



IMED OP MULTI-PURPOSE IMAGING ROOM

INTERMOUNTAIN HEALTHCARE 5125 SOUTH COTTONWOOD STREET, MURRAY UT 84107

CONSTRUCTION DOCUMENTS 05/31/2022

524 SOUTH 600 EAST SALT LAKE CITY, UT 84102 801.575.8800 | VCBO.COM

> owner WALTER SHUMWAY INTERMOUNTAIN HEALTHCARE 36 S. STATE ST. # 2100 SLC, UT 84111 walter.shumway@imail.org 801.718.2411

architect

JEFF PINEGAR VCBO ARCHITECTURE 524 SOUTH 600 EAST SALT LAKE CITY, UT 84102 jpinegar@vcbo.com 801.575.8800

structural engineer

JEROD JOHNSON REAVELEY ENGINEERS 675 EAST 500 SOUTH #400 SLC, UT 84102 jjohnson@reaveley.com 801.486.3883

electrical engineer PETER JOHANSEN SPECTRUM ENGINEERS 324 S STATE ST., Suite 400 SLC, UT 84111 pej@spectrum-engineers.com 801.328.5151

mechanical engineer

DONALD BRADSHAW VAN BOERUM & FRANK ASSOCIATES 181 EAST 5600 SOUTH MURRAY, UT 84107 dbradshaw@vbfa.com 801.530.3148



ABBREVIATIONS

&	AND
@	AT
ACT	ACOUSTICAL CEILING TILE
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
AL/ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH ARCH	ITECTURAL
BD	BOARD
BLDG	BUILDING
BLK	BLOCK (ING)
BO	BOTTOM OF
BRG	BEARING
BSMT	BASEMENT
BS	BOTH SIDES
BW	BOTH WAYS
CAB CB CCSA ARCH CG CHAM CHAM CJ CL CLG CLR CM COL COMP COMP CONC CONC CONT CONT CMU CSBA CT	CABINET CATCH BASIN CUSTOM COLOR SELECTED BY ITECT CORNER GUARD FER CONTROL JOINT CENTER LINE CEILING CLEAR CONSTRUCTION MANAGER COLUMN 'UTER RETE INUOUS CONCRETE MASONRY UNIT COLOR SELECTED BY ARCHITECT CERAMIC TILE
D DB DBL DEPT DF DIA DIM DN DN DRN DTL/ DET DW DWG	DEPTH DECK BEARING DOUBLE DEPARTMENT DRINKING FOUNTAIN DIAMETER DIMENSION DOWN DRAIN DETAIL DISHWASHER DRAWING
E	EAST
(E)	EXISTING
EA	EACH
EIFS	EXTERIOR INSULATION SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP EQUIF	PMENT
EVAP	EVAPORATIVE
EXIST EXIST	ING
EXP	EXPANSION
EXT	EXTERIOR
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FG	FINISH GRADE
FH	FIRE HYDRANT
FIN	FINISHED
FLR	FLOOR
F.O.	FACE OF
FT	FOOT, FEET
FRP	FIBER REINFORCED PANEL
FRT	FIRE RETARDANT TREATED WOOD
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFRC GLASS	SFIBER REINFORCED PANEL
GYP	GYPSUM
GWB	GYPSUM WALLBOARD
HB HC HDW HDF HM HOR	HOSE BIBB HANDICAP ACCESSIBLE HARDWARE HIGH DENSITY FIBERBOARD HOLLOW METAL HEIGHT HORIZONTAL
id	INSIDE DIAMETER
Icf	INSULATED CONCRETE FORM
In	INCH
Incl	INCLUDE
Info	INFORMATION
Int	INTERIOR
Insul Insul	ATE, (D), (ION)
Inv	INVERT
JST	JOIST
JT	JOINT

ot all abbi	REVIATIONS MAY BE USED
NV B/ LBS	LAVATORY POUND (S)
AT AX DF FIBERE ECH MECH/	MATERIAL (S) MAXIMUM MEDIUM DENSITY BOARD ANICAL
EMB MEMBF EZZ FR GR N SC SC D TD TL W	KANE MEZZANINE MANUFACTURER MANAGER MINIMUM MIRROR MISCELLANEOUS MASONRY OPENING MOUNT, (ED) METAL MICROWAVE
C D. DM RC COEFF TS	NORTH NOT IN CONTRACT NUMBER NOMINAL NOISE REDUCTION TICIENT NOT TO SCALE
C C C T D H P G P P S B Z	ON CENTER OUTSIDE DIAMETER OWNER FURNISHED/ CONTRACTOR INSTALLED OVERFLOW DRAIN OVERHEAD OPENING OPPOSITE ORIENTED STRAND BOARD OUNCE
ERI ERM PERMA - AM NL NT O. R ART Y	PERIMETER NENT PLATE PLASTIC LAMINATE PANEL PAINT (ED) POINT OF PAIR POST TENSIONED PARTITION PLYWOOD
Г	QUARRY TILE
/ Rad CP EC EF EINF REINF(EM EPL EQD REQUI EV M D	RADIUS REFLECTED CEILING PLAN RECESSED REFERENCE REFRIGERATOR DRCE (ED) REMOVE (ED) REPLACE RED REVISION (S) ROOM ROUGH OPENING
ALV ECT M NT PEC Q S C C CLASS	SOUTH SALVAGE (ED) SECTION SQUARE FOOT SIMILAR SEALANT SPECIFICATION (S) SQUARE STAINLESS STEEL SOUND TRANSMISSION
id TL TOR TRUC JSP M	STANDARD STEEL STORAGE STRUCTURE (AL) SUSPENDED SYMMETRY (ICAL)
& B & G 3D EMP IRU O. RANSTRANS G (P	THICKNESS TOP AND BOTTOM TONGUE AND GROOVE TO BE DETERMINED TEMPORARY THROUGH TOP OF FORMER TUBE STEEL TYPICAL
NF NO	UNFINISHED UNLESS OTHERWISE NOTED
AR 3 CT ERT EST WC	VARIES VAPOR BARRIER VINYL COMPOSITION TILE VERTICAL VESTIBULE VINYL WALLCOVERING
/ C D	WEST WIDTH WITH WATER CLOSET WOOD

UTILITY CONTACTS

power XXXXX XXXXXXXXXX ORGANIZATION ADDRESS ADDRESS email@domain.com

000.000.000

natural gas XXXXX XXXXXXXXXX ORGANIZATION ADDRESS ADDRESS email@domain.com 000.000.000

water/storm drain XXXXX XXXXXXXXXX ORGANIZATION ADDRESS ADDRESS email@domain.com

000.000.000

sewer XXXXX XXXXXXXXXXX ORGANIZATION ADDRESS ADDRESS email@domain.com 000.000.000

telephone XXXXX XXXXXXXXXX ORGANIZATION ADDRESS ADDRESS email@domain.com 000.000.000

PROJECT TEAM

WITHOUT

WELDED WIRE FABRIC

W/O

WWF

WSCT WAINSCOT

owner WALTER SHUMWAY INTERMOUNTAIN HEALTHCARE 36 S. STATE ST. # 2100 SLC, UT 84111 walter.shumway@imail.org 801.718.2411

architect JEFF PINEGAR VCBO ARCHITECTURE 524 SOUTH 600 EAST SALT LAKE CITY, UT 84102 jpinegar@vcbo.com 801.575.8800

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4

- CEILING HEIGHT

- WINDOW MARKER

SHEET SYMBOLS

DRAWING TITLE

PROJEC[®] NORTH

WINDOW TAG

SHEET NUMBERING + NAMING



THIS IS A QUICK REFERENCE GUIDE TO THE SHEET NUMBERING AND NAMING SYSTEM USED

FINISH TAG

R: W?

B? :B B: W? F? :F L: W?

BASIC DRAWING TITLE

MATCH LINE

IN VCBO CONSTRUCTION DOCUMENTS.

PLAN TYPE .0 SLAB PLAN .1 ANNOTATED PLAN .2 DIMENSION + WALL TYPE PLAN

.3 FINISH PLAN .4 REFLECTED CEILING PLAN SEQUENCE

DENOTES AREA SEQUENCE IN PLAN, AND NUMBERIC SEQUENCE IN NON-PLAN SHEETS

LEVELS DENOTES LEVEL IN A MULTI-STORY BUILDING. ALSO BECOMES A SEQUENCE NUMBER DENOTING DIVISIONS IN NON-PLAN SHEETS

SHEET TYPE SEQUENCE NUMBERING: GENERAL NOTES + LEGENDS

FLOOR PLANS EXTERIOR ELEVATIONS

EXTERIOR SECTIONS ENLARGED PLANS, ELEVATIONS, SECTIONS

DETAIL DRAWINGS DOOR, WINDOW, OTHER SCHEDULES

SIGNAGE 8 USER DEFINED

9 3D DRAWINGS + PERSPECTIVES

DESIGN DATA

GOVERNING BUILDING CODES: IBC 2018, to include Appendix J; ANSI 117-1 2009; NFPA 101 LIFE SAFETY 2018; IMC 2018; IPC 2018; IECC 2018, for commercial projects; IFGC 2018; NEC 2017

TENANT IMPROVEMENT TO EXISTING BUILDING - NOT A CHANGE IN OCCUPANCY TOTAL REMODEL AREA = 300 SF (REMODEL)

OCCUPANCY TYPE - CH.3 I-2 - INSTITUTIONAL

THERE WILL BE NO INVASIVE THERAPIES OR ANESTHESIA. OUTPATIENTS ARE CAPABLE OF SELF-PRESERVATION. INPATIENTS WILL BE ASSISTED BY NURSING PERSONEL AUTOMATIC SPRINKLER SYSTEM: PER SECTION 903

EXISTING SYSTEM TO REMAIN

EXIT ACCESS - CH. 10

COMMON PATH OF EGRESS TRAVEL: PER TABLE 1006.2.1 (MEASEURED FROM THE MOST REMOTE POINT WITHIN A STORY TO THAT POINT WHERE THE OCCUPANTS HAVE SEPARATE ACCESS TO TWO EXITS OR EXIT ACCESS DOORWAYS) 100 FEET.

MINIMUM CORRIDOR WIDTH: PER TABLE 1020.2 IN INCHES 44 UNLESS NOTED OTHERWISE 36 WITH AN OCCUPANT LOAD OF LESS THAN 50

- INTERIOR WALL & CEILING FINISH REQUIREMENTS: PER TABLE 803.11 IN SPRINKLERED BUILDING :
- EXIT ENCLOSURES AND EXIT PASSAGEWAYS CLASS B CORRIDORS AND OTHER EXIT WAYS - CLASS C ROOMS AND ENCLOSED SPACES - CLASS C
- **INTERIOR FLOORS FINISH: PER 804** IN SPRINKLERED BUILDING - CLASS I & II

GENERAL NOTES

- 1. IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW AND COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BEFORE COMMENCING CONSTRUCTION, AND TO ASSURE THAT ALL PARTIES ARE AWARE OF ALL REQUIREMENTS, REGARDLESS OF WHERE THE REQUIREMENTS OCCUR IN THE CONTRACT DOCUMENTS, WHICH MIGHT AFFECT THE WORK OF THAT PARTY.
- 2. AS PART OF THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS, THE CONTRACTOR SHALL ENDEAVOR TO IDENTIFY AND NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN THE WORK OF DIFFERENT PARTIES AT THE EARLIEST POSSIBLE DATE SO AS TO ALLOW REASONABLE AND ADEQUATE TIME FOR THE CONFLICT TO BE RESOLVED WITHOUT DELAYING THE WORK. ALL DEVIATIONS FROM THAT WHICH IS REQUIRED BY THE CONTRACT DOCUMENTS MUST BE APPROVED IN ADVANCE BY THE ARCHITECT.
- 3. THE ARCHITECTURAL DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL EXPOSED ELEMENTS OF THE WORK OF ALL THE TRADES, INCLUDING THAT WORK WHICH IS ILLUSTRATED PRIMARILY ON DRAWINGS OF OTHER DISCIPLINES. QUANTITIES ARE TO BE PROVIDED AS SHOWN ON DRAWINGS OF OTHER DISCIPLINES BUT LOCATIONS SHOWN ON OTHER DRAWINGS ARE SCHEMATIC, UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS. THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL PARTS OF THE WORK.
- 4. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF WORK AT THE APPROXIMATE LOCATION SHOWN; DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN OR MAY BE DERIVED FROM THOSE SHOWN ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS. IF DIMENSIONS ARE NOT PRESENT, THE ARCHITECT IS TO BE NOTIFIED SO THAT A CLARIFICATION CAN BE ISSUED.
- 5. CONTRACTOR TO FOLLOW CURRENT ANSI 117-1 STANDARDS AS REPRESENTED ON SHEET G301, GENERAL ACCESSIBILITY GUIDELINES. NOTIFY ARCHITECT IF THE DESIGN DRAWINGS CONFLICT WITH THIS SHEET.

NOTES TO BIDDERS

- 1. THIS SHEET CONTAINS A LIST OF DRAWINGS WHICH COMPRISE A FULL SET OF DRAWINGS FOR THIS PROJECT. ANY CONTRACTOR, SUBCONTRACTOR, VENDOR OR ANY OTHER PERSON PARTICIPATING IN OR BIDDING ON THIS PROJECT SHALL BE RESPONSIBLE FOR THE INFORMATION CONTAINED IN ANY AND ALL SHEETS OF DRAWINGS AND SPECIFICATIONS. IF ANY PERSON, PARTY OR ENTITY ELECTS TO SUBMIT BIDS FOR ANY PORTION, OR ALL, OF THIS PROJECT, THAT PERSON, PARTY OR ENTITY SHALL BE RESPONSIBLE FOR ANY AND ALL INFORMATION CONTAINED IN THESE DRAWINGS AND SPECIFICATIONS, INCLUDING, BUT NOT LIMITED TO, ANY SUBSEQUENT ADDENDUMS OR CLARIFICATIONS THAT MAY BE ISSUED.
- 2. THESE DOCUMENTS SHOW THE DESIGN INTENT. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE EVERYTHING SHOWN ON THE DRAWINGS OR SPECIFIED REGARDLESS OF WHERE IT IS SHOWN ON THE DRAWINGS OR IN THE SPECIFICATIONS. FOR EXAMPLE; SOME MILLWORK DETAILS HAVE STEEL FRAMES WHICH MAY BE PROVIDED BY DIVISION 05 OR WITH THE MILLWORK AT THE CONTRACTOR'S DISCRETION, BUT IT SHALL BE PROVIDED AS PART OF THE CONTRACT.
- 3. EVERYTHING CALLED FOR IN THESE DOCUMENTS SHALL BE "NEW" AND PROVIDED BY THE CONTRACTOR, SUBCONTRACTOR, VENDOR OR ANY OTHER PERSON PARTICIPATING IN OR BIDDING ON THIS PROJECT UNLESS NOTED OTHERWISE AS EXISTING (EXIST), NOT IN CONTRACT (NIC) OR FOR REFERENCE ONLY. FURNISHINGS SHOWN DASHED SHALL BE FOR REFERENCE ONLY.

SHEET INDEX

SCHEDULE - SHEET INDEX FOR G001		
SHEET NUMBER	SHEET NAME	
GENERAL		
CV	COVER	
G001	GENERAL INFORMATION, INDEX & TYPICAL ANSI ACCESSIBILITY STANDARDS	
ARCHITECTURAL		
DEMOLITION		
AD110.1	DEMOLITION PLAN & DEMO REFLECTED CEILING PLAN - ENLARGED	
ARCHITECTURAL	SLAD DLAN	
A110.0	ANNOTATED & DIMENSION PLAN	
A110.2	REFLECTED CEILING PLAN + FINISH PLAN - ENLARGED	
A110.3	FINISH PLAN	
A110.4	EQUIPMENT + FURNITURE PLAN	
A401	INTERIOR ELEVATIONS	
A500	INTERIOR FRAMING, CEILING DETAILS & CASEWORK DETAILS	
A540		
A560		
A600	DOOR SCHEDULE + ELEVATIONS	
STRUCTURAL		
S001	GENERAL STRUCTURAL NOTED, LEGENDS, & ABBRIVIATIONS	
S101	FRAMING PLANS & DETAILS	
S501	DETAILS	
MECHANICAL		
M000		
MUU1 M100		
MD110		
MD110	HVAC PLAN	
MD120	MECHANICAL PIPING DEMOLITION PLAN	
M120	MECHANICAL PIPING PLAN	
M501	MECHANICAL DETAILS	
M601	MECHANICAL SCHEDULES	
PLUMBING		
P000 PD110		
P110	PI UMBING PI AN	
MGD110	MEDICAL GAS DEMOLITION PLAN	
MG110	MEDICAL GAS PLAN	
MG110.1	MEDICAL GAS PLAN	
P501	PLUMBING DETAILS	
P601	PLUMBING SCHEDULES	
ELECTRICAL		
EE001	SYMBOLS EGEND	
EE003	TELECOM SCHEDULES AND NOTES	
EE501	ELECTRICAL DETAILS	
EE701	TYPICAL MOUNTING HEIGHT DETAILS	
EDP102	LEVEL 2 - DEMOLITION POWER PLAN	
EDL102	LEVEL 2 - DEMOLITION LIGHTING PLAN	
EP102	LEVEL 2 - OVERALL POWER PLAN	
EP102-1 EP501		
EP501 EP502		
EP601	ONE LINE DIAGRAMS	
EL102	LEVEL 2 - LIGHTING PLAN	
EL601	INTERIOR LIGHTING FIXTURE SCHEDULE	
EL602	LIGHTING CONTROL SCHEDULES	
ET102	LEVEL 2 - OVERALL TELECOM PLAN	
ET102-1	LEVEL 2 - TELECOM PLAN	
ET501		
E1001 EV102		
EY601	AUXILIARY DIAGRAMS & DETAILS	
Grand total: 55		

VICINITY MAP











2

1

4

3





5

KEYED NOTES		
KEYNOTE TEXT		
EXISTING CABINET, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING COUNTERTOP, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING DOOR AND FRAME, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING WINDOW FRAME & GLAZING, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING 1-5/8" METAL STUD FRAMING, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING 3-5/8" METAL STUD FRAMING, PROTECT AS NECESSARY, REPAIR/INFILL AS REQUIRED		
EXISTING 3-5/8" METAL STUD FRAMING, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING 3-5/8" METAL STUD FRAMING, REMOVE & DISPOSE AS SHOWN		
EXISTING WALL BASE, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING WALL TILE, REMOVE & DISPOSE IN ITS ENTIRETY, CONTRACTOR TO REMOVE DAMAGED WALL ASSEMBLY COMPONENTS, IF REQUIRED		
EXISTING FLOORING, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING FLOOR TILE, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING ACOUSTICAL CEILING TILE SYSTEM, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING GRAB BAR, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING SINK + FAUCET, REMOVE & DISPOSE IN ITS ENTIRETY		
EXISTING WATER CLOSET, REMOVE & DISPOSE IN ITS ENTIRETY		

GENERAL DEMOLITION NOTES

- 1. FIELD VERIFY DIMENSIONS AND CONDITIONS INCLUDING EXISTING UTILITIES PRIOR TO BIDDING. BRING DIFFERING DIMENSIONS AND CONDITIONS TO ARCHITECT'S ATTENTION PRIOR TO BIDDING.
- 2. A HAZARDOUS MATERIAL SURVEY IS AVAILABLE FROM THE OWNER. ABATEMENT MUST BE COMPLETED PRIOR TO DEMOLITION OF BUILDINGS OR BUILDING ELEMENTS.
- 3. PROVIDE DUSTPROOF ENCLOSURES AT PERIMETER OF CONSTRUCTION & DEMOLITION FOR PROTECTION OF ADJACENT SPACES.
- 4. COORDINATE MAINTENANCE OF FIRE EGRESS FOR OCCUPANTS IN EXISTING BUILDING WITH THE OWNER AND FIRE MARSHAL. PROVIDE NECESSARY TEMPORARY WALLS OR ENCLOSURES, EMERGENCY LIGHTS, ETC., FOR THE DURATION OF CONSTRUCTION.
- 5. BRING TO ARCHITECT'S ATTENTION EXISTING CONDITIONS THAT PRESENT ANY CODE VIOLATIONS, INCORRECT CONSTRUCTION OR SAFETY PROBLEMS.
- 6. MAINTAIN EXISTING FIRE RATINGS, AND ASSOCIATED FIRE PROTECTION SYSTEMS (I.E. FIRE SPRINKLERS AND FIRE ALARM SYSTEMS) THROUGHOUT CONSTRUCTION. COORDINATE ANY INTERRUPTION TO THESE SYSTEMS WITH THE OWNER AND FIRE MARSHAL. PROVIDE FIRE WATCH REQUIREMENTS ASSOCIATED WITH INTERRUPTIONS TO THESE SYSTEMS.
- 7. PROTECT EXISTING STRUCTURE, FINISHES, AND SITE ELEMENTS NOT SCHEDULED FOR DEMOLITION. RESTORE DAMAGED ITEMS TO THEIR ORIGINAL CONDITION OR REPLACE AT CONTRACTOR'S EXPENSE.
- 8. REMOVE AND DISPOSE SELECTIVE DEMOLITION MATERIAL PER CITY REQUIREMENTS. 9. SALVAGE MATERIAL WHERE INDICATED. REMOVE ITEMS FROM CURRENT LOCATIONS &

GENERAL PLAN DEMOLITION NOTES

PREPARE FOR TRANSPORT BY THE OWNER.

- 1. REFER TO ELECTRICAL AND MECHANICAL PLANS FOR REQUIRED ADDITIONAL DEMOLITION
- 2. MAINTAIN EXISTING FIRE RATINGS THROUGHOUT CONSTRUCTION
- 3. DO NOT DISTURB EXISTING FIRE RATED ELEMENTS INCLUDING FIREPROOFING.
- PATCH/REPAIR DAMAGED OR DISTURBED ITEMS. 4. AFTER DEMOLITION, PRIOR TO FINISH, PATCH AND REPAIR EXISTING WALLS TO
- PROVIDE SMOOTH SURFACE SUITABLE FOR PAINTING OR WALL COVERING. 5. PATCH & LEVEL EXISTING CONCRETE SLABS FOR NEW FINISHES WITH FLOOR LEVELING
- COMPOUND.
- 6. FIELD VERIFY AND COORDINATE SAW CUTTING OF THE CONCRETE FLOOR SLAB WITH PLUMBING AND ELECTRICAL.
- 7. REPLACE SLAB AND TRENCH BY COMPACTING CLEAN GRAVEL IN 8 INCH LIFTS. DRILL #4 EPOXY-COATED REBAR INTO EXISTING SLAB @ 12 INCHES OC. POUR SLAB TO PROVIDE A SMOOTH EVEN FLOOR.
- 8. WHERE ELECTRICAL CIRCUIT CONTINUITY IS INTERRUPTED, BUT MUST BE MAINTAINED, MAKE NECESSARY MODIFICATIONS TO MAINTAIN CIRCUIT INTEGRITY.
- 9. REMOVE ELECTRICAL BOXES BEHIND RELOCATED MILLWORK AND CAP AS REQUIRED.
- 10. CAP EXISTING DUCT WORK FOR DUST CONTROL.

