

**ARCHITECTURAL PROGRAM FOR THE
CONSOLIDATED CORRECTIONAL TREATMENT FACILITY AND
MIRA LOMA DETENTION CENTER**

LOS ANGELES COUNTY JAIL PLAN
Independent Review and Comprehensive Report

Final Report – April 21, 2014
APPENDIX VOLUME 3



APPENDIX INDEX

ARCHITECTURAL PROGRAM
LOS ANGELES COUNTY JAIL PLAN
INDEPENDENT REVIEW | COMPREHENSIVE REPORT



VOLUME 3



FACILITY LICENSING DESIGN GUIDELINES FOR A NEW CORRECTIONAL TREATMENT CENTER LOS ANGELES COUNTY

Prepared by Nacht & Lewis Architects, Inc.



PROPOSED KITCHENS FOR THE CONSOLIDATED CORRECTIONAL TREATMENT FACILITY AND MIRA LOMA DETENTION CENTER

Prepared by the Marshall Associates, Inc.



EQUIPMENT CUT SHEETS

Submitted by Los Angeles County Sheriff's Department, Facility Planning Bureau and Medical Services Bureau

1. CUSTODY
(Selected Equipment)
2. PHARMACY
(Selected Equipment)
3. RADIOLOGY
(Selected Equipment)

Facility Licensing Design Guidelines
for a
New Correctional Treatment Center
Los Angeles County

2013

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The purpose of this document is to consolidate and provide general guidance on the requirements of the California Code of Regulations (CCR) Title 22 Licensing and Certification of Health Facilities and Title 24 Building Code Standards as they apply to the physical plant and physical space requirements for Correctional Treatment Centers (CTC) (OSHPD4). In addition, this document serves as a general guide on the physical plant and physical space standards for accreditation with the National Commission on Correctional Health Care (NCCHC) and the American Corrections Association (ACA). Be advised that this document is not intend to replace or be used in lieu of the named regulations and standards.

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Title 22 – (2013) California Code of Regulations

Chapter 12 || Correctional Treatment Centers

Title 22 – (2013) California Code of Regulations

CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
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Chapter 12 – CORRECTIONAL TREATMENT CENTERS

Article 1. DEFINITIONS

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| ▶▶▶ | 79516 | Correctional Treatment Center.
A correctional treatment center is a health facility with a specified number of beds within a state prison, county jail or California Youth Authority facility designated to provide health care to that portion of the inmate population who do not require general acute care level of services but are in need of professional supervised health care beyond that normally provided in the community on an outpatient basis. Outpatient housing is not under the jurisdiction of this Chapter. |
| ▶▶▶ | 79535 | Inmate.
Inmate, as used in the correctional treatment center regulations, means a detainee or offender who is under sentence to, or confined in, a prison, jail, or other correctional institution operated by the Department of Corrections, the Department of the Youth Authority, a county, city, or city and county law enforcement agency. |
| ▶▶▶ | 79537 | Inmate – Patient.
Inmate-patient means an inmate who is receiving care and supervision in a correctional treatment center. |
| ▶▶▶ | 79549 | Nursing Unit.
Nursing unit means a designated inmate-patient care area of a correctional treatment center which is planned, organized, operated and maintained to function as a unit. It includes patients' rooms with adequate support accommodations, services and personnel providing nursing care and necessary management of inmate-patients. |

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶	Article 2. LICENSING AND INSPECTION 79583	Safety, Zoning, and Building Clearance. (a) A license shall not be issued to any correctional treatment center that does not conform to the State Fire Marshal's requirements for fire and life safety, California Code of Regulations, Title 19, Division 1, commencing with Section 1.03 and the California Code of Regulations, Title 24, Parts 2, 3, 4, 5, 9, 12, and local fire safety, zoning and building ordinances. Evidence of compliance with these requirements shall be presented to the Department in writing.
▶▶▶	Article 3. REQUIRED SERVICES 79597	Required Services. (a) Correctional treatment centers shall provide, but not be limited to, the following required services: (1) Physician. (2) Psychiatrist. (3) Psychologist. (4) Nursing. (5) Pharmaceutical Services. (6) Dental. (7) Dietary.
▶▶▶	79607	Physician Service Space. Sufficient space shall be maintained to meet the needs of the service and shall include at least: (a) Physical examination and treatment room. (b) Office space.
▶▶▶	79615	Psychiatrist/Psychologist Service Space. (a) There shall be sufficient space for conducting the service, including: (1) Suitable space for interviewing. (2) Office space.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 79639	<p>Nursing Service-Patients with Infectious Diseases.</p> <p>(a) Patients with infectious diseases shall not be admitted to, or cared for, in the facility unless the following requirements are met:</p> <p>(1) A patient suspected of, or diagnosed as having an airborne infectious or reportable communicable disease, or being in a carrier state, who the attending medical staff determines is a potential danger, shall be accommodated in a room, vented to the outside if airborne, and provided with a separate toilet, hand washing facility, soap dispenser and individual towels.</p> <p>(2) There shall be:</p> <p>(A) Separate provisions for handling contaminated linens.</p> <p>(B) Separate provisions for handling contaminated dishes.</p> <p>(C) Separate provisions for handling any object, article, substance or material capable of transmission of a communicable disease.</p> <p>(b) The correctional treatment center shall adopt and implement written infection control policies and procedures. These policies and procedures shall be reviewed at least annually and revised as necessary.</p>	
▶▶▶ 79641	<p>Nursing Service-Cleaning, Disinfecting, and Sterilizing.</p> <p>(b) Each facility shall make provisions for the cleaning and disinfecting of contaminated articles and surfaces which cannot be sterilized.</p> <p>(c) Bedside equipment including, but not limited to washbasins, emesis basins, bedpans and urinals shall be sanitized only by one of the following methods:</p> <p>(1) Submersion in boiling water for a minimum of 30 minutes.</p> <p>(2) Autoclaving at 15 pounds pressure and 121°C (250°F) for 20 minutes.</p> <p>(3) Gas sterilization.</p>	
▶▶▶ 79643	<p>Nursing Service-Space.</p> <p>(a) An office or other suitable space shall be provided for the director of nursing service.</p> <p>(b) A nursing station shall be maintained in each nursing unit.</p>	

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	<p>(c) Each nursing station shall have a cabinet, a desk, space for records, a bulletin board, a telephone and a specifically designated and well illuminated medication storage compartment with a lockable door. If a separate medication room is maintained, it shall have a lockable door and a sink with water connections for care of equipment and for hand washing.</p> <p>(d) If a refrigerator is provided in a nursing station, the refrigerator shall meet the following standards:</p> <p>(1) Be located in a clean area not subject to contamination by human waste.</p> <p>(2) Maintain temperatures at or below 7°C (45°F) for chilling.</p> <p>(3) Maintain the freezer at minus 18°C (0°F).</p> <p>(4) Contain an accurate thermometer at all times.</p> <p>(S) If foods are retained in the refrigerator, they shall be covered and clearly identified as to contents and date initially covered. Drugs shall be kept in a separate, closed container in a separate area of the refrigerator.</p>	
▶▶▶ 79647	<p>Pharmaceutical Service – General Requirements.</p> <p>(c) If a pharmacy is located on the correctional treatment center premises, the pharmacy shall have a limited permit or license issued by the California State Board of Pharmacy. Pharmacies located on the licensed premises of the facility shall be opened for inspection upon the request of an authorized Department representative.</p>	
▶▶▶ 79671	<p>Pharmaceutical Service-Equipment and Supplies.</p> <p>(a) There shall be equipment and supplies necessary for the provision of pharmaceutical services within the correctional treatment center, including at least the following:</p> <p>(1) Refrigerator with an accurate thermometer.</p> <p>(2) Lockable drug cabinets, drawers, closets or rooms.</p> <p>(3) Drug service trays and/or carts.</p> <p>(4) Drug preparation counter area and convenient water source.</p>	

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▶▶▶ 79681	Dental Service Space. (a) There shall be adequate space maintained for the dental service. (b) There shall be facilities for dental radiography. (c) There shall be space provided for the sterilization and storage of instruments and lockable storage for bulk supplies. (d) There shall be a secure storage area for patient records.	
▶▶▶ 79693	Dietary Service Food Storage. (a) Food storage areas shall be kept clean at all times. (b) All foods not requiring refrigeration shall be stored at least twelve inches above the floor, on shelves, racks, dollies, or other surfaces which facilitate thorough cleaning, in a ventilated room not subject to contamination by waste water backflow, condensation, leakage, rodents or vermin.	
▶▶▶ 79699	Dietary Service Equipment, Space, and Supplies. (a) Equipment of the type and in the amount necessary for the proper preparation, serving and storage of food and for proper dish washing shall be provided and maintained in good working order. (e) The dietetic service area shall be ventilated in a manner that will maintain comfortable working conditions, remove objectionable odors and fumes and prevent excess condensation. (h) An office or other suitable space shall be provided for the dietitian or dietetic service supervisor. (i) Kitchen sinks shall not be used for hand washing. Separate hand washing facilities with soap, running water, individual towels and waste receptacles shall be provided.	
▶▶▶	Article 4. OPTIONAL SERVICES	
▶▶▶ 79703	Optional Services. (a) A correctional treatment center may provide the following services: (1) Laboratory. (2) Radiology.	

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	<p>(3) Perinatal. (4) Outpatient surgery. (5) Mental health treatment program. (6) Standby Emergency Medical Services. (7) Any other services requested in writing and approved by the state department in writing. (b) A correctional treatment center may provide outpatient surgical care with anesthesia if the correctional treatment center meets the same requirements as a surgical clinic licensed pursuant to Section 1204 of the Health and Safety Code, except for the requirement that patients remain less than 24 hours.</p>	
▶▶▶ 79705	<p>Optional Services-Laboratory Services. (a) Clinical laboratories shall be operated in conformance with the California Business and Professions Code, Division 2, Chapter 3 (Sections 1200 to 1322, inclusive) and the California Code of Regulations, Title 17, Division I, Chapter 2, Subchapter I, Group 2 (Sections 1030 to 1057, inclusive). (b) The correctional treatment center shall maintain clinical laboratory services and equipment for routine laboratory work such as urinalysis, complete blood counts, and such tests necessary to meet the needs of the correctional treatment center. (c) The correctional treatment center shall maintain or make provision for clinical laboratory services for performance of tests in chemistry, microbiology, serology, hematology, pathology and blood banking. (h) The use, storage and disposal of radioactive materials shall comply with the California Radiation Control Regulations, Title 17, Chapter 5, Subchapter 4, Group I, Article I, commencing with Section 30100, California Code of Regulations, as amended. These regulations are hereby incorporated by reference.</p>	
▶▶▶ 79709	<p>Laboratory Service-Equipment and Supplies. (a) There shall be sufficient equipment and supplies maintained to perform the laboratory services being offered. (b) When the correctional treatment center maintains blood storage facilities, such facilities shall be in conformance with the</p>	

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	provisions of Section 1002(g), Title 17, California Code of Regulations. Blood storage facilities shall be inspected by the correctional treatment center at least daily for compliance with these requirements.	
▶▶▶ 79711	Optional Services-Radiology Services. Radiology service means the use of X- ray, other ionizing radiation, and/or magnetic resonance imaging, and/or ultrasound in the detection, diagnosis, and treatment of human illnesses and injuries with appropriate staff, space, equipment and supplies.	
▶▶▶ 79713	Radiology Service General Requirements. (c) The use, storage and shielding of all radiation machines and radioactive materials shall comply with the California Radiation Control Regulations, Section 30100 et seq., Subchapter 4, Chapter 5, Title 17, California Code of Regulations.	
▶▶▶ 79717	Radiology Service Equipment and Supplies. (a) There shall be equipment and supplies maintained or available to perform the radiological services that are offered in the correctional treatment center. As a minimum, the following equipment shall be available: (1) At least one radiographic unit. If fluoroscopic services are provided, fluoroscopes shall be equipped with image intensifiers. (2) Film processing equipment. (b) Proper resuscitation and monitoring equipment shall be immediately available.	
▶▶▶ 79719	Radiology Service Space. (a) There shall be sufficient space maintained to provide radiological services. This shall include but not be limited to the following: (1) A separate X-ray room large enough to accommodate the necessary radiographic equipment and to allow easy maneuverability of stretchers and wheelchairs. (2) Toilet facilities located in the radiology service space or in the immediate vicinity.	

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	(3) Dressing rooms for patients if not otherwise provided by toilet facilities. (4) Film processing area. (5) Sufficient storage space for all the necessary X- ray equipment, supplies, and for exposed X- ray film, and copies of reports. (6) Suitable area for viewing and reporting of radiographic examinations. (b) If X-ray examinations are to be performed on outpatients, outpatient access to the radiological spaces shall not traverse a nursing unit.	
▶▶▶ 79729	Optional Services-Outpatient Surgical Care. Outpatient surgical care means the provision of surgical services to patients not requiring hospitalization, with appropriate staff, space, equipment, and supplies.	
▶▶▶ 79735	Outpatient Surgical Care Equipment and Supplies. Equipment and supplies shall be maintained to meet the needs of the services offered, including at least the following monitoring equipment and supplies: (a) Cardiac monitor, with a pulse rate meter, for each patient receiving a general anesthetic. (b) DC defibrillator. (c) Electrocardiographic machine. (d) Oxygen and respiratory rate alarms. (e) Supplies and drugs for emergency use.	
▶▶▶ 79737	Outpatient Surgical Care Space. (a) A correctional treatment center providing outpatient surgical care shall maintain an operating room, or operating rooms, as follows: (b) Construction of the operating room shall be in compliance with provisions of California Code of Regulations, Title 24, Chapter 10C, Section 1020C(a) and applicable sections of the California Building Standards Code. (c) Operating room space shall conform to the provisions of	

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	<p>California Code of Regulations, Title 24, Chapter 10C, Section 1020C(a).</p> <p>(d) Special rooms such as cast rooms, fracture rooms, and cystoscopic rooms, if provided, shall maintain space in accordance with the provisions of California Code of Regulations, Title 24, Chapter 10C, Section 1020C(b).</p> <p>(e) Postanesthesia recovery areas shall maintain space as required in California Code of Regulations, Title 24, Chapter 10C, Section 1020C(c).</p> <p>(f) Laboratory, radiology and pharmacy services shall be readily accessible to the outpatient surgical service.</p> <p>(g) The operating room shall be located so that it does not connect directly with a corridor designed and used for through traffic.</p> <p>(h) Facilities shall be maintained for the sterilization of equipment and supplies.</p>	
▶▶▶ 79739	<p>Mental Health Treatment Program.</p> <p>A mental health treatment program is organized, staffed and equipped to provide mental health treatment services for inmate-patients who require 24-hour inpatient care and treatment for acute or nonacute mental health disorders.</p>	
▶▶▶ 79741	<p>Mental Health Treatment Program-General Requirements.</p> <p>(a) The mental health treatment program shall only be for inmate-patients with diagnosable mental disorder who require 24-hour mental health care.</p> <p>(b) Each mental health treatment program shall have a clinical director who shall direct the clinical program, provide general direction to professional and nonprofessional staff and be responsible for the quality of clinical services performed in the facility.</p>	
▶▶▶ 79751	<p>Acute Mental Health Care.</p> <p>Acute mental health care means that level of voluntary or involuntary 24-hour care that is required to provide ongoing intensive evaluation and treatment by mental health staff to</p>	

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		<p>inmate-patients suffering from severe mental disorder. Acute levels of care include, but are not limited to: (1) treatment of acute levels of severe mental disorder or (2) clinical restraint and seclusion. Such inmate-patients would be those who, if in the community, would require a licensed health facility providing 24-hour acute mental health hospitalization. Such facilities include but are not limited to psychiatric health facilities or acute psychiatric hospitals.</p>
▶▶▶ 79753	Nonacute 24-Hour Mental Health Care. Nonacute 24-hour mental health care means that level of voluntary or involuntary care that is required to provide mental health services to mentally disordered inmate-patients who are not in need of acute mental health care, but who require general mental health evaluation, diagnostic assessment, treatment, nursing and/or related services, on a 24-hourer-day basis in order to achieve stabilization and/or an optimal level of functioning. Such inmate-patients would be those who, if in the community, would require a licensed health facility providing 24-hour subacute mental health care. Such facilities include but are not limited to skilled nursing facilities with special treatment programs. Subacute has the same meaning as nonacute as defined in this section.	
▶▶▶ 79755	Mental Health Treatment Program Staffing-Basic Requirements. (a) Each mental health treatment program shall have a clinical director who shall be a psychiatrist, clinical psychologist, licensed clinical social worker, licensed marriage, family, and child counselor, or a psychiatric mental health nurse operating within his or her scope of licensure. The clinical director shall have at least three years of direct clinical experience with the severely mentally disordered after completion of his or her last year of graduate education. (b) Only that portion of correctional treatment center staff or contracted employee hours spent on the care of patients in the mental health treatment program may be counted as part of the	

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	required staffing pattern. (c) The required minimum staffing ratios shall be calculated based upon the actual census of inmate-patients receiving 24-hour mental health care. (l) There shall be a registered nurse, a licensed vocational nurse or a psychiatric technician in the mental health treatment area at all times. (g) In addition to the minimum starting required above, the mental health treatment program shall employ professional and other staff on all shifts in the number and with the qualifications to provide all necessary services for those patients admitted for care. (h) Clinical psychologists, licensed clinical social workers, and licensed marriage, family, and child counselors shall be employed pursuant to the provisions of Section 5751.2, Welfare and Institutions Code.	
▶▶▶	79759	Mental Health Treatment Program Staffing-Nonacute Care Requirements. Nonacute 24-hour mental health care may be provided by any correctional treatment center meeting the basic staffing requirements specified in Section 79631, Nursing Service Staff, including the requirements for 2.5 nursing hours per patient day and by the Mental Health Treatment Program Staffing-Basic Requirements, set forth in Section 79755.
▶▶▶	79761	Mental Health Treatment Program-Space. (a) Space shall be provided for the conduct of the mental health treatment program and shall include: (1) A consultation room for interviewing. (2) An observation room for acutely disturbed inmate- patient. (3) Indoor or outdoor facilities for therapeutic activities.
▶▶▶	79757	Mental Health Treatment Program Staffing-Acute Care Requirements. Mental health treatment programs that provide acute 24-hour mental health care shall meet the following dedicated full-time

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equivalent staff to census ratio only for acute inmate-patients in any 24-hour period. This staffing pattern includes all staff that is required for the treatment of acute patients. Staff required by earlier sections of this Chapter for the disciplines listed in this section may be counted toward meeting the staffing pattern required in this section for that portion of their time that is spent in caring for acute patients. The above staffing requirements in this Section for registered nurse, licensed vocational nurse or psychiatric technician shall be followed instead of the requirement of 2.5 nursing hours per patient day required for other correctional treatment center inmate-patients. That portion of the time of a psychiatric mental health nurse that is counted toward one category of the staffing requirements shall not be counted toward another category of the staffing requirements. Unlicensed custody staff, to the degree they do work that would otherwise be done by mental health workers and who meet the qualifications of mental health workers, as defined in this chapter, may be counted toward the mental health worker requirement.

Acute Mental Health Care Census:	1-5	6-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
Staff: Psychiatrist or Clinical Psychologist or Licensed Clinical Social Worker or Licensed Marriage, Family and Child Counselor, or Psychiatric Mental Health Nurse	5	1	2	3	4	5	6	7	8	9	10
Registered Nurse or Licensed Vocational Nurse or Psychiatric Technician	3	4	5	6	8	10	12	14	16	18	20
Mental Health Worker	1.5	3	5	8	10	13	15	18	20	23	25
TOTALS	5	8	12	17	22	28	33	39	44	50	55

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▶▶▶ 79763	Standby Emergency Medical Services, Physician on Call, Definition. Standby emergency medical service, physician on call, means the provision of emergency medical care in a specifically designated area of the correctional treatment center which is equipped and maintained at all times to receive patients with urgent medical problems and capable of providing physician service within a reasonable time.	
▶▶▶ 79769	Standby Emergency Medical Service, Physician on Call, Equipment and Supplies. Equipment and supplies necessary for life support shall be available. Equipment shall include, but not be limited to: airway control and ventilation equipment; suction devices; cardiac monitor defibrillator; intravenous fluids, including blood expanders; and administering devices.	
▶▶▶ 79771	Standby Emergency Medical Service, Physician on Call, Space. (a) The following space provisions and designations shall be met: (1) Designated emergency treatment area. (2) Observation room. (b) Observation beds in the emergency medical service shall not be counted in the total licensed bed capacity of the correctional treatment center.	
▶▶▶ 79807	Article 5. ADMINISTRATION Inmate-Patient Health Record Availability. (a) Records shall be kept on all inmate-patients admitted or accepted for treatment. All required records, either as originals or as accurate reproductions of the contents of such originals, shall be maintained in a confidential manner, and be legible, and readily accessible upon request of persons authorized by law to have access to such records including, but not limited to persons authorized pursuant to Health and Safety Code, Section 1795 et seq., those professional persons who are providing services to the patient and authorized representatives of the Department.	

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	<p>(b) The correctional treatment center shall safeguard the information in the record against loss, defacement, tampering, or use by unauthorized persons.</p> <p>(c) Inmate-patient health records or reproductions thereof, shall be safely preserved for a minimum of seven years following discharge of the inmate-patient, except that the records of unemancipated minors shall be kept at least one year after such minor has reached the age of 18 years and, in any case, not less than seven years.</p> <p>(d) If a correctional treatment center ceases operation, the Department shall be informed, within 48 hours prior to cessation, of the arrangements made for safe preservation of inmate-patient health records.</p> <p>(e) Inmate-patient records shall be filed in an easily accessible manner in the facility or in an approved health record storage facility off the facility premises.</p> <p>(f) Inmate-patient records shall be completed within 14 days following the inmate-patient's discharge.</p>	
▶▶▶ 79823	<p>Inmate-Patient Capacity.</p> <p>(a) A correctional treatment center shall not have more inmate-patient or beds set up for use than the number for which it is licensed, except in case of emergency when temporary permission may be granted by the Director or designee.</p> <p>(b) Inmate- patients shall not be housed in areas which have not been approved by the Department for inmate- patient housing and which have not been given a fire clearance by the State Fire Marshal except as provided in subsection (a) above.</p>	
▶▶▶ 79839	<p>Call Systems.</p> <p>(a) A call system shall be maintained in operating order in all nursing units. Call systems shall be maintained to provide visible and audible signal communication between nursing personnel and patients. The minimum requirements shall be:</p> <p>(1) A call station or stations providing readily accessible patient controls to each patient bed.</p> <p>(2) A visible signal in the corridor above or adjacent to the door of</p>	

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	each patient room. (3) An audible signal and light, on a continuous or intermittent basis indicating the room from which the call originates shall be located at the nurses' stations. Alternate systems must be approved in writing by the Department. (b) The call system shall be extended to each patient's toilet room, bathroom and shower room in locations easily accessible to the patients. (c) The call systems shall be designed to require resetting at the place of origin unless a two-way voice communication component is included in the system. (d) The requirements for call systems in psychiatric units serving ambulatory patients may be waived by the Department.	
▶▶▶ 79845	Electrical Systems. (a) The electrical system shall be in conformance with the California Building Standards Code. (b) Emergency power and lighting. (1) The emergency power system/generator shall be maintained in operating condition to provide automatic restoration of power to the correctional treatment center's essential systems within ten (10) seconds after the loss of primary power. (c) The correctional treatment center shall have an electrical system which provides adequate levels of power and lighting in a safe manner to all of the facility's electrically powered equipment and systems.	
▶▶▶ 79847	Storage and Disposal of Solid Waste. (a) Solid waste shall be stored and disposed of in a manner which minimizes the risk of transmitting communicable disease. These wastes shall not be a nuisance or a breeding place for insects or rodents nor be a food source for either. (b) Solid waste containers shall be stored and located in a manner that will protect against odors. (c) Syringes and needles shall be disposed of safely as biohazardous and/or radioactive waste in puncture proof containers, in accordance with Health and Safety Code Sections	

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	25080 through 25082, pertaining to medical waste and, if applicable, the California Code of Regulations, Title 17, Chapter 5, Subchapter 4, Group I, Article I, Sections 30285 and 30289, pertaining to radioactive materials.	
▶▶▶ 79855	Water Supply and Plumbing. (a) Plumbing and drainage facilities shall be in compliance with the California Building Standards Code. (b) Water for human consumption from an independent source, such as private wells, shall be subjected to bacteriological analysis by the local health department, State Department of Health Services or a licensed commercial laboratory at least every three (3) months. A copy of the most recent laboratory report shall be available for inspection. (c) Plumbing fixtures including backflow preventers shall be maintained in operating condition. (d) For hot water used by or readily accessible to patients, there shall be temperature controls to automatically regulate the temperature between 40.0°C (105°F) and 48.9°C (120°F). (e) Hot water at a minimum temperature of 62.2°C (150°F) shall be maintained at the final rinse section of dish washing facilities unless alternate methods are approved by the Department. (f) Taps delivering water at 51.7°C (125°F) or higher shall be identified prominently by warning signs with letters 5cm (2 inches) high.	
▶▶▶ 79857	Adequate illumination shall be maintained for the comfort and safety of inmate- patients and staff, and shall be in compliance with the California Building Standards Code.	
▶▶▶ 79859	Lighting. Heating, Ventilating, and Air Conditioning. (a) Heating, ventilating and air conditioning shall be in compliance with the California Building Standards Code and shall be maintained to assure the systems are in operating condition to provide comfortable environmental conditions.	

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▶▶▶	79861	<p>Laundry Service.</p> <p>(a) Laundry and linen.</p> <p>(1) An adequate supply of serviceable clean linen shall be provided to meet the needs of the correctional treatment center. This shall include, but not be limited to, at least three (3) complete bed changes for the correctional treatment center's licensed bed capacity.</p> <p>(8) If the correctional treatment center does not maintain a laundry service, the commercial laundry utilized shall meet the standards of this Section.</p> <p>(b) Soiled linen.</p> <p>(1) Soiled linen shall be handled, stored and processed in a safe manner to prevent the spread of infection.</p>

Title 24 – (2013) California Building Code

Chapter 3	Use and Occupancy Classification
Chapter 4	Special Detailed Requirements Based on Use and Occupancy
Chapter 9	Fire Protection Systems
Chapter 10	Means of Egress
Chapter 11B	Accessibility to Public Buildings, Public Accommodations, Commercial Buildings and Public Housing
Chapter 30	Elevators and Conveying Systems

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Chapter 3 - USE AND OCCUPANCY CLASSIFICATION

Section 302 - CLASSIFICATION

▶▶▶	302.1 General. Structures or portions of structures shall be classified with respect to occupancy in <u>one or more</u> of the groups listed in this section. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved.	CTCs are a combined I-3/I-2 Occupancy
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Section 308 – INSTITUTIONAL GROUP I

▶▶▶	308.4 Institutional Group I-2. This occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation or classified as nonambulatory or bedridden. This group shall include, but not be limited to, the following: Foster care facilities Detoxification facilities Hospitals Nursing homes <u>Psychiatric hospitals</u>	
▶▶	308.4.2 Institutional Group I-2.1 Ambulatory health care facility. A healthcare facility that receives persons for outpatient medical care that may render the patient incapable of unassisted self-preservation and where each tenant space accommodates more than five such patients.	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 308.5	<p>Institutional Group I-3. This occupancy shall include buildings and structures that are inhabited by one or more persons who are under restraint or security. An I-3 facility is occupied by persons who are generally incapable of self-preservation due to security measures not under the occupants' control, which includes persons restrained. This group shall include, but not be limited to, the following:</p> <ul style="list-style-type: none">Correctional centersCourthouse holding facilityDetention centers<u>Detention treatment room</u><u>Jails</u>Prerelease centersPrisonsReformatoriesSecure interview roomsTemporary holding facility	<p>The entire building is an I-3 occupancy because occupants are under restraint, i.e. do not have free egress. The CTC portion is also an I-2 occupancy, i.e. a combined I-3/I-2 occupancy.</p> <p>Other areas of the building may serve as administrative space which is a B occupancy. However, unless the administration area has the ability to exit freely, it is also an I-3 occupancy, i.e. a combined I-3/B occupancy. Note different sub-occupancies within a detention facility may need to be separated per Table 508.4. In other words, a 2 hour fire barrier is required between these occupancies: I-3; I-3/I-2; and I-3/B.</p>

CHAPTER 4 - SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

▶▶ Section 407 – GROUP I-2 407.2.1	<p>Waiting and similar areas. Waiting areas and similar spaces constructed as required for corridors shall be permitted to be open to a corridor, only where all of the following criteria are met:</p> <ol style="list-style-type: none">1. The spaces are not occupied as care recipient's sleeping rooms, treatment rooms, incidental uses <i>listed in Table 509</i>, or hazardous uses.2. The open space is protected by an automatic fire detection system installed in accordance with Section 907.3. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic fire detection system installed in accordance with Section	<p>Waiting can be located in corridors, but retherm alcoves, etc. cannot be placed in the corridor. Anything that might be considered an obstacle should not be placed in a corridor. Combustibles should not be placed in corridors. Casework in corridors must meet a fire spread of 25% and a smoke density less than 450.</p>
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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
	<p>907, or the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.</p> <p>4. The space is arranged so as not to obstruct access to the required exits.</p> <p>5. <i>Each space is located to permit direct visual supervision by the facility staff.</i></p>	
▶▶ 407.2.2	<p>Nurses' stations. Spaces for doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to, or located within the corridor, <i>provided the required construction along the perimeter of the corridor is maintained. Construction of nurses' stations or portions of nurses' stations, within the envelope of the corridor is not required to be fire-resistive rated. Nurses' stations in new and existing facilities see the California Code of Regulations, Title 19, Division 1, Chapter 1, Subchapter 1, Article 3, Section 3.11(d) for storage and equipment requirements.</i></p> <p><i>In detention or secure mental health facilities, the provisions above applies to enclosed nurses' stations within the corridor.</i></p>	Nurses stations can be located within corridors
▶▶ 407.2.3	<p>Psychiatric treatment areas. Areas wherein psychiatric care recipients who are not capable of self-preservation are housed, or group meeting or multipurpose therapeutic spaces other than incidental uses in accordance with Section 509, under continuous supervision by facility staff, shall be permitted to be open to the corridor, where the following criteria are met:</p> <ol style="list-style-type: none"> 1. Each area does not exceed 1,500 square feet (140 m). 2. The area is located to permit supervision by the facility staff. 3. The area is arranged so as not to obstruct any access to the required exits. 4. The area is equipped with an automatic fire detection system installed in accordance with Section 907.2. 5. Not more than one such space is permitted in any one smoke compartment. 	While this code section exists, placing occupied areas off of a corridor should be avoided. CSFM review may be a challenge when all other exit requirements are considered.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
	6. The walls and ceilings of the space are constructed as required for corridors.	
▶▶ 407.3.1	<p>Corridor doors. Corridor doors, other than those in a wall required to be rated by Section 509.4 or for the enclosure of a vertical opening or an exit, shall not have a required fire protection rating and shall not be required to be equipped with self-closing or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to Section 716.5. <i>In Group I-2 Occupancies, self-closing or automatic-closing devices are not required on corridor doors to patient sleeping rooms, treatment rooms, and offices located in areas specified in Sections 1224 and excluding offices specified in Sections 1224.21 and 1225.8.</i></p>	The code section relaxes the requirements for doors in I-2 occupancies. It generally requires doors to be smoke tight, not fire resistive.
▶ 407.3.1.1	<p>Swing of corridor doors. Corridor doors, other than those equipped with self-closing or automatic-closing devices shall not swing into the required width of corridors.</p> <p>Exception: Doors may swing into required width of corridors in I-3 facilities as long as 44" clear is maintained with any one door open 90 degrees and clear corridor widths required in Chapter 12 can be maintained with doors open 180 degrees.</p>	Corridors with patient rooms should be 96" min, in order to accommodate 48" door swings, 44" clear width, and 4" for any obstacles.
▶▶▶ 407.5	<p>Smoke barriers. Smoke barriers shall be provided to subdivide every story used by persons receiving care, treatment or sleeping and to divide other stories with an occupant load of 50 or more persons, into no fewer than two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2,092 m) and the travel distance from any point in a smoke compartment to a smoke barrier door shall be not greater than 200 feet (60,960 mm). The smoke barrier shall be in accordance with Section 709.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. This requirement shall not apply to Group I-2.1 less than 10,000 sf (929 m). 	CTCs fall under this criteria. Each floor containing a CTC must be divided in to smoke compartments of 22,500 square feet or less.

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	<p>2. An area in an adjoining occupancy shall be permitted to serve as a smoke compartment for a Group I-2.1 facility if the following criteria are met:</p> <p>2.1. The separating wall and both compartments meet the requirements of 407.5.</p> <p>2.2 The Group I-2.1 is less than 22,500 sf (2100 m).</p> <p>2.3. Access from the Group I-2.1 to the other occupancy is unrestricted.</p>	
▶▶ 407.5.1	<p>Refuge area. Refuge areas shall be provided within each smoke compartment. The size of the refuge area shall accommodate the occupants and care recipients from the adjoining smoke compartment. Where a smoke compartment is adjoined by two or more smoke compartments, the minimum area of the refuge area shall accommodate the largest occupant load of the adjoining compartments. The size of the refuge area shall provide the following:</p> <ol style="list-style-type: none">1. Not less than 30 net square feet (2.8 m) for each care recipient confined to bed or litter.2. Not less than 6 square feet (0.56 m) for each ambulatory care recipient not confined to bed or litter and for other occupants. <p>Areas or spaces permitted to be included in the calculation of refuge area are corridors, sleeping areas, treatment rooms, lounge or dining areas and other low-hazard areas.</p>	<p>On each side of the smoke barrier in a CTC, refuge areas are required to accommodate the occupant load of the adjacent smoke compartment. This can be accommodated in wide corridors.</p>
▶▶ 407.5.2	<p>Independent egress. At least two means of egress shall be provided from each smoke compartment created by smoke barriers. Means of egress may pass through adjacent compartments provided it does not return through the smoke compartment from which means of egress originated.</p>	
▶▶ 407.5.3	<p>Horizontal assemblies. Horizontal assemblies supporting smoke barriers required by this section shall be designed to resist the movement of smoke and shall comply with Section 711.9.</p>	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
<p>Section 408 – GROUP I-3</p>		
▶	<p>408.1.2.2 Intervening spaces. Common rooms and spaces within Group I-3 occupancies can be considered an intervening space in accordance with Section 1014.2, and not considered a corridor, when they meet any of the following:</p> <ol style="list-style-type: none"> 1. The inmate and/or staff movement within cell complexes, medical housing wings and mental health housing wings of Type I construction. 2. Areas within any temporary holding area of noncombustible construction. 3. Areas within secure mental health treatment facilities of noncombustible construction. 	<p>The intent of this code section is to eliminate corridor requirements in suites, whether they are housing/medical wings, treatment areas, or temporary holding areas. There would be a minimum of 1-hour construction between suites and required corridors connecting suites. The intent is also to have direct visual control from a full-time manned staff station of the corridor system. Racetrack corridors with blind spots do not qualify for this exemption. In addition, occupant loads should be limited to 49 in cells, or 100 in educational or mental health program areas. Occupant load can be increased to 200 if circulation space is at least 24' wide.</p>
▶▶	<p>408.2.1 Correctional medical and mental health uses. Where a Group I-2 occupancy in accordance with Section 308.4 and a Group I-3 occupancy occur together in building or portions of buildings, the following Subsections of Sections of 407 shall apply: 407.2.1; 407.2.2; 407.2.3; 407.3.1; 407.3.1.1; 407.4.</p>	<p>This section clarifies that exceptions for I-2 occupancies also apply to Correctional Treatment Centers, i.e. combined I-3/I-2 occupancies.</p>
▶▶	<p>408.3.6 Exit discharge.</p> <p>408.3.6.1 <i>Exits are permitted to discharge into a fenced or walled courtyard. Enclosed yards or courts shall be of a size to accommodate all occupants, a minimum of 50 feet (15,240 mm) from the building with a net area of 3 square feet (1.4 m) per person. A gate shall be provided from the safe dispersal area to allow for the necessary relocation of occupants.</i></p>	<p>Allowed, probably not realistic for a high rise building closely surrounded by other buildings.</p>
▶	<p>408.3.6.2 <i>Exterior fenced enclosures and fenced enclosures utilized for recreational or activity purposes, used for exit termination for more than 20 persons, and which do not provide a safe dispersal area, shall have not less than two exits.</i></p>	<p>2 exits required for exterior yards on upper levels (roofs); 2 stairs required for > 20 occupants.</p>
▶	<p>408.3.6.3 <i>Fenced enclosure utilized for recreational or activity purposes only, for more than 49 people, and which do not provide a safe dispersal area, shall be provided with not less than two exits.</i></p>	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶	408.3.6.4 <i>Fenced enclosures located on roofs of buildings one or more stories in height shall be provided with not less than two exits regardless of occupant load.</i>	Yards on upper levels require two exits. If one exit is back into the interior, coordinate with review agency regarding requirements: Does exit need to enter a rated corridor? Does the door need to swing inward? Does the yard also serve as an exit from the interior and if so, which way does the door(s) swing?
▶▶	408.3.7 Sallyports. A sallyport shall be permitted in a means of egress where there are provisions for continuous and unobstructed passage through the sallyport during an emergency egress condition.	
▶▶	408.3.8 Interior exit stairway and ramp construction. One interior exit stairway or ramp in each building shall be permitted to have glazing installed in doors and interior walls at each landing level providing access to the interior exit stairway or ramp, provided that the following conditions are met: <ol style="list-style-type: none"> 1. The interior exit stairway or ramp shall not serve more than four floor levels. 2. Exit doors shall be not less than 3/4-hour fire door assemblies complying with Section 716.5. 3. The total area of glazing at each floor level shall not exceed 5,000 square inches (3.2 m) and individual panels of glazing shall not exceed 1,296 square inches (0.84 m). 4. The glazing shall be protected on both sides by an automatic sprinkler system. The sprinkler system shall be designed to wet completely the entire surface of any glazing affected by fire when actuated. 5. The glazing shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler system operates. 6. Obstructions, such as curtain rods, drapery traverse rods, curtains, drapes or similar materials shall not be installed between the automatic sprinklers and the glazing. 	A glazed stairwell is not allowed in buildings over 4 stories in height.

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▶▶ 408.3.11	Number of exits required. <i>In temporary holding areas of noncombustible construction, a second means of egress is required when the occupant load is greater than 20.</i>	This allows for a single room or space, with an occupant load of 20 or fewer, to be served with one exit. This does not apply to multiple rooms/spaces.
▶▶▶ 408.6	<p>Smoke barrier. Occupancies in Group I-3 shall have smoke barriers complying with Sections 408.8 and 709 to divide every story occupied by residents for sleeping, or any other story having an occupant load of 50 or more persons, into no fewer than two smoke compartments.</p> <p>Exception: Spaces having a direct exit to one of the following, provided that the locking arrangement of the doors involved complies with the requirements for doors at the smoke barrier for the use condition involved:</p> <ol style="list-style-type: none"> 1. A public way. 2. A building separated from the resident housing area by a 2-hour fire-resistance-rated assembly or 50 feet (15,240 mm) of open space. 3. A secured yard or court having a holding space 50 feet (15,240 mm) from the housing area that provides 6 square feet (0.56 m) or more of refuge area per occupant, including residents, staff and visitors. 4. Holding facility. 	Regardless of exceptions listed here, a high rise CTC would require at least two separate smoke compartments separated by smoke barriers. Also see requirements for 407.5.
▶▶ 408.6.1	Smoke compartments. The number of residents in any smoke compartment shall be not more than 200. The travel distance to a door in a smoke barrier from any room door required as exit access shall be not greater than 150 feet (45,720 mm). The travel distance to a door in a smoke barrier from any point in a room shall be not greater than 200 feet (60,960 mm).	Regardless of exceptions listed here, a high rise CTC would require at least two separate smoke compartments separated by smoke barriers.
▶▶ 408.6.2	Refuge area. Not less than 6 net square feet (0.56m) per occupant shall be provided on each side of each smoke barrier for the total number of occupants in adjoining smoke compartments. This space shall be readily available wherever the occupants are moved across the smoke barrier in a fire emergency.	See commentary for 407.5.1.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 408.9	Windowless buildings. For the purposes of this section, a windowless building or portion of a building is one with nonopenable windows, windows not readily breakable or without windows.	Secure CTCs with security glazing are windowless buildings. For a high rise building, smoke control is recommended, but exterior, unenclosed stairs at the end of each wing might qualify. Woven wire enclosure should qualify. Canopy above door at each level should not extend greater than 8' to allow for smoke to escape. Contingent upon CSFM approval.
▶▶ 408.9.1	<p>Smoke venting. <i>Windowless buildings containing use conditions 3, 4 or 5 shall be provided with an engineered smoke control system in accordance with Section 909, windows or doors, smoke vents, or equivalent means to provide a tenable environment for exiting from the smoke compartment in the area of fire origin. If windows or doors are used to meet this section, at least two windows or doors to the exterior must be provided at or above the highest occupied level in each smoke compartment, and the windows or doors must be operable or readily breakable and arranged to manually vent smoke.</i></p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. <i>Local adult detention facilities, CDCR and CDCR mental health housing facilities shall be exempt from this section when they meet each of the following criteria:</i> <ol style="list-style-type: none"> 1.1. <i>Are Type I-B or I-A construction</i> 1.2. <i>Are protected with sprinklers throughout in accordance with Section 903.1.1</i> 1.3. <i>Include a fire alarm system with smoke detection in accordance with NFPA 72 in the dayroom and/or corridor serving as exit access from the cells, reporting to a 24 hour central control at the institution</i> 1.4. <i>Include at least one exit from each housing unit that discharges directly to the exterior</i> 1.5. <i>The building is divided into at least two smoke compartments per Section 408.6.1</i> 	Providing at least one operable window in each smoke compartment may also satisfy this requirement. Contingent upon CSFM approval.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
	<ol style="list-style-type: none"> 1.6. <i>Staffing in the institution is sufficient to evacuate inmates from the smoke compartment 24 hours per day, as approved by the enforcing agency or the facility is provided with gang or electric locks.</i> 2. <i>No venting or smoke control is required when an engineering analysis shows an acceptable safe egress time compared to the onset of untenable conditions within a windowless building or portion of a windowless building and approved by the enforcing agency.</i> 	
▶▶▶ [F] 408.11	Automatic sprinkler system. Group I-3 occupancies shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.2.6.	
▶▶▶ 408.12	Emergency and standby power systems. <i>Special electrical systems, exit illumination, power installations and alternate on-site electrical supplies shall be provided for every building or portion of a building housing 10 or more inmates in a detention or correctional facility in accordance with the provisions of the California Electrical Code. There shall be a source of emergency power in all detention facilities capable of providing minimal lighting in all housing units, activity areas, corridors, stairs and central control points, and to maintain fire and life safety, security, communications and alarm systems.</i>	
▶▶▶ 408.13	<p>Windows. In security areas within cell complexes sprinklered throughout, the area of glazing in one-hour corridor walls and smoke barrier walls shall not be restricted, provided:</p> <ol style="list-style-type: none"> 1. All openings are protected by fixed glazing listed and labeled for a fire-protection of at least 3/4 hour; or 2. Fixed security glazing set in noncombustible frames. Shall comply with the minimum requirements of one of the following test standards: ASTM F 1233-98, Class III glass, or; California Department of Corrections, CDC 860-94d, or H.P. White Laboratory, 1nc. HPWTP-0500.02, Forced Entry Level III. 3. In lieu of the sizes set forth in CBC, the size and area of 	Not relevant if you meet requirements of 408.1.2.2

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	glazed assemblies shall conform to the following: Windows required to have a three-fourths-hour fire-resistive rating or windows protected by fixed security glazing, as delineated in Items 1 and 2 above, may have an area not greater than 84 square feet (7.8 m) with neither width nor height exceeding 12 feet (3658 mm).	
▶▶▶ 408.14	Safety padding. Padding material used on walls, floors and ceilings in Group I and R-2.1 occupancies shall be of an approved type tested in accordance with the procedures established by State Fire Marshal Standard 12-8-100, Room Fire Test for Wall and Ceiling Materials, California Code of Regulations, Title 24, Part 12.	

CHAPTER 9 – FIRE PROTECTION SYSTEMS

Section 903 – AUTOMATIC SPRINKLER SYSTEMS

- ▶ [F] 903.2.6.2 **Group I-3.** Every building, or portion thereof, where inmates or persons are in custody or restrained shall be protected by an automatic sprinkler system conforming to NFPA 13. The main sprinkler control valve or valves and all other control valves in the system shall be locked in the open position and electrically supervised so that at least an audible and visual alarm will sound at a constantly attended location when valves are closed. The sprinkler branch piping serving cells may be embedded in the concrete construction.

Section 907 – FIRE ALARM AND DETECTION SYSTEMS

- ▶ [F] 907.2.6.3 **Group I-3 occupancies.** Group I-3 occupancies shall be equipped with a manual fire alarm system and automatic smoke detection system installed for alerting staff.
Exception: *An automatic smoke detection system is not required within temporary holding cells.*

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶ [F] 907.2.6.3.3	<p>Automatic smoke detection system. An automatic smoke detection system shall be installed throughout resident housing areas, including sleeping units and contiguous day rooms, group activity spaces and other common spaces normally accessible to inmates.</p> <p>Exceptions:</p> <ol style="list-style-type: none">2. For detention housing and/or mental health housing area(s), including correctional medical and mental health uses, automatic smoke detection system in sleeping units shall not be required when all of the following conditions are met:<ol style="list-style-type: none">2.1. All rooms, including the inmate cells are provided with an automatic sprinkler system in accordance with Section 903.3.1.1.2.2. Building is continuously staffed by a correctional officer at all times.2.3. The exception to Section 903.2.6.2 shall not apply.	Smoke detection is not required in temporary holding cells, inmate cells, or inmate-patient rooms.
▶▶▶ Section 909 – SMOKE CONTROL SYSTEMS 909.20	<p>Smokeproof enclosures. Where required by Section 1022.10, a smokeproof enclosure shall be constructed in accordance with this section. A smokeproof enclosure shall consist of an enclosed interior exit stairway that conforms to Section J 022.2 and an open exterior balcony or vestibule meeting the requirements of this section. Where access to the roof is required by the California Fire Code, such access shall be from the smokeproof enclosure where a smokeproof enclosure is required.</p>	An exit stairway must be directly accessible to the elevator lobby used by firefighters.

CHAPTER 10 – MEANS OF EGRESS

▶▶▶ Section 1004 – OCCUPANT LOAD 1004.1	<p>Design occupant load. In determining means of egress requirements, the number of occupants for whom means of egress facilities shall be provided shall be determined in accordance with this section.</p>
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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶	1004.1.1	Cumulative occupant loads. Where the path of egress travel includes intervening rooms, areas or spaces, cumulative occupant loads shall be determined in accordance with this section.
▶	1004.1.1.1	Intervening spaces or accessory areas. Where occupants egress from one or more rooms, areas or spaces through others, the design occupant load shall be the combined occupant load of interconnected accessory or intervening spaces. Design of egress path capacity shall be based on the cumulative portion of occupant loads of all rooms, areas or spaces to that point along the path of egress travel.
▶▶▶	1004.5	Outdoor areas. Yards, patios, courts and similar outdoor areas accessible to and usable by the building occupants shall be provided with means of egress as required by this chapter. The occupant load of outdoor areas shall be assigned by the building official in accordance with the anticipated use. Where outdoor areas are to be used by persons in addition to the occupants of the building, and the path of egress travel from the outdoor areas passes through the building, means of egress requirements for the building shall be based on the sum of the occupant loads of the building plus the outdoor areas.
▶▶▶	1004.6	Multiple occupancies. Where a building contains two or more occupancies, the means of egress requirements shall apply to each portion of the building based on the occupancy of that space. Where two or more occupancies utilize portions of the same means of egress system, those egress components shall meet the more stringent requirements of all occupancies that are served.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶	Section 1007 – ACCESSIBLE MEANS OF EGRESS 1007.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1015.1 or 1021.1 from any accessible space, <u>each accessible portion of the space shall be served by accessible means of egress in at least the same number as required by Section 1015.1 or 1021.1.</u> In addition to the requirements of this chapter, means of egress, which provide access to, or egress from, buildings for persons with disabilities, shall also comply with the requirements of Chapter 11A or 11 B as applicable.	Chapter 11 refers to this section for accessible exit requirements. Accessible exits are required in the same quantity as required exits. Where stairs are used as a component of a required exit, the route of travel from the bottom of stairs to a public way or safe dispersal area may be required to be accessible. Consult the authority having jurisdiction.
▶▶▶	1007.2 Continuity and components. Each required accessible means of egress shall be continuous to a public way and shall consist of one or more of the following components: <ol style="list-style-type: none">1. Accessible routes complying with Chapter 11 A, Sections 1110A.1 and 1120A, or Chapter 11B, Sections II 11B-206 and 11B-402, as applicable.2. Interior exit stairways complying with Sections 1007.3 and 1022, and Chapter 11 A, Section 1123A, or Chapter 11B, Sections 11B-210 and 11B-504, as applicable.3. Interior exit access stairways complying with Sections 1007.3 and 1009.3, Chapter 11A, Section 1123A, or Chapter 11B, Sections 11B-210 and 11B- II 504, as applicable.4. Exterior exit stairways complying with Sections 1007.3 and 1026, and Chapter 11A, Section 1115A, or Chapter 11B, Sections 11B-210 and 11B-504, as II applicable.	Exits discharging at grade should allow for occupants to move to a public way or to the safe dispersal area without obstacle interrupting egress. Avoid routes through fences, over curbs, around equipment, etc. The authority have jurisdiction may also require an accessible path of travel from the bottom landing of stairwells to the safe dispersal area, which should also be disabled accessible.
▶▶▶	1007.6 Areas of refuge. Every required area of refuge shall be accessible from the space it serves by an accessible means of egress. The maximum travel distance from any accessible space to an area of refuge shall not exceed the travel distance permitted for the occupancy in accordance with Section 1016.1. Every required area of refuge shall have direct access to a stairway complying with Sections 1007.3 or an elevator	

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	<p>complying with Section 1007.4. Where an elevator lobby is used as an area of refuge, the shaft and lobby shall comply with Section 1022.10 for smokeproof enclosures except where the elevators are in an area of refuge formed by a horizontal exit or smoke barrier. [DSA-AC] <i>Areas of refuge shall comply with the requirements of this code and shall adjoin an accessible route complying with Sections 11B-206 and 11B-402.</i></p>	
▶▶ 1007.6.1	<p>Size. Each area of refuge shall be sized to accommodate <i>two wheelchair spaces that are not less than 30 inches by 48 inches (762 mm by 1219 mm). The total number of such 30-inch by 48-inch (762 mm by 1219 mm) spaces per story shall be not less than one for every 200 persons of calculated occupant load served by the area of refuge.</i> Such wheelchair spaces shall not reduce the required means of egress width. Access to any of the required wheelchair spaces in an area of shall not be obstructed by more than one adjoining wheelchair space.</p> <p>Exception: <i>The enforcing agency may reduce the size of each required area of refuge to accommodate one wheelchair space that is not less than 30 inches by 48 inches (762 mm by 1219 mm) on floors where the occupant load is less than 200.</i></p>	
▶▶ 1007.6.2	<p>Separation. Each area of refuge shall be separated from the remainder of the story by a smoke barrier complying with Section 709 or a horizontal exit complying with Section 1025. Each area of refuge shall be designed to minimize the intrusion of smoke.</p>	
▶▶ 1007.6.3	<p>Two-way communication. Areas of refuge shall be provided with a two-way communication system complying with Sections 1007.8.1 and 1007.8.2.</p>	<p>Two-way communication (phone or intercom) shall be provided in the area of refuge which may be located in the stairwell or the elevator lobby.</p>
▶▶▶ 1007.7	<p>Exterior area for assisted rescue. Exterior areas for assisted rescue shall be accessed by an accessible route from the area served. Exterior areas for assisted rescue shall be permitted in accordance with Section 1007.7.1 or 1007.7.2.</p>	<p>An accessible route is typically required from the bottom landing of an exit stairwell to the exterior area for assisted rescue. Consult the authority having jurisdiction.</p>

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶ 1007.7.1	Level of exit discharge. Where the exit discharge does not include an accessible route from an exit located on a level of exit discharge to a public way, an exterior area of assisted rescue shall be provided on the exterior landing in accordance with Sections 1007.7.3 through 1007.7.6.	
▶▶ 1007.7.3	Size. Each exterior area for assisted rescue shall be sized to accommodate wheelchair spaces in accordance with Section 1007.6.1.	These areas shall meet ADA requirements, <2% slopes, etc.
▶▶▶ 1007.8	Two-way communication. A two-way communication system shall be provided at the elevator landing on each accessible floor that is one or more stories above or below the story of exit discharge complying with Sections 1007.8.1 and 1007.8.2. Exceptions: 1. Two-way communication systems are not required at the elevator landing where the two-way communication system is provided within areas of refuge in accordance with Section 1007.6.3.	
Section 1008 – DOORS, GATES AND TURNSTILES		
▶▶ 1008.1.1	Size of doors. <i>Means of egress doors in a Group I-2 occupancy used for the movement of beds and litter patients shall provide a clear width not less than 44 inches (1054 mm).</i>	With door stops, hinges, and the width of the door, frame openings must be 48".
▶▶ 1008.1.2	Door swing. Egress doors shall be of the pivoted or side-hinged swinging type. 2. Group I-3 occupancies used as a place of detention.	Sliding doors do not work for ADA nor do they meet requirements for doors in corridors. Swings doors recommended.

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▶▶ 1008.1.3	Door opening force. The force for pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed 5 pounds (22 N). For other swinging doors, as well as sliding and folding doors, the door hatch shall release when subjected to a 15-pound (67 N) force. The door shall be set in motion when subjected to a 30-pound (133 N) force. The door shall swing to a full open position when subjected to a 15-pound (67 N) force.	Because detention doors are heavy, and because of these max opening force requirements, HVAC systems have to be carefully balanced and tested with HVAC on and in emergency mode.
▶ 1008.1.9.1	Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter IIA or 11B shall not require tight grasping, tight pinching or twisting of the wrist to operate. <i>These design requirements for door handles, pulls, latches, locks and other operating devices, intended for use on required means of egress doors in other than Group R and M occupancies with an occupant load of 10 or less, shall comply with SFM Standard 12-10-2, Section 12-10-202 contained in the CCR, Title 24, Part 12, California Referenced Standards Code.</i>	Within areas where inmates are allowed free movement, these requirements apply. Unless inmate movement is controlled and inmates are always escorted, these requirements apply. Any areas accessible to non-correctional staff (treatment staff, instructors, etc.) shall be fully accessible.
▶▶▶ Section 1014 – EXIT ACCESS		
▶▶▶ 1014.2	Egress through intervening spaces. Egress through intervening spaces shall comply with this section. 1. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, <u>except where such adjoining rooms or areas and the area served are accessory to one or the other</u> , are not a Group H occupancy and provide a discernible path of egress travel to an exit.	

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▶▶▶ **Section 1015 – EXIT AND EXIT ACCESS DOORWAYS**
1015.1 Exits or exit access doorways from spaces. Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:
 1. The occupant load of the space exceeds one of the values in Table 1015.1.

Table 1015.1 – Spaces with One Exit or Exit access Doorway

Occupancy	Maximum Occupant Load
I-3	10

a. For holding cells, see Section 408.3.11

A second exit is required whenever the occupant load is greater than 10. A single room or space requires a second door when the occupant load exceeds 20.

▶▶▶ **Section 1016 – EXIT ACCESS TRAVEL DISTANCE**
1016.2 Limitations. Exit access travel distance shall not exceed the values given in Table 1016.2.

Table 1016.2 – Exit Access Travel Distance

Occupancy	Without Sprinkler System (feet)	With Sprinkler System (feet)
I-3	Not Permitted	200

No point in the building should be more than 200 feet from an exit or stairwell.

▶▶▶ **Section 1018 – CORRIDORS**
1018.1 Construction.
 A fire-resistance rating is not required for corridors within suites in a Group I-2 occupancy provided with an automatic sprinkler system throughout and constructed in accordance with Section 407.4.3.5 or 407.4.3.6.

Table 1018.1 – Corridor Fire-Resistance Rating

Occupancy	Occupant Load Served By Corridor	Required Fire-Resistance Rating (hours)	
		Without Sprinkler System	With Sprinkler System
I-3	Greater than 6	Not Permitted	1

b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Sections 408.1.2 and 408.8.

CTC housing units around nurses' stations can be constructed as suites, but they must be separated from corridors and other suites by 1-hour min. construction. Suites should not be required to exit into other suites unless approved by the CSFM.

Just because a building, or portion thereof, has an occupant load of 6 or more does not automatically mean rated corridors apply. The intent of table 1018.1 is to require 1-hour construction when other portions of the code required a rated corridor.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY				
Table 1018.2 – Minimum Corridor Width						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Occupancy</th> <th style="text-align: center;">Width (minimum)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Group I-2 in areas where required for bed movement</td> <td style="text-align: center;">96 inches</td> </tr> </tbody> </table>	Occupancy	Width (minimum)	Group I-2 in areas where required for bed movement	96 inches	
Occupancy	Width (minimum)					
Group I-2 in areas where required for bed movement	96 inches					
▶▶▶	1018.3 Obstruction. The required width of corridors shall be unobstructed.					
▶▶▶	1018.4 Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet (6096 mm) in length. Exceptions: <ol style="list-style-type: none"> 1. In occupancies in Group I-3 of Occupancy Condition 2, 3 or 4 (see Section 308.5), the dead end in a corridor shall not exceed 50 feet (15 240 mm). 					
▶▶▶	1018.6 Corridor continuity. Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms. Where the path of egress travel within a fire-resistance-rated corridor to the exit includes travel along unenclosed exit access stairways or ramps, the fire resistance-rating shall be continuous for the length of the stairway or ramp and for the length of the connecting corridor on the adjacent floor leading to the exit.	Once in a corridor, occupants must be able to exit directly to the exterior or into a stairwell which discharges directly to the exterior and then to a safe dispersal area 50 feet away or to a public way. [also refer to 1020.1 & 1020.2.2]				
▶▶▶	Section 1020 – EXITS 1020.1 General. Exits shall comply with Sections 1020 through 1026 and the applicable requirements of Sections 1003 through 1013. An exit shall not be used for any purpose that interferes with its function as a means of egress. Once a given level of exit protection is achieved, such level of protection shall not be reduced until arrival at the exit discharge.	Once in a protected enclosure (corridor or stairwell) you cannot exit into to an area with a lower level of protection.				
▶▶	1020.2.2 Arrangement. Exterior exit doors shall lead directly to the exit discharge or the public way.					

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
	Section 1022 – INTERIOR EXIT STAIRWAYS AND RAMPS	
▶▶▶	1022.1 General. Interior exit stairways and interior exit ramps serving as an exit component in a means of egress system shall comply with the requirements of this section. Interior exit stairways and ramps shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An interior exit stairway or ramp shall not be used for any purpose other than as a means of egress.	
▶▶▶	1022.2 Construction. Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Interior exit stairways and ramps shall have a fire resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours. Exceptions: 1. Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8.	This may apply to one stair only, but only for 4 floors
▶▶▶	1022.3 Termination. Interior exit stairways and ramps shall terminate at an exit discharge or a public way.	
	Section 1023 – EXIT PASSAGEWAYS	
▶▶▶	1023.1 Exit passageway. Exit passageways serving as an exit component in a means of egress system shall comply with the requirements of this section. An exit passageway shall not be used for any purpose other than as a means of egress.	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 1023.2	<p>Width. The minimum width of exit passageways shall be determined as specified in Section 1005.1 but such width shall not be less than 44 inches (1118 mm), except that exit passageways serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width. The required width of exit passageways shall be unobstructed.</p>	
▶▶▶ 1023.3	<p>Construction. Exit passageway enclosures shall have walls, floors and ceilings of not less than a 1-hour fire-resistance rating, and not less than that required for any connecting interior exit stairway or ramp. Exit passageways shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.</p>	
<p>Section 1025 – HORIZONTAL EXITS</p>		
▶▶▶ 1025.1	<p>Horizontal exits. Horizontal exits serving as an exit in a means of egress system shall comply with the requirements of this section. A horizontal exit shall not serve as the only exit from a portion of a building, and where two or more exits are required, not more than one-half of the total number of exits or total exit width shall be horizontal exits.</p> <p>Exceptions:</p> <p>2. Horizontal exits are permitted to comprise 100 percent of the exits required for occupancies in Group I-3. At least 6 square feet (0.6 m²) of accessible space per occupant shall be provided on each side of the horizontal exit for the total number of people in adjoining compartments.</p>	<p>Horizontal exits can be used to exit to a separate fire area (using 2-hour min. fire barrier between fire areas). Sprinkler standpipes are required on each side of horizontal exits. Horizontal exits should not exit into a lesser level of protection (i.e. a corridor/exit passageway must exit through a horizontal exit into another corridor/exit passageway of the same fire resistivity) unless approved by the CSFM.</p>
▶▶▶ 1025.2	<p>Separation. The separation between buildings or refuge areas connected by a horizontal exit shall be provided by a fire wall complying with Section 706; or it shall be provided by a fire barrier complying with Section 707 or a horizontal assembly complying with Section 711, or both. The minimum fire-resistance rating of the separation shall be 2 hours. Opening protectives in horizontal exits shall also comply with Section 716. Duct and air transfer openings in a fire wall or fire barrier that serves as a horizontal exit shall also comply with Section 717.</p>	

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	<p>The horizontal exit separation shall extend vertically through all levels of the building unless floor assemblies have a fire-resistance rating of not less than 2 hours with no unprotected openings.</p> <p>Horizontal exits constructed as fire barriers shall be continuous from exterior wall to exterior wall so as to divide completely the floor served by the horizontal exit.</p>	
▶▶▶ 1025.4	<p>Capacity of refuge area. The refuge area of a horizontal exit shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original occupant load of the refuge area plus the occupant load anticipated from the adjoining compartment. The anticipated occupant load from the adjoining compartment shall be based on the capacity of the horizontal exit doors entering the refuge area. The capacity of the refuge area shall be computed based on a net floor area allowance of 3 square feet (0.2787 m) for each occupant to be accommodated therein.</p> <p>Exception: The net floor area allowable per occupant shall be as follows for the indicated occupancies:</p> <ol style="list-style-type: none">1. Six square feet (0.6 m) per occupant for occupancies in Group I-3.2. Fifteen square feet (1.4 m) per occupant for ambulatory occupancies in Group I-2.3. Thirty square feet (2.8 m) per occupant for nonambulatory occupancies in Group I-2.	<p>If using horizontal exits, the mission of the CTC will determine the floor area required in the area of refuge.</p>
▶▶▶ Section 1026 – EXTERIOR EXIT STAIRWAYS AND RAMPS		
▶▶▶ 1026.2	<p>Use in a means of egress. Exterior exit stairways shall not be used as an element of a required means of egress for Group I-2 occupancies. For occupancies in other than Group I-2, exterior exit stairways and ramps shall be permitted as an element of a required means of egress for buildings not exceeding six stories above grade plane or which are not high-rise buildings.</p>	<p>For the CTC, exterior stairs are not allowed. Also, for buildings over 6 stories, exterior stairs are not allowed.</p>

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 1027.1	<p>Section 1027 – EXIT DISCHARGE</p> <p>1027.1 General. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide a direct path of egress travel to grade. <u>The exit discharge shall not reenter a building.</u> The combined use of Exceptions 1 and 2 shall not exceed 50 percent of the number and capacity of the required exits.</p> <p>Exception:</p> <ol style="list-style-type: none">1. A maximum of 50 percent of the number and capacity of interior exit stairways and ramps is permitted to egress through areas on the level of exit discharge provided all of the following are met:<ol style="list-style-type: none">1.1. Such enclosures egress to a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the enclosure.1.2. The entire area of the level of exit discharge is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.2. A maximum of 50 percent of the number and capacity of the interior exit stairways and ramps is permitted to egress through a vestibule provided all of the following are met:<ol style="list-style-type: none">2.1. The entire area of the vestibule is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.	<p>Ground floor exits must discharge at the exterior, and cannot reenter the building. If upper level yards are considered "exterior" this may present challenges based on agency review. We recommend calling upper level yards "INTERIOR, NATURALLY VENTILATED RECREATION ROOMS". BSCC needs to allow this as a substitution for exterior yards, but it alleviates challenges related to egress from exterior spaces.</p>

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
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CHAPTER 11B – ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

Section 11B-206 – ACCESSIBLE ROUTES

- ▶▶ 11B-206.4.9 **Entrances for inmates or detainees.** Where entrances used only by inmates or detainees and security personnel are provided at judicial facilities, detention facilities, or correctional facilities, at least one such entrance shall comply with Section 11 B-404.

Section 11B-207 – ACCESSIBLE MEANS OF EGRESS

- ▶▶▶ 11B-207.1 **General.** Means of egress shall comply with Chapter 10, Section 1007.
 - 2. Areas of refuge shall not be required in detention and correctional facilities.

Section 11B-210 – STAIRWAYS

- ▶▶▶ 11B-210.1 **General.** Interior and exterior stairs shall comply with Section 11B-504.
 - Exceptions:**
 - 1. In detention and correctional facilities, stairs that are not located in public use areas shall not be required to comply with Section 11 B-504.

This may apply to stairs at tiers and stairs to control areas, however, arguably do not apply to emergency exit stairs. We recommend fully compliant stairs, especially when they may serve guests, treatment staff, or educational or vocational instructors.

Section 11B-404 – DOOR, DOORWAYS, AND GATES

- ▶▶▶ 11B-404.1 **General.** Doors, doorways, and gates that are part of an accessible route shall comply with Section 11 B-404.
 - Exceptions:**
 - 1. Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 11B-404.2.7, 11B-404.2.8, 11B-404.2.9, 11B-404.3.2 and 11B-404.3.4 through 11B-404.3.7. A sign visible from the approach side complying with Section 11 B-703.5 shall be posted stating "Entry restricted and controlled by security personnel".
 - 2. At detention and correctional facilities, doors, doorways,

This exception implies a full-time manned entry and would not apply to doors which are remotely controlled, with the possible exception of doors that have power activated opening devices.

These exceptions apply to swinging doors. Since automatic door openers are typically not compatible with security hardware at swinging doors and/or the

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	and gates designed to be operated only by security personnel shall not be required to comply with Sections 11B-404.2.7, 11B-04.2.8, 11B-404.2.9, 11B-404.3.2 and 11B-404.3.4 through 11B-404.3.7.	smoke tight requirements, it is unlikely that this code section would apply to most doors.
	Section 11B-505 – STAIRWAYS	
▶▶▶	11B-504.1 General. Stairs shall comply with Section 11 B-504.	
▶▶▶	11B-S04.2 Treads and risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (102 mm) high minimum and 7 inches (178 mm) high maximum. Treads shall be 11 inches (279 mm) deep minimum.	
▶▶▶	11B-504.3 Open risers. Open risers are not permitted. Exceptions: 1. <i>On exterior stairways, an opening of not more than 1/2 inch (12.7 mm) may be permitted between the base of the riser and the tread.</i> 2. <i>On exterior stairways, risers constructed of grating containing openings of not more than 1/2 inch (12.7 mm) may be permitted.</i>	
▶▶▶	11B-504.4 Tread surface. Stair treads shall comply with Section 11 B-302. Changes in level are not permitted. Exception: Treads shall be permitted to have a slope not steeper than 1:48.	
▶▶	11B-504.4.1 Contrasting stripe. <i>Interior stairs shall have the upper approach and lower tread marked by a stripe providing clear visual contrast. Exterior stairs shall have the upper approach and all treads marked by a stripe providing clear visual contrast.</i> <i>The stripe shall be a minimum of 2 inches (51 mm) wide to a maximum of 4 inches (102 mm) wide placed parallel to, and not more than 1 inch (25 mm) from, the nose of the step or upper approach. The stripe shall extend the full width of the step or upper approach and shall be of material that is at least as slip</i>	

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	<i>resistant as the other treads of the stair. A painted stripe shall be acceptable. Grooves shall not be used to satisfy this requirement.</i>	
▶▶ 11B-504.5	Nosings. The radius of curvature at the leading edge of the tread shall be 1/2 inch (12.7 mm) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 1-1/4 inches maximum over the tread below. Exception: <i>In existing buildings there is no requirement to retroactively alter existing nosing projections of 1-1/2 inches (38 mm) which were constructed in compliance with the building code in effect at the time of original construction.</i>	
▶▶ 11B-504.6	Handrails. Stairs shall have handrails complying with Section 11B-505.	
▶▶ 11B-504.7	Wet conditions. Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.	

CHAPTER 30 – ELEVATORS AND CONVEYING SYSTEMS

▶	Section 3007 – FIRE SERVICE ACCESS ELEVATOR 3007.7.1 Access. The fire service access elevator lobby shall have direct access from the enclosed elevator lobby to a smokeproof enclosure complying with Section 909.20. Exception: <i>Access to a smokeproof enclosure shall be permitted to be through a protected path of travel that has a level of fire protection not less than the elevator lobby enclosure. The protected path shall be separated from the enclosed elevator lobby through an opening protected by a smoke and draft control assembly in accordance with Section 716.5.3.</i>	An exit stairway must be directly accessible to the elevator lobby used by firefighters
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Section 1227 || [OSHPD 4] Correctional Treatment Centers

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 1227.1	Scope. The provisions of this chapter shall apply to Correctional Treatment Centers.	For standalone facilities that will be licensed as a Correctional Treatment Center (CTC)
▶▶▶ 1227.2	Application. New buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical Code, California Mechanical Code, California Plumbing Code, and California Fire Code (Parts 3, 4, 5, and 9 of Title 24) and this section.	
▶▶▶ 1227.3	<p>Definitions.</p> <p>BASIC SERVICES for Correctional Treatment Centers are those services required for licensure as a Correctional Treatment Center, including medical, surgical, psychiatrist, psychologist, nursing, pharmacy, and dietary: See “Optional Services.”</p> <p>HAND WASHING FIXTURE is a special application sink having a water supply spout mounted so the discharge point is at least 5 inches above the fixture rim and equipped with hot and cold supply controls not requiring direct contact of the hands for operation. The fixture cannot be equipped with an aerator and wrist or elbow blade handles. Gooseneck spouts shall not be used in Correctional Treatment Centers.</p> <p>LICENSING AGENCY is the Department of Health Services.</p> <p>OPTIONAL SERVICES are inpatient or outpatient services which are not required to be provided by law or regulation for licensure. An optional service, when provided, must accommodate the provisions of this chapter. See “Basic Services.”</p> <p>OUTPATIENT SERVICE is an organizational unit of the Correctional Treatment Center which provides nonemergency health care services to patients.</p>	Coordinate plumbing specifications, drawings, and clearances.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 1227.4	GENERAL CONSTRUCTION	
▶▶ 1227.4.1	Services/systems and utilities. Correctional treatment centers shall comply with this section.	
▶▶ 1227.4.1.1	Oxygen, vacuum and medical air. Correctional treatment centers shall comply with the requirements of Section 1224.4.6 wherever applicable.	These can be built into walls or can use portable bottles.
▶▶ 1227.4.2	Service spaces. Spaces for dietary, laundry, morgue, ambulance entrance, receiving areas, power plants, mechanical equipment, incinerator, garbage can cleaning, automobile parking and storage areas for garbage, trash and medical gases shall be located and constructed to minimize noise, steam, odors, and hazards in patient care areas and bedrooms.	
▶▶ 1227.4.3	Treatment spaces. Radiology, laboratory, pharmacy, and physical therapy spaces shall not be located in nursing units, surgical units, perinatal units, nursery areas, central sterilization rooms, food service areas, power plants, mechanical equipment rooms, maintenance shops, general storage, laundry, employees' dressing or housekeeping facilities.	Radiology, laboratory and pharmacy are not located within the nurses' wings.
▶▶ 1227.4.4	Treatment or exam room. If a treatment room or an exam room is provided, it shall have a minimum area of 80 square feet, the least dimension of which shall be 8 feet.	
▶▶▶ 1227.5	CORRIDORS	
▶▶ 1227.5.1	Width. The minimum width of corridors shall be 8 feet. <i>EXCEPTION: Patient-care corridors in Correctional Treatment Centers for psychiatric care of patients who are not bedridden shall have a minimum clear and unobstructed width of 6 feet. For the purpose of this section, bedridden patients shall be defined as patients confined to beds who would be transported or evacuated in beds or litters.</i> NOTE: See Chapter 10 for stairs, exits and occupant loads.	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶ 1227.5.2	<p>Service corridors width. Service corridors with anticipated light traffic volume for non-patient use may be reduced to a width of 5 feet if approved by the enforcing agency.</p> <p><i>EXCEPTION: Corridors in administrative and business areas may be reduced to a width of 44 inches.</i></p>	
▶▶ 1227.5.3	<p>Handrails. Corridors for patient traffic in areas providing skilled nursing, intermediate care or rehabilitation services shall be furnished with a handrail on both sides at a height not less than 30 inches or greater than 36 inches.</p>	While handrails are required on both sides of corridors, they should be held back at least 36" from the hinge side of doors to allow doors to open 180 degrees.
▶▶ 1227.5.4	<p>Connections. Corridor systems shall connect all patient rooms and essential services.</p>	
▶▶▶ 1227.6	DOORS AND DOOR OPENINGS.	
▶▶ 1227.6.1	<p>Toilet room doors. Doors to toilet rooms shall have an opening of not less than 32 inches clear in width and shall be equipped with hardware which will permit the door to swing outward or in a manner to negate the need to push against a patient who may have collapsed within the toilet room.</p>	Doors should always swing outward in inmate areas to prevent barricades.
▶▶ 1227.6.2	<p>Pocket doors. Pocket sliding doors are not permitted.</p> <p><i>EXCEPTION: Doors not serving as exit doors from administration area.</i></p>	
▶▶ 1227.6.3	<p>Door View Windows. Doors to patient bedrooms shall be provided with a view window with a minimum area of 288 square inches. Window sill height shall not be higher than 42 inches from the floor.</p>	
▶▶▶ 1227.7	WINDOWS AND SCREENS.	
▶▶ 1227.7.1	<p>Natural light. Rooms approved for the housing of patients shall be provided with natural light by means of glazed openings.</p>	While natural light can be provided with skylights, in multi-story buildings, windows are required.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶ 1227.7.2	Screens. When windows are operable, they shall be provided with insect screens of 16 meshes to the inch.	The windows in the housing units are non-operable. Exception: consider one operable window per smoke compartment to satisfy requirements of 408.9.
▶▶ 1227.7.3	Light and ventilation. All portions of a building used by patients, personnel or other persons shall be provided with artificial light and a mechanically operated ventilating system as specified in the California Electrical Code and the California Mechanical Code.	Coordinate with mechanical and electrical drawings for artificial light and mechanically operated ventilating system.
▶▶ 1227.7.4	Patient viewing window. Each patient bedroom shall be provided with viewing windows from the corridor to allow full and unobstructed visual observation of the patient.	
▶▶▶ 1227.8	CEILING HEIGHTS.	
▶▶ 1227.8.1	Minimum height. The minimum height of ceilings shall be 8 feet. <i>EXCEPTION: Closet, toilet rooms and bathroom minimum ceiling heights shall not be less than 7 feet.</i>	Recommend ceilings of at least 12' to prevent inmate patients from standing on the bed or lavatory to reach the ceiling and find ligature points. Inmate patients can also be extremely paranoid, and will plug any small openings in grilles, gaps, etc. because they think there may be cameras or other recording equipment there. To prevent inmates from blocking vents or air sampling devices, higher ceilings which are out of reach of inmates are preferable.
▶▶ 1227.8.2	Minimum height with fixed ceiling equipment. Rooms containing ceiling-mounted, major fixed equipment or ceiling-mounted surgical light fixtures shall have ceiling heights to accommodate the equipment or fixtures and their normal	
▶▶▶ 1227.9	INTERIOR FINISHES.	
▶▶ 1227.9.1	^{movement.} Floor finishes.	
▶ 1227.9.1.1	Floor finishes. Floor finishes shall be smooth, waterproof and durable. <i>EXCEPTION: Upon written appropriate documented request, the enforcing agency may grant approval of the installation of carpet. See Table 1224.1.</i>	We recommend epoxy flooring with a cove base.
▶ 1227.9.1.2	Resilient flooring. If used in toilet and bathing rooms, shall be continuous and extend upward onto the walls at least 5 inches.	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶	1227.9.2 Wall Bases.	
▶	1227.9.2.1 Materials and installation. The material and textures of bases and the installation thereof shall be such as to minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin. <i>EXCEPTION: In locations where carpet is permitted as a floor finish material, the use of carpeted based (coved or strip base) up to a maximum height of 5 inches is also permissible.</i>	
▶	1227.9.2.2 Wood Bases. Wood bases are prohibited except in administration departments and other offices described in Section 1227.16. <i>EXCEPTION: Wall bases in kitchens, operating rooms, delivery rooms, emergency operating rooms, cast rooms, special procedure rooms and other areas which are subject to wet cleaning methods shall be made integral and coved with the floor, and constructed without voids at the intersection of floor and wall surfaces.</i>	
▶▶	1227.9.3 Walls. Interior wall finishes shall be smooth, washable and durable.	We recommend a security plaster skim coat applied to walls, flush with epoxy base.
▶▶	1227.9.4 Ceilings. Ceiling finishes shall be in compliance with Table 1224.1. <i>EXCEPTION: Walls and ceiling finish requirements do not apply to boiler rooms, mechanical equipment rooms, administration departments, other offices, enclosed stairways, maintenance shops and similar spaces.</i>	
▶▶▶	1227.10 ELEVATORS.	
▶▶	1227.10.1 Patient elevators shall have minimum inside platform dimensions of 5 feet by 8 feet and a minimum clear door opening of 4 feet, 0 inches.	
▶▶	1227.10.2 Passenger elevators shall have minimum inside platform dimensions of 4 feet, 8 inches by 7 feet, 4 inches.	

