NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION
RIVERSIDE UNIVERSITY HEALTH SYSTEM
LEO A DALY PROJECT #047-10071-002

PROJECT GENERAL NOTES

1. GENERAL CONDITIONS

THE GENERAL CONDITIONS AS SUPPLIED BY RIVERSIDE UNIVERSITY HEALTH SYSTEM, LATEST EDITION ARE A PART OF THESE SPECIFICATIONS AND THE ENTIRE CONTRACT WORK

2. GOVERNING CODES

THE CONTRACTOR SHALL ABIDE BY ALL CURRENT CITY AND COUNTY GOVERNING ORDINANCES AND CODES, INCLUDED BUT NOT LIMITED TO:

APPLICABLE CODES:

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)
PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

2022 CALIFORNIA BUILDING CODE (CBC)
PART 2, TITLE 24, CCR
BASED ON THE 2021 INTERNATIONAL BUILDING CODE (IBC)

2022 CALIFORNIA ELECTRICAL CODE (CEC)
PART 3, TITLE 24, CCR
BASED ON THE 2020 NATIONAL ELECTRICAL CODE (NEC)

2022 CALIFORNIA MECHANICAL CODE (CMC)
PART 4, TITLE 24, CCR
BASED ON THE 2021 UNIFORM MECHANICAL CODE (UMC)

2022 CALIFORNIA PLUMBING CODE (CPC)
PART 5, TITLE 24, CCR
BASED ON THE 2021 UNIFORM PLUMBING CODE (UPC) BC\1

2022 CALIFORNIA ENERGY CODE (CED)
PART 6, TITLE 24, CCR

2022 CALIFORNIA HISTORICAL BUILDING CODE (CHBC)
PART 8, TITLE 24, CCR

2022 CALIFORNIA FIRE CODE (CFC)
PART 9, TITLE 24, CCR
BASED ON THE 2021 INTERNATIONAL FIRE CODE (IFC) BC\1

2022 CALIFORNIA EXISTING BUILDING CODE (CEBC)
PART 10, TITLE 24, CCR
BASED ON THE 2021 INTERNATIONAL BUILDING CODE

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen)
PART 11, TITLE 24, CCR

2022 REFERENCED STANDARDS - PART 12, TITLE 24, CCR
TITLE 19 CCR PUBLIC SAFETY, STATE FIRE MARSHALL REGULATION

APPLICABLE STANDARDS: BC\1

NFPA 13-22 AUTOMATIC SPRINKLER SYSTEMS -AS MODIFIED BY 2022 CBC, CHAPTER 35, SECTIONS 1613A / 1617A AND SFM AMENDMENTS
NFPA 14 STANDPIPE SYSTEMS -2013 EDITION
NFPA 17 -02 DRY CHEMICAL EXTINGUISHING SYSTEMS -2013 EDITION
NFPA 17A-02 WET CHEMICAL SYSTEMS -2013 EDITION
NFPA 20 STATIONARY PUMPS -2013 EDITION
NFPA 24 PRIVATE FIRE MAINS -2013 EDITION
NFPA 72 NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) -2013 EDITION
ENFORCEMENT INCLUDES ALL OTHER CODES REFERENCED IN THE ABOVE MODEL CODES (FOR EXAMPLE, THE NEC MAKES REFERENCE TO NUMEROUS NFPA PAMPHLETS

"THE INTENT OF THE CONSTRUCTION DOCUMENTS IS TO RECONSTRUCT THE HOSPITAL BUILDING IN ACCORDANCE WITH THE 2022 CBC. SHOULD ANY CONDITION DEVELOP NOT COVERED BY THE APPROVED CONSTRUCTION DOCUMENTS, WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE 2022 CBC, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY HCAI BEFORE PROCEEDING WITH WORK."

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AND ADDENDUM OR A CHANGE ORDER APPROVED BY HCAI, AS REQUIRED BY PART I, TITLE 24, CCR. A PROJECT INSPECTOR EMPLOYED BY THE OWNER AND APPROVED BY HCAI SHALL PROVIDE CONTINUED INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN PART I, TITLE 24, CCR.

ALL WORK SHALL CONFORM TO LISTED BUILDING CODES AN ALL APPLICABLE STATE AND MUNICIPAL ORDINANCES AND ALL OTHER RULES AND REGULATIONS HAVING JURISDICTION OVER THIS PROJECT. IN THE EVENT THAT TWO OR MORE REGULATIONS CONFLICT, THE MORE RESTRICTIVE SHALL GOVERN.

3. SHOP DRAWINGS AND SUBMITTALS

SHOP DRAWINGS ARE DRAWINGS DIAGRAMS, ILLUSTRATIONS, SCHEDULES, PERFORMANCE CHARTS, BROCHURES AND OTHER DATA WHICH ARE PREPARED BY THE CONTRACTOR OR ANY SUBCONTRACTOR MANUFACTURER, SUPPLIER OR DISTRIBUTOR AND WHICH ILLUSTRATES SOME PORTION OF THE WORK.

NO PORTION OF WORK REQUIRING SHOP DRAWING SHALL BE COMMENCED UNTIL THE SHOP DRAWINGS HAVE BEEN APPROVED BY THE ARCHITECT.

THE FOLLOWING SHOP DRAWING SUBMITTALS WILL BE REQUIRED ON THIS PROJECT:

THE DRAWINGS AND SPECIFICATIONS OF THE DEFERRED APPROVAL ITEMS MUST BE SUBMITTED TO THE ARCHITECT OR STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL WITH STAMP AND SIGNATURE BEFORE SUBMITTAL TO HEALTH CARE ACCESS INFORMATION (HCAI).

CONSTRUCTION OF DEFERRED APPROVAL ITEMS BEFORE DRAWINGS AND SPECIFICATIONS HAVE BEEN APPROVED BY HEALTH CARE ACCESS INFORMATION (HCAI) IS DEEMED NON-CONFORMING AND WILL RESULT IN WITHHOLDING OF APPROVAL OF THE ENTIRE PROJECT.

4. AS-BUILT RECORD DRAWINGS

THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, ACCESSIBLE TO THE ARCHITECT, ONE SET OF DIMENSIONED PRINTS SHOWING "AS INSTALLED" WORK INSIDE THE BUILDING AND EXTENDING OUT TO A POINT OF CONNECTION TO SITE UTILITIES.

A. SHOW ALL NOT READILY VISIBLE LINES AND ITEMS OF EQUIPMENT OF THE ELECTRICAL, PLUMBING, HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS.

B. WHERE DEVIATIONS FROM THE ORIGINAL DRAWINGS OCCUR IN THE LAYOUT OF DUCTS OR EQUIPMENT CONNECTED THERE TO, SHOW " AS INSTALLED" LOCATIONS AND SIZES, INCLUDING LOCATIONS OF ACCESS DOORS, DAMPERS AND CONTROL EQUIPMENT AND WIRING

C. SHOW ANY ITEM OF EQUIPMENT THAT DIFFERS IN THE TYPE, MODEL, CATALOG NUMBER OR MANUFACTURER FROM THAT CALLED FOR ON ORIGINAL DRAWINGS OR SPECIFICATIONS. UPON COMPLETION OF THE WORK AND BEFORE THE FINAL INSPECTION, COMPLETELY UPDATED RECORD SET USED DURING CONSTRUCTION SHALL BE SUBMITTED TO THE ARCHITECT.

5. FIRE PROTECTION REQUIREMENT

CONTRACTOR SHALL ASCERTAIN THAT THE CONSTRUCTION AREAS WILL NOT OBSTRUCT THE FIRE DEPARTMENTS ACCESS TO IT. EXITS FROM SAID AREAS SHALL BE MAINTAINED FREE AND CLEAR OF ALL OBSTRUCTIONS.

PROVIDE FIRE EXTINGUISHERS AS REQUIRED BY THE FIRE DEPT. FIELD INSPECTOR. MAINTAIN A MINIMUM OF 44" CLEAR AT ALL REQUIRED EXITS, CONSTRUCTION SHALL BE 1-HOUR FIRE-RESISTIVE THROUGHOUT.

THROUGH-PENETRATIONS AND MEMBRANE PENETRATIONS SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM OR MEMBRANE PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E 814 OR UL 1479, WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH (2.49 PA) OF WATER OR AS OTHERWISE PERMITTED BY 2022 CBC, SECTION 714. LISTED THROUGH-PENETRATION FIRESTOP SYSTEMS AND MEMBRANE PENETRATIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION DETAILS FOR LISTED SYSTEMS. LISTED THROUGH-PENETRATION FIRESTOP SYSTEMS, MEMBRANE PENETRATION PROTECTION AND OTHER PERMITTED MEANS AND METHODS OF PENETRATION PROTECTION SHALL BE SUBMITTED TO HCAI FIELD FIRE LIFE SAFETY OFFICER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION PER 2022 CBC, SECTIONS 107.2.1 AND 714.

AUTOMATIC FIRE SPRINKLER LAYOUT APPROVAL REQUIRED BY LOCAL FIRE AUTHORITY.

THE SPACING AND DETAILS OF THE SUPPORT AND BRACING OF FIRE SPRINKLER AND PIPING COMPLY WITH THE 2022 EDITION OF NFPA 13. PROVIDE ANCHORAGE DETAILS AND CALCULATIONS FOR THE CONNECTION OF SWAY BRACING TO THE STRUCTURE. ALL SHOP DRAWINGS OF THE SPRINKLER SYSTEM SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. BC\1

BC\1 PER OSHPD CAN 9-3301, IN OCCUPIED BUILDINGS, WHERE TEMPORARY CONSTRUCTION BARRIERS ARE REQUIRED TO BE INSTALLED DURING CONSTRUCTION OR RECONSTRUCTION OF FIRE-RESISTIVE ASSEMBLIES, TEMPORARY CONSTRUCTION SHALL MEET THE SAME FIRE RATING AS WOULD THE PERMANENT PARTITION (REFER TO SHEET A2/AE511). BC\1
THE USE OF PLASTIC OR VINYL DUST BARRIER IN LIEU OF FIRE RATED SEPARATION IS PROHIBITED.

TEMPORARY CONSTRUCTION BARRIERS ARE NOT REQUIRED WHERE ADEQUATE FIRE-RESISTIVE SEPARATION CAN BE DEMONSTRATED TO EXIST BETWEEN OCCUPIED AREAS AND CONSTRUCTION AREAS.

WHERE CONSTRUCTION BARRIERS AFFECT ANY EXIT COMPONENT, PRE-APPROVAL SHALL BE OBTAINED FROM THE LOCAL FIRE JURISDICTION AND HCAI PRIOR TO ANY DEMOLITION OR RECONSTRUCTION.

FIRE SAFETY DURING CONSTRUCTION, ALTERATIONS AND DEMOLITION FOR REMODEL PROJECTS.

A. IMPAIRMENTS TO ANY FIRE PROTECTION SYSTEM SHALL BE IN ACCORDANCE WITH 2022 CFC, SECTION 901. 2022 CFC, SECTION 1408.6
B. COVER OR REMOVE SMOKE DETECTORS DURING ALTERATION WHEN REQUIRED BY THE LOCAL FIRE AUTHORITY. HEAT DETECTORS MAY BE SUBSTITUTED FOR SMOKE DETECTORS DURING ALTERATIONS. NFPA 72-02, 2022 EDITION, SECTION 5.7.11.
C. MAINTAIN REQUIRED EXITS. WHEN TEMPORARY CONSTRUCTION BARRIERS ARE PROVIDED, EXIT CORRIDORS SERVING BEDRIDDEN PATIENTS SHALL HAVE THEIR REQUIRED WIDTH REDUCED TO 6 FEET. 2022 CFC, SECTION 1411.
D. TEMPORARY EXITS SHALL BE REVIEWED BY THE FIRE MARSHALL. 2022 CFC, SECTION 1411.
E. MAINTAIN FIRE-RESISTANCE RATING OF FIRE-RESISTANCE-RATED CONSTRUCTION AND MAINTAIN OPENING PROTECTIVES IN OPERATIVE CONDITION. 2022 CFC. 2022 CFC, SECTIONS 703.1 AND 703.2 AND 2022 CBC SECTION 704.13.
F. PLASTIC FILM WHEN USED FOR DUST PROTECTION, SHALL BE FIRE RESISTANT. TITLE 19, DIVISION 1, CHAPTER 1, SUBCHAPTER 3, ARTICLE 3, SECTION 3.08.
G. HOT WORK OPERATIONS INCLUDING CUTTING AND WELDING AND GRINDING SHALL BE IN ACCORDANCE WITH 2022 CFC, CHAPTER 26, 2022 CFC, SECTION 1404.6.
H. PRIOR TO CONSTRUCTION STARTING HCAI FIELD FIRE LIFE SAFETY OFFICER AND LOCAL FIRE AUTHORITY SHALL REVIEW AND APPROVE THE MEANS OF EGRESS AND HOW IT WILL BE MAINTAINED DURING CONSTRUCTION OF THE MEANS OF EGRESS, INCLUDING TO THE PUBLIC WAY. 2022 CFC, SECTION 3311.2 AND CAN 9-3301.

6. FINISHES

ALL INTERIOR FINISHES SHALL COMPLY WITH 2022 CBC, CHAPTER 8.

ANY NEW DECORATIONS USED SHALL MANNER. SAMPLES AND SPECIFICATIONS OF ALL FINISH MATERIALS SHALL BE SUBMITTED TO HCAI CONSTRUCTION FIELD ADVISOR FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

SUBMIT THREE (3) SAMPLES AND SPECIFICATIONS FOR EACH FINISH MATERIAL LISTED TO THE ARCHITECT AND STATE FIELD INSPECTOR FOR APPROVAL. PRIOR TO INSTALLATION, SUBMIT TO CONSTRUCTION ADVISORY SECTION HCAI FOR APPROVAL. FINISH MATERIALS IN EXIT WAYS SHALL HAVE A FLAME SPREAD OF 25 OR LESS AND A SMOKE DEVELOPMENT OF 450 OR LESS AND MEETING A CLASS II RATING PER ASTM E648. BC\1 BC\1

BC\1 FINISH MATERIALS IN ROOMS OF AREAS SHALL HAVE A FLAME SPREAD OF 75 OR LESS, SMOKE DEVELOPMENT SAME AS ABOVE. PAINT SHALL BE THE PRODUCT OF ONE MANUFACTURED AND SHALL BE DELIVERED TO JOB SITE IN SEALED CONTAINERS.

BC\1 INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS SHALL BE OF CLASS I (0.45 WATTS/CM2 OR GREATER) OR CLASS II (0.22 WATTS/CM2 OR GREATER) MATERIALS IN ACCORDANCE WITH ASTM E648 OR NFPA 253. SPECIFIC OPTIONAL DENSITY SMOKE RATING SHALL NOT EXCESS 450 PER ASTM

PAINT SHALL BE CONSIST OF MINIMUM TWO (2) COAT APPLICATION AND APPROPRIATE SEALER. BC\1

RECESSED MOUNTED FIXTURES IN RATED WALLS/CEILINGS SHALL BE BACK BOXED WITH MATERIAL EQUAL TO RATED WALL ASSEMBLY.

CEILINGS SHALL BE SMOOTH. EASILY CLEANED WITH NO ROUGH TEXTURES.

7. MEASUREMENTS

EACH CONTRACTOR AND SUBCONTRACTOR SHALL VERIFY MEASUREMENTS OF THE BUILDING AND THEY SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE SAME. NO EXTRA COMPENSATION WILL BE ALLOWED ON ACCOUNT OF ANY DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND MEASUREMENTS INDICATED OF THE DRAWINGS. IF A DIFFERENCE EXISTS, IT SHALL BE SUBMITTED TO THE ARCHITECT FOR CONSIDERATION BEFORE PROCEEDING WITH THE WORK.

FOR CONSTRUCTION PURPOSES, USE NOTED DIMENSIONS ONLY.
DO NOT SCALE DRAWINGS. VERIFY THE PRECISE LOCATIONS OF ALL EQUIPMENT WITH THE OWNER PRIOR TO THE INSTALLATION OF THAT EQUIPMENT OR THE SERVICES THAT SUPPORT IT.

ALL DIMENSIONS ARE TO FACE OF STUD (F.O.S.) OR CENTER LINE OF STUD UNLESS NOTED OTHERWISE.

8. PROTECTION OF WORK AND PROPERTY

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF AND PRESERVATION OF:
1. ALL MATERIALS, SUPPLIES AND EQUIPMENT OF EVERY DESCRIPTION INCLUDING PROPERTY WHICH MAY BE FURNISHED OR OWNED BY OWNER OR BY OTHERS WHILE SUCH PROPERTY IS LOCATED ON THE CONSTRUCTION SITE.
2. ALL WORK PERFORMED.
EXERCISE EXTREME CARE TO PREVENT DAMAGE TO EXISTING EQUIPMENT, STRUCTURES AND SERVICES. DAMAGE AS A RESULT OF THIS WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE PROTECTION FROM DUST, DIRT AND MOISTURE FOR THE PROTECTION OF THE WORKMEN, STAFF, PATIENTS, THE PUBLIC AND EXISTING COMPUTER AS REQUIRED BY ALL PERTINENT CODES AND REGULATIONS.

9. EXTENT OF DEMOLITION

PERFORM ALL DEMOLITION SHOWN ON DRAWINGS. DO ALL CUTTING, BORING, SLAB CUTTING, OR OTHER DEMOLITION AS SHOWN ON DRAWINGS FOR THE INSTALLATION OF ANY PATCH AND/OR REFINISH ALL EXISTING SURFACES TO MATCH ADJACENT SURFACES AND NEW SPECIFIED FINISHES.

SALVAGE MATERIALS NOT SCHEDULED FOR REUSE SHALL BE STORED OR DISPOSED OF AS INSTRUCTED BY THE OWNER.

DEMOLITION PLAN AND NOTES ARE INCLUDED FOR GENERAL INFORMATION ONLY AND ARE NOT INTENDED TO REPRESENT ALL CONDITIONS PRESENT AT THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING THE SITE FOR CONSTRUCTION
AS DESCRIBED AND DETAILED IN THE CONTRACT.

WHENEVER CUTTING, PATCHING, ETC. IS REQUIRED, ALL ADJACENT SURFACES SHALL BE FINISHED TO ACHIEVE A MATCHING SURFACE CONDITION. SAW CUTTING AND CORE DRILLING SHALL BE USED IN LIEU OF JACKHAMMERING.

10. CLEAN-UP

THE COMPLETE AREA OF WORK AND CORRIDORS LEADING THERE TO SHALL BE LEFT FREE OF DUST AND DEBRIS. ALL RUBBISH AND DEBRIS SHALL BE COLLECTED AND STORED IN PLIES FOR REMOVAL PERIODICALLY FROM THE SITE.

11. MATERIAL TO BE RELOCATED

ALL MATERIAL REMOVED AND RELOCATED SHALL BE PROTECTED FROM DAMAGE DURING THIS PROCESS. REPAIR OR REPLACE DAMAGED PARTS TO MATCH BEFORE DAMAGE.

12. EXPANSION ANCHORS

REFER TO STRUCTURAL DRAWINGS.

13. DOOR HARDWARE

MAXIMUM EFFORT TO OPEN DOORS SHALL BE 5 LBS. INTERIOR 5 LBS. EXTERIOR, AND 15 LBS AT FIRE DOORS. HAND-ACTIVATED HARDWARE SHALL BE CENTERED BETWEEN 30 INCHES AND 44 INCHES ABOVE THE FLOOR. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP.

14. ASBESTOS ON HAZARDOUS WASTE

ASBESTOS OR HAZARDOUS WASTE, IT IS UNDERSTOOD AND AGREED THAT THIS CONTRACT DOES NOT CONTEMPLATE THE HANDLING OF ASBESTOS OR ANY HAZARDOUS WASTE MATERIAL. IF ASBESTOS OR ANY HAZARDOUS WASTE MATERIAL IS ENCOUNTERED, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY. DO NOT DISTURB, HANDLE OR ATTEMPT TO REMOVE.

15. HCAI PRE-APPROVED DOCUMENTS

COPY OF HCAI PRE-APPROVED DOCUMENTS MUST BE MADE AVAILABLE AT THE JOB SITE AT ALL TIMES. INSTALLATION AND PRE-APPROVED
ITEMS MUST BE DONE IN A STRICT ACCORDANCE WITH THE PRE-APPROVED DOCUMENTS. IDENTIFY MANUFACTURER'S NAME & MODEL NO. IF APPLICABLE.

16. EQUIPMENT SUPPORTS AND ANCHORAGE

ANCHORAGE AND SUPPORTS OF ALL EQUIPMENT TO BE INSTALLED, AS A PART OF THIS PROJECT SHALL BE DETAILED ON CONSTRUCTION DOCUMENTS , EXCEPT THOSE EXEMPT BY 2022 CBC SECTION 1617A.1.18. EQUIPMENT SUPPORTS AND ANCHORAGE SHALL BE APPROVED BY THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD AND HCAI AS PART OF THE FIELD REVIEW/OBSERVATIONS. THE INSPECTOR OF RECORD (IOR) SHALL ASSURE THAT THE ABOVE REQUIREMENTS ARE REFORCED.

SCOPE OF WORK

BC\1

THE PROJECT SCOPE INVOLVES THE ADDITION OF A NEW CATH LAB SUITE LOCATED ON LEVEL 1 OF THE EXISTING HOSPITAL, CURRENTLY OCCUPIED BY PHYSICAL THERAPY & OCCUPATIONAL THERAPY. THIS SUITE WILL HAVE TWO CATH LAB PROCEDURE ROOMS, EACH WITH A DEDICATED CONTROL ROOM AND TECH. ROOM ALONG WITH OTHER SUPPORTS SPACES. SCOPE ALSO INCLUDES EXPANSION OF EXISTING HYPERBARIC CHAMBER ROOM TO ACCOMMODATE ADDITIONAL HYPERBARIC CHAMBER AND ITS SUPPORT SPACES. HYPERBARIC THERAPY AREA IS LISTED AS CATEGORTY 1 WITH CLASS B CHAMBERS IN ACCORDANCE WITH NFPA 99 (2018) 14.1.3. PROJECT AREA IS APPROXIMATELY 9,320 SF.
CATH LAB ROOMS ARE A CLASS 2 IMAGING ROOM PER TABLE 1224.4.11.4a.

FACILITY MAPS & BUILDING INFORMATION

Riverside University HEALTH SYSTEM

Campus & Parking Map



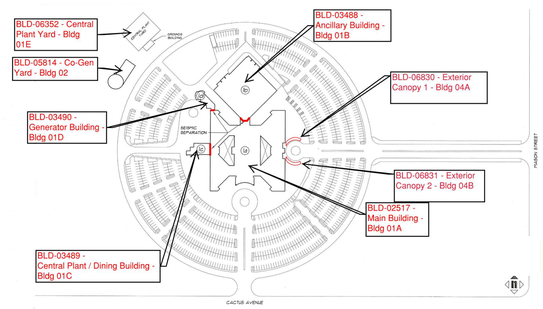
Staff Parking Lot
Staff Carpool Only
Patient/Visitor Parking lot
EV Charging
Handicap Parking
Panera Bread
Emergency
Hospital Entrance
Clinic/Outpatient Entrance
Ambulance Path

26600 Cactus Avenue, Moreno Valley, CA 92555 / 951-988-9500 / RUHealth.org

VICINITY MAP



VICINITY MAP



RIVERSIDE UNIVERSITY HEALTH SYSTEM - MEDICAL CENTER
Facility No. 15007
11/16/2021

BUILDING INFORMATION

PROJECT LOCATION

RIVERSIDE UNIVERSITY HEALTH SYSTEM
26520 CACTUS AVENUE
MORENO VALLEY, CA 92555

CONSTRUCTION TYPE / OCCUPANCY

CONSTRUCTION TYPE I-A, INSTITUTIONAL OCCUPANCY GROUP I-2, FULLY SPRINKLERED

BUILDING DATA

1 BASEMENT LEVEL, 4 STORIES, AND ROOF
TOTAL HEIGHT: 0'-0" (MEASURED FROM GROUND LEVEL)
362 TOTAL BEDS

HCAI FACILITY AND BUILDING NUMBER

FACILITY No.: 15007
HCAI ID: 106334487
BLD-02517 - MAIN HOSPITAL - ORIGINAL BUILDING

STRUCTURAL PERFORMANCE CATEGORY

BLD-02517: SPC-5

NON-STRUCTURAL PERFORMANCE CATEGORY

BLD-02517: NPC-2

HCAI DEFERRED APPROVAL ITEMS

1. FIRE SPRINKLER - REWORK EXISTING SYSTEM TO CONFORM TO A NEW SPACE CONFIGURATION. ADD DEVICES AS NECESSARY FOR NEW ROOMS. MATCH DEVICES TO MANUFACTURER OF CURRENT SYSTEM. OBTAIN LOCAL FIRE AUTHORITY APPROVAL FOR CHANGES TO THE FIRE SPRINKLER SYSTEM AS PART OF THE DEFERRED APPROVAL REQUIREMENTS. REFER TO DOCUMENT (HTTPS://HCAI.CA.GOV/WP-CONTENT/UPLOADS/2020/10/FLSO-2019-LOCAL-FIRE-AUTHORITY-APPROVAL.PDF)
2. FIRE ALARM - REWORK EXISTING SYSTEM TO CONFORM TO NEW SPACE CONFIGURATION. RELOCATE HEADS TO COVER THE AREAS AS NEEDED. BRANCH MODIFICATIONS ONLY. ALL MAIN LINES ARE EXISTING TO REMAIN. MATCH TYPE, STYLE AND FINISH OF EXISTING SPRINKLER HEADS. OBTAIN LOCAL FIRE AUTHORITY APPROVAL FOR CHANGES TO THE FIRE ALARM SYSTEM AS PART OF THE DEFERRED APPROVAL REQUIREMENTS. REFER TO DOCUMENT (HTTPS://HCAI.CA.GOV/WP-CONTENT/UPLOADS/2020/10/FLSO-2019-LOCAL-FIRE-AUTHORITY-APPROVAL.PDF)
3. MEP SEISMIC BRACING AND ASSOCIATED SUPPORTS - REQUIRED FOR ALL CONDUIT, DUCTWORK, AND PIPING WHICH DOES NOT MEET THE EXCEMPTION CRITERIA PER 2022 CBC SECTION 1617A.1.24, 1617A.1.25 OR 1617A.1.26. USE PRE-APPROVED SYSTEMS BY A SINGLE MANUFACTURER - OPM-0043-13, OPM-0052-13 OR OPM-0403-13.
4. NURSE CALL

PROJECT TEAM

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CONTACT: Rick Lloyd

Door Hardware
OCI
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CONTACT: Michael Rice

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Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HENRICH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

BC\1

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
GENERAL PROJECT INFORMATION

SHEET NUMBER
GI001

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7/12/2024 2:41:16 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

ABBREVIATIONS

A		FHC	FIRE HOSE CABINET	PART	PARTITION
A/C	AIR CONDITIONING	FIN	FINISH	PAVT	PAVEMENT
AB	ANCHOR BOLT / AIR BLENDER	FIX	FIXTURE	PC	POINT OF CURVATURE / PRIVACY CURTAIN
ABS	ACRYLONITRILE-BUTADIENE-STYRENE	FL	FLOOR	PCF	POUNDS PER CUBIC FOOT
AC	ALTERNATING CURRENT / AIR COMPRESSOR	FM	FORCE MAIN / FACTORY MUTUAL	PED	PEDESTAL
ACP	ASBESTOS CEMENT PIPE	FP	FIREPROOFING / FIRE PUMP	PERP	PERPENDICULAR
ACU	AIR CONDITIONING UNIT	FPM	FEET PER MINUTE	PHC	PREHEAT COIL
AD	AREA DRAIN	FR	FIRE RATED	PHVAC	PLUMBING, HEATING, VENTILATING AND AIR CONDITIONING
ADA	AMERICANS WITH DISABILITIES ACT	FRP	FIBERGLASS REINFORCED PLASTIC		
ADJ	ADJACENT / ADJUSTABLE	FS	FLOW SWITCH	PI	POINT OF INTERSECTION
ADR	ACCESS DOOR	FT	FEET	PIV	POST INDICATOR VALVE
AFF	ABOVE FINISH FLOOR	FTG	FOOTING	PKG	PARKING
AHU	AUTHORITY HAVING JURISDICTION	FVC	FIRE VALVE CABINET	PL	PLASTIC LAMINATE / PROPERTY LINE / PLATE
AHU	AIR HANDLING UNIT	G		PLAS	PLASTER
AL	ALUMINUM	G	GAS / GRILLE	PLBG	PLUMBING
ALT	ALTERNATE	GA	GAGE	PLF	POUNDS PER LINEAR FOOT
APC	ACOUSTICAL PANEL CEILING	GALV	GALVANIZED	PLYWD	PLYWOOD
APPROX	APPROXIMATELY	GB	GRAB BAR	PNL	PANEL
APT	APARTMENT	GBD	GRAVITY BACKDRAFT DAMPER	POL CONC	POLISHED CONCRETE
ARCH	ARCHITECT(URAL)	GEN	GENERATOR	PR	PAIR
ASPH	ASPHALT	GFRC	GLASS FIBER REINFORCED CONCRETE	PRF	POURED RESINOUS FLOORING
ATB	AIR TERMINAL BOX	GI	GALVANIZED IRON	PROJ	PROJECTION
ATC	ACOUSTICAL TILE CEILING	GL	GLASS	PRV	PRESSURE REGULATING VALVE
ATD	AIR TRANSFER DUCT	GLB	GLASS BLOCK	PSF	POUNDS PER SQUARE FOOT
ATU	AIR TERMINAL UNIT	GLP	GLASS PANEL	PSI	POUNDS PER SQUARE INCH
AUX	AUXILIARY	GLT	GLASS TILE	PT	POINT OF TANGENCY
AVG	AVERAGE	GP	GLAZED PAINT	PTB	PORCELAIN TILE BASE
AWT	ACOUSTICAL WALL TREATMENT	GPM	GALLONS PER MINUTE	PTF	PORCELAIN TILE FLOOR
AZ	AZIMUTH	GR	GRADE	PTVC	POINT OF VERTICAL CURVATURE
B		GRV	GRAVITY ROOF VENTILATOR	PTW	PORCELAIN TILE WALL
BB	BALLED AND BURLAPPED	GT	GROUT	PVC	POLYVINYL CHLORIDE
BD	BOARD	GWB	GYPSUM WALLBOARD	PVI	POINT OF VERTICAL INTERSECTION
BDD	BACK DRAFT DAMPER	GYP	GYPSUM	PVT	POINT OF VERTICAL TANGENCY
BE	BOTTOM ELEVATION	H		Q	
BL	BUILDING LINE	HB	HOSE BIBB	QTB	QUARRY TILE BASE
BLDG	BUILDING	HC	HEATING COIL	QTF	QUARRY TILE FLOOR
BLKG	BLOCKING	HDNR	HARDENER	QZP	QUARTZ POLYMER
BM	BENCH MARK / BEAM	HDW	HARDWARE	R	
BR	BARE ROOT	HDWD	HARDWOOD	R	RADIUS / REGISTER
BRG	BEARING	HK1E	HOOK ONE END	RA	RETURN AIR
BTU	BRITISH THERMAL UNIT	HK2E	HOOK TWO ENDS	RAF	RAISED ACCESS FLOORING
BTUH	BRITISH THERMAL UNIT PER HOUR	HM	HOLLOW METAL	RB	RESILIENT BASE
C		HNDRL	HANDRAIL	RCP	REINFORCED CONCRETE PIPE
C/C	CENTER TO CENTER	HORIZ	HORIZONTAL	RD	ROOF DRAIN
CAB	CABINET	HP	HORSEPOWER	REF	REFERENCE
CB	CIRCUIT BREAKER / CATCH BASIN	HPT	HIGH POINT	REFL	REFLECTED
CC	COOLING UNIT	HR	HOUR	REG	REGISTER
CE	COVER ELEVATION	HS	HIGH STRENGTH	REINF	REINFORCED
CEM	CEMENT	HT	HEIGHT	REQD	REQUIRED
CFM	CUBIC FEET PER MINUTE	HTG	HEATING	REV	REVERSE / REVISION
CG	CORNER GUARD	HTR	HEATER	RF	RETURN FAN
CH	CHILLER	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	RGS	RIGID GALVANIZED STEEL
CI	CURB INLET / CAST IRON			RH	ROOF HOOD / RELATIVE HUMIDITY / REHEAT
CIP	CAST IRON PIPE	HW	HOT WATER	RHC	REHEAT COIL
CJ	CONTROL JOINT OR CONTRACTION JOINT	HWC	HOT WATER CIRCULATING	RM	ROOM
CKT	CIRCUIT	HZ	HERTZ	RO	ROUGH OPENING
CL	CENTER LINE	I		ROW	RIGHT OF WAY
CLG	CEILING	IA	INSTRUMENT AIR	RS	RESILIENT SHEET
CLO	CLOSET	IC	INTERCOM	RT	RESILIENT TILE
CLR	CLEAR	ID	INSIDE DIAMETER	S	
CM	CENTIMETER	IE	INVERT ELEVATION	S	STAIR / STAIN / SURFACE / SANITARY
CMH	CUBIC METER PER HOUR	IF	INSIDE FACE	SA	SUPPLY AIR / SOUND ATTENUATOR
CMP	CORRUGATED METAL PIPE	IN	INCH	SAN	SANITARY
CMU	CONCRETE MASONRY UNIT	INSUL	INSULATION	SCH	SCHEDULE
CO	CLEANOUT / CARBON MONOXIDE	INT	INTERIOR	SD	SMOKE DAMPER / SUB DRAIN / STORM SEWER
CO2	CARBON DIOXIDE	J			
COL	COLUMN	JAN	JANITOR	SECT	SECTION
COMB	COMBINATION / COMBINE	JB	JUNCTION BOX	SF	SUPPLY FAN
COMP	COMPRESSIBLE	JP	JOCKEY PUMP	SHT	SHEET
CONC	CONCRETE	JST	JOIST	SIM	SIMILAR
CONN	CONNECTION	JT	JOINT	SOG	SLAB-ON-GRADE
CONST	CONSTRUCTION	K		SP	SUMP PUMP
CONT	CONTINUOUS / CONTINUATION	KC MIL	THOUSAND CIRCULAR MILS	SPEC	SPECIFICATIONS
CONTR	CONTRACTOR	KCJ	KEYED CONSTRUCTION JOINT	SQ	SQUARE
CORR	CORRIDOR	KIT	KITCHEN	SS	SERVICE SINK / SANITARY SEWER
CP	CEMENT PIPE	KPA	KILOPASCALS	SSM	SOLID SURFACE MATERIAL
CPT	CARPET	KS	KITCHEN SINK		
CR	CRASH RAIL	KV	KILOVOLT	SSO	STORM SEWER OVERFLOW
CS	CONCRETE SEALER	KVA	KILOVOLT AMPERE	SST	STAIR TREAD
CSF	CUBIC FEET PER SECOND	KW	KILOWATTS	SSTL	STAINLESS STEEL
CT	CERAMIC TILE / COOLING TOWER	L		STA	STATION
CTB	CERAMIC TILE BASE	L	LITER	STD	STANDARD
CTF	CERAMIC TILE FLOOR	LA	LABORATORY AIR	STE	STANDARD TAPERED END
CTR	CENTER	LAB	LABORATORY	STIFF	STIFFENER
CTW	CERAMIC TILE WALL	LAM	LAMINATE	STIR	STIRRUP
CU	CONDENSING UNIT	LAV	LAVATORY	STL	STEEL
CUH	CABINET UNIT HEATER	LBS	POUNDS	STOR	STORAGE
CUYD	CUBIC YARD	LF	LINEAR FEET	STR	STRUCTURAL
CW	COLD WATER	LIN	LINEAR	SUSP	SUSPENDED
D		LINO	LINOLEUM	SW	SWITCH
D	DRAIN / DIFFUSER	LL	LIVE LOAD	SWGR	SWITCHGEAR
DA	DENTAL AIR	LLH	LONG LEG HORIZONTAL	SYM	SYMMETRICAL
DBL	DOUBLE	LLV	LONG LEG VERTICAL	T	
DEPR	DEPRESSED	LMU	LIGHTWEIGHT MASONRY UNITS	T	TREAD
DEPT	DEPARTMENT	LONG	LONGITUDINAL	T&B	TOP AND BOTTOM
DET	DETAIL	LPM	LITERS PER MINUTE	T&G	TONGUE AND GROOVE
DF	DRINKING FOUNTAIN	LT	LIGHT	TC	TOP OF CURB
DIA	DIAMETER	LT WT	LIGHT WEIGHT	TE	TOP ELEVATION
DIAG	DIAGONAL	LTG	LIGHTING	TEL	TELEPHONE
DIFF	DIFFUSER	LV	LABORATORY VACUUM	TEMP	TEMPERATURE
DIP	DUCTILE IRON PIPE	LVL	LEVEL	TERR	TERRAZZO
DISC	DISCONNECT	LVT	LUXURY VINYL TILE	TLT	TOILET
DISP	DISPENSER	M		TOPO	TOPOGRAPHY
DIST	DISTRIBUTION	M	METER	TOS	TOP OF STEEL
DK	DECK	M2	SQUARE METER	TOW	TOP OF WALL
DL	DEAD LOAD	M3	CUBIC METER	TP	TOP OF PAVEMENT
DN	DOWN	MA	MEDICAL AIR	TRANS	TRANSVERSE
DO	DITTO	MAINT	MAINTENANCE	TS	TRANSITION STRIP
DPR	DAMPER	MAR	MARBLE	TYP	TYPICAL
DR	DOOR	MAS	MASONRY	U	
DS	DOWNSPOUT	MAT	MATERIAL	UC	UNDERCUT
DV	DENTAL VACUUM	MAX	MAXIMUM	UG	UNDERGROUND
DWG	DRAWING	MB	METAL BASE	UH	UNIT HEATER
DWL	DOWEL	MBH	1000 BTUH	UNO	UNLESS NOTED OTHERWISE
DWP	DOMESTIC WATER PUMP	MDO	MEDIUM DENSITY OVERLAY	UR	URINAL
E		MECH	MECHANICAL	UV	UNIT VENTILATOR
EA	EACH / EXHAUST AIR	MET	METAL	V	
ECT	ENTRY CARPET TILE	MFR	MANUFACTURER	V	VOLT
EF	EACH FACE / EXHAUST FAN	MG	MOTOR GENERATOR / MEDICAL GAS	VAV	VARIABLE AIR VOLUME
EJ	EXPANSION JOINT	MH	MANHOLE	VC	VERTICAL CURVE
EL	ELEVATION	MIN	MINIMUM	VCP	VITRIFIED CLAY PIPE
ELEC	ELECTRIC(AL)	MLO	MAIN LUGS ONLY	VCT	VINYL COMPOSITION TILE
ELEV	ELEVATOR	MM	MILLIMETER	VERT	VERTICAL
EMBED	EMBEDMENT	MO	MASONRY OPENING	VEST	VESTIBULE
EMD	ESTIMATED MAXIMUM DEMAND	MP	METAL PANEL	VFD	VARIABLE FREQUENCY DRIVE
EMT	ELECTRICAL METAL TUBING	MT	METAL TRANSITION	VTR	VENT THROUGH ROOF
ENG	ENTRANCE GRATING	MTD	MOUNTED	VWC	VINYL WALL COVERING
EP	EPOXY PAINT	MTG	MOUNTING	W	
EQ	EQUAL	MULL	MULLION	W	WATT / WATER
EQUIP	EQUIPMENT	MV	MEDICAL VACUUM	W/	WITH
ET	EXPANSION TANK / EPOXY TERRAZZO	N		W/O	WITHOUT
ETB	EPOXY TERRAZZO INTEGRAL COVE BASE	N	NITROGEN	WAGD	WASTE ANESTHESIA GAS DISPOSAL
EVAC	MEDICAL GAS EVACUATION	N2O	NITROUS OXIDE	WC	WATER CLOSET / WALL COVERING
EW	EACH WAY	NEC	NATIONAL ELECTRICAL CODE	WD	WOOD
EWC	ELECTRICAL WATER COOLER	NFPA	NATIONAL FIRE PROTECTION	WDB	WOOD BASE
EWH	ELECTRICAL WATER HEATER	NIC	NOT IN CONTRACT	WDF	WOOD FLOOR
EXH	EXHAUST	NO	NUMBER	WDP	WOOD PANEL
EXP	EXPOSED	NOM	NOMINAL	WDW	WINDOW
EXPN	EXPANSION	NTS	NOT TO SCALE	WDWF	WINDOW FILM
EXST	EXISTING	O		WGD	WALL GUARD
EXT	EXTERIOR	O/S	OFFSET	WH	WATER HEATER / WALL HYDRANT
F		OA	OUTSIDE AIR	WP	WEATHERPROOF
F	FIRE MAIN	OBD	OPPOSED BLADE DAMPER	WPFG	WATERPROOFING
FA	FIRE ALARM	OC	ON CENTER	WS	WATER STOP
FCU	FAN COIL UNIT	OD	OUTSIDE DIAMETER	WT	WEIGHT / WINDOW TREATMENT
FD	FLOOR DRAIN / FIRE DAMPER	OF	OUTSIDE FACE	WWF	WELDED WIRE FABRIC
FD / SD	COMBINATION FIRE AND SMOKE DAMPER	OPNG	OPENING	X	
FDC	FIRE DEPARTMENT CONNECTION	OPP	OPPOSITE	XFMR	TRANSFORMER
FDN	FOUNDATION	OX	OXYGEN	Y	
FDR	FEEDER	OZ	OUNCE	YD	YARD
FE	FIRE EXTINGUISHER	P		YH	YARD HYDRANT
FEC	FIRE EXTINGUISHER CABINET	P	PAINT / PUMP / PENDANT		
FF&E	FURNITURE, FIXTURE, AND EQUIPMENT	PA	PASCAL		
FH	FIRE HYDRANT				

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S002	GENERAL NOTES 2	•	•	
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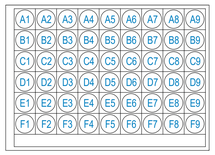
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R2 AD6	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R2 AD7	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS	•	•	•
R2 S0N	CATH LAB 2 - PHILIPS - SUPPORT NOTES	•	•	•
R2 S0L	CATH LAB 2 - PHILIPS - SUPPORT LEGEND	•	•	•
R2 S01	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, FLOOR & WALL	•	•	•
R2 S02	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING	•	•	•
R2 S03	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING	•	•	•
R2 SD1	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	•	•	•
R2 SD2	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	•	•	•
R2 SD3	CATH LAB 2 - PHILIPS - SUPPORT DETAILS	•	•	•
R2 E0N	CATH LAB 2 - PHILIPS - ELECTRICAL NOTES	•	•	•
R2 EL1	CATH LAB 2 - PHILIPS - ELECTRICAL LEGEND	•	•	•
R2 EL2	CATH LAB 2 - PHILIPS - ELECTRICAL LEGEND	•	•	•
R2 E01	CATH LAB 2 - PHILIPS - ELECTRICAL LAYOUT	•	•	•
R2 E02	CATH LAB 2 - PHILIPS - RACEWAY & COUNDUIT INFO	•	•	•
R2 E03	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFOR	•	•	•
R2 E04	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFO	•	•	•
R2 ED1	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 ED2	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 ED3	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 ED4	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS	•	•	•
R2 N01	CATH LAB 2 - PHILIPS - REVOE SERVICE NETWORK	•	•	•
R2 N02	CATH LAB 2 - PHILIPS - REMOVE SERVICE NETWORK	•	•	•
R2 CHK	CATH LAB 2 - PHILIPS - CHECKLIST	•	•	•

VIEW NUMBERING MODULAR LAYOUT

VIEW NUMBERING LAYOUT
VIEWS ARE NUMBERED ACCORDING TO THEIR LOCATION ON EACH SHEET AND ARE NOT NUMBERED CONSECUTIVELY. EACH MODULE MAINTAINS THE NUMBER ASSOCIATED WITH IT

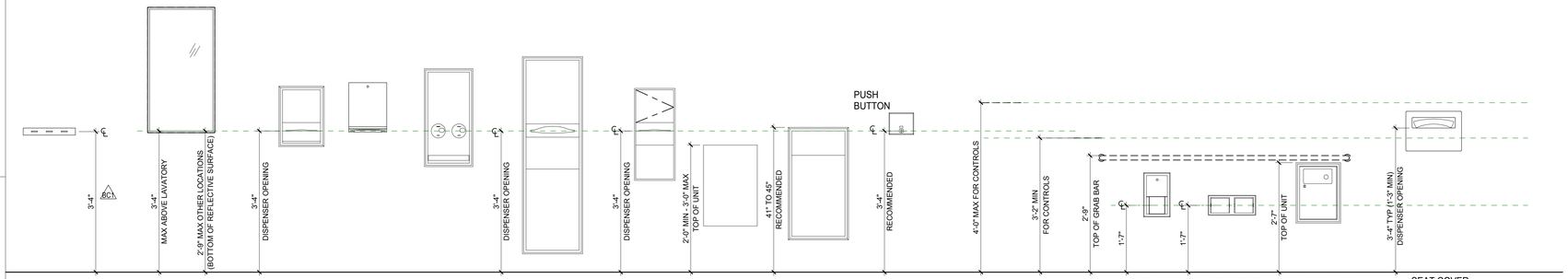
THIS SYSTEM CAN BE APPLIED TO ANY DRAWING THAT CONTAINS MULTIPLE IMAGES. THE IMAGES ARE NUMBERED ACCORDING TO THE MODULE SYSTEM SHOWN ILLUSTRATED TO THE LEFT

EACH VIEW MAY OCCUPY ONE OR MORE WHOLE MODULES. THE VIEW MODULE IS USED TO ESTABLISH THE IDENTIFYING LABEL FOR EACH DETAIL NOT TO LIMIT THE SIZE OF THE DETAIL

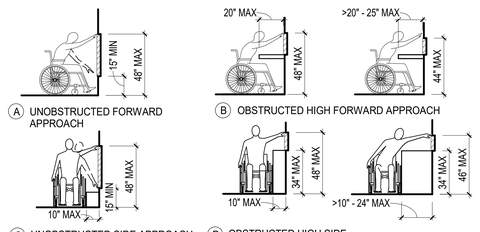


VIEW NUMBERING EXAMPLE
THE NUMBER OF THE MODULE WHICH OCCURS IN THE LOWER LEFT CORNER OF A SINGLE MODULE OR SEVERAL MODULES GROUPED TOGETHER WILL DEFINE THE FINAL VIEW NUMBER AS SHOWN IN THE ILLUSTRATION TO THE LEFT. ALTHOUGH THE MODULE NUMBERS OCCUR IN CON

TYPICAL TOILET COMPARTMENT ACCESSORY MOUNTING HEIGHTS

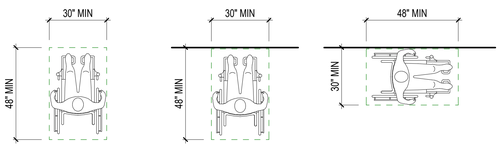


F1 TYPICAL TOILET COMPARTMENT MMOUNTING HEIGHT
SCALE: 3/4" = 1'-0"

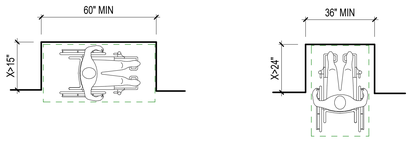


A UNOBSTRUCTED FORWARD APPROACH
B OBSTRUCTED HIGH FORWARD APPROACH
C UNOBSTRUCTED SIDE APPROACH
D OBSTRUCTED HIGH SIDE APPROACH

E1 REACH RANGE
SCALE: 1/4" = 1'-0"

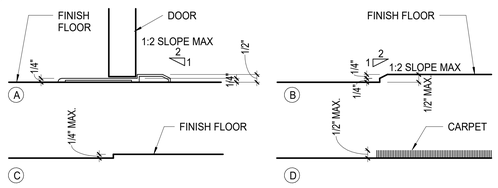


A CLEAR FLOOR OR GROUND CLEARANCE
B FORWARD APPROACH
C PARALLEL APPROACH

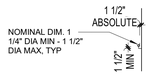


D CLEARANCE, ALCOVE, PARALLEL APPROACH
E CLEARANCE, ALCOVE, FORWARD APPROACH

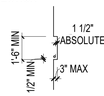
C1 GROUND AND FLOOR CLEARANCE
SCALE: 3/8" = 1'-0"



B1 CHANGE OF ELEVATION
SCALE: 3" = 1'-0"



A SURFACE-MOUNTED HANDRAIL SECTION

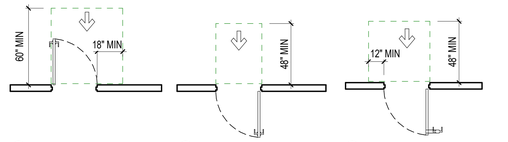


B RECESSED HANDRAIL SECTION

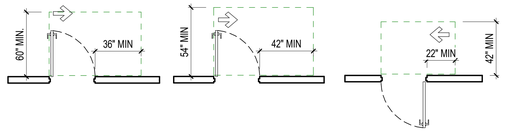
HANDRAIL NOTES:

1. HANDRAIL ENDS SHALL BE RETURNED SMOOTHLY TO A WALL, GUARD, LANDING SURFACE OR CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP.
2. HANDGRIP PORTION OF HANDRAILS SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS AND UNINTERRUPTED. EDGES SHOULD HAVE A 1/8" RADIUS.
3. WALLS OR OTHER SURFACES ADJACENT TO THE HANDRAILS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS

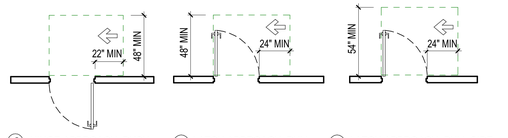
A1 HANDRAIL REQUIREMENTS
SCALE: 1/4" = 1'-0"



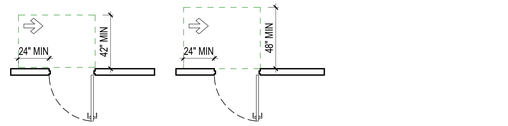
A FRONT APPROACH, PULL SIDE
B FRONT APPROACH, PUSH SIDE
C FRONT APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH



D HINGE APPROACH, PULL SIDE
E HINGE APPROACH, PULL SIDE
F HINGE APPROACH, PUSH SIDE



G HINGE APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH
H LATCH APPROACH, PULL SIDE
I LATCH APPROACH, PULL SIDE, DOOR PROVIDED WITH CLOSER

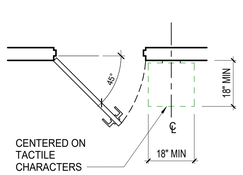


J LATCH APPROACH, PUSH SIDE
K LATCH APPROACH, PUSH SIDE, DOOR PROVIDED WITH CLOSER

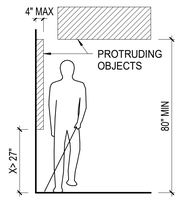
C3 ACCESSIBLE SWING DOOR CLEARANCES
SCALE: 1/4" = 1'-0"



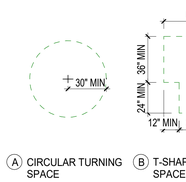
B3 ACCESSIBILITY SYMBOL
SCALE: 1/2" = 1'-0"



A3 TACTILE SIGN LOCATION @ DOORS
SCALE: 1/2" = 1'-0"

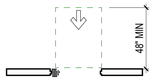


B4 PROTRUDING OBJECTS CLEARANCE
SCALE: 3/8" = 1'-0"

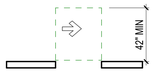


A CIRCULAR TURNING SPACE
B T-SHAPED TURNING SPACE

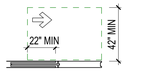
A4 TURNING SPACE
SCALE: 1/4" = 1'-0"



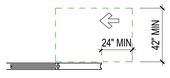
A FRONT APPROACH



B SIDE APPROACH

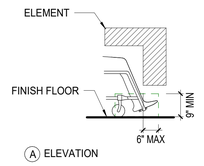


C POCKET OR HINGE APPROACH

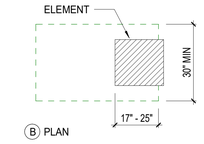


D STOP OR LATCH APPROACH

E5 DOORWAY CLEARANCES
SCALE: 1/4" = 1'-0"

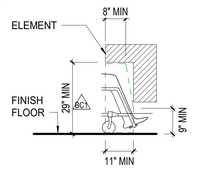


A ELEVATION

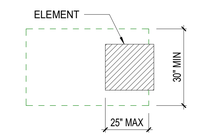


B PLAN

C5 TOE CLEARANCE
SCALE: 1/2" = 1'-0"



A ELEVATION



B PLAN

A5 KNEE CLEARANCE
SCALE: 1/2" = 1'-0"

SHEET NOTES

1. IN BUILDINGS AND FACILITIES, FLOORS OF A GIVEN STORY SHALL BE A COMMON LEVEL THROUGHOUT, OR SHALL BE CONNECTED BY PEDESTRIAN RAMPS, PASSENGER ELEVATORS OR SPECIAL ACCESS LIFTS.
2. FLOOR SURFACES SHALL BE SLIP-RESISTANT WITH MIN. WET COEFFICIENT OF FRICTION OF 0.7.
3. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 1/2" IN HEIGHT. LEVEL CHANGES NOT EXCEEDING 1/4" MAY BE VERTICAL. BEVEL OTHERS WITH A SLOPE NO GREATER THAN 1:2.
4. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. MOUNT DOOR OPENING HARDWARE BETWEEN 34" AND 48" ABOVE FLOOR FINISH.
5. CENTER HAND ACTIVATED DOOR OPENING HARDWARE BETWEEN 34" AND 48" ABOVE THE FLOOR.
6. MAXIMUM PULL OR PUSH EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS, MEASURED AT RIGHT ANGLES TO HINGED DOORS AND AT CENTER PLANE OF SLIDING OR FOLDING DOORS. CORRESPONDING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. MINIMUM EFFORT ALLOWABLE BY APPROPRIATE ADMINISTRATIVE AUTHORITY TO OPERATE REQUIRED FIRE DOORS MAY BE INCREASED NOT TO EXCEED 15 POUNDS.
7. THE BOTTOM 10" OF ALL DOORS (EXCEPT SLIDING AND AUTOMATIC) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. PROVIDE A 10" HIGH SMOOTH PANEL ON THE PUSH SIDE OF NARROW FRAME DOORS.
8. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE NOT LESS THAN 3' IN WIDTH AND NOT LESS THAN 6'-8" IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE SO MOUNTED THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32" WHEN DOOR IS 90 DEGREES OPEN.
9. WHERE A PAIR OF DOORS IS UTILIZED, AT LEAST ONE OF THE DOORS SHALL PROVIDE A CLEAR, UNOBSTRUCTED OPENING WIDTH OF 32" WITH THE LEAF POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
10. IDENTIFY ACCESSIBLE ENTRANCES WITH AT LEAST ONE STANDARD ISA SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
11. THE FLOOR OR LANDING ON EACH SIDE OF AN ENTRANCE OR PASSAGE DOOR SHALL BE LEVEL AND CLEAR. THE LEVEL AND CLEAR AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 72" AND THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 48" AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN ITS CLOSED POSITION.
12. FLOORS OR LANDINGS SHALL BE NOT MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGE IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.
13. TO ALERT THE VISUALLY IMPAIRED, MARK THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR WITH A STRIP OF VISUALLY CONTRASTING COLOR AT LEAST 2" WIDE, PLACED PARALLEL TO AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR LANDING. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR.
14. THE BOTTOM OF THE ELECTRICAL RECEPTACLE BOX SHALL BE 15" AFF MIN. ABOVE THE FLOOR OR WORKING PLATFORM.
15. PROVIDE A CLEAR FLOOR SPACE 30" X 48" IN FRONT OF LAVATORY TO PERMIT A FORWARD APPROACH.
16. MOUNT LAVATORIES WITH A MINIMUM CLEARANCE OF 29" FROM THE FLOOR TO THE BOTTOM OF THE APRON. PROVIDE KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30" IN WIDTH WITH 8" MINIMUM DEPTH, AND SHALL BE A MINIMUM OF 9" HIGH FROM THE FLOOR A MINIMUM OF 17" DEEP FROM THE FRONT OF THE LAVATORY.
17. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS. LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF CLOSING ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.
18. INSULATE OR OTHERWISE COVER HOT WATER AND DRAIN PIPES UNDER LAVATORIES.
19. THE LOW DRINKING FOUNTAIN BUBBLER SHALL BE ACTIVATED BY A MANUALLY OPERATED SYSTEM NOT REQUIRING A FORCE GREATER THAN 5 LBS THAT IS LOCATED WITHIN 5 INCHES OF THE FRONT EDGE OF THE FOUNTAIN OR AN ELECTRONICALLY CONTROLLED DEVICE.
20. THE BUBBLER OUTLET ORIFICE SHALL BE LOCATED WITHIN 5" OF THE FRONT OF THE LOW DRINKING FOUNTAIN AND SHALL BE WITHIN 36" OF THE FLOOR. THE WATER STREAM FROM THE BUBBLER SHALL BE SUBSTANTIALLY PARALLEL TO THE FRONT EDGE OF THE DRINKING FOUNTAIN.
21. WALKS, SIDEWALKS AND PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. FOR GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS, GRID OPENINGS IN GRATINGS SHALL BE NO GREATER THAN 1/2" WIDE IN ONE DIRECTION. IF GRATINGS HAVE ELONGATED OPENINGS, THEY SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
22. DOUBLE SET OF HANDRAILS SHALL BE PROVIDED IN THE ELEVATOR. THE RAILS SHALL BE SMOOTH AND THE INSIDE SURFACE AT LEAST 1 1/2" CLEAR OF THE WALLS AT A NOMINAL HEIGHT OF 32" ABOVE THE FINISHED FLOOR (AFF) FOR THE FIRST HANDRAIL AND 34" AFF FOR THE SECOND . MINIMUM ELEVATOR DOOR SHALL BE 48" WIDE AND MINIMUM ELEVATOR PLATFORM SIZE SHALL BE 8'-0" X 6'-2".
23. THE CENTERLINE OF THE HIGHEST OPERABLE PART OF THE ELEVATOR CALL BUTTONS OR KEYPADS SHALL BE NO HIGHER THAN 48" ABOVE THE FINISH FLOOR. CALL BUTTONS SHALL BE A MINIMUM OF 3/4" IN SIZE AND RAISED OR FLUSH. VISUAL INDICATION SHALL BE PROVIDED TO SHOW EACH CALL REGISTERED AND EXTINGUISHED. WHEN ANSWERED, OBJECTS ADJACENT TO AND BELOW HALL CALL BUTTONS SHALL NOT PROJECT MORE THAN 4" FROM THE WALL. A CLEAR FLOOR OR GROUND SPACE MIN. 30" X 48" SHALL BE PROVIDED AT CALL CONTROLS.
24. FLOOR CALL BUTTONS SHALL BE PROVIDED WITH VISUAL INDICATORS TO SHOW WHEN EACH CALL IS REGISTERED. THE VISUAL INDICATORS SHALL BE EXTINGUISHED WHEN EACH CALL IS ANSWERED.
25. EXCEPT FOR PHOTO ELECTRIC TUBE BYPASS SWITCHES, EMERGENCY CONTROL, INCLUDING THE EMERGENCY STOP AND RETURN, SHALL BE GROUPED IN OR ADJACENT TO THE BOTTOM OF THE PANEL AND SHALL BE NO LOWER THAN 2'-11" FROM THE FLOOR. FOR MULTIPLE CONTROLS ONLY, ONE SET MUST COMPLY WITH THESE HEIGHT REQUIREMENTS.
26. THE EMERGENCY TELEPHONE HANDSET SHALL BE POSITIONED NO HIGHER THAN 48" ABOVE THE FLOOR, AND THE HANDSET CORD SHALL BE A MINIMUM OF 2'-5" IN LENGTH. A CLEAR FLOOR OR GROUND SPACE MIN 30" X 48" SHALL BE PROVIDED. THE DISTANCE FROM THE EDGE OF THE TELEPHONE ENCLOSURE TO THE FACE OF THE TELEPHONE UNIT SHALL BE MAXIMUM 10" FOR PARALLEL APPROACH, MAXIMUM 20" FOR FORWARD APPROACH.
27. THE MINIMUM ILLUMINATION AT THE CAR CONTROLS, THRESHOLD, AND THE LANDING WHEN A CAR OR LANDING DOORS ARE OPEN SHALL NOT BE LESS THAN 5 FOOT-CANDLES.
28. A VISUAL AND AUDIBLE SIGNAL SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE TO INDICATE WHICH CAR IS ANSWERING A CALL AND THE CAR'S DIRECTION OF TRAVEL. WHERE IN-CAR SIGNALS ARE PROVIDED, THEY SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTONS.
29. THE VISUAL SIGNAL FIXTURES SHALL BE CENTERED AT 72" MINIMUM ABOVE THE FINISH FLOOR OR GROUND AND MINIMUM 2 1/2" MEASURED ALONG THE VERTICAL CENTERLINE OF THE ELEMENT. SIGNALS SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTON.
30. AN AUDIBLE SIGNAL SHALL SOUND ONCE FOR THE UP DIRECTION AND TWICE FOR THE DOWN DIRECTION OR SHALL HAVE VERBAL ANNUNCIATOR THAT INDICATES THE DIRECTION OF ELEVATOR CAR TRAVEL.

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	2023/6/5
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

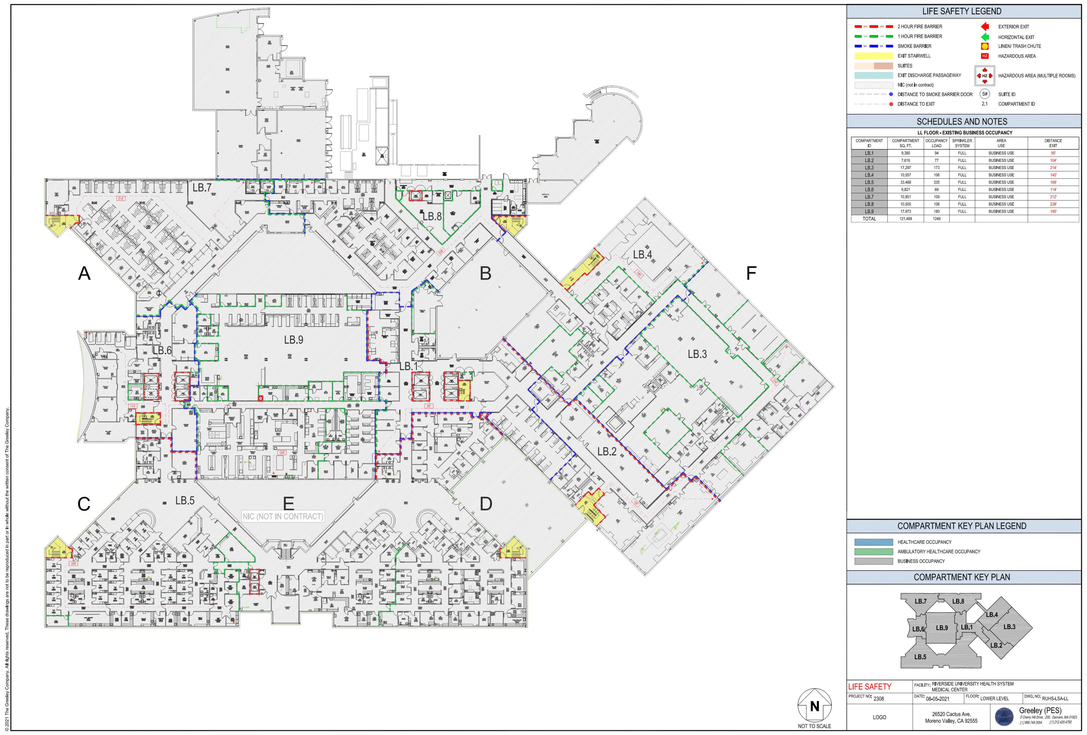
ACCESSIBILITY NOTES AND DIAGRAMS

SHEET NUMBER

GI003

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LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

LL FLOOR - EXISTING BUSINESS OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE EXIT
LB.1	5,350	54	FULL	BUSINESS USE	85'
LB.2	7,616	77	FULL	BUSINESS USE	159'
LB.3	17,297	173	FULL	BUSINESS USE	214'
LB.4	10,557	106	FULL	BUSINESS USE	145'
LB.5	33,468	335	FULL	BUSINESS USE	169'
LB.6	6,821	69	FULL	BUSINESS USE	114'
LB.7	10,851	109	FULL	BUSINESS USE	213'
LB.8	10,935	109	FULL	BUSINESS USE	238'
LB.9	17,973	180	FULL	BUSINESS USE	145'
TOTAL	121,468	1249			

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

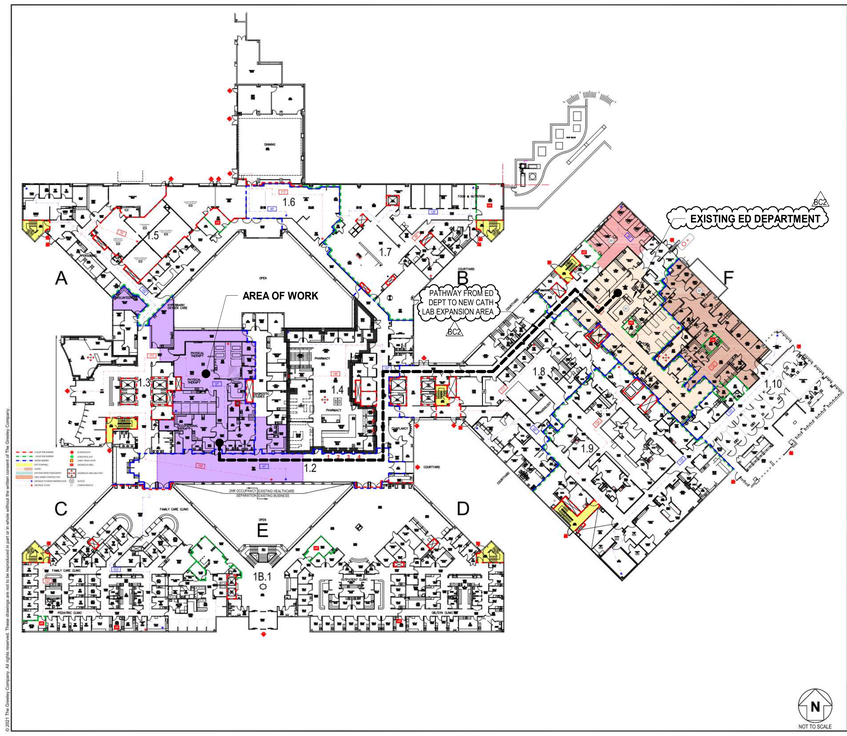
COMPARTMENT KEY PLAN

NOT TO SCALE

LIFE SAFETY | FACILITY: RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER | PROJECT NO: 2308 | DATE: 08-05-2021 | FLOOR: LOWER LEVEL | DWG. NO: RUHS-LS-SA-LL | LOGO | 26520 Cactus Ave, Moreno Valley, CA 92555 | Greeley (PES) 4 Chez Hill Drive, 200 Glendale, MA 01602 (1) 888.748.2004 (T) 212.420.4750

LIFE SAFETY PLAN - LEVEL LOWER

SCALE: NTS



LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

1ST FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
1.1	6,603	36	FULL	TREATMENT	68'	135'
1.2	4,775	44	FULL	BUSINESS USE	67'	152'
1.3	12,960	129	FULL	BUSINESS USE	97'	173'
1.4	11,538	116	FULL	BUSINESS USE	120'	142'
1.5	10,409	105	FULL	BUSINESS USE	159'	76'
1.6	2,979	298	FULL	BUSINESS USE	68'	117'
1.7	8,228	83	FULL	BUSINESS USE	128'	68'
1.8	15,685	157	FULL	BUSINESS USE	68'	113'
1.9	12,862	34	FULL	TREATMENT	113'	153'
1.10	32,177	43	FULL	TREATMENT	153'	156'
TOTAL	92,411	985				

1ST FLOOR - EXISTING BUSINESS OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE EXIT
1B.1	28,847	287	FULL	BUSINESS USE	120'
TOTAL	28,847	287			

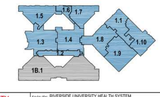
1ST FLOOR - SUITE INFORMATION

SUITE ID	SUITE SQ. FT.	SUITE TYPE	REMOTE EXIT REQUIREMENTS	DISTANCE TO EXIT ACCESS DOOR
(A)	5,763	PAT CARE NON SLEEPING	2 REMOTE EXITS	79'
(B)	3,779	PAT CARE NON SLEEPING	2 REMOTE EXITS	65'
(C)	1,170	PAT CARE NON SLEEPING	1 REMOTE EXIT	42'

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

COMPARTMENT KEY PLAN

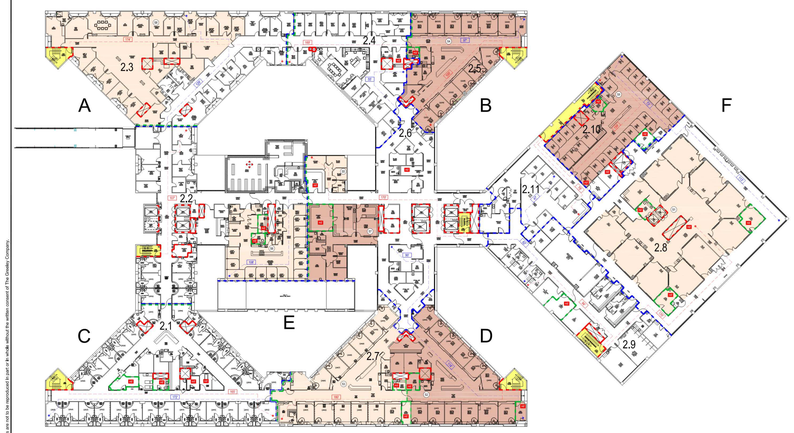


NOT TO SCALE

LIFE SAFETY | FACILITY: RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER | PROJECT NO: 2308 | DATE: 08-16-2021 | FLOOR: 1ST FLOOR | DWG. NO: RUHS-LS-SA-01 | LOGO | 26520 Cactus Ave, Moreno Valley, CA 92555 | Greeley (PES) 4 Chez Hill Drive, 200 Glendale, MA 01602 (1) 888.748.2004 (T) 212.420.4750

LIFE SAFETY PLAN - FIRST FLOOR

SCALE: NTS



LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

2ND FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
2.1	5,954	60	FULL	PATIENT SLEEPING	172'	185'
2.2	11,766	94	FULL	TREATMENT ROOMS/NO PAT SLEEPING	158'	107'
2.3	10,065	101	FULL	BUSINESS USE	129'	174'
2.4	5,274	53	FULL	BUSINESS USE	59'	169'
2.5	4,810	41	FULL	PATIENT SLEEPING	87'	195'
2.6	10,866	107	FULL	BUSINESS USE	90'	170'
2.7	10,480	88	FULL	PATIENT SLEEPING	114'	180'
2.8	13,412	56	FULL	TREATMENT	113'	170'
2.9	8,881	28	FULL	TREATMENT	62'	94'
2.10	5,034	21	FULL	TREATMENT	72'	154'
2.11	2,947	17	FULL	TREATMENT	47'	79'
TOTAL	92,022	670				

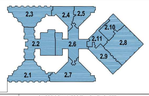
2ND FLOOR - SUITE INFORMATION

SUITE ID	SUITE SQ. FT.	SUITE TYPE	REMOTE EXIT REQUIREMENTS	DISTANCE TO EXIT ACCESS DOOR
(A)	6,474	PAT CARE NON SLEEPING	2 REMOTE EXITS	48'
(B)	5,651	SLEEPING	2 REMOTE EXITS	90'
(C)	5,030	SLEEPING	2 REMOTE EXITS	63'
(D)	4,728	SLEEPING	2 REMOTE EXITS	57'
(E)	541	NON PAT CARE	1 REMOTE EXIT	28'
(F)	3,032	PAT CARE NON SLEEPING	2 REMOTE EXITS	57'
(G)	3,296	NON PAT CARE	2 REMOTE EXIT	70'
(H)	8,854	NON PAT CARE	2 REMOTE EXITS	85'
(M)	4,261	PAT CARE NON SLEEPING	2 REMOTE EXITS	67'

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

COMPARTMENT KEY PLAN

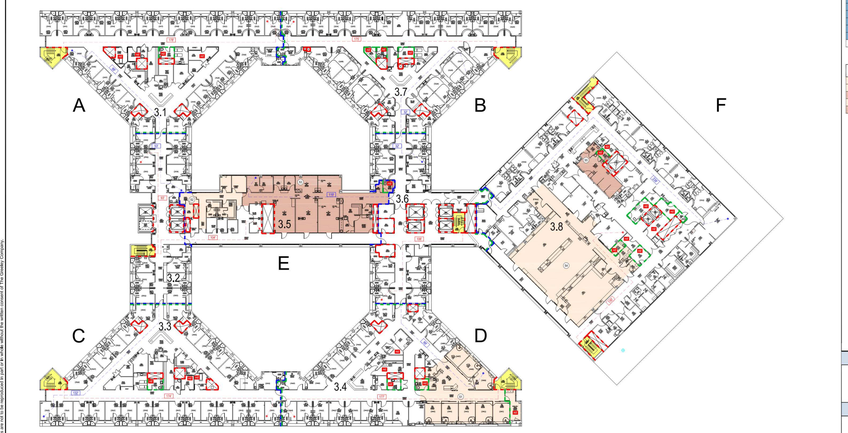


NOT TO SCALE

LIFE SAFETY | FACILITY: RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER | PROJECT NO: 2308 | DATE: 08-05-2021 | FLOOR: 2ND FLOOR | DWG. NO: RUHS-LS-SA02 | LOGO | 26520 Cactus Ave, Moreno Valley, CA 92555 | Greeley (PES) 4 Chez Hill Drive, 200 Glendale, MA 01602 (1) 888.748.2004 (T) 212.420.4750

LIFE SAFETY PLAN - SECOND FLOOR

SCALE: NTS



LIFE SAFETY LEGEND

2 HOUR FIRE BARRIER	EXTERIOR EXIT
1 HOUR FIRE BARRIER	HORIZONTAL EXIT
SMOKE BARRIER	LINEN TRASH CHUTE
EXIT STAIRWELL	HAZARDOUS AREA
SUITES	HAZARDOUS AREA (MULTIPLE ROOMS)
EXIT DISCHARGE PASSAGEWAY	
AREA UNDER CONSTRUCTION	
DISTANCE TO SMOKE BARRIER DOOR	SUITE ID
DISTANCE TO EXIT	COMPARTMENT ID

SCHEDULES AND NOTES

3RD FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARTMENT ID	COMPARTMENT SQ. FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
3.1	10,188	95	FULL	PATIENT SLEEPING CARE	99'	138'
3.2	4,576	39	FULL	PATIENT SLEEPING CARE	53'	93'
3.3	10,176	95	FULL	PATIENT SLEEPING CARE	53'	74'
3.4	10,261	86	FULL	PATIENT SLEEPING CARE	99'	177'
3.5	8,774	68	FULL	BUSINESS	139'	104'
3.6	6,500	53	FULL	PATIENT SLEEPING CARE	32'	106'
3.7	10,170	85	FULL	PATIENT SLEEPING CARE	107'	175'
3.8	21,366	179	FULL	PATIENT SLEEPING CARE	239'	150'
TOTAL	76,971	680				

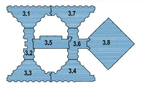
3RD FLOOR - SUITE INFORMATION

SUITE ID	SUITE SQ. FT.	SUITE TYPE	REMOTE EXIT REQUIREMENTS	DISTANCE TO EXIT ACCESS DOOR
(A)	2,501	SLEEPING	2 REMOTE EXITS	53'
(B)	1,047	NON PAT CARE	2 REMOTE EXITS	62'
(C)	3,467	NON PAT CARE	2 REMOTE EXITS	65'
(M)	4,713	SLEEPING	2 REMOTE EXITS	23'
(D)	612	PAT NON SLEEPING CARE	2 REMOTE EXITS	53'

COMPARTMENT KEY PLAN LEGEND

HEALTHCARE OCCUPANCY
AMBULATORY HEALTHCARE OCCUPANCY
BUSINESS OCCUPANCY

COMPARTMENT KEY PLAN



NOT TO SCALE

LIFE SAFETY | FACILITY: RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER | PROJECT NO: 2308 | DATE: 08-05-2021 | FLOOR: 3RD FLOOR | DWG. NO: RUHS-LS-SA-03 | LOGO | 26520 Cactus Ave, Moreno Valley, CA 92555 | Greeley (PES) 4 Chez Hill Drive, 200 Glendale, MA 01602 (1) 888.748.2004 (T) 212.420.4750

LIFE SAFETY PLAN - THIRD FLOOR

SCALE: NTS

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Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T.24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

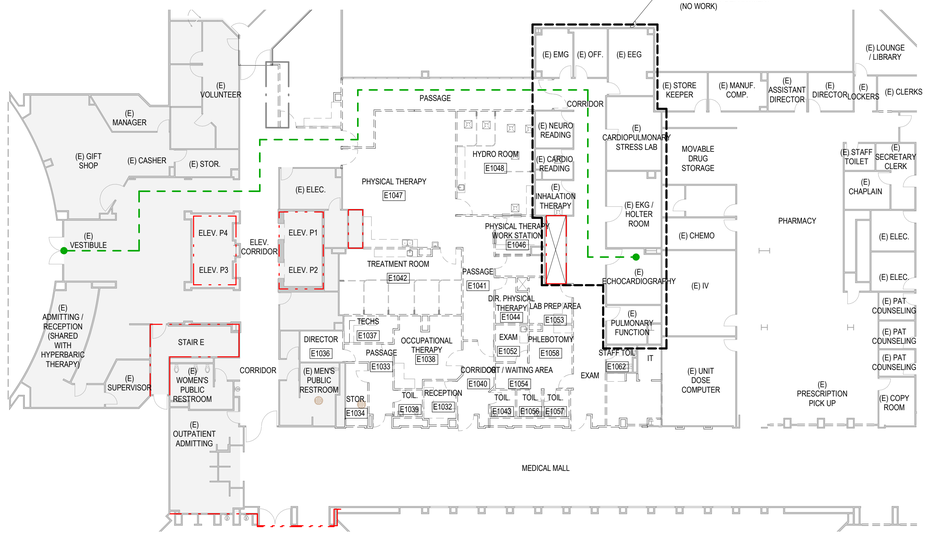
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EXITING LIFE SAFETY PLANS

SHEET NUMBER

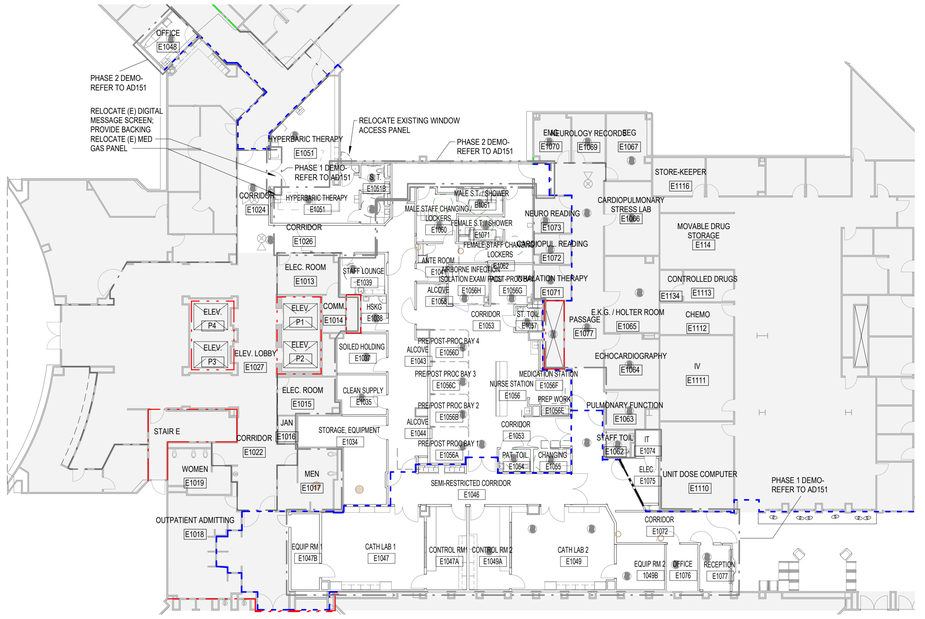
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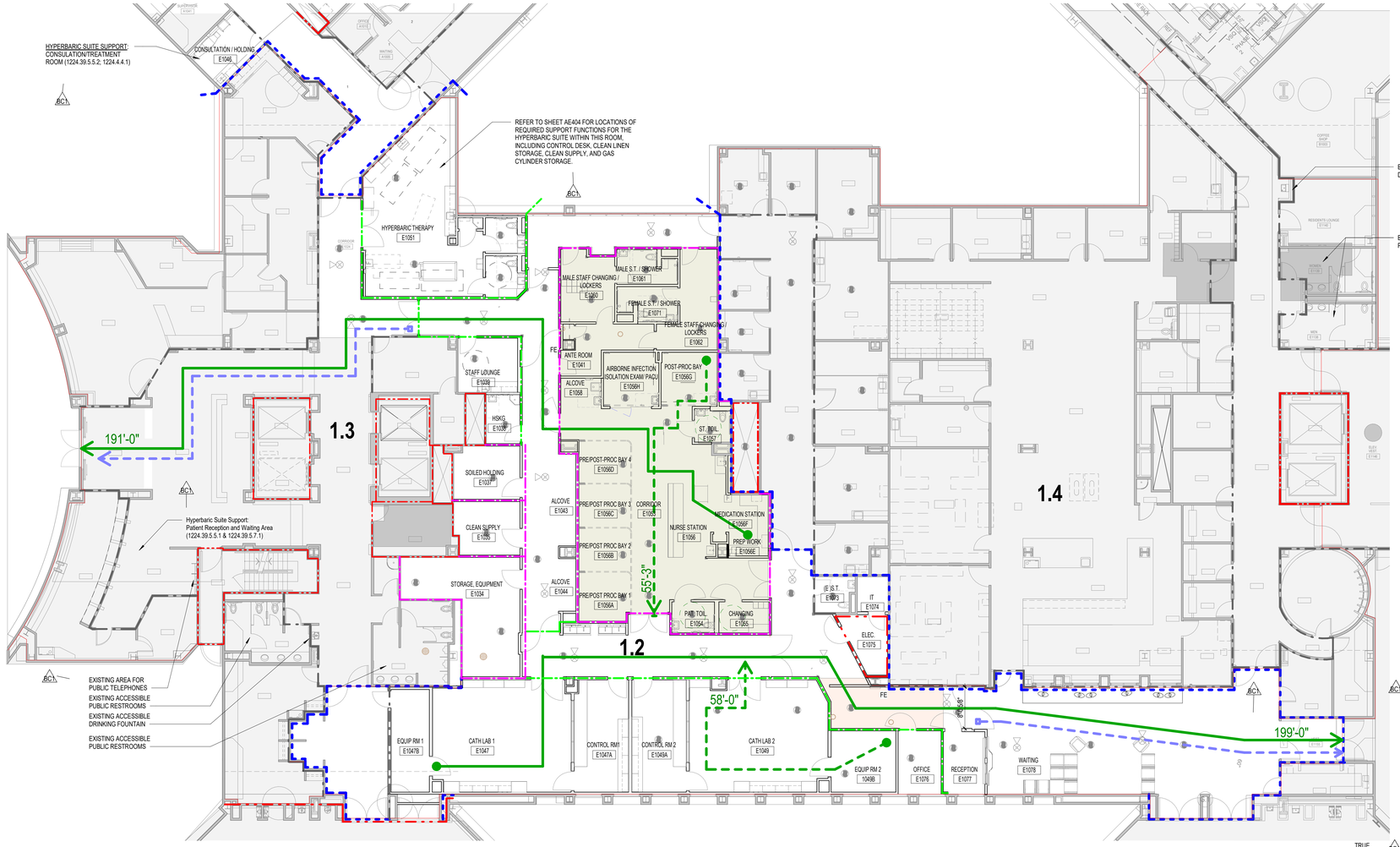
LEVEL 1 - LIFE SAFETY FLOOR PLAN (PHASE 1 EGRESS PLAN FOR EXISTING NEURO/CARDIO OUTPATIENT DEPARTMENT)

E1 SCALE: 1/16" = 1'-0"



PARTIAL FLOOR PLAN - LEVEL 1 - LIFE SAFETY FLOOR PLAN (PHASE 2 EGRESS PLAN FOR EXISTING NEURO/CARDIO DEPARTMENT)

E4 SCALE: 1/16" = 1'-0"



LEVEL 1 - LIFE SAFETY FLOOR PLAN (FOR NEW CATH LAB DEPARTMENT)

A1 SCALE: 1" = 10'-0"

LIFE SAFETY GENERAL NOTES

1. ALL FIRE RATED PARTITIONS ARE EXISTING AND WITHIN THE CORE AREA, PATCH TO MAINTAIN RATING IF DISTURBED.
2. WOOD USED FOR BLOCKING, NAILERS, OR FRAMING IN FIRE RATED ASSEMBLIES SHALL BE FIRE RETARDANT TREATED. REFER TO SPECIFICATION SECTION 06 10 53
3. FOR EXIT LIGHTS AND EMERGENCY LIGHTING, SEE ELECTRICAL.
4. FOR FIRE DETECTION SYSTEM, SEE ELECTRICAL.
5. FOR FIRE ALARM SYSTEM, SEE ELECTRICAL.
6. WHERE FIRE EXTINGUISHER CABINETS OR OTHER EQUIPMENT IS RECESSED IN FIRE RATED PARTITIONS, MODIFY THE PARTITION AS REQUIRED TO PROVIDE A CONTINUOUS ENCLOSURE TO ENSURE UNINTERRUPTED FIRE RATING.
7. AT EXISTING FIRE RATED DOOR LOCATIONS FRAMES SHALL BE NEW AND DOORS SHALL BE LABELED FOR THE INTENDED USE OR EQUIVALENT.
8. NON-RATED SMOKE PARTITIONS SHALL BE CONSTRUCTED TO LIMIT THE TRANSFER OF SMOKE. PARTITIONS SHALL EXTEND FROM FLOOR SLAB TO UNDERSIDE THE DECK ABOVE. THE SPACE ADJACENT TO THE DECK AND OTHER SURFACES AND THE SPACES AROUND PENETRATING ITEMS SHALL BE CAULKED TO LIMIT THE FREE PASSAGE OF SMOKE.
9. HYPERBARIC CHAMBERS FOR HUMAN OCCUPANCY AND THEIR SUPPORTING SYSTEMS SHALL BE DESIGNED AND FABRICATED TO MEET ANSI/ ASME PVHO-1, SAFTRY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY, BY PERSONNEL QUALIFIED TO FABRICATEVESSELS UNDER SUCH CODES PER 2021 NFPA 99, SECTION 14.2.2.1.

BC1

CODE ANALYSIS LEGEND

REFER TO SHEET AE511 FOR DETAILS AND UL LISTINGS FOR CONSTRUCTION OF RATED PARTITIONS AND BARRIERS

- BC2, FP — 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- BC2, FB — 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 60 MINUTES FOR SHAFTS, EXIT STAIRWAYS AND EXIT PASSAGEWAY WALLS AND 45 FOR OTHER FIRE BARRIERS.
- FB — 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- SP — SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- SB — 1HR SMOKE BARRIER PER CBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- EXISTING 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- TRAVEL DISTANCE
- AREA NAME 100 SF / 00 OCC. — ROOM (NET) AND AREA (GROSS) TAGS INDICATING SQUARE FOOTAGE / OCCUPANCY LOAD FACTOR, AND RESULTING OCCUPANCY BELOW
- 0 — INDICATES NUMBER OF OCCUPANTS EXITING ON EGRESS PATH
- 16' - 0" — ACCESSIBLE PATH OF TRAVEL TO BUILDING ENTRANCE
- PATH A 16' - 0" — EGRESS PATH WITH NAME, SEGMENT LENGTH, AND DIRECTION INDICATED
- 165 EXIT A — EXIT INDICATOR BASIC: WITH NAME OF EXIT AND TOTAL OCCUPANTS EXITING INDICATED
- 165 EXIT B; 0.2 X 165 = 33" MIN ACTUAL = 34.25" — EXIT INDICATOR ADVANCED: WITH NAME OF EXIT, TOTAL OCCUPANTS EXITING INDICATED, SIZE OF OPENING VS ACUTAL OPENING WIDTH
- I-2 OCCUPANCY — OCCUPANCY GROUP
- PATIENT CARE NON-SLEEPING SUITE
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- 1 HOUR CEILING AREA

1ST FLOOR - EXISTING HEALTHCARE OCCUPANCY

COMPARMENT ID	COMPARTMENT SQ.FT.	OCCUPANCY LOAD	SPRINKLER SYSTEM	AREA USE	DISTANCE SMOKE	DISTANCE EXIT
1.1	8,603	36	FULL	TREATMENT	66'	105'
1.2	5,125	44	FULL	TREATMENT	86'	204'
1.3	12,538	129	FULL	TREATMENT	57'	194'
1.4	11,150	116	FULL	TREATMENT	107'	146'
1.5	10,459	105	FULL	TREATMENT	159'	76'

2022 CBC CODE APPLICATION MATRIX

Room #	Room Name	Room Function	App'l Code Ref.	SF Req'd	SF Provided
E1034	STORAGE, EQUIPMENT		1224.16.5.5		361 SF
E1035	CLEAN SUPPLY		1224.28.2.7		136 SF
E1037	SOILED HOLDING		1224.28.2.8		138 SF
E1038	HOUSEKEEPING		1224.28.2.9	15 SF	70 SF
E1039	STAFF LOUNGE				134 SF
E1040	CORRIDOR		1224.4.7		
E1041	ANTE ROOM				
E1043	ALCOVE				
E1044	ALCOVE				
E1046	CORRIDOR		1224.4.7		
E1047	CATH LAB 1		1224.28.2; 1224.28.2.1	400 SF	565 SF
E1048	EQUIP RM 1		1224.28.2.3		147 SF
E1049	CONTROL RM 1		1224.28.2.2		226 SF
E1050	CONTROL RM 2		1224.28.2.2		229 SF
E1051	CATH LAB 2		1224.28.2; 1224.28.2.1	400 SF	565 SF
E1052	EQUIP RM 2		1224.28.2.3		148 SF
E1051	HYPERBARIC THERAPY		1224.39.5; 1224.39.5.2.2		648 SF
E1051A	STAFF TOILET		1224.39.5.6		41 SF
E1051B	PATIENT TOILET / CHANGING		1224.39.5.7.2; 1224.39.5.7.3		71 SF
E1051C	HOUSEKEEPING		1224.39.5.5.7		24 SF
E1053	CORRIDOR				
E1054	PATIENT TOILET		1224.4.4.8		49 SF
E1055	CHANGING ROOM		1224.16.7.2		54 SF
E1056	NURSE STATION		1224.16.5.1;		162 SF
E1056A	PRE/POST PROC BAY 1		1224.28.2.6; 1224.16.2	80 SF	82 SF
E1056B	PRE/POST PROC BAY 2		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056C	PRE/POST PROC BAY 3		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056D	PRE/POST-PROC BAY 4		1224.28.2.6; 1224.16.2	80 SF	83 SF
E1056E	PREP WORK AREA				57 SF
E1056F	MEDICATION STATION		1224.16.5.3		63 SF
E1056G	POST-PROCEDURE BAY		1224.28.2.6; 1224.16.3		115 SF
E1056H	AIRBORN INFECTION ISOLATION EXAM/TREATMENT		1224.28.2.6; 1224.4.4.1.3		111 SF
E1057	STAFF TOILET		1224.16.6		45 SF
E1058	ALCOVE				
E1059	CORRIDOR		1224.4.7.2		
E1060	MALE STAFF CHANGING / LOCKERS		1224.28.2.5		138 SF
E1061	MALE STAFF TOILET / SHOWER				75 SF
E1062	FEMALE STAFF CHANGING / LOCKERS		1224.28.2.5		162 SF
E1071	FEMALE STAFF TOILET / SHOWER				75 SF
E1073	STAFF TOILET		1224.4.4.8		49 SF
E1074	IT ROOM		1224.5.2		41 SF
E1075	ELECTRICAL				79 SF
E1076	OFFICE		1224.21.1		98 SF
E1077	RECEPTION				98 SF
E1078	WAITING		1224.16.7.1; 1224.4.5		
A1048	HYPERBARIC PATIENT COUNSELING		1224.39.5.5.2; 1224.4.4.1	80 SF	
E1080	(E) PATIENT ADVOCACY				
E1107	HOLDING - GURNEY				

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
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WELDING (05 12 13)

1. WELDING CONTRACTOR SHALL PROTECT ALL EXISTING BUILDING ELEMENTS AGAINST FIRE OR DAMAGE AND SHALL PROVIDE A FULL-TIME FIRE WATCH EQUIPPED WITH FIRE EXTINGUISHER DURING ALL CUTTING AND WELDING OPERATIONS. IN ADDITION, WELDING TECHNIQUES SHALL BE USED TO MINIMIZE POTENTIAL FIRE DAMAGE.
2. WELDING SHALL BE DONE BY QUALIFIED WELDERS WITH CURRENT CERTIFICATION BY AWS, AND THE ENFORCEMENT AGENCY FOR STRUCTURAL STEEL.
3. UNLESS NOTED OTHERWISE, ALL WELDS SHALL USE PRE-QUALIFIED SHIELDED METAL ARC (SMAW) WELDING TECHNIQUE PER WELDING NOTE 6. ALL SMAW ELECTRODES SHALL BE LOW HYDROGEN TYPE AND SHALL BE SUBJECT TO THE REQUIREMENTS OF SECTION 4.5 OF AWS D1.1. FOR SMAW, THE MAXIMUM PERMITTED ELECTRODE DIAMETER SHALL BE PER WELDING NOTE 5, REFERENCE SECTION 4.6.3(4) OF AWS D1.1.
4. FILLER METAL SHALL HAVE A NOTCH TOUGHNESS OF 40 FT-LBS AVERAGE AT 70 DEG F AND MINIMUM 20 FT-LBS AT 0 DEG F UNLESS NOTED OTHERWISE.
5. SUMMARY OF TYPICAL REQUIREMENTS FOR PRE-QUALIFIED SMAW WELDS:

VARIABLE	POSITION	WELD TYPE	SIZE	AWS CODE PARAGRAPH
MAXIMUM ELECTRODE DIAMETER	FLAT	ALL EXCEPT ROOT PASSES	5/16"	4.6.3(1)
	HORIZONTAL	FILLETS	1/4"	4.6.3(2)
		GROOVE	3/16"	4.6.3(5)
	VERTICAL	ALL	5/32"	4.6.3(5)
	OVERHEAD			4.6.3(4)
MAXIMUM ROOT PASS THICKNESS	ALL	GROOVE	1/4"	4.6.5
MAXIMUM SINGLE PASS FILLET AND MAXIMUM WELD ROOT PASS THICKNESS	FLAT	--	3/8"	4.6.6(1)
	HORIZONTAL	--	5/16"	4.6.6(2)
	VERTICAL	--	1/2"	4.6.6(3)
	OVERHEAD	--	5/16"	4.6.6(2)
MAXIMUM LAYER THICKNESS	FLAT	ALL	1/8"	4.6.7(1)
	HORIZONTAL		3/16"	4.6.7(2)
	VERTICAL		3/16"	
	OVERHEAD		3/16"	

6. BACKUP BARS SHALL BE REMOVED UNLESS NOTED OTHERWISE. REMOVAL OF BACKUP BAR AND DAMAGED MATERIAL CAN BE DONE BY GRINDING OR AIR ARC GOUGING. AREAS BACKGOUGED BY AIR ARC TO BE CLEANED UP BY GRINDING. SURFACES ON WHICH WELD METAL WILL BE DEPOSITED SHALL BE SMOOTH, UNIFORM, AND FREE FROM FINS, TEARS, FRACTURES, AND OTHER DISCONTINUITIES WHICH WOULD ADVERSELY AFFECT THE QUALITY OR STRENGTH OF THE WELD, PER AWS D1.1, SECTION 3.2.1.
7. INDIVIDUAL WELDS SHALL BE CARRIED CONTINUOUSLY TO COMPLETION BEFORE JOINT IS ALLOWED TO COOL BELOW THE MINIMUM SPECIFIED PREHEAT AND INTERPASS TEMPERATURE.
8. BEAM WELDING SEQUENCE: WHEN WELDING IS REQUIRED AT BOTH ENDS OF A BEAM, ONE END SHALL BE ALLOWED TO COOL BEFORE WELDING BEGINS AT THE OPPOSITE END.
9. PREHEATING IS REQUIRED ON ALL TACK WELDS NOT INCORPORATED INTO FINAL WELDS. SEE AWS D1.1, SECTION 3.3.7.
10. 100% ULTRASONIC WELD TESTING BY AN ASNT LEVEL I1 INSPECTOR, SUPERVISED BY A LEVEL III INSPECTOR, IS REQUIRED FOR ALL COMPLETE JOINT PENETRATION WELDS.
12. ALL SURFACES SHALL BE CLEANED FREE OF RUST, PAINT, DEBRIS, ETC., PRIOR TO WELDING. ADHERE TO SECTION 4.5.2 OF AWS D1.4 FOR STORAGE OF ELECTRODES.
13. FCAW PROCESS SHALL NOT BE USED WITHOUT PRIOR WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.
14. ALL WELDS SHALL BE TERMINATED AT THE END OF A JOINT IN A MANNER THAT WILL ENSURE SOUND WELDS. WHENEVER NECESSARY, THIS SHALL BE DONE BY USE OF EXTENSION BARS AND RUN-OFF TABS. NO WELD DAMS ARE ALLOWED. RUN OFF TABS USED AT BEAM FLANGE CONNECTION SHALL BE REMOVED AND THE ENDS OF THE WELD SHALL BE MADE SMOOTH AND FLUSH WITH THE EDGES OF ABUTTING PARTS PER 3.12.3 OF AWS D1.1.
15. ALL REPAIR WELDS TO BE COMPLETE JOINT PENETRATION WELDS UNLESS SPECIFICALLY NOTED OTHERWISE.
    A. A COMPLETE JOINT PENETRATION GROOVE WELD SHALL HAVE A FILLER METAL WITH A NOTCH TOUGHNESS OF 30 FT-LBS AVERAGE (MINIMUM 20 FT-LBS AT 0 DEG F).
    B. COLUMN FLANGE REPLACEMENT PLATES AND BEAM FLANGE SPLICE PLATES SHALL HAVE A NOTCH TOUGHNESS OF 20 FT-LBS AVERAGE AT 70 DEG F. ALSO, ROLLING DIRECTION OF GRAIN SHALL BE INDICATED ON THE PLATE AND INSTALLED SO THAT GRAIN DIRECTION IS PARALLEL TO LONGITUDINAL AXIS OF THE MEMBER.
16. DEMAND CRITICAL COMPLETE JOINT PENETRATION GROVE WELDS IDENTIFIED BY AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS SECTION A3.4B SHALL CONFORM TO AND BE TESTED PER REQUIREMENTS OF FEMA 353:
    A. WELD OF BEAM FLANGES TO COLUMNS
    B. WELDS OF SINGLE PLATE SHEAR CONNECTIONS TO COLUMNS
    C. WELDS OF BEAM WEBS TO COLUMNS
    D. COLUMN SPLICE WELDS, INCLUDING COLUMN BASE.
17. REQUIREMENTS REGARDING PREHEAT
    A. PREHEAT THE ENTIRE JOINT TO A MINIMUM OF 225 DEG F BEFORE PERFORMING. PREHEAT TEMPERATURE SHALL BE MEASURED AT A DISTANCE OF 3 INCHES IN ALL DIRECTIONS AWAY FROM THE JOINT, AND SHALL EXTEND THROUGH THE COLUMN FLANGE THICKNESS OVER THAT SAME AREA. PREHEAT SHALL BE VERIFIED BY AN INSPECTOR BEFORE WELDING PROCEEDS.
    B. ALL PREHEATING SHALL BE DONE UNIFORMLY, WHERE POSSIBLE, PROVIDE HEATING FROM THE BACK SIDE (ROOT SIDE) OF THE MEMBER. MEMBERS SHOULD ALWAYS BE BROUGHT TO TEMPERATURE SLOWLY.
    C. FOR GROUP 4 AND 5 SHAPES, PREHEAT TO 225 DEG F PRIOR TO THERMAL CUTTING OF ACCESS HOLES. FOR ALL THERMAL CUTTING OF ACCESS HOLES, INSPECT THERMALLY-CUT EDGES USING MAGNETIC PARTICLE OR DYE PENETRATION METHODS.
    D. MAXIMUM INTERPASS TEMPERATURE 450 DEG F TO BE MONITORED ON COLUMN FLANGE MAINTAIN PREHEAT TEMPERATURE WHEN WELDING IS INTERRUPTED.
17. REQUIREMENTS REGARDING POST-HEATING:
    A. START POST HEAT IMMEDIATELY AFTER ALL FRAME JOINT WELDING IS AT PREHEAT TEMPERATURE OF 225 DEG F.
    B. AFTER ALL WELDING, PROVIDE A FULL FIBER WRAP WITH AN 8 POUND DENSITY OR EQUAL. ALLOW MEMBER TO RAMP DOWN TO AMBIENT TEMPERATURE IN NO LESS THAN 6 HOURS FOR FLANGE THICKNESS GREATER THAN 2 INCHES. WRAP MAY BE REMOVED WHEN MATERIAL HAS REACHED AMBIENT TEMPERATURE.
18. SPECIAL INSPECTION AND TESTING:
    A. THE OWNER'S STEEL TESTING AGENCY SHALL PROVIDE CONTINUOUS INSPECTION OF THE WELDING SUBCONTRACTOR AND PERFORM THE INDICATED SHOP AND FIELD INSPECTION AND TESTING.
    B. INSPECTORS ARE TO BE AWS Q.C.-1 CERTIFIED (A CWI-INSPECTOR) REFERENCE AWS D1.1 SECTION 6.1.3.1. INSPECTORS TO BE LICENSED BY THE LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY AS DEPUTY BUILDING INSPECTORS FOR STRUCTURAL STEEL AND WELDING (SSW).
    C. 100% OF ALL DEMAND CRITICAL COMPLETE JOINT PENETRATION WELDS ARE TO BE ULTRASONICALLY TESTED.
    D. AFTER REMOVAL OF BACKUP BARS AND BACKGOUGING OF CRACKED WELDS, REMAINING WELD MATERIAL TO BE TESTED BY MAGNETIC PARTICLE TO ENSURE ALL SOUND WELD MATERIAL.
    E. AMPERAGE, VOLTAGE, POLARITY AND ELECTRODE STICK_OUT SHALL BE VERIFIED TO BE IN COMPLIANCE WITH THE ELECTRODE MANUFACTURER'S RECOMMENDATIONS.
    F. INSPECTION REQUIRED DURING THE PLACEMENT OF FIRE-PROOFING.
    G. ULTRASONIC INSPECTION SHALL BE PERFORMED NO SOONER THAN 48 HOURS AFTER COMPLETION OF WELDMENTS. COLUMN FLANGES SHALL BE ULTRASONICALLY INSPECTED ON BOTH SIDES OF THE SPECIFIED LOCATION OF THE GROOVE WELD FOR A DISTANCE OF 8 INCHES.
    H. A MAXIMUM OF 10% OF NEW COMPLETE JOINT PENETRATION GROOVE WELDS TO BE MACRO-ETCHED. LOCATIONS, IF REQUIRED, TO BE DETERMINED BY THE ENGINEER.
    I. FOLLOWING THE COMPLETION OF THE WELDING, THE WELDED JOINTS SHALL BE INSPECTED BY AN APPROVED ULTRASONIC TESTING PROCEDURE, CONSISTENT WITH APPENDIX S OF AWS D1.1. THE ACCEPTANCE CRITERIA SHALL FOLLOW AWS D1.1, SECTION 6.20 AND TABLE 6.3. PRIOR TO THE SHEAR WAVE TESTING OF THE WELD, THE BASE METAL SHALL BE INSPECTED FOR LAMELLAR DISCONTINUITIES IN ACCORDANCE WITH AWS D1.1. ALL SHOP OR FIELD WELDS AND THE COLUMN FLANGES DIRECTLY BEHIND SUCH WELDS SHALL BE PERFORMED NO SOONER THAN 48 HOURS AFTER THE COMPLETION OF THE WELDING.

EXECUTION AND CLOSEOUT REQUIREMENTS (01 70 00)

1. CONTRACTOR SHALL MAINTAIN RECORD DOCUMENTS (E.G., DRAWINGS, ADDENDA, CHANGE ORDERS, REVIEWED SHOP DRAWINGS, FIELD TEST RECORDS, ETC.) AT THE SITE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF CHANGES IN THE CONTRACT DOCUMENTS, AND SHALL TRANSFER THE RECORDED CHANGES TO A SET OF REPRODUCIBLE RECORD DOCUMENTS UPON COMPLETION OF THE WORK.
2. UNLESS NOTED OTHERWISE, EXPOSED NEW CONCRETE, STEEL, ETC., SHALL BE FINISHED TO MATCH EXISTING BUILDING FINISHES. PLYWOOD SHEAR WALLS SHALL BE COVERED WITH 5/8 INCH THICK DRYWALL AND BE TAPED AND PAINTED. ITEMS REMOVED TO INSTALL THE NEW WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION (INCLUDING FIRE-RATING, IF APPLICABLE). WHERE SURFACES ARE TO BE PAINTED, NEW FLOOR COVERINGS ARE REQUIRED, ETC., THE CONTRACTOR SHALL SUBMIT ACCURATE COLOR OR PATTERN SAMPLES TO THE OWNER FOR APPROVAL.
3. CONTRACTOR SHALL PERFORM PERIODIC AND FINAL CLEANING OF WORK AREAS. OCCUPIED AREAS SHALL BE KEPT IN A CONDITION SUITABLE FOR USE BY THE OWNER. UNOCCUPIED AREAS SHALL BE CLEANED DURING THE CONSTRUCTION TO KEEP WORK AREAS FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH. CONTRACTOR SHALL CLEAN SPILLAGE, OVER-SPRAY, HEAVY COLLECTION OF DUST IN OCCUPIED AREAS, AND THOSE ITEMS WHICH MAY PRESENT A HAZARD IMMEDIATELY. FINAL CLEANING SHALL BE PERFORMED AT THE COMPLETION OF THE WORK RETURN AREAS TO A CONDITION SUITABLE FOR USE BY THE OWNER. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, REGULATIONS AND ANTI-POLLUTION LAWS. CONTRACTOR SHALL USE APPROPRIATE CLEANING MATERIALS. CONTRACTOR SHALL PROVIDE ON-SITE CONTAINERS FOR COLLECTION OF WASTE MATERIALS AND SHALL REMOVE WASTE MATERIALS FROM THE SITE PERIODICALLY AND DISPOSE OF AT LEGAL DISPOSAL AREAS AWAY FROM THE SITE.
4. REMOVAL AND DISPOSAL OF ANY HAZARDOUS MATERIAL (ASBESTOS, LEAD PAINTS, FLUORESCENT LIGHT BALLASTS, ETC.) SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

EXISTING CONDITIONS (DIVISION 02)

1. THE INFORMATION AND DETAILS FOR THE EXISTING STRUCTURE SHOWN ON THE STRUCTURAL DOCUMENTS ARE BASED ON INFORMATION OBTAINED FROM THE EXISTING DRAWINGS. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ACTUAL FIELD CONDITIONS WHICH DEVIATE FROM THE EXISTING CONDITIONS SHOWN ON THE EXISTING DRAWINGS. EXCEPT WHERE MODIFIED FOR RETROFIT DESIGN PURPOSES, AS SHOWN HEREIN, THE STRUCTURAL ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE ADEQUACY OF THE EXISTING STRUCTURE TO SUPPORT THE CODE DESIGN LOADS.
2. NUMBER AND SIZES OF EXISTING ITEMS (E.G., CONDUIT, PIPES, HVAC DUCTS, ETC.), SHOWN ON THE DRAWINGS ARE FOR IDENTIFICATION PURPOSES ONLY. EXISTING ITEMS NOTED MAY NOT REPRESENT ALL ITEMS INTERFERING WITH NEW WORK NOR ALL ITEMS WHICH MAY NEED TO BE REMOVED TO ACCESS WORK AREAS. CONTRACTOR SHALL FIELD VERIFY INTERFERING ITEMS AND SIZES.
3. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OR CONDITION OF THE EXISTING STRUCTURE TO ADHERE TO CODE DESIGN LEVELS.
4. THE CONTRACTOR SHALL REMOVE AND REPLACE SUSPENDED CEILING T-GRID, CEILING TILES, LIGHT FIXTURES, PARTITION WALLS, DRYWALL CEILINGS, FLOOR COVERINGS AND BASES, CERAMIC TILE, CONCRETE FLATWORK, PLANTS, ELECTRICAL OR MECHANICAL EQUIPMENT, CONDUIT SUPPORTS, UNISTRUT SUPPORTS, HVAC SUPPORTS, THERMOSTATS, WALL COVERINGS, RAILING, FENCING AND FINISHES, ETC., AS REQUIRED TO ACCESS THE WORK AREAS SHOWN ON THE PLANS. THE EXTENT OF REMOVAL REQUIRED SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. WHERE NONSTRUCTURAL ITEMS ARE REMOVED TO INSTALL RETROFITS, THESE ITEMS SHALL BE RESTORED. REPLACEMENT SHALL BE MADE WITH MATERIALS OF EQUAL OR HIGHER QUALITY AND FINISHES SHALL MATCH THOSE EXISTING ON REMOVED ITEMS. FLOORS, CEILINGS AND WALLS SHALL BE REWORKED AS REQUIRED TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. ALL COSTS FOR REMOVING AND REPLACING EXISTING ITEMS IN ORDER TO INSTALL RETROFITS SHALL BE INCLUDED IN THE FIXED PRICE TO PERFORM ALL WORK.
5. CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FIELD EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES, EXISTING FOOTINGS, ETC., IN AREAS WHERE NEW FOUNDATIONS (IF ANY) ARE TO BE CONSTRUCTED PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING, AS NECESSARY, ANY AND ALL UTILITIES THAT MAY INTERFERE WITH THE INSTALLATION OF THE DETAILS AS SHOWN. THE EXTENT OF RELOCATION (NECESSARY BOTH TO ACCESS AREAS REQUIRING RETROFIT AND TO INSTALL RETROFITS) OF UTILITIES WHICH ARE VISIBLE (INCLUDING THOSE ABOVE CEILINGS) OR WHICH ARE ACCURATELY SHOWN ON THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. THE COST OF ANY AND ALL SUCH RELOCATIONS SHALL BE INCLUDED IN THE FIXED PRICE COST TO PERFORM THE WORK. COSTS TO RELOCATE UTILITIES WHICH ARE NOT VISIBLE OR ARE NOT ACCURATELY SHOWN ON THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. COSTS TO RELOCATE UTILITIES WHICH ARE NOT VISIBLE OR ARE NOT ACCURATELY SHOWN IN THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS WILL BE TREATED AS EXTRAS. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES DAMAGED IN CONNECTION WITH THE PROSECUTION OF THIS WORK.
7. CONTRACTOR SHALL PROTECT EXISTING FINISHES, EQUIPMENT, AND ADJACENT WORK WHICH IS TO REMAIN IN PLACE, AS WELL AS ITEMS WHICH ARE TO BE REMOVED AND REINSTALLED, FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF EXISTING STRUCTURAL AND NONSTRUCTURAL ITEMS DAMAGED IN CONNECTION WITH THIS WORK.
8. NUMBER AND SIZES OF EXISTING ITEMS (E.G., CONDUIT, PIPES, HVAC DUCTS, ETC.), SHOWN ON THE DRAWINGS ARE FOR IDENTIFICATION PURPOSES ONLY. EXISTING ITEMS NOTED MAY NOT REPRESENT ALL ITEMS INTERFERING WITH NEW WORK NOR ALL ITEMS WHICH MAY NEED TO BE REMOVED TO ACCESS WORK AREAS. CONTRACTOR SHALL FIELD VERIFY
9. ALL EXITS MUST REMAIN OPERATIONAL DURING CONSTRUCTION.
10. REBAR SHALL NOT BE CUT DURING INSTALLATION OF RETROFITS UNLESS APPROVED BY THE ENGINEER. USE NONDESTRUCTIVE METHODS TO LOCATE REBAR PRIOR TO DRILLING.

METALS (DIVISION 05)
STRUCTURAL STEEL (05120)

1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS
2. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A 500, GRADE B, FY = 46 KSI. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A 53, TYPE E, GRADE B. STRUCTURAL STEEL FOR COLUMNS SHALL CONFORM TO ASTM A 572 GRADE 50. STRUCTURAL STEEL PLATE AND ANGLES SHALL CONFORM TO A36.
3. ALL OTHER HOT-ROLLED STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 OR ASTM A572 GRADE 50. STEEL SHALL CONFORM TO ASTM A992 UNLESS OTHERWISE NOTED ON DRAWINGS.
4. MACHINE BOLTS AND ANCHOR BOLTS SHALL BE GRADE B CONFORMING TO ASTM A 307 AND ANCHOR BOLTS SHALL BE ASTM F1554 GR 36, UNLESS OTHERWISE NOTED.
5. NUTS FOR MACHINE BOLTS SHALL CONFORM TO ASTM A 563, HEAVY HEX GRADE C.
6. HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A 325.
7. THREADED FASTENERS SHALL BE ASTM A449 U.N.O. WHERE HIGH STRENGTH THREADED ROD IS SPECIFIED, MATERIAL SHALL CONFORM TO ASTM A992.
8. NUTS FOR HIGH-STRENGTH BOLTS SHALL BE HEAVY HEX, GRADE C, CONFORMING TO ASTM A 563.
9. HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436. ALL BOLTED ASSEMBLIES SHALL CONSIST OF ONE BOLT, ONE NUT AND ONE HARDENED WASHER - H.S. BOLTED ASSEMBLIES SHALL ALSO INCLUDE A DIRECT TENSION INDICATING WASHER.
10. SHOP DRAWINGS FOR STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE SUBMITTED FOR REVIEW AND RETURNED WITH AUTHORIZATION TO PROCEED PRIOR TO FABRICATION.
11. NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 24 HOURS AND 8000 PSI IN 7 DAYS PER ASTM C1107, MASTER BUILDERS SET GROUT. GROUTING OF BASE PLATES PRIOR TO ALIGNMENT OF COLUMNS SHALL NOT BE PERMITTED.
12. ALL FIELD WELDING SHALL BE DONE BY THE SHIELDED METAL ARC PROCESS USING E7018 ELECTRODES PER AWS SPECIFICATION A5.1 (LOW HYDROGEN ELECTRODES). WELDING SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1 AND SHALL BE PERFORMED BY CERTIFIED WELDERS QUALIFIED UNDER THE PROCEDURES CONTAINED THEREIN. MAXIMUM ELECTRODE SIZE SHALL BE 5/64-INCH DIAMETER.
13. WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION SHALL BE MADE BY A QUALIFIED WELDING INSPECTOR APPROVED BY THE ENFORCEMENT AGENCY AND MEET THE REQUIREMENTS OF CBC 1704A.3.1
14. BOLT HOLES IN STEEL SHALL BE DRILLED 1/16-INCH LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED, EXCEPT AS NOTED OTHERWISE.
15. ALL STRUCTURAL STEEL SURFACES THAT ARE ENCASED IN CONCRETE OR MASONRY, OR ARE ENCASED BY FIREPROOFING MATERIALS, SHALL BE LEFT UNPAINTED.
16. ALL STEEL EXPOSED TO WEATHER OR MOISTURE CONDITIONS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION. AREAS THAT HAVE BEEN FIELD WELDED SHALL BE COATED WITH "REGALV," "GALVALLOY," OR AN APPROVED EQUIVALENT.
17. ALL STRUCTURAL STEEL SHALL BE PAINTED UNLESS NOTED OTHERWISE. STRUCTURAL STEEL SHALL BE PAINTED WITH DUNN-EDWARDS CORPORATION OR FRAZEE PRODUCTS OR EQUIVALENT PRODUCTS AS APPROVED BY THE ENGINEER OF RECORD. SURFACE PREPARATION PRIOR TO PRIMER AND OTHER COATS SHALL BE PER PAINT MANUFACTURER REQUIREMENTS AND RECOMMENDATIONS. PAINT COLOR SHALL BE AS DIRECTED BY OWNER.

INTERIOR/EXTERIOR STEEL	DUNN-EDWARDS	FRAZEE
FIRST COAT	CORROBAR (43-5)	661
SECOND COAT	W901	124
THIRD COAT	W901	124

GENERAL (CONTINUED)

17. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT AND PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES, EXISTING FOOTINGS, ETC., IN AREAS WHERE NEW FOUNDATIONS (IF ANY) ARE TO BE CONSTRUCTED PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING, AS NECESSARY, ANY AND ALL UTILITIES THAT MAY INTERFERE WITH THE INSTALLATION OF THE DETAILS AS SHOWN. THE EXTENT OF RELOCATION (NECESSARY BOTH TO ACCESS AREAS REQUIRING RETROFIT AND TO INSTALL RETROFITS) OF UTILITIES WHICH ARE VISIBLE (INCLUDING THOSE ABOVE CEILINGS) OR WHICH ARE ACCURATELY SHOWN ON THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. THE COST OF ANY AND ALL SUCH RELOCATIONS SHALL BE INCLUDED IN THE FIXED PRICE COST TO PERFORM THE WORK. COSTS TO RELOCATE UTILITIES WHICH ARE NOT VISIBLE OR ARE NOT ACCURATELY SHOWN ON THE ORIGINAL ARCH., MECH., ELECT., ETC., DRAWINGS WILL BE TREATED AS EXTRAS. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES DAMAGED IN CONNECTION WITH THE PROSECUTION OF THIS WORK.
18. THE CONTRACTOR SHALL REMOVE AND REPLACE SUSPENDED CEILING T- GRID, CEILING TILES, LIGHT FIXTURES, PARTITION WALLS, DRYWALL CEILINGS, FLOOR COVERINGS AND BASES, CERAMIC TILE, CONCRETE FLATWORK, PLANTS, ELECTRICAL OR MECHANICAL EQUIPMENT, CONDUIT SUPPORTS, UNISTRUT SUPPORTS, HVAC SUPPORTS, THERMOSTATS, WALL COVERINGS AND FINISHES ETC., AS REQUIRED TO ACCESS THE WORK AREAS SHOWN ON THE PLANS. THE EXTENT OF REMOVAL REQUIRED SHALL BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH. WHERE NONSTRUCTURAL ITEMS ARE REMOVED TO INSTALL RETROFITS, THESE ITEMS SHALL BE RESTORED. REPLACEMENT SHALL BE MADE WITH MATERIALS OF EQUAL OR HIGHER QUALITY AND FINISHES SHALL MATCH THOSE EXISTING ON REMOVED ITEMS. FLOORS, CEILINGS AND WALLS SHALL BE REWORKED AS REQUIRED TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. ALL COSTS FOR REMOVING AND REPLACING EXISTING ITEMS IN ORDER TO INSTALL RETROFITS SHALL BE INCLUDED IN THE FIXED PRICE TO PERFORM ALL WORK.
19. THE INFORMATION AND DETAILS FOR THE EXISTING STRUCTURE SHOWN ON THE STRUCTURAL DOCUMENTS ARE BASED ON INFORMATION OBTAINED FROM THE EXISTING DRAWINGS. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ACTUAL FIELD CONDITIONS WHICH DEVIATE FROM THE EXISTING CONDITIONS SHOWN ON THE EXISTING DRAWINGS. EXCEPT WHERE MODIFIED FOR RETROFIT DESIGN PURPOSES, AS SHOWN HEREIN, THE STRUCTURAL ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE ADEQUACY OF THE EXISTING STRUCTURE TO SUPPORT THE CODE DESIGN LOADS.
20. CONTRACTOR SHALL PROTECT EXISTING FINISHES, EQUIPMENT, AND ADJACENT WORK WHICH IS TO REMAIN IN PLACE, AS WELL AS ITEMS WHICH ARE TO BE REMOVED AND REINSTALLED, FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF EXISTING STRUCTURAL AND NONSTRUCTURAL ITEMS DAMAGED IN CONNECTION WITH THIS WORK.
21. NUMBER AND SIZES OF EXISTING ITEMS (E.G., CONDUIT, PIPES, HVAC DUCTS, ETC.), SHOWN ON THE DRAWINGS ARE FOR IDENTIFICATION PURPOSES ONLY. EXISTING ITEMS NOTED MAY NOT REPRESENT ALL ITEMS INTERFERING WITH NEW WORK NOR ALL ITEMS WHICH MAY NEED TO BE REMOVED TO ACCESS WORK AREAS. CONTRACTOR SHALL FIELD VERIFY INTERFERING ITEMS AND SIZES.
22. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR ITEMS SUCH AS ELECTRICAL PANELS, SUSPENDED CEILINGS, PIPES, ETC. WHICH ARE DETACHED FROM THE EXISTING STRUCTURE BUT REMAIN IN PLACE DURING INSTALLATION OF RETROFITS. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF THESE ITEMS IF THEY ARE DAMAGED DURING RETROFIT INSTALLATION.
23. THE CONTRACTOR SHALL SUPPLY AND ERECT ALL TEMPORARY SCAFFOLDING, LADDERS, MAN-LIFTS, ETC., AS REQUIRED TO ACCESS ALL WORK AREAS SHOWN ON THE PLANS. ALL SCAFFOLDING REQUIREMENTS ARE TO BE DETERMINED BY THE CONTRACTOR DURING THE PRE-BID WALKTHROUGH, AND THE COST FOR PROVIDING THESE ITEMS SHALL BE INCLUDED IN THE FIXED PRICE TO PERFORM ALL WORK.
24. UNLESS NOTED OTHERWISE, EXPOSED NEW CONCRETE, STEEL, ETC. SHALL BE FINISHED TO MATCH EXISTING BUILDING FINISHES. PLYWOOD SHEAR WALLS SHALL BE COVERED WITH 5/8" THICK DRYWALL, AND BE TAPED AND PAINTED. ITEMS REMOVED TO INSTALL THE NEW WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION (INCLUDING FIRE-RATING, IF APPLICABLE). WHERE SURFACES ARE TO BE PAINTED, NEW FLOOR COVERINGS ARE REQUIRED, ETC., THE CONTRACTOR SHALL SUBMIT ACCURATE COLOR OR PATTERN SAMPLES TO THE OWNER FOR APPROVAL.
25. CONTRACTOR SHALL PERFORM PERIODIC AND FINAL CLEANING OF WORK AREAS. OCCUPIED AREAS SHALL BE KEPT IN A CONDITION SUITABLE FOR USE BY THE OWNER. UNOCCUPIED AREAS SHALL BE CLEANED DURING THE CONSTRUCTION TO KEEP WORK AREAS FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH. CONTRACTOR SHALL CLEAN SPILLAGE, OVERSPRAY, HEAVY COLLECTION OF DUST IN OCCUPIED AREAS, AND THOSE ITEMS WHICH MAY PRESENT A HAZARD IMMEDIATELY. FINAL CLEANING SHALL BE PERFORMED AT THE COMPLETION OF THE WORK TO RETURN AREAS TO A CONDITION SUITABLE FOR USE BY THE OWNER. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, REGULATIONS AND ANTI-POLLUTION LAWS. CONTRACTOR SHALL USE APPROPRIATE CLEANING MATERIALS. CONTRACTOR SHALL PROVIDE ON-SITE CONTAINERS FOR COLLECTION OF WASTE MATERIALS AND SHALL REMOVE WASTE MATERIALS FROM THE SITE PERIODICALLY AND DISPOSE OF AT LEGAL DISPOSAL AREAS AWAY FROM THE SITE.
26. CONTRACTOR SHALL MAINTAIN RECORD DOCUMENTS (E.G., DRAWINGS, ADDENDA, CHANGE ORDERS, REVIEWED SHOP DRAWINGS, FIELD TEST RECORDS, ETC.) AT THE SITE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF CHANGES IN THE CONTRACT DOCUMENTS, AND SHALL TRANSFER THE RECORDED CHANGES TO A SET OF REPRODUCIBLE RECORD DOCUMENTS UPON COMPLETION OF THE WORK.
27. CONTRACTOR SHALL ESTIMATE SPECIAL INSPECTION COSTS IN THE BID. OWNER SHALL EMPLOY AND PAY A SPECIAL INSPECTOR.
28. REMOVAL AND DISPOSAL OF ANY HAZARDOUS MATERIAL (ASBESTOS, LEAD PAINTS, FLUORESCENT LIGHT BALLASTS, ETC.) SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
29. WELDERS SHALL BE CERTIFIED BY AWS AND THE GOVERNING AUTHORITY.
30. ALL EXITS MUST REMAIN OPERATIONAL DURING CONSTRUCTION. IF THERE IS A TEMPORARY CLOSURE OF EXITS, SPECIAL APPROVAL OF THE BUILDING DEPARTMENT AND THE FIRE DEPARTMENT MUST BE OBTAINED BY THE CONTRACTOR.
31. REBAR SHALL NO

ABBREVIATIONS

&	AND	H.P.	HIGH POINT
@	AT	HDR	HEADER
A.B.	ANCHOR BOLT	HORIZ	HORIZONTAL
A.C.I.	AMERICAN CONCRETE INSTITUTE	HT	HEIGHT
A.S.T.M.	AMERICAN SOCIETY FOR THE TESTING OF MATERIALS	I.D.	INSIDE DIAMETER
		I.F.	INSIDE FACE
ABV	ABOVE	IN	INCH
ADD'L	ADDITIONAL	INT	INTERIOR
ADJ	ADJACENT	JST	JOIST
ALT	ALTERNATE	JT	JOINT
APP	APPROVED	K	KIPS (1000 LBS)
ARCH	ARCHITECTURAL	L	ANGLE
A.O.F.	BOTTOM OF FOOTING	LHS	LEFT HAND SIDE
A.S.	BOTH SIDES	LG	LENGTH/LONG
BLDG	BUILDING	LT	LIGHT
BM	BEAM	LT.WT.	LIGHTWEIGHT
BOTT	BOTTOM	L.P.	LOWPOINT
BRG	BEARING	MAS	MASONRY
BTWN	BETWEEN	MATL	MATERIAL
C or MC	CHANNEL	MAX	MAXIMUM
C.I.P.	CAST IN PLACE	MB	MACHINE BOLT
C.M.U.	CONCRETE MASONRY UNIT	MEP	MECHANICAL, ELECTRICAL & PLUMBING
CL	CENTER LINE		
CLOS	CLOSURE	MEZZ	MEZZANINE
CLG	CEILING	MFG	MANUFACTURER
CLR	CLEAR	MIN	MINIMUM
COL	COLUMN	MISC	MISCELLANEOUS
CONC	CONCRETE	MRF	MOMENT RESISTING FRAME
CONN	CONNECTION	MTL	METAL
CONST	CONSTRUCTION	N.IC.	NOT IN CONTRACT
CONT	CONTINUOUS	N.S.	NEAR SIDE
CTR	CENTER	N.T.S.	NOT TO SCALE
DEPT	DEPARTMENT	No.	NUMBER
DET	DETAIL	O.C.	ON CENTER
DIA	DIAMETER	O.D.	OUTSIDE DIAMETER
DIAG	DIAGONAL	O.F.	OUTSIDE FACE
DIM	DIMENSION	O.H.	OPPOSITE HAND
DN	DOWN	OOP	OUT-OF-PLANE
DO	DITTO	OPN'G	OPENING
DWGS	DRAWINGS	OPP	OPPOSITE
DWL	DOWEL	P.L.	PROPERTY LINE
EA	EACH	PERP	PERPENDICULAR
E.F.	EACH FACE	PL	PLATE
E.S.	EACH SIDE	PSF	POUND PER SQUARE FOOT
E.W.	EACH WAY	PSI	POUND PER SQUARE INCH
EL	ELEVATION	PT	PRETENSIONED, POST-TENSIONED
ELEC	ELECTRICAL	R.D.	ROOF DRAIN
(E)	EXISTING	REF	REFERENCE
ELEV	ELEVATION	REINF	REINFORCING
EQ	EQUAL	REQ'D	REQUIRED
EQUIP	EQUIPMENT	RHS	RIGHT HAND SIDE
EXIST	EXISTING	SHT	SHEET
EMBED.	EMBEDMENT	SIM	SIMILAR
EXT	EXTERIOR	S.O.G.	SLAB ON GRADE
F.F.	FINISH FLOOR	SPEC	SPECIFICATION
f'c	COMPRESSIVE STRENGTH OF CONCRETE AT THE AGE OF 28 DAYS	SQ	SQUARE
		STD	STANDARD
f'm	COMPRESSIVE STRENGHT OF CONCRETE MASONRY	STIFF.	STIFFENER
		STAGG.	STAGGERED
F.N.	FIELD NAIL	STL	STEEL
F.O.C.	FACE OF CONCRETE	STRUCT	STRUCTURES/STRUCTURAL
F.O.M.	FACE OF MASONRY	SYMM	SYMMETRICAL
F.O.S.	FACE OF STUD	T & B	TOP AND BOTTOM
F.X.	FAR SIDE	T.B.	TOP OF BEAM
FDN	FOUNDATION	TENS	TENSION / TENSILE
FIN	FINISH	T.O	TOP OF
FLG	FLANGE	T.O.C.	TOP OF CONCRETE
FLR	FLOOR	T.O.S.	TOP OF STEEL
FRP	FIBER REINFORCE POLYMER	T.S.	TOP OF SLAB
FRMG	FRAMING	T.W	TOP OF WALL
FT	FEET/FOOT	TSG	TAPERED STEEL GIRDER
FTG	FOOTING	THK	THICK
GA	GAUGE	THRD	THREADED
GL	GRID LINE	TS	STEEL TUBE
GALV	GALVANIZED	TYP	TYPICAL
GB	GRADE BEAM	U.N.O.	UNLESS NOTED OTHERWISE
		UBC	UNIFORM BUILDING CODE
		VERT	VERTICAL
		V.I.F.	VERIFY IN FIELD
		W.P.	WORK POINT
		W/	WITH
		WF	WIDE FLANGE
		WSB	WELDED STUD BOLTS
		WT	WEIGHT

CONCRETE REINFORCING STEEL (03 20 00)

1. BAR REINFORCEMENT SHALL BE ASTM A 706, GRADE 40 FOR #3 AND SMALLER, AND GRADE 60 FOR #4 AND LARGER UNLESS OTHERWISE NOTED. ALL REINFORCING SHALL BE FROM IDENTIFIED STOCK WITH MILL ANALYSIS.
2. LAP SPLICES OF REINFORCING BARS IN CONCRETE SHALL BE CLASS B, AS DEFINED IN ACI 318 (LATEST EDITION) BUT NOT LESS THAN 12 INCHES.
3. REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE," LATEST EDITION, AND ACI DETAILING MANUAL 315 (LATEST EDITION).
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. NO #5 OR LARGER BARS SHALL NOT BE RE-BENT WITHOUT APPROVAL FROM STRUCTURAL ENGINEER.
5. ALL REINFORCING STEEL, DOWELS, ANCHOR BOLTS, ETC., SHALL BE WELL SECURED IN PLACE PRIOR TO PLACING CONCRETE OR GROUT. CONTRACTOR SHALL USE TEMPLATE TO ENSURE ACCURATE PLACEMENT OF ANCHOR BOLTS, DOWELS, ETC.
6. WELDING IS ONLY PERMITTED FOR ASTM A706 REINFORCEMENT BARS.
7. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4 AS INCORPORATED IN ACI 318 SECTION 12.14.3. E70XX ELECTRODES SHALL BE USED IN WELDING GRADE 40 REBAR. E90XX ELECTRODES SHALL BE USED IN WELDING GRADE 60 REBAR UNLESS NOTED OTHERWISE. REINFORCEMENT SHALL NOT BE WELDED UNTIL A CHEMICAL ANALYSIS SUFFICIENT TO DETERMINE THE CARBON EQUIVALENT IS PERFORMED. THE CARBON EQUIVALENT OF REINFORCING STEEL BARS SHALL BE CALCULATED FROM THE CHEMICAL COMPOSITION AS SHOWN IN THE MILL TEST REPORT. IF MILL TEST REPORTS ARE NOT AVAILABLE, A CHEMICAL ANALYSIS SHALL BE MADE OF BARS REPRESENTATIVE OF THE BARS TO BE WELDED. THE CARBON EQUIVALENT (C.E.) SHALL NOT EXCEED 0.55 AS CALCULATED PER AWS D1.4. A COPY OF THE MILL TEST REPORT SHALL BE SENT TO THE STRUCTURAL ENGINEER'S OFFICE PRIOR TO PLACEMENT OF REINFORCING STEEL IN CONCRETE MEMBERS. SPECIAL INSPECTION IS REQUIRED FOR ALL FIELD-WELDING.
8. INSTALLATION OF ADHESSIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESSIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

INSPECTIONS

1. EXPANSION TYPE ANCHOR BOLTS

   A. HILTI KWIK-BOLT TZ2 (ICC REPORT #ESR-4266)

1. APPLY PROOF TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT. IF NUT REMOVAL IS REQUIRED, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TORQUE AS THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY THE LOAD.
2. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED IN CLOSE PROXIMITY TO THE ANCHOR BEING TESTED PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).
3. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
4. ACCEPTANCE CRITERIA:

   A. HYDRAULIC RAM METHOD:
   ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICES SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO OBSERVABLE MOVEMENT DURING THE TENSION TEST, E.G. AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT.

   B. TORQUE WRENCH METHOD:
   THE APPLICABLE TEST TORQUE SHALL BE OBTAINED WITHIN ONE HALF (½) TURN OF THE NUT.

EXCEPTIONS:

   A. WEDGE OR SLEEVE TYPE:
   ONE-QUARTER (¼) TURN OF THE NUT FOR A (⅜) INCH ANCHOR ONLY.

   B. THREADED TYPE:
   ONE-QUARTER (¼) TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.

5. TESTING SHALL OCCUR 24 HOURS MIN. AFTER INSTALLATION OF THE SUBJECT ANCHORS.
6. TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD.
7. TEST 100% OF THE INSTALLED ANCHORS IN STRUCTURAL APPLICATIONS PER SECTION 1910A.5.3.
8. TEST 50% OR ALTERNATE BOLTS IN A GROUP OF THE INSTALLED ANCHORS FOR NON-STRUCTURAL COMPONENTS SUCH AS EQUIPMENT ANCHORAGE PER SECTION 1910A.5.3.
9. IF ANY ANCHOR FAILS TESTING ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE. NOT PREVIOUSLY TESTED UNTIL (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE ORIGINAL TEST FREQUENCY.

TEST LOADS TABLE FOR HILTI KWIK BOLT TZ2 ANCHORS

TYPE OF MATERIALS	TYPE OF TEST		BOLT DIAMETER							
			⅜"	½"	½"	⅝"	⅝"	⅝"	¾"	¾"
NORMAL OR LIGHT WEIGHT CONCRETE	TORQUE WRENCH (FT-LBS)	CARBON STEEL	30	50	50	40	40	40	110	110
		STAINLESS	30	40	40	60	60	60	125	125
	MINIMUM EMBEDMENT (HEF)		2"	2"	2½"	2¾"	3½"	4"	3½"	4¼"
	MINIMUM HOLE DEPTH (HO)		2¾"	2¾"	3¼"	3½"	4¼"	4½"	4¾"	5¼"
	MINIMUM EDGE DISTANCE	CARBON STEEL	2½"	2½"	2½"	4½"	3½"	2½"	4"	3½"
		STAINLESS	2½"	2½"	2½"	4	3¼"	2¼"	4"	3¼"
	MINIMUM MEMBER THICKNESS		4"	4"	5"	5"	5½"	6"	6"	8"

2. EPOXY-TYPE ANCHORS

A. HILTI RE-500 V3

1. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED IN CLOSE PROXIMITY TO THE ANCHOR BEING TESTED PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE (S).
2. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
3. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

   HYDRAULIC RAM METHOD:
   THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD.

4. TESTING SHOULD OCCUR A MINIMUM OF 24 HOURS AFTER INSTALLATION OF THE SUBJECT ANCHORS.
5. TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD.
6. TEST 25% OF THE INSTALLED ANCHORS PER SECTION 1910A.5.3

HILTI RE-500 V3 DIRECT-PULL TENSION TEST LOADS: REBAR ANCHORED IN LIGHT WEIGHT CONCRETE

REBAR SIZE	MIN EMBEDMENT DEPTH (INCHES)	3,000 PSI PROOF LOAD (LBS)
No. 3	2"	1,500

HILTI RE-500 V3 DIRECT-PULL TENSION TEST LOADS: REBAR ANCHORED IN NORMAL WEIGHT CONCRETE

REBAR SIZE	MIN EMBEDMENT DEPTH (INCHES)	4,000 PSI PROOF LOAD (LBS)
No. 4	3"	3,400

INTERNATIONAL CODE COUNCIL (ICC) EVALUATION REPORTS

THE FOLLOWING ITEMS SHALL BE MANUFACTURED AND INSTALLED PER THE REQUIREMENTS OF THE REFERENCED ICC REPORT NUMBER:

ITEMS	ICC REPORT NUMBER
HILTI KWIK BOLT TZ2 ANCHORS	ESR-4266
HILTI RE-500V3	ESR-3814

CONCRETE (DIVISION 03)
CAST-IN-PLACE CONCRETE (03 30 00)

1. CEMENT SHALL BE LOW ALKALI AND SHALL CONFORM TO ASTM C 150, TYPE II OR V.
2. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C 33. SUPPLIERS OF AGGREGATE SHALL PROVIDE EVIDENCE THAT AGGREGATE IS FREE OF DELETERIOUS REACTIVITY.
3. AGGREGATES FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C 330, AND SHALL BE EXPANDED SHALE-PUMICE SHALL NOT BE USED. SUPPLIERS OF AGGREGATE SHALL PROVIDE EVIDENCE THAT AGGREGATE IS FREE OF DELETERIOUS REACTIVITY.
4. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C 94.
5. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE," EXCEPT AS MODIFIED BY THESE NOTES.
6. WHERE NOT OTHERWISE INDICATED ON THE DRAWINGS, PROVIDE CONCRETE IN ACCORDANCE WITH THE FOLLOWING TABLE

USE	Air dry wt. Normal (1)	Air dry wt. Lt. Wt. (2)	F'c (psi) 28 day strength	Slump (inch) max. (3)	Aggregate (inch) max. (4)	Max. Water Cementitious ratio (5)
LEVEL 1 CONCRETE OVER METAL DECK	•		4,000	4"	3/8"	0.5
ROOF RAISED PADS		•	4,000	4"	3/8"	0.5

(CONCRETE TABLE FOOTNOTES):

(1) AIR DRY WEIGHT SHALL NOT EXCEED 150 POUNDS PER CUBIC FOOT.

(2) AIR DRY WEIGHT SHALL NOT EXCEED 110 POUNDS PER CUBIC FOOT.

(3) SUPER-PLASTICIZERS SHALL BE ADDED AT THE BATCH PLANT. CONCRETE WITH SUPER-PLASTICIZERS DESIGNED INTO THE MIX SHALL HAVE SLUMP OF 2 TO 3 INCHES, WITHOUT SUPER-PLASTICIZER ADDED.

(4) NOMINAL MAXIMUM AGGREGATE SIZE SHALL NOT BE MORE THAN 1/3 THICKNESS OF CONCRETE COMPONENTS COMPONENT OR 3/4 OF THE MINIMUM CLEAR SPACING REINFORCING O BUNDLES OF REINFORCING.

(5) MAXIMUM WATER-CEMENTITIOUS MATERIALS RATIO BY WEIGHT (NON-AIR ENTRAINED).

7. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO USE. CONCRETE MIX DESIGN SHALL BEAR A WET SEAL AND SIGNATURE OF A REGISTERED CIVIL ENGINEER EMPLOYED BY THE QUALIFIED TESTING LABORATORY PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER FOR REVIEW. THE CONCRETE MIX DESIGN SHALL STATE THE SOURCE OF THE AGGREGATES AND SHALL INCLUDE AN AFFIDAVIT THAT THE AGGREGATE IS NOT EXPANSIVE OR OTHERWISE CHEMICALLY DETRIMENTAL.
8. ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM A 494 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).
9. MATERIAL ADMIXTURE SHALL CONFORM TO ASTM C618, CLASS F (NO CLASS C PERMITTED); FLY ASH POZZOLAN; LOSS ON IGNITION NO MORE THAN 4%. WEIGHT OF FLY ASH SHALL BE BETWEEN 20% AND 25% OF WEIGHT OF CEMENTITIOUS MATERIALS.
10. NO CONDUIT PLACED IN A CONCRETE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN 1/3 THE THICKNESS OF THE SLAB. NO CONDUIT SHALL BE EMBEDDED IN A SLAB THAT IS LESS THAN 3-1/2 INCHES THICK, EXCEPT FOR LOCAL OFFSETS, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE 3 DIAMETERS OR WIDTHS ON CENTER.
11. NO CONDUIT SHALL BE PLACED IN THE CONCRETE TOPPING OVER THE STEEL DECKING WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.
12. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4 INCH CHAMFER UNLESS OTHERWISE NOTED.
13. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS, OR GROUNDS REQUIRED TO BE CAST INTO CONCRETE.
14. CONSTRUCTION JOINTS FOR CAST-IN-PLACE CONCRETE WALLS SHALL BE IN ACCORDANCE WITH ACI 301, SECTION 5.3.2.6. ROUGHEN ALL SURFACES TO A MINIMUM OF 1/4 INCH AGGREGATE EXPOSURE PRIOR TO ADJACENT POUR.
15. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE "(ACI 318, LATEST APPROVED EDITION), WITH MODIFICATIONS AS NOTED ON THE DRAWINGS OR SPECIFICATIONS.
16. DRYPACK UNDER BASEPLATES, SILL PLATES, AND WHERE OTHERWISE NOTED ON DRAWINGS SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 2-1/2 PARTS OF FINE AGGREGATE CONFORMING TO ASTM C 33, WITH ENOUGH WATER TO FORM A BALL WHEN SQUEEZED IN THE HAND. THE SPACE BETWEEN TWO SURFACES REQUIRING DRYPACK SHALL BE PACKED WITH THE DRYPACK MATERIALBY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL THE VOIDS ARE COMPLETELY FILLED. NON-SHRINK GROUT MAY BE USED IN LIEU OF DRYPACK.
17. REINFORCED STEEL CLEARANCE

   A. PRESERVE CLEARANCE BETWEEN BARS OF NOT LESS THAN THE NOMINAL DIAMETER OF THE BARS.

   B. IN NO CASE SHALL THE CLEAR DISTANCE BE LESS THAN 1 INCH OR LESS THAN 1-1/3 TIMES THE MAXIMUM SIZE OF AGGREGATE, WHICHEVER IS GREATER.

   1. CONCRETE DEPOSITED AGAINST EARTH:.....3 INCHES
   2. CONCRETE SURFACE (FORMED) EXPOSED TO EARTH AND WEATHER:
      #6 THROUGH #11 BARS:.....2 INCHES
      #5 BAR AND SMALLER:.....1-1/2 INCHES
   3. CONCRETE NOT EXPOSED TO EARTH AND/OR WEATHER:
      A. SLABS, WALLS, JOISTS:
      #14 & #18 BARS:.....1-1/2 INCHES
      #11 BAR AND SMALLER:.....3/4 INCHES
      B. BEAMS, COLUMNS:
      PRIMARY REINFORCEMENT, TIES,
      STIRRUPS, SPIRALS:.....1-1/2 INCHES
   4. PLACE TEMPERATURE REINFORCING FOR SLABS ON GRADE AT 1 1/2 INCHES CLEAR FROM TOP OF SURFACE.

18. ALL REINFORCING BARS, ANCHOR BOLTS, DOWELS, AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. WET SETTING SHALL NOT BE PERMITTED.
19. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.
20. CURING COMPOUND USED ON CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE APPROVED BY THE TILE MANUFACTURER BEFORE USE.
21. CONCRETE SLABS SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR 7 DAYS. FORMS FOR CONCRETE WALLS SHALL BE LEFT IN PLACE FOR 7 DAYS, OR THE WALLS MAY BE STRIPPED AFTER 3 DAYS AND THEN COVERED WITH BURLAP WHICH SHALL BE KEPT WET FOR AN ADDITIONAL 7 DAYS. CURING COMPOUNDS SHALL NOT BE PERMITTED U.N.O.
22. NO STAKES, STEEL OR WOOD, WILL BE PERMITTED IN ANY CONCRETE POUR. SUSPEND FORMS FROM ABOVE THE POUR.
23. A CURING COMPOUND APPROVED BY THE STRUCTURAL ENGINEER MAY BE USED ON CONCRETE FLOOR TOPPING SLABS TO PROTECT WOOD FRAMING FROM WATER EXPOSURE.

CONCRETE REINFORCING STEEL (03 20 00)

1. BAR REINFORCEMENT SHALL BE ASTM A 706, GRADE 40 FOR #3 AND SMALLER, AND GRADE 60 FOR #4 AND LARGER UNLESS OTHERWISE NOTED. ALL REINFORCING SHALL BE FROM IDENTIFIED STOCK WITH MILL ANALYSIS.
2. LAP SPLICES OF REINFORCING BARS IN CONCRETE SHALL BE CLASS B, AS DEFINED IN ACI 318 (LATEST EDITION) BUT NOT LESS THAN 12 INCHES.
3. REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE," LATEST EDITION, AND ACI DETAILING MANUAL 315 (LATEST EDITION).
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. NO #5 OR LARGER BARS SHALL NOT BE RE-BENT WITHOUT APPROVAL FROM STRUCTURAL ENGINEER.
5. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH, WHICHEVER IS GREATER.
6. SPLICES IN ADJACENT HORIZONTAL WALL REINFORCEMENT SHALL BE STAGGERED 4'-0" MINIMUM UNLESS OTHERWISE NOTED.
7. ALL REINFORCING STEEL, DOWELS, ANCHOR BOLTS, ETC., SHALL BE WELL SECURED IN PLACE PRIOR TO PLACING CONCRETE OR GROUT. CONTRACTOR SHALL USE TEMPLATE TO ENSURE ACCURATE PLACEMENT OF ANCHOR BOLTS, DOWELS, ETC.
8. WELDING IS ONLY PERMITTED FOR ASTM A706 REINFORCEMENT BARS.
9. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4 AS INCORPORATED IN ACI 318 SECTION 12.14.3. E70XX ELECTRODES SHALL BE USED IN WELDING GRADE 40 REBAR. E90XX ELECTRODES SHALL BE USED IN WELDING GRADE 60 REBAR UNLESS NOTED OTHERWISE. REINFORCEMENT SHALL NOT BE WELDED UNTIL A CHEMICAL ANALYSIS SUFFICIENT TO DETERMINE THE CARBON EQUIVALENT IS PERFORMED. THE CARBON EQUIVALENT OF REINFORCING STEEL BARS SHALL BE CALCULATED FROM THE CHEMICAL COMPOSITION AS SHOWN IN THE MILL TEST REPORT. IF MILL TEST REPORTS ARE NOT AVAILABLE, A CHEMICAL ANALYSIS SHALL BE MADE OF BARS REPRESENTATIVE OF THE BARS TO BE WELDED. THE CARBON EQUIVALENT (C.E.) SHALL NOT EXCEED 0.55 AS CALCULATED PER AWS D1.4. A COPY OF THE MILL TEST REPORT SHALL BE SENT TO THE STRUCTURAL ENGINEER'S OFFICE PRIOR TO PLACEMENT OF REINFORCING STEEL IN CONCRETE MEMBERS. SPECIAL INSPECTION IS REQUIRED FOR ALL FIELD-WELDING.
10. INSTALLATION OF ADHESSIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESSIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

1 **GENERAL NOTES 2**
SCALE: 3/4" = 1'-0"

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Riverside University HEALTH SYSTEM

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REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

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FILE LOG

ACTIVITY	BY
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Allen Cheng

BUILDING TITLE
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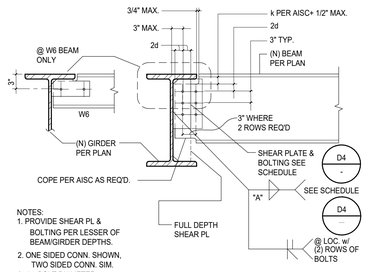
PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
GENERAL NOTES 2

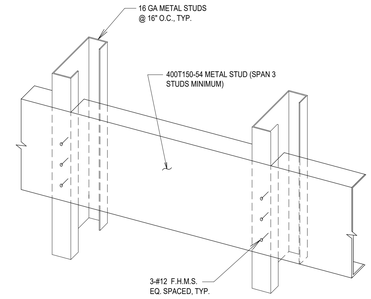
SHEET NUMBER
S002

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D2 (N) BEAM TO (N) BEAM SIMPLE CONNECTIONS

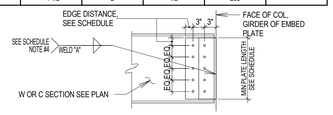
SCALE: 3/4" = 1'-0"



D3 METAL BACKING

SCALE: 1 1/2" = 1'-0"

NOMINAL BEAM/GIRDER DEPTH (1)	MINIMUM PLATE LENGTH (IN)	SHEAR PLATE THICKNESS (IN)	NUMBER OF VERTICAL ROWS OF BOLTS	NUMBER OF BOLTS PER ROW	BOLT DIAMETER (IN) (2)	EDGE DISTANCE (IN)	WELD "A" (2)	ASD DESIGN SHEAR STRENGTH (KIPS)	REMARKS
W8x	6	3/8	1	2	3/4	1 1/2	1/4	8	
W12x & C12	9	3/8	1	3	3/4	1 1/2	1/4	16	
W14x	11	3/8	1	3	1	1 1/2	1/4	29	
W16x	13	1/2	1	4	1	1 1/2	1/4	47	
W18x	15	1/2	1	4	1	2	1/4	47	
W21x	18	1/2	1	5	1 1/8	2	1/4	75	
W24x	20	1/2	1	6	1 1/8	2	1/4	91	
W27x	24	3/4	2	7	1 1/8	2	3/8	217	
W30x	26	1 1/2	2	6	1 1/2	2	1/2	298	

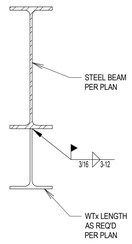


NOTES:

1. C BEAM CONNECTION SIMILAR TO W BEAM OF SAME DEPTH.
2. PROVIDE STANDARD AISC ROUND HOLES IN SHEAR PLATE.
3. PROVIDE THE LARGER OF WELD INDICATED & AWS MINIMUM.
4. WELD "A" SHALL BE FILLET WELD ON BOTH SIDES. WELD "A" CAN BE SUBSTITUTED WITH C.P. GROVE WELD WITH BACKING BAR REMOVED.
5. ALL BOLTS ARE A325 BOLTS PER GENERAL NOTES.
6. CONNECTION PLATE IS CONFORMING TO A992 OR A572 GRADE 50, Fy=50 KSI, Fu=65 KSI.

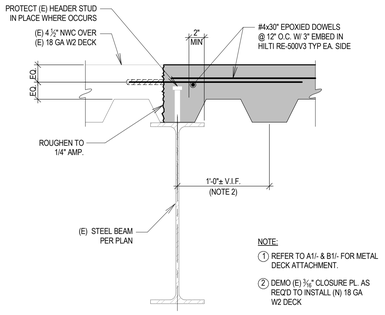
D4 SHEAR PLATE BOLTING SCHEDULE

SCALE: 3/4" = 1'-0"

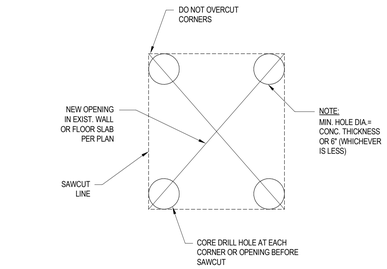


C2 STEEL BEAM STRENGTHENING

SCALE: 1 1/2" = 1'-0"



DECK PARALLEL TO BEAM

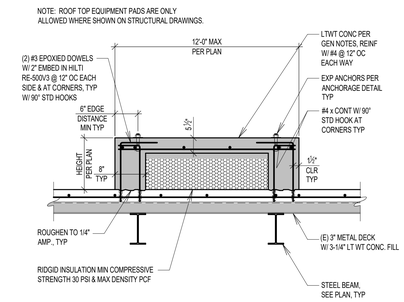


NOTE

1. REFER TO PLAN FOR ADDITIONAL FRAMING NOT SHOW.

C4 NEW OPENING IN EXIST. SLAB

SCALE: 3/4" = 1'-0"

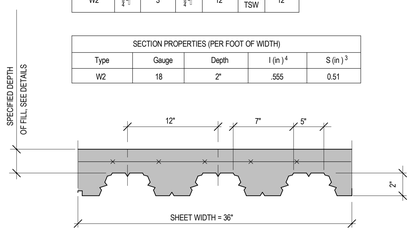


C5 ROOF TOP EQUIOMENT PAD

SCALE: 3/4" = 1'-0"

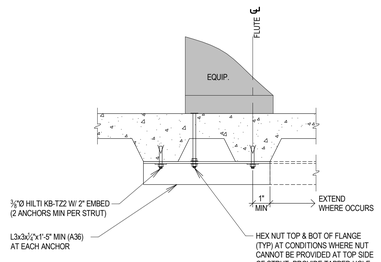
VERCO DECK DEPTH AND SECTION TYPE	DECK WELDS, SEE A1 -					
	WELD (A)		WELD (B)		SIDELAP ATTACHMENT	
	SIZE AND TYPE	# PER SHEET	SIZE AND TYPE	SPAC-ING	TYPE	SPAC-ING
W2	3/4" ⌓	3	3/4" ⌓	12"	1-1/2" TSW	12"

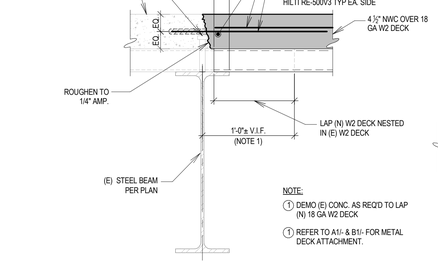
SECTION PROPERTIES (PER FOOT OF WIDTH)				
Type	Gauge	Depth	I (in.)⁴	S (in.)³
W2	18	2"	.555	0.51



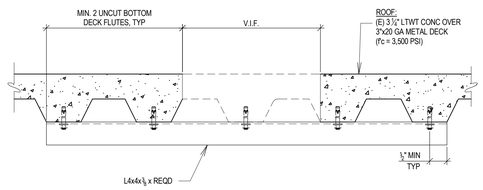
TYPE W2 DECK

NOTE: OR EQUIVALENT BUTTON PUNCH

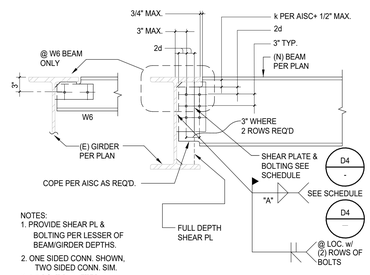




DECK PERPENDICULAR TO BEAM

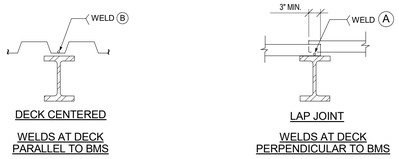


SECTION A-A



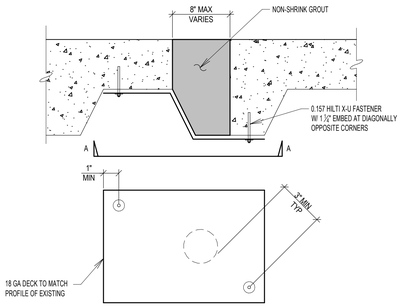
B1 METAL DECK PROPERTIES

SCALE: NTS

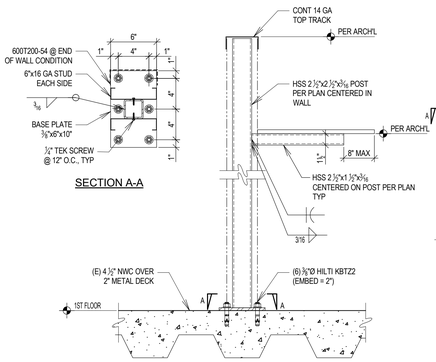


B2 THRU BOLT STRUT DETAIL

SCALE: 1 1/2" = 1'-0"

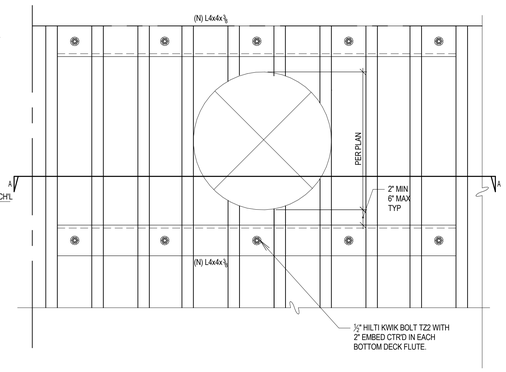


SECTION A-A

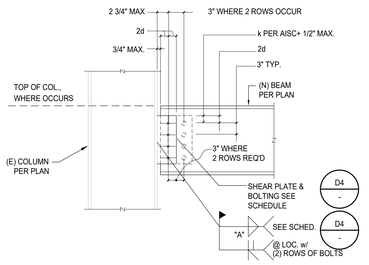


B3 FLOOR DECK INFILL

SCALE: 1 1/2" = 1'-0"



PLAN



B5 (N) BEAM TO (E) GIRDER SIMPLE CONNECTIONS

SCALE: 3/4" = 1'-0"

A1 METAL DECK WELDING

SCALE: NTS

A2 INFIL OF SMALL SLAB OPENING

SCALE: 3" = 1'-0"

A3 PONY WALL SECTION

SCALE: NTS

A4 FLOOR / ROOF PENETRATION SLAB STRENGTHENING

SCALE: 1 1/2" = 1'-0"

A5 (N) BEAM TO (E) COLUMN FLANGE SIMPLE CONNECTIONS

SCALE: 3/4" = 1'-0"

Riverside University HEALTH SYSTEM

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER TRACY R. RICH RENEWAL 12/31/24 NO. 4831 STRUCTURAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

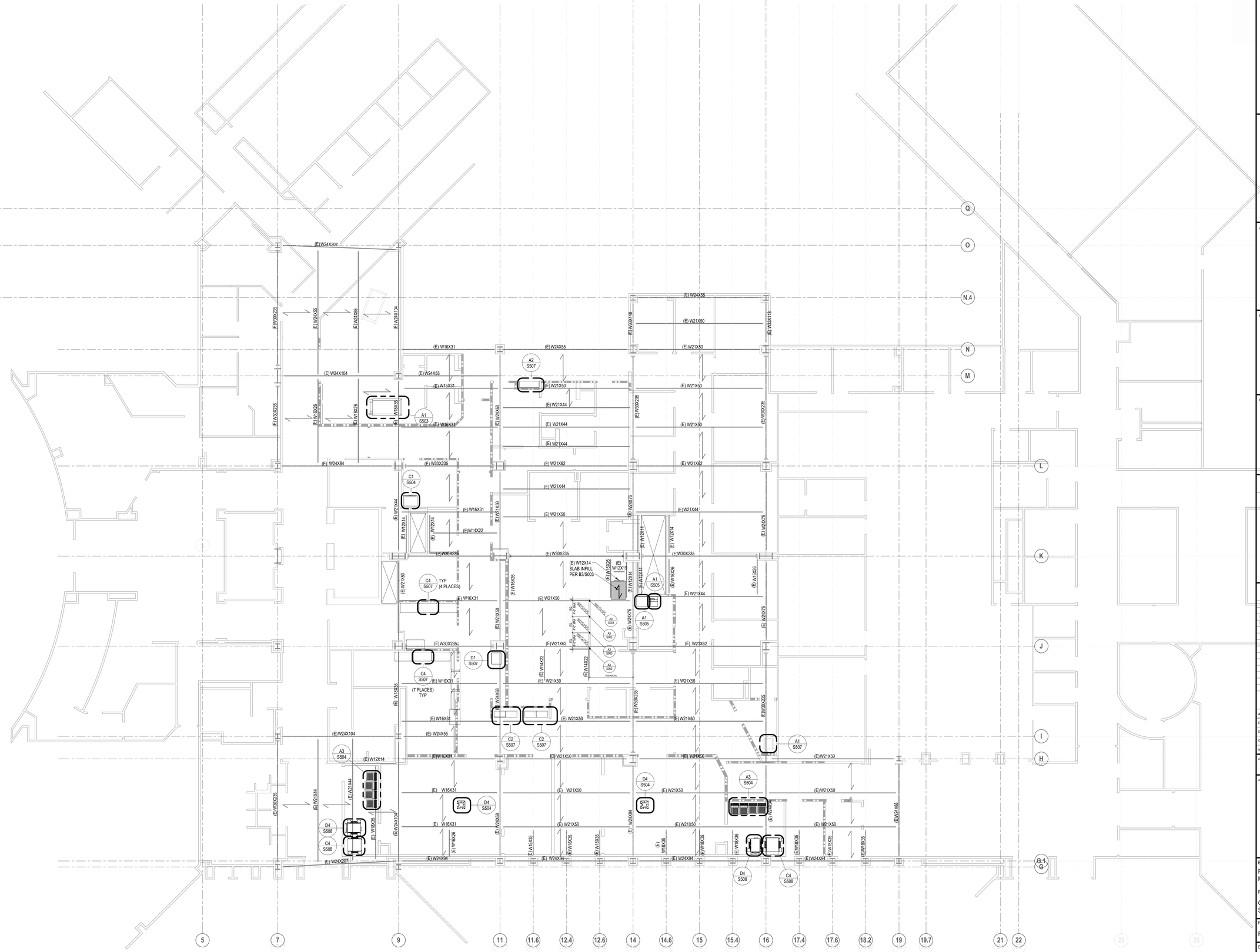
TYPICAL DETAILS

SHEET NUMBER

S003

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(E) W24X55
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(E) W21X50



NOTE:
1. (E) FLOOR SLAB IS 3-1/4" THICK LIGHT WEIGHT CONCRETE OVER 3"x18 GA COMPOSITE DECK (f'c = 3,500 PSI).
2. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR INFO NOT SHOWN.

A1 LEVEL 2 - PARTIAL FRAMING PLAN
SCALE: 1/8" = 1'-0"

TRUE NORTH

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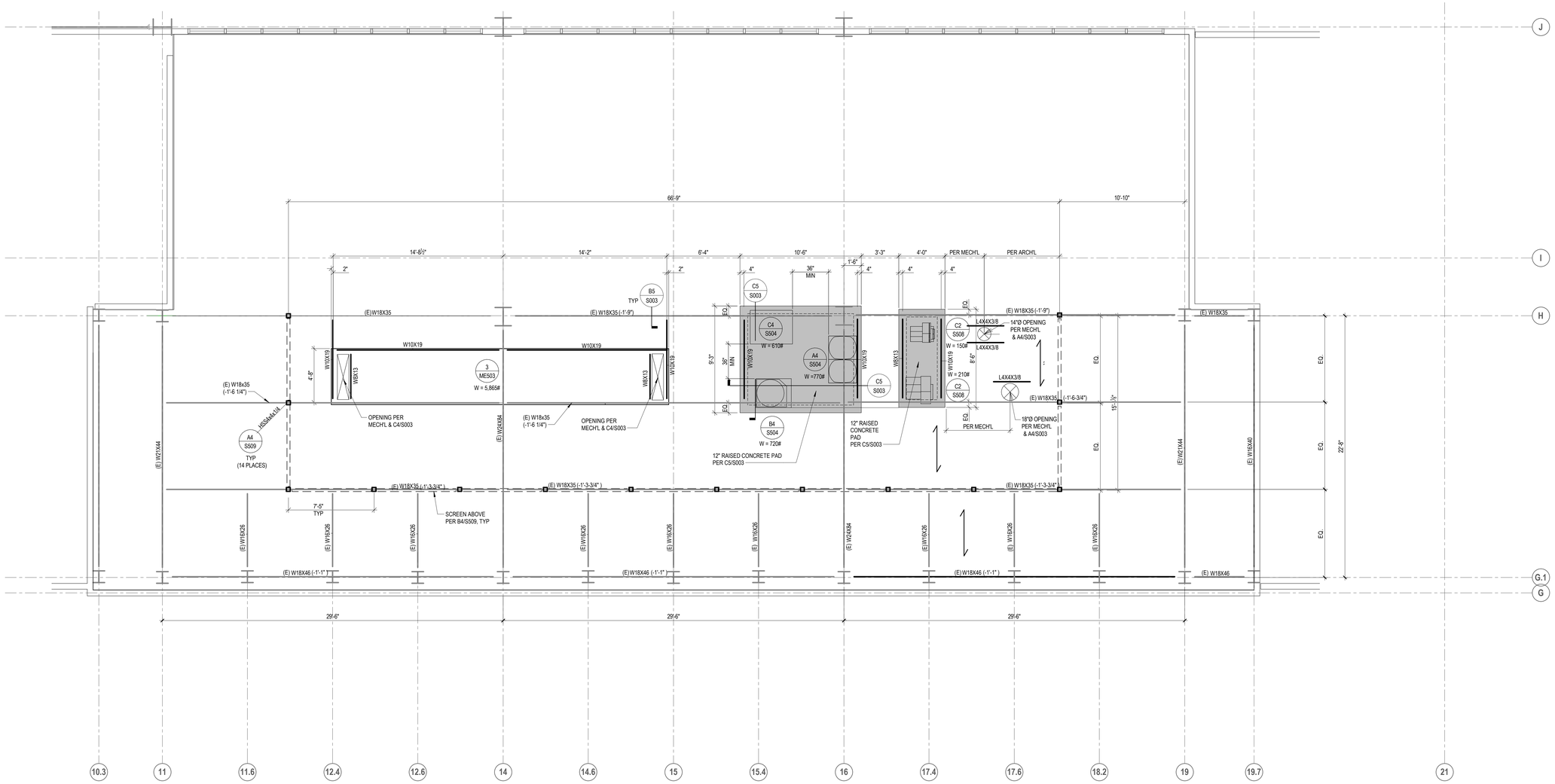
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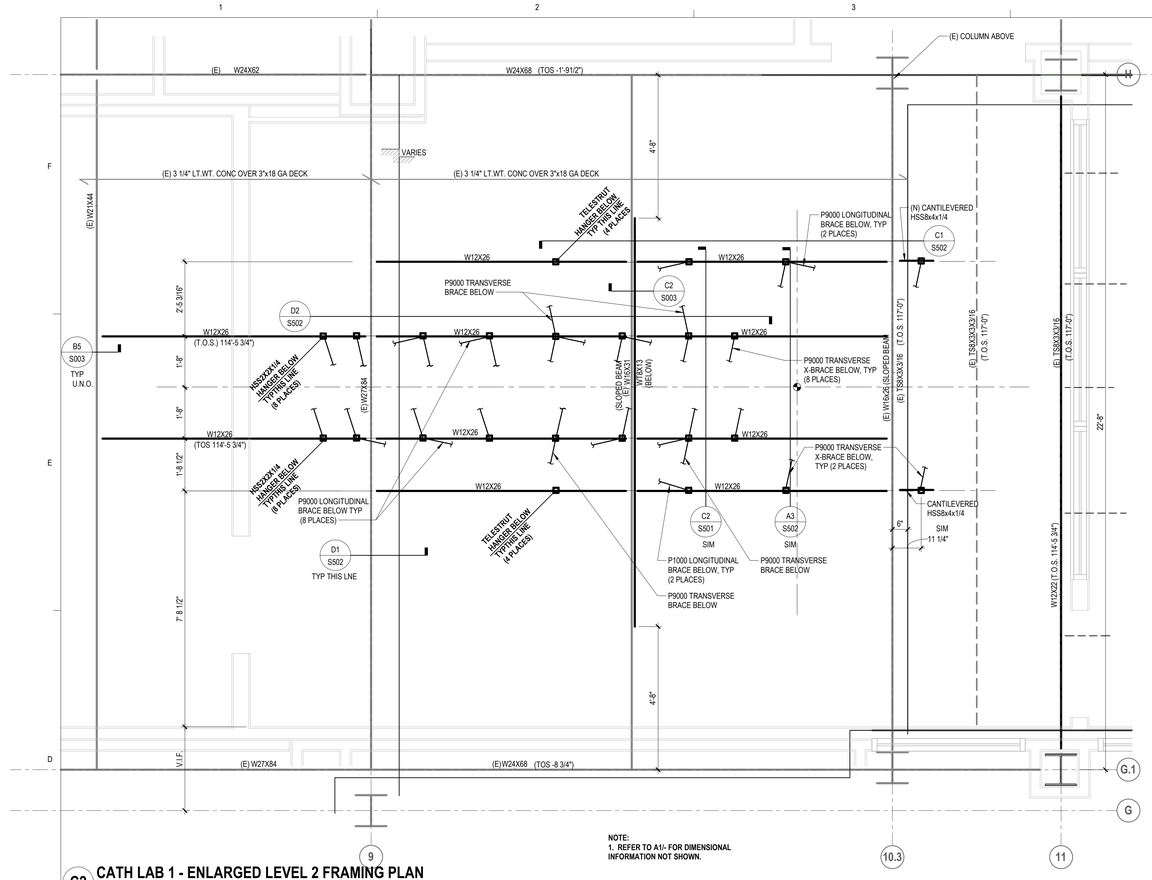
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
LEVEL 2 - PARTIAL FRAMING PLAN

SHEET NUMBER
S112

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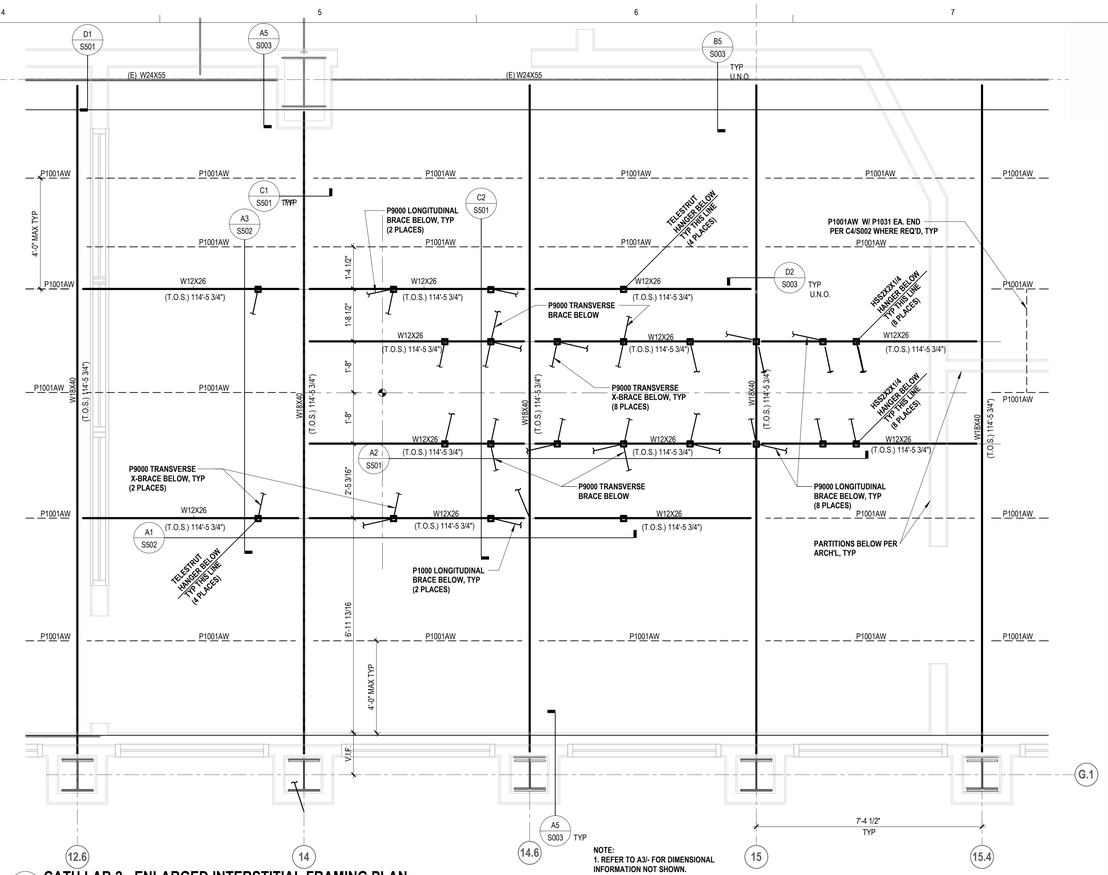

66'-9"
10'-10"
14'-8½"
14'-2"
6'-4"
10'-6"
3'-3"
4'-0"
PER MECH'L
PER ARCH'L
(E) W18X35
(E) W18X35 (-1'-9")
(E) W18X35 (-1'-6-3/4")
(E) W18x35 (-1'-6 1/4")
(E) W18x35 (-1'-6 1/4")
W10X19
W8X13
W8X15
W10X15
W10X19
W8X13
W10X19
W10X19
W8X13
W10X19
W10X19
W10X19



NOTE:
1. REFER TO A1/- FOR DIMENSIONAL INFORMATION NOT SHOWN.

