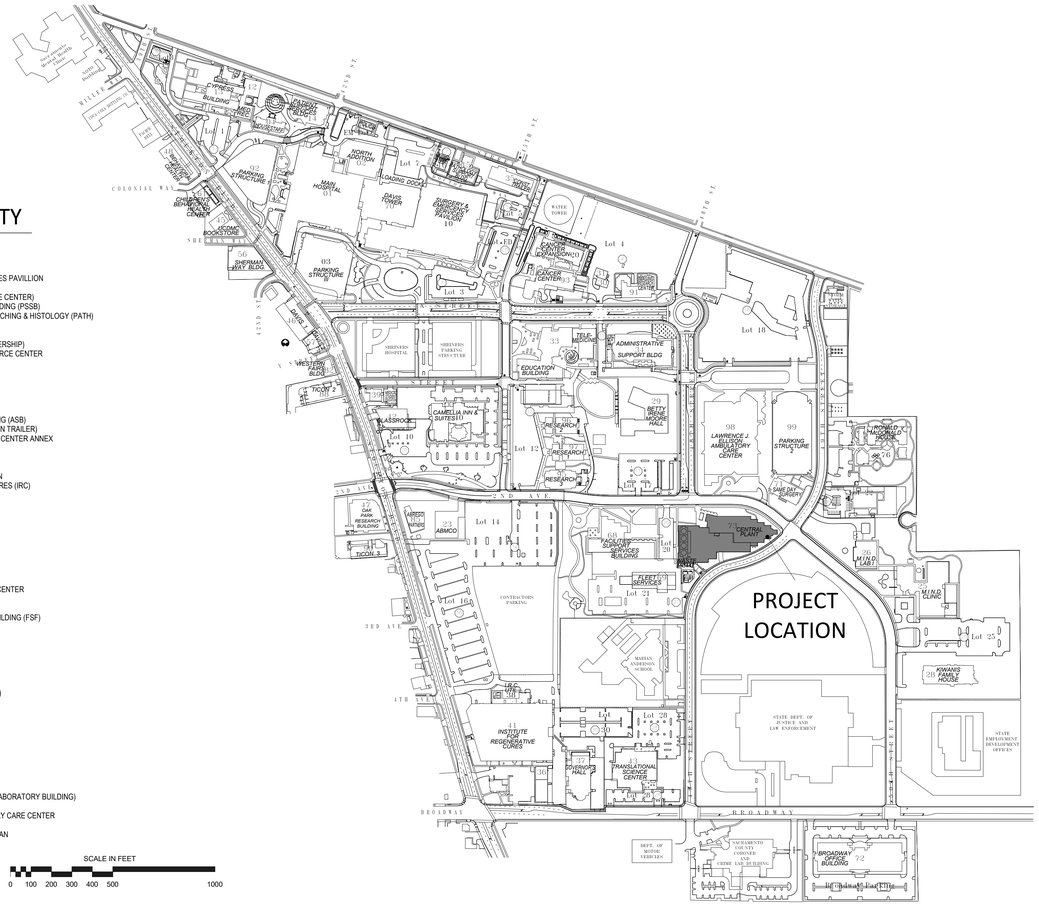


INDEX FACILITY

1 MAIN HOSPITAL
2 NORTH ADDITION
4 HOUSE STAFF FACILITY
3 PARKING STRUCTURE
10 SURGERY AND EMERGENCY SERIVES PAVILLION
12 MEDICAL RECORDS BUILDING
13 CYPRESS BUILDING (PRIMARY CARE CENTER)
14 PATIENT SUPPORT SERVICES BUILDING (PSSB)
15 PATHOLOGY ADMINISTRATION TEACHING & HISTOLOGY (PATH)
16 BULK OXYGEN STORAGE YARD
20 CANCER CENTER EXPANSION
23 ABMCO BUILDING (ABREGO PARTNERSHIP)
25 M.I.N.D. INSTITUTE CLINIC & RESOURCE CENTER
26 M.I.N.D. INSTITUTE LABORATORY
28 KIWANIS FAMILY HOUSE
29 BETTY IRENE MOORE HALL
30 RADIATION ONCOLOGY TRAILER
31 CLINICAL TRIALS TRAILER
33 EDUCATION BUILDING
34 ADMINISTRATIVE SUPPORT BUILDING (ASB)
35 TRAILER 35 (S.E.S.P. CONSTRUCTION TRAILER)
36 CLINICAL & TRANSLATION SCIENCE CENTER ANNEX
37 GOVERNOR'S HALL
38 I.R.C. UTILITY BUILDING
39 STUDENT FITNESS CENTER
40 COURTYARD BY MARRIOT MIDTOWN
41 INSTITUTE FOR REGENERATIVE CURES (IRC)
42 CLASSROOK BUILDING
43 TRANSLATIONAL SCIENCE CENTER
45 UCDMC BOOKSTORE
46 DAVIS I
47 OAK PARK RESEARCH BUILDING
48 BEHAVIOR HEALTH CENTER
49 GRANGE II BUILDING (***)
50 BULKLEY BUILDING (***)
56 SHERMAN WAY BUILDING
60 JACKSON BUSINESS PARK III (***)
61 CHILDREN'S BEHAVIORAL HEALTH CENTER
63 POLICE BUILDING
65 UCDMG-DAVIS (***)
68 FACILITIES SUPPORT SERVICES BUILDING (FSF)
70 DAVIS TOWER
71 SAME DAY SURGERY CENTER
72 BROADWAY BUILDING
73 CENTRAL PLANT
74 WASTE MANAGEMENT FACILITY
76 RONALD McDONALD HOUSE
77 JACKSON BUSINESS PARK (***)
78 CALIFORNIA MEDICAL BUILDING (***)
82 WESTERN FAIRS BUILDING
84 DONNER SCHOOL BUILDING (***)
85 HUNT BUILDING
86 JACKSON BUSINESS PARK II (***)
87 TICON I (***)
88 TICON II
90 TICON III
91 IMAGING RESEARCH CENTER
92 PARKING STRUCTURE
95 RESEARCH BUILDING III
96 RESEARCH BUILDING II (CLINICAL LABORATORY BUILDING)
97 RESEARCH BUILDING I
98 LAWRENCE J. ELLISON AMBULATORY CARE CENTER
99 PARKING STRUCTURE 2
(***) FACILITY NOT SHOWN ON THIS PLAN

SCALE IN FEET
0 100 200 300 400 500 1000

CENT PLANT 1ST FLR PO&M Emissions UREA Project

4840 2nd AVENUE
SACRAMENTO, CA 95817

UC DAVIS HEALTH

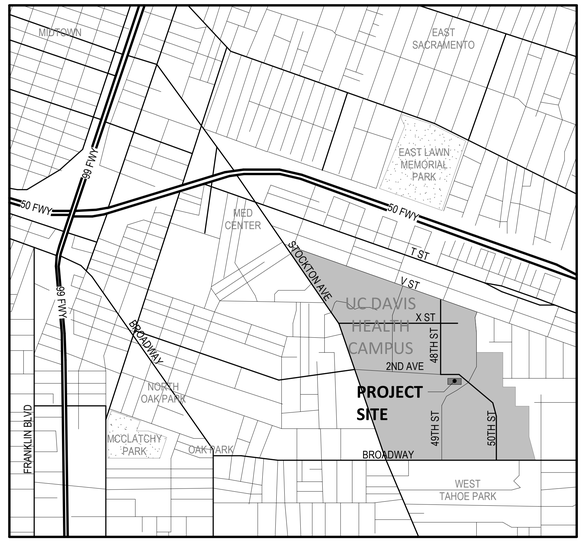
HGA
1200 R STREET, SUITE 100
SACRAMENTO, CALIFORNIA 95811
TELEPHONE: 916.787.5100

UC DAVIS HEALTH BUILDING DEPARTMENT
APPROVED
REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.
BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

UCDH Project Number: 9557240
UCDH Building Number: BLD-01444
HGA COMMISSION NUMBER: 1500-154-00

June 1, 2023

MAP: 4840 2ND AVENUE
SACRAMENTO, CA 95817



PROJECT INFORMATION

PROJECT NAME: UCDH CENTRAL PLANT UREA CONVERSATION PROJECT

PROJECT DESCRIPTION: CONVERSION OF EXISTING EMISSIONS SYSTEM EQUIPTMENT. REMOVAL OF (E) AMMONIA EXPANSION TANK AND ASSOCIATED EQUIPMENT. REPLACE WITH (N) UREA EMISSIONS SYSTEM EQUIPTMENT. REMOVAL AND REINSTALLATION OF A PORTION OF EXTERIOR WALL AND WINDOW SYSTEM FOR ACCESS TO INSTALL NEW EQUIPTMENT. EXTERIOR UNDERGROUND AMMONIA TANK TO BE DRAINED & INTERIOR RESURFACED FOR UREA SOLUTION STORAGE.

OCCUPANCY: F-1 & H-3 (B-4 & H3 1992 CBC)
MIXED OCCUPANCY: YES
PROPOSED USE: (E) EMISSIONS CONTROL EQUIPMENT - NO CHANGE OF USE
SEISMIC ZONE: D
PROJECT ADDRESS: CENTRAL PLANT, 4840 2nd AVENUE, SACRAMENTO, CA 95817
UCDH PROJECT #: 9558240
UCDH BUILDING #: BLD-01444
REQUIRED FIRE SEPARATION: (E) 1-HR
TYPE OF CONSTRUCTION: III-B (III-N 1992 CBC)
PROJECT FLOOR AREA: 446 SF
BLDG STORIES: (E) 2 STORIES (55' MAX. HEIGHT)
FIRE SPRINKLER SYSTEM: YES, (E) SPRINKLER SYSTEM TO REMAIN IN (E) BUILDING - PER NFPA 13 (1)
CALGREEN: CODE SECTIONS APPLY ONLY TO PORTIONS OF BUILDING BEING ALTERED - PROPOSED ATERATIONS ARE FOR NEW EQUIPTMENT ONLY - CALGREEN MANDATORY MEASURES DO NOT APPLY

CONTACT INFORMATION

OWNER: UC DAVIS HEALTH — PHONE: (916) 612-3617
CONTACT: CASEY LUBAWY — EMAIL: calubawy@ucdavis.edu

ARCHITECT: HAMMEL, GREEN AND ABRAHAMSON — PHONE: (916) 787-5129
CONTACT: GREG OSECHECK — EMAIL: gosecheck@hga.com

INTEGRATED ENGINEER: IEC CORPORATION — PHONE: (916) 345-0307
CONTACT: CHAN LAM — EMAIL: clam@iec-corporation.com

DEFERRED APPROVALS

AMONIA INJECTION GRID SHOP DRAWINGS

CODE INFORMATION

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

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

2022 CALIFORNIA ELECTRICAL CODE (CEC):
PART 3, TITLE 24, CCR; BASED ON THE 2020 (NFPA 70) NATIONAL ELECTRICAL CODE (NEC)

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

2022 CALIFORNIA PLUMBING CODE (CPC):
PART 5, TITLE 24, CCR; BASED ON THE 2021 UNIFORM PLUMBING CODE (UPC)

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

LIFE SAFETY CODE:
2021 NFPA 101 LIFE SAFETY CODE

ACCESSIBILITY CODE:
CHAPTER 11/11B, 2022 CBC AND 2010 ADA (28 CFR PART 36)

ENERGY CODE:
2022 CALIFORNIA ENERGY CODE - PART 6, TITLE 24, CCR

SIGN CODE:
AMERICANS WITH DISABILITIES ACT (ADA), CBC (TITLE 24), & UFC (TITLE 19)

ANSI:
CABO/ANSI A117-1 - 2017 (ACCESSIBILITY)

FM INSURED:
N/A

ELEVATORS:
TITLE 8 - DIVISION 1, CHAPTER 4, SUBCHAPTER 6, CCR

HEALTH DEPARTMENT REGULATIONS:
CALIFORNIA DEPARTMENT PUBLIC HEALTH (CDPH)

HEALTHCARE DESIGN GUIDELINES:
CHAPTER 4, CBC - PART 2, TITLE 24, CCR AND TITLE 22 - DIVISION 5, CCR

AUTHORITY HAVING JURISDICTION:
UC DAVIS - BUILDING PERMIT SERVICES

COUNTY OF:
SACRAMENTO, CA

2022 CALIFORNIA EXISTING BUILDING CODE (CEBC): *(when applicable)*
PART 10, TITLE 24, CCR, BASED ON THE 2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)

2022 CALIFORNIA HISTORIC BUILDING CODE (CHBC): *(when applicable)*
PART 8, TITLE 24, CCR

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC): *(when applicable)*
PART 11, TITLE 24, CCR

DRAWING INDEX w/o equipment

REV #	NUMBER	SHEET NAME
1-GENERAL (HGA)		
1	G000	COVERSHEET
1	G031	LIFE SAFETY PLAN / SITE PLAN - LEVEL 01
4-ARCHITECTURAL (HGA)		
	A010	GENERAL NOTES AND SYMBOLS
	A101	DEMOLITION PLAN - LEVEL 01
2	A201	ENLARGED FLOOR PLAN - LEVEL 01
1	A400	EXTERIOR ELEVATION & DETAILS
1	A460	EXTERIOR WALL TYPE & FIRE RATED DETAILS
7-STRUCTURAL (IEC)		
1	S001	STRUCTURAL NOTES
	S002	PIPE SUPPORTS
1	S006	FOUNDATION LAYOUT
15-ELECTRICAL DEMO (IEC)		
	E085D	73MCC0235 SINGLE LINE 1 AND FRONT ELEVATION DEMO
	E088D	73MCC0236 SINGLE LINE 1 AND FRONT ELEVATION DEMO
	E089D	73MCC0236 SINGLE LINE 2 DEMO
	E098D	EQUIPMENT LOADING SINGLE LINE 4 DEMO
	E121D	PANELBOARDS 2 DEMO
	E403D	FIRST FLOOR POWER AND GROUNDING PLAN DEMO
	E406D	FIRST FLOOR LIGHTING AND RECEPTACLE PLAN DEMO
	E408D	FIRST FLOOR FIRE ALARM AND COMMUNICATIONS DEMO
15-ELECTRICAL NEW (IEC)		
	E001.1	SYMBOLS 1
	E002.1	SYMBOLS 2
1	E-1.0	ELECTRICAL NOTES
	E-1.1	CABLE SCHEDULE 1
	E-1.2	CABLE SCHEDULE 2
	E-1.3	CONDUIT SCHEULE & BILL OF MATERIALS
	E-2.0	INTERCONNECTION DIAGRAM UREA EQUIPMENT
1	E-2.1	INTERCONNECTION DIAGRAM UREA EQUIPMENT 2
	E-2.2	INTERCONNECTION DIAGRAM UREA EQUIPMENT 3
	E-2.3	INTERCONNECTION DIAGRAM UREA EQUIPMENT 4
	E-2.4	INTERCONNECTION DIAGRAM UREA EQUIPMENT 5
	E085	73MCC0235 SINGLE LINE 1 AND FRONT ELEVTION
	E089	73MCC0236 SINGLE LINE 2
	E098	EQUIPMENT LOADING SINGLE LINE 4
	E-121	PANELBOARDS 2
1	E-403	FIRST FLOOR POWER AND GROUNDING PLAN
	E-406	FIRST FLOOR LIGHTING AND RECEPTACLE PLAN
	E-408	FIRST FLOOR FIRE ALARM AND COMMUNICATIONS
16-MECH DEMO (IEC)		
	M200D	FIRST FLOOR PARTIAL PLAN 2 DEMO
	M201D	AMMONIA ROOM DEMO ITEMS
	M202D	AMMONIA ROOM DEMO ITEMS
	M203D	AMMONIA ROOM DEMO ITEMS

DRAWING INDEX w/o equipment

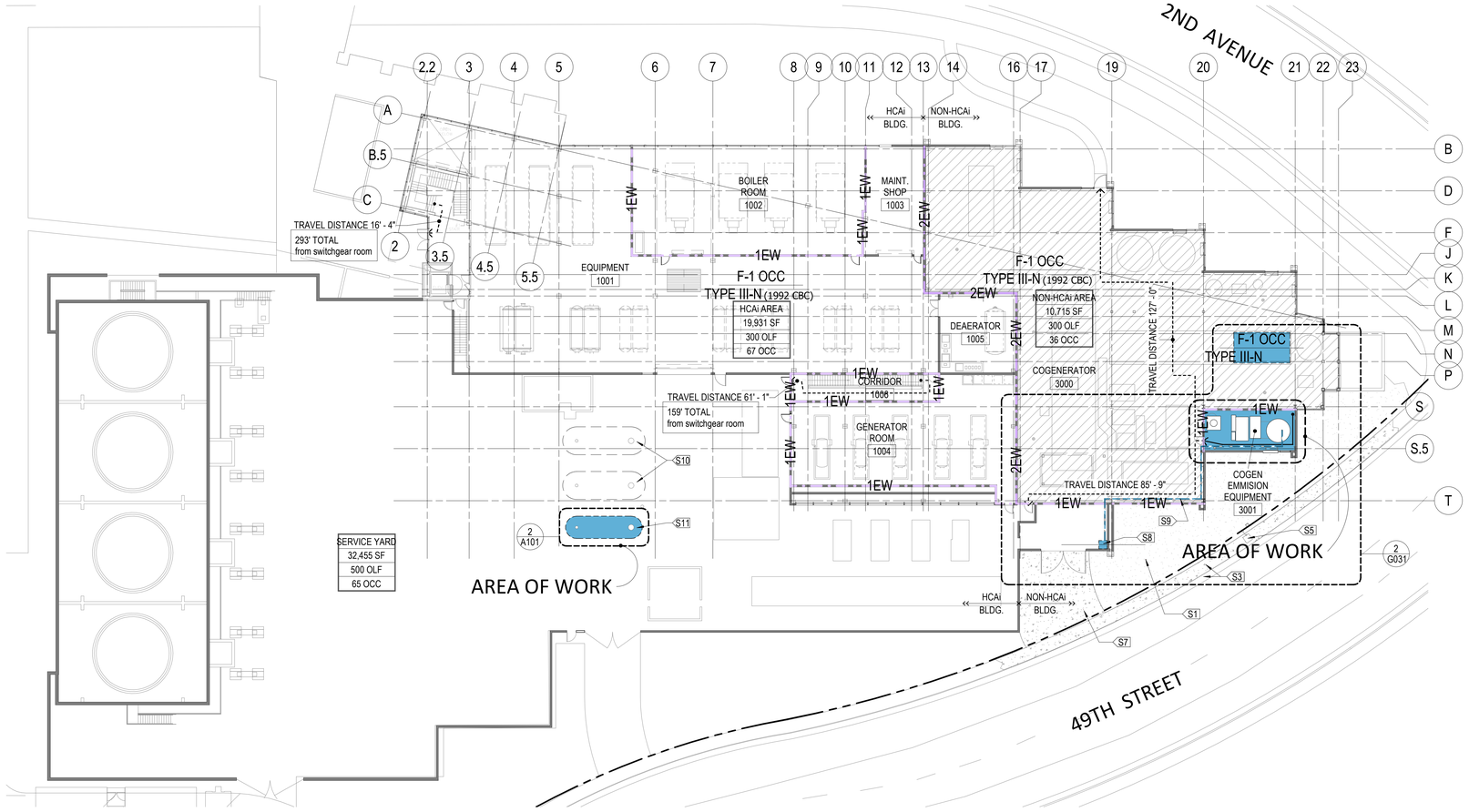
REV #	NUMBER	SHEET NAME
16-MECH NEW (IEC)		
	M101	MECHANICAL NOTES 1
1	M102	MECHANICAL NOTES 2
	M103	MECHANICAL NOTES 3
	M104	FIRST FLOOR PARTIAL PLAN 2
1	M105	AMMONIA ROOM GENERAL ARRANGEMENT
1	M106	AMMONIA ROOM PIPING PLAN
1	M107	UREA FILL LINE PIPING PLAN
	M108	AMMONIA LINE TO INJECTION GRID PIPING PLAN
	M109	ISOMETRIC DRAWING LINE 503 TP 56 ON UREA TANK TO DRAIN
	M110	ISOMETRIC DRAWING LINE 504 TP 61 ON UREA TANK TO TP 65 ON HEATER MODULE
	M111	ISOMETRIC DRAWING LINE 505 TP 55 ON UREA TANK TO DRAIN
	M112	ISOMETRIC DRAWING LINE 506 EXISTING AMMONIA TIE-IN TO TP 60 ON UREA TANK
	M113	ISOMETRIC DRAWING LINE 506 EXISTING AMMONIA TIE IN TO TP 60 ON UREA TANK
	M114	ISOMETRIC DRAWING LINE 507 EXISTING IA LINE TO TP 67 ON HEATER MODULE
	M115	ISOMETRIC DRAWING LINE 508 EXISTING POTABLE WATER TO TP 66 ON HEATER MODULE
	M116	ISOMETRIC DRAWING LINE 509 TP 69 ON HEATER MODULE TO TP 73 ON DECOMP CHAMBER
	M117	ISOMETRIC DRAWING LINE 512 TP 67 ON BLOWER MODULE TO TP B ON HEATER MODULE
	M118	ISOMETRIC DRAWING LINE 514 TP 70 ON HEATER MODULE TO TP 72 ON DECOMP CHAMBER
	M119	ISOMETRIC DRAWING LINE 515 TP 75 ON DECOMP CHAMBER TO AMMONIA INJECTION GRID
	M120	ISOMETRIC DRAWING LINE 515 TP 75 ON DECOMP CHAMBER TO AMMONIA INJECTION GRID
	M121	ISOMETRIC DRAWING LINE 516 TP 68 ON HEATER MODULE TO TP 74 ON DECOMP CHAMBER
	M122	ISOMETRIC DRAWING LINE 517
	M123	ISOMETRIC DRAWING LINE 518 UREA FILL LINE
	M124	ISOMETRIC DRAWING LINE 520 UREA STORAGE TANK VENT
	M125	P&ID HEAT RECOVERY STEAM GENERATOR SYSTEM
	M126	P&ID UREA SYSTEM
	M127	P&ID UREA SYSTEM 2
Grand total: 67		

REGISTERED ARCHITECT
PAUL R. MENARD
C-33192
EXP. 7-31-2025
STATE OF CALIFORNIA

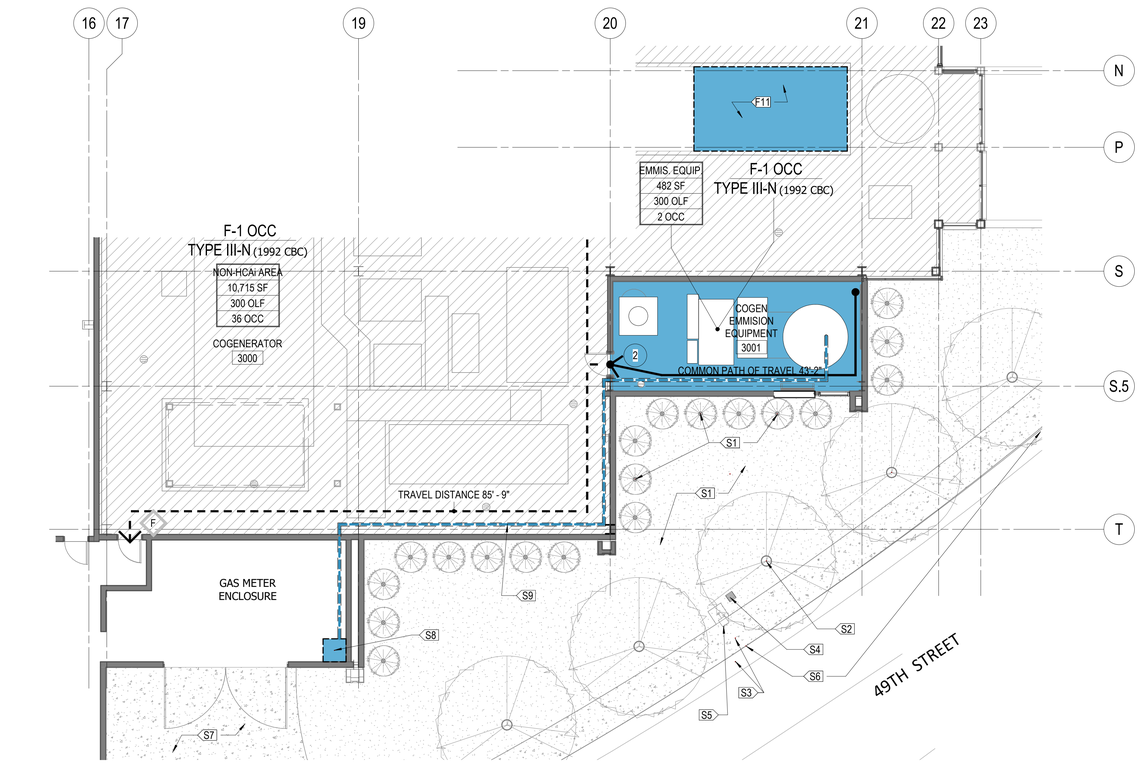
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1 OVERALL LIFE SAFETY / SITE PLAN - LEVEL 01
1" = 20'-0"



2 ENLARGED LIFE SAFETY / SITE PLAN - LEVEL 01
1/8" = 1'-0"

GENERAL NOTES - SITE PLAN

A. NOT ALL SITE UTILITIES ARE SHOWN. CONTRACTOR TO COORDINATE WORK, AS NECESSARY, WITH ANY EXISTING SITE UTILITIES TO PROTECT THE UTILIES FROM DAMAGE OR DISRUPTION. COORDINATE WITH OWNER, ARCHITECT, MEP CONSULTANTS, AHJ, ECT. AS REQUIRED.
B. INSTALL ANY NEW WORK STRAIGHT, PLUMB, LEVEL, SQUARE, AND TRUE, IN PROPER ALIGNMENT.
C. ALL EXISTING SITE FLAT-WORK AND LANDSCAPING TO REMAIN SHALL BE PROTECTED FROM DAMAGE AS NECESSARY. THIS INCLUDES ALL SITE ITEMS ON THE PROJECT PROPERTY AND IN THE RIGHT-OF-WAY. IMMEDIATELY BRING TO THE ATTENTION OF THE OWNER AND ARCHITECT IF PROTECTION OF ANY EXISTING SITE WORK IS NOT FEASIBLE AND SUGGEST ALTERNATIVES

LIFE SAFETY PLAN SYMBOL DESIGNATIONS

(SYMBOLS ONLY- SEE LIFE SAFETY PLANS FOR ACTUAL INFORMATION)

- 1A — BUILDING CODE OCCUPANCY TYPE
- B OCC OCC / TYPE IA — LIFE SAFETY CODE OCCUPANCY TYPE / LIFE SAFETY CODE CONSTRUCTION TYPE
- FUNCTION OF SPACE
- TOTAL SQUARE FEET
- OCCUPANT LOAD FACTOR
- OCCUPANT LOAD
- EXIT/EXIT-ACCESS COMPONENT (E.G., STAIR, DOOR)
- NUMBER OF OCCUPANTS USING EXIT/EXIT-ACCESS COMPONENT
- MINIMUM REQUIRED CLEAR WIDTH (INCHES)
- AVAILABLE CLEAR WIDTH (INCHES)
- ## — NUMBER OF OCCUPANTS USING EXIT/EXIT-ACCESS COMPONENT
- TRAVEL DISTANCE TO NEAREST EXIT (FEET) 250' MAX BASED ON F-1 OCCUPANCY
- COMMON PATH OF TRAVEL OR EXIT ACCESS TRAVEL DISTANCE (#FEET) 100' MAX BASED ON F-1 OCCUPANCY
- HCAi AREA N.I.C.
- NON-HCAi AREA N.I.C.
- AREA OF WORK

REQUIRED ASSEMBLY RATING

	ASSEMBLY TYPE		NEW	EXISTING
1	ONE HOUR FIRE WALL	W		EW
2	TWO HOUR FIRE WALL	W		EW

1 — F FIRE EXTINGUISHER (Coordinate with CCR Title 19); S FIRE DEPARTMENT CONNECTION; SP STANDPIPE HOSE CONNECTION; HE HORIZONTAL EXIT

KEYNOTES - SITE PLAN - LIFE SAFETY

#	DESCRIPTION
F11	APPROXIMATE LOCATION OF (E) AMMONIA INJECTION GRID, WITHIN THE (E) GAS TURBINE, TO BE REPLACED WITH (N) AMMONIA INJECTION GRID PER DEFERRED APPROVAL DRAWINGS
S1	EXISTING PLANTING AREAS / SHRUBS TO REMAIN AND BE PROTECTED OR REPLACED IN-KIND AT CONCLUSION OF OTHER WORK
S2	EXISTING MATURE STREET TREES TO REMAIN AND BE PROTECTED (TYP. OF 5), COORDINATE WITH OWNER IF PRUNING IS NEEDED TO FACILITATE CONSTRUCTION WORK
S3	EXISTING CONC. SIDEWALK, CURB & GUTTER TO REMAIN AND BE PROTECTED
S4	EXISTING AREA DRAIN TO REMAIN AND BE PROTECTED, PROTECT FROM SEDIMENT INTRUSION AS NEEDED OR REQUIRED BY AHJ. DETERMINE ROUTE OF BELOW GRADE DRAIN LINES AND PROTECT FROM DAMAGE AS REQUIRED
S5	EXISTING STREET LIGHTING POLE TO REMAIN AND BE PROTECTED
S6	EXISTING CURB MARKED AS NO-PARKING ZONE FOR FIRE LANE FROM LIGHT POLE TO CORNER OF 49TH STREET & 2ND AVENUE, COORDINATE CONTRUCTION USE WITH OWNER AND AHJ
S7	EXISTING CONC. DRIVEWAY TO REMAIN
S8	APPROXIMATE LOCTAION OF (N) TEMPORARY REMOTE FILL STATION, FOR (N) INTERIOR UREA STORAGE TANK, SEE IEC OR FUEL TECH DRAWINGS FOR MORE INFO.
S9	APPROXIMATE LOCATION OF (N) REMOTE FILL LINE PIPING FROM (N) TEMP. REMOTE FILL STATION TO (N) INTERIOR UREA STORAGE TANK, SEE IEC OR FUEL TECH DRAWINGS FOR MORE INFO.
S10	EXISTING UNDERGROUND TANKS, NOT PART OF THIS PROJECT SCOPE, TYP. OF 2
S11	EXISTING UNDERGROUND TANK, WITH SCOPE IN THIS PROJECT, SEE CALLOUT PLAN

UC DAVIS HEALTH BUILDING DEPARTMENT
APPROVED
REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
Facilities Design & Construction
4800 2nd Avenue Suite 3010
Sacramento, California 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: LIFE SAFETY PLAN / SITE PLAN - LEVEL 01

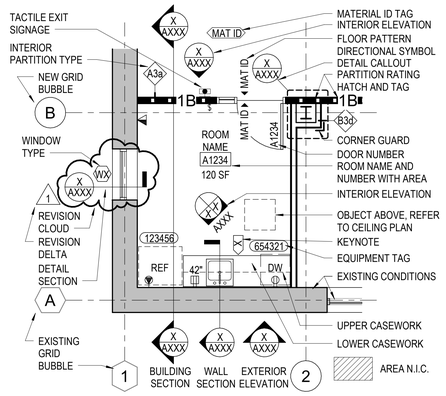
ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	G031
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: JUNE 1, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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RM

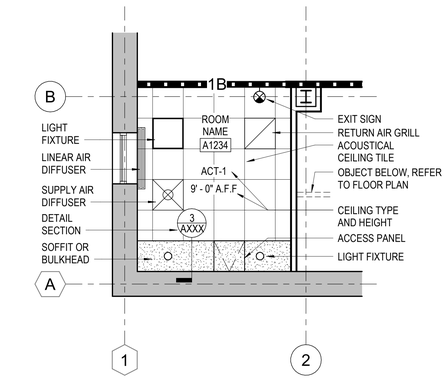
A	
A/E	ARCHITECT/ENGINEER
ACOUS	ACOUSTICAL
AD	ACCESS DOOR
ADA	THE AMERICANS WITH DISABILITIES ACT
ADD	ADDENDUM
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
ADJC	ADJACENT
AED	DEFIBRILATOR
AF	ACCESS FLOOR
AFF	ABOVE FINISH FLOOR
AL	ALUMINUM
ALT	ALTERNATE
AP	ACCESS PANEL
APPROX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
ASC	ABOVE SUSPENDED CEILING
ASPH	ASPHALT
B	
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BRKT	BRACKET
BS	BACKSPLASH
BSMT	BASEMENT
BTW	BETWEEN
BYND	BEYOND
C	
CAB	CABINET
CEN	CENT(ER) (TRAL)
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CG	CORNER GUARD
CIP	CAST IN PLACE
CJ	CONTROL/CONSTRUCTION JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR(ANCE)
CLR	CLEAR
CMPST	COMPOSITE
CMU	CONCRETE MASONRY UNIT
CNTFG	CENTRIFUGE
CNTR	COUNTER
CO	CASED OPENING; CLEAN OUT
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNEC(TION)
CONST	CONSTRUCTION
CONT	CONTINU(E) (OUS) (ATION)
CONT	CONTINUOUS
CORR	CORRIDOR
COVR	COVER(ED)
CR	CARD READER
CYL	CYLINDER
D	
D	DEEP, DEPTH
DBL	DOUBLE
DED	DEDICATED
DEG	DEGREE
DEMO	DEMO(LISH) (LITION)
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DO	DATA OUTLET
DR	DOOR
DWG(S)	DRAWING(S)
E	
(E), EXIST	EXISTING
E	ELEVATOR
EA	EACH
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EMER	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
ENCL	ENCLOSURE
EO	ELECTRICAL OUTLET
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPRF	EXPLOSION PROOF
EQ	EQUAL
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EXCL	EXCLUD(E) (ED) (ING)
EXG	EXISTING
EXH	EXHAUST
EXP	EXPAN(D) (SION)
EXT	EXTERIOR
EXTR	EXTERIOR
F	
F/F	FACE TO FACE
FA	FIRE ALARM
FACP	FIRE ALARM PANEL
FAS	FASTEN(ED) (ER)
FB	FLAT BAR
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FLOOR FINISH
FHC	FIRE HOSE CABINET
FHP	FULL HEIGHT PARTITION
FIN	FINISH
FL	FLASHING
FLR	FLOOR(ING)
FO	FACE OF
FOC	FACE OF CONCRETE
FOW	FACE OF WALL
FP	FILLER PANEL
FSTR	FASTEN(ED) (ER)
FT	FOOT, FEET
FTG	FOOTING
G	
G	GAS
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GL	GLASS
GR	GRADE
GWB	GYPSUM WALL BOARD
H	
H	HIGH, HEIGHT
HB	HOSE BIB
HD	HEAD
HDW	HARDWARE
HDWD	HARDWOOD
HGT	HEIGHT
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HO	HOLD OPEN
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HANDRAIL(S)
HT	HEIGHT
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HYDR	HYDRAULIC
I	
ID	INSIDE DIAMETER/DIMENSION
IN	INCH(ES)
INCL	INCLU(DE) (DED) (DING) (SIVE)
INSUL	INSULAT(E) (ED)
INT	INTERIOR
INTR	INTERIOR
J	
JAN	JANITOR
JST	JOIST
JT	JOINT
K	
KOP	KNOCKOUT PANEL
KPL	KICK PLATE
KS	KNEE SPACE
L	
L	ANGLE (STRUC SHAPE)
LAB	LABORATORY
LAV	LAVATORY
LB	POUND
LENGTH	LONG, LENGTH
LF	LINEAR FOOT
LFFEET	LINEAL FOOT, FEET
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LKR	LOCKER
LNTL	LINTEL
LT	LIGHT
LTG	LIGHTING
LTWT	LIGHTWEIGHT
LVL	LEVEL
LVR	LOUVER
M	
MACH	MACHINE
MAINT	MAINTENANCE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MARKERBOARD
MECH	MECHANICAL(LY)
MED	MEDIUM
MEMB	MEMBRANE
MET	METAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MT(D)	MOUNT(ED)
MTL	METAL
MUL	MULLION
MVBL	MOVABLE
N	
N	NORTH; NITROGEN
N/A	NOT APPLICABLE
NEC	NECESSARY
NIC	NOT IN CONTRACT
NO2	NITROUS OXIDE
NOM	NOMINAL
NTS	NOT TO SCALE
O	
O	OXYGEN
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER/DIMENSION
OF	OUTSIDE FACE
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED, OWNER INSTALLED
OFVI	OWNER FURNISHED, VENDOR INSTALLED
OH	OVERHEAD
OH	OPPOSITE HAND
OHSC	OVERHEAD SERVICE CARRIER
OPG	OPENING
OPP	OPPOSITE
OPT	OPTION(AL)
ORIG	ORIGINAL
P	
PA	POWER ASSIST
PAR	PARALLEL
PART	PARTICLE; PARTIAL
PB	PANIC BAR
PC	PRECAST
PERF	PERFORATED
PERIM	PERIMETER
PGBD	PEG BOARD
PL	PLATE
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PNEU	PNEUMATIC
PNL	PANEL
POSS	POSSIBLE
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATED
PTD	PAINTED
PTN	PARTITION
PTS	PNEUMATIC TUBE STATION
Q	
QTY	QUANTITY
R	
R	RADIUS; RADII; RISER (STAIR)
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC	RECESSED
RECP	RECEPTACLE
REF	REFER(ENCE)
REFR	REFRIGERATOR
REINF	REINFORC(E) (ED) (ING) (EMENT)
REP	REPRESENTATIVE
REPL	REPLACEMENT
REQD	REQUIRED
RESIL	RESILIENT
REV	REVIS(E) (ED) (ION)
RH	RIGHT HAND
RHR	RIGHT HAND REVERSE
RM	ROOM
RO	ROUGH OPENING
S	
SASM	SELF ADHERING SHEET WATERPROOFING
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT/FEET
SHT	SHEET(ING)
SHTG	SHEATHING
SIM	SIMILAR
SKLT	SKYLIGHT(S)
SPEC(S)	SPECIFICATION(S)
SPK	SPEAKER
SS	STAINLESS STEEL
ST	STREET
STAG	STAGGER
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUC	STRUCTUR(E) (AL)
SUSP	SUSPENDED
SYM	SYMMETR(Y) (ICAL)
T	
T	TREAD
T&G	TONGUE AND GROOVE
T/D	TELEPHONE DATA OUTLET
TEL	TELEPHONE
TEMP	TEMPORARY
TER	TERRAZZO
THK	THICKNESS
TME	TO MATCH EXISTING
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TV	TELEVISION
TYP	TYPICAL
U	
UC	UNDER CABINET
UCL	UNDER CABINET LIGHTING
UNEX	UNEXCAVATED
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UV	ULTRAVIOLET
V	
VAC	VACUUM
VAR	VAR(Y) (IES) (IATION)
VCT	VINYL COMPOSITION TILE
VEN	VENEER
VERT	VERTICAL
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W	
W	WIDE, WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WP	WATERPROOFING
WSCT	WAINSCOT
WT	WEIGHT
X	
XP(D)	EXPOSE(D)

SPECIAL SYMBOLS			
&	AND	#	NUMBER
∠	ANGLE(STRUC SHAPE)	/	PER
@	AT	⊥	PERPENDICULAR
℄	CENTERLINE	±	PLUS/MINUS
ø	DIAMETER		



OTHER FLOOR PLAN SYMBOL DESIGNATIONS			
	EXISTING DOOR TO REMAIN		EXISTING DOOR TO DEMO
	EXISTING WALL TO REMAIN		EXISTING WALL TO DEMO
	NEW WALL		TEMPORARY BARRIER
	NEW RATED WALL		

1 SYMBOL DESIGNATIONS - FLOOR PLAN (REFERENCE)
1/4" = 1'-0"



OTHER CEILING PLAN SYMBOL DESIGNATIONS			
	RECESSED CAN DOWNLIGHT	TV	TV CONNECTION (SEE ELECTRICAL DRAWINGS)
	RECESSED CAN WALL WASHER	H	HORN (SEE ELECTRICAL DRAWINGS)
	PENDANT MOUNTED LIGHT FIXTURE		TRACK LIGHT FIXTURE (SEE ELECTRICAL DRAWINGS)
	CEILING-MOUNTED EXIT LIGHT (SEE ELECTRICAL DRAWINGS)		EQUIPMENT MOUNTING TRACKS
	WALL-MOUNTED EXIT LIGHT (SEE ELECTRICAL DRAWINGS)		SPRINKLER HEAD
S	SMOKE DETECTOR (SEE ELECTRICAL DRAWINGS)	S	SPEAKER (SEE ELECTRICAL DRAWINGS)

2 SYMBOL DESIGNATIONS - CEILING PLAN (REFERENCE)
1/4" = 1'-0"

GENERAL NOTES

A. THESE GENERAL NOTES APPLY TO THE CONSTRUCTION DOCUMENTS AND SHALL GOVERN UNLESS NOTED OTHERWISE BY GENERAL NOTES OR KEYNOTES ON SPECIFIC SHEETS.

B. COORDINATE ALL PROJECT PHASING WITH OWNER OR AS SPECIFIED AND/OR SHOWN ON THE DRAWINGS.

C. PROVIDE A SAFE MEANS OF EGRESS THROUGH AND/OR AROUND THE BUILDING AND SITE PER APPLICABLE CODES AT ALL TIMES DURING THE CONSTRUCTION PROCESS. MINIMIZE DISRUPTION TO ADJACENT AREAS/FLOORS AS MUCH AS POSSIBLE.

D. MINIMIZE NOISE TO LEVEL ACCEPTABLE WITH THE OWNER. SCHEDULE TASKS CREATING EXCESSIVE NOISE OR NEAR SENSITIVE AREAS WITH THE OWNER.

E. PROVIDE DUST CONTROL BETWEEN CONSTRUCTION AREAS AND OCCUPIED AREAS AT ALL TIMES AS SPECIFIED.

F. NOTIFY ARCHITECT PROMPTLY IF INFORMATION SHOWN IN ONE CONSTRUCTION DOCUMENT CONFLICTS WITH INFORMATION SHOWN ON ANOTHER.

G. NOTIFY ARCHITECT PROMPTLY IF CONSTRUCTION DOCUMENTS ARE INCONSISTENT WITH THE CURRENT APPLICABLE CODES AND REGULATIONS.

H. NOTIFY ARCHITECT PROMPTLY IF ANY EXISTING CONDITIONS CONFLICT WITH THE CONSTRUCTION DOCUMENTS.

J. STRUCTURAL STEEL MEMBER PROFILES AS INDICATED ON ARCHITECTURAL DRAWINGS MAY VARY FROM ACTUAL PROFILES AND SIZES INDICATED ON THE STRUCTURAL DRAWINGS WHICH SHALL GOVERN.

K. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES, SPEAKERS, SMOKE DETECTORS, EXIT LIGHTS, ACCESS PANELS, SPRINKLER HEADS, HVAC DUCTS, DIFFUSERS, REGISTERS, AND OTHER CEILING ITEMS WITH MECHANICAL, ELECTRICAL AND OTHER TRADES. NOTIFY ARCHITECT PROMPTLY IF ANY LOCATIONS CONFLICT WITH ARCHITECTURAL REFLECTED CEILING PLANS.

L. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR FLOOR, WALL AND CEILING OPENINGS. ALL OPENINGS SHALL BE CUT AND PATCHED AS REQUIRED BY EACH DISCIPLINE OR TRADE REQUIRING THE OPENING UNLESS NOTED OTHERWISE IN THE CONSTRUCTION DOCUMENTS. PATCHING IS TO BE IN CONFORMANCE WITH APPLICABLE CODES.

M. WOOD BLOCKING WITHIN THE WALL SYSTEM SHALL BE FIRE RETARDANT TREATED. ALL EXTERIOR WOOD BLOCKING SHALL BE MOISTURE TREATED. WOOD MAY NOT BE USED IN AN EXPOSED LOCATION UNLESS IT IS A FINISH MATERIAL IN A NON-COMBUSTIBLE ASSEMBLY OR AS SPECIFIED.

SHEET NUMBER EXPLANATION

1. ARCHITECTURAL
THIS CHARACTER DENOTES THE SHEET IS AN ARCHITECTURAL DRAWING.

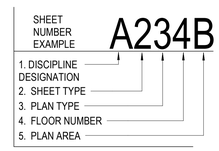
2. SHEET TYPE
THIS CHARACTER DENOTES THE TYPE OF INFORMATION ON THE SHEET

1. DEMOLITION PLANS
2. FLOOR PLANS
3. CEILING PLANS
4. EXTERIOR DETAILING
5. VERTICAL CIRCULATION
6. INTERIOR DETAILING
7. SCHEDULES
8. LAB (IF USED)
9. SHEET SPECIFICATIONS (IF USED)

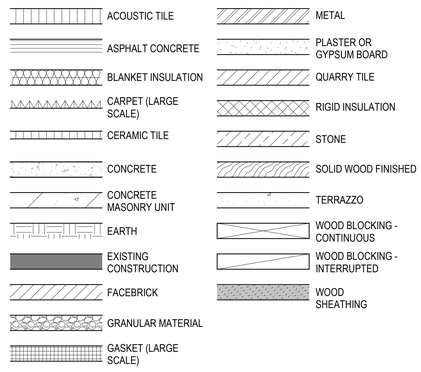
3. PLAN TYPE
THESE CHARACTERS DENOTE THE SUB CATEGORY OF THE SHEET TYPE

4. FLOOR NUMBER
THESE CHARACTERS DENOTE THE FLOOR SHOWN ON THE SHEET

5. PLAN AREA
THESE CHARACTERS DENOTE THE AREA PLAN SHOWN ON THE SHEET (IF USED)



3 ARCHITECTURAL SHEET NUMBER DESIGNATIONS



4 ARCHITECTURAL MATERIAL DESIGNATIONS

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C – 33192 REN. 7-31-2024 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
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4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
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8798 Folsom Blvd, Suite 205 Sacramento, CA 95826
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CONSULTANT LOGO :

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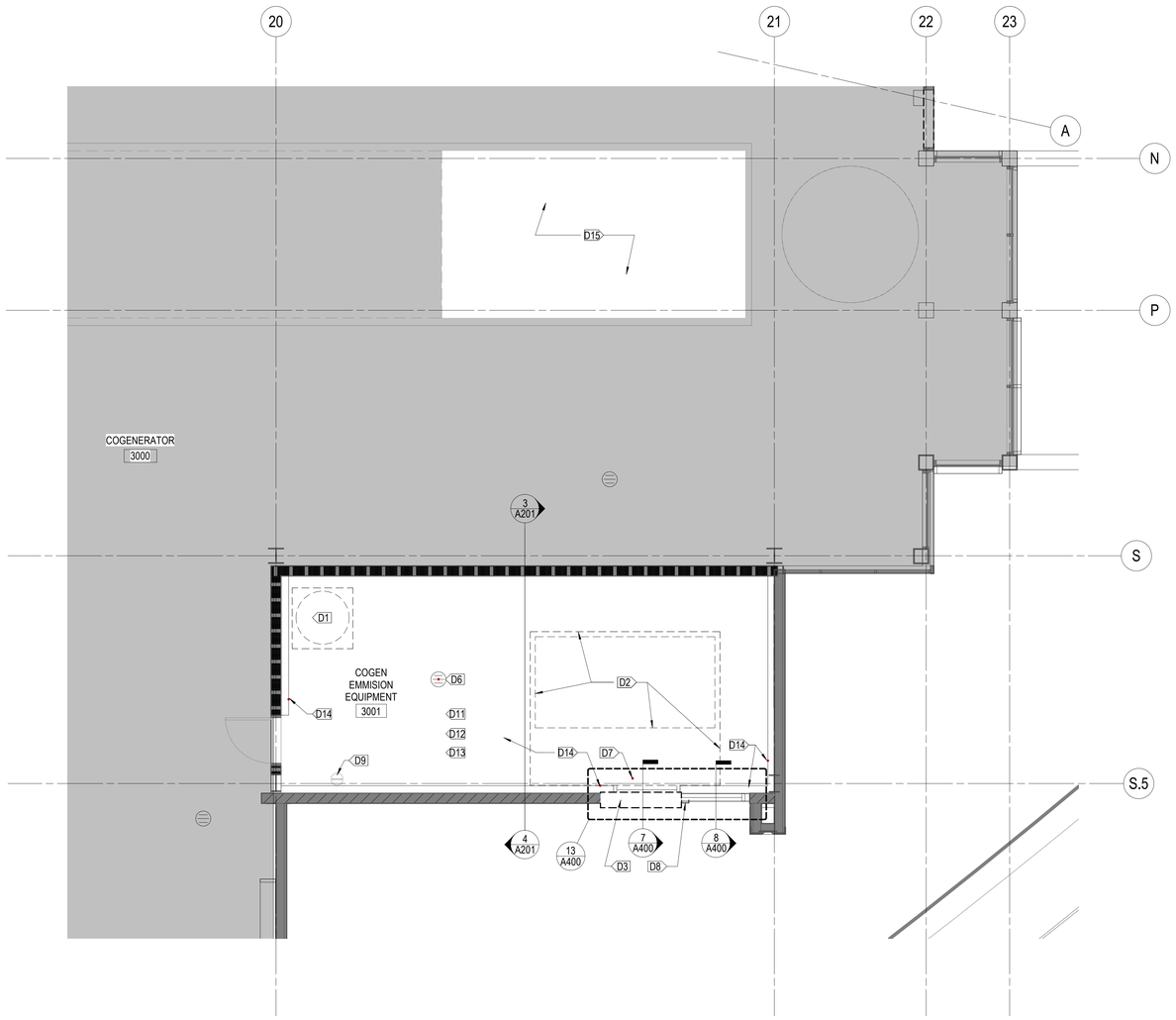
REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: GENERAL NOTES AND SYMBOLS

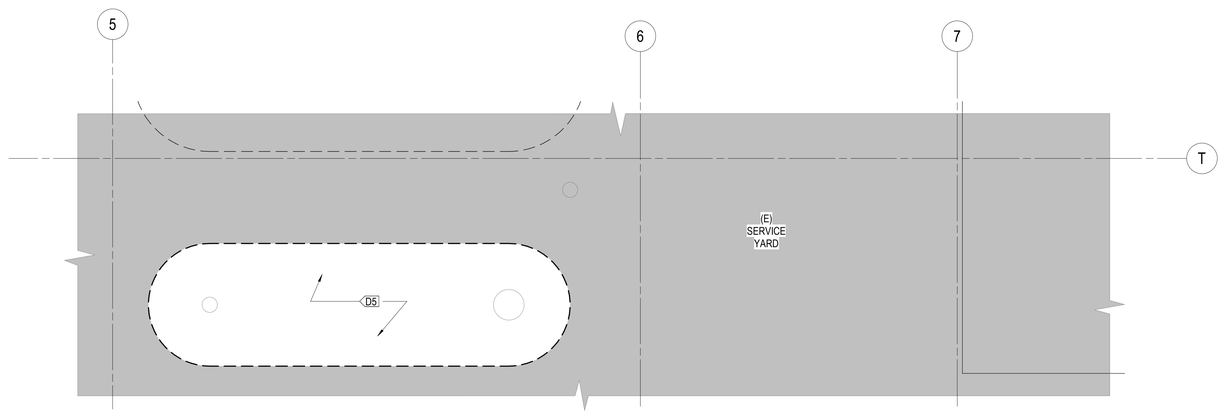
ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	A010
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	JUNE 1, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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1 DEMOLITION PLAN - LEVEL 01
1/4" = 1'-0"



2 FLOOR PLAN - LEVEL 01 - UNDERGROUND TANK DEMO PLAN
1/4" = 1'-0"

GENERAL NOTES - DEMOLITION PLAN

A. COORDINATE EXTENT OF DEMOLITION WITH REQUIREMENTS FOR NEW WORK.
B. AT SIDES OF WALLS, THAT ABUT WALLS TO REMAIN, CUT BACK AT LEAST 1 INCH (25 MM) BEYOND FACE OF FINISH OF WALL TO REMAIN TO FACILITATE SUBSEQUENT PATCHING AND NEW CONSTRUCTION.
C. MAINTAIN EGRESS FROM EXISTING OCCUPIED SPACES AND SURROUNDING BUILDING AREAS AS INDICATED AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.MAINTAIN EGRESS FROM EXISTING OCCUPIED SPACES AND SURROUNDING BUILDING AREAS AS INDICATED AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
D. PROVIDE AND MAINTAIN FIRE EXTINGUISHERS IN AREA OF WORK, IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
E. COORDINATE UTILITY INTERRUPTIONS WITH OWNER. PROVIDE AT LEAST 48 HOURS WRITTEN NOTICE TO OWNER BEFORE UTILITY INTERRUPTIONS OBTAIN OWNER'S WRITTEN APPROVAL OF INTERRUPTIONS BEFORE PROCEEDING.
F. COORDINATE OPERATIONS THAT MAY RESULT IN HIGH LEVELS OF NOISE AND VIBRATION, ODORS, OR OTHER DISRUPTIONS TO OCCUPANCY WITH OWNER. OBTAIN OWNER'S WRITTEN PERMISSION BEFORE PROCEEDING.
G. PROVIDE TEMPORARY BARRIERS AND ENCLOSURES AS REQUIRED TO PROTECT MATERIALS AND PEOPLE. PREVENT DUST, FUMES, AND ODORS FROM ENTERING OCCUPIED AREAS. MAINTAIN AND RELOCATE TEMPORARY BARRIERS AND ENLOSURES AS REQUIRED BY THE PROGRESS OF THE WORK. REMOVE TEMPORARY BARRIERS AND ENCLOSURES AT COMPLETION OF WORK.
H. PRIOR TO STARTING DEMOLITION, VERIFY EXISTING CONDITIONS AND DIMENSIONS. COORDINATE EXTENT OF DEMOLITION WORK AND EXISTING CONSTRUCTION TO REMAIN WITH NEW WORK. NOTIFY ARCHITECT OF CONFLICTS OR DISCREPANCIES.
I. REFER TO DISCPLINE-SPECIFIC DRAWINGS FOR RELATED FIRE SUPPRESSION, PLUMBING, HEATING VENTILATION AND AIR CONDITIONING, ELECTRICAL, COMMUNICATIONS, AND ELECTRONIC SAFETY AND SECURITY SYSTEM DEMOLITION WORK.

