line locator firm shall be employed to physically locate the utility lines in order to avoid unplanned outages that can result from accidental damage.

No Digging may take place with out the direct involvement of the Facilities Director.

To begin a project that requires digging, call the utility line locater that is responsible for your work area to ask for the location and voltage of underground utility lines and tell them where and when you are working in that area.

Advise co-workers before you start digging and mark on your blueprints or plan the exact location of the utility lines. Then place warning signs along the route, if they are not already posted.

Protect your self by working with another person who can be a spotter or signaler, and can call for assistance in an emergency. Always keep equipment, workers, materials well outside the minimum safety distance.

If a power line has been severed, have someone call the KCH Maintenance Department immediately to shut off the electricity. If you are sitting on earth-moving or other riding equipment, stay on the equipment—don't attempt to jump off unless the machine is on fire and your life is in immediate danger.

Move the equipment away from the power source if it is at all possible. Keep others away from the accident, don't let anyone attempt to attach a winch line or approach the machinery in any way.

Security of Doors

Every individual is responsible for ensuring the job site and facility is secure.

- ▲ Do not allow another person to "tailgate" through badge entry door. If that person should have access they will have badge access.
- ▲ Do not leave doors unlocked or prop open locked doors.
- Ensure all doors are again secured when you exit.

Weekly Safety Meeting

All contractors are required to have a weekly safety meeting and documentation of meeting highlighting different OSHA standards and guidelines. The presenter needs to have the 30 hour OSHA safety training and provide documentation to KCH of completion prior to commencement of work.



Ladder Safety

Contractors must follow OSHA guidelines 3124-12R-2003. Example of permit on page 42

Electrical Safety

All power tools must be UL approved and have a three prong grounded plug. Two prong plugs are not permitted. No three receptacle cord adaptors are allowed. Limit extension cords. No plug strip to plug strip power extenders. Manage cords safely in corridors and use approved cord covers. No extension cords or power tool cords can be repaired with electrical tape if frayed. A new cord or cord end must be installed. Lock out / Tag out procedures shall be followed per OSHA guidelines 23 CPR 1910.147. Consult with Facilities Director for KCH specific guidelines. Lock out / Tag out is not only applicable to electric work it is also applicable to plumbing, medgas, vacuums, reheat, steam, and chilled water systems.

Red Receptacle Outlets

Red receptacle outlets are located throughout KCH and are not to be used by contractors.

These red receptacle outlets are connected to the emergency power systems and will provide power even during an outage. Red receptacle outlets are not to be used for non-emergencies. Never unplug equipment from red receptacle outlets as they are used for critical patient care equipment only.

Emergency Preparedness

Kona Community Hospital requires that all employees and contractor employees must be familiar with the basic requirements of the Emergency Plans before they begin work.

Reporting an Emergency

To report an emergency at Kona Community Hospital please call the Hospital Operator at 322-9311 or dial 0 from hospital phone.

Emergency Response

In the event that emergency procedures are announced (Page Codes) check immediately with your Supervisor or the nearest KCH staff member to ask what is expected in this situation. You may be asked to leave the area.

Page Codes

Kona Community Hospital uses a color code system to notify employees, vendors and contractor employees of emergency situations. These codes will be given verbally over the public address system. These codes are:

For example, if there is a fire, there will be a page over the public address system stating: "Code Red" followed by the location.

If employees wait until an emergency is actually occurring before attempting to determine what is expected of them they may be too late because time is a very valuable commodity during an emergency.

Code Black	Severe Weather
Code Blue	Cardiac Arrest/Medical Emergency
Code Gray	Security Assistance
Code Green	Bomb Threat
Code Orange	Hazmat/ Bioterrorism
Code Pink	Infant Abduction
Code Red	Fire
Code Silver	Adult Elopement
Code Active Shooter	Active Shooter
Code Triage	Disaster Activation

Code Red—Fire Plan

Everyone working in Kona Community Hospital must always be aware of the locations of the nearest fire alarm pull station, the nearest fire extinguisher and the nearest exit.

When the fire alarm sounds everyone needs to leave the building.

R.A.C.E

R - Rescue

Rescue anyone in danger. Protecting of life is paramount.

A - Activate

Activate the nearest fire alarm station by pulling down the lever.

Dial # 40 on telephone handset and announce loudly 3 times "Code Red and location of fire (example code red electrical room first floor)". Assist others who may need assistance.

<u>C</u> - Confine

Close all doors, windows or openings in the room or corridor area where smoke and/or fire are present to isolate the condition.

Remember that smoke is also very dangerous, many victims of fires succumb to smoke.

If a closed door is hot, this may mean that there is fire on the other side. DO NOT OPEN a hot door.

<u>E - Extinguish</u>: Secure fire extinguishers for use.

Fire extinguishers may be used only for small fires that are getting started, do not attempt to use a fire extinguisher on a fire that is too large or dangerous.

Only the respiratory therapy department or nursing may turn off medical gasses.

If you elect to extinguish the fire remember:

When using a fire extinguisher, remember the word "P.A.S.S". Each letter represents a step for using the fire extinguisher.

- **P– Pull** the pin from the fire extinguisher.
- **A– Aim** the hose at the base of the fire.
- **S- Squeeze** the handle (lasts 20 seconds)
- **S- Sweep** from side to side.

Evacuation—General Guidelines

- ♠ Keep Calm
- ▲ Leave lights on
- ▲ Do not use elevators (unless directed by Fire Dept.)
- ▲ Do not use telephones (unless directed by Fire Dept.)
- ▲ Keep all corridors clear at all times.
- ▲ Do not block the fire extinguishers or fire hoses.
- ▲ Do not block or lock any designated exits
- ▲ Know the location of fire extinguishers and pull stations.

Fire Safety General Guidelines—<u>DO</u>

- ♠ Obtain a Hot Work Permit prior to performing any hot work, including welding, soldering, torch cutting, or any work using an open flame.
- ▲ Participate in fire drills.
- ▲ Follow Interim Life Safety Measures (ILSM's) implemented due to construction. Refer to attached policy (page 46)
- Place ceiling tiles back in place when completed with above ceiling.
- Protect penetrations through fire rated walls in accordance with UL System requirements.

Fire Safety General Guidelines—DON'T

- ▲ Do not remove or tamper with any fire protection or life safety equipment, including: smoke detectors, fire alarm speaker/strobes, fire alarm pull stations, fire sprinklers, and fire extinguishers
- ▲ Do not prop open fire rated or smoke barrier doors, especially stairwell doors.
- ▲ Do not tamper with the latch on fire rated doors (to prevent the door from latching).
- ♠ Do not store equipment or supplies in the corridor or the stairwells.
- ▲ Do not block any exit or egress.

Hazardous Materials

Materials in use in Kona Community Hospital:

Hazardous Materials are present and in use at KCH. These chemicals may include flammables, toxics, corrosives, biohazards or radioactive. Safety Data Sheets (SDS) for these chemicals are available through the SDS line located on a label affixed to every KCH phone.

Read all warning labels carefully. If the warning label is missing from a suspected hazardous chemical, notify a Supervisor or the Facilities Director.

Chemicals Brought by Contractor:

Safety Data Sheets (SDS) must be submitted to the Facilities Director for approval. All chemicals must be labeled in accordance with 29 CFR 1910.1200 (Hazard Communication).

Hazardous Material Spills:

If you discover a spill believed to be hazardous or questionable, contact:

▲ Housekeeping at 322-4521.

In addition, notify your supervisor and the Facilities Director.

Exposure to Human Blood or Body Fluids

The OSHA Blood Borne Pathogen Standard (1992) is to protect workers that have a reasonable anticipated risk of an occupational blood or body fluid exposure on their job. Typically contractors do not fall into this category however anyone working with in a healthcare facility can be at risk for blood and body fluid exposure. Some of the potential blood borne disease includes HIV and Hepatitis.

Needles and other sharp instruments are used throughout KCH and patient blood and body fluids are transported throughout the campus. Our expectation is that these are contained appropriately; however, exposures can still occur and KCH has developed a plan of action to address any exposure that does occur.

Contractors experiencing an exposure such as being pricked by a "sharp" or splashed (eyes, mouth, or skin) by body fluids while on the KCH campus, should immediately stop what you are doing and wash the area thoroughly with soap and water. Proceed directly to the KCH Emergency Department for a post exposure work up. Time is very important with exposure injuries so **DO NOT DELAY** in reporting injury and seeking evaluation in the Emergency Room. The incident must also be reported to your supervisor by the end of the shift.



Noise and Vibration

Noise and vibration can have severe impact on our patients and their ability to heal, staff ability to provide safe and proper care and KCH's ability to provide a harm free work environment for our employees.

All construction activities resulting in potential harmful noise levels will be pre authorized by the Facilities Director and communicated prior to the beginning work with unit managers that may be impacted by the noise/vibrations. If excessive noise levels are reported the construction work will be halted and alternative construction methods or noise barriers will be required.

Medical Equipment

Medical Equipment such as ventilators and heart monitors are found throughout KCH.

Only authorized individuals may operate or change settings on medical equipment. Contractor employees involved in construction are not authorized to operate, move, or change settings on any medical equipment. All issues regarding medical equipment must be referred to nursing staff or the Facilities Director. **Never unplug equipment that** is plugged into a RED outlet.

Utility Systems

Kona Community Hospital depends on uninterrupted delivery of utilities to operate equipment that is crucial to daily operations. Any utility shutdown must be coordinated with the Facilities Director to avoid interruption of any utility service. **NO contractor shall turn off** any valve, circuit or switch.

English Proficiency Guidelines

For safety and general information purposes, contract workers with limited English proficiency shall be assigned within close proximity to contract workers that have a fluency in English.

Confined Space

Many workplaces contain spaces that are considered "confined" because their configurations hinder the activities of employees who must enter, work in, and exit them. A confined space has limited or restricted means for entry or exit, and it is not designed for continuous human occupancy. Confined spaces include, but are not limited to underground vaults, tanks, storage bins, manholes, pits, silos, process vessels, and pipelines. Contractors must follow the OSHA guideline standard for Confined Space 1940.146 subpart A, B, C, D, E and F. A confined entry permit must be approved by the Facilities Director, as well as, 48 hours prior notice of the confined space being entered.

Signage

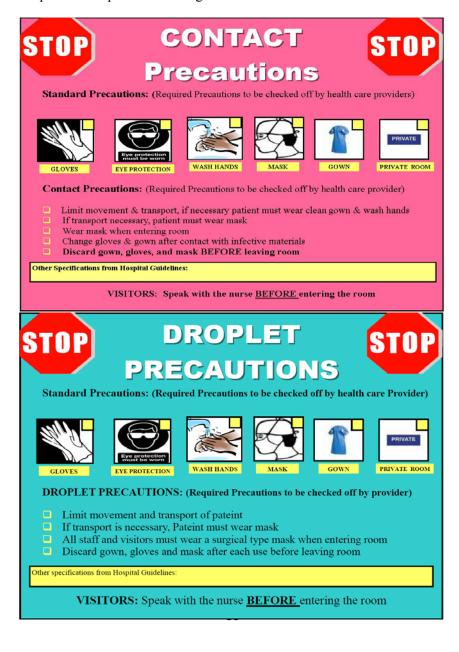
Kona Community Hospital maintains signage in the buildings. Construction or renovation contractors, however, must ensure that proper signage remains posted as facilities are modified or new construction is added.

Infection Control Containment Systems

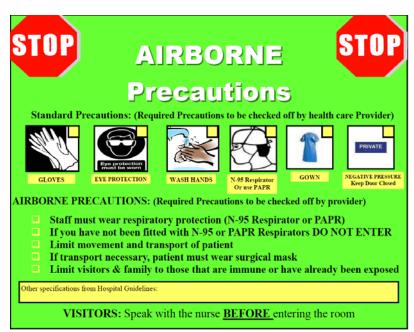
Containment units such as Aire Guardian, Hepacart and Zip Wall Systems are the responsibility of the contractor to procure and maintain. The plastic vinyl sheeting used on the containment units must be flame resistant and UL labeled to support flammability standards. The contractor is responsible for the proper use, setup, and the disinfection of the cubes daily and more frequently if needed and required by the infection control risk assessment/permit. Primary filtration on HEPA units must be replaced as needed when observed to be clogged or dirty. HEPA filters are to be changed every 2 years or as needed. Record keeping is required on filter change outs.

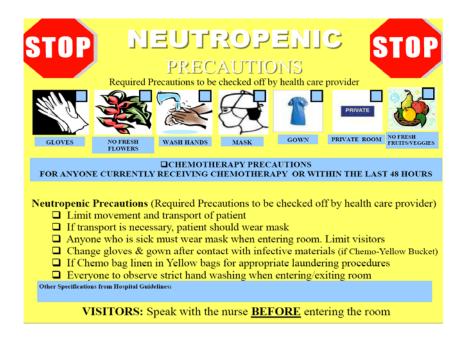


The following five Infection Control Isolation Signs are used in the facility to indicate serious and potentially infectious conditions. Personal Protective Equipment and specific disinfection procedures are REQUIRED to enter/exit these areas safely. You MUST work with nursing on appropriate procedures prior to entering these rooms.