C2 CATH LAB 1 - ENLARGED LEVEL 2 FRAMING PLAN

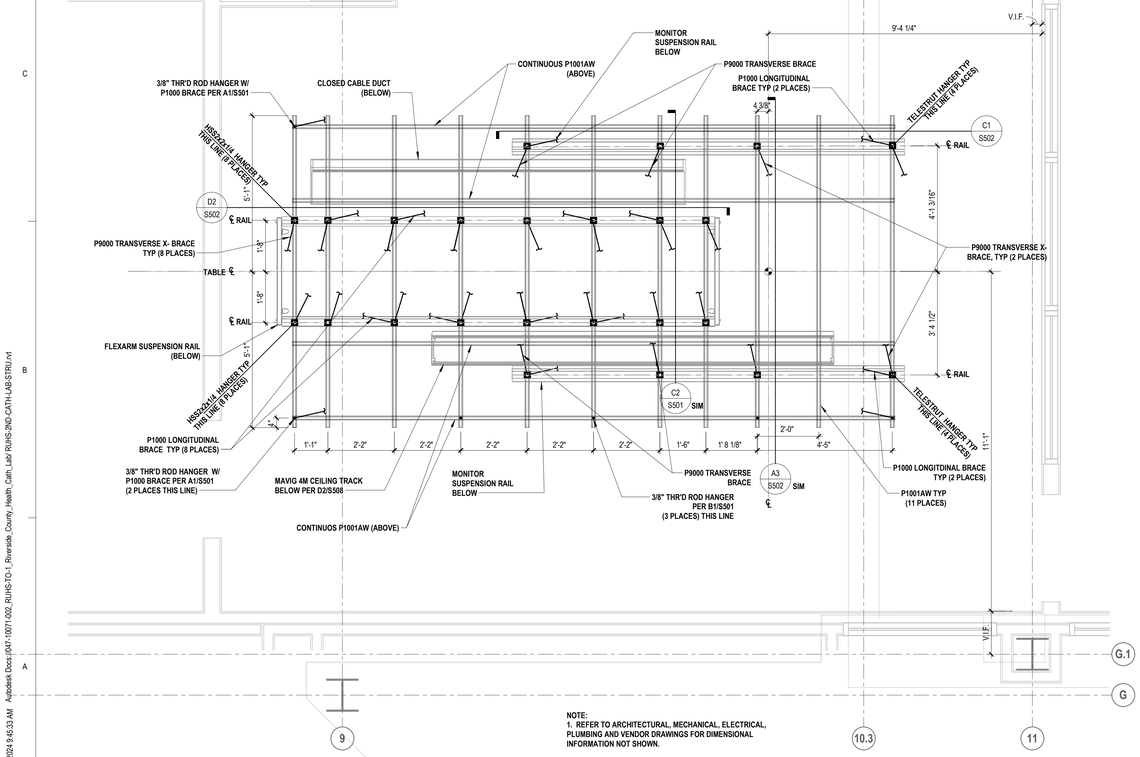
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NOTE:
1. REFER TO A3/- FOR DIMENSIONAL INFORMATION NOT SHOWN.

C3 CATH LAB 2 - ENLARGED INTERSTITIAL FRAMING PLAN

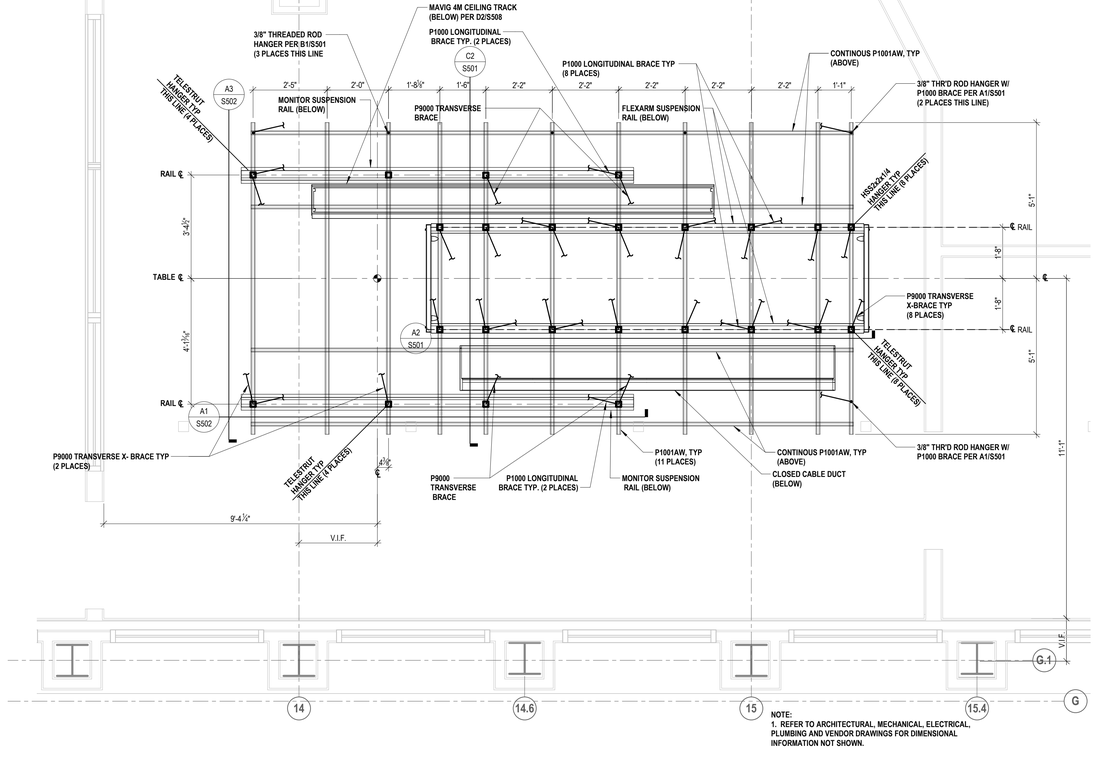
SCALE: 1/2" = 1'-0"



NOTE:
1. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND VENDOR DRAWINGS FOR DIMENSIONAL INFORMATION NOT SHOWN.

A1 CATH LAB 1 - ENLARGED STRUCTURAL CEILING FRAMING PLAN

SCALE: 1/2" = 1'-0"



NOTE:
1. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND VENDOR DRAWINGS FOR DIMENSIONAL INFORMATION NOT SHOWN.

A3 CATH LAB 2 - ENLARGED CEILING FRAMING PLAN

SCALE: 1/2" = 1'-0"

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NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	MR
Draw	LL
Check	MR
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

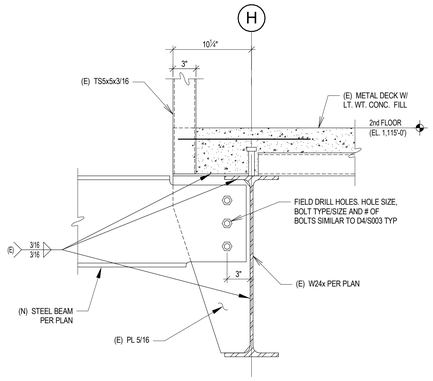
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ENLARGED PLANS

SHEET NUMBER

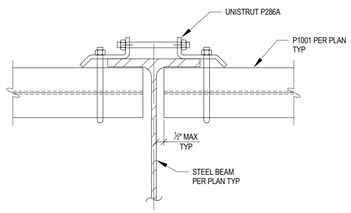
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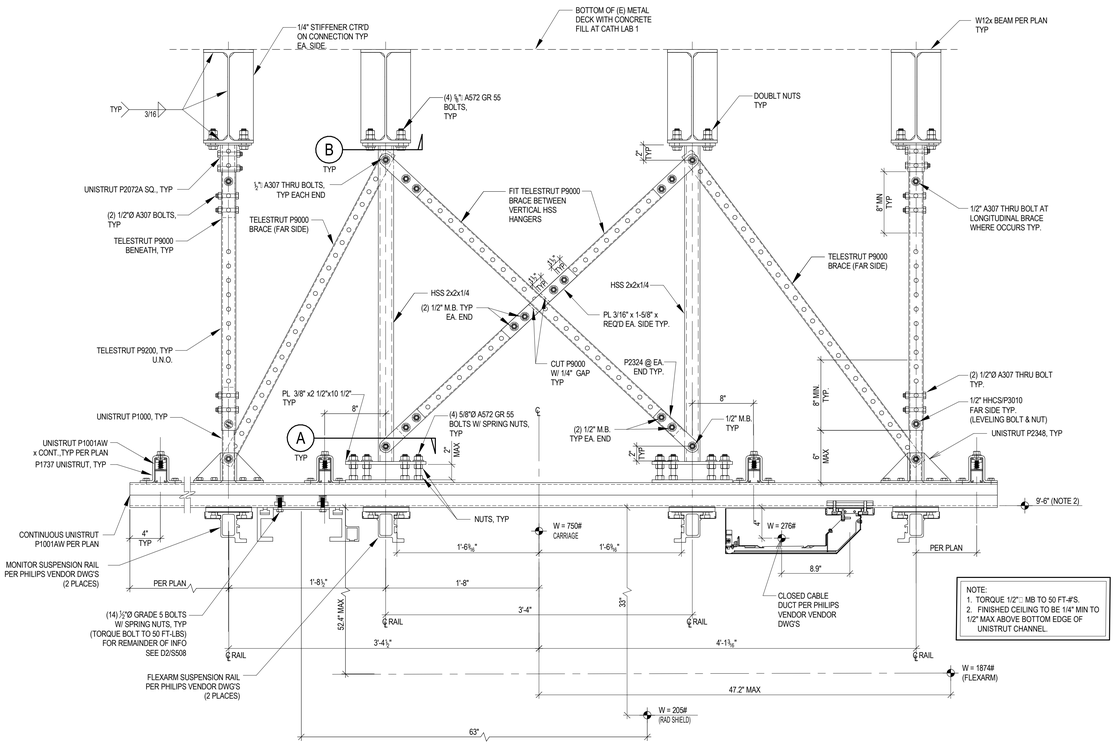
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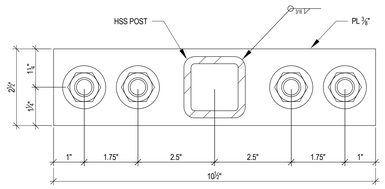


D1 BEAM SECTION

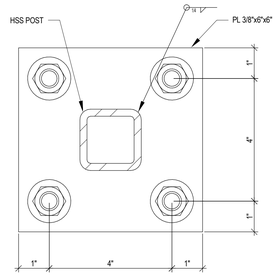
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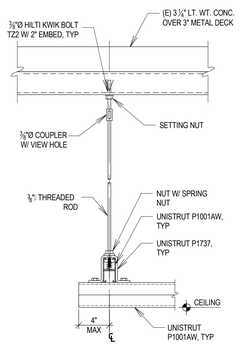
SECTION A



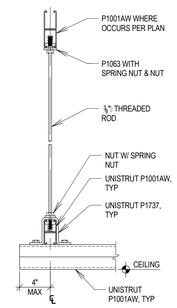
SECTION B

C1 BEAM SECTION AT P1001 MEMBERS

SCALE: 3" = 1'-0"



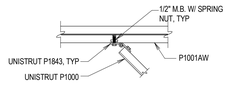
HANGER CONNECTION AT SLAB



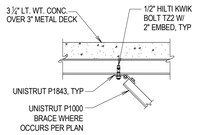
HANGER CONNECTION AT P1001AW

B1 THREADED ROD HANGER DETAIL

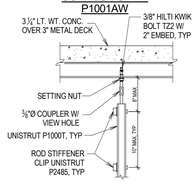
SCALE: 1 1/2" = 1'-0"



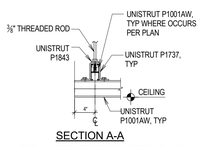
BRACE CONNECTION AT P1001AW



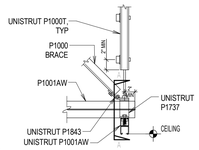
BRACE CONNECTION AT SLAB



HANGER CONNECTION AT SLAB



SECTION A-A

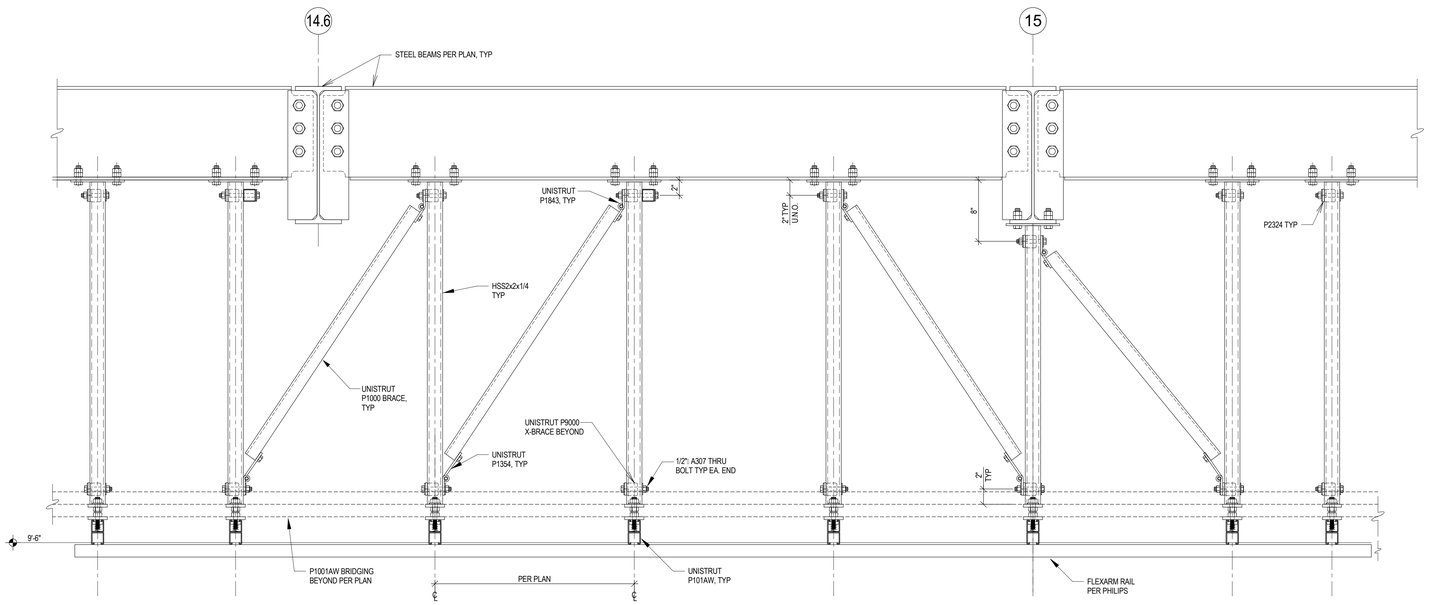


A1 BRACED THREADED ROD HANGER DETAIL

SCALE: 1" = 1'-0"

C2 SUSPENDED CEILING STRUCTURE SECTION

SCALE: 1 1/2" = 1'-0"



A2 CATH LAB 2 - SUSPENDED CEILNG STRUCTURE SECTION

SCALE: 1 1/2" = 1'-0"

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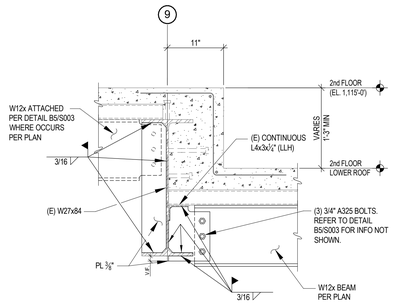
DETAILS

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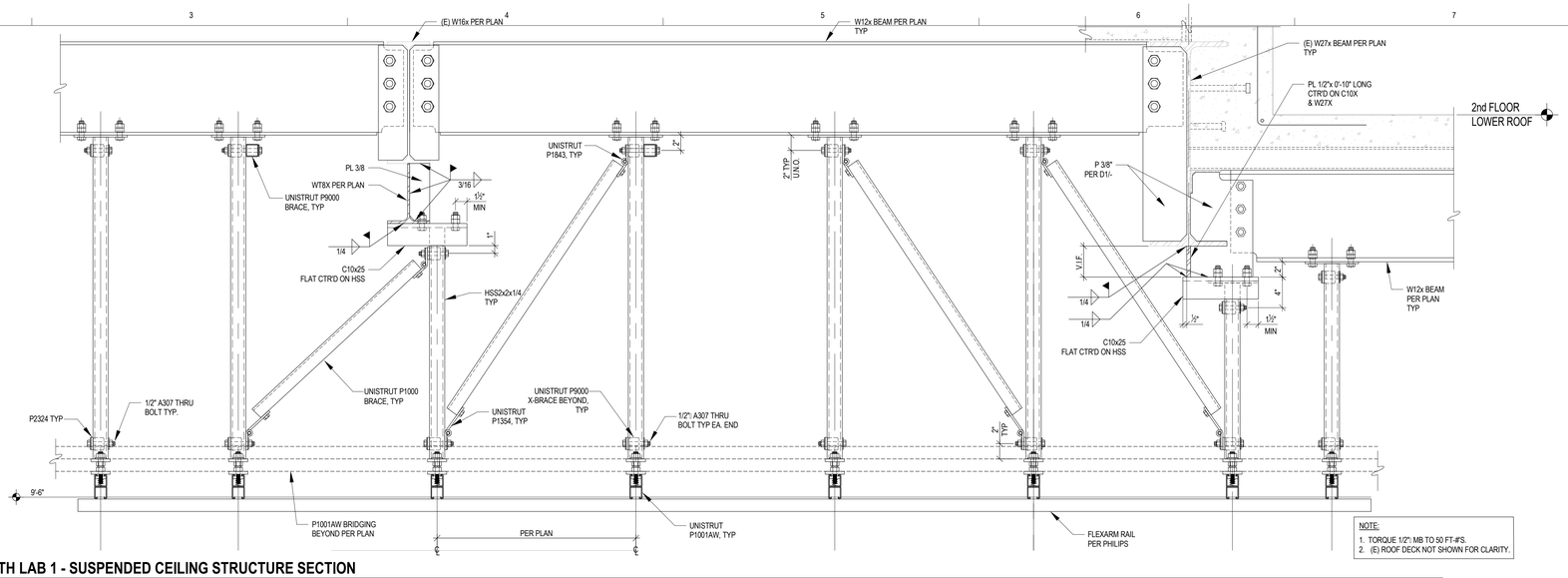
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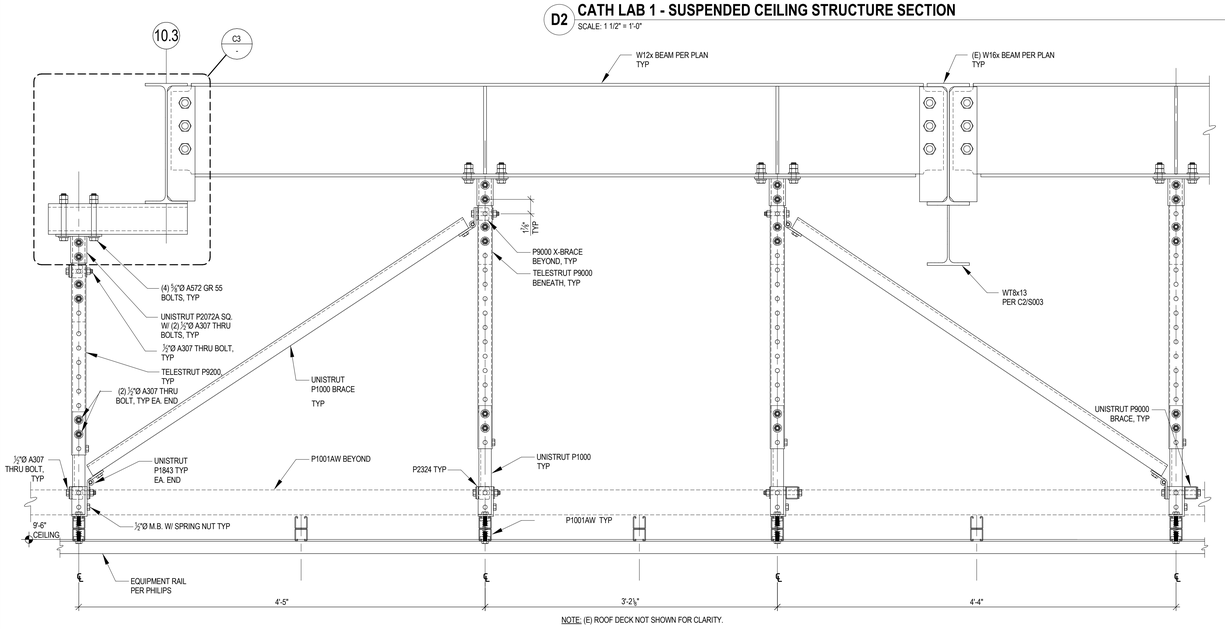
7/2/2024 9:45:34 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-STRU.rvt



D1 BEAM SECTION
SCALE: 1" = 1'-0"

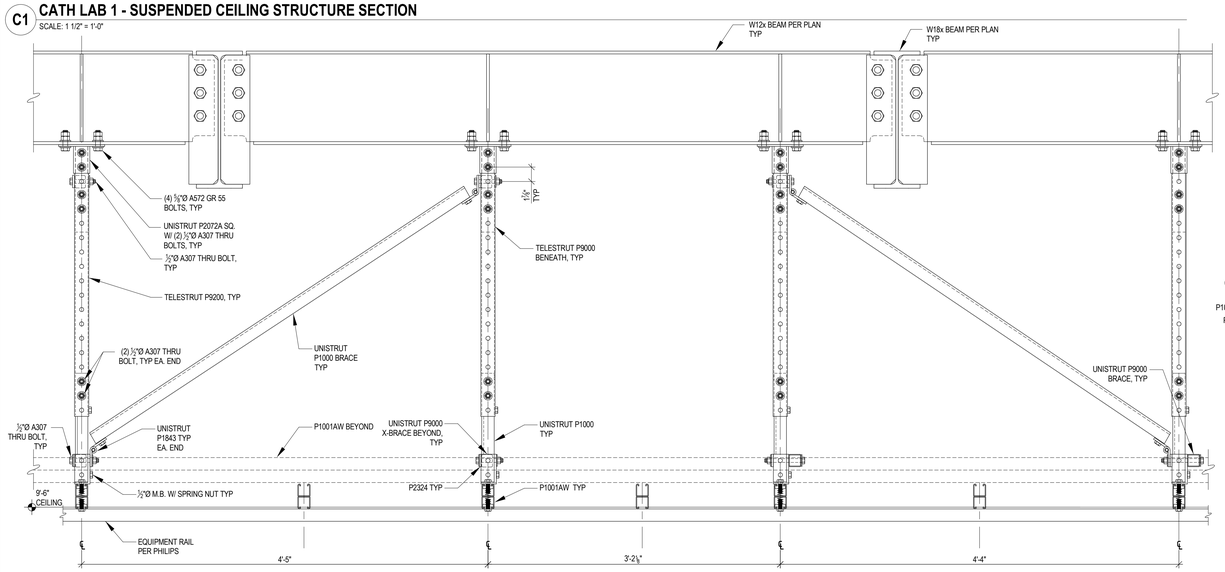


D2 CATH LAB 1 - SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"

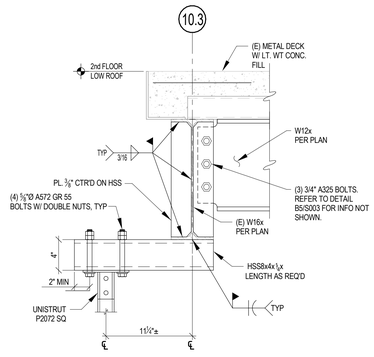


NOTE: (E) ROOF DECK NOT SHOWN FOR CLARITY.

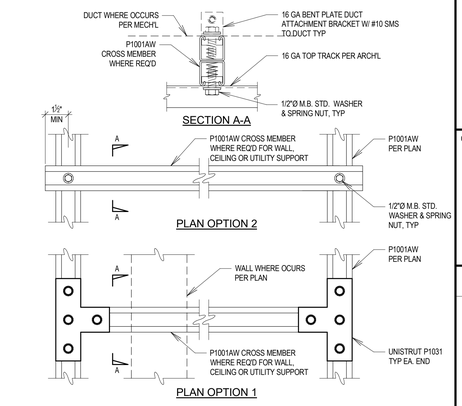
C1 CATH LAB 1 - SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"



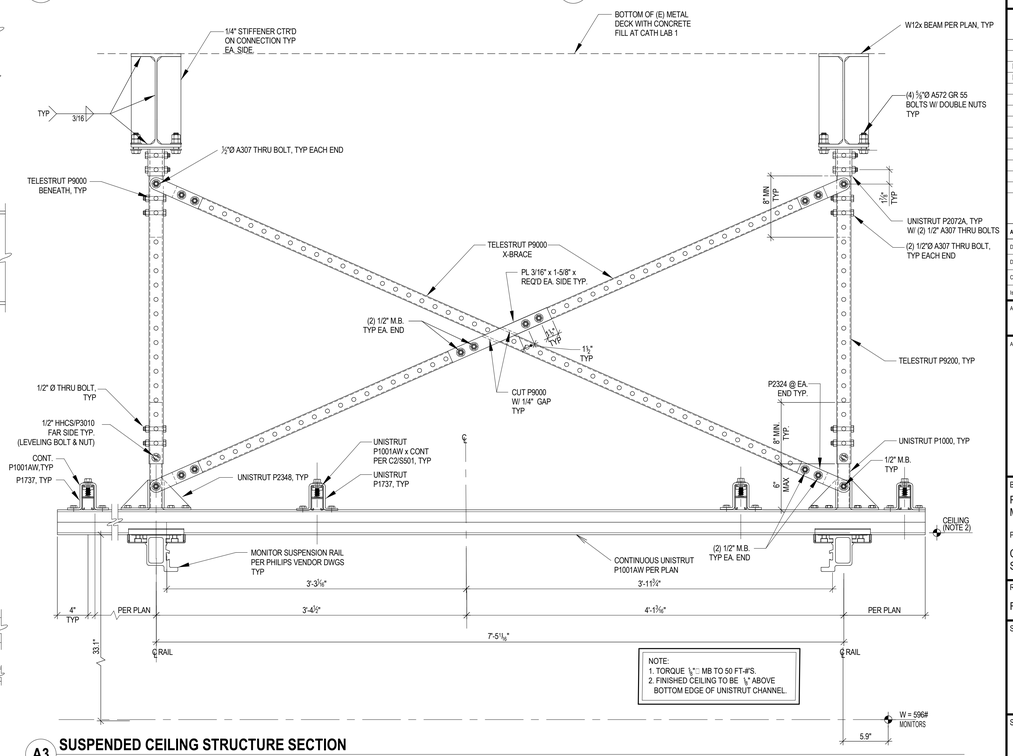
A1 CATH LAB 2 - SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"



C3 BEAM SECTION
SCALE: 1 1/2" = 1'-0"



C4 P1001 SUPPORT GRID CROSS MEMBER DETAIL
SCALE: 3" = 1'-0"



A3 SUSPENDED CEILING STRUCTURE SECTION
SCALE: 1 1/2" = 1'-0"

Riverside University HEALTH SYSTEM

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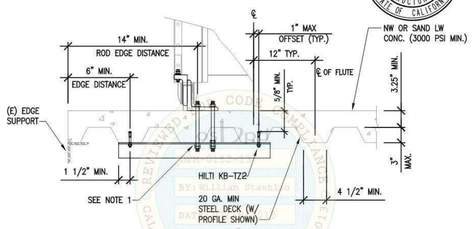
DETAILS

SHEET NUMBER

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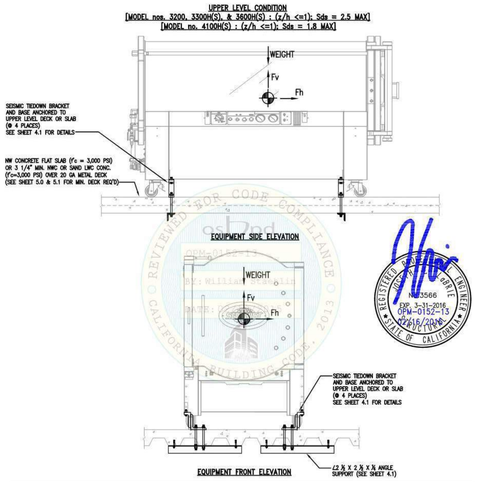
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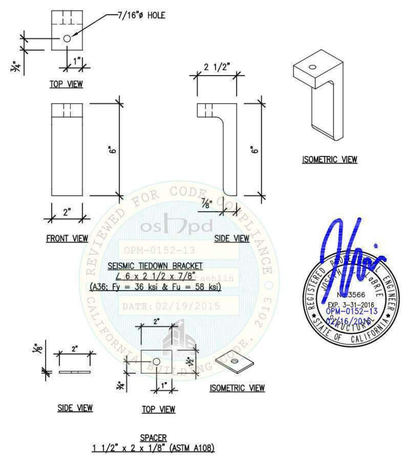
HILTI KB-TZ2(UNDERSIDE OF TYP. "W" DECK ANCHORAGE)

NOTE:
1. HEX NUT TOP & BOTTOM OF ANGLE (TYP.); WHERE NUT CANNOT BE PROVIDED AT TOP SIDE OF ANGLE, PROVIDE TAPPED HOLE THROUGH ANGLE OR DOUBLE NUTS BELOW ANGLE W/ TOP NUT WELDED TO UNDERSIDE OF ANGLE.

SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: CONCRETE OVER METAL DECK REQUIREMENTS	DATE 02/16/15	PAGE 5.0



SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: HYPERBARIC CHAMBER ELEVATION - UPPER LEVEL	DATE 02/16/15	PAGE 4.0



SPACER
1 1/2" x 2 x 1/8" (ASTM A108)

SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: 3"=1'-0"	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: SEISMIC TIEDOWN BRACKET & SPACER DETAIL	DATE 02/16/15	PAGE 2.0

TEST LOAD FOR HILTI KB-TZ2EXPANSION ANCHORS
(f'c = 3000 PSI MIN.) – INSTALLED TO N.W. CONCRETE SLAB & SAND LW. CONCRETE AS OCCURING

BOLT SIZE	APPLICATION	MINIMUM EFFECTIVE EMBEDMENT (INS.)	MINIMUM ANCHOR SPACING (INS.)	MINIMUM EDGE DISTANCE (INS.)	DIRECT TENSION (LBS.)	INSTALLATION TORQUE (LBS.–IN)
5/8"	TOP OF SLAB/DECK	4"	3"	14"	2,837	720
1/2"	UNDERSIDE OF DECK	2"	6"	6"	1,190	480

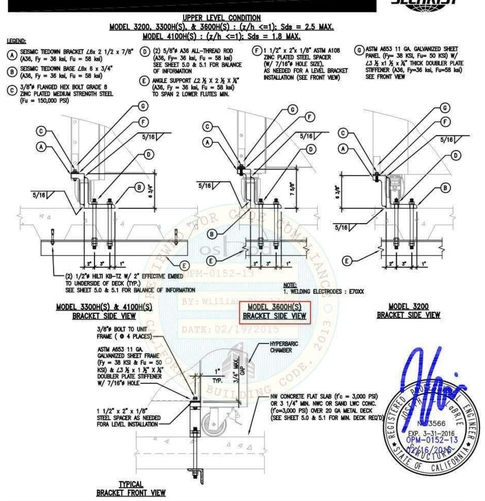
a.) WHEN INSTALLING DRILLED–IN ANCHORS IN EXISTING NON–PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED–IN ANCHOR.
b.) AFTER A MIN. OF (24) HRS. HAVE ELAPSED, ALL POST INSTALLED ANCHORS (LOADED IN EITHER PULL OUT OR SHEAR) SHALL BE TORQUED OR TENSION TESTED. WHEN POST–INSTALLED ANCHORS ARE USED FOR NON STRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE, 50% OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE–HALF THE ANCHORS IN EACH GROUP SHALL BE TESTED. IF THERE ARE ANY FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED.
c.) THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. FOR ADHESIVE ANCHORS, WHERE OTHER THAN BOND IS BEING TESTED, THE DEVICE SHALL NOT RESTRICT THE CONCRETE SHEAR CONE TYPE FAILURE MECHANISM FROM OCCURING
TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:
WEDGE OR SLEEVE TYPE: ONE–HALF (1/2) TURN OF THE NUT ONE–QUARTER (1/4) TURN OF THE NUT FOR 3/8" SLEEVE ANCHOR ONLY.

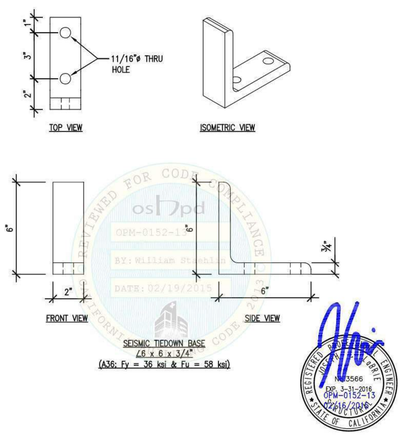
d.) OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ALL ANCHOR TESTING.
e.) ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY.

7.) BOLTS THROUGH CONCRETE ON METAL DECK:
A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE SNUG–TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS OTHERWISE NOTED.
B. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16) FOR CONCRETE
C. THROUGH–BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENTS FOF POST INSTALLED ANCHORS.

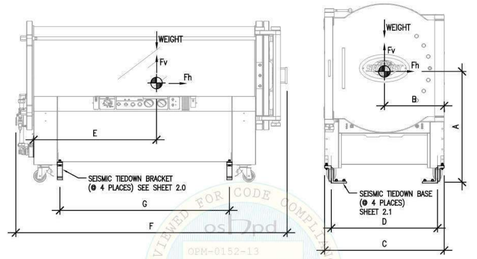
SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)		JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: GENERAL NOTES	DATE 02/16/15	PAGE GN-2



SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: BRACKET ANCHORAGE DETAIL - UPPER LEVEL	DATE 02/16/15	PAGE 4.1



SECHRIST - HYPERBARIC CHAMBERS		
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Title: SEISMIC TIEDOWN BASE DETAIL	DATE 02/16/15	PAGE 2.1



EQUIPMENT SIDE ELEVATION

EQUIPMENT FRONT ELEVATION

MODEL NO.	EQUIP. WEIGHT (LBS.)	MAX. PATIENT WEIGHT (LBS.)	A (INCHES.)	B (INCHES.)	C (INCHES.)	D (INCHES.)	E (INCHES.)	F (INCHES.)	G (INCHES.)
3200	1,982	500	35"	21.5"	43"	38"	47"	105.5"	68.75"
3300H(S)	2,030	500	36.8"	22.25"	44.5"	39.5"	48"	106"	66.25"
3600H(S)	2,220	700	36.8"	22.25"	44.5"	39.5"	48"	106"	66.25"
4100H(S)	3,500	700	43.25"	23.36"	46.75"	41.75"	46.5"	106"	64"

SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)	Scale: N.T.S.	JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: HYPERBARIC CHAMBER DIMENSIONS	DATE 02/16/15	PAGE 1.0

GENERAL NOTES

1.) THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC). THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC).

2.) SITE VERIFICATION IS REQUIRED. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE AREA(S) OF WORK PRIOR TO THE BEGINNING OF THE PROJECT. DO NOT SCALE THE DRAWINGS; ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED, IMMEDIATELY, IF ANY DISCREPANCIES ARE FOUND.

3.) DESIGN CRITERIA:

a.) SLAB ON GRADE (SUPPORTS & ATTACHMENTS FOR MODEL NOS. 3200, 3300H(S), 3600H(S) & 4100H(S))
Sds = 2.2 MAX.; I = 1.5 ; z/h = 0 (GROUND OR SLAB ON GRADE)
UPPER FLOOR (SUPPORTS & ATTACHMENTS FOR MODEL NOS. 3200, 3300H(S), & 3600H(S))
Sds = 2.5 MAX. ; I = 1.5 ; z/h <= 1 (UPPER FLOOR)
UPPER FLOOR (SUPPORT & ATTACHMENTS FOR MODEL NO. 4100H(S))
Sds = 1.8 MAX. ; I = 1.5 ; z/h <= 1 (UPPER FLOOR)

b.) PER ASCE 7–10 INCLUDING SUPPLEMENT NO. 1 & TABLE 13.6–1 :
Ωp = 1 ; Rp = 1.5 ; Ωo = 1.5 (APPLY Ωo FACTOR FOR ANCHORAGE TO CONCRETE)

4.) CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM.

5.) STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL :
a.) CHECK THAT THE EXISTING/NEW STRUCTURE WILL BE ABLE TO SUPPORT THE MAXIMUM WEIGHTS/FORCES SHOWN IN ADDITION TO ANY OTHER LOADS TO THE STRUCTURE. PROVIDE STRENGTENING OF STRUCTURE AS REQUIRED.
b.) CHECK THAT THE FLOOR OR DECK ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. ALL MINIMUM EDGE DISTANCE AND SPACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE ICC REPORT FOR THE SPECIFIC ANCHORS USED ON THIS OPM. (SEE TABLE ON NEXT PAGE FOR ANCHOR MINIMUM SPACING & EDGE DISTANCE REQUIREMENTS)
c.) CHECK THAT THE INSTALLATION, SUPPORT AND ATTACHMENTS OF THE UNIT COMPLIES WITH THE 2013 CALIFORNIA BUILDING CODE AND WITH THE DETAILS SHOWN IN THIS PREAPPROVAL.
d.) VERIFY THAT THE ACTUAL EQUIPMENT'S MODEL NUMBER, OPERATING WEIGHT, CENTER OF GRAVITY (C.G.) LOCATION, ANCHOR LAYOUT, MATERIAL & ASTM GRADE OF THE EQUIPMENT IS THE SAME SHOWN ON THIS OPM PREAPPROVAL.
e.) VERIFY THAT THE PROJECT SPECIFIC Sds AND z/h VALUES RESULT IN SEISMIC FORCES DOES NOT EXCEED THE VALUES SHOWN ON THIS OPM.

6.) EXPANSION ANCHORS SHALL BE HILTI KB–TZ2ANCHORS (PER ICC–ESR–4266 DATED DEC. 2021) AND INSTALLED IN NORMAL WEIGHT CONCRETE & SAND LIGHT WEIGHT CONCRETE (AT UNDERSIDE OF DECK) WHERE OCCURS. CARBON STEEL FOR INDOOR APPLICATIONS. MINIMUM EMBEDMENT OF ALL BOLTS AND TEST LOADS (UNLESS NOTED OTHERWISE ON DETAIL) IS SHOWN ON THE NEXT PAGE:

SECHRIST - HYPERBARIC CHAMBERS		
Model nos.: 3200, 3300H(S), 3600H(S), 4100H(S)		JOSEPH L. LA BRIE, Structural Engineer, No. SE 3566
Title: GENERAL NOTES	DATE 02/16/15	PAGE GN-1

A1 SEACHRIST - HYPERBARIC CHAMBER MODEL 3600 ANCHORAGE (OPM-0152-13)
SCALE: 12" = 1'-0"

Riverside University HEALTH SYSTEM
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER
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CONSULTANT STAMP
REGISTERED PROFESSIONAL ENGINEER TRACY R. RICH RENEWAL 12/31/24 NO. 4831 STRUCTURAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

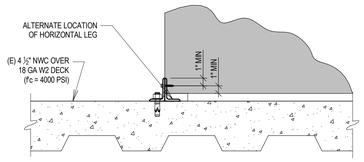
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
ANCHORAGE DETAILS

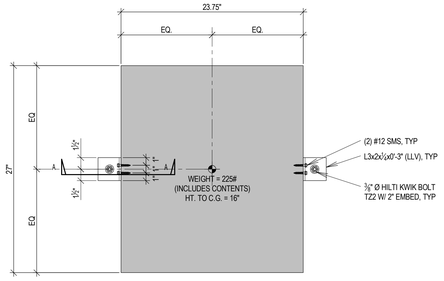
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S503

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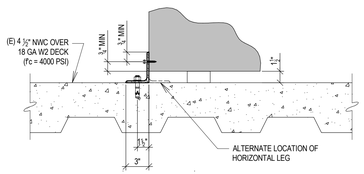
SECTION A-A



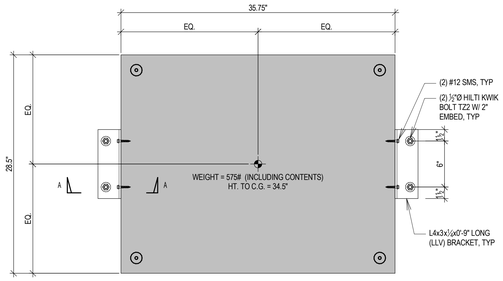
PLAN

D1 ANCHORAGE OF UNDER COUNTER REFRIGERATOR

SCALE: 1 1/2" = 1'-0"



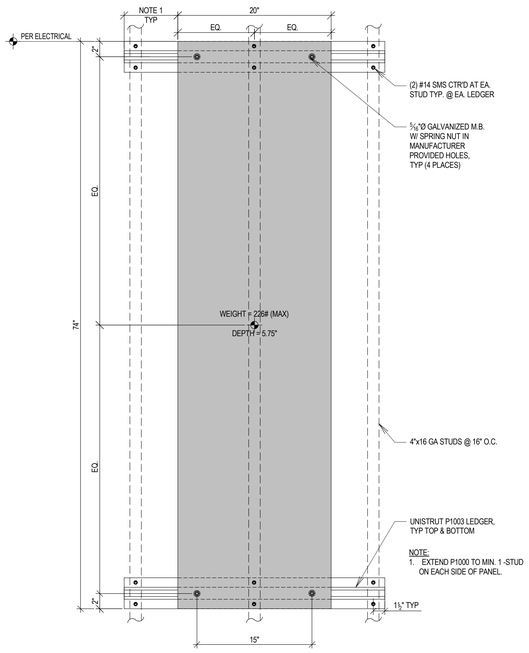
SECTION A-A



PLAN AT BASE

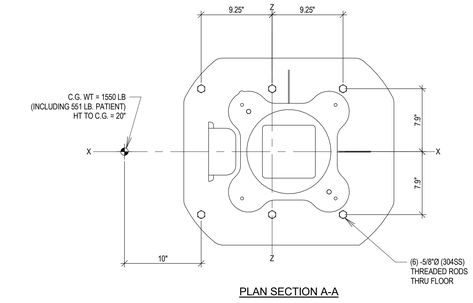
C1 ANCHORAGE OF REFRIGERATOR

SCALE: 1 1/2" = 1'-0"

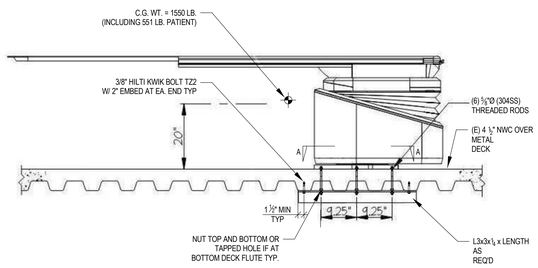


A1 SURFACE MOUNTED PANEL ANCHORAGE

SCALE: 1 1/2" = 1'-0"

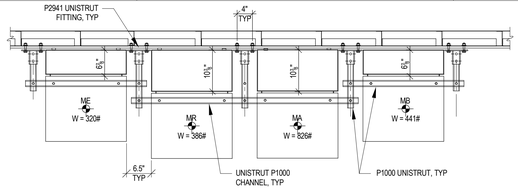


PLAN SECTION A-A

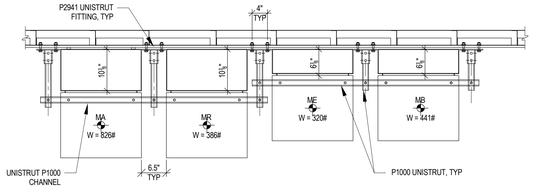


A2 AD7 WITH SURFACE MOUNTED FLOOR PLATE

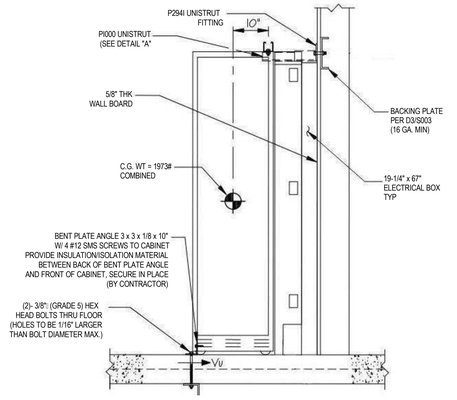
SCALE: 3/4" = 1'-0"



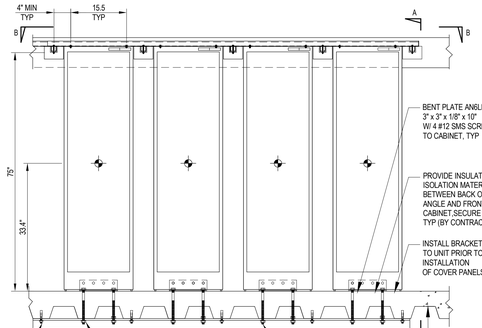
CATH LAB1 - PLAN B-B



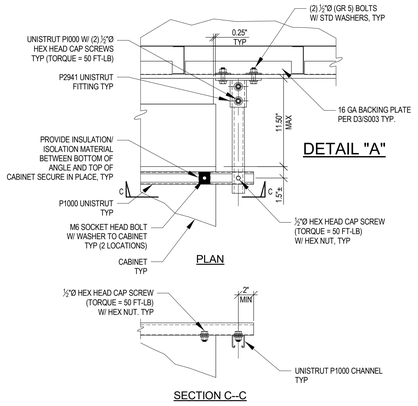
CATH LAB 2 - PLAN B-B



SECTION A-A



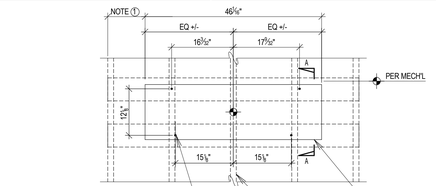
FRONT ELEVATION



SECTION C--C

A3 4 x 40E RACK CABINET ANCHORAGE

SCALE: 1 1/2" = 1'-0"

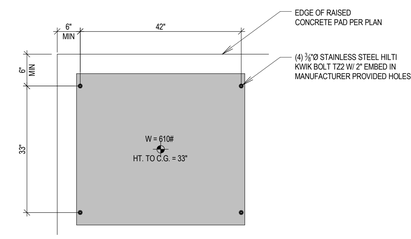


NOTE:
1. EXTEND BACKING MIN 1 STUD
BEYOND EQUIPMENT, TYP

SECTION A-A

D4 FAN COIL WALL MOUNT (UNITS VFRI-1.03 & 1.04)

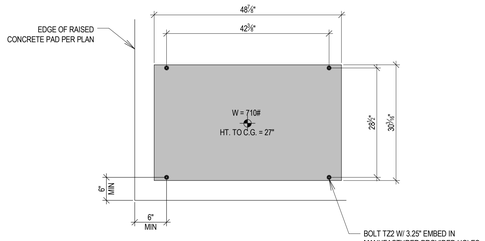
SCALE: 3/4" = 1'-0"



PLAN AT BASE

C4 HU-3.01 ANCHORAGE

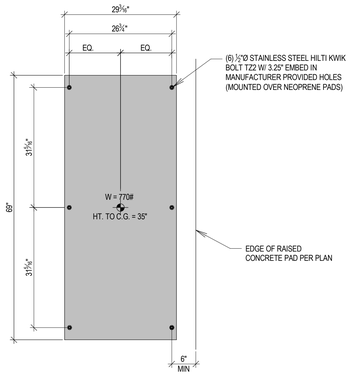
SCALE: 3/4" = 1'-0"



PLAN AT BASE

B4 VRFO-3.02 ANCHORAGE

SCALE: 3/4" = 1'-0"



PLAN AT BASE

A4 VRFO-3.01 ANCHORAGE

SCALE: 3/4" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	MRKS
Draw	LL
Check	MR
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

ANCHORAGE DETAILS

SHEET NUMBER

S504

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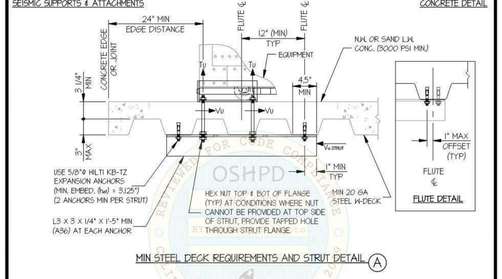
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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 10 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE DETAIL



MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (A)

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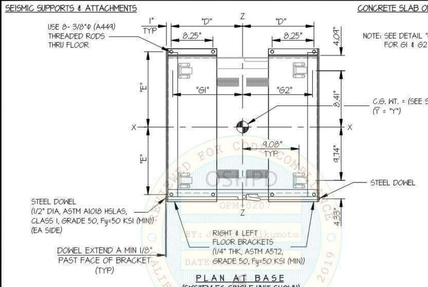
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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 8 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE SLAB ON METAL DECK



PLAN AT BASE
(SYSTEM EG SINGLE UNIT SHOWN)

REGISTERED PROFESSIONAL ENGINEER JONATHAN ROBERSON No. 4197 EXP. 6-30-2020 4/29/20 STRUCTURAL STATE OF CALIFORNIA

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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 2 OF 12 SHEETS

10. EXPANSION ANCHORS:

A. ATTACHMENT IS TO BE MADE WITH THE ANCHORS LISTED BELOW AND INSTALLED AS DESCRIBED IN THE CORRESPONDING ICC REPORT.

Anchor Diameter	Concrete Type	Min. f'c (psi)	Anchor Type	ICC Report No.	Min. Embed.	Min. Spacing	Min. Edge Dist.	Min. Conc. Thickness	Torque Test	Direct Tension Test
5/8"	Sand Light Weight	3000	Hilti Kwik Bolt TZ	ESR-1917	3.125"	12"	24"	See Detail "A"	60 FT-LB	1219
3/8"	Normal Weight	3000	Hilti Kwik Bolt TZ	ESR-1917	2"	8"	12"	4"	25 FT-LB	1515 lb

B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 12" AWAY MINIMUM (i.e. - CORNER). SEE ADJACENT DETAIL FOR ADDITIONAL MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

C. TESTING AND SPECIAL INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY, EMPLOYED BY THE FACILITY OWNER PER CBC 1704A & 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE.

(i) AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST OR TORQUE TEST AT LEAST 50% OF THE ANCHORS.

(ii) ACCEPTANCE CRITERIA:

- DIRECT TENSION TEST: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.
- TORQUE TEST: THE APPLICABLE TORQUE MUST BE ACHIEVED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE : 1/2 TURN OF THE NUT

(iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

D. AVOID DAMAGING EXISTING STEEL REINFORCING IN CONCRETE SLAB WHEN INSTALLING CONCRETE EXPANSION ANCHORS.

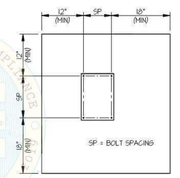
E. PROVIDE FOR FULL THREAD ENGAGEMENT OF NUT & WASHER.

11. BOLTS THROUGH CONCRETE ON METAL DECK

A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS OTHERWISE NOTED.

B. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16) FOR CONCRETE.

C. THROUGH-BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.



TYPICAL CONCRETE EDGE DETAIL

REGISTERED PROFESSIONAL ENGINEER JONATHAN ROBERSON No. 4197 EXP. 6-30-2020 4/29/20 STRUCTURAL STATE OF CALIFORNIA

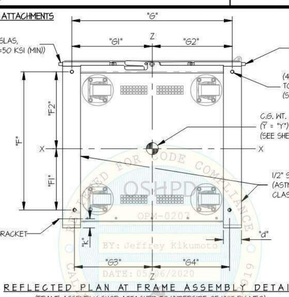
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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 12 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — BASE DETAIL



REFLECTED PLAN AT FRAME ASSEMBLY DETAIL (C)
(FRAME ASSEMBLY SHOP ATTACHED TO UNDERSIDE OF UNIT BY MFG)

MODEL	CAP SCREW DIA (in)	"F" (in)	"F1" (in)	"F2" (in)	"G" (in)	"G1" (in)	"G2" (in)	"J" (in)	"G3" (in)	"G4" (in)	"K" (in)
CONSOLE UNIT	1/4	21.26	10.08	11.18	26.22	13.82	14.4	2.25	14.15	14.73	0.81
MED STATION	5/8	22.25	10.45	11.8	29.42	9.45	9.97	2.25	9.45	9.97	0.68
PYXIS STATION SINGLE UNIT	1/2	22.98	10.20	12.78	26.66	13.38	13.28	3.00	12.94	12.84	0.68
SYSTEM 30 SINGLE UNIT	1/2	22.98	10.20	12.78	26.66	13.38	13.28	3.00	12.94	12.84	0.68
SYSTEM EG SINGLE UNIT	1/2	22.98	10.20	12.78	26.66	13.38	13.28	3.00	12.94	12.84	0.68

NOTE: THE SEISMIC ANCHORING KIT CONSISTS OF TWO FLOOR BRACKETS, A RIGHT FLOOR BRACKET AND A LEFT FLOOR BRACKET (SEE DETAIL "B") AND FRAME ASSEMBLY (SHOWN ABOVE) (TYP)

REGISTERED PROFESSIONAL ENGINEER JONATHAN ROBERSON No. 4197 EXP. 6-30-2020 4/29/20 STRUCTURAL STATE OF CALIFORNIA

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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 9 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE SLAB ON METAL DECK

MODEL	WEIGHT (LB)	"A" (in)	"Y" (in)	"B" (in)	"D" (in)	"E" (in)	* Tu (lb)	* Vu (lb)
CONSOLE UNIT	360	48.50	24.25	30.00	14.375	11.75	780	287
MED STATION	1,050	46.75	23.38	22.75	10.75	13.25	2469	941
PYXIS STATION SINGLE UNIT	1460	78.06	34.03	30.30	14.53	13.25	4547	1179
SYSTEM 30 SINGLE UNIT	1460	78.06	34.03	30.30	14.53	13.25	4547	1179
SYSTEM EG SINGLE UNIT	1460	78.06	34.03	30.30	14.53	13.25	4547	1179

* VALUES DO NOT INCLUDE Ω.

NOTE: VALUES ARE FOR z/h ≤ 1

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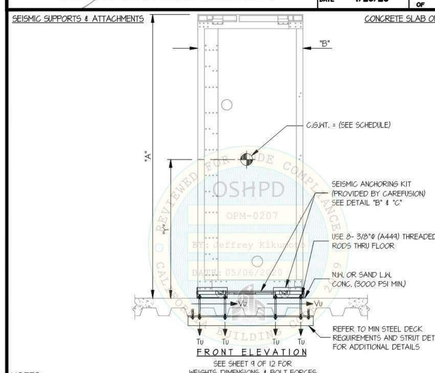
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SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 7 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — CONCRETE SLAB ON METAL DECK



FRONT ELEVATION
SEE SHEET 9 OF 12 FOR
WEIGHTS, DIMENSIONS, & BOLT FORCES

NOTES:

1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16.**
   STRENGTH DESIGN IS USED. (SDS = 2.20, ap = 1.0, Ip = 1.5, Rp = 1.5, Ω = 1.5, z/h ≤ 1)
   HORIZONTAL FORCE (En) = 2.64 Wp
   HORIZONTAL FORCE (Emh) = 3.96 Wp (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (Ev) = 0.44 Wp
2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
4. SEE GENERAL NOTES: SHEETS 1 AND 2.

REGISTERED PROFESSIONAL ENGINEER JONATHAN ROBERSON No. 4197 EXP. 6-30-2020 4/29/20 STRUCTURAL STATE OF CALIFORNIA

EQUIPMENT **ANCHORAGE** & SEISMIC ENGINEERING

5877 Pine Ave, Ste. 210
Chino Hills, CA, 91709
Phn: (909) 606-7622

Office of Statewide Health Planning and Development

PREAPPROVAL OF MANUFACTURER'S CERTIFICATION

OPM-0207

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

MANUFACTURER: **BD** Sheet: 1 of 12
EQUIPMENT NAME: **SINGLE STORAGE CABINETS** Date: 4/29/20

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2019 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE WHERE Sds IS NOT GREATER THAN 1.10 & 2.20. SEE DETAIL FOR APPLICABILITY
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
   WHERE Sds = 1.10, ap = 1.0, Ip = 1.5, Rp = 1.5, z/h = 0 AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ωo
   WHERE Sds = 2.20, ap = 1.0, Ip = 1.5, Rp = 1.5, z/h = 0 AT CONCRETE SLAB & z/h ≤ 1 AT CONCRETE SLAB ON METAL DECK.
   SEE FOLLOWING SHEETS FOR Ω.
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. z/h ≤ 1)
8. CONCRETE SLAB DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION AT OR BELOW GRADE. (i.e. z/h = 0)
9. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**

A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.

B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.

C. VERIFY THAT PROJECT SPECIFIC VALUES OF Sds & z/h RESULT IN SEISMIC FORCES (Eh, Ev) THAT DO NOT EXCEED THE VALUES ON THE DETAILS.

D. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR, AND THIS OPM.

E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).

F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR 6hef FROM THIS UNIT'S ANCHORS.

REGISTERED PROFESSIONAL ENGINEER JONATHAN ROBERSON No. 4197 EXP. 6-30-2020 4/29/20 STRUCTURAL STATE OF CALIFORNIA

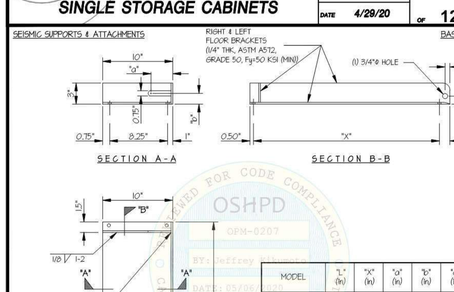
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BD

SINGLE STORAGE CABINETS

DES. J. ROBERSON | JOB NO. 11-2009 | DATE 4/29/20 | SHEET 11 OF 12 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS — BASE DETAIL



PLAN
(RIGHT FLOOR BRACKET SHOWN)

BRACKET DETAIL (B)

MODEL	"L" (in)	"X" (in)	"a" (in)	"b" (in)	"c" (in)
CONSOLE UNIT	25.65	23.65	3.12	1.7175	1.50
MED STATION	28.50	26.50	3.12	1.425	1.13
PYXIS STATION SINGLE UNIT	28.50	26.50	3.50	1.885	1.56
SYSTEM 30 SINGLE UNIT	28.50	26.50	3.50	1.885	1.56
SYSTEM EG SINGLE UNIT	28.50	26.50	3.50	1.885	1.56

NOTE: THE SEISMIC ANCHORING KIT CONSISTS OF TWO FLOOR BRACKETS, A RIGHT FLOOR BRACKET AND A LEFT FLOOR BRACKET (SHOWN HERE) AND FRAME ASSEMBLY (SEE ASSEMBLY DETAIL "C") (TYP)

REGISTERED PROFESSIONAL ENGINEER JONATHAN ROBERSON No. 4197 EXP. 6-30-2020 4/29/20 STRUCTURAL STATE OF CALIFORNIA

A1 **PYXIS MEDICATION CABINET ANCHORAGE (OPM-0207)**
SCALE: 12" = 1'-0"

7/2/2024 9:45:36 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-STRU.rvt

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECTECT STAMP

CONSULTANT

ABS Consulting
420 Exchange, Suite 200
Irvine, CA 92602 U.S.A.
Phone: (714) 734-4242

CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER TRACY R. RICH RENEWAL 12/31/24 NO. 4831 STRUCTURAL STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	MSR
Draw	LL
Check	MSR
Issue Date	Issue Date

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

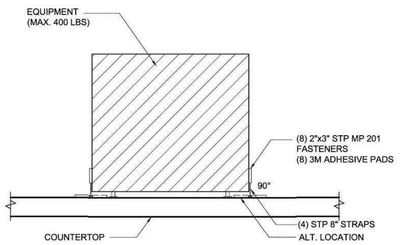
RUHS-MC PROJ. NO. FM08430011869
CONSULTANT PROJ. NO. 047-10071-002

SHEET NAME
ANCHORAGE DETAILS

SHEET NUMBER
S505

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SAFE-T-PROOF
EARTHQUAKE FASTENING SYSTEM



LARGE TABLE TOP EQUIPMENT FASTENERS - ELEVATION (MAX. 400 LBS)

3
LANDSCAPE VIEW

NOTE: THIS DETAIL IS TO VERIFY FASTENER LOCATIONS. ENGINEER OF RECORD SHOULD DESIGN AND APPROVE ANCHORGE BASED ON SITE SPECIFIC CONDITIONS AND APPLICALBE CODES. VERIFY ADEQUATE ATTACHMENT OF TOP OF WALL TO STRUCTURE ABOVE.



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1-800-377-8888

Part Description:
(8) 2"X3" STP FASTENERS
(8) 3M ADHESIVE PADS
(4) STP 8" STRAPS
(8) ALCOHOL WIPE PADS

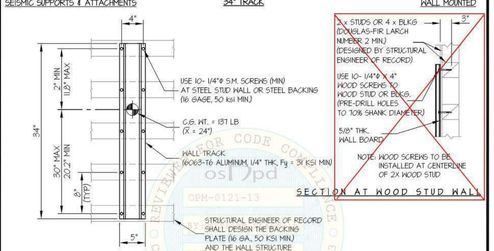
Part Name: LARGE TABLETOP EQUIPMENT FASTENERS (MAX. 400 LBS)
Part Number: STP-201-03
Color: WHITE, PUTTY, BROWN, OR BLACK
Date:

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ERGOTRON
STYLEVIEW SIT-STAND COMBO ARM WITH WORKSURFACE

		SHEET
DES. J. ROBERSON		4
JOB NO. 11-1359		OF 5 SHEETS
DATE 7/24/14		

SEISMIC SUPPORTS & ATTACHMENTS — 34" TRACK — WALL MOUNTED



ELEVATION AT WALL TRACK
(STEEL STUD CONDITION)

SECTION AT HOOD STUD WALL

STRUCTURAL ENGINEER OF RECORD
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2016
7/24/14
STRUCTURAL
STATE OF CALIFORNIA

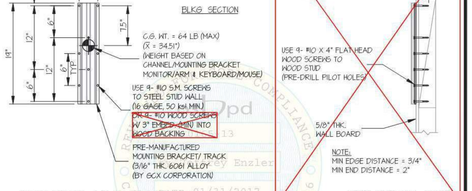
REVIEWED FOR CODE COMPLIANCE
CALIFORNIA BUILDING CODE, 2013
OSHPD
OPM-0121-13
BY: William Staehlin
DATE: 08/19/2014

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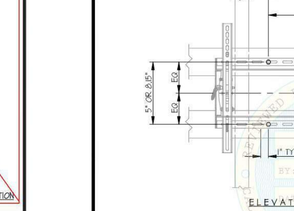
GCX CORPORATION
GCX WALL MOUNT with M & VHM ARMS

		SHEET
DES. J. ROBERSON		8
JOB NO. 11-1441		OF 9 SHEETS
DATE 11/23/18		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



ELEVATION AT 18" TRACK



HOOD STUD WALL SECTION

Tu = 129 LB/SCREW (MAX)
Vu = 31 LB/SCREW (MAX)

STRUCTURAL ENGINEER OF RECORD
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2018
11/23/18
STRUCTURAL
STATE OF CALIFORNIA

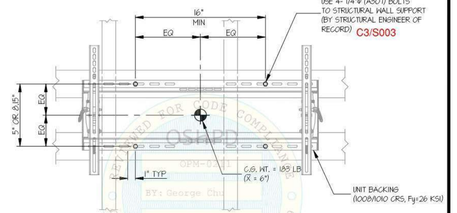
REVIEWED FOR CODE COMPLIANCE
CALIFORNIA BUILDING CODE, 2016
OSHPD
OPM-0165-13
BY: Jeffrey Enzler
DATE: 01/31/2017

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PEERLESS INDUSTRIES, INC.
UNIVERSAL FLAT AND TILT WALL MOUNT FOR FLAT TV WEIGHT UP TO 175 LB

		SHEET
DES. J. ROBERSON		4
JOB NO. 11-2035		OF 8 SHEETS
DATE 4/2/21		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED

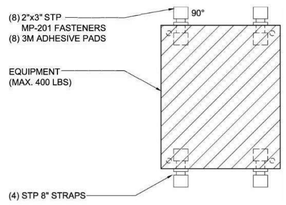


ELEVATION AT WALL PLATE
(FLAT MOUNT)

REVIEWED FOR CODE COMPLIANCE
CALIFORNIA BUILDING CODE, 2019
OSHPD
OPM-0211-13
BY: George Chu
DATE: 04/02/2021

STRUCTURAL ENGINEER OF RECORD
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2022
4/2/21
STRUCTURAL
STATE OF CALIFORNIA

SAFE-T-PROOF
EARTHQUAKE FASTENING SYSTEM



LARGE TABLETOP EQUIPMENT FASTENERS - PLAN (MAX. 400 LBS)

3
PLAN VIEW

NOTE: THIS DETAIL IS TO VERIFY FASTENER LOCATIONS. ENGINEER OF RECORD SHOULD DESIGN AND APPROVE ANCHORGE BASED ON SITE SPECIFIC CONDITIONS AND APPLICALBE CODES. VERIFY ADEQUATE ATTACHMENT OF TOP OF WALL TO STRUCTURE ABOVE.



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PROFESSIONALLY INSTALLED BY
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1-800-377-8888

Part Description:
(8) 2"X3" STP FASTENERS
(8) 3M ADHESIVE PADS
(4) STP 8" STRAPS
(8) ALCOHOL WIPE PADS

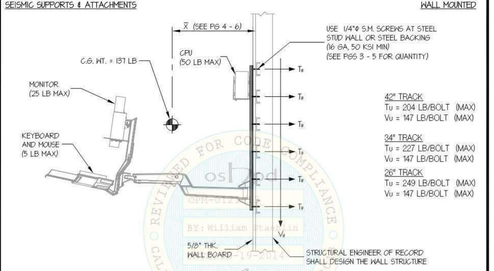
Part Name: LARGE TABLETOP EQUIPMENT FASTENERS (MAX. 400 LBS)
Part Number: STP-201-03
Color: WHITE, PUTTY, BROWN, OR BLACK
Date:

EASE — EQUIPMENT **ANCHORAGE** & SEISMIC ENGINEERING
www.EquipmentAnchorage.com

ERGOTRON
STYLEVIEW SIT-STAND COMBO ARM WITH WORKSURFACE

		SHEET
DES. J. ROBERSON		2
JOB NO. 11-1359		OF 5 SHEETS
DATE 7/24/14		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



STEEL STUD WALL SECTION

NOTES:
1. FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10
   STRENGTH DESIGN IS USED. (Sds = 2.2, ap = 2.5, Ip = 1.5, Rp = 2.5, z/h ≤ 1)
   HORIZONTAL FORCE (Eh) = 3.96 Wp
   VERTICAL FORCE (Ev) = 0.44 Wp
2. CENTER OF GRAVITY (C.G) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.

STRUCTURAL ENGINEER OF RECORD
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2016
7/24/14
STRUCTURAL
STATE OF CALIFORNIA

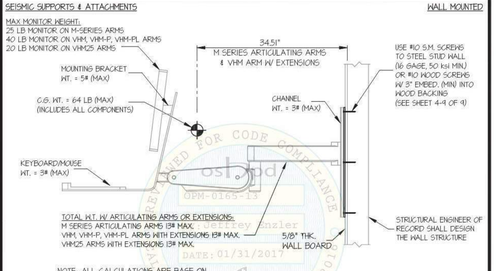
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CALIFORNIA BUILDING CODE, 2013
OSHPD
OPM-0121-13
BY: William Staehlin
DATE: 08/19/2014

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GCX CORPORATION
GCX WALL MOUNT with M & VHM ARMS

		SHEET
DES. J. ROBERSON		3
JOB NO. 11-1441		OF 9 SHEETS
DATE 11/23/18		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



NOTE: ALL CALCULATIONS ARE BASE ON THIS CONFIGURATION

STEEL STUD WALL SECTION
(13" TRACK SHOWN)

STRUCTURAL ENGINEER OF RECORD
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2018
11/23/18
STRUCTURAL
STATE OF CALIFORNIA

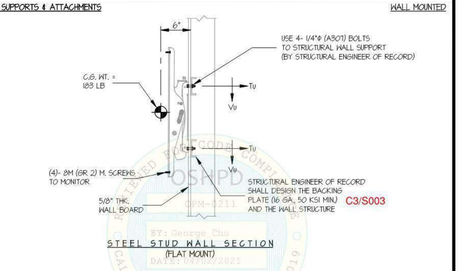
REVIEWED FOR CODE COMPLIANCE
CALIFORNIA BUILDING CODE, 2016
OSHPD
OPM-0165-13
BY: Jeffrey Enzler
DATE: 01/31/2017

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PEERLESS INDUSTRIES, INC.
UNIVERSAL FLAT AND TILT WALL MOUNT FOR FLAT TV WEIGHT UP TO 175 LB

		SHEET
DES. J. ROBERSON		3
JOB NO. 11-2035		OF 8 SHEETS
DATE 4/2/21		

SEISMIC SUPPORTS & ATTACHMENTS — WALL MOUNTED



STEEL STUD WALL SECTION
(FLAT MOUNT)

NOTES:
1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16**
   STRENGTH DESIGN IS USED. (Sds = 2.00, ap = 1.0, Ip = 1.5, Rp = 1.5, Ωo = 2.0, z/h ≤ 1)
   HORIZONTAL FORCE (Eh) = 2.40 Wp
   HORIZONTAL FORCE (Emh) = 4.80 Wp (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (Ev) = 0.40 Wp
2. CENTER OF GRAVITY (C.G) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
4. MODEL NUMBERS: SF640, SF650, SF660, ST640, ST650 & ST660.
5. SEE GENERAL NOTES: SHEETS 1 AND 2.

STRUCTURAL ENGINEER OF RECORD
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2022
4/2/21
STRUCTURAL
STATE OF CALIFORNIA

REVIEWED FOR CODE COMPLIANCE
CALIFORNIA BUILDING CODE, 2019
OSHPD
OPM-0211-13
BY: George Chu
DATE: 04/02/2021

A1 TABLE EQUIPMENT RESTARAINT (MAX 400 LBS)
SCALE: 12" = 1'-0"

A2 ERGOTRON STYLEVIEW SIT-STAND COMBO ARM MOUNT (OPM-0121-13)
SCALE: 12" = 1'-0"

A3 GCX WALL MOUNT (OPM-0165-13)
SCALE: 12" = 1'-0"

A4 PEERLESS INDUSTRIES-UNIVERSAL FLAT & TILT WALL MOUNT TV (OPM-0211)
SCALE: 12" = 1'-0"

Riverside University HEALTH SYSTEM
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER
26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY
550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECTECT STAMP

CONSULTANT
ABS Consulting
420 Exchange, Suite 200
Irvine, CA 92602 U.S.A.
Phone: (714) 734-4242

CONSULTANT STAMP
REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	Issue Date

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

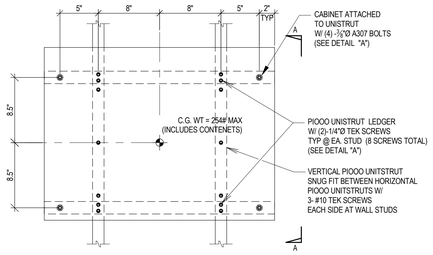
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FM08430011869	047-10071-002

SHEET NAME
ANCHORAGE DETAILS

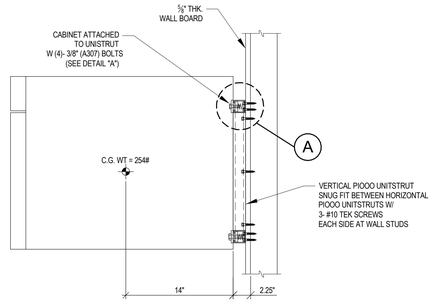
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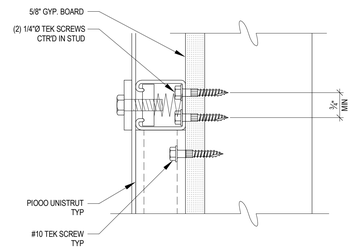
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FRONT ELEVATION



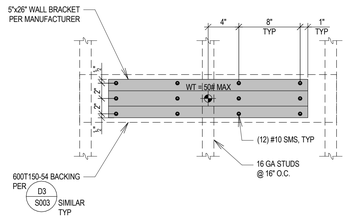
SECTION A-A

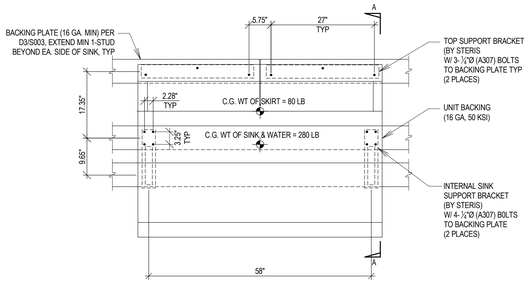


DETAIL "A"

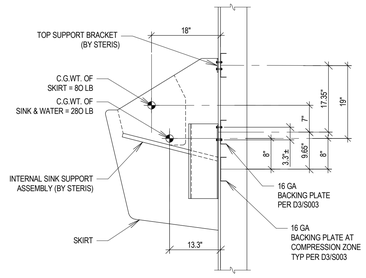
D1 AMSCO WARMNG CABINET WALL MOUNT DETAIL

SCALE: 1 1/2" = 1'-0"





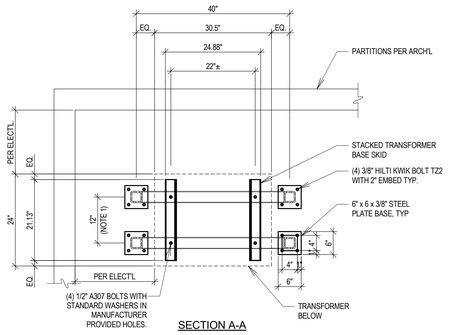
FRONT ELEVATION



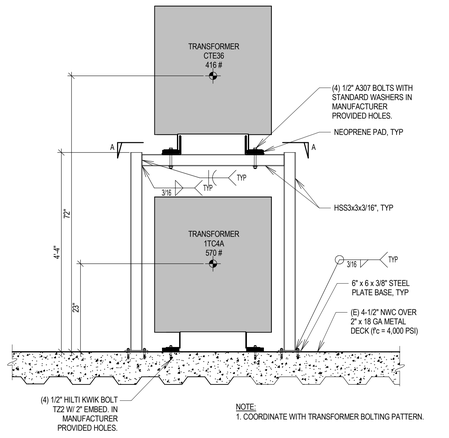
SECTION A-A

C1 ERGOTRON NEO FLEX DUAL BRACKET WALL MOUNT DETAIL

SCALE: 1 1/2" = 1'-0"



SECTION A-A



NOTE:
1. COORDINATE WITH TRANSFORMER BOLTING PATTERN.

A1 TRANSFORMER RACK DETAIL

SCALE: 3/4" = 1'-0"

C2 STERIS FLEXMATIC SCRUB SINK WALL MOUNT DETAIL

SCALE: 3/4" = 1'-0"

EASE — EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING — www.EquipmentAnchorage.com

IPA, LLC

scrubEx MV-Dispenser/Receiver or scrubEx SV-Dispenser/Receiver

DES. J. ROBERSON | JOB NO. 11-2114 | DATE 9/9/21 | SHEET 4 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

MOUNTING WALL TYPE: WALL MOUNTED

CONCRETE WALL (3000 PSI MIN) BY STRUCTURAL ENGINEER OF RECORD

UNIT TO MOUNTING CHANNEL CONNECTION BY MFR (SEE BRACKET DETAIL "A" FOR UNIT TO CHANNEL CONNECTION, TYP)

USE (1)- 1/2"ø HILTI KB-TZ2 EXPANSION ANCHORS (MIN. EMBED. (h_{ef}) = 3.25") AT 32" O.C. (2 PER CHANNEL, 4 TOTAL)

6" MIN

UNIT TO MOUNTING CHANNEL CONNECTION BY MFR (SEE BRACKET DETAIL "A" FOR UNIT TO CHANNEL CONNECTION, TYP)

USE (3)- 1/4"Ø X 1 1/2" TEK SCREWS TO 16 GA, 50 KSI WALL STUD/BLKG (6 PER CHANNEL, 12 TOTAL)

WALL BACKING, IT'S CONNECTION TO THE WALL STRUCTURE AND THE WALL STRUCTURE ITSELF, SHALL BE DESIGNED BY STRUCTURAL ENGINEER OF RECORD

T_U = 183 LB/SCREW (MAX)
V_U = 155 LB/SCREW (MAX)
(VALUES DO NOT INCLUDE Ω)

5/8" THK. WALL BOARD

SECTION AT CONCRETE WALL

SECTION AT STEEL STUD WALL

AT EA. MOUNTING CHANNEL USE (5)- 1/4"Ø x 3.5" HOOD SCREWS TO HOOD STUD/BLKG (PRE-DRILL HOLES TO 10% SHANK DIAMETER) (6 PER CHANNEL, 12 TOTAL)

3" MIN

1" (MIN)

1" (TYP)

UNIT TO MOUNTING CHANNEL CONNECTION BY MFR (SEE BRACKET DETAIL "A" FOR UNIT TO CHANNEL CONNECTION, TYP)

2 X STUDS OR 6X BLOCKING (DOUGLAS-FIR LARCH NUMBER 2 MINIMUM) CONNECTED TO HOOD STRUCTURE DESIGNED BY STRUCTURAL ENGINEER OF RECORD

5/8" THK. WALL BOARD

SECTION AT HOOD STUD WALL

REGISTERED PROFESSIONAL ENGINEER — JONATHAN ROBERSON — No. 4197 — EXP. 6-30-2022 — 9/9/21 — STRUCTURAL — STATE OF CALIFORNIA

REVIEWED FOR CODE COMPLIANCE — OSHPD — OPM-0159 — BY Kamalpreet Kalsi — DATE 9/13/2021 — CALIFORNIA BUILDING CODE 2019

09/13/2021 OPM-0159; Reviewed for Code Compliance by Kamalpreet Kalsi 6 of 11

A2 SRUBEX SV DISPENCER / RECEIVER ANCHORAGE (OPM-0159)

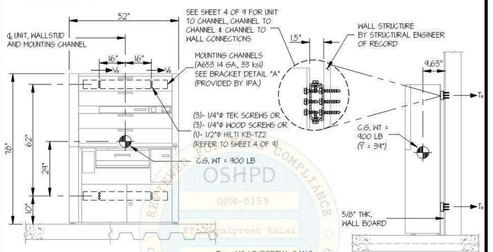
SCALE: 12" = 1'-0"

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scrubEx MV-Dispenser/Receiver or scrubEx SV-Dispenser/Receiver

DES. J. ROBERSON | JOB NO. 11-2114 | DATE 9/9/21 | SHEET 3 OF 9 SHEETS



FRONT ELEVATION

T_U = 149 LB/SCREW (MAX)
V_U = 133 LB/SCREW (MAX)
(VALUES DO NOT INCLUDE Ω)

SIDE ELEVATION

NOTES:
1. FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. (S_{DS} = 2.30, a_P = 1.0, I_P = 1.5, R_P = 2.5, Ω_0 = 2.0, z/h ≤ 1)
   HORIZONTAL FORCE (E_H) = 166 W_P
   HORIZONTAL FORCE (E_{mh}) = 332 W_P (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (E_V) = 0.46 W_P
2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
4. SEE GENERAL NOTES: SHEET 1 AND 2.

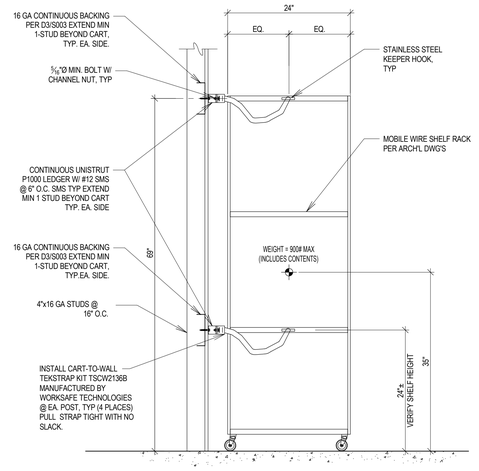
REGISTERED PROFESSIONAL ENGINEER — JONATHAN ROBERSON — No. 4197 — EXP. 6-30-2022 — 9/9/21 — STRUCTURAL — STATE OF CALIFORNIA

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09/13/2021 OPM-0159; Reviewed for Code Compliance by Kamalpreet Kalsi 5 of 11

C4 MOBILE SHELVING CART RESTRAINT

SCALE: 1" = 1'-0"



SIDE ELEVATION

EASE — EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING — 5877 Pine Ave, Ste. 210, Chino Hills, CA. 91709, Phn: (909) 606-7622

Office of Statewide Health Planning and Development

PREAPPROVAL OF MANUFACTURER'S CERTIFICATION

OPM-0159

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

MANUFACTURER: IPA, LLC — Sheet: 1 of 9

EQUIPMENT NAME: scrubEx MV-Dispenser/Receiver or scrubEx SV-Dispenser/Receiver — Date: 9/9/21

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2019 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE WHERE S_{DS} IS NOT GREATER THAN 2.30.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3.
   WHERE S_{DS} = 2.20, a_P = 1.0, I_P = 1.5, R_P = 2.5, z/h = 0 AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω0.
   WHERE S_{DS} = 2.30, a_P = 1.0, I_P = 1.5, R_P = 2.5, z/h ≤ 1 AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR Ω0
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. SHEET METAL SCREWS SHALL BE TEKS SCREWS BY ITW BUILDEX (ICC ESR-1976).
8. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. z/h ≤ 1)
9. CONCRETE SLAB DETAIL VALID FOR DEMANDS SHOWN AT OR BELOW GRADE. (i.e. z/h = 0)
10. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**
    A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
    B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.
    C. VERIFY THAT PROJECT SPECIFIC VALUES OF S_{DS} & z/h RESULT IN SEISMIC FORCES (E_H, E_V) THAT DO NOT EXCEED THE VALUES ON THE DETAILS.
    D. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR AND THIS OPM.
    E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).
    F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR 6hef FROM THIS UNIT'S ANCHORS.

REGISTERED PROFESSIONAL ENGINEER — JONATHAN ROBERSON — No. 4197 — EXP. 6-30-2022 — 9/9/21 — STRUCTURAL — STATE OF CALIFORNIA

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09/13/2021 OPM-0159; Reviewed for Code Compliance by Kamalpreet Kalsi 3 of 11

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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550 SOUTH HOPE STREET, SUITE 2700
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REGISTERED PROFESSIONAL ENGINEER — TRACY R. RICH — RENEWAL 12/31/24 — NO. 4831 — STRUCTURAL — STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
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Draw	LL
Check	MSR
Issue Date	Issue Date

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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

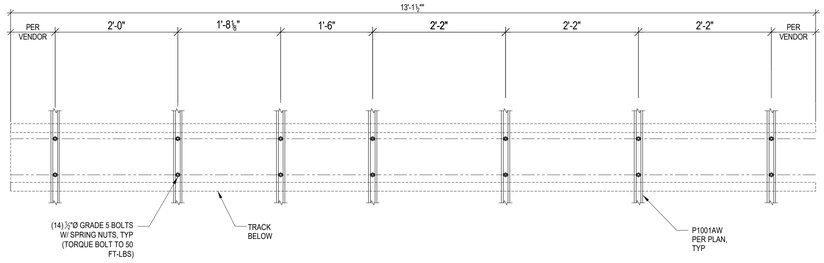
ANCHORAGE DETAILS

SHEET NUMBER

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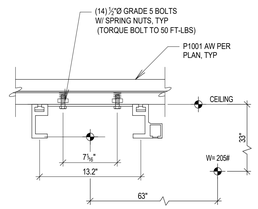
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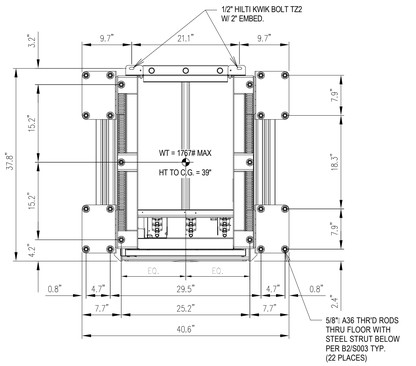


D2 MAVIG 4M CEILING TRACK W/ RATIATION & LIGHT SUPPORT

SCALE: 1" = 1'-0"

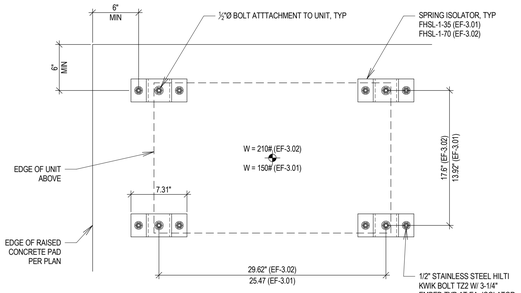


SECTION A-A



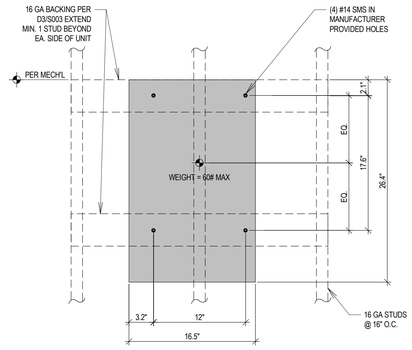
D4 UPS CABINET ANCHORAGE

SCALE: 1" = 1'-0"



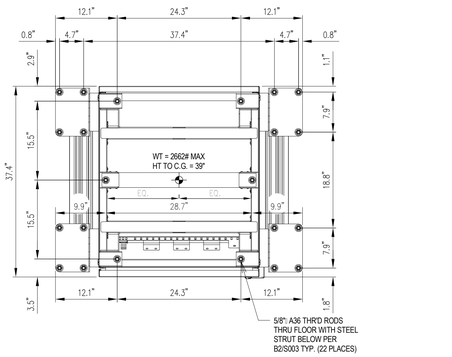
C2 EXHAUST FANS EF-3.01 & EF-3.02 ANCHORAGE

SCALE: 1 1/2" = 1'-0"



C3 INDOOR HUMIDIFIER HU-1.01, HU-1.02 & HU-1.03 WALL-MOUNTED DETAIL

SCALE: NTS



C4 BATTERY CABINET ANCHORAGE

SCALE: 1" = 1'-0"

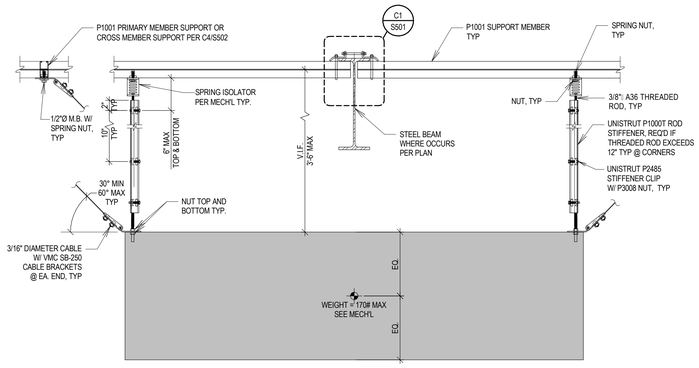
SECTION B-B

SECTION A-A

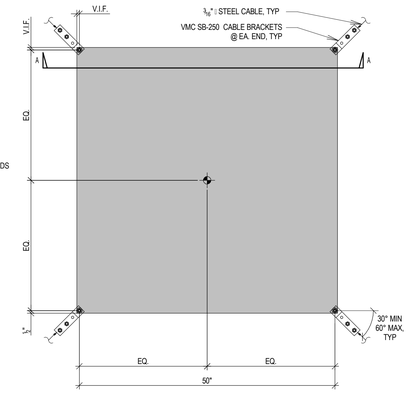
NOTE: ALL EXPOSED STEEL TO BE GALVANIZED.

A2 DUCT SUPPORT FRAME DETAIL

SCALE: 1 1/2" = 1'-0"

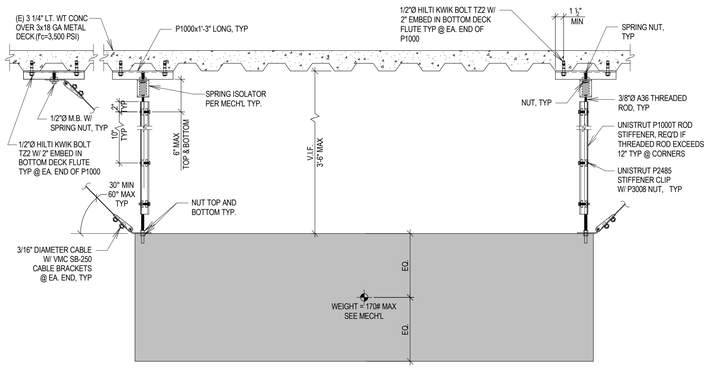


CATH LAB 2 - SECTION A-A



PLAN

NOTE:
1. REFER TO MECHANICAL DRAWINGS FOR MOUNTING LOCATIONS.



CATH LAB 1 - SECTION A-A

A3 SUSPENDED VFRI 1.01 & 1.02 ANCHORAGE DETAIL

SCALE: 1" = 1'-0"

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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REGISTERED PROFESSIONAL ENGINEER
TRACY R. RICH
RENEWAL 12/31/24
NO. 4831
STRUCTURAL
STATE OF CALIFORNIA

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FM08430011869	047-10071-002

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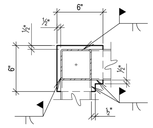
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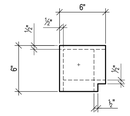
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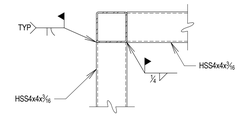
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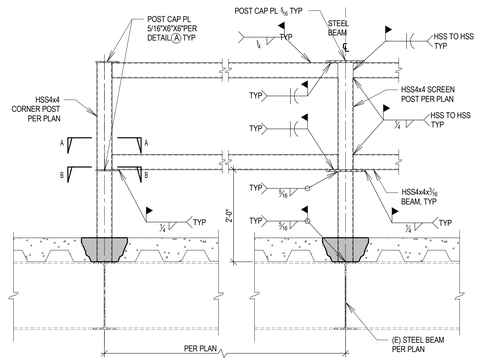
SECTION B-B



DETAIL A



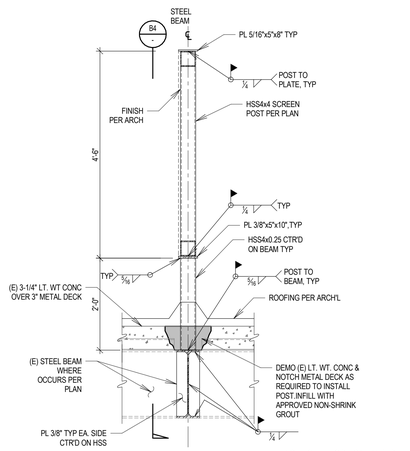
SECTION A-A



NOTE: STEEL TO BE GALVANIZED.

B4 SCREEN WALL SECTION

SCALE: 3/4" = 1'-0"



NOTE: STEEL TO BE GALVANIZED.

A4 ROOF SCREEN WALL POST SECTION

SCALE: 3/4" = 1'-0"

Riverside University HEALTH SYSTEM

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FM08430011869	047-10071-002

SHEET NAME

SECTIONS AND DETAILS

SHEET NUMBER

S509

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PHASE 1 DEMO
(SEE AE 151)

PHASE 1 DEMO
(SEE AE 151)

PHASE 1 ACCESS
TO NEURO DEPT

VOID

CORRIDOR E1024
CORRIDOR E1026
ELEC. ROOM E1013
ELEV. P4
ELEV. P3
ELEV. P1
ELEV. P2
ELEV. LOBBY E1027
(E) COMM. RM E1014
PHYSICAL THERAPY E1047
TREATMENT ROOM E1042
(E) DUMB-WAITER TO BE REMOVED
ELEC. ROOM E1015
STAIR E
JAN E1016
DIRECTOR E1036
CORRIDOR E1022
TECHS E1037
OCCUPATIONAL THERAPY E1038
PASSAGE E1033
WOMEN E1019
MEN E1017
STOR. E1034
TOIL. E1039
RECEPTION E1032
OUTPATIENT ADMITTING E1018
PASSAGE E1041
CORRIDOR E1040
DIR. PHYSICAL THERAPY E1044
EXAM E1052
COT / WAITING AREA E1054
LAB PREP AREA E1053
PHLEBOTOMY E1058
TOIL. E1043
TOIL. E1056
TOIL. E1057
NEURO READING E1073
HYDRO ROOM E1048
CARDIOPUL. READING E1072
EMG E1070
NEUROLOGY RECORDS E1069
EEG E1067
STORE-KEEPER E1116
CARDIOPULMONARY STRESS LAB E1066
MOVABLE DRUG STORAGE E114
CONTROLLED DRUGS E1113
E1134
E.K.G. / HOLTER ROOM E1065
CHEMO E1112
ECHOCARDIOGRAPHY E1064
IV E1111
PULMONARY FUNCTION E1063
STAFF TOIL E1062
SUPPLIES E1061
RECEPTION E1060
RELOCATE EXISTING P-TUBE STATION
UNIT DOSE COMPUTER E1110

PHASE 1 - SCOPE OF WORK

PHASE 2 - SCOPE OF WORK

A1 **PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 - DEMO**
SCALE: 1/8" = 1'-0"

SHEET NOTES

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LICENSED ARCHITECT STEPHANIA KEARNEY C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

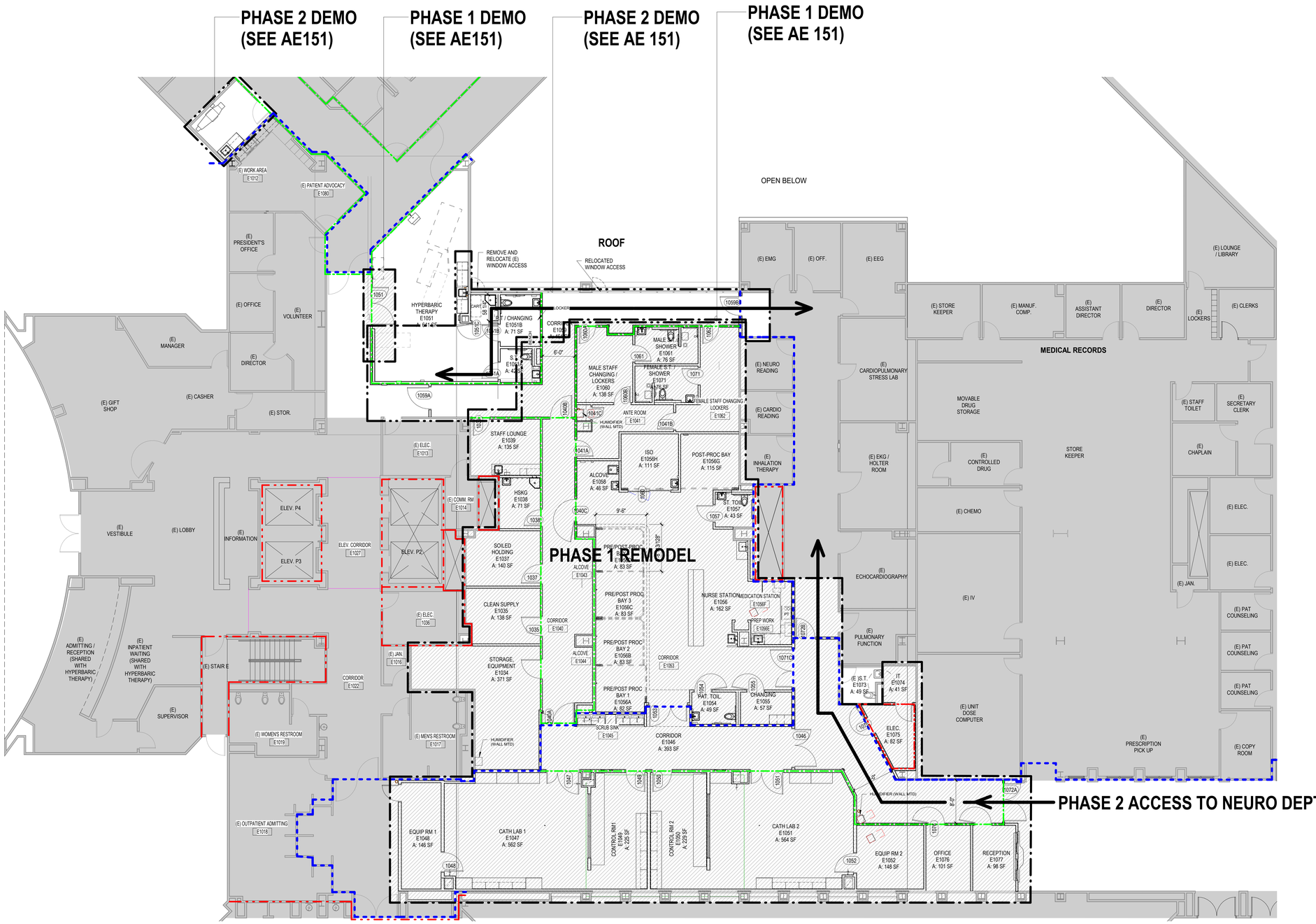
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
PHASING PLAN - LEVEL 1 - DEMO - PHASE 1 (not used)

SHEET NUMBER
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A1 **PARTIAL FLOOR PLAN - LEVEL 1 - PHASING PLAN**
SCALE: 1/8" = 1'-0"

PHASE 1 - SCOPE OF WORK

PHASE 2 - SCOPE OF WORK

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Riverside University HEALTH SYSTEM

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Allen Cheng

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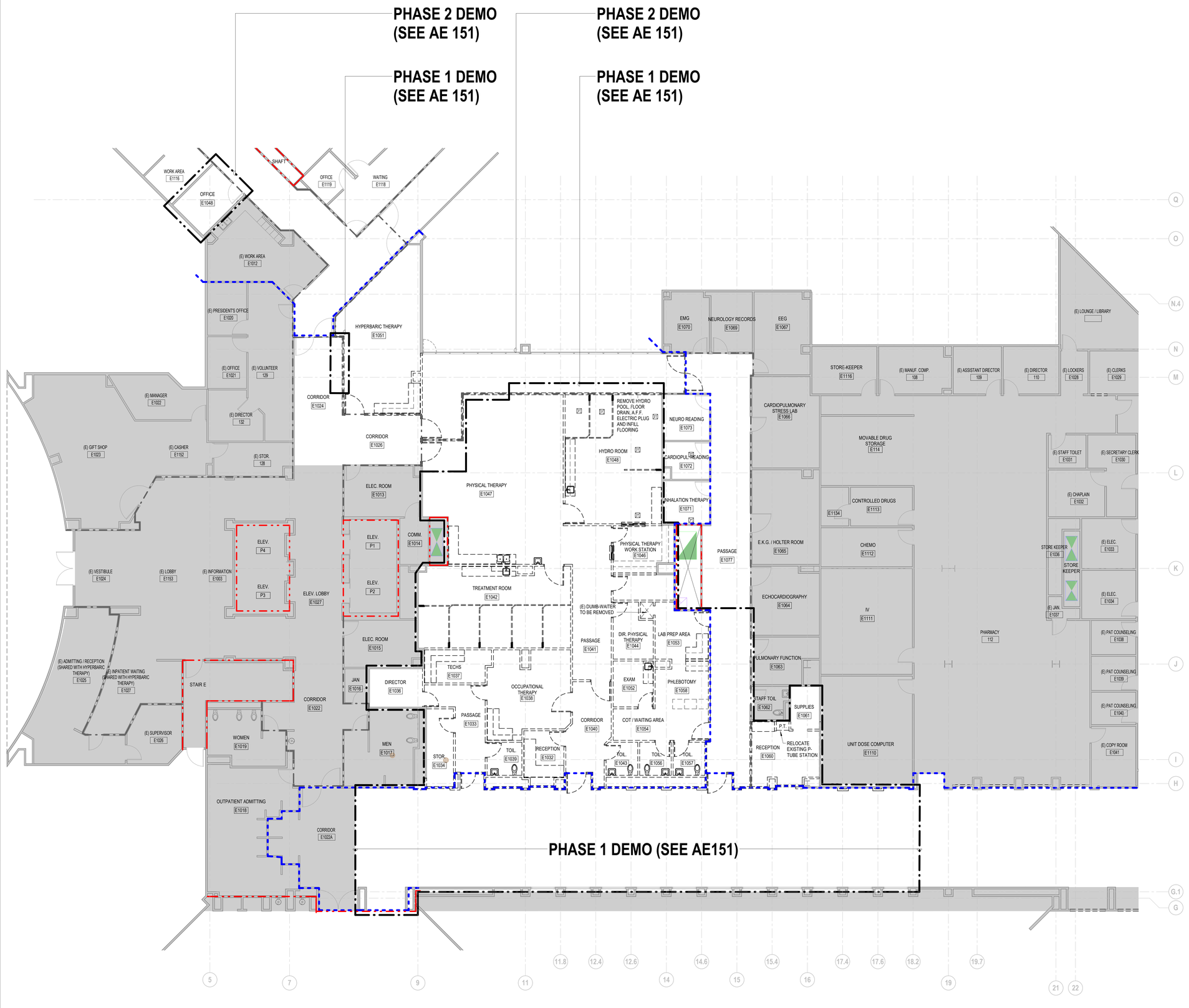
SHEET NAME

PHASING PLAN - LEVEL 1 - DEMO - PHASE 2 (not used)

SHEET NUMBER

AD102

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SHEET NOTES - DEMOLITION

1. DEMOLITION NOTES APPLY TO ALL DRAWING SHEETS.
2. REMOVE EXISTING FINISHES, ADHESIVES OR OTHER MATERIALS THAT WILL CONFLICT WITH NEW FINISHES SCHEDULED IN EXISTING OR NEWLY REMODELED SPACES. REMOVE OR MODIFY PARTITION, CEILNG, BASES AND FLOORING FINISH SUBSTRATES TO ACCOMODATE NEW FINISHES AS SCHEDULES
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4. REMOVE AND SALVAGE EXISTING EQUIPMENT AND WALL MOUNTED ACCESSORIES FOR RELOCATION BY OWNER.
5. REMOVE GENERAL, MECHANICAL AND ELECTRICAL MATERIAL NOT NECESSARILY SHOWN, BUT REQUIRED TO BE REMOVED TO COMPLETE WORK.
6. CUTTING AND PATCHING REQUIRED FOR NEW MECHANICAL AND ELECTRICAL WORK IN EXISTING SPACES SHALL BE BY RESPECTIVE CONTRACTORS.
7. CONTRACTOR TO VERIFY WITH OWNER THAT HAZARDOUS MATERIAL SURVEY HAS BEEN COMPLETED FOR MATERIALS TO BE REMOVED/DISTURBED.
8. THE CONTRACTOR SHALL VERIFY EXISTIN FINISHES AND CONDITION BEFORE CONSTRUCTION BEGINS.
9. CONTRACTOR SHALL COORDINATE DEMOLITION WORK PHASING AND SEQUENCING WITH OWNER PRIOR TO START OF CONSTRUCTION.
10. ERECT DUST-PROOF PARTITONS AS REQUIRED BY OWNER AND FIRE MARSHALL TO PROTECT ADJACENT AREA DURING CONSTRUCIOTN.
11. MAINTAIN REQUIRED EXISTS AND MEANS OF EGRESS DURING CONSTRUCTION.
12. PROTECT MECHANICAL AND ELECTRIAL SERVICES AS REQUIRED TO REMAIN IN OPERATION.
13. REMOVE CEILING SYSTEMS AS REQUIRED TO ACCODDOMATE MECHANICAL AND ELECTRICAL WORK. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR APPROXIMATE LOCATIONS. SALVAGE TILES AND GRID FOR REINSTALLATION WHEN COMPETE UNLESS NOTED OTHERWISE.
14. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND EXTENT OF MECHANICAL AND ELECTRICAL WORK.
15. DURING THE DEMOLITION PROCESS THERE MAY BE INSTANCES WHERE THE REMOVAL OR ABANDONMENT OF A FIXTURE, DUCT, CONDUIT OR OTHER PIECE OF EQUIPMENT MAY LEAVE AN OPENING IN A REQUIRED FIRE RESISTIVE ASSEMBLY. AS PARET OF THE DEMOKITION AND REMODELING PROCESS A FIRE-RESISTIVE "MEMBER" OR "THROUGH" PENETRATION (AND/OR OPEN JOINT) RESULTING FORM SUCH DEMOLITION WORK SHALL BE FIRESTOPPED OR SEALED IN ACCORDANCE WITH CBC FOR THE NECESSARY RATING PROTECTION. PROVISIONS FOR REQUIRED FIRESTOP CONDITIONS SHALL BE INCLUDED AS PART OF THIS SECTION.
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17. COORDINATE WITH THE OWNER FOR THE STORAGE AND RELOCATION REQUIREMENTS OF EXISTING AND SALVAGED ITEMS.
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19. CONTRACTOR SHALL REMOVE/MODIFY EXISTING GYPSUM BOARD AND ACT CEILINGS AS NECESSARY FOR NEW CEILING LAYOUT AND MECHAICAL DUCTWORK. SEE CEILING PLAN FOR NEW CEILING LAYOUT.
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KEY NOTES - DEMO

LEGEND

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- REMOVE AND SALVAGE ALL WATER CLOSETS AND LAVATORIES
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- PHASING 1 OUTLINE
- PHASING 2 OUTLINE
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511

TRUE NORTH

A1 PARTIAL FLOOR PLAN - LEVEL 1 - DEMO
SCALE: 1/8" = 1'-0"

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KEY PLAN

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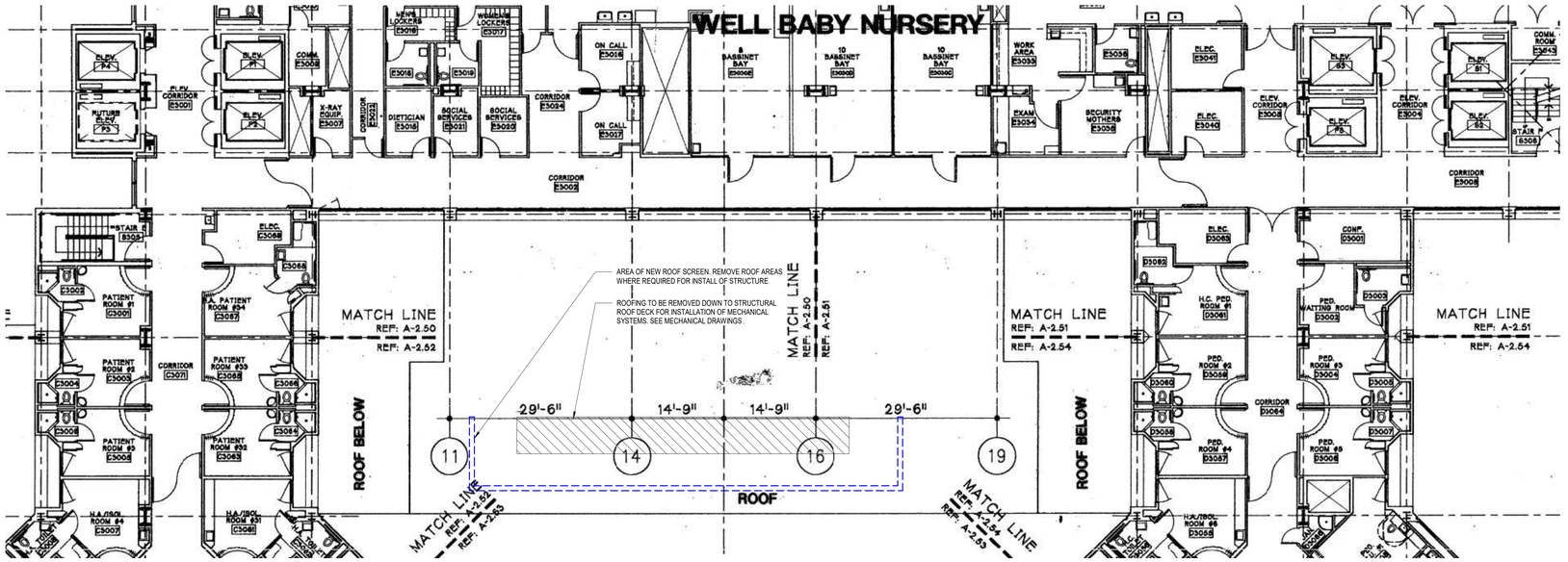
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SHEET NAME
PARTIAL FLOOR PLAN - LEVEL 1 - DEMO

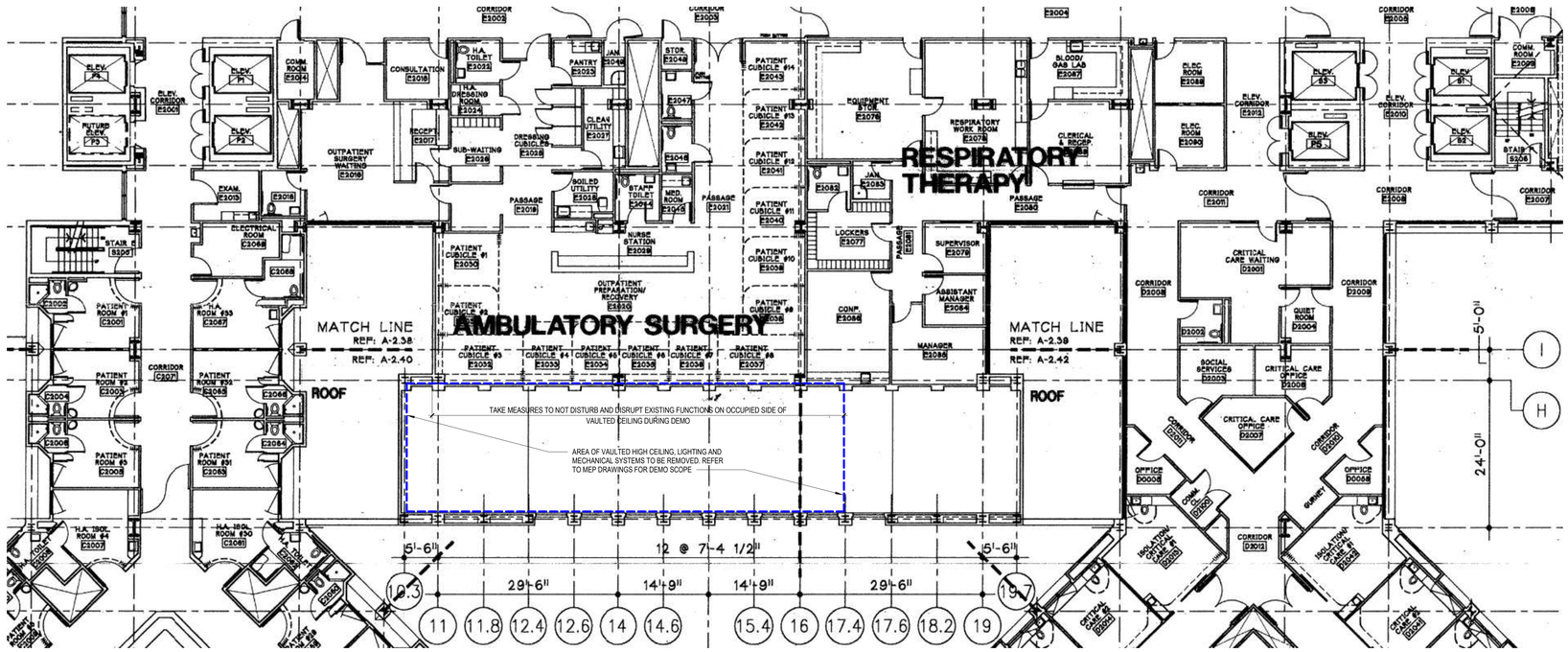
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AD111

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D1 **EXISTING PARTIAL FLOOR PLAN - LEVEL 3**
SCALE: NTS



A1 **EXISTING PARTIAL FLOOR PLAN - LEVEL 2**
SCALE: NTS

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CONSULTANT

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KEY PLAN

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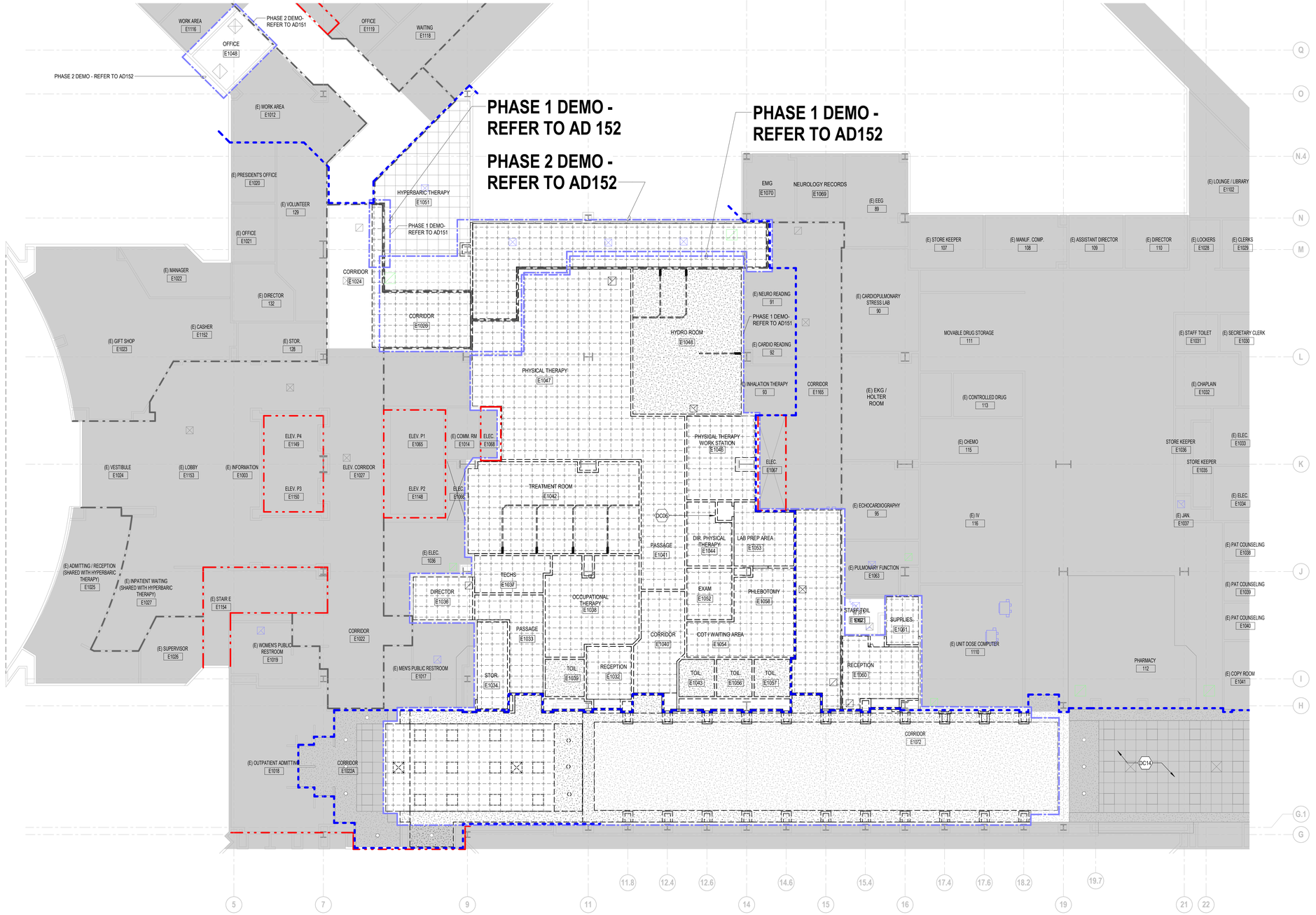
PARTIAL FLOOR PLAN - LEVEL 2 & 3 - DEMO

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A1 **PARTIAL RELECTED CEILING PLAN - LEVEL 1 - DEMO**
SCALE: 1/8" = 1'-0"

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SHEET NOTES

KEY NOTES - CEILING PLAN

DC06 REMOVE EXISTING DUMBWAITER
DC14 EXISTING CEILING TO REMAIN, PROTECT IN PLACE

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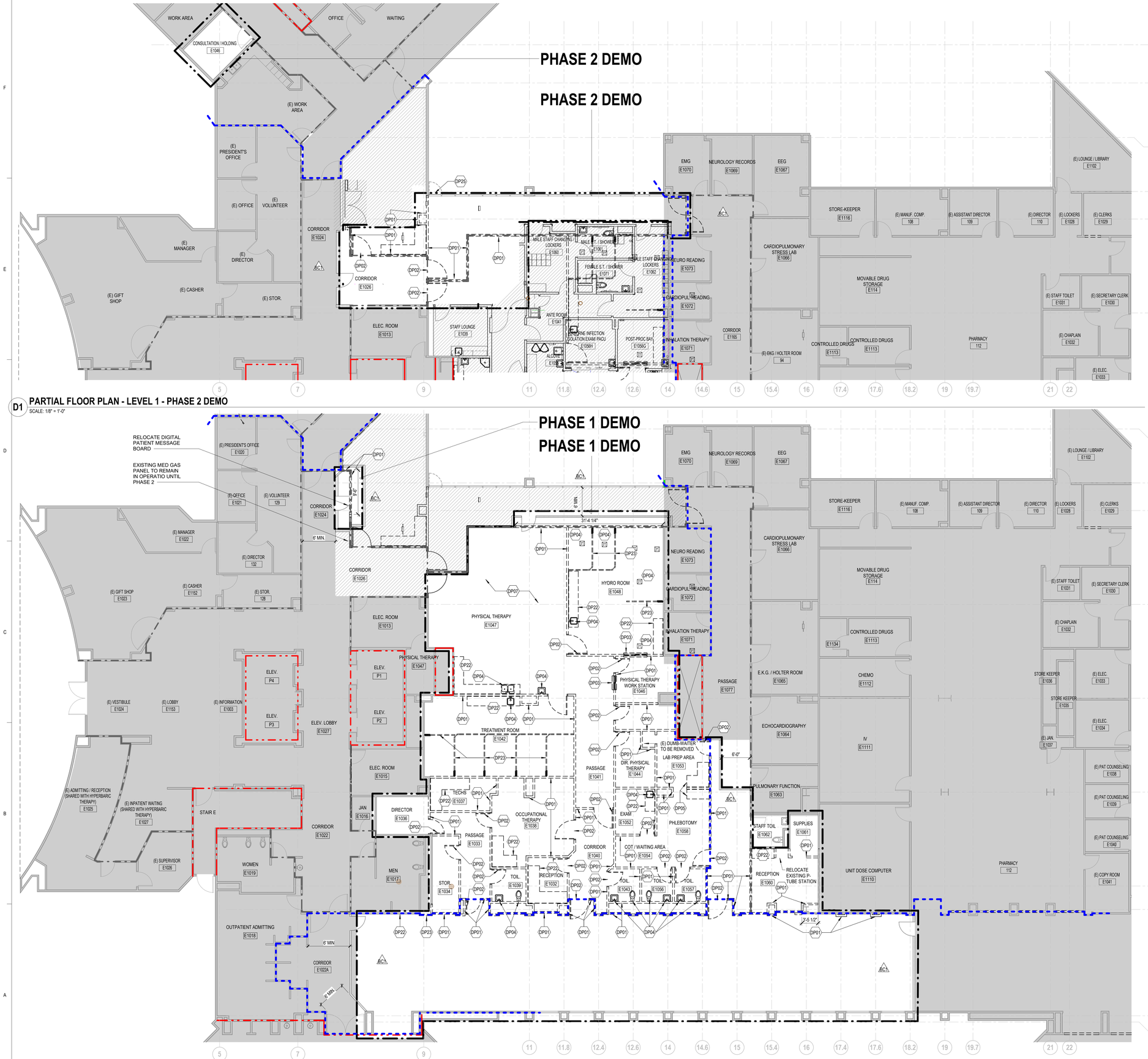
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PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - DEMO

SHEET NUMBER
AD121

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SHEET NOTES - DEMOLITION

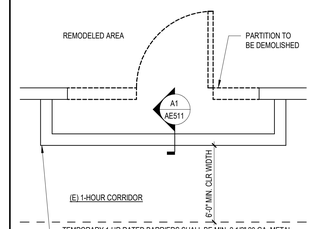
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KEY NOTES - DEMOLITION

DP01	DEMOLISH EXISTING WALL IN ITS ENTIRETY
DP02	DEMOLISH EXISTING DOOR AND FRAME
DP03	DEMOLISH EXISTING WINDOW AND FRAME
DP04	DEMOLISH EXISTING PLUMBING FIXTURE IN ITS ENTIRETY, CAP PLUMBING AS REQUIRED
DP05	DEMOLISH EXISTING CASEWORK
DP07	DEMOLISH EXISTING FLOORING IN ITS ENTIRETY. PREPARE SUBSTRATE TO ACCEPT NEW FINISH
DP22	REMOVE WALL ATTACHMENT AND RETURN TO OWNER
DP23	REMOVE BULKHEAD AND LIGHT FIXTURE ABOVE, TYP.
DP25	DEMOLITION AND RECONSTRUCTION WILL OCCUR WITHIN ONE SINGLE 8-HOUR SHIFT, SUBJECT TO THE PRIOR REVIEW AND APPROVAL OF THIS APPROACH BY THE OSHPD FIELD FIRE LIFE SAFETY OFFICER. WORK MAY NOT PROCEED UNTIL THAT APPROVAL HAS BEEN OBTAINED. IN THE EVENT THE WORK CANNOT BE COMPLETED IN THAT SINGLE SHIFT, A TEMPORARY BARRIER SHALL BE PROVIDED TO PROVIDE WEATHER PROTECTION PER 2022 CBC, SECTION 1405.2.

BC1

BC1



TEMPORARY 1-HR RATED BARRIERS SHALL BE MIN. 2 1/2" 20 GA. METAL STUDS WITH TYPE X GYP. BD. BOTH SIDES. BARRIERS SHALL EXTEND TO UNDERSIDE OF RATED FLOOR/ROOF DECK OR RATED CORRIDOR TUNNEL OR RETURNED HORRIZONTALLY BACK TO THE RATED WALL.

DOORS AND HOLLOW METAL FRAME SHALL BE RATED AS REQ'D FOR THE PARTITIONS/BARRIERS BEING REMODELED. DOORS WILL HAVE MIN. 20 MIN H.M. FRAMES/DOORS.

LEGEND

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Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

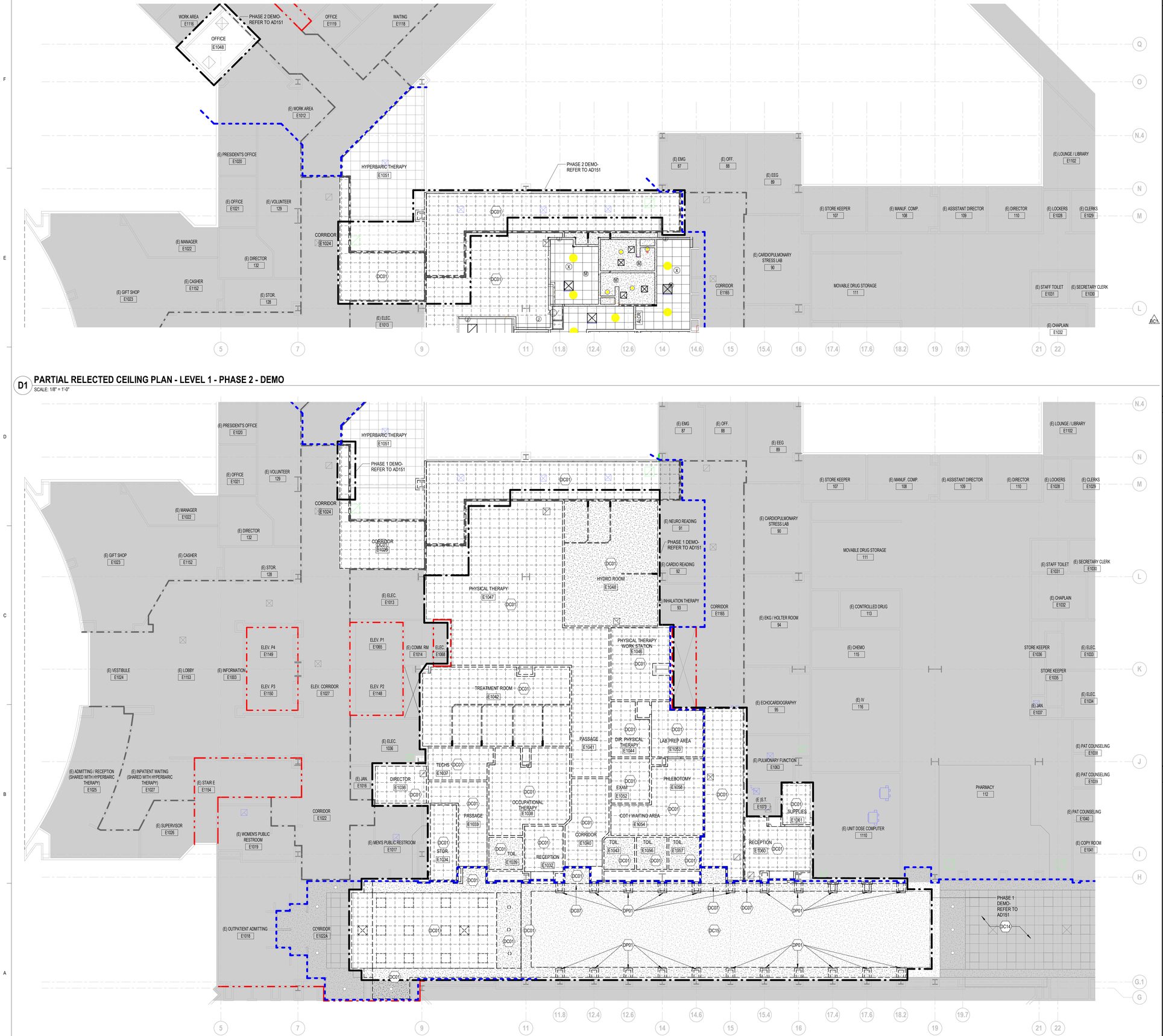
PHASING PLAN - LEVEL 1 - FLOOR PLAN - DEMO

SHEET NUMBER

AD151

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D1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - PHASE 2 - DEMO

SCALE: 1/8" = 1'-0"

A1 PARTIAL RELECTED CEILING PLAN - LEVEL 1 - PHASE 1 - DEMO

SCALE: 1/8" = 1'-0"

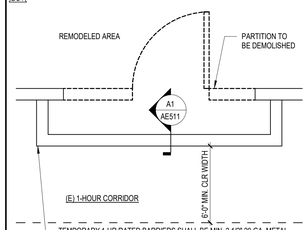
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SHEET NOTES - DEMOLITION

1. DEMOLITION NOTES APPLY TO ALL DRAWING SHEETS.
2. REMOVE EXISTING FINISHES, ADHESIVES OR OTHER MATERIALS THAT WILL CONFLICT WITH NEW FINISHES SCHEDULED IN EXISTING OR NEWLY REMODELED SPACES. REMOVE OR MODIFY PARTITION, CEILNG, BASES AND FLOORING FINISH SUBSTRATES TO ACCOMODATE NEW FINISHES AS SCHEDULES
3. REMOVE EXISTING PARTITIONS, DOORS, FRAMES, SOFFITS, MILLWORK, FIXTURES, ETC. ON THE DEMOLITION PLAN SHOWN WITH DASHED LINES. TURN SALVAGEABLE ITEMS OVER TO OWNER AT A LOCATION OF THE OWNER'S CHOOSING.
4. REMOVE AND SALVAGE EXISTING EQUIPMENT AND WALL MOUNTED ACCESSORIES FOR RELOCATION BY OWNER.
5. REMOVE GENERAL, MECHANICAL AND ELECTRICAL MATERIAL NOT NECESSARILY SHOWN, BUT REQUIRED TO BE REMOVED TO COMPLETE WORK.
6. CUTTING AND PATCHING REQUIRED FOR NEW MECHANICAL AND ELECTRICAL WORK IN EXISTING SPACES SHALL BE BY RESPECTIVE CONTRACTORS.
7. CONTRACTOR TO VERIFY WITH OWNER THAT HAZARDOUS MATERIAL SURVEY HAS BEEN COMPLETED FOR MATERIALS TO BE REMOVED/DISTURBED.
8. THE CONTRACTOR SHALL VERIFY EXISTIN FINISHES AND CONDITION BEFORE CONSTRUCTION BEGINS.
9. CONTRACTOR SHALL COORDINATE DEMOLITION WORK PHASING AND SEQUENCING WITH OWNER PRIOR TO START OF CONSTRUCTION.
10. ERECT DUST-PROOF PARTITIONS AS REQUIRED BY OWNER AND FIRE MARSHALL TO PROTECT ADJACENT AREA DURING CONSTRUCIOTN.
11. MAINTAIN REQUIRED EXISTS AND MEANS OF EGRESS DURING CONSTRUCTION.
12. PROTECT MECHANICAL AND ELECTRIAL SERVICES AS REQUIRED TO REMAIN IN OPERATION.
13. REMOVE CEILING SYSTEMS AS REQUIRED TO ACCODDOMATE MECHANICAL AND ELECTRICAL WORK. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR APPROXIMATE LOCATIONS. SALVAGE TILES AND GRID FOR REINSTALLATION WHEN COMPETE UNLESS NOTED OTHERWISE.
14. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND EXTENT OF MECHANICAL AND ELECTRICAL WORK.
15. DURING THE DEMOLITION PROCESS THERE MAY BE INSTANCES WHERE THE REMOVAL OR ABANDONMENT OF A FIXTURE, DUCT, CONDUIT OR OTHER PIECE OF EQUIPMENT MAY LEAVE AN OPENING IN A REQUIRED FIRE RESISTIVE ASSEMBLY. AS PARET OF THE DEMOKITION AND REMODELING PROCESS A FIRE-RESISTIVE "MEMBER" OR "THROUGH" PENETRATION (AND/OR OPEN JOINT) RESULTING FORM SUCH DEMOLITION WORK SHALL BE FIRESTOPPED OR SEALED IN ACCORDANCE WITH CBC FOR THE NECESSARY RATING PROTECTION. PROVISIONS FOR REQUIRED FIRESTOP CONDITIONS SHALL BE INCLUDED AS PART OF THIS SECTION.
16. PATCH "EXISTING TO REMIAN" BUILDING COMPONENTS IF DAMAGED DURING DEMOLITION. MATCH AJDACENT MATERIALS AND FINISHES.
17. COORDINATE WITH THE OWNER FOR THE STORAGE AND RELOCATION REQUIREMENTS OF EXISTING AND SALVAGED ITEMS.
18. VERIFY EXISTING SPRINKLERS SYSTEM WITH SPRINKLER CONTRACTOR PRIOR TO DEMOLITION. SPRINKLER CONTRACTOR TO MODIFY AND MAINTAIN SYSTEM CODE REQUIREMENTS THROUGHOUT THE PROJECT.
19. CONTRACTOR SHALL REMOVE/MODIFY EXISTING GYPSUM BOARD AND ACT CEILINGS AS NECESSARY FOR NEW CEILING LAYOUT AND MECHAICAL DUCTWORK. SEE CEILING PLAN FOR NEW CEILING LAYOUT.
20. CONTRACTOR SHALL REMOVE OWNER'S EXISTING WALL MOUNTED ITEMS AND TURN OVER TO OVEN'S STOCK IN DEMOLITION AREAS.
21. CONTRACTOR TO EVALUATE MOISTURE MITIGATION AT SLAB AFTER FLOORING DEMOLITION. VERIFY FLOORING FINISHES INSTALLATION AND WARRANTY REQUIREMENTS FROM MANUFACTURER.
22. USE AND PATHWAY OF TEMPORARY CONSTRUCTION WALLS AND TEMP DUST BARRIERS SHALL MEET THE REQUIREMENTS OF THE 2022 CFC, SECTION 3305.9 AND COMPLY WITH THE HOSPITAL INFECTIOUS CONTROL REQUIREMENTS. "TEMPORARY DUST BARRIER" MATERIAL SHALL SATISFY ONE OF THE FOLLOWING: 1. NONCOMBUSTIBLE MATERIALS. 2. MATERIALS THAT EXHIBIT A FLAME SPREAD INDEX NOT EXCEEDING 25 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. 3. MATERIALS EXHIBITING A PEAK HEAT RELEASE RATE NOT EXCEEDING 300 KW/M2 WHEN TESTED IN ACCORDANCE WITH ASTM E1354 AT AN INCIDENT HEAT FLUX OF 50 KW/M2 IN THE HORIZONTAL ORIENTATION ON SPECIMENS AT THE THICKNESS INTENDED FOR USE. PLEASE NOTE: IF THE MATERIAL IS TO COMPLY WITH ITEM #2 IDENTIFIED ABOVE, PLEASE BE SURE THE MATERIAL HAS A CLASS A FLAME SPREAD AND/OR DOES NOT EXCEED A FLAME SPREAD INDEX OF 25.

KEY NOTES - DEMOLITION

DC01	DEMOLISH EXISTING CEILING, DEVICES, DUCTWORK (SERVING AREA OF WORK), MEDICAL GAS OUTLETS (WHERE OCCURS), AND HVAC REGISTERS. CAP ALL UTILITIES AS REQUIRED DURING CONSTRUCTION. PROTECT EXISTING SPRINKLER PIPING IN PLACE
DC07	SALVAGE AND RETURN TO OWNER EXISTING MURAL WALL PANELS FROM EACH RECESS AT NORTH WALL AT HALL, TYPICAL.
DC14	EXISTING CEILING TO REMAIN, PROTECT IN PLACE
DC15	DEMOLISH EXISTING VAULTED CEILING
DP01	DEMOLISH EXISTING WALL IN ITS ENTIRETY



TEMPORARY 1-HR RATED BARRIERS SHALL BE MIN. 2 1/2" 20 GA. METAL STUDS WITH TYPE X GYP. BD. BOTH SIDES. BARRIERS SHALL EXTEND TO UNDERSIDE OF RATED FLOOR/ROOF DECK OR RATED CORRIDOR TUNNEL OR RETURNED HORRIZONTALLY BACK TO THE RATED WALL.

DOORS AND HOLLOW METAL FRAME SHALL BE RATED AS REQ'D FOR THE PARTITIONS/BARRIERS BEING REMODELED. DOORS WILL HAVE MIN. 20 MIN H.M. FRAMES/DOORS.

LEGEND

- REMOVE WALL
- REMOVE DOOR
- REMOVE AND SALVAGE ALL WATER CLOSETS AND LAVATORIES
- AREA NOT IN SCOPE OF WORK
- AREA IN SCOPE BUT NOT IN PHASE
- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER CBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- PHASING 1 OUTLINE
- PHASING 2 OUTLINE
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE PARTITION W/ 20 MIN PROTECTED OPENINGS. SEE DETAIL A1/AE511 (BC1)

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

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PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - DEMO

SHEET NUMBER

AD152

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A1 **EXISTING PARTIAL FLOOR PLAN - LOWER LEVEL**
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SHEET NAME

PARTIAL FLOOR PLAN - LEVEL LOWER -EXISTING CONDITION

SHEET NUMBER

AE110

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PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

PHASE 2 REMODEL - REFER TO D1/AE152

PHASE 1 REMODEL - REFER TO A1/AE152

OPEN BELOW

OPEN BELOW

OUTPATIENT DIAGNOSTIC STUDIES

ENGINEERING REVISIONS RELATED TO THIS 1 HR FIRE BARRIER WALL WILL BE SUBMITTED AS AN ACD

PHARMACY

NO STORAGE IN CORRIDOR E1058

NO STORAGE IN CORRIDOR E1059B

NO STORAGE IN CORRIDOR E1040

CEILING MTD HUMIDIFIER (PROVIDE ACCESS PANEL)

SOFFIT ABOVE

CEILING LINE ABOVE

SEMI-RESTRICTED CORRIDOR E1046

DOOR STAYS IN OPEN POSITION

ALCOVE

SHEET NOTES

1. REPAIR EXISTING FIRE RATED WALLS WITHIN SCOPE AS REQUIRED TO MAINTAIN RATING, TYP.
2. PROVIDE SISTER STUDS WHERE NEW BACKING PLATES ARE REQUIRED AT EXISTING WALLS WHICH ARE NOT 16GA STUDS, TYP.
3. WHERE FIRE RATED WALLS NEED TO BE REPAIRED, UPGRADE HEAD OF WALL AND FIRE PENETRATIONS TO MEET DETAIL XV/ AEXXX, UL DESIGN NO. U419
4. SCOPE OF WORK CONSISTS OF THE PROJECT AREA AND ADJACENT AREAS WITHIN THE 1ST LEVEL, 2ND LEVEL AND LOWER LEVEL. INCLUDE IN BID ALL WORK NECESSARY TO ADDRESS NEW SCOPE INCLUDING WORK ON NIGHTS AND WEEKENDS. SCOPE OF WORK SHALL BE COORDINATED WITHIN ALL DISCIPLINES INCLUDING STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, LOW VOLTAGE, MEDICAL GAS, FIRE ALARM, FIRE SPRINKLER AND EQUIPMENT VENDOR REQUIREMENTS. REVIEW ALL DRAWINGS TO OBTAIN COMPLETE SCOPE OF WORK.
   GENERAL CONTRACTOR TO COORDINATE WORK AMONG MULTIPLE DISCIPLINES.
5. SEE SHEET AE151 FOR PHASING PLANS AND SHEET AE152 FOR PHASING CEILING PLANS. COORDINATE ALL WORK WITHIN ALL DISCIPLINES.
6. ALL WALLS REQUIRING SHIELDING SHALL HAVE LEAD SHIELDING EXTEND TO A HEIGHT OF 7'-0" ABOVE FLOOR. LEAD BATTEN STRIPS, DISKS AND PATCHES SHALL COVER ALL JOINTS AND INTRUSIONS INTO WALLS, CEILING OR FLOORS INCLUDING J-BOXES OR OTHER REASONS.
7. ALL DOORS AND WINDOWS CONTAINED IN A WALL SHALL HAVE A LEAD EQUIVALENT SHIELDING THICKNESS EQUAL TO OR GREATER THAN PRESCRIBED FOR THAT WALL.
8. CONTRACTOR TO PROVIDE AND INSTALL PULLBOXES, J-BOX AND BUSHING FOR PHILIPS AND SECHRIST SYSTEMS. REFER TO ELECTRICAL TECHNOLOGY AND VENDOR DRAWINGS.
9. FOR ALL BOXES TO BE INSTALLED ALONG RATED WALLS, PROVIDE 5-SIDED BOX DETAIL PER A9/AE541
10. ALL SHEETROCK PARTITION NOT TAGGED SHALL BE 3-5/8"@ METAL STUD.

BC1 PRIOR TO FRAMING NEW WALLS, CONTRACTOR SHALL LAYOUT THE POSITION OF ALL NEW WALLS ON THE FLOOR FOR VALIDATION OF REQUIRED INTERIOR FINISH CLEARANCES, TO IDENTIFY TOP OF WALL FRAMING CONFLICTS AND COORDINATION WITH UTILITIES.
CONTRACTOR TO SCHEDULE A SITE MEETING TO REVIEW LAYOUT WITH AOR AND FACILITIES

KEY NOTES - REMODEL

BC1
- P22 RELOCATED WINDOW WITH ACCESS TO ROOF BELOW
- P35 UPGARDE EXISTING 1HR FIRE PARTITION TO A 1 HR FIRE BARRIER PER CODE PLAN

BC2
- P36 PROVIDE VISIBLE AND LEGIBLE SIGNAGE IDENTIFYING ROOM AS "ELECTRICAL ROOM" PER 2022 CFC SECTION 603.4.1
- P44 PROVIDE SIGNAGE AT AIRBORNE INFECTION ISOLATION PACU LABELED AS "AIRBORNE INFECTION ISOLATION PACU" PER CODE

LEGEND

- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER IBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- 1HR SMOKE BARRIER PER IBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- LEAD LINED WALL. SEE AE 141 FOR SHIELDING PLAN
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE RATED/SMOKE PROTECTED OPENINGS.
- BC2 SEE DETAIL A1/AE511
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- SEMI-RESTRICTED CORRIDOR
- PHASE 1 - SCOPE OF WORK
- PHASE 2 - SCOPE OF WORK

KEY NOTES

PARTIAL FLOOR PLAN - LEVEL 1 - REMODEL

A1 SCALE: 1/8" = 1'-0"

TRUE NORTH

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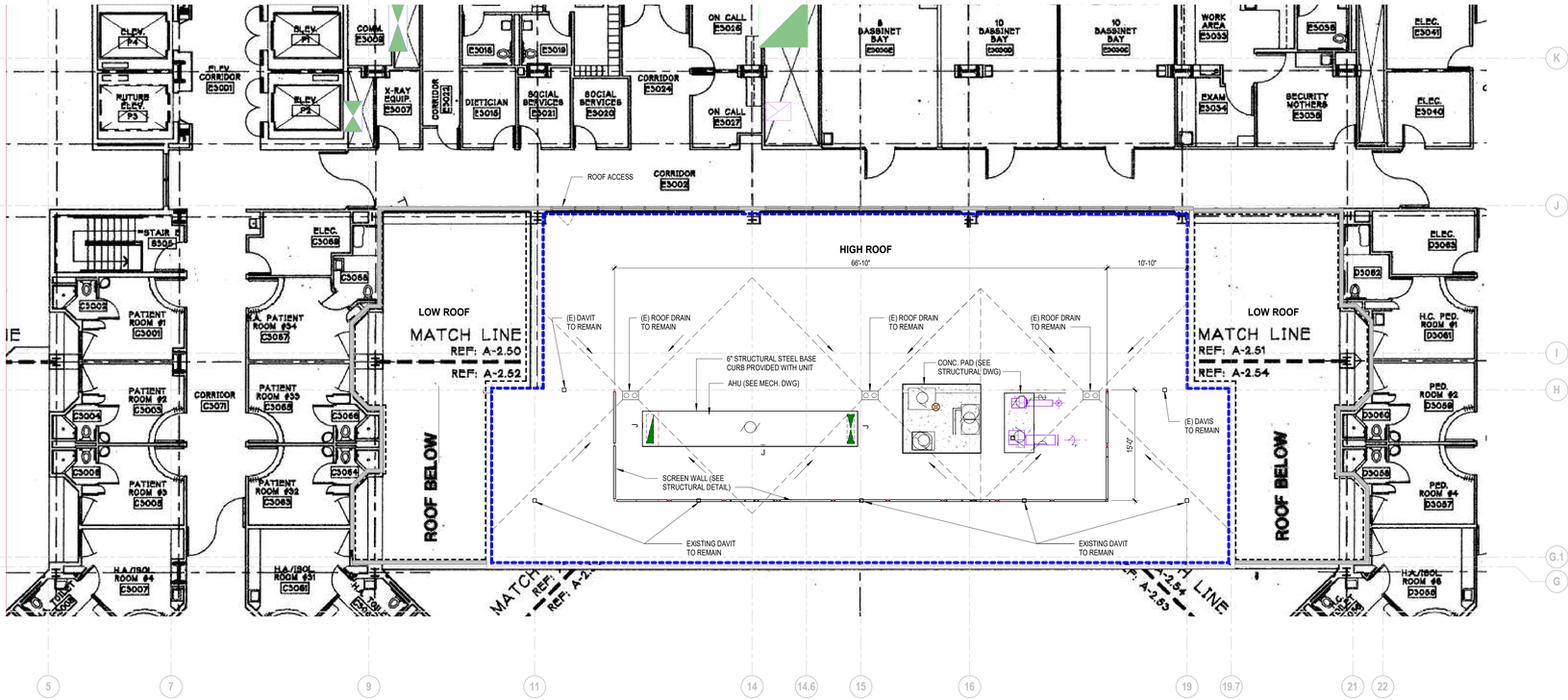
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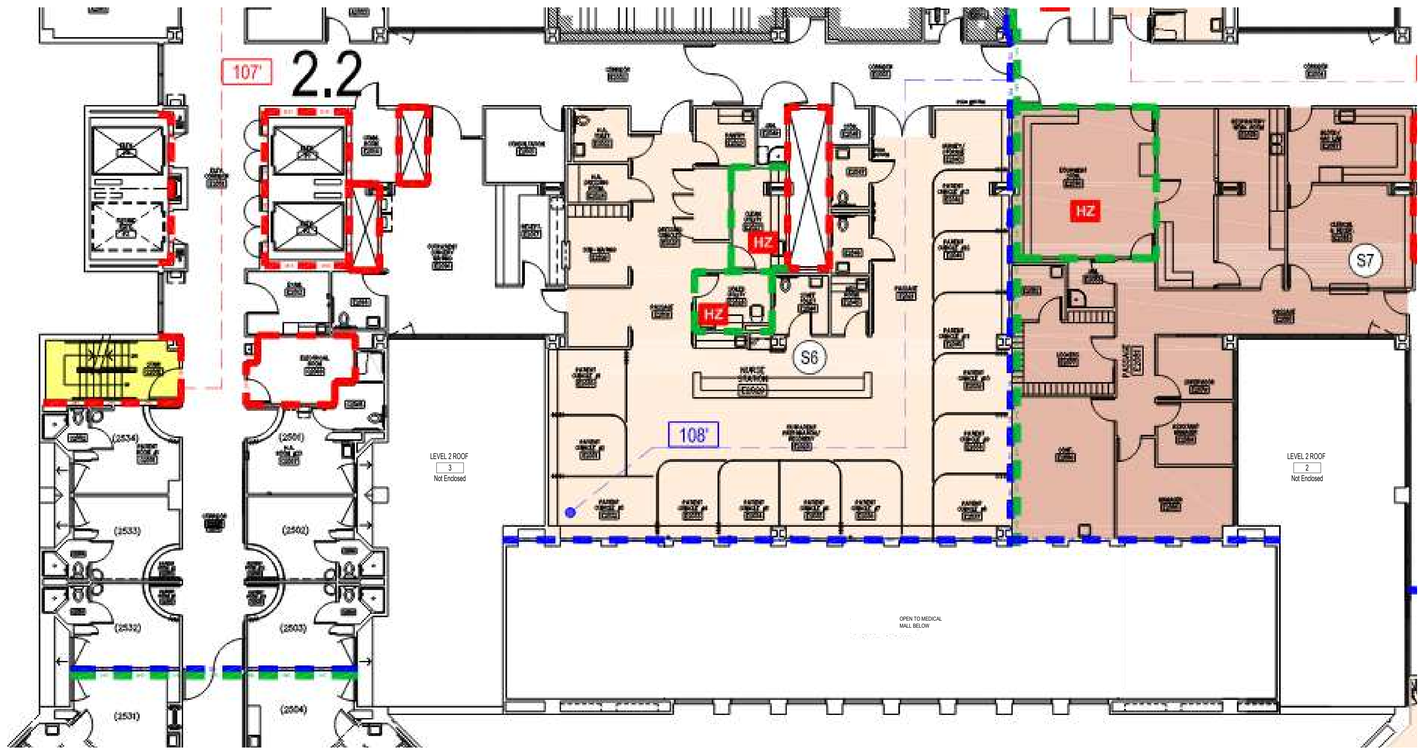
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D1 PARTIAL ROOF PLAN
SCALE: 1/8" = 1'-0"



A1 PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL
SCALE: 1/8" = 1'-0"

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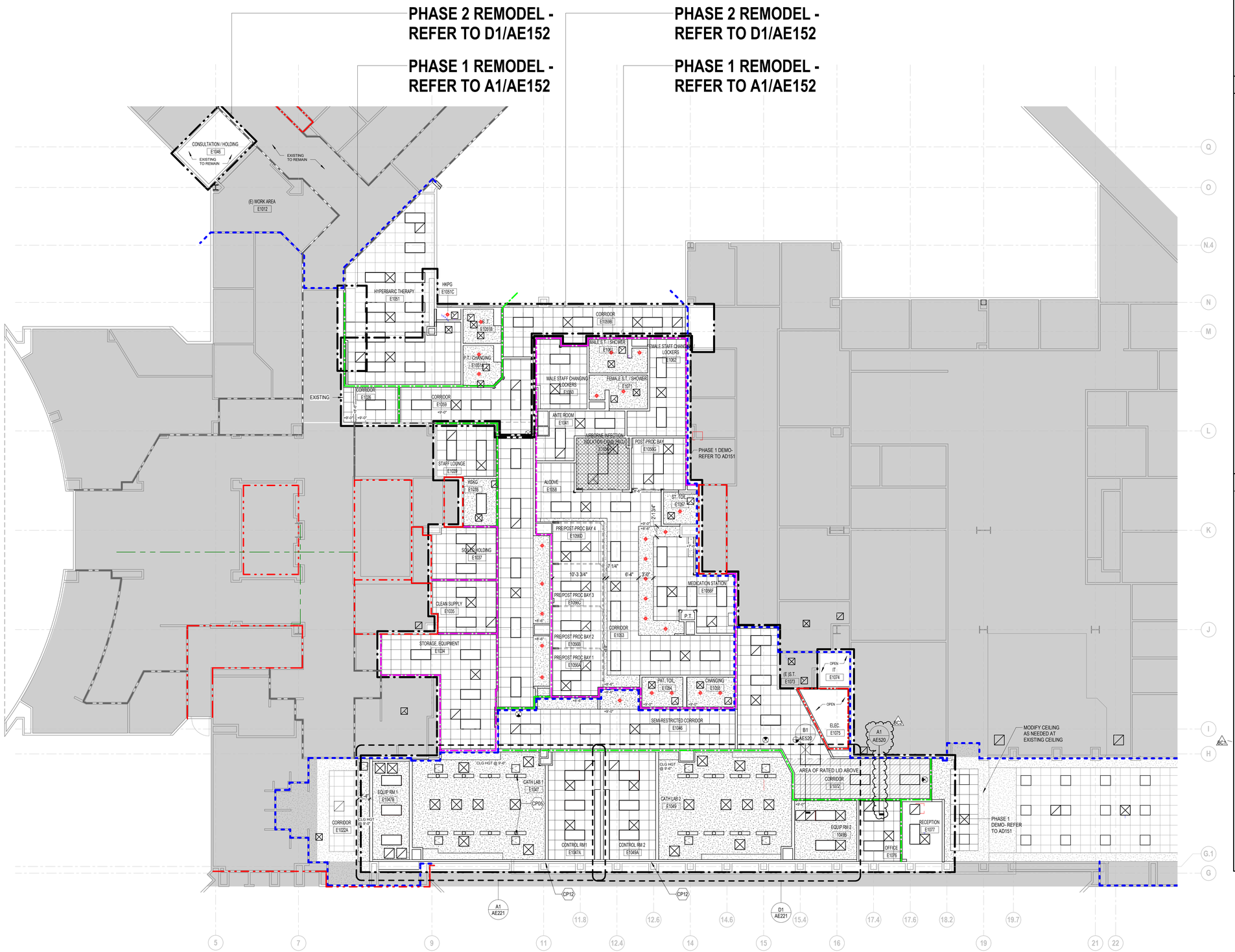
SHEET NAME

PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL AND PARTIAL ROOF PLAN

SHEET NUMBER

AE112

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A1 **PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL**
SCALE: 1/8" = 1'-0"

SHEET NOTES

KEY NOTES - CEILING PLAN - REMODEL

CP05	NEW 18 X 18 ACCESS PANELS. CONFIRM LOCATION PRIOR TO INSTALLATION.
CP12	WHERE GYPSUM BOXES REMOVED AT EXTERIOR WALL, PATCH AS NEEDED TO MAINTAIN AIR BARRIER AND ALLOW FOR NEW FURRED WALL TO BE CONSTRUCTED, TYPICAL.

CEILING PLAN LEGEND

- EXISTING LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING, (HATCH INDICATES TUNNEL COORIDOR AREA)
- NEW LAY-IN TILE GRID CEILING, COMPLIANT FOR USE IN AIRBORNE INFECTION ISOLATION EXAM / PACU ROOM. NON-ABSORBING, NON-PERFORATED, CLEAN AND WASHABLE. LAY-IN TILES SHALL BE GASKETED.
- EXISTING PAINTED GYB. BD. CEILING
- NEW PAINTING GYP. BD. CEILING SEE DETAIL A1 & A4 ON AE519

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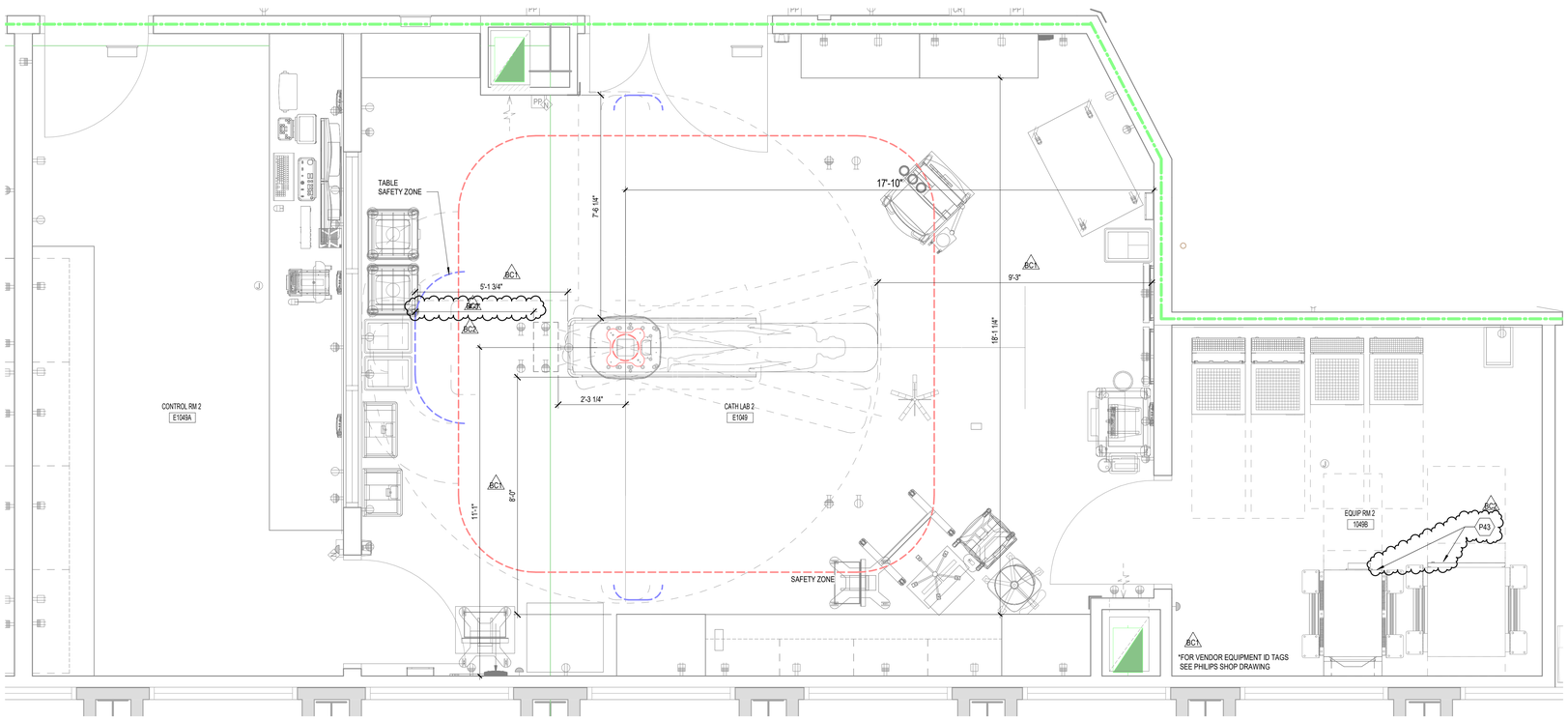
PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL

SHEET NUMBER

AE121

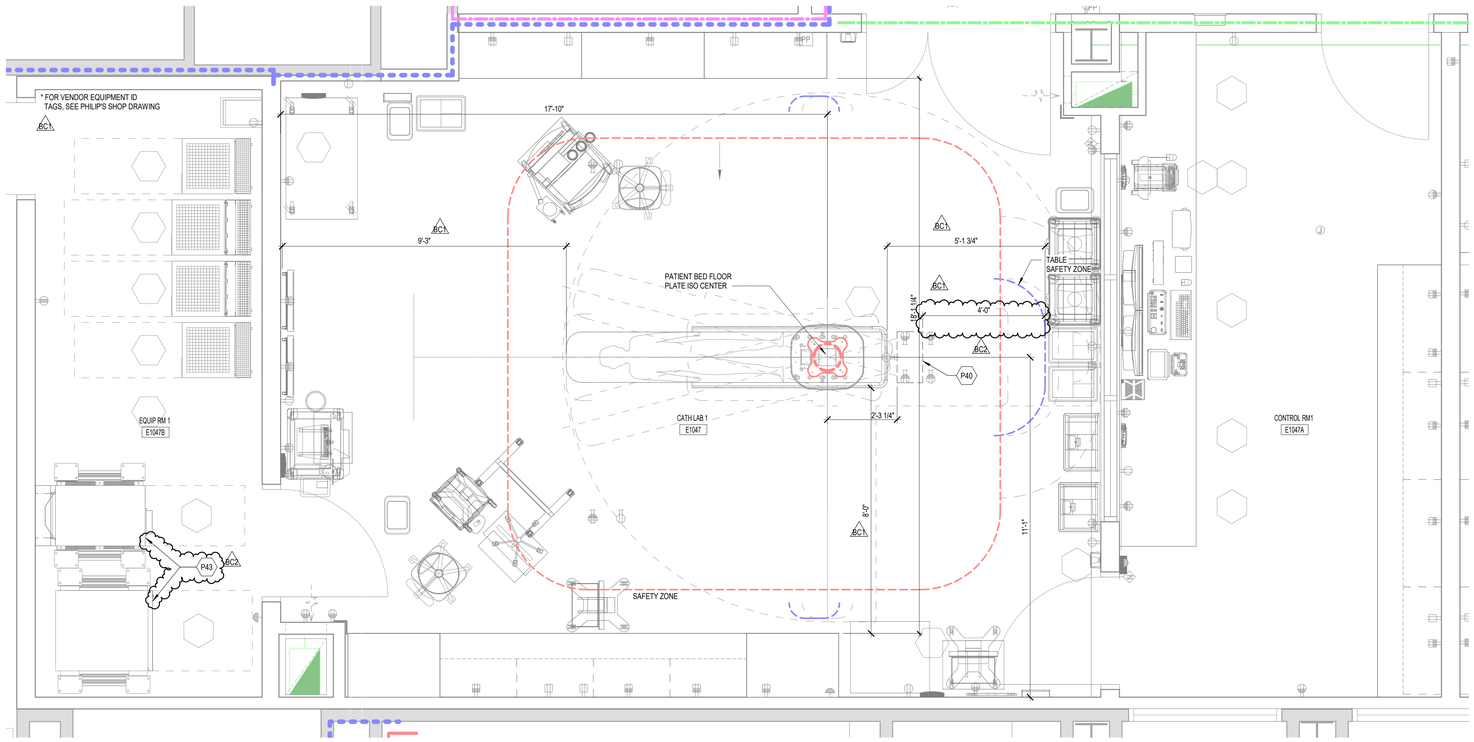
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D1 IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB 2

SCALE: 1/2" = 1'-0"



A1 IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB 1

SCALE: 1/2" = 1'-0"

LEGEND

- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER IBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- 1HR SMOKE BARRIER PER IBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.

KEY NOTE

P40 FLOOR PEDESTAL BOX FOR ELECTRICAL AND MED GAS. SEE ELEC. DWGS.

P43 SOCOMEC UPS SYSTEM: BATTERY TYPE: VALUE REGULATED LEAD ACID BATTERY. BATTERY CAPACITY OF 48 BLOCK BATTERY RACK X QTY 5 BATTERY RACKS = 3.888 KWH X 5 = 19.44 KWH (REFER TO PHILIP VENDOR DWGS)

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB

SHEET NUMBER

AE131

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Radiation Protection Shielding Design

Facility: Riverside University Health System Medical Center
Address: 26520 Cactus Avenue, Moreno Valley, CA 92555
Contact: Jenny Liu, Leo A Daly Architects C:/Lu@leoadaly.com 213-316-4571
Room ID: Cath Lab Procedure Room # 1

Signature: Melissa C. Martin
Date: 12/6/2023 (Updated: 10/10/2023)

Calculation Method: NCRP 147
Installation Type: Cardiac Cath Lab
Patients / Week: 40

Physicist:
Melissa C. Martin, M.S., DABR, FACR
Certified Radiological Physicist
Therapy Physics, Inc.
2700 Gateway Oaks, Ste 270, Signal Hill, CA 90755
562.317.0650, FAX 562.317.0661 Cell: 310-612-8127
e-mail: melissa@therapyphysics.com

Barrier Requirements Summary

Protected Location	Existing Structural Material	Recommended Additional Barrier	P/T (mGy/wk)	Shielded Air Kerma (mGy/wk)
Control Room # 1		4 / 64lbs inch lead	0.02	0.0064
Corridor		4 / 64lbs inch lead	0.1	0.0143
Equipment Room		4 / 64lbs inch lead	0.1	0.0132
Exterior Wall	0.625 in gypsum	2 / 64lbs inch lead	0.2	0.0889
Floor	5.5 in concrete		0.02	0.0064

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Comments and Recommendations

1. This is a shielding report for a Cardiac Cath Lab to be installed on the first floor of this multi-story building. The floor is 4.5 inches normal weight concrete on a 2 inch deck for an average thickness of 5.5 inches. There are no occupied areas above this room. The floor to floor height is 15 feet. **No additional lead is required in the floor or ceiling.**

The exterior wall is a combination of gypsum board and stucco or windows. The entire wall will be covered with 1/32 inch lead lined gyp board.

2. All additional lead shielding in the walls will be added to a height of 7 feet (84 inches) to comply with requirements of Title 17, CA Code of Regulations.

3. All shielding requirements are based on NCRP Report #147 (2005) "Structural Shielding Design and Evaluation for Medical Use of X-Rays." Calculations for each barrier are made using the computer software program based on data and assumptions are from NCRP Report # 147.

4. The additional shielding recommendations are designed to meet Radiation Protection Standards as defined by Title 17, CA Code of Regulations and by reference 10 CFR20. Any future changes in either equipment, workload or room design will necessitate a re-evaluation of these shielding requirements.

5. The following assumptions were used in the shielding calculations:
For all secondary barriers, Workload: 30 patients per week.

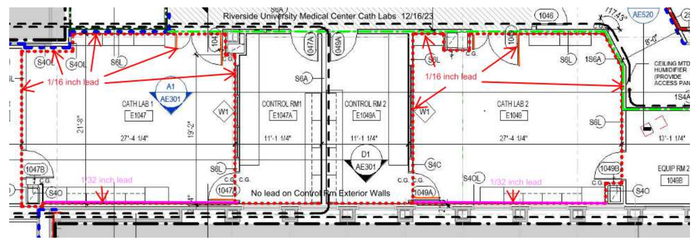
6. All junction boxes and other penetrations in lead lined walls must be lined with equivalent thickness of lead with overlapping lead edges. (No gaps in lead lining)

7. Door frames must be steel with lead lining to provide equivalent shielding to the surrounding walls.
For lead thickness's of 1/32 inch or less, the steel door frames do not need lead lining. For doors in walls with lead thickness's of 1/16 or greater, the steel door frames must be lead lined with the same thickness of lead as is in the wall.

8. Control Area window should be of at least 1.5 mm lead.

9. Equivalent thickness' of lead for existing walls and floors is assumed to be as follows:
1 #/sq ft lead = 0.395 mm = 1/64 inch
2 #/sq ft lead = 0.79 mm = 1/32 inch
3 #/sq ft lead = 1.19 mm = 3/64 inch
4 #/sq ft lead = 1.58 mm = 1/16 inch.
5 #/sq ft lead = 1.98 mm = 5/64 inch
6 #/sq ft lead = 2.38 mm = 3/32 inch.