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▶▶ 1227.10.3	Buildings over one story in height with accommodations or services for patients on floors without grade level entrance shall provide at least one passenger or patient elevator.	
▶▶ 1227.10.4	If bed patients are accommodated on one or more floors, other than the main entrance floor or where operating rooms or delivery rooms are above or below the main entrance floor, at least one patient elevator shall be provided.	
▶▶ 1227.10.5	At least one patient elevator and one service elevator shall be provided in Correctional Treatment Centers with a capacity of 60 to 149 beds on floors other than the main entrance floor.	
▶▶ 1227.10.6	At least one patient elevator, one passenger elevator and one service elevator shall be provided in hospitals with a capacity of 150 or more beds on floors other than the main entrance floor.	
▶▶ 1227.10.7	If elevators in the correctional institution meet the above size requirements and are easily accessible, the elevators need not be duplicated in the Correctional Treatment Centers.	
▶▶▶ 1227.11	<p>GARBAGE-SOLID WASTE AND TRASH STORAGE. Rooms or screening enclosures shall be provided for the washing and cleaning of garbage containers and for the storage of garbage, trash, and other solid wastes. Such rooms or screening enclosures shall include the following:</p> <ol style="list-style-type: none"> 1. A concrete floor with a curb and with a drain connected to the sewer. 2. Steam or hot-water and cold-water supply. 3. A minimum floor area of ½ square foot per bed, but not less than 25 square feet, the least dimension of which shall be 4 feet. 4. A method of limiting access to the material except by authorized persons. 	<p>See space requirement analysis sheet B-0 for can wash, trash, and waste.</p>

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
<u>BASIC SERVICES</u>		
▶▶▶	1227.12 NURSING SERVICE SPACE.	
▶▶	1227.12.1 Patient bedrooms. Patients shall be accommodated only in rooms with the following minimum floor area, exclusive of toilet rooms, wardrobes, entrance vestibules, and fixed furnishings or equipment. <ol style="list-style-type: none"> 1. Single-patient rooms: 110 square feet. 2. Multi-patient rooms: 80 square feet per bed. 	<p>See space requirement analysis sheet B-1 for patient bedroom and B-1A for accessible cells.</p> <p>For programming purposes, figure 135 sf for standard patient rooms and 155 sf for accessible patient rooms.</p>
▶▶	1227.12.2 Distance. A minimum distance of 3 feet shall be provided between beds and 4 feet between the foot of beds and walls or fixed objects in multi-patient rooms, and 3 feet in single patient rooms.	
▶▶	1227.12.3 Airborne infection isolation rooms. Single rooms shall be provided for the isolation of patients with airborne communicable disease at a ratio of one room for each 35 beds, or major fraction thereof. At least one airborne infection isolation room shall be provided. Airborne infection isolation rooms shall be labeled with the words "Airborne Infection Room" on or adjacent to the anteroom side of the door between the isolation room and the anteroom.	See space requirement analysis sheet B-2 for Airborne Infection Isolation Room.
▶	1227.12.3.1 Alternates. Alternate designs for modifications to isolation rooms in operation prior to the effective date of this section may be utilized when it can be demonstrated that the alternate design meets performance requirements, without compromising any health or life-safety requirement.	
▶	1227.12.3.2 Anteroom doors. Airborne infection isolation room(s) shall have self-closing and latching devices on all anteroom doors.	
▶	1227.12.3.3 Anteroom. A separate anteroom shall be provided between the negative-pressure isolation room and the corridor, which shall constitute the primary entrance to the negative pressure isolation	

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	<p>room. This anteroom shall have a handwashing fixture, work counter at least 3 feet long, cabinets and space to gown and to store clean and soiled materials. There shall be a view window from the anteroom to the isolation room and means to allow for airflow from the anteroom into the negative pressure isolation room. Doors shall be aligned to allow large equipment to be wheeled into the negative-pressure isolation room unless a secondary door complying with Section 1227.12.3.4 is provided. One anteroom may serve no more than two airborne infection isolation rooms.</p>	
▶ 1227.12.3.4	<p>Secondary entry. When a secondary entry is provided directly from the corridor to the negative-pressure isolation room, secondary doors shall be provided with locking devices which are readily operable from the room side and which are readily operable by the facility staff on the other side. When key locks are used on isolation rooms, keys shall be located at the nurses' station in a prominent readily accessible location.</p>	
▶ 1227.12.3.5	<p>Adjoining toilet facilities. Each isolation room shall have its own toilet facilities with an emergency nurse call system, a lavatory, a shower providing a seat or a space for a shower chair and a toilet equipped with a bedpan flushing attachment with a vacuum breaker.</p>	<p>Accessible requirements for at least one isolation room applies.</p>
▶ 1227.12.3.6	<p>Sealed-tight room. Airborne infection isolation room perimeter walls, ceiling, floors, doors, and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other spaces.</p>	
▶▶ 1227.12.4	<p>Protective environment rooms. Protective environment rooms for the protection of certain immunosuppressed patients may be provided by the facility. Protective environment rooms shall be labeled "Protective Environment Room" on or adjacent to the anteroom side of the door between the isolation room and the anteroom.</p>	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶ 1227.12.4.1	Anteroom doors. Airborne infection isolation room(s) shall have self-closing and latching devices on all anteroom doors.	
▶ 1227.12.4.2	<p>Anteroom. A separate anteroom shall be provided between the protective environment room and the corridor or adjoining space which shall constitute the only entrance to the protective environment isolation room. This anteroom shall have a handwashing fixture, work counter at least 3 feet long, cabinets and space to gown and to store clean and soiled materials. There shall be a view window from the anteroom to the positive-pressure isolation room. There shall be means to allow for airflow from the positive-pressure isolation room into the anteroom. Anteroom doors shall be aligned so that large equipment can be wheeled into the isolation room. One anteroom may serve no more than one positive-pressure isolation room.</p> <p><i>EXCEPTION: Alternate designs for protective environment rooms, without individual anterooms, may be approved by the enforcement agency when it can be demonstrated that the alternate design meets the requirements of the California Mechanical Code and does not compromise or alter any health or fire-protection component, assembly or system.</i></p>	
▶ 1227.12.4.3	Toilet room(s). Adjoining toilet facilities shall meet the requirements of Section 1227.12.3.5	
▶ 1227.12.4.4	Sealed tight room. Protective environment room perimeter walls, ceiling, floors, doors, and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other spaces.	
▶▶ 1227.12.5	Identification. Each patient room shall be labeled with an identification number, letter or combination of the two.	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶ 1227.12.6	Observation Rooms.	
▶ 1227.12.6.1	Observation Rooms. Provide for disturbed/special patients at a ratio of one room for each 30 beds or major fraction thereof. At least one observation room shall be provided in each nursing service unit.	See space requirement analysis sheet B-3 for Observation Room. See B3-A for accessible rooms.
▶ 1227.12.6.2	Viewing windows. Observation rooms shall be provided with viewing windows to allow full and unobstructed visual observation of the patient. They shall be located near the nurses' station and toilet facilities.	
▶ 1227.12.6.3	Appendages and equipment. Rooms shall be free of appendages and equipment which could facilitate suicide or self-mutilation.	
▶▶ 1227.12.7	Nurses' station. A nurses' station shall be provided within each nursing unit.	See space requirement analysis sheet B-4 for nurses' station. Separation from custody officer station is required to satisfy HIPAA requirements.
▶ 1227.12.7.1	Components. Nurses' stations shall be provided with a cabinet, a desk, space for records, a bulletin board, a telephone, and a specifically designated and lockable and illuminated medicine storage compartment, and a handwashing fixture. If a separate medicine room is provided, it shall have a lockable door and a medicine sink. This sink cannot replace the required nurses' station handwashing fixture.	
▶ 1227.12.7.2	Size. Nurses' stations serving 25 or less beds shall have a minimum floor area of 100 square feet. Nurses' stations servicing more than 25 beds shall have a minimum floor area of 125 square feet. The minimum dimension of any nurses' station shall not be less than 8 feet.	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶	1227.12.7.3 Distance. The distance between the nurses' station entrance and the center of the doorway of the most remote patient bedroom shall not exceed 90 linear feet. <i>EXCEPTION: This section does not preclude designs based on primary nursing concepts incorporating more than one single nursing station of less than 100 square feet each and an additional work space or station for unit clerk/receptionist functions.</i>	Based on housing units with patient rooms on wings: A housing unit with two wings can serve about 25 patient rooms and meet the 90 foot requirement. Housing units with three wings can serve up to 36 patient rooms and meet the 90 foot requirement.
▶	1227.12.7.4 Correctional officer. A separate space for the correctional officer may adjoin the nurses' station but shall not be included in the minimum square footage requirement for a nurses' station.	
▶▶	1227.12.8 Utility rooms. Utility rooms shall be provided in each nursing unit. Clean utility rooms shall contain a work counter, handwashing fixture and storage facilities unless the room is used only for storage and holding as part of a system for distribution of clean and sterile supplies, in which case the work counter and handwashing fixture may be omitted. Soiled utility rooms shall contain a handwashing fixture, work counter, waste receptacles and linen hampers unless the room is used only for the temporary holding of soiled materials, in which case the handwashing fixture and work counter may be omitted.	See space requirement analysis sheet B-5 for Utility Rooms – clean utility room and soiled utility room.
▶	1227.12.8.1 Size. Utility rooms shall be designed for the separation of clean and soiled areas and provide not less than 100 square feet. Alternatively, separate clean and soiled utility rooms of not less than 50 square feet each may be provided. Additional square footage accommodating Section 1227.18 shall be provided if utility rooms also include linen and supply storage space.	
▶	1227.12.8.2 Aisle widths. Minimum aisle widths in utility rooms shall be 4 feet.	
▶▶	1227.12.9 Treatment and exam room. If a treatment room or an exam room is provided, it shall have a minimum area of 80 square feet, the least dimension of which shall be 8 feet.	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 1227.14	DIETETIC SERVICE SPACE.	
▶▶ 1227.14.1	<p>Dietetic service space. The dietetic service space shall accommodate the provisions of Section 1225.5.</p> <p>EXCEPTIONS:</p> <ol style="list-style-type: none"> 1. <i>The dietetic service in the correctional institution is found acceptable to the licensing agency.</i> 2. Contractual arrangement for dietetic services with another health facility acceptable to the licensing agency. 	See space requirement analysis sheet B-7 for dietetic service space.
▶▶ 1231.2.20	<p>Janitors' closet. <i>In Type II facilities, at least one securely lockable janitors' closet with sufficient area for the storage of cleaning implements and supplies must be provided within the security areas of the facility. A mop sink shall also be available within the security area of the facility. In court holding, temporary holding, Types I, III and IV facilities, the closet need not be in the security area.</i></p>	
▶▶ 1224.20.3	<p>Outside service. <i>On approval of the Licensing Agency, when food is provided by an outside food service, all applicable licensing and certification requirements shall be met. The facility shall maintain adequate space, equipment and food supplies to accommodate required functional elements listed in Section 1224.20.2, as required to provide patient food service in the event that outside food service is interrupted.</i></p>	
▶▶▶ 1227.15	OFFICES. Office spaces shall be provided for the provisions of nursing, physician, psychiatric and psychological services.	
▶▶ 1227.15.1	Consultation/interview. Consultative/interview rooms shall be provided.	
▶▶ 1227.15.2	<p>Conference/group activities. Separate rooms or spaces shall be provided for conferences and group activities.</p> <p>EXCEPTION: <i>If conference room or space is available to the correctional treatment facility staff in the correctional institution, this room or space need not be duplicated.</i></p>	Conference rooms may need to be equipped with assisted listening devices. Portable units may be used.

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶	1227.16	ADMINISTRATION SPACE.
▶▶	1227.16.1	Administration. An administration area shall be provided which shall provide for the following functions: <ol style="list-style-type: none"> 1. Waiting area. 2. Offices for the administrator and clerical personnel.
▶▶	1227.16.2	Records. Spaces shall be provided which accommodate the following functions: <ol style="list-style-type: none"> 1. Work area for sorting and recording records, for either paper or electronic media. 2. Secure storage area for medical records, for either paper or electronic media.
▶▶▶	1227.17	CENTRAL STERILE SUPPLY.
▶▶	1227.17.1	Minimum requirements. A central supply and sterilizing area shall be provided. Rooms and spaces shall accommodate the following services and equipment: <ol style="list-style-type: none"> 1. Soiled work area. A receiving and gross cleaning area which shall contain work space and equipment for cleaning medical and surgical equipment and for disposal of or processing of soiled material. 2. Clean work area. A clean work area which shall contain work space, and equipment for sterilizing medical and surgical equipment and supplies. 3. Sterilizing space <i>EXCEPTION: Items 1-3 do not apply to facilities with contractual arrangements for outside autoclaving and sterilizing services.</i> 4. Storage. Space for sterile supplies and unsterile supplies.
▶▶	1227.17.2	Sterilizers and autoclaves. All sterilizers and autoclaves which emit steam exhaust shall be vented to the outside of the building. Such vents shall be independent from the plumbing vent system. <i>EXCEPTION: Small instrument sterilizers.</i>

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 1227.18	STORAGE.	
▶▶ 1227.18.1	<p>General storage. Hospitals shall provide combined general and specialized storage space in accordance with the following:</p> <p style="margin-left: 40px;">1-10 beds.....120 square feet minimum</p> <p style="margin-left: 40px;">11-100 beds.....12 square feet per bed</p> <p style="margin-left: 40px;">over 100 beds1,200 square feet plus 5 square feet per bed for each bed over 100</p>	
▶▶ 1227.18.2	<p>Specialized storage. Specialized storage spaces shall include the following:</p> <ol style="list-style-type: none"> 1. Linen. Separate and enclosed facilities for clean and soiled linen in each nursing unit. The clean linen storage space shall have a minimum area of 10 square feet and may be within the clean utility room. The soiled linen collection space shall have an area of no less than 10 square feet, and may be within the soiled utility room. 2. Supply. One supply storage space having a minimum area of 15 square feet shall be provided in each nursing unit. Supply storage may be within the clean utility room used only as part of a system for distributing clean and sterile supplies. 3. Wheelchairs. A room or space shall be provided in each nursing unit for wheelchairs and stretchers. The wheelchair and stretcher space shall have a minimum area of 15 square feet. 4. Storage. Sterile and unsterile supplies shall be stored separately. 	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶	1227.19	EMPLOYEE DRESSING ROOMS AND LOCKERS.
▶▶	1227.19.1	Minimum facilities. Correctional Treatment Centers shall provide the following: <ol style="list-style-type: none">1. Dressing Rooms. Separate dressing rooms for male and female personnel with lockers, lavatory and toilet. <i>EXCEPTION: If provided for the Correctional Treatment Center's staff in adjacent correctional institutions, dressing rooms and lockers need not be duplicated.</i>
▶▶▶	1227.20	HOUSEKEEPING ROOM.
▶▶	1227.20.1	A securely lockable janitors' closet with service sink and supply storage spaces shall be provided in each nursing unit.
<u>OPTIONAL SERVICES</u>		
▶▶▶	1227.21	SERVICE SPACES. Service spaces, such as laboratory, radiology and any other services approved by the licensing agency, shall comply with the applicable space requirements of Sections 1224 and 1225. Service spaces shall also comply with applicable provisions of the California Building Standards Administrative Code (Part 1).

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶▶▶ 1224.17	CLINICAL LABORATORY SERVICE SPACE.	
▶▶ 1224.17.1	<p>General requirements. All hospitals shall provide space and equipment to perform urinalysis, complete blood counts, hemoglobin blood typing and cross matching. If laboratory facilities for bacteriological, serological, pathological and additional hematological procedures are not available in the community, then space, equipment and supplies for such procedures shall be provided. The following physical facilities shall be provided:</p> <ol style="list-style-type: none"> 1. Laboratory work space. 2. Refrigerated blood storage facilities for transfusions shall be provided. Blood storage refrigerator shall be equipped with temperature-monitoring and alarm signals that are monitored continuously. 3. Handwashing fixture. 	<p>This function will be a “point-of-care” facility, providing pre-analytic and post-analytic laboratory support. Analytic services (testing and analysis) will be contracted out. Patients will come to this area for blood draws and urinalysis sample collection. A phlebotomy station and a patient toilet will be provided for collection of specimens. A small workroom will be provided for the use of laboratory staff. Full analytic laboratory workstations and equipment will not be provided.</p> <p>See space requirement analysis sheet B-11 for Laboratory.</p>
▶▶▶ 1224.18	RADIOLOGICAL/IMAGING SERVICE SPACE.	
▶▶ 1224.18.1	<p>Minimum Requirements. Hospitals [CTCs] shall provide a minimum of:</p> <ol style="list-style-type: none"> 1. One fluoroscopy room, which can also provide X-ray examination services. 2. Space for processing images. 3. A toilet room adjoining each fluoroscopy room, in addition to other toilet room facilities located adjacent to or in the immediate vicinity. 4. An office or other suitable area for viewing and reporting radiographic examination. 5. Storage spaces for all image equipment, supplies and copies of reports. 6. Handwashing fixtures located within the unit. 7. Dressing room facilities. 	<p>A mobile x-ray unit may be housed in the patient services area but may be moved to the treatment and triage area in patient services, to an examination/treatment room in one of the nursing units, or to a patient room when the x-rays of patients are required. Film storage and a computerized radiology console workstation may also be provided.</p>
▶ 1224.18.1.1	<p>Radiation protection. A certified physicist or other qualified expert shall specify the type, location, and amount of radiation protection to be installed in accordance with the final approved department layout and equipment selections. Where protected</p>	

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	<i>alcoves with view windows are required, a minimum of 1'-6" between the view window and the outside partition edge shall be provided. Radiation protection requirements shall be incorporated into the construction documents and comply with Chapter 31X and the requirements of California Radiation Control Regulations, California Code of Regulations, Title 17, Division 1, Chapter 5, and Subchapter 4.</i>	
▶▶▶	Title 22, Section 79771 – Standby Emergency Medical Service, Physician on Call, Space	
	(a) <i>The following space provisions and designations shall be met:</i>	
	(1) <i>Designated emergency treatment area.</i>	
	(2) <i>Observation room.</i>	
	(b) <i>Observation beds in the emergency medical service shall not be counted in the total licensed bed capacity of the correctional treatment center.</i>	
▶▶▶	1227.22	OUTPATIENT SERVICES. The following shall be provided or made available to the outpatient service space:
▶▶	1227.22.1	Waiting. Waiting area(s) shall be provided with access to toilet facilities and a drinking fountain both meeting the requirements of Sections 1231.3.1, 1231.3.2 and 1231.3.3.
▶▶▶	1231.3	Design criteria for furnishings and equipment. Furnishings and equipment shall be as follows:
▶▶	1231.3.1	Toilets/urinals.
		1. <i>Toilets/urinals must be provided in single-occupancy cells and double-occupancy cells.</i>
		2. <i>In dormitories, toilets/urinals must be provided in a ratio to inmates of 1:10.</i>
		3. <i>Toilets/urinals must be accessible to the occupants of day-rooms and exercise areas.</i>
		4. <i>In temporary holding cells and temporary staging cells toilets/urinals must be provided in a ratio to inmates of 1:16.</i>

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	<ol style="list-style-type: none">5. <i>In sobering cells toilets/urinals must be provided in a ratio to inmates of 1:8.</i>6. <i>One urinal or 2 feet of urinal trough may be substituted for each toilet up to one third of the total number of toilets required, except in those facilities or portions thereof used for females.</i> Note: <i>Toilet areas shall provide modesty for inmates with staff being able to visually supervise.</i>	
▶▶ 1231.3.2	<p>Wash basins.</p> <ol style="list-style-type: none">1. <i>Wash basins must be provided in single occupancy cells and double occupancy cells.</i>2. <i>In dormitories, wash basins must be provided in a ratio to inmates of 1:10.</i>3. <i>Wash basins must be accessible to the occupants of day-rooms and exercise areas.</i>4. <i>In temporary holding cells and temporary staging cells, wash basins must be provided in a ratio to inmates of 1:16.</i>5. <i>In sobering cells, wash basins must be provided in a ratio to inmates of 1:8.</i>6. <i>Wash basins must be provided with hot and cold or tempered water.</i>7. <i>Two feet of wash basin trough may be substituted for each basin required.</i>	
▶▶ 1231.3.3	<p>Drinking fountains. <i>There must be a minimum of one drinking fountain in every single-occupancy cell, double-occupancy cell, dormitory, temporary holding cell, temporary staging cell, sobering cell, and be accessible to the occupants of day rooms and exercise areas. Additional drinking fountains shall be located in other areas of the facility so that drinking water will be available to inmates and staff. Such drinking fountains must meet the following minimum health requirements:</i></p> <ol style="list-style-type: none">1. <i>The drinking fountain bubbler shall be on an angle which prevents waste water from flowing over the drinking fountain bubbler.</i>2. <i>Water flow shall be actuated by mechanical means.</i>	

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CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
▶	1227.22.1.1 Holding cell. If a temporary holding cell or room is used for this purpose, it shall comply with Section 1231.2.2. <i>EXCEPTION: The minimum floor area shall be 80 square feet.</i>	
▶▶▶	1227.23 24-HOUR MENTAL HEALTH CARE SERVICES.	
▶▶	1227.23.1 Program/dining space. Provide within the Correctional Treatment Center for use by mental health treatment program patients, as is consistent with security requirements. Program/dining space shall be provided with a minimum floor area of 30 square feet per patient served at a given time.	Requirements for dining need to be established since there is no dayroom requirements for CTCs.
▶▶	1227.23.2 Mental health treatment. Correctional Treatment Centers providing a mental health treatment program shall include one safety room for every 30 mental health treatment program beds or fraction thereof, and one observation room providing direct observation of every portion of the room for every 15 mental health beds or fraction thereof. At least one safety room and one observation room shall be provided.	
▶▶	1227.23.3 Safety rooms. Safety rooms shall be constructed so as to provide video camera observation capability. Safety rooms shall comply with the design criteria requirements of Section 1231.2.5 for a safety cell.	See space requirement analysis sheet B-12 for safety cell.
▶▶	1231.2. 5 Safety cell. A safety cell shall: <ol style="list-style-type: none"> 1. Contain a minimum of 48 square feet of floor area with one floor dimension being at least 6 feet and a clear ceiling height of 8 feet or more; 2. Be limited to one inmate; 3. Contain a flushing ring toilet, capable of accepting solid waste, mounted flush with the floor, the controls for which must be located outside of the cell; 4. Be padded as specified in Section 1231.3; 	Note that windows are limited to 4" in width. 5" is required everywhere else.

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	<ol style="list-style-type: none"> 5. <i>Be equipped with a variable intensity, security-type lighting fixture which is inaccessible to the inmate occupant, control of which is located outside of the cell; and</i> 6. <i>Provide one or more vertical view panels not more than 4 inches wide nor less than 24 inches long which shall provide a view of the entire room; and</i> 7. <i>Provide a food pass with lockable shutter, no more than 4 inches high, and located between 26 inches and 32 inches as measured from the bottom of the food pass to the floor.</i> 8. <i>Any wall of ceiling mounted devices must be inaccessible to the inmate occupant.</i> 	



**2013 CALIFORNIA PLUMBING CODE
TABLE 4-2**

[OSHPD 4] Correctional Treatment Centers

- Nurses' Stations: 1 Handwashing Fixture
- Utility Room, Clean: 1 Handwashing Fixture.
- Utility Room, Soiled: 1 Handwashing Fixture, 1 Clinic Sink
- Airborne Infection Isolation Room: 1 Handwashing Fixture
- Airborne Infection Isolation Anteroom: 1 Handwashing Fixture
- Airborne Infection Isolation Toilet Room: 1 Handwashing Fixture, 1 Toilet, 1 Bathtub or Shower
- Medicine Rooms: 1 Handwashing Fixture
- Treatment and Exam Rooms: 1 Handwashing Fixture
- Pharmacy: 1 Handwashing Fixture
- Kitchen: 1 Handwashing Fixture
- Food Servicing Areas: 1 Handwashing Fixture
- Staff Toilet Room: 1 Handwashing Fixture
- Medicine Preparation Room: 1 Handwashing Fixture
- Radiological/Imaging Services Space: 1 Handwashing Fixture.
- Central Sterile Supply: 1 Handwashing Fixture
- Laboratories: 1 Handwashing Fixture, 1 Service Sink

National Commission on Correctional Health Care (NCCHC)

Section D || Health Care Services and Support

National Commission on Correctional Health Care (NCCHC)

CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
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SECTION D – HEALTH CARE SERVICES AND SUPPORT

▶▶▶ J-D-03 – CLINIC SPACE, EQUIPMENT, AND SUPPLIES

Standard

Sufficient and suitable space, supplies, and equipment are available for the facility's medical, dental, and mental health care services.

Compliance Indicators

1. Examination and treatment rooms for medical, dental, and mental health care are large enough to accommodate the necessary equipment, supplies, and fixtures, and to permit privacy during clinical encounters.
2. Pharmaceuticals, medical supplies, and mobile emergency equipment are available and checked regularly.
3. There is adequate office space with administrative files, secure storage of health records, and writing desks.
4. Mental health services are provided in an area with private interview space for both individual assessment and group treatment, as well as desks, chairs, lockable file space, and relevant testing materials.
5. When laboratory, radiological, or other ancillary services are provided on site, the designated area is adequate to hold equipment and records.
6. When patients are placed in a waiting area for more than a brief period, the waiting area has seats and access to drinking water and toilets.
7. At a minimum, weekly inventories are maintained on items subject to abuse (e.g., syringes, needles, scissors, other sharp instruments).

National Commission on Correctional Health Care (NCCHC)

CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
	<p>8. The facility has, at a minimum, the following equipment, supplies, and materials for the examination and treatment of patients:</p> <ul style="list-style-type: none">a. hand-washing facilities or appropriate alternate means of hand sanitization,b. examination tables,c. a light capable of providing direct illumination,d. scales,e. thermometers,f. blood pressure monitoring equipment,g. stethoscope,h. ophthalmoscope,i. otoscope,j. transportation equipment (e.g., wheelchair, stretcher),k. trash containers for biohazardous materials and sharps, andl. equipment and supplies for pelvic examination if female inmates are housed in the facility.	
	<p>9. Basic equipment required for on-site dental examinations includes, at a minimum:</p> <ul style="list-style-type: none">a. hand-washing facilities or appropriate alternate means of hand sanitization,b. dental examination chair,c. examination light,d. sterilizer,e. instruments,f. trash containers for biohazardous materials and sharps, andg. a dentist's stool	
	<p>10. The presence of dental operatory requires the addition of at least:</p> <ul style="list-style-type: none">a. an x-ray unit with developing capability,b. blood pressure monitoring equipment, andc. oxygen.	
	<p>11. All aspects of the standard are addressed by written policy and defined procedures.</p>	

National Commission on Correctional Health Care (NCCHC)

CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
308.4.2	Institutional Group I-2.1 Ambulatory health care facility. A healthcare facility that receives persons for outpatient medical care that may render the patient incapable of unassisted self-preservation and where each tenant space accommodates more than five such patients.	
308.5	Institutional Group I-3. This occupancy shall include buildings and structures that are inhabited by one or more persons who are under restraint or security. An I-3 facility is occupied by persons who are generally incapable of self-preservation due to security measures not under the occupants' control, which includes persons restrained. This group shall include, but not be limited to, the following: <ul style="list-style-type: none">Correctional centersCourthouse holding facilityDetention centers<u>Detention treatment room</u><u>Jails</u>Prerelease centersPrisonsReformatoriesSecure interview roomsTemporary holding facility	

American Correctional Association (ACA)

Performance-Based Standards for Corrections Health Care in Adult Correctional Institutions

- III || Offender Treatment
- IV || Performance Improvement
- V || Offender Hygiene

Core Jail Standards

- 4C || Infirmary Care

American Correctional Association (ACA)

CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
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Performance-Based Standards for Correctional Health Care in Adult Correctional Institutions

III. OFFENDER TREATMENT

▶▶▶

- ▶▶ **1-HC-3A-10** *Health care encounter, including medical and mental health interviews, examinations, and procedures should be conducted in a setting that respects the offenders' privacy.*
PRIVACY
Comment: Female offenders should be provided a female escort for encounters with a male health care provider.
Protocols: Written policy and procedure. Facility diagram.
Process Indicators: Observation. Interviews.

▶▶▶

- ▶▶ **1-HC-3A-14** *Exercise areas are available to meet exercise and physical therapy requirements of individual offender treatment plans.*
EXERCISE
Comment: None.
Protocols: Written policy and procedure. Facility diagrams and design measurements.
Process Indicators: Documentation of opportunity for exercise. Movement schedules and logs. Observation. Interviews.

- ▶▶ **1-HC-3A-15** *Offenders in segregation are offered an opportunity to perform a minimum of one hour of exercise per day, outside their cells, five days per weeks, unless security or safety considerations dictate otherwise.*
Comment: None.
Protocols: Written policy and procedure. Facility diagrams and design measurements.
Process Indicators: Documentation of opportunity for exercise. Movement schedules and logs. Observation. Interviews.

American Correctional Association (ACA)

CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
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IV. PERFORMANCE IMPROVEMENT

▶▶▶

HEALTH RECORDS

▶▶

1-HC-4A-06

The health record file (paper and/or electronic) is complete and contains the following items filed in a uniform manner:

- *Patient identification on each sheet*
- *A completed receiving screening form*
- *Health appraisal data forms*
- *A problem summary list*
- *A record of immunizations*
- *All findings, diagnoses, treatments, and dispositions*
- *A record of prescribed medications and their administration records, if applicable*
- *Laboratory, x-ray, and diagnostic studies*
- *The place, date, and time of health encounters*
- *Health service reports (for example, emergency department, dental, mental health, telemedicine, or other consultations)*
- *An individualized treatment plan, when applicable*
- *Progress reports*
- *A discharge summary of hospitalization and other termination summaries*
- *A legible signature (includes electronic) and the title of the provider (may use ink, type, or stamp under the signature)*
- *Consent and refusal forms*
- *Release of information forms*

The method of recording entries in the records, the form and format of the records, and the procedures for their maintenance and safekeeping are approved by the health authority. The health record is made available to, and is used for documentation by all practitioners.

Comment: The receiving screening form should become a part of the record at the time of the first health encounter.

Protocols: Policy and procedure. Health record forms.

Process Indicators: Health records. Completed forms. Interviews.

American Correctional Association (ACA)

CODE SECTION NO.	CODE REQUIREMENT	COMMENTARY
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V. OFFENDER HYGIENE

▶▶▶

WASHBASINS

▶▶

1-HC-5A-06

Offenders have access to operable washbasins with hot and cold running water in the medical housing unit or infirmary are at a minimum ration of one basin for every twelve occupants, unless state or local building or health codes specify a different ratio.

Comment: None.

Protocols: Policy and procedure. Facility design diagrams.

Process Indicators: Ratio documentation. Observation.

SHOWERS AND BATHING

▶▶

1-HC-5A-09

There are sufficient bathing facilities in the medical housing unit and infirmary are to allow offenders housed there to bathe daily.

Comment: At least one bathing facility should be configured and equipped to accommodate offenders who have physical impairments or who need assistance to bathe.

Protocols: Policy and procedure. Facility design diagrams.

Process Indicators: Number of bathing facilities. Observation.

Interviews.

American Correctional Association (ACA)

CODE SECTION NO.

CODE REQUIREMENT

COMMENTARY

Core Jail Standards

CONTINUUM OF HEALTH CARE SERVICES

4C. Inmates maintain good health. Inmates have unimpeded access to a continuum of health care services so that their health care needs, including prevention and health education, are met in a timely and efficient manner.

EXPECTED PRACTICES

▶▶▶

INFIRMARY CARE

▶▶

1-CORE-4C-04 *If infirmary care is provided onsite, it complies with applicable state regulations and local licensing requirements. Provisions include twenty-four-hour emergency on-call consultation with a physician, dentist, and mental health professional.*

Comment: An infirmary is a specific area of a health care facility, separate from other housing areas, where inmates are housed and provided health care. Admission and discharge from this area is controlled by medical orders or protocols.

Protocols: Written policy and procedure. Nursing manual.

Licensing requirements and regulations.

Process Indicators: Admission and inpatient records. Staffing schedules. Documentation of compliance with licensing requirements and regulations. Observation. Interviews.

Code Compliance/Licensing Requirements Checklist & Space Analysis

General Services	B-0 Trash/Waste
Basic Services	B-1 Patient Rooms
	B-1A Patient Rooms
	B-1 & B-1A Floor Plan
	B-2 Airborne Infection Isolation Rooms
	B-2 Floor Plan
	B-3 Observation Room
	B-3A Observation Room
	B-3 & B-3A Floor Plan
	B-4 Nurses Station
	B-5 Utility Room
B-6 Pharmacy	
B-7 Dietetic Service Space	
Optional Services	B-11 Laboratory
	B-12 Safety Cell
	B-12 Floor Plan

Code Compliance/Licensing Requirements Checklist & Space Analysis

GENERAL SERVICES – TRASH/ WASTE

B-0

Architectural Consideration

	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited.
	1227.9.3	Interior Wall Finishes
1227.9.2.2	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 420A-A.
	1227.11	Garbage – Solid Waste and Trash Storage. Rooms or screening enclosures shall be provided for the washing and cleaning of garbage containers and for the storage of garbage, trash, and other solid wastes. Such rooms or screening enclosures shall include the following: 1. A concrete floor with a curb and with a drain connected to the sewer. 2. Steam or hot water and cold-water supply. 3. A minimum floor area of ½ square foot per bed, but not less than 25 square feet, the least dimension of which shall be 4 feet. A method of limiting access to the material except by authorized persons.

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – PATIENT ROOMS

B-1A

Architectural Consideration

	1227.6	Doors and Door Openings
	1227.6.2	Minimum size of means of egress - 44"
	1227.6.4	Doors to patient bedrooms shall be provided with a view window with a minimum area of 288 square inches. Window sill height shall not be higher than 42 inches from the floor.
	1227.7	Windows & Screens
	1227.7.1	Natural light Rooms approved for the housing of patients shall be provided with natural light by means of glazed openings.
		Light and ventilation artificial light and a mechanically operated ventilating system
1227.7.3	1227.7.4	Patient viewing windows Each patient bedroom shall be provided with viewing windows from the corridor to allow full and unobstructed visual observation of the patient.
	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable.
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited.
1227.9.2.2		

	1227.9.3	Interior Wall Finishes
	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 420A-A.
	1227.12.1	Patients shall be accommodated only in rooms with the following minimum floor area, exclusive of toilet rooms, wardrobes, entrance vestibules, and fixed furnishings or equipment. Single-patient rooms: 110 square feet.
	1227.12.2	A minimum distance of 3 feet shall be provided between beds and 4 feet between the foot of beds and walls or fixed objects in multi-patient rooms, and 3 feet in single patient rooms.

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – PATIENT ROOMS

B-1A

ADA Consideration

	1115B.3.2	A clear space of sufficient size to inscribe a 60" diameter circle. Clear space is clear of objects from the floor to a height of 27". No door encroaches more than 12" into required clear space. 48" minimum clear space is provided in front of the water closet. 18" between center of water closet and side-wall corner. 28" minimum clear space is provided from the water closet to any fixture, or a minimum 32" wide clear space to the opposite wall.
	1115B.4.1.4 & 5	Top of toilet seat is 17"-19" from floor surface. Flush valve is on wide side of toilet area. 44" maximum from floor to flush valve.
	1115B.3.2.5	Walls within compartment are smooth, hard and non-absorbent to 48" in height, and are not adversely affected by moisture. Floor surfaces of toilet room are smooth, hard and non-absorbent extending upward a minimum of 5" onto walls.
	1115B.4.1.3	Side grab bar is a minimum 42" long and extends 24" beyond the front of the water closet. The forward end of the side grab bar is located a minimum of 54" from the back wall. Side grab bar begins a maximum of 12" from the rear wall. Rear grab bar is a minimum 36" long.

Mechanical Consideration

(CMC 2013)

	408.3	Filters for Correctional Treatment Centers
	408.3.1	The air ventilation systems shall have filter bank efficiencies as listed in Table 4-C.
	408.3.2	Non-central air systems serving single patient rooms of one or more beds shall comply with Table 4-C.
	408.3.3	Non-central re-circulating air handling systems, i.e. through the wall units, may be utilized for each patient room with one or more beds. Filtration for these units shall have a minimum resistance value of 68 percent, based on ASHRAE

		Standard 52.1 1996. The air ventilation system providing the minimum air changes of outdoor air shall comply with Table 4-C.
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Electrical & Low Voltage (CEC 2013)

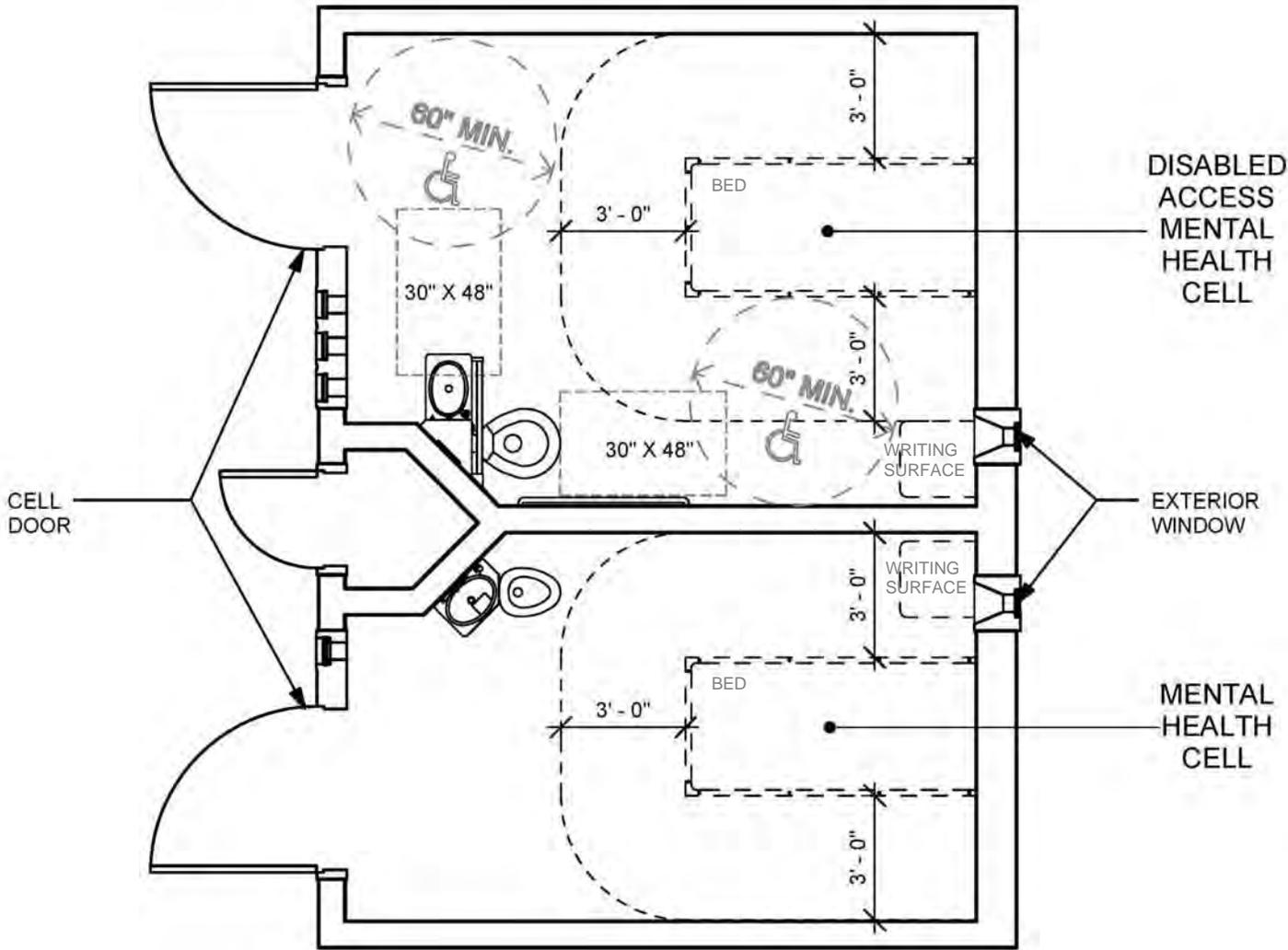
	517-18(A)	Each patient bed location shall be supplied by at least two branch circuits.
	517-18(B)	Each patient bed location shall be provided with a minimum of four receptacles.
		All rooms and passageways shall be provided with artificial illumination.

517.22

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – PATIENT ROOMS

B-1A



Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – AIRBORNE INFECTION ISOLATION ROOMS

B-2

Architectural Consideration

	1227.6	Doors and Door Openings
	1227.6.2	Minimum size of means of egress - 44"
	1227.6.4	Doors to patient bedrooms shall be provided with a view window with a minimum area of 288 square inches. Window sill height shall not be higher than 42 inches from the floor.
	1227.7	Windows & Screens
	1227.7.1	Natural light Rooms approved for the housing of patients shall be provided with natural light by means of glazed openings.
	1227.7.3	Light and ventilation artificial light and a mechanically operated ventilating system
	1227.7.4	Patient viewing window Each patient bedroom shall be provided with viewing windows from the corridor to allow full and unobstructed visual observation of the patient.
	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited

1227.9.2.2

	1227.9.3	Interior Wall Finishes
	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 420A-A.
	1227.12.3	Single rooms shall be provided for the isolation of patients with airborne communicable disease at a ratio of one room for each 35 beds, or major fraction thereof. At least one airborne infection isolation room shall be provided. Airborne infection isolation rooms shall be labeled with the words "Airborne Infection Room" on or adjacent to the anteroom side of the door between the isolation room and the anteroom.
	1227.12.3.3	Anteroom. A separate anteroom shall be provided between the airborne infection isolation room and the corridor, which shall constitute the primary entrance to the airborne infection isolation room. This anteroom shall have a handwashing fixture, work counter at least 3 feet long, cabinets and space to gown and to store clean and soiled materials. There shall be a view window from the anteroom to the isolation room and means to allow for airflow from the anteroom into the airborne infection isolation room. Doors shall be aligned to allow large equipment to be wheeled into the airborne isolation room unless a secondary door complying with Section 1227.12.3.3 is provided. One anteroom may serve no more than two airborne infection isolation rooms.
	1227.12.3.4	Secondary entry When a secondary entry is provided directly from the corridor to the airborne infection isolation room, it shall meet the requirements of Section 1004.3.4.3.2.1. In addition, an approved gasket shall be installed to provide a seal at the bottom of the door. Secondary doors shall be provided with locking devices which are readily operable from the room side and which are readily operable by the facility staff on the other side. When key locks are used on isolation rooms, keys shall be located at the nurses' station in a prominent readily accessible location.

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – AIRBORNE INFECTION ISOLATION ROOMS

B-2

1227.12.3.5		<p>Adjoining toilet facilities.</p> <p>Each isolation room shall have its own toilet facilities with an emergency nurse call system, a lavatory, a shower providing a seat or a space for a shower chair and a toilet equipped with a bedpan flushing attachment with a vacuum breaker.</p>
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ADA Consideration

1115B.3.2		<p>A clear space of sufficient size to inscribe a 60" diameter circle. Clear space is clear of objects from the floor to a height of 27". No door encroaches more than 12" into required clear space. 48" minimum clear space is provided in front of the water closet. 18" between center of water closet and side-wall corner. 28" minimum clear space is provided from the water closet to any fixture, or a minimum 32" wide clear space to the opposite wall.</p>
	& 5	<p>Top of toilet seat is 17"-19" from floor surface. Flush valve is on wide side of toilet area. 44" maximum from floor to flush valve.</p>
115B.4.1.4	115B.3.2.5	<p>Walls within compartment are smooth, hard and non-absorbent to 48" in height, and are not adversely affected by moisture. Floor surfaces of toilet room are smooth, hard and non-absorbent extending upward a minimum of 5" onto walls.</p>
115B.4.1.3		<p>Side grab bar is a minimum 42" long and extends 24" beyond the front of the water closet. The forward end of the side grab bar is located a minimum of 54" from the back wall. Side grab bar begins a maximum of 12" from the rear wall. Rear grab bar is a minimum 36" long.</p>

Mechanical Consideration

(CMC 2013)

	408.3.1	<p>The air ventilation systems shall have filter bank efficiencies as listed in Table 4-C.</p>
		<p>Non-central air systems serving single patient rooms of one or more beds shall comply with T4-C</p>
408.3.2	408.3.3	<p>Non-central re-circulating airhandling systems, i.e. through the wall units, may be utilized for each patient room with one or more beds. Filtration for these units shall have a minimum arrestance value of 68 percent, based on ASHRAE Standard 52.1 1996. The air ventilation system providing the minimum air changes of outdoor air shall comply with Table 4-C</p>

Electrical & Low Voltage

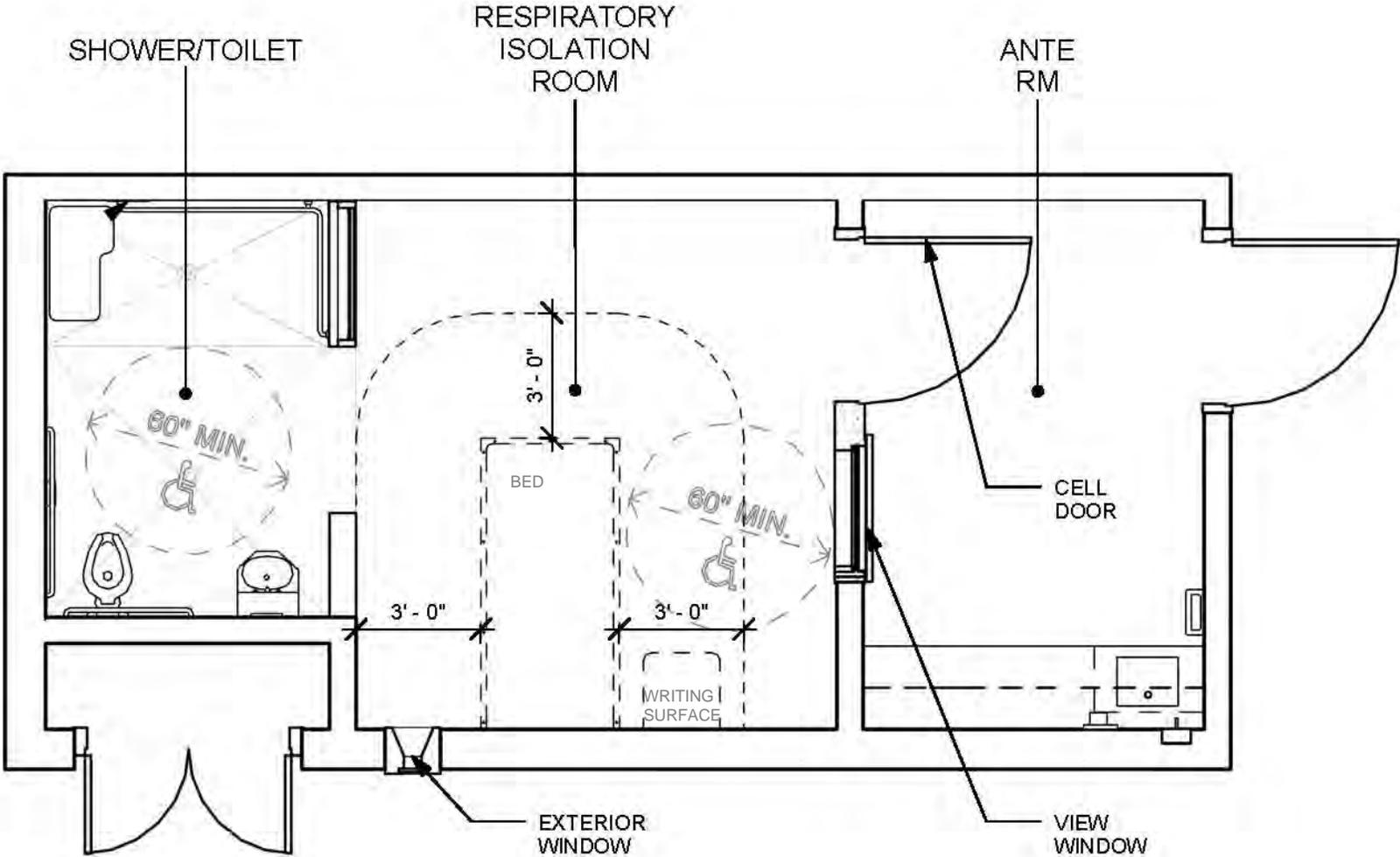
(CEC 2013)

	517-18(a)	<p>Each patient bed location shall be supplied by at least two branch circuits</p>
	517-18(b)	<p>Each patient bed location shall be provided with a minimum of four receptacles.</p>
	517.22	<p>All rooms and passageways shall be provided with artificial illumination</p>

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – AIRBORNE INFECTION ISOLATION ROOMS

B-2



Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – OBSERVATION ROOM

B-3

Architectural Consideration

	1227.6	Doors and Door Openings
	1227.6.2	Minimum size of means of egress - 44".
	1227.6.4	Doors to patient bedrooms shall be provided with a view window with a minimum area of 288 square inches. Window sill height shall not be higher than 42 inches from the floor.
	1227.7	Windows & Screens
	1227.7.3	Light and ventilation Artificial light and a mechanically operated ventilating system.
	1227.7.4	Patient viewing window Each patient bedroom shall be provided with viewing windows from the corridor to allow full and unobstructed visual observation of the patient.
	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited
	1227.9.3	Interior Wall Finishes
1227.9.2.2	1227.9.3	Interior wall finishes shall be smooth, washable and durable.

	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 420A-A.
	1227.12.6.2	Observation rooms shall be provided with viewing windows to allow full and unobstructed visual observation of the patient. They shall be located near the nurses' station and toilet facilities.
	1227.12.6.3	Rooms shall be free of appendages and equipment which could facilitate suicide or self-mutilation.
1227.23.2		Correctional Treatment Centers providing a mental health treatment program shall include one safety room for every 30 mental health treatment program beds or fraction thereof, and one observation room providing direct observation of every portion of the room for every 15 mental health beds or fraction thereof. At least one safety room and one observation room shall be provided.

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – OBSERVATION ROOM

B-3A

ADA Consideration

	1115B.3.2	A clear space of sufficient size to inscribe a 60" diameter circle. Clear space is clear of objects from the floor to a height of 27". No door encroaches more than 12" into required clear space. 48" minimum clear space is provided in front of the water closet. 18" between center of water closet and side-wall corner. 28" minimum clear space is provided from the water closet to any fixture, or a minimum 32" wide clear space to the opposite wall.
	1115B.1.4.4 & 5	Top of toilet seat is 17"-19" from floor surface. Flush valve is on wide side of toilet area. 44" maximum from floor to flush valve.
	1115B.3.2.5	Walls within compartment are smooth, hard and non-absorbent to 48" in height, and are not adversely affected by moisture. Floor surfaces of toilet room are smooth, hard and non-absorbent extending upward a minimum of 5" onto walls.
	1115B.4.1.3	Side grab bar is a minimum 42" long and extends 24" beyond the front of the water closet. The forward end of the side grab bar is located a minimum of 54" from the back wall. Side grab bar begins a maximum of 12" from the rear wall. Rear grab bar is a minimum 36" long.

Mechanical Consideration

(CMC 2013)

	408.3	Filters for Correctional Treatment Centers
	408.3.1	The air ventilation systems shall have filter bank efficiencies as listed in Table 4-C.

		Non-central air systems serving single patient rooms of one or more beds shall comply with Table 4-C.
408.3.2	408.3.3	Non-central re-circulating air handling systems, i.e. through the wall units, may be utilized for each patient room with one or more beds. Filtration for these units shall have a minimum resistance value of 68 percent, based on ASHRAE Standard 52.1 1996. The air ventilation system providing the minimum air changes of outdoor air shall comply with Table 4-C.

Electrical & Low Voltage

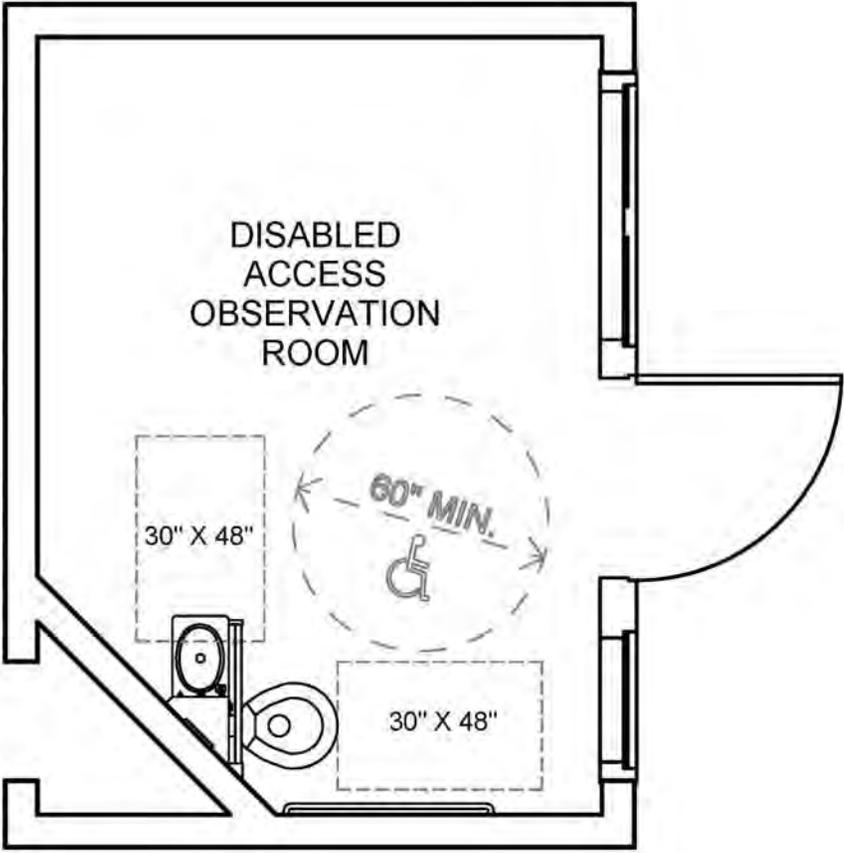
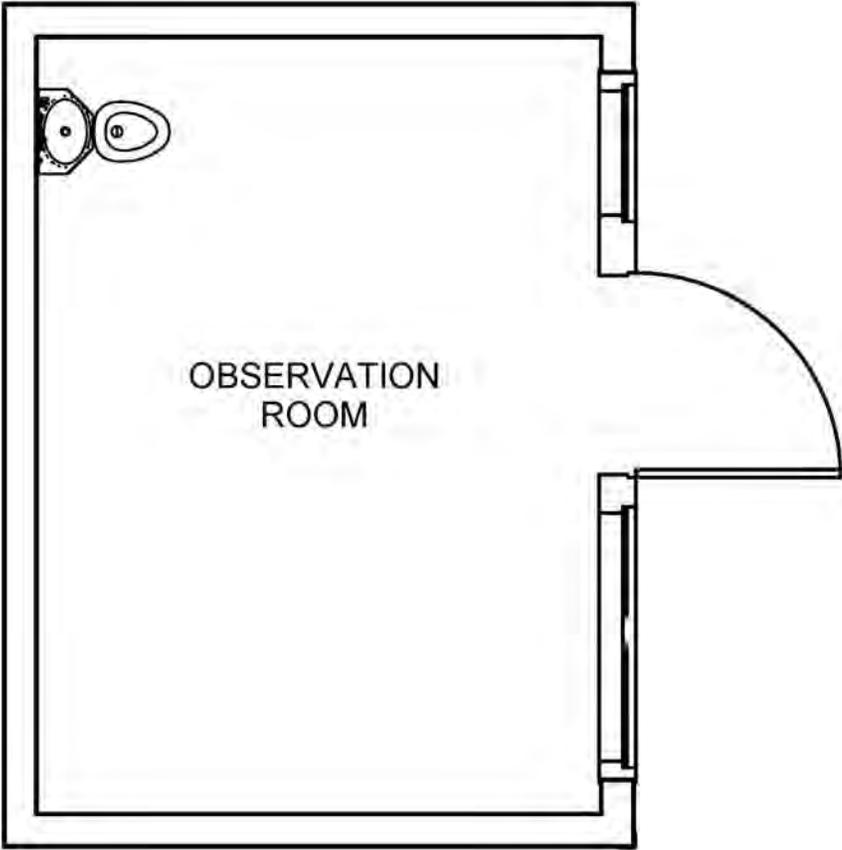
(CEC 2013)

	517-18(A)	Each patient bed location shall be supplied by at least two branch circuits.
	517-18(B)	Each patient bed location shall be provided with a minimum of four receptacles.
	517.22	All rooms and passageways shall be provided with artificial illumination

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – OBSERVATION ROOM

B-3 & B-3A



Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – NURSES STATION

B-4

ADA Consideration

	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
	1227.9.2.2	Wood bases are prohibited
	1227.9.3	Interior Wall Finishes
	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 1224.1.
	1227.12.7	Nurses' station A nurses' station shall be provided within each nursing unit.
	1227.12.7.1	Components Nurses' stations shall be provided with a cabinet, a desk, space for records, a bulletin board, a telephone, and a specifically designated and lockable and illuminated medicine storage compartment, and handwashing fixture. If a separate medicine room is provided, it shall have a lockable door and a medicine sink. This sink cannot replace the required nurses' station handwashing fixture.
	1227.12.7.2	Size Nurses' stations servicing more than 25 beds shall have a minimum floor area of 125 square feet. The minimum dimension of any nurses' station shall be not less than 8 feet.

	1227.12.7.3	Distance. The distance between the nurses' station entrance and the center of the doorway of the most remote patient bedroom shall not exceed 90 linear feet.
	1227.12.7.4	Correctional officer A separate space for the correctional officer may adjoin the nurses' station but shall not be included in the minimum square footage requirement for a nurses' station.

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – UTILITY ROOM

B-5

ADA Consideration

	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited
	1227.9.3	Interior Wall Finishes
1227.9.2.2	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 1224.1.
	1227.12.8	Utility Rooms. Utility rooms shall be provided in each nursing unit. Clean utility rooms shall contain a work counter, Handwashing fixture and storage facilities unless the room is used only for storage and holding as part of a system for distribution of clean and sterile supplies, in which case the work counter and handwashing fixture may be omitted. Soiled utility rooms shall contain a handwashing fixture, work counter, waste receptacles and linen hampers unless the room is used only for the temporary holding of soiled materials, in which case the handwashing fixture and work counter may be omitted.

		Size Utility rooms shall be designed for the separation of clean and soiled areas and provide not less than 100 square feet. Alternatively, separate clean and soiled utility rooms of not less than 50 square feet each may be provided. Additional square footage accommodating Section 1227.18 shall be provided if utility rooms also include linen and supply storage space.
		Aisle widths. Minimum aisle widths in utility rooms shall be 4 feet.

1227.12.8.2

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – PHARMACY

B-6

ADA Consideration

	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited
	1227.9.3	Interior Wall Finishes
1227.9.2.2	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 1224.1.
	1227.13.1	Licensed pharmacy A licensed pharmacy shall be provided and shall comply with the provisions of Section 1250. If the pharmacy dispenses directly to inmates from the correctional institution, an entrance and a waiting area separate from the inpatient areas shall be provided.
1250.2		Restrooms. A pharmacy shall maintain a readily accessible restroom. The restroom shall contain a toilet and washbasin supplied with running water.

	1250.3	Sink. All pharmacies shall be equipped with a sink within the pharmacy for pharmaceutical purposes. The sink shall be supplied with hot and cold running water.
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Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – DIETETIC SERVICE SPACE

B-7

ADA Consideration

	424A.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable.
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited.
	1227.9.3	Interior Wall Finishes
1227.9.2.2	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 420A-A.
	1225.5.1	Location. Food-service areas shall be directly accessible to the entry for food supply deliveries and for the removal of kitchen wastes.
	1225.5.2	Fixed equipment location. Fixed equipment shall be placed so as to provide aisles of a width to permit easy movement of personnel, mobile equipment and supplies, and to assure sanitation and safety.
	1225.5.3	Storage. Ventilated storerooms shall be placed so as to provide aisles of a width to permit easy movement of personnel, mobile equipment supplies, and to assure sanitation and safety. Licensed Bed Capacity: 1 to 99 Storage Space: 2.5 square feet per bed.

	1225.5.4	Refrigeration. Space to allow refrigeration for the storage of frozen and chilled foods shall be provided at a minimum of 2 cubic feet of usable space per bed.
	1225.5.5	Handwashing. A separate handwashing fixture shall be provided in all kitchens, food serving areas and washrooms used by food handlers.
		Office space. Office or other space shall be provided for the dietician or dietetic service supervisor.
1225.5.6	1225.5.7	Dishwashing. Working space and space for equipment cleaning and disinfection of all utensils used in the preparation and serving of food.
	420A.20.7.1	Pot and Pan Washing. Pot and pan washing equipment should comply with utensil and dishwashing standards in Title 22, Division 5.
		Equipment standards. All equipment in the food-service area should meet the National Sanitation Foundation Standards, Standard No. 2, current edition.
1225.5.7.2	1225.5.8	Personnel dining space. Where personnel dining space is included, 15 square feet per person served (including the serving area) shall be provided.
		Outside service. When food is provided by an outside food service, there shall be standby kitchen, food storage and equipment space to provide patient food service in emergencies
1225.5.9		Lockers. An enclosed, separate area shall be provided for dietetic service employees' clothing.

1225.5.10

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – DIETETIC SERVICE SPACE

1225.5.11		<p>Janitors' closet.</p> <p>A janitors' closet meeting the requirements of Section 1224.4.15 shall be provided within or adjacent to the dietetic service. The janitors' closet shall serve no other service. Storage space shall be provided for soaps, detergents and cleaning compounds within the janitors' closet or other area separate from the food storage area.</p>
1225.5.12		<p>Alternate methods.</p> <p>If a method of operation is proposed that is satisfactory to the enforcing agency, and which requires less space than is specified in Sections 1225.5.3 through 1225.5.11 above, the floor area ratios set forth may not be required. Additional space may be required by the enforcing agency if the plan of operation requires a greater amount of space than is specified in such sections.</p>

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – LABORATORY

Architectural Consideration

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	424A.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	41227.9	Interior Finishes
	424A.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable.
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited.
	1227.9.3	Interior Wall Finishes
1227.9.2.2	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 420A-A.
	1224.17.1	General requirements. All hospitals shall provide space and equipment to perform urinalysis, complete blood counts, hemoglobin blood typing and cross matching. If laboratory facilities for bacteriological, serological, pathological and additional hematological procedures are not available in the community, then space, equipment and supplies for such procedures shall be provided. The following physical facilities shall be provided: <ol style="list-style-type: none"> 1. Laboratory work space. 2. Refrigerated blood storage facilities for transfusions shall be provided. Blood storage refrigerator shall be equipped with temperature-monitoring and alarm signals that are monitored continuously. 3. Handwashing fixture.

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – SAFETY CELL

B-12

Architectural Consideration

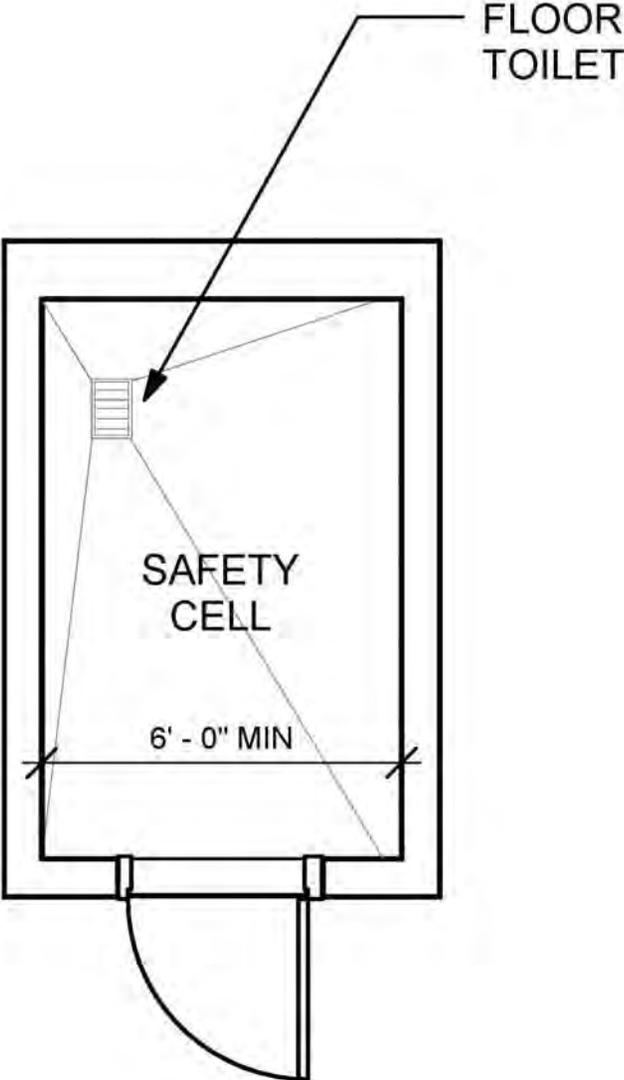
	1227.8	Ceiling Heights
	1227.8.1	The minimum height of ceilings shall be 8 feet.
	1227.9	Interior Finishes
	1227.9.1	Floor finishes
	1227.9.1.1	Floor finishes shall be smooth, waterproof and durable.
	1227.9.2	Wall bases
	1227.9.2.1	Minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.
		Wood bases are prohibited.
	1227.9.3	Interior Wall Finishes
1227.9.2.2	1227.9.3	Interior wall finishes shall be smooth, washable and durable.
	1227.9.4	Ceiling Finishes
	1227.9.4	Ceiling finishes shall be in compliance with Table 1224.1.
	1227.23.3	Safety cell Safety rooms shall be constructed so as to provide video camera observation capability. Safety rooms shall comply with the design criteria requirements of Section 1231.2.5 for a safety cell.
1231.2.5		Safety cell. A safety cell shall: Contain a minimum of 48 square feet of floor area with one floor dimension being at least 6 feet and a clear ceiling height of 8 feet or more
		be limited to one inmate.

		Contain a flushing ring toilet, capable of accepting solid waste, mounted flush with the floor, the controls for which must be located outside of the cell.
		Be padded as specified in Section 1231.3.
		Be equipped with a variable intensity, security-type lighting fixture which is inaccessible to the inmate occupant, control of which is located outside of the cell, and
		Provide one or more vertical view panels not more than 4 inches wide nor less than 24 inches long which shall provide a view of the entire room, and
		Provide a food pass with lockable shutter, no more than 4 inches high, and located between 26 inches and 32 inches as measured from the bottom of the food pass to the floor.

Code Compliance/Licensing Requirements Checklist & Space Analysis

BASIC SERVICES – SAFETY CELL

B-12



APPENDIX INDEX



VOLUME 3



FACILITY LICENSING DESIGN GUIDELINES FOR A NEW CORRECTIONAL TREATMENT CENTER
LOS ANGELES COUNTY

Prepared by Nacht & Lewis Architects, Inc.



**PROPOSED KITCHENS FOR THE CONSOLIDATED CORRECTIONAL TREATMENT FACILITY
AND MIRA LOMA DETENTION CENTER**

Prepared by The Marshall Associates, Inc.



EQUIPMENT CUT SHEETS

Submitted by Los Angeles County Sheriff's Department, Facility Planning Bureau and Medical Services Bureau

1. CUSTODY
(Selected Equipment)
2. PHARMACY
(Selected Equipment)
3. RADIOLOGY
(Selected Equipment)

LOS ANGELES COUNTY JAIL PLAN

PROPOSED KITCHENS FOR THE CONSOLIDATED CORRECTIONAL TREATMENT FACILITY AND MIRA LOMA DETENTION CENTER

Prepared by
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~ March 28, 2014 ~

**LOS ANGELES COUNTY JAIL PLAN
PROPOSED KITCHENS FOR THE CONSOLIDATED CORRECTIONAL
TREATMENT FACILITY AND MIRA LOMA DETENTION CENTER**

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**LOS ANGELES COUNTY JAIL PLAN
PROPOSED KITCHENS FOR THE CONSOLIDATED CORRECTIONAL
TREATMENT FACILITY AND MIRA LOMA DETENTION CENTER**

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INTRODUCTION

Steve Marshall, Principal of The Marshall Associates, Inc. (TMA) Foodservice Consultants was retained by Vanir Construction to program a cook-chill kitchen for the Five CCTF Options in the Jail Plan and for a modernized and re-opened Mira Loma Detention Center. The Marshall Associates will develop spatial requirements (lists and bubble diagrams), equipment lists, outline cost estimates, and narrative for the following:

1. - New large Consolidated Correctional Facility (CCTF) at the Downtown Los Angeles site:
 - a. - New cook-chill kitchen and associated facilities for the new CCTF at the Downtown site for 5,000 to 6,000 inmates.
 - i. - New Correctional Treatment Center (CTC) kitchen in the CCTF for 260 inmates.
 - ii. - New cook-serve kitchen for staff dining in the CCTF.
2. - New smaller CCTF at the Downtown Los Angeles site and a smaller CCTF at the Pitchess Detention Center (near Castaic, CA) site.
 - a. - New cook-chill kitchen and associated facilities for the smaller CCTF at the Downtown site for 3,120 inmates.
 - i. - New CTC kitchen in the downtown CCTF for 170 inmates.
 - ii. - New cook-serve kitchen for staff dining in the Downtown CCTF.
 - b. - New cook-chill kitchen and associated facilities for the new small CCTF at the Pitchess site for 1,800 inmates.
 - i. - New Correctional Treatment Center (CTC) kitchen in the Pitchess CCTF for 130 inmates.
 - ii. - New cook-serve kitchen for staff dining in the Pitchess CCTF.
3. - Modernized and Re-opened Mira Loma Detention Center (MLDC) near Lancaster, CA:
 - a. - New cook-serve kitchen and associated facilities for the re-opened MLDC for 1,600 inmates, including a culinary program.
 - b. - New cook-serve kitchen for staff dining at MLDC.
 - c. - New cook-serve kitchen facilities for a new re-entry facility at MLDC for 236 inmates, including a culinary program.

OVERVIEW

This study defines all options for the New Jail Cook-Chill Kitchen with design narratives, square footage programs, bubble diagrams and equipment lists.

CCTF COOK-CHILL KITCHEN: OPTION A

Option A1 CCTF Cook-Chill kitchen will have the capacity to store and produce 126,000 meals per week for 6,000 inmates/patients on a daily basis (18,000 per day).

The Option A1 CCTF food service program will have a cook-chill kitchen for food production, meal staging and re-thermalization elements in the housing units for meal reheating and service to inmates. Prepared pre-trayed meals will be delivered to the housing units cold. Each delivery will include one (1) 3-compartment tray and one (1) chilled hot entrée in a disposable container for the daily hot meal and one (1) plastic bag for each of the two (2) daily cold meals per inmate. Transport will occur multiple times per week from the lower level cook – chill kitchen to the individual consumption points on the (CCTF) housing floors. Food preparation and cooking facilities will have an advanced cook-chill system and re-thermalization process for mass food production per inmate-patient dietary requirements. The cook-chill system and blast chill operation will pre-prepare food with meals readily available in inventory at all times. Production is separated from service and consumption, although bagged cold meals (breakfast and lunch) will be consumed within 24 hours of preparation.

The CCTF cook-chill kitchen will be equipped with a “food bank” operation receiving chilled pre-trayed meal transport carts, as well as food cart storage for service to re-thermalization areas in Housing Units for inmate meal tray reheating and cold food distribution.

A separate Correctional Treatment Center (CTC) kitchen for 260 inmates will be built as a cook-chill kitchen in the new CCTF building. The CTC kitchen will require a separate dedicated elevator for raw food delivery from the dock and will need to meet CDPH requirements for licensing.

CCTF COOK-CHILL KITCHEN: OPTION B

Option B is to build a smaller CCTF cook-chill at the downtown site for 3,120 inmates (Option B1) with a 2nd cook-chill kitchen at Pitchess CCTF site for 1,800 inmates (Option B3.) The cook-chill operation of the kitchens would remain the same as the 6,000 inmate option outlined in Option A.

As part of the smaller Option B CCTF Cook-Chill kitchens, each of the locations (Downtown / Pitchess) would require a smaller, separate Correctional Treatment Center (CTC) cook-chill kitchen. Option B2 at Downtown would be for 170 inmates and Option B4 Pitchess would be for 130 inmates. The smaller CTC kitchen options will also require a dedicated elevator for downtown and a direct delivery access for raw food from the dock at Pitchess, without passing thru preparation or soiled dish and trash areas.