<u> 140tes</u>			

Notos

INFECTION CONTROL RISK ASSESSMENT Matrix of Precautions for Construction and Renovation

STEP ON Using the Activity	e following table identify: Type of Construction Project						
Type A	Inspection and Non-invasive Activities						
	Includes, but not limited to:						
	Removal of ceiling tiles for visual inspection-limited to 1 tile per 50 square feet. Painting, but not sanding; and wall covering, electrical trim work, minor plumbing, and activities that do not generate dust, require cutting of walls or access to ceilings other than for visual inspection.						
Type B	Small Scale, Short Duration Activities that Create Minimal Dust						
	Includes, but not limited to:						
	Installation of telephone and computer cabling; access to chase spaces; and cutting of walls or ceiling where dust						
	migration can be controlled.						
Type C	Work that Generates a Moderate to High Level of Dust or Requires Demolition or Removal of Any Fixed-Building Components or Assemblies Includes, but not limited to:						
	Sanding of walls for painting or wall covering; removal of floor coverings, ceiling tiles, and casework; new wall construction; minor duct work or electrical work above ceilings; major cabling activities and any activity that cannot be completed within a single work shift.						
Type D	Major Demolition and Construction Projects						
	Includes, but not limited to:						
	Activities that require consecutive work shifts;						
	Requires heavy demolition or removal of a complete cabling system; and new construction.						

STEP TWO:

Using the following tables identify: Patient Risk Groups that will be affected. If more than one group select the higher risk group.

LOW RISK	MEDIUM RISK	HIGH RISK	HIGHEST RISK
Office Areas	Cardiology Echo– Cardiography Endoscopy	Critical Care Emergency Dept Labor & Delivery Newborn Nursery	Any area caring for Immuno compromised Burn Units Cardiac Cath Lab Oncology
	Nuclear Med Rehab Therapy	Laboratory Surgery Pharmacy	Central Sterile Supply Intensive Care Units Medical Units
	Radiology/MRI Respiratory Therapy	Pediatrics Post Anesthesia Care Unit Surgical Units	Negative pressure isolation rooms Operating rooms C-Section rooms

STEP THREE:

Match:

Construction Project Type – A, B, C or D

Patient Risk Groups - Low, Medium, High or Highest

Class of Precautions

I, II, III, or IV will determine the level of infection control activities required for your construction project.

Class I-IV or Color-coded Precautions

IC Matrix—Class of Precautions Construction Project by Patient Risk						
PATIENT RISK GROUP	CONSTRUCTION PROJECT TYPE					
	Type A Type B Type C Type D					
LOW Risk	T I	П	Ш	III/IV		
MEDIUM Risk	_	=	≡	IV		
HIGH Risk		=	III/IV	IV		
HIGHEST Risk	I	III/IV	III/IV	IV		

	During Construction Project Upon Completion of Project						
Class I	Execute work by methods to minimize di Immediately replace a ceiling tile displace	·					
Class II	Provide active means to prevent airborne dust from dispersing into air. Water mist work area to control dust while cutting. Seal unused doors with duct tape. Isolate & seal air vents. Place sticky mat at entrance & exit of work area. Remove or isolate HVAC system in areas where work is being performed.	Wipe all surfaces with disinfectant. Contain construction waste & transport in tightly covered containers. Wet mop &/or vacuum with a HEPA filtered vacuum prior to leaving work area. Clean & disinfect containment units. Remove isolation of HVAC system in areas that work is being performed.					
Class	Isolate HVAC to prevent contamination of duct system. Construct critical barriers (sheet rock, plywood, zip wall) sealing area or implement containment unit with HEPA filtration prior to start of project. Maintain negative air pressure at work site with HEPA air-filtration. Contain construction waste & equipment before transport in tightly covered containers. Cover transport container or carts & tape covering, unless solid cover.	Do not remove barriers from area until completed project is inspected by Maintenance or Infection Control & is thoroughly cleaned by Environmental Services. Remove barrier material carefully after wiped with disinfectant to minimize the spread of construction dirt & debris. Vacuum area with HEPA filtered vacuum. Wet mop area with disinfectant. Remove isolation of HVAC system in work areas. Disinfect containment units.					
Class IV	Isolate HVAC to prevent contamination of duct system. Construct critical barriers (sheet rock, plywood, zip wall) sealing area or implement containment unit with HEPA filtration prior to start of project. Maintain negative air pressure at work Site with HEPA air-filtration. Seal holes pipes/conduits & punctures properly. Construct anteroom all workers pass through to be vacuumed off using HEPA vacuum before exiting area, or they must wear jumpsuits that are removed each time they exit work site. Shoe covers required when entering work site & must be changed each time worker exits area. Do not remove barriers from area until completed project is inspected by Maintenance or Infection Control & thoroughly cleaned by Environmensual Services.	Remove barrier material carefully after wiped with disinfectant to minimize the spreading of construction dirt & debris. Contain construction waste & transport in tightly covered containers. Cover transport receptacle or cart & tape covering, unless solid cover. Vacuum work area with HEPA filtered vacuum & wet mop area with disinfectant. Remove isolation of HVAC system in areas where work is being performed. Clean & disinfect containment units.					

INFECTION CONTROL CONSTRUCTION PERMIT							
Locat	ion of	Co	onstruction:	Perr	nit	No.:	
Project Coordinator:			P	roje	ct St	tart Date:	
Contr	Contractor Performing Work: Est. Time of Completion:			of Completion:			
Super	visor:		Telephone:	P	erm	nit Ex	piration Date:
YES	NO		CONSTRUCTION ACTIVITY	YES		NO	RISK GROUP
		7	YPE A Inspection, non-				GROUP 1 Low Risk
		Ľ	nvasive				
			YPE B Small scale short				GROUP 2 Medium Risk
		·	luration minimal dust		4		
			YPE C Mod/high dust,				GROUP 3 Medium/High Risk
		_	nultiple shifts demolition. YPE D Major demolition		+		GROUP 4: Highest Risk
			construction multiple shift				GROUP 4. Highest Risk
				ction o	per	ation	s. Immediately replace ceiling
CLAS	SI		tiles displaced for visual ins				
CLAS	Provides active means to prevent airborne dust from dispersing into air. Water mist work surfaces to control dust while cutting. Seal unused doors Block off & seal air vents. Wipe surfaces with disinfectant. Contain construction waste for transport in tightly covered containers. Wet mop &/or vacuum with HEPA filtered vacuum prior to leaving area. Place stick mat at entrance & exit. Isolate HVAC to prevent containment of duct system. Construct containment barriers. Clean containment cubicles dail				while cutting. Seal unused doors. with disinfectant. Contain covered containers. Wet mop perior to leaving area. Place sticky revent contamination of duct		
	Block HVAC prevent contamination of duct system. Construct containment barriers. Negative air pressure & HEPA air-filtration. Do not remove barrier until project inspected & cleaned. Vacuum with HEPA filters & we mop with disinfectant. Remove barrier minimizing spread of dirt & debris. Contain waste before transport in tightly covered carts & tape covering if not secure. Clean containment units & disinfect daily.				r-filtration. Do not remove Vacuum with HEPA filters & wet himizing spread of dirt & debris. overed carts & tape covering if		
Block HVAC prevent contamination of duct system. Construct containment barriers. Negative air pressure & HEPA air-filtration. Seal holes, pipes, conduits, & punctures. Construct anteroom all workers pass through to be vacuumed off with HEPA vacuum prior to exiting, or can wear jumpsuit that is removed each time they exit work site. When entering work site shoe Covers required. Barriers remain up until project is inspected & thoroughly cleaned by ES. Vacuum area with HEPA filtered vacuum & wet mop with disinfectant. Remove barrier minimizing spread of dirt and debris. Contain waste before transport in tightly covered carts & tape covering if not secure. Clean containment units & disinfect daily.							
Addit	ional F	Red	quirements:				
Date: Initials:			ar			and/or additions to this permit by attached memoranda. Initials	
Permi	Permit Requested By: Date:					it Aut	thorized By: Date:

F ii d a F	FIRE OR SMOKE BARRIER PENETRATION PERMIT ContractorIn House WorkDate Issued: Penetration Permit is required for work that will, or has potential to; disrupt the integrity of any floor, wall or ceiling which serves as a smoke or fire barrier by drilling, cutting, boring, destruction or other means. PERMIT must be completed if a Work Permit has been requested which includes penetration. Permit MUST be signed by the Facilities staff PRIOR to the ceiling tiles being replaced. Failure to return this signed permit may prohibit payment until you are in compliance with this policy.						
T	his permit MUST be post Briefly Descri						
	Briefly Describe Scope of Work and provide a time table: Type of Penetration Location Purpose Expected Complete Date						
	CRITERIA CONSIDERATIONS Accept						Accept
	Is wall, ceiling or floor a fire or smoke barrier? Does current fire stopping exist or is this a new penetration? Is the fire stop to be used approved by the hospital? Has documented training for the application of fire stop If not smoke/fire barrier, no permit is required Current fire stop material to be evaluated for integrity post re-penetration work To have a proved for this project: If not smoke/fire barrier, no permit is required Outrent fire stop material to be evaluated for integrity post re-penetration work To have a possible fire stop may be used. Fire stop Approved for this project: Any person applying fire stop MUST be trained on application						
	been done? Must review existing plans/ drawings for any concealed hazards? Are UL Specifications available? Attach proper UL Specifications.						
F	TO BE COMPLETED BY FACILITY STAFF APPROVED DENIED Facilities Representative SPECIAL INSTRUCTIONS/CONDITIONS FOR PERMIT: WORK APPROVED (Before Ceiling Tile Replacement)						

COMPLETED PERMIT MUST BE RETURNED TO FACILITIES & POSTED AT WORK SITE. 41

Facilities Representative:______ Date:______ Print

PORTABLE LADDER USE PERMIT

Note: This permit, which mut be accessible during performance of the work, is to be used when performing work from a portable ladder where a fall exposure of 6 feet or greater exisits & an approved conventional fall protection system is not available or creates a greater hazard.

Project & Job Location:	Issue Date:	
FIGURE A JOB LOCATION.	issue Date.	

PORTABLE LADDER USE JUSTIFICATION

SELECT CONTROLS TO BE USED TO REDUCE FALL HAZARD						
Safety Monitor Assigned* 3 Point contact maintained during task						
Secure ladder to fixed object Short Duration Task (less 10 mins)						
Light Duty Task (material being handled weighs less than 5 lbs)						
Use of special instructions (Describe):						
Selection of Special Work Methods:						
APPROVALS						
Prepared By: Print:Sign:Date:						
Approved By: Print:Sign:Date: (Field Work Supervisor)						
Approved By: Print:Sign:Date: (Project Safety Representative)						

UF HOT WORK PERMIT

This Hot Work Permit is required for any operation involving upon flames or producing heat and/or sparks and must be completed by a Competent Hot Work Supervisor (CHWS) and posted at the site. Hot Work includes, but is not limited to: Brazing, Torch Cutting, Grinding, Soldering, and Welding. If the required precautions cannot be met, Hot Work is not permitted.

