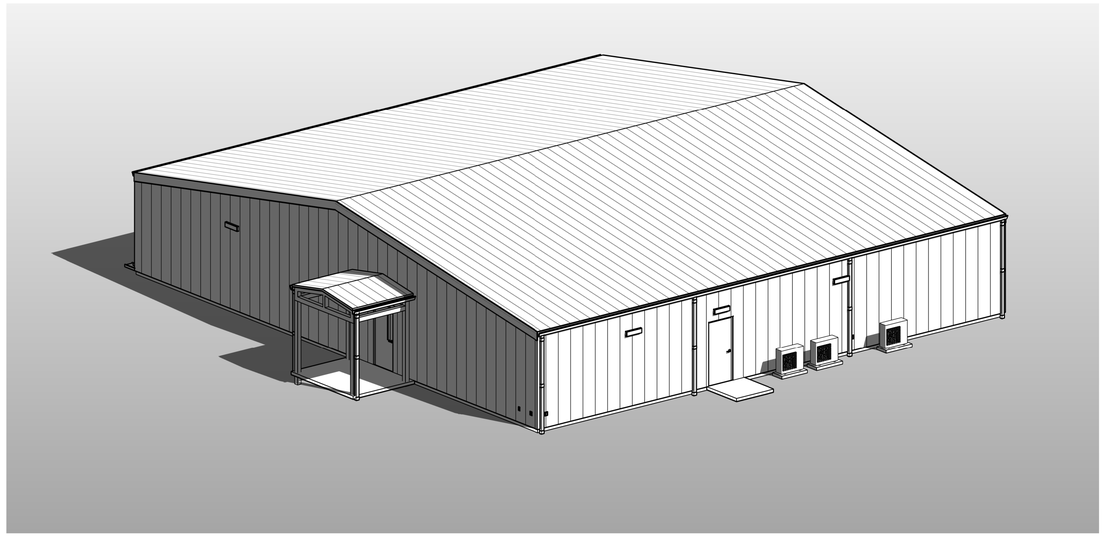


AEROJET ROCKETDYNE
A17 CONTROL BUILDING

EAST CAMDEN, ARKANSAS

CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS INC
C-98
REGISTERED ARCHITECTS
ARKANSAS

REGISTERED ARCHITECT
DANIEL K. FOWLER
No. 3339
ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

TITLE SHEET

Sheet Number

G-001

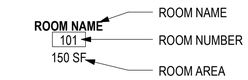
ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT
ACOUST.	ACOUSTICAL
AD	AUXILIARY DRAIN
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
A.F.F.	ABOVE FINISH FLOOR
AGGRE.	AGGREGATE
ALUM.	ALUMINUM
BD	BOARD
B.F.F.	BELOW FINISH FLOOR
BLKG	BLOCKING
BM	BEAM
B.O.	BOTTOM OF
BPL	BASE PLATE
BS	BOTH SIDES
BTWN.	BETWEEN
B.U.R.	BUILT-UP ROOF
CAL.	CALIPER
CL	CENTERLINE
CFC	COMBINED FACILITIES COMPLEX
CSF	COMBINED SHARED FACILITIES
CG	CORNER GUARD
CJ	CONTROL JOINT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONC. BLK	CONCRETE BLOCK
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CT	CERAMIC TILE
DB	DECK BEARING
DIM.	DIMENSION
DR	DOOR
DTL	DETAIL
DWG	DRAWING
EA	EACH
E.B.	EXPANSION BOLT
EF	EXHAUST FAN
E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQ	EQUAL
EQUIP.	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXP	EXPANSION
EXT.	EXTERIOR
F	FEMALE
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
F.F.E.	FINISH FLOOR ELEVATION
FIN.	FINISH
FLR	FLOOR
FND	FOUNDATION
F.O.C.	FACE OF CONCRETE
FRP	FIBERGLASS REINFORCED PANEL
FTG	FOOTING
GA	GAGE
GALV	GALVANIZED
GR	GUARD RAIL
GP	GUARD POST
GYP	GYPSUM
GYP.BD.	GYPSUM BOARD
H	HIGH
HD	HANDICAP
HC	HOLLOW CORE
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ.	HORIZONTAL
HP	HORSEPOWER
HT	HEIGHT
INFO.	INFORMATION
INSUL.	INSULATION
INT	INTERIOR
JAN	JANITOR.
JT	JOINT
JST	JOIST
KCJ	KEYED CONTROL JOINT
LAV.	LAVATORY
KG	KILOGRAM
LCB	LIQUID CHALK BOARD
LM	LINEAL METER
LG	LONG
MAS	MASONRY
MATL.	MATERIAL
MAX	MAXIMUM
MB	MINI-BLINDS
M.D.	METAL DECK
MECH.	MECHANICAL
MEMB.	MEMBRANE
MEZZ.	MEZZANINE
MFR	MANUFACTURER
MISC.	MISCELLANEOUS
MO	MASONRY OPENING
M.S.	METAL STUD
MTL.	METAL
N.I.C.	NOT IN CONTRACT
NS	NON-SHRINK
N.T.S.	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFW	OUTSIDE FACE OF WALL
OPNG	OPENING
OPP.	OPPOSITE
P.LAM	PLASTIC LAMINATE
PL	PLATE
PLYWD.	PLYWOOD
PNL	PANEL
PROD	PRODUCE
KG/SQM	KILOGRAMS PER SQUARE METER
KG/SQCM	KILOGRAMS PER SQUARE CENTIMETER
QTY	QUANTITY
R	RISER
R	RADIUS
RD	ROOF DRAIN
REFRIG	REFRIGERATION
REINF	REINFORCING
REQD	REQUIRED
RM	ROOM
RPP	RACK POST PROTECTOR
SC	SOLID CORE
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SPECS	SPECIFICATIONS
SMFE	SURFACE MOUNTED FEC
SRFE	SEMI-RECESSED FEC
S	SEWER
SS	SANITARY SEWER
S.S.	STAINLESS STEEL
SSC	STAINLESS STEEL CLOSURE
SST	STAINLESS STEEL THRESHOLD
STB	STAFF TRAINING BUILDING
STL	STEEL
STO.	STORAGE
STRUCT	STRUCTURAL
SYM.	SYMBOL
T	TREAD
T & B	TOP AND BOTTOM
THK	THICK
THRESH.	THRESHOLD
TJ	TOOLED JOINT
TO	TOP OF
T.O.S.	TOP OF STEEL
T.O.P.	TOP OF PANEL
TS	TUBE STEEL
TYP	TYPICAL
T.O.M.	TOP OF MASONRY
U.N.O.	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
W	WIDE
W/	WITH
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WG	WALL GUARD
W/O	WITHOUT
WP	WATERPROOFING
WT	WEIGHT
WWF	WELDED WIRE FABRIC

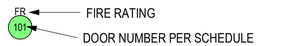
INDEX OF DRAWINGS

SYMBOLS LEGEND

ROOM LABEL

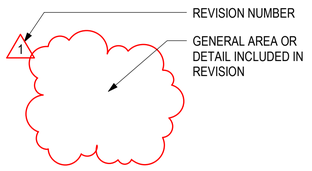


DOOR LABEL

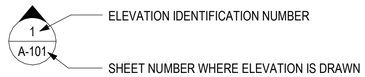


WINDOW LABEL

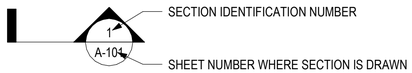
REVISION IDENTIFICATION



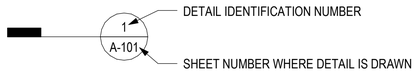
ELEVATION SYMBOL



SECTION SYMBOL



DETAIL SYMBOL

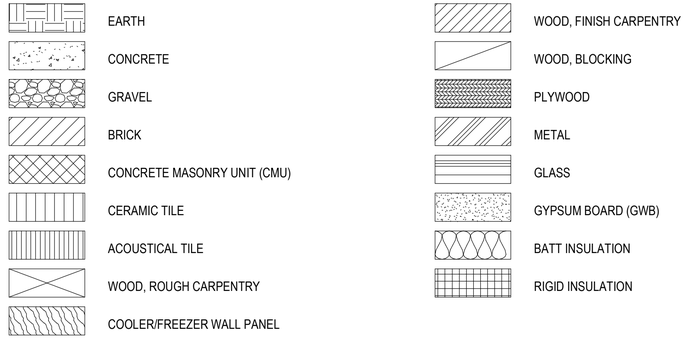


KEY NOTE

PARTITION TAG

ACCESSORY TAG

SECTION INDICATIONS



CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

02-20-2025

Notes

2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

INDEX, SYMBOLS & ABBREV.

Sheet Number

G-002

NOTES

A. GENERAL CONSTRUCTION REQUIREMENTS:

A1. ALL WORK SHALL BE DONE IN A SAFE AND WORKMANLIKE MANNER AND IN STRICT ACCORDANCE WITH GOVERNING BUILDING CODES, NATIONAL ELECTRIC CODE, AND ALL APPLICABLE REGULATIONS AND ORDINANCES HAVING JURISDICTION.

A2. THE CONTRACTOR IS TO UNDERSTAND ALL DRAWINGS AND SPECIFICATIONS COMPLETELY. EACH ASPECT OF THE WORK MAY BE INDICATED IN ONE DISCIPLINE OR INDICATED IN MULTIPLE DISCIPLINES. REVIEW ALL INFORMATION FROM ALL DISCIPLINES AND COMPLETELY FIELD VERIFY ALL CONDITIONS BEFORE IMPACTING EXISTING CONDITIONS OR PROVIDING NEW WORK.

A3. EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO DO SO DOES NOT RELIEVE ANY RESPONSIBILITY FOR PERFORMING THIS WORK PROPERLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS KNOWLEDGE.

A4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO FABRICATION OF ALL ITEMS, AND IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE PLANS AND WHAT EXISTS IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE THE PROPER COURSE OF ACTION. THE CONTRACTOR'S APPROVAL FOR FABRICATION INDICATES THE ACCEPTANCE OF EXISTING CONDITIONS.

A5. THE OWNER WILL NOT OCCUPY THE BUILDING DURING CONSTRUCTION, HOWEVER THE CONTRACTOR SHALL COORDINATE WITH THE OWNERS CONTROLS CONSULTANT. CONTACT: R.L. CONSULTING INC. (256)-248-0694 MR. ROY L. LYNCH. rlynch@rlconsultinginc.com
A COORDINATION MEETING WILL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION.

A6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING, BRACING AND SUPPORT SYSTEMS DURING CONSTRUCTION. THE CONTRACTOR SHALL RETAIN A REGISTERED PROFESSIONAL ENGINEER TO DESIGN THE SHORING OR BRACING AND SPECIFY PROCEDURES. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR MEANS AND METHODS OF CONSTRUCTION.

A7. ANY DAMAGE TO THE OWNER'S/OWNER'S EMPLOYEES PROPERTY CAUSED BY THE CONSTRUCTION PROCESS SHALL BE REPAIRED/REPLACED AT NO COST TO THE OWNER OR OWNER'S EMPLOYEES.

A8. NOT USED.

A9. THE CONTRACTOR SHALL KEEP THE CONSTRUCTION AREA FREE AND CLEAR OF DEBRIS. REMOVE TRASH AND DEBRIS FROM CONSTRUCTION AREA AND DO NOT ALLOW TO ACCUMULATE. NO FLAMMABLE MATERIALS/LIQUIDS MAY BE STORED IN NEW CONSTRUCTION. PROVIDE EXTINGUISHERS AS REQUIRED BY LOCAL AND STATE AUTHORITIES, UL LISTED 2A:20BC DRY CHEMICAL FIRE EXTINGUISHERS, ACCESSIBLE AT ALL TIMES IN CONSTRUCTION AREAS.

A10. NOT USED.

A11. REMOVE ANY EXISTING SERVICES FOR THE INSTALLATION OF NEW CONSTRUCTION. EXISTING FIBER SHALL BE PROTECTED DURING CONSTRUCTION ACTIVITIES.

A12. REPAIR, RE-ROUTE AND EXTEND ALL SERVICES AND PIPING REQUIRED DURING THE CONSTRUCTION PROCESS FOR THE COMPLETE INSTALLATION AND OPERATIONS OF NEW EQUIPMENT OR SERVICES. THIS INCLUDES ALL ITEMS SHOWN OR NOT SHOWN ON THE DRAWINGS. RESET EXISTING EQUIPMENT OR RELATED ITEMS AS REQUIRED FOR PROPER OPERATION.

A13. NOT USED.

A14. ALL QUESTIONS RELATING TO THE CONSTRUCTION OF THIS PROJECT SHALL BE DONE IN WRITTEN FORM USING THE "REQUEST FOR INFORMATION" FORM, INCLUDED IN THE SPECIFICATIONS, THROUGH THE GENERAL CONTRACTOR ONLY. FOLLOW INSTRUCTIONS WHEN COMPLETING AND SENDING THIS FORM.

B. GENERAL SITE VERIFICATION REQUIREMENTS:

B1. EXISTING CONDITIONS SHOWN IN THESE PLANS ARE BASED ON LIMITED FIELD OBSERVATIONS BY THE ARCHITECT AND ORIGINAL DESIGN DRAWINGS. ALL EXISTING MATERIAL, DIMENSIONS, ELEVATIONS, AND GENERAL CONDITIONS OF THE BUILDING SHALL BE VERIFIED BEFORE PURCHASE OF MATERIAL AND CONSTRUCTION. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS IMMEDIATELY.

B2. ALL UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES (WHETHER SHOWN OR NOT) PRIOR TO THE SUBMISSION OF HIS BID OR THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE DISCOVERY OF EXISTING UTILITIES NOT SHOWN OR NOTED ON DRAWINGS. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND DEPTHS OF UNDERGROUND UTILITY SERVICES PRIOR TO ANY EXCAVATION.

B3. EXISTING FIBER AND OTHER UNDERGROUND UTILITIES SERVE EXISTING CRITICAL OPERATIONS & MUST REMAIN PROTECTED AND UNTOUCHED DURING CONSTRUCTION OPERATIONS. GC SHALL COORDINATE WITH AEROJET ENGINEERS TO WORK AROUND THESE ITEMS. GC SHALL LOCATE AND PROTECT ALL EXISTING CRITICAL UTILITIES IN THE AREA OF DEMOLITON & CONSTRUCTION.

C. GENERAL FLOOR PLAN NOTES:

REFER TO ARCH PLAN SHEETS

C1. ALL DIMENSIONS ARE TO FACE OF STUD OR SLAB UNLESS OTHERWISE NOTED.

C2. NOT USED.

C3. ALL NEW FLOORING SHALL BE PROTECTED FROM SCRATCHING, MARKING, STAINING, ETC. DURING CONSTRUCTION. ANY FLOORING THAT IS DAMAGED BY CONSTRUCTION AND DOES NOT APPEAR IN NEW CONDITION AT THE TIME OF POSSESSION WILL BE REPLACED BY THE GENERAL CONTRACTOR AT HIS EXPENSE. INSTALL TRANSITION STRIP WHERE FLOORING ABUTS EXPOSED CONCRETE FLOOR.

D. GENERAL DEMOLITION REQUIREMENTS:

D1. ALL DEMOLITION SHALL BE CARRIED OUT IN A SAFE MANNER AND IN STRICT ACCORDANCE WITH OSHA REGULATIONS.

D2. THE OWNER SHALL DEMOLISH THE EXISTING BUILDING, UNDER SEPARATE CONTRACT, PRIOR TO START OF CONSTRUCTION. REFER TO CIVIL DRAWINGS FOR ANY SITE DEMOLITION INCLUDED IN THIS CONTRACT.

D3. NOT USED

D4. NOT USED

D5. DURING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER ANY REQUIRED SAFETY BARRIERS OR BARRICADES. PROVIDE BARRICADES SO AS TO PRECLUDE INTRUSION OF PUBLIC INTO CONSTRUCTION AREAS.

D6. CONTRACTOR SHALL PROVIDE THE OWNER A CONSTRUCTION SCHEDULE FOR DEMOLITION AND NEW CONSTRUCTION. COORDINATE DEMOLITION WITH NEW CONSTRUCTION SO THE CAMPUS WILL HAVE LIMITED INTERRUPTION OF WATER, SEWER, ELECTRICAL, GAS AND FIRE PROTECTION SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL NECESSARY TEMPORARY UTILITY PROVISIONS REQUIRED.

D7. ALL DEMOLITION MATERIALS NOT SALVAGED BY THE OWNER SHALL BE REMOVED BY THE CONTRACTOR. COORDINATE WITH THE OWNER REGARDING MATERIALS TO BE SALVAGED. ALL DEMOLISHED MATERIALS LEAVING THE SITE SHALL BE DOCUMENTED. REFER TO SPECIFICATIONS.

D8. NOT USED

D9. NOT USED

D10. THE CONTRACTOR SHALL USE A WET SAW FOR SLAB SAWING. NO JACK HAMMERS WILL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE OWNER.

D11. PROTECT ALL WATER PIPING AT AREAS OF DEMOLITION AND NEW WORK.

D12. CONTRACTOR SHALL DISPOSE OF ALL WASTE AND BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH DISPOSAL. CONTRACTOR SHALL PROVIDE OWNER WITH A MANIFEST FOR ALL ITEMS THAT HAVE BEEN TAKEN OFF SITE FOR DISPOSAL.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

GENERAL NOTES

Sheet Number

G-003

APPLICABLE CODES AND STANDARDS

CODE	EDITION	DESCRIPTION
AFPC	2021	ARKANSAS FIRE PREVENTION BUILDING CODE
NFPA 1	2021	FIRE CODE
NFPA 10	2022	STANDARD FOR PORTABLE FIRE EXTINGUISHERS
NFPA 13	2019	INSTALLATION OF SPRINKLER SYSTEMS
NFPA 24	2019	STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES
NFPA 25	2020	STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS
NFPA 70	2020	NATIONAL ELECTRIC CODE
NFPA 72	2019	NATIONAL FIRE ALARM CODE
NFPA 90A	2021	STANDARD INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS
NFPA 101	2021	LIFE SAFETY CODE

OCCUPANCY CLASSIFICATION

☒ SINGLE
☐ MIXED
☐ SEPARATED ☐ NON SEPARATED

OCCUPANCY CLASSIFICATION(S): B
ACCESSORY OCCUPANCIES: N/A

CONSTRUCTION CLASSIFICATION: IIB

HEIGHT AND AREA - ACTUAL

BUILDING HEIGHT	HEIGHT IN FEET 15' - 7"	HEIGHT IN STORIES 1
BUILDING AREA	3,806.00 SF	

HEIGHT AND AREA- ALLOWABLE

		TABULAR AREA (TABLE 506.2)		TABULAR HEIGHT (TABLE 504.3-4)		
OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION	AREA FACTOR	AREA	AREA FACTOR	FEET	STORIES
B	IIB	S1	92000	S	75	4

UNLIMITED AREA ☒ YES ☐ NO

INTERIOR FINISH REQUIREMENTS

	EXITS	EXIT ACCESS CORRIDORS	OTHER SPACES
WALL & CEILING FINISH	B	C	C
FLOOR COVERINGS	I or II	I or II	I or II

(TABLE 803.13)

INCIDENTAL USES

- ☐ FURNACE ROOM
- ☐ ROOMS WITH BOILERS
- ☐ REFRIGERANT MACHINERY ROOM
- ☐ HYDROGEN FUEL GAS ROOMS
- ☐ INCINERATOR ROOMS
- ☐ PAINT SHOPS IN OTHER THAN F
- ☐ GROUP E LABORATORIES AND VOCATIONAL SHOPS
- ☐ GROUP I-2 LABORATORIES
- ☐ AMBULATORY CARE FACILITIES LABORATORIES
- ☐ LAUNDRY ROOMS OVER 100 SQFT
- ☐ GROUP I-2 LAUNDRY ROOMS OVER 100 SQFT
- ☐ GROUP I-3 CELLS AND GROUP I-2 PATIENT ROOMS
- ☐ GROUP I-2 PHYSICAL PLANT MAINTENANCE SHOPS
- ☐ AMBULATORY CARE FACILITIES OR GROUP I-2 WASTE AND LINEN COLLECTION ROOM WITH AGGREGATE VOLUME OF 10CF
- ☐ OTHER THAN AMBULATORY AND GROUP I-2 WASTE AND LINEN COLLECTION ROOMS OVER 100 SQFT
- ☐ AMBULATORY CARE FACILITIES OR GROUP I-2 STORAGE ROOMS OVER 100 SQFT
- ☐ ELECTRICAL INSTALLATIONS AND TRANSFORMERS

IF APPLICABLE, SEPARATION AND/OR PROTECTION: N/A (TABLE 509.1)

FIRE PROTECTION SYSTEMS

FIRE PROTECTION SYSTEM	REQUIRED	PROVIDED	SECTION
AUTOMATIC SPRINKLER		●	903
ALTERNATIVE AUTO FIRE EXT			904
STANDPIPE			905
PORTABLE FIRE EXTINGUISHERS	●	●	906
FIRE ALARM AND DETECTION		●	907
EMERGENCY ALARM			908
SMOKE CONTROL			909
SMOKE & HEAT REMOVAL			910
FIRE COMMAND CENTER			911
FIRE DEPT. CONNECTIONS		●	912
FIRE PUMPS			913
EMERGENCY RESPONDER FEATURES			914
CARBON MONOXIDE DETECTION			915
GAS DETECTION SYSTEMS			916
MASS NOTIFICATION SYSTEMS			917
EMERGENCY RESP. COMM COVERAGE			918

FIRE RESISTANCE OF BUILDING ELEMENTS

	REQUIRED	SECTION
STRUCTURAL FRAME	0	601
BEARING WALLS (EXTERIOR)	0	601
BEARING WALLS (INTERIOR)	0	601
NON-BEARING WALLS (EXTERIOR)	0	601
NON-BEARING WALLS (INTERIOR)	0	601
FLOOR CONSTRUCTION	0	601
ROOF CONSTRUCTION	0	601
INTERIOR EXIT STAIRWAYS	N/A	1023
SHAFT ENCLOSURE	N/A	713
CORRIDORS	0	1020

MEANS OF EGRESS

MEANS OF EGRESS ELEMENT	REQUIRED	PROVIDED	SECTION
NUMBER OF EXITS	2	3	1006.3.3
EXIT ACCESS TRAVEL DISTANCE	300 ft	64 ft	1017.2
DEAD-END LIMIT	50 ft	0 ft	1020.5
COMMON PATH OF TRAVEL LIMIT	100 ft	49 ft	1006.2.1

TOTAL OCCUPANT LOAD: 53
EGRESS WIDTH: 0.2" PER PERSON FOR LEVEL COMPONENTS/ 0.3" STAIRS AND RAMPS
MINIMUM CORRIDOR WIDTH: 44"
CLEAR OPENING DOOR WIDTH: 32"
ILLUMINATION OF EGRESS: 1 FT-CANDLE AT THE FLOOR AND 0.2 FT-CANDLE FOR A SINGLE LIGHT FAILURE.
EMERGENCY EGRESS LIGHTING: EXIT ACCESS AND DISCHARGE ONLY. ACCESS INCLUDES DESIGNATED CORRIDORS, AISLES, AND PASSAGEWAYS. DISCHARGE INCLUDES DESIGNATED DOORS, WALKWAYS, AND RAMPS LEADING TO A PUBLIC WAY. PERFORMANCE PER NFPA 101 7.9.
EXIT MARKING: MARKING OF EXITS AND THE MEANS OF EGRESS SHALL BE PER NFPA 101 7.10

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 19823
JOHN W. OSSIAN
02-20-2025

Notes

1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number 2024-210
Issue Date 02-20-2025
Sheet Title
LIFE SAFETY CODE ANALYSIS
Sheet Number
G1001

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

GENERAL SYMBOLS

- REVISION NUMBER SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- DEMOLISH TO POINT INDICATED
- NUMBER OF DETAIL ON SHEET / NUMBER OF SHEET WHERE DETAIL APPEARS
- KEYNOTE
- PIPE CONTINUATION

SPACE TAG:
OFFICE ← SPACE NAME
101 ← SPACE NUMBER
100 SF ← SPACE AREA

- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT

EGRESS SYMBOLS

EGRESS SPACE TAG:
OFFICE ← SPACE NAME
101 ← SPACE NUMBER
100 SF ← SPACE AREA
1 Occupant(s) ← SPACE OCCUPANCY LOAD

COMMON PATH OF TRAVEL — PATH OF EGRESS
TOTAL TRAVEL DISTANCE

COL / TEC — EGRESS DOOR LOAD TAG: CALCULATED OCCUPANT LOAD / TOTAL EXITING CAPACITY

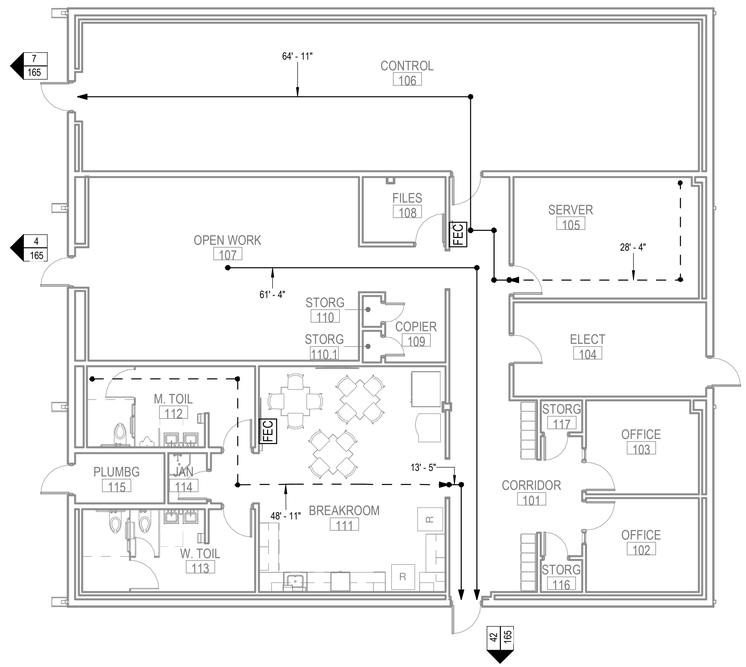
COL / TEC — EGRESS STAIR DOOR LOAD TAG: CALCULATED OCCUPANT LOAD / TOTAL EXITING CAPACITY

LIFE SAFETY EQUIPMENT

- FE — FIRE EXTINGUISHER - HOOK MOUNTED
- FEC — FIRE EXTINGUISHER IN CABINET
- FHV — FIRE HOSE VALVE CABINET
- 75' TRAVEL DISTANCE FOR FIRE EXTINGUISHERS

WALL SEPERATIONS

- HALF-HOUR FIRE WALL
- 45-MINUTE FIRE WALL
- 1 HOUR FIRE WALL
- 2 HOUR FIRE/SMOKE WALL
- "S" REPRESENTS SMOKE BARRIER WALL
- EACH ◆ REPRESENTS 1-HOUR OF FIRE RATING



1 LIFE SAFETY FLOOR PLAN
1/8" = 1'-0"
0 4 8 16
NORTH

LIFE SAFETY SCHEDULE

NAME	NUMBER	SPACE AREA	AREA PER PERSON	OCCUPANT LOAD
CONTROL	106	1024 SF	150 SF	7
OPEN WORK	107	604 SF	150 SF	4
FILES	108	60 SF	150 SF	0
COPIER	109	47 SF	150 SF	0
STORG	110	6 SF	300 SF	0
STORG	110.1	7 SF	300 SF	0
SERVER	105	251 SF	300 SF	1
ELECT	104	202 SF	300 SF	1
CORRIDOR	101	399 SF	150 SF	3
M. TOIL	112	151 SF	150 SF	1
W. TOIL	113	158 SF	150 SF	1
BREAKROOM	111	497 SF	15 SF	33
JAN	114	22 SF	300 SF	0
PLUMBG	115	50 SF	300 SF	0
STORG	116	15 SF	300 SF	0
OFFICE	102	118 SF	150 SF	1
OFFICE	103	117 SF	150 SF	1
STORG	117	15 SF	300 SF	0
		3742 SF		53

LIFE SAFETY - PATH OF TRAVEL

TRAVEL PATH			
FROM ROOM	TO ROOM	EXIT TRAVEL TYPE	LENGTH
M. TOIL 112		COMMON PATH	48' - 11"
	CORRIDOR 101	TOTAL TRAVEL	13' - 5"
			62' - 4"
OPEN WORK 107	CORRIDOR 101	TOTAL TRAVEL	61' - 4"
			61' - 4"
SERVER 105	CORRIDOR 101	COMMON PATH	28' - 4"
CORRIDOR 101	CONTROL 106	TOTAL TRAVEL	64' - 11"
			93' - 3"

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

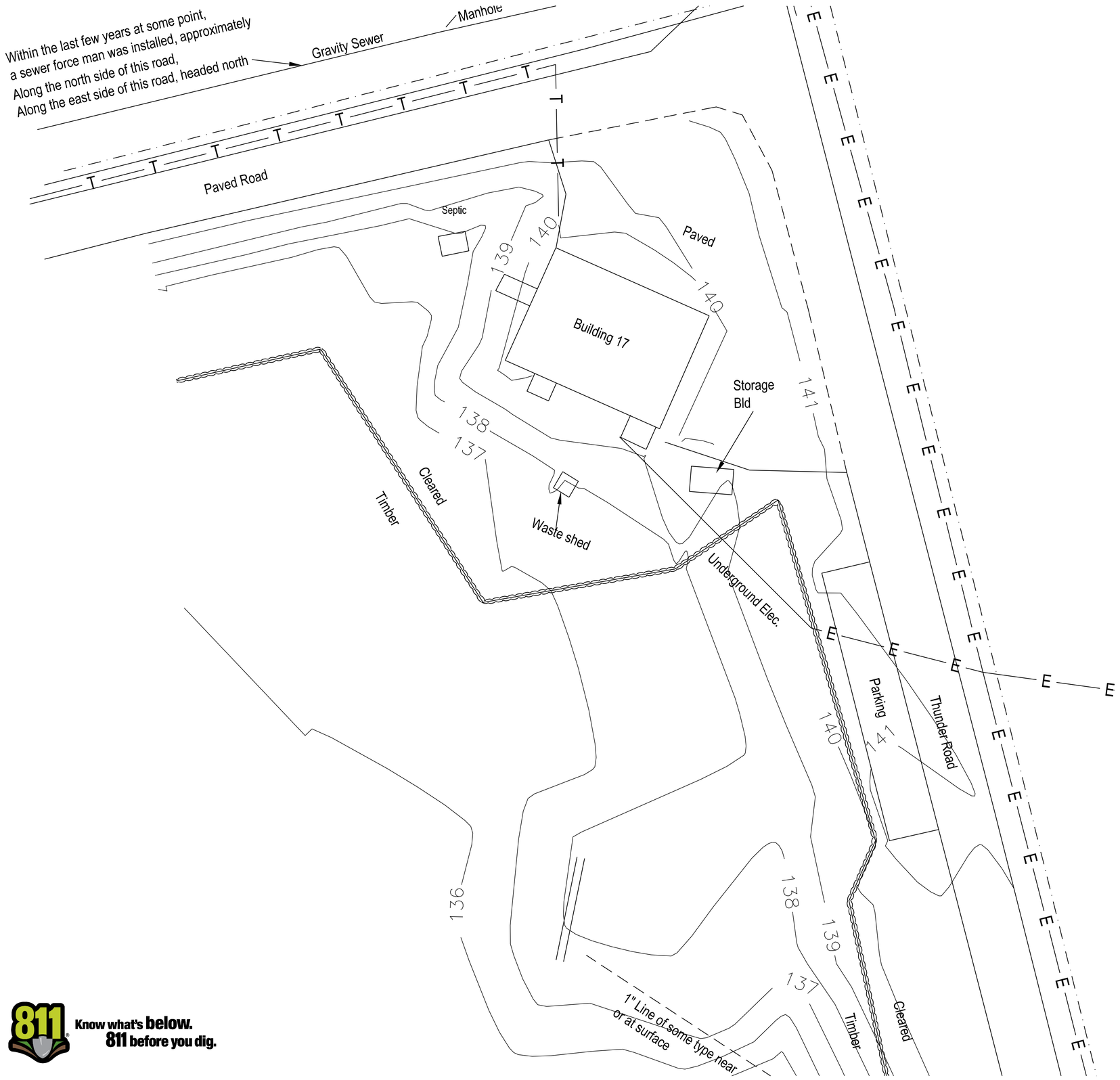
Revisions

No.	Date	Description

Stamp
CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 19823
02-20-2025

Notes
1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number
2024-210
Issue Date
02-20-2025
Sheet Title
LIFE SAFETY FLOOR PLAN
Sheet Number
GI101



SITE SURVEY NOTES:

1. THIS SHEET IS TAKEN FROM A SURVEY PROVIDED BY:

   JOSH NIX SURVEYING
   PO BOX 175
   HAMPTON, AR 71744
   1-870-918-5918

2. THIS SHEET IS A PRESENTATION DRAWING FOR INFORMATION ONLY TO SHOW THE EXISTING CONDITIONS OF THE SITE .

3. THE ORIGINAL FULL SURVEY WAS STAMPED AND SEALED BY JOSH NIX (AR, PLS 1628) ON 12/17/2024.

N W E S

Bearings based on NAD 83, AR

South zone state pln, GPS obs.

LEGEND

Found Monument

Calculated Point

Ground Shots

E -- E Overhead Electric

Ep=Edge of pavement

G=Ground shot

Rd=Road

T=Telephone

Wm=Water meter

Sw=Sidewalk

Ybar=Yellow Baracade, electric utl.

=Tree

1 SITE SURVEY

0 10' 20' 40' NORTH

SCALE:1"=20'

811 Know what's below. 811 before you dig.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS-ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10649
JOHN T. PETERSON
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

SITE SURVEY

Sheet Number

VF101

DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL, IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL STRUCTURES, PADS, WALLS, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING ALL DEBRIS FROM THE SITE IN A LAWFUL MANNER. CONTRACTOR SHALL PROVIDE THE OWNER A MANIFEST OF ALL ITEMS REMOVED FROM THE PREMISES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
3. THE CONTRACTOR MUST PROTECT THE PUBLIC FROM CONSTRUCTION ACTIVITIES AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC. TO THE BEST PRACTICES AND APPROVED BY THE OWNER.
4. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY AND/OR MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM THE SITE.
5. VEGETATION TO REMAIN SHALL BE PROTECTED FROM DAMAGE AND THE CONTRACTOR SHALL INSTALL EROSION CONTROL STRUCTURES AND DEVICES AND TREE PRESERVATION FENCING.
6. CONTRACTOR SHALL NOTIFY GOVERNING AUTHORITY PRIOR TO ANY WORK IN PUBLIC RIGHT-OF-WAY AND OBTAIN ANY NECESSARY PERMITS.
7. ANY DAMAGE TO THE EXISTING PUBLIC STREET OR OTHER PUBLIC INFRASTRUCTURE DUE TO THE CONSTRUCTION SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR SHALL SAW CUT IMPROVEMENTS AT REMOVAL LINES. THE CONTRACTOR SHALL PROTECT SAW CUT EDGE OF ASPHALT FROM RAVELING DURING CONSTRUCTION. WHERE RAVELING OCCURS PRIOR TO NEW PAVEMENT BEING PLACED THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL SAW CUT, AT THE CONTRACTOR'S EXPENSE, TO PROVIDE A CLEAN EDGE.
9. ALL PAVEMENT OR STRUCTURE DEMOLITION INCLUDES ASSOCIATED FOUNDATIONS AND/OR BASE COURSE LAYERS.
10. THERE ARE NUMEROUS PUBLIC AND PRIVATE UTILITIES WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION AND AN ATTEMPT HAS BEEN MADE TO INDICATE THEIR PRESENCE ON THE PLAN. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION THE CONTRACTOR SHALL CONTACT THE VARIOUS UTILITY COMPANIES AND MAKE ARRANGEMENTS FOR LOCATION OF THE UTILITY ON THE GROUND. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NEEDED. EXISTING AND ABANDONED UTILITY LOCATIONS ARE UNKNOWN. SURVEY MARKERS ARE APPROXIMATE LOCATIONS ONLY. ALL UTILITIES ARE TO BE RELOCATED PRIOR TO CONSTRUCTION.
11. ALL UTILITIES SHOWN FOR REMOVAL BACK TO MAIN SHALL BE REMOVED AND CAPPED PER UTILITY STANDARD REQUIREMENTS. UTILITY REMOVAL SHALL BE COORDINATED WITH THE UTILITY AND THE OWNER. 72 HOURS WRITTEN NOTICE SHALL BE GIVEN TO THE OWNER AND UTILITY PRIOR TO DEMOLISHING ANY UTILITY.
12. EXISTING UTILITIES TO REMAIN ARE TO BE PROTECTED.
13. SEE ELECTRICAL SITE PLAN FOR ADDITIONAL ELECTRIC SERVICE REMOVAL.
14. CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL EXISTING SITE CONDITIONS DISTURBED BY CONSTRUCTION ACTIVITIES BACK TO EXISTING OR BETTER CONDITIONS.
15. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE FENCING, SIDEWALKS, LIGHTING, STORM INLET STRUCTURES, ETC. THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIAL/STRUCTURES IN ACCORDANCE WITH CONTRACT DOCUMENTS. EXCEPT FOR MATERIALS DESIGNATED TO BE RELOCATED ON THIS PLAN, ALL CONSTRUCTION MATERIALS SHALL BE NEW.
16. ANY CONSTRUCTION ACTIVITIES THAT WILL REQUIRE ROAD OR LANE CLOSURES SHALL BE COORDINATED WITH THE APPROPRIATE ORGANIZATION PRIOR TO CLOSURE AND APPROPRIATE PERMITS OBTAINED BY THE CONTRACTOR.
17. CONTRACTOR SHALL PAY FOR ALL TRAFFIC CONTROL DEVICES AND PERSONNEL FOR ROAD CLOSURES AND DETOURS.
18. **DIG CAREFULLY.** STATE LAWS GENERALLY PROHIBIT THE USE OF MECHANIZED EQUIPMENT WITHIN 18-24 INCHES OF A MARKED UTILITY, WHICH IS CALLED THE "TOLERANCE ZONE". CONTACT THE PROPER LOCAL AGENCY PRIOR TO DIGGING.

SITE LAYOUT NOTES :

1. CONTRACTOR SHALL BE CONFINED TO THE LIMITS OF CONSTRUCTION SHOWN UNLESS OTHER PROVISIONS HAVE BEEN MADE WITH THE OWNER. THIS INCLUDES STAGING AND LAYDOWN AREAS.
2. CONTRACTOR SHALL NOTIFY OWNER PRIOR TO WORK BEGINNING. A PRE-CONSTRUCTION MEETING IS REQUIRED WITH AEROJET (AR) FIELD COORDINATOR, AR SAFETY, AR FACILITIES ENGINEERS AND HIGHLAND INDUSTRIAL PARK REPRESENTATIVES.
3. DIMENSIONS TO CURBS ARE TO BACK OF CURB. DIMENSIONS TO BUILDINGS ARE TO OUTSIDE FACE OF BUILDING WALL.
4. MINIMUM CURB RADIUS SHALL BE 2'.
5. THE CONTRACTOR SHALL LAYOUT AND VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION, ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DIRECTION AND RESOLUTION PRIOR TO PROCEEDING.
6. PROVIDE EXPANSION JOINTS IN ALL CASES WHERE CONCRETE SURFACE MEETS VERTICAL STRUCTURES OR WHERE NEW CONCRETE SURFACE ABUTS EXISTING CONCRETE SURFACE.
7. CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL EXISTING SITE CONDITIONS DISTURBED BY CONSTRUCTION ACTIVITIES BACK TO EXISTING OR BETTER CONDITIONS. RESTORATION AND CLEANUP SHALL BE COMPLETE PRIOR TO ACCEPTANCE OF THE JOB.
8. ALL WORK DONE IN PUBLIC RIGHT-OF-WAY SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING AUTHORITY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING NEWLY PAVED AREAS THAT SHOW DIFFERENTIAL SETTLEMENT OR RANDOM CRACKING AT ENGINEERSS DISCRETION.

GRADING AND DRAINAGE NOTES:

1. CONTRACTOR SHALL MODIFY THE EROSION CONTROL PLAN AS NEEDED TO ELIMINATE SEDIMENTATION FROM LEAVING THE SITE AS SITE CONDITIONS CHANGE.
2. EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO MATCH PROPOSED GRADE.
3. CONTRACTOR SHALL SPREAD 4" TOPSOIL AND INSTALL SEED AND FERTILIZER ON ALL DISTURBED EARTH SURFACES RESULTING FROM THE CONTRACTOR'S OPERATIONS, UNLESS SHOWN OTHERWISE. RE-SEED AND MAINTAIN UNTIL THE SEED HAS TAKEN ROOT.
4. AREAS THAT ARE TO BE SODDED OR SEEDED SHALL BE RELATIVELY FREE OF WEEDS AT TIME OF FINAL ACCEPTANCE.
5. ALL IMPORTED FILL SHALL BE FREE OF ORGANIC MATERIAL.
6. MAXIMUM LAWN GRADE SLOPE SHALL BE 3:1, UNLESS SHOWN OTHERWISE.
7. MAXIMUM WALK CROSS SLOPE SHALL BE 2%. MAXIMUM LINEAR GRADE SHALL BE 5%.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING SWPPP AND KEEPING STORM WATER SYSTEM CLEAN DURING CONSTRUCTION. COMPLY WITH AEROJET STORMWATER POLLUTION PREVENTION PLAN - AVAILABLE UPON REQUEST.
9. CONTRACTOR IS RESPONSIBLE FOR PURSUING AND OBTAINING ALL NECESSARY STORM WATER PERMITS AND FOLLOWING ALL LOCAL STORM WATER DETENTION/RETENTION AND OUTFALL REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION
10. CONTRACTOR SHALL MEET ALL OSHA REQUIREMENTS AND/OR COMPARABLE OSHA-APPROVED STATE PLAN REQUIREMENTS FOR TRENCHING AND EXCAVATION.

UTILITY NOTES:

1. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATING. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
2. ALL WORK WITHIN PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING AUTHORITY.
3. THERE ARE NUMEROUS PUBLIC AND PRIVATE UTILITIES WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION AND AN ATTEMPT HAS BEEN MADE TO INDICATE THEIR PRESENCE ON THE PLAN. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION THE CONTRACTOR SHALL CONTACT THE VARIOUS UTILITY COMPANIES AND MAKE ARRANGEMENTS FOR LOCATION OF THE UTILITY ON THE GROUND. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NEEDED. EXISTING AND ABANDONED UTILITY LOCATIONS ARE UNKNOWN. SURVEY MARKERS ARE APPROXIMATE LOCATIONS ONLY. ALL UTILITIES ARE TO BE RELOCATED PRIOR TO CONSTRUCTION.
4. ALL UTILITIES SHOWN FOR REMOVAL BACK TO MAIN SHALL BE REMOVED AND CAPPED PER UTILITY STANDARD REQUIREMENTS. UTILITY REMOVAL SHALL BE COORDINATED WITH THE UTILITY AND THE OWNER. 72 HOURS WRITTEN NOTICE SHALL BE GIVEN TO THE OWNER AND UTILITY PRIOR TO DEMOLISHING ANY UTILITY.
5. CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER OF ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY.
6. EXISTING UTILITIES THAT ARE TO REMAIN ARE TO BE PROTECTED AND ADJUSTED TO MATCH NEW GRADE.
7. ANY MAJOR REVISION TO LOCATION OF WATER OR SANITARY SEWER TIE-INS, MANHOLES, METERS, ETC. NEED TO HAVE DRAWINGS RE-SUBMITTED TO ARKANSAS DEPARTMENT OF HEALTH AND HIGHLAND INDUSTRIAL PARK FOR RE-APPROVAL.
8. **DIG CAREFULLY.** STATE LAWS GENERALLY PROHIBIT THE USE OF MECHANIZED EQUIPMENT WITHIN 18-24 INCHES OF A MARKED UTILITY, WHICH IS CALLED THE "TOLERANCE ZONE". CONTACT THE PROPER LOCAL AGENCY PRIOR TO DIGGING.
9. CONTRACTOR SHALL MEET ALL OSHA REQUIREMENTS AND/OR COMPARABLE OSHA-APPROVED STATE PLAN REQUIREMENTS FOR TRENCHING AND EXCAVATION.