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Protected Location: **Control Room # 1**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 1 | P/T (mGy/wk): 0.020 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	10.0 ft	10.0 ft						
Unshielded Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0002	0.0062						

Existing Structural Material: | Material:
Additional Barrier Required: 1.15 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0064**

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Protected Location: **Corridor**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.0 ft	12.0 ft						
Unshielded Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0005	0.0138						

Existing Structural Material: | Material:
Additional Barrier Required: 0.86 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0143**

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Protected Location: **Equipment Room**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: | Material:
Additional Barrier Required: 0.83 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0132**

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Protected Location: **Exterior Wall**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: | Material:
Additional Barrier Required: 0.83 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0132**

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Protected Location: **Exterior Wall**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: | Material:
Additional Barrier Required: 0.83 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0132**

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Protected Location: **Equipment Room**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: | Material:
Additional Barrier Required: 0.83 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0132**

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Protected Location: **Corridor**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.0 ft	12.0 ft						
Unshielded Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0005	0.0138						

Existing Structural Material: | Material:
Additional Barrier Required: 0.86 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0143**

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Protected Location: **Control Room # 1**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 1 | P/T (mGy/wk): 0.020 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	10.0 ft	10.0 ft						
Unshielded Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	1.17E-01	3.48E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0002	0.0062						

Existing Structural Material: | Material:
Additional Barrier Required: 1.15 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0064**

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Protected Location: **Corridor**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.0 ft	12.0 ft						
Unshielded Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.63E-01	7.77E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0005	0.0138						

Existing Structural Material: | Material:
Additional Barrier Required: 0.86 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0143**

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Protected Location: **Equipment Room**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: | Material:
Additional Barrier Required: 0.83 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0132**

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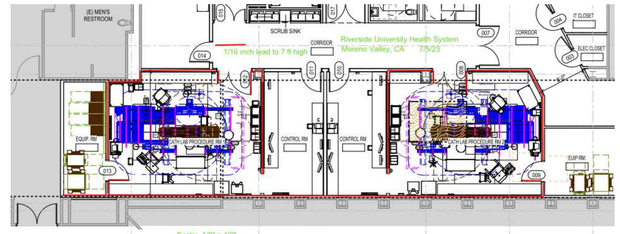
Protected Location: **Exterior Wall**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 0.2 | P/T (mGy/wk): 0.100 | Barrier Type: Secondary Wall
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Side
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.5 ft	12.5 ft						
Unshielded Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Structural Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.42E-01	7.16E+00						
Transmission Model:	Secondary	Secondary						
Preshielding Credit:	N/A							
Rec + Preshield Transmission:	1.79E-03	1.79E-03						
Shielded Air Kerma (mGy/wk):	0.0004	0.0128						

Existing Structural Material: | Material:
Additional Barrier Required: 0.83 mm | Material: Lead
Recommended Additional Barrier: 1.59 mm | Material: Lead (4 / 64lbs inch) | **Shielded Air Kerma (mGy/wk): 0.0132**

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Protected Location: **Floor**
Design Goal (P) (mGy/wk): 0.02 | Occupancy (T): 1 | P/T (mGy/wk): 0.020 | Barrier Type: Secondary Floor
Primary or Secondary: Secondary
Use Factor: N/A
Workload Distribution: Cardiac
Number of Patients / Week: 40
Scatter Direction: Fast/Back
Use Table / Bucky Preshielding?: N/A

Under-Table Fluoro Tube

	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter	Leakage	Scatter
Distance to Protected Location:	12.0 ft	13.5 ft						
Unshielded Air Kerma (mGy/wk):	2.63E-01	8.74E+00						
Other Material Transmission:	1.00E+00	1.00E+00						
Remaining Air Kerma (mGy/wk):	2.63E-01	8.74E+00						
Transmission Model:	Leakage	Secondary						
Preshielding Credit:	N/A							
Shielded Air Kerma (mGy/wk):	3.61E-01	3.69E-04						
	0.0015	0.0048						

Other Existing Material: | Material:
Structural Material Required: 4.34 in | Material: Concrete
Existing Structural Material: 5.50 in | Material: Concrete | **Shielded Air Kerma (mGy/wk): 0.0064**

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Comments and Recommendations

1. This is a shielding report for a Cardiac Cath Lab to be installed on the first floor of this multi-story building. The floor is 4.5 inches normal weight concrete on a 2 inch deck for an average thickness of 5.5 inches. There are no occupied areas above this room. The floor to floor height is 15 feet. **No additional lead is required in the floor or ceiling.**

The exterior wall is a combination of gypsum board and stucco or windows. The entire wall will be covered with 1/32 inch lead lined gyp board.

2. All additional lead shielding in the walls will be added to a height of 7 feet (84 inches) to comply with requirements of Title 17, CA Code of Regulations.

3. All shielding requirements are based on NCRP Report #147 (2005) "Structural Shielding Design and Evaluation for Medical Use of X-Rays." Calculations for each barrier are made using the computer software program based on data and assumptions are from NCRP Report # 147.

4. The additional shielding recommendations are designed to meet Radiation Protection Standards as defined by Title 17, CA Code of Regulations and by reference 10 CFR20. Any future changes in either equipment, workload or room design will necessitate a re-evaluation of these shielding requirements.

5. The following assumptions were used in the shielding calculations:
For all secondary barriers, Workload: 30 patients per week.

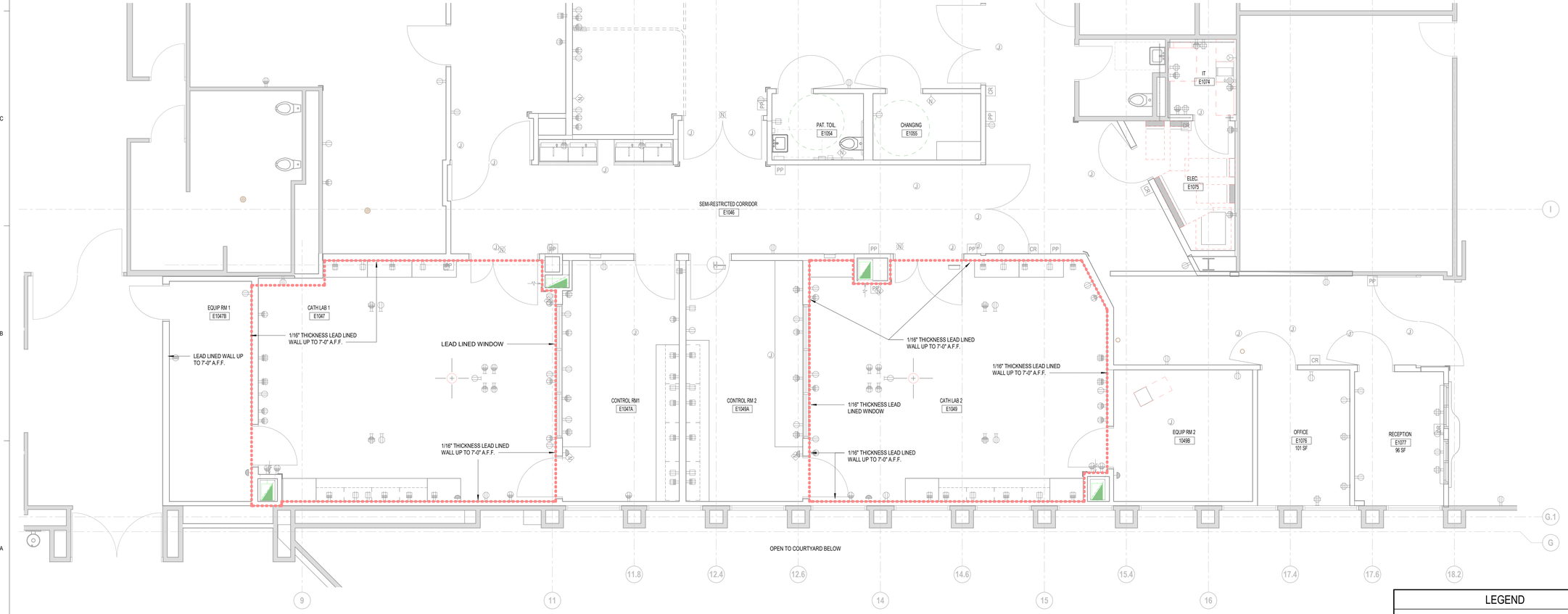
6. All junction boxes and other penetrations in lead lined walls must be lined with equivalent thickness of lead with overlapping lead edges. (No gaps in lead lining)

7. Door frames must be steel with lead lining to provide equivalent shielding to the surrounding walls.
For lead thickness's of 1/32 inch or less, the steel door frames do not need lead lining. For doors in walls with lead thickness's of 1/16 or greater, the steel door frames must be lead lined with the same thickness of lead as is in the wall.

8. Control Area window should be of at least 1.5 mm lead.

9. Equivalent thickness' of lead for existing walls and floors is assumed to be as follows:
1 #/sq ft lead = 0.395 mm = 1/64 inch
2 #/sq ft lead = 0.79 mm = 1/32 inch
3 #/sq ft lead = 1.19 mm = 3/64 inch
4 #/sq ft lead = 1.58 mm = 1/16 inch.
5 #/sq ft lead = 1.98 mm = 5/64 inch
6 #/sq ft lead = 2.38 mm = 3/32 inch.

12/16/2023
Cath Lab 2 7-23.xlsm
Comments
Therapy Physics, Inc.
562-317-0650



LEGEND

LEAD LINED PARTITION

A1 SHIELDING PLAN - CATH LAB
SCALE: 1/4" = 1'-0"

7/12/2024 2:43:52 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. RICHTER C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP:
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Office of Statewide Hospital Planning & Development
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S231455-33-00
Allen Cheng

BUILDING TITLE
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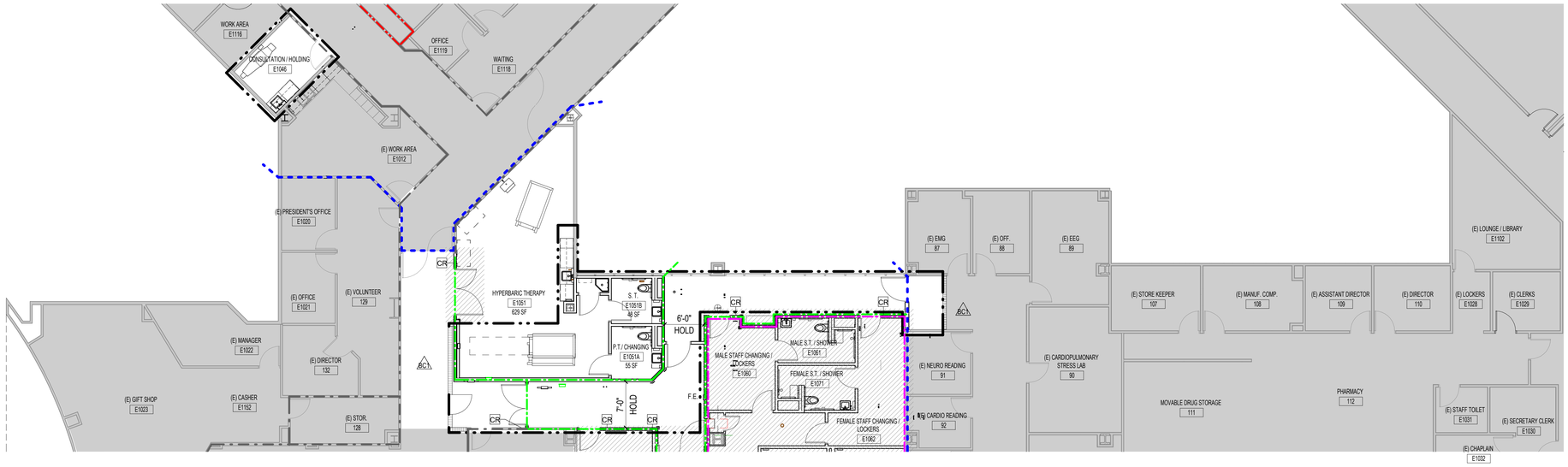
PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
SHIELDING PLAN - LEVEL 1 - CATH LABS

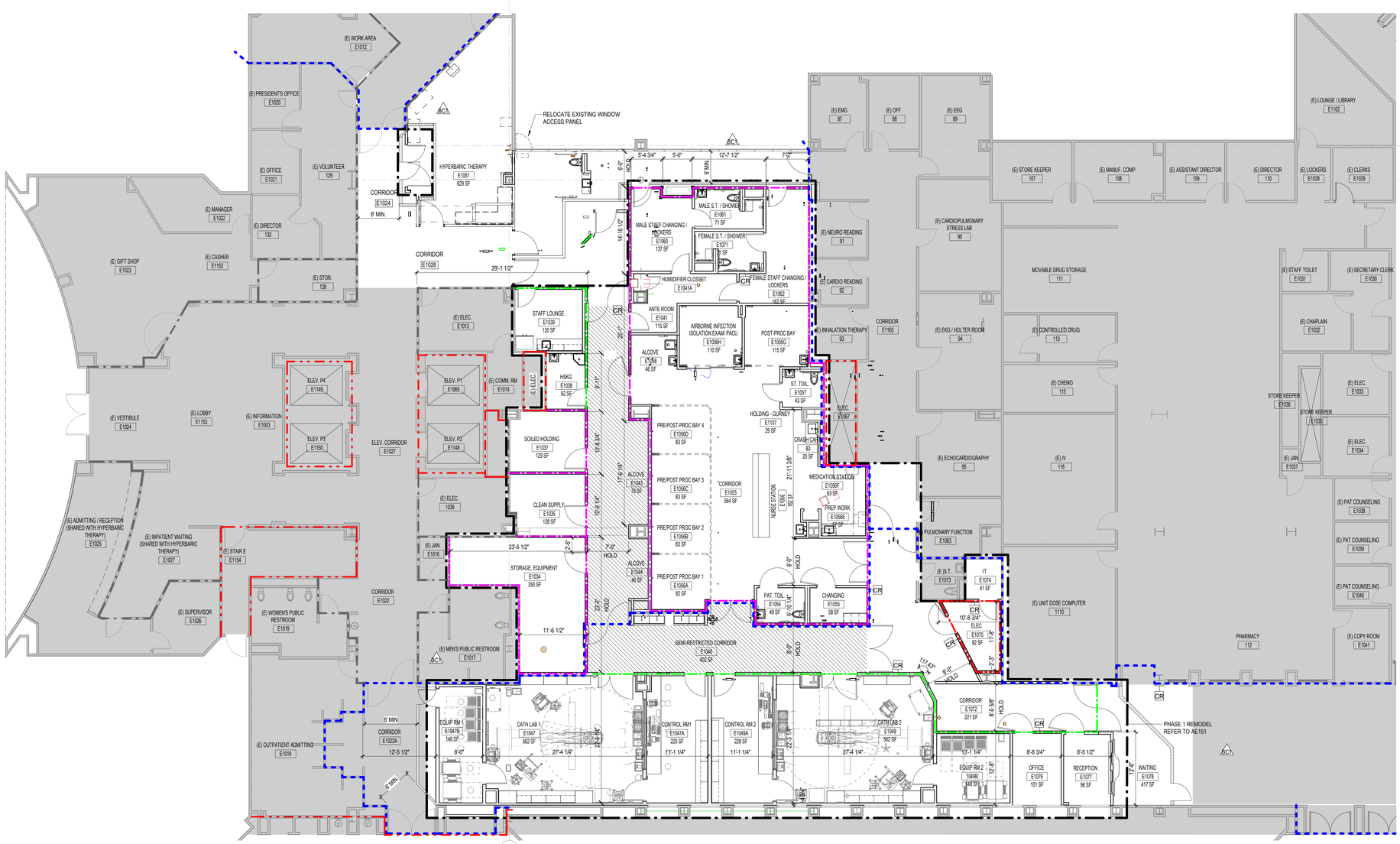
SHEET NUMBER
AE141

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E1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2- REMODEL PLAN

SCALE: 1/8" = 1'-0"



A1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 - REMODEL PLAN

SCALE: 1/8" = 1'-0"

LEGEND

- 2 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 90 MINUTES.
- 1 HOUR FIRE PARTITION PER CBC SECTION 708. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- 1 HOUR FIRE BARRIER PER CBC SECTION 706. OPENINGS FIRE RATED FOR 20 MINUTES FOR CORRIDOR PARTITIONS AND 45 MINUTES FOR OTHER FIRE PARTITIONS.
- SMOKE PARTITION PER IBC SECTION 710. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- 1HR SMOKE BARRIER PER IBC SECTION 709. OPENINGS TO BE RELATIVELY TIGHT FITTING AS REQUIRED TO RESIST PASSAGE OF SMOKE.
- LEAD LINED WALL. SEE AE 141 FOR SHIELDING PLAN
- TEMPORARY CONSTRUCTION BARRIER, 1 HR FIRE RATED PLYWOOD PROTECTED OPENINGS. SEE DETAIL A1/AE511
- EXISTING AREA TO REMAIN, AREA NOT IN SCOPE OF WORK
- SEMI-RESTRICTED CORRIDOR
- PHASE 1 - SCOPE OF WORK
- PHASE 2 - SCOPE OF WORK

Riverside University HEALTH SYSTEM

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FM08430011869	047-10071-002

SHEET NAME

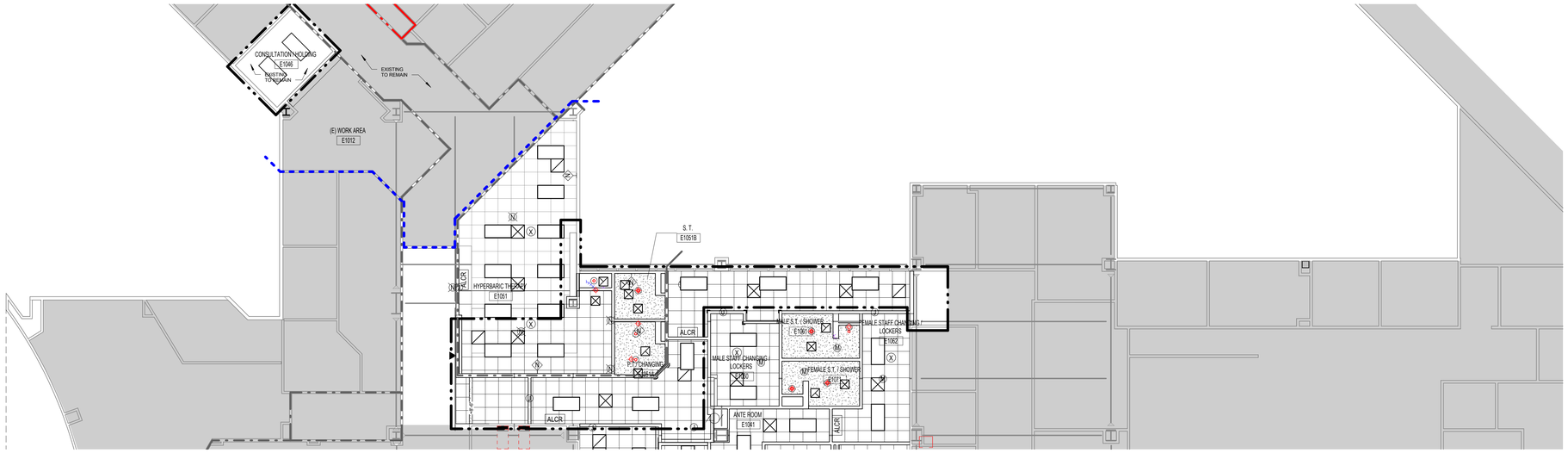
PHASING PLAN - LEVEL 1 - FLOOR PLAN - REMODEL

SHEET NUMBER

AE151

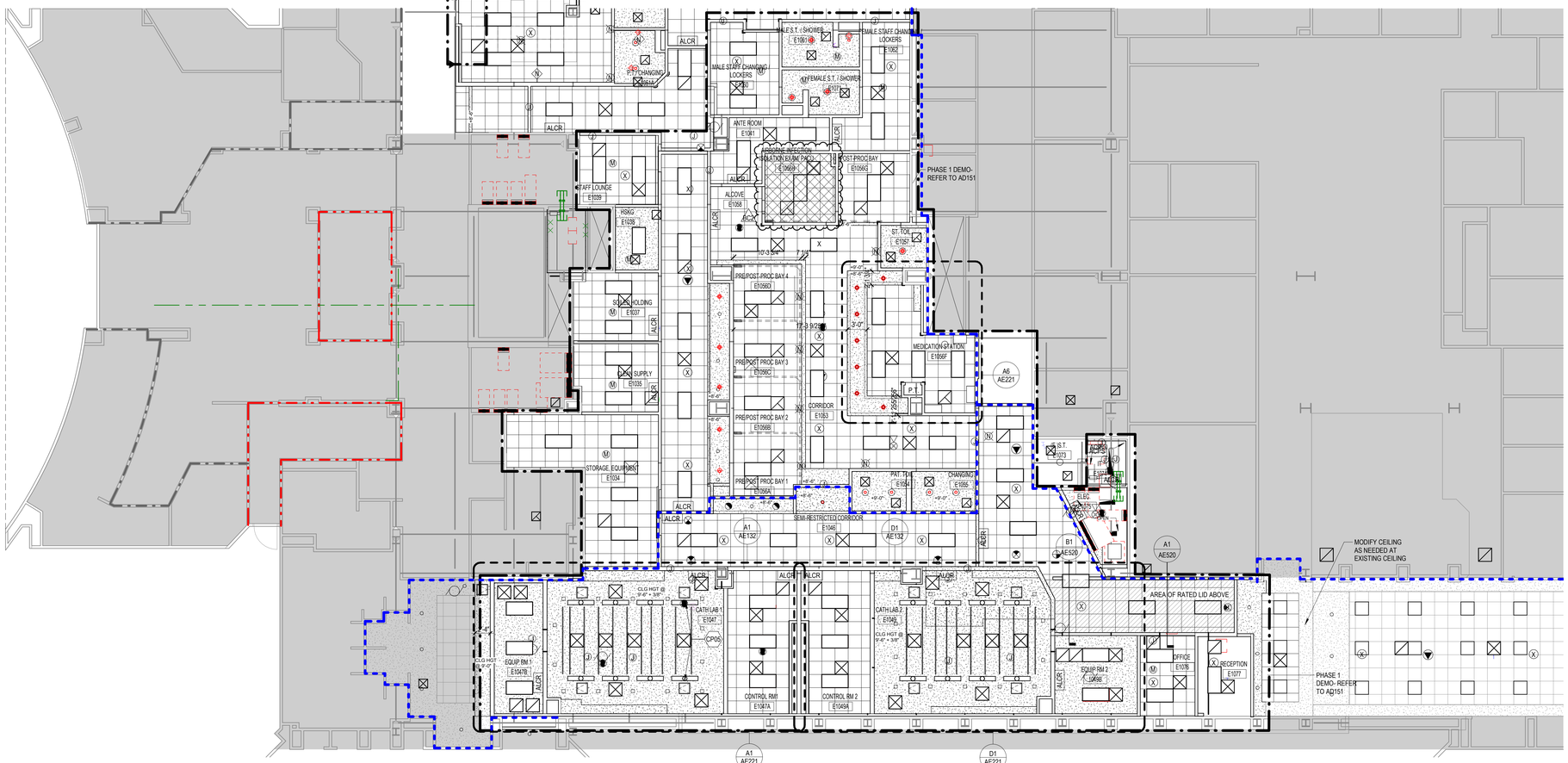
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D1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL - PHASING 2

SCALE: 1/8" = 1'-0"



A1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1- REMODEL - PHASING 1

SCALE: 1/8" = 1'-0"

CEILING LEGEND

- EXISTING LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING
- NEW LAY-IN TILE GRID CEILING, (HATCH INDICATES TUNNEL COORIDOR AREA)
- NEW LAY-IN TILE GRID CEILING, COMPLIANT FOR USE IN AIRBORNE INFECTION ISOLATION EXAM / PACU ROOM. NON-ABSORBING, NON-PERFORATED, CLEAN AND WASHABLE. LAY-IN TILES SHALL BE GASKETED. 6C2
- EXISTING PAINTED GYB. BD. CEILING
- NEW PAINTING GYP. BD. CEILING SEE DETAIL A1 & A4 ON AE519

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIA KHACHI C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

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FM08430011869	047-10071-002

SHEET NAME

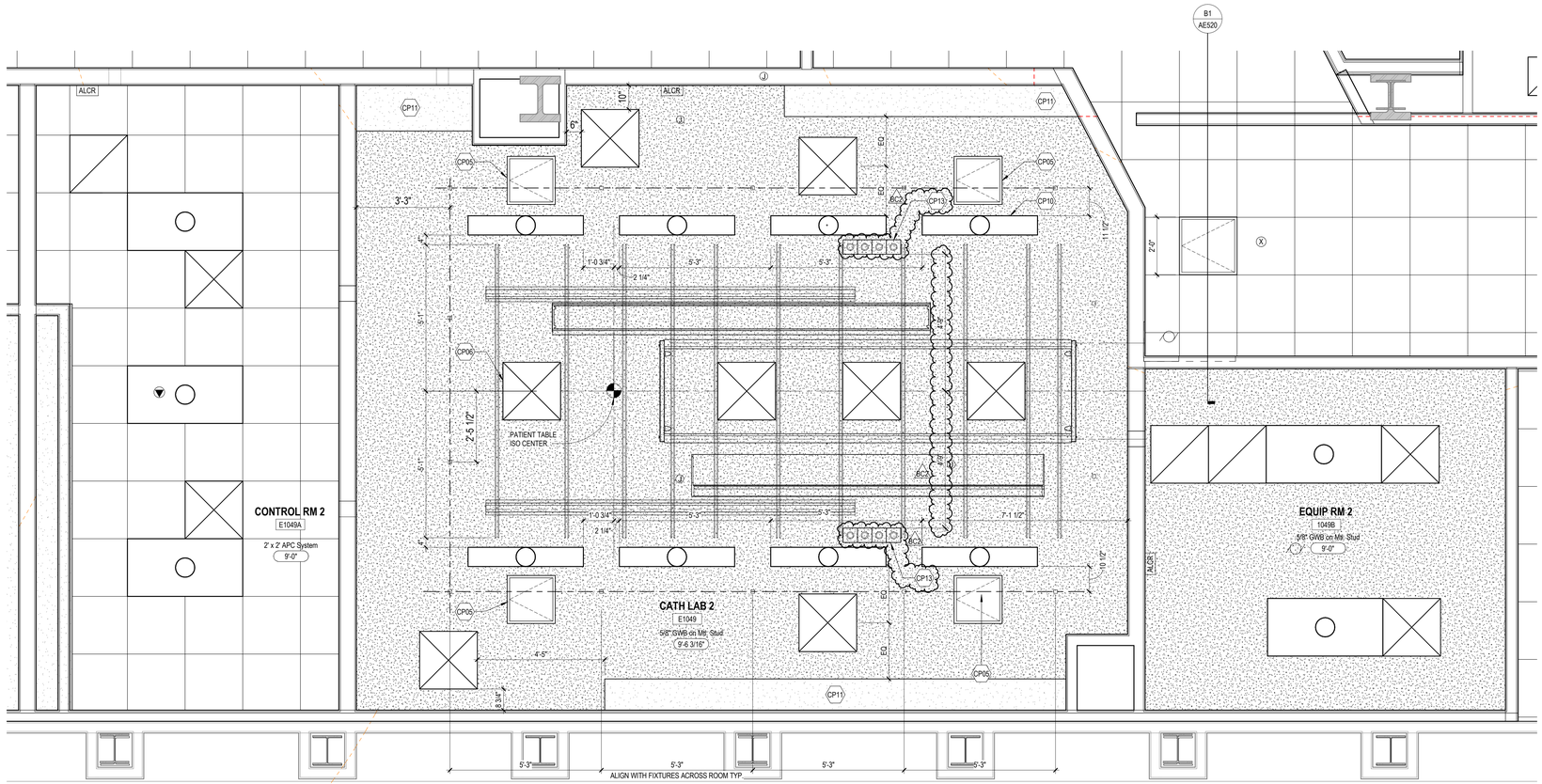
PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - REMODEL

SHEET NUMBER

AE152

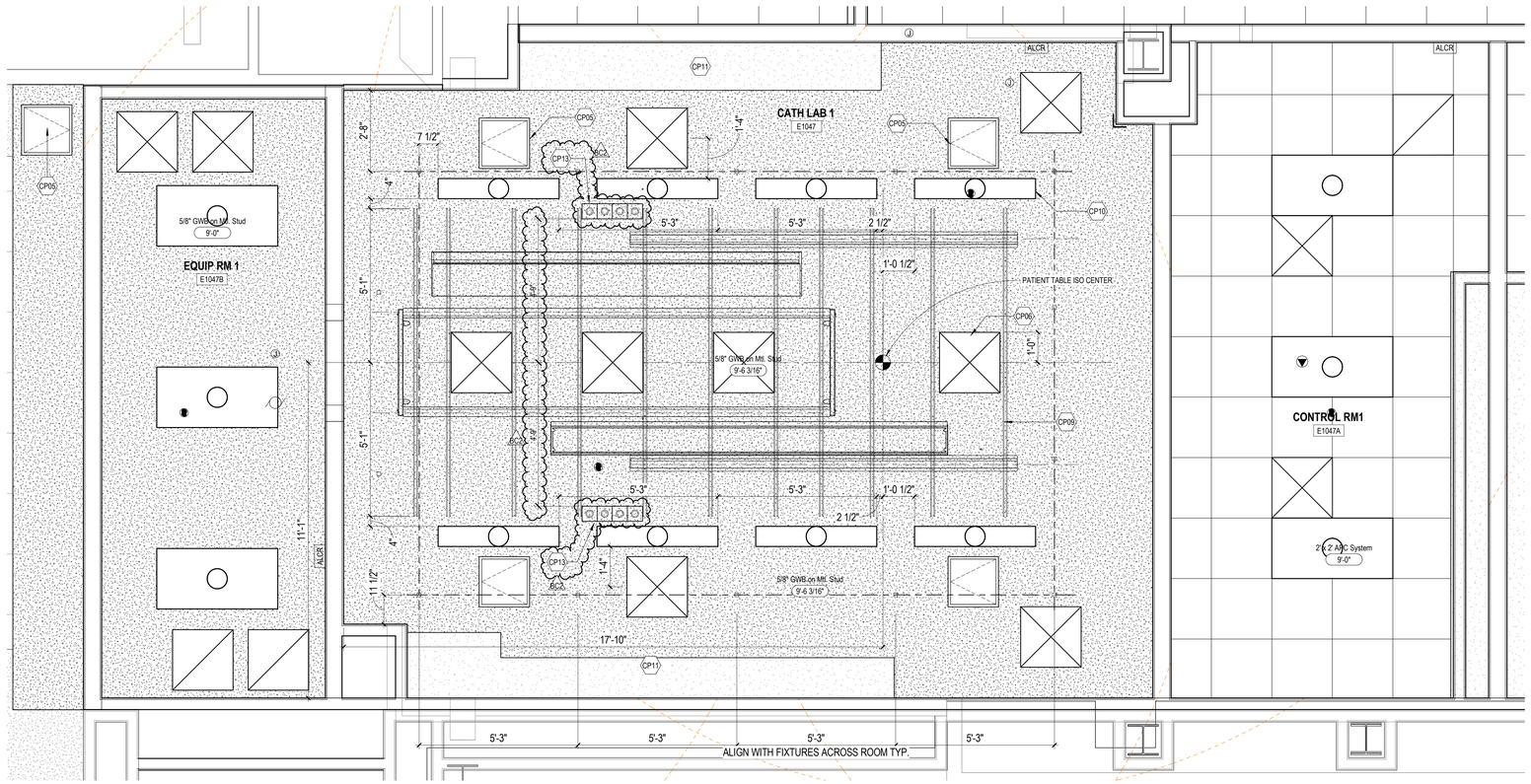
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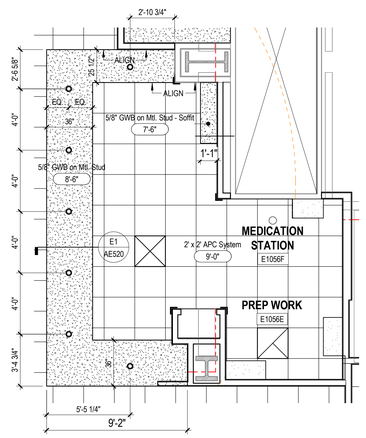
D1 ENLARGED REFLECTED CEILING PLAN - CATH LAB 2

SCALE: 1/2" = 1'-0"



A1 ENLARGED REFLECTED CEILING PLAN - CATH LAB 1

SCALE: 1/2" = 1'-0"



A6 ENLARGED REFLECTED CEILING PLAN - NURSE STATION

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

KEY NOTES - REMODEL

CP05	NEW 18 X 18 ACCESS PANELS. CONFIRM LOCATION PRIOR TO INSTALLATION.
CP06	DIFFUSER TYP - CENTER ON ISO CENTER AND BETWEEN RAILS AS SHOWN
CP09	EQUIPMENT SUPPORT RAILS. COORDINATE LOCATION WITH EQUIPMENT SHOP DRAWINGS
CP10	RECESSED LIGHT FIXTURE - SEE ELECTRICAL FOR ADDITIONAL INFORMATION
CP11	SOFFIT REFR TO RE-FER CASEWORK DETAILS
CP13	CEILING MED GAS OUTLET LOCATIONS, REFER TO PLUMBING PE202

BC2

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIA M. KEACH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

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CONSULTANT STAMP

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PROJECT TITLE

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FM08430011869	047-10071-002

SHEET NAME

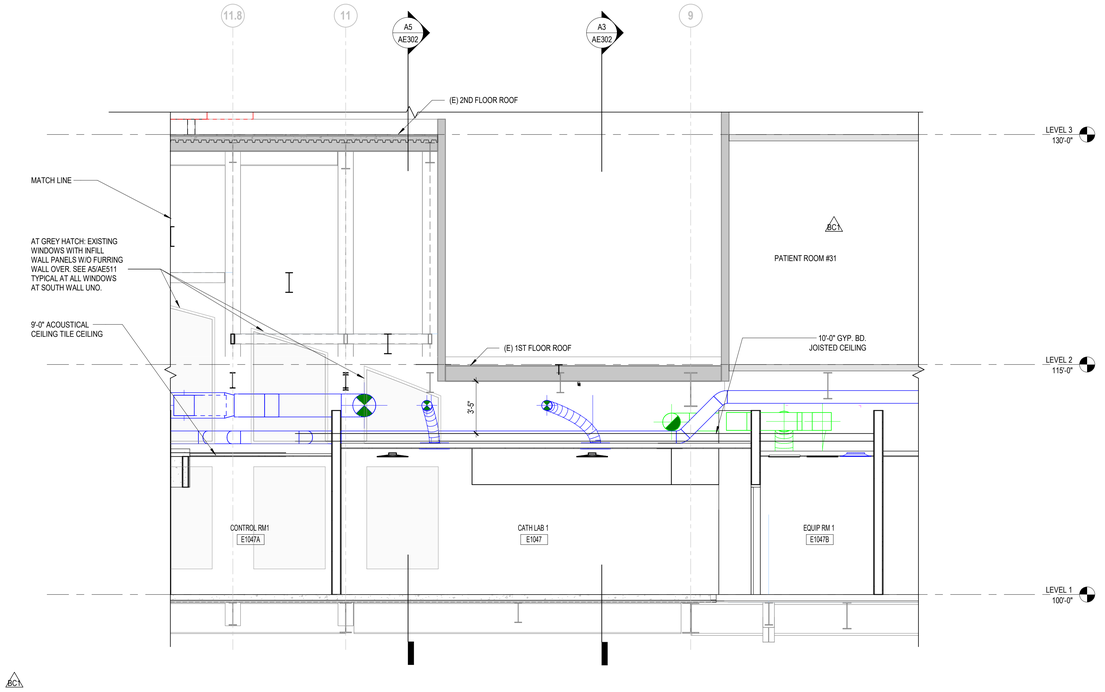
ENLARGED REMODEL CEILING PLAN

SHEET NUMBER

AE221

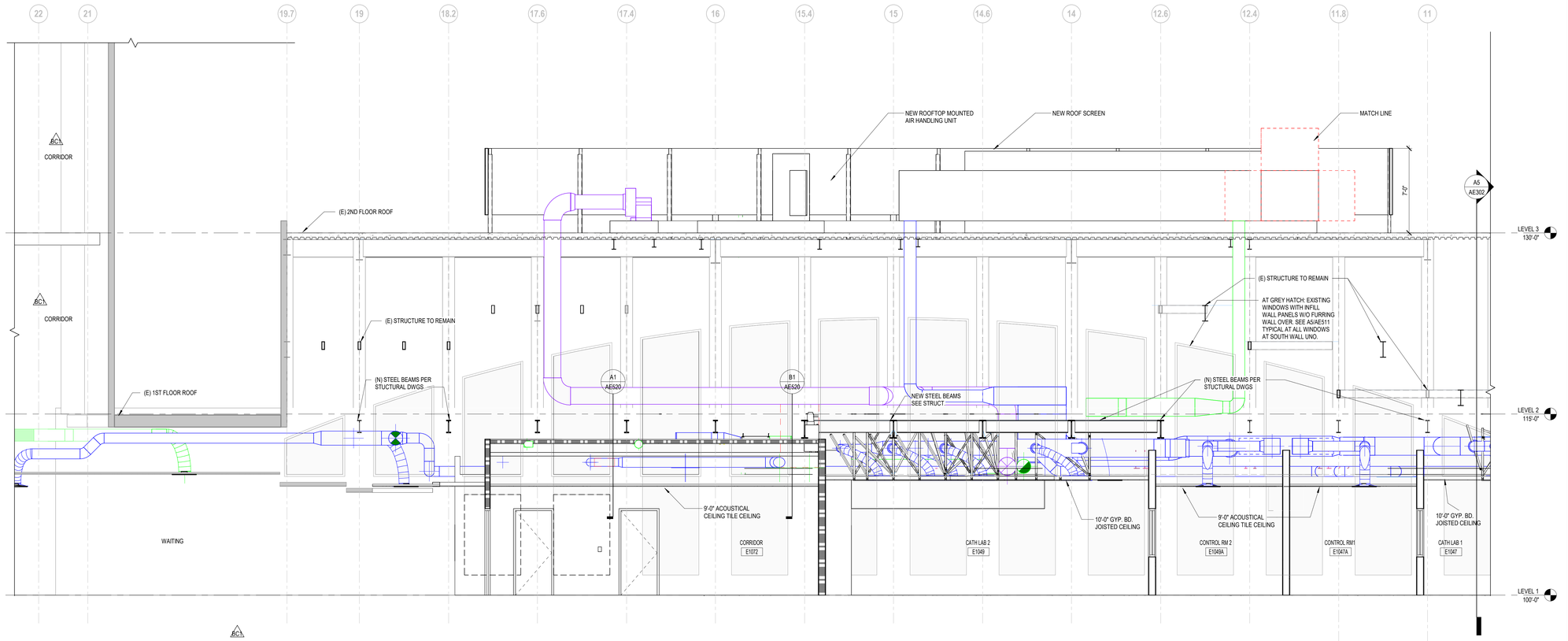
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D1 BUILDING SECTION @ CATH LAB 1 - EAST/WEST

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



A1 BUILDING SECTION @ CATH LAB 2 - EAST/WEST

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

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LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

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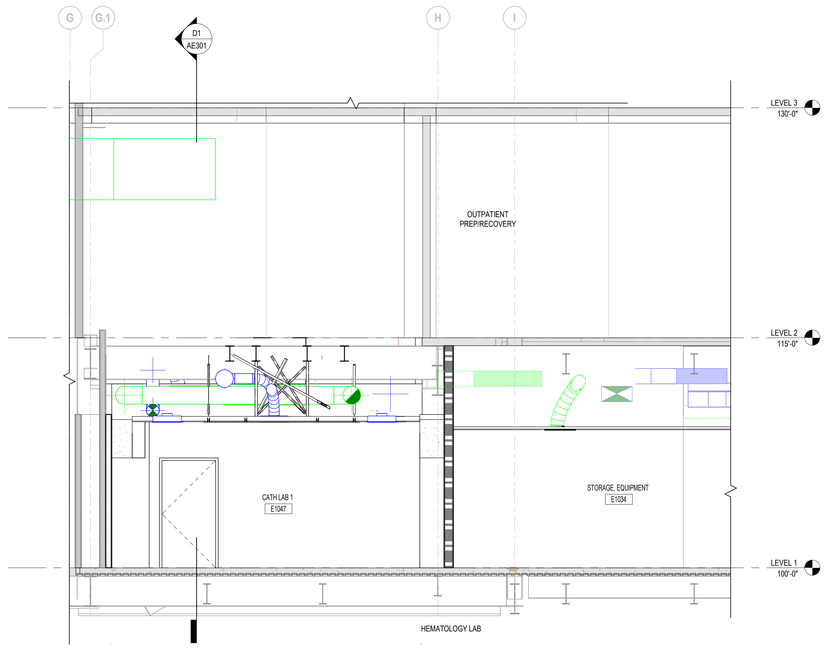
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PARTIAL BUILDING SECTION @ CATH LAB - EAST/WEST

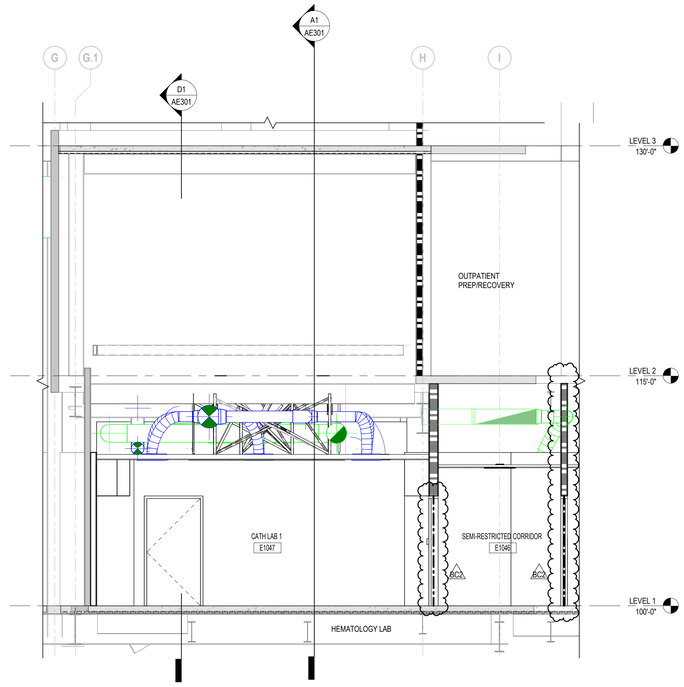
SHEET NUMBER

AE301

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A3 **CATH LAB NORTH/SOUTH-**
SCALE: 1/4" = 1'-0"



A5 **BUILDING SECTION @ CATH LAB 1 NORTH/SOUTH**
SCALE: 1/4" = 1'-0"

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ARCHITECT STAMP

LICENSED ARCHITECT
STEPHEN A. KREKORIAN
C-27292
REN. 7/31/25
STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

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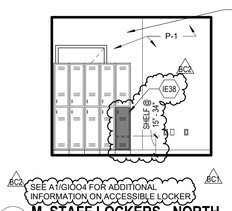
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PARTIAL BUILDING SECTION @ CATH LAB - NORTH/SOUTH

SHEET NUMBER

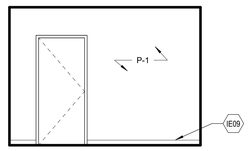
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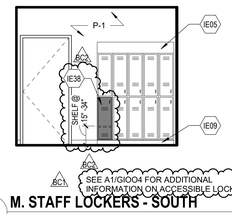


SEE A1/GI004 FOR ADDITIONAL INFORMATION ON ACCESSIBLE LOCKER

F1 M. STAFF LOCKERS - NORTH
SCALE: 1/4" = 1'-0"

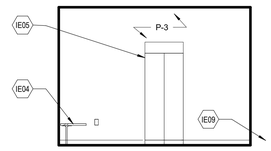


F2 M. STAFF LOCKERS - EAST
SCALE: 1/4" = 1'-0"

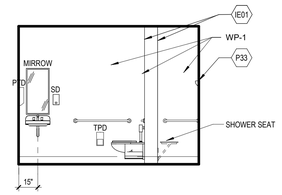


SEE A1/GI004 FOR ADDITIONAL INFORMATION ON ACCESSIBLE LOCKER

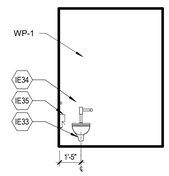
F3 M. STAFF LOCKERS - SOUTH
SCALE: 1/4" = 1'-0"



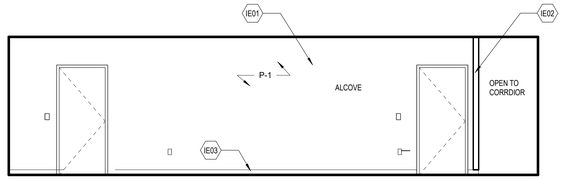
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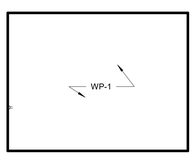
F5 M. STAFF TOILET/ SHOWER - NORTH
SCALE: 1/4" = 1'-0"



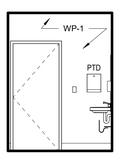
F6 M. STAFF TOILET - EAST
SCALE: 1/4" = 1'-0"



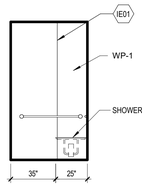
E1 CORRIDOR - SOUTH
SCALE: 1/4" = 1'-0"



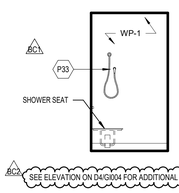
E2 M. STAFF TOILET/ SHOWER -SOUTH
SCALE: 1/4" = 1'-0"



E3 M. STAFF TOILET- WEST
SCALE: 1/4" = 1'-0"

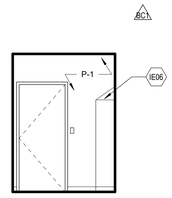


E4 M. STAFF SHOWER - WEST
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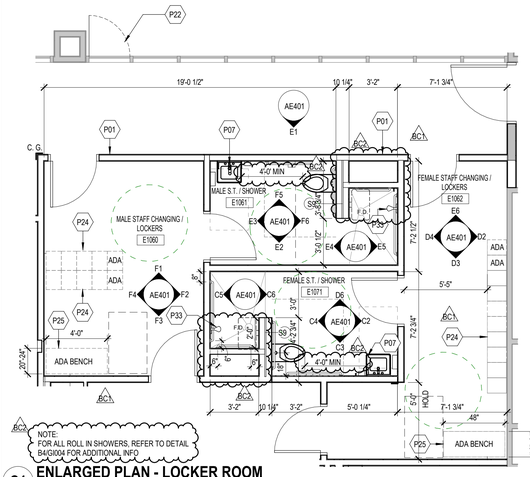


SEE ELEVATION ON D4/GI004 FOR ADDITIONAL INFO

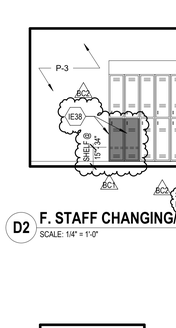
E5 M. STAFF SHOWER - EAST
SCALE: 1/4" = 1'-0"



E6 F. STAFF CHANGING / LOCKERS - NORTH
SCALE: 1/4" = 1'-0"

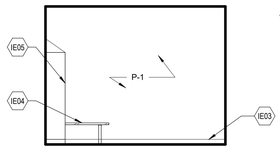


C1 ENLARGED PLAN - LOCKER ROOM
SCALE: 1/4" = 1'-0"

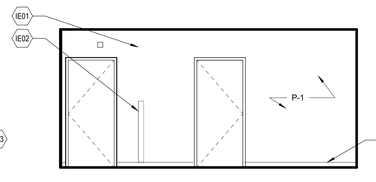


SEE A1/GI004 FOR ADDITIONAL INFORMATION ON ACCESSIBLE LOCKER

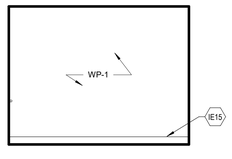
D2 F. STAFF CHANGING/LOCKERS - EAST
SCALE: 1/4" = 1'-0"



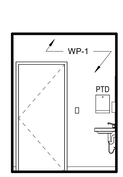
D3 F. STAFF CHANGING/LOCKERS - SOUTH
SCALE: 1/4" = 1'-0"



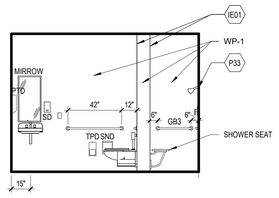
D4 F. STAFF CHANGING/LOCKERS - WEST
SCALE: 1/4" = 1'-0"



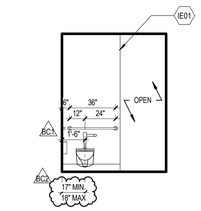
D6 F. STAFF TOILET/SHOWER - NORTH
SCALE: 1/4" = 1'-0"



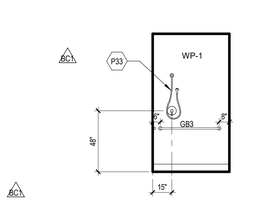
C2 F. STAFF TOILET - EAST
SCALE: 1/4" = 1'-0"



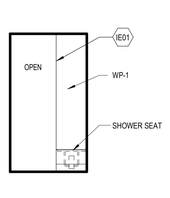
C3 F. STAFF TOILET / SHOWER - SOUTH
SCALE: 1/4" = 1'-0"



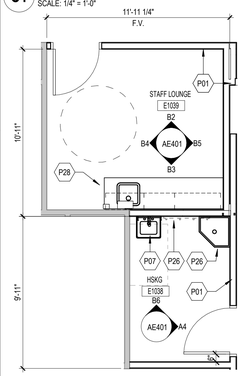
C4 F. STAFF TOILET - WEST
SCALE: 1/4" = 1'-0"



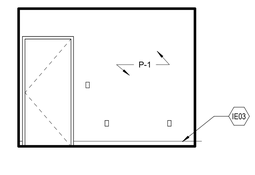
C5 F. STAFF SHOWER - WEST
SCALE: 1/4" = 1'-0"



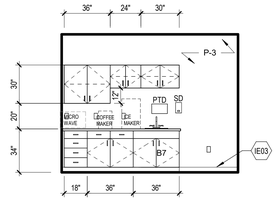
C6 F. STAFF SHOWER - EAST
SCALE: 1/4" = 1'-0"



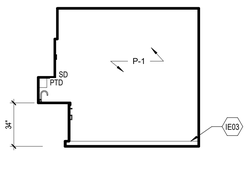
B1 ENLARGED PLAN - STAFF LOUNGE/HSKP
SCALE: 1/4" = 1'-0"



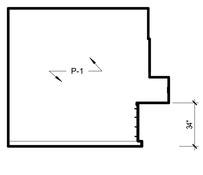
B2 STAFF LOUNGE - NORTH
SCALE: 1/4" = 1'-0"



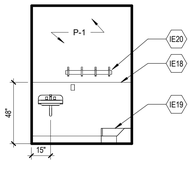
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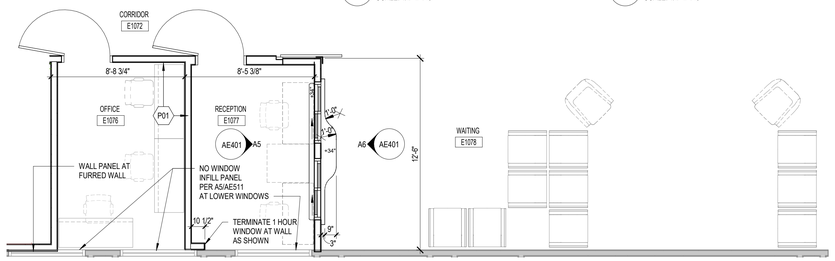
B4 STAFF LOUNGE - WEST
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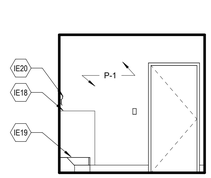
B5 STAFF LOUNGE - EAST
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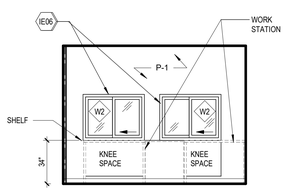
B6 HSKG - NORTH
SCALE: 1/4" = 1'-0"



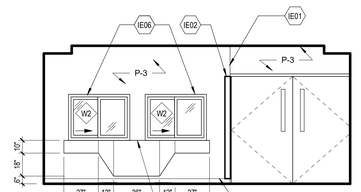
A1 ENLARGED PLAN - WAITING/OFFICE
SCALE: 1/4" = 1'-0"



A4 HSKG - EAST
SCALE: 1/4" = 1'-0"



A5 RECEPTION - EAST
SCALE: 1/4" = 1'-0"



A6 WAITING - WEST
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REFER SHEET GI003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

KEY NOTES - ENLARGED PLAN

P01	NEW RATED WALL, SEE D2/AE511
P07	NEW WALL MOUNTED LAVATORY, SEE PLUMBING
P22	RELOCATED WINDOW WITH ACCESS TO ROOF BELOW
P24	PROVIDE METAL LOCKER WITH SLOPE TOP
P25	PROVIDE BENCH, SEE ANCHORAGE DETAIL A4/AE541
P26	PROVIDE MOP RACK
P28	NEW CABINWORK
P33	SHOWER SPRAY UNIT WITH MIN 59" HOSE TO BE USABLE IN FIXED AND HANDHELD POSITIONS

KEY NOTES - INTERIOR ELEVATION

IE01	LINE OF WALL
IE02	CORNER GUARD, SEE INTERIOR DWG
IE03	NEW BASE, SEE INTERIOR DWG
IE04	NEW ADA BENCH, SEE DETAIL A4/AE541
IE05	METAL LOCKER WITH SLOPE TOP
IE06	NEW SLIDING WINDOW WITH LOCK
IE09	NEW BASE (SEE INTERIOR DWG)
IE15	NEW 6" COVE BASE (SEE INTERIOR DWG)
IE18	WALL PROTECTION (WP-1), SEE INTERIOR DWG
IE19	NEW MOP SINK, SEE PLUMBING DWG
IE20	NEW UTILITY RACK WITH MOP HOOK. PROVIDE BACKING
IE33	NEW WATERCLOSET
IE34	GRAB BAR
IE35	TOILET PAPER DISENSER
IE38	ADA LOCKER WITH ISA SIGN (SEE ELEVATION A1/GI004)

TOILET ACCESSORIES (SEE IE601)

GB	HORIZONTAL GRAB BAR, 24"
GB1	HORIZONTAL GRAB BAR COMBINATION, 2 PIECE
GB2	VERTICAL GRAB BAR, 18"
GB3	GRAB BAR @ SHOWER AREA, 2 PIECE
GB4	HORIZONTAL GRAB BAR, 24"
GB5	HORIZONTAL GRAB BAR, 36"
MR	MIRROR, 18"X36" SSTL FRAME
MR1	MIRROR, 24"X36" SSTL FRAME
PTD	PAPER TOWEL DISPENSER, SURFACE MOUNTED
SD	SOAP DISPENSER
SND	SANITARY NAPKIN DISPENSER, SURFACE MOUNTED
TPD	TOILET TISSUE DISPENSER, DOUBLE ROLL, VERT

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

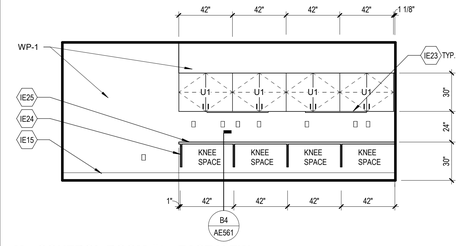
ENLARGED PLANS & ELEVATIONS - WAITING/OFFICE, STAFF LOUNGE AND LOCKERS

SHEET NUMBER

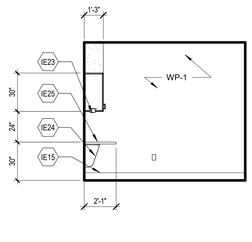
AE401

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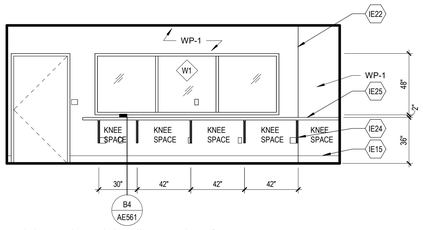
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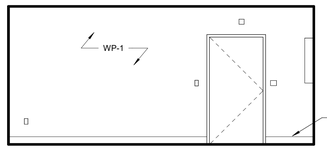
F1 CONTROL ROOM #1 - EAST VIEW
SCALE: 1/4" = 1'-0"



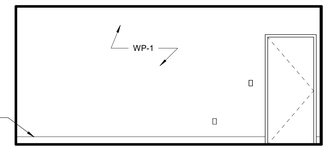
F2 CONTROL ROOM #1 - SOUTH VIEW
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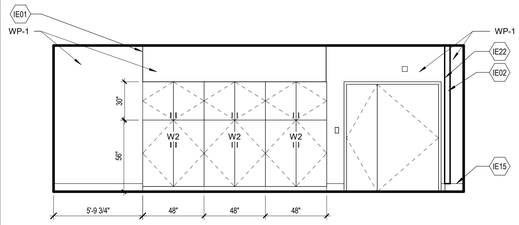
F3 CONTROL ROOM #1 - WEST VIEW
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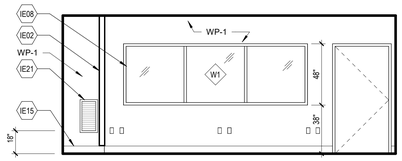
F4 EQUIPMENT ROOM #1 - EAST VIEW
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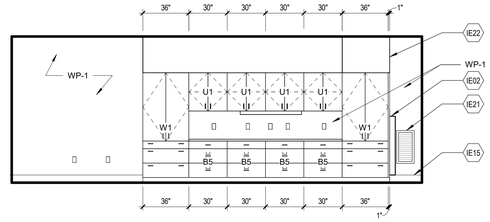
F6 EQUIPMENT ROOM #1 - WEST VIEW
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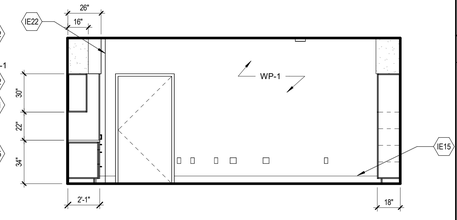
E1 CATH LAB # 1 - NORTH VIEW
SCALE: 1/4" = 1'-0"



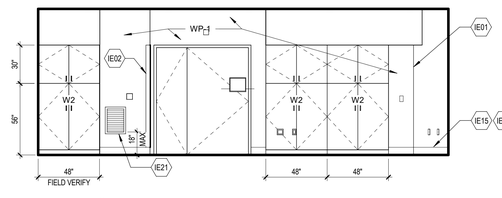
E2 CATH LAB #1 - EAST VIEW
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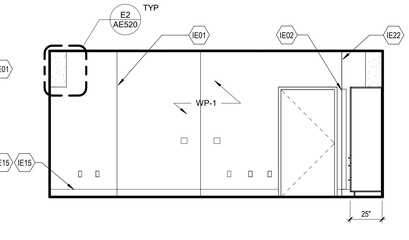
E3 CATH LAB #1 - SOUTH VIEW
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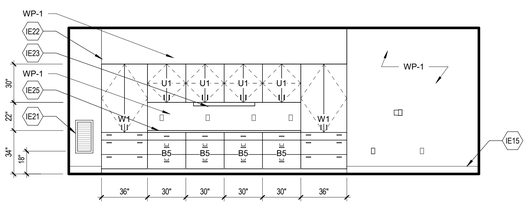
E5 CATH LAB #1 - WEST VIEW
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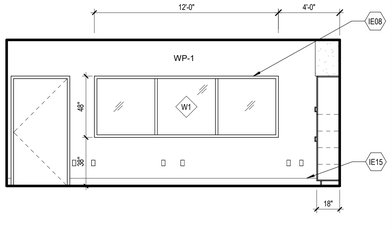
D1 CATH LAB #2 - NORTH VIEW
SCALE: 1/4" = 1'-0"



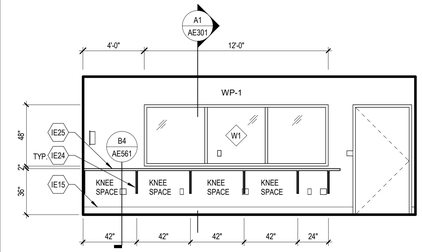
D2 CATH LAB #2 - EAST VIEW
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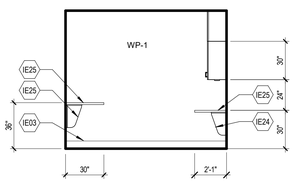
D3 CATH LAB #2 - SOUTH VIEW
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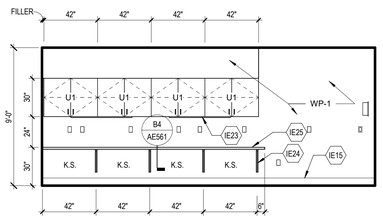
D5 CATH LAB #2 - WEST VIEW
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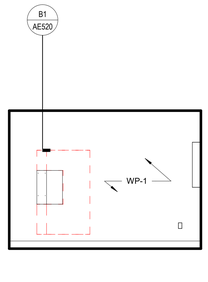
C1 CONTROL ROOM #2 - EAST VIEW
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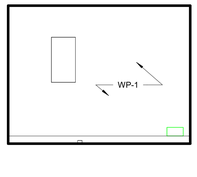
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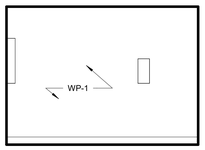
C3 CONTROL ROOM #2 - WEST VIEW
SCALE: 1/4" = 1'-0"



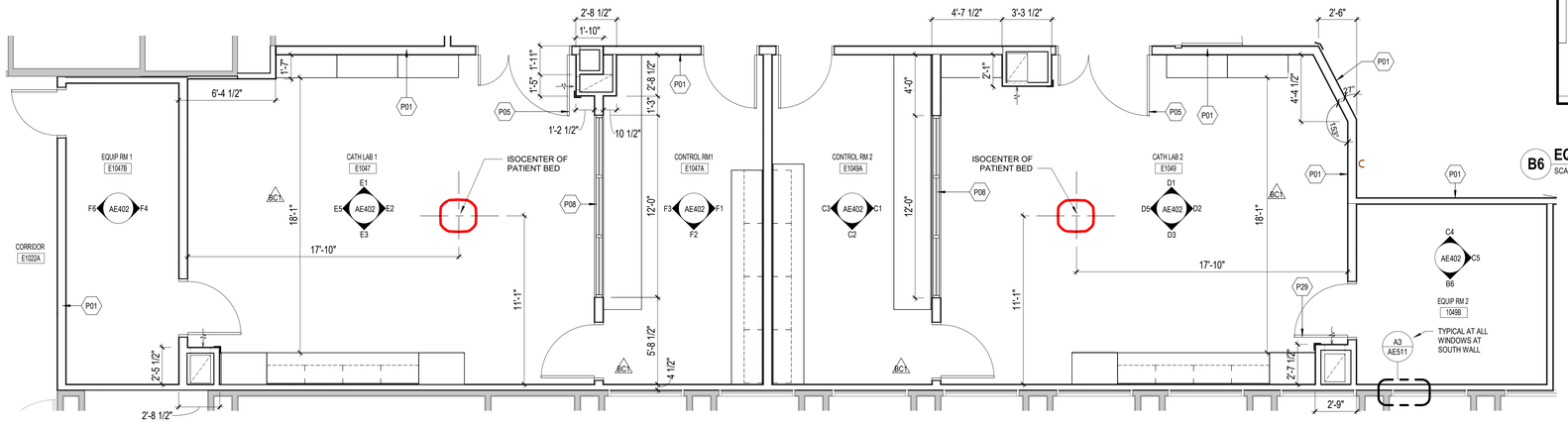
C4 EQUIPMENT RM #2 - NORTH VIEW
SCALE: 1/4" = 1'-0"



C5 EQUIPMENT RM #2 - EAST VIEW
SCALE: 1/4" = 1'-0"



B6 EQUIPMENT RM #2 - SOUTH VIEW
SCALE: 1/4" = 1'-0"



A1 PARTIAL FLOOR PLAN - CATH LAB, CONTROL RM AND EQUIP STORAGE RM
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REFER SHEET G003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

KEY NOTES - ENLARGED PLAN

P01	NEW RATED WALL, SEE D2/AE511
P05	NEW LEAD SHIELDED 20 MIN. RATED ENTRY DOOR, (1) 48" LEAF AND (1) 24" LEAF
P08	NEW LEAD GLASS WINDOW AND FRAME
P29	PROVIDE ADA LOCKER AT HATCHED LOCATION

KEY NOTES - ELEVATION

IE01	LINE OF WALL
IE02	CORNER GUARD, SEE INTERIOR DWG
IE03	NEW BASE, SEE INTERIOR DWG
IE08	NEW LEAD SHIELDED GLASS WINDOW AND FRAME
IE15	NEW 6" COVE BASE (SEE INTERIOR DWG)
IE21	NEW LOW RETURN GRILLE (SEE MECH. DWG)
IE22	COLUMN ENCLOSURE
IE23	PROVIDE U.C. TASK LIGHT,TYP. (SEE ELEC. DWG)
IE24	PROVIDE SUPPORT BRACKETS, TYP. (SEE STRUCT. DWG)
IE25	PROVIDE SOLID SURFACE COUNTERTOP (SEE INTERIOR DWG)

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

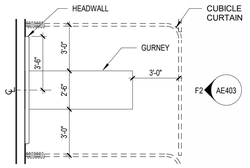
ENLARGED PLANS & ELEVATIONS - CATH LAB, CONTROL AND EQUIP RM

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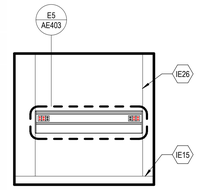
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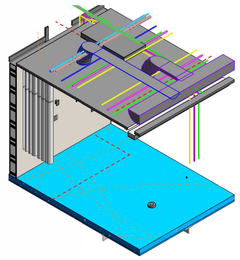
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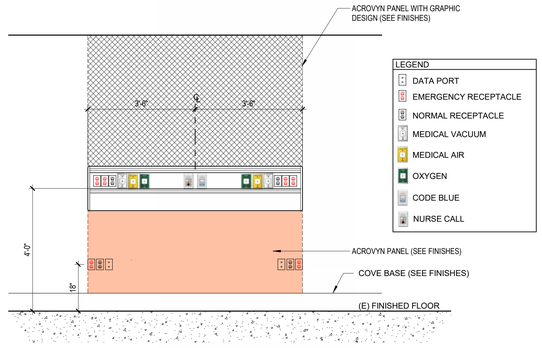
F1 ENLARGED PLAN - PROCEDURE RM (TYP.)
SCALE: 1/4" = 1'-0"



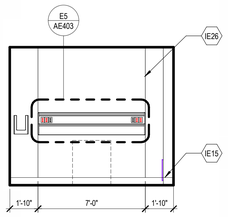
F2 PROCEDURE ROOM (TYP) - WEST VIEW
SCALE: 1/4" = 1'-0"



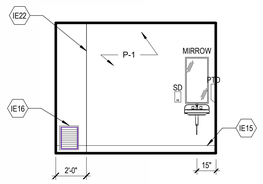
F3 PRE-PROCEDURE ROOM (TYP)
SCALE:



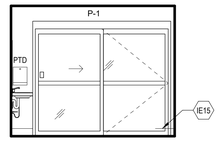
E5 HEADWALL ELEVATION - SINGLE TIERED W/O BED LOCATOR
SCALE: 1/2" = 1'-0"



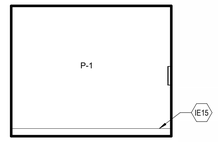
E1 ISOLATION - NORTH VIEW
SCALE: 1/4" = 1'-0"



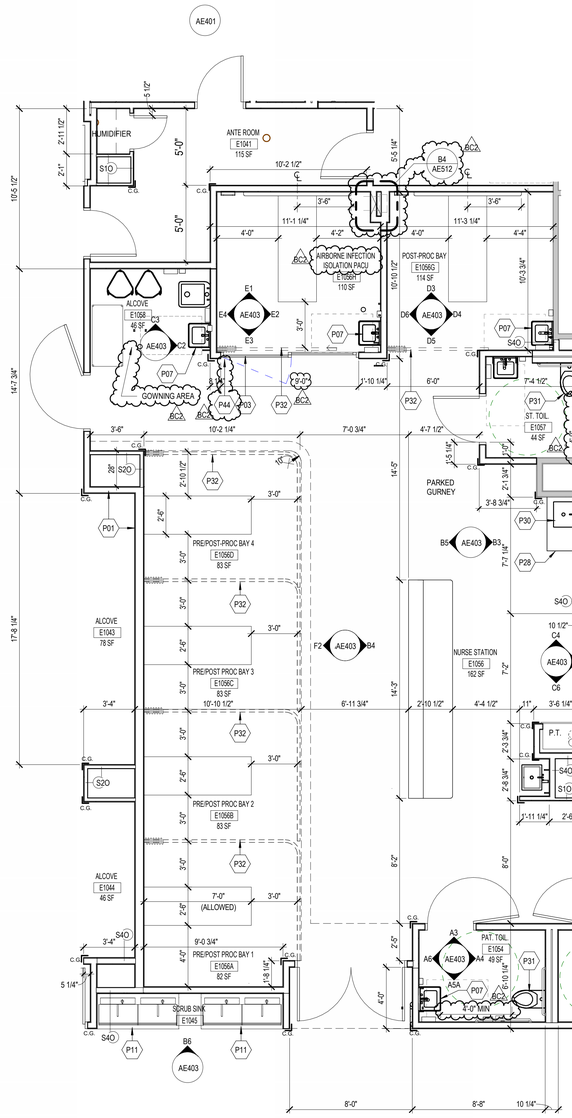
E2 ISOLATION - EAST VIEW
SCALE: 1/4" = 1'-0"



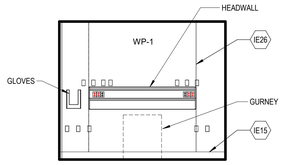
E3 ISOLATION - SOUTH VIEW
SCALE: 1/4" = 1'-0"



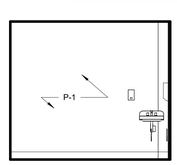
E4 ISOLATION - WEST VIEW
SCALE: 1/4" = 1'-0"



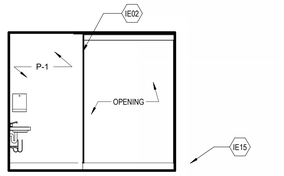
A1 ENLARGED FLOOR PLAN - PRE/POST PROCEDURE AREA
SCALE: 1/4" = 1'-0"



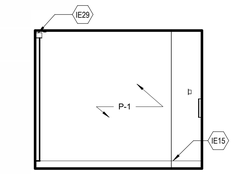
D3 POST-PROCEDURE BAY - NORTH
SCALE: 1/4" = 1'-0"



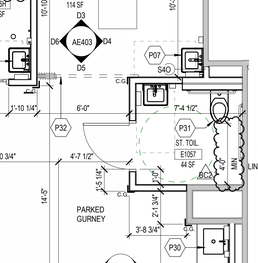
D4 POST-PROCEDURE BAY - EAST
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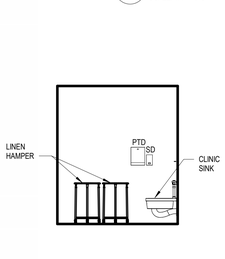
D5 POST-PROCEDURE BAY - SOUTH
SCALE: 1/4" = 1'-0"



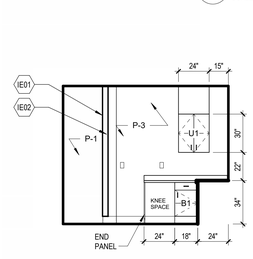
D6 POST PROCEDURE BAY - WEST
SCALE: 1/4" = 1'-0"



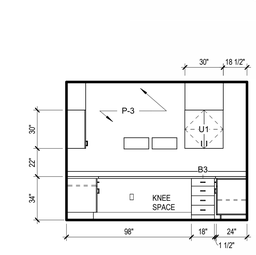
C2 ALCOVE AREA - EAST VIEW
SCALE: 1/4" = 1'-0"



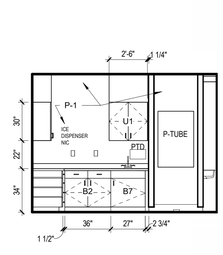
C3 UTILITY ALCOVE
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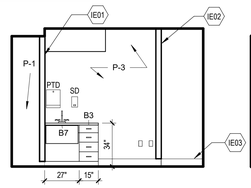
C4 MEDICATION STATION - NORTH
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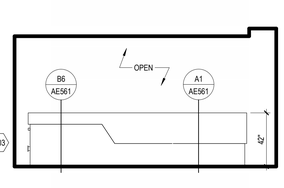
C5 MEDICATION STATION - EAST
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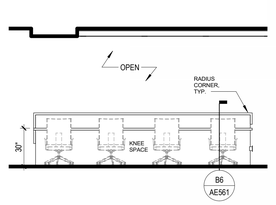
C6 PREP WORK AREA - SOUTH
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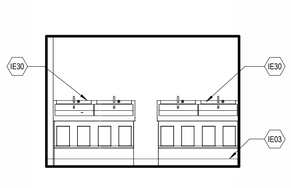
B3 NURSE WORK AREA - EAST
SCALE: 1/4" = 1'-0"



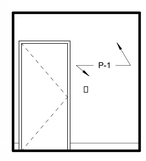
B4 NURSE STATION - WEST
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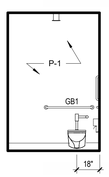
B5 NURSE STATION - EAST
SCALE: 1/4" = 1'-0"



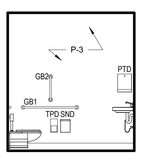
B6 SCUB SINK - NORTH VIEW
SCALE: 1/4" = 1'-0"



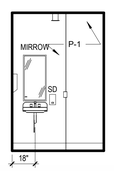
A3 PATIENT TOILET - NORTH
SCALE: 1/4" = 1'-0"



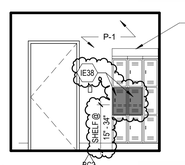
A4 PATIENT TOILET - EAST
SCALE: 1/4" = 1'-0"



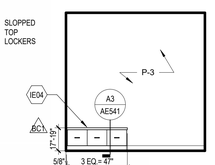
A5A PATIENT TOILET - SOUTH
SCALE: 1/4" = 1'-0"



A6 PATIENT TOILET - WEST
SCALE: 1/4" = 1'-0"



A6A CHANGING - NORTH VIEW
SCALE: 1/4" = 1'-0"



A7 CHANGING - SOUTH VIEW
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REFER SHEET G003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

KEY NOTES - ENLARGED PLAN

P01 NEW RATED WALL, SEE D2/AE511
P03 NEW GLASS SLIDING DOOR WITH BREAKAWAY
P07 NEW WALL MOUNTED LAVATORY, SEE PLUMBING
P11 PROVIDE DOUBLE BAY SCRUB SINK, SEE PLUMGING DWG
P28 NEW CASEWORK
P29 PROVIDE ADA LOCKER AT HATCHED LOCATION WITH ISA SIGN (SEE ELEVATION A1/GI004)
P30 NEW SINK, SEE PLUMBING DWG
P31 NEW WATER CLOSET
P32 NEW TOILET ACCESSORIES, SEE DETAIL E6/AE520
P44 PROVIDE SIGNAGE AT AIRBORNE INFECTION ISOLATION PACU LABELED AS "AIRBORNE INFECTION ISOLATION PACU" PER CODE

KEY NOTES - ELEVATION

IE01 LINE OF WALL
IE02 CORNER GUARD, SEE INTERIOR DWG
IE03 NEW BASE, SEE INTERIOR DWG
IE04 NEW ADA BENCH, SEE DETAIL A4/AE541
IE15 NEW 6" COVE BASE (SEE INTERIOR DWG)
IE16 NEW LOW WALL RETURN AIR GRILLE, SEE MECHANICAL
IE22 COLUMN ENCLOSURE
IE26 WALL PROTECTION (WP-2), SEE INTERIOR DWG
IE29 NEW CUBICLE CURTAIN (SEE DETAIL E6/AE520)
IE30 NEW DOUBLE BAY SCRUB SINK (SEE PLUMBING DWG)
IE38 ADA LOCKER WITH ISA SIGN (SEE ELEVATION A1/GI004)

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

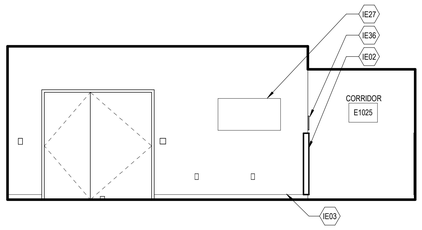
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FM08430011869	047-10071-002

SHEET NAME
ENLARGED PLANS & ELEVATIONS - PRE/POST PROCEDURE AREA

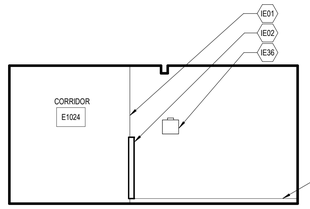
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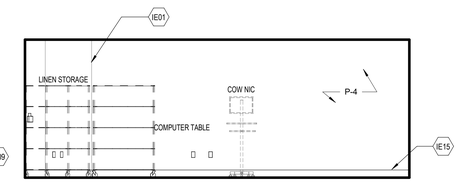
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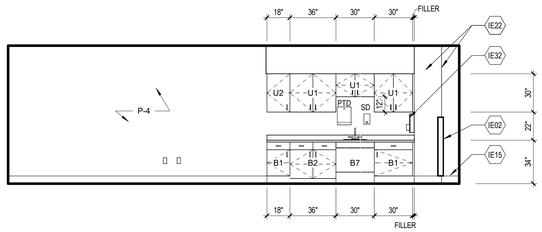
E1 HYPERBARIC CORRIDOR - EAST VIEW
SCALE: 1/4" = 1'-0"



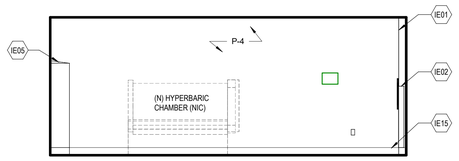
E2 HYPERBARIC CORRIDOR - NORTH VIEW
SCALE: 1/4" = 1'-0"



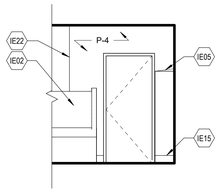
E3 HYPERBARIC THERAPY - NORTHWEST VIEW
SCALE: 1/4" = 1'-0"



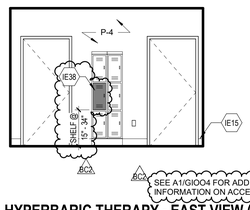
E5 HYPERBARIC THERAPY - EAST VIEW
SCALE: 1/4" = 1'-0"



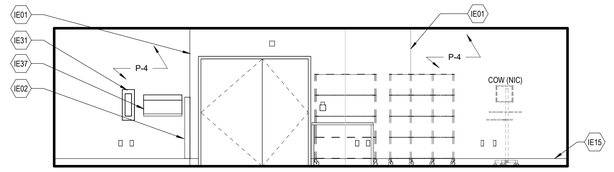
D1 HYPERVARIC THERAPY - SOUTH VIEW
SCALE: 1/4" = 1'-0"



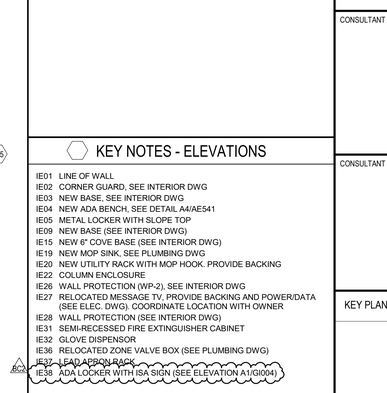
D2 HYPERBARIC THERAPY - NORTH VIEW
SCALE: 1/4" = 1'-0"



D3 HYPERBARIC THERAPY - EAST VIEW (2)
SCALE: 1/4" = 1'-0"



D5 HYPERBARIC THERAPY - WEST VIEW
SCALE: 1/4" = 1'-0"



SHEET NOTES

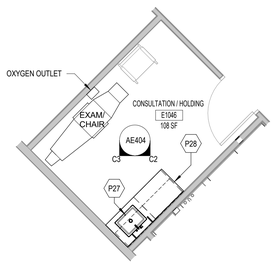
1. REFER SHEET GI003 FOR MOUNTING HEIGHTS
2. REFER TO IN SHEETS FOR FINISH SCHEDULE AND FINISH PLANS
3. REFER TO SHEET EQ SHEETS FOR EQUIPMENT SCHEDULE AND EQUIPMENT PLAN
4. REFER TO SHEET IE601 FOR TOILET ACCESSORIES SCHEDULE
5. CONTRACTOR TO INSTALL ALL WALL MOUNTED DEVICE J-BOXES, SWITCHES AND POWER OUTLETS FOR USER REVIEW AND SIGN-OFF PRIOR TO RUNNING NEW CONDUITS
6. REFER TO SHEET AE601 FOR DOOR SCHEDULE AND DOOR PLAN
7. ALL NEW WOOD MEMBERS FOR RF SHIELDING SHALL BE FIRE TREATED WOOD, TYP.

KEY NOTES - ENLARGED PLAN

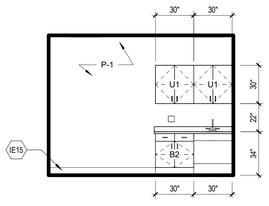
P01	NEW RATED WALL, SEE D2/AE511
P24	PROVIDE METAL LOCKER WITH SLOPE TOP
P25	PROVIDE BENCH, SEE ANCHORAGE DETAIL A4/AE541
P27	PROVIDE MOP SINK, SEE PLUMBING
P28	NEW CASEWORK
P31	NEW WATER CLOSET
P34	PROVIDE SIGNS PROHIBITING THE INTRODUCTION OF FLAMMABLE LIQUIDS, GASES, AND OTHER ARTICLES NOT PERMITTED BY CHAPTER 14 OF 2021 NFPA 99 INTO THE CHAMBER
P37	GAS CYLINDER STORAGE RACK, SEE DETAIL E6/AE541
P38	GAV VALVE CONNECTION FOR HYPERBARIC CHAMBER, SEE PLUMBING DWGS
P41	SEMI-RECESSED FIRE EXTINGUISHER CABINET, SEE DETAIL A6/AE541

KEY NOTES - ELEVATIONS

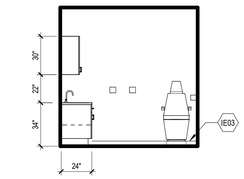
IE01	LINE OF WALL
IE02	CORNER GUARD, SEE INTERIOR DWG
IE03	NEW BASE, SEE INTERIOR DWG
IE04	NEW ADA BENCH, SEE DETAIL A4/AE541
IE05	METAL LOCKER WITH SLOPE TOP
IE09	NEW BASE (SEE INTERIOR DWG)
IE15	NEW 6" COVE BASE (SEE INTERIOR DWG)
IE19	NEW MOP SINK, SEE PLUMBING DWG
IE20	NEW UTILITY RACK WITH MOP HOOK. PROVIDE BACKING
IE22	COLUMN ENCLOSURE
IE26	WALL PROTECTION (WP-2), SEE INTERIOR DWG
IE27	RELOCATED MESSAGE TV, PROVIDE BACKING AND POWER/DATA (SEE ELEC. DWG). COORDINATE LOCATION WITH OWNER
IE28	WALL PROTECTION (SEE INTERIOR DWG)
IE31	SEMI-RECESSED FIRE EXTINGUISHER CABINET
IE32	GLOVE DISPENSOR
IE36	RELOCATED ZONE VALVE BOX (SEE PLUMBING DWG)
IE37	LEAD APRON RACK
IE38	ADA LOCKER WITH ISA SIGN (SEE ELEVATION A1/GI004)



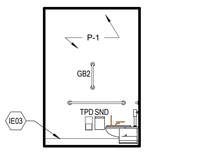
C1 ENLARGED PLAN - CONSULTATION RM
SCALE: 1/4" = 1'-0"



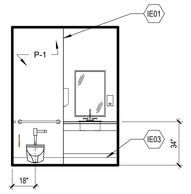
C2 CONSULTATION RM - EAST
SCALE: 1/4" = 1'-0"



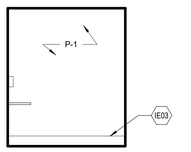
C3 CONSULTATION RM - WEST
SCALE: 1/4" = 1'-0"



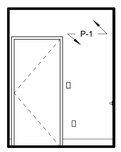
C4 PAT TOIL E1051B - NORTH
SCALE: 1/4" = 1'-0"



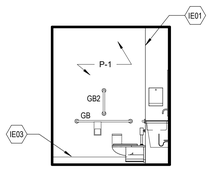
C5 PAT TOIL E1051B - EAST
SCALE: 1/4" = 1'-0"



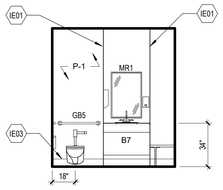
C6 PAT TOIL E1051B - SOUTH
SCALE: 1/4" = 1'-0"



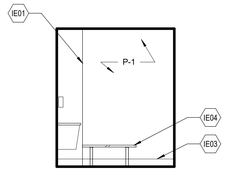
B3 PAT TOIL E1051B - WEST
SCALE: 1/4" = 1'-0"



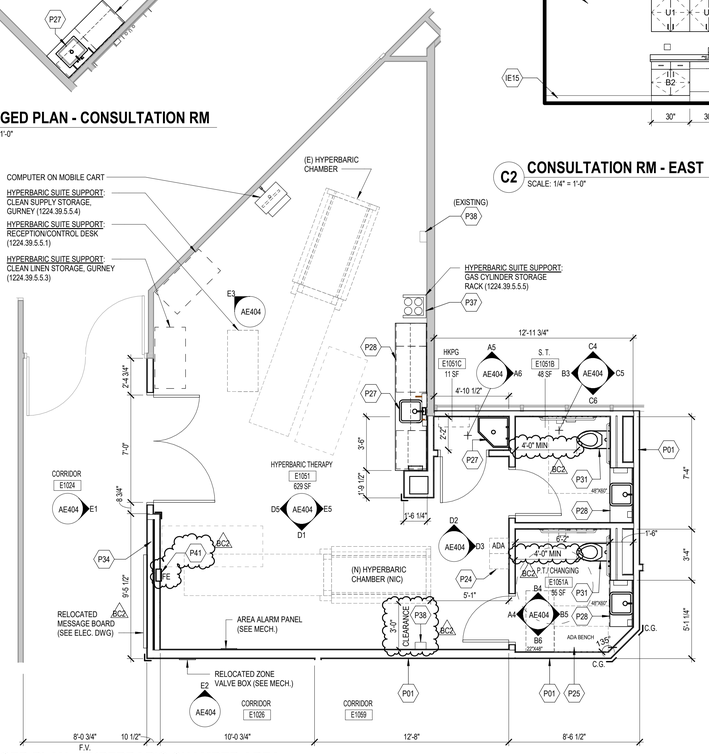
B4 STAFF TOILET - NORTH
SCALE: 1/4" = 1'-0"



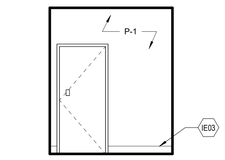
B5 STAFF TOILET - EAST VIEW
SCALE: 1/4" = 1'-0"



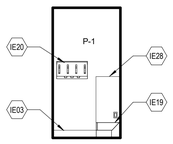
B6 STAFF TOILET - SOUTH
SCALE: 1/4" = 1'-0"



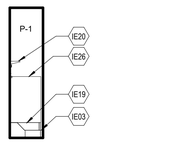
A1 ENLARGED PLAN - HYPERBARIC CHAMBER AREA
SCALE: 1/4" = 1'-0"



A4 STAFF TOILET - WEST VIEW
SCALE: 1/4" = 1'-0"



A5 HSKG - NORTH VIEW
SCALE: 1/4" = 1'-0"



A6 HSKG - EAST VIEW
SCALE: 1/4" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. FLEISCH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

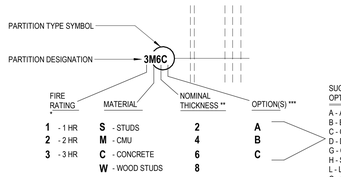
ENLARGED PLANS & ELEVATIONS - HYPERBARIC CHAMBER

SHEET NUMBER

AE404

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8/13/2024 11:25:22 AM Autodesk Docs://047-10071-002_RUHS-TCI-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



* - DESIGNATION NOT INDICATED FOR NON-RATED PARTITIONS

** - DESIGNATION NOT INDICATED FOR PROJECT STANDARD THICKNESS

*** - DESIGNATION NOT INDICATED IF OPTIONS ARE NOT APPLICABLE; ONE OR TWO OPTION DESIGNATORS MAY BE USED.

SUGGESTED OPTIONS LIST

A - ACOUSTICAL INSULATION
B - BOTH FACES
C - GWB TO 6" ABOVE CEILING
D - DOUBLE WALL
G - GYPSUM WALL BOARD (FIRE RATED)
H - SHAFTWALL
L - LEAD LINED
O - ONE FACE ONLY
P - PARTIAL HEIGHT PARTITION
R - RIGID INSULATION W/ GWB COVERING
S - SMOKE PARTITION / BARRIER
T - TEMPORARY PARTITION
Z - STAGGERED STUDS (ACOUSTICAL)
2 - 2 LAYERS GWB

GENERAL NOTES:

1. PROVIDE MINIMUM 0.0312" STUDS @ WALLS TO RECEIVE FINISH (TILE, STONE, WOOD, ETC).
2. PROVIDE MINIMUM 0.0312" STUDS @ JAMBS OF DOOR AND FIXED GLASS FRAMES, @ OPEN PARTITION ENDS, AND WHERE PARTITION IS TO RECEIVE WALL MOUNTED SHELVES, CASEWORK, PLUMBING FIXTURES, ETC.
3. USE 5/8" FR GWB @ ALL FIRE-RATED PARTITIONS, ANCHOR W/ SCREWS @ 8" OC ON EDGES @ 12" OC IN FIELD PER UL DESIGN NUMBERS LISTED.
4. SEE ALL SPECIFICATIONS FOR GWB REQUIREMENTS @ TOILETS AND ALL WET AREAS.
5. APPLIES TO POWER AND COMMUNICATIONS, ETC.
   A) BACK-TO-BACK PLACEMENT OF OUTLET BOXES NOT PERMITTED.
   B) PLUG ALL UNUSED KNOCK-OUTS IN OUTLET BOXES WITH KNOCK-OUT CAPS.
   C) PROVIDE "HILTI FIRESTOP PUTTY PAD OR EQUAL TO OUTLET BOXES IN FIRE-RATED WALLS OR WHERE OTHERWISE INDICATED.
   D) DEPTH OF OUTLET BOX TO BE COMPATIBLE WITH STUD SIZES IN ORDER TO ACCOMMODATE BOX PAD.
6. PROVIDE 2" x 8" FIRE TREATED WOOD BLOCKING @ WALL HUNG CASEWORK, SHELVES, COUNTERTOPS, HEAVY WALL SCONCES, AND MAJOR ARTWORK.
7. NOTE, THE DIAGONAL BRACING COLUMN INDICATES THAT THE CONTRACTOR HAS AN OPTION TO PROVIDE BRACING TO REDUCE THE VERTICAL SPANS OF STUDS IN ORDER TO MINIMIZE SIZE, GAGE OR SPACING, PROVIDED THAT DOING SO DOESN'T CONFLICT WITH ARCHITECTS DESIGN CRITERIA.
8. FOR FIRE-RESISTIVE JOINT SYSTEMS AND THRU-PENETRATION FIRE STOP SYSTEMS, REFER TO DETAILS AND UL LISTINGS IDENTIFIED ON SHEET AE531 THRU AE535.

INTERIOR STUD CHART NOTES:

* REFERENCE STEEL STUD MANUFACTURER ASSOCIATION'S STANDARDS FOR SECTION PROPERTIES AND DESIGN OF STUD SIZE LISTED HERE.

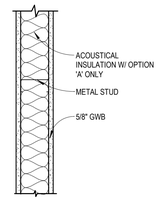
USE L/240 DEFLECTION CHART FOR ALL AREAS UNLESS OTHERWISE NOTED.

INTERIOR STUD GAGE AND SPACING CHART*

STUD WIDTH	DESIGN THICKNESS (GAGE)	STUD SPACING (INCHES)	PARTITION HEIGHT DEFLECTION VALUE 5 psf L/120	PARTITION HEIGHT DEFLECTION VALUE 5 psf L/240	PARTITION HEIGHT DEFLECTION VALUE 5 psf L/360	BRACING SPACING WHERE OCCURS
1 5/8"	0.0179" (25)	16"	10'-7"	8'-4"	-	4'-0" OC
		24"	9'-9"	7'-11"	-	4'-0" OC
	0.0312" (20)	16"	12'-1"	9'-8"	8'-5"	4'-0" OC
		24"	11'-0"	8'-9"	7'-8"	4'-0" OC
2 1/2"	0.0179" (25)	16"	13'-3"	11'-3"	9'-10"	6'-0" OC
		24"	11'-10"	10'-7"	9'-3"	6'-0" OC
	0.0312" (20)	16"	16'-5"	12'-10"	11'-2"	6'-0" OC
		24"	14'-10"	11'-7"	10'-0"	6'-0" OC
4"	0.0179" (25)	16"	17'-2"	15'-4"	13'-4"	8'-0" OC
		24"	15'-1"	14'-2"	12'-4"	8'-0" OC
	0.0312" (20)	16"	23'-1"	18'-4"	15'-11"	8'-0" OC
		24"	20'-9"	16'-5"	14'-3"	8'-0" OC
6"	0.0179" (25)	16"	19'-9"	19'-9"	17'-11"	10'-0" OC
		24"	16'-9"	16'-9"	16'-9"	10'-0" OC
	0.0312" (20)	16"	30'-10"	24'-6"	21'-4"	10'-0" OC
		24"	27'-2"	21'-7"	18'-10"	10'-0" OC

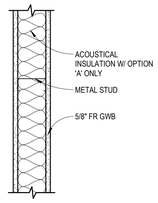
PARTITION TYPES LEGEND

PARTITION TYPES GENERAL NOTES & SPACING CHART



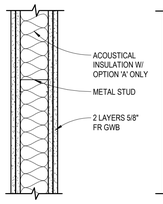
NON-RATED PARTITION

S2 — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES
S4 — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES
S4C — 4" x 16 GA METAL STUDS @ 16" OC TO 6" ABOVE CEILING W/ 5/8" GWB BOTH SIDES
S4A — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES
S6 — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB BOTH SIDES, STC 49
S6C — 6" x 16 GA METAL STUDS @ 16" OC TO 6" ABOVE CEILING W/ 5/8" GWB BOTH SIDES
S6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES, STC 49
SS4 — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - SMOKE PARTITION
SS6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - SMOKE PARTITION
S6L — LEAD LINED PARTITION WITH 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" GWB BOTH SIDES - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
BC1 S2P — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO 3'-6"AFF W/ 5/8" GWB BOTH SIDES



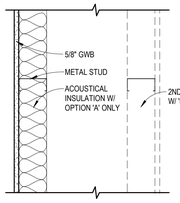
ONE HOUR FIRE RATING UL DESIGN NO U419

1S4 — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES
1S4A — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES & ACOUSTICAL INSULATION, STC 49
1S6 — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" FR GWB BOTH SIDES
1S6A — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" FR GWB BOTH SIDES, STC 49
1S6L — LEAD LINED PARTITION WITH 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ ACOUSTICAL INSULATION W/ 5/8" FR GWB BOTH SIDES - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED), STC 49



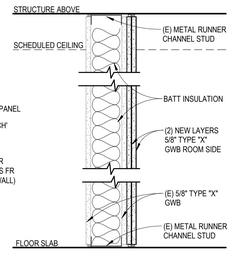
TWO HOUR FIRE RATING UL DESIGN NO U419

2S4A — 4" x 16 GA METAL STUDS @ 16" OC W/ 2 LAYERS 5/8" FR GWB BOTH SIDES & ACOUSTICAL INSULATION TO STRUCTURE, STC 56



OPTION 'O' - ONE GWB FACE ONLY

S2O — 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S4O — 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S6O — 6" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY
S2OL — LEAD LINED PARTITION 2 1/2" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
S4OL — LEAD LINED PARTITION 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)
BC1 S10L — LEAD LINED PARTITION 1 5/8" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY - LEAD UP TO 7'-0" A.F.F. (SEE SHIELDING PLAN FOR LEAD THICKNESS REQUIRED)



2 HOUR - SHAFTWALL

2S4H — 4" 'CH' STUDS @ 16" OC W/ 2 LAYERS 5/8" FR GWB & A 1" GWB LINER PANEL TO STRUCTURE
UL DESIGN NO U438

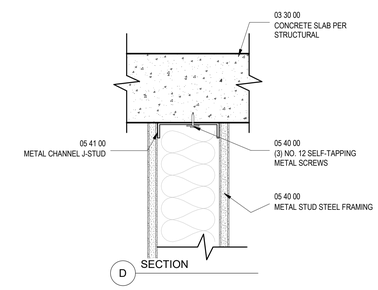
2-HR FIRE BARRIER W/3 LAYERS INSIDE UL DESIGN NO. 408

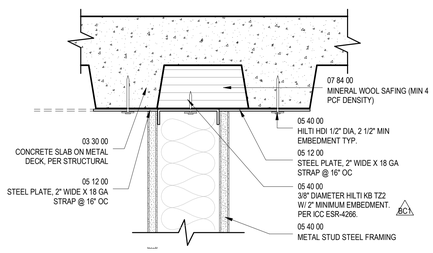
2G — 2 LAYERS OF FIRE RATED 5/8" GWB ON EXISTING METAL STUD WALL W/5/8" GWB ON EACH SIDE. THE 3 LAYER OF GWB SHALL BE ON THE ROOM SIDE.



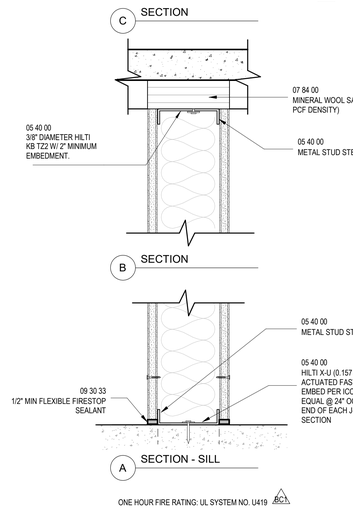
2-HR HORIZONTAL FIRE BARRIER UL DESIGN NO. 408

2G — 2 LAYERS OF FIRE RATED 5/8" GWB ON EXISTING METAL STUD WALL W/5/8" GWB ON EACH SIDE. THE 3 LAYER OF GWB SHALL BE ON THE ROOM SIDE.

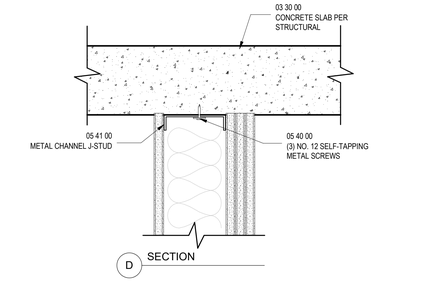


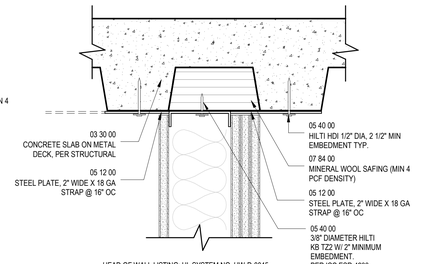


HEAD OF WALL LISTING: UL SYSTEM NO. HW-D-0284 OR HW-D-0396 BC1

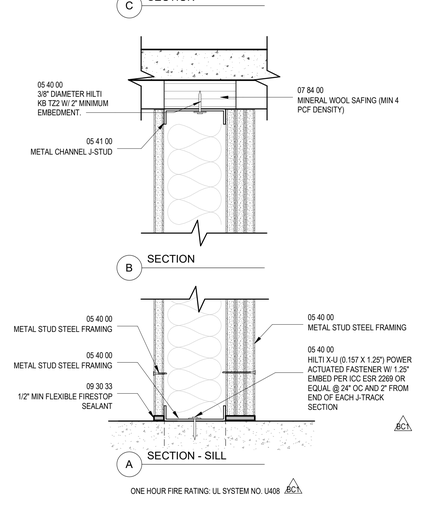


ONE HOUR FIRE RATING: UL SYSTEM NO. U419 BC1





HEAD OF WALL LISTING: UL SYSTEM NO. HW-D-0045 BC1

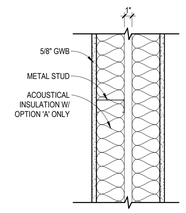


ONE HOUR FIRE RATING: UL SYSTEM NO. U408 BC1

C1 PARTITION TYPES STUD (PLANS)
SCALE: NTS

C5 1-HR RATED ASSEMBLY - HEAD AND SILL
SCALE: 3" = 1'-0"

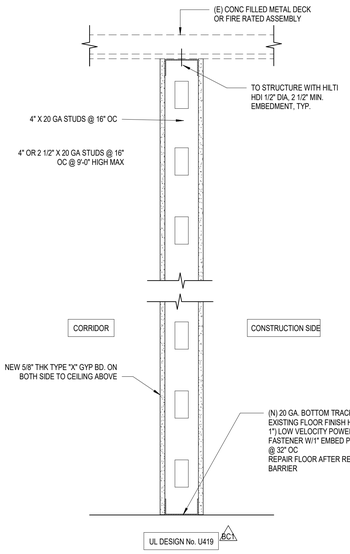
C7 2-HR RATED ASSEMBLY - HEAD AND SILL
SCALE: 3" = 1'-0"



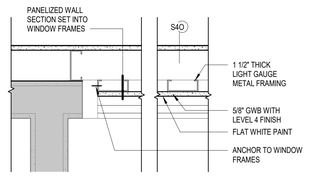
PLUMBING PARTITION

S9 — (2) 4" x 16 GA METAL STUDS @ 16" OC TO STRUCTURE ABOVE W/ 5/8" GWB ONE FACE ONLY AND 1" AIR GAP IN BETWEEN
BC1

A1 PARTITION TYPES STUD (PLUMBING)
SCALE: 1 1/2" = 1'-0"



A2 TEMPORARY CONSTRUCTION BARRIER
SCALE: 1 1/2" = 1'-0"



A3 WINDOW INFILL PANEL
SCALE: 1 1/2" = 1'-0"

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEINZ C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

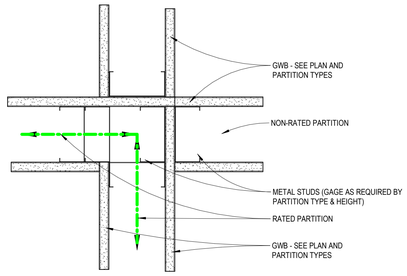
PARTITION TYPES

SHEET NUMBER

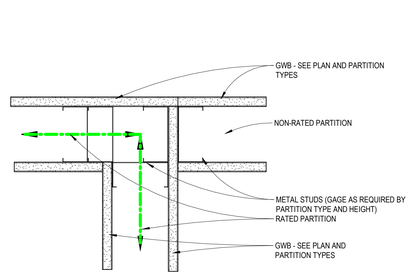
AE511

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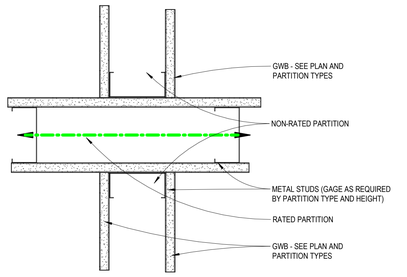
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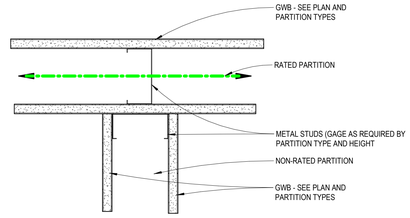
4 WAY INTERSECTION - PRIORITY PARTITION CHANGES DIRECTION



3 WAY INTERSECTION - PRIORITY PARTITION CHANGES DIRECTION



4 WAY INTERSECTION - PRIORITY PARTITION IS CONTINUOUS



3 WAY INTERSECTION - PRIORITY PARTITION IS CONTINUOUS

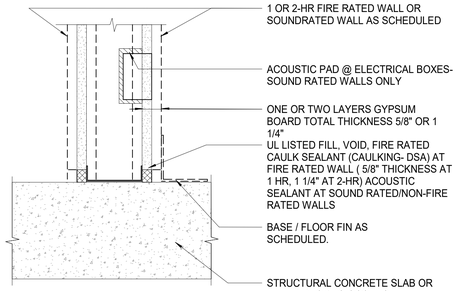
NOTE: REFER TO PLANS AND PARTITION TYPES FOR SPECIAL CONDITIONS AND NOTES

THE PRIORITY OF PARTITIONS IS DETERMINED AS FOLLOWS:

1. FIRE RATED PARTITIONS HAVE PRIORITY OVER NON-RATED PARTITIONS
2. PARTITIONS WITH GREATER FIRE RATING HAVE PRIORITY OVER THOSE WITH A LESSER RATING
3. SMOKE-SEALED PARTITIONS HAVE PRIORITY OVER NON-SMOKED SEALED PARTITIONS

D1 RATED WALL INTERSECTIONS

SCALE: 3" = 1'-0"

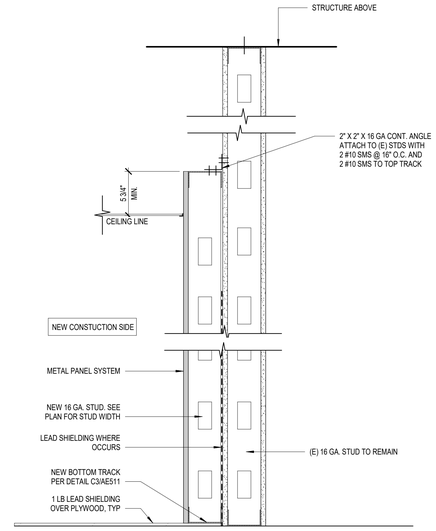


NOTES:
1. JOINT SIMILAR AT FIRE AND/OR SOUND RATED WALL VERTICAL TERMINATION JOINT AT CONCRETE OR MASONRY WALL
2. JOINT SIMILAR AT SOUND RATED HEAD OF WALL JOINT.

UL DES BW-S-0001 (1 & 2HR) FLOOR JOINT
UL DES WW-D-0040 (1 & 2HR) WALL JOINT

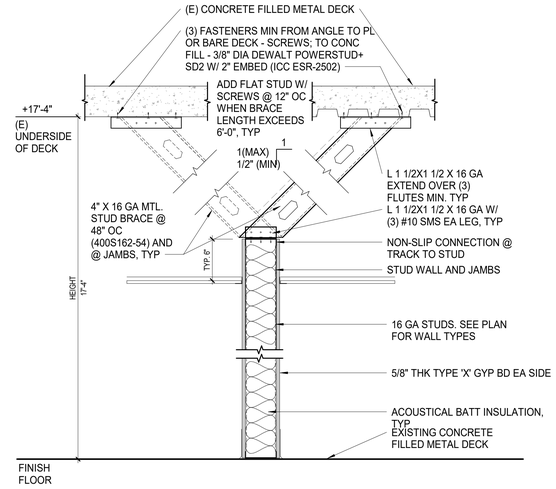
B1 FIRE RATED / SOUND RATED PARTITION- BASE

SCALE: 3" = 1'-0"



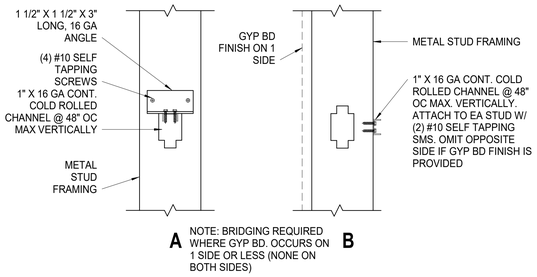
E4 FURRED WALL DETAIL

SCALE: 1 1/2" = 1'-0"



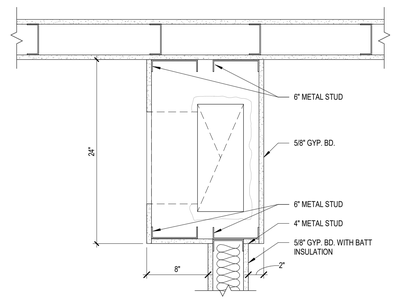
E5 PARTIAL HEIGHT STUD BRACING

SCALE: 12" = 1'-0"



B2 BRACING DETAIL

SCALE: 3/4" = 1'-0"



B4 LOW RETURN @ AIRBORNE INFECTION ISO EXAM PACU ROOM

SCALE: 1 1/2" = 1'-0"

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

DETAILS - PARTITIONS

SHEET NUMBER

AE512

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7/12/2024 2:44:45 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

PARTITION WALL SCHEDULES

SCHEDULE 1: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'A')

S_{DS}	WALL HEIGHT				
	9 FT	12 FT	16 FT		
~~0.25-0.99~~	~~362S137-33~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~600S137-33~~
~~1.00-1.25~~	~~362S137-33~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~600S137-33~~
~~1.26-1.45~~	~~362S137-33~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~600S137-33~~
1.46-1.95	362S137-33	362S137-33	362S137-54	400S137-54	600S137-43

SCHEDULE 2: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'B')

S_{DS}	WALL HEIGHT					
	9 FT	12 FT		16 FT		
~~0.25-0.99~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~362S137-54~~	~~400S137-43~~	~~600S137-43~~
~~1.00-1.25~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~
~~1.26-1.45~~	~~362S137-33~~	~~362S137-43~~	~~400S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~
1.46-1.95	~~362S137-33~~	362S137-54	~~400S137-43~~	~~NA~~	400S137-54	~~600S137-43~~

SCHEDULE 3: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'C')

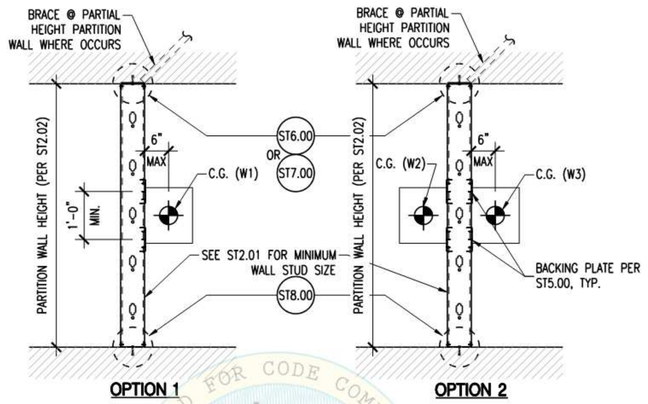
S_{DS}	WALL HEIGHT					
	9 FT		12 FT		16 FT	
~~0.25-0.99~~	~~362S137-43~~	~~400S137-54~~	~~362S137-54~~	~~400S137-43~~	~~600S137-43~~	~~600S137-43~~
~~1.00-1.25~~	~~362S137-43~~	~~400S137-54~~	~~362S137-54~~	~~400S137-54~~	~~600S137-43~~	~~600S137-43~~
~~1.26-1.45~~	~~362S137-43~~	~~400S137-54~~	~~NA~~	~~400S137-54~~	~~600S137-54~~	~~600S137-54~~
1.46-1.95	362S137-54	400S137-54	NA	NA	600S137-54	600S137-54

SCHEDULE 4: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'D')

S_{DS}	WALL HEIGHT						
	9 FT			12 FT			16 FT
~~0.25-0.99~~	~~362S137-33~~	~~400S137-43~~	~~600S137-43~~	~~362S137-43~~	~~400S137-43~~	~~600S137-43~~	~~600S137-43~~
~~1.00-1.25~~	~~362S137-43~~	~~400S137-43~~	~~600S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~	~~600S137-43~~
~~1.26-1.45~~	~~362S137-43~~	~~400S137-43~~	~~600S137-43~~	~~NA~~	~~400S137-54~~	~~600S137-43~~	~~600S137-54~~
1.46-1.95	NA	400S137-54	600S137-54	NA	NA	600S137-54	600S137-54

NOTES:
1. PARTITION WALL STUDS ARE SPACED @ 16" O.C. TYPICAL UNLESS NOTED OTHERWISE.
2. SEE ST2.06 FOR PARTITION WALL ELEVATION & ADDITIONAL INFORMATION.
3. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
4. SEE ST1.00 FOR METAL STUD PROFILES.
5. ~~362S137-33 IS A 3-5/8" WIDE SSMA STUD WITH 1-3/8" WIDE FLANGE THAT IS 33 MIL THICK.~~
6. STUDS SHOWN IN THE TABLES ABOVE CAN BE REPLACED BY EQUIVALENT STUDS WITH EQUAL OR HIGHER AREA (A), SECTION MODULUS (S_x, S_y) AND MOMENT OF INERTIA (I_x, I_y) PROVIDED MATERIALS CONFORM TO THE SAME ASTM STANDARD WITH EQUAL OR HIGHER YIELD STRENGTH (f_y) AND ULTIMATE STRENGTH (f_u) WHEN APPROVED.
7. PARTITION WALLS TO HAVE LATERAL BRACING @ 48" O.C. PER ST4.00 OR ST4.01, FOR FULL HT OF PARTITION WALL. LATERAL BRACING IS NOT REQUIRED WHERE GYP BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.

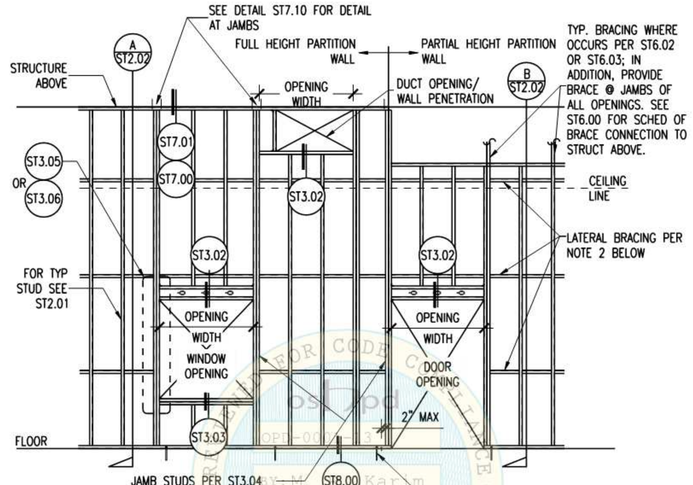
D1 ST2.01 PARTITION WALL SCHEDULES
SCALE: NTS



A PARTITION WALL CONDITION 'B'

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING CABINETS OR EQUIPMENT THAT CONFORM TO THE REQUIREMENTS OF CONDITION 'B' PER ST2.00.
2. WHERE CABINETS OR EQUIPMENT OCCUR ON BOTH SIDES OF THE PARTITION WALL, EITHER OF THE FOLLOWING OPTIONS MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON ST2.02, ST6.00, ST7.00 & ST8.00 (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
   B. LIMIT THE COMBINED WEIGHT OF CABINETS OR EQUIPMENT ON OPPOSITE SIDES OF WALL AS SHOWN IN OPTION 2.
      FOR EXAMPLE:
      W1= 50 LB/ STUD MAX
      W2 + W3= 50 LB/ STUD MAX
3. SEE ST2.01 FOR MINIMUM PARTITION WALL STUD SIZE.
4. FOR TYPICAL PARTITION WALL SECTIONS SEE ST2.02.

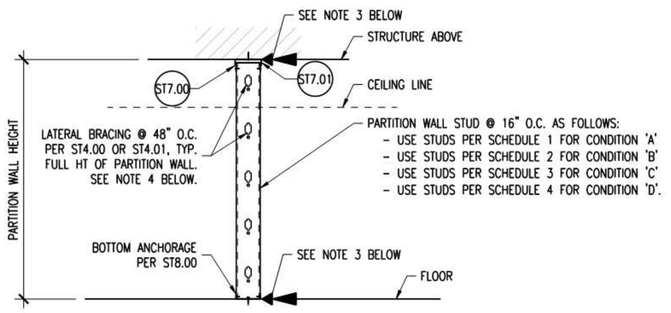
D3 ST2.03 CABINET OR EQUIPMENT ANCHORAGE TO PARTITION WALL, CONDITION 'B'
SCALE: NTS



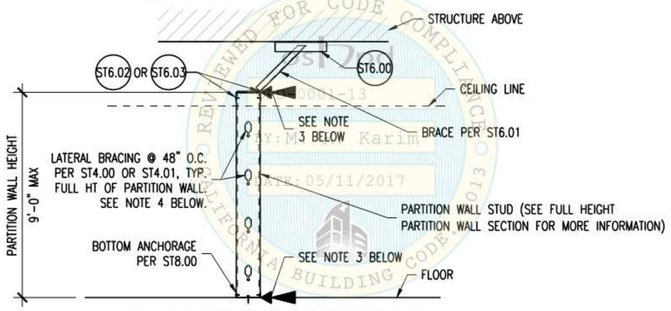
PARTITION WALL ELEVATION

NOTES:
1. ATTACHMENT OF CEILING, EQUIPMENT, ETC. TO THE JAMB, HEADER OR STUD ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.
2. LATERAL BRACING PER ST4.00 & ST4.01 @ 4'-0" O.C. MAX. LATERAL BRACING NOT REQUIRED WHERE GYP. BOARD OCCURS ON BOTH SIDES OF PARTITION WALL.
3. SEE ST2.07 FOR CONDITION AT OVERLAPPING OPENINGS.

D6 ST2.06 PARTITION WALL ELEVATION - FULL HEIGHT AND PARTIAL HEIGHT PARTITION WALLS
SCALE: NTS



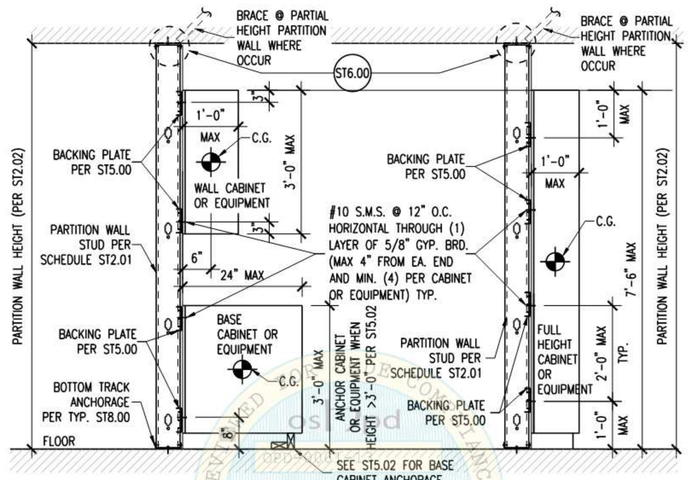
A FULL HEIGHT PARTITION WALL



B PARTIAL HEIGHT PARTITION WALL

NOTES:
1. PARTITION WALL SCHEDULES PER ST2.01.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. SEE ST6.11 FOR TOP & BOTTOM CONNECTION DEMANDS.
4. LATERAL BRACING IS NOT REQUIRED WHERE GYP BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.

A1 ST2.02 TYPICAL PARTITION WALL SECTIONS
SCALE: NTS

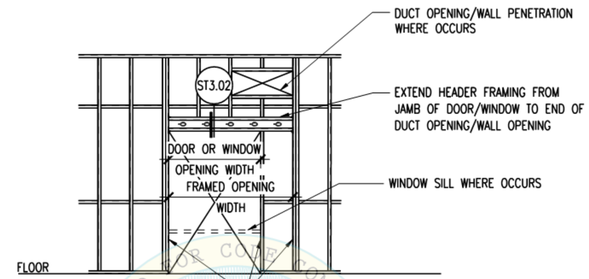


B CONDITION 'C' OVERHEAD AND / OR BASE CABINETS OR EQUIPMENT

C CONDITION 'D' FULL HEIGHT CABINETS OR EQUIPMENT

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING CABINETS OR EQUIPMENT THAT CONFORM TO THE REQUIREMENTS OF CONDITION 'C' OR 'D' PER ST2.00.
2. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING OVERHEAD AND/OR BASE CABINET OR EQUIPMENT ON ONE SIDE OF THE WALL. WHERE CABINETS OR EQUIPMENT OCCUR ON BOTH SIDES OF THE WALL, THE FOLLOWING OPTION MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON ST2.02, ST6.00, ST7.00 & ST8.00. (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
3. SEE ST2.01 FOR MINIMUM WALL STUD SIZE.
4. FOR TYPICAL PARTITION SECTIONS SEE ST2.02.

A3 ST2.04 CABINET OR EQUIPMENT ANCHORAGE TO PARTITION WALL, CONDITIONS 'C' & 'D'
SCALE: NTS



FRAMING AT OVERLAPPING OPENINGS

NOTES:
1. SEE ST2.06 FOR ADDITIONAL INFORMATION.
2. ATTACHMENT OF CEILING EQUIPMENT, ETC. TO THE JAMB, HEADER OR STUD ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.

A6 ST2.07 PARTITION WALL ELEVATION - FRAMING AT OVERLAPPING OPENINGS
SCALE: 3" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. KEARCH C-27289 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
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Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
DETAILS - PARTITIONS

SHEET NUMBER
AE513

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REVIEWED FOR CODE COMPLIANCE OSHPD OPD-0001-13 BY: M. R. Karim DATE: 05/11/2017 CALIFORNIA BUILDING CODE 2013

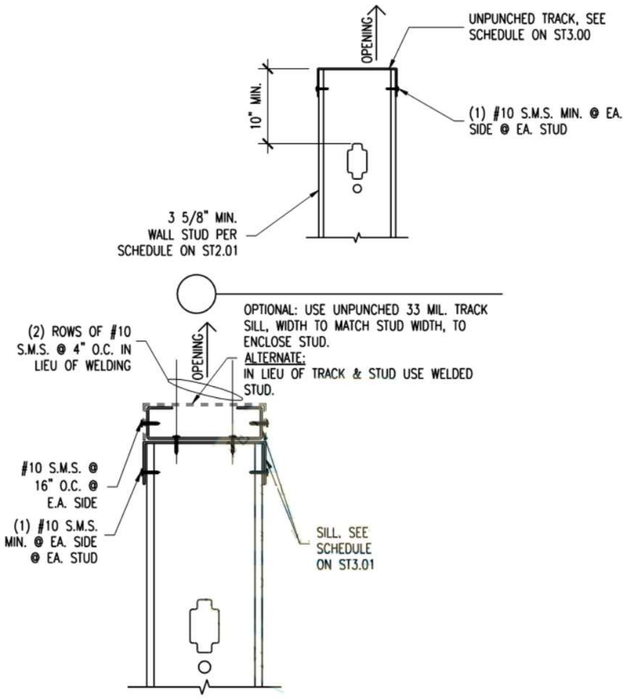
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PARTITION WALL OPENING FRAMING SCHEDULE

OPENING WIDTH	S_{DS}	PARTITION WALL HT UP TO:	CONN. DETAIL	JAMBS (# OF STUD)-MIL			HEADER			SILL (SEE NOTE 3)		
				3 5/8" WALL	4" WALL	6" WALL	FRAMING	FIGURE	MIL	FRAMING	FIGURE	MIL
>4'-0" TO ≤10'-0"	0.25-0.99	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(1)-54 OR (2)-33	(1)-54 OR (2)-33	(1)-43 OR (2)-33	(1)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-33	(2)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(2)-54	(2)-54	(2)-43						
	1.00-1.25	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(1)-54 OR (2)-33	(1)-54 OR (2)-33	(1)-43 OR (2)-33	(2)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-43 OR (3)-33	(2)-43 OR (3)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(3)-54	(2)-43 OR (3)-33	(2)-43						
	1.26-1.45	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(1)-54 OR (2)-33	(1)-54 OR (2)-33	(1)-43 OR (2)-33	(2)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-43 OR (3)-33	(2)-43 OR (3)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(3)-54	(2)-54	(2)-43						
	1.45-1.95	9'-0"	ST3.06-C OR ST3.06-D OR ST3.06-E	(2)-33	(2)-33	(1)-54 OR (2)-33	(2)TRACK	6"	54	(1)TRACK &(1)STUD		43 MIN.
		12'-0"		(2)-43 OR (3)-33	(2)-43 OR (3)-33	(2)-33	(2)TRACK & (2) STUD					
		16'-0"		(3)-54	(3)-54	(2)-43						
				SEE DETAIL: ST3.04			SEE DETAIL: ST3.02			SEE DETAIL: ST3.03		

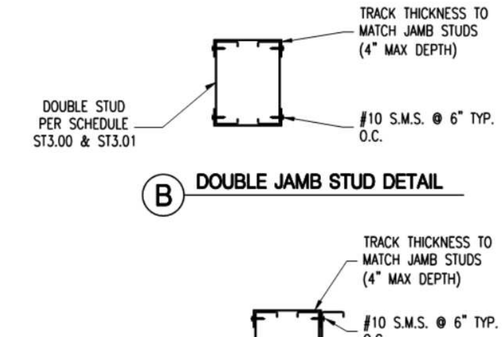
NOTES:
1. SEE GENERAL NOTES ON ST0.00, ST0.01 & ST0.02 FOR LIGHT GAUGE STEEL REQUIREMENTS AND DETAIL ST1.00 FOR SECTION PROFILES.
2. STUDS SHALL MATCH WALL SIZES, I.E. 362S FOR 3 5/8" WALL, 400S FOR 4" WALL & 600S FOR 6" WALL.
3. SCHEDULE FOR SILL BASED ON 4'-0" MAX HT. FOR SILLS TALLER THAN 4'-0" USE HEADER FRAMING.
4. SEE ST3.00 FOR DESIGN ASSUMPTIONS.

D1 ST3.01 WALL OPENING FRAMING SCHEDULE (OPENING WIDTH 4'-0" TO 10'-0" MAX)
SCALE: NTS

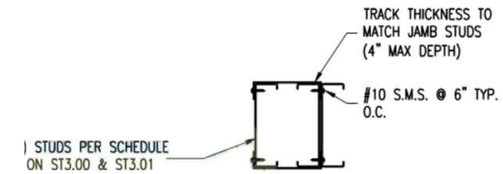


B SILL AT OPENING 4'-0" TO 10'-0" MAX

D3 ST3.03 SILL SECTION
SCALE: NTS



B DOUBLE JAMB STUD DETAIL



D TRIPLE JAMB STUD DETAIL

ITES:
WHERE (2) STUDS ARE INDICATED ON PLANS OR ELEVATIONS, USE DOUBLE STUD DETAIL A OR B ABOVE. WHERE (3) STUDS ARE INDICATED ON PLANS OR ELEVATIONS, USE TRIPLE STUD DETAIL C OR D ABOVE. FOR STUD THICKNESSES, SEE SCHEDULE ON ST3.00 & ST3.01.

D5 ST3.04 JAMB STUD DETAILS
SCALE: NTS

A HEADER AT OPENING 4'-0" MAX

NOTE:
1. ATTACHMENT OF CEILING, EQUIPMENT, ETC. TO THE HEADER OR STUDS ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.

B HEADER AT OPENING 4'-0" TO 10'-0" MAX

C3 ST3.02 HEADER SECTION
SCALE: NTS

A 4'-0" MAX OPENING WIDTH

. NO STUD PUNCHES OR HOLES SHALL OCCUR WITHIN 10" ABOVE OR BELOW THE HEADER OR SILL OR INSIDE THE HEADER OR SILL ZONE.

A3 ST3.05 HEADER & SILL CONNECTION TO JAMB STUDS (4'-0" MAX OPENING WIDTH)
SCALE: 3" = 1'-0"

C OPENING WIDTH 4'-0" TO 10'-0" MAX

D OPENING WIDTH 4'-0" TO 10'-0" MAX
ALTERNATE CONNECTION 1

1 DETAIL

E FOR OPENING WIDTH 4'-0"TO 10'-0" MAX
ALTERNATE CONNECTION 2 – AT DOOR HEADERS

1. NO STUD PUNCHES OR HOLES SHALL OCCUR WITHIN 10" ABOVE OR BELOW THE HEADER OR SILL OR INSIDE THE HEADER OR SILL ZONE.

A5 ST3.06 HEADER & SILL CONNECTION TO JAMB STUDS (OPENING WIDTH 4'-0" TO 10'-0" MAX)
SCALE: NTS

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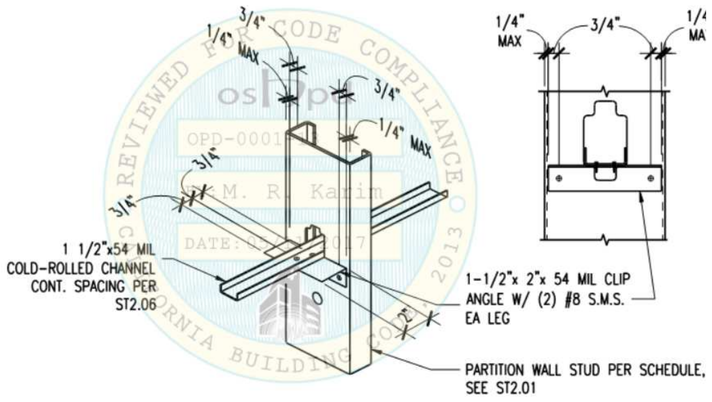
SHEET NAME
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REVIEWED FOR CBC 2022 CODE COMPLIANCE BY: M. R. Karim DATE: 05/11/2017

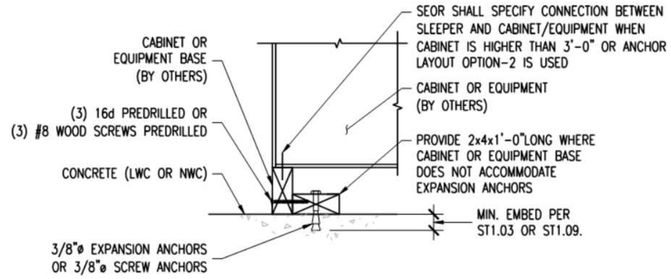
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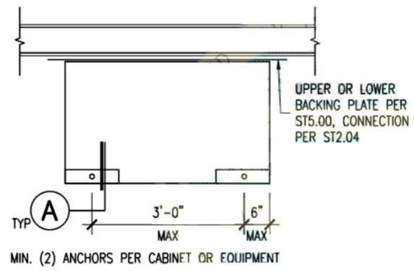
METAL STUD LATERAL BRACING TYPE 1

NOTES:
1. LATERAL BRACING IS NOT REQUIRED WHERE GYP. BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.
2. NOTCHING OR CUTTING OF COLD-ROLLED CHANNEL IS NOT PERMITTED FOR ANY CONDITION.

D1 ST4.00 METAL STUD LATERAL BRACING TYPE 1
SCALE: 3" = 1'-0"



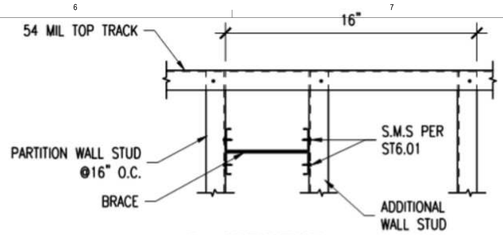
A ANCHOR DETAIL



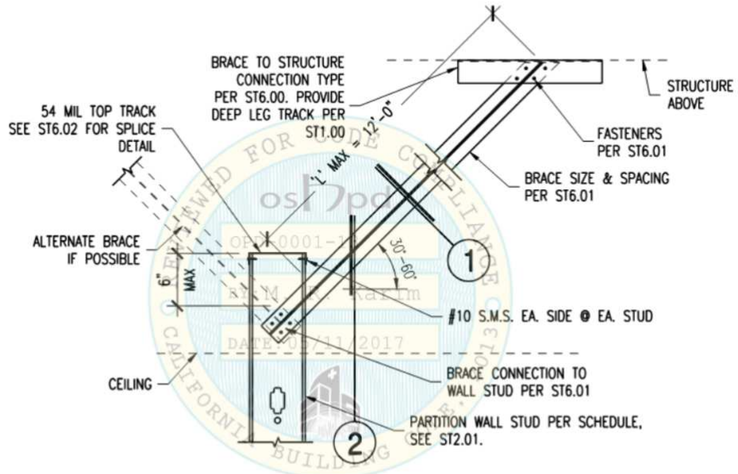
1 ANCHOR LAYOUT

NOTE:
1. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS, AND SEE ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.

D3 ST5.02 BASE CABINET OR EQUIPMENT ANCHORAGE
SCALE: 3" = 1'-0"



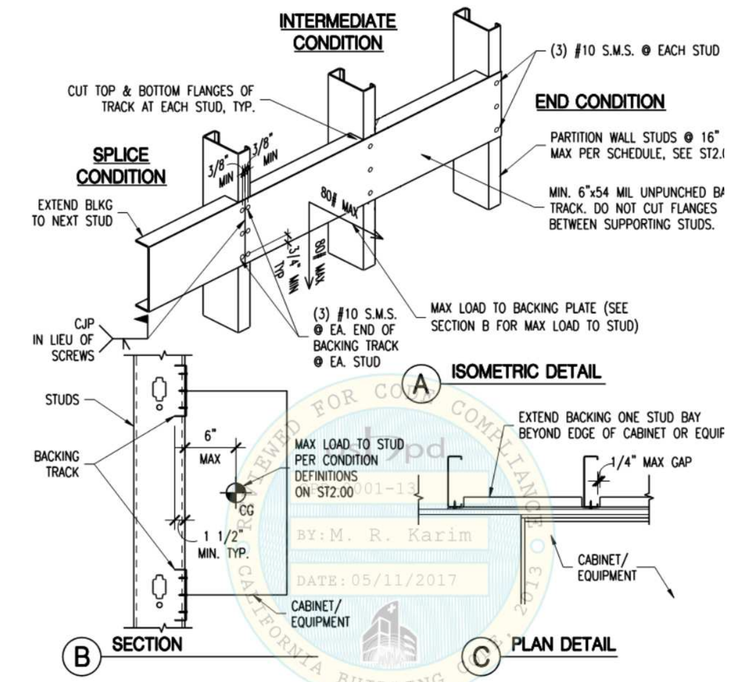
2 ELEVATION



A PARTITAL HEIGHT PARTITION WALL

NOTES:
1. SEE TOP & BOTTOM CONNECTION SCHEDULE ON ST6.11.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. DETAIL APPLIES TO PARTITION WALL CONDITIONS 'C' & 'D', ALL S_{DS} CATEGORIES.

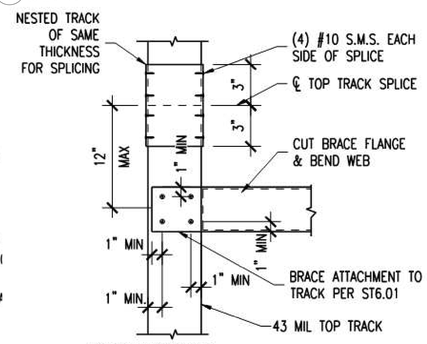
D5 ST6.03 PARTIAL HEIGHT PARTITION WALL TOP BRACING - PARTITION WALL CONDITIONS 'C' & 'D'
SCALE: NTS



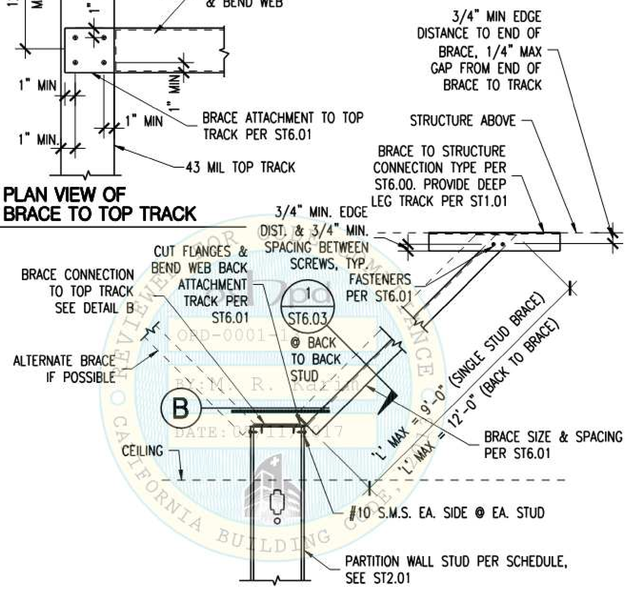
BACKING PLATE DETAIL TYPE 1

NOTES:
1. BACKING, CONNECTION TO STUD, AND STUDS FOR CABINETS OR EQUIPMENT EXCEEDING THIS LIMIT SHALL BE DESIGNE AND DETAILED BY RDP IN RESPONSIBLE CHARGE.
2. ST5.01 MAY BE USED FOR ATTACHMENT OF CABINETS OR EQUIPMENT DISTRIBUTING LESS THAN 20# PER STUD (CENTI OF GRAVITY LESS THAN 6" FROM FACE OF STUD).
3. NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED EXCEPT AS SHOWN.

A1 ST5.00 BACKING PLATE DETAIL TYPE 1
SCALE: 3" = 1'-0"



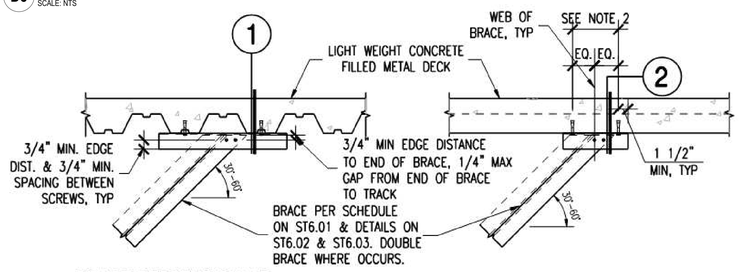
B PLAN VIEW OF BRACE TO TOP TRACK



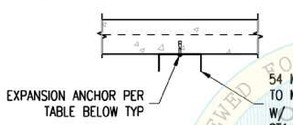
A PARTIAL HEIGHT PARTITION WALL

NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. DETAIL APPLIES TO PARTITION WALL CONDITIONS 'A' & 'B', ALL S_{DS} CATERGORIES.

A3 ST6.02 PARTIAL HEIGHT PARTITION WALL TOP BRACING - PARTITION WALL CONDITIONS 'A' & 'B'
SCALE: 3" = 1'-0"

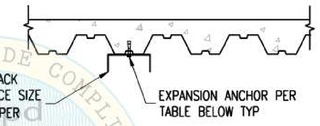


A BRACE PERPENDICULAR TO FLUTE OF DECK



1 SECTION

B BRACE PARALLEL TO FLUTE OF DECK



2 SECTION

BRACE ANCHORAGE TO CONCRETE FILLED METAL DECK

S_{DS}	PARTITION WALL TYPE	EXPANSION ANCHOR QUANTITY, SIZE AND EMBED	ALLOWABLE DECK TYPE
0.25 TO 1.95	CONDITION 'A' & 'B'	(2) 3/8"ø WITH 2" EMBED	W3"+3 1/4" CONC FILLED DECK PER ST1.09 OR 1 1/2"+2 1/4" CONC FILLED B-DECK PER ST1.13
0.25 TO 1.95	CONDITION 'C' & 'D'	(2) 5/8"ø WITH 4 1/4" EMBED	W3"+3 1/4" CONC FILLED DECK PER ST1.09 ONLY

NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

A5 ST6.04 BRACE CONNECTION TO CONCRETE FILLED METAL DECK - ALL PARTITION WALL CONDITIONS
SCALE: 3" = 1'-0"

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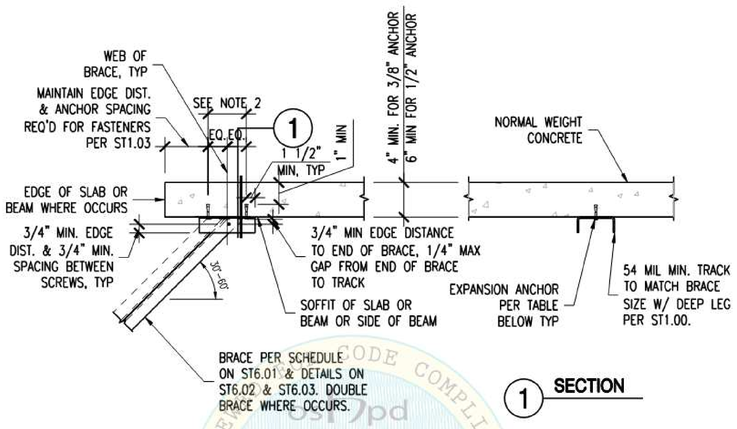
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1 SECTION

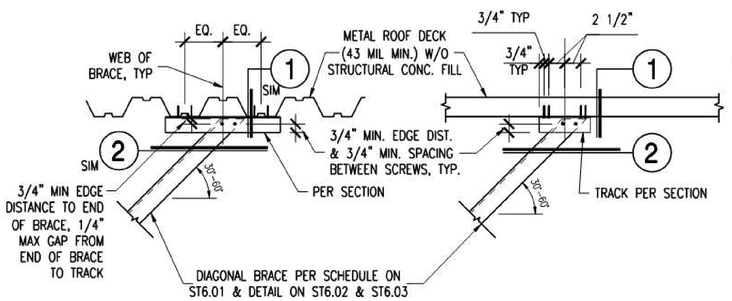
A BRACE TO CONC. SLAB OR BEAM SOFFIT

BRACE ANCHORAGE TO CONCRETE SLAB OR BEAM SOFFIT

S_{DS}	PARTITION WALL TYPE	EXPANSION ANCHOR QUANTITY, SIZE AND EMBED
0.25 TO 1.95	CONDITION 'A' & 'B'	(2) 3/8"ø WITH 2" EMBED
0.25 TO 1.95	CONDITION 'C' & 'D'	(2) 5/8"ø WITH 4 1/4" EMBED

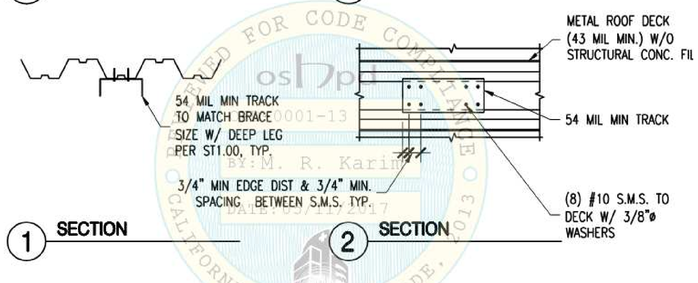
NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

D1 ST6.05 BRACE CONNECTION TO CONCRETE SLAB OR BEAM SOFFIT - ALL PARTITION WALL CONDITIONS
SCALE: NTS



A BRACE PERPENDICULAR TO FLUTE OF DECK

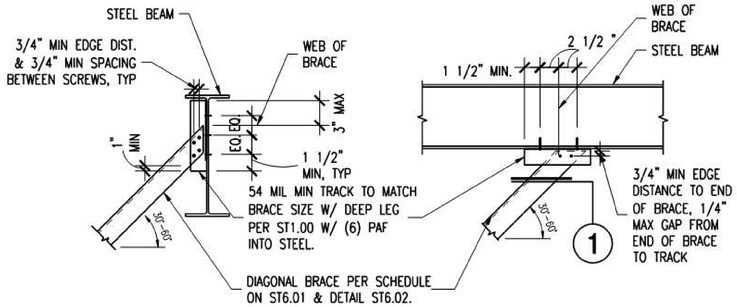
B BRACE PARALLEL TO FLUTE OF DECK



1 SECTION 2 SECTION

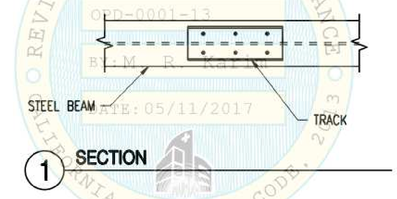
NOTES:
1. RDP IN RESPONSIBLE CHARGE TO PROVIDE CALCULATION FOR OSHPD REVIEW JUSTIFYING THE ABILITY OF METAL DECK TO SUPPORT THE REACTIONS FROM BRACE. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11 FOR BRACE REACTIONS.
2. THIS DETAIL IS APPLICABLE ONLY FOR PARTITION WALL CONDITIONS 'A' & 'B', ALL S_{DS} CATEGORIES.
3. RDP IN RESPONSIBLE CHARGE TO EVALUATE PARTITION WALL BRACING FOR CONDITIONS 'C' & 'D', ALL S_{DS} CATEGORIES.

D3 ST6.07 BRACE CONNECTION TO METAL ROOF DECK WITHOUT STRUCTURAL CONCRETE FILL - PARTITION WALL CONDITIONS 'A' & 'B'
SCALE: NTS



A PERPENDICULAR TO STEEL BEAM

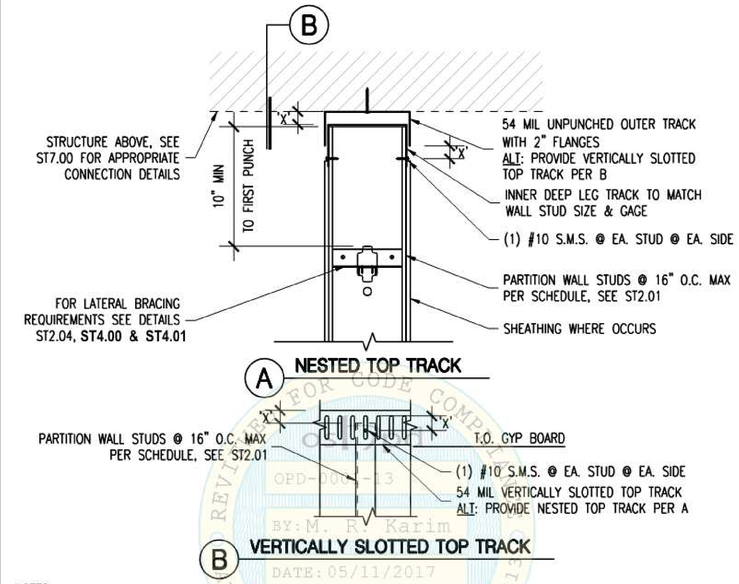
B BRACE PARALLEL TO STEEL BEAM



1 SECTION

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.05 FOR PAF REQUIREMENTS.
3. THIS DETAIL IS APPLICABLE ONLY FOR PARTITION WALL CONDITIONS 'A' & 'B', ALL S_{DS} CATEGORIES.
4. STEEL BEAM FLANGE & WEB MINIMUM THICKNESS = 3/16".
5. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR TO VERIFY THAT NO PDF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.

D6 ST6.08 BRACE CONNECTION TO STEEL BEAM - PARTITION WALL CONDITIONS 'A' & 'B'
SCALE: NTS

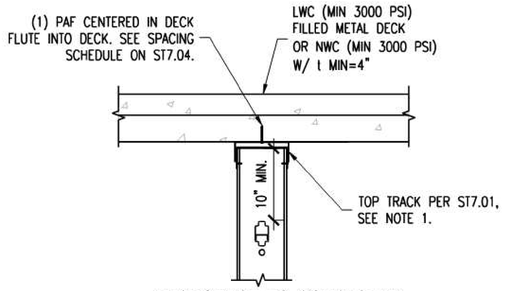


A NESTED TOP TRACK

B VERTICALLY SLOTTED TOP TRACK

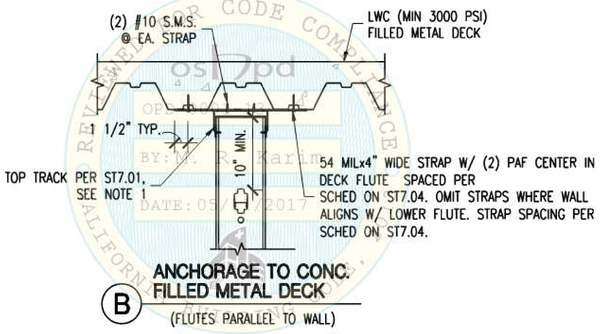
NOTES:
1. DO NOT CONNECT OUTER TRACK TO INNER TRACK OR STUDS (DETAIL A ONLY).
2. DO NOT CONNECT WALL FINISH TO OUTER TRACK (DETAILS A & B).
3. GAP 'X' - BY RDP IN RESPONSIBLE CHARGE, 1/2" MIN. TO 3/4" MAX.
4. RDP IN RESPONSIBLE CHARGE TO VERIFY "UL" RATING FOR HEAD OF WALL ASSEMBLY. APPROVED FIRE RESISTANT ASSEMBLY REQUIRED.
5. DETAIL B TO BE USED WHERE ONLY VERTICAL SLIP REQUIRED. WHERE HORIZONTAL, IN-PLANE SLIP IS REQUIRED, USE DETAIL A, DO NOT USE DETAIL B. DO NOT USE DETAIL B FOR ST7.08.
6. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
7. LATERAL BRACING ONLY REQUIRED IF GYP BOARD IS NOT FULL HEIGHT ON BOTH SIDES OF PARTITION WALL SEE ST2.06, ST4.00 & ST4.01.
8. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

A1 ST7.01 TYPICAL TOP TRACK ANCHORAGE - ALL PARTITION WALL CONDITIONS
SCALE: NTS



A ANCHORAGE TO CONC. SLAB & CONC. FILLED METAL DECK

(FLUTES PERPENDICULAR TO WALL)

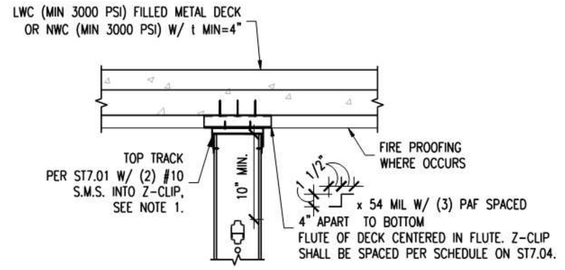


B ANCHORAGE TO CONC. FILLED METAL DECK

(FLUTES PARALLEL TO WALL)

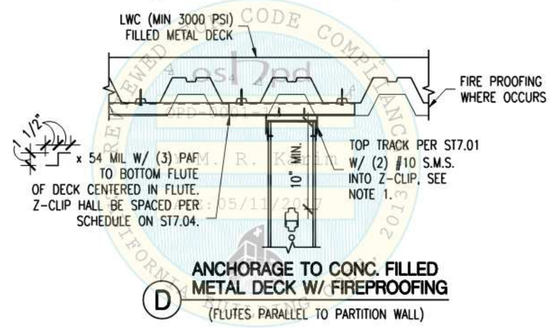
NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST7.10 FOR CONNECTION AT JAMB LOCATION.
4. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

A3 ST7.02 TOP TRACK CONNECTION TO LWC FILLED METAL DECK & NWC SLAB - ALL PARTITION WALL CONDITIONS
SCALE: NTS



C ANCHORAGE TO CONC. SLAB & FILLED METAL DECK W/ FIREPROOFING

(FLUTES PERPENDICULAR TO PARTITION WALL)



D ANCHORAGE TO CONC. FILLED METAL DECK W/ FIREPROOFING

(FLUTES PARALLEL TO PARTITION WALL)

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST7.10 FOR CONNECTION AT JAMB LOCATION.
4. SEE ST2.01 FOR PARTITION WALL PARTITION STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{DS} CATEGORIES.

A6 ST7.03 TOP TRACK CONNECTION TO LWC FILLED METAL DECK & NWC SLAB WITH FIREPROOFING - ALL PARTITION WALL CONDITIONS
SCALE: NTS

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CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

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1	PLAN CHECK	10/10/2023
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FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

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APPROVED
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Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

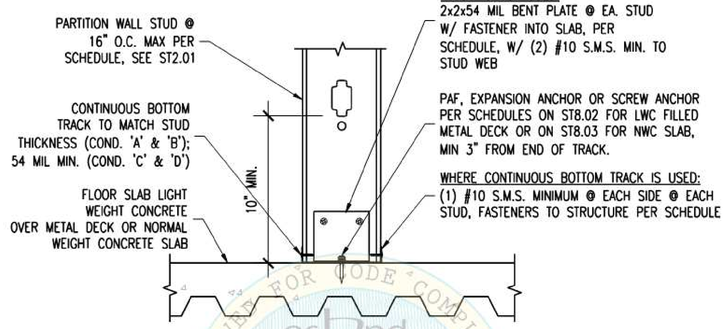
SHEET NAME
DETAILS - PARTITION

SHEET NUMBER
AE516

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REVIEWED FOR CODE COMPLIANCE OSHPD OPD-0001-13 BY: M. R. Karim DATE: 05/11/2017 CALIFORNIA BUILDING CODE, 2013

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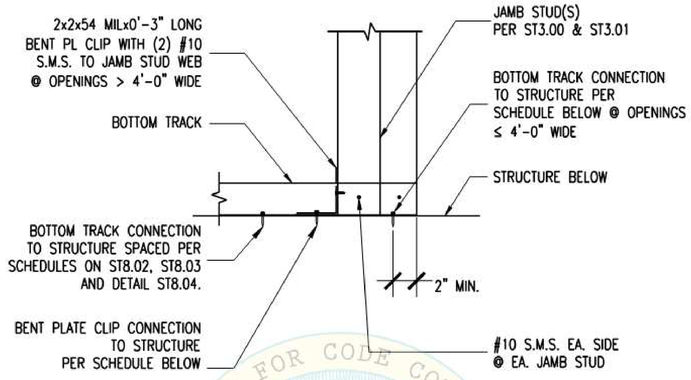
A PARTITION WALL BOTTOM TRACK ANCHORAGE

LIGHT WEIGHT CONCRETE OVER METAL DECK OR NORMAL WEIGHT CONCRETE SLAB

NOTES:
1. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENT AND ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS AND ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.
2. SEE ST8.05 FOR ANCHORAGE @ JAMBS.
3. FOR LIGHT WEIGHT CONCRETE OVER METAL DECK, SEE ST8.02 FOR FASTENER TO SLAB SCHEDULE.
4. FOR NORMAL WEIGHT CONCRETE SLAB, SEE ST8.03 FOR FASTENER TO SLAB SCHEDULE.
5. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.

ST8.01 BOTTOM TRACK CONNECTION TO LWC ON METAL DECK OR NWC SLAB - ALL PARTITION WALL CONDITIONS

A1 SCALE: NTS



OPENING SIZE	JAMB STUD BOTTOM TRACK CONNECTION TYPE	CONNECTION TO STRUCTURE (THROUGH BENT PL CLIP OR THROUGH BOTTOM TRACK)
≤ 4'-0"	BOTTOM TRACK CONNECTION TO STRUCTURE (NO CLIP REQUIRED)	(3) PAF
		(1) 3/8"ø x 2" EMBED EXPANSION ANCHOR
		(1) 3/8"ø x 2 1/2" EMBED SCREW ANCHOR
		(2) #10 WOOD SCREWS
		(6) 0.145"ø PAF
>4'-0" TO ≤ 10'-0"	BENT PL CLIP CONNECTION TO STRUCTURE	(1) 3/8"ø x 2" EMBED EXPANSION ANCHOR
		(1) 3/8"ø x 2 1/2" EMBED SCREW ANCHOR
		(3) #10 WOOD SCREWS

NOTE:
1. BOTTOM CONNECTION @ JAMBS AT PARTITION WALL CONDITION 'A', ALL S_{DS} CATEGORIES.

ST8.05 BOTTOM TRACK CONNECTION AT JAMBS - PARTITION WALL CONDITION 'A'

A4 SCALE: NTS

PLOT DATE: May 05, 2017

BOTTOM TRACK CONNECTION TO LWC ON METAL DECK FASTENER MAX SPACING SCHEDULE

BOTTOM CONNECTION DOMINOS (PARTITION WALL CONDITION 'A')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	12	32	32	32	32
	1.00-1.25	12	32	32	32	32
	1.26-1.45	10	32	32	32	32
	1.46-1.95	8	32	32	32	32
12 FT	0.25-0.99	12	32	32	32	32
	1.00-1.25	10	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	6	32	32	32	32
16 FT	0.25-0.99	10	32	32	32	32
	1.00-1.25	8	32	32	32	32
	1.26-1.45	6	32	32	32	32
	1.46-1.95	6	32	32	32	32

BOTTOM CONNECTION DOMINOS (PARTITION WALL CONDITION 'C')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	16	32	32	32	32
	1.00-1.25	12	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	8	32	32	32	32
12 FT	0.25-0.99	12	32	32	32	32
	1.00-1.25	8	32	32	32	32
	1.26-1.45	6	32	32	32	32
	1.46-1.95	6	32	32	32	32
16 FT	0.25-0.99	8	32	32	32	32
	1.00-1.25	6	32	32	32	32
	1.26-1.45	6	32	32	32	32
	1.46-1.95	6	32	32	32	32

BOTTOM CONNECTION DOMINOS (PARTITION WALL CONDITIONS 'C' & 'D')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	-	32	32	24	24
	1.00-1.25	-	32	32	24	24
	1.26-1.45	-	32	32	24	24
	1.46-1.95	-	24	32	24	24
12 FT	0.25-0.99	-	32	32	24	24
	1.00-1.25	-	24	32	16	24
	1.26-1.45	-	24	32	16	24
	1.46-1.95	-	24	32	16	24
16 FT	0.25-0.99	-	24	32	16	24
	1.00-1.25	-	24	32	16	24
	1.26-1.45	-	24	32	16	24
	1.46-1.95	-	24	32	16	24

NOTES:
1. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. SEE ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.

SEISMIC TITLE: STANDARD PARTITION WALL DETAILS

SHEET TITLE: BOTTOM TRACK CONNECTION TO LWC ON METAL DECK FASTENER MAX SPACING SCHEDULE

DPD NO.: ST8.02

05/11/2017 OPD-0001-13; Reviewed for Code Compliance by Karim Page 78 of 86

ST8.02 BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

C5 SCALE: 3" = 1'-0"

PLOT DATE: May 05, 2017

BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

BOTTOM CONNECTION DOMINOS (PARTITION WALL CONDITION 'A')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	32	32	32	32	32
	1.00-1.25	24	32	32	32	32
	1.26-1.45	16	32	32	32	32
	1.46-1.95	16	32	32	32	32
12 FT	0.25-0.99	24	32	32	32	32
	1.00-1.25	16	32	32	32	32
	1.26-1.45	16	32	32	32	32
	1.46-1.95	8	32	32	32	32
16 FT	0.25-0.99	16	32	32	32	32
	1.00-1.25	8	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	8	32	32	32	32

BOTTOM CONNECTION DOMINOS (PARTITION WALL CONDITION 'C')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	16	32	32	32	32
	1.00-1.25	16	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	8	32	32	32	32
12 FT	0.25-0.99	16	32	32	32	32
	1.00-1.25	8	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	8	32	32	32	32
16 FT	0.25-0.99	8	32	32	32	32
	1.00-1.25	8	32	32	32	32
	1.26-1.45	8	32	32	32	32
	1.46-1.95	32	32	32	32	32

BOTTOM CONNECTION DOMINOS (PARTITION WALL CONDITIONS 'C' & 'D')

MAX PARTITION WALL HEIGHT	S_{DS}	MAXIMUM FASTENER SPACING IN INCHES AT BOTTOM CONNECTION				
		PAF	3/8"ø EXP ANCHOR W/ 2" EMBED	1/2"ø EXP ANCHOR W/ 2 1/4" EMBED	3/8"ø SCREW ANCHOR W/ 2 1/2" EMBED	1/2"ø SCREW ANCHOR W/ 2 1/2" EMBED
9 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	32	32
	1.26-1.45	-	32	32	32	32
	1.46-1.95	-	32	32	24	24
12 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	32	32
	1.26-1.45	-	32	32	32	32
	1.46-1.95	-	24	32	24	24
16 FT	0.25-0.99	-	32	32	32	32
	1.00-1.25	-	32	32	32	32
	1.26-1.45	-	32	32	32	32
	1.46-1.95	-	24	32	24	24

NOTES:
1. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. SEE ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.

SEISMIC TITLE: STANDARD PARTITION WALL DETAILS

SHEET TITLE: BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

DPD NO.: ST8.03

05/11/2017 OPD-0001-13; Reviewed for Code Compliance by Karim Page 79 of 86

ST8.03 BOTTOM TRACK CONNECTION TO NWC SLAB FASTENER MAX SPACING SCHEDULE

A5 SCALE: 3" = 1'-0"

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CONSULTANT

CONSULTANT STAMP

KEY PLAN

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8/16/2024, 7:12:57 AM
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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

DETAILS - PARTITION

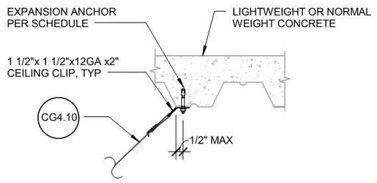
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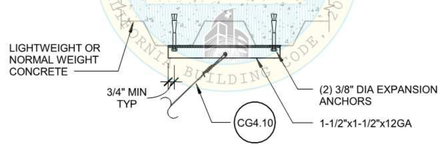
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OPTION 1

ANCHOR BOLT SIZE	SPLAY BRACE/COMP POST SPACING	SDS (g) RANGE (z/h = 1.0)	DECK TYPE
5/8 x 4 1/4" EMBED	8' x 8' (PER CG2.20)	$1.73<S_{DS}\leq 2.5$ (PER CG2.20)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	8' x 12' (PER CG2.21)	$1.15<S_{DS}\leq 1.73$ (PER CG2.21)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	12' x 12' (PER CG2.22)	$0<S_{DS}\leq 1.15$ (PER CG2.22)	W3 + 3 1/4" MIN PER GX1.20
3/8 x 2" EMBED[3]	8' x 8' (PER CG2.20)[3]	$0.76<S_{DS}\leq 1.14$ (IN LIEU OF S_{DS} SHOWN ON CG2.20)[3]	W3 + 3 1/4" MIN PER GX1.20 OR B 1 1/2" + 2 1/4" MIN PER GX1.22
3/8 x 2" EMBED[3]	8' x 12' (PER CG2.21)[3]	$0.51<S_{DS}\leq 0.76$ (IN LIEU OF S_{DS} SHOWN ON CG2.21)[3]	W3 + 3 1/4" MIN PER GX1.20 OR B 1 1/2" + 2 1/4" MIN PER GX1.22
3/8 x 2" EMBED[3]	12' x 12' (PER CG2.22)[3]	$0<S_{DS}\leq 0.51$ (IN LIEU OF S_{DS} SHOWN ON CG2.22)[3]	W3 + 3 1/4" MIN PER GX1.20 OR B 1 1/2" + 2 1/4" MIN PER GX1.22

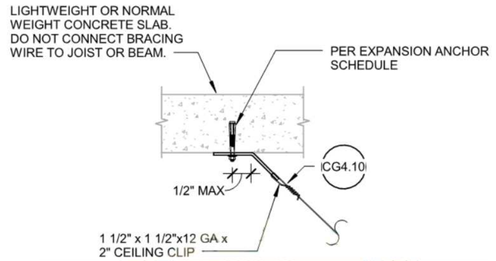


OPTION 2

NOTES:

1. LOAD TEST IN ACCORDANCE WITH GENERAL NOTE 14(g), PAGE CG0.02 SHALL BE REQUIRED
2. REFER TO CG4.10 FOR ADDITIONAL DETAILS
3. RDP CAN USE SMALLER EXPANSION BOLT SIZE AND SHALLOWER EMBEDMENT DEPTH SHOWN, PROVIDED VERTICAL STRUT/BRACING WIRE SPACING IS REDUCED AS SHOWN, IN LIEU OF SPACINGS SHOWN ON CG2.20, CG2.21, AND CG2.22.

D1 CG4.31 BRACING WIRE - CONCRETE OVER METAL DECK
SCALE: NTS

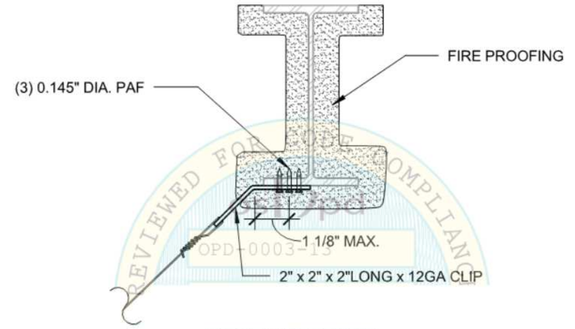


ANCHOR BOLT SIZE	SPLAY BRACE/COMP POST SPACING	SDS (g) RANGE (z/h = 1.0)
5/8 x 4 1/4" EMBED	8' x 8' (PER CG2.20)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	8' x 12' (PER CG2.21)	W3 + 3 1/4" MIN PER GX1.20
5/8 x 4 1/4" EMBED	12' x 12' (PER CG2.22)	W3 + 3 1/4" MIN PER GX1.20
3/8 x 2" EMBED[3]	8' x 8' (PER CG2.20)[3]	$1.24<S_{DS}<1.86$ (IN LIEU OF S_{DS} SHOWN ON GX2.20)[3]
3/8 x 2" EMBED[3]	8' x 12' (PER CG2.21)[3]	$0.83<S_{DS}<1.24$ (IN LIEU OF S_{DS} SHOWN ON GX2.21)[3]
3/8 x 2" EMBED[3]	12' x 12' (PER CG2.22)[3]	$0<S_{DS}<0.83$ (IN LIEU OF S_{DS} SHOWN ON GX2.22)[3]

NOTES:

1. LOAD TEST IN ACCORDANCE WITH GENERAL NOTE 14(g), PAGE CG0.02 SHALL BE REQUIRED.
2. REFER TO CG4.10 FOR ADDITIONAL DETAILS.
3. RDP CAN USE SMALLER EXPANSION BOLT SIZE AND SHALLOWER EMBEDMENT DEPTH SHOWN, PROVIDED VERTICAL STRUT/BRACING WIRE SPACING IS REDUCED AS SHOWN, IN LIEU OF SPACING SHOWN IN CG2,20, CG2.21 AND CG2.22.

D3 CG4.32 BRACING WIRE - CONCRETE SLAB, BEAM, OR JOIST
SCALE: NTS

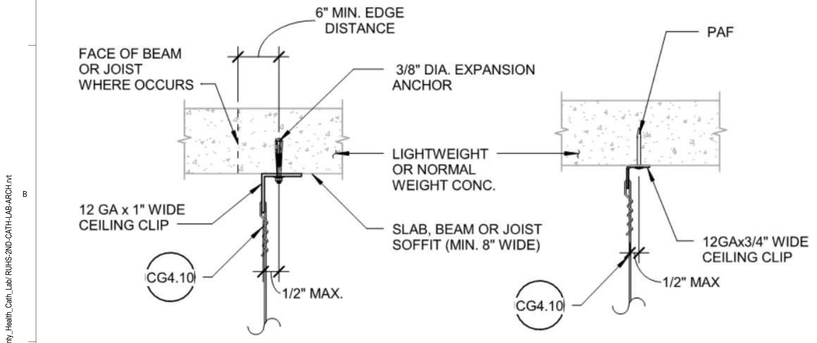


BRACING WIRE

NOTES :

1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16" OR MORE THAN 3/8"
2. FRAMING MEMBERS SHALL BE DESIGNED TO CARRY THE CEILING LOADS, RDP TO VERIFY
3. RDP IN RESPONSIBLE CHARGE, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.

D5 CG4.33 BRACING WIRE - STRUCTURAL STEEL
SCALE: 3" = 1'-0"



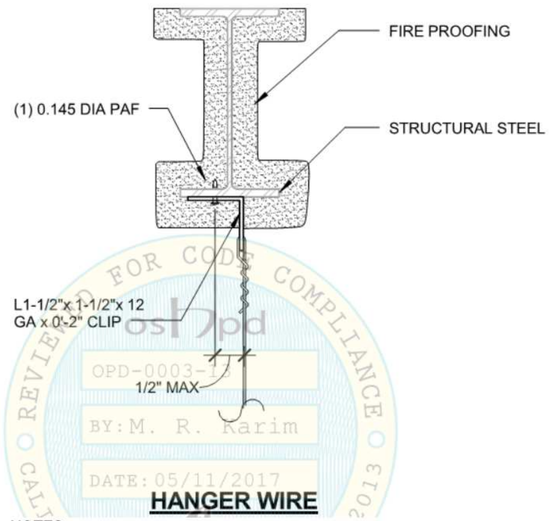
OPTION 1

OPTION 2

NOTES:

1. LOAD TEST IN ACCORDANCE WITH GENERAL NOTE 14(g), PAGE CG0.02 SHALL BE REQUIRED
2. PRIOR TO INSTALLATION, REINFORCING/PRESTRESSING BAR LOCATIONS SHALL BE DETERMINED BY NON-DESTRUCTIVE TESTING
3. REFER TO CG4.10 FOR ADDITIONAL DETAILS

A1 CG4.22 HANGER WIRE - CONCRETE SLAB, BEAM, OR JOIST
SCALE: NTS

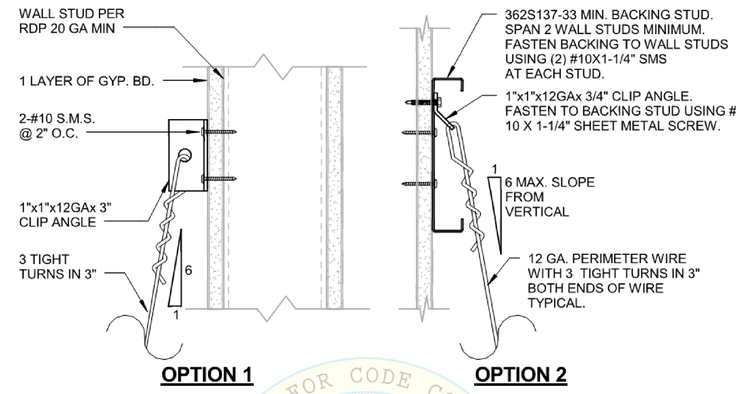


HANGER WIRE

NOTES :

1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16" OR MORE THAN 3/8"
2. FRAMING MEMBERS SHALL BE DESIGNED TO CARRY THE CEILING LOADS, RDP TO VERIFY
3. RDP IN RESPONSIBLE CHARGE, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.