HOT WOR	K DONE BY		Combustible floors wet down,
CON	FRACTOR		covered with damp sand or fire-
DATE:	WO#		resistant sheets.
			Remove other combustibles where
BUILDING	NAME, BLDG #, ROOM	#, LOCATION	possible. Otherwise protect with
			fire-resistant tarpaulins, screens or
NATURE	OF JOB		shields.
			All wall and floor openings covered.
			Fire-resistant tarpaulins suspended
NAME OF	HOT WORK OPERATOR		beneath elevated hot work.
			Work on walls or ceilings/enclosed equipment
I verify the a	bove location has been exam	ined, the precautions	Construction is noncombustible and without
	he Required Precautions Ch		combustible covering or insulation.
	vent fire, and permission is a		Combustibles on other side of walls
(CHWS)	COMPETENT HOT WOI	KK SUPERVISOR	moved away.
(CITYO)			No danger exists by conduction of heat into
Contact #	Fax #		another room or area
PERMIT	DATE	TIME OAM	Enclosed equipment cleaned of all
REQUEST		OPM	combustibles.
PERMIT	DATE	TIME OAM	Containers purged of flammable liquids
EXPIRES		OPM	and vapors.
SIGNATUR	RE OF CHWS		
			Fire watch/hot work area monitoring.
EH&S App	rough		Fire watch will be provided during and
Erios App	tovat		continuously for 30 minutes after work,
			including during any work breaks.
-			Fire watch is supplied with suitable
nrov	WEED DESCRIPTION	NO CHECK CON	extinguishers.
THE REAL PROPERTY.	JIRED PRECAUTIO	NS CHECKLIST	Fire watch is trained in use of this equipment
Approve	Charles and the contract of th		and in sounding alarm. Fire watch may be required for adjoining
Expiration Notes:	on Date		areas, above and below.
140tes.			Hot work area inspected 30 minutes after
			job is completed.
			Other precautions Taken
	ailable sprinklers, hose d extinguishers are in		Confined space entry permit required.
	t work equipment in g		Area is protected with smoke or heat
	ements within 35ft of		detection.
	mmable liquids, dust,		Ample ventilation to remove smoke/vapor
	deposits removed.	6000 NO.	from work area.
	plosive atmosphere in	area climinated.	Lockout/tagout required.
	ors swept clean of com		Comments:
	mbustible floors wet de		Committee

FAX TO EH&S @352-392-6367 PRIOR TO 8:00AM OF PERMIT REQUEST DATE
This Permit was developed for compliance with:
EH&S HOT WORK SAFETY POLICY UFEHS-SAFE1-07/22/2003

WARNING

HOT WORK IN PROGRESS WATCH FOR FIRE

PART 2

INSTRUCTIONS 1. Person doing Hot Work Indicate time started and post REQUIRED PRECAUTIONS CHECKLIST permit at Hot Work location. Available sprinklers, hose streams After Hot Work, Indicate time completed and leave permit posted for fire watch. and extinguishers are in service. 2. Fire Watch: Prior to leaving area, do final inspection and Hot Work equipment in good repair. sign permit. 3. Return completed permit to Project Manager or Risk WITHIN 35 FEET OF WORK Management before leaving campus. Flammable liquids, dust, lint and oily **HOT WORK BEING DONE BY:** deposits removed. EMPLOYEE Explosive atmosphere in area eliminated. DEPARTMENT Floors swept clean of combustibles. Combustible floors wet down, covered CONTRACTOR with damp sand, metal or fire-resistive SITE FOREMAN tarpaulins. Remove other combustibles or protect with PROJECT MANAGER fire-resistive tarpaulins or metal shields. All wall and floor openings covered. DATE Fire-resistive tarpaulins suspended beneath work to collect sparks. LOCATION / BUILDING & FLOOR **WORK ON WALLS OR CEILINGS** Construction noncombustible and without **NATURE OF JOB** combustible covering. Combustibles moved away from other side of Required safety precautions have been done. WORK ON ENCLOSED EQUIPMENT Equipment cleaned of all combustibles. Signature of responsible person Containers purged of flammable vapors. Permission is given to do this work, provided required precautions have been done. FIRE WATCH SIGNED: (EHS) Fire watch to be provided during and for 60 minutes after work. PERMIT EXPIRES: Fire watch to be provided for 4 hours after DATE TIME work in areas without smoke detection. TIME STARTED: TIME FINISHED: Supplied with suitable extinguishers Trained in the use of equipment and in sounding fire alarm. TIRE WATCH SIGNOFF Fire watch may be required for adjoining ork area and all adjacent areas to which sparks and heat areas above and below. might spread were inspected during the fire watch period OTHER PRECAUTIONS TAKEN and were found fire safe. SIGNED:

WARNING!

HOT WORK IN PROGRESS
WATCH FOR FIRE

IN CASE OF AN EMERGENCY

CALL: CHHANY: 430-2588

ERIC:854-5583

WARNING!

*	Category: Administration	Policy No.: 123-2
Kona Community Hospital	Administration	Revised: Oct 8, 2009
Policies and Procedures	Issued By: Environment of Care	Effective Date: April 17, 2002
Subject: INTERIM LIFE SAFETY	Approved By:	Supersedes Policy:
MEASURES	Assistant Administrator	Page: 1 of 1

PURPOSE:

Interim Life Safety Measures (ILSMs) are required to temporarily compensate for the hazards posed by existing life safety code (LSC) deficiencies or construction activities. ILSM shall apply to all personnel, including construction workers.

POLICY:

Each interim life safety measure must be documented. Implementation of ILSM must begin upon project development, and continuously be enforced through to project completion. Inspection, testing and monitoring and evaluation actions shall be reported monthly at the hospital safety committee meeting. ILSM consists of the actions listed below.

PROCEDURES:

- A. Ensure daily inspection of exits to provide free and unobstructed egress. Personnel shall receive training if alternative exits must be designated.
- B. Ensure free and unobstructed access to emergency department or services, and for emergency forces.
- C. Ensure that fire alarm, detection, and suppression systems are not impaired. Provide a temporary, but equivalent system when any fire system is impaired.
 - Notify the Fire Department and alarm company when the alarm system in not working.
 - Announce every hour: "interim safety measures are in place." After hours, the supervisor notifies all units that ILSMs are in place.
- D. Ensure temporary partitions are smoke-tight and built on noncombustible materials.
- E. Develop and enforcing smoking pollicies and procedures in excess of JCAHO standards. Smoking shall be prohibited in or adjacent to all construction areas.
- F. Develop and enforce storage, housekeeping, and debris removal policies and procedures that reduce the flammable and combustible fire load to the lowest level necessary for daily operations.
- G. Conduct at least two fire drills per shift, per quarter. When temporary systems are in place, inspect, test and document readiness of temporary systems daily.
 - 1. Visually inspect existing sprinklers and extra fire extinguishers daily.
 - 2. Inspect audible system battery-operated smoke detectors daily.
- H. Increase hazard surveillance of buildings, grounds, and equipment with special attention to excavating, construction areas, storage, and field offices.
- Train personnel when structural features of fire safety are compromised, such as compartmentation change.
- J. Conduct organization-wide-safety-education programs to ensure awareness of any LSC deficiencies, construction hazards and ILSMs.

	Life Safety Deficiency - ILSM Decision Matrix Location: Deficiency:												
Location:		_	_										
Assessed By:		_		Ass	essment Date:	Date applicable ILSM initiated (if required):							
Work Order Number:		_											
1			П		_	9 -	13	_		nterim Li	ife Safety Measures		9 2
	ILSM not required. Risk is considered manageable with existing conditions	Emergency forces notification	Fire watch initiated	Signage for alternate exits	Inspect exits on a daily basis	Provide temporary fire alarm and detection systems. Test temporary systems monthly.	Test temporary systems monthly.	Additional fire fighting equipment	Temporary construction barriers	Increased hazard surveillance	Enforce housekeeping, storage and debris removal practices that reduce the fammable and combustible load to the lowest feasible level	Conducting 2 fire drifts per shift per quarter in affected areas	construction hazards, and temporary measures implemented and train those affected.
Protection Deficiencies		1				1 14 1		413	100				
Lacking a code compliant smoke barrier (small hole)									electron and a second				
Lacking a code compliant smoke barrier (large hole)													
Large penetrations in fire barriers													
Small penetrations in fire barriers													
Suspended ceilings do not prevent the passage of smoke in corridors													
Major renovation of an occupied floor													
Significantly modifying smoke or fire barrier walls													
Hazardous areas not properly protected													
Exit Deficiencies Blocking off an approved			Т										
exit									L.				
Egress path width reduced		4 3											
Door Deficiencies						*			ţ,			1.1	
Door does not close or atch													
Door and frame not													
Door does not prevent the bassage of smoke													
Fire Alatm and Sprinkler D	eficiencies									_			
Fire alarm (out-of-service more than 4 hours)													
Sprinkler (out-of-service nore than 4 hours)													
nstalling sprinkler system 1 zone out-of-service)													
Disconnecting alarm device (1 at a time)			I										
Blocked access to the fire department connection													
Other Deficiencies													
Disabat Mall					9								
Blocked Hall dinimal Deliciency-		-	+	7	\dashv		-	_		\vdash			



Kona Community
Hospital
79-1019 Haukapila Street
Kealakekua, HI 96750

Revised January 2016

Contractor Guidelines Confirmation of Understanding

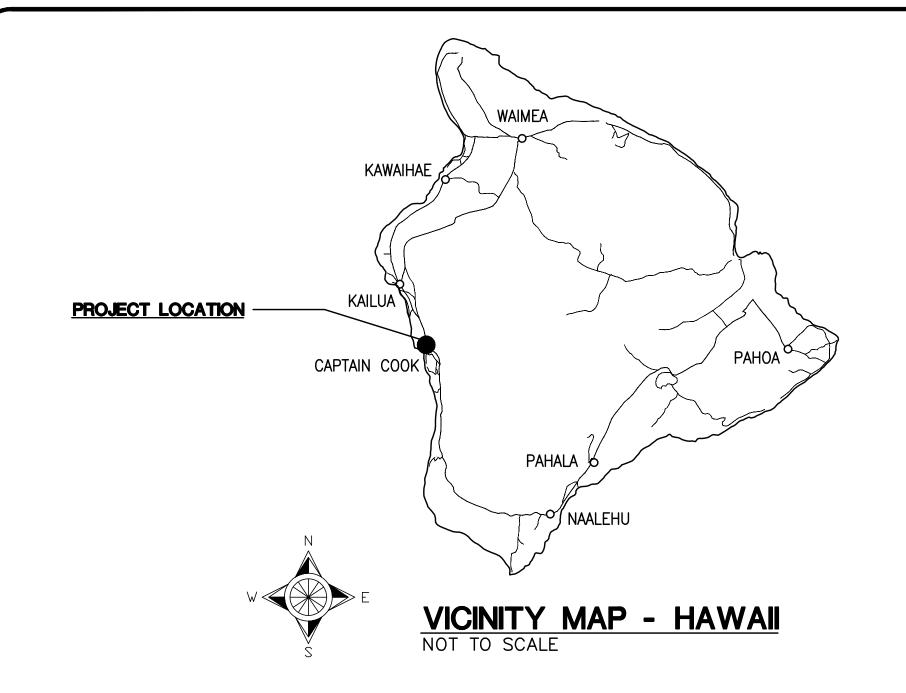
By signing this page, I acknowledge that I:

- a. Have read and understand the contents of the contractor Guidelines Booklet.
- b. Responsible for my safety, and will abide by the safety rules of KCH and my employer.

Name (Print):	
Signature:	Date:
Employer:	
Project Name:	
General Contractor:	

ATTACHMENT 6

ENGINEER'S DRAWINGS



KONA COMMUNITY HOSPITAL LIFE SAFETY BRANCH

79-1019 HAUKAPILA ST.
KEALAKEKUA, HI 96750
KONA, HAWAII
TAX MAP KEY: (3) 7-9-10:081

SHEET INDEX

E-1 LOCATION MAP, VICINITY MAP, NOTES
E-2 ELECTRICAL SITE PLAN - NEW WORK
E-3 ELECTRICAL ROOM FLOOR PLAN & ATS - NEW WORK

E-4 FIRST FLOOR ELECTRICAL PLAN
E-5 SECOND FLOOR ELECTRICAL PLAN
E-6 EXISTING ONE LINE DIAGRAM

E-7 NEW ONE LINE DIAGRAM E-8 PANEL SCHEDULES

SYMBOL LEGEND

- NEW UNDERGROUND DUCTLINES

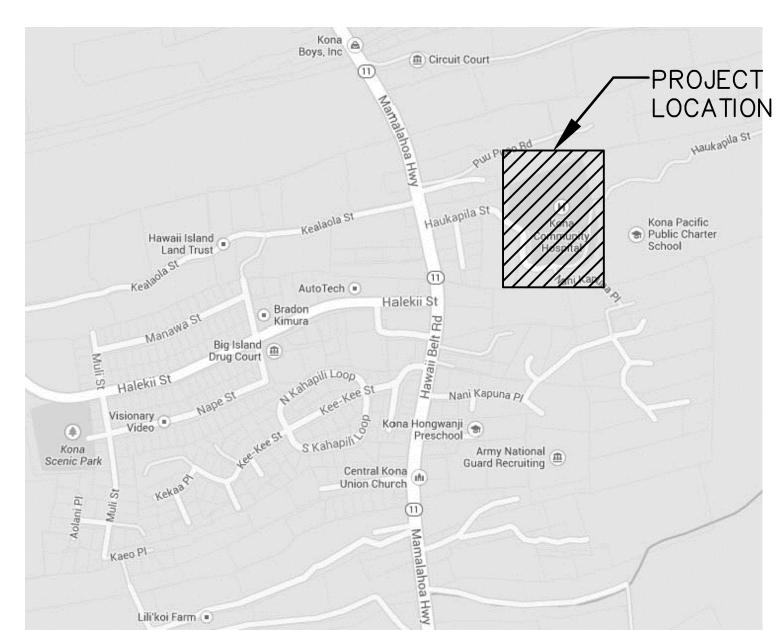
/ EXISTING UNDERGROUND DUCTLINES

HANDHOLE

T TRANSFORMER

LOAD CALCULATION

PRIMARY VOLTAGE: 12.47 SECONDARY VOLTAGE: 480Y/277V PHASES: 3 PHASE LOAD: 1050 KW



LOCATION MAP NOT TO SCALE

COUNTY OF HAWAII KONA, HAWAII



THIS DRAWING IS AN "INSTRUMENT OF SERVICE" BY ECM INC. THIS WORK IS A PART OF AN INTEGRATED PROCESS OF TECHNICAL DESIGN. USE OUTSIDE THIS PROCESS IS INAPPROPRIATE AND TRANSFER OF ITS OBSERVATIONS, CONCLUSIONS, OR METHODOLOGY TO ANY OTHER WORK MAY HAVE SERIOUS CONSEQUENCES.