SEDIMENTATION AND EROSION CONTROL NOTES:

1. ALL AREAS OF THE SITE EXPOSED BY CONSTRUCTION ACTIVITY AND LEFT UNDISTURBED FOR 21 DAYS MUST BE MULCHED WITHIN 14 DAYS OF LAST DISTURBANCE.
2. IF ADDITIONAL CLEARING IS NECESSARY, THE CONTRACTOR SHALL INSTALL EROSION CONTROL STRUCTURES AND DEVICES AND TREE PRESERVATION FENCING.
3. ALL AREAS WITHIN PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
4. ALL AREAS NOT WITHIN THE PARKING LOT ARE TO RECEIVE LOOSE STRAW TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 2 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING BMP'S, POSTING SWPPP ON SITE AND MONITORING/MAINTAINING EROSIONS CONTROL MEASURES.
6. ANY DAMAGE TO PUBLIC STORM WATER SYSTEM DUE TO LACK OF MAINTAINING BMP'S WILL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN OR REPAIR TO THE SATISFACTION OF THE ENGINEER OR LOCAL AUTHORITY.
7. CONTRACTOR SHALL MODIFY THE EROSION CONTROL PLAN AS NEEDED TO ELIMINATE SEDIMENTATION FROM LEAVING THE SITE AS SITE CONDITIONS CHANGE.
8. CONTRACTOR SHALL PREVENT OFF-SITE TRACKING OF CONSTRUCTION SEDIMENT AND RUNOFF TO ADJACENT PROPERTY AND PUBLIC ROADS.
9. THE CONTRACTOR OR THEIR REPRESENTATIVE IS RESPONSIBLE FOR CONTROLLING EROSION AND DISCHARGE OF SEDIMENT FROM THE SITE AT ALL TIMES DURING CONSTRUCTION. THE PERMITTEE OR THEIR REPRESENTATIVE SHALL PROVIDE NECESSARY MEASURES DURING ALL PHASES OF CONSTRUCTION AND SHALL MAINTAIN AND REPLACE CONTROLS AS NECESSARY DURING CONSTRUCTION TO PREVENT THE MOVEMENT OF SEDIMENT DOWNSTREAM.
10. THE CONTRACTOR OR THEIR REPRESENTATIVE IS RESPONSIBLE FOR INFORMING ALL PARTIES ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE SWPPP.
11. A COPY OF THE SWPPP AND INSPECTION REPORTS MUST BE DISPLAYED AT THE CONSTRUCTION SITE.
12. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE CLEANED AND SWEPT AT THE END OF EACH WORKING DAY AT A MINIMUM, MORE FREQUENTLY IF SEDIMENT TRACK OUT IS HEAVY. WASHING OF ACCUMULATED SEDIMENT INTO THE STORM DRAIN OR WATERWAYS IS PROHIBITED.
13. DUST SHALL BE CONTROLLED DURING CONSTRUCTION AND CONSTRUCTION AREAS SHALL BE WATERED WHENEVER CONDITIONS WARRANT.
14. SEDIMENT REMOVED FROM EROSION AND SEDIMENT CONTROLS AND FACILITIES SHALL NOT BE PLACED ON STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND SHALL BE IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.
15. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH AN APPROVED SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON DISTURBED AREAS.
16. THE CONTRACTOR OR THEIR REPRESENTATIVE IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS OFF-SITE BORROW AND FILL AREAS.
17. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT DEPOSITION, THE CONTRACTOR OR THEIR REPRESENTATIVE SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT DEPOSITION.
18. THE CONTRACTOR OR THEIR REPRESENTATIVE SHALL STABILIZE ALL DISTURBED AREAS NOT SUBJECT TO CONSTRUCTION ACTIVITY WITHIN 14 CALENDAR DAYS AFTER ACTIVITY HAS CEASED.
19. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITHIN 7 CALENDAR DAYS OF ESTABLISHMENT WITH SOD OR SEED WITH APPROVED EROSION CONTROL MATTING OR BY OTHER APPROVED MEASURES.
20. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOFS,SOD, ETC., SHALL BE SEEDED AND MULCHED, AS SPECIFIED IN THE SWPPP BEFORE TEMPORARY SEDIMENT CONTROLS CAN BE REMOVED AND PRIOR TO FINAL APPROVAL OF CONSTRUCTION.
21. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
22. AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS SHALL BE STABILIZED IMMEDIATELY.
23. SILT AND DEBRIS MUST BE REMOVED FROM STORM DRAINS, CONVEYANCE CHANNELS, BASINS OR ANY PART OF THE STORMWATER SYSTEM PRIOR TO FINAL SITE STABILIZATION APPROVAL.
24. THE FOLLOWING WILL BE IMPLEMENTED ACCORDING TO LOCAL, STATE, AND FEDERAL REGULATIONS: LIQUID AND SOLID WASTE MANAGEMENT, CHEMICAL AND MATERIAL DELIVERY AND STORAGE, CONCRETE WASTE, PAINTING AND DRYWALL WORK, VEHICLE FUELING, MAINTENANCE AND CLEANING, ASPHALT, SAWCUTTING, CORING, AND GRINDING ACTIVITIES, BUILDING BLASTING AND CLEANING, CEMENT, GROUT AND MORTAR WORK, SANITARY AND SEPTIC WASTES, WATER LINE DISINFECTION, FLUSHING, DEWATERING, AND OTHER NON-STORMWATER DISCHARGES, HAZARDOUS WASTE MANAGEMENT, AND PROHIBITED DISCHARGES.
25. CONTRACTOR OR THEIR REPRESENTATIVE SHALL MEET ALL OTHER STATE AND FEDERAL CLEAN WATER REQUIREMENTS.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS-ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10649
JOHN T. PETERSON
02-20-2025

Notes

2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

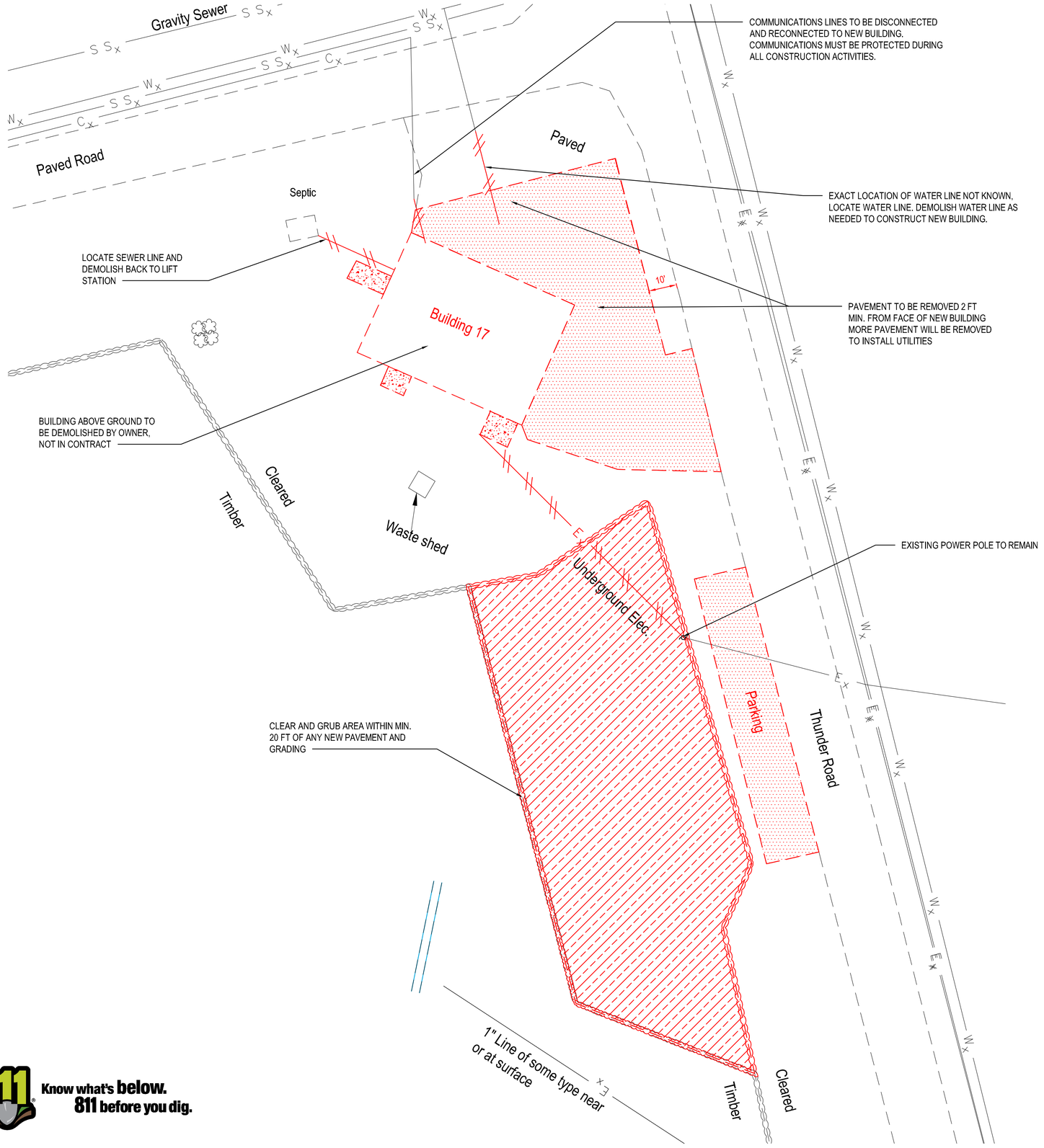
Issue Date **02-20-2025**

Sheet Title

SITE GENERAL NOTES

Sheet Number

C-001



LEGEND

- REMOVE ASPHALT PAVEMENT
- REMOVE CONCRETE PAVEMENT
- CLEAR & GRUB AREA
- REMOVE UTILITY LINE

NORTH

1 SITE DEMOLITION PLAN

0 10' 20' 40'

SCALE:1"=20'

811 Know what's below. 811 before you dig.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION — CROMWELL ARCHITECTS/ ENGINEERS #5 — ARKANSAS-ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 10649 — JOHN T. PETERSON

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

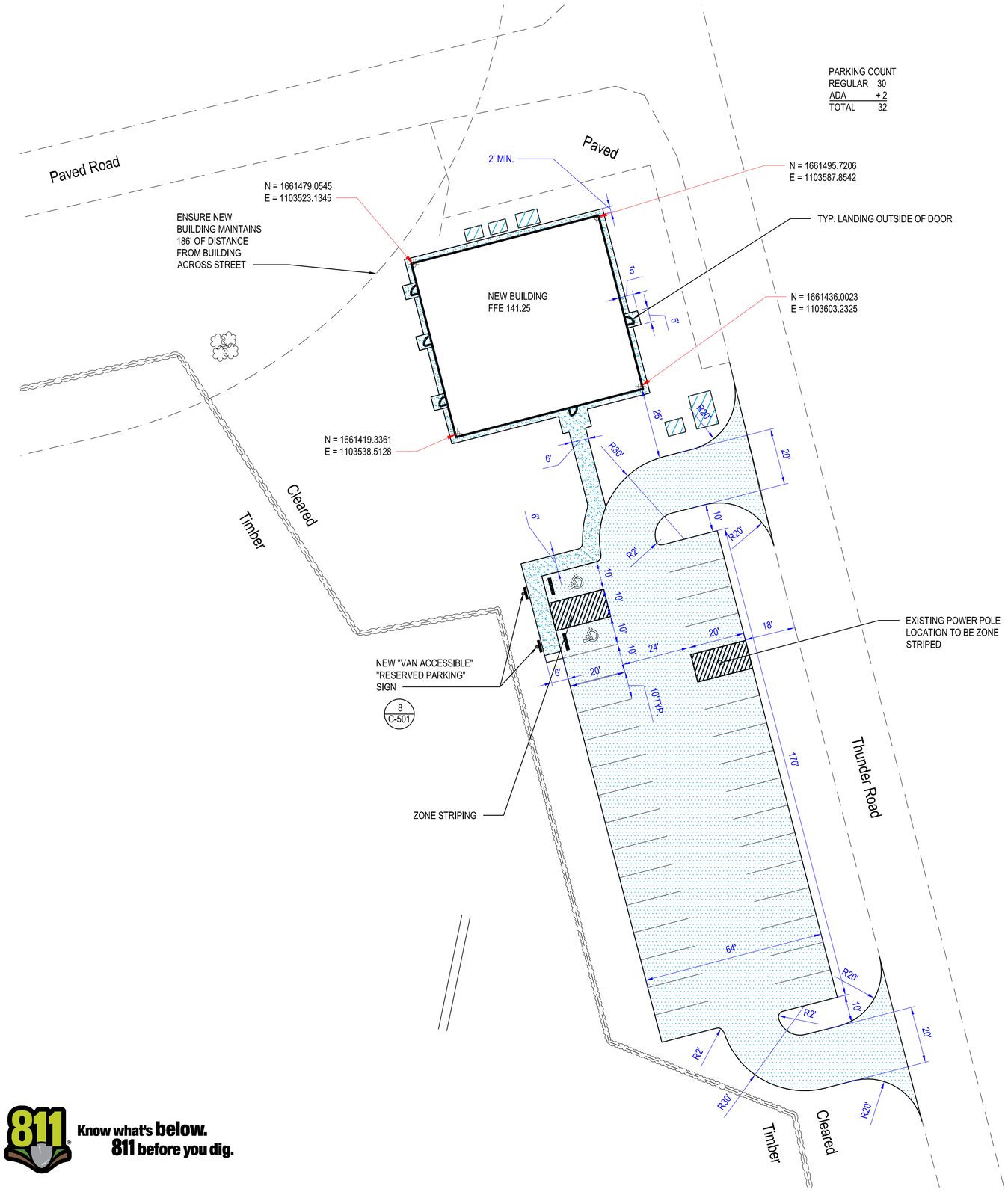
Issue Date **02-20-2025**

Sheet Title

SITE DEMOLITION PLAN

Sheet Number

CD101



811 Know what's below. 811 before you dig.

LEGEND

		DETAIL REFERENCE
NEW ASPHALT PAVEMENT		1 C-501
NEW CONCRETE SIDEWALK		2 C-501
NEW PAD FOR GENERATOR SEE ELECTRICAL		3 C-501
HANDICAP PARKING SYMBOL		4 C-501
WHEEL STOP		

NORTH

1 SITE LAYOUT PLAN

0 10' 20' 40'

SCALE:1"=20'

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
JOHN T. PETERSON
No. 10649
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

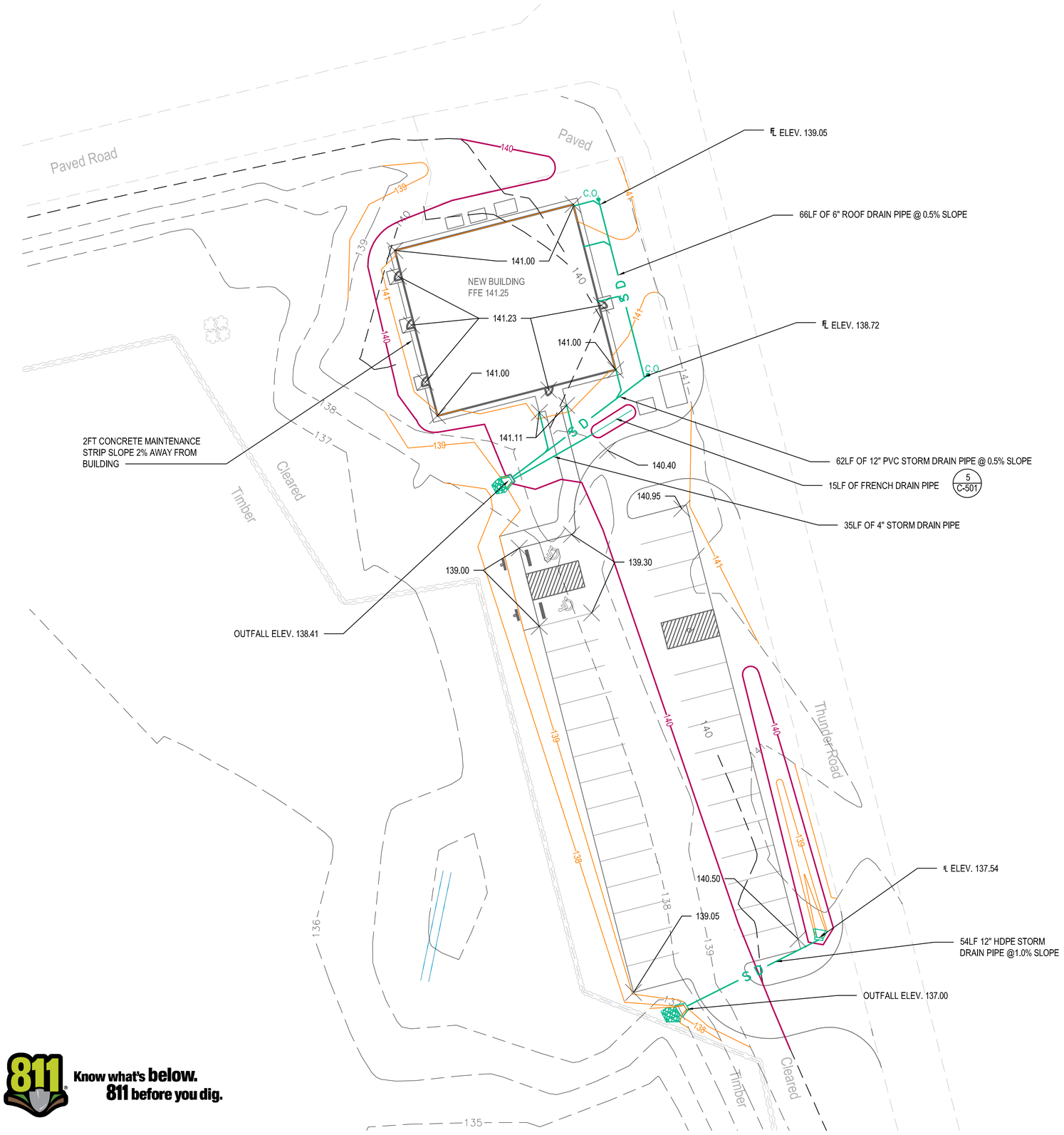
Issue Date **02-20-2025**

Sheet Title

SITE LAYOUT PLAN

Sheet Number

CS101



811 Know what's **below.** **811** before you dig.

LEGEND

DETAIL REFERENCE

- EXISTING GRADE CONTOUR (1 FOOT INTERVAL) — 142
- EXISTING GRADE CONTOUR (5 FOOT INTERVAL) — 145
- FINISHED GRADE CONTOUR (1 FOOT INTERVAL) — 142
- FINISHED GRADE CONTOUR (5 FOOT INTERVAL) — 150
- 7CU. FT. OF HAND-PLACED RIPRAP UNDERLAIN BY FILTER FABRIC STONE SIZE TO BE SIMILAR TO SECTION 816 OF ARDOT STANDARD SPECIFICATIONS
- NEW HEADWALL — 6 C-501
- STORM DRAIN CLEAN OUT C.O. — 7 C-501

NORTH

1 SITE GRADING & DRAINAGE PLAN

0 10' 20' 40'

SCALE:1"=20'

CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE A17 CONTROL BUILDING EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION — CROMWELL ARCHITECTS/ ENGINEERS #5 — ARKANSAS-ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 10649 — JOHN T. PETERSON — 02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

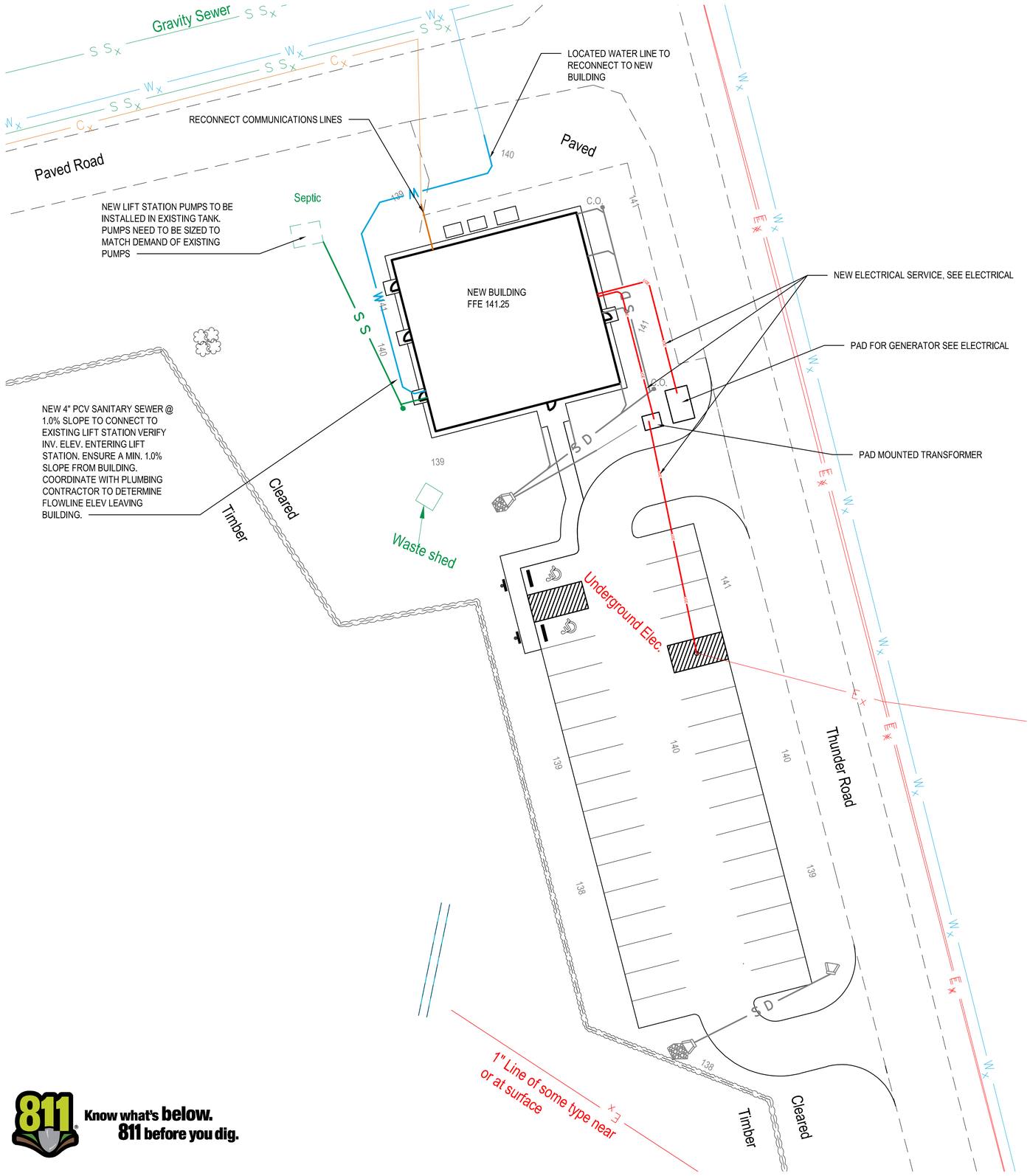
Issue Date **02-20-2025**

Sheet Title

SITE GRADING & DRAINAGE PLAN

Sheet Number

CG101



811 Know what's below. 811 before you dig.

LEGEND

EXISTING UTILITY LINE
- W=WATER
- SS=SANITARY SEWER
- O.H.E.=OVERHEAD ELECTRIC
- C = COMMUNICATIONS

NEW UTILITY LINE
- W=WATER
- SS=SANITARY SEWER

NORTH

1 SITE UTILITY PLAN

0 10' 20' 40'

SCALE:1"=20'

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS/ ENGINEERS #5 — CERTIFICATE OF AUTHORIZATION — ARKANSAS-ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 10649 — JOHN T. PETERSON

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

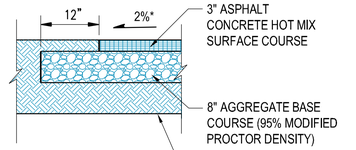
Issue Date **02-20-2025**

Sheet Title

SITE UTILITY PLAN

Sheet Number

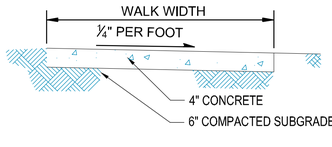
CU101



NOTE: WHERE FILL IS TO BE PLACED ON EXISTING SUBGRADE, FULL DEPTH COMPACTION OF SELECT MATERIAL IS REQUIRED (SEE EARTHWORK SECTION OF SPECS.)

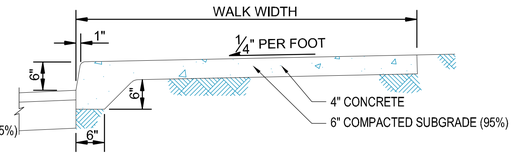
1 ASPHALT PAVING DESIGN SECTION

NOT TO SCALE



SINGLE-PURPOSE WALK TYPICAL SECTION

NO SCALE

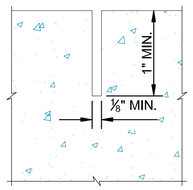


DOUBLE-PURPOSE WALK TYPICAL SECTION

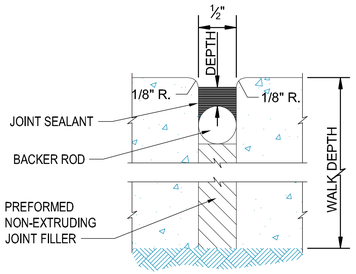
NO SCALE

JOINT SPACING FOR STRAIGHT RUNS			
WALK WIDTH	CONTRACTION JOINT SPACING		EXPANSION JOINT SPACING
	TRANSVERSE	LONGITUDINAL	
4'	4'	NOT REQUIRED	40' MAX.
6'	6'	NOT REQUIRED	42' MAX.
8'	4'	4'	40' MAX.
10'	5'	5'	40' MAX.
12'	6'	6'	42' MAX.

NOTES:
1. TRANSVERSE EXPANSION JOINTS SHALL BE CONTINOUS THROUGH BOTH WALK AND CURB WHERE WALK ABUTS CONCRETE CURB AND GUTTER.
2. EXPANSION JOINTS SHALL NOT BE REQUIRED BETWEEN CURBS THAT ABUT THE SIDEWALK LONGITUDINALLY.



SAWED CONTRACTION JOINT

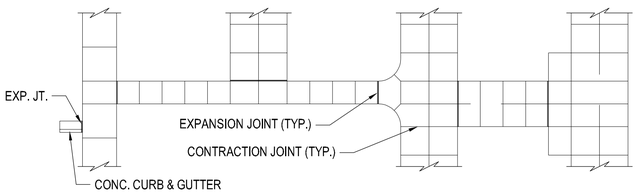


EXPANSION JOINT

SIDEWALK JOINT DETAILS

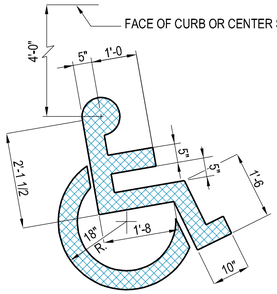
NO SCALE

NOTES:
1. DEPTH OF SEALANT SHALL BE AS RECOMMENDED BY THE MANUFACTURER.



TYPICAL SIDEWALK JOINT LAYOUT PLAN

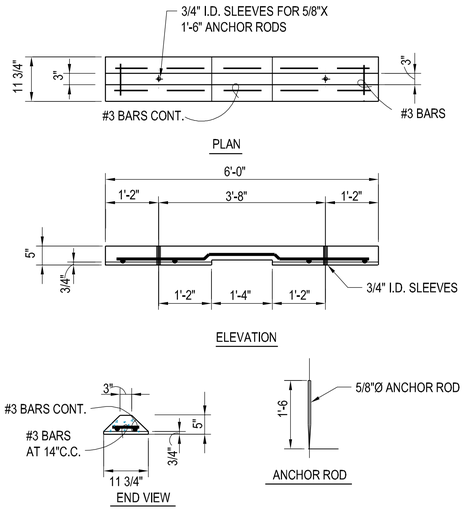
NO SCALE



NOTE: SYMBOL TO BE PAINTED WITH WHITE NON- REFLECTIVE TRAFFIC PAINT

3 HANDICAP SYMBOL DETAIL

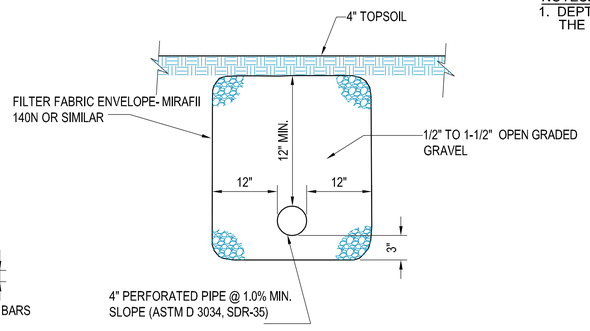
NOT TO SCALE



NOTE:
1. APPROVED STANDARD MANUFACTURED WHEEL STOP MAY BE USED

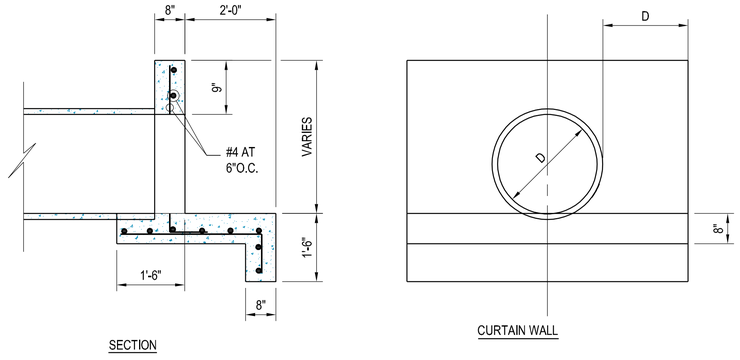
4 WHEEL STOP DETAILS

NOT TO SCALE



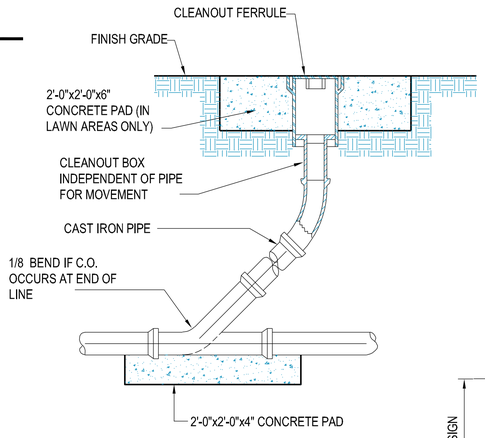
5 FRENCH DRAIN DETAIL

NOT TO SCALE



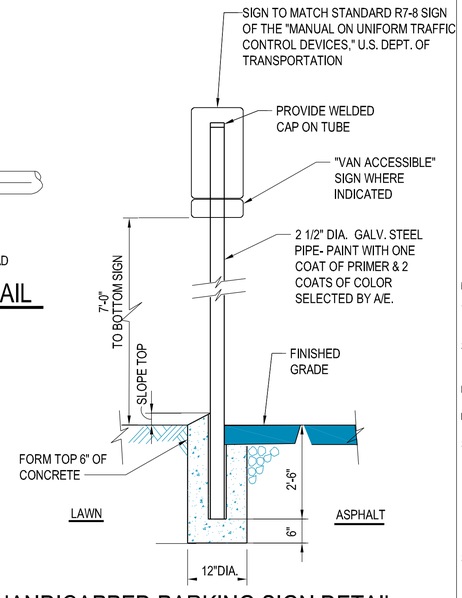
6 HEADWALL DETAIL

NOT TO SCALE



7 CLEANOUT TO GRADE DETAIL (C.O.TG.)

NOT TO SCALE



8 HANDICAPPED PARKING SIGN DETAIL

NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS/ ENGINEERS #5 — CERTIFICATE OF AUTHORIZATION — ARKANSAS-ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 10649 — JOHN T. PETERSON — 02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

CIVIL DETAILS

Sheet Number

C-501

ABBREVIATIONS

(NOT ALL ABBREVIATIONS USED)

#XX	NUMBER
A.F.F.	ABOVE FINISHED FLOOR
ADD'L	ADDITIONAL
ADJ	ADJACENT
ARCH.	ARCHITECTURAL
B.F.F.	BELOW FINISHED FLOOR
BLDG.	BUILDING
BOT	BOTTOM
BTWN	BETWEEN
CJ	CONTROL/ CONSTRUCTION/ CONTRACTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUOUS
DBA	DEFORMED BAR ANCHOR
DIA	DIAMETER
DTL	DETAIL
E.F.	EACH FACE
EA.	EACH
ELEV.	ELEVATION
EW	EACH WAY
EXP.	EXPANSION
FF	FINISHED FLOOR
FLR	FLOOR
FS	FAR SIDE
FTG	FOOTING
G.C.	GENERAL CONTRACTOR
GA.	GAUGE
GALV.	GALVANIZED
H.S.	HIGH STRENGTH
HORIZ.	HORIZONTAL
ID	INSIDE DIAMETER
JT.	JOINT
K or k	KIP (1,000 LBS)
KCJ	KEYED CONTROL JOINT
KSI	KIPS PER SQUARE INCH
L	ANGLE
LBS	POUNDS
LF	LINEAL FOOT
MANUF.	MANUFACTURER
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MIN.	MINIMUM
MISC	MISCELLANEOUS
N.T.S.	NOT TO SCALE
NS	NEAR SIDE
Ø	DIAMETER
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
PAF	POWDER ACTUATED FASTENER
PL	PLATE
PLBG	PLUMBING
PSF	POUNDS PER SQ FOOT
PSI	POUNDS PER SQ INCH
REINF.	REINFORCEMENT
REQ'D.	REQUIRED
SC	SLIP CRITICAL
SECT.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SJ	SAWN JOINT
SPA.	SPACE
SQ	SQUARE
STD.	STANDARD
T&B	TOP AND BOTTOM
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF STEEL or TOP OF SLAB
T.O.W.	TOP OF WALL
TC	TENSION CONTROL
THRU	THROUGH
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	
OR V	VERTICAL
W	WIDE FLANGE
W.W.R.	WELDED WIRE REINF.
w/	WITH
WP	WORK POINT
X/S-YYY	SECTION/DETAIL "X" ON SHEET "S-YYY"
XX#	POUNDS
ZRC	ZINC BASE PAINT

STRUCTURAL DESIGN CRITERIA

BUILDING CODE: 2021 ARKANSAS FIRE PREVENTION CODE (BASED ON 2021 IBC)

RISK CATEGORY (2021 IBC TABLE 1604.5): II

GRAVITY LOADS (REFERENCE: 2021 IBC & ASCE 7-16):

DEAD LOADS:	UNIFORM	
ROOF	MATERIAL WEIGHTS	
COLLATERAL	6 PSF	
CABLE TRAY	10 PLF (SEE ELEC)	
FLOOR LIVE LOADS:	UNIFORM	CONCENTRATED
OFFICES	50 PSF	2000 LBS
PARTITIONS	15 PSF	
MECHANICAL ROOMS	150 PSF	
(FLOOR LIVE LOADS ARE REDUCED IN ACCORDANCE WITH IBC SECTION 1607.10)		
ROOF LIVE LOADS:		20 PSF (NON-REDUCIBLE)
RAIN LOADS:		
15 MINUTE DURATION / 100 YR RETURN PERIOD		i15 = 6.74 IN./H
60 MINUTE DURATION / 100 YR RETURN PERIOD		i60 = 3.60 IN./H
SNOW LOADS:		
GROUND SNOW LOAD		Pg = 10 PSF
FLAT ROOF SNOW LOAD		Pf = 8.4 PSF
SLOPED ROOF SNOW LOAD		Ps = 8.4 PSF
SNOW LOAD IMPORTANCE FACTOR		Is = 1.00
SNOW EXPOSURE FACTOR		Ce = 1.2
THERMAL FACTOR		Ct = 1.0

LATERAL LOADS (REFERENCE: 2021 IBC & ASCE 7-16):

WIND:	
ULTIMATE WIND SPEED	Vult = 104 MPH
NOMINAL WIND SPEED	Vasd = 81 MPH
TERRAIN EXPOSURE	C
INTERNAL PRESSURE COEFFICIENTS	+/- 0.18
COMPONENTS & CLADDING WIND LOAD	SEE SHEET S-001
SEISMIC:	
SEISMIC IMPORTANCE FACTOR	Ie = 1.0
MAPPED SPECTRAL RESPONSE ACCELERATIONS	Ss = 0.188 S1 = 0.098
SITE CLASS	D
DESIGN SPECTRAL RESPONSE ACCELERATIONS	SDS = 0.200 SD1 = 0.157
SEISMIC DESIGN CATEGORY	C
SEISMIC FORCE RESISTING SYSTEM	STEEL SYSTEMS NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE
DESIGN BASE SHEAR	V = 0.067W
SEISMIC RESPONSE COEFFICIENT	Cs = 0.067
RESPONSE MODIFICATION COEFFICIENT	R = 3
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE

SYSTEMS AND COMPONENTS REQUIRING SPECIAL INSPECTION: SEE SPECIFICATION SECTION 014533

STRUCTURAL DESIGN APPROACH:

THIS PROJECT CONSISTS OF A METAL BUILDING SYSTEM CONSISTING OF ROOF PURLIN FRAMING SUPPORTED ON RIGID FRAMES. THE BUILDING WILL BE SUPPORTED ON SHALLOW FOUNDATIONS. LATERAL STABILITY IS PROVIDED BY PORTAL FRAMES IN THE DIRECTION PERPENDICULAR TO THE RIGID FRAMES. ROOF DIAPHRAGM IS PROVIDED BY HORIZONTAL ROD BRACING.

STRUCTURAL GENERAL NOTES

A. CONTRACTOR DELEGATED DESIGN COMPONENTS:

1. THE FOLLOWING ITEMS ARE NOTED AS A DELEGATED DESIGN COMPONENT AND SHALL BE DESIGNED BY THE CONTRACTOR. THE CONTRACTOR SHALL EMPLOY A SPECIALTY STRUCTURAL ENGINEER LICENSED IN THE STATE OF ARKANSAS TO DESIGN THE FOLLOWING ITEMS:
   a. SHORING AND TEMPORARY STRUCTURES
   b. METAL BUILDING SYSTEMS
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR EACH DELEGATED DESIGN COMPONENT. ALL STRUCTURAL DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY THE SPECIALTY STRUCTURAL ENGINEER. THE DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR AND THE DESIGN ENGINEER PRIOR TO SUBMITTAL. INCOMPLETE SHOP DRAWINGS AND SHOP DRAWINGS THAT HAVE NOT BEEN REVIEWED BY THE CONTRACTOR AND THE SPECIALTY STRUCTURAL ENGINEER WILL BE RETURNED WITHOUT REVIEW BY THE ARCHITECT/ENGINEER.
3. THE CONTRACTOR SHALL COORDINATE THE LOCATIONS OF ALL DELEGATED DESIGN COMPONENTS AND THEIR ACCESSORIES WITH OTHER TRADES TO AVOID CONFLICTS, e.g., JOIST BRIDGING AND FIRE SUPPRESSION SYSTEMS.

B. SPECIAL INSPECTIONS:

1. QUALIFIED INSPECTORS SHALL CONDUCT SPECIAL INSPECTIONS AND TESTS AND FURNISH REPORTS AS SPECIFIED IN SECTION 014533 AND IN ACCORDANCE WITH CHAPTER 17, INTERNATIONAL BUILDING CODE.
2. THE CONTRACTOR SHALL COORDINATE THE SPECIAL INSPECTIONS AND TESTING SERVICES WITH THE PROGRESS OF THE WORK, PROVIDE THE APPROPRIATE DOCUMENTATION AND PERFORM OTHER TASKS AS SPECIFIED IN SECTION 014533.
3. CONSTRUCTION THAT REQUIRES CONTINUOUS INSPECTION PER SECTION 014533 CAN NOT PROGRESS WITHOUT INSPECTORS PRESENT.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL OTHER INSPECTIONS OR TESTS IN THE SPECIFICATIONS, NOT LISTED IN THE SCHEDULE OF SPECIAL INSPECTION SERVICES IN SECTION 014533.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIR, REINSPECTION AND RETESTING FOR ITEMS THAT DO NOT PASS THE INSPECTIONS OR TESTS.
6. SPECIAL INSPECTION SERVICES DO NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLIANCE WITH OTHER CONSTRUCTION DOCUMENT REQUIREMENTS OR REGULATORY REQUIREMENTS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF DEMOLITION, RECONSTRUCTION, INSPECTION AND TESTING OF ANY WORK COMPLETED WITHOUT INSPECTION AND TESTING AS SPECIFIED IN SECTION 014533.

STRUCTURAL GENERAL NOTES

C. STABILITY DURING CONSTRUCTION, SHORING, & TEMPORARY STRUCTURES:

1. PERMANENT STABILITY OF THE BUILDING AND COMPONENTS IS NOT PROVIDED UNTIL ALL THE STRUCTURAL ELEMENTS ARE INSTALLED AS SHOWN ON THE CONTRACT DRAWINGS.
2. PROVIDE STABILITY TO ALL NON-SELF SUPPORTING ELEMENTS UNTIL PERMANENT STRUCTURAL SUPPORTS ARE INSTALLED. PROVIDE BRACING, SHORING, AND/OR TEMPORARY STRUCTURES AS REQUIRED IN ORDER TO SATISFY THE CONTRACT REQUIREMENTS.
3. PROVIDE ALL BRACING NECESSARY TO STABILIZE THE BUILDING DURING THE ERECTION PROCESS. BRACING SHALL BE DESIGNED AND INSTALLED SUCH THAT IT DOES NOT TWIST OR DISTORT MEMBERS. BRACING SHALL BE DESIGNED FOR LOADS AS REQUIRED BY APPLICABLE CODES. THE DESIGN OF THE BRACING SHALL TAKE INTO ACCOUNT FORCES DUE TO THERMAL EXPANSION AND CONTRACTION OF THE BUILDING FRAME AND BRACES.
4. ANCHOR RODS FOR STEEL COLUMNS ARE NOT DESIGNED TO STABILIZE STRUCTURE BY PROVIDING FIXITY OF THE COLUMN BASE. PROVIDE TEMPORARY BRACING FOR STABILITY DURING THE ERECTION PHASE UNTIL ALL LATERAL LOAD RESISTING ELEMENTS ARE IN PLACE AND WELDING AND/OR BOLTING INSPECTIONS ARE COMPLETE.
5. COMPLY WITH ALL APPLICABLE OSHA SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION.

D. GENERAL REQUIREMENTS:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH DRAWINGS RELATING TO OTHER TRADES. CHECK AND COORDINATE DIMENSIONS, CLEARANCES, OPENINGS, PIPE SLEEVES, CURBS, ETC. WITH THE WORK OF OTHER TRADES.
2. WORK NOT INDICATED ON A PART OF THE DRAWING BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES SHALL BE REPEATED.
3. DETAILS DESIGNATED AS "TYPICAL" APPLY TO ALL AREAS WHERE THE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAIL.
4. THE PLANS AND DETAILS IN THE CONTRACT DRAWINGS SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL BY THE ARCHITECT/ENGINEER.
5. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS.
6. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. EXAMINE THE DRAWINGS FOR REQUIRED OPENINGS AND PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR NOT. VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ALL SUB-CONTRACTORS. PIPE SLEEVES THROUGH THE DECK WILL NOT REQUIRE ADDITIONAL FRAMING UNLESS THE DIAMETER EXCEEDS 10".
7. SPLICING OF STRUCTURAL MEMBERS WHERE NOT DETAILED IS PROHIBITED WITHOUT PRIOR APPROVAL OF ARCHITECT/ENGINEER. IF APPROVED, ADDITIONAL TESTING AND INSPECTION SHALL BE AS SPECIFIED BY THE ARCHITECT/ENGINEER AND PAID FOR BY THE CONTRACTOR.
8. NO CHANGE IN SIZE OR POSITION OF THE STRUCTURAL ELEMENTS SHALL BE MADE: HOLES, SLOTS, CUTS, ETC., ARE NOT PERMITTED THROUGH ANY MEMBER UNLESS THEY ARE DETAILED ON THE APPROVED SHOP DRAWINGS.

E. SHOP DRAWINGS:

1. SUBMIT SHOP DRAWINGS FOR REVIEW BY THE ARCHITECT/ENGINEER FOR THE FOLLOWING ITEMS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
   a. CONCRETE REINFORCING STEEL
      1. INDICATE ALL REINFORCING STEEL IN FOUNDATIONS, SLABS ON GRADE
      2. INDICATE ALL HORIZONTAL, VERTICAL, AND TIE REINFORCING
      3. INDICATE TYPE AND LOCATION OF ALL REINFORCING STEEL SPLICES
2. SUBMIT OTHER SHOP DRAWINGS FOR REVIEW BY ARCHITECT/ENGINEER AS REQUIRED BY PROJECT SPECIFICATIONS.
3. DETAILS FOR SOME SPECIAL CONDITIONS WILL NEED TO BE DEVELOPED BY THE DETAILER DURING THE DETAILING PROCESS. FINAL REVIEW OF THE DETAILS WILL BE AT THE DISCRETION OF THE ENGINEER OF RECORD. NO ADDITIONAL CHARGES FOR MAKING CORRECTIONS, CHANGES, OR ADDITIONS TO THE SHOP DRAWINGS ("RE-DETAILING COST") WILL BE ALLOWED. CONTRACTOR SHALL MAKE PROVISIONS FOR DETAILING CORRECTIONS AND MISCELLANEOUS MATERIAL IN THE BID PRICE. ADJUSTMENTS TO THE CONTRACT WILL ONLY BE MADE FOR CHANGE ORDERS APPROVED PRIOR TO THE COMMENCEMENT OF ANY ACTION ON THE CHANGES.
4. ALL SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR / CONSTRUCTION MANAGER PRIOR TO SUBMITTAL. INCOMPLETE SHOP DRAWINGS AND SHOP DRAWINGS THAT HAVE NOT BEEN REVIEWED BY THE CONTRACTOR WILL BE RETURNED WITHOUT REVIEW BY THE ARCHITECT/ENGINEER.
5. VERIFY AND COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS. IN CASE OF CONFLICTS, THE ARCHITECT/ENGINEER IS TO BE NOTIFIED AND WILL PROVIDE THE CORRECT ELEVATIONS AND DIMENSIONS FOR WHICH SHALL BE INCORPORATED INTO THE SHOP DRAWINGS AT NO EXTRA COST.