A3 CG4.23 HANGER WIRE - STRUCTURAL STEEL
SCALE: NTS

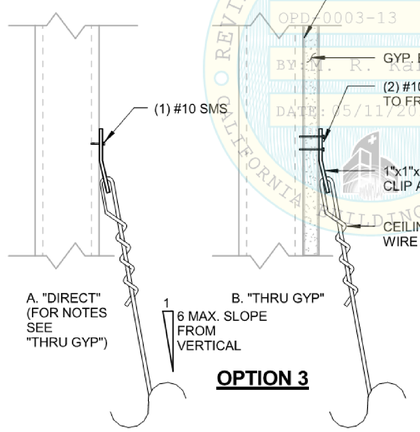


OPTION 1

OPTION 2

NOTES:

1. THIS IS APPLIED FOR PERIMETER WIRE ATTACHEMENT OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO STRUCTURE ABOVE
2. RDP SHALL DESIGN FRAMING WALL TO CARRY THE CEILING LOAD. SEE TABLE BELOW FOR LOADS. LOADS ASSUME A TRIBUTARY AREA OF 16 SQ FT AND ARE UNFACTORED.
3. WALLS SHALL BE DESIGNED FOR HANGER FORCES BELOW. AT FREE JOINT, HANGER WIRE SHALL HAVE A MINIMUM STRETCH LENGTH (CLR LENGTH BTWN TURNS) OF 12"



OPTION 3

HANGER FORCES

	VERTICAL	HORIZONTAL
DEAD	64 LBS	11 LBS
SEISMIC ($0.14S_{DS}$ Wp)		
S_{DS} <= 1.15	11 LBS	2 LBS
$1.15 < S_{DS}$ <= 1.73	16 LBS	3 LBS
$1.73 < S_{DS}$ <= 2.50	23 LBS	4 LBS

A5 CG4.25 HANGER WIRE - METAL STUD WALL
SCALE: NTS

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIA M. KEITH C-27289 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
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FILE LOG

ACTIVITY	BY
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Issue Date	2023/9/29

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8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
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PROJECT TITLE
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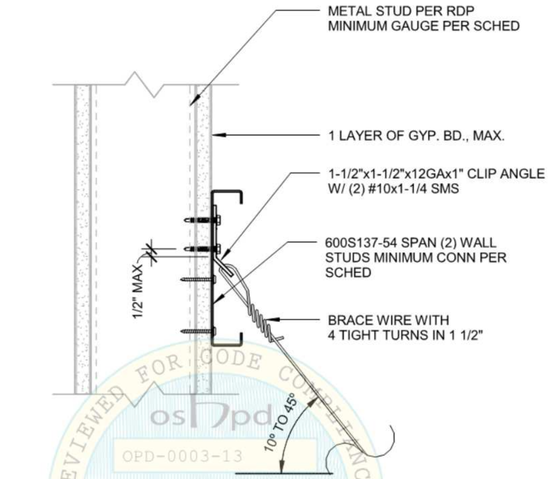
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
DETAILS - CEILINGS

SHEET NUMBER
AE518

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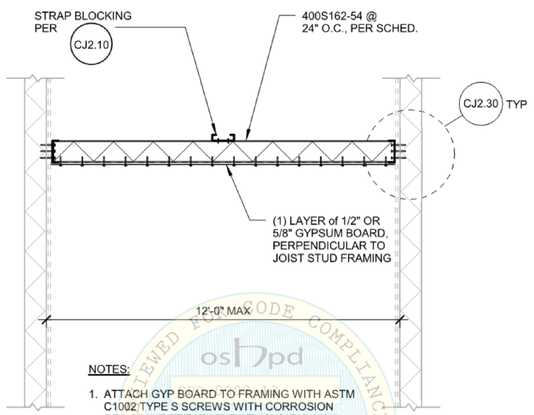


WALL STUD GAUGE	CONN TO WALL STUD	CONN TO WALL STUD ALT [3]
20 GA	(5) #10x1-1/4" SMS	(3) #10x1-1/4" SMS
18 GA	(4) #10x1-1/4" SMS	(2) #10x1-1/4" SMS

NOTES:

1. RDP SHALL DESIGN FRAMING WALL TO CARRY THE CEILING LOAD PER NOTE #2.
2. SEISMIC BRACE WIRE FORCE = 473 LBS (LRFD LOAD). BRACING WIRE SHALL HAVE A MINIMUM STRETCH LENGTH (CLR LENGTH BTWN TURNS) OF 12", WHEN USED AT FREE JOINT.
3. APPLIES WHERE CLIP ATTACHED DIRECTLY TO WALL STUD.

D1 CG4.35 BRACING WIRE - METAL STUD WALL
SCALE: NTS



NOTES:

1. ATTACH GYP BOARD TO FRAMING WITH ASTM C1002 TYPE S SCREWS WITH CORROSION RESISTANT TREATMENT AT 12" O.C. MAX.
2. WHEN GYPSUM BOARD IS TO BE APPLIED TO BOTH CEILING AND WALLS, GYPSUM BOARD SHALL BE APPLIED FIRST TO THE CEILING AND THEN TO THE WALLS IN ACCORDANCE WITH ASTM C840.

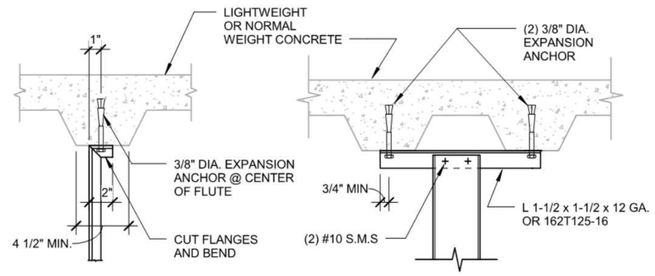
JOIST GYP-BOARD CEILING SECTION

JOIST SPAN SCHEDULES

JOIST STUD SIZE	S_{DS} (g)	BRIDGING LOCATION	F_P ALLOWABLE FOR WALL DESIGN
SCHEDULE A - JOIST CONNECTION FASTENS THROUGH (2) LAYERS OF GYPSUM BOARD MAX			
400S162-54	$S_{DS} \leq 1.15$	MIDPOINT	6.6 plf
	$1.15 < S_{DS} \leq 1.73$	MIDPOINT	9.9 plf
	$1.73 < S_{DS} \leq 2.59$	MIDPOINT	14.9 plf

1. SEE CJ2.31 FOR TYPICAL 4'-1" x 2'-1" MAX OPENING IN JOISTED CEILING.

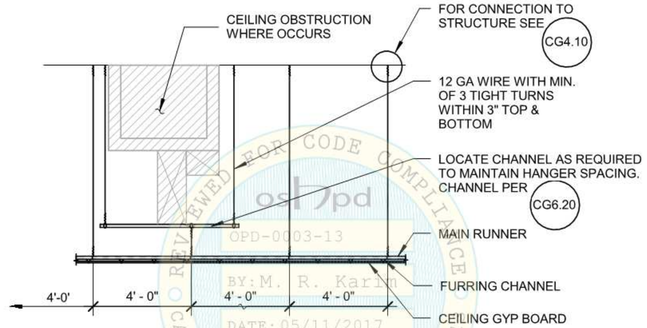
A1 CJ2.20 JOISTED GYP BOARD CEILING MAXIMUM SPANS
SCALE: NTS



OPTION 1 **OPTION 2**

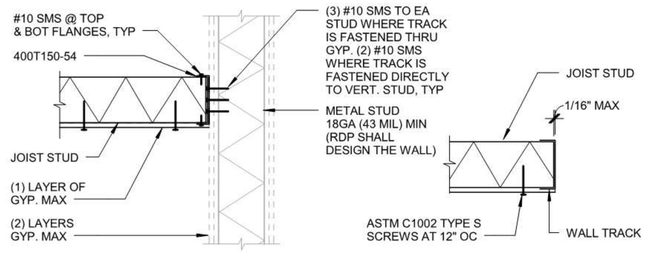
CHANNEL STRUT

E3 CG5.20 STRUT CONNECTION TO CONCRETE OVER METAL DECK
SCALE: NTS

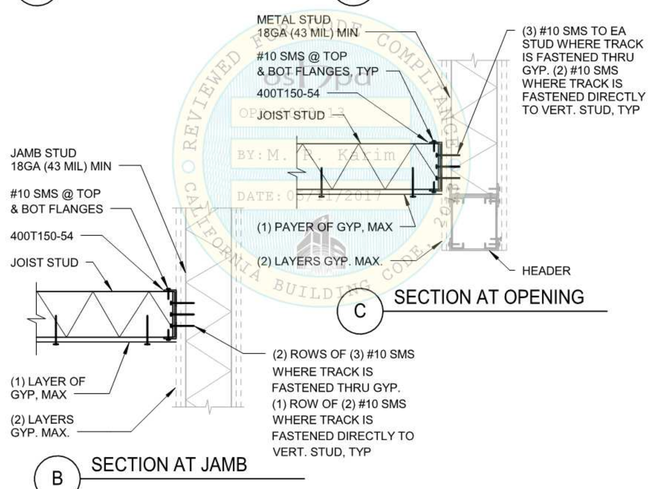


TRAPEZE SUPPORT

D3 CG6.10 OBSTRUCTION - TRAPEZE CONDITION
SCALE: NTS

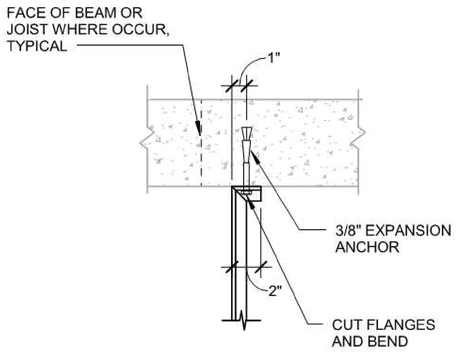


A SECTION AT TYP. STUD **D** GYP BOARD ATTACHMENT



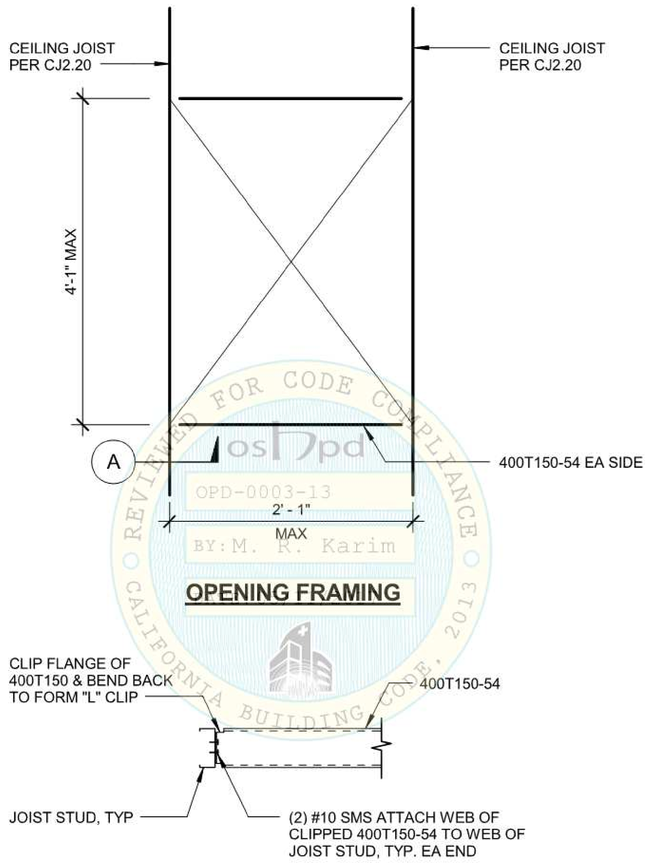
C SECTION AT OPENING **B** SECTION AT JAMB

A4 CJ2.30 JOISTED GYP BOARD CEILING CONNECTIONS
SCALE: NTS



CHANNEL STRUT

E6 CG5.30 STRUT CONNECTION TO CONCRETE SLAB, BEAM, OR JOIST
SCALE: NTS



A TYPICAL CONNECTION

A6 CJ2.31 JOISTED GYP BOARD CEILING AT OPENINGS
SCALE: NTS

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. KEARCH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

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FM08430011869	047-10071-002

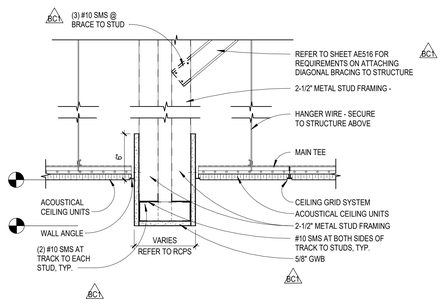
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DETAILS - CEILINGS

SHEET NUMBER
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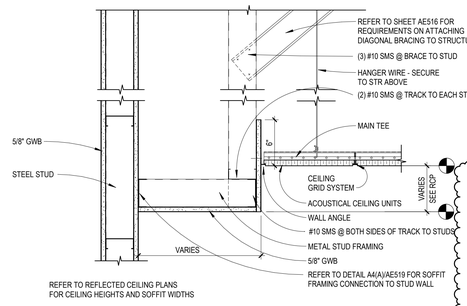
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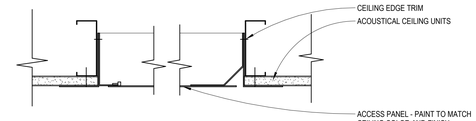
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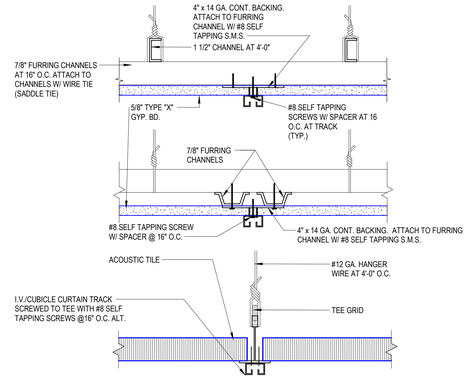
E1 BULKHEAD DETAIL 2
SCALE: 1 1/2" = 1'-0"



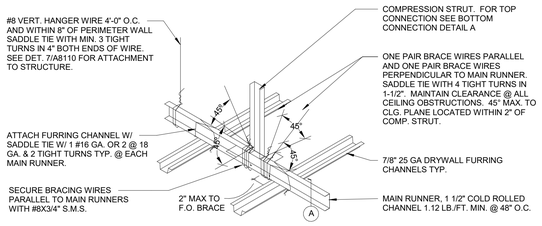
E2 SOFFIT DETAIL - GWB AND APC 3
SCALE: 1 1/2" = 1'-0"



E4 ACCESS PANEL DETAIL
SCALE: 3" = 1'-0"



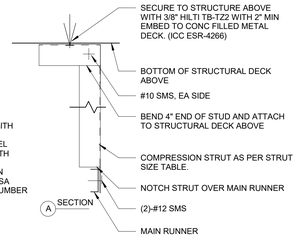
E6 I.V. /CUBICLE CURTAIN TRACK
SCALE: 3" = 1'-0"



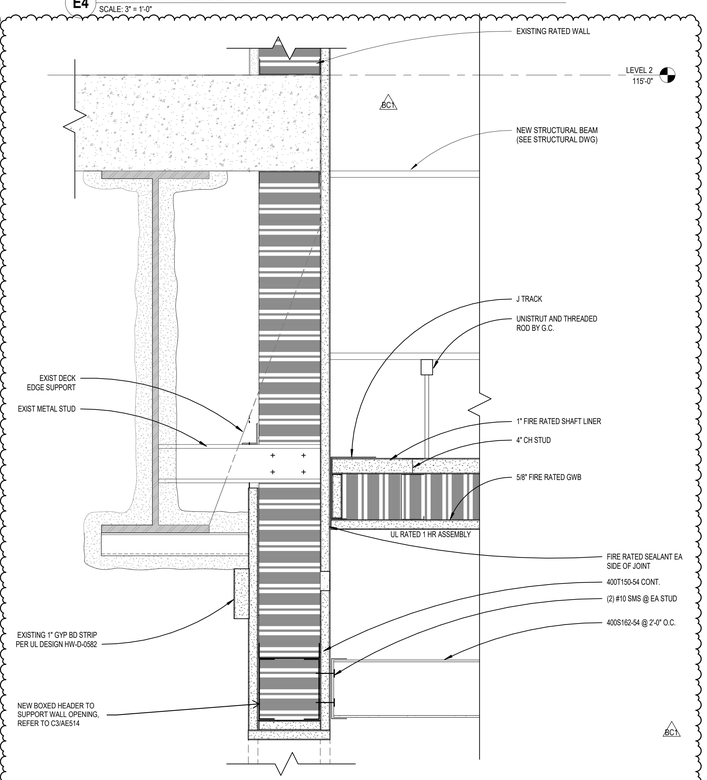
COMPRESSION STRUT SIZE TABLE:

LIMITING HEIGHT	STRUT SIZE
7' - 0 "	2 1/2" x 1 1/4" 20 GA
10' - 0"	4" 1 5/8" 20 GA
21' - 6"	4" x 2" 20 GA

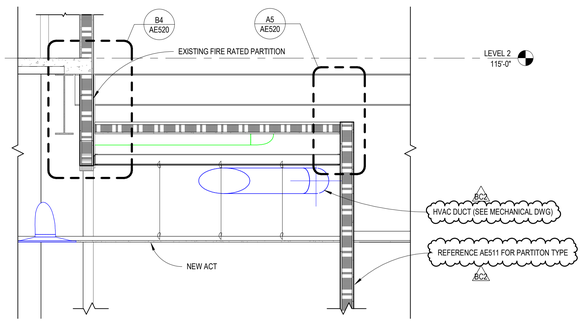
NOTES:
1. MAX SLENDERNESS RATIO (K/lr) OF 200. OTHER COMPRESSION STRUT SECTIONS MAY BE SUBMITTED WITH SUPPORTING CALCULATIONS.
2. SCHEDULES COMPRESSION STRUTS BASED ON STEEL STUD MANUFACTURER'S ASSOCIATION STANDARDS WITH STEEL STRENGTH OF 33KSI
3. PREFABRICATED COMPRESSION MAY BE USED AS AN ALTERNATIVE: USG DOWN COMPRESSION POST TYPE VSA (ICC-ESR-1222) OR APPROVED EQUAL W/ ICC REPORT NUMBER



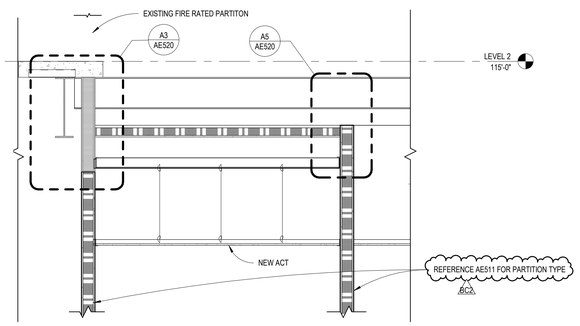
C1 SUSP GYP - COMPRESSION STRUT
SCALE: 3" = 1'-0"



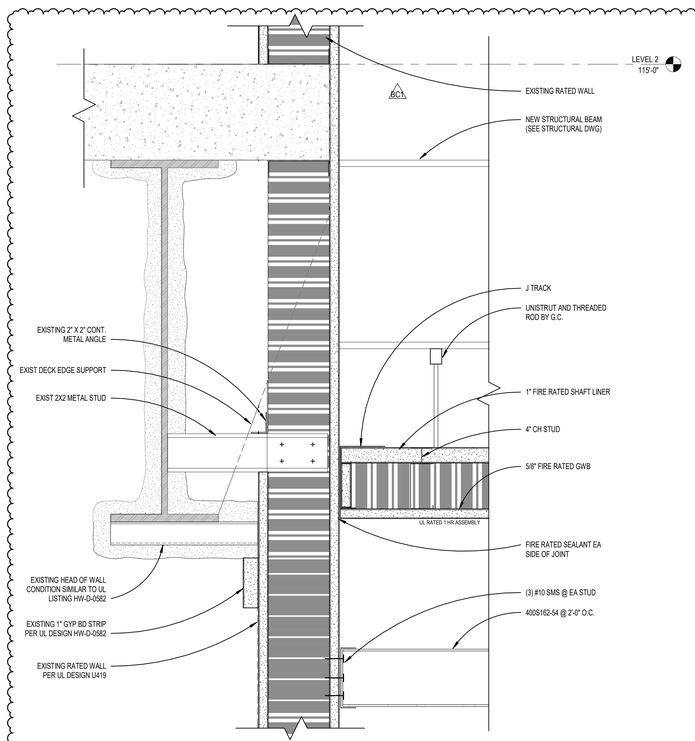
B4 SECTION DETAIL - RATED LID AT LEVEL 2 FLOOR
SCALE: 3" = 1'-0"



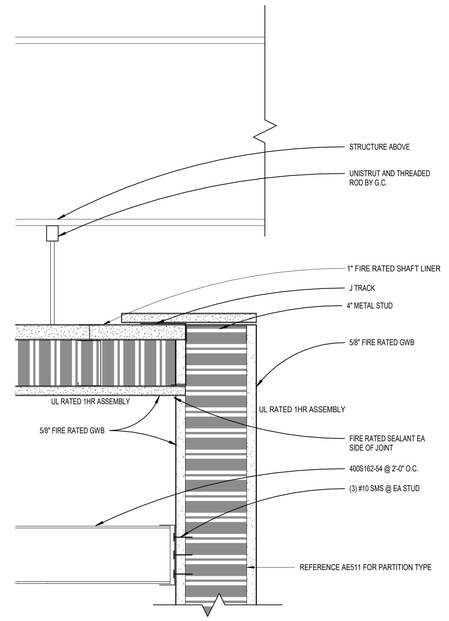
B1 SECTION - 2HR RATED LID
SCALE: 1/2" = 1'-0"



A1 SECTION - 1 HR RATED LID (2)
SCALE: 1/2" = 1'-0"



A3 SECTION DETAIL - RATED LID AT LEVEL 2 (2)
SCALE: 3" = 1'-0"



A5 SECTION DETAIL - RATED LID AT CORRIDOR E1072
SCALE: 3" = 1'-0"

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEARD C-27299 REN. 7/31/25 STATE OF CALIFORNIA

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SHEET NAME

DETAILS - CEILINGS

SHEET NUMBER

AE520

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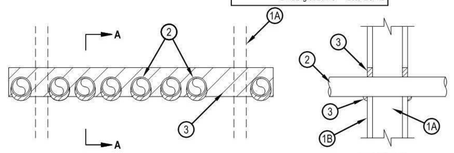
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System No. W-L-1389

WL 1389

Classified by Underwriters Laboratories Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — 4 CFM/sq ft	FTH Ratings — 0 Hr
	L Rating at Ambient — Less Than 5,1 Ls/m2
	L Rating at 204 C — 20,3 Ls/m2



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the Individual U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of min 3-5/8 in. (92 mm) wide steel studs spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Thickness, type, number of layers and fasteners, as specified in the Individual Wall and Partition Design. Max height of opening is 3-1/2 in. (89 mm). Max width of opening is 32 in. (813 mm).
   The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrants — Multiple pipes or conduits installed in single layer array within the firestop system. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (point contact) to max 1-3/8 in. (35 mm). The separation between pipes and conduits to be a min 0 in. (point contact) to a max 1-1/4 in. (32 mm), except that for L Rating, the minimum separation between penetrants shall be 1/2 in. (13 mm). Pipes and conduits to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. Conduit — Nom 2 in. (51 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).
3. Fill, Void or Cavity Material* - Sealant — Min 5/8 in. (16 mm) thickness of fill material installed to completely fill annular space between pipes, conduits and gypsum flush with each surface of wall. Min 1/2 in. (13 mm) diam bead of fill material applied to the through penetrant/wall interface at the point contact locations on both sides of the wall. The 2 hour F, FH Ratings apply only when FS-ONE Sealant is used.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Hilti CP 606 Flexible Firestop Sealant or FS-ONE MAX Intumescent Sealant
   *Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. November 15, 2017

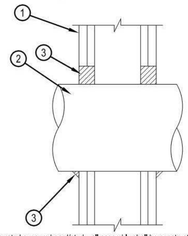
D1 **UL DESIGN NO. W-L-1389**
SCALE: NTS

System No. W-L-1297

F Ratings – 1 and 2 Hr (See Item 1)
T Rating – 0 Hr
L Rating at Ambient – Less than 1 CFM/Sq Ft
L Rating at 400° F – Less than 1 CFM/Sq Ft

WL 1297

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115



1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the Individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft (1,22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the Individual U300, U400 or V400 Series Design in the Fire Resistance Directory. Max diam of opening is 32 in. (813 mm).
   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — One metallic pipe, conduit or tubing installed concentrically or eccentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of wall assembly. The annular space between the pipe, conduit or tube and periphery of the opening shall be min 0 in (0 mm, point contact) to max 2 in. (51 mm) in 2 hr fire rated walls and min 0 in (0 mm, point contact) to max 1 in. (25 mm) in 1 hr fire rated walls. As an option, for through penetrant types 2A, 2B and 2C only in nom diameters not exceeding 4 in. (102 mm), the penetrant can be installed with continuous point contact. The following types and sizes of metallic pipes, conduit or tube may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or 6 in. diam steel conduit.
   D. Copper Tube — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material*-Sealant — Min 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall, for 1 hr and 2 hr fire rated wall assemblies, respectively. A min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe/wall interface at the point contact and continuous point contact location.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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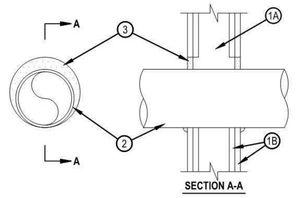
D3 **UL DESIGN NO. W-L-1297**
SCALE: NTS

System No. W-L-1054

WL 1054

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings —1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings —1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — Less Than 1 CFM/sq ft.	FTH Ratings — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft
	L Rating at 400 F — Less Than 1 CFM/sq ft



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.
   The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.

Hilti Firestop Systems

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D5 **UL DESIGN NO. W-L-1054**
SCALE: NTS

System No. W-L-1054

WL 1054

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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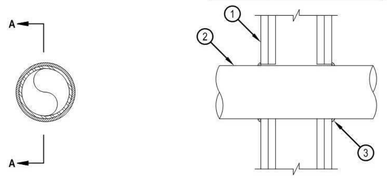
Page: 2 of 2

System No. W-L-1304

WL 1304

Classified by Underwriters Laboratories Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient - Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F - Less Than 1 CFM/sq ft	FTH Ratings — 0 Hr
	L Rating At Ambient - Less Than 1 CFM/sq ft
	L Rating At 400 F - Less Than 1 CFM/sq ft



1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the Individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (13 mm) thick, 4 ft (1,219 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the Individual Wall and Partition Design. Max diam of opening is 5 in. (127 mm).
   The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — One metallic pipe, conduit or tubing installed concentrically or eccentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of wall assembly. The annular space between the pipe or tube and periphery of the opening shall be min 0 in (0 mm, point contact) to max 1/2 in. (13 mm). The following types and sizes of metallic pipes, conduit or tube may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT).
3. Fill, Void or Cavity Material* - Sealant — Min 1/2 in. (13 mm) thickness of fill material (not shown) applied within the annulus, flush with both surfaces of wall. At the point contact location, or when the annulus is 1/8 in. (3 mm) or less, between pipe and wall, a min 1/4 in. (6 mm) diam bead of fill material shall be applied at the pipe/wall interface.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant, FS-One Intumescent Sealant or FS-ONE MAX Intumescent Sealant.
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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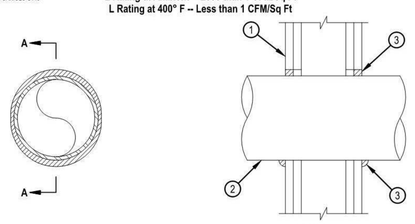
A1 **UL DESIGN NO. W-L-1304**
SCALE: NTS

System No. W-L-1290

F Rating -- 1 and 2 Hr (See Item 1)
T Rating -- 0 Hr
L Rating at Ambient -- Less than 1 CFM/Sq Ft
L Rating at 400° F -- Less than 1 CFM/Sq Ft

WL 1290

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115



1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Design in the Fire Resistance Directory. Max diam of opening is 5 in. (127 mm).
   The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — One metallic pipe, conduit or tubing installed concentrically or eccentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of wall assembly. The annular space between the pipe or tube and periphery of the opening shall be min 0 in (point contact) to max 1/2 in. (13 mm). As an option, for through penetrant types 2A, 2B and 2C only in nom diameters not exceeding 4 in. (102 mm), the penetrant can be installed with continuous point contact. The following types and sizes of metallic pipes, conduit or tube may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or steel conduit.
   D. Copper Tube — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tube.
   E. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material*-Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact and continuous point contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe/wall interface.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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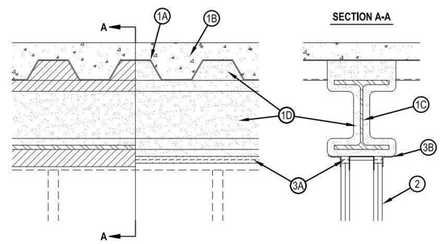
A3 **UL DESIGN NO. W-L-1290**
SCALE: NTS

System No. HW-D-0259

HWD 0259

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Items 1 and 2)	F Ratings — 1 and 2 Hr (See Items 1 and 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Items 1 and 2)
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating At Ambient — Less Than 1 CFM/sq ft	FTH Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating At 400 F — Less Than 1 CFM/sq ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the Individual Floor-Ceiling Designs in the Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
   C. Structural Steel Support — Steel beam, as specified in the Individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support centered over and parallel with wall assembly.
   D. Spray-Applied Fire Resistive Materials* — Steel floor units and structural steel beam to be sprayed with the thickness of material specified in the Individual D700 Series Design or the structural steel supports to be sprayed in accordance with the specifications in the Individual D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 13/16 in. (21 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 1-3/8 in. (35 mm).
   GCP APPLIED TECHNOLOGIES INC — Types MK-6-HY or MK-10HB
   D1. Spray-Applied Fire Resistive Material* — Steel floor units and structural steel support to be sprayed with the min thickness of material specified in the Individual D700 or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 11/16 in. (18 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 1-1/2 in. (38 mm).
   ISOLATEK INTERNATIONAL — Type 300
2. Wall Assembly* — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the Individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner centered beneath and parallel with steel beam (Item 1C). Ceiling runner secured to steel beam through spray-applied fire resistive material with steel fasteners spaced max 24 in. (610 mm) OC.
   A1. Light Gauge Framing* — Slotted Ceiling Runner As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner centered beneath and parallel with steel beam (Item 1C). Slotted ceiling runner secured to steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK, SLPTRK325
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   RAM SALES L L C — RAM Slotted Track
   SCAFCO STEEL STUD MANUFACTURING CO
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   THE STEEL NETWORK INC — VertiTrack VT series. 250VT, 362VT, 400VT, 600VT and 800VT
   A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner centered beneath and parallel with steel beam (Item 1C). Vertical Deflection ceiling runner secured to steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   THE STEEL NETWORK INC — VertiTrack VTD362, VTD400, VTD600 and VTD800.
   A3. Light Gauge Framing* - Notched Ceiling Runner — As an alternate to the ceiling runners In Items 2A through 2A2, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   OLMAR SUPPLY INC — Type SCR

Hilti Firestop Systems

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System No. HW-D-0259

HWD 0259

2. Wall Assembly* — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the Individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner centered beneath and parallel with steel beam (Item 1C). Ceiling runner secured to steel beam through spray-applied fire resistive material with steel fasteners spaced max 24 in. (610 mm) OC.
   A1. Light Gauge Framing* — Slotted Ceiling Runner As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner centered beneath and parallel with steel beam (Item 1C). Slotted ceiling runner secured to steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK, SLPTRK325
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   RAM SALES L L C — RAM Slotted Track
   SCAFCO STEEL STUD MANUFACTURING CO
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   THE STEEL NETWORK INC — VertiTrack VT series. 250VT, 362VT, 400VT, 600VT and 800VT
   A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner centered beneath and parallel with steel beam (Item 1C). Vertical Deflection ceiling runner secured to steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   THE STEEL NETWORK INC — VertiTrack VTD362, VTD400, VTD600 and VTD800.
   A3. Light Gauge Framing* - Notched Ceiling Runner — As an alternate to the ceiling runners In Items 2A through 2A2, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   OLMAR SUPPLY INC — Type SCR

Hilti Firestop Systems

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Page: 2 of 3

A5 **UL DESIGN NO. HW-D-0259**
SCALE:1 : 3

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

UL DETAILS

SHEET NUMBER

AE531

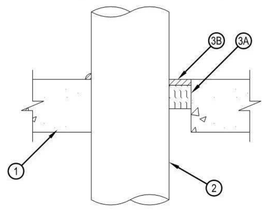
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CAJ 1435

System No. C-AJ-1435

F Rating - 2 Hr
T Rating - 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft



1. Floor or Wall Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diameter of opening is 31-7/8 in.
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One metallic pipe, conduit or tubing to be installed concentrically or eccentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The annular space between pipe conduit or tubing and the periphery of the opening shall be min 0 in. (point contact) to max 1-7/8 in. The following types of pipe, conduit or tubing may be used:
   Steel Pipe — Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   Iron Pipe — Nom 30 in. diam (or smaller) cast or ductile iron pipe.
   Conduit — Nom 6 in. diam (or smaller) rigid steel conduit.
   Conduit — Nom 4 in. diam (or smaller) steel electrical metallic conduit.
   Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
   Copper Pipe — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
3. Firestop System — The firestop system shall consist of the following:
   A. Packing Material — Min 2 in. (51mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.
   B. Fill Void or Cavity Material* - Sealant — Min 1/2 in. (13mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between pipe and concrete, a min 1/2 in. (13mm) diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor or both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Sealant

*Bearing the UL Classification Mark

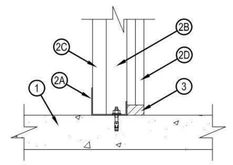
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July 09, 2010

D1 UL DESIGN NO. C-AJ-1435
SCALE: NTS

BWS 0023

System No. BW-S-0023

Assembly Ratings — 1 and 2 Hr (See Item 2)
Joint Width — 3/4 and 1 in. Max (See Item 3)



1. Floor Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete.
2. Wall Assembly — The 1 or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner specified in the Individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory. In addition, the wall may Incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems In the UL Fire Resistance Directory. The wall shall Include the following construction features:
   A. Floor and Ceiling Runners — J-shaped runner, 2-1/2 In. (64 mm) wide with unequal legs of min 1-1/4 In. (32 mm) and 2 In. (51 mm), fabricated from min 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 In. (51 mm) from ends and not greater than 12 In. (610 mm) OC.
   B. Steel Studs — C-H-shaped studs, 2-1/2 In. (64 mm) wide by 1-1/2 In. (38 mm) deep, fabricated from min 25 MSG galv steel, cut to lengths 3/8 to 1/2 In. (10 to 13 mm) less than floor to ceiling height and spaced 24 In. (610 mm) OC. Studs nest In floor runner at bottom and J runner or slotted ceiling track at top. After Installation of gypsum board liner panels (Item 2C), studs secured to flange of floor runner on finished side of wall only with No. 6 by 1/2 In. (13 mm) long self-drilling, self-tapping steel screws. Studs secured to flange of slotted ceiling track on finished side of wall only with No. 8 by 1/2 In. (13 mm) long self-drilling, self-tapping wafer head steel screws at slot midheight.
   C. Gypsum Board* — 1 In. (25 mm) thick by 24 In. (610 mm) wide gypsum board liner panels as specified In the Individual Wall and Partition Series design. Panels cut 1 In. (25 mm) less In length than floor to ceiling height. Vertical edges Inserted In "H"-shaped section of "C-H" studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 In. (41 mm) long Type S steel screws spaced max 12 In. (305 mm) OC.
   D. Gypsum Board* — Gypsum board sheets, 1/2 or 5/8 In. (13 or 16 mm) thick, applied vertically or horizontally on finished side of wall as specified In the Individual Wall and Partition Series design. A max 1 In. (25 mm) gap when CP 606 sealant (Item 3) Is used, or 3/4 In. (19 mm) gap when CP 605 sealant (Item 3) Is used, shall be maintained between the bottom of the gypsum board and the top surface of the concrete floor. The screws attaching the gypsum board layers to the C-H studs shall be located 1 In. (25 mm) above the top of the J-runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling J-runner and slotted ceiling track.
   The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* — Sealant — Max separation between top of floor and bottom of gypsum board on the finish side is 1 In. (25 mm) when CP 606 sealant is used, and 3/4 In. (19 mm) when CP 605 sealant Is used. The depth of sealant to be Installed to fill the linear gap between the bottom of the gypsum board sheets (Item 2D) and the top of the concrete floor shall be equal to the overall thickness of the gypsum board sheets, flush with the finished side of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 or CP 605

* Indicates such products shall bear the UL or cUL Certification Mark for Jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

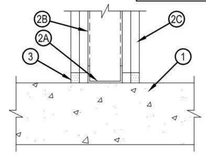
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June 29, 2015

D3 UL DESIGN NO. BW-S-0023
SCALE:1 : 3

BWS 0002

System No. BW-S-0002

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 1)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 1)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400° F — Less than 1 CFM/Lin Ft



1. Floor Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any 6 In. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and In the manner specified In the Individual U400, V400 or W400 Series Wall or Partition Design In the UL Fire Resistance Directory. In addition, the wall may Incorporate a head-of-wall joint system as specified In the HW Series Joint Systems In the UL Fire Resistance Directory. The wall shall Include the following construction features:
   A. Steel Floor Runners — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with 1-1/4 In. (32 mm) flanges. Runners secured with steel fasteners spaced 12 In. (305 mm) OC.
   B. Studs — Steel studs to be min 3-1/2 In. (89 mm) wide. Studs cut 1/2 to 3/4 In. (13 to 19 mm) less In length than assembly height with bottom nesting In, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 In. (610 mm) OC.
   C. Gypsum Board* — Gypsum board Installed to a min total thickness of 5/8 or 1-1/4 In. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified In the Individual U400, V400 or W400 Series Design In the UL Fire Resistance Directory, except that a max 3/4 In. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor. The hourly fire rating of the joint system Is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* Sealant — Max separation between top of floor and bottom of gypsum board wall sheathing Is 3/4 In. (19 mm). Min 5/8 In. (16 mm) thickness of fill material Installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 605 Bottom of Wall Firestop Sealant, CP601S Elastomeric Firestop Sealant, CP606 Flexible Firestop Sealant, CFS-S SIL GG, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for Jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

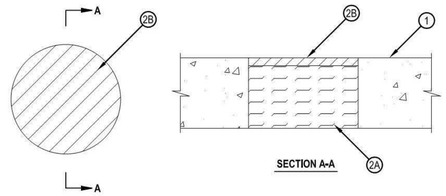
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June 29, 2015

D5 UL DESIGN NO. BW-S-0002
SCALE: NTS

CAJ 0070

System No. C-AJ-0070

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 2 Hr	FT Rating — 2 Hr
	FH Rating — 2 Hr
	FTH Rating — 2 Hr
	L Rating At Ambient — Less Than 1 CFM/sq ft



1. Floor or Wall Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening Is 7 In. (178 mm).
   See Concrete Blocks (CAZT) category In the Fire Resistance Directory for names of manufacturers.
2. Firestop System — The firestop system shall consist of the following:
   A. Packing Material — Min. 4 In. (102 mm) thickness of 4 pcf (64 kg/m3) mineral wool batt Insulation tightly packed Into the opening as a permanent form. Packing material to be recessed from top surface of floor and both surfaces of wall as required to accommodate the required thickness of fill material.
   B. Fill Void or Cavity Materials* — Sealant — Min 1/2 In. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS -ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for Jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

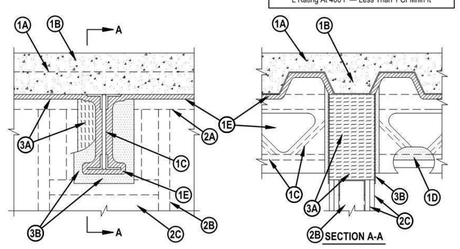
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January 06, 2015

A1 UL DESIGN NO. C-AJ-0070
SCALE: NTS

HWD 0218

System No. HW-D-0218

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 25% Compression or Extension	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/lin ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400 F — Less Than 1 CFM/lin ft	Nominal Joint Width - 1 In.
	Class II Movement Capabilities — 25% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/lin ft
	L Rating At 400 F — Less Than 1 CFM/lin ft



1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
   C. Structural Steel Support (Optional) - Steel beam or open-web steel joist, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented perpendicular to wall assembly. — Steel beam or open-web steel joist, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented perpendicular to wall assembly.
   D. Steel Lath — Where open-web steel joists pass through the fire rated wall, 3/8 in. diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be secured to one side of each joist with steel tie wire and the lath shall be fully covered with no min thickness requirement.

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October 21, 2015

Page: 1 of 3

A3 UL DESIGN NO. HW-D-0218
SCALE:1 : 3

HWD 0218

E. Spray-Applied Fire Resistive Material* — After the installation of the ceiling runner, (Item 2A, 2A1 or 2A2) steel floor units to be sprayed with the thickness of material specified in the individual D700 Series Design or the structural steel supports to be sprayed in accordance with the specifications in the individual D900 Series Design. Material is to be excluded from the steel floor units, directly above the gypsum board and from the flanges of the ceiling runners.
ISOLATEK INTERNATIONAL — Type 300
W R GRACE & CO CONSTRUCTION PRODUCTS DIV — Types MK-6/HY or MK-10HB

1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features as applicable:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.
   C. Structural Steel Support — (Optional) - Steel beam or open-web steel joist, as specified in the individual P700 or P900 Series Roof-Ceiling Design, used to support steel roof deck. Structural steel support oriented perpendicular to wall assembly. Steel beam or open-web steel joist, as specified in the individual P700 or P900 Series Roof-Ceiling Design, used to support steel roof deck. Structural steel support oriented perpendicular to wall assembly.
   D. Steel Lath — Where open-web steel joists pass through the fire rated wall, 3/8 in. diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be secured to one side of each joist with steel tie wire and the lath shall be fully covered with no min thickness requirement.
   E. Spray-Applied Fire Resistive Material* — After the installation of the ceiling runner, (Item 2A, 2A1 or 2A2) steel roof deck to be sprayed with the thickness of material specified in the individual P700 Series Design or the structural steel supports to be sprayed in accordance with the specifications in the individual P700 or P900 Series Design. Material is to be excluded from the steel roof deck, directly above the gypsum board and from the flanges of the ceiling runners.
   ISOLATEK INTERNATIONAL — Type 300
   W R GRACE & CO - CONN — Types MK-6/HY or MK-10HB

2. Wall Assembly* — The 1 or 2 h fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner centered beneath and parallel with valley of steel floor units (Item 1A). Ceiling runner secured to steel floor units with masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. A clearance of 1-1/2 in. (38 mm) shall be maintained between the ceiling runner and the spray-applied fire resistive material on the structural steel support members.
   A1 Light Gauge Framing*-Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   SCAFCO STEEL STUD MANUFACTURING CO
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   THE STEEL NETWORK INC — VertiTrack VT, series, 250VT, 362VT, 400VT, 600VT and 800VT
   A2. Light Gauge Framing*-Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   THE STEEL NETWORK INC VertiTrack VTD362, VTD400, VTD600 and VTD800

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HWD 0218

   A3. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A2, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   OLMAR SUPPLY INC — Type SCR
   A4. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A through 2A3, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, prior to the application of spray-applied fire resistive material, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.
   SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT
   B. Studs — Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to the floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection runner (Item 2A2) is used, studs secured to vertical clip through slip bushing, supplied, with No.8 by 1/2 in. (13 mm) steel screws at midheight of slot of each slot. When slotted ceiling runner (Item 2A4) is used, steel studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at +/- 3/16 in. (5 mm) of the mid-height of slot on each side of wall. A framed opening shall be constructed around each steel structural member A min clearance of 1 in. (25 mm) to a max of 4 in. (102 mm) shall be maintained between the framing and the spray-applied fire resistive material on the two sides of the structural support. The clearance between the framing and the spray-applied fire resistive material on the bottom of the structural steel support shall be max 2 in. (51 mm). Stud spacing not to exceed 24 in. (610 mm) OC.
   C. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, number of layers an sheet orientation shall be as specified in the individual U400, V400 or W400 Series Design in the Fire Resistance Directory, except that a max 1-1/2 in. (38 mm) gap shall be maintained between top of gypsum board and bottom plane of steel floor units and between the top edge of the gypsum board and the spray applied fire resistive material on the structural steel support. The top row of screws shall be installed into the studs 1-1/2 to 2 in. (38 to 51 mm) below the bottom of the ceiling runner.
   The hourly ratings of the joint system are dependent on the hourly rating of the wall.

3. Joint System — Max separation between bottom of floor units and top of gypsum board at time of installation is 1-1/2 in. (38 mm). Max separation between spray-applied fire resistive material on bottom of structural support and framed opening in top of wall is 2 in. (51 mm). The joint system is designed to accommodate a max 25 percent compression or extension from its installed width. The joint system consists of a forming material and a fill material between the top of the gypsum board and the bottom of the floor, as follows
   A. Forming Material* — Nominal 4 in. (102 mm) thick pieces of nominal 4 pcf (64 kg/m3) forming material, sized to be flush with both surfaces of wall, placed to fully fill the framed opening around the structural steel support. Forming material to be installed with fibers vertical along the sides of the beam and pieces sized to attain a min compression rate of 25 percent in the thickness direction. Forming material to be installed with fibers horizontal at the bottom of the beam and pieces sized to attain a min compression rate of 50 percent in the thickness direction. Additional mineral wool batt insulation cut into strips to fill the gap between top of the gypsum board and bottom of floor units. Width of the strips shall be equal to the total thickness of the gypsum board. The strips of mineral wool shall be compressed 50 percent in thickness and firmly packed into the gap between the top of gypsum board and bottom of floor units.
   IIG MINWOOL L L C — MinWool-1200 Safing
   JOHNS MANVILLE INTERNATIONAL INC — Safing
   ROCK WOOL MANUFACTURING CO — Delta Board
   ROXUL INC — SAFE
   THERMAFIBER INC — Type SAF
   B. Fill, Void or Cavity Material* - Sealant — A min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed of troweled on each side of wall to completely cover mineral wool forming material and to overlap min 1/2 in. (13 mm) onto gypsum board and min 2 in. (51 mm) onto the steel floor units or the spray applied material on the steel floor unit and on the structural support member on both sides of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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Page: 3 of 3

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

UL DETAILS

SHEET NUMBER

AE532

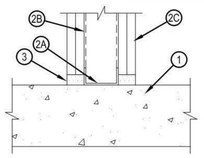
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System No. BW-S-0001

BWS 0001

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400° F — Less than 1 CFM/Lin Ft



1. Floor Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 In. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. See Precast Concrete Units category in the Fire Resistance Directory for names of manufacturers.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:
   A. Steel Floor Runner — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with min 1-1/4 In. (32 mm) flanges. Runners secured with steel fasteners spaced 12 In. (305 mm) OC.
   B. Studs — Steel studs to be min 2-1/2 In. (64 mm) wide. Studs cut 1/2 to 3/4 In. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 In. (610 mm) OC.
   C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 In. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the Individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 In. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor. The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* Sealant — Max separation between top of floor and bottom of gypsum board is 3/4 In. (19 mm). For 1 and 2 hr rated wall assemblies, min 5/8 In. or 1-1/4 In. (16 or 1-1/4 mm) thickness of fill material, respectively. Installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant, CP606 Flexible Firestop Sealant, CFS-S SIL GG, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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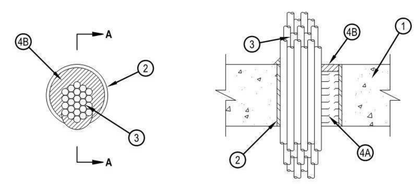
D1 **UL DESIGN NO. BW-S-0001**
SCALE: NTS

System No. C-AJ-3181

F Rating — 3 Hr
T Rating — 0 Hr

CAJ 3181

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115



SECTION A-A

1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 4 in. See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
2. Steel Sleeve — (Optional) - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel sleeve, cast or grouted into floor or wall assembly, flush with both surfaces of floor or wall assembly.
3. Cables — Aggregate cross-sectional area of cables in sleeve or opening to be min 25% to max 60% of the cross-sectional area inside the sleeve or opening. The annular space between cables and periphery of opening shall be min of 0 in. (0 mm, point contact) to max 1-7/8 in. (48 mm). Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types and sizes of cable may be used:
   A. Max 300 pair No. 24 AWG copper conductor telephone cables with polyvinyl chloride (PVC) insulation and jacket.
   B. Max 500 kcmil cable with polyvinyl chloride (PVC) insulation and jacket.
   C. Max 7/C No. 12 AWG copper conductor power cable with polyvinyl chloride (PVC) insulation and jacket.
   D. Max 24 fibers 1/2 in. diam fiber optic cable.
   E. Max 3/C No. 12 AWG metal-clad cable.
   F. Max 3/C with ground 2/0 AWG copper conductor SER cable with cross-linked polyethylene (XLPE) insulation and polyvinyl chloride (PVC) jacket.
   G. RG/U coaxial cable with polyethylene (PE) insulation and polyvinyl chloride (PVC) jacket having a max outside diameter of ½ in. (13 mm).
   H. Fire Resistive Cables* - Max 1-1/4 in. (32 mm) diam single conductor or multi conductor Type MI cable. A min 1/8 in. (3 mm) separation shall be maintained between MI cables and any other type of cable.
4. Firestop System — The details of the firestop system shall be as follows:
   A. Packing Material — Min. 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
   B. Fill, Void or Cavity Materials*-Caulk — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between penetrant and sleeve or concrete, a min 1/2 in. (13 mm) diam bead of fill material applied at the sleeve/cables or concrete/cables interface on the top surface of floor or both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Flexible Firestop Sealant
   *Bearing the UL Classification Mark

Hilti Firestop Systems

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October 15, 2008

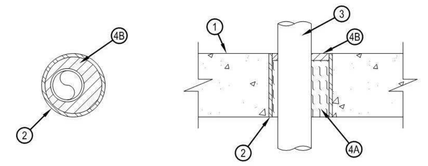
D3 **UL DESIGN NO. C-AJ-3181**
SCALE: NTS

System No. C-AJ-2567

F Rating — 2 Hr
T Ratings — 0, 1-1/4 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — 4 CFM/sq ft
W Rating — Class 1 (See Item 4C)

CAJ 2567

Classified by Underwriters Laboratories, Inc. to UL 1479



1. Floor or Wall Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor or min 5 In. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Floor may also be constructed of any 6 In. thick UL Classified hollow core Precast Concrete Units. Max diam of opening is 4 In. (102 mm). See Concrete Blocks (CAZT) and Precast Concrete Units* (CFTV) categories in the Fire Resistance Directory for names of manufacturers.
2. Steel Sleeve — (Optional) Nom 4 In. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces or extend a max 3 In. (76 mm) above the floor or beyond both surfaces of the wall. The T Rating for the firestop system is 2 hr except that when the steel sleeve is provided, If the steel sleeve is installed flush with both surfaces of the floor or wall, the T Rating of the firestop system is 1-1/4 hr. If the steel sleeve extends beyond the top surface of the floor or both surfaces of the wall, the T Rating of the firestop system is 0 hr.
3. Through Penetrants — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and sleeve (Item 2) shall be min 1/4 In. (6 mm) to max 1-3/8 In. (35 mm). When steel sleeve (Item 2) is not provided, the annular space between pipe and periphery of opening shall be min 0 In. (point contact) to max 1-5/8 In. (41 mm). Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom. 2 In. (51 mm) diam (or smaller) Schedule 40 solid-core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 In. (51 mm) diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   C. Rigid Nonmetallic Conduit* — Nom 2 In. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA 70).
   D. Crosslinked Polyethylene (PEX) Tubing — Nom 2 In. (51 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) piping systems.

Hilti Firestop Systems

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January 09, 2015

Page: 1 of 2

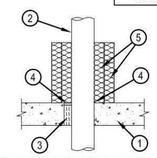
D5 **UL DESIGN NO. C-AJ-2567**
SCALE: NTS

System No. C-AJ-1610

CAJ 1610

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2Hr	F Rating — 2 Hr
T Ratings — 2 Hr	FT Ratings — 2 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 2 Hr
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Ratings — 2 Hr
W Rating — Class 1 (See Item 4)	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



1. Floor or Wall Assembly — Min 4-1/2 In. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 6 In. (152 mm). See Concrete Blocks (CAZT) category for names of manufacturers.
2. Through Penetrant — One metallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between the through penetrant and the periphery of opening shall be min 0 In. (point contact) to a max of 1-1/2 In. (38 mm). Through penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipe or conduit may be used:
   A. Steel Pipe — Nom 4 In. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Iron Pipe — Nom 4 In. (102 mm) diam (or smaller) cast or ductile iron pipe.
   C. Steel Conduit — Nom 4 In. (102 mm) diam (or smaller) rigid steel conduit.
3. Packing Material — Min 4 In. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool firmly packed into opening as a permanent form. Packing material to be recessed min 1/2 In. (13 mm) from top of concrete In floor or from both ends of wall to accommodate the required thickness of fill material (Item 4).
4. Fill, Void or Cavity Material* — Sealant — Fill material applied to a min depth of 1/2 In. (13 mm) flush with top surface of floor or with both surfaces of wall. A min 1/4 In. (6 mm) bead of fill material to be applied at area of point contact.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP604 Sealant (Floors Only), CFS-S SIL GG, CFS-S SIL SL (floors only), CP606 Sealant, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant. NoteW Rating applies only when CFS-S SIL GG, CFS-S SIL SL (floors only), CP604 Sealant or FS-ONE MAX Intumescent Sealant is used.
5. Batts and Blankets* — Two layers of nom 2 In. (51 mm) thick fiberglass duct wrap, min 1 pcf (16 kg/m3), tightly wrapped around penetrant and tightly butted to the top surface of the floor or both sides of wall to extend min 12 In. (305 mm) above floor or past both sides of wall. All longitudinal seams of both layers of duct wrap are to be sealed with foil tape.
   See Batts and Blankets (BKNV) category in the Building Materials Directory for names of manufacturers. Any batts and blankets material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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February 20, 2015

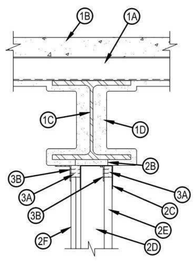
D6 **UL DESIGN NO. C-AJ-1610**
SCALE:1 : 3

System No. HW-D-0571

HWD 0571

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 50% Compression and Extension	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400°F — Less Than 1 CFM/Lin Ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression and Extension
	L Rating At Ambient — Less Than 1 CFM/Lin Ft
	L Rating At 400°F — Less Than 1 CFM/Lin Ft



Hilti Firestop Systems

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September 01, 2016

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System No. HW-D-0571

HWD 0571

1. Floor Assembly — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700, D800 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor And Floor Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete, as measured from the top plane of the floor units.
   C. Structural Steel Support — Steel beam, as specified in the individual D700, D800, or D900 Series Floor-Ceiling Design, used to support steel floor units. Steel beam centered over and parallel with wall assembly.
   D. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), steel floor units and structural steel support to be sprayed with the min thickness of material specified in the individual D700, D800, or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 13/16 in. (21 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-3/8 in. (35 mm).
   GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY and MK-10HB
   D1. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), steel floor units and structural steel support to be sprayed with the min thickness of material specified in the individual D700, D800, or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 11/16 in. (18 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-1/2 in. (38 mm).
   ISOLATEK INTERNATIONAL — Type 300 or Type II

1A. Roof Assembly — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features as applicable:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.
   C. Structural Steel Support — Steel beam, as specified in the individual Roof-Ceiling Design, used to support steel roof deck. Steel beam centered over and parallel with wall assembly.
   D. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), steel roof deck (P700 series) and structural steel support to be sprayed with the min thickness of material specified in the individual Roof-Ceiling Design. In addition, the flutes of the steel deck are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 13/16 in. (21 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-3/8 in. (35 mm).
   GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY or MK-10HB
   D1. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), roof deck (P700 series) and structural steel support to be sprayed with the min thickness of material specified in the individual Roof-Ceiling Design. In addition, the flutes of the roof deck are to be filled with material across the entire top flange of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 11/16 in. (18 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be 1-1/2 in. (38 mm).
   ISOLATEK INTERNATIONAL — Type 300 or Type II

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System No. HW-D-0571

HWD 0571

2. Shaft Wall Assembly — The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Floor and Wall Runners — (Not Shown) - J-shaped runner, sized equal in width to steel studs (Item 2C), with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
   B. Steel Attachment Clips — Z-shaped clips formed from min 1 in. (25 mm) wide strips of min 20 ga galv steel. Length of clips should not exceed the width (thickness) of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom flange of the steel beam with 2 in. (51 mm) long upper and lower legs. Height of clips to be equal to the required thickness of spray-applied fireproofing material (Item 1D or 1D1) on the bottom flange of the steel beam. Legs of clips fastened to bottom of beam (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC.
   C. Ceiling Runner — Ceiling runner of wall assembly shall consist of galv steel channel sized to accommodate steel studs (Item 2D), Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner to be positioned beneath and parallel with bottom flange of steel beam. Ceiling runner secured to steel attachment clips (Item 2B) with steel fasteners or welds spaced max 24 in. (610 mm) OC.
   C1. Light Gauge Framing* - Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2B, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Slotted ceiling runner to be positioned beneath and parallel with bottom flange of steel beam. Slotted ceiling runner secured to steel attachment clips (Item 2B) with steel fasteners or welds spaced max 24 in. (610 mm) OC.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK, SLPTRK325
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
   MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
   METAL-LITE INC — The System
   RAM SALES L L C — RAM Slotted Track
   SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   C2. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2C through 2C1, slotted ceiling runner to consist of galv steel channel, sized to accommodate steel studs (Item 2D). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner to be positioned beneath and parallel with bottom flange of steel beam. Slotted ceiling runner secured to steel attachment clips (Item 2B) with steel fasteners or welds spaced max 24 in. (610 mm) OC.
   SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT
   D. Steel Studs — C-H shaped studs, min 4 in. (102 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from 25 MSG galv steel, cut to lengths 3/4 to 1 in. (19 to 25 mm) less than floor to ceiling height beneath coating on steel beam bottom flange and spaced 24 in. (610 mm) OC. When slotted ceiling runner specified in Item 2C2 is used the C-H-shaped studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height beneath coating on steel beam bottom flange and spaced 24 in. (610 mm) OC.
   E. Gypsum Board* — Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 1-12 in. (38 mm) less in length than floor to ceiling height beneath coating on steel beam bottom flange. Vertical edges inserted in H-shaped section of C-H studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
   F. Gypsum Board* — Nom 5/8 in. (16 mm) thick gypsum board applied vertically in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height beneath coating on steel beam bottom flange. The screws attaching the gypsum board layers to the C-H studs shall be located 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the ceiling runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling runner or slotted ceiling track. The hourly ratings of the joint system are equal to the hourly fire rating of the wall.

Hilti Firestop Systems

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System No. HW-D-0571

HWD 0571

3. Joint System — Max separation between coating on steel beam bottom flange and top of gypsum board (at the time of installation of the joint system) is 1 1/2 in. (38 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of the following:
   A. Forming Material* — Min 4 pcf (64 kg/m3) density mineral wool batt insulation cut to a thickness twice larger than the distance between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange. Material compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Material compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange, flush with the surface of the wall.
   INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
   JOHNS MANVILLE — Safing
   ROCK WOOL MANUFACTURING CO — Delta Board
   ROCKWOOL — SAFE
   THERMAFIBER INC — Type SAF
   A1. Forming Material* - Strips — As an alternate to Item 2A, the strips are stacked to a height twice larger than the distance between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange. Strips compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Strips compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the coating on the steel beam bottom flange, flush with the surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
   B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled within stud cavity and on finished side of the shaft wall to completely cover mineral wool forming material. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and ceiling runner within stud cavity. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and min 2 in. (51 mm) onto spray-applied fire resistive material (Item 1C) on the finished side of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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September 01, 2016

Page: 4 of 4

A1 **UL DESIGN NO. HW-D-0571**
SCALE: NTS

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

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CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

UL DETAILS

SHEET NUMBER

AE533

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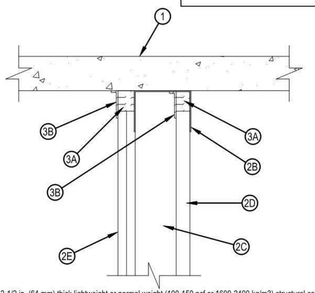
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System No. HW-D-0572

HWD 0572

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 50% Compression and Extension	FH Ratings — 1 and 2 Hr (See Item 2)
	FTH Ratings — 1 and 2 Hr (See Item 2)
	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression and Extension



1. Floor Assembly — Min 2-1/2 in. (64 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also consist of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
See Precast Concrete Units (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Shaft Wall Assembly — The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. Floor and Wall Runners — (Not Shown) - J-shaped runner, sized equal in width to steel studs (Item 2C),with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
B. Ceiling Runner — Ceiling runner shall consist of galv steel channel sized to accommodate steel studs (Item 2C). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner secured with steel fasteners located not more than 2 in. (51 mm) from ends and spaced not greater than 24 in. (610 mm) OC.

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System No. HW-D-0572

HWD 0572

B1. Light Gauge Framing* - Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2B, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Slotted ceiling runner secured with steel fasteners located not more than 2 in. (51 mm) from ends and spaced max 24 in. (610 mm) OC.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track
TELLING INDUSTRIES L L C — True-Action Deflection Track
C. Steel Studs — C-H shaped studs, min 4 in. (102 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from 25 MSG galv steel, cut to lengths 3/4 to 1 in. (19 to 25 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC.
D. Gypsum Board* — Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. Vertical edges inserted in H-shaped section of C-H studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
E. Gypsum Board* — Nom 5/8 in. (16 mm) thick gypsum board applied vertically in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. The screws attaching the gypsum board layers to the C-H studs shall be located 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the ceiling runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling runner or slotted ceiling track.
The hourly ratings of the joint system are equal to the hourly fire rating of the wall.
3. Joint System — Max separation between bottom of floor and top of gypsum board (at the time of installation of the joint system) is 1 1/2 in. (38 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of the following:
A. Forming Material* — Min 4 pcf (64 kg/m3) density mineral wool batt insulation cut to a thickness twice larger than the distance between the top of the gypsum board and the bottom of the floor. Material compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Material compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the floor, flush with the surface of the wall.
ROCK WOOL MANUFACTURING CO — Delta Board
ROXUL INC — SAFE
THERMAFIBER INC — Type SAF
A1. Forming Material* - Strips — As an alternate to Item 2A, the strips are stacked to a height twice larger than the distance between the top of the gypsum board and the bottom of the floor. Strips compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Strips compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the floor, flush with the surface of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled within stud cavity and on finished side of the shaft wall to completely cover mineral wool forming material. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and ceiling runner within stud cavity. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and concrete on finished side of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 672 Firestop Spray or CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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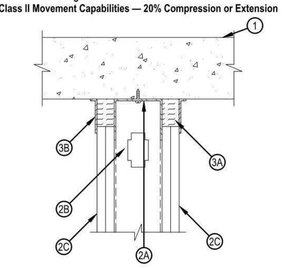
D1 **UL DESIGN NO. HW-D-0572**
SCALE: NTS

System No. HW-D-0106

HWD 0106

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

Assembly Ratings — 1 and 2 Hr (See items 2 and 3)
Nominal Joint Width — 2 In.
L Rating At Ambient — Less Than 1 CFM/Lin Ft
L Rating At 400°F — Less Than 1 CFM/Lin Ft
Class II Movement Capabilities — 20% Compression or Extension



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 hr fire-rated gypsum board /stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced 24 in. (610 mm) OC.
A1. Light Gauge Framing*-Slotted Ceiling Runner — (For use in applications where the nominal joint width does not exceed 1-1/2 in. or 38 mm) - As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
SCAFCO STEEL STUD MANUFACTURING CO
TELLING INDUSTRIES L L C — True-Action Deflection Track

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. November 23, 2015

System No. HW-D-0106

HWD 0106

A2 . Light Gauge Framing*-Vertical Deflection Ceiling Runner — (For use in applications where the nominal joint width does not exceed 1 in. or 25 mm) - As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner masonry anchors or steel fasteners with steel masonry anchors spaced max 24 in. (610 mm) OC.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
A3. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR
B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. . When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC .
C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall, for 1 or 2 hr fire resistance rated walls, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a nominal 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of concrete floor. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the floor assembly. The screws attaching the second layer to the steel studs shall be located 3-1/2 in. (89 mm) from the floor assembly. The hourly fire rating of the joint system is dependent on the hourly rating of the wall.
3. Joint System — Max width of joint (at time of installation of joint system) is 2 in. (51 mm). The joint system is designed to accommodate a max 20 percent compression or extension from its installed width. The joint system shall consist of the following:
A. Forming Material * — Nom 5/8 or 1-1/4 in. (16 or 32 mm) thick strips of min 4 pcf (64 kg/m3) mineral wool batt insulation, for 1 and 2 Hr rated assemblies, respectively, cut to width, compressed 33 percent in width and firmly packed into gap between top of the gypsum board and bottom of the floor assembly, flush with both surfaces of the wall. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. (1.2 m) apart along the length of the joint.
ROCK WOOL MANUFACTURING CO — Delta Board
ROXUL INC — SAFE
THERMAFIBER INC — Type SAF
A1. Forming Material* - Strips — (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide precut mineral wool strips for 1 and 2 hr rated assemblies, respectively. The strips are cut to thickness, compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the floor assembly, flush with both surfaces of the wall. Adjoining lengths of strips to be tightly butted with butted seams spaced min 48 in. (1.2 m) apart along the length of the joint.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in.or 3.2 mm wet thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap min 1/2 in. (13 mm) onto the gypsum board and concrete floor assembly.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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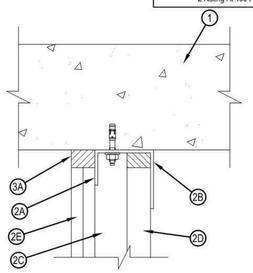
D4 **UL DESIGN NO. HW-D-0106**
SCALE: NTS

System No. HW-D-0342

HWD 0342

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 2 Hr	F Rating — 2 Hr
Nominal Joint Width - 1 In.	FT Rating — 2 Hr
Class II Movement Capabilities — 8% Compression and Extension	FH Rating — 2 Hr
L Rating At Ambient — Less Than 1 CFM/lin ft	FTH Rating — 2 Hr
L Rating At 400 F — Less Than 1 CFM/lin ft	Nominal Joint Width - 1 In.
	Class II Movement Capabilities — 8% Compression and Extension
	L Rating At Ambient — Less Than 1 CFM/lin ft
	L Rating At 400 F — Less Than 1 CFM/lin ft



1. Floor Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete.
2. Shaft Wall Assembly — The 2 hr fire-rated gypsum board /steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. Floor and Ceiling Runners — J-shaped runner, 2-1/2 in. (64 mm) wide with unequal legs of min 1-1/4 in. (32 mm) and 2 in. (51 mm), fabricated from min 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
B. Light Gauge Framing* - Slotted Ceiling Track — (Optional) Slotted ceiling track shall consist of galv steel channels with slotted flanges. Slotted ceiling track sized to accommodate steel "C-H" studs (Items 2C). Attached to concrete at ceiling with steel fasteners spaced max 24 in. (610 mm) OC.
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
B1. Light Gauge Framing Members* — (Optional Not Shown) - As an option, the steel studs (Item 2C) may incorporate vertical deflection clips for attachment to the ceiling runner (Item 2A) in accordance with the manufacturer's instructions.
THE STEEL NETWORK INC — VertiClip SLD 150.
C. Steel Studs — C-H-shaped studs, 2-1/2 in. (64 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from min 25 MSG galv steel, cut to lengths 3/8 to 1/2 in. (10 to 13 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC. Studs nest in floor runner at bottom and J runner or slotted ceiling track at top. After installation of gypsum board liner panels (Item 2D), studs secured to flange of floor runner on finished side of wall only with No. 6 by 1/2 in. (13 mm) long self-drilling, self-tapping steel screws. Studs secured to flange of slotted ceiling track on finished side of wall only with No. 8 by 1/2 in. (13 mm) long self-drilling, self-tapping wafer head steel screws at slot midheight.
D. Gypsum Board* — 1 in. (25 mm) thick by 24 in. (610 mm) wide gypsum board liner panels as specified in the individual U400 or V400-Series design. Panels cut 1 in. (25 mm) less in length than floor to ceiling height. Vertical edges inserted in "H"-shaped section of "C-H" studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
E. Gypsum Board* — Gypsum board sheets, 1/2 or 5/8 in. (13 or 16 mm) thick, applied vertically or horizontally in two layers on finished side of wall as specified in the individual U400 or V400-Series design. A max 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the concrete floor. The screws attaching the gypsum board layers to the C-H studs shall be located 1 in. (25 mm) below the bottom of the J-runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling J-runner and slotted ceiling track.
3. Joint System — Max separation between top of liner panel (Item 2D) and between top of gypsum board sheets (Item 2E) at time of installation of joint system is 1 in. (25 mm). The joint system is designed to accommodate a maximum 8 percent compression and extension from its installed width. The joint system consists of the following:
A. Fill, Void or Cavity Material* - Sealant — Min 1 in. (25 mm) depth of sealant to be installed to fill linear gap between top of gypsum board liner panel (Item 2D) and top inside surface of ceiling J-runner or slotted ceiling track prior to installation of gypsum board (ItemD2E) on finished side of wall. Min 1 in. (25 mm) depth of sealant to be installed to fill linear gap between top of gypsum board sheets (Item 2E) and bottom of concrete floor.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606
*Bearing the UL Classification Mark

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System No. HW-D-0342

HWD 0342

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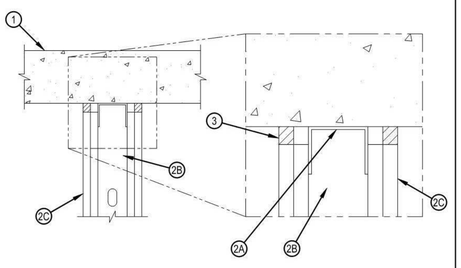
A1 **UL DESIGN NO. HW-D-0342**
SCALE:1 : 3

System No. HW-D-0082

HWD 0082

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 1 and 2 Hr (See Items 2 and 3)	F Rating — 1 and 2 Hr (See Items 2 and 3)
Nominal Joint Width - 3/4 In.	FT Rating — 1 and 2 Hr (See Items 2 and 3)
Class II Movement Capabilities - 33% Compression or Extension	FH Rating — 1 and 2 Hr (See Items 2 and 3)
	FTH Rating — 1 and 2 Hr (See Items 2 and 3)
	Nominal Joint Width - 3/4 In.
	Class II Movement Capabilities - 33% Compression or Extension



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board /steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced 24 in. (610 mm) OC.
A1. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
RAM SALES L L C — RAM Slotted Track
SCAFCO STEEL STUD MANUFACTURING CO
TELLING INDUSTRIES L L C — True-Action Deflection Track
A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
A3. Light Gauge Framing* — Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR
A4. Light Gauge Framing — Tab Track Ceiling Runner — As an alternate to the ceiling runner in Item 2A, tabbed ceiling runner to consist of a U-shaped galv steel channel with legs with a series of 1 in (26mm) long slits starting from the open end of the track leg extending vertically up the leg. Ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.
CALIFORNIA EXPANDED METAL PRODUCTS CO — TAB Track
B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.
C. Gypsum Board* — Gypsum board installed to a min total thickness 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall, for 1 or 2 hr fire resistance rated walls, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the top of gypsum board and bottom of concrete floor. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the steel floor unit valleys. The screws attaching the second layer to the steel studs shall be installed into the studs 3-1/2 in. (89 mm) below the valleys of the steel floor units. The hourly fire rating of the joint system is dependent on the hourly ratings of the walls.
3. Fill, Void or Cavity Material — Sealant — Max separation between the bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. Fill material installed on each side of wall between the top of the gypsum board and the bottom of the concrete floor. Min 5/8 in. (16 mm) thickness plus a 1/4 in. (6 mm) crown required for 1 hr fire rated system. Min 1-1/4 in. (32 mm) thickness installed flush with surface of wall required for 2 Hr fire rated system.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant or CFS-S SIL GG Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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System No. HW-D-0082

HWD 0082

A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width Ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced 24 in. (610 mm) OC.
A1. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
METAL-LITE INC — The System
RAM SALES L L C — RAM Slotted Track
SCAFCO STEEL STUD MANUFACTURING CO
TELLING INDUSTRIES L L C — True-Action Deflection Track
A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
A3. Light Gauge Framing* — Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR
A4. Light Gauge Framing — Tab Track Ceiling Runner — As an alternate to the ceiling runner in Item 2A, tabbed ceiling runner to consist of a U-shaped galv steel channel with legs with a series of 1 in (26mm) long slits starting from the open end of the track leg extending vertically up the leg. Ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.
CALIFORNIA EXPANDED METAL PRODUCTS CO — TAB Track
B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.
C. Gypsum Board* — Gypsum board installed to a min total thickness 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall, for 1 or 2 hr fire resistance rated walls, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the top of gypsum board and bottom of concrete floor. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the steel floor unit valleys. The screws attaching the second layer to the steel studs shall be installed into the studs 3-1/2 in. (89 mm) below the valleys of the steel floor units. The hourly fire rating of the joint system is dependent on the hourly ratings of the walls.
3. Fill, Void or Cavity Material — Sealant — Max separation between the bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. Fill material installed on each side of wall between the top of the gypsum board and the bottom of the concrete floor. Min 5/8 in. (16 mm) thickness plus a 1/4 in. (6 mm) crown required for 1 hr fire rated system. Min 1-1/4 in. (32 mm) thickness installed flush with surface of wall required for 2 Hr fire rated system.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant or CFS-S SIL GG Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. April 12, 2017

A3 **UL DESIGN NO. HW-D-0082**
SCALE: NTS

Riverside University HEALTH SYSTEM
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER
26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555
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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
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Allen Cheng

BUILDING TITLE
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PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.
FM08430011869

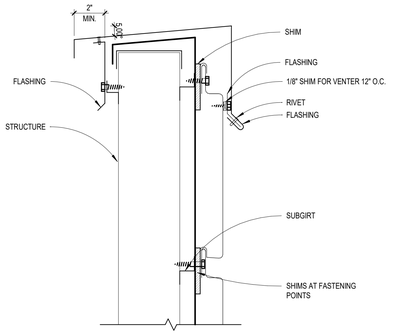
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SHEET NAME
UL DETAILS

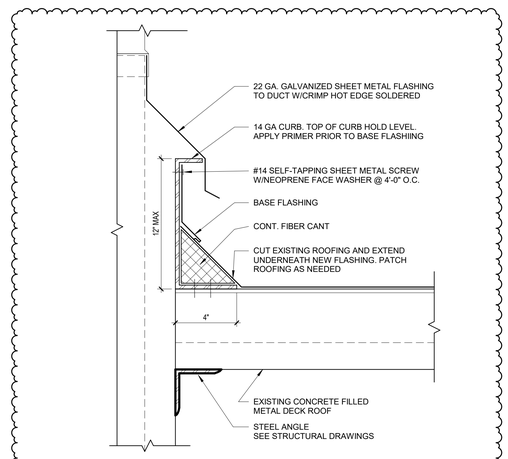
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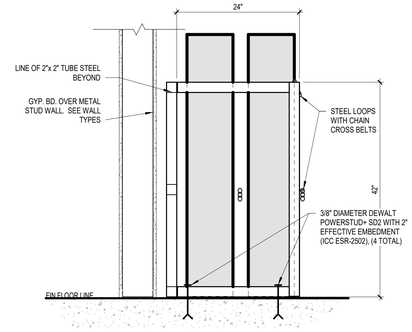
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E1 ROOF SCREEN HEAD
SCALE: 3" = 1'-0"

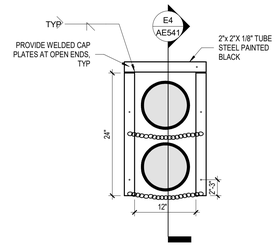


E3 DUCT PENETRATION CURB DETAIL
SCALE: 3" = 1'-0"



A-A - SECTION

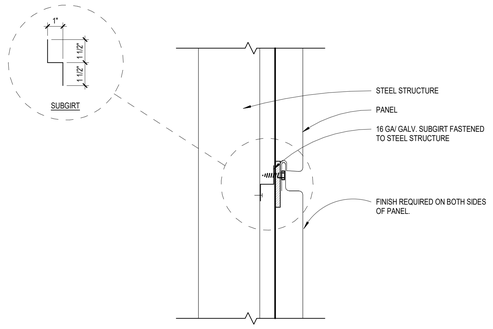
E4 CYLINDER ANCHORAGE DETAIL1 - SECTION
SCALE: 1" = 1'-0"



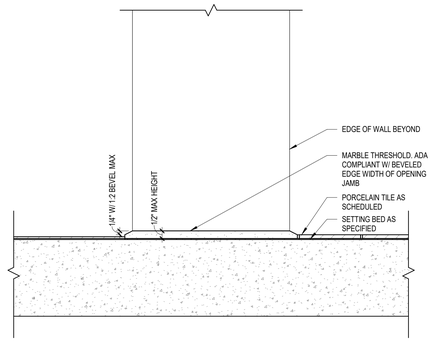
PLAN

NOTES:
1. PREFABRICATE ALL METALS WITH TUBE STEEL ASTM 500 GRADE B, GALVANIZED, TYP
2. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION
3. GRIND SMOOTH ALL EDGES, TYP
4. PRIME AND PAINT ALL METAL SURFACES, TYP

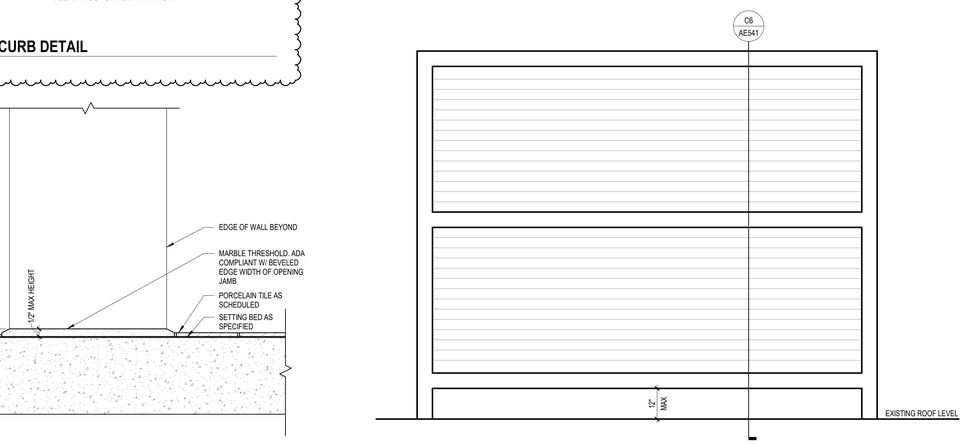
E6 CYLINDER ANCHORAGE DETAIL
SCALE: 1" = 1'-0"



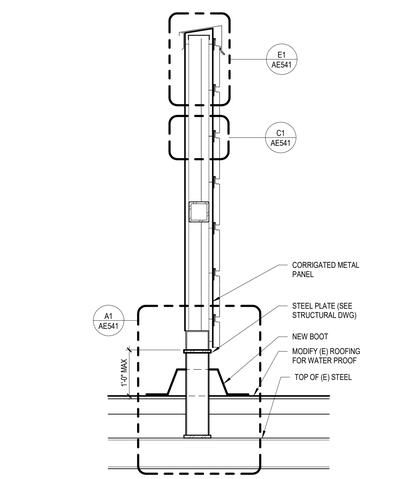
C1 ROOF SCREEN JOINT
SCALE: 3" = 1'-0"



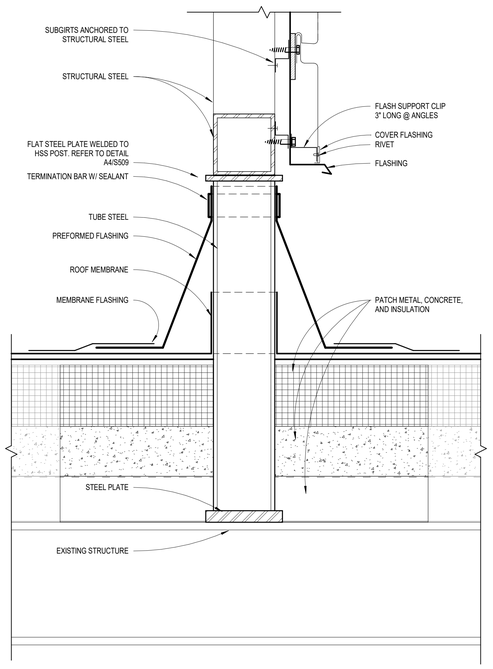
C3 DETAIL SECTION - SHOWER FLOOR TRANSITION
SCALE: 3" = 1'-0"



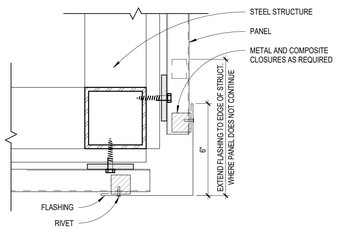
C4 SCREEN WALL - ELEVATION
SCALE: NTS



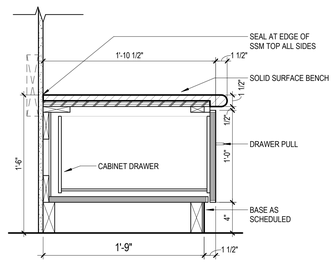
C6 SCREEN WALL - SECTION
SCALE: NTS



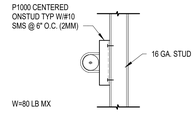
A1 ROOF SCREEN SILL
SCALE: 3" = 1'-0"



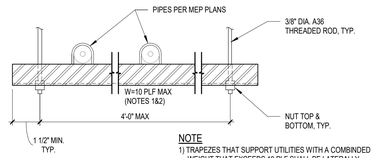
B3 ROOF SCREEN OUTSIDE CORNER
SCALE: 3" = 1'-0"



A3 BENCH_IMAGING
SCALE: 1 1/2" = 1'-0"

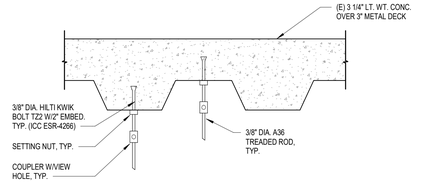


WALL MOUNTED UTILITY SUPPORT

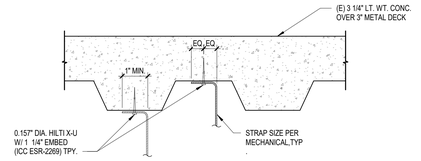


NOTE
1) TRAPEZES THAT SUPPORT UTILITIES WITH A COMBINDED WEIGHT THAT EXCEEDS 10 PLF SHALL BE LATERALLY BRACED PER OPM-0043 AS A DEFERRED APPROVAL
2) SPACING OF TRAPEZE SUPPORTS PER MEP DRAWINGS

TRAPEZE SUPPORT DETAIL

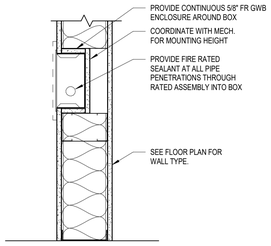


THREDED ROD ATTACHMENT

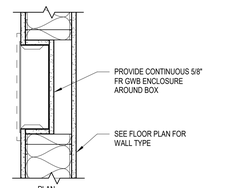


STRAP ATTACHMENT

A4 TYPICAL UTILITY SUPPORT DETAILS
SCALE: NTS



SECTION



PLAN

A6 RECESSED IN FIRE RATED WALL AT MEDGAS ZONE VALVE BOX & FIRE EXTINGUISHER CABINET
SCALE: 1 1/2" = 1'-0"

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

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BC2	BACK CHECK 02	07/12/2024

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Draw	Author
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Allen Cheng

BUILDING TITLE

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PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

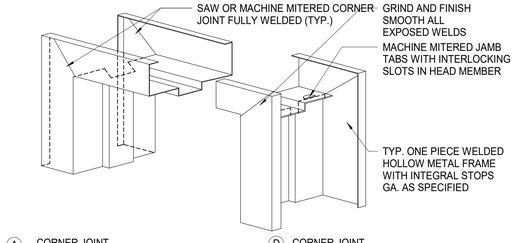
DETAILS - MISCELLANEOUS

SHEET NUMBER

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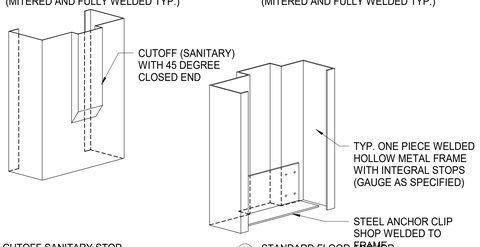
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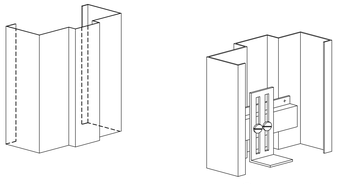
A CORNER JOINT (MITERED AND FULLY WELDED TYP.)

D CORNER JOINT (MITERED AND FULLY WELDED TYP.)



B CUTOFF SANITARY STOP (WHERE SCHEDULED)

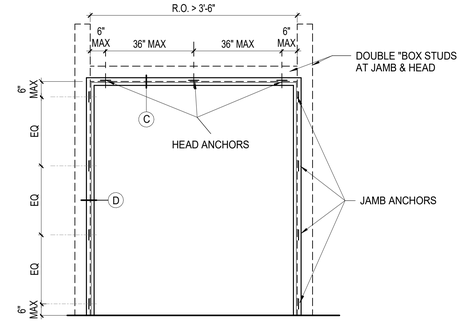
E STANDARD FLOOR ANCHOR (TYPICAL, UON)



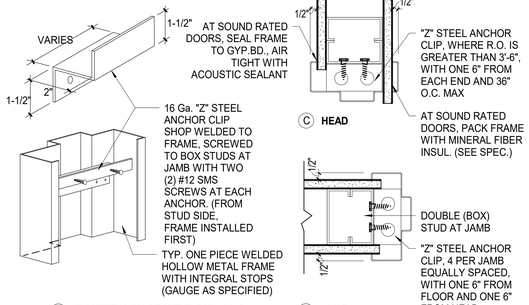
C STANDARD STOP (TYPICAL, UON)

F ADJUSTABLE FLOOR ANCHOR (TYPICAL AT FLOORS WITH SETTING BED)

D1 HOLLOW METAL FRAMES
SCALE: 3" = 1'-0"



A **FRAME ELEVATIONTYPICAL - UNO**

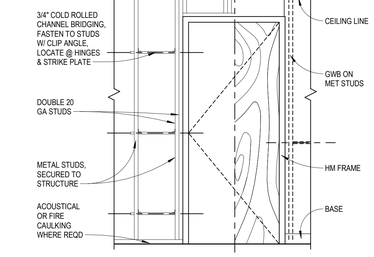


B **ISOMETRIC DIAGRAMTYPICAL - UNO**

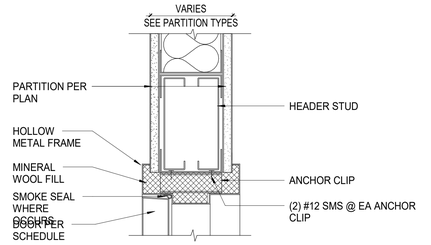
C **HEAD**

D **JAMB**

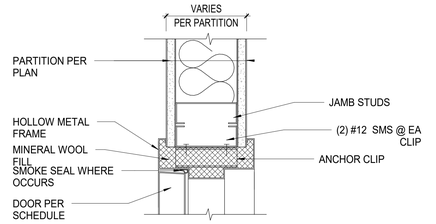
D2 FRAME ATTACHMENT
SCALE: 3" = 1'-0"



F4 TYPICAL DOOR FRAMING
SCALE: 1 1/2" = 1'-0"

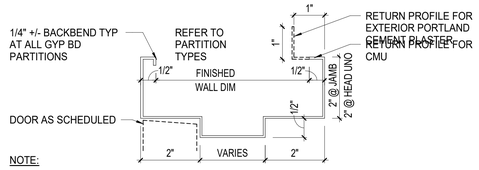


F5 TYPICAL INTERIOR DOOR HEAD
SCALE: 3" = 1'-0"



HEAD SIMILAR

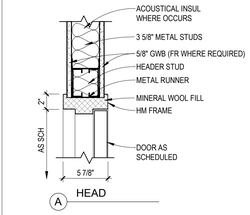
D5 TYP. INT. DOOR JAMB
SCALE: 3" = 1'-0"



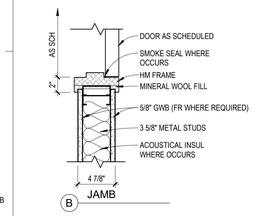
NOTE:

1. ALL FRAMES ARE WELDED UNLESS NOTED OTHERWISE
2. EXTEND STOPS TO FLOOR WHERE WEATHER STRIPPING, AUTOMATIC DOOR BOTTOMS
3. CLOSE BOTTOM OF STOP WELD & GRIND SMOOTH

C6 TYP. HM FRAME PROFILE
SCALE:1" = N.T.S.

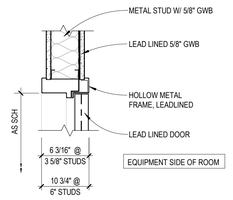


A HEAD

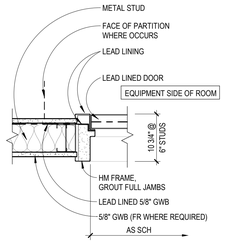


B JAMB

B1 HM DOOR FRAME IN METAL STUD
SCALE: 1 1/2" = 1'-0"

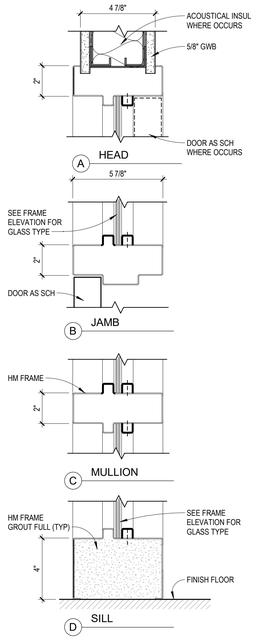


A HEAD

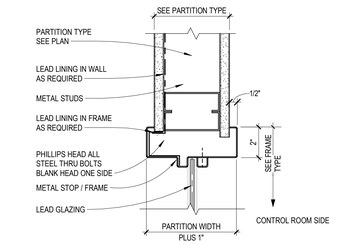


B JAMB

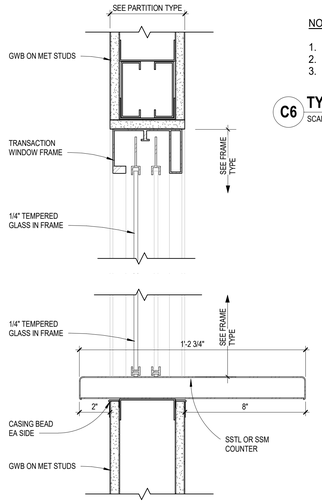
B2 HM FRAME DOOR DETAIL - LEADLINED
SCALE: 1 1/2" = 1'-0"



B3 DOOR AND BORROWED LIGHT DETAILS
SCALE: 3" = 1'-0"



C4 LEAD-LINED WDW FRAME JAMB/HEAD/SILL
SCALE: 3" = 1'-0"



B5 TRANSACTION WINDOW DETAIL
SCALE: 3" = 1'-0"

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CONSULTANT

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Office of Statewide Hospital Planning & Development
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SHEET NAME

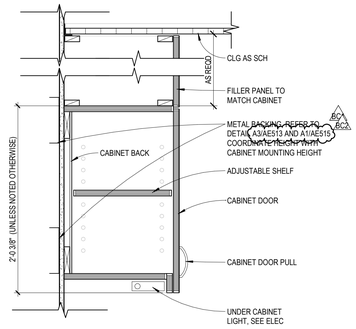
DETAILS - DOOR AND WINDOW

SHEET NUMBER

AE551

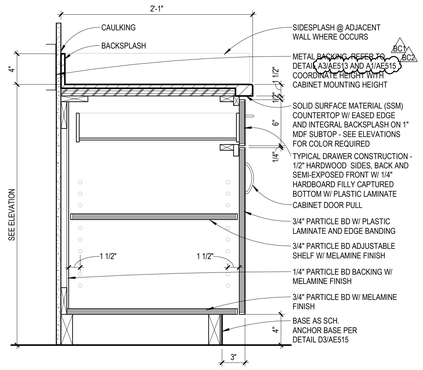
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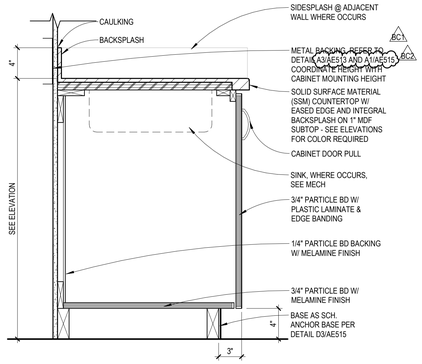
E1 UPPER CABINET W/ BULKHEAD

SCALE: 1 1/2" = 1'-0"



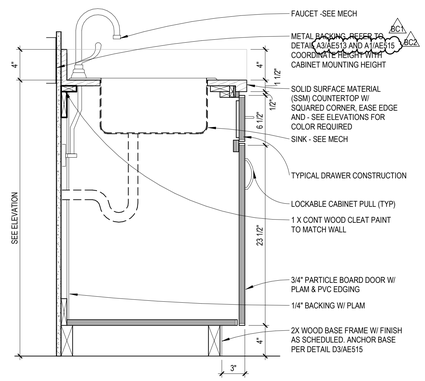
E2 TYPICAL BASE CABINET W/ ONE DRAWER1

SCALE: 1 1/2" = 1'-0"



E3 TYPICAL BASE CABINET W/ SINK1

SCALE: 1 1/2" = 1'-0"

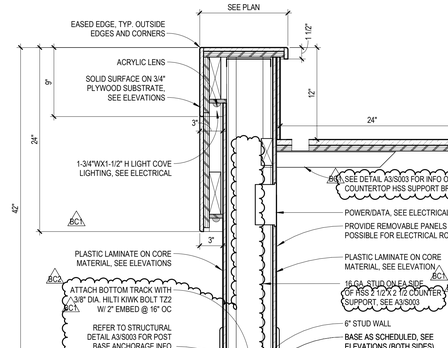


E5 BASE CABINET W/ SINK W/SSM COUNTER

SCALE: 1 1/2" = 1'-0"

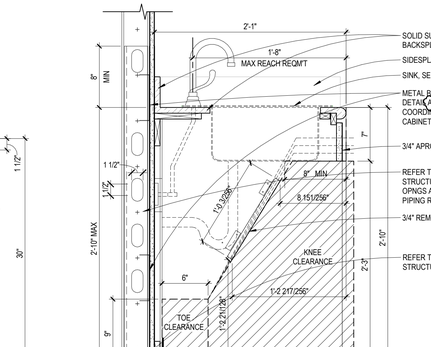
CASEWORK GENERAL NOTES

1. ALL CABINETWORK IS AWI PREMIUM GRADE.
2. ALL CABINETWORK IS PLASTIC LAMINATE (WOOD VENEER) UNLESS OTHERWISE NOTED.
3. ALL KNEE SPACE MILLWORK IS TO BE SUPPORTED BY (METAL) (PLASTIC LAMINATE-FACED PARTICLEBOARD) BRACKETS.
4. ALL UPPER CABINETS INSIDE DIMENSIONS ARE 1'-1" DEEP UNLESS OTHERWISE NOTED.
   (FY) 12" DEEP UPPER CABINETS DON'T ALLOW CABINET DOORS TO FULLY CLOSE OVER LARGE SIZE NOTEBOOKS)
5. PROVIDE FIRE TREATED WOOD (OR 20 GAGE METAL) BLOCKING IN WALLS AS REQUIRED FOR CABINET SUPPORTS AND ANCHORS.
6. ALL BACKSPLASHES ARE 4" HIGH UNLESS OTHERWISE NOTED.
7. ALL FILE DRAWERS ARE TO BE SET UP TO ACCEPT HANGING FILE FOLDERS. ALL FILE DRAWERS ARE TO HAVE FULL EXTENSION (150LB. MINIMUM) SLIDE HARDWARE.
8. ALL UPPER CABINETS ARE TO INCLUDE A 1 3/4" VALANCE COMPLETE WITH FINISH FACE VENEERS ON THE BOTTOM EDGES OF THE UPPER CABINETS IN ORDER TO SCREEN ANY UNDER CABINET LIGHTING.
9. ALL END PANELS EXPOSED TO VIEW ARE TO BE FINISHED TO MATCH FRONT FACE OF CABINETS.
10. ALL OPEN ADJUSTABLE SHELVING IS TO BE (3/4" THICK A/A PAINTED PLYWOOD) (3/4" PLASTIC LAMINATE FACED PARTICLEBOARD WITH A HARDWOOD EDGE). SHELVING IS NOT TO SPAN OVER 3'-6" WITHOUT INTERMEDIATE SUPPORT BRACING.
11. PROVIDE GROMMET INSERTS IN THE TOPS OF COUNTERTOPS OF SIZE AND AS INDICATED ON DRAWINGS.



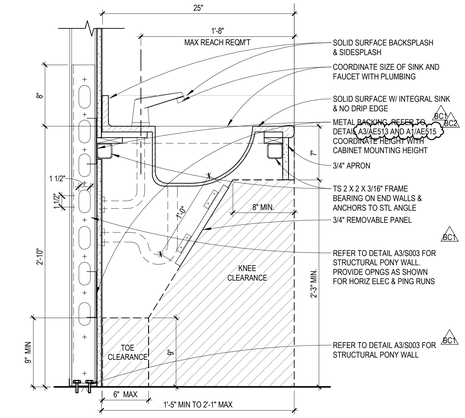
D1 BASE CABINET W/ 4 DRAWERS W/ SSM

SCALE: 1 1/2" = 1'-0"



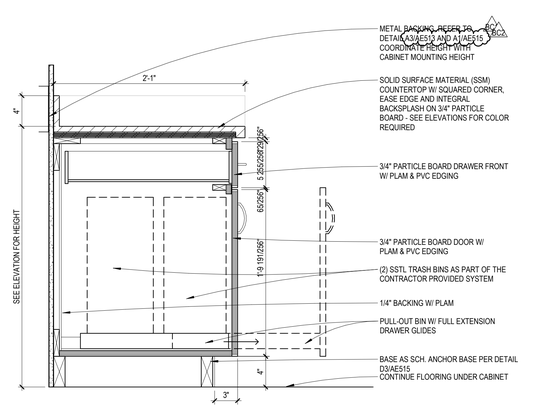
D2 BASE CABINET W/ 3 DRAWERS W/ SSM

SCALE: 1 1/2" = 1'-0"



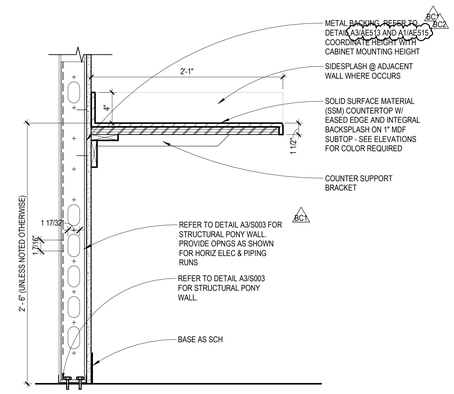
B1 ADA LAVATORY 1

SCALE: 1 1/2" = 1'-0"



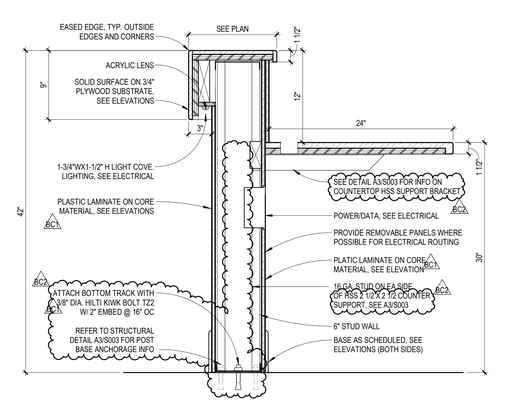
B2 BASE CABINET W/ SLIDE OUT TRASH

SCALE: 1 1/2" = 1'-0"



B4 TYPICAL COUNTERTOP 1

SCALE: 1 1/2" = 1'-0"



B6 NURSE STATION - TRANSACTION SURFACE 1

SCALE: 1 1/2" = 1'-0"

A1 NURSE STATION - TALL TRANSACTION SURFACE 2

SCALE: 1 1/2" = 1'-0"

A2 ADA SINK

SCALE: 1 1/2" = 1'-0"

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

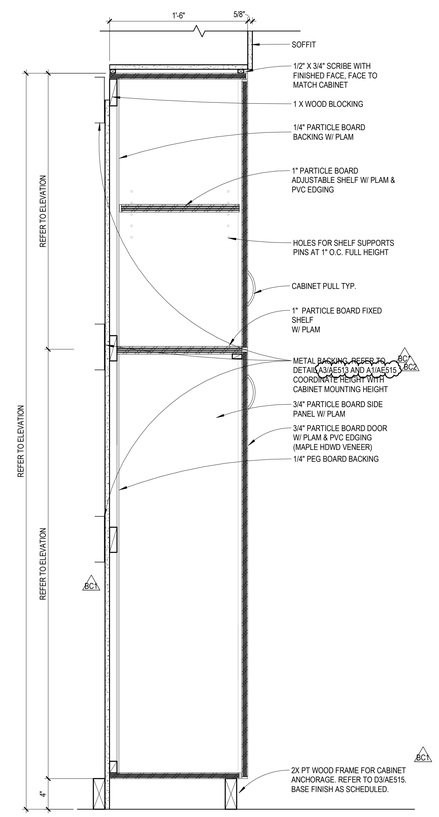
DETAILS - CASEWORK SECTIONS

SHEET NUMBER

AE561

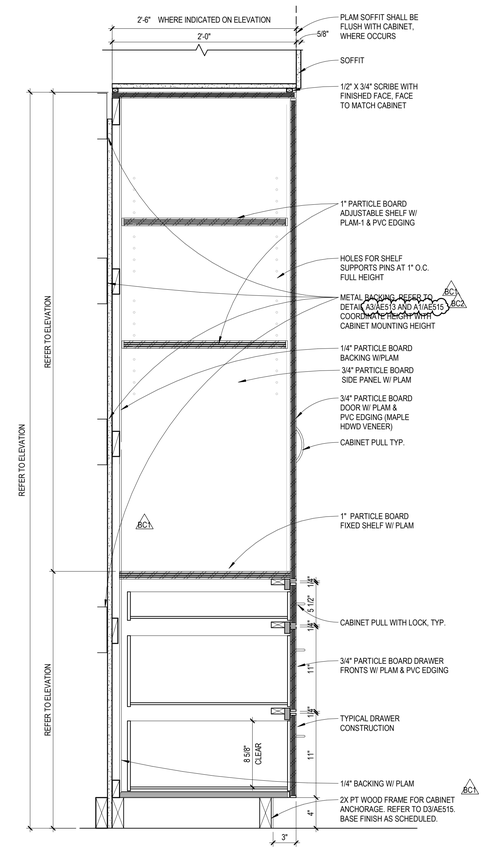
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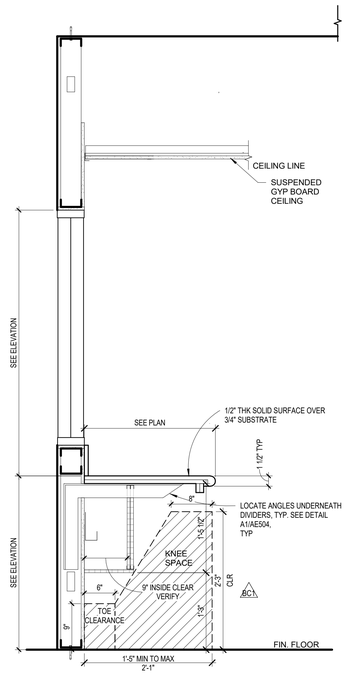
D5 TALL STORAGE CABINET W/ UPPER SHELF

SCALE: 1 1/2" = 1'-0"



D6 TALL STORAGE W/ 3 DRAWERS W/ ADJUSTABLE SHELVES

SCALE: 1 1/2" = 1'-0"



A5 CASEWORK SECTION @ CONTROL ROOM - WINDOW

SCALE: 1" = 1'-0"

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CONSULTANT

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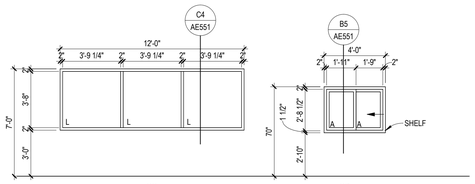
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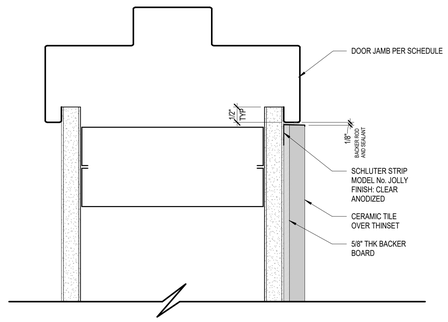
WINDOW SCHEDULE - NEW WINDOWS

WINDOW TYPE	Width	Height	FRAME TYPE	FRAME FINISH	DETAIL NO.	DETAIL SHEET	COMMENTS
W1	12'-0"	4'-0"	HM	PT-	C4	AE541	LEAD-LINED
W2	4'-0"	3'-0"	HM	PT-	B5	AE541	



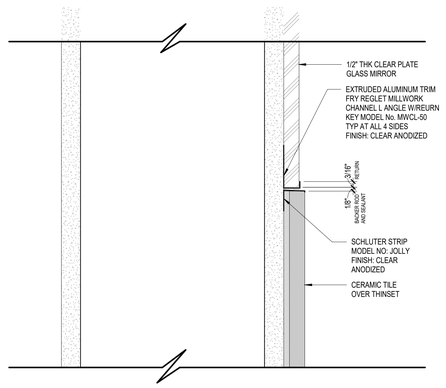
WINDOW FRAME TYPES

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



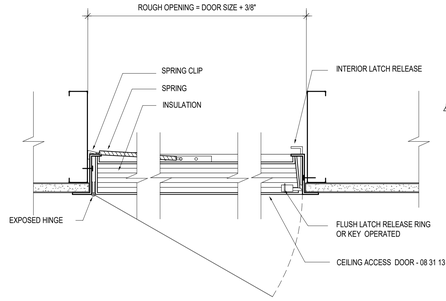
1 DETAIL AT TILE EDGE AT DOOR JAMB AND HEAD

SCALE: 6" = 1'-0"



2 DETAIL AT MIRROR AND TILE EDGE

SCALE: 6" = 1'-0"



3 CL- ACCESS DOOR

SCALE: 3" = 1'-0"

DOOR SCHEDULE

DOOR NO.	DOOR TYPE	Width	DOOR HEIGHT	HDWE SET	DOOR TYPE	DOOR MAT'L	DOOR FIN.	FRAME TYPE	FRAME MAT'L	FRAME FIN.	DET NOS	DET SHT	LABEL HOUR	REMARKS
1034		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2			45	SMOKE DOOR
1035		3'-6"	7'-0"	119	F	WD	P-1	1	HM	P-2			45	
1037		3'-6"	7'-0"	120 BC1	F	WD	P-1	1	HM	P-2			45	
1038		3'-0"	7'-0"	119 BC1	F	WD	P-1	1	HM	P-2			20 MIN.	
1039		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 1, 5
1040A	UN	7'-0"	7'-0"	124	F	WD BC1	P-1	1*	HM	P-2			20 MIN.	NOTE 4, PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN. FIRE RATED ; UNEVEN PAIR DOOR, ONE LEAF 44" CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040B	UN	7'-0"	7'-0"	124 BC1	F	WD BC1	P-1	1*	HM	P-2			20 MIN.	UNEVEN PAIR DOORS, ONE LEAF 44" MIN CLR WIDTH; PANIC HDWR; HOLD OPENS; OPPOSIT SWING
1040C		3'-6"	7'-0"	112 BC1	F	WD	P-1	1	HM	P-2			45	
1041A		3'-0"	7'-0"	118	F	WD	P-1	1	HM	P-2			45	
1041B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			--	NOTE 1, 5
1041C BC1		2'-6"	7'-0"	122	F	WD BC1	P-1	1	HM	P-2			--	
1046	UN	6'-0" BC1	7'-0"	101	F/NG	HM BC1	P-1	1	HM	P-2			--	NOTE 1, 2, 3, 5 PANIC HARDWARE; ONE LEAF 44" MIN CLR WIDTH BC1
1047	UN	6'-0"	7'-0"	104	F/F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 2, 3, 5, LEAD-LINED
1047A		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1047A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2			20 MIN.	
1047B BC1		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1047B.1		3'-0"	7'-0"	116.1	F	WD	P-1	1	HM	P-2			--	
1049	UN	6'-0"	7'-0"	104	F/F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 2, 3, 5
1049A		3'-6"	7'-0"	116 BC1	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1049A.1		3'-6"	7'-0"	117	F	WD	P-1	1	HM	P-2			20 MIN.	
1049B		3'-6"	7'-0"	116	F	WD	P-1	1	HM	P-2			45 MIN.	LEAD-LINED
1051	UN	7'-0"	7'-0"	105	F/F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 1, 2, 3, 5 LEAD-LINED
1051A BC1		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2			--	
1051B		3'-0"	7'-0"	115 BC1	F	WD	P-1	1	HM	P-2			--	
1051C		3'-0"	7'-0"	121	F	WD	P-1	1	HM	P-2			20 MIN.	
1053	PR	7'-0"	7'-0"	103	F	HM BC1	P-1	1	HM	P-2			45 MIN. BC2	NOTE 2, 3, 5; EACH DOOR LEAF TO BE 45 MIN FIRE RATED
1054		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2			--	
1055		3'-0"	7'-0"	114	F	WD	P-1	1	HM	P-2			--	
1057		3'-0"	7'-0"	113	F	WD	P-1	1	HM	P-2			--	
1059A	PR*	6'-2"	7'-0"	107	F/NG	WD	P-1	1	HM	P-2			--	NOTE 1, 4, 5 PANIC HARDWARE
1059B		3'-8"	7'-0"	126 BC1	NG	WD	P-1	1	HM	P-2			--	NOTE 1, 4
1059C		3'-6"	7'-0"	125	F	HM BC1	P-1	1	HM	P-2			45	
1060		3'-0" BC2	7'-6"	106	SGD	AL	ANOD	1	AL	ANOD			--	SLIDING DOOR TUBE FRAMED WITH ALAUTO CLOSE AND POSITIVE LATCH,SLIDER IN OPEN POSITION SHALL ALLOW 44" MIN. CLR. BC2
1060A BC1		3'-0"	7'-0"	123	F	WD	P-1	1	HM	P-2			45	NOTE 1, 5
1060B		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			--	NOTE 1
1061		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2			--	
1062		3'-0"	7'-0"	108	F	WD	P-1	1	HM	P-2			45	NOTE 1, 5
1071		3'-0"	7'-0"	115	F	WD	P-1	1	HM	P-2			--	
1071C	UN	7'-0"	7'-0"	102	F/NG	WD BC1	P-1	1	HM	P-2			45 MIN.	NOTE 1, 2, 3, 5
1072A	PR	6'-0" BC1	7'-0"	101.1 BC1	NG	HM	P-1	1*	HM	P-2			20 MIN.	NOTE 1, 2, 3, 5 PANIC HARDWARE; EACH DOOR LEAF TO BE 20 MIN FIRE RATED
1072B	PR	6'-0"	7'-0"	124	NG	HM	P-1	1*	HM	P-2			20 MIN.	NOTE 4
1074		3'-0"	7'-0"	111	F	WD	P-1	1	HM	P-2			90 MIN.	
1075		3'-0"	7'-0"	110 BC1	F	WD	P-1	1	HM	P-2			90 MIN.	NOTE 1, 5, 6
1076		3'-0"	7'-0"	109 BC1	F	WD	P-1	1	HM	P-2			20 MIN.	NOTE 1, 5
1077		3'-0"	7'-0"	126	F	WD	P-1	1	HM	P-2			--	
1079		3'-0"	7'-0"	BC1	F	WD	P-1	1	HM	P-2			--	
1090	PR	8'-0"	7'-0"	124	F	WD BC1	P-1	1*	HM	P-2			45 MIN.	BC1

DOOR HARDWARE REMARKS

AO	AUTOMATIC OPENER
CR	CARD READER
DA	DELAYED ALARM
EH	ELECTRIC HARDWARE
FAR	FIRE ALARM RELAY
HO	HOLD OPEN
IB	INTEGRAL BLINDS
LD	ER LOCKDOWN
PR	EQUAL PAIR DOOR
UN	UNEQUAL PAIR DOOR

DOOR HARDWARE NOTES

NOTE 1 - HARD-WIRED CARD READER: HARD-WIRED CARD READER LOCATIONS REQUIRE ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO ALL ELECTRIFIED HARDWARE SPECIFIED IN SECTIONS 08 71 00, 08 71 13 AND/OR 08 17 13.

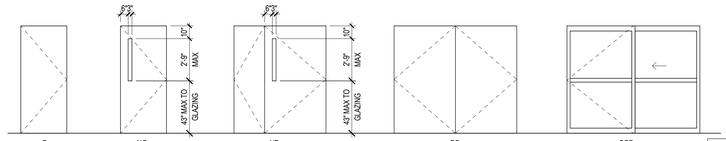
NOTE 2 - AUTOMATIC OPERATOR LOCATIONS: HARD-WIRED, ELECTRICAL 120V LOCATIONS REQUIRED. ELECTRICAL AND/OR SECURITY TO COORDINATE, FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY FROM CEILING THROUGH FRAME TO COMPLETE ELECTRIFIED HARDWARE SPECIFIED (INCLUDING FOR SWING DOORS 6'X8" BOLLARDS WITH FULL HEIGHT PUSH-PLATE/ACTUATORS AT EACH LEAF INTERIOR AND EXTERIOR) AND AS SEEN IN SECTIONS 08 71 00, 08 71 13, 08 17 13 AND/OR IN DIVISION 08 SLIDING OR REVOLVING DOOR SPECIFICATIONS.

NOTE 3 - AUTOMATIC OPERATOR SURFACE OVERHEAD LOCATIONS REQUIRING 6" OVERHEAD CLEARANCE. SEE SPECIFIED IN SECTIONS 08 17 13.

NOTE 4 (HO) - WALL ELECTRO-MECHANICAL MAG HOLD-OPENS. FURNISH AND INSTALL FIRE ALARM DROP. IN THE EVENT OF FS/FIRE LIKE SAFETY) OR EMERGENCY OR LOSS OF BUILDING POWER. WALL MOUNTED ELECTRO-MECHANICAL HOLD-OPEN DEVICES TO HAVE POWER DROPPED (DOOR TO SELF-CLOSE AND SELF-LATCH DOORS IN AN EMERGENCY). ELECTRICAL TO FURNISH & INSTALL COMPONENTS INCLUDING BUT NOT LIMITED TO WIRE, CONDUIT, AND CONNECTIVITY. BC1

NOTE 5 - DOORS WHERE ELECTRICAL SYSTEMS THAT MONITOR OR RECORD EGRESS ACTIVITY ARE INCORPORATED, THE LOCKING SYSTEM SHALL COMPLY WITH SECTION 1010.2.11, 1010.2.12, 1010.2.13, 1010.2.14 OR 1010.2.15 OR SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

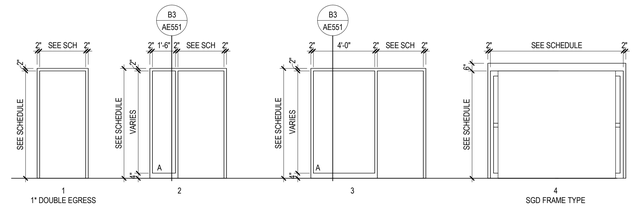
NOTE 6 - PROVIDE SIGNAGE FOR ELECTRICAL ROOM LABELED AS "ELECTRICAL ROOM" PER CODE



NOTE:
FOR VISION PANELS IN DOORS ACROSS FIRE BARRIERS AND FIRE PARTITIONS, THE FIRE-RESISTANCE-RATED GLAZING TESTED TO ASTM E119 IN ACCORDANCE WITH SECTION CCBC 716.1.2.3 SHALL BE PERMITTED, IN THE MAXIMUM SIZE TESTED

DOOR TYPES

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



DOOR FRAME TYPES

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

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ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEINZ C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

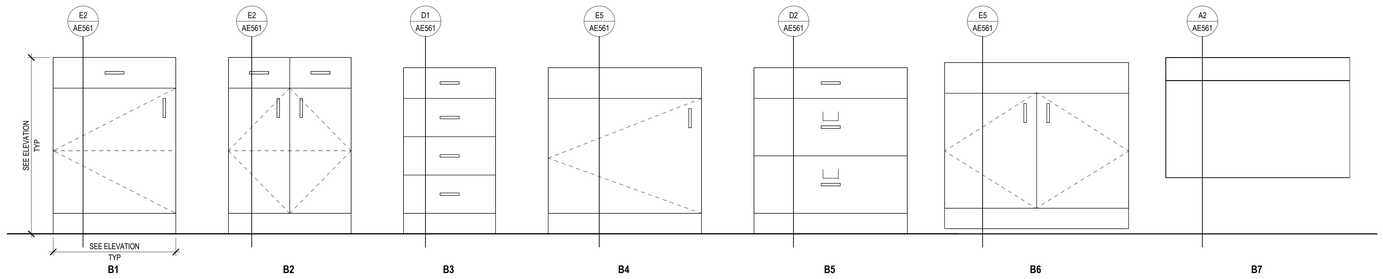
DOOR SCHEDULE, DOOR TYPES, AND FRAMES

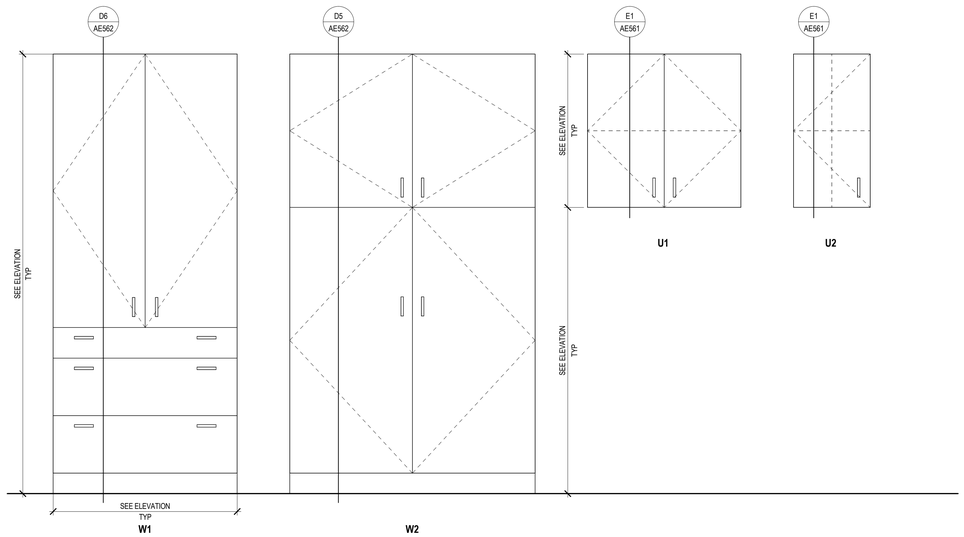
SHEET NUMBER

AE601

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CASEWORK TYPES

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIA KHANG C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

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BUILDING TITLE

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PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

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SHEET NAME

CASEWORK ELEVATION TYPES

SHEET NUMBER

AE602

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A1 LEVEL 1 - FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

TRUE NORTH

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SHEET NOTES

1. REFER TO SHEET G1002 FOR ALL ABBREVIATIONS AND SYMBOLS.
2. REFER TO SHEET IE601 SCHEDULE FOR FINISHES FOR FINISH SPECIFICATION INFORMATION.
3. ALL EXPOSED TILE EDGES TO BE PROTECTED WITH METAL TRIM, UNO. REFER TO SHEET IE601 FOR ACCEPTABLE PRODUCT TYPES.
4. ALL FLOORING TRANSITIONS TO OCCUR AT THE CENTER LINE OF THE DOOR OR OPENING, UNO. SEE SHEET IE601 FOR TYPICAL FLOOR TRANSITION DETAILS.
5. SEE INTERIOR ELEVATIONS FOR AREAS TO RECEIVE WALL TILE.
6. REFER TO CEILING PLANS AND FINISH SCHEDULE FOR LOCATION AND EXTENT OF CEILING FINISHES.
7. FINISH PLANS DO NOT SHOW THE FULL EXTENT OF FINISH MATERIALS AND INFORMATION. REFER TO CEILING PLANS, ELEVATIONS, DETAILS, AND ROOM FINISH SCHEDULE FOR ALL AREAS TO RECEIVE FINISHES.
8. COORDINATE INSTALLATION HEIGHT OF WALL GUARDS OR ANY WALL PROTECTION PRIOR TO INSTALLATION, UNO.
9. ALL AREAS WITH A FLOOR DRAIN TO HAVE FLOORING MATERIAL SLOPE TO DRAIN TO ELIMINATE POOLING OR PONDING ON THE SURFACE OF THE FLOOR.
10. WHERE WALL BASE OCCURS AT CASEWORK, BASE IS TO CONTINUE ALONG THE BASE OF THE CASEWORK AND ACROSS THE TOE KICK TO PROVIDE ADDITIONAL PROTECTION TO THE BOTTOM OF THE BUILT-IN UNIT, UNO.
11. WHERE COLUMNS OCCUR IN THE MIDDLE OF A SPACE, UNCONNECTED TO A WALL OR PARTITION, COLUMN IS TO BE PAINTED TO MATCH FIELD COLOR, UNO.
12. ALL SOFFITS AND BULKHEADS TO BE PAINTED TO MATCH FIELD COLOR, UNO.

KEY NOTES - FINISHES

BC1

F01	NEW FLOORING TO ABUT EXISTING FLOOR FINISH. CONTRACTOR TO FOLLOW MANUFACTURER'S GUIDELINES AND RECOMMENDATIONS FOR A SMOOTH, CONTINUOUS TRANSITION FROM EXISTING PRODUCT TO NEW.
F02	REFER TO SHEET IE601 FOR FLOORING TRANSITION INFORMATION AND DETAILS.
F03	ALL CORNER GUARDS TO EXTEND FROM THE FINISHED FLOOR TO THE FINISHED CEILING, UNO.

FINISH LEGEND

SEE SHEET IE601 FOR PRODUCT INFORMATION

(CONC-1) SEALED CONCRETE FLOORING

(LVT-1) LVT FLOORING

(RES-1) RESILIENT SHEET FLOORING - CLINICAL SPACE

(RES-2) RESILIENT SHEET FLOORING - SUITE CIRCULATION

(RES-3) WATER RESISTANT SHEET FLOORING

Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIE HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	SH
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
FLOOR FINISH PLAN

SHEET NUMBER
IE101

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1 **LEVEL 1 - WALL FINISH PLAN**
SCALE: 1/8" = 1'-0"

TRUE NORTH

SHEET NOTES

1. REFER TO SHEET G1002 FOR ALL ABBREVIATIONS AND SYMBOLS.
2. REFER TO SHEET IE601 SCHEDULE FOR FINISHES FOR FINISH SPECIFICATION INFORMATION.
3. ALL EXPOSED TILE EDGES TO BE PROTECTED WITH METAL TRIM, UNO. REFER TO SHEET IE601 FOR ACCEPTABLE PRODUCT TYPES.
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11. WHERE COLUMNS OCCUR IN THE MIDDLE OF A SPACE, UNCONNECTED TO A WALL OR PARTITION, COLUMN IS TO BE PAINTED TO MATCH FIELD COLOR, UNO.
12. ALL SOFFITS AND BULKHEADS TO BE PAINTED TO MATCH FIELD COLOR, UNO.

KEY NOTES - FINISHES

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIE KHEAT C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	KM
Draw	KM
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

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S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

WALL FINISH PLAN

SHEET NUMBER

IE102

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FURNITURE SCHEDULE

Item Tag	Description	Count
A1030	Locker, Double Tier, 12" x 15" x 72"	20
A1033	Locker, Triple Tier	3
A1033A	Locker, Triple Tier, ADA	2
A5020	Bench, Locker Room, Floor Mounted	3
F0205	Chair, Side With Arms	2
F0225	Chair, Dining, No Arms	4
F0250	Chair, Arm, Lounge Type	10
F0250A	Chair, Arm, Lounge, w/ Swivel Base	2
F0275	Chair, Swivel, High Back	9
F0705	Table, Computer/Printer, Small	1
F0713	Table, Adjustable Height 48W x 24D	3
F0714	Desk, Adjustable Height, 60x24	3
F0795	Table, Dining, Round, 42"	1
Grand total: 63		

F0205 QTY.2
CONSULTATION / HOLDING E1046
(QTY. 8)
(E) PRESIDENT'S OFFICE E1020
(E) OFFICE E1021
(E) VOLUNTEER 129
(E) DIRECTOR 132
(E) STOR. 128
(E) INFORMATION E1003
ELEV. P4
ELEV. CORRIDOR E1027
(E) ELEC. E1013
(E) COMM. RM. E1014
HYPERBARIC THERAPY E1051
HKPG E1051C
S. T. E1051B
A1033A
A1033
P.T./ CHANGING E1051A
A5020
STAFF LOUNGE E1039
F0795
F0225 (QTY. 4)
HSKG E1038
CORRIDOR E1059B
MALE STAFF CHANGING / LOCKERS E1060
A1030 (QTY. 10)
A5020
MALE S.T. / SHOWER E1061
FEMALE S.T. / SHOWER E1071
ANTE ROOM E1041
AIRBORNE INFECTION ISOLATION EXAM/ PACU E1056H
ALCOVE E1058
FEMALE STAFF CHANGING / LOCKERS E1062
A1030 (QTY. 10)
A5020
POST-PROC BAY E1056G
ST. TOIL E1057
(E) EMG 87
(E) OFF. 88
(E) NEURO READING 91
(E) CARDIO READING 92
(E) INHALATION THERAPY 93
CORRIDOR E1165

A1 LEVEL 1 - FURNITURE PLAN - ZONE A
SCALE: 1/4" = 1'-0"

TRUE NORTH

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Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIE A. KIRCH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	KM
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AGENCY APPLICATION NUMBER
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AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
FURNITURE PLAN - ZONE A

SHEET NUMBER
IE131

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FURNITURE SCHEDULE

Item Tag	Description	Count
A1030	Locker, Double Tier, 12" x 15" x 72"	20
A1033	Locker, Triple Tier	3
A1033A	Locker, Triple Tier, ADA	2
A5020	Bench, Locker Room, Floor Mounted	3
F0205	Chair, Side With Arms	2
F0225	Chair, Dining, No Arms	4
F0250	Chair, Arm, Lounge Type	10
F0250A	Chair, Arm, Lounge, w/ Swivel Base	2
F0275	Chair, Swivel, High Back	9
F0705	Table, Computer/Printer, Small	1
F0713	Table, Adjustable Height 48W x 24D	3
F0714	Desk, Adjustable Height, 60x24	3
F0795	Table, Dining, Round, 42"	1
Grand total: 63		

ELEV. P2
SOILED HOLDING E1037
CORRIDOR E1040
ALCOVE E1043
PREP/POST-PROC BAY 4 E1056D
PREP/POST PROC BAY 3 E1056C
PREP/POST PROC BAY 2 E1056B
PREP/POST PROC BAY 1 E1056A
CORRIDOR E1053
CRASH CART 83
NURSE STATION E1056
MEDICATION STATION E1056F
F0275
PREP WORK E1056E
(E) ECHOCARDIOGRAPHY 95
(E) IV
(E) PULMONARY FUNCTION E1063
(E) ELEC. 1036
CLEAN SUPPLY E1035
(E) JAN. E1016
ALCOVE E1044
SCRUB SINK E1045
PAT. TOIL. E1054
CHANGING E1055
A1033A
A1033
QTY: 2
(E) I.S.T. E1073
(E) UNIT DOSE COMPUTER
(E) MEN'S PUBLIC RESTROOM E1017
STORAGE, EQUIPMENT E1034
SEMI-RESTRICTED CORRIDOR E1046
CORRIDOR E1072
EQUIP RM 1 E1047B
CATH LAB 1 E1047
CONTROL RM1 E1047A
CONTROL RM 2 E1049A
CATH LAB 2 E1049
EQUIP RM 2 1049B
OFFICE E1076
RECEPTION E1077
WAITING E1078
F0713
F0275
F0714
F0705

A1 LEVEL 1 - FURNITURE PLAN - ZONE B
SCALE: 1/4" = 1'-0"

TRUE NORTH

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Riverside University HEALTH SYSTEM

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHEN A. KEATING C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
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FILE LOG

ACTIVITY	BY
Design	KM
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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

FURNITURE PLAN - ZONE B

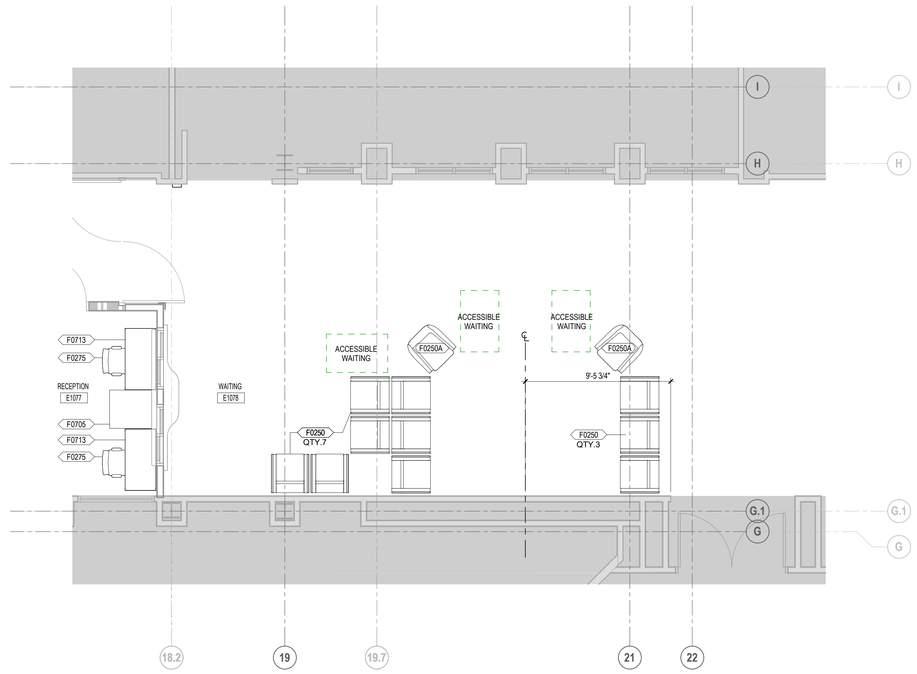
SHEET NUMBER

IE132

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FURNITURE SCHEDULE

Item Tag	Description	Count
A1030	Locker, Double Tier, 12" x 15" x 72"	20
A1033	Locker, Triple Tier	3
A1033A	Locker, Triple Tier, ADA	2
A5020	Bench, Locker Room, Floor Mounted	3
F0205	Chair, Side With Arms	2
F0225	Chair, Dining, No Arms	4
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F0250A	Chair, Arm, Lounge, w/ Swivel Base	2
F0275	Chair, Swivel, High Back	9
F0705	Table, Computer/Printer, Small	1
F0713	Table, Adjustable Height 48W x 24D	3
F0714	Desk, Adjustable Height, 60x24	3
F0795	Table, Dining, Round, 42"	1
Grand total: 63		



A4 **LEVEL 1 - FURNITURE PLAN - ZONE C**
SCALE: 1/4" = 1'-0"

TRUE NORTH

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

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LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT
STEPHANIA KHEANG
C-27299
REN. 7/31/25
STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

FURNITURE PLAN - ZONE C

SHEET NUMBER

IE133

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SCHEDULE FOR FINISHES - INTERIOR

CODE	DESCRIPTION	MANUFACTURER	PRODUCT INFO	NOTES
ACT-1	ACOUSTICAL CEILING TILE 24" X 24" X 5/8"	ARMSTRONG WORLD INDUSTRIES	TYPE: FINE FISSURED MODEL NO.: 1728A TILE COLOR: WHITE EDGE: SQUARE LAY-IN SIZE: 24 X 24 X 5/8 GRID: 15/16" CONTACT: MATT NEWMAN M: 213.408.9957 E: MPNEWMAN@ARMSTRONGCEILINGS.COM	CLASS A FIRE RATED PERFORMANCE
ACT-2	ACOUSTICAL CEILING TILE 24" X 24" X 3/4"	ARMSTRONG WORLD INDUSTRIES	TYPE: CLEAN ROOM 'FL' MODEL NO.: 1715 & 1720 TILE COLOR: WHITE EDGE: SQUARE LAY-IN SIZE: 24 X 24 X 5/8 GRID: CLEAN ROOM 15/16" (GASKETED) #EA7900, EA7940, EA7920 CONTACT: MATT NEWMAN M: 213.408.9957 E: MPNEWMAN@ARMSTRONGCEILINGS.COM	CLASS A FIRE RATED PERFORMANCE, CLEAN ROOM RATED
CG-1 CG-1A	CORNER GUARD - 90 DEGREE CORNER GUARD - NON-90 DEGREE	CONSTRUCTION SPECIALTIES, INC. - ACROVYN	TYPE: ACROVYN CORNER GUARDS PRODUCT: SM-20N SERIES SURFACE MOUNTED COLOR: 934 PEARL MODEL: SM SERIES CONTACT: ELISA CONTRERAS M: 626.665.1321 E: ELISA@IMC-CA.COM	USE AT ALL EXPOSED CORNERS AS NOTED ON PLAN, NOTE SEVERAL CORNERS ARE GREATER THAN 90 DEGREES
CONC-1	CONCRETE, SEALED	WESTCOAT	TYPE: GRIND & SEAL SURFACE COATING FINISH: SC-3 FAST STAIN COLOR: GRAY 563	
CP-1	PAINT, CEILING	SHERWIN WILLIAMS	PRODUCT: PROMAR 400 COLOR: SW 6150 DIVINE WHITE FINISH: FLAT CONTACT: TOM BRUMMETT M: 310.999.9396 E: THOMAS.W.BRUMMETT@SHERWIN.COM	
DF-1	PAINT, DOOR FRAME	SHERWIN WILLIAMS	PRODUCT: SUPER PAINT COLOR: SW 6150 DIVINE WHITE FINISH: SEMI-GLOSS CONTACT: TOM BRUMMETT M: 310.999.9396 E: THOMAS.W.BRUMMETT@SHERWIN.COM	
LVT-1	FLOORING - LUXURY VINYL TILE	SHAW CONTRACT	PRODUCT: INLET II 4372v COLOR: REFUGE 72155 THICKNESS: 0.197 IN / 5 mm SIZE: 9"W X 48"L INSTALLATION: ASHLAR CONTACT: KIMBERLY JOHNSON M: 310.991.8010 E: KIMBERLY.JOHNSON@SHAWCONTRACT.COM WWW.SHAWCONTRACT.COM	CLASS III, TYPE B FIRE RATED PERFORMANCE
MT-1	METAL EDGE PROTECTION TRIM	SCHLUTER	PRODUCT: SCHLUTER - SCHIENE FINISH: STAINLESS STEEL 304 TYPE: TE 20 SIZE: 2mm TRIM HEIGHT CONTACT: MARY YOCUM M: 714.329.0355 E: MYOCUM@SCHLUTER.COM WWW.SCHLUTER.COM	
P-1	PAINT, FIELD - CLINICAL SPACE	SHERWIN WILLIAMS	PRODUCT: PROMAR 400 COLOR: SW 6150 DIVINE WHITE FINISH: SEMI-GLOSS CONTACT: TOM BRUMMETT M: 310.999.9396 E: THOMAS.W.BRUMMETT@SHERWIN.COM	
P-2	PAINT, FIELD - MEDICAL MALL LIGHT GREEN	DUNN-EDWARDS	PRODUCT: ENDURA-COAT COLOR: DES634 PINE MIST FINISH: SEMI-GLOSS CONTACT: LARRY LOO M: 626.590.7777 W: WWW.DUNNEDWARDS.COM	
P-3	PAINT, ACCENT GREEN	SHERWIN WILLIAMS	PRODUCT: PROMAR 400 COLOR: SW 6712 LUAU GREEN FINISH: SEMI-GLOSS CONTACT: TOM BRUMMETT M: 310.999.9396 E: THOMAS.W.BRUMMETT@SHERWIN.COM	
P-4	PAINT, ACCENT GRAY	SHERWIN WILLIAMS	PRODUCT: PROMAR 400 COLOR: SW 7016 MINDFUL GRAY FINISH: SEMI-GLOSS CONTACT: TOM BRUMMETT M: 310.999.9396 E: THOMAS.W.BRUMMETT@SHERWIN.COM	
PL-1	PLASTIC LAMINATE BASE AND UPPER CABINETS	ARBORITE	STYLE: COMPACT LAMINATE COLOR: MOCHA MODERN CHERRY W465-a-EV FINISH: MATTE NOTE: POST FORM CONTACT: LETITIA FOX M: 310-463-6823 E: LFOX@LAMINART.COM WWW.ARBORITE.COM	FOR ALL CABINET BODIES, DOORS AND DRAWER FACES. CABINET INTERIORS TO BE STANDARD WHITE MELAMINE. U.O.N.
RB-1	RESILIENT BASE - IN CLINICAL SUITE	TARKETT / JOHNSONITE	STYLE: JOHNSONITE DURACOVE THERMOPLASTIC RUBBER 1/8" (TYPE TP) PROFILE: STRAIGHT BASE SIZE: 6" COLOR: MOONROCK CONTACT: MICHELE ROTHSTEIN M: 310.280.8748 E: MICHELE.ROTHSTEIN@TARKETT.COM HTTPS://COMMERCIAL.TARKETT.COM	- MEETS ASTM E648 CLASS 1 FLAME SPREAD RATING - MEETS ASTM E662 SMOKE EVOLUTION RATING
RB-2	RESILIENT BASE - IN PUBLIC CORRIDORS AND MEDICAL MALL	FLEXCO	STYLE: HD WALL BASE, STRAIGHT PROFILE SIZE: 6" COLOR: BLACK / BROWN CONTACT: TRI-WEST, LTD. P: 562.9166 WWW.TRIWESTLTD.COM	- ASTM E84, CLASS A - ASTM E648, CLASS 1 - ASTM E662, PASSES
RES-1 RESB-1	FLOORING - SHEET VINYL CLINICAL SPACES INTEGRAL 6" COVE BASE	AHF CONTRACT	PRODUCT: MIXED AND VARIEGATED HOMOGENEOUS SHEET COLOR: FOG 1HG2M005 THICKNESS: 2 mm SIZE: 78.74"W X 68.67 FT ROLLS INSTALLATION: DIRECT GLUE CONTACT: LESLIE DEVIJONO M: 213.392.1917 E: LDEVIJONO@ALTRO.COM WWW.ALTRO.COM	- MEETS ASTM E648 CLASS 1 FLAME SPREAD RATING - MEETS ASTM E662 SMOKE EVOLUTION RATING
RES-2 RESB-2	FLOORING - SHEET VINYL INTERNAL SUITE CIRCULATOIN AREAS INTEGRAL 6" COVE BASE AT SCRUB SINK ALCOVE	ALTRO CONTRACT	PRODUCT: ALTRO WOOD COLOR: WASHED OAK WSA2015 THICKNESS: 2 mm SIZE: 2m X 20m ROLLS INSTALLATION: DIRECT GLUE CONTACT: LESLIE DEVIJONO M: 213.392.1917 E: LDEVIJONO@ALTRO.COM WWW.ALTRO.COM NOTE: INTEGRAL COVE BASE AT SCRUB SINK ALCOVE, SEE FINISH PLAN	- MEETS ASTM E648 CLASS 1 FLAME SPREAD RATING - MEETS ASTM E662 SMOKE EVOLUTION RATING
RES-3 RESB-3	FLOORING - WATER RESISTANT SHEET MATERIAL WET AREAS INTEGRAL 6" COVE BASE	ALTRO CONTRACT	PRODUCT: ALTRO AQUARIUS COLOR: ANCHOR PX2008 THICKNESS: 2 mm SIZE: 2m X 20m ROLLS INSTALLATION: DIRECT GLUE CONTACT: LESLIE DEVIJONO M: 213.392.1917 E: LDEVIJONO@ALTRO.COM WWW.ALTRO.COM	- MEETS ASTM E648 CLASS 1 FLAME SPREAD RATING - MEETS ASTM E662 SMOKE EVOLUTION RATING
RS-1	ROLLER SHADES AT PATIENT CONSULT ROOM	DRAPER, OR EQUAL	PRODUCT: CLUTCH-OPERATED FLEXSHADE, MANUAL OPERATION TYPE: SINGLE ROLLER FABRIC: E SCREEN DECO 1% BY MERMET, PATTERN: TBD COLOR: TBD OPENNESS FACTOR: 1% CONTACT: KATHY GREENWAY M: 714-396-9723 E: KGREENWAY@DRAPERINC.COM HTTPS://DRAPERINC.COM	NOTE: MEETS NFPA 701-99 FOR FLAME-RESISTANT TEXTILES AND FILMS
RT-1	RESILIENT TRANSITION - THRESHOLDS RESILIENT FLOORING TRANSITION TO LVT	TARKETT / JOHNSONITE	PRODUCT: JOHNSONITE WHEELED TRAFFIC TRANSITIONS PROFILE: CTA-XX-X COLOR: TBD SIZE: 2.5" WIDE, 1/8" TO .080" TRANSITION CONTACT: MICHELE ROTHSTEIN M: 310.280.8748 E: MICHELE.ROTHSTEIN@TARKETT.COM HTTPS://COMMERCIAL.TARKETT.COM	- MEETS ASTM E648 CLASS 1 FLAME SPREAD RATING - MEETS ASTM E662 SMOKE EVOLUTION RATING
SS-1	SOLID SURFACE COUNTERTOPS	WILSONART	PRODUCT: WILSONART SOLID SURFACE COLOR: BEIGE TEMPEST 1530TM-51D3 THICKNESS: 3/4" FOR COUNTERTOPS, 1/2" FOR BACK AND SIDE SPLASHES FINISH: MATTE NOTE: COORDINATE SINKS WITH PLUMBING DRAWINGS AND SPECS. CONTACT: SIMONE LIN P: 562.298.2230 E: SIMONE.LINN@WILSONART.COM WWW.WILSONART.COM	- MEETS ASTM E 84, CLASS 1 AND CLASS A

SCHEDULE FOR FINISHES - INTERIOR (CON'T)

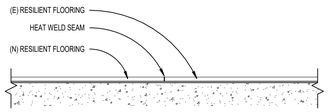
CODE	DESCRIPTION	MANUFACTURER	PRODUCT INFO	NOTES
WP-1	WALL PROTECTION PANELS CATH LAB SUITE AND AT SHOWER WALLS	ALTRO	PRODUCT: ALTRO WHITEROCK COLOR: STANDARD WHITE - 104 THICKNESS: 2.5 mm W103 FINISH: STANDARD NOTE: WELDED SEAMS WSR 01 CONTACT: LESLIE DEVUONO M: 213.392.1917 E: LDEVUONO@ALTRO.COM WWW.ALTRO.COM	- MEETS ASTM E84-08, CLASS A FIRE RATED PERFORMANCE
WP-2	WALL PROTECTION PANELS HEADWALLS AT PATIENT BAYS	ALTRO	PRODUCT: ALTRO WHITEROCK COLOR: TBD THICKNESS: 2.5 mm W103 FINISH: STANDARD NOTE: WELDED SEAMS WSR 01 CONTACT: LESLIE DEVUONO M: 213.392.1917 E: LDEVUONO@ALTRO.COM WWW.ALTRO.COM	- MEETS ASTM E84-08, CLASS A FIRE RATED PERFORMANCE

ROOM FINISH SCHEDULE

Level	ROOM NO.	ROOM NAME	FLOOR	BASE	WALL	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	CEILING	REMARKS
LEVEL 1											
LEVEL 1	E1012	(E) WORK AREA	LVT-1	RB-1	P-1	P-1	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1034	STORAGE, EQUIPMENT	RES-1	RESB-1	P-1	P-1	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1035	CLEAN SUPPLY	RES-1	RESB-1	P-1	P-1	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1037	SOILED HOLDING	RES-1	RESB-1	P-1	P-1	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1038	HSKG	RES-3	RESB-3	P-1	P-1	P-1	P-1	P-1	P-1	
LEVEL 1	E1039	STAFF LOUNGE	LVT-1	RB-1	P-1 / P-3	P-1	P-1	P-3	P-1	ACT-1	
LEVEL 1	E1041	ANTE ROOM	RES-3	RESB-3	P-1	P-1	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1043	ALCOVE	RES-2	RB-1	P-1 / P-3	P-1	P-3	P-1	N/A	P-1	
LEVEL 1	E1044	ALCOVE	RES-2	RB-1	P-1 / P-3	P-1	P-3	P-1	N/A	P-1	
LEVEL 1	E1046	CONSULTATION / HOLDING	RES-1	RESB-1	P-1 / P-3	P-1	P-1	P-1	P-3	ACT-1	RS-1 AT EXTERIOR WINDOW
LEVEL 1	E1047	CATH LAB 1	RES-1	RESB-1	WP-1	WP-1	WP-1	WP-1	WP-1	P-1	
LEVEL 1	E1047A	CONTROL RM1	RES-1	RESB-1	WP-1	WP-1	WP-1	WP-1	WP-1	ACT-1	
LEVEL 1	E1047B	EQUIP RM 1	RES-1	RESB-1	WP-1	WP-1	WP-1	WP-1	WP-1	P-1	
LEVEL 1	E1049	CATH LAB 2	RES-1	RESB-1	WP-1	WP-1	WP-1	WP-1	WP-1	P-1	
LEVEL 1	E1049A	CONTROL RM 2	RES-1	RESB-1	WP-1	WP-1	WP-1	WP-1	WP-1	ACT-1	
LEVEL 1	E1051	HYPERBARIC THERAPY	RES-1	RESB-1	P-4	P-4	P-4	P-4	P-1	ACT-1	
LEVEL 1	E1051A	P.T./ CHANGING	RES-3	RESB-3	P-1 / P-3	P-1	P-1 / P-3	P-1	P-1	P-1	
LEVEL 1	E1051B	S. T.	RES-3	RESB-3	P-1 / P-3	P-1	P-1 / P-3	P-1	P-1	P-1	
LEVEL 1	E1053	CORRIDOR	RES-1	RESB-1	P-1	P-1	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1054	PAT. TOIL.	RES-3	RESB-3	P-1 / P-3	P-1	P-1	P-3	P-1	P-1	
LEVEL 1	E1055	CHANGING	RES-1	RESB-1	P-1 / P-3	P-1	P-1	P-3	P-1	P-1	
LEVEL 1	E1056	NURSE STATION	RES-1	RESB-1	N/A	N/A	N/A	N/A	N/A	ACT-1 / P-1	
LEVEL 1	E1056A	PRE/POST PROC BAY 1	RES-1	RESB-1	P-1 / WP-2	N/A	N/A	P-1	WP-2	ACT-1	
LEVEL 1	E1056B	PRE/POST PROC BAY 2	RES-1	RESB-1	WP-2	N/A	N/A	N/A	WP-2	ACT-1	
LEVEL 1	E1056C	PRE/POST PROC BAY 3	RES-1	RESB-1	WP-2	N/A	N/A	N/A	WP-2	ACT-1	
LEVEL 1	E1056D	PRE/POST-PROC BAY 4	RES-1	RESB-1	WP-2	N/A	N/A	N/A	WP-2	ACT-1	
LEVEL 1	E1056E	PREP WORK	RES-1	RESB-1	P-1 / P-3	N/A	P-3	P-1	N/A	ACT-1	
LEVEL 1	E1056F	MEDICATION STATION	RES-1	RESB-1	P-1 / P-3	P-1	P-3	N/A	N/A	ACT-1	
LEVEL 1	E1056G	POST-PROC BAY	RES-1	RESB-1	P-1 / WP-2	WP-2	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1056H	AIRBORNE INFECTION ISOLATION EXAM/ PACU	RES-1	RESB-1	P-1 / WP-2	WP-2	P-1	P-1	P-1	ACT-1	
LEVEL 1	E1057	ST. TOIL.	RES-3	RESB-3	P-1 / P-3	P-1	P-3	P-1	P-1	P-1	
LEVEL 1	E1058	ALCOVE	RES-1	RESB-1	P-1 / P-3	P-3	P-1	N/A	P-1	ACT-1	
LEVEL 1	E1060	MALE STAFF CHANGING / LOCKERS	RES-3	RESB-3	P-1 / P-3	P-1	P-1	P-1	P-3	ACT-1	
LEVEL 1	E1061	MALE S.T. / SHOWER	RES-3	RESB-3	WP-1	WP-1	WP-1	WP-1	WP-1	P-1	
LEVEL 1	E1062	FEMALE STAFF CHANGING / LOCKERS	RES-3	RESB-3	P-1 / P-3	P-1	P-3	P-1	P-1	ACT-1	
LEVEL 1	E1071	FEMALE S.T. / SHOWER	RES-3	RESB-3	WP-1	WP-1	WP-1	WP-1	WP-1	P-1	
LEVEL 1	E1072	CORRIDOR	RES-1	RESB-1	WP-1	WP-1	WP-1	WP-1	WP-1	P-1	
LEVEL 1	E1074	IT	CONC-1	RB-1	P-1	P-1	P-1	P-1	P-1	P-1	
LEVEL 1	E1075	ELEC.	CONC-1	RB-1	P-1	P-1	P-1	P-1	P-1	N/A	
LEVEL 1	E1107	HOLDING - GURNEY	RES-1	RESB-1	P-1	P-1	P-1	N/A	N/A	ACT-1	

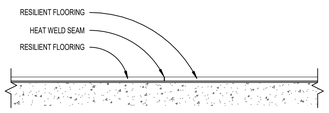
TOILET ACCESSORY SCHEDULE

TYPE MARK	DESCRIPTION	COUNT	Comments
GB	GRAB BAR, 24"	2	Toilet Accessory
GB1	GRAB BAR, 2 PIECE	4	Toilet Accessory
GB2	GRAB BAR, 18"	3	Toilet Accessory
GB3	GRAB BAR, SHOWER, 2 PIECE	2	Toilet Accessory
GB5	GRAB BAR, 36"	2	Toilet Accessory
MIRROW	MIRROR, 18"X36" SSTL FRAME	4	Toilet Accessory
MR1	MIRROR, 24"X36" SSTL FRAME	2	Toilet Accessory
PTD	PAPER TOWEL DISPENSER, SURFACE-MOUNTED	10	Toilet Accessory
SD	SOAP DISPENSER	10	Toilet Accessory
SND	SANITARY NAPKIN DISPOSAL, SURFACE MOUNTED	3	Toilet Accessory
TPD	TOILET TISSUE DISPENSER, DOUBLE ROLL, VERT	4	Toilet Accessory

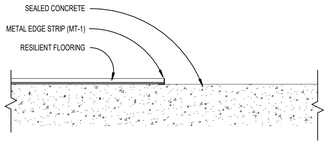


NOTE: CONTRACTOR TO ABUT NEW FLOORING MATERIAL TO EXISTING WHERE INDICATED ON PLAN. PROTECT EXISTING FLOORING FROM DAMAGE WHEN DEMOING OLD AND INSTALLING NEW. CONTRACTOR TO USE MANUFACTURER'S RECOMMENDED INSTALLATION PROCESS FOR HEAVY DUTY FLOORS THAT ARE SUBJECT TO HEAVY ROLLING LOADS. NOTIFY INTERIOR DESIGNER WITH ANY SUBFLOOR OR INSTALLATION ISSUES. FLOORING PATTERN OF NEW FLOORING TO ALIGN WITH EXISTING TO GIVE A SEAMLESS APPEARANCE WHEN INSTALLATION IS COMPLETE.

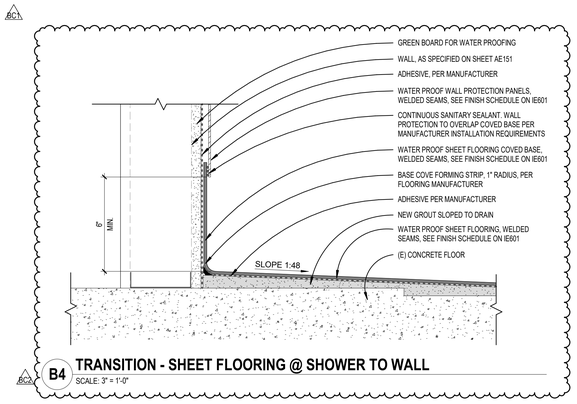
D3 TRANSITION - SHEET FLOORING (NEW) TO SHEET FLOORING (EXISTING)
SCALE: 3" = 1'-0"



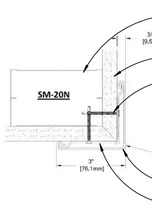
C3 TRANSITION - SHEET FLOORING TO RESILIENT (HEAT WELD)
SCALE: 3" = 1'-0"



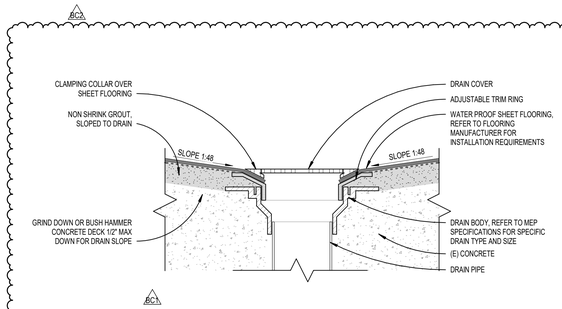
B3 TRANSITION - SHEET FLOORING TO CONCRETE
SCALE: 3" = 1'-0"



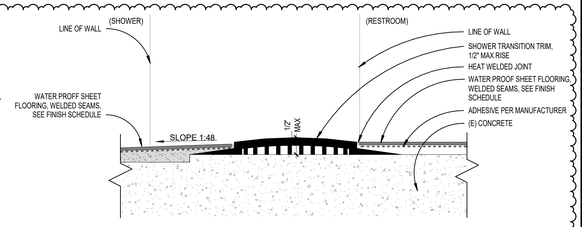
B4 TRANSITION - SHEET FLOORING @ SHOWER TO WALL
SCALE: 3" = 1'-0"



A3 WALL PROTECTION - SURFACE MOUNTED CORNER GUARD
SCALE: 3" = 1'-0"



A4 DETAIL - SHEET FLOORING @ DRAIN
SCALE: 6" = 1'-0"



A6 TRANSITION - SHOWER TRIM BETWEEN SHEET FLOORING
SCALE: 6" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. HEATH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

FINISH SCHEDULE AND SCHEDULE FOR FINISHES

SHEET NUMBER

IE601

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7/12/2024 2:47:11 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

MEDICAL EQUIPMENT ABBREVIATION

A.F.F	ABOVE FINISHED FLOOR
ANALZ	ANALYZER
BRK	BRACKET
C	COUNTER
CAB	CABINET
CE	CEILING
CLR	CLEAR
COORD	COORDINATE
CRT	CART
DISP	DISPENSER
EA	EACH
EQUIP	EQUIPMENT
F	FLOOR
FRZ	FREEZER
HT	HEIGHT
M	MOBILE
MAX	MAXIMUM
MIN	MINIMUM
MFR	MANUFACTURER
MON	MONITOR
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OFVI	OWNER FURNISHED VENDOR INSTALLED
N/A	NOT APPLICABLE OR NOT AVAILABLE
N.I.C.	NOT IN CONTRACT
NTS	NOT TO SCALE
QTY	QUANTITY
REM	REFER TO MANUFACTURER'S SPECS
REFRIG	REFRIGERATOR
RM	ROOM
S	SPECIAL MOUNTING
SIM	SIMILAR
SPEC	SPECIFICATION
SS	STAINLESS STEEL
U/C	UNDERCOUNTER
U\ON	UNLESS OTHERWISE NOTED
TBD	TO BE DETERMINED
TEL	TELEPHONE
TYP	TYPICAL
VIF	VERIFY IN FIELD
W	WALL MOUNTED
W/	WITH
W/O	WITHOUT

GENERAL NOTES

1. THE DRAWING INDICATES THE GENERAL DESIGN AND ARRANGEMENT OF EQUIPMENT. INFORMATION SHOWN ON THE PLAN DOES NOT NECESSARILY INDICATE EXACT LOCATION UNLESS IT HAS DIMENSIONS. DO NOT SCALE THE DRAWINGS. TAKE ALL DIMENSIONS, MEASUREMENT FROM ARCHITECTURAL DRAWINGS IF NOT INDICATED ON EQUIPMENT DRAWINGS. THE CONTRACTOR SHALL REQUEST NECESSARY DIMENSIONS NOT SHOWNS ON THE DRAWINGS FROM THE ARCHITECT.
2. ALL DIMENSIONS ARE TO THE FACE OF DRYWALL FROM THE CENTER LINE OR EDGE OF THE EQUIPMENT.
3. THE MEDICAL EQUIPMENT DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE MEDICAL EQUIPMENT PRODUCT SPECIFICATION PACKAGE (CUTSHEETS). SHOULD THERE BE ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE MANUFACTURER'S PRODUCT SPECIFICATIONS, THE CONTRACTOR SHALL BRING IT TO THE IMMEDIATE ATTENTION OF THE CONSTRUCTION MANAGER.
4. THE MEDICAL EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ANY DISCREPANCIES BETWEEN THE CONTRACT DRAWINGS AND THE ACTUAL FIELD CONDITIONS. ANY DISCREPANCIES ARE TO BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER.
5. THE MEDICAL EQUIPMENT CONTRACTOR SHALL COORDINATE FINAL LOCATION OF EQUIPMENT RELATED BACKING AND WALL RECEPTACLES WITH ELECTRICAL CONTRACTOR AND ARCHITECT.
6. BASE FINAL INSTALLATION OF EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIIALS AND EQUIPMENT REQUIRING EXACT FIT.
7. ALL MAKE AND MODEL OF INFORMATION TECHNOLOGY EQUIPMENT (COMPUTERS, PRINTERS, SCANNERS, TELEVISIONS & BRACKETS) ARE PLACEHOLDER AND NOT MEANT TO BE FINAL. COORDINATE WITH IT CONTRACTOR AND OWNER'S IT REPRESENTATIVE FOR FINAL QUANTITY AND LOCATION.
8. FOR IMAGING EQUIPMENT (FIXED CT SCANNER AND MRI), REFER TO VENDOR'S SITE SPECIFICATION INSTALLATION DRAWINGS FOR COMPLETE INFORMATION. IF THERE IS ANY CONFLICTING INFORMATION BETWEEN VENDOR'S INSTALLATION DRAWING AND CUTSHEETS/ EQUIPMENT SCHEDULE, VENDOR'S INSTALLATION DRAWING TAKES PRECEDENCE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL VENDOR PROVIDED PRE-INSTALLATION DOCUMENTS TO UNDERSTAND WHAT SCOPE IS PROVIDED BY THE VENDOR VERSUS THE CONTRACTOR (E.G. CABLING, ELECTRICAL SUPPORTING EQUIPMENT AND ANCHORAGE).
9. FOR DRAWING CLARITY AND LEGIBILITY PURPOSES, ITEMS THAT ARE OWNER INSTALLED, HANDHELD/PORTABLE, AND DOESN'T REQUIRE BUILDING INFRASTRUCTURE WILL NOT SHOW ON THE PLAN OR ON THE EQUIPEMENT SCHEDULE, BUT THEY WILL BE IN THE MEDICAL EQUIPMENT PRODUCT SPECIFICATION PACKAGE. THIS INCLUDES, BUT NOT LIMITED TO:
   - EQUIPMENT OPTIONS (CAD ID STARTS WITH OPT)
   - LEAD APRON
   - EQUIPMENT ACCESSORIES (BINS OR BASKET THAT ATTACHED TO AN EQUIPMENT)
   - HANDHELD BARCODE SCANNER

   BC1
10. HYPERBARIC CHAMBERS FOR HUMAN OCCUPANCY AND THEIR SUPPORTING SYSTEMS SHALL BE DESIGNED AND FABRICATED TO MEET ANSI/ ASME PVHO-1, SAFETY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY , BY PERSONNEL QUALIFIED TO FABRICATE VESSELS UNDER SUCH CODES PER 2021 NFPA 99, SECTION 14.2.2.1.
11. HYPERBARIC EQUIPMENT SHALL BE PROVIDED IN ACCORDANCE WITH 2021 NFPA 99, SECTION(S) 14.3.2.1.1 THROUGH 14.3.2.1.6 .
12. EQUIPMENT USED INSIDE THE CHAMBER REQUIRING LUBRICATION SHALL BE LUBRICATED WITH OXYGEN-COMPATIBLE MATERIAL PER 2021 NFPA 99, SECTION 14.3.2.4.
13. EQUIPMENT MADE OF THE FOLLOWING SHALL BE PROHIBITED FROM THE CHAMBER INTERIOR: (1) CERIUM (2) MAGNESIUM (3) MAGNESIUM ALLOYS PER 2021 NFPA 99, SECTION 14.3.2.5.
14. THE HANDLING OF GASES IN THE HYPERBARIC FACILITY SHALL BE PROVIDED IN ACCORDANCE WITH 2021 NFPA 99, SECTION 14.3.3.1 THROUGH 14.3.3.4.
15. THE INSPECTION, TESTING AND MAINTENANCE OF THE HYPERBARIC FACILITY SHALL BE PROVIDED IN ACCORDANCE WITH 2021 NFPA 99, SECTION 14.3.4 AND ALL ASSOCIATED SUB-SECTIONS.

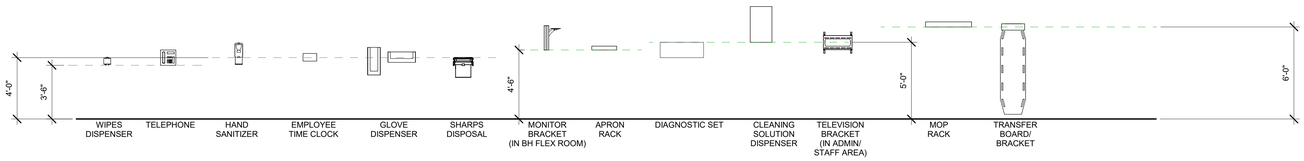
MEDICAL EQUIPMENT SCHEDULE NOTES

1. DEFINTION OF ARCHITECTURAL CODE:

   1 = EQUIPMENT FIXED TO THE BUILDING
   2 = EQUIPMENT NOT FIXED TO THE BUILDING, AND HAS ELECTRICAL REQUIREMENT
   3 = EQUIPMENT NOT FIXED TO THE BUILDING, AND DOES NOT HAVE ELECTRICAL REQUIREMENT
2. THE CONTRACTOR IS RESPONSIBLE TO REVIEW ALL MANUFACTURER PRODUCT SPECS PROVIDED IN CONJUNCTION WITH THE EQUIPMENT SCHEDULE. ANY DISCREPANCIES ARE TO BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER.