GENERAL NOTES:

- 1. PROVIDE A COMPLETE AND OPERATING ELECTRICAL SYSTEM. PROVIDE SHALL MEAN "FURNISH AND INSTALL". WORK INCLUDES INSTALLATION OF ALL ELECTRICAL EQUIPMENT AND SYSTEMS, INCLUDING ANY FURNISHED BY OWNER, COMPLETE AND OPERATIONAL TO DOCUMENTS.
- 2. THE CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION PRACTICES AND REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70), NATIONAL ELECTRICAL SAFETY CODE, AMERICAN ELECTRICIANS HANDBOOK BY CROFT EDISON ELECTRIC INSTITUTE, APPLICABLE INSTRUCTIONS OF MANUFACTURERS OF EQUIPMENT AND MATERIALS SUPPLIED FOR THE PROJECT, AND ALL ORDINANCES, RULES AND POLICIES OF THE STATE AND COUNTY IN WHICH THE WORK IS TO BE PERFORMED.
- 3. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL FEES, PERMITS, LICENSES AND INSPECTIONS REQUIRED FOR THIS WORK.
- 4. ALL CONDUIT SHALL BE MINIMUM SIZE 3/4 INCH. EMT SHALL BE USED INDOORS. GALVANIZED RIGID STEEL SHALL BE USED IN EXPOSED OUTDOOR LOCATIONS. PVC MAY BE USED IN OUTDOOR LOCATIONS WHERE NOT SUBJECT TO DAMABE. CONDUIT BELOW GRADE SHALL BE SCHEDULE 80 PVC. TRANSFORM ALL PVC CONDUIT TO RIGID GALVANIZED STEEL BEFORE PENETRATING SLAB.
- 5. FITTINGS FOR EMT CONDUIT SHALL BE COMPRESSION TYPE. SET SCREW FITTINGS SHALL NOT BE ALLOWED.
- 6. CONDUITS SIZES CALLED OUT ON THE DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND MAY BE PURPOSELY OVERSIZED FOR FUTURE CONDUCTORS OR TO AVOID EXCESS CONDUIT HEATING. CONDUIT SIZES NOT CALLED OUT ON THE DRAWINGS SHALL BE SIZED BY THE CONTRACTOR BASED ON THE ACTUAL NUMBER OF CONDUCTORS TO BE INSTALLED, USING THE NATIONAL ELECTRICAL CODE AS A GUIDE. IN NO CASE SHALL CONDUIT SIZES BE SMALLER THAN IS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
- 7. ALL WIRING TO BE THHN COPPER UNLESS NOTED OTHERWISE.
- 8. ALL CIRCUITS SHALL INCLUDE AN INSULATED GREEN GROUNDING CONDUCTOR, SIZED PER TABLE 250—122 AND SECTION 690 OF THE NATIONAL ELECTRICAL CODE. THIS CONDUCTOR SHALL BE CARRIED IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LEGS AND SHALL BE ATTACHED TO THE DEVICE OR EQUIPMENT HOUSING USING A SUITABLE GROUNDING LUG.
- 9. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZING OF THESE BOXES SHALL BE PER THE NATIONAL ELECTRICAL CODE.
- 10. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT FOR TEMPORARY CONSTRUCTION POWER AS REQUIRED.
- 11. THE CONTRACTOR SHALL UPDATE THE CIRCUIT DIRECTORY IN EXISTING ELECTRICAL PANELS TO ACCURATELY REFLECT THE NEW FIELD CONDITIONS.
- 12. THE CONTRACTOR SHALL MAKE ALL REQUIRED WALL PENETRATIONS FOR NEW CONDUIT INSTALLATIONS. ALL PENETRATIONS THROUGH FIRE RATED WALLS AND SLABS SHALL BE SEALED TO MAINTAIN THE INTEGRITY OF THE FIRE RATING USING A U.L. LISTED FIRE RATED SEALANT. 3M OR APPROVED EQUAL.
- 13. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CONTRACTING OFFICER BEFORE MAKING ANY PENETRATIONS THROUGH STRUCTURE MEMBERS OR FIRE RATED WALLS AND SLABS.
- 14. SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, THE CONTRACTOR SHALL MARK SUCH CHANGES ON THE FIELD POSTED DRAWINGS. IF THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE PROPOSED ALTERNATE METHODS TO THE CONTRACTING OFFICER. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION SHALL NOT BE CONSIDERED AN ITEM FOR EXTRA COST.
- 15. PAINT ALL EXPOSED CONDUITS TO MATCH EXISTING ADJACENT SURFACES. PATCH AND PAINT ALL AREAS LEFT EXPOSED AFTER REMOVAL OF EXISTING EQUIPMENT, DEVICES, CONDUIT, AND BOXES.

- 16. ELECTRICAL IDENTIFICATION: ALL SAFETY SWITCHES, PANELS, STAND ALONE CIRCUIT BREAKERS, SWITCHBANKS, AND ALL SWITCHES AT THE SWITCHBANKS SHALL BE IDENTIFIED BY AN ATTACHED NAMEPLATE. NAMEPLATES FOR INDIVIDUAL SAFETY SWITCHES AND CIRCUIT BREAKERS SHALL IDENTIFY CIRCUIT AND PANEL. NAMEPLATES FOR PANELS SHALL IDENTIFY PANEL NAME. NAMEPLATES FOR LIGHT/FAN SWITCHES SHALL IDENTIFY SWITCHING CIRCUIT.
- 1. NAMEPLATES: ENGRAVED THREE LAYER LAMINATED PLASTIC, RED, WHITE LETTERS ON A RED BACKGROUND. 1/8" LETTERING FOR SWITCHES. 1/4" 2. LETTERING FOR PANELS.
- 3. DEGREASE AND CLEAN SURFACES TO RECEIVE NAMEPLATES.
- 4. INSTALL NAMEPLATE PARALLEL TO EQUIPMENT LINES.

NUMBER THEY ARE CONNECTED TO.

OF UTILITY DISCONNECTS.

- 5. SECURE NAMEPLATES TO EQUIPMENT WITH SCREWS OR ADHESIVE.

 EMBOSSED TAPE <u>WILL NOT</u> BE PERMITTED FOR ANY APPLICATION.
- 17. PLAQUE FOR UTILITY DISCONNECT SHALL BE PLACED PER HELCO SPECIFICATIONS.
- 1. PLAQUE AT EACH UTILITY DISCONNECT SHALL IDENTIFY THE HELCO METER
- 2. PLAQUE AT UTILITY METER SHALL CONTAIN A SITE MAP WITH LOCATIONS
- 18. ALL EQUIPMENT AND EQUIPMENT ANCHORS SHALL COMPLY WITH SEISMIC REQUIREMENTS AS REQUIRED PER CALIFORNIA OSHPD SEISMIC ANCHORING. ALL EQUIPMENT ORDERS SHALL BE REVIEWED AND APPROVED BY THE FACILITY MAINTENANCE STAFF, AND SHALL INCLUDE REQUIREMENT FOR OSHPD SEISMIC
- 19. PROVIDE PROTECTION FOR MATERIAL AND EQUIPMENT FROM LOSS, DAMAGE, CORROSION AND EFFECTS OF MOISTURE. REPAIR OR REPLACE DAMAGED ITEMS AT NO ADDITIONAL COST TO THE OWNER.
- 20. VISIT PROJECT SITE PRIOR TO BID SUBMITTAL TO ASCERTAIN CONDITIONS AND COST ALLOWANCES THAT AFFECT THE PROPOSED WORK.
- 21. THE CONTRACTOR SHALL PROVIDE PROVISIONS FOR BACKUP POWER TO THE FACILITY FOR ANY WORK THAT WILL REQUIRE DOWNTIME. ALL UTILITY OUTAGES SHALL BE CLEARED WITH THE FACILITY MANAGER, AND PROPER MEASURES SHALL BE IN PLACE TO ENSURE MINIMAL DOWNTIME IS REQUIRED.
- 22. INSTALL MATERIALS AND EQUIPMENT IN A WORKMANLIKE MANNER AND IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS OTHERWISE SPECIFIED OR DIRECTED BY THE MANUFACTURER.
- 23. MATERIALS AND WORKMANSHIP SUBJECT TO INSPECTION AT ANY TIME BY FACILITY MANAGER OR REPRESENTATIVES. CORRECT ANY WORK OR MATERIALS NOT IN ACCORDANCE WITH DRAWINGS OR FOUND TO BE DEFICIENT OR DEFECTIVE IN A MANNER SATISFACTORY TO THE FACILITY MANAGER AT NO ADDITIONAL COST.
- 24. PROVIDE ALL FIRST QUALITY, NEW MATERIALS, FREE FROM DEFECTS, SUITABLE FOR SPACE PROVIDED, AND APPROVED BY UL WHEREVER STANDARDS HAVE BEEN PROVIDED BY THAT AGENCY.
- 25. CONTRACTOR SHALL PROVIDE A PANEL SCHEDULE FOR ANY NEW PANELS, AND UPDATE EXISTING PANEL SCHEDULES FOR ANY PANELS REVISED DURING THIS WORK.
- 26. COORDINATE SCHEDULE OF CONSTRUCTION WITH THE OWNER, OTHER TRADES, AND UTILITIES INVOLVED BEFORE COMMENCING CONSTRUCTION.
- 27. CONTRACTOR SHALL TONE ALL AREAS PRIOR TO START OF CONSTRUCTION.
- 28. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE DRAWINGS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION. DAMAGE TO THE EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR.
- 29. CONTRACTOR SHALL SUBMIT AN AS-BUILT DRAWING TO OWNER AT COMPLETION OF PROJECT. AS-BUILT DRAWINGS REFER TO DOCUMENTS MAINTAINED AND ANNOTATED BY CONTRACTOR DURING CONSTRUCTION AND INCLUDE RECORD DRAWINGS IN ACCORDANCE WITH CHANGES AND NEW INFORMATION FOR SCHEDULES, LISTS, AND DRAWINGS.

DEMOLITION NOTES:

- 1. THE DEMOLITION DRAWINGS ARE INTENDED TO SHOW THE GENERAL SCOPE OF WORK AND DO NOT NECESSARILY SHOW EVERY DEVICE, BOX, CONDUIT, PANEL, SERVICES THAT MAY BE ENCOUNTERED DURING DEMOLITION AND SHALL REMOVE OR RE—ROUTE THESE ITEMS AS DIRECTED.
- 2. REMOVE ALL UNUSED CONDUIT AND WIRING FROM DEMOLITION AREA, BACK TO THE ELECTRICAL PANEL OR NEXT DEVICE OUTSIDE PROJECT LIMITS, INCLUDING WIRING DISCONNECTED UNDER THIS CONTRACT AND WIRING UNCOVERED BY DEMOLITION.
- 3. REMOVE ALL UNUSED RACEWAY FROM DEMOLITION AREA NOT CONCEALED IN CONCRETE OR PLASTER, INCLUDING RACEWAY DISCONNECTED UNDER THIS CONTRACT AND RACEWAY UNCOVERED BY DEMOLITION.
- 4. MAINTAIN CIRCUIT CONTINUITY AS REQUIRED FOR EQUIPMENT AND DEVICES INDICATED TO REMAIN, INCLUDING THOSE OUTSIDE OF PROJECT LIMITS. COORDINATE WITH NEW WORK AND RE-ROUTE CONDUIT AND WIRE AS REQUIRED TO AVOID CONFLICT WITH
- 5. ALL REMAINING JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE AS PER NATIONAL ELECTRICAL CODE (N.E.C.). THE CONTRACTOR SHALL MOVE EXISTING BOXES ETC. AS REQUIRED BY NEW CONSTRUCTION.
- 6. ALL MATERIALS REMOVED REMAIN THE PROPERTY OF THE STATE. IF THE STATE CHOOSES TO DISCARD THESE MATERIALS THEN THE CONTRACTOR SHALL DISPOSE OF
- 7. ALL DEMOLITION WORK SHALL BE CLEARED WITH THE FACILITY MAINTENANCE DEPARTMENT BEFORE STARTING ANY WORK. ALL CONDUIT, WIRE AND EQUIPMENT SHALL BE ASSUMED LIVE UNTIL OTHERWISE TESTED AND VERIFIED. CONTRACTOR SHALL WORK WITH FACILITY STAFF AND COMPLY WITH ANY LOCKOUT AND TAGOUT PROCEDURES.
- 8. EQUIPMENT LOADS SHALL BE VERIFIED AND TRACED TO VERIFY PROPER HANDLING AND TERMINATION OF DEMOLISHED CIRCUITS.