F. EARTHWORK:

1. FOUNDATION DESIGN IS BASED ON SOIL INVESTIGATION AND REPORT BY GRUBBS, HOSKYN, BARTON & WYATT, INC. (JOB NO.: A24184.00533).
2. FOUNDATION DESIGN IS BASED ON THE FOLLOWING MINIMUM NET ALLOWABLE BEARING PRESSURE:
   a. CONTINUOUS FOOTINGS: 1250 PSF
   b. INDIVIDUAL PAD FOOTINGS: 1250 PSF
   ALL FOUNDATION BEARING CONDITIONS SHALL BE VERIFIED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
3. BOTTOM OF FOUNDATION ELEVATIONS ARE GIVEN FOR BIDDING PURPOSES ONLY. ALL FOUNDATIONS SHALL BE FOUNDED A MINIMUM OF 2 FEET BELOW EXISTING GRADE IN PROPERLY COMPACTED SANDY GRAVEL ON-SITE FILL OR COMPACTED SELECT GRANULAR FILL.
4. THE SITE SHALL BE STRIPPED A MINIMUM OF 1'-0", PROOF ROLLED, COMPACTED FILL PLACED, AND EXCAVATED AS REQUIRED FOR FOUNDATION. SOME AREAS WILL REQUIRE 18" TO 24" OF STRIPPING DUE TO THICK UNDERBRUSH OR TREES. SEE SPECIFICATION DIVISION 31 FOR EARTHWORK REQUIREMENTS.
5. REMOVE 4-6 FEET OF EXISTING SUB GRADE MATERIAL UNDER THE BUILDING FROM ELEVATION 141.25 (EXTENDING 5 FEET BEYOND THE BUILDING PERIMETER) AND BACKFILL AS PER SPECIFICATION DIVISION 31, EARTHWORK, USING SPECIFIED BORROW MATERIAL.
6. TAKE ADEQUATE MEASURES TO ALLOW FOR WORKING SURFACE DURING CONSTRUCTION OF FOUNDATIONS AND SLAB-ON-GRADE, SUCH AS GRAVEL BED OF ADEQUATE DEPTH, ETC.
7. PROVIDE EARTH RETENTION SYSTEMS AND TEMPORARY BRACING OR SHORING (INCLUDING UNDERPINNING) AS REQUIRED TO SUPPORT EXCAVATIONS AND TO PROTECT EXISTING STRUCTURES DURING CONSTRUCTION. TRENCHING AND EXCAVATIONS SHALL MEET ALL OSHA REQUIREMENTS.
8. WATER ACCUMULATION IS ANTICIPATED IN FOOTING EXCAVATIONS; PROVIDE DRAINAGE OF EXCAVATIONS FROM SURFACE WATER AND SEEPAGE. EXCAVATIONS SHALL BE DRAINED OR PUMPED DRY BEFORE POURING CONCRETE.
9. PROTECT ALL UTILITY LINES, ETC. ENCOUNTERED DURING EXCAVATION AND BACKFILLING.

G. CONCRETE AND REINFORCING STEEL:

1. THE DESIGN OF THE CONCRETE STRUCTURE IS BASED ON ACI318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
2. CAST IN PLACE CONCRETE SHALL HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTHS (fc):

COMPONENT	COMPRESSIVE STRENGTH
FOOTINGS AND TIE BEAMS	3500 PSI
WALLS AND EXTERIOR SLABS	4500 PSI
INTERIOR SLABS ON GRADE	3500 PSI

   SEE SPECIFICATION SECTION 033000 FOR ADDITIONAL MIX DESIGN REQUIREMENTS.
3. ALL DEFORMED REINFORCING STEEL SHALL BE A615 GRADE 60 STEEL, U.N.O.
4. ALL WELDED WIRE REINFORCING STEEL SHALL BE A1064. ALL WELDED WIRE REINFORCEMENT SHALL BE PROVIDED IN SHEETS.
5. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST ACI CODE AND ACI DETAILING MANUAL.
6. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE:

CONCRETE CAST AGAINST EARTH:	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#5 BARS AND SMALLER:	1 ½"
#6 BARS AND LARGER:	2"
SLABS, WALLS, AND JOISTS:	1"

7. ALL CONCRETE CONSTRUCTION AND MATERIALS SHALL BE PLACED ACCORDING TO ACI 117 TOLERANCES.
8. ALL CONCRETE REINFORCING STEEL SHALL BE SPLICED USING TENSION SPLICES:
   a. UNLESS NOTED OTHERWISE, LAP SPLICE ALL CONCRETE REINFORCING STEEL:

BARS #6 AND SMALLER:	48 BAR DIAMETERS
BARS #7 AND LARGER:	60 BAR DIAMETERS
WELDED WIRE REINFORCING:	ONE MESH PLUS 2"

   b. ONLY APPROVED MECHANICAL SPLICE SYSTEMS SHALL BE USED TO PROVIDE TENSION SPLICES. MECHANICAL SPLICES SHALL DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR.
9. ALL CONCRETE REINFORCING SHALL BE SPLICED WHERE DETAILED ON THE DRAWINGS. UNLESS NOTED OTHERWISE:
   a. LAP GRADE BEAM AND WALL TOP REINFORCEMENT AT CENTER OF SPAN.
   b. LAP GRADE BEAM AND WALL BOTTOM REINFORCEMENT AT SUPPORT.
   c. STAGGER ALL TENSION LAP SPLICE LOCATIONS.
10. TERMINATE CONTINUOUS BARS AT NON-CONTINUOUS END WITH STANDARD HOOKS.
11. PROVIDE CORNER BARS IN ALL CONCRETE MEMBERS AT INTERSECTIONS. MATCH SIZE AND SPACING OF HORIZONTAL BARS IN THOSE MEMBERS.
12. ALL REINFORCING STEEL SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. ADDITIONAL BARS OR STIRRUPS SHALL BE PROVIDED AS REQUIRED TO FURNISH SUPPORT FOR ALL REINFORCING STEEL.
13. PROVIDE SUPPORT FOR ALL CONCRETE REINFORCING AS REQUIRED TO MAINTAIN CLEAR COVER DIMENSIONS. SPACING SHALL NOT EXCEED 3'-0".
14. SUBMIT DRAWINGS SHOWING INTENDED POURING SEQUENCE AND LOCATION OF CONSTRUCTION JOINTS TO THE ARCHITECT/ENGINEER FOR APPROVAL.
15. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. HORIZONTAL OR NEAR HORIZONTAL JOINTS SHALL BE PREPARED BY ROUGHENING THE SURFACE IN AN APPROVED MANNER SO THAT THE AGGREGATE IS EXPOSED UNIFORMLY, LEAVING NO LAITANCE, LOOSENED PARTICLES, OR DAMAGED CONCRETE.
16. PIPES OR CONDUITS PLACED IN FOUNDATIONS AND SLABS SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTERS. PIPES AND CONDUITS PLACED IN SLAB SHALL NOT HAVE AN OUTSIDE DIAMETER LARGER THAN 1/3 OF SLAB THICKNESS. ALUMINUM CONDUITS SHALL NOT BE PLACED IN CONCRETE. NO CONDUIT SHALL BE PLACED WITHIN 24" OF COLUMN FACE.
17. LOCATION OF SLOTTED INSERTS, WELD PLATES AND ALL OTHER ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
18. REINFORCING BARS SHALL NOT BE WELDED.
19. VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVE CURBS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
20. AGGREGATE FOR CONCRETE SHALL NOT CONTAIN LIGNITE, STEEL, OR OTHER MATERIALS THAT MAY BE DETRIMENTAL TO THE CONCRETE. ALKALI-SILICA REACTIVE (ASR) AGGREGATES ARE NOT ALLOWED.
21. MAXIMUM TOLERANCE FOR SLAB EDGES IS 1/2" +/- EXCEPT WHERE TIGHTER TOLERANCE IS REQUIRED FOR ARCHITECTURAL REASONS.
    CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH THE SPECIFICATIONS. WHEN THE AIR TEMPERATURE IS OVER 85 DEGREES FOLLOW THE RECOMMENDATIONS OF ACI 305R. WHEN THE AIR TEMPERATURE IS BELOW 40 DEGREES FOLLOW THE RECOMMENDATIONS OF ACI 306R.

H. METAL BUILDING SYSTEMS:

1. THE METAL BUILDING SYSTEM MANUFACTURER SHALL BE IAS AC472 ACCREDITED AND A MEMBER OF MBMA.
2. THE METAL BUILDING SYSTEM MANUFACTURER SHALL:
   a. DESIGN THE METAL BUILDING SYSTEM FOR THE LOADS AND DESIGN CRITERIA SHOWN ON THE PLANS AND IN SPECIFICATIONS.
   b. DESIGN THE BUILDING FOR A MAXIMUM DRIFT OF H/200 UNDER THE NOMINAL WIND SPEED INDICATED UNDER THE STRUCTURAL DESIGN CRITERIA. SEISMIC DRIFT SHALL BE LIMITED BASED ON ASCE 7 ASSUMING ACCOMMODATIONS FOR STORY DRIFTS HAVE NOT BEEN INCORPORATED INTO THE DESIGN. COLUMN BASES SHALL BE ASSUMED TO BE PINNED CONDITION.
   c. CHECK THE FOUNDATION DESIGN LOADS SHOWN ON THE DRAWINGS AND NOTIFY THE ARCHITECT/ENGINEER IF ANY OF THE LOADS FROM THE BUILDING WILL EXCEED THE LOADS SHOWN ON THE DRAWINGS.
3. DO NOT CONSTRUCT FOUNDATIONS UNTIL THE ARCHITECT/ENGINEER HAS APPROVED THE METAL BUILDING SYSTEM SUBMITTAL AND MADE ANY NECESSARY CHANGES TO THE FOUNDATION DRAWINGS.
4. PLACE AND SECURE ANCHOR RODS IN FOOTING EXCAVATION PRIOR TO POURING CONCRETE FOR FOOTING. DO NOT PLACE ANCHOR RODS IN WET CONCRETE.
5. ALL WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED BY AWS TO PERFORM THE WELDING IN ACCORDANCE WITH AWS.
6. FINAL BOLTING OR WELDING SHALL NOT BE PERFORMED UNTIL THE STRUCTURE HAS BEEN PROPERLY ALIGNED.

I. POST-INSTALLED ANCHORS IN CONCRETE OR MASONRY:

1. POST-INSTALLED ANCHORS (MECHANICAL OR ADHESIVE) SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER–OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS OR DOWELS. POST-INSTALLED ANCHORS SHALL BE BUILDING CODE COMPLIANT, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND INSPECTED PER THE APPLICABLE ICC-ES OR IAPMO UES EVALUATION REPORT. SEE SPECIFICATIONS SECTION(S) 033000 FOR ADDITIONAL INFORMATION.

CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 23092
BRITTANI MITCHELL

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

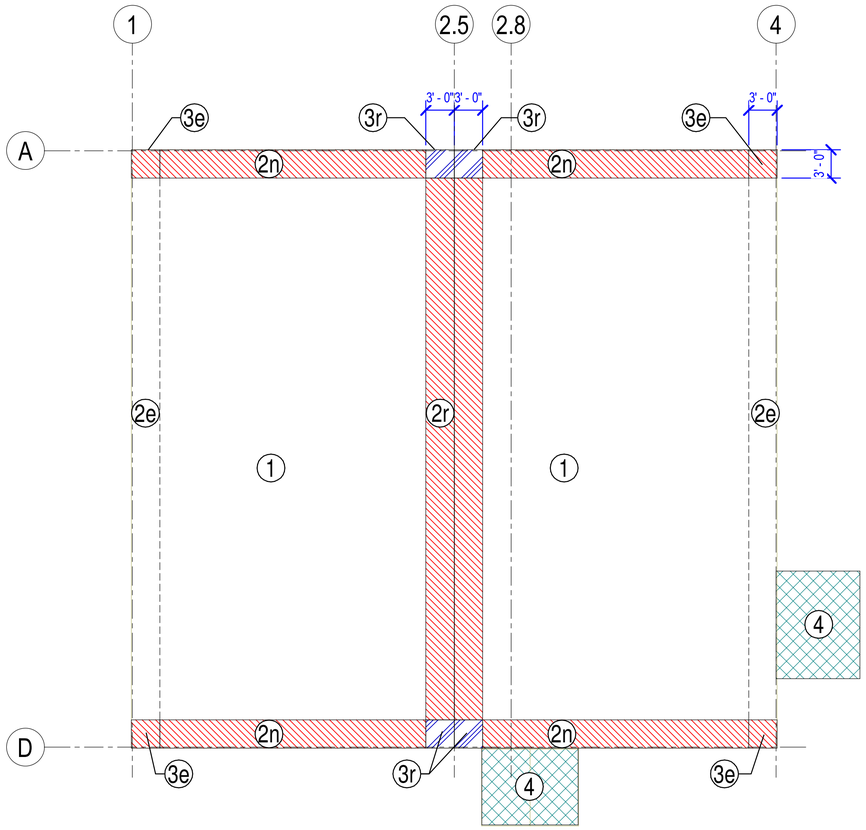
Issue Date **02-20-2025**

Sheet Title

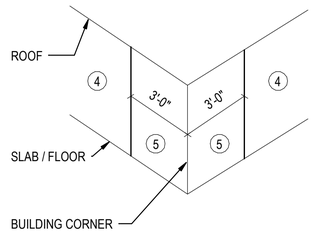
GENERAL NOTES

Sheet Number

S-001



1 COMPONENTS AND CLADDING ROOF WIND PRESSURES PLAN
1/8" = 1'-0"



ZONE	TRIBUTARY AREA (SQ. FT.)		
	10	50	100
4	-24/+22 PSF	-22/+20 PSF	-21/+19 PSF
5	-29/+22 PSF	-25/+20 PSF	-23/+19 PSF

COMPONENTS AND CLADDING WALL WIND PRESSURES

NOTES:

1. BASIC DESIGN WIND SPEED: 104 MPH
2. NOMINAL WIND SPEED: 81 MPH
3. WIND PRESSURES ARE BASED ON ASCE 7-16 STRENGTH DESIGN (ULTIMATE).
4. POSITIVE / NEGATIVE VALUES INDICATE FORCES ACTING TOWARDS / AWAY FROM ELEMENT, RESPECTIVELY.
5. SERVICE LEVEL LOADS MAY BE CALCULATED BY MULTIPLYING THE NUMBERS ABOVE BY 0.6.

GROSS WIND UPLIFT
(STRENGTH DESIGN)

ZONE		TRIBUTARY AREA (SQ. FT.)		
		10	50	100
	1 & 2e	-44/+16 PSF	-27/+16 PSF	-17/+16 PSF
	2n, 2r & 3e	-64/+16 PSF	-44/+16 PSF	-35/+16 PSF
	3r	-76/+16 PSF	-51/+16 PSF	-40/+16 PSF
	4	-64/+16 PSF	-47/+16 PSF	-39/+16 PSF

COMPONENTS AND CLADDING ROOF WIND PRESSURES

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS
#5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 23092
BRITANI MITCHELL
02-20-2025

Notes

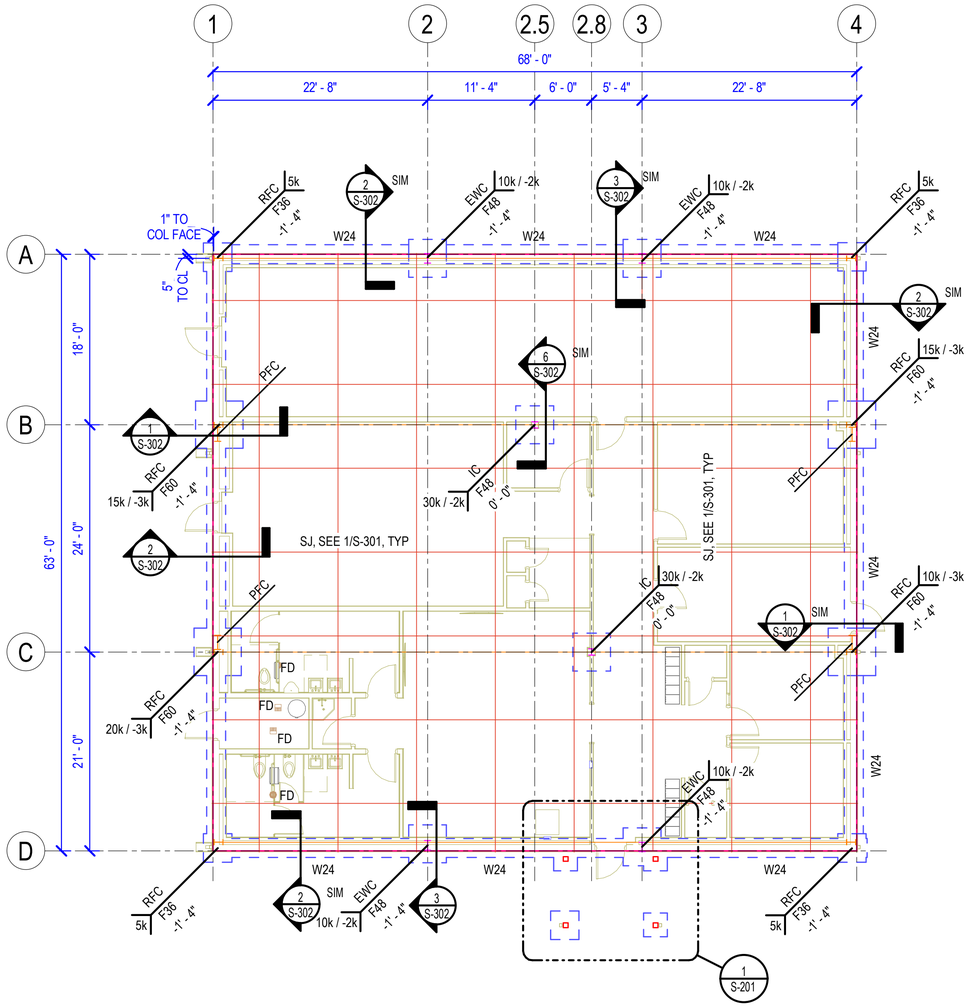
1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title
COMPONENTS AND CLADDING WIND PRESSURES

Sheet Number
S-002

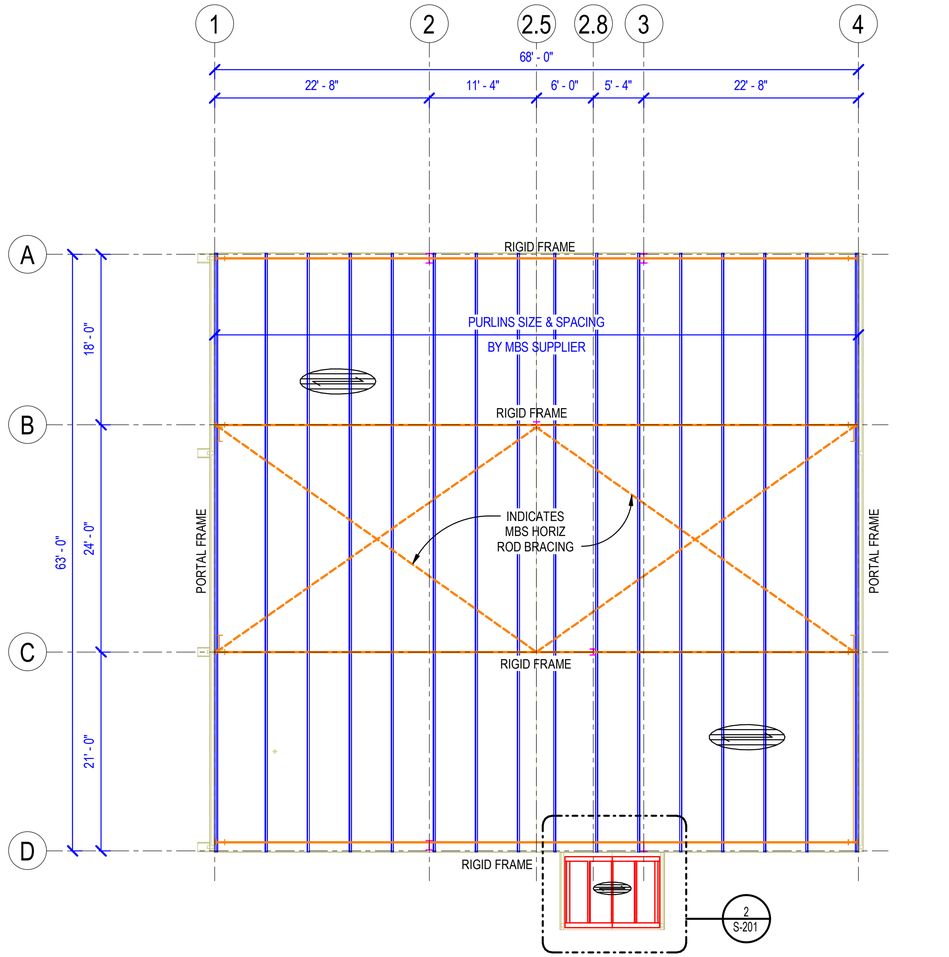


1 FOUNDATION AND SLAB PLAN

1/8" = 1'-0"

NORTH

F.F.E = 141.25

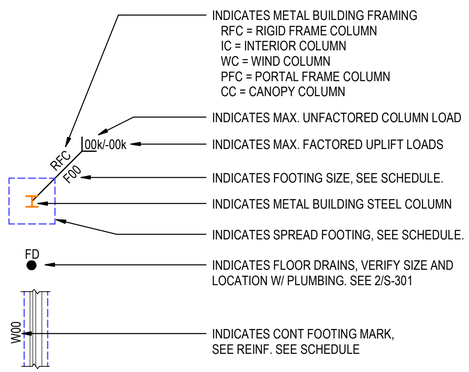


2 ROOF FRAMING PLAN

1/8" = 1'-0"

NORTH

FOUNDATION AND SLAB LEGEND



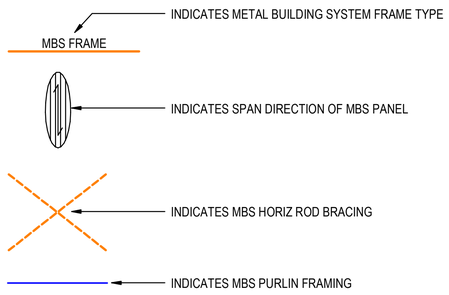
FOUNDATION SCHEDULE

MARK #	L	W	T	REINFORCING
F30	2' - 6"	2' - 6"	1' - 4"	#5 AT 9" O.C. EACH WAY T&B
F36	3' - 0"	3' - 0"	1' - 6"	#5 AT 9" O.C. EACH WAY T&B
F48	4' - 0"	4' - 0"	1' - 6"	#5 AT 9" O.C. EACH WAY T&B
F60	5' - 0"	5' - 0"	1' - 6"	#5 AT 9" O.C. EACH WAY T&B
W24	VARIES	2' - 0"	1' - 4"	SEE DETAIL 2/S-302

FOUNDATION PLAN NOTES:

1. SEE 2/S-301 TYPICAL SLAB ON GRADE PENETRATION DETAILS
2. SEE 3/S-301 FOR TYPICAL SLAB OPENINGS AND REENTRANT CORNERS
3. SEE 4/S-301 FOR TYPICAL DISCONTINUOUS SLAB JOINT DETAILS
4. SEE 6/S-301 FOR TYPCIAL CONTINUOUS FOOTING REINFORCEMENT AT CORNERS
5. SEE 7/S-301 FOR TYPICAL HORIZONTAL PENETRATIONS THROUGH CONTINUOUS FOOTINGS

FRAMING LEGEND



CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 23092
BRITANI MITCHELL
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

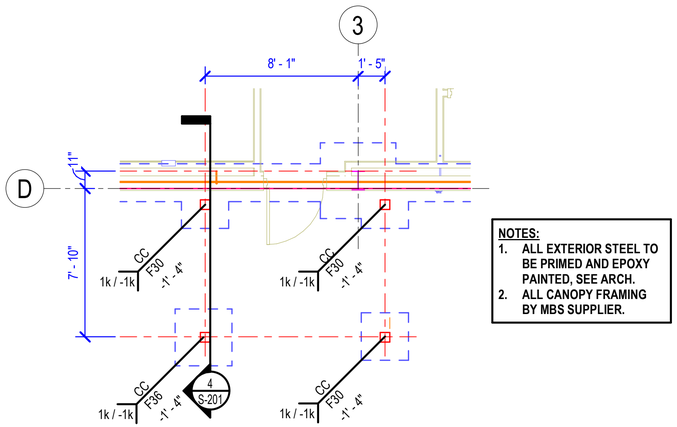
Issue Date **02-20-2025**

Sheet Title

FOUNDATION AND ROOF FRAMING PLANS

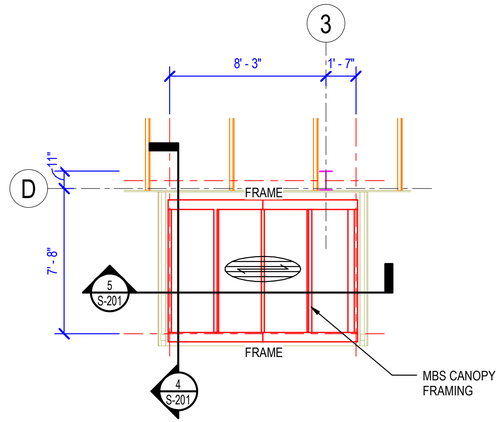
Sheet Number

S-101



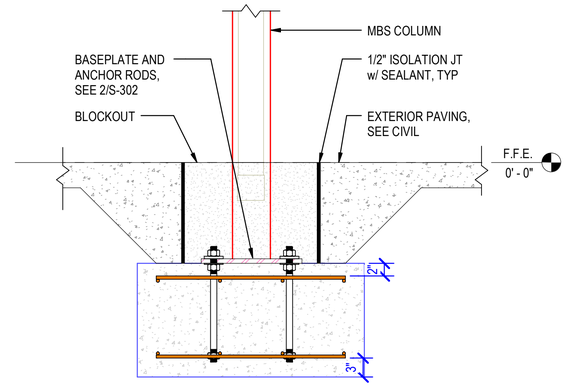
1 SOUTH CANOPY FOUNDATION PLAN
1/4" = 1'-0"

NORTH

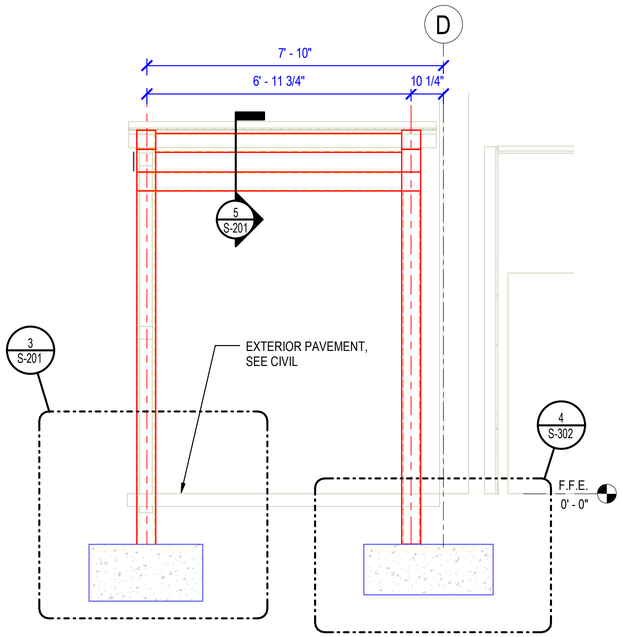


2 SOUTH CANOPY ROOF FRAMING PLAN
1/4" = 1'-0"

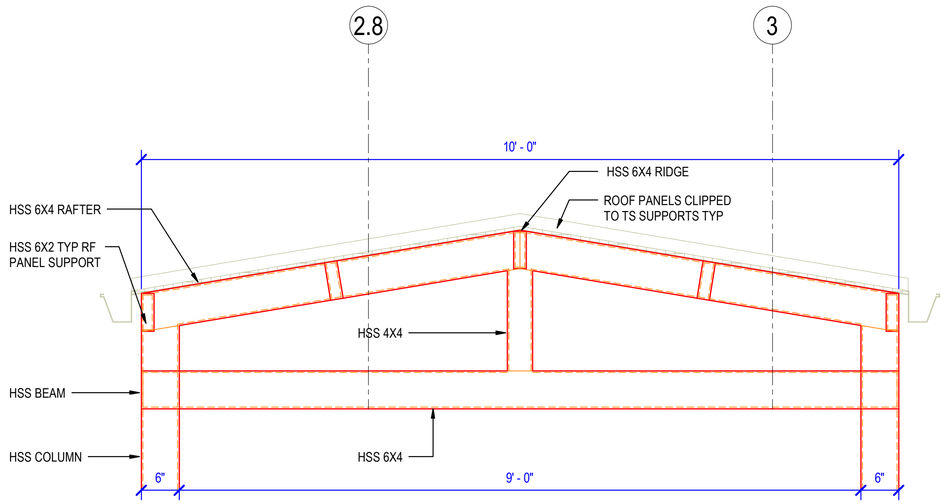
NORTH



3 EXTERIOR MBS COLUMN FOUNDATION
1" = 1'-0"



4 SECTION THRU SOUTH CANOPY
1/2" = 1'-0"



NOTES:
1. HSS CANOPY FRAMING BY M.B CONTRACTOR. SUBMIT SHOP DRAWINGS FOR APPROVAL
2. HSS STEEL SHALL BE GALVANIZED AND PAINTED. SEE EXT. ELEVATIONS FOR COLOR KEY
3. ALL HSS CONNECTIONS SHALL BE WELDED & GROUND SMOOTH. PROVIDE STEEL END CAPS AT EXPOSED ENDS. HORIZ HSS SHALL BE FLUSH WITH OUTSIDE FACE OF COLUMN.

5 SECTION THRU SOUTH CANOPY
1" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 23092
BRITTANI MITCHELL
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

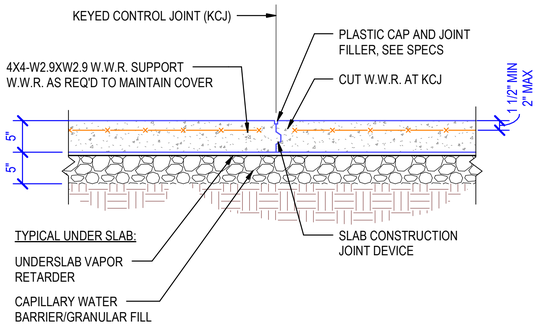
Issue Date **02-20-2025**

Sheet Title

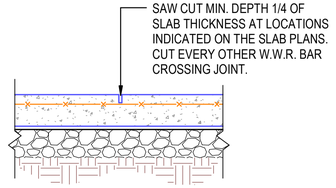
CANOPY FOUNDATION AND FRAMING PLANS

Sheet Number

S-201



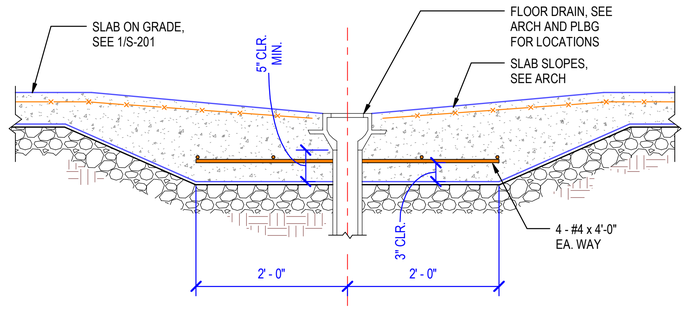
A KCJ (KEYED CONSTRUCTION JOINT)



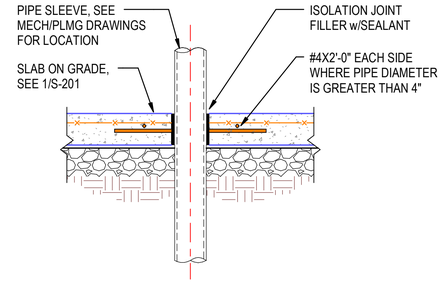
B SAWN JOINT (SJ)

1 TYPICAL SLAB ON GRADE REINFORCING AND JOINT DETAILS

NOT TO SCALE



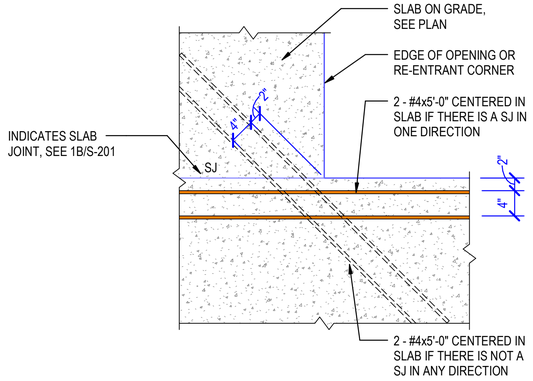
A FLOOR DRAIN AT SLOPED SLAB



B MECH/PLMG PIPE THROUGH SLAB

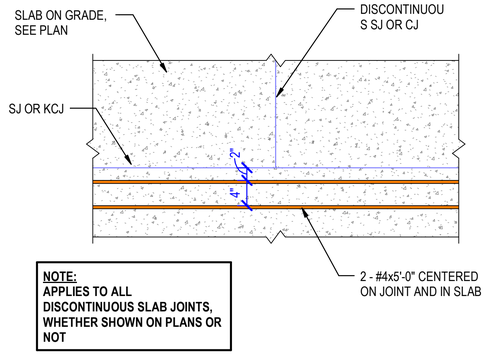
2 TYPICAL SLAB ON GRADE PENETRATION DETAILS

NOT TO SCALE



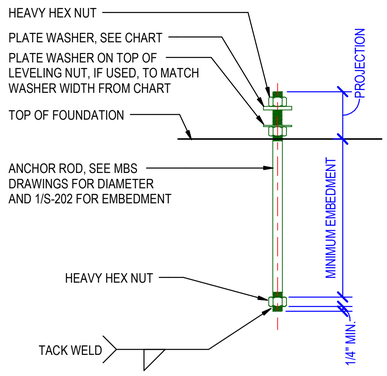
3 TYPICAL SLAB OPENINGS AND REENTRANT CORNERS

NOT TO SCALE



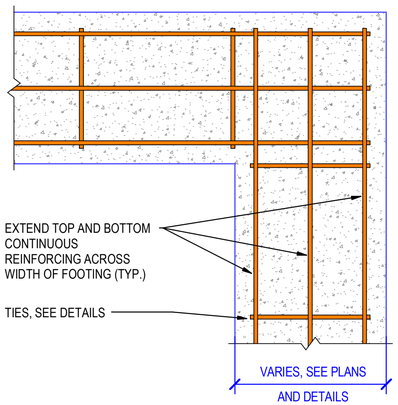
4 TYPICAL DISCONTINUOUS SLAB JOINT DETAIL

NOT TO SCALE



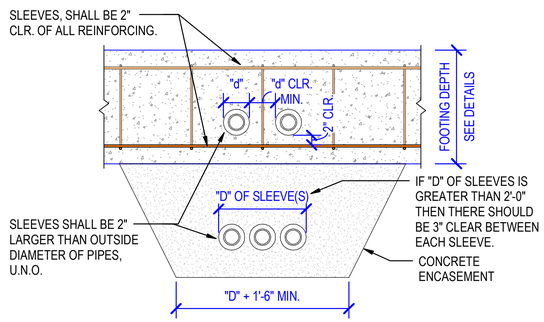
5 ANCHOR ROD DETAIL

NOT TO SCALE

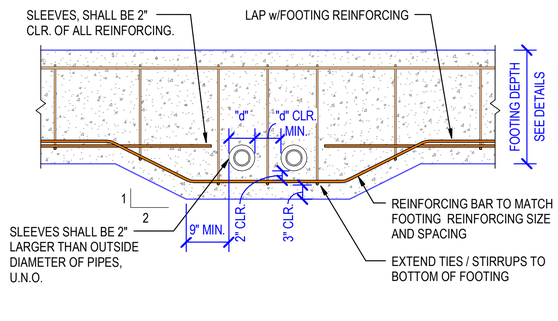


6 TYP CONT. FOOTING REINF. AT CORNERS

NOT TO SCALE



A PIPES THROUGH OR BELOW FOOTING



B PIPES THROUGH FOOTING (INTERUPTED REINFORCING)

NOTES:
1. PIPE SLEEVES SHALL BE PVC, CAST IRON, OR GALV. STEEL.
2. COORD. PIPE SLEEVE LOCATIONS w/MECH. ELEC. AND PLMG.
3. THE NOMINAL SLEEVE DIAMETER SHALL NOT BE GREATER THAN 1/4 OF THE FOOTING DEPTH. THICKEN FOOTING AS REQUIRED.
4. SLEEVES SHALL BE 2" CLEAR FROM TOP REINF.
5. SEAL EACH SIDE OF SLEEVES AROUND PIPE.

7 TYPICAL HORIZONTAL PENETRATIONS THRU CONT. FOOTINGS

NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION — CROMWELL ARCHITECTS/ ENGINEERS #5 — ARKANSAS ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 23092 — BRITANI MITCHELL

02-20-2025

Notes

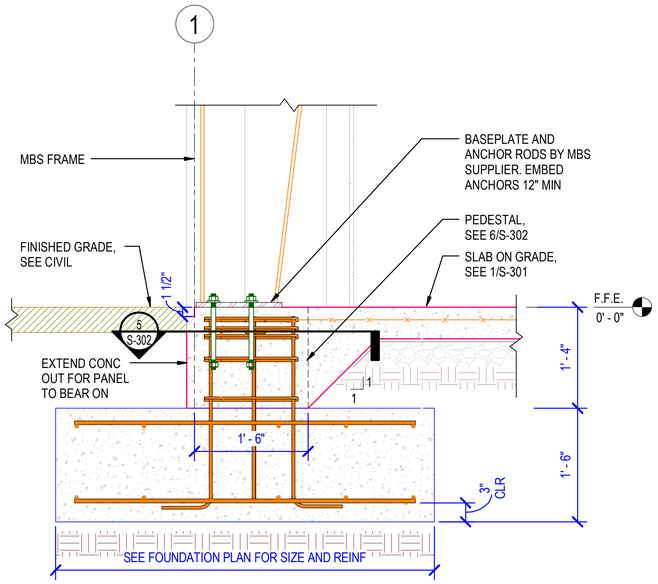
1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number: 2024-210

Issue Date: 02-20-2025

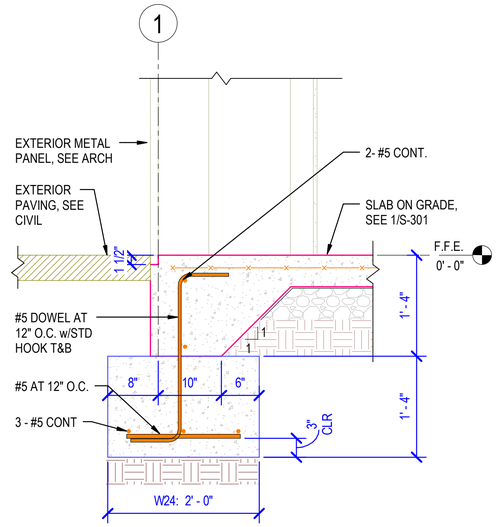
Sheet Title: FOUNDATION AND SLAB DETAILS

Sheet Number: S-301



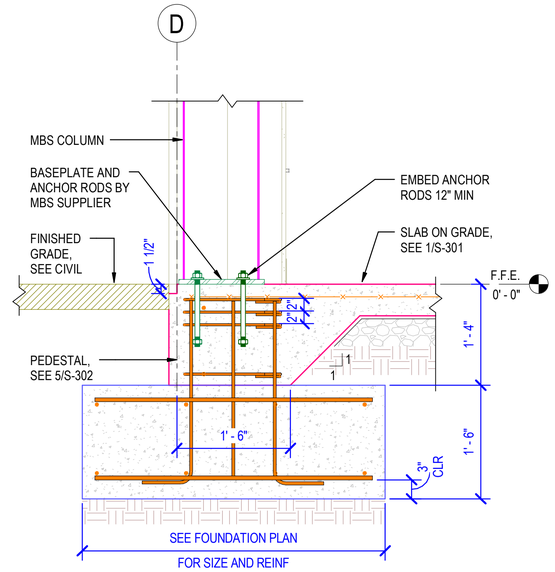
1 TYP FOUNDATION AT RIGID FRAME COLUMN

1" = 1'-0"



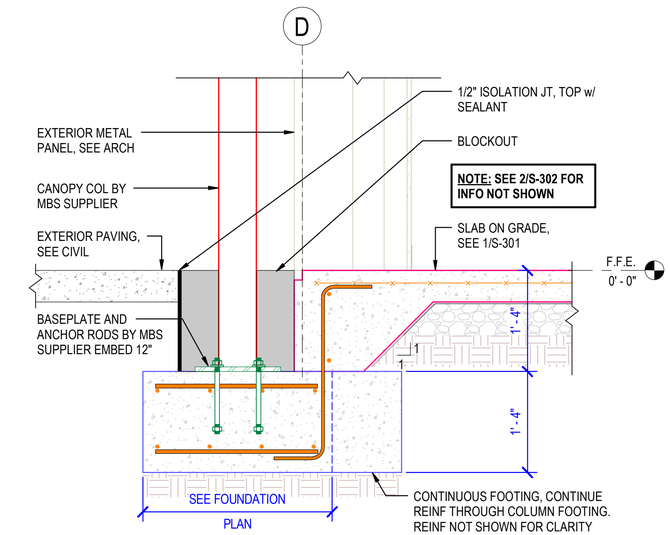
2 TYP SLAB EDGE DETAIL

1" = 1'-0"



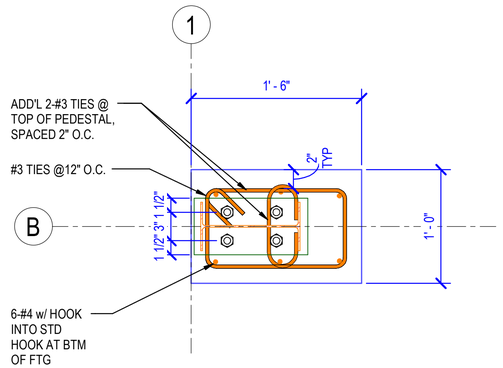
3 TYP AT END WALL COLUMN

1" = 1'-0"



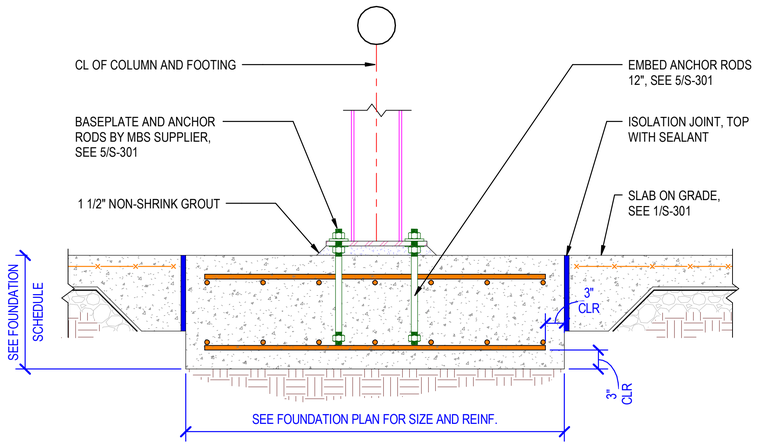
4 TYPICAL HSS COLUMN FOUNDATION DETAIL

1" = 1'-0"



5 MBS COLUMN PEDESTAL DETAIL

1 1/2" = 1'-0"



6 TYP INTERIOR COLUMN FOOTING

NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 23092
BRITTANI MITCHELL
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

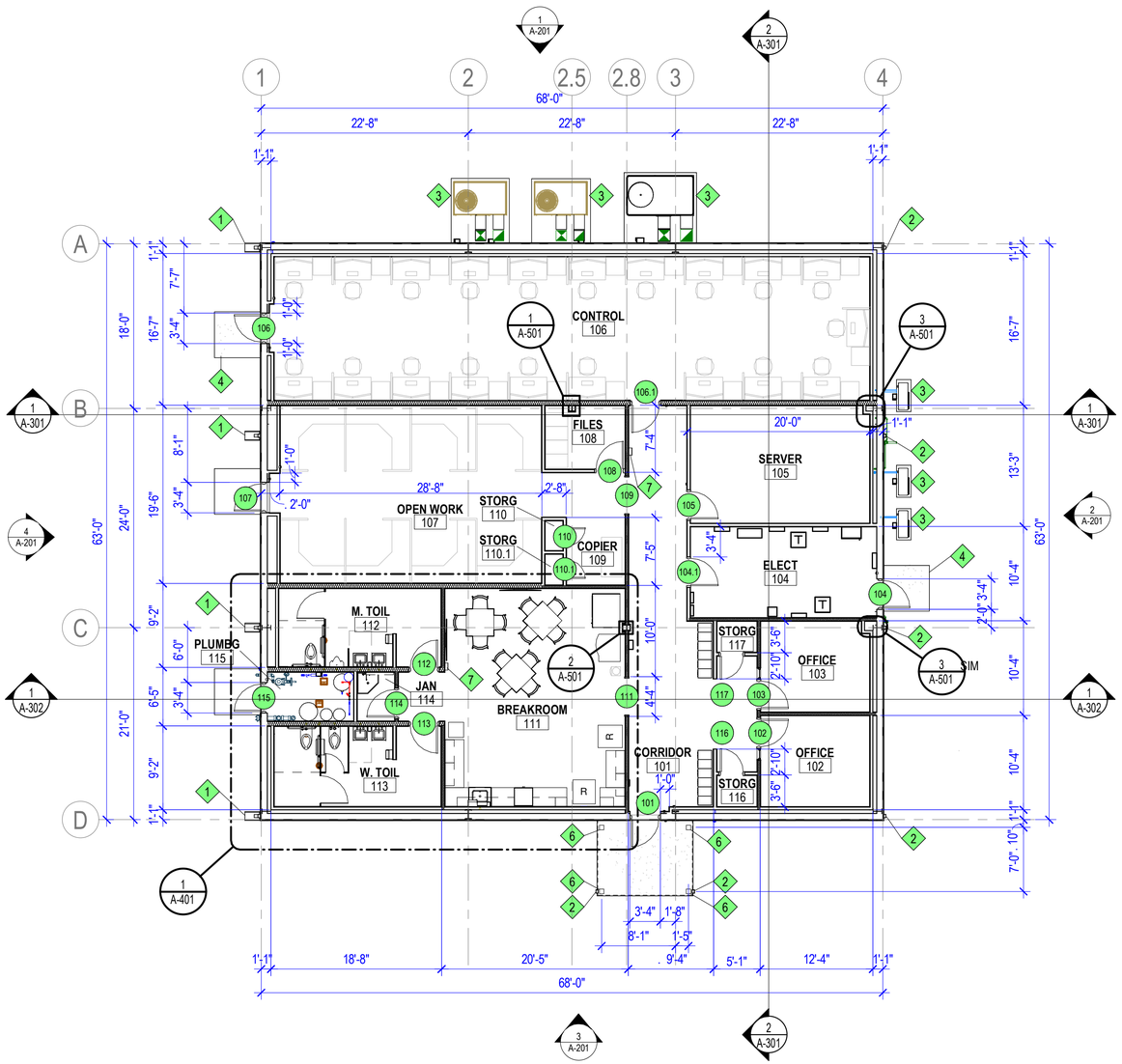
Issue Date **02-20-2025**

Sheet Title

FOUNDATION AND SLAB DETAILS

Sheet Number

S-302



1 FLOOR PLAN

1/8" = 1'-0"

NORTH

0 4 8 16

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

FLOOR PLAN GENERAL NOTES:

1. INTERIOR DIMENSIONS ARE TO FACE OF STUDS UNLESS NOTED OTHERWISE.
2. REFER TO A-101R FOR PARTITION TYPE KEYS.
3. OPEN WORK CUBICLES ARE OFOI. (NO BACK PANEL) SEE DRAWING A-601 FOR ADDITIONAL INFORMATION. COORDINATE WITH ELECTRICAL DRAWINGS.
4. BREAKROOM TABLES, COPIER, FILE CABINETS AND VENDING MACHINES SHOWN ARE OFOI.
5. BREAKROOM APPLIANCES & LOCKERS ARE CFCI. SEE A-601 NOTES FOR ADDITIONAL INFORMATION.
6. CONTROL ROOM DESKS, MONITORS & CABS ARE OFOI. COORDINATE WITH ELECTRICAL DRAWINGS.