DEMOLITION PLAN LEGEND

SEE A010 FOR ALL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

	(E) CONSTRUCTION TO REMAIN	
1	(E) ONE HOUR RATED	
2	(E)TWO HOUR RATED	
	(E) CONSTRUCTION TO BE REMOVED	

KEYNOTES - DEMO

#	DESCRIPTION
D1	(E) AMMONIA EXPANSION TANK & CONC. HOUSEKEEPING PAD TO BE DEMOLISHED DOWN TO TOP OF S.O.G.
D2	(E) EQUIPMENT & CONC. HOUSEKEEPING PAD TO BE DEMOLISHED DOWN TO TOP OF S.O.G
D3	(E) METAL STUD WALL WITH CORRUGATED METAL PANEL EXTERIOR FINISH AND INTERIOR SOUND LOUVERS TO BE REMOVED - RETAIN EXTERIOR MATERIALS FOR REINSTALLATION. UPON AWARD OF PROJECT, CONTRACTOR TO CONFIRM EXTENT OF MATERIALS THAT CAN BE REUSED
D5	(E) UNDERGROUND LIQUID AMMONIA STORAGE TANK TO REMAIN, TO BE DRAINED AND CLEANED IN ACCORDANCE WITH ALL OSHA SAFETY REQUIREMENTS, REFER TO SPECIFICATIONS
D6	(E) FLOOR DRAIN TO BE RETAINED AND PROTECTED
D7	(E) ACOUSTICAL LOUVER TO BE DETACHED AND SALVAGED FOR REINSTALLATION
D8	(E) ALUM. CHANNEL WINDOW MULLION EXTENSION, BETWEEN (E) WINDOW SYSTEM & FRAMED WALL, TO BE DISASSEMBLED & SALVAGED FOR REINSTALLATION. UPON PROJECT AWARD, CONTRACTOR TO REVIEW ON SITE CONDITIONS AND CONFIRM EXTENT OF EXISTING MATERIALS THAT CAN BE REUSED
D9	(E) EMERGENCY EYE WASH, ASSOCIATED SIGNAGE & ASSOCIATED PLUMBING TO REMAIN AND BE PROTECTED
D11	ALL (E) FIRE LIFE SAFETY EQUIPMENT SUCH AS HORN/STROBES, PA SYSTEM, FIRE SPRINKLERS, ETC. TO REMAIN AND BE PROTECTED
D12	ALL (E) ROOM LIGHTING TO REMAIN IN OPPERATION & BE PROTECTED
D13	ALL (E) PIPING, CONDUIT, ETC. THAT PASS THROUGH THIS ROOM, TO EQUIPMENT IN OTHER ROOMS, SHALL BE PROTECTED UNLESS OTHERWISE NOTED ELSEWHERE IN THESE DOCUMENTS
D14	(E) CONCRETE S.O.G. AND CURBS TO REMAIN
D15	APPROXIMATE LOCATION OF (E) AMMONIA INJECTION GRID, WITHIN THE (E) GAS TURBINE, TO BE REPLACED WITH (N) AMMONIA INJECTION GRID PER DIFERRED APPROVAL DRAWINGS

UC DAVIS HEALTH BUILDING DEPARTMENT
APPROVED
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Sacramento, CA 95817

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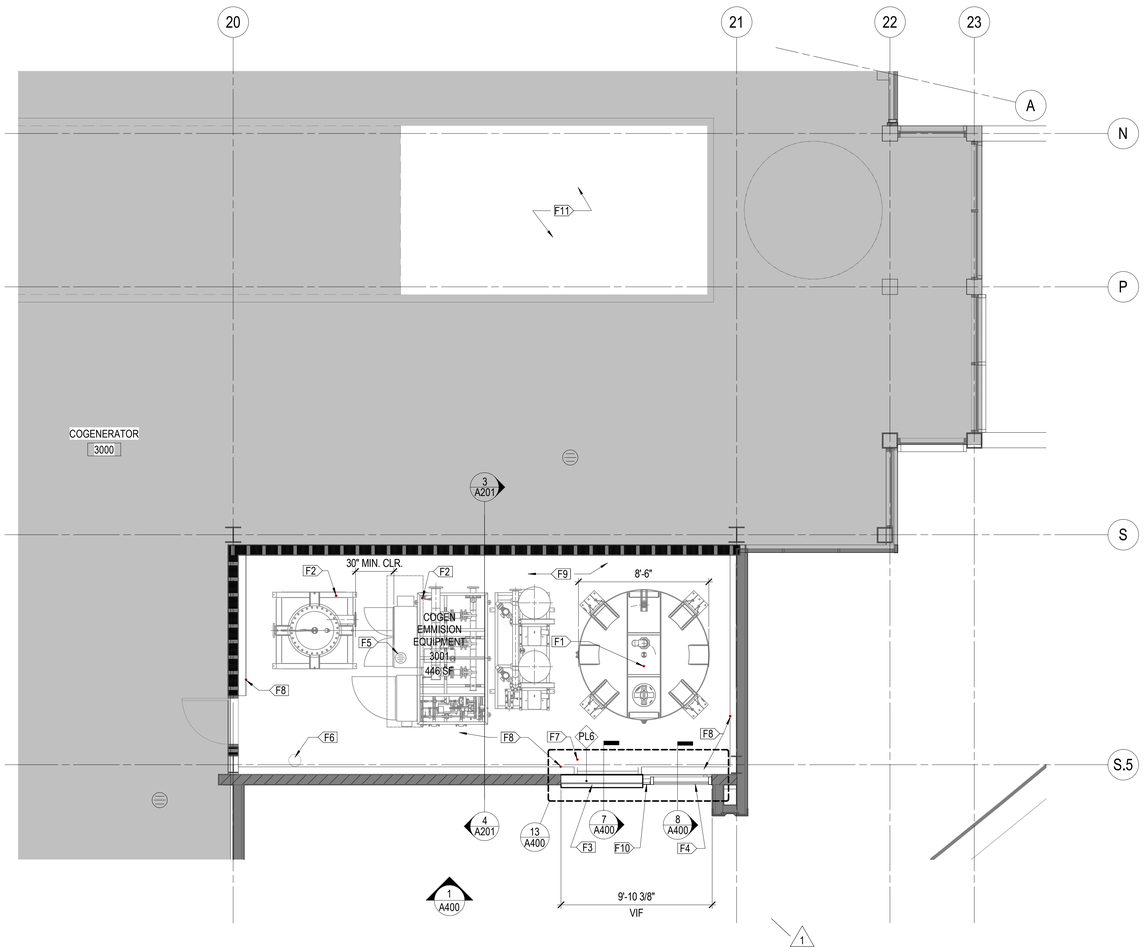
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BUILDING: CENTRAL PLANT
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PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: DEMOLITION PLAN - LEVEL 01

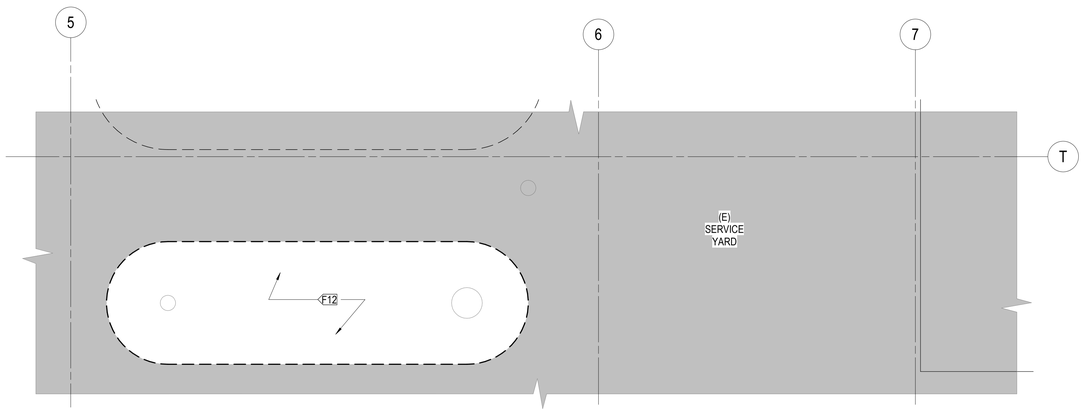
ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	A101
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: JUNE 1, 2023	
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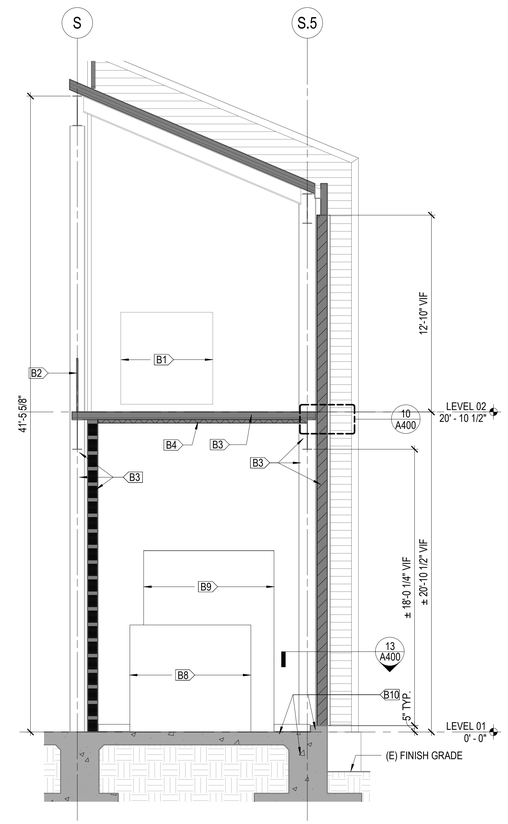
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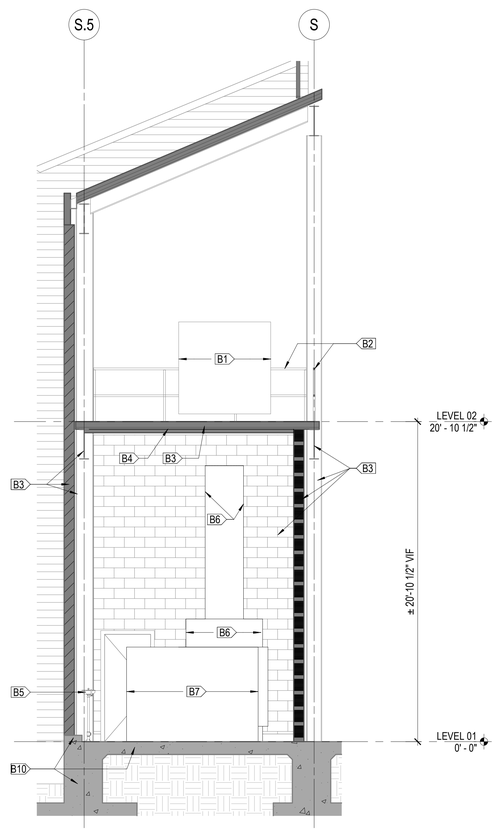
1 FLOOR PLAN - LEVEL 01 - COGEN EMMISION EQUIPMENT
1/4" = 1'-0"



2 FLOOR PLAN - LEVEL 01 - UNDERGROUND TANK CONSTRUCTION PLAN
1/4" = 1'-0"



3 EMISSION EQUIPMENT SECTION
1/4" = 1'-0"



4 EMISSION EQUIPMENT SECTION 2
1/4" = 1'-0"

GENERAL NOTES - FLOOR PLAN

A. PLAN DIMENSIONS ARE FROM FINISH FACE OF PARTITION TYPE BUT DO NOT INCLUDE APPLIED FINISHES (SUCH AS TILE), UNLESS NOTED OTHERWISE. PLAN DIMENSIONS INDICATED AS "HOLD" OR "CLEAR" DIMENSIONS ARE FROM FACE OF APPLIED FINISH.
B. INSTALL WORK STRAIGHT, PLUMB, LEVEL, SQUARE, AND TRUE, IN PROPER ALIGNMENT.
C. CLOSE AND PATCH HOLES AND OPENINGS IN EXISTING FLOOR, WALL AND CEILING WHICH EXIST OR RESULT FROM DEMOLITION OR ALTERATION WORK TO MATCH ADJACENT UNDISTURBED SURFACES.
D. PRIOR TO CONCEALMENT OF FIRE RESISTIVE MATERIALS BY OTHER WORK, PATCH AND REPAIR AREAS OF REMOVED OR DAMAGED APPLIED FIREPROOFING. COMPLETE PATCHING AND REPAIR TO MAINTAIN EXISTING FIRE-RESISTANCE DESIGN IN ACCORDANCE WITH FIREPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CONDITIONS OF EXPOSURE AND INTENDED USE. COORDINATE TESTING AND INSPECTION OF ASSEMBLIES AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
E. PROVIDE FIRESTOPPING OF PENETRATIONS AND VOIDS THROUGH FIRE-RATED WALL, FLOOR AND PARTITION ASSEMBLIES [AND ROOF] INCLUDING EMPTY OPENINGS AND OPENINGS CONTAINING CABLES, PIPES, DUCTS, CONDUIT AND OTHER ELEMENTS.
F. AT SOUND-RATED PARTITION WALLS, PROVIDE CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT AT JUNCTURE OF BOTH FACES OF RUNNERS OR PLATES WITH FLOOR AND CEILING CONSTRUCTION, AND WHEREVER GYPSUM BOARD ABUTS DISSIMILAR MATERIALS.
   - AT OPENINGS AND CUTOUTS, FILL OPEN SPACES BETWEEN GYPSUM BOARD AND FIXTURES, CABINETS, DUCTS AND OTHER FLUSH OR PENETRATING ITEMS, WITH CONTINUOUS BEAD OF SEALANT.
   - SEAL SIDES AND BACKS OF ELECTRICAL BOXES TO COMPLETELY CLOSE OFF OPENINGS AND JOINTS.

CONSTRUCTION PLAN LEGEND

SEE A010 FOR ALL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

	(E) CONSTRUCTION	MTL. STUD
		CMU
	(N) CONSTRUCTION	MTL. STUD

ASSEMBLY RATING

1	(E) ONE HOUR RATED	
2	(E) TWO HOUR RATED	

AREA OF WORK

KEYNOTES - CONSTRUCTION

#	DESCRIPTION
B1	(E) BUILDING EXHAUST FAN & DUCTING TO REMAIN
B2	(E) GUARDRAIL TO REMAIN
B3	(E) CMU WALLS, STEEL STRUCTURE & 2ND FLOOR STRUCTURE TO REMAIN AND BE PROTECTED
B4	(E) ACOUSTIC CEILING SYSTEM TO REMAIN & BE PROTECTED
B5	(E) EMERGENCY EYE WASH, ASSOCIATED SIGNAGE & ASSOCIATED PLUMBING TO REMAIN
B6	(N) UREA DECOMPOSITION CHAMBER BY FUEL TECH
B7	(N) UREA METERING & HEATER MODULE BY FUEL TECH
B8	(N) AIR BLOWER MODULE BY FUEL TECH
B9	(N) UREA STORAGE TANK BY FUEL TECH
B10	(E) CONC. FOOTINGS, S.O.G. & CURBS TO REMAIN & BE PROTECTED AS NECESSARY
F1	(N) UREA STORAGE TANK, SEE IEC & FUEL TECH DRAWINGS
F2	(N) EMISSIONS CONTROL EQUIPMENT & SKIDS, SEE IEC & FUEL TECH DRAWINGS
F3	(E) REINSTALLED CORRUGATED METAL PANEL WALL & INTEGRATED LOUVER, WITH (N) STEEL STUDS, WALL INSULATION, INTERIOR GYP. BOARD, FLASHING, SEALANTS, ETC. AS NEEDED. PAINT INTERIOR GYP. TO MATCH (E). TOUCH UP PAINT EXTERIOR FINISH MATERIALS AS NEEDED TO MATCH (E)
F4	(E) REINSTALLED WINDOW SYSTEM WITH (N) FLASHING, SEALANTS, ETC. AS NEEDED, COORD. WITH DETAILS & SPECS
F5	(E) FLOOR DRAIN TO BE RETAINED & PROTECTED
F6	(E) EMERGENCY EYE WASH, ASSOCIATED SIGNAGE & ASSOCIATED PLUMBING TO REMAIN
F7	(E) REINSTALLED ACOUSTICAL LOUVER WITH (N) FLASHING, SEALANTS, ETC. AS NEEDED
F8	(E) CONCRETE S.O.G. & CURBS TO REMAIN
F9	CLEAN & SEAL (E) CONCRETE FLOOR, CURBS & 6" UP (E) CONC. BLOCK WALL PER SPECIFICATIONS
F10	(E) REINSTALLED ALUM. CHANNEL WINDOW MULLION EXTENSION, BETWEEN (E) WINDOW SYSTEM & FRAMED WALL
F11	APPROXIMATE LOCATION OF (E) AMMONIA INJECTION GRID, WITHIN THE (E) GAS TURBINE, TO BE REPLACED WITH (N) AMMONIA INJECTION GRID PER DEFERRED APPROVAL DRAWINGS
F12	(E) UNDERGROUND TANK TO BE COATED WITH (N) INTERIOR PROTECTIVE COATING IN ACCORDANCE WITH ALL OSHA SAFETY REQUIREMENTS, REFER TO SPECIFICATIONS. COORDINATE WITH OWNER SALVAGE STUDY

HAZARDOUS MATERIAL STATEMENT

A. UREA IS NON-COMBUSTIBLE IN LIQUID AND SOLID FORMS AND IS NOT CONSIDERED TOXIC WHEN USED IN TYPICAL OCCUPATIONAL MANNERS. UREA WILL REACT WITH STRONG OXIDANTS, NITRITES, INORGANIC CHLORIDES, CHLORITES, AND PERCHLORATES. PER CBC TABLE 307.1(1) CLASS 1 UNSTABLE (REACTIVE) MATERIALS IN ANY STATE (SOLID , LIQUID, OR GAS)ARE NOT LIMITED (NL) FOR STORAGE, CLOSED SYSTEMS AND OPEN SYSTEMS. UREA USED IN THIS FACILITY WILL BE IN A CLOSED SYSTEM AND NOT BE PLACED IN CONTACT WITH CHEMICALS CAUSING A REACTION. NO HAZARDOUS OCCUPANCY REQUIRED.

B. AMMONIA IS CLASSIFIED AS A FLAMMABLE GAS. IN THIS PROJECT A SMALL AMOUNT OF AMMONIA GAS IS CREATED BY THE UREA EQUIPMENT AND THEN IMMEDIATELY USED BY THE EMISSIONS EQUIPMENT IN THE PLANT. THIS PROJECT WILL USE LESS THAN 20 CUBIC FEET OF AMMONIA GAS AND NO AMMONIA WILL BE STORED ON SITE. PER CBC TABLE 307.1(1) THE MAXIMUM NON-HAZARDOUS QUANTITY ALLOWABLE IN A CLOSED SYSTEM IS 1000 CUBIC FEET. NO HAZARDOUS OCCUPANCY REQUIRED. PER TABLE 307.1(2) AMMONIA GAS IS CLASSIFIED AS HIGHLY TOXIC. THE MAXIMUM QUANTITY PER CONTROL AREA IN A CLOSED SYSTEM IS 20 CUBIC FEET. ALL CONTROL AREAS ARE EXISTING TO REMAIN WITH NO PROPOSED CHANGES.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

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8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
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CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

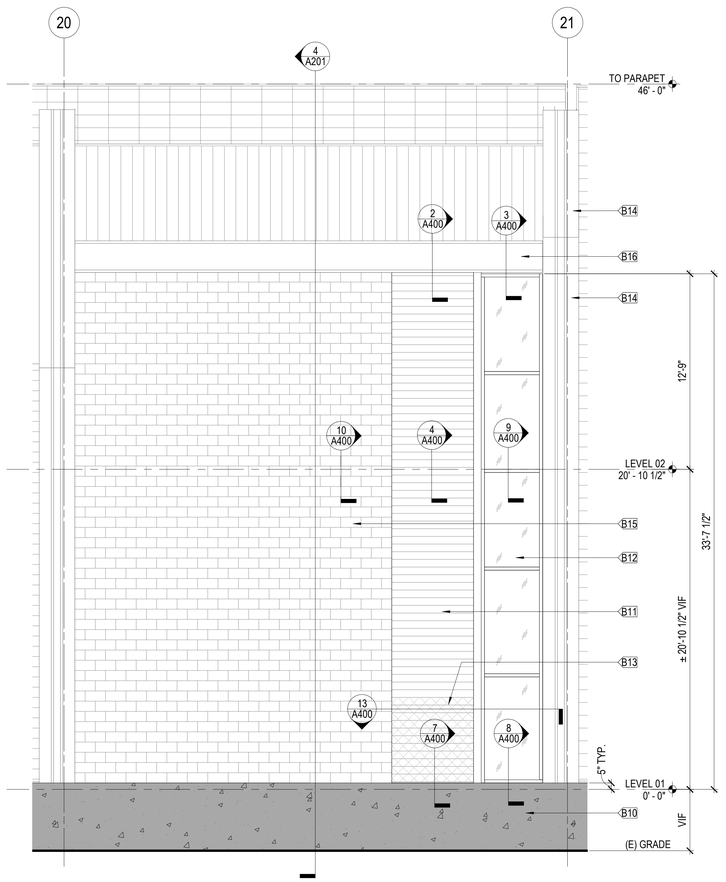
REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023
2	BACKCHECK RESPONSE 02	10/27/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: ENLARGED FLOOR PLAN - LEVEL 01

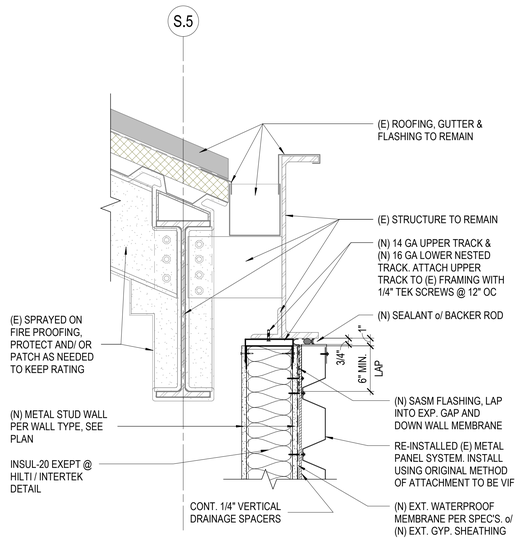
ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	A201
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: JUNE 1, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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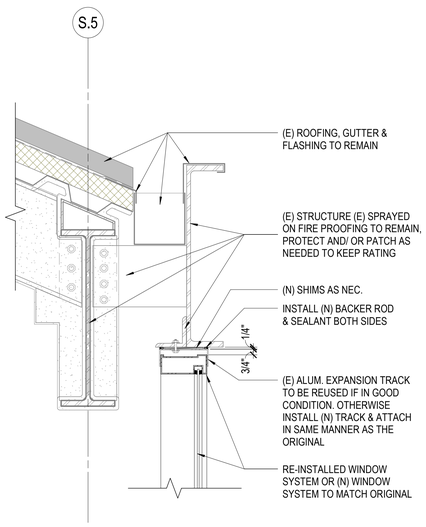
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Author



1 EXTERIOR ELEVATION OF CoGEN EMISSION ROOM
1/4" = 1'-0"



2 EXT. METAL STUD WALL HEAD @ STEEL ROOF EAVE FACIA
1 1/2" = 1'-0"



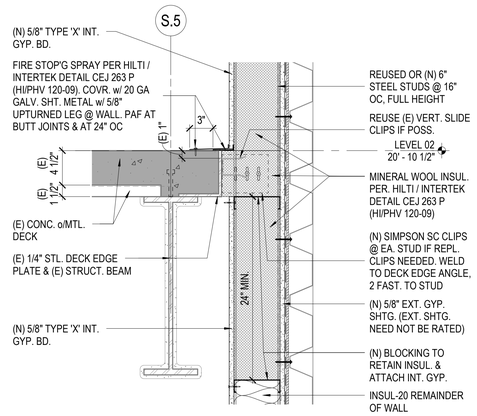
3 WINDOW SYSTEM HEAD @ STEEL ROOF EAVE FACIA
1 1/2" = 1'-0"

GENERAL NOTES - EXTERIOR ELEVATIONS

A. ELEVATIONS OF EXISTING FLOORS ARE BASED ON SURVEY INFORMATION AND\OR AS-BUILT DRAWINGS PROVIDED BY THE OWNER. THE SURVEY DATA MAY NOT BE COMPLETE AND THE ACTUAL EXISTING ELEVATIONS MAY VARY IN DIFFERENT PORTIONS OF THE EXISTING BUILDING. ALL INFORMATION MUST BE FIELD VERIFIED AND COORDINATED BETWEEN NEW AND EXISTING CONSTRUCTION TO PROVIDE MATCHING FLOOR ELEVATIONS WHERE REQUIRED.

KEYNOTES - CONSTRUCTION

#	DESCRIPTION
B10	(E) CONC. FOOTINGS, S.O.G. & CURBS TO REMAIN & BE PROTECTED AS NECESSARY
B11	(E) RE-INSTALLED CORRUGATED METAL PANEL SYSTEM, REPAINT AS NEEDED TO MATCH (E), COORD. WITH OWNER & SPECS
B12	(E) REINSTALLED WINDOW SYSTEM WITH (N) FLASHING, SEALANTS, ETC. AS NEEDED, COORD. WITH DETAILS & SPECS
B13	AREA OF (E) RE-INSTALLED INTEGRATED LOUVER SYSTEM
B14	(E) METAL FRAMING & METAL PANEL "BUTTRESS" TO REMAIN AND BE PROTECTED
B15	(E) CMU WALL TO REMAIN AND BE PROTECTED
B16	(E) EXPOSED ARCHITECTURAL STEEL ROOF EAVE FACIA TO REMAIN AND BE PROTECTED, REPAINT AS NEEDED TO MATCH (E), COORD. WITH OWNER & SPECS

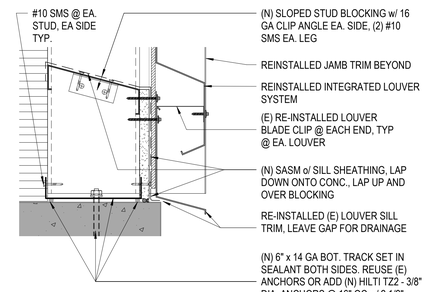


4 EXTERIOR STUD WALL CLIP CONNECTION @ L2 DECK EDGE
1 1/2" = 1'-0"

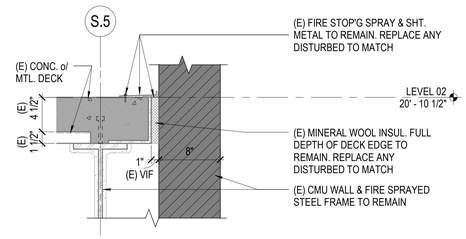
7 EXTERIOR METAL STUD WALL WITH LOUVER
1 1/2" = 1'-0"

8 WINDOW SYSTEM BASE @ (E) FOOTING / CURB
1 1/2" = 1'-0"

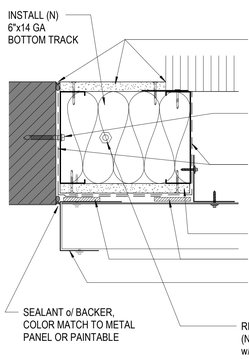
9 WINDOW SYSTEM @ L2 DECK EDGE
1 1/2" = 1'-0"



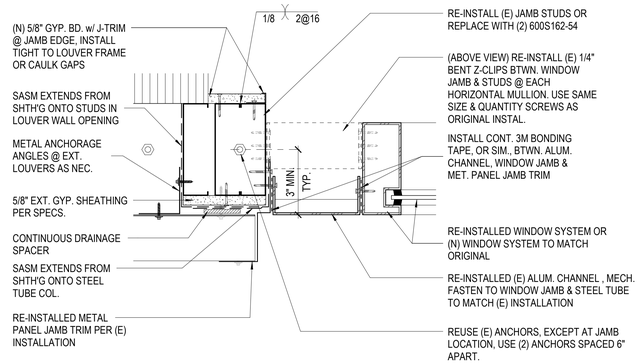
5 BASE OF STUD WALL @ LOUVER
3" = 1'-0"



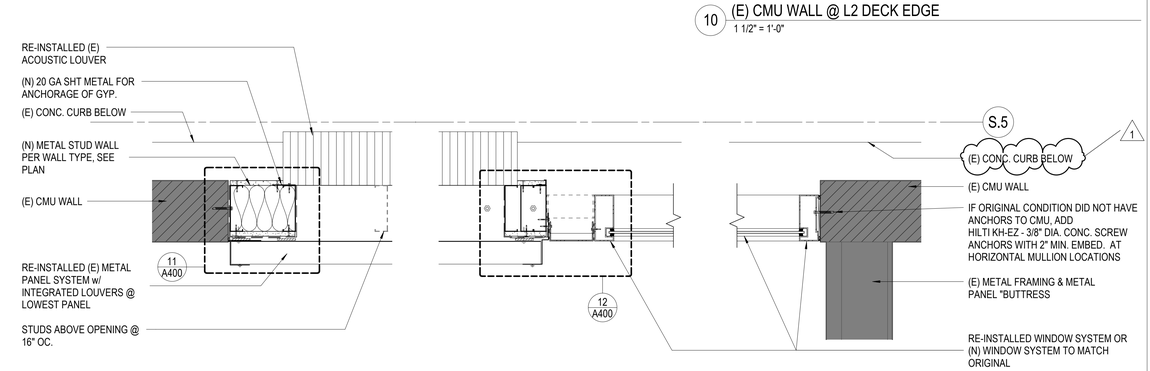
10 (E) CMU WALL @ L2 DECK EDGE
1 1/2" = 1'-0"



11 JAMB OF STUD WALL @ (E) CMU WALL
3" = 1'-0"



12 JAMB OF STUD WALL @ INFILL CHANNEL
3" = 1'-0"



13 OVERALL PLAN SECTION @ STUD FRAMED WALL & WINDOW SYSTEM
1 1/2" = 1'-0"

UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
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SACRAMENTO, CALIFORNIA 95817
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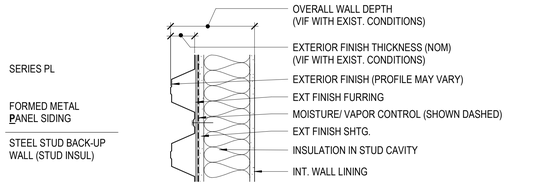
REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: EXTERIOR ELEVATION & DETAILS

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	A400
UCDMC PROJECT MANAGER	SCALE	
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DESIGNED BY	DATE	
RM	JUNE 1, 2023	
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RM		

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PLAN VIEW

WALL TYPE	EXTERIOR FINISH MATL	THK	FURRING	MOIST CONTR	EXT FIN SHTG	INSULATION TYPE	THK	VAPOR CONTR	BACK-UP WALL SHTG	STUDS	LINING	OVERALL WALL DEPTH	NOTES
PL6	MP-2 (HORZ)	VIF	1/4" CONT. VERT.	BP-1	NONE	INSUL-20 INSUL-25	6"	EXT.	GYP SHTG-2	600S162-54 @ 16" OC	GYP SHTG-1	10"- 10 1/2" VIF	1-3
NOTE: WALL TYPES NOT REFERENCED ON DRAWINGS MAY NOT BE REQUIRED ON THIS PROJECT													

NOTES:
1. SEE ROOM FINISH SCHEDULE & DWGS FOR INT WALL LINING VARIATIONS, WHERE APPLICABLE.
2. SEAL MOISTURE / VAPOR CONTROL LAYER JOINTS & PENETRATIONS AT EXT. FACE WITH COMPATIBLE TAPE/ SEALANT.
3. STUD SIZE & SPACING SHOWN IS MIN REQUIRED & MUST BE VERIFIED BY DESIGN OF SUPPLIER.
4.
5.

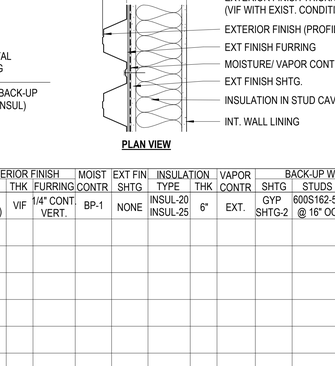
1 EXTERIOR WALL TYPE - PL SERIES
1 1/2" = 1'-0"

Design No. CEJ 263 P (HI/PHV 120-09)
PERIMETER FIRE BARRIER SYSTEM
Hilti, Inc.
ASTM E 2307
Table 1

CEJ 263 P

	FIRESTOP JOINT SPRAY CFS-SP WB	SILICONE JOINT SPRAY CFS-SP SIL
F-RATING	2-HR.	2-HR.
T-RATING	1-HR.	1-HR.
APPLICATION THICKNESS	1/8" WET FILM (1/16" DRY)	2mm (0.079") WET FILM
CYCLING (%) HORIZONTAL VERTICAL SEE NOTE 1	± 7.5 ± 5	± 7.5 ± 5

L-Rating <1.0 SCFM/LF



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Intertek
Page: 1 of 3

Design No. CEJ 263 P (HI/PHV 120-09)

CEJ 263 P

1. CONCRETE FLOOR ASSEMBLY: Two-hour rated concrete floor assembly made from either lightweight or normal weight concrete with a density of 100-150 pcf, with a min. thickness of 4 in. at the joint face. Overall slab thickness may vary to accommodate various blockout depths (longitudinal recesses) formed in the concrete, to house the architectural cover plate. The blockout width may also vary without restriction.
2. CURTAIN WALL ASSEMBLY: The curtain wall assembly shall incorporate the following construction features:
   A. Mounting Attachment: (Not shown) Attachment of the curtain wall framing to the structural framing shall be according to the curtain wall manufacturer's instructions. When required, the mounting attachments to the floor slab shall be connected to the joint face of the floor slab, according to the curtain wall manufacturer's instructions. Max. distance between mounting attachments shall be 10 ft.
   B. Steel-Stud Framing: Vertical framing members shall be a min. 3-5/8 in. by 1-5/8 in. 18 GA steel "C" studs secured in an 18 GA steel track top and bottom using #6 x 1.25 in. Bugle head SD PT screws. Vertical framing shall not exceed a spacing of 24 in. on center (oc).
   C. Sandwiched Wall Surface: Use a min. 1/2 in. thick, 48 in. wide by 96 in. long, exterior grade gypsum wallboard (ASTM C 79), cement board, or fiberglass sheathed gypsum wallboard placed over and secured to framing with min. 1-1/4 in. long Type S drywall screws 8 in. oc.
   D. Curtain Wall Insulation: (Optional – Not Shown) A faced or un-faced mineral wool or fiberglass** batt insulation installed in each stud cavity in accordance with manufacturer's instructions. (** Listed with Intertek)
   E. Barrier Insulation: Use a nom. 24 in. wide by 4 in. thick min. 4 pcf faced or un-faced mineral wool** batt insulation cut to size as required. Install barrier insulation in each stud cavity so that min. 32 in. of barrier insulation is above the surface of the perimeter joint protection and a min. of 24 in. is below the perimeter joint protection. Barrier insulation length is min. 24 in. and fitted tightly between vertical framing members filling all studs. Seal all butt joints of barrier insulation with min. 4 in. wide aluminum foil faced tape. The curtain wall insulation shall completely fill the recess of the min. 3-5/8 in. by 1-5/8 in., 18 GA steel "C" studs. (** Listed with Intertek)
   F. Interior Curtain Wall Surface: Apply after Perimeter Joint Protection (3) is installed. Use a min. 1/2 in. thick, 48 in. wide by 96 in. long. Type X gypsum wallboard (ASTM C 36), placed over and secured to framing with #6 by 1-1/4 in. long Type S drywall screws 8 in. oc on the periphery and 12 in. oc in the field. Screw heads are covered with joint compound. Joints created between gypsum wallboard are taped and floated with joint compound. Gypsum wallboard only required to be continuously placed a min. 32 in. above surface of perimeter joint protection. Gypsum wallboard below the slab is optional.
   G. Exterior Curtain Wall Insulation: (Optional -Not Shown) An expanded polystyrene foam (EPS) insulation. The EPS foam boards measure 24 in. wide by 48 in. long by 4 in. thick with a nominal density of 1 pcf. The EPS foam is attached to the sandwiched wall surface using mechanical fasteners or an adhesive in accordance with manufacturer's recommendations. Install the EPS boards in a running bond (brick-like) pattern and staggered over sandwiched wall surface (2C) joints. Apply pressure to the EPS boards to assist in the bonding process. All EPS boards must be butted together with no gaps or voids between them. Allow a min. of 12 hours before continuing the application process when using adhesive. The EPS boards must be rasped to remove all irregular seams and establish a continuous flat surface.
   H. Exterior Curtain Wall Finish: Use cementitious, aluminum or steel siding of any type. Install per manufacturer's instructions. Secure siding to wall assembly using conventional acceptable fastening techniques.
   I. Glass Vision Panels: Glass vision panels shall be a min. 35-1/2 in. above the top surface of the floor assembly. Glass vision panels shall be installed to curtain wall framing according to the curtain wall system manufacturer's guidelines. Use a min. 1/4 in. thick, clear tempered glass with a nom. width of 59 in. and height of 71 in.
   J. Window Gaskets: Secure glass vision panels with a thermal break (thermal-set rubber extrusion).
   K. Window Framing: Steel framing members shall be a min. 3-5/8 in. by 1-5/8 in. 18 GA steel "U" channel or similar construction that is compatible with steel-stud framing (2b). Locate window framing at least 35 in. above the top surface of the floor assembly.

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Page: 2 of 3

Design No. CEJ 263 P (HI/PHV 120-09)

CEJ 263 P

3. PERIMETER JOINT PROTECTION: The perimeter joint (linear opening) shall not exceed an 8 in. nom. joint width (joint width at installation) and the perimeter joint treatment shall incorporate the following construction features:
   A. Packing Material: Use a min. 4 in. thick, 4 pcf density, mineral wool** batt insulation installed with the fibers running parallel to the slab edge and curtain wall. The packing material shall be compressed 33% in the nominal joint width. Compress the batt insulation into the perimeter joint such that the top surface of the batt insulation is flush with the top surface of the concrete floor slab. Splices (butt joints) in the lengths of mineral wool batt insulation are to be tightly compressed together, min. compression 0.25 in. per piece. Notch packing material to receive support angle (3C) so that packing material is in contact with Sandwiched Wall Surface (2C). Reference the Introduction to Fire Resistive Joint Systems Section of this Directory for more details on how to determine the cut width of the insulation to be installed in the nominal joint width, and how to determine the compressed percentage of a known insulation width installed in a known nominal joint width. (** Listed with Intertek)
   B. CERTIFIED MANUFACTURER: Hilti, Inc.
      CERTIFIED PRODUCT: Joint Spray or Sealant
      MODEL: Firestop Joint Spray CFS-SP WB or Silicone Joint Spray CFS-SP SIL
      Fill, Void or Cavity Material: To be applied (sprayed, Brushed, or painted) to cover the exposed surface of the mineral wool installed in the perimeter joint. Apply at the thickness specified in Table 1 and overlap the material a min. 1/2 in. onto with Barrier Insulation (2E) and Concrete Floor Assembly (1). If the spraying process is stopped and the applied liquid cures to an elastomeric film before process is restarted, then overlap the edge of the cured material at least 1/8 in. with the spray. Reference Product Section of this Directory for more details about the Listed product.
   C. Support Angle: Standard 1-1/2 x 1-1/2 in. min. 20 GA galvanized steel angle attached between all studs with self tapping self drilling screws. Set angle at mid height of Packing Material (3A).
   D. Support Clips: (Not Shown) Support clips are optional but recommended for installations subject to vertical shear movement. Standard Z-shaped clips are 20 GA galvanized steel with the following dimensions: 1 in. wide by 3 in. high with a 2 in. upper leg and 3 in. lower leg.

**Before testing, the spliced, test specimen was cycled 500 times at 30 cpm according to ASTM E 1399 and ICBO ES AC 30 (Jan 1997)

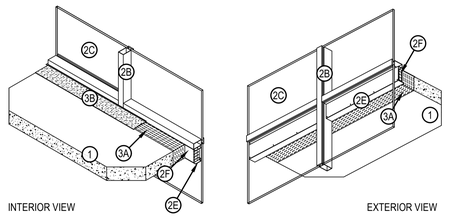
Hilti Firestop Systems
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Intertek
Page: 3 of 3

3 PERIMETER FIRE BARRIER SYSTEM CEJ 263 P (HI/PHV 120-09)
12" = 1'-0"

Design No. HI/BPF 120-16
Perimeter Fire Barrier System
Firestop Joint Spray CFS-SP WB
ASTM E 2307, UL 2079 (Air Leakage)
Table 1.

HI/BPF 120-16

	Firestop Joint Spray CFS-SP WB	Silicone Joint Spray CFS-SP SIL
F-Rating	2 Hour	2 Hour
T-Rating	45 Minute	45 Minute
L-Rating	< 1.0 SCFM/LF	< 1.0 SCFM/LF
Application Thickness	1/8 in. wet film (1/16 in. dry)	2 mm (0.08 in.) wet film
Cycling (%)		
Horizontal	±12.5%	±12.5%
Vertical	±12.5%	±12.5%



INTERIOR VIEW

EXTERIOR VIEW

1. CONCRETE FLOOR ASSEMBLY: 2 hour rated concrete floor assembly made from either lightweight or normal weight concrete with a density of 100 to 150 pcf, having a min. thickness of 6 in. at the joint face. When a longitudinal recess (blockout) is required to contain an architectural joint system, increase concrete floor assembly thickness to maintain a min. thickness of 6 in. and accommodate depth of blockout formed in the concrete: blockout width unrestricted.

Hilti Firestop Systems
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Intertek
Page: 1 of 2

Design No. HI/BPF 120-16

HI/BPF 120-16

2. CURTAIN WALL ASSEMBLY: The curtain wall assembly shall incorporate the following construction features:
   A. Mounting Attachment (Not Shown) - Attach aluminum framing (Item 2B) to the structural framing according to the curtain wall manufacturer's instructions. Connect the mounting attachments to the joint face of the concrete floor assembly (Item 1) according to the curtain wall manufacturer's instructions.
   B. Aluminum Framing - Use hollow rectangular aluminum extruded tubing with min. overall dimensions of 0.100 in. thick, 4 in. high and 2-1/2 in. wide. Locate mullions (vertical aluminum framing) min. 60 in. on center (oc). Locate the transom (horizontal aluminum framing) such that the bottom surface of the transom is at the same height as the top surface of the floor assembly.
   C. Glass Panels - Sized and installed into aluminum framing (Item 2B) in accordance with the curtain wall manufacturer's instructions. Use min. 1/4 in. thick, clear, heat strengthened (HS) or tempered glass with a max. width and height less than the aluminum framing (Item 2B) oc spacing. OC spacing shall allow glass to be secured to the aluminum framing (Item 2B) between the notched shoulders. Secure glass panels with a thermal break (rubber extrusion), pressure bar (aluminum extrusion), min. 1/4-20 × 5/8 in. long screws, and a snap face (aluminum extrusion).
   D. Aluminum Anchor Brackets (Not Shown) - Use min. 1/2 in. thick aluminum anchor brackets to serve as part of the mounting attachment (Item 2A) rigidly secured to the aluminum framing (Item 2B) and the concrete floor assembly (Item 1).
   E. Sheet Metal Pan - Attach a fabricated 18 GA galvanized or plain steel box pan, 6 in. high and 3 in. deep composed of two L-shaped sections to the aluminum framing with No. 10 self-drilling sheet metal screws at 12 in. oc along the top and with four No. 10 self-drilling sheet metal screws at each vertical end (two installed at the top and two at the bottom). Install a bead of Hilti CFS-S SIL GG Firestop Silicone on the underside of the horizontal member prior to installation of the 3 in. × 6 in. 18 GA steel box pan. This box pan shall create a cavity that is 3 in. deep and 6 in. tall underneath the aluminum member to house the curtain wall insulation (Item 2F). The box may be fabricated by either method below:
      a). An 18 GA galvanized or plain steel angle is attached to the underside of the aluminum framing. The angle shall be formed such that it has a 3 in. leg and a 6 in. leg, with the 3 in. leg attached to the aluminum framing. A second 1 in. × 3 in. 18 GA galvanized or plain steel angle is attached to the first with the 1 in. leg secured to the 6 in. leg of the first angle with No. 10 self-drilling sheet metal screws, spaced 12 in. oc. The 3 in. portion of the 3 in. × 1 in. angle is to be sized such that a 6 in. leg can be bent and formed into a vertical leg at the ends to secure the angle to the vertical framing members on each side.
      b). (Not Shown) An 18 GA galvanized or plain steel angle is attached to the underside of the aluminum framing. The angle shall be formed such that it has a 3 in. leg and a 1 in. leg, with the 3 in. leg attached to the aluminum framing. The 3 in. portion of the 3 in. × 1 in. angle is to be sized such that a 7 in. leg can be bent and formed into a 6 in. vertical leg, to secure the angle to the vertical framing members on each side, with a 1 in. horizontal flange at the bottom ends. A second 6 in. × 3 in. 18 GA galvanized or plain steel angle is attached to the first with the 6 in. leg secured to the 1 in. leg of the first angle with No. 10 self-drilling sheet metal screws, spaced 12 in. oc along the 1 in. leg and with at least one No. 10 self-drilling sheet metal screw at each end, secured to the 1 in. flange on the vertical legs of the first angle.
   F. CERTIFIED MANUFACTURER: Thermafiber, Inc.
      CERTIFIED PRODUCT: FireSpan® 90
      CURTAIN WALL INSULATION - Fill the cavity of the metal pan (Item 2E) with nominal 3 in. thick, min. 6 in. tall, 8 pcf density, mineral wool batt insulation. Tightly fit, compress at least 1/8 in. in all directions.
3. PERIMETER JOINT PROTECTION: Do not exceed a 4 in. nominal joint width (joint width at installation). Incorporate the following construction features for the perimeter joint protection (also known as perimeter fire barrier system):
   A. CERTIFIED MANUFACTURER: Thermafiber, Inc.
      CERTIFIED PRODUCT: Safing
      PACKING MATERIAL - Use min. 6 in. tall, 4 pcf density, mineral wool batt insulation and cut packing material width to achieve 25% compression when installed in the nominal joint width, and use no more than two adjacent strips. Install insulation with the fibers running parallel to the edge of concrete floor assembly (Item 1) and curtain wall assembly (Item 2A). Tightly compress together splices (butt joints) in the lengths of packing material by using min. 1/4 in. compression per piece of packing material. Locate the top surface of the packing material flush with the top surface of the concrete floor assembly (Item 1).
   B. CERTIFIED MANUFACTURER: Hilti Corporation
      CERTIFIED PRODUCT: Firestop Joint Spray CFS-SP WB or Silicone Joint Spray CFS-SP SIL
      Fill, Void, or Cavity Material - Apply over the packing material (Item 3A) as follows:
      Apply at the thickness specified in Table 1 and overlap the material 1/2 in. onto the adjacent curtain wall assembly and concrete floor slab assembly. When the spraying process is stopped and the applied liquid cures to an elastomeric film before application is restarted, overlap the edge of the cured material at least 1/8 in. with the spray. Reference Product Section of the Intertek Directory for more details on the Listed product.

Hilti Firestop Systems
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Intertek
Page: 2 of 2

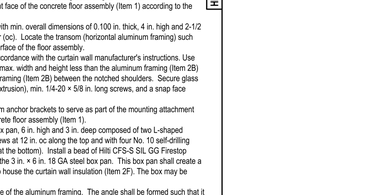
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System No. C-AJ-1291

CAJ 1291

CLASSIFIED C UL US
Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Rating — 2 Hr
	FTH Rating — 0 Hr



SECTION A-A

1. Floor or Wall Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 30-7/8 in. (784 mm).
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through-Penetrant — One metallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe or conduit and periphery of opening shall be min 0 in. to max 7/8 in. (22 mm). Pipe or conduit to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Conduit — Nom 6 in. (152 mm) diam (or smaller) steel conduit.
   F. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT).
3. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between pipe and concrete, a min 1/4 in. (6 mm) diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor and on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems
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4 PIPE PENETRATION FIRE BARRIER SYSTEM C-AJ-1291
12" = 1'-0"

UC DAVIS HEALTH BUILDING DEPARTMENT
APPROVED
REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.
BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: EXTERIOR WALL TYPE & FIRE RATED DETAILS

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	A460
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	JUNE 1, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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Author 9/21/2023 4:40:28 PM C:\Users\sackalb\Documents\Revit Local Files\A21-UCDH CoGEN UREA-15015400_KBishopVWG4KY.rvt

CENTRAL PLANT 1ST FLOOR PO&M EMISSIONS UREA PROJECT

4840 2ND AVENUE, SACRAMENTO, CA 95817

STRUCTURAL NOTES

GENERAL

1. ALL WORKS SHALL COMPLY WITH THE CBC, 2022 EDITION, ASCE 7-16, AISC MANUAL 15TH EDITION, AND ACI, 318-19.
2. ALL DRAWINGS AND SPECIFICATIONS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ENGINEER.
3. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
4. ALL DIMENSIONS AND THE SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO BID SUBMITTAL, START OF SHOP DRAWINGS, START OF CONSTRUCTION, AND/OR FABRICATION OF MATERIALS. IF DISCREPANCIES ARE ENCOUNTERED, OR CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
5. CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ADJACENT EXISTING SURFACES AND AREA WHICH MAY BE DAMAGED AS A RESULT OF NEW WORK.
6. DO NOT SCALE DRAWINGS. PRINTED DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS.
7. TYPICAL DETAILS SHALL APPLY IN GENERAL CONSTRUCTION UNLESS SPECIFICALLY DETAILED. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
8. THE CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKMEN DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC.
9. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS AND DOES NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES FOR THE ABOVE.
10. REFER TO MECHANICAL, AND ELECTRICAL DRAWINGS FOR DETAILS, CONDITIONS, PITS, TRENCHES, DEPRESSIONS, OPENINGS, SLEEVES, ITEMS TO BE EMBEDDED OR ATTACHED TO STRUCTURAL ELEMENTS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.
11. NO HOLES, BLOCKOUTS, ETC. ARE ALLOWED IN STRUCTURAL ELEMENTS UNLESS DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
12. ALL INFORMATION SHOWN ON THE DRAWINGS IS GIVEN AS THE BEST KNOWLEDGE FROM PLANS SUPPLIED BY THE OWNER, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE ENGINEER SO THAT PROPER CLARIFICATION MAY BE MADE. MODIFICATIONS OF DETAILS OF CONSTRUCTION SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
13. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED FOR ON THE DRAWINGS, OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE CALLED FOR OR SHOWN.
14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL PERMITS NECESSARY FOR THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL LAWS GOVERNING THE WORK.
15. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES BEFORE BEGINNING WORK. SPECIAL CARE SHALL BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN IN SERVICE DURING CONSTRUCTION.

CONCRETE

CONCRETE:

1. ALL CEMENT SHALL CONFORM TO ASTM C-150, TYPE II.
2. FINE AND COARSE AGGREGATE SHALL CONFORM TO ASTM C-33.
3. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM 28 DAY STRENGTH: ALL CONCRETE - 3000 PSI, 145 PCF (22.8Kn/m^3), 3-1/2" (90 mm) SLUMP, 1/2" TO 3/4" (12 mm TO 19 mm) AGGREGATE, UNLESS OTHERWISE NOTED.
4. PLACING OF ALL CONCRETE SHALL BE INSPECTED BY THE OWNER'S INSPECTOR. INSPECTOR TO VERIFY THAT REINFORCING STEEL IS SECURELY SUPPORTED IN PLACE DURING THE POUR.
5. CONCRETE DESIGN MIXES SHALL BE APPROVED BY THE CIVIL/STRUCTURAL ENGINEER.
6. LOCATION OF CONSTRUCTION JOINTS OR POUR JOINTS SHALL BE AS SHOWN ON PLANS OR AS APPROVED BY THE ENGINEER PRIOR TO POURING CONCRETE AND CONFORM TO CBC.
7. ANCHOR BOLTS, DOWELS, REINFORCING STEEL, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE. CONCRETE BLOCKS ONLY SHALL BE USED TO SUPPORT REINFORCING OFF GRADE.
8. CONCRETE SLABS SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR 3 DAYS. FORMS FOR CONCRETE WALLS MAY BE STRIPPED AFTER 3 DAYS AND THEN COVERED WITH BURLAP WHICH SHALL BE KEPT WET FOR AN ADDITIONAL 7 DAYS. NO CURING COMPOUNDS SHALL BE USED UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
9. PROVIDE 3/4" (19 mm) CHAMFER ON ALL EXPOSED CONCRETE CORNERS, OR AS NOTED ON PLANS.
10. ALL CONCRETE SHALL BE VIBRATED IN PLACE DURING PLACING OF CONCRETE.
11. NO STAKES, STEEL OR WOOD SHALL BE PERMITTED IN ANY CONCRETE POUR. SUSPEND FORMS FROM ABOVE GRADE.
12. GROUT SHALL BE A STRUCTURAL CEMENTITIOUS TYPE GROUT, WITH A MINIMUM COMPRESSIVE STRENGTH OF 8,000 PSI (55.16 MPa). SELECTED GROUT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT.
13. ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED.
14. FINISH: SLABS ACI "BROOM TROWEL FINISH"
15. MINIMUM CONCRETE COVER FOR REINFORCING STEEL:
    A. SURFACES PLACED AGAINST EARTH - 3" (76 mm)
    B. SURFACES EXPOSED TO WEATHER - 2" (51 mm)
16. ANY (E) CONCRETE IN CONTACT WITH PROPOSED (N) MAT FOUNDATION SHALL BE CLEANED THOROUGHLY AND KEPT MOIST PRIOR TO PLACEMENT OF NEW CONCRETE.
17. WHERE GROUT WILL BE INSTALLED, BUSH HAMMER CONCRETE TO EXPOSED AGGREGATE TO PROVIDE PROPER BONDING.
18. ¾" PVC PIPE TO BE INSTALLED UNDER THE SKID ON EACH SIDE FOR ALL SKIDS WITH OPEN TOPS.

REINFORCING:

1. ALL REINFORCING SHALL CONFORM TO ASTM A-615 SPECIFICATIONS, GRADE 60. WELDED BARS SHALL BE ASTM A-706. DEFORMED STEEL: FY = 60,000 PSI (4200 MPa).
2. REINFORCING BARS SHALL BE SPLICED AND BENT IN STRICT ACCORDANCE WITH THE DRAWINGS AND DETAILS AND C.R.S.I PUBLICATIONS. NO KINKS ALLOWED. ALL BARS SHALL BE CLEAN PRIOR TO CONCRETE PLACEMENT.
3. PROVIDE DOWELS OF SAME SIZE AND NUMBER FROM ADJACENT POUR, BOTH VERTICALLY AND HORIZONTALLY TO MATCH TYPICAL REINFORCING SHOWN. LAP BARS 40 BAR DIAMETER IN CONCRETE AT SPLICES, CORNERS, AND INTERSECTIONS. LAPS TO BE IN ACCORDANCE WITH THE DRAWINGS AND DETAILS. DOWELS SHALL BE CLEANED AFTER POUR. WELDED WIRE FABRIC ASTM A185, LAP ONE FULL MESH.
4. USE LOW HYDROGEN ELECTRODES, GRADE E-70 OR E-90 FOR WELDING OF REINFORCING BARS.
5. SHOP DRAWINGS FOR REINFORCING STEEL SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
6. FIELD WELDING OR BENDING OF REINFORCING IS NOT PERMITTED EXCEPT AS INDICATED ON THE DRAWINGS OR AS APPROVED BY THE STRUCTURAL ENGINEER.
7. ALL CONCRETE SHALL BE REINFORCED UNLESS SPECIFICALLY MARKED "NOT REINFORCED".

CODE COMPLIANCE

1 CODE: CBC 2022, ASCE 7-16
RISK CATEGORY = III
SEISMIC IMPORTANCE FACTOR I_E = 1.25
1 SITE CLASS D (ASSUMED)
S_S = 0.548, S_1 = 0.247, S_{DS} = 0.497
SEISMIC DESIGN CATEGORY D
INDOOR INSULATION

TESTS AND SPECIAL INSPECTIONS:

1. TESTS AND INSPECTIONS SHALL BE PROVIDED BY A QUALIFIED INDEPENDENT TESTING AGENCY PURSUANT TO THE PROVISIONS OF CBC 2022 FOR THE FOLLOWING ITEMS, AT MINIMUM:
   A) FIELD WELDING
   B) TESTING OF CONCRETE
   C) PLACEMENT OF REINFORCING STEEL
   D) INSTALLATION OF ANCHOR BOLTS
   E) SOILS: AS SPECIFIED AND REQUIRED
2. REQUIRED TESTS AND INSPECTIONS:

1 TESTS	INSPECTIONS: 1
☒ FILL COMPACTION	☐ FOOTING EXCAVATION
☐ REINFORCING STEEL	☐ PILE/PIER INSTALLATION
☒ CONCRETE	☒ REINFORCEMENT PLACEMENT
☐ STRUCTURAL STEEL	☒ CONCRETE PLACEMENT
☐ MASONRY	☐ SHOP WELDING
☒ GROUT	☒ FIELD WELDING DESIGNED BY IEC
☐ EPOXY AND EXPANSION ANCHORS	☒ HIGH STRENGTH BOLTING
	☐ MASONRY PLACEMENT AND GROUTING
	☐ SHEAR STUD INSTALLATION
	☒ EPOXY & EXPANSION ANCHOR INSTALLATION
	☒ ANCHOR BOLT EMBEDDED IN CONCRETE

3. ADDITIONAL TESTING AND/OR INSPECTIONS, BEYOND THOSE LISTED ABOVE, MAY BE REQUIRED.
4. THE APPROVED TESTING AGENCY SHALL PROVIDE DETAILED INSPECTION REPORTS REGULARLY TO THE OWNER, AND ENGINEER-OF-RECORD. A FINAL AFFIDAVIT SHALL FOLLOW DETAILING A SUMMARY OF ALL INSPECTIONS DONE AND BEING FULLY COMPLIANT WITH THE DESIGN DOCUMENTS AND PROVISIONS OF CBC 2022 1
5. 3RD PARTY INSPECTION TO VERIFY REBAR AND REINFORCING STEEL IS REQUIRED PRIOR TO PLACEMENT OF CONCRETE.
6. CONTRACTOR SHALL PROVIDE ALL MILL REPORTS AND MTR'S FOR MATERIALS USED IN THIS PROJECT.