UNIFORM BUILDING CODE—1991
EDITION—CHAPTER 53
BUILDING ENERGY EFFICIENCY STANDARDS

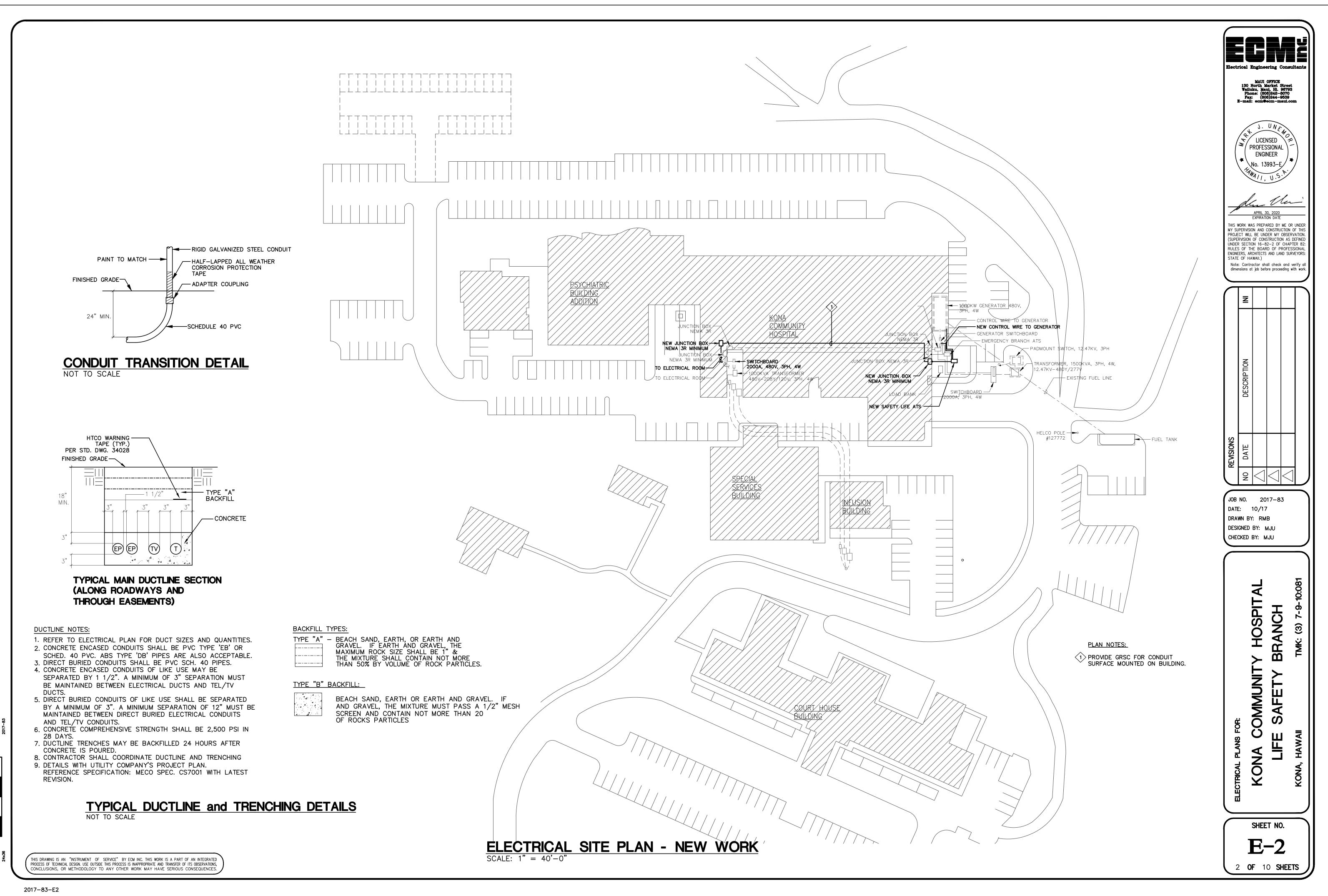
I CERTIFY THAT DESIGN IS IN COMPLIANCE WITH
THE
BUILDING ENERGY EFFICIENCY STANDARDS
PERTAINING
DIVISION 6, LIGHTING

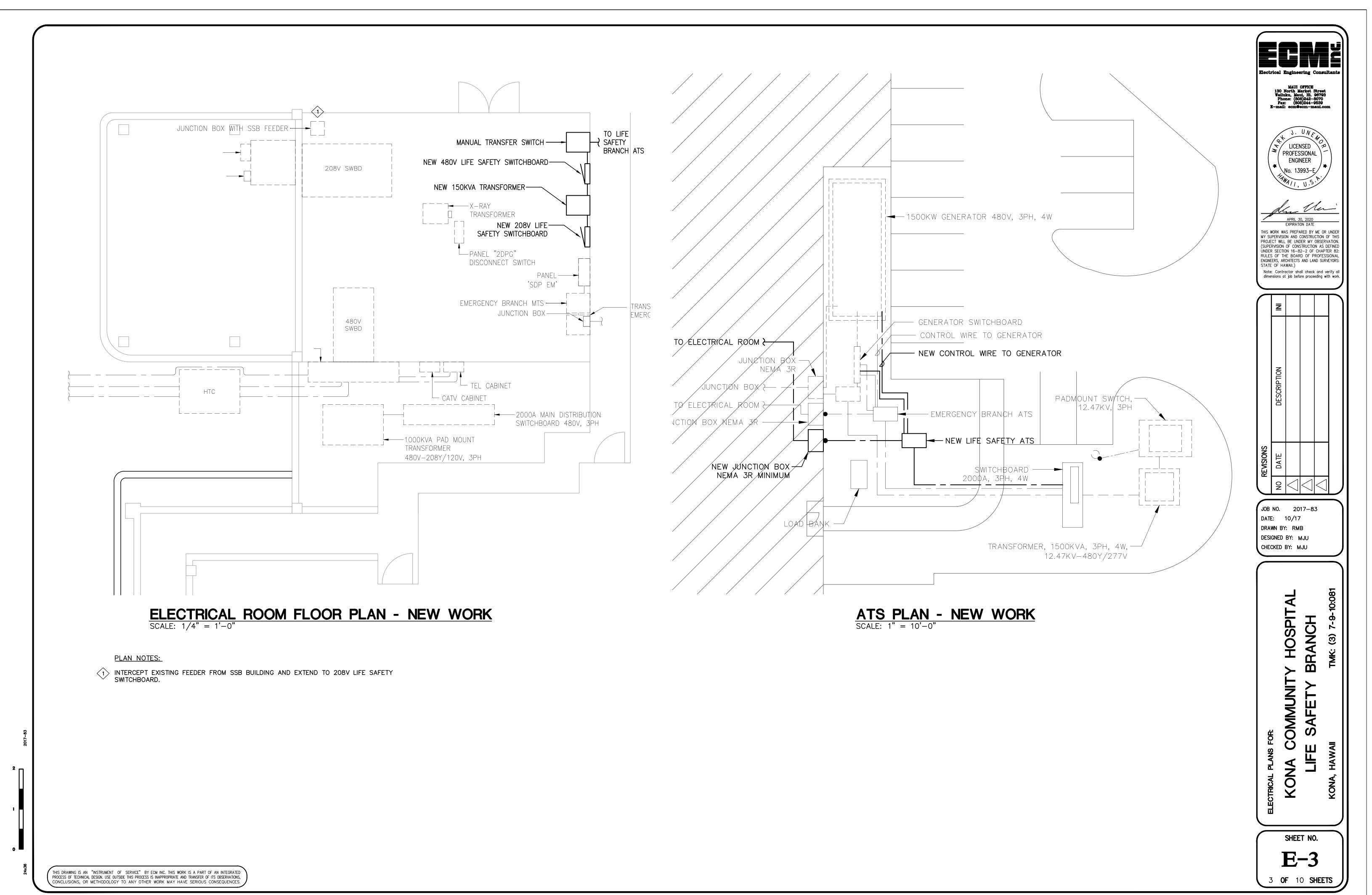
SIGNATURE: 4-12-18

HAWAII COUNTY CODE-CHAPTER 5-BUILDING

NAME: MARK J. UNEMORI LICENSE NO.: 13993—E EXPIRATION: APRIL 30, 2020 SHEET NO. **E-1**1 OF 10 SHEETS

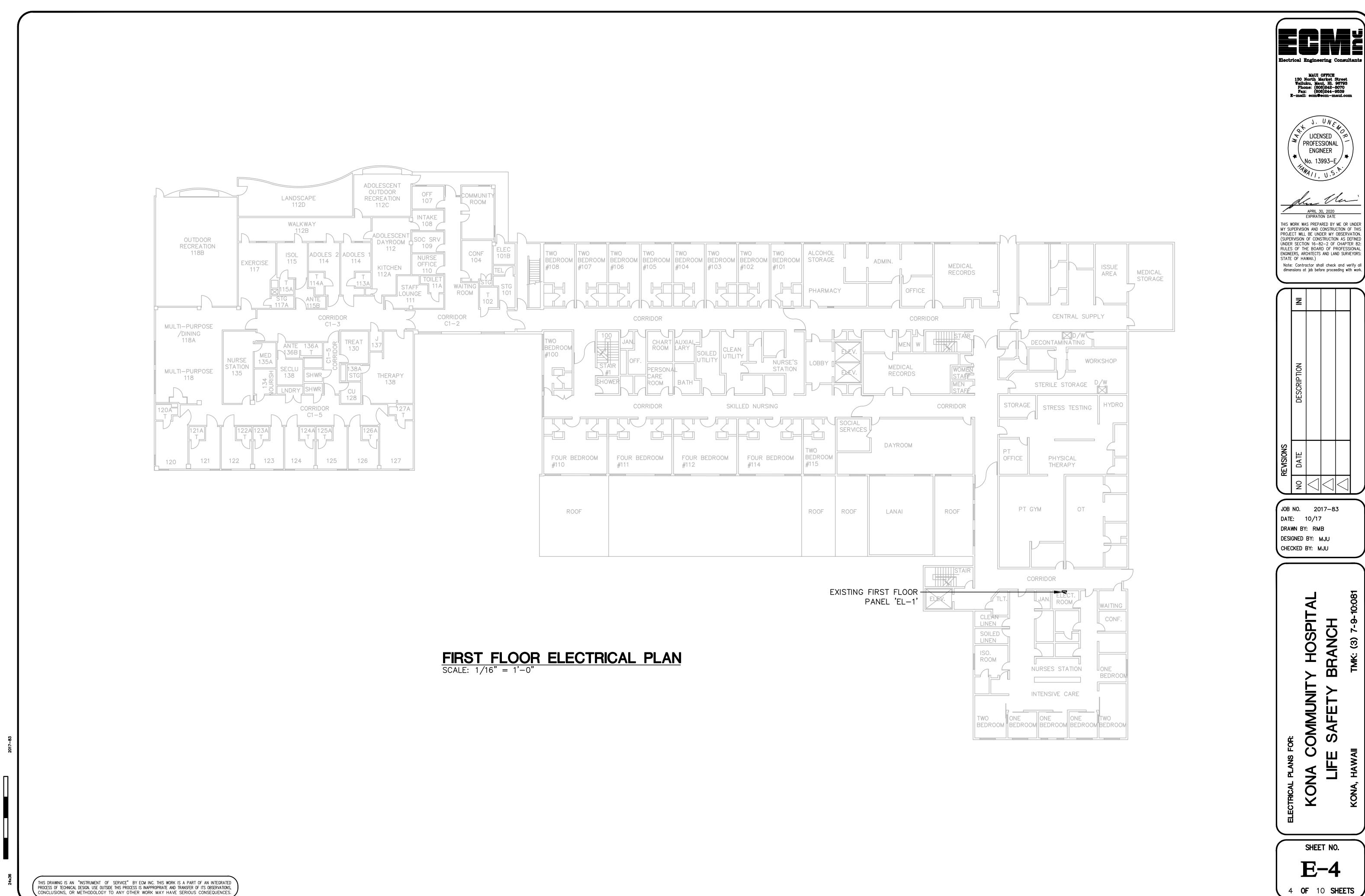
2017-83-T1



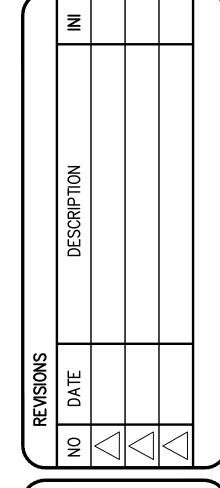


ona Community Hospital Emergency Panel Additional ATS\Drawings\KCH Life Safety Branch\E-3Rdwg.