FLOOR PLAN KEYED NOTES:

1. DOWNSPOUT W/ PRE MANF CONCRETE SPLASH BLOCK.
2. DOWNSPOUT W/ PRE MANF PVC BOOT, TIE TO STORM DRAIN.
3. MECH OR ELECT EQUIP. PROVIDE CONCRETE HOUSEKEEPING PAD. SEE MECH & ELECT DRAWINGS FOR DETAILS.
4. TYP. CONCRETE WALK OR STOOP. REFER TO CIVIL DWG FOR MAINTENANCE STRIP AND ADDITIONAL INFORMATION.
5. CONCRETE EQUIPMENT PAD.
6. EXPOSED STEEL COLUMN, PAINT. SEE STRUCT DWG.
7. FIRE EXTINGUISHER CABINET (F.E.C.)

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number **2024-210**

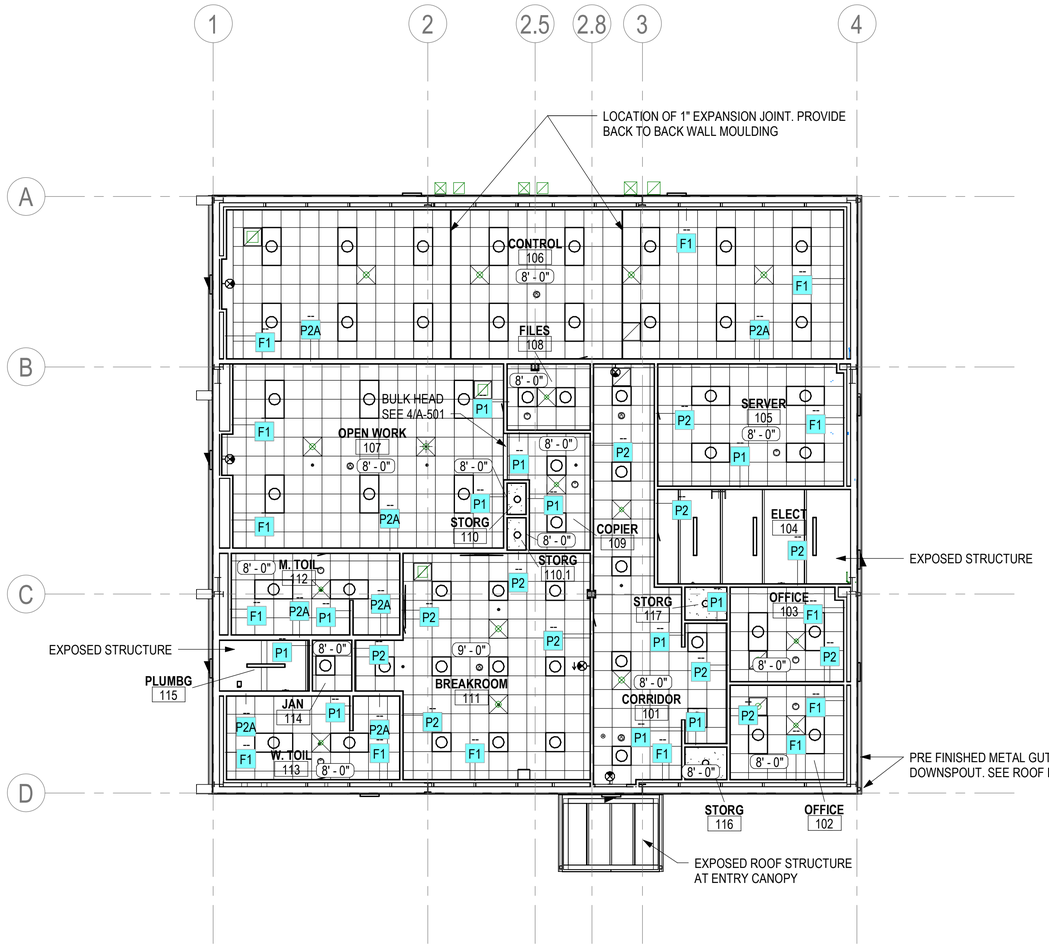
Issue Date **02-20-2025**

Sheet Title

FLOOR PLAN

Sheet Number

A-101



1 REFLECTED CEILING PLAN

1/8" = 1'-0"

NORTH

0 4 8 16

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

SYMBOLS LEGEND

- LAY-IN ACOUSTICAL CEILING GRID
- GYP. BOARD CEILING - FINISH AS SCHEDULED
- LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- EMERGENCY LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- EMERGENCY LIGHT FIXTURE W/BATTERY PACK - SEE ELECTRICAL DRAWINGS
- CEILING MOUNTED EXIT LIGHT
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- PARTITION TYPE KEY. SEE A-801

REFER TO LIFE SAFETY, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

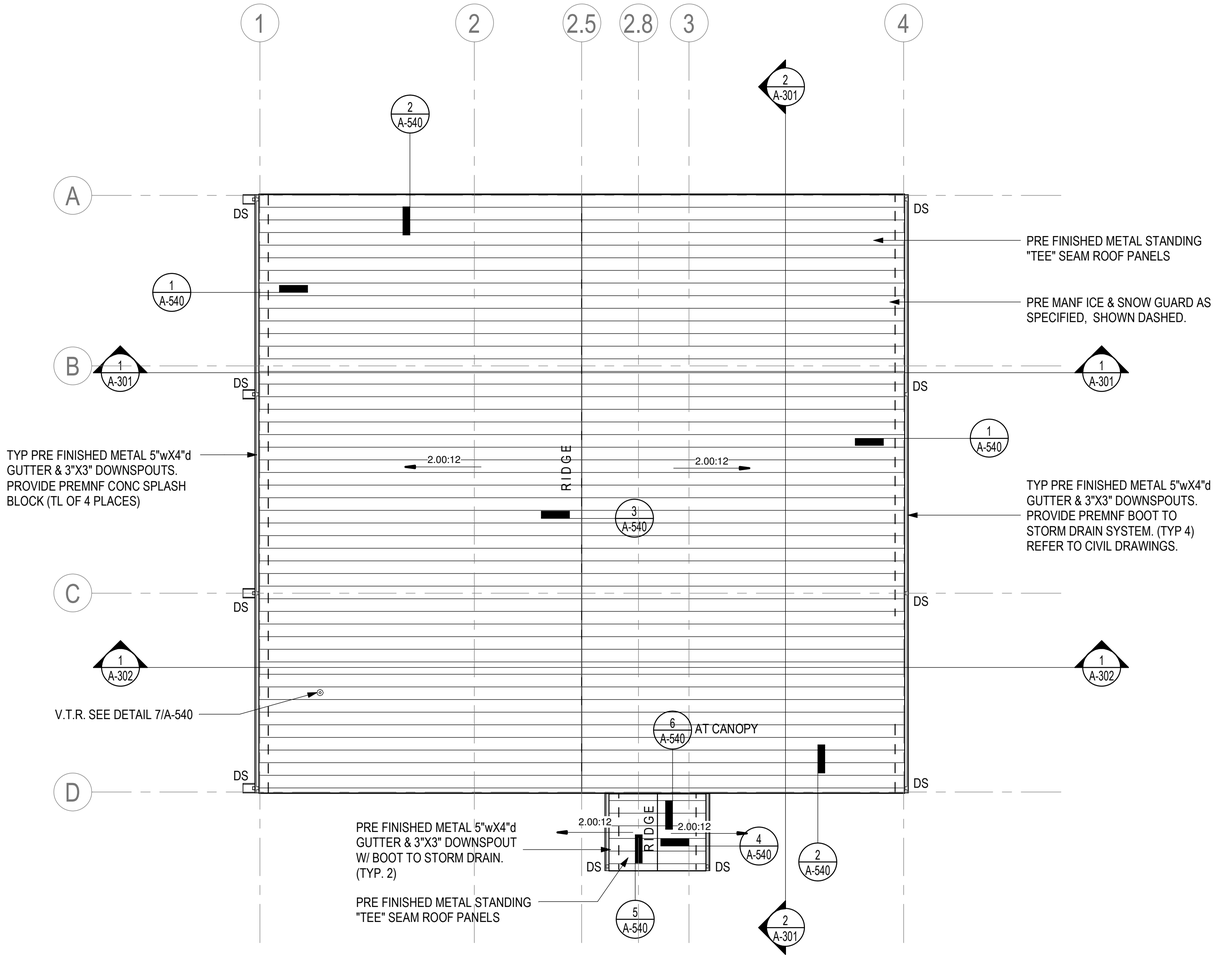
Issue Date **02-20-2025**

Sheet Title

REFLECTED CEILING PLAN

Sheet Number

A-101R



1 ROOF PLAN

1/8" = 1'-0"

NORTH

0 4 8 16

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

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT TIMOTHY K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

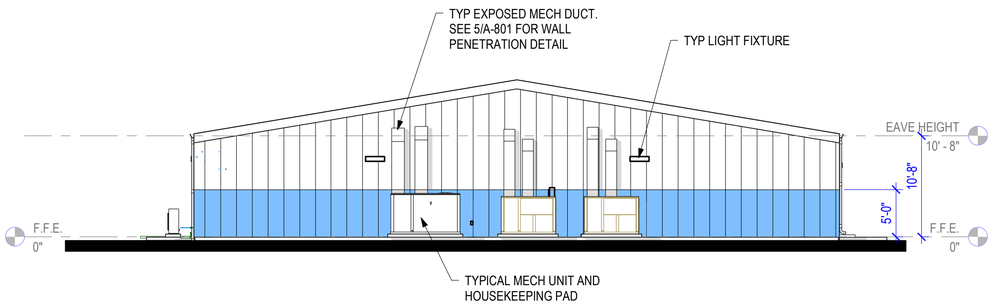
Issue Date **02-20-2025**

Sheet Title

ROOF PLAN

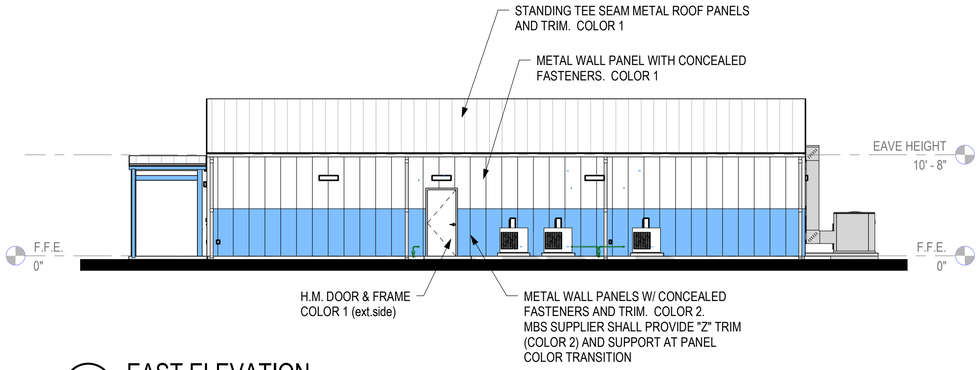
Sheet Number

A-102



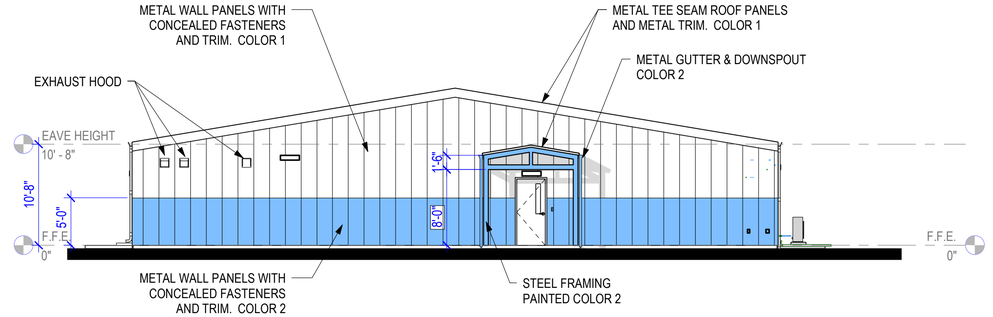
1 NORTH ELEVATION

1/8" = 1'-0"



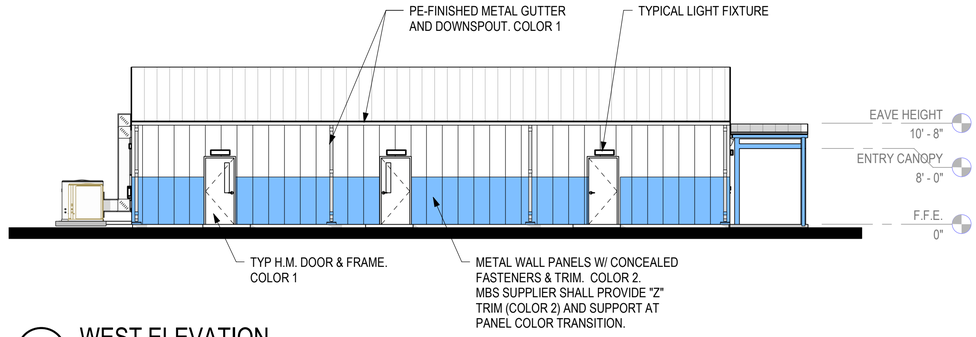
2 EAST ELEVATION

1/8" = 1'-0"



3 SOUTH ELEVATION

1/8" = 1'-0"



4 WEST ELEVATION

1/8" = 1'-0"

EXTERIOR COLOR LEGEND:

COLOR 1 = PANEL MANUFACTURERS STANDARD WHITE

COLOR 2 = BLUE EQUAL TO "HAWAIIAN BLUE"

NOTE: CONTRACTOR SHALL SUBMIT METAL PANEL COLOR SAMPLES TO ARCHITECT WITH A KEY PLAN FOR REVIEW & APPROVAL.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC.
C-98
REGISTERED ARCHITECTS
ARKANSAS

REGISTERED ARCHITECT
DANIEL K. FORKER
No. 3339
ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

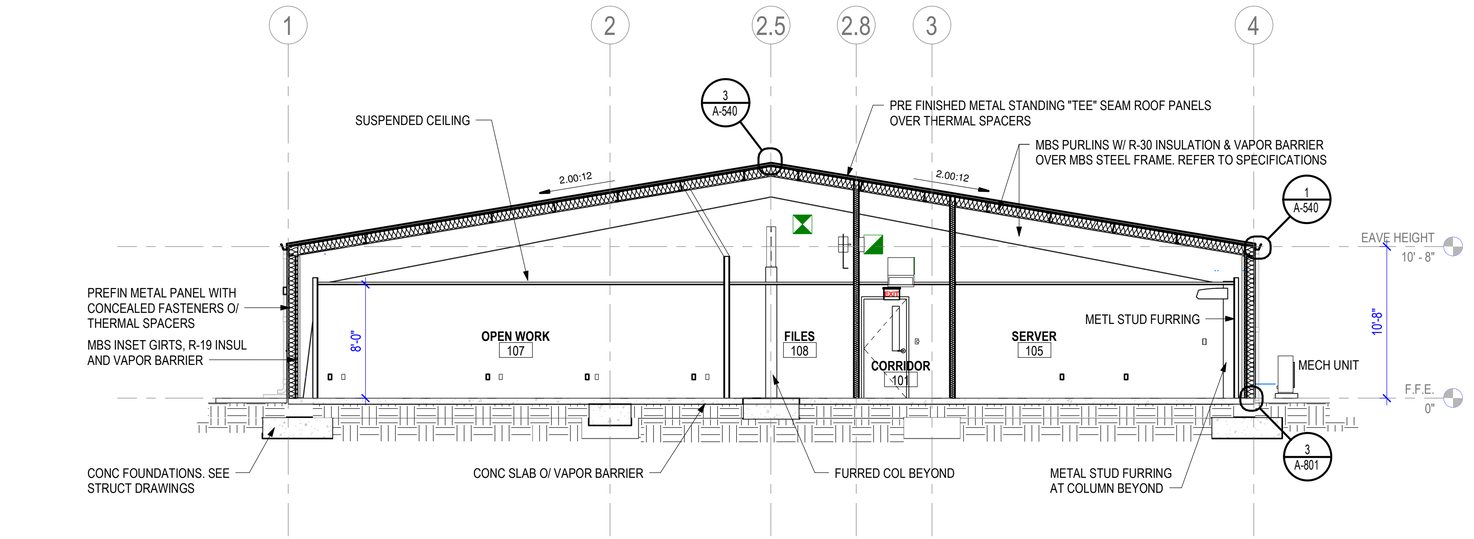
Issue Date **02-20-2025**

Sheet Title

EXTERIOR ELEVATIONS

Sheet Number

A-201

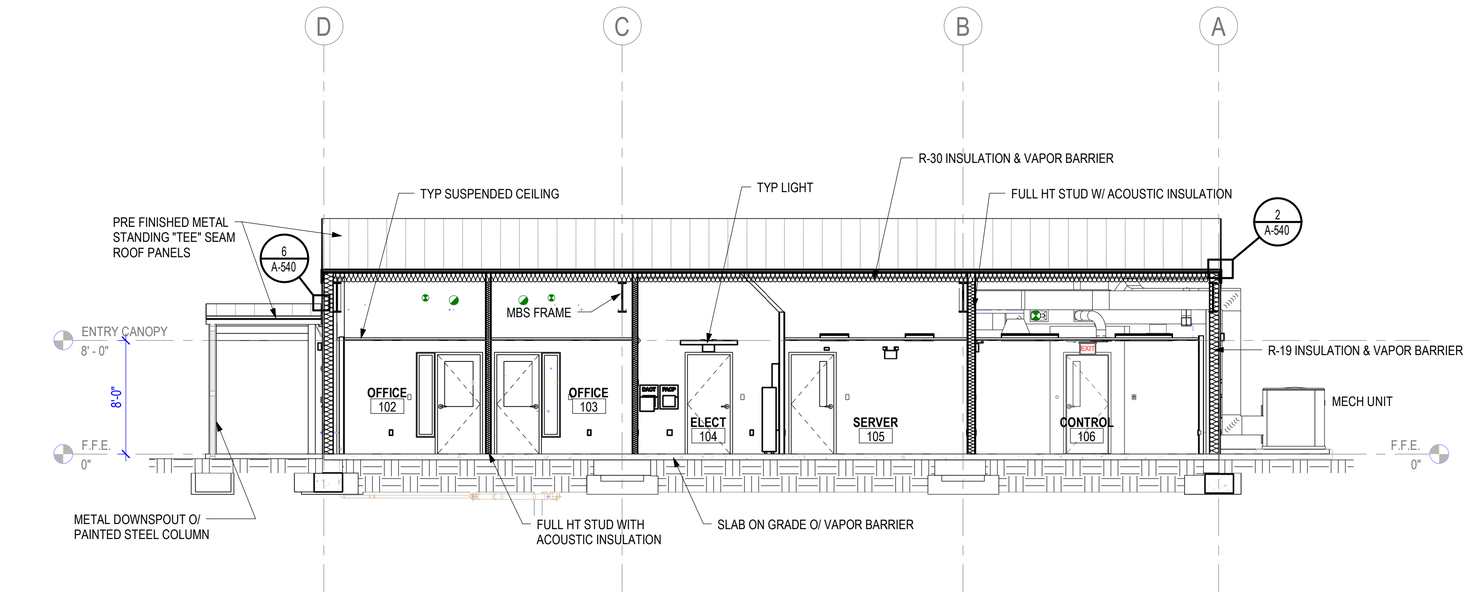


1 BUILDING SECTION

3/16" = 1'-0"

0 4 8 16

SCALE : 3/16" = 1'-0"



2 BUILDING SECTION

3/16" = 1'-0"

0 4 8 16

SCALE : 3/16" = 1'-0"

CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

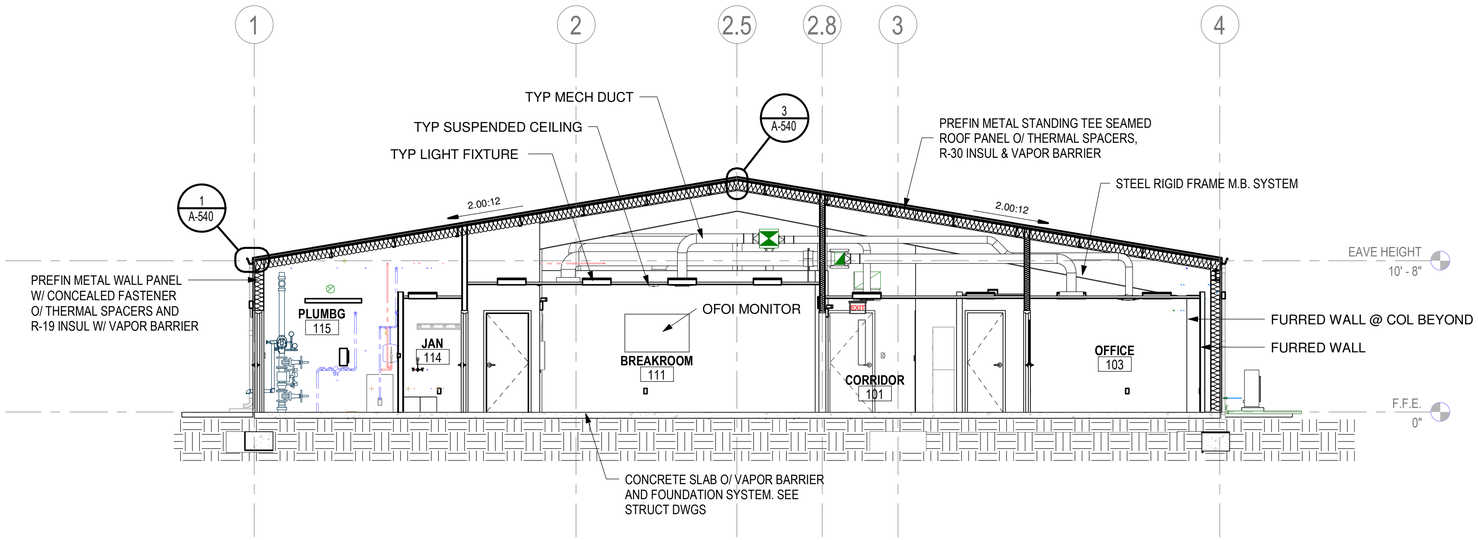
Issue Date **02-20-2025**

Sheet Title

SECTIONS

Sheet Number

A-301



1 BUILDING SECTION

3/16" = 1'-0"

0 4 8 16

SCALE : 3/16" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

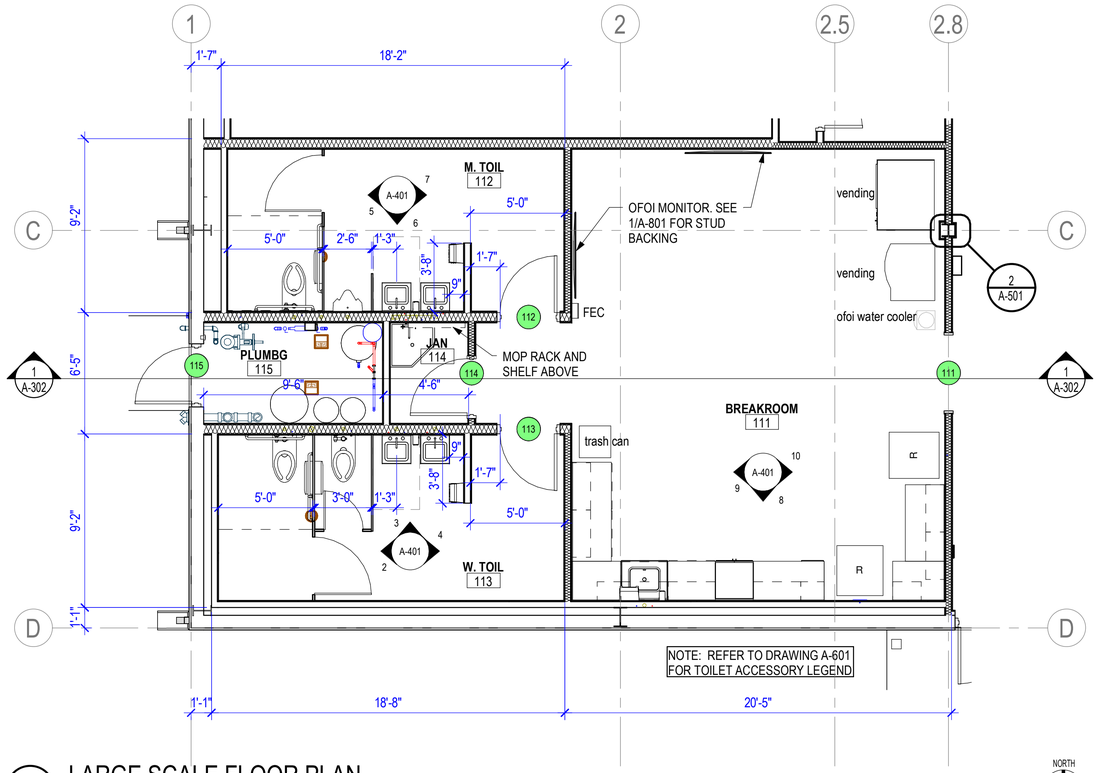
Issue Date **02-20-2025**

Sheet Title

SECTIONS

Sheet Number

A-302



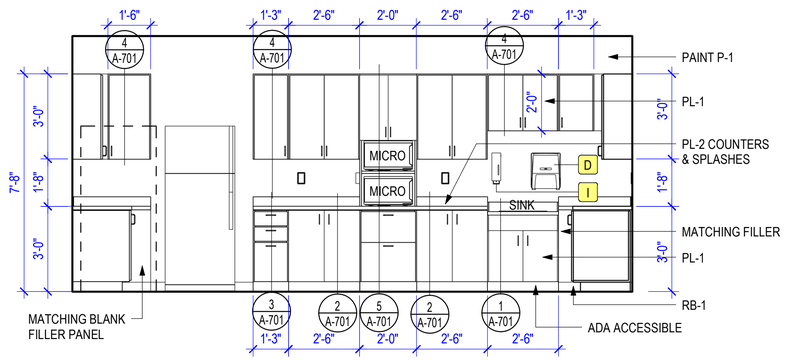
1 LARGE SCALE FLOOR PLAN

1/4" = 1'-0"

NORTH

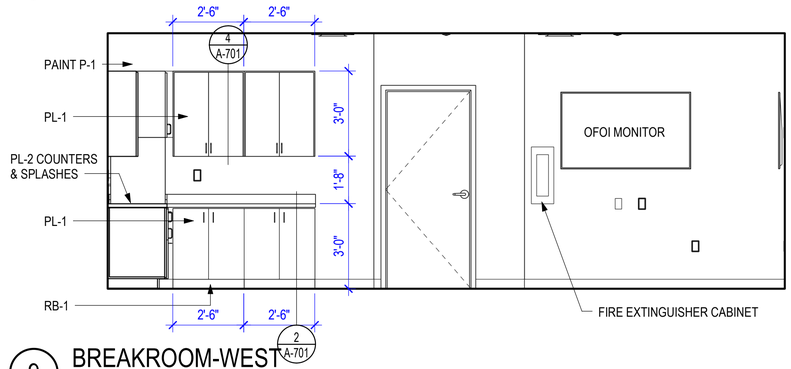
0 2 4 8

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



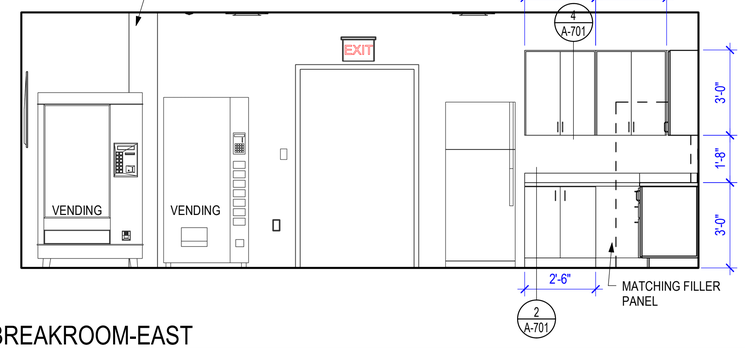
8 BREAKROOM-SOUTH

3/8" = 1'-0"



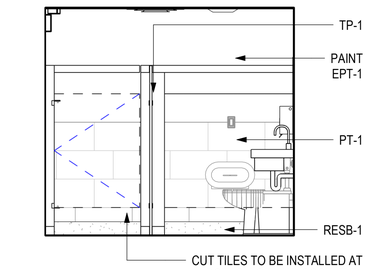
9 BREAKROOM-WEST

3/8" = 1'-0"



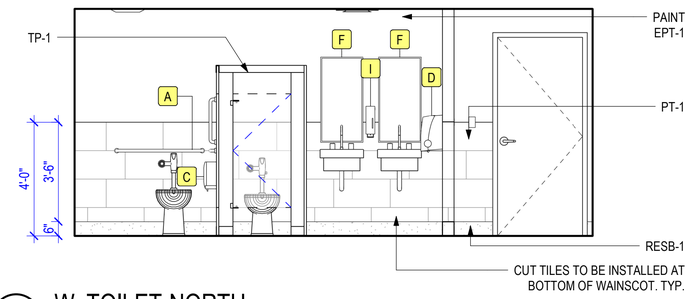
10 BREAKROOM-EAST

3/8" = 1'-0"



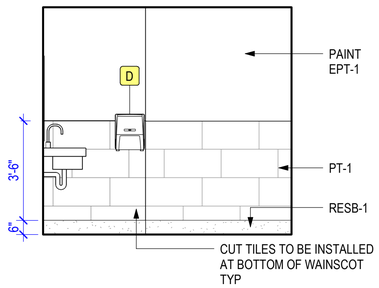
2 W. TOILET-WEST

3/8" = 1'-0"



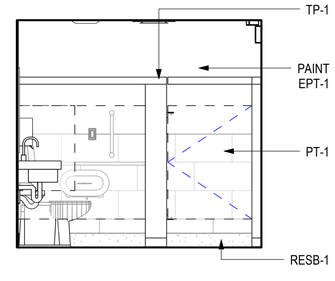
3 W. TOILET-NORTH

3/8" = 1'-0"



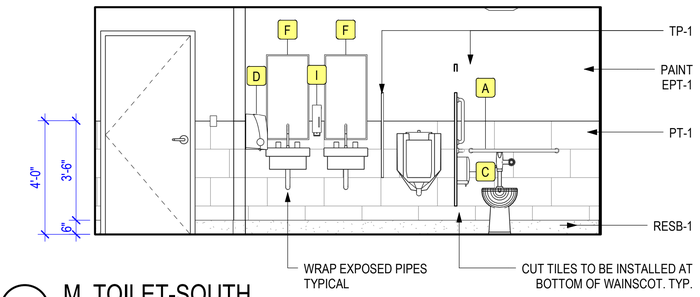
4 W. TOILET-EAST

3/8" = 1'-0"



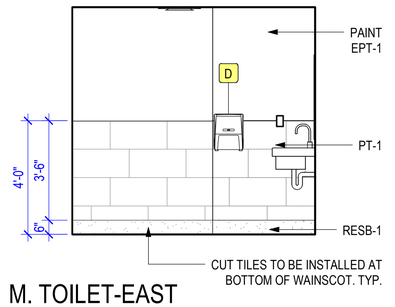
5 M. TOILET-WEST

3/8" = 1'-0"



6 M. TOILET-SOUTH

3/8" = 1'-0"



7 M. TOILET-EAST

3/8" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC. C-98 REGISTERED ARCHITECTS ARKANSAS

DONALD K. FOWLER REGISTERED ARCHITECT No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

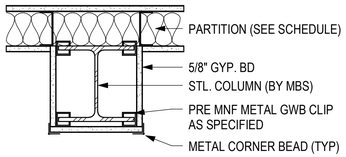
Issue Date **02-20-2025**

Sheet Title

LARGE SCALE PLANS
& ELEVATIONS

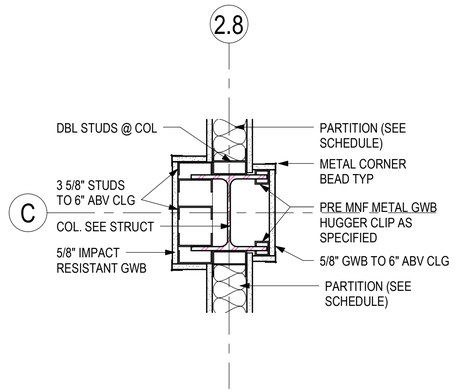
Sheet Number

A-401



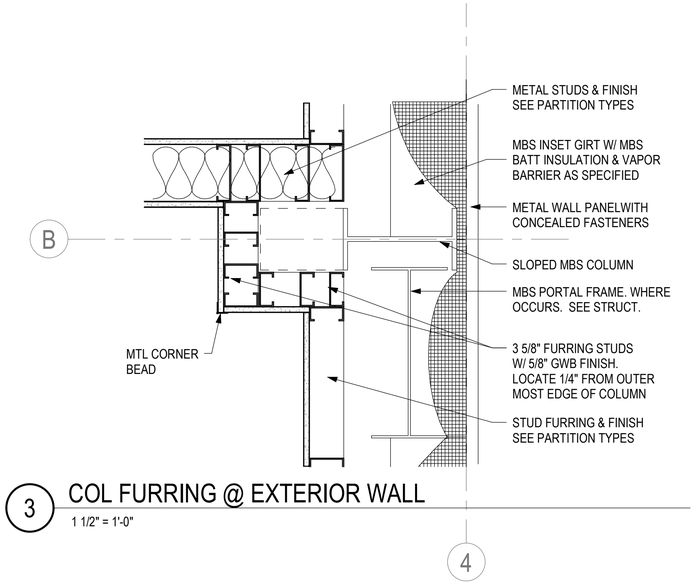
1 COLUMN FURRING DETAIL

1 1/2" = 1'-0"



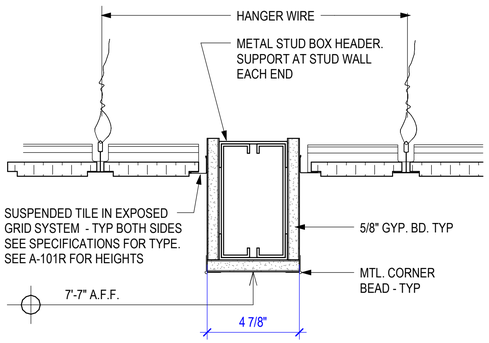
2 COLUMN FURRING DETAIL

1 1/2" = 1'-0"



3 COL FURRING @ EXTERIOR WALL

1 1/2" = 1'-0"



4 BULKHEAD DETAIL

3" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FORKER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

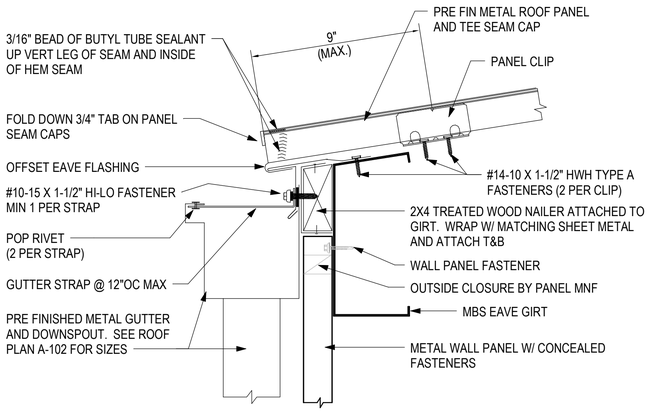
Issue Date **02-20-2025**

Sheet Title

DETAILS

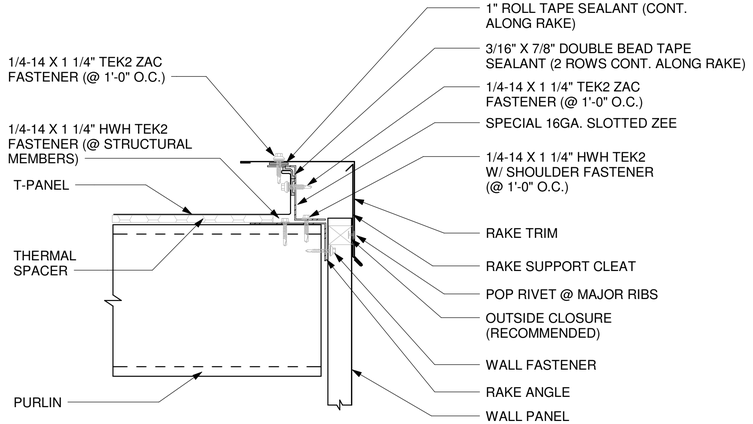
Sheet Number

A-501



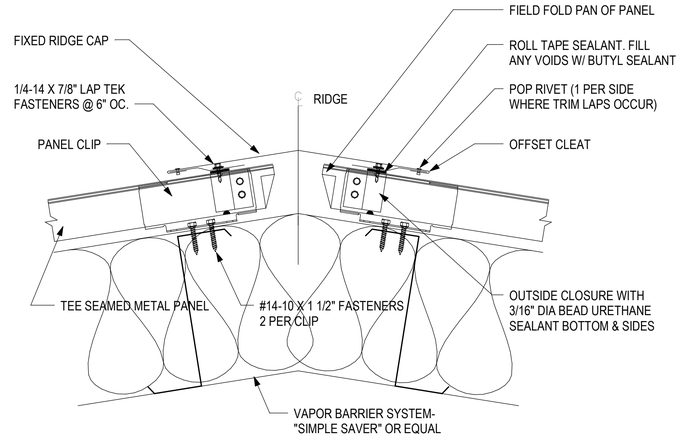
1 T-PANEL FLOATING EAVE W/ GUTTER

3" = 1'-0"



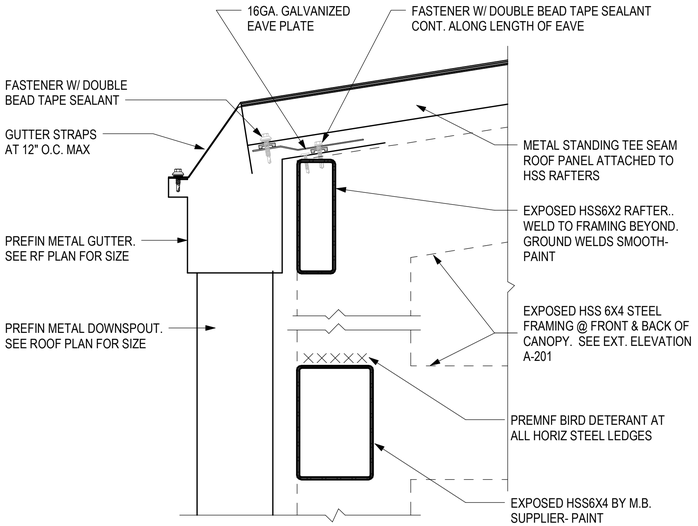
2 T-PANEL RAKE DETAIL

3" = 1'-0"



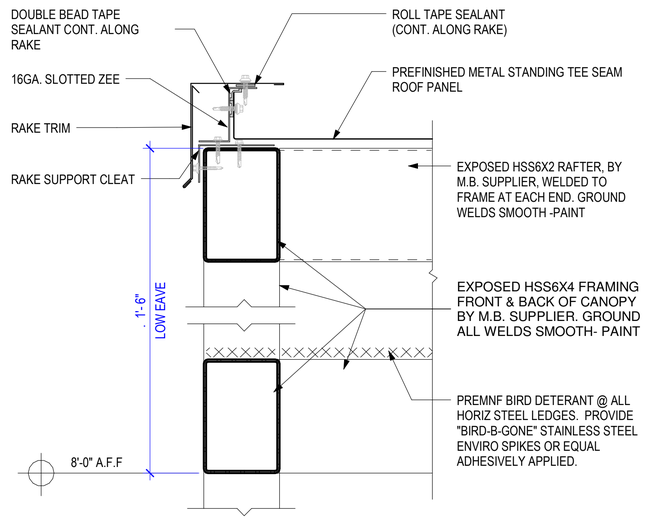
3 T-PANEL FIXED RIDGE DETAIL

3" = 1'-0"



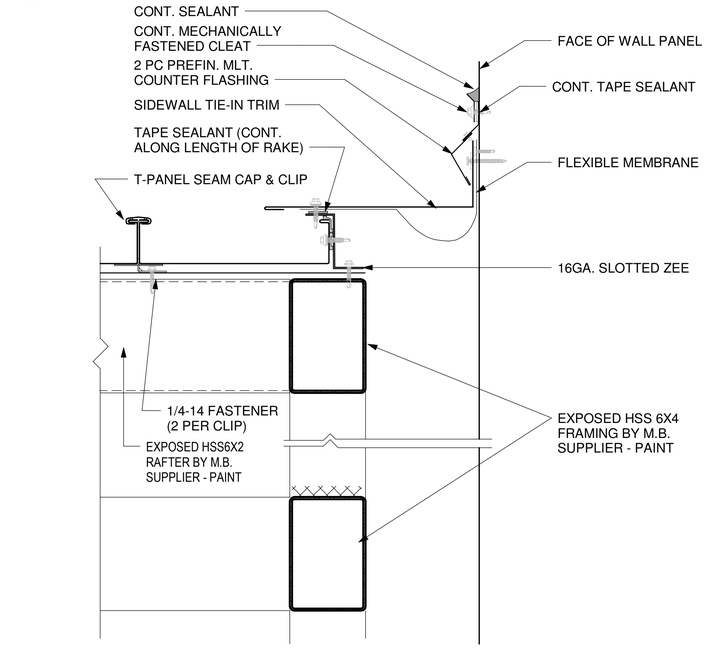
4 T-PANEL ROOF @ CANOPY W/ GUTTER

3" = 1'-0"



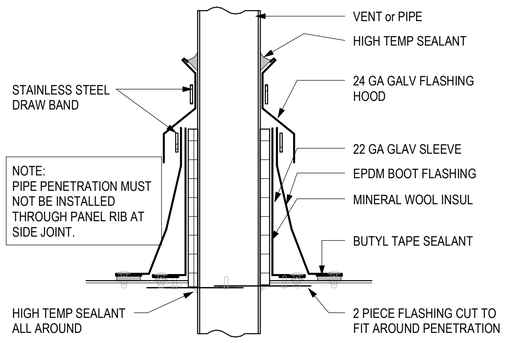
5 T-PANEL ROOF CANOPY RAKE DETAIL

3" = 1'-0"



6 T-PANEL FLOATING CANOPY TIE IN DETAIL

3" = 1'-0"



7 VENT/PIPE ROOF PENETRATION DETAIL

3" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

PROFESSIONAL ARCHITECTS ENGINEERS INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

ROOF DETAILS

Sheet Number

A-540

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL MATERIAL	NORTH WALL COLOR	SOUTH WALL MATERIAL	SOUTH WALL COLOR	EAST WALL MATERIAL	EAST WALL COLOR	WEST WALL MATERIAL	WEST WALL COLOR	CEILING MATERIAL	CEILING COLOR	ROOM NUMBER	REMARKS
101	CORRIDOR	CONC	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	101	
102	OFFICE	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	102	
103	OFFICE	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	103	
104	ELECT	CONC	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	EXP	---	104	
105	SERVER	CONC	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	105	
106	CONTROL	RES-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	106	
107	OPEN WORK	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	107	
108	FILES	RES-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	108	
109	COPIER	RES-1	RB-1	---	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	109	
110	STORG	CONC	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-3	110	
110.1	STORG	CONC	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-3	110.1	
111	BREAKROOM	RES-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	ACT	ACT-1	111	
112	M. TOIL	RES-1	RESB-1	GWB/TBB	EPT-1/PT-1	GWB/TBB	EPT-1/PT-1	GWB/TBB	EPT-1/PT-1	GWB/TBB	EPT-1/PT-1	ACT	ACT-1	112	GENERAL NOTE 3
113	W. TOIL	RES-1	RESB-1	GWB/TBB	EPT-1/PT-1	GWB/TBB	EPT-1/PT-1	GWB/TBB	EPT-1/PT-1	GWB/TBB	EPT-1/PT-1	ACT	ACT-1	113	GENERAL NOTE 3
114	JAN	RES-1	RB-1	GWB	EPT-1/FRP-1	GWB	EPT-1	GWB	EPT-1	GWB	EPT-1/FRP-1	ACT	ACT-1	114	
115	PLUMBG	CONC	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	EXP	---	115	
116	STORG	RES-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	EXP	---	116	
117	STORG	RES-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	EXP	---	117	

GENERAL NOTES:

1. SUBMIT ALL SAMPLES TO OWNER FOR FINAL APPROVAL PRIOR TO ORDERING INTERIOR FINISH MATERIALS.
2. RESOURCE FOR RB-1: SUPERIOR FLOORS AND DESIGN CENTER, CAMDEN, AR (870)231-6901, ATTN: LACEY & TODD SCHROEDER
3. WALL TILE WAINSCOT TO BE 4'-0" AFF. TILE PATTERN TO BE HORIZONTAL 1/3 OFFSET. TOP OF WAINSCOT TO BE FINISHED WITH TRIM MASTER 3/8" ALUMINUM SQUARE TILE EDGING FROM HOME DEPOT. COLOR: BLACK. INSTALLATION OF TILE SHALL BE 3/8" THIN SET OVER 3/8" CEMENT BOARD. PROVIDE 5/8" GWB & FINISH AS SCHEDULED ABOVE TILE.
4. GROUT COLORS: WALL, FLOOR, AND BASE TILES TO RECEIVE HIGH PERFORMANCE GROUT. COLORS TO BE SELECTED FROM STANDARD OFFERING.
5. HOLLOW METAL DOORS AND FRAMES TO BE PAINTED P-2. WOOD DOORS TO BE FACTORY FINISHED WITH STAIN COLOR SELECTED FROM STANDARD OFFERING.
6. FLOORING TRANSITIONS TO BE
   A. RES TO CONC: ZINC STRIP PROVIDED BY RES INSTALLER.
   B. CPT TO CONC OR RES: JOHNSONITE SLIMLINE, COLOR: 40 BLACK
7. SEE ELEVATIONS ON SHEET A-401 FOR RESTROOM WALL TILE PLACEMENT.
8. MICROWAVES SHALL BE CFCI. PROVIDE "PANASONIC NN-SU696S".
9. REFRIGERATORS SHALL BE CFCI. PROVIDE "ELEMENT ENR-18TFG-CS".