TYPICAL EQUIPMENT MOUNTING HEIGHT

APPLY THESE MOUNTING HEIGHT REQUIREMENTS UNLESS OTHERWISE NOTED IN ARCHITECTURAL DRAWINGS



RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECTECT STAMP

LICENSED ARCHITECT JESSICA KENNEDY C-37292 RENL 11-30 STATE OF CALIFORNIA

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CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 1	04/19/2024
BC2	BACK CHECK 2	07/12/2024

FILE LOG

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Draw	Author
Check	Checker
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AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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Department of Health Care Access & Information
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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

ABBREVIATIONS, GENERAL NOTES. AND MOUNTING HEIGHTS

SHEET NUMBER

EQ001

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PLAN LEGEND

EQUIPMENT TAG

WST0303 — CATALOGUE ID
WASTE CAN — ABBREVIATED DESCRIPTION

NOT IN SCOPE

(E) WORK AREA E1012
DSPHS-024 SANITIZER
GLVTB-014 DISP GLOVE
WSTSO-004 WASTE CAN
TBPLW-043 EXAM TABLE
CACWS-015 COMP CART
SHRWM-025 SHARP DISP
(E) PATIENT ADVOCACY E1080
(E) PRESIDENT'S OFFICE E1020
(E) OFFICE E1021
(E) VOLUNTEER 129
(E) DIRECTOR 132
(E) STOR. 128
ELEV. P4 E1149
(E) INFORMATION E1003
CACWS-015 COMP CART
COMPU-009 COMPUTER
CBHYP-001 CHAMBER
AZBGL-013 GLUCOSE ANALYZ
STLEB-001 STOOL
GLVTB-014 DISP GLOVE
HYPERBARIC THERAPY E1051
CBHYP-001 CHAMBER
WSTSO-002 WASTE CAN
HKPG E1051C
S. T. E1051B
WSTSO-002 WASTE CAN
P.T./ CHANGING E1051A
6'-0"
(E) ELEC. E1013
WSTSO-004 WASTE CAN
STAFF LOUNGE E1039
CFMSC-002 COFFEE MKR
ICENC-038 ICE DISP
OVNMW-010 MICROWAVE
REFFS-011 REFRIG
ROMIS-008 MOP RACK
HSKG E1038
DSPSO-020 CLEAN DISP
CAHSS-001 CART RSRP
(E) COMM. RM E1014
ELEC. E1068
CORRIDOR E1059B
DSPSU-009 SCRUB DISP
MALE S.T. / SHOWER E1061
WSTSO-004 WASTE CAN
HAMIL-003 HAMPER
MALE STAFF CHANGING / LOCKERS E1060
CLKAS-002 CLOCK
FEMALE S.T. / SHOWER E1071
FEMALE STAFF CHANGING / LOCKERS E1062
WSTST-020 WASTE CAN
ANTE ROOM E1041
HOKWM-011 HOOK
HEADWALL
BRMWA-045 BRKT MON
SHRWM-025 SHARP DISP
CAPCE-062 PROC CART
COMPU-009 COMPUTER
DSPHS-024 SANITIZER
GLVTB-014 DISP GLOVE
IVSSS-016 IV STAND
INSFU-005 INFUS PUMP
STRPR-007 STRETCHER
MONBD-021 PHYSIO MON
TOBGN-004 OVRD TABLE
WMRPH-021 PATIENT WARM
STLEB-001 STOOL
ALCOVE E1058
WSTOT-003 WASTE CAN
AIRBORNE INFECTION ISOLATION PACU E1056H
CACFE-014 SUPPLY CART
POST-PROC BAY E1056G
SEE RM E1056 FOR EQUIP INFO.
ST. TOIL. E1057
WSTSO-002 WASTE CAN
ELEC. E1067
(E) EMG 87
(E) OFF. 88
(E) EEG 89
(E) NEURO READING 91
(E) CARDIO READING 92
(E) INHALATION THERAPY 93
(E) CARDIOPULMONARY STRESS LAB 90
(E) EKG / HOLTER ROOM 94

1 EQUIPMENT PLAN LEVEL 1 AREA A
SCALE: 1/4" = 1'-0"

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ARCHITECTECT STAMP

CONSULTANT

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CONSULTANT STAMP

KEY PLAN

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FM08430011869	047-10071-002

SHEET NAME

EQUIPMENT PLAN - AREA A

SHEET NUMBER

EQ101A

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PLAN LEGEND

EQUIPMENT TAG

WST0303 — CATALOGUE ID
WASTE CAN — ABBREVIATED DESCRIPTION

NOT IN SCOPE

ELEV. P2 E1148
ELEC. E1066
SOILED HOLDING E1037
(E) ELEC. 1036
CLEAN SUPPLY E1035
STORAGE, EQUIPMENT E1034
(E) MEN'S PUBLIC RESTROOM E1017
ALCOVE E1043
CORRIDOR E1040
PRE/POST-PROC BAY 4 E1056D
PRE/POST PROC BAY 3 E1056C
PRE/POST PROC BAY 2 E1056B
PRE/POST PROC BAY 1 E1056A
CORRIDOR E1053
NURSE STATION E1056
ELEC. E1067
MEDICATION STATION E1056F
PREP WORK E1056E
(E) ECHOCARDIOGRAPHY 95
(E) IV 116
(E) PULMONARY FUNCTION E1063
(E)S.T. E1073
IT E1074
(E) UNIT DOSE COMPUTER 1110
ELEC. E1075
PAT. TOIL. E1054
CHANGING E1055
SEMI-RESTRICTED CORRIDOR E1046
CATH LAB 1 E1047
CONTROL RM1 E1047A
CONTROL RM 2 E1049A
CATH LAB 2 E1049
EQUIP RM 1 E1047B
EQUIP RM 2 1049B
OFFICE E1076
RECEPTION E1077

1 EQ401
2 EQ401

1 EQUIPMENT PLAN LEVEL 1 AREA B
SCALE: 1/4" = 1'-0"

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ARCHITECTECT STAMP

LICENSED ARCHITECT C-27299 REN. 11/30 STATE OF CALIFORNIA

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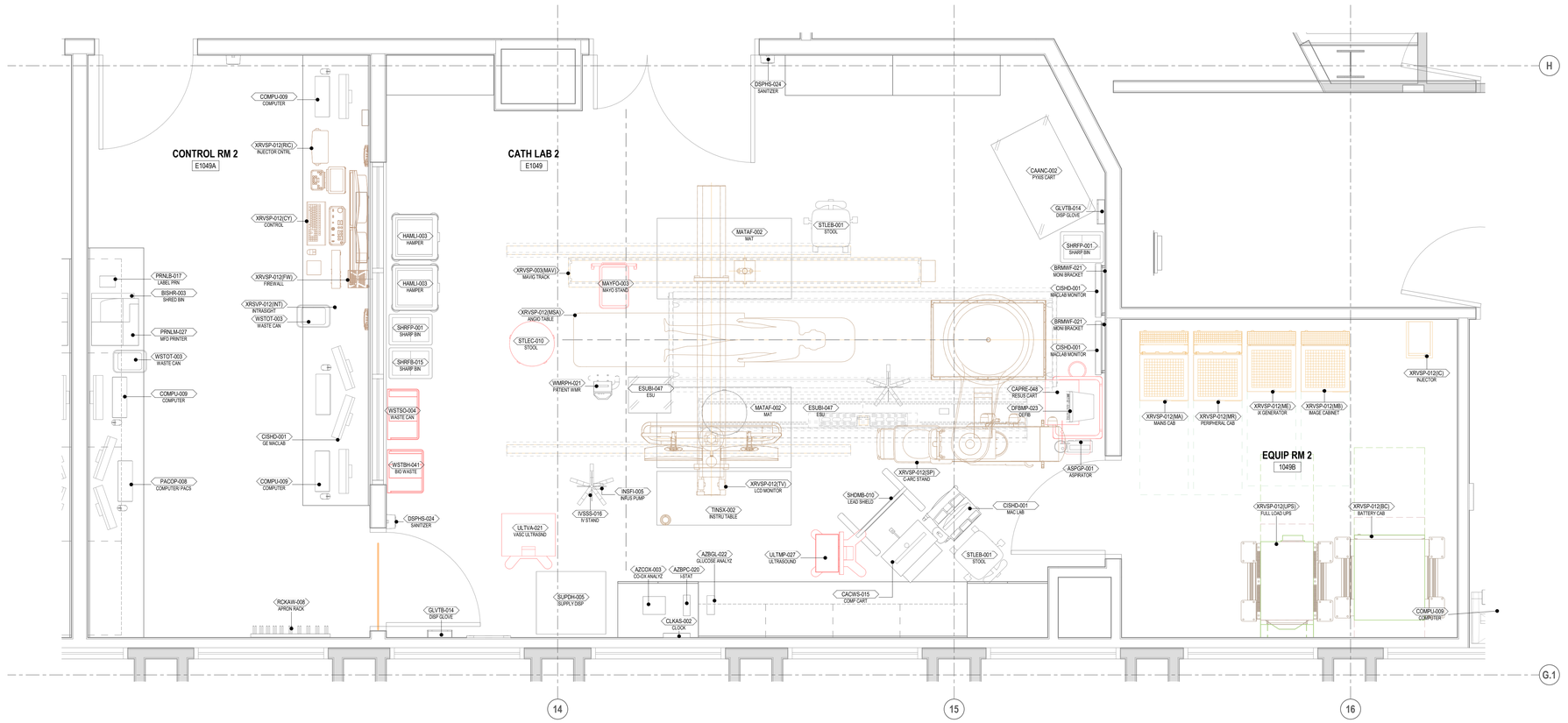
SHEET NAME

EQUIPMENT PLAN - AREA B

SHEET NUMBER

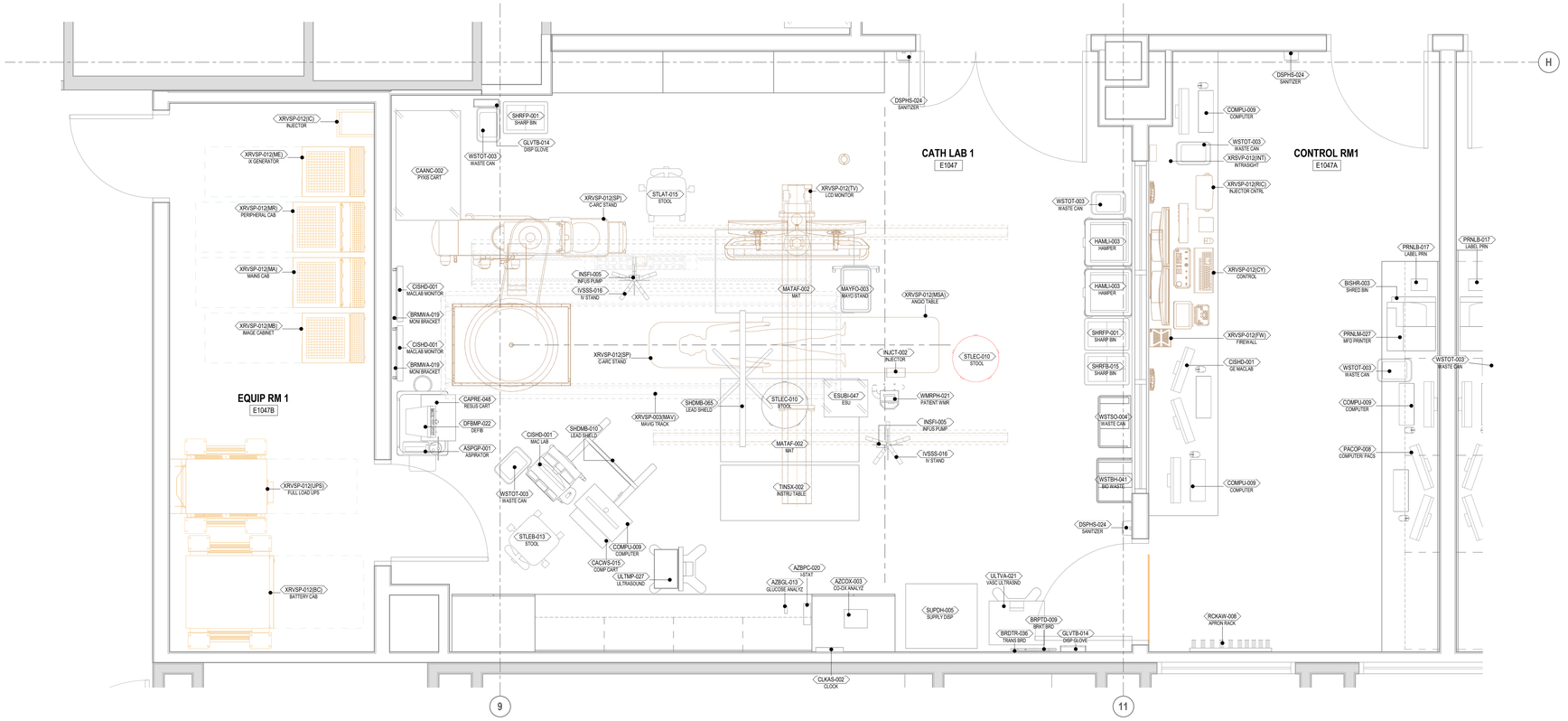
EQ101B

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2 CATH LAB 2 ENLARGED EQUIPMENT PLAN

SCALE: 1/2" = 1'-0"



1 CATH LAB 1 ENLARGED EQUIPMENT PLAN

SCALE: 1/2" = 1'-0"

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SHEET NAME

CATH LAB ENLARGED EQUIPMENT PLAN

SHEET NUMBER

EQ401

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Catalog ID	Description	Manufacturer	Model	Mounting Type	Furnish	Install	Max Weight	Width	Depth	Height	Anchorage Detail	OPM Approval	Classification	Volts	Amps	Watts	Plug Type	Dedicated Circuit	Circuit	Tech Connect	Cold Water	Hot Water	Treated Water	Drain	Vent	Gas	Medical Vacuum	Remarks
AMGEN-004	Anesthesia Machine, General	GE Healthcare - Anesthesia Delivery	Avance CS2	Mobile	Owner	Vendor	275 lb (124.74 kg)	28.3 in (718.82 mm)	28.7 in (728.98 mm)	52.9 in (1343.66 mm)	No		Mobile	120	15	*	Type B (NEMA 5-15)	No	N/A	Yes	No	No	No	No	No	Yes	No	
ASPGP-001	Pump, Suction/Aspirator, General, Portable	Ohio Medical	Care-e-vac 3	Counter/Cart/Table/Pole	Owner	Owner	11 lb (4.99 kg)	10.50 in (266.70 mm)	8.50 in (215.90 mm)	8.50 in (215.90 mm)	No		Mobile	120	4	*	Type B (NEMA 5-15)	No	N/A	No	No	No	No	No	No	No	No	
AZBGL-013	Analyzer, Blood Glucose, POC	Nova Biomedical	StatStrip Wireless Glucose Hospital Mtr w/Dock Stn	Counter	Owner	Owner	0.49 lb (0.22 kg)	3.1 in (78.74 mm)	1.18 in (29.97 mm)	5.8 in (147.32 mm)	No		Countertop, Non-essental	120	0.6	*	Type B (NEMA 5-15)	No	N/A	Yes	No	No	No	No	No	No	No	
AZBGL-022	Analyzer, Blood Glucose, POC	Siemens Healthcare Diagnostics	EPOC Reader	Counter	Owner	Owner	2 lb (0.91 kg)	8.46 in (214.88 mm)	3.35 in (85.09 mm)	2.00 in (50.80 mm)	No		Countertop, Non-essental	120	3	60	Type B (NEMA 5-15)	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
AZBPC-020	Analyzer, Lab, Blood Gas, Point-of-Care	Abbott Laboratories	i-STAT 1 Analyzer Wireless	Counter	Owner	Owner	1.42 lb (0.64 kg)	3.04 in (77.22 mm)	9.25 in (234.95 mm)	2.85 in (72.39 mm)	No		Countertop, Non-essental	120	0.9	*	N/A	N/A	*	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
AZCOX-003	Analyzer, Co-oximeter, POC	ITC	Avoximeter 1000E	Counter	Owner	Owner	4.00 lb (1.81 kg)	10.00 in (254.00 mm)	8.00 in (203.20 mm)	3.80 in (96.52 mm)	No		Countertop, Non-essental	N/A	N/A	N/A	N/A	N/A	*	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
BISHR-002	Bin, Shredding	Iron Mountain	Mini Security Console	Floor	Owner	Vendor	40.00 lb (18.14 kg)	19.00 in (482.60 mm)	16.00 in (406.40 mm)	27.00 in (685.80 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
BISHR-003	Bin, Shredding	Iron Mountain	Security Console	Floor	Vendor	Vendor		19.00 in (482.60 mm)	19.00 in (482.60 mm)	40.00 in (1016.00 mm)	A4		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
BRCWW-014	Bracket, Computer Workstation, Wall	Ergotron Inc.	StyleView Sit-Stand Combo Arm	Wall	Owner	Owner	32.0 lb (14.51 kg)	34.7 in (881.38 mm)	43.30 in (1099.82 mm)	18.79 in (477.27 mm)	A2/S506		Fixed	N/A	N/A	N/A	N/A	N/A		No	No	No	No	No	No	No	No	
BRDTR-036	Board, Transfer	SchureMed	Schure Slide Full-Size	Mobile	Owner	Owner	10 lb (4.54 kg)	22.00 in (558.80 mm)	72.00 in (1828.80 mm)	0.25 in (6.35 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A		No	N/A	N/A	N/A	N/A	No	N/A	N/A	
BRMWA-019	Bracket, Monitor, Wall	Ergotron Inc.	Neo Flex Dual	Wall	Owner	Contractor	12 lb (5.44 kg)	26.00 in (660.40 mm)	4.00 in (101.60 mm)	5.00 in (127.00 mm)	C1/S507		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
BRMWA-045	Bracket, Monitor, Wall	GCX Corporation	19'' Seismic Chan. w/VHM for Philips MP&MX Series	Wall	Owner	Contractor	11 lb (4.99 kg)	4.00 in (101.60 mm)	22.00 in (558.80 mm)	19.00 in (482.60 mm)	A3/S506		Fixed	N/A	N/A	N/A	N/A	No	N/A	No	No	No	No	No	No	No	No	
BRMWF-021	Bracket, Monitor, Wall, Flat Panel	Peerless-AV	SmartMount SF650 Univ Flat (Security, 39"- 75")	Wall	Owner	Contractor	5.30 lb (2.40 kg)	30.87 in (784.10 mm)	1.20 in (30.48 mm)	16.89 in (429.01 mm)	A4/S506		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
BRPTD-009	Bracket, Patient Transfer Device	Aadco Medical Inc.	N-537	Wall	Owner	Contractor	3 lb (1.36 kg)	17.00 in (431.80 mm)	1.00 in (25.40 mm)	5.00 in (127.00 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
BRSUC-006	Bracket, Suction Canister	Cardinal Health	65652-155 Guardian Ring Bracket (1200cc)	Wall	Owner	Contractor	1 lb (0.45 kg)	6 in (152.40 mm)	7.75 in (196.85 mm)	7 in (177.80 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
CAANC-002	Cart, Anesthesia, Controlled Access	CareFusion - Pyxis	Anesthesia ES System	Mobile	Owner	Owner	400 lb (181.44 kg)	47.50 in (1206.50 mm)	28.00 in (711.20 mm)	61.00 in (1549.40 mm)	No		Mobile	120	3	*	Type B (NEMA 5-15)	No	355	Yes	No	No	No	No	No	No	No	
CACDS-001	Cart, Cylinder, D&E, Single	W.T. Farley	CR-HC300 Economy Single	Mobile	Owner	Owner	5 lb (2.27 kg)	11.75 in (298.45 mm)	11.75 in (298.45 mm)	36.00 in (914.40 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
CACFE-014	Cart, Supply, Chrome, 48 inch	InterMetro Industries Corp	Super Adjustable Super Erecta 5A556BC (48x24x68)	Mobile	Owner	Owner	*	24.00 in (609.60 mm)	48.00 in (1219.20 mm)	67.88 in (1724.15 mm)	C4/S507		Others	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
CACWS-015	Cart, Computer Workstation	Capsa Solutions	M38e	Mobile	Owner	Owner	130.00 lb (58.97 kg)	21.00 in (533.40 mm)	17.00 in (431.80 mm)	65.00 in (1651.00 mm)	No		Mobile	120	*	150	Type B (NEMA 5-15)	No		No	No	No	No	No	No	No	No	
CACWS-087	Cart, Computer Workstation	Herman Miller, Inc.	Storage and Technology Cart (CTTL.142 60C/ Y92090)	Mobile	Owner	Owner	90.00 lb (40.82 kg)	31.50 in (800.10 mm)	22.00 in (558.80 mm)	42.50 in (1079.50 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CAHSS-001	Cart, Housekeeping, Stainless	Royce Rolls Ringer Company	F36-04E Standard	Mobile	Owner	Owner	*	23.00 in (584.20 mm)	36.00 in (914.40 mm)	42.50 in (1079.50 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
CALFE-011	Cart, Supply, Linen, 48"	InterMetro Industries Corp	ECM-A Series Exchange Cart	Mobile	Owner	Owner	114.00 lb (51.71 kg)	48 in (1219.20 mm)	24 in (609.60 mm)	69 in (1752.60 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
CAPRE-048	Cart, Procedure, Resuscitation	InterMetro Industries Corp	Lifeline LECCRP6	Mobile	Owner	Owner	142 lb (64.41 kg)	38.00 in (965.20 mm)	22.63 in (574.80 mm)	44.88 in (1139.95 mm)	No		Other, Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
CAPRP-004	Cart, Procedure, Resuscitation, Pediatric	InterMetro Industries Corp	Lifeline LECPEDS1	Mobile	Owner	Owner	177 lb (80.29 kg)	38.00 in (965.20 mm)	22.75 in (577.85 mm)	45.50 in (1155.70 mm)	No		Other, Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
CASUE-059	Cart, Supply, Enclosed	InnerSpace by Solaire Medical	Roam 2 Roll Top Door Double (SR2R)	Cart	Owner	Owner		39.00 in (990.60 mm)	28.75 in (730.25 mm)	81.00 in (2057.40 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CBHYP-001	Chamber, Hyperbaric	Sechrist Industries Inc	3600ER	Floor	Owner	Vendor	2211 lb (1002.89 kg)	49.00 in (1244.60 mm)	105.90 in (2689.86 mm)	61.00 in (1549.40 mm)	A1/S503		Other, Non-Essential	110	15	*	Type B (NEMA 5-15)	No	*	No	No	No	No	No	Yes	Yes	No	
CFMSC-002	Coffee Maker, Single Cup	Keurig Green Mountain	K150 Commercial Brewing System	Counter	Owner	Owner	18 lb (8.16 kg)	10.50 in (266.70 mm)	13.9 in (353.06 mm)	14.00 in (355.60 mm)	No		Countertop, Non-essental	120	11.7	1400	Type B (NEMA 5-15)	Yes	N/A	No	No	No	No	No	No	No	No	
CISHD-001	Computer Workstation, Cardiac Cath-Lab, Hemodynamic	GE Healthcare - Cardiology	MacLab IT	Floor	Owner	Vendor	172 lb (78.02 kg)	65.00 in (1651.00 mm)	30.00 in (762.00 mm)	30.00 in (762.00 mm)	No		Other, Non-Essential	115	15	*	Type B (NEMA 5-15)	Yes	N/A	Yes	No	No	No	No	No	No	No	
CLKAS-002	Clock, Analog, Synchronized, Wireless	Primex Wireless	XR Traditional 12.5" Black (Battery)	Wall	Owner	Contractor	3 lb (1.36 kg)	12.50 in (317.50 mm)	2.50 in (63.50 mm)	12.50 in (317.50 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
CNDSS-001	Cabinet/Dispenser, Scrub Sink Supplies	Gander, LLC	GO1d (w/Divider Accessory)	Counter	Owner	Contractor	6 lb (2.72 kg)	10.00 in (254.00 mm)	9.50 in (241.30 mm)	19.50 in (495.30 mm)	No		Countertop, Non-essental	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
COMPT-001	Computer, Tablet	Apple	iPad Air 2 (Wi-Fi Only, Space Gray, 16GB)	Counter	Owner	Owner	1 lb (0.45 kg)	6.75 in (171.45 mm)	0.25 in (6.35 mm)	9.50 in (241.30 mm)	No		Countertop, Non-essental	120	2.1	*	Type B (NEMA 5-15)	No	N/A	No	No	No	No	No	No	No	No	
COMPU-009	Computer, Desktop	Dell Inc.	OptiPlex 9030 All-In One	Counter/Cart/Table/Pole	Owner	Owner	27.56 lb (12.50 kg)	22.34 in (567.44 mm)	2.36 in (59.94 mm)	14.99 in (380.75 mm)	No		Countertop, Non-Essential	120	2.6	180	Type B (NEMA 5-15)	No	*	Yes	N/A	N/A	N/A	N/A	No	N/A	N/A	
COMPU-064	Computer, Desktop	To Be Determined	Dual Monitor	Counter/Cart/Table/Pole	Owner	Owner	28.00 lb (12.70 kg)	44.00 in (1117.60 mm)	7.61 in (193.29 mm)	17.00 in (431.80 mm)	No		Countertop, Non-Essential	120	3.6		Type B (NEMA 5-15)	No	*	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CPFLR-003	Copier, Floor, Multifunction	Xerox Corp.	WorkCentre 7835	Floor	Owner	Vendor	348 lb (157.85 kg)	44.50 in (1130.30 mm)	27.50 in (698.50 mm)	45.25 in (1149.35 mm)	No		Other, Non-Essential	120	15	673	Type B (NEMA 5-15)	Yes	2584	Yes	No	No	No	No	No	No	No	
CWASC-011	Cabinet, Warming, Single, Counter	STERIS Corporation	AMSCO Premium 24" Glass Door	Counter	Owner	Owner	148.00 lb (67.13 kg)	30.00 in (762.00 mm)	26.50 in (673.10 mm)	24.25 in (615.95 mm)	D1/S507		Countertop, Non-essental	120	7	840	Type B (NEMA 5-15)	No	*	No	No	No	No	No	No	No	No	
DFBMP-022	Defibrillator, Monitor, w/Pacing	Zoll Medical Corporation	R Series ALS w/Exp Pkg, Masimo SpO2, ETCO2, NIBP	Counter	Owner	Owner	15 lb (6.80 kg)	10.50 in (266.70 mm)	12.50 in (317.50 mm)	8.20 in (208.28 mm)	No		Countertop, Non-essental	120	*	*	Type B (NEMA 5-15)	No	*	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
DFBMP-023	Defibrillator, Monitor, w/Pacing	Zoll Medical Corporation	X Series w/Pacing, NIBP, SpO2, EtCO2, ECG,IPB/Temp	Counter	Owner	Owner	11.7 lb (5.31 kg)	8.90 in (226.06 mm)	7.90 in (200.66 mm)	10.40 in (264.16 mm)	No		Countertop, Non-essental	120	2	*	Type B (NEMA 5-15)	No	*	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
DOPVA-010	Doppler, Vascular	Parks Medical Electronics, Inc.	811-BL	Counter	Owner	Owner	5 lb (2.27 kg)	6.00 in (152.40 mm)	3.00 in (76.20 mm)	8.00 in (203.20 mm)	No		Countertop, Non-essental	120	3	*	Type B (NEMA 5-15)	No	*	No	No	No	No	No	No	No	No	
DSPHS-024	Dispenser, Hand Sanitizer, Wall Mount	GOJO Industries	Purell ES8 Touch-Free (White)	Wall	Owner	Contractor	2 lb (0.91 kg)	5.51 in (139.95 mm)	3.88 in (98.55 mm)	9.06 in (230.12 mm)	No		Fixed	N/A	N/A	N/A	N/A	No	N/A	No	No	No	No	No	No	No	No	
DSPMA-003	Dispenser, Mask	Bowman Dispensers	FB-037 White (for Earloop Style)	Wall	Owner	Contractor	1 lb (0.45 kg)	7.75 in (196.85 mm)	4.25 in (107.95 mm)	4.25 in (107.95 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
DSPSB-001	Dispenser, Scrub Brush	BD Medical Technology	E-Z Scrub Brush Dispenser	Wall	Owner	Contractor	2 lb (0.91 kg)	5.25 in (133.35 mm)	5.25 in (133.35 mm)	6.75 in (171.45 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
DSPSO-020	Dispenser, Cleaning Solution	Diversey Care	J-Fill QuattroSelect (Air Gap)	Wall	Owner	Contractor	15 lb (6.80 kg)	18.50 in (469.90 mm)	7.50 in (190.50 mm)	24.25 in (615.95 mm)	No		Fixed	N/A	N/A	N/A	N/A	No		No	Yes	No	No	No	No	No	No	
DSPSU-009	Dispenser, Scrub	IPA - Innovative Product Achievements	scrubEx SV Dispenser/Receiver	Floor	Owner	Vendor	560 lb (254.01 kg)	52.00 in (1320.80 mm)	16.50 in (419.10 mm)	78.00 in (1981.20 mm)	A2/S507		Fixed	120	3	360	Type B (NEMA 5-15)	No	60	Yes	No	No	No	No	No	No	No	
ESUBI-047	Electrosurgical Unit, Bipolar	Medtronic	AEX Generator with Cart	Counter/Cart/Table/Pole	Owner	Owner	20 lb (9.07 kg)	14.50 in (368.30 mm)	17.00 in (431.80 mm)	6.50 in (165.10 mm)	No		Mobile	120	8	*	Type B (NEMA 5-15)	No	*	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
FLWOX-034	Flowmeter, Oxygen	Ohio Medical	7707-1261-921	Wall	Owner	Owner	0.35 lb (0.16 kg)	1.10 in (27.94 mm)	3.40 in (86.36 mm)	5.50 in (139.70 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A		No	No	No	No	No	No	Yes	No	
GLVTB-014	Dispenser, Glove, Triple Box	Bowman Dispensers	GP-015 Clear PETG Plastic	Wall	Owner	Contractor	1 lb (0.45 kg)	16.00 in (406.40 mm)	4.00 in (101.60 mm)	10.25 in (260.35 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
HAMLI-003	Hamper, Linen	Pedigo Products	P-1120-SS	Mobile	Owner	Owner	16 lb (7.26 kg)	23.50 in (596.90 mm)	21.00 in (533.40 mm)	32.00 in (812.80 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
HDWRP-004	Headwall, Rail System, 1 Patient	Modular Services Co	Silhouette III 8610 Medium Acuity	Wall	Owner	Vendor	N/A	*	*	*	Yes		Fixed	120	*	*	Hardwire	No	N/A	No	No	No	No	No	No	Yes	Yes	
HOKWM-011	Hook, Coat/Robe, Wall Mount	Glaro, Inc	Coat Hook, 10 Hooks, Satin Aluminum	Wall	Owner	Contractor	1 lb (0.45 kg)	28 in (711.20 mm)	1.5 in (38.10 mm)	2 in (50.80 mm)	No		Fixed	N/A	N/A	N/A	N/A	No	N/A	No	No	No	No	No	No	No	No	
ICENC-003	Ice Machine, Dispenser, Nugget, Countertop	Follett Corporation	7CI100A-IW-CF-ST-00	Counter	Owner	Contractor	90 lb (40.82 kg)	14.75 in (374.65 mm)	22.25 in (565.15 mm)	17.75 in (450.85 mm)	A1/S506		Countertop, Non-essental	115	5	575	Type B (NEMA 5-15)	Yes	1700	No	Yes	No	No	No	No	No	No	
ICENC-038	Ice Machine, Dispenser, Nugget, Countertop	Follett Corporation	15 Series 15CI100A-IW-NF-ST-00	Counter/Cart/Table/Pole	Owner	Contractor	110 lb (49.90 kg)	14.62 in (371.35 mm)	23.50 in (596.90 mm)	22.50 in (571.50 mm)	No		Countertop, Non-Essential	115	5	575	Type B (NEMA 5-15)	Yes	1700	No	Yes	No	No	Yes	No	No	No	
INFSI-005	Pump, Infusion, Single	Baxter Healthcare	SIGMA Spectrum (w/Wireless Battery Module)	Counter/Cart/Table/Pole	Owner	Owner	2 lb (0.91 kg)	4.25 in (107.95 mm)	2.50 in (63.50 mm)	6.50 in (165.10 mm)	No		Mobile	120	.2	*	Type B (NEMA 5-15)	No	N/A	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
INFSY-003	Pump, Infusion, Syringe	B. Braun Medical Inc.	Perfusor Basic	Counter	Owner	Vendor	2 lb (0.91 kg)	5.75 in (146.05 mm)	3.00 in (76.20 mm)	9.75 in (247.65 mm)	No		Countertop, Non-essental	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
INJCT-002	Injector, Contrast Media, Table mount	Bayer HealthCare Radiology	Medrad Mark 7 Arterion	Mobile	Owner	Vendor	*	*	*	‡16.00 in (2946.40 mm)	No		Other, Non-Essential	120	*	*	Type B (NEMA 5-15)	No	*	Yes	N/A	N/A	N/A	N/A	No	N/A	N/A	
IVSSS-016	Stand, IV, Stainless Steel	Pedigo Products	P-1576-4 (5-leg, 4-hook)	Mobile	Owner	Owner	31 lb (14.06 kg)	21.00 in (533.40 mm)	21.00 in (533.40 mm)		No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
LIGSA-038	Light, Exam/Procedure, Single, Mobile, Articulating Arm	Burton Medical	AIM HI 100 Floor model	Mobile	Owner	Owner		31.00 in (787.40 mm)	22.00 in (558.80 mm)	69.00 in (1752.60 mm)	No		Mobile	120	*	45	Type B (NEMA 5-15)	No		No	No	No	No	No	No	No	No	
MATAF-002	Mat, Floor, Anti-Fatigue	3M Health Care	Premium Performance 9900	Floor	Owner	Owner	35 lb (15.88 kg)	36.00 in (914.40 mm)	60.00 in (1524.00 mm)	1.00 in (25.40 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
MAYFO-003	Stand, Mayo, Foot-Operated	Pedigo Products	P-1068-SS	Mobile	Owner	Owner	37 lb (16.78 kg)	22.25 in (565.15 mm)	18.50 in (469.90 mm)	62.00 in (1574.80 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
MEDAX-012	Medication Dispenser, Auxiliary	CareFusion - Pyxis	Pyxis MedStation ES Single Column	Floor	Owner	Vendor	314 lb (142.43 kg)	29.70 in (754.38 mm)	27.50 in (698.50 mm)	78.90 in (2004.06 mm)	A1/S505	OPM-0207	Other, Non-Essential	120	1	*	Type B (NEMA 5-15)	No	N/A	Yes	N/A	N/A	N/A	N/A	No	N/A	N/A	

BC2 CHAMBER IS CLASS B, CATEGORY 1

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Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 1	04/19/2024
BC2	BACK CHECK 2	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	5/30/2023

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

MEDICAL EQUIPMENT SCHEDULE

SHEET NUMBER

EQ701

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Catalog ID	Description	Manufacturer	Model	Mounting Type	Furnish	Install	Max Weight	Width	Depth	Height	Anchorage	OPM Detail Approval	Classification	Volts	Amps	Watts	Plug Type	Dedicated Circuit	BTU	Tech Connect	Cold Water	Hot Water	Treated Water	Drain	Vent	Gas	Medical Vacuum	Remarks
MEDMH-060	Medication Dispenser, Main Host	CareFusion - Pyxis	Pyxis MedStation ES (6-Drwr, 3 Cubie)	Floor	Owner	Vendor	165.5 lb (75.07 kg)	22.8 in (579.12 mm)	27 in (685.80 mm)	55 in (1397.00 mm)	A1/SS05	OPM-0207	Other, Non-Essential	120	3	*	Type B (NEMA 5-15)	No	409	Yes	No	No	No	No	No	No	No	
MONBD-021	Monitor, Physiological, Bedside	Philips Healthcare - Monitoring Systems	IntelliVue MP50 with Only X2 (wall mount)	Wall	Owner	Owner	14.8 lb (6.71 kg)	14.37 in (365.00 mm)	8.54 in (216.92 mm)	12.99 in (329.95 mm)	No		Fixed	120	1.6	100	Type B (NEMA 5-15)	No		Yes	N/A	N/A	N/A	N/A	No	N/A	N/A	
MONTP-006	Monitor, Physiologic, Transport	Philips Healthcare - Monitoring Systems	IntelliVue MX100	Mobile	Owner	Vendor	3.1 lb (1.41 kg)	9.80 in (248.92 mm)	4.40 in (111.76 mm)	3.80 in (96.52 mm)	No		Mobile	120	*	1.3	Type B (NEMA 5-15)	No	*	Yes	N/A	N/A	N/A	N/A	No	N/A	N/A	
MTRVV-012	Monitor, Video, 52 - 55 inch	NEC Display Solutions	P553 (55" LED)	Special	Owner	Owner	56 lb (25.40 kg)	49.25 in (1250.95 mm)	2.50 in (63.50 mm)	28.50 in (723.90 mm)	No		Other, Non-Essential	110	1.3	150	Type B (NEMA 5-15)	No	N/A	Yes	No	No	No	No	No	No	No	
OVNMW-010	Oven, Commercial, Microwave	Amana Corporation	RMS10TS Low Volume	Counter	Owner	Owner	32 lb (14.51 kg)	20.00 in (508.00 mm)	16.50 in (419.10 mm)	12.25 in (311.15 mm)	No		Countertop, Non-essental	120	13	1500	Type B (NEMA 5-15)	No	N/A	No	No	No	No	No	No	No	No	
PACOP-008	Monitor, PACS, 1 Panel	Barco Medical Imaging	Clinical Review (MDRC-1119)	Counter	Owner	Vendor	18.52 lb (8.40 kg)	16.46 in (418.08 mm)	8.78 in (223.01 mm)	21.06 in (534.92 mm)	No		Countertop, Non-essental	120	*	35	Type B (NEMA 5-15)	No	*	Yes	N/A	N/A	N/A	N/A	No	N/A	N/A	
PCEEX-001	Pacemaker, External	Medtronic Inc. - Cardiology	Dual Chamber External Pacemaker	Counter	Owner	Owner	1.50 lb (0.68 kg)	3.38 in (85.85 mm)	1.75 in (44.45 mm)	8.00 in (203.20 mm)	No		Countertop, Non-essental	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
PMPCC-005	Pump, Chest Compression	Physio-Control Inc.	LUCAS 3 Chest Compression System	Counter	Owner	Owner	18 lb (8.16 kg)	20.50 in (520.70 mm)	9.40 in (238.76 mm)	22.00 in (558.80 mm)	No		Countertop, Non-essental	120	2.3	276	Type B (NEMA 5-15)	No	*	No	No	No	No	No	No	No	No	
PRNLB-017	Printer, Label, Barcode	Zebra Technologies Corp	GK420t (Thermal Transfer)	Counter	Owner	Owner	5 lb (2.27 kg)	7.75 in (196.85 mm)	10.00 in (254.00 mm)	7.50 in (190.50 mm)	No		Countertop, Non-essental	120	2.5	300	Type B (NEMA 5-15)	No	N/A	Yes	No	No	No	No	No	No	No	
PRNLM-012	Printer, Laser, Multifunction	Hewlett-Packard	LaserJet Enterprise flow MFP M880z+	Floor	Owner	Owner	337.1 lb (152.91 kg)	27.7 in (703.58 mm)	25 in (635.00 mm)	47.2 in (1198.88 mm)	No		Other, Non-Essential	120	*	1100	Type B (NEMA 5-15)	No	*	Yes	No	No	No	No	No	No	No	
PRNLM-027	Printer, Laser, Multifunction	Hewlett-Packard	HP LaserJet Enterprise M608x	Counter	Owner	Owner	58 lb (26.31 kg)	17 in (431.80 mm)	18.30 in (464.82 mm)	19.90 in (505.46 mm)	No		Countertop, Non-essental	120	12	*	Type B (NEMA 5-15)	N/A	*	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
PRNLN-002	Printer, Laser, Network	Hewlett-Packard	LaserJet P3015dn	Counter	Owner	Owner	35 lb (15.88 kg)	17.75 in (450.85 mm)	16.25 in (412.75 mm)	12.50 in (317.50 mm)	No		Countertop, Non-essental	120	N/A	780	Type B (NEMA 5-15)	No	N/A	Yes	No	No	No	No	No	No	No	
RCKAW-008	Rack, Apron, Wall Mount	Infab Corporation	683411 (8 peg)	Wall	Owner	Owner	*	46.50 in (1181.10 mm)	7.25 in (184.15 mm)	9.00 in (228.60 mm)	A1/AE515		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
RCKMB-008	Rack, Mops/Brooms	Grainger	Tough Guy 1ECL5 (4 Brooms/Mops)	Wall	Owner	Contractor	5 lb (2.27 kg)	36.00 in (914.40 mm)	4.75 in (120.65 mm)	4.75 in (120.65 mm)	No		Fixed	N/A	N/A	N/A	N/A	No	N/A	No	No	No	No	No	No	No	No	
RCKYF-069	Rack, Cylinder, Floor	W.T. Farley	MRI Conditional 6 E Cylinder Rack	Floor	Owner	Owner	7.00 lb (3.18 kg)	15.00 in (381.00 mm)	10.00 in (254.00 mm)	17.00 in (431.80 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
REFFS-011	Refrigerator, Domestic, w/Freezer, Side-by-Side	GE Appliances	Energy Star 25.3 cu. ft. Side-By-Side, Stainless	Floor	Owner	Contractor	320 lb (145.15 kg)	43.50 in (1104.90 mm)	35.25 in (895.35 mm)	69.50 in (1765.30 mm)	C1/SS04		Other, Non-Essential	120	15	*	Type B (NEMA 5-15)	Yes	N/A	No	Yes	No	No	No	No	No	No	
REGIC-030	Regulator, Suction, Intermittent/Continuous	Boehringer Laboratories Inc.	3804 Platinum Series	Wall	Owner	Owner	2 lb (0.91 kg)	4.00 in (101.60 mm)	4.00 in (101.60 mm)	5.75 in (146.05 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	Yes	
RFMDU-001	Refrigerator, Undercounter, Medical Grade	Follett Corporation	Medical-Grade Refrigerator REF4P-T	Floor	Owner	Owner	170 lb (77.11 kg)	23.75 in (603.25 mm)	27.00 in (685.80 mm)	31.38 in (797.05 mm)	D1/SS04		Other, Non-Essential	115	4.1	*	Type B (NEMA 5-15)	No	2185	No	No	No	No	No	No	No	No	
SCLAF-093	Scale, Clinical, Adult, Digital, Floor	Scale-Tronix, Inc., A Hill-Rom Company	5002-XX-X Stand-On Scale, Data Port, Battery Power	Floor	Owner	Owner	61 lb (27.67 kg)	22.00 in (558.80 mm)	28.00 in (711.20 mm)	60.00 in (1524.00 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	No	N/A	No	No	No	No	No	No	No	No	
SHRFB-015	Sharps, Disposal, Floor Bin	Stericycle	Biosystems C-17	Floor	Owner	Owner	2 lb (0.91 kg)	13.25 in (336.55 mm)	17.50 in (444.50 mm)	24.75 in (628.65 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A		No	No	No	No	No	No	No	No	
SHRFP-001	Sharps, Disposal, Floor Bin, Pharmacy	Stericycle	Bio Systems C-08BLKHAZ-PH Black	Floor	Owner	Owner	12 lb (5.44 kg)	14.25 in (361.95 mm)	16.50 in (419.10 mm)	23.00 in (584.20 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
SHRWM-025	Sharps, Disposal, Wall Mount	Stericycle	Bio Systems C-03RES-0203-OC	Wall	Owner	Contractor	2 lb (0.91 kg)	14.50 in (368.30 mm)	5.75 in (146.05 mm)	21.50 in (546.10 mm)	No		Fixed	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
SNKTS-002	Sink, Scrub, 2-Bay, Stainless Steel	STERIS Corporation	Flexmatic w/ Infrared Sensor	Wall	Owner	Contractor	*	64.00 in (1625.60 mm)	27.29 in (693.17 mm)	51.50 in (1308.10 mm)	C2/SS07		Fixed	120	1.2	60	Type B (NEMA 5-15)	No	N/A	No	Yes	Yes	No	Yes	No	No	No	
STLAT-015	Stool, Anesthetist	Pedigo Products	T-583 Ergo Task Anesthesia Chair	Mobile	Owner	Owner	45 lb (20.41 kg)	25.00 in (635.00 mm)	25.00 in (635.00 mm)	50.00 in (1270.00 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
STLEB-001	Stool, Exam, w/Backrest	Midmark Corp	Ritter 273 Value Series	Mobile	Owner	Owner	20.00 lb (9.07 kg)	23.00 in (584.20 mm)	23.00 in (584.20 mm)	24.50 in (622.30 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	No	N/A	N/A	
STLEB-013	Stool, Exam, w/Backrest	Pedigo Products	P-551-GS	Mobile	Owner	Owner	*	21.50 in (546.10 mm)	21.50 in (546.10 mm)	24.00 in (609.60 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
STLEC-010	Stool, Exam, Cushion-Seat	Pedigo Products	P-526-GS	Mobile	Owner	Owner	16 lb (7.26 kg)	23.50 in (596.90 mm)	23.50 in (596.90 mm)	23.75 in (603.25 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
STMPN-002	Stimulator, Peripheral Nerve	B. Braun Medical Inc.	Stimuplex HNS12 with SENSe	Counter	Owner	Owner	1 lb (0.45 kg)	3.00 in (76.20 mm)	1.50 in (38.10 mm)	5.50 in (139.70 mm)	No		Countertop, Non-essental	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
STRPR-007	Stretcher, Procedure/Recovery	Stryker Medical	Prime with Fifth Wheel 1105 (26" Litter)	Mobile	Owner	Owner	285 lb (129.27 kg)	34.00 in (863.60 mm)	85.00 in (2159.00 mm)	48.00 in (1219.20 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
SUPDH-005	Dispenser, Supply, Host	CareFusion - Pyxis	SupplyStation 30 Single Column	Floor	Owner	Vendor	370 lb (167.83 kg)	31.00 in (787.40 mm)	28.00 in (711.20 mm)	79.50 in (2019.30 mm)	A1/SS05	OPM-0207	Other, Non-Essential	110	3	330	Type B (NEMA 5-15)	No	490	Yes	No	No	No	No	No	No	No	
TBLPW-043	Table, Exam/Treatment, Powered	Midmark Corp	Ritter 224-001	Floor	Owner	Owner	409.00 lb (185.52 kg)	28.00 in (711.20 mm)	76.00 in (1930.40 mm)	37.00 in (939.80 mm)	No		Other, Non-Essential	115	9	*	Type B (NEMA 5-15)	No	*	No	No	No	No	No	No	No	No	
TINSX-002	Table, Instrument, 60 inch	Pedigo Products	SG-94-SS (60x24)	Mobile	Owner	Owner	88 lb (39.92 kg)	60.00 in (1524.00 mm)	24.00 in (609.60 mm)	34.00 in (863.60 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
TOBGN-004	Table, Overbed, General	Stryker Medical	Tru-Fit Single Top	Mobile	Owner	Owner	43 lb (19.50 kg)	32.00 in (812.80 mm)	21.25 in (539.75 mm)	43.75 in (1111.25 mm)	No		Mobile	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
ULTMP-027	Ultrasound, Imaging, Multipurpose, Portable	FUJIFILM SonoSite, Inc	Sonosite PX	Mobile	Owner	Owner	85.1 lb (38.60 kg)	28.30 in (718.82 mm)	28.30 in (718.82 mm)	65.00 in (1651.00 mm)	No		Mobile	120	9.4	*	Type B (NEMA 5-15)	N/A		Yes	No	No	No	No	No	No	No	
ULTVA-021	Ultrasound, Imaging, Vascular Access	Philips Healthcare - Imaging Systems	IVUS Core Mobile	Mobile	Owner	Owner		40.00 in (1016.00 mm)	27.00 in (685.80 mm)	50.00 in (1270.00 mm)	No		Mobile	120			Type B (NEMA 5-15)	No	*	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
WDPSC-003	Waste Disposal, Pharmaceutical, Secure	Stericycle	CsRx w/ Locking Bracket (3 gal.)	Wall	Owner	Contractor	30.00 lb (13.61 kg)	9.10 in (231.14 mm)	5.30 in (134.62 mm)	19.50 in (495.30 mm)	No		Fixed	N/A	N/A	N/A	N/A	No	N/A	No	No	No	No	No	No	No	No	
WMRBP-002	Warmer, Fluid/Blood, Portable	3M Health Care	Ranger Blood/Fluid Warming System	Counter	Owner	Owner	7.44 lb (3.37 kg)	7.50 in (190.50 mm)	10.00 in (254.00 mm)	4.50 in (114.30 mm)	No		Countertop, Non-essental	110	*	900	Type B (NEMA 5-15)	No		No	No	No	No	No	No	No	No	
WMRPH-021	Warmer, Patient, Hypothermia	Stryker Medical	Mistral-Air Blower, SYK	Floor	Owner	Owner	11.50 lb (5.22 kg)	13.40 in (340.36 mm)	6.30 in (160.02 mm)	15.70 in (398.78 mm)	No		Other, Non-Essential	120	10	*	Type B (NEMA 5-15)	No	*	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
WSTBH-041	Waste Can, Bio-Hazardous	Continental Commercial Products	23RD Step-On	Floor	Owner	Owner	13 lb (5.90 kg)	19.25 in (488.95 mm)	16 in (406.40 mm)	31 in (787.40 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A		No	No	No	No	No	No	No	No	
WSTOT-003	Waste Can, Open Top	Rubbermaid Commercial Products	Fire Resistant Beige Wastebasket	Floor	Owner	Owner	*	10.50 in (266.70 mm)	14.50 in (368.30 mm)	15.30 in (388.62 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
WSTRF-002	Waste Can, 32-40 Gallon	Rubbermaid Commercial Products	2632 BRUTE Gray w/2631 Lid	Floor	Owner	Owner	10 lb (4.54 kg)	22.25 in (565.15 mm)	22.25 in (565.15 mm)	29.00 in (736.60 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
WSTSO-002	Waste Can, Step-On	Rubbermaid Commercial Products	1883460 Slim Jim Resin Front Step 18 Gal/Beige	Floor	Owner	Owner	12 lb (5.44 kg)	19.75 in (501.65 mm)	12.25 in (311.15 mm)	31.75 in (806.45 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
WSTSO-004	Waste Can, Step-On	Rubbermaid Commercial Products	1883552 Slim Jim Resin Front Step 24 Gal/Beige	Floor	Owner	Owner	14 lb (6.35 kg)	22.50 in (571.50 mm)	14.00 in (355.60 mm)	32.50 in (825.50 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
WSTST-020	Waste Can, Swing Top	Rubbermaid Commercial Products	Slim Jim Vented 23 Gal/Gray w/Swing Lid	Floor	Owner	Owner	6 lb (2.72 kg)	11.70 in (297.18 mm)	22.00 in (558.80 mm)	35.00 in (889.00 mm)	No		Other, Non-Essential	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	No	No	
XRVSP-012 (BC)	Socomec Full Load Battery Cabinet	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Floor	Owner	Vendor	2662 lb	49.00 in (1244.60 mm)	45.88 in	79.00 in	C4/SS08		Fixed															
XRVSP-012 (CY)	Control Room Connection Box	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Counter	Owner	Vendor	115 lb (total of 8 items)	*	*	*	No		Countertop, Non-essential															
XRVSP-012 (FW)	Firewall	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Counter	Owner	Vendor	4 lb	7.88 in	1.81 in	9.19 in	No		Countertop, Non-essential															
XRVSP-012 (IC)	Injecotr Room Console	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Special	Owner	Vendor	11 lb (4.99 kg)	9.75 in	4.63 in	15.19 in	No		Countertop, Non-essental															
XRVSP-012 (INT)	IntraSight-Workstation (Integrated with FlexSpot)	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Counter	Owner	Vendor	83 lb (total of 5 items)	*	*	*	No		Countertop, Non-essental															
XRVSP-012 (MA)	Mains 40E Cabinet	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Floor	Owner	Vendor	826 lb	21.63 in (550.00mm)	31.38 in (796.00 mm)	76.94 in (1955.00mm)	A3/SS04		Fixed															
XRVSP-012 (MAV)	Mavig 4m Ceiling Track w/ Rad Shield and Y LED 1F Light	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Ceiling	Owner	Vendor	205 lb	157.50in	13.25 in	*	D2/SS08		Fixed															
XRVSP-012 (MB)	Image 40E Cabinet	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Floor	Owner	Vendor	441 lb	21.63 in (550.00mm)	27.38 in (695.00 mm)	76.94 in (1955.00mm)	A3/SS04		Fixed															
XRVSP-012 (ME)	Certeray iX Generator Cabinet	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Floor	Owner	Vendor	320 lb	21.63 in (550.00mm)	27.38 in (695.00 mm)	76.94 in (1955.00mm)	A3/SS04		Fixed															
XRVSP-012 (MR)	Peripheral 40E Cabinet with CRC + Extension	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Floor	Owner	Vendor	386 lb	21.63 in (550.00mm)	31.38 in (796.00 mm)	76.94 in (1955.00mm)	A3/SS04		Fixed															
XRVSP-012 (MSA)	Angio Diagnost 7 with Pivot and Tilt	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Floor	Owner	Vendor	999 lb	*	24.00 in (609.60 mm)	*	A2/SS04		Fixed															
XRVSP-012 (RIC)	Injecotr Remote Panel	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Counter	Owner	Vendor	7 lb	16.56 in	7.5 in	5.38 in	No		Countertop, Non-essential															
XRVSP-012 (SP)	C-Arc Stand	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Ceiling	Owner	Vendor	2755 lb	169.31 in	*	*	C2/SS01		Fixed															
XRVSP-012 (TV)	58" + (2) 27" LCD Monitor Suspension	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Ceiling	Owner	Vendor	596 lb	153.56 in (3900.00mm)	138.19 in (3510.00mm)	*	C2/SS01		Fixed															
XRVSP-012 (UPS)	Socomec Full Load UPS	Philips Healthcare - Imaging	Azurion 7 C20 FlexArm - 4300mm AD7	Floor	Owner	Vendor	1767 lb	41.00 in	41.94 in	79.00 in	D4/SS08	BC1	Fixed	480	80	*	Hardwire	Yes	*	Yes	No	No	No	No	No	No	No	Refer to Philips Site Specific Drawings for pre-installaiton info

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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CONSULTANT

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CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK	10/10/2023
BC1	BACK CHECK 1	04/19/2024
BC2	BACK CHECK 2	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	5/30/2023

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

MEDICAL EQUIPMENT SCHEDULE

SHEET NUMBER

EQ702

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7/1/2024 3:21:14 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-MDPT.rvt

GENERAL NOTES

1 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURES, DRAINS, PIPE CHASES, WALLS AND FURRINGS.

2 THESE DRAWINGS ARE DIAGRAMMATIC WHEREIN THE POSITIONING OF PLUMBING PIPING IS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH THE BUILDING DESIGN/CONSTRUCTION CONDITIONS, ALL OTHER DISCIPLINES AND TRADES OF WORK, THE POSITION AND ROUTING OF PIPING INCLUDING OFFSETS IN WALLS, CEILINGS AND CASEWORK, ETC. PRIOR TO INSTALLATION. THE CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS REQUIRED FOR COMPLETE SYSTEMS INSTALLATION.

3 WORK REQUIRED BY THESE DOCUMENTS SHALL CONFORM TO APPLICABLE CODES AND STANDARDS. WHERE CONFLICTS OCCUR WITH CODES, DRAWINGS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL PREVAIL.

4 PROVIDE SLEEVING, CUTTING, CORING AND PATCHING OF WALLS, FLOORS, ROOFS, FOOTINGS AND GRADE BEAMS WHERE REQUIRED FOR INSTALLATION OF WORK.

5 PROVIDE AUTOMATIC TRAP PRIMERS AND NECESSARY PIPING FOR CONNECTION TO FLOOR SINKS, FLOOR DRAINS AND OTHER WASTE DRAIN RECEPTORS SUBJECT TO INFREQUENT USE PER CPC [UPC]. LOCATIONS OF TRAP PRIMERS SHOWN ON PLANS ARE BASED UPON ENGINEER'S JUDGMENT ONLY AND ARE SUBJECT TO APPROVAL BY THE LOCAL BUILDING INSPECTOR. FLUSH VALVE TRAP PRIMERS CAN BE SUBSTITUTED AT ALL RESTROOMS WHERE FLOOR DRAINS ARE INDICATED AND REQUIRED BY CODE.

6 PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER DISSIMILAR METALS ARE JOINED.

7 MECHANICAL DEVICES (VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS, ETC.) SHALL BE READILY ACCESSIBLE. PROVIDE ACCESS PANELS WHERE INSTALLED WITHIN OR BEHIND WALLS OR ABOVE HARD LID CEILINGS.

8 PIPING AND CONDUIT PENETRATIONS THRU FIRE RATED ASSEMBLIES (FLOORS, WALLS, CEILINGS, ETC.) SHALL BE INSTALLED WITH UL LISTED FIRESTOP SYSTEMS PER CBC REQUIREMENTS.

9 ACCESSIBLE FIXTURES SHALL BE PROVIDED IN ACCORDANCE WITH CURRENT APPLICABLE ACCESSIBILITY CODES. REFER TO ARCHITECTURAL PLANS FOR ACCESSIBLE FIXTURE LOCATIONS.

10 BURIED METALLIC PIPING (CAST IRON, STEEL, COPPER, ETC.) SHALL BE INSTALLED WITHIN POLYETHYLENE SLEEVE OR SEALED SHEET PER SPECIFICATIONS.

11 CROSS CONNECTION PROTECTION SHALL BE PROVIDED AT POTABLE WATER SUPPLIED APPLIANCES AND EQUIPMENT WHERE SUSCEPTIBLE TO CONTAMINATION. PROVIDE VACUUM BREAKERS AT HOSE BIBBS.

12 DO NOT ROUTE PIPING OVER ELECTRIC ROOMS, ELECTRICAL CLOSETS, TELECOMMUNICATION ROOMS, DATA ROOMS, AND ELEVATOR EQUIPMENT ROOMS FROM STRUCTURAL FLOOR TO STRUCTURAL CEILING UNLESS PIPING IS DEDICATED TO SERVE THAT ROOM. NO PIPING SHALL BE INSTALLED OVER ELECTRICAL PANELS.

13 CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION OF PLUMBING SYSTEMS.

13.1. SHOP DRAWINGS SHALL BE COORDINATED WITH ALL DISCIPLINES ON PROJECT.

13.2. CONSTRUCTION DOCUMENTS SHALL NOT BE CONSIDERED SHOP DRAWINGS.

13.3. SHOP DRAWINGS SHALL BE REPRODUCIBLE.

13.4. SHOP DRAWINGS SHALL CLEARLY INDICATE PLUMBING SYSTEMS, PIPE SIZES, ELEVATIONS, LOCATION, FIXTURES, EQUIPMENT & ACCESSORIES.

13.5. NO WORK SHALL START PRIOR TO REVIEW OF SHOP DRAWINGS.

13.6. SHOP DRAWINGS SHALL BE KEPT UP TO DATE THROUGH THE ENTIRETY OF THE PROJECT. AFTER COMPLETION OF PROJECT RECORD AS-BUILT DRAWINGS SHALL BE PROVIDED FOR ALL WORK PERFORMED.

14 PIPING SHALL HAVE ALL BURRS REMOVED, PIPE ENDS REAMED, AND CHIPS REMOVED. PLASTIC PIPING INSTALLED ON PRESSURIZED SYSTEMS SHALL BE CUT WITH PROPER TOOL CUTTERS PER THE MANUFACTURERS INSTRUCTIONS. SAW CUTTING OF PIPE PRODUCING SHAVINGS AND BURRS IS NOT ACCEPTABLE.

15 PROVIDE HANGERS, BRACES, INTERMEDIATE FRAMING SUPPORTS, ANCHORS AND MISCELLANEOUS DEVICES REQUIRED FOR PIPE AND EQUIPMENT INSTALLATIONS.

16 UNIFORMLY GRADE STORM DRAIN AND INDIRECT DRAIN PIPING NOT LESS THAN 1/8 INCH PER FOOT AND WASTE AND SEWER DRAIN PIPING NOT LESS THAN 1/4 INCH PER FOOT UNLESS OTHERWISE NOTED AND APPROVED BY THE INSPECTOR.

17 REMOVE AND REINSTALL FIXTURES AND EQUIPMENT THAT ARE INDICATED TO BE RELOCATED. PROVIDE NEW VALVES, HOSES, ADAPTORS, CONNECTORS, AND OTHER MISCELLANEOUS DEVICES NECESSARY FOR COMPLETE INSTALLATION.

18 PIPING ABOVE CEILINGS OR WITHIN ADJACENT WALLS OF SOUND SENSITIVE AREAS AND ROOMS (AUDITORIUMS, LIBRARIES, CONFERENCE ROOMS, ANIMAL HOLDING AND TESTING ROOMS) SHALL BE INSTALLED WITH MANUFACTURED RESILIENT HANGERS AND ISOLATORS WHICH WILL REDUCE NOISE FOR AN ACOUSTICALLY SENSITIVE INSTALLATION. [PROVIDE MANUFACTURED RESILIENT HANGERS AND ISOLATORS ON ANY EXISTING PIPING IN THE ABOVE MENTIONED ROOMS THAT DO NOT ALREADY HAVE THESE ITEMS INSTALLED.]

19 ROUGH-INS FOR WATER STOPS, MOUNTING OF MIXING VALVES, SUPPLY RISERS, ETC. BELOW SINK AND LAVATORY COUNTERS SHALL BE INSTALLED WITHIN THE DIMENSIONS OF A SKIRT WITH NO PART OF INSTALLATION VISIBLE BELOW OR ON EITHER SIDE OF SKIRT. WHERE A SKIRT IS NOT PROVIDED ALL COMPONENTS SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION.

20 WHERE PIPING IS TO BE PERMANENTLY DEMOLISHED AND CAPPED, REMOVE ALL PIPING BACK TO ACTIVE MAIN TO ELIMINATE DEAD LEGS IN PIPING. ALL PIPING SHALL BE CAPPED USING AN APPROVED FITTING AND WHERE A SHUT OF VALVE IS PROVIDED ON PRESSURE PIPE FOR FUTURE USE AN APPROVED CAP SHALL BE PROVIDED DOWNSTREAM OF SHUT OF VALVE.

21 CONTRACTOR TO PAY FOR ALL PERMITTING FEES AND CHARGES FROM MUNICIPALITIES. REFER TO DIVISION 1 FOR REQUIREMENTS.

22 THERE SHALL BE NO PENETRATION THROUGH OR INTO ANY EXIT ENCLOSURE PER CBC SECTION 1005.3.3.5. THERE SHALL BE NO DEVICES, EQUIPMENT, OR OBJECTS MOUNTED TO ANY PARTITION THAT IS PART OF THE TWO HOUR RATED EXIT ENCLOSURE.

23 WHERE CONNECTION IS MADE TO EXISTING SYSTEMS, FIELD VERIFY EXACT LOCATION, ELEVATION, SIZE, AND CONNECTION REQUIREMENTS AND PROVIDE ACCORDINGLY. PATCH INSULATION AND OVERLAP VAPOR BARRIER AS APPLICABLE.

24 ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.

25 CONTRACTOR SHALL STERILIZE ALL DOMESTIC (POTABLE) AND INDUSTRIAL WATER PIPING PER ACCEPTED PLUMBING CODE OR SPECIFICATIONS - THE MORE STRINGENT SHALL APPLY.

26 A CLEANOUT SHALL BE INSTALLED ABOVE THE FIXTURE CONNECTION FITTING, SERVING EACH URINAL, REGARDLESS OF THE LOCATION OF THE URINAL IN THE BUILDING PER CPC SECTION 707.4.

27 A SLOPE OF LESS THAN 1/8-INCH PER FOOT OR 1 PERCENT IS PROVIDED FOR DRAINAGE PIPING 4-INCHES OR LARGER ONLY WHERE IT IS IMPACTICAL DUE TO DEPTH OF THE STREET SEWER, TO THE STRUCTURAL FEATURES, OR TO THE ARRANGEMENT OF A BUILDING OR STRUCTURE TO OBTAIN A SLOPE OF 1/4-INCH PER FOOT OR 2 PERCENT AND THAT IS SUBJECT TO THE CITY OF SAN DIEGO PLUMBING FIELD INSPECTOR'S APPROVAL.

28 BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE.

29 ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.

30 EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX (6) INCHES ABOVE THE FLOOD-LEVEL RIM OF THE FIXTURE SERVED BEFORE OFFSETTING HORIZONTALLY OR BEFORE BEING CONNECTED TO ANY OTHER VENT.

31 DOMESTIC HOT WATER PIPING SHALL BE INSULATED PER SECTION 609.11 CPC.

32 NEW AND EXISTING DRAINAGE PIPING OVERHEAD OR IN CEILING SPACES ABOVE CRITICAL (OPERATING, PROCEDURE AND DELIVERY ROOMS, NURSERIES, ETC.) AND FOOD SERVICE AREAS (FOOD PREPARATION CENTERS, FOOD SERVING FACILITIES, FOOD STORAGE AREAS, ETC.) SHALL BE KEPT TO A MINIMUM PER CPC 311.9 AND CAN 5-311.9. WHERE INSTALLATION OF PIPING OVER SUCH AREAS CANNOT BE AVOIDED, ONE OR MORE SPECIAL PRECAUTIONS SHALL BE APPLIED AS FOLLOWS:

A) PROVIDE CAST-IRON DRAINAGE PIPING WITH COUPLINGS CONFORMING TO FACTORY MUTUAL APPROVAL STANDARD #1680, CLASS 1.

B) WHEN STANDARD COUPLINGS ARE USED, PROVIDE DRAIN TROUGHS BELOW ENTIRE LENGTH OF CAST-IRON PIPING OVER SUCH SPACES, TROUGHS SHALL BE FABRICATED OF GALVANIZED SHEET METAL AND DRAINED BY MEANS OF HARD COPPER TUBING SLOPED TO AN APPROVED RECEPTOR.

C) PROVIDE CAST-IRON DRAINAGE PIPING WITH HEAVY DUTY COUPLINGS (MINIMUM FOUR BAND TYPE FOR PIPE SIZES 4" AND SMALLER. SIX BAND TYPE FOR PIPE SIZES 5" AND LARGER) LISTED BY IAPMO. JOINTS SHALL BE RESTRAINED WITH CLAMPS AND RODS.

D) PROVIDE COPPER DWV PIPING AND FITTINGS WITH BRAZED JOINTS.

33 LAVATORY AND SINK FITTING SPOUTS SHALL BE LAMINAR FLOW OR ROSE SPRAY TYPE. AERATORS SHALL NOT BE PERMITTED.

34 HAND WASH SINKS AS DEFINED BY CPC SECTION 210 SHALL INCLUDE AUTOMATIC SENSOR CONTROLS AND GOOSENECK SPOUTS WITH DISCHARGE POINT MIN. 5 INCHES ABOVE THE FIXTURE RIM.

35 HOT WATER DELIVERED TO PATIENT USE PLUMBING FIXTURES SHALL BE MINIMUM 105°F AND MAXIMUM 120°F PER CPC SECTION 613.5.

36 POTABLE WATER HEATING EQUIPMENT CAPABLE OF GENERATING HOT WATER GREATER THAN 125-DEGREE F SHALL INCLUDE A HIGH TEMPERATURE ALARM SENSOR LOCATED AT THE OUTLET OF THE WATER HEATER STORAGE TANK. ALARM SHALL BE MONITORED BY THE BMS.

37 INSTALLATION, CLEANING AND TESTING OF MEDICAL GAS AND MEDICAL/SURGICAL VACUUM SYSTEMS SHALL BE IN ACCORDANCE WITH CBC [UBC] CHAPTER 4, SECTION 410 AND NFPA 99 (2015 EDITION) STANDARD FOR HEALTH CARE FACILITIES, CHAPTERS 2 AND 4.

38 FOR MEDICAL AIR, VACUUM AND GAS SYSTEMS EACH JOINT IN THE FINAL CONNECTION BETWEEN THE NEW WORK AND THE EXISTING SYSTEM SHALL BE LEAK-TESTED WITH THE GAS OF THE SYSTEM DESIGNATION AT THE NORMAL OPERATING PRESSURE BY MEANS OF SOAPY WATER OR OTHER MEANS SAFE FOR USE WITH OXYGEN. VACUUM JOINTS SHALL BE TESTED USING AN ULTRASONIC LEAK DETECTOR OR OTHER MEANS THAT WILL PERMIT DETECTION OF LEAKS IN AN ACTIVE VACUUM SYSTEM PER NFPA 99 (2015 EDITION) 5.1.12.3.9 FINAL TIE-IN TEST.

39 THE SUPPLY PIPING FOR ALL AIR, OXYGEN, OR OTHER BREATHING MIXTURES FROM CERTIFIED COMMERCIALLY SUPPLIED CYLINDERS AND PORTABLE CONTAINERS SHALL BE PROVIDED WITH A PARTICULATE FILTER OF 66 MICRONS OR FINER PER 2021 NFPA 99, SECTION 14.2.1.3.3.

40 THE PARTICULATE FILTER SHALL MEET THE CONSTRUCTION REQUIREMENTS OF ANSI/ASME PVHO-1, SAFETY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY PER 2021 NFPA 99, SECTION 14.2.1.3.3.1.

41 THE REQUIREMENTS OF CHAPTER 5 SHALL APPLY TO THE MEDICAL OXYGEN SYSTEM FOR HYPERBARIC USE, FROM THE SOURCE OF SUPPLY TO THE FIRST IN-LINE VALVE LOCATED DOWNSTREAM OF THE ZONE VALVE(S) PER 2021 NFPA 99, SECTION 14.2.1.4.2.

42 PIPING SYSTEMS DEDICATED TO THE HYPERBARIC CHAMBER(S) SHALL MEET THE REQUIREMENTS OF ANSI/ASME PVHO-1, SAFETY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY , FOR HYPERBARIC FACILITY PIPING SYSTEM PER 2021 NFPA 99, SECTION 14.2.1.3.1.

43 THE REQUIREMENTS OF ANSI/ASME PVHO-1, SAFETY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY, SHALL APPLY TO THE MEDICAL OXYGEN SYSTEM FOR HYPERBARIC USE, STARTING IMMEDIATELY DOWNSTREAM OF THE FIRST IN-LINE VALVE LOCATED AFTER THE ZONE VALVE(S) PER 2021 NFPA 99, SECTION 14.2.1.4.3.

44 PIPING THAT IS INSTALLED IN CONCEALED LOCATIONS IN THE BUILDING HOUSING THE HYPERBARIC FACILITY, SUCH AS INSIDE BUILDING WALLS OR ABOVE FALSE CEILINGS, SHALL USE ONLY THOSE JOINING PROCEDURES PERMITTED BY 2021 NFPA 99, CHAPTER 5.

45 THE HYPERBARIC CHAMBER SHALL BE STAMPED IN ACCORDANCE WITH ANSI/ASME PVHO-1, SAFETY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY PER 2021 NFPA 99, SECTION 14.2.2.2.

46 IF SOUND-DEADENING MATERIALS ARE EMPLOYED WITHIN A HYPERBARIC CHAMBER, THEY SHALL BE LIMITED-COMBUSTIBLE MATERIALS PER 2021 NFPA 99, SECTION 14.2.2.5.4.

47 VIEWING PORTS, ACCESS PORTS FOR PIPING AND WIRING OR MONITORING, AND RELATED LEADS SHALL BE INSTALLED DURING INITIAL FABRICATION OF THE CHAMBER PER 2021 NFPA 99, SECTION 14.2.2.6.

48 GASKET MATERIAL SHALL BE OF A TYPE THAT ALLOWS THE MOVEMENT OF THERMAL EXPANSION AND SHALL BE SELECTED FOR THE TEMPERATURES, PRESSURES, AND COMPOSITION OF GASES INVOLVED PER 2021 NFPA 99, SECTION 14.2.3.1.2.

49 GASKETS OR O-RINGS SHALL BE CONFINED TO GROOVES OR ENCLOSURES, WHICH WILL PREVENT THEIR BEING BLOWN OUT OR SQUEEZED FROM THE ENCLOSURES OR COMPRESSION FLANGES PER 2021 NFPA 99, SECTION 14.2.3.1.2.1.

SEISMIC RESTRAINT NOTES

1 THE INTENT OF THE CONSTRUCTION DOCUMENTS IS TO RECONSTRUCT THE HOSPITAL BUILDING IN ACCORDANCE WITH THE CBC. SHOULD ANY CONDITION DEVELOP NOT COVERED BY THE APPROVED CONSTRUCTION DOCUMENTS, WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE CBC; A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY HCAI BEFORE PROCEEDING WITH WORK.

2 PIPING TRAVERSING BUILDING SEISMIC JOINTS SHALL BE INSTALLED WITH SEISMIC OFFSET PIPING ASSEMBLIES. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF SEISMIC JOINTS.

3 ONCE THE EXACT LOCATIONS OF ALL PIPES, DUCTS AND CONDUITS HAVE BEEN ESTABLISHED, THE STRUCTURAL ENGINEER MUST CHECK/VERIFY THE ADEQUACY OF THE SUPPORTING STRUCTURE FOR LOADS IMPOSED BY THE ANCHORAGE AND BRACING SYSTEM TO ENSURE THAT THE ORIGINAL DESIGN IS STILL ADEQUATE. THE STRUCTURAL ENGINEER OF RECORD MUST REVIEW AND FORWARD THE ANCHORAGE AND BRACING PLANS TO HCAI WITH A NOTATION INDICATING THAT THE PLANS HAVE BEEN REVIEWED AND ARE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE PROJECT CBC PART 1, SECTION 7-153(D).

4 A COPY OF THE CHOSEN BRACING SYSTEM(S) INSTALLATION GUIDE/MANUAL SHALL BE ON THE JOB SITE PRIOR TO STARTING THE INSTALLATION OF HANGERS AND/OR BRACES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF HCAI PRE-APPROVALS AND FURNISH THE IOR WITH ONE COPY OF EACH.

5 DO NOT MIX COMPONENTS OF TWO OR MORE HCAI/NON-HCAI PRE-APPROVED BRACING SYSTEMS. ANY SUBSTITUTION OF A COMPONENT OF A HCAI/NON-HCAI PRE-APPROVED BRACING SYSTEM REQUIRES A LETTER FROM THE MANUFACTURER AND THE APPROVAL OF HCAI.

6 CONTRACTOR TO PROVIDE ANCHORAGE AND SUPPORTS OF ALL EQUIPMENT TO BE INSTALLED, AS PART OF THIS PROJECT, SHALL BE DETAILED ON CONSTRUCTION DOCUMENTS. SEE EXCEPTIONS BY CBC SECTION 1617A.1.18. EQUIPMENT SUPPORTS AND ANCHORAGE SHALL BE APPROVED BY THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD AND HCAI AS PART OF REVIEWS/OBSERVATIONS. THE INSPECTOR OF RECORD (IOR) SHALL ASSURE THAT REQUIREMENTS ARE ENFORCED.

7 FOR ALL HCAI PRE-APPROVED CONDITIONS

7.1 LAYOUT DRAWINGS OF THE SUPPORTS, AND BRACING SYSTEMS IN ACCORDANCE WITH THE PRE-APPROVAL SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL (RDP) IN RESPONSIBLE CHARGE OF THE PROJECT FOR REVIEW TO VERIFY THAT THE DETAILS ARE IN CONFORMANCE WITH THE CODE REQUIREMENTS. THE LAYOUT DRAWINGS SHALL AS A MINIMUM SATISFY THE REQUIREMENTS OF ASCE 7 SECTION 13.6 AS MODIFIED BY THE CBC SECTION 1616A.

7.1.1 THE STRUCTURAL ENGINEER OF RECORD (SEOR) SHALL VERIFY THAT THE SUPPORTING STRUCTURE IS ADEQUATE FOR THE FORCES IMPOSED ON IT BY SUPPORTS, ATTACHMENTS, AND BRACES INSTALLED IN ACCORDANCE WITH THE PRE-APPROVAL IN ADDITION TO ALL OTHER LOADS.

7.1.2 THE SEOR SHALL FORWARD THE SUPPORTS, ATTACHMENTS, AND BRACING DRAWINGS (INCLUDING APPROVED AMENDED CONSTRUCTION DOCUMENTS FOR SUPPLEMENTARY FRAMING WHERE REQUIRED) TO THE DISCIPLINE IN RESPONSIBLE CHARGE WITH A NOTATION INDICATING THAT THE DRAWINGS HAVE BEEN REVIEWED AND ARE IN GENERAL CONFORMANCE WITH THIS REQUIREMENT.

7.1.3 A "SHOP DRAWING STAMP" MAY BE USED TO INDICATE COMPLIANCE WITH THIS REQUIREMENT.

7.1.4 THE REGISTERED DESIGN PROFESSIONAL (RDP), OTHER THAN SEOR, MAY PROVIDE THE SHOP DRAWINGS STAMP ON SMALL PROJECTS AT THE DISCRETION OF THE HCAI DISTRICT STRUCTURAL ENGINEER.

7.2 THE SEOR SHALL DESIGN ANY SUPPLEMENTARY FRAMING THAT IS NEEDED TO RESIST THE LOADS, MAINTAIN STABILITY AND/OR IS REQUIRED FOR INSTALLATION OF PRE-APPROVED SYSTEM.

7.2.1 THE SUPPLEMENTARY FRAMING SHALL BE SUBMITTED TO HCAI AS AN AMENDED CONSTRUCTION DOCUMENTS (ACD).

7.3 THE LAYOUT DRAWINGS (WITH SHOP DRAWINGS STAMP) SHALL BE SUBMITTED TO THE HCAI TO REVIEW.

7.3.1 STRUCTURE SUPPORTING THE DISTRIBUTION SYSTEM HAS ADEQUATE CAPACITY;

7.3.2 SEISMIC DESIGN FORCES (Fp) ARE IN ACCORDANCE WITH THE CBC 2013; AND

7.3.3 VERIFY THAT SUBMITTAL IS WITHIN THE SCOPE OF HCAI PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION(OPM):

7.3.3.1 SIZE OF DISTRIBUTION SYSTEM COMPONENTS,

7.3.3.2 SPACING OF BRACING AND FLEX, JOINTS, AND

7.3.3.3 SUBSTRATE FOR ATTACHMENTS.

7.4 THE LAYOUT DRAWINGS (WITH THE SHOP DRAWINGS STAMP) SHALL BE KEPT ON THE JOBSITE AND CAN THEN BE USED FOR INSTALLATION OF THE SUPPORT AND BRACING.

7.4.1 HCAI FIELD STAFF WILL REVIEW THE INSTALLATION.

7.5 A COPY OF THE CHOSEN BRACING SYSTEM(S) INSTALLATION GUIDE/OPM MANUAL SHALL BE ON THE JOBSITE PRIOR TO STARTING THE INSTALLATION OF HANGERS AND/OR BRACES.

7.5.1 IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF OPM AND FURNISH THE IOR WITH ONE COPY OF EACH.

7.6 COMPONENTS OF TWO OR MORE PRE-APPROVED BRACING SYSTEMS SHALL NOT BE MIXED.

7.6.1 ONLY ONE PRE-APPROVED BRACING SYSTEM MAY BE USED FOR A RUN OF PIPE, DUCT OR CONDUIT.

7.6.2 ANY SUBSTITUTION OF COMPONENT OF AN OPM SYSTEM SHALL REQUIRE HCAI REVIEW AND APPROVAL.

8 FOR ALL NON HCAI PRE-APPROVED CONDITIONS

8.1 CONTRACTOR TO CONTACT THE OPA SEISMIC BRACING VENDOR TO PROVIDE A SEISMIC RESTRAINT DESIGN FOR ALL NON HCAI PRE-APPROVED SYSTEM CONDITIONS. NON-HCAI COMPLIANCE DETAILS/SHOP DRAWINGS NEED TO BE SUBMITTED TO HCAI FOR REVIEW AND PERMIT. AOR/SEOR ARE REQUIRED TO SEAL & SIGN DETAILS/SHOP DRAWINGS IF NOT SIGNED & SEALED BY CALIFORNIA REGISTERED STRUCTURAL ENGINEER. THE SHOP DRAWINGS SHALL AS A MINIMUM SATISFY THE REQUIREMENTS OF ASCE 7 SECTION 13.6 AS MODIFIED BY THE CBC SECTION 1617A.

8.2 THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THAT THE SUPPORTING STRUCTURE IS ADEQUATE FOR THE LOADS IMPOSED ON IT BY THE SUPPORTS AND BRACES INSTALLED IN ACCORDANCE WITH THIS DESIGN IN ADDITION TO ALL OTHER LOADS.

8.3 THE STRUCTURAL ENGINEER OF RECORD WILL FORWARD THE ANCHORAGE AND BRACING DRAWINGS TO THE DISCIPLINE IN RESPONSIBLE CHARGE WITH A NOTATION INDICATING THAT THE DRAWINGS HAVE BEEN REVIEWED AND ARE IN GENERAL CONFORMANCE WITH THE DESIGN OF THIS PROJECT.

COORDINATION NOTES

1 COORDINATE AND VERIFY EXACT LOCATIONS, SIZES, POINTS OF CONNECTION AND INVERT ELEVATIONS OF NEW AND EXISTING BUILDING PLUMBING SERVICE LATERALS ON SITE PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES. MAKE FINAL CONNECTIONS TO LATERALS.

2 COORDINATE EXACT LOCATIONS OF HVAC EQUIPMENT WITH HVAC CONTRACTOR. VERIFY EXACT LOCATIONS AND SIZES OF FLOOR SINKS, DRAIN RECEPTORS AND ROUTING OF GAS, WATER AND DRAIN PIPING SERVING HVAC EQUIPMENT. VERIFY DEPTH OF SLOPE REQUIRED FOR GRAVITY DRAIN LINES TO POINT OF DISCHARGE. DETERMINE PIPE ROUTING AND AVOID CONFLICTS WITH NEW AND EXISTING INSTALLATIONS INCLUDING BUILDING COMPONENTS, OTHER UTILITIES, EQUIPMENT, ETC.

3 THROUGH THE GENERAL CONTRACTOR EACH TRADE SHALL COORDINATE THE ROUTING EXACT LOCATION AND INSTALLATION OF THEIR WORK WITH ALL OTHER TRADES. WHERE POSSIBLE IN INSTANCES OF CONFLICT, SYSTEMS WITH A "GRADE" OR "SLOPE" FOR DRAINAGE (SANITARY SEWER, SANITARY VENT, AND EQUIPMENT DRAINS) SHALL HAVE PRIORITY.

4 COORDINATE ELECTRICAL REQUIREMENTS AND LOCATION WITH THE ELECTRICAL CONTRACTOR INCLUDING POWER LOADS OF PLUMBING EQUIPMENT, FIXTURES AND APPLIANCES.

5 COORDINATE ACCESS PANEL REQUIREMENTS AND LOCATION WITH THE ARCHITECT. PROVIDE PANEL SIZES, FINISH, ELEVATIONS AND LOCATIONS.

6 COORDINATE LOCATIONS, SIZES AND ELEVATIONS OF SLEEVES AND PENETRATIONS THRU STRUCTURAL WALLS, FLOORS, BEAMS (INCLUDING GRADE BEAMS/FOOTINGS) AND SLABS WITH THE ARCHITECT AND STRUCTURAL ENGINEER.

7 COORDINATE AND PROVIDE PIPING ROUGH-INS AND CONNECTIONS TO EQUIPMENT, FIXTURES AND APPLIANCES THRU PRE MANUFACTURED CABINET FRAMING SYSTEMS (CHASES).

8 THE LOCATION, QUANTITIES AND SIZES OF EXISTING PIPING, FIXTURES, EQUIPMENT, SHUT-OFF VALVES, ETC. INDICATED ON THE PLANS ARE SHOWN DIAGRAMMATICALLY. WHEN POSSIBLE PLANS HAVE BEEN DERIVED FROM AVAILABLE RECORD DRAWINGS AND FIELD INVESTIGATIONS. THE CONTRACTOR SHALL VERIFY ALL SUCH ITEMS PRIOR TO INSTALLATION OF NEW WORK.

9 WHERE EXISTING/UNDOCUMENTED PIPING SYSTEMS ARE INSTALLED IN WALLS THAT ARE TO BE REMOVED OR REMODELED, THE CONTRACTOR SHALL IMMEDIATELY IDENTIFY SUCH SYSTEMS TO THE ARCHITECT FOR REVIEW PRIOR TO DEMOLITION OR REROUTE. IF REROUTE AS DEEMED NECESSARY TO MAINTAIN OTHER BUILDING SYSTEM OPERATIONS, THE CONTRACTOR SHALL PROVIDE A SOLUTION TO THE REROUTE FOR REVIEW BY THE ARCHITECT.

10 ALL SHUTDOWNS SHALL BE COORDINATED WITH THE OWNER AND BETWEEN ALL DISCIPLINES ON THE PROJECT (ELECTRICAL, MECHANICAL, PLUMBING, ETC.).

11 COORDINATE LOCATION AND UTILITY CONNECTION REQUIRMENTS FOR ARCHITECTURAL SIGNIFICANT EQUIPMENT (ASE) PRIOR TO INSTALLATION OF WORK.

12 COORDINATE LOCATION AND UTILITY REQUIREMENTS FOR ALL MEDICAL EQUIPMENT FOR CENTRAL STERILE PROCESSING AND SIMILAR AREAS PRIOR TO INSTALLATION OF WORK.

SHUTDOWN TIE IN NOTES

1 CONTRACTOR TO FOLLOW ALL REQUIREMENTS AND PROCEDURES OUTLINED IN CAN 2-34.

UPPER ATTACHMENT

1 FOR UPPER ATTACHMENT TO NEW & EXISTING STRUCTURE, SEE ARCHITECTURAL DRAWINGS.

2 WHERE NEW STRUCTURAL INTERSTITIAL SYSTEM IS USED, PROVIDE INTERMEDIATE MEMBERS AS REQUIRED FOR SUPPORTING WORK.

PLUMBING ABBREVIATIONS

A/C	ABOVE CEILING	HVAC	HEATING, VENTILATION, & AIR CONDITIONING
ACFM	ACTUAL CUBIC FEET PER MINUTE	IE	INVERT ELEVATION
ADA	AMERICANS WITH DISABILITIES ACT	ID	INSIDE DIAMETER
AFF	ABOVE FINISHED FLOOR	INV	INVERT
AFG	ABOVE FINISHED GRADE	IN. HG	INCHES MERCURY
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE	IN. W.C.	INCHES WATER COLUMN
AP	ACCESS PANEL	IVTR	INDUSTRIAL VENT THROUGH ROOF
ARCH	ARCHITECT OR ARCHITECTURAL	KW	KILOWATT
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	LB	POUND
BFF	BELOW FINISHED FLOOR	LWVTR	LABORATORY WASTE VENT THROUGH ROOF
BFV	BUTTERFLY VALVE	MAX	MAXIMUM
BHP	BRAKE HORSEPOWER	MBH	THOUSAND BTU PER HOUR
B/F	BELOW FLOOR	MECH	MECHANICAL
B/G	BELOW GRADE	MFR	MANUFACTURER
B/S	BELOW SLAB	MIN	MINIMUM
BTU	BRITISH THERMAL UNITS	NC	NORMALLY CLOSED
BTUH	BRITISH THERMAL UNITS PER HOUR	NIC	NOT IN CONTRACT
BV	BALL VALVE	NO	NORMALLY OPEN
°C	DEGREES CELSIUS	NPSH	NET POSITIVE SUCTION HEAD
CFH	CUBIC FEET PER HOUR	NTS	NOT TO SCALE
CFM	CUBIC FEET PER MINUTE	OD	OUTSIDE DIAMETER
CONN	CONNECT OR CONNECTION	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CONT	CONTINUATION	PLBG	PLUMBING
CONTR	CONTRACTOR	PSI	POUNDS PER SQUARE INCH
DEG	DEGREE	POC	POINT OF CONNECTION
DFU	DRAINAGE FIXTURE UNITS	PRV	PRESSURE REDUCING VALVE
DN	DOWN	PV	PRESSURE RELIEF VALVE
DWG	DRAWING	PVC	POLYVINYL CHLORIDE
ECO	EXTERIOR CLEAN OUT	QTY	QUANTITY
EFF	EFFICIENCY	RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
ELEC	ELECTRICAL	RM	ROOM
ELEV	ELEVATION	RPM	REVOLUTIONS PER MINUTE
EQUIP	EQUIPMENT	SCFM	STANDARD CUBIC FEET PER MINUTE
°F	DEGREES FAHRENHEIT	SF	SQUARE FEET
FCO	FLOOR CLEAN OUT	SHT	SHEET
FFE	FINISH FLOOR ELEVATION	SOV	SHUT OFF VALVE
FLR	FLOOR	SPEC	SPECIFICATION
FT	FEET	SS	STAINLESS STEEL
FU	FIXTURE UNITS	TEMP	TEMPERATURE
GAL	GALLONS	TYP	TYPICAL
GALV	GALVANIZED	T&P	TEMPERATURE AND PRESSURE RELIEF VALVE
GLV	GLOBE VALVE	UNO	UNLESS NOTED OTHERWISE
GPF	GALLONS PER FLUSH	VFD	VARIABLE FREQUENCY DRIVE
GPH	GALLONS PER HOUR	VTR	VENT THROUGH ROOF
GPM	GALLONS PER MINUTE	V/PH/HZ	VOLTS/PHASE/HERTZ
GV	GATE VALVE	W	WASTE
HD	HEAD	W/	WITH
HP	HORSEPOWER	WCO	WALL CLEAN OUT
HR	HOUR	WHA	WATER HAMMER ARRESTOR

TAGS AND CALL OUT SYMBOLS

EQUIPMENT REQUIRING ELECTRICAL SERVICE. REFER TO SCHEDULES FOR PERFORMANCE REQUIREMENTS.

EQUIPMENT NOT REQUIRING ELECTRICAL SERVICE. REFER TO SCHEDULES FOR PERFORMANCE REQUIREMENTS.

SECTION CALLOUT

SECTION DESIGNATION

SHEET NUMBER

DETAIL CALLOUT

DETAI

KEY NOTES

1 EXISTING 1"O2 PIPING TO BE REMOVED BACK TO MAIN.
2 EXISTING 1"O2 UP TO HYPERBARIC ROOM TO BE REMOVED.
3 EXISTING 1-1/4"MV, 1/2"MA, & 3/4"O2 RISERS TO REMAIN.
9 EXISTING 4"S, 3"CW, 2-1/2"HW, & 1-1/4"HWR RISERS TO REMAIN.
17 EXISTING WASTE AND VENT PIPE ASSOCIATED WITH REMOVED FIXTURE ON FLOOR ABOVE TO BE REMOVED.
20 EXISTING 2"V UP.
22 EXISTING 2"S UP.
23 EXISTING 3"S UP.
24 EXISTING 4"S UP.
25 EXISTING 3"S DOWN.
26 EXISTING 4"S DOWN.
27 EXISTING 2"V DOWN.
29 EXISTING 2"S DOWN.
40 EXISTING DOMESTIC WATER PIPING SERVING OUT OF SCOPE AREA TO REMAIN.
41 EXISTING VENT PIPING SERVING OUT OF SCOPE AREA TO REMAIN.



1 LOWER LEVEL - PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
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Draw	Author
Check	Checker
Issue Date	2023/6/12

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AGENCY APPROVAL STAMP

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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

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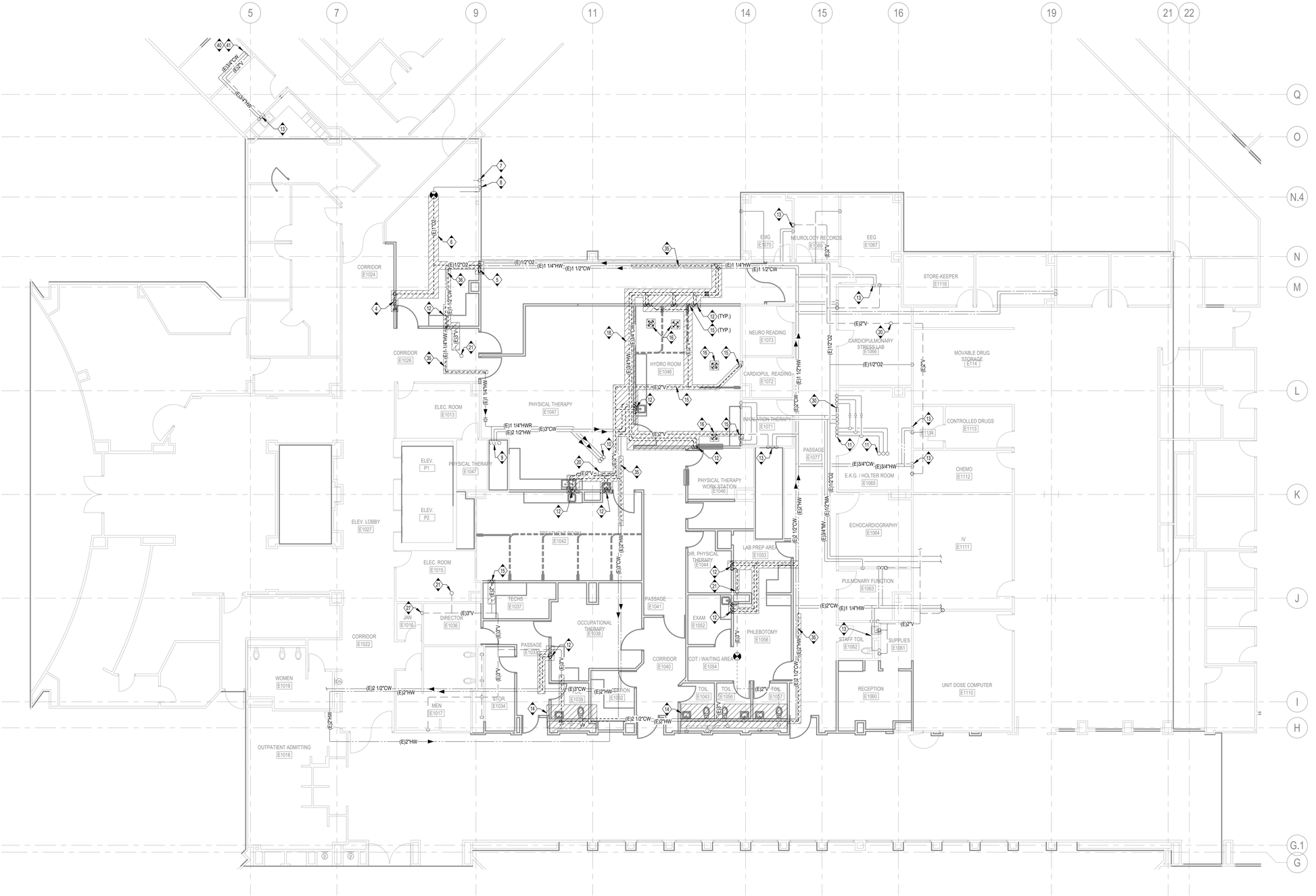
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KEY NOTES

4 EXISTING ZONE VALVE BOX AND O2 PIPING TO BE REMOVED. PHASING REQUIRED: EXISTING ZONE VALVE BOX TO REMAIN OPERATIONAL UNTIL NEW ZONE VALVE BOX IS INSTALLED AND SWITCHOVER HAS OCCURRED.
5 EXISTING MED GAS ALARM PANEL TO BE REMOVED.
6 EXISTING O2 PIPING TO BE REMOVED. SEE KEYNOTE 4 FOR PHASING REQUIRED.
7 EXISTING 1-1/2"O2 VENT TO REMAIN. VENT TERMINATES AT EXTERIOR.
8 EXISTING 1"O2 AND SHUT OFF VALVE TO REMAIN.
9 EXISTING 4"S, 3"CW, 2-1/2"HW, & 1-1/4"HWR RISERS TO REMAIN.
10 EXISTING CW, HW, & HWR UP TO LEVEL 2 TO REMAIN.
11 EXISTING MED GAS RISERS TO REMAIN.
12 EXISTING PLUMBING FIXTURE AND PLUMBING PIPING DROPS TO BE REMOVED.
13 EXISTING PLUMBING FIXTURE AND PLUMBING PIPING DROPS TO REMAIN.
14 EXISTING RESTROOM PLUMBING FIXTURES AND ASSOCIATED PLUMBING PIPING TO BE REMOVED.
15 EXISTING VENT PIPE TO BE REMOVED.
16 EXISTING DRAIN TO BE REMOVED.
18 EXISTING HW & CW TO BE REMOVED.
20 EXISTING 2"V UP.
21 EXISTING 3"V UP.
27 EXISTING 2"V DOWN.
30 EXISTING MED GAS ZONE VALVE BOX AND DOWNSTREAM MED GASES TO REMAIN.
35 EXISTING HW PIPE TO BE REMOVED WHERE INDICATED.
36 EXISTING CW PIPE TO BE REMOVED WHERE INDICATED.
40 EXISTING DOMESTIC WATER PIPING SERVING OUT OF SCOPE AREA TO REMAIN.
41 EXISTING VENT PIPING SERVING OUT OF SCOPE AREA TO REMAIN.



1 LEVEL 1 - PLUMBING DEMOLITION PLAN

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SHEET NUMBER

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1 LEVEL 1 - PLUMBING DEMOLITION PHASING PLAN

1/8" = 1'-0"

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KEY PLAN

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NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER:

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AGENCY APPROVAL STAMP

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Office of Statewide Hospital Planning & Development
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S231455-33-00
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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

LEVEL 1 - PLUMBING DEMOLITION PHASING PLAN

SHEET NUMBER

PD151

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KEY NOTES

3	EXISTING 1-1/4"MV, 1/2"MA, & 3/4"O2 RISERS TO REMAIN.
9	EXISTING 4"S, 3"CW, 2-1/2"HW, & 1-1/4"HWR RISERS TO REMAIN.
22	EXISTING 2"S UP.
23	EXISTING 3"S UP.
24	EXISTING 4"S UP.
25	EXISTING 3"S DOWN.
26	EXISTING 4"S DOWN.
27	EXISTING 2"V DOWN.
29	EXISTING 2"S DOWN.
40	EXISTING DOMESTIC WATER PIPING SERVING OUT OF SCOPE AREA TO REMAIN.
41	EXISTING VENT PIPING SERVING OUT OF SCOPE AREA TO REMAIN.
102	2"O2, 1-1/4"MV, 3/4"MA, & 1/2"N2O UP TO LEVEL 1.
103	1/2"O2 & 3/4"WAGD UP TO LEVEL 1.
107	CAP EXISTING WASTE PIPE.
110	POC - CONNECT NEW 1-1/4"MV & 3/4"MA TO EXISTING. VERIFY EXACT LOCATION IN FIELD.
120	2"S UP
121	3"S UP
122	4"S UP
123	2"V UP
124	3"V UP
215	POC - CONNECT NEW 2"S TO EXISTING S. VERIFY EXACT LOCATION IN FIELD.
216	POC - CONNECT NEW 3"S TO EXISTING S. VERIFY EXACT LOCATION IN FIELD.
217	POC - CONNECT NEW 4"S TO EXISTING S. VERIFY EXACT LOCATION IN FIELD.
218	POC - CONNECT NEW 2"V TO EXISTING V. VERIFY EXACT LOCATION IN FIELD.
219	POC - CONNECT NEW 3"V TO EXISTING V. VERIFY EXACT LOCATION IN FIELD.



1 LOWER LEVEL - PLUMBING PLAN - A

1/8" = 1'-0"

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KEY PLAN

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

LOWER LEVEL - PLUMBING PLAN - A

SHEET NUMBER

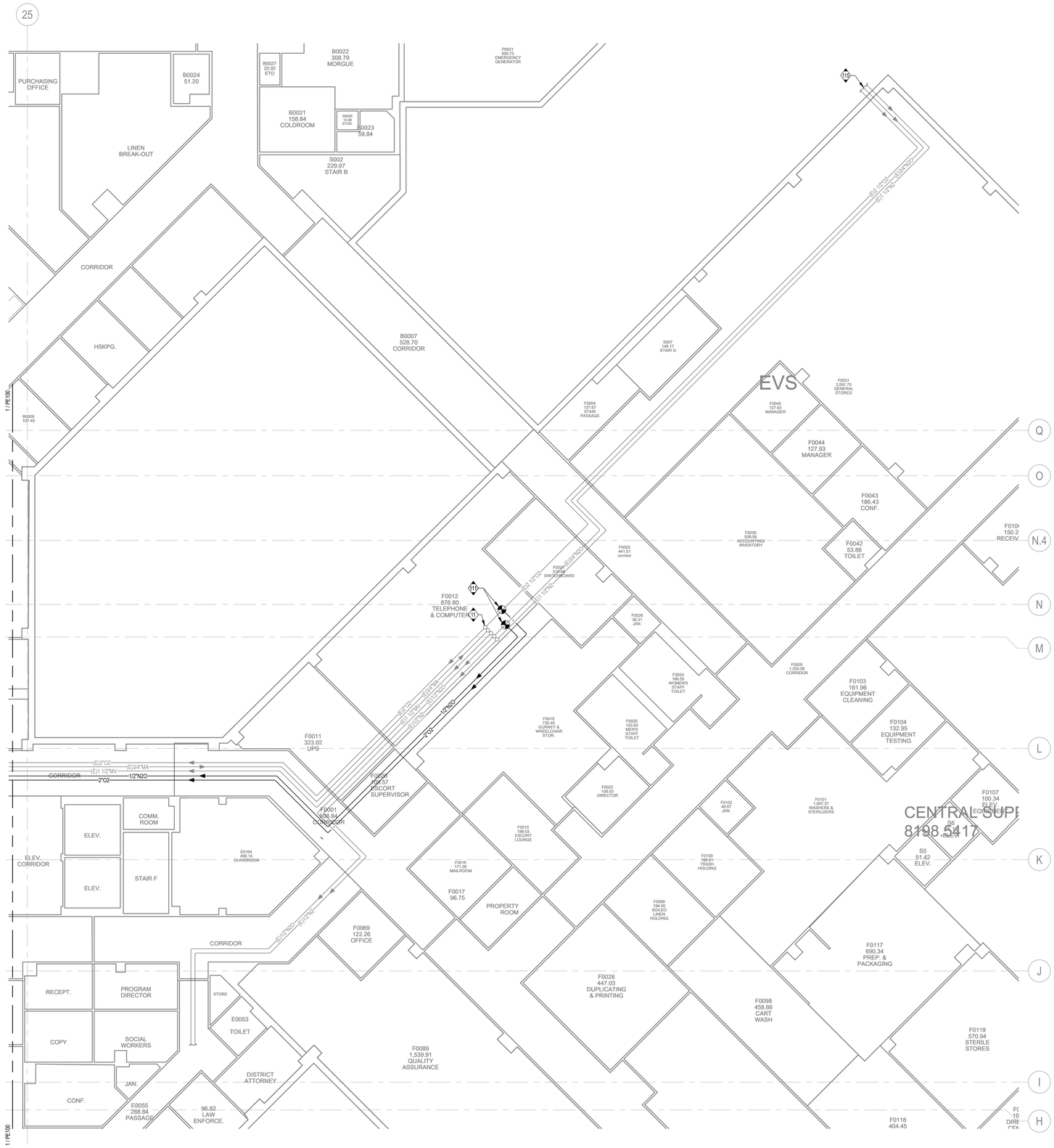
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KEY NOTES

11 EXISTING MED GAS RISERS TO REMAIN.
111 POC - CONNECT NEW 2"O2 & 1/2"N2O TO EXISTING. VERIFY EXACT LOCATION IN FIELD.
115 EXISTING 2-1/2"O2, 3/4"N2O & 1-1/2"N2 TO BULK STORAGE YARD.



1 LOWER LEVEL - PLUMBING PLAN - B

1/8" = 1'-0"

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1	PLAN CHECK	10/10/2023
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BC2	BACK CHECK 02	07/12/2024

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FM08430011869	047-10071-002

SHEET NAME

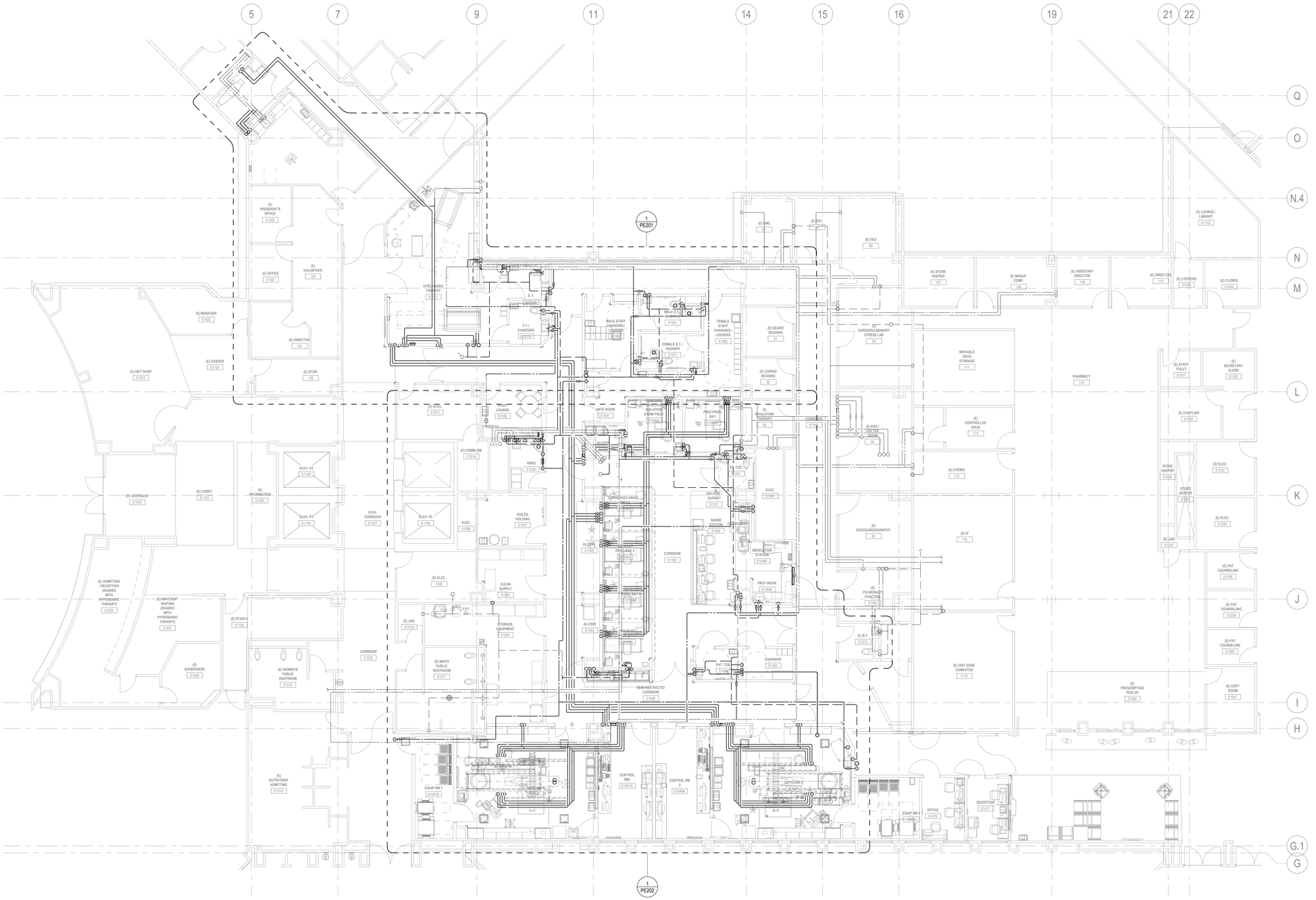
LOWER LEVEL - PLUMBING PLAN - B

SHEET NUMBER

PE101

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1 LEVEL 1 - PLUMBING PLAN

1/8" = 1'-0"

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KEY PLAN

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FM08430011869	047-10071-002

SHEET NAME

LEVEL 1 - PLUMBING PLAN

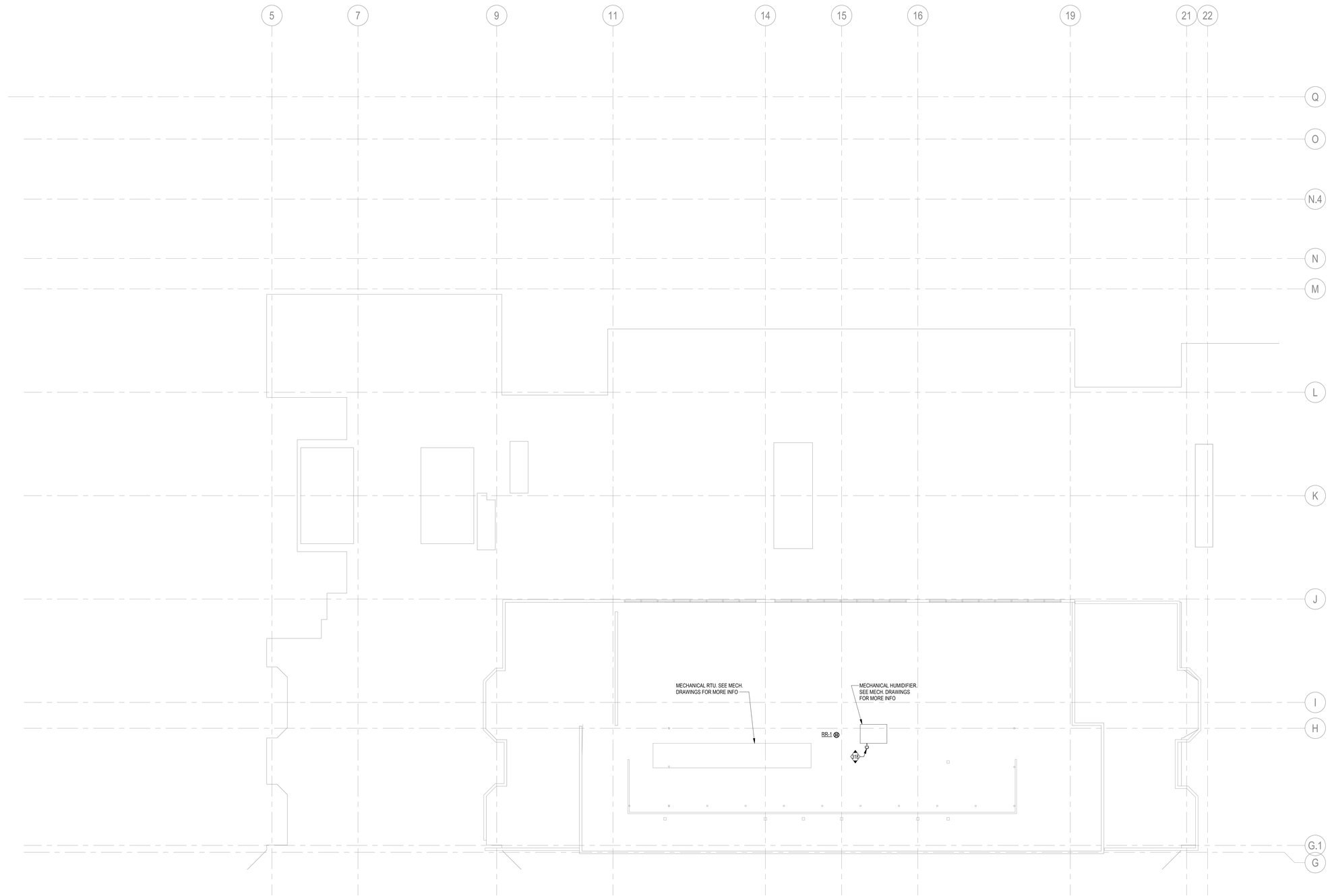
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PE111

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KEY NOTES

318 3/4"ICW DOWN. ICW TO FEED HUMIDIFER ON ROOF.



1 LEVEL 3 - PLUMBING ROOF PLAN

1/8" = 1'-0"

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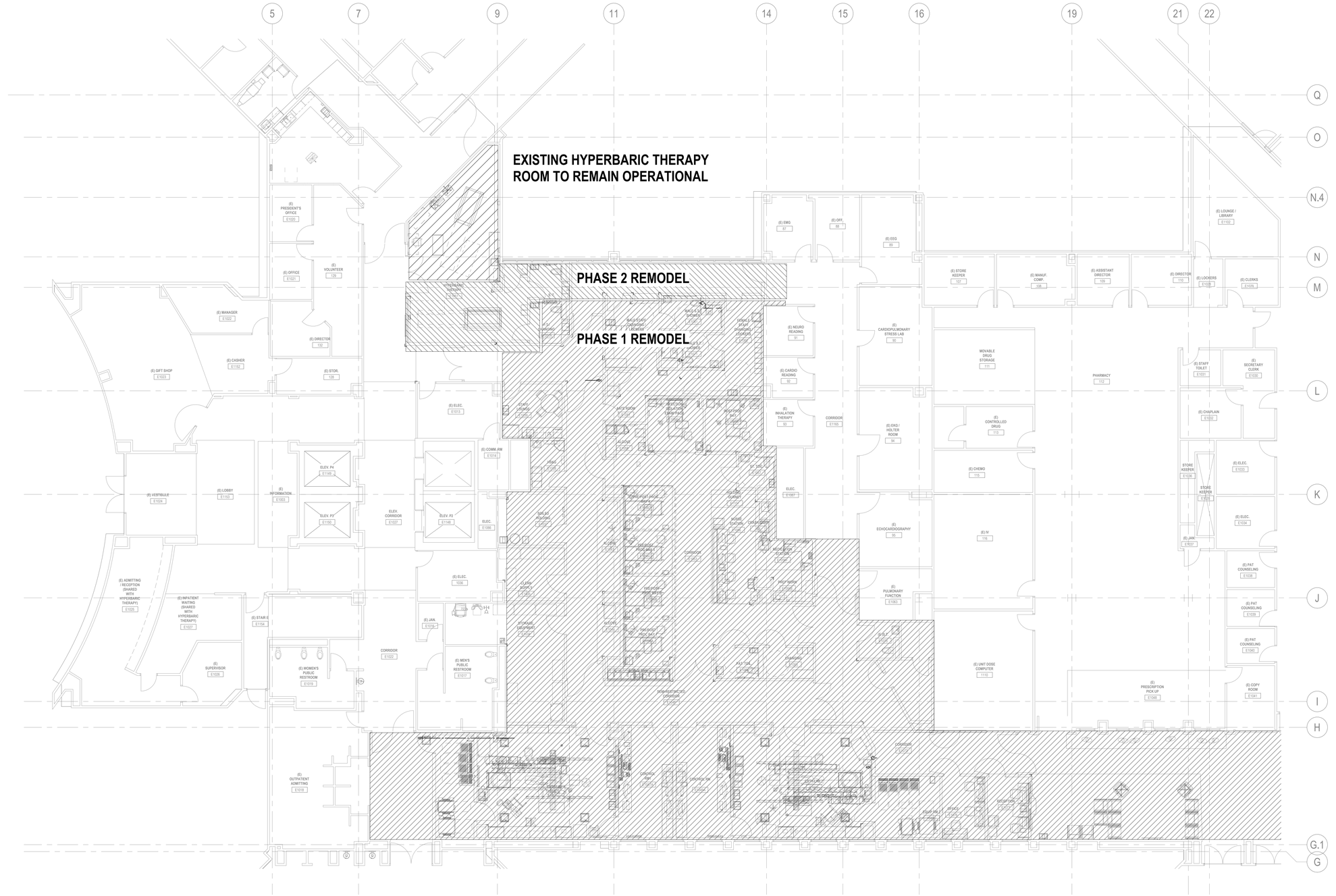
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LEVEL 3 - PLUMBING ROOF PLAN

SHEET NUMBER

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1 LEVEL 1 - PLUMBING PHASING PLAN

1/8" = 1'-0"

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SHEET NAME

LEVEL 1 - PLUMBING PHASING PLAN

SHEET NUMBER

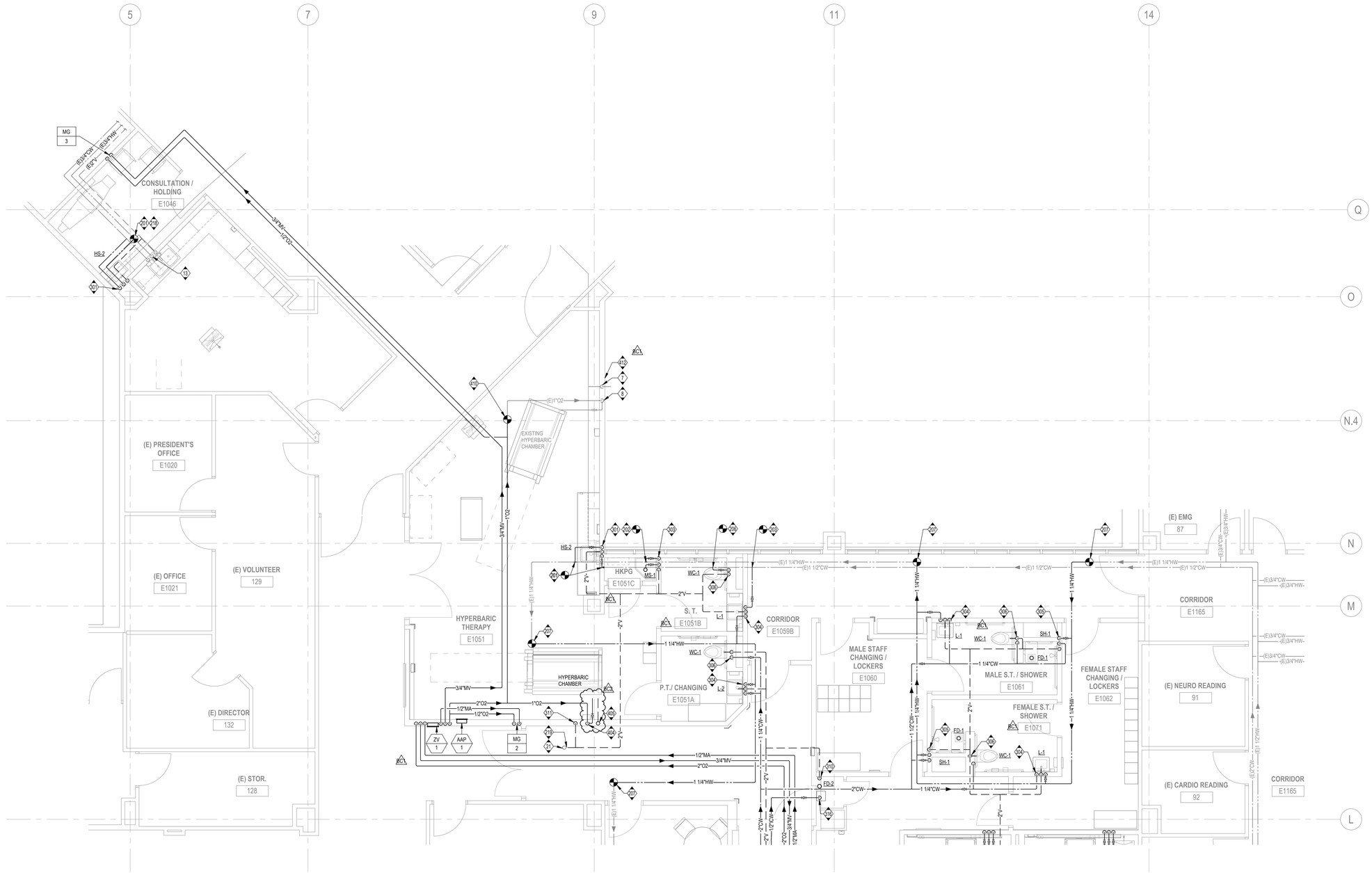
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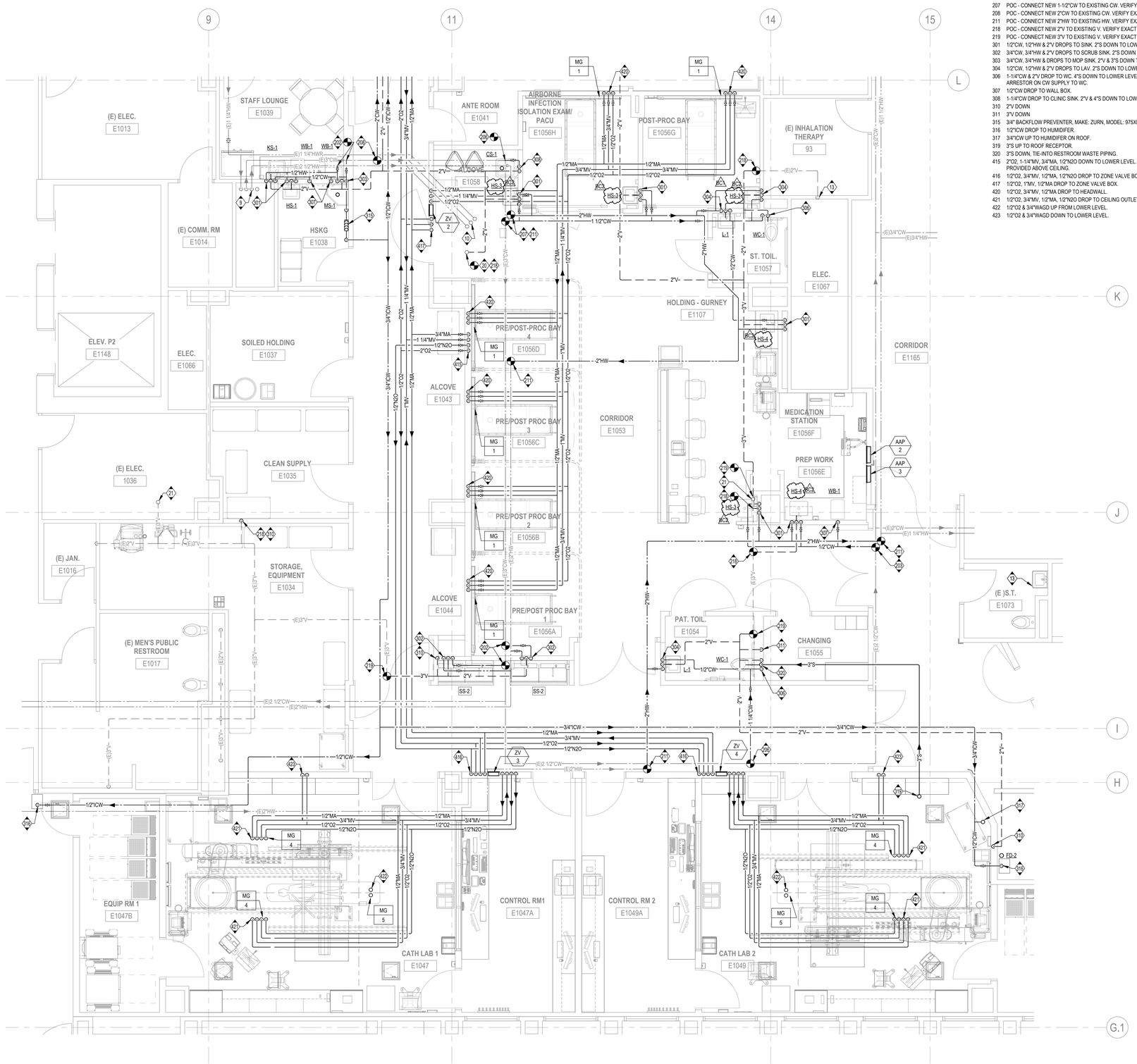
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KEY NOTES

7	EXISTING 1-1/2"O2 VENT TO REMAIN. VENT TERMINATES AT EXTERIOR.
8	EXISTING 1"O2 AND SHUT OFF VALVE TO REMAIN.
13	EXISTING PLUMBING FIXTURE AND PLUMBING PIPING DROPS TO REMAIN.
21	EXISTING 3"V UP.
201	POC - CONNECT NEW 1/2"CW & 1/2"HW TO EXISTING CW & HW. VERIFY EXACT LOCATION IN FIELD.
202	POC - CONNECT NEW 3/4"CW & 3/4"HW TO EXISTING CW & HW. VERIFY EXACT LOCATION IN FIELD.
203	POC - CONNECT NEW 1/2"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
206	POC - CONNECT NEW 1-1/4"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
207	POC - CONNECT NEW 1-1/2"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
208	POC - CONNECT NEW 2"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
218	POC - CONNECT NEW 2"V TO EXISTING V. VERIFY EXACT LOCATION IN FIELD.
219	POC - CONNECT NEW 3"V TO EXISTING V. VERIFY EXACT LOCATION IN FIELD.
301	1/2"CW, 1/2"HW & 2"V DROPS TO SINK. 2"S DOWN TO LOWER LEVEL.
303	3/4"CW, 3/4"HW & DROPS TO MOP SINK. 2"V & 3"S DOWN TO LOWER LEVEL.
304	1/2"CW, 1/2"HW & 2"V DROPS TO LAV. 2"S DOWN TO LOWER LEVEL.
305	1/2"CW, 1/2"HW & DROPS TO SHOWER. 2"V & 2"S DOWN TO LOWER LEVEL.
306	1-1/4"CW & 2"V DROP TO WC. 4"S DOWN TO LOWER LEVEL. INSTALL WATER HAMMER ARRESTOR ON CW SUPPLY TO WC.
310	2"V DOWN
311	3"V DOWN
316	1/2"ICW DROP TO HUMIDIFER.
404	1"O2 DROP TO SOV AND ROUTE TO CHAMBER.
405	1-1/2"O2 VENT UP. ROUTE VENT TO EXTERIOR WALL ABOVE CEILING AND TERMINATE TO EXTERIOR AT LOCATION OF EXISTING CHAMBER'S O2 VENT.
410	POC - CONNECT NEW 1"O2 TO EXISTING 1"O2.
412	PROVIDE SIGNAGE TO IDENTIFY LOCATION AS POINT OF OXYGEN EXHAUST PROHIBITING SMOKING OR OPEN FLAME. SIGN SHALL INCLUDE A PICTOGRAPH INDICATING "NO SMOKING" AND "NO OPEN FLAME - FLAME" IN ACCORDANCE WITH NFPA 170. PER NFPA 99 SECTION 14.2.11.2.5. BC1


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S. T.
E1051B
P.T./ CHANGING
E1051A
CORRIDOR
E1059B
MALE STAFF CHANGING / LOCKERS
E1060
MALE S.T. / SHOWER
E1061
FEMALE S.T. / SHOWER
E1071
FEMALE STAFF CHANGING / LOCKERS
E1062
(E) EMG
87
CORRIDOR
E1165
(E) NEURO READING
91
(E) CARDIO READING
92
CORRIDOR
E1165
MG 3
MG 2
ZV 1
AAP 1
HS-1
HS-2
WC-1
L-1
SH-1
FD-1
FD-2
3/4"MV
1/2"MA
1/2"O2
2"O2
1"O2
1 1/4"HW
2"CW
1 1/4"CW
(E)1 1/4"HW
(E)1 1/2"CW
(E)3/4"CW
(E)3/4"HW
1 1/2"CW
1 1/2"HW
2"V
2"S
3"S
3/4"MV-1
3/4"MV-2
1"O2
(E)1"O2
1 1/4"HW
2"V
2"S
1 1/4"HW-1
1 1/4"HW-2
1 1/2"CW
1 1/2"HW
2"V
2"S
3"S
1 1/4"CW
2"CW
2"V
2"S
1 1/4"HW
2"V
2"S
1 1/4"HW
2"V
2"S
1 1/4"CW
2"C



1 LEVEL 1 - PLUMBING ENLARGED PLAN - PRE/POST PROCEDURE AREA AND CATH LABS

1/4" = 1'-0"

KEY NOTES

9	EXISTING 4"S, 3"CW, 2-1/2"HW, & 1-1/4"HWR RISERS TO REMAIN.
10	EXISTING CW, HW, & HWR UP TO LEVEL 2 TO REMAIN.
13	EXISTING PLUMBING FIXTURE AND PLUMBING PIPING DROPS TO REMAIN.
20	EXISTING 2"V UP.
21	EXISTING 3"V UP.
202	POC - CONNECT NEW 3/4"CW & 3/4"HW TO EXISTING CW & HW. VERIFY EXACT LOCATION IN FIELD.
203	POC - CONNECT NEW 1/2"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
206	POC - CONNECT NEW 1-1/4"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
207	POC - CONNECT NEW 1-1/2"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
208	POC - CONNECT NEW 2"CW TO EXISTING CW. VERIFY EXACT LOCATION IN FIELD.
211	POC - CONNECT NEW 2"HW TO EXISTING HW. VERIFY EXACT LOCATION IN FIELD.
218	POC - CONNECT NEW 2"V TO EXISTING V. VERIFY EXACT LOCATION IN FIELD.
219	POC - CONNECT NEW 3"V TO EXISTING V. VERIFY EXACT LOCATION IN FIELD.
301	1/2"CW, 1/2"HW & 2"V DROPS TO SINK. 2"S DOWN TO LOWER LEVEL.
302	3/4"CW, 3/4"HW & 2"V DROPS TO SCRUB SINK. 2"S DOWN TO LOWER LEVEL.
303	3/4"CW, 3/4"HW & DROPS TO MOP SINK. 2"V & 3"S DOWN TO LOWER LEVEL.
304	1/2"CW, 1/2"HW & 2"V DROPS TO LAV. 2"S DOWN TO LOWER LEVEL.
306	1-1/4"CW & 2"V DROP TO WC. 4"S DOWN TO LOWER LEVEL. INSTALL WATER HAMMER ARRESTOR ON CW SUPPLY TO WC.
307	1/2"CW DROP TO WALL BOX.
308	1-1/4"CW DROP TO CLINIC SINK. 2"V & 4"S DOWN TO LOWER LEVEL.
310	2"V DOWN
311	3"V DOWN
315	3/4" BACKFLOW PREVENTER, MAKE: ZURN, MODEL: 975XL2. DRAIN TO MOP SINK.
316	1/2"ICW DROP TO HUMIDIFIER.
317	3/4"ICW UP TO HUMIDIFIER ON ROOF.
319	3"S UP TO ROOF RECEPTOR.
320	3"S DOWN, TIE-INTO RESTROOM WASTE PIPING.
415	2"O2, 1-1/4"MV, 3/4"MA, 1/2"N2O DOWN TO LOWER LEVEL. SHUT OFF VALVES PROVIDED ABOVE CEILING.
416	1/2"O2, 3/4"MV, 1/2"MA, 1/2"N2O DROP TO ZONE VALVE BOX.
417	1/2"O2, 1"MV, 1/2"MA DROP TO ZONE VALVE BOX.
420	1/2"O2, 3/4"MV, 1/2"MA DROP TO HEADWALL.
421	1/2"O2, 3/4"MV, 1/2"MA, 1/2"N2O DROP TO CEILING OUTLETS.
422	1/2"O2 & 3/4"WAGD UP FROM LOWER LEVEL.
423	1/2"O2 & 3/4"WAGD DOWN TO LOWER LEVEL.

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No. M 22419
Exp. 12-31-25
MECHANICAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
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FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

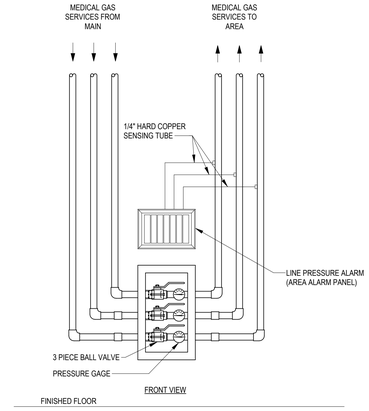
PLUMBING ENLARGED PLAN

SHEET NUMBER

PE202

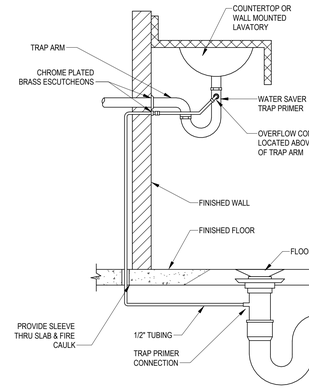
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3 MEDICAL GAS ZONE VALVE

1" = 1'-0"

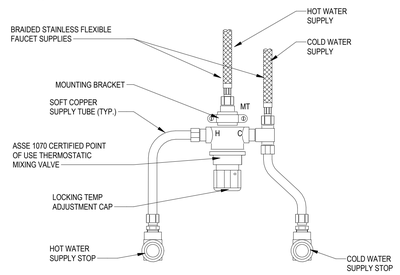


2 LAVATORY TRAP PRIMER

12" = 1'-0"

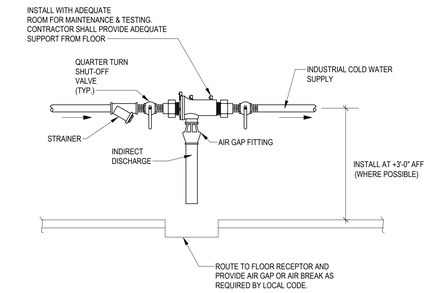
BC1

NOTES:
1. ALL PUBLIC LAVATORY FAUCETS WHICH DO NOT INCLUDE INTEGRAL ASSE 1070 THERMOSTATIC MIXING VALVE SHALL INCLUDE POINT OF USE THERMOSTATIC MIXING VALVE ASSEMBLY.



4 THERMOSTATIC MIXING VALVE AT PUBLIC LAVATORY

12" = 1'-0"



1 RPZ BACKFLOW PREVENTER

1" = 1'-0"

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PLUMBING FIXTURES

TAG	FIXTURE DESCRIPTION	MANUFACTURER & MODEL NUMBER	PART DESCRIPTION	ELECTRICAL	NOTES
WC-1	WATER CLOSET	AMERICAN STANDARD "AFWALL" 2257.103 AMERICAN STANDARD 5901.100SS ZURN Z-6000 ZURN ZN1202-N4	WATER CLOSET: WALL MOUNTED, TOP SPUD INLET, WHITE VITREOUS CHINA, SIPHON JET, ELONGATED BOWL. SEAT: ELONGATED COMMERCIAL HEAVY-DUTY TOILET SEAT, OPEN FRONT, CHECK HINGE, SOLID POLYPROPYLENE IN WHITE. FLUSH VALVE: 1.28 GAL/FLUSH, EXPOSED, CHROME FINISH, DIAPHRAGM-TYPE, MANUAL FLUSH. CARRIER: EZCARRY, HIGH PERFORMANCE, ADJUSTABLE, VERTICAL, NARROW WALL	NO	-
L-1	LAVATORY	AMERICAN STANDARD "LUCERNE" 0355.012 ZURN Z81284-XL-FCO.5	BOWL: WALL HUNG, VITREOUS CHINA, FRONT OVERFLOW, D-SHAPED BOWL, FAUCET HOLES ON 4" CENTERS FAUCET: CAST 4" CENTERSET, GOOSENECK FAUCET, 4" WRIST BLADE HANDLES, 0.5 GPM, PLAIN END SPOUT WITH FLOW CONTROL	NO	1
L-2	LAVATORY	ELKAY ELUHT212PD ZURN Z812B4-XL-FCO.5	BOWL: SINGLE UNDER-MOUNT, BOWL 14-1/2"x14-1/2"x7", 18-GAUGE STAINLESS STEEL, ELKAY LK500 CHROME PLATE P-TRAP. FAUCET: CAST 4" CENTERSET, GOOSENECK FAUCET, 4" WRIST BLADE HANDLES, 0.5 GPM, PLAIN END SPOUT WITH FLOW CONTROL	NO	1
SH-1	SHOWER	SYMMONS ORIGINS 9601-PLR-CHKS-B-1.5	SHOWER ASSEMBLY: 1.5GPM, PRESSURE BALANCING MIXING VALVE, INTEGRAL SERVICE CHECK STOPS, LEVER HANDLE, ADJUSTABLE STOP SCREW, CHROME BRASS ESCUTCHEON	NO	-
HS-1	HAND SINK	ELKAY CHS17162 ELKAY LK940GN04T4H ELKAY LK500 ELKAY LK6	BOWL: WALL MOUNTED, SINGLE BOWL HANDWASH SINK, 304 STAINLESS STEEL, 16-3/4"x15-1/2"x13" FAUCET: CAST 8" CENTERSET, GOOSENECK FAUCET, 4" WRIST BLADE HANDLES, 1.5 GPM, CHROME-PLATED BRASS, CHROME FINISH P-TRAP WITH CLEANOUT PLUG, CHROME PLATED BRASS DRAIN FITTING, 304 STAINLESS STEEL	NO	-
HS-2	HAND SINK	ELKAY LR1716C	BOWL AND FAUCET KIT: DROP-IN SINK, SINGLE BOWL HANDWASH SINK KIT, 1.5 GPM FAUCET, 304 STAINLESS STEEL, 17"x16"x7-5/8", DRAIN FITTING AND P-TRAP INCLUDED	NO	-
HS-3	HAND SINK	ELKAY CHS17715SACTMC	BOWL AND FAUCET KIT: WALL HUNG SINK, SINGLE BOWL HANDWASH SINK KIT, 1.5 GPM SENSOR ACTIVATED FAUCET, 304 STAINLESS STEEL, 16-3/4"x15-1/2"x13", LK273 - THERMOSTATIC MIXING VALVE, DRAIN FITTING, AND P-TRAP INCLUDED	YES	1
HS-4	HAND SINK	ELKAY LR1716 ELKAY LKB721C ELKAY LK500 ELKAY LK99 ELKAY LK723	BOWL: DROP-IN, SINGLE BOWL, HANDWASH SINK, 304 STAINLESS STEEL, 17"x16"x7-5/8" FAUCET: SENSOR ACTIVATED, GOOSENECK FAUCET, 1.5 GPM, CHROME-PLATED BRASS, CHROME FINISH P-TRAP WITH CLEANOUT PLUG, CHROME PLATED BRASS DRAIN FITTING, 304 STAINLESS STEEL THERMOSTATIC MIXING VALVE	YES	1
KS-1	KITCHEN SINK	ELKAY ECTRU17179TC ELKAY LKAV3032	BOWL: SINGLE UNDER-MOUNT, BOWL 18-1/2"x18-1/2"x9", 18-GAUGE STAINLESS STEEL, ELKAY LK35 STRAINER BASKET AND TAILPIECE, ELKAY LK500 CHROME PLATE P-TRAP. FAUCET: SINGLE HOLE DECK MOUNT FAUCET WITH PULLDOWN SPRAY AND LEVER HANDLE. 1.8 GPM FLOW RATE, SOLID BRASS CONSTRUCTION, CHROME FINISH.	NO	-
MS-1	MOP SINK	FIAT TSBC1610 ZURN Z843M1	BASIN: 24"x24"x6" DEEP, CORNER FLOOR SINK, PRECAST TERRAZO BODY, INTEGRAL STAINLESS STEEL DRAIN BODY AND STRAINER, 3" OUTLET. FAUCET: WALL MOUNTED BODY, RIGID VACUUM BREAKER, PAIL HOOK, LEVER HANDLES.	NO	-
CS-1	CLINIC SINK	ZURN Z6084SAV-BWN	BOWL: FLOOR MOUNTED, VITREOUS CHINA, FLUSHING RIM, 4" OUTLET, TRIM OPTION FLUSH VALVE, BEDPAN WASHER: MANUAL, 6.5 GAL/FLUSH, POLISHED CHROME, DIAPHRAGM VALVE, TRIPLE FILTERED BYPASS, DUAL SEAL DIAPHRAGM,BEDPAN WASHER ASSEMBLY	NO	-
WB-1	WALL BOX (WATER SUPPLY)	GUY GRAY MIB1HAAB	WHITE POWDER COATED METAL ICE MAKER OUTLET BOX, NSF-61 LEAD-FREE 1/4 TURN BRASS VALVE, 1/2" SWEAT CONNECTION, BRASS PLATED WATER HAMMER ARRESTER	NO	-

GENERAL NOTES:
A. REFER TO ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS FOR ALL DIMENSIONS AND MOUNTING HEIGHTS.
B. ALL PLUMBING FIXTURES SHALL MEET LOCAL CODE REQUIREMENTS FOR WATER CONSUMPTION AND ACCESSIBILITY.
C. ALL ADA SINKS WITH EXPOSED SUPPLIES AND TRAPS SHALL BE PROVIDED WITH UNDER-SINK ADA PROTECTIVE INSULATION.
D. ALL EXPOSED PLUMBING FITTINGS AND CONNECTIONS SHALL MATCH TRIM FINISH IN PUBLIC SPACES.

NOTES:
1 INSTALL THERMOSTATIC MIXING VALVE ON DOMESTIC WATER SUPPLY TO LAVATORIES TO ENSURE DOMESTIC HOT WATER DELIVERED DOES NOT EXCEES 120°F.

BC

FLOOR SINKS AND FLOOR/ROOF/AREA DRAINS

TAG	MANUFACTURER & MODEL NUMBER	DESCRIPTION	BODY MATERIAL	GRATE/DOME				OUTLET LOCATION	ACCESSORIES	NOTES
				SIZE (INCH)	OPEN FREE AREA (SQ. IN.)	MATERIAL	SHAPE			
FD-1	ZURN - ZN415B	SHOWER DRAIN	DURA COATED CAST IRON	4" DIA	9 SQ. IN.	NICKEL BRONZE	ROUND	BOTTOM	-	-
FD-2	ZURN - Z1019	FUNNEL DRAIN	DURA COATED CAST IRON	4" DIA	-	CAST IRON	ROUND	BOTTOM	-	-
RR-1	ZURN - Z-122-C	ROOF DECK RECEPTOR DRAIN	DURA COATED CAST IRON	12" DIA	-	NONE	ROUND	BOTTOM	UNDER DECK CLAMP	-

GENERAL NOTES:
A. ALL FLOOR DRAINS SHALL HAVE A FINISH THAT IS FLUSH WITH THE FINISHED FLOOR.
B. DRAIN OUTLET SIZES ARE INDICATED ON THE DRAWINGS.

FIXTURE CONNECTIONS

FIXTURE	WASTE	VENT	TRAP	COLD	HOT	NOTES
WATER CLOSET (FLUSH VALVE)	4"	2"	INTEGRAL	1-1/4"	-	-
LAVATORY	2"	2"	1-1/4"	1/2"	1/2"	-
SHOWER	2"	2"	2"	1/2"	1/2"	-
SINK	2"	2"	1-1/2"	1/2"	1/2"	-
MOP SINK	3"	2"	3"	3/4"	3/4"	-
SCRUB SINK	2"	2"	2"	1/2"	1/2"	-
CLINIC SINK	4"	2"	INTEGRAL	1-1/4"	-	-
WALL BOX	-	-	-	1/2"	-	-

GENERAL NOTES:
A. ALL SIZES INDICATED ARE GENERAL MINIMUM ACCEPTABLE PIPE SIZES TO EACH FIXTURE. ACTUAL CONNECTION SIZES TO EACH FIXTURE MAY REQUIRE A TRANSITION. SEE FLOOR PLANS FOR ADDITIONAL SIZES.

XX

FIXTURES AND EQUIPMENT BY OTHERS

UNIT	NUMBER	DESCRIPTION	MINIMUM FIXTURE BRANCH SIZE				NOTES
			CW (INCH)	HW (INCH)	SAN (INCH)	VENT (INCH)	
IM	1	ICE MACHINE	1/2	-	-	-	-
SS	2	DOUBLE-BAY SCRUB SINK	3/4	3/4	2	2	1, 2

BC

GENERAL NOTES:
A. EQUIPMENT AND FIXTURES IN THIS SCHEDULE ARE OWNER FURNISHED, CONTRACTOR INSTALLED.

NOTES:
1 SCRUB SINKS SHALL BE EQUIPPED WITH A SUPPLY SPOUT AND SENSOR OPERATED CONTROLS AS REQUIRED FOR HANDWASHING FIXTURES.
2 SEE STRUCUTRAL DRAWINGS FOR SCRUB SINK CARRIER SUPPORT DETAILS.

BC

MEDICAL GAS OUTLETS

UNIT	NUMBER	TYPE	OUTLET QUANTITY					MANUFACTURER AND MODEL	NOTES
			OXYGEN	MEDICAL VACUUM	MEDICAL AIR	NITROUS OXIDE	WAGD		
MG	1	WALL OUTLET	2	3	1	-	-	ALLIED HEALTHCARE - CHEMETRON 500 SERIES	1
MG	2	WALL OUTLET	1	-	1	-	-	ALLIED HEALTHCARE - CHEMETRON 500 SERIES	1
MG	3	WALL OUTLET	2	2	-	-	-	ALLIED HEALTHCARE - CHEMETRON 500 SERIES	1
MG	4	CEILING OUTLET	1	1	1	1	-	ALLIED HEALTHCARE - CHEMETRON 500 SERIES	1, 2
MG	5	FLOOR PEDESTAL	1	-	-	-	1	AMICO - W-PEDESTAL-12	3, 4

NOTES:
1 OUTLETS ARRANGEMENTS SHALL BE COORDINATED WITH ARCHITECT AND OWNER.
2 RETRACTABLE HOSE REELS SHEEL BE PROVIDED FOR ALL CEILING OUTLETS.
3 FLOOR PEDESTAL OUTLETS SHALL BE CHEMETRON TYPE QUICK CONNECT.
4 FLOOR PEDESTAL LOCATION SHALL BE COORDINATED WITH ARCHITECT AND OWNER.

MEDICAL GAS ZONE VALVES

UNIT	NUMBER	MANUFACTURER & MODEL NUMBER	SERVICE	LOCATION	PIPE SIZES				NOTES
					OXYGEN	MEDICAL VACUUM	MEDICAL AIR	NITROUS OXIDE	
ZV	1	ALLIED HEALTHCARE - CHEMETRON - 77-83-0238	HYPERBARIC ROOM & CONSULT ROOM	OUTSIDE ROOM E1051; IN CORRIDOR E1024	2"	3/4"	1/2"	-	1, 2
ZV	2	ALLIED HEALTHCARE - CHEMETRON - 77-83-0224	PRE/POST PROCEDURE BAYS	OUTSIDE ROOM E1058; IN CORRIDOR E1040	1/2"	1-1/4"	1/2"	-	1, 2
ZV	3	ALLIED HEALTHCARE - CHEMETRON - 77-84-2223	CATH LAB E1049	OUTSIDE ROOM E1047; IN CORRIDOR E1040	1/2"	3/4"	1/2"	1/2"	1, 2
ZV	4	ALLIED HEALTHCARE - CHEMETRON - 77-84-2223	CATH LAB E1051	OUTSIDE ROOM E1051; IN CORRIDOR E1040	1/2"	3/4"	1/2"	1/2"	1, 2

GENERAL NOTES:
A. ZONE VALVES SHALL BE GROUPED TOGETHER TO BE LOCATED IN AS FEW VALVE BOXES AS REASONABLE.
B. EACH VALVE SHALL BE THE SAME SIZE AS THE PIPING CONNECTED TO IT.

NOTES:
1 EACH VALVE BOX SHALL BE PROVIDED WITH APPROPRIATE PRESSURE GAUGES FOR OXYGEN, MEDICAL VACUUM, MECIAL AIR, AND NITROUS OXIDE.
2 COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.

AREA ALARM PANELS

UNIT NO	NUMBER	MANUFACTURER & MODEL NO.	SERVICE	LOCATION	OUTLET QUANTITY				ELECTRICAL DATA				NOTES
					OXYGEN	MEDICAL VACUUM	MEDICAL AIR	NITROUS OXIDE	V	PH	HZ	EMERGENCY POWER	
AAP	1	AMICO - ALERT-3 SERIES	HYPERBARIC ROOM & CONSULT ROOM	HYPERBARIC ROOM E1051	1	1	1	-	120	1	60	YES	1, 2, 3, 4
AAP	2	AMICO - ALERT-3 SERIES	PRE/POST PROCEDURE BAYS	NURSE STATION E1056	1	1	1	-	120	1	60	YES	1, 2, 3, 4
AAP	3	AMICO - ALERT-3 SERIES	CATH LABS	NURSE STATION E1056	1	1	1	1	120	1	60	YES	1, 2, 3, 4

NOTES:
1 CONTRACTOR TO PROVIDE ALL CONDUIT, WIRING AND ACCESSORIES NECESSARY FOR INSTALLATION OF A COMPLETE AND OPERATIONAL SYSTEM.
2 ELECTRICAL SHALL BE ON EMERGENCY SUPPLY POWER PER NFPA99 REQUAREMENTS.
3 PRESSURE SENSOR SHALL BE INTERNAL TO THE PANEL.
4 COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.

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GENERAL ABBREVIATIONS

°F	DEGREES FAHRENHEIT	MCA	MINIMUM CIRCUIT AMPS
°C	DEGREES CELSIUS	MCC	MOTOR CONTROL CENTER
ø	DIAMETER	MECH	MECHANICAL
AD	ACCESS DOOR	MFR	MANUFACTURER
ADJ	ADJUSTABLE	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR	MOCP	MAXIMUM OVERCURRENT PROTECTION
AFG	ABOVE FINISHED GRADE	MTD	MOUNTED
AFR	ABOVE FINISHED ROOF	N/A	NOT APPLICABLE
ARCH	ARCHITECT	NC	NORMALLY CLOSED OR NOISE CRITERIA
BHP	BRAKE HORSEPOWER	NEG	NEGATIVE
BOD	BOTTOM OF DUCT	NIC	NOT IN CONTRACT
BMS	BUILDING MANAGEMENT CONTROL SYSTEM	NO	NORMALLY OPEN
BOP	BOTTOM OF PIPE	NTS	NOT TO SCALE
BTU	BRITISH THERMAL UNIT	OC	ON CENTER
BTUH	BRITISH THERMAL UNIT PER HOUR	ODP	OPEN DRIP PROOF
CLG	CEILING	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CL	CENTERLINE	OFOI	OWNER FURNISHED OWNER INSTALLED
DB	DRY BULB TEMPERATURE	PD	PRESSURE DROP
DDC	DIRECT DIGITAL CONTROL	PH	PHASE
DN	DOWN	PLBG	PLUMBING
DP	DIFFERENTIAL PRESSURE	POC	POINT OF CONNECTION
DWG	DRAWING	POD	POINT OF DEMARCATION
EA	EACH	POS	POSITION OR POSITIVE
EFF	EFFICIENCY	PSI	POUNDS PER SQUARE INCH
ELEC	ELECTRICAL	RC	ROOM CRITERIA (NOISE)
EMER	EMERGENCY	RET	RETURN
ENT	ENTERING	RH	RELATIVE HUMIDITY
EQUIP	EQUIPMENT	RM	ROOM
EXH	EXHAUST	RPM	REVOLUTIONS PER MINUTE
(E)	EXISTING	SC	SENSIBLE COOLING
FA	FIRE ALARM	SCH	SCHEDULE
FLR	FLOOR	SH	SENSIBLE HEAT
FP	FIRE PROTECTION	SPEC	SPECIFICATION
FPM	FEET PER MINUTE	SQ	SQUARE
FT	FEET	SF	SQUARE FEET
GA	GAUGE	SS	STAINLESS STEEL
GAL	GALLONS	STD	STANDARD
GPH	GALLONS PER HOUR	TEFC	TOTALLY ENCLOSED FAN COOLED
GPM	GALLONS PER MINUTE	TEMP	TEMPERATURE
GYP	GYPSUM BOARD	TON	TONS OF REFRIGERATION
HP	HORSEPOWER	V	VENT
HR	HOUR	VAV	VARIABLE AIR VOLUME
HZ	HERTZ	VEL	VELOCITY
ID	INSIDE DIAMETER	VFD	VARIABLE FREQUENCY DRIVE
IN	INCHES	VTR	VENT THROUGH ROOF
KW	KILOWATT	W	WIDTH
LB	POUND	W/	WITH
LF	LINEAR FEET	W/O	WITHOUT
LVG	LEAVING	WB	WET BULB TEMPERATURE
MAX	MAXIMUM	WG	WATER GAUGE
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR	XFMR	TRANSFORMER

CONTROL DIAGRAM LEGEND

FSD	MOTORIZED DAMPER - FIRE/ SMOKE DAMPER, 2 POSITION, SPRING CLOSED	HHL	HIGH LIMIT HUMIDITY - SWITCH
	3-WAY CONTROL VALVE	TLL	LOW LIMIT THERMOSTAT - SWITCH
	2-WAY CONTROL VALVE	THL	HIGH LIMIT THERMOSTAT - SWITCH
	BUTTERFLY CONTROL VALVE	SP	DIFFERENTIAL STATIC PRESSURE SENSOR
2	2 POSITION ACTUATOR	DP	DIFFERENTIAL PRESSURE SENSOR (ANALOG)
M	MODULATING ACTUATOR	DPS	DIFFERENTIAL PRESSURE SWITCH
2SC	2 POSITION - SPRING CLOSED	SHL	STATIC PRESSURE - HIGH LIMIT SWITCH
2SO	2 POSITION - SPRING OPEN	SLL	STATIC PRESSURE - LOW LIMIT SWITCH
MSC	MODULATING - SPRING CLOSED	FM	FLOW METER
MSO	MODULATING - SPRING OPEN	CT	CURRENT TRANSDUCER SENSOR (ANALOG)
F	FLOATING - 24VAC	CTS	CURRENT TRANSDUCER SWITCH
T	ROOM TEMPERATURE SENSOR	R	RELAY
H	ROOM HUMIDISTAT	M	RELAY CONTACTOR - OPEN WITH NO CONTROL POWER
H	ROOM HUMIDITY SENSOR	M	RELAY CONTACTOR - CLOSED WITH NO CONTROL POWER
T	ROOM THERMOSTAT		TRANSFORMER
T	PIPE TEMPERATURE SENSOR		FUSE
T	DUCT TEMPERATURE SENSOR	S P	TWISTED PAIR MULTI-SIGNAL CONTROL WIRING
T	SERPENTINE TEMPERATURE SENSOR		DUCT MOUNTED SMOKE DETECTOR (S) SUPPLY DUCT MOUNTED (R) RETURN DUCT MOUNTED (I) IONIZATION (P) PHOTOELECTRIC
H	DUCT HUMIDITY SENSOR		HORN
			STROBE

PIPING LEGEND

CHWS	CHILLED WATER SUPPLY	SLOPE	PIPE SLOPE (REFER TO PLANS FOR SLOPE)
CHWR	CHILLED WATER RETURN		AUTOMATIC AIR VENT
CWS	CONDENSER WATER SUPPLY		ANGLE VALVE - ELEVATION
CWR	CONDENSER WATER RETURN		ANGLE VALVE - PLAN
GWS	GEOTHERMAL WATER SUPPLY		BALL VALVE
GWR	GEOTHERMAL WATER RETURN		BALL VALVE W/ MEMORY STOP
GS	GLYCOL SUPPLY		BUTTERFLY VALVE
GR	GLYCOL RETURN		BUTTERFLY VALVE W/ MEMORY STOP
HWS	HEATING HOT WATER SUPPLY	M	MOTORIZED BUTTERFLY VALVE
HWR	HEATING HOT WATER RETURN		PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE (PICCV)
HPWS	HEAT PUMP WATER SUPPLY		CALIBRATED BALANCING VALVE (CIRCUIT SETTER)
HPWR	HEAT PUMP WATER RETURN		CONTROL VALVE - 2 WAY
MUW	MAKE UP WATER		CONTROL VALVE - 3 WAY
PCHWS	PROCESS CHILLED WATER SUPPLY		CHECK VALVE
PCHWR	PROCESS CHILLED WATER RETURN		DRAIN OFF VALVE (BALL VALVE W/ HOSE BIBB, CAP, & CHAIN)
CD	CONDENSATE DRAIN		FLOAT OPERATED VALVE
RL	REFRIGERANT LIQUID		PRESSURE INDEPENDENT FLOW CONTROL VALVE (FLOW LIMITER)
RS	REFRIGERANT SUCTION	FM	FLOW METER
LPS	LOW PRESSURE STEAM		FLOW METER - VENTURI
LPR	LOW PRESSURE CONDENSATE RETURN		FLOW SWITCH
HPS	HIGH PRESSURE STEAM		VALVE (2" AND SMALLER-BALL VALVE, LARGER THAN 2"-BUTTERFLY VALVE)
HPR	HIGH PRESSURE CONDENSATE RETURN		MANUAL AIR VENT
PC	PUMPED STEAM CONDENSATE		PRESSURE REDUCING VALVE
	DOUBLE LINE PIPE RISE		PRESSURE SUSTAINING VALVE
	SINGLE LINE PIPE RISE		PRESSURE GAUGE
	DOUBLE LINE PIPE DROP		PRESSURE GAUGE W/ COIL SIPHON
	SINGLE LINE PIPE DROP		PUMP (TRIANGLE INDICATES FLOW DIRECTION)
	PIPE TEE OFF THE TOP		QUICK CLOSING VALVE, FUSIBLE LINK
	PIPE TEE OFF THE BOTTOM		QUICK OPENING VALVE
	PIPE TEE OFF THE SIDE		SAFETY RELIEF VALVE
	BLIND FLANGE	S	SOLENOID VALVE
	END CAP		STRAINER W/ BLOWDOWN VALVE. HOSE BIBB, & CAP FOR 3/4". (USE GATE VALVE FOR STEAM)
	PIPE BREAK		STEAM TRAP
	DIRT LEG (MINIMUM 6")		THERMOSTATIC AIR VENT (STEAM ONLY)
CO	CLEAN OUT		THERMOMETER
	DIRECTION OF FLOW		PETE'S PLUG (TEST WELL)
	REDUCER - CONCENTRIC		UNION
	REDUCER - ECCENTRIC	V	VACUUM BREAKER
	FLEXIBLE CONNECTION		
	PIPE ANCHOR		
	PIPE GUIDE		
EJ	EXPANSION JOINT		

PIPING SYSTEM ABBREVIATIONS

AAV	AUTOMATIC AIR VENT	WPD	WATER PRESSURE DROP
CO	CLEAN OUT	PT	(PETE'S PLUG) TEST WELL
CV	FLOW COEFFICIENT OR CONTROL VALVE	NPSH	NET POSITIVE SUCTION HEAD
DX	DIRECT EXPANSION	NPSHA	NET POSITIVE SUCTION HEAD AVAILABLE
EWT	ENTERING WATER TEMPERATURE	NPSHR	NET POSITIVE SUCTION HEAD REQUIRED
FC	FLEXIBLE CONNECTION	OS&Y	OUTSIDE STEM AND YOKE
FCV	FLOW CONTROL VALVE	PG	PRESSURE GAUGE
FM	FLOW METER	PRV	PRESSURE REDUCING VALVE
HD	HEAD	TDH	TOTAL DYNAMIC HEAD
LWT	LEAVING WATER TEMPERATURE		
MAV	MANUAL AIR VENT		

CONTROL DIAGRAM ABBREVIATIONS

AI	ANALOG INPUT CONTROL POINT	EMS	ENERGY MANAGEMENT SYSTEM
AO	ANALOG OUTPUT CONTROL POINT	FC	FAIL CLOSED ON LOSS OF POWER
BAS	BUILDING AUTOMATION CONTROL SYSTEM	FO	FAIL OPEN ON LOSS OF POWER
BI	BINARY INPUT CONTROL POINT	NC	NORMALLY CLOSED WHEN OPERATING
BO	BINARY OUTPUT CONTROL POINT	NO	NORMALLY OPEN WHEN OPERATING
		VFD	VARIABLE FREQUENCY DRIVE

AIR SYSTEM LEGEND

	RECTANGULAR SUPPLY/ OUTSIDE AIR DUCT UP	CFM	SPACE PRESSURIZATION ARROW
	RECTANGULAR SUPPLY/ OUTSIDE AIR DUCT DOWN	UC	UNDERCUT DOOR AIRFLOW
	RECTANGULAR RETURN/ RELIEF AIR DUCT UP		SUPPLY AIRFLOW ARROW
	RECTANGULAR RETURN/ RELIEF AIR DUCT DOWN		RETURN OR EXHAUST AIRFLOW ARROW
	RECTANGULAR EXHAUST AIR DUCT UP		CEILING DIFFUSER (SUPPLY)
	RECTANGULAR EXHAUST AIR DUCT DOWN		RETURN AIR GRILLE OR REGISTER
	ROUND SUPPLY/ OUTSIDE AIR DUCT UP		EXHAUST AIR GRILLE OR REGISTER
	ROUND SUPPLY/ OUTSIDE AIR DUCT DOWN		DIFFUSER WITH FLOW DIRECTION. NO FLOW ARROWS INDICATES STANDARD 4-WAY PATTERN.
	ROUND RETURN/ RELIEF AIR DUCT UP		
	ROUND RETURN/ RELIEF AIR DUCT DOWN		SIDE WALL GRILLE
	ROUND EXHAUST AIR DUCT UP	H X	HUMIDITY SENSOR OR HUMIDISTAT AND NUMBER
	ROUND EXHAUST AIR DUCT DOWN	S X	SENSOR AND NUMBER
	DUCT WITH LINING OR SOUND INSULATION	SW X	SWITCH AND NUMBER
M	MOTORIZED CONTROL DAMPER FOR ROUND AND RECTANGULAR DUCT	T X	TEMPERATURE SENSOR OR THERMOSTAT & ZONE NUMBER
BDD	BACKDRAFT DAMPER FOR ROUND AND RECTANGULAR DUCT	T X	TEMPERATURE SENSOR OR THERMOSTAT W/ VANDAL GUARD & ZONE NUMBER
FD	FIRE DAMPER FOR ROUND AND RECTANGULAR DUCT	YR	REMOTE DAMPER OPERATOR (YOUNG REGULATOR)
SD	SMOKE DAMPER FOR ROUND AND RECTANGULAR DUCT	DP	DIFFERENTIAL PRESSURE SENSOR
FSD	COMBINATION FIRE/SMOKE DAMPER FOR ROUND AND RECTANGULAR DUCT	SD	DUCT SMOKE DETECTOR
VD	MANUAL VOLUME DAMPER FOR ROUND AND RECTANGULAR DUCT	SP	STATIC PRESSURE SENSOR
	FLEXIBLE CONNECTION	CO	CARBON MONOXIDE SENSOR
VD	TEMPORARY BYPASS DUCT WITH MANUAL VOLUME DAMPER (AIRFLOW DIRECTION INDICATED BY DAMPER HANDLE)	CO2	CARBON DIOXIDE SENSOR
		NO2	NITROGEN DIOXIDE SENSOR

AIR SIDE SYSTEM ABBREVIATIONS

AC	AIR CONDITIONING	LAT	COIL LEAVING AIR TEMPERATURE
AF	AIR FOIL	MA	MIXED AIR
APD	AIR PRESSURE DROP	MAT	MIXED AIR TEMPERATURE
AT	AIR TERMINAL	MAU	MAKE UP AIR
BI	BACKWARD INCLINE	OA	OUTSIDE AIR
BDD	BACKDRAFT DAMPER	OAI	OUTSIDE AIR INTAKE
CD	CEILING DIFFUSER (SUPPLY)	OBD	OPPOSED BLADE DAMPER
CFM	CUBIC FEET PER MINUTE	OED	OPEN END DUCT
CV	CONSTANT VOLUME	RA	RETURN AIR
UC	UNDERCUT DOOR	RAT	RETURN AIR TEMPERATURE
DWDI	DOUBLE WIDTH DOUBLE INLET	RG	RETURN AIR GRILLE OR REGISTER
DWSI	DOUBLE WIDTH SINGLE INLET	SA	SUPPLY AIR
EA	EXHAUST AIR	SAT	SUPPLY AIR TEMPERATURE FROM UNIT
EAT	COIL ENTERING AIR OR EXHAUST AIR TEMP.	SP	STATIC PRESSURE
EG	EXHAUST AIR GRILLE	SS	STAINLESS STEEL
ER	EXHAUST AIR REGISTER	SWDI	SINGLE WIDTH DOUBLE INLET
ESP	EXTERNAL STATIC PRESSURE	SWSI	SINGLE WIDTH SINGLE INLET
F&B	FACE AND BYPASS	TG	TRANSFER AIR GRILLE
FC	FOWARD CURVE OR FLEXIBLE CONNECTION	TSP	TOTAL STATIC PRESSURE
FA	FREE AREA	VAV	VARIABLE AIR VOLUME
FPI	FINS PER INCH	WMS	WIRE MESH SCREEN
HEPA	HIGH EFFICIENCY PARTICULATE AIR FILTER		

TAGS AND CALL OUT SYMBOLS

EQUIP #	EQUIPMENT REQUIRING ELECTRICAL SERVICE. REFER TO SCHEDULES FOR PERFORMANCE REQUIREMENTS.	#	REVISION CALLOUT
EQUIP #	EQUIPMENT NOT REQUIRING ELECTRICAL SERVICE. REFER TO SCHEDULES FOR PERFORMANCE REQUIREMENTS.	X	KEYNOTE CALLOUT
			POINT OF CONNECTION
			POINT OF DEMARCATION
T XXX	SECTION CALLOUT SECTION DESIGNATION SHEET NUMBER		
A XXX	DETAIL CALLOUT DETAIL DESIGNATION SHEET NUMBER		

DEMOLITION

< C >	CAP EXISTING		DEMOLITION PIPING
< X >	EXISTING TO REMAIN		DEMOLITION EQUIPMENT OR DUCT
< R >	EXISTING TO BE REMOVED		DEMOLITION DUCT
< RL >	EXISTING TO BE RELOCATED		SUPPLY DIFFUSER DEMOLITION
< NL >	EXISTING - NEW LOCATION		RETURN REGISTER/GRILLE DEMOLITION
			EXHAUST REGISTER/GRILLE DEMOLITION

CODE REFERENCES

1. "CALIFORNIA CODES, 2022 EDITIONS":
   - CALIFORNIA ADMINISTRATIVE CODE, CAC PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   - CALIFORNIA BUILDING CODE, CBC PART 2, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   - CALIFORNIA ELECTRICAL CODE, CEC PART 3, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   - CALIFORNIA MECHANICAL CODE, CMC PART 4, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   - CALIFORNIA PLUMBING CODE, CPC PART 5, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   - CALIFORNIA FIRE CODE, CFC PART 9, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
2. "STANDARDS AND DESIGN GUIDES":
   - AMERICAN NATIONAL STANDARDS INSTITUTE, ANSI
   - AMERICAN SOCIETY OF TESTING MATERIALS, ASTM
   - AMERICAN SOCIETY OF MECHANICAL ENGINEERS, ASME
   - INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO
   - NATIONAL FIRE PROTECTION ASSOCIATION, VARIOUS NFPA CHAPTER EDITIONS INCLUDING NFPA 99, 2021 EDITION
   - AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS, ASHRAE
   - AMERICAN SOCIETY OF PLUMBING ENGINEERS, ASPE
   - THE AMERICAN INSTITUTE OF ARCHITECTS, AIA GUIDELINES FOR THE DESIGN AND CONSTRUCTION OF HEALTHCARE FACILITIES
   - NONSTRUCTURAL PERFORMANCE CATEGORY (NPC) 5
3. "AUTHORITIES HAVING JURISDICTION (AHJ)":
   - CALIFORNIA DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION, HCAI

HEALTH CARE PROJECT NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH CITY CODES, STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS, HCAI AND ALL OTHER APPLICABLE CODES.
2. ALL FLEX DUCTS SHALL BE CONSTRUCTED WITH EXTERIOR REINFORCED LAMINATED VAPOR BARRIER, 1-1/2" THICK FIBERGLASS INSULATION (K- 25 at 75°F), ENCAPSULATED SPRING STEEL WIRE HELIX, AND IMPERVIOUS SMOOTH, NON-PERFORATED INTERIOR VINYL LINER. INDIVIDUAL LENGTHS OF FLEXIBLE DUCTS SHALL CONTAIN FACTORY FABRICATED STEEL CONNECTION COLLARS. FLEXIBLE DUCTS SHALL BE SUPPORTED AT OR NEAR MID-LENGTH WITH TWO INCH WIDE 28 GAUGE STEEL HANGER COLLAR ATTACHED TO THE STRUCTURE WITH AN APPROVED DUCT HANGER. INSTALLATION SHALL MINIMIZE SHARP RADIUS TURNS OR OFFSETS. 5' MAXIMUM LENGTH CONNECTION TO TERMINAL OUTLETS.
3. BALANCE ALL DIFFUSERS AND REGISTERS TO QUANTITIES SHOWN. SUBMIT TO ARCHITECT A WRITTEN BALANCE REPORT. THE AIR BALANCE CONTRACTOR MUST BE INDEPENDENT OF THE MECHANICAL CONTRACTORS & MUST BE A.A.B.C. OR N.E.B.B. QUALIFIED.
4. VERIFY LOCATION OF ALL EXISTING PIPING AND DUCTWORK PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO ARCHITECT.
5. INSULATION, ADHESIVES, VAPOR-BARRIER MATERIALS, AND OTHER ACCESSORIES SHALL BE NONCOMBUSTIBLE. THE MATERIALS SHALL NOT HAVE A UL FLAMESPREAD RATING MORE THAN 25 AND A SMOKE DEVELOPED RATING NOT MORE THAN 50.
6. ALL AREAS TO MEET HCAI REQUIREMENTS AS DEFINED IN THE STATE MECHANICAL CODE, TABLE 4-A FOR SUPPLY AIR, RETURN AIR AND EXHAUST AIR QUANTITIES AND ROOM PRESSURIZATION RELATIONSHIPS.
7. INSULATE ALL SUPPLY AIR DUCTWORK WITH OWENS/CORNING TYPE 75 FIBERGLASS INSULATION WITH VAPOR BARRIER, 2" THICK AND AN AVERAGE INSTALLED "R" VALUE OF 5.8. REFER TO SPEC SECTION 23 07 00.
8. FOR ALL OUTDOOR DUCTWORK OR DUCTWORK OR DUCTWORK LOCATED IN UNCONDITIONED SPACES, INSULATE ALL SUPPLY AND RETURN AIR DUCTWORK WITH OWENS/CORNING TYPE 75 FIBERGLASS INSULATION WITH VAPOR BARRIER, 3" THICK AND AN AVERAGE INSTALLED "R" VALUE OF 8. REFER TO SPEC SECTION 23 07 00.
9. THE DEMOLITION PLAN IS INTENDED TO PROVIDE THE CONTRACTOR WITH A GENERAL KNOWLEDGE OF THE EXISTING CONDITIONS WITHIN THE PROJECT AREA. EXISTING EQUIPMENT, STRUCTURE, DUCTWORK, ETC. LOCATED ON DRAWINGS WERE DERIVED FROM EXISTING DRAWINGS AND LIMITED FIELD OBSERVATIONS. THIS DRAWING MAY NOT BE ALL INCLUSIVE OF SERVICES THAT EXIST IN THE PROJECT AREA. CONTRACTOR SHALL VERIFY SERVICES AND LOCATIONS PRIOR TO ANY DEMOLITION WORK. ANY DEVIATIONS IMPACTING WORK SHOWN ON THESE DOCUMENBTS SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER PRIOR TO BEGINNING DEMOLITION.
10. ALL MECHANICAL SYSTEMS SERVING OTHER SPACES OF FLOORS THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES.
11. CONTRACTOR SHALL PROVIDE MECHANICAL WORK FOR PHASING AS REQUIRED OR DIRECTED BY THE ARCHITECT; REFER TO ARCHITECTURAL PHASING PLAN. TEMPORARY MECHANICAL SERVICES SHALL BE PROVIDED WHEN NEW WORK AFFECTS SERVICES NEEDING TO REMAIN ACTIVE.
12. REFER TO FACILITIES INFECTION CONTROL AND RISK ASSESSMENT FOR ADDITIONAL REQUIREMENTS.
13. COORDINATE PHASING AND PRESSURE CONTAINMENT REQUIREMENTS WITH ARCHITECT'S PHASING PLAN(S), SPECIFICATIONS, AND PRESSURE CONTAIMENT DETAIL.

MECHANICAL SHEET INDEX

MI001	MECHANICAL LEAD SHEET
MD111	LEVEL 1 - MECHANICAL DEMOLITION PHASE 1 PLAN - BYPASS DUCTWORK & WORK OUTSIDE OF REMODEL SHOWN
MD112	MECHANICAL DEMOLITION PHASE 2 PLAN
MD211	LEVEL 2 - MECHANICAL DEMOLITION PLAN - BYPASS DUCTWORK & PHASE 1 NEW MECHANICAL PLAN
ME101	LEVEL 1 - ZONE PLAN
ME210	MECHANICAL ENLARGED PLAN REMODEL - LOWER LEVEL
ME211	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - NORTH
ME212	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - SOUTH
ME213	MECHANICAL ENLARGED PLAN - LEVEL 3 - ROOF
ME214	MECHANICAL ENLARGED PLAN REMODEL PHASE 2 - LEVEL 1
ME311	MECHANICAL ENLARGED PLAN - SECTION VIEWS
ME501	MECHANICAL DETAILS
ME502	MECHANICAL DETAILS
ME503	MECHANICAL DETAILS
ME601	MECHANICAL AIR BALANCE
ME602	MECHANICAL CONTROLS
ME603	MECHANICAL CONTROLS
ME604	MECHANICAL SCHEDULES

Grand total: 18

EXISTING AIR HANDLERS SERVING REMODELED AREAS

ALL EXISTING AIR HANDLERS SERVING REMODELED AREAS ARE PROVIDED WITH AUTOMATIC SMOKE DETECTION SHUTDOWN AND REQUIRED FILTRATION PER 2022 CMC TABLE 4-B

GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND PROVIDE REPAIR OF ADJACENT EXISTING SURFACES, EQUIPMENT, AREAS AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF ANY DEMOLITION AND / OR NEW WORK.
2. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION & SERVICES NECESSARY FOR COMPLETION OF THE WORK. ALL MATERIALS AND WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AND GOVERNING REGULATIONS, AND SHALL MEET WITH THE APPROVAL OF THE CITY AND STATE FIRE MARSHAL.
3. ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS . THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO ANY CONSTRUCTION, INCLUDING ARCHITECTURAL, STRUCTURAL, AIR CONDITIONING, PLUMBING AND ELECTRICAL. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION MAY BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENT SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND AT NO EXPENSE TO THE OWNER.
4. DO NOT SCALE DRAWINGS - ALL DIMENSIONS AND JOB SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO BID SUBMITTAL, START OF CONSTRUCTION AND/OR FABRICATION OF MATERIALS. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
5. CONTRACTOR SHALL COORDINATE ALL DUCT, PIPE AND EQUIPMENT LOCATIONS WITH ELECTRICAL, STRUCTURAL, PLUMBING, PROCESS PIPING, AND ALL OTHER TRADES.
6. ALL OUTLETS FOR FUTURE CONNECTIONS SHALL BE INSTALLED SO AS TO PERMIT LOCATIONS WITH ELECTRICAL, STRUCTURAL, PLUMBING AND ALL OTHER TRADES.
7. ROOM THERMOSTATS SHALL BE CAPABLE OF BEING SET TO MAINTAIN SPACE TEMPERATURE SETPOINTS FROM 55°F TO 85°F, AND BE CAPABLE OF OPERATING THE HEATING AND COOLING IN SEQUENCE. THERMOSTATS SHALL BE ADJUSTABLE TO PROVIDE A TEMPERATURE RANGE OF UP TO 10°F BETWEEN FULL HEATING AND FULL COOLING BEING SUPPLIED. CONTROLS SHALL HAVE THE CAPABILITY OF TERMINATING ALL HEATING AT A TEMPERATURE OF NOT MORE THAN 70°F. TEMPERATURE CONTROL SYSTEM SHALL OPERATE IN ACCORDANCE WITH THE BASE BUILDING SEQUENCE OF OPERATION.
8. ADJUSTABLE THERMOSTATS SHALL BE WALL MOUNTED 48" A.F.F. TEMPERATURE SENSORS SHALL BE WALL MOUNTED 60" A.F.F.
9. INSULATION MATERIAL SHALL MEET THE CALIFORNIA QUALITY STANDARD PER SECTION 118 E.E.S.
10. WHERE SOUND INSULATION IS INDICATED, DUCT DIMENSIONS ARE NET CLEAR - e.g. AFETR INSULATION HAS BEEN INSTALLED.
11. MATERIAL EXPOSED WITHIN A DUCT OR PLENUM SHALL COMPLY WITH SECTION 602.2 CMC.
12. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF LOCAL REGULATIONS & PROCEDURES DETAILED IN THE A.S.H.R.A.E. HANDBOOK OF FUNDAMENTALS OR THE APPLICABLE STANDARDS ADOPTED BY S.M.A.C.N.A. PROVIDE RECTANGULAR DUCTS OF GALVANIZED STEEL AND PREFABRICATED SPIRAL LOCK-SEAM DUCTS & FITTINGS.
13.
14. PROVIDE SMOKE DETECTORS IN MAIN SUPPLY AIR DUCTS OF AIR MOVING SYSTEMS EXCEEDING 2000 CFM PER SECTION 609.0 CMC.
15. PROVIDE BALANCING VOLUME DAMPERS IN EACH BRANCH DUCT AND IN EACH MAIN DUCT TO PROVIDE FOR COMPLETE AIR BALANCING. PROVIDE ADEQUATE ACCESS. OPPOSED BLADE DAMPERS (OBD'S) ARE NOT CONSIDERED BALANCING DAMPERS.
16. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF CEILING DIFFUSERS AND GRILLES.
17. ALL CEILING DIFFUSERS SHALL BE 4-WAY THROW UNLESS SHOWN OTHERWISE.
18. ADJUST PATTERN DEVICES OF ALL AIR OUTLETS AS INDICATED ON DRAWINGS AND / OR FOR PROPER AIR DISTRIBUTION WITH CONSIDERATION FOR COMFORT AND SOUND CONDITIONS.
19. ANY PENETRATION OF FIRE RATED ASSEMBLY MUST BE PROTCTED BY UL LISTED / APPROVED FIRESTOP SYSTEM. HCAI FIELD FIRE MARSHAL SHALL VERIFY.
29. INSTALLED FILTERS SHALL BE CLEARLY LABELED BY THE MANUFACTURER INDICATING MERV RATING.
30. FACTORY-MADE FLEXIBLE AIR DUCTS AND CONNECTORS SHALL NOT BE MORE THAN 5 FEET IN LENGTH PER SECTION 603.4.1 CMC.
31. PROJECT REQUIREMENTS INCLUDE MAINTAINING THE SAME AIRFLOW TO ROOMS/AREAS OUTSIDE THE BOUNDARIES OF THE REMODEL THROUGHOUT THE CONSTRUCTION PERIOD AND AFTER CONSTRUCTION. TWO SOURCES FOR AIRFLOWS OF THE EXISTING CONDITIONS WERE USED IN THE PREPARATION OF THE DOCUMENTS - ORIGINAL DESIGN DOCUMENTS AND TAB REPORT OF 09/2023. NEW TESTING OF EXISTING CONDITIONS IS REQUIRED, WHERE NOTED. THESE NEW TESTED VALUES WILL SUPERCEDE AIRFLOW VALUES.