DEMOLITION LEGEND





AD110.1



2

1

3

4

GENERAL DEMOLITION NOTES

5

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DEMOLITION LEGEND

 HALF-TONE LINE DENOTES ITEMS TO REMAIN
 DASHED LINE DENOTES ITEMS TO BE DEMOLISHED
SCOPE OF WORK AREA
SLAB RECESSED / SLAB CORE DRILL AREA - SEE PLA
AREA OF DISTURBANCE DURING CONSTRUCTION (CO
AREA OUT OF SCOPE OF WORK

	KEYED NOTES
KEY VALUE	KEYNOTE TEXT
317.0	EXISTING SLAB RECESSED / CORE DRILL TO BE FILLED IN. LEVEL WI THIS AREA, AS NEEDED. PREPARE FOR NEW FINISHES







REV DATE DESCRIPTION

LANS

N (COORDINATE W. OWNER)

VITH EXISTING SLAB IN

VCBO NUMBER: DATE:

22305 05/31/2022





2

1

CONTROL 213 A 9' - 6" В -MINOR PROCEDURE 212 A 9'-6" 2610.0 $\overline{\mathcal{A}}$ \mathcal{O} \mathcal{O} 2312.0

 NOTES TO GENERAL CONTRACTOR:

 1. GENERAL CONTRACTOR TO PROVIDE &

 INSTALL NEW METAL STRUT SYSTEM ABOVE

 CEILING REQUIRED FOR NEW IMAGING

 EQUIPMENT. REFER TO EQUIPMENT

 VENDOR'S DRAWINGS AND STRUCTURAL

 \bigcirc VENDOR'S DRAWINGS AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. 2.GENERAL CONTRACTOR TO COORDINATE WITH THE OWNER AND ARCHITECT FOR FINAL LOCATION OF LIGHT FISTURES AND MECHANICAL DIFFUSERS ABOVE THE PATIENT TABLE. 2610.0 $\left| - \right|$

3

A3 LEVEL 2 - REFLECTED CEILING PLAN SCALE: 1/2" = 1'-0"

GENERAL CEILING NOTES

5

1. REFER TO DETAIL A2/A500 FOR TYPICAL CEILING SUSPENSION & SEISMIC BRACING

6

- REFER TO DETAIL A3/A500 FOR TYPICAL SUSPENDED GYP. BOARD CEILINGS
- ALL UNIDENTIFIED CEILING TYPES ON THE PLANS SHALL BE TYPE " A" AT 9'-0" A.F.F.
- 4. GRID SUSPENSION SYSTEMS SHALL BE CENTERED WITHIN AREAS INDICATED, UNLESS NOTED OTHERWISE
- 5. PAINT BLACK ALL EXPOSED STRUCTURE, MECHANICAL, DUCTS, ELECTRICAL WORK, PIPING, ETC.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF MECHANICAL GRILLES, AND TO MECHANICAL DRAWINGS FOR QUANTITIES AND TYPES
- 7. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF LIGHT FIXTURES AND TO ELECTRICAL DRAWINGS FOR QUANTITY AND TYPES
- 8. MECHANICAL AND ELECTRICAL CONTRACTORS TO COORDINATE WORK WITH SPRINKLER CONTRACTOR TO AVOID CONFLICTS IN FIELD
- 9. ALL CEILING HEIGHTS ARE ELEVATION ABOVE TOP OF CONCRETE FLOOR SLAB

CEILING LEGEND

A- SUSPENDED 2' X 4' ACOUSTICAL LAY-IN TILE
B- OPEN TO STRUCTURE

CEILING SYMBOLS

ELECTRICAL	
	2'X4' FLUORESCENT FIXTURE
	2'X2' FLUORESCENT FIXTURE
	1'X4' FLUORESCENT FIXTURE
└──── ┤	FLUORESCENT STRIP FIXTURE
0	RECESSED DOWN LIGHT
\diamond	WALL WASH
	1'X4' FLUORESCENT FIXTURE
\otimes	EXIT SIGN, SINGLE-SIDED
\otimes	EXIT SIGN, DOUBLE-SIDED
F	FIRE ALARM
S	SPEAKER
P	SMOKE DETECTOR
Ŵ	WIRELESS INTERNET
MECHANICAL	
	SUPPLY GRILLE
	RETURN GRILLE
	EXHAUST GRILLE
	LINEAR DIFFUSER
\otimes	SPRINKLER HEAD - CEILING MO
⊽	SPRINKLER HEAD - WALL MOU

FS

FS

4

REFLECTED CEILING PLAN + FINISH PLAN - ENLARGED

A110.2

1

2

	LEGEND - FINISH				
MARK	PRODUCT DESCRIPTION	MANUFACTURER	NAME	COLOR	COMMENTS
FLOOR					
F1	LINOLEUM	MANNINGTON	BIOSPEC SR 67361	FLAX	ACCENT COLOR (AT IMAGING EQUIPMENT AREA)
F2	LINOLEUM	MANNINGTON	BIOSPEC SR 67369	BEDROCK	MAIN COLOR
F3	SEALED CONCRETE				
BASE					
B1	LINOLEUM	MANNINGTON	BIOSPEC SR 67369	BEDROCK	4" COVED - CARRY OVER SAME COLOR AS FLOORING WHERE IT OCCURRS
PAINT					
P1	LATEX PAINT - EGGSHELL	SHERWIN WILLIAMS		WORDLY GRAY SW7043	BASE COLOR
P2	LATEX PAINT - EGGSHELL	SHERWIN WILLIAMS		DISTANCE SW6243	ACCENT COLOR
SURFACE					
CG1	CORNER INPRO GUARD	INPRO		CHINO 0258	
PL1	PLASTIC LAMINATE	WILSONART	PREMIUM LAMINATE	8213K-28 PHANTOM COCOA	GLOSS LINE FINISH - VERTICAL SURFACES (SEE PLANS)
PL2	PLASTIC LAMINATE	LAMIN-ART		2420-T MINERAL GOLD	TEXTURED FINISH - HORIZONTAL SURFACES (SEE PLANS)
SS1	SOLID SURFACE - CORIAN	DUPONT	CORIAN	CONCRETE	SEE PLANS
WP1	WALL INPRO PROTECTION	INPRO		CHINO 0258	

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(NOT IN CONTRACT)

GENERAL FINISH NOTES

5

1. ALL FLOOR TRANSITIONS TO BE LOCATED AT CENTER OF DOOR, U.N.O.

6

- 2. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION OF MILLWORK.
- 3. COORDINATE ALL MILLWORK WITH APPLIANCES BEFORE FABRICATION.
- 4. AT SOFFITS RECEIVING COLOR- PAINT ALL SIDES OF SOFFIT.
- 5. ALL WOOD TRIM TO BE STAINED TO MATCH DOOR STAIN.
- ALL COUNTERTOP, BACKSPLASHES, AND EDGE BANDING TO HAVE COORDINATING FINISHES.
- 7. PROVIDE A SMOOTH TRANSITION AT ALL FLOOR MATERIALS CONTRACTOR TO INSTALL ALL FLOOR FINISHES AT SAME LEVEL, DESPITE DIFFERENT THICKNESS. PROVIDE FLOOR TRANSITION WHERE OCCURS.
- 8. GYPSUM BOARD SOFFITS TO BE PAINTED WHITE.
- ALL EXPOSED CEILINGS TO BE PAINTED (WHERE OCCURS). REFER TO REFLECTED CEILING PLANS. COORDINATE WITH ARCHITECT FOR PAINT COLOR.

FINISH PLAN SYMBOLS

	BASE # R: W? FLOOR F: F? :F L: W? WALL (TO WALL (RIG WALL (BO WALL (BO WALL (LEF
F	SINGLE FINISH SYMBOLS INDICATE WHERE FINISHES AR FROM GENERAL ROOM FINISHES, OR PROVIDE ADDITIOI INFORMATION
\bigcirc	CHANGE AT FLOOR MATERIAL
XXXX	SIGNAGE TAG- SEE SIGNAGE SHEETS FOR DETAILS

KEYED NOTES KEYNOTE TEXT

KEY VALUE

	EQUIPMENT SCHEDULE
TYPE MARK	TYPE DESCRIPTION
CK1	CLOCK
CO2.1	GEN - COMPUTER WORKSTATION - SINGLE MONITOR (DESKTOP)
DI4	MED - DISPENSER-HAND SANITIZER-WALL
DI7	MED - GLOVE DISPENSER HORIZONTAL - TRIPE
DI27	GEN - DISPENSER-DISINFECTANT WIPES-WALL
DS3	MED - DISPENSING SYSTEM-MEDICATION-QUARTER HEIGHT CABINET
TE1	GEN - TELEPHONE-WALL
WH1.1	MED - WASTE-BIO HAZARD - STEP ON (8 GAL)
WH3	MED - HAMPER-LINEN
WH4.1	MED - SHARP CONTAINER-WALL (2 GAL.)
WH13	GEN - WASTE CAN-23 GAL. (STANDARD)

SCALE:

	KEYED NOTES
KEY VALUE	KEYNOTE TEXT
1006.1	DISPENSER, SOAP, NIC
1006.2	DISPENSER, PAPER TOWELS
1006.3	DISPENSER, SANITARY NAPKINS
1015.1	WALL MOUNTED SHARPS CONTAINER
2200.0	SINK + FAUCET

	EQUIPMENT SCHEDULE
TYPE MARK	TYPE DESCRIPTION
CK1	CLOCK
CO2.1	GEN - COMPUTER WORKSTATION - SINGLE MONITOR (DESKTOP)
DI4	MED - DISPENSER-HAND SANITIZER-WALL
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WH1.1	MED - WASTE-BIO HAZARD - STEP ON (8 GAL)
WH3	MED - HAMPER-LINEN
WH4.1	MED - SHARP CONTAINER-WALL (2 GAL.)
WH13	GEN - WASTE CAN-23 GAL. (STANDARD)

MARK	DESCRIPTION
$\langle 1 \rangle$	LEAD LINED GLAZING/SEE RADIATION SHIELDING REPORT
(#) _T	'T' INDICATES TEMPERED GLASS

A500

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C5 UPPER CABINET - FULL DOOR - GLOVE DISPENSER SCALE: 1 1/2" = 1'-0"

CABINET PULL CASEWORK BODY W/ MELAMINE INTERIOR SURFACE MELAMINE OVER 1/4" THICK HARDBOARD BACK-DADO INTO BOTTOM & SIDES

HINGE 2X BASE, TYP W/ CRIPPLERS @ 24" OC FLUSH PLASTIC LAMINATE DOOR W/ 3/4" SUBSTRATE BLOCKING AS REQ'D

- SCHEDULED BASE

A5 **BASE CABINET - INTEGRATED SINK** SCALE: 1 1/2" = 1'-0"

- 3/4" INTEGRAL NAILER, TYP

CONT IN WALL 2x6 WOOD BLOCKING

OR 6"x16_GA METAL BACKING

C4 TYP

A560

	SCHEDULE - DOOR AND FRAME														
DOOR FRAME															
DOOR			SIZE								HARDWARE		DOOR		
NUMBER	ROOM NAME	DOM NAME WIDTH HEIGHT THICK ELEV. TYPE MATERIAL FACING E					ELEV. TYPE	MATERIAL	FINISH	GROUP	NOTES	NUMBER			
212	MINOR PROCEDURE	72"	84"	1 3/4"	A	WD	STAIN	2	HM	PNT	1.0	LEAD LINED DOOR	212		
213	CONTROL (FLUOROSCOPY)	36"	84"	1 3/4"	A	WD	STAIN	1	HM	PNT	3.0		213		
214	EQUIPMENT	36"	84"	1 3/4"	A	WD	STAIN	1	HM	PNT	2.0		214		
220	WORKSTATION	36"	84"	1 3/4"	A	WD	STAIN	1	HM	PNT	3.0		220		

- AL = ALUMINUM

- SECURITY SYSTEM INSTALLER
- XX

	1. Design Criteria	a				G. Loc	ate all existing reinforce
	1.1. Governing Bi A. Risk Cate	uilding Code		al Building Code (IB	C)	reb H. Gro sur	ar or embeds while drill out all defective or abar rounding concrete com
	1.2. Floor Live Lo A. Intermou	ading Intain Standard	100psf Live Load	ł		exp I. Ca J. Ho	osed concrete. bon steel anchors are es for post-installed ar
	1.3. Earthquake A. Seismic l	Design Category	D			ins	allation instructions and
E	B. Spectral	Response Acceleration	S _{DS} = 1.043 g			5. Special In 5.1. The pr	s tructions oject specifications ar
_	2. Slotted Channe	el Framing (Strut)				comple details	mentary to them. Consi on the drawings shall ta
	2.1. Manufacturei Engineer app	r: Strut systems to be installed sl proved equal.	nall be as manufactured by	≀ Unistrut, Cooper B·	-Line, Inc. or	5.2. The ar suppler elemen	chitectural drawings a nentary to the architect ts of the consultants' dr
	2.2. Materials and A. Cold-forr B. Manufact	d Finish: ned to size from low carbon strip tured from raw steel in accordance	steel. se with:	22		procee Archite discrep	ling with any work invo ct without additional c ancy shall be done at tl
	1. 12 Ga 2. 14 Ga 3. 16 Ga 4. 19 Ga	auge sections: ASTM AS70 Grade auge sections: ASTM A570 Grade auge sections: ASTM A366 or AS	e 33 of ASTM A653 Grade e 33 or ASTM A653 Grade TM A653 Grade 33	33		5.3. The str and ov	uctural drawings shall b erall structural layout a
	C. Slotted C 1. Puncl A575.	Channel Fittings shall be: h press made from hot rolled, picl . A576. A635. or A36.	kled and oiled steel plates,	strip or coil, and co	nform to ASTM	archite equipm elemen	ctural layouts, alcoves ent, are not indicated v ts will require informat
_	2. Used 3. Free t D. Screws s	with fitting steel meeting the phys from scale with a smooth surface shall conform to SAE J429 Grade	sical requirement of ASTM 2 or ASTM A307.	A570 Grade 33.		5.4. Shoring	and Bracing Requirem
	E. Channel 1. Bolts a. 1/4	Nuts shall be: shall conform to the following AS 4" & 5/16" Diameter – A1011 SS	TM Standards: Grade 33.			A. The sha and	ll provide temporary sh I lateral support. Shor
	b. 3/8 c. 5/8 2. 7/8" C	8", 7/16" & 1/2" Diameter – A576 8" & 3/4" Diameter – A36 or A675 Diameter – A36 bolts shall be mad	Grade 1015 Modified Grade 60. chined/manufactured to me	eet the Unified Screv	w Thread Standard,	atta	ichments. The building
	3. Chan edge	of slotted channel framing.	z. after machining, assuring p steel meeting the minimur	positive biting action	into the inturned	for refe the Con Contrac	rence. These drawings ntractor of the responsi stor shall review and m
	SS Grad shall be r fittings ar	e 33, then painted with water bor manufactured from steel meeting nd hardware shall be zinc plated	n epoxy applied by a catho the minimum requirement in accordance with ASTM	odic electro-depositions of ASTM A907 SS B633 (SC3 for fitting	on process. Fittings 6, Grade 33. All gs, SC1 for threaded	Drawin 5.6. Proiect	gs made from reproduc Coordination: It shall b
	hardware G. Pre-galva A653 SS	e). anized Steel: Strut shall be made 5, Grade 33, and mill galvanized in	e from steel meeting the m n accordance with coating	inimum mechanical designation G90. F	properties of ASTM ittings shall be	all item the stru and sha	s that are to be integrat ctural system that are n III be coordinated with tl
D	manufac hardware	tured from steel meeting the mini e shall be zinc plated in accordan	mum requirements of AST ce with ASTM B633 (SC3	M A907 SS, Grade for fittings, SC1 for t	33. All fittings and threaded hardware).	Contrac 5.7. Contrac	tor. It is the Contractor
	2.3. References A. ASTMA [*] Pressed,	123 - Specification for Zinc (Hot-C , and Forged Steel Shapes, Plate	Salvanized) Coatings on P s, Bars, and Strip	roducts Fabricated f	from Rolled,	conditio 5.8. Notice	ns, Contractor shall no of Copyright: The stru
	B. ASTMAG C. ASTMA Alloy and D. ASTME	1011 - Specification for Steel, Sho High-Strength Low-Alloy with Im 1136 – Standard Specification for	eet and Strip, Hot-Coaled C eet and Strip, Hot-Rolled, (proved Formablility (Form Chromium/Zinc Corrosion	Carbon, Structural, F erly ASTM A570)	High-Strength Low-	Reavel purpos reserve	ey Engineers. Submissi es in connection with th d rights. The document
	E. ASTMAS Structura F. ASTMB6	907 - Standard Specification for S I Quality 633 - Specification for Electrodep	Steel, Sheet and Strip, Hea	Ivy-Thickness Coils,	Carbon, Hot-Rolled,	for one Contrac	use only. Furthermore stor or subcontractors for
	G. MFMA - H. AISI - An	Metal Framing Manufacturers As nerican Iron and Steel Institute	sociation			6. Quality As	surance
_	2.4. Quality Assu A. MFMA C "Metal Fr	rance compliance: Comply with the late: raming Standards Publication".	st revision of MFMA Stand	ards Publication Nu	mber MFMA-3,	6.1. Quality A. The qua	Assurance Agency Re Owner shall engage a lity assurance testing
_	B. Bolted fra code ide reports n	aming channels and fittings shall ntification number stamped in the nust be made available by the ma	have the manufacturer's n part itself for identification nufacturer upon request.	ame, part number, a n. Material certificat	and material heat ion sheets and test	offi 1.	cial to determine that th The QAA shall be obje being inspected. The a
	2.5. Delivery, Sto A. Deliver s install da	rage and Handling trut systems and components ca maged equipment	refully to avoid breakage, o	denting, and scoring	finishes. Do not	2.	in responsible charge p The QAA shall have ac calibrated.
	B. Store struct	ut systems and components in or tion traffic.	iginal cartons and in clean	dry space; protect f	from weather and	3.	and special inspection experience or training is
	2.6. Installation A. Install str equipme	rut in accordance with MFMA-102 nt manufacturer's recommendation	2 'Guidelines for the Use of ons, and with recognized ir	f Metal Framing'; in a ndustry practices.	accordance with	4.	The QAA shall send co
	B. All nuts a	and bolts shall be tightened to the Bolt Size Requi 1/4-20	following values: ired Torque (ft-lbs) M 6	ax Torque (ft-lbs) 7			conformance to the ap attention of the Contract the attention of the Arc
С		5/16-18 3/8-16 1/2-13	11 19 50	15 25 70	-	5.	The QAA shall submit a any discrepancies note official, Owner, Archited
		5/8-11 3/4-10	100 125	125 135		6.2. Contrac A. The	tor Responsibilities: Contractor shall subm
	C. All welds Code – S	to slotted channel framing memb Sheet Steel.	pers and fittings shall confo	orm to AWS D1.3, St	tructural Welding	ow sta or a	ner's authorized agent ement of special inspe- wareness of the specia
	 Structural Stee 3.1. Material: 	9				B. No be	ification of QAA: The C performed as outlined i
	A. Shapes a 3.2. Fabrication a	and Plates: ASTM A36 (Fy = 36 k and construction shall comply with	si), except as noted othen	vise Standards:		6.3. Structu A. The be	al Observations by the Engineer of Record w made on a periodic ba
_	A. Americar B. AISC 30 3.3 (last f	n Institute of Steel Construction (/ 3-16, "Code of Standard Practice two sentences of first paragraph)	AISC) 360-16, "Specification of or Steel Buildings and E , Section 4.4, Section 4.4.1	on for Structural Stee Bridges" excluding th , Section 4.4.2, Sec	el Buildings" he following: Section tion 4.5, and Section	B. Ob app	servation visits to the s roval of construction.
_	7.13.3 1. The a supple	irchitectural drawings are the prim ementary to the architectural drav	ne contract drawings. Cons wings. The structural drawi	ultants' drawings by ngs shall be used in	r other disciplines are a conjunction with the		
	inforn drawi C Americar	nation (including dimensions) of ngs. Refer to the Special Instruct	contained in architectural ions section of the general	, structural, and/or notes, below.	r other consultants'		
	3.3 Structural sh	ey conflict with the AISC requirem	ted from newly rolled (mi	led) one-niece sect	ions without splices		
	unless specif the structural	fically noted otherwise on the stru I drawings, unless written approva	al is given by the Structura	ons for structural ste I Engineer.	eel shall comply with		
	3.4. Welding: A. It is reco prior to b	mmended the steel erection con beginning any welds. A program	tractor and steel fabricato of joint preparation and we	r contact the Quality elding procedures sl	y Assurance Agency hould be worked out		
В	between B. Certificat specifica	the two parties before the weldin ion of Welders: All shop and field lly certified for the process of wel	g is started so that correct welding shall be executed ding being performed. The	welds will be made by AWS certified we welder's certification	from the beginning. Iders who have been on will be considered		
	as being exceedin Certificat	current unless the welder is not og six months or there is a spe tion and records must comply wi	engaged in the process cific reason to question th AWS Standards. Certifi	of welding being pe a welder's ability as cation and appropria	erformed for a period s required by AWS. ate records must be		
	provided C. Electrode D. Minimum	to the Architect prior to beginning es: E-70 XX or as noted otherwise Welds: All intersecting steel shap to determine stillet would size	g work. e. E60 XX may be used fo pes that are not bolted sha	r welding steel floor a Il be connected by a	and roof decks. fillet weld all around,		
	unloco n	ed parts for thicknesses 1/4" and I	arger. Fillet welds on plate	s less than 1/4" shal	I be of the same size		
	unless n connecte as the th	innest of the connected parts.					
	unless n connecte as the thi 4. Miscellaneous	innest of the connected parts.					
	unless n connecte as the thi 4. Miscellaneous 4.1. Post-Installed A. Anchorag	d Anchors in Concrete ge to hardened concrete shall ir	iclude all mechanical size	, quantity, spacing,	and embedment as		
	unless n connecte as the thi 4. Miscellaneous 4.1. Post-Installed A. Anchorag shown of installatio B. Special i evaluatio	d Anchors in Concrete ge to hardened concrete shall ir n the drawings. Additional ancho on. Inspection is required during the	iclude all mechanical size ors shall not be used with installation of all post-inst ince and Statement of Spe	, quantity, spacing, out approval from the called anchors. Refe	and embedment as he Engineer prior to er to applicable code		
	unless n connecte as the thi 4. Miscellaneous 4.1. Post-Installed A. Anchorag shown o installatic B. Special i evaluatio Structura C. Anchorag 1. All po	d Anchors in Concrete ge to hardened concrete shall ir n the drawings. Additional ancho on. Inspection is required during the on reports and the Quality Assura al Notes. ge to Concrete: Dost-installed anchors into harder	nclude all mechanical size ors shall not be used with installation of all post-inst ince and Statement of Spe ned concrete shall be se	, quantity, spacing, out approval from t alled anchors. Refe ecial Inspections sec lected from the foll	and embedment as he Engineer prior to er to applicable code ctions of the General lowing pre-approved		
	unless n connecte as the thi 4.1. Post-Installed A. Anchorag shown of installatio B. Special i evaluatio Structura C. Anchorag 1. All po produ	d Anchors in Concrete ge to hardened concrete shall ir n the drawings. Additional ancho on reports and the Quality Assura al Notes. ge to Concrete: ost-installed anchors into harder icts, unless noted otherwise: Steel Screw Anchor	nclude all mechanical size ors shall not be used with installation of all post-inst ince and Statement of Spe ned concrete shall be se Evaluation Repo	, quantity, spacing, out approval from th alled anchors. Refe ecial Inspections sec lected from the foll <u>rt</u>	and embedment as he Engineer prior to er to applicable code ctions of the General lowing pre-approved		
	unless n connecte as the thi 4. Miscellaneous 4.1. Post-Installed A. Anchorag shown o installatio B. Special i evaluatio Structura C. Anchorag 1. All po produ	d Anchors in Concrete ge to hardened concrete shall ir n the drawings. Additional ancho on. nspection is required during the on reports and the Quality Assura al Notes. ge to Concrete: ost-installed anchors into harder acts, unless noted otherwise: <u>Steel Screw Anchor</u> <u>Hilti KWIK HUS-EZ</u> <u>DeWalt Screw-Bolt+</u> <u>Simpson Titen HD</u>	include all mechanical size fors shall not be used with installation of all post-inst ince and Statement of Spe med concrete shall be se <u>Evaluation Repo</u> ICC ESR-3027 ICC ESR-3889 ICC ESR-2713	, quantity, spacing, out approval from th called anchors. Refe ecial Inspections sec lected from the foll	and embedment as he Engineer prior to er to applicable code ctions of the General lowing pre-approved		
	unless n connecte as the thi 4. Miscellaneous 4.1. Post-Installed A. Anchorag shown of installatio B. Special i evaluatio Structura C. Anchorag 1. All po produ	d Anchors in Concrete ge to hardened concrete shall ir n the drawings. Additional ancho on. Inspection is required during the on reports and the Quality Assura al Notes. ge to Concrete: Dost-installed anchors into harder locts, unless noted otherwise: Steel Screw Anchor Hilti KWIK HUS-EZ DeWalt Screw-Bolt+ Simpson Titen HD teel Expansion/Wedge Anchor Hilti KWIK Bolt TZ 2 DeWalt Power-Stud+ SD2	include all mechanical size fors shall not be used with installation of all post-inst ince and Statement of Spe med concrete shall be se <u>Evaluation Repo</u> ICC ESR-3889 ICC ESR-2713 Evaluation Repo ICC ESR-1917 ICC ESR-2502	, quantity, spacing, out approval from th called anchors. Refe ecial Inspections sec lected from the foll rt	and embedment as he Engineer prior to er to applicable code ctions of the General lowing pre-approved		
Α	unless n connecte as the thi 4. Miscellaneous 4.1. Post-Installed A. Anchorag shown of installatic B. Special i evaluatio Structura C. Anchorag 1. All po produ	d Anchors in Concrete ge to hardened concrete shall ir n the drawings. Additional ancho on. nspection is required during the on reports and the Quality Assura al Notes. ge to Concrete: ost-installed anchors into harder icts, unless noted otherwise: <u>Steel Screw Anchor</u> <u>Hilti KWIK HUS-EZ</u> <u>DeWalt Screw-Bolt+</u> <u>Simpson Titen HD</u> <u>teel Expansion/Wedge Anchor</u> <u>Hilti KWIK Bolt TZ 2</u> <u>DeWalt Power-Stud+ SD2</u> <u>Simpson Strong-Bolt 2</u>	include all mechanical size fors shall not be used with installation of all post-inst ince and Statement of Spe med concrete shall be se Evaluation Repo ICC ESR-3027 ICC ESR-3889 ICC ESR-2713 Evaluation Repo ICC ESR-2713 Evaluation Repo ICC ESR-2502 ICC ESR-2502 ICC ESR-3037	, quantity, spacing, out approval from the called anchors. Refe ecial Inspections sec lected from the foll rt	and embedment as he Engineer prior to er to applicable code ctions of the General lowing pre-approved		
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A	 unless n connecte as the thin connected as the thin conne	d Anchors in Concrete ge to hardened concrete shall ir n the drawings. Additional ancho on. nspection is required during the on reports and the Quality Assura al Notes. ge to Concrete: ost-installed anchors into harder locts, unless noted otherwise: <u>Steel Screw Anchor</u> <u>Hilti KWIK HUS-EZ</u> <u>DeWalt Screw-Bolt+</u> <u>Simpson Titen HD</u> <u>teel Expansion/Wedge Anchor</u> <u>Hilti KWIK Bolt TZ 2</u> <u>DeWalt Power-Stud+ SD2</u> <u>Simpson Strong-Bolt 2</u> e anchors or adhesives are permit d anchor product data and code the capacity of the specified anchor on of adhesive anchors horizonta ad by personnel certified by an ap unce tests in accordance with the nt. Proof of current certification permet of installed to the specification on the specification of the specification of the specification of the specification of the specification of adhesive anchors horizontal and the specification of the specification of the specification of the specification of the specification of the specification of the specification of the specification of the specification of the specification of the specification of the specification of the specification	aclude all mechanical size brs shall not be used with installation of all post-instance and Statement of Spectrum and concrete shall be se Evaluation Report ICC ESR-3027 ICC ESR-3027 ICC ESR-3027 ICC ESR-3029 ICC ESR-3027 ICC ESR-3027 ICC ESR-3037 Evaluation Report ICC ESR-2502 ICC ESR-3037 tted with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation report demont Ited with approval of the Ease evaluation r	, quantity, spacing, out approval from the called anchors. Reference ecial Inspections second lected from the foll rt	and embedment as he Engineer prior to er to applicable code ctions of the General lowing pre-approved actor shall submit the r is equivalent to or ension loads shall be ill include written and ification program, or r approval prior to		
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ate all existing reinforcement and embedded items prior to drilling into concrete elements. Do not damage par or embeds while drilling or installing anchors. out all defective or abandoned holes with non-shrink grout or an injectable epoxy adhesive matching the rounding concrete compressive strength. Consult the Architect for additional requirements at architecturally osed concrete.