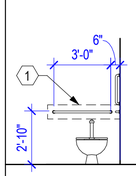
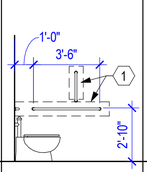
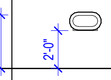
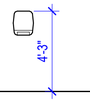
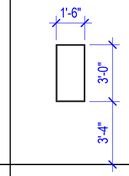
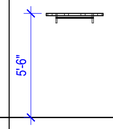
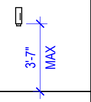
MILLWORK NOTES:

1. MILLWORK TO RECEIVE PL-1 ON VERTICAL SURFACES WITH 3MM COORDINATING EDGEBANDING AND PL-2 ON COUNTER TOP SURFACES AND SPLASHES.

TOILET ACCESSORY SCHEDULE

SCALE 1/4" =1'-0"

(1) PROVIDE REINFORCING FOR ALL GRAB BARS-SEE DETAIL 1/A-801

CFCI	CFCI	CFCI	CFCI	OFOI	CFCI	CFCI	CFCI	CFCI	CFCI
									
A TOILET ACCESSORY - 3'-0" GRAB BAR (B-6806-36)	B1 TOILET ACCESSORY - 3'-6" GRAB BAR (B-6806.99-42) & B2 1'-6" GRAB BAR (VERTICAL) (B-6806.99-18)	C TOILET PAPER HOLDER (MANUAL) BOBRICK B-2892	D PAPER TOWEL DISPENSER BOBRICK B-72860	E TRASH CAN FREE STANDING OFOI	F MIRROR BOBRICK B-165 1836	G MOP RACK/SHELF BOBRICK B-224-36	H TOILET ACCESSORY- SANITARY NAPKIN DISPOSAL BOBRICK B-270	I WALL SOAP DISPENSER (MANUAL FOAM) BOBRICK B-26627	J HOOK (1) BACK OF TOILET PARTITION DOOR BOBRICK B-26627

MATERIAL LEGEND

---	"NO" OR "NONE"
ACT	ACOUSTICAL CEILING TILE
ALG	ALUMINUM/ GLASS
CMU	CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
CPT	CARPET
EPT	EPOXY PAINT
EXP	EXPOSED STRUCTURE
FRP	FIBERGLASS REINFORCED PANEL
GWB	GYPSUM WALL BOARD
MRGWB	MOISTURE RESISTANT GYPSUM WALL BOARD
P	PAINT
PL	PLASTIC LAMINATE
PLWD	PLYWOOD
PT	PORCELAIN TILE
PTB	PORCELAIN TILE BASE
RB	RESILIENT BASE
RES	RESINOUS FLOORING
RESB	RESINOUS INTEGRAL COVE BASE
TBB	TILE BACKER BOARD
TP	TOILET PARTITIONS

FINISHES LEGEND

FLOORS	
RES-1	DOUBLE BROADCAST: SHERWIN WILLIAMS, RESUFLOR MPE PRIMER; RESUFLOR MPE-CLEAR APPLIED BROADCAST 1/8" FB616 COLOR WOMBAT, DECORATIVE VINYL FLAKE BLEND, 2 COATS; GROUT COAT:MPR-CLEAR (MAY REQUIRE MULTIPLE COATS TO OBTAIN A SMOOTH FLOOR); TOPCOAT: SATIN FINISH RESUTILE HTS 100 CLEAR SATIN URETHANE
CPT-1	MILLIKEN, MIDNIGHT SPARKLE P16440, SIZE 1M, BELLE ACRE COLOR 255 EBONY ACRES. COLLECTION ARCHIVED.
CONC	SEALED CONCRETE, OWNER TO APPROVE SEALER
BASE	
RB-1	FLEXCO, 4"H COVE BASE, VCB-058, COLOR: BLUE SHADOW, 120' ROLLS, PREFORMED CORNERS
RESB-1	6"H RESINOUS INTEGRAL COVE BASE, TO MATCH RES-1
WALLS	
EPT-1	SHERWIN WILLIAMS, COLOR: AEROJET GRAY, EG-SHEL FINISH, WATER-BASED EPOXY
FRP-1	CRANE COMPOSTIES, GLASBORD, EMBOSSED FINISH, COLOR: WHITE, 4' X 8' USED AS 4'H WAINSCOT
P-1	SHERWIN WILLIAMS, COLOR: AEROJET GRAY, EG-SHEL FINISH, LATEX
P-2	SHERWIN WILLIAMS, COLOR: AEROJET GRAY, SEMI-GLOSS FINISH, (H.M. FRAMES/DOORS)
PT-1	MSI, CEMENTINO GRAY, 12" X 24" MATTE PORCELAIN TILE (HOME DEPOT)
CEILINGS	
ACT-1	ARMSTRONG, ULTIMA HIGH NRC, BEVELED TEGULAR #1941, 24" X 24" X 7/8", 15/16" PRELUDE XL GRID
EPT-1	SHERWIN WILLIAMS, COLOR: AEROJET GRAY, EG-SHEL FINISH, LATEX OR EPOXY AS SCHEDULED
P-3	SHERWIN WILLIAMS, COLOR: AEROJET GRAY, LATEX, FLAT FINISH OR DRY FALL PAINT, FLAT FINISH
MILLWORK	
PL-1	WILSONART, PATTERN AND COLOR: TBD - TO BE SELECTED BY OWNER (VERTICAL SURFACES)
PL-2	WILSONART, PATTERN AND COLOR: TBD - TO BE SELECTED BY OWNER (COUNTER TOPS)
MISCELLANEOUS	
TP-1	GLOBAL PARTITIONS, SOLID PLASTIC POLYMER, COLOR TO BE SELECTED BY OWNER, TO BE FLOOR MOUNTED AND OVERHEAD BRACED

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

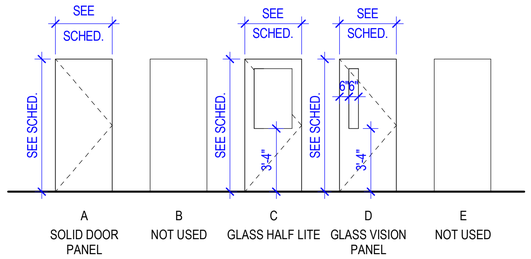
ROOM FINISH SCHEDULE

Sheet Number

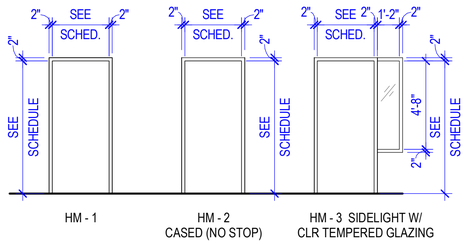
A-601

MATERIALS	
AL	ALUMINUM
CT	CLEAR TEMPERED GLASS
GHM	GALVANIZED HOLLOW METAL
HM	HOLLOW METAL
IHM	INSULATED HOLLOW METAL
IGHM	INSULATED GALVANIZED HOLLOW METAL
SCW	SOLID CORE WOOD
ST	STEEL
SCWD	SOLID CORE WOOD
MATERIALS	
S	STAIN
P	PAINT
CA	CLEAR ANODIZED

DOOR TYPES LEGEND

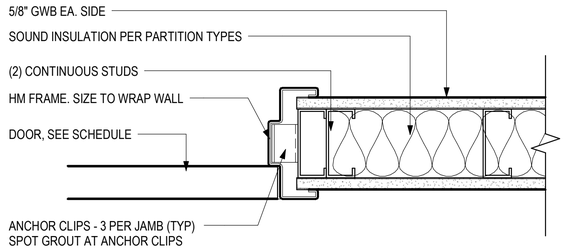


FRAME TYPES LEGEND



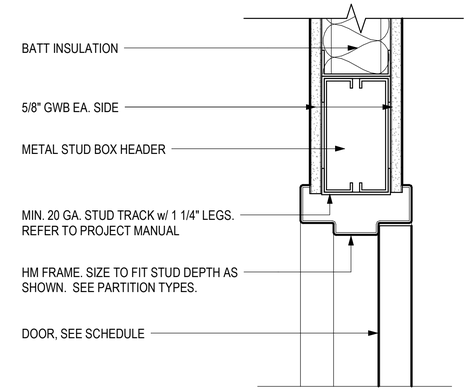
DOOR SCHEDULE

DOOR NO.	DOOR TYPE	DOOR SIZE W	DOOR SIZE HT	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS THRSHLD.	FIRE RATING IN MINUTES	HARDWARE SET NO.	DOOR NO.	COMMENTS
101	D	3' - 0"	7' - 0"	IGHM	HM 1	GHM	4/A-620	5/A-620	3/A-620		C715	101	OFOI CARD SWIPE
102	C	3' - 0"	7' - 0"	SCWD	HM 3	HM	2/A-620	1/A-620	---		103	102	
103	C	3' - 0"	7' - 0"	SCWD	HM 3	HM	2/A-620	1/A-620	---		103	103	
104	A	3' - 0"	7' - 0"	IGHM	HM 1	GHM	4/A-620	5/A-620	3/A-620		785	104	
104.1	A	3' - 0"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		201	104.1	
105	D	3' - 0"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		C201	105	OFOI CARD SWIPE
106	D	3' - 0"	7' - 0"	IGHM	HM 1	GHM	4/A-620	5/A-620	3/A-620		C715	106	OFOI CARD SWIPE
106.1	D	3' - 0"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		C701	106.1	OFOI CARD SWIPE
107	D	3' - 0"	7' - 0"	IGHM	HM 1	GHM	4/A-620	5/A-620	3/A-620		C715	107	OFOI CARD SWIPE
108	A	3' - 0"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		503	108	
109	---	4' - 0"	7' - 0"	HM	HM 2	HM	2/A-620	1/A-620	---		000	109	FRAMED OPENING
110	A	2' - 0"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		503S	110	
110.1	A	2' - 0"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		503S	110.1	
111	---	4' - 0"	7' - 0"	HM	HM 2	HM	2/A-620	1/A-620	---		000	111	FRAMED OPENING
112	A	3' - 0"	7' - 0"	GHM	HM 1	GHM	2/A-620	1/A-620	---		801	112	
113	A	3' - 0"	7' - 0"	GHM	HM 1	GHM	2/A-620	1/A-620	---		801	113	
114	A	3' - 0"	7' - 0"	GHM	HM 1	GHM	2/A-620	1/A-620	---		201H	114	
115	A	3' - 0"	7' - 0"	IGHM	HM 1	GHM	4/A-620	5/A-620	3/A-620		205	115	
116	A	2' - 6"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		503	116	
117	A	2' - 6"	7' - 0"	SCWD	HM 1	HM	2/A-620	1/A-620	---		503	117	



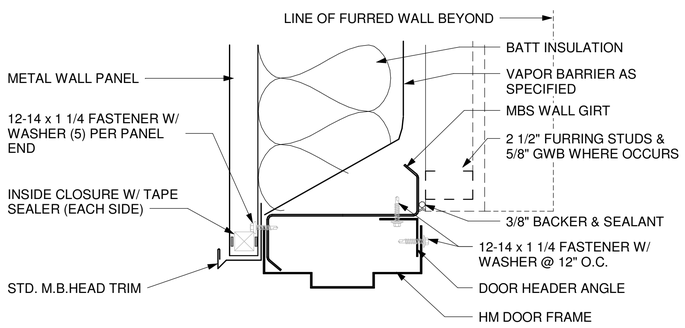
1 JAMB, DOOR @ GWB AND STUDS

3" = 1'-0"



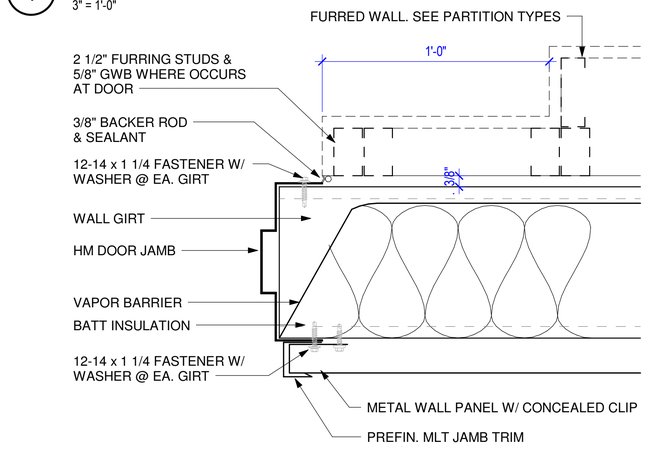
2 DOOR HEAD @ GWB

3" = 1'-0"



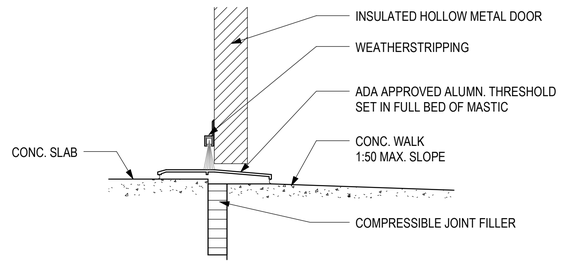
4 M.B.S. DOOR HEAD DETAIL

3" = 1'-0"



5 M.B.S. DOOR JAMB DETAIL

3" = 1'-0"



3 HOLLOW METAL THRESHOLD

3" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT TOMMY K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

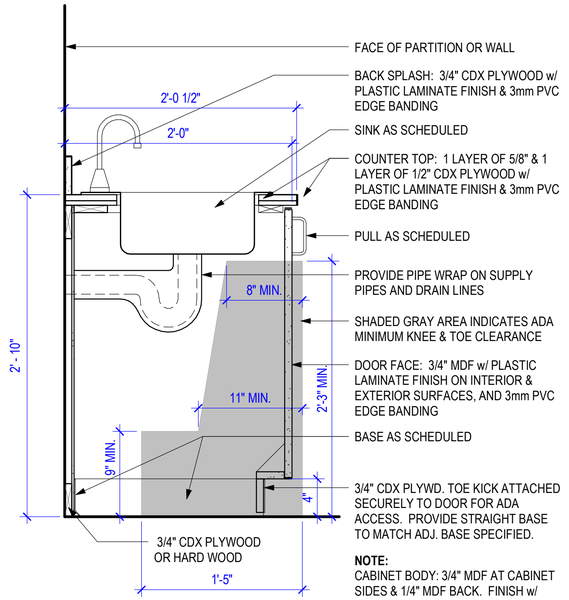
Issue Date **02-20-2025**

Sheet Title

DOOR SCHEDULE & DETAILS

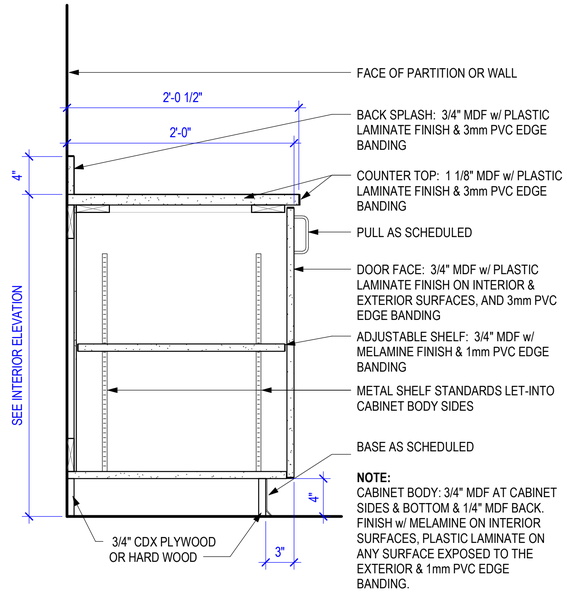
Sheet Number

A-620



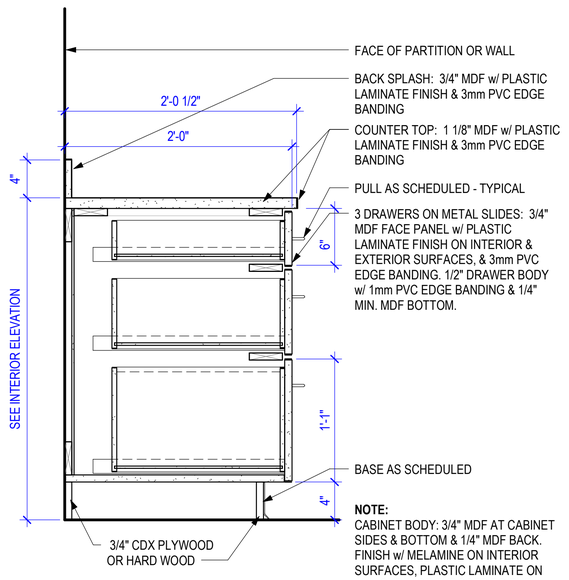
1 SINK BASE CABINET ADA, LAMINATE w/ DOORS

1 1/2" = 1'-0"



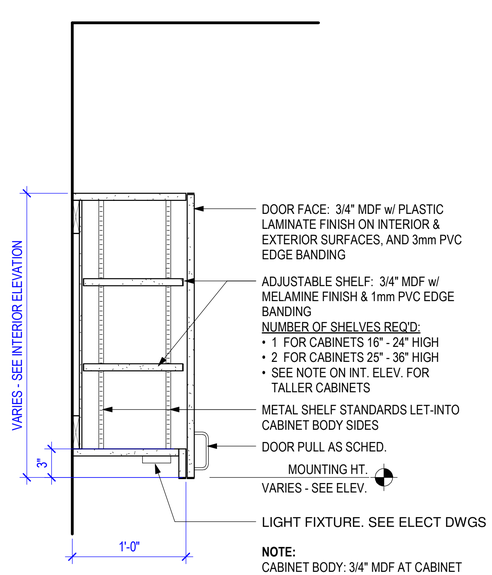
2 BASE CABINET, LAMINATE w/ DOORS

1 1/2" = 1'-0"



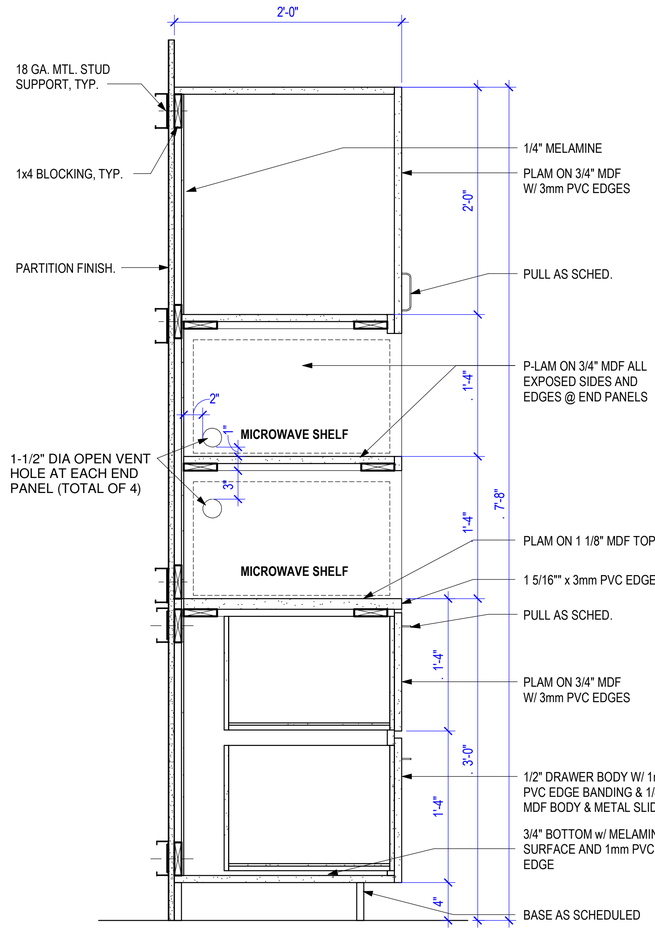
3 BASE CABINET, LAMINATE w/ 3 DRWRS

1 1/2" = 1'-0"



4 UPPER CABINET, LAMINATE w/ DOOR

1 1/2" = 1'-0"



5 MICROWAVE STACK DETAIL

1 1/2" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DONALD K. FOWLER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

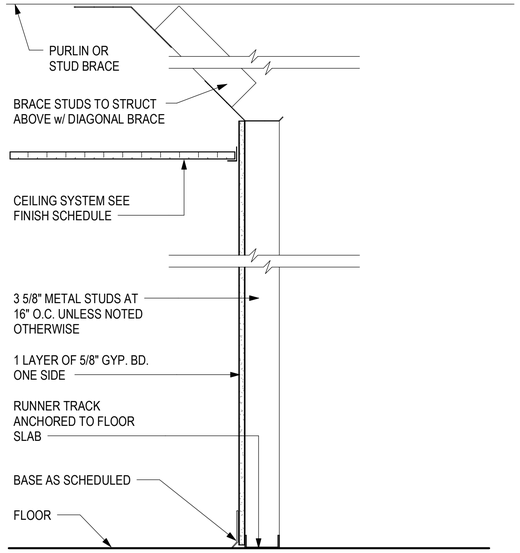
Issue Date **02-20-2025**

Sheet Title

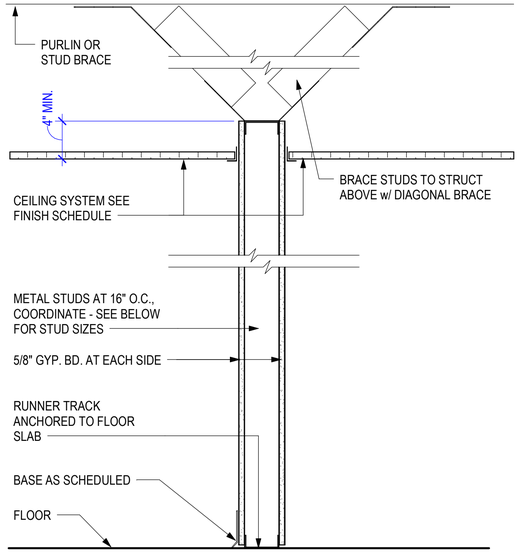
MILLWORK DETAILS

Sheet Number

A-701

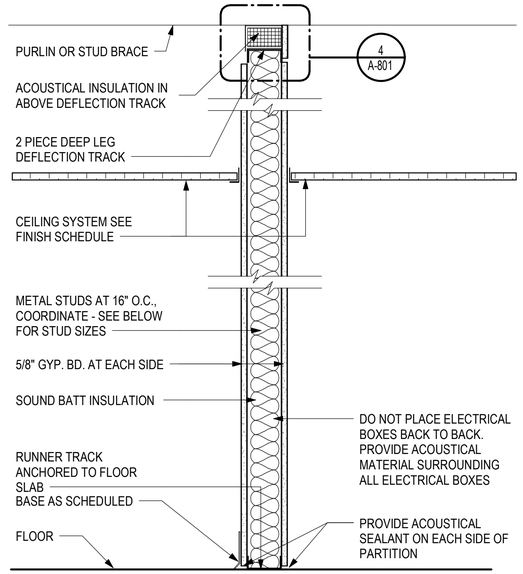


F1 FURRING



P1 PARTITION

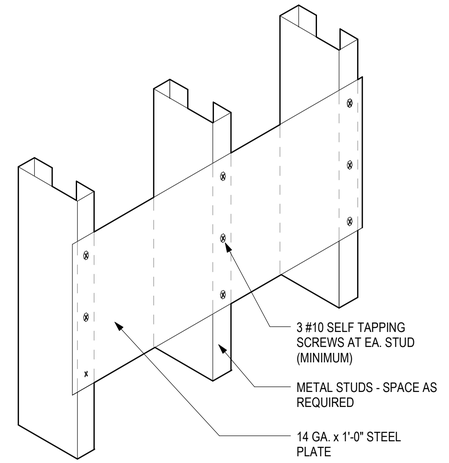
P1 PARTITIONS: USE 3 5/8" STUDS
P1A PARTITIONS: USE 6" STUDS



P2 ACOUSTICAL PARTITION

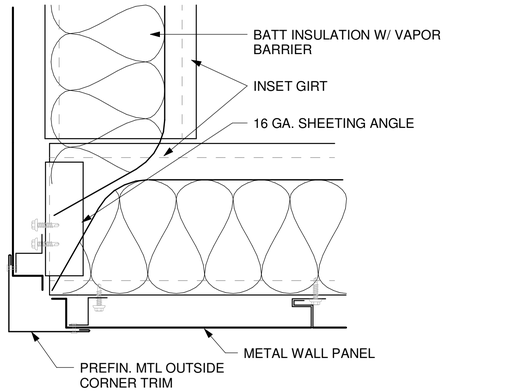
P2 PARTITIONS: USE 3 5/8" STUDS
P2A PARTITIONS: USE 6" STUDS

MIN. STC 49



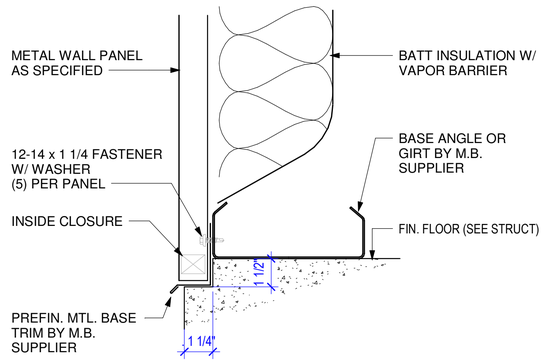
1 TYPICAL METAL STUD BLOCKING

3" = 1'-0"



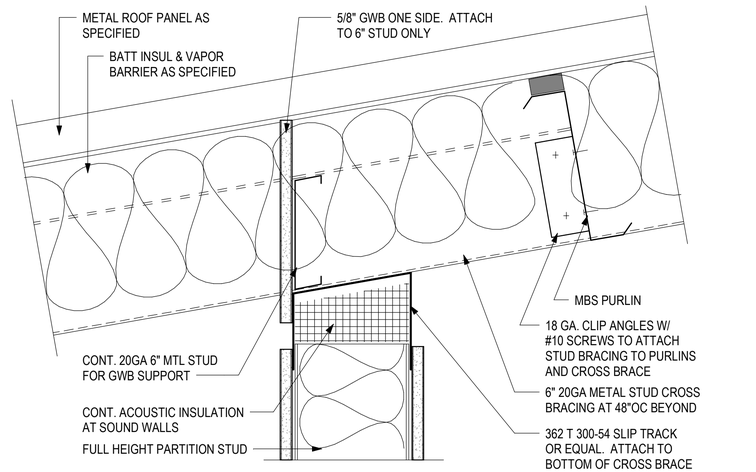
2 MBS CORNER DETAIL

3" = 1'-0"



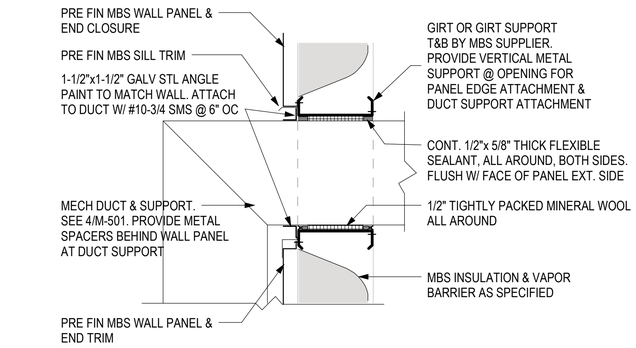
3 MBS WALL PANEL BASE DETAIL

3" = 1'-0"



4 FULL HT WALL TO STRUCTURE (OR BRACE)

3" = 1'-0"



5 PENETRATION - METAL WALL PANEL

1 1/2" = 1'-0"

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CROMWELL ARCHITECTS ENGINEERS, INC. C-98 REGISTERED ARCHITECTS ARKANSAS

REGISTERED ARCHITECT DANIEL K. FORNER No. 3339 ARKANSAS

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

PARTITION TYPES & DETAILS

Sheet Number

A-801

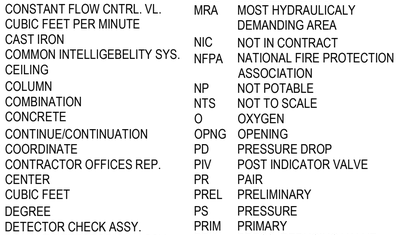
ABBREVIATIONS

&	AND	GPM	GALLONS PER MINUTE
Ø	ROUND	HD	HEAD
/R	ON ROOF	H.P.	HIGH PRESSURE
A	AIR	HTG	HEATING
AB	ABOVE BASE	IN	INCH
ABV	ABOVE	INL	INLET
ACOUS	ACOUSTICAL	INSUL	INSULATION
ADD	ADDENDUM	INWG	INCHES WATER GAUGE
ADDL	ADDITIONAL	ITC	INSPECTOR TEST CONNECT
AFF	ABOVE FINISHED FLOOR	JT	JOINT
AG	ABOVE GROUND	LAB	LABORATORY
AHJ	AUTHORITY HAVING JURISDICTION		
ALT	ALTERNATE	LB	POUND
ALV	ALARM VALVE	LB/HR	POUNDS PER HOUR
ALUM	ALUMINUM	LF	LINEAL FOOT
AP	ACCESS PANEL	LOC	LOCATION
ARCH	ARCHITECT/ARCHITECTURAL	LP	LOW PRESSURE
AUTO	AUTOMATIC	MA	MIXED AIR
AUX	AUXILLARY DRAIN	MAN	MANUAL
BFF	BELOW FINISHED FLOOR	MAX	MAXIMUM
BFV	BUTTERFLY VALVE	MD	MOTORIZED DAMPER
BSMT	BASEMENT	MFR	MANUFACTURER
BTWN	BETWEEN	MIN	MINIMUM
CAP	CAPACITY	MISC	MISCELLANEOUS
CFCV	CONSTANT FLOW CNTRL. VL.	MRA	MOST HYDRAULICALY DEMANDING AREA
CFM	CUBIC FEET PER MINUTE		
CI	CAST IRON	NIC	NOT IN CONTRACT
CIS	COMMON INTELLIGEBELITY SYS.	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CEG	CEILING		
COL	COLUMN	NP	NOT POTABLE
COMB	COMBINATION	NTS	NOT TO SCALE
CONC	CONCRETE	O	OXYGEN
CONT	CONTINUE/CONTINUATION	OPNG	OPENING
COORD	COORDINATE	PD	PRESSURE DROP
COR	CONTRACTOR OFFICES REP.	PIV	POST INDICATOR VALVE
CTR	CENTER	PR	PAIR
CUFT	CUBIC FEET	PREL	PRELIMINARY
D/°	DEGREE	PS	PRESSURE
DCA	DETECTOR CHECK ASSY.	PRIM	PRIMARY
DCDA	DOUBLE DETECTOR CK. ASSY.	PRV	PRESS. REDUCING VALVE
DIA	DIAMETER	PSI	LBS. PER SQ. IN.
DI	DUCTILE IRON	PSIG	LBS. PER SQ. IN. GAUGE
DISCH	DISCHARGE	PW	POTABLE WATER
DMPR	DAMPER	REC	RECESSED
DN	DOWN	RED	REDUCER
DWG	DRAWING	REQD	REQUIRED
EA	EACH	SF	SQUARE FOOT
ECS	EMERGENCY COMM. SYSTEM	SD	SMOKE DAMPER
EAH	EXHAUST HOOD	SIM	SIMILAR
EX	EXISTING	SLV	SLEEVE
EXP	EXPANSION	SP	STATIC PRESSURE
EXPJT	EXPANSION JOINT	SPS	STATIC PRESSURE STATION
ESP	EXTERNAL STATIC PRESSURE	SQ	SQUARE
F°	DEGREES FAHRENHEIT	SS	STAINLESS STEEL
FD	FIRE DAMPER	STD	STANDARD
FDV	FIRE DEPARTMENT VALVE	T	THERMOSTAT
FHR	FIRE HOSE STATION	SYS	SYSTEM
FHV	FIRE HOSE VALVE	TCP	TEMP. CONTROL PANEL
FPI	FINS PER INCH	TD	TEMPERATURE DROP
FLEX	FLEXIBLE	TEMP	TEMPERATURE
FLG	FLANGE	TSP	TOTAL STATIC PRESSURE
FT	FOOT/FEET	TYP	TYPICAL
FTG	FOOTING	U/G	UNDER GROUND
FUT	FUTURE	U/S	UNDER SLAB
GAL	GALLON	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED	VL	VALVE

EQUIPMENT ABBREVIATIONS

DBP	DOMESTIC WATER BOOST PUMP	FDCP	F.A. ACCESS PANEL
DCA	DETECTOR CHECK ASSY.	FMCP	F.A. MASS NOTIFICATION PNL.
DDCA	DOUBLE DETECTOR CHECK ASSY.	FAA	F.A. ANNUNCIATOR PNL.
FHR	FIRE HOSE STATION	LOC	LOCAL OPERATOR CONSOLE
F.A.	FIRE ALARM	NRSV	NON-RISING STEM VALVE
FPU	FIRE PUMP	ITC	INSPECTOR'S TEST
FDC	FIRE DEPARTMENT CONTROL	PNL	PANEL

FIRE ALARM PHASING

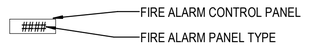


FIRE ALARM SHEET SET NOTE

* NOTE *

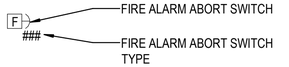
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THE CONTAINED REFERENCE DRAWINGS.

FIRE ALARM DEVICES



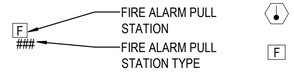
CONTROL PANELS ABBREVIATIONS:

APM	AMPLIFIER RACK
ACU	AUTONOMOUS CONTROL UNIT
BATT	BATTERY CABINET
FMCP	COMBI. FIRE ALARM/MASS NOTIFICATION CONTROL
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL
FSCP	FIRE SUPPRESSION CONTROL
GAP	GRAPHIC ANNUNCIATOR
LCD	LCD ANNUNCIATOR
LOC	LOCAL OPERATORS CONTROL
NAC	NOTIFICATION CIRCUIT POWER BOOSTER
PRE	PRE-ACTION SYSTEM
PRN	PRINTER
MIC	REMOTE VOICE
UPS	UINTERRUPTABLE POWER SUPPLY
EVAC	VOICE EVACUATION



ABORT SWITCH ABBREVIATIONS:

AS	ABORT SWITCH
CO2	CARBON DIOXIDE
CA	CLEAN AGENT
DL	DELUGE SPRINKLER
DC	DRY CHEMICAL
EPO	EMERGENCY POWER OFF
F	FOAM
HL	HALON
PRE	PREACTION SYSTEM
WM	WATER MIST
WC	WET CHEMICAL



PULL STATION ABBREVAITIONS:

CO2	CARBON DIOXIDE
CA	CLEAN AGENT
DL	DELUGE SPRINKLER
DC	DRY CHEMICAL
F	FOAM
HL	HALON
M	MANUAL
P	PULL STATAION
WM	WATER MIST
WC	WET CHEMICAL

SYMBOL	DESCRIPTION
	SPOT-TYPE SMOKE DETECTOR (P-PHOTO, I-IONIZATION, SB-SOUNDER BASE)
	DUCT SMOKE DETECTOR (S-SUPPLY, R-RETURN)
	HEAT DETECTOR (RATE OF RISE)
F	MANUAL PULL STATION (48" AFF UNLESS NOTED OTHERWISE)
WF	WATER FLOW SWITCH
VS	VALVE SUPERVISORY (TAMPER) SWITCH
DH	DOOR HOLD OPEN MODULE. PROVIDE FIRE ALARM LISTED HOLD-OPEN ASSEMBLY IF NOT CALLED OUT IN DOOR HARDWARE SCHEDULE.
E	ELECTRIC BELL FOR WATER FLOW. INSTALL AT 9"+/- ABOVE FINISHED GRADE OR AS DIRECTED BY FIRE MARSHAL.
AIM	ADDRESSABLE MODULE (AIM - INPUT, AOM - OUTPUT, AIO - INPUT/OUTPUT)
	UV FLAME DETECTOR

SYMBOL	DESCRIPTION
15 C	CEILING MOUNT HORN AND CLEAR STROBE, 15 CANDELA UNLESS NOTED OTHERWISE
15	WALL MOUNT HORN AND CLEAR STROBE, 15 CANDELA UNLESS NOTED OTHERWISE
15	CEILING MOUNT CLEAR STROBE, 15 CANDELA UNLESS NOTED OTHERWISE
15	WALL MOUNT CLEAR STROBE, 15 CANDELA UNLESS NOTED OTHERWISE

GENERAL SYMBOLS

1	REVISION NUMBER SHOWN ON PLANS
	POINT WHERE NEW CONNECTS TO EXISTING
	DEMOLISH TO POINT INDICATED
1 / FX001	NUMBER OF DETAIL ON SHEET / NUMBER OF SHEET WHERE DETAIL APPEARS
1	KEYNOTE
	PIPE CONTINUATION
	ITEM TO BE DEMOLISHED
	AREA NOT IN CONTRACT

SPACE TAG:

OFFICE — SPACE NAME

101 — SPACE NUMBER

FIRE ALARM DEVICE MOUNTING NOTE

WALL MOUNTED VISUAL DEVICES TO BE LOCATED SUCH THAT THE ENTIRE LENS OF THE STROBE IS BETWEEN 80" AND 96" AFF. ALL WALL MOUNTED NOTIFICATION DEVICES SHALL BE MOUNTED AT THE SAME HEIGHT AFF TO ACHIEVE A UNIFORM APPEARANCE OR AS DIRECTED BY THE A/E. WATTAGE AND CANDELA ARE GUIDELINES. CONTRACTOR RESPONSIBLE FOR FINAL SPACING AND TOTAL DEVICE POWER.

GENERAL

1. FIRE ALARM SYSTEM AND DEVICES SHALL BE INSTALLED TO THE LATEST EDITION OF NFPA 72, NFPA 70, AND LOCAL REQUIRMENTS.
2. ALL FIRE ALARM INSTALLATIONS, INCLUDING PULLING OF WIRE AND MOUNTING OF DIVICES, SHALL HAVE OVERSIGHT OF A NICET LEVEL II FIRE ALARM TECHNICIAN OR HIGHER.
3. STROBES SHALL BE SYNCHRONIZED PER NFPA 72.
4. ALL FIRE ALARM CABLE SHALL BE RUN IN RED FACTORY COLORED CONDUIT.
5. THESE DESIGN DOCUMENTS PROVIDE GENERAL SPACING, LOCATION, AND COORDINATION CRITERIA. CONTRACTOR SHALL BE RESPONSIBLE FOR CIRCUIT CONFIGURATION, SYSTEM PERFORMANCE, SOFTWARE CONFIGURATION, DEVICE PROGRAMMING, SYSTEM COMMISSIONING, AND SYSTEM WARRANTY.
6. CONTRACTOR SHALL SUBMIT FIRE ALARM, DATA CUT-SHEETS, AND VOLTAGE DROP CALCULATIONS TO AHJ AND A/E FOR REVIEW AND APPROVAL PRIOR TO BEGINNING ANY WORK ON THE FA SYSTEM.
7. NO FA DOCUMENTS/PLANS SHALL BE USED FOR INSTALLATION OF THIS SYSTEM UNLESS THEY CONTAIN A REVIEW AND APPROVAL STAMP FROM THE AHJ AND THE A/E. THE LOCAL AHJ HAS THE AUTHORITY TO STOP ANY WORK UNTIL SUCH PLANS ARE ON SITE AND IN USE.
8. SEPARATE FIRE ALARM SPECIFICATIONS CONTAIN VERY DETAILED INFORMATION ABOUT THIS SYSTEM AND SHALL BE FOLLOWED, ON-SITE AND AVAILABLE DURING ANY CONSTRUCTION.
9. SECONDARY POWER PERFORMANCE TO MEET NFPA 72. 24 HOURS OF STANDBY POWER FOLLOWED BY 15 MINUTES OF ALARM FOR ALL CONNECTED DEVICES AT MAXIMUM LOAD. SECONDARY POWER FOR THE SYSTEM SHALL ALSO BE DESIGNED TO OPERATE MAXIMUM CONNECTER ALARM LOAD FOR 60 MINUTES IMMEDIATELY FOLLOWING DISCONNECTION OF PRIMARY POWER.
10. CIRCUITS TO BE 24V TYPICAL.

LOCATION / SPACING

1. IN ACCORDANCE WITH 2019 NFPA 72, STROBES MAY BE MORE THAN 15 FEET FROM THE END OF A CORRIDOR WHEN ROOM SPACING CRITERIA APPLIES USING THE APPROPRIATE CANDELA.
2. WALL MOUNTED SPEAKER, STROBES, OR SPEAKER/STROBES SHALL BE AT 96" OR 6" BELOW THE CEILING, WHICHEVER IS LOWER.
3. ALL SMOKE DETECTORS SHALL BE LOCATED WHERE THEY CAN BE READILY SERVICED.
4. ALL SMOKE DETECTORS SHALL BE CEILING MOUNTED OR WITHIN 12" OF THE CEILING.
5. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 3' OF AN AIR-SUPPLY OR RETURN GRILLE PER MFG CRITERIA AND APPENDIX 'A' OF NFPA 72.
6. EACH POWER BOOSTER PANEL OR FIRE ALARM PANEL SHALL BE PROTECTED BY A SMOKE DETECTOR. WHEN PROVIDED, AREA DETECTORS WITHIN THE SAME SPACE WILL SATISFY THIS REQUIREMENT.
7. AIR HANDLER SYSTEMS OVER 2,000 CFM SHALL BE PROVIDED WITH MEANS TO SHUT DOWN UPON THE DETECTION OF SMOKE. THESE DETECTORS SHALL NOT INITIATE A GENERAL FIRE ALARM.
8. DAMPER AND HVAC SMOKE DETECTORS SHALL BE PROVIDED BY THE FIRE ALARM CONTRACTOR, LISTED WITH THE FIRE ALARM SYSTEM, AND INCORPORATE ADDRESSABLE MODULES.
9. WHERE APPLICABLE, SMOKE DETECTORS FOR AIR-HANDLER SHUT DOWN SHALL BE ON BOTH SUPPLY AND RETURN DUCTS.
10. WALL MOUNTED VISUAL DEVICES TO BE LOCATED SUCH THAT THE ENTIRE LENS OF THE STROBE IS BETWEEN 80" AND 96" AFF. ALL WALL MOUNTED NOTIFICATION DEVICES SHALL BE MOUNTED AT THE SAME HEIGHT AFF TO ACHIEVE A UNIFORM APPEARANCE OR AS DIRECTED BY THE A/E. WATTAGE AND CANDELA ARE GUIDELINES. CONTRACTOR RESPONSIBLE FOR FINAL SPACING AND TOTAL DEVICE POWER.

PERFORMANCE

1. ANY SMOKE DETECTOR THAT HAS BEEN INSTALLED PRIOR TO THE CONSTRUCTION CLEANUP OF ALL TRADES AND WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER AND LOCAL AHJ SHALL BE MARKED IN A MANNER THAT WILL IDENTIFY IT FROM RE-USE AND SHALL BE REPLACED PRIOR TO COMMISSIONING OF THE SYSTEM OR TURNING OVER TO THE OWNER. SUCH DETECTORS SHALL BE REPLACED AT THE SOLE EXPENSE OF THE INSTALLING CONTRACTOR.
2. DUCT DETECTORS SHALL BE MONITORED FOR INTEGRITY AND PROVIDE A SUPERVISORY SIGNAL AT THE FIRE ALARM PANEL. AIR HANDLER SYSTEMS SHALL BE RAN AND BLOWN OUT PRIOR TO INSTALLATION OF SMOKE DETECTORS.
3. FIRE ALARM AUDIBLE ALERT SIGNALS SHALL BE SET TO TEMPORAL CODE PER NFPA 72.
4. UNLESS OTHERWISE NOTED THE FOLLOWING MINIMUM SURVIVABILITY CRITERIA SHALL BE MET: SIGNALING LINE CIRCUITS CLASS "B", AND NOTIFICATION CIRCUITS CLASS "B".
5. INITIATING DEVICES SHALL BE INDIVIDUALLY ADDRESSABLE.