OVERVIEW (cont'd)**COOK-SERVE KITCHEN: OPTION C**

The Option C kitchen at the Modernized and Re-opened Mira Loma Detention Center (MLDC) for 1,600 inmates will be completely gutted and re-built to be a full service cook-serve style kitchen with two (2) 200 seat dining rooms and two (2) cafeteria style serving lines.

In addition to the re-built cook-serve kitchen at Mira Loma Detention Center, a new kitchen and dining facility (Option C2) will be built at Mira Loma Detention Center for 236 re-entry inmates with a cook-serve style kitchen, cafeteria line and a 120 seat dining room that will turn over 2 times.

A 64 seat culinary arts center with a cooking training kitchen and baking training kitchen (Option C3) will also be constructed in a new free standing building.

CCTF COOK-CHILL KITCHEN OPERATION NARRATIVE (OPTION A1, OPTION B1, OPTION B3)

The CCTF cook chill production kitchen (A) will operate 8 hours a day, 5 days a week; using a cook-chill and blast chill production system for hot food meals. Cold food prep sacked meals will operate 7 days a week for 14 cold sack meals per week. Cold food deliveries to the housing units will occur 3 times per day, 7 days a week, with dinner meals being rethermalized before consumption.

The CCTF cook-chill kitchen will have capacity for three meals a day staging and holding. Meal delivery will operate 7 days a week. The food cart storage within the CCTF dispatch cooler will stage three meals at one time, one hot and 2 cold per day. Pre-trayed meals will be held in a roll in refrigerator (in the housing pantry) before being re-heated using a rethermalization unit, also located in the housing unit pantry. See the Retherm Pantry Operational Narrative for more information. Meals will be served in a dayroom or cell as required. Inmates normally dine three times a day, but some inmates require between meal supplements: multiple times a day. This can be accommodated from the diet/test kitchen. Inmates will be provided a cold sack meal for breakfast, a cold sack meal for lunch and a rethermed hot meal for dinner.

Some of the inmate's meals will be categorized and engineered as special diets from a special diet / test kitchen. The meals will be trayed and labeled according to specific inmates' needs. Some inmates may require customized meals from the special diet/test kitchen to meet specific medical and religious conditions. Trayed meals will be assembled into unit specific tray transport carts, and transported from the CCTF cook-chill kitchen to the housing floors via elevator.

A 96-hour emergency supply of ready-to-eat prepared meals will be provided for the CTC as required by CDPH. The CCTF bulk food bank will hold one (1) full day of meals and is located in the CCTF kitchen. The food bank will have refrigerated and dry staging capabilities for meal staging and assembly (including kosher/halal meals).

The 6000 inmate CCTF cook-chill kitchen will be a 47,619 square foot cook-chill food production facility with bulk cold and frozen food storage and bulk dry storage. The smaller CCTF cook-chill kitchen Options B for 3120 inmates and 1800 inmates will operate exactly the same as the 6000 inmate option except with separate cook-chill kitchens instead of one. The receiving dock should be large enough for bulk deliveries and shipments from outside vendors (3 truck capacity up to 60' long semi-truck trailer). Food will be issued and distributed to the preparation area for processing and cleaning, then issued to the production cooking areas for cooking and chilling and holding. Tray line areas for tray assembly and sack meal assembly is the final operation. Potwash, tray wash and cart washing all will occur after the dinner meal.

The preparation area has a variety of preparation work stations to be used by inmate labor, 120 inmates per day, 60 inmates per shift. All prepared foods will be stored in a food bank, walk in refrigerator prior to meal assembly. The CCTF Kitchen will have a large production bakery and a diet / test kitchen with self-contained cold food storage, ovens and cooking line.

The CCTF cook –chill production kitchen will have a full service cooking area that will operate on a 40 hour work week. The cooking area shall have roast ovens, combi ovens, grills and braising pans. Cooked foods in pans which will be transferred to five (5) roll-in blast chillers for cooling, then stored for up to three (3) days in a food bank cooler.

CCTF COOK-CHILL KITCHEN OPERATION NARRATIVE (OPTION A1, OPTION B1, OPTION B3) – (cont'd)

A steam kettle - tumble cook-chill system will also be part of the cooking area. Kettle finished food products will be bagged by a pump-fill station and chilled in an ice water tumbler and then stored in the food bank cooler for up to 30 days without freezing. The cook-chill components consist of four (4) 200 gallon production kettles, a cook tank, loading conveyor and two (2) tumble ice water chillers, chilled by a remote ice bank located adjacent to the mechanical room. Tumble chill food bags will be stored in stacking racks and then in the food bank cooler for up to 30 days.

A diet / test kitchen will be designed to prepare special religious and cultural diets. It will include utensil/potwash area and will be located between production cooking area and the tray line area. A back-up utensil wash area will be located in the dishwash area.

The tray line area will consist of two (2) tray lines for hot entrée assembly with one (1) double conveyor for cold tray assembly. Tray lines will have inmate labor to dish-up cold food into 3-compartment trays and disposable containers for chilled, hot food, one (1) each or per inmate. All dinner entrees will be loaded into a transport tray cart that will hold 60 disposable entrees, and 60 cold food trays each.

The chilled food tray carts will be stored in a dispatch cooler adjacent to the CCTF elevators. They will be loaded into the elevators for transport to housing units for retherm and delivery to inmates. The breakfast and lunch sack meals will be delivered in bakery style carts which will hold 13 cold meal racks at 25 sacks per rack or 325 cold sack meals per cart.

Soiled trays will be collected into the sixty (60) capacity transport tray carts. The carts will then return to the soiled tray area via elevator in CCTF cook-chill kitchen, then washed and returned to the tray assembly area.

All transport carts will be washed and cleaned in this soiled tray area. Two (2) cart washers will be provided and two (2) flight-type ware washers will be provided to wash and blow dry the trays. Soiled and clean transport cart parking space will be provided in the warewash area and tray line area.

Food service operations are designed to be run with 120 inmate laborers (60 per shift) with 31 paid kitchen staff, 15 per shift plus one general manager.

RETERM PANTRY OPERATIONAL NARRATIVE (PART OF ALL COOK-CHILL KITCHEN OPTIONS)

The typical retherm pantry can be located adjacent to a maximum of 100 inmates or directly in dayroom/dining rooms for up to 100 inmates.

Two (2) 50 tray dinner meal tray carts will be transported to the retherm pantry and held in a 2 cart roll in refrigerator. The 50 dinner entrees held in disposable overwrapped containers will be removed and placed into one of two (2) 50 container capacity retherm ovens for re-heating. After re-heating the disposable dinner entrée, it will be added to the cold meal tray and passed to inmates for consumption.

Sack meals will be transported in stacking baskets, 25 sacks per basket, 13 baskets per dolly, 325 breakfast and lunches maximum per pantry. The 325 sack dolly will also be held in a 1-rack roll in refrigerator. The sack meals will be passed to inmates as required.

The pantry will also include a 10' ± counter with a hot water dispenser, microwave oven, cold beverage (cool-aid) dispenser and a hand wash sink.

Soiled trays will be returned to the two (2) 50 tray transport carts after the dinner meal and then returned to the cook-chill kitchen dishroom for washing and re-use.

**CTC (CORRECTIONAL TREATMENT CENTER) COOK-CHILL KITCHEN OPERATION NARRATIVE
(OPTION A2, OPTION B2, OPTION B4)**

The CTC cook chill kitchen will be located in the new CCTF Building for both the 6000 inmate option A1 and the 3120 inmate option B2. The B2 option for 170 inmates will also include a second CTC kitchen at Pitchess for 130 inmates. All 3 options will operate 8 hours a day, 5 days a week; using blast chill production system for hot food meals. Cold food prep sacked meals will operate 7 days a week for 14 cold sack meals per week. Cold food deliveries to the housing units will occur 3 times per day, 7 days a week, with dinner meals being rethermalized before consumption. The three options will need to be licensed by CDPH; therefore the downtown CTC options will require a dedicated raw food delivery elevator from the dock to kitchen storage and a direct route from dock to food storage at Pitchess, without crossing food prep and assembly.

The CTC cook-chill kitchen will have capacity for three meals a day staging and holding. Meal delivery will operate 7 days a week. The food cart storage within the CTC dispatch cooler will stage three meals at one time, one hot and 2 cold per day. Pre-trayed meals will be held in a roll in refrigerator (in the housing pantry) before being re-heated using a rethermalization unit, also located in the housing unit pantry. Meals will be served in a dining room or individually as required. Inmates normally dine three times a day, but some inmates require between meal supplements: multiple times a day. This can be accommodated from the cook-chill kitchen. CTC inmates will be provided a cold sack meal for breakfast, a cold sack meal for lunch and a rethermed hot meal for dinner.

Some inmate's meals will be categorized and engineered as special diets. The meals will be trayed and labeled according to specific inmates' needs. Some inmates may require customized meals from the kitchen to meet specific medical and religious conditions. Trayed meals will be assembled into unit specific tray transport carts, and transported from the CTC cook-chill kitchen to the housing floors via elevator or at Pitchess transport truck.

A 96-hour emergency supply of ready-to-eat prepared meals will be provided for the CTC as required by CDPH. The CTC bulk food bank will hold one (1) full day of meals and is located in the CTC kitchen. The food bank will have refrigerated and dry staging capabilities for meal staging and assembly (including kosher/halal meals).

The 260 inmate CTC cook-chill kitchen will be a 4,928 square foot cook-chill food production facility with bulk cold and frozen food storage and bulk dry storage. The smaller CTC cook-chill kitchen options for 170 inmates and 130 inmates will operate exactly the same as the 260 inmate option except with two cook-chill kitchens instead of one. The receiving dock should be large enough for bulk deliveries and shipments from outside vendors (3 truck capacity up to 60' long semi-truck trailer). Food will be issued and distributed to the preparation area for processing and cleaning, then issued to the production cooking areas (for cooking and chilling and holding). Tray line area for tray assembly and sack meal assembly is the final operation. Potwash, tray wash and cart washing all will occur after the dinner meal.

The preparation area has a variety of preparation work stations to be used by staff labor. All prepared foods will be stored in a food bank, walk in refrigerator prior to meal assembly. The CTC Kitchen will have a small bakery with self-contained cold food storage and ovens.

**CTC (CORRECTIONAL TREATMENT CENTER) COOK-CHILL KITCHEN OPERATION NARRATIVE
(OPTION A2, OPTION B2, OPTION B4) - (cont'd)**

The CTC cook –chill production kitchen will have a full service cooking area that will operate on a 40 hour work week. The cooking area shall have roast oven, combi oven, grill and braising pan. Cooked foods in pans which will be transferred to one (1) roll-in blast chillers for cooling, then stored for up to three (3) days in a food bank cooler.

A steam kettle will also be part of the cooking area. Kettle finished food products will be panned and rolled into the blast chiller and then held in the food bank.

The tray line area will consist of one (1) tray line for hot entrée and cold tray assembly. Tray line will have staff labor to dish-up cold food into 3-compartment trays and disposable containers for chilled, hot food, one (1) each or per inmate. All dinner entrees will be loaded into a transport tray cart that will hold 60 disposable entrees, and 60 cold food trays each.

The chilled food tray carts will be stored in a walk in cooler. They will be loaded into elevators for transport to housing units for retherm and delivery to inmates/patients.

Soiled trays will be collected into the sixty (60) capacity transport tray carts. The carts will then return to the soiled tray area via elevator in CTC cook-chill kitchen, and a truck for the Pitchess kitchen, then washed and returned to the tray assembly area.

All transport carts will be washed and cleaned in this soiled tray area. A cart wash alcove will be provided and one (1) conveyor ware washer will be provided to wash and blow dry the trays. Soiled and clean transport cart parking space will be provided in the warewash area and tray line area.

**MIRA LOMA DETENTION CENTER COOK SERVE AND RE-ENTRY COOK-SERVE KITCHEN OPERATION
NARRATIVE – (OPTION C1, OPTION C2)**

The MLDC and re-entry cook serve production kitchen will operate 16 hours a day, 7 days a week; using a typical cook-serve production system for hot food meals. Cold food prep meals will also operate 16 hours a day, 7 days a week for 14 cold meals per week. Food will be served from two (2) typical cafeteria lines and (2) 200 seat dining rooms for MLDC and one (1) serving line and one (1) 120 seat dining room for the MLDC re-entry kitchen.

The MLDC cook-serve kitchen will have capacity for serving three meals a day. Meal serving will operate 7 days a week. Inmates will be provided a cold served meal for breakfast, a cold served meal for lunch and a hot served meal for dinner.

Some inmate's meals will be categorized and engineered as special diets from the cook serve kitchen. Special meals will be trayed and labeled according to specific inmates' needs. Some inmates may require customized meals to meet specific medical and religious conditions. Trayed meals will be assembled into specific tray carts and held for service on the serving line.

The 1600 inmate MLDC cook-serve kitchen will be a 20,037 square foot cook-serve food production facility with bulk cold and frozen food storage and bulk dry storage. The smaller re-entry cook-serve kitchen for 236 inmates will operate exactly the same as the 1600 inmate kitchen except with a smaller 6512 square foot kitchen and 80 seat dining room. The receiving dock should be large enough for bulk deliveries and shipments from outside vendors (3 truck capacity up to 60' long semi-truck trailer). Food will be issued and distributed to the preparation area for processing and cleaning, then issued to the production cooking area for serving and holding. Serving line areas for inmate serving and cold meal serving is the final operation. Potwash and tray wash and all will occur after each meal and trays will be self-bussed by inmates.

The preparation area has a variety of preparation work stations to be used by inmate labor, 30 inmates per day, 15 inmates per shift for MLDC and 20 inmates, per day, 10 inmates per shift for re-entry kitchen. All cold prepared foods will be stored in a food bank, walk in refrigerator prior to meal service, all hot food will be stored in hot holding cabinets behind the serving lines in the dining rooms. The MLDC kitchen will have a bakery with self-contained cold food storage and ovens.

The MLDC and Re-entry cook –serve production kitchen will have a full service cooking area with roast ovens, combi ovens, grills and braising pans. Cooked foods in pans which will be held in hot cabinets just prior to serving.

**MIRA LOMA DETENTION CENTER COOK SERVE AND RE-ENTRY COOK-SERVE KITCHEN OPERATION
NARRATIVE – (OPTION C1, OPTION C2) – (cont'd)**

Steam kettles will also be part of the cooking area. Kettle finished food products will paned and then stored in hot cabinets at the serving lines.

The tray serving area will consist of two (2) tray serving lines for hot entrée dish-up and cold food dish-up. Tray serving lines will have inmate labor to dish-up cold food into 3-compartment trays and hot food, one (1) each or per inmate.

Soiled trays will be self-bussed to dishroom in the cook-serve kitchen, then washed and returned to the serving line.

All food carts will be washed and cleaned in this soiled tray area. A cart wash alcove will be provided and a conveyor ware washer will be provided to wash and blow dry the trays. Soiled and clean food cart and tray cart parking space will be provided in the warewash area serving serving line area.

Food service operations are designed to be run with 30 inmate laborers (15 per shift) for C1 and 20 inmates laborers per day, 10 per shift for C2.

CULINARY ARTS BUILDING OPERATIONAL NARRATIVE – (OPTION C3)

The Culinary Arts Building will have two (2) 32 seat dining room / classrooms. One classroom will be supported by a cook-serve teaching kitchen; including a walk in refrigerator, freezer, dry storage cooking line and multi-table preparation teaching stations, a dishwash/pot wash room and a serving display counter.

The second classroom will be supported by a small teaching bakery; including a walk in refrigerator/freezer, dry storage, bake ovens, mixers and multi-wood top teaching table/stations, a pot wash room and a display counter.

Both classrooms will have a chef and baker's office and inmate staff toilets.

STAFF SERVING / KITCHEN and DINING ROOM OPERATIONAL NARRATIVE - (PART OF ALL COOK-CHILL AND COOK-SERVE KITCHEN OPTIONS)

The staff dining rooms will vary in size depending on the option selected. The A1 CCTF 6,000 inmate kitchen will have a 350 seat staff dining room and two (2) 25 seat executive dining rooms. The B1 CCTF 3,120 inmate Downtown kitchen option would have a 150 seat staff dining room including and a 20 seat executive dining room. The B3 CCTF 1,800 inmate Pitchess kitchen option and C1 MLDC Cook Serve kitchen option would have a 135 seat staff dining rooms and a 20 seat executive dining room.

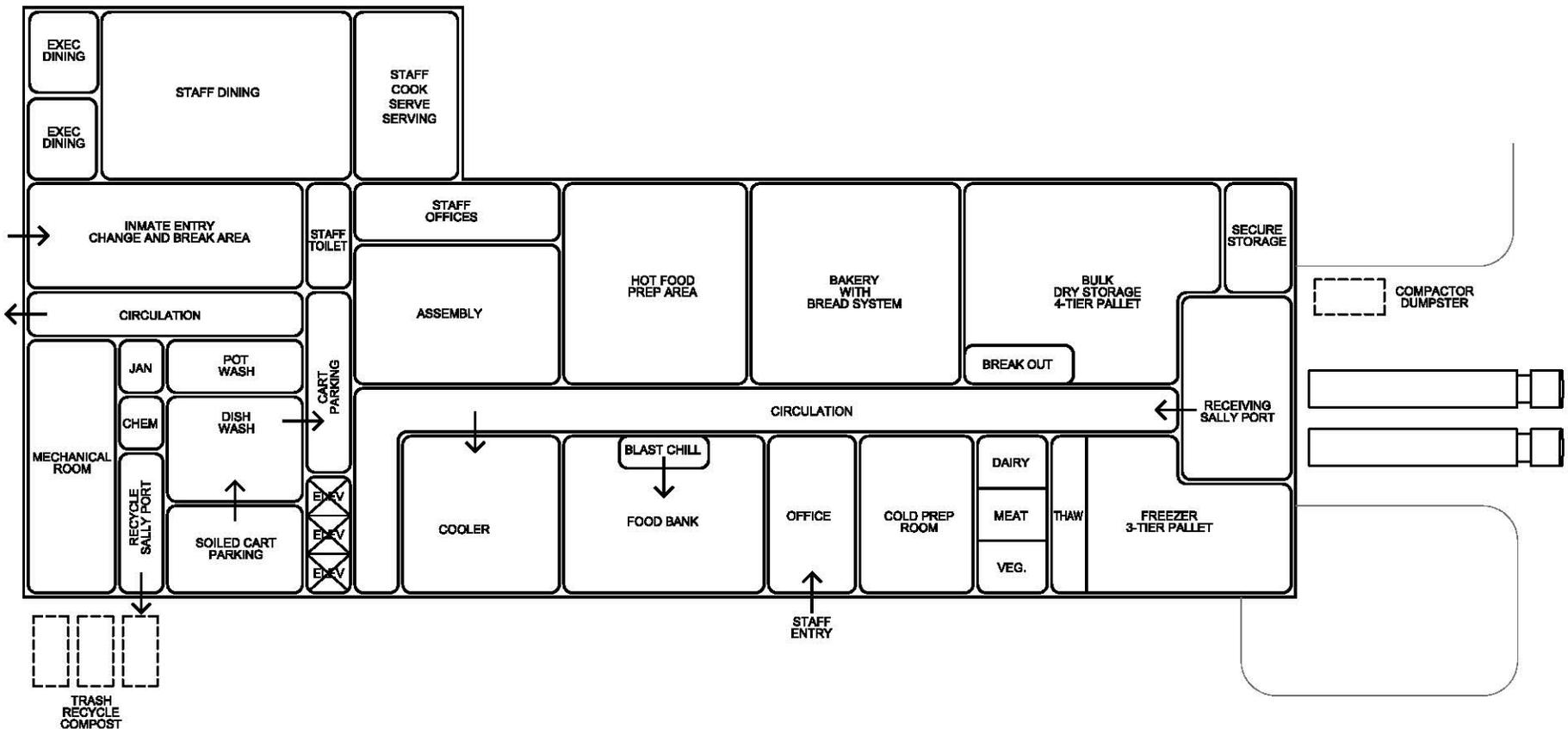
All staff dining rooms will have self-contained cook-serve kitchens with hot and cold food serving lines, salad bars, beverage bars and self-bussing dishrooms. The cook-serve kitchens will have walk-in refrigerators/freezers, dry storage, cold prep tables, cooking lines and serving counters. The kitchens will operate for 3-meals per day, 16 hours per day, 7 days per week.

Outdoor dining will be including if location of the staff dining room is adjacent to ground floor outdoor space.

LOS ANGELES COUNTY CORRECTIONAL TREATMENT FACILITY						
PROGRAM SUMMARY						
NO.	SITE NAME	NSF	GSF	NSF X \$200 SF: APPROXIMATE EQUIPMENT BUDGET*	REThERM PANTRY BUDGET	TOTAL BUDGET
A1	CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF) - COOK CHILL KITCHEN - 6,000 INMATES; PLUS 56 RETHERM PANTRIES	43,500	47,850	\$7,470,000.00	\$ 3,080,000.00	\$10,550,000.00
A2	CORRECTIONAL TREATMENT CENTER (CTC) - COOK CHILL KITCHEN - 260 INMATES; PLUS 2 RETHERM PANTRIES	4,840	5,324	\$968,000.00	\$ 110,000.00	\$1,078,000.00
B1	SMALLER CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF) COOK CHILL KITCHEN - 3,120 INMATES; PLUS 30 RETHERM PANTRIES	29,380	32,318	\$5,336,000.00	\$ 1,650,000.00	\$6,986,000.00
B2	CORRECTIONAL TREATMENT CENTER (CTC) - COOK CHILL KITCHEN - 170 INMATES; PLUS 2 RETHERM PANTRIES	3,910	4,301	\$782,000.00	\$ 110,000.00	\$892,000.00
B3	SMALLER CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF) AT PITCHES SITE - 1,800 INMATES; PLUS 17 RETHERM PANTRIES	20,755	22,831	\$3,674,000.00	\$ 935,000.00	\$4,609,000.00
B4	CORRECTIONAL TREATMENT CENTER (CTC) - COOK CHILL KITCHEN - 130 INMATES; PLUS 2 RETHERM PANTRIES	3,440	3,784	\$688,000.00	\$ 110,000.00	\$798,000.00
C1	MODERNIZED AND REOPENED MIRA LOMA DETENTION CENTER (MLDC) - COOK SERVE KITCHEN - 1,600 INMATES	24,735	27,209	\$3,358,000.00		\$3,358,000.00
C2	MODERNIZED AND RE-OPENED MIRA LOMA DETENTION CENTER (MLDC) - NEW COOK SERVE KITCHEN FOR REENTRY - 236 INMATES	5,920	6,512	\$2,286,000.00		\$2,286,000.00
C3	MODERNIZED AND RE-OPENED MIRA LOMA DETENTION CENTER (MLDC) CULINARY ARTS & BUILDING	3,050	3,355	\$610,000.00		\$610,000.00
* EQUIPMENT BUDGET NUMBERS DO NOT INCLUDE PRICING FOR DINING ROOMS. THOSE SQUARE FOOTAGE AMOUNTS WERE SUBTRACTED FROM THE TOTAL NSF BEFORE CALCULATION						
* THE BUDGET FOR EACH RETHERM PANTRY IS PROJECTED TO BE \$55,000						

A1 - CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF)					
COOK CHILL KITCHEN SPACE PROGRAM - 6,000 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Receiving Sallyport (dock)	1	1,200	1,200	
02	Secure Storage	1	300	300	1-tier shelving
03	Storage Freezer	1	2,000	2,000	3-tier pallet racks
04	Thaw Cooler	1	350	350	
05	Vegetable Cooler	1	350	350	
06	Bulk Dry Storage	1	3,000	3,000	4-tier pallet racks 200 pallets
07	Meat Cooler	1	350	350	
08	Dairy Cooler	1	350	350	
09	Cold Food Prep Room	1	1,200	1,200	
10	Break-Out Room	1	300	300	
11	Diet / Test Kitchen	1	400	400	
12	Hot Food Preparation Area	1	2,500	2,500	With tumble chillers and kettle pit
13	Blast Chillers/Food Bank Cooler	1	2,100	2,100	5 Blast Chillers
14	Tray Assembly Area	1	2,500	2,500	Three (3) conveyor lines
15	Dispatch Cooler - One (1) hot meal two (2) cold meals	1	1,400	1,400	138 carts = 18,000 meals [100 @ 60 ea., 38 @ 325 meals ea.]
16	Soiled Cart Parking	1	1,400	1,400	
17	Chemical & Detergent Storage	1	200	200	
18	Inmate Toilets	4	60	240	
19	Potwashing Area	2	250	500	With automatic pot washers
20	Ware Washing Area	1	2,000	2,000	Two (2) flight type dishwashers w/ tray stackers
21	Staff Toilets & Lockers	3	150	450	
22	Food Service Waste/Recycle Room	1	500	500	
23	Clean Cart Parking	1	1,400	1,400	138 clean carts
24	Bakery & Storage	1	4,500	4,500	With bread production
25	Offices/ Foodservice Mgr.	1	960	960	One (1) private office for Food Service Manager; One (1) private workstation for Dietetic Advisor with open workstation for 4 clerks and 4 cooks; One (1) open workstation for 3 custoday staff and custody storage area
26	Inmate Break & Change Strip Search Area	1	1,200	1,200	120 inmates - 25 seats; 60 inmates per shift
27	Recycling Sallyport	1	500	500	
28	Mechanical/Electrical Room	1	2,000	2,000	With Steam Boilers & Ice Builder
29	Cook Serve Kitchen for Staff	1	3,200	3,200	8 square feet per seat
30	Staff Dining Room - 350 seats	1	5,250	5,250	15 square feet per seat plus outdoor dining
31	Executive dining room - 25 seats	2	450	900	18 square feet per seat
			NSF	43,500	
			GSF(@10%)	47,850	

A1 - 6,000 INMATES
CONSOLIDATED CORRECTIONAL FACILITY (CTF)
COOK-CHILL KITCHEN & BAKERY



A1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 6,000 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
1	1	FORKLIFT AND CHARGER
2	1	PALLET JACK AND CHARGER
3	LOT	PUSH BACK PALLET SHELVING
4	LOT	PALLET SHELVING
5	1	WALK IN BULK FREEZER
6	1	EVAPORATOR
7	LOT	PALLET SHELVING
8	1	REMOTE REFRIGERATION SYSTEM
9	1	WALK IN COOLER, BAKERY
10	LOT	WALK-IN SHELVING
11	LOT	SHELVING
12	1	EVAPORATOR
13	1	BAKERY SINK
14	1	INTERMEDIATE PROOF CONVEYOR CABINET
15	1	BREAD FORMER/DIVIDER
16	2	140 QT. MIXER
17	2	SPIRAL MIXER 360 QT.
18	1	WATER METER
19	LOT	SHELVING
20	1	20 QT. MIXER
21	1	EQUIPMENT STAND
22	1	WALK IN FREEZER, BAKERY
23	LOT	WALK-IN SHELVING
24	1	EVAPORATOR
25	1	HAND SINK W/ SOAP & TOWEL DISPENSER
26	1	3 COMPARTMENT SINK
27	1	EXHAUST HOOD
28	3	25 GAL. KETTLE
29	2	DIVIDER / ROUNDER AUTOMATIC
30	2	MOBILE WORK TABLE
31	2	BREAD SLICER W/ BAGGER
32	1	WORK TABLE
33	1	SHEETER
34	1	HAND SINK W/ SOAP & TOWEL DISPENSER

A1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 6,000 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
35	24	OVEN RACK
36	6	UTILITY RACK
37	2	ROTATING RACK OVEN
38	1	PROOFER CABINET 8 RACK
39	LOT	SHELVING
40	1	WORK TABLE
41	1	AUTOMATIC SLICER
42	2	UTILITY RACK
43	2	PREP TABLE W/ SINKS
44	1	POTATO PEELER
45	1	VACUUM PACK MACHINE
46	2	PREP TABLE W/ SINKS
47	2	FAUCET FOR PREP TABLE W/ SINKS
48	1	HAND SINK W/ SOAP & TOWEL DISPENSER
49	2	VEGETABLE WASHER / DRYER
50	1	FOOD PROCESSOR
51	1	FOOD DICER
52	1	FLOOR TROUGH
53	1	HAND SINK W/ SOAP & TOWEL DISPENSER
54	1	REMOTE REFRIGERATION SYSTEM
55	1	REMOTE REFRIGERATION SYSTEM
56	2	HAND SINK W/ SOAP & TOWEL DISPENSER
57	3	PREP TABLE W/ SINKS
58	1	COOLER, VEGETABLE
59	LOT	WALK-IN SHELVING
60	6	UTILITY RACK
61	1	EVAPORATOR
62	1	WALK IN COOLER, MEAT
63	LOT	WALK-IN SHELVING
64	6	UTILITY RACK
65	1	WALK IN COOLER, DAIRY
66	LOT	WALK-IN SHELVING
67	LOT	WALK-IN SHELVING
68	1	EVAPORATOR

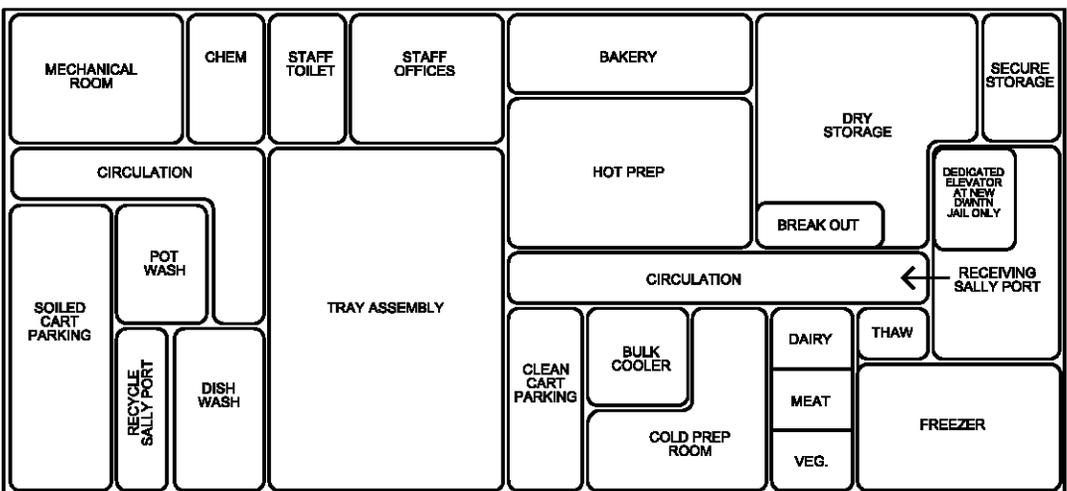
A1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 6,000 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
69	1	COOLER, BULK
70	LOT	WALK-IN SHELVING
71	6	UTILITY RACK
72	1	EVAPORATOR
73	1	WALK IN COOLER, FINISHED FOOD
74	LOT	WALK-IN SHELVING
75	6	UTILITY RACK
76	1	EVAPORATOR
77	2	ROTATING RACK OVEN
78	5	BLAST CHILLER
79	1	EVAPORATOR
80	1	WALK IN COOLER, FOOD BANK
81	1	EVAPORATOR
82	1	REMOTE REFRIGERATION SYSTEM
83	2	WORK TABLE
84	9	COMBI OVEN RACK
85	1	HAND SINK W/ SOAP & TOWEL DISPENSER
86	4	GRIDDLE
87	6	ROLL IN COMBI OVEN
88	1	FIRE SUPPRESSION SYSTEM
89	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
90	2	MOBILE WORK TABLE
91	1	HAND SINK W/ SOAP & TOWEL DISPENSER
92	1	EXHAUST HOOD
93	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
94	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
95	1	FIRE SUPPRESSION SYSTEM
96	1	FIRE SUPPRESSION SYSTEM
97	1	EXHAUST HOOD
98	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
99	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
100	1	HOIST AND RAIL
101	1	COOK / CHILL TANK
102	1	FLOOR TROUGH

A1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 6,000 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
103	3	40 GAL TILTING SKILLET
104	1	HOIST AND RAIL
105	1	PASTA BASKET W/ DOLLY
106	2	DUAL REMOTE CONTROL PANEL
107	1	200 GAL PASTA KETTLE
108	3	200 GAL MIXING KETTLE
109	1	EXHAUST HOOD
110	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
111	1	FIRE SUPPRESSION SYSTEM
112	1	HAND SINK W/ SOAP & TOWEL DISPENSER
113	1	WORK TABLE
114	1	PRODUCTION METERING / FILLING STATION
115	1	PREP TABLE W/ SINKS
116	1	HOSE REEL
117	1	FLOOR TROUGH
118	1	CONTROL PANEL
119	1	CASING CONVEYOR
120	1	3 COMPARTMENT SINK
121	1	HAND SINK W/ SOAP & TOWEL DISPENSER
122	2	320 GAL TUMBLE CHILLER
123	1	FLOOR TROUGH
124	1	HAND SINK W/ SOAP & TOWEL DISPENSER
125	2	TRAY DENESTER
126	12	MOBILE WORK TABLE
127	2	TRAY ASSEMBLY CONVEYOR, DISPOSABLE ENTRÉE CONTAINER
128	1	HAND SINK W/ SOAP & TOWEL DISPENSER
129	2	SEALING MACHINE
130	2	ACCUMULATOR TABLE
131	6	TRAY CART
132	1	HAND SINK W/ SOAP & TOWEL DISPENSER
133	1	HAND SINK W/ SOAP & TOWEL DISPENSER
134	6	MOBILE WORK TABLE
135	1	TRAY ASSEMBLY CONVEYOR, SACK COLD MEALS
136	1	ACCUMULATOR TABLE

A1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 6,000 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
137	1	HAND SINK W/ SOAP & TOWEL DISPENSER
138	6	UTILITY RACK
139	1	HAND SINK W/ SOAP & TOWEL DISPENSER
140	1	UNDERCOUNTER REFRIGERATOR
141	1	PREP TABLE W/ SINKS
142	1	WORK TABLE
143	1	6 BURNER RANGE
144	1	GRIDDLE
145	1	GAS QUICK DISCONNECT FOR GRIDDLE
146	1	EXHAUST HOOD
147	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
148	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
149	1	FIRE SUPPRESSION SYSTEM
150	1	DISPATCH COOLER
151	138	TRANSPORT CARTS
152	2	EVAPORATOR
153	38	TRANSPORT CARTS, FOR SACK COLD MEALS
154	1	REMOTE REFRIGERATION SYSTEM
155	2	CART WASH MACHINE
156	LOT	S/S UTILITY CHASES FOR CART WASH MACHINE
157	1	HAND SINK W/ SOAP & TOWEL DISPENSER
158	1	HAND SINK W/ SOAP & TOWEL DISPENSER
159	LOT	S/S UTILITY CHASES FOR CART WASH MACHINE
160	2	DISH MACHINE, FLIGHT TYPE
161	1	ICE BUILDER
162	1	REFRIGERATED COMPRESSOR RACK
163	1	ICE BUILDER PUMP PACKAGE
RETHERM PANTRY - QUANTITY (56)		
1	112	DINNER MEAL TRAY CARTS (CAPACITY; 50 TRAYS EACH - TWO CARTS PER PANTRY)
2	56	TWO (2) DOOR ROLL-IN REFRIGERATOR
3	56	RETHERM OVEN
4	56	SACK MEAL TRANSPORT DOLLY
5	56	ONE (1) DOOR ROLL-IN REFRIGERATOR
6	56	WORK COUNTER

A1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 6,000 INMATES COOK-CHILL KITCHEN & BAKERY FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
7	56	HOT WATER DISPENSER
8	56	MICROWAVE OVEN
9	56	COLD BEVERAGE DISPENSER
10	56	HAND SINK W/ SOAP & TOWEL DISPENSER
11	56	STORAGE CABINET

A2 - CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF)					
COOK CHILL CORRECTIONAL TREATMENT CENTER (CTC) KITCHEN SPACE PROGRAM - 260 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Secure Storage	1	50	50	
02	Storage Freezer	1	130	130	
03	Thaw Cooler	1	50	50	
04	Vegetable Cooler	1	130	130	
05	Bulk Dry Storage	1	520	520	
06	Meat Cooler	1	130	130	
07	Dairy Cooler	1	130	130	
08	Cold Food Prep Room	1	200	200	
09	Break-Out Room	1	100	100	
10	Hot Food Preparation Area	1	400	400	With one (1) blast chiller
11	Blast Chiller/Food Bank Cooler	1	150	150	1 blast chiller
12	Tray Assembly Area	1	250	250	One (1) conveyor line
13	Dispatch Cooler	1	100	100	7 carts = 780 meals
14	Soiled Cart Parking	1	100	100	
15	Chemical & Detergent Storage	1	50	50	
16	Potwashing Area	1	250	250	
17	Ware Washing Area	1	500	500	One (1) conveyor dishwasher (rack)
18	Staff Toilets & Lockers	1	150	150	
19	Food Service Waste/Recycle Room	1	100	100	
20	Clean Cart Parking	1	210	210	21 clean carts
21	Offices/ Foodservice Mgr. /Supervisors	1	540	540	One (1) private office for Food Chief; one (1) shared office for 2 Dietetic Advisors; Two (2) workstations for Chief Cook and Typist Clerk and open workstation space for 3 to accommodate Head and Senior Cooks
22	Recycling Sallyport	1	100	100	
23	Mechanical/Electrical Room	1	500	500	With Steam Boiler
			NSF	4,840	
			GSF(@10%)	5,324	



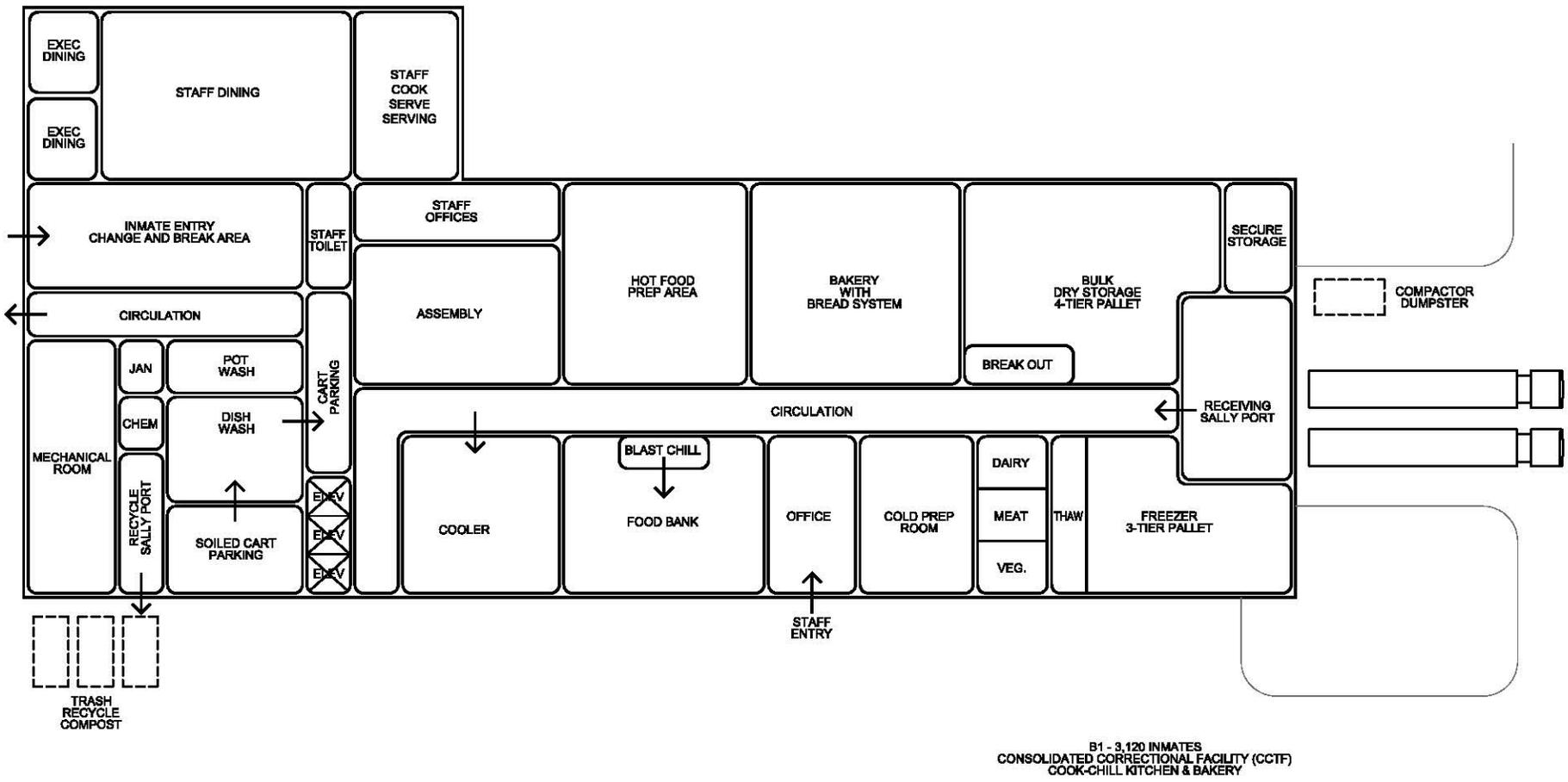
A2 - 260 INMATES
CORRECTIONAL TREATMENT CENTER
COOK-CHILL KITCHEN

A2 - CORRECTIONAL TREATMENT CENTER (CTC) - 260 INMATES		
NEW COOK CHILL KITCHEN		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
1	8	MOBILE UTILITY RACK
2	3	TRAY DISPENSER
3	1	TRAY ASSEMBLY CONVEYOR
4	3	COLD DISH UP TABLE
5	2	2-DOOR ROLL IN REFRIGERATOR
6	13	DUAL TEMP TRAY DELIVERY CART
7	2	MOBILE DRYING RACK
8	2	TRASH CONTAINER
9	1	WALL SHELF / UTENSIL RACK
10	1	POT SINK
11	2	PAN RACK
12	1	FLOOR TROUGH / GRATE
13	1	HAND SINK W/ S&T DISPENSER
14	1	CLEAN DISHTABLE
15	1	BOOSTER HEATER
16	1	VENT DUCT
17	1	CONVEYOR DISHMACHINE
18	1	VENT DUCT
19	1	SOILED DISHTABLE
20	1	WALK IN THAW COOLER
21	1	REFRIGERATION SYSTEM
22	1	WALK IN DAIRY COOLER
23	1	WALK-IN VEGETABLE COOLER
24	1	WALK-IN MEAT COOLER
25	24	COLD STORAGE SHELVING
26	3	HAND SINK
27	1	60 QUART MIXER
28	2	DOUBLE STACK CONVECTION OVEN
29	2	ROLL IN BLAST CHILLER
30	1	EXHAUST HOOD
31	1	SPREADER CABINET
32	1	WORK TABLE WITH CHASE/SINK
33	2	OPEN BURNER RANGE / OVEN
34	1	GRIDDLE RANGE / OVEN

A2 - CORRECTIONAL TREATMENT CENTER (CTC) - 260 INMATES		
NEW COOK CHILL KITCHEN		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
35	5	TRASH CONTAINER
36	1	UTILITY CABINET SYSTEM
37	1	FRYER BATTERY W/ FILTRATION
38	1	EXHAUST HOOD
39	1	FIRE PROTECTION SYSTEM
40	1	EXHAUST HOOD
41	1	TILTING KETTLE
42	1	AUTOMATIC SLICER
43	1	WORK TABLE
44	1	FOOD CUTTER
45	1	CAN OPENER
46	1	WORK TABLE WITH CHASE
47	1	TILT SKILLET
48	1	EXHAUST HOOD
49	1	FLOOR TROUGH / GRATE
50	1	COMBI STEAMER
51	1	OVERSHELF
52	1	WORK TABLE
53	1	WORK TABLE WITH CHASE
54	1	WALK-IN FOOD BANK COOLER
55	1	FLOOR TROUGH / GRATE
56	1	ICE MACHINE WITH BIN
57	1	TRASH CONTAINER
58	1	WORK TABLE WITH SINKS
59	1	WALL SHELF
60	1	WALK-IN FREEZER
61	12	COLD STORAGE SHELVING
62	11	STORAGE SHELVING
63	4	UTILITY CART
64	8	BULK STORAGE RACK
65	3	UTILITY CART

A2 - CORRECTIONAL TREATMENT CENTER (CTC) - 260 INMATES NEW COOK CHILL KITCHEN FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
RETHERM PANTRY - QUANTITY (2)		
1	4	DINNER MEAL TRAY CARTS (CAPACITY; 50 TRAYS EACH - TWO CARTS PER PANTRY)
2	1	TWO (2) DOOR ROLL-IN REFRIGERATOR
3	1	RETHERM OVEN
4	1	SACK MEAL TRANSPORT DOLLY
5	1	ONE (1) DOOR ROLL-IN REFRIGERATOR
6	1	WORK COUNTER
7	1	HOT WATER DISPENSER
8	1	MICROWAVE OVEN
9	1	COLD BEVERAGE DISPENSER
10	1	HAND SINK W/ SOAP & TOWEL DISPENSER
11	1	STORAGE CABINET

B1- SMALLER CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF)					
COOK CHILL KITCHEN SPACE PROGRAM - 3,120 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Receiving Sallyport (dock)	1	1,000	1,000	
02	Secure Storage	1	300	300	1-tier shelving
03	Storage Freezer	1	1,000	1,000	3-tier pallet racks
04	Thaw Cooler	1	350	350	
05	Vegetable Cooler	1	350	350	
06	Bulk Dry Storage	1	1,500	1,500	4-tier pallet racks 200 pallets
07	Meat Cooler	1	350	350	
08	Dairy Cooler	1	350	350	
09	Cold Food Prep Room	1	1,000	1,000	
10	Diet / Test Kitchen	1	400	400	
11	Break-Out Room	1	300	300	
12	Hot Food Preparation Area	1	2,000	2,000	With tumble chillers and kettle pit
13	Blast Chillers/Food Bank Cooler	1	1,000	1,000	Three (3) Blast Chillers
14	Tray Assembly Area	1	2,500	2,500	Three (3) conveyor lines
15	Dispatch Cooler	1	500	500	47 carts = 9,500 meals; 27 @ 60, 20 @ 325 meals
16	Soiled Cart Parking	1	500	500	47 carts
17	Chemical & Detergent Storage	1	200	200	
18	Inmate Toilets	2	60	120	
19	Potwashing Area	2	250	500	With automatic pot washers
20	Ware Washing Area	1	2,000	2,000	Two (2) flight type dishwashers w/ tray stackers
21	Staff Toilets & Lockers	2	150	300	
22	Food Service Waste/Recycle Room	1	500	500	
23	Clean Cart Parking	1	500	500	47 clean carts
24	Bakery & Storage	1	4,000	4,000	With bread production
25	Offices/ Foodservice Mgr.	1	960	960	One (1) private office for Food Service Manager; One (1) private workstation for Dietetic Advisor with open workstation for 4 clerks and 4 cooks; One (1) open workstation for 3 custoday staff and custody storage area
26	Inmate Break & Change Strip Search Area	1	600	600	60 inmates - 20 seats, 30 inmates per shift
27	Recycling Sallyport	1	500	500	
28	Mechanical/Electrical Room	1	1,500	1,500	With Steam Boilers & Ice Builder
29	Cook Serve Kitchen for Staff	1	1,600	1,600	8 square feet per seat
30	Staff Dining Room - 150 seats	1	2,250	2,250	15 square feet per seat plus outdoor dining
31	Executive Dining - 25 seats	1	450	450	18 square feet per seat
			NSF	29,380	
			GSF(@10%)	32,318	



B1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 3,120 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY.	DESCRIPTION
1	1	FORKLIFT AND CHARGER
2	1	PALLET JACK AND CHARGER
3	LOT	PUSH BACK PALLET SHELVING
4	LOT	PALLET SHELVING
5	1	WALK IN BULK FREEZER
6	1	EVAPORATOR
7	LOT	PALLET SHELVING
8	1	REMOTE REFRIGERATION SYSTEM
9	1	WALK IN COOLER, BAKERY
10	LOT	WALK-IN SHELVING
11	LOT	SHELVING
12	1	EVAPORATOR
13	1	BAKERY SINK
14	1	INTERMEDIATE PROOF CONVEYOR CABINET
15	1	BREAD FORMER/DIVIDER
16	1	140 QT. MIXER
17	1	SPIRAL MIXER 360 QT.
18	1	WATER METER
19	LOT	SHELVING
20	1	20 QT. MIXER
21	1	EQUIPMENT STAND
22	1	WALK IN FREEZER, BAKERY
23	LOT	WALK-IN SHELVING
24	1	EVAPORATOR
25	1	HAND SINK W/ SOAP & TOWEL DISPENSER
26	1	3 COMPARTMENT SINK
27	1	EXHAUST HOOD
28	2	25 GAL. KETTLE
29	1	DIVIDER / ROUNDER AUTOMATIC
30	1	MOBILE WORK TABLE
31	1	BREAD SLICER W/ BAGGER
32	1	WORK TABLE
33	1	SHEETER
34	1	HAND SINK W/ SOAP & TOWEL DISPENSER

B1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 3,120 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY.	DESCRIPTION
35	12	OVEN RACK
36	3	UTILITY RACK
37	1	ROTATING RACK OVEN
38	1	PROOFER CABINET 8 RACK
39	LOT	SHELVING
40	1	WORK TABLE
41	1	AUTOMATIC SLICER
42	1	UTILITY RACK
43	1	PREP TABLE W/ SINKS
44	1	POTATO PEELER
45	1	VACUUM PACK MACHINE
46	1	PREP TABLE W/ SINKS
47	1	FAUCET FOR PREP TABLE W/ SINKS
48	1	HAND SINK W/ SOAP & TOWEL DISPENSER
49	1	VEGETABLE WASHER / DRYER
50	1	FOOD PROCESSOR
51	1	FOOD DICER
52	1	FLOOR TROUGH
53	1	HAND SINK W/ SOAP & TOWEL DISPENSER
54	1	REMOTE REFRIGERATION SYSTEM
55	1	REMOTE REFRIGERATION SYSTEM
56	2	HAND SINK W/ SOAP & TOWEL DISPENSER
57	2	PREP TABLE W/ SINKS
58	1	COOLER, VEGETABLE
59	LOT	WALK-IN SHELVING
60	3	UTILITY RACK
61	1	EVAPORATOR
62	1	WALK IN COOLER, MEAT
63	LOT	WALK-IN SHELVING
64	3	UTILITY RACK
65	1	WALK IN COOLER, DAIRY
66	LOT	WALK-IN SHELVING
67	LOT	WALK-IN SHELVING
68	1	EVAPORATOR

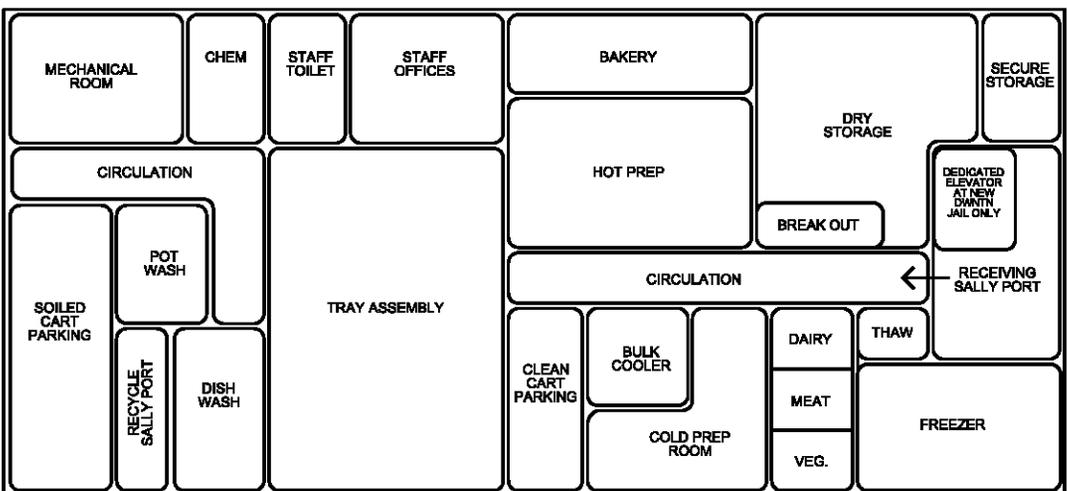
B1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 3,120 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY.	DESCRIPTION
69	1	COOLER, BULK
70	LOT	WALK-IN SHELVING
71	3	UTILITY RACK
72	1	EVAPORATOR
73	1	WALK IN COOLER, FINISHED FOOD
74	LOT	WALK-IN SHELVING
75	3	UTILITY RACK
76	1	EVAPORATOR
77	1	ROTATING RACK OVEN
78	3	BLAST CHILLER
79	1	EVAPORATOR
80	1	WALK IN COOLER, FOOD BANK
81	1	EVAPORATOR
82	1	REMOTE REFRIGERATION SYSTEM
83	1	WORK TABLE
84	5	COMBI OVEN RACK
85	1	HAND SINK W/ SOAP & TOWEL DISPENSER
86	2	GRIDDLE
87	3	ROLL IN COMBI OVEN
88	1	FIRE SUPPRESSION SYSTEM
89	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
90	1	MOBILE WORK TABLE
91	1	HAND SINK W/ SOAP & TOWEL DISPENSER
92	1	EXHAUST HOOD
93	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
94	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
95	1	FIRE SUPPRESSION SYSTEM
96	1	FIRE SUPPRESSION SYSTEM
97	1	EXHAUST HOOD
98	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
99	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
100	1	HOIST AND RAIL
101	1	COOK / CHILL TANK
102	1	FLOOR TROUGH

B1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 3,120 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY.	DESCRIPTION
103	2	40 GAL TILTING SKILLET
104	1	HOIST AND RAIL
105	1	PASTA BASKET W/ DOLLY
106	1	DUAL REMOTE CONTROL PANEL
107	1	200 GAL PASTA KETTLE
108	1	200 GAL MIXING KETTLE
109	1	EXHAUST HOOD
110	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
111	1	FIRE SUPPRESSION SYSTEM
112	1	HAND SINK W/ SOAP & TOWEL DISPENSER
113	1	WORK TABLE
114	1	PRODUCTION METERING / FILLING STATION
115	1	PREP TABLE W/ SINKS
116	1	HOSE REEL
117	1	FLOOR TROUGH
118	1	CONTROL PANEL
119	1	CASING CONVEYOR
120	1	3 COMPARTMENT SINK
121	1	HAND SINK W/ SOAP & TOWEL DISPENSER
122	1	320 GAL TUMBLE CHILLER
123	1	FLOOR TROUGH
124	1	HAND SINK W/ SOAP & TOWEL DISPENSER
125	1	TRAY DENESTER
126	6	MOBILE WORK TABLE
127	1	TRAY ASSEMBLY CONVEYOR, DISPOSABLE ENTRÉE CONTAINER
128	1	HAND SINK W/ SOAP & TOWEL DISPENSER
129	1	SEALING MACHINE
130	1	ACCUMULATOR TABLE
131	3	TRAY CART
132	1	HAND SINK W/ SOAP & TOWEL DISPENSER
133	1	HAND SINK W/ SOAP & TOWEL DISPENSER
134	3	MOBILE WORK TABLE
135	1	TRAY ASSEMBLY CONVEYOR, SACK COLD MEALS
136	1	ACCUMULATOR TABLE

B1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 3,120 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY.	DESCRIPTION
137	1	HAND SINK W/ SOAP & TOWEL DISPENSER
138	3	UTILITY RACK
139	1	HAND SINK W/ SOAP & TOWEL DISPENSER
140	1	UNDERCOUNTER REFRIGERATOR
141	1	PREP TABLE W/ SINKS
142	1	WORK TABLE
143	1	6 BURNER RANGE
144	1	GRIDDLE
145	1	GAS QUICK DISCONNECT FOR GRIDDLE
146	1	EXHAUST HOOD
147	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
148	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
149	1	FIRE SUPPRESSION SYSTEM
150	1	DISPATCH COOLER
151	47	TRANSPORT CARTS
152	1	EVAPORATOR
153	20	TRANSPORT CARTS, FOR SACK COLD MEALS
154	1	REMOTE REFRIGERATION SYSTEM
155	1	CART WASH MACHINE
156	LOT	S/S UTILITY CHASES FOR CART WASH MACHINE
157	1	HAND SINK W/ SOAP & TOWEL DISPENSER
158	1	HAND SINK W/ SOAP & TOWEL DISPENSER
159	LOT	S/S UTILITY CHASES FOR CART WASH MACHINE
160	1	DISH MACHINE, FLIGHT TYPE
161	1	ICE BUILDER
162	1	REFRIGERATED COMPRESSOR RACK
163	1	ICE BUILDER PUMP PACKAGE

B1 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) - 3,120 INMATES COOK-CHILL KITCHEN & BAKERY FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY.	DESCRIPTION
RETHERM PANTRY - QUANTITY (30)		
1	60	DINNER MEAL TRAY CARTS (CAPACITY; 50 TRAYS EACH - TWO CARTS PER PANTRY)
2	1	TWO (2) DOOR ROLL-IN REFRIGERATOR
3	1	RETHERM OVEN
4	1	SACK MEAL TRANSPORT DOLLY
5	1	ONE (1) DOOR ROLL-IN REFRIGERATOR
6	1	WORK COUNTER
7	1	HOT WATER DISPENSER
8	1	MICROWAVE OVEN
9	1	COLD BEVERAGE DISPENSER
10	1	HAND SINK W/ SOAP & TOWEL DISPENSER
11	1	STORAGE CABINET

B2 - CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF)					
COOK CHILL CORRECTIONAL TREATMENT CENTER (CTC) KITCHEN SPACE PROGRAM - 170 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Secure Storage	1	50	50	
02	Storage Freezer	1	100	100	
03	Thaw Cooler	1	50	50	
04	Vegetable Cooler	1	100	100	
05	Bulk Dry Storage	1	340	340	
06	Meat Cooler	1	100	100	
07	Dairy Cooler	1	100	100	
08	Cold Food Prep Room	1	150	150	
09	Break-Out Room	1	100	100	
10	Hot Food Preparation Area	1	300	300	With one (1) half size blast chiller
11	Blast Chiller/Food Bank Cooler	1	50	50	One (1) half size blast chiller
12	Tray Assembly Area	1	200	200	One (1) conveyor line
13	Dispatch Cooler	1	80	80	4 carts = 510 meals
14	Soiled Cart Parking	1	80	80	
15	Chemical & Detergent Storage	1	50	50	
16	Potwashing Area	1	150	150	
17	Ware Washing Area	1	400	400	One (1) conveyor dishwasher (rack)
18	Staff Toilets & Lockers	1	150	150	
19	Food Service Waste/Recycle Room	1	100	100	
20	Clean Cart Parking	1	120	120	12 clean carts
21	Offices/ Foodservice Mgr. /Supervisors	1	540	540	One (1) private office for Food Chief; one (1) shared office for 2 Dietetic Advisors; Two (2) workstations for Chief Cook and Typist Clerk and open workstation space for 3 to accommodate Head and Senior Cooks
22	Recycling Sallyport	1	100	100	
23	Mechanical/Electrical Room	1	500	500	With Steam Boiler
			NSF	3,910	
			GSF(@10%)	4,301	



B2 - 170 INMATES
CORRECTIONAL TREATMENT CENTER
COOK-CHILL KITCHEN

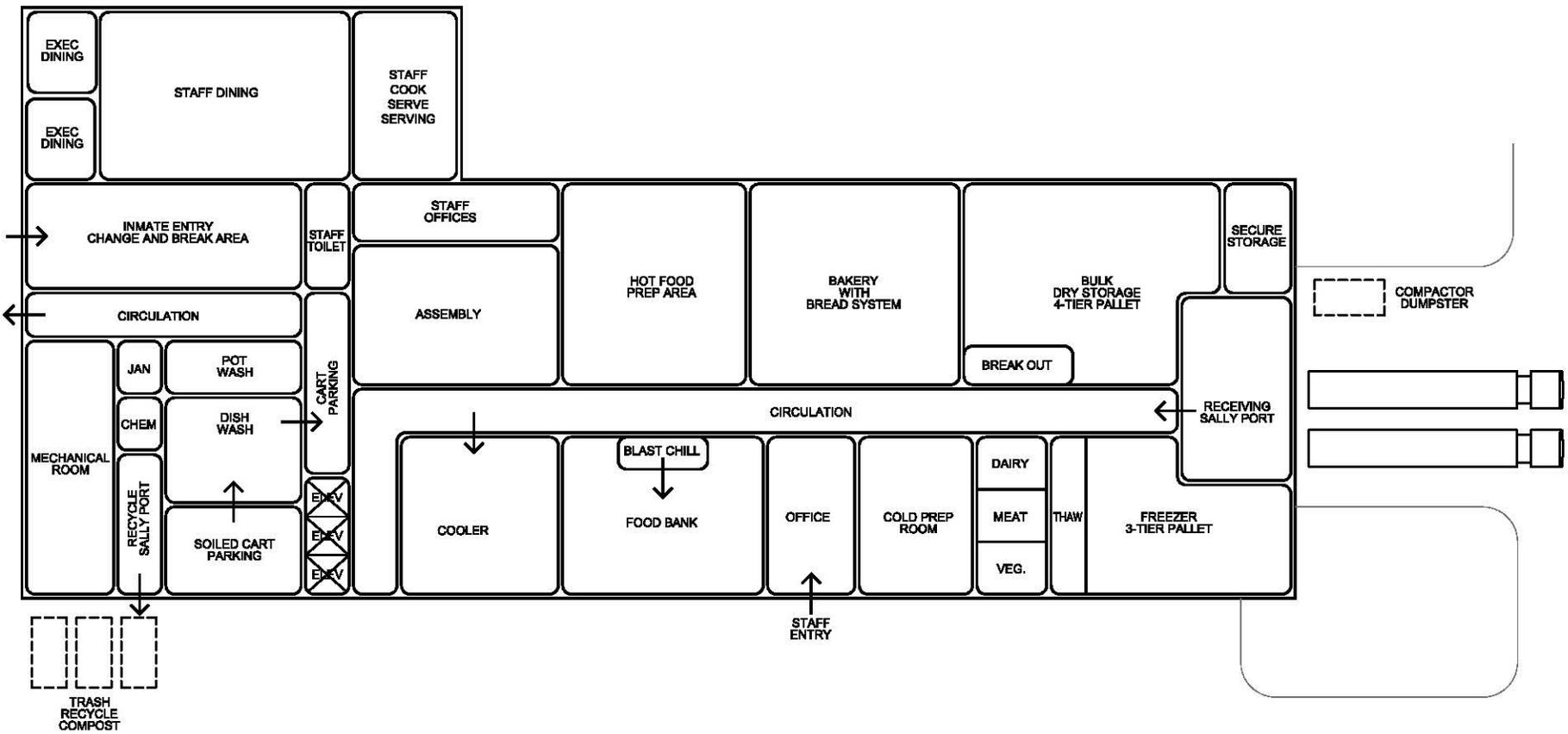
B2 - CORRECTIONAL TREATMENT CENTER (CTC) - 170 INMATES		
NEW COOK CHILL KITCHEN		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
1	8	MOBILE UTILITY RACK
2	3	TRAY DISPENSER
3	1	TRAY ASSEMBLY CONVEYOR
4	2	COLD DISH UP TABLE
5	2	2-DOOR ROLL IN REFRIGERATOR
6	10	DUAL TEMP TRAY DELIVERY CART
7	2	MOBILE DRYING RACK
8	2	TRASH CONTAINER
9	1	WALL SHELF / UTENSIL RACK
10	1	POT SINK
11	2	PAN RACK
12	1	FLOOR TROUGH / GRATE
13	1	HAND SINK W/ S&T DISPENSER
14	1	CLEAN DISHTABLE
15	1	BOOSTER HEATER
16	1	VENT DUCT
17	1	CONVEYOR DISHMACHINE
18	1	VENT DUCT
19	1	SOILED DISHTABLE
20	1	WALK IN THAW COOLER
21	1	REFRIGERATION SYSTEM
22	1	WALK IN DAIRY COOLER
23	1	WALK-IN VEGETABLE COOLER
24	1	WALK-IN MEAT COOLER
25	24	COLD STORAGE SHELVING
26	3	HAND SINK
27	1	60 QUART MIXER
28	2	DOUBLE STACK CONVECTION OVEN
29	1	ROLL IN BLAST CHILLER
30	1	EXHAUST HOOD
31	1	SPREADER CABINET
32	1	WORK TABLE WITH CHASE/SINK
33	2	OPEN BURNER RANGE / OVEN
34	1	GRIDDLE RANGE / OVEN

B2 - CORRECTIONAL TREATMENT CENTER (CTC) - 170 INMATES		
NEW COOK CHILL KITCHEN		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
35	4	TRASH CONTAINER
36	1	UTILITY CABINET SYSTEM
37	1	FRYER BATTERY W/ FILTRATION
38	1	EXHAUST HOOD
39	1	FIRE PROTECTION SYSTEM
40	1	EXHAUST HOOD
41	1	TILTING KETTLE
42	1	AUTOMATIC SLICER
43	1	WORK TABLE
44	1	FOOD CUTTER
45	1	CAN OPENER
46	1	WORK TABLE WITH CHASE
47	1	TILT SKILLET
48	1	EXHAUST HOOD
49	1	FLOOR TROUGH / GRATE
50	1	COMBI STEAMER
51	1	OVERSHELF
52	1	WORK TABLE
53	1	WORK TABLE WITH CHASE
54	1	WALK-IN FOOD BANK COOLER
55	1	FLOOR TROUGH / GRATE
56	1	ICE MACHINE WITH BIN
57	1	TRASH CONTAINER
58	1	WORK TABLE WITH SINKS
59	1	WALL SHELF
60	1	WALK-IN FREEZER
61	8	COLD STORAGE SHELVING
62	8	STORAGE SHELVING
63	4	UTILITY CART
64	8	BULK STORAGE RACK
65	3	UTILITY CART

B2 - CORRECTIONAL TREATMENT CENTER (CTC) - 170 INMATES NEW COOK CHILL KITCHEN FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
RETHERM PANTRY - QUANTITY (2)		
1	4	DINNER MEAL TRAY CARTS (CAPACITY; 50 TRAYS EACH - TWO CARTS PER PANTRY)
2	1	TWO (2) DOOR ROLL-IN REFRIGERATOR
3	1	RETHERM OVEN
4	1	SACK MEAL TRANSPORT DOLLY
5	1	ONE (1) DOOR ROLL-IN REFRIGERATOR
6	1	WORK COUNTER
7	1	HOT WATER DISPENSER
8	1	MICROWAVE OVEN
9	1	COLD BEVERAGE DISPENSER
10	1	HAND SINK W/ SOAP & TOWEL DISPENSER
11	1	STORAGE CABINET

B3 - SMALLER CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF) AT PITCHESS SITE					
COOK CHILL KITCHEN SPACE PROGRAM - 1,800 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Receiving Sallyport (dock)	1	600	600	
02	Secure Storage	1	150	150	1-tier shelving
03	Storage Freezer	1	700	700	3-tier pallet racks
04	Thaw Cooler	1	150	150	
05	Vegetable Cooler	1	150	150	
06	Bulk Dry Storage	1	1,000	1,000	4-tier pallet racks 75 pallets
07	Meat Cooler	1	150	150	
08	Dairy Cooler	1	150	150	
09	Cold Food Prep Room	1	400	400	
10	Break-Out Room	1	200	200	
11	Diet / Test Kitchen	1	400	400	
12	Hot Food Preparation Area	1	1,500	1,500	With tumble chillers and kettle pit
13	Blast Chillers/Food Bank Cooler	1	600	600	Two (2) Blast Chillers
14	Tray Assembly Area	1	1,500	1,500	Two (2) conveyor lines
15	Dispatch Cooler - For 1 hot meal and 2 cold meals	1	500	500	41 carts = 5,400 meals; 30 @ 60 ea., 11 @ 325 meals
16	Soiled Cart Parking	1	300	300	
17	Chemical & Detergent Storage	1	100	100	
18	Inmate Toilets	2	60	120	
19	Potwashing Area	2	250	500	With automatic pot washer
20	Ware Washing Area	1	1,200	1,200	Flight type dishwasher w/ tray stacker
21	Staff Toilets & Lockers	2	150	300	
22	Food Service Waste/Recycle Room	1	250	250	
23	Clean Cart Parking	1	300	300	30 clean carts
24	Bakery & Storage	1	2,500	2,500	With bread production
25	Offices/ Foodservice Mgr.	1	960	960	One (1) private office for Food Service Manager; One (1) private workstation for Dietetic Advisor with open workstation for 4 clerks and 4 cooks; One (1) open workstation for 3 custoday staff and custody storage area
26	Inmate Break & Change Strip Search Area	1	1,200	1,200	36 inmates - 15 seats, 18 per shift
27	Recycling Sallyport	1	250	250	
28	Mechanical/Electrical Room	1	1,000	1,000	With Steam Boilers & Ice Builder
29	Cook Serve Kitchen for Staff	1	1,240	1,240	8 square feet per seat
30	Staff Dining Room - 135 seats	1	2,025	2,025	15 square feet per seat plus outdoor seating
31	Executive Dining Room - 20 Seats	1	360	360	18 square feet per seat
			NSF	20,755	
			GSF(@10%)	22,831	

B3 - 1,800 INMATES
CONSOLIDATED CORRECTIONAL FACILITY (CTF)
COOK-CHILL KITCHEN & BAKERY



B3 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) -PITCHESS-1,800 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
1	1	FORKLIFT AND CHARGER
2	1	PALLET JACK AND CHARGER
3	LOT	PUSH BACK PALLET SHELVING
4	LOT	PALLET SHELVING
5	1	WALK IN BULK FREEZER
6	1	EVAPORATOR
7	LOT	PALLET SHELVING
8	1	REMOTE REFRIGERATION SYSTEM
9	1	WALK IN COOLER, BAKERY
10	LOT	WALK-IN SHELVING
11	LOT	SHELVING
12	1	EVAPORATOR
13	1	BAKERY SINK
14	1	INTERMEDIATE PROOF CONVEYOR CABINET
15	1	BREAD FORMER/DIVIDER
16	1	140 QT. MIXER
17	1	SPIRAL MIXER 360 QT.
18	1	WATER METER
19	LOT	SHELVING
20	1	20 QT. MIXER
21	1	EQUIPMENT STAND
22	1	WALK IN FREEZER, BAKERY
23	LOT	WALK-IN SHELVING
24	1	EVAPORATOR
25	1	HAND SINK W/ SOAP & TOWEL DISPENSER
26	1	3 COMPARTMENT SINK
27	1	EXHAUST HOOD
28	2	25 GAL. KETTLE
29	1	DIVIDER / ROUNDER AUTOMATIC
30	1	MOBILE WORK TABLE
31	1	BREAD SLICER W/ BAGGER
32	1	WORK TABLE
33	1	SHEETER
34	1	HAND SINK W/ SOAP & TOWEL DISPENSER

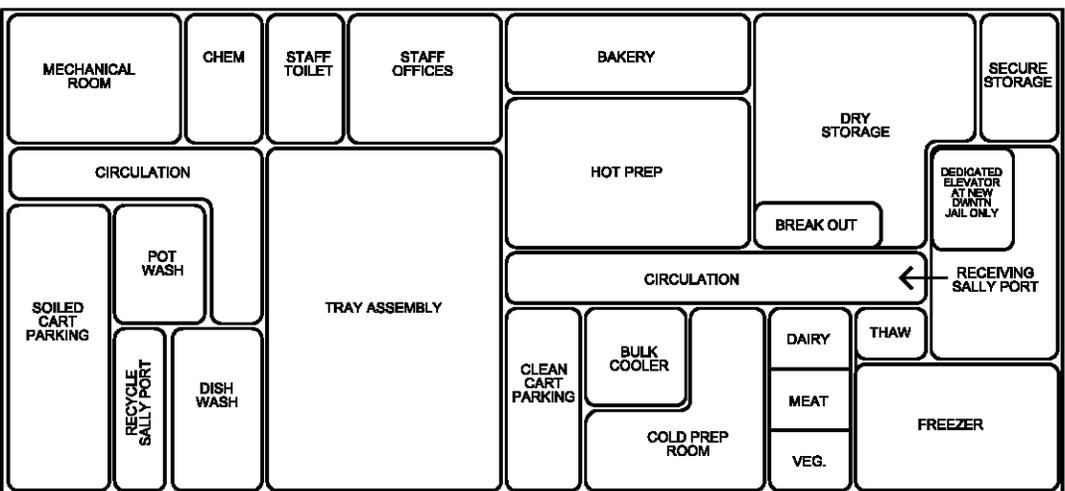
B3 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) -PITCHESS-1,800 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
35	6	OVEN RACK
36	3	UTILITY RACK
37	1	ROTATING RACK OVEN
38	1	PROOFER CABINET 8 RACK
39	LOT	SHELVING
40	1	WORK TABLE
41	1	AUTOMATIC SLICER
42	1	UTILITY RACK
43	1	PREP TABLE W/ SINKS
44	1	POTATO PEELER
45	1	VACUUM PACK MACHINE
46	1	PREP TABLE W/ SINKS
47	1	FAUCET FOR PREP TABLE W/ SINKS
48	1	HAND SINK W/ SOAP & TOWEL DISPENSER
49	1	VEGETABLE WASHER / DRYER
50	1	FOOD PROCESSOR
51	1	FOOD DICER
52	1	FLOOR TROUGH
53	1	HAND SINK W/ SOAP & TOWEL DISPENSER
54	1	REMOTE REFRIGERATION SYSTEM
55	1	REMOTE REFRIGERATION SYSTEM
56	2	HAND SINK W/ SOAP & TOWEL DISPENSER
57	2	PREP TABLE W/ SINKS
58	1	COOLER, VEGETABLE
59	LOT	WALK-IN SHELVING
60	2	UTILITY RACK
61	1	EVAPORATOR
62	1	WALK IN COOLER, MEAT
63	LOT	WALK-IN SHELVING
64	2	UTILITY RACK
65	1	WALK IN COOLER, DAIRY
66	LOT	WALK-IN SHELVING
67	LOT	WALK-IN SHELVING
68	1	EVAPORATOR

B3 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) -PITCHESS-1,800 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
69	1	COOLER, BULK
70	LOT	WALK-IN SHELVING
71	2	UTILITY RACK
72	1	EVAPORATOR
73	1	WALK IN COOLER, FINISHED FOOD
74	LOT	WALK-IN SHELVING
75	2	UTILITY RACK
76	1	EVAPORATOR
77	1	ROTATING RACK OVEN
78	2	BLAST CHILLER
79	1	EVAPORATOR
80	1	WALK IN COOLER, FOOD BANK
81	1	EVAPORATOR
82	1	REMOTE REFRIGERATION SYSTEM
83	1	WORK TABLE
84	4	COMBI OVEN RACK
85	1	HAND SINK W/ SOAP & TOWEL DISPENSER
86	2	GRIDDLE
87	2	ROLL IN COMBI OVEN
88	1	FIRE SUPPRESSION SYSTEM
89	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
90	1	MOBILE WORK TABLE
91	1	HAND SINK W/ SOAP & TOWEL DISPENSER
92	1	EXHAUST HOOD
93	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
94	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
95	1	FIRE SUPPRESSION SYSTEM
96	1	FIRE SUPPRESSION SYSTEM
97	1	EXHAUST HOOD
98	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
99	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
100	1	HOIST AND RAIL
101	1	COOK / CHILL TANK
102	1	FLOOR TROUGH