2017-83-E3

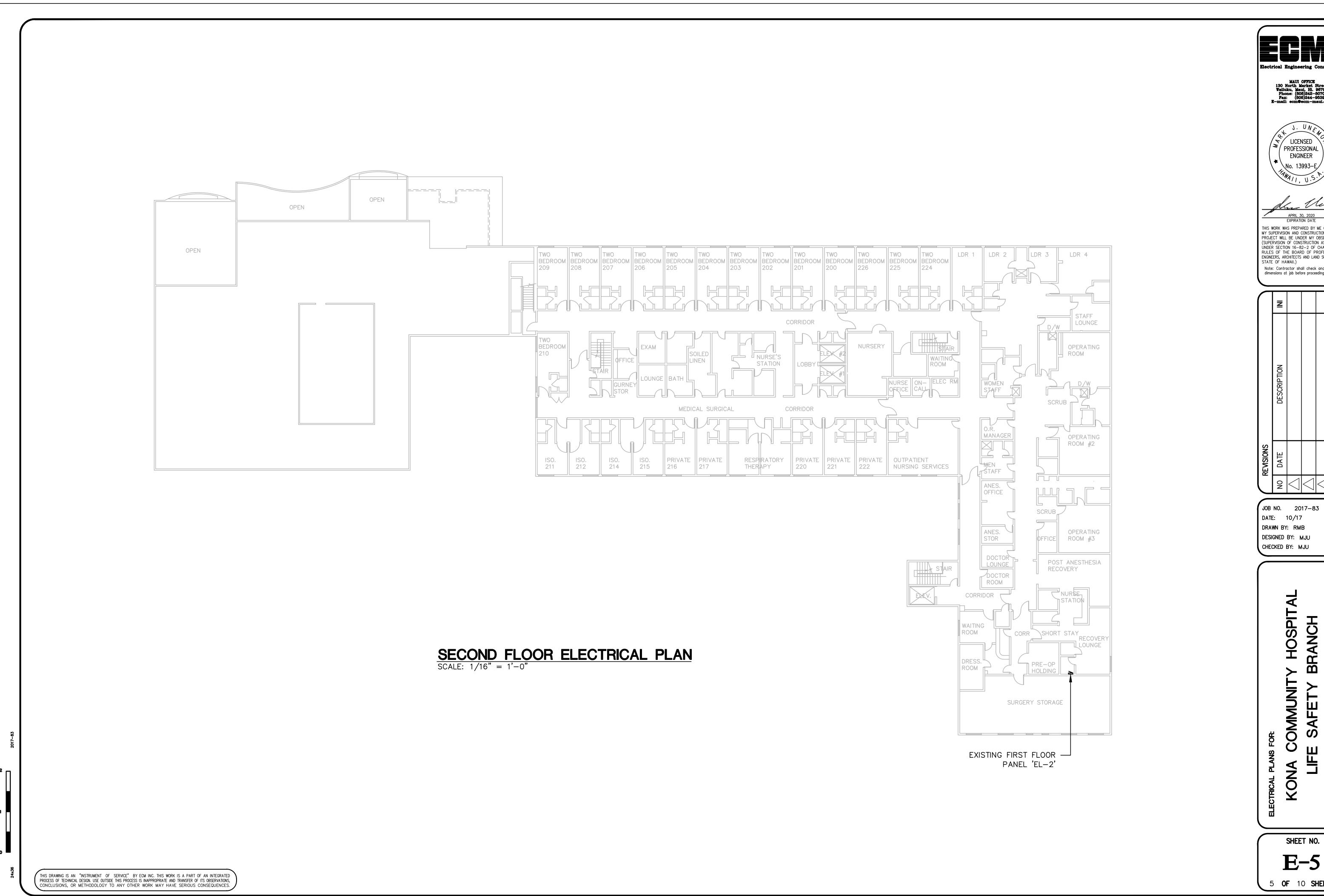


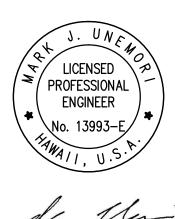
Note: Contractor shall check and verify all dimensions at job before proceeding with work.



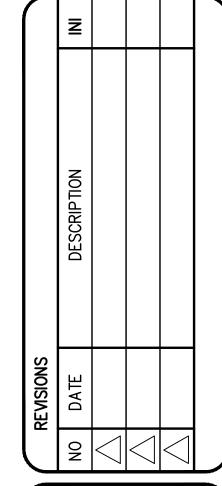
4 **OF** 10 **SHEETS**

2017-83-E4





THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. (SUPERVISION OF CONSTRUCTION AS DEFINED UNDER SECTION 16-82-2 OF CHAPTER 82: RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND LAND SURVEYORS: STATE OF HAWAII.) Note: Contractor shall check and verify all dimensions at job before proceeding with work.



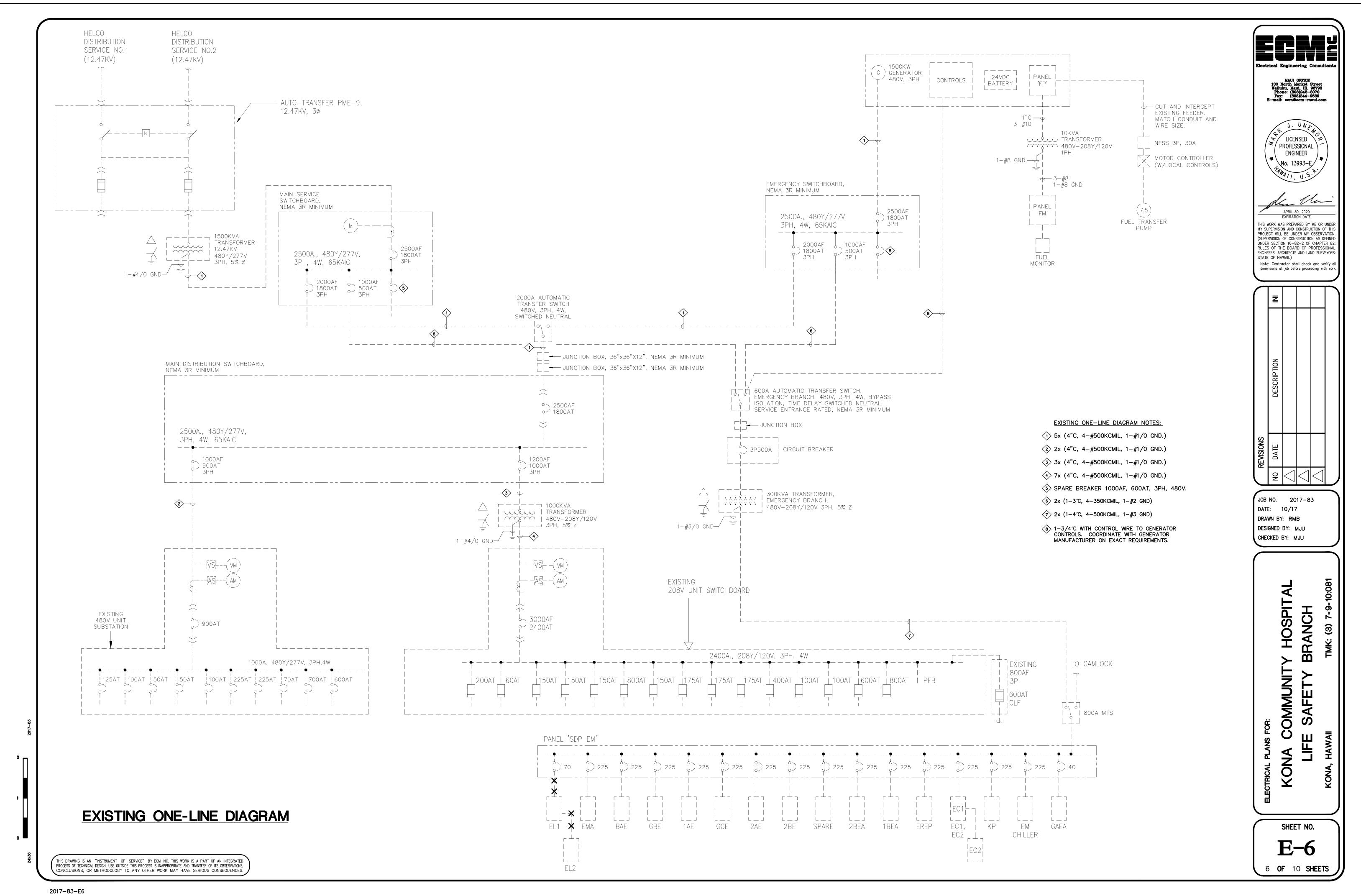
JOB NO. 2017-83 DATE: 10/17 DRAWN BY: RMB DESIGNED BY: MJU CHECKED BY: MJU