ACCEPTANCE TESTING

1. A COMPLETED AND SIGNED RECORD (CERTIFICATE) OF COMPLETION FORM SHALL BE PROVIDED BY THE CONTRACTOR TO THE AHJ, OWNER, AND A/E PRIOR TO COMMISSION TESTING. THIS CERTIFICATE SHALL CERTIFY THAT THE CONTRACTOR HAS PRE-TESTED EVERY DEVICE AND FUNCTION OF THE SYSTEM AND REPAIRED ANY DEFICIENCIES PRIOR TO THE COMMISSIONING TEST.
2. ALL SMOKE DETECTORS SHALL BE COMMISSIONED USING CANNED SMOKE OR A METHOD THAT WILL FUNCTIONALLY TEST THE SMOKE CHAMBER. THE USE OF MAGNETS FOR COMMISSION TESTING OF SMOKE DETECTORS IS STRICTLY PROHIBITED.
3. EACH AND EVERY DEVICE SHALL BE TESTED DURING COMMISSIONING AND PRIOR TO BEING TURNED OVER TO THE OWNER.
4. EACH NOTIFICATION CIRCUIT SHALL BE TESTED UNDER STANDBY/BATTERY POWER. ANY CIRCUIT THAT MEASURES LESS THAN 20 VOLTS DC OR THE NAMEPLATE VOLTAGE, WHICHEVER IS HIGHER, SHALL BE CONSIDERED AS FAILING THE DESIGN. NOTE: SOME SYSTEMS INCORPORATING SYNCHRONIZING MODULES CAN IMPAIR RESULTS. IF THE MODULE CANNOT BE BYPASSED FOR VOLTAGE READINGS, THE MANUFACTURER SHOULD BE CONTACTED FOR GUIDANCE. WHEN VOLTAGE CANNOT BE MEASURED, CIRCUIT WIRE RESISTANCE READINGS AND DEVICE LOAD MAY BE COMPARED TO DESIGN CALCULATIONS (MAKE SURE CIRCUIT IS REMOVED FROM POWER SUPPLY WHEN OBTAINING WIRE RESISTANCE). ONLY A QUALIFIED TECHNICIAN EMPLOYED BY THE INSTALLING CONTRACTOR SHOULD PERFORM THIS FUNCTION.
5. EACH CIRCUIT'S END-OF-LINE VOLTAGE SHALL BE DOCUMENTED FOR COMPARISON TO THE DESIGN END-OF-LINE CALCULATIONS.

CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 19823
JOHN W. OSBORN

02-20-2025

Notes

2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

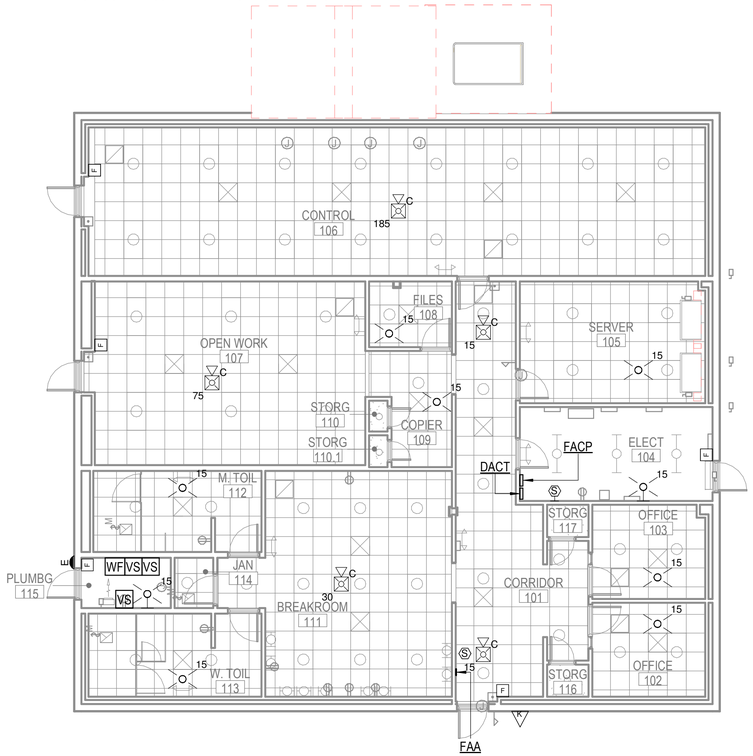
FIRE ALARM LEGEND AND NOTES

Sheet Number

FA001

NOTE:

THE FIRE ALARM TRANSMITTER SHALL BE FULLY COMPATIBLE WITH THE EXISTING PROPRIETARY SUPERVISING STATION RECEIVING EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR ALL ASSOCIATED HARDWIRE AND COMPONENTS FOR THE COMPLETE INSTALLATION INCLUDING SOFTWARE PROGRAMMING. FIRE ALARM SHALL BE MONITORED REMOTELY FROM GUARD POST 1 IN ADDITION TO THE REMOTE SUPERVISING STATION.



1 FIRE ALARM CEILING PLAN

1/8" = 1'-0"

0 4 8 16

NORTH

CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS
#5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 19823
JOHN W. OBSTARCZYK

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

FIRE ALARM CEILING PLAN

Sheet Number

FA101

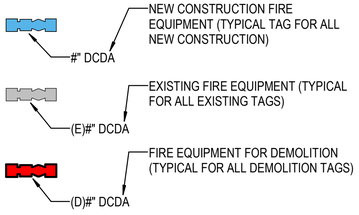
ABBREVIATIONS

&	AND	GPM	GALLONS PER MINUTE
Ø	ROUND	HD	HEAD
/R	ON ROOF	H.P.	HIGH PRESSURE
A	AIR	HTG	HEATING
AB	ABOVE BASE	IN	INCH
ABV	ABOVE	INL	INLET
ACOUS	ACOUSTICAL	INSUL	INSULATION
ADD	ADDENDUM	INWG	INCHES WATER GAUGE
ADDL	ADDITIONAL	ITC	INSPECTOR TEST CONNECT
AFF	ABOVE FINISHED FLOOR	JT	JOINT
AG	ABOVE GROUND	LAB	LABORATORY
AHJ	AUTHORITY HAVING JURISDICTION		
ALT	ALTERNATE	LB	POUND
ALV	ALARM VALVE	LB/HR	POUNDS PER HOUR
ALUM	ALUMINUM	LF	LINEAL FOOT
AP	ACCESS PANEL	LOC	LOCATION
ARCH	ARCHITECT/ARCHITECTURAL	LP	LOW PRESSURE
AUTO	AUTOMATIC	MA	MIXED AIR
AUX	AUXILLARY DRAIN	MAN	MANUAL
BFF	BELOW FINISHED FLOOR		
BFV	BUTTERFLY VALVE	MAX	MAXIMUM
BSMT	BASEMENT	MCW	MAKE-UP COLD WATER
BTWN	BETWEEN	MD	MOTORIZED DAMPER
CAP	CAPACITY	MFR	MANUFACTURER
CFCV	CONSTANT FLOW CNTRL. VL.	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	MISC	MISCELLANEOUS
CI	CAST IRON	MRA	MOST HYDRAULICALY DEMANDING AREA
CIS	COMMON INTELLIGEBELITY SYS.		
CEG	CEILING	NFPA	NOT IN CONTRACT
COL	COLUMN		NATIONAL FIRE PROTECTION ASSOCIATION
COMB	COMBINATION		
CONC	CONCRETE	NP	NOT POTABLE
CONT	CONTINUE/CONTINUATION	NTS	NOT TO SCALE
COORD	COORDINATE	O	OXYGEN
COR	CONTRACTOR OFFICES REP.	OPNG	OPENING
CTR	CENTER	PD	PRESSURE DROP
CUFT	CUBIC FEET	PIV	POST INDICATOR VALVE
D/°	DEGREE	PR	PAIR
DCA	DETECTOR CHECK ASSY.	PREL	PRELIMINARY
DCDA	DOUBLE DETECTOR CK. ASSY.	PS	PRESSURE
DIA	DIAMETER	PRIM	PRIMARY
DI	DUCTILE IRON	PRV	PRESS. REDUCING VALVE
DISCH	DISCHARGE	PSI	LBS. PER SQ. IN.
DMPR	DAMPER	PSIG	LBS. PER SQ. IN. GAUGE
DN	DOWN	PW	POTABLE WATER
DWG	DRAWING	REC	RECESSED
EA	EACH	RED	REDUCER
ECS	EMERGENCY COMM. SYSTEM	REQD	REQUIRED
EAH	EXHAUST HOOD	SF	SQUARE FOOT
EX	EXISTING	SD	SMOKE DAMPER
EXP	EXPANSION	SIM	SIMILAR
EXPJT	EXPANSION JOINT	SLV	SLEEVE
ESP	EXTERNAL STATIC PRESSURE	SP	STATIC PRESSURE
F°	DEGREES FAHRENHEIT	SPS	STATIC PRESSURE STATION
FD	FIRE DAMPER	SQ	SQUARE
FDV	FIRE DEPARTMENT VALVE	SS	STAINLESS STEEL
FHR	FIRE HOSE STATION	STD	STANDARD
FHV	FIRE HOSE VALVE	T	THERMOSTAT
FPI	FINS PER INCH	SYS	SYSTEM
FLEX	FLEXIBLE	TCP	TEMP. CONTROL PANEL
FLG	FLANGE	TD	TEMPERATURE DROP
FT	FOOT/FEET	TEMP	TEMPERATURE
FTG	FOOTING	TSP	TOTAL STATIC PRESSURE
FUT	FUTURE	TYP	TYPICAL
GAL	GALLON	U/G	UNDER GROUND
GALV	GALVANIZED	U/S	UNDER SLAB
GEN	GENERATOR	UNO	UNLESS NOTED OTHERWISE
GENL	GENERAL	VL	VALVE
		VOL	VOLUME

EQUIPMENT ABBREVIATIONS

AFMS	AIR FLOW MEASURING STATION	FDC	FIRE DEPARTMENT CONTROL
CF	CABINET FAN	FDCP	F.A. ACCESS PANEL
CF	CHEMICAL FEEDER	FMCP	F.A. MASS NOTIFICATION PNL.
DBP	DOMESTIC WATER BOOST PUMP	FAA	F.A. ANNUNCIATOR PNL.
DCA	DETECTOR CHECK ASSY.	LOC	LOCAL OPERATOR CONSOLE
DDCA	DOUBLE DETECTOR CHECK ASSY.	NRSV	NON-RISING STEM VALVE
FHR	FIRE HOSE STATION	ITC	INSPECTOR'S TEST
F.A.	FIRE ALARM	PNL	PANEL
FPU	FIRE PUMP		

FIRE PROTECTION PHASING



FIRE PROTECTION PIPING LEGEND

6"	PIPE SIZE TAG (DIAMETER Ø")
(E)	EXISTING TO REMAIN PIPE
(D)	DEMOLISHED PIPE
6" FP-D	PIPE SIZE AND SYSTEM TAG
FP-D	FIRE PROTECTION DRY
FP-PA	FIRE PROTECTION PRE-ACTION
FP-W	FIRE PROTECTION WET
FP-O	FIRE PROTECTION OTHER
FP-C	FIRE PROTECTION CLEAN AGENT

SPRINKLERS

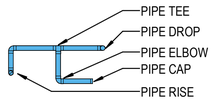
K-VALUE SYMBOLS:

- 5.6
- 8.0
- 11.2
- 14.0
- 25.2

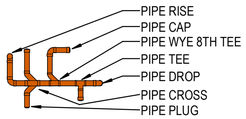
SPRINKLER ORIENTATION:

- CONCEALED
- UPRIGHT
- PENDENT
- RECESSED
- HORIZONTAL SIDEWALL
- • VERTICAL SIDEWALL - 5.6K
- • VERTICAL SIDEWALL - 8.0K
- • VERTICAL SIDEWALL - 11.2K

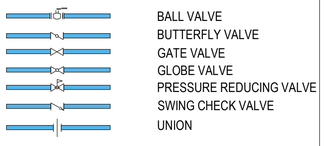
METALLIC PIPE SYMBOLS



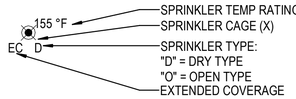
PLASTIC PIPE SYMBOLS



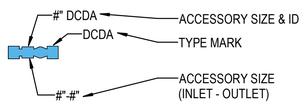
PIPE ACCESSORIES



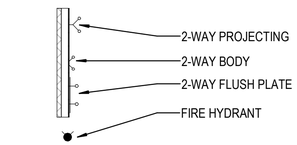
SPRINKLER TAGS



PIPE ACCESSORY TAGS



FIRE DEPARTMENT CONNECTIONS



GENERAL SYMBOLS

REVISION NUMBER SHOWN ON PLANS

POINT WHERE NEW CONNECTS TO EXISTING

DEMOLISH TO POINT INDICATED

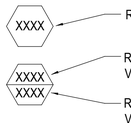
NUMBER OF DETAIL ON SHEET
NUMBER OF SHEET WHERE DETAIL APPEARS

KEYNOTE

NON-RETARDABLE FLOW SWITCH

TAMPER SWITCH

HYDRAULIC REFERENCE POINT:



PIPE CONTINUATION

SPACE TAG:

ITEM TO BE DEMOLISHED

AREA NOT IN CONTRACT

FIRE PROTECTION HAZARD LEGEND

LIGHT HAZARD (0.10/1500)

ORDINARY HAZARD 1 (0.15/1500)

FIRE PROTECTION SHEET SET NOTE

* NOTE *

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

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN AUTOMATIC FIRE SPRINKLER SYSTEM TO FULLY PROTECT THIS FACILITY. THE FIRE SPRINKLER SYSTEM SHOWN THESE DRAWINGS IS BASED ON PRESCRIPTIVE DESIGN AND CONCEPTUAL ONLY.
2. THE SPRINKLER CONTRACTOR SHALL SUBMIT COMPLETE FIRE SPRINKLER SYSTEM SHOP DRAWINGS BASED ON NFPA 13 AND SPECIFICATION REQUIREMENTS AND SUBMIT FOR APPROVAL PRIOR TO INSTALLATION.
3. THE EQUIPMENT SHOWN ARE SUGGESTED LOCATIONS HOWEVER FINAL LAYOUT SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, MANUFACTURER'S RECOMMENDATIONS, AND EQUIPMENT LISTINGS. CONTRACTOR SHALL COORDINATE BRANCH LINE AND SPRINKLER HEAD LOCATIONS WITH CEILING PANELS, LIGHTING FIXTURES, HVAC DUCTS AND AIR DEVICES, PLUMBING AND OTHER TRADES NOT SPECIFICALLY NAMED.
4. ALL EQUIPMENT SHALL BE UL LISTED AND FM APPROVED IN ACCORDANCE WITH NFPA 13 AND PROJECT SPECIFICATIONS.
5. CONTRACTOR SHALL SUBMIT SETS OF FIRE SUPPRESSION PLANS, DATA CUT-SHEETS, AND HYDRAULIC CALCULATIONS TO A/E AND AHJ FOR REVIEW AND APPROVAL PRIOR TO BEGINNING ANY WORK ON THE FIRE SUPPRESSION SYSTEM.
6. THE CONTRACTOR SHALL CONDUCT WATER SUPPLY HYDRANT TEST FOR THIS PROJECT BASED ON NFPA 291 REQUIREMENTS AND UTILIZE THIS DATA TO DESIGN THE SPRINKLER SYSTEM. THE HYDRANT LOCATIONS, FLOW TESTS, AND DATE SHALL BE INDICATED ON THE SHOP DRAWINGS. AUTOMATIC SPRINKLER PROTECTION SYSTEM IS REQUIRED TO PROTECT THIS ENTIRE FACILITY. A MINIMUM 10% SAFETY FACTOR IS REQUIRED BETWEEN THE AVAILABLE WATER SUPPLY AND THE SPRINKLER SYSTEM DEMAND.
7. PROVIDE EARTHQUAKE PROTECTION (SWAY BRACING), END OF BRANCH LINE AND SEISMIC BRACING CALCULATION IN ACCORDANCE WITH NFPA 13 REQUIREMENTS . MINIMUM Cp TO BE DETERMINED BASED ON STRUCTURAL DESIGN DOCUMENTS OR USGS DATA FOR SITE SPECIFIC SHORT PERIOD SPECTRAL RESPONSE (Ss).
8. FIRE PROTECTION DEVICES AND PIPING ON PLANS ARE NOT FOR CONSTRUCTION, THEY ARE FOR COST ESTIMATING ONLY.
9. THE CONTRACTOR SHALL CONFORM TO THE SYMBOLS INDICATED IN NFPA 170 TO DEVELOP THE AS-BUILT DRAWINGS FOR THIS PROJECT.
10. ALL AUTOMATIC SPRINKLER DRAIN VALVES FOR FIRE DEPARTMENT CONNECTIONS SHALL BE INSTALLED IN THE HORIZONTAL POSITION.
11. FLEXIBLE COUPLINGS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
12. ALL DRAIN PIPING SHALL BE COORDINATED WITH AND APPROVED BY A/E FOR ARRANGEMENT, LOCATION (DOWNSPOUT, DOCK PARKING LOT, ETC.) AND APPROPRIATENESS OF THE MEANS OF DISCHARGE (STORM SEWER, SANITARY SEWER, BIOSWALE, ETC,) THAT WILL HANDLE THE FULL FLOW OF THE DRAIN WITHOUT SPECIAL TOOLS OR EQUIPMENT AND WITH DAMAGE TO LANDSCAPING OR PAVEMENT.
13. INSPECTOR'S TEST CONNECTION SHALL BE NOT LARGER THAN 1/2" ORIFICE AND BE LOCATED ON THE REMOTE BRANCH LINE.

SYSTEM NOTES

1. ALL SYSTEM PIPING SHALL BE HYDROSTATICALLY TESTED @ 200 PSI FOR TWO HOURS OR AT 50 PSI ABOVE THE OPERATIONAL STATIC PRESSURE OF THE SYSTEM, WHICHEVER IS GREATER.
2. EACH VALVE SHALL HAVE A PERMANENTLY AFFIXED SIGN INDICATING ITS FUNCTION. ALL VALVE HANDLES MUST BE ACCESSIBLE.
3. A STOCK OF SPARE SPRINKLERS, NOT LESS THAN 6, CONSISTING OF A REPRESENTATIVE MIX OF EACH STYLE AND TEMPERATURE RATING SHALL BE PROVIDED WITH A WRENCH AND BE LOCATED NEAR THE RISER. SPARE SPRINKLER CABINET WILL BE MOUNTED WHERE THE SPRINKLERS WILL NOT BE SUBJECTED TO TEMPERATURES ABOVE 100 DEG. F.
4. SPRINKLERS SHALL BE A MINIMUM OF 1/2" NPT 1/2" ORIFICE K-5.6 QUICK RESPONSE. PENDENT SPRINKLERS SHALL BE INSTALLED IN THE CENTER POINTS OF THE CEILING TILES. CONCEALED SPRINKLERS WITH WHITE COVER PLATES SHALL BE INSTALLED THROUGHOUT FINISHED CEILINGS. OTHER SPRINKLERS SHALL BE GLASS BULB, BRONZE FINISHED WITH AN ORIFICE AND THREAD SIZE APPROPRIATE FOR THE HAZARD AND DENSITY.
5. BRANCH LINE CONNECTIONS TO THE MAIN SHALL BE PRE-DRILLED, SHOP WELDED OUTLETS OR OTHER CONNECTIONS AS APPROVED, MECHANICAL TEES SHALL NOT BE USED ON NEW SYSTEMS. MAIN PIPING FOR THE SYSTEMS SHALL BE SCHEDULE 40. BRANCH LINE PIPING FOR THIS PROJECT SHALL BE SCHEDULE 40 PIPE WITH SCREWED AND/OR WELDED FITTINGS. IF A HISTORY OF CORROSION IS KNOWN TO EXIST, SCHEDULE 10 PIPING MAY BE USED.
6. THREADABLE THINWALL, ENGINEERED PIPE SIZING, IE DYNATHREAD/DYNAFLOW, AND CPVC MAY NOT BE USED.
7. ALL MATERIALS USED IN THE INSTALLATION OF THIS SYSTEM(S) SHALL BE NEW AND OF CURRENT ISSUE. ALL MATERIALS SHALL BE APPROVED BY UL AND BE IN CONFORMANCE WITH SPECIFICATIONS, CURRENT EDITION OF NFPA-13 AS WELL AS THE AUTHORITY HAVING JURISDICTION.
8. SYSTEM PIPING WILL BE SUPPORTED AND BRACED WITH HANGERS AND LISTED EARTHQUAKE BRACE ASSEMBLIES IN ACCORDANCE PER NFPA-13.
9. PAINTING OF THE SYSTEM PIPING AND COMPONENTS SHALL BE DONE PER A/E SPECIFICATIONS.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE INTEGRITY OF THE SPRINKLER SYSTEM DURING CONSTRUCTION.
11. ELEVATIONS AND DIMENSIONS SHOWN ON THESE DRAWINGS ARE NOMINAL.
12. THE VERTICAL DISTANCE BETWEEN THE SPRINKLER DEFLECTOR AND THE CEILINGS AND/OR ROOF DECK SHALL BE A 1" MIN AND 12" MAX PER NFPA 13.
13. THE SMALL-ROOM RULE MAY BE USED IN ROOMS UNDER 800 SQUARE FEET. THIS RULE ALLOWS THAT SPRINKLERS TO BE SPACED UP TO 9' FROM ONE WALL, UP TO 225sq ft PER SPRINKLER, PROVIDED THERE IS AN 8" LINTEL AT THE DOORS/OPENINGS.
14. WATER VELOCITIES SHALL NOT EXCEED 20-FPS.
15. SPRINKLER AREAS WILL BE LIMITED IN ACCORDANCE WITH NFPA 13.
16. ALL PIPE UP TO 4" SHALL HAVE AN ANTIBACTERIAL PROTECTIVE COATING EQUIVALENT TO ALLIED TUBE AND CONDUIT M-COTE, AND BE SHOWN TO NOT BE INCOMPATIBLE WITH CPVS. CONTRACTOR TO VERIFY.
17. AUTOMATIC SPRINKLER SYSTEMS SHALL BE SUPERVISED AND INTERFACE WITH NEW FIRE ALARM SYSTEM.
18. THE CONTRACTOR SHALL PROVIDE THE INSPECTOR WITH COPY OF: THE "CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING" IN ACCORDANCE WITH NFPA 13; AND THE "RECORD OF COMPLETION" FOR FIRE ALARM SYSTEMS IN ACCORDANCE WITH NFPA 72. THESE DOCUMENTS SHALL BE PRESENTED UPON SUCCESSFUL COMPLETION ON THE SYSTEM TEST AND PRIOR TO ACCEPTANCE OF THE SYSTEM.
19. ONE SET OF STAMPED, APPROVED DRAWINGS SHALL BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO INSPECTORS ON DEMAND.
20. FIRE DEPARTMENT VEHICLE ACCESS ROADWAYS SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION. REQUIRED WATER FLOW SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION AND PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ON SITE.
21. FIRE PROTECTION SYSTEMS SHALL BE INSTALLED BY A CONTRACTOR LICENSED TO PERFORM SUCH WORK IN THE PROJECT JURISDICTION.

FLOW DATA

DATE OF TESTING: 01-23-2025

STATIC PRESSURE: 75.00 psi **RESIDUAL PRESSURE:** 60.00 psi **FLOW:** 1,300 GPM

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 19823
BRIAN W. OBSINA

02-20-2025

Notes

2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

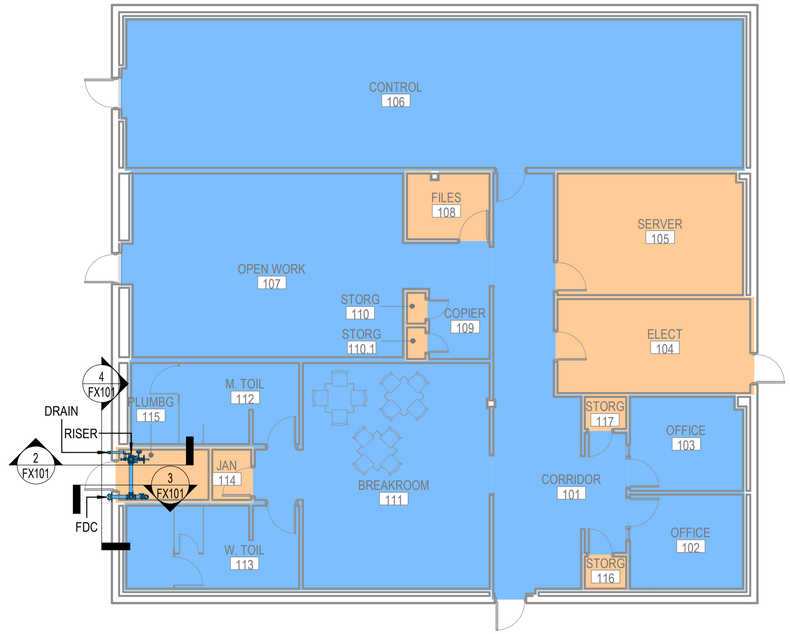
FIRE PROTECTION LEGEND AND NOTES

Sheet Number

FX001

Hazard Zones

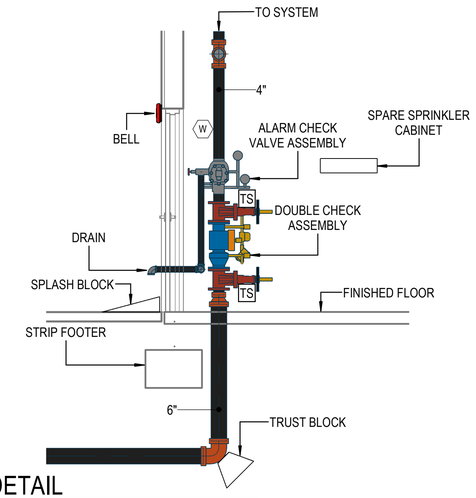
- LIGHT HAZARD
- ORDINARY HAZARD 1



1 FIRE PROTECTION FLOOR PLAN

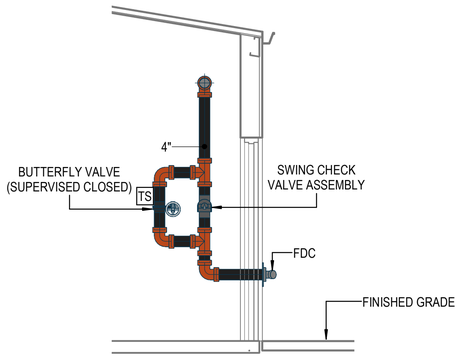
1/8" = 1'-0"

NORTH



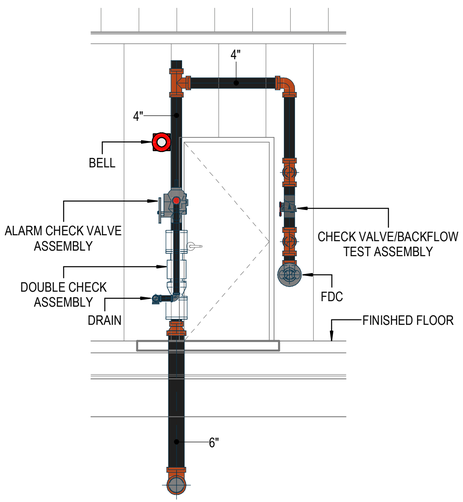
2 RISER DETAIL

3/8" = 1'-0"



3 FDC & BACKFLOW TEST ASSEMBLY DETAIL

3/8" = 1'-0"



4 FDC & BACKFLOW TEST PIPING DETAIL

3/8" = 1'-0"

CROMWELL

1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 19823
JAY WOSSUM

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

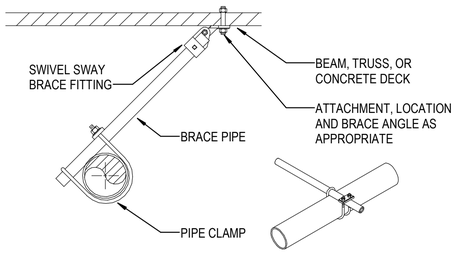
Issue Date **02-20-2025**

Sheet Title

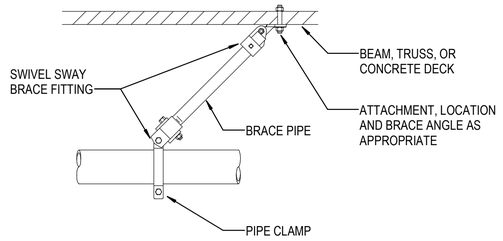
FIRE PROTECTION FLOOR PLAN

Sheet Number

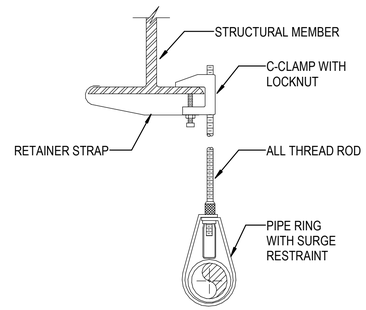
FX101



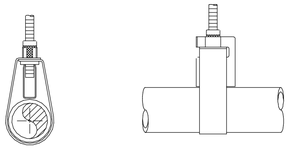
1 LATERAL SWAY BRACE
NOT TO SCALE



2 LONGITUDINAL SWAY BRACE DETAIL
NOT TO SCALE

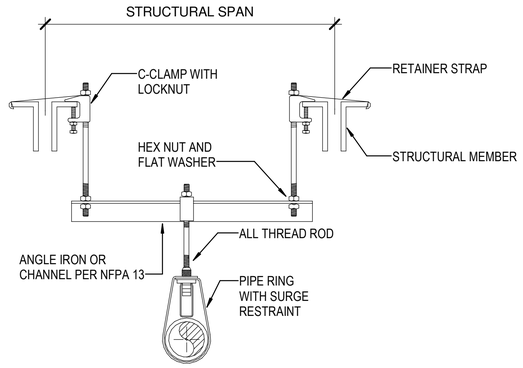


3 BEAM CLAMP HANGER
NOT TO SCALE

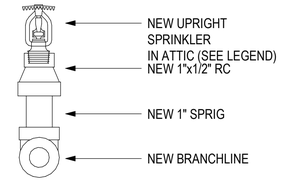


NOTE: SURGE RESTRAINERS ARE TO BE USED ONLY WITH BAND HANGERS TO RESTRAIN THE UPWARD MOVEMENT OF PIPE AS IT OCCURS DURING SPRINKLER HEAD ACTIVATION OR SEISMIC ACTIVITY. INSTALL AT ENDS OF LINES AND AT 30' INTERVALS ON BRANCH LINES.

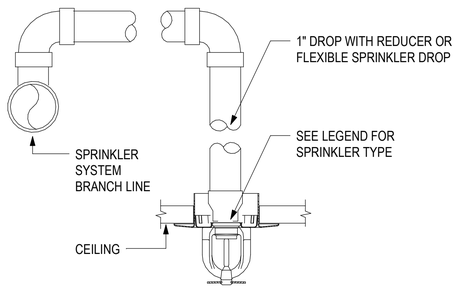
4 HANGER SURGE
NOT TO SCALE



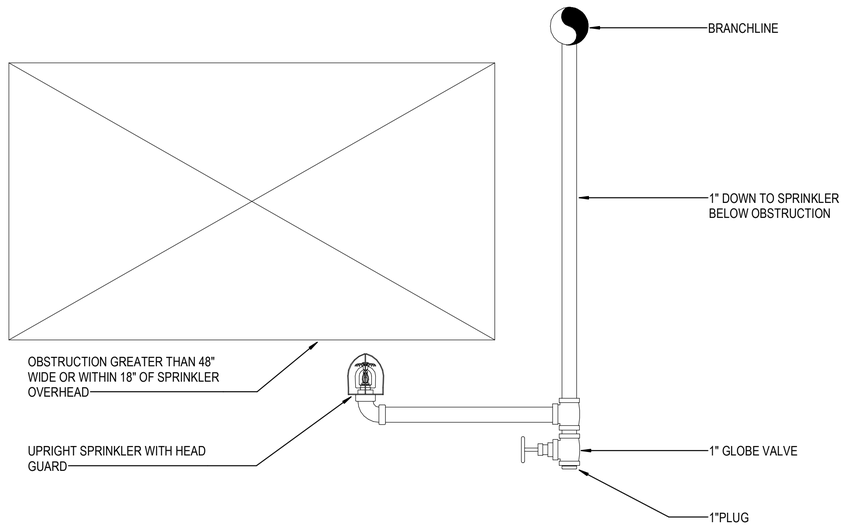
5 TRAPEZE HANGER
NOT TO SCALE



6 UPRIGHT SPRINKLER DETAIL
NOT TO SCALE



7 RETURN BEND
NOT TO SCALE



8 SPRINKLER UNDER OBSTRUCTION
NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS-ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 19823
JOHN W. OBSTARCZYK
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**
Issue Date **02-20-2025**
Sheet Title
FIRE PROTECTION DETAILS

Sheet Number
FX501

ABBREVIATIONS

AC	AIR COMPRESSOR	HS	HOSE STATION
ACU	AIR CONDITIONING UNIT	HT	HEIGHT
AD	AREA DRAIN	HTG	HEATING
AFC	ABOVE FINISH CEILING	HVAC	HEATING, VENTILATION, AIR COND.
AFF	ABOVE FINISH FLOOR	HW	HOT WATER
AFG	ABOVE FINISHED GRADE	HWG	HOT WATER GENERATOR
AHJ	AUTHORITY HAVING JURISDICTION	HWR	HOT WATER RETURN
APPROX	APPROXIMATE	HWST	HOT WATER STORAGE TANK
ARCH	ARCHITECT/ARCHITECTURAL	ID	INSIDE DIAMETER/DIMENSION
ARD	AUXILIARY ROOF DRAIN	KW	KILOWATTS
BFF	BELOW FINISH FLOOR	LAV	LAVATORY
BLDG	BUILDING	LF	LINEAR FEET
BTU	BRITISH THERMAL UNITS	LPG	LIQUID PETROLEUM GAS
BTUH	BRITISH THERMAL UNITS/HOUR	LWT	LEAVING WATER TEMPERATURE
CAP	CAPACITY	MAX	MAXIMUM
CB	CATCH BASIN	MBH	THOUSAND BTU/PER HOUR
CD	CONDENSATE DRAIN	MDL	MODEL
CFH	CUBIC FEET/HOUR	MECH	MECHANICAL
CFM	CUBIC FEET/MINUTE	MFR	MANUFACTURER
CI	CAST IRON	MH	MANHOLE
CLG	CEILING	MIN	MINIMUM
CO	CLEAN OUT	MISC	MISCELLANEOUS
COL	COLUMN	MTD	MOUNTED
CONC	CONCRETE	NA	NOT APPLICABLE
CONN	CONNECT	NFPA	NATIONAL FIRE PROTECTION ASSO.
CONST	CONSTRUCTION	NTS	NOT TO SCALE
CONT	CONTINUE	OA	OUTSIDE AIR
COTG	CLEAN OUT TO GRADE	OD	OUTSIDE DIAMETER/DIMENSION
CP	CIRCULATING PUMP	PD	PRESSURE DROP
CR	CONDENSATE RETURN	PLBG	PLUMBING
CW	COLD WATER	PRESS	PRESSURE
DCOTG	DOUBLE CLEANOUT TO GRADE	PRV	PRESSURE REDUCING VALVE
DD	DESICCANT DEHUMIDIFIER	PSI	POUNDS PER SQUARE INCH
DEG(°)	DEGREE	RA	RETURN AIR
DEMO	DEMOLITION	RD	ROOF DRAIN
DF	DRINKING FOUNTAIN	REF	REFERENCE
DIA	DIAMETER	REQD	REQUIRED
DS	DOWN SPOUT	REV	REVISION, REVISED
DTL	DETAIL	RM	ROOM
EFF	EFFICIENT	RPM	REVOLUTIONS PER MINUTE
ELEC	ELECTRICAL	SC	STEAM CONDENSATE
ELEV	ELEVATION	SCH	SCHEDULE
EQ	EQUAL	SECT	SECTION
EQUIP	EQUIPMENT	SK	SINK
EWH	ELECTRIC WATER HEATER	SP	STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE	SPEC	SPECIFICATION(S)
EX, EXT	EXISTING	SS	SANITARY SEWER
EXP	EXPANSION	ST	STEAM
FCO	FLOOR CLEANOUT	STL	STEEL
FD	FLOOR DRAIN	SUCT	SUCTION
FL	FLOW LINE	TDH	TOTAL DYNAMIC HEAD
FLEX	FLEXIBLE CONNECTION	TEMP	TEMPERATURE
FLR	FLOOR	TH	TOTAL HEAD
FPM	FEET PER MINUTE	TMV	THERMOSTATIC MIXING VALVE
FPRH	FREEZE PROOF ROOF HYDRANT	TWMV	THREE WAY MODULATING VALVE
FPWH	FREEZE PROOF WALL HYDRANT	TYP	TYPICAL
FS	FLOOR SINK	UL	UNDERWRITERS LABORATORY
G	GAS	UR	URINAL
GA	GAUGE	V	VENT
GAL	GALLON	VEL	VELOCITY
GALV	GALVANIZED	VERT	VERTICAL
GI	GREASE INTERCEPTOR	VLV	VALVE
GPH	GALLONS PER HOUR	VOL	VOLUME
GPM	GALLONS PER MINUTE	VTR	VENT THROUGH ROOF
GT	GREASE TRAP	WC	WATER CLOSET
GWH	GAS WATER HEATER	WCO	WALL CLEANOUT
HB	HOSE BIBB	WP	WORKING PRESSURE
HP	HORSE POWER	WT	WEIGHT
HRWH	HEAT RECLAIM WATER HEATER	WTR	WATER

GENERAL PLUMBING SYMBOLS

- 1 — REVISION NUMBER SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- DEMOLISH TO POINT INDICATED
- 1 / P-001 — NUMBER OF DETAIL ON SHEET / NUMBER OF SHEET WHERE DETAIL APPEARS
- 1 — KEYNOTE
- PIPE CONTINUATION

SPACE TAG:

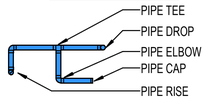
- OFFICE — SPACE NAME
- 101 — SPACE NUMBER
- 100 SF — SPACE AREA

- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT

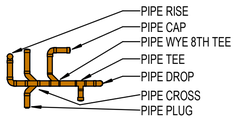
PIPING LEGEND

- (E)CW — EXISTING PIPE TAG
- (D)CW — DEMOLISHED PIPE TAG
- CW — DOMESTIC COLD WATER
- HW — HOT WATER 120°F
- HWR — HOT WATER 120°F CIRC.
- SS — SANITARY SEWER
- V — SANITARY VENT

PRESSURE PIPE SYMBOLS

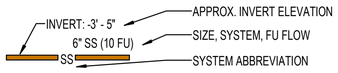


GRAVITY PIPE SYMBOLS

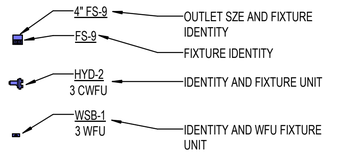


PLUMBING TAGS

PIPE TAG



FIXTURE TAG



PLUMBING PHASING

- EWH-1 — NEW CONSTRUCTION PLUMBING EQUIPMENT/ FIXTURES (TYPICAL TAG FOR ALL NEW CONSTRUCTION)
- (E)EWH-1 — EXISTING PLUMBING EQUIPMENT/ FIXTURES (TYPICAL TAG FOR ALL EXISTING)
- (D)EWH-1 — PLUMBING EQUIPMENT/FIXTURES FOR DEMOLITION (TYPICAL TAG FOR ALL DEMOLITION)

SEISMIC DESIGN CRITERIA

1. SEISMIC DESIGN DATA:
   A. SEISMIC DESIGN CATEGORY: C
      a. SEE SHEET S-001 FOR MORE INFO.
2. SEISMIC BRACING IS NOT REQUIRED FOR THE PLUMBING COMPONENTS.
3. REFER TO THE SPECIFICATIONS.

PLUMBING SHEET SET NOTE

* NOTE *

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

PLUMBING GENERAL NOTES

1 ALL PLUMBING SYSTEMS SHALL BE INSTALLED AS PER SPECIFICATIONS AND GOVERNING CODES.

2 ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRIC RELATIONSHIPS OF EQUIPMENT AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, FITTING OR COMPONENT. CONTRACTOR SHALL NOT SCALE DRAWINGS. INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS OR DETAILS, BUT NOT SHOWN ON PLANS, AND VICE-VERSA, SHALL BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH. THE CONTRACTOR SHALL SUBMIT A REQUEST FOR INFORMATION (RFI) IF INFORMATION CONFLICTS. DRAWINGS SPECIFIC TO THIS DISCIPLINE DO NOT LIMIT THE RESPONSIBILITY OF WORK REQUIRED BY CONTRACT DOCUMENTS. REFER TO ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND OTHER DRAWINGS FOR COMPLETE INFORMATION.

3 BY NECESSITY, THESE DRAWINGS REFLECT A SYSTEM DESIGNED AROUND SPECIFIC REFERENCE PRODUCTS, THE SELECTION OF WHICH HAS IMPACTED THE DESIGNS OF OTHER TRADES (HVAC, ELECTRICAL, STRUCTURAL, ETC.). IF ALTERNATE MANUFACTURERS, FUEL SOURCES, SIZES, OR MODEL NUMBERS ARE SUBMITTED OR BID, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO COORDINATE ALL DIFFERENCES PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR CHANGES REQUIRED TO OTHER TRADES IF ALTERNATE EQUIPMENT IS BID OR INSTALLED AT THE CONTRACTORS OPTION.

4 EXCEPT WHERE MODIFIED BY SPECIFIC NOTATION TO THE CONTRARY, IT SHALL BE UNDERSTOOD THAT THE INDICATION AND/OR DESCRIPTION OF ANY ITEM, IN THE DRAWINGS OR SPECIFICATIONS OR BOTH, CARRIES WITH IT THE INSTRUCTION TO FURNISH AND INSTALL THE ITEM, REGARDLESS OF WHETHER OR NOT THIS INSTRUCTION IS EXPLICITLY STATED AS PART OF THE INDICATION OR DESCRIPTION.

5 CONTRACTOR SHALL PAY ALL UTILITY FEES & CHARGES AS PART OF BASE BID IN THE CONTRACT.

6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THAT OF OTHER TRADES; i.e., ARCHITECTURAL, HVAC, ELECTRICAL, STRUCTURAL, FIRE PROTECTION AND CIVIL PRIOR TO CONSTRUCTION.

7 THE CONTRACTOR SHALL COORDINATE UTILITY LOCATIONS, SIZES AND INVERT ELEVATIONS PRIOR TO CONSTRUCTION; i.e., SANITARY SEWER, FIRE PROTECTION, DOMESTIC WATER. ALL SERVICES SHALL TERMINATE 5 FEET OUTSIDE THE BUILDING, EXCEPT WHERE SHOWN OTHERWISE. SEE SITE UTILITY DRAWINGS FOR CONTINUATION OF ALL SERVICE LINES.

8 PROVIDE ISOLATION VALVES AT EACH FIXTURE GROUP OR BATTERY OF FIXTURES IN THE DOMESTIC CW, HW, HWR PIPING. VALVES SHALL BE EASILY ACCESSIBLE. WHERE HARD CEILINGS ARE LOCATED, VALVES SHALL BE ACCESSED THROUGH ACCESS PANELS. ACCESS PANELS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO CONSTRUCTION.

9 PROVIDE STOP VALVES AT ALL PLUMBING FIXTURES ON BOTH HOT AND COLD WATER SUPPLY LINES. VALVES, ESCUTCHEONS, FITTINGS, ETC., SHALL BE CHROME PLATED AND INSTALLED TIGHT TO WALL. WHERE PIPING IS EXPOSED, CHROME PLATED PIPE SHALL BE USED.

10 ALL EXPOSED OR ACCESSIBLE P-TRAPS SHALL BE CHROME PLATED AND PROVIDED WITH BOTTOM CLEANOUT PLUGS.

11 SLOPE 2-1/2" AND SMALLER DRAIN WASTE AND VENT (DWV) LINES AT MIN. (2%) 1/4" FALL PER FT., 3" TO 6" DWV LINES AT MIN. (1%) 1/8" FALL PER FT. SANITARY SEWER AND WATER SHALL BE A MINIMUM OF 10' APART OR THE DOMESTIC WATER SERVICE SHALL BE 12" ABOVE THE TOP OF THE SEWER LINE, AT ITS HIGHEST POINT, IF PLACED IN SAME TRENCH.

12 PROVIDE ALL FITTINGS, TRANSITIONS, COUPLINGS, ADAPTERS, UNIONS, AND OTHER ACCESSORIES NEEDED TO COMPLETE CONNECTIONS AND PROPER OPERATIONS OF PLUMBING FIXTURES AND PLUMBING EQUIPMENT.

13 REFER TO SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS OF PLUMBING FIXTURES AND EQUIPMENT, AND PROPER APPLICATIONS OF SAME.

14 PROVIDE CLEANOUTS IN ALL SEWERS, WHETHER SHOWN OR NOT, AT INTERVALS NOT TO EXCEED 50 FEET, AT EACH CHANGE OF DIRECTION GREATER THAN 45°, AND ALL VERTICAL STACKS AT A HEIGHT OF 30" ABOVE FINISH FLOOR AT THE BASE OF EACH STACK.