SCOPE OF WORK

THE MECHANICAL SCOPE OF WORK AT RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER IS AS FOLLOWS:

A. DEMOLISH EXISTING THERAPY SPACE AND ASSOCIATED MECHANICAL INFRASTRUCTURE BACK TO THE SUPPLY EXHAUST AND RETURN MAINS.
B. INSTALL NEW MECHANICAL INFRASTRUCTURE TO SUPPORT TWO NEW CARDIAC CATH LABS, ASSOCIATED POST/PRE-OP BAYS AND SUPPORT SPACES.
C. INSTALL NEW MECHANICAL INFRASTRUCTURE TO SUPPORT EXPANSION OF THE EXISTING HYPERBARIC CHAMBER.
D. REFER TO MD111, MD112, & MD211 FOR TAB SCOPE OF EXISTING SYSTEM AND REQUEST ADDITIONAL AS BUILT DOCUMENTS FROM OWNER.

UPPER ATTACHMENT

A. FOR UPPER ATTACHMENT TO NEW & EXISTING STRUCTURE, SEE STRUCTURAL DRAWINGS.
B. WHERE NEW STRUCTURAL INTERSTITIAL SYSTEM IS USED, PROVIDE INTERMEDIATE MEMBERS AS REQUIRED FOR SUPPORTING WORK.

Riverside University HEALTH SYSTEM

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER — ALAN SHELLENBERGER — No. M 22419 — Exp. 12-31-25 — MECHANICAL — STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER:

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT T

KEY NOTES

001 DEMOLISH EXISTING DUCTWORK AND AIR DEVICES TO POINT OF DISCONNECTION AS NOTED ON PLANS.
002 DEMOLISH EXISTING THERMOSTAT & CONTROL WIRING.
003 DEMOLISH EXISTING DUCTWORK & DIFFUSER/REGISTER.
005 INSTALL TEMPORARY BYPASS DUCTS TO MAINTAIN AIRFLOW PROFILE OF COLD DUCT, HOT DUCT, EXHAUST DUCT, AND RETURN DUCT PRIOR TO DEMOLITION TO SATISFY HCAI CAN-102.6 DURING CONSTRUCTION. BC1
006 THESE TWO RA GRILLES ARE NOT IN PRE-TAB REPORT (9/13/2023), INSTEAD, A RA BRANCH SHOWN ON LEVEL 2 WITH TOTAL 1510 CFM READING IN PRE-TAB REPORT. CONTRACTOR SHALL PERFORM TAB FOR ALL RA GRILLES IN THIS AREA PRIOR TO INSTALL TEMPORARY BYPASS DUCT. COMPLETELY CLOSE OFF VD FOR THESE TWO RA GRILLES.
007 REDUCE / RE-BALANCE THIS RA BRANCH MAY BE REQUIRED FOR TEMPORARY BYPASS CONNECTION TO MAINTAIN EXISTING RA SYSTEM PER FINAL PRE-TAB REPORT.
011 DUE TO THE NEED TO USE EXISTING MIXING BOXES DURING CONSTRUCTION TO UTILIZE TEMPORARY BYPASS DUCTWORK, EXISTING HOT/COLD BRANCH DUCTS REQUIRE PARTIAL DISPLACEMENT. PROVIDE HOT/COLD DUCT DEMOLITION & REPLACEMENT WHERE INDICATED TO ALLOW FOR NEW HVAC TO BE INSTALLED WITHOUT CONFLICT.
012 THESE NUMBERED EXISTING CONSTANT VOLUME MIXING BOXES (TOTAL 7 ON LEVEL 1 AND 3 ON LEVEL 2) SHALL REMAIN FOR TEMPORARY BYPASS SERVICES. RESET OF BOX CFM MAY BE REQUIRED BASED ON FINAL PRE-TAB REPORT. REFER TO BYPASS AIRFLOW BALANCE SCHEDULE ON MD211 FOR TEMPORARY BALANCE AIRFLOW INFORMATION.
013 IN ORDER TO MINIMIZE THE DOWN TIME/ SERVICE INTERRUPTION, THIS DUAL DUCT MIXING BOX, CANNOT BE DEMOLISHED UNTIL THE NEW REPLACEMENT TERMINAL BOX IS READY TO BE INSTALLED. AND THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO SCHEDULING THIS DD BOX DEMOLITION.
203 <X> 80" x 80" RETURN MAIN UP & <X> 80" x 50" RETURN MAIN DN.
204 <X> 70" x 30" SUPPLY MAIN UP & <X> 48" x 36" SUPPLY MAIN DN.
205 <X> 50" x 30" SUPPLY MAIN UP & <X> 36" x 34" SUPPLY MAIN DN.
206 <X> 40" x 50" RETURN MAIN UP & DN.
207 <X> 14"Ø EXHAUST MAIN UP & DN.
208 <X> 18" x 18" EXHAUST MAIN UP & DN.
209 <X> 18" x 12" EXHAUST MAIN UP & DN.
210 <X> 28" x 26" EXHAUST MAIN UP & DN.

GENERAL NOTES:

1 REBALANCE RETURN AIR FLOW EACH TIME DEMOLITION AND BYPASS DUCTS ARE TOUCHED (MULTIPLE AIR BALANCE) TO ASSURE RETURN AIR REGISTERS REMAIN THE SAME AS PRE-TEST VALUES.

PHASE 2
(SEE MD112 FOR BYPASS AND DEMO)

TEMPORARY BYPASS DUCT DN. FROM LVL 2.

TEMPORARY BYPASS DUCT DN. FROM LVL 2

PHASE 1

1 LEVEL 1 - MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

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NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM084300011869	047-10071-002

SHEET NAME
LEVEL 1 - MECHANICAL DEMOLITION PHASE 1 PLAN - BYPASS DUCTWORK & WORK OUTSIDE OF REMODEL SHOWN

SHEET NUMBER
MD111

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GENERAL NOTES:

1 REBALANCE RETURN AIR FLOW EACH TIME DEMOLITION AND BYPASS DUCTS ARE TOUCHED (MULTIPLE AIR BALANCE) TO ASSURE RETURN AIR REGISTERS REMAIN THE SAME AS PRE-TEST VALUES.

KEY NOTES

010 HYPERBARIC THERAPY E1051 AIRFLOW IS NOT TO BE INTERRUPTED EXCEPT FOR A 4-HOUR DURATION. COMPLETE MECHANICAL DEMOLITION WORK AND NEW CONSTRUCTION WORK INCLUDING TESTING, BALANCING, AND CLEANING FOR PATIENT USE WITHIN THE 4-HOUR WINDOW.

BC1 011 DUE TO THE NEED TO USE EXISTING MIXING BOXES DURING CONSTRUCTION TO UTILIZE TEMPORARY BYPASS DUCTWORK, EXISTING HOT/COLD BRANCH DUCTS REQUIRE PARTIAL DISPLACEMENT. PROVIDE HOT/COLD DUCT DEMOLITION & REPLACEMENT WHERE INDICATED TO ALLOW FOR NEW HVAC TO BE INSTALLED WITHOUT CONFLICT.

214 DURING PRE-PHASE 1, PROVIDE AIRFLOW TESTS OF SA AND RA INLETS AND OUTLETS FOR CONSULATION/HOLDING E1048, SERVED BY AHU-6. SUBMIT VALUES IN TAB REPORT REQUIRED IN PRE-PHASE 1.

601 REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL OF OFFSET IN RATED WALLS TO MAINTAIN EXISTING DUCT MAIN LOCATION. REGION SHOWN ON MECHANICAL FLOOR PLANS INDICATE EXTENT AND LOCATION OF DUCT REQUIRING WALL OFFSET.

CONSULTATION / HOLDING
E1046

PHASE 2

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

HOT

COLD

FSD

DDMB 1.00A

DDMB 1.02B

RHC 1.04

RHC 1.07

DDMB 1.07

HU 1.03

1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2 - DEMO

1/4" = 1'-0"

7/12/2024 6:01:24 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Care_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

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Exp. 12-31-25
MECHANICAL
STATE OF CALIFORNIA

KEY PLAN

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
MECHANICAL DEMOLITION PHASE 2 PLAN

SHEET NUMBER
MD112

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GENERAL NOTES:

1 REBALANCE RETURN AIR FLOW EACH TIME DEMOLITION AND BYPASS DUCTS ARE TOUCHED (MULTIPLE AIR BALANCE) TO ASSURE RETURN AIR REGISTERS REMAIN THE SAME AS PRE-TEST VALUES.

KEY NOTES

002 DEMOLISH EXISTING THERMOSTAT & CONTROL WIRING.

005 INSTALL TEMPORARY BYPASS DUCTS TO MAINTAIN AIRFLOW PROFILE OF COLD DUCT, HOT DUCT, EXHAUST DUCT, AND RETURN DUCT PRIOR TO DEMOLITION TO SATISFY HCAI CAN-102.6 DURING CONSTRUCTION.

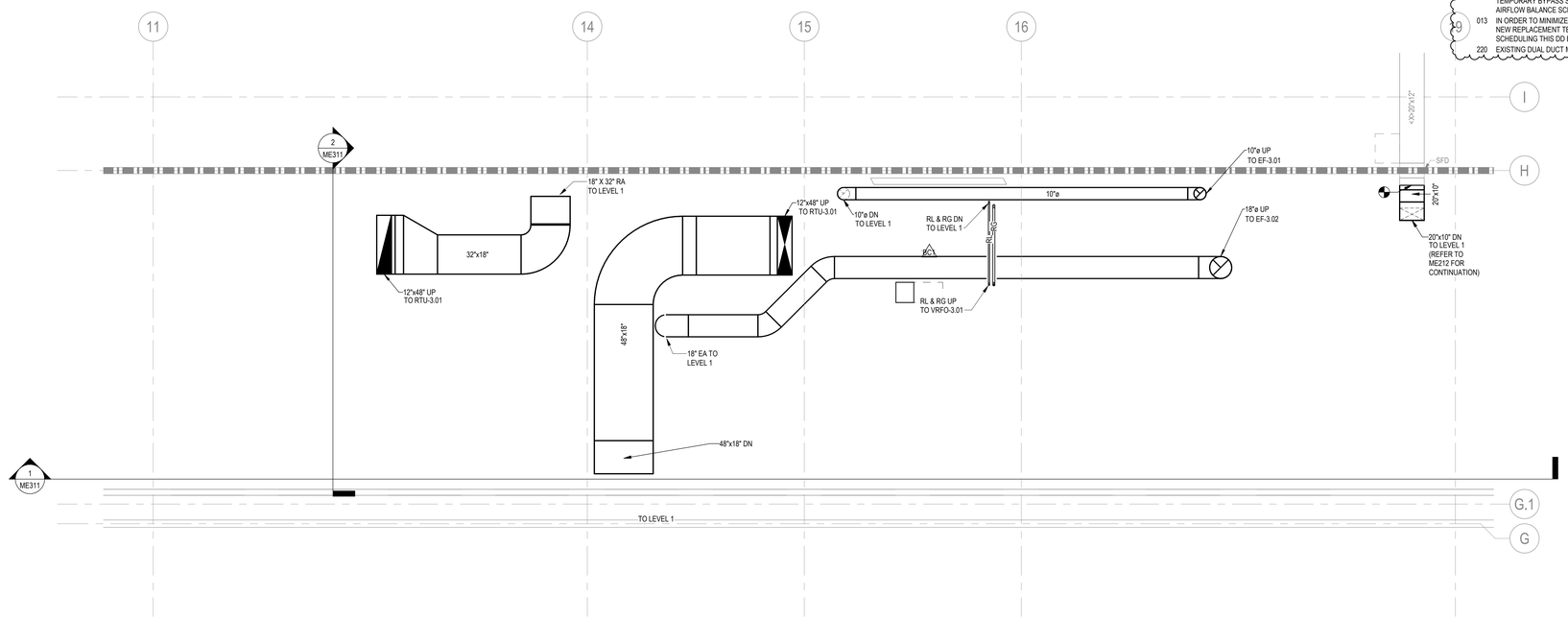
008 AFTER DEMOLITION OF TEMPORARY BYPASS DUCTS, DEMOLISH EXISTING SFD'S, SECTION OF SUPLY AIR DUCT AND THAN CAP REMAINING EXISTING SUPPLY DUCT. PATCH WALLS AND DECOMMISSION FROM FIRE ALARM SYSTEM.

009 RELOCATE EXISTING THERMOSTAT. REFER TO ME101 LEVEL 1 ZONE PLAN FOR NEW LOCATION.

012 THESE NUMBERED EXISTING CONSTANT VOLUME MIXING BOXES (TOTAL 7 ON LEVEL 1 AND 3 ON LEVEL 2) SHALL REMAIN FOR TEMPORARY BYPASS SERVICES. RESET OF BOX CFM MAY BE REQUIRED BASED ON FINAL PRE-TAB REPORT. REFER TO BYPASS AIRFLOW BALANCE SCHEDULE ON MD211 FOR TEMPORARY BALANCE AIRFLOW INFORMATION.

013 IN ORDER TO MINIMIZE THE DOWN TIME/ SERVICE INTERRUPTION, THIS DUAL DUCT MIXING BOX, CANNOT BE DEMOLISHED UNTIL THE NEW REPLACEMENT TERMINAL BOX IS READY TO BE INSTALLED. AND THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO SCHEDULING THIS DD BOX DEMOLITION.

220 EXISTING DUAL DUCT MIXING BOX TO BE REUSED AND REBALANCED TO 950 CFM.



2 LEVEL 2 - MECHANICAL ENLARGED PLAN PHASE 1 - LEVEL 2

1/4" = 1'-0"

PHASE 1 AREA - MIXING BOX TEMPORARY AIRFLOW RESET / BYPASS AIRFLOW CFM										
TAG		BOX TOTAL SA PER PRE-TAB	ASSOICATED TOTAL RA PER PRE-TAB	ASSOICATED TOTAL EA PER PRE-TAB	SA-RA-EA	TEMPORARY SUPPLY AIR MIXING BOX RESET AIRFLOW		BYPASS TO RA	BYPASS TO EA	NOTES
NEW TAG	EXISTING TAG	CFM	CFM	CFM	CFM	CFM NOTE 8	BYPASS DUCT SIZE (INCH) NOTE 7	CFM NOTE 8	CFM NOTE 8	
1	B-2A	310	200	0	110	285	10"	285	0	
	B-3	615	85	65	465	0	N/A	0	0	1
2	B-3A	545	275	0	270	375	10"	375	0	
3	B-3B	350	100	0	250	0	N/A	0	0	2
4	B-3C	795	445	0	350	795	12"	795	0	
5	B-3D	705	0	760	-55	760	12"	0	760	
6	B-5	1060	710	935	-585	1645	(1) 14" TO (1) 12" + (1) 14"	710	935	5
7	B-5A	1385	0	905	480	970	14"	0	970	
8	C-5B	1535	1770	0	-235	1535	16"	1535	0	3
	C-4	780	110	0	670	0	N/A	0	0	1
9	B-6C	1330	1315	0	15	1315	16"	1315	0	3, 6
10	C-6B	1505	1510	0	-5	1510	16"	1510	0	3, 4
TOTAL CFM		10915	6520	2665	1735	9190		6525	2665	

GENERAL NOTES:

1 NUMBER OF EXISTING MIXING BOXES IN THE SCOPE AREA EITHER TO BE DEMOLISHED OR ABANDONED IN PLACE AS NOTED ON FLOOR PLANS.

2 REFERENCE EXISTING MIXING BOX TAGS USED ON FLOOR PLAN IN PRE-TAB REPORT

NOTES:

1 BOX IS THIS AREA SHALL REMAIN. SHOWN IN THIS SCHEDULE FOR TEMPORARY BYPASS TO RA & EA SYSTEM AIR BALANCE REFERENCE INFORMATION ONLY.

2 THESE BOXES WILL NOT BE USED FOR TEMPORARY BYPASS.

3 BOXES ON LEVEL 2. RA FROM LEVEL 1. TEMPORARY BYPASS DUCT DOWN TO LEVEL 1 TO EXISTING RA DUCT AS SHOWN.

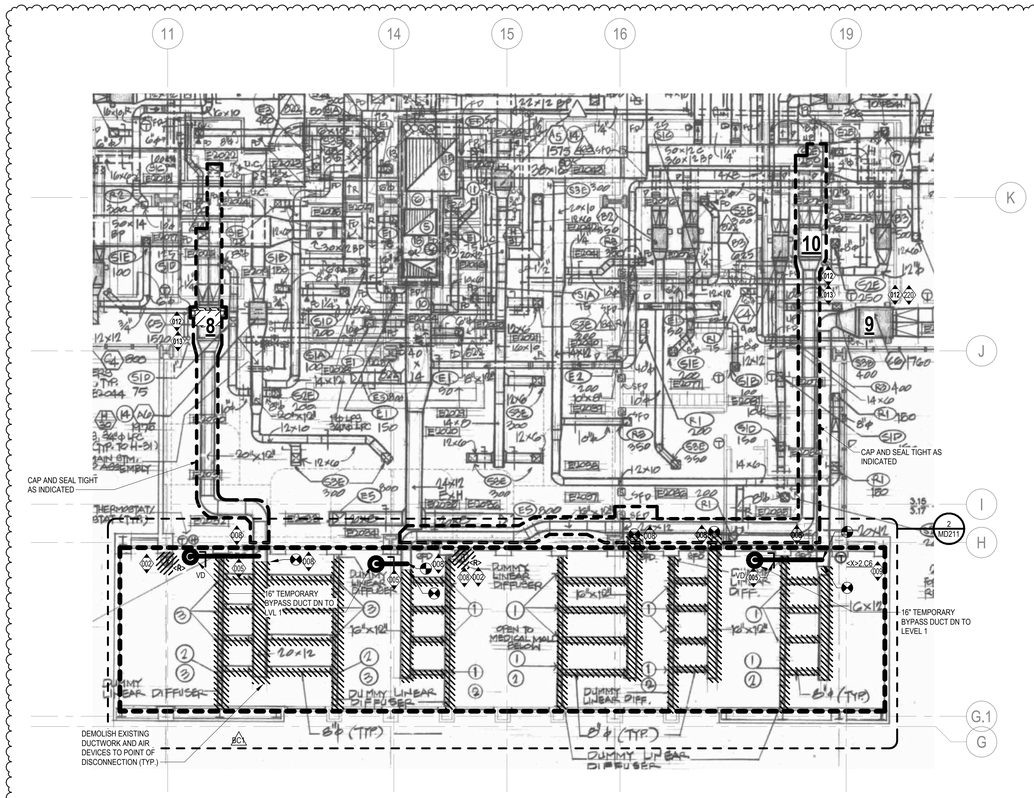
4 PRE-TAB REPORT IS MISSING TWO RA GRILLE READING ON LEVEL 1, BUT HAVE RA 1510 CFM SHOWN ON LEVEL 2 WHICH IS CONFILICT WITH AS-BUILT DRAWING. TEMPORARY BYPASS DUCT FOR BOX #10 (C-6B) MAY NOT NEED TO BE DOWN TO LEVEL 1 IF THERE IS RA ON LEVEL 2 AS INDICATED ON LEVEL 2 FLOOR PLAN IN PRE-TAB REPORT.

5 TEMPORARY BYPASS FOR THIS BOX WILL SPLIT SUPPLY AIRFLOW TO BOTH RA & EA SYSTEM AS INDICATED AND BALANCE AIR FLOW TO EACH SYSTEM AS SHOWN AND PER FINAL PRE-TAB AIR FLOW CFM.

6 BOX TO REUSED FOR NEWLY RENOVATED AREA.

7 USE EXISTING SUPPLY DUCT AS MUCH AS POSSIBLE AND THE FLEXIBLE ROUND TEMPORY BYPASS DUCT SHALL BE SIZED PER THE CFM AS SHOWN IN THIS SCHEDULE.

8 THE BYPASS CFM IN THIS SCHEDULE IS BASED ON PRE-TAB REPORT DATED ON SEPT. 13, 2023; IT SHALL BE VALIDATED PRIOR TO STARTING OF CONSTRUCTION.



1 LEVEL 2 - MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

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KEY PLAN

REVISIONS

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PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

LEVEL 2 - MECHANICAL DEMOLITION PLAN - BYPASS DUCTWORK & PHASE 1 NEW MECHANICAL PLAN

SHEET NUMBER

MD211

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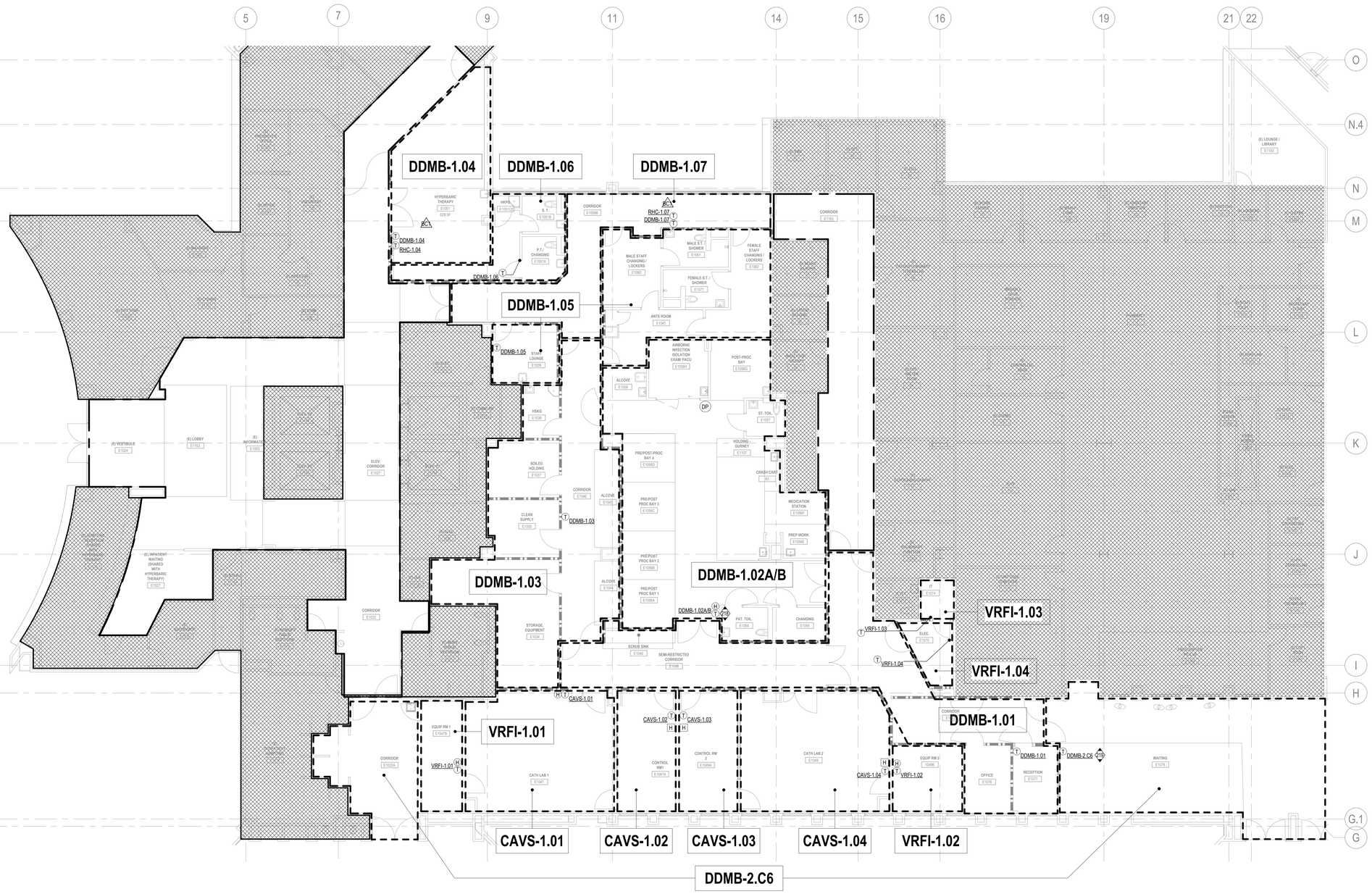
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ZONE PLAN LEGEND

	ZONE AREA
	AFFECTED BY REMODEL (CORRIDOR VOLUME HAS CHANGED)

KEY NOTES

BC1 218 ONE THERMOSTAT TO OPERATE DUAL DUCT MIXING BOXES IN PARALLEL.
BC1 219 RELOCATED LOCATION FOR EXISTING THERMOSTAT.



1 LEVEL 1 - ZONE PLAN

1/8" = 1'-0"

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FM08430011869	047-10071-002

SHEET NAME

LEVEL 1 - ZONE PLAN

SHEET NUMBER

ME101

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GENERAL NOTES:

1 REBALANCE RETURN AIR FLOW EACH TIME DEMOLITION AND BYPASS DUCTS ARE TOUCHED (MULTIPLE AIR BALANCE) TO ASSURE RETURN AIR REGISTERS REMAIN THE SAME AS PRE-TEST VALUES.

KEY NOTES

201 CAP & SEAL DUCT OPENING.
202 PROVIDE SEISMIC BRACING FOR EXISTING DUCTS LARGER THAN 6 SF CROSS SECTION.
211 BALANCE EXISTING REGISTERS AS REQUIRED PER WORK SEQUENCE TO MAINTAIN COMPLIANCE WITH HCAI CAN-102.6.
216 REFER TO ELECTRICAL DRAWINGS FOR TERMINAL LOCATIONS OF 120V POWER FOR CONTROLS (TYP.)
401 STEAM HOSE AND CONDENSATE LINES
402 REFER TO PLUMBING DRAWINGS FOR MAKE-UP WATER AND DRAIN CONNECTIONS FOR HUMIDIFIER.
601 REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL OF OFFSET IN RATED WALLS TO MAINTAIN EXISTING DUCT MAIN LOCATION. REGION SHOWN ON MECHANICAL FLOOR PLANS INDICATE EXTENT AND LOCATION OF DUCT REQUIRING WALL OFFSET.

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

OUTSIDE OF NEW WORK BOUNDARY

3 / ME212

1 / ME212

1 LEVEL 1 - MECHANICAL PLAN ENLARGED REMODEL PHASE 1 - NORTH

1/4" = 1'-0"

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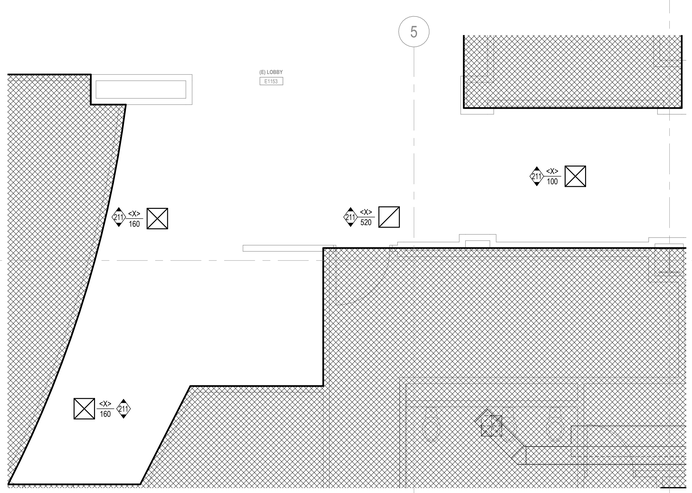
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SHEET NUMBER

ME211

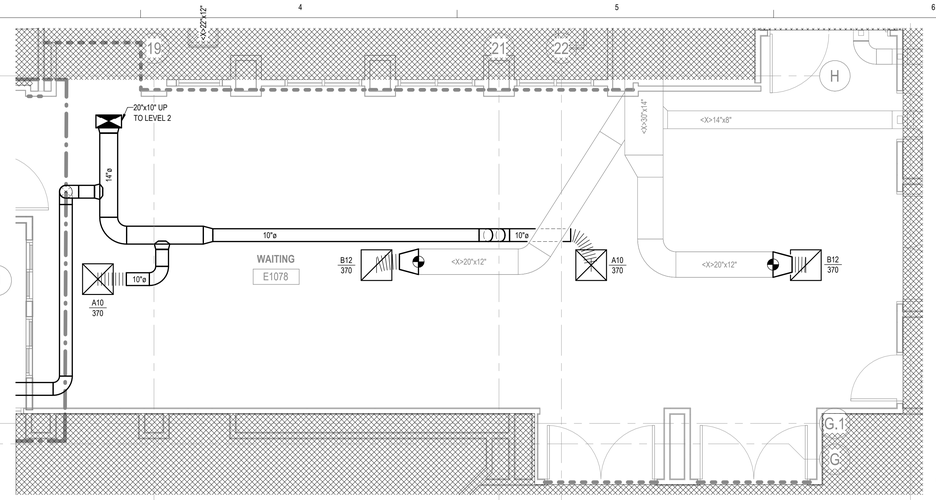
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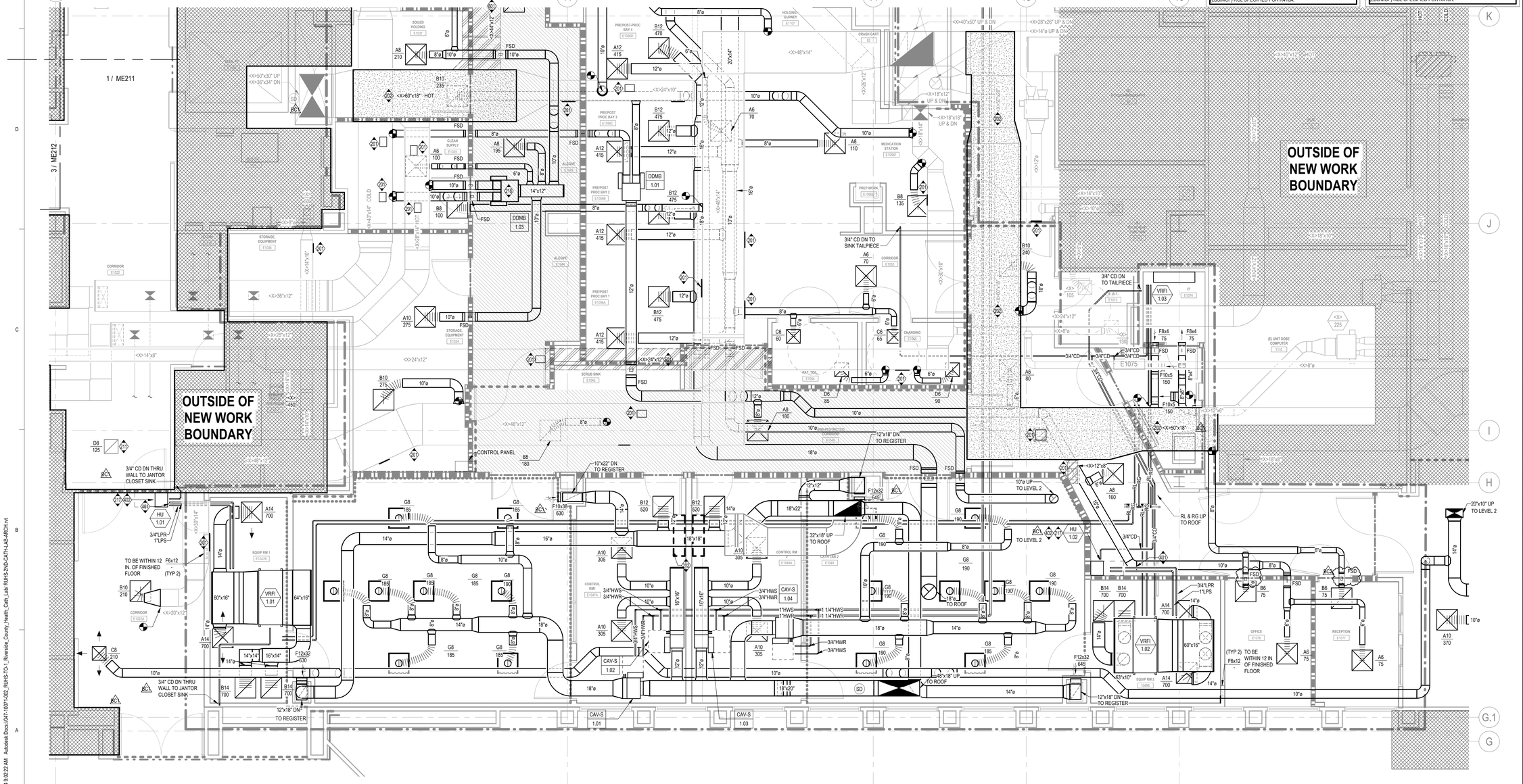
3 LEVEL 1 - MECHANICAL PLAN ENLARGED REMODEL PLAN - LOBBY E1153

1/4" = 1'-0"



2 LEVEL 1 - MECHANICAL PLAN ENLARGED REMODEL PHASE 1 - SOUTHEAST

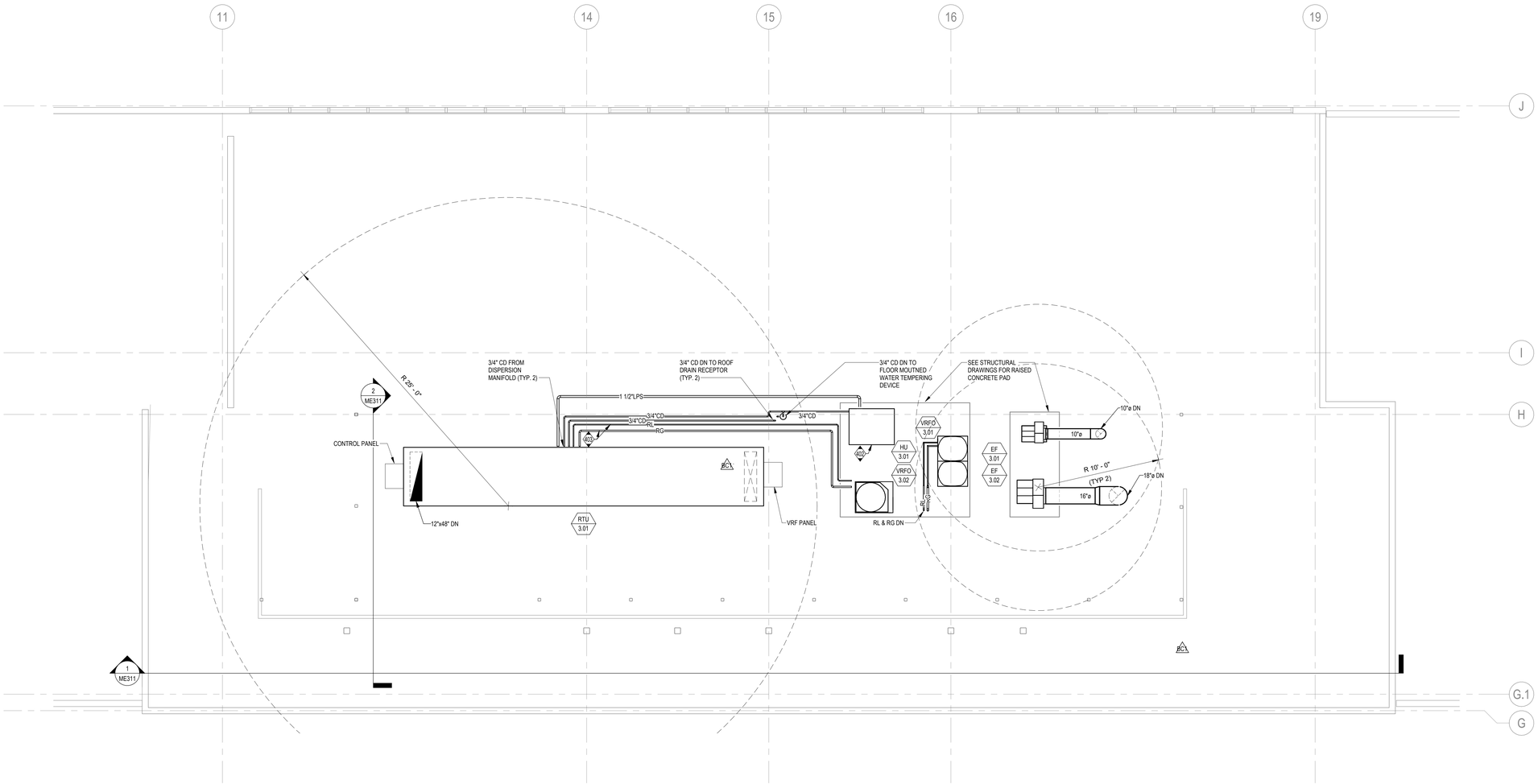
1/4" = 1'-0"


OUTSIDE OF NEW WORK BOUNDARY
OUTSIDE OF NEW WORK BOUNDARY
1 / ME211
3 / ME212
<X>60"x18" HOT
<X>50"x30" UP
<X>36"x34" DN
<X>40"x50" UP & DN
<X>28"x26" UP & DN
<X>14"ø UP & DN
<X>18"x12" UP & DN
<X>16"x18" UP & DN
3/4" CD DN TO SINK TAILPIECE
3/4" CD DN TO TAILPIECE
3/4" CD DN THRU WALL TO JANTOR CLOSET SINK
CONTROL PANEL
12"x18" DN TO REGISTER
10"x22" DN TO REGISTER
10"ø UP TO LEVEL 2
20"x10" UP TO LEVEL 2
32"x18" UP TO ROOF
48"x18" UP TO ROOF
18"ø UP TO ROOF
RL & RG UP TO ROOF
TO BE WITHIN 12 IN. OF FINISHED FLOOR (TYP 2)
(TYP 2) TO BE WITHIN 12 IN OF FINISHED FLOOR
3/4"LPR 1"LPS
HU 1.01
HU 1.02
VRF1 1.01
VRF1 1.02
VRF1 1.03
CAV-S 1.01
CAV-S 1.02
CAV-S 1.03
CAV-S 1.04
DDMB 1.01
DDMB 1.03
3/4"HWS 3/4"HWR
1"HWS 1"HWR
1 1/4"HWS 1 1/4"HWR
3/4"HWR 3/4"HWS
SOILED HOLDING E1037
PRE/POST-PROC BAY 4 E1056D
PRE/POST PROC BAY 3 E1056C
PRE/POST PROC BAY 2 E1056B
PRE/POST PROC BAY 1 E1056A
HOLDING/ CURNET E1107
CRASH CART E1
MEDICATION STATION E1040F
PREP WORK E1056E
CLEAN SUPPLY E1035
STORAGE, EQUIPMENT E1034
STORAGE, EQUIPMENT E1036
CORRIDOR E1002
CORRIDOR E1053
CORRIDOR E1025A
SCRUB SINK E1062
ALCOVE N1064
ALCOVE N1065
ALCOVE N1066
ALCOVE N1067
ALCOVE N1068
ALCOVE N1069
ALCOVE N1070
ALCOVE N1071
ALCOVE N1072
ALCOVE N1073
ALCOVE N1074
ALCOVE N1075
ALCOVE N1076
ALCOVE N1077
ALCOVE N1078
ALCOVE N1079
ALCOVE N1080
ALCOVE N1081
ALCOVE N1082
ALCOVE N1083
ALCOVE

KEY NOTES

402 REFER TO PLUMBING DRAWINGS FOR MAKE-UP WATER AND DRAIN CONNECTIONS FOR HUMIDIFIER.

403 GENERAL REFRIGERANT PIPE ROUTING. ONE PIPE SHOWN TO INDICATE ROUTING BUT THERE ARE TWO PIPES FOR EACH SYSTEM. REFER TO MANUFACTURER'S PIPING DIAGRAMS AND ISNTALLATION INSTRUCTIONS FOR PIPE SIZES AND COMPLETE PIPING REQUIREMENTS.



1 LEVEL 3 - MECHANICAL ENLARGED PLAN - ROOF

1/4" = 1'-0"

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KEY PLAN

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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

MECHANICAL ENLARGED PLAN - LEVEL 3 - ROOF

SHEET NUMBER

ME213

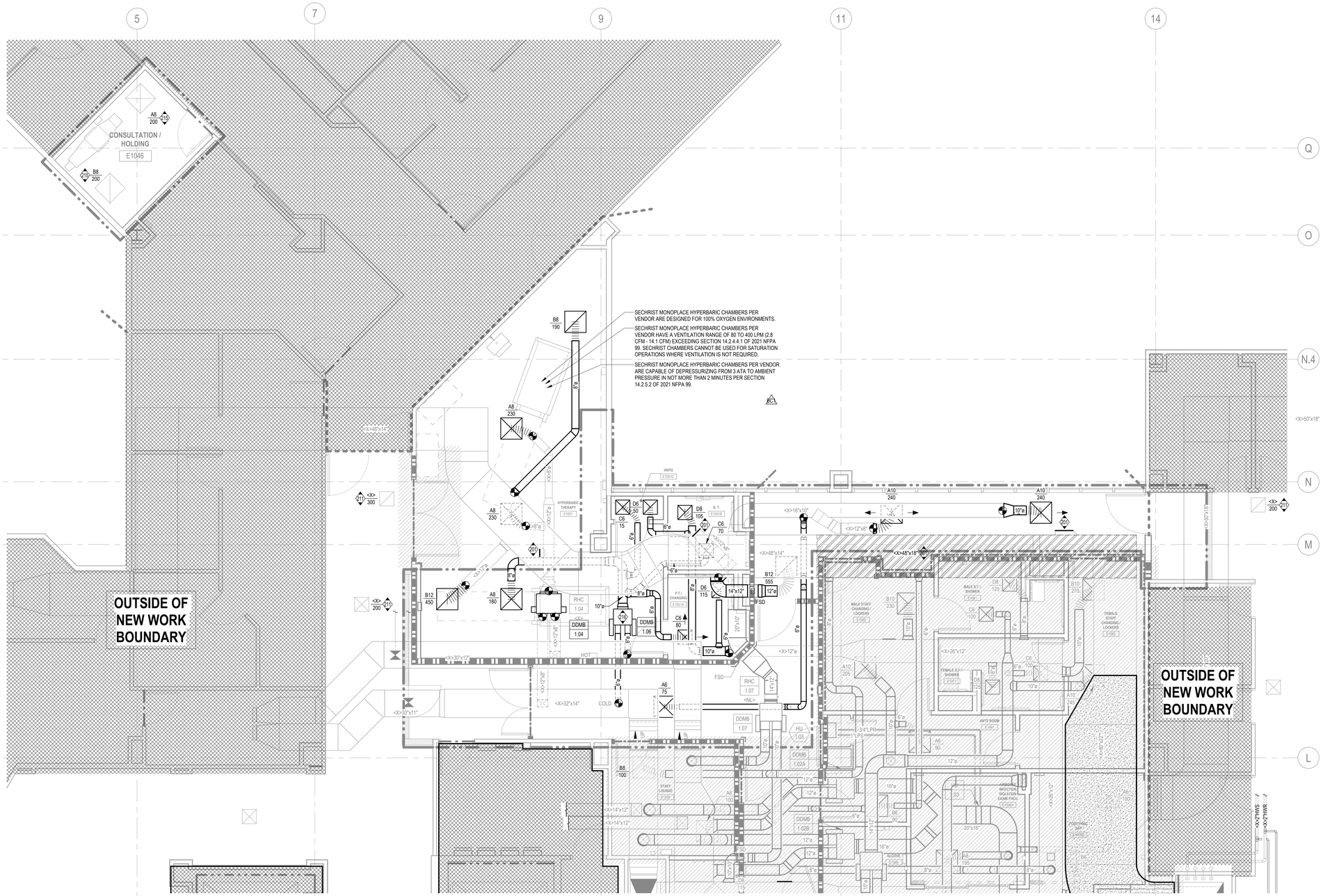
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GENERAL NOTES:

1 REBALANCE RETURN AIR FLOW EACH TIME DEMOLITION AND BYPASS DUCTS ARE TOUCHED (MULTIPLE AIR BALANCE) TO ASSURE RETURN AIR REGISTERS REMAIN THE SAME AS PRE-TEST VALUES.

KEY NOTES

201 CAP & SEAL DUCT OPENING.
211 BALANCE EXISTING REGISTERS AS REQUIRED PER WORK SEQUENCE TO MAINTAIN COMPLIANCE WITH HCAI CAN-102.6.
215 DURING PHASE 2 CONSTRUCTION, PROVIDE AIRFLOW TESTS OF SA AND RA INLETS AND OUTLETS FOR CONSULATION/HOLDING E1048, SERVED BY AHU-6. SUBMIT VALUES IN TAB REPORT REQUIRED IN PHASE 2.
216 REFER TO ELECTRICAL DRAWINGS FOR TERMINAL LOCATIONS OF 120V POWER FOR CONTROLS (TYP.)
601 REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL OF OFFSET IN RATED WALLS TO MAINTAIN EXISTING DUCT MAIN LOCATION. REGION SHOWN ON MECHANICAL FLOOR PLANS INDICATE EXTENT AND LOCATION OF DUCT REQUIRING WALL OFFSET.



1 LEVEL 1 - MECHANICAL PLAN ENLARGED REMODEL PHASE 2

1/4" = 1'-0"

Riverside University HEALTH SYSTEM

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DEAN SHELLENBERGER
No. M 22419
Exp. 12-31-25
MECHANICAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
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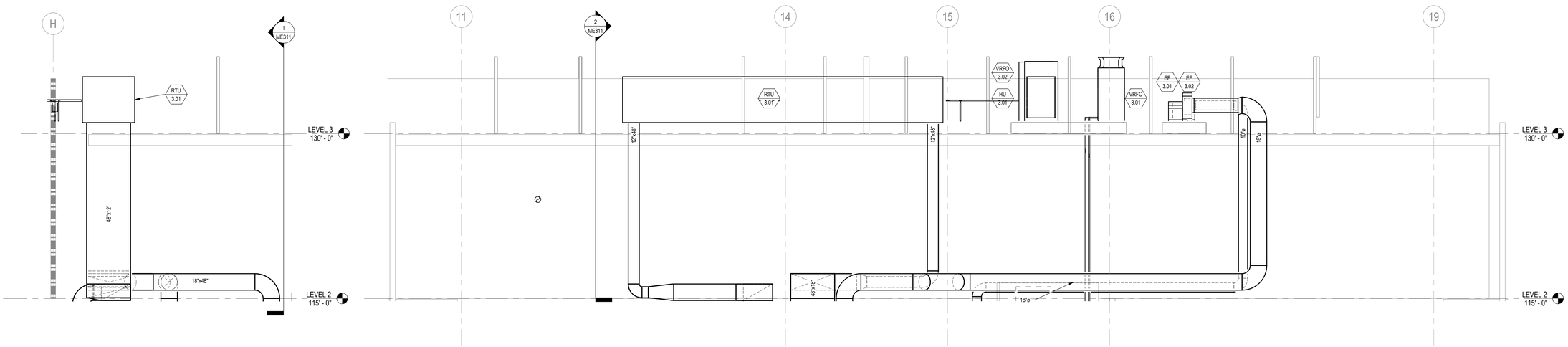
MECHANICAL ENLARGED PLAN REMODEL PHASE 2 - LEVEL 1

SHEET NUMBER

ME214

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2 SECTION VIEW - E-W

1/4" = 1'-0"

1 SECTION VIEW - N-S

1/4" = 1'-0"

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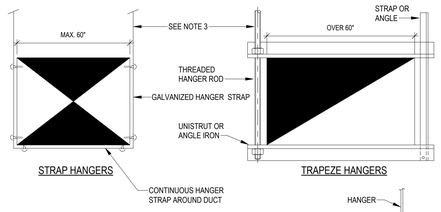
MECHANICAL ENLARGED PLAN - SECTION VIEWS

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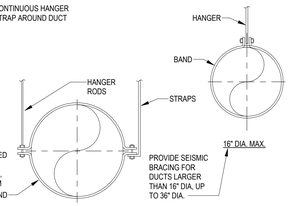
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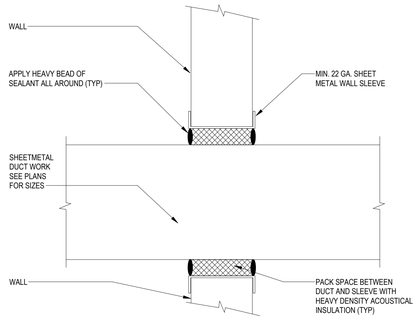
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NOTES:
1. ON DUCTS OVER 48" WIDE, BOTTOM SHALL BE BRACED BY ANGLE. FOR CROSS SECTION AREA MORE THAN 8 SQ. FT, DUCT SHALL BE BRACED BY ANGLES ON ALL FOUR SIDES.
2. CUTTING AND PATCHING SHALL BE LIMITED TO A MINIMUM AS REQUIRED FOR PROPER INSTALLATION.
3. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA.
4. REFER TO SMACNA FOR SPECIFIC RECOMMENDED HANGER TYPES NOTED ABOVE.
5. IN LIEU OF STRAP AND ROD HANGERS, STEEL CABLE DUCT HANGING SYSTEM MAY BE USED.

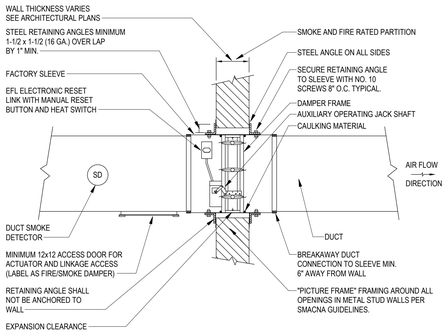


10 DUCT HANGER SUPPORT
NTS



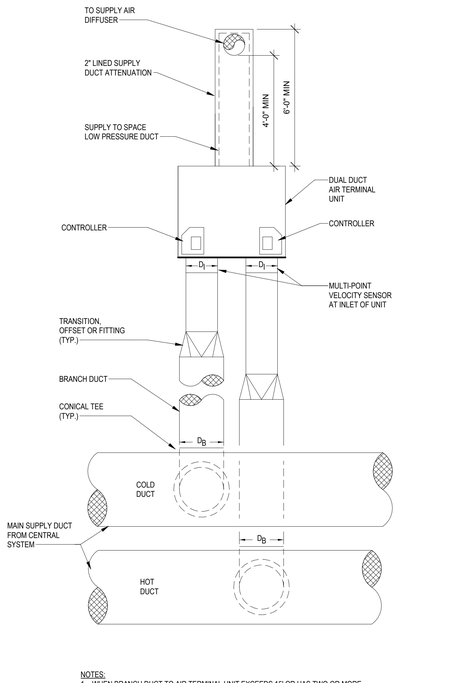
NOTES:
(1) THIS DETAIL APPLIES TO INSULATED DUCTS THRU WALL WHERE FIRE DAMPER IS NOT REQUIRED

9 DUCT PENETRATION THRU NON-RATED INTERIOR WALL
NTS



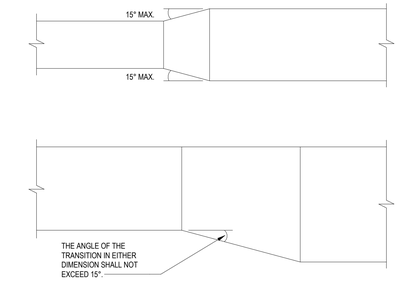
NOTES:
1. THE FIRE SMOKE DAMPER TO BE USED IS THE RUSKIN FSD60.
2. DAMPERS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION REQUIREMENTS.
3. DAMPERS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE U.L. REQUIREMENTS.
4. ALL FIRE/SMOKE DAMPERS AND THEIR RESPECTIVE DAMPER OPERATOR MECHANISMS SHALL BE U.L. LABELED AND TESTED AS AN ASSEMBLY WITH THE DAMPER OPERATOR MECHANISM FASTENED TO THE DAMPER SLEEVE MEETING THE REQUIREMENTS SET IN UL555
5. VERTICAL DAMPER SHOWN - HORIZONTAL INSTALLATION SIMILAR.
6. SMOKE DAMPER INSTALLATION SIMILAR BUT WITHOUT RESETTABLE LINK DEVICE.
7. DAMPER OPERATOR SHALL BE INTERLOCKED WITH ASSOCIATED FAN, UNLESS NOTED OTHERWISE.
8. WALL OPENING TO BE DUCT DIMENSIONS PLUS 1/8" PER FOOT.
9. GENERAL CONTRACTOR TO COORDINATE CEILING ACCESS DOORS AS REQUIRED TO ACCESS AND MAINTAIN DAMPER.
10. DUCT SMOKE DETECTOR SHALL BE FURNISHED FOR EACH FIRE SMOKE DAMPER. SMOKE DETECTOR SHALL BE INSTALLED WITHIN 5 FEET OF THE FIRE SMOKE DAMPER.
11. USE ONLY STATE OF CALIFORNIA FIRE MARSHALL LISTED FIRE DAMPERS & INSTALL IN ACCORDANCE WITH STATE FIRE MARSHALL LISTING NO. 3225-245: 005 & U.L. STANDARD 555.

8 COMBINATION FIRE SMOKE DAMPER
NTS

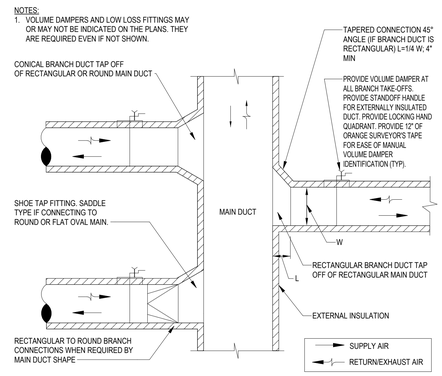


NOTES:
1. WHEN BRANCH DUCT TO AIR TERMINAL UNIT EXCEEDS 15' OR HAS TWO OR MORE ELBOWS, THEN DB = DI + 2", OTHERWISE DB = DI
2. DI = THE INLET SIZE CONNECTION OF THE AIR TERMINAL UNIT - TYPICALLY ROUND OR OVAL.
3. PROVIDE A MINIMUM OF 4 DUCT DIAMETERS (DI) OF STRAIGHT DUCT AT INLET.
4. IF INDICATED STRAIGHT RUN CANNOT BE OBTAINED, A FLOW STRAIGHTENER SHALL BE PROVIDED AT BOX.
5. PROVIDE SOUND INSULATED DISCHARGE.

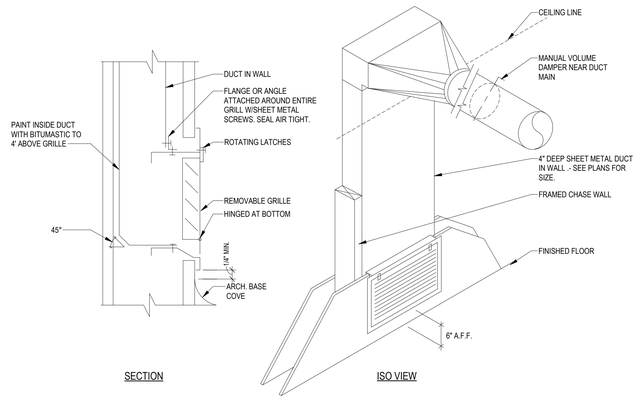
7 DUAL DUCT MIXING BOX CONNECTION
NTS



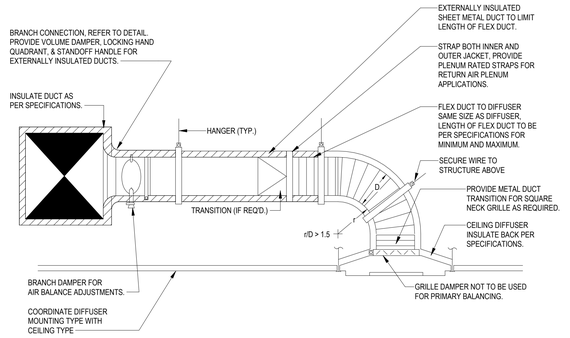
5 DUCT TRANSITION
NTS



4 BRANCH DUCT
NTS



3 LOW RETURN GRILLE
NTS

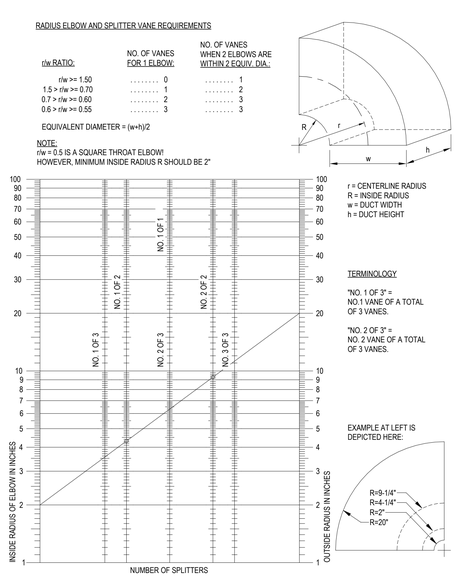


NOTES:
1. THIS DETAIL ALSO APPLIES TO RETURN AND EXHAUST. REFER TO SPECIFICATIONS FOR EXHAUST DUCT INSULATION REQUIREMENTS.
2. PROVIDE FLEX DUCT WITH AT LEAST ONE 90° RADIUS ELBOW.
3. SEE "CEILING DIFFUSER DETAIL - RIGID DUCT" DETAIL FOR LOCATIONS PROHIBITED FROM USING FLEX DUCT SUCH AS CRITICAL CARE SPACES IN HEALTHCARE FACILITIES.
4. IF r/D > 1.5 CAN NOT FIT, THEN r/D > 1.0 IS FIRST ALTERNATE AND ALTERNATE 2 IS MITERED WITH TURNING VANES.
5. FOR BRANCHES OFF ROUND OR FLAT OVAL DUCTS, USE SADDLE TYPE CONNECTION.
6. PROVIDE CEILING GRID CLIPS AT TWO DIAGONALLY OPPOSITE CORNERS OF GRILLE.

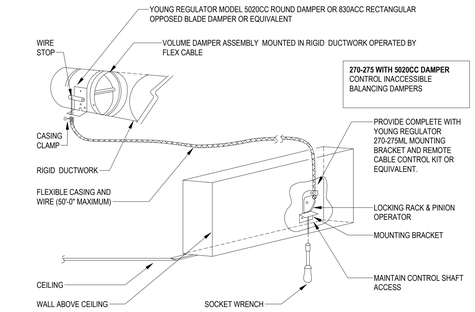
2 CEILING INLET/OUTLET- FLEXIBLE DUCT POLY TYPE LINING
NTS

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8 COMBINATION FIRE SMOKE DAMPER
NTS



6 NUMBER AND SPACING OF DUCT SPLITTER VANES
NTS



NOTES:
1. DAMPER SHALL BE LOCATED IN THE DIFFUSER RUNOUT AT THE BRANCH TAKEOFF.

1 DIFFUSER / GRILLE WITH REMOTELY OPERATED BALANCING DAMPER
NTS

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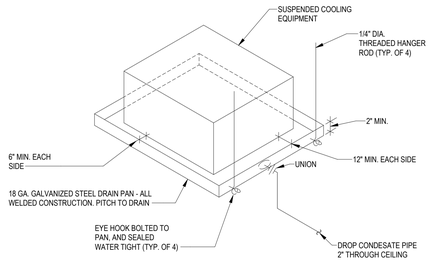
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
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SHEET NAME
MECHANICAL DETAILS

SHEET NUMBER
ME501

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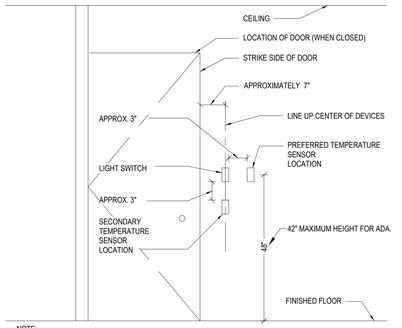
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NOTES:
1. PROVIDE AUXILIARY DRAIN PAN FOR EACH SUSPENDED UNIT WITH A COOLING COIL
2. DRAIN PANS WITH FLOAT SWITCHES IN LIEU OF CONDENSATE PIPE SHALL BE HARD WIRED TO SHUT-OFF UNIT UPON HIGH LIMIT POSITION
3. COORDINATE EQUIPMENT ACCESS WITH AUXILIARY DRAIN PAN SUPPORT AND CONDENSATE PIPE TO MINIMIZE REMOVAL OF PAN TO MAINTAIN EQUIPMENT. HOWEVER, AUXILIARY DRAIN PAN SHALL STILL BE REMOVABLE.

8 AUXILIARY DRAIN PAN

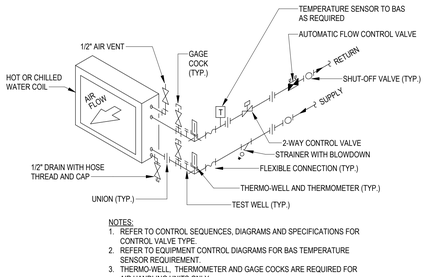
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NOTE:
1. IF CONDITIONS REQUIRE DIFFERENT MOUNTING THEN SHOWN, VERIFY WITH ENGINEER PRIOR TO INSTALATION.
2. COORDINATE WITH COUNTER TOPS AND BACKSPLASH.
3. MIRROR DETAIL FOR OPPOSITE DOOR LOCATIONS.
4. THERMOSTAT AND LIGHT SWITCH WILL NOT BE PLACED ON SEPARATE WALLS.
5. COORDINATE ALL DEVICE LOCATIONS WITH ARCHITECT.

7 WALL DEVICE LOCATION

NTS

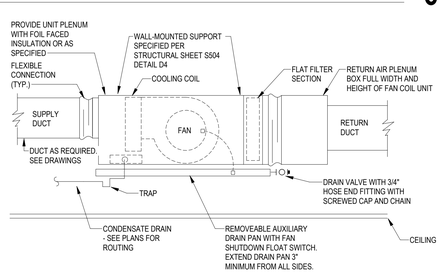


NOTES:
1. REFER TO CONTROL SEQUENCES, DIAGRAMS AND SPECIFICATIONS FOR CONTROL VALVE TYPE.
2. REFER TO EQUIPMENT CONTROL DIAGRAMS FOR BAS TEMPERATURE SENSOR REQUIREMENT.
3. THERMO-WELL, THERMOMETER AND GAGE COCKS ARE REQUIRED FOR AIR HANDLING UNITS ONLY.
4. COIL CONNECTIONS SHALL BE ARRANGED TO ACCOMMODATE COIL PULL AND ISOLATE COIL PIPING FROM SYSTEM. WATER FLOW IS COUNTER TO AIRFLOW.
5. PROVIDE DRAIN AND VENT VALVES AT COILS.
6. APPLICABLE FOR HOT WATER.

BC1

10 RTU-3.01 - TWO-WAY VALVE WATER COIL

NTS



NOTES:
1. PROVIDE CONDENSATE PAN OVERFLOW PROTECTION TO SHUT OFF FAN UPON HIGH WATER LEVEL PER AHJ. AUXILIARY DRAIN PAN WITH FLOAT SWITCH OR OVERFLOW DRAIN FLOAT SWITCH.
2. MERV-8 FILTER PROVIDED AT FILTER BACK GRILLE WHERE INDICATED.

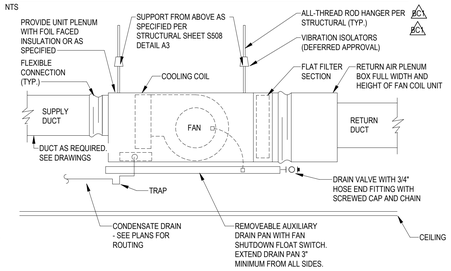
9 VRF INDOOR UNIT - VRFI 1.03 & 1.04

12" = 1'-0"

BC1

6 CONDENSATE DRAIN CONNECTION DETAIL

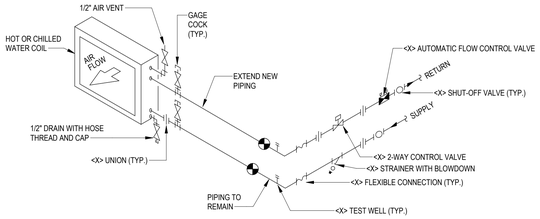
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5 VRF INDOOR UNIT - VRFI 1.01 & 1.02 BC1

NTS

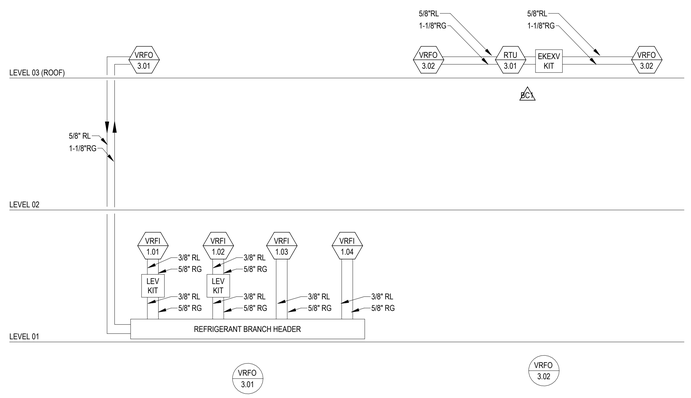


NOTES:
1. RELOCATE <X> COIL TO NEW DUCT LOCATION SHOWN
2. NEW 3/4" DIAMETER HHW PIPING TO RELOCATED COIL

BC1

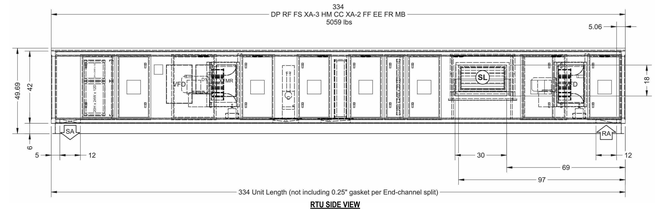
4 RELOCATED REHEAT COIL

NTS

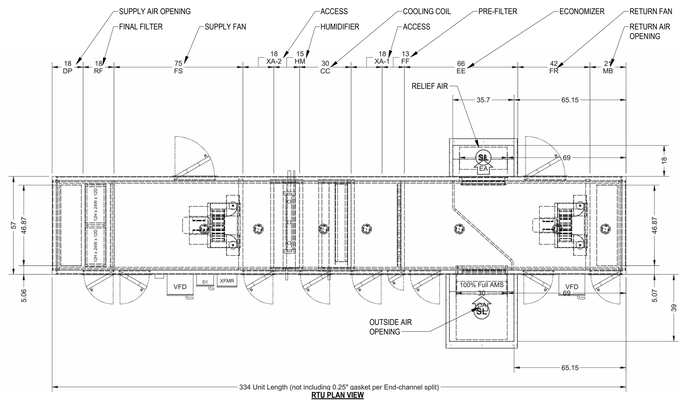


3 RL&RG RISER DIAGRAM

NTS



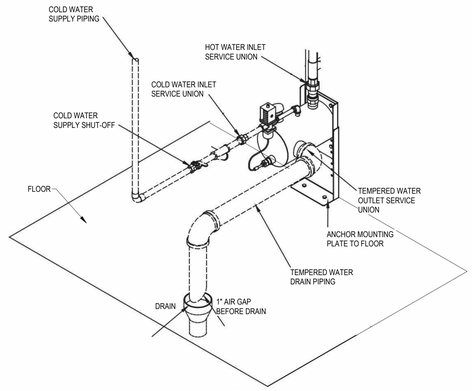
RTU SIDE VIEW



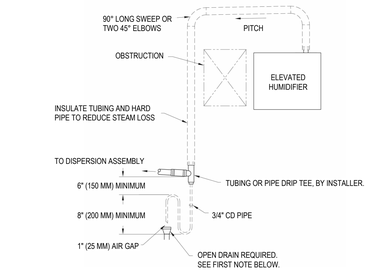
RTU PLAN VIEW

2 RTU EQUIPMENT DETAIL

NTS

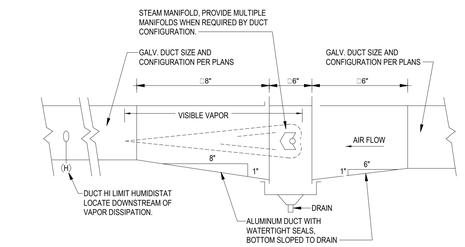


ELEVATED HUMIDIFIER WITH DRAIN COOLER



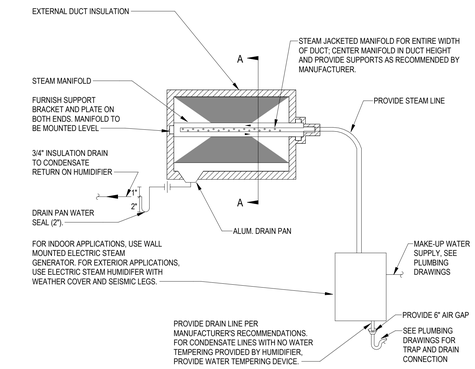
NOTES:
1. LOCATE AIR GAP ONLY IN SPACES WITH ADEQUATE TEMPERATURE AND AIR MOVEMENT TO ABSORB FLASH STEAM; OTHERWISE, CONDENSATION MAY FORM ON NEARBY SURFACES. REFER TO GOVERNING CODES FOR DRAIN PIPE SIZE AND MAXIMUM DISCHARGE WATER TEMPERATURE.
2. SUPPORT STEAM HOSE SO THERE ARE NO SAGS OR LOW SPOTS.
3. DASHED LINES INDICATE PROVIDED BY INSTALLER.

ELEVATED HUMIDIFIER



SECTION A-A

NOTES:
1. PROVIDE ACCESS TO STEAM GENERATOR PER MANUFACTURER'S RECOMMENDATIONS.
2. SLOPE STEAM SUPPLY AND CONDENSATE PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE STEAM SUPPLY AND CONDENSATE PIPE, SIZED PER MANUFACTURER'S RECOMMENDATIONS BASED ON EQUIVALENT LENGTH.
3. PROVIDE STEAM SUPPLY TRAPS FOR LONGER RUNS PER MANUFACTURER'S INSTRUCTIONS.
4. PROVIDE ACCESS PANELS WHEN LOCATED ABOVE HARD CEILINGS.
5. CONDENSATE RETURN LINE MAY BE RUN TO FILL CUP ON TOP OF HUMIDIFIER IN ACCORD WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6. PROVIDE SHUTOFF VALVE, FILTER, AND UNION FITTING ON MAKE-UP WATER SUPPLY.



1 ELECTRIC DUCT HUMIDIFIER

NTS

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

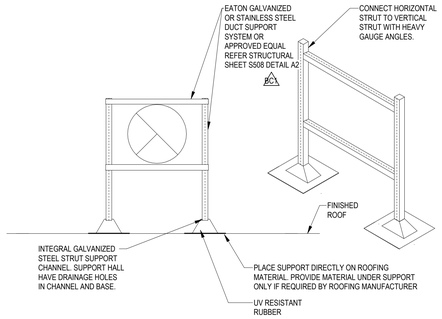
MECHANICAL DETAILS

SHEET NUMBER

ME502

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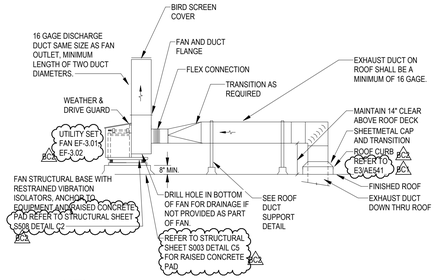


NOTES:

1. TO SECURE DUCT TO STRUCTURE, PROVIDE SECONDARY TIE DOWN BALLARDS OR SIMILAR SIZED PER CONTRACTOR OR MANUFACTURER ENGINEER'S CALCULATIONS BASED UPON EXACT WEIGHT, SIZE, LOCATION AND PROJECT SPECIFIC WIND AND SEISMIC LOAD CRITERIA.
2. FOR NON-INSULATED DUCTS, SLOPE DUCT 1/4" PER FOOT OF DUCT WIDTH TO ALLOW WATER DRAINAGE.
3. PROVIDE SEISMIC BRACING FOR DUCTS LARGER THAN 16"Ø.
4. EATON B-LINE DURA-BLOCK OR APPROVED EQUAL.

6 DUCT SUPPORT

NTS

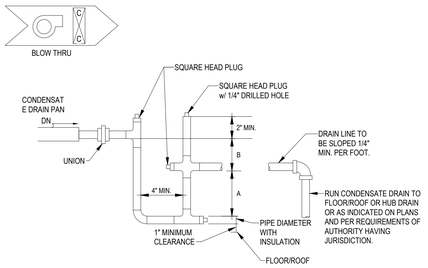


NOTES:

1. SLOPE TOP OF DUCTWORK TO PREVENT COLLECTING WATER.
2. DISCHARGE DUCT SAME SIZE AS FAN OUTLET, CONSTRUCT DUCT TO ALLOW SUPPORT FROM FAN FLANGE #16 GAGE MINIMUM. CONNECT FLANGES WITH A MINIMUM OF 2) 3/8" BOLTS PER SIDE.

5 UTILITY SET FAN - GENERAL EXHAUST

NTS



NOTES:

1. FILL TRAP MANUALLY ON INITIAL START-UP.
2. TRAP EACH COMPONENT DRAIN CONNECTION.
3. PIPE SIZE SHALL NOT BE LESS THAN DRAIN PAN CONNECTION SIZE. REFER TO PLANS FOR PIPE SIZES.
4. B = 1" A = T.S.P. + 1/2"
5. ADJUST THICKNESS OF HOUSEKEEPING PAD OR UNIT SUPPORTS REQUIRED TO PERMIT TRAP DEPTH.
6. OFFSET TRAP (AS INDICATED) TO ALLOW ACCESS TO DOWNSTREAM CLEANOUT.
7. TOTAL STATIC PRESSURE (T.S.P.) EQUALS THE UNIT FAN TOTAL DISCHARGE PRESSURE UNLESS NOTED OTHERWISE.

EXAMPLE CALCULATION

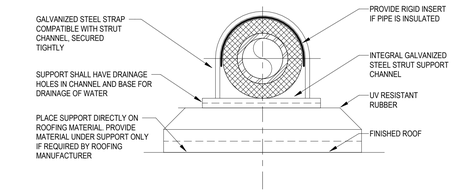
SUPPLY FAN TOTAL SP (IN)	EXTERNAL STATIC PRESSURE (IN)	NEGATIVE STATIC PRESSURE (IN)	B (IN)	A (IN)	MIN. COMBINED CURB/PAD/RAILLEG HEIGHT REQUIRED (IN)
4	2	2	1	4.5	9.5
6	3	3	1	6.5	11.5

NOTES:

1. DIMENSIONS MAY BE GREATER THAN MINIMUMS INDICATED DUE TO DIMENSIONS OF FITTINGS, SIZE OF CONDENSATE PIPE, AND INSULATION THICKNESS.
2. CHART USES 2" PIPE OUTSIDE DIAMETER AND 1" INSULATION THICKNESS.
3. COMBINED HEIGHT INCLUDES THE 1" CLEARANCE.

2 CONDENSATE TRAP - BLOW THRU UNIT

NTS

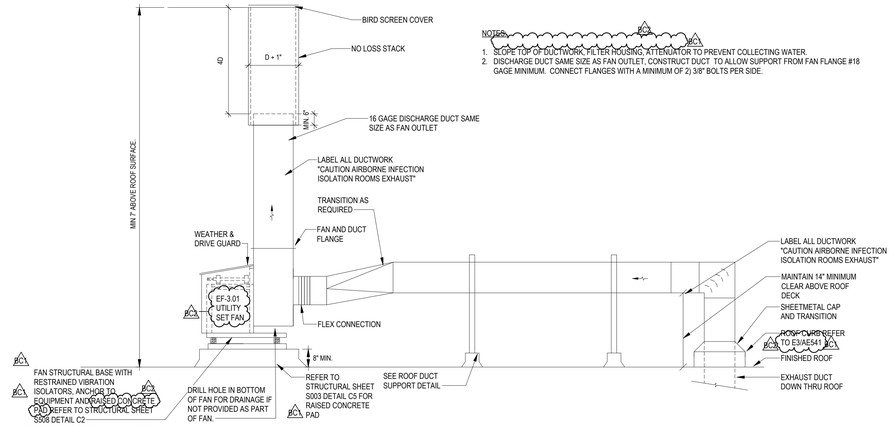


NOTES:

1. SELECT SUPPORT RATED FOR WEIGHT OF PIPE AND FLUID.
2. SPACE SUPPORTS PER SPECIFICATIONS.
3. B-LINE DURA-LOK OR APPROVED EQUAL

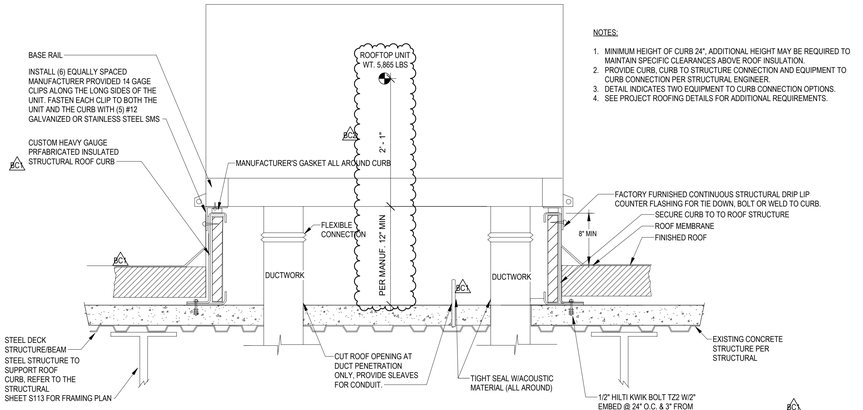
8 ROOF PIPE SUPPORT

NTS



4 ISOLATION ROOM EXHAUST FAN

NTS

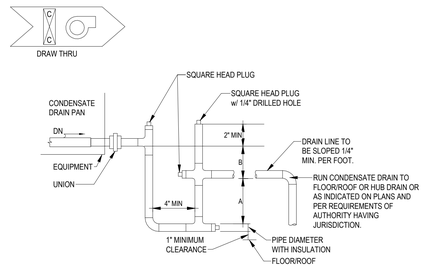


NOTES:

1. MINIMUM HEIGHT OF CURB 24", ADDITIONAL HEIGHT MAY BE REQUIRED TO MAINTAIN SPECIFIC CLEARANCES ABOVE ROOF INSULATION.
2. PROVIDE CURB, CURB TO STRUCTURE CONNECTION AND EQUIPMENT TO CURB CONNECTION PER STRUCTURAL ENGINEER.
3. DETAIL INDICATES TWO EQUIPMENT TO CURB CONNECTION OPTIONS.
4. SEE PROJECT ROOFING DETAILS FOR ADDITIONAL REQUIREMENTS.

3 ROOFTOP UNIT MOUNTING - TIE DOWN CURB

NTS



NOTES:

1. FILL TRAP MANUALLY ON INITIAL START-UP.
2. TRAP EACH COMPONENT DRAIN CONNECTION.
3. PIPE SIZE SHALL NOT BE LESS THAN DRAIN PAN CONNECTION SIZE. REFER TO PLANS FOR PIPE SIZES.
4. N.S.P. (NEGATIVE STATIC PRESSURE) EQUALS STATIC PRESSURE AT INLET OF FAN. B = N.S.P. + 1" A = 1/2 x B
5. ADJUST THICKNESS OF HOUSEKEEPING PAD OR UNIT SUPPORTS REQUIRED TO PERMIT TRAP DEPTH.
6. OFFSET TRAP TO ALLOW ACCESS TO DOWNSTREAM CLEANOUT.

EXAMPLE CALCULATION

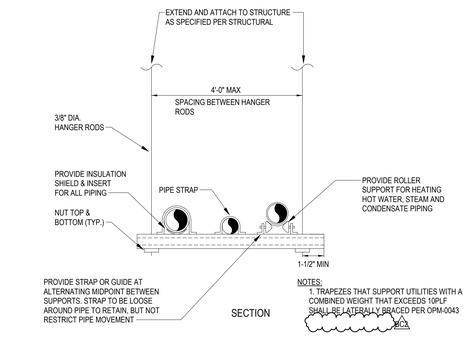
SUPPLY FAN TOTAL SP (IN)	EXTERNAL STATIC PRESSURE (IN)	NEGATIVE STATIC PRESSURE (IN)	B (IN)	A (IN)	COMBINED CURB/PAD/RAILLEG HEIGHT REQUIRED (IN)
6	2	4	5	2.5	11.5
6	3	3	4	2	10
4	2	2	3	1.5	8.5

NOTES:

1. DIMENSIONS MAY BE GREATER THAN MINIMUMS INDICATED DUE TO DIMENSIONS OF FITTINGS, SIZE OF CONDENSATE PIPE, AND INSULATION THICKNESS.
2. CHART USES 2" PIPE OUTSIDE DIAMETER AND 1" INSULATION THICKNESS.
3. CHART INCLUDES 1" CLEARANCE FOR COMBINED HEIGHT REQUIRED COLUMN.

1 CONDENSATE TRAP - DRAW THRU UNIT

NTS



NOTES:

1. TRAPEZES THAT SUPPORT UTILITIES WITH A COMBINED WEIGHT THAT EXCEEDS 10PLF SHALL BE LATERALLY BRACED PER OPM-0043
BC1

7 TRAPEZE PIPE SUPPORT

NTS

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

MECHANICAL DETAILS

SHEET NUMBER

ME503

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ROOM AIR BALANCE SCHEDULE - PHASE 1

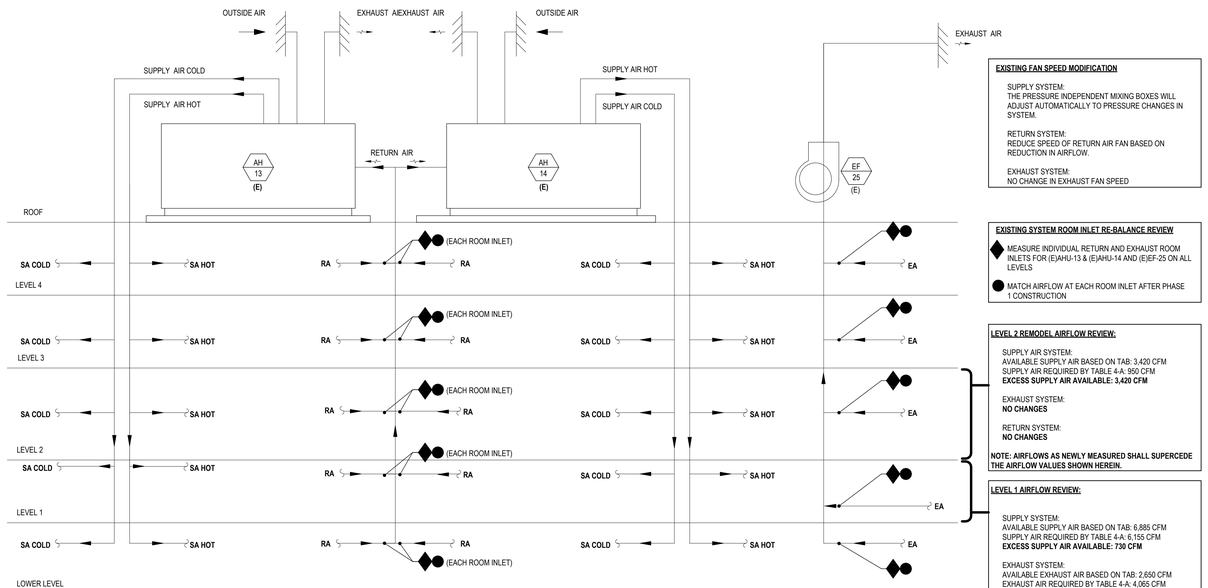
LEVEL	CAV / VAV	ROOM NAME	HCAI CLASSIFICATION	AIR BALANCE RELATIONSHIP	AREA (FT^2)	CEILING HEIGHT (FT)	VOLUME (FT^3)	CODE REQUIREMENT FROM 2022 CMC TABLE 4-A							DESIGN AIR FLOW / CAV					
								OUTDOOR ACH MIN		TOTAL AIRFLOW		DESIGN RELATIVE HUMIDITY	DESIGN TEMPERATURE	100% EXH	OSA (CFM)	SUPPLY (CFM)	RETURN (CFM)	EXHAUST (CFM)	CFM (- INTO SPACE, +OUT OF SPACE)	ACTUAL AIR CHANGE/HOUR
								ACH	AIRFLOW (CFM)	ACH	AIRFLOW (CFM)									
LEVEL 1	CAV	HYPERBARIC THERAPY E1051	Recovery Room	NR	450	9.0	4050	2	135	6	405	20-60	70-75/ 21-24	N/A	162	405	405	0	+ 0	6
LEVEL 1	CAV	CORRIDOR E1059A	Patient Area Corridor	NR	242	9.0	2178	0	0	2	73	NR	NR	N/A	192	480	480	0	+ 0	13
BC1 LEVEL 1	CAV	CORRIDOR E1059B	Patient Area Corridor	NR	258	9.0	2322	0	0	2	77	NR	NR	N/A	30	75	75	0	+ 0	2
LEVEL 1	CAV	MALE STAFF CHANGING/LOCKERS E1060	Toilet Room	N	140	9.0	1260	0	0	10	210	NR	NR	YES	82	205	0	230	- 25	11
LEVEL 1	CAV	MALE STAFF TOILET/SHOWER E1061	Toilet Room	N	76	9.0	684	0	0	10	114	NR	NR	YES	40	100	0	125	- 25	11
LEVEL 1	CAV	FEMALE STAFF TOILET/SHOWER E1071	Toilet Room	N	77	9.0	693	0	0	10	116	NR	NR	YES	40	100	0	125	- 25	11
LEVEL 1	CAV	FEMALE STAFF CHANGING/LOCKERS E1062	Toilet Room	N	162	9.0	1458	0	0	10	243	NR	NR	YES	96	240	0	265	- 25	11
LEVEL 1	CAV	ANTE ROOM E1041	Semi-Restricted Corridor	NR	115	9.0	1035	2	35	4	69	NR	NR	N/A	34	85	85	0	+ 0	5
LEVEL 1	CAV	STAFF LOUNGE E1039	Administrative	NR	125	9.0	1125	2	38	4	75	NR	NR	N/A	38	95	95	0	+ 0	5
LEVEL 1	CAV	ISO E1056H	Airborne Infection Isolation treament/exam room	N	111	9.0	999	2	33	12	200	NR	NR	YES	76	190	0	350	- 160	21
LEVEL 1	CAV	POST-PROCEDURE BAY 1056G	Post Anesthesia Care Unit	NR	115	9.0	1035	2	35	6	104	20-60	70-75/ 21-24	YES	38	95	0	120	- 25	7
LEVEL 1	CAV	HKSG E1038	Janitors' Closet, Housekeeping	N	62	9.0	558	0	0	10	93	NR	NR	YES	30	75	0	100	- 25	11
LEVEL 1	CAV	PRE-PROC 1-4 E1056A (NOTE 1)	Pre-Screening Area	N	973	9.0	8757	2	292	12	1751	NR	NR	YES	704	1,760	0	1,940	- 180	13
LEVEL 1	CAV	STAFF TOILET E1057	Toilet Room	N	43	9.0	387	0	0	10	65	NR	NR	YES	18	45	0	70	- 25	11
LEVEL 1	CAV	SOILED UTILITY E1037	Soiled Workroom (Utility Room)	N	129	9.0	1161	2	39	10	194	NR	NR	YES	76	190	0	215	- 25	11
LEVEL 1	CAV	CLEAN UTILITY E1035	Clean Workroom	P	128	9.0	1152	2	38	4	77	NR	NR	N/A	38	95	95	0	+ 0	5
LEVEL 1	CAV	CORRIDOR E1040	Patient Area Corridor	NR	473	9.0	4257	0	0	2	142	NR	NR	N/A	86	215	215	0	+ 0	3
LEVEL 1	CAV	STORAGE, EQUIPMENT E1034	Administrative	NR	347	9.0	3123	2	104	4	208	NR	NR	N/A	104	260	260	0	+ 0	5
LEVEL 1	CAV	CORRIDOR E1046	Patient Area Corridor	NR	403	9.0	3627	0	0	2	121	NR	NR	N/A	72	180	180	0	+ 0	3
LEVEL 1	CAV	PATIENT TOILET E1054	Toilet Room	N	50	9.0	450	0	0	10	75	NR	NR	YES	24	60	0	85	- 25	11
LEVEL 1	CAV	CHANGING E1055	Soiled Linen Sorting and Storage	N	58	9.0	522	0	0	10	87	NR	NR	YES	28	70	0	95	- 25	11
LEVEL 1	CAV	CORRIDOR E1072	Patient Area Corridor	NR	515	9.0	4635	0	0	2	155	NR	NR	N/A	92	230	230	0	+ 0	3
LEVEL 1	CAV	OFFICE E1076	Administrative	NR	100	9.0	900	2	30	4	60	NR	NR	N/A	30	75	75	0	+ 0	5
LEVEL 1	CAV	RECEPTION E1077	Administrative	NR	99	9.0	891	2	30	4	59	NR	NR	N/A	30	75	75	0	+ 0	5
LEVEL 1	CAV	CATH LABS 1 E1047	Cardiac Cath Lab	P	562	10.0	5620	3	281	15	1405	MAX 60	70-75/ 21-24	N/A	375	1,500	1,275	0	+ 225	16
LEVEL 1	CAV	CATH LABS 2 E1049	Cardiac Cath Lab	P	562	10.0	5620	3	281	15	1405	MAX 60	70-75/ 21-24	N/A	375	1,500	1,275	0	+ 225	16
LEVEL 1	CAV	CONTROL RM 1 E1047A	Cardiac Cath Lab	P	225	10.0	2250	3	113	15	563	MAX 60	70-75/ 21-24	N/A	150	600	510	0	+ 90	16
LEVEL 1	CAV	CONTROL RM 2 E1049A	Cardiac Cath Lab	P	229	10.0	2290	3	115	15	573	MAX 60	70-75/ 21-24	N/A	155	610	520	0	+ 90	16
LEVEL 1	CAV	EQUIP RM 1 E1047B	N/A	NR	147	9.0	1323	0	0	0	0	NR	NR	N/A	0	1,400	1,400	0	+ 0	63
LEVEL 1	CAV	EQUIP RM 2 E1049B	N/A	NR	150	9.0	1350	0	0	0	0	NR	NR	N/A	0	1,400	1,400	0	+ 0	62
LEVEL 1	CAV	IT CLOSET E1074	N/A	NR	40	9.0	360	0	0	0	0	NR	NR	N/A	0	900	900	0	+ 0	150
LEVEL 1	CAV	ELEC CLOSET E1075	N/A	NR	82	9.0	738	0	0	0	0	NR	NR	N/A	0	900	900	0	+ 0	73
LEVEL 1	CAV	(E) CORRIDOR E1165 (NOTE 2)	Patient Area Corridor	NR	634	9.0	5706	0	0	2	190	NR	NR	N/A	0	200	200	0	+ 0	2
LEVEL 1	CAV	(E) LOBBY E1153 (NOTE 2)	Administrative	NR	2192	9.0	19728	2	658	4	1315	NR	NR	N/A	985	1,970	1,945	0	+ 25	6
LEVEL 1	CAV	CORRIDOR E1022A	Administrative	NR	349	9.0	3141	2	105	4	209	NR	NR	N/A	155	210	210	0	+ 0	4
LEVEL 1	CAV	WAITING E1078	Administrative	NR	1188	9.0	10692	2	356	4	713	NR	NR	N/A	535	740	740	0	+ 0	4

NOTES:

1 ROOM PRE-PROC 1-4 E1056A SHALL ALSO SERVE AS A POST ANESTHESIA CARE UNIT. MINIMUM RELATIVE HUMIDITY SHALL BE PROVIDED TO MEET THE RELATIVE HUMIDITY REQUIREMENTS OF CMC TABLE 4-A.
2 EXISTING ROOMS ARE SHOWN ONLY TO VERIFY PRESSURIZATION AND AIR CHANGES REQUIRED BY TABLE 4-A ARE MAINTAINED. SCOPE OF WORK SHALL CONSIST SOLELY OF AIR BALANCING.

ROOM AIR BALANCE SCHEDULE - PHASE 2

LEVEL	CAV / VAV	ROOM NAME	HCAI CLASSIFICATION	AIR BALANCE RELATIONSHIP	AREA (FT^2)	CEILING HEIGHT (FT)	VOLUME (FT^3)	CODE REQUIREMENT FROM 2022 CMC TABLE 4-A							DESIGN AIR FLOW / CAV					
								OUTDOOR ACH MIN		TOTAL AIRFLOW		DESIGN RELATIVE HUMIDITY	DESIGN TEMPERATURE	100% EXH	OSA (CFM)	SUPPLY (CFM)	RETURN (CFM)	EXHAUST (CFM)	CFM (- INTO SPACE, +OUT OF SPACE)	ACTUAL AIR CHANGE/HOUR
								ACH	AIRFLOW (CFM)	ACH	AIRFLOW (CFM)									
LEVEL 1	CAV	CONSULTATION / HOLDING E1048	Patient Holding Preparation	NR	108	9.0	972	2	32	6	97	NR	NR	N/A	60	200	200	0	+ 0	12
LEVEL 1	CAV	HYPERBARIC THERAPY E1051	Recovery Room	NR	629	9.0	5661	2	189	6	566	20-60	70-75/ 21-24	N/A	189	630	630	0	+ 0	7
BC1 LEVEL 1	CAV	HSKG E1051C	Janitors' Closet, Housekeeping	N	11	9.0	99	0	0	10	17	NR	NR	YES	5	15	0	50	- 35	30
LEVEL 1	CAV	STAFF TOILET E1051B	Toilet Room	N	48	9.0	432	0	0	10	72	NR	NR	YES	21	70	0	105	- 35	15
LEVEL 1	CAV	PATIENT TOILET/CHANGING E1051A	Toilet Room	N	55	9.0	495	0	0	10	83	NR	NR	YES	24	80	0	115	- 35	14
LEVEL 1	CAV	CORRIDOR E1059A	Patient Area Corridor	NR	242	9.0	2178	0	0	2	73	NR	NR	N/A	167	555	555	0	+ 0	15
LEVEL 1	CAV	CORRIDOR E1059B	Patient Area Corridor	NR	258	9.0	2322	0	0	2	77	NR	NR	N/A	167	555	555	0	+ 0	14



EXISTING FAN SPEED MODIFICATION

SUPPLY SYSTEM:
THE PRESSURE INDEPENDENT MIXING BOXES WILL ADJUST AUTOMATICALLY TO PRESSURE CHANGES IN SYSTEM.

RETURN SYSTEM:
REDUCE SPEED OF RETURN AIR FAN BASED ON REDUCTION IN AIRFLOW.

EXHAUST SYSTEM:
NO CHANGE IN EXHAUST FAN SPEED

TEMPORARY BYPASS DUCT DURING CONSTRUCTION:

REMODEL FOR BOTH PHASES UTILIZE TEMPORARY BYPASS DUCTS TO ALLOW SURROUNDING AREA ON ALL FLOORS AIRFLOW TO BE MAINTAINED AS-IS WHILE CONSTRUCTION IS ON-GOING..

WE HAVE DIVIDED THE REMODEL TO UTILIZE SETS OF HOT/COLD BYPASS DUCTS TO MEET CAN-102.6.

EXISTING SYSTEM ROOM INLET RE-BALANCE REVIEW

- MEASURE INDIVIDUAL RETURN AND EXHAUST ROOM INLETS FOR (E)AHU-13 & (E)AHU-14 AND (E)EF-25 ON ALL LEVELS
- MATCH AIRFLOW AT EACH ROOM INLET AFTER PHASE 1 CONSTRUCTION

LEVEL 2 REMODEL AIRFLOW REVIEW:

SUPPLY AIR SYSTEM:
AVAILABLE SUPPLY AIR BASED ON TAB: 3,420 CFM
SUPPLY AIR REQUIRED BY TABLE 4-A: 950 CFM
EXCESS SUPPLY AIR AVAILABLE: 3,420 CFM

EXHAUST SYSTEM:
NO CHANGES

RETURN SYSTEM:
NO CHANGES

NOTE: AIRFLOWS AS NEWLY MEASURED SHALL SUPERCEDE THE AIRFLOW VALUES SHOWN HEREIN.

LEVEL 1 AIRFLOW REVIEW:

SUPPLY SYSTEM:
AVAILABLE SUPPLY AIR BASED ON TAB: 6,885 CFM
SUPPLY AIR REQUIRED BY TABLE 4-A: 6,155 CFM
EXCESS SUPPLY AIR AVAILABLE: 730 CFM

EXHAUST SYSTEM:
AVAILABLE EXHAUST AIR BASED ON TAB: 2,650 CFM
EXHAUST AIR REQUIRED BY TABLE 4-A: 4,065 CFM
ADDITIONAL EXHAUST REQUIRED: 1,415 CFM

RETURN SYSTEM:
AVAILABLE RETURN AIR BASED ON TAB: 7,415 CFM
RETURN AIR REQUIRED BY TABLE 4-A: 2,620 CFM
EXCESS RETURN AIR AVAILABLE: 4,795 CFM

NOTE: AIRFLOWS AS NEWLY MEASURED SHALL SUPERCEDE THE AIRFLOW VALUES SHOWN HEREIN.

2 MECHANICAL CONCEPT AIR RISER DIAGRAM (FOR EXISTING SYSTEMS & BYPASS DUCTS

NTS

TAB WORK SEQUENCE (PRE-CONSTRUCTION THRU CONSTRUCTION)

PER CAN-102.6, A PROJECT QUALIFIES FOR MINOR REMODEL IF LESS THAN 10% IS REMODELED COMPARED TO ENTIRE SYSTEM CAPACITY.

EXISTING CAPACITY AHU-13 & AHU-14 (FROM TAB REPORT OF 09/2023) 91,650 CFM

REMODEL CAPACITY (EXCLUDING NEW SUPPLEMENTARY SYSTEM) 7,835 CFM

7,885 / 91,650 = 8.5% QUALIFIES AS MINOR

THE PROJECT REQUIREMENTS INCLUDE MAINTAINING THE SAME AIRFLOW TO ROOMS/AREAS OUTSIDE THE BOUNDARIES OF THE REMODEL THROUGHOUT THE CONSTRUCTION PERIOD AND AFTER THE CONSTRUCTION. TWO SOURCES FOR AIRFLOWS OF THE EXISTING CONDITIONS WERE USED IN THE PREPARATION OF THE DOCUMENTS – ORIGINAL DESIGN DOCUMENTS AND TAB REPORT OF 9/2023. NEW TESTING OF EXISTING CONDITIONS IS REQUIRED, WHERE NOTED. THESE NEW TESTED VALUES WILL SUPERSEDE AIRFLOW VALUES.

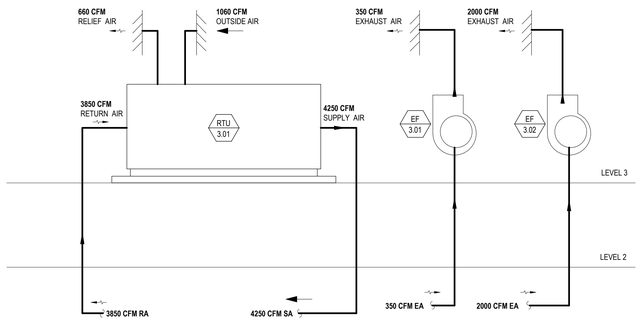
PHASING CONCEPT

PHASE 1 - UPON COMPLETION OF CONSTRUCTION, TAB WORK TO CONSIST OF RE-BALANCING (E)AHU-13 / (E)AHU-14 RETURN AIR SYSTEM AND (E)EF-25 IN IT'S ENTIRETY (REMODEL & NON-REMODEL) REBALANCE NON-REMODEL AREAS TO PRE-TEST VALUES.

PHASE 2 - TAB SHALL UTILIZE BYPASS AIR METHOD. TAB WORK TO CONSIST OF UTILIZING EXISTING AIR AVAILABLE TO RE-FEED THE REMODEL. NO FULL SYSTEM TAB WORK NEEDED. PROVIDE TAB WORK TO SPACES "DOWNSTREAM" ON SAME RETURN AIR AND EXHAUST AIR DUCT MAINS TO MAINTAIN SAME AIRFLOW.

SEQUENTIAL STEPS	ACTIVITY
1 (PRE-PHASE 1)	1. PROVIDE AIRFLOW TESTS OF SA, RA, EA INLETS/OUTLETS FOR LEVEL 1 AND THE MALL SERVED BY (E)AHU-13, (E)AHU-14, (E)EF-25. PROVIDE AIRFLOW TEST OF ALL RETURN INLETS ON ALL FLOORS SERVED BY RETURN AIR SYSTEMS FOR AHU-13 AND AHU-14, AND ALL EXHAUST INLET ON FLOORS SERVED BY EXHAUST AIR SYSTEM (E)EF-25. PROCURE ORIGINAL MECHANICAL FLOOR PLAN DOCUMENTS FROM OWNER TO FACILITATE THIS ACTIVITY. 2. PROVIDE HOT WATER FLOW TESTS OF REHEATING COILS WITHIN REMODEL AREA. 3. SUBMIT TAB REPORT. PROCEED TO NEXT STEP WHEN REPORT IS APPROVED.
2 (PHASE 1 DEMOLITION)	1. DURING PHASE 1 DEMOLITION, RE-DIRECT EXISTING AIRFLOW (SA, RA, EA) BY MEANS OF ADDING TEMPORARY BYPASS DUCTWORK WITH MANUAL VOLUME DAMPERS. 2. MAINTAIN SAME AIRFLOW TO/FROM, THE EXISTING MIXING BOX DURING CONSTRUCTION (HCAI CAN-102.6 BYPASS METHOD). USE AIRFLOW VALUES AS MEASURED IN STEP 1. AIRFLOW TO/FROM AHU-13, AHU-14 & EF-25 SHALL REMAIN THE SAME TO "NOT" UPSET AIRFLOWS TO SURROUNDING SPACES INCLUDING OTHER FLOORS. NO SYSTEM AIR IS TO ENTER/LEAVE CONSTRUCTION ZONE. 3. SUBMIT THE TAB REPORT SHOWING AIRFLOWS WITHIN TEMPORARY BYPASS DUCTS. MATCH THOSE MEASURED IN STEP 1. PROCEED TO NEXT STEP WHEN REPORT IS APPROVED.
3 (PHASE 1 CONSTRUCTION)	1. PROVIDE HVAC. 2. DEMOLISH BYPASS DUCTWORK & CAP/INSULATE CONNECTION LOCATIONS. 3. SUPPLY FANS (AHU-13 AND AHU-14) ARE SELF-SPEED ADJUSTING (730 CFM SA LESS FOR AHU-13 AND 3420 CFM SA LESS FOR AHU-14). 4. ADJUST BOTH AHU-13 & AHU-14 RETURN FAN SPEED DOWN (4,795 CFM RA LESS). USING EXISTING MANUAL BRANCH DUCT DAMPERS, ADJUST RETURN AIR INLETS ON ALL LEVELS SO THAT INLET AIRFLOW MATCHES VALUES MEASURED IN STEP 1. INCLUDE RA INLETS DOWNSTREAM OF REMODEL AREA ON LEVEL 1. 5. NO REDUCTION IN EA CFM FOR EF-25. 6. PERFORM TAB AND SUBMIT REPORT. PHASE 1 AREA IS READY TO OCCUPY. PROCEED TO NEXT STEP WHEN REPORT IS APPROVED. NOTE: THE AIRFLOW DEMAND FROM AHU-13 AND AHU-14 HAS BEEN REDUCED.
4 (PHASE 2 DEMOLITON - HYPERBARIC THERAPY)	1. DURING PHASE 2, REDIRECT EXISTING AIRFLOW (SA, RA, EA) BY MEANS OF ADDING TEMPORARY BYPASS DUCTWORK WITH MANUAL VOLUME DAMPERS SIMILAR TO STEP 2 FOR BYPASS AREA.E. THE INTENT IS TO MAINTAIN SAME AIRFLOW TO/FROM THE CONSTRUCTION ZONE (HCAI CAN-102.6 BYPASS METHOD). USE AIRFLOW VALUES AS MEASURED IN STEP 1. AIRFLOW TO/FROM (E)AHU-13, (E)AHU-14 & (E)EF-25 TO THIS AREA SHALL REMAIN THE SAME AS MEASURED IN STEP 1. NO SYSTEM AIR IS TO ENTER/LEAVE CONSTRUCTION ZONE. 2. SUBMIT TAB REPORT SHOWING AIRFLOW IN BYPASS DUCTS MATCH THOSE MEASURED IN STEP 1. PROCEED TO NEXT STEP WHEN REPORT IS APPROVED.
5 (PHASE 2 CONSTRUCTION - HYPERBARIC THERAPY)	1. PROVIDE HVAC. 2. REMOVE TEMPORARY BYPASS DUCTS & CAP CONNECTIONS. 3. PERFORM TAB & SUBMIT REPORT. PHASE 2 IS READY TO OCCUPY. NOTE: THE AIRFLOW DEMAND FROM AHU-13 AND AHU-14 HAS NOT BEEN ALTERED, BUT REMAINS THE SAME.

BC1



1 MECHANICAL AIR RISER DIAGRAM (CATH LABS & ISOLATION ROOMS)

NTS

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STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
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FILE LOG

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Draw	Author
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Issue Date	2023/6/12

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8/16/2024, 7:12:57 AM
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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

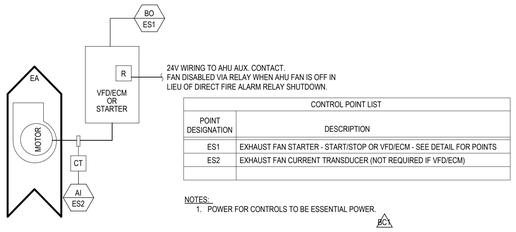
MECHANICAL AIR BALANCE

SHEET NUMBER

ME601

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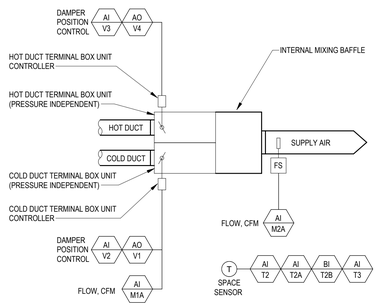
24V WIRING TO AHU AUX. CONTACT.
FAN DISABLED VIA RELAY WHEN AHU FAN IS OFF IN LIEU OF DIRECT FIRE ALARM RELAY SHUTDOWN.

CONTROL POINT LIST	
POINT DESIGNATION	DESCRIPTION
ES1	EXHAUST FAN STARTER - START/STOP OR VFD/ECM - SEE DETAIL FOR POINTS
ES2	EXHAUST FAN CURRENT TRANSDUCER (NOT REQUIRED IF VFD/ECM)

NOTES:
1. POWER FOR CONTROLS TO BE ESSENTIAL POWER. BC1

5 GENERAL EXHAUST FAN

NTS

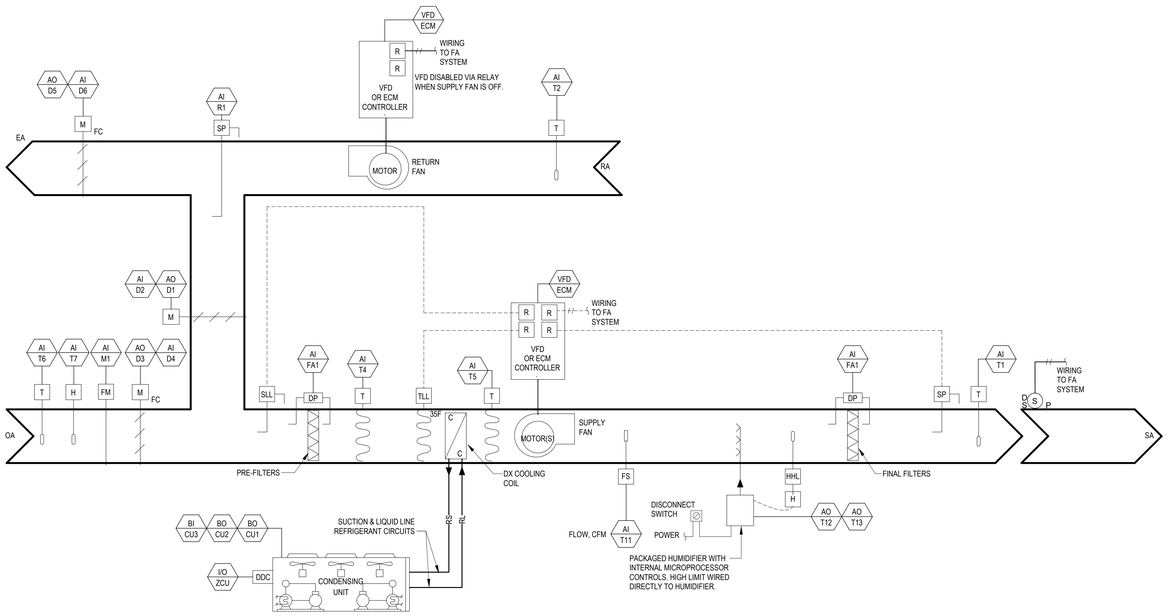


CONTROL POINT LIST		
POINT DESIGNATION	DEVICE OR POINT DESCRIPTION	CONTROLLED BY
T2	SPACE TEMP SENSOR	
T2A	SPACE TEMP SENSOR - USER ADJUSTMENT	
T2B	SPACE TEMP SENSOR - *OVERRIDE*	BUTTON
M1A	TERMINAL UNIT CFM FLOW - COLD DUCT	
M2A	TERMINAL UNIT CFM FLOW - SUPPLY AIR	
V1	TERMINAL UNIT DAMPER POSITION	T2
V2	TERMINAL UNIT DAMPER POSITION FEEDBACK	
V3	TERMINAL UNIT DAMPER POSITION	T2
V4	TERMINAL UNIT DAMPER POSITION FEEDBACK	

NOTES:
1. DAMPER POSITION FEEDBACK IS REQUIRED FOR AHU STATIC PRESSURE RESET OR SUPPLY AIR TEMP RESET SEQUENCES.
2. POWER FOR CONTROLS TO BE ESSENTIAL POWER. BC1

4 DUAL DUCT MIXING BOX (DDMB)

NTS

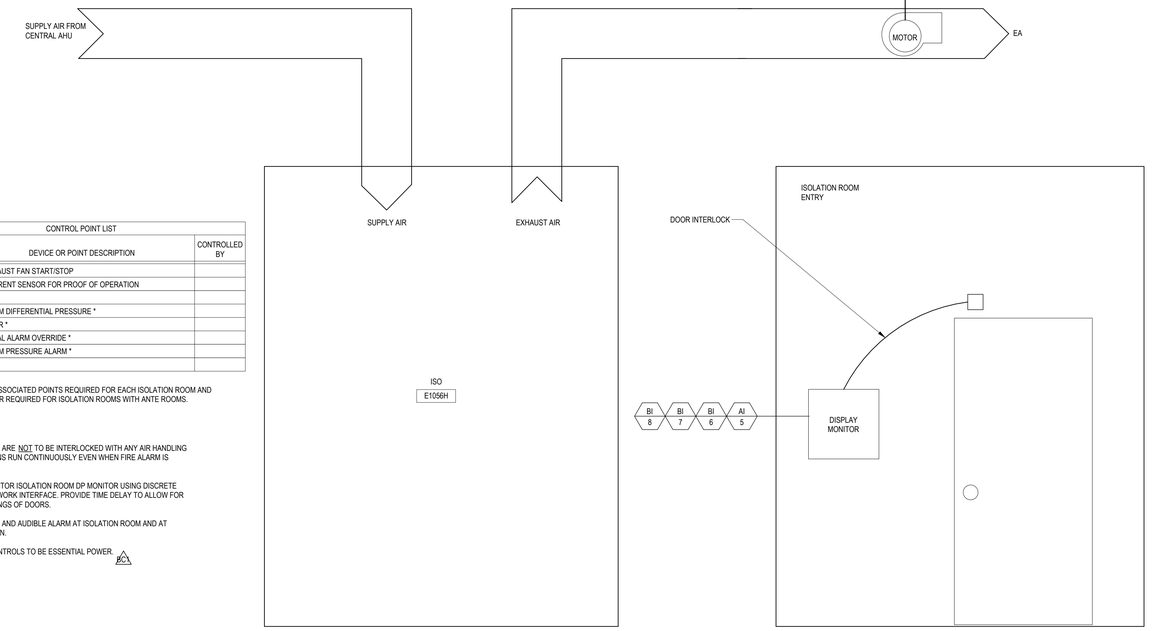


CONTROL POINT LIST	
POINT DESIGNATION	DEVICE OR POINT DESCRIPTION
T1	SUPPLY AIR TEMPERATURE
T2	RETURN DUCT - TEMPERATURE
T4	MIXED AIR TEMPERATURE
T5	COOLING COIL LEAVING AIR TEMPERATURE
T7	OUTDOOR AIR HUMIDITY
T11	AIR PROVING
T12	HUMIDIFIER ON/OFF
T13	SPACE HUMIDITY LEVEL OUTPUT TO HUMIDIFIER
VFD/ECM	SUPPLY FAN VFD OR ECM STARTER. SEE DETAIL FOR POINTS.
VFD/ECM	EXHAUST/RETURN FAN VFD OR ECM STARTER. SEE DETAIL FOR POINTS.
R1	RETURN DUCT STATIC PRESSURE
FA1	FINAL FILTER DIFFERENTIAL PRESSURE
FA2	PRE-FILTER DIFFERENTIAL PRESSURE
D1	RETURN AIR DAMPER POSITION
D2	RETURN AIR DAMPER POSITION FEEDBACK
D3	OUTSIDE AIR DAMPER POSITION
D4	OUTSIDE AIR DAMPER POSITION FEEDBACK
D5	EXHAUST AIR DAMPER POSITION
D6	EXHAUST AIR DAMPER POSITION FEEDBACK
CU1	DX COOLING STAGE 1 ENABLE
CU2	DX COOLING STATE 2 ENABLE
CU3	DX CONDENSING UNIT STATUS
ZCU	BAS NETWORK INTERFACE. BACNET OR SIMILAR.
M1	IAQ-TEK OR TRANE TRAQ DAMPER AIRFLOW METER

NOTES:
1. POWER FOR CONTROLS TO BE ESSENTIAL POWER. BC1

3 AHU-CAV-MULTIPLE ZONE WITH ECONOMIZER

NTS



CONTROL POINT LIST		
POINT DESIGNATION	DEVICE OR POINT DESCRIPTION	CONTROLLED BY
1	EXHAUST FAN START/STOP	
2	CURRENT SENSOR FOR PROOF OF OPERATION	
5	ROOM DIFFERENTIAL PRESSURE *	
6	DOOR *	
7	LOCAL ALARM OVERRIDE *	
8	ROOM PRESSURE ALARM *	

*DP MONITOR AND ASSOCIATED POINTS REQUIRED FOR EACH ISOLATION ROOM AND ADDITIONAL MONITOR REQUIRED FOR ISOLATION ROOMS WITH ANTE ROOMS.

NOTES:
1. ISOLATION FANS ARE NOT TO BE INTERLOCKED WITH ANY AIR HANDLING UNIT. THESE FANS RUN CONTINUOUSLY EVEN WHEN FIRE ALARM IS ACTIVATED.
2. BAS SHALL MONITOR ISOLATION ROOM DP MONITOR USING DISCRETE POINTS OR NETWORK INTERFACE. PROVIDE TIME DELAY TO ALLOW FOR ROUTINE OPENINGS OF DOORS.
3. PROVIDE VISUAL AND AUDIBLE ALARM AT ISOLATION ROOM AND AT NURSES' STATION.
4. POWER FOR CONTROLS TO BE ESSENTIAL POWER. BC1

2 ISOLATION ROOM EXHAUST

NTS

VARIABLE FREQUENCY DRIVE & EC MOTOR - CONTROL POINT LIST			
POINT DESIGNATION	DEVICE OR POINT DESCRIPTION	CONTROLLED BY	HARD WIRED
A1	MOTOR - START/STOP TURNS ON MOTOR WHEN IN AUTO MODE		YES
A2	MOTOR - STATUS INPUT TO BAS FOR INTERNAL MOTOR STATUS AND ALARM		YES
A3	MOTOR - CONTROL SPEED OUTPUT FROM BAS IN 0-10v (0%-100%) SPEED	REMOTE SENSOR	YES
A4	MOTOR - SPEED FEEDBACK INPUT TO BAS TO CONFIRM ACTUAL SPEED		
A5	MOTOR - LOAD FEEDBACK (kW) INPUT TO BAS TO MONITOR THE MOTOR LOAD		

CONTROL POINTS NOTE:

THESE 5 POINTS ARE TYPICAL FOR ALL VFD'S, AND ARE COMBINED INTO A SINGLE "VFD" CONTROL SYMBOL ON THE APPLICATION DETAILS FOR EQUIPMENT.

ALTERNATE CONTROLS:

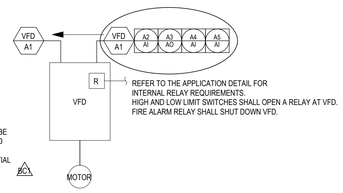
1. IF THE VFD HAS WEB-ENABLED ETHERNET COMMUNICATION PORT, THEN THAT SHALL BE THE COMMUNICATION PATHWAY.
2. SECURE MODBUS OR EQUIVALENT INTERFACE FROM VFD MANUFACTURER AND PROVIDE TYPICAL GRAPHICAL INTERFACE TO VFD.

GENERAL NOTES:

1. ALL REQUIREMENTS OUTLINED SHALL BE TYPICAL FOR ELETRICALLY COMMUTATED MOTOR CONTROLLER.
2. POWER FOR CONTROLS TO BE ESSENTIAL POWER. BC1

VFD SET-UP NOTES:

1. CONTROLS CONTRACTOR TO WORK WITH VFD START-UP TECHNICIAN TO PROPERLY SET-UP VFD VARIABLES FOR THE MOTOR APPLICATION - PUMP, FAN, ETC.
2. CONTROL CONTRACTOR TO DOCUMENT THE VFD SET-UP PASSWORD.
3. THE MINIMUM OPERATING SPEED FOR THE VFD SHALL BE SET TO THE MIN SPEED RATING OF THE MOTOR - NOT SOME ARBITRARY VALUE SUCH AS 15HZ OR 20HZ MINIMUM SPEED.
4. BMS SHALL SET 0% SPEED EQUAL TO 0HZ. DO NOT SET 0% TO THE VFD HARD-CODED MINIMUM HZ.
5. BMS SHALL SET 0% SPEED INPUT AND OPERATING SPEED OUTPUT SHALL BE 0-10V, NOT 4-20mA. THIS ALLOWS THE CONTROL VOLTAGE TO DIRECTLY RELATE TO THE REFERENCE SPEED %.
6. RELEASE THE 60HZ UPPER LIMIT ON VFD'S WHERE THE NORMAL OPERATING RANGE (AFTER TAB) IS ABOVE 50HZ.



1 VFD/ECM CONTROL SCHEMATIC

NTS

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KEY PLAN

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Allen Cheng

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RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

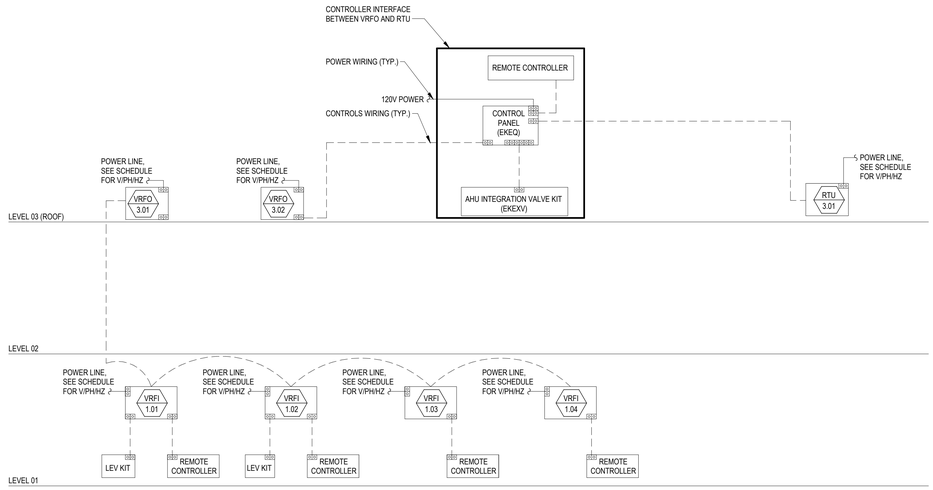
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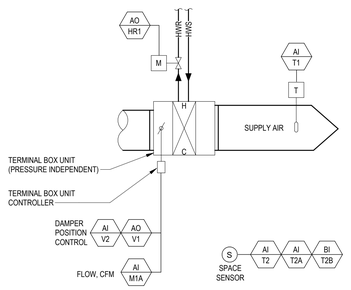
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3 RL&RG RISER DIAGRAM

NTS



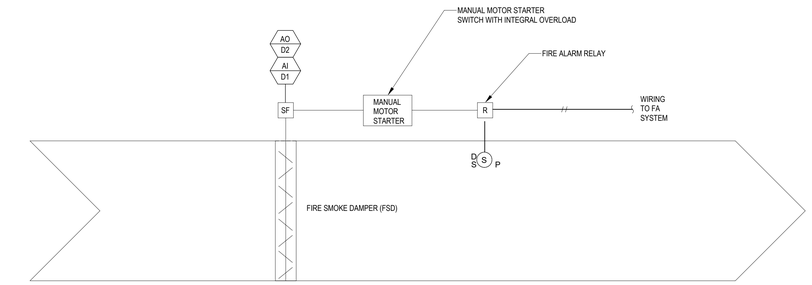
CONTROL POINT LIST		
POINT DESIGNATION	DEVICE OR POINT DESCRIPTION	CONTROLLED BY
T1	SUPPLY AIR TEMPERATURE	
T2	SPACE TEMPERATURE	
T2A	SPACE TEMPERATURE - USER ADJUSTMENT	
T2B	SPACE TEMPERATURE - "OVERRIDE"	BUTTON
HR1	HW REHEAT COIL CONTROL VALVE POSITION	T2
M1A	TERMINAL UNIT CFM FLOW	
V1	TERMINAL UNIT DAMPER POSITION	
V2	TERMINAL UNIT DAMPER POSITION FEEDBACK	

NOTES:

1. DAMPER POSITION FEEDBACK IS REQUIRED FOR AHU STATIC PRESSURE RESET OR SUPPLY AIR TEMP RESET SEQUENCES.
2. POWER FOR CONTROLS TO BE ESSENTIAL POWER. #2

2 CAV WITH HW REHEAT

NTS



NOTE:

FOR FIRE SMOKE DAMPER CONTROLLED BY DUCT SMOKE DETECTOR, LOCATE THE DETECTOR WITHIN 5 FEET OF EITHER SIDE OF THE SMOKE FIRE DAMPER. REFER TO FLOOR PLANS FOR LOCATIONS.

FIRE SMOKE DAMPERS MAY BE CONTROLLED BY AREA SMOKE DETECTORS (ASD) WHERE 100% AREA COVERAGE IS PROVIDED IN THE SMOKE COMPARTMENT. ASD'S TO BE FURNISHED, WIRED, AND INSTALLED BY DIVISION 23.

FIRE SMOKE DAMPER SEQUENCE OF OPERATION:

1. ALL SMOKE DETECTORS SERVING FIRE SMOKE DAMPERS SHALL BE INTERFACED TO THE FIRE ALARM SYSTEM. THE SMOKE DETECTOR, ON SENSING SMOKE, SHALL SEND AN ALARM SIGNAL TO THE FIRE ALARM SYSTEM (DIV. 16).
   THE FIRE ALARM SYSTEM SHALL SEND A SIGNAL TO THE APPROPRIATE FIRE SMOKE DAMPERS TO CLOSE. AND A SIGNAL TO THE BMS SYSTEM. THE REST OF THE FIRE SMOKE DAMPERS IN THE SAME COMPARTMENT WILL REMAIN OPEN UNLESS THEIR RESPECTIVE SMOKE DETECTOR SENSES SMOKE. WHEN THE FIRE ALARM PANEL IS RESET, THE FIRE SMOKE DAMPERS SHALL RESET AUTOMATICALLY.

2. FIRE SMOKE DAMPERS CONTROLLED BY AREA SMOKE DETECTORS SHALL CLOSE IF ANY OF THE AREA SMOKE DETECTORS FROM THE TWO IMMEDIATELY ADJACENT SMOKE COMPARTMENT SENDS AN ALARM SIGNAL.

3. DUCT SENSING TUBE TYPE DETECTORS SHALL CLOSE THE RELATED SMOKE FIRE DAMPER WHEN AIR VELOCITY IS ABOVE OR BELOW THE LISTED MANUFACTURER'S RANGE.

4. FIRE SMOKE DAMPERS SHALL FAIL CLOSED.

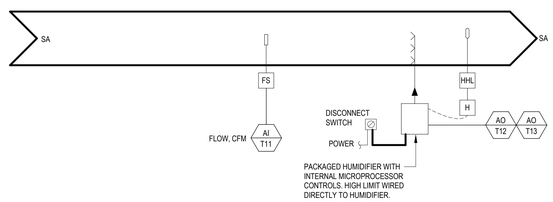
#2

	CONTROL POINT LIST
POINT DESIGNATION	DEVICE OR POINT DESCRIPTION
D1	SFD POSITION
D2	SFD FEEDBACK

NOTES:
1. POWER FOR CONTROLS TO BE ESSENTIAL POWER.

4 FIRE SMOKE DAMPER CONTROLLED BY DUCT SMOKE DETECTOR

NTS



CONTROL POINT LIST	
POINT DESIGNATION	DEVICE OR POINT DESCRIPTION
T11	AIR PROVING
T12	HUMIDIFIER ON/OFF
T13	SPACE HUMIDITY LEVEL OUTPUT TO HUMIDIFIER

NOTES:
1. POWER FOR CONTROLS TO BE ESSENTIAL POWER. #2

1 HUMIDIFIERS (TYP. FOR VRFI)

NTS

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MECHANICAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
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AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
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Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

MECHANICAL CONTROLS

SHEET NUMBER

ME603

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DIFFUSER SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	NECK SIZE	CFM	SERVICE	MOUNTING	TYPE	NOTES
A	PRICE	PDMC	ROUND, SEE PLANS	SEE PLANS	SUPPLY	LAY-IN / T-BAR CEILING	PERFORATED FACE, MODULAR CORE	1,2,3
B	PRICE	PDDR	ROUND, SEE PLANS	SEE PLANS	EXHAUST / RETURN	LAY-IN / T-BAR CEILING	PERFORATED FACE	1,2
C	PRICE	PDMC	ROUND, SEE PLANS	SEE PLANS	SUPPLY	GYP. BD. CEILING	PERFORATED FACE, MODULAR CORE	1,2,3
D	PRICE	PDDR	ROUND, SEE PLANS	SEE PLANS	EXHAUST / RETURN	GYP. BD. CEILING	PERFORATED FACE	1
F	PRICE	530	SEE PLANS	SEE PLANS	SEE PLANS	WALL MOUNTED	LOUVERED GRILLE	1,4
G	PRICE	LFD	SEE PLANS	SEE PLANS	SUPPLY	GYP. BD. CEILING / WALL	CEILING DIFFUSER LAMINAR FLOW CRITICAL ENVIRONMENT	1,4

NOTES:
1 SEE ARCHITECTURAL PLANS FOR CEILING TYPE. PROVIDE LAY-IN TYPE BORDER FOR ACOUSTICAL TILE CEILINGS AND SURFACE MOUNT BORDER FOR GYPSUM BOARD AND OTHER TYPES OF CEILING OR WALLS.
2 FOR SQUARE FACE CEILING DIFFUSERS PROVIDE 24x24 MODULE FOR STANDARD LAY-IN CEILINGS. PROVIDE 16x16 MODULE FOR GYPSUM CEILINGS.
3 SUPPLY GRILLES TO PROVIDE AIR DEFLECTION ADJUSTMENT IN ALL DIRECTIONS. SEE FLOOR PLANS FOR ONE-, TWO-, THREE- OR FOUR-WAY DISCHARGE.
4 GRILLE/DIFFUSER TO BE CONSTRUCTED USING STAINLESS STEEL.

DUAL-DUCT MIXING BOX

UNIT NO.	MANUFACTURER & MODEL NUMBER	SERVICE	LOCATION	CONTROL	AIR SIDE				OPER. WT. (LBS)	NOTES
					INLET SIZE (IN)	MAX CFM	MIN CFM	MIN. APD (IN WG)		
DDMB-1.01	PRICE DDS5000	VARIES	SEE PLANS	DDC	8	570	570	0.57	45	
DDMB-1.02A	PRICE DDS5000	VARIES	SEE PLANS	DDC	12	1,110	1110	0.48	60	
DDMB-1.02B	PRICE DDS5000	VARIES	SEE PLANS	DDC	12	1,110	1110	0.48	60	
DDMB-1.03	PRICE DDS5000	VARIES	SEE PLANS	DDC	10	835	835	0.54	45	
DDMB-1.04	PRICE DDS5000	VARIES	SEE PLANS	DDC	8	450	450	0.57	45	DUAL DUCT MIXING BOX TO BE INSTALLED DURING PHASE 2.
DDMB-1.05	PRICE DDS5000	VARIES	SEE PLANS	DDC	10	930	930	0.54	45	
DDMB-1.06	PRICE DDS5000	VARIES	SEE PLANS	DDC	6	315	315	0.71	45	DUAL DUCT MIXING BOX TO BE INSTALLED DURING PHASE 2.
DDMB-1.07	PRICE DDS5000	VARIES	SEE PLANS	DDC	10	555	555	0.54	60	DUAL DUCT MIXING BOX TO BE INSTALLED DURING PHASE 2.

DX ROOFTOP AIR HANDLING UNITS

UNIT NO.	MANUFACTURER & MODEL NUMBER	SYSTEM TYPE	SERVICE	LOCATION	COOLING AIRFLOW (CFM)	MINIMUM AIRFLOW (CFM)	MINIMUM UNIT AIRFLOW (CFM)	HEATING AIRFLOW (CFM)	MIN OA (CFM) i	DESIGN OA (CFM)ii	MIN EER	REFRIG. TYPE	SUPPLY FAN CHARACTERISTICS						RETURN FAN CHARACTERISTICS							RELIEF AIR CFM AT UNIT	FILTERS						
													WHEEL TYPE	DRIVE	ESP (IN WG)	TSP (IN WG)	RPM	ELEVATION... 0									PRE-FILTER				FILTER			
																		MOTOR DATA		VFD (Y/N)	CFM	WHEEL TYPE	DRIVE	ESP (IN WG)	TSP (IN WG)	RPM	MOTOR DATA		VFD (Y/N)		THICK (IN)	MERV	CLEAN APD (IN. WG)	DIRTY APD (IN. WG)	THICK (IN)	MERV	CLEAN APD (IN. WG)	DIRTY APD (IN. WG)
																		BHP	HP								BHP	HP									
RTU-3.01	PACE PAO-42X57	CV	CATH LAB 1 &2	ROOF	4,250	4,250	4,250	4,250	1,060	1,060		R-410A		DIRECT	2.36	5		4.8	7 1/2	Y	3,850		DIRECT	1.5	2.7		2	3	Y		2	8	0.3	0.5	12	14	0.5	0.75

DX ROOFTOP AIR HANDLING UNITS (CONTINUED)

COOLING (DX)													COMPRESSOR	CONDENSER	ELECTRICAL DATA												NOTES
OAT (°F)		RAT (°F)		EAT (MIXED) (°F)		LAT (°F)		MAX. FACE VEL. (FPM)	MAX. AIR PD (IN WG)	CAP. TOTAL (MBH)	CAP. SENS. (MBH)	MAX ROWS/ FPI	QTY.	AMBIENT AIR TEMP. (°F)	CIRCUIT 1					CIRCUIT 2					EMERG. POWER (Y/N)	OPER. WT. (LBS)	
DB	WB	DB	WB	DB	WB	DB	WB								MCA	MOCP	VOLT	PH	HZ	MCA	MOCP	VOLT	PH	HZ			
102	69	74	62			52	51	475	0.56	159.0	135.0	6/14	SEE VRFO-3.02		15.1	20	480	3	60	-	15	120	1	60	Y	5,865	1,2,3,4,5,6

GENERAL NOTES:
A. REFER TO DIVISION 23 SPECIFICATION 'COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT' FOR SPECIFIC REQUIREMENTS AND SCOPE FOR CONTROL WIRING, POWER WIRING, DISCONNECT AND STARTING MEANS.

NOTES:
1 SINGLE POINT POWER CONNECTION
2 PROVIDE SEPARATE 120V CIRCUIT FOR ELECTRICAL OUTLET AND LIGHT SWITCH.
3 PROVDE UNIT WITH COMPARATIVE ENTHALPY CONTROLLER
4 PROVIDE WITH OA MEASURING STATION
5 SEISMIC CERTIFICATION PRE-APPROVAL (OSP-0147-2)
6 FURNISH WITH FABRICATED 14" STRUCTURAL STEEL CURB REST

CAV BOXES W/ HW REHEAT

TYPE	NO.	MANUFACTURER	MODEL	ROOM	LEVEL	SYSTEM	AIR SIDE					CAP. (MBH)	WATER SIDE				BRANCH PIPE SIZE (IN)	UNIT CHARACTERISTICS			OPER. WT. (LBS)	NOTES
							MAX. CFM	MIN. CFM	HEATING CFM	APD (IN. WG)	TEMP (°F)			GPM	TEMP (°F)		WPD (FT HD)		INLET SIZE (IN)	COIL ROWS	EMERG. POWER (Y/N)		
											EAT	LAT			EWT	LWT							
CAV-S	1.01	PRICE	SDV5-12	CONTROL ROOM 1	1	RTU-3.01	1,485	1,485	1,485	0.23	55	75	32.08	2.61	180	155	0.95	3/4"	12	1	Y	40	
CAV-S	1.02	PRICE	SDV5-8	CATH LAB 1	1	RTU-3.01	610	610	610	0.16	55	75	13.18	0.93	180	151	0.84	3/4"	8	1	Y	30	
CAV-S	1.03	PRICE	SDV5-12	CATH LAB 2	1	RTU-3.01	1,515	1,515	1,515	0.23	55	75	32.72	2.74	180	156	1.15	3/4"	12	1	Y	40	
CAV-S	1.04	PRICE	SDV5-8	CONTROL ROOM 2	1	RTU-3.01	610	610	610	0.16	55	75	13.18	0.93	180	151	0.84	3/4"	8	1	Y	30	

(EXISTING) HOT WATER REHEAT COILS

UNIT NO.	MANUFACTURER & MODEL NUMBER	SYSTEM	SERVICE	LOCATION	WIDTH (IN.)	HEIGHT (IN.)	MAX. CFM	APD AT MAX CFM (IN.)	MAX. FACE VEL. AT MAX CFM (FPM)	ROWS / FPI	AIR SIDE				WATER SIDE				EMERG. CONTROL POWER (Y/N)	CONTROL VALVE TYPE	OPER. WT. (LBS)	NOTES
											HEATING CFM	EAT (°F)	LAT (°F)	CAP. MBH	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT)				
<X> RHC-1.04		DDMB-1.04	SEE PLANS	SEE PLANS								85			NOTE 2	180	150			2-WAY		1,2,3
<NL> RHC-1.07		DDMB-1.07	SEE PLANS	SEE PLANS								85			NOTE 2	180	150			2-WAY		1,2,3

NOTES:
1. FOR REFERENCE ONLY
2 MATCH GPM TO PRE-CONSTRUCTION VALES. REFER TO WORK SEQUENCE FOR STEPS.
3 PROVIDE NEW THERMOSTAT FOR EXISTING REHEAT COIL COMPARABLE TO EXISTING

EXHAUST FANS

UNIT NO.	MANUFACTURER & MODEL NUMBER	SERVICE	LOCATION	FAN TYPE	DRIVE	CFM	ESP (IN. WG)	FAN RPM	MAX. SOUND (SONES)	BACKDRAFT DAMPER (Y/N)	INTERLOCK / CONTROLLED BY	STARTING MEANS	MOTOR DATA			ELECTRICAL DATA				OPER. WT. (LBS)	NOTES
													BHP	HP	RPM	VOLT	PH	HZ	EMERG. POWER (Y/N)		
EF-3.01	GREENHECK USF-06	ISOLATION ROOM	ROOF	UTILITY SET	BELT	350	1.0	1,368	17	N	N/A	ECM	0.2	1/4	2,615	120	1	60	Y	150	1
EF-3.02	GREENHECK USF-15	GENERAL EXHAUST	ROOF	UTILITY SET	BELT	2,045	1.5	1,513	17	N	AHU-13	ECM	0.7	1.50	2,016	480	3	60	Y	210	1

GENERAL NOTES:
A. REFER TO DIVISION 23 SPECIFICATION 'COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT' FOR SPECIFIC REQUIREMENTS AND SCOPE FOR CONTROL WIRING, POWER WIRING, DISCONNECT AND STARTING MEANS.
B. FOR FANS WITH MOTORS THAT ARE 120V AND 1 HP OR LESS, PROVIDE CONTROL RELAY TO ALLOW INTERLOCKING WITH AIR HANDLING UNITS OR OTHER CONTROL SYSTEMS WHERE REQUIRED.

NOTES:
1 SEISMIC CERTIFICATION PRE-APPROVAL (OSP-0148)

VRF INDOOR UNITS - HEAT PUMP (COOLING ONLY)

UNIT NO.	MANUFACTURER & MODEL NUMBER	SERVICE	LOCATION	TYPE	ASSOCIATED VRF OUTDOOR UNIT	SEER	REFRIG. TYPE	FAN DATA		DX COIL (COOLING)						ELECTRICAL DATA							OPER. WT. (LBS)	NOTES
										EAT (°F)		LAT (°F)		CAP. (MBH)		UNIT								
								CFM	ESP	DB	WB	DB	WB	TOTAL	SENS.	MCA	MOCP	VOLT	PH	HZ	CD PUMP (VOLT)	EMER. POWER (Y/N)		
VRFI-1.01	MITSUBISHI TPEFYP054	EQUIP RM 1	SEE PLANS	CEILING CONCEALED	VRFO-3.01	-	R410A	1,410	0.6	75	65	55	54	47.8	30.9	4.38	15	208	1	60	120	Y	170	1,2,3
VRFI-1.02	MITSUBISHI TPEFYP054	EQUIP RM 2	SEE PLANS	CEILING CONCEALED	VRFO-3.01	-	R410A	1,410	0.6	75	65	55	54	47.8	30.9	4.38	15	208	1	60	120	Y	170	1,2,3
VRFI-1.03	MITSUBISHI TPKA0A0036	IT CLOSET E1074	SEE PLANS	WALL MOUNTED	VRFO-3.01	-	R410A	920	-	80	67	57	56	32.4	23.0	0.63	15	208	1	60	120	Y	70	1,2,3
VRFI-1.04	MITSUBISHI TPKA0A0036	ELEC CLOSET E1075	SEE PLANS	WALL MOUNTED	VRFO-3.01	-	R410A	920	-	80	67	57	56	32.4	23.0	0.63	15	208	1	60	120	Y	70	1,2,3

GENERAL NOTES:
A. REFER TO DIVISION 23 SPECIFICATION 'COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT' FOR SPECIFIC REQUIREMENTS AND SCOPE FOR CONTROL WIRING, POWER WIRING, DISCONNECT AND STARTING MEANS.

NOTES:
1 PROVIDE SIMPLE MA REMOTE CONTROLLER.
2 SEISMIC CERTIFICATION PRE-APPROVAL (OSP-0537)
3 PROVIDE CONDENSATE PUMP POWERED SEPARATELY FROM UNIT, BLUE DIAMOND MODEL #X87-721 OR APPROVED EQUAL.

VRF OUTDOOR UNITS - HEAT PUMP (COOLING ONLY)

UNIT NO.	MANUFACTURER & MODEL NUMBER	SERVICE	LOCATION	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EER	COP	REFRIG. TYPE	REFRIG. CHARGE	AMBIENT AIR TEMP. (°F)		ELECTRICAL DATA									NOTES
												CIRCUIT A		CIRCUIT B							
										SUMMER	WINTER	MCA	MOCP	MCA	MOCP	VOLT	PH	HZ	EMER. POWER (Y/N)	OPER. WT. (LBS)	
VRFO-3.01	MITSUBISHI TUHYP168	VRFI-1.01 THRU 1.04	ROOF	14.0	-	11.5	-	R410A	51.2	106	-	27	45	N/A	N/A	480	3	60	Y	770	1,2,3
VRFO-3.02	DAIKIN RXYQ168XAYDA	RTU-3.01	ROOF	14.7	-	10.6	-	R410A	35.9	106	-	26	35	N/A	N/A	480	3	60	Y	720	1,2,3,4,5

GENERAL NOTES:
A. REFER TO DIVISION 23 SPECIFICATION 'COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT' FOR SPECIFIC REQUIREMENTS AND SCOPE FOR CONTROL WIRING, POWER WIRING, DISCONNECT AND STARTING MEANS.

NOTES:
1 COMPRESSORS SHALL BE FULLY MODULATING.
2 PROVIDE UNIT WITH LOW AMBIENT KIT.
3 SEISMIC CERTIFICATION PRE-APPROVAL (OSP-0537)
4 SEISMIC CERTIFICATION PRE-APPROVAL (OSP-0297)
5 FURNISH WITH AHU INTEGRATION VALVE KIT (MODEL #EKEVQFCBAV3). PROVIDE 0-10V EXTERNAL CONTROL OVER COIL FROM BMS.

ELECTRIC HUMIDIFIERS

UNIT NO.	MANUFACTURER & MODEL NUMBER	SERVICE	LOCATION	FLUID TYPE	CAPACITY OUTPUT (LBS/HR)	DISPERSION TUBE					ELECTRICAL DATA						OPER. WT. (LBS)	NOTES
						TYPE	MOUNTING	QTY.	DUCT WIDTH (IN)	DUCT HEIGHT (IN)	FLA	MOCP	VOLT	PH	HZ	EMERG. POWER (Y/N)		
HU-1.01	CONDAIR ELN020	EQUIP RM 1	LEVEL 1	POTABLE	15	SAM-e	DUCT	1	60	16	36.0	45	208	1	60	Y	60	1,2,3,6
HU-1.02	CONDAIR ELN020	EQUIP RM 2	LEVEL 1	POTABLE	15	SAM-e	DUCT	1	60	16	36.0	45	208	1	60	Y	60	1,2,3,6
HU-1.03	CONDAIR ELN020	PACU RMS	LEVEL 1	POTABLE	10	SAM-e	DUCT	1	20	16	18.0	25	208	1	60	Y	60	1,2,3,6
HU-3.01	DRISTEEM VLC9-1	CATH LABS	ROOF	POTABLE	22	ULTRA-SORB	DUCT	5	45	33	10.8	15	480	3	60	Y	610	1,2,4,5,7

GENERAL NOTES:
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NOTES:
1 PROVIDE WITH VAPOR-LOGIC CONTROLLER.
2 PROVIDE WITH HIGH LIMIT DUCT HUMIDISTAT, MODULATING CONTROL, AND DUCT STEAM DISTRIBUTER WITH DRAIN PAN.
3 SEISMIC CERTIFICATION PRE-APPROVAL (OSP-0225)
4 SEISMIC CERTIFICATION PRE-APPROVAL (OSP-0216). SEE DRISTEEM SEISMIC CERTIFCATION OPTION INSTALLATION MANUAL AT END OF OSP, IN ADDITION TO UUT SPECIFIC INSTALLATION REQUIREMENTS.
5 FURNISH STEAM GENERATOR WITH WEATHER COVER AND SEISMIC LEGS.
6 PROVIDE WITH OVER-SIZED STEAM LINE.
7 FURNISH WITH FLOOR MOUNTED WATER TEMPERING DEVICE, DRISTEEM DRAIN-KOOLER OR APPROVED EQUAL.

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MECHANICAL SCHEDULES

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ABBREVIATIONS

A	AMPERES	HPRS	HORSEPOWER RATED SWITCH
AAC	ABOVE ACCESSIBLE CEILING	HOA	HAND OFF AUTOMATIC
AC	ALTERNATING CURRENT	HP	HORSEPOWER
ADA	AMERICANS WITH DISABILITIES ACT	HZ	HERTZ
AF	AMPERE FRAME	IG	ISOLATED GROUND
AFCI	ARC FAULT CIRCUIT INTERRUPTOR	JB	JUNCTION BOX
AFF	ABOVE FINISHED FLOOR	KCMIL	THOUSAND CIRCULAR MILS
AFG	ABOVE FINISHED GRADE	KVA	KILOVOLT-AMPERES
AFU	AMPERE FUSE	KVAR	KILOVOLT-AMPERES, REACTIVE
AIC	AMPERES INTERRUPTING CAPACITY, SYMMETRICAL	KW	KILOWATTS
AL	ALUMINUM	LTG	LIGHTING
ARCH	ARCHITECT	MAX	MAXIMUM
AS	AMP SWITCH	MCB	MAIN CIRCUIT BREAKER
AT	AMP TRIP	MCC	MOTOR CONTROL CENTER
ATS	AUTOMATIC TRANSFER SWITCH	MECH	MECHANICAL
AWG	AMERICAN WIRE GAUGE	MIN	MINIMUM
BFC	BELOW FINISHED CEILING	MLO	MAIN LUGS ONLY
BFG	BELOW FINISHED GRADE	MTS	MANUAL TRANSFER SWITCH
BKBD	BACKBOARD	MVA	MEGAVOLT-AMPERES
BOH	BACK OF HOUSE	N	NEUTRAL
C	CONDUIT	NA	NOT APPLICABLE
CAT	CATALOG	NC	NORMALLY CLOSED
CB	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	NF	NON FUSED
CKT	CIRCUIT	NO	NORMALLY OPEN
CLG	CEILING	NTS	NOT TO SCALE
CO	CONDUIT ONLY	OC	ON CENTER
CONT	CONTINUATION	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CU	COPPER	OFOI	OWNER FURNISHED OWNER INSTALLED
CT	CURRENT TRANSFORMER	Ø, PH	PHASE
Δ	DELTA	PC	PHOTOCELL
DISC	DISCONNECT SWITCH	PIR	PASSIVE INFRARED
DIV	DIVISION	POC	POINT OF CONNECTION
DWG	DRAWING	POS	POINT OF SALE
EA	EACH	PLBG	PLUMBING
EC	EMPTY CONDUIT	PT	POTENTIAL TRANSFORMER
ECB	ENCLOSED CIRCUIT BREAKER	PVC	POLYVINYL CHLORIDE
ELEC	ELECTRICAL	PWR	POWER
EM	EMERGENCY	QTY	QUANTITY
EMT	ELECTRICAL METALLIC TUBING	REC	RECESSED
EO	ELECTRICALLY OPERATED	RECPT	RECEPTACLE
EP	EXPLOSION PROOF	REF	REFRIGERATOR
EPO	EMERGENCY POWER OFF	RGS	RIGID GALVANIZED STEEL
EQUIP	EQUIPMENT	SPD	SURGE PROTECTIVE DEVICE
ERMS	ENERGY-REDUCING MAINTENANCE SWITCH	ST	SHUNT TRIP
EVSE	ELECTRIC VEHICLE SUPPLY EQUIPMENT	SURF	SURFACE
EWC	ELECTRIC WATER COOLER	SWBD	SWITCHBOARD
EXIST	EXISTING	SWGR	SWITCHGEAR
EXT	EXTERIOR	TBD	TO BE DETERMINED
FA	FIRE ALARM	TYP	TYPICAL
FACP	FIRE ALARM CONTROL PANEL	UG	UNDERGROUND
FAA	FIRE ALARM ANNUNCIATOR	UNO	UNLESS NOTED OTHERWISE
FOH	FRONT OF HOUSE	V	VOLTS
FT	FEET OR FOOT	VFD	VARIABLE FREQUENCY DRIVE
FU	FUSE	W	WATTS
G	GROUND	WP	WEATHER PROOF
GEN	GENERATOR	XFMR	TRANSFORMER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	Y	WYE
GFI	GROUND FAULT INTERRUPTER		
GFP	GROUND FAULT PROTECTION		

FIRE ALARM SYSTEM

XXcd X	FIRE ALARM VISUAL DEVICE, WALL MOUNTED.	XXcd	FIRE ALARM VISUAL DEVICE, CEILING MOUNTED.
X	FIRE ALARM AUDIO DEVICE, WALL MOUNTED		FIRE ALARM AUDIO DEVICE, CEILING MOUNTED
XXcd	FIRE ALARM AUDIO/VISUAL DEVICE, WALL MOUNTED	XXcd	FIRE ALARM AUDIO/VISUAL DEVICE, CEILING MOUNTED.
XXcd P X	FIRE ALARM AUDIO/VISUAL DEVICE, POLE MOUNTED		
P X	FIRE ALARM AUDIO DEVICE, POLE MOUNTED		

NOTE: FOR ABOVE AUDIO AND AUDIO/VISUAL DEVICES, SUBSCRIPTS INDICATES:
'XXcd' INDICATES STROBE CANDELA RATING (75cd UNLESS NOTED OTHERWISE), WP - WEATHERPROOF,
CC - CUSTOM COLOR SELECTED BY ARCHITECT.

	CARBON MONOXIDE DETECTOR, CEILING MOUNTED	F	FIRE ALARM PULL STATION
	HEAT DETECTOR, CEILING MOUNTED FS - FIRE SERVICE ELEVATOR LOBBY TEMPERATURE MONITORING		SMOKE DETECTOR, WALL MOUNTED CO - WITH CARBON MONOXIDE E - ELEVATOR RECALL SB - INTEGRAL SOUNDER BASE SS - NON SYSTEM SINGLE STATION TYPE
	SMOKE DETECTOR, CEILING MOUNTED CO - WITH CARBON MONOXIDE E - ELEVATOR RECALL SB - INTEGRAL SOUNDER BASE SS - NON SYSTEM SINGLE STATION TYPE	X	BEAM SMOKE DETECTOR, SUBSCRIPT 'X' INDICATES; BT - BEAM TRANSMITTER BR - BEAM RECEIVER
X	SMOKE DETECTOR, DUCT MOUNTED. SUBSCRIPT 'X' INDICATES UNIT SERVED		SMOKE DAMPER
	FIRE/SMOKE DAMPER	FS	FLOW SWITCH
TS	TAMPER SWITCH	P	PRESSURE ALARM
XXXX	FIRE ALARM PANEL XXXX INDICATES TYPE FACP - FIRE ALARM CONTROL PANEL FATC - FIRE ALARM TERMINAL CABINET FAA - FIRE ALARM REMOTE ANNUNCIATOR ASD - ASPIRATING SMOKE DETECTION CONTROL PANEL VEP - VOICE EVACUATION PANEL	R	CONTROL RELAY
			ELECTRO-MAGNETIC DOOR HOLDER
			ELECTRIC FIRE BELL/GONG
		RT	REMOTE TEST STATION
		F	FIREFIGHTERS TELEPHONE OUTLET
		KB	KEY BOX

UPPER ATTACHMENT

A. FOR UPPER ATTACHMENT TO NEW & EXISTING STRUCTURE, SEE STRUCTURAL DRAWINGS.

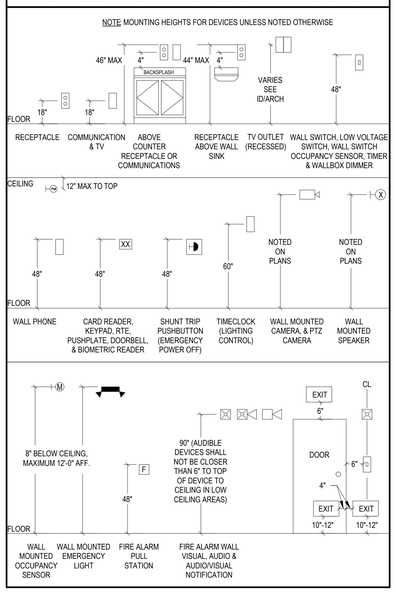
B.WHERE NEW STRUCTURAL INTERSTITIAL SYSTEM IS USED, PROVIDE INTERMEDIATE MEMBERS AS REQUIRED FOR SUPPORTING WORK.

LINE TYPES

U-OH	UTILITY OVERHEAD ELECTRICAL DISTRIBUTION
U-E	UTILITY UNDERGROUND ELECTRICAL DISTRIBUTION
E	600 VOLT UNDERGROUND ELECTRICAL DISTRIBUTION
XE	EXISTING 600 VOLT UNDERGROUND ELECTRICAL DISTRIBUTION
MV	MEDIUM VOLTAGE UNDERGROUND ELECTRICAL DISTRIBUTION
XMV	EXISTING MEDIUM VOLTAGE UNDERGROUND ELECTRICAL DISTRIBUTION

DEVICE MOUNTING HEIGHT DIAGRAM

NOTE MOUNTING HEIGHTS FOR DEVICES UNLESS NOTED OTHERWISE



GROUNDING

GROUND ROD	GROUND BUS BAR

CODE COMPLIANCE

2022 CALIFORNIA ELECTRICAL CODE (CEC)
PART 3, TITLE 24, CCR
BASED ON THE 2020 NATIONAL ELECTRICAL CODE (NEC)

SCOPE OF WORK

THE ELECTRICAL SCOPE OF WORK AT RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER IS AS FOLLOWS:

A. DEMOLISH EXISTING PHYSICAL THERAPY SPACE AND ASSOCIATED ELECTRICAL INFRASTRUCTURE BACK TO SOURCE PANELS.
B. INSTALL NEW ELECTRICAL AND TELECOMMUNICATIONS INFRASTRUCTURE TO SUPPORT TWO NEW CARDIAC CATH LAB, ANGIOGRAPHY SUITES, PRE OR BAYS AND SUPPORT SPACES.
C. INSTALL NEW ELECTRICAL AND TELECOMMUNICATIONS INFRASTRUCTURE TO SUPPORT EXPANSION OF THE EXISTING HYPERBARIC CHAMBER. HYPERBARIC THERAPY AREA IS LISTED AS CATEGORY 1 WITH CLASS B CHAMBERS IN ACCORDANCE WITH NFPA 99:2018 14.3.3
D. INSTALL NEW ELECTRICAL AND TELECOMMUNICATIONS INFRASTRUCTURE TO SUPPORT MECHANICAL AND PLUMBING SYSTEMS REQUIRED FOR THE NEW SPACES.

TAGS AND CALL OUT SYMBOLS

1 XXXX	SECTION CALLOUT SECTION DESIGNATION SHEET NUMBER		POINT OF CONNECTION
			POINT OF DEMARCATION
A XXXX	DETAIL CALLOUT DETAIL DESIGNATION SHEET NUMBER	X	REVISION CALLOUT
		X	KEYNOTE CALLOUT

DEMOLITION

< R >	EXISTING TO BE REMOVED	< X >	EXISTING TO REMAIN
< RL >	EXISTING TO BE RELOCATED	< NL >	EXISTING - NEW LOCATION
	DEMOLITION CONDUIT		DEMOLITION EQUIPMENT

CIRCUITING

BLDG-E1MDPHA-1
- CIRCUIT NUMBER
- PANEL DESIGNATION

3#12,#12G,3/4"C
- CONDUIT SIZE
- GROUND CONDUCTOR QUANTITY AND SIZE
- CIRCUIT CONDUCTOR QUANTITY AND SIZE

LIGHTING

R10 7n NL
- UPPER CASE LETTERS INDICATES THE LUMINAIRE SERIES TYPE, NUMBER INDICATES A DIFFERENT LUMINAIRE TYPE WITHIN THE SERIES
- NUMBER INDICATES CIRCUIT NUMBER, LOWER CASE LETTER INDICATES SWITCH LEG
- NIGHT LIGHT DESIGNATION INDICATES UNSWITCHED AND CONTINUOUSLY "ON"

LUMINAIRE SHADING LEGEND - TYPICAL FOR EACH LUMINAIRE TYPE

NORMAL BRANCH | NEC 700 LIFE SAFETY BRANCH AND/OR BATTERY PACK

	TROFFER		ADJUSTABLE DOWNLIGHT
	STRIP LIGHT		SCONCE
	RECESSED STRIP LIGHT		PENDANT
	WALL MOUNTED STRIP LIGHT		BOLLARD
	CIRCULAR APERTURE DOWNLIGHT		POLE MOUNTED LIGHT
	SQUARE APERTURE DOWNLIGHT		

EXIT SIGNS

	CEILING MOUNTED SINGLE FACE EXIT SIGN - ARROWS INDICATE DIRECTION		CEILING MOUNTED DOUBLE FACE EXIT SIGN - ARROWS INDICATE DIRECTION
X	WALL MOUNTED SINGLE FACE EXIT SIGN ARROWS INDICATE DIRECTION SUBSCRIPT 'L' INDICATES LOW LEVEL EXIT SIGN		WALL MOUNTED DOUBLE FACE EXIT SIGN - ARROWS INDICATE DIRECTION
	WALL END-MOUNTED SINGLE FACE EXIT SIGN ARROWS INDICATE DIRECTION	P	EXIT SIGN, POLE MOUNTED

SWITCHES / CONTROLS

X ab	WALL MOUNTED SWITCH 'ab' INDICATES INDIVIDUAL GANGED SWITCHES AND ASSOCIATED SWITCH LEGS CONTROLLED, SUBSCRIPT 'X' INDICATES: 2 - DOUBLE POLE 3 - THREE WAY 4 - FOUR WAY D - WALL BOX DIMMER EP - EXPLOSION PROOF F - FAN SWITCH H - HORSEPOWER RATED K - KEY OPERATED LV - LOW VOLTAGE TYPE OV - OVERRIDE SWITCH P - PILOT LIGHT T - WALL BOX TIMER W - WIRELESS WP - WEATHER PROOF		OCCUPANCY AND VACANCY SENSORS
		M X ab	OCCUPANCY/VACANCY SENSOR, CEILING MOUNTED
		M X ab	OCCUPANCY/VACANCY SENSOR, WALL MOUNTED (REFER TO MOUNTING HEIGHT LEGEND)
		X ab	OCCUPANCY/VACANCY SENSOR, WALL SWITCH TYPE NOTE: 'ab' INDICATES SWITCH LEGS CONTROLLED, SUBSCRIPT 'X' INDICATES: VS - VACANCY SENSOR TYPE OS - OCCUPANCY SENSOR TYPE LV - LOW VOLTAGE SWITCH W - WIRELESS
LCP	LIGHTING CONTROL PANEL CONTROL STATION SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER	C X	CONTACTOR, SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER
L X	LIGHTING CONTROL WALL STATION, SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER	PC X	PHOTOCELL
TC X	TIME CLOCK, SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER	ALCR	AUTOMATIC LOAD CONTROL RELAY (EMERGENCY LIGHTING)
DS X	DAYLIGHT SENSOR, CEILING MOUNTED	BCELTS	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH (EMERGENCY LIGHTING)

POWER CONNECTIONS

J	JUNCTION BOX, WALL MOUNTED	J	JUNCTION BOX, CEILING MOUNTED
E X	SPECIAL EQUIPMENT CONNECTION, WALL MOUNTED. SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER, REFER TO EQUIPMENT CONNECTION SCHEDULE.	E X	SPECIAL EQUIPMENT CONNECTION, CEILING MOUNTED. SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER, REFER TO EQUIPMENT CONNECTION SCHEDULE.
	DISCONNECT SWITCH, REFER TO EQUIPMENT CONNECTION SCHEDULE FOR DISCONNECT TYPE, UNO		COMBINATION MOTOR STARTER DISCONNECT, REFER TO EQUIPMENT CONNECTION SCHEDULE FOR DISCONNECT TYPE, UNO
X	MOTOR, SUBSCRIPT 'X' DENOTES MOTOR DESIGNATION, REFER TO EQUIPMENT CONNECTION SCHEDULE		VARIABLE FREQUENCY DRIVE
	POWER POLE		SHUNT TRIP PUSH BUTTON B - BUILDING SHUNT TRIP OR - LIGHTING OVERRIDE

THIS PROJECT REQUIRES A SYSTEM STUDY PRIOR TO EQUIPMENT PROCUREMENT

THE ELECTRICAL GEAR SPECIFIED IN THIS PROJECT HAS POTENTIAL LONG LEAD TIMES. IN ORDER TO MITIGATE ADDITIONAL DELAYS IN REVIEWING SUBMITTAL IT IS IMPERATIVE THAT THE CONTRACTOR SUBMIT A SYSTEM STUDY IN ACCORDANCE WITH SPECIFICATION 260573 - SYSTEM STUDIES WHICH INCLUDES A COORDINATION STUDY, FAULT STUDY, AND ARC FLASH ANALYSIS.

SUBMITTALS LISTED BELOW WILL NOT BE APPROVED WITHOUT AN APPROVED SYSTEM STUDY. ORDERING EQUIPMENT PRIOR TO AN APPROVED SYSTEM STUDY IS AT CONTRACTOR'S RISK.

THE FOLLOWING SECTIONS MUST BE SUBMITTED WITH SYSTEM STUDY:

262416 - PANELBOARDS
262816 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS

RECEPTACLES

	DUPLEX RECEPTACLE, WALL MOUNTED		DOUBLE DUPLEX RECEPTACLE, WALL MOUNTED
	DUPLEX RECEPTACLE, ABOVE BACKSPLASH OF CABINET, COUNTERTOP OR SINK		DOUBLE DUPLEX RECEPTACLE, ABOVE BACKSPLASH OF CABINET, COUNTERTOP OR SINK
	DUPLEX RECEPTACLE, FLUSH MTD IN CEILING		DOUBLE DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING
	HALF SWITCHED DUPLEX RECEPTACLE, WALL MOUNTED		SIMPLEX RECEPTACLE, WALL MOUNTED
TYPE	SPECIAL PURPOSE RECEPTACLE, WALL MOUNTED. NEMA CONFIGURATION AS NOTED ON PLANS	TYPE	SPECIAL PURPOSE RECEPTACLE, CEILING MOUNTED NEMA CONFIGURATION AS NOTED ON PLANS
	OCCUPANCY CONTROLLED/SWITCHED DUPLEX RECEPTACLE, WALL MOUNTED		OCCUPANCY CONTROLLED/SWITCHED DUPLEX RECEPTACLE, ABOVE BACKSPLASH OF CABINET, COUNTERTOP OR SINK
	OCCUPANCY CONTROLLED/ HALF SWITCHED DOUBLE DUPLEX RECEPTACLE, WALL MOUNTED		OCCUPANCY CONTROLLED/ HALF SWITCHED DOUBLE DUPLEX RECEPTACLE, ABOVE BACKSPLASH OF CABINET, COUNTERTOP OR SINK
MA-X	MULTI-OUTLET ASSEMBLY, "X" INDICATES TYPE		

X - RECEPTACLE TYPE
12 - NUMBER INDICATES BRANCH CIRCUIT NUMBER

NOTE: FOR ABOVE DEVICES, SUBSCRIPT 'X' INDICATES:

CK -	CLOCK HANGER	P -	PEDESTAL TYPE
EP -	EXPLOSION PROOF	R -	RECESSED OUTLET
EQ -	EQUIPMENT MOUNTED	SS -	SURGE SUPPRESSION
EWC -	ELECTRIC WATER COOLER	T -	TAMPER PROOF
F -	FURNITURE OR MILLWORK MOUNTED	TV -	TELEVISION OUTLET
GFI -	GROUND FAULT INTERRUPTER	WP -	WEATHER PROOF
H -	HORIZONTALLY MOUNTED	U -	USB TYPE
IG -	ISOLATED GROUND		

RECEPTACLE BRANCH CIRCUIT SHADING

* SEE RECEPTACLE TYPES BELOW FOR CONFIGURATION

	SHADING REPRESENTS RECEPTACLE NEC 700 - LIFE SAFETY BRANCH		SHADING REPRESENTS RECEPTACLE ON NEC 517 CRITICAL BRANCH
	SHADING REPRESENTS RECEPTACLE ON NEC 701/517 STANDBY/EQUIPMENT BRANCH		SHADING REPRESENTS RECEPTACLE ON UPS BRANCH

FLOOR OUTLETS

	FLOOR BOX, SINGLE SERVICE TYPE DUPLEX RECEPTACLE		FLOOR BOX, SINGLE SERVICE TYPE DOUBLE DUPLEX RECEPTACLE
	FLOOR BOX, MULTI-SERVICE TYPE DUPLEX/COMMUNICATIONS OUTLET		FLOOR BOX, MULTI-SERVICE TYPE, DOUBLE DUPLEX/COMMUNICATIONS OUTLET
	POKE THRU, SINGLE SERVICE TYPE DUPLEX RECEPTACLE		FLOOR BOX, SINGLE-SERVICE TYPE JBOX (POWER) - UNO
	POKE THRU, MULTI-SERVICE TYPE POWER/COMMUNICATIONS OUTLET		FLOOR BOX, MULTI-SERVICE TYPE JBOX (POWER)/COMMUNICATIONS
	POKE THRU, MULTI-SERVICE TYPE JBOX (POWER)/COMMUNICATIONS		POKE THRU, SINGLE SERVICE TYPE DOUBLE DUPLEX RECEPTACLE
	POKE THRU, SINGLE-SERVICE TYPE JBOX (POWER) - UNO		POKE THRU, MULTI-SERVICE TYPE, DOUBLE DUPLEX/COMMUNICATIONS OUTLET

X - FLOOR BOX TYPE (REFER TO SPECIFICATIONS FOR FLOOR BOX TYPES AND CATALOG NUMBERS AND QUANTITY AND SIZES OF CONDUITS TO EACH BOX,UNO)
12 - NUMBER INDICATES BRANCH CIRCUIT NUMBER
FLOOR BOX, CONFIGURATION AS INDICATED, FLUSH MOUNTED, UNLESS OTHERWISE NOTED.