B3 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) -PITCHESS-1,800 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
103	1	40 GAL TILTING SKILLET
104	1	HOIST AND RAIL
105	1	PASTA BASKET W/ DOLLY
106	1	DUAL REMOTE CONTROL PANEL
107	1	200 GAL PASTA KETTLE
108	1	200 GAL MIXING KETTLE
109	1	EXHAUST HOOD
110	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
111	1	FIRE SUPPRESSION SYSTEM
112	1	HAND SINK W/ SOAP & TOWEL DISPENSER
113	1	WORK TABLE
114	1	PRODUCTION METERING / FILLING STATION
115	1	PREP TABLE W/ SINKS
116	1	HOSE REEL
117	1	FLOOR TROUGH
118	1	CONTROL PANEL
119	1	CASING CONVEYOR
120	1	3 COMPARTMENT SINK
121	1	HAND SINK W/ SOAP & TOWEL DISPENSER
122	1	320 GAL TUMBLE CHILLER
123	1	FLOOR TROUGH
124	1	HAND SINK W/ SOAP & TOWEL DISPENSER
125	1	TRAY DENESTER
126	3	MOBILE WORK TABLE
127	1	TRAY ASSEMBLY CONVEYOR, DISPOSABLE ENTRÉE CONTAINER
128	1	HAND SINK W/ SOAP & TOWEL DISPENSER
129	1	SEALING MACHINE
130	1	ACCUMULATOR TABLE
131	3	TRAY CART
132	1	HAND SINK W/ SOAP & TOWEL DISPENSER
133	1	HAND SINK W/ SOAP & TOWEL DISPENSER
134	3	MOBILE WORK TABLE
135	1	TRAY ASSEMBLY CONVEYOR, SACK COLD MEALS
136	1	ACCUMULATOR TABLE

B3 - CONSOLIDATED CORRECTIONAL FACILITY (CCTF) -PITCHESS-1,800 INMATES		
COOK-CHILL KITCHEN & BAKERY		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
137	1	HAND SINK W/ SOAP & TOWEL DISPENSER
138	3	UTILITY RACK
139	1	HAND SINK W/ SOAP & TOWEL DISPENSER
140	1	UNDERCOUNTER REFRIGERATOR
141	1	PREP TABLE W/ SINKS
142	1	WORK TABLE
143	1	6 BURNER RANGE
144	1	GRIDDLE
145	1	GAS QUICK DISCONNECT FOR GRIDDLE
146	1	EXHAUST HOOD
147	LOT	SEISMIC HANGERS & S/S CLOSURES FOR EXHAUST HOOD
148	LOT	S/S WALL FLASHING FOR EXHAUST HOOD
149	1	FIRE SUPPRESSION SYSTEM
150	1	DISPATCH COOLER
151	30	TRANSPORT CARTS
152	1	EVAPORATOR
153	11	TRANSPORT CARTS, FOR SACK COLD MEALS
154	1	REMOTE REFRIGERATION SYSTEM
155	1	CART WASH MACHINE
156	LOT	S/S UTILITY CHASES FOR CART WASH MACHINE
157	1	HAND SINK W/ SOAP & TOWEL DISPENSER
158	1	HAND SINK W/ SOAP & TOWEL DISPENSER
159	LOT	S/S UTILITY CHASES FOR CART WASH MACHINE
160	1	DISH MACHINE, FLIGHT TYPE
161	1	ICE BUILDER
162	1	REFRIGERATED COMPRESSOR RACK
163	1	ICE BUILDER PUMP PACKAGE

B4 - CONSOLIDATED CORRECTIONAL TREATMENT FACILITY (CCTF)					
COOK CHILL CORRECTIONAL TREATMENT CENTER KITCHEN SPACE PROGRAM - 130 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Secure Storage	1	50	50	
02	Storage Freezer	1	75	75	
03	Thaw Cooler	1	20	20	
04	Vegetable Cooler	1	75	75	
05	Bulk Dry Storage	1	260	260	
06	Meat Cooler	1	75	75	
07	Dairy Cooler	1	75	75	
08	Cold Food Prep Room	1	150	150	
09	Break-Out Room	1	100	100	
10	Hot Food Preparation Area	1	200	200	With one (1) half size blast chiller
11	Blast Chiller/Food Bank Cooler	1	50	50	1/2 size blast chiller
12	Tray Assembly Area	1	150	150	One (1) conveyor line
13	Dispatch Cooler	1	100	100	4 carts = 390 meals
14	Soiled Cart Parking	1	50	50	
15	Chemical & Detergent Storage	1	50	50	
16	Potwashing Area	1	150	150	
18	Ware Washing Area	1	300	300	One (1) conveyor dishwasher (rack)
19	Staff Toilets & Lockers	1	150	150	
20	Food Service Waste/Recycle Room	1	100	100	
21	Clean Cart Parking	1	120	120	12 clean carts
22	Offices/ Foodservice Mgr. /Supervisors	1	540	540	One (1) private office for Food Chief; one (1) shared office for 2 Dietetic Advisors; Two (2) workstations for Chief Cook and Typist Clerk and open workstation space for 3 to accommodate Head and Senior Cooks
23	Recycling Sallyport	1	100	100	
24	Mechanical/Electrical Room	1	500	500	With Steam Boiler
NSF				3,440	
GSF(@10%)				3,784	



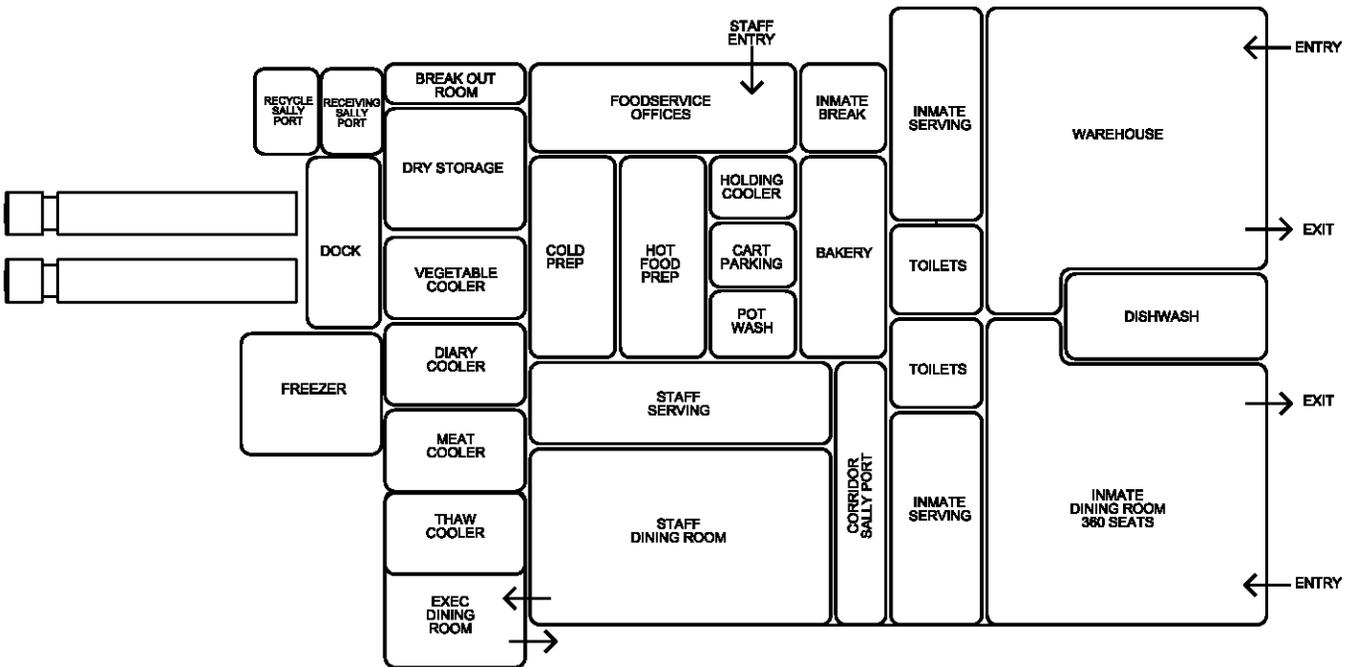
B4 - 130 INMATES
CORRECTIONAL TREATMENT CENTER
COOK-CHILL KITCHEN

B4 - CORRECTIONAL TREATMENT CENTER (CTC) - 130 INMATES		
NEW COOK CHILL KITCHEN		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
1	8	MOBILE UTILITY RACK
2	2	TRAY DISPENSER
3	1	TRAY ASSEMBLY CONVEYOR
4	2	COLD DISH UP TABLE
5	1	2-DOOR ROLL IN REFRIGERATOR
6	7	DUAL TEMP TRAY DELIVERY CART
7	1	MOBILE DRYING RACK
8	2	TRASH CONTAINER
9	1	WALL SHELF / UTENSIL RACK
10	1	POT SINK
11	2	PAN RACK
12	1	FLOOR TROUGH / GRATE
13	1	HAND SINK W/ S&T DISPENSER
14	1	CLEAN DISHTABLE
15	1	BOOSTER HEATER
16	1	VENT DUCT
17	1	CONVEYOR DISHMACHINE
18	1	VENT DUCT
19	1	SOILED DISHTABLE
20	1	WALK IN THAW COOLER
21	1	REFRIGERATION SYSTEM
22	1	WALK IN DAIRY COOLER
23	1	WALK-IN VEGETABLE COOLER
24	1	WALK-IN MEAT COOLER
25	24	COLD STORAGE SHELVING
26	3	HAND SINK
27	1	60 QUART MIXER
28	1	DOUBLE STACK CONVECTION OVEN
29	1	ROLL IN BLAST CHILLER
30	1	EXHAUST HOOD
31	1	SPREADER CABINET
32	1	WORK TABLE WITH CHASE/SINK
33	2	OPEN BURNER RANGE / OVEN
34	1	GRIDDLE RANGE / OVEN

B4 - CORRECTIONAL TREATMENT CENTER (CTC) - 130 INMATES		
NEW COOK CHILL KITCHEN		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
35	3	TRASH CONTAINER
36	1	UTILITY CABINET SYSTEM
37	1	FRYER BATTERY W/ FILTRATION
38	1	EXHAUST HOOD
39	1	FIRE PROTECTION SYSTEM
40	1	EXHAUST HOOD
41	1	TILTING KETTLE
42	1	AUTOMATIC SLICER
43	1	WORK TABLE
44	1	FOOD CUTTER
45	1	CAN OPENER
46	1	WORK TABLE WITH CHASE
47	1	TILT SKILLET
48	1	EXHAUST HOOD
49	1	FLOOR TROUGH / GRATE
50	1	COMBI STEAMER
51	1	OVERSHELF
52	1	WORK TABLE
53	1	WORK TABLE WITH CHASE
54	1	WALK-IN FOOD BANK COOLER
55	1	FLOOR TROUGH / GRATE
56	1	ICE MACHINE WITH BIN
57	1	TRASH CONTAINER
58	1	WORK TABLE WITH SINKS
59	1	WALL SHELF
60	1	WALK-IN FREEZER
61	6	COLD STORAGE SHELVING
62	6	STORAGE SHELVING
63	4	UTILITY CART
64	8	BULK STORAGE RACK
65	3	UTILITY CART

B4 - CORRECTIONAL TREATMENT CENTER (CTC) - 130 INMATES NEW COOK CHILL KITCHEN FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
RETHERM PANTRY - QUANTITY (2)		
1	4	DINNER MEAL TRAY CARTS (CAPACITY; 50 TRAYS EACH - TWO CARTS PER PANTRY)
2	1	TWO (2) DOOR ROLL-IN REFRIGERATOR
3	1	RETHERM OVEN
4	1	SACK MEAL TRANSPORT DOLLY
5	1	ONE (1) DOOR ROLL-IN REFRIGERATOR
6	1	WORK COUNTER
7	1	HOT WATER DISPENSER
8	1	MICROWAVE OVEN
9	1	COLD BEVERAGE DISPENSER
10	1	HAND SINK W/ SOAP & TOWEL DISPENSER
11	1	STORAGE CABINET

C1 - MODERNIZED AND REOPENED MIRA LOMA DETENTION CENTER (MLDC)					
COOK SERVE KITCHEN SPACE PROGRAM - 1,600 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Receiving Sallyport (dock)	1	300	300	
02	Secure Storage	1	150	150	1-tier shelving
03	Storage Freezer	1	1,600	1,600	1-tier storage racks
04	Thaw Cooler	1	100	100	
05	Vegetable Cooler	1	800	800	
06	Bulk Dry Storage	1	1,800	1,800	2-tier pallet racks
07	Meat Cooler	1	800	800	
08	Dairy Cooler	1	800	800	
09	Cold Food Prep Room	1	350	350	
10	Break-Out Room	1	200	200	
11	Hot Food Preparation Area	1	1,000	1,000	Cook Serve
12	Blast Chiller	1	100	100	One (1) blast chiller for production control
13	Bulk Serving Line	2	500	1,000	Two (2) dish up lines
14	Bulk Holding Cooler, For 1 Hot and 2 Cold Meals	1	450	450	4,800 meals
15	Chemical & Detergent Storage	1	100	100	
16	Inmate Toilets	1	60	60	
17	Potwashing Area	1	250	250	With automatic pot washer
18	Ware Washing Area	1	1,000	1,000	One (1) flight type dishwasher
19	Staff Toilets & Lockers	1	150	150	
20	Food Service Waste/Recycle Room	1	250	250	
21	Clean Cart Parking	1	300	300	
22	Bakery & Storage	1	1,500	1,500	Without bread production
23	Offices/ Foodservice Mgr.	1	900	900	One (1) private office for Food Service Manager; One (1) private workstation for Dietetic Advisor with open workstation for 1 clerk and 4 cooks; One (1) workstation for Chief Cook; One (1) open workstation for 4 custodial staff and custody storage area
24	Inmate Break & Change Strip Search Area	1	500	500	30 inmates - 15 seats; 15 per shift
25	Recycling Sallyport	1	250	250	
26	Mechanical/Electrical Room	1	1,000	1,000	With Steam Boiler
27	Existing Inmate Dining Room	1	5,920	5,920	360 Inmates
28	Cook Serve Servery for Staff	1	1,080	1,080	8 square feet per seat
29	Staff Dining Room - 110 seats	1	1,650	1,650	15 square feet per seat plus outdoor dining
30	Executive Dining Room -25 seats	1	375	375	15 square feet per seat
* The existing 12,000 square foot kitchen building will need to expand to 20,000 square feet to meet this program			NSF	24,735	
			GSF(@10%)	27,209	



C1 - MIRA LOMA DETENTION CENTER
 COOK-SERVE KITCHEN/DINING ROOM
 REMODEL EXISTING BUILDING

NOTE: THE EXISTING 12,000 SF KITCHEN (NIC INMATE DINING)
 WILL NEED TO EXPAND TO 20,000 SF

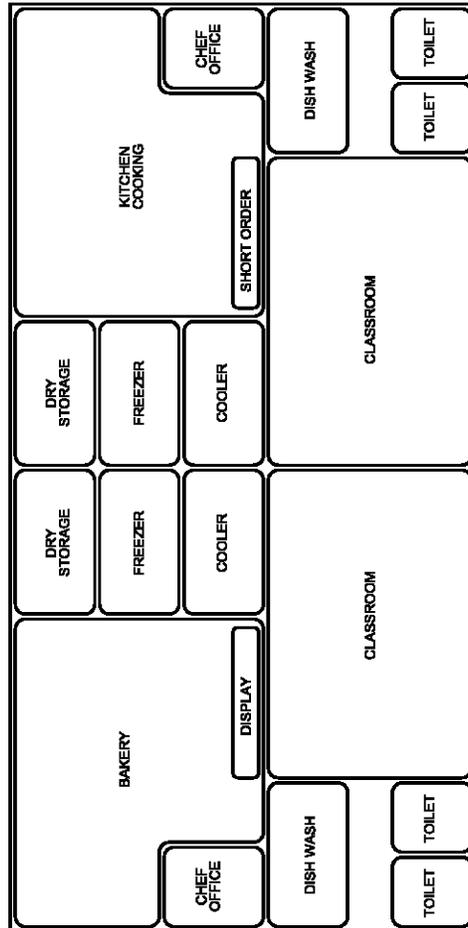
C1 - MIRA LOMA DETENTION CENTER (MLDC) - 1,600 INMATES		
MODERNIZED AND REOPENED COOK SERVE KITCHEN		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
1	18	PALLET RACKS
2	1	MEAT COOLER
3	1	VEGETABLE COOLER
4	1	DAIRY COOLER
5	1	THAW COOLER
6	LOT	SHELVING
7	1	BREAK OUT SINKS
8	16	PALLET RACKS
9	1	BULK COOLER
10	1	BLAST CHILLER
11	10	PAN RACK CART
12	1	80 QUART MIXER
13	5	TRASH CONTAINER
14	1	WOOD TOP WORK TABLE
15	1	FIRE PROTECTION SYSTEM
16	1	EXHAUST HOOD (TYPE I)
17	1	2-DECK CONVECTION OVEN
18	1	S/S WALL FLASHING
19	1	ROLL-IN PROOFER
20	6	PAN RACK CART
21	1	WORK TABLE
22	1	20 QUART MIXER
23	4	HAND SINK/SIDE SPLASH
24	4	MOBILE SHELVING
25	27	SHELVING
26	1	WALK IN COOLER/FREEZERS
27	1	WOOD TOP WORK TABLE
28	6	INGREDIENT BIN
29	2	ROLL IN RACK OVEN/HOOD (TYPE I) - BAKERY
30	8	OVEN RACKS
31	1	ROUNDER / DIVIDER
32	1	WORK TABLE WITH SINK
33	1	UTILITY WALL
34	2	HAND SINK/SIDE SPLASH

C1 - MIRA LOMA DETENTION CENTER (MLDC) - 1,600 INMATES		
MODERNIZED AND REOPENED COOK SERVE KITCHEN		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
35	1	WORK TABLE
36	1	SHELF
37	1	PREP TABLE W/SINKS
38	1	PASS SHELF
39	1	FOOD PROCESSOR
40	2	CAN OPENER
41	1	UTILITY WALL
42	1	FILL FAUCET
43	1	VERTICAL CUTTER/MIXER
44	1	FLOOR TROUGH/GRATE
45	1	PREP TABLE W/SINKS
46	1	WORK TABLE
47	2	AUTOMATIC SLICER
48	2	SLICER STAND
49	2	PREP TABLE W/SINKS
50	1	UTENSIL SINK
51	1	MEAT GRINDER
52	1	FOOD CUTTER
53	2	WORK TABLE
54	6	PAN RACK CART
55	1	WALK IN COOLER
56	2	WORK TABLE
57	1	FOOD PROCESSOR
58	3	60 GALLON TILT KETTLE
59	1	FLOOR TROUGH/GRATE
60	4	WORK TABLE
61	2	40 GALLON TILT SKILLET
62	4	PAN RACK CART
63	2	ROLL IN RACK OVEN/HOOD (TYPE I) - ROAST
64	8	OVEN RACKS
65	1	EXHAUST HOOD (TYPE I)
66	1	EXHAUST HOOD (TYPE I)
67	1	EXHAUST HOOD (TYPE I)

C1 - MIRA LOMA DETENTION CENTER (MLDC) - 1,600 INMATES		
MODERNIZED AND REOPENED COOK SERVE KITCHEN		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
68	1	EXHAUST HOOD (TYPE I)
69	1	FIRE PROTECTION SYSTEM
70	1	UTILITY WALL
71	3	GRIDDLE WITH STAND
72	1	ROLL IN COMBI OVEN
73	1	HAND SINK/SIDE SPLASH
74	11	MOBILE WORK TABLE
75	8	TRAY DISPENSER
76	2	CAFETERIA SERVING LINES
77	2	BEVERAGE COUNTER
78	2	ROLL IN HOT FOOD CABINET
79	2	HAND SINK
80	1	PRESSURE WASHER
81	18	RACK DOLLY
82	1	HOSE REEL / CONTROL CABINET
83	2	SOILED DISHTABLE
84	2	GLASS RACK SHELF
85	2	SCRAP COLLECTOR
86	1	VENT DUCT
87	1	DISHMACHINE, FLIGHT TYPE
88	1	VENT DUCT
89	1	BOOSTER HEATER
90	2	CLEAN DISHTABLE
91	2	HAND SINK/SIDE SPLASH
92	4	TRASH CONTAINER
93	2	POT SINK
94	3	SHELVING
95	2	SHELF
96	8	MOBILE SHELVING
97	3	SECURITY SHELVING
98	1	FIRE PROTECTION SYSTEM
99	1	EXHAUST HOOD (TYPE I)
100	1	EXHAUST HOOD (TYPE I)

C1 - MIRA LOMA DETENTION CENTER (MLDC) - 1,600 INMATES		
MODERNIZED AND REOPENED COOK SERVE KITCHEN		
FOODSERVICE EQUIPMENT		
ITEM	QTY.	DESCRIPTION
101	1	6 GALLON KETTLE W/STAND
102	1	UTILITY WALL S/S FLASHING
103	1	10 GALLON SKILLET W/STAND
104	1	FRYER/FILTER ASSEMBLY
105	1	SALAMANDER
106	1	GRIDDLE/BURNER - RANGE/OVEN
107	1	BROILER/BURNER-RANGE/OVEN
108	1	CONVECTION OVEN
109	2	REFRIGERATOR
110	1	FREEZER
111	1	HAND SINK/SIDE SPLASH
112	3	TRASH CONTAINER
113	2	MOBILE WORK TABLE
114	2	MOBILE WORK TABLE
115	1	20 QUART MIXER
116	1	MIXER STAND
117	1	SLICER STAND
118	1	AUTOMATIC SLICER
119	1	PREP TABLE W/SINKS
120	2	HAND SINK/SIDE SPLASH
121	1	U/C HOT CABINET
122	1	COLD PAN
123	1	SERVING COUNTER
124	1	HOT FOOD WELL
125	1	FOOD SHIELD
126	1	EXHAUST HOOD (TYPE I)
127	1	OPEN BURNER
128	1	SOILED DISHTABLE
129	1	SCRAP COLLECTOR
130	1	HIGH DOOR DISHMACHINE/BOOSTER
131	1	CONDENSATE HOOD (TYPE II)
132	1	CLEAN DISHTABLE
133	4	MOBILE SHELVING
134	1	POT SINK

C2 MODERNIZED AND REOPENED MIRA LOMA DETENTION CENTER (MLDC)					
NEW COOK SERVE KITCHEN FOR REENTRY - SPACE PROGRAM - 236 INMATES					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Receiving Sallyport (dock)	1	100	100	
02	Secure Storage	1	50	50	
03	Storage Freezer	1	200	200	
04	Thaw Cooler	1	50	50	
05	Vegetable Cooler	1	100	100	
06	Bulk Dry Storage	1	500	500	2-tier pallet racks
07	Meat Cooler	1	100	100	
08	Dairy Cooler	1	100	100	
09	Cold Food Prep Room	1	150	150	
10	Break-Out Room	1	100	100	
11	Hot Food Preparation Area	1	400	400	Cook Serve
12	Blast Chiller	1	50	50	One (1) blast chiller for production control
13	Bulk Serving Line	1	200	200	One (1) dish up line
14	Bulk Holding Cooler, For 1 Hot and 2 Cold Meals	1	200	200	
15	Chemical & Detergent Storage, Mop Sink	1	50	50	
16	Inmate Toilets	1	60	60	
17	Inmate Dining Room	1	1,440	1,440	80 seats, 18 SF per seat, 3 turnovers.
18	Potwashing Area	1	150	150	
19	Ware Washing Area	1	250	250	One conveyor rack dishwasher
20	Staff Toilets & Lockers	1	120	120	
21	Food Service Waste/Recycle Room	1	150	150	
22	Bakery (part of hot prep)	1	200	200	Without bread production
23	Offices/ Foodservice Mgr.	1	300	300	One (1) private office; 1 Dietician, 1 Cook, 1 Security
24	Inmate Break & Change Strip Search Area	1	250	250	10 inmates - 6 seats
25	Recycling Sallyport	1	150	150	
26	Mechanical/Electrical Room	1	500	500	
			NSF	5,920	
			GSF(@10%)	6,512	



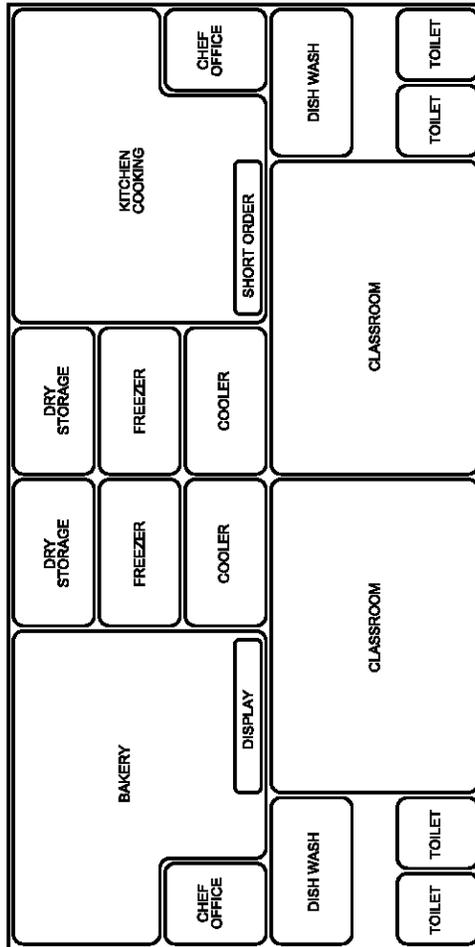
C3 - MLDG CULINARY ARTS PROGRAM
FREE STANDING BUILDING
6512 SF

C2 - MIRA LOMA DETENTION CENTER		
NEW COOK SERVE KITCHEN FOR RE-ENTRY - 236 INMATES		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
1	8	MOBILE UTILITY RACK
2	6	TRAY DISPENSER
3	6	BEVERAGE COUNTER
4	2	CAFETERIA SERVING LINE
5	4	HOT FOOD WELL
6	1	MOBILE HOT FOOD CABINET
7	2	COLD PAN SALAD BAR
8	1	REACH IN REFRIGERATOR
9	2	MOBILE DRYING RACK
10	2	TRASH CONTAINER
11	1	WALL SHELF / UTENSIL RACK
12	1	POT SINK
13	2	PAN RACK
14	1	FLOOR TROUGH / GRATE
15	1	HAND SINK W/ S&T DISPENSER
16	1	CLEAN DISHTABLE
17	1	BOOSTER HEATER
18	1	VENT DUCT
19	1	CONVEYOR DISHMACHINE
20	1	VENT DUCT
21	1	SOILED DISHTABLE
22	1	WALK IN THAW COOLER
23	1	REFRIGERATION SYSTEM
24	1	WALK IN DAIRY COOLER
25	1	WALK-IN VEGETABLE COOLER
26	1	WALK-IN MEAT COOLER
27	24	COLD STORAGE SHELVING
28	3	HAND SINK
29	1	60 QUART MIXER
30	1	DOUBLE STACK CONVECTION OVEN
31	2	DOUBLE STACK CONVECTION OVEN
32	1	MOBILE HEATED CABINET
33	1	EXHAUST HOOD
34	1	SPREADER CABINET

C2 - MIRA LOMA DETENTION CENTER		
NEW COOK SERVE KITCHEN FOR RE-ENTRY - 236 INMATES		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
35	1	WORK TABLE WITH CHASE/SINK
36	2	OPEN BURNER RANGE / OVEN
37	1	GRIDDLE RANGE / OVEN
38	5	TRASH CONTAINER
39	1	UTILITY CABINET SYSTEM
40	2	MOBILE HEATED CABINET
41	1	FRYER BATTERY W/ FILTRATION
42	1	EXHAUST HOOD
43	1	FIRE PROTECTION SYSTEM
44	1	EXHAUST HOOD
45	1	TILTING KETTLE
46	1	AUTOMATIC SLICER
47	1	WORK TABLE
48	1	VERTICAL FOOD CUTTER
49	1	CAN OPENER
50	1	WORK TABLE WITH CHASE
51	1	TILT SKILLET
52	1	EXHAUST HOOD
53	1	FLOOR TROUGH / GRATE
54	1	STEAMER
55	1	OVERSHELF
56	1	WORK TABLE
57	1	WORK TABLE WITH CHASE
58	1	60 QUART MIXER
59	1	FLOOR TROUGH / GRATE
60	1	ICE MACHINE WITH BIN
61	1	TRASH CONTAINER
62	1	WORK TABLE WITH SINKS
63	1	WALL SHELF
64	1	WALK-IN FREEZER
65	12	COLD STORAGE SHELVING
66	11	STORAGE SHELVING
67	4	UTILITY CART

C2 - MIRA LOMA DETENTION CENTER		
<i>NEW COOK SERVE KITCHEN FOR RE-ENTRY - 236 INMATES</i>		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
68	8	BULK STORAGE RACK
69	3	UTILITY CART

C3 MODERNIZED AND REOPENED MIRA LOMA DETENTION CENTER (MLDC)					
CULINARY ARTS BUILDING					
Space No.	Space Name	No. of Spaces	Space NSF	Total NSF	Notes
01	Classroom, 32 seats	2	480	960	(4) 8 seat tables /chairs plan side by side
02	Chef's office	2	120	240	
03	Visitor toilet	4	50	200	
04	Walk in refrigerator/freezer	2	100	200	
05	Dishwashing	2	80	160	
06	Dry storage (open)	2	80	160	
07	Short order cooking & cold prep	1	540	540	Convection oven (6) burner Range (2) 20 qt. Kettles (2) deep fryers, (8) S/S work tables
08	Janitor's closet	2	25	50	Mop sink
09	Bakery and Prep	1	540	540	Deck oven, convection oven, a 4-burner range, proof cabinet and 8 bakers tables
			NSF	3,050	
			GSF(@10%)	3,355	



C3 - MDC CULINARY ARTS PROGRAM
FREE STANDING BUILDING
4574 SF

C3 MIRA LOMA DETENTION CENTER		
CULINARY ARTS BUILDING		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
1	1	WALK-IN COOLER / FREEZER
2	16	COOLER / FREEZER SHELVING
3	1	REFRIGERATION SYSTEM
4	LOT	MOBILE STORAGE SHELVING
5	1	ICE MACHINE WITH BIN
6	1	FLOOR TROUGH WITH GRATE
7	1	UTILITY CART
8	4	HAND SINK
9	1	MOBILE WORK TABLE
10	1	FIRE PROTECTION SYSTEM
11	1	EXHAUST HOOD
12	1	STAINLESS STEEL WALL FLASHING
13	1	CONVECTION OVEN
14	2	RANGE WITH OVEN
15	1	GRIDDLE RANGE WITH OVEN
16	1	TILT SKILLET
17	1	EXHAUST HOOD
18	1	FLOOR TROUGH WITH GRATE
19	1	STEAMER / KETTLE COMBINATION
20	1	TILTING KETTLE
21	1	WORK COUNTER WITH SINK
22	1	WALL SHELF
23	3	UTILITY RACK
24	3	MOBILE STORAGE SHELVING
25	12	TRASH CONTAINER / DOLLY
26	1	UTENSIL SINK
27	1	WALL SHELF / UTENSIL RACK
28	2	SECURITY SHELVING
29	1	REACH IN REFRIGERATOR
30	1	WORK / EXHIBITION TABLE
31	2	PREP TABLE WITH SINK
32	2	WORK TABLE
33	1	AUTOMATIC SLICER
34	1	FOOD PROCESSOR

C3 MIRA LOMA DETENTION CENTER		
CULINARY ARTS BUILDING		
FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
35	1	SECURITY SHELVING
36	1	SOILED DISHTABLE
37	1	RACK SHELF
38	1	DISPOSER WITH PRE-RINSE
39	1	VENT DUCT
40	1	CONVEYOR DISHMACHINE
41	1	VENT DUCT
42	1	BOOSTER HEATER
43	1	CLEAN DISHTABLE
44	1	WALL SHELF
45	1	UTENSIL SINK
46	1	WALL SHELF / UTENSIL RACK
47	6	INGREDIENT BIN
48	1	WORK TABLE
49	1	DOUGH SHEETER
50	1	MOBILE WORK TABLE
51	1	PROOFING CABINET
52	1	REACH IN REFRIGERATOR / FREEZER
53	4	20 QUART MIXER
54	4	MOBILE MIXER STAND
55	4	WORK TABLE
56	1	WORK COUNTER WITH SINK
57	1	WALL SHELF
58	1	FIRE PROTECTION SYSTEM
59	1	EXHAUST HOOD
60	1	RANGE WITH OVEN
61	1	STAINLESS STEEL WALL FLASHING
62	2	CONVECTION OVEN
63	1	EXHAUST HOOD
64	1	ROTATING RACK OVEN
65	2	OVEN RACK
66	2	DUNNAGE RACK
67	1	CHEF'S DEMO COUNTER WITH SINKS

C3 MIRA LOMA DETENTION CENTER CULINARY ARTS BUILDING FOODSERVICE EQUIPMENT SCHEDULE		
ITEM	QTY	EQUIPMENT DESCRIPTION
68	1	EXHAUST HOOD
69	1	RANGE WITH OVEN
70	1	HAND SINK
71	1	REACH-IN REFRIGERATOR
72	1	FIRE PROTECTION SYSTEM
73	1	DOUBLE WALL SHELF
74	1	WORK COUNTER
75	1	MOBILE STORAGE SHELVING

APPENDIX INDEX



VOLUME 3



FACILITY LICENSING DESIGN GUIDELINES FOR A NEW CORRECTIONAL TREATMENT CENTER
LOS ANGELES COUNTY

Prepared by Nacht & Lewis Architects, Inc.



PROPOSED KITCHENS FOR THE CONSOLIDATED CORRECTIONAL TREATMENT FACILITY AND
MIRA LOMA DETENTION CENTER

Prepared by the Marshall Associates, Inc.



EQUIPMENT CUT SHEETS

Provided by Los Angeles County Sheriff's Department, Facility Planning Bureau and Medical Services Bureau

- 1. CUSTODY**
(Selected Equipment)
2. PHARMACY
(Selected Equipment)
3. RADIOLOGY
(Selected Equipment)

B-SCAN™ 16HR-LD 250

TRANSMISSION X-RAY PEOPLE SCREENING TECHNOLOGY



Feature Highlights

- Detects objects concealed internally in or externally on the body.
- Contraband and threat detection including: weapons, explosives (plastic and powder), detonators, narcotics, electronic devices, diamonds, precious stones/metals and mobile phones.
- High throughput – scan time less than 7 seconds.
- Complete head to toe inspection in one short inspection cycle.
- State of the art image processing software and zoom functions facilitates efficient image evaluation.
- Very low dose rate <math> < 0.25\mu\text{Sv}</math>/inspection - suitable for general use applications.

B-SCAN™ uses transmission x-ray technology employing very low dose rates to screen people. This non-intrusive approach to people screening enables the detection of objects concealed internally in body cavities, on a person beneath clothing, or in artificial limbs.

The 16HR-LD model of B-SCAN™ uses a dose of less than $0.25\mu\text{Sv}$ per inspection which allows it to be used for general use applications under the ANSI and NCRP guidelines.

The B-SCAN™ system is used to detect contraband and threat objects in applications including prisons, customs, border crossings and aviation security checkpoints.

The B-SCAN™ produces a high resolution head to toe whole body image of the person under review in a single pass.

This high resolution image and image enhancement tools allows the operator to accurately and quickly evaluate the image.

Using specially adapted image processing software B-SCAN™ provides security checks of unequalled quality.

B-SCAN™ uses state of the art safety systems to monitor the radiation generation and dose.

With over ten years of field experience B-SCAN™ is proven as a well engineered and reliable screening system.

Technical Data **B-SCAN 16HR-LD 250**

Function

Material detected includes	Metal, ceramic, plastics, powders, explosives, narcotics
Detection capability	Objects hidden internally and externally on the body
Type of scan	Full body scan in one inspection pass
Primary function	Screen people for contraband and threats
Wire detectability	30AWG
Technology	Low dose transmission x-ray

Operational Data

Physical format	Open tunnel - In line with checkpoint flow
Start up time	<2 minutes
Belt speed	Approx. 0.1 m/s
Scan method	Person moved through the beam
Scan time	< 7 Seconds
Alarm resolution	Single image review

Installation information

Dimensions	approx. 2585 [L] x 2525 [H] x 1955 [W][mm] (101.8" x 99.4" x 76.9")
Weight	880kg
Humidity	10% - 90% (non condensing)
Storage temperature	-20°C to 60°C
Operating temperature	0°C to 40°C
Power consumption	< 0.9 kVA
Mechanical construction	Metal body (aluminium, steel)
Sound pressure	< 70 dB (A)
Power supply (standard)	230 VAC / 120VAC +10% / -15% 50 Hz / 60 Hz

Image generation

Generator cooling	Oil cooled, closed circuit
Scan format	Fan beam line scan
Generator	160kV cp, Hermetically sealed oil bath.
X-ray converter	High resolution semiconductor detector lines
Dose per inspection	< 0.25 µSv (<0.025 mRem)*
Duty cycle	100%

Image presentation

Result presentation	Post scan still image - Full body image
Grey levels stored	65536
Image display	b/w
Image evaluation functions	zoom, various enhancement and filter functions
Monitor	special colour TFT monitor

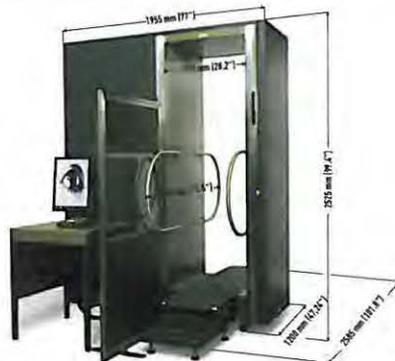
Options / Features

Operator's table
 Side wall / side wall with window
 Reference images
 Can be configured with image store and load capability
 Programmable function keys
 Software for instantaneous offsite independent image assessment

Other B-SCAN™ models available with different dose per inspection

* Measured in the centre of the tunnel

All applicable national regulations, requirements and approvals need to be considered and addressed by the customer



For product information, sales or service, please go to www.smilhsdetection.com/locations

Smiths Heimann GmbH, Im Herzen 4, 65205 Wiesbaden, Germany
 Modifications reserved. 95593699 15/05/2012 © Smiths Detection Group Ltd. - In some cases, the figures contain options
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34 CF ISOTEMP FRZ

Catalog No.: 11-670-205 [GSA/VA](#)

11-670-205 [GSA/VA](#)
 Freezer, Laboratory; Fisher Scientific; Isotemp; Stainless-steel interior; Stainless-steel front exterior; With access port, casters; Shelves: Gray; 3 wire; Solid stainless-steel door, single; Alarms and recorder; 34 cu. ft.; 115V, 60Hz

Isotemp® General Purpose Series freezers offer the dependability and safety required for your daily lab applications.

Price: Each for \$9,705.20

Quantity:

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Specifications

Voltage	115V
Hertz	60Hz
English Capacity	34.0 cu. ft.
Metric Capacity	962.8L
Temperature Range	-12° to -30°C (factory setpoint -30°C)
English Exterior Length	32 in.
Metric Exterior Length	82cm
English Exterior Width	26 in.
Metric Exterior Width	66cm
English Exterior Height	78.5 in.
Exterior Metric Height	199cm

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38 cf isotemp refrigerator glass

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38CF GLASS W/REC

Catalog No.: 11-670-245 [GSA/VA](#)

11-670-245 [GSA/VA](#)

Refrigerator, Laboratory; Fisher Scientific; Isotemp; GP Series; 38 cu. ft.; Painted exterior; Access port; Alarms; Casters; Chart recorder; Sliding glass door, double; Shelves: White – 8 Wire; X27

Isotemp® General Purpose Series refrigerators and freezers offer the dependability and safety required for your daily lab applications.

Price: Each for \$7,169.18

Quantity:

[Check Availability](#)

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Specifications

Voltage	115V
Hertz	60Hz
English Capacity	38.0 cu. ft.
Metric Capacity	1076L
Temperature Range	1° to 12°C
English Exterior Length	32 in.
Metric Exterior Length	82cm
English Exterior Width	43.5 in.
Metric Exterior Width	110.5cm
English Exterior Height	78 in.
Exterior Metric Height	198cm

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Containment Technologies Group, Inc.

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Protecting the provider, the patient and the environment

MIC Dual Chamber (Model A2000S)

- Consists of two independent gas tight chambers
- Can operate one chamber at negative pressure and one chamber at positive pressure
- Can operate without a negative pressure clean room and without any venting
- 112"L x 24"D x 78"H
- Adjustable height
- 700 lb (320 kg)
- Body – 316L stainless steel
- Viewing portion – Chemical- and shatter-resistant plastic
- Oval glove ports are standard
- Lighting – recessed and sealed from work chamber
- Filtration – HEPA filter 99.99% effective with particles of greater than .5 micron. Air flow enters and exits chamber through HEPA filters (ISO Class 5)
- Positive and negative pressure available
- Hazardous and non-hazardous solution within one unit
- Electrical Requirements – MIC Dual requires a standard 120V outlet dual receptacle. The MIC has a fractional horsepower centrifugal blower and light wired into a single cord with standard three-prong plug for each side of the workstation resulting in two cords. The power requirement is less than 3 amps. The lighting source is mounted exterior to the interior of the workstation. The unit does not require a dedicated circuit. There is no heat load or heat transfer between the unit and the ambient room.
- Rolls through standard pedestrian doorway
- Self-contained, locking casters
- Smooth surfaces facilitate cleaning
- ISO Class 5 conditions maintained by controlled entrance and exit of product and personnel. Product enters through air lock. Personnel work through glove ports without entering the interior.
- Two-piece glove/sleeve design for quick change
- Filtration and Air Handling Systems
 - Both entering and discharged air from the chamber shall be HEPA filtered. The quality of filtration provided by the HEPA filters shall be certified to be 99.99% efficient for particles of .3 micron or larger. The internal environment shall meet ISO class 5 conditions.
 - Internal filter faces shall be covered with a membrane allowing the surface to be cleaned
 - The air handling system does not require venting. If vented the vent is a four inch discharge which is typically attached from the outside vent to the MIC with flex. If vented the vent should be a four (4) inch round duct extending six inches below the ceiling. The duct should deliver 135 cfm at the discharge in the room. Location should be at the center of the discharge filter box which is located on the right side of the MIC (facing the unit) positioning is not critical as the flex connection will compensate for minor location variance. If the duct is servicing a MIC dual chamber the airflow should be 250 cfm.
 - The system shall be capable of operating under either positive or negative pressure. The pressure control should be changeable after installation.
- An owner's manual shall be provided. The manual shall describe operation of the workstation, maintenance and troubleshooting.
- A factory test report to be provided by an independent source indicating that the workstation meets ISO class 5 conditions.
- The manufacturer will provide a one-year limited warranty, which will include correction of defects at no cost. The warranty will include both parts and labor.



- Technical procedures for cleaning, sanitizing and certification shall be provided. In-service and start up services shall be provided including training of multiple shifts.



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Controlled substance management system

Pyxis C"Safe™ system



Double integrated main



Single integrated main



PC desktop solution



Double column auxiliary



Single column auxiliary

External dimensions

Equipment	Doors/drawers	Dimensions	Notes	
Main				
Double integrated main	7 doors, 1 rapid access drawer	52" W x 28" D x 79.5" H	132.1 cm W x 71 cm D x 201.9 cm H	Includes removable printer shelf; adds 18" to width if using shelf
Single integrated main	3 doors, 1 rapid access drawer	31" W x 28" D x 79.5" H	78.7 cm W x 71.0 cm D x 201.9 cm H	Includes removable printer shelf; adds 18" to width if using shelf
PC desktop solution	not applicable	PC tower: 5" W x 12" D x 13" H	12.7 cm W x 30.48 cm D x 33.02 cm H	Requires counter space for PC tower, monitor and printer
		Monitor: 16.1" W x 8.4" D x 19.5" H	40.89 cm W x 21.33 cm D x 49.53 cm H	

Continued on next page

Pyxis®



External dimensions (continued)				
Equipment	Doors/drawers	Dimensions		Notes
Auxillaries				
Single column auxiliary	4 doors	31" W x 28" D x 79.5" H		78.7 cm W x 71.0 cm D x 201.9 cm H
Double column auxiliary	8 doors	52" W x 28" D x 79.5" H		132.1 cm W x 71 cm D x 201.9 cm H
Accessories				
Laser printer	not applicable	16.6" W x 18.3" D x 15.9" H		42.16 cm W x 46.48 cm D x 40.38 cm H

Component specifications	
Equipment	Description
Touch screen	Integral with graphics display, high-resolution resistive technology
Display	10.4" (diagonal) TFT liquid crystal display (LCD), full color graphics capable (PC desktop has a 19" LCD monitor)
Keyboard	Standard PC keyboard, full-travel, reduced footprint; complete alphabet with numeric and control keys plus user-selectable 10-key function
Eyebolt	For security and locking cable
Casters	Two fixed and two pivoting

Power and PC tower specifications			
Equipment	AC power (line voltage)	Peak power (watts)	Heat evolved
Single integrated main	100-240 V, 50-60 Hz	151 W	515 BTU
Double integrated main	100-240 V, 50-60 Hz	172 W	587 BTU
PC desktop solution	100-240 V, 50-60 Hz	68 W	215 BTU
Auxillaries			
Single column auxiliary	100-240 V, 50-60 Hz	53 W	181 BTU
Double column auxiliary	100-240 V, 50-60 Hz	63 W	215 BTU

Please refer to federal, state and local laws and regulations applicable to your hospital or pharmacy location in order to comply with specific requirements for the storage of controlled substances.

CareFusion
San Diego, CA

carefusion.com

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Weight and construction specifications		
Equipment	Weight	Construction
Single integrated main	369 lbs* 167.3 kg	Doors, rear, side and interior panels constructed of 16-gauge sheet metal; support columns constructed of 14-gauge sheet metal
Double integrated main	525.5 lbs* 238.1 kg	Doors, rear, side and interior panels constructed of 16-gauge sheet metal; support columns constructed of 14-gauge sheet metal
PC desktop solution	48 lbs, 21.7 kg	
Auxiliary		
Single column auxiliary	314 lbs* 142.4 kg	Doors, rear, side and interior panels constructed of 16-gauge sheet metal; support columns constructed of 14-gauge sheet metal
Double column auxiliary	470.5 lbs* 213.4 kg	Doors, rear, side and interior panels constructed of 16-gauge sheet metal; support columns constructed of 14-gauge sheet metal
Drawers/shelves		
Wire rack shelf	6.5 lbs, 2.9 kg	
Security shelf	7 lbs, 3.1 kg	
Drawer with slides	36 lbs, 16.3 kg	
Accessories		
Laser printer	22 lbs, 9.9 kg	
* Weight of shelving not included in the main and auxiliary weight.		



Specifications for RxSafe 1800™ System (single tower)

- Dimensions W=24" L=85" H=95"
- Weight 800 lbs. per RxSafe 1800™ tower
- Capacity Up to 1800 stock bottles per tower
- Script Fill Rate Up to 100 scripts filled per hour with single operator
- Communications Ethernet connection to controller
- Internal Temperature/Humidity Same as pharmacy space
- Internal Cleanliness HEPA filter, positive pressure
- Peripherals Touch screen monitor, biometric fingerprint reader, integrated barcode scanner, label barcode printer, wireless sequencing scanner, keyboard, mouse, automated serial number tag feeder, EyeCon™ automated tablet counter
- Robotics Motion Controller Proprietary RxSafe motion control and logic
- Software Proprietary RxSafe software and firmware

Specifications for RxSafe Controller

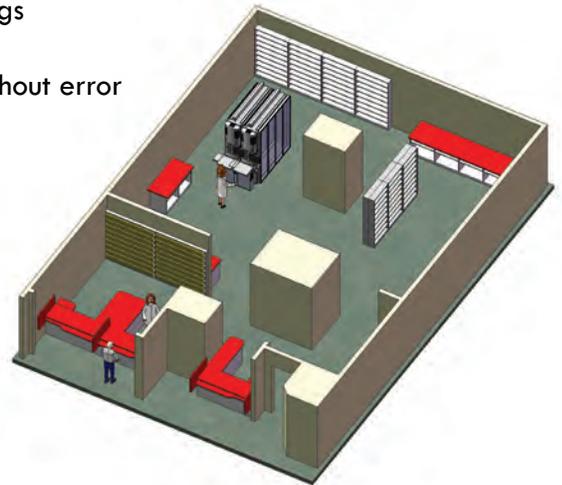
- Computer Industrial quality with 2x500GB hard drives
- Data Security RAID 1 onboard with full encryption
- Operating System Microsoft Windows 7
- Database Microsoft SQL Server
- Power 110 volt A/C, 10 amp
- Uninterruptable Power Supply 1500 VA, 1 hour "power-out" run time

RxSafe Field Performance Data

- Cost Reduction
 - 30% less on-hand inventory
 - 19% fewer FTE hours
 - 33% less pharmacy floor space required
 - Avoids waste due to expired drugs
 - 100% accurate CII audit results
 - Millions of prescriptions filled without error

Custom Pharmacy Layout Services

- Workflow Optimization
 - Integrates RxSafe automation into existing pharmacy space



Specifications for RxSafe 900™ System (single tower)

• Dimensions	W=24" L=48" H=95"
• Weight	500 lbs. per RxSafe 900™ tower
• Capacity	Up to 900 stock bottles per tower
• Script Fill Rate	Up to 100 scripts filled per hour with single operator
• Communications	Ethernet connection to controller
• Internal Temperature/Humidity	Same as pharmacy space
• Internal Cleanliness	HEPA filter, positive pressure
• Peripherals	Touch screen monitor, biometric fingerprint reader, integrated barcode scanner, label barcode printer, wireless sequencing scanner, keyboard, mouse, automated serial number tag feeder, EyeCon™ automated tablet counter
• Robotics Motion Controller	Proprietary RxSafe motion control and logic
• Software	Proprietary RxSafe software and firmware

Specifications for RxSafe Controller

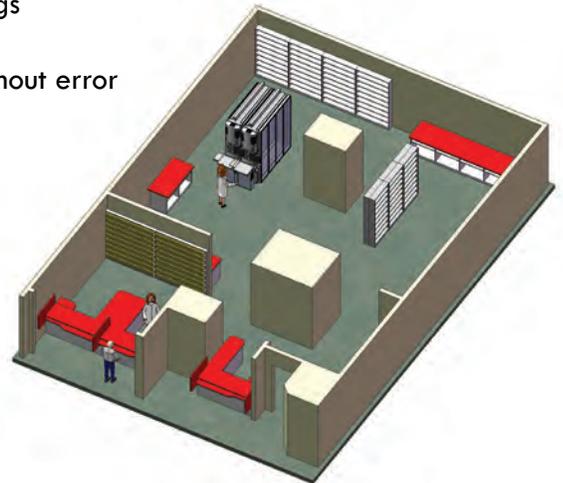
• Computer	Industrial quality with 2x500GB hard drives
• Data Security	RAID 1 onboard with full encryption
• Operating System	Microsoft Windows 7
• Database	Microsoft SQL Server
• Power	110 volt A/C, 10 amp
• Uninterruptable Power Supply	1500 VA, 1 hour "power-out" run time

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Cost Reduction	30% less on-hand inventory 19% fewer FTE hours 33% less pharmacy floor space required Avoids waste due to expired drugs 100% accurate CII audit results Millions of prescriptions filled without error
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Custom Pharmacy Layout Services

Workflow Optimization	Integrates RxSafe automation into existing pharmacy space
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RxSafe 1800™

Comprehensive, automated robotic storage & retrieval for retail pharmacies

- Fits into existing pharmacy workflow patterns and floor plans
- Automates daily put away process
- Less fill labor
- Increased inventory turns with less on hand inventory
- Virtually eliminates waste
- Elimination of theft and diversion
- Returns floor space to retail
- Secure storage and retrieval of all stock bottles, including narcotics
- Accurate prescription filling
- Real-time accuracy to the pill or package (minimizes manual auditing)
- Real-time tracking of every operator interaction with the system
- Expiration date and lot number tracking
- Biometric login required for medication access
- Includes double locks
- Utilizes EyeCon™ automated pill counter

The RxSafe 1800™ represents an evolutionary leap in the scope of robotic pharmacy automation technology. Rather than simply automating fast-moving drugs the RxSafe 1800™ provides secure robotic storage and retrieval for the entire inventory of a retail pharmacy.

RxSafe technology automatically and accurately tracks all drugs in the pharmacy down to the pill or package, while greatly enhancing pharmacy efficiency. Since all drugs are stored in native packaging, there is no need for pharmacy staff to spend time manually restocking dispensing cells.



Phone: 877.797.2332
Email: info@rxsafe.com
www.rxsafe.com

800 N. Twin Oaks Valley Road, Suite 101
San Marcos, CA 90269

The only truly automated robotic storage and retrieval solution for narcotics & high-shrink drugs

- Reinforced metal doors and covers with double locks for increased security
- Fits into existing pharmacy workflow patterns and floor plans
- Automates daily put away process
- Less fill labor
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Tracking and securing narcotics is a continual challenge for pharmacies. Manual verification is time consuming and subject to human error. Existing narcotics security solutions cannot physically verify on-hand inventory.

As the industry leader in automated, high-density robotic storage and retrieval systems for pharmacies, RxSafe has developed a groundbreaking automated solution for narcotics storage—the RxVault System. This revolutionary system is based on RxSafe's proven automation technology, and will automatically and accurately track scheduled drugs down to the pill or package, while providing a complete "closed-loop" chain of custody as well as greatly enhanced pharmacy efficiency and regulatory compliance.



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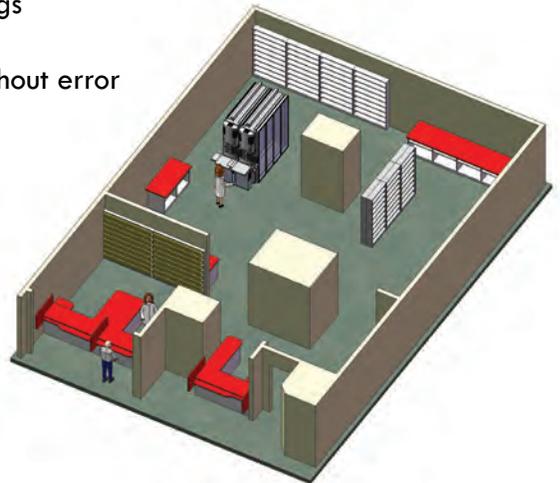
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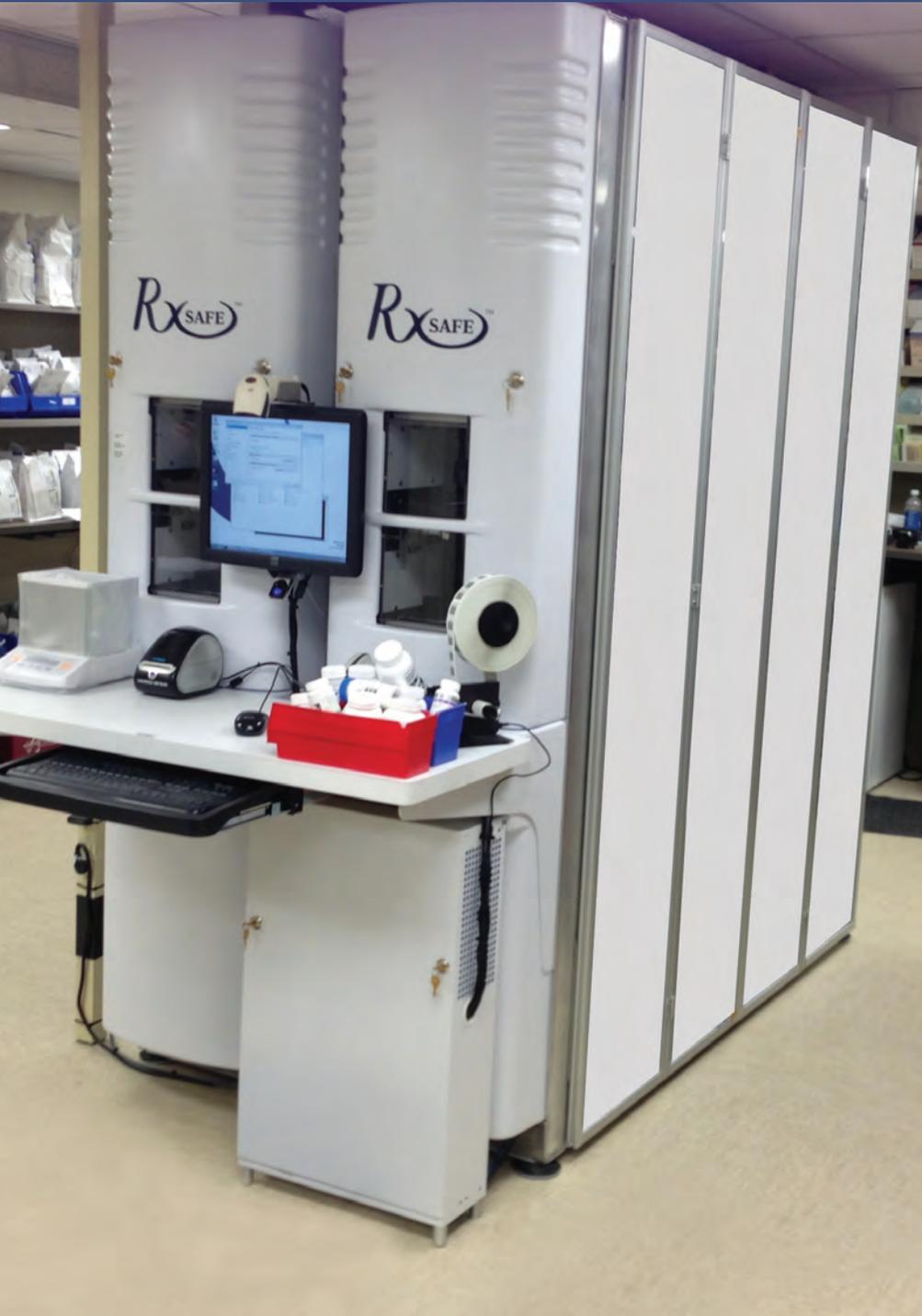
Custom Pharmacy Layout Services

- Workflow Optimization
 - Integrates RxSafe automation into existing pharmacy space



RxVault 1800™

The only truly automated robotic storage and retrieval solution for narcotics & high-shrink drugs



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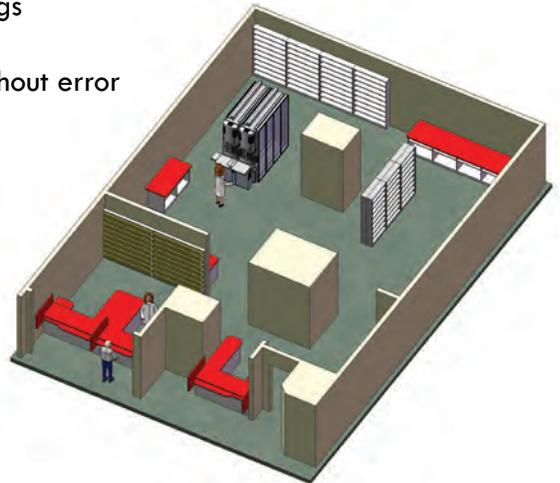
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Revised 10.07.13

AUTOCAROUSEL HD: Standard Model Specifications

SAFETY	HD-8S	HD-10S	HD-12S	HD-14S	HD-16S	HD-14SXL	HD-12N	HD-12XN
Emergency Backup Motor w/ Foot Pedal	Yes							
E-stop	Yes							
Infrared Photo Eyes	Yes							
Access Panel Interlock Switch	Yes							
FEATURES	HD-8S	HD-10S	HD-12S	HD-14S	HD-16S	HD-14SXL	HD-12N	HD-12XN
Color	Grey							
Work Surface (Pick Window)	Stainless Steel							
Lockable Pick Window	Yes							
Centrally located Operator Interface	Yes							
Control Interface (type)	RS-232 Serial							
Operator Display	Ergotron® Arm, Right Side							
Operator Lighting	LED							
Frame—modular design	Yes							
OPERATION	HD-8S	HD-10S	HD-12S	HD-14S	HD-16S	HD-14SXL	HD-12N	HD-12XN
Speed (inches / second)	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21
Average Access Time (1/4 revolution of carousel)	4.60 sec	5.75 sec	6.91 sec	8.07 sec	9.23 sec	10.08 sec	6.91 sec	6.91 sec
Maximum Imbalance Load	unlimited							
Drive Type (horsepower)	3	3	3	3	3	3	3	3
POWER REQUIREMENTS	HD-8S	HD-10S	HD-12S	HD-14S	HD-16S	HD-14SXL	HD-12N	HD-12XN
Main Power	1-phase 120-240V 20amp (include neutral and ground)							
Power Requirements Duplex and Quad	120 @ 15amp							
Duty Cycle	100%	100%	100%	100%	100%	100%	100%	100%
BTU (max)	1908	1908	1908	1908	1908	1908	1908	1908

TALYST®



AUTOCAROUSEL® HD: Specification Sheet

AutoCarousel Heavy Duty:
Secure Automated Storage

AutoCarousel® HD models provide heavy-duty, secure, automated storage for all of your medications. They are easy to use, accurate, and their efficient vertical design ensures maximum storage in a compact footprint. The reliable AutoCarousel HD comes with a 10 Year Guarantee.

AutoCarousel® HD

Built to last for 10 years, AutoCarousel HD ensures accurate orders with barcode verification, comprehensive inventory control and a space savings of 30 to 50%.

AutoCarousel is integrated into the complete AutoPharm software-based solution, enabling comprehensive management of your pharmacy inventory from arrival in the pharmacy to delivery to the patient care area.

Improved Patient Safety

- Ensures accurate order filling with pick-to-light indicators and bar code verification
- Enables comprehensive, accurate tracking and control of all stored items
- Provides enhanced security with physical barriers and password-protected access

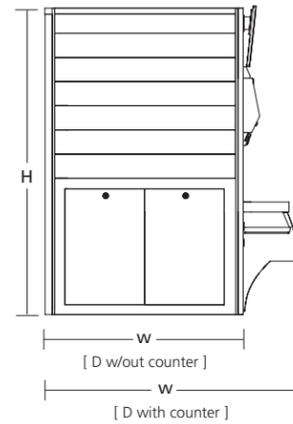
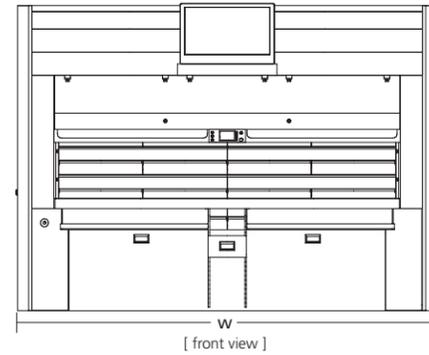
Precise Control and Access

- On-site assembly and a modular design enables delivery and placement in tight clearances
- Allows emergency access to items with a backup motor and manual foot pedal
- Includes multiple safeties: E-stop touch button, infrared photo eyes, access panel interlock switch, and motor overload stop

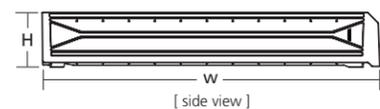
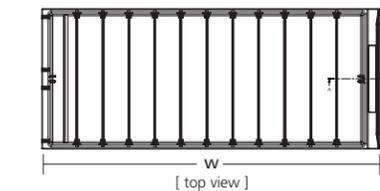
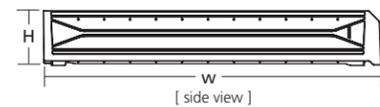
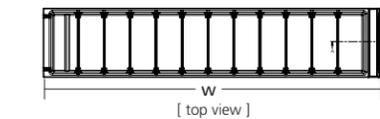
Enhanced Efficiency

- Allows you to reclaim pharmacy space by decreasing your required storage space by 30% to 50%
- Reduces the number of staff and number of hours required to stock items and fill orders
- Streamlines your returns process; just scan the item, enter the quantity, and scan the light-designated bin to safely return the item

AUTOCAROUSEL HD: Dimensions



AUTOCAROUSEL HD: Bin Dimensions



AUTOCAROUSEL HD: Standard Model Specifications

DIMENSIONS	HD-8S	HD-10S	HD-12S	HD-14S	HD-16S	HD-14SXL	HD-12N	HD-12XN
Height (H)	83.6"	96.10"	107.8"	119.8"	131.8"	142.8"	107.2"	107.8"
Width (W)	148.8"	148.8"	148.8"	148.8"	148.8"	148.8"	129.91"	119.7"
Depth w/o Work Counter	73.0"	73.0"	73.0"	73.0"	73.0"	73.0"	68.5"	61.5"
Depth w/ Work Counter	91.2"	91.2"	91.2"	91.2"	91.2"	91.2"	91.2"	79.7"
Counter Height	15.75"	15.75"	15.75"	15.75"	15.75"	15.75"	15.75"	15.75"
Carousel Weight Unloaded	4,471 lbs	5,051 lbs	5,896 lbs	6,622 lbs	6,879 lbs	7,040 lbs	5,159 lbs	4488 lbs
Carousel Weight at Max Load	7,991 lbs	9,451 lbs	11,176 lbs	12,782 lbs	13,919 lbs	13,200 lbs	10,439 lbs	9768 lbs
Occupied Floor Space	94.25 ft ²	82.3 ft ²	66.25 ft ²					

STORAGE CAPACITY	HD-8S	HD-10S	HD-12S	HD-14S	HD-16S	HD-14SXL	HD-12N	HD-12XN
Number of Pans	8	10	12	14	16	14	12	12
Number of Shelves	16	20	24	28	32	28	24	24
Carrier Spacing (Pitch)	12"	12"	12"	12"	12"	15"	12"	12"
Useable Height per Pan	9.84"	9.84"	9.84"	9.84"	9.84"	13"	9.84"	9.84"
Useable Width per Pan	119.69"	119.69"	119.69"	119.69"	119.69"	119.69"	100.0"	90.55"
Useable Depth per Pan	24.41"	24.41"	24.41"	24.41"	24.41"	24.41"	24.41"	18.5"
Maximum Load per Pan	440 lbs							
Usable Width per Shelf	119.69"	119.69"	119.69"	119.69"	119.69"	119.69"	100.0"	90.55"
Usable Depth per Shelf	24.41"	24.41"	24.41"	24.41"	24.41"	24.41"	24.41"	18.5"
Usable Unit Cube / Carousel	133.5 ft ³	166.7 ft ³	199.9 ft ³	233.0 ft ³	266.2 ft ³	307.6 ft ³	167.0 ft ³	114.4 ft ³
Storage Area per Carousel	609.7 ft ²	405.8 ft ²	486.9 ft ²	568.0 ft ²	649.3 ft ²	568.0 ft ²	406.8 ft ²	279.2 ft ²

BINS & DIVIDERS	HD-8S	HD-10S	HD-12S	HD-14S	HD-16S	HD-14SXL	HD-12N	HD-12XN
Tote A – Narrow: 15.7" x 4.5" x 3.9"	–	–	–	–	–	–	–	205
Tote A – Wide: 15.7" x 9.1" x 3.9"	–	–	–	–	–	–	–	139
Narrow Bin Divider: 4.5"	902	902	1083	1263	1444	1263	905	819
Wide Bin Divider: 9.1"	460	460	552	643	735	643	461	417
Total equivalent NDC Compartments	1,741	1,741	2,089	2,437	2,785	2,437	1,745	1,580
Tote B – Narrow: 23.9" x 4.9" x 3.9"	164	216	268	320	350	320	200	–
Tote B – Wide: 23.9" x 9.9" x 3.9"	110	132	154	176	209	176	140	–
Narrow Bin Divider: 4.9"	656	864	1,072	1,280	1,400	1,280	800	–
Wide Bin Divider: 9.9"	330	396	462	528	627	528	420	–
Total Equivalent NDC Compartments	1,260	1,608	1,956	2,304	2,586	2,304	1,560	–

NOTE: Dimensions are approximate. A site survey will be required for final carousel dimensions. The site survey will also confirm there are no physical obstructions that would affect installation.

APPENDIX INDEX



VOLUME 3



FACILITY LICENSING DESIGN GUIDELINES FOR A NEW CORRECTIONAL TREATMENT CENTER
LOS ANGELES COUNTY

Prepared by Nacht & Lewis Architects, Inc.



PROPOSED KITCHENS FOR THE CONSOLIDATED CORRECTIONAL TREATMENT FACILITY AND
MIRA LOMA DETENTION CENTER

Prepared by the Marshall Associates, Inc.



EQUIPMENT CUT SHEETS

Provided by Los Angeles County Sheriff's Department, Facility Planning Bureau and Medical Services Bureau

1. CUSTODY
(Selected Equipment)
2. PHARMACY
(Selected Equipment)
3. RADIOLOGY
(Selected Equipment)

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

SITE READINESS	C1
EQUIPMENT LAYOUT (Equipment locations, heat loads, component weights, environmental specs)	A1
STRUCTURAL LAYOUT (Structural support/mounting locations for floor/wall/ceiling, wall support elevations)	S1
STRUCTURAL DETAILS (Floor and Ceiling loading information)	S2
ELECTRICAL LAYOUT (Contractor supplied wiring, interconnect methods, junction point locations and descriptions)	E1
ELECTRICAL SPECIFICATIONS (Maximum wiring run lengths, interconnect diagram, system power specifications)	E2
ELECTRICAL DETAILS	E3
EQUIPMENT DETAILS	D1

These equipment IS drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the IS and operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Senographe Essential
Pre Installation Manual
5160036-11-8EN

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the preIS manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at:

www.gehealthcare.com/siteplanning

GE Healthcare



Women's Health Site Planning



imagination at work

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following; 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 18					
Before using this document ensure you have the latest Rev from MyWorkshop on DOC0422752					
GEHC Global Order #:		Customer:			
GEHC PMI:		FE / Installer:			
The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.					
Item #	GEHC Minimum Requirements	Storage: Is item ready?	PMI: Is item ready?	FE: Is item ready?	Comments If "N", enter comments or action plan
1	MR Magnet Delivery Requirements: Ensure oxygen venting system is designed and installed with objective evidence that it is compliant with the GEHC Pre-installation Manual (PMI) requirements, exhaust fan system is installed and operational, 480V power, and chilled water supply is available 24/7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery.				
2	MR RF Screen Room Requirements: RF Screen Room is tested with objective evidence that it is compliant with GEHC specifications. Dock Bolt installed using 2 part anchor. For HDx systems, blower box mount bolts installed by RF vendor using 2 part anchors.				
3	State Regulatory Requirements: Site Drawing Requirements: Final version of equipment installation drawings (including red lined versions) verified to match actual room and has been provided to installer. X-ray shielding plan and state acknowledgment letter provided to installer for AR, DC, NC, SC, CD & WA.				
4	Site Drawing Requirements: Final version of equipment installation drawings (including red lined versions) verified to match actual room and has been provided to installer.				
5	Surface Penetration Requirements: Customer/Contractor scheduled to provide required drilling or cutting into floors, ceilings, and walls; OR surface penetration permit available and posted in the room when GEHC will perform the work.				
5	Delivery Route Requirements: The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to verify that the minimum requirements for equipment access, and all communications/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).				
5	Finished Room Requirements: Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 3). No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PMI requirements for storage.				
5	Electrical Requirements: Main Disconnect Panel (MDP) is installed and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor dust and load-side wires can be installed at time of system installation.				
5	HVAC Requirements: The HVAC/Chilled Water systems designed to maintain the environment are running and appear to provide the desired environmental conditions (temperature and humidity) for system operation.				
5	Flooring Requirements: Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications.				
5	Ceiling Requirements: Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling ties installed per PMI discretion.				

GE Healthcare
IS Services Design Center
Milwaukee, Wisconsin
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SHEET TITLE: SITE READINESS
MODALITY TYPE: SENOGRAPHE ESSENTIAL
THIS PLAN IS SUBMITTED TO SURVEY LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO ALL LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS. THE COMPANY CANNOT ACCEPT ANY LIABILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
TYPICAL FINAL
INSTALLATION DRAWING
BROOKFIELD, WISCONSIN

PROJECT	REVISION
9-32f	01
DATE:	03 Jun. 13
DRAWN BY:	KMR
CHECKED BY:	CPC

REVISION HISTORY:

SHEET
C1

PIM R1
RQ - 124195

GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER : NEITHER A QUOTE OR GON WAS ISSUED AT THE DATE OF THESE DRAWINGS

NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.

ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN
1	1		MAMMOGRAPHY AND BIOPSY CHAIR	160 lbs		B7123	---	---
2	1		REVIEW WORKSTATION	134 lbs	2590 btu	M1011A	---	---
3	1		MAMMO ACCESSORIES STORAGE CABINET	48 lbs		E6315T	---	---
4	1		DBI IMAGING TABLE MODEL 7407	315 lbs			---	---
5	1		AGFA DRYSTAR AXYS IMAGER	198 lbs	238 btu 1803 btu		---	---
6	1		UPS SYSTEM	68 lbs	955 btu	B7120A	---	S
7	1		CAD OPTION	33 lbs	955 btu	B7120	---	C
8	1		SENOGRAPHE ESSENTIAL GENERATOR	352 lbs	3061 btu	B7119	---	XG
9	1		SENOGRAPHE ESSENTIAL GANTRY (BTU # INCLUDE CONTROL CONSOLE)	789 lbs	341 btu	B7124	---	GT
10	1		SENOGRAPHE ESSENTIAL CONTROL STATION	462 lbs		B7126	---	DC

EQUIPMENT CROSS REFERENCE CHART
P = PREAPPROVAL
C = CALCULATIONS/PENDING APPROVAL
S = SPECIFICATIONS ONLY

SEISMIC STATUS

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

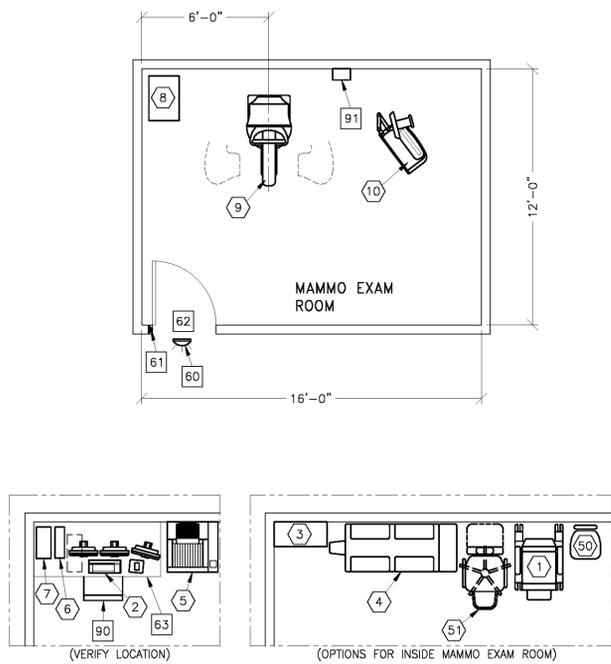
1	1		HYDRAULIC CHAIR				---	---
2	1		DELUXE RECLINING CHAIR (CAT NO E6315HB)				---	---

EQUIPMENT LAYOUT SCALE: 1/4" = 1'-0" RECOMMENDED CEILING HEIGHT = 8'-0"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.