15 WHERE WATER PRESSURES EXCEED 80 PSI, PROVIDE WATER PRESSURE REDUCING VALVES (PRV) CONFORMING TO ASSE 1003 WITH STRAINER IN WATER SUPPLY LINES, SETTING AT 80 PSI. SEE CODE AND MANUFACTURER INFORMATION FOR ACCEPTABLE PRESSURE REQUIREMENTS.

16 ALL PIPING PENETRATIONS OF THE RATED CEILING AND WALL MUST BE MADE WITH METAL PIPE OR UL LISTED APPROVED DEVICES. FIRE STOP ALL PIPE PENETRATIONS THRU RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS, RATINGS AND FIRE STOPPING DETAILS.

17 DO NOT ROUTE ANY PIPING OVER ELEC. ROOMS, COMPUTER ROOMS, OR ELEC. PANELS.

18 ALL DOMESTIC WATER PIPING ROUTED IN AREAS SUBJECT TO FREEZING TEMPERATURES SHALL BE ROUTED BELOW INSULATION AND WITHIN THE HEATED ENVELOPE OF THE BUILDING. WHERE PIPING CAN NOT BE ROUTED BELOW INSULATION, PIPING SHALL HAVE 5 WATT/FT HEAT TRACING ATTACHED. SEE ARCHITECTURAL DRAWINGS FOR INSULATION PLACEMENT AND DETAILS. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR AND ENGINEER.

19 UNLESS OTHERWISE INDICATED, DO NOT ROUTE WATER PIPING IN EXTERIOR WALLS. WHEN ROUTED IN EXTERIOR WALLS, CAREFULLY POSITION WATER PIPING ON THE HEATED SIDE (INTERIOR SIDE) OF THE WALL INSULATION.

20 MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN FRESH AIR INTAKES, OPERABLE WINDOWS AND FLUES, AND PLUMBING VENTS.

21 ALL SEWER & VENT PIPING SHALL BE RODDED AND CLEANED AT END OF CONSTRUCTION. ALL TRAPS SHALL BE CLEANED AND PRIMED AT END OF CONSTRUCTION.

22 ALL PIPE DROPS FROM CEILING PLENUM TO FLOOR SHALL BE MADE IN FURROUTS AT COLUMNS, IN WEB OF BEAMS AT COLUMNS OR IN WALLS. PIPING SHALL BE CONCEALED UNLESS APPROVED BY ARCHITECT.

23 PROVIDE WATER HAMMER ARRESTORS IN FIXTURE BRANCHES WHERE QUICK CLOSING VALVES ARE INSTALLED; i.e., FLUSH VALVES, ICE MAKERS, DISHWASHERS, ETC.

24 BELOW SLAB WATER PIPE TO BE TYPE K SOFT DRAWN COPPER WITHOUT FITTINGS OR JOINTS. SLEEVE IN ENTIRETY WITH POLYETHYLENE SLEEVE. WRAP IN 1/2" FLEXIBLE CELLULAR INSULATION WHERE PIPING UNAVOIDABLY PASSES THROUGH CONCRETE FOUNDATIONS.

25 PROVIDE APPROVED BACKFLOW PREVENTION OR ANTI-SIPHON DEVICES AT ALL FIXTURES THAT COULD CONTAMINATE THE POTABLE WATER SYSTEM.

26 INSULATE ALL WATER PIPING (VERTICAL AND HORIZONTAL) ABOVE FINISH FLOOR. SEE SPECIFICATIONS FOR THICKNESS SCHEDULE.

27 INSULATE ALL EXPOSED HOT WATER & DRAIN PIPING FOR ACCESSIBLE FIXTURES PER ANSI A117.1 AND ADA REQUIREMENTS.

28 ALL EXPOSED MATERIALS WITHIN RETURN AIR PLENUMS (EXISTING AND NEW) SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 OR A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50, AS DETERMINED IN ACCORDANCE WITH ASTM E84 AND U.L. LISTINGS. IF ANY MATERIALS (EXISTING OR NEW) DO NOT MEET THESE STANDARDS, THE ITEMS SHALL BE ENCLOSED IN A GYPSUM-BOARD ENCLOSURE, BE REPLACED WITH PLENUM RATED MATERIALS (I.E. CAST IRON), OR BE WRAPPED WITH AN APPROVED FIRE RATING MATERIAL, SUCH AS 3M FYRE WRAP. PLASTIC PIPING (PVC, ABS, AND CPVC) IS NOT APPROVED TO BE INSTALLED WITHIN RETURN AIR PLENUMS. BY NECESSITY, WE HAVE NOTED AS MANY AREAS AS POSSIBLE ON THE PLANS WHERE THESE CONDITIONS OCCUR, BUT IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXISTING CONDITIONS (WHETHER SHOWN ON THE PLANS OR NOT) AND INCLUDE THE REPLACEMENT/WRAPPING OF THESE ITEMS IN THE BID PRICE (SEE NOTE 7 ABOVE). COORDINATE RETURN AIR PLENUM LOCATIONS AND ANY NOTED DISCREPANCIES FROM THE PLANS WITH MECHANICAL ENGINEER PRIOR TO BID.

29 FLOOR DRAINS IN MECHANICAL ROOMS ARE SHOWN FOR GENERAL LOCATION ONLY. FLOOR DRAINS SHALL BE ACCESSIBLE AND SHALL BE VERIFIED WITH EQUIPMENT LAYOUT FOR INTERFERENCES.

30 AN APPROVED TRAP SEAL DEVICE CONFORMING TO ASSE 1072 SHALL BE INSTALLED AT ALL FLOOR AND HUB DRAINS. ALL DRAINS SHALL HAVE DEEP SEAL TRAPS, 4" DEEP SEAL MINIMUM. INSTALL TRAP GUARD DEVICES PER MANUFACTURER'S INSTRUCTIONS.

31 DOMESTIC WATER SERVICE PIPING AND FITTINGS; E.G., CHECK VALVES, RPZA, SHUT-OFF VALVES, STRAINERS, PRESSURE REGULATORS, ETC. SHALL COMPLY WITH NSF 61 CRITERIA. ALL CAST IRON EQUIPMENT IS TO BE INTERNALLY EPOXY COATED.

ADA REQUIREMENTS

WATER CLOSETS: THE HEIGHT OF WATER CLOSETS SHALL BE 17"-19" MEASURED FROM THE TOP OF THE TOILET SEAT. SEATS SHALL NOT BE SPRUNG OR RETURN TO A LIFTED POSITION. THE WATER CLOSET SHALL BE LOCATED 18" FROM THE SIDE WALL TO THE CENTER OF THE BOWL. HAND OPERATED FLUSH CONTROLS SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREAS NO MORE THAN 29" ABOVE FINISHED FLOOR. SEE ARCHITECTURAL SHEETS FOR GRAB BAR LOCATIONS.

URINALS: THE URINALS SHALL BE WALL HUNG WITH AN ELONGATED RIM AT A MAXIMUM OF 17" ABOVE FINISHED FLOOR. HAND OPERATED FLUSH CONTROLS SHALL BE MOUNTED NO MORE THAN 44" ABOVE FINISHED FLOOR.

LAVATORIES: LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO MORE THAN 34" ABOVE FINISHED FLOOR. PROVIDE A CLEARANCE OF AT LEAST 29" ABOVE FINISHED FLOOR TO THE BOTTOM OF THE APRON. KNEE SPACE SHALL BE 8" FROM THE BOTTOM EDGE OF APRON TO THE LEADING EDGE OF THE BOTTOM OF BOWL. THE BOTTOM OF THE BOWL SHALL BE A MINIMUM OF 27" ABOVE FINISHED FLOOR. ALL WATER AND DRAIN PIPING UNDER LAVATORIES SHALL BE INSULATED WITH FOAM INSERT, COVERED WITH A 1/8" VINYL OUTER SHELL. ANGLE STOPS SHALL HAVE A FLIP TOP ACCESS.

FAUCET CONTROLS: CONTROLS SHALL BE LEVER HANDLES OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 lbf.

SINKS: SINKS SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO MORE THAN 34" ABOVE FINISHED FLOOR. PROVIDE A CLEARANCE OF AT LEAST 27" HIGH, 30" WIDE, AND 19" DEEP. SINKS SHALL BE A MAXIMUM OF 6-1/2" DEEP. ALL WATER AND DRAIN PIPING UNDER SINKS SHALL BE PROVIDED WITH INSULATING FOAM INSERT, COVERED WITH A 1/8" VINYL OUTER SHELL. ANGLE STOPS SHALL HAVE A FLIP TOP ACCESS.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

PLUMBING LEGEND AND NOTES

Sheet Number

P-001

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

GENERAL NOTES

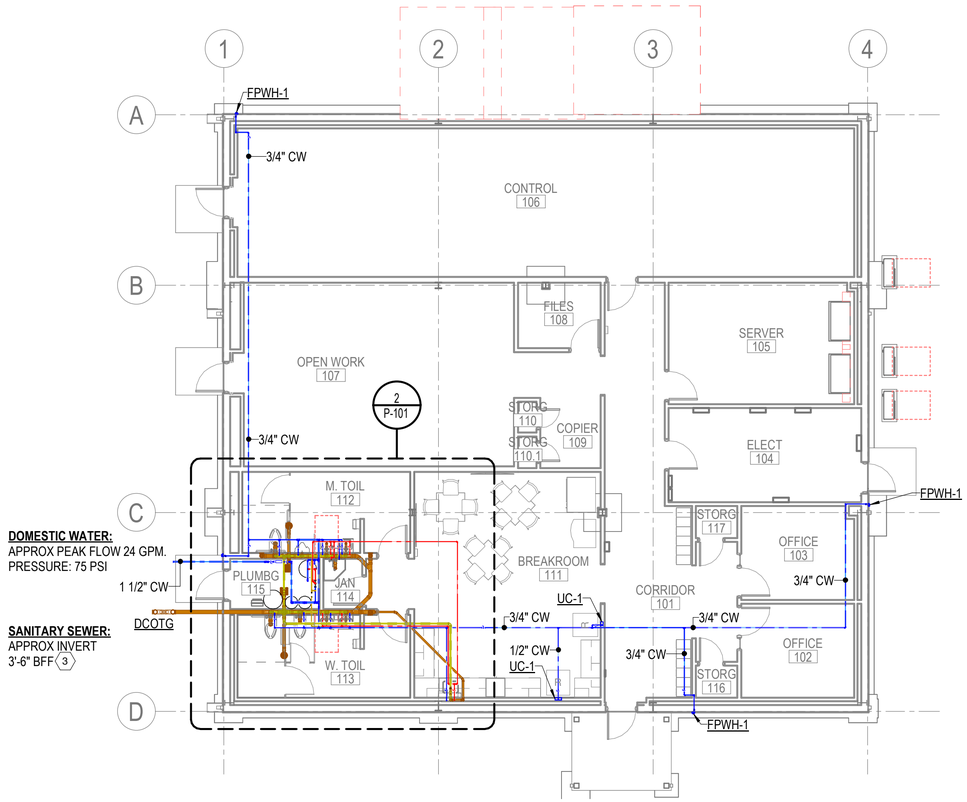
1 REFER TO SHEET P-001 FOR LEGEND AND NOTES.

KEYED NOTES

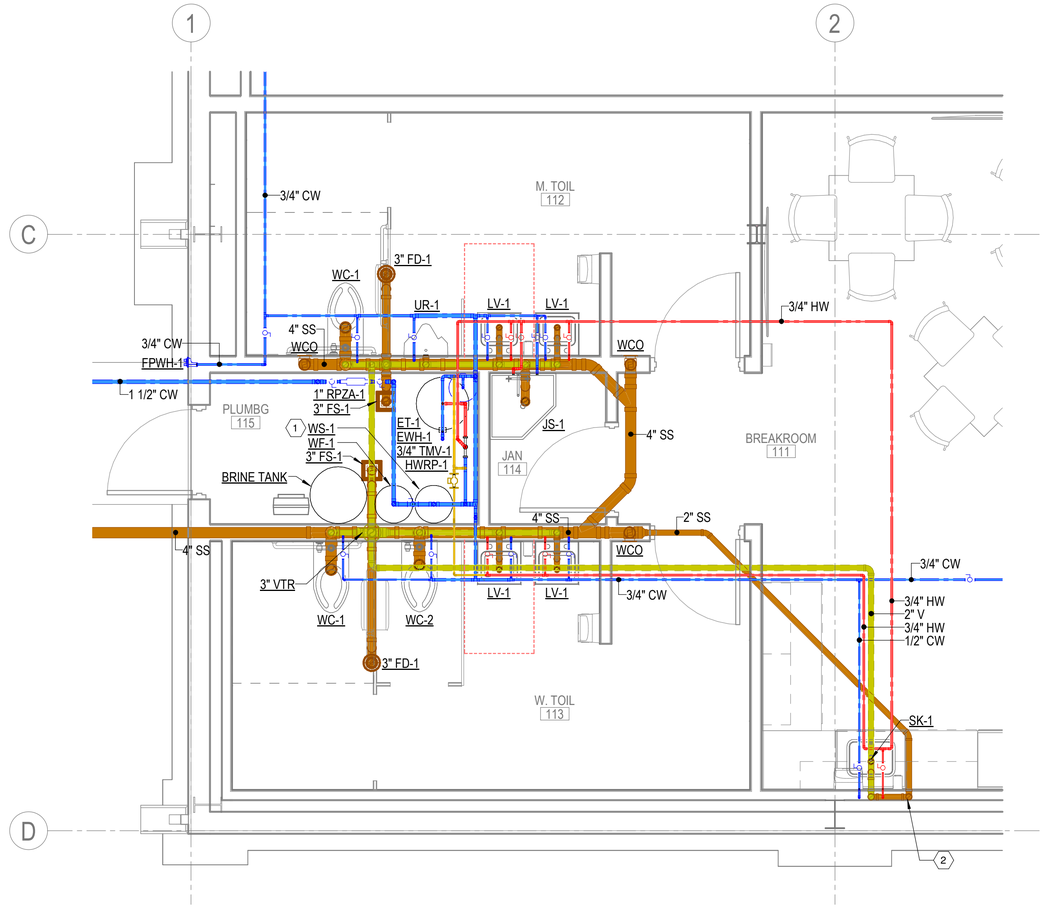
1 DOMESTIC WATER FILTER AND SOFTENER SYSTEM. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. CONNECT IMMEDIATELY DOWNSTREAM OF RPZA-1. SEE P-501 DETAIL 3.

2 ROUTE SANITARY PIPING TO SINK WHILE AVOIDING FOOTING IF POSSIBLE. IF NOT POSSIBLE, WRAP PIPE PIPE WITH 1/2" THICK FLEXIBLE UNICELLULAR INSULATION WHERE PIPE IS IN CONCRETE FOUNDATION.

3 COORDINATE SANITARY INVERT WITH ELEVATION OF EXISTING SEPTIC TANK TO PROVIDE 1/8 INCH PER FOOT MINIUMUM SLOPE BETWEEN BUILDING AND TANK. VERIFY ELEVATION OF TANK PRIOR TO CONSTRUCTION AND INSTALL BUILDING DRAIN ACCORDINGLY.



1 OVERALL PLUMBING PLAN
1/8" = 1'-0"
0 4 8 16
NORTH



2 ENLARGED PLUMBING PLAN
3/8" = 1'-0"
0 2 4 8
NORTH

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

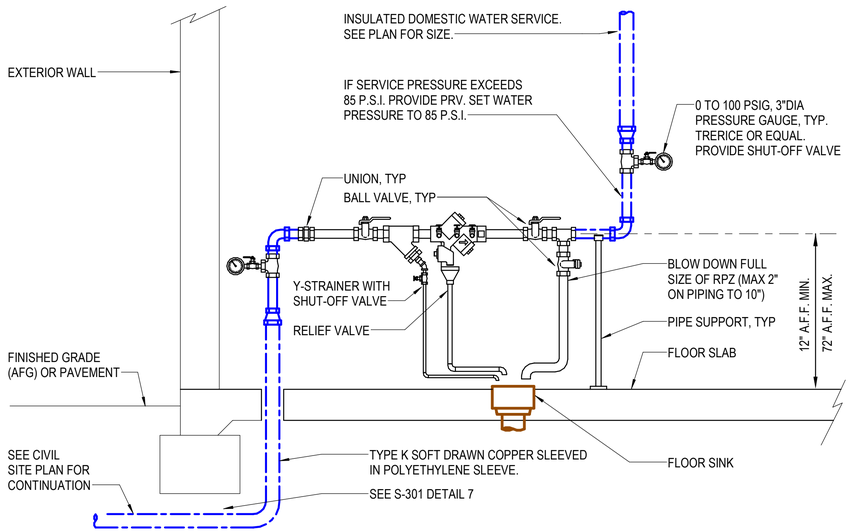
CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

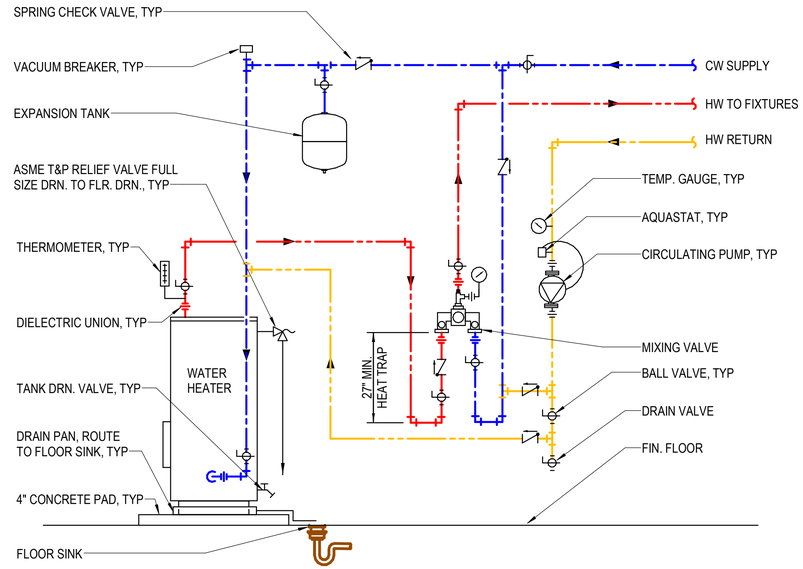
Notes

1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number 2024-210
Issue Date 02-20-2025
Sheet Title OVERALL PLUMBING PLAN
Sheet Number P-101

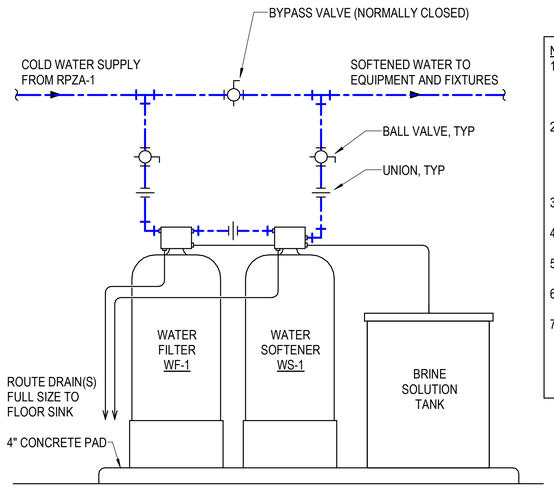


1 DOMESTIC WATER BUILDING SERVICE
NOT TO SCALE



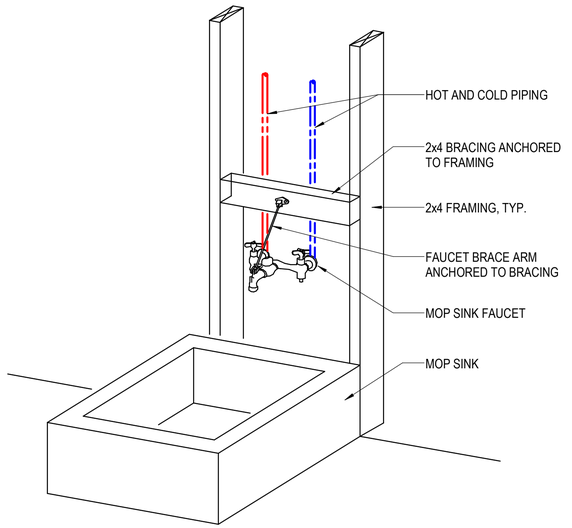
2 WATER HEATER INSTALLATION - EWH-1
NOT TO SCALE

NOTES:
1. INSTALLATION AND SIZING OF EQUIPMENT, PIPING, PUMPS AND ACCESSORIES SHALL BE IN STRICT ACCORDANCE WITH MFR'S RECOMMENDATIONS.
2. AT TANK OPENINGS, PROVIDE A SHORT NIPPLE OF SAME MATERIAL AS TANK OPENING.
3. PROVIDE ASME T&P RELIEF VALVE AS REQUIRED BY CODE. ALL EQUIPMENT RELIEF VALVES SHALL BE ROUTED FULL SIZE AS NOTED.
4. INSTALL SPRING CHECK VALVE IN GRAVITY CLOSED POSITION.
5. MIXING VALVE TO BE PIPED IN STRICT ACCORDANCE WITH MFRS. INSTALLATION INSTRUCTIONS. MIXING VALVE AND CIRCULATING PUMP IS SPECIFIED AS PACKAGE UNIT. DETAIL SHOWS GENERIC HOT WATER SYSTEM FOR GENERAL SYSTEM REQUIREMENTS. COORDINATE W/ MIXING VALVE MFR FOR INSTALLATION REQUIREMENTS.
6. ALL ISOLATION BALL VALVES SHALL BE FULL PORT TYPE.
7. PIPING ARRANGEMENT IS DIAGRAMMATIC AND IS SHOWN FOR CLARITY. PIPING SHALL BE INSTALLED NEATLY AND GROUPED FOR EASY ACCESS AND SERVICEABILITY.
8. PROVIDE SEISMIC SUPPORT AS REQUIRED BY CODE.



NOTES:
1. INSTALLATION AND SIZING OF EQUIPMENT, PIPING, PUMPS AND ACCESSORIES SHALL BE IN STRICT ACCORDANCE WITH MFR'S RECOMMENDATIONS.
2. PIPING ARRANGEMENT IS DIAGRAMMATIC AND IS SHOWN FOR CLARITY. PIPING SHALL BE INSTALLED NEATLY AND GROUPED FOR EASY ACCESS AND SERVICEABILITY.
3. COLD WATER TO ENTER FILTER FIRST FOLLOWED BY SOFTENER.
4. ALL ISOLATION BALL VALVES SHALL BE FULL PORT TYPE.
5. ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
6. PROVIDE AIR GAP WHERE DRAIN LINE ROUTES TO FLOOR SINK.
7. SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECTED TO VACUUM.

3 WATER SOFTENER SYSTEM
NOT TO SCALE



4 JS-1 FAUCET BRACING
NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

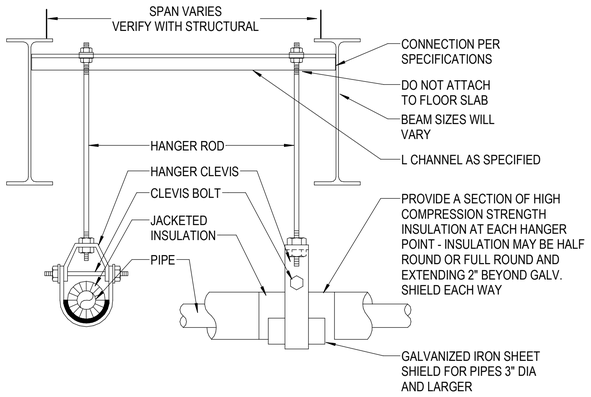
Notes

Project Number **2024-210**

Issue Date **02-20-2025**

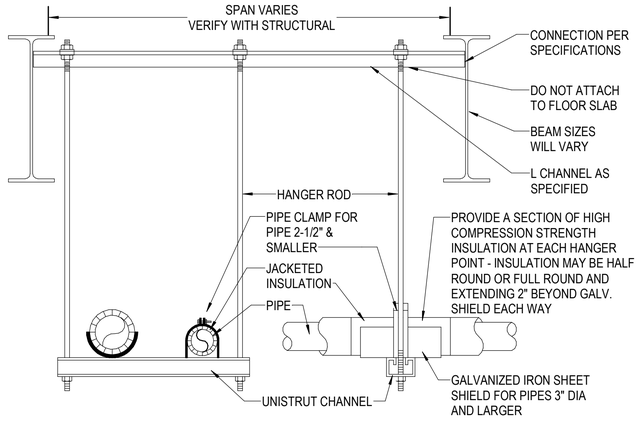
Sheet Title
PLUMBING DETAILS

Sheet Number
P-501



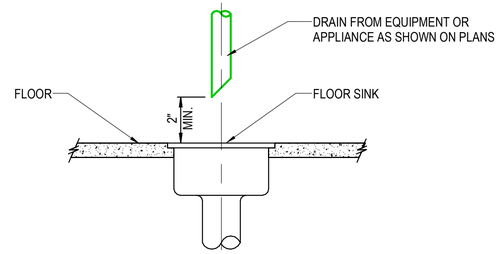
NOTES:
1. INSULATION TO BE CONTINUOUS THROUGH HANGERS. DO NOT BREAK INSULATION AT SUPPORTS, DO NOT INSULATE AROUND HANGERS.
2. INSULATION JACKET TO BE CONTINUOUS THROUGH PIPE SUPPORT COMPONENTS.
3. USE CLEVIS HANGERS FOR SINGLE PIPE RUNS, USE TRAPEZE HANGERS TO GROUP AS MUCH PIPING AS POSSIBLE PER HANGER.

1 ADJUSTABLE CLEVIS HANGER
NOT TO SCALE

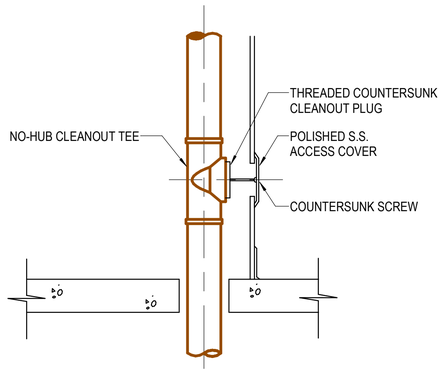


NOTES:
1. INSULATION TO BE CONTINUOUS THROUGH HANGERS. DO NOT BREAK INSULATION AT SUPPORTS, DO NOT INSULATE AROUND HANGERS.
2. INSULATION JACKET TO BE CONTINUOUS THROUGH PIPE SUPPORT COMPONENTS.
3. USE CLEVIS HANGERS FOR SINGLE PIPE RUNS, USE TRAPEZE HANGERS TO GROUP AS MUCH PIPING AS POSSIBLE PER HANGER.

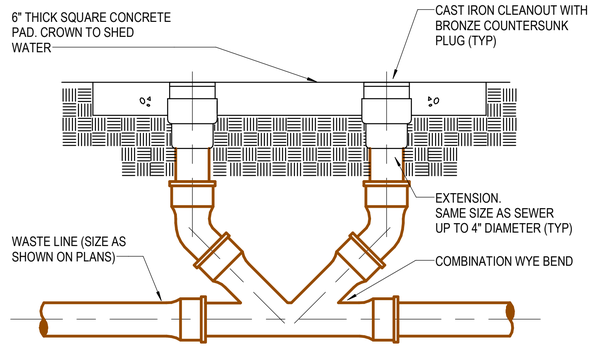
2 TRAPEZE PIPE HANGER
NOT TO SCALE



3 INDIRECT WASTE DRAIN
NOT TO SCALE

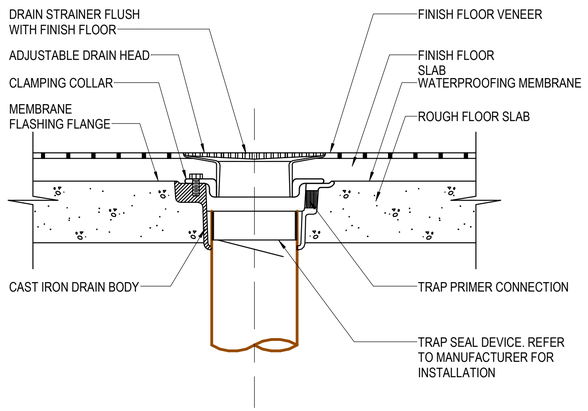


A WALL CLEANOUT
NOTE: SEE SPECIFICATIONS FOR MATERIALS



B DOUBLE CLEANOUT-TO-GRADE
NOTE: SEE SPECIFICATIONS FOR MATERIALS

5 TYPICAL CLEANOUTS
NOT TO SCALE



4 TRAP SEAL DEVICE INSTALLATION
NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

PLUMBING DETAILS

Sheet Number

P-502

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

PLUMBING FIXTURE

ID	BASIS OF DESIGN		SPECIFICATION						
	MANUFACTURER & MODEL	ACCESSORIES		COLD	HOT	WASTE	INDIRECT	VENT	TRAP
WC-1	AMERICAN STANDARD #211AA.104 "CHAMPION PRO",	MCGUIRE SUPPLY STOP VALVES #LFBV2, AMERICAN STANDARD SEAT #5901.110	WATER CLOSET - ADA COMPLIANT, 30-1/4"x19"x30-7/8"H, 1.28 GPF, FLOOR MOUNTED TANK TYPE, VITREOUS CHINA, PISTON-ACTION FLUSH VALVE, ANTI-BACTERIA INHIBITORS, ELONGATED BOWL, SEAT - OPEN FRONT SEAT, SELF SUSTAINING, LESS COVER	1/2"	---	4"	---	2"	INTEGRAL
WC-2	AMERICAN STANDARD #211CA.104 "CHAMPION PRO",	MCGUIRE SUPPLY STOP VALVES #LFBV2, AMERICAN STANDARD SEAT #5901.110	WATER CLOSET - 30-1/4"x19"x29-3/8"H, 1.28 GPF, FLOOR MOUNTED TANK TYPE, VITREOUS CHINA, ANTI-BACTERIA INHIBITORS, ELONGATED BOWL, SEAT - OPEN FRONT SEAT, SELF SUSTAINING, LESS COVER	1/2"	---	4"	---	2"	INTEGRAL
UR-1	AMERICAN STANDARD #6590.001 "WASHBROOK", SLOAN FLUSH VALVE #180-1.0 "ROYAL"	MCGUIRE SUPPLY STOP VALVES #LFBV2, WADE CARRIER #402 SERIES	URINAL - STANDARD HIEGHT, WALL MOUNTED, VITREOUS CHINA, 3/4" EXPOSED TOP SPUD,WASHOUT ACTION, INTEGRAL TRAP, FLUSH VALVE - 0.5 GPF, MASHAERATOR SELF-CLEANING BYPASS DIAPHRAGM, EXTERNALLY ADJUSTABLE FLOW RATE, REMOVABLE AND REPLACEABLE SEAT	3/4"	---	2"	---	2"	INTEGRAL
LV-1	AMERICAN STANDARD #0355.012 "LUCERNE", CHICAGO FAUCET #420-T45E2805ABCP	MCGUIRE OFFSET P-TRAP KIT PW2150, MCGUIRE SUPPLY STOP VALVES #LFBV2-02, WADE CARRIER #530 SERIES	LAVATORY - ADA COMPLIANT, 18-1/4"x20-1/2"x38"H, WALL HUNG, WHITE VITREOUS CHINA, FRONT OVERFLOW, TWO FAUCET HOLES ON 4" CENTERS, FAUCET - 0.5 GPM, MANUAL, SINGLE LEVER, LEAD FREE, 4" SPOUT, DUAL HOT/COLD SUPPLY ON 4" CENTERS, INTEGRAL THERMOSTATIC MIXING ABOVE DECK, CARRIER - CONCEALED ARM WALL CARRIER	1/2"	1/2"	2"	---	2"	1-1/4"
SK-1	JUST MFG #SL-1815-A-GR, CHICAGO FAUCET #434-FC1ABCP	MCGUIRE BASKET STRAINER #151SAN, MCGUIRE P-TRAP #8912, MCGUIRE SUPPLY STOP VALVES #LFBV2-04, PROVIDE SUPPLY STOP VALVES FOR ALL ADJACENT PLUMBING ACCESSORIES	SINK - ADA COMPLIANT, 18"x15"x7-1/2"D, 1 COMPARTMENT (12"x12"x7-1/2"D), COUNTER-TOP, SELF RIMMING, 18 GAUGE TYPE 302 STAINLESS STEEL, CENTER DRAIN OUTLET, THREE FAUCET HOLES ON 8" CENTERS, FAUCET - 1.0 GPM, CHROME PLATED LEAD FREE, 8-1/4" SWING SPOUT WITH DUAL-PATTERN PULL DOWN OUTLET, DECK MTD, SINGLE LEVER HANDLE, CONCEALED DUAL HOT/COLD SUPPLY, SINGLE HOLE	1/2"	1/2"	2"	---	2"	1-1/2"
JS-1	STERN WILLIAMS #SBC-1500, T&S BRASS #B-0658	STERN-WILLIAMS #T-35 RUBBER HOSE AND HANGER, STERN-WILLIAMS #T-40 MOP HANGER, (2) STERN-WILLIAMS #BP SPLASH PANELS	MOP SINK - 24" x 24" x 10", FLOOR MTD, CORNER, PRECAST TERAZZO, STAINLESS STEEL CAPS, FAUCET - CHROME PLATED LEAD FREE, VACUUM BREAKER, PAIL HOOK, 6" WRIST BLADE CONTROLS, 3/4" HOSE THREADED OUTLET, COMPRESSION CARTRIDGES WITH SPRING CHECK VALVES, UPPER SUPPORT ROD	3/4"	3/4"	3"	---	2"	3"
FPWH-1	WOODFORD #67,	PROVIDE FULL PORT ISOLATION BALL VALVE FOR FIXTURE	FREEZEPROOF WALL HYDRANT - SIZE FOR WALL THICKNESS+4", RED BRASS VALVE BODY, 3/8" SOLID BRASS OPERATING ROD, HARDENED STAINLESS STEEL STEM, ONE PIECE VALVE PLUNGER, COPPER CASTING TUBES, DRAIN PORT UNDER NOZZLE, 3/4" HOSE CONNECTION W/ HIGH FLOW DOUBLE CHECK BACKFLOW PREVENTER, ADJUSTABLE WALL CLAMP	3/4"	---	---	---	---	---
UC-1	GUY GRAY #MIB1HAAB,	---	UTILITY CONNECTION BOX - 7"x7"x2-1/2", WHITE POWDER COATED 20 GAUGE STEEL WALL BOX, BOTTOM SUPPLY VALVE, LEAD FREE BRASS, QUARTER TURN, SWEAT INLET CONNECTION, INTEGRAL HAMMER ARESSTOR, MOUNT LOW ON WALL IN ACCESSIBLE LOCATION	1/2"	---	---	---	---	---
FD-1	MIFAB #F1100-6-1-MG,	(-MG) MIFAB "MI-GARD" TRAP SEAL DEVICE	FLOOR DRAIN - 6"DIA STRAINER, LACQUERED CAST IRON W/ ANCHOR FLANGE, OPTIONAL CLAMPING COLLAR FOR MEMBRANE FLOORS, SEEPAGE OPENINGS, 6"DIA SATIN NICKEL BRONZE FINISHED STRAINER, VANDAL RESISTANT STAINLESS STEEL ALLEN KEY SCREWS	---	---	SEE PLAN	---	2"	SEE PLAN
FS-1	MIFAB #FS1520-FL-150-MG,	(-MG) MIFAB "MI-GARD" TRAP SEAL DEVICE	FLOOR SINK - 8"x8"x6"D, ACID RESISTANT ENAMEL COATING ON DRAIN AND GRATE, (-150) LOOSE SET 1/2 GRATE, ANCHOR FLANGE, OPTIONAL CLAMPING COLLAR FOR MEMBRANE FLOORS, SEEPAGE OPENINGS, ANTI-SPLASH ALUMINUM DOME BOTTOM STRAINER	---	---	SEE PLAN	---	2"	SEE PLAN

PLUMBING ACCESSORY

ID	BASIS OF DESIGN	SPECIFICATION	
	MANUFACTURER & MODEL		UTILITY CONNECTION
RPZA-1	APOLLO VALVE #RPLF4A-218-A4F	REDUCED PRESSURE ZONE ASSEMBLY - 1 INCH, LEAD FREE CAST BRASS, EASILY REMOVABLE MODULAR CHECK VALVE ASSEMBLIES, CAPTURED STAINLESS STEEL SPRINGS, BALL VALVE SHUT-OFFS W/ STAINLESS STEEL HANDLES AND UNIONS, WYE STRAINER INCLUDED, MODULAR RELIEF VALVE, 175 PSI MAX WORKING PRESSURE, 33F-180F TEMP RANGE, ALL PARTS, COMPONENTS, AND ASSEMBLIES MADE IN USA	1"CW
TMV-1	LEONARD #TM-26-LF-BDT-IT	THERMOSTATIC MIXING VALVE - SOLID BI-METAL THERMOSTAT CONTROLS, 3/4" SWEAT CONNECTIONS, 1 GPM MINIMUM FLOW, INTEGRAL CHECK STOPS, LEAD FREE BRONZE, BRASS, AND STAINLESS STEEL CONSTRUCTION, 125 MAX PRESSURE, COLOR CODED DIAL, ADJUSTABLE HIGH LIMIT TEMPERATURE STOP SET FOR 125°F, BALL VALVE WITH DIAL THERMOMETER ON OUTLET, INLET THERMOMETERS, ASSE 1017 CERTIFIED	3/4"CW INLET, 3/4"HW INLET, 3/4"TW OUTLET
ET-1	AMTROL #ST-12-C "THERM-X-TROL"	EXPANSION TANK - 6.4 GAL TOTAL CAPACITY, 150 PSI WORKING PRESSURE, 12"DIA x 18" H, 3/4" NPT THREADED CONNECTION, 17 LBS, PROVIDE FULL PORT ISOLATION BALL VALVE AT CONNECTION TO CW	3/4" CW
WCO	WADE #8304-COF SERIES	WALL CLEANOUT - SAME SIZE AS LINE, MAX 4", CAST IRON FERRULE W/ ABS PLUG, ROUND STAINLESS STEEL SECURE ACCESS COVER, COUNTERSUNK CENTER SCREW	SAME SIZE AS LINE, MAX 4"
DCOTG	WADE #6000-12 SERIES	DOUBLE-CLEANOUT-TO-GRADE - SAME SIZE AS LINE, MAX. 4 INCH, HEAVY DUTY CAST IRON, FERRULE, THREADED ADJUSTABLE HOUSING, INTEGRAL CLAMPING COLLAR, ABS PLUG, 7-1/8 INCH SQUARE HEAVY DUTY DUCTILE IRON TOP	SAME SIZE AS LINE, MAX 4"
WF-1	CULLIGAN #HE DF-16	WATER FILTER TANK - 16"Dx54"H, CORROSION-RESISTANT FRP CONSTRUCTION, 14GPM CONTINUOUS FLOW @ 4PSI DROP, 21GPM PEAK FLOW @ 6PSI DROP, 20GPM BACKWASH DRAIN FLOW, 280LB MEDIA CAPACITY, 20-125PSI OPERATING PRESSURE RANGE, MEETS NSF 61	1-1/2"CW
WS-1	CULLIGAN #HE-090	WATER SOFTENER TANK - 16"Dx53"H, CORROSION-RESISTANT FRP CONSTRUCTION, 26.6GPM CONTINUOUS FLOW @ 15PSI DROP, 35.2GPM PEAK FLOW @ 25PSI DROP, 5.5GPM DRAIN FLOW, 3FT³ RESIN CAPACITY, 5 NTU MAX TURBIDITY, 20-125PSI OPERATING PRESSURE RANGE, MEETS NSF 61, INCLUDE 80 GALLON BRINE TANK AS RECOMMENDED BY MANUFACTURER	1-1/2"CW

PLUMBING EQUIPMENT

ID	BASIS OF DESIGN	SPECIFICATION	ELECTRICAL				
	MANUFACTURER & MODEL		UTILITY CONNECTIONS	CONNECTION TYPE	VOLTAGE	PHASE	POWER	AMPS
EWH-1	RHEEM #EGSP30	ELECTRIC WATER HEATER - 30 GAL, 12 GPH @ 100°F RISE, 17"DIA 45"H, TANK TYPE, HIGH-TEMP PORCELAIN ENAMEL TANK LINING, MAGNESIUM ANODE ROD RIGIDLY SUPPORTED, 150 PSI WORKING PRESSURE RATING, COPPER RESISTORED SCREW-IN ELEMENTS, INSLUTED WITH 2-1/2" RIGID POLYURETHANE FOAM, SURFACE MOUNTED THERMOSTATS WITH INTEGRAL MANUAL RESET, HIGH LIMIT CONTROL, CSA/ASME RATED T&P RELIEVE VALVE, UL SEAL OF CERTIFICATION, COMPLETELY FACTORY ASSEMBLED. DESIGN TEMPERATURE SETPOINT: 140°F	3/4"CW, 3/4"HW TANK DRAIN	HARDWIRED WITH GFCI PROTECTION	208 V	1	3 kW	14.5 FLA
HWRP-1	TACO #007e-SF4	HOT WATER CIRCULATOR PUMP - VARIABLE FLOWRATE, 16 GPM MAX FLOWRATE, 10' MAX SHUTOFF HEAD, 7"x4-1/8"x6-3/8", STAINLESS STEEL CASING, COMPOSITE STATOR HOUSING, COMPOSITE CARTRIDGE, COMPOSITE IMPELLER, CERAMIC SHAFT, CARBON BEARINGS, EPDM O-RINGS/GASKETS, SELF LUBRICATING, DIRECT DRIVE, REPLACEABLE CARTRIDGE DESIGN, NO MECHANICAL SEAL. SET FLOW TO MAINTAIN >120°F RETURN TEMP	3/4" CW	HARDWIRED WITH GFCI PROTECTION	120 V	1	44 W	.54 FLA

WATER HAMMER ARRESTOR

P.D.I. UNITS	A	B	C	D	E	F
FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330

WADE "SHOKSTOP" #4481 SERIES WATER HAMMER ARRESTOR, SEAMLESS COPPER CONSTRUCTION, POLYPROPYLENE PISTON, (2) EPDM O-RINGS, MNPT CONNECTION, MAX. PRESS. 350 PSI, MAX. TEMP. 250°F, PROVIDE PROPERLY SIZED WATER HAMMER ARRESTORS AND LOCATE ON PIPING IMMEDIATELY UPSTREAM OF ALL QUICK CLOSING VALVES (E.G. FLUSH VALVES, DISHWASHER, ICE MAKERS, SOLENOID VALVES, ETC.)

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

PLUMBING SCHEDULES

Sheet Number

P-601

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

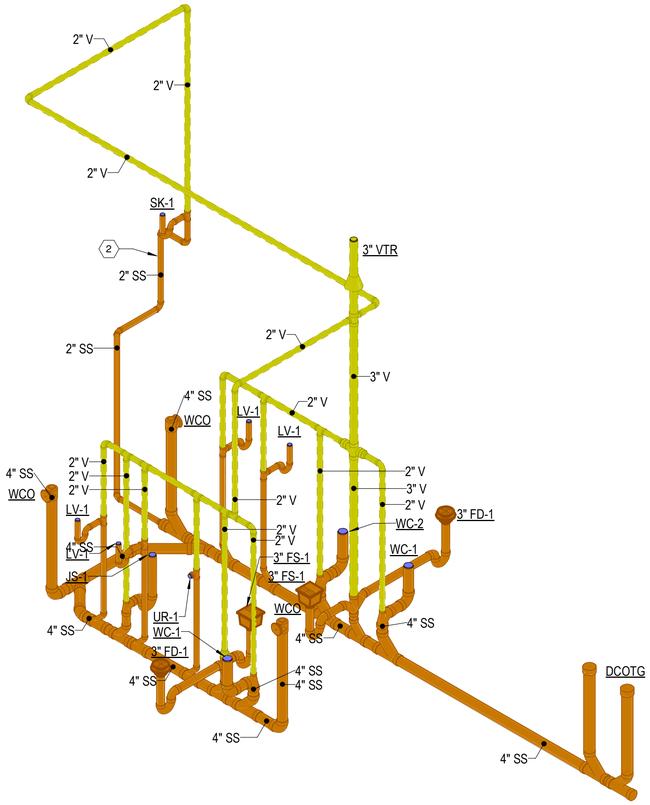
GENERAL NOTES

1 REFER TO SHEET P-001 FOR LEGEND AND NOTES.

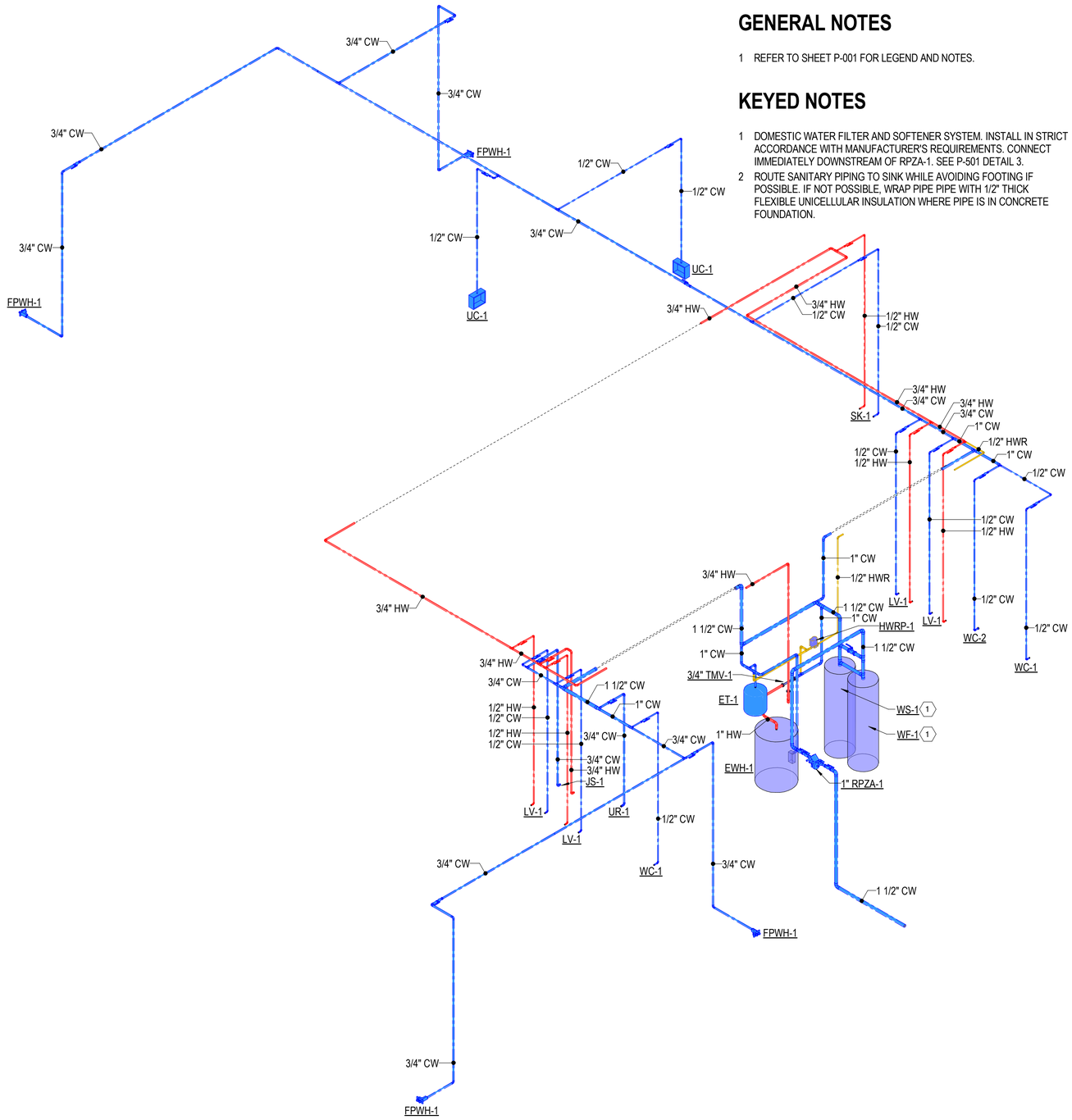
KEYED NOTES

1 DOMESTIC WATER FILTER AND SOFTENER SYSTEM. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. CONNECT IMMEDIATELY DOWNSTREAM OF RPZA-1. SEE P-501 DETAIL 3.