NOTE: FOR ABOVE DEVICES, SUBSCRIPT 'X' INDICATES:
AF - MULTI-SERVICE TYPE - ACCESS FLOOR
BR - MULTI-SERVICE TYPE - BALLROOM TYPE
CC - MULTI-SERVICE TYPE - CONVENTION CENTER TYPE
F - FURNITURE FEED
M - MULTI-SERVICE TYPE
S# - SINGLE-SERVICE TYPE. # - # OF GANGS
WP - SINGLE-SERVICE WEATHERPROOF TYPE - (POWER OR DATA ONLY)

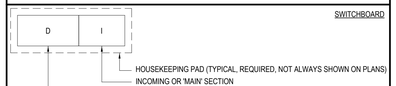
* 'C' SUBSCRIPT NEXT TO ANY FLOOR BOX INDICATES HALF OF RECEPTACLES IN BOX TO BE AUTOMATICALLY CONTROLLED

SINGLE LINE SYMBOLS

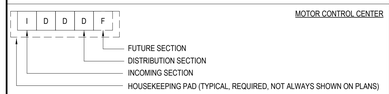
###/3 X	CKT BREAKER, '###' INDICATES TRIP SETTING, '3' INDICATES NUMBER OF POLES	M	UTILITY METER
	SS - SOLID STATE GFP - GROUND FAULT PROTECTION ERMS - ENERGY-REDUCING MAINTENANCE SWITCH EO - ELECTRICALLY OPERATED	PANEL NAME	MINI POWER ZONE PANEL
	ENCLOSED NON-FUSED DISCONNECT SWITCH		
###/3	ENCLOSED FUSED DISCONNECT SWITCH '###' INDICATES TRIP SETTING, '3' INDICATES NUMBER OF POLES	PANEL NAME	PANELBOARD
###/3	ENCLOSED CIRCUIT BREAKER '###' INDICATES TRIP SETTING, '3' INDICATES NUMBER OF POLES	L1 L2 S1 S2	GENERATOR CONNECTION PANEL WITH MANUAL TRANSFER SWITCH
###/3	FUSED SWITCH, '###' INDICATES TRIP SETTING, '3' INDICATES NUMBER OF POLES	L N E	AUTOMATIC TRANSFER SWITCH
K	KIRK KEY INTERLOCK	BP IS ATS N E	AUTOMATIC TRANSFER SWITCH WITH BYPASS ISOLATION
DMM	DIGITAL MULTI-METER	GF ALARM ONLY	GENERATOR
ST	SHUNT TRIP		
SPD	SURGE SUPPRESSION DEVICE	BUS DUCT TAP BOX	BUS DUCT
	GROUND		
	TRANSFORMER		
	SHIELD/ISOLATION TRANSFORMER		
	PAD MOUNTED TRANSFORMER		
A E1234567	FEEDER REFERENCE		

DISTRIBUTION EQUIPMENT

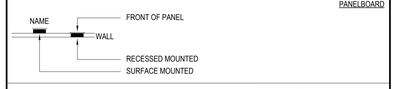
SWITCHBOARD



MOTOR CONTROL CENTER



PANELBOARD



PANELBOARD/SWITCHBOARD NAMING

BLDG-E1MDPHA1
- A,B,C... DESIGNATOR DISTINGUISHES ROOM OR ROOM PANEL SERVED FROM
- 1,2,3... DESIGNATOR DISTINGUISHES INDIVIDUAL PANEL/SWITCHBOARD
- H - 480Y/277V
- L - 208Y/120V
- NOTHING INDICATES LIGHTING/RECEPTACLE PANEL BRANCH PANEL
  - AV - AUDIO VISUAL PANEL
  - DM - DIMMING PANEL
  - DP - DISTRIBUTION PANEL
  - EV - ELECTRIC VEHICLE CHARGING PANEL
  - FCC - FIRE COMMAND CENTER PANEL
  - GDP - GENERATOR DISTRIBUTION PANEL
  - GSB - GENERATOR SWITCHBOARD
  - K - KITCHEN PANEL
  - LC - LOAD CENTER
  - LCP - LIGHTING CONTROL PANEL
  - MC - METER CENTER
  - MCC - MOTOR CONTROL CENTER
  - MDP - MAIN DISTRIBUTION PANEL (SERVICE ENTRANCE)
  - MSB - MAIN SWITCHBOARD (SERVICE ENTRANCE)
  - PDU - POWER DISTRIBUTION UNIT
  - SB - SWITCHBOARD
  - ST - SHUNT TRIP PANEL
  - T - TENANT PANEL
  - TC - TELECOMMUNICATIONS PANEL
  - SC - SHOW CONTROL PANEL
  - R - RIDE POWER PANEL
- INDICATES WHICH FLOOR PANEL IS LOCATED ON (IF REQUIRED)
- NOTHING INDICATES NORMAL
  - E - EMERGENCY (NEC ARTICLE 700)
  - L - LEGALLY REQUIRED STANDBY LOADS (NEC ARTICLE 701)
  - S - OPTIONAL STANDBY LOADS (NEC ARTICLE 702 LOADS)
  - LS - LIFE SAFETY LOADS (HEALTHCARE NEC ARTICLE 517)
  - CR - CRITICAL LOADS (HEALTHCARE NEC ARTICLE 517)
  - EQ - EQUIPMENT LOADS (HEALTHCARE NEC ARTICLE 517)
  - N - NORMAL LOADS (HEALTHCARE)
- INDICATES WHICH BUILDING/AREA PANEL IS LOCATED IN (IF REQUIRED)

TRANSFORMER



TRANSFORMER DESIGNATION

BLDG-T-E1DPHA1
- INDICATES PANEL SERVED
- INDICATES TRANSFORMER
- INDICATES WHICH BUILDING/AREA TRANSFORMER IS LOCATED IN (IF REQUIRED)

TRANSFER SWITCH



TRANSFER SWITCH DESIGNATION

BLDG-ATS-E1HA1
- INDICATES PANEL SERVED
- INDICATES TRANSFER SWITCH
  - ATS - AUTOMATIC TRANSFER SWITCH
  - MTS - MANUAL TRANSFER SWITCH
- INDICATES WHICH BUILDING/AREA AUTOMATIC TRANSFER SWITCH IS LOCATED IN (IF REQUIRED)

SHEET INDEX

Sheet Number	Sheet Name
EI001	ELECTRICAL LEAD SHEET
EI002	ELECTRICAL TELECOMM LEAD SHEET
EI003	ELECTRICAL TELECOMM RESPONSIBILITY MATRIX
ED151	PHASING PLAN - LVL 1 - ELEC POWER PLAN - DEMO
ED152	PHASING PLAN - LVL 1 - ELEC LIGHTING PLAN - DEMO
EE100	BUILDING OVERALL ELEC FLOOR PLANS
EE111	PHASING PLAN - LEVEL 1 - ELECTRICAL POWER & FIRE ALARM PLAN - REMODEL
EE112	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING PLAN - REMODEL
EE112A	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING EGRESS PLAN - REMODEL
EE113	PHASING PLAN - LEVEL 1 - ELECTRICAL TELECOMM PLAN - REMODEL
EE114	ROOF - ELECTRICAL POWER PLAN
EE201	ELECTRICAL TELECOMM ENLARGED PLANS
EE202	ELECTRICAL TELECOMM ENLARGED PLANS
EE203	ELECTRICAL TELECOMM ENLARGED PLANS
EE501	ELECTRICAL DETAILS
EE502	ELECTRICAL TELECOMM DETAILS
EE503	ELECTRICAL TELECOMM DETAILS
EE504	ELECTRICAL TELECOMM DETAILS
EE505	ELECTRICAL TELECOMM DETAILS
EE601	ELECTRICAL DIAGRAMS
EE602	ELECTRICAL TELECOMM RISER DIAGRAM
EE603	ELECTRICAL TELECOMM RISER DIAGRAM & SCHEDULE
EE604	ELECTRICAL PANEL SCHEDULES
EE605	ELECTRICAL PANEL SCHEDULES
EE606	ELECTRICAL SCHEDULES

SEISMIC GENERAL NOTES:

1. THE INTENT OF THE CONSTRUCTION DOCUMENT IS TO RECONSTRUCT THE HOSPITAL BUILDING IN ACCORDANCE WITH THE 2022 CBSC. SHOULD ANY CONDITION DEVELOP NOT COVERED BY THE APPROVED CONSTRUCTION DOCUMENTS, WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE 2022 CBSC, AMENDED CONSTRUCTION DOCUMENTS (ACD'S) DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY HCAI BEFORE PROCEEDING WITH THE WORK.

2. SUPPORTS AND ATTACMENTS OF ALL EQUIPMENT TO BE INSTALLED AS A PART OF THIS PROJECT SHALL BE DETAILED ON CONSTRUCTION DOCUMENTS, EXCEPT THOSE EXEMPTED BY THE 2910 CBC SECTION 1617A 1.18 AND PIN 68. EQUIPMENT SUPPORTS AND ATTACHMENTS SHALL BE APPROVED BY THE APPROPRIATE REGISTERED DESIGN PROFFFESIONAL (RDP) AND HCAI AS A PART OF FIELD REVIEWS/OBSERVATIONS. THE INSPECTOR OF RECORD (IOR) SHALL ASSURE THAT THE ABOVE REQUIREMENTS ARE ENFORCED.

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

ELECTRICAL LEAD SHEET

SHEET NUMBER

EI001

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ABBREVIATIONS

6P2C	SIX POSITION, TWO CONTACT (RJ11)	N	NEUTRAL
6P4C	SIX POSITION, FOUR CONTACT (RJ13)	N/A	NOT APPLICABLE
6P6C	SIX POSITION, SIX CONTACT (RJ12)	NC	NORMALLY CLOSED
8P8C	EIGHT POSITION, EIGHT CONTACT (RJ45)	NCP	NETWORK CONTROL PANEL
		NEC	NATIONAL ELECTRICAL CODE
AAC	ABOVE ACCESSIBLE CEILING	NEXT	NEAR END CROSSTALK LOSS
AC	ALTERNATING CURRENT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
ADA	AMERICANS WITH DISABILITIES ACT	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	N.O.	NORMALLY OPEN
AFG	ABOVE FINISHED GRADE	NO.	NUMBER
AHJ	AUTHORITY HAVING JURISDICTION	NTS	NOT TO SCALE
AIA	AMERICAN INSTITUTE OF ARCHITECTS	NVR	NETWORK VIDEO RECORDER
ALM	ALARM		
AMP	AMPLIFIER	OC	ON CENTER
ANN	ANNUNCIATOR	OD	OUTSIDE DIAMETER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	OF	OPTICAL FIBER
AP	ACCESS POINT	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
ARCH	ARCHITECT	OFE	OWNER FURNISHED EQUIPMENT
ATM	AUTOMATIC TELLER MACHINE	OFOI	OWNER FURNISHED OWNER INSTALLED
AV	AUDIOVISUAL	OLT	OPTICAL LINE TERMINAL
AWG	AMERICAN WIRE GAUGE	ONT	OPTICAL NETWORK TERMINAL
		OS	OPERATING SYSTEM
BAS	BUILDING AUTOMATION SYSTEM	OSP	OUTSIDE PLANT
BBC	BACKBONE BONDING CONDUCTOR		
BC	BONDING CONDUCTOR	PA	PUBLIC ADDRESS
BDA	BIDIRECTIONAL AMPLIFIER	PACS	PHYSICAL ACCESS CONTROL SYSTEM
BFG	BELOW FINISHED GRADE	PAN	PERSONAL AREA NETWORK
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL	PABX	PRIVATE AUTOMATIC BRANCH EXCHANGE
		PB	PULL BOX
BLDG	BUILDING	PBX	PRIVATE BRANCH EXCHANGE
BMS	BUILDING MANAGEMENT SYSTEM	PDU	POWER DISTRIBUTION UNIT
		PEND	PENDANT MOUNTED
C	CONDUIT	PH	PHASE
CAT	CATEGORY	PIR	PASSIVE INFRARED
CATV	COMMUNITY ANTENNA TELEVISION	PLBG	PLUMBING
CCTV	CLOSED CIRCUIT TELEVISION (SEE VSS)	PLMR	PRIVATE LAND MOBILE RADIO
CI	CIRCUIT INTEGRITY	P/N	PART NUMBER
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	PNL	PANEL
		POE	POWER OVER ETHERNET
CLG	CEILING	PON	PASSIVE OPTICAL NETWORK
CMP	COMMUNICATIONS PLENUM CABLE	POP	POINT OF PRESENCE
CMR	COMMUNICATIONS RISER CABLE	POS	POINT OF SALE
COAX	COAXIAL	POTS	PLAIN OLD TELEPHONE SERVICE
CONC	CONCRETE	PP	PATCH PANEL
CONN	CONNECTION	PR	PAIR
CONT	CONTINUATION	PSIM	PHYSICAL SECURITY INFORMATION MANAGEMENT
CP	CONSOLIDATION POINT		
CR	CARD READER	PTZ	PAN/TILT/ZOOM
CRAC	COMPUTER ROOM AIR CONDITIONER	PVC	POLYVINYL CHLORIDE
CRAH	COMPUTER ROOM AIR HANDLER	PWR	POWER
CU	COPPER		
		QTY	QUANTITY
DAS	DISTRIBUTED ANTENNA SYSTEM		
DB	DECIBEL	RBB	RACK BONDING BUSBAR
DBS	DIRECT BROADCAST SATELLITE	RC	REMOTE CONTROL
DC	DIRECT CURRENT	RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
DCIM	DATA CENTER INFRASTRUCTURE MANAGEMENT		
DIV	DIVISION	REC	RECESSED
DIA	DIAMETER	RECPT	RECEPTACLE
DP	DEMARCATION POINT	REF	REFRIGERATOR
DWG	DRAWING	REX	REQUEST TO EXIT
		RF	RADIO FREQUENCY
EA	EACH	RGS	RIGID GALVANIZED STEEL
EACS	ELECTRONIC ACCESS CONTROL SYSTEM	RT	RAIN TIGHT
EER	ELECTRONIC EQUIPMENT ROOM	RU	RACK UNIT (1 3/4")
EF	ENTRANCE FACILITY		
ELEC	ELECTRICAL	S/FTP	SHIELDED W/ FOILED TWISTED-PAIRS
EM	EMERGENCY	S/UTP	SHIELDED W/ UNSHIELDED TWISTED-PAIRS
EMT	ELECTRICAL METALLIC TUBING	SB	STANDBY
EPO	EMERGENCY POWER OFF	SBB	SECONDARY BONDING BUSBAR
EQUIP	EQUIPMENT	SCS	STRUCTURED CABLING SYSTEM
ER	EQUIPMENT ROOM	SM	SINGLE MODE
ERRCS	EMERGENCY RESPONDER RADIO COMMUNICATIONS SYSTEMS	SP	SERVICE PROVIDER
		SPD	SURGE PROTECTIVE DEVICE
EXIST	EXISTING	SPEC	SPECIFICATION
EXT	EXTERIOR	SPKR	SPEAKER
		SS	STAINLESS STEEL
F/FTP	FOILED W/ FOILED TWISTED-PAIRS	STP	SHIELDED TWISTED PAIR
F/UTP	FOILED W/ UNSHIELDED TWISTED-PAIRS	SURF	SURFACE
FA	FIRE ALARM	SYM	SYMMETRICAL
FACP	FIRE ALARM CONTROL PANEL	SYS	SYSTEM
FB	FLOOR BOX		
FD	FLOOR DISTRIBUTORS	TBB	TELECOMMUNICATIONS BONDING BACKBONE
FO	FIBER OPTIC	TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
FOV	FIELD OF VIEW	TBD	TO BE DETERMINED
FT	FEET OR FOOT	TCP/IP	TRANSMISSION CONTROL PROTOCOL/INTERNET PROTOCOL
FTP	FOIL TWISTED-PAIRS		
		TE	TELECOMMUNICATIONS ENCLOSURE
G	GROUND	TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
GC	GENERAL CONTRACTOR		
GFE	GOVERNMENT FURNISHED EQUIPMENT	TEL	TELEPHONE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TELCO	TELECOMMUNICATIONS
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED	TELECOM	TELECOMMUNICATIONS
		TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
GFI	GROUND FAULT INTERRUPTER		
GFP	GROUND FAULT PROTECTION	TL	TWIST LOCK
GHW	GALVANIZED HEAVY WALL STEEL CONDUIT	TO	TELECOMMUNICATIONS OUTLET
GPON	GIGABIT PASSIVE OPTICAL NETWORK	TR	TELECOMMUNICATIONS ROOM
GRND	GROUND	TTC	TELEPHONE TERMINAL CABINET
		TV	TELEVISION
HC	HORIZONTAL CROSS-CONNECT	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR (SEE SPD)
HP	HORSEPOWER		
HZ	HERTZ (CYCLES/SECOND)	TYP	TYPICAL
IDC	INSULATION DISPLACEMENT CONNECTOR	U	RACK UNIT (1 3/4")
IDF	INTERMEDIATE DISTRIBUTION FRAME (SEE TR)	UFTP	UNSHIELDED TWISTED-PAIR W FOILED TWISTED PAIRS
IDS	INTRUSION DETECTION SYSTEM		
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS	U/UTP	UNSHIELDED TWISTED-PAIR W/ UNSHIELDED TWISTED-PAIRS
IG	ISOLATED GROUND	UG	UNDERGROUND
IP	INTERNET PROTOCOL	UGPS	UNDERGROUND PULL SECTION
IR	INFRARED	UL	UNDERWRITER'S LABORATORIES
ISP	INTERNET SERVICE PROVIDER	UNIV	UNIVERSAL
I.T.	INFORMATION TECHNOLOGY	UNO	UNLESS NOTED OTHERWISE
I.T.S.	INFORMATION TECHNOLOGY SYSTEM	UON	UNLESS OTHERWISE NOTED
		UPS	UNINTERRUPTIBLE POWER SUPPLY
JB	JUNCTION BOX	UTP	UNSHIELDED TWISTED PAIR
KO	KNOCKOUT	V	VOLTS
KVA	KILOVOLT-AMPERES	VA	VOLT-AMPERES
KVM	KEYBOARD/VIDEO/MOUSE	VIF	VERIFY IN FIELD
KW	KILOWATT	VLAN	VIRTUAL LOCAL AREA NETWORK
		VMS	VIDEO MANAGEMENT SOFTWARE
LAN	LOCAL AREA NETWORK	VOIP	VOICE OVER INTERNET PROTOCOL
LCP	LIGHTING CONTROL PANEL	VOWLAN	VOICE OVER WIRELESS LOCAL AREA NETWORK
LEC	LOCAL EXCHANGE CARRIER	VP	VAPOR PROOF
LPR	LICENSE PLATE RECOGNITION	VPN	VIRTUAL PRIVATE NETWORK
LTG	LIGHTING	VSS	VIDEO SURVEILLANCE SYSTEM
LV	LOW VOLTAGE	VT	VAPOR TIGHT
LVC	LOW VOLTAGE CONTRACTOR		
		W	WATTS
MAN	METROPOLITAN AREA NETWORK	WAN	WIDE AREA NETWORK
MATV	MASTER ANTENNA TELEVISION	WAP	WIRELESS ACCESS POINT
MAX	MAXIMUM	WLAN	WIRELESS LOCAL AREA NETWORK
MDF	MAIN DISTRIBUTION FRAME (SEE ER)	WP	WEATHERPROOF
MECH	MECHANICAL	WT	WATERTIGHT
MFR	MANUFACTURER		
MH	MAINTENANCE HOLE	XFMR	TRANSFORMER
MIN	MINIMUM		
MM	MULTIMODE		
MPOE	MINIMUM POINT OF ENTRY		
MPTL	MODULAR PLUG TERMINAL LINK		
MTD	MOUNTED		
MTG	MOUNTING		
MUTOA	MULTI-USER TELECOMMUNICATIONS OUTLET ASSEMBLY		

TAGS AND CALLOUT SYMBOLS

X / XXXXX / A	SECTION CALLOUT SECTION NUMBER SHEET NUMBER REVISION CALLOUT	X / XXXXX / XX	DETAIL CALLOUT DETAIL NUMBER SHEET NUMBER KEYNOTE CALLOUT

EQUIPMENT RACKS AND CABINETS

FRONT	FLOOR-MOUNTED TWO-POST EQUIPMENT RACK	FRONT	FLOOR-MOUNTED FOUR-POST EQUIPMENT RACK / CABINET
FRONT	WALL-MOUNTED EQUIPMENT RACK / CABINET	SMC SMC	STRUCTURED MEDIA CABINET SURFACE MOUNTED RECESSED VERTICAL CABLE MANAGER

NOTES:
1. REFER TO ENLARGED FLOOR PLANS AND DETAILS FOR SPECIFIC EQUIPMENT RACK AND CABINET INFORMATION.

TELECOMMUNICATIONS SYSTEM

XX / AA	DATA OUTLET, WALL-MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

AA / XX	DATA OUTLET, FLOOR-MOUNTED

DEVICE NOTES:
1. MOUNT OUTLET IN FLOOR BOX PROVIDED BY THE ELECTRICAL CONTRACTOR. REFER TO THE ELECTRICAL PLANS AND SPECIFICATIONS FOR FLOOR BOX DETAILS, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

AA / XX	DATA OUTLET, CEILING-MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.
3. FLUSH MOUNT OUTLET FACEPLATE TO CEILING, UNO.

XX = DEVICE TYPE
- C = COUNTER-MOUNTED OUTLET
- F = MODULAR FURNITURE OUTLET
- H = HOUSE PHONE
- P = PAY PHONE
- W = WALL PHONE
- WAP = WIRELESS ACCESS POINT
- ATM = DEDICATED TO AUTOMATIC TELLER MACHINE
- TC = DEDICATED TO TIME CLOCK
- POS = DEDICATED TO POINT OF SALE LOCATION
- DS = DIGITAL SIGNAGE
- TV= IP TELEVISION
- AL = ANALOG VOICE LINE
- EPL = EMERGENCY PHONE LINE
- CMS = CENTRAL PATIENT MONITORING STATION OUTLET
- AA = NUMBER OF JACKS PER OUTLET / FACEPLATE IF > 1

110 AA	PUNCH BLOCK - 110 STYLE	BET AA	BUILDING ENTRANCE TERMINAL
66 AA	PUNCH BLOCK - 66 STYLE		

DEVICE NOTES:
1. REFER TO ONE-LINE DIAGRAMS FOR PAIR QUANTITY, SIZE, AND SPECIFICATION.
2. REFER TO DETAIL FOR MOUNTING HEIGHT INFORMATION.

AA = DEVICE DESIGNATION

AUDIOVISUAL SYSTEM

H X AA	SPEAKER, WALL-MOUNTED	X AA	SPEAKER, IN-GRADE/FLOOR-MOUNTED - OMNI DIRECTIONAL
AA / X	SPEAKER, CEILING-MOUNTED	X AA	SPEAKER, IN-GRADE/FLOOR-MOUNTED - DIRECTIONAL

X _ _ - _ - _ / _
- SCHEDULE TYPE/DESIGNATION
- AMPLIFIER CHANNEL
- AMPLIFIER #
- BGM/PAGING ZONE

DEVICE NOTES:
1. PROVIDE A 1/2" CONDUIT ROUTED BETWEEN EACH SPEAKER BACK BOX FOR SPEAKERS WITHIN A ZONE AND A 1/2" CONDUIT BETWEEN THE SPEAKER ZONE AND THE ASSOCIATED POWER AMPLIFIER OR NEAREST ACCESSIBLE CABLE PATHWAY, UNO.
2. INSTALL CEILING-MOUNTED SPEAKER FLUSH TO CEILING, UNO. PROVIDE ALL NECESSARY MOUNTING HARDWARE AND TIE OFF ACCESSORIES TO PROPERLY SUPPORT THE SPEAKER PER MANUFACTURER'S MOUNTING INSTRUCTIONS.
3. PROVIDE SPEAKER GRILLES TO MATCH THE ADJACENT CEILING / WALL COLOR, UNO.

AA = DEVICE / EQUIPMENT DESIGNATION
REFER TO AUDIOVISUAL SYSTEM SCHEDULES FOR DEFINITIONS.

H +CAT AV AA	AUDIOVISUAL OUTLET, WALL-MOUNTED	+CAT AV AA	AUDIOVISUAL OUTLET, FLOOR MOUNTED
+CAT AV AA	AUDIOVISUAL OUTLET, CEILING-MOUNTED		

DEVICE NOTES:
1. PROVIDE A TWO GANG BY 2-1/8" DEEP BACK BOX AT EACH LOCATION, UNO.
2. PROVIDE A 1-1/4" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.
3. INSTALL CEILING MOUNTED OUTLET FLUSH TO CEILING, UNO.
4. REFER TO DETAILS FOR AUDIOVISUAL OUTLET REQUIREMENTS.
5. REFER TO AV SCHEDULES FOR AUDIOVISUAL OUTLET MOUNTING HEIGHTS.

AA = DEVICE / EQUIPMENT DESIGNATION
REFER TO AUDIOVISUAL SYSTEM SCHEDULES FOR DEFINITIONS.
+CAT = CATEGORY CABLE REQUIRED, REFER TO AV SCHEDULE.

TSP AA +CAT	TOUCHSCREEN PANEL

DEVICE NOTES:
1. PROVIDE THE TOUCHSCREEN MANUFACTURER'S BACK BOX TO THE ELECTRICAL CONTRACTOR FOR INSTALLATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

AA = DEVICE / EQUIPMENT DESIGNATION
REFER TO AUDIOVISUAL SYSTEM SCHEDULES FOR DEFINITIONS.
+CAT = CATEGORY CABLE REQUIRED, REFER TO AV SCHEDULE.

H M AA +CAT	VIDEO MONITOR OUTLET, WALL-MOUNTED	M AA +CAT	VIDEO MONITOR OUTLET, FLOOR-MOUNTED
+CAT M AA	VIDEO MONITOR OUTLET, CEILING-MOUNTED		

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.
3. INSTALL CEILING-MOUNTED OUTLET FLUSH TO CEILING, UNO.
4. REFER TO DETAILS FOR VIDEO MONITOR OUTLET REQUIREMENTS.

AA = DEVICE / EQUIPMENT DESIGNATION
REFER TO AUDIOVISUAL SYSTEM SCHEDULES FOR DEFINITIONS.
+CAT = CATEGORY CABLE REQUIRED, REFER TO AV SCHEDULE.

AA / PROJ AA	PROJECTION SCREEN PROJECTOR	PROJ	PROJECTION SCREEN SWITCH

DEVICE NOTES:
1. REFER TO SCHEDULES FOR PROJECTOR/PROJECTION SCREEN INFORMATION.

AA = DEVICE / EQUIPMENT DESIGNATION
REFER TO AUDIOVISUAL SYSTEM SCHEDULES FOR DEFINITIONS.

MISCELLANEOUS

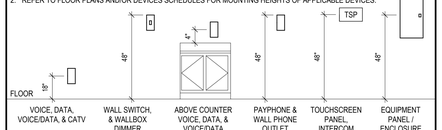
H J	JUNCTION BOX, WALL-MOUNTED	J	JUNCTION BOX, FLOOR-MOUNTED
J	JUNCTION BOX, CEILING-MOUNTED		TELE / POWER POLE

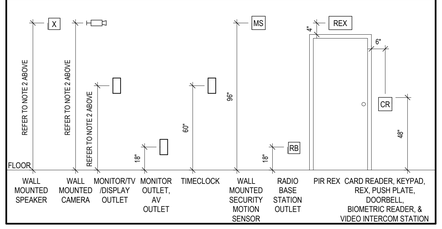
DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX, FLUSH MOUNTED IN SURFACE, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

	3/4" AC GRADE FIRE-RESISTANT PLYWOOD BACKBOARD, MOUNTED 1'-0" TO 9'-0" AFF, UNO.		TELECOMMUNICATIONS BONDING BUSBAR
	POINT OF DEMARCATION	CB	CABLE BOUNDARY DIVIDER LINE

DEVICE MOUNTING HEIGHT DIAGRAM

NOTES:
1. MOUNTING HEIGHTS FOR DEVICES UNLESS NOTED OTHERWISE. BACK BOXES SHALL BE INSTALLED TO ACCOMMODATE CORRECT DEVICE HEIGHT.
2. REFER TO FLOOR PLANS AND/OR DEVICES SCHEDULES FOR MOUNTING HEIGHTS OF APPLICABLE DEVICES.





ELECTRONIC ACCESS CONTROL SYSTEM

CR AA XX	CARD READER (PROXIMITY)	KP AA	ACCESS CONTROL KEYPAD
BR AA XX	BIOMETRIC READER	RX	REQUEST TO EXIT PUSHBUTTON
PP	PUSH PLATE	DR AA	DOOR RELEASE BUTTON

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 3/4" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE ACCESS CONTROL JUNCTION BOX LOCATED ABOVE THE DOOR, UNO.
3. DOOR RELEASE BUTTON SHALL BE SURFACE-MOUNTED TO UNDERSIDE OF COUNTER/DESK. MOUNT THE BACK BOX DIRECTLY BELOW THE COUNTER/DESK AND PROVIDE SURFACE-MOUNTED RACEWAY FROM THE BACK BOX TO THE DOOR RELEASE BUTTON LOCATION, UNO.

DB	DOOR BELL BUTTON		DOOR BELL

DEVICE NOTES:
1. PROVIDE A SINGLE GANG 1-1/2" DEEP BACK BOX AT EACH LOCATION, UNO.
2. PROVIDE A 1/2" CONDUIT ROUTED BETWEEN THE DOOR BELL BUTTON AND THE DOOR BELL, UNO.

	ACCESS CONTROL JUNCTION BOX - CEILING/SURFACE MOUNTED		ACCESS CONTROL JUNCTION BOX - WALL MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A 1-1/2" EXTENSION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE ACCESS CONTROL JUNCTION BOX AND THE ACCESS CONTROL PANEL, UNO.

EL	ELECTRIFIED LOCKSET (NOTE 1)	PT	POWER TRANSFER (NOTE 1)
ES	ELECTRIC STRIKE (NOTE 1)	DC	DOOR CONTACT (NOTE 1)
EP XX	ELECTRIFIED PANIC HARDWARE (NOTE 1)	REX	PASSIVE INFRARED REQUEST TO EXIT DEVICE (NOTE 1)
ML XX	MAGNETIC LOCK (NOTE 1)	DA	DOOR ALARM (NOTE 1)
K	MECHANICAL KEY ONLY (NOTE 1)	K	KEY OVERRIDE SWITCH (NOTE 1)
ADO	AUTOMATIC DOOR OPERATOR (NOTE 1)		

DEVICE NOTES:
1. REFER TO ARCHITECTURAL DOOR HARDWARE SCHEDULES AND SPECIFICATIONS FOR ELECTRIFIED DOOR HARDWARE REQUIREMENTS.
2. REFER TO DOOR DETAILS AND ACCESS CONTROL DIAGRAMS FOR REQUIREMENTS.

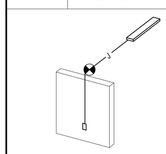
ACP AA	ACCESS CONTROL PANEL	ACPS AA	ACCESS CONTROL POWER SUPPLY
DCR AA	DOOR CONTROLLER (CARD READER INTERFACE PANEL)	R	ACCESS CONTROL RELAY
KS AA	KEY STORAGE		

XX = DEVICE TYPE
- SM = SMART CARD READER
- KP = PROXIMITY CARD READER / KEYPAD COMBINATION
- BR = PROXIMITY CARD READER / BIOMETRIC READER COMBINATION
- MU = MULLION-MOUNTED CARD READER
- LR = LONG RANGE
- FP = FINGERPRINT READER
- HND = HAND READER
- IS = IRIS SCANNER
- DA = DOOR ALARM
- DE = DELAYED EGRESS

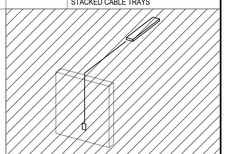
AA = DEVICE DESIGNATION
REFER TO ELECTRONIC ACCESS CONTROL SYSTEM SCHEDULES FOR DEFINITIONS.

INTERIOR CABLE PATHWAYS

	CONDUIT		UNDER SLAB / IN-SLAB CONDUIT
	CONDUIT STUBS DOWN		CONDUIT STUBS UP
	CONDUIT SLEEVES / FIRE STOP DEVICES		CABLE TRAY CABLE PATHWAYS
(X) XX"	J-HOOK CABLE PATHWAYS	(X) XX" x XX"	
	INDICATES J-HOOK SIZE INDICATES NUMBER OF VERTICALLY STACKED J-HOOKS		INDICATES HEIGHT OF CABLE TRAY INDICATES WIDTH OF CABLE TRAY INDICATES NUMBER OF VERTICALLY STACKED CABLE TRAYS



METHOD 1: STUB CONDUIT TO AAC, EXTEND CABLING TO CABLE PATHWAYS VIA J-HOOKS



METHOD 2: STUB CONDUIT FULLY TO CABLE PATHWAY.

NOTES:
1. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO SPECIFICATION 270528 PATHWAYS FOR COMMUNICATIONS SYSTEMS FOR ADDITIONAL REQUIREMENTS ON ROUTING.

GENERAL NOTES

1. NOT ALL SYMBOLS ON TECHNOLOGY SYMBOLS SHEET ARE USED.
2. ALL NOTES ON THE DRAWINGS INDICATED AS "TYPICAL" SHALL APPLY TO THE ENTIRE PROJECT, WHETHER OR NOT SPECIFICALLY INDICATED ON EACH DRAWING.
3. REFER TO THE MOUNTING HEIGHT DIAGRAM FOR MOUNTING HEIGHTS, UNO.
4. REFER TO PLANS, SCHEDULES, ONE-LINE DIAGRAMS, DETAILS, AND SPECIFICATIONS FOR DEVICE SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
5. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRESTOPPING ALL CONDUIT PENETRATIONS THROUGH RATED WALLS/FLOOR/DECK. LOW VOLTAGE CONTRACTOR SHALL FIRESTOP ALL CONDUIT INTERIORS AFTER CABLE INSTALLATION, UNO.
6. ALL FACEPLATES LOCATED IN MODULAR FURNITURE SHALL BE COORDINATED WITH FURNITURE MANUFACTURER.
7. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WEATHERPROOFING ALL CONDUIT PENETRATIONS THROUGH EXTERIOR WALLS AND ROOFS.
8. ALL LOW VOLTAGE SYSTEMS INSTALLATIONS SHALL COMPLY WITH NFPA 70 (NATIONAL ELECTRICAL CODE) AS WELL AS ALL APPLICABLE STATE AND LOCAL CODES. IN ADDITION, LIFE SAFETY SYSTEM INSTALLATIONS SHALL COMPLY WITH NFPA 72 (NATIONAL FIRE ALARM CODE).
9. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO AND DURING INSTALLATION.
10. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL CONDUIT ROUTED THROUGH OR NEAR CASEWORK SHALL NOT INTERFERE IN ANY WAY WITH THE INTENDED USE OF OR SERVICING OF EQUIPMENT OR COUNTERS.
11. ELECTRICAL CONTRACTOR SHALL NOT CUT, DRILL, OR IN ANY OTHER MANNER ALTER ANY STRUCTURAL MEMBER WITHOUT PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
12. ELECTRICAL CONTRACTOR SHALL PROVIDE A 4" THICK CONCRETE HOUSEKEEPING PAD FOR ALL FLOOR MOUNTED PIECES OF EQUIPMENT UNLESS NOTED OTHERWISE.
13. LOW VOLTAGE CONTRACTOR SHALL, BEFORE SUBMITTING PROPOSAL OR BID, EXAMINE ALL DRAWINGS AND SPECIFICATIONS RELATING TO THIS PROJECT, THE AMOUNT OF SPACE AVAILABLE FOR LOW VOLTAGE EQUIPMENT, THE PROJECT SITE, THE REQUIREMENTS TO CORRELATE THE LOW VOLTAGE WORK WITH ALL OTHER TRADES, AND THE TIME SCHEDULE NECESSARY TO PERFORM THAT WORK.
14. LOW VOLTAGE CONTRACTOR SHALL, AFTER EXAMINATION OF ALL PLANS AND SPECIFICATIONS, INCLUDE ALL COSTS NECESSARY FOR ALTERATION OF, MODIFICATION OF, OR ADDITIONS TO THE LOW VOLTAGE SYSTEMS NECESSARY FOR A COMPLETE AND APPROVED INSTALLATION IN ALL ASPECTS. IT IS THE INTENT THAT ALL COSTS REQUIRED BE INCLUDED IN THE BID OF THIS TRADE.
15. LOW VOLTAGE CONTRACTOR SHALL BASE THEIR PROPOSAL AND BID UPON THE EQUIPMENT AS SCHEDULED OR SPECIFIED, USING THE MANUFACTURERS AND MODEL NUMBERS AS CALLED FOR IN THE SPECIFICATIONS AND SCHEDULED ON THE DRAWINGS. IF MORE THAN ONE MANUFACTURER OF EQUIPMENT IS SPECIFIED, ANY ONE OF THE MANUFACTURERS OF EQUIPMENT MAY BE USED IN THIS CONTRACTOR'S PROPOSAL.
16. LOW VOLTAGE CONTRACTOR TO NOTIFY TECHNOLOGY DESIGNER, IN WRITING, OF ANY DISCREPANCIES FOUND BETWEEN THESE TECHNOLOGY PLANS AND OTHER ENGINEERING PLANS, ARCHITECTURAL PLANS, OR EXISTING FIELD CONDITIONS PRIOR TO FINAL BID PRICE OR PERMITTING.
17. IN CASE OF DISPUTE OR DOUBT AS TO INTENT OF DRAWINGS OR SPECIFICATIONS, LOW VOLTAGE CONTRACTOR SHALL CONTACT TECHNOLOGY DESIGNER AND OBTAIN WRITTEN CLARIFICATION PRIOR TO PROCEEDING WITH ANY BID OR CONSTRUCTION SCOPE INVOLVED.

CONDUIT AND CABLE NOTES

1. ALL INTERIOR CONDUIT SHALL BE EMT, MINIMUM 3/4" TRADE SIZE, UNO.
2. ALL CONDUITS SHALL BE DEBURRED, CLEANED, CAPPED, AND TAGGED.
3. MULE TAPE SHALL BE PROVIDED IN: ALL SPARE/EMPTY CONDUITS, ALL SPARE/EMPTY INNERDUCTS, ALL BASKET TRAY, AND ALL J-HOOKS 2" OR LARGER.
4. NO SECTION OF INTERIOR CONDUIT SHALL BE LONGER THAN 100 FT BETWEEN PULL POINTS.
5. NO SECTION OF EXTERIOR CONDUIT SHALL BE LONGER THAN 300 FT BETWEEN PULL POINTS.
6. NO SECTION OF CONDUIT SHALL CONTAIN MORE THAN TWO 90° BENDS OR EQUIVALENT BETWEEN PULL POINTS. IF THERE IS A REVERSE (U-SHAPED) BEND IN THE SECTION, A PULL BOX SHALL BE INSTALLED.
7. FOR CONDUITS WITH AN INTERNAL DIAMETER OF 2" OR LESS, THE INSIDE RADIUS OF A BEND IN CONDUIT SHALL BE AT LEAST 6 TIMES THE INTERNAL DIAMETER. FOR CONDUITS WITH AN INTERNAL DIAMETER OF MORE THAN 2", THE INSIDE RADIUS OF A BEND IN CONDUIT SHALL BE AT LEAST 10 TIMES THE INTERNAL DIAMETER.
8. PULL BOXES SHALL BE SIZED PER TIA REQUIREMENTS, UNO.
9. NO CABLE TRAY PATHWAYS SHALL BE INSTALLED ABOVE INACCESSIBLE CEILING, UNO.
10. CABLE COLORS:
    DATA/VoIP = BLUE
    ACCESS CONTROL = MULTI-COLOR
    AUDIOVISUAL = BLACK

NURSE CALL SYSTEM

H N XX	NURSE CALL STATION

DEVICE NOTES:
1. NURSE CALL STATION MOUNTED IN HEAD RAIL. REFER TO HEAD RAIL DETAILS FOR BOX AND CONDUIT SIZING, UNO.
   XX = DEVICE TYPE
   - CBH = CODE BLUE
   - CBAH = CODE BLUE WITH STAFF ASSIST BUTTON
   - DH = DUAL BED PATIENT STATION
   - PH = PATIENT STATION WITH CODE BLUE AND STAFF ASSIST BUTTON
2. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG, REDUCTION RING AND A 1 " CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.
   XX = DEVICE TYPE
   - A = ASSET TRACKING
   - CB = CODE BLUE
   - CBA = CODE BLUE WITH STAFF ASSIST BUTTON
   - CP = CODE PINK
   - E = EMERGENCY PULL STATION
   - ES = EMERGENCY PULL SHOWER STATION
   - M = MASTER STATION
   - SA = STAFF ASSIST
   - T = TOILET STATION
3. PROVIDE A 3-GANG BY 2-1/8" DEEP BACK BOX AND A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.
   XX = DEVICE TYPE
   - DS = DUTY STATION
   - P = PATIENT STATION
   - S = STAFF STATION

XX N XX	NURSE CALL COR

SCOPE RESPONSIBILITY MATRIX

MATRIX LEGEND

EXP EXP (ENGINEERS)
ARCH ARCHITECT / OTHER DESIGN CONSULTANTS
GC GENERAL CONTRACTOR
EC ELECTRICAL CONTRACTOR
SCS STRUCTURED CABLING CONTRACTOR
AV AUDIO / VISUAL VENDOR / INTEGRATOR
NC NURSE CALL SYSTEM VENDOR
AC ACCESS CONTROL VENDOR / INTEGRATOR
FA FIRE ALARM VENDOR
OPS OWNER / OPERATOR

SCOPE DESCRIPTION (FOR WORK INDICATED IN THE CONTRACT DOCUMENTS)	SPECIFY	LAYOUT / DESIGN	CONTRACTOR FURNISH	CONTRACTOR INSTALL	CONTRACTOR DEMOLISH	OWNER FURNISH	OWNER INSTALL	OWNER DEMOLISH
BOH EQUIPMENT								
LIQUOR EQUIPMENT, CONTROL SYSTEM, AND SUPPLY LINES								
COMPUTER / NETWORK FOR LIQUOR SYSTEM	OPS	EXP	-	-	-	OPS	OPS	OPS
ATMs / KIOSKS / POS STATIONS								
ATMs / KIOSKS / POINT-OF-SALES SYSTEM EQUIPMENT (INCLUDING PROGRAMMING)	OPS	ARCH	-	-	-	OPS	OPS	OPS
POWER FEEDS	EXP	EXP	EC	EC	GC	-	-	-
FF&E								
MISCELLANEOUS FF&E - PHONES AND COMPUTERS	OPS	ARCH	-	-	-	OPS	OPS	OPS
GENERAL PURPOSE TELEVISION / MONITOR DISPLAYS	OPS	ARCH	-	-	-	OPS	OPS	OPS
GENERAL PURPOSE TELEVISION / MONITOR POWER AND CABLING	EXP	EXP	EC / SCS	EC / SCS	GC	-	-	-
TECHNOLOGY SYSTEMS								
SUPPORTING SYSTEMS (ROUGH-INs FOR ALL SYSTEMS)								
BACK BOXES / JUNCTION BOXES	EXP	EXP	EC	EC	GC	-	-	-
CONDUIT / SLEEVES	EXP	EXP	EC	EC	GC	-	-	-
POWER CONNECTIONS FOR LOW VOLTAGE SYSTEMS	EXP	EXP	EC	EC	GC	-	-	-
HORIZONTAL AND BACKBONE CABLE PATHWAYS (CABLE BASKET TRAY)	EXP	EXP	EC	EC	GC	-	-	-
HORIZONTAL AND BACKBONE CABLE PATHWAYS (J-HOOKS)	EXP	EXP	SCS	SCS	GC	-	-	-
TRENCHING	EXP	ARCH	GC	GC	-	-	-	-
CONCRETE PATCHING	ARCH	ARCH	GC	GC	-	-	-	-
PAINTING OF ALL EXPOSED CONDUIT, JUNCTION BOXES, ENCLOSURES, HARDWARE AND...	EXP	-	GC	GC	-	-	-	-
TELECOMMUNICATION ROOM BUILD-OUT								
120V POWER AND ASSOCIATED ROUGH-IN	EXP	EXP	EC	EC	GC	-	-	-
EQUIPMENT BACKBOARD	EXP	EXP	EC	EC	GC	-	-	-
EQUIPMENT RACKS, WIRE MANAGEMENT AND ASSOCIATED ACCESSORIES	EXP	EXP	SCS	SCS	GC	-	-	-
CABLE PATHWAYS (LADDER TRAY)	EXP	EXP	SCS	SCS	GC	-	-	-
GROUNDING BUSBAR (TMGB / TGB)	EXP	EXP	EC	EC	GC	-	-	-
EQUIPMENT / RACK GROUNDING CONNECTIONS	EXP	EXP	EC	EC	GC	-	-	-
STRUCTURED CABLING SYSTEMS (VOICE / DATA)								
BACKBONE COMMUNICATIONS CABLING (FIBER OPTIC AND COPPER CABLING)	EXP	EXP	SCS	SCS	GC	-	-	-
HORIZONTAL COMMUNICATIONS CABLING (FIBER OPTIC AND COPPER CABLING)	EXP	EXP	SCS	SCS	GC	-	-	-
CABLE TESTING, CERTIFICATION, AND WARRANTY	EXP	-	SCS	SCS	-	-	-	-
COMMUNICATIONS CABLE LABELING	EXP	-	SCS	SCS	-	-	-	-
PATCH PANELS AND TERMINATIONS	EXP	EXP	SCS	SCS	GC	-	-	-
66 / 110 PUNCH BLOCKS AND TERMINATIONS	EXP	EXP	SCS	SCS	GC	-	-	-
WORKSTATION OUTLETS AND TERMINATIONS	EXP	EXP	SCS	SCS	GC	-	-	-
WIRELESS ACCESS POINTS	OPS	EXP	-	-	-	OPS	OPS	OPS
WIRELESS ACCESS POINT SITE/BUILDING SURVEY	GC	GC	SCS	SCS	-	-	-	-
ACTIVE VOICE / DATA EQUIPMENT (SWITCHES, SERVERS, ETC)	OPS	EXP	-	-	-	OPS	OPS	OPS
TELECOMMUNICATION ROOM PATCH CORDS	OPS	-	SCS	SCS	-	-	-	OPS
STATION CABLES (I.E. WORKSTATION PATCH CORDS)	OPS	-	SCS	SCS	GC	-	-	-
UNINTERRUPTIBLE POWER SUPPLIES (UPSs)	EXP	EXP	EC	EC	-	-	-	OPS
TIME CLOCKS	OPS	EXP	EC	EC	-	-	-	OPS
NURSE CALL SYSTEM								
BACKBONE NURSE CALL CABLING	EXP	EXP	NC	NC	-	-	-	-
HORIZONTAL NURSE CALL CABLING	EXP	EXP	NC	NC	-	-	-	-
NURSE CALL SOFTWARE	EXP	EXP	NC	NC	-	-	-	-
CALL LIGHTS, PILLOW SPEAKERS, PULL CORDS, ETC.	EXP	EXP	NC	NC	-	-	-	-
BED INTERFACE DEVICES	EXP	EXP	NC	NC	-	-	-	-
NURSE CALL SYSTEM SERVERS	EXP	EXP	NC	NC	-	-	-	-
HOSPITAL NETWORK INTEGRATION	-	-	-	-	-	OPS	OPS	-
VOIP INTEGRATION SOFTWARE	EXP	EXP	NC	NC	-			
CALL TONES	EXP	EXP	NC	NC	-	-	-	-
ELECTRONIC ACCESS CONTROL								
ELECTRONIC ACCESS CONTROL DOOR CONTROLLERS / INTERFACE PANELS	EXP	EXP	AC	AC	GC	-	-	-
NETWORK CONNECTIONS FOR DOOR CONTROLLERS / INTERFACE PANELS	EXP	EXP	SCS	SCS	GC	-	-	-
DOOR CONTROLLER POWER SUPPLIES	EXP	EXP	AC	AC	GC	-	-	-
CARD READERS	EXP / OPS	EXP	AC	AC	GC	-	-	-
CREDENTIALS (CARDS, FOBS, ETC.)	EXP / OPS	-	AC	AC	-	-	-	-
LOCKING DEVICES / ASSOCIATED DOOR HARDWARE	ARCH	ARCH	GC	GC	GC	-	-	-
DOOR HARDWARE ROUGH-INS	ARCH	EXP	GC	GC	-	-	-	-
ELECTRONIC ACCESS CONTROL CABLING	EXP	EXP	AC	AC	GC	-	-	-
CABLE TERMINATIONS AT THE DOOR TO LOCKING DEVICES AND ASSOCIATED DOOR HARDWARE	EXP	EXP	AC	AC	-	-	-	-
CABLE TERMINATIONS AT DOOR CONTROL PANELS	EXP	EXP	AC	AC	GC	-	-	-
CABLING / INTEGRATION BETWEEN CAMERA AND ACCESS CONTROL DOOR	EXP	EXP	SURV	SURV	GC	-	-	-
PEDESTALS AND BASES	ARCH	ARCH	GC	GC	GC	-	-	-
ELECTRIFIED DOOR HARDWARE POWER	ARCH	EXP	EC	EC	GC	-	-	-
ELECTRONIC ACCESS CONTROL SERVERS	EXP	EXP	AC	AC	-	-	-	OPS
ELECTRONIC ACCESS CONTROL SOFTWARE, LICENSES, AND PROGRAMMING	EXP	-	AC	AC	-	-	-	-
CATV / IP TELEVISION SYSTEMS								
CATV / IP TELEVISION HEADEND	OPS	-	-	-	GC	OPS	OPS	-
BACKBONE COMMUNICATIONS CABLING (COAXIAL, COPPER, FIBER OPTIC CABLING)	EXP	EXP	SCS	SCS	GC	-	-	-
HORIZONTAL COMMUNICATIONS CABLING AND TERMINATIONS (COAXIAL AND COPPER CABLING)	EXP	EXP	SCS	SCS	GC	-	-	-
CABLE TESTING, CERTIFICATION, AND WARRANTY	EXP	-	SCS	SCS	-	-	-	-
CATV CABLE LABELING	EXP	-	SCS	SCS	-	-	-	-
PATCHING AND PATCH CABLES IN EQUIPMENT ROOMS (COAXIAL AND COPPER)	EXP	-	SCS	SCS	GC	-	-	-
STATION CORDS AT TELEVISIONS (COAXIAL AND COPPER)	EXP	-	SCS	SCS	GC	-	-	-
TELEVISIONS	OPS	-	-	-	-	OPS	OPS	OPS
MOUNTING BRACKETS	ARCH	ARCH	-	-	GC	OPS	OPS	-
MOUNTING SUPPORT BACKING	ARCH	ARCH	GC	GC	GC	-	-	-
SATELLITE DISH AND RECEIVERS	OPS	-	-	-	GC	OPS	OPS	-
DISPLAY SYSTEMS								
VIDEO SIGNAL CABLING AND TERMINATIONS (COAXIAL, COMPOSITE, UTP, FIBER OPTIC CABLE)	EXP	EXP	AV	AV	GC	-	-	-
VIDEO SIGNAL CABLE TESTING, CERTIFICATION, AND WARRANTY	EXP	EXP	AV	AV	-	-	-	-
DISPLAY SYSTEMS CABLE LABELING	EXP	-	AV	AV	-	-	-	-
VIDEO EQUIPMENT ROOM PATCH CORDS	EXP	-	AV	AV	GC	-	-	-
VIDEO DISPLAY PATCH CORDS	EXP	-	AV	AV	GC	-	-	-
PROJECTORS AND PROJECTION SCREENS	EXP	EXP	AV	AV	OPS	-	-	-
VIDEO DISPLAY MONITORS	ARCH	ARCH	-	-	-	OPS	OPS	OPS
DIGITAL SIGNAGE DISPLAY MONITORS	ARCH	ARCH	-	-	-	OPS	OPS	OPS
DIGITAL SIGNAGE MEDIA PLAYERS / CONTENT	OPS	-	-	-	-	OPS	OPS	OPS
VIDEO DIGITAL SIGNAL PROCESSING (SWITCHERS, SCALERS, PROCESSORS, DISTRIBUTION, ETC.)	EXP	EXP	AV	AV	-	-	-	OPS
VIDEO SYSTEM PROGRAMMING	EXP	-	AV	AV	-	-	-	-
VIDEO EQUIPMENT RACKS	EXP	EXP	AV	AV	GC	-	-	-
VIDEO MEDIA PLAYERS (SERVERS, BLU-RAY, DVD)	EXP / OPS	EXP	AV	AV	-	-	-	OPS
VIDEO MEDIA CONTENT	OPS	-	-	-	-	OPS	OPS	OPS
VIDEO INPUT WALL PLATES	EXP	EXP	AV	AV	GC	-	-	-
AUDIO SYSTEMS								
AUDIO SIGNAL CABLING AND TERMINATIONS	EXP	EXP	AV	AV	GC	-	-	-
AUDIO SIGNAL CABLE TESTING, CERTIFICATION, AND WARRANTY	EXP	EXP	AV	AV	-	-	-	-
AUDIO SYSTEM CABLE LABELING	EXP	-	AV	AV	-	-	-	-
AUDIO EQUIPMENT ROOM PATCH CORDS	EXP	-	AV	AV	GC	-	-	-
AUDIO SPEAKERS	EXP	EXP	AV	AV	GC	-	-	-
AUDIO SPEAKERS MOUNTING EQUIPMENT (TILE BRIDGES, MOUNTING BRACKETS, ETC.)	EXP	EXP	AV	AV	GC	-	-	-
AUDIO SYSTEM EQUIPMENT RACKS	EXP	EXP	AV	AV	GC	-	-	-
AUDIO DIGITAL SIGNAL PROCESSORS (SWITCHERS, PROCESSORS, DISTRIBUTION, ETC.)	EXP	EXP	AV	AV	-	-	-	OPS
AUDIO MEDIA PLAYERS (SERVERS, RECEIVERS, MP3 PLAYERS, CD PLAYERS)	EXP / OPS	EXP	AV	AV	-	-	-	OPS
PAGING STATIONS (MICROPHONES, PHONE SYSTEM MODULE, ETC.)	EXP	EXP	AV	AV	GC	-	-	-
AUDIO INPUT WALLPLATES	EXP	EXP	AV	AV	GC	-	-	-
AUDIO SYSTEM PROGRAMMING	EXP	-	AV	AV	-	-	-	-
AUDIO / VIDEO CONTROL SYSTEMS								
CONTROL SYSTEM PROCESSORS	EXP	EXP	AV	AV	-	-	-	OPS
CONTROL SYSTEM PROGRAMMING	EXP	-	AV	AV	-	-	-	-
CONTROL SYSTEM INPUT DEVICES (TOUCH PANELS, BUTTON WALL PLATES, ETC.)	EXP	EXP	AV	AV	GC	-	-	-
CONTROL SYSTEM CABLING, TERMINATIONS, TESTING, AND LABELING	EXP	EXP	AV	AV	GC	-	-	-
FIRE ALARM SYSTEM INTEGRATION	EXP	EXP	FA	FA	GC	-	-	-

Riverside University HEALTH SYSTEM

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER:
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

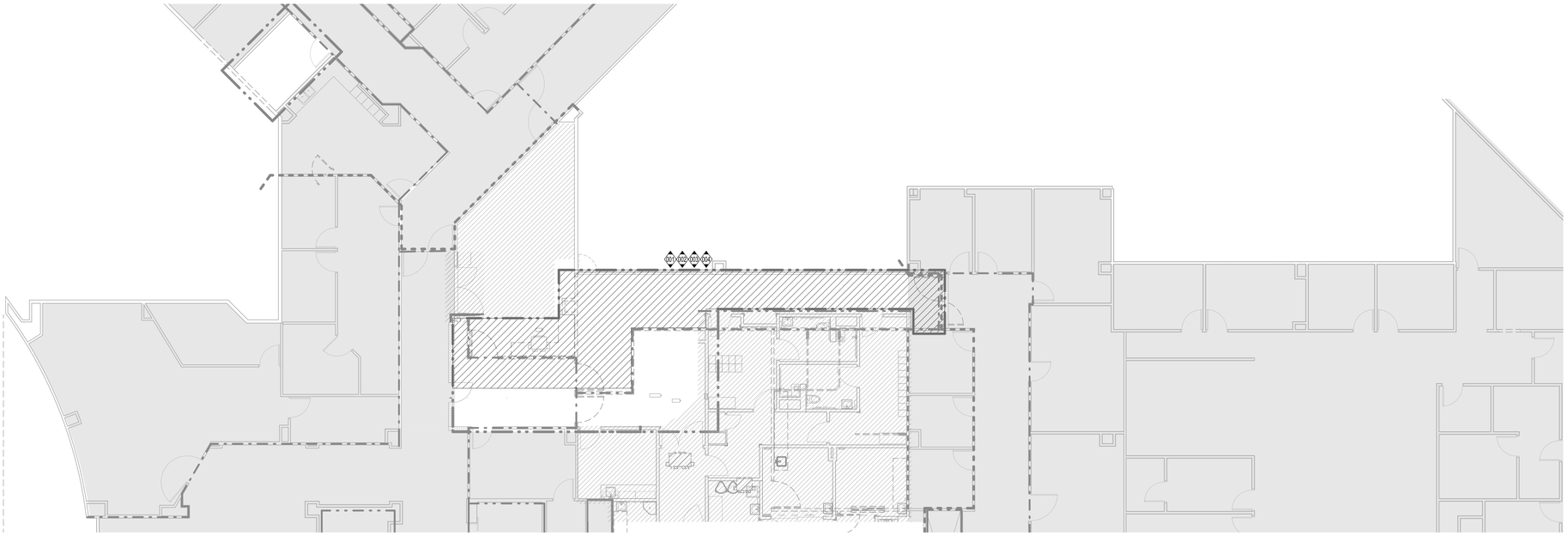
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
ELECTRICAL TELECOMM RESPONSIBILITY MATRIX

SHEET NUMBER
EI003

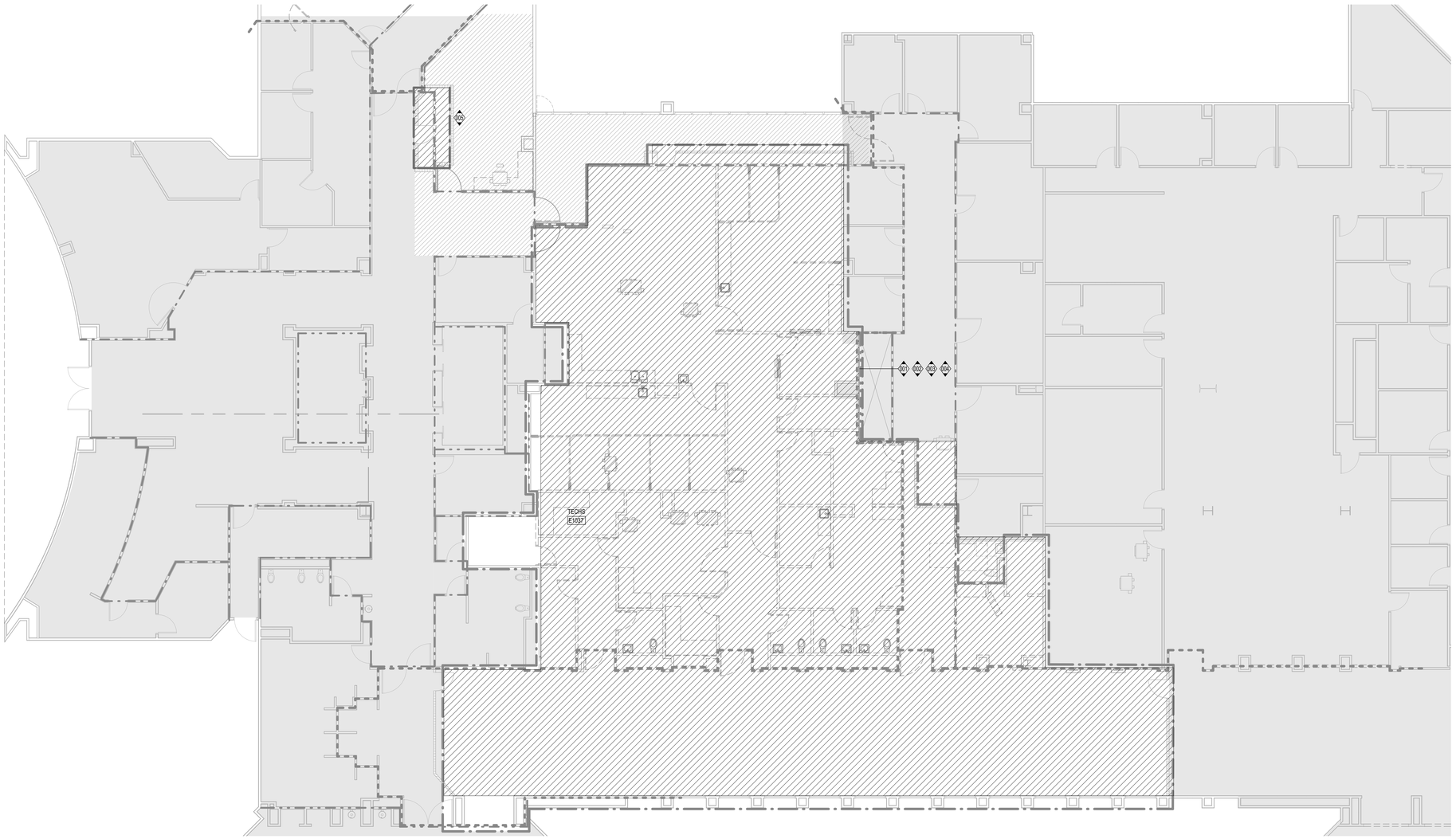
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2 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2 - DEMO -PHASING PLAN

1/8" = 1'-0"



1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 - DEMO -PHASING PLAN

1/8" = 1'-0"

GENERAL NOTES:

1 PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE DEMOLITION WORK. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY EXPERIENCED OBSERVERS. THIS CONTRACTOR SHALL PARTICIPATE IN THE SURVEY OF EXISTING ELECTRICAL SERVICES.

2 EXISTING FEEDERS AND BRANCH CIRCUIT WIRING THAT ARE TO BE DEMOLISHED SHALL BE REMOVED BACK TO THE PANELBOARD. THE ASSOCIATED CIRCUIT BREAKER SHALL BE TURNED OFF AND MARKED AS SPARE IN THE PANEL DIRECTORY. PROVIDE THE OWNER WITH ONE ADDITIONAL COPY OF EACH PANEL DIRECTORY UPON COMPLETION OF WORK.

3 IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN THE INTEGRITY OF REMAINING DEVICES OR EQUIPMENT, AND ANY SUCH CONNECTIONS SHALL BE CONCEALED UNLESS LOCATED IN UNFINISHED AREAS.

4 THE CONTRACTOR SHALL NOT ABANDON FEEDER OR BRANCH CIRCUIT WIRING IN EXISTING WALLS AND CEILINGS. CONTRACTOR SHALL FIELD VERIFY ALL FEEDERS AND MAINTAIN THE CONTINUITY OF THE FEEDERS AND BRANCH CIRCUIT WIRING TO ALL AREAS WHICH ARE TO REMAIN, BUT THAT AREA AFFECTED BY THE DEMOLITION OR NEW CONSTRUCTION.

5 CONTRACTOR SHALL DISCONNECT AND REMOVE ALL POWER, AUDIO, CONTROL AND COMMUNICATION WIRING MADE OBSOLETE BY DEMOLITION BACK TO THE SOURCE. ANY CONDUITS PASSING THROUGH THE FLOOR AND/OR CEILING TO BE REMOVED SHALL BE REMOVED AND THE HOLE SHALL BE PROPERLY SEALED TO MAINTAIN PROPER FIRE RATING.

6 FOR ADDITIONAL DEMOLITION WORK REFER TO THE ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS. DISCONNECT AND REMOVE ALL EXISTING CONDUIT AND WIRING FOR EQUIPMENT TO BE REMOVED.

7 INVENTORY ALL OTHER ELECTRICAL ITEMS THAT ARE REMOVED AND PROVIDE A LIST TO THE OWNER FOR THEIR SELECTION OF ITEMS TO BE RETAINED. ALL ITEMS REJECTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.

8 DEVICES, LUMINAIRES, AND CONNECTIONS SHOWN ON THE DEMOLITION PLAN ARE INTENDED TO GIVE THE CONTRACTOR A GENERAL IDEA OF COUNT OF WHAT ELECTRICAL ITEMS ARE BEING REMOVED OR RETAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD INSPECTION OF THE SITE TO DETERMINE THE ACTUAL CONDITIONS OF THE INSTALLATION AND QUANTITIES OF EXISTING EQUIPMENT BEFORE SUBMITTING BID.

9 PORTIONS OF THE EXISTING BUILDING ARE TO REMAIN IN OPERATION DURING CONSTRUCTION. THIS CONTRACTOR SHALL COORDINATE ALL WORK THAT WILL INTERFERE WITH THE OPERATION OF THE FACILITY WITH THE GENERAL CONTRACTOR AND FACILITY ITSELF.

10 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PHASING SCOPE.

KEY NOTES

001 ALL RECEPTACLES, SPECIAL OUTLET CONNECTIONS, DISCONNECTS, ETC. LOCATED WITHIN BOUNDARY SHALL BE REMOVED, UNLESS NOTED OTHERWISE. WHEN A COMPLETE POWER CIRCUIT IS REMOVED CONTRACTOR SHALL REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE PANEL. TURN OFF CIRCUIT BREAKER, AND MARK AS SPARE. WHEN A PARTIAL POWER CIRCUIT IS REMOVED, THE CONTRACTOR SHALL REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO NEAREST JUNCTION BOX, CAP OFF CONDUCTORS AND LABEL WITH CIRCUIT NUMBER.

002 ALL FIRE ALARM DEVICES LOCATED WITHIN BOUNDARY SHALL BE REMOVED, UNLESS NOTED OTHERWISE. EXISTING FIRE ALARM WIRING SHALL BE REMOVED AND NEW FIRE ALARM WIRING INSTALLED. SPLICES ARE NOT PERMITTED FOR THE FIRE ALARM SYSTEM.

003 ALL LIGHTING AND THEIR CONTROLS LOCATED WITHIN BOUNDARY SHALL BE REMOVED, UNLESS NOTED OTHERWISE. WHEN A COMPLETE LIGHTING CIRCUIT IS REMOVED, CONTRACTOR SHALL REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE PANEL, TURN OFF CIRCUIT BREAKER, AND MARK AS SPARE. WHEN A PARTIAL LIGHTING CIRCUIT IS REMOVED, THE CONTRACTOR SHALL REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE NEAREST JUNCTION BOX, CAP OFF CONDUCTORS, AND LABEL WITH CIRCUIT NUMBER.

004 ALL LOW VOLTAGE DEVICES WITHIN THE DEMOLITION BOUNDARY SHALL BE REMOVED, AND CABLING REMOVED BACK TO THE HEAD END LOCATION. DISCONNECT CABLING FROM THE TERMINALS AND TURN OVER ALL DEMOLISHED EQUIPMENT TO OWNER.

005 DEVICES ALONG EXISTING WALL TO BE DEMOLISHED IN PHASE 1 TO PERMIT INSTALLATION OF NEW DOOR. EXISTING MED-GAS PANEL TO REMAIN OPERATIONAL. EXISTING POWER/DATA SERVING LARGE DISPLAY MONITORS SHALL BE DEMOLISHED AND RELOCATED. REFER TO NEW WORK PLANS FOR LOCATION OF RELOCATED DEVICES.

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

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S231455-33-00
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BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

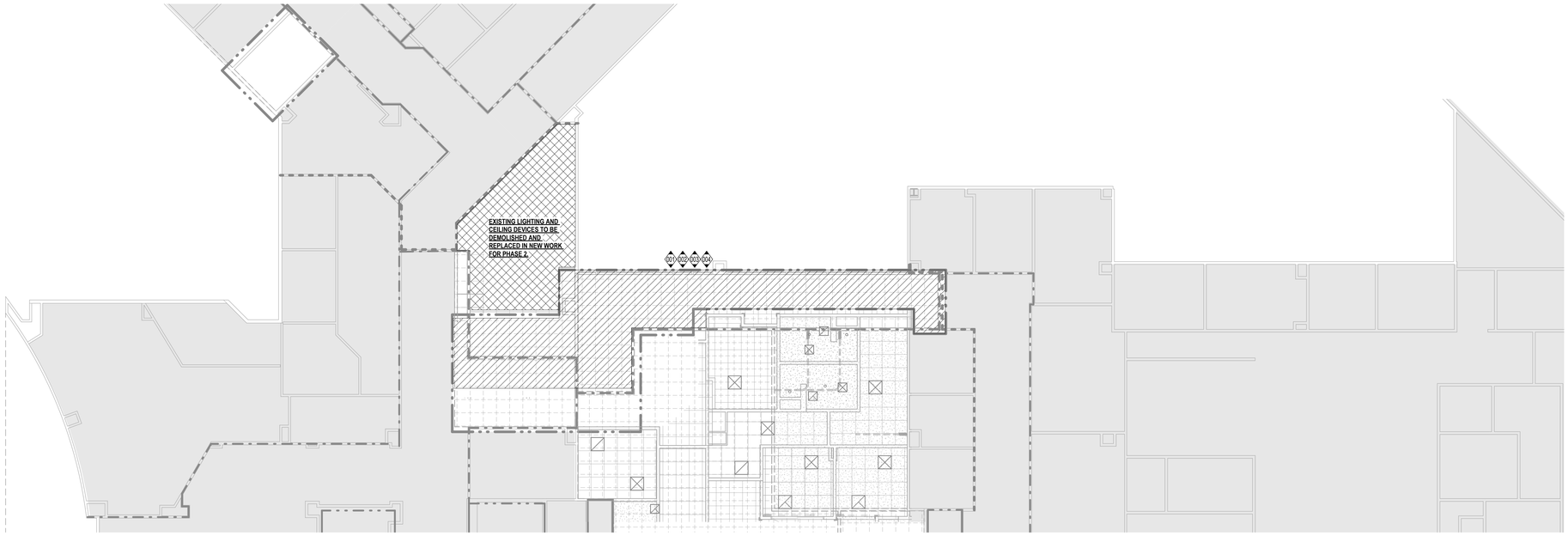
PHASING PLAN - LVL 1 - ELEC POWER PLAN - DEMO

SHEET NUMBER

ED151

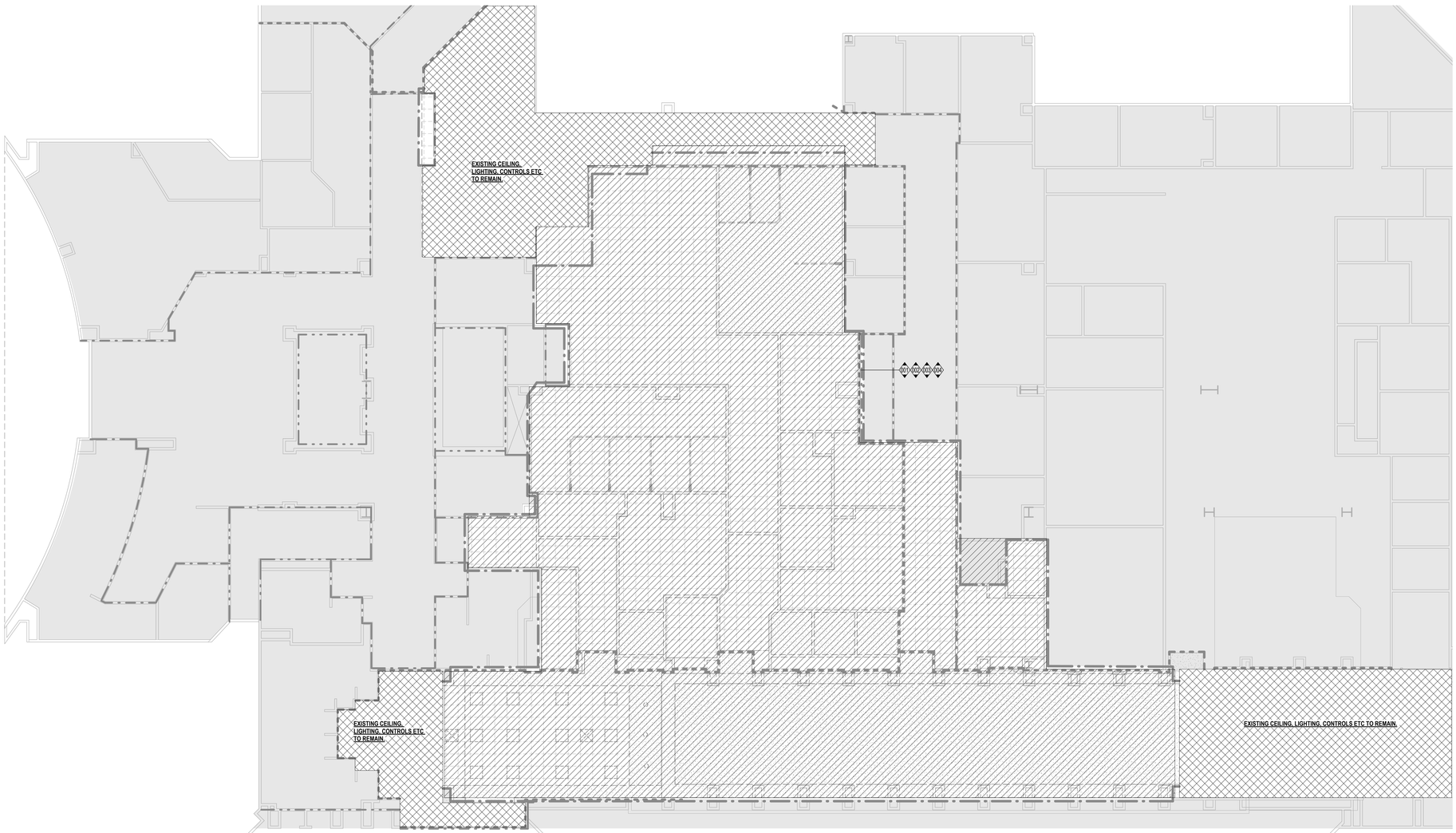
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2 PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - PHASE 2 - DEMO

1/8" = 1'-0"



1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - PHASE 1 - DEMO

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GENERAL NOTES:

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6. FOR ADDITIONAL DEMOLITION WORK REFER TO THE ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS. DISCONNECT AND REMOVE ALL EXISTING CONDUIT AND WIRING FOR EQUIPMENT TO BE REMOVED.
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Project #: 22013260

CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER — VINCENT WU — No. E 20611 EXP. 12/31/25 — ELECTRICAL — STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

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AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

PHASING PLAN - LVL 1 - ELEC LIGHTING PLAN - DEMO

SHEET NUMBER

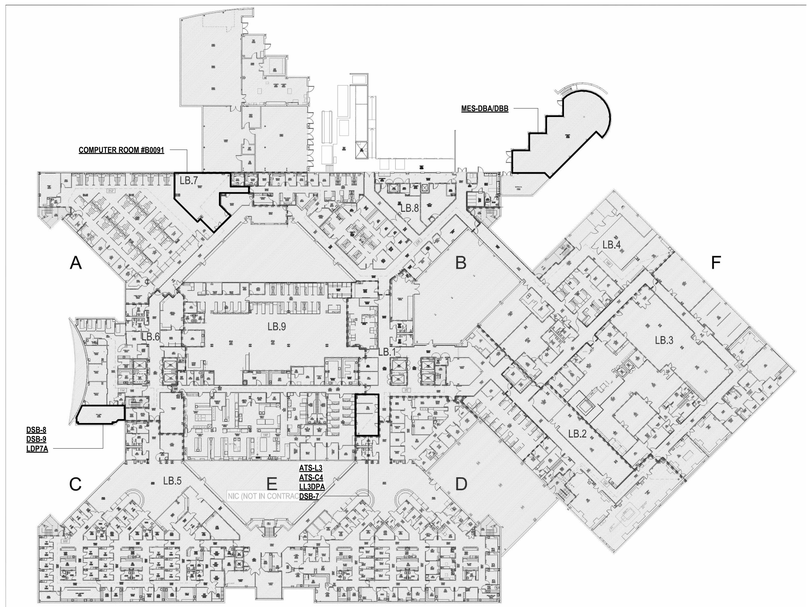
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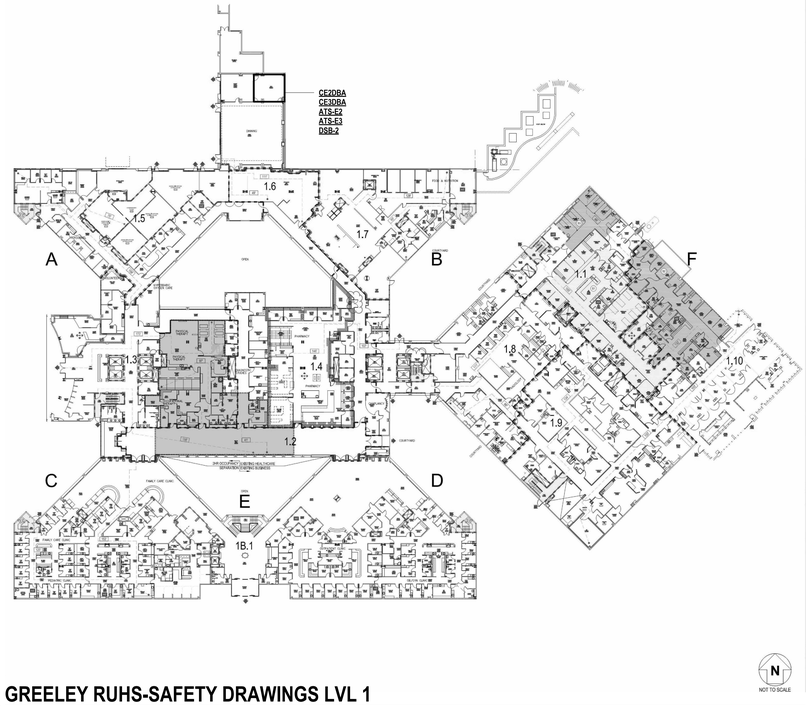
GENERAL NOTES:

1 OVERALL PLANS ON THIS SHEET ARE NOT TO SCALE. THESE DRAWINGS ARE INCLUDED TO PROVIDE A GENERAL LOCATION OF ALL ELECTRICAL EQUIPMENT ASSOCIATED WITH THIS PROJECT. REFER TO SINGLE LINE DIAGRAM AND ENLARGED PLANS FOR DETAILS.



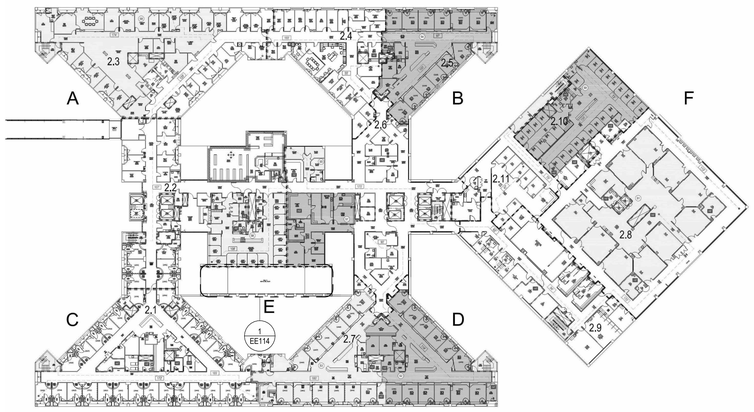
1 Greeley RUHS-Life Safety Drawings LL1

NTS



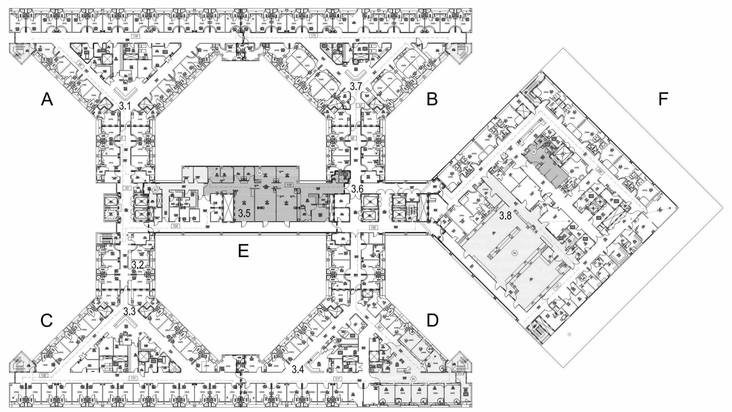
2 GREELEY RUHS-SAFETY DRAWINGS LVL 1

NTS



3 GREELEY RUHS-SAFETY DRAWINGS LVL 2

6" = 1'-0"



4 GREELEY RUHS-SAFETY DRAWINGS LVL 3

6" = 1'-0"

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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Project #: 22013260

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FM08430011869	047-10071-002

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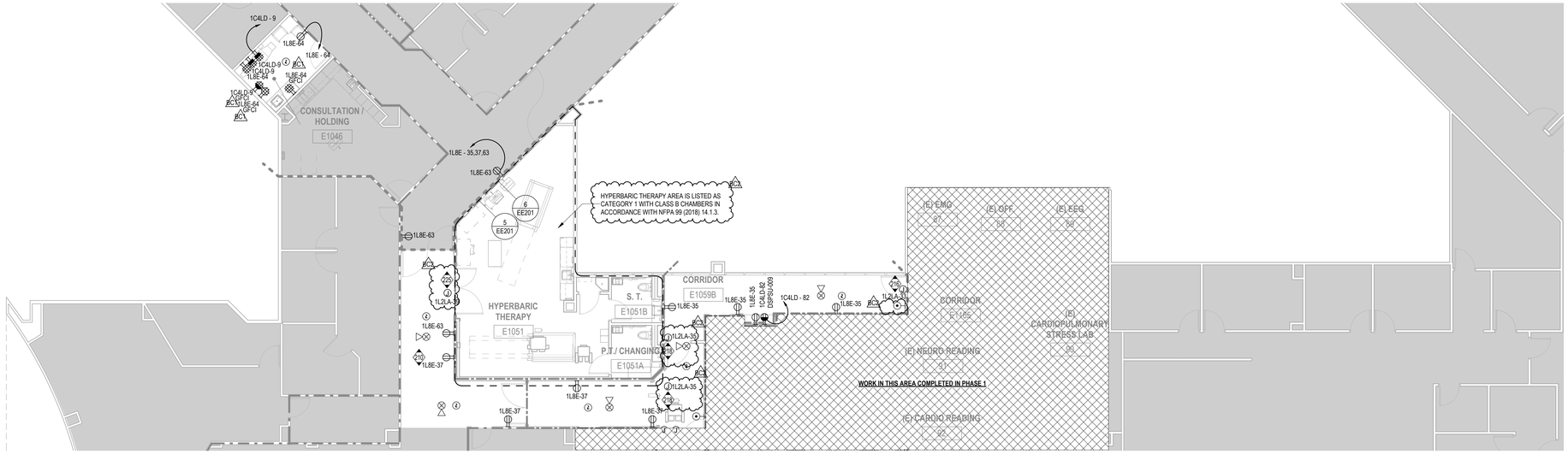
BUILDING OVERALL ELEC FLOOR PLANS

SHEET NUMBER

EE100

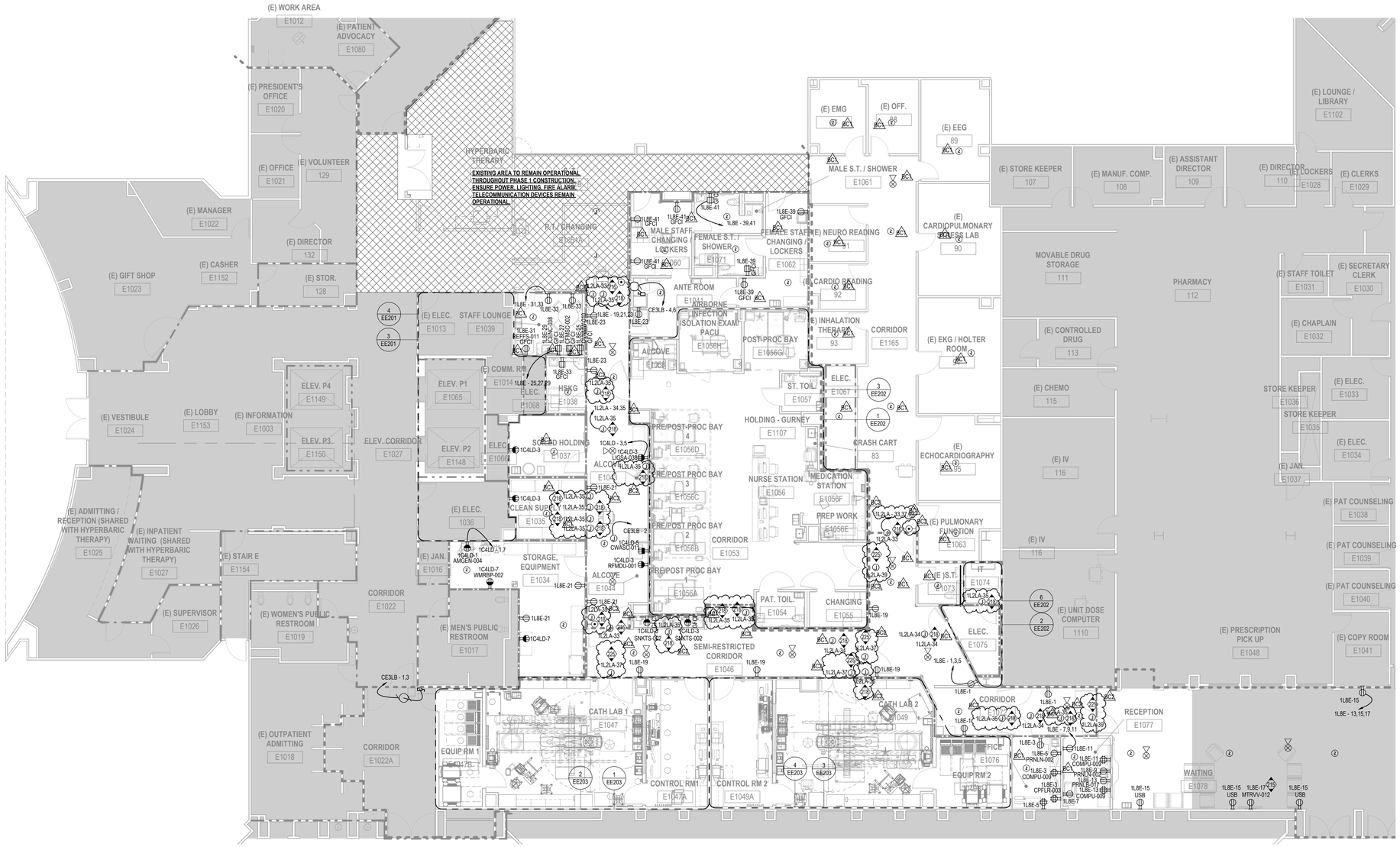
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2 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 2 - REMODEL PLAN

1/8" = 1'-0"



1 PARTIAL FLOOR PLAN - LEVEL 1 - PHASE 1 - REMODEL PLAN

1/8" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR TO REFER TO ARCHITECTURAL AND INTERIOR DESIGNER'S (ID) DRAWINGS FOR ADDITIONAL INFORMATION FOR DEVICE LOCATIONS AND DIMENSIONS.
2. FIRE ALARM SMOKE DETECTORS SHALL BE INSTALLED 3' AWAY FROM ALL DIFFUSERS.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS REGARDING CONSTRUCTION PHASING.
4. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT. COORDINATE ROUGH-INS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. REFER TO MECHANICAL DRAWINGS FOR QUANTITIES AND LOCATIONS OF ALL DUCT MOUNTED SMOKE DETECTORS.
6. PROVIDE FIRE ALARM RELAY AT AUTO DOOR. UPON FIRE ALARM ACTIVATION, POWER TO AUTO DOOR SHALL BE DROPPED. WHEN THIS OCCURS, DOOR SHALL STILL OPEN MANUALLY (AND CLOSE AFTER EACH OPENING) BUT POWER TO AUTO OPERATOR SHALL BE DISRUPTED. COORDINATE EXACT REQUIREMENTS WITH DOOR HARDWARE
7. ELECTRO-MAGNETIC DOOR HOLDERS SHALL BE TIED TO FIRE ALARM SYSTEM AND RELEASE DOORS UPON ACTIVATION OF FIRE ALARM SYSTEM. REFER TO ARCHITECTURAL DRAWINGS AND DOOR HARDWARE PACKAGE FOR LOCATIONS.
8. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON SHEET EE606 FOR ADDITIONAL INFORMATION
9. REFER TO COPPER FEEDER SCHEDULE GENERAL NOTES ON SHEET EE606 TO ENSURE COMPLIANCE WITH CEC 300.17 REQUIREMENTS.

KEY NOTES

- 210 RELOCATED POWER/DATA FOR EXISTING DISPLAY MONITOR. EXTEND EXISTING CIRCUITS AND COMMUNICATION CABLING AS REQUIRED TO SERVE THE COMPLETE SYSTEM.
- 215 VERIFY HEIGHT OF TV POWER/DATA WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
- 216 PROVIDE 120V POWER FOR DOOR HOLD OPEN DEVICES. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION PRIOR TO ROUGH IN. PROVIDE FIRE ALARM I/E INS AT EACH LOCATION.
- 218 PROVIDE 120V POWER FOR FIRE SMOKE DAMPERS. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH IN.
- 225 PROVIDE 120V LIFE SAFETY POWER FOR DOOR OPERATOR.

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

PHASING PLAN - LEVEL 1 - ELECTRICAL POWER & FIRE ALARM PLAN - REMODEL

SHEET NUMBER

EE111

KEY PLAN

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2 PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL - PHASE 2

1/8" = 1'-0"

1 PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL - PHASE 1

1/8" = 1'-0"

GENERAL NOTES:

1 ALL NEW LIGHTING DEVICES AND CONTROLS SHALL BE SIEMENS BASED AND INTEGRATE WITH EXISTING LIGHTING CONTROL SYSTEM. REFER TO SEQUENCE OF OPERATIONS FOR LIGHTING CONTROL INTENT. CONTRACTOR TO PROVIDE COMPLETE SOLUTION CAPABLE OF REFLECTING THE REQUIREMENTS OF THE SEQUENCE OF OPERATIONS.

2 ALL ROOMS AND SPACES WITH NORMAL AND EMERGENCY LIGHTING (EXCEPT HALLWAYS AND CORRIDORS) SHALL BE CONTROLLED VIA AN UL924 AUTOMATIC LOAD CONTROL RELAY (ALCR) WHICH SHALL SHUNT ALL LIGHTING CONTROLS UPON LOSS OF NORMAL POWER. REFER TO TYPICAL ALCR WIRING DETAILS ON DETAIL SHEETS AND SPECIFICATION 'LIGHTING CONTROL DEVICES' FOR ADDITIONAL INFORMATION.

3 CORRIDOR LIGHTING CONTROL - ALL EMERGENCY LIGHTING IN CORRIDORS SHALL BE CONTROLLED ALONG WITH THE CORRIDOR NON EMERGENCY LIGHTING VIA THE OCCUPANCY SENSOR(S). PROVIDE ALCR FOR EACH CIRCUIT CONTROLLING CORRIDOR LIGHTING. ALL CORRIDOR LIGHTING SHALL ILLUMINATE UPON ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM. REFER TO TYPICAL ALCR WIRING DETAILS ON DETAIL SHEETS AND SPECIFICATION 'LIGHTING CONTROL DEVICES' FOR ADDITIONAL INFORMATION.

4 ALL NORMAL POWER LIGHTING ON THIS SHEET SHALL BE CIRCUITED TO PANEL '1H7B', ALL CRITICAL POWER LIGHTING ON THIS SHEET SHALL BE CIRCUITED TO PANEL '1C4HB', AND ALL LIFE SAFETY LIGHTING SHALL BE CIRCUITED TO PANEL '1L2HA' UNLESS NOTED OTHERWISE.

5 REFER TO COPPER FEEDER SCHEDULE GENERAL NOTES ON SHEET EE606 TO ENSURE COMPLIANCE WITH CEC 300.17 REQUIREMENTS. BC1

KEY NOTES

401 PROVIDE X-RAY IN USE LIGHT. WIRE TO PHILIPS EQUIPMENT FOR INTERLOCK FUNCTIONALITY. REFER TO PHILIPS FINAL DRAWING ED3 FOR DETAILS. PROVIDE ALL CONTACTORS, CONTROL CABINETS AND CONDUIT PATHWAYS AS REQUIRED TO ACHIEVE FUNCTIONALITY NOTED ON PHILIPS DRAWINGS.

402 LIGHTING CONTROLS SHALL BE MOUNTED WITHIN HEADWALL. LIGHTING CONTROLS SHALL BE CAPABLE OF INDEPENDENTLY CONTROLLING THE EXAM AND AMBIENT LIGHTING WITHIN EACH RR5 FIXTURE.

403 PROVIDE A 5 SCENE DIMMABLE LIGHTING WALL BOX. CONFIRM SCENES WITH OWNER PRIOR TO ROUGH IN. VERIFY THAT ALL LIGHTS CAN DIM DOWN TO ONE PERCENT.

405 EXISTING LIGHTING AND CONTROLS TO REMAIN IN THIS SPACE.

406 REFER TO ARCHITECTURAL DRAWING DETAILS A1, AE561 AND B6, AE561 FOR MORE INFORMATION ON NURSE STATION LIGHTING INSTALLATION.

407 REFER TO ARCHITECTURAL DRAWING DETAILS A1, AE401 AND A5, AE401 FOR MORE INFORMATION ON RECEPTION DESK LIGHTING INSTALLATION.

408 CATH LAB 1 AND CATH LAB 2 ARE ANESTHETIZING LOCATIONS. LF2-1 FIXTURES WITHIN THIS SPACE SHALL BE PROVIDED WITH 90 MINUTE BATTERY BACKUP, REFER TO LUMINAIRE SCHEDULE ON SHEET EE 606

409 PRE AND POST OP BAYS ARE ANESTHETIZING LOCATIONS. LF3 FIXTURES WITHIN THIS SPACE SHALL BE PROVIDED WITH 90 MINUTE BATTERY BACKUP, REFER TO LUMINAIRE SCHEDULE ON SHEET 606 FOR DETAILS.

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Allen Cheng

BUILDING TITLE

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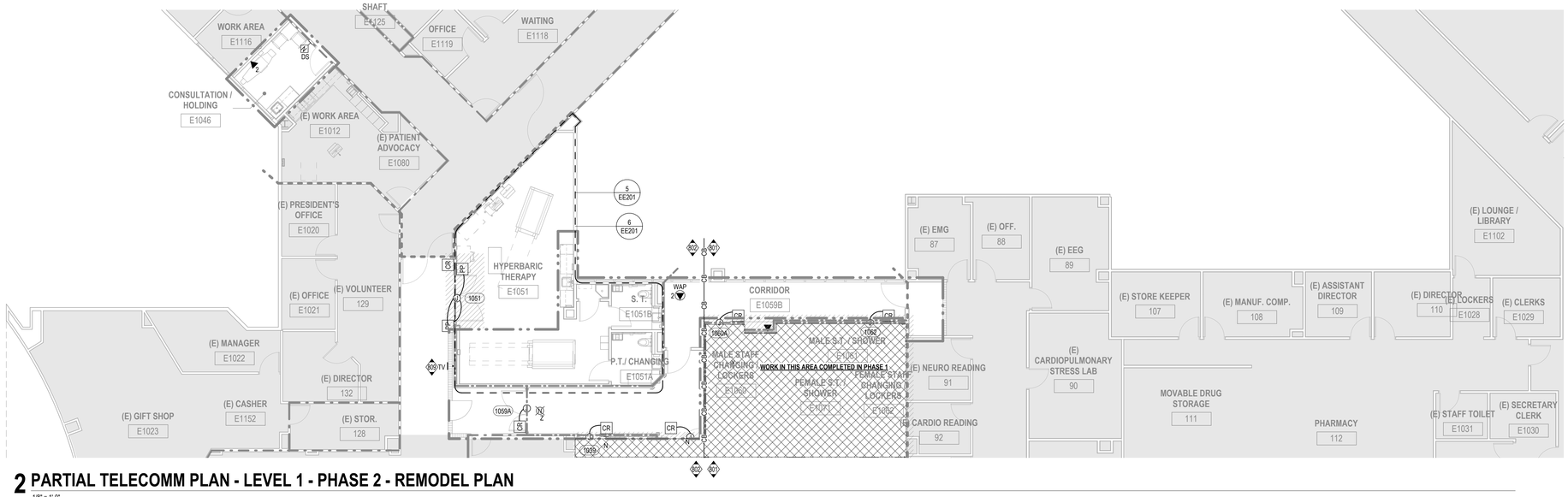
PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING PLAN - REMODEL

SHEET NUMBER

EE112

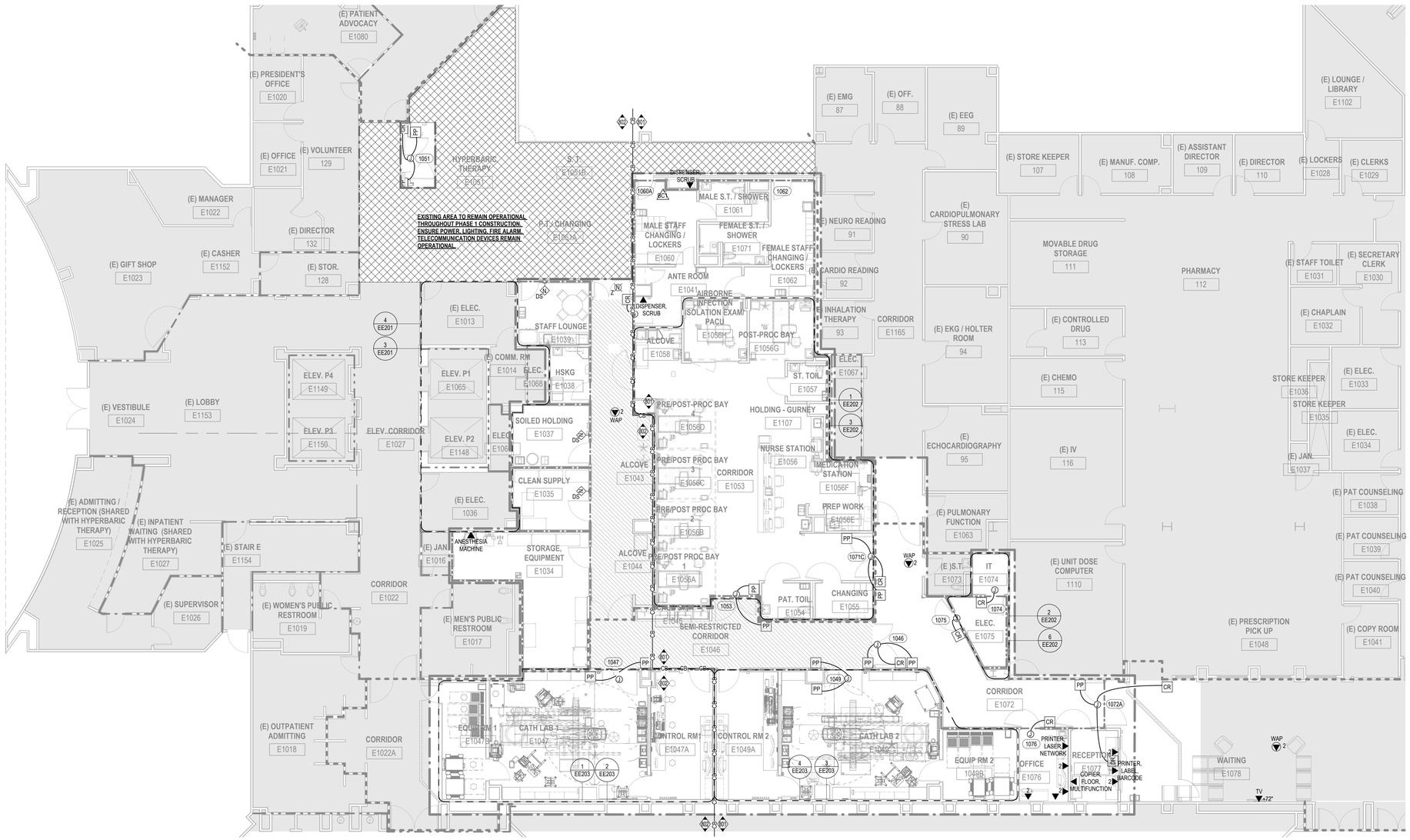
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2 PARTIAL TELECOMM PLAN - LEVEL 1 - PHASE 2 - REMODEL PLAN

1/8" = 1'-0"



1 PARTIAL TELECOMM PLAN - LEVEL 1 - PHASE 1 - REMODEL PLAN

1/8" = 1'-0"

GENERAL NOTES:

1. ALL NEW NURSE CALL CABLING SHALL BE ROUTED AND TERMINATED AT THE NEW NURSE CALL TERMINAL CABINET LOCATED IN ROOM E1047.
2. CONTRACTOR SHALL REINSTALL THE EXISTING SPEAKERS FROM THE DEMOLISHING PHASE, ADJUST AS NECESSARY TO AVOID CONFLICTS WITH ARCHITECTURE AND OTHER DEVICES AND EQUIPMENTS. CONNECT SPEAKERS TO EXISTING PROTECTED IN PLACE SPEAKER CABLING. IF EXISTING CABLING IS NOT AVAILABLE, OR IN POOR CONDITION, CONTRACTOR SHALL PULL NEW CABLE TO SPEAKER FROM EXISTING HEAD-END CABINET. CONTRACTOR TO PRICE NEW HOMERUNS IF CAPACITY IS NEEDED FOR NEW SPEAKERS.
3. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON SHEET EE606 FOR ADDITIONAL INFORMATION.
4. DISCONNECTING MEANS FOR EACH SERVICE, FEEDER OR BRANCH CIRUCIT ORIGINATING ON A SWITCHBOARD OR PANELBOARD SHALL BE LEGIBLY AND DURABLY MARKED TO INDICATE ITS PURPOSE UNLESS SUCH PURPOSE IS CLEARLY EVIDENT. WHERE BUILDINGS OR STRUCTURES ARE SUPPLIED BY MORE THAN ONE POWER SOURCE, MARKINGS SHALL BE PROVIDED AT EACH SERVICE EQUIPMENT LOCATION AND AT ALL INTERCONNECTED ELECTRIC POWER PRODUCTION SOURCES IDENTIFYING ALL ELECTRIC POWER SOURCES AT THE PREMISES IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE PER 2022 CFC, SECTION 603.4.1.
5. REFER TO COPPER FEEDER SCHEDULE GENERAL NOTES ON SHEET EE606 TO ENSURE COMPLIANCE WITH CEC 300.17 REQUIREMENTS.

KEY NOTES

801	ALL LOW VOLTAGE DEVICES ON THIS SIDE SHALL BE ROUTED AND TERMINATED AT THE IDF RACK LOCATED IN IT ROOM #E1074.
802	ALL LOW VOLTAGE DEVICES ON THIS SIDE SHALL BE ROUTED AND TERMINATED AT THE IDF RACKS LOCATED IN (E) COMM. ROOM #E1014.
809	RELOCATED POWER/DATA FOR EXISTING DISPLAY MONITOR. EXTEND EXISTING CIRCUITS AND COMMUNICATION CABLING AS REQUIRED TO SERVE THE COMPLETE SYSTEM.

Riverside University HEALTH SYSTEM

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SHEET NAME

PHASING PLAN - LEVEL 1 - ELECTRICAL TELECOMM PLAN - REMODEL

SHEET NUMBER

EE113

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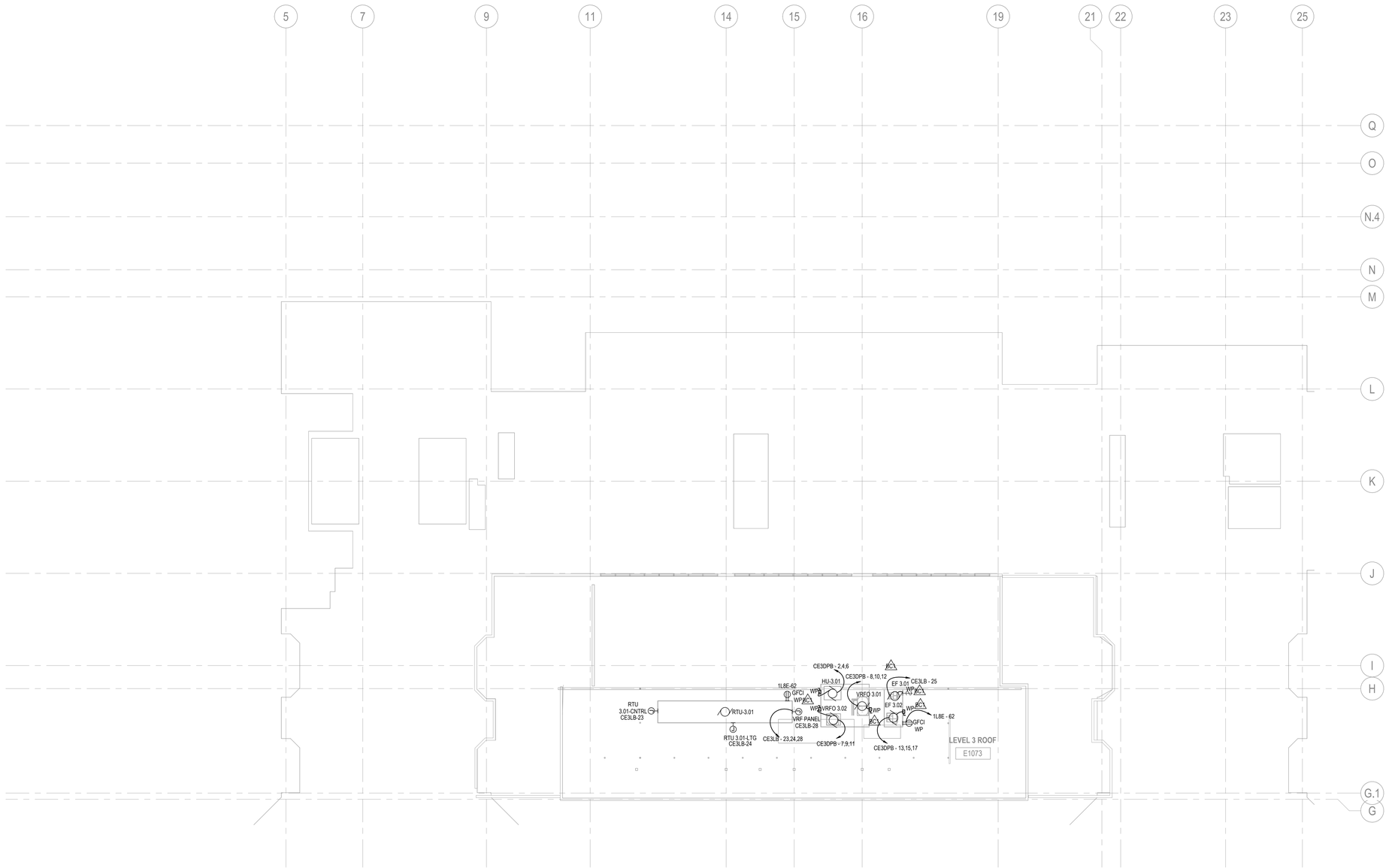
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GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT SCHDEULE ON SHEET EE606 FOR ADDITIONAL INFORMATION



1 ROOF - ELECTRICAL POWER PLAN

1" = 10'-0"

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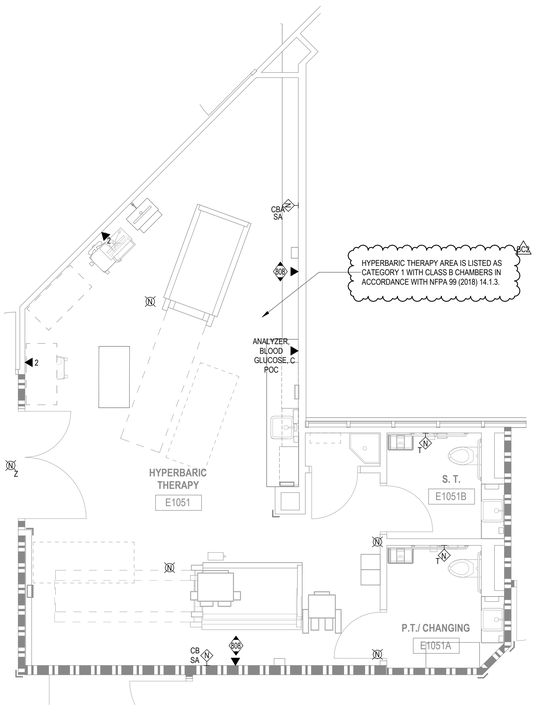
ROOF - ELECTRICAL POWER PLAN

SHEET NUMBER

EE114

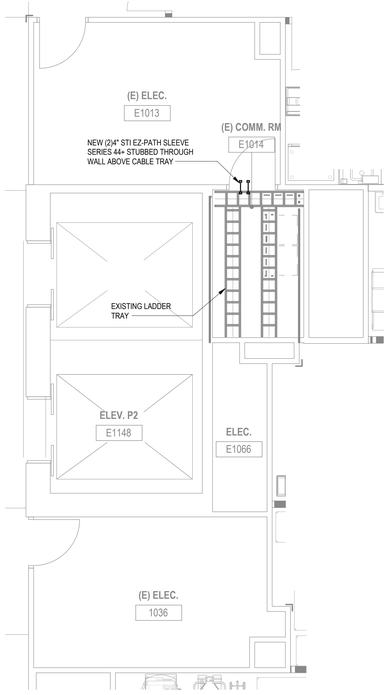
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7/3/2024 10:18:53 AM Autodesk Docs://047-10071-002_RUHS-TCI-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



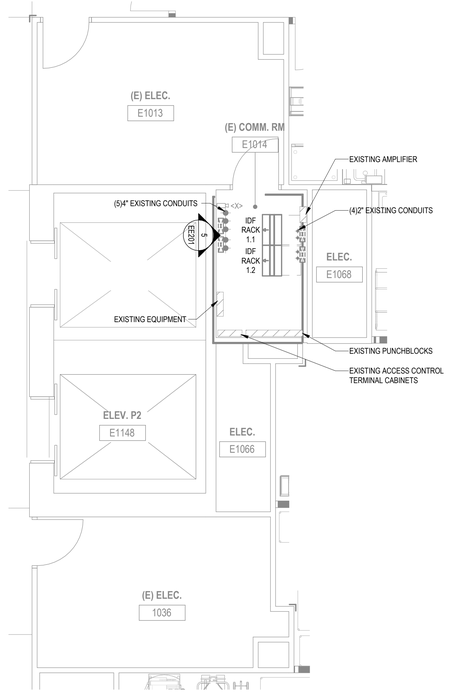
6 LEVEL 1 - TELECOMM ENLARGED PLAN - HYPERBARIC THERAPY

1/4" = 1'-0"



4 LEVEL 1 - TELECOMM ENLARGED PATHWAY PLAN - ELECTRICAL ROOMS

1/4" = 1'-0"



2 LEVEL 1 - TELECOMM ENLARGED PLAN - ELECTRICAL ROOMS

1/4" = 1'-0"

GENERAL NOTES:

1 ALL NEW NURSE CALL CABLING SHALL BE ROUTED AND TERMINATED AT THE NEW NURSE CALL TERMINAL CABINET LOCATED IN ROOM E1047.

2 CONTRACTOR SHALL REINSTALL THE EXISTING SPEAKERS FROM THE DEMOLISHING PHASE. ADJUST AS NECESSARY TO AVOID CONFLICTS WITH ARCHITECTURE AND OTHER DEVICES AND EQUIPMENTS. CONNECT SPEAKERS TO EXISTING PROTECTED IN PLACE SPEAKER CABLING. IF EXISTING CABLING IS NOT AVAILABLE, OR IN POOR CONDITION, CONTRACTOR SHALL PULL NEW CABLE TO SPEAKER FROM EXISTING HEAD-END CABINET. CONTRACTOR TO PRICE NEW HOMERUNS IF CAPACITY IS NEEDED FOR NEW SPEAKERS.

3 REFER TO MECHANICAL EQUIPMENT SCHEDULE ON SHEET EE606 FOR ADDITIONAL INFORMATION.

4 DISCONNECTING MEANS FOR EACH SERVICE, FEEDER OR BRANCH CIRUCIT ORIGINATING ON A SWITCHBOARD OR PANELBOARD SHALL BE LEGIBLY AND DURABLY MARKED TO INDICATE ITS PURPOSE UNLESS SUCH PURPOSE IS CLEARLY EVIDENT. WHERE BUILDINGS OR STRUCTURES ARE SUPPLIED BY MORE THAN ONE POWER SOURCE, MARKINGS SHALL BE PROVIDED AT EACH SERVICE EQUIPMENT LOCATION AND AT ALL INTERCONNECTED ELECTRIC POWER PRODUCTION SOURCES IDENTIFYING ALL ELECTRIC POWER SOURCES AT THE PREMISES IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE PER 2022 CFC, SECTION 603.4.1.

5 REFER TO COPPER FEEDER SCHEDULE GENERAL NOTES ON SHEET EE606 TO ENSURE COMPLIANCE WITH CEC 300.17 REQUIREMENTS.

KEY NOTES

213 VERIFY EXACT LOCATION WITH PLUMBING DRAWINGS PRIOR TO INSTALLATION.

217 PROVIDE 120V POWER FOR MECHANICAL CONTROLS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH IN.

219 NEW HYPERBARIC CARE FACILITIES SHALL BE CATEGORY 1.

220 PORTABLE PATIENT CARE-RELATED ELECTRICAL APPLIANCES SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF 2021 NFPA 99, SECTION 14.2.9.3.17 AND THE ASSOCIATED SUBSECTIONS.

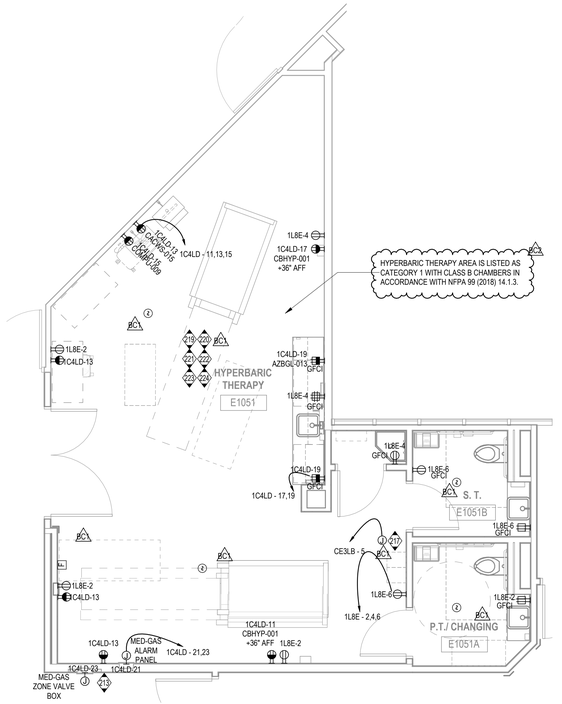
221 ELECTRICAL CONTRACTOR SHALL CONFIRM THE RESISTANCE BETWEEN THE GROUNDED CHAMBER HULL AND THE ELECTRICAL GROUND NOT EXCEED 1 OHM PER 2021 NFPA 99 SECTION 14.2.9.4.1.3 PRIOR TO THE COMPLETION OF CONSTRUCTION.

222 EACH CIRCUIT SHALL BE DESIGNED TO LIMIT THE ELECTRICAL ENERGY TO WIRE LEADS INTO THE CHAMBER UNDER NORMAL OR FAULT CONDITIONS TO NOT MORE THAN 28V AND 4.0W. THIS REQUIREMENT SHALL NOT EXCLUDE MORE STRINGENT REQUIREMENTS IMPOSED BY OTHER CODES GOVERNING ELECTROMEDICAL APPARATUS PER 2021 NFPA 99 SECTION 14.2.9.6.1.1.

223 COMMUNICATION WIRES SHALL BE PROTECTED FROM PHYSICAL DAMAGE AND FROM COMING INTO CONTACT WITH FLAMMABLE MATERIALS IN THE CHAMBER BY BARRIERS OR CONDUIT PER 2021 NFPA 99 SECTION 14.2.9.6.1.2.

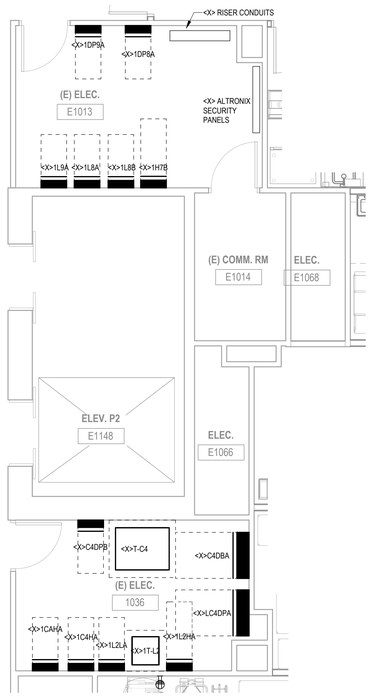
224 PATIENT MONITORING LEADS SHALL BE PART OF APPROVED ELECTROMEDICAL APPARATUS MEETING THE REQUIREMENTS IN SECTION 14.2.9.3.17.

808 PROVIDE OUTLET WITH CATEGORY 6 CABLE TERMINATED ON 8PSC CONNECTOR AND SERIES 6 CABLE TERMINATED ON F-STYLE CONNECTOR. COORDINATE CABLE ROUTE AND OUTLET INSTALLATION WITH HYPERBARIC CHAMBER VENDOR.



5 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - HYPERBARIC THERAPY

1/4" = 1'-0"



3 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - ELECTRICAL ROOMS

1/4" = 1'-0"

CABINET ELEVATIONS		
RACK UNITS	19" EQUIPMENT RACK IDF RACK 1.1 [EXISTING]	19" EQUIPMENT RACK IDF RACK 1.2 [EXISTING]
1		
2	LEVITON EQUIPMENT (EXISTING)	FIBER ENCLOSURE (EXISTING)
3	SPACE	
4		
5		
6		48 PORT PATCH PANEL (EXISTING)
7		
8	EQUIPMENT (EXISTING)	WIRE MANAGEMENT (EXISTING)
9		48 PORT PATCH PANEL (EXISTING)
10	APC UPS (EXISTING)	
11	SPACE	WIRE MANAGEMENT (EXISTING)
12	24 PORT PATCH PANEL (EXISTING)	48 PORT PATCH PANEL (EXISTING)
13	24 PORT PATCH PANEL (EXISTING)	
14	24-PORT PoE SWITCH (EXISTING)	WIRE MANAGEMENT (EXISTING)
15	24-PORT PoE SWITCH (EXISTING)	48 PORT PATCH PANEL (EXISTING)
16	APC PDU (EXISTING)	
17	48-PORT PoE SWITCH (EXISTING)	WIRE MANAGEMENT (EXISTING)
18	48-PORT PoE SWITCH (EXISTING)	48 PORT PATCH PANEL (EXISTING)
19	48-PORT PoE SWITCH (EXISTING)	
20	48-PORT PoE SWITCH (EXISTING)	WIRE MANAGEMENT (EXISTING)
21	48-PORT PoE SWITCH (EXISTING)	48 PORT PATCH PANEL (EXISTING)
22	48-PORT PoE SWITCH (EXISTING)	
23	48-PORT PoE SWITCH (EXISTING)	WIRE MANAGEMENT (EXISTING)
24	SPACE	48 PORT PATCH PANEL (EXISTING)
25	48-PORT PoE SWITCH (EXISTING)	
26	48-PORT PoE SWITCH (EXISTING)	WIRE MANAGEMENT (EXISTING)
27	48-PORT PoE SWITCH (NEW)	48 PORT PATCH PANEL (EXISTING)
28	WIRE MANAGEMENT [WM1]	
29	48 PORT PATCH PANEL (NEW)	WIRE MANAGEMENT (EXISTING)
30		48 PORT PATCH PANEL (EXISTING)
31		
32		WIRE MANAGEMENT (EXISTING)
33		24 PORT PATCH PANEL (EXISTING)
34		24 PORT PATCH PANEL (EXISTING)
35		24 PORT PATCH PANEL (EXISTING)
36		24 PORT PATCH PANEL (EXISTING)
37		24 PORT PATCH PANEL (EXISTING)
38		24 PORT PATCH PANEL (EXISTING)
39		24 PORT PATCH PANEL (EXISTING)
40		24 PORT PATCH PANEL (EXISTING)
41		
42		SPACE
43		
44		
45	UPS (EXISTING)	

VERTICAL WIRE MANAGEMENT (EXISTING)

1 EXISTING RACK ELEVATION - COMM #1014

NTS

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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Project #: 22013260

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

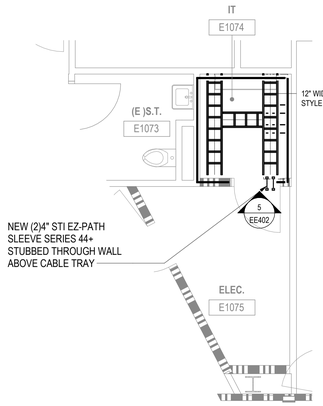
ELECTRICAL TELECOMM ENLARGED PLANS

SHEET NUMBER

EE201

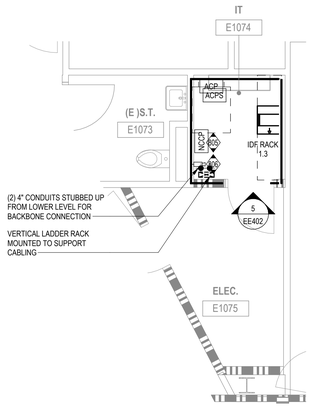
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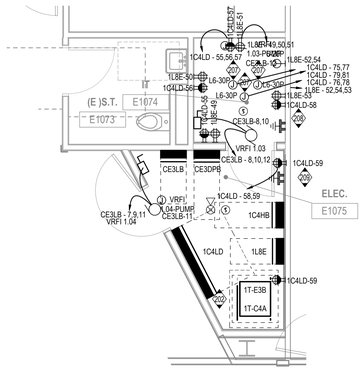
6 LEVEL 1 - TELECOMM ENLARGED PATHWAY PLAN - IT & ELEC CLOSETS

1/4" = 1'-0"



4 LEVEL 1 - TELECOMM ENLARGED PLAN - IT & ELEC CLOSETS

1/4" = 1'-0"



2 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - IT CLOSET & ELEC CLOSET

1/4" = 1'-0"

GENERAL NOTES:

1. ALL NEW NURSE CALL CABLING SHALL BE ROUTED AND TERMINATED AT THE NEW NURSE CALL TERMINAL CABINET LOCATED IN ROOM E1047.
2. CONTRACTOR SHALL REINSTALL THE EXISTING SPEAKERS FROM THE DEMOLISHING PHASE, ADJUST AS NECESSARY TO AVOID CONFLICTS WITH ARCHITECTURE AND OTHER DEVICES AND EQUIPMENTS. CONNECT SPEAKERS TO EXISTING PROTECTED IN PLACE SPEAKER CABLING. IF EXISTING CABLING IS NOT AVAILABLE, OR IN POOR CONDITION, CONTRACTOR SHALL PULL NEW CABLE TO SPEAKER FROM EXISTING HEAD-END CABINET. CONTRACTOR TO PRICE NEW HOMERUNS IF CAPACITY IS NEEDED FOR NEW SPEAKERS.
3. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON SHEET EE606 FOR ADDITIONAL INFORMATION.
4. DISCONNECTING MEANS FOR EACH SERVICE, FEEDER OR BRANCH CIRUCIT ORIGINATING ON A SWITCHBOARD OR PANELBOARD SHALL BE LEGIBLY AND DURABLY MARKED TO INDICATE ITS PURPOSE UNLESS SUCH PURPOSE IS CLEARLY EVIDENT. WHERE BUILDINGS OR STRUCTURES ARE SUPPLIED BY MORE THAN ONE POWER SOURCE, MARKINGS SHALL BE PROVIDED AT EACH SERVICE EQUIPMENT LOCATION AND AT ALL INTERCONNECTED ELECTRIC POWER PRODUCTION SOURCES IDENTIFYING ALL ELECTRIC POWER SOURCES AT THE PREMISES IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE PER 2022 CFC, SECTION 603.4.1.
5. REFER TO COPPER FEEDER SCHEDULE GENERAL NOTES ON SHEET EE606 TO ENSURE COMPLIANCE WITH CEC 300.17 REQUIREMENTS.

BC1

KEY NOTES

201	6 DUPLEX RECEPTACLES (4 CRITICAL, 2 NORMAL) INSTALLED WITHIN HEADWALL.
202	REFER TO STRUCTURAL DRAWING DETAILS A1, S504 AND A1, S507 FOR SEISMIC MOUNTING DETAILS FOR TRANSFORMERS AND PANELBOARDS.
207	PROVIDE 1 X 120V, 20A-1P AND 1 X 208V, 30A-1P CIRCUIT TERMINATED IN A SURFACE MOUNTED 4S BOX, ATTACHED TO THE LADDER RACK USING CPI POWER BOX BRACKET PART # TS1006073 (NO KNOWN EQUAL).
208	THE GROUNDING BUSBAR MUST BE CPI CHATSWORTH PRODUCTS PART #13622-020 (NO KNOWN EQUAL). THE BUSBAR MUST BE INSULATED FROM ITS SUPPORTING STRUCTURE BY AT LEAST TWO INCHES OF SEPARATION. BOND THE BUSBAR TO THE BUILDING AC GROUNDING ELECTRODE SYSTEM. THE MINIMUM SIZE OF THE BONDING CONDUCTOR WILL BE #3 AWG AND BE SIZED TO CARRY THE MAXIMUM SHORT TIME RATING AMPS OF THE BUILDING GROUNDING ELECTRODE CONDUCTOR. A SUPPLEMENTAL BONDING CONNECTION IS REQUIRED TO BE EXOTHERMICALLY WELDED TO THE STRUCTURAL STEEL OF THE BUILDING AND AC SUB PANEL FEEDING THE ELECTRICAL CIRCUITS IN THIS ROOM. RESISTANCE WILL BE NO MORE THAN 0.1 OHMS BETWEEN THE TMGB AND THE BUILDING MAIN GROUNDING SOURCE MEASURED FOLLOWING THE TWO-POINT BONDING TEST METHOD USING AN EARTH GROUND RESISTANCE TESTER. ALL GROUNDING CONDUCTORS MUST BE RUN IN EMT CONDUIT.
209	INTERCONNECT TELECOMMUNICATION GROUND BAR AND NEW ELECTRICAL ROOM GROUND BAR TO BUILDING GROUNDING SYSTEM IN NEAREST ELECTRICAL ROOM. WIRE SHALL BE 3/0 AND BE RUN IN EMT CONDUIT.
213	VERIFY EXACT LOCATION WITH PLUMBING DRAWINGS PRIOR TO INSTALLATION.
214	POWER AND DATA FOR NURSING STATION WILL BE SERVED FROM BELOW THROUGH SINGLE FLOOR PENETRATION. POWER/DATA CONDUIT WILL BE DISTRIBUTED WITHIN PONY WALL - COORDINATE WITH ARCHITECTURAL DETAILS PRIOR TO ROUGH-IN.
217	PROVIDE 120V POWER FOR MECHANICAL CONTROLS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH IN.
804	DATA OUTLET DEDICATED FOR P-TUBE SYSTEM.
805	NEW RAULAND RESPONDER 5 NURSE TERMINAL CABINET SHALL BE CONNECTED TO THE EXISTING RAULAND NURSE TERMINAL CABINET LOCATED IN ROOM #F1079.
806	PROVIDE MERAKI CAMERA "MODEL MV22X" AND TERMINATE AT THE NEW RACK LOCATED IN THE SAME ROOM.
807	ROUTE (1) 1-1/2" CONDUIT FROM MILLWORK TO NEAREST WALL, STUBBING ABOVE ACCESSIBLE PATHWAY. REFER TO DETAIL 9/EE502

CABINET ELEVATIONS		
RACK UNITS	19" EQUIPMENT RACK IDF RACK 1.3 [ER-WA]	
1	FIBER ENCLOSURE (NEW)	
2	WIRE MANAGEMENT [WM1]	
3	48-PORT PoE SWITCH (NEW)	
4	WIRE MANAGEMENT [WM1]	
5	48 PORT PATCH PANEL (NEW)	
6		
7	48-PORT PoE SWITCH (NEW)	
8	WIRE MANAGEMENT [WM1]	
9	48 PORT PATCH PANEL (NEW)	
10		
11	48-PORT PoE SWITCH (NEW)	
12	WIRE MANAGEMENT [WM1]	
13	48 PORT PATCH PANEL (NEW)	
14		
15	48-PORT PoE SWITCH (NEW)	
16	WIRE MANAGEMENT [WM1]	
17	48 PORT PATCH PANEL (NEW)	
18		
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VERTICAL PDU [PDF/B]

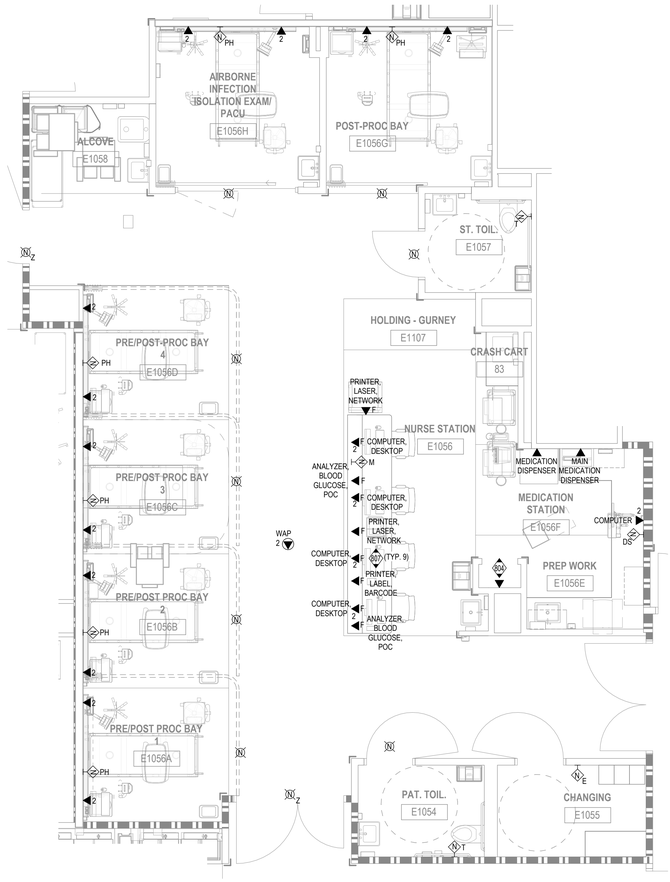
SPACE RESERVED FOR OWNER EQUIPMENT

UPS [UPS/A]

VERTICAL PDU [PDF/B]

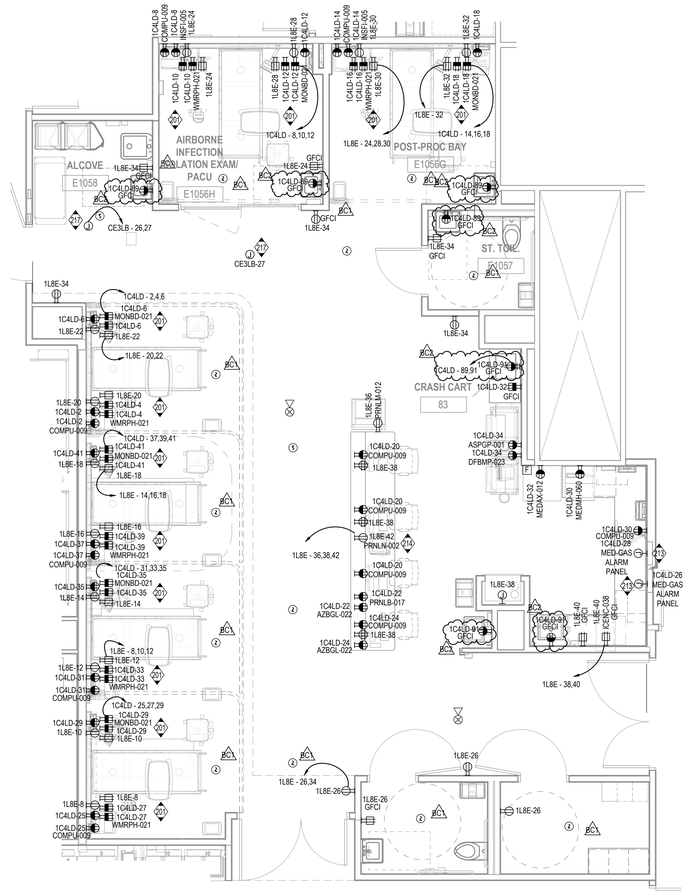
5 NEW RACK ELEVATION - IT CLOSET # E1074

NTS



3 LEVEL 1 - TELECOMM ENLARGED PLAN - NURSE STATION

1/4" = 1'-0"



1 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - NURSE STATION

1/4" = 1'-0"

Riverside University HEALTH SYSTEM

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EXP. 12/31/25
ELECTRICAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER:
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
ELECTRICAL TELECOMM ENLARGED PLANS

SHEET NUMBER
EE202

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KEY NOTES

203 EQUI-POTENTIAL REFERENCE BAR MOUNTED IN A 12" (305MM) W X 12" (305MM) H X 4" (105MM) D PULL BOX WITH HINGED COVER, SURFACE MOUNTED TO THE BOTTOM OF "WR2" WHEN POSSIBLE.

204 PROVIDE AMICO ALERT-1 SERIES, STAINLESS STEEL, 18" TALL PEDESTAL OR EQUIVALENT PEDESTAL MOUNTED MED-GAS WITH POWER AND DATA. REFER TO PLUMBING PLANS FOR QUANTITY OF MED-GAS DEVICES. PROVIDE 2 DUPLEX ON EACH SIDE, ALL ON CRITICAL POWER AND 1 NORMAL POWER DUPLEX ON FRONT. ALL UNUSED PEDESTAL SPACES SHALL BE PROVIDED WITH BLANK FACEPLATES. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.

205 CEILING MOUNTED MED-GAS WITH NITROUS OXIDE, OXYGEN, VACUUM, AIR AND POWER. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.

206 CEILING MOUNTED JUNCTION BOX FOR CONNECTION TO SURGICAL LIGHT BOOM. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION.

211 INTERCONNECT ALL EPO SWITCHES WITHIN EACH CATH LAB SUITE TO RESPECTIVE UPS AS WELL AS CIRCUIT BREAKER IN SOURCE PANEL. EPO CIRCUIT TO UPS IS A NORMALLY CLOSED CONTACT. EPO CIRCUIT TO CB2 SHALL BE FED FROM CRITICAL PANEL SERVING THE AREA. REFER TO EE601 AND PHILIPS DRAWING ED4 FOR DETAILS.

212 REFER TO PHILIPS DRAWINGS EL1/EL2, E1/E2 FOR QUANTITIES, TYPES, LOCATIONS AND SPECIFICATIONS FOR VARIOUS EQUIPMENT, WIREWAYS, GROMMET OPENINGS, CONDUIT INTERCONNECTIONS REQUIRED FOR PHILIPS EQUIPMENT. CONTRACTOR SHALL ACCOUNT FOR ALL EQUIPMENT FURNISHED BY CUSTOMER/CONTRACTOR AND INSTALLED BY CUSTOMER/CONTRACTOR, AS WELL AS ITEMS FURNISHED BY PHILIPS AND INSTALLED BY CUSTOMER/CONTRACTOR. INCLUDE FOR ALL OPTIONAL ITEMS IN THE ELECTRICAL LEGENDS. CONDUIT PATHWAYS WILL BE ROUTED ABOVE THE CEILING AS WELL AS BELOW THE FLOOR SLAB. COORDINATE CONDUIT ROUTING WITH EXISTING SERVICES INSTALLED IN CEILING OF FLOOR BELOW. CONTRACTOR TO REVIEW CEILING SPACE BELOW PRIOR TO BID TO CONFIRM THAT THE REQUIRED CONDUITS CAN BE INSTALLED. ACCOUNT FOR ANY REQUIRED SHIFTS OF EXISTING SERVICES IN THE CEILING BELOW AS REQUIRED TO SUPPORT THE INSTALLATION OF THE NEW EQUIPMENT.

217 PROVIDE 120V POWER FOR MECHANICAL CONTROLS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH IN.

GENERAL NOTES:

1 CONTRACTOR TO VERIFY CONDUIT PATHWAYS AND LENGTHS IN ACCORDANCE WITH PHILIPS REQUIREMENTS.

2 ALL NEW NURSE CALL CABLING SHALL BE ROUTED AND TERMINATED AT THE EXISTING NURSE CALL HEADEND CABINET LOCATED IN ROOM E1147.

3 CONTRACTOR SHALL REINSTALL THE EXISTING SPEAKERS FROM THE DEMOLISHING PHASE, ADJUST AS NECESSARY TO AVOID CONFLICTS WITH ARCHITECTURE AND OTHER DEVICES AND EQUIPMENTS. CONNECT SPEAKERS TO EXISTING PROTECTED IN PLACE SPEAKER CABLING. IF EXISTING CABLING IS NOT AVAILABLE, OR IN POOR CONDITION, CONTRACTOR SHALL PULL NEW CABLE TO SPEAKER FROM EXISTING HEAD-END CABINET. CONTRACTOR TO PRICE NEW HOMERUNS IF CAPACITY IS NEEDED FOR NEW SPEAKERS.

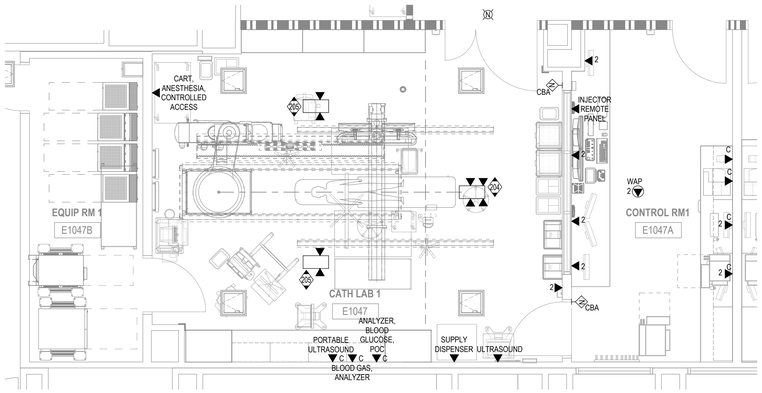
4 THE SCOPE SHOWN ON THESE DRAWINGS REFLECTS THE BASE BUILDING RENOVATION SCOPE REQUIRED TO SUPPORT THE INSTALLATION OF THE NEW PHILIPS AZURION SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK SHOWN HERE AS WELL AS THE WORK REQUIRED TO FACILITATE INSTALLATION OF THE PHILIPS EQUIPMENT IDENTIFIED IN THE PHILIPS DRAWINGS. REFER TO R1 SERIES ARCHITECTURAL DRAWINGS WHICH CONTAIN SITE SPECIFIC VENDOR DRAWINGS FOR DETAILS. CONTRACTOR MUST REVIEW THESE DOCUMENTS IN CONJUNCTION WITH THESE ELECTRICAL PLANS TO DETERMINE THE FULL SCOPE OF WORK. DETAILED SCOPE DELINEATION IS PROVIDED ON PHILIPS SHEET EL1/EL2.

5 AS PER A LETTER PROVIDED BY THE RUHS FACILITY ON 9/12/2022, THE CARDIAC CATHETERIZATION LABORATORIES IN THIS PROJECT ARE NOT CONSIDERED WET PROCEDURE LOCATIONS AS DEFINED IN THE CALIFORNIA ELECTRICAL CODE.

6 CONTRACTOR SHALL REFER TO VENDOR DRAWINGS FOR CARDIAC CATHETERIZATION LABORATORIES NUMBER 1 AND NUMBER 2 FOR ADDITIONAL WORK SCOPE. CATH LAB #1 DRAWINGS ARE TITLED N-WES230078C DATED 6/16/2023. CATH LAB #2 DRAWINGS ARE TITLED N-WES230080C DATED 6/16/2023. PROVIDE 2#12 AND 1#12 GROUND IN 1/2" CONDUIT FOR ALL INTERCONNECT WIRING TO DOOR SWITCHES AND EPO DEVICES. PROVIDE FEEDERS AS INDICATED ON THE ONE-LINE POWER DIAGRAM ON SHEET EE601.

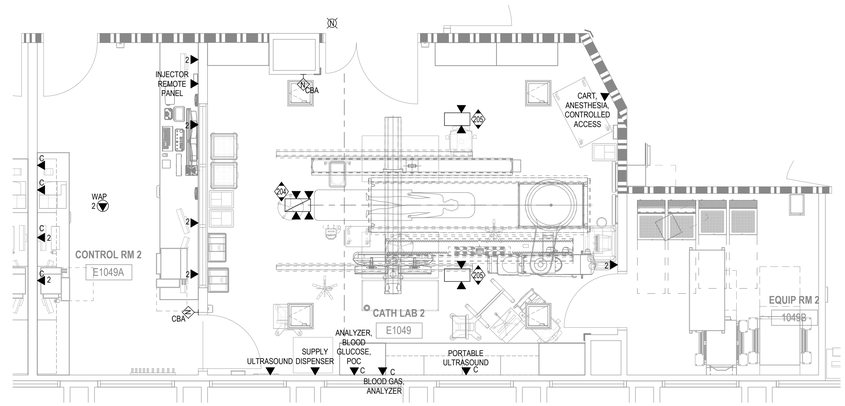
8 REFER TO MECHANICAL EQUIPMENT SCHEDULE ON SHEET EE606 FOR ADDITIONAL INFORMATION.

9 REFER TO COPPER FEEDER SCHEDULE GENERAL NOTES ON SHEET EE606 TO ENSURE COMPLIANCE WITH CEC 300.17 REQUIREMENTS. (BC1)



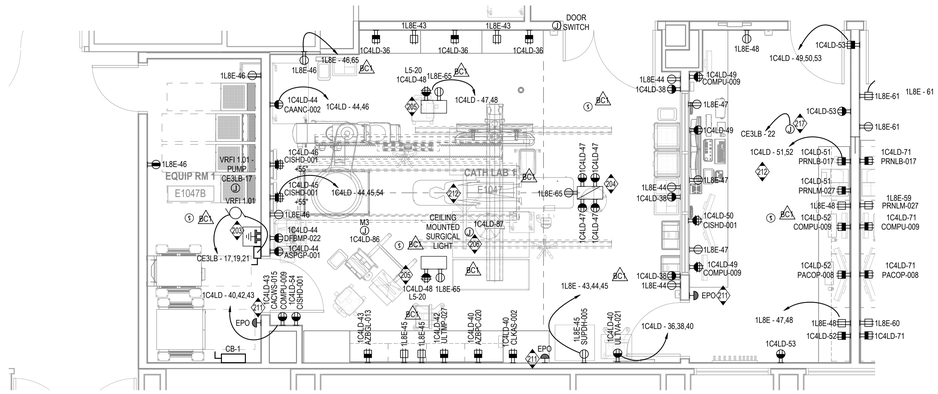
2 LEVEL 1 - TELECOMM ENLARGED PLAN - CATH LAB PROC RM 1

1/4" = 1'-0"



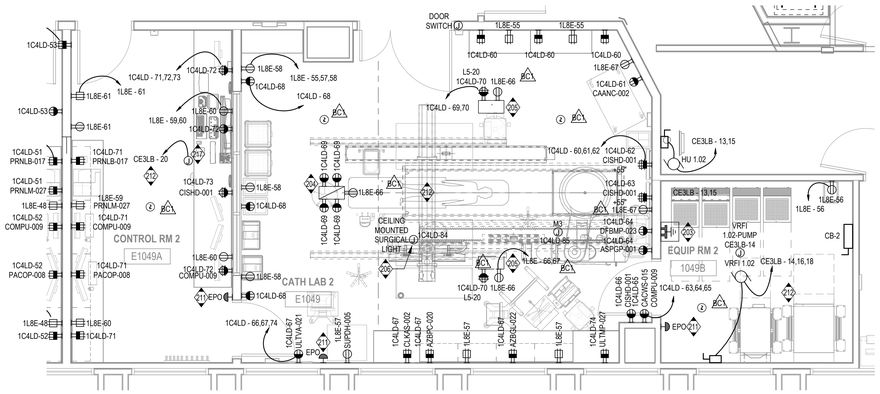
4 LEVEL 1 - TELECOMM ENLARGED PLAN - CATH LAB PROC RM 2

1/4" = 1'-0"



1 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - CATH LAB PROC RM 1

1/4" = 1'-0"



3 LEVEL 1 - ELECTRICAL ENLARGED POWER PLAN - CATH LAB PROC RM 2

1/4" = 1'-0"

Riverside University HEALTH SYSTEM

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KEY PLAN

REVISIONS

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1	PLAN CHECK	10/10/2023
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BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

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BUILDING TITLE

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PROJECT TITLE

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FM08430011869	047-10071-002

SHEET NAME

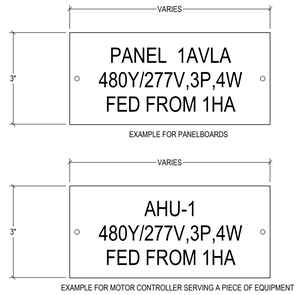
ELECTRICAL TELECOMM ENLARGED PLANS

SHEET NUMBER

EE203

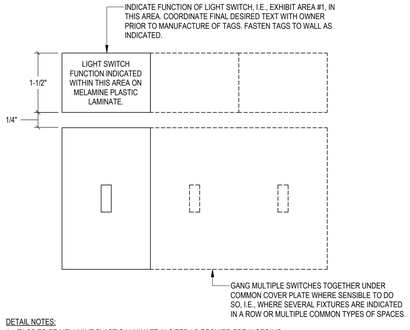
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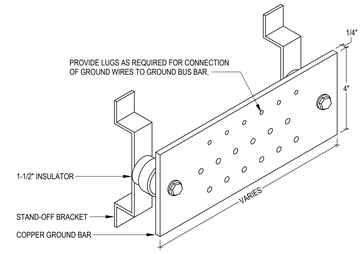
DETAIL NOTES:
1. TAGS TO BE MELAMINE PLASTIC LAMINATE IN SIZES AND THICKNESSES INDICATED. TAG THICKNESS TO BE 1/16" FOR UNITS UP TO 20 SQUARE INCHES OR 8" IN LENGTH AND 1/8" FOR LARGER TAGS.
2. SECURE TAGS TO EQUIPMENT WITH SELF-TAPPING STAINLESS-STEEL SCREWS, EXCEPT CONTACT TYPE PERMANENT COMMERCIAL GRADE ADHESIVE PROVIDING A PERMANENT BOND SHALL BE USED WHERE SCREWS CANNOT OR SHOULD NOT PENETRATE SUBSTRATE.
3. REFER TO DIVISION 26 SECTION "IDENTIFICATION FOR ELECTRICAL SYSTEMS" FOR FURTHER INFORMATION INCLUDING LABEL COLOR CODES.

1 EQUIPMENT IDENTIFICATION LABELS
12" = 1'-0"



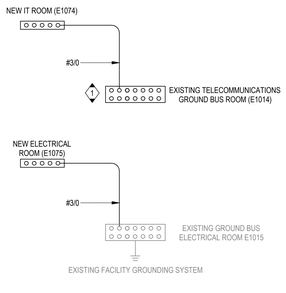
DETAIL NOTES:
1. TAGS TO BE MELAMINE PLASTIC LAMINATE IN SIZES AS REQUIRD FOR WORDING.
2. SECURE TAGS TO WALL WITH SELF-TAPPING STAINLESS STEEL SCREWS.
3. REFER TO DIVISION 26 SECTION "IDENTIFICATION FOR ELECTRICAL SYSTEMS" FOR FURTHER INFORMATION INCLUDING LABEL COLOR CODES.

2 WALL SWITCH IDENTIFICATION AND GROUPING
12" = 1'-0"



DETAIL NOTES:
1. COPPER BUS BARS SHALL BE CHATSWORTH MODEL 10622-010 (10"X4") LOCATED IN SMALL ELECTRICAL ROOMS AND COMMUNICATION ROOMS AND MODEL 10622-020 (20"X4") LOCATED IN MAIN ELECTRICAL ROOM. IN ALL CASES GROUND BAR LENGTH SHALL BE SIZED TO ACCOMMODATE NUMBER OF CONNECTIONS REQUIRED.
2. INSTALL GROUND BUS BAR A MINIMUM OF 18"AFF WITH 6" CLEAR ON ALL OTHER SIDES.

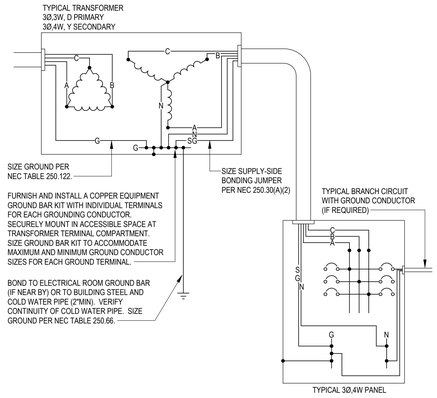
3 GROUND BAR
12" = 1'-0"



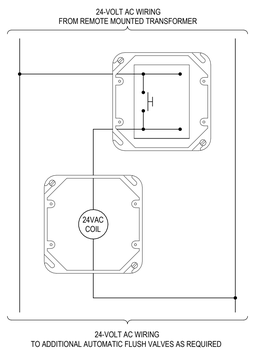
REFERENCE NOTE:

1 THE GROUNDING BUSBAR MUST BE CPI CHATSWORTH PRODUCTS PART #13622-020 (NO KNOWN EQUAL). THE BUSBAR MUST BE INSULATED FROM ITS SUPPORTING STRUCTURE BY AT LEAST TWO INCHES OF SEPARATION. BOND THE BUSBAR TO THE BUILDING AC GROUNDING ELECTRODE SYSTEM. THE MINIMUM SIZE OF THE BONDING CONDUCTOR WILL BE #3 AWG AND BE SIZED TO CARRY THE MAXIMUM SHORT TIME RATING AMPS OF THE BUILDING GROUNDING ELECTRODE CONDUCTOR. A SUPPLEMENTAL BONDING CONNECTION IS REQUIRED TO BE EXOTHERMICALLY WELDED TO THE STRUCTURAL STEEL OF THE BUILDING AND AC SUB PANEL FEEDING THE ELECTRICAL CIRCUITS IN THIS ROOM. RESISTANCE WILL BE NO MORE THAN 0.1 OHMS BETWEEN THE TMGB AND THE BUILDING MAIN GROUNDING SOURCE MEASURED FOLLOWING THE TWO-POINT BONDING TEST METHOD USING AN EARTH GROUND RESISTANCE TESTER. ALL GROUNDING CONDUCTORS MUST BE RUN IN EMT CONDUIT.

4 GROUNDING ONELINE DIAGRAM
12" = 1'-0"



5 DRY TYPE TRANSFORMER WIRING
12" = 1'-0"

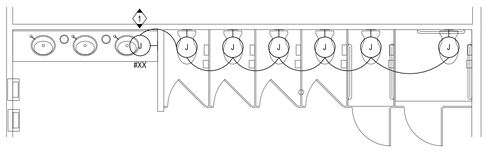


DETAIL NOTES:
1. ONE TRANSFORMER SERVES UP TO TEN AUTOMATIC FLUSH VALVES.
2. FAILURE TO PROPERLY POSITION THE ELECTRICAL BOX AND PLASTER RING TO THE PLUMBING ROUGH-IN WILL RESULT IN IMPROPER INSTALLATION AND IMPAIR PRODUCT PERFORMANCE. ALL TRADES INVOLVED SHALL COORDINATE THEIR WORK TO ASSURE PROPER INSTALLATION.

REFERENCE NOTE:

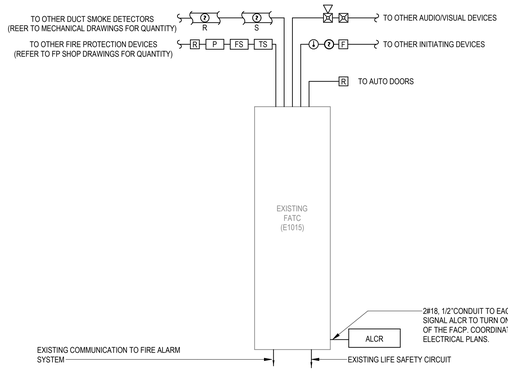
1 PROVIDE J-BOX AT ACCESSIBLE LOCATION BELOW COUNTERTOP FOR CONNECTION AND MOUNTING OF 120:24V, 1-PHASE XFMR (PROVIDED BY DIV. 22 CONTRACTOR). PROVIDE CONDUIT AND WIRING, AS REQUIRED, FROM XFMR TO AUTOMATIC FLUSH VALVES. SEE DETAIL _/E____ FOR WIRING DIAGRAM. REFER TO PLUMBING DRAWINGS FOR MORE INFORMATION.

NOTE: THIS DETAIL IS BASED ON SLOAN OPTIMA SENSOR OPERATED FLUSHOMETERS. MODIFICATION MAY BE REQUIRED DEPENDING ON THE SPECIFIED MANUFACTURER.



PLAN EXAMPLE

6 AUTOMATIC FLUSH VALVE WIRING DIAGRAM
12" = 1'-0"



ONE LINE NOTES:
1. DIVISION 26 CONTRACTOR IS RESPONSIBLE FOR COORDINATION COMPLETE SYSTEM INSTALLATION.
2. REFER TO SPECIFICATION 283111 "DIGITAL ADDRESSABLE FIRE-ALARM SYSTEM EXISTING SYSTEM" FOR ADDITIONAL MONITORING POINTS AND ADDITIONAL REQUIREMENTS.
3. CONTRACTOR SHALL PROVIDE ADDITIONAL 120 VOLT CIRCUITS AS REQUIRED FROM CLOSEST NEC 700 EMERGENCY BRANCH PANEL.
4. PROVIDE FIRE ALARM RELAY TO ALL AUTO DOORS. UPON FIRE ALARM ACTIVATION, POWER TO ALL AUTO DOORS SHALL BE DROPPED. WHEN THIS OCCURS, DOORS SHALL STILL OPEN MANUALLY (AND CLOSE AFTER EACH OPENING) BUT POWER TO AUTO OPERATORS SHALL BE DISRUPTED. COORDINATE EXACT REQUIREMENTS WITH DOOR HARDWARE.
5. CONTRACTOR TO VISIT SITE DURING KICK OFF MEETING TO CONFIRM THAT EXISTING FATC AND LOCAL CIRCUITS HAVE SUFFICIENT CAPACITY FOR NEW DEVICES SHOWN IN THESE PLANS. EXISTING DETECTION AND NOTIFICATION CIRCUITS SHALL BE REUSED WHERE POSSIBLE - COORDINATE DURING DEMOLITION.

8 FIRE ALARM ONE LINE DIAGRAM
12" = 1'-0"

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PROJECT TITLE
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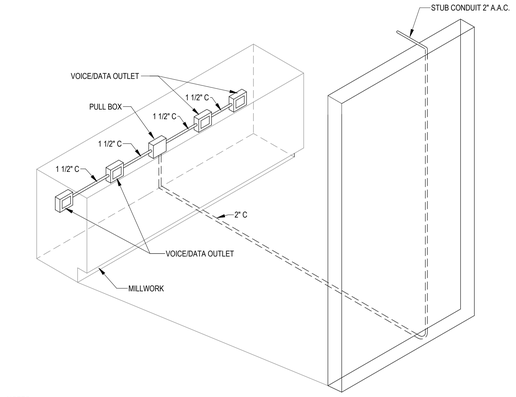
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
ELECTRICAL DETAILS

SHEET NUMBER
EE501

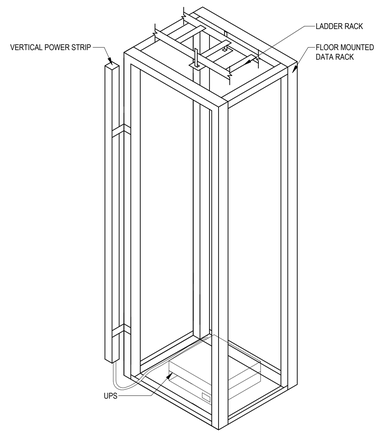
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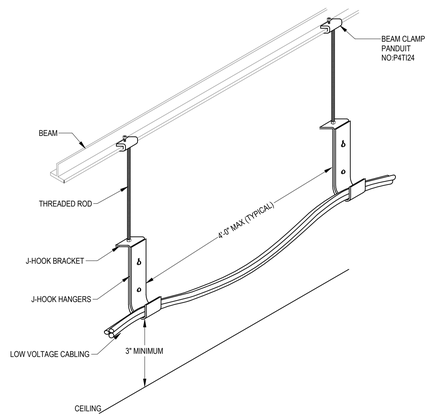
NOTES:
1. OUTLET CONFIGURATION AND QUANTITY MAY VARY. REFER TO SYSTEMS AND ARCHITECTURAL FLOOR PLANS FOR EXACT CONFIGURATION AND QUANTITY OF OUTLETS.
2. ALL CONDUIT BENDS SHALL BE SWEEPING BENDS.

9 ISLAND MILLWORK CONDUIT DETAIL
NTS

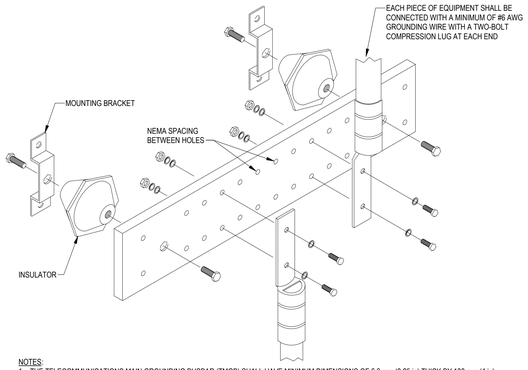


NOTES:
1. REFER TO SHEETS EE504 & EE505 FOR ENCHRORAGE DETAILS.

6 4-POST DATA RACK DETAIL
NTS

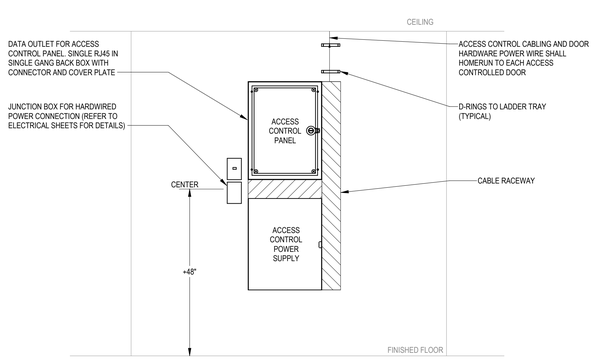


3 BEAM MOUNTED SINGLE J-HOOK DETAIL
NTS

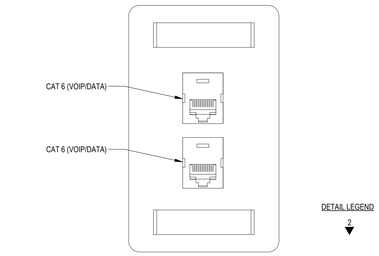


NOTES:
1. THE TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB) SHALL HAVE MINIMUM DIMENSIONS OF 6.3 mm (0.25 in) THICK BY 100 mm (4 in) WIDE, AND VARIABLE IN LENGTH DEPENDING ON NEED, WITH A MINIMUM LENGTH OF 10 INCHES.
2. THE TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) SHALL HAVE MINIMUM DIMENSIONS OF 6.3 mm (0.25 in) THICK BY 50 mm (2 in) WIDE, AND VARIABLE IN LENGTH DEPENDING ON NEED, WITH A MINIMUM LENGTH OF 10 INCHES
3. THE TELECOMMUNICATIONS GROUNDING BUSBAR(S) SHALL BE CONNECTED TO THE TELECOMMUNICATIONS MAIN GROUNDING BUSBAR WITH #3/0 GROUND WIRE.
4. THE TELECOMMUNICATIONS MAIN GROUNDING BUSBAR SHALL BE BONDED TO THE ELECTRICAL POWER GROUND WITH #3/0 GROUND WIRE.
5. THE GROUNDING BUSBAR(S) SHALL BE INSTALLED AT +18" A.F.F. WITH 6" CLEAR ON ALL OTHER SIDES.
6. REFER TO SYSTEMS PLANS FOR EXACT LOCATION OF GROUNDING BUSBAR(S).
7. MOUNTING BRACKETS AND INSULATOR SHALL BE MOUNTED TO PROVIDE A 3.750 INCH SPACE FROM MOUNTING BACKBOARD TO BUSBAR.

8 TELECOMMUNICATIONS GROUNDING BUSBAR DETAIL
NTS

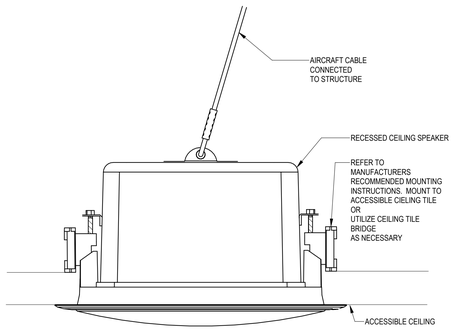


5 ACCESS CONTROL PANEL AND POWER SUPPLY MOUNTING DETAIL (VERTICAL)
NTS

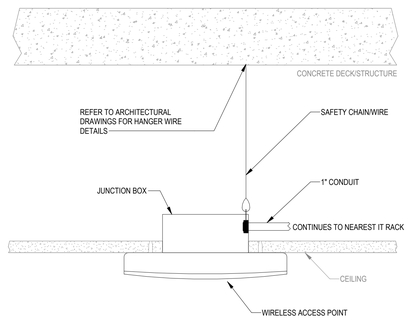


NOTES:
1. STANDARD DATA TELECOMMUNICATION OUTLET WITH (2) CAT 6 CABLES TERMINATING AT DESIGNATED PATCH PANEL IN TELECOMMUNICATION RACK.
2. OUTLET FACEPLATE COLOR SHALL MATCH ELECTRICAL OUTLET FACEPLATE COLOR IN EACH AREA AS COORDINATED BY ARCHITECT.
3. DATA JACK COLOR SHALL MATCH FACEPLATE COVER.

2 STANDARD 2-PORT CAT 6 DATA/VOIP OUTLET
NTS

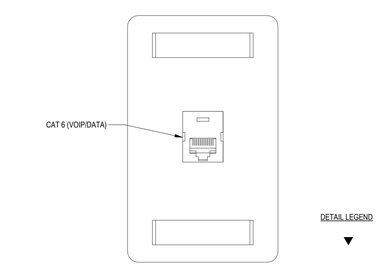


7 HARD CEILING MOUNTED SPEAKER DETAIL
NTS



NOTES:
1. CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. CONTRACTOR SHALL FOLLOW ALL OF MANUFACTURER'S MOUNTING AND WIRING SPECIFICATIONS.
3. REFER TO FLOOR PLANS FOR LOCATIONS.CONTRACTOR SHALL CONFIRM FINAL LOCATION WITH OWNER AND ARCHITECT PRIOR TO INSTALLATION.
4. ALL EXPOSED CONDUIT AND BACKBOXES TO BE PAINTED TO MATCH STRUCTURE. CONFIRM EXACT COLOR WITH ARCHITECT PRIOR TO INSTALLATION.

4 WAP - DROP CEILING MOUNTED DETAIL
NTS



NOTES:
1. STANDARD DATA TELECOMMUNICATION OUTLET WITH (1) CATEGORY 6 CABLE TERMINATING AT DESIGNATED PATCH PANEL IN TELECOMMUNICATION RACK.
2. OUTLET FACEPLATE COLOR SHALL MATCH ELECTRICAL OUTLET FACEPLATE COLOR IN EACH AREA AS COORDINATED BY ARCHITECT.
3. DATA JACK COLOR SHALL MATCH FACEPLATE COVER.

1 STANDARD 1-PORT CAT 6 DATA/VOIP OUTLET
NTS

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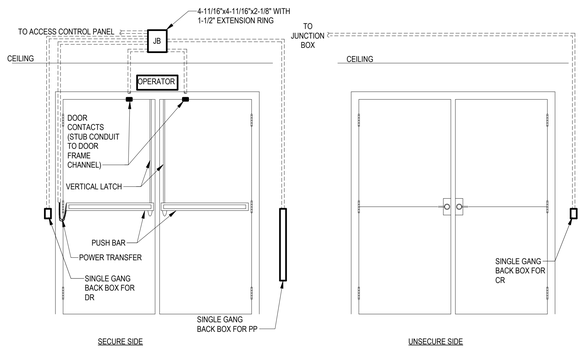
ELECTRICAL TELECOMM DETAILS

SHEET NUMBER

EE502

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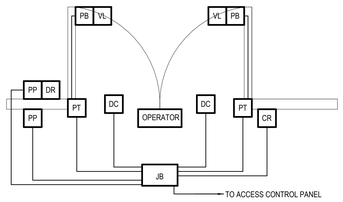
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SECURE SIDE

UNSECURE SIDE

QTY.	MATERIALS
1	JUNCTION BOX - JB
1	OPERATOR
2	DOOR CONTACT - DC
2	VERTICAL LATCH - VL
2	POWER TRANSFER - PT
2	ELECTRIFIED PUSH BAR - PB
1	CARD READER - CR
2	PUSH BUTTON - PP
1	DOOR RELEASE - DR

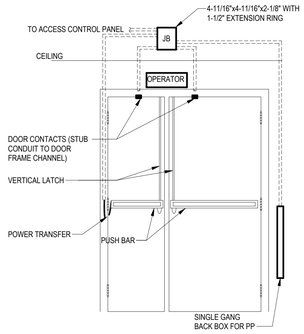


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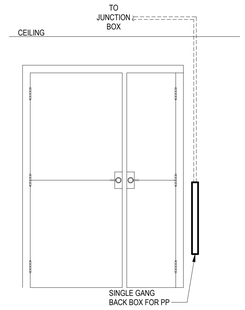
NOTES:
1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO PLANS FOR EXACT DOOR SWING.

6 TYPICAL DOUBLE DOOR SINGLE SWING WITH AUTO OPERATOR DETAIL

NTS

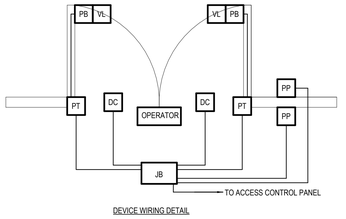


SECURE SIDE



UNSECURE SIDE

QTY.	MATERIALS
1	JUNCTION BOX - JB
1	OPERATOR
2	DOOR CONTACT - DC
2	VERTICAL LATCH - VL
2	POWER TRANSFER - PT
2	ELECTRIFIED PUSH BAR - PB
2	PUSH BUTTON - PP

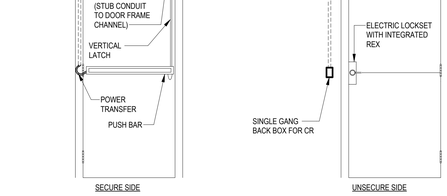


DEVICE WIRING DETAIL

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3 TYPICAL DOUBLE DOOR SINGLE SWING WITH AUTO OPERATOR DETAIL

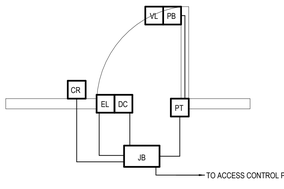
NTS



SECURE SIDE

UNSECURE SIDE

QTY.	MATERIALS
1	JUNCTION BOX - JB
1	ELECTRIC LOCKSET - EL
1	DOOR CONTACT - DC
1	POWER TRANSFER - PT
1	CARD READER - CR
1	ELECTRIFIED PUSH BAR - PB
1	VERTICAL LATCH - VL

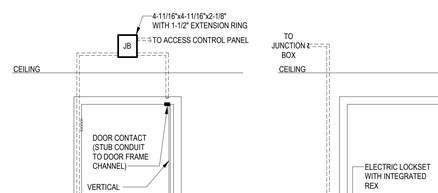


DEVICE WIRING DETAIL

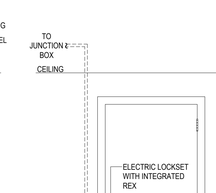
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5 TYPICAL SINGLE ACCESS DOOR WITH PANIC HARDWARE DETAIL

NTS

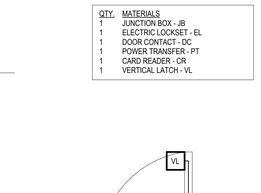


SECURE SIDE



UNSECURE SIDE

QTY.	MATERIALS
1	JUNCTION BOX - JB
1	ELECTRIC LOCKSET - EL
1	DOOR CONTACT - DC
1	POWER TRANSFER - PT
1	CARD READER - CR
1	VERTICAL LATCH - VL

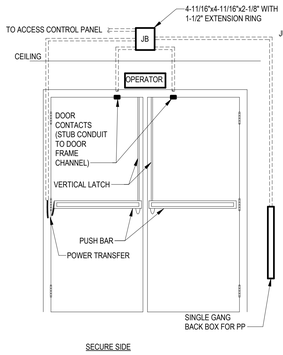


DEVICE WIRING DETAIL

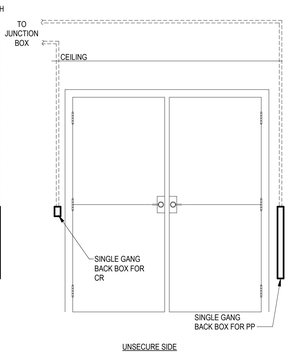
NOTES:
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4 TYPICAL SINGLE DOOR WITH ELECTRIC LOCK DETAIL

NTS

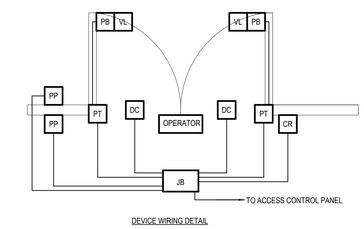


SECURE SIDE



UNSECURE SIDE

QTY.	MATERIALS
1	JUNCTION BOX - JB
1	OPERATOR
2	DOOR CONTACT - DC
2	VERTICAL LATCH - VL
2	POWER TRANSFER - PT
2	ELECTRIFIED PUSH BAR - PB
1	CARD READER - CR
2	PUSH BUTTON - PP

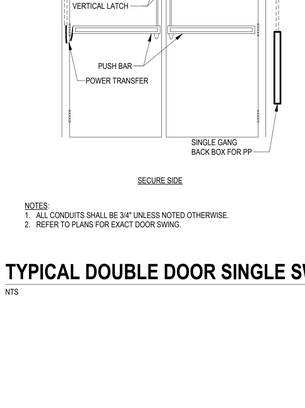


DEVICE WIRING DETAIL

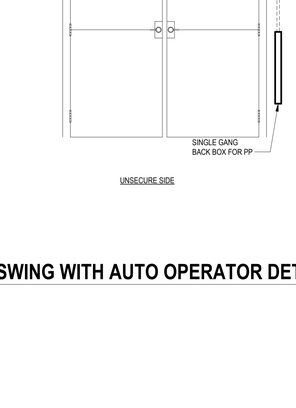
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2 TYPICAL DOUBLE DOOR SINGLE SWING WITH AUTO OPERATOR DETAIL

NTS

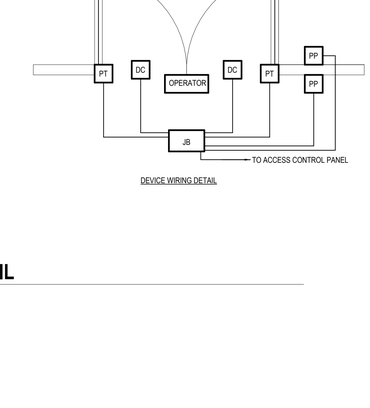


SECURE SIDE



UNSECURE SIDE

QTY.	MATERIALS
1	JUNCTION BOX - JB
1	OPERATOR
2	DOOR CONTACT - DC
2	VERTICAL LATCH - VL
2	POWER TRANSFER - PT
2	ELECTRIFIED PUSH BAR - PB
2	PUSH BUTTON - PP



DEVICE WIRING DETAIL

NOTES:
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2. REFER TO PLANS FOR EXACT DOOR SWING.