bon steel anchors are limited to use in dry, interior locations. es for post-installed anchors may not be core drilled unless specifically allowed by the manufacturer's allation instructions and the code evaluation report.

structions

oject specifications are not superseded by the General Structural Notes but are intended to be mentary to them. Consult the specifications for additional requirements in each section. Notes and specific on the drawings shall take precedence over General Structural Notes and typical details.

chitectural drawings are the prime contract drawings. Consultant drawings by other disciplines are nentary to the architectural drawings. All omissions or conflicts, including dimensions, between the various ts of the consultants' drawings and/or specifications shall be brought to the attention of the Architect before ling with any work involved. In case of conflict, follow the most stringent requirement as directed by the t without additional cost to the Owner. Any work done by the Contractor after discovery of such ancy shall be done at the Contractor's risk.

uctural drawings shall be used in conjunction with the architectural drawings. Primary structural elements erall structural layout are indicated within the structural plans and details. Some secondary elements, stural layouts, alcoves, elevations, slopes, depressions, curbs, mechanical equipment and electrical ent, are not indicated within the structural drawings. Detailing and shop drawing production for structural ts will require information (including dimensions) contained in the architectural, structural and/or other ants' drawings.

and Bracing Requirements:

e General Contractor is responsible for the method and sequence of all structural erection. The Contractor Il provide temporary shoring and bracing as the method of erection requires to provide adequate vertical I lateral support. Shoring and bracing shall remain in place as the chosen method requires until all manent members are in place and all final connections are completed, including all roof and floor chments. The building shall not be considered stable until all connections are complete.

als: A copy of all shop drawings that have been submitted for review must be kept at the construction site rence. These drawings must bear the appropriate review stamps. The shop drawing review shall not relieve tractor of the responsibility of completing the project according to the contract documents. The General ctor shall review and mark all shop drawings prior to submitting them to the Architect for review. Shop gs made from reproductions of (these) contract drawings will be rejected.

Coordination: It shall be the responsibility of the General Contractor to coordinate with all trades any and s that are to be integrated into the structural system. Openings or penetrations through, or attachments to ctural system that are not indicated on these drawings shall be the responsibility of the General Contractor Il be coordinated with the Architect/Engineers. The order of construction is the responsibility of the General otor. It is the Contractor's obligation to provide all items necessary for the chosen procedure.

ctor shall field verify all dimensions, and conditions. If the contract drawings do not represent actual ons, Contractor shall notify Architect/Engineer prior to fabrication or construction within that area.

of Copyright: The structural drawings, plans, schedules, notes and details are hereby copyrighted by ey Engineers. Submission or distribution of documents to meet official regulatory requirements or for similar es in connection with the project is not to be construed as publication in derogation of Reaveley Engineers' d rights. The documents defining the structure are instruments of service prepared by Reaveley Engineers use only. Furthermore, these documents shall not be reproduced, or copied, in whole or in part by the tor or subcontractors for preparation of shop drawings or other submittals.

surance

Assurance Agency Requirements: Owner shall engage a qualified Quality Assurance Agency (QAA) to provide all special inspection and ality assurance testing for the project. The QAA shall provide all information necessary for the building cial to determine that the agency meets the applicable requirements. The QAA shall be objective, competent and independent from the Contractor responsible for the work being inspected. The agency shall disclose to the building official and the registered design professional in responsible charge possible conflicts of interest so that objectivity can be confirmed. The QAA shall have adequate equipment to perform required tests. The equipment shall be periodically

calibrated. The QAA shall employ experienced personnel educated in conducting, supervising and evaluating tests and special inspections. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of special inspection or testing activities for projects of similar complexity and material qualities.

The QAA shall send copies of all inspection and testing reports to the building official, Owner, Architect, Engineer and Contractor. Reports shall indicate that the work inspected was or was not completed in conformance to the approved construction documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the, Architect and Engineer. The QAA shall submit a final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests. The final report shall be distributed to the building

official, Owner, Architect and Engineer in a timely manner prior to the completion of the project. ctor Responsibilities: e Contractor shall submit a written statement of responsibility to the building official and the Owner or the

ner's authorized agent prior to the commencement of work on the systems or components listed in the ement of special inspections. The Contractor's statement of responsibility shall contain acknowledgement awareness of the special requirements contained in the statement of special inspections. tification of QAA: The Contractor shall notify the QAA in a timely manner so that inspection and testing may performed as outlined in the statement of special inspections.

ral Observations by the Engineer of Record. Engineer of Record will perform structural observations at critical phases of the project. Observations will

made on a periodic basis throughout the construction of the structural system. Copies of the Engineer's port will be distributed to the Architect, Contractor, Owner, and building official. servation visits to the site by the Engineer's field representatives shall not be construed as inspection or

7. Statement of Special Inspections

ltem

7.1. The following materials, systems and components require special inspection or testing per Chapter 17 of the International Building Code (IBC).

4

Frequency

7.2. For items requiring continuous inspection, a special inspector must be present onsite during the performance of that task. In most cases, periodic inspections/tests shall be performed prior to commencing the task, intermittently during the task, and at the completion of the task. Frequency marked with (E) designates periodic inspections that must be performed prior to or upon completion of every task.

Structural Steel per IBC Section 1705.2.1, 1705.12.1 & 1705.13.1

Verify welding procedures (WPS)	Periodic	
and consumable certificates	(E)	Verify type and grade of
Welder identification	Periodic	A system shall be ma welder who has welded a be identified.
Fit-up groove welds	Periodic	Verify joint prepar cleanliness, tacking, and
Access holes	Periodic	Verify configuration and
Fit-up of fillet welds	Periodic	Verify alignment, gaps a steel surfaces, and tag location.
During Welding (Table N5.4-2, Al	SC 360-16):	
Use of qualified welders	Periodic	Verify that welders are a
Control and handling of welding consumables	Periodic	Verify packaging and exp
Cracked tack welds	Periodic	Verify that welding do cracked tack welds.
Environmental conditions	Periodic	Verify wind speed is wi precipitation and tempera
WPS followed	Periodic	Verify items such as equipment, travel speed shielding gas type/flow r interpass temperature m position.
Welding techniques	Periodic	Verify interpass and fina is within profile limitation meets quality requirement
After Welding (Table N5.4-3, AIS	C 360-10):	
Welds cleaned	Periodic	Verify that welds have be
Size, length, and location of welds	Periodic (E)	
Welds meet visual acceptance criteria	Periodic (E)	Verify weld meets visua based upon crack prohib fusion, crater cross section size, undercut, and poros
Arc strikes	Periodic (E)	
Backing & weld tabs removed	Periodic (E)	
Repair activities	Periodic (E)	
Document acceptance or rejection of welded joint/member	Periodic (E)	
No prohibited welds	Periodic (E)	Verify no prohibited wel without approval of the E
ncrete Construction per IBC Section	ons 1705.3 &1705.12	
ltem	Frequency	Detailed Instructions
Post-installed mechanical anchors	Periodic	All post-installed anc special inspected in

Detailed Instructions

ype and grade of material. em shall be maintained by which a who has welded a joint or member can

joint preparation, dimensions, ess, tacking, and backing. nfiguration and finish. alignment, gaps at root, cleanliness of urfaces, and tack weld quality and

hat welders are appropriately qualified.

ackaging and exposure control. that welding does not occur over d tack welds.

wind speed is within limits as well as tation and temperature. items such as settings on welding nent, travel speed, welding materials, g gas type/flow rate, preheat applied,

s temperature maintained, and proper nterpass and final cleaning, each pass profile limitations, and each pass juality requirements.

hat welds have been properly cleaned.

weld meets visual acceptance criteria upon crack prohibition, weld/base-metal crater cross section, weld profiles, weld dercut, and porosity.

o prohibited welds have been added approval of the EOR.

post-installed anchors/dowels shall be cial inspected in accordance with the approved code evaluation report and with ACI Section 17.8.2.

PLAN LEGEND EXISTING STEEL COLUMN - TUBE ⊥ EXISTING STEEL COLUMN - WIDE FLANGE EXISTING STEEL BEAM OR GIRDER _____ EXISTING STEEL JOIST OR PURLIN ------ STEEL BEAM OR GIRDER STEEL JOIST OR PURLIN -----< — — — SLOTTED CHANNEL FRAMING DIAGONAL (BOTTOM) BRACE SLOTTED CHANNEL COLUMN Ц

	ABBREVIATIONS
<u>a</u>	AT
٨B	ANCHOR BOLT (S)
ABV	ABOVE
ALT .	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
	COMPLETE JOINT PENETRATION
	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER
D.B.	DECK BEARING
db	DIAMETER OF REINFORCING BAR
JBA	DEFORMED BAR ANCHORS
	DIAGONAL
DIM	DIMENSION
OK	DECK
ON	DOWN
DWG	DRAWING
DWL	DOWEL
E.F.	EACH FACE
Ξ.J.	EXPANSION JOINT (SEISMIC
- \	SEPARATION JOINT)
=.VV. - ^	EACH WAY
EA ENC	
=0	FQUAL
Equip	EQUIPMENT
EXIST (E)	EXISTING
=.V.	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GLB	GLU-LAMINATED BEAM
GR	GRADE
JSN	GENERAL STRUCTURAL NOTES
(
(IF	KIPS PER LINEAL FOOT
(SF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
BS	POUNDS
.d, Lt, Lsb,	SEE CONCRETE REINFORCING BA
sbt, Ldc, Lsc	DEVELOPMENT AND LAP LENGTH
	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NTS	NOT TO SCALE
D.C.	ON CENTER
OPP	OPPOSITE
PCF	POUNDS/CUBIC FOOT
ЪЪЪ	PARTIAL JOINT PENETRATION
PSF	POUNDS/SQ FOOT
251	POUNDS/SQ INCH
KEQU	
SUS SHT	SELF-DRILLING SUREVIS
SI	SPECIAL INSPECTION (SP_INSP.)
SIM	SIMILAR
STL	STEEL
STRUCT	STRUCTURAL
ΓΥΡ	TYPICAL
JNO	UNLESS NOTED OTHERWISE
/ERT	VERTICAL
N.P.	WORK POINT
/V/ ^^^/	
VVVF	

S	TRUCTURAL DRAWING LIST
SHT NO.	SHT NAME
S001	GENERAL STRUCTURAL NOTES, LE & ABBREVIATIONS
S101	FRAMING PLANS
S501	DETAILS

EXISTING BUILDING NOTES 1. THE CONTRACTOR SHALL FIELD VERIFY ALL

EXISTING CONDITIONS PRIOR TO DETAILING, FABRICATING, ERECTING OR INSTALLING ANY STRUCTURAL ELEMENT. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM IN A TIMELY MANNER SUCH THAT WORK WILL NOT BE DELAYED.

2. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING OF NEW STRUCTURE DURING CONSTRUCTION.

3. REPAIR FIREPROOFING WHERE DAMAGED DURING CONSTRUCTION.

4. FILL EXISTING EQUIPMENT HOLES IN FLOOR PER C4/S501 U.N.O.

TYPICAL NOTES AT NEW RECESSES

1. EXISTING COMPOSITE STEEL BEAMS W/ 5" LONG HEADED STUD ANCHORS OCCUR UNDER NEW RECESSES. MINIMUM COVER OVER EXISTING HEADED STUDS IS 1/2". TOTAL SLAB THICKNESS IS 6.1/2" THEREFOR RECESS SHALL NOT EXCEED 1".

2. PROTECT CONCRETE OVER METAL DECK FROM DAMAGE DURING INSTALLATION OF RECESSES. CONCRETE AND METAL DECK ACT COMPOSITELY. SEVER DAMAGE TO THE BOND BETWEEN THE CONCRETE AND METAL DECK WILL OCCUR IF EXCESSIVE VIBRATION OR IMPACT IS USED. DO NOT USE CHIPPING HAMMERS OR OTHER TOOLS THAT COULD CAUSE THE CONCRETE TO CRACK THROUGH OR DAMAGE THE BOND BETWEEN THE CONCRETE AND METAL DECK.

3. DO NOT OVER CUT RECESSES.

MEDICAL EQUIPMENT SUPPORT

1. VERIFY EQUIPMENT SUPPORT DIMENSIONS WITH MEDICAL EQUIPMENT VENDORS AND ARCHITECTURAL PRIOR TO FABRICATION.

2. DESIGN FOR SUPPORTS IS BASED OFF OF GE DRAWINGS SET REV# A DATED 05/11/2022

	5	
PIPING SYMBOLS		
CHILLED WATER RETURN		
CHILLED WATER SUPPLY		
REFRIGERANI-HUT GAS		
CW-SOFT COLD WATER		
CW FILTERED COLD WATER		
CO REVERSE OSMOSIS WATER		
HW HOT WATER		
HOT WATER 140°		
W-R HOT WATER RECIRCULATION		
V-R 140°. HOT WATER RECIRCULATION 140°		
— — GREASE VENT		
GREASE WASTE		
INDIRECT WASTE		
— — OIL VENT		
OIL WASTE		
PUMP DISCHARGE		
— — SANITARY VENT		
SANITARY SEWER		
SOLAR HOT WATER RETURN		
SOLAR HOT WATER SUPPLY		
ROOF DRAIN		
P 4" 2" PLUG REDUCING 45 DEGREE TEE		
45 DEGREE TEE		
E ACCESSORY TAGS		
2" M-CNTRL		
ER MOTORIZED CONTROL VALVE		
2" 3-WAY CNTRL 3 WAY MOTORIZED CONTROL		
VALVE		
PRESSURE REDUCING VALVE		
3/8" SOLENOID		
2" BUTTERFLY		
BUTTERFLY VALVE		
AIN TAGS		
AIN SIZE		
PE (SEE SCHEDULE) - 4" AD-6 - STATE AREA DRAIN		
4" RD-12 - FLOW CONTROL DRAIN		
ROOF AREA 6" RD-1 COMBINATION		
SERVED BY DRAIN - 4000 SF		
IG FIXTURE TAGS		
WC-1 1 WFU		
	* NOTE *	
	THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR M	AY NOT BE USED IN
	THE STIVIDULS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MA THIS SET OF DRAWINGS.	א וטאו דב USED IN

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FIRE PROTECTION GENERAL NOTES

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- 1. NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING AND PLUMBING TAKE SPACE PRECEDENCE OVER FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE FIRE PROTECTION CONTRACTORS EXPENSE.
- 2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
- COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
- 4. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.
- 5. PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. PROVIDE A COMPLETE WET TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. <u>REUSE EXISTING SYSTEM EQUIPMENT WHERE APPLICABLE.</u> THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
- 6. THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS.
- THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
- 8. PROVIDE A COMPLETE WET TYPE FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE FLOOR PLAN AND CEILING TYPES INCLUDING MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
- 9. THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA
- OBTAINED AT OR NEAR THE JOB SITE. 10. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD
- LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
 11. DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES
- INVOLVED WITH FIRE SPRINKLER SYSTEM.12. ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT
- PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.13. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
- 14. AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.
- 15. AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
- 16. AN INSPECTOR'S TEST CONNECTION SHALL BE PROVIDED FOR EACH FIRE SPRINKLER ZONE. THIS CONTRACTOR SHALL PROVIDE FIXED PIPING FROM THE TEST CONNECTION TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE TEST. (EXTERIOR DISCHARGE OF THE TEST CONNECTION SHALL BE PERMITTED ONLY BY SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER.)
- 17. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
- 18. FLOW TEST DATA FROM #/#/# INDICATES THE FOLLOWING: STATIC PRESSURE # PSI. RESIDUAL PRESSURE: # PSI AT ## GPM. THE HYDRANTS TESTED ARE APPROXIMATELY ### FEET AWAY FROM THE CENTER OF THE SITE LOCATED OFF THE ##"" WATER MAIN IN ## STREET AT AN ELEVATION OF ### FEET ABOVE SEA LEVEL. SEE CIVIL PLANS FOR HYDRANT LOCATION. THE CONTRACTOR SHALL PERFORM A FIRE FLOW TEST IN ACCORDANCE WITH NFPA 291 TO VERIFY THE FLOW TEST DATA GIVEN ABOVE. THE DATA GIVEN ABOVE SHALL BE THE BASIS OF DESIGN UNLESS THE AVAILABLE PRESSURE OR FLOW HAS DECREASED. NOTIFY OWNERS REPRESENTATIVE IF FLOW TEST DATA DIFFERS FROM THE DATA ABOVE. A FIRE PROTECTION ENGINEER OR AN ENGINEER EXPERIENCED IN WATER FLOW TESTING SHALL PERFORM OR WITNESS THE REQUIRED FLOW TESTING AND SIGN THE REPORT PRIOR TO THE FIRST SPRINKLER SYSTEM SUBMITTAL.
- 19. ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM. BRANCH LINE TO ENTER ROOM ABOVE DOOR.
- 20. THIS DRAWING INDICATES A GENERAL PIPING ARRANGEMENT AND SUGGESTED SIZING ONLY. THIS CONTRACTOR SHALL DETERMINE THE ACTUAL PIPE SIZING REQUIRED AND COORDINATE WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS.
- 21. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.

PLUMBING GENERAL NOTES

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- UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WAS MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPIN WITH LOCAL CODES.
- ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
- 3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
- 4. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
- 5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 4 DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
- 6. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
- CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
- 8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT I TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
- 9. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OT REQUIREMENTS.
- 10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INST FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
- 11. LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES.
- 12. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
- INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WAT HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
- 14. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIG FOR ACCESSIBILITY.
- 15. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURE
- RECOMMENDATION. 16. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS
- NECESSARY. 17. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH
- ARCHITECTURAL AND STRUCTURAL, TYPICAL.
- 18. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
- 19. HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY.
- 20. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIC PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
- 21. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
- 22. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
- 23. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
- 24. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING THE FOLLOWING.
- A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIF UNLESS LARGER CLEANOUT IS INDICATED.
- B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT LARGER PIPING.
- C. LOCATE AT THE BASE OF EACH VERTICAL STACK.

MEDICAL GAS GENERAL NOTES

- 1. MEDICAL GAS PIPING IS TO BE RUN ABOVE THE CEILING, UNLESS NOTED OTHERWISE.
- MEDICAL GAS PIPING IS SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
- 3. MOUNT ALL SERVICE VALVES NEAR CEILING HEIGHT FOR ACCESSIBILITY.
- 4. ALL SERVICE VALVES SHALL BE LOCKABLE. PROVIDE FRANGIBLE LOCK FOR ALL SERVICE VALV
- 5. ALL ZONE VALVE BOXES REQUIRE SOURCE AIR FROM LEFT SIDE AND CONTROLLED AIR FROM SIDE.

	MECHANICAL GENERAL NOTES		PROJECT GENERAL NOTES							
STE	1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES AND REGISTERS WITH ARCHITECTURAL	1.	THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.							
NG	REFLECTED CEILING PLAN, TYPICAL.	2.	REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.							
TER	 SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL. 	3.	THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYI CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENAN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VE							
	4. COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.		REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTO OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPO EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.							
12"	5. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.	4.	THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON T EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLAC BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FA CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SIT BIDDING, AND VERIEY ALL EXISTING SITE CONDITIONS, PROVIDE ALL MATERI							
E	 PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL. 		AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S AUTHORITY HAVING JURISDICTION.							
IS UP	 INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL. 	5.	WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVEI DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.							
HER	 DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION. DROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE 	6.	COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABL EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE							
STALL	 PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL. 	7.	THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXIS							
	 PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED. 		LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, A INVOLVED ON THIS PROJECT.							
TER	11. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.	8.	FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SH. REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLU TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, / PLUMBING CODE							
GHT	12. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.	9.	LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.							
ERS	13. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING	10. 11	ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF							
	 THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS 	11.	CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFO ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRIC MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, V PROVIDE PANS IF REQUIRED UNDER PIPING.							
	 ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE EQUIPMENT TAG TO MATCH SCHEDULE. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF 	12.	FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PEN AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFIC/							
R	 VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL. 16. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE 	13.	PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH WALLS, AND ROOF.							
ONS.	MINIMUM 24" X 24".	14.	TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPME							
	DIFFUSERS AND GRILLES IN HARD LID CEILINGS, THE DUCTWORK SHALLED IN CATHIN CEILINGS. TOR TO THE DIFFUSER AND SHALL BE CONNECTED WITH A HARD CONNECTION OR A FLEX DUCT CONNECTION WITH A MUD RING AND LAY-IN DIFFUSER AS SHOWN ON PLANS.	15. 16.	REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION (
	18. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.	17.	ANOTHER SIZE IS SHOWN. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON T							
TO	 PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION. WHERE THERE ARE HARD CEILINGS THE CONTRACTOR SHALL PROVIDE 24" X 24" ACCESS DOOR. 	18.	INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACT INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT V							
10	20. SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.	19.	MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVID							
PING	21. CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 5'-0" AFF, A MINIMUM OF 8" FROM LIGHT SWITCH, UNLESS OTHERWISE NOTED ON THE ARCHITECT'S ELEVATIONS. COORDINATE EXACT LOCATIONS WITH ARCHITECT.		WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTR PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACC							
T FOR	22. REFER TO MECHANICAL PIPING OR ZONING DRAWINGS FOR THERMOSTAT AND TEMPERATURE SENSOR LOCATIONS.	20. 21.	INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE L							
	23. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPINE SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.		APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUD TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT S WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTI PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, AL ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.							
	24. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUPMENT THAT IS FLOOR MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.	22.	THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIA CONTRACT DOCUMENTS.							
	25. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.	23.	IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, I WORK IN THIS AREA AND NOTIFY THE OWNER.							
	26. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.	24.	DETAILS REFERENCE ALL SHEETS.							
		25.	INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.							
	MECHANICAL PIPING GENERAL NOTES	26.	ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAI HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM NOTED OTHERWISE. REFER TO CIVIL PLANS.							
	 PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE. 	27.	LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATION ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCE 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMEN							
/ES.	 UNLESS OTHERWISE NOTED: ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE. 		THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAN BELOW THE CEILING ACCESS.							
RIGHT	3. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.	28.	WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PRO APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LO WITH ARCHITECT.							
	4. ALL VALVES SHALL BE INSTALLED SO THAT VALVES REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.	29.	CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CE VALVES ARE LOCATED.							
	5. PROVIDE AIR VENT AT HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING SYSTEM.									
	6. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION AND TAGGED.									