IMPORTANT CUSTOMER READINESS ALERT:

FOR ANALOG SYSTEMS A STABLE FILM PROCESSOR IS REQUIRED, H&D CURVES WITHIN THE MANUFACTURER'S SPECIFICATIONS FOR FILM, PROCESSING AND CHEMICALS.
FOR DIGITAL SYSTEMS A LASERCAMERA IS REQUIRED. WITHOUT THIS, EXTENSIVE, UNWANTED DELAYS WILL OCCUR. PLEASE MAKE EVERY EFFORT TO ENSURE THAT THESE REQUIREMENTS ARE MET BEFORE THE SCHEDULED DELIVERY OF YOUR MAMMOGRAPHY SYSTEM.



ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	X-RAY ON WARNING LIGHT - AVAILABLE FROM GE SUPPLY CALL: 800-800-9760 GE CAT. NO. WX1ABWV-DF-XIU-24(LED) (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)
61	DOOR LIMIT SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)
62	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 28 IN. W X 79 IN. H (711mm X 2006mm), CONTINGENT ON A 60 IN. (1524mm) CORRIDOR WIDTH
63	COUNTERTOP FOR EQUIPMENT

THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.

90	OPERATORS CHAIR
91	MAIN DISCONNECT CONTROL, WALL MOUNTED GEMS CAT. NO. R4502B, 65 lbs. SEE DETAIL R4502B.

GENERAL SPECIFICATIONS

- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
- CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMMODATE THE EQUIPMENT AS SHIPPED.
- RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
- THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER IS. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
- ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.

SITE ENVIRONMENT SPECIFICATIONS

- AMBIENT OPERATING TEMPERATURE: 59°F (15°C) TO 95°F (35°C), MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 3.8°F (1.5°C)/HOUR.
- HUMIDITY: 40 TO 75 PERCENT NON-CONDENSING, MAXIMUM ALLOWABLE CHANGE OF 10 PERCENT/HOUR.
- ALTITUDE: NOT TO EXCEED 9840 FT. ABOVE SEA LEVEL.
- THE ENVIRONMENT FOR THE SENOGAPHE MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.

MAGNETIC INTERFERENCE SPECIFICATIONS

- MAMMOGRAPHY EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE SPECIFIED PERFORMANCE.

GE Healthcare
IS Services Design Center
Milwaukee, Wisconsin

SHEET TITLE: **EQUIPMENT LAYOUT**
MODALITY TYPE: **SENOGRAPHE ESSENTIAL**
THIS PLAN IS SUBMITTED TO SUBMIT LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ALL APPLICABLE BUILDING CODES, REGULATIONS AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
**TYPICAL FINAL
INSTALLATION DRAWING**
BROOKFIELD, WISCONSIN

PROJECT	REVISION
9-32f	01

DATE: 03.Jun.13
DRAWN BY: KMR
CHECKED BY: CPC

REVISION HISTORY:

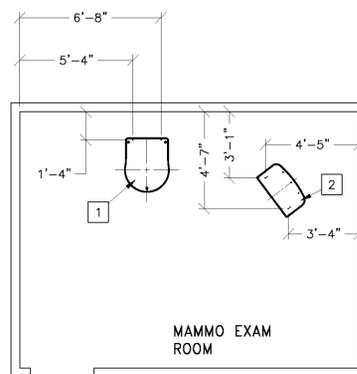
SHEET
A1

Drawn by: KATHY RECKERT Octel no.: 5603730
GE Installation
Project Manager: DENNIS HOPPER
Telephone no.: 262-597-3743

PIM R1
RQ - 124195

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	<p>SENOGRAPHE GANTRY BASEPLATE AREA. SEE DETAIL B7124A ON SHEET S2.</p> <p>SENOGRAPHE Seismic Zone ANCHORING HARDWARE (WHERE APPLICABLE)</p> <p>< GANTRY > ANCHORS = Hilti KB3 - 3/8 x 3.75 in. < 5 ea. ></p> <p>< GENERATOR > ANCHORS = Hilti KB3 - 3/8 x 3.75 in. < 4 ea. ></p> <p>< GENERATOR > BOLTS = 3/8 x 1 in. A307 Bolts < 4 ea. ></p> <p>< GENERATOR > BRACKETS = 3 x 5 x 10 in. Angle Bracket < 2 ea. ></p> <p>< RAD SHIELD > ANCHORS = Hilti KB3 - 1/4 x 3.25 in. < 4 ea. ></p> <p>ALL ANCHORS TO INCLUDE 1 FLATWASHER. ALL BOLTS TO INCLUDE 2 FLATWASHERS, 1 LOCKWASHER AND 1 NUT.</p>
2	<p>SENOGRAPHE CONTROL STATION BASEPLATE AREA. SEE DETAIL B7126A ON SHEET S2.</p>



MAMMO EXAM ROOM

STRUCTURAL NOTES

- METHODS OF SUPPORT FOR THE STEELWORK THAT WILL PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE CONSTRUCTION SHOULD BE FAVORED. DO NOT USE CONCRETE OR MASONRY ANCHORS IN DIRECT TENSION.
- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 6,35mm (1/4") BELOW THE FINISHED CEILING.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3,17mm (1/8") IN 3050mm (10'-0")
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.
- IT IS THE CUSTOMER'S RESPONSIBILITY TO PERFORM ANY FLOOR OR WALL PENETRATIONS THAT MAY BE REQUIRED. THE CUSTOMER IS ALSO RESPONSIBLE FOR ENSURING THAT NO SUBSURFACE UTILITIES (E.G., ELECTRICAL OR ANY OTHER FORM OF WIRING, CONDUITS, PIPING, DUCT WORK OR STRUCTURAL SUPPORTS (I.E. POST TENSION CABLES OR REBAR)) WILL INTERFERE OR COME IN CONTACT WITH SUBSURFACE PENETRATION OPERATIONS (E.G. DRILLING AND INSTALLATION OF ANCHORS/SCREWS) PERFORMED DURING THE INSTALLATION PROCESS. TO ENSURE WORKER SAFETY, GE INSTALLERS WILL PERFORM SURFACE PENETRATION OPERATIONS ONLY AFTER THE CUSTOMER'S VALIDATION AND COMPLETION OF THE "GE SURFACE PENETRATION PERMIT"

SHEET TITLE: STRUCTURAL LAYOUT
 MODALITY TYPE: SENOGRAPHE ESSENTIAL

THIS PLAN IS SUBMITTED TO SURVEY LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ALL APPLICABLE CONSTRUCTION PRACTICES, CODES AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

TYPICAL FINAL
 INSTALLATION DRAWING
 BROOKFIELD, WISCONSIN

PROJECT	REVISION
9-32f	01

DATE: 03.Jun.13
 DRAWN BY: KMR
 CHECKED BY: CPC

REVISION HISTORY:

SHEET
 S1

Drawn by: KATHY RECKERT Octel no.: 5603730
 GE Installation
 Project Manager: DENNIS HOPPER
 Telephone no.: 262-597-3743

PIM R1
 RQ - 124195

IS Services Design Center
 Milwaukee, Wisconsin

FLOOR MOUNTING DETAIL: SENOGAPHE INSTALLATION METHODS

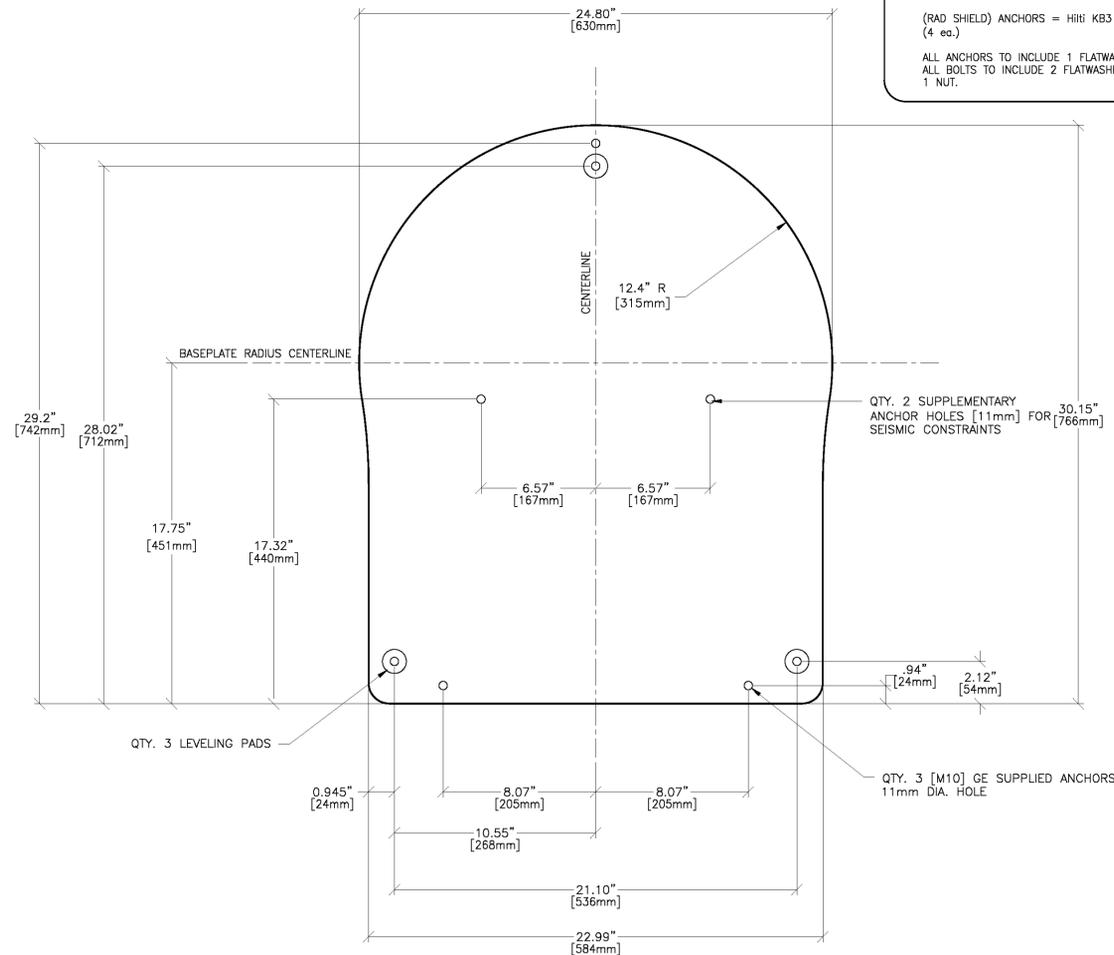
B7124A

REV. DATE: 10-17-07

SENOGRAPHE Seismic Zone ANCHORING HARDWARE

- (GANTRY) ANCHORS = HiTi KB3 - 3/8 x 3.75 in. (5 ea.)
- (GENERATOR) ANCHORS = HiTi KB3 - 3/8 x 3.75 in. (4 ea.)
- (GENERATOR) BOLTS = 3/8 x 1 in. A307 Bolts (4 ea.)
- (GENERATOR) BRACKETS = 3 x 5 x 10 in. Angle Bracket (2 ea.)
- (RAD SHIELD) ANCHORS = HiTi KB3 - 1/4 x 3.25 in. (4 ea.)

ALL ANCHORS TO INCLUDE 1 FLATWASHER.
ALL BOLTS TO INCLUDE 2 FLATWASHERS, 1 LOCKWASHER AND 1 NUT.

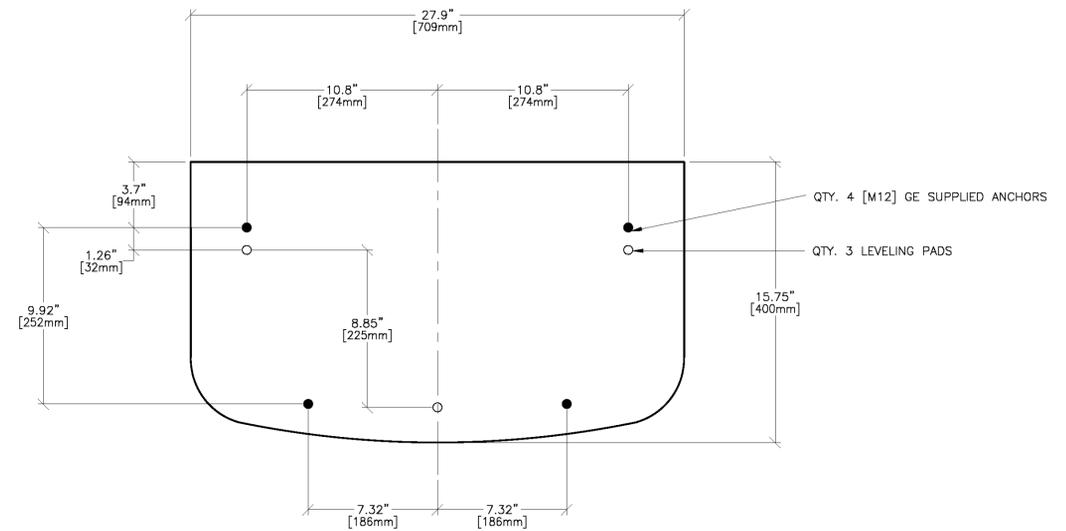


DETAIL NOT TO SCALE

FLOOR MOUNTING DETAIL: CONTROL STATION INSTALLATION METHODS

B7126A

REV. DATE: 03/15/04



DETAIL NOT TO SCALE

SHEET TITLE: STRUCTURAL DETAILS
MODALITY TYPE: SENOGAPHE ESSENTIAL

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PROJECT TITLE:
**TYPICAL FINAL
INSTALLATION DRAWING**
BROOKFIELD, WISCONSIN

PROJECT	REVISION
9-32f	01
DATE:	03.Jun.13
DRAWN BY:	KMR
CHECKED BY:	CPC

REVISION HISTORY:

SHEET
S2

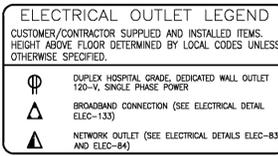
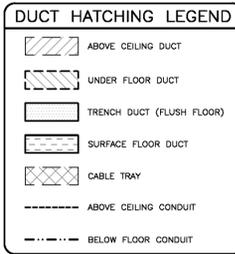
PIM R1 RQ - 124195

SCALE: 1/4" = 1'-0"

ELECTRICAL PLAN

RECOMMENDED CEILING HEIGHT = 8'-0"

JUNCTION POINT DESCRIPTIONS



FEEDER TABLE REV. DATE: 03/08/04

* CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
 * RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
 * NEUTRAL MUST BE TERMINATED INSIDE THE MAIN DISCONNECT PANEL AND NOT AT ANY GE CABINET.
 * THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER WIRES. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
 * IF THE GENERAL ELECTRIC EQUIPMENT IS BEING FED BY A DELTA SECONDARY, IT IS RECOMMENDED THAT THE B PHASE ON THE SECONDARY BE CONNECTED TO GROUND TO PREVENT DAMAGE TO THE SYSTEM.
 * FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.
 * MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.

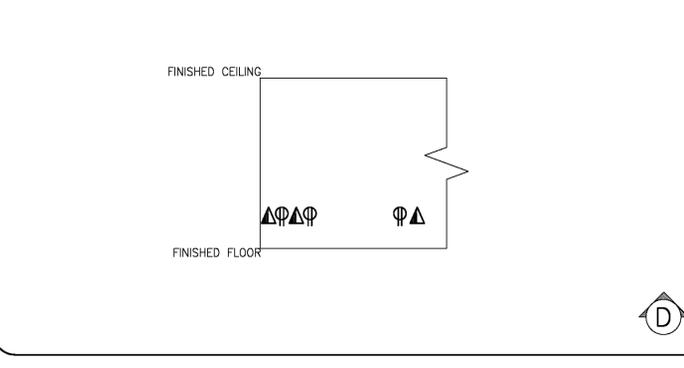
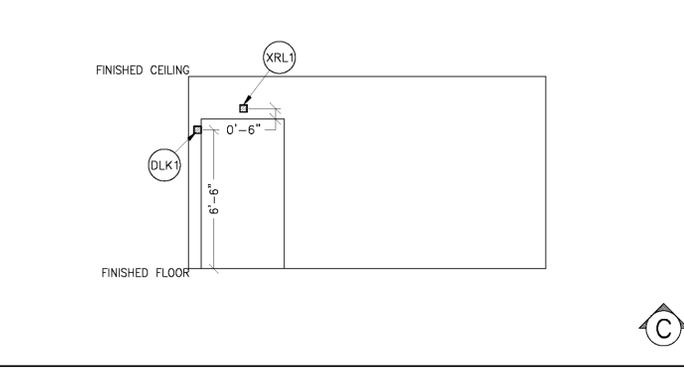
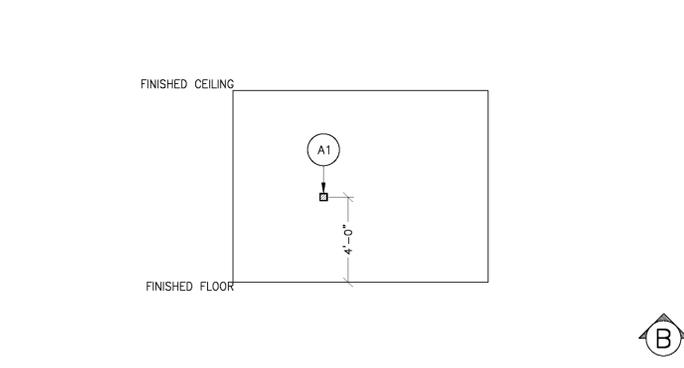
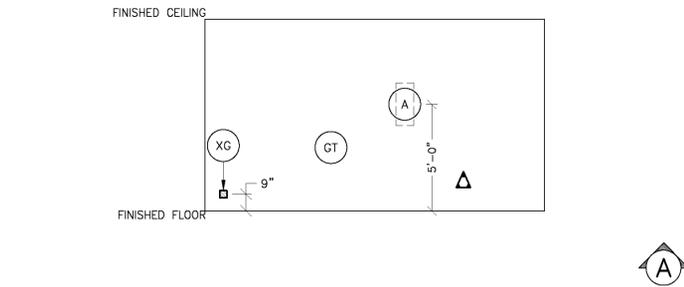
NOTE: ALL WIRE IMPEDANCES MUST BE 0.2 OHMS OR LESS

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE			
	180-220 200	187-229 208	198-242 220	216-264 240
	SIZE OF FEEDERS AND GROUND WIRES (AWG)			
50	10	10	10	* 10
100	6	8	8	8
150	4	6	6	6
200	4	4	4	6
250	3	3	4	4
300	2	2	3	4
350	1	2	2	3
400	1	1	2	2
450	1/0	1/0	1	2

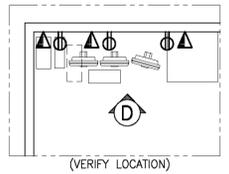
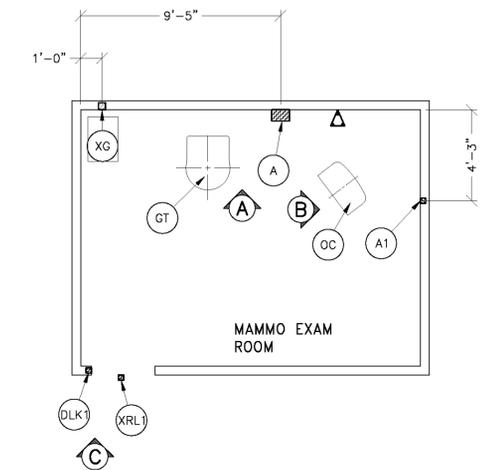
JUNCTION POINT NOTES

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMERS ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS
- CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
- CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
- ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
 - DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
 - DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
 - DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
 - PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMERS CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
- 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
- ALL WIRING MUST BE THIN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

POINT	DESCRIPTION	QTY.	THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR	
			HARDWARE	DETAIL NO., SHT. E3
A	MAIN DISCONNECT	1	30 AMP, 25,000 AIC RATED CIRCUIT BREAKER AND PANEL WITH MAGNETIC CONTACTOR AND REMOTE ON/OFF ILLUMINATED LED PUSHBUTTONS. GENS CAT: NO. E45029	
A1	EMERGENCY OFF	1	PROVIDE A DOUBLE GANG, 2 1/8 IN. DEEP, FLUSH MTD. WALL BOX.	
DLK1	DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)	1	ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME - NORMALLY OPEN (<24V)	
GT	GANTRY	1	CONNECT EXTERNALLY TO GENERATOR	
OC	CONTROL CONSOLE	1	CONNECT EXTERNALLY TO GENERATOR	
XG	GENERATOR	1	COVERPLATE 1 4 X 4 X 4 IN. BDX 1 1 IN. DIA. CHASE NIPPLE CONNECT EXTERNALLY TO SENDGRAPHE GANTRY. 1 GENERATOR HARDWIRED TO DISCONNECT	ELEC-8
XRL1	'X-RAY' ON LIGHT (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES) AVAILABLE FROM GEHC, CALL 800-558-5102 OR LOCAL GE INSTALLATION PROJECT MANAGER	1	SINGLE GANG BOX 'SENDGRAPHE ON' WARNING LIGHT, GENS CAT: NO. WX1A1BWV-XIU-SD-24V(LED)	



PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.



CONDUIT RUNS FOR MAMMOGRAPHY SYSTEM (BY CONTRACTOR) REV. DATE: 08/14/10

A	TO A1	ONE 1/2" CND.
A	TO XG	ONE 1" CND.
A	TO POWER	ONE CONDUIT AS REQ'D
XRL1	TO XG	ONE 1/2" CND.
DLK1	TO XG	ONE 1/2" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

Drawn by: KATHY RECKERT Octal no.: 5603730
 GE Installation
 Project Manager: DENNIS HOPPER
 Telephone no.: 262-597-3743

CONTRACTOR SUPPLIED AND INSTALLED WIRING
 ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
XG > XRL1	1-BLACK, 1-WHITE, 1-GREEN - (SIZE AS REQUIRED)
A1 > A	1-BLACK, 1-WHITE, 1-GREEN - (SIZE AS REQUIRED) (WITHOUT 'POWER ON' LIGHT, 'SEND ON' LIGHT, 'X-RAY IN USE' LIGHT, DOOR SWITCH)
A1 > A	6-BLACK, 2-WHITE, 1-GREEN - (SIZE AS REQUIRED) (WITH 'POWER ON' LIGHT, 'SEND ON' LIGHT, 'X-RAY IN USE' LIGHT, DOOR SWITCH)
208-V > A	2-BLACK, 1-GREEN (REFER TO FEEDER TABLE FOR SIZE)
XG > DLK1	1-BLACK, 1-WHITE, 1-GREEN - (SIZE AS REQUIRED)

GE Healthcare
 IS Services Design Center
 Milwaukee, Wisconsin

SHEET TITLE: **ELECTRICAL LAYOUT**
 MODALITY TYPE: **SENOGRAPHE ESSENTIAL**
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PROJECT TITLE: **TYPICAL FINAL INSTALLATION DRAWING**
 BROOKFIELD, WISCONSIN

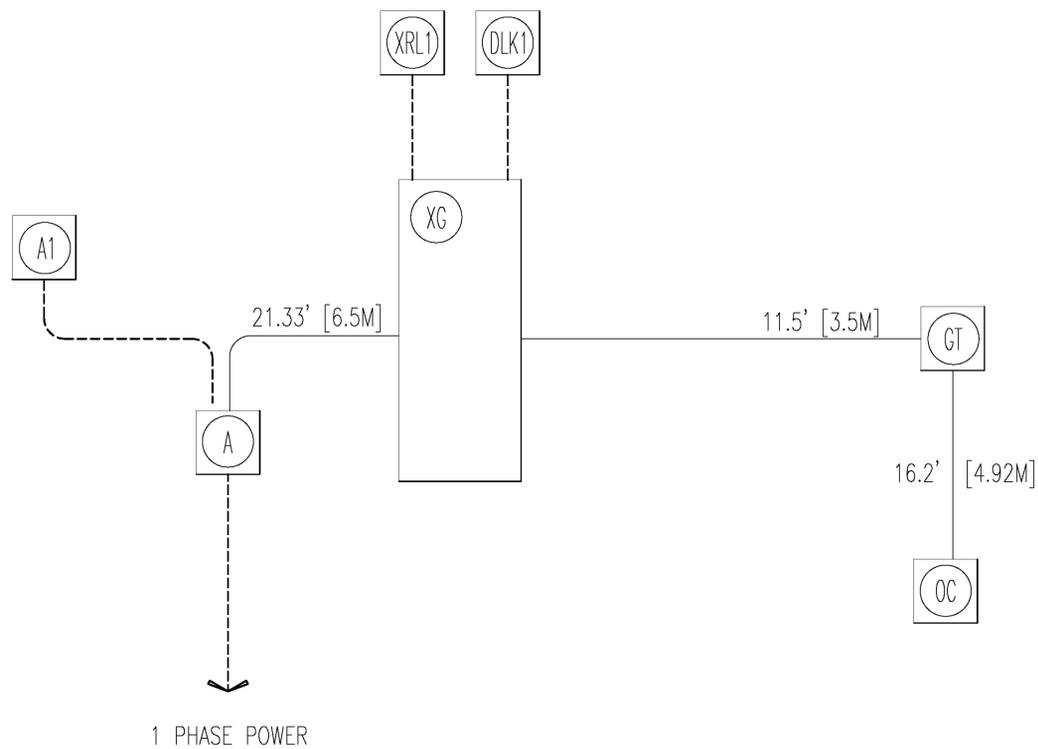
PROJECT	REVISION
9-32f	01

DATE: 03 Jun. 13
 DRAWN BY: KMR
 CHECKED BY: CPC

REVISION HISTORY:

SHEET **E1**

INTERCONNECT DIAGRAM



POWER SPECIFICATIONS

SENOGRAPHE DS/ESSENTIAL REV. DATE: 01-04-07

VOLTAGE PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS.
 RANGE OF LINE VOLTAGES :
 NOMINAL LINE VOLTAGE OF 200V TO 240V 1 PHASE, 50 OR 60 Hz.

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/ CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)	
		MOMENTARY	MINIMUM STANDARD OVERCURRENT PROTECTION
200	180 - 220	47	30-A
208	187 - 229	45	30-A
220	198 - 242	43	30-A
240	216 - 264	39	30-A

MAXIMUM MOMENTARY LINE CURRENTS INDICATED AT MINIMUM LINE VOLTAGE.

POWER DEMAND

INSTANTANEOUS MAX. POWER DEMAND = 9 KVA UP TO 6 SECONDS
 STANDBY POWER DEMAND = 1.5 KVA

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	SENO 2000 DS
kVa	9
POWER FACTOR AT	0.6
mA	600
kVp	40

ELECTRICAL NOTES

- NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRIBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.
- NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.
- NOTE 7: **ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).**
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- _____ GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet, [Meters]

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

SHEET TITLE: ELECTRICAL SPECIFICATIONS
 MODALITY TYPE: SENOGAPHE ESSENTIAL

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PROJECT TITLE:
**TYPICAL FINAL
 INSTALLATION DRAWING**
 BROOKFIELD, WISCONSIN

PROJECT	REVISION
9-32f	01

DATE: 03.Jun.13
 DRAWN BY: KMR
 CHECKED BY: CPC

REVISION HISTORY:

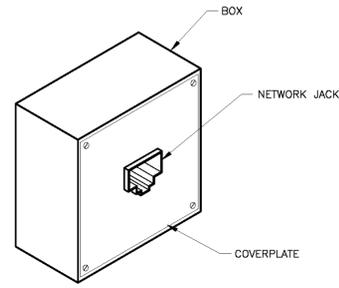
SHEET
E2

PIM R1 RQ - 124195

GE Healthcare
 IS Services Design Center
 Milwaukee, Wisconsin

ELECTRICAL DETAIL
BOX WITH COVERPLATE AND NETWORK JACK

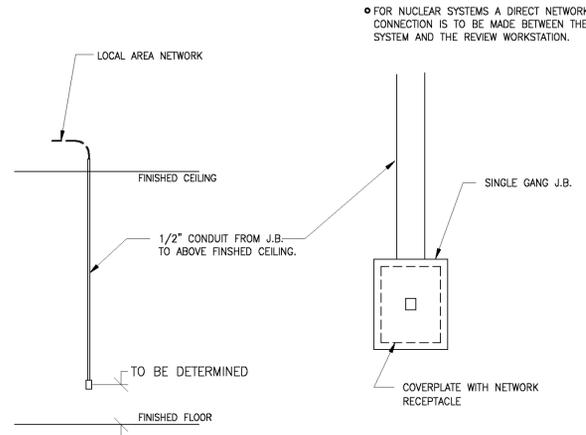
ELEC-83
REV. DATE: 10/06/98



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
NETWORK CONNECTION (TYPICAL)

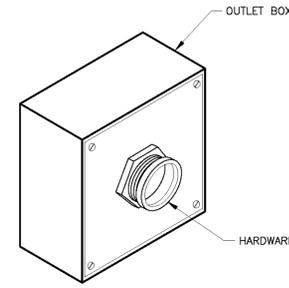
ELEC-84
REV. DATE: 03/06/04



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE (TYPICAL)

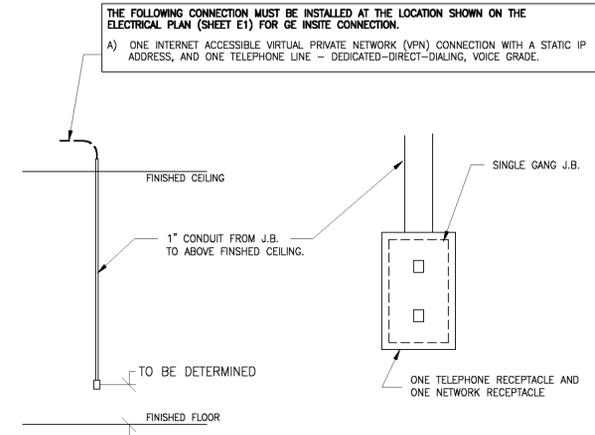
ELEC-8
REV. DATE: 09/30/94



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BROADBAND CONNECTION (TYPICAL)

ELEC-133
REV. DATE: 03/15/04



ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER OR THEIR CONTRACTOR.

DETAIL NOT TO SCALE

SHEET TITLE: ELECTRICAL DETAILS
MODALITY TYPE: SENOGAPHE ESSENTIAL

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TYPICAL FINAL
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BROOKFIELD, WISCONSIN

PROJECT	REVISION
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DATE: 03.Jun.13
DRAWN BY: KMR
CHECKED BY: CPC

REVISION HISTORY:

SHEET
E3

GE Healthcare
IS Services Design Center
Milwaukee, Wisconsin

RQ - 124195 PIM R1

EQUIPMENT DETAIL
MAMMOGRAPHY/BIOPSY CHAIR

B7123
REV. DATE: 10/25/02

SIDE VIEW
75" [1905mm]

FRONT VIEW
27" [686mm]
64.5" max. [1638mm]

REAR VIEW
42.5" [1080mm]

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
WORKSTATION

M1011AW
REV. DATE: 05/09/08

COMPUTER TOWER
8.3" [210mm]
17.92" [455mm]
20.7" [525mm]

KEYBOARD
11.2" [285mm]
9.00" [230mm]
1.6" [41mm]

CRT PORTRAIT MONITOR
16.0" [402mm]
20.9" [529mm]
20" [520mm]

LCD PORTRAIT MONITOR
15.1" [384mm]
20.2" [514mm]
9.5" [243mm]

LCD LANDSCAPE MONITOR
16.2" [412mm]
14.4" [494mm]
7.9" [200mm]

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
(MAMMOGRAPHY ACCESSORY CABINET)

E6315T
REV. DATE: 04/03/08

FRONT VIEW
30.0" [762mm]

SIDE VIEW
14.0" [356mm]
39.0" [991mm]

NOTE:
ALL DIMENSIONS ARE IN INCHES ALL BRACKETED () DIMENSIONS ARE IN MILLIMETERS.

EQUIPMENT DETAIL
UPS UNIT

B7120A
REV. DATE: 05/04/01

SIDE VIEW
17.5" [445mm]

FRONT VIEW
5.5" [140mm]
6.6" [168mm]

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
DCAD OPTION

B7120
REV. DATE: 07/12/05

SIDE VIEW
17.7" [450mm]

FRONT VIEW
8.3" [211mm]
19.3" [490mm]

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
MAIN DISCONNECT PANEL, CAT. NO. E4502B

R4502B
REV. DATE: 07/24/07

TOP VIEW
3" [76mm]
4 Knockouts (top & bottom)

BACK VIEW
26" [660mm]
2.25" [57mm]
2.5" [64mm]
3.25" [83mm]
6.75" [171mm]

SIDE VIEW
5.0" [127mm]
3.0" [76.2mm]
2.5" [64mm]
2" [51mm]
1.50" [38mm]
21.63" [549mm]
2" [51mm]

FRONT VIEW
10" [254mm]
6.13" [155mm]
3" [76mm]
1.19" [30mm]
1.63" [41.3mm]
4.5" [114mm]
6.75" [171mm]

2 Knockouts (right & left sides)

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
SENOGRAPHE GENERATOR

B7119
REV. DATE: 30.May.13

PLAN VIEW
CABLE ENTRY/
CABLE STORAGE
MINIMUM CLEARANCE 4" [102mm]

FRONT VIEW
25.2" [640mm]
21.8" [554mm]
53.2" [1350mm]
CENTER OF GRAVITY

SIDE VIEW
17.2" [437mm]
CENTER OF GRAVITY

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
SENOGRAPHE GANTRY

B7124
REV. DATE: 30.May.13

FRONT VIEW
94.67" [2430mm]
41.14" [1045mm]
11.49" [292mm]
72.5" [1842mm]
11.49" [292mm]

SIDE VIEW
76" [1930mm]
28.01" [712mm]
15.75" [400mm]
50.1" [1273mm]
CLEARANCE REQ'D

MOVEMENT OF GANTRY
CLEARANCE REQ'D
CENTER OF GRAVITY

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
SENOGRAPHE CONTROL STATION

B7126
REV. DATE: 30.May.13

FRONT VIEW
87.5" [2225mm]
25.75" [654mm]
14.1" [358mm]
27.9" [710mm]
8.4" [213mm]
15.75" [400mm]

CENTER OF GRAVITY

DETAIL NOT TO SCALE

GE Healthcare
IS Services Design Center
Milwaukee, Wisconsin

SHEET TITLE: **EQUIPMENT DETAILS**
MODALITY TYPE: **SENOGRAPHE ESSENTIAL**

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PROJECT TITLE:
**TYPICAL FINAL
INSTALLATION DRAWING**
BROOKFIELD, WISCONSIN

PROJECT	REVISION
9-32f	01
DATE:	03.Jun.13
DRAWN BY:	KMR
CHECKED BY:	CPC

REVISION HISTORY:

SHEET
D1

RQ - 124195 P1M R1

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

SITE READINESS	C1
EQUIPMENT LAYOUT	A1
(Equipment locations, heat loads, component weights, environmental specs)	
STRUCTURAL LAYOUT	S1
(Structural support/mounting locations for floor/wall/ceiling, wall support elevations)	
STRUCTURAL DETAILS	S2
(Floor and Ceiling loading information)	
ELECTRICAL LAYOUT	E1
(Contractor supplied wiring, interconnect methods, junction point locations and descriptions)	
ELECTRICAL SPECIFICATIONS	E2
(Maximum wiring run lengths, interconnect diagram, system power specifications)	
ELECTRICAL DETAILS	E3 THRU E4
EQUIPMENT DETAILS	D1 THRU D2

These drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Precision 500D with Saturn V4
Wireless DR Imaging Option
Pre Installation Manual
5436429-1EN, 5397208-8EN

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the Pre Installation manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at:

www.gehealthcare.com/siteplanning

GE Healthcare



R/F Site Planning



imagination at work

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following; 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 19				
Before using this document ensure you have the latest Rev from MyWorkshop on DOC0422732				
GEHC Global Order #:		Customer:		
GEHC PMI:		FE / Installer:		
The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.				
Inspection Date:	Storage is it ready?	PHI is it ready?	FE is it ready?	Comments If 'N', enter comments or action plan
1				MR Magnet Delivery Requirements: Ensure cryogen venting system is available for magnet connection as defined by GEHC Pre-Installation Manual (PIM) requirements, subject to system is installed and operational, 480V power, and chilled water supply is available 24x7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery. Surface mount vibromat installed where required. Magnet room final flooring is in place.
2				MR RF Screen Room Requirements: RF Screen Room is tested with copy of Test Report, emailed to ISAdmin@GE.com, that it is compliant with GEHC specifications. Dock Bolt and magnet anchors (if applicable) installed using 2 part anchor. For HDx systems, blower box mount bolts installed by RF vendor using 2 part anchors.
3				State Regulatory Requirements: Facility registration number provided for states of IL, KY, HI, RI, SC, TX, X-ray shielding plan and state acknowledgment letter provided to installer for AR, DC, NC, SC, CO, & W.V. Site Drawing Requirements: Final version of equipment network and antenna, installation drawings (including red lined versions) verified to match actual room and has been provided to installer.
4				Surface Penetration Requirements: Customer/Contractor scheduled to provide required drilling or cutting into floors, ceilings, and walls; OR surface penetration permit available and posted in the room when GEHC will perform the work.
5				Pre-Delivery Route Requirements: The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to safely meet the minimum requirements for equipment access, and all communication/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).
6				Finished Room Requirements: Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 1). Shielding, doors, and windows are to be installed. No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PIM requirements for storage.
7				Electrical Requirements: Lockable (LOTO) Main Disconnect Panel (MDP) is installed per GE guidelines and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor duct and load-side wires can be installed at time of system installation. Validate outlet location and requirements meet specifications for device/equipment.
8				HVAC Requirements: The HVAC/Chilled Water systems designed to maintain the environment per spec/PIM is at running state and appears to provide the desired environmental conditions including location of vents, temperature and humidity for system operation.
9				Flooring Requirements: Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Confirm customer anchoring plan aligns with designed floor thickness. Final flooring installed where required for network racks.
10				Ceiling Requirements: Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ensure unistrut and rails are not used as mounting surfaces. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling tiles installed per PIM discretion.
11				Staging Requirements: Space has been identified to support the active installation process only. This area meets PIM/project book requirements. Storage space has been identified, if needed. This secured space would be used to store equipment indefinitely. If offsite, transportation plan has been developed at customer expense. This space must meet PIM requirements.
12				Network Connectivity: Hardware for network connectivity/network drop is in place prior to delivery with specified network firewall configuration where required. Site Surveys for wireless mobile XR units have been completed.
13				Medical Gases Requirements: Systems (hard pipe or portable) in place to allow testing and calibration of equipment (anesthesia), including ventilation.

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin
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SHEET TITLE: SITE READINESS
MODALITY TYPE: PRECISION 500D
THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ROOM ARRANGEMENTS. AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM REQUIREMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CORRECT DETAILS. HOWEVER, THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
TYPICAL FINAL DRAWINGS
2-60F

PROJECT REVISION
2-60F 00
DATE: 23.Apr.13
DRAWN BY: JDR
CHECKED BY: REK

REVISION HISTORY:

SHEET
C1

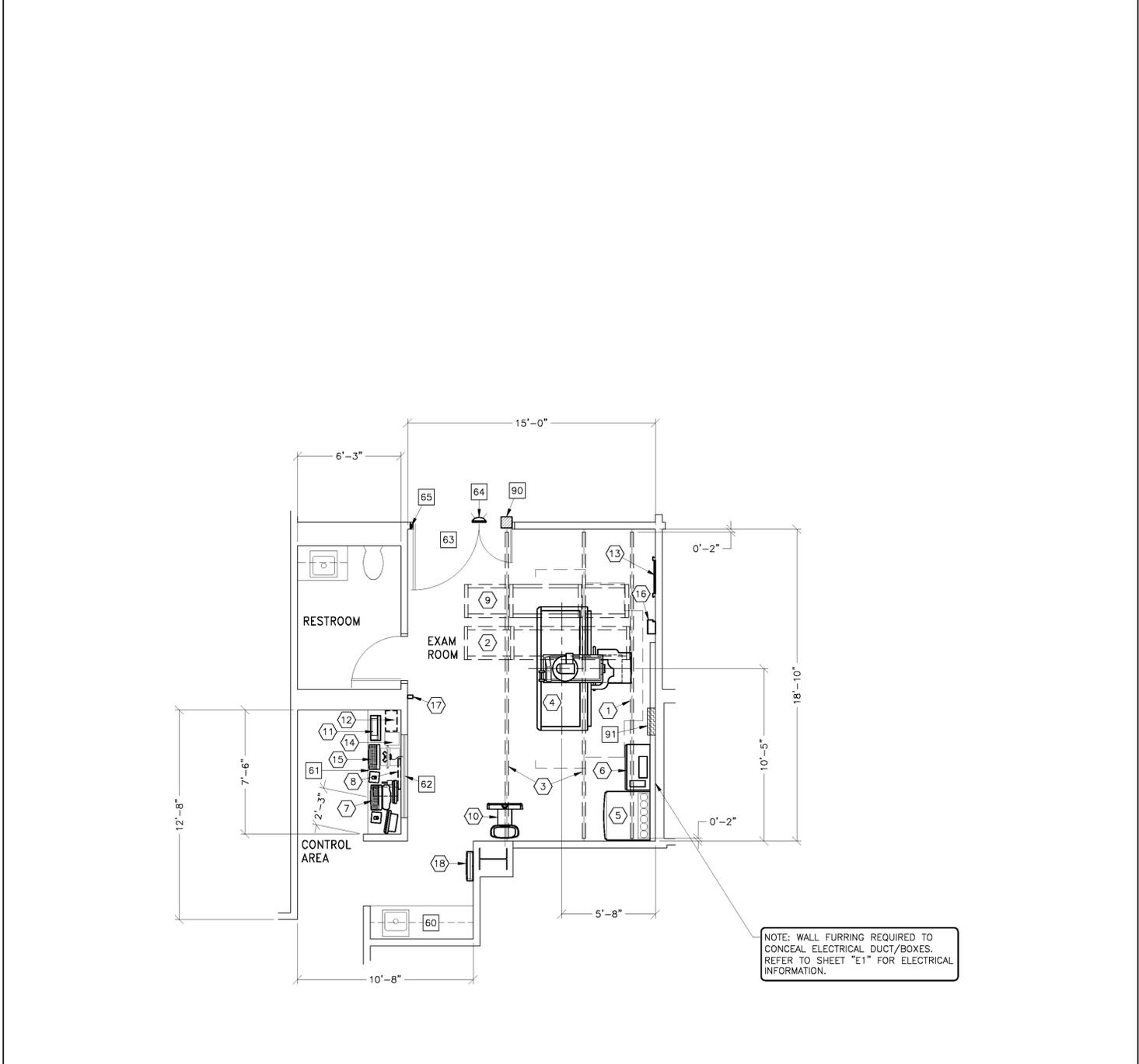
PIM R1, R1
RQ - 134963

GE EQUIPMENT LISTING								
EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER TYPICAL CONDITIONS				EQUIPMENT CROSS REFERENCE CHART				
ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	ELEC PLAN		
						STRC PLAN	ELEC PLAN	
1	1		CABLE DRAPE RAIL	108 lbs		C7506 C7507	B20 079	
2	1		XT RADIOGRAPHIC SUSPENSION WITH INBOARD MOUNTING	623 lbs	501 btu	B2004 C7506	B20 041	
3	2		LONGITUDINAL STATIONARY RAIL FOR XT SUSPENSION	220 lbs			B20 041	
4	1		PRECISION R&F TABLE WITH INTELLIGENT DIGITAL DEVICE	3443 lbs	426 btu	B0114 B0114A	B01 143	
5	1		SYSTEMS CABINET	881 lbs	2457 btu	B0558A	---	
6	1		POSITIONER CABINET	685 lbs	3412 btu	A8008	S02	
7	1		SATURN OPERATORS CONSOLE	85 lbs	781 btu	C7504 C7511	---	
8	1		IUI ACCESSORY ASSEMBLY	15 lbs		B0114K	---	
OPTIONS:								
9	1		ONE LCD MONITOR SUSPENSION ON XT INBOARD BRIDGE	282 lbs	68 btu	B2011A	---	
10	1		SG-80 CHEST UNIT WITH KNEE EXTENSION	427 lbs		B3503B	---	
11	1		DVD RECORDER KEYBOARD	2 lbs		C7503	---	
12	1		DVD RECORDER	13 lbs		C7503	---	
13	1		TABLE ACCESSORY RACK	90 lbs		B8130C	S38	
WIRELESS DR IMAGING (OPTION PKG):								
14	1		DR IMAGING CABINET	37 lbs	477 btu	B8128	---	
15	1		DR IMAGING CONSOLE	28 lbs	525 btu		---	
16	1		TETHER INTERFACE BOX	15 lbs	10 btu	B8126	---	
17	1		DONGLE	4 lbs		B8137	---	
18	1		DETECTOR BIN	33 lbs		B8127	---	

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

SCALE: 1/4" = 1'-0" EQUIPMENT LAYOUT RECOMMENDED CEILING HEIGHT = 9'-6"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.



ANCILLARY ITEMS	
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS	
ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	COUNTER TOP WITH SINK, BASE AND WALL CABINETS
61	COUNTER TOP FOR EQUIPMENT - MINIMUM DEPTH 24 IN. AND ADDITIONAL SHELVING MAY BE REQUIRED BELOW COUNTER TOP FOR PC TOWER. PROVIDE GROMMETED OPENINGS AS REQUIRED TO ROUTE CABLES.
62	CONTROL WALL TO CEILING WITH LEAD GLASS VIEWING WINDOW.
63	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 44 IN. W X 89 IN. H (118mm X 218mm). CONTINGENT ON A 96 IN. (2438mm) CORRIDOR WIDTH.
64	X-RAY ON WARNING LIGHT - AVAILABLE FROM GE SUPPLY CALL 800-200-9760 GE CAT. NO. WX1ABW-0F-XIU
65	DOOR LIMIT SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)
THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.	
90	X-RAY ROOM WARNING LIGHT/ROOM LIGHTING CONTROL PANEL REFERENCE JUNCTION POINT 'XRLC' ON SHEET 'E1' FOR DETAILED DESCRIPTION - CAT. NO. E4502SS FOR WARNING LIGHT & ROOM LIGHT CONTROL.
91	80 AMP - MAIN DISCONNECT REFERENCE JUNCTION POINT 'A' ON SHEET 'E1' FOR DETAILED DESCRIPTION - CAT. NO. E4502ST OR WITH AUTO RESTART E4502RP (20 V X 48 H X 6.68 IN. D) E110AMP MAIN DISCONNECT E4502RS OR AUTO RESTART E4502SA ALSO AVAILABLE.

- GENERAL SPECIFICATIONS
- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
 - CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMMODATE THE EQUIPMENT AS SHIPPED.
 - RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
 - THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER IS. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
 - ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
 - DIMENSIONS ARE TO FINISHED SURFACES OF ROOM

- SITE ENVIRONMENT SPECIFICATIONS
- AMBIENT OPERATING TEMPERATURE: 59 TO 75 DEGREES (F), MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 15 DEGREES (F)/HOUR.
 - HUMIDITY: REFER TO PREINSTALLATION MANUAL FOR THE EQUIPMENT ILLUSTRATED ON THIS DRAWING.
 - ALTITUDE: NOT TO EXCEED 8,000 FT. ABOVE SEA LEVEL.
 - THE ENVIRONMENT FOR THE ELECTRONICS CABINET MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.
 - DO NOT RESTRICT THE AIR INTAKE AT THE LOWER FRONT OR AIR EXHAUST AT THE TOP OF THE ELECTRONICS CABINETS.

- MAGNETIC INTERFERENCE SPECIFICATIONS
- DIGITAL FLAT PANEL MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 1 GAUSS TO GUARANTEE SPECIFIED IMAGING PERFORMANCE.
 - X-RAY TUBES MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE SPECIFIED PERFORMANCE.
 - SYSTEM ELECTRONICS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE DATA INTEGRITY.
 - OPERATORS CONSOLE EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT LAYOUT
MODALITY TYPE: PRECISION 500D
THIS PLAN IS SUBMITTED TO SURGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CORROBORATE THE ACTUAL CONSTRUCTION PURPOSES, HOWEVER, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
TYPICAL FINAL DRAWINGS
2-60F

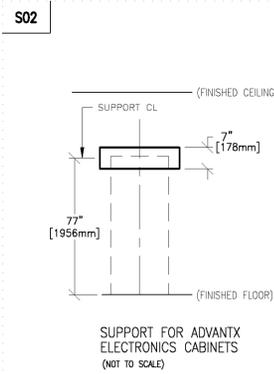
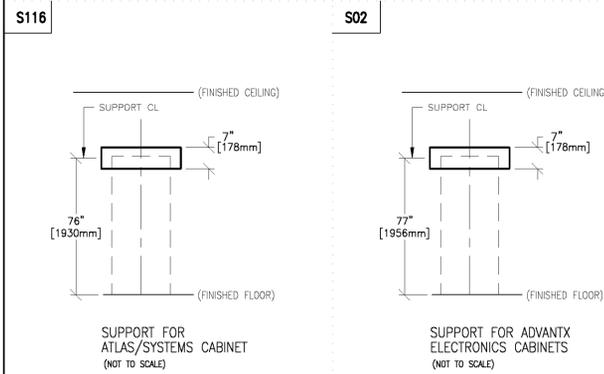
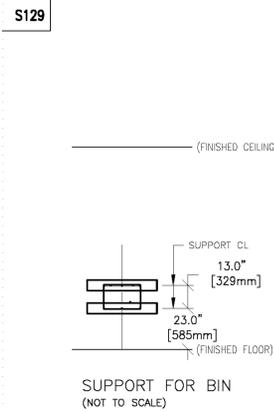
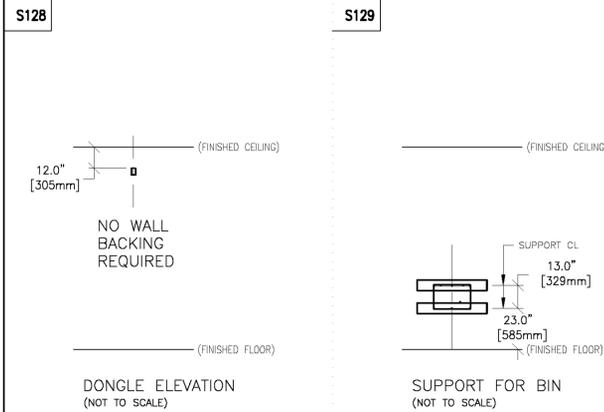
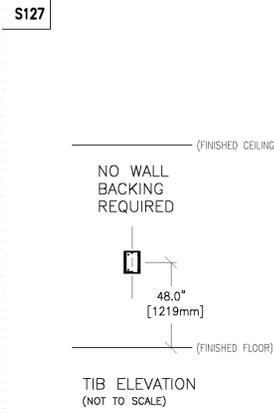
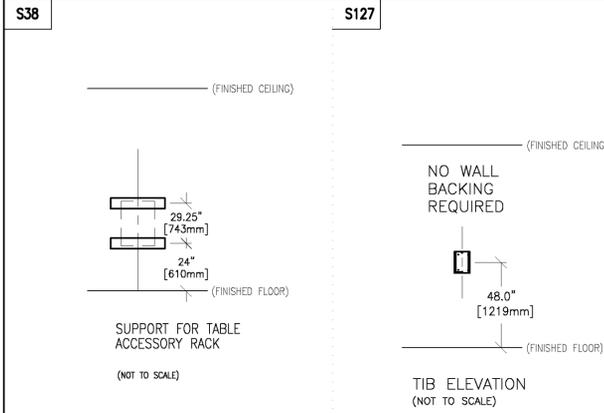
PROJECT	REVISION
2-60F	00
DATE:	23.Apr.13
DRAWN BY:	JDR
CHECKED BY:	REK

REVISION HISTORY:

SHEET
A1

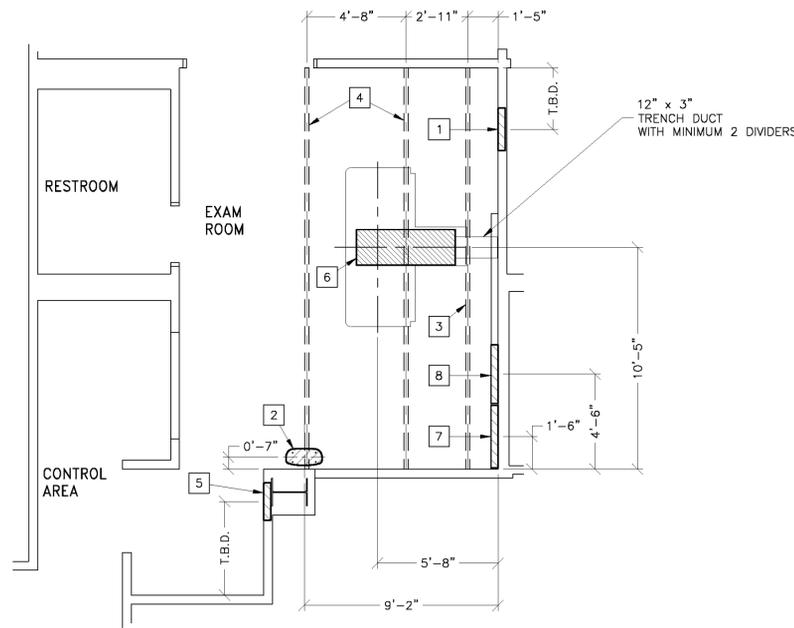
PIM R1, R1
RQ - 134963

TYPICAL WALL SUPPORT ELEVATIONS



SCALE: 1/4" = 1'-0"

STRUCTURAL LAYOUT



RECOMMENDED CEILING HEIGHT = 9'-6"

STRUCTURAL SUPPORT METHODS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S38, FOR TABLE ACCESSORY RACK.
2	FLOOR CONTACT AREA FOR CHEST UNIT.
3	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CABLE DRAPE RAIL. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 50 LBS. PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
4	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CEILING SUPPORTED EQUIPMENT. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 350 LBS. (597 LBS. IN SEISMIC REGIONS) PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
5	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S129
6	FLOOR CONTACT AREA FOR TABLE. (PROVIDED BY GEHC) PRECISION 500D Seismic Zone ANCHORING HARDWARE (WHERE APPLICABLE) (POSITIONER CAB) ANCHORS = Hilti KB3 - 3/8 x 3.75 in. (2 ea.) (POSITIONER CAB) SCREWS = No. 12 TEK Screws (4 ea.) (BUCKY, SG-80/120) ANCHORS = Hilti KB3 - 1/2 x 5.5 in. (4 ea.) (R/F TABLE) ANCHORS = Hilti KB3 - 5/8 x 6 in. (8 ea.) (SYSTEM CABINET) ANCHORS = Hilti KB3 - 3/8 x 3.75 in. (2 ea.) (SYSTEM CABINET) SCREWS = No. 12 TEK Screws (4 ea.) (WALL MOUNT FP MONITOR) SCREWS = No. 12 TEK Screws (4 ea.) (TABLE ACCY. RACK) SCREWS = No. 12 TEK Screws (4 ea.) ALL ANCHORS TO INCLUDE 1 FLATWASHER. ALL BOLTS TO INCLUDE 2 FLATWASHERS, 1 LOCKWASHER AND 1 NUT. ALL BRACKETS ARE SHIPPED WITH GE EQUIPMENT.
7	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S116, FOR ATLAS CABINET.
8	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S02, FOR ELECTRONICS CABINETS.

STRUCTURAL NOTES

- ALL STEEL WORK AND PARTS NECESSARY TO SUPPORT CEILING MOUNTED TUBE HANGER OR OTHER EQUIPMENT ARE TO BE SUPPLIED BY THE CUSTOMER OR HIS CONTRACTORS. THE UNISTRUT OR EQUIVALENT STRUCTURE SHOULD RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL SQUARE AND IN THE SAME HORIZONTAL PLANE FLUSH WITH FINISHED CEILING. THE SYSTEM IS TO BE CROSS BRACED VERTICALLY, HORIZONTALLY AND DIAGONALLY TO ALLOW NO MOVEMENT AND A MAXIMUM OF 1/16" DEFLECTION.
(10) 12.7mm (1/2") DIA. x 38.1mm (1 1/2") LONG BOLTS WITH UNISTRUT 12.7mm (1/2") NUTS WITH SPRINGS ARE TO BE PROVIDED BY CUSTOMER OR HIS CONTRACTORS FOR EACH STATIONARY AND AUXILIARY SUPPORT RAIL. CLOSURE STRIPS SHALL BE PROVIDED FOR AREAS OF UNISTRUT EXPOSED AND WITHOUT MOUNTING UNITS.
- METHODS OF SUPPORT FOR THE STEELWORK THAT WILL PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE CONSTRUCTION SHOULD BE FAVORED. DO NOT USE CONCRETE OR MASONRY ANCHORS IN DIRECT TENSION.
- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 6.35mm (1/4") BELOW THE FINISHED CEILING.
- CONTROL WALLS WITH TUBE HANGER PASSAGE ABOVE SHALL BE CONSTRUCTED TO 2130mm (7'-0") HIGH.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3.17mm (1/8") IN 3050mm (10'-0")
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.
- IT IS THE CUSTOMER'S RESPONSIBILITY TO PERFORM ANY FLOOR OR WALL PENETRATIONS THAT MAY BE REQUIRED. THE CUSTOMER IS ALSO RESPONSIBLE FOR ENSURING THAT NO SUBSURFACE UTILITIES (E.G., ELECTRICAL OR ANY OTHER FORM OF WIRING, CONDUITS, PIPING, DUCT WORK OR STRUCTURAL SUPPORTS (I.E. POST TENSION CABLES OR REBAR)) WILL INTERFERE OR COME IN CONTACT WITH SUBSURFACE PENETRATION OPERATIONS (E.G. DRILLING AND INSTALLATION OF ANCHORS/SCREWS) PERFORMED DURING THE INSTALLATION PROCESS. TO ENSURE WORKER SAFETY, GE INSTALLERS WILL PERFORM SURFACE PENETRATION OPERATIONS ONLY AFTER THE CUSTOMER'S VALIDATION AND COMPLETION OF THE "GE SURFACE PENETRATION PERMIT"

SHEET TITLE: STRUCTURAL LAYOUT
MODALITY TYPE: PRECISION 500D

PROJECT TITLE:
TYPICAL FINAL DRAWINGS 2-60F

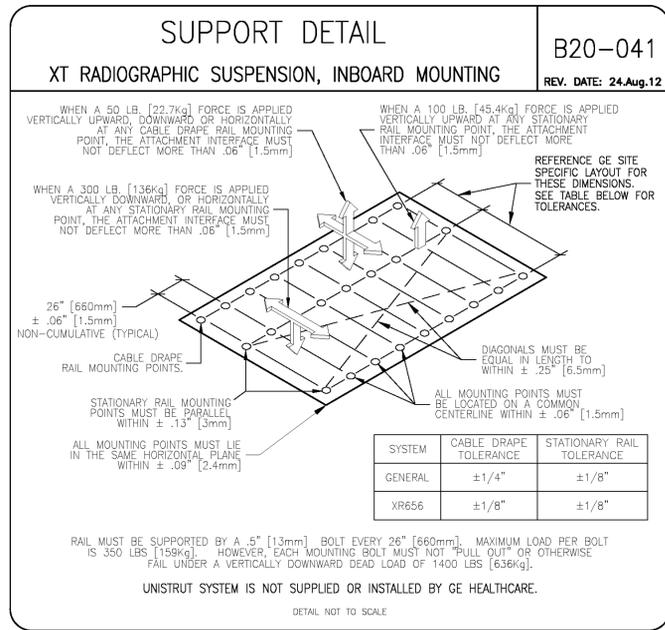
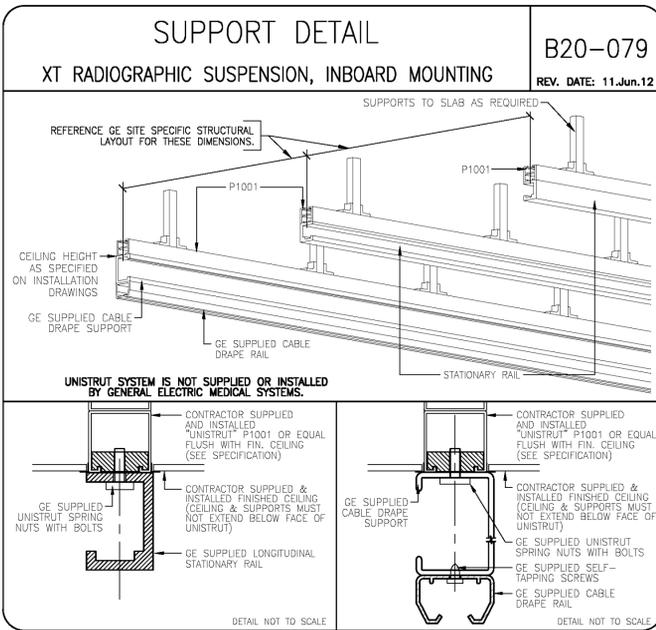
PROJECT	REVISION
2-60F	00

DATE: 23.Apr.13
DRAWN BY: JDR
CHECKED BY: REK

REVISION HISTORY:

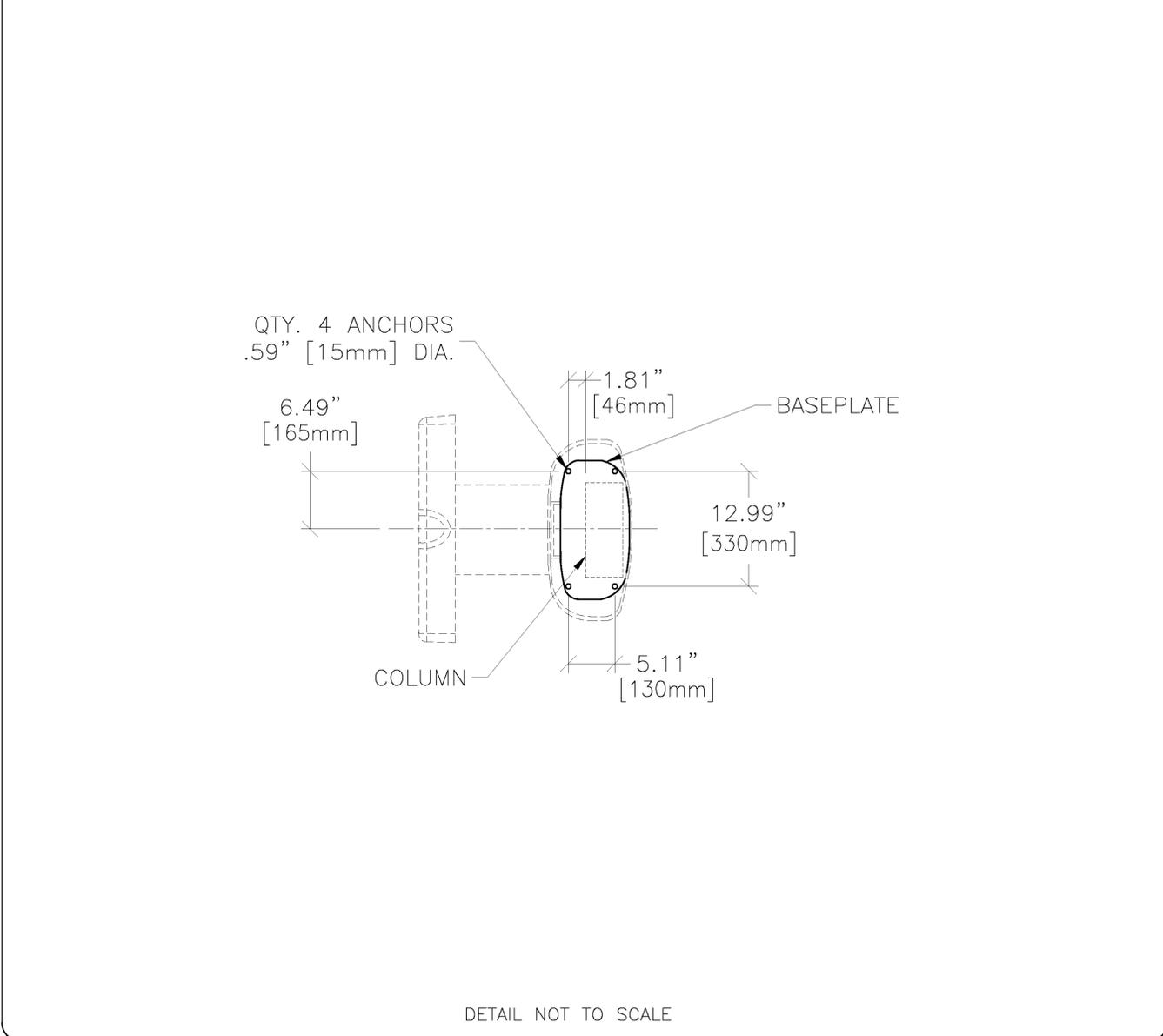
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Milwaukee, Wisconsin



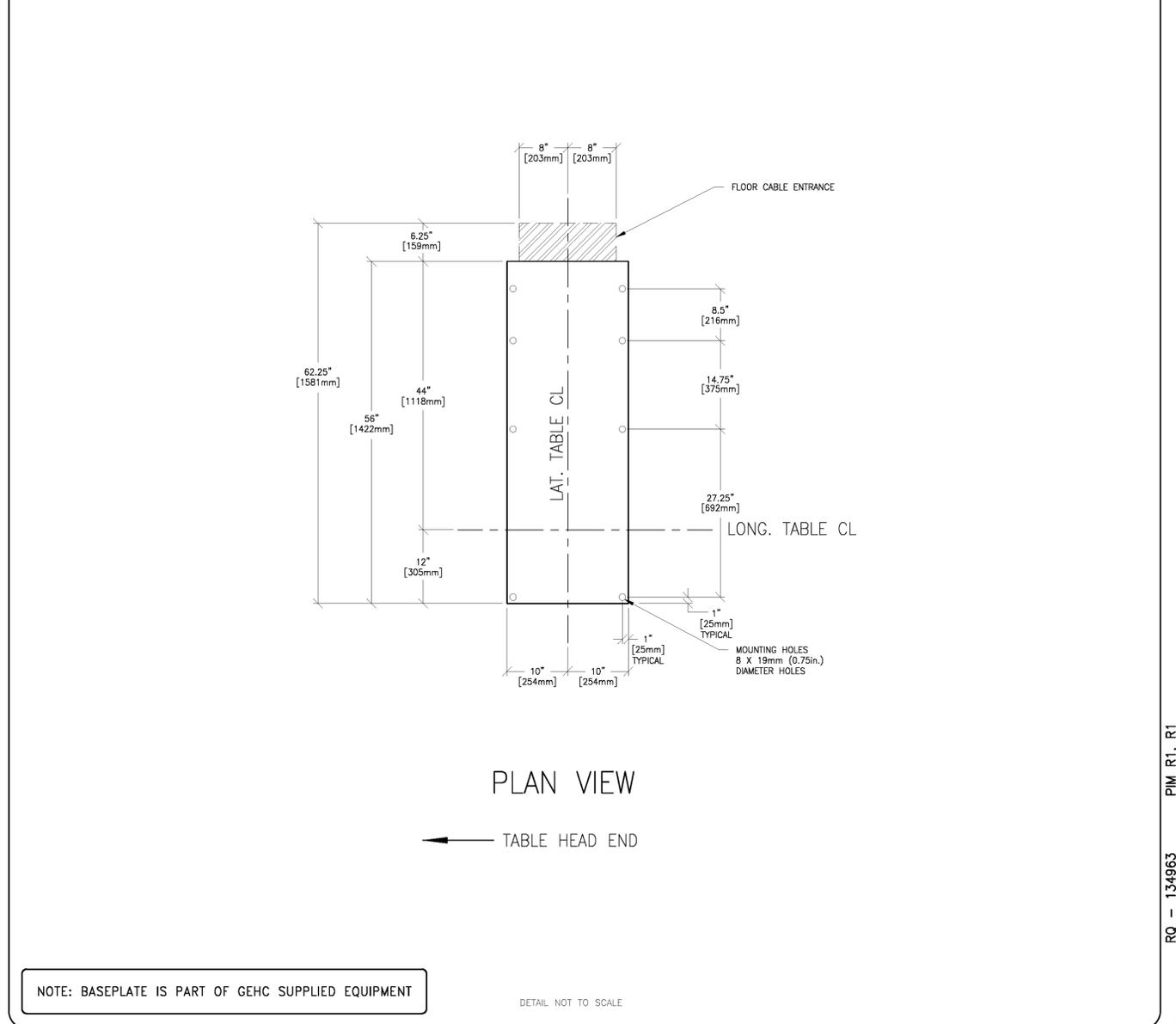
FLOOR MOUNTING DETAIL: SG-80 and SG-120 CHEST UNIT

B3503C
REV. DATE: 12/08/04



FLOOR MOUNTING DETAIL: PRECISION RF TABLE

B0114B
REV. DATE: 04.APR.13



PROJECT	REVISION
2-60F	00
DATE:	23.Apr.13
DRAWN BY:	JDR
CHECKED BY:	REK

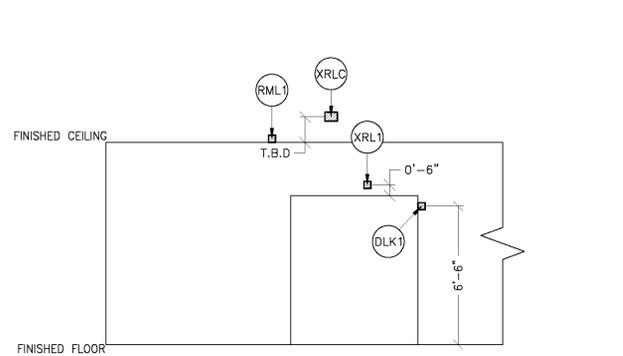
REVISION HISTORY:

SCALE: 1/4" = 1'-0"

ELECTRICAL PLAN

RECOMMENDED CEILING HEIGHT = 9'-6"

JUNCTION POINT DESCRIPTIONS



ELECTRICAL OUTLET LEGEND
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

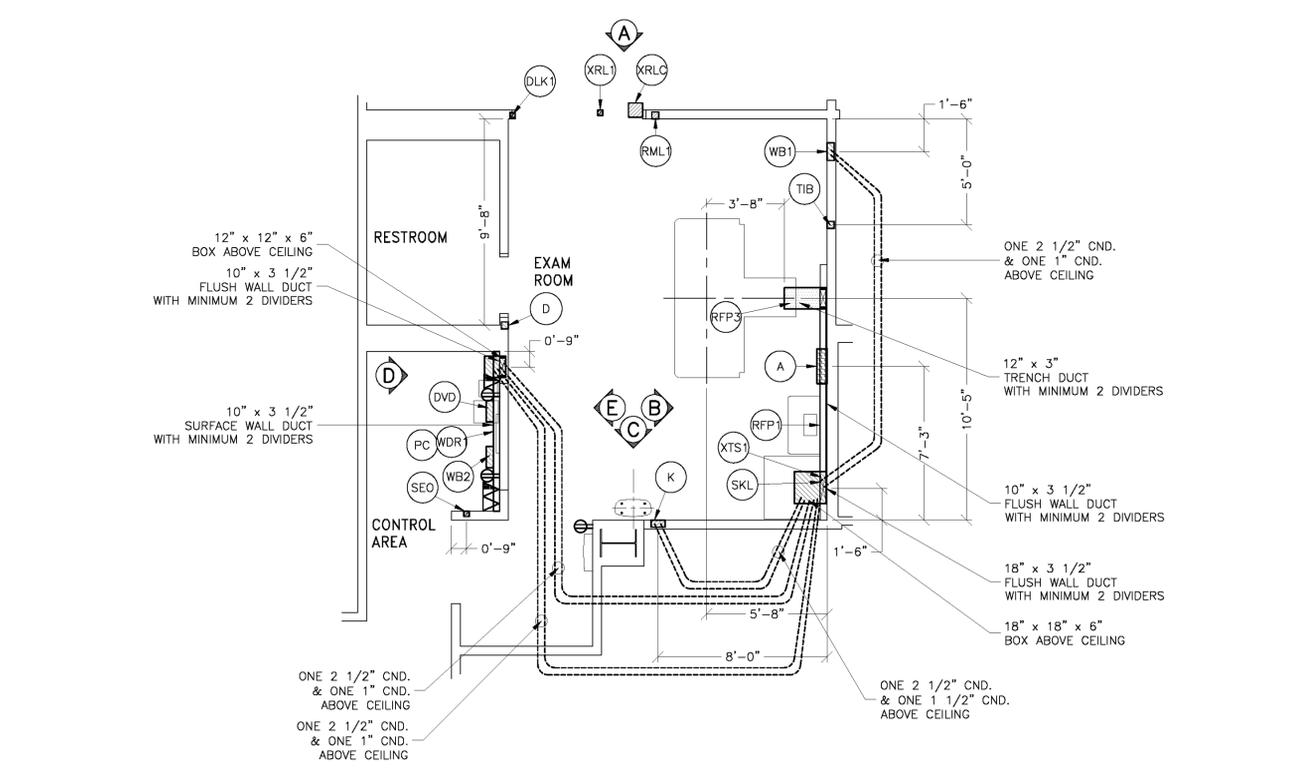
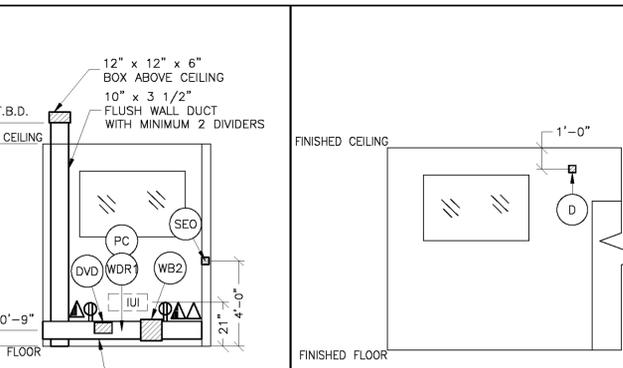
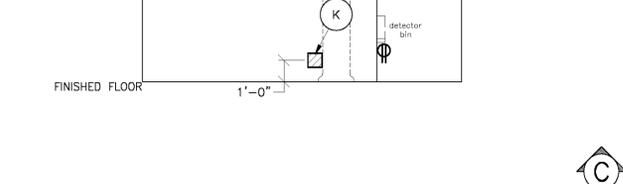
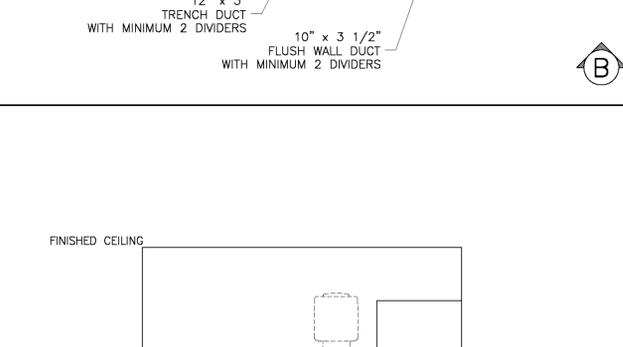
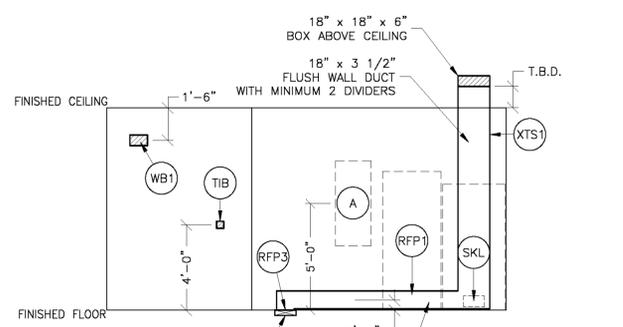
- ⊕ DUPLEX HOSPITAL GRADE, DEDICATED WALL OUTLET 120-V, SINGLE PHASE POWER
- ⚡ DEDICATED TELEPHONE LINE(S) (SEE ELECTRICAL DETAIL ELEC-1 OR ELEC-67)
- ⚡ NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

JUNCTION POINT NOTES

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMER'S ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS.
- CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
- CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
- ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
 - DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
 - DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
 - DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
 - PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMER'S CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
- 10 FOOT PITGALS AT ALL JUNCTION POINTS.
- ALL WIRING MUST BE THHN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

POINT	THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR		
	DESCRIPTION	QTY.	DETAIL NO., SHI. E3
A	MAIN DISCONNECT AVAILABLE FROM GEMSG, CALL: 800-558-5108 OR LOCAL GE INSTALLATION PROJECT MGR.	1	ELEC-15
D	DONGLE	1	ELEC-8
DLK1	DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)	1	ELEC-111
DVD	DVD RECORDER	1	ELEC-28
K	CHEST UNIT	1	ELEC-79
PC	DR IMAGING CONSOLE	1	ELEC-5
RFP1	POSITIONER CABINET	1	ELEC-5
RFP3	X-RAY TABLE	1	ELEC-14
RML1	ROOM LIGHTS	1	ELEC-17
SEO	EMERGENCY OFF	1	ELEC-16
SKL	SYSTEMS CABINET	1	ELEC-5
TIB	TETHER INTERFACE BOX	1	ELEC-8
WB1	IN-ROOM MONITOR WALLBOX	1	ELEC-110
WB2	OPERATORS CONSOLE	1	ELEC-7
WDR1	DR IMAGING CABINET	1	ELEC-5
XRL1	WARNING LIGHT	1	ELEC-17
XRLC	WARNING LIGHT CONTROLLER AVAILABLE FROM GEHC, CALL: 800-558-5108 OR LOCAL GE INSTALLATION PROJECT MGR.	1	ELEC-17
XTS1	X-RAY TUBE HANGER	1	ELEC-6

PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.