1 TYPICAL DOUBLE DOOR SINGLE SWING WITH AUTO OPERATOR DETAIL

NTS

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

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ARCHITECTECT STAMP

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www.exp.com
Project #: 22013260

CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER
VINCENT W. HO
E 20611
EXP. 12/31/24
ELECTRICAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

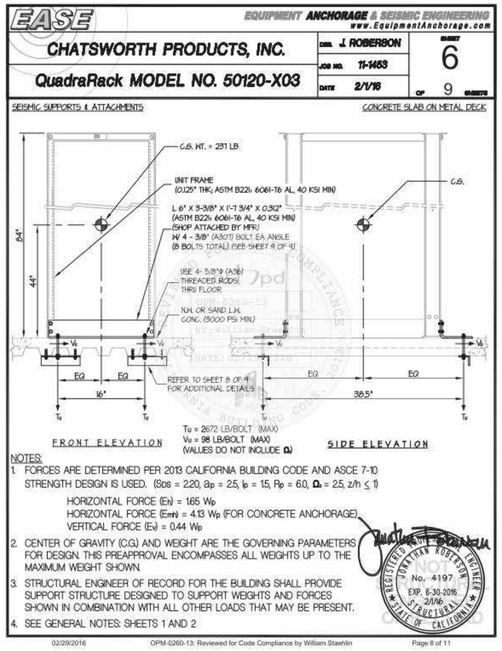
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SHEET NUMBER

EE503

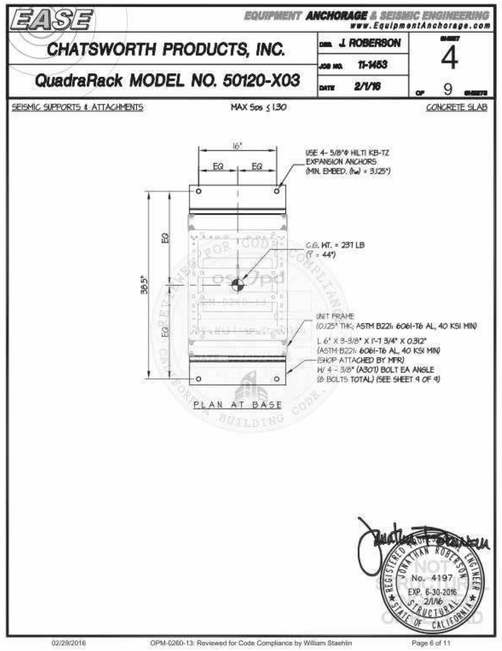
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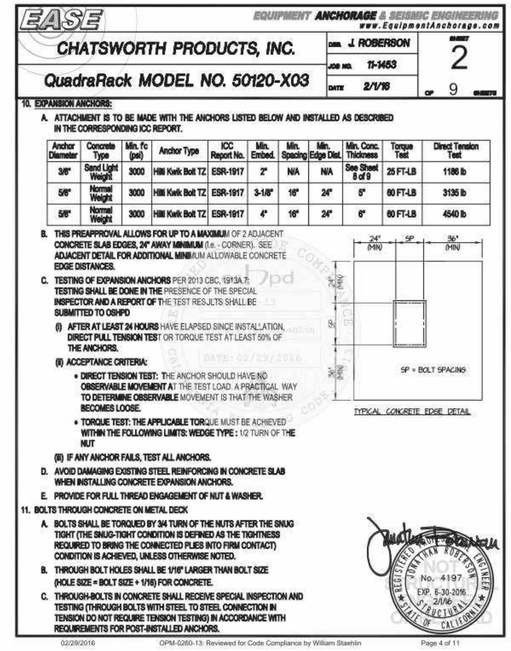
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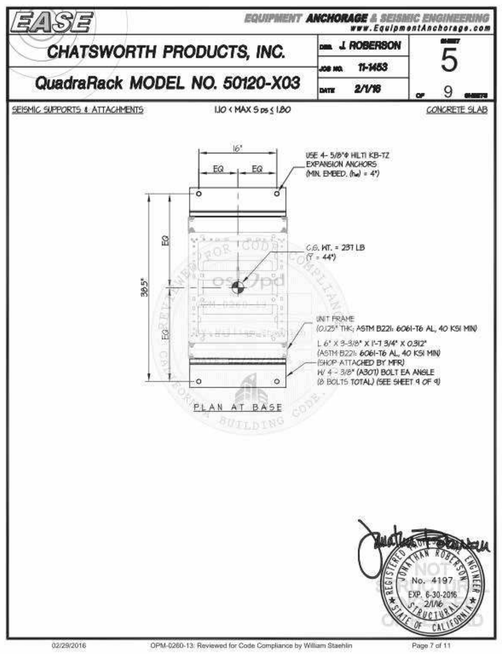
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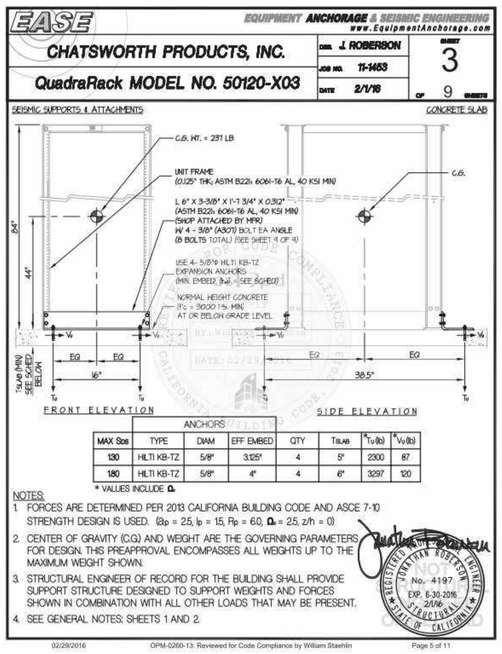
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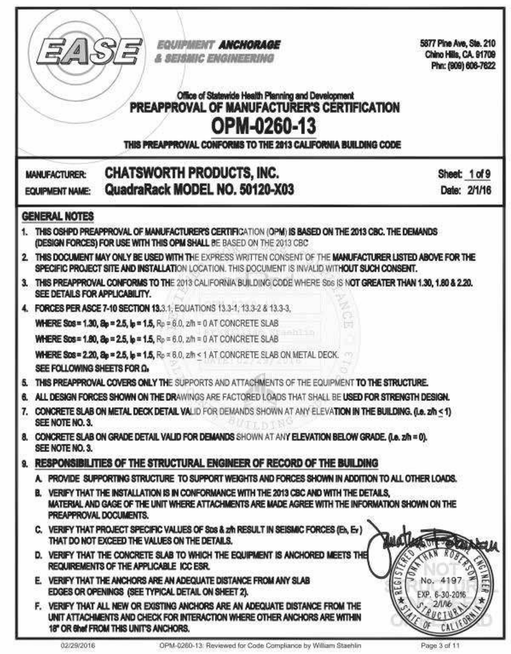
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3 4 POST RACK DETAIL 3

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1 4 POST RACK DETAIL 1

NTS

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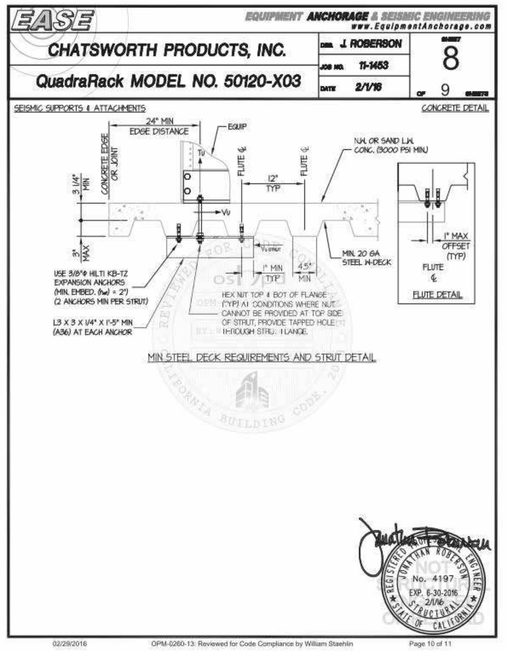
RUHS-MC PROJ. NO.: FM08430011869
CONSULTANT PROJ. NO.: 047-10071-002

SHEET NAME
ELECTRICAL TELECOMM DETAILS

SHEET NUMBER
EE504

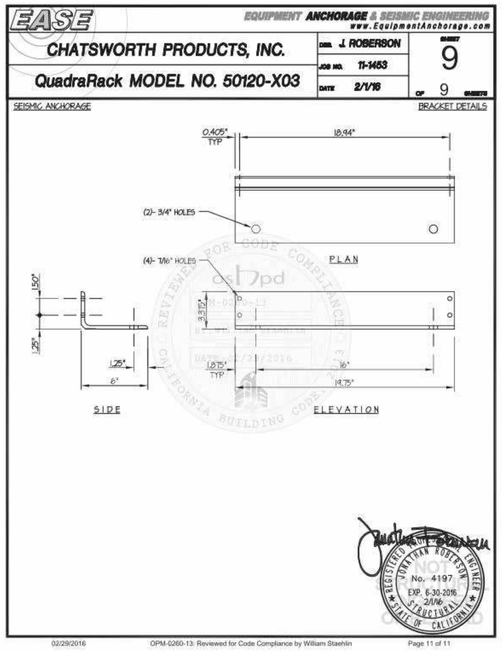
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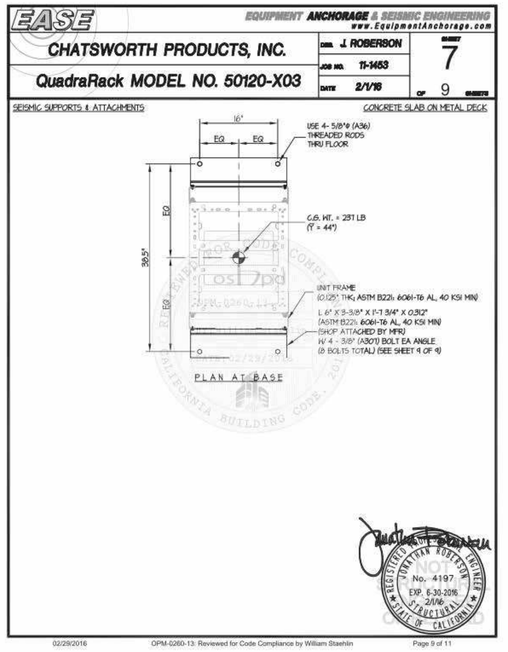
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3 4 POST RACK DETAIL 9

NTS



1 4 POST RACK DETAIL 7

NTS

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PROJECT TITLE

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FM08430011869	047-10071-002

SHEET NAME

ELECTRICAL TELECOMM DETAILS

SHEET NUMBER

EE505

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PANEL	AVAILABLE FAULT CURRENT (A)	VD%
1C4DBA	18371.66	1.18
CE3LB	4242.42	0.46
1C4DPA	17462.47	1.24
CE3DPB	6601.13	0.83
1C4HB	12137.74	1.54
1C4LD	5991.54	1.83
1DP8A	11972.13	0.57
1H7B	10159.16	1.84
1L2HA	6698.79	1.39
1L2LA	3950.64	0.74
1L8E	6586.39	1.17
ATS-C4-1	22790.19	0.9
ATS-L3-1	21912.42	0.89
CB-1	12201.16	1.49
CB-2	8990.08	1.73
DSB-7	23300	0.87
DSB-8	25200	0.22
LDP7A	18200	0.87
LL3DPA	20667.49	0.9
MDP-1	12323.48	1.48
MDP-2	9067.5	1.72

LOAD SUMMARY - PANEL "1DP8A"

EXISTING LOAD		
3 DAY LOAD RECORDING X 1.25	=	12.00 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD	=	27.85 kVA
TOTAL LOAD	=	**39.85 kVA**
AMPS @ 208Y/120V, 3Ø, 4W	=	111 A
MAIN BUS RATING	=	400 A

LOAD SUMMARY - PANEL "1H7B"

EXISTING LOAD		
3 DAY LOAD RECORDING X 1.25	=	20.50 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD	=	6.83 kVA
TOTAL LOAD	=	**27.33 kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	33 A
MAIN BUS RATING	=	225 A

LOAD SUMMARY - PANEL "DSB-2"

EXISTING LOAD		
30 DAY LOAD RECORDING X 1.25	=	775.25 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD	=	84.45 kVA
TOTAL LOAD	=	**859.70 kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	1034 A
MAIN BUS RATING	=	2000 A

LOAD SUMMARY - PANEL "1L2HA"

EXISTING LOAD		
3 DAY LOAD RECORDING X 1.25	=	10.50 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD	=	4.23 kVA
TOTAL LOAD	=	**14.73 kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	18 A
MAIN BUS RATING	=	100 A

LOAD SUMMARY - PANEL "1L2LA"

EXISTING LOAD		
3 DAY LOAD RECORDING X 1.25	=	4.38 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD	=	3.03 kVA
TOTAL LOAD	=	**7.41 kVA**
AMPS @ 208Y/120V,3P,4W	=	21 A
MAIN BUS RATING	=	50 A

LOAD SUMMARY - PANEL "CE3DBA"

EXISTING LOAD		
30 DAY LOAD RECORDING X 1.25	=	224.13 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD (CE3DPB)	=	84.45 kVA
TOTAL LOAD	=	**308.58 kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	371 A
MAIN BUS RATING	=	800 A

LOAD SUMMARY - PANEL "1C4DBA"

EXISTING LOAD		
3 DAY LOAD RECORDING X 1.25	=	132.38 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD (1C4DPA ADDED LOAD)	=	245.40 kVA
TOTAL LOAD	=	**377.78 kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	454 A
MAIN BUS RATING	=	800 A

LOAD SUMMARY - PANEL "1C4DPA"

EXISTING LOAD		
3 DAY LOAD RECORDING X 1.25	=	23.88 kVA
REMOVED LOAD	=	0.00 kVA
ADDED LOAD (1C4HB)	=	45.35 kVA
ADDED LOAD (UPS MDP-1)	=	100.00 kVA
ADDED LOAD (UPS MDP-2)	=	100.00 kVA
TOTAL LOAD	=	**245.35 kVA**
AMPS @ 480Y/277V, 3Ø, 4W	=	295 A
MAIN BUS RATING	=	400 A

NORMAL POWER BRANCH

EXISTING DISTRIBUTION PANEL 'DSB-8' BUS SIZE 1600 A 120/208V, 3Ø, 4W — 400 A/3P

4, #500MCM, #2G IN 3 1/2"C EXISTING

EXISTING DISTRIBUTION PANEL '1DP8A' BUS SIZE 400 A 120/208V, 3Ø, 4W — 400 A/3P; 225 A/3P; 225 A/3P

225NG

PANEL '1L8E' ← NEW NORMAL POWER RECEPTACLE LOADS SHALL BE FED FROM NEW PANEL 1L8E

EXISTING DISTRIBUTION PANEL 'LDP7A' BUS SIZE 800 A 480/277V, 3Ø, 4W — 225 A/3P

4, #4/0AWG, #4G IN 2 1/2"C EXISTING

PANEL '1H7B' EXISTING ← NEW NORMAL POWER LIGHTING SHALL BE FED FROM EXISTING PANEL 1H7B

EXISTING DISTRIBUTION PANEL 'MES-DBA' BUS SIZE 6000 A 480/277V, 3Ø, 4W — 800 A/3P; 1000 A/3P; 400 A/3P

2 RUNS OF 3 #500 MCM, #1/0G IN 4"C EXISITNG

4 #500 MCM, #2G IN 4"C EXISITNG

3 RUNS OF 3 #400 MCM, #2/0G IN 3 1/2"C EXISITNG

EQUIPMENT POWER BRANCH

EXISTING DISTRIBUTION PANEL 'DSB-2' BUS SIZE 2000 A 480/277V, 3Ø, 4W — 800 A/3P

2 RUNS OF 3 #500 MCM, #1/0G IN 3 1/2"C EXISITNG

EXISTING 'ATS-E3' 480V, 800A, 3POLE NEC 517 'EQUIPMENT'

TO GEN. CONTROL

2 RUNS OF 3 #500 MCM, #1/0G IN 3 1/2"C EXISTING

EXISTING DISTRIBUTION PANEL 'CE3DBA' BUS SIZE 800 A 480/277V, 3Ø, 3W — 800 A/3P; 225 A/3P; 225 A/3P; 225 A/3P; 225 A/3P

MCC-E3A; MCC-E3A; 225G; SPARE

DISTRIBUTION PANEL 'CE3DPB' BUS SIZE 225 A 480/277V, 3Ø, 3W — 225 A/3P

20 A/3P; 20 A/3P; 15 A/3P; 45 A/3P; 35 A/3P; 35 A/3P

20G; 20G; 30G; 30G; 30G; 7/0G

HUM-3.01; RTU-3.01; EF-3.02; VRF-3.01; VRF-3.02

XFMR 'CT-E3B' 45 kVA PRI: 480Δ, 3Ø, 3W SEC: 208Y/120V, 3Ø, 4W

150NSG; 1#6

PANEL 'CE3LB'

#8 AWG BOND PER CEC 517.14

LIFE SAFETY POWER BRANCH

EXISTING DISTRIBUTION PANEL 'DSB-7' BUS SIZE 3000 A 480/277V, 3Ø, 4W — 400 A/3P; 100 A/3P

4, #500MCM, #2G IN 4"C EXISTING

3 RUNS OF 4 #400MCM, #2/0G IN 3 1/2"C EXISTING

EXISTING 'ATS-L3' 480V, 400A, 4POLE NEC 517 'CRITICAL'

TO GEN. CONTROL

4, #500MCM, #2G IN 4"C EXISTING

EXISTING DISTRIBUTION PANEL 'LL3DPA' BUS SIZE 400 A 480/277V, 3Ø, 4W — 400 A/3P; 100 A/3P

4, #3AWG, #6G IN 1 1/2"C EXISTING

EXISTING DISTRIBUTION PANEL '1L2HA' BUS SIZE 100 A 480/277V, 3Ø, 4W — 100 A/3P; 30 A/3P

3 #10AWG, #10G IN 1"C EXISTING

EXISTING XFMR '1T-L2' 15 kVA PRI: 480Δ, 3Ø, 3W SEC: 208Y/120V, 3Ø, 4W

4 #6AWG, #10G IN 1"C EXISTING

PANEL '1L2LA' EXISTING ← NEW LIFE SAFETY LIGHTING SHALL BE FED FROM EXISTING LIFE SAFETY BRANCH PANEL.

CRITICAL POWER BRANCH

EXISTING 'ATS-C4' 480V, 1000A, 4POLE NEC 517 'CRITICAL'

TO GEN. CONTROL

12#400MCM + 3#2/0 IN 3 X 3.5"C EXISTING

EXISTING DISTRIBUTION PANEL '1C4DBA' BUS SIZE 800 A 480/277V, 3Ø, 4W — 1000 A/3P; 400 A/3P; 225 A/3P; 225 A/3P

4#500MCM + #2 IN 4"C EXISTING

EXISTING DISTRIBUTION PANEL '1C4DPA' BUS SIZE 400 A 480/277V, 3Ø, 4W — 400 A/3P; 225 A/3P SS; 225 A/3P SPARE; 125 A/3P ST; 125 A/3P ST

#8 AWG BOND PER CEC 517.14

PANEL '1C4HB' — 250NG

3#1 + #3 AWG GND; EPO EPO EPO (NO NO NO)

UPS 'MDP-1 (BY OTHERS)' — ST NC NC NC

XFMR '1T-C4A' 75 kVA PRI: 480Δ, 3Ø, 3W SEC: 208Y/120V, 3Ø, 4W

125G; 250NSG; 1#2

PANEL '1C4LD' — 125G

CB-1 'ECB-80 A/3P'

WR2

CRC TERMINAL BLOCK CABINET 'MA-1 (BY OTHERS)'

UPS 'MDP-2 (BY OTHERS)' — ST NC NC NC

CB-2 'ECB-80 A/3P'

CRC TERMINAL BLOCK CABINET 'MA-2 (BY OTHERS)'

#8 AWG BOND PER CEC 517.14

GENERAL NOTES:

1 ALL NEW ELECTRICAL EQUIPMENT SHALL BE SIEMENS/WESTINGHOUSE TO MATCH EXISTING.

2 THE SCOPE SHOWN ON THESE DRAWINGS REFLECTS THE BASE BUILDING RENOVATION SCOPE REQUIRED TO SUPPORT THE INSTALLATION OF THE NEW PHILIPS AZURION SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK SHOWN HERE AS WELL AS THE WORK REQUIRED TO FACILITATE INSTALLATION OF THE PHILIPS EQUIPMENT IDENTIFIED IN THE PHILIPS DRAWINGS. REFER TO R1 SERIES ARCHITECTURAL DRAWINGS WHICH CONTAIN SITE SPECIFIC VENDOR DRAWINGS FOR DETAILS. CONTRACTOR MUST REVIEW THESE DOCUMENTS IN CONJUNCTION WITH THESE ELECTRICAL PLANS TO DETERMINE THE FULL SCOPE OF WORK. DETAILED SCOPE DELINEATION IS PROVIDED ON PHILIPS SHEET EL1/EL2.

3 POWER QUALITY REQUIREMENTS SHALL BE IN ACCORDANCE WITH PHILIPS REQUIREMENTS NOTED ON PHILIPS DRAWING ED1.

4 BRANCH CIRCUIT AND WIRE GUAGRE REQUIREMENTS SHALL BE IN ACCORDANCE WITH PHILIPS REQUIREMENTS NOTED ON PHILIPS DRAWING ED1.

5 ALL SWITCHGEAR AND PANELBOARDS SHALL BE PROVIDED WITH FIELD MAKRINGS FOR THE AVAILABLE FAULT CURRENT AT THE EQUIPMENT TERMINALS WITH THE DATE THAT THE PANEL OR SWITCHBOARD WAS ENERGIZED. BC1

6 THE EQUIPMENT GROUNDING TERMINAL BUSES OF THE NORMAL AND ESSENTIAL BRANCH-CIRCUIT PANELBOARDS SERVING THE SAME INDIVIDUAL PATIENT CARE VICINITY SHALL BE CONNECTED TOGETHER WITH AN INSULATED CONTINUOUS COPPER CONDUCTOR NOT SMALLER THAN 10 AWG. REFER TO SINGLE LINE DIAGRAM FOR CONNECTIONS BETWEEN PANELS. BC1 BC2

KEY NOTES

901 UTILIZE EXISTING 225A-3P SPARE BREAKER WITHIN CE3DBA TO FEED NEW EQUIPMENT BRANCH DISTRIBUTION BOARD CE3DPB

902 PROVIDE AND 80/3 CIRCUIT BREAKER IN ACCORDANCE WITH VENDOR DRAWINGS. REFER TO GENERAL NOTE 6 ON SHEET EE203 FOR ADDITIONAL INFORMATION.

903 USE EXISTING PREPARED SPACES FOR NEW FEEDS TO IMAGING EQUIPMENT. COORDINATE WITH EXISTING EQUIPMENT TO ENSURE COMPATIBLE BREAKERS ARE USED. PROVIDE BREAKERS WITH SHUNT TRIP FUNCTIONALITY AND INTERCONNECT WITH EMERGENCY POWER OFF DEVICES WITHIN CATH LAB, EQUIPMENT ROOM AND CONTROL ROOM.

904 PROVIDE SPDS ON ALL SWITCHBOARDS AND PANELBOARDS CONNECTED TO THE ESSENTIAL ELECTRICAL DISTRIBUTION.

905 PER OSHPD PIN 38, THE ENGINEER OF RECORD HAS VERIFIED THAT THIS EQUIPMENT, FEEDER AND OCPD HAS SUFFICIENT CAPACITY FOR THE LOAD ADDED.

907 3#4AWG + #4AWG INSULATED EQUIPMENT GROUNDING CONDUCTOR.

908 PROVIDE GROUND BAR AND GROUND WIRING IN ACCORDANCE WITH VENDOR DRAWINGS. REFER TO GENERAL NOTE 6 ON SHEET EE203 FOR ADDITIONAL INFORMATION. BC1

909 CRC TERMINAL BLOCK CABINET MA-1 AND MA-2 HAVE A MOMENTARY RATING OF 125A AT 480V AND A LONG TERM RATING OF 63A AT 480V.

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CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

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APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

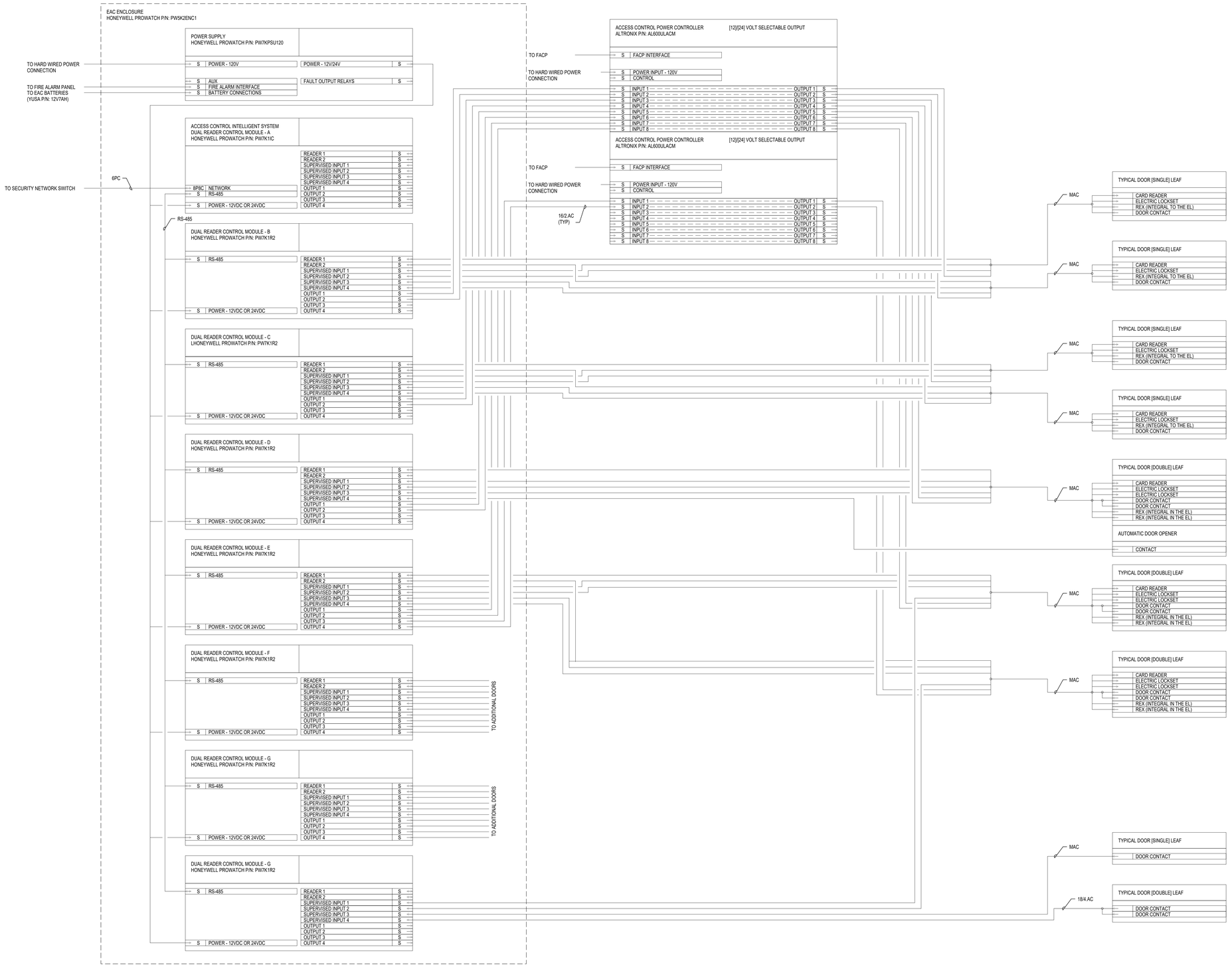
RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME
ELECTRICAL DIAGRAMS

SHEET NUMBER
EE601

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1 ACCESS CONTROL ONE LINE DIAGRAM

NTS

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER
VINCENT WH WONG
No. E 20611
EXP. 12/31/25
ELECTRICAL
STATE OF CALIFORNIA

KEY PLAN

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

ELECTRICAL TELECOMM RISER DIAGRAM

SHEET NUMBER

EE602

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CABLE TYPE SCHEDULE [CATEGORY COPPER]

SYMBOL	ENVIRONMENT	JACKET	DESCRIPTION	MANUFACTURER	PART NO.	ESTIMATED O.D. (IN)	NOTES
6PC	INDOOR	NON-PLENUM	CATEGORY 6 PATCH CABLE	PANDUIT	UPRBU10	0.24	OWNER PROVIDED
6U	INDOOR	PLENUM	CATEGORY 6 UNSHIELDED TWISTED PAIR CABLE	PANDUIT	PUP6004WH-W	0.225	_

CABLE TYPE SCHEDULE [OPTICAL FIBER]

SYMBOL	ENVIRONMENT	JACKET	DESCRIPTION	MANUFACTURER	PART NO.	ESTIMATED O.D. (IN)	NOTES
OFPC	INDOOR	NON-PLENUM	OPTICAL FIBER PATCH CABLE	PANDUIT	NKFPX2ELLLSM003	_	OWNER PROVIDED
24 MM	INDOOR	PLENUM	[24]-STRAND MULTI-MODE OPTICAL FIBER CABLE, OM4	PANDUIT	FOPPZ24Y	_	ARMORED

RACK EQUIPMENT SCHEDULE

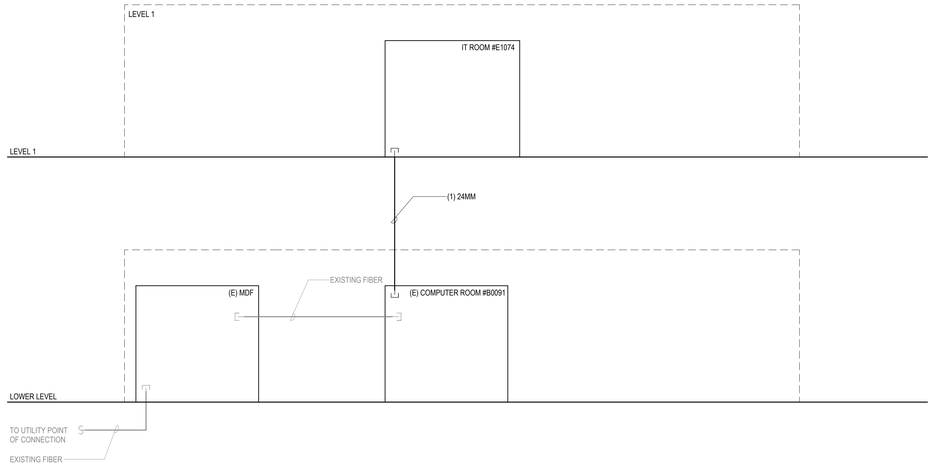
TYPE	EQUIPMENT						
	MANUFACTURER	PART NUMBER	ACCESSORIES	FORM	DESCRIPTION	POWER	NOTES
[ER/WA]	CHATSWORTH PRODUCTS	15211-703	N/A	84"HX19"WX22"D	4-POST RACK - 45RU	N/A	_
[WM1]	CHATSWORTH PRODUCTS	12541-719	N/A	01 RU	HORIZONTAL CABLE MANAGEMENT	N/A	_
[PDU/A]	APC	AP8841	N/A	72" LONG	VERTICAL POWER DISTRIBUTION UNIT	208V | 30A	NEMA L6-30P
[UPS/A]	TRIPP LITE	SU5000RT4UHV	N/A	04 RU	RACK MOUNTED UNINTERRUPTIBLE POWER SUPPLY - 5kVA	208V | 30A	NEMA L6-30P

EACS DOOR SCHEDULE

DOOR	DETAIL	SHEET NUMBER
1039	4/EE503	EE113
1040B	5/EE503	EE113
1041A	4/EE503	EE113
1046	1/EE503	EE113
1047	3/EE503	EE113
1051	1/EE503	EE113
1051	3/EE503	EE113
1053	2/EE503	EE113
1059A	5/EE503	EE113
1060A	4/EE503	EE113
1062	4/EE503	EE113
1071C	1/EE503	EE113
1072A	6/EE503	EE113
1074	4/EE503	EE113
1075	4/EE503	EE113
1076	4/EE503	EE113

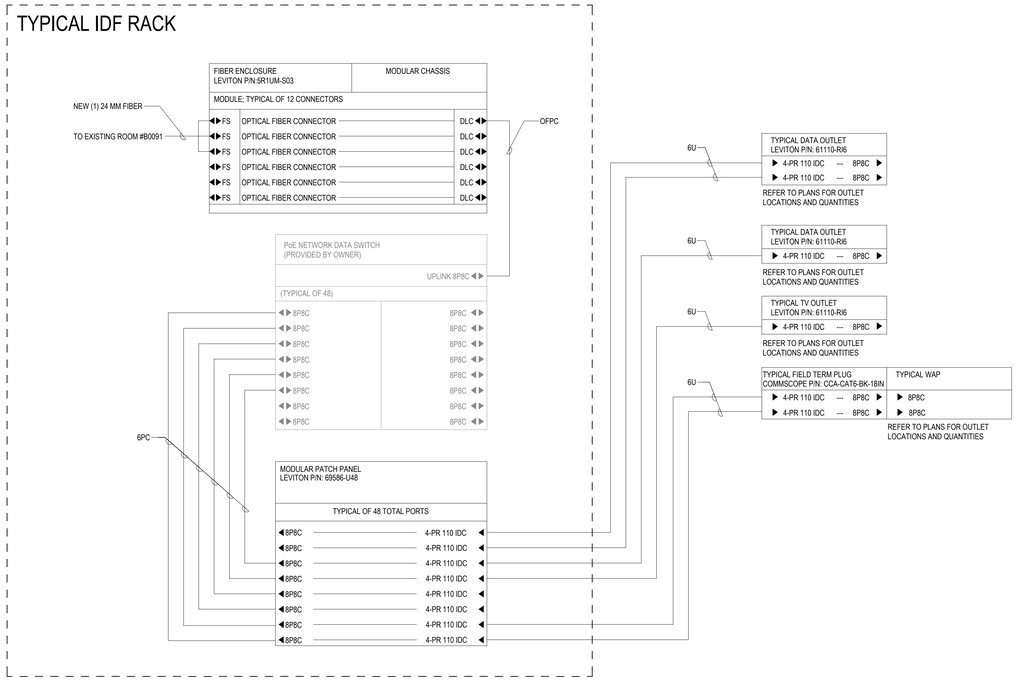
GENERAL NOTES:

1. REFER TO FLOOR PLANS FOR EXACT DEVICE LOCATIONS AND DEVICE TYPE DESIGNATIONS.
2. COORDINATE PAGING SPEAKER CHANNELS AND CALL REQUIRMENTS WITH OWNER.
3. REFER TO FLOOR PLANS FOR EXACT CONDUIT ROUTING AND TERMINATION LOCATIONS.
4. ALL NEW OPTICAL FIBER CABLING SHALL TERMINATED IN FIBER ENCLOSURES MOUNTED IN THE EQUIPMENT RACK.
5. ALL PATCH CORDS SHALL BE PROVIDED AND INSTALLED BY OWNER.
6. ALL IT NETWORK SWITCHES SHALL BE OWNER FURNISHED AND INSTALLED.
7. REFER TO DETAIL #1/EE100 FOR (E) COMPUTER ROOM #B0091 LOCATION.



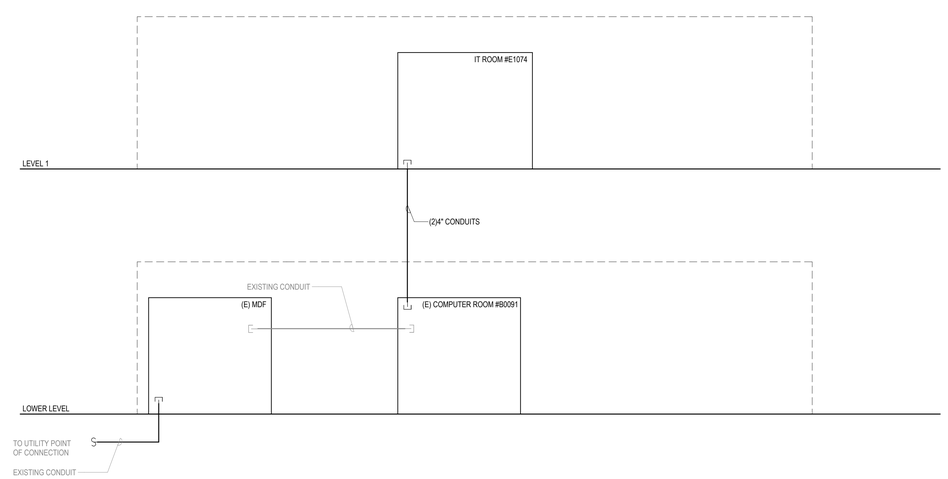
2 BACKBONE FIBER RISER DIAGRAM

NTS



3 HORIZONTAL RISER DIAGRAM

NTS



1 BACKBONE CONDUIT RISER DIAGRAM

NTS

Riverside University HEALTH SYSTEM

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KEY PLAN

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PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
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SHEET NAME

ELECTRICAL TELECOMM RISER DIAGRAM & SCHEDULE

SHEET NUMBER

EE603

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PANELBOARD: 1H7B

(EXISTING)

VOLTAGE : 480Y/277V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 225
BRANCH TYPE : NORMAL

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE – ARC FAULT CIRCUIT INTERRUPTER – GROUND FAULT CIRCUIT INTERRUPTER – ELECTRICALLY OPERATED, – SOLID STATE – ENERGY-REDUCING MAINTENANCE SWITCH – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 14kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
--	1	CLERICAL OFFIC <x>	20	1	--	0	0					--	1	20	ADMITTING TOILETS <x>	2	--
--	3	CLERKS AV OFFICES <x>	20	1	--			0	0			--	1	20	GIFT SHOP <x>	4	--
--	5	OFFICE STORAGE <x>	20	1	--					0	0	--	1	20	TOILET,EVS, ELEC. RM. <x>	6	--
--	7	PASSAGE TREATMENT RM <x>	20	1	--	0	0					--	1	20	OFFICES <x>	8	--
--	9	TREATMENT RM CARDIO <x>	20	1	--			0	0			--	1	20	THERAPY <x>	10	--
--	11	PHYSICAL THERAPY <x>	20	1	--					0	0	--	1	20	EXAM RMS, TOILETS, CORR <x>	12	--
--	13	EXAM ROOMS <x>	20	1	--	0	0					--	1	20	EXAM, WAITING, OFFICES <x>	14	--
--	15	TOILET ,CONTROL ,CORR <x>	20	1	--			0	0			--	1	20	INFUSION CENTER <x>	16	--
--	17	WAITING <x>	20	1	--					0	0	--	1	20	INFUSION CENTER <x>	18	--
--	19	EAST ENTRY <x>	20	1	--	0	0					--	1	20	OCCUP. THERAPY OFFICE <x>	20	--
--	21	MAIN CORRIDOR <x>	20	1	--			0	0			--	1	20	MAIN ENTRY <x>	22	--
--	23	MAIN LOBBY, CORRIDOR <x>	20	1	--					0	0	--	1	20	MAIN ENTRY <x>	24	--
--	25	CORRIDOR <x>	20	1	--	0	0					--	1	20	WAITING, LOBBY, CORRIDOR <x>	26	--
--	27	CORRIDOR <x>	20	1	--			0	88				1	20	E1051	28	LIGHTING
--	29	NEW VISTOR LOUNGE <x>	20	1	--					0	432		1	20	E1034,E1038,E1040	30	LIGHTING
LIGHTING	31	E1051	20	1		273	222						1	20	E1046,E1072,E1013,E1073	32	LIGHTING
LIGHTING	33	E1059	20	1				56	48				1	20	E1043,E1044,E1045	34	LIGHTING
LIGHTING	35	E1045;E1055,E1053,E1056	20							302	933		1	20	E1056,E1057	36	LIGHTING
LIGHTING	37	E1051; E052	20	1		1168	1216						1	20	E1047,E1048	38	LIGHTING
LIGHTING	39	E1076,E1077,E1078	20	1				411	271				1	20	E1041,E1060,E1061,E1062,E1071	40	LIGHTING
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	2879 VA		914 VA		1667 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	5460 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	5460 VA
TOTAL DEMAND LOAD	6825 VA
TOTAL DEMAND CURRENT	8 A
VOLTAGE	480Y/277V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	8 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: 1L2HA

(EXISTING)

VOLTAGE : 480Y/277V, 3Ø, 4W
BUS RATING : 125 A
MAIN : 100 A
BRANCH TYPE : LIFE SAFETY

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE – ARC FAULT CIRCUIT INTERRUPTER – GROUND FAULT CIRCUIT INTERRUPTER – ELECTRICALLY OPERATED, – SOLID STATE – ENERGY-REDUCING MAINTENANCE SWITCH – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 14kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
--	1	PHARMACY, LOBBY, COR <x>	20	1	--	0	0					--	1	20	CORRIDOR <x>	2	--
--	3	EXTERIOR ENTRY <x>	20	1	--			0	0			--	1	20	STAIRS, MAIN LOBBY, BR <x>	4	--
--	5	CORRIDOR <x>	20	1	--					0	0	--	1	20	SPARE	6	--
--	7	CLASSROOM CAN LTS <x>	20	1	--	0	0					--	1	20	SPARE	8	--
--	9	EOC RM A1019 <x>	20	1	--			0	0			--	1	20	SPARE	10	--
LIGHTING	11	E1040,E1041,E1062	20	1						240	0	--	1	20	SPARE	12	--
LIGHTING	13	E1046,E1053,E1072,1078	20	1		528	0					--	1	20	SPARE	14	--
LIGHTING	15	E1052	20	1				192	0			--	1	20	SPARE	16	--
--	17	SPARE	20	1	--					0	0	--	1	20	SPARE	18	--
--	19	SPARE	20	1	--	0	626									20	
--	21	SPARE	20	1	--			0	1800				3	20	1T-L2; E1036	22	LIGHTING; MISC; SPARE
--	23	SPARE	20	1	--					0	600					24	
--	25	SPARE	20	1	--	0	0					--	1	20	SPARE	26	--
--	27	SPARE	20	1	--			0	0			--	1	20	SPARE	28	--
--	29	SPARE	20	1	--					0	0	--	1	20	SPARE	30	--
--	31	SPARE	20	1	--	0	0					--	1	20	SPARE	32	--
--	33	SPARE	20	1	--			0	0			--	1	20	SPARE	34	--
--	35	SPARE	20	1	--					0	0	--	1	20	SPARE	36	--
--	37	SPARE	20	1	--	0	0					--	1	20	SPARE	38	--
--	39	SPARE	20	1	--			0	0			--	1	20	SPARE	40	--
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	1154 VA		1992 VA		840 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	986 VA
MISC	3000 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	3986 VA
TOTAL DEMAND LOAD	4232 VA
TOTAL DEMAND CURRENT	5 A
VOLTAGE	480Y/277V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	5 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: CE3LB

VOLTAGE : 208Y/120V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 150A
BRANCH TYPE : EQUIPMENT

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE – ARC FAULT CIRCUIT INTERRUPTER – GROUND FAULT CIRCUIT INTERRUPTER – ELECTRICALLY OPERATED, – SOLID STATE – ENERGY-REDUCING MAINTENANCE SWITCH – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 22kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
MOTORS	1	HU 1.01	45	2		3744	180						1	20	CWASC-011;E1040	2	MISC
	3							3744	1872				2	25	HU-1.03	4	MOTORS
MISC	5	MECHANICAL CONTROLS;E1051	15	1						200	1872					6	
MOTORS	7	VRFI 1.04	15	2		66	66						2	15	VRFI 1.03	8	MOTORS
	9							66	66							10	
MISC	11	VRFI 1.04-PUMP	15	1						180	0		1	15	VRFI 1.03-PUMP	12	MISC
MOTORS	13	HU 1.02	45	2		3744	180						1	15	VRFI 1.02-PUMP;E1052	14	MISC
	15							3744	456				2	15	VRFI 1.02	16	MOTORS
MISC	17	VRFI 1.01 - PUMP	15	1						180	456					18	
MOTORS	19	VRFI 1.01	15	2		456	180						1	20	MECHANICAL CONTROLS;E1050	20	MISC
	21							456	180				1	20	MECHANICAL CONTROLS;E1049	22	MISC
MISC	23	RTU 3.01 - CNTRL	20	1						180	180		1	20	RTU 3.01 - LTG	24	MISC
MOTORS	25	EF 3.01	20	1		696	2400						1	30	MISC ALCOVE E1058	26	MISC
MISC	27	MECHANICAL CONTROLS; E1053	20	1				180	180				1	20	VRF PANEL; ROOF	28	MISC
	29															30	
	31															32	
	33															34	
	35															36	
	37															38	
	39															40	
	41															42	
					TOTAL LOAD:	11711 VA		10942 VA		3248 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
MISC	4400 VA
MOTORS	21500 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	25900 VA
TOTAL DEMAND LOAD	27772 VA
TOTAL DEMAND CURRENT	77 A
VOLTAGE	208Y/120V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	77 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: 1L2LA

(EXISTING)

VOLTAGE : 208Y/120V, 3Ø, 4W
BUS RATING : 100 A
MAIN : 50 A
BRANCH TYPE : LIFE SAFETY

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE – ARC FAULT CIRCUIT INTERRUPTER – GROUND FAULT CIRCUIT INTERRUPTER – ELECTRICALLY OPERATED, – SOLID STATE – ENERGY-REDUCING MAINTENANCE SWITCH – EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 10kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
--	1	COM CLOSET <x>	20	1	--	0	0					--	1	20	FIRE-FLY <x>	2	--
--	3	COM CLOSET <x>	20	1	--			0	0			--	1	20	FIRE-FLY <x>	4	--
--	5	COM CLOSET <x>	20	1	--					0	0	--	1	20	FIRE-FLY <x>	6	--
--	7	COM CLOSET <x>	20	1	--	0	0					--	1	20	SFD <x>	8	--
--	9	COM CLOSET <x>	20	1	--			0	0			--	1	20	SFD <x>	10	--
--	11	CANOPY-EAST <x>	20	1	--					0	0	--	1	20	SPARE	12	--
--	13	CANOPY-SOUTH <x>	20	1	--	0	0					--	1	20	FAC-2 <x>	14	--
--	15	COM CLOSET <x>	20	1	--			0	0			--	1	20	FAC-2 <x>	16	--
--	17	POWER SUPPLY P54 <x>	20	1	--					0	0	--	1	20	SPARE	18	--
--	19	VISITOR LNG DOOR <x>	20	1	--	0	0					--	1	20	EOC-A1019 FL RECPT <x>	20	--
--	21	SPARE	20	1	--			0	0			--	1	20	EOX-A1019 COUNT RECPT <x>	22	--
--	23	SPARE	20	1	--					0	0	--	1	20	EOC-A1019 TV <x>	24	--
--	25	EOC-A1019 FL RECPT <x>	20	1	--	0	0					--	1	20	EOC-A1019 RECPT <x>	26	--
--	27	EOC-A1019 TV <x>	20	1	--			0	0			--	1	20	EOC-A1019 RECPT <x>	28	--
--	29	EOC-A1019 FL RECPT <x>	20	1	--					0	0	--	1	20	EOC-A1019 TV <x>	30	--
LIGHTING	31	EXIT LIGHTING; E1040,E1046;	20	1		13	13						1	20	EXIT LIGHTING; E1072	32	LIGHTING
MISC	33	DOOR HOLD DEVICES;.	20	1				600	600				1	20	FIRE SMOKE DAMPER; E1072	34	MISC
MISC	35	FIRE SMOKE DAMPER; E1043	20	1						600	0	--	1	20	SPARE	36	--
MISC	37	DOOR OPERATOR DEVICES; E1046	20	1		600	0					--	1	20	SPARE	38	--
MISC	39	DOOR OPERATOR DEVICES;E1072	20	1				600	0			--	1	20	SPARE	40	--
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	626 VA		1800 VA		600 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	26 VA
MISC	3000 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	3026 VA
TOTAL DEMAND LOAD	3032 VA
TOTAL DEMAND CURRENT	8 A
VOLTAGE	208Y/120V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	8 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

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ARCHITECTECT STAMP

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CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE RE QUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

ELECTRICAL PANEL SCHEDULES

SHEET NUMBER

EE604

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7/3/2024 10:20:02 AM Autodesk Docs://047-10071-002_RUHS-TCI-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

PANELBOARD: 1C4HB

VOLTAGE : 480Y/277V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 225 A
BRANCH TYPE : CRITICAL

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE
– ARC FAULT CIRCUIT INTERRUPTER
– GROUND FAULT CIRCUIT INTERRUPTER
– ELECTRICALLY OPERATED, – SOLID STATE
– ENERGY-REDUCING MAINTENANCE SWITCH
– EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 35kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
LIGHTING	1	E1056ABCDHG	20	1		612	120						1	20	E1053 ; E1056	2	LIGHTING
LIGHTING	3	E1035;E1037,E1040,E1045	20	1				164	312				1	20	E1048,E1049;E1050,E1052	4	LIGHTING
LIGHTING	5	E1047	20	1						680	680		1	20	E1051	6	LIGHTING
LIGHTING	7	E1074; E1075	20	1		105	22713									8	LIGHTING; MISC; RECEPTACLE; SPARE
LIGHTING	9	E1051	20	1				156	27304				3	125	E1075	10	
--	11	SPARE	20	1	--					0	21794					12	
--	13	SPARE	20	1	--	0	0					--	1	20	SPARE	14	--
--	15	SPARE	20	1	--			0	0			--	1	20	SPARE	16	--
--	17	SPARE	20	1	--					0	0	--	1	20	SPARE	18	--
--	19	SPARE	20	1	--	0	0					--	1	20	SPARE	20	--
--	21	SPARE	20	1	--			0	0			--	1	20	SPARE	22	--
--	23	SPARE	20	1	--					0	0	--	1	20	SPARE	24	--
--	25	SPARE	20	1	--	0	0					--	1	20	SPARE	26	--
--	27	SPARE	20	1	--			0	0			--	1	20	SPARE	28	--
--	29	SPARE	20	1	--					0	0	--	1	20	SPARE	30	--
--	31	SPARE	20	1	--	0	0					--	1	20	SPARE	32	--
--	33	SPARE	20	1	--			0	0			--	1	20	SPARE	34	--
--	35	SPARE	20	1	--					0	0	--	1	20	SPARE	36	--
--	37	SPARE	20	1	--	0	0					--	1	20	SPARE	38	--
--	39	SPARE	20	1	--			0	0			--	1	20	SPARE	40	--
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	23550 VA		27936 VA		23154 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	2895 VA
MISC	1720 VA
RECEPTACLE	70025 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	74640 VA
TOTAL DEMAND LOAD	45351 VA
TOTAL DEMAND CURRENT	55 A
VOLTAGE	480Y/277V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	55 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: CE3DPB

VOLTAGE : 480Y/277V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 225 A
BRANCH TYPE : EQUIPMENT

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE
– ARC FAULT CIRCUIT INTERRUPTER
– GROUND FAULT CIRCUIT INTERRUPTER
– ELECTRICALLY OPERATED, – SOLID STATE
– ENERGY-REDUCING MAINTENANCE SWITCH
– EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 35kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
	1					3569	2993									2	
MOTORS	3	RTU-3.01	20	3				3569	2993				3	15	HU-3.01	4	MOTORS
	5									3569	2993					6	
	7					2771	7482									8	
MOTORS	9	VRFO 3.02	35	3				2771	7482				3	45	VRFO 3.01	10	MOTORS
	11									2771	7482					12	
	13					831	11711									14	
MOTORS	15	RF 3.02	20	3				831	10942				3	70	1T-E3B	16	MISC; MOTORS
	17									831	3248					18	
	19					0	0									20	
--	21	SPARE	100	3	--			0	0			--	3	100	SPARE	22	--
	23									0	0					24	
--	25	SPARE	20	1	--	0	0					--	1	20	SPARE	26	--
--	27	SPARE	20	1	--			0	0			--	1	20	SPARE	28	--
--	29	SPARE	20	1	--					0	0	--	1	20	SPARE	30	--
--	31	SPARE	20	1	--	0	0					--	1	20	SPARE	32	--
--	33	SPARE	20	1	--			0	0			--	1	20	SPARE	34	--
--	35	SPARE	20	1	--					0	0	--	1	20	SPARE	36	--
--	37	SPARE	20	1	--	0	0					--	1	20	SPARE	38	--
--	39	SPARE	20	1	--			0	0			--	1	20	SPARE	40	--
--	41	SPARE	20	1	--					0	0	--	1	20	SPARE	42	--
					TOTAL LOAD:	29358 VA		28589 VA		20895 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
MISC	4400 VA
MOTORS	74442 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	78842 VA
TOTAL DEMAND LOAD	84453 VA
TOTAL DEMAND CURRENT	102 A
VOLTAGE	480Y/277V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	102 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: 1L8E

VOLTAGE : 208Y/120V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 225 A
BRANCH TYPE : NORMAL

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE
– ARC FAULT CIRCUIT INTERRUPTER
– GROUND FAULT CIRCUIT INTERRUPTER
– ELECTRICALLY OPERATED, – SOLID STATE
– ENERGY-REDUCING MAINTENANCE SWITCH
– EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 10kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
RECEPTACLE	1	RECEPTACLE;E1072	20	1		540	720						1	20	RECEPTACLE;E1051A,E1051	2	RECEPTACLE
RECEPTACLE	3	COMPU-009,RECEPTACLE;E1076	20	1				810	540				1	20	RECEPTACLE;E1051,E1051C	4	RECEPTACLE
RECEPTACLE	5	PRNLN-002;E1076	20	1						1095	540		1	20	RECEPTACLE;E1051B,E1051	6	RECEPTACLE
RECEPTACLE	7	CPFLR-003;E1077	20	1		1800	360						1	20	RECEPTACLE;E1056A	8	RECEPTACLE
RECEPTACLE	9	PRNLN-002;E1077	20	1				780	360				1	20	RECEPTACLE;E1056A	10	RECEPTACLE
RECEPTACLE	11	COMPU-009,RECEPTACLE;E1077	20	1						495	360		1	20	RECEPTACLE;E1056B	12	RECEPTACLE
RECEPTACLE	13	COMPU-009,PRNLB-017;E1077	20	1		615	360						1	20	RECEPTACLE;E1056B	14	RECEPTACLE
RECEPTACLE	15	RECEPTACLE;225,E1078	20	1				720	360				1	20	RECEPTACLE;E1056C	16	RECEPTACLE
RECEPTACLE	17	MTRVV-012;E1078	20	1						150	360		1	20	RECEPTACLE;E1056C	18	RECEPTACLE
RECEPTACLE	19	RECEPTACLE;E1046,155	20	1		720	360						1	20	RECEPTACLE;E1056D	20	RECEPTACLE
RECEPTACLE	21	RECEPTACLE;E1040,156	20	1				720	360				1	20	RECEPTACLE;E1056D	22	RECEPTACLE
RECEPTACLE	23	RECEPTACLE;92,E1040,E1037,E1035	20	1						540	540		1	20	RECEPTACLE;E1056H	24	RECEPTACLE
RECEPTACLE	25	OVNMW-010;E1039	20	1		1560	720						1	20	RECEPTACLE;E1054,83,E1053	26	RECEPTACLE
RECEPTACLE	27	CFMSC-002;E1039	20	1				1400	360				1	20	RECEPTACLE;E1056H	28	RECEPTACLE
RECEPTACLE	29	ICENC-038;E1039	20	1						575	360		1	20	RECEPTACLE;E1056G	30	RECEPTACLE
RECEPTACLE	31	REFFS-011;E1039	20	1		1800	360						1	20	RECEPTACLE;E1056G	32	RECEPTACLE
RECEPTACLE	33	RECEPTACLE;E1039,E1038	20	1				540	900				1	20	RECEPT ,E1058,E1057,E1053,E1107	34	RECEPTACLE
RECEPTACLE	35	RECEPTACLE;E1059	20	1						720	1100		1	20	PRNLM-012;E1056	36	RECEPTACLE
RECEPTACLE	37	RECEPTACLE;231,E1059	20	1		720	1140						1	20	RECEPTACLE;E1056,E1056E	38	MISC; RECEPTACLE
RECEPTACLE	39	RECEPTACLE;E1071,E1062	20	1				540	1150				1	20	ICENC-038;E1056E	40	RECEPTACLE
RECEPTACLE	41	RECEPTACLE;E1061,E1060	20	1						720	780		1	20	PRNLN-002;E1056	42	RECEPTACLE
RECEPTACLE	43	RECEPTACLE;E1047	20	1		360	540						1	20	RECEPTACLE;E1047	44	RECEPTACLE
RECEPTACLE	45	RECEPTACLE,SUPDH-005;E1047	20	1				690	720				1	20	RECEPTACLE;E1048,E1047	46	RECEPTACLE
RECEPTACLE	47	RECEPTACLE;E1049	20	1						540	540		1	20	RECEPTACLE;E1049	48	RECEPTACLE
RECEPTACLE	49	RECEPTACLE;E1074	20	1		1000	1000						1	20	RECEPTACLE;E1074	50	RECEPTACLE
RECEPTACLE	51	RECEPTACLE;E1074	20	1				1000	0			2	20		EMERGENCY AC	52	RECEPTACLE
RECEPTACLE	53	RECEPTACLE;E1074	20	1						1000	0				RECEPTACLE;E1074	54	
RECEPTACLE	55	RECEPTACLE;E1051	20	1		360	180						1	20	RECEPTACLE;E1052	56	RECEPTACLE
RECEPTACLE	57	RECEPTACLE,SUPDH-005;E1051	20	1				690	540				1	20	RECEPTACLE;E1051	58	RECEPTACLE
RECEPTACLE	59	PRNLM-027;E1050	20	1						1440	540		1	20	RECEPTACLE;E1050	60	RECEPTACLE
RECEPTACLE	61	RECEPTACLE;E1050	20	1		360	540						1	20	RECEPTACLE	62	RECEPTACLE
RECEPTACLE	63	RECEPTACLE;231	20	1				540	1440				1	20	RECEPTACLE;E1048	64	RECEPTACLE
RECEPTACLE	65	RECEPTACLE CATH LAB 1 E1047	20	1						540	540		1	20	RECEPTACLE CATH LAB 2 E1051	66	RECEPTACLE
RECEPTACLE	67	RECEPTACLE CATH LAB 2 E1051	20	1		360	0								SPARE	68	--
--	69	SPARE	20	1	--			0	0			--	1	20	SPARE	70	--
--	71	SPARE	20	1	--					0	0	--	1	20	SPARE	72	--
--	73	SPARE	20	1	--	0	0					--	1	20	SPARE	74	--
--	75	SPARE	20	1	--			0	0			--	1	20	SPARE	76	--
--	77	SPARE	20	1	--					0	0	--	1	20	SPARE	78	--
--	79	SPARE	20	1	--	0	0					--	1	20	SPARE	80	--
--	81	SPARE	20	1	--			0	0			--	1	20	SPARE	82	--
--	83	SPARE	20	1	--					0	0	--	1	20	SPARE	84	--
					TOTAL LOAD:	16475 VA		15160 VA		13475 VA							
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
MISC	600 VA
RECEPTACLE	44510 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	45110 VA
TOTAL DEMAND LOAD	27855 VA
TOTAL DEMAND CURRENT	77 A
VOLTAGE	208Y/120V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	77 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

PANELBOARD: 1C4LD

VOLTAGE : 208Y/120V, 3Ø, 4W
BUS RATING : 225 A
MAIN : 225 A
BRANCH TYPE : CRITICAL

CB OPT : – SHUNT TRIP, – 100% RATED, – LOCKABLE
– ARC FAULT CIRCUIT INTERRUPTER
– GROUND FAULT CIRCUIT INTERRUPTER
– ELECTRICALLY OPERATED, – SOLID STATE
– ENERGY-REDUCING MAINTENANCE SWITCH
– EQUIPMENT GROUND FAULT (30mA)...

A.I.C. RATING: 10kA
MOUNTING: SURFACE
ENCLOSURE:

LOAD TYPE	CKT NO	LOAD SERVED	CB	P	CB OPT	A (VA)		B (VA)		C (VA)		CB OPT	P	CB	LOAD SERVED	CKT NO	LOAD TYPE
RECEPTACLE	1	AMGEN-004;156	20	1		1800	492						1	20	COMPU-009;RECEPTACLE;E1056D	2	RECEPTACLE
RECEPTACLE	3	LIGSA-038,RFMDU-001,SNKTS-002;...	20	1				1168	1380				1	20	RECEPTACLE,WMRPH-021;E1056D	4	RECEPTACLE
RECEPTACLE	5	CWASC-011;E1044	20	1						840	552		1	20	MONBD-021,RECEPTACLE;E1056D	6	RECEPTACLE
RECEPTACLE	7	RECEPTACLE,WMRBP-002;156	20	1		1080	336						1	20	INSFI-005;E1056H	8	RECEPTACLE
RECEPTACLE	9	RECEPTACLE; E1048	20	1				1080	1380				1	20	RECEPTACLE,WMRPH-021;E1056H	10	RECEPTACLE
RECEPTACLE	11	CBHYP-001;E1051	20	1						1650	552		1	20	MONBD-021,RECEPTACLE;E1056H	12	RECEPTACLE
RECEPTACLE	13	RECEPTACLE;E1051	20	1		690	336						1	20	INSFI-005;E1056G	14	RECEPTACLE
RECEPTACLE	15	COMPU-009;E1051	20	1				320	1380				1	20	RECEPTACLE,WMRPH-021;E1056G	16	RECEPTACLE
RECEPTACLE	17	CBHYP-001;E1051	20	1						1650	552		1	20	MONBD-021,RECEPTACLE;E1056G	18	RECEPTACLE
RECEPTACLE	19	AZBGL-013,RECEPTACLE;E1051	20	1		252	936						1	20	COMPU-009;E1056	20	RECEPTACLE
MISC	21	MED-GAS ALARM PANEL; E1075	20	1				250	660				1	20	AZBGL-022,PRNLB-017;E1056	22	RECEPTACLE
MISC	23	MED-GAS ZONE VALVE BOX; E1075	20	1						250	672		1	20	AZBGL-022,COMPU-009;E1056	24	RECEPTACLE
RECEPTACLE	25	COMPU-009,RECEPTACLE;E1056A	20	1		492	250						1	20	MED-GAS ALARM PANEL; E1165	26	MISC
RECEPTACLE	27	RECEPTACLE,WMRPH-021;E1056A	20	1				1380	250				1	20	MED-GAS ALARM PANEL; E1165	28	MISC
RECEPTACLE	29	MONBD-021,RECEPTACLE;E1056A	20	1						552	540		1	20	COMPU-009,MEDMH-060;E1056F	30	RECEPTACLE
RECEPTACLE	31	COMPU-009,RECEPTACLE;E1056B	20	1		492	300						1	20	MEDAX-012,RECEPTACLE;E1056F,83	32	RECEPTACLE
RECEPTACLE	33	RECEPTACLE,WMRPH-021;E1056B	20	1				1380	720				1	20	ASPGP-001,DFBMP-023;83	34	RECEPTACLE
RECEPTACLE	35	MONBD-021,RECEPTACLE;E1056B	20	1						552	540		1	20	RECEPTACLE;E1047	36	RECEPTACLE
RECEPTACLE	37	COMPU-009,RECEPTACLE;E1056C	20	1		492	540						1	20	RECEPTACLE;E1047	38	RECEPTACLE
RECEPTACLE	39	RECEPTACLE,WMRPH-021;E1056C	20	1				1380	540				1	20	AZBPC-020,CLKAS-002,ULTVA-021;...	40	RECEPTACLE
RECEPTACLE	41	RECEPTACLE;E1056C	20	1						552	1280		1	20	ULTMP-027;E1047	42	RECEPTACLE
RECEPTACLE	43	AZBGL-013,CACWS-015;COMPU-00...	20	1		550	1080						1	20	ASPGP-001,CAANC-002,DFBMP-022...	44	RECEPTACLE
RECEPTACLE	45	CISHD-001;E1047	20	1				1725	1725				1	20	CISHD-001;E1047	46	RECEPTACLE
RECEPTACLE	47	RECEPTACLE;E1047	20	1						720	360		1	20	LS-20; E1047	48	RECEPTACLE
RECEPTACLE	49	COMPU-009;RECEPTACLE;E1049	20	1		810	1725						1	20	CISHD-001;E1049	50	RECEPTACLE
RECEPTACLE	51	PRNLB-017,PRNLM-027;E1049	20	1				480	675				1	20	COMPU-009,PACOP-008,RCPT.;E10...	52	RECEPTACLE
RECEPTACLE	53	RECEPTACLE;E1049	20	1						540	1725		1	20	CISHD-001;E1047	54	RECEPTACLE
RECEPTACLE	55	RECEPTACLE;E1074	20	1		1000	1000						1	20	RECEPTACLE;E1074	56	RECEPTACLE
RECEPTACLE	57	RECEPTACLE;E1074	20	1				1000	1000				1	20	RECEPTACLE;E1074	58	RECEPTACLE
RECEPTACLE	59	RECEPTACLE;E1075	20	1						720	540		1	20	RECEPTACLE;E1051	60	RECEPTACLE
RECEPTACLE	61	CAANC-002;E1051	20	1		360	1725						1	20	CISHD-001;E1051	62	RECEPTACLE
RECEPTACLE	63	CISHD-001;E1051	20	1				1725	720				1	20	ASPGP-001,DFBMP-023;E1051	64	RECEPTACLE
RECEPTACLE	65	CACWS-015;COMPU-009;E1051	20	1						370	1725		1	20	CISHD-001;E1051	66	RECEPTACLE
RECEPTACLE	67	AZBGL-022,AZBPC-020,CLKAS-002;...	20	1		900	540						1	20	RECEPTACLE;E1051	68	RECEPTACLE
RECEPTACLE	69	RECEPTACLE;E1051	20	1				720	360				1	20	RECEPTACLE;E1051	70	RECEPTACLE
RECEPTACLE	71	COMPU-009,PACOP-008,PRNLB-01...	20	1						975	675		1	20	COMPU-009,RECEPTACLE;E1050	72	RECEPTACLE
RECEPTACLE	73	CISHD-001;E1050	20	1		1725	1200						1	20	ULTMP-027;E1051	74	RECEPTACLE
RECEPTACLE	75	L6-30P; E1074	30	2				1100	1100			2	30		L6-30P; E1074	76	RECEPTACLE
	77									1100	1100					78	
RECEPTACLE	79	L6-30P; E1074	30	2		1100	0									80	--
	81							1100	360				1	20	UPS EPO SHUT DOWN CIRCUIT 2		
--	83	UPS EPO SHUT DOWN CIRCUIT 1	20	1	--					0	180		1	20	DSPSU-009;E1059	82	RECEPTACLE
MISC	85	M3; E1051	20	1		180	180						1	20	SURGICAL LIGHT; E1051	84	MISC
MISC	87	SURGICAL LIGHT; E1047	20	1				180	90				1	20	M3; E1047	86	MISC
RECEPTACLE	89	SINK; E1056H, E1058, E1056G, E1057	20	1						330	0	--	1	20	LIGHTING Room E1047, E1049,...	88	LIGHTING
RECEPTACLE	91	SINK; E1056, E1056E, ROOM 83	20	2		720	0					--	1	20	SPARE	90	--
--	93	SPARE	20	1	--			0	0			--	1	20	SPARE	92	--
--	95	SPARE	20	1	--					0	0	--	1	20	SPARE	94	--
--	97	SPARE	20	1	--	0	0					--	1	20	SPARE	96	--
--	99	SPARE	20	1	--			0	0			--	1	20	SPARE	98	--
--	101	SPARE	20	1	--					0	0	--	1	20	SPARE	100	--
--	103	SPARE	20	1	--	0	0					--	1	20	SPARE	102	--
--	105	SPARE	20	1	--			0	0			--	1	20	SPARE	104	--
--	107	SPARE	20	1	--					0	0	--	1	20	SPARE	106	--
--	109	SPARE	20	1	--	0	0					--	1	20	SPARE	108	--
--	111	SPARE	20	1	--			0	0			--	1	20	SPARE	110	--
--	113	SPARE	20	1	--					0	0	--	1	20	SPARE	112	--
--	115	SPARE	20	1	--	0	0					--	1	20	SPARE	114	--
--	117	SPARE	20	1	--			0	0			--	1	20	SPARE	116	--
--	119	SPARE	20	1	--					0	0	--	1	20	SPARE	118	--
--	121	SPARE	20	1	--	0	0					--	1	20	SPARE	120	--
--	123	SPARE	20	1	--			0	0			--	1	20	SPARE	122	--
--	125	SPARE	20	1	--					0	0	--	1	20	SPARE	124	--
--	127	SPARE	20	1	--	0	0					--	1	20	SPARE	126	--
--	129	SPARE	20	1	--			0	0			--	1	20	SPARE	128	--
--	131	SPARE	20	1	--					0	0	--	1	20	SPARE	130	--
					TOTAL LOAD:	22713 VA		27304 VA		21794 VA						132	--
					FEED THROUGH LOAD:	0 VA		0 VA		0 VA							

PANEL CALCULATIONS : LOAD TYPE	CONNECTED LOAD
LIGHTING	66 VA
MISC	1720 VA
RECEPTACLE	70025 VA

DEMAND FACTOR LEGEND			
ELEVATOR	PER NEC 620.14	MOTOR	100%
HOTEL	PER NEC 220.42	HEAT	100%
KITCHEN	PER NEC 220.56	MISC	100%
RECEPTACLE	PER NEC 220.44	LIGHTING	125%
RECEPT(HEALTHCARE)	PER NEC 220.42	LARGEST MOTOR	125%
UNIT PANEL	PER NEC 220.84	NON-COINCIDENT...	100%
X-RAY	PER NEC 517.73(2)	EV CHARGE	125%

PANEL TOTALS	
TOTAL CONNECTED LOAD	71811 VA
TOTAL DEMAND LOAD	41815 VA
TOTAL DEMAND CURRENT	116 A
VOLTAGE	208Y/120V, 3Ø, 4W
SPARE LOAD CAPACITY %	
PANEL AMPS	116 A

NOTES & SPECIAL OPTIONS:
PROVIDE WITH FEED THROUGH LUGS.

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECTECT STAMP

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CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANC

LIGHT FIXTURE SCHEDULE

FIXTURE								LAMP				VOLTAGE	FIXTURE LOAD	CONTROL GEAR	ACCESSORIES	NOTES
TYPE	MANUFACTURER	PART NO	DESCRIPTION	FINISH COLOR	FINISH TYPE	MATERIAL	MOUNTING	CCT	CRI	LUMENS	WATT					
CABINET																
CC1	HALO	HU11-48-D9-D-P	4' LED UNDERCABINET TASK LIGHTING	TBD	TBD	TBD	RECESSED	4000	90	1540	21w	120	21		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3
COVE																
CV	LUCETTA	VIP-24V-TE-ENC-400-40-x-MTCL	SEAMLESS TOP BENDING LINEAR LED COVE LIGHTING	TBD	TBD	TBD	RECESSED	4000	90	422	4.6w/ft	120	4.6		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3,5
DOWNLIGHT																
DD1	JUNO	RB4-SWW5-MW-M6 - 4000K	4' CIRCULAR DOWNLIGHT	TBD	TBD	DIE-CAST ALUMINUM	RECESSED	4000	80	625	7W	120	7		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3,6
DD2	LITHONIA	LDN6-40/10-LO6WR	6' CIRCULAR DOWNLIGHT	TBD	TBD	STEEL	RECESSED	4000	80	2011	10W	277	10		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3,6
LF1-2	FOCAL POINT	FMA8LE-84-RA-10300L-35K-2C-120V-L11-G-WHA	8" WIDE X 4' LONG RECESSED LED HEALTHCARE LUMINAIRE	BC1 TBD	TBD	STEEL	RECESSED	3500	80	10300	85W	277	85		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3,6
LF2-1	COOPER	FLDSQ4C75D010 FEU4C759035 F4LC-SQ-LI	4' SQUARE DOWNLIGHT. PROVIDE WITH 90 MINUTE BATTERY BACKUP. USED IN ANESTHETIZING LOCATION.	TBD	TBD	DIE-CAST ALUMINUM	RECESSED	4000	80	4000	48W	277	48		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3,6
STRIPLIGHT																
SS2	LITHONIA	BLWP4-40L-ADP-GZ1-LP840	4' LED STRIP LUMINAIRE WITH FIXED LENS AND FRAME WITH ENCAPS.	WHITE	ENAMEL	DIE-CAST ALUMINUM	RECESSED	4000	80	4000	35W	277	7		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3
TROFFER																
RR3	LITHONIA	2BLT4-40L-SDSM-LP840	SPECIFICATION GRADE ARCHITECTURAL RECESSED WITH CENTER ILLUMINATED DIFFUSER	WHITE	ENAMEL	STEEL HEMMED SIDE FLANGES	RECESSED	4000	80	4357	30W	277	30	0-10V DIMM DRIVER	CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3
RR4	LITHONIA	2BLT4-48L-SDSM-LP840	SPECIFICATION GRADE ARCHITECTURAL RECESSED WITH CENTER ILLUMINATED DIFFUSER RECESSED WITH CENTER ILLUMINAT...	WHITE	ENAMEL	STEEL HEMMED SIDE FLANGES	RECESSED	4000	80	5223	39W	277	39	0-10V DIMM DRIVER	CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3
RR5	LITHONIA	2BLT2-40L-SDSM-LP840	SPECIFICATION GRADE ARCHITECTURAL RECESSED WITH CENTER ILLUMINATED DIFFUSER	WHITE	ENAMEL	STEEL HEMMED SIDE FLANGES	RECESSED	4000	80	4000	31W	277	31	0-10V DIMM DRIVER	CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3
LF3	COOPER	MAE-G-4-LD4-UNV-ALL ON-HI-40-WDDCPH	MEDICAL RECESSED PATIENT ROOM AMBIENT/EXAM LIGHT, ANTI-MICROBIAL FINISH. PROVIDE WITH A 90 MINUTE EMERGENCY BATTERY PACK.	TBD	TBD	STEEL HEMMED SIDE FLANGES	RECESSED	4000	95	11540	102W	277	102		CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3
EXIT																
X1	DUAL LITE	LE-C-S-G-E	EXIT SIGN, SINGLE FACE, EDGE LIT WITH UNIVERSAL MOUNTING AND ARROWS. PROVIDE WITH A 90 MINUTE EMERGENCY BATTERY PACK	WHTIE	-	-	CEILING OR WALL	-	80	-	3W	120	3	-	CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3,3
X2	EXITRONIX	902E-U-LB-RM-WH-SS	SINGLE FACE ARCHITECTURAL EDGE LIT EXIT SIGN, PROVIDED WITH RED LEDS AND LETTERS. FACE IS WHITE, AND FIELD SELECTABLE CHEVRONS. CUSTOM TEXT 'X-RAY IN USE'.	WHITE	-	-	CEILING	-	-	-	3W	120	3	-	CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES	2,3,4

NOTES:
1. CONTRACTOR TO VERIFY FIXTURE LENGTH/HEIGHT WITH ARCHITECTURAL RCP PRIOR TO ORDERING FIXTURES.
2. CONTRACTOR IS TO DETERMINE THE CORRECT MOUNTING HARDWARE.
3. CONTRACTOR IS TO DETERMINE CEILING TYPE PRIOR ORDERING FIXTURE.
4. CONTRACTOR TO DETERMINE QUANTITY AND DIRECTION OF DIRECTIONAL ARROWS PRIOR TO ORDERING FIXTURES.
5. CONTRACTOR TO DETERMINE EXACT LENGTH OF REQUIRED PRIOR TO ORDERING FIXTURES.
6. ARCHITECTE TO CONFIRM PREFERRED FINISH COLOUR AND TYPE.

BC1

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

ID	EQUIPMENT DESCRIPTION	EQUIPMENT LOAD	VOLTAGE	PHASE Ø	STARTER TYPE	DISCONNECTING MEANS	CIRCUITED TO PANEL	FEEDER OR BRANCH WIRE SIZE	NOTES
EF 3.01	EXHAUST FAN	0.25HP	120 V	1	HPRS	FD	CE3LB	2#12, #12G IN 3/4"C	DISCONNECTING MEANS SHALL BE NEMA 3R RATED
EF 3.02	EXHAUST FAN	1.5HP	480 V	3	ECM	FD	CE3DPB	15G	DISCONNECTING MEANS SHALL BE NEMA 3R RATED
HU 1.01	HUMIDIFIER	36FLA	208 V	1	INTEGRAL	FD	CE3LB	2#8,#10G, IN 3/4"C	
HU 1.02	HUMIDIFIER	36FLA	208 V	1	INTEGRAL	FD	CE3LB	2#8, #10G IN 3/4"C	
HU-1.03	HUMIDIFIER	18FLA	208 V	1	INTEGRAL	FD	CE3LB	2#10, #10G IN 3/4"C	
HU-3.01	HUMIDIFIER	10.8FLA	480 V	3	INTEGRAL	FD	CE3DPB	20G	DISCONNECTING MEANS SHALL BE NEMA 3R RATED
RTU-3.01	PACKAGED ROOFTOP UNIT	15.13MCA	480 V	3	INTEGRAL	INTEGRAL	CE3DPB	20G	
VRFI 1.01	INDOOR VRF UNIT	4.38MCA	208 V	1	INTEGRAL	FD	CE3LB	2#12, #12G IN 3/4"C	
VRFI 1.02	INDOOR VRF UNIT	4.38MCA	208 V	1	INTEGRAL	FD	CE3LB	2#12, #12G IN 3/4"C	
VRFI 1.03	INDOOR VRF UNIT	0.63MCA	208 V	1	INTEGRAL	FD	CE3LB	2#12, #12G IN 3/4"C	
VRFI 1.04	INDOOR VRF UNIT	0.63MCA	208 V	1	INTEGRAL	FD	CE3LB	2#12, #12G IN 3/4"C	
VRFO 3.01	OUTDOOR VRF UNIT	27MCA	480 V	3	INTEGRAL	FD	CE3DPB	30G	DISCONNECTING MEANS SHALL BE NEMA 3R RATED
VRFO 3.02	OUTDOOR VRF UNIT	26MCA	480 V	3	INTEGRAL	FD	CE3DPB	30G	DISCONNECTING MEANS SHALL BE NEMA 3R RATED

EQUIPMENT CONNECTION SCHEDULE GENERAL NOTES

A. VERIFY ALL MCA AND MOCP REQUIREMENTS WITH SUBMITTED AND APPROVED EQUIPMENT PRIOR TO ELECTRICAL ROUGH-IN.
B. REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS AND SCOPE FOR CONTROL WIRING, POWER WIRING, DISCONNECT, AND STARTING MEANS.
C. VERIFY ALL INSTALLATION REQUIREMENTS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.
D. REFER TO DIVISION 23 SPECIFICATION "COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT" FOR SCOPE REQUIREMENTS REGARDING STARTERS AND DISCONNECTS.
E. REFER TO DIVISION 22 SPECIFICATION "COMMON MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT" FOR SCOPE REQUIREMENTS REGARDING STARTERS AND DISCONNECTS.
F. LOCATIONS OF STARTERS, VFD'S, AND DISCONNECTS FOR EACH PIECE OF EQUIPMENT MAY NOT BE SHOWN ON PLANS. IF NOT SHOWN, CONTRACTOR TO FIELD COORDINATE LOCATION MAINTAINING REQUIRED WORKING CLEARANCES IN ACCORDANCE WITH CODE.
G. DISCONNECTING MEANS - 'DR' DESIGNATES 20A, 120V DUPLEX RECEPTACLE, 'SR' DESIGNATES 20A, 120V SIMPLEX RECEPTACLE, 'NEMA X-XX' DESIGNATES NEMA PLUG TYPE AND AMPERAGE, 'HPRS' DESIGNATES HORSEPOWER-RATED SWITCH, 'FD' DESIGNATES A FUSED DISCONNECT, 'NF' DESIGNATES A NON-FUSED DISCONNECT, 'L' DESIGNATES LOCKABLE CIRCUIT BREAKER. VERIFY CONNECTION REQUIREMENTS WITH DIVISION 22 AND 23, CONTRACTORS PRIOR TO ROUGH-IN.
H. FUSED DISCONNECTS SHALL HAVE FUSES SIZED AS LISTED ON EQUIPMENT NAMEPLATE, OTHERWISE MATCH UPSTREAM OVERCURRENT DEVICE IF NO MAXIMUM OVERCURRENT SIZE LISTED ON EQUIPMENT, UNLESS NOTED OTHERWISE.
I. FOR ALL EQUIPMENT WITH NON-INTEGRAL STARTER/DISCONNECT/VFD, CONTRACTOR SHALL RUN CONDUIT AND WIRE FROM PANEL TO STARTER/DISCONNECT/VFD AND THEN FROM STARTER/DISCONNECT/VFD TO EQUIPMENT.
J. STARTER TYPE DESIGNATIONS: ECM - ELECTRONICALLY COMMUTATED MOTOR, FVNR - FULL VOLTAGE NON-REVERSING, RVSS - REDUCED VOLTAGE SOLID STATE, VFD - VARIABLE FREQUENCY DRIVE, VFD W/BYPASS - VARIABLE FREQUENCY DRIVE WITH BYPASS, INTEGRAL - STARTER IS INTEGRAL TO EQUIPMENT OR COMES FROM THE FACTORY WITH FACTORY MOUNTED STARTER, NA - NOT APPLICABLE.
K. REFER TO FEEDER SCHEDULES FOR FEEDER WIRE SIZES FOR ALL 3 PHASE EQUIPMENT.
L. FOR MOTORS WITH ECM CONTROL, PROVIDE RELAY/CONTACTOR AS REQUIRED FOR FIRE ALARM SHUTDOWN.
M. IF VFD OR STARTER IS LOCATED AT EQUIPMENT THEN INTEGRAL DISCONNECT TO STARTER OR VFD CAN SERVE AS THE CODE REQUIRED DISCONNECTING MEANS.
N. ANY CONTROL POWER REQUIRED SHALL BE FROM SAME BRANCH OF POWER AS POWER FEED SERVING UNITS.
O. ALL STARTERS AND VFDS SHALL BE SIZED IN ACCORDANCE WITH EQUIPMENT RATINGS AND REQUIREMENTS.

COPPER FEEDER SCHEDULE

FEEDER DESIGNATION	No. OF SETS	PHASE CONDUCTORS (PER SET)	N NEUTRAL CONDUCTOR (PER SET)	G GROUND CONDUCTOR (PER SET)	SG SUPPLY-SIDE BONDING JUMPER (PER SET)	P PARTIAL NEUTRAL SERVICE CONDUCTOR (PER SET)	I ISOLATED GROUND CONDUCTOR (PER SET)	CONDUIT SIZE - CONDUIT TYPES EMT, FMC, LFMC, IMC, GRC, SCH 40 PVC			CONDUIT SIZE - CONDUIT TYPES SCH 80 PVC		
								3 PHASE & GROUND G (PER SET)	3 PHASE NEUTRAL & GROUND P, N, NG, NSG (PER SET)	3 PHASE NEUTRAL GROUND & ISOLATED GROUND NGI, NSGI (PER SET)	3 PHASE & GROUND G (PER SET)	3 PHASE NEUTRAL & GROUND NG, NSG (PER SET)	3 PHASE NEUTRAL GROUND & ISOLATED GROUND NG, NSGI (PER SET)
15	1	3 # 12	1 # 12	1 # 12	1 # 8	--	1 # 12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
20	1	3 # 12	1 # 12	1 # 12	1 # 8	--	1 # 12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
30	1	3 # 10	1 # 10	1 # 10	1 # 8	--	1 # 10	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
40/50	1	3 # 8	1 # 8	1 # 10	1 # 8	--	1 # 10	3/4"	3/4"	1"	3/4"	1"	1"
60	1	3 # 6	1 # 6	1 # 10	1 # 8	--	1 # 10	3/4"	1"	1"	1"	1"	1 1/4"
70/80	1	3 # 4	1 # 4	1 # 8	1 # 8	--	1 # 8	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
100/110	1	3 # 2	1 # 2	1 # 6	1 # 8	1 # 8	1 # 6	1 1/4"	1 1/4"	1 1/2"	1 1/4"	1 1/2"	1 1/2"
125	1	3 # 1	1 # 1	1 # 6	1 # 6	1 # 6	1 # 6	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"
150	1	3 # 1/0	1 # 1/0	1 # 6	1 # 6	1 # 6	1 # 6	1 1/2"	2"	2"	1 1/2"	2"	2"
175	1	3 # 2/0	1 # 2/0	1 # 6	1 # 4	1 # 4	1 # 6	1 1/2"	2"	2"	2"	2"	2"
200	1	3 # 3/0	1 # 3/0	1 # 6	1 # 4	1 # 4	1 # 6	2"	2"	2"	2"	2 1/2"	2 1/2"
225	1	3 # 4/0	1 # 4/0	1 # 4	1 # 2	1 # 2	1 # 4	2"	2 1/2"	2 1/2"	2"	2 1/2"	2 1/2"
250	1	3 # 250	1 # 250	1 # 4	1 # 2	1 # 2	1 # 4	2"	2 1/2"	2 1/2"	2 1/2"	3"	3"
300	1	3 # 350	1 # 350	1 # 4	1 # 2	1 # 2	1 # 4	2 1/2"	3"	3"	3"	3"	3"
350	1	3 # 500	1 # 500	1 # 2	1 # 1/0	1 # 1/0	1 # 2	3"	4"	4"	3"	4"	4"
400	2	3 # 3/0	1 # 3/0	1 # 2	1 # 1/0	1 # 1/0	1 # 2	2"	2"	2 1/2"	2"	2 1/2"	2 1/2"
450	2	3 # 4/0	1 # 4/0	1 # 2	1 # 1/0	1 # 1/0	1 # 2	2"	2 1/2"	2 1/2"	2"	2 1/2"	2 1/2"
500	2	3 # 250	1 # 250	1 # 2	1 # 1/0	1 # 1/0	1 # 2	2 1/2"	2 1/2"	3"	2 1/2"	3"	3"
600	2	3 # 350	1 # 350	1 # 1	1 # 2/0	1 # 2/0	--	2 1/2"	3"	--	3"	3"	--
700	2	3 # 500	1 # 500	1 # 1/0	1 # 2/0	1 # 2/0	--	3"	4"	--	3"	4"	--
800	3	3 # 300	1 # 300	1 # 1/0	1 # 2/0	1 # 2/0	--	2 1/2"	3"	--	2 1/2"	3"	--
1000	3	3 # 400	1 # 400	1 # 2/0	1 # 3/0	1 # 3/0	--	3"	3"	--	3"	4"	--
1200	4	3 # 350	1 # 350	1 # 3/0	1 # 4/0	1 # 4/0	--	2 1/2"	3"	--	3"	3"	--
1600	5	3 # 400	1 # 400	1 # 4/0	1 # 250	1 # 250	--	3"	3"	--	3"	4"	--
2000	6	3 # 400	1 # 400	1 # 250	1 # 300	1 # 300	--	3"	3"	--	3"	4"	--
2500	7	3 # 500	1 # 500	1 # 350	1 # 500	1 # 500	--	3"	4"	--	4"	4"	--
3000	8	3 # 500	1 # 500	1 # 400	1 # 500	1 # 500	--	3"	4"	--	4"	4"	--
4000	11	3 # 500	1 # 500	1 # 500	2 # 350	2 # 350	--	4"	4"	--	4"	4"	--

EXAMPLES:
1. 150NG = INDICATES (1) SET OF 3#1/0 + 1#1/0 NEUTRAL + 1#6 GROUND
2. 400NGI = INDICATES (2) SETS OF 3#3/0 + 1#3/0 NEUTRAL + 1#2 GROUND + 1#2 ISOLATED GROUND CONDUCTORS PER SET
3. 500P = INDICATES (2) SETS OF 3#250 + 1#1/0 PARTIAL NEUTRAL SERVICE CONDUCTORS PER SET

BC1

COPPER FEEDER SCHEDULE GENERAL NOTES

1. THE RULES BELOW ARE INTENDED TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF CEC 300.17.
A. DO NOT USE WIRE SMALLER THAN NO. 12 AWG (UNLESS OTHERWISE NOTED) FOR BRANCH CIRCUIT WIRING, INCLUDING MOTOR CIRCUITS. ALL 20 AMP, 120 VOLT BRANCH CIRCUIT WIRING, INCLUDING MOTOR CIRCUITS. ALL 20 AMP, 120 VOLT AND 277 VOLT BRANCH CIRCUIT HOMERUNS (TO PANELBOARD) SERVING RECEPTACLES, AND LIGHTING SHALL BE NO. 10 AWG MINIMUM TO FIRST OUTLET OR LIGHT FIXTURE.
B. SIZE HOMERUNS FOR 120V BRANCH CIRCUITS BASED ON THE OVERALL CIRCUIT LENGTH TO THE FURTHEST OUTLET. THE FOLLOWING REQUIREMENTS SHALL BE FOLLOWED:
1. 0 TO 100FT. CIRCUIT LENGTH: SIZE HOMERUN AT #10 AWG MINIMUM TO FIRST OUTLET.
2. 101 TO 150 FT. CIRCUIT LENGTH: SIZE HOMERUN AT #8 AWG MINIMUM TO FIRST OUTLET.
3. 151 TO 250 FT CIRCUIT LENGTH: SIZE HOMERUN AT #6 AWG MINIMUM OT FIRE OUTLET.
4. 151 TO 250 FT CIRCUIT LENGTH: SIZE HOMERUN AT #6 AWG MINIMUM OT FIRE OUTLET.
C. ALL 120 VOLT AND 277 BRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR FOR EACH CIRCUIT. MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED.
D. THE PLANS SHOW A CIRCUIT NUMBER FOR EACH DEVICE OR LIGHT AS WELL AS A HOME RUN ASSOCIATED WITH EACH CIRCUIT. THIS IS DONE FOR CLARITY. NO MORE THAN THREE 120 VOLT OR 227 VOLT CIRCUITS SHALL BE ALLOWED IN A SINGLE HOMERUN RACEWAY (6 CURRENT CARRYING CONDUCTORS).
E. ANY BRANCH CIRCUIT PROTECTED BY A GFCI CIRCUIT BREAKER SHALL BE PROVIDED BY A DEDICATED NEUTRAL CONDUCTOR.

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECTECT STAMP

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5670 Oberlin Drive
San Diego, CA 92121
USA
www.exp.com
Project #: 22013260

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

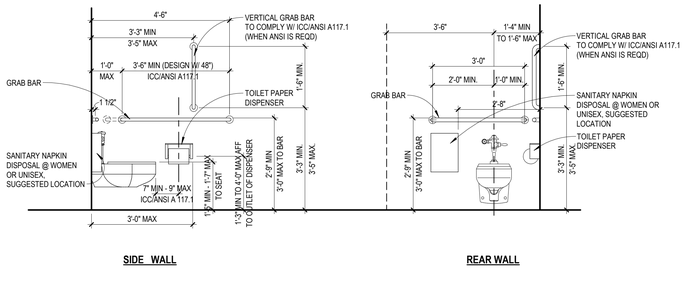
ELECTRICAL SCHEDULES

SHEET NUMBER

EE606

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7/3/2024 10:20:17 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2NDCATH-LAB-ARCH.rvt

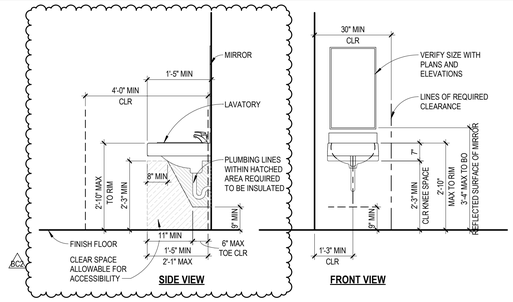


SIDE WALL

REAR WALL

F1 ACCESSIBLE TOILET CLEARANCE

SCALE: 1/2" = 1'-0"

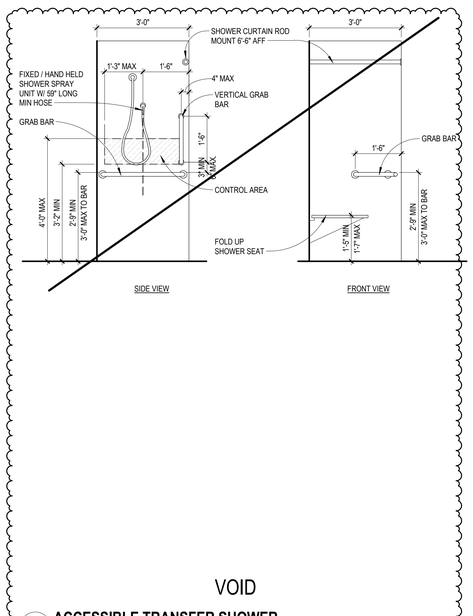


SIDE VIEW

FRONT VIEW

F3 ACCESSIBLE SINK CLEARANCE

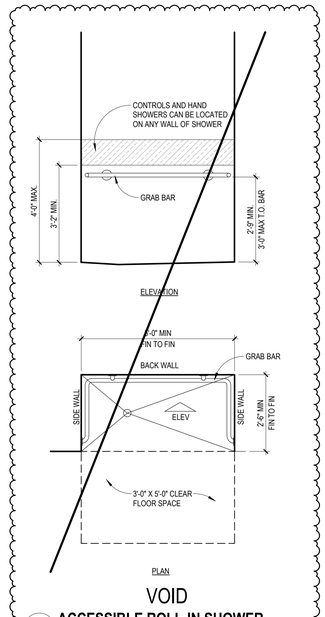
SCALE: 1/2" = 1'-0"



VOID

D1 ACCESSIBLE TRANSFER SHOWER

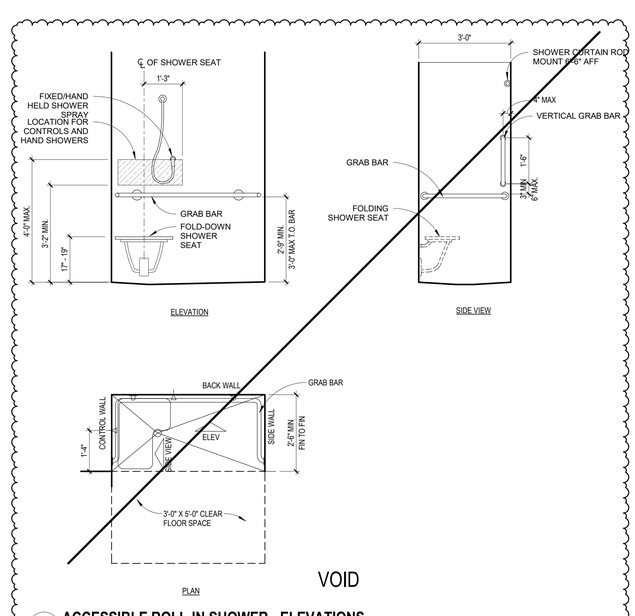
SCALE: 1/2" = 1'-0"



VOID

D3 ACCESSIBLE ROLL-IN SHOWER

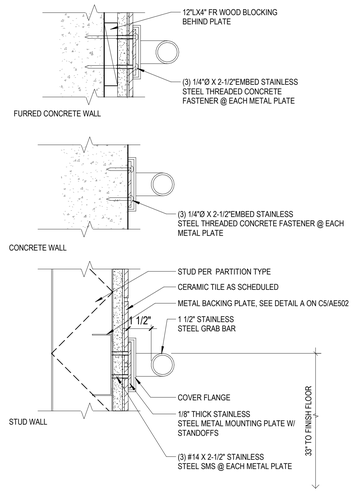
SCALE: 1/2" = 1'-0"



VOID

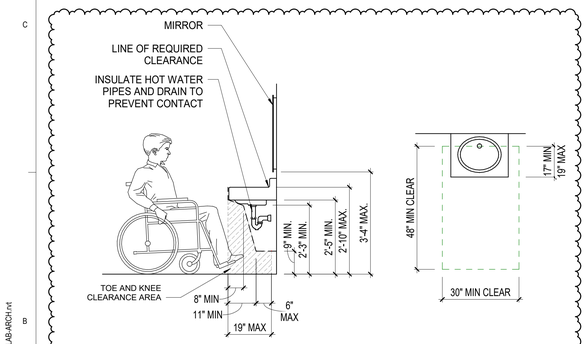
D4 ACCESSIBLE ROLL-IN SHOWER - ELEVATIONS

SCALE: 1/2" = 1'-0"



1 ADA GRAB BAR ANCHOR

SCALE: 3" = 1'-0"



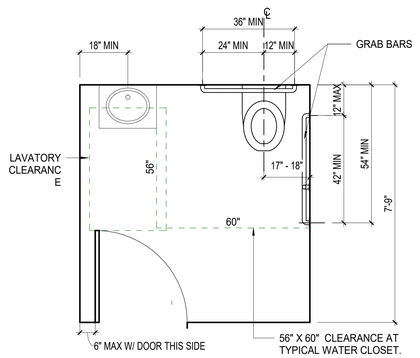
A. ELEVATION

B. PLAN

NOTE: LOCATE FAUCET CONTROL, SOAP AND TOWEL DISPENSERS WITHIN THE REACH RANGE.

B1 ACCESSIBLE LAVATORY CLEARANCE

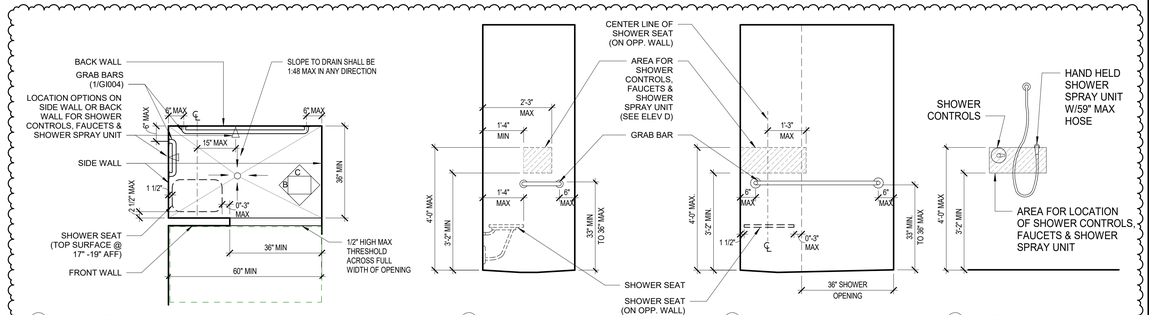
SCALE: 1/2" = 1'-0"



WHEELCHAIR ACCESSIBLE WATER CLOSET

B3 ACCESSIBLE WATER CLOSET

SCALE: 1/2" = 1'-0"



A PLAN LAYOUT

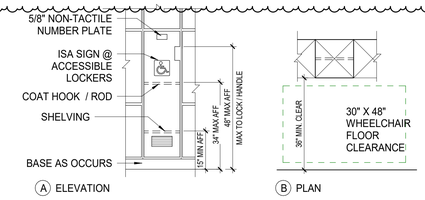
B SIDE WALL ELEVATION

C BACK WALL ELEVATION

D CONTROLS ELEVATION

B4 CBC 11B-608.2.3 ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS SIZE AND CLEARANCE

SCALE: 1/2" = 1'-0"



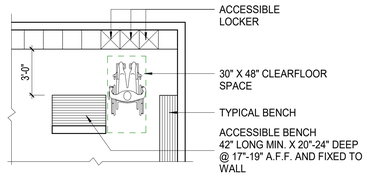
A ELEVATION

B PLAN

NOTES:
1. AT LEAST ONE LOCKER AND NOT LESS THAN 5% OF ALL LOCKERS SHALL BE ACCESSIBLE TO PERSONS WITH DISABILITIES.
2. LOCKS @ ACCESSIBLE LOCKERS SHALL BE LOCATED MAX 48" AFF; SHELVES AND COAT HOOK/ROD SHALL BE LOCATED NO LESS THAN 15" AFF AND NO MORE THAN 34" AFF FOR SHELVES AND 48" AFF FOR TOP OF HOOK/ROD.
3. HARDWARE SHALL OPERATE UPON 5LBS, USING ONE HAND WITHOUT REQUIRING TIGHT TWISTING, PINCHING OR GRASPING.

A1 ACCESSIBLE LOCKERS

SCALE: 1/2" = 1'-0"



A PLAN

A3 ACCESSIBLE BENCH

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

GENERAL SHEET NOTES

1. ACCESSIBILITY DETAILS SHOWN SHALL BE USED WHERE ACCESSIBLE WORK IS IDENTIFIED IN THESE DOCUMENTS. CONTRACTOR SHALL THOROUGHLY REVIEW THESE DOCUMENTS. SHOULD ANY CONFLICTS IN THESE DOCUMENTS ARISE, THE CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IN WRITING PRIOR TO PURCHASE, INSTALLATION, AND CONSTRUCTION OF ANY ELEMENT OF THE WORK.

2. APPLICABLE ACCESSIBILITY STANDARDS AND CODES ARE SHOWN IN THE CODE INFORMATION ON SHEET GI001.

3. WHERE MORE THAN ONE CODE AND / OR STANDARD IS INDICATED AS BEING APPLICABLE, THE MOST STRINGENT CASE SHALL BE ADHERED TO.

4. STANDARDS AND CODES ON THIS SHEET ARE APPLICABLE TO ADA, ICC/ANSI A117.1 2003 AND INTERNATIONAL PLUMBING CODE 2000, UNLESS OTHERWISE NOTED.

5. WHEN ICC/ANSI A117.1 IS INDICATED AS APPLICABLE, THE NOTE "ICC/ANSI A117.1 "GOVERNS" APPLIES.

6. TOE CLEARANCE AT THE FRONT OF THE PARTITIONS IS NOT REQUIRED IN A COMPARTMENT GREATER THAN 5'-2" DEEP WITH A WALL-HUNG WATER CLOSET OR 5'-5" DEEP WITH A FLOOR-MOUNTED WATER CLOSET. TOE CLEARANCE AT THE SIDE IS NOT REQUIRED IN A COMPARTMENT GREATER THAN 5'-6" WIDE (ICC/ANSI A117.1). TOE CLEARANCE IS EXCLUSIVE OF PARTITION SUPPORT MEMBERS. IF DEPTH OF STALL IS GREATER THAN 5'-0" TOE CLEARANCE DOES NOT APPLY - ADA/ANSI A117.1 GOVERNS).

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN A. REACH C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

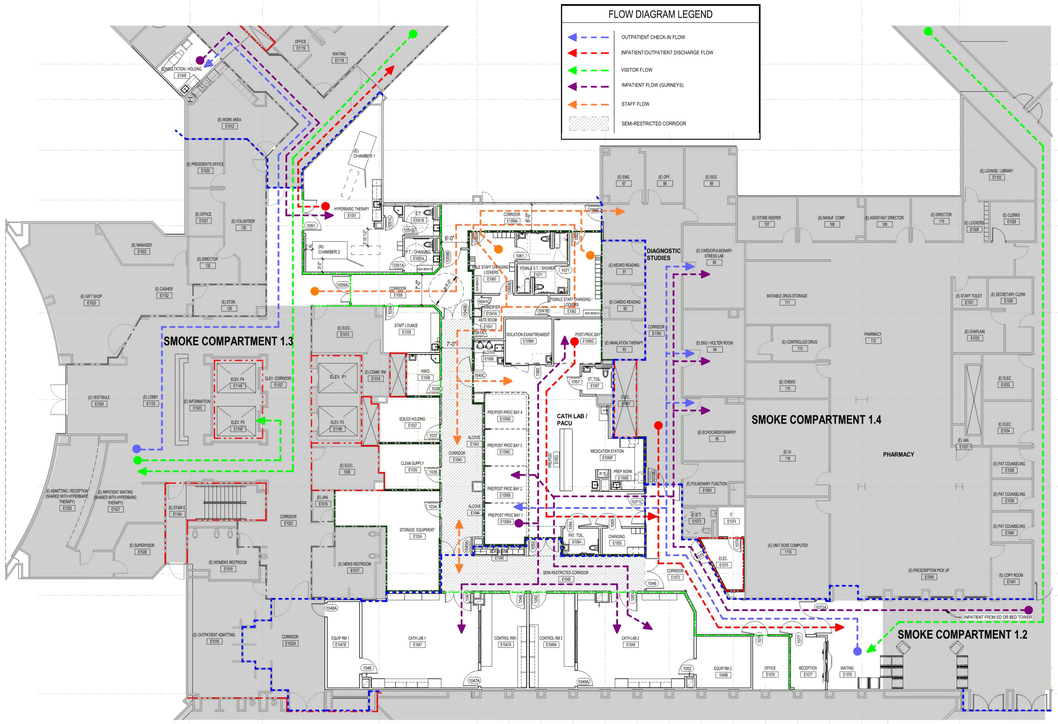
ADA TOILET FIXTURE AND SHOWER STANDARDS

SHEET NUMBER

GI004 BC2

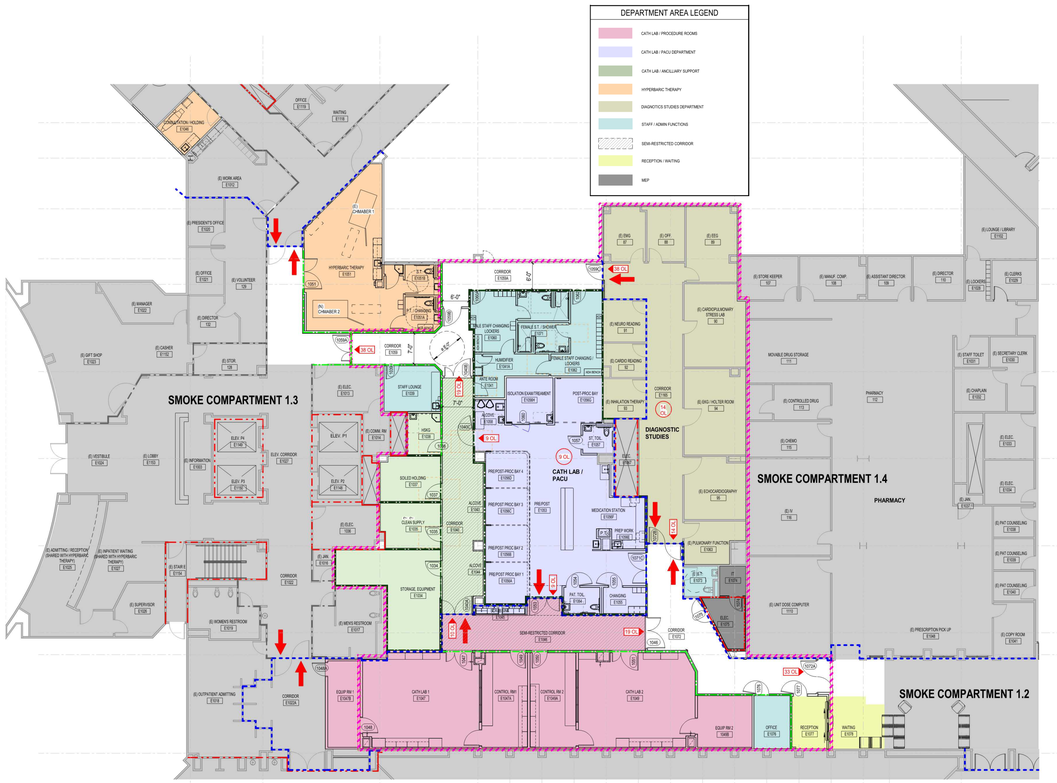
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8/13/2024 11:49:43 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



D1 AMC - EXHIBIT 01

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



A1 AMC - EXHIBIT 02

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

7/12/2024 2:41:38 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

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State of California - Health and Human Services Agency — Gavin Newsom, Governor

HCAI — Department of Information and Health Care Access

Office of Statewide Hospital Planning and Development
Los Angeles, CA 90071
Phone: (213) 897-0166
Fax: (213) 217-8511
www.hcai.ca.gov/facilities/building-safety/

April 08, 2024

Steven Henrich C27292
LEO A DALY
550 S. Hope Street, 27th Floor
Los Angeles, CA 90071

Facility: Riverside University Health System - Medical Center - 15007
26520 Cactus Avenue
Moreno Valley, CA 92555

Project#: S231455-33-00
AMC#: S231455-33-00-AMC0001
Applicant Tracking #: AMC-01

Project: **NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION**

Scope of Change: To assist with egress, an alternate means of protection through full area smoke detection will be provided to all areas served by new corridors less than 8' wide within the project area.

Description of Proposal: Propose to provide full area smoke detection (per NFPA 72) to all areas served by new corridors E1040, E1059, and E1059A for an added means of protection for egress and defend-in-place strategies. Full area smoke detection will be provided to all the rooms in the existing Diagnostics Studies/Cardiology Lab department and all new rooms in the scope of this remodel project. Refer to attached Exhibit 2 for reference to the added coverage area.

Reason: To comply with the minimum Code clearance requirements functions for a Cardiac Cath Lab Suite and Hyperbaric Facility within the project scope of work area, 8' wide corridors per Table 1020.3 were not achievable for the following reasons. For Corridor E1059, the existing electrical room E1013, existing column at grid 9-M and minimum clearance requirements around the new second hyperbaric chamber limited the area width through which the corridor could pass. For Corridors E1040 and E1059A, 8' corridors were not possible due to the limited area of work boundary and meeting the minimum room functions required by Code for a Cath Lab and PACU area.

To assist with egress, an alternate means of protection through full area smoke detection will be provided to all areas served by corridors less than 8' wide. Corridor E1059A will be 6' wide and corridors E1040 and E1059 are increased to be 7' wide from the original proposed 6' width. Refer to Exhibit 2 for extent of full area coverage. Corridors E1040, E1059 and E1059A are for staff service use only as represented in the operational flow diagrams in Exhibit 1. The existing adjacent Diagnostic Studies/Cardiology Lab dept is in smoke compartment 1.2 and uses Corridor E1059A as one of two means of egress for a defend-in-place strategy into smoke compartment 1.3 through door E1059C. A second defend-in-place exit is provided through door E1072B, which is a dual egress door in an 8' corridor. Egress through door E1059C will be only one direction as there is no need for a defend-in-place movement of inpatients into compartment 1.2 from 1.3 as seen in attached Exhibits 1 and 2. The Diagnostics Studies/Cardiology Lab dept serves 20% inpatient & 80% outpatients and typically sees on average 1-2 Acute bedridden inpatient a day, only 3 days a week per the attached letter from the hospital (Exhibit 3).

Your request for utilization of an Alternate Method of Compliance has been reviewed by the Office for compliance with the intent of the provisions of the California Building Standards Code with regards to quality, strength, effectiveness, fire resistance, durability and safety.

This request is hereby: **Approved**. Approval Comment:

1) Pursuant conversation with AOR, a note is to be added to the plans identifying Diagnostic Studies as outpatient services.
2) Add additional note stating that no storage is to be allowed at corridors E1059A, E1059 and E1040.

This Alternate Method of Compliance and any required conditions must be incorporated into the construction documents for review and approval by this office prior to construction.

Our approval does not authorize or approve the use of this alternative method of compliance for any other project other than specified herein and shall not establish precedence for any other project or portion of this project.

If there are any questions, please contact me at 213-620-6506 or by email at Diana.Navarro@hcai.ca.gov.

Respectfully,

Diana Navarro,
Supervisor, Health Facilities Review
cc: Facility Representative
IOR
ACO

"A healthier California where all receive equitable, affordable, and quality health care"

"A healthier California where all receive equitable, affordable, and quality health care"

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

RECEIVED

OFFICE USE ONLY
Project # S231455-33-00 Increment #
AMC -01

Alternate Method of Compliance

Facility

Project # S231455-33-00
Facility # 15007 Facility Name Riverside University Health System
HCAI Building # BLD - 02517 Building Name Main Bldg - 01A
Type of Facility: ☐ Acute Psychiatric Hospital ☐ Correctional Treatment Center ■ General Acute Care Hospital ☐ Licensed Clinic ☐ Skilled Nursing or Intermediate Care Facility

Record Detail

Record/Project Name: NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION
Detailed Description: THE PROJECT SCOPE INVOLVES THE ADDITION OF A NEW CATH LAB SUITE LOCATED ON LEVEL 1 OF THE EXISTING HOSPITAL. CURRENTLY OCCUPIED BY PHYSICAL THERAPY & OCCUPATIONAL THERAPY. THIS SUITE WILL HAVE TWO CATH LAB PROCEDURE ROOMS, EACH WITH A DEDICATED CONTROL ROOM AND TECH. ROOM ALONG WITH OTHER SUPPORTS SPACES. SCOPE ALSO INCLUDES EXPANSION OF EXISTING HYPERBARIC CHAMBER ROOM TO ACCOMMODATE ADDITIONAL HYPERBARIC CHAMBER AND ITS SUPPORT SPACES. PROJECT AREA IS APPROXIMATELY 9,320 SF.

Application Specific Information – Alternate Method of Compliance

Applicant Tracking Number: AMC-01
Submittal Type: ■ Alternate Method of Compliance ■ Alternate Method of Protection ☐ Design Criteria ☐ Program Flexibility ☐ Unreasonable Hardship (complete Application for Unreasonable Hardship Exception)
Description of Proposal: Refer to attached supporting narrative document.
Reason: Refer to attached supporting narrative document.

Applicable Codes

California Building Standards Code Year: ☐ 2013 ☐ 2016 ☐ 2019 ■ 2022
Code: ☐ CAC ■ CBC ☐ CEC ☐ CFC ☐ CMC ☐ CPC ☐ Other
Code Section:

Enclosures

Number of Copies	Enclosure Type	Number of Copies	Enclosure Type
	Design Program		Site Data Reports
	Equipment Anchorage Calculations		Specifications
	Geotechnical Reports (for Buildings and Additions)		Structural Calculations
	Letter of Authorization		Testing, Inspection and Observation Program (TIO)
2	Plans	1	Other: Letter of Intended Use from RUHS Administration
	Project Schedule		

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
HCAI-OSH-126 (Rev 05/01/2023)

HCAI Page 1 of 2

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

Alternate Method of Compliance

OFFICE USE ONLY

HCAI RECOMMENDATIONS	OK	NO	N/A	Remarks
Architectural Date	☐	☐	☐	
Electrical Date	☐	☐	☐	
FLSO Date	☐	☐	☐	
Mechanical Date	☐	☐	☐	
Structural Date	☐	☐	☐	

HCAI APPROVAL

☐ Approved ☐ Conditional Approval ☐ Denied
Printed Name Title
Signature Date

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
HCAI-OSH-126 (Rev 05/01/2023)

Page 2 of 2

LEO A DALY

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550 South Hope Street
27th Floor
Los Angeles, CA 90071-2675
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leoadaly.com

memo

To: Department of Healthcare Access and Information
Office of Statewide Health Planning and Development
From: Steven Henrich, Sr. Project Architect (C27292)
Date: 03/06/24
Project: New Cardiac Catheterization Lab Suite & Hyperbaric Facility Expansion
Job #: S231455-33-00
Re: AMC-01: NARRATIVE

I. APPLICABLE CODES
CBC 2022

II. APPLICATION SPECIFIC INFORMATION

Description of Proposal:
Propose to provide full area smoke detection (per NFPA 72) to all areas served by new corridors E1040, E1059, and E1059A for an added means of protection for egress and defend-in-place strategies. Full area smoke detection will be provided to all the rooms in the existing Diagnostics Studies/Cardiology Lab department and all new rooms in the scope of this remodel project. Refer to attached Exhibit 2 for reference to the added coverage area.

Reason:
To comply with the minimum Code clearance requirements functions for a Cardiac Cath Lab Suite and Hyperbaric Facility within the project scope of work area, 8' wide corridors per Table 1020.3 were not achievable for the following reasons. For Corridor E1059, the existing electrical room E1013, existing column at grid 9-M and minimum clearance requirements around the new second hyperbaric chamber limited the area width through which the corridor could pass. For Corridors E1040 and E1059A, 8' corridors were not possible due to the limited area of work boundary and meeting the minimum room functions required by Code for a Cath Lab and PACU area.

To assist with egress, an alternate means of protection through full area smoke detection will be provided to all areas served by corridors less than 8' wide. Corridor E1059A will be 6' wide and corridors E1040 and E1059 are increased to be 7' wide from the original proposed 6' width. Refer to Exhibit 2 for extent of full area coverage. Corridors E1040, E1059 and E1059A are for staff service use only as represented in the operational flow diagrams in Exhibit 1. The existing adjacent Diagnostic Studies/Cardiology Lab dept is in smoke compartment 1.2 and uses Corridor E1059A as one of two means of egress for a defend-in-place strategy into smoke compartment 1.3 through door E1059C. A second defend-in-place exit is provided through door E1072B, which is a dual egress door in an 8' corridor. Egress through door E1059C will be only one direction as there is no need for a defend-in-place movement of inpatients into compartment 1.2 from 1.3 as seen in attached Exhibits 1 and 2. The Diagnostics Studies/Cardiology Lab dept serves 20% inpatient & 80% outpatients and typically sees on average 1-2 Acute bedridden inpatient a day, only 3 days a week per the attached letter from the hospital (Exhibit 3).

Attachments:
- Exhibit 1: AE111 - Operational Flow Diagrams
- Exhibit 2: AE111.1 - Egress Plan
- Exhibit 3: Operational Letter from Hospital

----- End of Memo -----

(EXHIBIT 3)

Riverside University HEALTH SYSTEM

February 2, 2024

Subject: New Cardiac Catheterization Lab Suite and Hyperbaric Facility Expansion Plan
S231455-33-00

To Whom It May Concern,

The existing Diagnostic Cardiology Lab located immediately east of the subject project comprising of a EKG room, Cardiopulmonary room, EEG room, and ECG room mainly used for outpatients. In certain instances, inpatients are brought down to the area. The schedule for inpatient use of the space is as follows and is not projected to increase:

- One to two inpatients on Tuesdays, Wednesdays, Thursdays

The inpatient and outpatient usage of the cardiology suite are as follows:

- 20% inpatient and 80% outpatient on Tuesdays, Wednesdays, and Thursdays
- 100% outpatient use on Mondays and Fridays.

Additionally, inpatients brought to this area will come from the south door. See the attached exhibit for inpatient flow to the existing Diagnostic Cardiology Lab.

Sincerely,

Angela Simpkins
Chief Clinical Integration Officer

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

26520 CACTUS AVENUE, MORENO VALLEY, CALIFORNIA 92555

LEO A DALY

550 SOUTH HOPE STREET, SUITE 2700
LOS ANGELES, CALIFORNIA 90071
TEL: (213)629-0100 FAX: (213)629-0070

ARCHITECT STAMP

LICENSED ARCHITECT STEVEN M. HENRICH C-27292 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
BC1	BACK CHECK 01	04/19/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER
S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE
RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE
NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

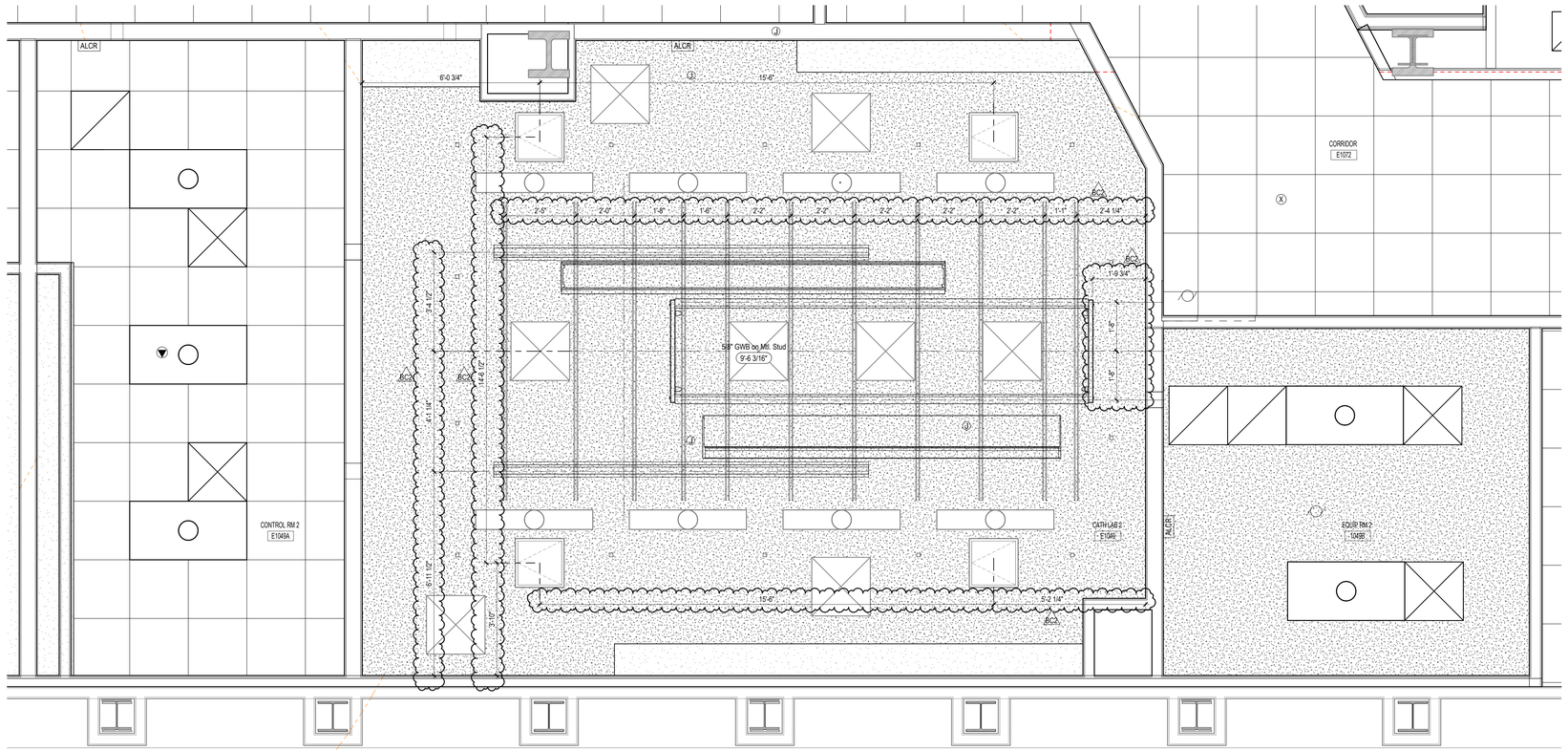
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CONSULTANT PROJ. NO.
047-10071-002

SHEET NAME
AMC

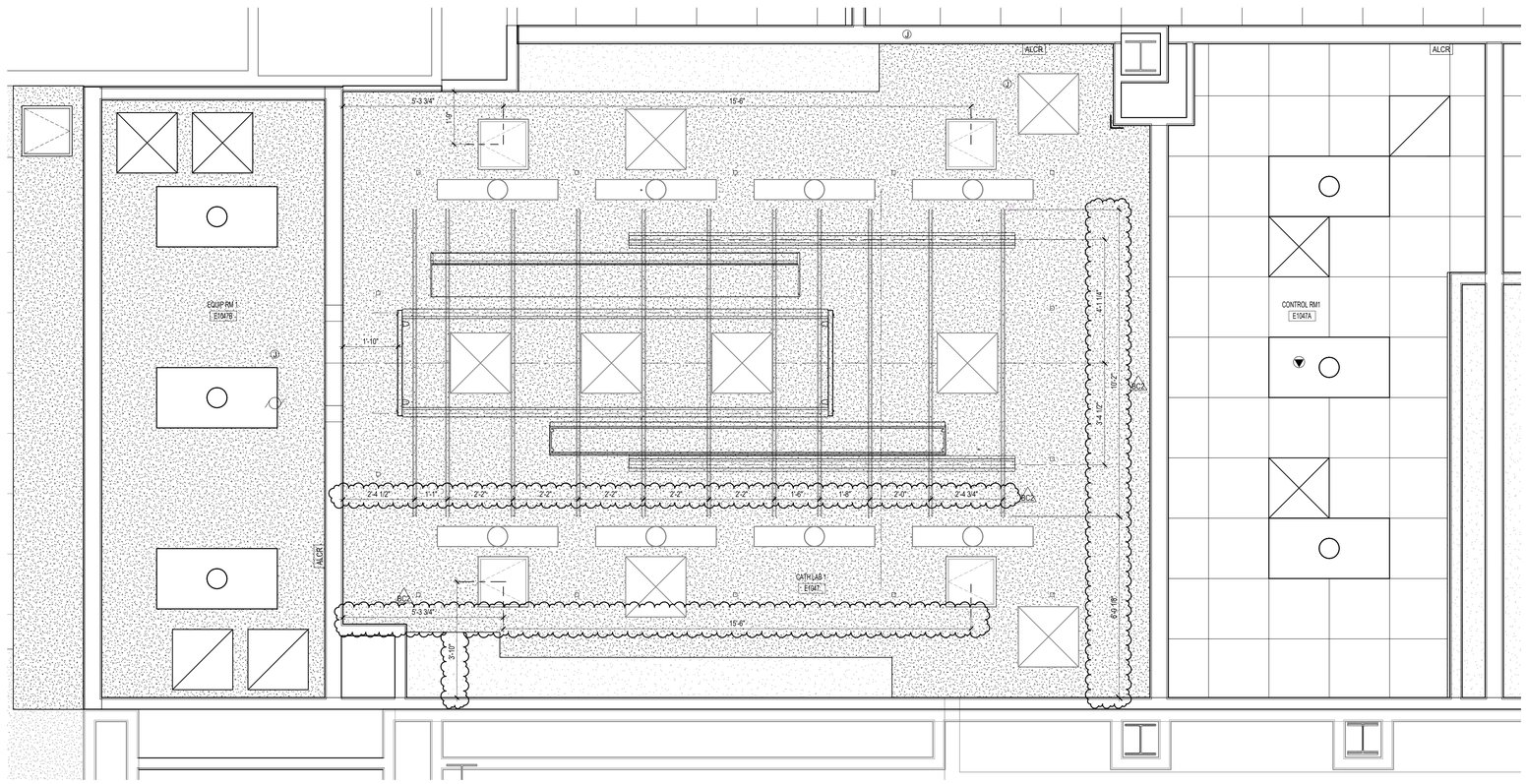
SHEET NUMBER
GI200

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D1 ENLARGED REFLECTED CEILING PLAN - CATH LAB 2 EQUIPMENT

SCALE: 1/2" = 1'-0"



A1 ENLARGED REFLECTED CEILING PLAN - CATH LAB 1 EQUIPMENT

SCALE: 1/2" = 1'-0"

7/12/2024 2:43:51 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECT STAMP

LICENSED ARCHITECT STEPHANIA KEARSLEY C-27299 REN. 7/31/25 STATE OF CALIFORNIA

CONSULTANT

CONSULTANT STAMP

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

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Allen Cheng

BUILDING TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

IMAGING EQUIPMENT ENLARGED REFLECTED CEILING PLAN - CATH LAB

SHEET NUMBER

AE132

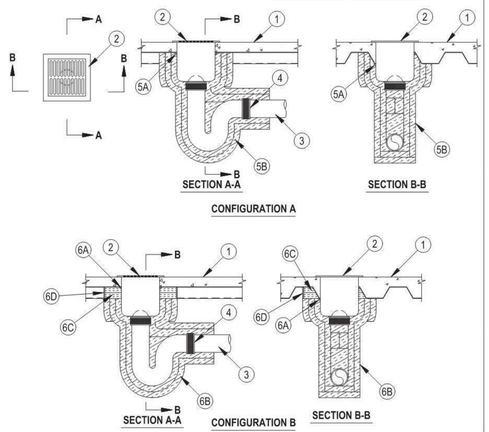
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System No. F-A-1137

FA 1137

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 2 Hr	FT Rating — 2 Hr
L Rating At Ambient — Less Than 1 CFM/ft²	FH Rating — 2 Hr
L Rating At 400 F — 4 CFM/sq ft	FTH Rating — 2 Hr
	L Rating At Ambient — Less Than 5.1 L/s/m²
	L Rating At 204°C — 5.4 L/s/m²



Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. June 14, 2019

System No. F-A-1137

FA 1137

1. Floor or Wall Assembly — The fire rated protected or unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D700 or D900 Series designs in the UL Fire Resistance Directory and as summarized below:
   A. Concrete — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete.
   B. Steel Floor and Form Units* — Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
   C. Spray-Applied Fire Resistive Material* — (Optional. Not Shown.) - Steel floor units may be sprayed with the type and thickness of fire resistive material indicated in the individual D700 Series Design.
      UNITED STATES MINERAL PRODUCTS CO, DBA ISOLATEK INTERNATIONAL — Type 300
      GCP APPLIED TECHNOLOGIES INC — MK-6/HY+
2. Floor Sink and Grate — Max 12 in. wide by 12 in. long by 10 in. (305 by 305 by 254 mm) deep cast iron waste drain floor sink permanently embedded during concrete pour or grouted into concrete floor assembly. Cast iron floor grating to be installed at top of sink. Metal dome strainer may be used in sink drain. Sink flanges to bear on top plane of floor assembly.
3. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe to be secured to outlet of floor sink with no-hub coupling and to be rigidly supported beneath floor away from floor sink with suitable hangers.
4. Compression Coupling — Nom 4 in. (102 mm) diam (or smaller) compression type high pressure pipe coupling with elastomeric plastic and a stainless steel shield. Coupling to be secured to pipe with stainless steel hose clamps at any point beyond the bottom of floor.

Firestop Configuration A

5. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Materials*- Sealant — Min 1/2 in. (13 mm) bead of fill material applied around periphery of floor sink at interface with bottom surface of floor.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
   B. Duct Wrap Materials* — Two layers of nom 1-1/2 in. (38 mm) thick faced or unfaced duct wrap to be tightly wrapped around sink and drain pipe. Top ends of both layers of duct wrap shall be cut to contour of the fluted deck and extend a minimum of 24 in. (610 mm) beyond the bottom (valley) of the fluted floor. An additional layer of nominal 1-1/2 in. (38 mm) thick duct wrap (faced or unfaced) tightly wrapped around the first two layers, cut to contour of the fluted deck and extending down beyond bottom (valley) of fluted deck min 6 in. (152 mm). The exposed duct wrap layers are held in position using nom 16 ga steel wire ties spaced max 8 in. (203 mm) on center and max 1 in. (25 mm) from bottom valley of fluted deck or from ends of layers.
      THERMAL CERAMICS INC — FireMaster FastWrap XL, FireMaster FastWrap+ or Pyrosat DuctWrap XL
      UNIFRAX I L L C — FyreWrap Duct Insulation or FyreWrap Duct 1.5 Insulation

Firestop Configuration B

6. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Materials*- Sealant — Min 1/2 in. (13 mm) bead of fill material applied around periphery of floor sink at interface with bottom surface of floor.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant
   B. Duct Wrap Materials* — Two layers of nom 1-1/2 in. (38 mm) thick faced or unfaced duct wrap to be tightly wrapped around sink and drain pipe flush with bottom (valley) of fluted floor deck. Both layers of duct wrap shall extend a minimum of 24 in. (610 mm) beyond the bottom of floor .An additional layer of nominal 1-1/2 in. (38 mm) thick duct wrap (faced or unfaced) tightly wrapped around the first two layers flush with bottom of fluted floor deck and extending down min 6 in. (152 mm). Exposed duct wrap layers are held in position using non 16 ga steel wire ties spaced max 8 in. (203 mm) on center and max 1 in. (25 mm) from ends of layers.
      THERMAL CERAMICS INC — FireMaster FastWrap XL, FireMaster FastWrap+ or Pyrosat DuctWrap XL
      UNIFRAX I L L C — FyreWrap Duct Insulation or FyreWrap Duct 1.5 Insulation
   C. Duct Wrap Materials* — Additional pieces of nom 1-1/2 in. (38 mm) thick faced or unfaced duct wrap are cut to contour and friction fit to fill the space between duct wrap layers (Item 5B) and fluted deck. In the exposed fluted area, duct wrap is recessed 1/4 in. (6 mm) from outer duct wrap layer (Item 5B) to accommodate the fill material (Item 5D).
      THERMAL CERAMICS INC — FireMaster FastWrap XL, FireMaster FastWrap+ or Pyrosat DuctWrap XL
      UNIFRAX I L L C — FyreWrap Duct Insulation or FyreWrap Duct 1.5 Insulation
   D. Fill, Void or Cavity Materials*- Sealant — Min 1/4 in. (6 mm) thickness of fill material applied over the duct wrap within exposed fluted area (Item 5C), between top of duct wrap layer (Item 5B) and bottom of fluted deck, flush with the outer layer of the duct wrap (Item 5B).
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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C2 UL DESIGN No. F-A-1137

SCALE: NTS

UL Product iQ®

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

XHEZ - Through-penetration Firestop Systems

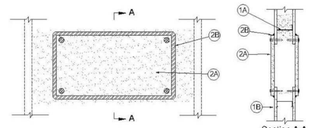
See General Information for Through-penetration Firestop Systems

System No. W-L-0057

May 30, 2019

F Rating — 1 Hr

T Rating — 1 Hr



1. **Wall Assembly —** The 1 Hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described within the individual U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:

A. **Steel Studs —** Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board* —** Min. 5/8 in. (16 mm) thickness, Type X gypsum board. Max area of opening is15 sq in. (96.8 cm²) with max dimensions of 5 in. (127 mm).

2. **Firestop System —** The firestop shall consist of the following:
   A. **Gypsum Board* —** Min. 5/8 in. (16 mm) Type X gypsum board patch. Patch to be sized to overlap opening a min of 2 in. (51 mm) on all sides and shall be fastened to wall with four nom 1-5/8 in. (41 mm) steel Type G laminating screws. One screw at nom 1-1/2 in. (38 mm) from each corner of patch.

   B. **Fill, Void or Cavity Materials* — Sealant —** Nom 1/4 in. (6 mm) bead of sealant applied at perimeter of patch at interface with wall assembly. Nom 1/2 in. (13 mm) bead of sealant applied over each screw on patch.
   SHERWIN WILLIAMS CO — WHITE LIGHTING FBarebuster High heat Silicone

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-05-30

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C5 UL DESIGN No. W-L-0057

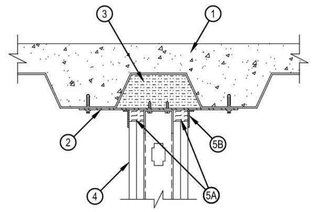
SCALE: 3" = 1'-0"

System No. HW-D-0264

HWD0264

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 4)	F Ratings — 1 and 2 Hr (See Item 4)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 4)
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Item 4)
L Rating At Ambient — Less Than 1 CFM/lin ft	FTH Ratings — 1 and 2 Hr (See Item 4)
L Rating At 400 F — Less Than 1 CFM/lin ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/lin ft
	L Rating At 400 F — Less Than 1 CFM/lin ft



1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
   C. Spray-Applied Fire Resistive Material* — (Optional. Not Shown) - After installation of the steel straps (Item 2), the steel floor units may be sprayed with the min thickness of material specified in the individual D700 Series Design.
      ISOLATEK INTERNATIONAL — Type 300
      GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY or MK-10HB
   1A. Roof Assembly — (Not Shown) - As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling designs in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. June 22, 2023

System No. HW-D-0264

HWD0264

A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
B. Roof Insulation — Roof insulation to consist of min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.
C. Spray-Applied Fire Resistive Material* — (Optional. Not Shown) - After installation of the steel straps (Item 2), all surfaces of the steel deck may be sprayed with the thickness of material as specified in the individual P700 Series Floor-Ceiling Design. The flutes of the steel deck above the steel straps and wall may be filled with material as an alternate to the Forming Material (Item 3).
   ISOLATEK INTERNATIONAL — Type 300
   GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY or MK-10HB

2. Steel Straps — Min. 2 in. (51 mm) wide 16 MSG galv steel straps cut to a length to span the flute and overlap the adjacent valleys of fluted floor units or roof deck by 1-1/2 in. (38 mm). Straps spaced max 24 in. (610 mm) OC and fastened to floor or roof assembly with masonry anchors or steel fasteners. As an alternate, min 1 in. (25 mm) long Hilti X-DNI 27 P8 S15 or Hilti X-U 27 P8 S15 powder actuated floor pins with integral min 9/16 in. (14 mm) diam washer may be used to secure steel straps to floor or roof assembly.
3. Forming Material* - Plugs — Preformed mineral wool plugs, formed to the shape of the fluted floor units or roof deck, friction fit to completely fill the flutes above the steel straps. Adjacent lengths of plugs to be tightly butted with butted seams spaced min 24 in. (610 mm) apart along the length of the plugs.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs
   3A. Forming Material* — As an alternate to Item 3, min 4 pcf (64 kg/m3) mineral wool batt insulation forming material cut to the shape of the fluted floor units or roof deck and friction fit to completely fill the flutes above the steel straps. Adjacent lengths of batts to be tightly butted with butted seams spaced min 24 in. (610 mm) apart along the length of the flutes.
      INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
      JOHNS MANVILLE — Safing
      ROCK WOOL MANUFACTURING CO — Delta Board
      ROCKWOOL — SAFE
      THERMAFIBER INC — Type SAF
4. Wall Assembly — The 1 hr or 2 h fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner to be 3/4 in. (19 mm) greater than extended joint width. Ceiling runner installed parallel to direction of fluted steel floor units, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap.
   A1. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 4A, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Items 4B). Ceiling runner installed parallel to direction of fluted steel floor deck, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.
      BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK, SLPTRK325
      CEMCO, LLC — CST , CST325
      CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
      MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
      METAL-LITE INC — The System
      RAM SALES L L C — RAM Slotted Track

Hilti Firestop Systems

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System No. HW-D-0264

HWD0264

A2. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A1, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC.
   OLMAR SUPPLY INC — Type SCR
A3. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 4A through 4A2, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 4B). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner installed parallel to direction of fluted steel floor deck, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap.
   SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT
B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 3/4 in. (19 mm) to 1 in. (25 mm) less in length than assembly height with bottom nesting in and resting on the floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 4A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When slotted ceiling runner (Item 4A3) is used, steel studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at +/- 3/16 in. (5 mm) of the mid-height of slot on each side of wall.
C. Gypsum Board* — For 1 hr assembly, one layer of 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. (16 mm) thick gypsum board are specified in the individual Wall and Partition Design. For both hourly ratings, a nominal 1-1/2 in. (38 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the steel floor units and the top row of screws shall be installed into the studs 3 in. (76 mm) below the valleys of the steel floor units.
   The hourly ratings of the joint system are dependent on the hourly rating of the wall.
5. Joint System — Max separation between bottom of floor and top of wall is 1-1/2 in. (38 mm). The joint system is designed to accommodate a max 50percent compression or extension from its installed width. The joint system consists of a forming material and a fill material between the top of the gypsum board and the bottom of the floor, as follows:
   A. Forming Material* — Min 4 pcf (64 kg/m3) density mineral wool batt insulation cut shall be cut into strips to fill the gap between the top of gypsum board and bottom of the floor units. The width of the strips shall be equal to the total thickness of the gypsum board. The strips of mineral wool are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the mineral wool plug or steel floor units.
      INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
      JOHNS MANVILLE — Safing
      ROCK WOOL MANUFACTURING CO — Delta Board
      ROCKWOOL — SAFE
      THERMAFIBER INC — Type SAF
   A1. Forming Material* - Strips — (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide precut mineral wool strips for 1 hr and 2 hr rated assemblies respectively. The strips are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
   B. Fill, Void or Cavity Material* - Sealant — Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material sprayed or troweled on each side of the wall to completely cover the mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board, steel floor units or roof deck and steel straps on both sides of the wall and min 2 in. (51 mm) onto spray-applied fire resistive material (Item 1C).
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. June 22, 2023

A3 UL DESIGN NO. HW-D-0264

SCALE: NTS

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/9/29

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

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S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

NEW CARDIAC CATHETERIZATION LAB SUITE & HYPERBARIC FACILITY EXPANSION

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

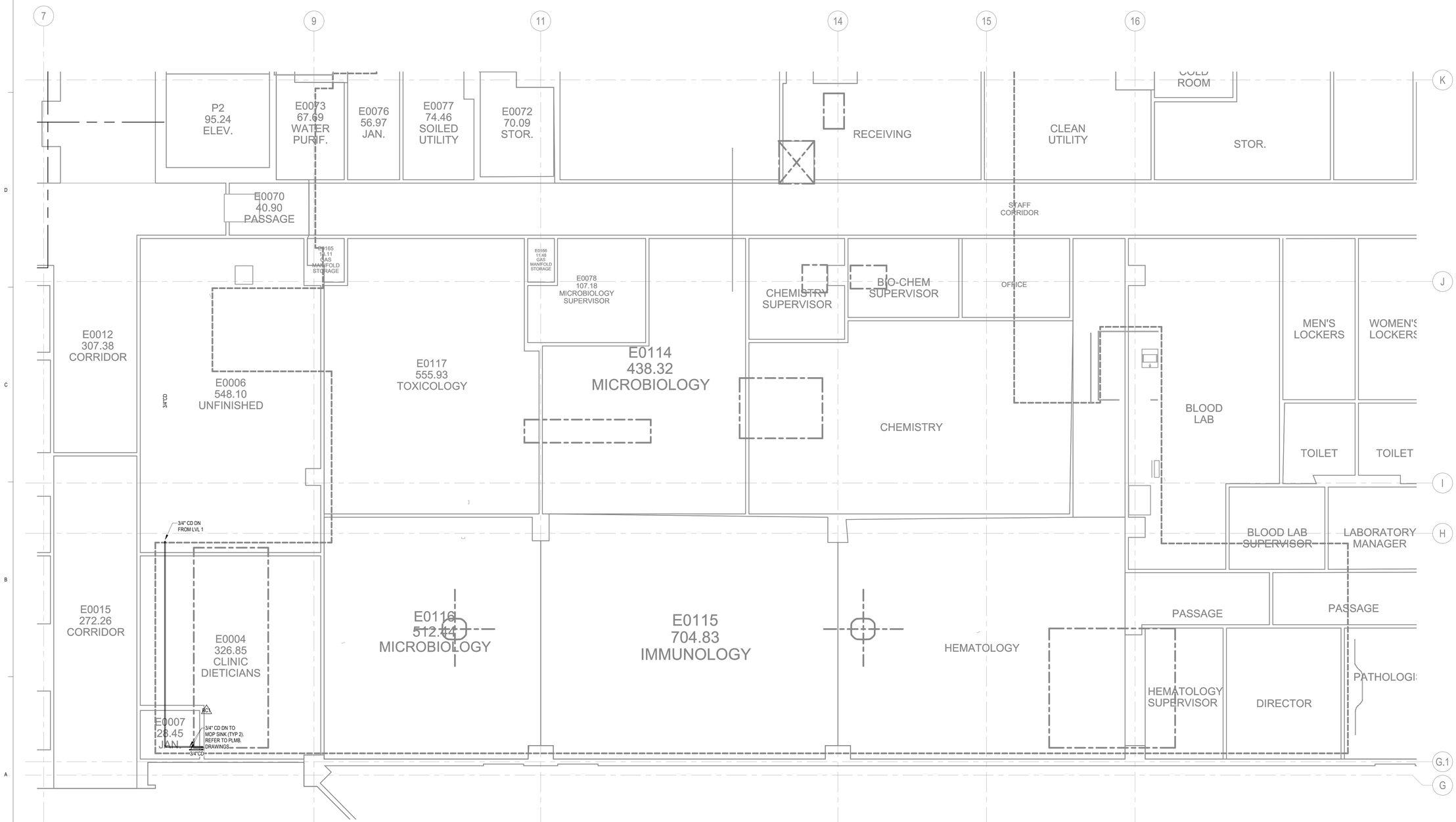
UL DETAILS

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1 LOWER LEVEL - MECHANICAL PLAN

1/4" = 1'-0"

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No. M 22419
Exp. 12-31-25
MECHANICAL
STATE OF CALIFORNIA

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK	10/10/2023
BC1	BACK CHECK 01	04/19/2024
BC2	BACK CHECK 02	07/12/2024

FILE LOG

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Design	Designer
Draw	Author
Check	Checker
Issue Date	2023/6/12

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S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

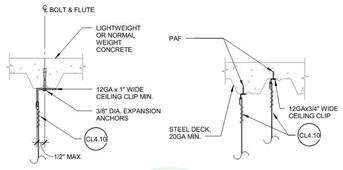
MECHANICAL ENLARGED PLAN REMODEL - LOWER LEVEL

SHEET NUMBER

ME210

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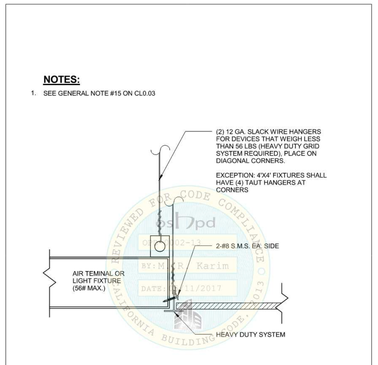
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NOTES:

1. LOAD TEST IN ACCORDANCE WITH GENERAL NOTE 14(g), PAGE CL0.02 SHALL BE REQUIRED
2. REFER TO CL4.10 FOR ADDITIONAL DETAILS

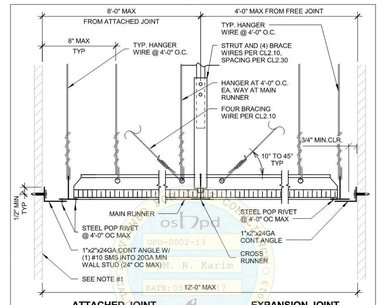
Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	HANGER WIRE CONNECTION TO CONCRETE OVER METAL DECK	CL4.21



NOTES:

1. SEE GENERAL NOTE #15 ON CL0.03

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SUSPENDED ACOUSTICAL CEILING - LIGHT FIXTURES/ AIR TERMINAL SUPPORT DETAIL	CL2.80



ACCEPTABLE EXITWAY DETAILS

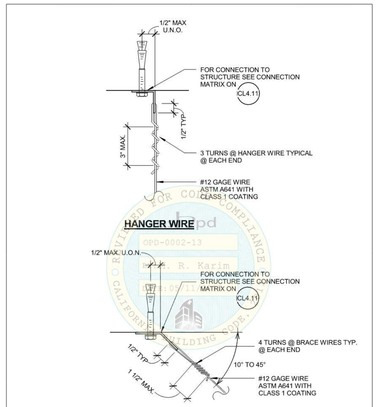
NOTES:

1. PERIMETER WALLS SHALL BE DESIGNED TO CARRY TRIBUTARY LATERAL FORCES PER TABLE BELOW. RDP TO VERIFY. RDP TO SPECIFY CONNECTION OF BACKING TO STUDS

S_{DS}	Fp
$S_{DS} \leq 1.15$	9.3 plf
$1.15 < S_{DS} \leq 1.73$	14.0 plf
$1.73 < S_{DS} \leq 2.50$	20.9 plf

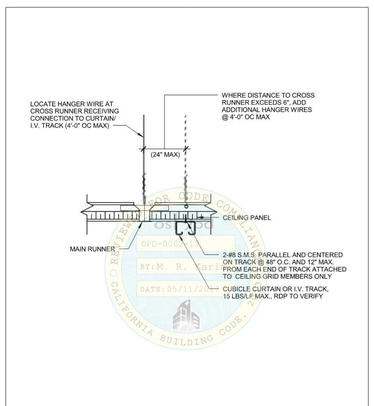
2. SEISMIC BRACING WIRES AND STRUTS IN ACCORDANCE WITH PAGES CL2.20, CL2.21, AND CL2.22 SHALL BE PERMITTED IN LIEU OF DESIGNING PERIMETER WALLS FOR SEISMIC FORCES AND BRACING SYSTEM SHOWN ON PAGE CL2.30 AND THIS PAGE.
3. STEEL POP RIVET SHALL HAVE MINIMUM ALLOWABLE SHEAR STRENGTH OF 120# AND ULTIMATE SHEAR STRENGTH OF 300#.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	TYPICAL CEILING SECTION AT EXITWAY CORRIDORS	CL2.50

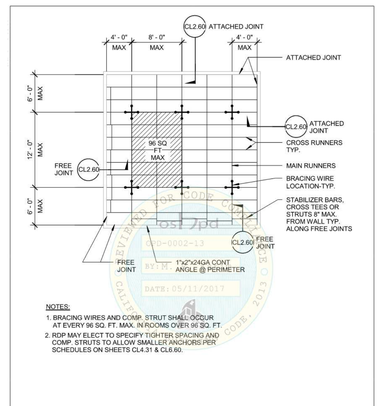


BRACING WIRE

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	HANGER AND BRACING WIRE CONNECTION - TYPICAL WIRE TURNS	CL4.10



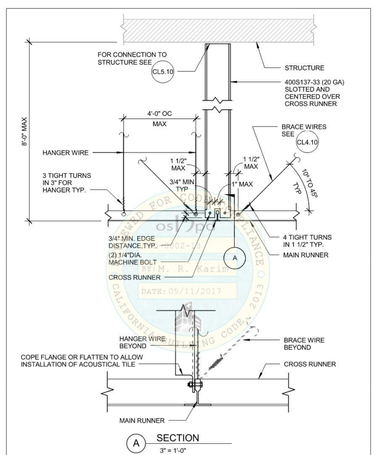
Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SUSPENDED ACOUSTICAL CEILING - CUBICLE CURTAIN I.V. TRACK	CL2.70



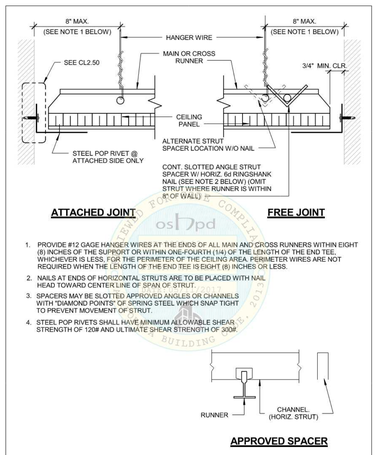
NOTES:

1. BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 96 SQ. FT. MAX. IN ROOMS OVER 96 SQ. FT.
2. RDP MAY ELECT TO SPECIFY TIGHTER SPACING AND COMP. STRUTS TO ALLOW SMALLER ANCHORS PER SCHEDULES ON SHEETS CL4.31 & CL6.60.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	TYPICAL CEILING PLAN FOR $1.15 < S_{DS} \leq 1.73$ AND z/h <= 1.0	CL2.21



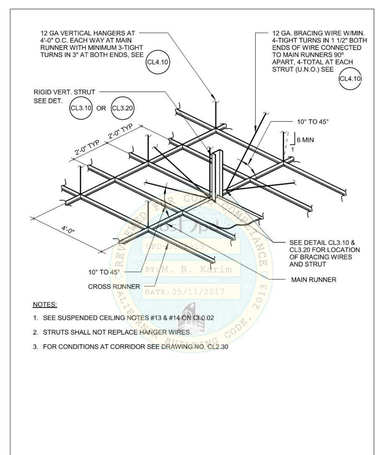
Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SUSPENDED ACOUSTICAL CEILING - CHANNEL TYPE STRUT	CL3.10



1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. NAILS AT ENDS OF HORIZONTAL STRUTS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTER LINE OF SPAN OF STRUT.
3. SPACERS MAY BE SLOTTED APPROVED ANGLES OR CHANNELS WITH "DIAMOND POINTS" OF SPRING STEEL WHICH SNAP TIGHT TO PREVENT MOVEMENT OF STRUT.
4. STEEL POP RIVETS SHALL HAVE MINIMUM ALLOWABLE SHEAR STRENGTH OF 120# AND ULTIMATE SHEAR STRENGTH OF 300#.

APPROVED SPACER

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	CEILING PERIMETER INCLUDING NON-EXITWAY CORRIDORS	CL2.60



NOTES:

1. SEE SUSPENDED CEILING NOTES #13 & #14 ON CL0.02
2. STRUTS SHALL NOT REPLACE HANGER WIRES.
3. FOR CONDITIONS AT CORRIDOR SEE DRAWING NO. CL2.30

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SUSPENDED CEILING BRACING ASSEMBLY	CL2.10

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KEY PLAN

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BUILDING TITLE

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PROJECT TITLE

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RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

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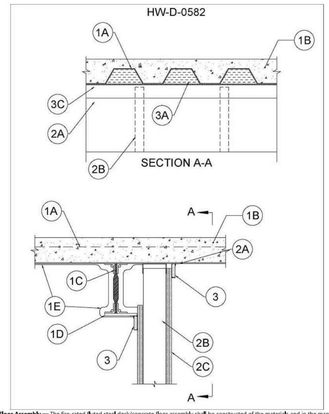
CEILING DETAILS

SHEET NUMBER

AE519.A BC1

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1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor And Floor Units* —** Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Structural Steel Support —** Steel beam, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and 1 to 7 in. (25 to 178 mm) from wall assembly.

D. **Steel Attachment Clips —** Z-shaped clips formed from 1 in. (25 mm) wide strips of min 20 ga galv steel. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom flange of the steel beam with 1-1/2 in. (38 mm) long upper and lower legs. Legs of clips fastened to bottom of beam (prior to application of spray-applied fire-resistive materials) with steel fasteners or welds. Clips spaced max 16 in. (406 mm) OC and extend to within 1/4 in. (6 mm) from the surface of the wall.

E. **Spray-Applied Fire Resistive Material* —** After installation of the steel attachment clips, structural steel support and the steel floor units to be sprayed with the min thickness of material specified in the individual D700 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. In addition, the flutes of the steel floor units immediately above the wall are to be filled with material to the full thickness of the wall (see Item 3B for alternate). The remainder of the steel floor units shall be sprayed as specified in the individual D700 design.
ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

1A. **Roof Assembly — (Not Shown) —** As an alternate to the floor assembly, a fire-rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.

C. **Spray-Applied Fire Resistive Material* —** After installation of the steel attachment clips, structural steel support and the steel deck to be sprayed with the min thickness of material specified in the individual P700 or P900 Series Design. The flutes of the steel deck are to be filled with material across the entire top flange of the steel beam. In addition, the flutes of the steel deck immediately above the wall are to be filled with material to the full thickness of the wall (see Item 3B for alternate). The remainder of the steel floor units shall be sprayed when specified in the individual P700 design.
ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

2. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor and Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of min No. 20 gauge galv steel channels sized to accommodate steel studs (Item 2B). Ceiling runner to be provided with flanges that are min 1 in. (25 mm) longer than max extended joint width. For max ¾ in. nominal joint width, the non-slotted (1-1/4 in. or 83 mm deep) ceiling runners are provided with a fill, void or cavity material and are described in Item 3A. Ceiling runner installed perpendicular to direction of the fluted steel deck and secured through the spray-applied fire resistive material to steel deck valleys with steel masonry fasteners spaced max 24 in. (610 mm) OC or direct to steel fluted floor units where spray is not required.

A.1. **Light Gauge Framing* — Slotted Ceiling Track —** (Not Shown) - As an alternate to the Item 2A, a ceiling track consisting of galv steel channel with slotted flanges may be used when Item 3A fill material is utilized. Slotted ceiling track sized to accommodate steel studs (Item 2B). Legs are to be min 1/4 in. (6 mm) longer than the maximum joint width. Attached to steel deck with steel fasteners or welds spaced max 24 in. (610 mm) OC.
CEMCO, LLC — CST, CST325

MARINO/WARE, DEV OF WARE INDUSTRIES INC — Type SLT

B. **Studs —** Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) on center. Studs cut 1-1/4 to 2 in. (32 to 51 mm) less in length than assembly height with bottom nesting in and secured to floor runner. Steel studs nested in non-slotted ceiling runner without attachment.

B1. **Framing Members - Steel Studs* —** In lieu of Item 2B - Proprietary channel shaped studs, 3-5/8 in. (92 mm) wide spaced a max of 24 in. (610 mm) OC. Studs to be cut 1-1/4 to 2 in. (32 to 51 mm) less than the assembly height with bottom nesting in and secured to floor runner. For direct attachment of gypsum board only. Steel studs installed in non-slotted ceiling runner without attachment.
CEMCO, LLC — ViperStud™

MARINO/WARE, DEV OF WARE INDUSTRIES INC — ViperStud™

C. **Gypsum Board* —** Gypsum board sheets installed to a min total 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Gypsum board to extend min 3 in. (76 mm) above the bottom of Z clips on side of wall adjacent to beam. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of the spray-applied fire resistive material on steel floor or roof assembly on the full height wall side. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 to 1-1/2 in. (25 to 89 mm) below the bottom of the ceiling runner. No gypsum board attachment screws shall be driven into the ceiling runner.
The hourly rating of the joint system is equal to the lesser of the hourly ratings of the floor/roof-ceiling assembly and the wall assembly.

3. **Joint System — Max separation between bottom of spray-applied fire resistive material on steel floor or roof unit and top of wall (at time of installation of joint system) is 3/4 in. (19 mm), 1 in. (25 mm), 1-1/2 in. (38 mm) or 2 in. (51 mm). The joint system is designed to accommodate a max 50 percent compression and or 30 percent extension from its installed width when Item 3A is used. See Table 1 for movement for Joints outlined in Items 3C, C1 and C2.**
A. **Fill, Void or Cavity Material* — Applies to 3/4 in. (19 mm) nominal joint width.** Min. 25 ga composite steel angle with one 5/8 in. (16 mm) leg and one 2-1/2 in (64 mm) leg with a 5/8 in. (16 mm) strip of intumescent strip affixed along the inside 2-1/2 in (64 mm) leg. Steel angle is friction fit between the top web of the ceiling runner and the fluted steel deck on the full height gypsum board side only.
CEMCO, LLC — DDA (Deflection Drift Angle)

B. **Packing Material —** Min 4 pcf (64 kg/m^3) mineral wool batt insulation cut to the shape of the fluted deck, approx 33 percent larger than the height of the flutes and compressed into the fluted area of the steel floor or roof deck above the ceiling channel. The forming material shall be installed to extend over the full thickness of the wall and to outer edge of FireRip (when used). As an option, the spray-applied fire resistive material described in Item 1 can be used in place of the packing material.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Safing Board

ROCKWOOL MALAYSIA SDN BHD — SAFE

ROCKWOOL — SAFE

THERMAFIBER INC — SAF

B1. **Forming Material*-Plugs —** (Not Shown) As an alternate to the forming material (Item 3B), mineral wool plugs preformed to the shape of the fluted floor units or roof deck, may be used within the flutes. Plugs shall be friction fitted to completely fill the flutes and extend to full thickness of wall or to outer edges of FireRip (when used).
ROCK WOOL MANUFACTURING CO — Delta Deck Plugs

C. **Fill, Void or Cavity Material* —** For nom 1 in. (25 mm) or 2 in. (51 mm) joints, a nom 20 gauge steel angle encased on 3 sides over a nom 2-3/4 in. (70 mm) wide layer of 5/8 in. (16 mm) type X gypsum board. Angle to be secured to steel deck with steel masonry anchors spaced a max 24 in. (610 mm). Face of steel angle to be in contact with gypsum board on both sides of wall. Butt joints in FireRip to be offset min 12 in. (305 mm) on opposite sides of wall. At beam side of wall, the FireRip is to rest against the gypsum board on wall and be secured to steel attachment clips through the Item 2D gypsum board, with steel fasteners spaced 16 in. (406 mm) on center and of sufficient length to penetrate min ½ in. (13 mm) into the steel attachment clips.

A6 UL DESIGN NO. HW-D-0582
SCALE: 3" = 1'-0"

Riverside University HEALTH SYSTEM

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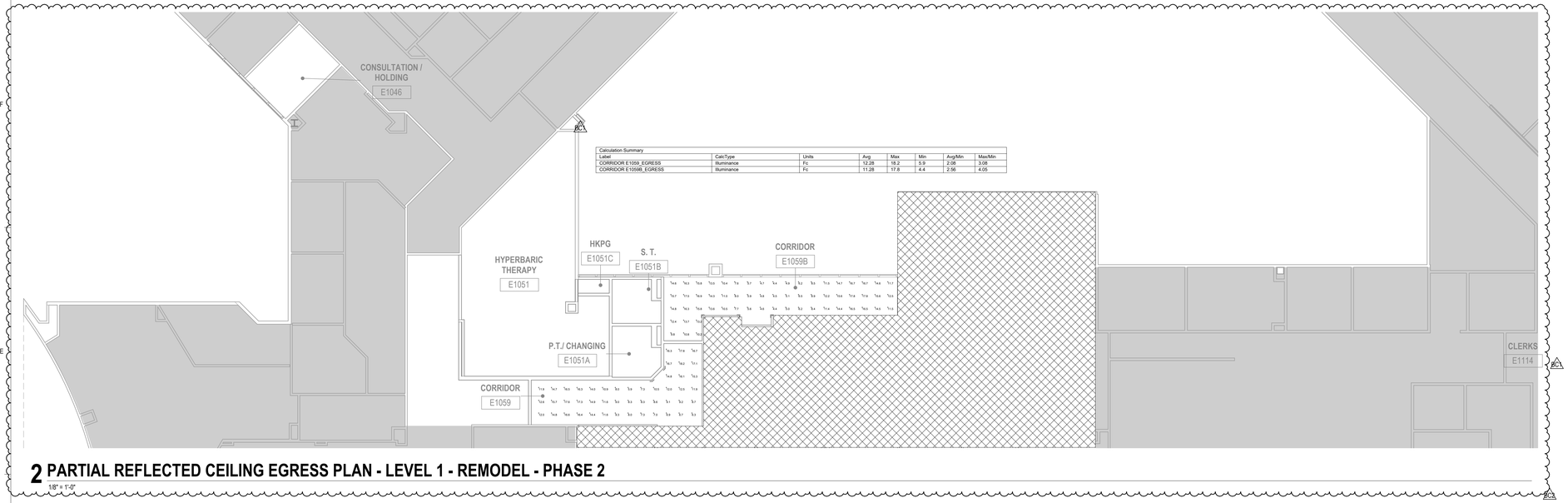
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SHEET NUMBER

AE536

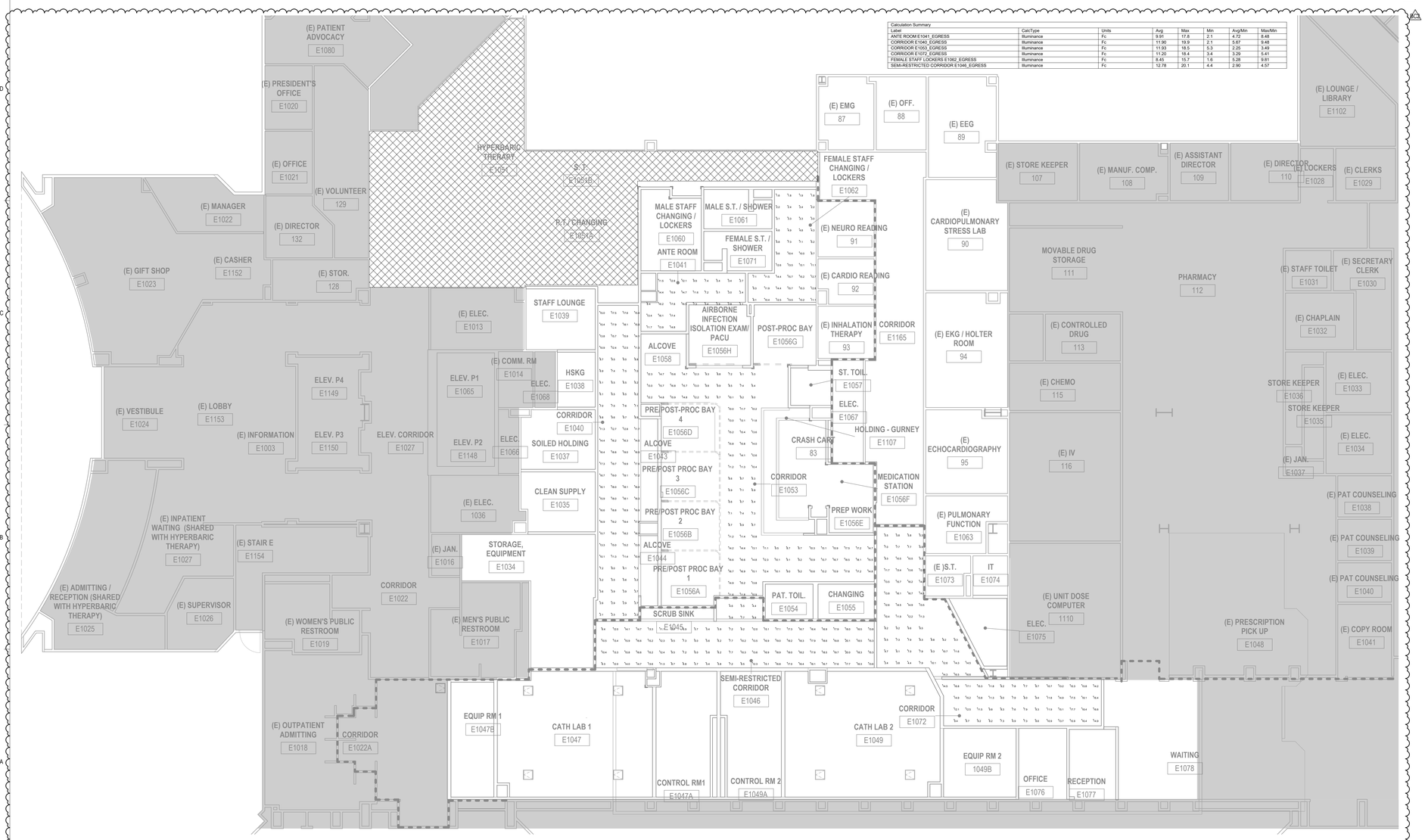
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7/12/2024 2:44:56 PM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt



2 PARTIAL REFLECTED CEILING EGRESS PLAN - LEVEL 1 - REMODEL - PHASE 2

1/8" = 1'-0"



1 PARTIAL LIGHTING EGRESS PLAN - LEVEL 1 - REMODEL - PHASE 1

1/8" = 1'-0"

7/3/2024 10:18:07 AM Autodesk Docs://047-10071-002_RUHS-TO-1_Riverside_County_Health_Cath_Lab/ RUHS-2ND-CATH-LAB-ARCH.rvt

Riverside University HEALTH SYSTEM

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

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ARCHITECTECT STAMP

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KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE
BC2	BACK CHECK 02	07/12/2024

FILE LOG

ACTIVITY	BY
Design	RY
Draw	Author
Check	PH
Issue Date	2023/6/12

AGENCY APPLICATION NUMBER

S231455-33-00

AGENCY APPROVAL STAMP

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
Department of Health Care Access & Information
Office of Statewide Hospital Planning & Development
8/16/2024, 7:12:57 AM
S231455-33-00
Allen Cheng

BUILDING TITLE

RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER

PROJECT TITLE

CARDIAC CATHETERIZATION LABORATORY SUITE PROJECT

RUHS-MC PROJ. NO.	CONSULTANT PROJ. NO.
FM08430011869	047-10071-002

SHEET NAME

PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING EGRESS PLAN - REMODEL

SHEET NUMBER

EE112A

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