7. PROVIDE ISOLATION VALVES AT EACH EXIST/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.

8. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS. MOUNT

THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL PLANS OR SPECIFICATIONS.

KEYNOTES

1 EXISTING SHOWN LIGHT TO REMAIN. ITEMS CROSSED OUT TO BE REMOVED. CAP ALL UNUSED DUCTWORK. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.

KEYNOTES

EXISTING SHOWN LIGHT TO REMAIN. NEW WORK SHOWN DARK. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.

KEYNOTES

EXISTING SHOWN LIGHT TO REMAIN. ITEMS CROSSED OUT TO BE REMOVED. CAP ALL UNUSED PIPING. FIELD VERIFY EXISTING CONDITIONS. TYPICAL.

3

4

1

2

KEYNOTES

EXISTING SHOWN LIGHT TO REMAIN. NEW WORK SHOWN DARK. FIELD VERIFY EXISTING CONDITIONS. TYPICAL. CONNECT TO EXISTING PIPING AT APPROXIMATELY THIS POINT. FIELD VERIFY. TYPICAL.

6

- ROUTE PIPING TO FAN COIL UNIT PER MANUFACTURER SPECIFICATIONS.

FAN COIL SCHEDULE														
				AIR		FAN		COIL 2	ELECTRICAL	_		PHYSICAL		
				MAXIMUM	MINIMUM	EXTERNAL							LENGTH/	-
	MANUFACTURER			AIRFLOW	VENTILATION	STATIC	STATIC				MOTOR		WIDTH/	
	AND			RATE	AIR	PRESSURE	EFFICIENCY			FAN	SIZE		HEIGHT	
ID	MODEL NUMBER	LOCATION	TYPE	(CFM)	(CFM)	(IN. WATER)	(%)	MEDIUM	MEDIUM	QUANTITY	(HP)	VOLT/PH/HZ	(IN)	NOTES
FCU-1	MULTIAQUA MHQWW-36-H-1	EQUIPMENT ROOM	WALL MOUNT	850	0	0.24		WATER	WATER	1	1/12	230/1/60	56/14/8	1
FCU-2	MULTIAQUA MHQWW-36-H-1	EQUIPMENT ROOM	WALL MOUNT	850	0	0.24		WATER	WATER	1	1/12	230/1/60	56/14/8	1

1. MOUNT FAN COIL UNIT HIGH ON WALL TO NOT OBSTRUCT EQUIPMENT.

1

	FAN COIL, COIL SCHEDULE														
			AIR					HYDRON	С			PHYSICAL			
												MINIMUM			
						ENTERING	LEAVING		ENTERING/			NO.			
			AIRFLOW		SENSIBLE	TEMP.	TEMP.	FLOW	LEAVING		HEAD	ROWS/			
		USE	RATE	LOAD	LOAD	DB/WB	DB/WB	RATE	TEMP.	WORKING	LOSS	FINS PER			
ID	COIL #	TYPE	(CFM)	(BTU/H)	(BTU/H)	(°F)	(°F)	(GPM)	(°F)	FLUID	(FT)	INCH	NOTES		
CC-1	1	COOLING	850	34975	34975	80	50	9.5	45/55	WATER	24.7	3/18	1		
CC-2	2	COOLING	850	34975	34975	80	50	9.5	45/55	WATER	24.7	3/18	1		

2

1. COIL CORRESPONDS TO FAN COIL UNIT WITH SAME ID.

(1) ALL CAPACITIES AT 4,226 FT ELEVATION. (2) PRESSURE INDEPENDENT CONTROL VALVE. VALVE SHALL BE EQUIPPED WITH PRESSURE SWITCH. VALVE SHALL BE LOW PRESSURE VALVE WITH PRESSURE RANGE OF 0.3" W.C. - 3.0" W.C. (3) COIL AIR PRESSURE DROP RATED AT HEATING AIRFLOW. SUBMITTAL SHALL INCLUDE AIR PRESSURE DROP AT MAXIMUM SPECIFIED AIRFLOW. AIR PRESSURE DROP NOT TO EXCEED 0.4" W.G.; WATER PRESSURE DROP NOT TO EXCEED 5 FT HD (EXCEPT WHERE NOTED OTHERWISE).

										ALVES		ULE													
			SUPP	LY																	GENERAL	EXHAUST			
				AIR								FLUID					COIL								
				COOLING	HEATING		UNOCCUPIED		ENTERING	MINIMUM	S.P. LOSS		TOTAL	ENTERING/		MAX. FLUID			COIL					UNOCCUPIED	כ S.P. LOSS
		MANUFACTURER	INLET		MAXIMUM	MINIMUM	MINIMUM	AIRFLOW	AIR TEMP.	LEAVING	AT MAX	HEAT	FLUID	LEAVING		PRESSURE	MIN.	MIN.	SIZE	PIPE	INLET	MAXIMUM	MINIMUM	MINIMUM	AT MAX
AREA		AND	DIA.	AIRFLOW	AIRFLOW	AIRFLOW	AIRFLOW	DRIVING	DB	AIR TEMP.	CFM	LOAD	FLOW	FLUID TEMP.	WORKING	DROP	COIL	FINS	HxW	SIZE	DIA.	AIRFLOW	AIRFLOW	AIRFLOW	CFM
SERVED	ID	MODEL NUMBER	(IN)	(CFM)	(CFM)	(CFM)	(CFM)	FACTOR	(DEG. F)	(DEG. F)	(IN H20)	(MBH)	(GPM)	(DEG. F)	FLUID	(FT)	ROWS	(FPI)	(IN)	(IN)	(IN)	(CFM)	(CFM)	(CFM)	(IN H20)
CONTROL ROOM	SV-1	SIEMENS VENTURI VALVE V108LH	8	225	225	225	225	CONSTANT VOLUME	50	70	0.3	4.1	1.5	130/100	WATER	1	2	8	8X10	3/4					
PROCEDURE ROOM	SV-2	SIEMENS VENTURI VALVE V214LH	12	1050	1050	1050	1050	CONSTANT VOLUME	50	70	0.3	19.3	2.5	130/100	WATER	1	2	8	18X14	3/4					
	RV-1	SIEMENS VENTURI VALVE V112LH																			12	590	590	590	0.3
	RV-2	SIEMENS VENTURI VALVE V112LH																			12	590	590	590	0.3

ID	M
CD-1	
CD-2	
RG-1	
EG-1	
SWS-1	
SWR-1	

4

5

				FAN	SCHED	ULE								
				AIR			FAN			ELECTRICAL				PHYSICAL
				MAXIMUM		MAX		FAN						LENGTH/
	MANUFACTURER			AIRFLOW	STATIC	AIR	FAN	WHEEL	STATIC	MOTOR	MOTOR	MOTOR		WIDTH/
	AND			RATE	PRESSURE	TEMP.	SPEED	DIA.	EFFICIENCY	SIZE	BHP	SPEED		HEIGHT
ID	MODEL NUMBER	LOCATION	TYPE	(CFM)	(IN. H2O)	(°F)	(RPM)	(IN)	(%)	(HP)	(HP)	(RPM)	VOLT/PH/HZ	(IN)
RF-1	FANTECH FG 12XL CENTRIFUGAL INLINE FAN	PROCEDURE ROOM	IN-LINE MIXED FLOW	590	0.75	74	2809	12		0.5	0.4	2809	120/1/60	16/16/7

1. ON EMERGENCY POWER 2. INSTALL IN-LINE WITH RETURN AIR DUCTWORK

3

							VAV	BOX 2	CHEDU	JLE								
			AIR							FLUID (2)					COIL			
			COOLING	HEATING		ENTERING	LEAVING	S.P. LOSS	NC AT		TOTAL	ENT.		MAX. FLUID			BALANCING	
	MANUFACTURER	INLET	MAXIMUM	MAXIMUM	MINIMUM	AIR TEMP.	AIR TEMP.	AT MAX	1" H2O	HEAT	FLUID	FLUID		PRESSURE	MIN.	PIPE	VALVE	
	AND	SIZE	AIR (5)	AIR	AIR (3)	DB	DB	CFM (4)	(1)	LOAD	FLOW	TEMP	WORKING	DROP	COIL	SIZE	SIZE	
ID	MODEL NUMBER	(IN)	(CFM)	(CFM)	(CFM)	(DEG. F)	(DEG. F)	(IN H20)	S.P.	(MB)	(GPM)	(DEG. F)	FLUID	(FT)	ROWS	(IN)	(IN)	
V-1	TITUS-ESV-3	12	1160	696	325	55	95	0.65	26	39.7	2.5	130	H. WATER	1	2	3/4	3/4	
V-2	TITUS-ESV-3	12	1250		325													
V-3	TITUS-ESV-3	14	1845	1107	450	55	95	0.65	26	54.6	3	130	H. WATER	1	2	3/4	3/4	

1. MAXIMUM DISCHARGE NC AT BOX DIFFENTIAL PRESSURE BASED ON ARI STANDARD 880-89

2. COIL HEATING CAPACITY BASED ON HEATING MAIXIMUM AIR FLOW (60% OF MAXIMUM COOLING CFM). 3. MINIMUM CFM IS LOWEST CONTROLLABLE CFM SETTING (BASED ON 400 FPM INLET VELOCITY). 4. MAXIMUM STATIC PRSSURE DROP PERMISSABLE ACROSS BOX AND COIL AT MAXIMUM COOLING CFM.

5. BOX COOLING MAXIMUM IS THE SUM OF DIFFUSERS CFM VALUES AS SHOWN IN THE DRAWINGS. BOX MINIMUM CFM TO BE SET AT 30% OF THIS MAXIMUM. BOX HEATING CFM TO BE SET AT 60% OF THIS SAME MAXIMUM. TYPICAL UNLESS OTHERWISE NOTED. 6. PRESSURE INDEPENDENT TYPE BOX.

4

AIR CONTROL VALVE SCHEDULE

GRIL	LES, RE	GISTERS AND DIFFUSERS	
	MODEL	DESCRIPTION	
EH PRICE	SPD	FACE STYLE: SQUARE PLAQUE DIFFUSER FACE SIZE: 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE APPLICATION: ENGINEERED VAV SYSTEMS MATERIAL: STEEL FINISH: B12 WHITE POWDERCOAT	MOUNTING-FRAME: SURFACE OR LAY-IN, (C/W CEILING TYPE.) PATTERN: 360° RADIAL HORIZONTAL AIR PA DAMPER: OPPOSED BLADE MAX NC - 30 DAMPER: NONE REMOVABLE FACE
EH PRICE	LFD	LAMINAR FLOW DIFFUSER AIR VELOCITY LESS THAN 90 FPM	LFD LAMINAR FLOW DIFFUSERS 12" X 24", 24" x 24", 24" x 36" AND 24" x 48" SURFACE MOUNT, STAINLESS STEEL SEE DRAWINGS FOR SYSTEM CONFIGURATI
EH PRICE	PDDR	FACE STYLE: PERFORATED RETURN AIR UNIT FACE SIZE: 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. APPLICATION: AIR RETURN MATERIAL: STEEL FINISH: B12 WHITE POWDERCOAT	MOUNTING-FRAME: SURFACE OR LAY-IN, (C/W CEILING TYPE.) DAMPER: NONE MAX NC - 30 REMOVABLE FACE & CORE
EH PRICE	80	FACE STYLE: CRATE RETURN AIR UNIT FACE SIZE: 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE APPLICATION: PRESSURIZED AIR RETURN MATERIAL: ALUMINUM FINISH: B12 WHITE POWDERCOAT	MOUNTING-FRAME: SURFACE OR LAY-IN, (C/W CEILING TYPE.) DAMPER: OPPOSED BLADE MAX NC - 30 REMOVABLE FACE & CORE
EH PRICE	520S	FACE STYLE: DOUBLE DEFLECTION HIGH SIDEWALL SUPPLY REGISTER APPLICATION: CONSTANT VOLUME BLADE ORIENTATION: VERTICAL FRONT WITH REAR HORZONTAL ADJUSTABLE VANES, FRONT BLADES PARALLEL TO SHORT DIMENSION. MATERIAL: STEEL	FINISH: B12 WHITE POWDERCOAT FRAME: 1.25" BORDER MOUNTING: SURFACE PATTERN: ADJUSTIBLE DAMPER: NONE MAX NC - 30 CORE: REMOVABLE
EH PRICE	535 S	FACE STYLE: SIDE WALL RETURN AIR GRILLE ARRANGEMENT: STATIONARY HORIZONTAL BLADE ORIENTATION: 45 DEG DEFLECTION VANES SPACED AT 1/2 INCH CENTERS. FRONT BLADES PARALLEL TO SHORT DIMENSION. MATERIAL: STEEL FINISH: B12 WHITE POWDERCOAT	FRAME: 1.25 INCH FLAT / BORDER MOUNTING: SURFACE PATTERN: PERMANENT 45 DEGREE DEFLEC DAMPER: OPPOSED BLADE MAX NC - 30 REMOVABLE FACE & CORE

GENERAL MECHANI	ICAL SYMBOLS	PLUMBING AND PIPING SYMBOLS	4 PLUMBING GENERAL NOTES
# REVISION NUMB POINT WHERE N POINT WHERE E	BER - SHOWN ON PLANS IEW CONNECTS TO EXISTING EXISTING IS TO BE DEMOLISHED	CHWR—CHWR—CHILLED WATER RETURN CHWS—CHWS—CHILLED WATER SUPPLY CD—CD—CONDENSATE DRAINAGE	 UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPING WITH LOCAL CODES. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATE
- NUMBER OF DET NUMBER OF SHE 1 KEYNOTE	TAIL ON SHEET EET WHERE DETAIL APPEARS	CWR CONDENSER WATER RETURN CWS CONDENSER WATER SUPPLY GWR GEOTHERMAL WATER RETURN GWS GEOTHERMAL WATER SUPPLY	 ALL WORKDORE OF ALL DEPENDENT ON MEDIATION OF WATER FROM DAMAGING AREAS ON FLOORS BELOW. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
CONTINUATION Room 10 ROOM NAME AN		HWR HEATING WATER RETURN HWS HEATING WATER SUPPLY NG NG NG PROPANE GAS	 NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
ITEM TO BE DEN ITEM TO	MOLISHED	REF-L REFRIGERANT-LIQUID REF-S REFRIGERANT-SUCTION REF-HG REFRIGERANT-HOT GAS	 CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
A 1/8" / 12" SLOPE - F INVERT: -105' - 1"	ABOVE GROUND PIPING PIPE SLOPE TAG BELOW GROUND PIPING PIPE INVERT ELEVATION TAG	STM STEAM CORCUR CONDENSATE RETURN COMBINATION WASTE & VENT COMPRESSED AIR	 REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTAFLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
——————————————————————————————————————	EXISTING PIPE TAG PIPING BEING DEMOLISHED		 LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATE
ABBREVIA OUND BOVE IR CONDITIONING	LVR LOUVER LWT LEAVING WATER TEMPERATURE M/A MIXED AIR		 HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGH FOR ACCESSIBILITY.
REA DRAIN DDENDUM BOVE FINISHED FLOOR NNUAL FUEL UTILIZATION EFFICIENCY LTERNATE CCESS PANEL	MAX MAXIMUM MBH ONE THOUSAND BTU PER HOUR MCF ONE THOUSAND CUBIC FEET MD MOTORIZED DAMPER MECH MECHANICAL MFR MANUFACTURER		 INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE FER MANOFACTORER. RECOMMENDATION. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
RCHITECT/ARCHITECTURAL ELOW FINISHED FLOOR ELOW RITISH THERMAL UNITS RITISH THERMAL UNITS PER HOUR APACITY	MIN MINIMUM MISC MISCELLANEOUS MTR MOTOR MU/A MAKE-UP/AIR NC NOISE CRITERIA NC NORMALLY CLOSED	GREASE WASTE 	 COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
ATCH BASIN UBIC FEET PER MINUTE EILING LEAN OUT OLD WATER EGREE RY BUI B	NICNOT IN CONTRACTNONUMBERNONORMALLY OPENNTSNOT TO SCALEOOXYGENO/AOUTSIDE AIRORDOVERELOW ROOF DRAIN	PDPD	 HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATION PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
IAMETER OWN ISTILLED WATER ACH NTERING AIR TEMPERATURE LECTRICAL	PDPRESSURE DROPPIVPOST INDICATOR VALVEPLBGPLUMBINGPRESSPRESSUREPRVPRESSURE REDUCING VALVEPSIPOUNDS PER SQUARE INCH	SHWSSHWS	 FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS. WASTE AND VENT DIDING RELIGING FOR DAND THROUGH ELOOP TO DE 21 MINIMUM.
QUIPMENT LECTRIC WATER COOLER NTERING WATER TEMPERATURE XHAUST AIR XISTING EGREES FAHRENHEIT	PSIG POUNDS PER SQUARE INCH GAUGE PWR POWER R DUCT RISER R/A RETURN AIR RCP RADIANT CEILING PANEL RD ROOF DRAIN	HE	 23. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2 MINIMUM. 24. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING. A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING
LOOR CLEAN OUT LOOR DRAIN IRE DAMPER IRE DEPARTMENT VALVE LOOR JEL OIL	RECRECESSEDREDREDUCERRHRELATIVE HUMIDITYRL/ARELIEF AIRRMROOMRPMREVOLUTIONS PER MINUTE	MV MEDICAL VACUUM N2 NITROGEN N2O NITROUS OXIDE OX OXYGEN	 B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT F LARGER PIPING. C. LOCATE AT THE BASE OF EACH VERTICAL STACK.
UEL OIL VENT UEL OIL RETURN UEL OIL SUPPLY EET PER MINUTE LOOR SINK DOT/FEET	RWRAIN WATERSFSQUARE FOOTS/ASUPPLY AIRSANSANITARYSFSQUARE FOOTSDSMOKE DAMPER		MEDICAL GAS GENERAL NOTES
N TUBE RADIATION ALLON ENERAL CONTRACTOR ALLONS PER MINUTE REASE WASTE OSE BIB	SM SURFACE MOUNT SP STANDPIPE SP STATIC PRESSURE STM STEAM T THERMOSTAT TD TEMPERATURE DROP	PIPE RISE PIPE TEE CAP PIPE TEE 4"	 MEDICAL GAS PIPING IS TO BE RUN ABOVE THE CEILING, UNLESS NOTED OTHERWISE. MEDICAL GAS PIPING IS SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES. MOUNT ALL SERVICE VALVES NEAR CEILING HEIGHT FOR ACCESSIBILITY.
ORSE POWER EATING EATER OT WATER YDRANT IDIRECT ICH	TDRTRENCH DRAINTEMPTEMPERATURETYPTYPICALUGUNDERGROUNDVACVACUUMVVENTVAVVARIABLE AIR VOLUME	PIPE ACCESSORY TAGS 2" DOM. WM 	 ALL SERVICE VALVES SHALL BE LOCKABLE. PROVIDE FRANGIBLE LOCK FOR ALL SERVICE VALVES ALL ZONE VALVE BOXES REQUIRE SOURCE AIR FROM LEFT SIDE AND CONTROLLED AIR FROM RI SIDE.
IVERT OUND OUNDS PER HOUR EAVING AIR TEMPERATURE OW PRESSURE QUEFIED PETROLEUM GAS	VENT VENTILATION VTR VENT THROUGH ROOF W WASTE WB WET BULB WCO WALL CLEAN OUT WH WALL HYDRANT	2" BALANCING BALANCING VALVE 2" SHUTOFF 1/4 TURN BALL VALVE 2" CHECK CHECK VALVE 2" TMV 2" TMV 2" BUTTERELY	
PLUMBING AND PIP	PING SYMBOLS		
PLUMBING FIXTURE E (SEE SCHEDULE) FIXTURE UNIT OSET - G - ADA WC-1A WC-1A WC-1	E TAGS LAV-1A TS 1.5 CWFU 1.5 HWFU LAV-1A 1 WFU U-1 0 0 0 0 0 0 0 0 0 0 0 0 0	DRAIN TAGS DRAIN SIZE FLOOR DRAIN • 4" FD-1 TYPE (SEE SCHEDULE) • 4" AD-6 • AREA DRAIN FLOOR DRAIN • 4" FD-3P "P" - INDICATES PRIMER CONNECTION FLOOR SINK • 4" FD-3P "P" - INDICATES PRIMER CONNECTION HUB DRAIN • 4" FD-13 8 WFU • FIXTURE UNITS FLOOR DRAIN • 6" RD-1 • COMPLIMATION	
4" WCO	4" WCO	SERVED BY DRAIN - 4000 SF ORAINS	

PLUMBING GENERAL NOTES

I, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP ELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING. DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER

NNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL WIDE SIDE OF ALL FIXTURES.

ALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. ANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE ESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL.

NAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING EANOUT IS INDICATED.

I INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR

MEDICAL GAS GENERAL NOTES

L BE LOCKABLE. PROVIDE FRANGIBLE LOCK FOR ALL SERVICE VALVES. EQUIRE SOURCE AIR FROM LEFT SIDE AND CONTROLLED AIR FROM RIGHT 1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.

2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.

3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.

4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.

5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.

6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.

7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.

8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.

9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.

10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.

11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.

12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.

13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.

14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.

15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.

16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.

17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.

18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.

19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.

20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS. 21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. INCLUDING. BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT,

PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.

22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.

23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.

24. DETAILS REFERENCE ALL SHEETS.

25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.

26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.

27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.

28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.

29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

KEYNOTES

DEMOLISH SINK AND FAUCET, INCLUDING FOOT CONTROLS. EXISTING WATER, WASTE AND VENT TO REMAIN FOR FUTURE FIXTURE INSTALLATION. DEMOLISH PLUMBING FIXTURES, WATER, WASTE AND VENT PIPING SHOWN CROSSED-OUT BACK TO MAINS AND CAP.

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KEYNOTES

 NEW CONNECTIONS TO EXISTING PLUMBING SYSTEMS.
 EXISTING WASTE LINE LOCATED IN CEILING SPACE OF LEVEL BELOW. FIELD COORDINATE EXACT LOCATION.
 EXTEND NEW WASTELINE THROUGH CEILING SPACE OF LEVEL BELOW. FIELD COORDINATE ROUTING.

6

KEYNOTES

DEMOLISH MED GAS PIPING AND OUTLETS SHOWN CROSSED OUT. DEMOLISH PIPING BACK TO MAINS AND CAP.