UC DAVIS HEALTH BUILDING DEPARTMENT
APPROVED
REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.
BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
RAJVEER BHA SAHA
S 28.39
Exp. 12-31-23
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

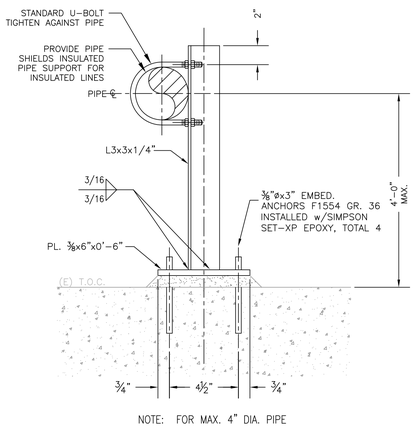
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, SACRAMENTO, CA 95817
SHEET TITLE: Structural Notes

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	S001
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

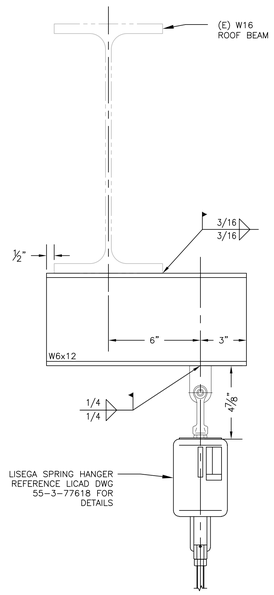
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NOTE: FOR MAX. 4" DIA. PIPE

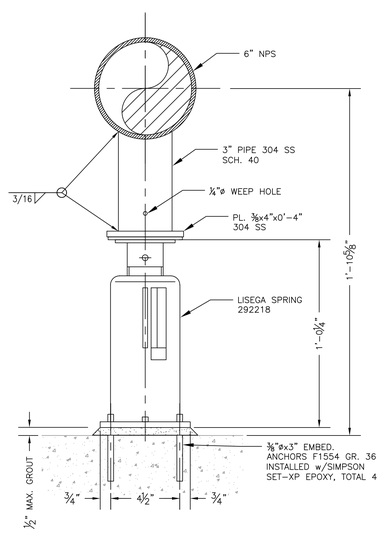
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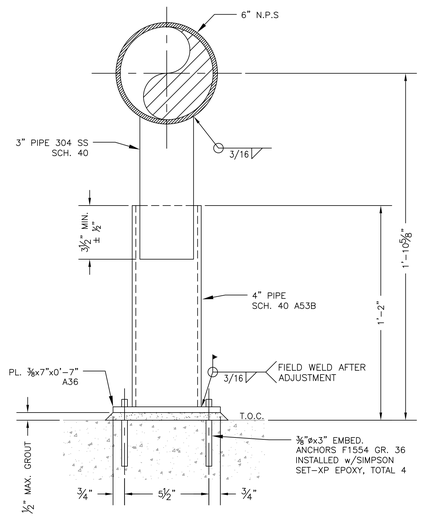
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SCALE: 3" = 1'-0"



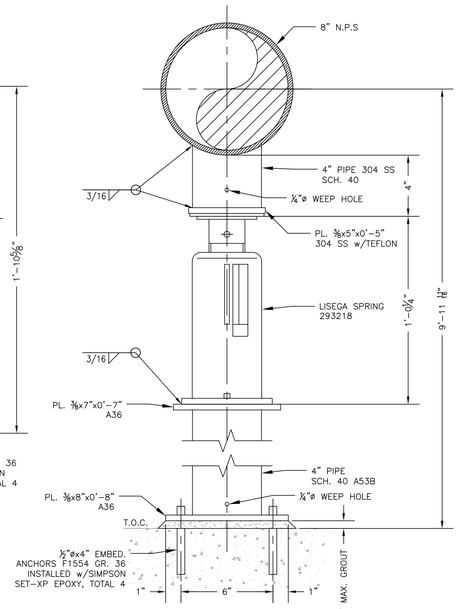
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SCALE: 3" = 1'-0"



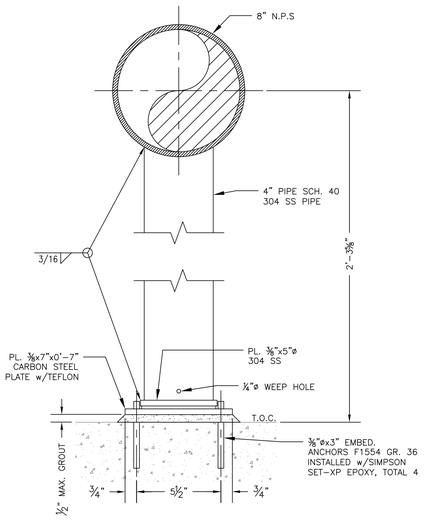
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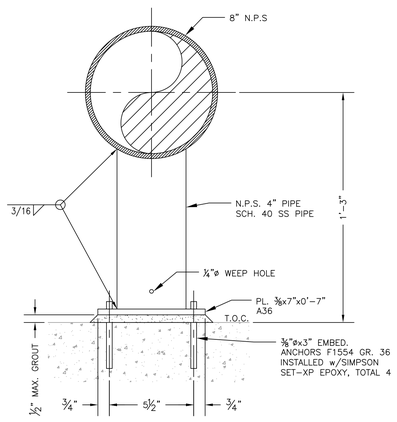
6PS3

SCALE: 3" = 1'-0"



6PS4

SCALE: 3" = 1'-0"



6PS5

SCALE: 3" = 1'-0"

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER PETER A. BHA 2839 Exp. 12-31-23 STRUCTURAL STATE OF CALIFORNIA

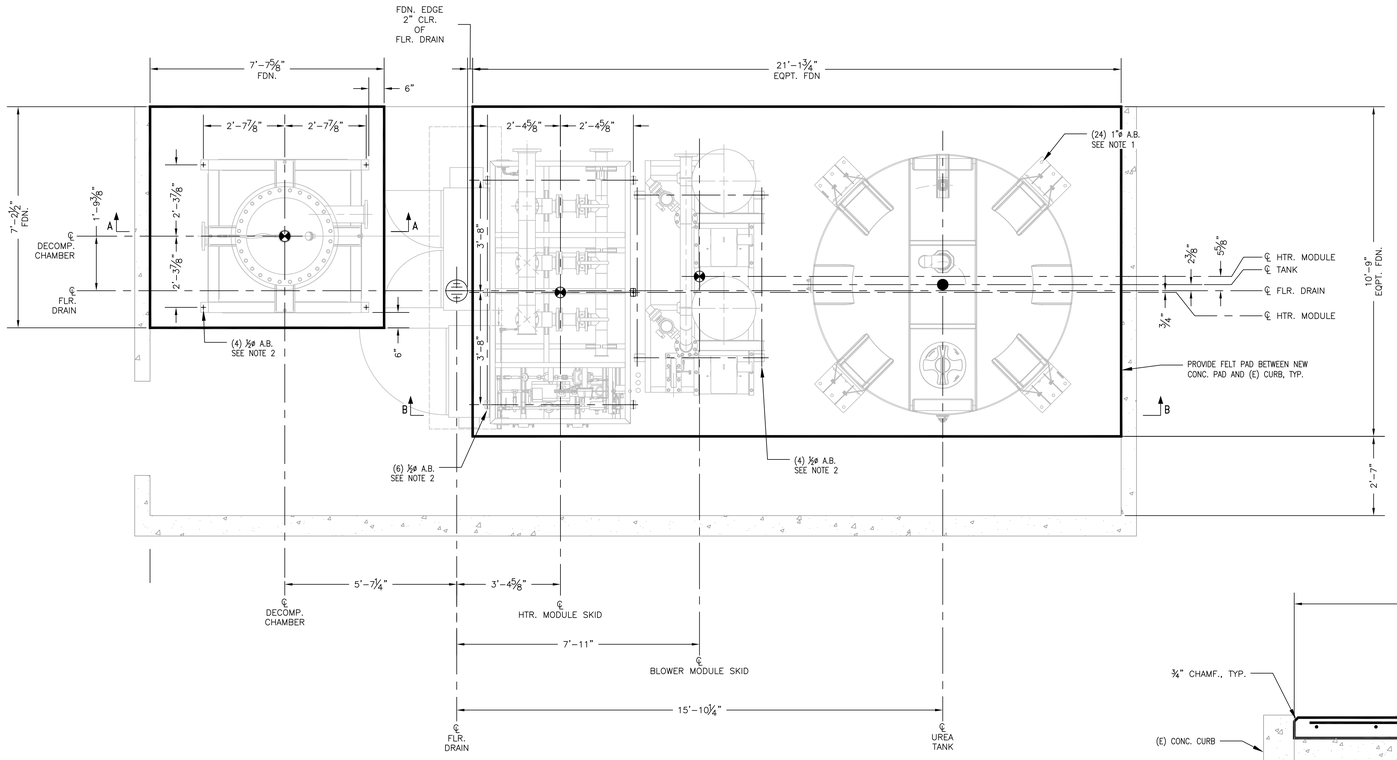
CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE
REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Pipe Supports

ARCH. / ENGR.	F&AC JOB NO.	SHEET NO.
GO	9557240	S002
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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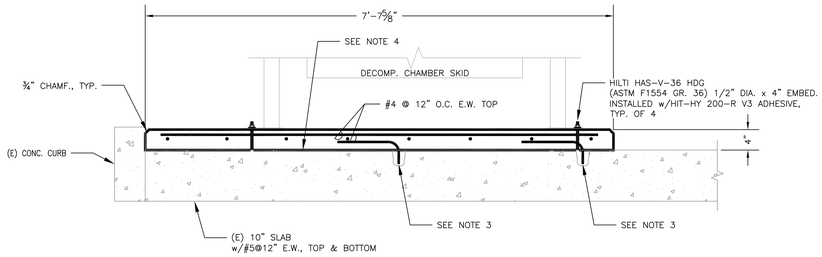


FOUNDATION LAYOUT PLAN (1/—)
SCALE: 1/2" = 1'-0"

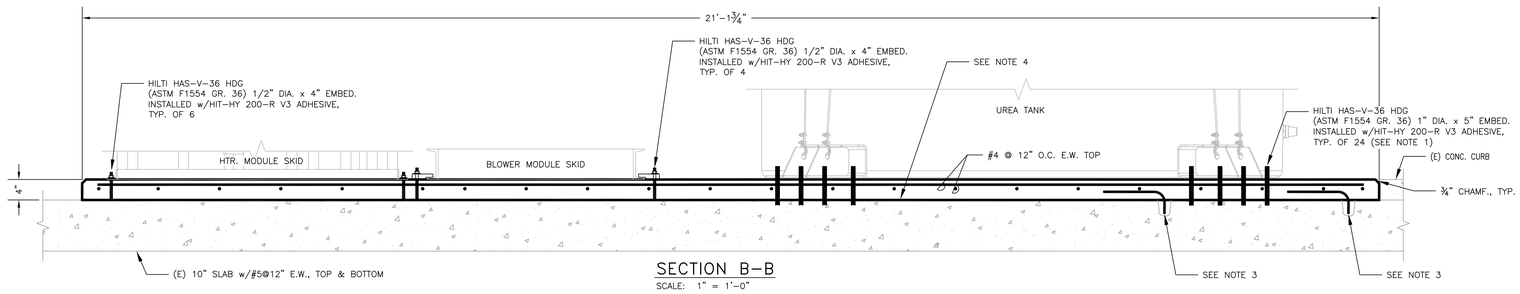
NOTES:

1. REFERENCE SNYDER DRAWING D007828 AND A010459 TO LOCATE ANCHOR BOLT LOCATIONS.
2. VERIFY ANCHOR BOLT LOCATIONS WITH FUEL TECH VENDOR DRAWINGS.
3. PROVIDE #4 DOWELS w/12" HOOK & 2¾" EMBEDMENT INSTALLED w/HILTI HIT-HY-200-R V3 ADHESIVE @ 18" O.C. AT PERIMETER (6"± FROM EDGE) AND 36" O.C. AT INTERIOR. DO NOT CUT (E) REINFORCEMENT, RELOCATE DOWELS AS NECESSARY.
4. ROUGHEN EXISTING CONCRETE SURFACE TO ¼" AMPLITUDE. CLEAN SURFACE AND APPLY SIKADUR-32 HI-MOD EPOXY BONDING ADHESIVE OR APPROVED EQUAL BEFORE PLACEMENT OF NEW CONCRETE.

1 5. SEE IEC DRAWING M102 FOR ALL EQUIPMENT WEIGHTS.



SECTION A-A
SCALE: 1" = 1'-0"



SECTION B-B
SCALE: 1" = 1'-0"

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
ARUNDEEP SINHA
S 28139
Exp. 12-31-23
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

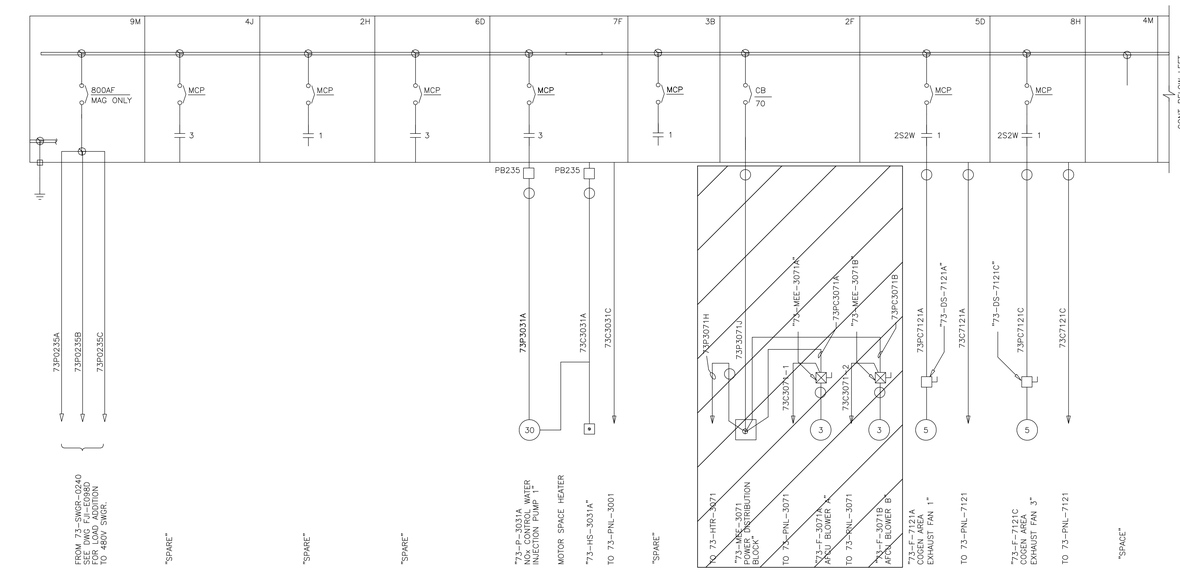
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Foundation Layout

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	S006
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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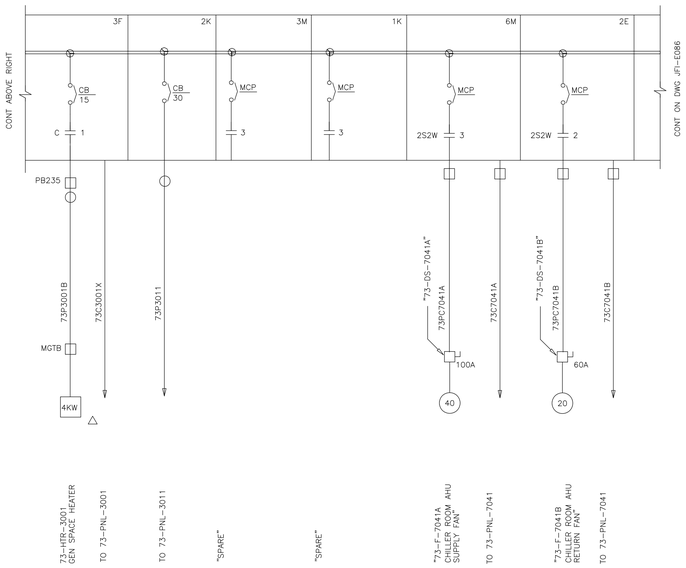


NOTES:

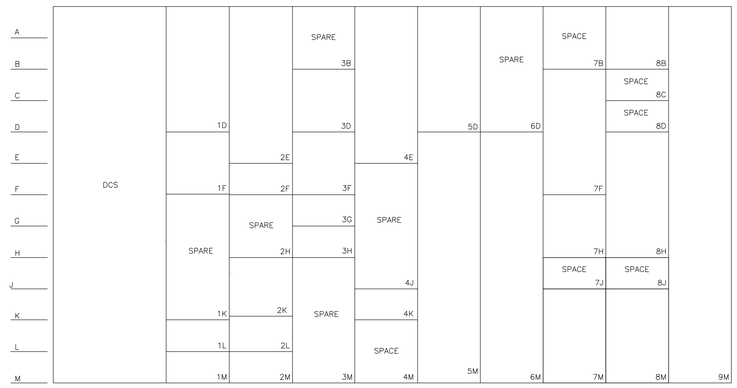
1. ALL STARTERS SHALL BE FULL VOLTAGE, NON-REVERSING UNLESS OTHERWISE SPECIFIED AND SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL).
2. CONDUITS SHALL BE 3/4" MIN UNLESS OTHERWISE SPECIFIED.
3. CIRCUIT BREAKER HANDLES MOUNTED 74" ABOVE BOTTOM OF MCC SHALL BE EQUIPPED WITH HANDLE EXTENSIONS TO INSURE COMPLIANCE WITH APPLICABLE OSHA REQUIREMENTS.
4. NAMEPLATE ENGRAVING SHALL BE AS SHOWN IN QUOTATION MARKS.

LEGEND:

EQUIPMENT TO BE DEMOLISHED



NEMA TYPE 1 INDOOR, ENCLOSURE, GASKETED DOOR, SINGLE FACE FRONT ONLY
NOT ACCESSIBLE FROM REAR
INCOMING FEEDER ENTERS TOP
480V, 3-ø, 3-WIRE
GROUND BUS CABLE SIZE: 4/0AWG BC CONNECTORS AT BOTH ENDS
MAIN BUS: 1200AMPS
BUS BRACING: 65KA (SYM)
WIRING: NEMA CLASS 2, TYPE B
MFGR: GENERAL ELECTRIC 8000 SERIES



FRONT ELEVATION
NOT TO SCALE

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT PAUL R. MENARD C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER AARON C. LEADER No. E20071 Exp. 09/30/24 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

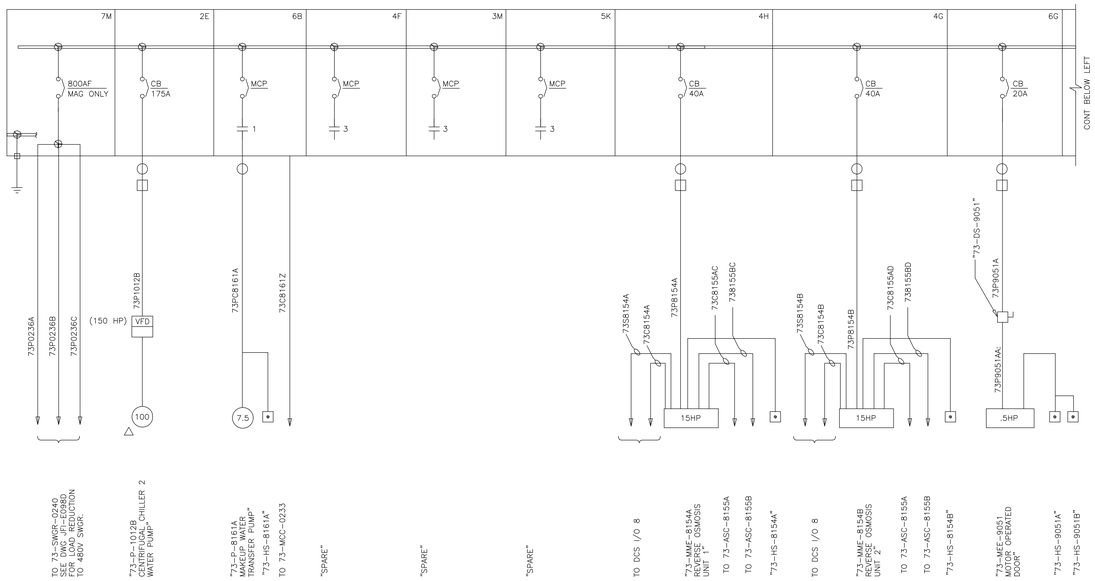
THIS ISSUE	ISSUED FOR :	DATE

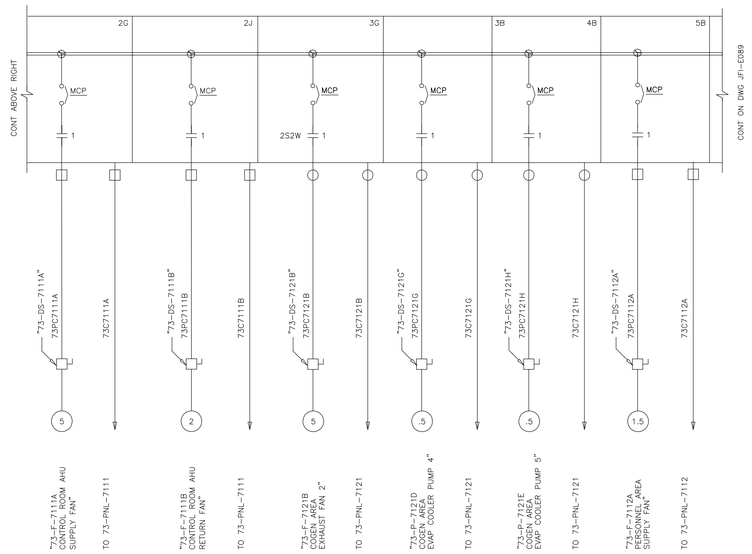
REV	REVISION DESCRIPTION	DATE

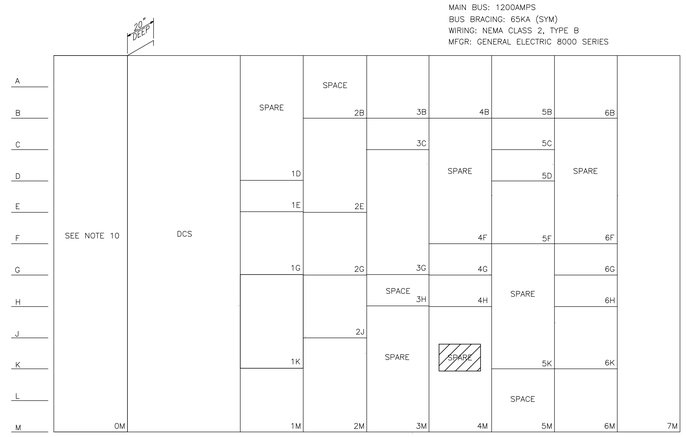
UCDH PROJECT NO.: 9557240
UCDH BUILDING NO.: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: 73MCC0235 Single Line 1 and Front Elevation Demo

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E085D
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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FRONT ELEVATION
NOT TO SCALE

NOTES:

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LEGEND:

EQUIPMENT TO BE DEMOLISHED

NEMA TYPE 1 INDOOR, ENCLOSURE, GASKETED DOOR, SINGLE FACE FRONT ONLY
NOT ACCESSIBLE FROM REAR
INCOMING FEEDER ENTERS TOP
480V, 3-ø, 3-WIRE
GROUND BUS CABLE SIZE: 4/0AWG BC CONNECTORS AT BOTH ENDS
MAIN BUS: 1200AMPS
BUS BRACING: 65KA (SYM)
WIRING: NEMA CLASS 2, TYPE B
MFGR: GENERAL ELECTRIC 8000 SERIES

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-2025
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
AARON C. LEACH
No. E20071
Exp. 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

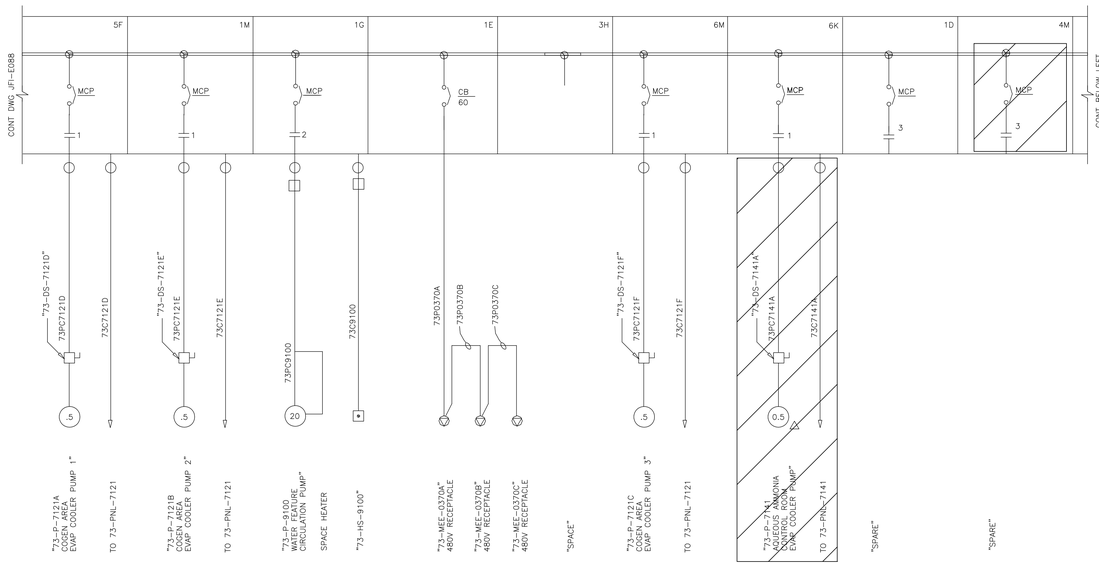
CONSULTANT LOGO :

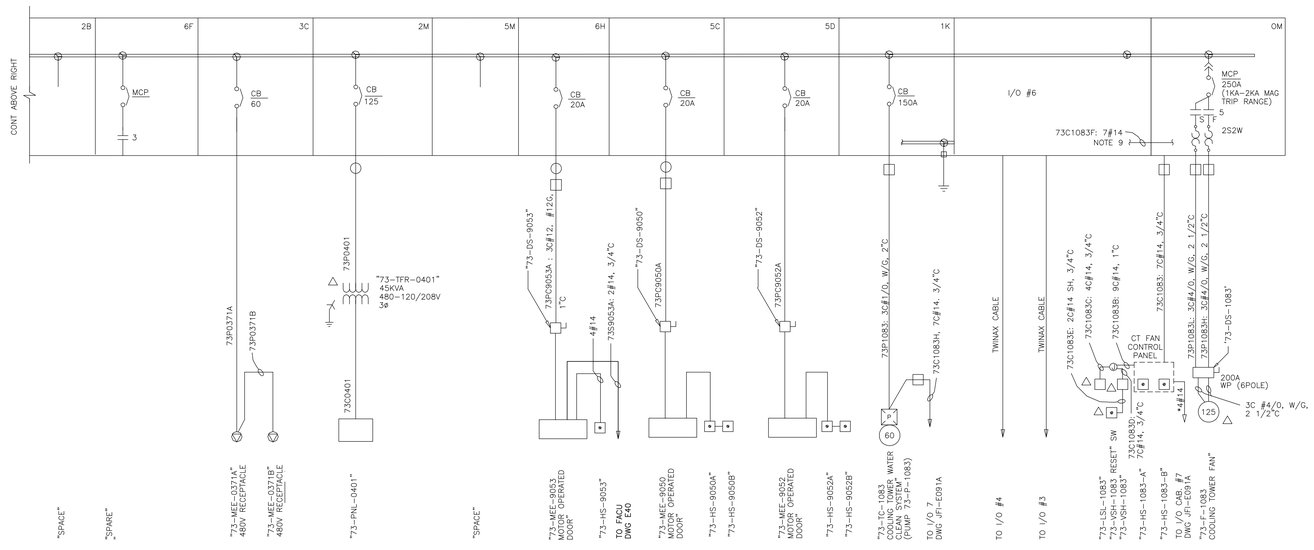
THIS ISSUE	ISSUED FOR :	DATE
REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO. 9557240
UCDH BUILDING NO. BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: 73MCC0236 Single Line 1 and Front Elevation Demo

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E088D
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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4. NAMEPLATE ENGRAVING SHALL BE AS SHOWN IN QUOTATION MARKS.

LEGEND:

EQUIPMENT TO BE DEMOLISHED

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED PROFESSIONAL ENGINEER PAUL R. MENARD C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 09/30/24 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

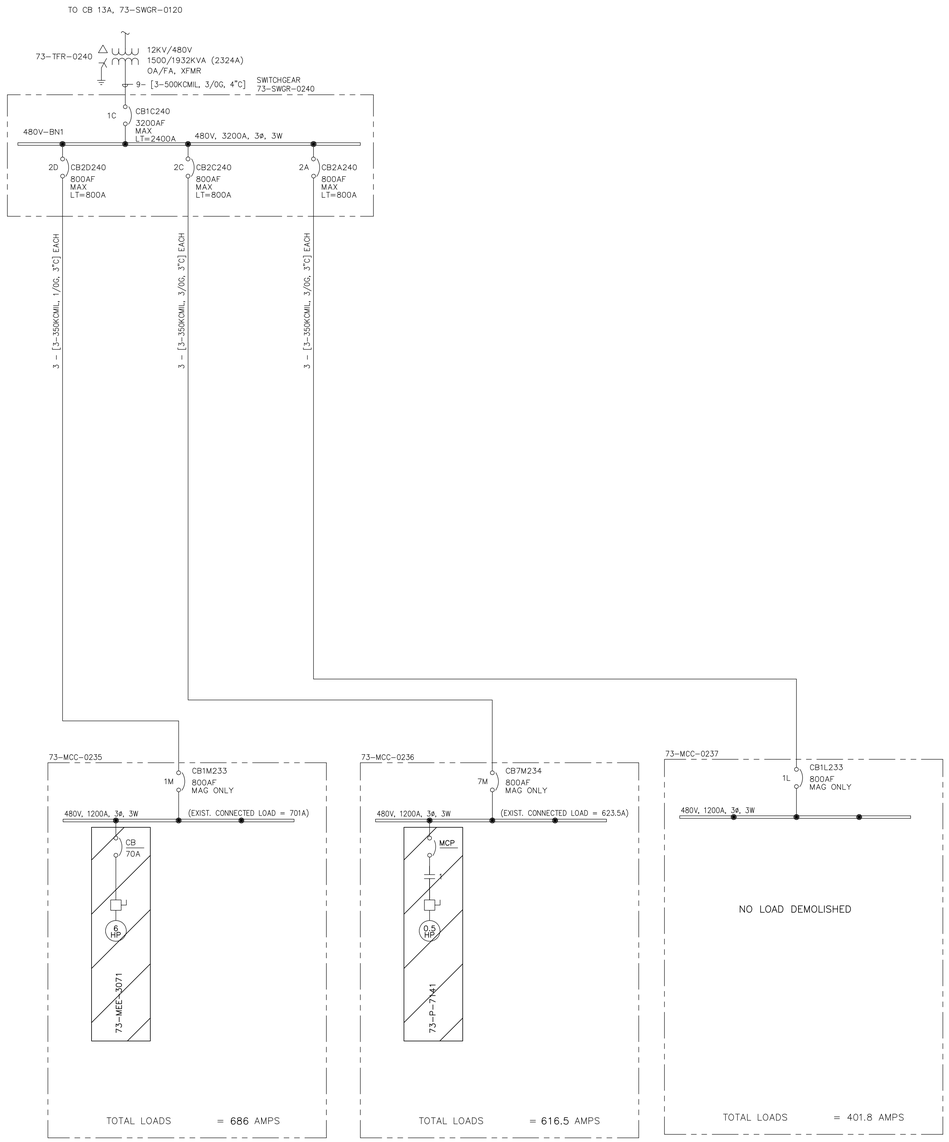
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: 73MCC0236 Single Line 2 Demo

ARCH. / ENGR.	PD&C JOB NO.	SHEET NO.
GO	9557240	E089D
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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PARTIAL CENTRAL PLANT
DISTRIBUTION SYSTEM

LEGEND:

EQUIPMENT TO BE DEMOLISHED

LOAD TABULATIONS

"73-MCC-0235"

UNIT SERVED	LOAD HP	LOAD FLA
–	–	–
–	–	–
"73-P-3031A"	30	40.0
"73-MEE-3071"	–	58.0
"73-F-7121A"	5	7.6
"73-F-7121C"	5	7.6
"73-HTR-3001"	–	5.4
"73-PNL-3011"	–	24.0
–	–	–
–	–	–
"73-F-7041A"	40	52.0
"73-F-7041B"	20	27.0
"73-F-7051A"	30	40.0
"73-F-7051B"	20	27.0
"73-PNL-5001B"	–	21.4
"73-PNL-5002B"	–	21.4
"73-F-7121B"	.75	1.6
"73-P-4008B"	5	7.6
"73-PNL-5003B"	–	21.4
"73-P-3031B"	30	40.0
"73-PNL-5004B"	–	21.4
"73-MEE-3011C"	–	16.0
"73-MEE-0372"	–	48.0
"73-MEE-0420"	–	48.0
"73-P-9020"	.5	7.6
"73-P-1015B"	100	124.0
"73-P-1081"	60	77.0
TOTAL FULL LOAD AMPS		686.0

LOAD TABULATIONS

"73-MCC-0236"

UNIT SERVED	LOAD HP	LOAD FLA
"73-P-1012B"	100	124.0
"73-P-8161A"	7.5	9.0
–	–	–
–	–	–
–	–	–
"73-MME-8154A"	15	21.0
"73-MME-8154B"	15	21.0
"73-MEE-9051"	.5	1.1
"73-F-7111A"	.5	7.6
"73-F-7111B"	.2	3.4
"73-F-7121B"	.5	7.6
"73-F-7121D"	.5	1.1
"73-F-7121E"	.5	1.1
"73-F-7112A"	1.5	3.0
"73-F-7121A"	.5	1.1
"73-F-7121B"	.5	1.1
"73-P-9100"	20	27.0
"73-MEE-0370"	–	48.0
"73-P-7121C"	.5	1.1
"73-P-7141"	.5	1.1
–	–	–
–	–	–
–	–	–
"73-MEE-0371"	–	48.0
"73-PNL-0401"	–	54.0
"73-MEE-9050"	.5	1.1
"73-MEE-9052"	.5	1.1
"73-P-1083"	60	77.0
"73-F-1083"	125	156.0
"73-MEE-9053"	0.5	1.1
TOTAL FULL LOAD AMPS		616.5

LOAD TABULATIONS

"73-MCC-0237"

UNIT SERVED	LOAD HP	LOAD FLA
–	–	–
–	–	–
–	–	–
–	–	–
"73-PNL-1011"	–	16.0
"73-PNL-5005B"	–	24.0
"73-P-8150"	3	4.8
"73-P-1011B"	100	124.0
"73-P-1084"	60	77.0
"73-F-1084"	125	156.0
TOTAL FULL LOAD AMPS		401.8

UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/
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8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
AARON C. LEADER
No. E20071
Exp. 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE
REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Equipment Loading Single Line 4 Demo

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E098D
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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PANELBOARD: 73-PNL-0310 LOCATION: BASEMENT, EQUIPMENT ROOM

VOLTS: 480/277, 3PH, 4W, SN MAIN: 90AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E320

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-EQUIPMENT ROOM	2742		
3	20	1	LTG-EQUIPMENT ROOM		2304	
5	20	1	LTG-EQUIPMENT ROOM			2695
7	20	1	LTG-EQUIPMENT ROOM (EMERGENCY)	2800		
9	20	1	SPARE		1200	
11	20	1	SPARE			1200
13	20	1	SPARE	1200		
15	20	1	SPARE		1200	
17	20	1	SPARE			1200
19	20	3	73-MEE-9054, 73-MEE-9055	560	560	560
25			SPACE			
27			SPACE			
29			SPACE			
31			SPACE			
33			SPACE			
35			SPACE			
2	20	1	LTG-EQUIPMENT ROOM	1768		
4	20	1	SPARE		1200	
6	20	1	LTG-STAIRS & ELEVATOR ROOM			566
8	20	1	73-MEE-9002	1200		
10	20	1	LTG-EXTERIOR		2680	
12	20	1	LTG-EXTERIOR			2796
14	20	1	SPARE	1200		
16	20	1	SPARE		1200	
18	20	1	SPARE			1200
20	20	1	SPARE	1200		
22	20	1	SPARE		1200	
24	20	1	SPARE			1200
26	20	1	SPARE	1200		
28	20	1	SPARE		1200	
30	20	1	SPARE			1200
32			SPACE			
34			SPACE			
36			SPACE			
LOAD PER PHASE-- VOLTAMPS				13870	12744	12617
25% LTG LOAD				1827	1246	1514
LOAD PER PHASE--AMPS				56.7	50.5	51
LOAD PER PHASE--PCT OF TOTAL				35.9	31.9	32.2
TOTAL CONNECTED LOAD--VOLTAMPS				43,818		

PANELBOARD: 73-PNL-0311 LOCATION: FIRST FLOOR, MAINTENANCE ROOM

VOLTS: 480/277, 3PH, 4W, SN MAIN: 60AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E321

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-STAIRS, GEN & DEAERATOR ROOMS	2250		
3	20	1	LTG-GENERATOR ROOM & CORRIDOR		2244	
5	20	1	LTG-MAINTENANCE ROOM			800
7	20	1	LTG-CORRIDOR	600		
9	20	1	LTG-STAIRS		308	
11	20	1	LTG-GENERATOR, STAIR, & CORR (EMERG)			1350
13	20	1	SPARE	600		
15	20	1	SPARE		600	
17	20	1	SPARE			600
19			SPACE			
21			SPACE			
23			SPACE			
25			SPACE			
27			SPACE			
29			SPACE			
2	20	1	LTG-BOILER ROOM	1050		
4	20	1	LTG-BOILER ROOM		1450	
6	20	1	LTG-EQUIPMENT ROOM			2050
8	20	1	LTG-EQUIPMENT ROOM	2550		
10	20	1	LTG-EQUIPMENT ROOM		3550	
12	20	1	LTG-EQUIPMENT ROOM			2550
14	20	1	LTG-EQUIPMENT ROOM (EMERGENCY)	3000		
16	20	1	LTG-BOILER & SHOP (EMERGENCY)		1000	
18	20	1	SPARE			600
20			SPACE			
22			SPACE			
24			SPACE			
26			SPACE			
28			SPACE			
30			SPACE			
LOAD PER PHASE-- VOLTAMPS				10050	9152	7950
25% LTG LOAD				2513	2288	1987
LOAD PER PHASE--AMPS				45.3	41.2	35.9
LOAD PER PHASE--PCT OF TOTAL				37	33.7	29.3
TOTAL CONNECTED LOAD--VOLTAMPS				33940		

PANELBOARD: 73-PNL-0312 LOCATION: SECOND FLOOR, SWITCHGEAR ROOM 1

VOLTS: 480/277, 3PH, 4W, SN MAIN: 225AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E322

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-SWGR ROOM, CORRIDOR & STAIRS	1390		
3	20	1	LTG-SWGR ROOM 1 & BATTERY ROOMS		2544	
5	20	1	LTG-HVAC ROOM			1900
7			SPACE			
9-11-13	40	3	73-CHGR-0131	8800	8800	8800
15-17-19	50	3	73-PNL-0311	12563	11440	9937
25	20	3	73-MEE-9056, 73-MEE-9057, 73-MEE-9058	840	840	840
2	20	1	LTG-SWGR ROOM 2, CORRIDOR	2053		
4	20	1	LTG-SWGR RM 2, RESTROOM,BREAKROOM		1634	
6	20	1	LTG-ALONG KALWALL			3255
8	20	1	LTG-LOBBY & OPEN AREAS	299		
10	20	1	LTG-CONTROL ROOM		624	
12	20	1	LTG-CONTROL ROOM	600		500
14		1	SPACE			
16	20	1	LTG-CONTROL ROOM (EMERGENCY)		240	
18	20	1	LTG-CORRIDOR (EMERGENCY)			2952
20	90		SPACE	13310	11084	12057
22	20	1	LTG-RESTROOMS, STORAGE (EMERGENCY)	674		
24	20	1	LTG-SWITCHGEAR ROOM (EMERGENCY)		960	
26-28-30	90	3	73-PNL-0310			
LOAD PER PHASE-- VOLTAMPS				43226	38166	40241
25% LTG LOAD				1778	1500	2152
LOAD PER PHASE--AMPS				162.5	143.2	153
LOAD PER PHASE--PCT OF TOTAL				35.5	31.2	33.4
TOTAL CONNECTED LOAD--VOLTAMPS				127,063		

LEGEND:

EQUIPMENT TO BE DEMOLISHED

NON OSHPD

PANELBOARD: 73-PNL-0401 LOCATION: COGEN AREA, EQUIP ROOM

VOLTS: 208/120, 3PH, 4W, SN MAIN: 150 AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E406

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	RECP-EQUIPMENT ROOM	800		
3	20	1	RECP-EQUIPMENT ROOM		800	
5	20	1	RECP-EQUIPMENT ROOM			800
7	20	1	DC LUBE OIL CTRL	800		
9	20	1	HRSG CONTROL LIGHTS		600	
11	20	1	SPARE			--
13	20	3	73-AE-3015 CEMS	1800	1800	1800
19	20	1	SPARE		--	
21	20	1	SPARE			--
23	20	1	SPARE	--		
25	20	1	SPARE		--	
27	20	3	73-PNL-7121	1600	1600	1600
33	20	3	73-PNL-7141	1600	1600	1600
39	20	1	SPARE			--
41	20	1	SPARE	--		
2	20	1	RECP-EQUIPMENT ROOM	800		
4	20	1	RECP-EQUIPMENT ROOM		600	
6	20	1	RECP-EQUIPMENT ROOM			600
8	20	1	RECP-EXTERIOR	600		
10	20	1	SPARE		--	
12	20	1	73-PNL-3067 DENOX PANEL			1800
14	20	1	73-GEN-4001 STG SPACE HTR	1800		
16	20	1	RECP (73-MEE-9060A)		600	
18	20	1	RECP (LTG CONTACTOR 73-MEE-9060) CLOCK LIGHTS, BEACONS			1550
20	20	1	SPARE			--
22	20	1	SPARE			--
24	20	1	SPARE	--		
26	20	1	RECP-SUMP PUMP		1180	
28	20	1	CV5038A			600
30	20	1	SPARE	--		
32	20	3	73-P8161C BOOSTER PUMP	600	600	600
				600		600
38	60	1	SPARE		--	
40	20	2	CONDENSATE RECOVERY PUMP		600	600
LOAD PER PHASE-- VOLTAMPS				10,400	9,980	11,550
LOAD PER PHASE--AMPS				86.6	83.2	96.3
LOAD PER PHASE--PCT OF TOTAL				30.5	31.3	36.2
TOTAL CONNECTED LOAD--VOLTAMPS				31,930		

NON OSHPD

PANELBOARD: 73-PNL-0360 (UPS) LOCATION: SECOND FLOOR SWITCHGEAR ROOM 2

VOLTS: 208/120, 3PH, 4W, SN MAIN: 60AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E322

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	ECMS-COMPUTER, CRT AND PRINTER	1200		
3	20	1	ECMS-COMPUTER, CRT AND PRINTER		1200	
5	20	1	CONTROL ROOM COMPUTER			600
7	20	1	CONTROL ROOM COMPUTER	600		
9	20	1	CONTROL ROOM COMPUTER		600	
11	20	1	I/O 1-2			200
13	20	1	CCTV-MONITORS, 73-VS-0100	800		
15	20	1	I/O 4-6		100	
17	20	1	TELEPHONE			200
19	20	1	PA SYSTEM	200		
21	20	1	SPARE		100	
23	20	1	RECP-CCTV COGEN AREA	300	300	300
29	20	1	SPARE			200
31	20	1	SPARE	200		
33			SPACE			
35			SPACE			
37			SPACE			
39			SPACE			
41	20	1	SPARE			200
2	20	1	73-SWGR-0130 (POWER LEADER)	100		
4	20	1	73-MEE-0410		1200	
6	20	1	FACU (OSHPD)			200
8	20	1	SPARE	200		
10	20	1	TEMP CONTROL PNL		200	
12	20	1	I/O 3-5			200
14	20	1	CHILLER ROOM I/O 7	1000		
16	20	1	BASEMENT I/O 8		1000	
18	20	1	SWGR ROOM I/O 9			1000
20	20	1	COGEN AREA I/O 10	1000		
22	20	1	RECP-CCTV FIRST FLOOR		800	
24	20	1	RECP-CCTV BASEMENT			200
26			SPACE (NOTE 1)			
28	20	1	SPARE			200
30			SPACE			
32			SPACE			
34			SPACE			
36	20	1	SPARE			200
38			SPACE			
40			SPACE			
42	20	1	SPARE			200
LOAD PER PHASE-- VOLTAMPS				5600	5500	3900
LOAD PER PHASE--AMPS				45.8	45.8	32.5
LOAD PER PHASE--PCT OF TOTAL				37.3	36.6	26.0
TOTAL CONNECTED LOAD--VOLTAMPS				15,000		

NON OSHPD

PANELBOARD: 73-PNL-0411 LOCATION: COGEN AREA, EQUIP ROOM

VOLTS: 480/277, 3PH, 4W, SN MAIN: 40AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E406

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-ALONG KALWALL	3000		
3	20	1	LTG-ALONG NORTH WALL		1165	
5	20	1	LTG-COGENERATION ROOM			4000
7	20	1	SPARE	600		
9	20	1	SPARE		600	
11	20	1	SPARE			600
13	20	1	SPARE	600		
15	20	1	SPARE		600	
17	20	1	SPARE			600
19			SPACE			
21			SPACE			
23			SPACE			
2	20	1	LTG-COGENERATION ROOM	2500		
4	20	1	LTG-COGENERATION ROOM		3000	
6	20	1	SPARE			600
8	20	1	SPARE	600		
10	20	1	LTG-EXTERIOR		450	
12	20	1	SPARE			600
14			SPACE			
16	20	1	SPARE		600	
18	20	1	SPARE			600
20	20		SPACE			
22	20		SPACE			
24	20		SPACE			
LOAD PER PHASE-- VOLTAMPS				7300	6415	7000
25% LTG LOAD				1375	1154	1000
LOAD PER PHASE--AMPS				31.3	27.3	28.9
LOAD PER PHASE--PCT OF TOTAL				35.8	31.2	32.9
TOTAL CONNECTED LOAD--VOLTAMPS				24,244		

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA

1200 R Street, Suite 100
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REGISTERED ARCHITECT
C-33192
EXPIRES 7-31-2023
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH

FACILITIES DESIGN & CONSTRUCTION
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REGISTERED PROFESSIONAL ENGINEER
AARON C. LEACH
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Exp. 9/30/23
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

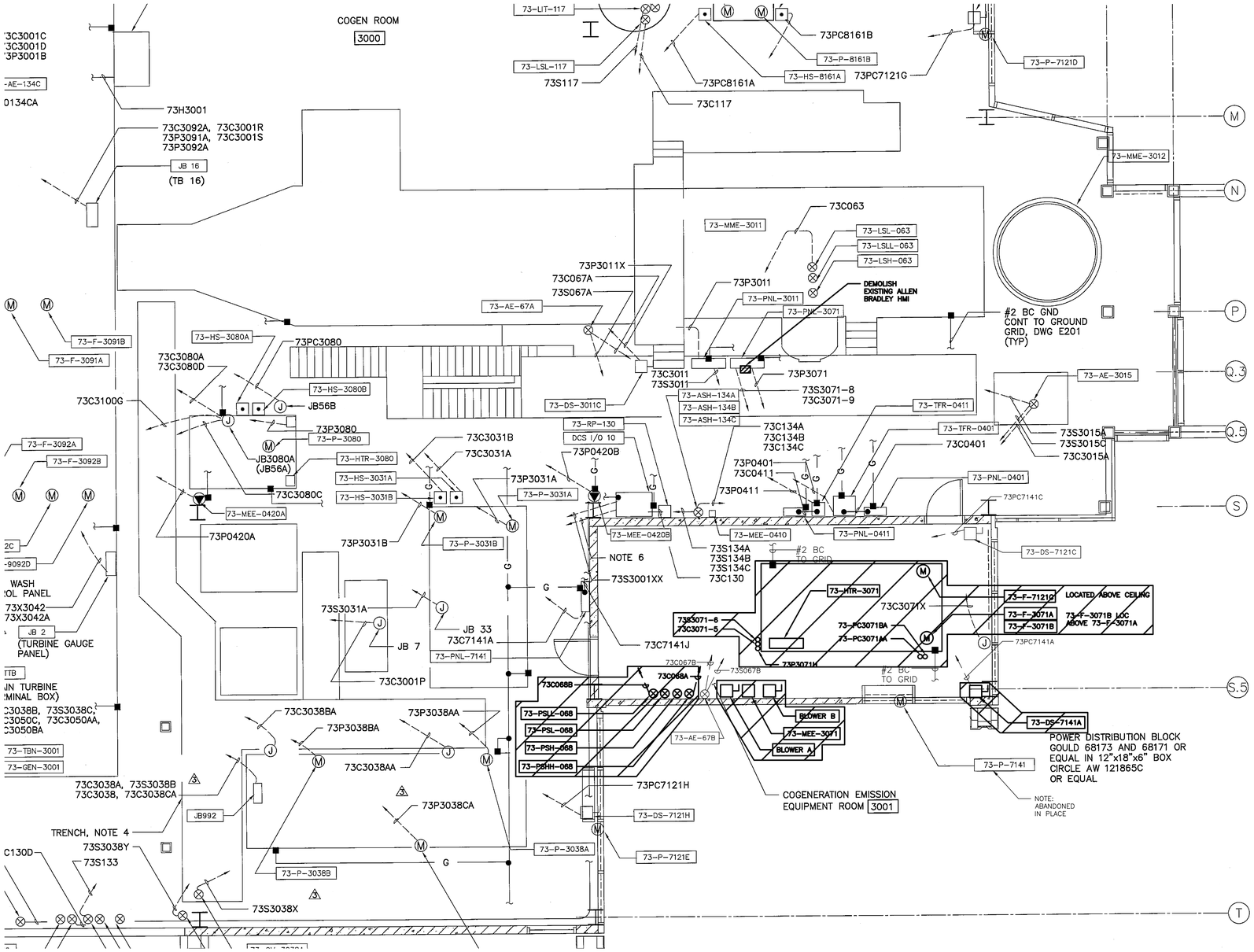
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDM PROJECT NO: 9557240
UCSH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Panelboards 2 Demo

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E121D
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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NOTES:

1. REFERENCE TO THE CONDUITS DEMO DOCUEMENT. SOME CONDUITS TO–BE–DEMO ARE NOT SHOWN IN THIS DRAWING

LEGEND:

EQUIPMENT TO BE DEMOLISHED

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

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REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 6/30/23 ELECTRICAL STATE OF CALIFORNIA

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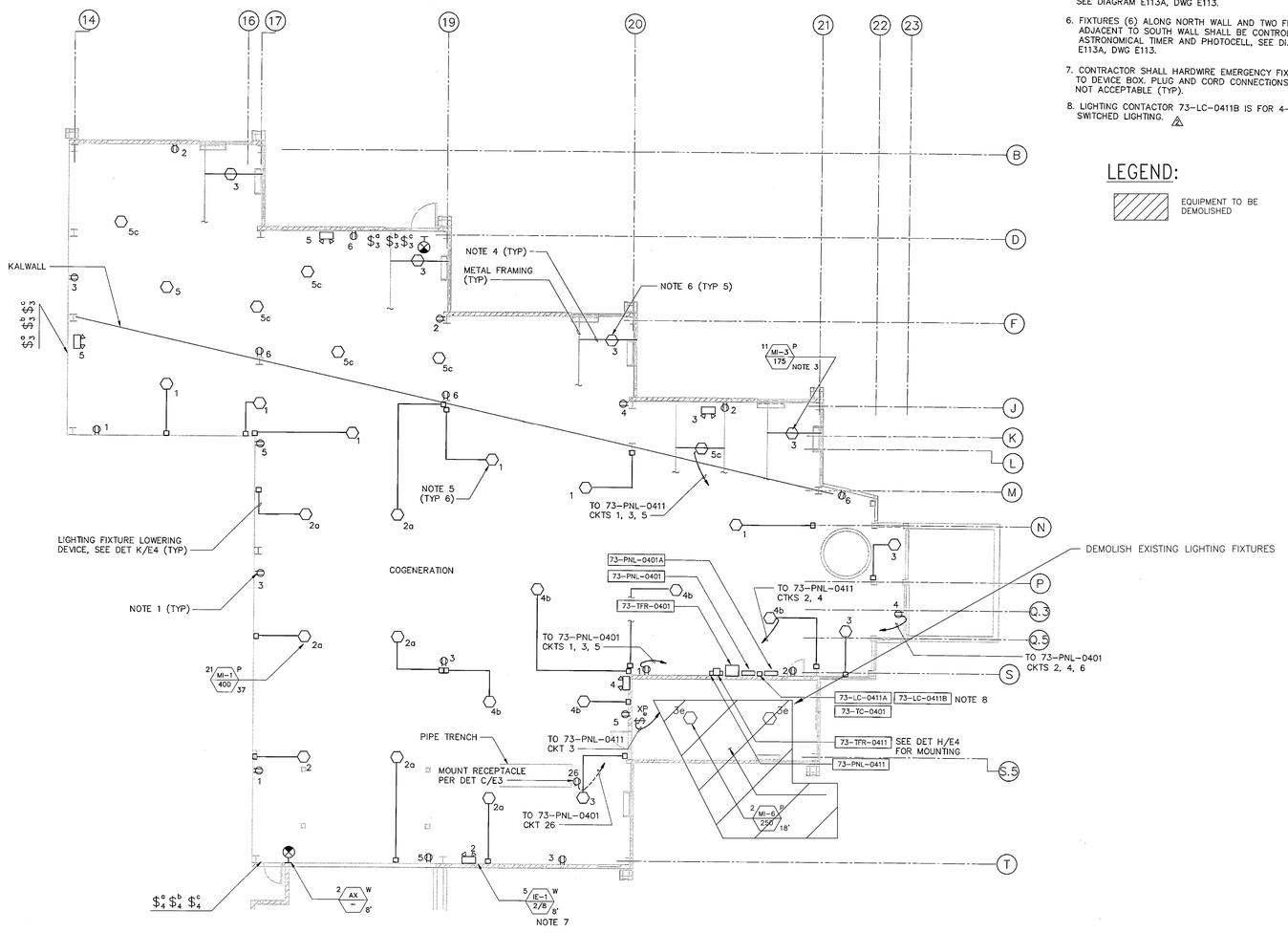
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO. 9557240
UCDH BUILDING NO. BLD-01444
FLOOR / WING CENTRAL PLANT
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: First Floor Power and Grounding Plan Demo

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E403D
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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NOTES:

1. ALL 120V RECEPTACLES SHALL BE FED FROM PANEL 73-PNL-0401, UNLESS OTHERWISE OTHERWISE NOTED. CONDUCTORS SHALL BE #12AWG MIN.
2. ALL 277V LIGHTING SHALL BE FED FROM PANEL 73-PNL-0411 UNLESS OTHERWISE NOTED. FIXTURES SHALL BE MOUNTED ON METAL FRAMING UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE #12AWG MIN.
3. FIXTURES NORTH OF "KALWALL" SHALL BE MOUNTED 16' ABFF.
4. PROVIDE UNISTRUT P2550 WITH P2868 AT EACH END, SUPPORT FIXTURES ON UNISTRUT.
5. FIXTURES JUST SOUTH OF KALWALL (6) SHALL BE CONTROLLED VIA ASTRONOMICAL TIMER AND PHOTOCELL SEE DIAGRAM E113A, DWG E113.
6. FIXTURES (6) ALONG NORTH WALL AND TWO FIXTURES ADJACENT TO SOUTH WALL SHALL BE CONTROLLED VIA ASTRONOMICAL TIMER AND PHOTOCELL, SEE DIAGRAM E113A, DWG E113.
7. CONTRACTOR SHALL HARDWIRE EMERGENCY FIXTURES TO DEVICE BOX. PLUG AND CORD CONNECTIONS ARE NOT ACCEPTABLE (TYP).
8. LIGHTING CONTACTOR 73-LC-0411B IS FOR 4-WAY SWITCHED LIGHTING. ⚠

LEGEND:

EQUIPMENT TO BE DEMOLISHED

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

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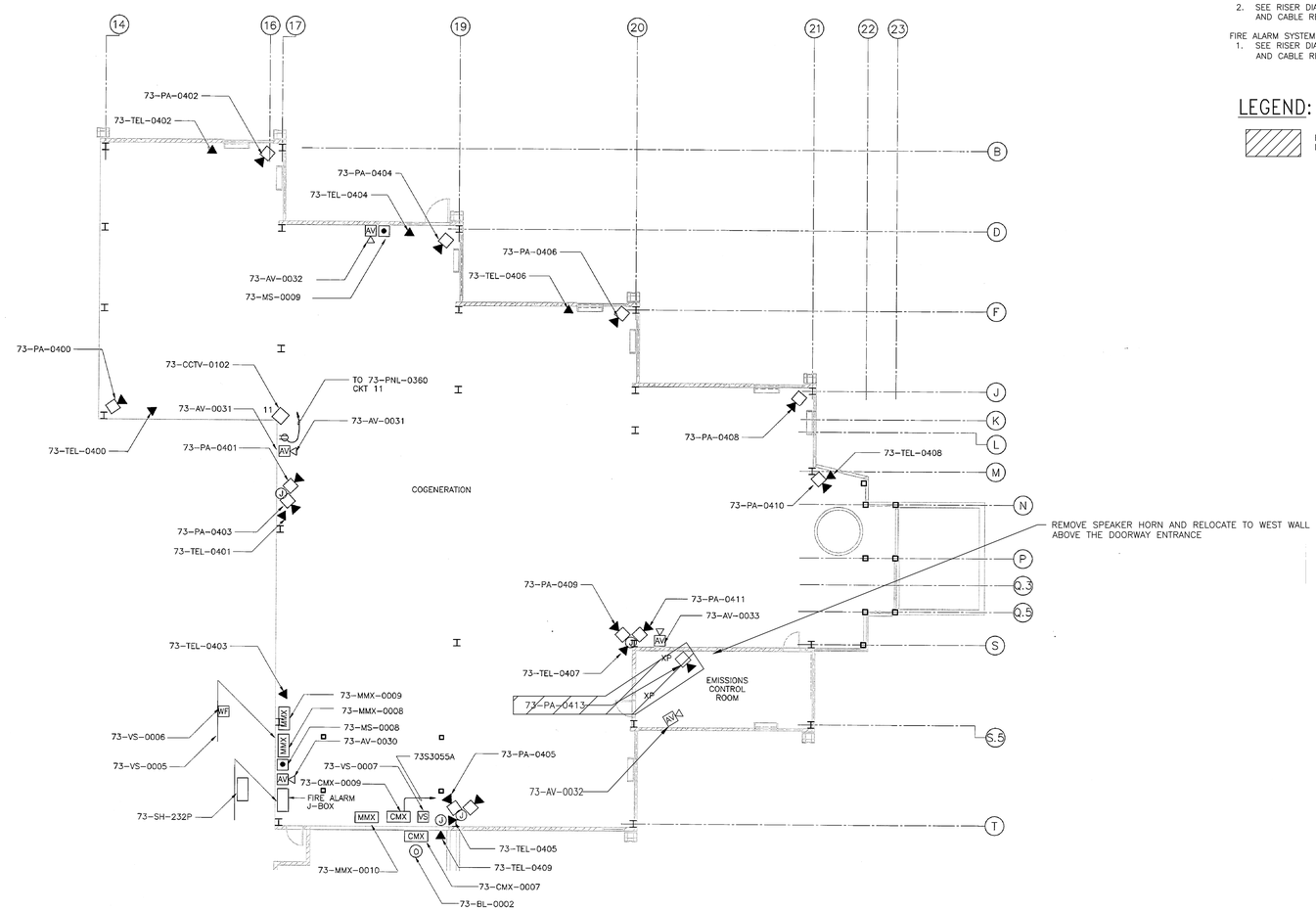
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCOH PROJECT NO: 9557240
UCOH BUILDING NO: BLD-01444
FLOOR / WING: CENTRAL PLANT
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: First Floor Lighting and Receptacle Plan Demo

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E406D
UCOMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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FIRST FLOOR PLAN

P.A. SYSTEM NOTES:
1. INSTALL SPEAKER HORNS 8' ABOVE FLOOR FACING HORIZONTAL
2. CONDUIT SHALL BE ROUTED EXPOSED TO FLOOR AND THEN EMBEDDED IN THE FLOOR.
3. SEE RISER DIAGRAM DRAWING E55 FOR CONDUIT REQUIREMENTS

TELEPHONE SYSTEM NOTES:
1. INSTALL TELEPHONE OUTLET BOXES 48" ABOVE FLOOR.
2. SEE RISER DIAGRAM DRAWING E50 FOR CONDUIT AND CABLE REQUIREMENTS.

CCTV SYSTEM NOTES:
1. INSTALL CAMERA 7' ABOVE FLOOR.
2. SEE RISER DIAGRAM DRAWING E65 FOR CONDUIT AND CABLE REQUIREMENTS.

FIRE ALARM SYSTEM NOTES:
1. SEE RISER DIAGRAM DRAWING E41 FOR CONDUIT AND CABLE REQUIREMENTS.