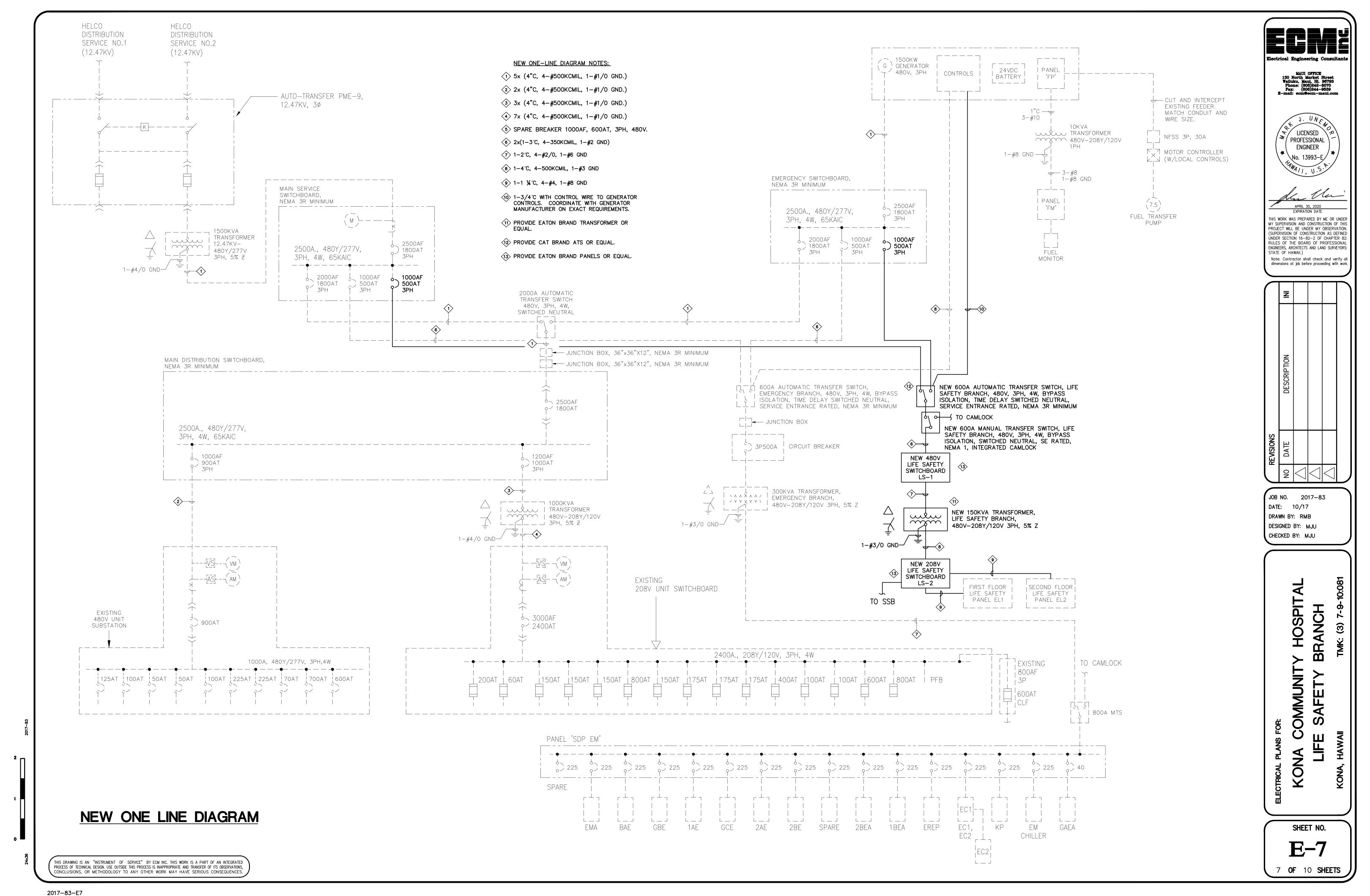
HOSPITAL

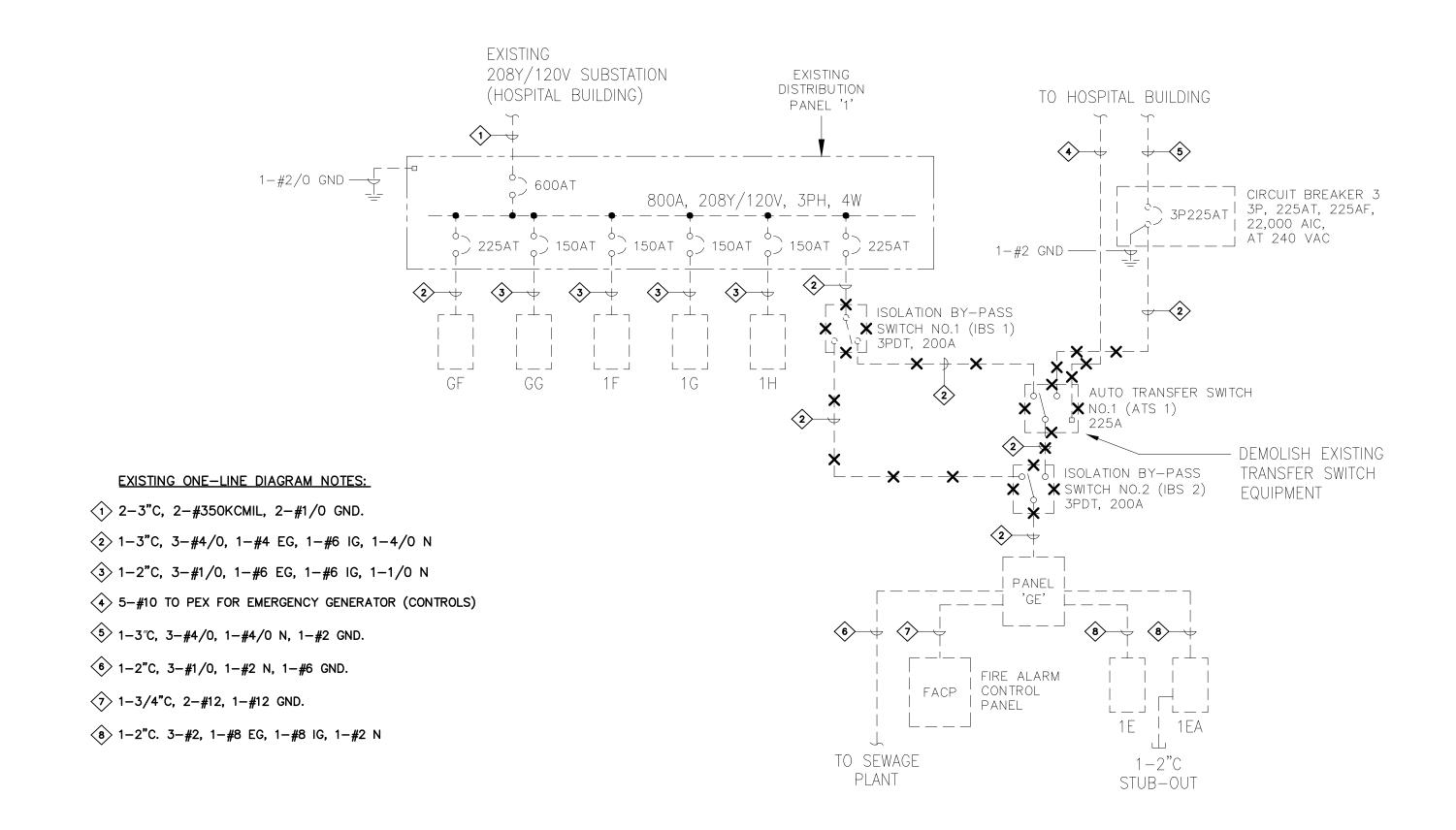
SHEET NO.

5 **OF** 10 **SHEETS**

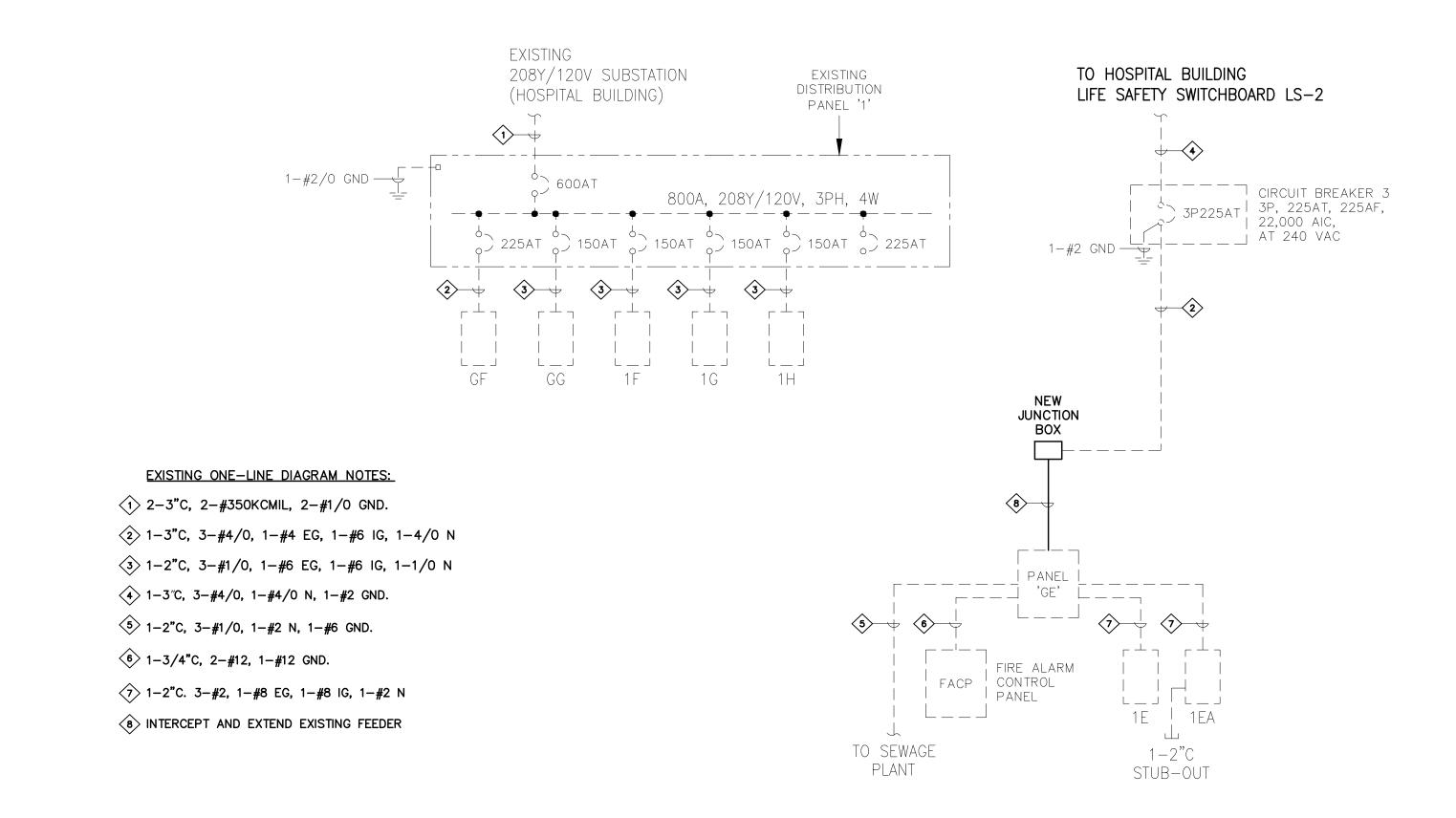
2017-83-E5





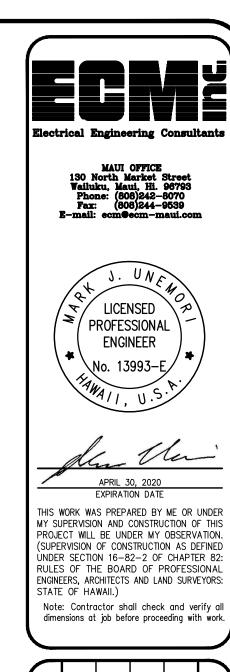


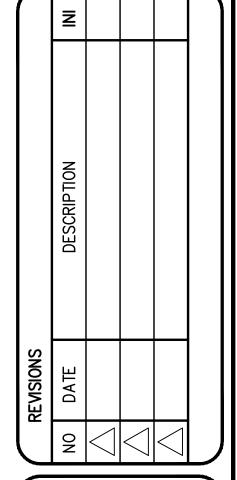
EXISTING ONE-LINE DIAGRAM - SPECIAL SERVICES BUILDING (SSB)



PANEL LS-1								Alk	C. RATING:	1010	3	
VOLTAGE: 277/480V	_	PHASE:	3				WIRE: 4WSN	_	CIRCUITS:	42		
MOUNTING: SURFACE	м/	AIN BRKR:	3P600A			ı	BREAKER: BOLT ON	_ •	MAIN BUS:	600A		
KT DESCRIPTION	PHASE A	PHASE B	PHASE C	BRKR	WIRE	СКТ	DESCRIPTION	PHASE A	PHASE B	PHASE C	BRKR	WIRE
1	39.0					2		22.0				
LS-2TRANSFORMER		39.0	***************************************	3P175A	#2/0		ELEVATOR 1	•••••	22.0		3P100A	#3
5			39.0			6				22.0		
7 PFB						8	ELEVATOR 2 - PATIENT	22.0			3P100A	#3
9 PFB						10	MAKAI		22.0			
1 PFB						12	2			22.0		
3 PFB			***************************************	***************************************	***************************************	14		19.0			3P90A	#3
5 PFB						- /-	ELEVATOR 3		19.0			
17 PFB						18				19.0		
I9 PFB						20	0 2 ELEVATOR 4	19.0			3P90A	#3
21 PFB									19.0			
23 PFB						24				19.0		
25 PFB						26	PFB					
27 PFB							PFB					
9 PFB							PFB					
31 PFB						32	PFB					
3 PFB							PFB					
85 PFB						36	PFB					
PFB						38	PFB					
9 PFB						40	PFB					
11 PFB						42	PFB					
TOTALS	39.0	39.0	39.0				TOTALS	82.0	82.0	82.0		
TOTAL CONNECTED LOAD							* HACR BREAKER REQUIR	<u>l</u> RED		 TES RECEF ES LIGHT		AD

											10K		
٧	/OLTAGE: 120/208V		PHASE:	3				WIRE: 4WSN	_ (CIRCUITS:	42		
МС	DUNTING: SURFACE	M/	AIN BRKR:	3P400A			E	BREAKER: BOLT ON	_	MAIN BUS:	400A		
ΚT	DESCRIPTION	PHASE A	PHASE B	PHASE C	BRKR	WIRE	СКТ	DESCRIPTION	PHASE A	PHASE B	PHASE C	BRKR	WIR
1		19.0					2	FIRST FLOOR PANEL EL1,	6.7				
3	SSB PANEL GE		19.0		3P225A	#4/0	4	EL2		6.7		3P70A	#4
5				19.0			6				6.7		
7	SPARE				1P20A		8	PFB					
9	SPARE				1P20A		10	PFB					
11	SPARE				1P20A		12	PFB					
13	SPARE				1P20A		14	PFB					
15	SPARE				1P20A		16	PFB					
17	SPARE		•		1P20A	***************************************	18	PFB					***************************************
19	SPARE				1P20A		20	PFB					
21	SPARE				1P20A		22	PFB					
23	SPARE				1P20A		24	PFB					
25	PFB						26	PFB					
27	PFB		•				28	PFB		•••••			
29	PFB						30	PFB					
31	PFB		•		***************************************	•••••	32	PFB	•	•••••			•••••
33	PFB		•				34	PFB					
35	PFB						36	PFB					
	PFB							PFB					
	PFB	······						PFB					
	PFB		-					PFB					
	TOTALS	19.0	19.0	19.0				TOTALS	6.7	6.7	6.7		