ADDITIONAL CONDUIT RUNS FOR PRECISION 5000 (BY CONTRACTOR)

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

FROM	TO	CONDUIT SIZE
XRLC	TO RML1	ONE 1/2" CND.
XRLC	TO XRL1	ONE 1/2" CND.
XRLC	TO SKL	ONE 1/2" CND.
XRLC	TO 120-V 1Φ POWER	CND. AS REQ'D
DLK1	TO SKL	ONE 1/2" CND.
A	TO SKL	ONE CND. AS REQ'D
A	TO FEEDER	ONE CND. AS REQ'D
A	TO SEO	ONE 1/2" CND.
SEO	TO SKL	ONE 1/2" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

CONDUITS BY CONTRACTOR REQUIRED FOR WIRELESS DR IMAGING SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

FROM	TO	CONDUIT SIZE
WDR1	TO TIB	ONE 1 1/2" CND.
WDR1/PC	TO D	ONE 1 1/2" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

JEDI 80kw SYSTEMS CABINET REV. DATE: 04/24/07

• CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
• RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
• NEUTRAL MUST BE TERMINATED INSIDE THE MAIN DISCONNECT PANEL AND NOT AT ANY GE CABINET.
• THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER WITH A 1/0 MINIMUM. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
• MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.
• FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE								
	345-418 380-440	373-456 460	398-484 460	414-506 460	432-528 460	FEEDER	GROUND	FEEDER	GROUND
50	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)
100	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)	2 (1/0)
150	1/0 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)
200	2/0 (2/0)	2/0 (2/0)	1/0 (1/0)	1/0 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)
250	3/0 (3/0)	3/0 (3/0)	2/0 (2/0)	2/0 (2/0)	1/0 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)	1 (1/0)
300	4/0 (4/0)	4/0 (4/0)	3/0 (3/0)	3/0 (3/0)	2/0 (2/0)	2 (2/0)	2 (2/0)	2 (2/0)	2 (2/0)
350	350M (350M)	350M (350M)	4/0 (4/0)	4/0 (4/0)	3/0 (3/0)	3 (3/0)	3 (3/0)	3 (3/0)	3 (3/0)
400	350M (350M)	350M (350M)	350M (350M)	4/0 (4/0)	4/0 (4/0)	4/0 (4/0)	4/0 (4/0)	4/0 (4/0)	4/0 (4/0)
450	402M (402M)	350M (350M)	300M (300M)	350M (350M)	4/0 (4/0)				

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

CONTRACTOR SUPPLIED AND INSTALLED WIRING

ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
XRLC > 1 PHASE	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
A > SEO	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
SKL > XRLC	2-NO. 14 BLACK, 1-NO. 14 RED, 1-NO. 14 WHITE
XRLC > RML1	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
480-V > A	3-BLACK, 1-WHITE, 1-GREEN - REFER TO FEEDER TABLE
XRL1 > XRLC	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
A > SKL	REFER TO FEEDER TABLE

SHEET TITLE: ELECTRICAL LAYOUT

MODALITY TYPE: PRECISION 5000

PROJECT TITLE: TYPICAL FINAL DRAWINGS 2-60F

PROJECT TITLE:

PROJECT	REVISION
2-60F	00

DATE: 23.Apr.13
DRAWN BY: JDR
CHECKED BY: REK

REVISION HISTORY:

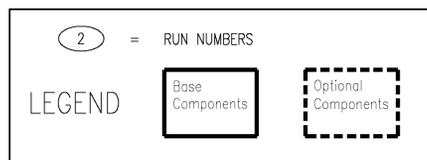
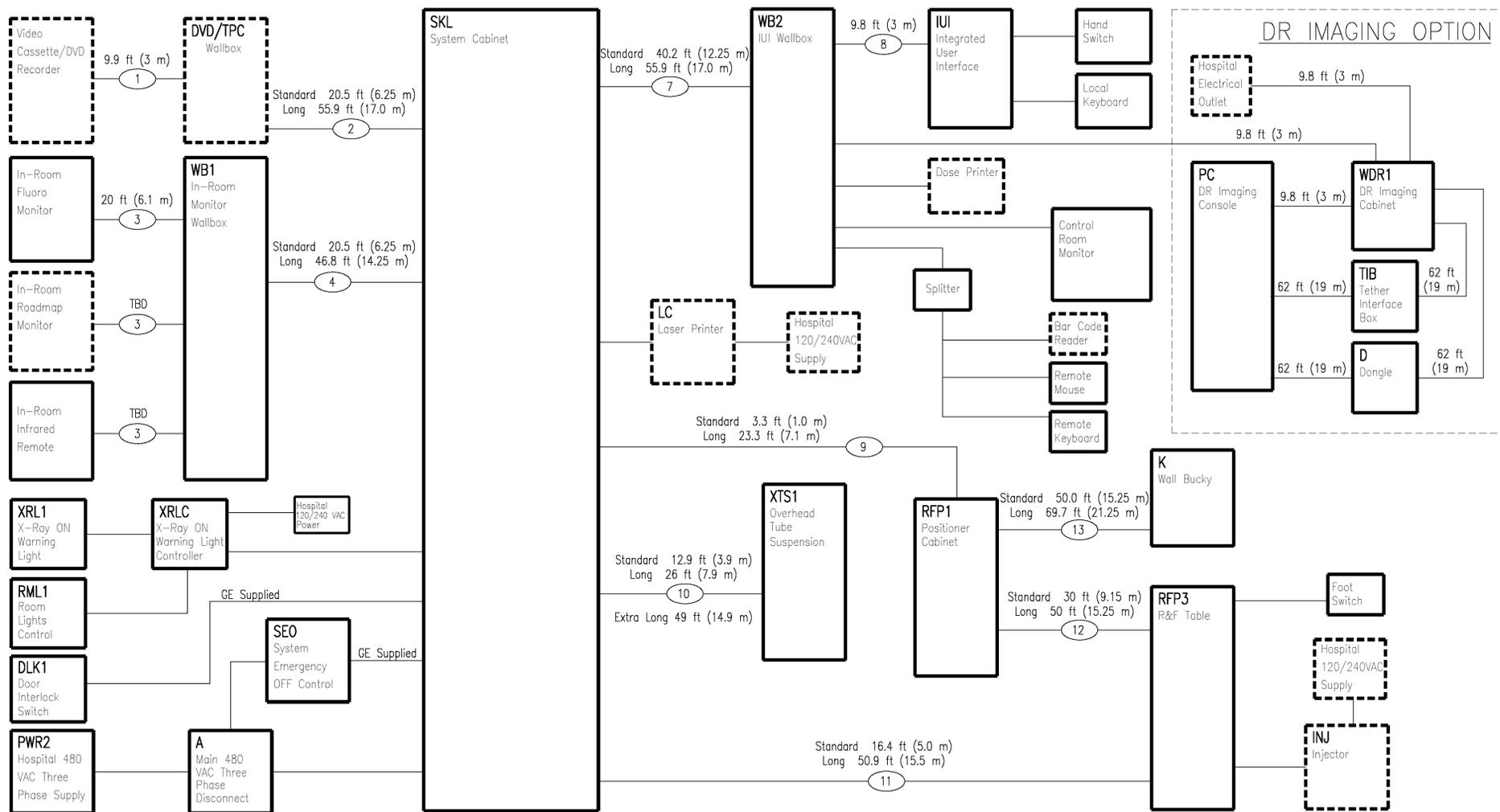
SHEET E1

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

RFQ - 134963 PIM R1, R1

INTERCONNECT DIAGRAM

04.APR.2013



POWER SPECIFICATIONS

JEDI 80kw SYSTEMS CABINET REV. DATE: 12/07/10

VOLTAGE PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS. RANGE OF LINE VOLTAGES: NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, WITHOUT NEUTRAL, 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE DISTRIBUTION
 MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)		MINIMUM OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
380	342-418	190	7	95-A
400	360-440	181	6.6	90-A
415	373-456	172	6.3	85-A
440	396-484	164	6	82-A
460	414-506	157	5.8	78-A
480	432-528	151	5.5	75-A

ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE

NOTE LOW LINE CONDITIONS MAY INHIBIT SOME HIGH kVp TECHNIQUES. THE GENERATOR AUTOMATICALLY ESTABLISHES THESE INHIBITS BASED ON ACTUAL LINE CONDITIONS AND SYSTEM REGULATION.

PHASE-BALANCE. PHASE-TO-PHASE VOLTAGES MUST BE WITHIN +2 PERCENT OF THE LOWEST PHASE-TO-PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ARE 2.5 PERCENT OF RATED LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND FREQUENCY OF 10 TIMES PER HOUR.

POWER DEMAND CONTINUOUS POWER DEMAND = 4.6 KVA. (MAX DEMAND = 125 KVA)

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	PRECISION 80 KW
kVa * POWER FACTOR AT	125
mA	630
kVp	80

* DEMAND INCLUDES POWER FOR ENTIRE SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRIBUTION TRANSFORMER FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 150 KVA.

ELECTRICAL NOTES

- NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRIBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.
- NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.
- NOTE 7: ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.
- NOTE 12: GEHC CONDUCTS POWER AUDITS TO VERIFY QUALITY OF POWER BEING DELIVERED TO THE SYSTEM. THE CUSTOMER'S ELECTRICAL CONTRACTOR IS REQUIRED TO BE AVAILABLE TO SUPPORT THIS ACTIVITY.

GE Healthcare
 Healthcare Project Implementation - Design Center
 Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL SPECIFICATIONS
 MODALITY TYPE: PRECISION 500D
 THIS PLAN IS SUBMITTED TO ASSIST IN THE LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS. ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS IN PREPARING THIS PLAN HAVE BEEN MADE TO CONFORM WITH THE ACTUAL CONSTRUCTION PURPOSES. HOWEVER, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
 TYPICAL FINAL DRAWINGS
 2-60F

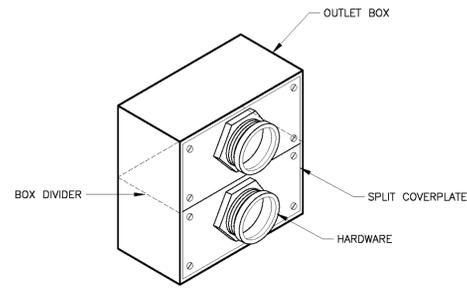
PROJECT	REVISION
2-60F	00
DATE:	23.Apr.13
DRAWN BY:	JDR
CHECKED BY:	REK

REVISION HISTORY:

SHEET
 E2

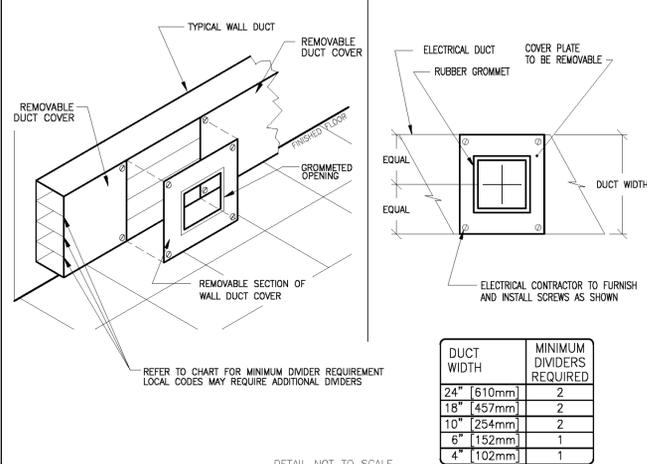
PIM R1, R1
 RQ - 134963

ELECTRICAL DETAIL
BOX WITH DIVIDER AND SPLIT COVERPLATE (TYPICAL) **ELEC-79**
REV. DATE: 04/06/04



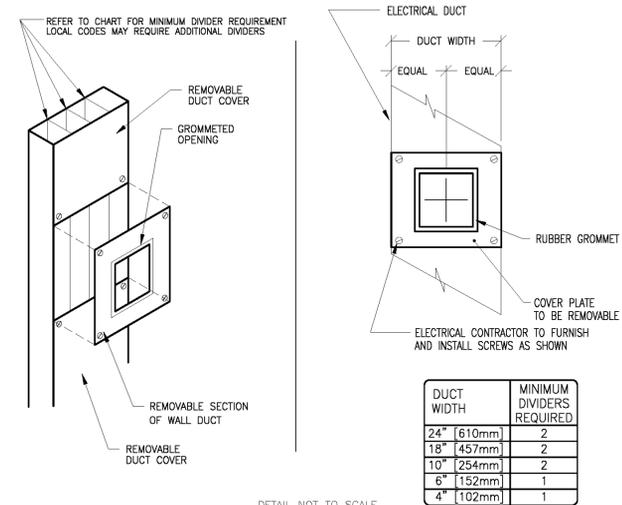
DETAIL NOT TO SCALE

ELECTRICAL DETAIL
HORIZONTAL WALL DUCT (TYPICAL) **ELEC-5**
REV. DATE: 03/19/04



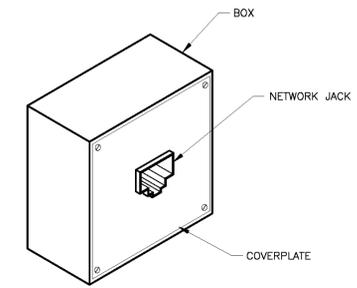
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ELECTRICAL DETAIL
VERTICAL WALL DUCT (TYPICAL) **ELEC-6**
REV. DATE: 03/19/04



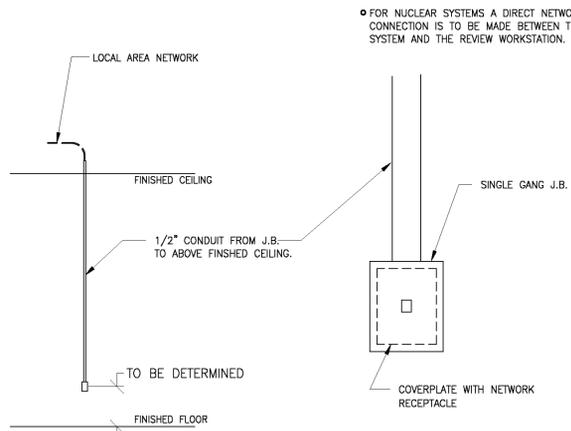
DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE AND NETWORK JACK **ELEC-83**
REV. DATE: 10/06/98



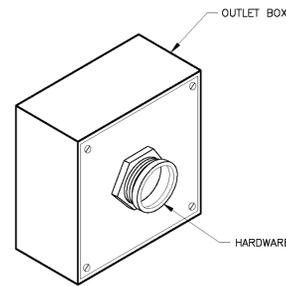
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ELECTRICAL DETAIL
NETWORK CONNECTION (TYPICAL) **ELEC-84**
REV. DATE: 03/06/04



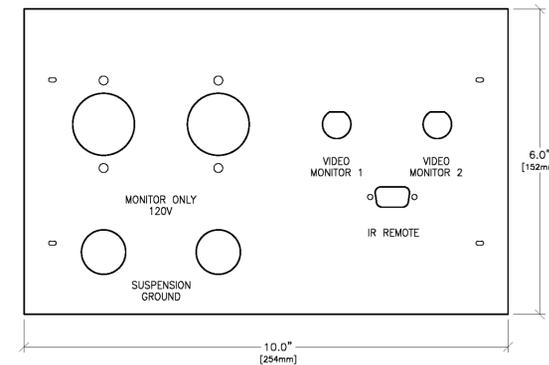
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ELECTRICAL DETAIL
BOX WITH COVERPLATE (TYPICAL) **ELEC-8**
REV. DATE: 09/30/94



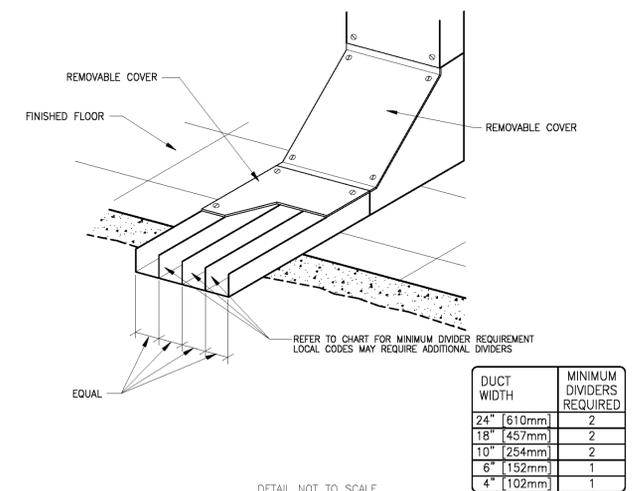
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ELECTRICAL DETAIL
MONITOR WALL PLATE **ELEC-110**
REV. DATE: 01/18/07



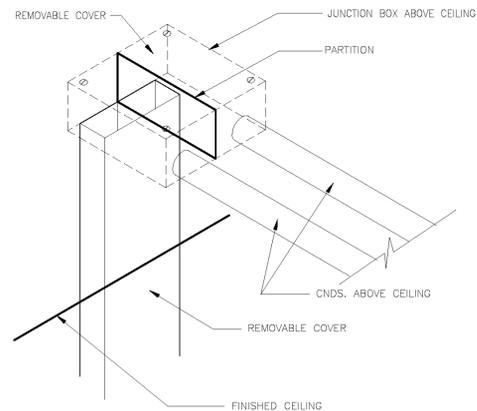
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ELECTRICAL DETAIL
SURFACE FLOOR DUCT (TYPICAL) **ELEC-14**
REV. DATE: 4/02/04



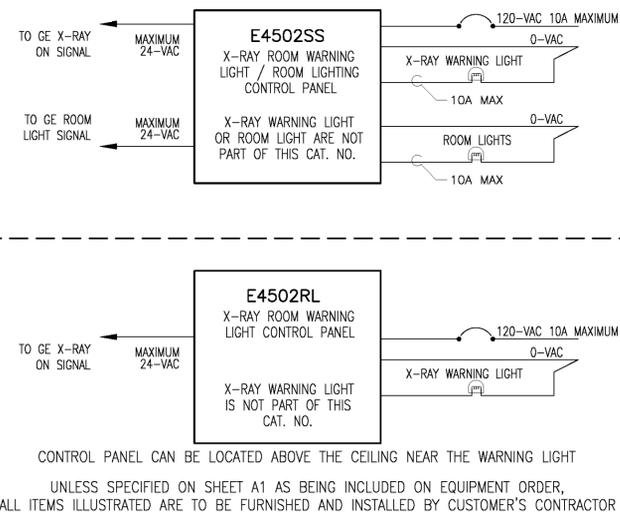
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ELECTRICAL DETAIL
J.B. / WALL DUCT DETAIL (TYPICAL) **ELEC-2**
REV. DATE: 09/30/94

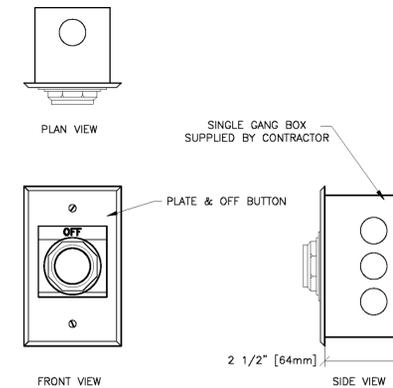


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
X-RAY WARNING LIGHT & ROOM LIGHT CONTROL PANEL **ELEC-17**
REV. DATE: 10.APR.13

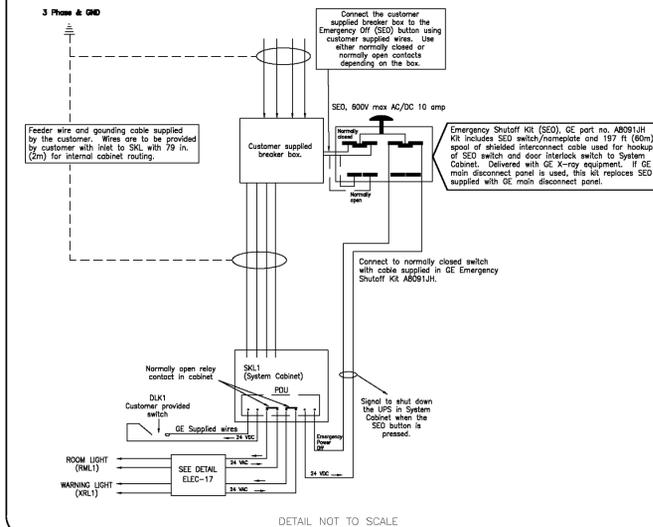


ELECTRICAL DETAIL
EMERGENCY OFF BUTTON **ELEC-16**
REV. DATE: 05/14/09



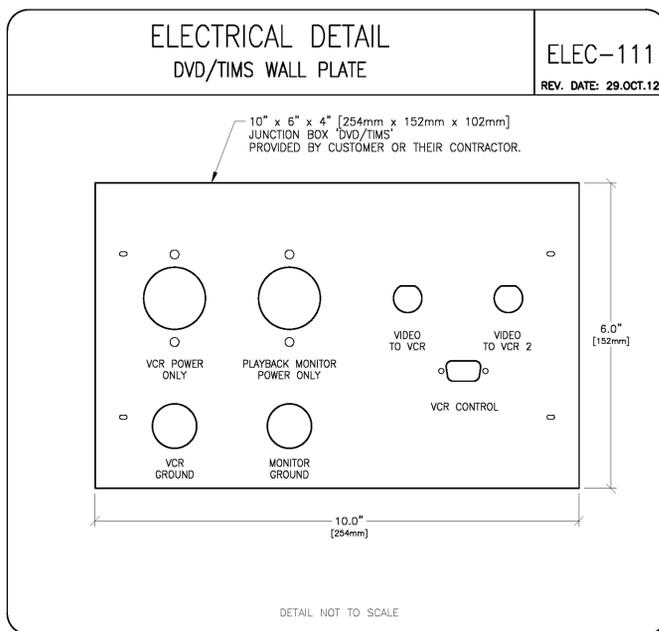
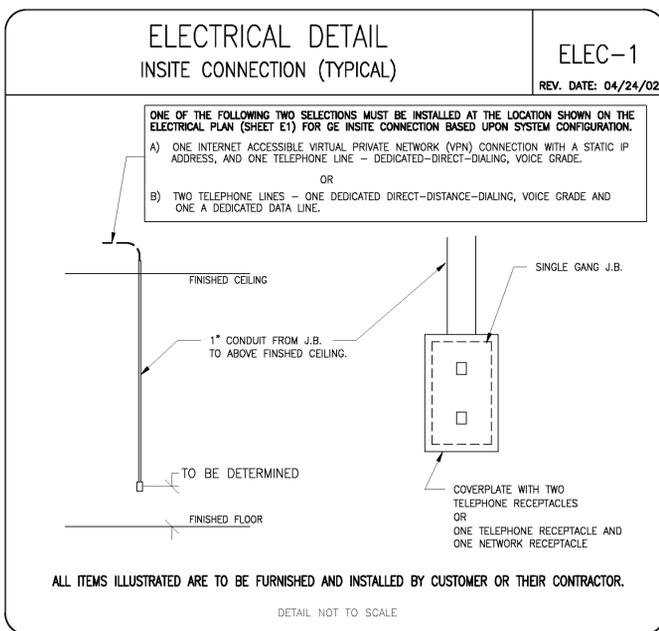
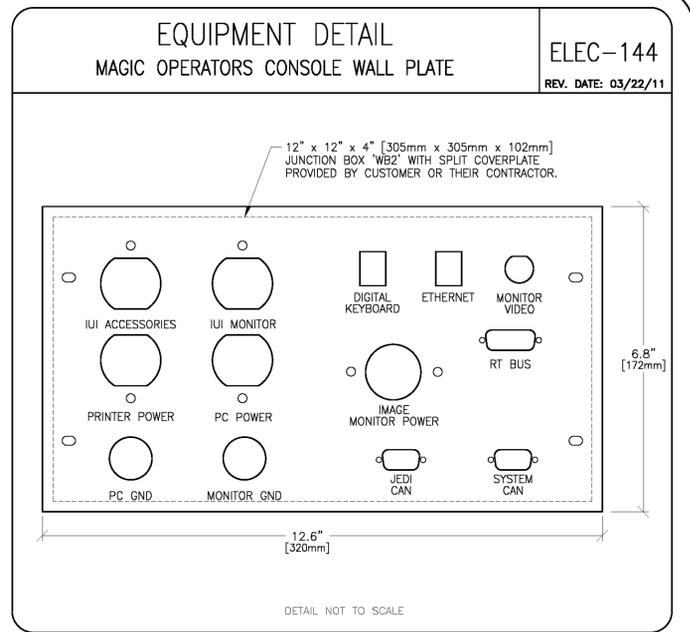
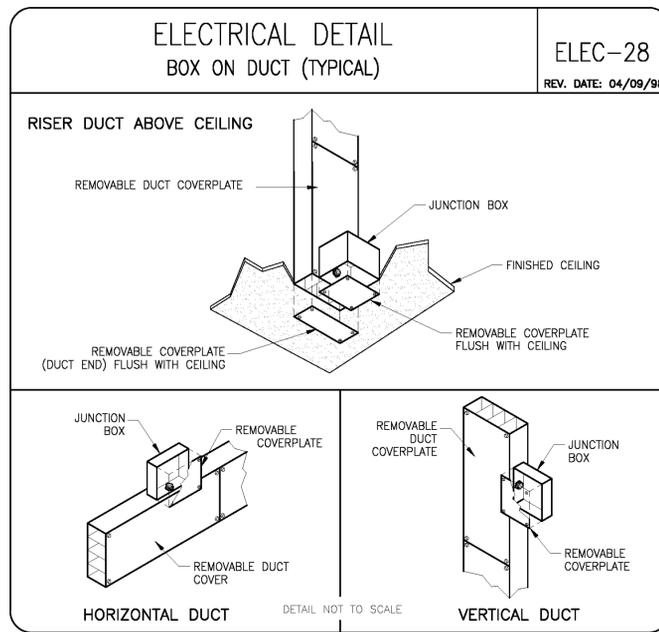
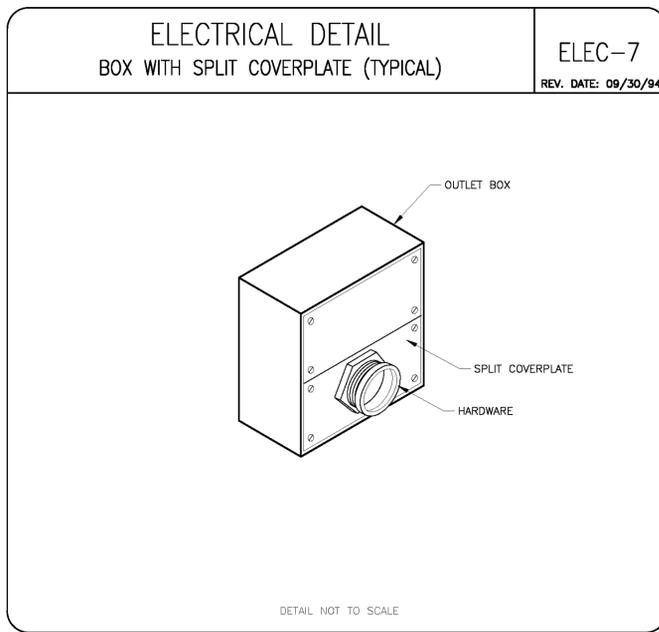
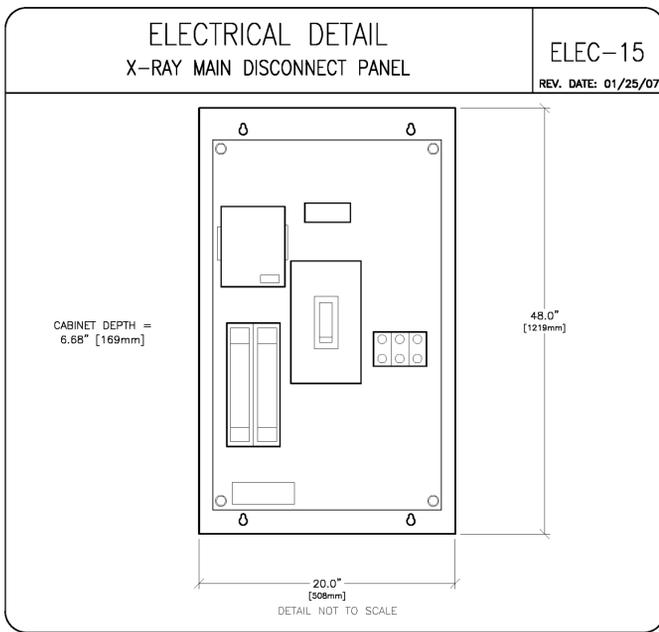
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ELECTRICAL DETAIL
ROOM POWER SUPPLY **ELEC-116**
REV. DATE: 10/27/08



DETAIL NOT TO SCALE

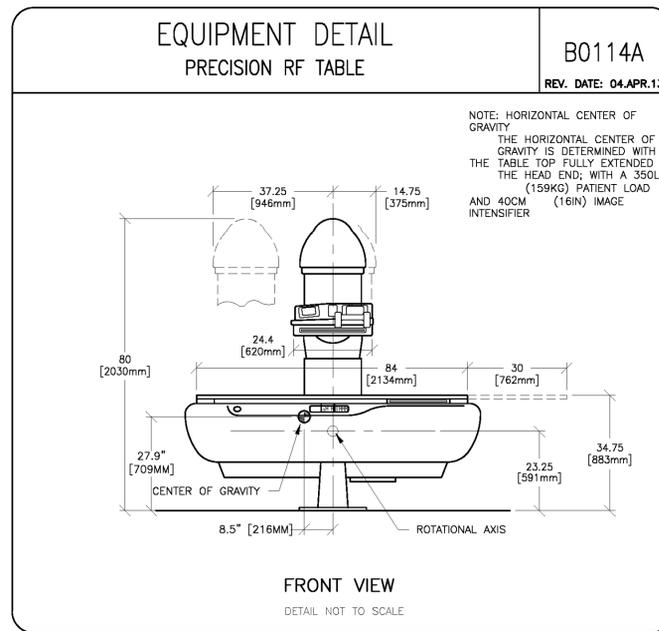
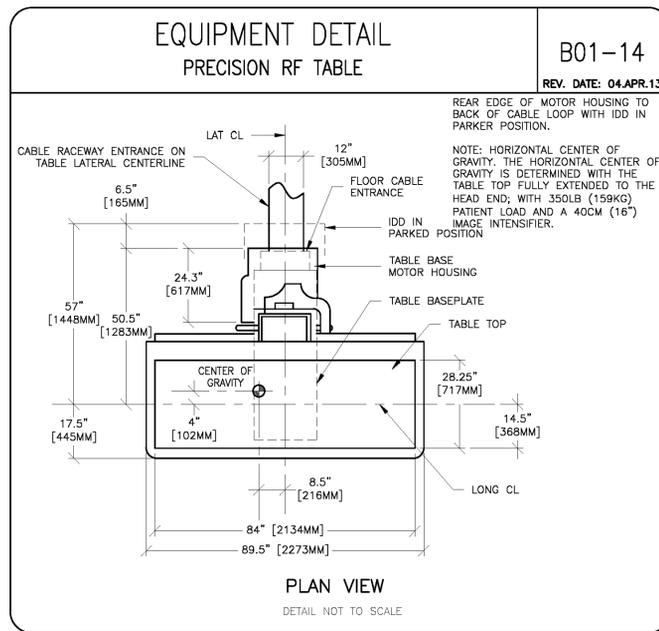
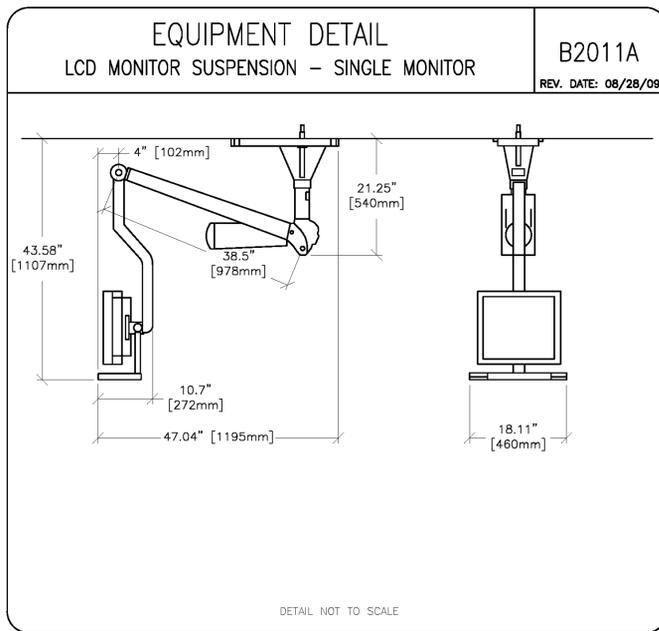
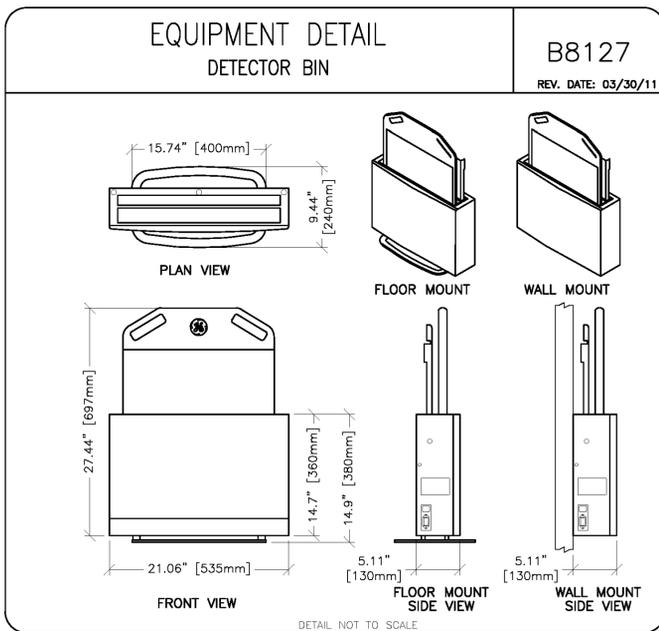
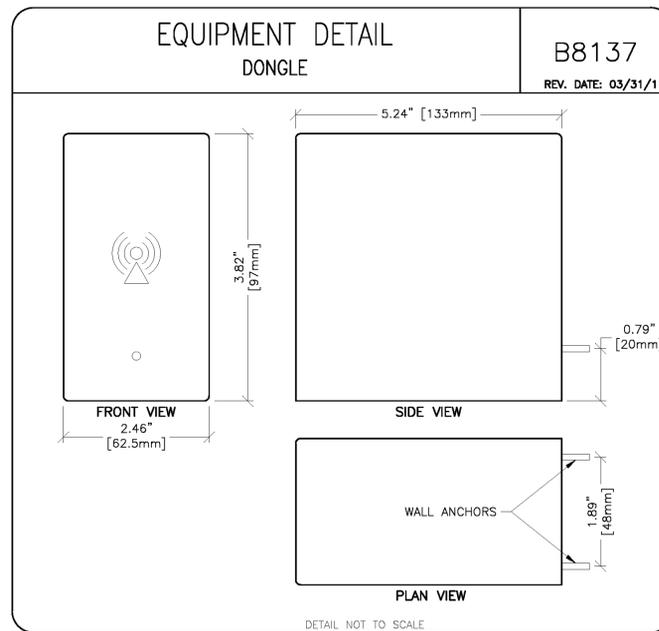
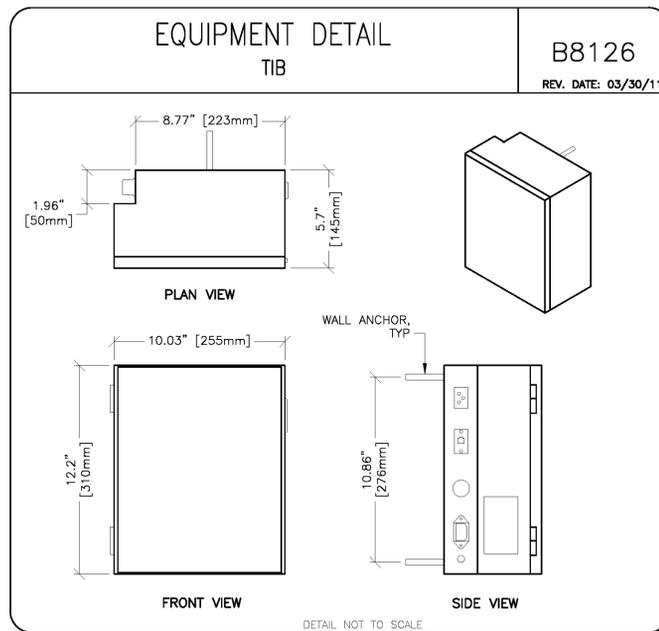
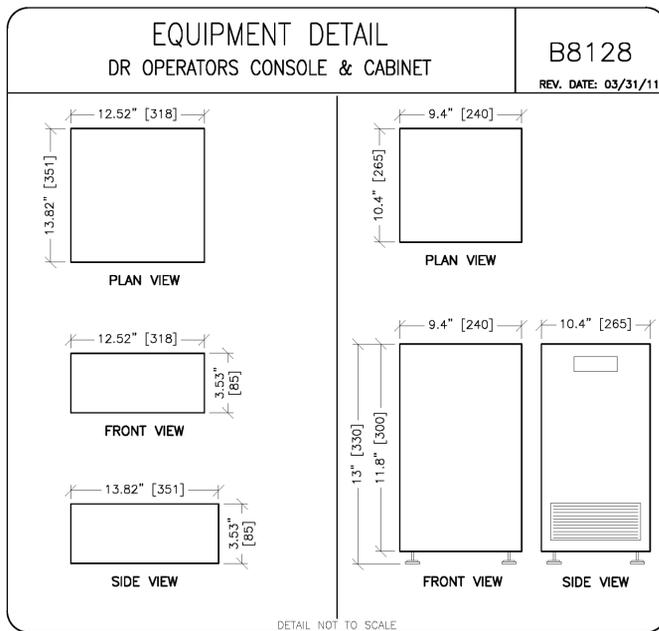
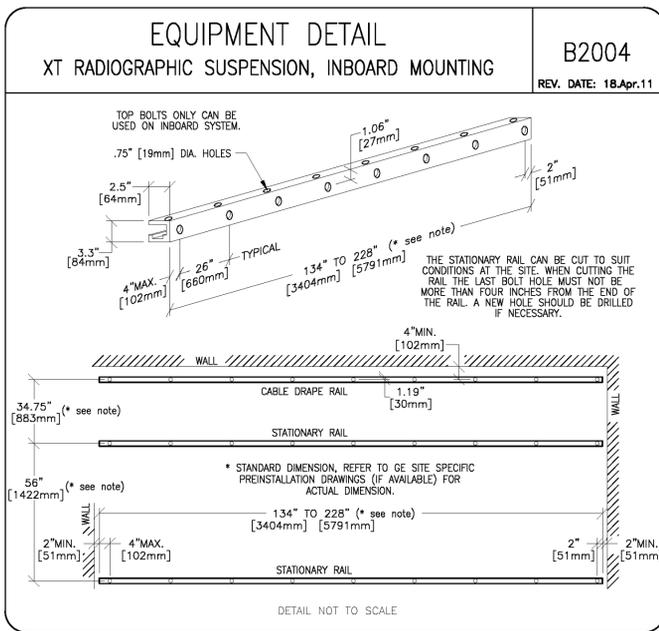
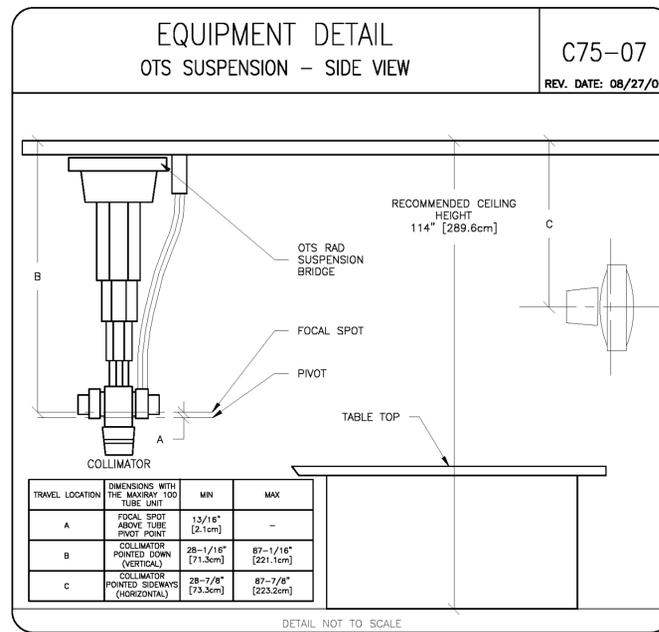
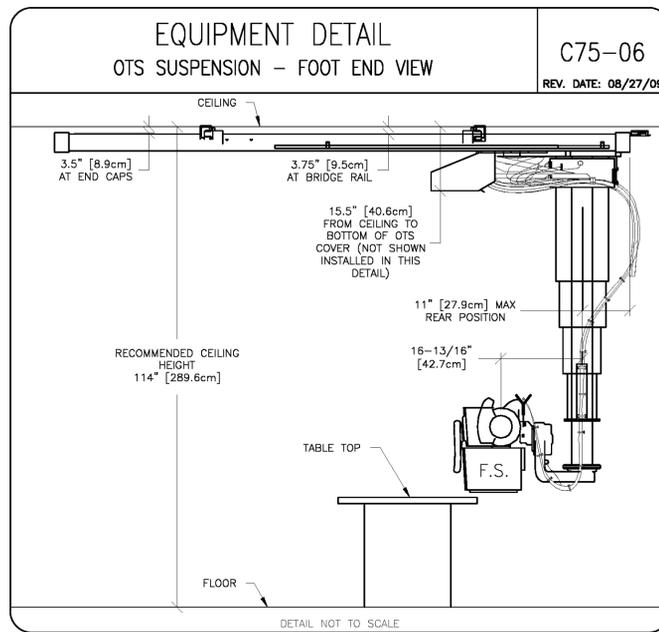
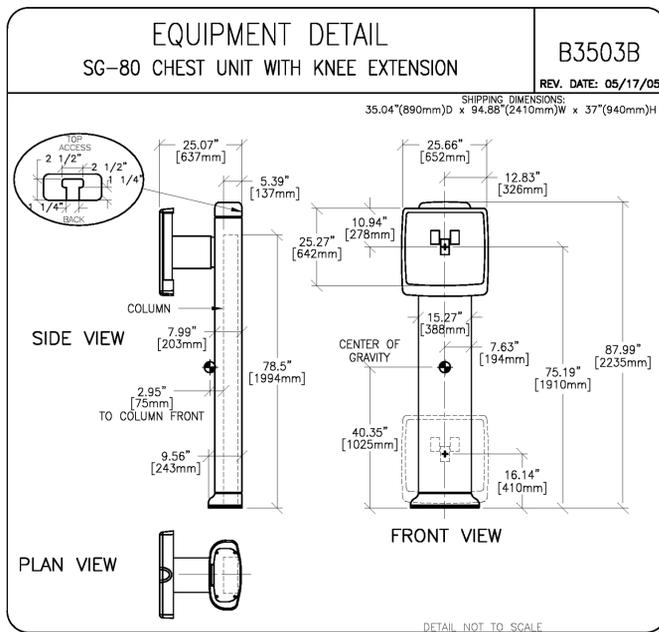
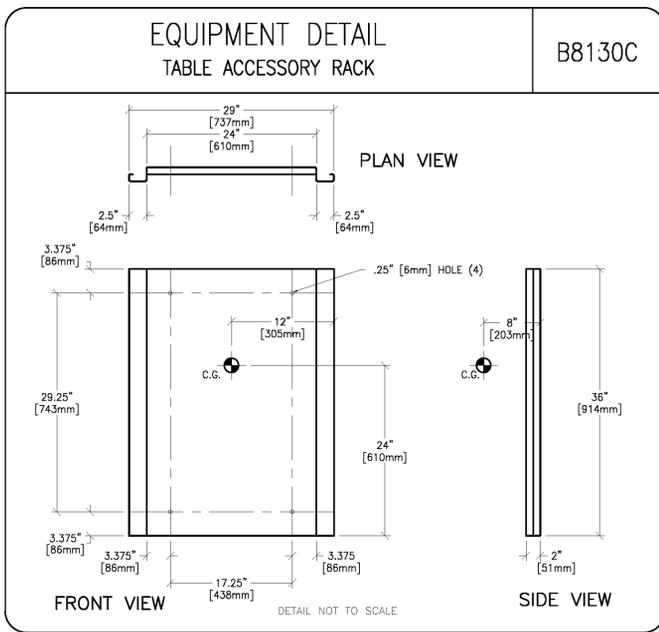
PIM R1, R1
RQ - 134963

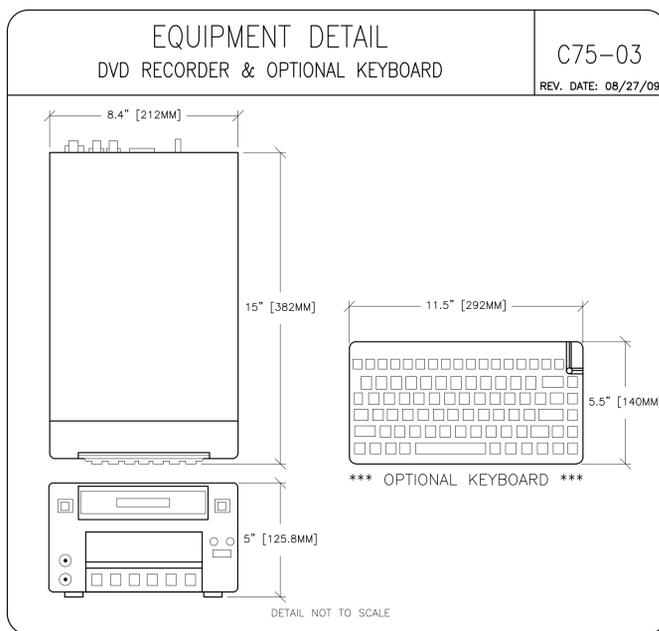
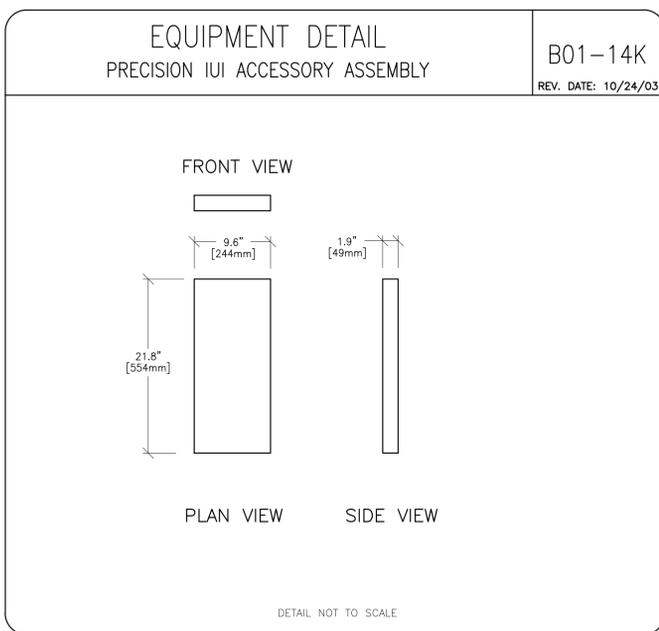
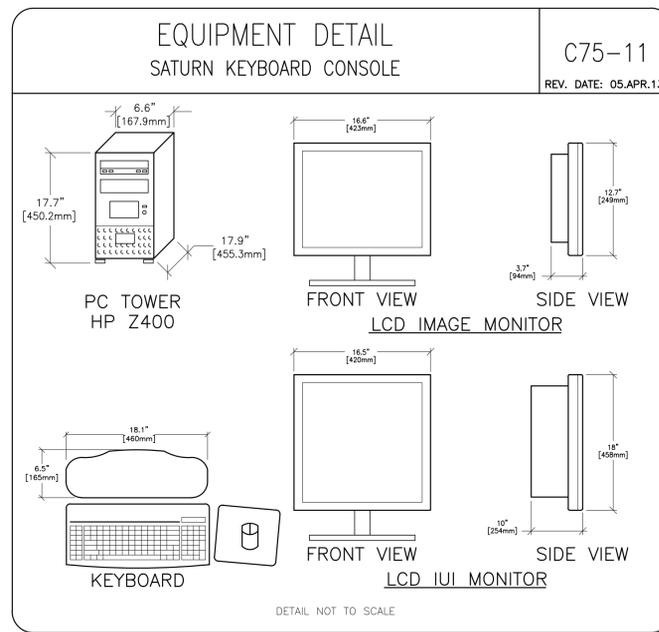
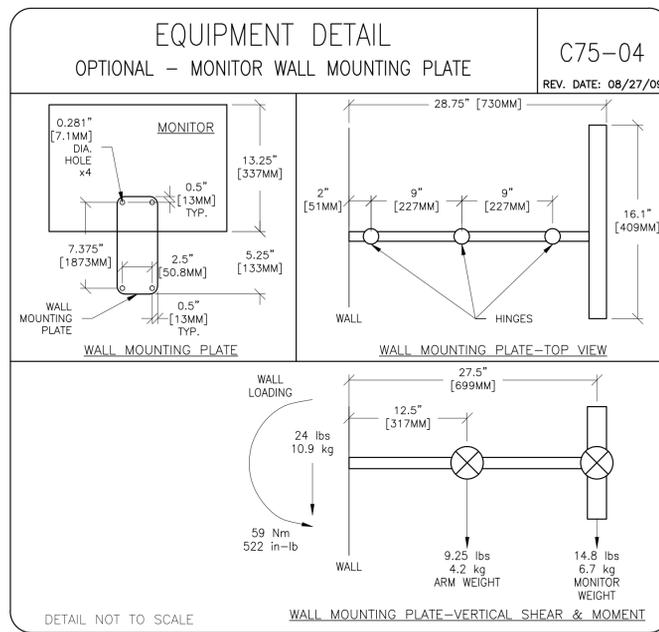
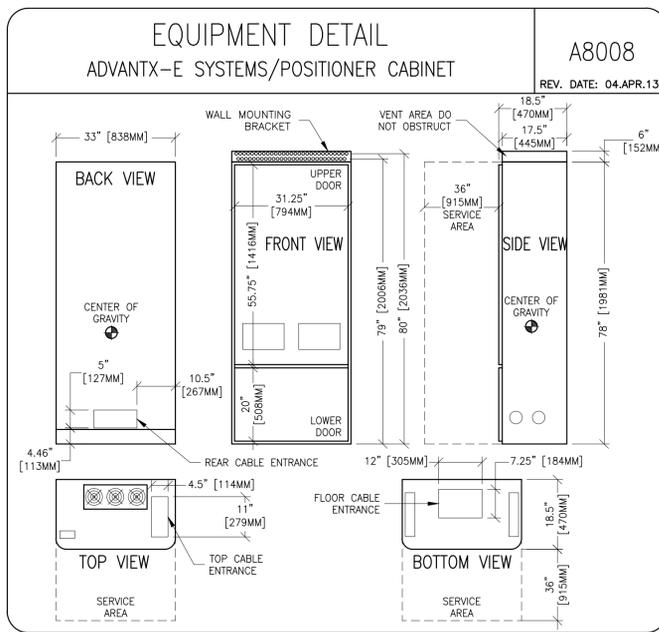
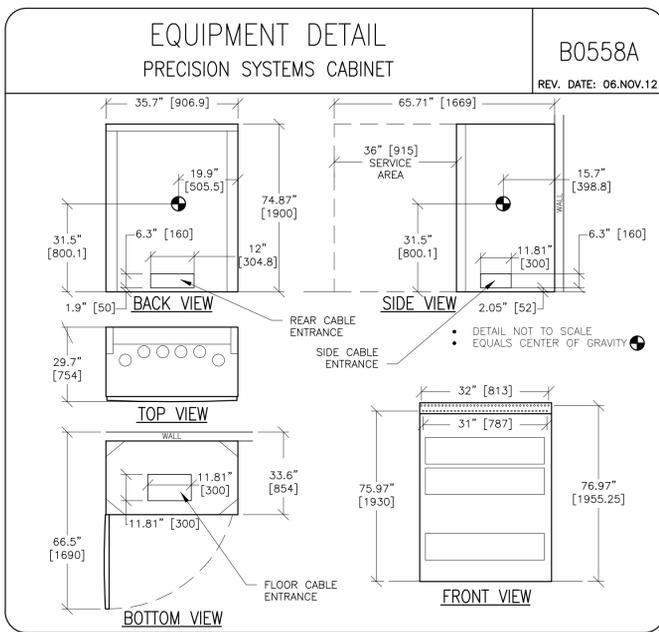


PROJECT	REVISION
2-60F	00
DATE:	23.Apr.13
DRAWN BY:	JDR
CHECKED BY:	REK

REVISION HISTORY:

PIM R1, R1
RQ - 134963





PROJECT	REVISION
2-60F	00
DATE:	23.Apr.13
DRAWN BY:	JDR
CHECKED BY:	REK

REVISION HISTORY:

PIM R1, R1
RQ - 134963

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

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ELECTRICAL LAYOUT (Contractor supplied wiring, interconnect methods, junction point locations and descriptions)	E1
ELECTRICAL SPECIFICATIONS (Maximum wiring run lengths, interconnect diagram, system power specifications)	E2
ELECTRICAL DETAILS	E3
EQUIPMENT DETAILS	D1

These equipment IS drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the IS and operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Proteus XRA
Wireless DR Imaging Option
Pre Installation Manual

2260326-100, 5397208-8EN
(Wireless DR Imaging PIM)

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the preIS manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at:

www.gehealthcare.com/siteplanning

GE Healthcare



RAD Site Planning



imagination at work

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following; 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 19					
Before using this document ensure you have the latest Rev from MyWorkshop on DOC0422782					
GEHC Global Order #:		Customer:			
GEHC PMI:		FE / Installer:			
The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.					
Inspection Date:					Comments
GEHC Minimum Requirements					If "N", enter comments or action plan
		Storage is ready?	PHI is ready?	FE ready?	
1	MR Magnet Delivery Requirements: Ensure oxygen venting system is available for magnet connection as defined by GEHC Pre-Installation Manual (PIM) requirements, exhaust fan system is installed and operational, 480V power, and chilled water supply is available 24x7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery. Surface mount vibromat installed where required. Magnet room final flooring is in place.				
2	MR RF Screen Room Requirements: RF Screen Room is tested with copy of Test Report, emailed to 66dnn@GE.com, that is compliant with GEHC specifications. Duct Bolt and magnet anchors (if applicable) installed using 2 part anchor. For HD systems, blower box mount bolts installed by RF vendor using 2 part anchors.				
3	State Regulatory Requirements: Facility registration number provided for states of <u>IL, KY, HI, RI, SC, TX, VA</u> . X-ray shielding plan and state acknowledgment letter provided to installer for <u>AR, DC, NC, SC, CO</u> .				
4	Site Drawing Requirements: Final version of equipment network and antenna, installation drawings (including red lined versions) verified to match actual room and has been provided to installer.				
5	Surface Penetration Requirements: Customer/Contractor scheduled to provide required drilling or cutting into floors, ceilings, and walls; OR surface penetration permit available and posted in the room when GEHC will perform the work.				
6	Pre-Delivery Route Requirements: The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to safely meet the minimum requirements for equipment access, and all communications/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).				
7	Finished Room Requirements: Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 1). Shielding, doors, and windows are to be installed. No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PIM requirements for storage.				
8	Electrical Requirements: Lockable (LOTO) Main Disconnect Panel (MDP) is installed per GE guidelines and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor duct and load-side wires can be installed at time of system installation. Validate outlet location and requirements meet specifications for device/equipment.				
9	HVAC Requirements: The HVAC/Chilled Water systems designed to maintain the environment per spec/PIM is at running state and appears to provide the desired environmental conditions including location of vents, temperature and humidity for system operation.				
10	Flooring Requirements: Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Confirm customer anchoring plan aligns with designed floor thickness. Final flooring installed where required for network racks.				
11	Ceiling Requirements: Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ensure Unistrut and rails are not used as mounting surfaces. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling ties installed per PIM discretion.				
12	Staging Requirements: Space has been identified to support the active installation process only. This area meets PIM/project book requirements. Storage space has been identified, if needed. This secured space would be used to store equipment indefinitely. If offsite, transportation plan has been developed at customer expense. This space must meet PIM requirements.				
13	Network Connectivity: Hardware for network connectivity/network drgl is in place prior to delivery with specified network firewall configuration where required. Site Surveys for wireless mobile XR units have been completed.				
14	Medical Gases Requirements: Systems (hard piped or portable) in place to allow testing and calibration of equipment (anesthesia) including ventilation.				

GE Healthcare
IS Services Design Center
Milwaukee, WI
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SHEET TITLE: SITE READINESS
MODALITY TYPE: PROTEUS XR/a
THIS PLAN IS SUBMITTED TO SURVEY LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO DETAILS AND ACTUAL EQUIPMENT SPECIFICATIONS. IT IS UNLAWFUL TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF GE HEALTHCARE. GE HEALTHCARE ACCEPTS NO RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
1-124f
TYPICAL LAYOUT

PROJECT	REVISION
1-124f	10
DATE:	06.Feb.13
DRAWN BY:	REK
CHECKED BY:	JDR

REVISION HISTORY:

SHEET
C1

PIM R16, R1
RQ - 133234

GE EQUIPMENT LISTING

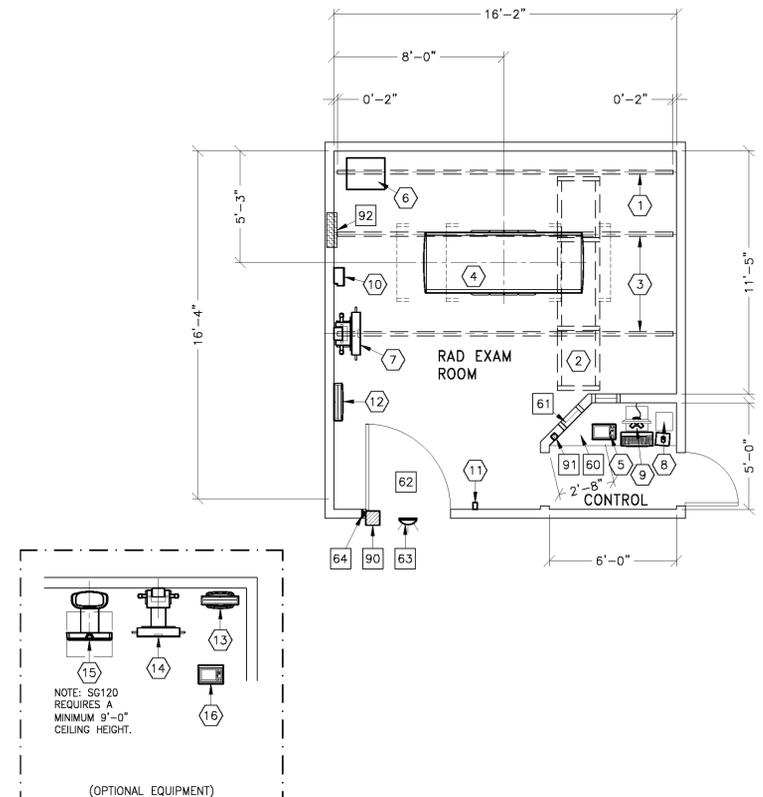
ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	SEISMIC STATUS	EQUIPMENT CROSS REFERENCE CHART	
								STRC PLAN	ELEC PLAN
1	1		CABLE DRAPE RAIL	110 lbs				B20 079	
2	1		XT RADIOGRAPHIC SUSPENSION WITH INBOARD MOUNTING	628 lbs	501 btu	B2004		B20 041	XTS1 C
3	2		LONGITUDINAL STATIONARY RAIL FOR XT SUSPENSION	68 lbs				B20 041	C
4	1		PROTEUS TABLE	440 lbs	1501 btu	B0556A		B05 56B	PT S
5	1		PROTEUS OPERATORS CONSOLE	6 lbs	180 btu	B0556D		B05 56E	DC S
6	1		PROTEUS GENERATOR	330 lbs	2539 btu	B0556E			XG S
7	1		PROTEUS WALL STAND	220 lbs		B0556C			S97 K S
--- OPTIONAL ---									
8	1		DR IMAGING CABINET	37 lbs	477 btu	B8128			WDR1 S
9	1		DR IMAGING CONSOLE	28 lbs	525 btu				PC -
10	1		TETHER INTERFACE BOX	15 lbs	10 btu	B8126			T1B -
11	1		DDNGLE	4 lbs		B8137			D -
12	1		DETECTOR BIN (WALL MOUNT)	33 lbs		B8127			-
13	1		DETECTOR BIN (FLOOR MOUNT)	33 lbs		B8127			-
14	1		PROTEUS WALL STAND WITH KNEE SPACER	264 lbs		B0556H			S97 K S
15	1		SG-120 CHEST UNIT	485 lbs		B3508A			--- K -
16	1		PROTEUS OPERATORS CONSOLE ON PEDESTAL	66 lbs	180 btu				--- DC S

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	SEISMIC STATUS	STRC PLAN	ELEC PLAN
17	1		DR IMAGING CABINET	37 lbs	477 btu	B8128			WDR1 S
18	1		DR IMAGING CONSOLE	28 lbs	525 btu				PC -
19	1		TETHER INTERFACE BOX	15 lbs	10 btu	B8126			T1B -
20	1		DDNGLE	4 lbs		B8137			D -
21	1		DETECTOR BIN (WALL MOUNT)	33 lbs		B8127			-
22	1		DETECTOR BIN (FLOOR MOUNT)	33 lbs		B8127			-
23	1		PROTEUS WALL STAND WITH KNEE SPACER	264 lbs		B0556H			S97 K S
24	1		SG-120 CHEST UNIT	485 lbs		B3508A			--- K -
25	1		PROTEUS OPERATORS CONSOLE ON PEDESTAL	66 lbs	180 btu				--- DC S

SCALE: 1/4" = 1'-0" EQUIPMENT LAYOUT RECOMMENDED CEILING HEIGHT = 9'-6"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.



ANCILLARY ITEMS	
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS	
ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	COUNTER TOP FOR EQUIPMENT - MINIMUM DEPTH 24 IN. AND ADDITIONAL SHELVING MAY BE REQUIRED BELOW COUNTER TOP FOR PC TOWER. PROVIDE GROMMETED OPENINGS AS REQUIRED TO ROUTE CABLES.
61	CONTROL WALL TO CEILING WITH LEAD GLASS VIEWING WINDOW.
62	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 39.4 IN. W x 78.75 IN. H (1000mm x 2000mm) CONTINGENT ON A 72 IN. (1828mm) CORRIDOR WIDTH
63	X-RAY ON WARNING LIGHT - AVAILABLE FROM GE SUPPLY CALL 800-500-9760 GE CAT. NO. WX1ABWV-DF-XIU
64	DOOR LIMIT SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)
90	X-RAY ROOM WARNING LIGHT CONTROL PANEL - REFERENCE JUNCTION POINT 'XRL' ON SHEET 'E1' FOR DETAILED DESCRIPTION -E4502RL FOR WARNING LIGHT CONTROL ONLY.
91	EMERGENCY OFF SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)
92	MAIN DISCONNECT, REFERENCE JUNCTION POINT 'A' ON SHEET 'E1' FOR DETAILED DESCRIPTION. CAT. NO. E4502ST OR WITH AUTO RESTART E4502RP. (20 W x 48 H x 6.68 IN. D)

- THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.
- ### GENERAL SPECIFICATIONS
- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
 - CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMMODATE THE EQUIPMENT AS SHIPPED.
 - RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
 - THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER IS. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
 - ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
 - DIMENSIONS ARE TO FINISHED SURFACES OF ROOM

- ### SITE ENVIRONMENT SPECIFICATIONS
- AMBIENT OPERATING TEMPERATURE: 50 TO 104 DEGREES (F), [10 TO 40 DEGREES (C)].
 - HUMIDITY: REFER TO PREINSTALLATION MANUAL FOR THE EQUIPMENT ILLUSTRATED ON THIS DRAWING.
 - ALTITUDE: NOT TO EXCEED 8,000 FT. ABOVE SEA LEVEL.
 - THE ENVIRONMENT FOR THE ELECTRONICS CABINET MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.
 - DO NOT RESTRICT THE AIR INTAKE AT THE LOWER FRONT OR AIR EXHAUST AT THE TOP OF THE ELECTRONICS CABINETS.

- ### MAGNETIC INTERFERENCE SPECIFICATIONS
- DIGITAL FLAT PANEL MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 1 GAUSS TO GUARANTEE SPECIFIED IMAGING PERFORMANCE.
- X-RAY TUBES MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE SPECIFIED PERFORMANCE.
- SYSTEM ELECTRONICS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE DATA INTEGRITY.
- OPERATORS CONSOLE EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: **EQUIPMENT LAYOUT**
MODALITY TYPE: **PROTEUS XR/a**

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PROJECT TITLE:
1-124f
TYPICAL LAYOUT

PROJECT	REVISION
1-124f	10

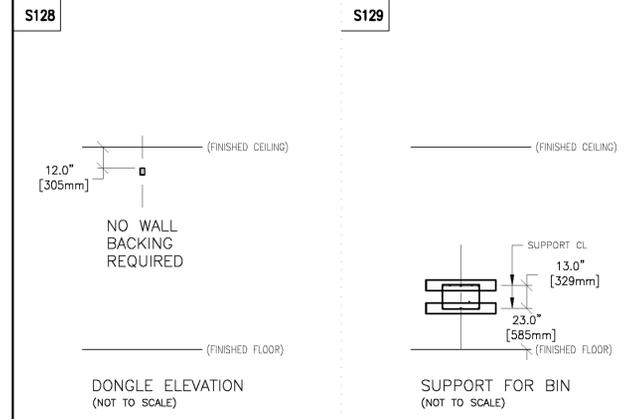
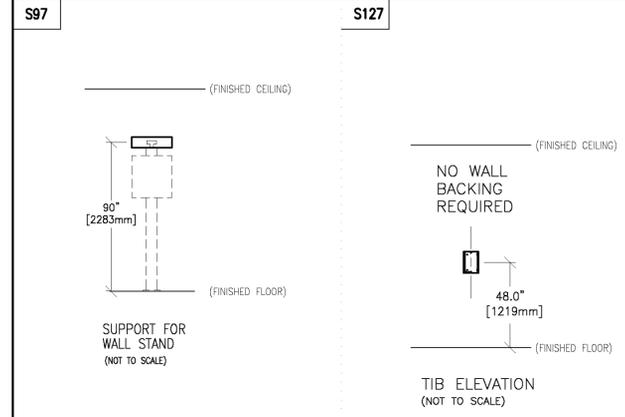
DATE: **06.Feb.13**
DRAWN BY: **REK**
CHECKED BY: **JDR**

REVISION HISTORY:

SHEET
A1

PIM R18, R1
RQ - 133234

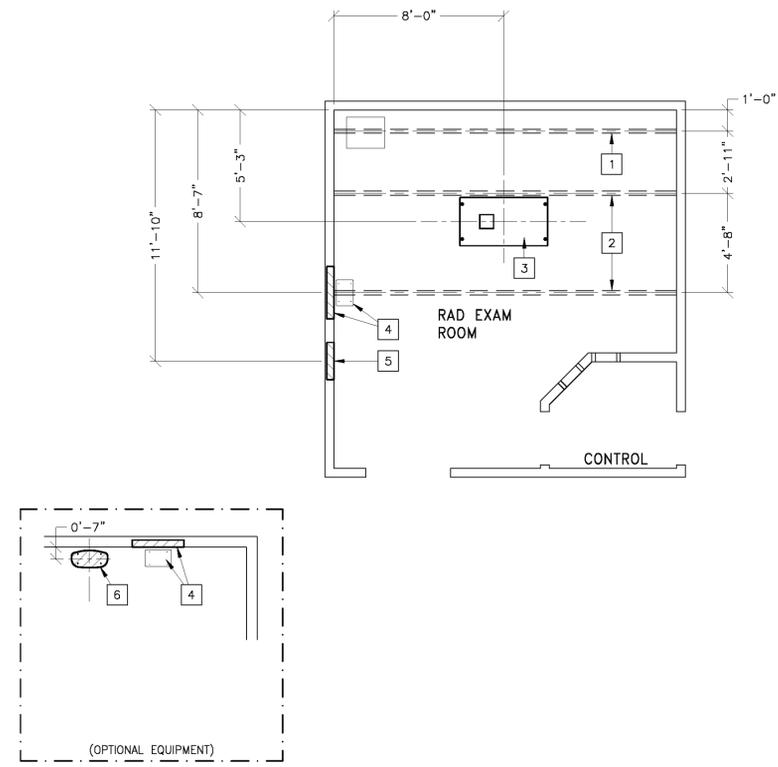
TYPICAL WALL SUPPORT ELEVATIONS



SCALE: 1/4" = 1'-0"

STRUCTURAL LAYOUT

RECOMMENDED CEILING HEIGHT = 9'-6"



STRUCTURAL SUPPORT METHODS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CABLE DRAPE RAIL. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 90 LBS. PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
2	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CEILING SUPPORTED EQUIPMENT. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 950 LBS. (<597 LBS. IN SEISMIC REGIONS) PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
3	FLOOR CONTACT AREA FOR TABLE
4	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S97, FOR WALL STAND, FLOOR CONTACT AREA FOR WALL STAND, SEE EQUIPMENT DETAIL FOR ANCHOR LOCATIONS.
5	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S129
6	FLOOR CONTACT AREA FOR CHEST UNIT.