LEGEND:

EQUIPMENT TO BE DEMOLISHED

CERTIFIED BUILDING OFFICIAL :

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CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
FLOOR / WING: CENTRAL PLANT
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: First Floor Fire Alarm and Communications Demo

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E408D
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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PROJECT/SITE CONDITIONS

CORROSIVE — INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CORROSION RESISTANT CONSTRUCTION SUITABLE FOR USE IN A WET LOCATION, UNLESS NOTED OTHERWISE

CLASS 1, DIV.1 GROUP D — INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL CONFORM TO N.E.C. REQUIREMENTS FOR THE HAZARDOUS AREA CLASSIFICATION AS SHOWN

DENOTES EXISTING TO BE DEMOLISHED. SEE DEMOLITION NOTES THIS DRAWING.

DUCTBANK

MH–8 — MANHOLE (MH) OR HANDHOLE (HH),

(N) NORMAL POWER
(E) EMERGENCY POWER
(C) COMMUNICATIONS

JB2700A (J) — JUNCTION BOX. OPTIONAL IDENTIFIER.

TB1035 (TB) — TERMINAL BOX. OPTIONAL IDENTIFIER.

3#10, 1#10 G, 1"C — RACEWAY SIZE WITH CONDUCTOR CONTENTS AND SIZES.

E.Q. SUPPORT — CONDUIT SUPPORT – SEE STRUCTURAL DWG. S330.

LIGHTING FIXTURE SHAPES AND SCALE ARE REPRESENTED WHERE POSSIBLE. THE EXAMPLES SHOWN BELOW ARE TYPICAL APPLICATIONS.

FLUORESCENT FIXTURE

INCANDESCENT OR HID FIXTURE

WALL MOUNTED FIXTURE

DIRECTIONAL LIGHT

POLE MOUNTED AREA LIGHT

EMERGENCY LIGHTING UNIT, SELF CONTAINED.

EXIT SIGN. DARK QUADRANTS INDICATE FACES ILLUMINATED. DIRECTIONAL ARROWS INDICATED.

3A — CIRCUIT IDENTIFIER: WHEN SHOWN ADJACENT TO FIXTURE IDENTIFIES CIRCUIT NUMBER AND SWITCH. EXAMPLE: CIRCUIT 3, CONTROLLED BY SWITCH A.

RECEPTACLES:

UNLESS OTHERWISE NOTED, ALL RECEPTACLES ARE 125 VOLT, SINGLE PHASE, STRAIGHT BLADE, NON–LOCKING, GROUNDING STYLE.

DUPLEX RECEPTACLE, 20 AMP, 3 WIRE

RECEPTACLE MODIFIERS:

WP = WEATHER PROOF
GF = GROUND FAULT CIRCUIT INTERRUPTER
H = HAZARDOUS AREA–EXPLOSION PROOF

10–50R — SPECIAL RECEPTACLE. RATING OR NEMA CONFIGURATION AS SHOWN. EXAMPLE: NEMA 10–50R, 125/250V, 3 POLE, 3 WIRE, 50 AMP, NON–GROUNDING TYPE.

RECESSED FLOOR RECEPTACLE––ANY RECEPTACLE INSIDE A SQUARE.

SURFACE FLOOR RECEPTACLE––ANY RECEPTACLE INSIDE A TRIANGLE.

GANGED RECEPTACLES––IN COMMON BOX, WITH COMMON WALL PLATE.

480V, 3 PHASE, 60AMP RECEPTACLE

GENERAL NOTES:

1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
2. SEE DRAWING E002.1 FOR ADDITIONAL SYMBOLS.
3. IDENTIFICATIONS (ID), SIZES, RATINGS, LOCATIONS AND SIMILAR INFORMATION SHOWN ASSOCIATED WITH SYMBOLS ARE OPTIONAL; EXAMPLES OF SUCH INFORMATION ARE SHOWN WITH SOME SYMBOLS FOR CLARITY.
4. THE ELECTRICAL DRAWINGS USE THE ONE LINE AND RISER DIAGRAMS AND PANEL SCHEDULES IN CONJUNCTION WITH SHOWING THE LOCATION OF THE ELECTRICAL/INSTRUMENTATION SOURCES AND LOADS/DEVICES SHOWN ON THE PLAN DRAWINGS TO DEPICT THE WORK. THE CONTRACTOR SHALL USE THESE DOCUMENTS TO DETERMINE AND PROVIDE THE NECESSARY RACEWAY AND WIRING SYSTEM FOR EACH CIRCUIT. ALL INDOOR RACEWAY SHALL BE RUN EXPOSED, AND ROUTED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. THE TYPE OF RACEWAY AND WIRE USED SHALL BE AS SPECIFIED.
5. IF EQUIPMENT SUPPLIED BY MANUFACTURER HAS A LARGER LOAD THAN INDICATED ON THE ONE LINE DIAGRAM, THE UNIVERSITY'S REPRESENTATIVE SHALL BE NOTIFIED. THE CABLE, CONDUIT AND ELECTRICAL EQUIPMENT SHALL BE SIZED AS REQUIRED, TO ACCOMMODATE THE HIGHER VALUE.
6. IN AREAS WHERE THERE ARE OVERHEAD BRIDGE CRANES, HOISTS, ETC., OR WHERE EQUIPMENT IS LIFTED AND MOVED FOR MAINTENANCE OR REPLACEMENT, NO CONDUITS SHALL BE RUN OVERHEAD THAT WILL INTERFERE WITH THE OPERATION OF THE EQUIPMENT.
7. THE LOCATION OF THE CONTROL STATIONS SHOWN ON THE PLAN DRAWINGS ARE DIAGRAMMATIC AND THE ACTUAL LOCATION SHALL BE COORDINATED IN THE FIELD WITH THE UNIVERSITY'S REPRESENTATIVE.
8. THE EXACT LOCATION OF THE MOTORS AND ACCESSORIES ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE WITH ACTUAL EQUIPMENT FURNISHED FOR CONDUIT STUBUP AND TERMINATION LOCATIONS.
9. ALL EQUIPMENT SHALL BE LABELED WITH NAMEPLATES. DESCRIPTION OF EQUIPMENT SHALL BE IN ACCORDANCE WITH THE ONE LINE DIAGRAM DESCRIPTION CONTAINED IN QUOTATION MARKS.
10. CONDUIT SIZES SHOWN ON THE ONE LINE DIAGRAMS ARE FOR ABOVE GROUND AND/OR INSIDE OF STRUCTURE. CONDUITS THAT ENTER DUCTBANKS OR ARE EMBEDDED MAY BE LARGER.
11. LOCATIONS OF EXISTING FACILITIES ARE TAKEN FROM OWNER FURNISHED DRAWINGS AND PLANS. CONTRACTOR SHALL VERIFY ALL LOCATIONS AND ACTUAL CONDITIONS IN THE FIELD.
12. GROUND CONDUCTOR IN CONDUITS AND DUCTBANK GROUND SHALL ALL BE CONNECTED TO SWITCH/CIRCUIT BREAKER ENCLOSURE GROUND BUSSES AND TRANSFORMER GROUNDING PLATES.
13. CONTRACTOR SHALL CONNECT NEW GROUND CONDUCTORS TO EXISTING GROUND GRIDS AT ALL ELECTRICAL CONNECTIONS.
14. UNLESS DETAILED ON DRAWINGS, CABLE TRAY AND CONDUIT SUPPORT SYSTEMS SHALL BE DESIGNED BY THE CONTRACTOR TO MEET THE MINIMUM LOAD AND SPAN REQUIREMENT PER 2001 CBC SECTION 1632A AND AS SPECIFIED BY OSHPD. CABLE TRAYS AND CONDUITS SHALL BE SUPPORTED AND SEISMICALLY BRACED IN ACCORDANCE WITH OSHPD APPROVED DETAILS. SEE SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS" No. R–0010, WITH SEISMIC HAZARD LEVEL A OR OTHER OSHPD PREAPPROVED SUPPORT AND BRACING SYSTEMS SUCH AS UNISTRUT, SUPERSTRUT OR EQUAL. SEE STRUCTURAL DWG JFI–S330 FOR MORE INFORMATION.
15. PRIOR TO INSTALLATION OF ANY NEW CABLES IN EXISTING CABLE TRAYS, THE CONTRACTOR SHALL IDENTIFY ALL EXISTING CABLES TO BE DEMOLISHED AND REARRANGE THESE CABLES IN THE EXISTING TRAYS TO ACCOMMODATE INSTALLATION OF NEW CABLES. EXISTING CABLES THAT ARE TO BE DEMOLISHED SHALL BE REMOVED AFTER COMMISSIONING AND ACCEPTANCE OF NEW EQUIPMENT.

DEMOLITION NOTES:

1. DEMOLITION OF EXISTING ELECTRICAL AND CONTROL CIRCUITS CANNOT BE DONE UNTIL AFTER NEW SYSTEMS ARE INSTALLED AND OPERATIONAL UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS.

CIRCUITS AND RACEWAYS

P1357A — RACEWAY IDENTIFIER

RACEWAY EXPOSED

RACEWAY CONCEALED

RACEWAY TURNED TOWARD THE THE VIEWER.

RACEWAY TURNED DOWN

CONDUIT PLUGGED FLUSH

CONDUIT CAPPED

RACEWAY CHANGE IN ELEVATION

B.O.C. BOTTOM OF CONDUIT

B.O.T. BOTTOM OF CABLE TRAY

GROUNDING

GROUND ROD

GROUND ROD WITH GROUND WELL

GROUND CONNECTION, BOLTED TYPE

GROUND CONNECTION, COMPRESSION TYPE

G — GROUNDING CONDUCTOR

DISTRIBUTION EQUIPMENT

APPROXIMATE SHAPE AND SCALE REPRESENTED WHERE POSSIBLE. HOWEVER, EXACT SIZE AND NUMBER OF SECTIONS IS ESTIMATED.

FLOOR–STANDING DISTRIBUTION ASSEMBLY, SUCH AS A SWITCHBOARD, TRANSFORMER, OR MOTOR CONTROL CENTER

MCC1234 — EQUIPMENT DESIGNATION (EXAMPLE)

WALL–MOUNTED DISTRIBUTION ASSEMBLY, SUCH AS PANELBOARD, MOTOR STARTER PANEL, OR TERMINAL CABINET

PBD1234 — EQUIPMENT DESIGNATION (EXAMPLE)

MOTORS AND EQUIPMENT

MOTOR STARTER, INDIVIDUAL. NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY

COMBINATION MOTOR STARTER. NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY

DISCONNECT SWITCH, NON–FUSED

F — DISCONNECT SWITCH, FUSED

M — M=MOTOR
SV=SOLENOID VALVE
CV=CONTROL VALVE
A=ADJUSTABLE SPEED DRIVE

FIELD INSTRUMENT

CONTROL STATION. SEE CONTROL DIAGRAMS FOR DEVICES REQUIRED

P — VENDOR SUPPLIED PACKAGED EQUIPMENT – SINGLE POINT ELECTRICAL CONNECTION

LIGHTING

FIXTURE IDENTIFIER:

5 — NUMBER OF FIXTURES (SHOWN ONLY WHEN REQUIRED FOR CLARITY)

FIXTURE TYPE. REFER TO LIGHT FIXTURE SCHEDULE (SEE DWG. JFI–E203A). TYPE APPLIES TO ALL FIXTURES OF THE SAME SHAPE WITHIN A ROOM OR AREA.

XX / 2/40 — R — MOUNTING:
L = POLE R = RECESSED
G = GROUND S = SURFACE
P = PENDANT W = WALL

R'–6 — MOUNTING HEIGHT, FLOOR TO BOTTOM OF FIXTURE UON. AHAP= AS HIGH AS POSSIBLE.

NUMBER OF LAMPS/LAMP WATTAGE

WIRING DEVICES

SWITCHES:

UNLESS OTHERWISE NOTED, ALL SWITCHES ARE WALL MOUNTED.

$ — TOGGLE SWITCH, SINGLE POLE, 20 AMP

$ $ — GANGED SWITCHES IN COMMON BOX WITH COMMON WALL PLATE

$a 3 — SUPERSCRIPT INDICATES CIRCUIT CONTROLLED: a, b, c, ETC. MAY BE COMBINED WITH CIRCUIT NUMBER. EXAMPLE: 1a, 4b, ETC.

SUBSCRIPT MODIFIER INDICATES:
2 = DOUBLE POLE
3 = THREE WAY
4 = FOUR WAY
K = KEY OPERATED
MC = MOMENTARY CONTACT, THREE POSITION
MS = MANUAL (MOTOR) STARTER OR SWITCH
R = RHEOSTAT (DIMMER, SPEED CONTROL)

FOR REFERENCE ONLY

NOTES:
1. REFERENCE DRAWING JFI–E001.1.

TELEPHONE & COMMUNICATION SYSTEMS

UNLESS OTHERWISE NOTED, TELEPHONE OUTLETS SHALL BE MOUNTED AT SAME HEIGHT AS THE RECEPTACLES. VERIFY.

EXTERNAL LINE OR PLANT PHONE SYSTEM OUTLET

MODIFIERS:
A = ATTENDANT'S CONSOLE
F = FUTURE INSTRUMENT
J = JACK, PLUG–IN TYPE
W = WALL INSTRUMENT

SPEAKER (OUTDOOR)

S — SPEAKER (INDOOR)

ABBREVIATIONS

UCD MC – UC DAVIS MEDICAL CENTER

M.I.N.D. – MEDICAL INVESTIGATIONS OF NEURODEVELOPMENTAL DISORDERS

INSTRUMENT TAG NUMBERS

73 P D IT 1015 A

- A — SUFFIX – USED ONLY WHEN TWO OR MORE INSTRUMENTS WOULD OTHERWISE HAVE THE SAME TAG NUMBER
- 1015 — LOOP NUMBER–ASSOCIATED WITH EQUIPMENT NUMBER
- IT — SUCCEEDING LETTERS: READOUT OR PASSIVE FUNCTION AND/OR OUTPUT FUNCTION WITH MODIFIER WHEN REQUIRED
- D — MODIFIER LETTER, WHEN REQUIRED
- P — MEASURED OR INITIATING VARIABLE LETTER

(IT, D, P: FUNCTIONAL IDENTIFICATION SEE TABLE THIS DRAWING)

- 73 — BUILDING "CENTRAL PLANT"

EXAMPLE: PDIT 1015A

FUNCTIONAL IDENTIFICATION (FOR USE WITH INSTRUMENT TAG NUMBERS)

	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION				
C	CONDUCTIVITY			CONTROL	CLOSE
D	DENSITY, SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			
G	FIRE, SMOKE		GLASS		
H	HAND				HIGH
I	CURRENT (ELEC)		INDICATE		
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE, HUMIDITY	MOMENTARY			MIDDLE
N	EQUIPMENT STATUS				
O	DISSOLVED OXYGEN		ORIFICE		OPEN
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE, TORQUE		WELL		
X	UNCLASSIFIED	X AXIS			
Y	EVENT, STATE, OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, FINAL CONTROL ELEMENT	

DO NOT SCALE – This drawing was generated using AutoCAD and must not be altered manually.

UC DAVIS HEALTH BUILDING DEPARTMENT
APPROVED
REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.
BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C – 33192 EXPIRATION 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 09/30/24 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE
REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, SACRAMENTO, CA 95817
SHEET TITLE: Symbols 1

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E001.1
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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CONTROL DIAGRAM SYMBOLS

GENERAL

- ENCLOSURE BOUNDARY
- CONDUCTORS CONNECTED
- CONDUCTORS NOT CONNECTED
- TERMINAL POINT FOR EXTERNAL CONNECTIONS

TRANSFORMERS

- 120V / 120V — CONTROL TRANSFORMER. PRIMARY AND SECONDARY VOLTAGES SHOWN. SIZE AS SHOWN OR SPECIFIED.
- 50/5 — CURRENT TRANSFORMER. PRIMARY/ SECONDARY TURNS RATIO SHOWN.
- 50/5 — CURRENT TRANSFORMER – WINDOW TYPE. PRIMARY /SECONDARY TURNS RATIO SHOWN

DISCONNECTS AND OVERCURRENT DEVICES

- 40A — CIRCUIT BREAKER, THERMAL–MAGNETIC, 3 POLE, UON.
  RATING IN AMPS
  MODIFIERS:
  /M MAGNETIC ONLY
  /2 POLES, IF OTHER THAN 3
  /AF AMP FRAME
  /AT AMP TRIP
  /AS AMP SENSOR
- ID — FUSE
  MODIFIERS:
  CLF = CURRENT LIMITING FUSE
  DE = DUAL ELEMENT
  F = CLASS F
- NEON BLOWN FUSE INDICATOR

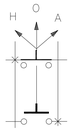
PUSHBUTTONS

- ID / DESCPTN — PUSHBUTTON, MOMENTARY CONTACT, NORMALLY OPEN
- ID / DESCPTN — PUSHBUTTON, MOMENTARY CONTACT, NORMALLY CLOSED
- ID / DESCPTN — PUSHBUTTON WITH MUSHROOM HEAD, EMERGENCY STOP, MAINTAINED CONTACT

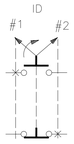
SELECTOR SWITCHES



2 POSITION MAINTAINED CONTACT
X = CONTACTS CLOSED



3 POSITION MAINTAINED CONTACT
X = CONTACTS CLOSED



2 POSITION
SPRING RETURNED TO RIGHT
X = CONTACTS CLOSED

INPUT SWITCHES

NORMALLY OPEN	NORMALLY CLOSED	INITIATING VARIABLE
		POSITION (LIMIT)
		FLOW
		TEMPERATURE
		PRESSURE
		LEVEL
		FORCE OR TORQUE
		SPEED

FOR REFERENCE ONLY

NOTES:

1. REFERENCE DRAWING JFI–E002.1.

CONTROL RELAYS

- 2 CR / FUNCTION — OPERATING COIL
  CR = CONTROL RELAY
  U = UNLATCH
  L = LATCH
- OL — THERMAL OVERLOAD RELAY
- CR2 CR2 — OUTPUT CONTACTS

TIMING RELAYS

- TR 2 — OPERATING COIL
  ON or OFF DELAY
  RANGE:SE/MIN
  SET:SEC/MIN

NORMALLY OPEN	NORMALLY CLOSED	
TR3 OR TC	TR3 OR TO	DELAY ON COIL ENERGIZATION (ON DELAY)
TR3 OR TO	TR3 OR TC	DELAY ON COIL DE–ENERGIZATION (OFF DELAY)

CONTACTORS

- ID / C — OPERATING COILS
  C = CONTACTOR, LIGHTING OR GENERAL USE
  F = FAST OR FORWARD
  M = MAIN OR LINE
  1M = FIRST MAIN OR WYE
  2M = SECOND MAIN OR DELTA
  R = RUN OR REVERSE
  S = SLOW OR START
- ID / SIZE — MAIN CONTACTS

OUTPUT LOADS AND DEVICES

- MTR — MOTOR
- 50W — SPACE HEATER. WATTAGE SHOWN
- MAGNETIC COIL
- SV — SOLENOID
- H — HOUR METER (ELAPSED TIME)
- KIC — TIME CONTROLLER
- LC — LEVEL CONTROL SENSOR
- CV — CONTROL VALVE
- AE — OXYGEN DEFICIENCY DETECTOR OR REFRIGERANT LEAK DETECTOR
- ASH — REFRIGERANT LEAK SWITCH HIGH
- ASL — LOW OXYGEN SWITCH
- PDSL — DIFFERENTIAL PRESSURE SWITCH LOW

INDICATING LIGHTS

INDICATING LIGHTS
L = LENS COLOR:
A = AMBER
B = BLUE
G = GREEN
R = RED
W = WHITE

- LINE / L / LEGEND — PUSH TO TEST. TEST VOLTAGE TERMINAL SHOWN

MISCELLANEOUS

- HORN
- OHMS / RES — RESISTOR
- RECTIFIER
- SURGE OR ARC SUPRESSOR
- TRIAC
- CAPACITOR
- CONNECTOR PLUG
- GROUND CONNECTION
- POTENTIOMETER
- BUS DUCT
- BATTERY
- SHIELDED CABLE
- LOCATED IN THE FIELD

NOTES:

1. REFERENCE DRAWING JFI–E002.1.

DO NOT SCALE – This drawing was generated using AutoCAD and must not be altered manually.

ONE LINE DIAGRAM SYMBOLS

- 2S2W / 04C2004: 2#12,#12G, 3/4"C / 1/4 / 5 KW — SIZE 2 COMBINATION FULL VOLTAGE NON–REVERSING MAGNETIC STARTER MCP SIZED BY MANUFACTURER (OVERLOAD RELAY NOT SHOWN)
  RV = REDUCED VOLTAGE
  2S2W = TWO–SPEED TWO–WINDING
  2 = SIZE 2
- CIRCUIT NO. 04C2004 WITH 2#12AWG INSULATED CONDUCTORS AND 1#12 INSULATED GROUND CONDUCTOR IN 3/4" CONDUIT TO 1/4 HP LOAD. LOADS ARE INDICATED IN HP OR KW.
- MOTOR (TYP)
  PACKAGED EQUIPMENT (TYP)
- POWER AND CONTROL TO A PACKAGE UNIT, SHALL IMPLY THAT ANY AND ALL ASSOCIATED EQUIPMENT SHALL ALSO BE INSTALLED AND WIRED AS REQUIRED
- 15
- INDICATES THAT ALL OR PART OF CIRCUIT MAY BE ROUTED IN CABLE TRAY. CONDUIT SIZE SHOWN ON ONE–LINE IS ABOVE GROUND AND/OR INSIDE OF STRUCTURE.
- PUSHBUTTON STATION
- INDICATES THAT ALL OR PART OF CIRCUIT MAY BE ROUTED IN DUCTBANK OR UNDERGROUND. CONDUIT SIZE SHOWN ON ONE–LINE IS ABOVE GROUND AND/OR INSIDE OF STRUCTURE. SEE SECTIONS FOR CONDUIT SIZE OF UNDERGROUND PORTION OF CIRCUIT.
- SURGE PROTECTOR
- LIGHTNING ARRESTOR AND GROUND
- PORTABLE CABLE
- INCOMING LINE
- 200A — DISCONNECT OR ISOLATING SWITCH. 200 AMP SHOWN
- DRAWOUT MEDIUM VOLTAGE MOTOR STARTER
- DRAWOUT MEDIUM VOLTAGE POWER CIRCUIT BREAKER
  SIZE AS SHOWN OR SPECIFIED
- 2PT — DRAWOUT POTENTIAL TRANSFORMER QUANTITY AS SHOWN
- 100F — FUSE. 100 AMP CLASS "F" SHOWN

- 100 KVA 13.2 KV / 5.75% Z 480/277V — POWER TRANSFORMER. VOLTAGES, SIZE, IMPEDANCE SHOWN
- 1.5 KVA 120V / 2.5% 240/120V — ISOLATION TRANSFORMER. VOLTAGES, SIZE, IMPEDANCE SHOWN
- 4.16 KV / (3) / 120 V — POTENTIAL TRANSFORMER. PT QUANTITY (3) AND VOLTAGES SHOWN
- 400/5 / (3) — CURRENT TRANSFORMER. CT QUANTITY (3) AND 400:5 TURNS RATIO SHOWN
  WINDING CONFIGURATIONS:
- DELTA
- WYE (GROUNDED)
- 600KW 60HZ / 480V 3ø, 4W — GENERATOR. POWER RATING, FREQUENCY, VOLTAGE, GROUNDED WYE WINDING SHOWN
- K — KIRK KEY INTERLOCK
- 86 — PROTECTIVE DEVICE NUMBER SPECIFIES FUNCTION
  23 TEMPERATURE CONTROL SWITCH/DEVICE/ RELAY
  25 SYNCHRONIZER OR SYNCHRONISM CHECK
  27 UNDERVOLTAGE
  32 REVERSE POWER
  40 FIELD APPLICATION CONTACTOR
  46 CURRENT BALANCE
  49 TRANSFORMER THERMAL SWITCH (OVERTEMP)
  50 INSTANTANEOUS OVERCURRENT
  51 TIME OVERCURRENT
  51G GROUND FAULT TIME OVERCURRENT
  59 OVERVOLTAGE
  62 TIME–DELAY STOPPING OR OPENING RELAY
  63 LIQUID OR GAS PRESSURE OR VACUUM SWITCH/RELAY
  67V DIRECTIONAL VOLTAGE RESTRAINED OVERCURRENT RELAY
  71 LIQUID OR GAS LEVEL SWITCH/RELAY
  81O OVER–FREQUENCY
  81U UNDER–FREQUENCY
  86 LOCKOUT
  87 DIFFERENTIAL CURRENT
- MECHANICALLY INTERLOCKED CIRCUIT BREAKERS
- STRESS CONE
- 1600AF / 1600AS LT,ST,GF — DRAWOUT LOW VOLTAGE POWER CIRCUIT BREAKER SIZES AND FUNCTIONS AS SHOWN
  1600AF = 1600 AMP FRAME
  1600AS = 1600 AMP TRIP SENSOR
  LT = LONG TIME FUNCTION
  ST = SHORT TIME FUNCTION
  I = INTANTANEOUS FUNCTION
  GF = GROUND FAULT FUNCTION

MAIN CONTACTS

- M — AIR BREAK CONTACTOR
- VACUUM CONTACTOR

NOTES:

1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
2. SEE DWG E001.1 FOR ADDITIONAL SYMBOLS AND NOTES.
3. IDENTIFICATIONS (ID), SIZES, RATINGS, LOCATIONS AND SIMILAR INFORMATION SHOWN ASSOCIATED WITH SYMBOLS ARE OPTIONAL; EXAMPLES OF SUCH INFORMATION ARE SHOWN WITH SOME SYMBOLS FOR CLARITY.

UC DAVIS HEALTH BUILDING DEPARTMENT
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PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

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1200 R Street, Suite 100
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Telephone 916.787.5100

REGISTERED ARCHITECT C–33192 REN. 7–31–25 STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 09/30/24 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, SACRAMENTO, CA 95817
SHEET TITLE: Symbols 2

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E002.1
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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CODES AND STANDARDS

ALL WORK SHALL CONFORM TO THE FOLLOWING PARTS OF TITLE 24 CALIFORNIA CODE OF REGULATIONS (CCR), 2022 EDITION: (1)

PART 1 – CALIFORNIA BUILDING ADMINISTRATIVE CODE
PART 2 – CALIFORNIA BUILDING CODE
PART 3 – CALIFORNIA ELECTRICAL CODE
PART 6 – CALIFORNIA ENERGY CODE
PART 9 – CALIFORNIA FIRE CODE

AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
NATIONAL FIRE PROTECTION AGENCY (NFPA)
AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)

CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

GENERAL ORDER 95 – RULES FOR OVERHEAD ELECTRICAL LINE CONSTRUCTION
GENERAL ORDER 128 – CONSTRUCTION OF UNDERGROUND ELECTRIC SUPPLY
GENERAL ORDER 174 – RULES FOR ELECTRIC UTILITY SUBSTATIONS

ALL WORK SHALL COMPLY WITH THE LISTED CODES AND STANDARDS AND ALL OTHER APPLICABLE FEDERAL, STATE AND CODES AND REGULATIONS. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN BUT THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.

CONSTRUCTION NOTES

1. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE CITY OF SACRAMENTO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST REVISIONS, THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC), AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, "GREEN BOOK", 2021 EDITIONS. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS. ANY DEVIATION FROM SUCH RECOMMENDATIONS SHALL BE APPROVED BY THE MANUFACTURER IN WRITING. WHERE PLANS, DETAILS AND SPECIFICATIONS CONFLICT WITH CODES AND MANUFACTURER'S REQUIREMENTS, THE MORE RESTRICTIVE SPECIFICATIONS SHALL PREVAIL.

2. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, THE ENGINEER, AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXPECTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS REQUIRED BY THE CITY OF SACRAMENTO AND RELEVANT TO THE OTHER AGENCIES IN ORDER TO DO THE WORK SHOWN ON THESE PLANS.

4. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER OR OWNER'S ENGINEER.

5. THE CONTRACTOR SHALL GIVE THE OWNER OR OWNER'S ENGINEER AT LEAST TWO (2) WORKING DAYS NOTICE TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH ANY INSPECTOR PRIOR TO START OF WORK.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ELECTRICAL EQUIPMENT TESTING AND COMPACTION TESTING. A CERTIFICATION OF COMPACTION SIGNED BY A REGISTERED ENGINEER SHALL BE SUBMITTED FOR ALL TRENCH BACKFILLS.

7. EXISTING SURFACES DAMAGED BY NEW CONSTRUCTION SHALL BE REPLACED, PATCHED, PREPARED, OR REPAINTED TO MATCH EXISTING CONDITIONS. PAINTED SURFACE SHALL BE PAINTED FROM BREAK TO BREAK.

8. UPON COMPLETION OF THE WORK, REMOVE TOOLS, EQUIPMENT, MATERIALS FROM SITE. REMOVE PROTECTIONS NO LONGER NEEDED AND LEAVE INTERIOR AREAS BROOM CLEAN. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S ENGINEER OF ANY DISCREPANCIES OR UNUSUAL CONDITIONS ON THE PLANS, DETAILS OR CONSTRUCTION NOTES PRIOR TO FINALIZATION OF THE BIDS AND COMMENCEMENT OF ANY CONSTRUCTION. THE CONTRACTOR SHALL, AT ALL TIMES, KEEP THE WORK AREA CLEAN AND FREE FROM ANY ACCUMULATION OF WASTE MATERIAL AND RUBBISH. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM OWNERS PROPERTY AND LEAVE THE WORK AREA IN A BROOM CLEAN CONDITION. CONTRACTOR TO SUPPLY TRASH BINS, IF NECESSARY.

9. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S ENGINEER OF ANY DISCREPANCIES OR UNUSUAL CONDITIONS ON THE PLANS, DETAILS OR CONSTRUCTION NOTES PRIOR TO FINALIZATION OF THE BIDS AND COMMENCEMENT OF ANY CONSTRUCTION.

10. ANY TRAFFIC CONTROL DEVICES, ROAD SIGNS, FENCES, MARKERS TO BE REPLACED, REMOVED OR RELOCATED SHALL BE PER THESE PLANS OR AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER.

11. THE OWNER OR OWNER'S ENGINEER SHALL APPROVE ALL SHOP DRAWINGS FOR ALL NEW INSTALLED ELECTRICAL EQUIPMENT PRIOR TO ACTUAL COMMENCEMENT OF WORK.

12. DRAWINGS SHOW THE LOCATION AND GENERAL ARRANGEMENT OF EQUIPMENT. DO NOT SCALE DRAWINGS. SITE CONDITIONS SHALL PREVAIL. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD TO ENSURE PRECISE FIT . FOR PURPOSES OF CLEARNESS AND LEGIBILITY, THE ELECTRICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS.

13. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED

14. ELECTRICAL DRAWINGS INDICATE NEW WORK, UNLESS OTHERWISE NOTED. EXISTING ELECTRICAL SYSTEMS ARE NOT SHOWN EXCEPT WHERE INTERFACING IS REQUIRED.

15. MAINTAIN CONTINUITY OF ALL EXISTING CIRCUITS OR PORTIONS THEREOF AFFECTED BY NEW WORK.

16. EXISTING ELECTRICAL POWER SHALL REMAIN IN SERVICE AT ALL TIMES. ANY POWER SHUT DOWN SHALL BE COORDINATED IN ADVANCE. POWER SHUT DOWN SHALL BE PERFORMED AFTER HOURS.

17. COORDINATION AND SUPERVISION:
    A. THE CONTRACTOR SHALL PROVIDE SUPERVISION OVER AND COORDINATION AMONG THE VARIOUS CONTRACTORS WORKING WITHIN THE DEVELOPMENT IN ORDER TO PREVENT DAMAGE TO OWNER FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIRS, REPLACEMENT, RELOCATION, OR OTHER CORRECTIONS TO OWNER FACILITIES MADE NECESSARY BY THE FAILURE TO PROVIDE SUPERVISION OR TO OTHERWISE COMPLY WITH THESE SPECIFICATIONS.

18. WARRANTY:
    A. CONTRACTOR EXPRESSLY REPRESENT AND WARRANT THAT ALL WORK PERFORMED AND ALL MATERIAL USED IN MEETING CONTRACTOR'S OBLIGATIONS HEREIN ARE FREE FROM DEFECTS IN WORKMANSHIP AND ARE IN CONFORMITY WITH AGENCY REQUIREMENTS. THIS WARRANTY SHALL COMMENCE UPON RECEIPT BY CONTRACTOR OF OWNER'S FINAL ACCEPTANCE AND SHALL EXPIRE ONE YEAR FROM THAT DATE. CONTRACTOR AGREES TO PROMPTLY CORRECT TO THE OWNER'S SATISFACTION AND THAT OF ANY GOVERNMENTAL AGENCY HAVING JURISDICTION AND AT CONTRACTOR'S EXPENSE ANY BREACH OF THIS WARRANTY WHICH MAY BECOME APPARENT THROUGH INSPECTION OR OPERATION OF THE SYSTEM BY THE OWNER DURING THIS WARRANTY PERIOD.

19. INSPECTION:
    A. INSPECTION IS REQUIRED DURING THE CONSTRUCTION PERIOD. A 48 HOUR ADVANCE NOTICE OF INTENT TO START CONSTRUCTION IS REQUIRED FROM THE CONTRACTOR TO THE OWNER.

20. AS-BUILTS:
    A. THE CONTRACTOR SHALL MAINTAIN A MASTER FIELD MARKUP SET OF DRAWINGS TO REFLECT ALL CHANGES MADE DURING CONSTRUCTION AND ANY DEVIATIONS FROM THE ELECTRICAL DRAWINGS. THIS SET OF DRAWINGS SHALL BE KEPT AT THE JOBSITE AND UPDATED DAILY. UPON COMPLETION OF THE WORK, ALL CHANGES AS NOTED ON THE FIELD SET OF DRAWINGS SHALL BE PROVIDED TO THE OWNER OR OWNER'S ENGINEER FOR INCORPORATION INTO THE RECORD DRAWING SET. MARKUPS SHALL BE PRESENTED IN A NEAT, LEGIBLE, UNDERSTANDABLE AND PROFESSIONAL MANNER.

ELECTRICAL NOTES

UNLESS OTHERWISE SPECIFIED ON THE WORKING DRAWING WHICH FORMS A PART OF THE SPECIFICATION, THE CONTRACTOR SHALL FURNISH THE FOLLOWING ITEMS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO SUBSTRUCTURES WHETHER SHOWN OR NOT.

1. CONDUIT:
    A. COORDINATE ELECTRICAL INSTALLATION WITH STRUCTURAL & MECHANICAL TRADES.
    B. CONDUIT ENTRY LOCATIONS ON EQUIPMENT ARE APPROXIMATE. VERIFY LOCATIONS AGAINST VENDOR SUPPLIED DRAWINGS AND ROUTE ACCORDINGLY.
    C. CAP UNUSED CONDUIT TERMINATING IN THE EMISSIONS EQUIPMENT ROOM.
    D. INSTALL PULL ROPE IN ALL CONDUIT RUNS. PULL ROPE TO BE 3/16" POLYPROPYLENE ROPE, BRAIDED OR TWISTED.
    E. ALL FLEX AND SEALTIGHT CONDUIT TO HAVE A GROUND CONDUCTOR.
    F. SUPPORT PULL AND JUNCTION BOXES INDEPENDENT OF CONDUIT.
    G. WHERE WIRE AND CONDUIT ROUTING IS NOT SHOWN AND ONLY DESTINATION IS INDICATED, CONTRACTOR SHALL DETERMINE EXACT ROUTING AND LENGTHS REQUIRED.
    H. ALL OUTDOOR ABOVE GROUND CONDUITS SHALL HAVE RAIN-TIGHT CONNECTORS AND COUPLINGS UNLESS OTHERWISE NOTED.
    I. METALLIC ENCLOSURES LOCATED IN THE EMISSIONS EQUIPMENT ROOM SHALL BE NEMA 4X.
    J. PROVIDE RACEWAY SUPPORT IN INTERVALS NOT EXCEEDING THE MAXIMUM SPACING PER CEC.
    K. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH REQUIREMENTS IN CEC 300.19.
    L. CONDUITS PENETRATING FIRE RATED AREAS SHALL BE RIGID FOR ONE-HOUR AREAS AND RIGID FOR TWO-HOUR AREAS. CONDUITS PENETRATING FIRE RATED AREAS SHALL BE SEALED, INSIDE AND OUTSIDE OF CONDUIT, WITH APPROVED FIRE STOP MATERIAL TO MAINTAIN THE SAME FIRE RATINGS AS ORIGINAL.
    M. CONDUITS SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.
    N. WHERE NOT SPECIFIED OTHERWISE IN PLANS, EXPOSED CONDUIT SUBJECT TO PHYSICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL.
    O. INSTALL DUCT SEAL IN ALL CONDUIT WHICH STUBS UP AND IS EXPOSED, OR WHICH STUBS UP UNDER EQUIPMENT BUT ACCESSIBLE BY RODENTS.

2. CONDUCTORS:
    A. USE-2 CONDUCTORS USED INTERIOR TO BUILDINGS REQUIRE AN ADDITIONAL RHW-2 FLAME RETARDANT RATING.
    B. INSULATION FOR ALL CONDUCTORS FULLY CONTAINED IN CONDUIT SHALL BE XLP, EPR, XHHW-2 OR APPROVED EQUAL IF NOT SHOWN IN PLANS.
    C. NOT USED. (1)
    D. COMPRESSION TYPE TERMINATIONS SHALL BE MADE USING CRIMPING TOOLS APPROVED BY THE TERMINATION MANUFACTURER.
    E. SPLICES SHALL BE AVOIDED WHEREVER POSSIBLE. WHERE NECESSARY, SPLICES SHALL BE MADE IN AN ENCLOSURE OR PULL BOX TO ALLOW FUTURE INSPECTION. UNDERGROUND SPLICES SHALL USE WATERTIGHT SPLICE KITS. ABOVE GROUND SPLICES MAY USE A WATERTIGHT ENCLOSURE.
    F. THE CONTRACTOR SHALL, IN A NEAT AND ORDERLY FASHION, CAREFULLY TRAIN AND ARRANGE ALL CABLES AND CONDUCTORS WITHIN PULL BOXES AND EQUIPMENT ENCLOSURES SO AS TO NOT OBSTRUCT ACCESS TO ANY EQUIPMENT LUGS, BUS BARS, OR HARDWARE, OR TO RESTRICT FUTURE EXPANSION OR MAINTENANCE OF THE EQUIPMENT.
    G. CABLES AND CONDUCTORS ROUTED WITHIN ENCLOSURES SHALL BE KEPT WITHIN THE WIRING GUTTERS PROVIDED BY THE ENCLOSURE MANUFACTURE AND INTENDED FOR THE ROUTING OF CABLES AND CONDUCTORS. ENCLOSURES SHALL BE PROVIDED WITH GUTTERS THAT MEET OR EXCEED THE MINIMUM DIMENSIONS REQUIRED BY CEC 312.6.
    H. THE TOTAL CROSS SECTIONAL AREA OF ALL CONDUCTORS ROUTED WITHIN ENCLOSURE GUTTERS SHALL NOT EXCEED THE PERCENTAGE FILL REQUIREMENTS OF CEC 312.8.
    I. UNLESS OTHERWISE PERMITTED BY THE MANUFACTURER, THE MINIMUM BENDING RADIUS OF CONDUCTORS SHALL COMPLY WITH THE VALUES GIVEN IN CEC 312.6.
    J. TORQUE LUGS PER MANUFACTURER'S SPECIFICATIONS; IF TORQUE VALUES ARE NOT LISTED REFER TO UL486A-486B FOR ACCEPTABLE TORQUE VALUES.
    K. DISCONNECT SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING LIVE ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE".

4. GROUNDING:
    A. ALL GROUNDING MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. STRUCTURES & EQUIPMENT SHALL BE GROUNDED.
    B. GROUND CONNECTIONS FOR UNDER GROUND CABLE SHALL BE BY EXOTHERMIC WELD.
    C. ALL ENCLOSURES AND NON-CURRENT CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, RACEWAY SYSTEMS, AND EQUIPMENT GROUND BUSES SHALL BE EFFECTIVELY GROUNDED TO THE GROUNDING SYSTEM THROUGH EQUIPMENT GROUNDING CONDUCTORS. GROUND CONTINUITY SHALL BE MAINTAINED THROUGHOUT.
    D. WHERE GROUND CONNECTIONS INVOLVE THE CONNECTION OF DISSIMILAR METALS, SUCH AS COPPER WIRE TO STEEL OR ALUMINUM, APPLY CONDUCTIVE OXIDE INHIBITOR SUCH AS PENETROX OR APPROVED EQUAL TO BOTH CONTACT SURFACES BEFORE MAKING THE CONNECTION.

5. EXCAVATION AND BACKFILL:
    A. THE EXISTING CONDITIONS OF UNDER GROUND PIPING AND UTILITIES SUCH AS GAS MAINS, WATER MAINS, SANITARY SEWERS, STORM SEWERS, FUEL LINES, ELECTRICAL CONDUITS, COMMUNICATIONS CONDUITS AND OTHER UTILITIES ARE TAKEN FROM EXISTING RECORD DRAWINGS. IF SHOWN, THE LOCATION OF THESE UTILITIES ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION AND DEPTH OF BELOW GROUND PIPING AND UTILITIES IN THE IMMEDIATE VICINITY OF SUBSURFACE WORK, WHETHER SHOWN ON THE DRAWINGS OR NOT. CONTRACTOR SHALL CLEARLY IDENTIFY THE LOCATION OF ALL EXISTING PIPING AND UTILITIES AFFECTED BY THE SUB-GRADE AND ABOVE-GRADE WORK. IN ADDITION REQUEST UNDERGROUND SERVICE ALERT LOCATION SERVICES.
    B. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH THE CALIFORNIA STATE CONSTRUCTION SAFETY ORDERS (WHEN APPLICABLE), AND ALL OTHER GOVERNING LOCAL ORDINANCES.
    C. BACKFILL SHALL BE PROVIDED BY THE CONTRACTOR FOR ALL EXCAVATIONS AND SHALL INCLUDE CRUSHED ROCK, CONCRETE, AND/OR IMPORTED BACKFILL.

ELECTRICAL TESTING

1. ALL TESTING SHALL MEET THE AMERICAN NATION STANDARD FOR ACCEPTANCE TESTING SPECIFICATIONS FOR ELECTRICAL POWER EQUIPMENT ANS SYSTEMS ANSI/NETA ATS – 2021

2. STARTUP AND COMMISSIONING PLAN
    A. CONTRACTOR SHALL DEVELOP A STARTUP AND COMMISSIONING TEST PLAN AND SCHEDULE. EQUIPMENT MANUFACTURERS STARTUP AND COMMISSIONING PROCEDURES SHALL BE INCORPORATED INTO THE TEST PLAN. TEST PLAN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL AT LEAST FOUR (4) WEEKS PRIOR TO START OF COMMISSIONING.
    B. CONTRACTOR SHALL PROVIDE LABOR AND MATERIAL COMMISSIONING OF THE UNIT. SERVICES SHALL CONSIST OF COMMISSIONING, ENERGIZATION, START-UP AND TESTING OF THE UREA SYSTEM AND EACH ELECTRICAL, INSTRUMENTATION, AND MECHANICAL SUB-SYSTEM. CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO ALL EQUIPMENT SUPPLIED AND MODIFIED UNDER THIS CONTRACT NECESSARY BEFORE LONG TERM OPERATION OF THE TURBINE AND GENERATOR MAY BEGIN. ALL NEW EQUIPMENT AND ANY EXISTING EQUIPMENT ONSITE WHICH HAS BEEN AFFECTED BY THE WORK SHALL BE COMMISSIONED.
    C. TEST REPORTS SHALL BE PROVIDED FOR EACH TEST PERFORMED AS STATED IN THE TEST PLAN.
    D. TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER OR OWNER'S ENGINEER.
    E. TESTS INVOLVING FACILITY ENERGIZATION, FACILITY WATERING, FACILITY SAFETY, TURBINE OPERATION OR OWNER'S SCADA REQUIRE COORDINATION WITH THE OWNER'S OPERATING PERSONNEL.

3. LOW VOLTAGE CABLES, 600V AND BELOW
    A. INSPECT AND ENSURE LOW RESISTANCE CONNECTIONS. VERIFY TIGHTNESS OF BOLTED CONNECTION BY CALIBRATED TORQUE-WRENCH. VERIFY TIGHTNESS OF SCREWS BY CALIBRATED TORQUE LIMITING SCREWDRIVER OR SIMILAR DEVICE. PERFORM RESISTANCE MEASUREMENT THROUGH CONNECTION USING A LOW-RESISTANCE OHMMETER.
    B. VISUALLY INSPECT COMPRESSION CONNECTIONS FOR CABLE SIZE MATCH, CORRECT INSULATION STRIP LENGTH AND CRIMP INDENTATION.
    C. VISUALLY INSPECT CABLE JACKET, INSULATION CONDITION, SHIELD, AND SHIELD GROUND AS APPLICABLE.
    D. VISUALLY INSPECT CABLE SUPPORTS, CABLE BENDS, ROUTING THROUGH ENCLOSURES, WIRE IDENTIFICATION AND ARRANGEMENTS.
    E. PERFORM DIELECTRIC INSULATION TEST USING DC MEGGER METHOD WITH RESPECT TO GROUND AND ADJACENT CONDUCTORS.
    F. PERFORM A WIRING CONTINUITY TEST. PERFORM A SHIELD-CONTINUITY TEST IF APPLICABLE.
    G. VERIFY PHASING OF POWER CIRCUITS.

4. CIRCUIT BREAKERS, AIR, LOW-VOLTAGE POWER
    A. COMPARE EQUIPMENT NAMEPLATE DATA WITH DRAWINGS. ADJUST SETTINGS IF APPLICABLE.
    B. INSPECT PHYSICAL AND MECHANICAL CONDITION. INSPECT MOVING AND STATIONARY CONTACTS FOR ALIGNMENT. VERIFY PRIMARY AND SECONDARY CONTACT WIPE ARE CORRECT. PERFORM ALL OPERATING MECHANISM AND CONTACT ALIGNMENT TESTS IN ACCORDANCE WITH MANUFACTURER'S DATA.
    C. VERIFY CELL FIT AND RACKING MECHANISM OPERATION. VERIFY APPROPRIATE LUBRICATION ON MOVING CURRENT-CARRYING PARTS AND ON SLIDING SURFACES.
    D. PERFORM INSULATION-RESISTANCE TESTS ON EACH POLE, PHASE-TO-PHASE AND PHASE-TO GROUND WITH THE CIRCUIT BREAKER CLOSED, AND ACROSS EACH OPEN POLE. PERFORM A CONTACT/POLE-RESISTANCE TEST.
    E. DETERMINE LONG-TIME PICKUP AND DELAY, SHORT-TIME PICKUP AND DELAY, GROUND-FAULT PICKUP AND DELAY, AND INSTANTANEOUS PICKUP VALUE, BY PRIMARY CURRENT INJECTION.
    F. TEST FUNCTIONS OF THE TRIP UNIT BY MEANS OF SECONDARY INJECTION, IF APPLICABLE.
    G. PERFORM MINIMUM PICKUP VOLTAGE TESTS ON SHUNT TRIP, IF APPLICABLE.

5. INSTRUMENTATION, CONTROLS AND COMMUNICATION
    A. POINT TO POINT VERIFICATION OF INTERCONNECTION WIRING INCLUDING CHECKING THAT EACH CONDUCTOR IS LABELED AND TERMINATED CORRECTLY AT BOTH ENDS. PERFORM CONTINUITY AND INSULATION RESISTANCE TESTING OF WIRING. PERFORM CONTINUITY TEST OF SHIELDS.
    B. CONTRACTOR SHALL ENERGIZE CIRCUITS AND DEMONSTRATE PROPER VOLTAGE AT EACH CONNECTED DEVICE.
    C. CONTRACTOR SHALL VALIDATE CORRECT WIRING AND OPERABILITY OF EACH INPUT/OUTPUT POINT AND SHALL DEMONSTRATE PROPER OPERABILITY FROM THE CONNECTED DEVICE TO THE PLC. WHEREVER PRACTICAL, TEST BY MANIPULATION OF INSTRUMENT SOURCE. OTHERWISE, TEST FROM WIRING, AS CLOSE TO THE INSTRUMENT AS POSSIBLE.
    D. DISCRETE INPUTS SHALL BE VERIFIED BY ACTUATION FROM THE INITIATING DEVICE.
    E. ANALOG INPUTS SHALL BE CALIBRATED AT 0%, 25%, 50%, 75%, AND 100% OF INPUT SCALING RANGE.
    F. DISCRETE OUTPUTS SHALL BE VERIFIED BY FORCING. PROPER ACTUATION OF THE RECEIVING DEVICE SHALL ALSO BE VERIFIED.
    G. VERIFY INTERNAL I/O MAPPING, SCALING AND ENGINEERING UNITS, RANGES AND OFFSETS, COMMUNICATION BETWEEN DEVICES, LOGICAL FUNCTIONS, TIMERS AND SETPOINTS, AND PROPER ANNOTATION OF FUNCTIONALITY.
    H. VERIFY ALL EQUIPMENT CONNECTED WITH A NETWORKING OR COMMUNICATIONS CABLE FOR PROPER NETWORK DISCOVERY AND IP ADDRESSING.
    I. VERIFY LOCAL AND REMOTE HMI INTERFACE IS OPERATING WITH THE PLC AS DESIGNED. IF THE SCADA NETWORK IS NOT AVAILABLE, LOCAL TESTING OF THE REMOTE HMI IS ACCEPTABLE.
    J. THE CONTRACTOR SHALL ADJUST, TROUBLESHOOT, AND FULLY COMMISSION EQUIPMENT AS NECESSARY TO ACHIEVE PROPER OPERATION AND FUNCTIONALITY OF PLC AND DCS.

6. PRE-STARTUP CONDITION
    A. CONTRACTOR SHALL COMPLETE THE FOLLOWING ITEMS PRIOR TO ENERGIZATION.
    B. CONSTRUCTION ACTIVITIES ARE SUBSTANTIALLY COMPLETE.
    C. PRELIMINARY MANUFACTURER TESTS HAVE BEEN COMPLETED AND APPROVED.
    D. CABLE MEGGER AND CONTINUITY TESTS HAVE BEEN COMPLETED AND APPROVED.
    E. CABLE TERMINATION TORQUE PROCEDURES HAVE BEEN COMPLETED AND APPROVED.
    F. CABLE TERMINATION ENCLOSURES HAVE BEEN CLEANED, INSPECTED, AND MADE SAFE.
    G. THE PLC HAS BEEN PROGRAMMED AND TESTED, THE FUNCTIONAL CONTROLS AND ASSOCIATED EQUIPMENT TESTING, AND CALIBRATION HAS BEEN COMPLETED AND APPROVED.
    H. EQUIPMENT DATA SHEETS PREPARED AND AVAILABLE FOR TROUBLE SHOOTING.