KEYNOTES

1 DROP MED GASES SHOWN TO CEILING SPACE OF LEVEL BELOW THROUGH WALL. 2 EXTEND MED GASES SHOWN THROUGH CEILING SPACE OF LEVEL BELOW AND RISE TO THIS LEVEL AT UTILITY PEDESTAL UNDER PATIENT TABLE.VV

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PIPE INSULATION

UNISTRUT P-5000 CHANNEL TO SPAN OPENING. TWO PER PIPE.	
SHAFT OPENING	G

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NOTES: 1. TYPICAL SUPPORT AT EACH FLOOR. FOR MULTIPLE PIPES INSTALL CHANNELS IN PARALLEL AND PROVIDE ADDITIONAL FRAMING. SIZES OF FRAMING MEMBERS AS REQUIRED TO SUPPORT TOTAL WEIGHT OF PIPE. 3. INSULATE CLAMP AT CHILLED WATER PIPE ONLY. 5 PIPE RISER SUPPORT DETAIL

MOUNTING HEIGHTS UNLESS NOTED OTHERWISE

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6 MEDICAL GAS MOUNTING HEIGHT DETAIL

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	PLUMBING FIXTURE SCHEDULE												
		CW	HW	W	V								
ID	FIXTURE	(IN)	(IN)	(IN)	(IN)	NOTES	SPECIFICATION						
L-1	LAVATORY	1/2	1/2	1 1/2	1 1/2	WALL HUNG, GOOSENECK FAUCET	LAVATORY: KOHLER K2030, GREENWICH, 20" X 18", VITREOUS CHINA, WITH FRONT OVERFLOW, 4" CENTERS. CHICAGO 786-GN2FCXKABCP FACUET, WITH WRIST BLADE HANDLES, GN2 RIGID/SWING GOOSENECK SPOUT WITH 0.5 GPM LAMINAR FLOW CONTROL IN SPOUT INLET. WATTS LFUSG-B-M2 THERMOSTATIC MIXING VALVE WITH SLOAN BASYS ETF-470-A SINGLE CHECKS IN HOT AND COLD SUPPLIES. FLEXIBLE STAINLESS STEEL SUPPLIES WITH WITH LOOSE KEY ANGLE STOPS. CHICAGO 327-XCP OPEN-GRID STRAINER AND CAST BRASS P-TRAP WITH CLEAN OUT PLUG. SMITH 0700-Z CONCEALED ARM CHAIR CARRIER WITH FOOT SUPPORT. PROVIDE ADA COMPLIANT UNDER COUNTE						
S-1	SINK	1/2	1/2	2	1 1/2	INTEGRAL BASIN BY OTHERS, GOOSENECK FAUCET	SINK (BASIN INTEGRAL TO COUNTERTOP): CHICAGO 786-GN8FCXKABCP FACUET, WITH WRIST BLADE HANDLES, GN8FC 8" RIGID/SWING GOOSENECK SPOUT WITH 1.5 GPM LAMINAR FLOW CONTROL IN SPOUT. FLEXIBLE STAINLESS STEEL SUPPLIES WITH WITH LOOSE KEY ANGLE STOPS. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS; CHICAGO 327-XCP OPEN-GRID STRAINER AND CAST BRASS P-TRAP WITH CLEAN OUT PLUG. PROVIDE ADA COMPLIANT UNDER COUNTER PIPING WRAP BY TRUE-BRO, COLOR TO BE WHITE.						
1. ALL UNDER	GROUND WASTE AND V	ENT SHALL	BE 2" C			R DRAWINGS.							

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		# OF					PIPE							
SYMBOL	ROOM TYPE	ох	МА	MV	WAGD	N2O	ox	MA	MV	WAGD	N2O	REMARKS		
MO-1	MINOR PROCEDURE 212	1	1	1	1	1	1/2	1/2	3/4	3/4	1/2	1,2		
MO-2	MINOR PROCEDURE 212	1	1	1			1/2	1/2	3/4					
UNI ESS	NOTED OTHERWISE ALL OUTLETS A	RE CHEMET	RON-STYLE		NNECTS		•							

1. PIPE DROP SIZES ARE FOR ONE SET OF OUTLETS. 2. WALL MOUNTED OUTLETS.

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	MEDICAL G	GAS VA	LVE S	SCHE	DULE					
PIPE SIZE										
SYMBOL	AREA SERVED	ох	MA	M∨	WAGD	N2O	REMARKS			
MV-1	MINOR PROCEDURE 212	3/4	3/4	1	1	3/4	1			
1. WITH GAU	IGES		•							

MEDICAL GAS ALARM PANEL SCHEDULE												
			SERVICES TO BE MONITORED									
	STATIONS											
SYMBOL	MONITORED	LOCATION	ОХ	MA	MV	WAGD	N2O	REMARKS				
MA-1	MV-1	CONTROL 213	Х	Х	Х	Х	Х	1				

1. COORDINATE EXACT LOCATION WITH ARCHITECTURAL

MEDICAL GAS OUTLETS SCHEDULE

	SYMBOLS EGEND
SYMBOL	DESCRIPTION
REFERENC	E AND LINE SYMBOLS
A5 E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
45 E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
ROOM NAME	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
	KEYNOTE INDICATOR.
	REVISION INDICATOR.
CU-1	EQUIPMENT INDICATOR.
X-X XMDP	MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
\sim	BREAK, ROUND
MATCH LINE SEE XX/X-XXX	MATCH LINE INDICATOR: CENTER, EXTRA WIDE LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
	PROPERTY LINE: DASHED, WIDE LINE.
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
XXX EF-X	ELECTRICAL EQUIPMENT INDICATOR. "XXX" INDICATES TYPE OF EQUIPMENT OR EQUIPMENT ID. "EF-X" IDENTIFIES MECHANICAL EQUIPMENT BEING SERVED. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
<u>X-X</u> 1LA-3	EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "1LA-3" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
WIRING ME	THODS
	WIRING.
	WIRING TURNED UP OR TOWARDS OBSERVER.
	WIRING TURNED DOWN OR AWAY FROM OBSERVER.
A-1	SINGLE BRANCH CIRCUIT HOME RUN TO PANELBOARD WITH DEDICATED NEUTRAL CONDUCTOR. LETTER AND NUMBER NOTATION IDENTIFY PANEL AND CIRCUIT NUMBER.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS.
1 -1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
+	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
[1]	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER
(HC)	ADA ACCESS PUSH PLATE
	JUNCTION BOX.
Øc	JUNCTION BOX, CEILING.
Øer	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION
- 30 Øer	JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION
PB	PULL BOX.
A"xB" +/-C'-D"	CABLE TRAY ABOVE ACCESSIBLE CEILING. "A" DENOTES CABLE TRAY WIDTH, "B" DENOTES CABLETRAY DEPTH. +/-C'-D" DENOTES CABLE TRAY ELEVATION ABOVE OR BELOW FINISHED SURFACE.
	LADDER RACK.
	CABLE J-HOOKS ABOVE ACCESSIBLE CEILING.
	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMENT
	SCHEDULE FOR REQUIREMENTS. ELECTRIC VEHICLE CHARGING STATION.
	GROUND BUSBAR. REFER TO GROUNDING RISER DIAGRAM FOR ADDITIONAL INFORMATION.

SYMBOL DESCRIPTION **WIRING DEVICES** RECEPTACLE, SINGLE: NEMA 5-20R. D RECEPTACLE, DUPLEX: NEMA 5-20R. D RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R. ΦA RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R. Фc RECEPTACLE, DUPLEX, DEDICATED CIRCUIT: NEMA 5-20R. ФD RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE ⊕ DF MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS. RECEPTACLE, DUPLEX, ISOLATED GROUND: NEMA 5-20R. Φıg RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R. ₽ RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE": ₩ NEMA 5-20R RECEPTACLE, DUPLEX, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R. Ō RECEPTACLE, DUPLEX, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. • RECEPTACLE, DUPLEX, CONNECTED TO UPS: NEMA 5-20R. RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R. ⊕ RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT ⊕ WP | INTERRUPTER, WEATHERPROOF: NEMA 5-20R. RECEPTACLE, DUPLEX, RECESSED: NEMA 5-20R. RECEPTACLE, DUPLEX, SWITCHED, RECESSED: NEMA 5-20R. Шs RECEPTACLE, QUADRAPLEX: NEMA 5-20R. ⊕ RECEPTACLE, QUADRAPLEX ON EMERGENCY **•** POWER: NEMA 5-20R. RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. -RECEPTACLE, QUADRAPLEX, CONNECTED TO UPS: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT € INTERRUPTER: NEMA 5-20R. RECEPTACLE. SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG. \otimes RECEPTACLE, SPECIAL PURPOSE ON EMERGENCY POWER. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG. RECEPTACLE, DRYER: NEMA 14-30R. ₩D RECEPTACLE, RANGE: NEMA 14-50R. ₿R MULTI-OUTLET ASSEMBLY: NEMA 5-20R. (D) DROP CORD. SEE DETAIL. THERMOSTAT. FLUSH FLOOR BOX. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL FB# SPECIFICATIONS FOR CONFIGURATION AND DEVICES. POWER POLE. "#" SHOWN ON DRAWINGS. REFER TO WIRING PP# DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES. FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS. PT# REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES. SWITCH, DIMMER. SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED). SWITCH, DOUBLE POLE ("x" INDICATES FIXTURES CONTROLLED). SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED). SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED). SWITCH, DOOR. \$DS SWITCH, KEY OPERATED. \$K SWITCH, PILOT LIGHT. \$P SWITCH, TIMER OPERATED. <u>\$т</u> SWITCH, WEATHERPROOF. \$WP RECEPTACLE, DUPLEX, TAMPER RESISTANT: NEMA 5-20R. Φт RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. € RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: -NEMA 5-20R. RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, CONNECTED TO UPS: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) INDICATES A RECEPTACLE IS AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)

SYMBOLS LEGEND

SYMBOL	STIVIBULS LEGEND DESCRIPTION
ITE ELEC	TRICAL AND COMMUNICATIONS UTILITIES
—3ØUP—	ELECTRIC LINE: THIN LINE. 1Ø = SINGLE PHASE, 2Ø = 2-PHASE, 3Ø = 3-PHASE, O = OVERHEAD, U = UNDERGROUND, P = PRIMARY, S = SECONDARY
0 @	LIGHTNING ARRESTOR.
-0-	UTILITY POLE.
	UTILITY, DISTRIBUTION SWITCH OR SWITCHING STATION.
	UTILITY, PRIMARY ELECTRICAL HAND HOLE.
M	UTILITY SERVICES, MANHOLE.
E	PRECAST CONCRETE, ELECTRICAL VAULT.
 	PRECAST CONCRETE, TELEPHONE VAULT.
 [TM]	PRECAST CONCRETE, MANHOLE, TRANSFORMER VAULT.
TP	PRECAST CONCRETE, TRANSFORMER PAD.
 	HAND HOLE.
S	SUBSTATION.
Т	TRANSFORMER.
ELECTRICA	AL POWER AND DISTRIBUTION
	FUSE WITH RATING (ONE-LINE DIAGRAM).
7	DISCONNECT, FUSED (ONE-LINE DIAGRAM)
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
$\sum_{i=1}^{n}$	
F	
Ţ	DISCONNECT WITH FUSE AND MOTOR STARTER COMBINATION (ONE-LINE DIAGRAM).
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<u> </u>	
Ę	STARTER (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
▼ I 	
	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER ADJUSTABLE TRIP. "2254E" REPRESENTS
(* #AF #AT	THE RATING AND "150AT" REPRESENTS THE TRIP SETTING. (ONE-LINE DIAGRAM).
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┌╶(└╍╋┓	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).
d	CIRCUIT BREAKER, SOUD STATE WITH GROUND FAULT
「 弋 └── GFP	PROTECTION (ONE-LINE DIAGRAM).
\sim	MOTOR.
m	
-3 E-	TRANSFORMER, CURRENT (ONE-LINE DIAGRAM).
<u>+</u>	BATTERY (ONE-LINE DIAGRAM).
→	CAPACITOR (ONE-LINE DIAGRAM).
	DELTA CONNECTION (ONE-LINE DIAGRAM).
	WYE CONNECTION (ONE-LINE DIAGRAM).
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	DISTRIBUTION PANELBOARD, MOTOR CONTROL CENTER,
	PLUG-IN BUSWAY, MEDIUM VOLTAGE SWITCHBOARD (ONE-LINE DIAGRAM).
"1H"	
	PANELBUARD (UNE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS
	SHOWN (ONE-LINE DIAGRAM).
)225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS
225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
•)225/3 "1H" •)225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H" 225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM). PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).