STRUCTURAL NOTES

- ALL STEEL WORK AND PARTS NECESSARY TO SUPPORT CEILING MOUNTED TUBE HANGER OR OTHER EQUIPMENT ARE TO BE SUPPLIED BY THE CUSTOMER OR HIS CONTRACTORS. THE UNISTRUT OR EQUIVALENT STRUCTURE SHOULD RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL, SQUARE AND IN THE SAME HORIZONTAL PLANE FLUSH WITH FINISHED CEILING. THE SYSTEM IS TO BE CROSS BRACED VERTICALLY, HORIZONTALLY AND DIAGONALLY TO ALLOW NO MOVEMENT AND A MAXIMUM OF 1,58mm (1/16") DEFLECTION.
(10) 12,7mm (1/2") DIA. x 38,1mm (1 1/2") LONG BOLTS WITH UNISTRUT 12,7mm (1/2") NUTS WITH SPRINGS ARE TO BE PROVIDED BY CUSTOMER OR HIS CONTRACTORS FOR EACH STATIONARY AND AUXILIARY SUPPORT RAIL. CLOSURE STRIPS SHALL BE PROVIDED FOR AREAS OF UNISTRUT EXPOSED AND WITHOUT MOUNTING UNITS.
- METHODS OF SUPPORT FOR THE STEELWORK THAT WILL PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE CONSTRUCTION SHOULD BE FAVORED. DO NOT USE CONCRETE OR MASONRY ANCHORS IN DIRECT TENSION.
- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 6,35mm (1/4") BELOW THE FINISHED CEILING.
- CONTROL WALLS WITH TUBE HANGER PASSAGE ABOVE SHALL BE CONSTRUCTED TO 2130mm (7'-0") HIGH.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3,17mm (1/8") IN 3050mm (10'-0")
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.
- IT IS THE CUSTOMER'S RESPONSIBILITY TO PERFORM ANY FLOOR OR WALL PENETRATIONS THAT MAY BE REQUIRED. THE CUSTOMER IS ALSO RESPONSIBLE FOR ENSURING THAT NO SUBSURFACE UTILITIES (E.G., ELECTRICAL OR ANY OTHER FORM OF WIRING, CONDUITS, PIPING, DUCT WORK OR STRUCTURAL SUPPORTS (I.E. POST TENSION CABLES OR REBAR)) WILL INTERFERE OR COME IN CONTACT WITH SUBSURFACE PENETRATION OPERATIONS (E.G. DRILLING AND INSTALLATION OF ANCHORS/SCREWS) PERFORMED DURING THE INSTALLATION PROCESS. TO ENSURE WORKER SAFETY, GE INSTALLERS WILL PERFORM SURFACE PENETRATION OPERATIONS ONLY AFTER THE CUSTOMER'S VALIDATION AND COMPLETION OF THE "GE SURFACE PENETRATION PERMIT"

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, WI

SHEET TITLE: **STRUCTURAL LAYOUT**
MODALITY TYPE: **PROTEUS XR/a**

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PROJECT TITLE:
1-124f
TYPICAL LAYOUT

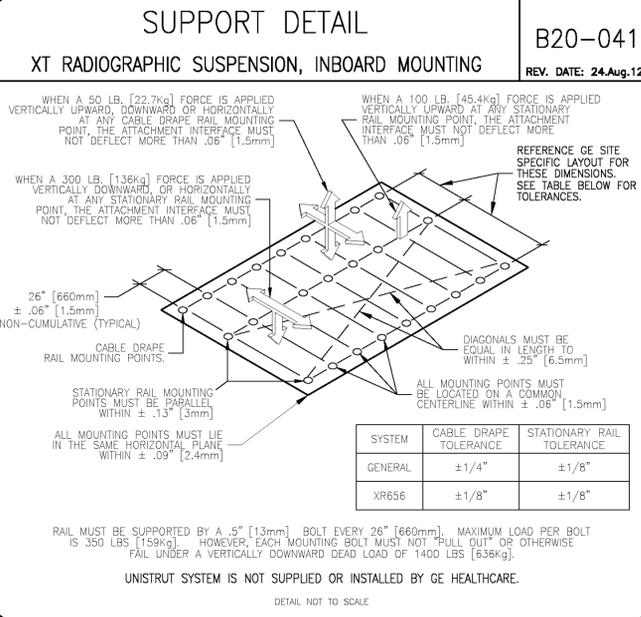
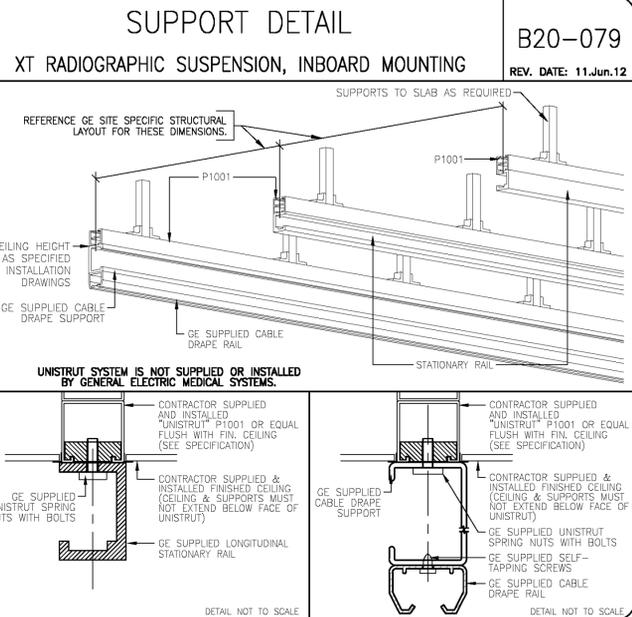
PROJECT	REVISION
1-124f	10

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DRAWN BY: **REK**
CHECKED BY: **JDR**

REVISION HISTORY:

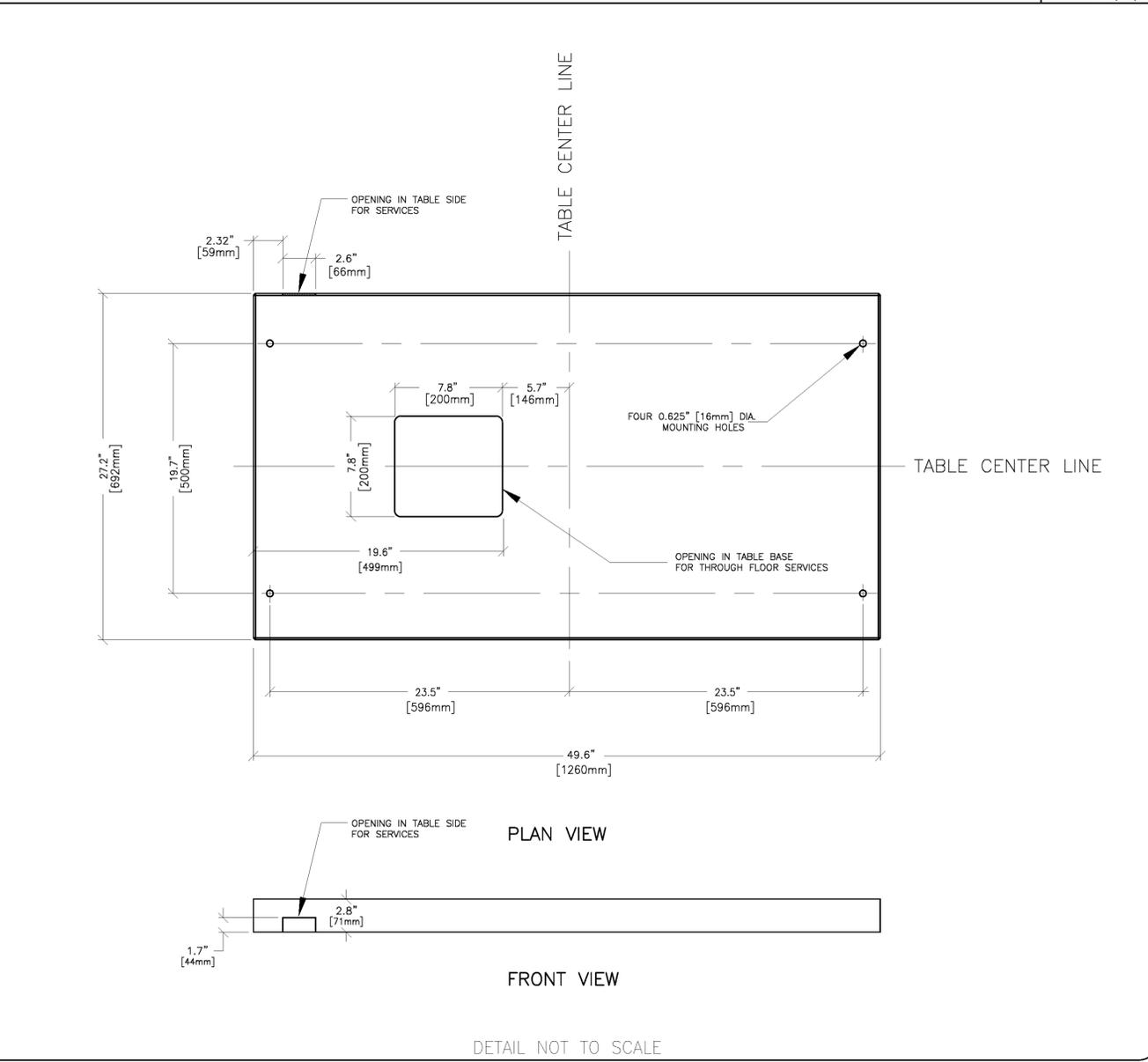
SHEET
S1

PIM R16, R1
RQ - 135234



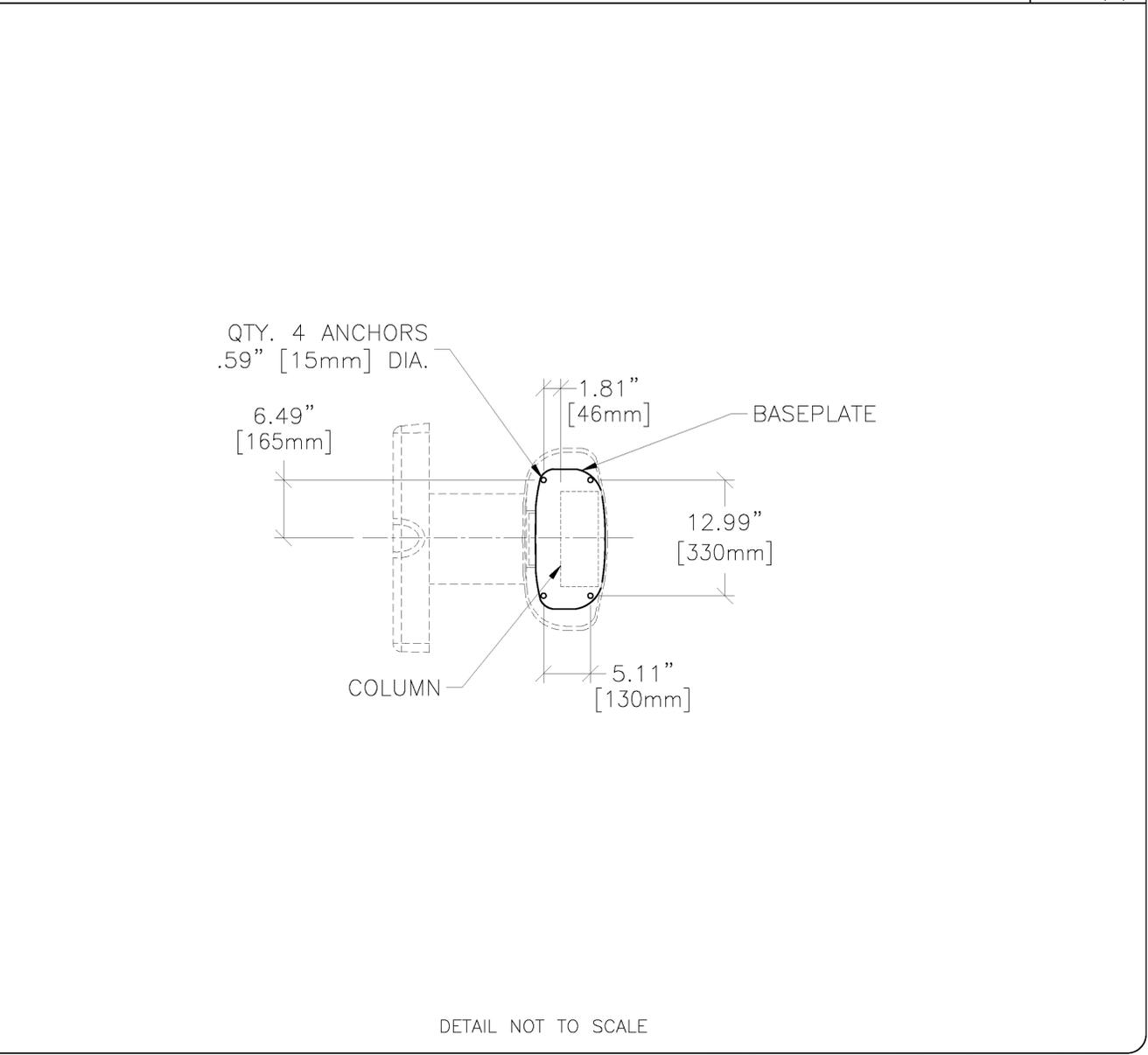
FLOOR MOUNTING DETAIL: PROTEUS TABLE INSTALLATION METHODS

B0556B
REV. DATE: 11/19/02



FLOOR MOUNTING DETAIL: SG-80 and SG-120 CHEST UNIT

B3503C
REV. DATE: 12/08/04



GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: **STRUCTURAL DETAILS**
MODALITY TYPE: **PROTEUS XR/a**

THIS PLAN IS SUBMITTED TO SURVEY LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL CONDITIONS. HOWEVER, IT IS ADVISED THAT GE HEALTHCARE CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
1-124f
TYPICAL LAYOUT

PROJECT	REVISION
1-124f	10
DATE:	06.Feb.13
DRAWN BY:	REK
CHECKED BY:	JDR

REVISION HISTORY:

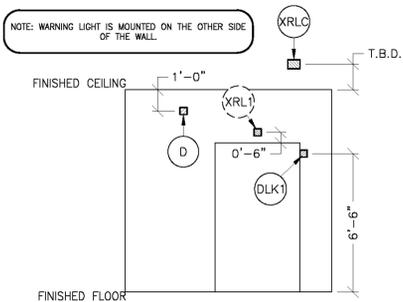
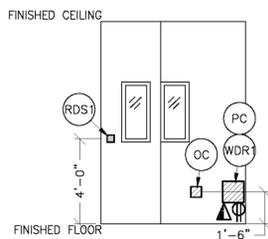
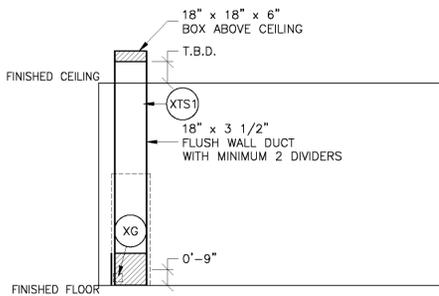
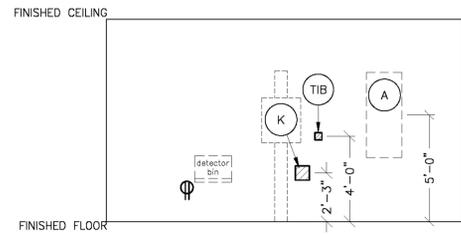
SHEET
S2

RQ - 135234 PIM R16, R1

SCALE: 1/4" = 1'-0"

ELECTRICAL PLAN

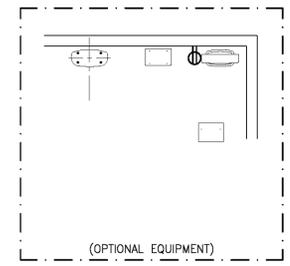
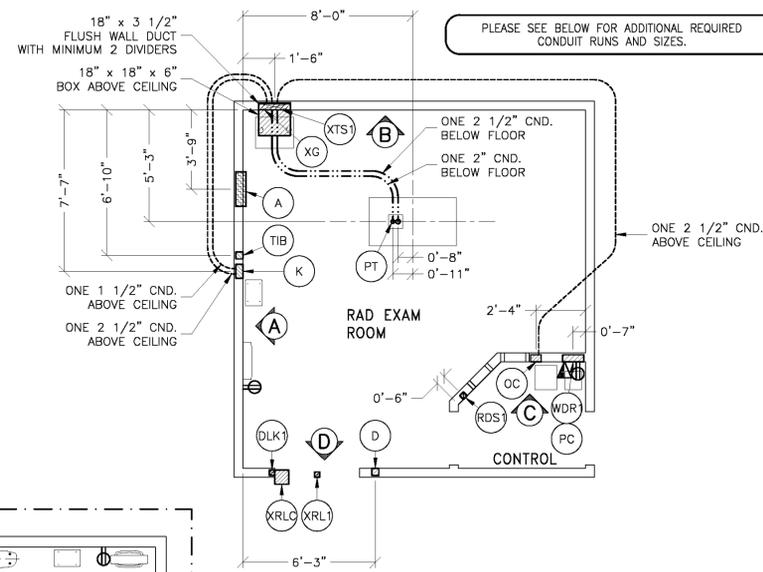
RECOMMENDED CEILING HEIGHT = 9'-6"



ELECTRICAL OUTLET LEGEND
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

⊕	DUPLEX HOSPITAL GRADE, DEDICATED OUTLET 120-V, SINGLE PHASE POWER
⚡	DEDICATED TELEPHONE LINE(S) (SEE ELECTRICAL DETAIL ELEC-1 OR ELEC-67)
⚡	NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

- JUNCTION POINT NOTES**
- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMERS ELECTRICAL CONTRACTOR.
 - CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS.
 - CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
 - CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
 - ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
 - DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
 - DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
 - DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
 - PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
 - ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMERS CONTRACTOR.
 - GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
 - 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
 - ALL WIRING MUST BE THIN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
 - GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.



PROTEUS XR/a 80kw WITH 80 AMP BREAKER
CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG. REV. DATE: 15.Apr.11

RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
NEUTRAL MUST BE TERMINATED INSIDE THE MAIN DISCONNECT PANEL AND NOT AT ANY GE CABINET.
THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER WIRES. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.
FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.
NOTE: POWER RUN FROM WALL BOX/DUCT TO GENERATOR MUST BE WELDING CABLE OR EQUIVALENT.

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE					
	342-418 380	360-440 400	373-466 420	398-484 440	414-508 460	432-528 480
	SIZE OF FEEDERS AND GROUND WIRES (AWG)					
50	4	* 4	* 4	* 4	* 4	* 4
100	2	3	3	4	4	4
150	1/0	1	1	2	2	3
200	2/0	2/0	1/0	1/0	1	1
250	3/0	3/0	2/0	2/0	1/0	1/0
300	4/0	4/0	3/0	3/0	2/0	2/0
350	350M	350M	4/0	4/0	3/0	3/0
400	350M	350M	250M	4/0	4/0	3/0
450	400M	350M	300M	250M	250M	4/0

ADDITIONAL CONDUIT RUNS FOR PROTEUS XR/a (BY CONTRACTOR)

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

TO	FROM	CONDUIT SIZE	REMARKS
XRLC	XRL1	ONE 1/2" CND.	
XRLC	XG	ONE 1/2" CND.	
XRLC	120-V 1 ϕ POWER	CND. AS REQ'D	
A	XG	ONE CND. AS REQ'D	
A	RDS1	ONE 1/2" CND.	
A	FEEDER	ONE CND. AS REQ'D	
DLK1	XG	ONE 1/2" CND.	

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

CONDUITS REQUIRED FOR DR IMAGING (CONDUITS ARE LOCATED ABOVE CEILING)

TO	FROM	CONDUIT SIZE	REMARKS
WDR1	TIB	ONE 1 1/2" CND.	
WDR1/PC	D	ONE 1 1/2" CND.	

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

JUNCTION POINT DESCRIPTIONS

THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMERS ELECTRICAL CONTRACTOR

POINT	DESCRIPTION	QTY.	HARDWARE	DETAIL NO., SHT. E3
A	MAIN DISCONNECT AVAILABLE FROM GENSG. CALL: 800-558-5102 OR LOCAL PROJECT MGR.	1	80-AMP CIRCUIT BREAKER PANEL GENSG. CAT. NO. E4502ST OR WITH AUTO RESTART FEATURE-E4502RP. ONE REMOVABLE EMERGENCY OFF (RDS1) PUSHBUTTON AND STAINLESS STEEL WALL PLATE STATION ARE WITH EACH MAIN DISCONNECT	ELEC-15
D	DOUBLE	1	COVERPLATE	ELEC-8
DLK1	DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)	1	4 X 4 X 4 IN. BOX 1 1/2 IN. DIA. CHASE NIPPLE ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME - NORMALLY OPEN (24V) 1 SINGLE GANG BOX	ELEC-8
K	CASSETTE HOLDER	1	1 1/2 IN. DIA. CHASE NIPPLE SPLIT COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 8 X 8 X 4 IN. BOX WITH DIVIDER	ELEC-79
OC	CONTROL CONSOLE	1	1 1/2 IN. DIA. CHASE NIPPLE 6 X 6 X 4 IN. BOX COVERPLATE	ELEC-8
PC	DR IMAGING CONSOLE	1	SAME ROUTING AS WDR1	
PT	TABLE	2	SUITABLE BUSHING & LOCKNUT	ELEC-9
RDS1	EMERGENCY OFF	1	PROVIDE A SINGLE GANG, 2 1/2 IN. DEEP, FLUSH MTD. WALL BOX	ELEC-16
TIB	TETHER INTERFACE BOX	1	COVERPLATE 4 X 4 X 4 IN. BOX 1 1/2 IN. DIA. CHASE NIPPLE	ELEC-8
WDR1	DR IMAGING CABINET	1	SPLIT COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 12 X 12 X 4 IN. BOX	ELEC-7
XG	GENERATOR	1	1 1/2 IN. DIA. CHASE NIPPLE 16 FT. LENGTH OF 1 1/2 IN. FLEXIBLE METAL CONDUIT SPLIT COVERPLATE 18 X 18 X 4 IN. BOX	ELEC-7 ELEC-6 ELEC-6
XRL1	WARNING LIGHT	1	SINGLE GANG BOX "X-RAY ON" INCANDESCENT LIGHT FIXTURE. 24V, 8 AMP DR. LESS LOW VOLTAGE SOURCE DO NOT USE FLUORESCENT FIXTURES	ELEC-7 ELEC-6
XRLC	WARNING LIGHT CONTROLLER AVAILABLE FROM GENSG. CALL: 800-558-5102 OR LOCAL PROJECT MGR.	1	E4502RL WARNING LIGHT CONTROL OR EQUIVALENT MAX 24V CONTROLLER	ELEC-72
XTS1	X-RAY TUBE HANGER	1	32 IN. OF GROMMET MATERIAL FOR AN 8 X 8 IN. OPENING IN DUCT COVER	ELEC-5 ELEC-6

CONTRACTOR SUPPLIED AND INSTALLED WIRING
ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
3 PHASE > A	REFER TO FEEDER TABLE
A > XG	REFER TO FEEDER TABLE
A > RDS1	2-NO. 14 BLACK, 1-NO. 14 GREEN
XG > DLK1	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
XG > XRLC	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
XRLC > 1 PHASE	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
XRL1 > XRLC	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, WI

SHEET TITLE: ELECTRICAL LAYOUT
MODALITY TYPE: PROTEUS XR/a

THIS PLAN IS SUBMITTED TO SUBMIT LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND CODES. THE USER SHALL BE RESPONSIBLE FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: 1-124f
TYPICAL LAYOUT

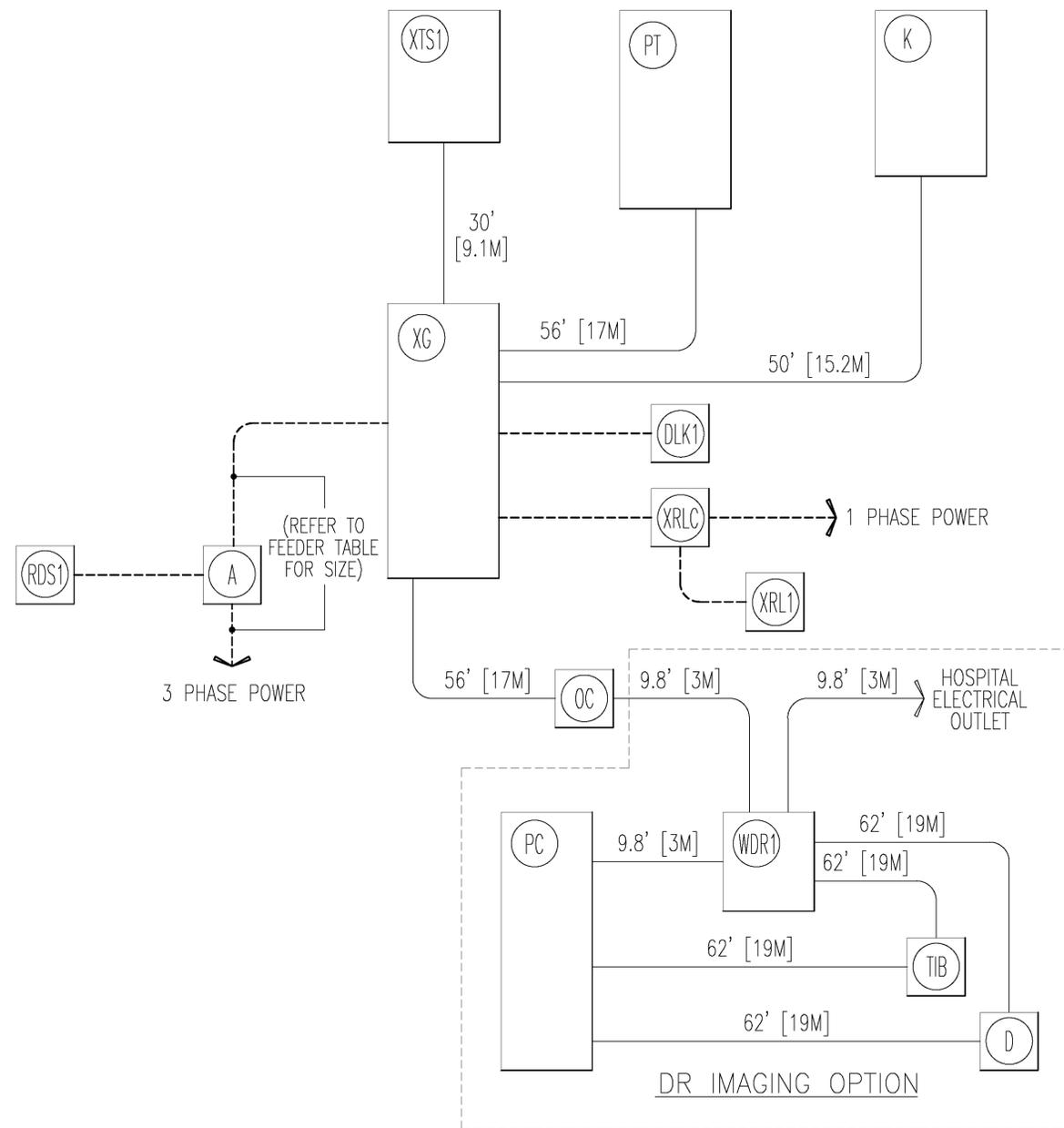
PROJECT: 1-124f
REVISION: 10

DATE: 06.Feb.13
DRAWN BY: REK
CHECKED BY: JDR

REVISION HISTORY:

SHEET
E1

INTERCONNECT DIAGRAM



POWER SPECIFICATIONS

PROTEUS XR/a 80kW REV. DATE: 15Apr.11

VOLTAGE: PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS. RANGE OF LINE VOLTAGES: NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, WITHOUT NEUTRAL, 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE DISTRIBUTION

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)		MINIMUM STANDARD OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
380	342-418	190	7	100-A
400	360-440	181	6.6	90-A
415	373-456	174	6.4	90-A
440	396-484	164	6	90-A
460	414-506	157	5.8	80-A
480	432-528	151	5.5	80-A

ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE

NOTE: LOW LINE CONDITIONS MAY INHIBIT SOME HIGH KVp TECHNIQUES. THE GENERATOR AUTOMATICALLY ESTABLISHES THESE INHIBITS BASED ON ACTUAL LINE CONDITIONS AND SYSTEM REGULATION.

PHASE-BALANCE: PHASE-TO-PHASE VOLTAGES MUST BE WITHIN +2 PERCENT OF THE LOWEST PHASE-TO-PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ARE 2.5 PERCENT OF RATED LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND FREQUENCY OF 10 TIMES PER HOUR.

POWER DEMAND: CONTINUOUS POWER DEMAND = 4.6 KVA. (MAX DEMAND = 125 KVA)

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	PROTEUS/DEFINIUM
kVa * POWER FACTOR AT	125 / 0.73
mA	630
kVp	80

* DEMAND INCLUDES POWER FOR ENTIRE SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRIBUTION TRANSFORMER: FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 150 KVA.

ELECTRICAL NOTES

- NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRIBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.
- NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.
- NOTE 7: ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.
- NOTE 12: GEHC CONDUCTS POWER AUDITS TO VERIFY QUALITY OF POWER BEING DELIVERED TO THE SYSTEM. THE CUSTOMER'S ELECTRICAL CONTRACTOR IS REQUIRED TO BE AVAILABLE TO SUPPORT THIS ACTIVITY.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

SHEET TITLE: ELECTRICAL SPECIFICATIONS
MODALITY TYPE: PROTEUS XR/a

PROJECT TITLE: 1-124f
TYPICAL LAYOUT

PROJECT	REVISION
1-124f	10

DATE: 06.Feb.13
DRAWN BY: REK
CHECKED BY: JDR

REVISION HISTORY:

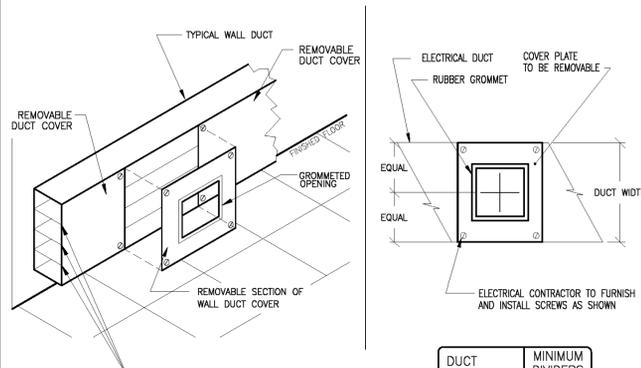
SHEET E2

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Milwaukee, Wisconsin

ELECTRICAL DETAIL
HORIZONTAL WALL DUCT (TYPICAL)

ELEC-5

REV. DATE: 03/19/04



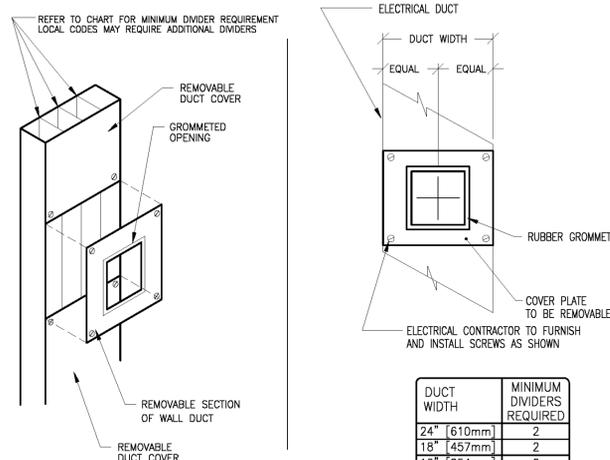
DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
VERTICAL WALL DUCT (TYPICAL)

ELEC-6

REV. DATE: 03/19/04



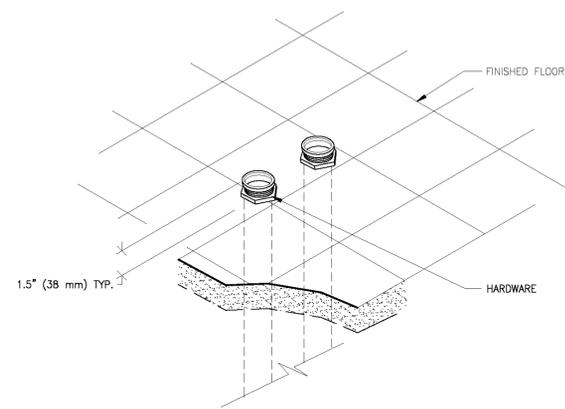
DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
CONDUITS THRU-FLOOR (TYPICAL)

ELEC-9

REV. DATE: 08/08/94

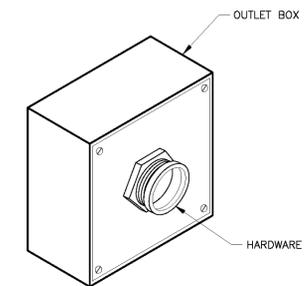


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE (TYPICAL)

ELEC-8

REV. DATE: 09/30/94

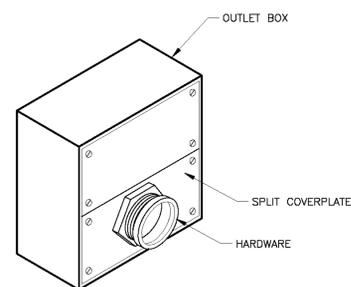


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH SPLIT COVERPLATE (TYPICAL)

ELEC-7

REV. DATE: 09/30/94

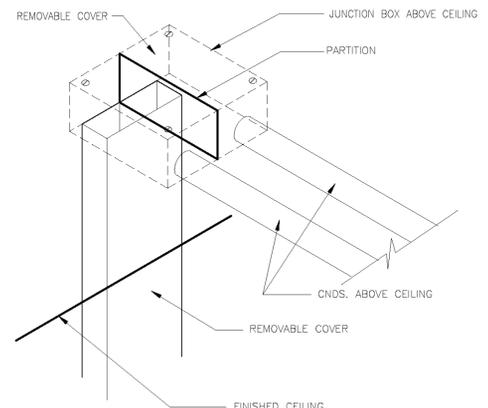


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
J.B. / WALL DUCT DETAIL (TYPICAL)

ELEC-2

REV. DATE: 09/30/94

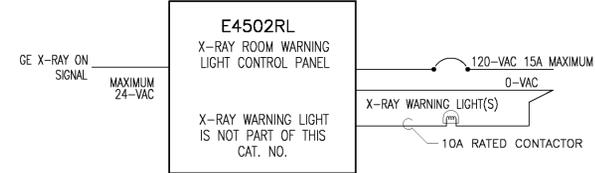


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
WARNING LIGHT DIAGRAM

ELEC-72

REV. DATE: 05/14/09

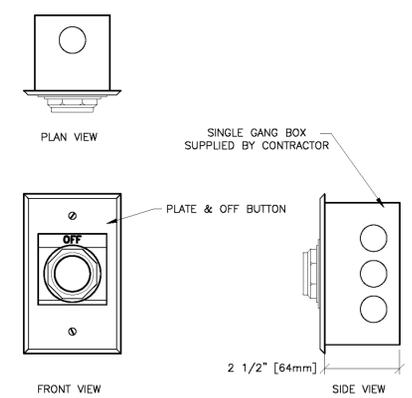


UNLESS SPECIFIED ON SHEET A1 AS BEING INCLUDED ON EQUIPMENT ORDER, ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER'S CONTRACTOR
DRAWING NOT TO SCALE

ELECTRICAL DETAIL
EMERGENCY OFF BUTTON

ELEC-16

REV. DATE: 05/14/09

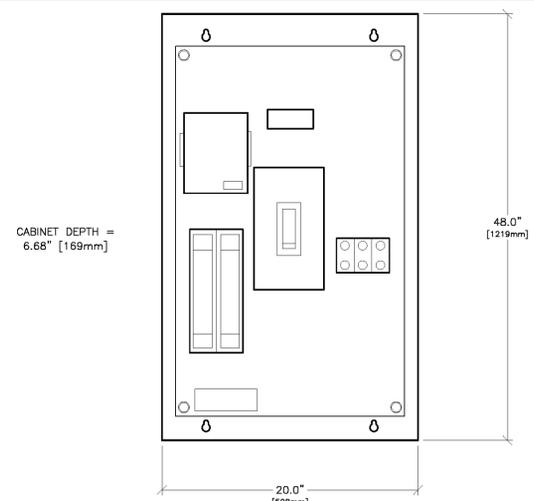


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
X-RAY MAIN DISCONNECT PANEL

ELEC-15

REV. DATE: 01/25/07

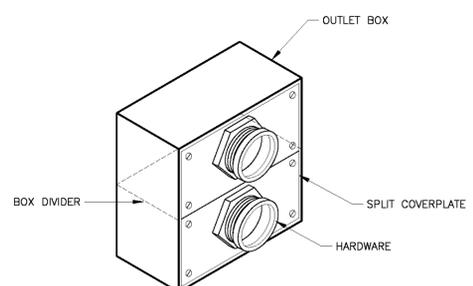


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH DIVIDER AND SPLIT COVERPLATE (TYPICAL)

ELEC-79

REV. DATE: 04/08/04

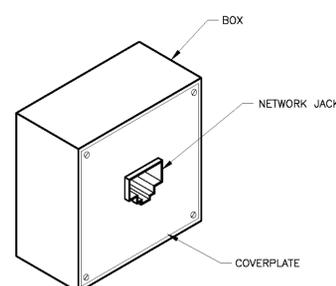


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE AND NETWORK JACK

ELEC-83

REV. DATE: 10/06/98

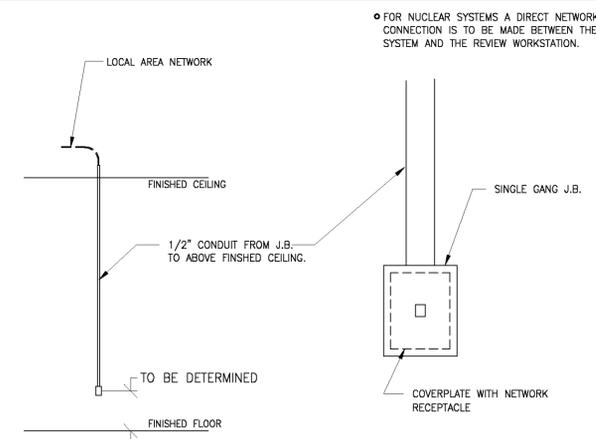


DETAIL NOT TO SCALE

ELECTRICAL DETAIL
NETWORK CONNECTION (TYPICAL)

ELEC-84

REV. DATE: 03/08/04



DETAIL NOT TO SCALE

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: **ELECTRICAL DETAILS**
MODALITY TYPE: **PROTEUS XR/a**
THIS PLAN IS SUBMITTED TO SURVEY LOCATION OF HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO THE ACTUAL CONDITIONS OF THE PROJECT. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL CONDITIONS OF THE PROJECT. THE USER CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

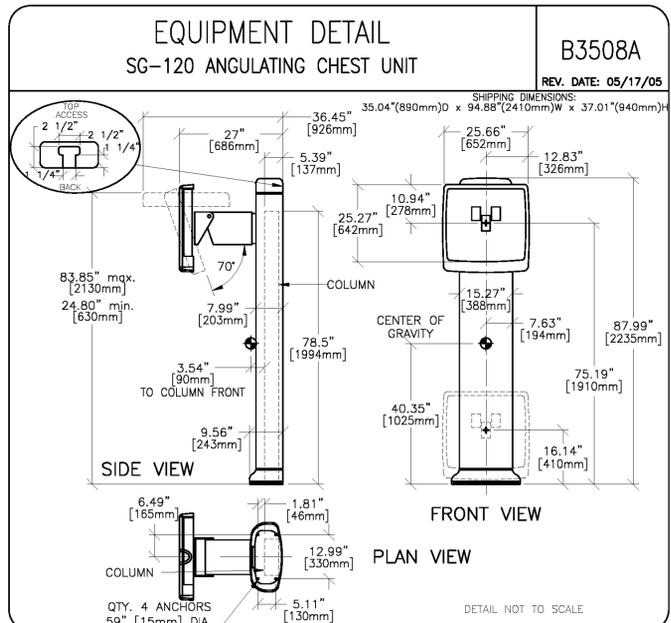
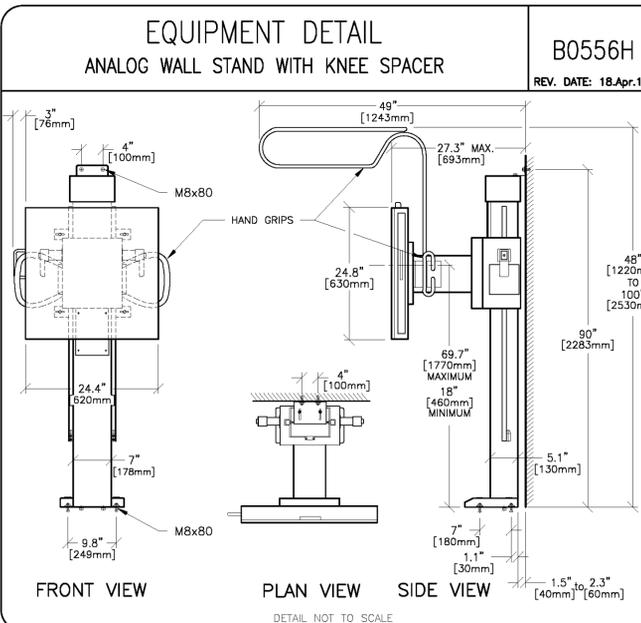
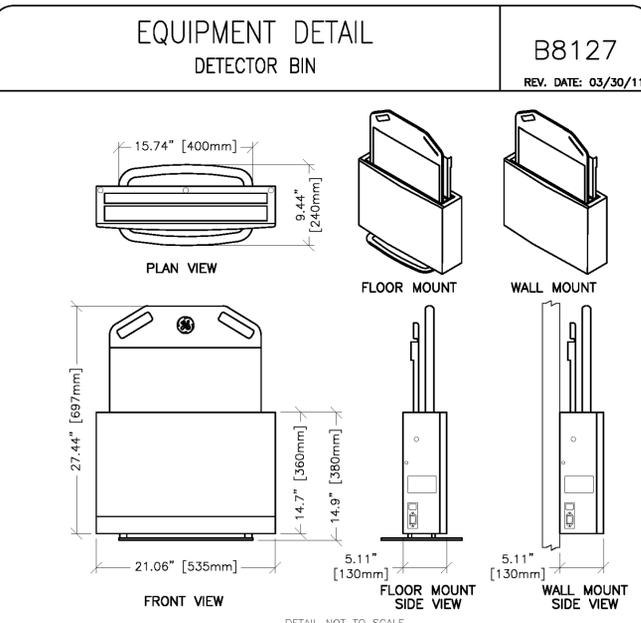
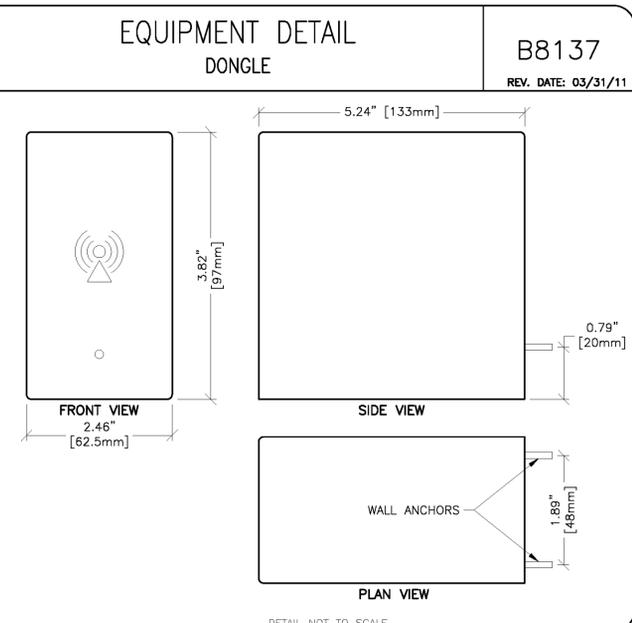
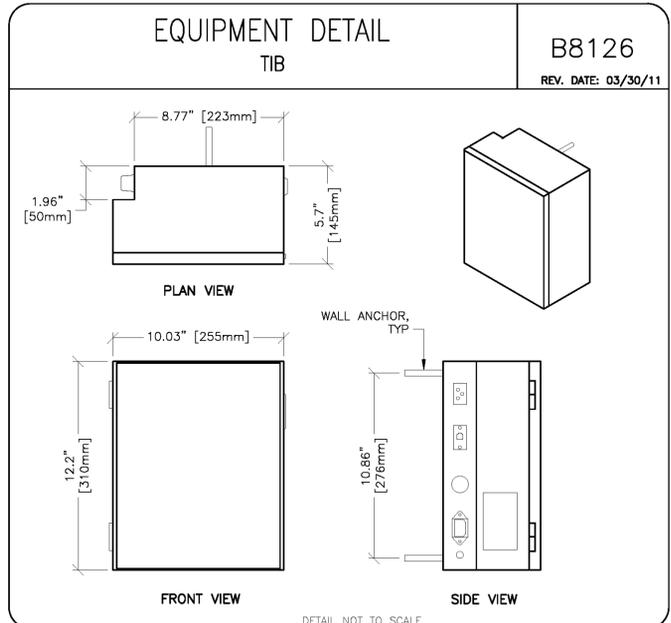
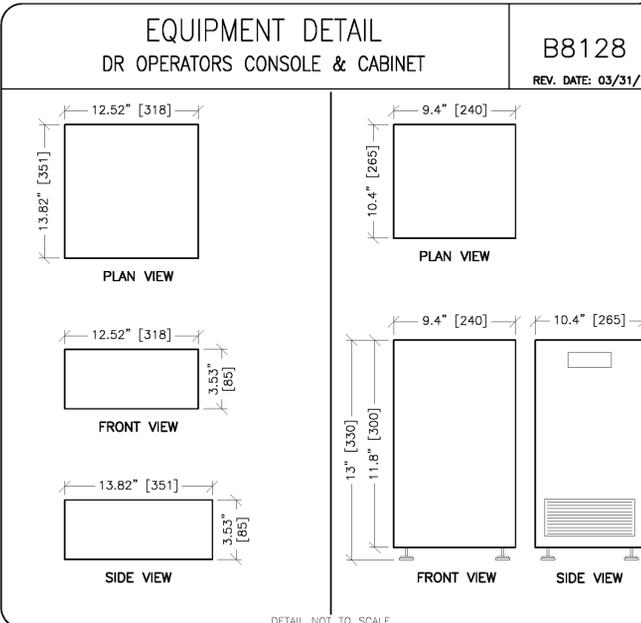
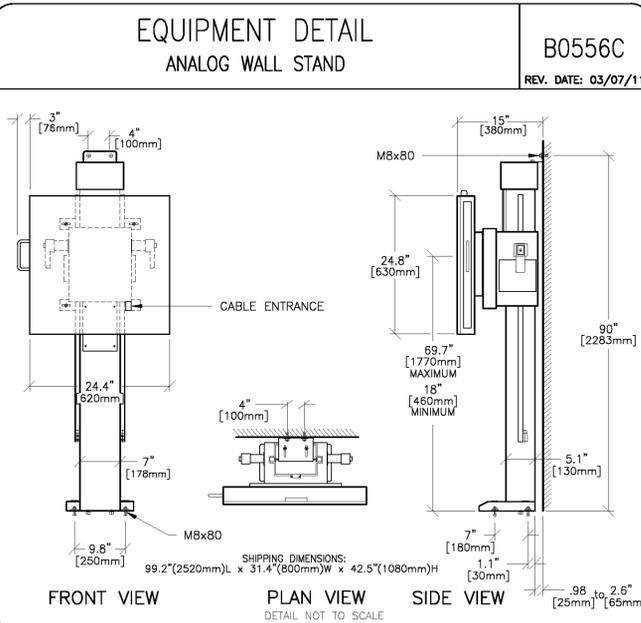
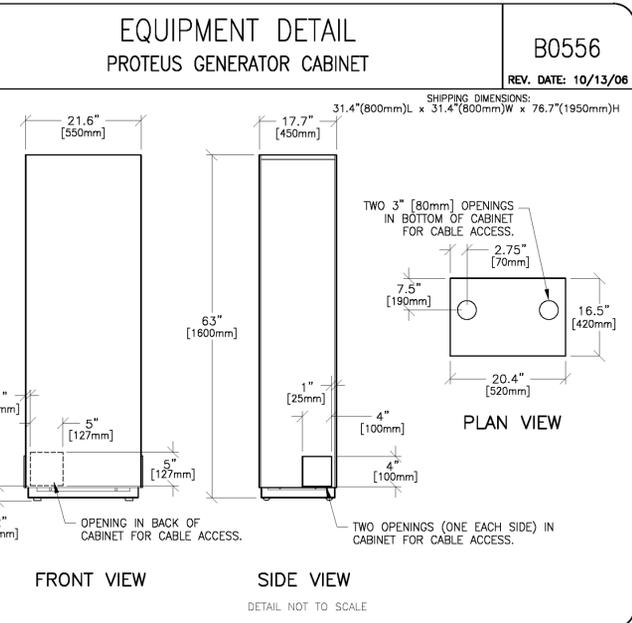
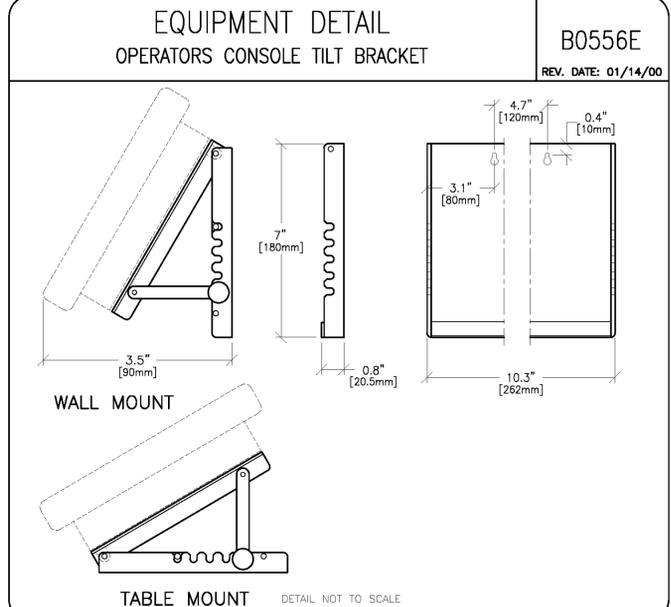
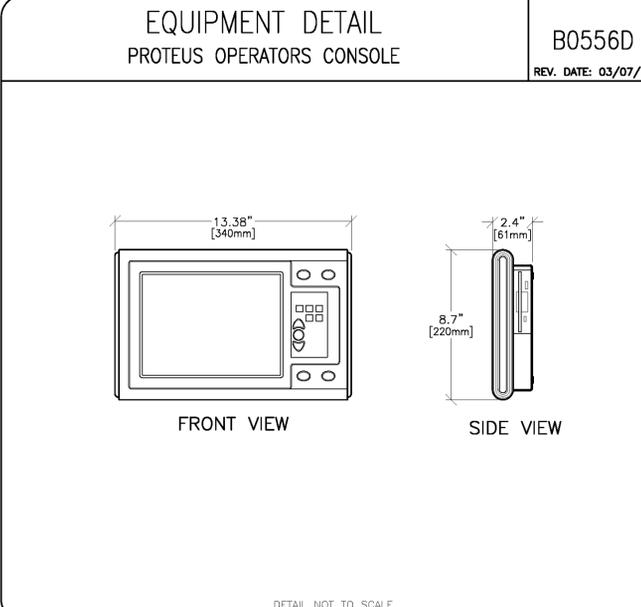
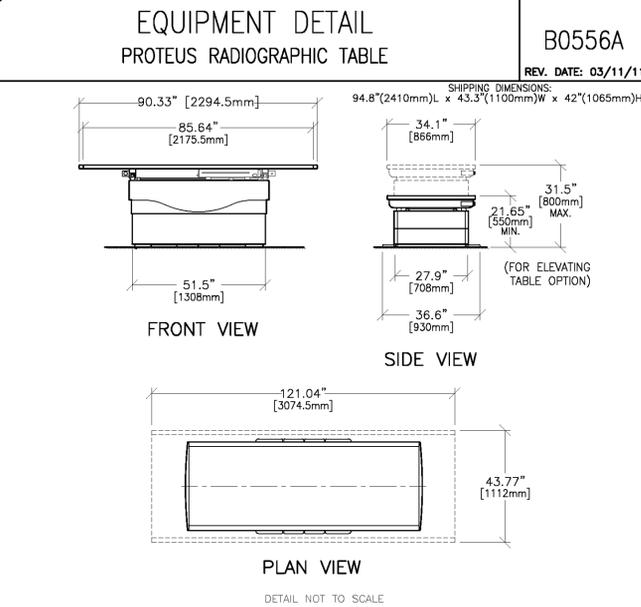
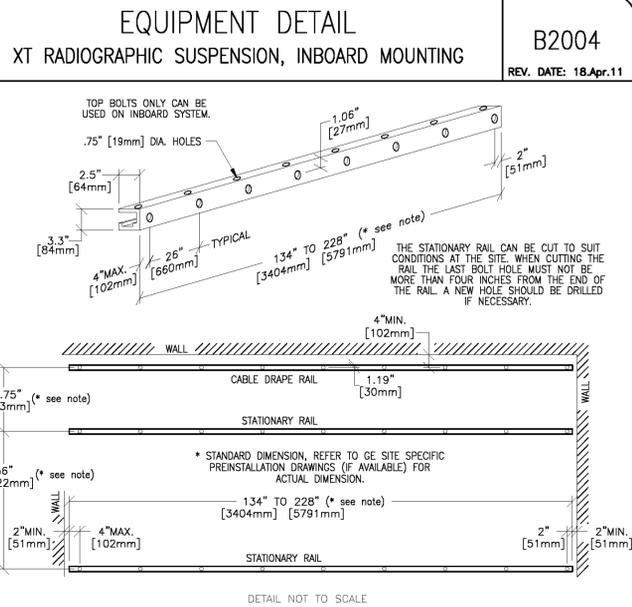
PROJECT TITLE:
1-124f
TYPICAL LAYOUT

PROJECT	REVISION
1-124f	10

DATE: 06.Feb.13
DRAWN BY: REK
CHECKED BY: JDR

REVISION HISTORY:

SHEET
E3



GE Healthcare
 Healthcare Project Implementation - Design Center
 Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT DETAILS
 MODALITY TYPE: PROTEUS XR/a
 THIS PLAN IS SUBMITTED TO ASSIST IN THE LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO THE ACTUAL DIMENSIONS OF THE EQUIPMENT. IT IS THE USER'S RESPONSIBILITY TO VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT BEFORE INSTALLATION. GE HEALTHCARE ASSUMES NO RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
1-124f
 TYPICAL LAYOUT

PROJECT	REVISION
1-124f	10

DATE: 06.Feb.13
 DRAWN BY: REK
 CHECKED BY: JDR

REVISION HISTORY:

SHEET
D1

PIM R18, R1

RQ - 133234

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

SITE READINESS	C1
EQUIPMENT LAYOUT	A1
(Equipment locations, heat loads, component weights, environmental specs)	
STRUCTURAL LAYOUT	S1
(Structural support/mounting locations for floor/wall/ceiling, wall support elevations)	
STRUCTURAL DETAILS	S2
(Floor and Ceiling loading information)	
ELECTRICAL LAYOUT	E1
(Contractor supplied wiring, interconnect methods, junction point locations and descriptions)	
ELECTRICAL SPECIFICATIONS	E2
(Maximum wiring run lengths, interconnect diagram, system power specifications)	
ELECTRICAL DETAILS	E3 THRU E4
EQUIPMENT DETAILS	D1 THRU D2

These equipment IS drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the IS and operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Discovery XR656
Pre Installation Manual
5343949-8EN

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the preIS manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at:

www.gehealthcare.com/siteplanning

GE Healthcare



RAD Site Planning



imagination at work

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following; 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 19				
<i>Before using this document ensure you have the latest Rev from MyWorkshop on DCO042762</i>				
GEHC Global Order # : _____		Customer: _____		
GEHC PMI : _____		FE / Installer: _____		
The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.				
Inspection Date: _____				
GEHC Minimum Requirements				
	Storage is item ready?	PMI is item ready?	FE is item ready?	Comments If 'N', enter comments or action plan
1				MR Magnet Delivery Requirements: Ensure oxygen venting system is available for magnet connection as defined by GEHC Pre-Installation Manual (PIM) requirements, exhaust fan system is installed and operational, 480V power, and chilled water supply is available 24x7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery. Surface mount vibromat installed where required. Magnet room final flooring is in place.
2				MR RF Screen Room Requirements: RF Screen Room is tested with copy of Test Report, emailed to ISAdminCOEMB@ge.com, that it is compliant with GEHC specifications. Dock Bolt and magnet anchors (if applicable) installed using 2 part anchor. For HDx systems, blower box mount bolts installed by RF vendor using 2 part anchors.
3				State Regulatory Requirements: Facility registration number provided for states of IL, KY, HI, RI, SC, TX. X-ray shielding plan and state acknowledgment letter provided to installer for AR, DC, NC, SC, CO & WA.
3				Site Drawing Requirements: Final version of equipment network and antenna, installation drawings (including red lined versions) verified to match actual room and has been provided to installer.
4				Surface Penetration Requirements: Customer/Contractor scheduled to provide required drilling or cutting into floors, ceilings, and walls, OR surface penetration permit available and posted in the room when GEHC will perform the work.
5				Pre-Delivery Route Requirements: The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to safely meet the minimum requirements for equipment access, and all communications/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).
6				Finished Room Requirements: Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 1). Shielding, doors, and windows are to be installed. No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PIM requirements for storage.
7				Electrical Requirements: Lockable (LOTO) Main Disconnect Panel (MDP) is installed per GE guidelines and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor duct and load-side wires can be installed at time of system installation. Validate outlet location and requirements meet specifications for device/equipment.
8				HVAC Requirements: The HVAC/Chilled Water systems designed to maintain the environment per spec/PMI is at running state and appears to provide the desired environmental conditions including location of vents, temperature and humidity for system operation.
9				Flooring Requirements: Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Confirm customer anchoring plan aligns with designed floor thickness. Final flooring installed where required for network racks.
10				Ceiling Requirements: Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ensure Unistrut and rails are not used as mounting surfaces. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling tiles installed per PMI discretion.

GE Healthcare

IS Services Design Center

Minneapolis, Wisconsin
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SHEET TITLE: **SITE READINESS**

MODALITY TYPE: **DISCOVERY XR656**

THIS PLAN IS SUBMITTED TO SURVEY LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO THE LATEST REVISIONS OF THE DRAWINGS AND TO THE COMPANY'S POLICY FOR ACTUAL CONSTRUCTION PURPOSES. HOWEVER, THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:

1-144f

TYPICAL LAYOUT

PROJECT	REVISION
1-144f	02
DATE: 27.MAR.12	
DRAWN BY: REK	
CHECKED BY: MKL	

REVISION HISTORY:

SHEET

C1

PIM R5

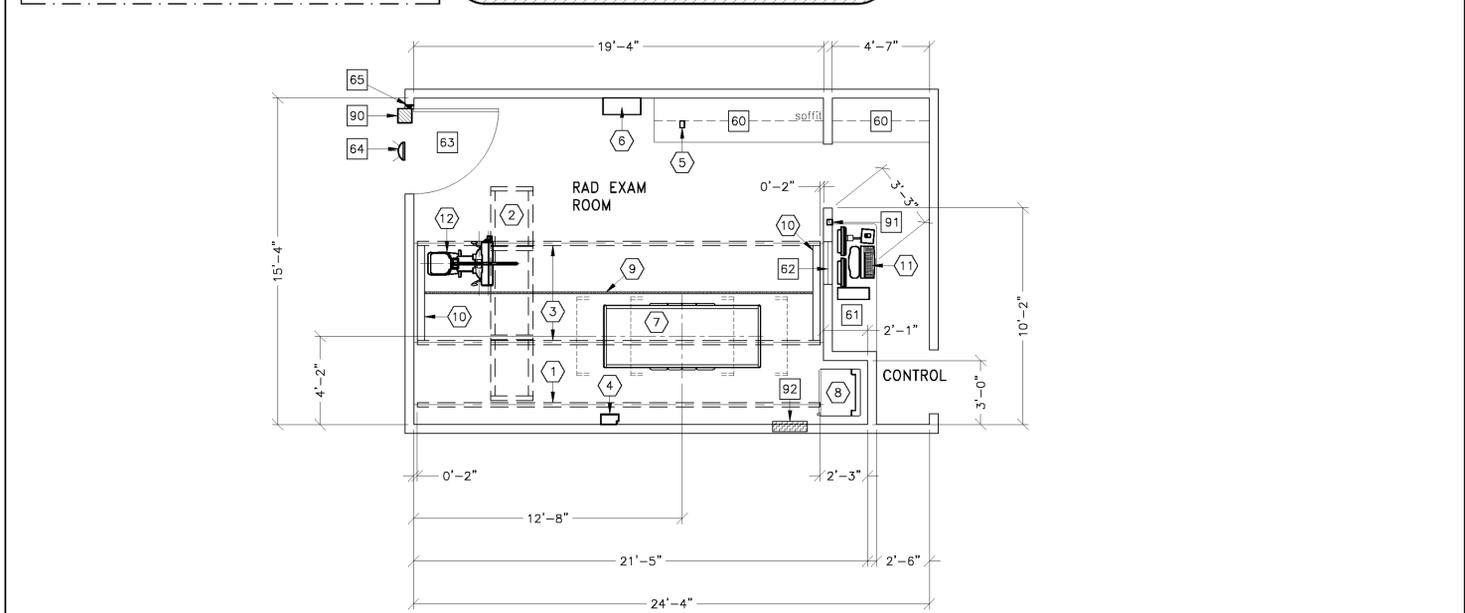
RQ - 125167

GE EQUIPMENT LISTING							
EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER : NEITHER A QUOTE OR GON WAS ISSUED AT THE DATE OF THESE DRAWINGS				EQUIPMENT CROSS REFERENCE CHART			
NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.							
ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	EQUIPMENT CROSS REFERENCE CHART	
						SEISMIC STATUS	DETAIL NO.
1	1		CABLE DRAPE RAIL	180 lbs			B20 D79
2	1		XT RADIOGRAPHIC SUSPENSION WITH INBOARD MOUNTING	784 lbs	102 ktu	B20D43	B20 D41 XTS1
3	2		LONGITUDINAL STATIONARY RAIL FOR XT SUSPENSION	68 lbs			B20 D41
4	1		TETHER INTERFACE BOX	15 lbs	10 ktu	B8126	- T1B
5	1		DONGLE	4 lbs		B8137	- D
6	1		GRID HOLDER (FIELD VERIFY IDEAL LOCATION)	30 lbs		B0557V	B05 57K
7	1		XR 656 DIGITAL ELEVATING TABLE	992 lbs	372 ktu	B0557U	- RT
8	1		SYSTEM CABINET	679 lbs	2440 ktu	B8125	- SKL
9	1		LONGITUDINAL DRIVE BELT 1 IN. WIDE	44 lbs			-
10	2		ANCHOR RAILS				- WBC1
11	1		OPERATORS CONSOLE	79 lbs	604 ktu	CG1003 B6564E B6564F B8139	-
12	1		DIGITAL CHEST UNIT	595 lbs	136 ktu	B0557D	- WLS
- OPTIONAL -							
13	1		DETECTOR BIN (FLOOR MOUNT)	33 lbs		B8127	-
14	1		IMAGE PASTING BARRIER	200 lbs		B0557T	-
15	1		WEIGHT BEARING STAND	123 lbs		B30044	-
16	1		CARBON FIBER TABLE	70 lbs		B5000A	-
17	1		MOBILE TABLE	224 lbs		B0557K	- S
18	1		FLEXI DT MOBILE TABLE	683 lbs		B0557L	-
19	1		DIGITAL CHEST UNIT WITH EXTENDED RECEPTOR	617 lbs	136 ktu	B0557S	- WLS
20	1		DETECTOR BIN (WALL MOUNT)	33 lbs		B8127	-

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

SCALE: 1/4" = 1'-0" EQUIPMENT LAYOUT RECOMMENDED CEILING HEIGHT = 9'-6"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.



THE FOLLOWING TOMO & IMAGE PASTING APPLICATIONS ARE POSSIBLE WITH THE LAYOUT AS SHOWN IN THESE DRAWINGS

NOTE: NOT ALL TOMO/IMAGE PASTING OPTIONS MAY BE INCLUDED IN YOUR EQUIPMENT ORDER. PLEASE CONSULT YOUR EQUIPMENT ORDER OR QUOTE FOR VALIDATION.

	YES	NO
WALLSTAND TOMO AND/OR IMAGE PASTE	✓	
TABLE TOMO AND/OR IMAGE PASTE	✓	
WALLSTAND CROSS-TABLE TOMO	✓	
EXTENDED WALLSTAND TOMO	✓	

ANCILLARY ITEMS	
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS	
ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	COUNTER TOP WITH BASE AND WALL CABINETS
61	COUNTER TOP FOR EQUIPMENT - MINIMUM DEPTH 24 IN. AND ADDITIONAL SHELVING MAY BE REQUIRED BELOW COUNTER TOP FOR PC TOWER. PROVIDE GROMMETED OPENINGS AS REQUIRED TO ROUTE CABLES.
62	CONTROL WALL TO CEILING WITH LEAD GLASS VIEWING WINDOW.
63	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 36 IN. W X 66.9 IN. H (914MM X 1700MM), CONTINGENT ON A 96 IN. (2438MM) CORRIDOR WIDTH. NOTE: IMAGE PASTE OPTION REQUIRES A 60.9 IN. H (1550MM) HIGH OPENING FOR ACCESS.
64	X-RAY ON WARNING LIGHT - AVAILABLE FROM GE SUPPLY CALL: 800-200-9760 GE CAT. NO. WX1ABWV-DF-XIU
65	DOOR LIMIT SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)

THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.

90	X-RAY ROOM WARNING LIGHT CONTROL PANEL. REFERENCE JUNCTION POINT 'XRL' ON SHEET 'E1' FOR DETAILED DESCRIPTION -E4502RL FOR WARNING LIGHT CONTROL ONLY.
91	EMERGENCY OFF SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)
92	MAIN DISCONNECT, REFERENCE JUNCTION POINT 'A' ON SHEET E1 FOR DETAILED DESCRIPTION. CAT. NO. E4502ST OR WITH AUTO RESTART E4502RP. (20 W X 48 H X 6.68 IN. D)

- ### GENERAL SPECIFICATIONS
- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
 - CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMMODATE THE EQUIPMENT AS SHIPPED.
 - RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
 - THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC. MAKE THIS ESSENTIAL FOR A PROPER IS. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
 - ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
 - DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.

- ### SITE ENVIRONMENT SPECIFICATIONS
- AMBIENT OPERATING TEMPERATURE: 59 TO 95 DEGREES (F), MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 10 DEGREES (C)/HOUR.
 - HUMIDITY: REFER TO PREINSTALLATION MANUAL FOR THE EQUIPMENT ILLUSTRATED ON THIS DRAWING.
 - REFER TO PREINSTALLATION MANUAL FOR THE EQUIPMENT ILLUSTRATED ON THIS DRAWING.
 - THE ENVIRONMENT FOR THE ELECTRONICS CABINET MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.
 - DO NOT RESTRICT THE AIR INTAKE AT THE LOWER FRONT OR AIR EXHAUST AT THE TOP OF THE ELECTRONICS CABINETS.

- ### MAGNETIC INTERFERENCE SPECIFICATIONS
- IMAGE INTENSIFIERS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 1 GAUSS TO GUARANTEE SPECIFIED IMAGING PERFORMANCE.
- X-RAY TUBES MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE SPECIFIED PERFORMANCE.
- SYSTEM ELECTRONICS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE DATA INTEGRITY.
- OPERATORS CONSOLE EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.

GE Healthcare

Healthcare Project Implementation - Design Center

Minneapolis, MN

SHEET TITLE: EQUIPMENT LAYOUT

MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUBMIT LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPLIANCE, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:

1-144f

TYPICAL LAYOUT

PROJECT	REVISION
1-144f	02

DATE: 27.Mar.12

DRAWN BY: REK

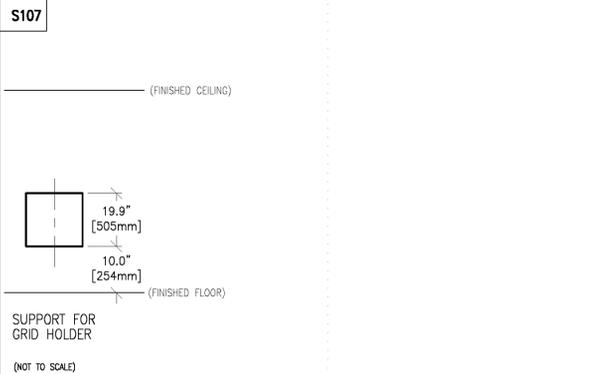
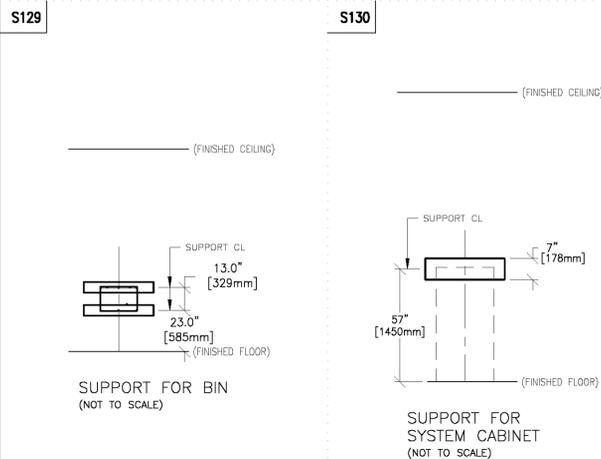
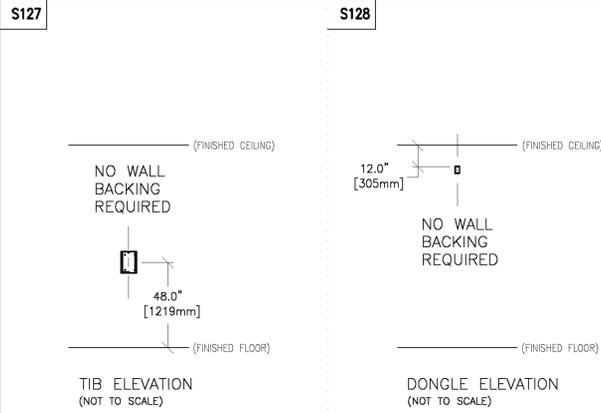
CHECKED BY: MKL

REVISION HISTORY:

SHEET

A1

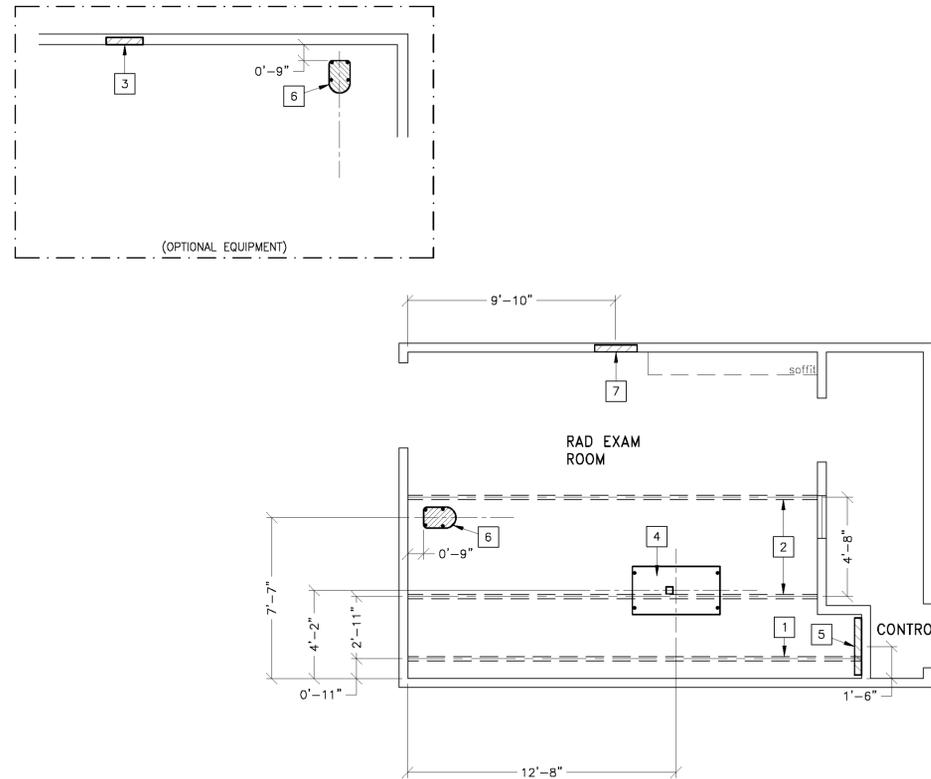
TYPICAL WALL SUPPORT ELEVATIONS



SCALE: 1/4" = 1'-0"

STRUCTURAL LAYOUT

RECOMMENDED CEILING HEIGHT = 9'-6"



STRUCTURAL SUPPORT METHODS
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CABLE DRAPE RAIL SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 90 LBS. PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
2	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CEILING SUPPORTED EQUIPMENT. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 90 LBS. PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
3	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S129
4	FLOOR CONTACT AREA FOR TABLE Seismic Zone ANCHORING HARDWARE (WHERE APPLICABLE) (DETECTOR SUPPORT) ANCHORS = Hilti KB3 - 3/8 x 3.75 in. (4 ea.) (WALL STAND) ANCHORS = Hilti KB3 - 1/2 x 9 in. (4 ea.) (GRID HOLDER) SCREWS = No. 12 TEK Screws (4 ea.) (SYSTEM CABINET) ANCHORS = Hilti KB3 - 3/8 x 3.75 in. (4 ea.) (SYSTEM CABINET) SCREWS = No. 12 TEK Screws (4 ea.) (TABLE) ANCHORS = Hilti KB3 - 1/2 x 9 in. (4 ea.) ALL ANCHORS TO INCLUDE 1 FLATWASHER ALL BOLTS TO INCLUDE 2 FLATWASHERS, 1 LOCKWASHER AND 1 NUT. ALL BRACKETS ARE SHIPPED WITH GE EQUIPMENT.
5	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S130, FOR SYSTEMS CABINET
6	FLOOR CONTACT AREA FOR CHEST READER
7	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S107, FOR GRID HOLDER.