UC DAVIS HEALTH BUILDING DEPARTMENT
APPROVED
REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.
BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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Facilities Design & Construction
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REGISTERED PROFESSIONAL ENGINEER
RAJESH MEHTA
S 28139
Exp. 12-31-23
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Electrical Notes

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-1.0
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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CABLE SCHEDULE:

CABLE NO.	SIZE	FROM	TO	LENGTH [FT]	CONDUIT	COMMENTS
73P3071JA	(3) #3/0 AWG, CU & (1) #6 AWG EGC	"73MCC0236"	"HEATER CONTROL PANEL"	385	73P3071J	HEATER SKID
73P7141AA	(1) 3/C #6 AWG, CU & #8 AWG EGC	"73MCC0235"	"BLOWER CONTROL PANEL"	400	73P7141A	BLOWER SKID
73P001A	(2) #10 AWG, CU & (1) #10 AWG EGC	"73-PNL-0401"	"PLC PANEL"	100	73P001	UREA PLC PANEL POWER
73P002A	(1) 2/C #14 AWG, CU AND #14 EGC	"PLC PANEL"	"HEATER CONTROL PANEL 120V POWER"	50	73P002	HEATER SKID
73P003A	(1) 2/C #14 AWG, CU	"PLC PANEL"	"HEATER CONTROL PANEL 24VDC POWER"	50	73P003	HEATER SKID
73P004A	(1) 3/C #6 AWG, CU AND #8 EGC	"HEATER PANEL"	"HTR 129 CKT 1"	45	73P004	HEATER SKID
73P004B	(1) 3/C #6 AWG, CU AND #8 EGC	"HEATER PANEL"	"HTR 129 CKT 2"	45	73P004	HEATER SKID
73P005A	(1) 3/C #6 AWG, CU AND #8 EGC	"HEATER PANEL"	"HTR 136 CKT 1"	45	73P005	HEATER SKID
73P005B	(1) 3/C #6 AWG, CU AND #8 EGC	"HEATER PANEL"	"HTR 136 CKT 2"	45	73P005	HEATER SKID
73P006A	(1) 3/C #6 AWG, CU AND #8 EGC	"HEATER PANEL"	"HTR 143 CKT 1"	45	73P006	HEATER SKID
73P006B	(1) 3/C #6 AWG, CU AND #8 EGC	"HEATER PANEL"	"HTR 143 CKT 2"	45	73P006	HEATER SKID
73P007A	(1) 3/C #12 AWG, CU AND (3) #16 EGC, VFD TYPE	"BLOWER PANEL"	"DA BLOWER A B-DA-2240A"	100	73P007	BLOWER SKID
73P008A	(1) 3/C #12 AWG, CU AND (3) #16 EGC, VFD TYPE	"BLOWER PANEL"	"DA BLOWER B B-DA-2240B"	100	73P008	BLOWER SKID
73P009A	(1) 2/C #14 AWG, CU AND #14 EGC	"EAST LIGHT OVERHEAD JUNCTION BOX"	"SOUTH WALL LIGHT 2"	25	73P009	EAST LIGHT
73P010A	(1) 2/C #14 AWG, CU AND #14 EGC	"SOUTH WALL LIGHT 2"	"SOUTH WALL LIGHT 1"	45	73P010	EAST LIGHT
73P011A	(1) 2/C #14 AWG, CU AND #14 EGC	"WEST LIGHT OVERHEAD JUNCTION BOX"	"NORTH WALL LIGHT 1"	25	73P011	WEST LIGHT
73P012A	(1) 2/C #14 AWG, CU AND #14 EGC	"NORTH WALL LIGHT 1"	"NORTH WALL LIGHT 2"	45	73P012	WEST LIGHT
73C001A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"PROCESS AIR MAIN CONTACTOR OPERATING"	50	73C001	HEATER SKID
73C001B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DILUTION AIR HEATER A RUNNING"	50	73C001	HEATER SKID
73C001C	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DILUTION AIR HEATER B RUNNING"	50	73C001	HEATER SKID
73C001D	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DILUTION AIR HEATER C RUNNING"	50	73C001	HEATER SKID
73C001E	(1) 2/C #16 AWG, CU	"PLC PANEL"	"HTR PNL AC OK"	50	73C001	HEATER SKID
73C001F	(1) 5/C #16 AWG, CU	"PLC PANEL"	"MULITPLE"	50	73C001	HEATER SKID
73C001G	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DILUTION AIR HTR A TSH-DA-2256A"	50	73C001	HEATER SKID
73C001H	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DILUTION AIR HTR B TSH-DA-2256B"	50	73C001	HEATER SKID
73C001I	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DILUTION AIR HTR C TSH-DA-2256C"	50	73C001	HEATER SKID
73C001J	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DILUTION AIR MAIN HEATER CONTACTOR"	50	73C001	HEATER SKID
73C001K	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DA HEATER DEMAND SC-EC-2210"	50	73C001	HEATER SKID
73C002A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"VFD105"	70	73C002	BLOWER SKID
73C002B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"VFD129"	70	73C002	BLOWER SKID
73C002C	(1) 2/C #16 AWG, CU	"PLC PANEL"	"BLOWER A RUNNING"	70	73C002	BLOWER SKID
73C002D	(1) 2/C #16 AWG, CU	"PLC PANEL"	"BLOWER A ALARM"	70	73C002	BLOWER SKID
73C002E	(1) 2/C #16 AWG, CU	"PLC PANEL"	"BLOWER B RUNNING"	70	73C002	BLOWER SKID
73C002F	(1) 2/C #16 AWG, CU	"PLC PANEL"	"BLOWER B ALARM"	70	73C002	BLOWER SKID
73C002G	(1) 2/C #16 AWG, CU	"PLC PANEL"	"BLOWER PANEL AC OK"	70	73C002	BLOWER SKID
73C002H	–	–	–	–	–	NOT USED
73C002I	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"SC-DA-2204A"	70	73C002	BLOWER SKID
73C002J	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"SC-DA-2204B"	70	73C002	BLOWER SKID

CABLE SCHEDULE:

CABLE NO.	SIZE	FROM	TO	LENGTH [FT]	CONDUIT	COMMENTS
73C003A	CAT5E, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	MODBUS
73C003B	(1) 1-TRIAD #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003C	(1) 1-TRIAD #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003D	(1) 1-TRIAD #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003E	(1) 1-TRIAD #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003F	(1) 1-TRIAD #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003G	(1) 1-TRIAD #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003H	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003I	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003J	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003K	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003L	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003M	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003N	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003O	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003P	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003Q	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003R	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003S	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003T	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003U	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003V	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003W	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003X	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003Y	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003Z	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AA	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AB	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AC	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AD	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AE	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AF	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AG	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AH	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AI	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AJ	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AK	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AL	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AM	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AN	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AO	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AP	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AQ	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

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REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 09/30/24 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Cable Schedule 1

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-1.1
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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CABLE SCHEDULE:

CABLE NO.	SIZE	FROM	TO	LENGTH [FT]	CONDUIT	COMMENTS
73C003AR	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AS	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AT	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AU	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AV	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AW	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AX	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AY	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003AZ	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003BA	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003BB	(1) 2/C #16 AWG, CU	"PLC PANEL"	"DCS PCU 10"	100	73C003	SPARE
73C003BC	(1) 1-PR #16 AWG, SHLD	"PLC PANEL"	"DCS PCU 10"	100	73C003	AIG SURFACE TEMP
73C004A	(1) 2/C #16, SHLD, TYPE KX	"HEATER PANEL"	"H-DA-2256A"	45	73C004	HEATER SKID
73C005A	(1) 2/C #16, SHLD, TYPE KX	"HEATER PANEL"	"H-DA-2256B"	45	73C005	HEATER SKID
73C006A	(1) 2/C #16, SHLD, TYPE KX	"HEATER PANEL"	"H-DA-2256C"	45	73C006	HEATER SKID
73C007A	(1) 3/C #16 AWG, CU	"PLC PANEL"	"UREA TANK HIGH LEVEL SWITCH"	100	73C007	UREA TANK
73C008A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"SOV-IA-2217"	45	73C008	HEATER SKID
73C009A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"SOV-IA-2223"	45	73C009	HEATER SKID
73C010A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"SOV-IA-2209A"	65	73C010	BLOWER SKID
73C011A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"SOV-IA-2209B"	65	73C011	BLOWER SKID
73C012A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"SOV-IA-2240"	45	73C012	HEATER SKID
73C013A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"PDS-UE-2231A"	45	73C013	HEATER SKID
73C014A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"PDS-UE-2231B"	45	73C014	HEATER SKID
73C015A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-UE-2217 OPEN"	45	73C015	HEATER SKID
73C015B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-UE-2217 CLOSED"	45	73C015	HEATER SKID
73C016A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-FW-2223 OPEN"	45	73C016	HEATER SKID
73C016B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-FW-2223 CLOSED"	45	73C016	HEATER SKID
73C017A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-DA-2209A OPEN"	65	73C017	BLOWER SKID
73C017B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-DA-2209A CLOSED"	65	73C017	BLOWER SKID
73C018A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-DA-2209B OPEN"	65	73C018	BLOWER SKID
73C018B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"AOV-DA-2209B CLOSED"	65	73C018	BLOWER SKID
73C019A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"HV-DA-2211A OPEN"	45	73C019	HEATER SKID
73C019B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"HV-DA-2211A CLOSED"	45	73C019	HEATER SKID
73C020A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"HV-DA-2211B OPEN"	45	73C020	HEATER SKID
73C020B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"HV-DA-2211B CLOSED"	45	73C020	HEATER SKID
73C021A	(1) 2/C #16 AWG, CU	"PLC PANEL"	"HV-DA-2211C OPEN"	45	73C021	HEATER SKID
73C021B	(1) 2/C #16 AWG, CU	"PLC PANEL"	"HV-DA-2211C CLOSED"	45	73C021	HEATER SKID
73C022A	(1) 1-TRIAD #16, SHLD	"PLC PANEL"	"FIT-IA-2244"	45	73C022	HEATER SKID
73C023A	(1) 1-TRIAD #16, SHLD	"PLC PANEL"	"FIT-DA-2253"	65	73C023	BETWEEN BLOWER AND HEATER SKID
73C024A	(1) 1-TRIAD #16, SHLD	"PLC PANEL"	"PIT-DA-2208"	45	73C024	HEATER SKID
73C025A	(1) 1-TRIAD #16, SHLD	"PLC PANEL"	"LIT-UE-1910"	85	73C025	UREA TANK
73C026A	(1) 2/C #16, SHLD, TYPE KX	"PLC PANEL"	"TE-DA-2255A"	45	73C026	HEATER SKID
73C027A	(1) 2/C #16, SHLD, TYPE KX	"PLC PANEL"	"TE-DA-2255B"	45	73C027	HEATER SKID

CABLE SCHEDULE:

CABLE NO.	SIZE	FROM	TO	LENGTH [FT]	CONDUIT	COMMENTS
73C028A	(1) 2/C #16, SHLD, TYPE KX	"PLC PANEL"	"TE-DA-2255C"	45	73C028	HEATER SKID
73C029A	(1) 2/C #16, SHLD, TYPE KX	"PLC PANEL"	"TE-DAG-2250"	55	73C029	DECOMP CHAMBER SKID
73C030A	(1) 2/C #16, SHLD, TYPE KX	"PLC PANEL"	"TE-DAG-2245"	55	73C030	DECOMP CHAMBER SKID
73C031A	(1) 2/C #16, SHLD, TYPE KX	"PLC PANEL"	"TE-DAG-2246"	55	73C031	DECOMP CHAMBER SKID
73C032A	(1) 2/C #16, SHLD, TYPE KX	"PLC PANEL"	"TE-UE-1911"	85	73C032	UREA TANK
73C034A	(1) 2/C #16 AWG, CU	"JUNCTION BOX"	"SPEAKER"	60	73C034	EQUIPMENT
73C035A	(1) 2/C #16 AWG, CU	"JUNCTION BOX"	"AMMONIA DETECTOR"	75	73C035	EQUIPMENT
73C036A	CAT5E, SHLD	"PLC PANEL"	"DENOX CONTROL PANEL"	150	73C036	REMOTE HMI

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C - 33192
REN. 7-31-2025
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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REGISTERED PROFESSIONAL ENGINEER
AARON C. LEACH
No. E20071
Exp. 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Cable Schedule 2

ARCH. / ENGR.	PD&C JOB NO.	SHEET NO.
GO	9557240	E-1.2
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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CONDUIT SCHEDULE:

CONDUIT ID	CONDUIT SIZE [IN.]	FROM	TO	LENGTH [FT]
73P7141A	1	MCC235 BUCKET 2F	BLOWER CONTROL MODULE DS102	45
73P3071J	1-1/2	MCC236 BUCKET 4M	HEATER CONTROL MODULE DS102	30
73P001	3/4	73-PNL-0401	PLC PANEL	70
73P002	1/2	PLC PANEL	HEATER 120V POWER	20
73P003	1/2	PLC PANEL	HEATER 24VDC POWER	20
73P004	2	HEATER PANEL	HTR 129	25
73P005	2	HEATER PANEL	HTR 135	25
73P006	2	HEATER PANEL	HTR 143	25
73P007	3/4	BLOWER PANEL	DA BLOWER A B-DA-2240A	75
73P008	3/4	BLOWER PANEL	DA BLOWER B B-DA-2240B	75
73P009	1/2	EAST LIGHT OVERHEAD JUNCTION BOX	SOUTH WALL LIGHT 2	15
73P010	1/2	SOUTH WALL LIGHT 2	SOUTH WALL LIGHT 1	35
73P011	1/2	WEST LIGHT OVERHEAD JUNCTION BOX	NORTH WALL LIGHT 1	15
73P012	1/2	NORTH WALL LIGHT 1	NORTH WALL LIGHT 2	35
73C001	1-1/2	PLC PANEL	MULTIPLE	20
73C002	1-1/2	PLC PANEL	MULTIPLE	40
73C003	4	PLC PANEL	DCS	75
73C004	1/2	HEATER PANEL	H-DA-2256A	25
73C005	1/2	HEATER PANEL	H-DA-2256B	25
73C006	1/2	HEATER PANEL	H-DA-2256C	25
73C007	1/2	BLOWER PANEL	UREA TANK HIGH LEVEL SWITCH	75
73C008	1/2	PLC PANEL	UREA SOV-IA-2217	25
73C009	1/2	PLC PANEL	FLUSH WATER SOV-IA-2223	25
73C010	1/2	PLC PANEL	DILUTION AIR A SOV-IA-2209A	45
73C011	1/2	PLC PANEL	DILUTION AIR B SOV-IA-2209B	45
73C012	1/2	PLC PANEL	ATOMIZING AIR SOV-IA-2240	25
73C013	1/2	PLC PANEL	UREA FILTER DP SW A PDS-UE-2231A	25
73C014	1/2	PLC PANEL	UREA FILTER DP SW B PDS-UE-2231B	25

CONDUIT SCHEDULE:

CONDUIT ID	CONDUIT SIZE [IN.]	FROM	TO	LENGTH [FT]
73C015	3/4	PLC PANEL	UREA AOV AOV-UE-2217	25
73C016	3/4	PLC PANEL	UREA AOV AOV-FW-2223	25
73C017	3/4	PLC PANEL	DILUTION AIR A AOV AOV-DA-2209A	45
73C018	3/4	PLC PANEL	DILUTION AIR B AOV AOV-DA-2209B	45
73C019	3/4	PLC PANEL	DILUTION AIR HTR A HV HV-DA-2211A	25
73C020	3/4	PLC PANEL	DILUTION AIR HTR B HV HV-DA-2211B	25
73C021	3/4	PLC PANEL	DILUTION AIR HTR C HV HV-DA-2211C	25
73C022	1/2	PLC PANEL	ATOMIZING AIR FLOW FIT-IA-2244	25
73C023	1/2	PLC PANEL	DILUTION AIR FLOW RATE FIT-DA-2253	45
73C024	1/2	PLC PANEL	DILUTION AIR PRESSURE PIT-DA-2208	25
73C025	1/2	PLC PANEL	UREA TANK LEVEL LIT-UE-1910	65
73C026	1/2	PLC PANEL	DILUTION AIR HTR A OUTLET TEMP TE-DA-2255A	25
73C027	1/2	PLC PANEL	DILUTION AIR HTR B OUTLET TEMP TE-DA-2255B	25
73C028	1/2	PLC PANEL	DILUTION AIR HTR C OUTLET TEMP TE-DA-2255C	25
73C029	1/2	PLC PANEL	DECOMP CHAMBER INLET TEMP TE-DAG-2250	35
73C030	1/2	PLC PANEL	DECOMP CHAMBER SURFACE TEMP TE-DAG-2245	35
73C031	1/2	PLC PANEL	DECOMP CHAMBER OUTLET TEMP TE-DAG-2246	35
73C032	1/2	PLC PANEL	UREA STORAGE TANK TEMP TE-UE-1911	65
73C034	1/2	JUNCTION BOX	SPEAKER	50
73C035	1/2	JUNCTION BOX	AMMONIA DETECTOR	60
73C036	1/2	PLC PANEL	DENOX CONTROL PANEL	125

BILL OF MATERIALS:

ITEM NO.	DESCRIPTION	QTY	MANUFACTURER	NOTES
1	480V MCC BUCKET, 250AF BREAKER WITH 200AT PLUG, BREAKER OPERATING MECHANISM AND LINKAGE, DOOR WITH HANDLE	1	GE SPECTRA OR EQUAL	FOR MCC 236 BUCKET 4M
2	ENCLOSURE (PULLBOX), 6"H X 6"W X 4"D, NEMA 4X, STAINLESS STEEL, CONTINUOUS HINGE WITH SCREW-DOWN CLAMPS, WALL MOUNT	2	HOFFMAN A606CHNFSS OR EQUAL	FOR CABLE EXTENSION: SPEAKER NH3 DETECTOR
3	TERMINAL BLOCK BRACKET ASSEMBLY FOR 6"H X 6"W X 4"D JUNCTION BOX	2	HOFFMAN A6JTMA OR EQUAL	FOR CABLE EXTENSION: SPEAKER NH3 DETECTOR
4	ENCLOSURE (PULLBOX), 12"H X 12"W X 6"D, NEMA 4X, STAINLESS STEEL, CONTINUOUS HINGE WITH SCREW-DOWN CLAMPS, WALL MOUNT	2	HOFFMAN A1212CHNFSS OR EQUAL	FOR PULL BOXES: 73-PB7141A 73-PB3071
5	ENCLOSURE DOOR BONDING KIT	4	HOFFMAN 87552742 OR EQUAL	FOR PULL BOXES: 73-PB7141A 73-PB3071
6	TERMINAL BLOCK, FEED-THROUGH, SCREW CONNECTION	8	ALLEN-BRADLEY 1492-J10 OR EQUAL	FOR CABLE EXTENSION: SPEAKER NH3 DETECTOR
7	TERMINAL BLOCK END ANCHOR	4	ALLEN-BRADLEY 1492-EBJ16 OR EQUAL	FOR CABLE EXTENSION: SPEAKER NH3 DETECTOR
8	LIGHT, WALLPACK, LED	4	LITHONIA OR EQUAL	FOR OVERHEAD LIGHT REPLACEMENT
9	CONDUIT, 1/2", RIGID GALVANIZED STEEL, PER FOOT	1200	ALLIED TUBE OR EQUAL	
10	CONDUIT, 3/4", RIGID GALVANIZED STEEL, PER FOOT	450	ALLIED TUBE OR EQUAL	
11	CONDUIT, 1", RIGID GALVANIZED STEEL, PER FOOT	50	ALLIED TUBE OR EQUAL	
12	CONDUIT, 1-1/2", RIGID GALVANIZED STEEL, PER FOOT	100	ALLIED TUBE OR EQUAL	
13	CONDUIT, 2", RIGID GALVANIZED STEEL, PER FOOT	100	ALLIED TUBE OR EQUAL	
14	CONDUIT, 4", RIGID GALVANIZED STEEL, PER FOOT	100	ALLIED TUBE OR EQUAL	
15	CABLE - GROUND, 600V, #6 AWG, STRANDED BARE COPPER WIRE, PER FOOT	400	HOUSTON WIRE HW000 00601 OR EQUAL	MCC 236 TO HEATER PANEL EGC
16	CABLE - GROUND, 600V, #2 AWG, STRANDED BARE COPPER WIRE, PER FOOT	200	HOUSTON WIRE HW000 00201 OR EQUAL	GROUND GRID CABLE
17	CABLE - POWER, 600V, VW-1 XHHW-2 INSULATION, 3/0 AWG, COPPER, PER FOOT	1200	HOUSTON WIRE HW002 30101 OR EQUAL	MCC 236 TO HEATER PANEL PHASE
18	CABLE - POWER, 600V, TYPE TC, VW-1 XHHW-2 INSULATION, CPE JACKET, (3) #10 AWG, TINNED COPPER, PER FOOT	150	HOUSTON WIRE HW158 01003 OR EQUAL	AC PNLBD TO PLC PANEL
19	CABLE - POWER, 600V, TYPE TC, VW-1 XHHW-2 INSULATION, CPE JACKET, (3) #14 AWG, TINNED COPPER, PER FOOT	300	HOUSTON WIRE HW158 01403 OR EQUAL	PLC PANEL TO HEATER PANEL
20	CABLE - POWER, 600V, TYPE TC, VW-1 XHHW-2 INSULATION, CPE JACKET, (3) #6 AWG AND (1) #8 EGC, TINNED COPPER, PER FOOT	700	HOUSTON WIRE HW159 00603 OR EQUAL	MCC 235 TO BLOWER PANEL HEATER PANEL TO HEATERS
21	CABLE - VFD POWER, 600V, TYPE TC, XLP INSULATION, PVC JACKET, (3) #12 AWG AND (3) #16 EGC, TINNED COPPER, COPPER TAPE SHIELD, PER FOOT	250	HOUSTON WIRE HW191A 01203 OR EQUAL	BLOWER PANEL TO BLOWERS
22	CABLE - CONTROL, 600V, TYPE TC, TFN INSULATION, PVC JACKET, (2) #16 AWG, COPPER, PER FOOT	5000	HOUSTON WIRE HW150 01602R OR EQUAL	UNSHIELDED CONTROLS
23	CABLE - CONTROL, 600V, TYPE TC, TFN INSULATION, PVC JACKET, (3) #16 AWG, COPPER, PER FOOT	250	HOUSTON WIRE HW150 01603 OR EQUAL	UNSHIELDED CONTROLS
24	CABLE - CONTROL, 600V, TYPE TC, TFN INSULATION, PVC JACKET, (5) #16 AWG, COPPER, PER FOOT	100	HOUSTON WIRE HW150 01605 OR EQUAL	UNSHIELDED CONTROLS
25	CABLE - INSTRUMENTATION, THERMOCOUPLE TYPE KX, PVC INSULATION, PVC JACKET, 1-PAIR, #16 AWG, OVERALL SHIELD, PER FOOT	600	BELDEN 1018A OR EQUAL	THERMOCOUPLE EXTENSION WIRE
26	CABLE - INSTRUMENTATION, 600V, TYPE TC, PE INSULATION, PVC JACKET, 1-PAIR, #16 AWG, OVERALL SHIELD, PER FOOT	2300	BELDEN 8719 OR EQUAL	ANALOG SIGNALS
27	CABLE - INSTRUMENTATION, 600V, TYPE TC, PE INSULATION, PVC JACKET, 1-TRIAD, #16 AWG, OVERALL SHIELD, PER FOOT	900	BELDEN 8618 OR EQUAL	ANALOG SIGNALS
28	CABLE - COMMUNICATION, CAT-5E, INDOOR/OUTDOOR,PO INSULATION, PVC JACKET, 4-PAIR, #24 AWG, OVERALL SHIELD, PER FOOT	300	BELDEN 2138A OR EQUAL	COMMUNICATIONS

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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IEC Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 09/30/24 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

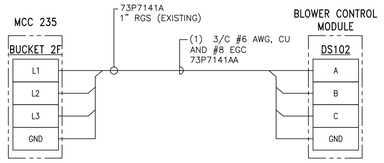
REV	REVISION DESCRIPTION	DATE

UCSH PROJECT NO: 9557240
UCSH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Conduit Schedule & Bill of Materials

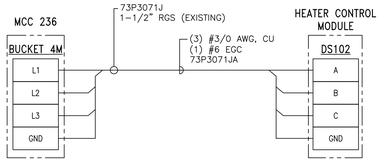
ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-1.3
UCD&C PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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MCC235 TO BLOWER PANEL

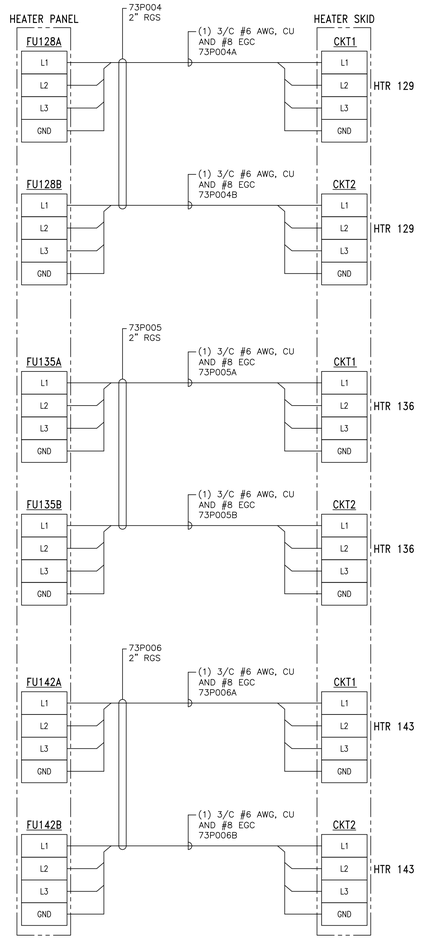


MCC236 TO HEATER PANEL



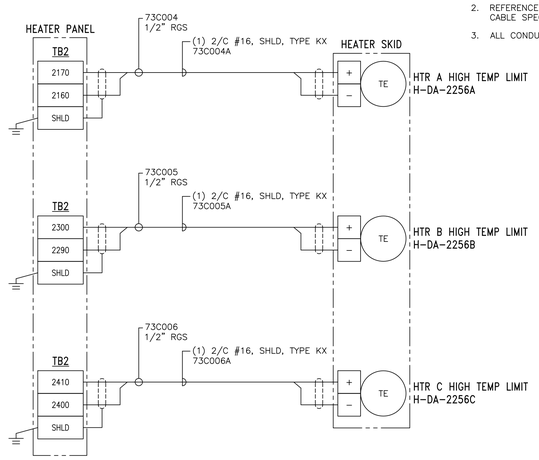
AC PANELBOARD TO PLC PANEL

HEATER PANEL TO EQUIPMENT

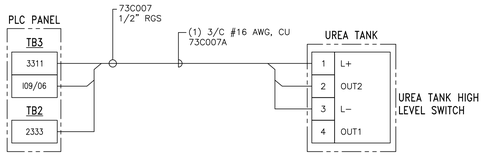


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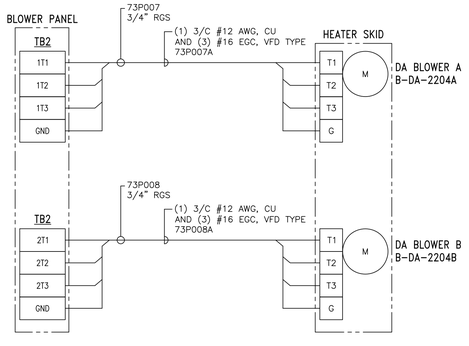
1. OEM SUPPLIED CABLES AND CORDS NOT SHOWN ON INTERCONNECTION DRAWINGS. REFEREMNCE EQUIPMENT MANUFACTURER DRAWINGS FOR TERMINATIONS.
2. REFERENCE THE BILL OF MATERIALS FOR CABLE SPECIFICATIONS.
3. ALL CONDUIT TO BE FIELD ROUTED.



PLC PANEL TO UREA TANK



BLOWER PANEL TO EQUIPMENT



UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

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1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-2025
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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FACILITIES DESIGN & CONSTRUCTION
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REGISTERED PROFESSIONAL ENGINEER
AARON C. LEADER
No. E20071
Exp. 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

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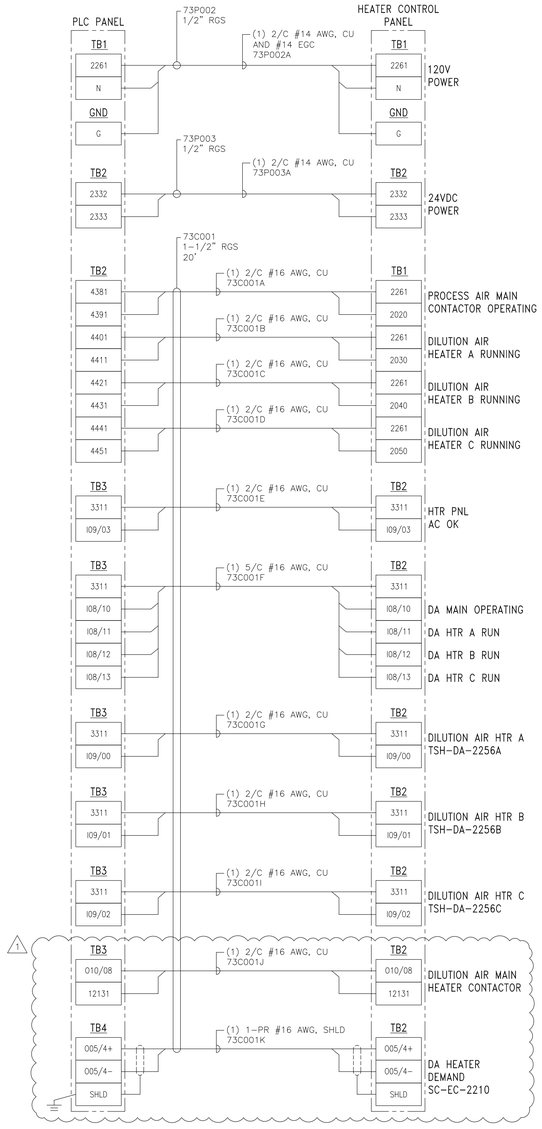
REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Interconnection Diagram Urea Equipment

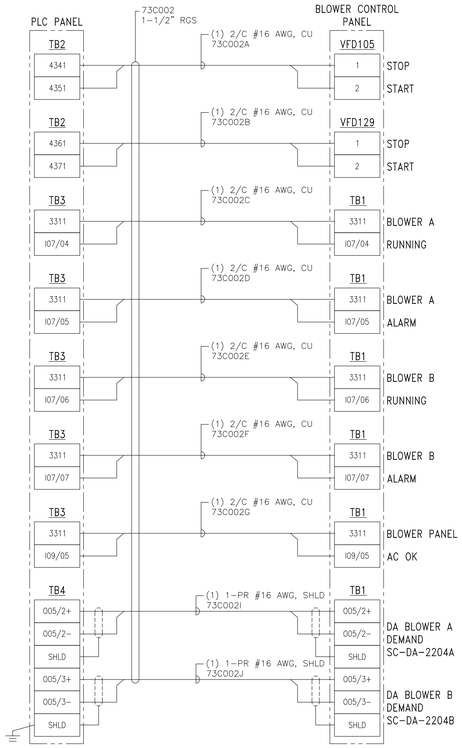
ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-2.0
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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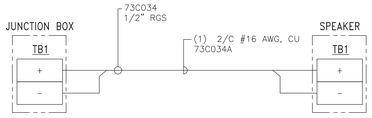
PLC PANEL TO HEATER PANEL



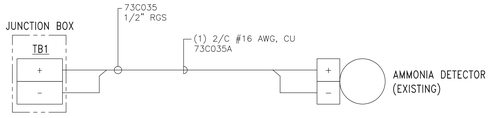
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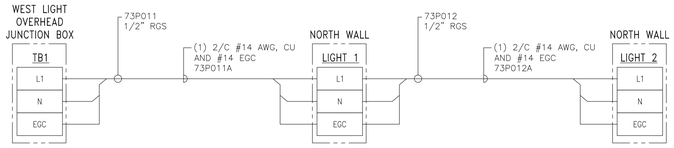
SPEAKER HORN EXTENSION



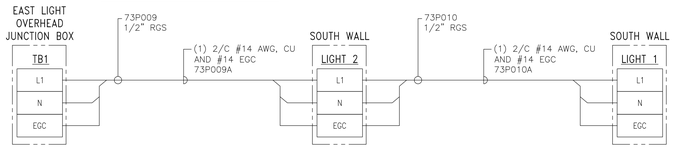
AMMONIA DETECTOR EXTENSION



WEST LIGHT EXTENSION



EAST LIGHT EXTENSION



NOTES:

1. OEM SUPPLIED CABLES AND CORDS NOT SHOWN ON INTERCONNECTION DRAWINGS. REFERENCE EQUIPMENT MANUFACTURER DRAWINGS FOR TERMINATIONS.
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UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
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(916)734-7024

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Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER ARJUNDEV BHATIA No. 28539 Exp. 12-31-23 STRUCTURAL STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

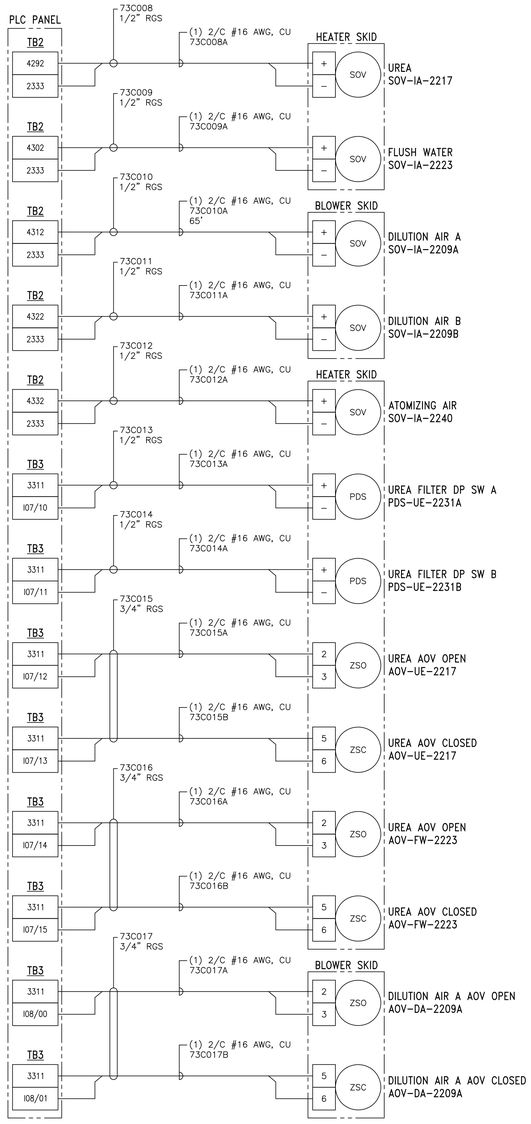
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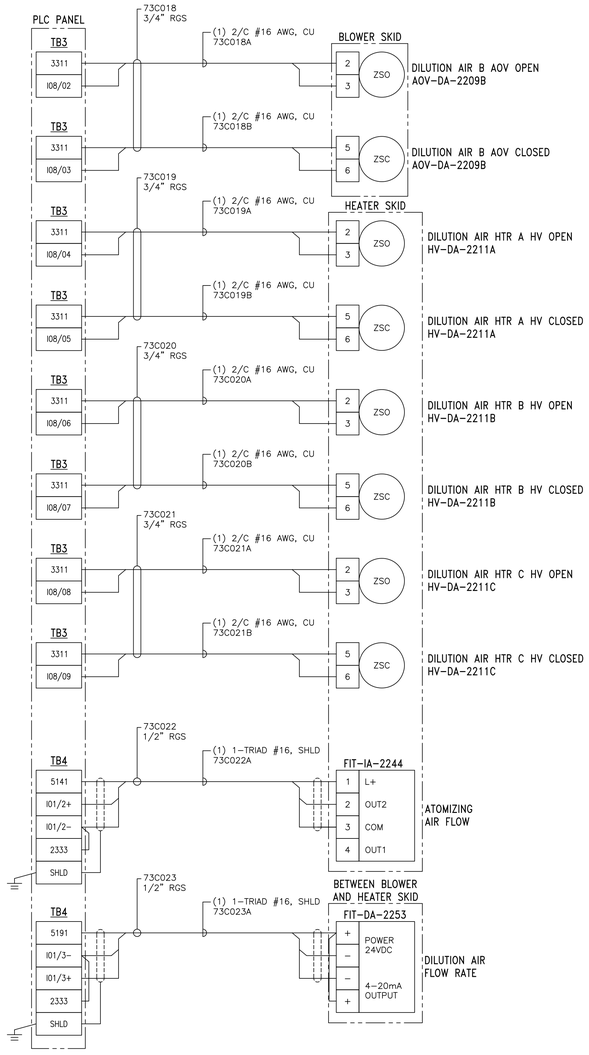
UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Interconnection Diagram Urea Equipment 2

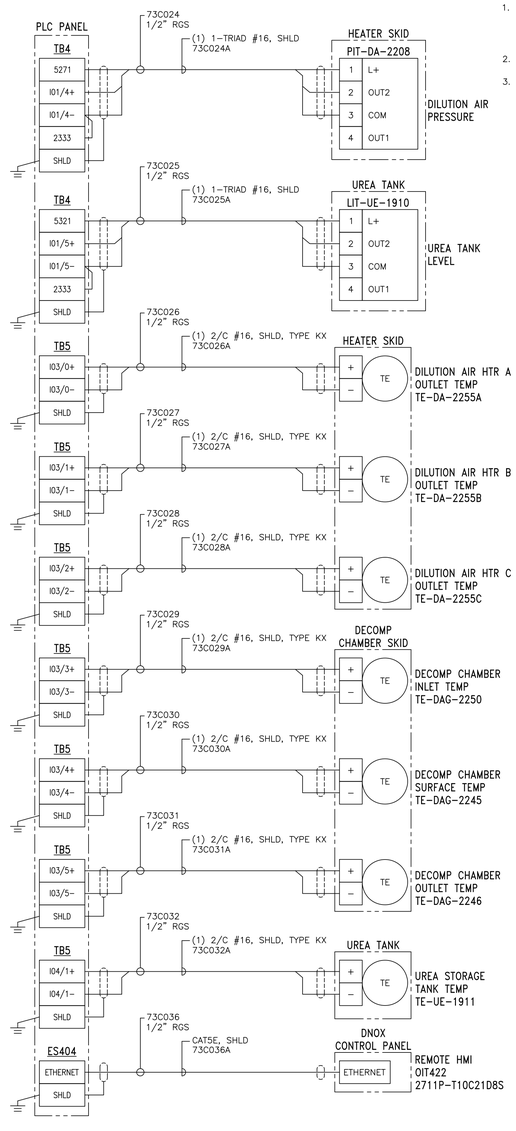
ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-2.1
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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PLC PANEL TO EQUIPMENT







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Sacramento, CA 95817

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Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 09/30/24 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

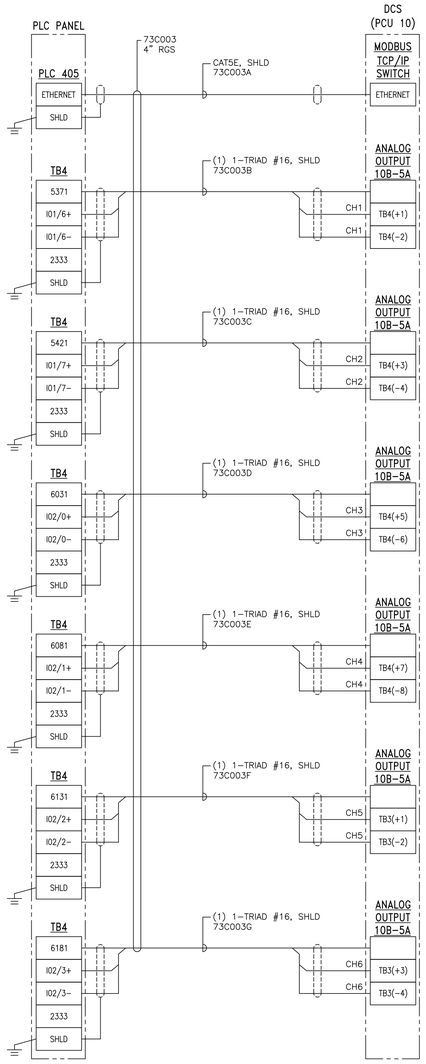
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REV	REVISION DESCRIPTION	DATE

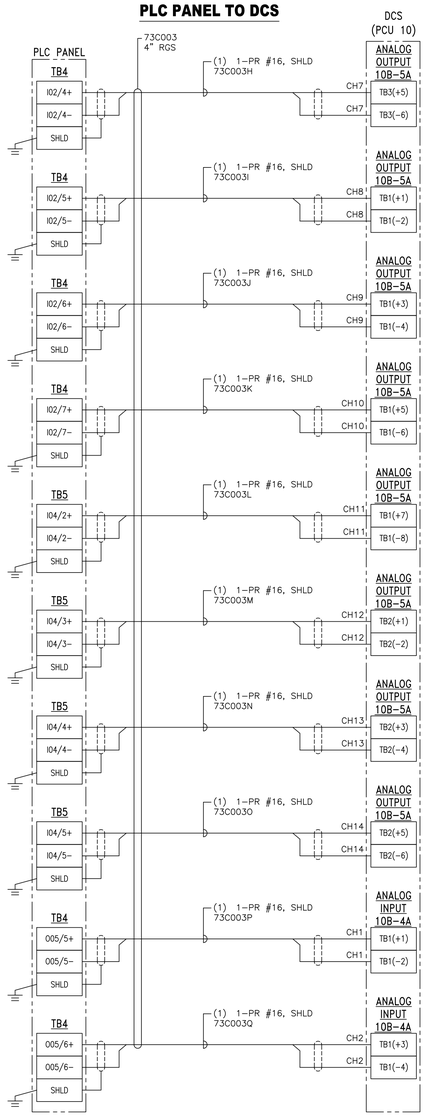
UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Interconnection Diagram Urea Equipment 3

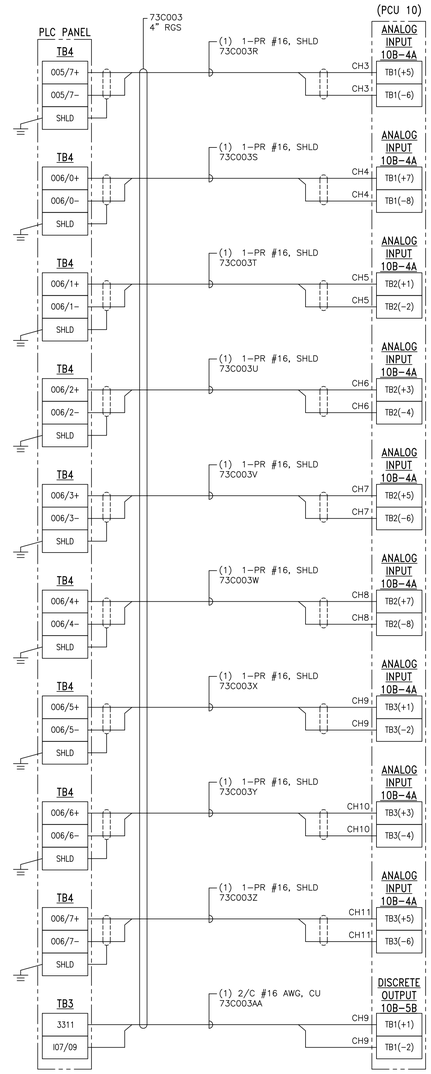
ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-2.2
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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PLC PANEL TO DCS





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UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

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1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C - 33192
EXPIRES 7-31-2025
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
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No. E20071
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ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

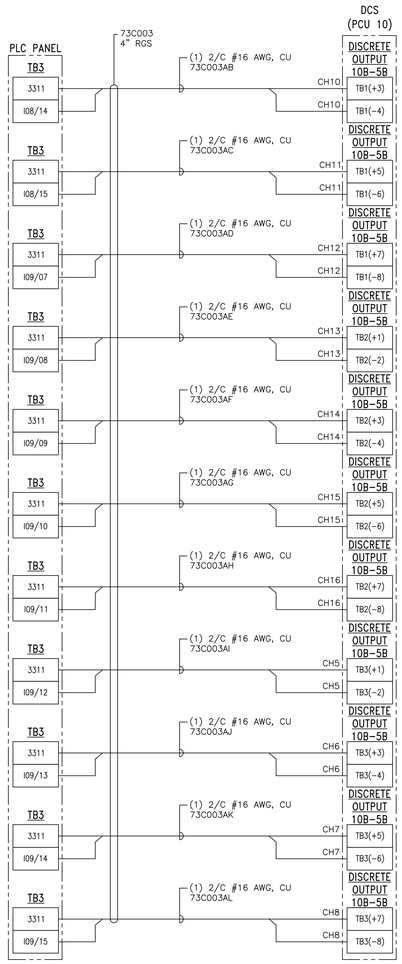
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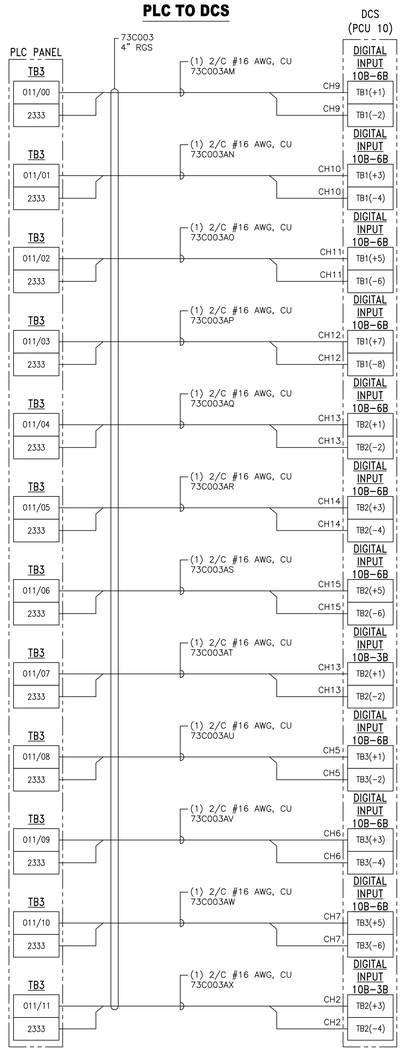
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UCDH BUILDING NO. BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Interconnection Diagram Urea Equipment 4

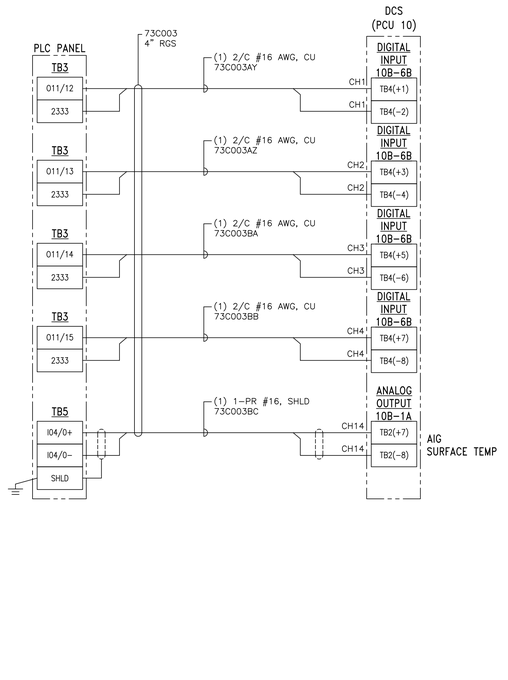
ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-2.3
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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PLC TO DCS





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STATE OF CALIFORNIA

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SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
AARON C. LEACH
No. E20071
Exp. 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

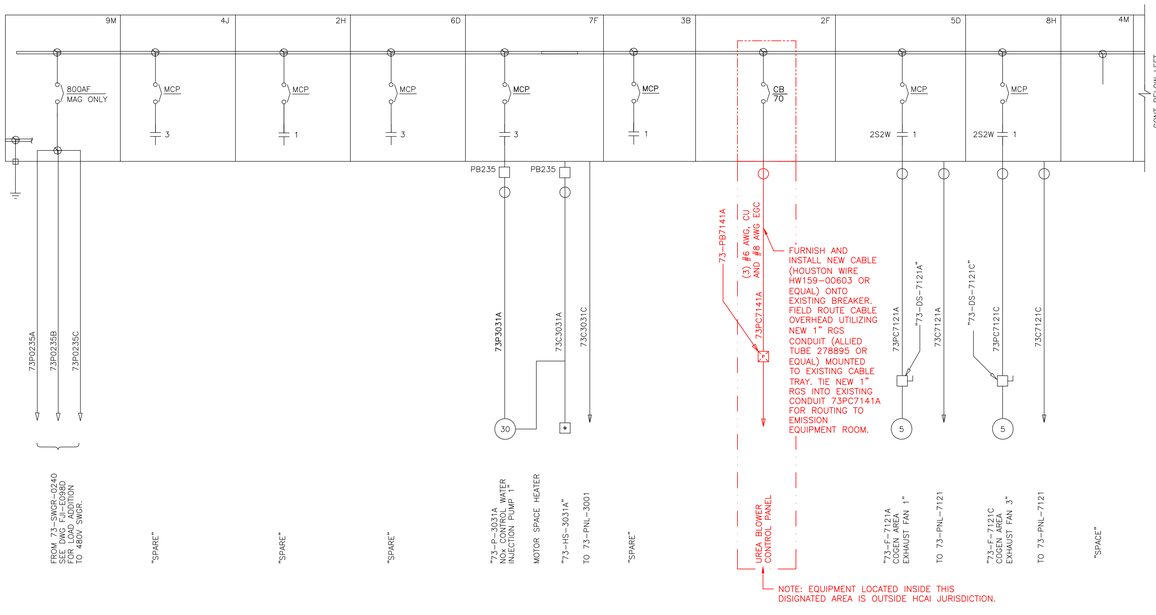
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO. 9557240
UCDH BUILDING NO. BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Interconnection Diagram Urea Equipment 5

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E-2.4
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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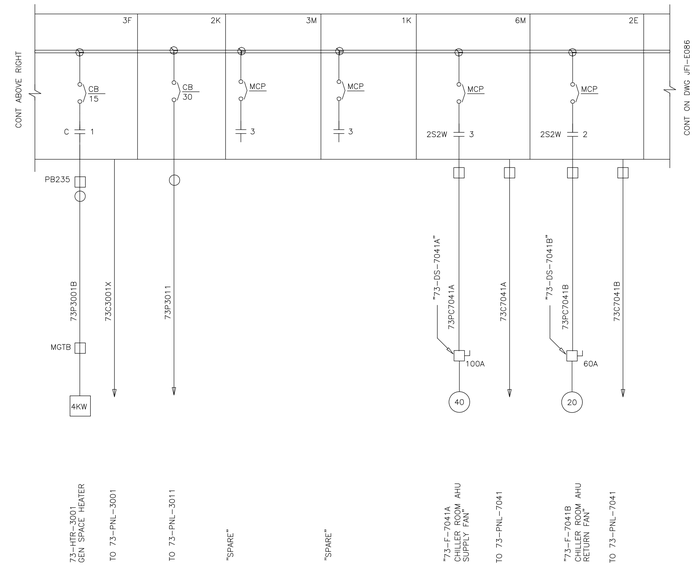
NOTES:

1. ALL STARTERS SHALL BE FULL VOLTAGE, NON-REVERSING UNLESS OTHERWISE SPECIFIED AND SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL).
2. CONDUITS SHALL BE 3/4" MIN UNLESS OTHERWISE SPECIFIED.
3. CIRCUIT BREAKER HANDLES MOUNTED 74" ABOVE BOTTOM OF MCC SHALL BE EQUIPPED WITH HANDLE EXTENSIONS TO INSURE COMPLIANCE WITH APPLICABLE OSHA REQUIREMENTS.
4. NAMEPLATE ENGRAVING SHALL BE AS SHOWN IN QUOTATION MARKS.
5. ALL EQUIPMENT MUST BE LISTED, LABELED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) AND USED IN ACCORDANCE TO THE LISTING.

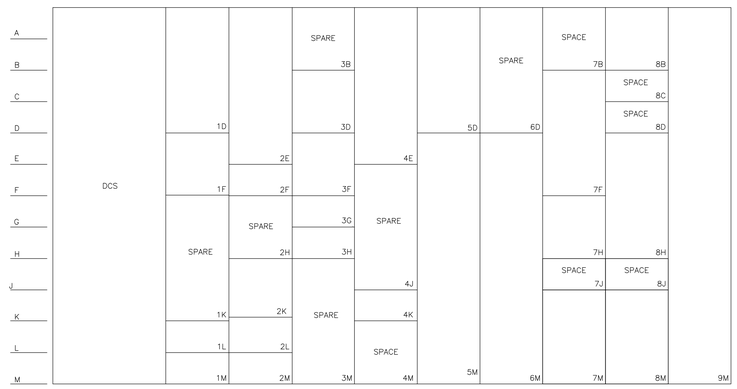
LEGEND:

——— · · ——— DESIGNATED AREA OUTSIDE OF HCAI JURISDICTION

———·———·——— DESIGNATED AREA INSIDE OF HCAI JURISDICTION



NEMA TYPE 1 INDOOR, ENCLOSURE, GASKETED DOOR, SINGLE FACE FRONT ONLY
NOT ACCESSIBLE FROM REAR
INCOMING FEEDER ENTERS TOP
480V, 3-ø, 3-WIRE
GROUND BUS CABLE SIZE: 4/0AWG BC CONNECTORS AT BOTH ENDS
MAIN BUS: 1200AMPS
BUS BRACING: 65KA (SYM)
WIRING: NEMA CLASS 2, TYPE B
MFGR: GENERAL ELECTRIC 8000 SERIES



FRONT ELEVATION
NOT TO SCALE

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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STATE OF CALIFORNIA

CONSULTANT LOGO :

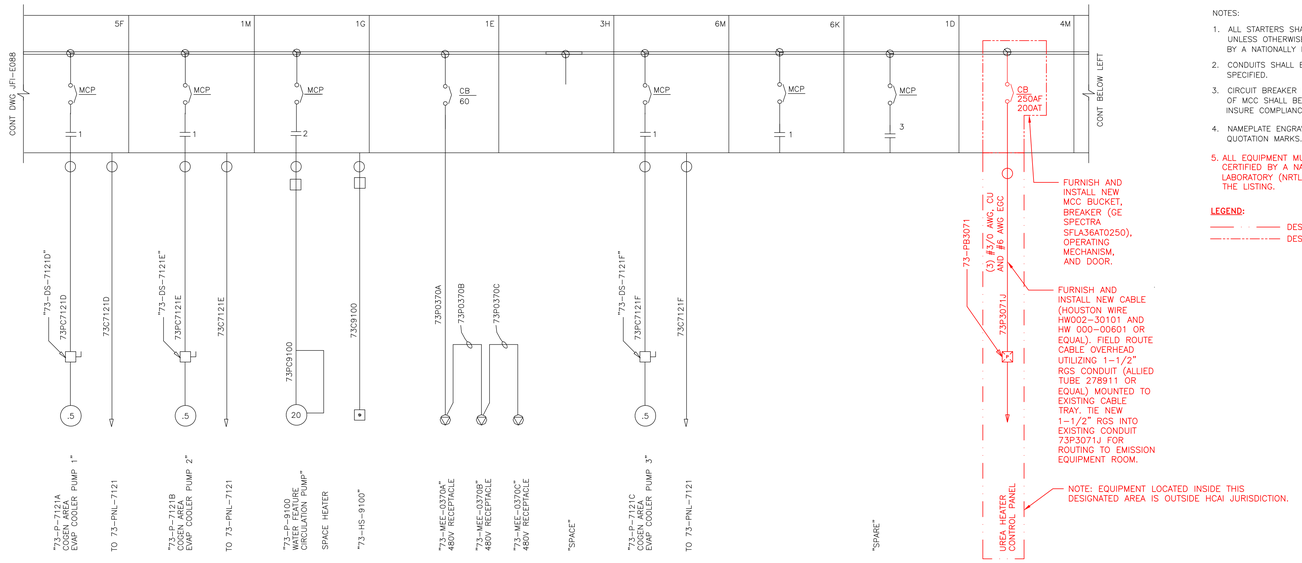
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO.: 9557240
UCDH BUILDING NO.: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: 73MCC0235 Single Line 1 and Front Elevation

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E085
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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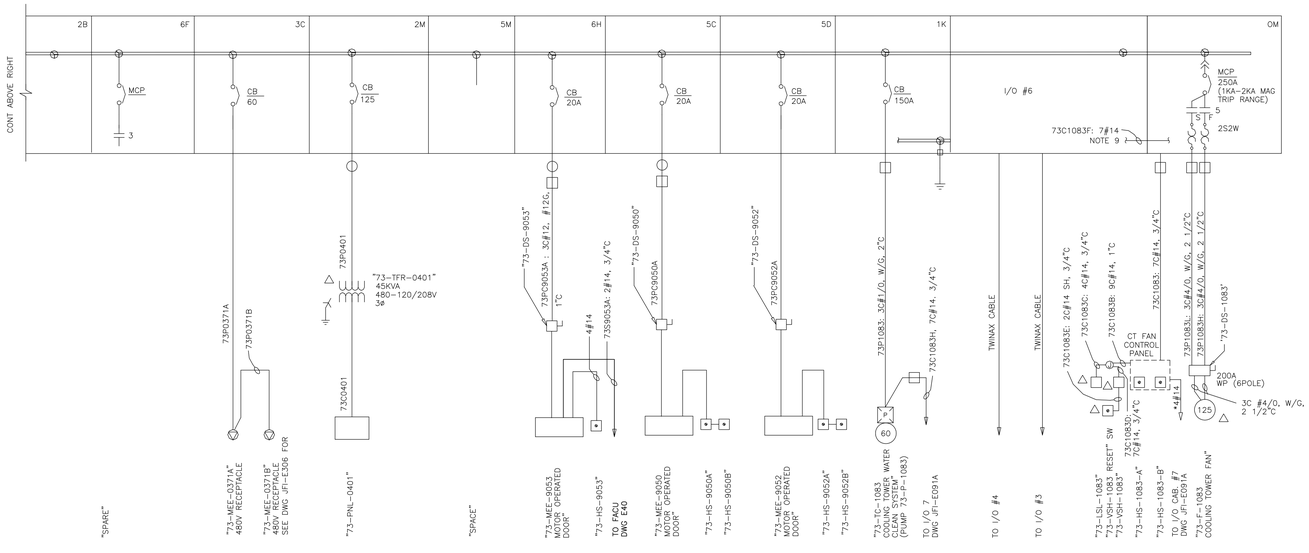


NOTES:

1. ALL STARTERS SHALL BE FULL VOLTAGE, NON-REVERSING UNLESS OTHERWISE SPECIFIED AND SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL).
2. CONDUITS SHALL BE 3/4" MIN UNLESS OTHERWISE SPECIFIED.
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LEGEND:

——— DESIGNATED AREA OUTSIDE OF HCAI JURISDICTION
———·——— DESIGNATED AREA INSIDE OF HCAI JURISDICTION



UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C - 33192
REN. 7-31-2025
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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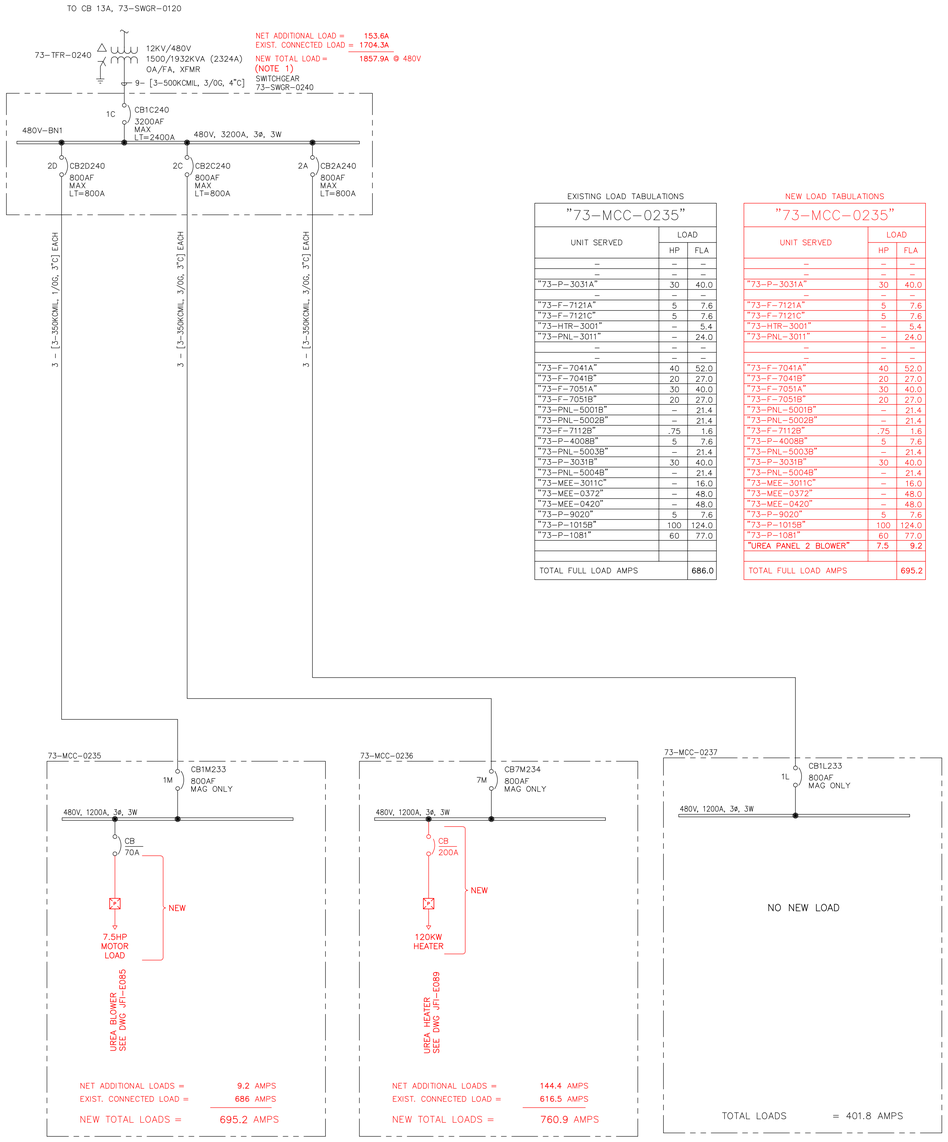
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: 73MCC0236 Single Line 2

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E089
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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PARTIAL CENTRAL PLANT
DISTRIBUTION SYSTEM

NOTES:
1. 3 DAY PANEL READ PERFORMED FROM 04/25/2023 TO 04/28/2023. RESULTS SHOW ACTUAL LOADS SIGNIFICANTLY LOWER THAN ESTIMATED LOAD TABULATIONS.