	SYMBOLS LEGEND
SYMBOL	DESCRIPTION
ELECTRICA	AL POWER AND DISTRIBUTION
225/3 "1H" ••••••••••••••••••••••••••••••••••	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" 225/3 "1H"	PANELBOARD WITH SUB FEED LUGS (ONE-LINE DIAGRAM).
)225/3 "1H" "1H"	PANELBOARD WITH CIRCUIT BREAKER AND SUB FEED LUGS (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	TRANSFER SWITCH (ONE-LINE DIAGRAM).
	DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
<u> </u>	EARTH GROUND (ONE-LINE DIAGRAM).
•	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
-\$	GENERATOR, ANNUNCIATOR (ONE-LINE DIAGRAM).
	PUSH BUTTON. REMOTE EMERGENCY STOP.
EPO	
G	GENERATOR, POWER (ONE-LINE DIAGRAM).
K	KIRK-KEY MECHANICAL INTERLOCK (ONE-LINE DIAGRAM)
M	METER.
BBF	BROAD BAND FILTER (ONE-LINE DIAGRAM).
	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
×η	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
Ŀ	
	PANELBOARD CABINET, FLUSH MOUNTED.
<u>r77</u>	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
~~~~	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
	DISTRIBUTION PANEL OR SWITCHBOARD. LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
	DISTRIBUTION PANEL OR SWITCHBOARD. LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE. SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD
DP# LP \$ST	DISTRIBUTION PANEL OR SWITCHBOARD. LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE. SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
DP# LP \$ST	DISTRIBUTION PANEL OR SWITCHBOARD. LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE. SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION. TRANSFORMER (SEE ONE-LINE FOR SIZE)
DP# LP \$ST	DISTRIBUTION PANEL OR SWITCHBOARD. LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE. SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION. TRANSFORMER (SEE ONE-LINE FOR SIZE) BUSWAY.
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DP#	DISTRIBUTION PANEL OR SWITCHBOARD. LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE. SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION. TRANSFORMER (SEE ONE-LINE FOR SIZE) BUSWAY. RELAY CONTACT, NORMALLY CLOSED (ONE-LINE DIAGRAM). RELAY CONTACT, NORMALLY OPEN (ONE-LINE DIAGRAM).
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	ABBREV	IAT	IONS
	NOTE: ALL ABBREVIAT	IONS MA	Y NOT BE USED.
1P 1PH 1WAY	SINGLE POLE SINGLE-PHASE ONE-WAY	kVA kVAR kW	KILOVOLT AMPERE KILOVOLT AMPERE REACTIVE KILOWATT
2/C 2WAY 3/C 3WAX	TWO-CONDUCTOR TWO-WAY THREE-CONDUCTOR	kWh LED LFMC	KILOWATT HOUR LIGHT EMITTING DIODE LIQUID TIGHT FLEXIBLE METAI CONDUIT
40UT	QUADRUPLE RECEPTACLE OUTLET	LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
4PDT 4PST	FOUR-POLE DOUBLE THROW FOUR-POLE SINGLE THROW	LPS LRA	LOW PRESSURE SODIUM LOCKED ROTOR AMPS
4W 4WAY	FOUR-WIRE FOUR-WAY	LTG LV	LIGHTING LOW VOLTAGE
A AC	ABOVE COUNTER ARMORED CABLE	MAIV	MASTER ANTENNA TELEVISIO SYSTEM
ADA	AMERICANS WITH DISABILITIES	MCA	METAL CLAD MINIMUM CIRCUIT AMPS
AFF	ABOVE FINISHED FLOOR	MCB	
AFG AIC	ABOVE FINISHED GRADE AMPERE INTERRUPTING CAPACITY	MCP MDP	MOTOR CIRCUIT PROTECTION MAIN DISTRIBUTION PANEL
alum Amp	ALUMINUM AMPERE	MG MH	MOTOR GENERATOR MANHOLE
ANN AP	ANNUNCIATOR ACCESS POINT (WIRELESS DATA)	MIN MLO	MINIMUM MAIN LUGS ONLY MAXIMUM OVERCURRENT
AR ASC	AS REQUIRED AMPS SHORT CIRCUIT	MTS	PROTECTION MANUAL TRANSFER SWITCH
ATS	AUTOMATIC TRANSFER SWITCH	NA NC	NOT APPLICABLE NORMALLY CLOSED
AV	AUDIO VISUAL	NEC	NATIONAL ELECTRICAL CODE

BB

XFMR

BFF

AWG AMERICAN WIRE GAGE

BUCK-BOOST TRANSFORMER

BELOW FINISHED FLOOR

BFG BELOW FINISHED GRADE CEILING MOUNTED CAT CATEGORY CATV COMMUNITY ANTENNA TELEVISION CIRCUIT BREAKER CB CCBA CUSTOM COLOR AS SELECTED OC BY ARCHITECT CCTV CLOSED CIRCUIT TELEVISION CF/CI CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED CF/OI CONTRACTOR FURNISHED/ OWNER INSTALLED CFBA CUSTOM FINISH AS SELECTED BY ARCHITECT CKT CIRCUIT CONSTRUCTION MANAGER CM CND CONDUIT CONVENIENCE OUTLET CO CONTRACTING OFFICER'S COR REPRESENTATIVE CONTROL PANEL CP CT CURRENT TRANSFORMER CABLE TELEVISION CTV CU COPPER UNIT OF SOUND LEVEL dBA DPDT DOUBLE POLE, DOUBLE THROW DISCONNECT SWITCH DS ENHANCED EA EACH EM EMERGENCY EMT ELECTRICAL METALLIC TUBING ELECTRIC NONMETALLIC ENT TUBING EPO EMERGENCY POWER OFF EQUIP EQUIPMENT ER EQUIPMENT ROOM EXISTING ΕX FURNITURE MOUNTED FA FIRE ALARM FCP FIRE ALARM CONTROL PANEL FLA FULL LOAD AMPS FMC FLEXIBLE METAL CONDUIT FOB FREIGHT ON BOARD FPP FIBER PATCH PANEL FVNR FULL VOLTAGE NON-REVERSING FVR FULL VOLTAGE REVERSING GEN GENERATOR GFCI GROUND FAULT INTERRUPTER GFP GROUND FAULT PROTECTION GIG GIGA HERTZ GND GROUND HEAVY DUTY HD HID

HIGH INTENSITY DISCHARGE HOA HAND-OFF-AUTOMATIC HORSE POWER HIGH POWER FACTOR HIGH PRESSURE SODIUM HIGH VOLTAGE HWM HORIZONTAL WIRE MANAGEMENT HERTZ INPUT/ OUTPUT ISOLATED GROUND INTERMEDIATE METAL CONDUIT IN/IS INSULATED/ ISOLATED INFRARED J-BOX JUNCTION BOX

HP

HPF

HPS

HV

I/O

IG

IMC

IR

kV KILOVOLT

WATT HOUR T EMITTING DIODE D TIGHT FLEXIBLE METAL D TIGHT FLEXIBLE METALLIC CONDUIT PRESSURE SODIUM KED ROTOR AMPS TING VOLTAGE TER ANTENNA TELEVISION MUM CLAD /UM CIRCUIT AMPS **CIRCUIT BREAKER** OR CONTROL CENTER OR CIRCUIT PROTECTION I DISTRIBUTION PANEL OR GENERATOR HOLE LUGS ONLY IMUM OVERCURRENT ECTION UAL TRANSFER SWITCH APPLICABLE MALLY CLOSED ONAL ELECTRICAL CODE NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NFC NATIONAL FIRE CODE NFPA NATIONAL FIRE PROTECTION ASSOCIATION NIC NOT IN CONTRACT NIGHT LIGHT NL NO NORMALLY OPEN NTS NOT TO SCALE ON CENTER OCP OVER CURRENT PROTECTION OE OWNER ELECTRONICS OF/CI OWNER FURNISHED/ CONTRACTOR INSTALLED OF/OI OWNER FURNISHED/ OWNER INSTALLED OFP OBTAIN FROM PLANS OH DR OVERHEAD (COILING) DOOR OL OVERLOAD PB PUSHBUTTON PF POWER FACTOR PH PHASE PNL PANEL PNM PLENUM PAIR PR POWER SUPPLY PS POTENTIAL TRANSFORMER PT PTZ PAN/TILT/ZOOM QUANTITY QTY REMOVE RCP REFLECTED CEILING PLAN RMC RIGID METAL CONDUIT RNC RIGID NONMETAL CONDUI RPM REVOLUTIONS PER MINUTE RPP RISER PATCH PANEL REMOVE AND RELOCATE RR S/S START/STOP SCA SHORT CIRCUIT AMPS SCBA STANDARD COLOR AS SELECTED BY ARCHITECT SF SQUARE FOOT (FEET) SFBA STANDARD FINISH AS SELECTED BY ARCHITECT SPD SURGE PROTECTIVE DEVICE SPDT SINGLE POLE, DOUBLE THROW SPEC SPECIFICATION SPP STATION PATCH PANEL SPST SINGLE POLE, SINGLE THROW ST SINGLE THROW SWBD SWITCHBOARD SWGR SWITCHGEAR TWIST LOCK TL TELEPHONE POLE TP TP TWISTED PAIR TR TELECOMMUNICATIONS ROOM TTB TELEPHONE TERMINAL BOARD TV TELEVISION TVSS TRANSIENT VOLTAGE SURGE SUPPRESSER TYP TYPICAL UF UNDERFLOOR UGND UNDERGROUND UPS UNINTERRUPTIBLE POWER SUPPLY V VOLTS VA VOLT AMPERE VFC/VF VARIABLE FREQUENCY MOTOR D CONTROLLER VWM VERTICAL WIRE MANAGEMENT W/ WITH W/O WITHOUT WP WEATHERPROOF WPP WIRELESS PATCH PANEL XFMR TRANSFORMER

### **GENERAL ELECTRICAL NOTES** CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS. MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR

TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR. THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED. OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED

INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM. A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER

FURNISHED THE MATERIALS OR EQUIPMENT.

- THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
- C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
- EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
- SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
- REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

# ELECTRICAL SHEET INDEX

EE001	SHEET INDEX ABBREVIATIONS AND GENERAL NOTES
EE003	TELECOM SCHEDULES AND NOTES
EE501	ELECTRICAL DETAILS
EE701	TYPICAL MOUNTING HEIGHT DETAILS
EDP102	LEVEL 2 - DEMOLITION POWER PLAN
EDL102	LEVEL 2 - DEMOLITION LIGHTING PLAN
EP102	LEVEL 2 - OVERALL POWER PLAN
EP102-1	LEVEL 2 - POWER PLAN
EP501	GE DRAWINGS
EP502	GE DRAWINGS
EP601	ONE LINE DIAGRAMS
EL102	LEVEL 2 - LIGHTING PLAN
EL601	INTERIOR LIGHTING FIXTURE SCHEDULE
EL602	LIGHTING CONTROL SCHEDULES
ET102	LEVEL 2 - OVERALL TELECOM PLAN
ET102-1	LEVEL 2 - TELECOM PLAN
ET501	TELECOM DETAILS
ET601	TELECOM RISER DIAGRAMS
EY102	LEVEL 2 - AUXILIARY PLAN

EY601 AUXILIARY DIAGRAMS & DETAILS

# DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED. INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES. APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND

REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS. FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY,

INSTALLATION, AND SIMILAR OPERATIONS." INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE." INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-

SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

![](_page_34_Figure_31.jpeg)

	SYMBOLS LEGEND
SYMBOL	DESCRIPTION
LIGHTING	
(W-3)	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS
	SCHEDULED.
(W-3)	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
EM	EMERGENCY.
NL	NIGHT LIGHT: DO NOT SWITCH.
<u>↑</u>	EGRESS DIRECTION ARROW (EXIT SIGNS).
⊗	EXIT SIGN: SINGLE FACE; CEILING MOUNTED
$\underline{\Diamond} \underline{\Diamond}$	EXIT SIGN: SINGLE FACE; WALL MOUNTED
$\mathbf{\Theta}$	EXIT SIGN: DOUBLE FACE; CEILING MOUNTED
<b>9</b>	EXIT SIGN: DOUBLE FACE; WALL MOUNTED
LIGHTING (	CONTROL
*	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
峑	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL.
•	OCCUPANCY SENSOR, DUAL TECHNOLOGY, DIRECTIONAL.
P	PHOTOCELL.
HP	PHOTOCELL, WALL MOUNTED.
*	VACANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
	VACANCY SENSOR, DUAL TECHNOLOGY, WALL.
X	CEILING FAN.
*	SWITCH/OCCUPANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
÷.	SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
\$	DIMMER SWITCH/OCCUPANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
÷.	DIMMER SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
a,b \$	LOW VOLTAGE DIGITAL LIGHTING CONTROL SWITCH: LETTER "a,b" INDICATES ZONING WHERE SHOWN (REFER TO PLANS, SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION AND PROGRAMMING REQUIREMENTS)
RC	DIGITAL LIGHTING ROOM CONTROLLER
DC	DIGITAL LIGHTING DIMMING CONTROLLER
LC	DIGITAL PLUG LOAD CONTROLLER
LS	LIGHTING NETWORK SWITCH.
NR	LIGHTING NETWORK ROUTER.
SM	LIGHTING NETWORK SEGMENT MANAGER
NB	LIGHTING NETWORK BRIDGE
ET	LIGHTING EMERGENCY TRANSFER DEVICE
	LIGHTING SPACE CONTROL TYPE. X INDICATES TYPE. SEE SCHEDULE / DIAGRAM.
TWO-WAY	COMMUNICATIONS
2WA	TWO-WAY COMMUNICATIONS MAIN CONTROL STATION (ANNUNCIATOR)
RCS	TWO-WAY COMMUNICATIONS REMOTE CALL STATION
<b>V</b>	DATA CONNECTION: TWO-WAY EMERGENCY COMMUNICATION SYSTEM.

	5
	SYMBOLS LEGEND
SYMBOL	DESCRIPTION
FIRE ALAR	M
FAA	FIRE ALARM ANNUNCIATOR PANEL.
FACP	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
FATC	FIRE ALARM TERMINAL CABINET: NAC, SLC, SPEAKER CIRCUITS; AMPLIFIERS, BATTERIES
HVAC	CONTROL PANEL FOR HVAC: SMOKE CONTROL, STAIR PRESSURIZATION.
EVAC	VOICE EVACUATION PANEL.
PRE	PRE-ACTION CONTROL PANEL.
MIC	REMOTE VOICE EVACUATION MICROPHONE.
FPC	FIRE PUMP CONTROLLER.
JPC	JOCKEY PUMP CONTROLLER.
С	AUTOMATIC DOOR CLOSERS: DOOR CLOSERS SHALL BE FURNISHED WITH DOOR HARDWARE AND CONNECTED BY FIRE ALARM INSTALLER.
СМ	CONTROL MODULE.
ММ	MONITOR MODULE.
F	FIRE ALARM MANUAL PULL STATION.
R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
FS	WATER FLOW SWITCH. FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
VS	VALVE SUPERVISORY SWITCH, TAMPER SWITCH. TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
PS	PRESSURE SUPERVISORY SWITCH. PRESSURE SWITCHES SHALL BE PROVIDED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS
<u>5</u>	MAGNETIC DOOR HOLDER.
2	DETECTOR, SMOKE.
	DETECTOR, SMOKE, WALL MOUNTED.
A (2)	DETECTOR, SMOKE WITH AUXILIARY CONTACT.
<b>e</b> _{BR}	DETECTOR, SMOKE, BEAM RECEIVER.
(2) _{BT}	DETECTOR, SMOKE, BEAM TRANSMITTER.
( <b>2</b> ) _E	DETECTOR, SMOKE, ELEVATOR RECALL DESIGNATION.
	DETECTOR, SMOKE WITH GUARD.
() R	DETECTOR, SMOKE, RESIDENTIAL.
( <b>ខ</b> _s	DETECTOR, SMOKE WITH STROBE.
	DETECTOR, SMOKE, RESIDENTIAL WITH SOUNDER BASE.
(2) _{AS}	DETECTOR, SMOKE, AIR SAMPLING SYSTEM PORT LOCATION.
2	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
L _{SD}	SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
G FSD	COMBINATION FIRE/SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
RTS	REMOTE ALARM INDICATING AND TEST SWITCH.
	DETECTOR, HEAT.
(co)	DETECTOR, CARBON MONOXIDE.
X	STROBE, WALL MOUNTED.
75	CANDELA RATING.
	ALARM, HORN/SPEAKER, WALL MOUNTED, WEATHERPROOF.
	ALARM, HORN/STROBE, WALL MOUNTED, ONE ASSEMBLY.
75	ALARIVI, FIORIN/STRUBE, WALL MOUNTED, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING.
	ALARM, CHIME/STROBE, WALL MOUNTED, ONE ASSEMBLY.
⊠⊄G	ALARIVI, HORIV/STRUBE WITH GUARD, WALL MOUNTED, ONE ASSEMBLY.
	ALARM, MINI HORN/STROBE, WALL MOUNTED, ONE ASSEMBLY.
	SPEAKER, WALL MOUNTED, EVACUATION.
	SPEAKER, WALL MOUNTED, EVACUATION, COMBINATION STROBE.
75	STROBE. SUBSCRIPT INDICATES CANDELLA RATING.
▶ 8 75	SUBSCRIPT INDICATES CANDELA RATING.
	ALARIM, FICKIN, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
75	CANDELA RATING.
$\mathcal{M}$	SPEAKER, CEILING MOUNTED.
~	
Ø 75	ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.

	SYMBOLS LEGEND
SYMBOL	DESCRIPTION
CLOCK	
нC	CLOCK.
⊦© _G	CLOCK, SURFACE WITH WIRE GUARD.
NURSE CA	LL
Q	JUNCTION BOX.
$\bigcirc$	CORRIDOR LIGHT.
	BATHROOM PULL CORD STATION
B 	
E	
E CB	EMERGENCY ASSISTANCE CODE BLUE CALL STATI
È	PATIENT STATION.
S	STAFF STATION.
NCM	TOUCH SCREEN NURSE CALL MASTER STATION.
ZLC	ZONE LIGHT CONTROLLER.
CU	NURSE CALL AREA CONTROL UNIT & POWER SUPF
CCTV	
P	CCTV CABLE, POWER.
V	CCTV CABLE, VIDEO SIGNAL.
CCTV	CCTV HEADEND EQUIPMENT.
М	CCTV MONITOR.
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL.
	CCTV CAMERA WITH PAN, TILT AND ZOOM.
360°	PANNING CAMERA TRANSVERSE ANGLE.
SECUDITY	
	SECURITY CABLE. SEE EQUIPMENT SCHEDULE FO
	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE
	SCHEDULE.
	DOOR SWITCH, BALANCED MAGNETIC CONTROL.
	BUZZER.
	BUZZER, COMBINATION BELL.
	SENSOR, BURIED VEHICULAR.
	SENSOR, GLASS BREAK.
$\bigcirc$	SENSOR, VOLUMETRIC.
	CONTROLLED ACCESS POINT.
	INTERCOM STATION.
	ULTRASONIC MOTION DETECTOR.
	PASSIVE INFRARED SENSOR.
(P)	PANIC DURESS SWITCH.
U	ULTRASONIC MOTION DETECTOR.
AP	ANNUNCIATOR PANEL.
MSI	MASTER STATION, INTERCOM.
TV DISTRIE	BUTION
	TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.
TR	TV DISTRIBUTION CABLE, TRUNK.
СМВ	COMBINER.
DC	DIRECTIONAL COUPLER.
DA	DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).
SPL	SPLITTER (ONE-LINE DIAGRAM).
	TV OUTLET.
Ø	SATELLITE ANTENNA.
7	TV ANTENNA (ONE-LINE DIAGRAM).
	TERMINATOR, 75 OHM (TV DISTRIBUTION).
	L

![](_page_35_Figure_6.jpeg)

COLOR	CABLE/OUTLET COLOR	SCHEDULE
BLUE BLUE YELLOW	DATA IP SECURITY CAMERAS WIRELESS	
1		2

3			
STAT	ION PATCH COR	D SCHED	ULE
(CATEGO	RY 6A F/UTP CABLES W/	RJ-45 CONNE	CTORS)
LENGTH (FEET)	COLOR	QUANTITY	UNIT COST (EACH)
7'	BLUE	40% OF TOTAL PORTS IN TDR'S	
10'	BLUE	40% OF TOTAL PORTS IN TDR'S	
15'	BLUE	20% OF TOTAL PORTS IN TDR'S	

WIRELESS PATCH CORD PATCH CORD SCHEDULE				
(CATEGORY 6A F/UTP W RJ/45 CONNECTORS				
LENGTH (METER)	COLOR	QUANTITY	UNIT COST (EACH)	
7'	YELLOW	100% OF TOTAL PORTS IN TDR'S		

	4	5
	EQUIPMENT/CABLE LIS	ST
THE ITEMS I CABLING INS PROVIDE AL DESCRIPTIC PROVIDE CC	NDICATED BELOW SHALL NOT BE CONSTRUED AS A "BILL OF MATERIALS". THIS LIST IDENTIFIES ITEMS STALLATION. WHERE THE ITEMS INDICATED ARE ONE PORTION OF AN ASSEMBLY, THE ENTIRE ASSEM L MISCELLANEOUS HARDWARE AND SUPPORTS WHICH MAY NOT BE LISTED HERE, FOR A COMPLETE NS AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO BID. IF CATALOG NUMBERS DO NOT MATCH OMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE. REFER TO	OF SIGNIFICANCE USED DURING THE DESIGN OF THE BLY SHALL BE PROVIDED UNLESS SPECIFIED OTHERWISE. INSTALLATION. COMPARE CATALOG NUMBERS WITH DESCRIPTIONS, THE DESCRIPTIONS TAKE PRECEDENCE. SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
SYMBOL	ITEM DESCRIPTION	ACCEPTABLE TYPES
	STATION CABLE, DATA - CATEGORY 6A FUTP RISER, DATA, BLUE	SIEMON 9A6R4-A5-06-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, WIRELESS, YELLOW	SIEMON 9A6P4-A5-05-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, SECURITY, BLUE	SIEMON 9A6P4-A5-06-R1A
	STATION CABLE, DATA - CATEGORY 5E RISER, GREEN VENDOR NETWORK	SIEMON 9C5R4-E2-07-R1A
	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS02-02
$\nabla$		SIEMON Z6A-S06
	BLANK INSERT, WHITE	SIEMON MX-BL-02
W	VOICE OUTLET, SINGLE GANG FACEPLATE, WHITE W/WALL HUNG PHONE MOUNTING STUDS, ONE POSITION W/CATEGORY 6A INSERT	SIEMON MX-WP-Z6AS-SS
^	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION ("A" = ABOVE COUNTER)	SIEMON 10GMX-FPS04-02
V V I	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
Γ	BLANK INSERT, WHITE	SIEMON MX-BL-02
	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
▼ [	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
	BLANK INSERT, WHITE	SIEMON MX-BL-02
C	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION	SIEMON MX-SMZ2-02
V	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
$\left(\left(\left(\bullet\right)\right)\right)$	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION	SIEMON MX-SMZ2-02
`≜ć [	CATEGORY 6A JACK - WIRELESS, YELLOW	SIEMON Z6A-S05
	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 1 POSITION	SIEMON MX-SMZ1-02

NOTE: ALL RACKS, LADDER, PATCH PANELS AND ACCESSORIES SHALL BE BLACK IN COLOR.

# GENERAL PROJECT NOTES

6

- UNLESS OTHERWISE NOTED, INSTALL ALL CABLE INSIDE RACEWAY SYSTEMS. WHERE RACEWAY SYSTEMS HAVE NOT BEEN PROVIDED OR SPECIFIED, INSTALL CABLE THROUGH THE SPECIFIED "CADDY" CLIPS AT THE MINIMUM INTERVALS IDENTIFIED IN THE SPECIFICATIONS. SUPPORT "CADDY" CLIPS DIRECTLY FROM THE BUILDING STRUCTURE, NOT FROM OTHER BUILDING SYSTEM SUPPORT WIRES OR CABLE.
- PROVIDE PLENUM RATED CABLE FOR ALL PLENUM SPACES. VERIFY THAT ANY PATHWAYS INSTALLED IN "WET OR DAMP" LOCATIONS AS DETERMINED BY THE AHJ, SUCH AS PATHWAYS UNDER THE SLAB, ARE SUITABLE FOR THOSE LOCATIONS, AND THAT THE SPECIFIED CABLING SYSTEMS ARE ALSO SUITABLE FOR THOSE LOCATIONS.
- LABEL ALL CABLE INSTALLED UNDER THIS CONTRACT REGARDLESS OF LENGTH, ACCORDING TO WRITTEN SPECIFICATIONS.
- THE EQUIPMENT LABELING IDENTIFIED ON DETAILS IN THESE DRAWINGS ARE EXAMPLES ONLY OF THE ACTUAL LABELING, WHICH IS PART OF THIS CONTRACT. PRIOR TO FABRICATION, SUBMIT THE NOMENCLATURE FOR ALL LABELS TO THE OWNER FOR REVIEW. THIS REQUIREMENT INCLUDES, BUT IS NOT LIMITED TO, ALL CABLE LABELING, AND ALL EQUIPMENT LABELING.
- GROUND ALL EQUIPMENT RACKS, LADDER RACK, AND EQUIPMENT INSTALLED UNDER THIS CONTRACT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND WRITTEN SPECIFICATIONS.
- COORDINATE WITH OWNER I.T. PERSONNEL ON RACK PATCH PANEL DENSITY PRIOR TO ANY CABLE TERMINATION.
- FACEPLATE COLOR WILL BE DETERMINED BY THE ARCHITECT AND OWNER. FACEPLATE COLOR SHOULD MATCH ELECTRICAL FACEPLATE COLOR, UNLESS OTHERWISE SPECIFIED.
- FOR EVERY CABLE PULL SPECIFIED, COIL 10" OF EXCESS CABLE AT THE STATION END FOR FUTURE USE.
- COORDINATE WITH ALL SUBS TO ENSURE THAT ALL CABLE SHALL BE PROTECTED FROM ANY DIRECT PAINT OR INCIDENTAL OVERSPRAY.

### ABBREVIATIONS NOTE: ALL ABBREVIATIONS MAY NOT BE USED. AUGMENTED CATEGORY CAT ENHANCED EACH EA ER EQUIPMENT ROOM FIBER PATCH PANEL FPP GIG GIGA HERTZ HWM HORIZONTAL WIRE NIC MANAGEMENT OE NOT IN CONTRACT PNM OWNER ELECTRONICS PR PLENUM PS PAIR RPP POWER SUPPLY SPP RISER PATCH PANEL TC STATION PATCH PANEL TYP TELECOMMUNICATIONS ROOM VWM TYPICAL VERTICAL WIRE MANANGEMENT DEFINITIONS NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVE: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

ELECTRONIC SYSTEMS: THE TERM "ELECTRONIC SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

![](_page_36_Figure_25.jpeg)

# IM 360://22035 - IMED OP Multi-Purpose Imaging Room/220212 ELEC CENTRAL.rv

1

1

![](_page_37_Figure_3.jpeg)

# C3 RECESSED FIXTURE MOUNTING DETAIL

2

![](_page_37_Figure_5.jpeg)

3

4

# A5 TYPICAL ROUGH-IN REQUIREMENTS DETAIL SCALE: 1/8" = 1'-0"

NOTES: 1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN. 2. PLASTER RINGS NOT SHOWN. 3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS. 4. IN ACCORDANCE WITH IBC 714.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE OR LISTED, SOUND AND FIRE RATED PUTTY PADS SHALL BE USED ON THE OUTLET BOXES.

5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

- C5 TYPICAL CONDUIT RACK DETAIL SCALE: 1/8" = 1'-0"

![](_page_37_Figure_10.jpeg)

![](_page_37_Figure_12.jpeg)

![](_page_38_Figure_0.jpeg)

![](_page_38_Figure_1.jpeg)

![](_page_39_Figure_0.jpeg)

![](_page_39_Figure_1.jpeg)

	GENERAL SHEET NOTES
1	UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES DEVICES EQUIPMENT SHOWN DASHED. REMOVE CONDUIT AND WIRING BACK TO I OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.
2	SALVAGE ALL LIGHT FIXTURES, TWIST-LOCK RECEPTACLES AND WALLP SPEAKERS AND SECURITY AND FIRE ALARM DEVICES TO OWNER. PROT SALVAGED FOUIPMENT FROM DAMAGE
3	PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTER ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCL
4	INCLUDE ALL COSTS IN BID. PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD
5	REMOVE ALL DEVICES, RACEWAYS AND WIRING FROM WALLS TO BE REI WHERE ACTIVE RACEWAYS OCCUR IN WALLS TO BE REMOVED, RE-ROU