STRUCTURAL NOTES

- ALL STEEL WORK AND PARTS NECESSARY TO SUPPORT CEILING MOUNTED TUBE HANGER OR OTHER EQUIPMENT ARE TO BE SUPPLIED BY THE CUSTOMER OR HIS CONTRACTORS. THE UNISTRUT OR EQUIVALENT STRUCTURE SHOULD RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL, SQUARE AND IN THE SAME HORIZONTAL PLANE FLUSH WITH FINISHED CEILING. THE SYSTEM IS TO BE CROSS BRACED VERTICALLY, HORIZONTALLY AND DIAGONALLY TO ALLOW NO MOVEMENT AND A MAXIMUM OF 1,58mm (1/16") DEFLECTION.
(10) 12,7mm (1/2") DIA. x 38,1mm (1 1/2") LONG BOLTS WITH UNISTRUT 12,7mm (1/2") NUTS WITH SPRINGS ARE TO BE PROVIDED BY CUSTOMER OR HIS CONTRACTORS FOR EACH STATIONARY AND AUXILIARY SUPPORT RAIL. CLOSURE STRIPS SHALL BE PROVIDED FOR AREAS OF UNISTRUT EXPOSED AND WITHOUT MOUNTING UNITS.
- METHODS OF SUPPORT FOR THE STEELWORK THAT WILL PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE CONSTRUCTION SHOULD BE FAVORED. DO NOT USE CONCRETE OR MASONRY ANCHORS IN DIRECT TENSION.
- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 6,35mm (1/4") BELOW THE FINISHED CEILING.
- CONTROL WALLS WITH TUBE HANGER PASSAGE ABOVE SHALL BE CONSTRUCTED TO 213mm (7'-0") HIGH.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3,17mm (1/8") IN 305mm (10'-0")
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.
- IT IS THE CUSTOMER'S RESPONSIBILITY TO PERFORM ANY FLOOR OR WALL PENETRATIONS THAT MAY BE REQUIRED. THE CUSTOMER IS ALSO RESPONSIBLE FOR ENSURING THAT NO SUBSURFACE UTILITIES (E.G., ELECTRICAL OR ANY OTHER FORM OF WIRING, CONDUITS, PIPING, DUCT WORK OR STRUCTURAL SUPPORTS (I.E. POST TENSION CABLES OR REBAR)) WILL INTERFERE OR COME IN CONTACT WITH SUBSURFACE PENETRATION OPERATIONS (E.G. DRILLING AND INSTALLATION OF ANCHORS/SCREWS) PERFORMED DURING THE INSTALLATION PROCESS. TO ENSURE WORKER SAFETY, GE INSTALLERS WILL PERFORM SURFACE PENETRATION OPERATIONS ONLY AFTER THE CUSTOMER'S VALIDATION AND COMPLETION OF THE "GE SURFACE PENETRATION PERMIT"

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, WI

SHEET TITLE: **STRUCTURAL LAYOUT**
MODALITY TYPE: **DISCOVERY XR656**

THIS PLAN IS SUBMITTED TO SUPPORT LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
1-144f
TYPICAL LAYOUT

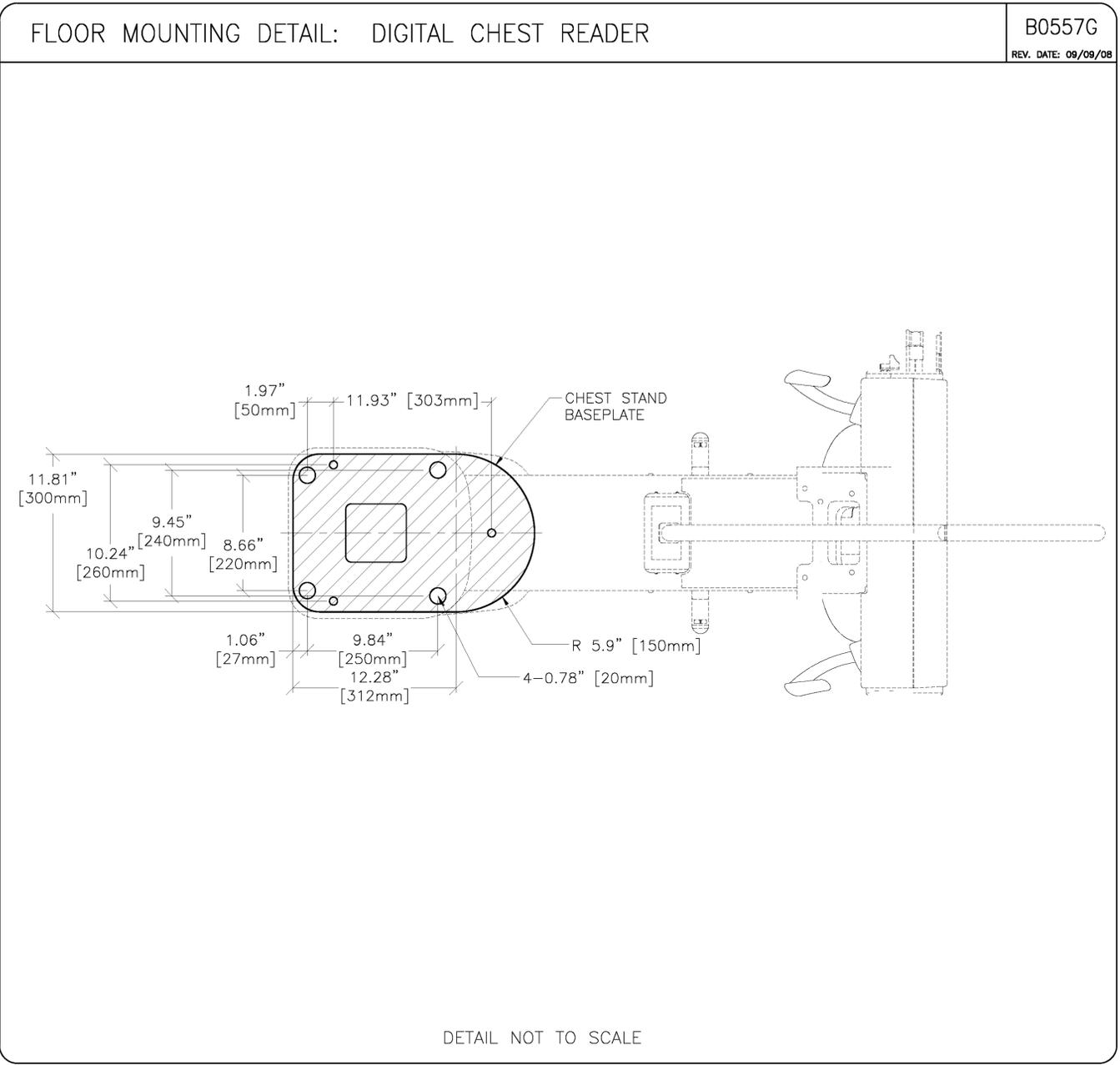
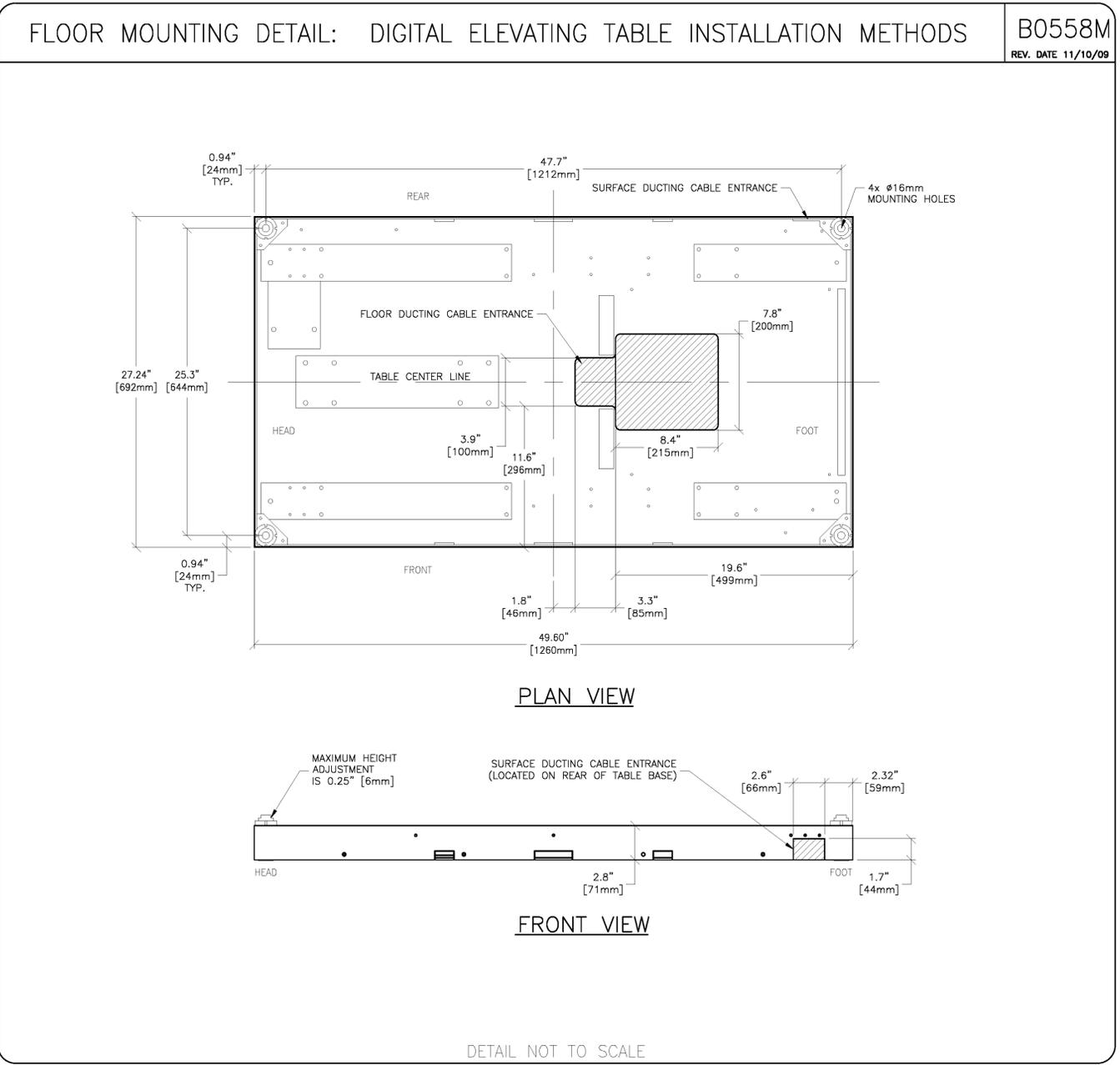
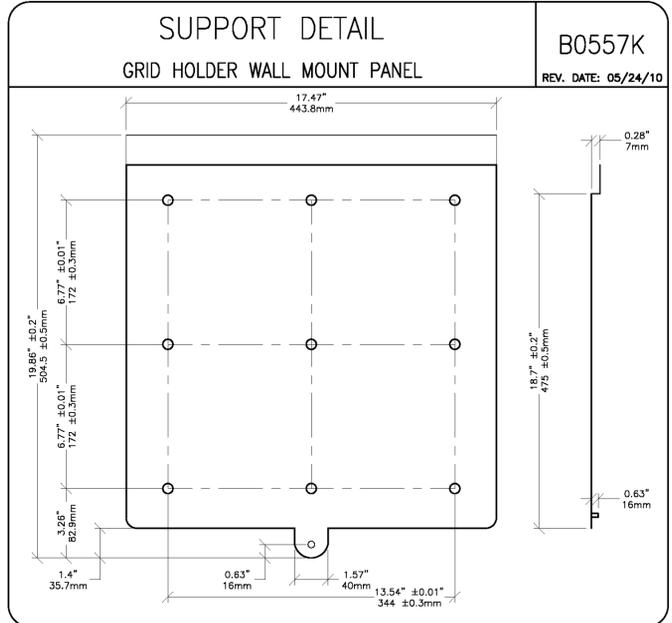
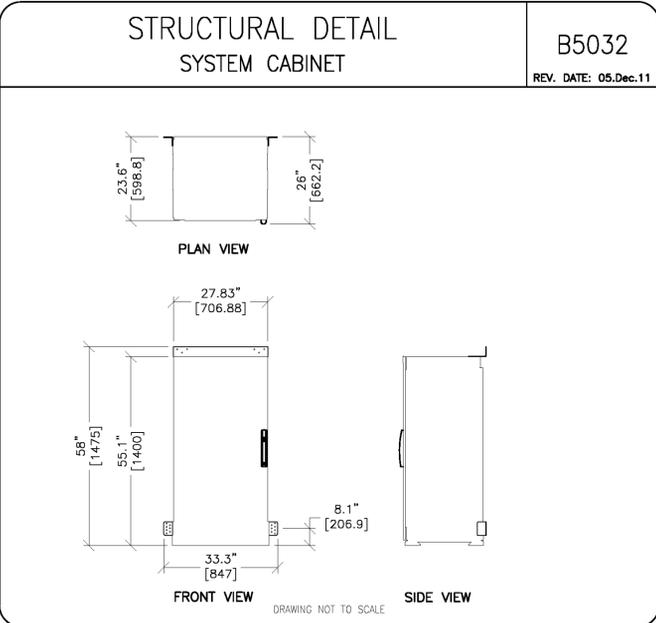
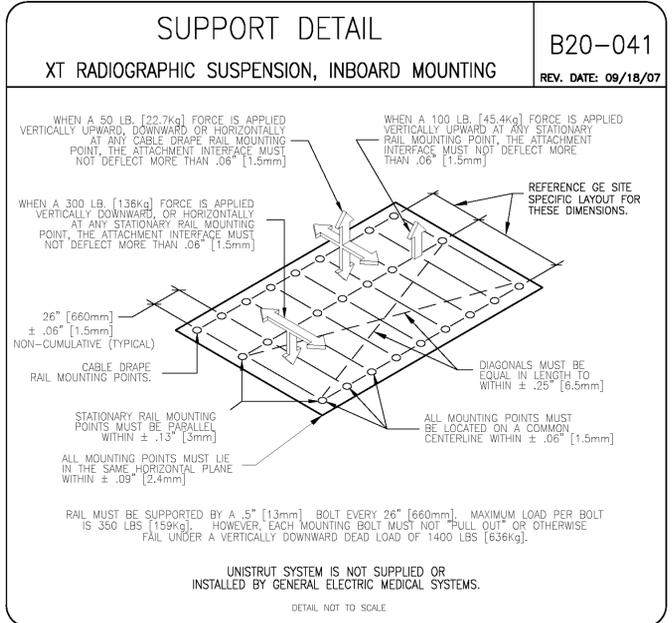
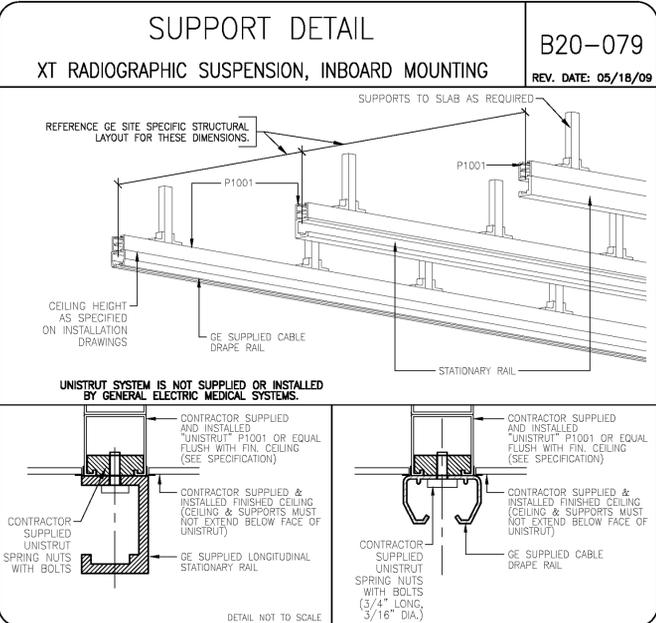
PROJECT	REVISION
1-144f	02

DATE: **27.Mar.12**
DRAWN BY: **REK**
CHECKED BY: **MKL**

REVISION HISTORY:

SHEET
S1

PIM R5
RQ - 125167



GE Healthcare

Healthcare Project Implementation - Design Center
Minneapolis, MN

SHEET TITLE: **STRUCTURAL DETAILS**
MODALITY TYPE: **DISCOVERY XR656**

THIS PLAN IS SUBMITTED TO SURVEY LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPLIANCE, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO THE DETAILS AND CONDITIONS OF THE CONTRACT DOCUMENTS. GE HEALTHCARE AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
1-144f
TYPICAL LAYOUT

PROJECT	REVISION
1-144f	02
DATE:	27.Mar.12
DRAWN BY:	REK
CHECKED BY:	MKL

REVISION HISTORY:

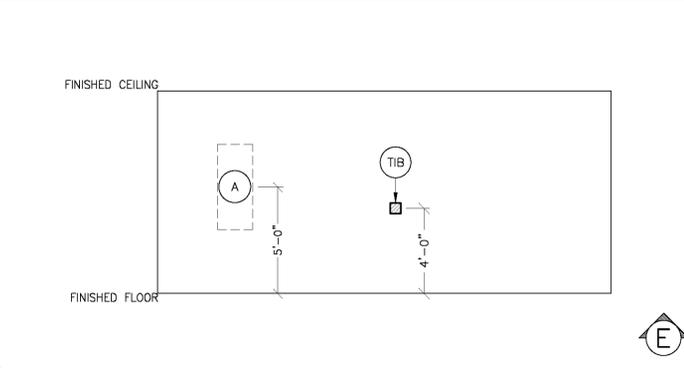
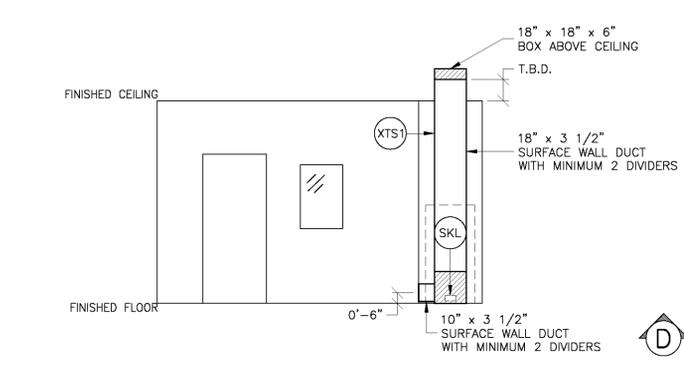
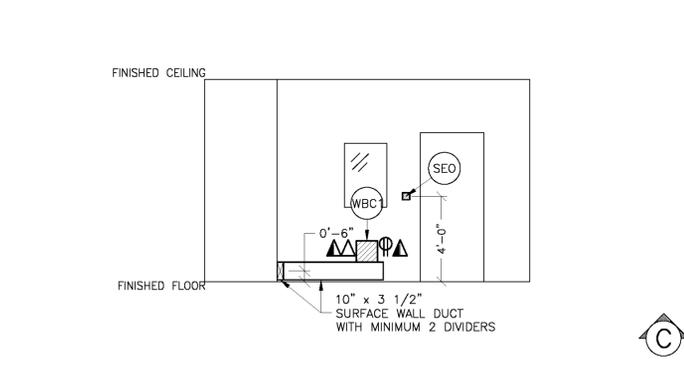
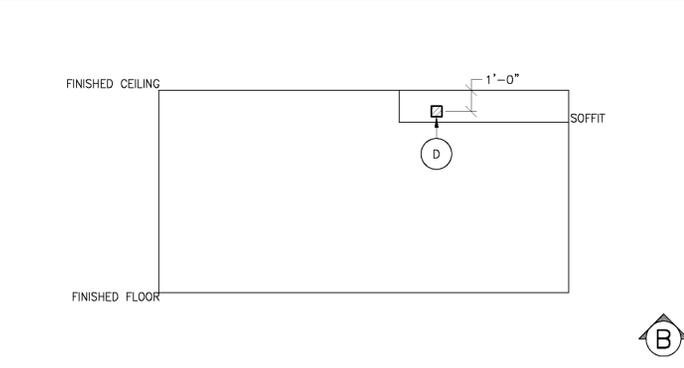
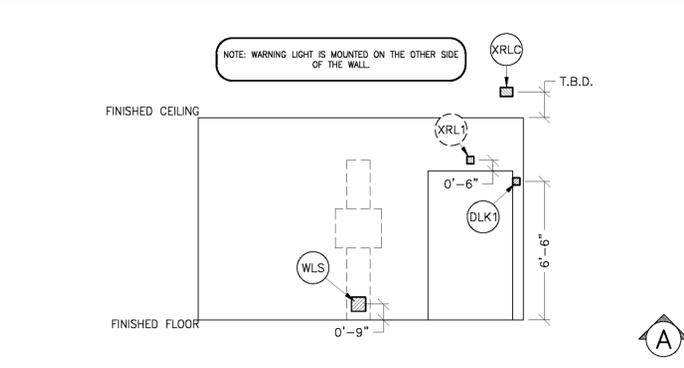
SHEET
S2

SCALE: 1/4" = 1'-0"

ELECTRICAL PLAN

RECOMMENDED CEILING HEIGHT = 9'-6"

JUNCTION POINT DESCRIPTIONS



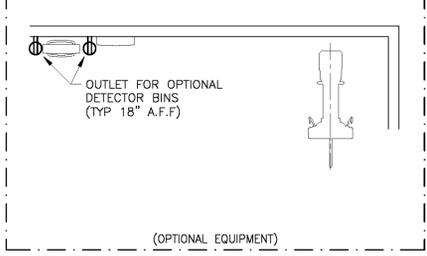
ELECTRICAL OUTLET LEGEND
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

- ⊕ DUPLEX HOSPITAL GRADE, DEDICATED OUTLET 120-V SINGLE PHASE POWER
- ⚡ DEDICATED TELEPHONE LINE(S) (SEE ELECTRICAL DETAIL ELEC-1 OR ELEC-67)
- ⚡ NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

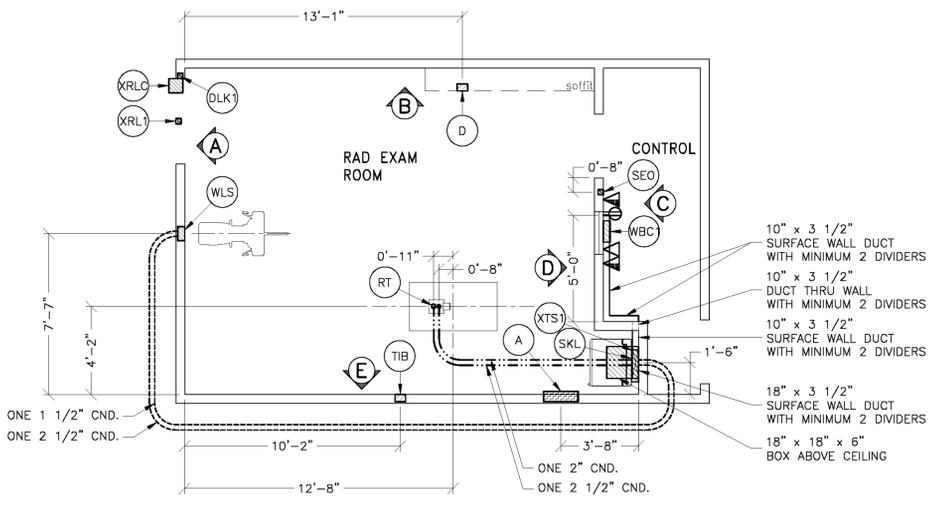
DUCT HATCHING LEGEND

- ▨ ABOVE CEILING DUCT
- ▩ UNDER FLOOR DUCT
- ▧ TRENCH DUCT (FLUSH FLOOR)
- ▦ SURFACE FLOOR DUCT
- ▤ CABLE TRAY
- ABOVE CEILING CONDUIT
- BELOW FLOOR CONDUIT

- JUNCTION POINT NOTES**
- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMER'S ELECTRICAL CONTRACTOR.
 - CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS.
 - CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
 - CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
 - ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
 - DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
 - DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
 - DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
 - PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
 - GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
 - 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
 - ALL WIRING MUST BE THIN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
 - GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.



PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.



XR656 JEDI 80kw SYSTEMS CABINET REV. DATE: 11/22/10

* CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
 * RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
 * NEUTRAL MUST BE TERMINATED INSIDE THE MAIN DISCONNECT PANEL AND NOT AT ANY GE CABINET.
 * THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER. THIS GROUNDING WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
 * MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.
 * FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE					
	342-418 380	360-440 400	373-456 420	386-484 440	414-508 460	432-528 480
50	* 2	* 2	* 2	* 2	* 2	* 2
100	* 2	* 2	* 2	* 2	* 2	* 2
150	1/0	1	1	* 2	* 2	* 2
200	2/0	2/0	1/0	1/0	1	1
250	3/0	3/0	2/0	2/0	1/0	1/0
300	4/0	4/0	3/0	3/0	2/0	2/0
350	300M	250M	4/0	4/0	3/0	3/0
400	350M	300M	250M	4/0	4/0	3/0
450	400M	350M	300M	250M	250M	4/0

ADDITIONAL CONDUIT RUNS FOR DISCOVERY XR656

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

TO	FROM	CONDUIT SIZE
XRLC	TO XRL1	ONE 1/2" CND.
XRLC	TO SKL	ONE 1/2" CND.
XRLC	TO 120-V POWER	CND. AS REQ'D
A	TO SKL	ONE CND. AS REQ'D
A	TO SEO	ONE 1/2" CND.
A	TO FEEDER	ONE CND. AS REQ'D
DLK1	TO SKL	ONE 1/2" CND.
SKL	TO TIB	ONE 2" CND.
WBC1	TO TIB	ONE 1" CND.
SKL	TO D	ONE 1" CND.
WBC1	TO D	ONE 1 1/2" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

POINT	DESCRIPTION	QTY.	THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR	
			HARDWARE	DETAIL NO., SHT. E3
A	MAIN DISCONNECT AVAILABLE FROM GEMSG. CALL: 800-558-5102 OR LOCAL GE INSTALLATION PROJECT MGR.	1	80-AMP CIRCUIT BREAKER PANEL WITH AUTO RESTART FEATURE-E4502RP. ONE REMOTE EMERGENCY OFF (SEO) PUSHBUTTON AND STAINLESS STEEL WALL PLATE STATION ARE WITH EACH MAIN DISCONNECT.	ELEC-15
D	DONGLE	1	COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 6 X 6 X 4 IN. BOX	ELEC-8
DLK1	DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)	1	ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME - NORMALLY OPEN (24V) 1 SINGLE GANG BOX	ELEC-16 ELEC-167
RT	TABLE	2	SUITABLE BUSHING & LOCKNUT	ELEC-9
SEO	EMERGENCY OFF	1	PROVIDE A SINGLE GANG, 2 1/2 IN. DEEP, FLUSH MTD. WALL BOX.	ELEC-16 ELEC-167
SKL	SYSTEMS CABINET	1	SPLIT COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 6 X 6 X 4 IN. BOX 90 DEGREE CONNECTOR 1/2 IN. LENGTH OF 1 1/2 IN. FLEXIBLE METAL CONDUIT 1 1/2 IN. DIA. CHASE NIPPLE 18 X 18 X 4 IN. BOX	ELEC-7 ELEC-2
TIB	TETHER INTERFACE BOX	1	COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 6 X 6 X 4 IN. BOX	ELEC-8
WBC1	OPERATORS CONSOLE	1	12 X 12 X 4 IN. BOX SPLIT COVER PLATE 1 1/2 IN. DIA. CHASE NIPPLE	ELEC-28 ELEC-173
WLS	CHEST UNIT	1	SPLIT COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 6 X 6 X 4 IN. BOX WITH DIVIDER	ELEC-79
XRL1	WARNING LIGHT	1	SINGLE GANG BOX 1" X-RAY ONLY INCANDESCENT LIGHT FIXTURE. 24V, 8 AMP OR LESS LOW VOLTAGE SOURCE. DO NOT USE FLUORESCENT FIXTURES.	ELEC-72
XRLC	WARNING LIGHT CONTROLLER AVAILABLE FROM GEMSG. CALL: 800-558-5102 OR LOCAL GE INSTALLATION PROJECT MGR.	1	E4502RL WARNING LIGHT CONTROL OR EQUIVALENT MAX 24V CONTROLLER	ELEC-72
XTS1	X-RAY TUBE HANGER	1	32 IN. OF GROMMET MATERIAL FOR AN 8 X 8 IN. OPENING IN DUCT COVER	ELEC-6

CONTRACTOR SUPPLIED AND INSTALLED WIRING
ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
XRLC > 1 PHASE	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
A > SEO	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
SKL > XRLC	2-ND. 14 BLACK, 1-ND. 14 RED, 1-ND. 14 WHITE
SKL > DLK1	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
XRL1 > XRLC	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
A > SKL	3-BLACK, 1-GREEN - REFER TO FEEDER TABLE
480-V > A	3-BLACK, 1-WHITE, 1-GREEN - REFER TO FEEDER TABLE

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL LAYOUT
MODALITY TYPE: DISCOVERY XR656

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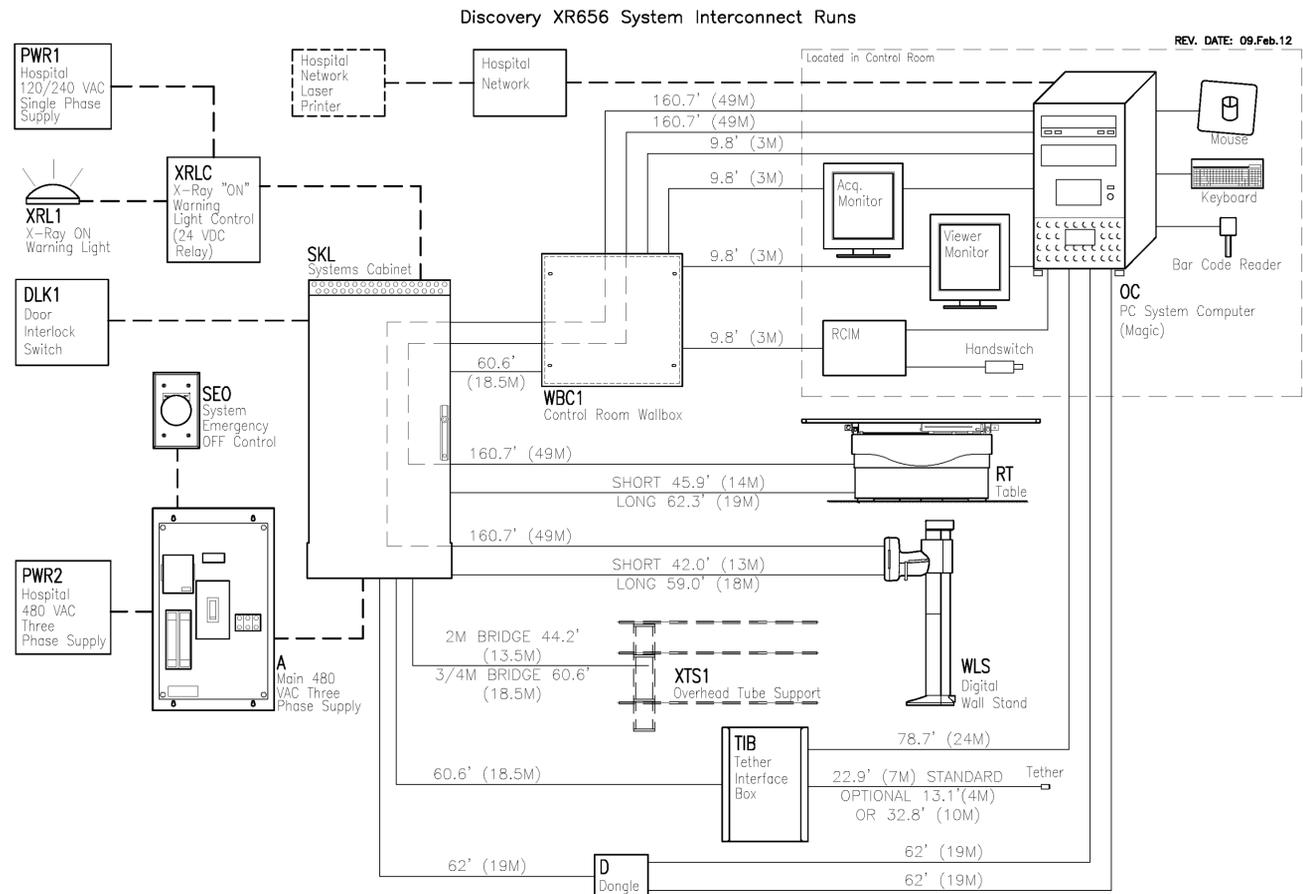
PROJECT TITLE:
1-144f
TYPICAL LAYOUT

PROJECT: 1-144f
REVISION: 02
DATE: 27.MAR.12
DRAWN BY: REK
CHECKED BY: MKL

REVISION HISTORY:

SHEET
E1

INTERCONNECT DIAGRAM



POWER SPECIFICATIONS

XR656 JEDI 80kw SYSTEMS CABINET REV. DATE: 11/22/10

VOLTAGE: PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS. RANGE OF LINE VOLTAGES: NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, WITHOUT NEUTRAL, 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE DISTRIBUTION

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)		MINIMUM OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
380	342-418	190	7	95-A
400	360-440	180	6.7	90-A
415	373-456	170	6.2	85-A
440	396-484	163	6	82-A
460	414-506	156	5.7	78-A
480	432-528	150	5.5	75-A

ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE

NOTE: LOW LINE CONDITIONS MAY INHIBIT SOME HIGH kVp TECHNIQUES. THE GENERATOR AUTOMATICALLY ESTABLISHES THESE INHIBITS BASED ON ACTUAL LINE CONDITIONS AND SYSTEM REGULATION.

PHASE-BALANCE: PHASE-TO-PHASE VOLTAGES MUST BE WITHIN +2 PERCENT OF THE LOWEST PHASE-TO-PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ARE 2.5 PERCENT OF RATED LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND FREQUENCY OF 10 TIMES PER HOUR.

POWER DEMAND: CONTINUOUS POWER DEMAND =4.6 KVA. (MAX DEMAND = 125 KVA)

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	XR656 JEDI 80 kW
kVa * POWER FACTOR AT	125 0.73
mA	630
kVp	80

* DEMAND INCLUDES POWER FOR ENTIRE SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRIBUTION TRANSFORMER: FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 150 KVA.

ELECTRICAL NOTES

- NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRIBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.
- NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.
- NOTE 7: ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL SPECIFICATIONS
MODALITY TYPE: DISCOVERY XR656

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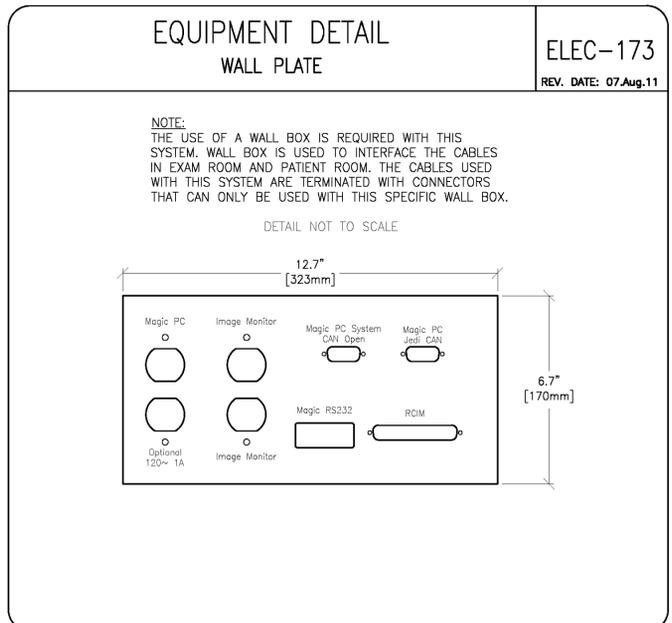
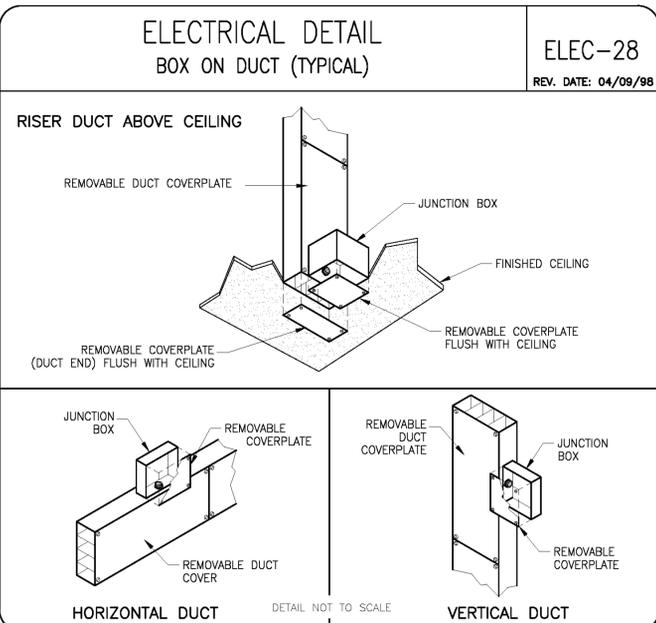
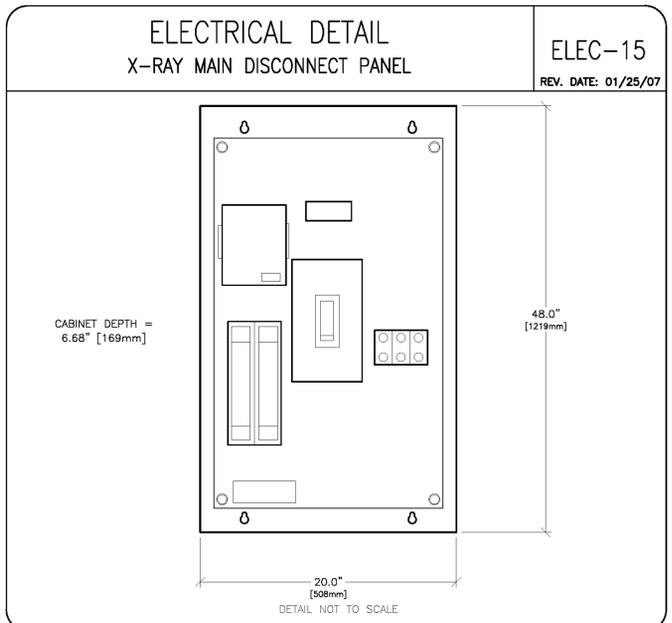
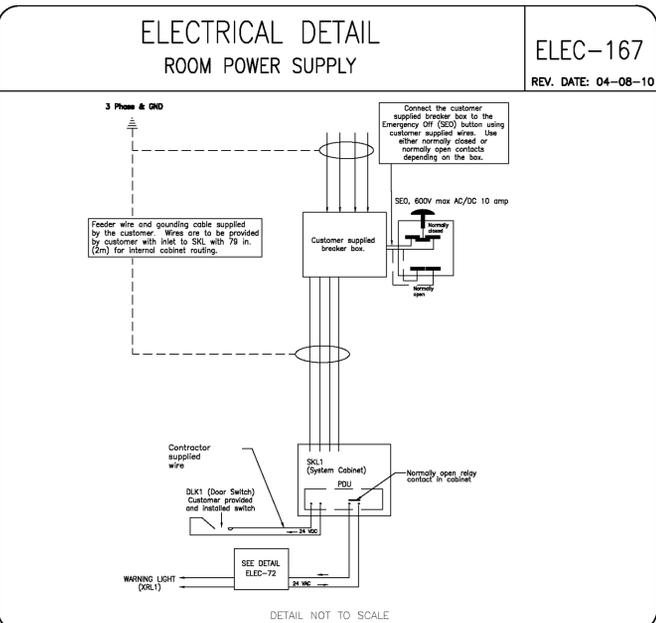
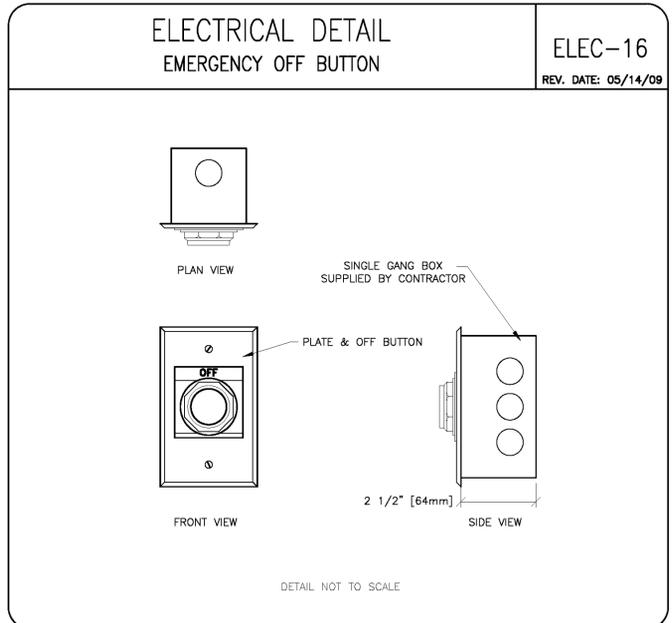
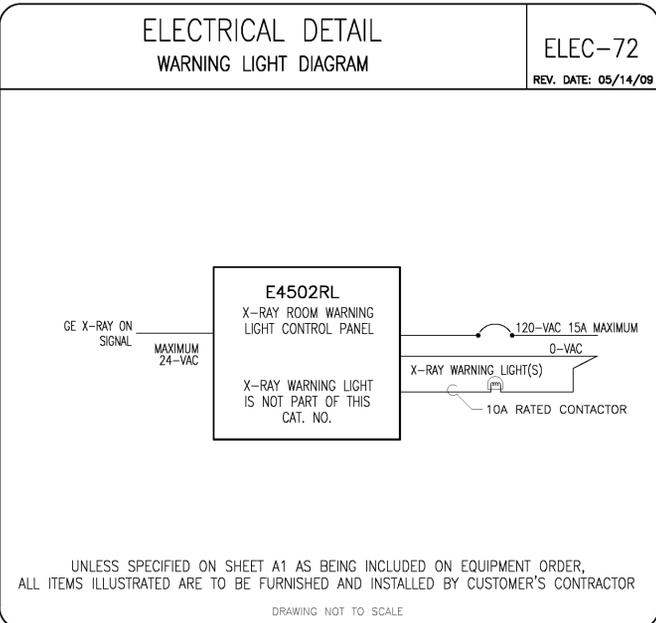
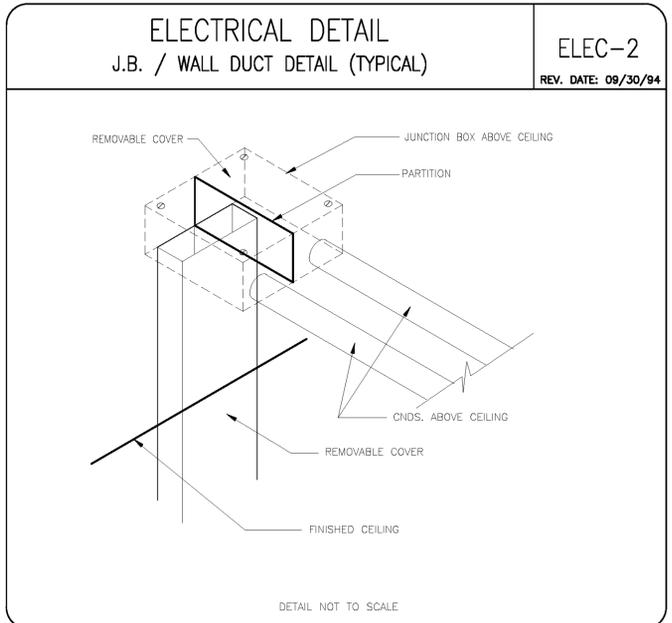
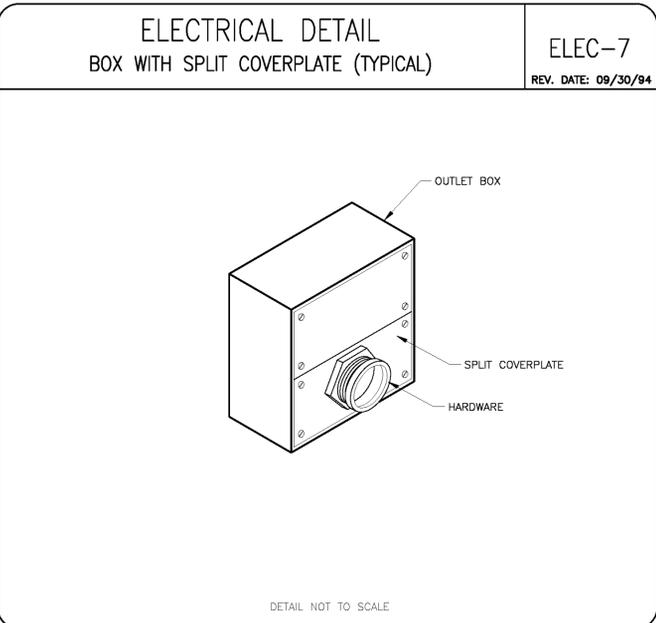
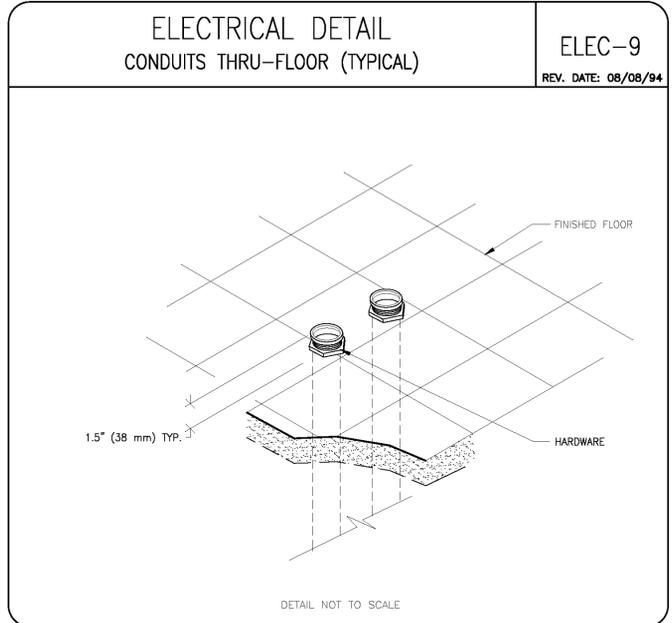
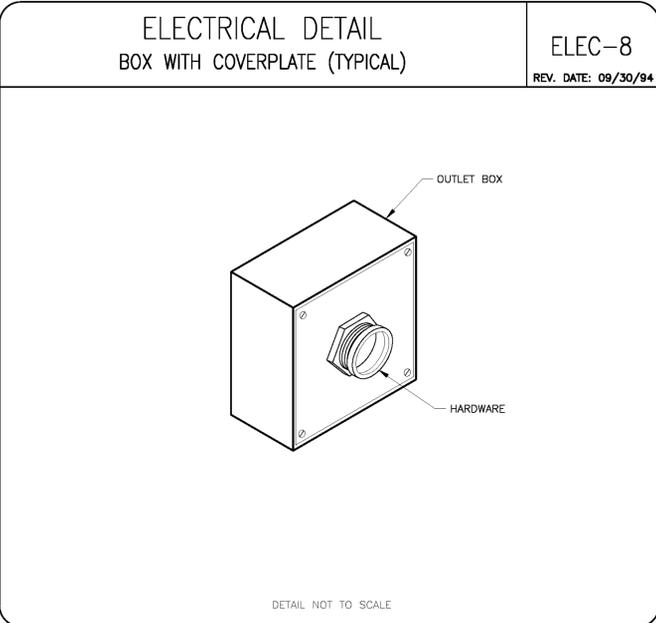
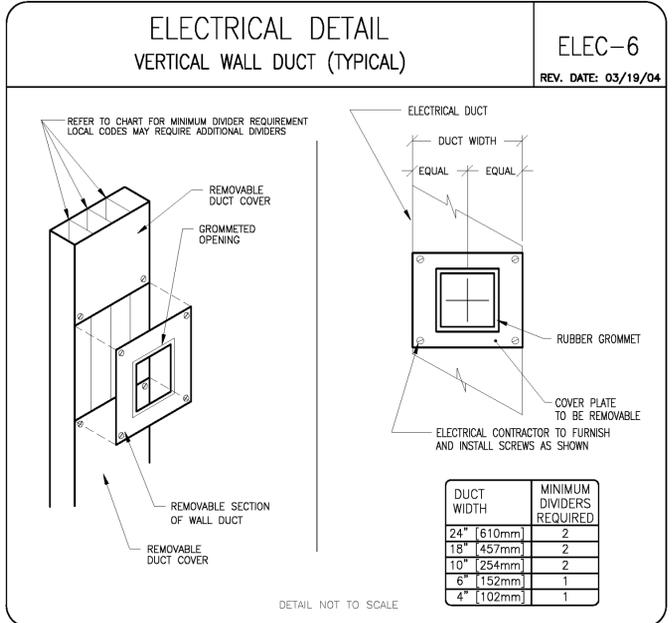
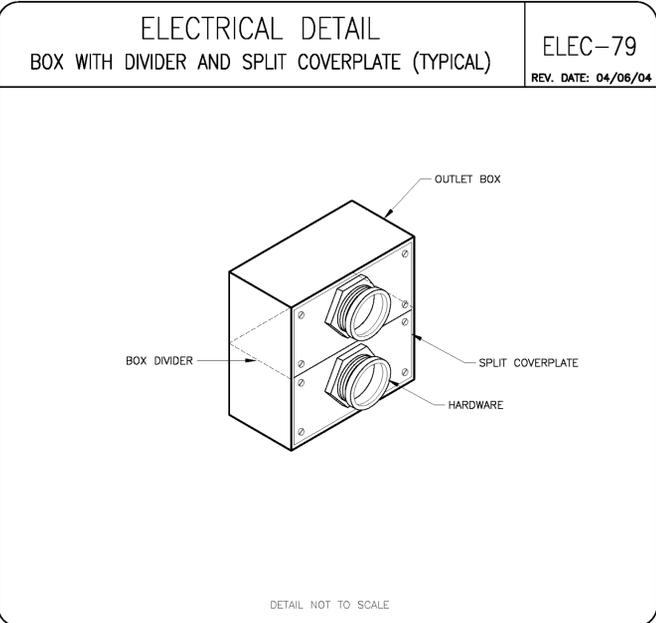
PROJECT TITLE:
1-144f
TYPICAL LAYOUT

PROJECT	REVISION
1-144f	02

DATE: 27.Mar.12
DRAWN BY: REK
CHECKED BY: MKL

REVISION HISTORY:

SHEET
E2



PIM R5
RQ - 125167

ELECTRICAL DETAIL
INSITE CONNECTION (TYPICAL)

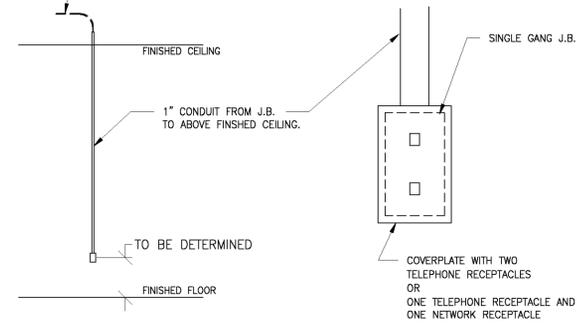
ELEC-1
REV. DATE: 04/24/02

ONE OF THE FOLLOWING TWO SELECTIONS MUST BE INSTALLED AT THE LOCATION SHOWN ON THE ELECTRICAL PLAN (SHEET E1) FOR GE INSITE CONNECTION BASED UPON SYSTEM CONFIGURATION.

A) ONE INTERNET ACCESSIBLE VIRTUAL PRIVATE NETWORK (VPN) CONNECTION WITH A STATIC IP ADDRESS, AND ONE TELEPHONE LINE - DEDICATED-DIRECT-DIALING, VOICE GRADE.

OR

B) TWO TELEPHONE LINES - ONE DEDICATED DIRECT-DISTANCE-DIALING, VOICE GRADE AND ONE A DEDICATED DATA LINE.

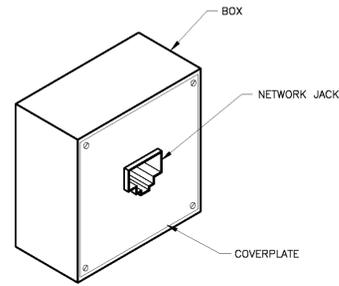


ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER OR THEIR CONTRACTOR.

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE AND NETWORK JACK

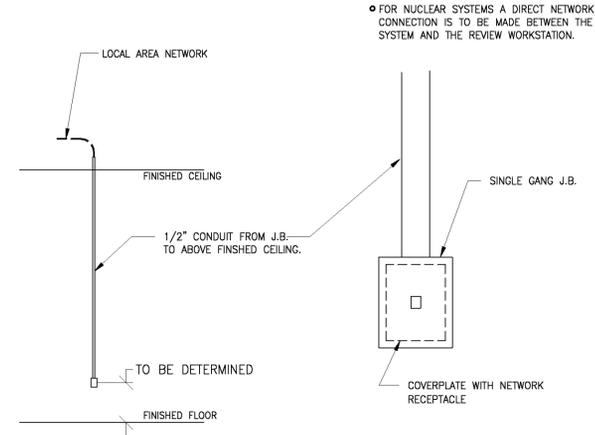
ELEC-83
REV. DATE: 10/06/98



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
NETWORK CONNECTION (TYPICAL)

ELEC-84
REV. DATE: 03/06/04



DETAIL NOT TO SCALE



GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL DETAILS
MODALITY TYPE: DISCOVERY XR656

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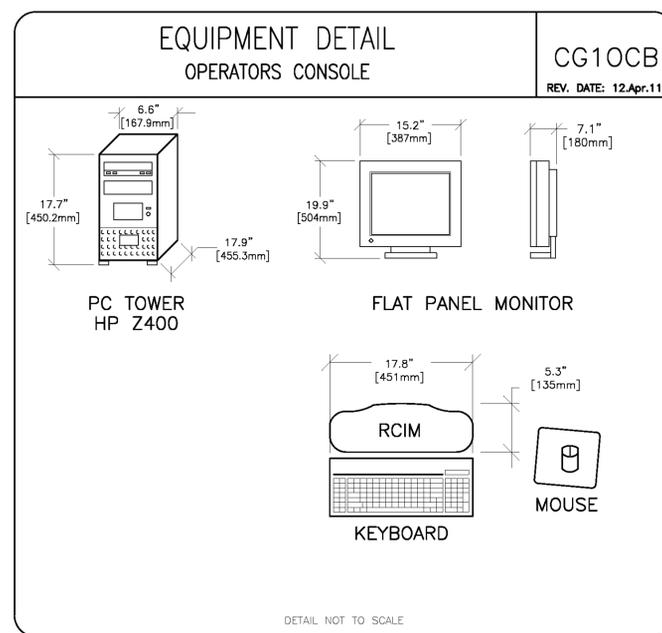
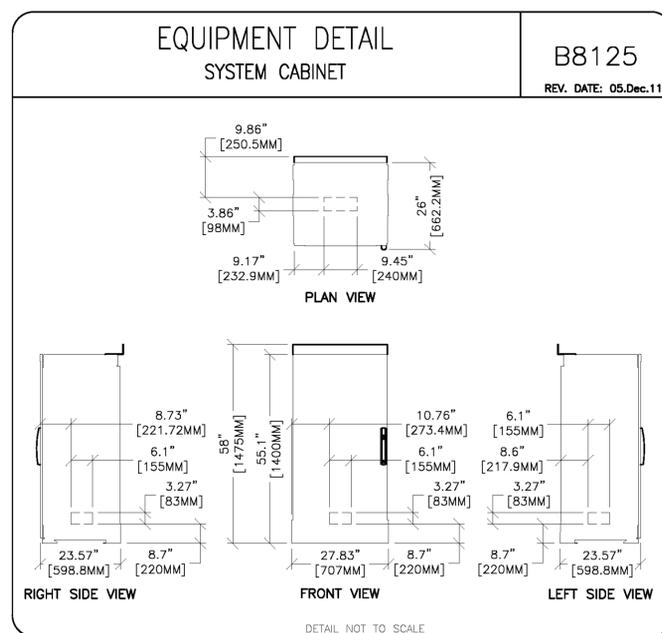
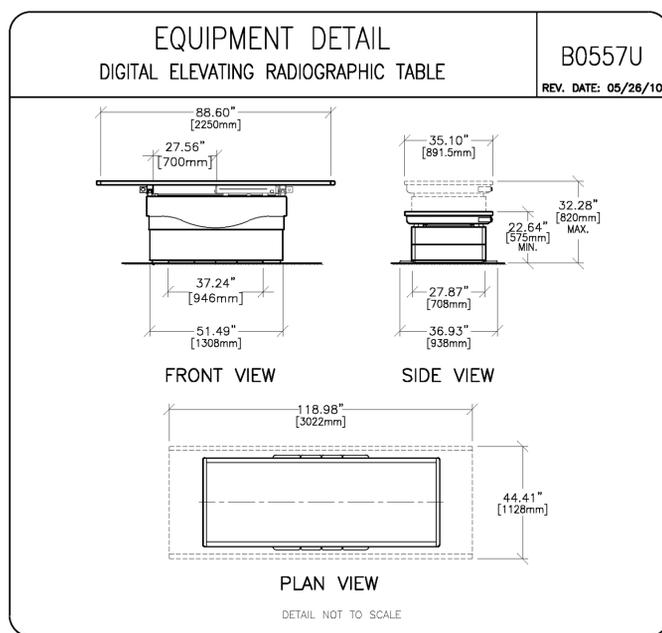
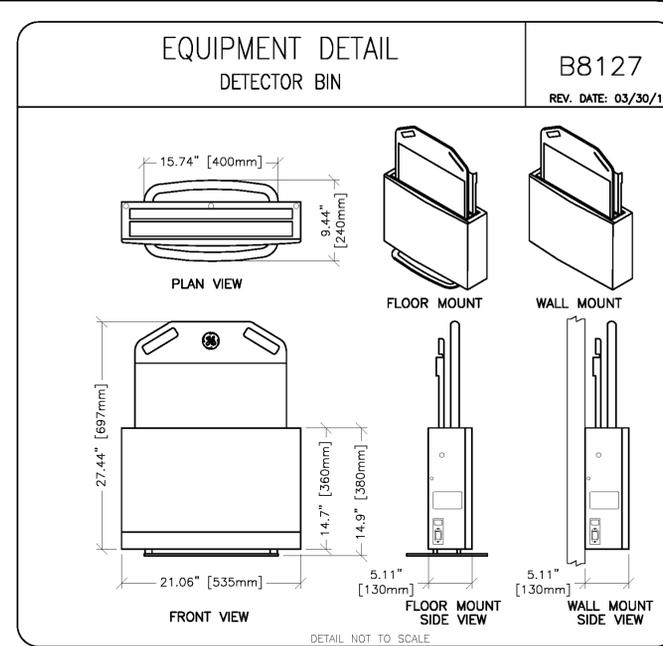
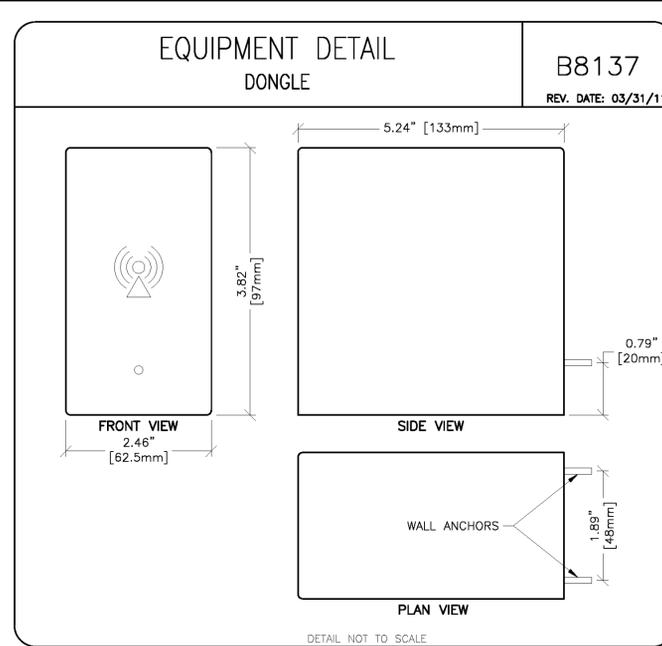
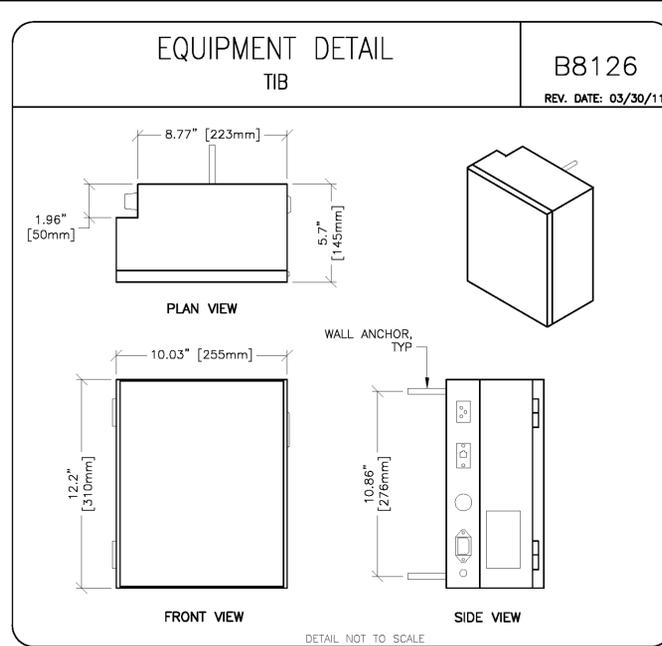
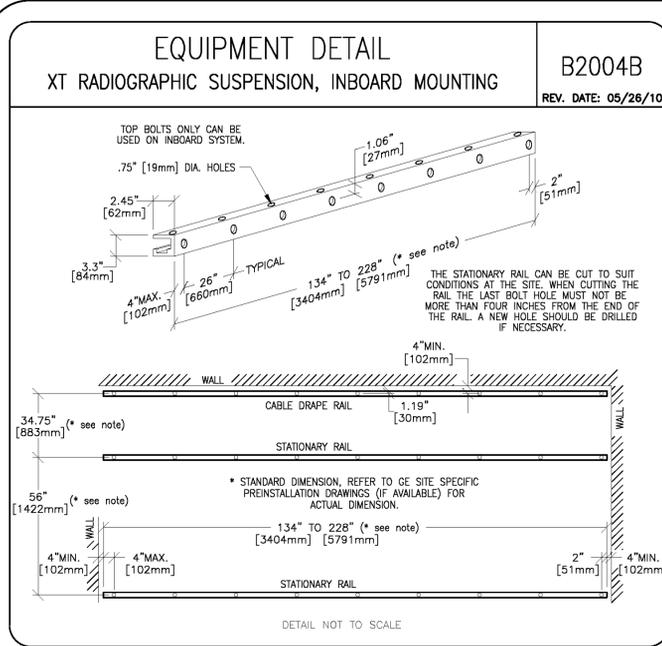
PROJECT TITLE:
1-144f
TYPICAL LAYOUT

PROJECT	REVISION
1-144f	02
DATE:	27.Mar.12
DRAWN BY:	REK
CHECKED BY:	MKL

REVISION HISTORY:

SHEET
E4

PIM R5 RQ - 125167



EQUIPMENT DETAIL EQUIPMENT SHIPPING DETAIL

B6564E
REV. DATE: 07.Aug.11

SHIPPING DIMENSIONS AND WEIGHTS - DOMESTIC SHIPMENTS				
LENGTH IN [MM]	WIDTH IN [MM]	HEIGHT IN [MM]	lbs [kg]	
SHIPPING DIMENSIONS (APPROX) - OVERHEAD TUBE SUPPORT INCLUDING X-RAY TUBE				
34 [864]	41 [1039]	53.5 [1355]	635 [288]	BOX/CRATE/SKID
SHIPPING DIMENSIONS (APPROX) - SET OF 2 RAILS				
233 [5920]	7 [178]	3 [76]	150 [68]	BOX
SHIPPING DIMENSIONS (APPROX) - 2 METER BRIDGE				
87 [2210]	29 [737]	7 [178]	138 [63]	BOX
SHIPPING DIMENSIONS (APPROX) - 3 METER BRIDGE				
122 [3099]	29 [737]	7 [178]	185 [84]	BOX
SHIPPING DIMENSIONS (APPROX) - 4 METER BRIDGE				
200 [5080]	29 [737]	8 [203]	305 [138]	BOX
SHIPPING DIMENSIONS (APPROX) - 2 METER CABLE ASSEMBLY				
32 [813]	23 [584]	9 [229]	100 [45]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) - 3 METER CABLE ASSEMBLY				
32 [813]	23 [584]	9 [229]	108 [49]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) - 4 METER CABLE ASSEMBLY				
32 [813]	23 [584]	9 [229]	110 [50]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) - SYSTEM CABINET				
35 [890]	30 [760]	65 [1650]	814 [370]	BOX
SHIPPING DIMENSIONS (APPROX) - SYSTEM CABINET HARDWARE				
27.8 [707]	26 [662]	58 [1475]	705 [320]	BOX/SKID

EQUIPMENT DETAIL EQUIPMENT SHIPPING DETAIL

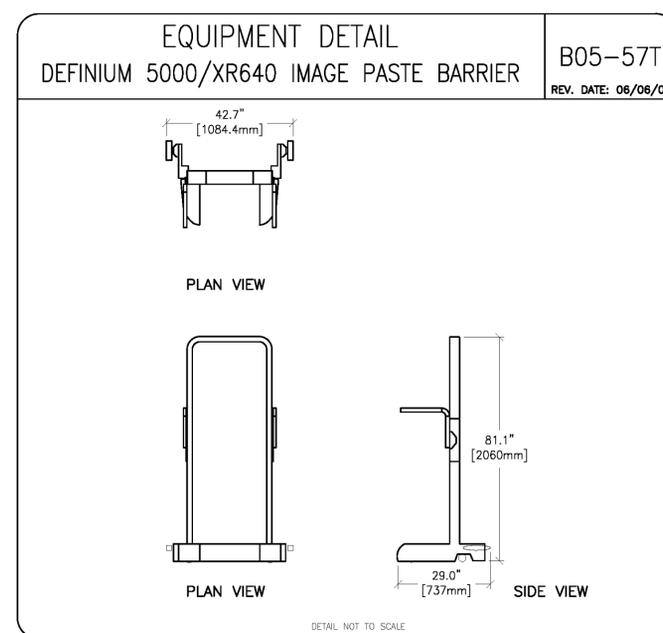
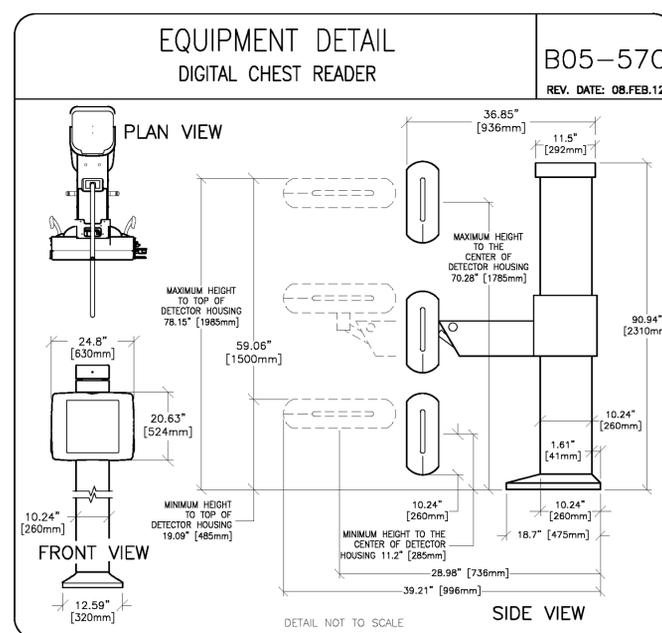
B6564F
REV. DATE: 07.Aug.11

SHIPPING DIMENSIONS AND WEIGHTS - DOMESTIC SHIPMENTS				
LENGTH IN [MM]	WIDTH IN [MM]	HEIGHT IN [MM]	lbs [kg]	
SHIPPING DIMENSIONS (APPROX) - WALL STAND				
96 [2440]	37 [940]	50 [1270]	1023 [464]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) - EXTENDED WALL STAND				
96 [2440]	37 [940]	65 [1651]	1087 [493]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) - DETECTOR ASSEMBLY				
41 [1042]	47 [1194]	29 [737]	194 [88]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) - TABLE ASSEMBLY				
95 [2400]	44 [1100]	51 [1300]	1327 [602]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) - STRETCHER NON-ELEVATING				
91 [2312]	41 [1042]	37 [940]	360 [164]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) - STRETCHER CARBON FIBER NON-ELEVATING				
90.5 [2300]	30 [770]	9 [230]	154 [70]	CRATE
SHIPPING DIMENSIONS (APPROX) - STRETCHER ELEVATING				
99 [2312]	37 [920]	32 [810]	772 [350]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) - EXAM ROOM LEAN CART				
84 [2134]	30 [762]	60 [1524]	VARIES	WHEELED CART
SHIPPING DIMENSIONS (APPROX) - CONTROL & OPTIONS LEAN CART				
51.5 [1308]	30 [762]	55 [1397]	VARIES	WHEELED CART
SHIPPING DIMENSIONS (APPROX) - DETECTOR BIN				
21.3 [540]	14.2 [360]	4.7 [120]	33 [15]	BOX

EQUIPMENT DETAIL XR656 HEAT OUTPUTS BY COMPONENT

B8138
REV. DATE: 07.Aug.11

PRODUCT OR COMPONENT	HEAT OUTPUT			
	STANDBY		IN-USE	
	BTU/h	Kilowatt	BTU/h	Kilowatt
Wall Stand Detector power	56	0.017	56	0.017
Wall Stand / Extended Wall Stand	79	0.023	321	0.094
Table Detector Power	56	0.017	56	0.017
Table	315	0.092	2272	0.666
OTS & Collimator	105	0.031	105	0.031
Tube Rotor	0	0	544	0.160
System Cabinet	2437	0.714	4869	1.427
Z400 PC + Monitor	601	0.176	863	0.253
TIB	6.75	0.002	68	0.020



GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT DETAILS
MODALITY TYPE: DISCOVERY XR656

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PROJECT TITLE:
1-144f
TYPICAL LAYOUT

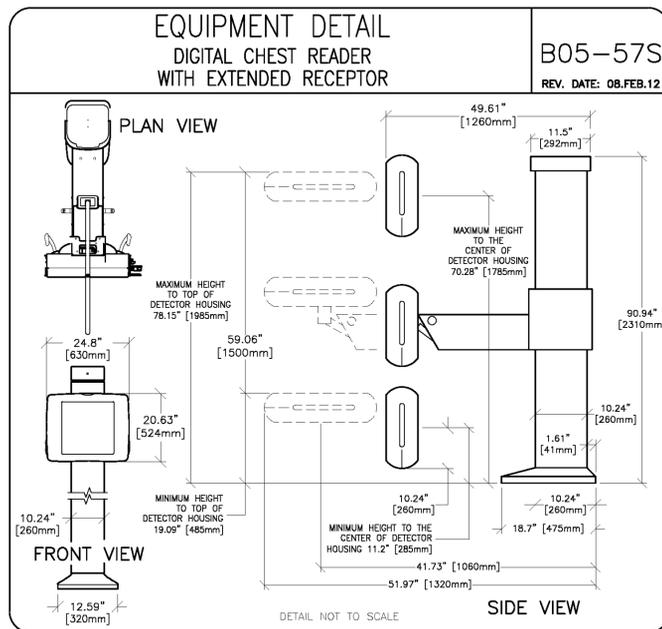
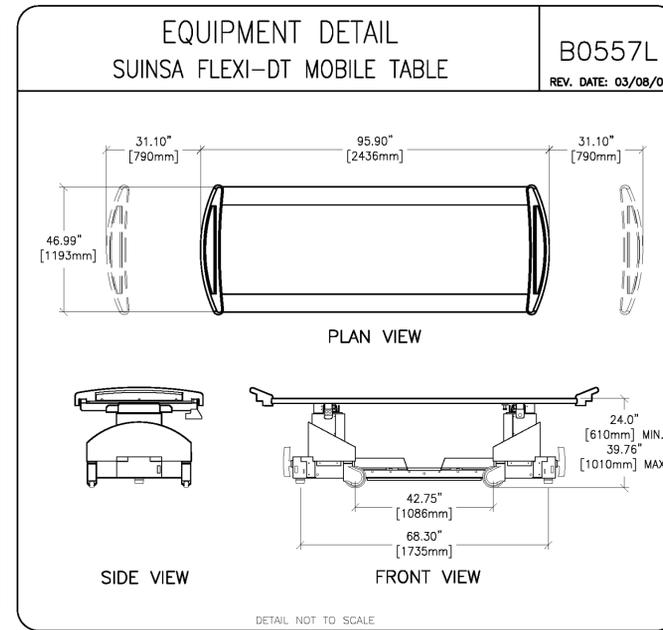
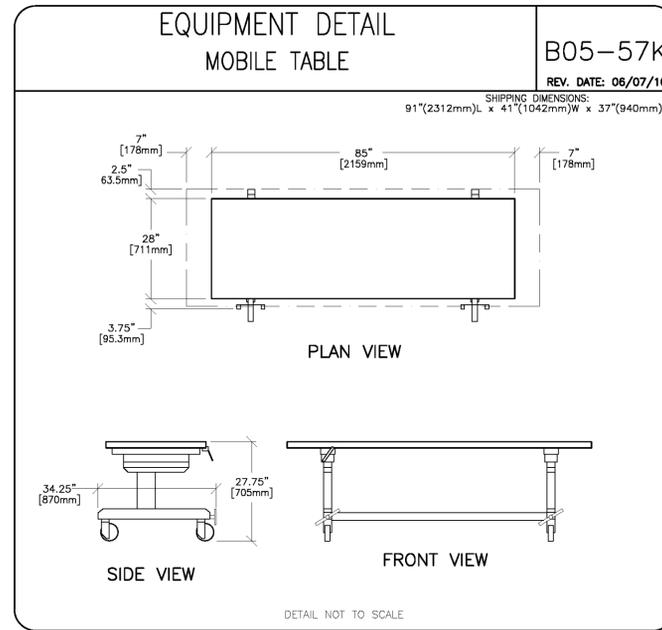
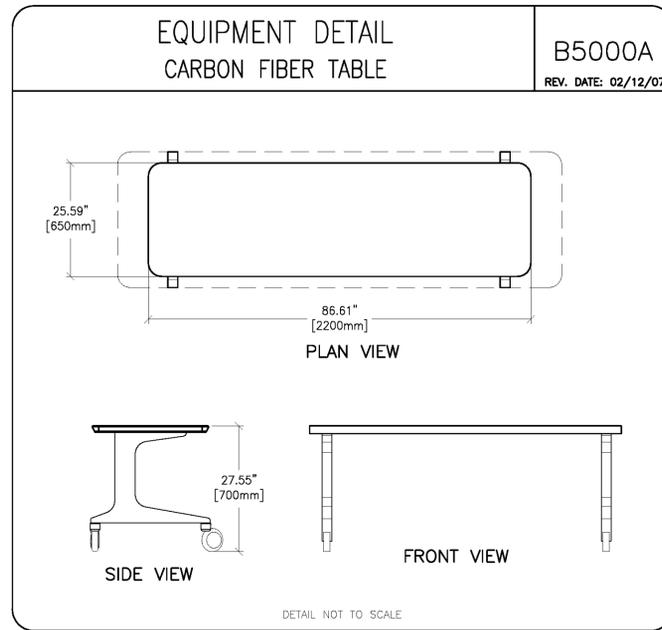
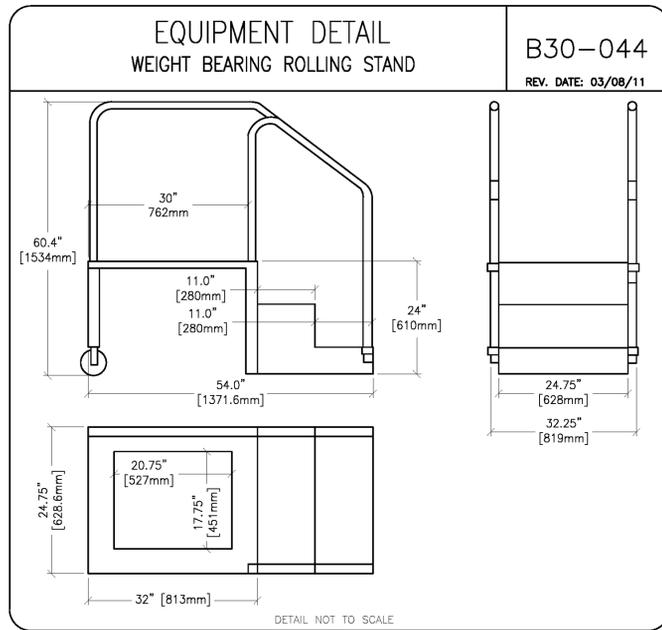
PROJECT	REVISION
1-144f	02

DATE: 27.Mar.12
DRAWN BY: REK
CHECKED BY: MKL

REVISION HISTORY:

SHEET
D1

PIM R5
RQ - 125167



GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: **EQUIPMENT DETAILS**
MODALITY TYPE: **DISCOVERY XR656**

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PROJECT TITLE:
1-144f
TYPICAL LAYOUT

PROJECT	REVISION
1-144f	02
DATE:	27.Mar.12
DRAWN BY:	REK
CHECKED BY:	MKL

REVISION HISTORY:

SHEET
D2

PIM R5
R0 - 125167