3 PHASE CURRENT RESULTS FOR MCC 235:
MAX. = 117.74 AMPS, MIN. = 71.80 AMPS.

3 PHASE CURRENT RESULTS FOR MCC 236:
MAX. = 60.30 AMPS, MIN. = 5.08 AMPS.

EXISTING LOAD TABULATIONS

"73-MCC-0235"

UNIT SERVED	LOAD HP	LOAD FLA
–	–	–
–	–	–
"73-P-3031A"	30	40.0
–	–	–
"73-F-7121A"	5	7.6
"73-F-7121C"	5	7.6
"73-HTR-3001"	–	5.4
"73-PNL-3011"	–	24.0
–	–	–
–	–	–
"73-F-7041A"	40	52.0
"73-F-7041B"	20	27.0
"73-F-7051A"	30	40.0
"73-F-7051B"	20	27.0
"73-PNL-5001B"	–	21.4
"73-PNL-5002B"	–	21.4
"73-F-7112B"	.75	1.6
"73-P-4008B"	5	7.6
"73-PNL-5003B"	–	21.4
"73-P-3031B"	30	40.0
"73-PNL-5004B"	–	21.4
"73-MEE-3011C"	–	16.0
"73-MEE-0372"	–	48.0
"73-MEE-0420"	–	48.0
"73-P-9020"	5	7.6
"73-P-1015B"	100	124.0
"73-P-1081"	60	77.0
TOTAL FULL LOAD AMPS		686.0

NEW LOAD TABULATIONS

"73-MCC-0235"

UNIT SERVED	LOAD HP	LOAD FLA
–	–	–
–	–	–
"73-P-3031A"	30	40.0
–	–	–
"73-F-7121A"	5	7.6
"73-F-7121C"	5	7.6
"73-HTR-3001"	–	5.4
"73-PNL-3011"	–	24.0
–	–	–
–	–	–
"73-F-7041A"	40	52.0
"73-F-7041B"	20	27.0
"73-F-7051A"	30	40.0
"73-F-7051B"	20	27.0
"73-PNL-5001B"	–	21.4
"73-PNL-5002B"	–	21.4
"73-F-7112B"	.75	1.6
"73-P-4008B"	5	7.6
"73-PNL-5003B"	–	21.4
"73-P-3031B"	30	40.0
"73-PNL-5004B"	–	21.4
"73-MEE-3011C"	–	16.0
"73-MEE-0372"	–	48.0
"73-MEE-0420"	–	48.0
"73-P-9020"	5	7.6
"73-P-1015B"	100	124.0
"73-P-1081"	60	77.0
"UREA PANEL 2 BLOWER"	7.5	9.2
TOTAL FULL LOAD AMPS		695.2

EXISTING LOAD TABULATIONS

"73-MCC-0236"

UNIT SERVED	LOAD HP	LOAD FLA
"73-P-1012B"	100	124.0
"73-P-8161A"	7.5	9.0
–	–	–
–	–	–
–	–	–
"73-MME-8154A"	15	21.0
"73-MME-8154B"	15	21.0
"73-MEE-9051"	.5	1.1
"73-F-7111A"	5	7.6
"73-F-7111B"	2	3.4
"73-F-7121B"	5	7.6
"73-F-7121D"	.5	1.1
"73-F-7121E"	.5	1.1
"73-F-7112A"	1.5	3.0
"73-F-7121A"	.5	1.1
"73-F-7121B"	.5	1.1
"73-P-9100"	20	27.0
"73-MEE-0370"	–	48.0
"73-P-7121C"	.5	1.1
–	–	–
–	–	–
–	–	–
–	–	–
"73-MEE-0371"	–	48.0
"73-PNL-0401"	–	54.0
"73-MEE-9050"	.5	1.1
"73-MEE-9052"	.5	1.1
"73-P-1083"	60	77.0
"73-F-1083"	125	156.0
"73-MEE-9053"	0.5	1.1
TOTAL FULL LOAD AMPS		616.5

NEW LOAD TABULATIONS

"73-MCC-0236"

UNIT SERVED	LOAD HP	LOAD FLA
"73-P-1012B"	100	124.0
"73-P-8161A"	7.5	9.0
–	–	–
–	–	–
–	–	–
"73-MME-8154A"	15	21.0
"73-MME-8154B"	15	21.0
"73-MEE-9051"	.5	1.1
"73-F-7111A"	5	7.6
"73-F-7111B"	2	3.4
"73-F-7121B"	5	7.6
"73-F-7121D"	.5	1.1
"73-F-7121E"	.5	1.1
"73-F-7112A"	1.5	3.0
"73-F-7121A"	.5	1.1
"73-F-7121B"	.5	1.1
"73-P-9100"	20	27.0
"73-MEE-0370"	–	48.0
"73-P-7121C"	.5	1.1
–	–	–
–	–	–
–	–	–
–	–	–
"73-MEE-0371"	–	48.0
"73-PNL-0401"	–	54.0
"73-MEE-9050"	.5	1.1
"73-MEE-9052"	.5	1.1
"73-P-1083"	60	77.0
"73-F-1083"	125	156.0
"73-MEE-9053"	0.5	1.1
"UREA PANEL 2 HEATER"	–	144.4
TOTAL FULL LOAD AMPS		760.9

EXISTING LOAD TABULATIONS

"73-MCC-0237"

UNIT SERVED	LOAD HP	LOAD FLA
–	–	–
–	–	–
–	–	–
–	–	–
"73-PNL-1011"	–	16.0
"73-PNL-5005B"	–	24.0
"73-P-8150"	3	4.8
"73-P-1011B"	100	124.0
"73-P-1084"	60	77.0
"73-F-1084"	125	156.0
TOTAL FULL LOAD AMPS		401.8

UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

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1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

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STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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STATE OF CALIFORNIA

CONSULTANT LOGO :

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UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Equipment Loading Single Line 4

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E098
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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PANELBOARD: 73-PNL-0310 LOCATION: BASEMENT, EQUIPMENT ROOM

VOLTS: 480/277, 3PH, 4W, SN MAIN: 90AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E320

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-EQUIPMENT ROOM	2742		
3	20	1	LTG-EQUIPMENT ROOM		2304	
5	20	1	LTG-EQUIPMENT ROOM			2695
7	20	1	LTG-EQUIPMENT ROOM (EMERGENCY)	2800		
9	20	1	SPARE		1200	
11	20	1	SPARE			1200
13	20	1	SPARE	1200		
15	20	1	SPARE		1200	
17	20	1	SPARE			1200
19	20	3	73-MEE-9054, 73-MEE-9055	560	560	560
25			SPACE			
27			SPACE			
29			SPACE			
31			SPACE			
33			SPACE			
35			SPACE			
2	20	1	LTG-EQUIPMENT ROOM	1768		
4	20	1	SPARE		1200	
6	20	1	LTG-STAIRS & ELEVATOR ROOM			566
8	20	1	73-MEE-9002	1200		
10	20	1	LTG-EXTERIOR		2680	
12	20	1	LTG-EXTERIOR			2796
14	20	1	SPARE	1200		
16	20	1	SPARE		1200	
18	20	1	SPARE			1200
20	20	1	SPARE	1200		
22	20	1	SPARE		1200	
24	20	1	SPARE			1200
26	20	1	SPARE	1200		
28	20	1	SPARE		1200	
30	20	1	SPARE			1200
32			SPACE			
34			SPACE			
36			SPACE			
LOAD PER PHASE-- VOLTAMPS				13870	12744	12617
25% LTG LOAD				1827	1246	1514
LOAD PER PHASE--AMPS				56.7	50.5	51
LOAD PER PHASE--PCT OF TOTAL				35.9	31.9	32.2
TOTAL CONNECTED LOAD--VOLTAMPS				43,818		

PANELBOARD: 73-PNL-0311 LOCATION: FIRST FLOOR, MAINTENANCE ROOM

VOLTS: 480/277, 3PH, 4W, SN MAIN: 60AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E321

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-STAIRS, GEN & DEAERATOR ROOMS	2250		
3	20	1	LTG-GENERATOR ROOM & CORRIDOR		2244	
5	20	1	LTG-MAINTENANCE ROOM			800
7	20	1	LTG-CORRIDOR	600		
9	20	1	LTG-STAIRS		308	
11	20	1	LTG-GENERATOR, STAIR, & CORR (EMERG)			1350
13	20	1	SPARE	600		
15	20	1	SPARE		600	
17	20	1	SPARE			600
19			SPACE			
21			SPACE			
23			SPACE			
25			SPACE			
27			SPACE			
29			SPACE			
2	20	1	LTG-BOILER ROOM	1050		
4	20	1	LTG-BOILER ROOM		1450	
6	20	1	LTG-EQUIPMENT ROOM			2050
8	20	1	LTG-EQUIPMENT ROOM	2550		
10	20	1	LTG-EQUIPMENT ROOM		3550	
12	20	1	LTG-EQUIPMENT ROOM			2550
14	20	1	LTG-EQUIPMENT ROOM (EMERGENCY)	3000		
16	20	1	LTG-BOILER & SHOP (EMERGENCY)		1000	
18	20	1	SPARE			600
20			SPACE			
22			SPACE			
24			SPACE			
26			SPACE			
28			SPACE			
30			SPACE			
LOAD PER PHASE-- VOLTAMPS				10050	9152	7950
25% LTG LOAD				2513	2288	1987
LOAD PER PHASE--AMPS				45.3	41.2	35.9
LOAD PER PHASE--PCT OF TOTAL				37	33.7	29.3
TOTAL CONNECTED LOAD--VOLTAMPS				33940		

PANELBOARD: 73-PNL-0312 LOCATION: SECOND FLOOR, SWITCHGEAR ROOM 1

VOLTS: 480/277, 3PH, 4W, SN MAIN: 225AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E322

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-SWGR ROOM, CORRIDOR & STAIRS	1390		
3	20	1	LTG-SWGR ROOM 1 & BATTERY ROOMS		2544	
5	20	1	LTG-HVAC ROOM			1900
7			SPACE			
9-11-13	40	3	73-CHGR-0131	8800	8800	8800
15-17-19	50	3	73-PNL-0311	12563	11440	9937
25	20	3	73-MEE-9056, 73-MEE-9057, 73-MEE-9058	840	840	840
2	20	1	LTG-SWGR ROOM 2, CORRIDOR	2053		
4	20	1	LTG-SWGR RM 2, RESTROOM,BREAKROOM		1634	
6	20	1	LTG-ALONG KALWALL			3255
8	20	1	LTG-LOBBY & OPEN AREAS	2996		
10	20	1	LTG-CONTROL ROOM		624	
12	20	1	LTG-CONTROL ROOM			500
14		1	SPACE	600		
16	20	1	LTG-CONTROL ROOM (EMERGENCY)		240	
18	20	1	LTG-CORRIDOR (EMERGENCY)			2952
20	90		SPACE	13310	11084	12057
22	20	1	LTG-RESTROOMS, STORAGE (EMERGENCY)	674		
24	20	1	LTG-SWITCHGEAR ROOM (EMERGENCY)		960	
26-28-30	90	3	73-PNL-0310			
LOAD PER PHASE-- VOLTAMPS				43226	38166	40241
25% LTG LOAD				1778	1500	2152
LOAD PER PHASE--AMPS				162.5	143.2	153
LOAD PER PHASE--PCT OF TOTAL				35.5	31.2	33.4
TOTAL CONNECTED LOAD--VOLTAMPS				127,063		

NON OSHPD

PANELBOARD: 73-PNL-0401 LOCATION: COGEN AREA, EQUIP ROOM

VOLTS: 208/120, 3PH, 4W, SN MAIN: 150 AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E406

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	RECP-EQUIPMENT ROOM	800		
3	20	1	RECP-EQUIPMENT ROOM		800	
5	20	1	RECP-EQUIPMENT ROOM			800
7	20	1	DC LUBE OIL CTRL	800		
9	20	1	HRSG CONTROL LIGHTS		600	
11	20	1	SPARE			--
13	20	3	73-AE-3015 CEMS	1800	1800	1800
19	20	1	SPARE		--	
21	20	1	SPARE			--
23	20	1	SPARE	--		
25	20	1	SPARE		--	
27	20	3	73-PNL-7121	1600	1600	1600
33	20	3	73-PNL-7141	1600	1600	1600
39	20	1	SPARE			--
41	20	1	SPARE	--		
2	20	1	RECP-EQUIPMENT ROOM	800		
4	20	1	RECP-EQUIPMENT ROOM		600	
6	20	1	RECP-EQUIPMENT ROOM			600
8	20	1	RECP-EXTERIOR	600		
10	20	1	SPARE		--	
12	20	1	73-PNL-3067 DENOX PANEL			1800
14	20	1	73-GEN-4001 STG SPACE HTR	1800		
16	20	1	RECP (73-MEE-9060A)		600	
18	20	1	RECP (LTG CONTACTOR 73-MEE-9060) CLOCK LIGHTS, BEACONS			1550
20	30	1	UREA PLC CONTROL POWER		2400	
22	20	1	SPARE			--
24	20	1	SPARE	--		
26	20	1	RECP-SUMP PUMP		1180	
28	20	1	CV5038A			600
30	20	1	SPARE	--		
32	20	3	73-P8161C BOOSTER PUMP	600	600	600
				600		600
38	60	1	SPARE		--	
40	20	2	CONDENSATE RECOVERY PUMP		600	600
LOAD PER PHASE-- VOLTAMPS				10,400	12,380	11,550
LOAD PER PHASE--AMPS				86.7	103.2	96.3
LOAD PER PHASE--PCT OF TOTAL				30.3	36.0	33.7
TOTAL CONNECTED LOAD--VOLTAMPS				34,330		

FURNISH AND INSTALL 30A SINGLE POLE BREAKER FOR UREA PLC CONTROL POWER

NON OSHPD

PANELBOARD: 73-PNL-0360 (UPS) LOCATION: SECOND FLOOR SWITCHGEAR ROOM 2

VOLTS: 208/120, 3PH, 4W, SN MAIN: 60AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E322

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	ECMS-COMPUTER, CRT AND PRINTER	1200		
3	20	1	ECMS-COMPUTER, CRT AND PRINTER		1200	
5	20	1	CONTROL ROOM COMPUTER			600
7	20	1	CONTROL ROOM COMPUTER	600		
9	20	1	CONTROL ROOM COMPUTER		600	
11	20	1	I/O 1-2			200
13	20	1	CCTV-MONITORS, 73-VS-0100	800		
15	20	1	I/O 4-6		100	
17	20	1	TELEPHONE			200
19	20	1	PA SYSTEM	200		
21	20	1	SPARE		100	
23	20	1	RECP-CCTV COGEN AREA	300	300	300
29	20	1	SPARE			200
31	20	1	SPARE	200		
33			SPACE			
35			SPACE			
37			SPACE			
39			SPACE			
41	20	1	SPARE			200
2	20	1	73-SWGR-0130 (POWER LEADER)	100		
4	20	1	73-MEE-0410		1200	
6	20	1	FACU (OSHPD)			200
8	20	1	SPARE	200		
10	20	1	TEMP CONTROL PNL		200	
12	20	1	I/O 3-5			200
14	20	1	CHILLER ROOM I/O 7	1000		
16	20	1	BASEMENT I/O 8		1000	
18	20	1	SWGR ROOM I/O 9			1000
20	20	1	COGEN AREA I/O 10	1000		
22	20	1	RECP-CCTV FIRST FLOOR		800	
24	20	1	RECP-CCTV BASEMENT			200
26			SPACE (NOTE 1)			
28	20	1	SPARE			200
30			SPACE			
32			SPACE			
34			SPACE			
36	20	1	SPARE			200
38			SPACE			
40			SPACE			
42	20	1	SPARE			200
LOAD PER PHASE-- VOLTAMPS				5600	5500	3900
LOAD PER PHASE--AMPS				45.8	45.8	32.5
LOAD PER PHASE--PCT OF TOTAL				37.3	36.6	26.0
TOTAL CONNECTED LOAD--VOLTAMPS				15,000		

NON OSHPD

PANELBOARD: 73-PNL-0411 LOCATION: COGEN AREA, EQUIP ROOM

VOLTS: 480/277, 3PH, 4W, SN MAIN: 40AMPS CB

MOUNTING: SURFACE CABLE ENTRY: TOP DWG: E406

CKT	A	P	DESCRIPTION	LOAD-VA A	B	C
1	20	1	LTG-ALONG KALWALL	3000		
3	20	1	LTG-ALONG NORTH WALL		1165	
5	20	1	LTG-COGENERATION ROOM			4000
7	20	1	SPARE	600		
9	20	1	SPARE		600	
11	20	1	SPARE			600
13	20	1	SPARE	600		
15	20	1	SPARE		600	
17	20	1	SPARE			600
19			SPACE			
21			SPACE			
23			SPACE			
2	20	1	LTG-COGENERATION ROOM	2500		
4	20	1	LTG-COGENERATION ROOM		3000	
6	20	1	SPARE			600
8	20	1	SPARE	600		
10	20	1	LTG-EXTERIOR		450	
12	20	1	SPARE			600
14			SPACE		600	
16	20	1	SPARE			600
18	20	1	SPARE			
20	20		SPACE			
22	20		SPACE			
24	20		SPACE			
LOAD PER PHASE-- VOLTAMPS				7300	6415	7000
25% LTG LOAD				1375	1154	1000
LOAD PER PHASE--AMPS				31.3	27.3	28.9
LOAD PER PHASE--PCT OF TOTAL				35.8	31.2	32.9
TOTAL CONNECTED LOAD--VOLTAMPS				24,244		

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA

1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT — C-33192 — REN. 7-31-23 — STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH

FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER — AARON C. LEACH — No. E20071 — Exp. 6/30/24 — ELECTRICAL — STATE OF CALIFORNIA

CONSULTANT LOGO :

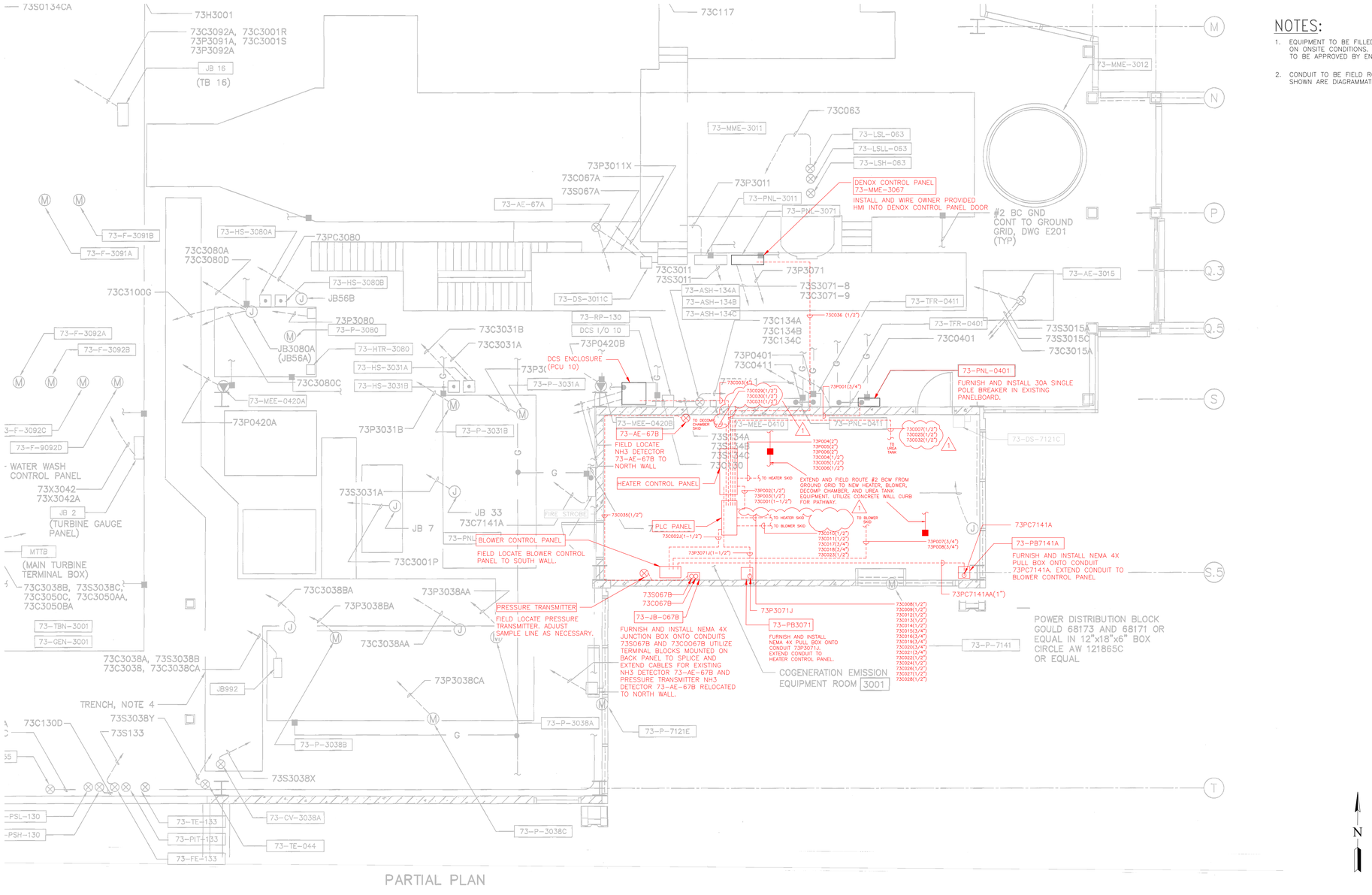
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDM PROJECT NO: 9557240
UCSH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE., SACRAMENTO, CA 95817
SHEET TITLE: Panelboards 2

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E121
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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PARTIAL PLAN

NOTES:

1. EQUIPMENT TO BE FILLED LOCATED BASED ON ONSITE CONDITIONS. FINAL LOCATIONS TO BE APPROVED BY ENGINEER OR OWNER
2. CONDUIT TO BE FIELD ROUTED. ROUTES SHOWN ARE DIAGRAMMATIC.

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
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REGISTERED PROFESSIONAL ENGINEER
ARJUN BHA SHARMA
No. 28139
Exp. 12-31-23
STRUCTURAL
STATE OF CALIFORNIA

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1	PLAN CHECK RESPONSE 01	9/21/2023

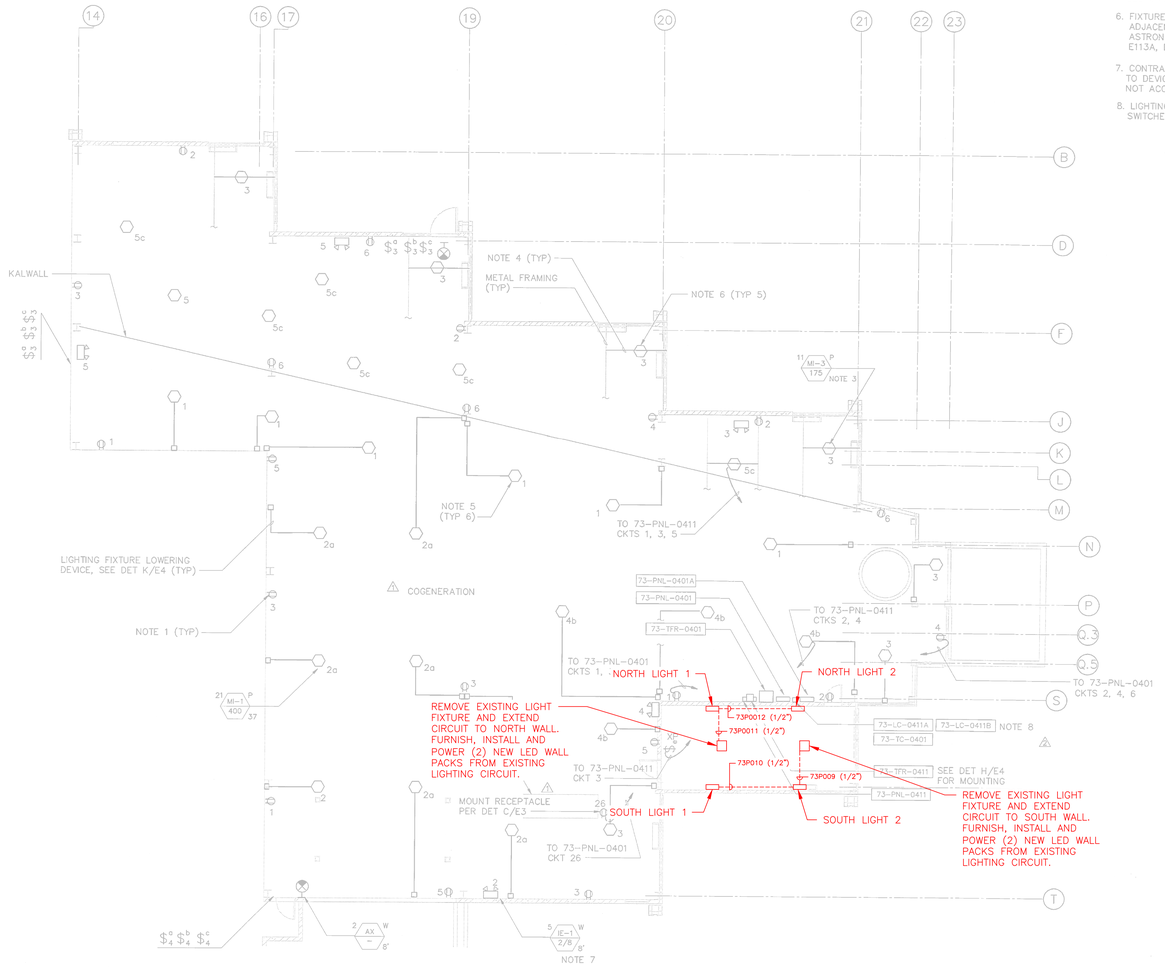
UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: First Floor Power and Grounding Plan

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E403
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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NOTES:

1. ALL 120V RECEPTACLES SHALL BE FED FROM PANEL 73-PNL-0401, UNLESS OTHERWISE OTHERWISE NOTED. CONDUCTORS SHALL BE #12AWG MIN.
2. ALL 277V LIGHTING SHALL BE FED FROM PANEL 73-PNL-0411 UNLESS OTHERWISE NOTED. FIXTURES SHALL BE MOUNTED ON METAL FRAMING UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE #12AWG MIN.
3. FIXTURES NORTH OF "KALWALL" SHALL BE MOUNTED 16' ABFF.
4. PROVIDE UNISTRUT P2550 WITH P2868 AT EACH END, SUPPORT FIXTURES ON UNISTRUT.
5. FIXTURES JUST SOUTH OF KALWALL (6) SHALL BE CONTROLLED VIA ASTRONOMICAL TIMER AND PHOTOCELL SEE DIAGRAM E113A, DWG E113.
6. FIXTURES (6) ALONG NORTH WALL AND TWO FIXTURES ADJACENT TO SOUTH WALL SHALL BE CONTROLLED VIA ASTRONOMICAL TIMER AND PHOTOCELL, SEE DIAGRAM E113A, DWG E113.
7. CONTRACTOR SHALL HARDWIRE EMERGENCY FIXTURES TO DEVICE BOX. PLUG AND CORD CONNECTIONS ARE NOT ACCEPTABLE (TYP).
8. LIGHTING CONTACTOR 73-LC-0411B IS FOR 4-WAY SWITCHED LIGHTING. ⚠



CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA

1200 R Street, Suite 100
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Telephone 916.787.5100

REGISTERED ARCHITECT KEVIN C. GREEN C-33192 REN. 7-31-2025 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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FACILITIES DESIGN & CONSTRUCTION
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Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 9/30/24 MECHANICAL ELECTRICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

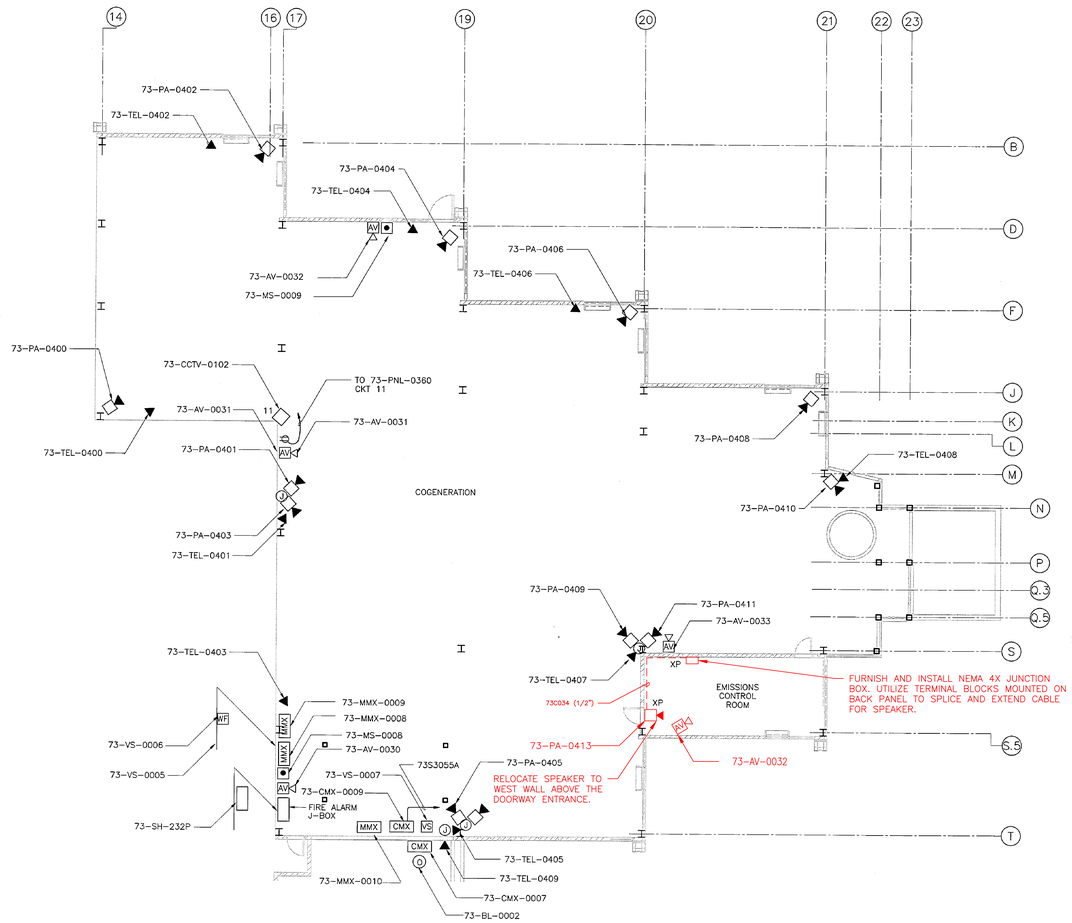
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDMC PROJECT NO: 9557240
UCSH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: First Floor Lighting and Receptacle Plan

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E406
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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FIRST FLOOR PLAN

P.A. SYSTEM NOTES:
1. INSTALL SPEAKER HORNS 8' ABOVE FLOOR FACING HORIZONTAL.
2. CONDUIT SHALL BE ROUTED EXPOSED TO FLOOR AND THEN EMBEDDED IN THE FLOOR.
3. SEE RISER DIAGRAM DRAWING E55 FOR CONDUIT REQUIREMENTS

TELEPHONE SYSTEM NOTES:
1. INSTALL TELEPHONE OUTLET BOXES 48" ABOVE FLOOR.
2. SEE RISER DIAGRAM DRAWING E50 FOR CONDUIT AND CABLE REQUIREMENTS.

CCTV SYSTEM NOTES:
1. INSTALL CAMERA 7' ABOVE FLOOR.
2. SEE RISER DIAGRAM DRAWING E65 FOR CONDUIT AND CABLE REQUIREMENTS.

FIRE ALARM SYSTEM NOTES:
1. SEE RISER DIAGRAM DRAWING E41 FOR CONDUIT AND CABLE REQUIREMENTS.

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-23 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
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REGISTERED PROFESSIONAL ENGINEER AARON C. LEACH No. E20071 Exp. 9/30/24 ELECTRICAL STATE OF CALIFORNIA

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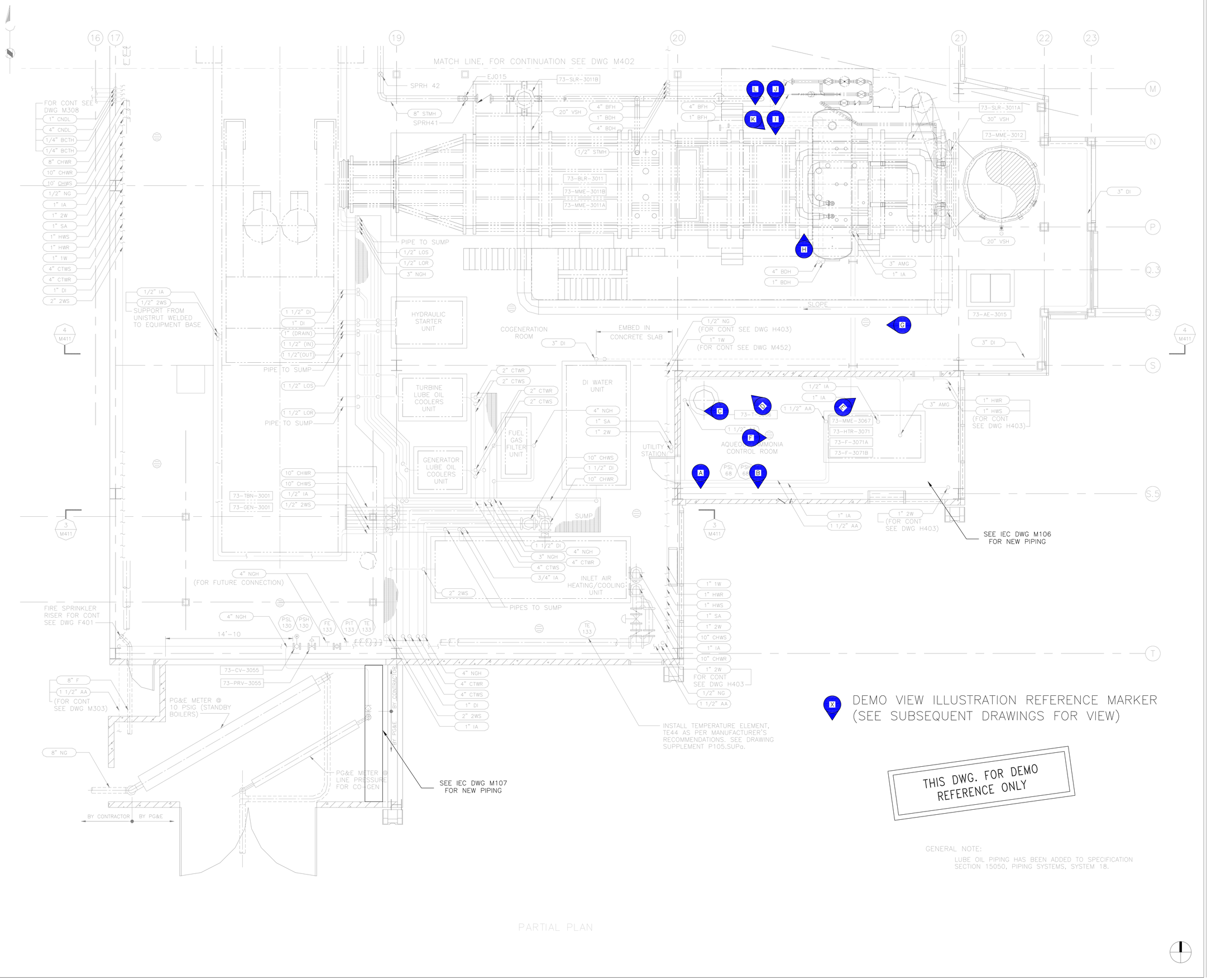
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCSH PROJECT NO: 9557240
UCSH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: First Floor Fire Alarm and Communications

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	E408
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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UC DAVIS HEALTH BUILDING DEPARTMENT

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REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
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8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
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REGISTERED PROFESSIONAL ENGINEER No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

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REV	REVISION DESCRIPTION	DATE

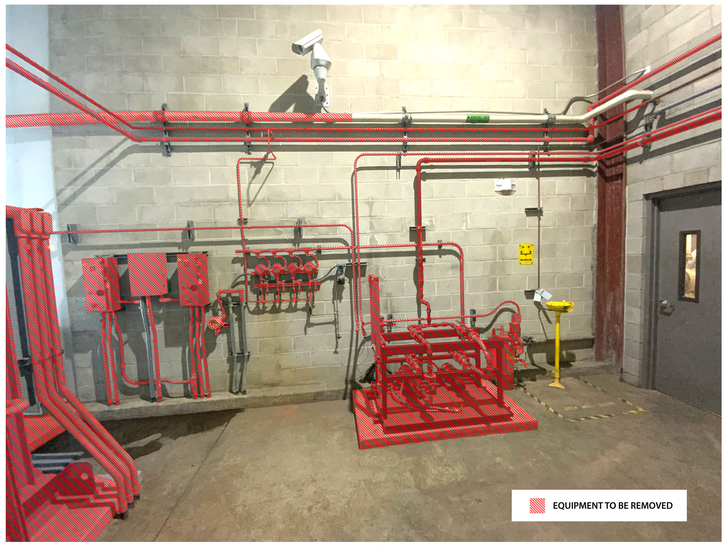
UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: First Floor Partial Plan 2 Demo

ARCH. / ENGR.	PD&C JOB NO.	SHEET NO.
GO	9557240	M200D
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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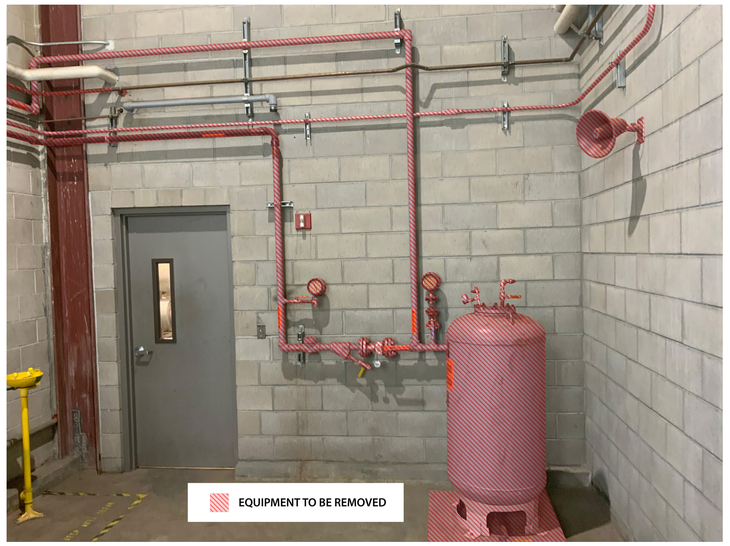
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NOTES:

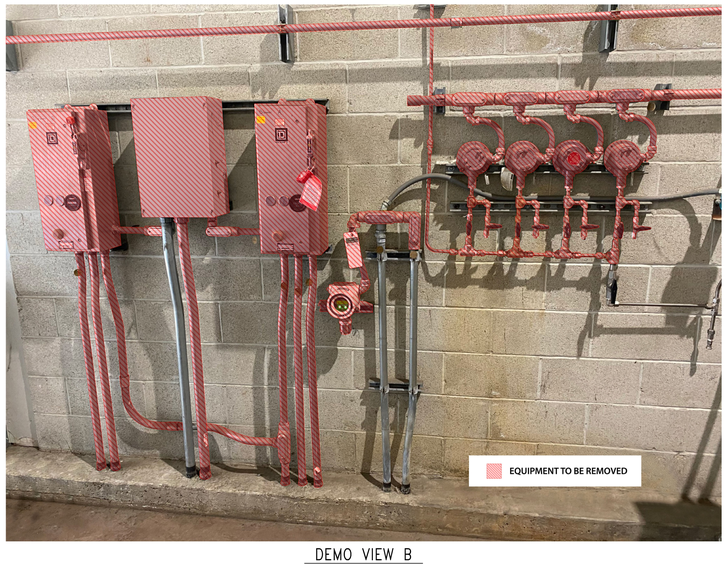
1. SEE DRAWING M200D FOR LOCATION OF DEMO VIEWS.



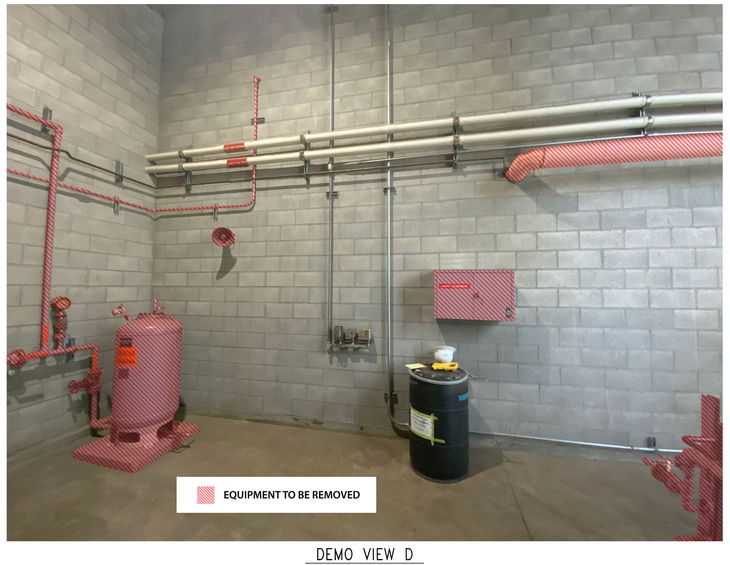
DEMO VIEW A
POINTING TO SOUTH WALL



DEMO VIEW C
POINTING TO WEST WALL



DEMO VIEW B
POINTING TO SOUTH WALL



DEMO VIEW D
POINTING TO NORTH WALL

THIS DWG. FOR DEMO REFERENCE ONLY

UC DAVIS HEALTH BUILDING DEPARTMENT

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REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
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Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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REGISTERED PROFESSIONAL ENGINEER
RICHARD E. GUTIERREZ
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Ammonia Room Demo Items

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M201D
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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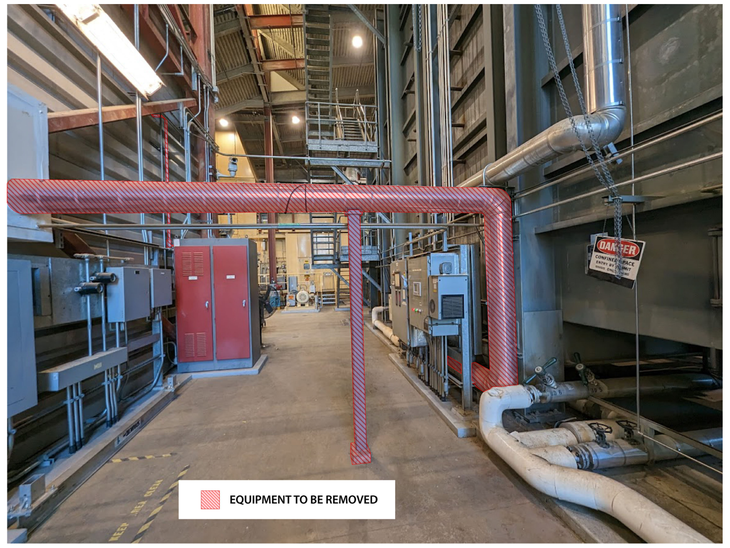
NOTES:

1. SEE DRAWING M200D FOR LOCATION OF DEMO VIEWS.



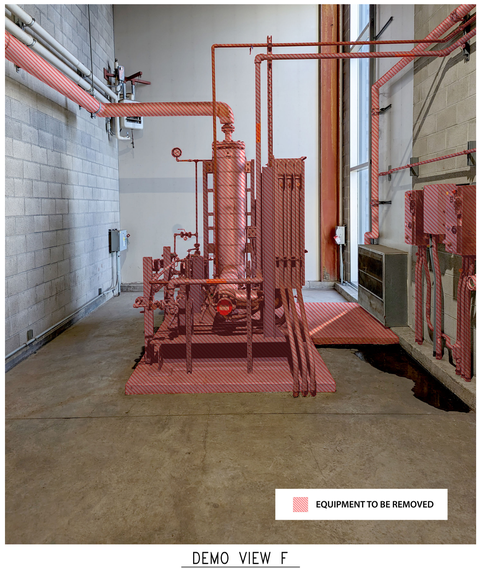
DEMO VIEW E

POINTING TO NORTH & EAST WALL



DEMO VIEW G

POINTING WEST
NORTH OF THE AMMONIA ROOM



DEMO VIEW F

POINTING TO EAST WALL



DEMO VIEW H

POINTING TO NORTH
SOUTH SIDE OF HRSG

THIS DWG. FOR DEMO REFERENCE ONLY

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
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REGISTERED PROFESSIONAL ENGINEER RICHARD E. GUTHRIE No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

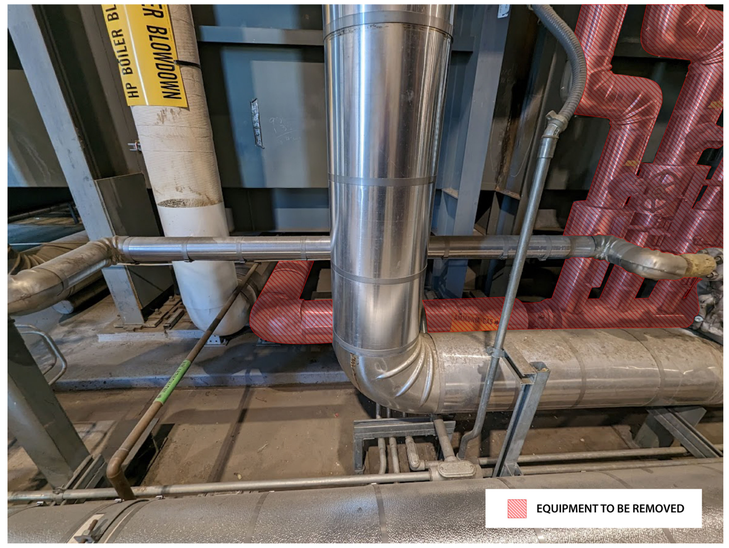
UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Ammonia Room Demo Items

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M202D
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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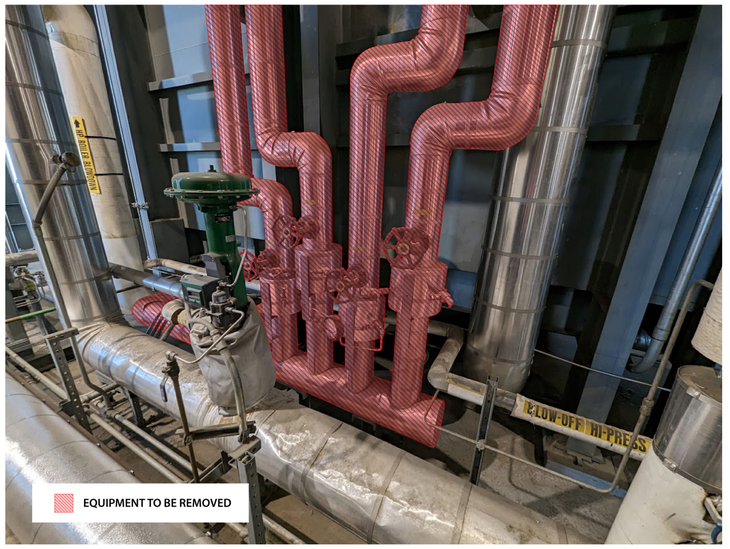
NOTES:

1. SEE DRAWING M200D FOR LOCATION OF DEMO VIEWS.



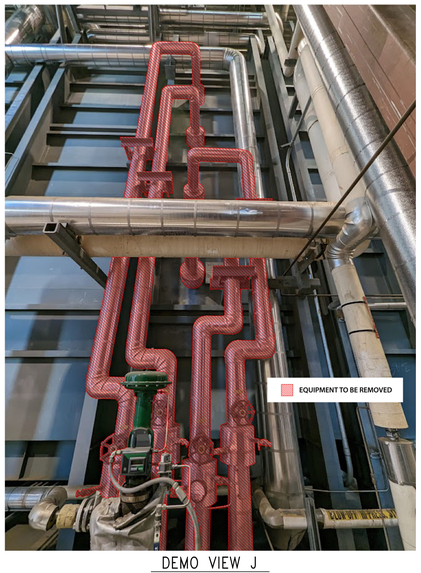
DEMO VIEW I

POINTING SOUTH
ON NORTH SIDE OF HRSG



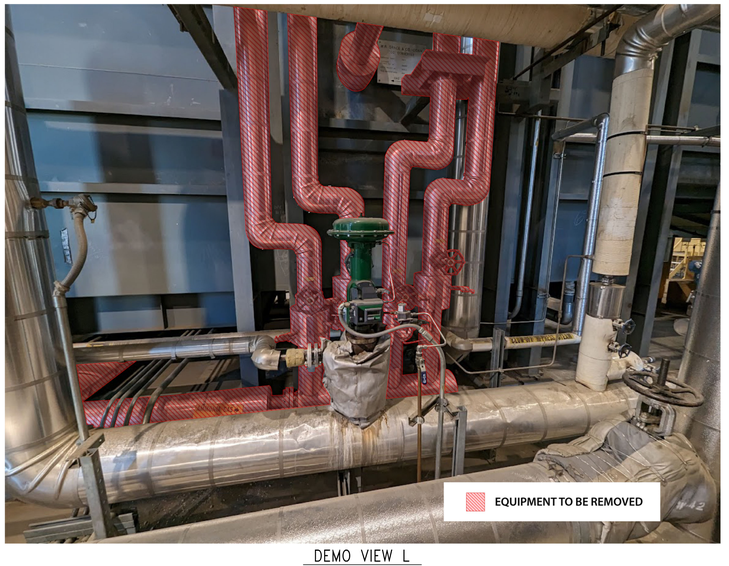
DEMO VIEW K

POINTING SOUTH
ON NORTH SIDE OF HRSG



DEMO VIEW J

POINTING SOUTH AND LOOKING UP
ON NORTH SIDE OF HRSG



DEMO VIEW L

POINTING SOUTH
ON NORTH SIDE OF HRSG

THIS DWG. FOR DEMO
REFERENCE ONLY

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CENTRAL PLANT 1ST FLOOR PO&M EMISSIONS UREA PROJECT

4840 2ND AVENUE, SACRAMENTO, CA 95817

MECHANICAL NOTES 1

SCOPE OF WORK

1. FURNISH ALL LABOR, APPARATUS, PARTS, MATERIALS AND ACCESSORIES NECESSARY TO PROVIDE COMPLETE PIPING SYSTEMS. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED AS INDICATED AND IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS. ALL PIPING SYSTEMS INCLUDING PIPE SUPPORTS SHALL BE DESIGNED, INSTALLED, TESTED AND INSPECTED IN ACCORDANCE WITH ASME B31.1 POWER PIPING, EXCEPT PLUMBING PIPING WHICH SHALL BE IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.

2. ALL PIPING AND TUBING ARE GENERALLY SHOWN AND ROUTED DIAGRAMMATICALLY ON THE DRAWINGS, EXCEPT LINE 512, LINE 516, LINE 515, AND THE 4 INCH VENT FROM THE UREA STORAGE TANK (LINE 520). THE CONTRACTOR SHALL FIELD ROUTE AND FIELD SUPPORT ALL PIPING AND TUBING, UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FOLLOW THE APPLICABLE P&ID'S, WHICH SHOWS THE APPLICABLE VALVING AND PIPING SPECIALTIES THAT MUST BE INSTALLED.

3. PIPING SHALL NOT BE CONCEALED, OR INSULATED UNTIL IT HAS BEEN INSPECTED, TESTED, AND APPROVED. MATERIALS AND EQUIPMENT SHALL BE PROTECTED FROM THE WEATHER. WHERE PIPE PASSES THROUGH BUILDING STRUCTURE, PIPE JOINTS SHALL NOT BE CONCEALED, BUT SHALL BE LOCATED WHERE THEY MAY BE READILY INSPECTED AND BUILDING STRUCTURE SHALL NOT BE WEAKENED.

4. PIPE OPENINGS: CUT HOLES THROUGH CONCRETE AND MASONRY BY DIAMOND TIPPED ROTARY CORE DRILL. PNEUMATIC HAMMER, IMPACT ELECTRIC, AND HAND OR MANUAL HAMMER TYPE DRILL WILL NOT BE ALLOWED, EXCEPT AS PERMITTED BY OWNER'S REPRESENTATIVE WHERE WORKING AREA SPACE IS LIMITED. LOCATE HOLES TO AVOID INTERFERENCE WITH STRUCTURAL SECTIONS SUCH AS COLUMNS, BEAMS, OR GRADE BEAMS. HOLES SHALL BE LAID OUT IN ADVANCE AND DRILLING DONE ONLY AFTER APPROVAL BY OWNER ' S REPRESENTATIVE. IF THE CONTRACTOR CONSIDERS IT NECESSARY TO DRILL THROUGH STRUCTURAL SECTIONS, THIS MATTER SHALL BE REFERRED TO OWNER ' S REPRESENTATIVE FOR APPROVAL.

5. CONNECTIONS TO EXISTING LINES SHALL BE MADE IN AN APPROVED MANNER AND SHALL BE ACCOMPLISHED WITH MINIMUM INTERRUPTION OF SERVICE ON THE EXISTING LINE. ALL CONNECTIONS TO EXISTING SERVICES SHALL HAVE PRIOR APPROVAL OF THE OWNER. THE OWNER SHALL BE NOTIFIED OF ANY INTERRUPTION OF SERVICES, AT LEAST 1 DAY IN ADVANCE.

6. ALL PIPING SHALL BE CARRIED ON ADJUSTABLE HANGERS OR PROPERLY LEVELED SUPPORTS AS DETAILED AND, WHERE INDICATED, VARIABLE SPRING HANGERS. SWAY BRACING SHALL BE PROVIDED WHERE NECESSARY. ANCHORS SHALL BE OF CARBON STEEL. BEAM CLAMPS, HANGER PIPE CLAMPS, AND OTHER SIMILAR PARTS SHALL BE MALLEABLE IRON. BASES AND ROLLER SHALL BE OF CARBON STEEL. BRACKETS SHALL BE OF CARBON STEEL. ALL PIPING SHALL BE ANCHORED AND SUPPORTED IN A MANNER SUCH THAT EXPANSION AND CONTRACTION WILL TAKE PLACE IN THE DIRECTION DESIRED, AND UNDUE STRAINS ON EQUIPMENT SERVED SHALL BE PREVENTED. HANGERS USED FOR THE SUPPORT OF PIPING OF TWO AND A HALF–INCH NOMINAL PIPE SIZE AND LARGER SHALL BE FABRICATED TO PERMIT ADEQUATE ADJUSTMENT AFTER ERECTION WHILE STILL SUPPORTING THE LOAD. WALL BRACKETS SHALL BE USED WHERE PIPES ARE ADJACENT TO WALLS OR OTHER VERTICAL SURFACES, WHICH MAY BE USED FOR SUPPORTS. PIPING SHALL BE PROVIDED WITH A PIPE–COVERING PROTECTION SADDLE AT EACH SUPPORT. PIPE GUIDES AND ANCHORS OF APPROVED TYPE SHALL BE PROVIDED AT ALL POINTS WHERE NECESSARY TO KEEP PIPES IN ACCURATE ALIGNMENT, TO DIRECT STRAIN. PIPE SUPPORTS SHALL BE SPACED TO PROVIDE ADEQUATE SUPPORT FOR THE PIPES. PIPE SHALL NOT HAVE POCKETS FORMED IN THE SPAN DUE TO SAGGING OF THE PIPE BETWEEN SUPPORTS, CAUSED BY THE WEIGHT OF THE PIPE, MEDIUM IN THE PIPE, INSULATION, VALVES, OR FITTINGS. HANGER TYPE AND LOCATION SHALL BE AS DETAILED AND SPECIFIED HEREIN. INSTALLATION SHALL BE IN ACCORDANCE WITH MSS SP–69, EXCEPT AS DETAIL OTHERWISE.

7. PIPING TWO AND A HALF INCH AND SMALLER CAN GENERALLY BE FIELD SUPPORTED OFF OF WALKWAYS AND PLATFORMS AS MAY BE REQUIRED, HOWEVER, THE PIPING SYSTEM SHALL NOT INTERFERE WITH ACCESS TO PLATFORMS OR WALKWAYS OR INTERFERE WITH THE INTENDED WALKWAYS.

8. SPACING OF SUPPORTS FOR HORIZONTAL STEEL PIPE SHALL BE AS SHOWN IN TABLE I, IF SUPPORT LOCATIONS ARE NOT SPECIFIED.

9. FOR ALL PIPING ROUTED ALONG THE CMU WALLS, CONTRACTOR TO USE PIPE SUPPORTS THAT ARE EQUIVALENT TO THE CURRENT SUPPORTS BEING USED ON THE WALL.

TABLE 1

MAXIMUM SPACING BETWEEN PIPE HANGERS AND SUPPORTS (FEET)

NOMINAL PIPE SIZE (INCHES)	SCH. 80	COPPER TUBING	STAINLESS TUBING	CARBON STEEL	STAINLESS STEEL	CHROMEMOLY STEEL	CPVC
1/4	2	5	3	7	7	7	–
3/8	2	5	4	7	7	7	–
1/2	3	5	5	7	7	7	5
3/4	3	5	6	8	8	8	5.5
1	4	6	–	9	9	9	6
1–1/4	4	7	–	10	10	10	6
1–1/2	5	8	–	10	10	10	6.50
2	5	8	–	12	12	12	6.5
2–1/2	6	9	–	13	13	13	–
3	6	10	–	14	14	14	8
4	7	12	–	16	16	16	8.5
6	8	14	–	19	19	19	9.5
8	9	–	–	21	21	21	–

10. RISERS: WHERE POSSIBLE, SUPPORTS SHALL NOT BE PLACED ON RISERS BUT LOCATED ADJACENT TO THE ELBOW ON THE UPPER ATTACHED HORIZONTAL RUN. SUPPORT FROM BELOW THE RISER SHALL BE LIMITED TO RISERS LESS THAN 10 FEET.

11. PROVIDE ADDITIONAL SUPPORTS NEAR CONCENTRATED LOADS, SUCH AS FLANGES, VALVES, FITTINGS, RISERS, OR BRANCH CONNECTIONS.

12. ALL NEW MINOR OR SMALL SIZE PIPING NOT DETAILED BUT REQUIRED FOR SPECIFIED ITEMS AND FOR THE RELOCATION OF MISCELLANEOUS EXISTING EQUIPMENT OR COMPONENTS SHOWN ON THE DRAWINGS SHALL BE PROVIDED AS SPECIFIED HEREIN BY THE CONTRACTOR AS PART OF THIS JOB. ANY OF THIS MINOR PIPING NOT SPECIFICALLY INCLUDED HEREIN, SHALL BE PROVIDED AS REQUIRED MATCHING THE EXISTING INSTALLATION.

13. PIPING SYSTEMS NOT COVERED BY INSULATION SHALL BE FINISH PAINTED. ALL PIPING SYSTEMS SHALL BE IDENTIFIED WITH THEIR PROCESS DESIGNATION AND FLOW ARROWS. PAINTING AND IDENTIFICATION SHALL BE APPROVED BY OWNER'S REPRESENTATIVE. PIPE SUPPORTS SHALL BE PAINTED IF NOT GALVANIZED. ALSO, GALVANIZED PIPE, STAINLESS STEEL PIPE AND COPPER PIPING AND TUBING SYSTEMS SHALL NOT BE PAINTED.

14. AFTER COMPLETION OF THE PIPING INSTALLATION, AND PRIOR TO INITIAL OPERATION, TESTS AND INSPECTIONS SHALL BE CONDUCTED.