, Î	RACEWAY WITH ASSOCIATED WIRING TO KEEP THE CIRCUIT OPERATION REMOVE ALL FIRE ALARM DEVICES WHERE EXISTING WALLS AND CEILIN REMOVED, WITH ASSOCIATED CONDUIT AND WIRING. EXISTING FIRE AL AND SYSTEM NOT INDICATED FOR REMOVAL SHALL REMAIN ACTIVE THR DEMOLITION AND CONSTRUCTION UNTIL THE NEW SYSTEM IS TESTED A OPERATIONAL. MAINTAIN ALL CLASS A FIRE ALARM INITIATING AND INDI WHERE EXISTING DEVICES ARE REMOVED.
7	REMOVE ALL ABANDONED RACEWAY, CONDUIT, WIRING AND CABLING W ABANDONED PREVIOUS TO THIS PROJECT OR AS A RESULT OF THIS PRO ALL ABANDONED ITEMS ARE SHOWN ON THESE PLANS AND FIELD VERIF DEMOLITION SCOPE EXTENT IS REQUIRED
8	DEVICES MARKED "RR" ARE TO BE REMOVED AND RELOCATED PER NEW EXTEND CIRCUITING AS REQUIRED FOR RELOCATION.
9 10	REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL OF MOTORS, CON CONDUCTOR AND CONTROL WIRING ASSOCIATED WITH EXISTING MOTO PARTITIONS AND LIGHTING. DEMOLISH ALL WI-FI ACCESS POINTS WHETHER SHOWN ON DRAWINGS SCOPE OF WORK AREA.
11	REMOVE FEEDERS FOR ALL DEMOLISHED PANELS, DISCONNETS, ETC. B SOURCE
12	ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PH CONSTRUCTION.
13	CONTRACTOR TO TRACE AND LABEL ALL EXISTING LOADS TO REMAIN, T CURRENTLY FED FROM PANELS THAT ARE BEING DEMOLISHED IN THIS I LOADS TO BE RE-FED FROM NEW PANELS IN NEXT PHASE.
14	ALL HVAC UNITS TO BE REMOVED BY MECHANICAL CONTRACTOR UNLES OTHERWISE. REMOVE ALL ASSOCIATED RACEWAYS AND CONDUCTORS

![](_page_39_Figure_3.jpeg)

![](_page_40_Figure_0.jpeg)

![](_page_40_Figure_4.jpeg)

![](_page_41_Figure_0.jpeg)

![](_page_41_Figure_1.jpeg)

![](_page_42_Figure_0.jpeg)

### ELECTRICAL NOTES

1. All wires specified shall be copper stranded, flexible, thermo-plastic, color coded, cut 10 foot long at outlet boxes, duct termination points or stubbed conduit ends. All conductors, power, signal and ground, must be run in a conduit or duct system. Electrical contractor shall ring out and tag all wires at both ends. Wire runs must be continuous copper stranded and free from splices. 1.1. Aluminum or solid wires are not allowed.

1

- 2. Wire sizes given are for use of equipment. Larger sizes may be required by local codes. 3. It is recommended that all wires be color coded, as required in accordance with national and local electrical codes.
- 4. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national codes.
- 5. Convenience outlets are not illustrated. Their number and location are to be specified by others. Locate at least one convenience outlet close to the system control, the power distritbution unit and one on each wall of the procedure room. Use hospital approved outlet or equivalent.
- 6. General room illumination is not illustrated. Caution should be taken to avoid excessive heat from overhead spotlights. Damage can occur to ceiling mounting components and wiring if high wattage bulbs are used. Recommend low wattage bulbs no higher than 75 watts and use dimmer controls (except MR). Do not mount
- lights directly above areas where ceiling mounted accessories will be parked. Routing of cable ductwork, conduits, etc., must run direct as possible otherwise may result in the need for greater than standard cable lengths (refer to the interconnection diagram for maximum usable lengths point to point).
- 8. Conduit turns to have large, sweeping bends with minimum radius in accordance with national and local electrical codes. 9. A special grounding system is required in all procedure rooms by some national and local codes. It is recommended in areas where patients might be examined or treated under present, future, or emergency
- conditions. Consult the governing electrical code and confer with appropriate customer administrative personnel to determine the areas requiring this type of grounding system. 10. The maximum point to point distances illustrated on this drawing must not be exceeded.
- 11. Physical connection of primary power to GE equipment is to be made by customers electrical contractor with the supervision of a GE representative. The GE representative would be required to identify the physical connection location, and insure proper handling of GE equipment. 12. GEHC conducts power audits to verify quality of power being delivered to the system. The customer's
- electrical contractor is required to be available to support this activity.
- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, etc., are to be supplied and installed by customers electrical contractor. Conduit and duct runs shall have sweep radius bends
- Conduits and duct above ceiling or below finished floor must be installed as near to ceiling or floor as possible to reduce run length. • Ceiling mounted junction boxes illustrated on this plan must be installed flush with finished ceiling.
- All ductwork must meet the following requirements: 1. Ductwork shall be metal with dividers and have removable, accessible covers. 2.Ductwork shall be certified/rated for electrical power purposes.
- 3.Ductwork shall be electrically and mechanically bonded together in an approved manner. 4.PVC as a substitute must be used in accordance with all local and national codes. • All openings in raceway and access flooring are to be cut out and finished off with grommet material by the
- customers contractor. General contractor to insert pull cords for all cable run conduits between the equipment room and the operators control room.
- 10 foot pigtails at all junction points. • Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.

INNOVA IGS 520/530/540/330 WITH AUTORIGHT IGS-M265969-FIN-00-A.DWG Intermountain Medical Center

![](_page_43_Figure_18.jpeg)

Rev AlDate 11/May/2022

E1 - Electrical Notes

| 15/20

![](_page_43_Figure_20.jpeg)

4

P	OWER SUPPLY
F	REQUENCIES for 380/400/415V
F	REQUENCY for 480V
P	EAK POWER CONSUMPTION
Ν	OMENTARY POWER CONSUMPTION
L	ONG TIME POWER CONSUMPTION
N	
N P	AXIMUM LINE IMPEDANCE PHASE TO HASE
	Power supply should come into a Mains
•	The section of the supply cable should b
	impedance phase to phase and rating of
50	Power input must be separated from :
	radiology rooms equipped with high spe
•	All equipment installed with IGS system
•	Transients must be less than 2,000 V pe
	limited to a few microseconds.
GI	ROUND SYSTEM
	At least 35 mm ² copper from main grou
•	The equipotential link will be by means
	the protective earth conductors in the
	connections linking up all the conductin
C/	ABLES
	Power and cable installation must comp
•	MDP to PDU cable shall be copper cable
	All cables must be isolated and flexible,
•	The cables from signalling and remote c
	Each conductor will be identified and isc
	Lach conductor will be identified and isc
C/	ABLEWAYS
Th	e general rules for laying cableways sho
wi	th regard to :
	Protecting cables against water (Cablew
88 10	Protecting cables against abnormal tem
	Replacing cables (Cableways should be I
•	Only GE cables are running inside cables
•	Metal cableways should be grounded.
	ANDATORY LOTO REQUIREMENT
• •	ANDATORT LUTU REUUREIVIENT
M	The MDP shall provide means of discon-
M	The MDP shall provide means of discon- ensure safe service operation. It can be
M	The MDP shall provide means of discon- ensure safe service operation. It can be separate disconnection device.
M.	The MDP shall provide means of discon- ensure safe service operation. It can be separate disconnection device. An operator should be able to apply LC

		ELECT	RICAL LAYOUT ITEM LIST			
			Exam Room			
1	Box below floor, 24"x24"x12	" (Gan	itry)			
2	Box below floor, 12"x12"x6"	(Gant	ry water lines)			
3	Box below floor, 8"x8"x6" (T	able)	30			
4	Box below floor, 8"x8"x6" (F	atient	Monitoring)			
5	Box above ceiling, 18"x18"x	5" (Mo	nitors)			
6	Flush junction box, 4" x 4" x	4"@1	12" below finished ceiling (xr-bu	izzer)		
7	Box above ceiling, 4"x4"x4"	(YLED)				
	20 20		Control Room			
8	Surface wall duct, 10"x 3 1/2	2" with	n minimum 2 dividers			
9	Box below floor, 18"x18"x6"	ci K				
10	Box above ceiling, 12"x12"x	5"				
11	Box below floor, 8"x8"x6" (F	atient	Monitoring)			
	20		Equipment Room			
12	Surface wall duct, 18"x 3 1/2	2" with	minimum 2 dividers			
13	Box below floor, 24"x24"x12	in.				
14	Box above ceiling, 18"x18"x	5"				
15	Empty 3" conduit below floo	or (wat	er lines)			
16	Main Disconnect Panel					
17	Light Signaling Control Box					
	(C	ontrac	tor Supplied and Installed)			
	From (Bubble # / Item)		To (Bubble # / Item)	~		
1	Gantry	13		Qty	Usable length	Size (in)
1	Contra		CFRT Cabinet	Qty 4	Usable length 52 ft.	Size (in) 4
9	Gantry	3	CFRT Cabinet Table	4 1	Usable length 52 ft. 13 ft.	Size (in) 4 4&2
15	Control Room	3 13	CFRT Cabinet Table CFRT Cabinet	4 1 1 & 2	Usable length 52 ft. 13 ft. 59 ft.	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂
17	Control Room Water Line	3 13 2	CFRT Cabinet Table CFRT Cabinet Gantry	Qty 4 1 1&2 1	Usable length 52 ft. 13 ft. 59 ft. 59 ft.	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3
7	Control Room Water Line Light Signaling Control Box	3 13 2	CFRT Cabinet Table CFRT Cabinet Gantry Warning light	Qty 4 1&2 1 & 2 1 1	Usable length 52 ft. 13 ft. 59 ft. 59 ft.	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 2
7	Control Room Water Line Light Signaling Control Box Light Signaling Control Box	3 13 2 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU)	Qty 4 1 & 2 1 1 1 1	Usable length 52 ft. 13 ft. 59 ft. - -	Size (in) 4 4&2 3½&2½ 3 2 2 2 1 2
	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box	3 13 2 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power	4 1 1&2 1 1 1 1 1	Usable length 52 ft. 13 ft. 59 ft. - - -	Size (in) 4 4&2 3½&2½ 3 1 2 2 2 4 8 Req'o
	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer	3 13 2 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler	4 1 1&2 1 1 1 1 1 1 1	Usable length 52 ft. 13 ft. 59 ft. - - - -	Size (in) 4 4&2 3½&2½ 3 1 2 2 4 S Req'o As Req'o
7	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp	3 13 2 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler	4 1 1&2 1 1 1 1 1 1 1	Usable length 52 ft. 13 ft. 59 ft. - - - - -	Size (in) 4 4&2 3½&2½ 3 1 2 As Req'c As Req'c Cables come with spooler
7	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp	3 13 2 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power	4 1 1&2 1 1 1 1 1 1 1 1 1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 2 As Req'c As Req'c Cables come with spooler As Req'c
7 7 6	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer	3 13 2 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet	4 1 1&2 1 1 1 1 1 1 1 1 1 1 1 1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3½&2½ 3 ½ 1 2 As Req'c As Req'c Cables come with spooler As Req'c 1 1
7 7 6	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer	3 13 2 14 	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room	Qty 4 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 4 S Req'c 1 ¹ / ₂
7 7 6 5	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom	3 13 2 14 14 14 10 10	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room Control Room	4       1       1&2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 4 5 Req'c 1 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂
7 7 6 5 5	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor	3 13 2 14 14 14 10 10 10	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room Control Room CFRT Cabinet (LDM server)	Qty       4       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c As Req'c Cables come with spooler As Req'c 1 1 2 1 1 2 1 2 1 2 2 1 2 3 8 ³ / ₂
7 7 6 5 5	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server)	3 13 2 14 14 14 10 10 14 9	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room Control Room CFRT Cabinet (LDM server) Control Room	Qty       4       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c As Req'c Cables come with spooler As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂ 1 ¹ / ₂ 3& ³ / ₄ 3
7 6 5 5 13	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server)	3 13 2 14 14 14 10 10 14 9 4	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room Control Room CFRT Cabinet (LDM server) Control Room	Qty       4       1       1&       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       2	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂ 2 ¹ / ₂ 3& ³ / ₄ 3 3 3 3
7 6 5 5 .3 .3 .4	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server) CFRT Cabinet (LDM server) System Interface Cab. (PDU)	3 13 2 14 14 14 10 10 14 9 4	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room Control Room Control Room CFRT Cabinet (LDM server) Control Room TRAM/PDM Emergency off	Qty       4       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂ 3& ³ / ₄ 3 3 3 1 3
7 6 5 5 .3 .4 .4	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server) CFRT Cabinet (LDM server) System Interface Cab. (PDU)	3 13 2 14 14 10 10 10 14 9 4	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room CFRT Cabinet Control Room CFRT Cabinet (LDM server) Control Room TRAM/PDM Emergency off	Qty       4       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c As Req'c Cables come with spooler As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂ 3& ³ / ₄ 3 3 3 1 2 1 2 1 2 ¹ / ₂ 2 ¹ / ₂ 2 ¹ / ₂ 3& ³ / ₄ 3 3 3 1 2 1 2 1 2 1 2 ¹ / ₂ 2 ¹ / ₂ 2 ¹ / ₂ 3 2 ¹ / ₂ 2 ¹ / ₂ 2 ¹ / ₂ 3 3 ¹ / ₂ 3 3 ¹ / ₂ 3 3 3 1 2 1 2 ¹ / ₂ 3 3 3 1 2 1 2 ¹ / ₂ 3 3 3 3 1 2 1 2 ¹ / ₂ 3 3 3 3 1 2 2 ¹ / ₂ 3 3 3 3 1 2 2 ¹ / ₂ 3 3 3 3 1 2 3 3 3 1 2 1 2 1 2 1 2 1 2 1
7 6 5 5 .3 .4 .4 .6	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server) CFRT Cabinet (LDM server) System Interface Cab. (PDU) System Interface Cab. (PDU)	3 13 2 14 14 10 10 14 9 4 4 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room Control Room Control Room CFRT Cabinet (LDM server) Control Room TRAM/PDM Emergency off Emergency off System Interface Cab. (PD11)	Qty       4       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 4 S Req'c 1 ¹ / ₂ 2 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂ 3& ³ / ₄ 3 3 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
7 6 5 5 .3 4 4 6 6	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server) CFRT Cabinet (LDM server) System Interface Cab. (PDU) System Interface Cab. (PDU) Main Disconnet Panel	3 13 2 14 14 10 10 14 9 4 4 14	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room CFRT Cabinet (LDM server) Control Room CFRT Cabinet (LDM server) Control Room TRAM/PDM Emergency off Emergency off System Interface Cab. (PDU) 480-V 3 phase power	Qty       4       1       1&       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. 59 ft. - - - - 90 ft. 90 ft. 88 ft. 59 ft. 59 ft. - - 14-44 ft.	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂ 3& ³ / ₄ 3 3 3 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
7 6 6 5 5 .3 .4 .4 .6 .6 .1	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server) CFRT Cabinet (LDM server) System Interface Cab. (PDU) System Interface Cab. (PDU) System Interface Cab. (PDU) Main Disconnet Panel Main Disconnet Panel Patient Monitoring Console	3 13 2 14 14 10 10 14 9 4 4 14 14 5	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room CFRT Cabinet Control Room CFRT Cabinet (LDM server) Control Room TRAM/PDM Emergency off Emergency off System Interface Cab. (PDU) 480-V 3 phase power Monitor Bridge / Boom	Qty       4       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - 90 ft. 90 ft. 88 ft. 59 ft. 59 ft. - - 14-44 ft. -	Size (in) 4 4&2 3 ¹ / ₂ &2 ¹ / ₂ 3 1 1 2 As Req'c As Req'c Cables come with spooler As Req'c 1 ¹ / ₂ 1 ¹ / ₂ 2 ¹ / ₂ 3 ³ / ₄ 3 3 3 3 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
7 6 5 5 .3 .3 .4 .4 .4 .6 .1 .1	Control Room Water Line Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box Light Signaling Control Box LED Transformer LED Lamp LED Lamp/Transformer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer X-Ray Buzzer Monitor Bridge / Boom Large Display Monitor CFRT Cabinet (LDM server) CFRT Cabinet (LDM server) CFRT Cabinet (LDM server) System Interface Cab. (PDU) System Interface Cab. (PDU) System Interface Cab. (PDU) Main Disconnet Panel Patient Monitoring Console Patient Monitoring Console	3 13 2 14 14 10 10 10 14 9 4 4 14 5 4	CFRT Cabinet Table CFRT Cabinet Gantry Warning light System Interface Cab. (PDU) 120-V 1 phase power Spooler Spooler Spooler 120-V 1 phase power CFRT Cabinet Control Room CFRT Cabinet Control Room CFRT Cabinet (LDM server) Control Room CFRT Cabinet (LDM server) Control Room TRAM/PDM Emergency off Emergency off System Interface Cab. (PDU) 480-V 3 phase power Monitor Bridge / Boom	Qty       4       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Usable length 52 ft. 13 ft. 59 ft. - - - - - - - - - - - - - - - - - - -	Size (in) 4 4&2 3½&2½ 3 1 2 4 As Req'o As Req'o Cables come with spooler As Req'o 1½ 1½ 1½ 2½ 3&2 3 3 2 2 1 2 1 2 1 2 1 2 1 2 3 3 2 2 1 2 3 3 2 3 3 3 3

E2 - Electrical Layout (2)

Equipment SUPPLIED BY CUSTOMER

E4 - Power Requirements

Equipment SUPPLIED BY GE

### POWER REQUIREMENTS

Intermountain Medical Center

	3 PHASES+G 380/400/415/480 V ±10%
5V	50/60 Hz ± 3 Hz
	60 Hz ± 3Hz
	150 kVA
<b>MPTION</b>	100 kVA
NOIT	18 kVA
	100 A (D curve or equivalent)
PHASE TO	380 V : 0.09 Ω / 400 V : 0.096 Ω / 415 V : 0.102 Ω / 480 V : 0.12 Ω

INNOVA IGS 520/530/540/330 WITH AUTORIGHT IGS-M265969-FIN-00-A.DWG |1/4"=1'-0"|Rev A|Date 11/May/2022 |

into a Mains Disconnect Panel (MDP) containing the protective units and controls. ble should be calculated in accordance with its length and the maximum line ind rating of protection.

ated from any others which may generate transients (elevators, air conditioning, vith high speed film changers ...) IGS system components must be powered separately (e.g. lighting, power outlets) 2,000 V peak in common mode and 1,000 V in differential mode, with a duration

### main ground point to the MDP.

e by means of an equipotential bar. This equipotential bar should be connected to ctors in the ducts of the non IGS cableways and to additional equipotential conducting units in the rooms where IGS units are located.

### must comply with the distribution diagram. opper cable and cable insulation temperature shall be 90°C.

nd flexible, cable color codes must comply with standards for electrical installation. nd remote control (SEO, L...) will go to PDU with a pigtail lenght of 2.0 m, and will be fied and isolated (screw connector).

leways should meet the conditions laid down in current standards and regulations,

ter (Cableways should be waterproof),

ormal temperatures (Proximity to heating pipes or ducts), nperature shocks,

should be large enough for cables to be replaced), side cableways.

### IREMENTS

Intermountain Medical Center

s of disconnecting the mains power from the system, with LOTO capability to h. It can be done by the input breaker if it has disconnecting capability, or by a

e to apply LOTO without opening the MDP box. When a LOTO device is installed on n the disconnecting device, there shall be no voltage at the output of the MDP.

![](_page_43_Figure_38.jpeg)

Rev AlDate 11/May/2022

INNOVA IGS 520/530/540/330 WITH AUTORIGHT IGS-M265969-FIN-00-A.DWG

![](_page_43_Picture_40.jpeg)

![](_page_44_Figure_0.jpeg)

# 60://22035 - IMED OP Multi-Purpose Imaging Room/220212 ELEC CENTRAL.rvt

1

![](_page_44_Figure_2.jpeg)

5

| Rev AlDate 11/May/2022 | E6 - Power requirements (Light Signaling) | 20/20

![](_page_44_Figure_3.jpeg)

MARK     QT     ITEM DESCRIPTION     ITEM DESCRIPTION     ITEM DESCRIPTION     ITEM DESCRIPTION     ITEM DESCRIPTION     VIRE AND CONDUT SIZE     OVER URE AND CONDUT SIZE     OVER URE ENT     DISCONNECT     OVER URE ENT     DISCONNECT     STATER DATA     NOTA	MARK     OTY     ITEM DESCRIPTION     LOAD DATA     LOAD DATA     WIRE AND CONDUT SIZE     COND.     COND.     OVERCURRENT     DISCONNECT     DISCONNECT     STATER DATA     STATER DATA     MORMALLY NOT     NORMALLY NOT     NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMALLY NORMAL	MARK QTY ITEM DESCRIPTION LOAD DATA WIRE AND COND. COND. COND. CONDUIT SIZE AND PROTECTION DISCONNECT DISCONNE		' NOTES	-
HP       HV       MCA       FLA       VOLT       PH       HZ       CONDUCT       FURN       CONDUCT       FURN       DEVICE       LOCATION       FURN       DEVICE       LOCATION       SIZE       SPEED       CTRL       SELECTOR       PUSH       PILOT       NORMALLY       PHASE       SCHEMATIC       REMOTE       CTRL       SUITON       SUITON	HP       kW       MCA       FLA       VOLT       PH       HZ       CONDUT       FURN       DEVICe       LOCATION       FURN       DEVICe       LOCATION       FURN       PE/LOC       CONDUT       FURN       DEVICe       LOCATION       SIZE       SPEED       CTRL       SELECTOR       PUSH       PILOT       NORMALLY       PHASE       SCHEMATIC       REMOTE       CTRL       SUTON       SUTON <t< th=""><th>HP     kW     MCA     FLA     VOLT     PH     Hz       CONDUIT     FURN     DEVICE     LOCATION     FURN     DEVICE     LOCATION     SIZE     SPEED     CTRL     SELECTOR     PUSH     PILOT     NORMALLY     PHASE     SCHED</th><th></th><th>1</th><th>3</th></t<>	HP     kW     MCA     FLA     VOLT     PH     Hz       CONDUIT     FURN     DEVICE     LOCATION     FURN     DEVICE     LOCATION     SIZE     SPEED     CTRL     SELECTOR     PUSH     PILOT     NORMALLY     PHASE     SCHED		1	3