JOB NO. 2017-83 DATE: 10/17 DRAWN BY: RMB DESIGNED BY: MJU CHECKED BY: MJU

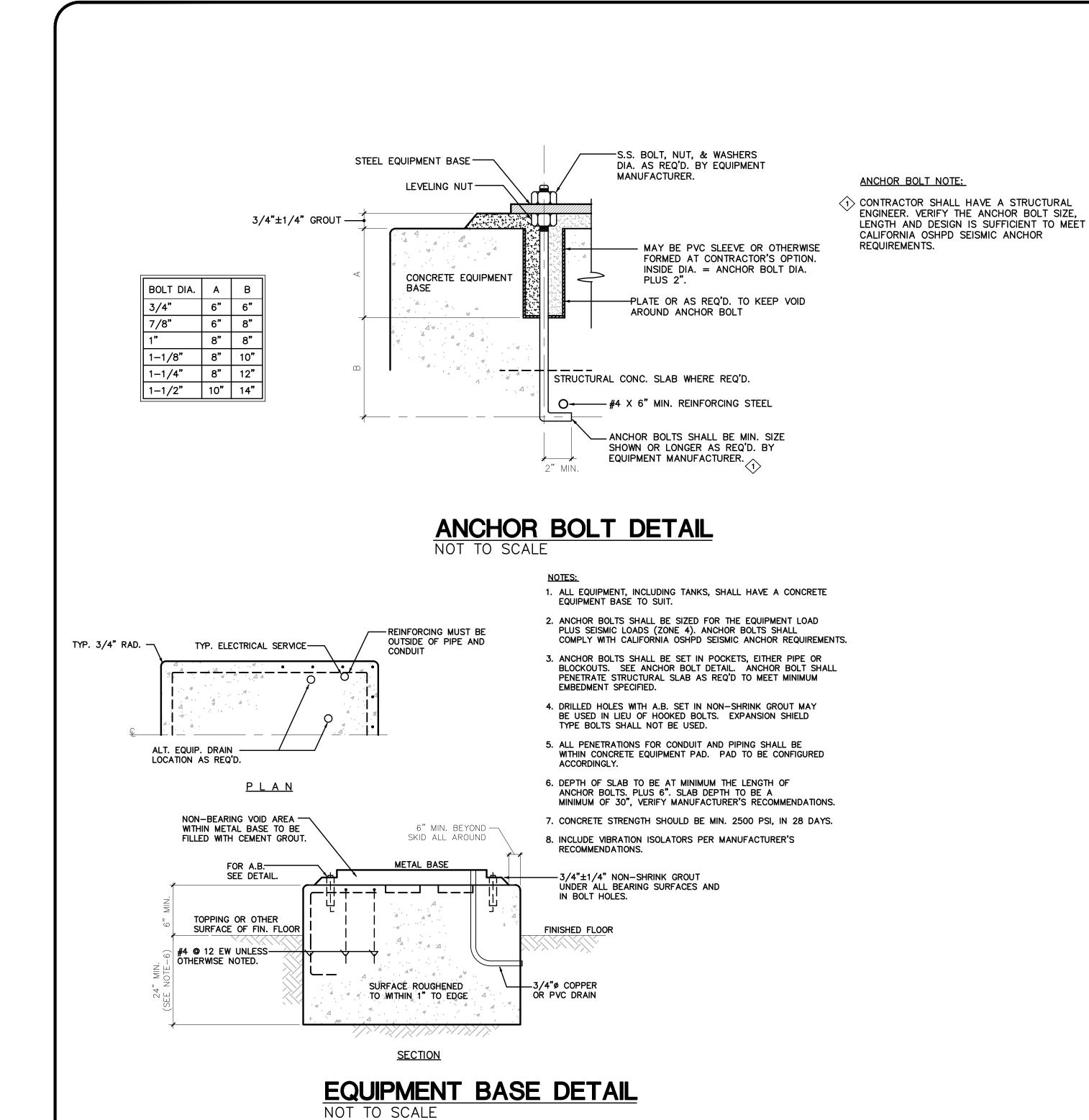
HOSPITAL KONA

SHEET NO.

8 **OF** 10 **SHEETS**

NEW ONE-LINE DIAGRAM - SPECIAL SERVICES BUILDING (SSB)

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38.67 [982] -FRONT Ø0.63 [Ø16] TYP 4 PLACES — 32.13 [816] —— 3.14 [80] --PLAN VIEW SEISMIC MOUNTING Ø0.56 [Ø14] 4 PLACES - 47.59 [1209] - REMOVEABLE LIFTING ANGLES \ 90.72 [2304] — 80.85 [2054] -73.85 [1876] 72.35 [1838] -LOAD CABLE NORMAL POWER CONNECTIONS CABLE CONNECTIONS 44.45 [1129] — EMERGENCY CABLE CONNECTIONS 18.08 [459] 16.58 [421] -11.08 [281] 9.58 [243] -0.00 [0] — **--** 19.81 [503] ---**—— 29.22 [742] —**

- REMOVEABLE -

LIFTING ANGLES

FRONT VIEW

TOP & BOTTOM 2.58 [65](4) BOTH SIDES

- 86.26 [2191] -

SIDE VIEW (WITH RIGHT SIDE REMOVED)

ATS DETAIL NOT TO SCALE

LICENSED **PROFESSIONAL** ENGINEER No. 13993-E Men THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
(SUPERVISION OF CONSTRUCTION AS DEFINED UNDER SECTION 16-82-2 OF CHAPTER 8: RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND LAND SURVEYORS STATE OF HAWAII.) Note: Contractor shall check and verify all dimensions at job before proceeding with work. JOB NO. 2017-83 DATE: 10/17 DRAWN BY: RMB DESIGNED BY: MJU CHECKED BY: MJU HOSPIT,

SHEET NO.

9 **OF** 10 **SHEETS**

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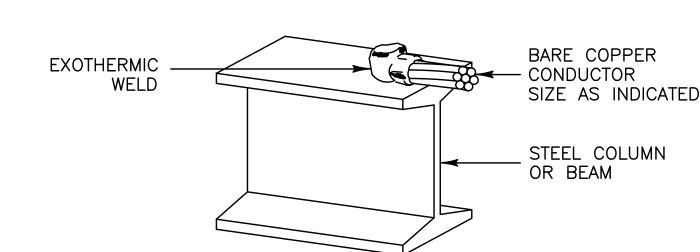
GROUNDING TEST WELL

GROUND ROD WITH EXOTHERMIC WELD

EXOTHERMIC WELD

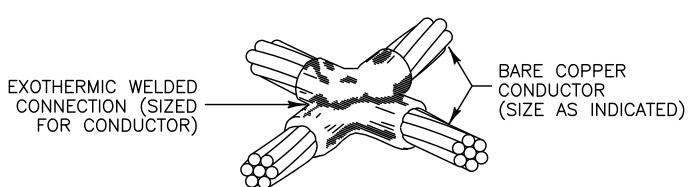
GROUND CONDUCTORS. #4/0 SDBC UNLESS OTHERWISE INDICATED. 2'-6" BELOW FINISHED FLOOR OR GRADE

SOFT DRAWN BARE COPPER



GROUNDING DETAIL CONDUCTOR-TO-STEEL CONNECTION

NOT TO SCALE



5 GROUNDING DETAIL CONDUCTOR-TO-CONDUCTOR CONNECTION

BARE COPPER

- CONDUCTOR

(SIZE AS INDICATED) EXOTHERMIC WELDED CONNECTION (SIZED FOR CONDUCTOR) — GROUND ROD

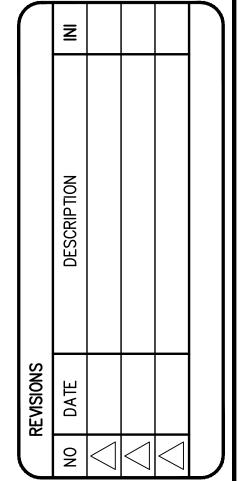
6 GROUNDING DETAIL CONDUCTOR-CONDUCTOR-TO-GROUND ROD NOT TO SCALE

EXOTHERMIC WELDED CONNECTION (SIZED FOR CONDUCTOR) BARE COPPER CONDUCTOR.
SIZE AS INDICATED

CONDUCTOR-TO-CONDUCTOR CONNECTION DETAIL

LICENSED **PROFESSIONAL** ENGINEER

MY SUPERVISION AND CONSTRUCTION OF THI PROJECT WILL BE UNDER MY OBSERVATION (SUPERVISION OF CONSTRUCTION AS DEFINED UNDER SECTION 16-82-2 OF CHAPTER 8: RULES OF THE BOARD OF PROFESSIONA ENGINEERS, ARCHITECTS AND LAND SURVEYOR STATE OF HAWAII.) Note: Contractor shall check and verify a dimensions at job before proceeding with world



JOB NO. 2017-83 DATE: 10/17 DRAWN BY: RMB DESIGNED BY: MJU CHECKED BY: MJU

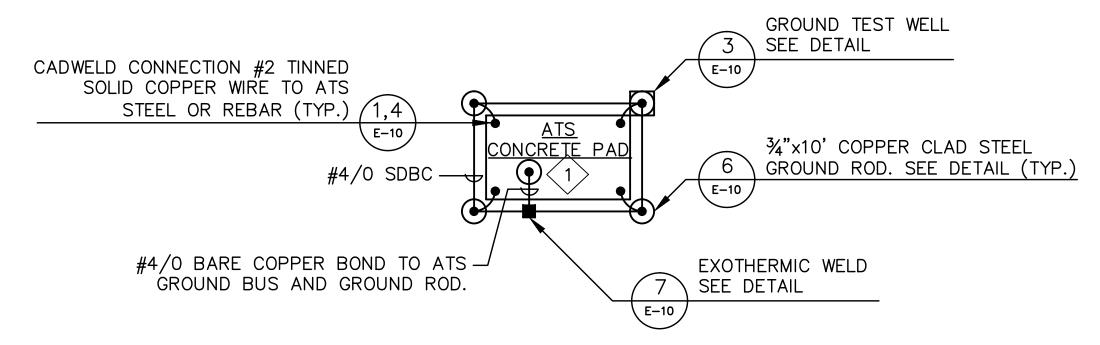
HOSPITA

KONA

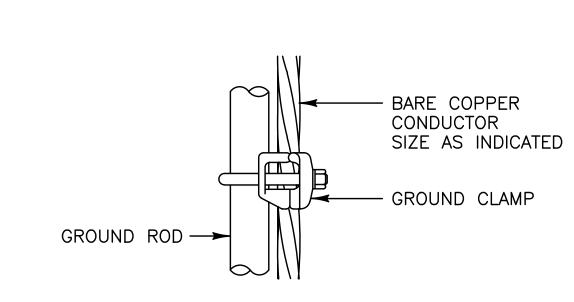
SHEET NO. E-10 10 **OF** 10 **SHEETS**

NOTES:

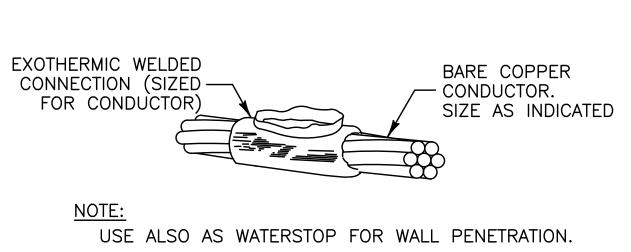
COORDINATE EXACT GROUND LOCATION WITH FINAL GENERATOR LAYOUT. CONNECTION SHALL BE MADE PER MANUFACTURER'S RECOMMENDATIONS.



AUTOMATIC TRANSFER SWITCH (ATS) GROUNDING PLAN



GROUNDING DETAIL MECHANICAL GROUND CONNECTOR NOT TO SCALE



- EXOTHERMIC WELDED CONNECTION (SIZED FOR REBAR AND CONDUCTOR)

- REBAR (VERTICAL SHOWN)

CONDUCTOR TO REBAR

BARE COPPER CONDUCTOR

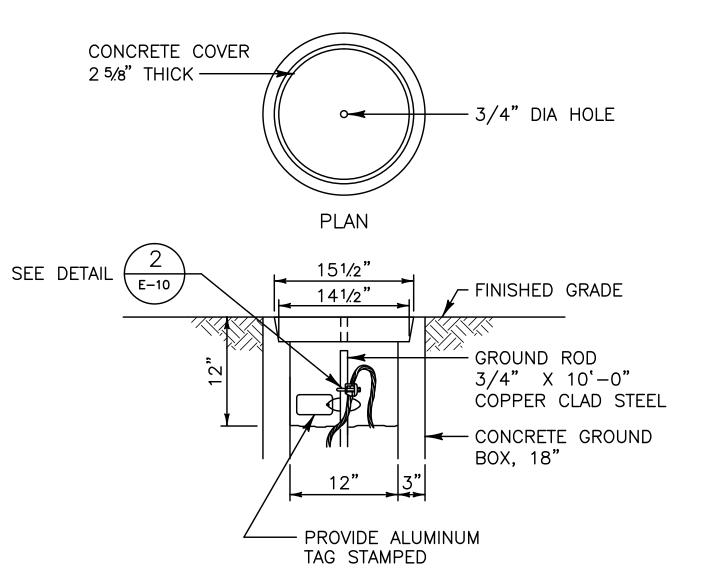
SIZE AS INDICATED

8 CONDUCTOR-TO-CONDUCTOR CONNECTION DETAIL

NOT TO SCALE

E-10 NOT TO SCALE

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3 TYPICAL GROUND TEST WELL BOX DETAIL NOT TO SCALE

TEST WELL

TEST DATE:

GROUND RESISTANCE ____ OHMS

2017-83-E10

NOT TO SCALE