15. DURING THE PIPELINE TESTING, ALL GAUGES, TRAPS, AND OTHER APPARATUS, WHICH MAY BE DAMAGED BY THE TEST PRESSURE, SHALL BE REMOVED OR VALVED OFF FROM THE SYSTEM, BEFORE THE TESTS ARE MADE. A CALIBRATED TEST PRESSURE GAUGE SHALL BE INSTALLED IN THE SYSTEM TO OBSERVE ANY LOSS IN PRESSURE. THE ASME B31.1 TEST PRESSURE SHALL BE MAINTAINED FOR A MINIMUM OF TWO HOURS OR AS REQUIRED TO ENABLE AN INSPECTION TO BE MADE OF ALL JOINTS AND CONNECTIONS. NO VISIBLE LEAKAGE OR PRESSURE LOSS SHALL OCCUR DURING THIS TIME. LEAKS OR OTHER DEFECTS DISCLOSED BY THE TEST SHALL BE CORRECTED AND THE PIPING SECTION RETESTED. TESTS ARE REQUIRED PRIOR TO ACCEPTANCE AND SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER AND SUBJECT TO HIS APPROVAL.

16. ALL PIPING, INCLUDING PIPING WITHIN VENDOR EQUIPMENT. SHALL BE LEAK TESTED. TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF ASME B31.1 AND AS FOLLOWS. THE PIPING SYSTEMS SHALL BE TESTED AFTER THE LINES HAVE BEEN CLEANED AS SPECIFIED ABOVE AND BEFORE ANY INSULATION COVERING HAS BEEN APPLIED. PIPING SYSTEMS SHALL BE TESTED AT THE PRESSURES IDENTIFIED ON THE PIPING LINE LIST (SEE TABLE 2 ON DWG M–011 SH.2). ALL PIPING, EXCEPT FOR COMPRESSED AIR PIPING, SHALL BE HYDROSTATICALLY TESTED USING WATER NOT EXCEEDING 100 DEGREES F. THE INSTRUMENT AIR SYSTEM AND PLANT AIR SYSTEM SHALL BE LEAK TESTED WITH COMPRESSED AIR. THE " TEST " PRESSURE SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE SYSTEM; " DESIGN " PRESSURE AS IDENTIFIED ON THE PIPING LINE LIST (SEE TABLE 2 ON DWG M–011 SH.2).

17. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, BLANKS, CONNECTIONS, ETC. FOR HYDROSTATIC/PNEUMATIC TESTING. VENTS, AND OTHER CONNECTIONS, SHALL BE OPENED TO ELIMINATE AIR FROM LINES, WHICH ARE TO RECEIVE A HYDROSTATIC TEST. LINES SHALL BE THOROUGHLY PURGED OF AIR BEFORE HYDROSTATIC TEST PRESSURE IS APPLIED. VENTS SHALL BE OPEN WHEN DRAINING SYSTEMS.

18. CARE SHALL BE EXERCISED IN TESTING THAT THE PRESSURE APPLIED IS LIMITED TO THE PARTICULAR PORTION OF THE SYSTEM DESIGNATED FOR THE PARTICULAR TEST PRESSURE. PRESSURE RELIEF AND THERMAL EXPANSION RELIEF VALVES SHALL BE EXCLUDED FROM THE GENERAL PRESSURE TESTS.

19. BLINDS SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE INLET AND/OR OUTLET FLANGES DURING TESTS. THREADED RELIEF VALVES SHALL BE REMOVED, AND THE LINE TEMPORARILY PLUGGED DURING THE TESTS.

20. AFTER SATISFACTORY COMPLETION OF THE TESTING, ALL TEMPORARY BLANKS AND BLINDS SHALL BE REMOVED, AND ALL LINES SHALL BE COMPLETELY DRAINED. VALVES, ORIFICE PLATES, EXPANSION JOINTS, AND SHORT PIECES OF PIPING, WHICH HAVE BEEN REMOVED, SHALL BE INSTALLED WITH PROPER GASKETS IN PLACE. VALVES THAT ARE CLOSED SOLELY FOR TESTING SHALL BE OPENED. AFTER LINES HAVE BEEN DRAINED, TEMPORARY PIPING SHALL BE REMOVED AND NECESSARY INSULATION AND PAINTING COMPLETED.

21. CONTRACTOR SHALL PROVIDE THE DESIGN, MATERIALS, DELIVERY AND INSTALLATION OF AN INDUSTRIAL GRADE INSULATION SYSTEM BASED ON THE RECOMMENDED INSULATION THICKNESS AND MATERIAL. THE CONTRACTOR SHALL COMPLETELY INSULATE ALL EXPOSED EXTERIOR SURFACES OF PIPING AND EQUIPMENT IN ACCORDANCE WITH INSULATION SCHEDULES HEREIN. SUPPORTS, BRACKETS, EQUIPMENT NAMEPLATES, AND MANHOLES SHALL NOT BE INSULATED UNLESS OTHERWISE NOTED.

22. ALL EXPOSED CARBON STEEL ITEMS SHALL BE PROPERLY PRIMED AND PAINTED WITH FINAL COAT.

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SHEET TITLE: Mechanical Notes 1

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UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
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RM		

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CENTRAL PLANT 1ST FLOOR PO&M EMISSIONS UREA PROJECT

4840 2ND AVENUE, SACRAMENTO, CA 95817

MECHANICAL NOTES 2

NOTES:

1. CONTRACTOR TO PROVIDE VALVES THAT ARE EITHER SPECIFIED ON THE VALVE LIST OR EQUIVALENT.

TABLE 2 – LINE LIST

TAG	LINE #	FROM	TO	DWG	DESIGN PRESSURE	DESIGN TEMPERATURE	OPERATING PRESSURE	OPERATING TEMPERATURE	SERVICE	SIZE	SCH/WALL THICKNESS	SPEC	INSULATION THICKNESS	HEAT TRACING	PAINT CODE	TESTING FLUID	TEST PRESSURE (PSI)
2"-CPVC-DR-503	503	TP 56 ON UREA TANK	DRAIN HUB	M126	Ambient	Ambient	0	AMBIENT	DR	2"	SCH 40	CPVC	None	None		H20	6
1"-SS150-UE-504	504	TP 61 ON UREA TANK	TP 65 ON HEATER MODULE	M126	10	40-120	3	60	UE	1"	SCH 40	SS150	None	None		H20	100
2"-CPVC-DR-505	505	TP 55 ON UREA TANK	DRAIN HUB	M126	10	Ambient	8	AMBIENT	DR	2"	SCH 40	CPVC	None	None		H20	6
2"-SS150-UE-506	506	EXISTING AMMONIA 1 1/2" AA	TP 60 ON UREA TANK	M126	150	100	100	70	UE	2"	SCH 40	SS150	None	None		H20	225
1/2"-SS150-IA-507	507	EXISTING IA LINE	TP 67 ON HEATER MODULE	M126	120	40-120	100	70	IA	1/2"	SCH 40	SS150	None	None		N2	144
1/2"-SS150-FF-508	508	EXISTING FLUSH WATER	TP 66 ON HEATER MODULE	M126	75	100	50	70	FF	1/2"	SCH 40	SS150	None	None		H20	80
1/4"-SS150-UE-509	509	TP 69 ON HEATER MODULE	TP 73 ON DECOMP CHAMBER	M126 & M127	100	40-120	10	60	UE	1/4"	0.035"	SS Tubing	None	None		N2	120
3/8"-TB3-IA-510	510	TP 78 ON HEATER MODULE	SOV 2209A	M127	100	40-120	80	70	IA	3/8"	0.063"	SS Tubing	None	None		N2	120
3/8"-TB3-IA-511	511	TP 79 ON HEATER MODULE	SOV 2209B	M127	100	40-120	80	70	IA	3/8"	0.063"	Poly Tubing	None	None		N2	120
4"-SS150-DA-512	512	TP 67 ON BLOWER MODULE	TP B ON HEATER MODULE	M127	5	90	5	40-90	DA	4"	SCH 10	SS150	None	None		N2	25
1/2"-SS150-IA-514	514	TP 70 ON HEATER MODULE	TP 72 ON DECOMP CHAMBER	M127	100	40-120	50	70	IA	1/2"	0.049"	SS Tubing	None	None		N2	120
6"-SS150-AA-515	515	TP 75 ON DECOMP CHAMBER	AIG	M127 & M125	5	925	5	550	AA	6" & 8"	SCH 40	SS150	1-1/2"	None		N2	25
6"-SS150-DA-516	516	TP 68 ON DECOMP CHAMBER	TP 72 ON DECOMP CHAMBER	M127	5	925	5	850	DA	6"	SCH 40	SS150	1-1/2"	None		N2	25
1-1/2"-SS150-UE-517	517	2"-SS150-UE-506	BV-118	M126	150	100	100	70	UE	2"	SCH 40	SS150	None	None		H20	225
2"-SS150-UE-518	518	CAMLOCK ON EXTERIOR BUILDING	2"-SS150-UE-506	M126	150	100	100	70	UE	2"	SCH 40	SS150	None	None		H20	225
2"-SS150-UE-519	519	2"-SS150-UE-518	CAP	M126	150	Ambient	100	70	UE	2"	SCH 40	SS150	None	None		–	225
4"-CPVC-V-520	520	UREA TANK	VENTED OUTSIDE BUILDING	M126	Ambient	Ambient			V	4"	SCH 40	CPVC	None	None		–	–

TABLE 3 – VALVE LIST

TAG	SIZE	LINE NUMBER	SERVICE	PIPE LINE SIZE	SPEC	VALVE PART NUMBER	MANUFACTURER	DESCRIPTION	DWG #
BV-1904	1"	504	UE	1"	SS150	86A-205-01	Apollo	BALL VALVE	M126
BV-1905	2"	505	DR	2"	SS150	86R-200 Series	Apollo	BALL VALVE	M126
BV-119	2"	506	UE	2"	SS150	86R-200 Series	Apollo	BALL VALVE	M126
BV-102	1/2"	507	IA	1/2"	SS150	86A-203-01	Apollo	BALL VALVE	M126
BV-101	1/2"	508	FF	1/2"	SS150	86A-203-01	Apollo	BALL VALVE	M126
BV-2205	1/4"	509	UE	1/4"	SS Tubing	86A-201-01	Apollo	BALL VALVE	M127
BV-111	4"	512	DA	4"	SS150	4866k82	McMaster-Carr	BALL VALVE	M127
BV-2200	1/2"	514	IA	1/2"	SS Tubing	86A-203-01	Apollo	BALL VALVE	M127
BV-117	6"	516	DA	6"	SS150	3634K59	McMaster-Carr	BALL VALVE	M127
BV-118	1-1/2"	517	UE	1-1/2"	SS150	86A-207-01	Apollo	BALL VALVE	M126
BV-119	1-1/2"	EXISTING 1-1/2" AA	UE	6"	SS150	86A-207-01	Apollo	BALL VALVE	M126
HA-121	2"	517	UE	2"	SS150	7766K581	McMaster-Carr	BALL VALVE	M126
BV-122	2"	518	UE	2"	SS150	86R-200 Series	Apollo	BALL VALVE	M126
BV-120	2"	518	UE	2"	SS150	86R-200 Series	Apollo	BALL VALVE	M126
BV-123	2"	519	UE	2"	SS150	86R-200 Series	Apollo	BALL VALVE	M126

1

TABLE 7 – EQUIPMENT WEIGHT LIST

EQUIPMENT	SUPPLIER	APPROXIMATE WEIGHT (lbs)	FUEL TECH REFERENCE DRAWING
DECOMPOSITION CHAMBER	FUEL TECH	2,800	1249P-M04-10-GA-R1
HEATER MODULE	FUEL TECH	2,700	1249P-M03-01-GA-R1
BLOWER MODULE	FUEL TECH	2,300	1249P-M03-02-GA-R1
UREA TANK (EMPTY TANK, 0% FILL)	FUEL TECH	1,200	SEE PAGE 9 ON STRUCTURAL CALCULATIONS
UREA TANK (100% FILL WITH 32.5% UREA SOLUTION)	FUEL TECH	40,905	SEE PAGE 9 ON STRUCTURAL CALCULATIONS
UREA TANK (100% FILL WITH 40% UREA SOLUTION)	FUEL TECH	42,915	SEE PAGE 9 ON STRUCTURAL CALCULATIONS

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

CERTIFIED BUILDING OFFICIAL :

DESIGNATED CAMPUS FIRE MARSHALL :

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GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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ARJUN BERA
No. 28139
Exp. 12-31-23
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

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REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Mechanical Notes 2

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M102
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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CENTRAL PLANT 1ST FLOOR PO&M EMISSIONS UREA PROJECT

4840 2ND AVENUE, SACRAMENTO, CA 95817

MECHANICAL NOTES 3

TABLE 4

150 LB. TP316 STAINLESS STEEL (EFW)

ASME B16.5 SERVICE RATINGS:

TEMPERATURE	100	200	300	400	500	600	700	800
PRESSSURE	275	235	205	180	170	140	110	80

PIPE:

18 INCH AND SMALLER
ELECTRIC FUSION WELDED (EFW)
2 INCH AND SMALLER USE SCHEDULE 40S
2 – 1/2 INCH THRU 18 INCH USE SCHEDULE 10S
ASTM SPEC.: A312, TYPE 316

FITTINGS:

SIZE:	2 INCHES OR LESS	2 – 1/2 TO 18 INCHES
RATING:	3,000 LB.	
ASTM SPEC.:	A182 F316	A403 WP316
ASME SPEC.:	B16.11	B16.9
TYPE:	SOCKET WELD	BUTT WELD SCH. 10S

FLANGES:

SIZE:	2 INCHES OR LESS
RATING:	150 LB., RF
ASTM SPEC.:	A182 F316
ASME SPEC.:	B16.5
TYPE:	SOCKET WELD

BOLTS AND NUTS:

	BOLTS	NUTS
ASTM SPEC.:	A193	A194
ASTM GRADE:	B6	8
ASME SPEC.:	B1.1	B18.2.2
TYPE:	CHROMIUM STEEL	CHROMIUM STEEL
COATING	XYLAN	XYLAN

GASKETS:

TYPE 316 STAINLESS STEEL, SPIRAL WOUND, 1/8–INCH THICK, CLASS 150

NOTE:

1. USE THREAD LUBRICANT COMPATIBLE WITH WORKING TEMPERATURE, TO MAKEUP THREADED CONNECTIONS. FOR CHEMICAL TANK FILL LINES, USE SCHEDULE 10S WITH SOCKET WELD FITTINGS.

TABLE 5

T316 STAINLESS STEEL TUBING (FOR SAMPLE AND INSTRUMENT TUBING)

ASME B16.5 SERVICE RATINGS:

TEMPERATURE (F)	100	200	300	400	500	600
PRESSSURE (PSIG)	3600	3000	2640	2350	2180	2075

TUBING:

SIZE:	1/2 INCH AND SMALLER
TYPE:	SEAMLESS
SCHEDULE:	0.049 INCH WALL
ASTM SPEC.:	A213, TYPE TP316

FITTINGS:

SIZE:	1/2 INCHES
RATING:	6,000 LB.
ASTM SPEC.:	A312
TYPE:	COMPRESSION
MATERIAL:	TYPE 316 STAINLESS STEEL

NOTE:

1. FOR TUBING SIZES UP TO AND INCLUDING ONE–INCH DIAMETER OPERATING AT AMBIENT TEMPERATURE AND PRESSURE (I.E., CHEMICAL PUMP SUCTION LINES OR EQUIPMENT DRAIN LINES), USE TUBING WITH 0.035–INCH WALL THICKNESS.

TABLE 6

CPVC PIPING SPEC

CPVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE S INSTRUCTIONS AND THE FOLLOWING MINIMUM MANUFACTURER INSTRUCTIONS:

A) ALL COMPONENTS AND MATERIALS, INCLUDING PRIMER AND SOLVENT CEMENT SHALL BE FROM A SINGLE MANUFACTURER. SOLVENT SHALL CONFORM TO ASTM D2564.

B) JOINING PIPE SHALL NOT BE DONE WHEN IT IS RAINING OR AT TEMPERATURES ABOVE 90 DEGREES F WHEN EXPOSED TO DIRECT SUNLIGHT. JOINING SHALL CONFORM TO ASTM D2855.

C) A MINIMUM 48 HOURS JOINT DRYING TIME SHALL ELAPSE BEFORE THE JOINT IS MOVED OR SUBJECTED TO ANY APPRECIABLE INTERNAL OR EXTERNAL PRESSURE.

D) INSTALLATION SHALL BE PERFORMED ONLY BY TRAINED, QUALIFIED PIPE FITTERS. CLASSROOM OR FIELD TRAINING IN PROPER SOLVENT WELDING METHODS IS A PREREQUISITE.

E) CPVC PIPE STORED OUT OF DOORS FOR LONG PERIODS SHALL BE PROTECTED FROM DIRECT EXPOSURE TO SUNLIGHT. CPVC PIPE SHALL BE STORED IN SUCH A MANNER AS TO PREVENT SAGGING OR BENDING.

F) CPVC PIPE IS SUSCEPTIBLE TO DAMAGE BY ABRASION, GOUGING, AND IMPACT. ANY INDICATION OF SUCH DAMAGE IS CAUSE FOR THE SUSPECT PORTION TO BE CUT OUT AND RE–DONE.

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023
PROJECT #: UCDH-2023-0181
UC Davis Health
Sacramento, CA 95817

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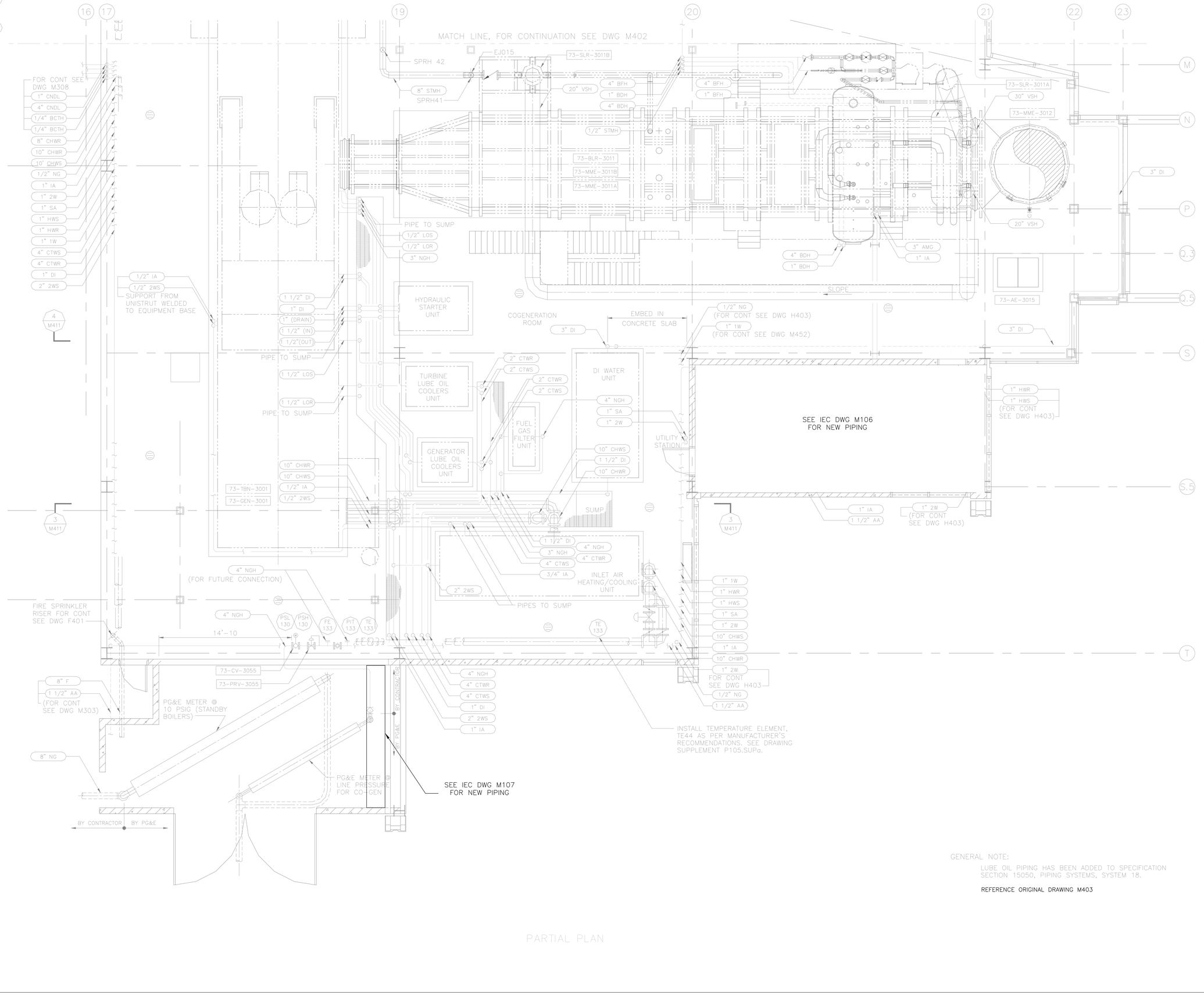
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, SACRAMENTO, CA 95817
SHEET TITLE: Mechanical Notes 3

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M103
UCDMC PROJECT MANAGER	SCALE	
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RM	March 20, 2023	
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PARTIAL PLAN

GENERAL NOTE:

LUBE OIL PIPING HAS BEEN ADDED TO SPECIFICATION SECTION 15050, PIPING SYSTEMS, SYSTEM 18.

REFERENCE ORIGINAL DRAWING M403

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PROJECT #: UCDH-2023-0181

UC Davis Health
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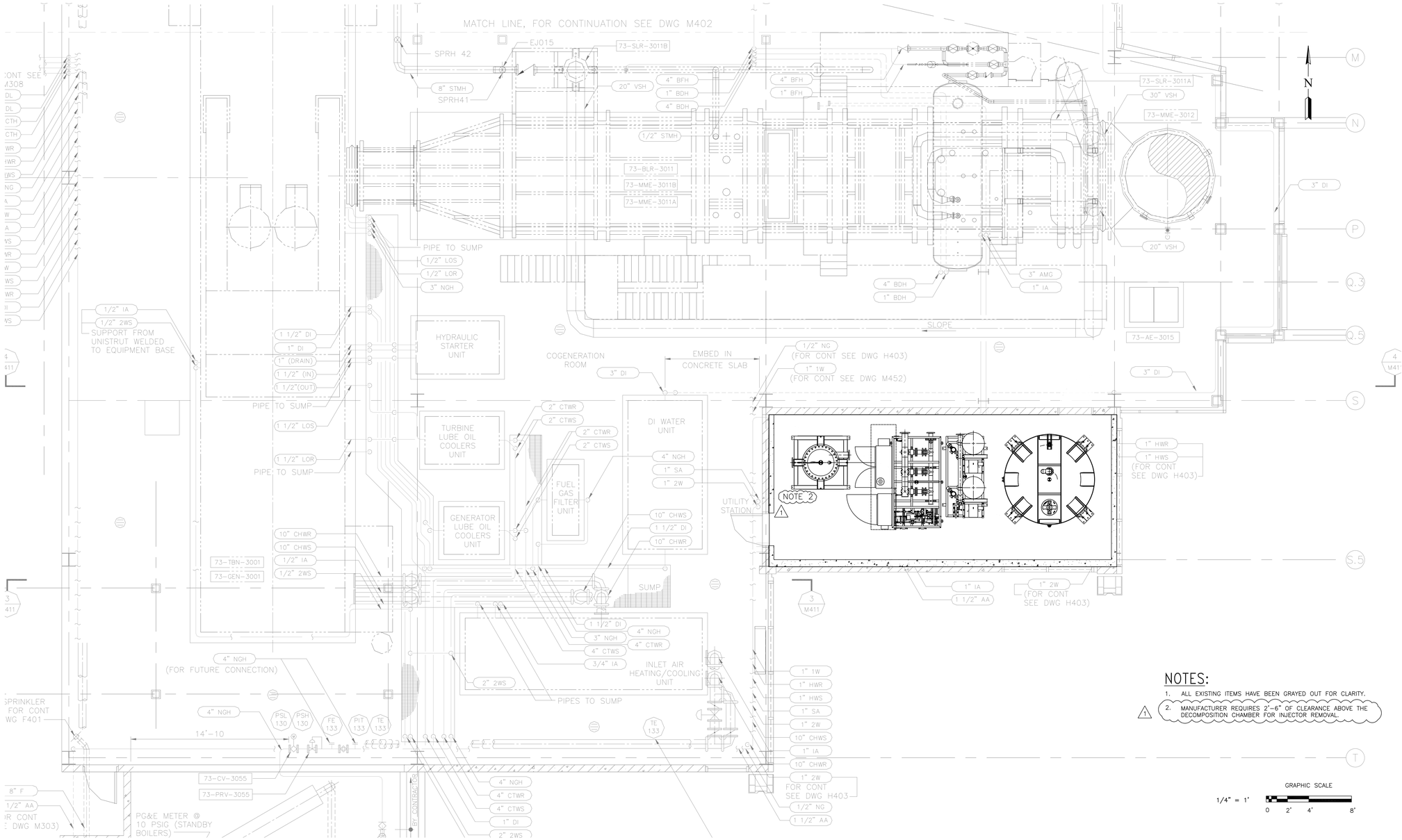
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE , SACRAMENTO, CA 95817
SHEET TITLE: First Floor Partial Plan 2

ARCH. \ ENGR.	PD&C JOB NO.	SHEET NO.
GO	9557240	M104
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
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NOTES:

1. ALL EXISTING ITEMS HAVE BEEN GRAYED OUT FOR CLARITY.
2. MANUFACTURER REQUIRES 2'-6" OF CLEARANCE ABOVE THE DECOMPOSITION CHAMBER FOR INJECTOR REMOVAL.

GRAPHIC SCALE

1/4" = 1' — 0 2' 4' 8'

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LICENSED ARCHITECT
GREG R. OSECHECK
C-33192
July 31, 2025
RENEWAL DATE
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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Exp. 12-31-23
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STATE OF CALIFORNIA

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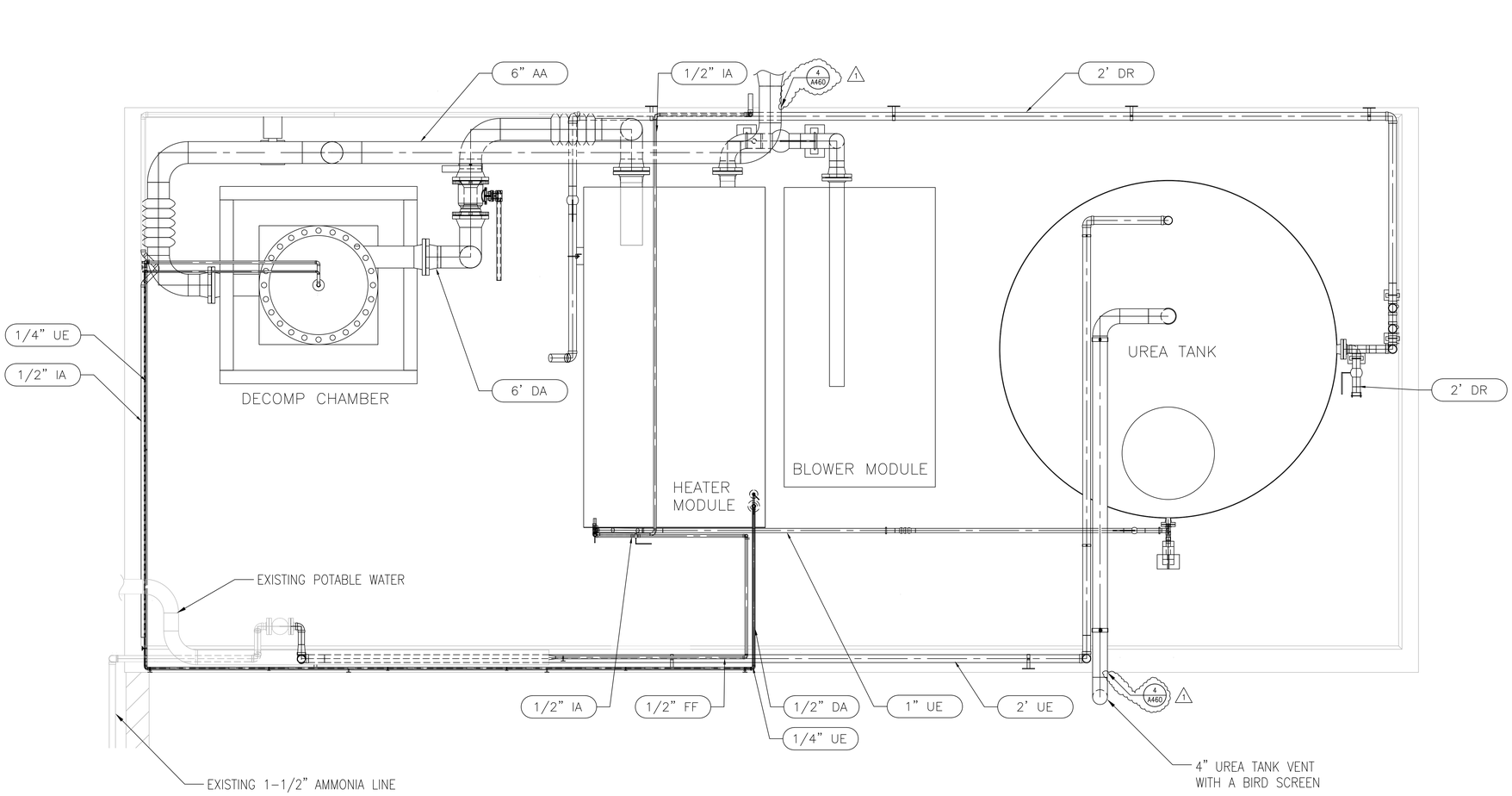
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REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Ammonia Room General Arrangement

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M105
UCD&C PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
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NOTES:

1. SOME ITEMS IN THE AMMONIA ROOM HAVE BEEN REMOVED FOR CLARITY.
2. EXISTING ITEMS HAVE BEEN GRAYED OUT FOR CLARITY.

GRAPHIC SCALE

1/16" = 1'

0 10' 20' 40'

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

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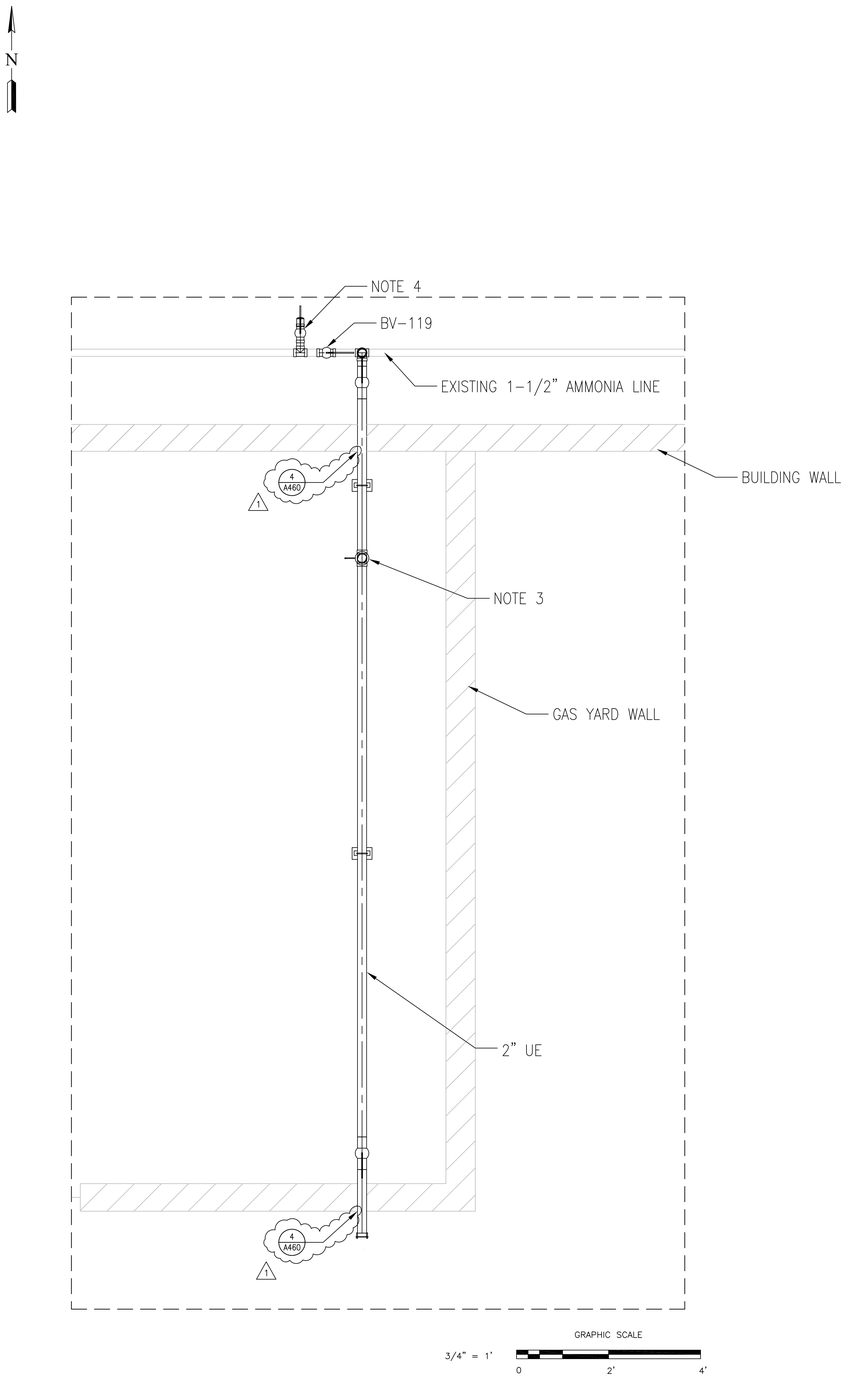
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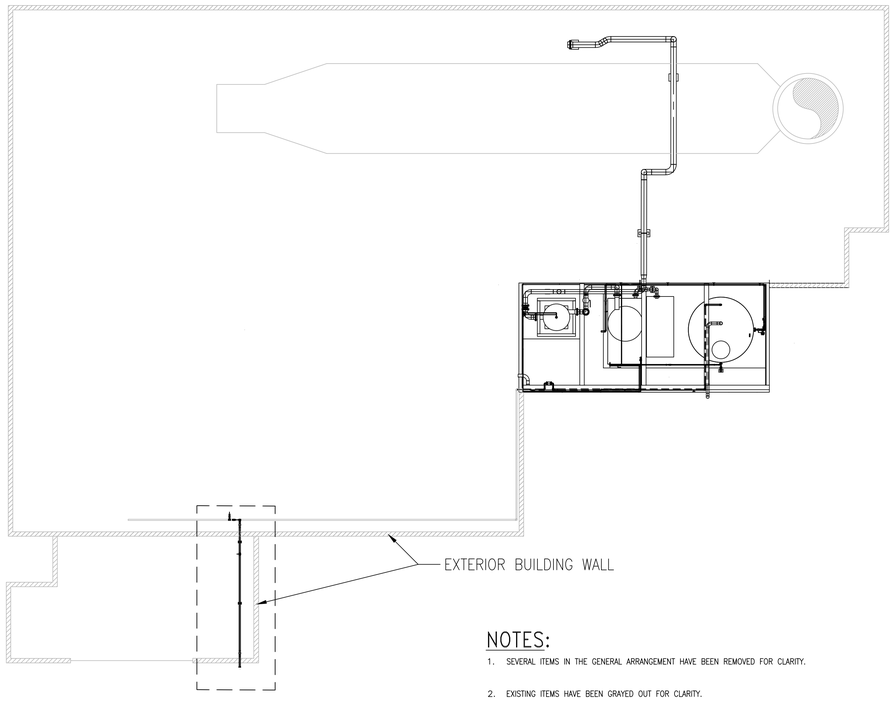
REV	REVISION DESCRIPTION	DATE
1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Ammonia Room Piping Plan

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M106
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
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GRAPHIC SCALE

3/4" = 1'

0 2' 4'

NOTES:

1. SEVERAL ITEMS IN THE GENERAL ARRANGEMENT HAVE BEEN REMOVED FOR CLARITY.
2. EXISTING ITEMS HAVE BEEN GRAYED OUT FOR CLARITY.
3. SEE ISOMETRIC DRAWING LINE M123 FOR PIPE ROUTE DETAILS.
4. SEE ISOMETRIC DRAWING M122 FOR PIPE ROUTE DETAILS.

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PROJECT #: UCDH-2023-0181

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Sacramento, CA 95817

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GREG R. OSECHECK
C-33192
July 31, 2025
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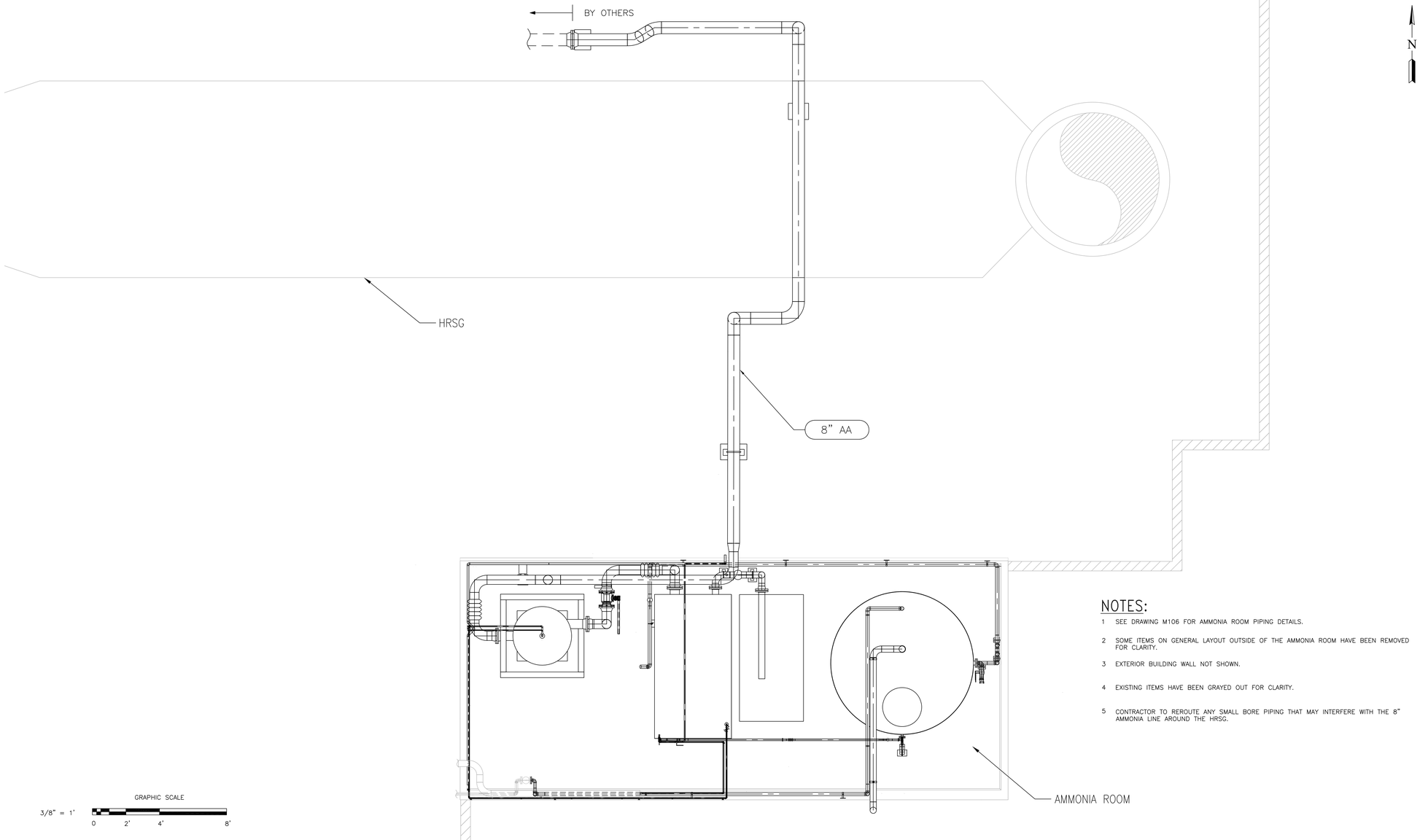
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1	PLAN CHECK RESPONSE 01	9/21/2023

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Urea Fill Line Piping Plan

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M107
UCDMC PROJECT MANAGER	SCALE	
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RM	March 20, 2023	
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GRAPHIC SCALE

3/8" = 1'

0 2' 4' 8'

NOTES:

1 SEE DRAWING M106 FOR AMMONIA ROOM PIPING DETAILS.

2 SOME ITEMS ON GENERAL LAYOUT OUTSIDE OF THE AMMONIA ROOM HAVE BEEN REMOVED FOR CLARITY.

3 EXTERIOR BUILDING WALL NOT SHOWN.

4 EXISTING ITEMS HAVE BEEN GRAYED OUT FOR CLARITY.

5 CONTRACTOR TO REROUTE ANY SMALL BORE PIPING THAT MAY INTERFERE WITH THE 8" AMMONIA LINE AROUND THE HRSG.

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
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DESIGNATED CAMPUS FIRE MARSHALL :

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REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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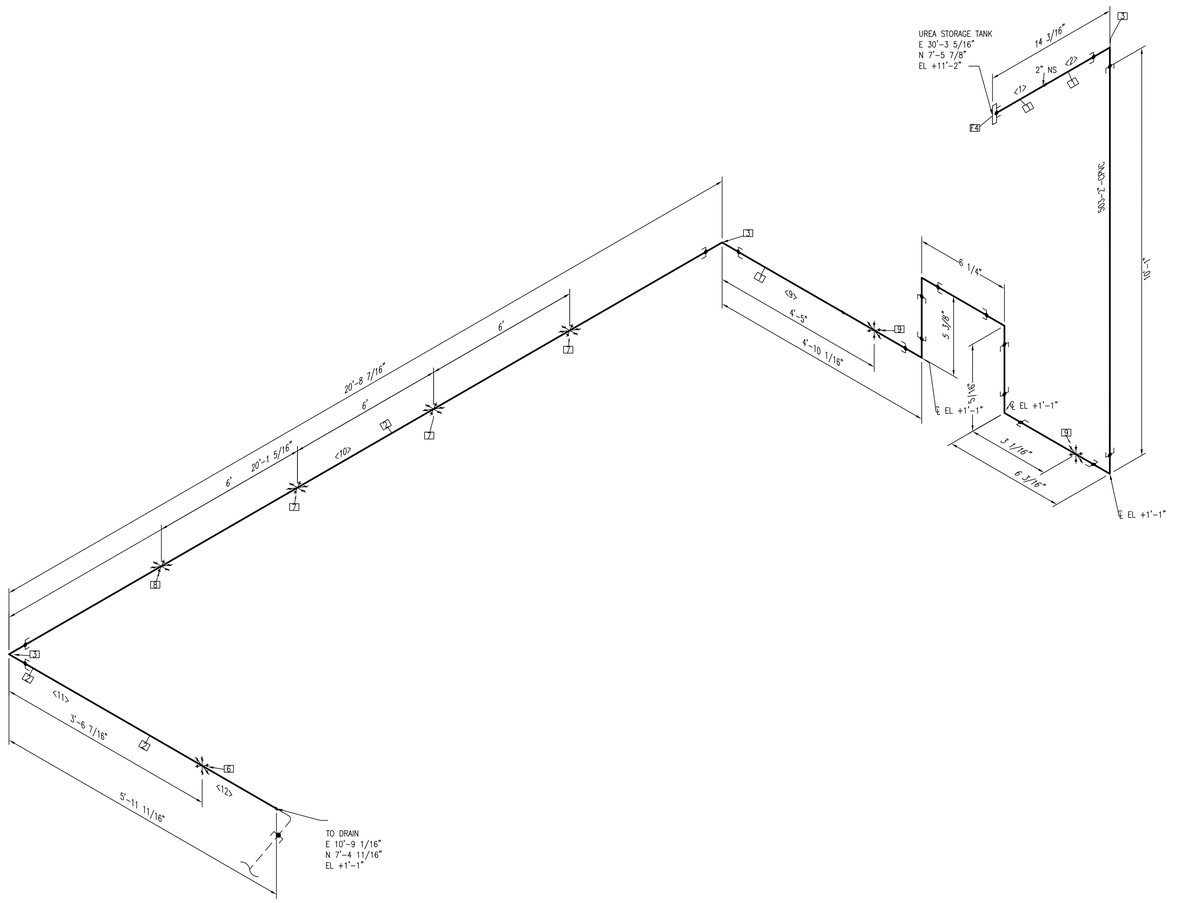
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,:, SACRAMENTO, CA 95817
SHEET TITLE: Ammonia Line to Injection Grid Piping Plan

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M108
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.
3. FOR PIPE SUPPORTS MOUNTED ALONG THE WALL, CONTRACTOR SHALL USE PIPE SUPPORTS THAT ARE EQUIVALENT TO CURRENT WALL SUPPORTS BEING USED.

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Sacramento, CA 95817

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LICENSED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER RICHARD E. OSTNER No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

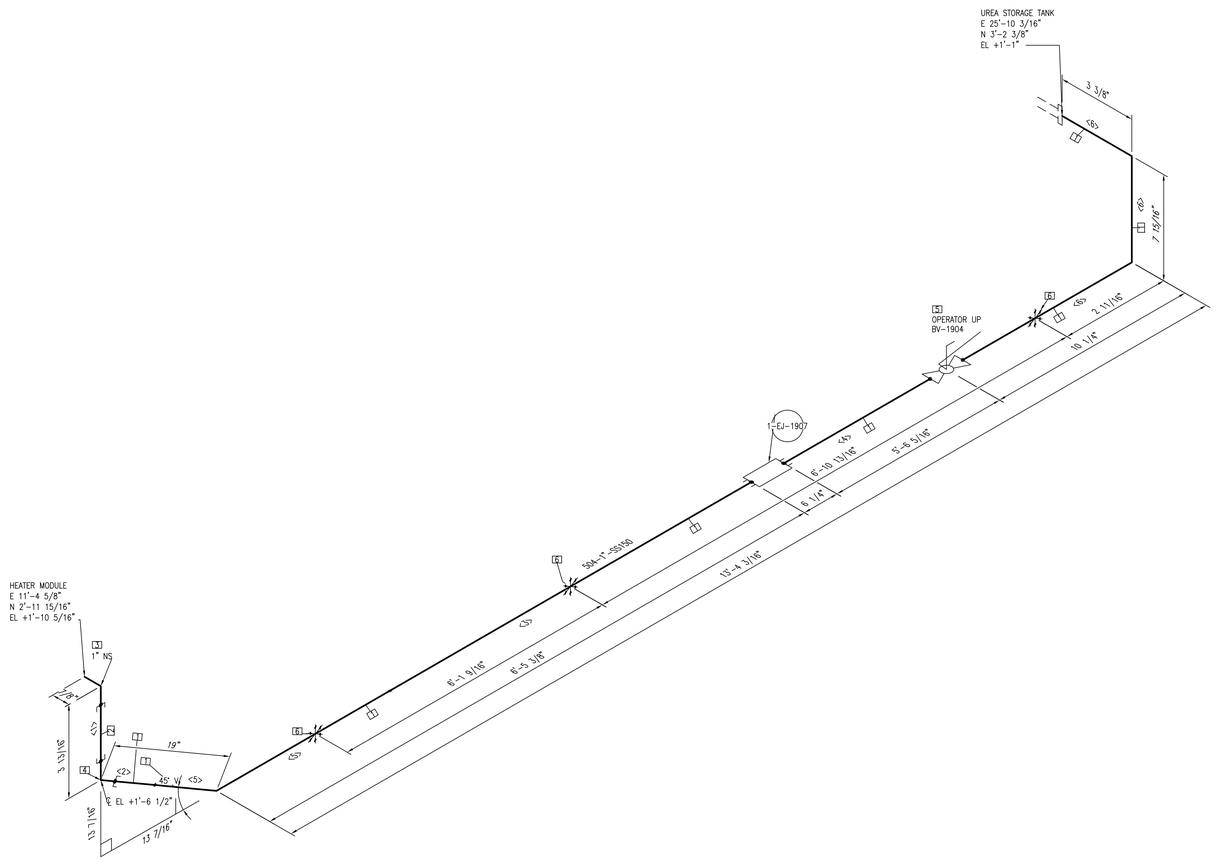
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 503
TP 56 on Urea Tank to Drain

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M109
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/
PLUMBING ENGINEER

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Integrated Engineers &
Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
RICHARD E. OSTNER
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

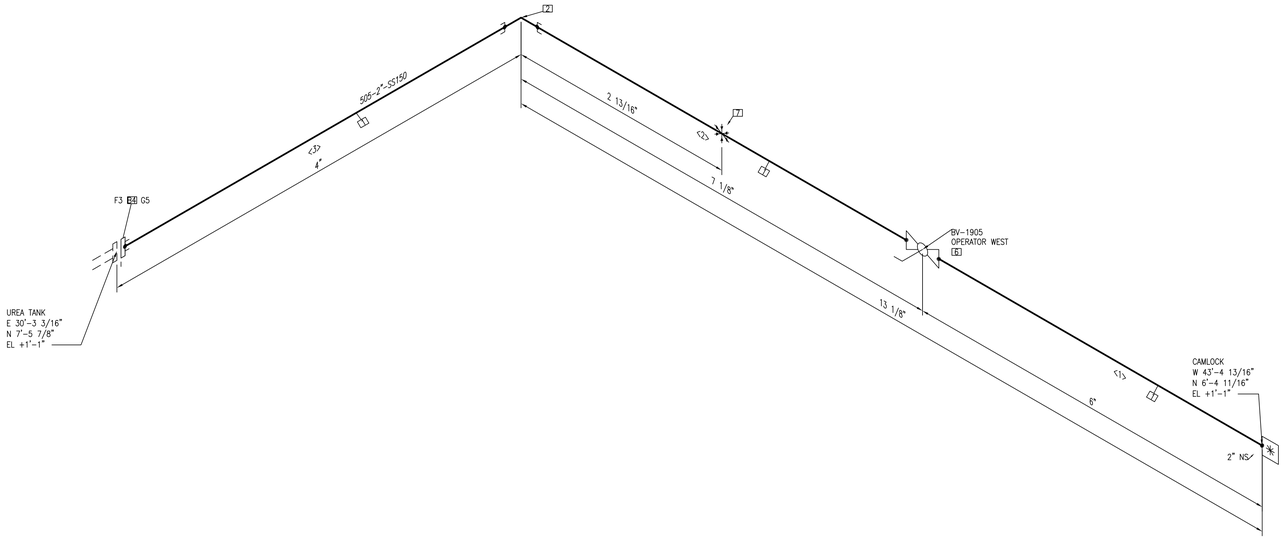
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 504
TP 61 on Urea Tank to TP 65 on Heater Module

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M110
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

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1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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REGISTERED PROFESSIONAL ENGINEER
RICHARD E. OTTAVIO
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

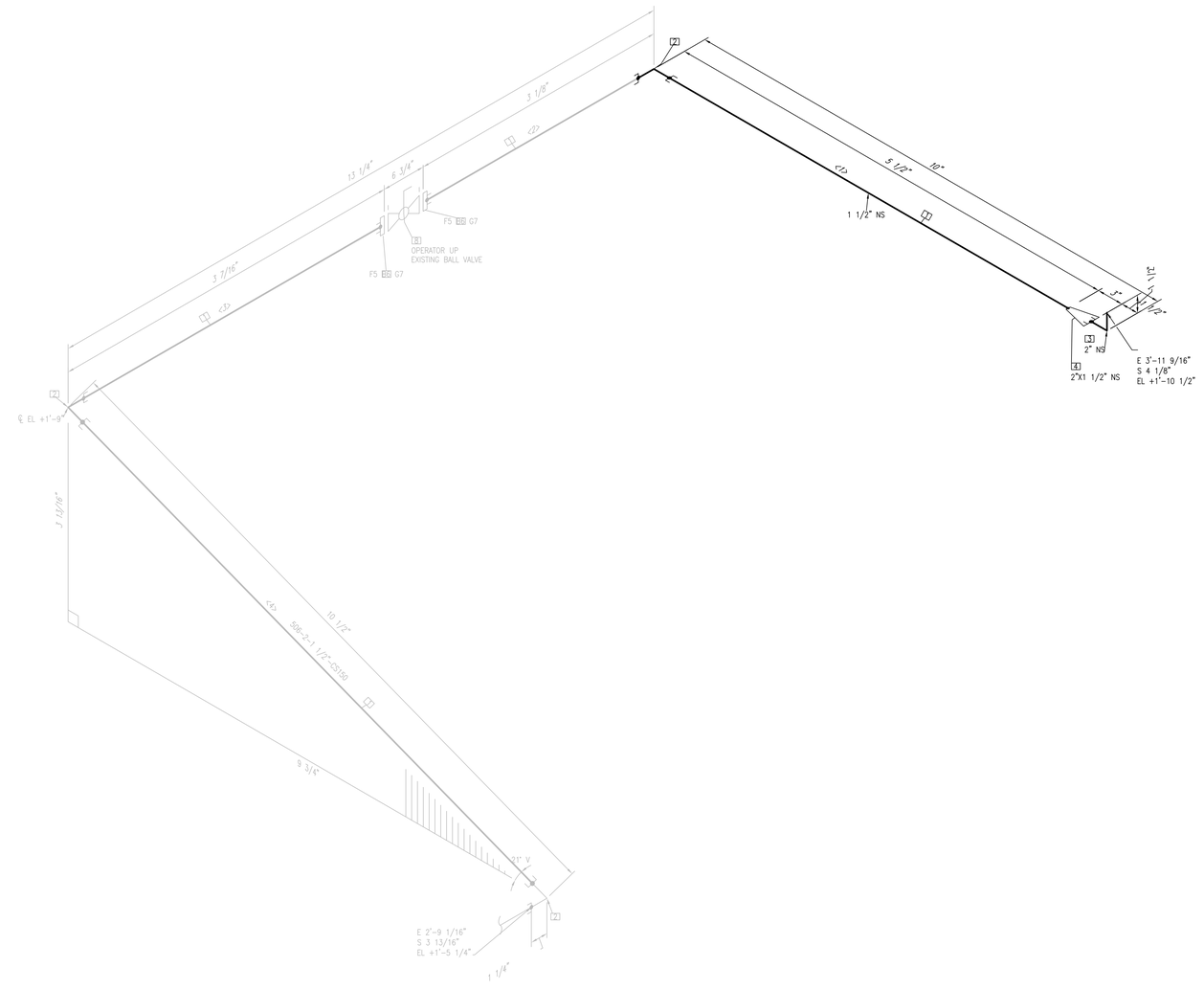
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 505
TP 55 on Urea Tank to Drain

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M111
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.
3. FOR PIPE SUPPORTS MOUNTED ALONG THE WALL, CONTRACTOR SHALL USE PIPE SUPPORTS THAT ARE EQUIVALENT TO CURRENT WALL SUPPORTS BEING USED.
4. EXISTING ROUTE HAS BEEN GRAYED OUT. DIMENSIONS FOR EXISTING PIPES ARE APPROXIMATE.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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REGISTERED PROFESSIONAL ENGINEER
No. M31050
Exp. 12-31-24
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

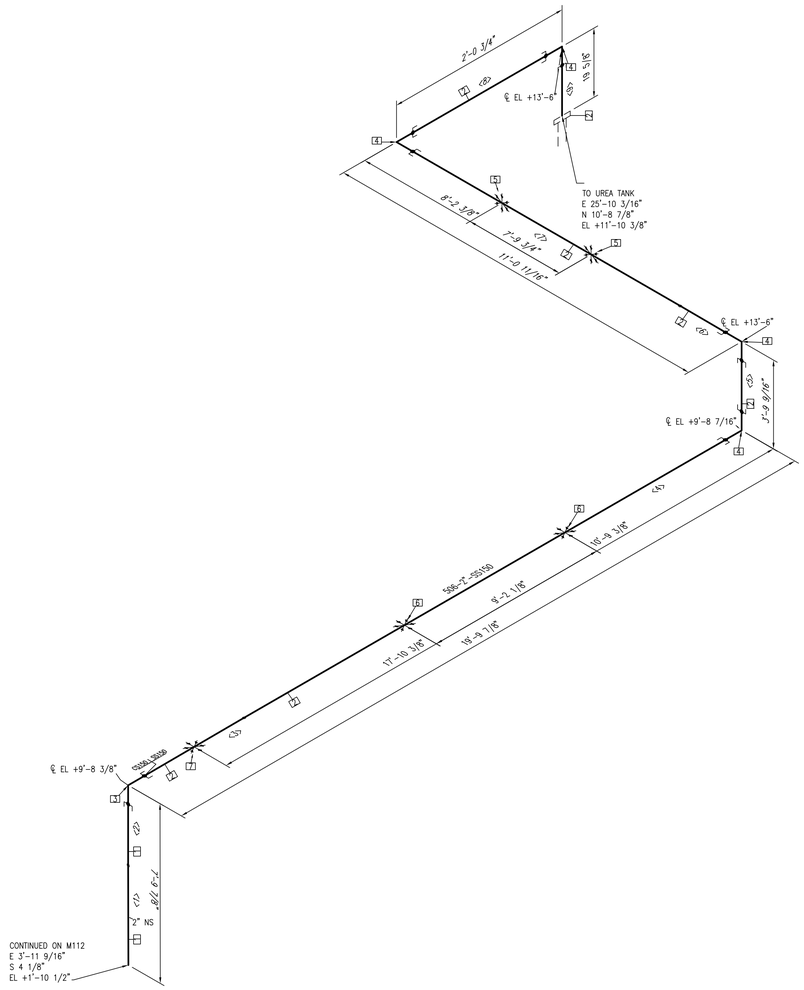
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 506
Existing Ammonia Tie-In to TP 60 on Urea Tank

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M112
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.
3. FOR PIPE SUPPORTS MOUNTED ALONG THE WALL, CONTRACTOR SHALL USE PIPE SUPPORTS THAT ARE EQUIVALENT TO CURRENT WALL SUPPORTS BEING USED.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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REGISTERED PROFESSIONAL ENGINEER
RICHARD E. OSTWALD
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

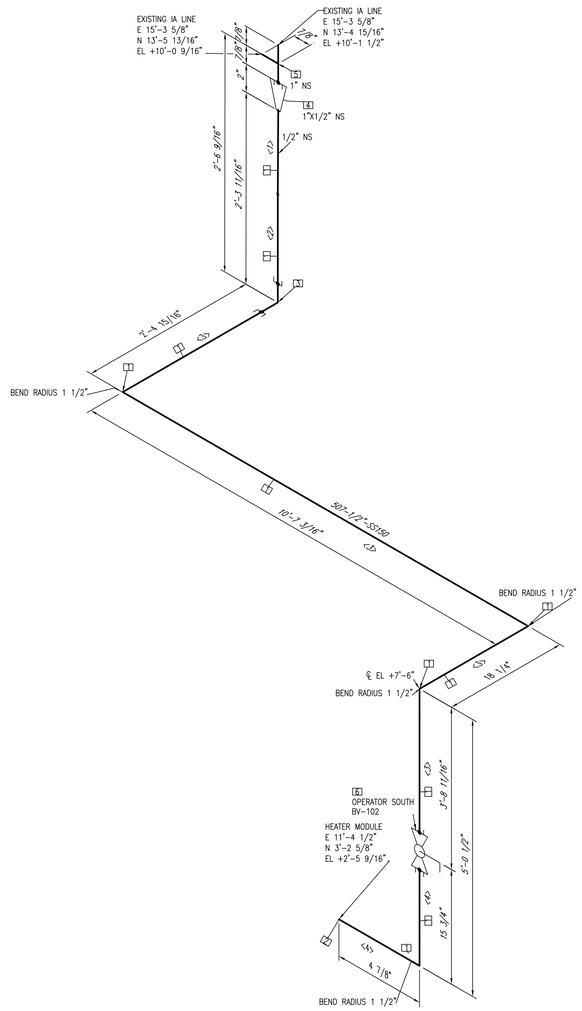
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 506
Existing Ammonia Tie-In to TP 60 on Urea Tank

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M113
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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NOTES:

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2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.
3. FOR PIPE SUPPORTS MOUNTED ALONG THE WALL, CONTRACTOR SHALL USE PIPE SUPPORTS THAT ARE EQUIVALENT TO CURRENT WALL SUPPORTS BEING USED.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

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The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER RICHARD E. OSTNESS No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

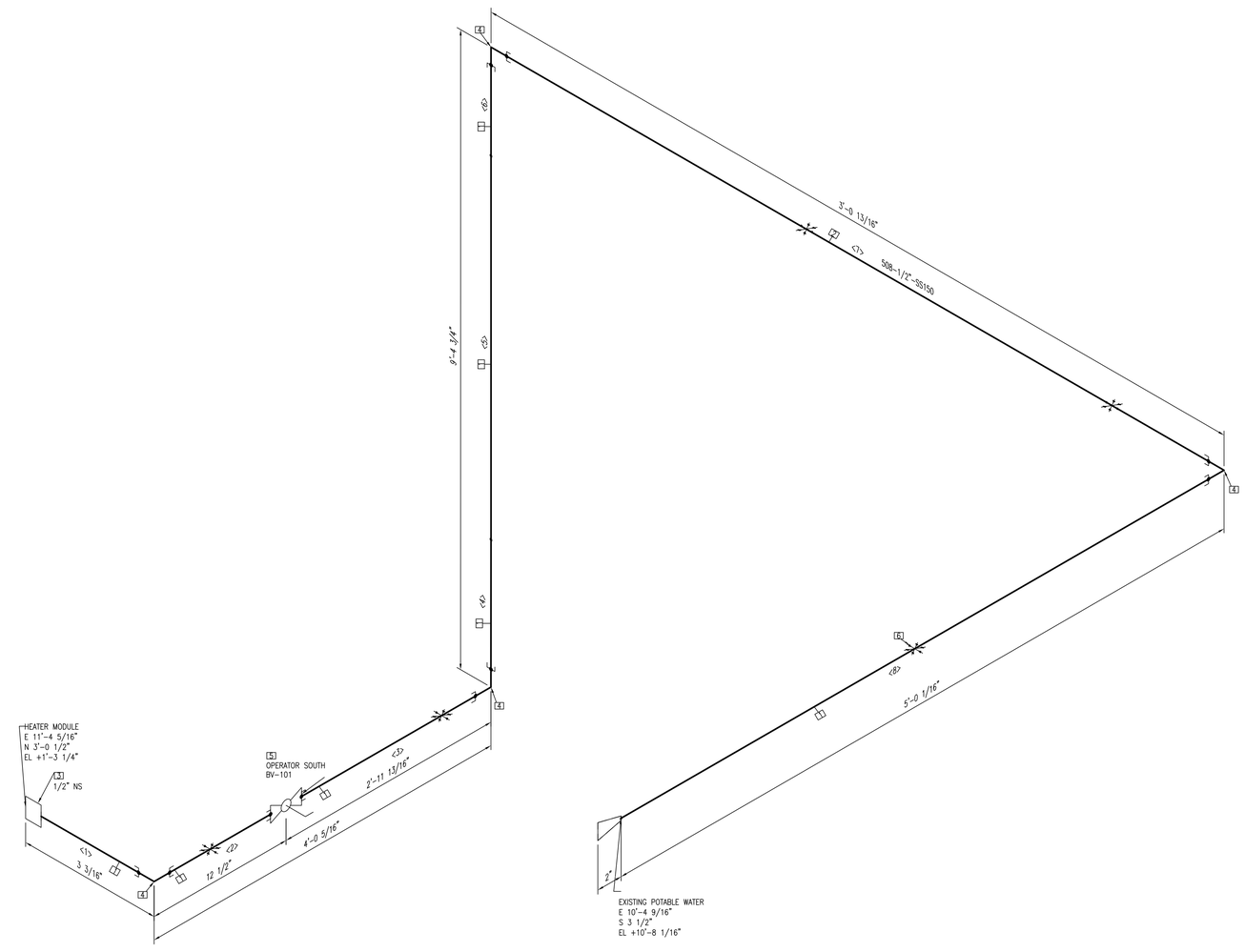
UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 507
Existing IA Line to TP 67 on Heater Module

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M114
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.
3. FOR PIPE SUPPORTS MOUNTED ALONG THE WALL, CONTRACTOR SHALL USE PIPE SUPPORTS THAT ARE EQUIVALENT TO CURRENT WALL SUPPORTS BEING USED.



UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/
PLUMBING ENGINEER

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Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
RICHARD E. OLIVARES
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

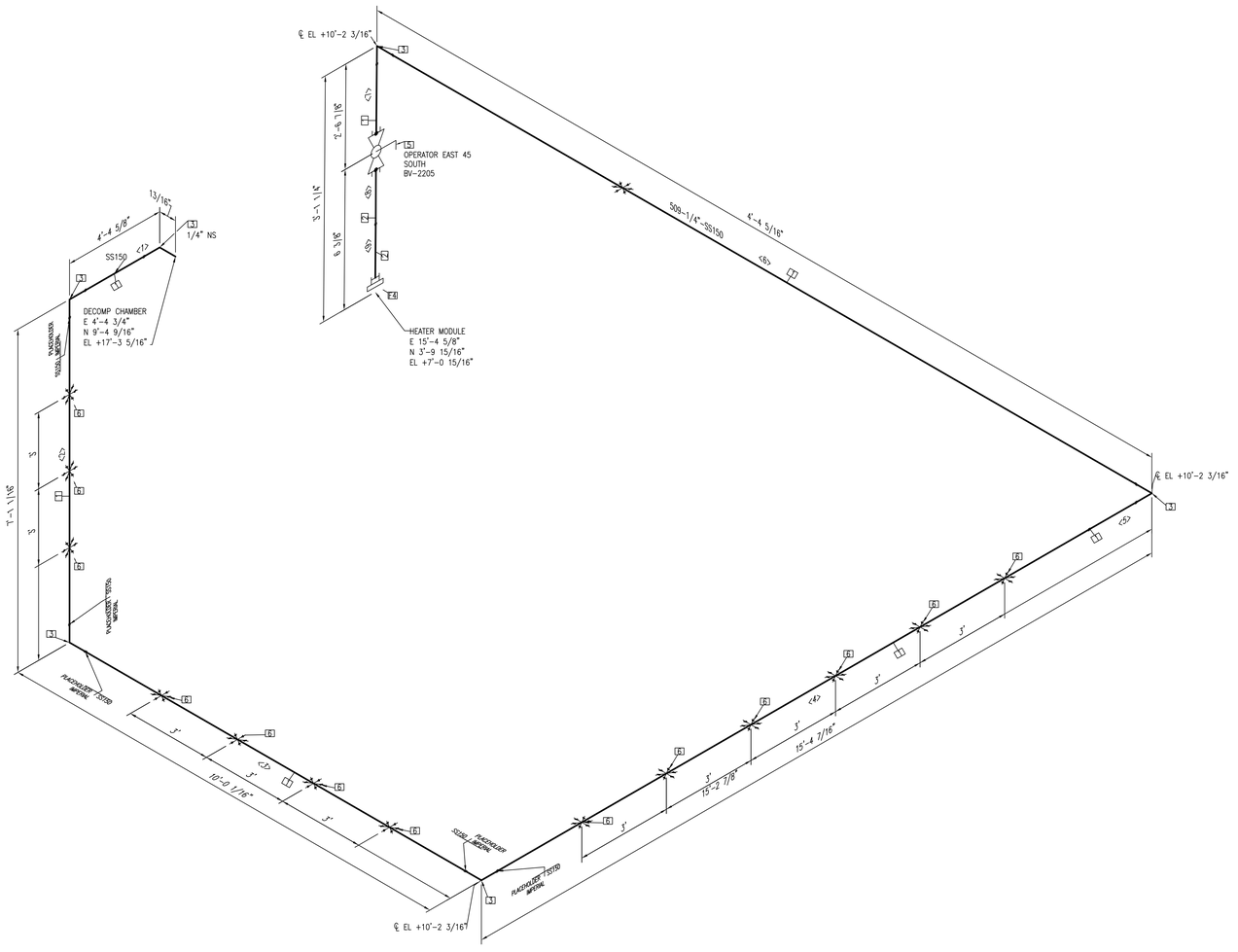
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 508
Existing Potable Water to TP 66 on Heater Module

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M115
UCD&C PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.
3. IF ADDITIONAL PIPE SUPPORTS ARE NEEDED, CONTRACTOR TO USE EQUIVALENT TYPE OF SUPPORT TO THOSE EXISTING.
4. CONTRACTOR TO ROUTE PIPE ALONG EXISTING PIPE SUPPORTS ON THE SOUTH WALL.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

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Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER RICHARD E. OTTINGER No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

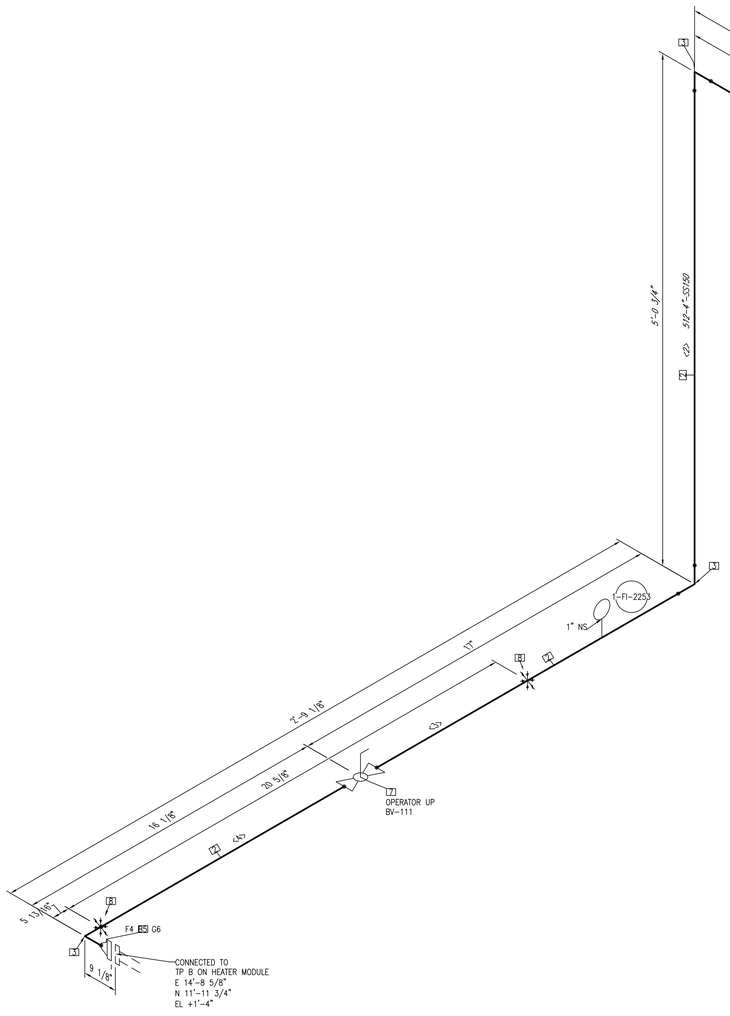
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 509
TP 69 on Heater Module to TP 73 on Decomp Chamber

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M116
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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BILL OF MATERIALS				
ID	QTY	ND	SCH/ CLASS	DESCRIPTION
1	2"	4"	40	PIPE, SEAMLESS, PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
2	4'-10"	4"	40	PIPE, SEAMLESS, PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
3	3	4"	40	ELL 90 LR, BW, ASME B16.9, ASTM A403 GR WP 316, SCH 40S
4	3	4"	150	FLANGE WN, 150 LB, RF, ASME B16.5, ASTM A182 GR F304 FLANGE WN, 150 LB, RF, ASME B16.5, ASTM A182 GR F316
5	16	5/8"X3 1/2"	150	BOLT SET, RF, 150 LB, STUD BOLT
6	2	4"	150	GASKET, SWG, 1/8" THK, RF, 150 LB, ASME B16.20, SS/PTFE
7	1	4"	150	BALL VALVE, LONG PATTERN, 150 LB, BW, ASME B16.10, HAND LEVER
8	2	4"		PIPE SUPPORT

CUT PIECE LIST				
ID	LENGTH	ND	END1	END2
1	2"	4"	BEVEL	BEVEL
2	4'-0 3/4"	4"	BEVEL	BEVEL
3	5 1/16"	4"	BEVEL	BEVEL
4	4 1/8"	4"	BEVEL	BEVEL

UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

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Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

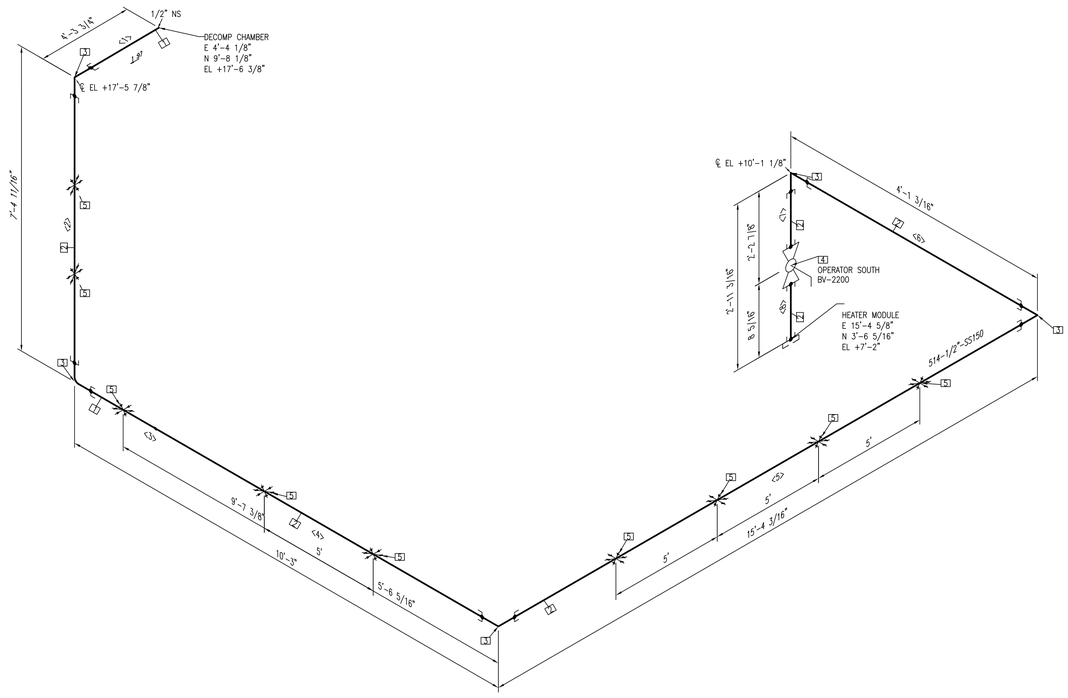
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 512
TP 67 on Blower Module to TP B on Heater Module

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M117
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.
3. IF ADDITIONAL PIPE SUPPORTS ARE NEEDED, CONTRACTOR TO USE EQUIVALENT TYPE OF SUPPORT TO THOSE EXISTING.
4. CONTRACTOR TO ROUTE PIPE ALONG EXISTING PIPE SUPPORTS ON THE SOUTH WALL.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

IEC
Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

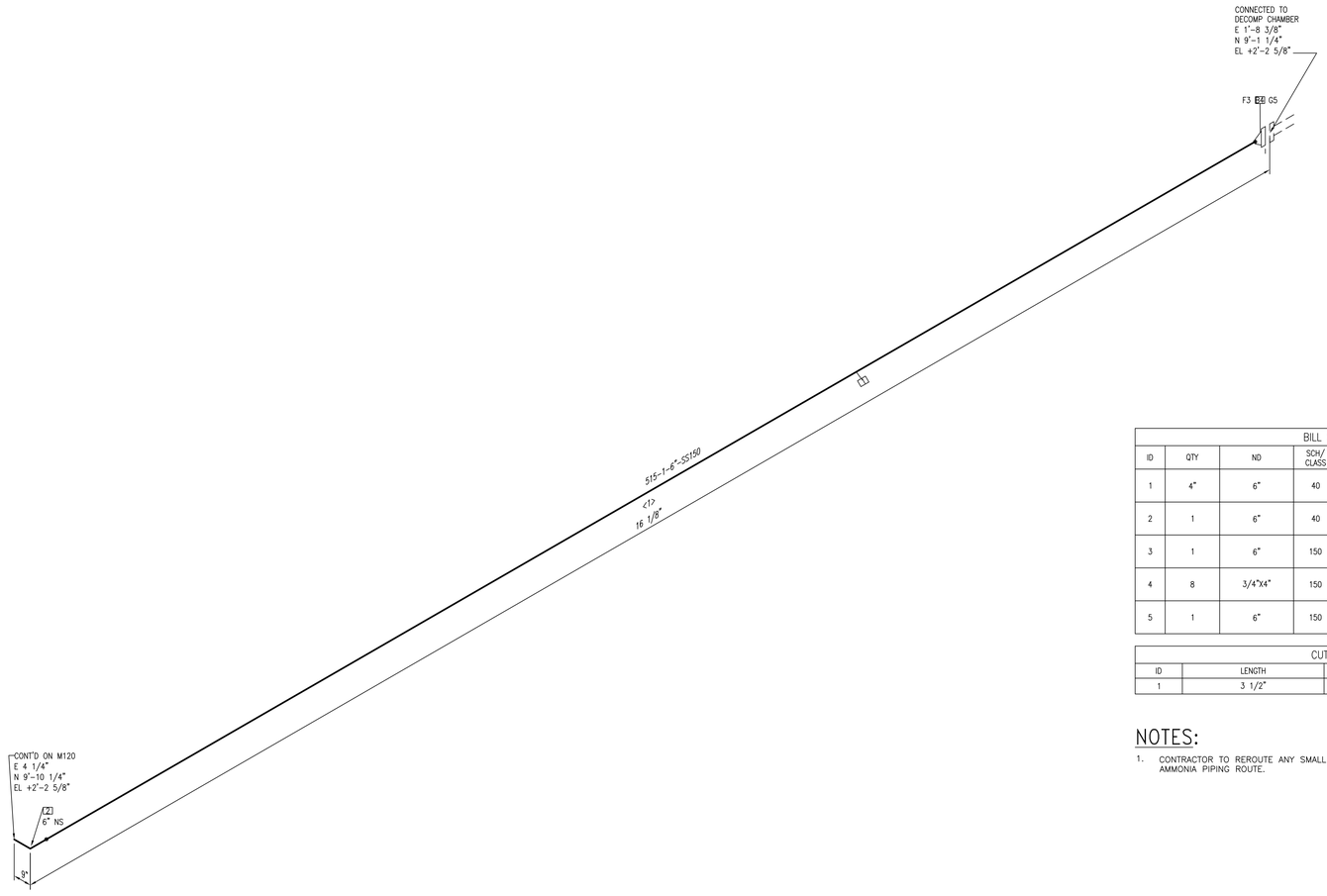
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 514
TP 70 on Heater Module to TP 72 on Decomp Chamber

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M118
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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BILL OF MATERIALS				
ID	QTY	ND	SCH/ CLASS	DESCRIPTION
1	4"	6"	40	PIPE, SEAMLEASS PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
2	1	6"	40	ELL 90 LR, BW, ASME B16.9, ASTM A403 GR WP 316, SCH 40S
3	1	6"	150	FLANGE WN, 150 LB, RF, ASME B16.5, ASTM A182 GR F316
4	8	3/4"X4"	150	BOLT SET, RF, 150 LB, STUD BOLT
5	1	6"	150	GASKET, SWG, 1/8" THK, RF, 150 LB, ASME B16.20, SS/PTFE

CUT PIECE LIST				
ID	LENGTH	ND	END1	END2
1	3 1/2"	6"	BEVEL	BEVEL

NOTES:

1. CONTRACTOR TO REROUTE ANY SMALL BORE PIPING THAT MAY INTERFERE WITH 8" AMMONIA PIPING ROUTE.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

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REGISTERED PROFESSIONAL ENGINEER
RICHARD E. GUTIERREZ
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

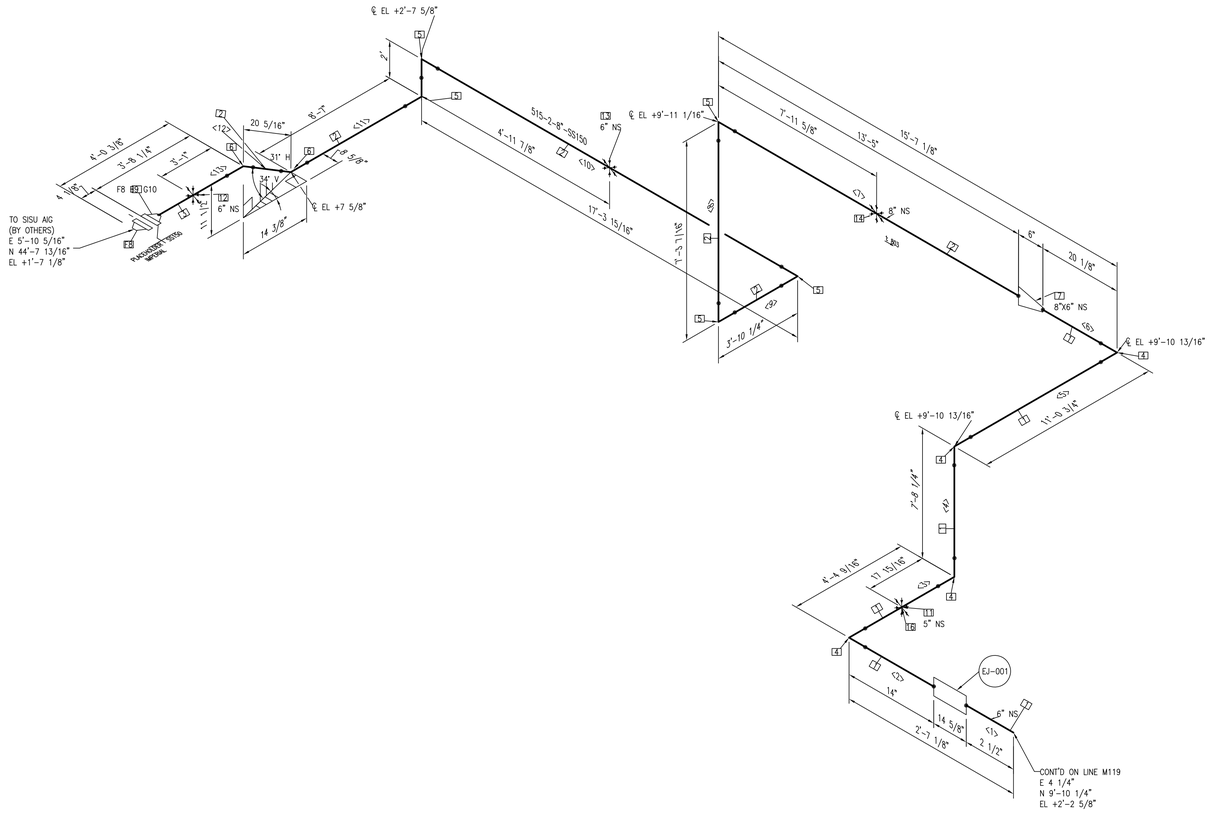
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 515
TP 75 on Decomp Chamber to Ammonia Injection Grid

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M119
UCOMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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BILL OF MATERIALS

ID	QTY	ND	SCH/ CLASS	DESCRIPTION
1	20'-3"	6"	40	PIPE, SEAMLESS, PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
2	42'-11"	8"	40	PIPE, SEAMLESS, PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
3	3'	8"	40	PIPE, SEAMLESS, PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
4	4	6"	40	ELL 90 LR, BW, ASME B16.9, ASTM A403 GR WP 316, SCH 40S
5	5	8"	40	ELL 90 LR, BW, ASME B16.9, ASTM A403 GR WP 316, SCH 40S
6	2	8"	40	ELL 45 LR, BW, ASME B16.9, ASTM A403 GR WP 316, SCH 40S
7	1	8"X6"	40	REDUCER (CONC), BW, ASME B16.9, ASTM A403 GR WP 316, SCH 40S
8	2	8"		PH IMPERIAL FLANGE
9	12	7/8"X5 1/2"		PH IMPERIAL STUD BOLT
10	1	8"		PH IMPERIAL GASKET
11	1	5"		6PS1
12	1	6"		6PS5
13	1	6"		6PS4
14	1	8"		6PS3
16	1	6"		6PS2

CUT PIECE LIST

ID	LENGTH	ND	END1	END2
1	2 9/16"	6"	SQUARE CUT	BEVEL
2	5 1/16"	6"	BEVEL	BEVEL
3	2'-10 5/8"	6"	BEVEL	BEVEL
4	6'-2 1/4"	6"	BEVEL	BEVEL
5	9'-6 13/16"	6"	BEVEL	BEVEL
6	11 1/8"	6"	BEVEL	BEVEL
7	12'-5 1/16"	8"	BEVEL	BEVEL
8	5'-3 7/16"	8"	BEVEL	BEVEL
9	1'-10 1/4"	8"	BEVEL	BEVEL
10	15'-3 15/16"	8"	BEVEL	BEVEL
11	7'-2 1/16"	8"	BEVEL	BEVEL
12	10 3/8"	8"	BEVEL	BEVEL
13	2'-11 1/4"	8"	BEVEL	UNIVERSAL_ET

NOTES:

1. CONTRACTOR TO REROUTE ANY SMALL BORE PIPING THAT MAY INTERFERE WITH 8" AMMONIA PIPING ROUTE.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

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REGISTERED PROFESSIONAL ENGINEER
RICHARD E. GUTIERREZ
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

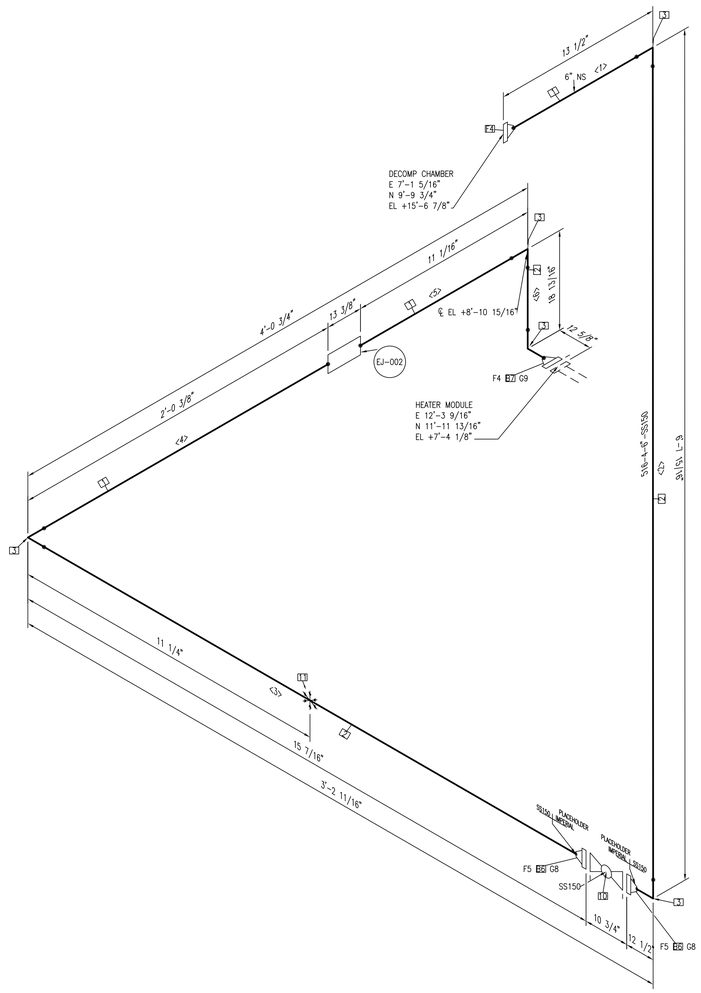
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 515
TP 75 on Decomp Chamber to Ammonia Injection Grid

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M120
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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BILL OF MATERIALS				
ID	QTY	ND	SCH/ CLASS	DESCRIPTION
1	1'-7"	6"	40	PIPE, WELDED, PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
2	5'-6"	6"	40	PIPE,WELDED, PE, ASME B36.19, ASTM A312 GR TP 316, SCH 40S
3	5	6"	40	ELL 90 LR, BW, ASME B16.9, ASTM A403 GR WP 316, SCH 40S
4	2	6"	150	FLANGE WN, 150 LB, RF, ASME B16.5, ASTM A182 GR F316
5	2	6"		PH IMPERIAL FLANGE
6	24	3/4"X5"		PH IMPERIAL STUD BOLT
7	8	3/4"X4"	150	BOLT SET, RF, 150 LB, STUD BOLT
8	2	6"		PH IMPERIAL GASKET
9	1	6"	150	GASKET, SWG, 1/8" THK, RF, 150 LB, ASME B16.20, SS/PTFE
10	1	6"		6" FL BALL VALVE
11	1	6"		5PS1

CUT PIECE LIST				
ID	LENGTH	ND	END1	END2
1	1"	6"	BEVEL	BEVEL
2	5'-1 15/16"	6"	BEVEL	BEVEL
3	2 15/16"	6"	BEVEL	UNIVERSAL_ET
4	1'-3 3/8"	6"	BEVEL	BEVEL
5	2 1/16"	6"	BEVEL	BEVEL
6	13/16"	6"	BEVEL	BEVEL

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER RICHARD E. GOTTFRIED No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

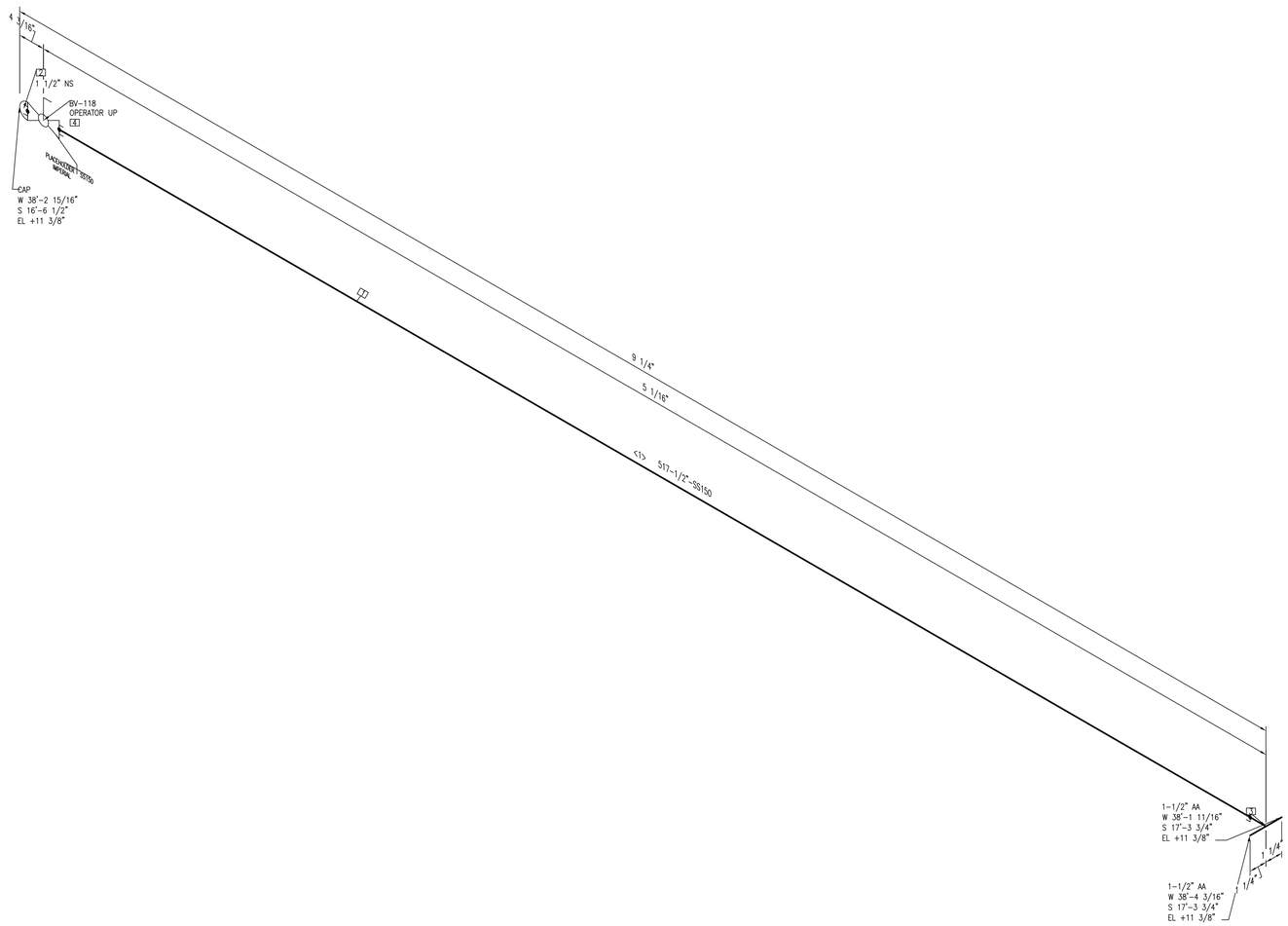
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 516
TP 68 on Heater Module to TP 74 on Decomp Chamber

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M121
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/
PLUMBING ENGINEER

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Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
RICHARD E. OTTINGER
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

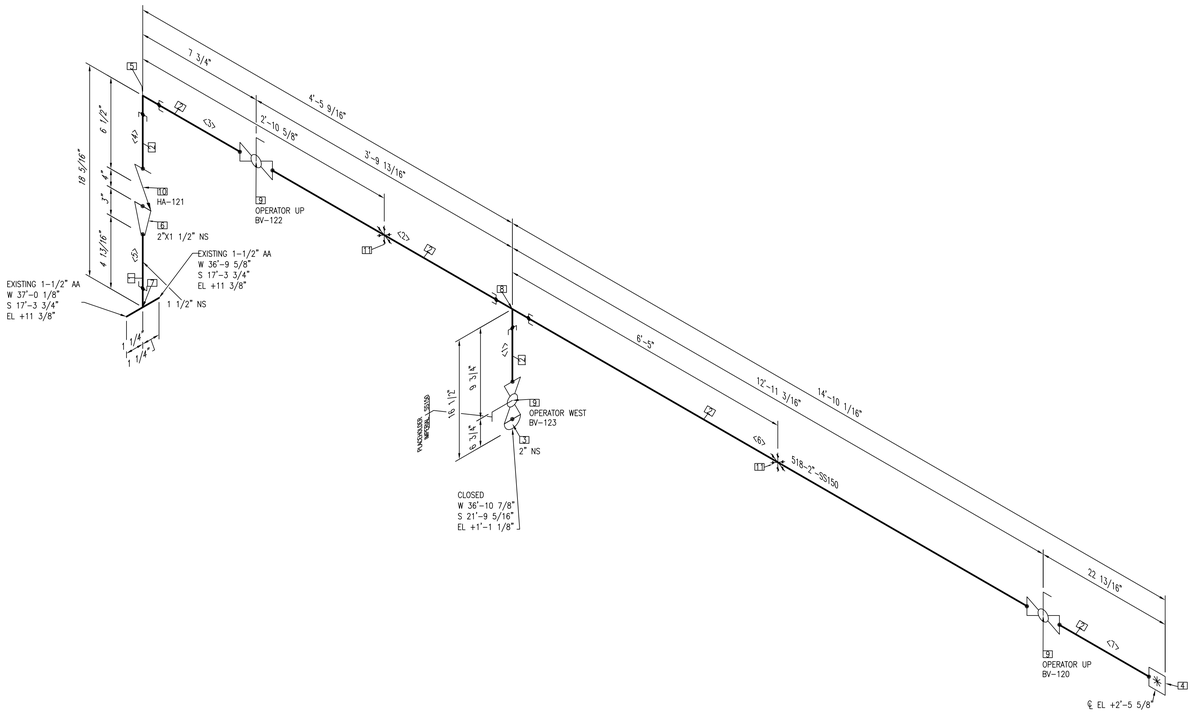
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 517

ARCH. \ ENGR.	PD&C JOB NO.	SHEET NO.
GO	9557240	M122
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.

UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

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1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT
RICHARD E. GUTHREY
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

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SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/
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REGISTERED PROFESSIONAL ENGINEER
RICHARD E. GUTHREY
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

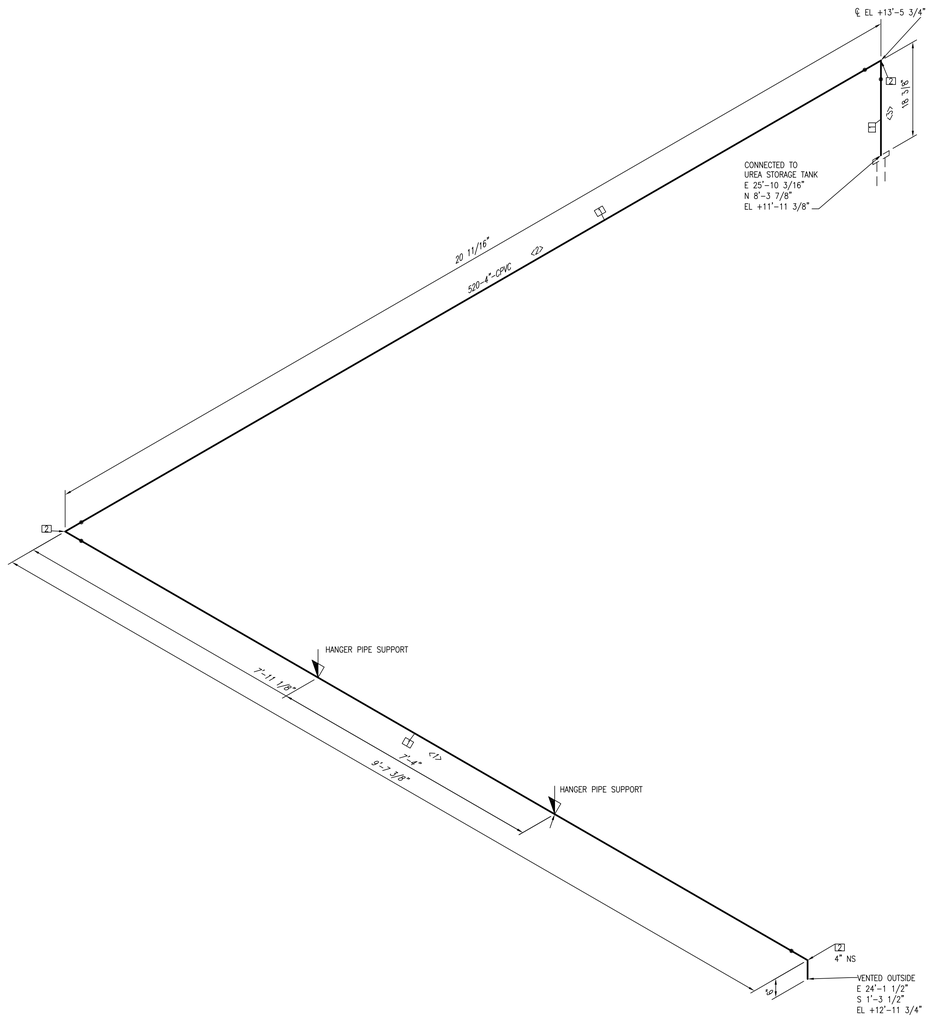
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 518
Urea Fill Line

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M123
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
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RM		

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NOTES:

1. SUGGESTED PIPING ROUTE SHOWN.
2. CONTRACTOR TO PROVIDE DETAILED BOM BASED ON FIELD ROUTE.

UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

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1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

LICENSED ARCHITECT
C-33192
REN. 7-31-25
STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/
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8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER
RICHARD E. OTTINGER
No. M31050
Exp. 6-30-25
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT LOGO :

THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: Isometric Drawing Line 520
Urea Storage Tank Vent

ARCH. / ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M124
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

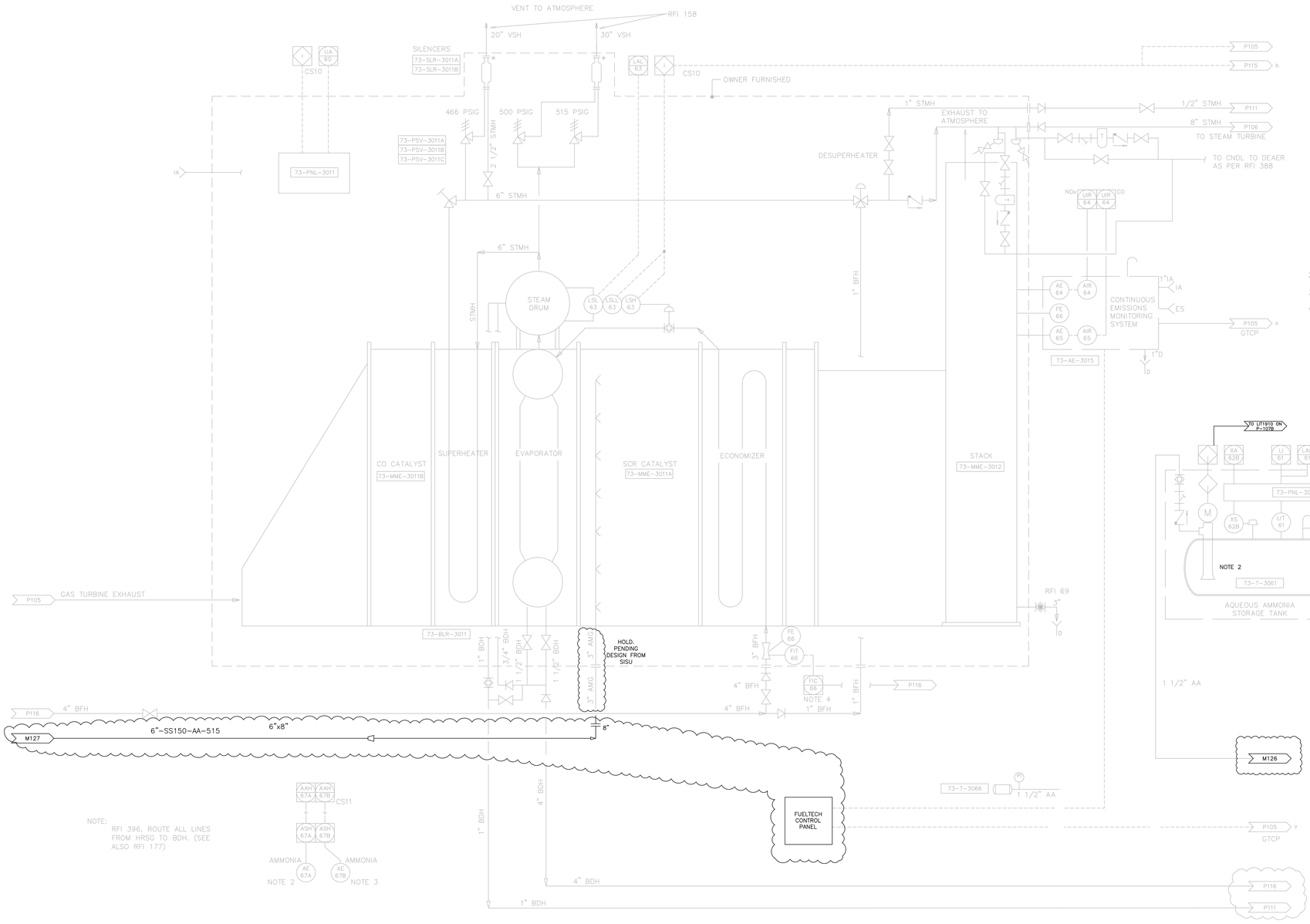
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NOTES:

1 EXISTING ITEMS HAVE BEEN GRAYED OUT.

2 EXISTING AMMONIA PUMP CS DISCHARGE TUBE SHALL BE REPLACED WITH 316SS TUBE BY CONTRACTOR.

3 TANK LID SHALL BE REPLACED WITH 316SS LID.



NOTES:

1. EQUIPMENT MARKED WITH AN ASTERISK WILL BE BE FURNISHED BY HRSG MANUFACTURER FOR REMOTE MOUNTING BY THE CONTRACTOR.
2. LOCATE NEAR SCR CATALYST AREA.
3. LOCATE NEAR AMMONIA CONTROL UNIT.
4. OBTAIN FLOW TRANSMITTER SIGNAL AT 73-PNL-3011.

RFI 241
TIE-IN ALL MISC HRSG DRAINS INTO 4-INCH BDH PIPING
17B, 17C, 17D, 13L, 13E, 11A, 11B, 10B, 20.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

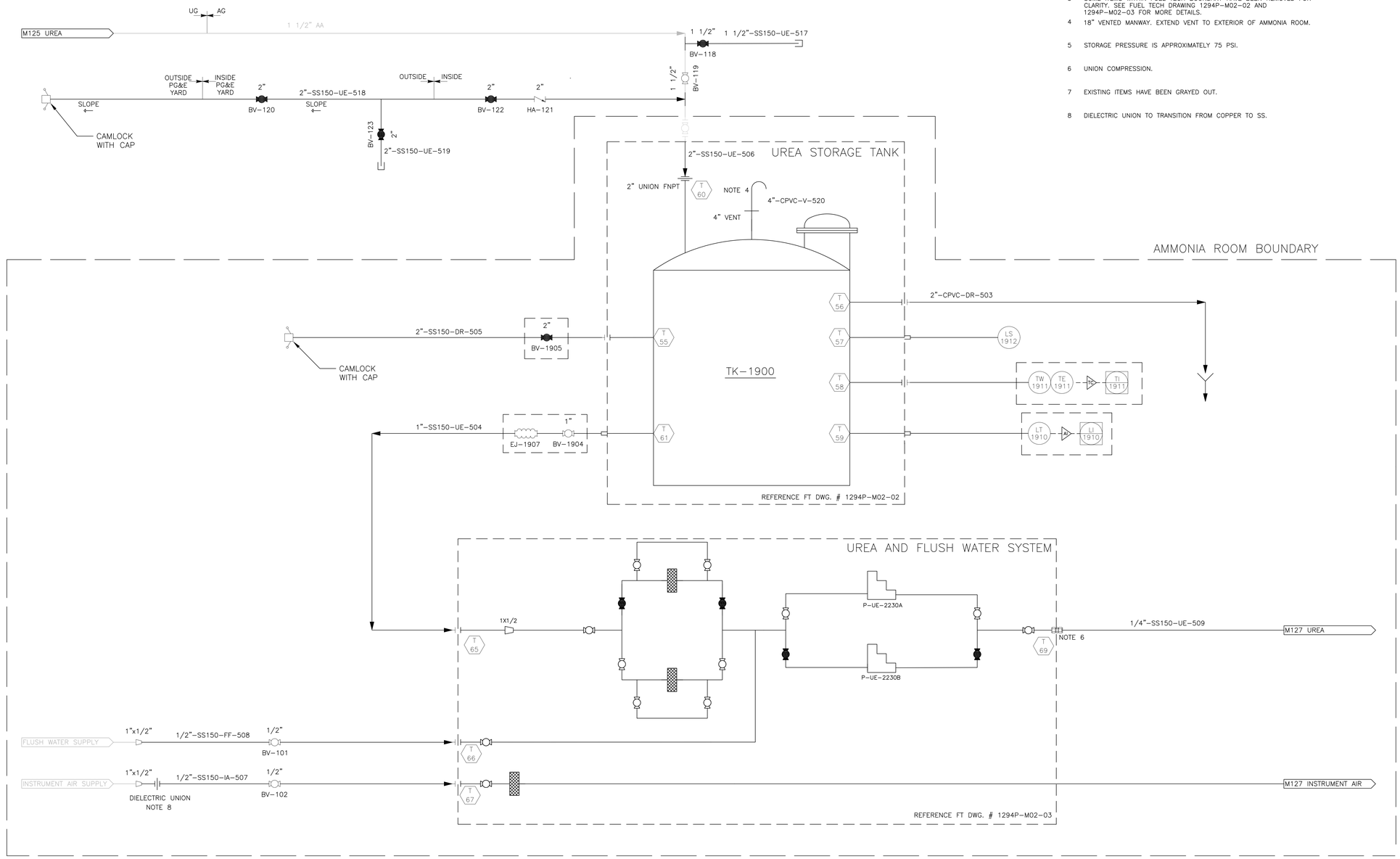
THIS ISSUE	ISSUED FOR :	DATE

REV	REVISION DESCRIPTION	DATE

UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE, , SACRAMENTO, CA 95817
SHEET TITLE: P&ID Heat Recovery Steam Generator System

ARCH. \ ENGR.	PD&C JOB NO.	SHEET NO.
GO	9557240	M125
UCDMC PROJECT MANAGER	SCALE	
CL	AS SHOWN	
DESIGNED BY	DATE	
RM	March 20, 2023	
DRAWN BY	CAD FILE	SHEET OF
RM		

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NOTES:

1. ITEMS WITH DASHED BOUNDARY WILL BE SUPPLIED BY FUEL TECH.
2. NO HEAT TRACE REQUIRED ON ANY PIPING.
3. SOME ITEMS WITHIN FUEL TECH BOUNDARY HAVE BEEN REMOVED FOR CLARITY. SEE FUEL TECH DRAWING 1294P-M02-02 AND 1294P-M02-03 FOR MORE DETAILS.
4. 18" VENTED MANWAY. EXTEND VENT TO EXTERIOR OF AMMONIA ROOM.
5. STORAGE PRESSURE IS APPROXIMATELY 75 PSI.
6. UNION COMPRESSION.
7. EXISTING ITEMS HAVE BEEN GRAYED OUT.
8. DIELECTRIC UNION TO TRANSITION FROM COPPER TO SS.

UC DAVIS HEALTH BUILDING DEPARTMENT

APPROVED

REVIEWED FOR CODE COMPLIANCE
The set of plans and specifications must be kept on the job site at all times and it is unlawful to make any changes or alterations to the approved set without written permission from the Building Department.
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any University Policy or State Building Code.

BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

UC Davis Health
Sacramento, CA 95817

DESIGNATED CAMPUS FIRE MARSHALL :

HGA PROJ. NO: 1500-154-00

HGA
1200 R Street, Suite 100
Sacramento, California 95811
Telephone 916.787.5100

REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

DESIGN PROFESSIONALS OF RECORD :

UCDAVIS HEALTH
FACILITIES DESIGN & CONSTRUCTION
4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
(916)734-7024

MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

Integrated Engineers & Contractors Corporation
8795 Folsom Blvd, Suite 205 Sacramento, CA 95826
Phon (916) 383-6000 Fax (916) 383-6010

REGISTERED PROFESSIONAL ENGINEER RICHARD E. GUTIERREZ No. M31050 Exp. 6-30-25 MECHANICAL STATE OF CALIFORNIA

CONSULTANT LOGO :

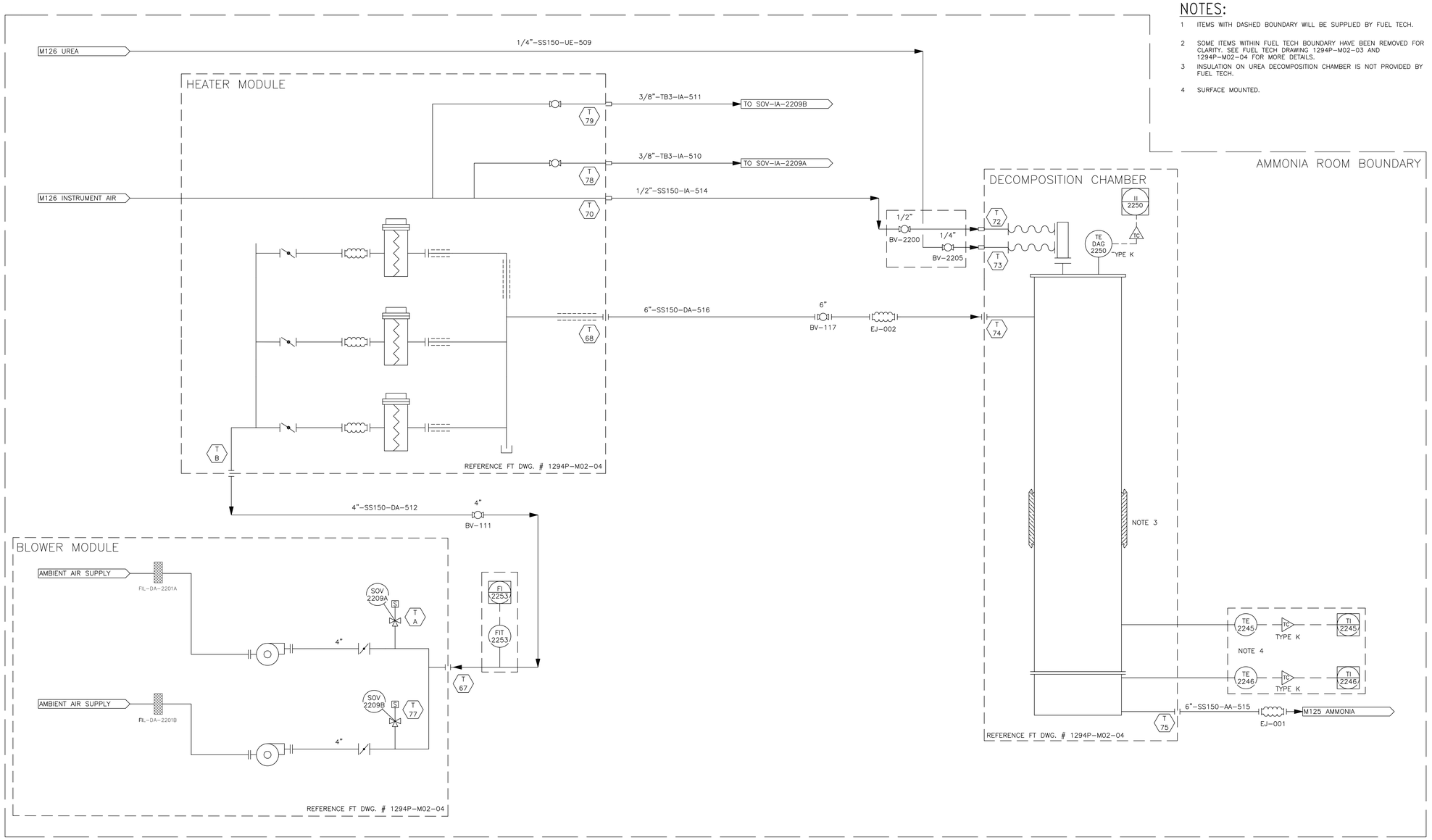
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UCDH PROJECT NO: 9557240
UCDH BUILDING NO: BLD-01444
BUILDING: CENTRAL PLANT
FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: P&ID Urea System

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M126
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
DRAWN BY: RM	CAD FILE	SHEET / OF

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NOTES:

1 ITEMS WITH DASHED BOUNDARY WILL BE SUPPLIED BY FUEL TECH.

2 SOME ITEMS WITHIN FUEL TECH BOUNDARY HAVE BEEN REMOVED FOR CLARITY. SEE FUEL TECH DRAWING 1294P-M02-03 AND 1294P-M02-04 FOR MORE DETAILS.

3 INSULATION ON UREA DECOMPOSITION CHAMBER IS NOT PROVIDED BY FUEL TECH.

4 SURFACE MOUNTED.

UC DAVIS HEALTH BUILDING DEPARTMENT

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BY: Paul R Menard AIA, CBO DATE: 11/1/2023

PROJECT #: UCDH-2023-0181

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Sacramento, CA 95817

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REGISTERED ARCHITECT C-33192 REN. 7-31-25 STATE OF CALIFORNIA

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4800 2ND AVENUE SUITE 3010
SACRAMENTO, CALIFORNIA 95817
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FLOOR / WING:
PROJECT TITLE: CENT PLANT 1ST FLR PO&M Emissions UREA Project
4840 2nd AVENUE,, SACRAMENTO, CA 95817
SHEET TITLE: P&ID Urea System 2

ARCH. \ ENGR.	FD&C JOB NO.	SHEET NO.
GO	9557240	M127
UCDMC PROJECT MANAGER: CL	SCALE: AS SHOWN	
DESIGNED BY: RM	DATE: March 20, 2023	
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