RF-1RELIEF FAN PROCEDURE ROOM0.50.6120160 $2 \# 12, \# 12, GR0.75" CND1E20A/1PCBPANELETHERMSWITCHADJ TOEQUIPQIIII4.10FCU-1FAN COILEQUIP ROOM0.080.080.080.080.080.080.080.075" CND1602 \# 12, \# 12, GR0.75" CND2E20A/2PCBPANELETHERMSWITCHADJ TOEQUIPQIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII$	RF-1       RELIEF FAN PROCEDURE ROOM       0.5       1       1       60       2 #12, #12 GR 0.75" CND       1       E       20A/IP CB       PANEL       E       THERM SWITCH       ADJ TO EQUIP       Q       I       I       I       60       2 #12, #12 GR 0.75" CND       2       E       20A/IP CB       PANEL       E       THERM SWITCH       ADJ TO EQUIP       Q       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I <thi< th="">       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I<!--</th--><th>SCHED. BY BY VOLT SWITCH BUTTON LAMP OPEN CLOSED FAILURE REFER</th><th>REMOTEECTRL</th><th></th><th></th></thi<>	SCHED. BY BY VOLT SWITCH BUTTON LAMP OPEN CLOSED FAILURE REFER	REMOTEECTRL		
FCU-1     FAN COIL EQUIP ROOM     0.08     208     1     60     3 #12 #12 GR 0.75" CND     2     E     20A/2P CB     PANEL FRS 4     E     30A/2P EQUIP     ADJ TO FRS 4     Q       FCU-2     FAN COIL EQUIP ROOM     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08     0.08	FCU-1       FAN COL EQUIP ROOM       0.08       0.08       208       1       60       3#12,#12 GR 0.75" CND       2       E       20A/2P CB       PANEL       E       30A/2P FRS 4       ADJ TO EQUIP       Q       Image: Color Co	RF-1     RELIEF FAN PROCEDURE ROOM     0.5     120     1     60     2 #12, #12 GR 0.75" CND     1     E     20A/1P CB     PANEL     E     THERM     ADJ TO SWITCH     Q		4,10	
ECIL-2 EAN COLL 0.08 208 1 60 3#12 #12 GR 2 E 204/2P PANEL E 304/2P AD TO 0 20 20 20 20 20 20 20 20 20 20 20 20 2	FCU-2       FAN COIL EQUIP ROOM       0.08       0       208       1       60       3 #12, #12 GR 0.75" CND       2       E       20A/2P CB       PANEL       E       30A/2P EQUIP       ADJ TO EQUIP       Q       I       I       I       0       3 #12, #12 GR 0.75" CND       2       E       20A/2P CB       PANEL       E       30A/2P FRS 4       ADJ TO EQUIP       Q       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I <td>FCU-1       FAN COIL EQUIP ROOM       0.08       208       1       60       3 #12, #12 GR 0.75" CND       2       E       20A/2P CB       PANEL       E       30A/2P FRS 4       ADJ TO EQUIP       Q</td> <td></td> <td>2</td> <td></td>	FCU-1       FAN COIL EQUIP ROOM       0.08       208       1       60       3 #12, #12 GR 0.75" CND       2       E       20A/2P CB       PANEL       E       30A/2P FRS 4       ADJ TO EQUIP       Q		2	
EQUIP ROOM     EQUIP ROOM     EQUIP     EQUIP     EQUIP     EQUIP		FCU-2       FAN COIL       0.08       0.08       208       1       60       3 #12, #12 GR       2       E       20A/2P       PANEL       E       30A/2P       ADJ TO       Q         EQUIP ROOM       0       0       0.75" CND       0.75" CND       0.75" CND       FRS 4       EQUIP       0.075" CND       0.075" CND <td></td> <td>2</td> <td></td>		2	

A3 NEW ONE LINE DIAGRAM

![](_page_45_Figure_4.jpeg)

# C3 DEMOLITION ONE LINE DIAGRAM

![](_page_45_Figure_6.jpeg)

** AUTOMATIC CONTROL WIRING BY DIVISION 15

# ⊖SHEET KEYNOTES

- 1. LEAVE RACEWAY DEMO FEEDER.
- "MDP" MAIN DISCONNECT FURNISHED BY GE. EXTEND EXISTING CONDUIT TO NEW MDP LOCATION. REFERENCE GE DRAWINGS TABLE #1 FOR GROUNDING CONDUCTOR SIZE.

6

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**	*					(E.G.)	5		**	)					(E.C	(E.G.) 5				
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SVM					NOTE 1)		<u>е</u>	NOTES	SVM		HH				NOTE 1)		95			
	AIVIE	SIZL	QIT	SIZE	6	10		NOTES		20	-	.75	2	12	12	12	8			
2A									2	20	-	.75	3	12	12	12	8			
$3_A$										20	24	.75	4	12	12	12	8			
(4) _A										30	-	.75	3	10	10	10	8			
6 _A									6	30	32	.75	4	10	10	10	8			
$\left[ \begin{array}{c} 7 \\ 0 \end{array} \right]_{A}$										40	-	1	2	8	10	8	6			
<u> </u>									<u></u>	40	- 44	1	3 4	8	10	8	6			
					$\searrow$				10	55	-	1	2	6	10	8	4			
$11_A$										55	-	1	3	6	10	8	4			
<u>(12)</u> A									13	70	- 60	1.25	4	4	8	4	4			
14 _A			$\angle$						14	70	-	1.25	3	4	8	4	2			
$15_A$									(15)	70	76	1.25	4	4	8	4	2			
(17) _∆								$\searrow$	(17)	85	-	1.25	3	3	8	3	2			
18 _A	$\square$								18	85	92	1.25	4	3	8	3	2			
19A										95	-	1.25	3	2	8	2	2			
20A	130	2	3	2/0	4	1/0	4	2,7	21	130	-	1.50	3	1	6	2	2			
22 _A	130	2	4	2/0	4	1/0	4	2,7	22	130	116	1.50	4	1	6	2	2			
$\frac{23_{A}}{24_{A}}$	150	2	3	3/0	4	1/0	4	2,7	23	150	- 136	2	3	1/0	6	2	1/0			
25 _A	175	2	3	4/0	4	1/0	2	2,7	25	175	-	2	3	2/0	6	2	2/0			
26 _A	175	2.50	4	4/0	4	1/0	2	2,7	26	175	156	2	4	2/0	6	2	2/0			
<u>  (27)</u> A   ୨୫.	200	2.50	3	250	4 4	1/0 1/0	2	2,7	<u> 27 </u> 	200	- 180	2 2 50	3	3/0 3/0	6	2	2/0			
A	230	2.50	3		2	1/0	1/0	2,7	29	230	-	2.50	3	4/0	4	2	2/0			
<u>30</u> A	230	3	4	300	2	1/0	1/0	2,7	30	230	208	2.50	4	4/0	4	2	2/0			
$31_A$	250	3	3	350	2	2/0	1/0	2,7	<u>31</u> 32	255	- 232	2.50	3	250	4		2/0			
33 _A	310	3	3	500	1	3/0	1/0	2,7	33	310	-	3	3	350	3	1/0	3/0			
<u>34</u> A	310	4	4	500	1	3/0	1/0	2,7	34	310	280	3	4	350	3	1/0	3/0			
<u>35</u> A	380	2 EA 2.50 2 EA 3	3	250	1	4/0	3/0	2,7	<u>35</u> 36	380	- 344	3.50	3	500	3	3/0	3/0			
37 _A	400	2 EA 2.50	3	250	1/0	4/0	3/0	2,7	37	400	-	2 EA 2	3	3/0	3	3/0	3/0			
<u>38</u> A	400	2 EA 2.50	4	250	1/0	4/0	3/0	2,7	38	400	360	2 EA 2.50	4	3/0	3	3/0	3/0			
<u> </u>	500	2 EA 3	3	350	1/0	300	3/0	2,4,7	40	510	- 464	2 EA 2.50 2 EA 3	3 4	250	1	4/0	3/0			
41 _A	620	2 EA 3	3	500	3/0	300	3/0	2,4,7	41	620	-	2 EA 3	3	350	1/0	4/0	3/0			
42 _A	620	2 EA 4	4	500	3/0	300	3/0	2,4,7	42	620	560	2 EA 3	4	350	1/0	4/0	3/0			
43 _A	750	3 EA 3	3 4	350	3/0	300	4/0	2,4,7	43	760	- 688	2 EA 3.50 2 EA 4	3 4	500	1/0	4/0	3/0			
45 _A	810	3 EA 3	3	400	4/0	300	250	2,4,7	45	855	-	3 EA 3	3	300	2/0	4/0	3/0			
$\frac{46}{47}$	810	3 EA 4	4	400	4/0	300	250	2,4,7	46	855	768	3 EA 3	4	300	2/0	4/0	3/0			
48 _A	1000	4 EA 3	4	350	4/0	300	250	4,7	48	1000	912	3 EA 3.50	4	400	2/0	4/0	3/0			
49 _A	-	-	-	-	-	-	-	-	49	1140	-	3 EA 4	3	500	3/0	4/0	3/0			
<u>50</u> A	1140	4 EA 4	4 3	500	250	300	250	4,7	<u>50</u>	1140	1032	3 EA 4	4	500 350	3/0	4/0	3/0			
52 _A	1240	4 EA 4	4	500	350	300	250	4,7	52	1240	1120	4 EA 3	4	350	3/0	4/0	3/0			
<u>53</u> A	1620	6 EA 4	4	400	400	350	250	4,7	53	1675	1520	5 EA 4	4	400	4/0	4/0	4/0			
<u>54</u> 55⊿	2695	7 EA 4	4	750	600	750	750	4,7	55	2660	2408	0 EA 4 7 EA 4	4	500	350	350	350			
<u>56</u> A	3080	8 EA 4	4	750	600	750	750	4,7	56	3040	2752	8 EA 4	4	500	500	500	500			
<u>57</u> A	4235	11 EA 4	4	750	800	750	750	4,7	<u>57</u>	4180	3784	11 EA 4	4	500	500	500	500			
<u> </u>	-	5	-	-	-	-	-	6	59	-	-	5	-	-	-	-	-			
60 _A	-	10 EA 4	-	-	-	-	-	6	60	-	-	10 EA 4	-	-	-	-	-			
1	CONDL MODIFI	CON JCTORS SH CATIONS A	DUCTO OWN A	R AND C RE SHOV ED IN NO	ONDUIT VN FOR I TE 5. ALL	SCHEDU EACH CO CONDU(	LE NOTES NDUIT WI CTORS SH	S TH IOWN ARE THWN	1.	CONDU AS NOT	CTORS	CONDUC SHOWN A NOTE 5. AL	TOR AN RE SHO L CONE	ND CONE OWN FOF OUCTORS	)UIT SCH ₹ EACH C 3 SHOWI	IEDULE N ONDUIT V N ARE TH	IOTES WITH M WN UN			
<u>`</u>			ISE NO			000 000		50-122 \\/LIEN	2.		VVISE N DE EQU	IDTED. IPMENT GF	ROUND	CONDUC	TORS PI	ER TABLE	E 250-12			
	CIRCUI	T BREAKE	RS ARE	SIZED G	REATER	THAN AN	IPERE RA	TING SHOWN IN	-·	CIRCUI	T BREA	KERS ARE	SIZED	GREATE	R THAN A	AMPERE F	RATING			
3	TABLE. PROVII	0E #10 NEU				BRANCH	CIRCUITS		3.	PROVIE	DE #10 M	NEUTRALS	FOR MI	JLTIWIRI	E BRANC	HCIRCU	ITS SEI			
	COMPL	JTERS.	TTV LO								ITERS.									
4		ND (G) CON JCTORS	DUCTO	R MAY B	E DELET	ED ON SE	RVICE EN	ITRANCE	4.		ICTORS		NIAY I	DE DELE		JERVICE				
5	SYMBC	L SUBSCR	IPTS:						5.	SYMBO	LSUBS	CRIPTS:								
'	"2N":	INCLUDE T	IWO NE	UTRAL C		TORS, SIZ ORS.	ZED AS SC	HEDULED FOR		"2N":		E TWO NE			;TORS SI )RS \\/⊔⊑	ZED AS S				
				2.20						(		GER. INCL		SINGLE	200% RA	TED CON	DUCTO			
	"CI"	PROVIDE	CIRCUIT - CABLE	F INTEGF		LE; TYPE R PROVID	TWO-HOU	JR FIRE R ENCASED IN			CONDU	I HE AMPA	ERE THE	E CONDO	UTOR IS	BELOW	and n #1/0 IN			
		CONCRET	E.		12011 01															
,	"FG"	FULL SIZE	GROUI SIZE AS	ND, SIZE THE PH	EQUIPMI ASE CON	ENT GRO IDUCTOR	unding C S.	CONDUCTOR TO		"CI": (	PROVIE CABLES	DE CIRCUIT 5 IN CONDU	JIT OR F	RITY CAE PROVIDE	3LE; TYPI FEEDEF	E TWO-HO ₹ ENCASE	our fi Ed in C			
,	"HH":	NEUTRAL LOADS. C	CURRE URREN	NTS EXIS T CARRY	ST DUE T 'ING CON	O HIGH F	IARMONIC S DERATI	: "Nonlinear" Ed		"FG"	FULL SI	AL CURRENT	ID, SIZE E PHASI		⊫NT GR0 JCTORS.	JUNDING				
,	"IG":	INCLUDE I SCHEDULI	G (INSU	JLATED/I	SOLATED	) groun Ound of	D CONDU	CTOR) ENT GROUND			LOADS. PROVIE CONDU	CURREN DE THE IG/H CTOR.	T CARR	YING CO FOR THI	NDUCTO E EQUIPI	RS DERA	TED A OUNDI			
	"MC":		OR.		AL-CLAD	CABLE; 1	YPE MC I	N PLACE OF		"IG":	INCLUD ALONG	E IG (INSU WITH THE	LATED/I GROUN	ISOLATE	D GROUI QUIPMEN	ND COND T GROUN	UCTOF			
	"SE":	SINGLE CO	UNDUC			R "G" CO	NDUCTOF			"MC":	PROVIE CONDU	DE FEEDER ICTORS IN	IN MET	al-clae It.	) CABLE;	TYPE MC	C IN PL			
	"SFR"·	IS SIZED F SEPARATI		E GROUN	IDING OF STEM.	· THE SE( BLE· TVD			,	"SE":	SUBSTI SIZED F DERIVE	TUTE "SE" FOR THE G	CONDU ROUND	ICTOR FO	)r "g" c( The sec(	ONDUCT( ONDARY	or Sho Of The			
6	RACEV	SINGLE CONDES		JCTORS		ED BY UTI	LITY.			"SER":			E-ENTR		\BLE; TYI	PE SE OR	SER II			
7	alumin or mo	NUM COND TOR DRIVE	UCTOR: N EQUI	S NOT TO PMENT.	) BE USE	D FOR C	ONNECTIO	ON TO MOTORS	6.	RACEW	AY ON	LY. CONDU	JCTORS	S PROVIE	)ED BY U	ITILITY.				

![](_page_45_Figure_11.jpeg)

![](_page_46_Figure_0.jpeg)

# IM 360://22035 - IMED OP Multi-Purpose Imaging Room/220212 ELEC CENTRAL.rv

![](_page_47_Figure_3.jpeg)

R	IOR	LIGF	ITING F	ΙΧΤΙ	JRE	SCH	ED	ULE	=								
	ONS	5							GENERAL NOTES								
NISH - - - - - - - - - - - - - - - - - - -	MATTE WHI' BLACK SILVER GOLD CLEAR PAINTED WH EXTRUDED STEEL GALVANIZEI CAST COLOR BY A STANDARD ARCHITECT CUSTOM CC ARCHITECT MEETS FEDI STANDARD THERMALLY PROTECTEU FLUSH REGRESS MITERED	TE ALUMINUM D STEEL ARCHITECT COLOR BY ERAL 209D	DIFFUSER/L         #A       -         #OA       -         GC       -         GLASS (OI         GF       -         GLASS (FF         SGL       -         DO       -         DO       -         DO       -         DO       -         DO       -         CGL       -         CONVEX (S)       -         S       -         SATIN LEN	ENS #THICK #THICK (OPAL LEAR) PAL) ROSTED) WW LENS FORMANCE L AL BLASS LENS IS	) ENS	OP SP SS D SC PR FDR DS LI IR SL GL CA	FLECT - NONE - SPEC - SEMI - DIFFU - PRISE - FULL - DIFFU - LOW - IRIDE - SILVE - GOLD - CLEA	OR E/OPEN CULAR -SPECULJ JSE (WHI CULAR (CO MATIC DEPTH R JSE (SEM IRIDESCE SCENT ER D R ALZAK	AR TE ENAME DLORED) EFLECTO I SPECUL ENT	EL) IR AR) SILVER	<ol> <li>PROVIDE FOR EAC FAILURE AND EMF INSTALLA INSTALLA</li> <li>CONTRA SPECIFIE ALLOWAI AND DO I</li> <li>SUBSTITI BIDDING, PRIOR TO</li> <li>SAMPLES PRIOR TO</li> <li>ALL FIXTU LOCATIO</li> <li>VERIFY T INSTALLA</li> <li>COMPLY</li> <li>REFER T LIGHTING</li> </ol>	UNIT PRICES AND FIXTUR H FIXTURE TYPES SHOWN TO COMPLY WITH THIS RE POWER THE ENGINEER TO ATION CHANGES, WITHOU' ER. CTOR ALLOWANCE PRICE D, CONTRACTOR AND ELE NCE AND REPORT ANY PR NCE PRICE MAY OR MAY N NOT INCLUDE ANY TAXES. JTIONS AND/OR EQUAL FI THEY MUST BE SUBMITTE D BID OPENING. S MUST BE PROVIDED FOR D RELEASING FIXTURES. JRES SHALL BE LISTED AN N. HE PROPER MOUNTING K ATION AS SHOWN AT EACH WITH THE "INTERIOR LIGH O SPECIFICATIONS FOR IM B FIXTURES, DRIVERS, ANI	RE BRAND SELECTED FOR N WITHIN 48 BUSINESS HO EQUIREMENT MAY DISQUA DETERMINE FAIR VALUE T FURTHER INPUT FROM T S ARE ACCURATE WHEN T ECTRICAL DISTRIBUTOR S COBLEMS TO THE ENGINEE NOT INCLUDE LAMP(S) OR XTURES MUST RECEIVE A ED TO THE ENGINEER NO R ANY AND ALL FIXTURES IN ND APPROVED FOR THEIR ITS OR ACCESSORIES TO H LOCATION ON THE DRAV ITING" SECTION OF THE SI MPORTANT TECHNICAL RE D LAMPS.	ADD/DELETE C URS OF THE BIE LIFY THE PROD FOR FIXTURE A THE CONTRACT THIS JOB WAS HALL VERIFY THE R BEFORE THE FREIGHT AS NO PPROVAL PRIOI LESS THAN 2 W JPON A/E REQU INTENDED USE FACILITATE VINGS. PECIFICATIONS QUIREMENTS F			
			z								9. ALL LIGH APPROVI	T FIXTURES TO BE EITHEF ED BY ARCHITECT/ENGINE MANU	R "DLC" OR "LIGHTING FAC EER AND OWNER. JFACTURER (CATALOG SE	TS" LISTED OR ⁻			
ТҮРЕ	COLOR TEMP	CRI	DRIVER CONFIGURATIC	VOLTAGE	WATTS	FINISH	FIXTURE LUMENS	DIFFUSER/LENS	REFLECTOR	SNOILGO	NOTES	OPTION 1	OPTION 2	OPTIO			
.ED	4000K	_	0-10V DIMMING (10%)	120/277	19	-	1500			-		GOTHAM (EVO-35/15-6AR-WD-LSS-					
.ED	3500K		0-10V DIMMING (<1%)	120/277	23	-	2000			-		GOTHAM (EVO-35/20-6WR-WD-MVO LT-EZ10)					
ED	3500K	90	0-10V DIMMING (10%)	120/277	6	WH	310					IGUZZINI (LBO2 TL 035 FL UNV 31)	GOTHAM (ICO2 35/05)	PORTFOLIO			
.ED	RED		NO DIMMING	120/277	3	WH	0			AC ON	LY	KENALL (METMSU MW R X-RAY IN USE DT)	LITHONIA (LQM P W 1 R 120-277 SW16 X-RAY IN ISE)	CHLORIDE (A XRAY IN US			
.ED	4000K		0-10V DIMMING (10%)	120/277	24	-	2000			-		PINNACLE (E4A-835-4'-GX-U-OL1-1- W)					
.ED	4000K		0-10V DIMMING (10%)	120/277	48	-	4000			-		PINNACLE (E4A-835-8'-GX-U-OL1-1- W)					
.ED	4000K		0-10V DIMMING (10%)	120/277	44	-	3000			-		PINNACLE (E4A-835-18'-GX-U-OL1-1- W)					
.ED .ED	4000K 4000K		NO DIMMING ELV DIMMING	120/277 120/277	42 8	WH	3000 600					LITHONIA (ZL1D) DAY-BRITE (LINCS100E-L28-935-UNV- WHG-DIM)	DAYBRITE (FSS 4 30L 835 UNV DIM) KENALL (AUCLED-1-MW-11L35K-2 4-277)	METAL (4SNLED-LD4-3 NV-L840-C			

![](_page_47_Figure_5.jpeg)

1 2 WIRING LEGEN ----- LINE - – – – - 0-10V V ----- CAT5E -O---O- TMP SEO NETWO ID | TO BUILDING AUTOMATION SYSTEM (BAS) TO BUILDING AUTOMATION ⊣ SYSTEM (BAS) TO BUILDIՒ AUTOMATI/ SYSTEM (B/

					LIGHT	ING/S	SPACE			PE SC	HEDU	ILE								
ND VOLTAGE WIRING WIRING E CABLING NG BY OTHERS SEGMENT VORK CABLING	APPROVED MANUFACTURERS1. WATTSTOPPER (BASIS OF DESIGN)2. NLIGHT3. HUBBELL BUILDING AUTOMATION4. GREENGATE	LIGHTING CONTROL ID 1. # = NUMBER OF ZONES 2. D = DIMMING, S = SWITCHING 3. P = DAYLIGHT PHOTOCELL 4. L = PLUG LOAD CONTROLLER 5. # = INSTANCE	GENERA 1. COORE 2. PROVIE 3. PROVIE 4. PART N FUNCTION PROVIDE	L NOTES DINATE INITIAL DE FINE TUNING DE CUSTOMIZE NUMBERS SHOV NS AND CAPAB A SYSTEM THA	PROGRAMMIN G PROGRAMMI D ENGRAVED WN ARE BASEL ILITIES OF THE T DOES AT NO	G WITH OWNE ING AND ADJU PERMANENT I D ON WATTST BASIS OF DE DT ADDITIONAL	ER AND MODIFY JSTMENTS UPOI BUTTON LABELS OPPER AS THE SIGN SYSTEM A L COST.	CONTROL TIME N REQUEST BY S ON EACH SWIT BASIS OF DESIG	S AND OPERATION OWNER WITHIN FIR TCH, LABEL TO MAT GN. ALL APPROVED FAILURE TO MEET	AS REQUESTED E ST 6 MONTHS AFT CH BUTTON LABE MANUFACTURER THESE SHALL RE	BY OWNER. TER SUBSTANTI EL ID OR AS DIRI S ARE SUBJECT QUIRE THE COM	TIAL COMPLETION RECTED BY OWNE T TO MEETING AI NTRACTOR TO	GE 5. N. 6. P ER. .LL 7. .LL 8. P C	ENERAL NOTES REFER TO PLAN INSTALL ONE O ROGRAMMING T WIRING MAY VA VIRING THAT WIL PROVIDE COMP ATTERNS. PROV ONTROL.	NS FOR LOCAT F EACH CONT HE REMAINING RY BETWEEN L BOTH MEET PLETE SHOP D IDE ADDITION	TIONS AND QUA ROL TYPE WITH G CONTROLS. MANUFACTUR THE MANUFAC RAWING SUBM AL SENSORS A	ANTITIES OF DEVI H PROGRAMMING ERS. CONTRACTO TURERS REQUIR ITTALS INCLUDIN S REQUIRED FOR	CES. , ADJUST, AND C OR IS RESPONS EMENTS AND MA G OCCUPANCY S 100% COVERAG	PBTAIN OWNERS AP IBLE FOR PROVIDIN ATCH WITH THE SHO SENSOR LAYOUT AN E OF SPACES WITH	PROVAL PRIC
	DETAIL		LIGHTS ON CONTROL	LIGHTS OFF CONTROL	LIGHTING CONTROL TYPE	DAYLIGHT SENSOR SETTING (FC)	TIME DELAY TO OFF (MIN.)	BAS AUX RELAY SIGNAL	PLUG LOAD CONTROLLER	NETWORKED CONTROLS	BUTTON_1	BUTTON_2	BUTTON_3	BUTTON_4	BUTTON_5	BUTTON_6	BUTTON_7	BUTTON_8	BUTTON_9	NOTES
ISOLATED AUX RELAY LMRL-100	NEUTRAL UNSWITCH HOT ONTROLL LMRC-21	LIGHTING LOAD 0- 10V DIMMING CTYP) 1-BUTTON DIMMING SWITCH LMDM-101	MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	DIMMING 0-10V		15	RELAY CLOSED ON OCCUPANCY			FUNCTION: PRESS TOP-ON, HOLD TOP-RAISE LABEL ID: TOP- "ON/RAISE" BOTTOM-"OFF/ LOWER"		-			-		-		
G N AUX RELAY LMRL-100		LIGHTING LOAD ON/OFF OLLER -101 (TYP) 1-BUTTON DUAL TECHNOLOGY SWITCH OCCUPANCY SENSOR LMDW-101 0C 1 1	MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	ON/OFF	-	15	RELAY CLOSED ON OCCUPANCY			FUNTION: PRESS-ON PRESS-OFF LABEL ID:"ON/OFF"		-	-				-		
DING TION BAS)	NEUTRAL UNSWITCH HOT DIMMING CONTROLLEL LMRC-212	R (TYP) 5-BUTTON SCENE SWITCH LMSW-105	MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	DIMMING 0-10V		15	RELAY CLOSED ON OCCUPANCY			TOGGLE PRESS TOP-ON, PRESS BOTTOM-OFF, HOLD TOP-RAISE, HOLD BOTTOM-"OFF/ LOWER"	FUNCTION: PRESS- PRESET SCENE #01 ZONE "a" 75% ZONE "b" 75% LABEL ID: "PRE #1"	FUNCTION: PRESS- PRESET SCENE #02 ZONE "a" 0% ZONE "b" 50% LABEL ID: "PRE #2"	FUNCTION: PRESS- SELECT ZONE "a" FOR DIMMING LABEL ID: "ZONE a"	FUNCTION: PRESS- SELECT ZONI "b" FOR DIMMING LABEL ID: "ZONE b"	E				

3

4

5

![](_page_48_Figure_8.jpeg)

![](_page_49_Figure_0.jpeg)

![](_page_50_Figure_0.jpeg)

# IM 360://22035 - IMED OP Multi-Purpose Imaging Room/220212 ELEC CENTRAL.rv

![](_page_51_Figure_4.jpeg)

![](_page_52_Figure_0.jpeg)

LEVEL 2, EXISITING TDR

1 1

1 EA., CAT 5E, ORANGE 1 EA., CAT 5E, ORANGE 1 EA., CAT 5E, ORANGE CB  $\langle 1 \rangle$ 1 EA., CAT 5E, ORANGE BC 1 EA., CAT 5E, ORANGE R 1 EA., CAT 5E, ORANGE 1 EA., CAT 5E, ORANGE 1 EA., CAT 5E, ORANGE SR 2 EA., CAT 5E, ORANGE NCM

3

![](_page_52_Picture_4.jpeg)

![](_page_52_Figure_5.jpeg)

# A4 TELECOM CONDUIT RISER DIAGRAM

5

4

![](_page_52_Figure_8.jpeg)

![](_page_53_Figure_0.jpeg)

# IM 360://22035 - IMED OP Multi-Purpose Imaging Room/220212 ELEC CENTRAL.rv

			NURSE CALL SY	MBOL LIST	
SYMBOL	MANUF.	PART #	DESCRIPTION	BACKBOX	BOX MO
NCM	HILL-ROM	P2500NNC1B00	STAFF CONSOLE, DESK MOUNT	STEEL CITY 58371 3/4R, RACO 561, OR ANY OTHER SINGLE GANG BACK BOX.	REFER DRAWI
	HILL-ROM	P2594NNC3A00	STAFF CONSOLE, WALL MOUNT	STEEL CITY 58371 3/4R, RACO 561, OR ANY OTHER SINGLE GANG BACK BOX.	REFER DRAWI
GA	HILL-ROM	P2594NNC3B00	GRAPHICAL ANNUNCIATOR	STEEL CITY 58371 3/4R, RACO 561, OR ANY OTHER SINGLE GANG BACK BOX.	REFER DRAWI
₿Ĉ	HILL-ROM	P2505NNC1B00	AUDIO STATION BED CONNECTOR (ASBC)	GARVIN 52181-3/4, WITH GARVIN 52C13 RING, OR ANY OTHER 4" SQUARE 3.5" DEEP BACK BOX WITH SINGLE GANG MUD RING.	REFER DRAWI
ĒQ	HILL-ROM	P2516A01	EQUIPMENT RECEPTACLE, WITH CALL CORD	STEEL CITY 58371 3/4R, RACO 561, OR ANY OTHER SINGLE GANG BACK BOX.	REFER DRAWI
	HILL-ROM	P2506NNC1B00	DOME LIGHT, SINGLE LED	RACO 231, WITH RACO 778 RING, OR ANY OTHER 4" SQUARE 2 1/8" DEEP BACK BOX.	REFER DRAWI
$\Diamond$	HILL-ROM	P2506NNC8A00-D	ICON BASED-LIGHT LED DOME LIGHT	STEEL CITY CYLE-3/4, RACO 591, OR ANY OTHER 3.5" DEEP SINGLE GANG BACK BOX.	REFER DRAWI
$\langle \! \!                                 $	HILL-ROM	P2506NNC8A00-7	ICON BASED-LIGHT LED ZONE LIGHT	STEEL CITY CYLE-3/4, RACO 591, OR ANY OTHER 3.5" DEEP SINGLE GANG BACK BOX.	REFER DRAWI
POE-24	HILL-ROM	P2519NNC1A24	POE SWITCH		REFER
	HILL-ROM	P2520A07	CODE BLUE PUSH BUTTON SWITCH	RACO 561 BACK BOX,	REFER
Ê	HILL-ROM	P2520A07	CODE PINK PUSH BUTTON SWITCH	RACO 561 BACK BOX,	REFER
Ê	HILL-ROM	P2520A07	PUSH FOR ASSISTANCE PUSH BUTTON SWITCH	RACO 561 BACK BOX, OR ANY OTHER 2.5" DEEP SINGLE GANG BACK BOX.	REFER DRAWII
(SE)	HILL-ROM	P2520A08	STAFF EMERGENCY PUSH BUTTON SWITCH	RACO 561 BACK BOX, OR ANY OTHER 2.5" DEEP SINGLE GANG BACK BOX.	REFER
Ē	HILL-ROM	P2520B01	BATH SWITCH, W/CANCEL, SUPERVISED	RACO 561 BACK BOX, OR ANY OTHER 2.5" DEEP SINGLE GANG BACK BOX.	REFER
Ē	HILL-ROM	P2520B02	BATH SWITCH, W/O CANCEL, SUPERVISED	RACO 561 BACK BOX, OR ANY OTHER 2.5" DEEP SINGLE GANG BACK BOX.	REFER DRAWII
UPS, APC ackmount Non-Seis	HILL-ROM	P2521B02	UPS, RACK MOUNTABLE, 2U - NON-SEISMIC		REFER DRAWII
CB	HILL-ROM	P2594NNC1B01	STAFF STATION - STANDARD ROOM STATION W/ CODE	STEEL CITY GW-225G, RACO 691 OR ANY OTHER 2.5" DEEP, TWO OR THREE GANG BACK BOX.	REFER DRAWI
SR	HILL-ROM	P2594NNC1B01	STAFF STATION - STANDARD ROOM STATION W/O CODE	STEEL CITY GW-225G, RACO 691 OR ANY OTHER 2.5" DEEP, TWO OR THREE GANG BACK BOX.	REFER DRAWI
GR	HILL-ROM	P2594NNC2C00	GRAPHICAL ROOM STATION (GRS) - STAFF	STEEL CITY GW-225G, RACO 691 OR ANY OTHER 2.5" DEEP, TWO OR THREE GANG BACK BOX.	REFER DRAWI
GR	HILL-ROM	P2594NNC2C11	GRAPHICAL ROOM STATION (GRS) - PATIENT	STEEL CITY GW-225G, RACO 691 OR ANY OTHER 2.5" DEEP, TWO OR THREE GANG BACK BOX.	REFER DRAWI
RAD	HILL-ROM	P2594NNC4A10	REMOTE AUDIO DEVICE	STEEL CITY GW-225G, RACO 691 OR ANY OTHER 2.5" DEEP, TWO OR THREE GANG BACK BOX.	REFER DRAWI
RCB2	HILL-ROM	P2599NNC2A00	RCB2 ROOM CONTROL BOARD	STEEL CITY GW-235G, RACO 696 OR ANY OTHER 3.5" DEEP, TWO OR THREE GANG BACK BOX.	REFER DRAWIN
Staff	HILL-ROM	RTLS-CLOSED	RTLS - STAFF LOCATING LOCATION-CLOSED AREA	STEEL CITY GW-225G, RACO 691 OR ANY OTHER TWO GANG BACK BOX.	REFER DRAWIN
OPEN Staff	HILL-ROM	RTLS-OPEN	RTLS - STAFF LOCATING LOCATION-GLASS/OPEN AREA	STEEL CITY GW-225G, RACO 691 OR ANY OTHER TWO GANG BACK BOX.	REFER DRAWIN
Staff	HILL-ROM	RTLS-BAY	RTLS - STAFF LOCATING LOCATION-BAY	STEEL CITY GW-225G, RACO 691 OR ANY OTHER TWO GANG BACK BOX.	REFER DRAWIN
	HILL-ROM		PILLOW SPEAKEKER, REQUIRES ASBC.		
R	CURBELL	MAP985A	REMOTE ENTERTAINMENT STATION	STEEL CITY GW-225C, RACO 691 OR ANY OTHER TWO GANG BACK BOX.	REFER DRAWI

![](_page_54_Figure_5.jpeg)

![](_page_54_Figure_6.jpeg)