2 ROUTE SANITARY PIPING TO SINK WHILE AVOIDING FOOTING IF POSSIBLE. IF NOT POSSIBLE, WRAP PIPE PIPE WITH 1/2" THICK FLEXIBLE UNICELLULAR INSULATION WHERE PIPE IS IN CONCRETE FOUNDATION.



1 DRAIN, WASTE, VENT PLUMBING RISER
NOT TO SCALE



2 DOMESTIC WATER RISER
NOT TO SCALE

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title
PLUMBING RISER

Sheet Number
P-901

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MBH	THOUSAND BTUs PER HOUR
AHU	AIR HANDLING UNIT	MCA	MINIMUM CIRCUIT AMPS
BHP	BRAKE HORSE POWER	MOCP	MAXIMUM OVER CURRENT PROTECTION
BTU	BRITISH THERMAL UNIT		
CFM	CUBIC FEET PER MINUTE	NC	NORMALLY CLOSED
CV	CONSTANT VOLUME	NO	NORMALLY OPENED
CU	CONDENSING UNIT	NTS	NOT TO SCALE
DB	DRY BULB TEMPERATURE (°F)	OA	OUTSIDE AIR
DDC	DIRECT DIGITAL CONTROLS	PSI	POUNDS PER SQUARE INCH
DOAS	DEDICATED OUTSIDE AIR SYSTEM	PSIG	PSI GAUGE
DN	DOWN	PVC	POLYVINYL CHLORIDE PIPE
EAT	ENTERING AIR TEMPERATURE	RA	RETURN AIR
EF	EXHAUST FAN	RH	RELATIVE HUMIDITY
ESP	EXTERNAL STATIC PRESSURE	RHC	REHEAT COIL
EWT	ENTERING WATER TEMPERATURE	RLA	RUNNING LOAD AMPS
FCU	FAN COIL UNIT	RPM	REVOLUTIONS PER MINUTE
FD	FIRE DAMPER	RS/RL	REFRIGERANT SUCTION & LIQUID LINES
FLA	FULL LOAD AMPS		
FPI	FINS PER INCH	RTU	ROOFTOP AIR HANDLING UNIT
FPM	FEET PER MINUTE	SA	SUPPLY AIR
GPM	GALLONS PER MINUTE	SF	SUPPLY FAN
IV	INTAKE VENTILATOR	SP	STATIC PRESSURE
KW	KILOWATT	TSP	TOTAL STATIC PRESSURE
LAT	LEAVING AIR TEMPERATURE	VAV	VARIABLE AIR VOLUME
LRA	LOCKED ROTOR AMPS	VRF	VARIABLE REFRIGERANT FLOW
LWT	LEAVING WATER TEMPERATURE	VFD	VARIABLE FREQUENCY DRIVE
		WB	WET BULB TEMPERATURE (°F)

GENERAL MECHANICAL SYMBOLS

- 1 — REVISION NUMBER SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- DEMOLISH TO POINT INDICATED
- 1 / M-001 — NUMBER OF DETAIL ON SHEET / NUMBER OF SHEET WHERE DETAIL APPEARS
- 1 — KEYNOTE

CONTINUATION SYMBOLS:

- ROUND DUCT
- RECTANGULAR DUCT

SPACE TAG:

- OFFICE — SPACE NAME
- 101 — SPACE NUMBER
- 100 SF — SPACE AREA
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT

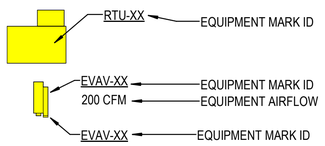
HVAC ENERGY DESIGN CONDITIONS

LOCATION:	EAST CAMDEN, AR
OUTDOOR SUMMER (0.4% OCCURANCE):	98°F DB / 78°F WB
OUTDOOR WINTER (99.0% OCCURANCE):	21°F DB / 19°F WB
INSIDE SETPOINT SUMMER:	72°F DB / 55% MAX RH.
INSIDE SETPOINT WINTER:	70°F DB

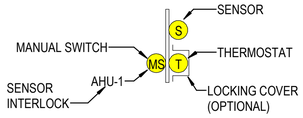
SEISMIC DESIGN CONDITIONS

1. SEISMIC DESIGN DATA:
   A. SEISMIC DESIGN CATEGORY: C
   B. MECHANICAL COMPONENTS IMPORTANCE FACTOR: 1.0
2. SEISMIC RESTRAINTS ARE **NOT** REQUIRED FOR THE MECHANICAL COMPONENTS AND SYSTEMS PER THE REQUIREMENTS FOR THE INTERNATIONAL BUILDING CODE (IBC) AS DEFINED PER ASCE 7 - SECTION 13.6.

MECHANICAL EQUIPMENT TAGS



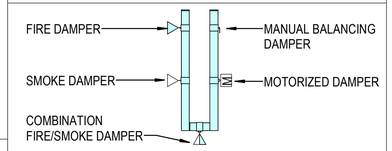
MECHANICAL DATA DEVICES



HVAC DUCTWORK LEGEND

- 22/14 — SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
- 22/14Ø — OVAL DUCT SIZE TAG (WIDTH / HEIGHT)
- 22Ø — ROUND DUCT SIZE TAG (DIAMETER)
- (E) — EXISTING DUCT TAG
- (D) — DUCT BEING DEMOLISHED
- S/A — SUPPLY AIR
- O/A — OUTSIDE AIR
- R/A — RETURN AIR
- E/A — EXHAUST AIR
- DROP — RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — ROUND SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — RECTANGULAR RETURN AIR DUCT RISE
- DROP — ROUND RETURN AIR DUCT RISE
- DROP — RECTANGULAR EXHAUST AIR DUCT RISE
- DROP — ROUND EXHAUST AIR DUCT RISE
- FLEXIBLE CONNECTION
- 90° ELBOW W/ TURNING VANE
- 90° BEND, ROUND DUCT
- 45° BEND, ROUND DUCT
- 45° RECTANGULAR DUCT
- 30° OR LESS FOR ALL SIMILAR FITTINGS (TOP / SIDE)
- RECTANGULAR TRANSITION (TOP / SIDE)

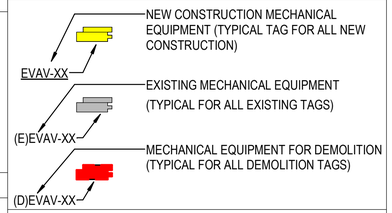
DUCT ACCESSORIES



HVAC GRILLES/DIFFUSERS

- SUPPLY DIFFUSER (SEE PLANS OR SCHEDULE FOR SIZES)
- RETURN GRILLE (SEE PLANS OR SCHEDULE FOR SIZES)
- EXHAUST GRILLE (SEE PLANS OR SCHEDULE FOR SIZES)

MECHANICAL PHASING



MECHANICAL SHEET SET NOTE

* NOTE *

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

GENERAL NOTES

1 ALL WORK SHALL COMPLY WITH THE 2021 EDITION OF THE "INTERNATIONAL MECHANICAL CODE", THE 2014 EDITION OF THE "ARKANSAS ENERGY CODE", NFPA 90A, AND ALL CITY, STATE, AND LOCAL REQUIREMENTS.

2 REFER TO THE SPECIFICATIONS FOR ALL REQUIREMENTS

3 REFER TO ARCHITECTURAL PLANS FOR: - REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES AND CEILING TYPES. - EXACT LOCATIONS AND MOUNTING HEIGHTS OF EXTERIOR LOUVERS. - FIRE RATED WALLS AND PARTITIONS. PROVIDE FIRE DAMPERS IN DUCT PENETRATIONS OF ALL FIRE RATED WALLS AND PARTITIONS AS NECESSARY TO MEET CITY AND STATE REQUIREMENTS. - ALL WALL AND ROOF PENETRATIONS AND EQUIPMENT MOUNTING DETAILS.

4 ALL DUCTWORK SHALL BE CONSTRUCTED FROM GALVANIZED STEEL IN CONFORMANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION

5 U.L. LISTED FLEXIBLE DUCT RUN-OUTS MAY BE USED, BUT SHALL NOT EXCEED 5'-0" IN LENGTH. ALL FLEXIBLE DUCT TO BE PROPERLY SUPPORTED WITH NO KINKS OR HARD BENDS.

6 DUCT FITTINGS: - SUPPLY TAKE-OFFS TO CEILING SUPPLY DIFFUSERS TO BE CONICAL TAP OR 45° SIDE TAP. - ALL DUCT RUN-OUTS TO HAVE LOCKING QUADRANT VOLUME DAMPERS. PROVIDE STAND-OFF BRACKET TO ACCOMMODATE INSULATION THICKNESS. - ALL 90° ROUND ELBOWS TO HAVE R/D=1.5 (UNLESS OTHERWISE NOTED). - ALL 90° RECTANGULAR ELBOWS TO HAVE TURNING VANES (UNLESS OTHERWISE NOTED). - PROVIDE HARD ELBOW WHEN TRANSITIONING FROM RIGID TO FLEXIBLE DUCT WHEN CONNECTING TO AIR DEVICES. REFER TO DETAIL.

7 DUCTWORK TO BE COORDINATED WITH STRUCTURAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION, COMPONENTS AND SYSTEMS. ALL DUCTWORK THAT HAS TO BE OFFSET DUE TO AN OBSTRUCTION SHALL BE SLOPED WITH 2-30° ELBOWS UNLESS OTHERWISE NOTED.

8 PROVIDE ACCESS PANELS IN CEILINGS OTHER THAN LAY-IN TYPE WHERE NECESSARY: - CLOSELY COORDINATE LOCATIONS AND SIZE OF ACCESS PANELS WITH INSTALLED EQUIPMENT TO ACHIEVE GREATEST ACCESSIBILITY FOR MAINTENANCE PURPOSES. - PROVIDE ACCESS PANEL AT BALANCING DAMPERS, FIRE DAMPERS, CONTROLS, VALVES, TRAPS, CLEAN OUTS, ETC. - PROVIDE ACCESS PANELS FOR GREASE DUCTS, AS REQUIRED BY NFPA 96, FOR CLEANING PURPOSES, AT CHANGES IN DIRECTION, ETC.

9 COMPLETELY INSULATE THE TOPS OF ALL CEILING DIFFUSERS.

10 CLOSELY COORDINATE LOCATIONS OF INSTALLED EQUIPMENT TO ACHIEVE THE GREATEST ACCESSIBILITY.

11 MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN OUTSIDE AIR INTAKES AND ALL EXHAUST FANS, FLUES, PLUMBING VENTS, ETC.

12 PROVIDE FLEXIBLE CONNECTIONS AT INLETS AND OUTLETS OF ALL AIR HANDLING UNITS, MAKE-UP AIR UNITS, FURNACES, AND/OR EXHAUST FANS.

13 PROVIDE 4" CONCRETE PADS UNDER ALL GROUND MOUNTED CONDENSING UNITS. EACH PAD TO EXTEND A MINIMUM OF 6" BEYOND OUTLINE OF UNIT ON ALL SIDES.

14 PROVIDE 6" CONCRETE PADS UNDER ALL GROUND MOUNTED AIR PACKAGED UNITS. EACH PAD TO EXTEND A MINIMUM OF 6" BEYOND OUTLINE OF UNIT ON ALL SIDES.

15 FIRESTOP ALL PIPE AND DUCT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.

16 CONDENSATE PIPING SHALL BE COMPRISED OF TYPE "M", DWV COPPER, OR SCHEDULE 40 PVC. PVC EXPOSED TO SUNLIGHT SHALL HAVE UV RESISTANT COATING.

17 ALL WALL-MOUNTED, OCCUPANT-CONTROLLED HVAC DEVICES, I.E., THERMOSTATS, HUMIDISTAT, CO2 CONTROLLERS, CONTROL PANELS, ETC., SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR. CONTROLS LOCATED IN PUBLIC AREAS SHALL HAVE CLEAR PLASTIC LOCKING COVERS.

18 COORDINATE WORK CLOSELY WITH CONTROL CONTRACTOR. PROVIDE ALL NECESSARY DUCT, PIPE TAPS, TEES, WELLS, CONTROL DAMPERS, AIR MEASURING STATIONS, AND OTHER ACCESSORIES REQUIRED BY CONTROL SYSTEM

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION — CROMWELL ARCHITECTS/ENGINEERS #5 — ARKANSAS ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 11828 — JOEL FUNKHOUSER

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

MECHANICAL LEGEND AND SYMBOLS

Sheet Number

M-001

KEYED NOTES

1 CONDENSATE DRAIN PIT. SEE DETAIL ON M-502.

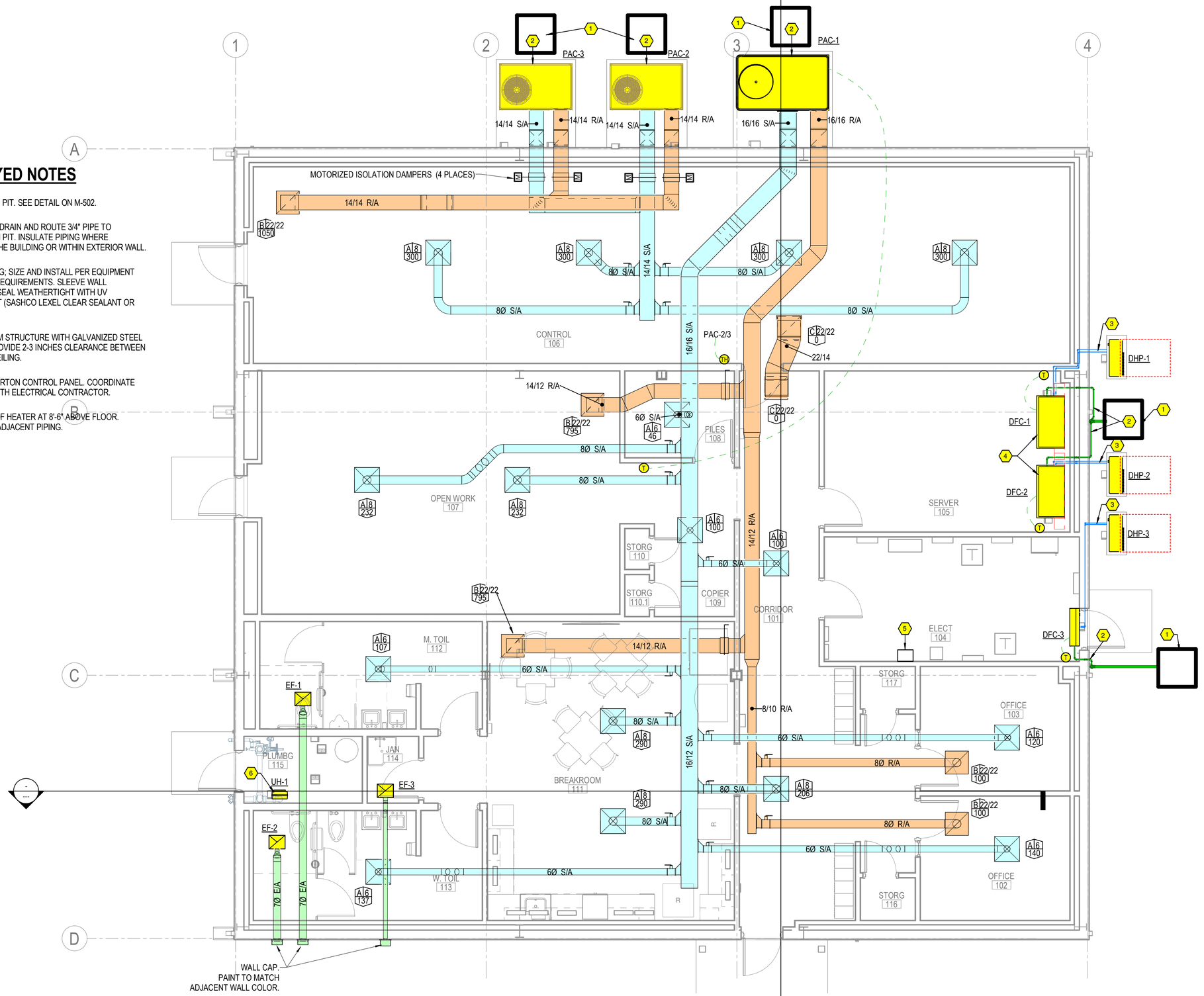
2 TRAP CONDENSATE DRAIN AND ROUTE 3/4" PIPE TO CONDENSATE DRAIN PIT. INSULATE PIPING WHERE INSTALLED INSIDE THE BUILDING OR WITHIN EXTERIOR WALL.

3 REFRIGERANT PIPING; SIZE AND INSTALL PER EQUIPMENT MANUFACTURER'S REQUIREMENTS. SLEEVE WALL PENETRATION AND SEAL WEATHERTIGHT WITH UV RESISTANT SEALANT (SASHCO LEXEL CLEAR SEALANT OR EQUAL).

4 SUSPEND UNIT FROM STRUCTURE WITH GALVANIZED STEEL THREADED ROD. PROVIDE 2-3 INCHES CLEARANCE BETWEEN TOP OF UNIT AND CEILING.

5 LOCATION FOR ALLERTON CONTROL PANEL. COORDINATE EXACT LOCATION WITH ELECTRICAL CONTRACTOR.

6 INSTALL WITH TOP OF HEATER AT 8'-6" ABOVE FLOOR. COORDINATE WITH ADJACENT PIPING.



1 FIRST FLOOR MECHANICAL PLAN
1/4" = 1'-0"
0 2 4 8

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

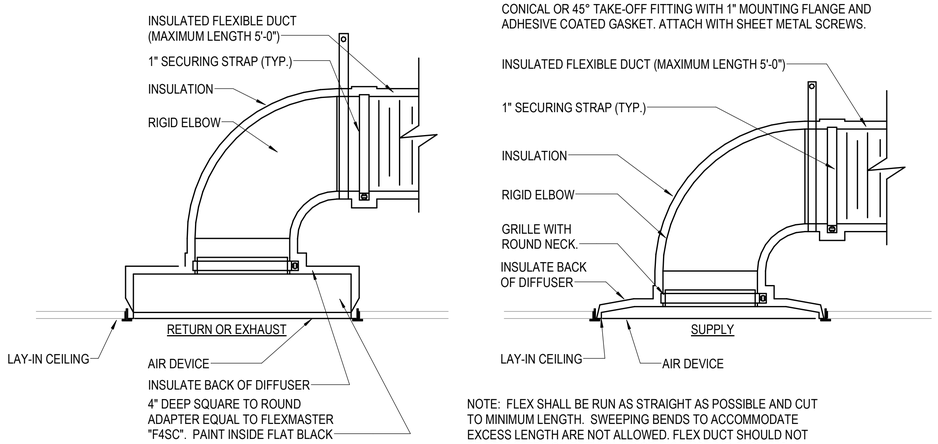
CROMWELL ARCHITECTS/ ENGINEERS #5 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11828 JOEL FUNKHOUSER
02-20-2025

Notes

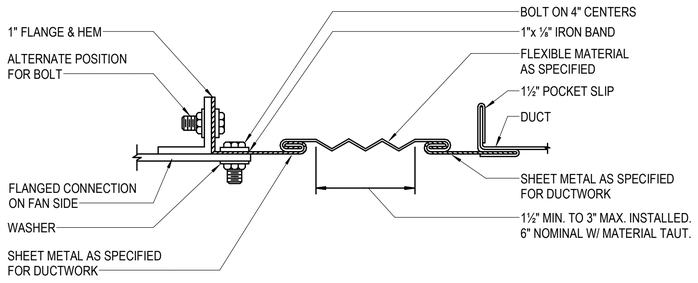
1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number 2024-210
Issue Date 02-20-2025
Sheet Title MECHANICAL PLAN
Sheet Number M-101

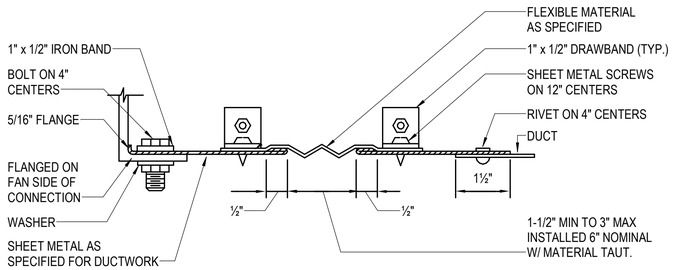


NOTE: FLEX SHALL BE RUN AS STRAIGHT AS POSSIBLE AND CUT TO MINIMUM LENGTH. SWEEPING BENDS TO ACCOMMODATE EXCESS LENGTH ARE NOT ALLOWED. FLEX DUCT SHOULD NOT BE PERMITTED ON RETURN AIR OR EXHAUST AIR SYSTEMS.

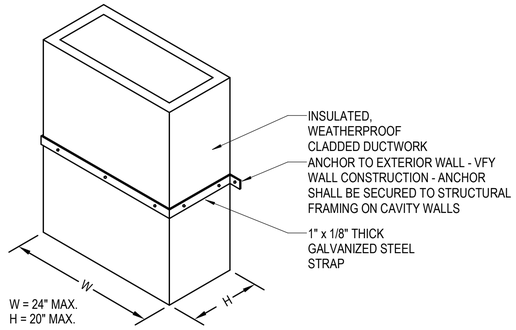
1 AIR DEVICE CONNECTION
NOT TO SCALE



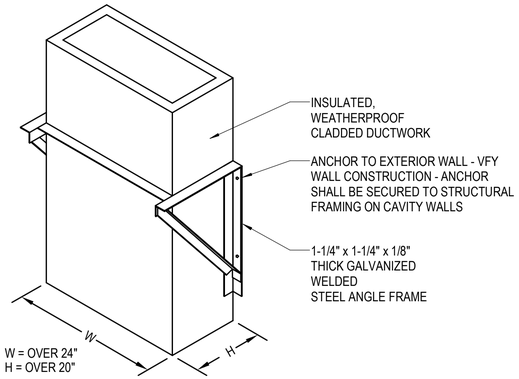
2 FLEXIBLE CONNECTION RECTANGUALR
NOT TO SCALE



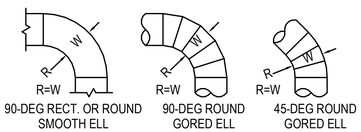
3 FLEXIBLE CONNECTION ROUND
NOT TO SCALE



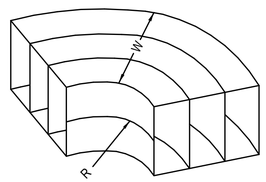
NOTES:
1. PROVIDE SUPPORT AT 12' O.C. MAX.
2. ANCHOR ANGLE IRON SUPPORTS TO WALL AT 12" O.C. SPACING MAX.
3. ALL BRACE-TO-DUCT FASTENERS SHALL BE EQUALLY SPACED AT 8" O.C.



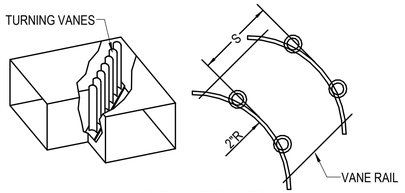
4 EXTERIOR VERTICAL RECTANGULAR DUCT SUPPORT
NOT TO SCALE



STANDARD RADIUS ELL



RECTANGULAR SHORT RADIUS ELL



MITERED ELL

NOTES:
1. WHERE STANDARD RADIUS TURNS ARE NOT POSSIBLE, MITERED ELL'S WITH TURNING VANES SHALL BE PROVIDED FOR ALL CHANGES IN HORIZONTAL AND VERTICAL DUCT DIRECTION 45-DEGREEOR GREATER.
2. CONSTRUCT ELBOWS IN ACCORDANCE WITH SMACNA HVAC DUCTCONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
3. AIR VELOCITIES 1200 FPM AND LESS:
   A. TURNING VANE ELBOW SHALL BE TURNING VANE ELBOW SHALL BE SINGLE WIDTH VANES FOR VANE LENGTHS UP TO 24"
   B. TURNING VANE ELBOW SHALL BE ASHRAE FITTING CR3-15 WITH DOUBLE WIDTH VANES FOR VANE LENGTHS OVER 24".
4. AIR VELOCITIES OVER 1200 FPM: TURNING VANE ELBOW SHALL BE ASHRAE FITTING CR3-15 WITH DOUBLE WIDTH VANES.
5. ROUND ELBOWS SHALL BE SMOOTH OR GORED. 90-DEGREE GORED ELL'S SHALL BE MINIMUM 5-PIECE AND 45-DEGREE GORED ELL'S SHALL BE MINIMUM 3-PIECE.
6. VANES SHALL BE WELDED TO THE VANE RAIL IN DUCT SYSTEMS WITH AIR VELOCITIES 3000 FPM AND HIGHER.
7. ELBOWS WITH MITERED THROATS/RADIUS HEELS AND ELBOWS WITH MITERED THROATS/CHAMFERED HEELS ARE NOT ACCEPTABLE.

5 DUCT ELBOW
NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number **2024-210**

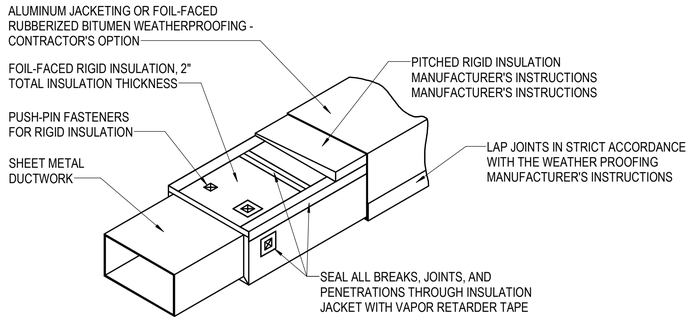
Issue Date **02-20-2025**

Sheet Title

MECHANICAL DETAILS

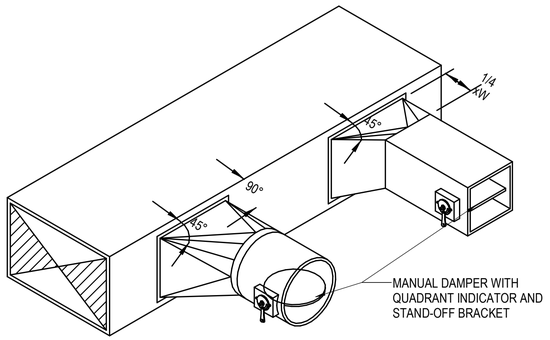
Sheet Number

M-501

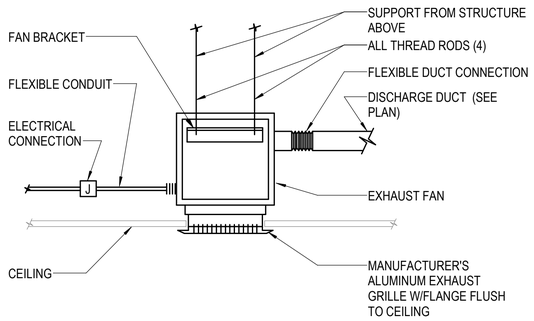


NOTES:
1. ALL SHEET METAL DUCT JOINTS AND SEAMS SHALL BE THOROUGHLY COATED WITH A U.L. 181 COMPLIANT SEALANT, SMACNA SEAL CLASS A, HARDCAST OR EQUAL.
2. COMBINATION VAPOR/WEATHER/UV BARRIER SHALL BE EQUAL TO POLYGUARD ALUMAGUARD RUBBERIZED BITUMEN FOIL FACED MEMBRANE WITH ASPHALT/ASPHALT LAP SEALS. INSTALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
3. WHERE THE DUCTWORK PENETRATED THE BUILDING ENVELOPE, THE EXTERIOR WEATHERPROOF INSULATION SHALL EXTEND MIN. 6" INTO THE BUILDING INTERIOR BEFORE TRANSITIONING TO THE INTERIOR DUCT INSULATION SPECIFICATION.

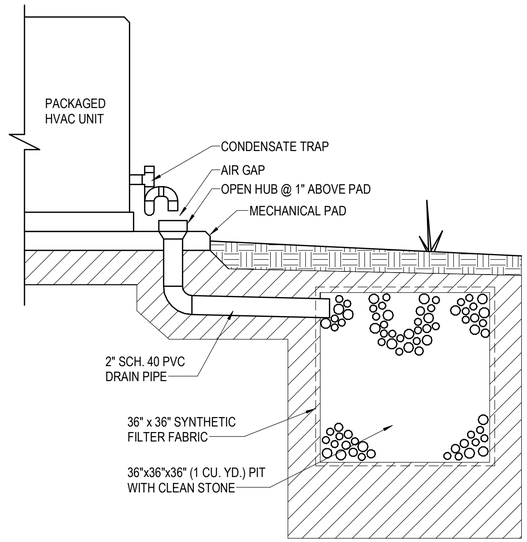
1 EXTERIOR DUCT INSULATION WEATHERPROOFING
NOT TO SCALE



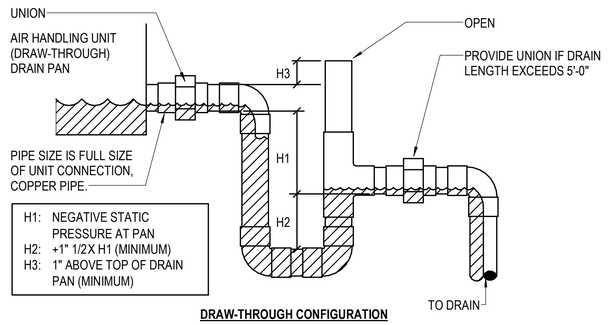
2 DUCT TAKEOFF
NOT TO SCALE



3 CEILING MOUNTED EXHAUST FAN
NOT TO SCALE



4 CONDENSATE DRAIN PIT
NOT TO SCALE



DRAW-THROUGH CONFIGURATION

5 CONDENSATE TRAP (DRAW THRU)
NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes
1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**
Issue Date **02-20-2025**
Sheet Title
MECHANICAL DETAILS
Sheet Number
M-502

PACKAGED COOLING/HEATING UNIT (DX HEAT PUMP)

MARK	SERVES	COOLING CAPACITY				INDOOR FAN				HEAT PUMP HEATING		O.S.A.	AUXILIARY ELECTRIC HEAT				CONDENSING UNIT				AMB. TEMP. °F	ELECTRICAL DATA				SEER	REFRIG.	WEIGHT (LB)	MANUFACTURER	MODEL	REMARKS
		TOTAL (BTUH)	SENSIBLE (BTUH)	ENTERING AIR TEMP.		NO.	HP (EA.)	CFM	ESP	HEATING BTUH AT 47 F	COP AT 47 F		KW	STAGES	VOLTS	Ø	NO.	TYPE	NO.	TYPE		MCA	MOCP	VOLTS	Ø						
				DB°F	WB°F												CONDENSER FAN		COMPRESSOR												
PAC-1	BLDG A17	59,430	46,700	80	67	1	1	2,000	1.0	61,470	3.8	210	18	2	480	3	1	PROPELLER	1	SCROLL	95	43	45	480	3	16.4	R-454B	926	TRANE	WHK060	ALL NOTES

NOTES:
1. PROVIDE WITH HEAT PUMP THERMOSTAT.
2. PROVIDE MERV 8 FILTERS.
3. PROVIDE SUPPLY DUCT SMOKE DETECTOR.
4. MOTORIZED OSA DAMPER
5. BACNET INTERFACE

PACKAGED COOLING/HEATING UNIT (DX COOLING W/ ELECTRIC HEAT)

MARK	SERVES	COOLING CAPACITY				INDOOR FAN				O.S.A. (CFM)	ELECTRIC HEATING				CONDENSING UNIT			AMB. TEMP. °F	ELECTRICAL DATA				SEER	REFRIG.	WEIGHT (LB)	MANUFACTURER	MODEL	REMARKS
		TOTAL (BTUH)	SENSIBLE (MBH)	ENTERING AIR TEMP.											CONDENSER FAN		COMPRESSOR											
				DB°F	WB°F	NO.	HP (EA.)	CFM	ESP		KW	STAGES	VOLTS	Ø	NO.	TYPE	NO.		MCA	MOCP	VOLTS	Ø						
PAC-2	CONTROL 106	37,540	27,510	80	67	1	3/4	1,200	1.0	150	12	SCR MODULATING	480	3	1	PROPELLER	1	95	23	25	480	3	17.1	R-454B	660	TRANE	THK036	ALL NOTES
PAC-3	CONTROL 106	37,540	27,510	80	67	1	3/4	1,200	1.0	150	12	SCR MODULATING	480	3	1	PROPELLER	1	95	23	25	480	3	17.1	R-454B	660	TRANE	THK036	ALL NOTES

NOTES:
1. COOLING ONLY MCA IS 11 AMPS.
2. COOLING ONLY MOCP IS 15.
3. OWNER TO REWIRE ELECTRIC HEAT TO A SEPARATE ELEC CIRCUIT.
4. PROVIDE MERV 8 FILTERS.
5. MOTORIZED OSA DAMPER
6. BACNET INTERFACE

DUCTLESS SPLIT SYSTEM (HEAT PUMP)

MARK		SERVES	INDOOR UNIT TYPE	COOLING (BTUH)	47F HEATING (BTUH)	5F HEATING (BTUH)	ELECTRICAL DATA				SEER	REFRIG.	MANUFACTURER	MODEL		REMARKS
INDOOR	OUTDOOR						MCA	MOCP	VOLTS	Ø				INDOOR	OUTDOOR	
DFC-1	DHP-1	SERVER 105	SUSPENDED HORIZONTAL	28,200	32,000	12,800	22	35	208	1	18	R-454B	TRANE	PCA-AK30NL	PUZ-AH30NL	ALL NOTES
DFC-2	DHP-2	SERVER 105	SUSPENDED HORIZONTAL	28,200	32,000	12,800	22	35	208	1	18	R-454B	TRANE	PCA-AK30NL	PUZ-AH30NL	ALL NOTES
DFC-3	DHP-3	ELECTRIC 104	WALL MOUNTED	24,000	26,000	15,200	19	25	208	1	21	R-410A	MITSUBISHI	PKA-A24KA8	PUZ-A24NHA7	ALL NOTES

NOTES:
1. PROVIDE MANUFACTURER'S WIRED THERMOSTAT.
2. PROVIDE CONDENSATE PUMP.
3. PROVIDE LOW AMBIENT KIT DOWN TO 0°F.
4. OUTDOOR UNIT PROVIDES POWER TO INDOOR UNIT.
5. BACNET CARD FOR REMOTE MONITORING BY ALLERTON SYSTEM.

UNIT HEATERS - ELECTRIC

MARK	LOCATION	CFM	KW	FAN HP	ELECTRICAL DATA				MANUFACTURER	MODEL	REMARKS
					MCA	MOCP	VOLTS	Ø			
UH-1	PLUMBING 115	350	3	1/100	5	15	480	3	QMARK	MUH	ALL NOTES

NOTES:
1. PROVIDE ADJUSTABLE DISCHARGE LOUVER..
2. PROVIDE WALL MOUNTED THERMOSTAT.
3. PROVIDE WALL BRACKET.

EXHAUST FAN

MARK	SERVES	TYPE	DRIVE	FAN DATA		MOTOR DATA			MAX SONES LEVEL	WEIGHT (LBS.)	MANUFACTURER	MODEL	REMARKS
				CFM	ESP	WATTS	VOLTS	Ø					
EF-1	MEN'S TOILET 112	CEILING	DIRECT	150	0.375	128	120	1	4	10	GREENHECK	SP-B150	ALL NOTES
EF-2	WOMEN'S TOILET 113	CEILING	DIRECT	150	0.375	128	120	1	4	10	GREENHECK	SP-B150	ALL NOTES
EF-3	JANITOR 114	CEILING	DIRECT	30	0.25	38	120	1	4	9	GREENHECK	SP-B50	ALL NOTES

NOTES:
1. PROVIDE SPEED CONTROLLER.
2. PROVIDE PLUG STYLE ELECTRICAL DISCONNECT.
3. PROVIDE BACKDRAFT DAMPER.

AIR DEVICE

MARK	TYPE	DESCRIPTION	MATERIAL	FINISH	MOUNTING	FACE SIZE (IN)	NECK SIZE (IN)	MAX FLOW (CFM)	MAX D.P. (IN. W.C.)	OBD	DIRECTIONAL BLADES	FILTER	MANUFACTURER	MODEL	REMARKS
A	SUPPLY	DIFFUSER	STEEL	WHITE	CEILING	24X24	6	160	0.05	YES	NO	NO	TITUS	TMS	ALL NOTES
A	SUPPLY	DIFFUSER	STEEL	WHITE	CEILING	24X24	8	300	0.05	YES	NO	NO	TITUS	TMS	ALL NOTES
B	RETURN	EGGCRATE GRILLE	ALUMINUM	WHITE	CEILING	24X24	22X22	1,600	0.05	NO	NO	NO	TITUS	50F	ALL NOTES
C	TRANSFER	EGGCRATE GRILLE	ALUMINUM	WHITE	CEILING	24X24	22X22	150	0.02	NO	NO	NO	TITUS	50F	ALL NOTES

NOTES:
1. PROVIDE MODEL "TRM" MOUNTING FRAME FOR GYPSUM CEILING LOCATIONS.
2. OBD = OPTIONAL BALANCING DAMPER (OPPOSED BLADE OR RADIAL).

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

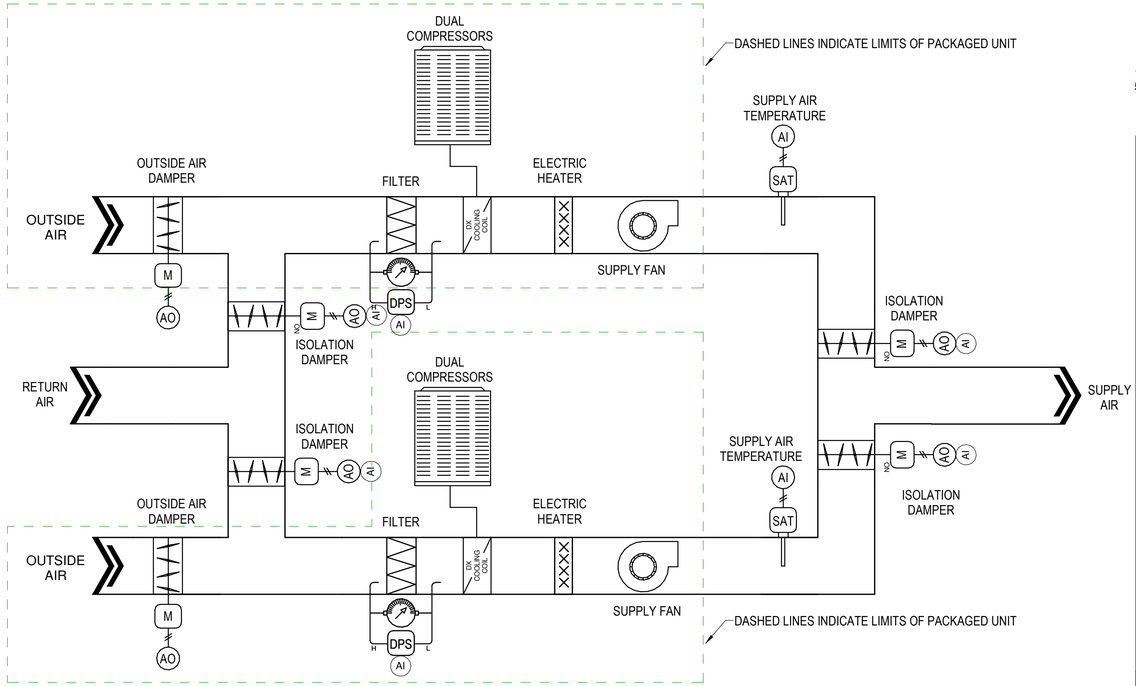
Issue Date **02-20-2025**

Sheet Title

MECHANICAL SCHEDULES

Sheet Number

M-601



SEQUENCE OF OPERATIONS

BUILDING AUTOMATION SYSTEM:
THE UNIT WILL BE CONTROLLED BY THE ALLERTON BUILDING AUTOMATION SYSTEM (BAS).

SPACE SETPOINTS:
COOL OCCUPIED / UNOCCUPIED: 75/78 F
HEAT OCCUPIED / UNOCCUPIED: 70/67 F
DEHUMIDIFICATION OCCUPIED / UNOCCUPIED: 50%/50% RELATIVE HUMIDITY

LEAD/LAG CONTROLS:
THE UNITS ARE SIZED FOR 100% REDUNDANCY. IF THE LEAD UNIT'S COOLING SUPPLY AIR TEMPERATURE EXCEEDS 65 F FOR MORE THAN 10 MINUTES, AND ALARM WILL BE GENERATED, THE LEAD UNIT WILL BE SHUT OFF AND THE LAG UNIT WILL BE ACTIVATED. THE LEAD AND LAG UNIT WILL BE ALTERNATED EVERY 7 DAYS. THE TWO UNITS WILL NOT RUN AT THE SAME TIME.

RETURN/SUPPLY ISOLATION DAMPERS:
THE RETURN AND SUPPLY DUCT ISOLATION DAMPER WILL OPEN FOR THE UNIT THAT IS RUNNING. THE RETURN AND SUPPLY DUCT ISOLATION DAMPER WILL CLOSE FOR THE UNIT THAT IS NOT RUNNING.

AIRFLOW CONTROL, OCCUPIED HOURS:
THE FAN WILL RUN CONSTANTLY AND THE OUTSIDE AIR DAMPER WILL OPEN.

AIRFLOW CONTROL, UNOCCUPIED HOURS:
THE FAN WILL RUN INTERMITTENTLY AS REQUIRED UPON A CALL FOR COOLING, HEATING, OR DEHUMIDIFICATION AND THE OUTSIDE AIR DAMPER WILL OPEN WHEN THE FAN IS RUNNING (CLOSE WITH THE FAN IS NOT RUNNING).

COOLING MODE:
WHEN THE SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, THE COOLING MODE WILL BE ACTIVATED.

HEATING MODE:
WHEN THE SPACE TEMPERATURE FALLS BELOW THE HEATING SETPOINT, THE ELECTRIC HEATER WILL BE ACTIVATED AT 100%.

DEHUMIDIFICATION MODE:
WHEN THE SPACE RELATIVE HUMIDITY RISES ABOVE THE DEHUMIDIFICATION SETPOINT, THE UNIT'S DEHUMIDIFICATION MODE (COOLING PLUS MODULATING ELECTRIC REHEAT) WILL BE ACTIVATED. THE ELECTRIC HEAT WILL MODULATE TO PROVIDE 75 DEGREE SUPPLY AIR TEMPERATURE.

FILTER STATUS:
A DIFFERENTIAL PRESSURE SENSOR WILL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER. IF THE DIFFERENTIAL PRESSURE RISES ABOVE A PRESET VALUE DETERMINED DURING TAB WORK, A DIRTY FILTER ALARM WILL BE ANNUNCIATED.

UNOCCUPIED OVERRIDE:
IF A SPACE SENSOR SETPOINT IS ADJUSTED BY A USER DURING UNOCCUPIED MODE, THE SYSTEM WILL GO INTO OCCUPIED MODE FOR 90 MINUTES.

OCCUPIED HOURS

OCCUPIED HOURS ARE 6:00 AM - 6:00 PM 7 DAYS PER WEEK.

1 CONTROLS - PACKAGED HVAC UNITS PAC-2 AND PAC-3
NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

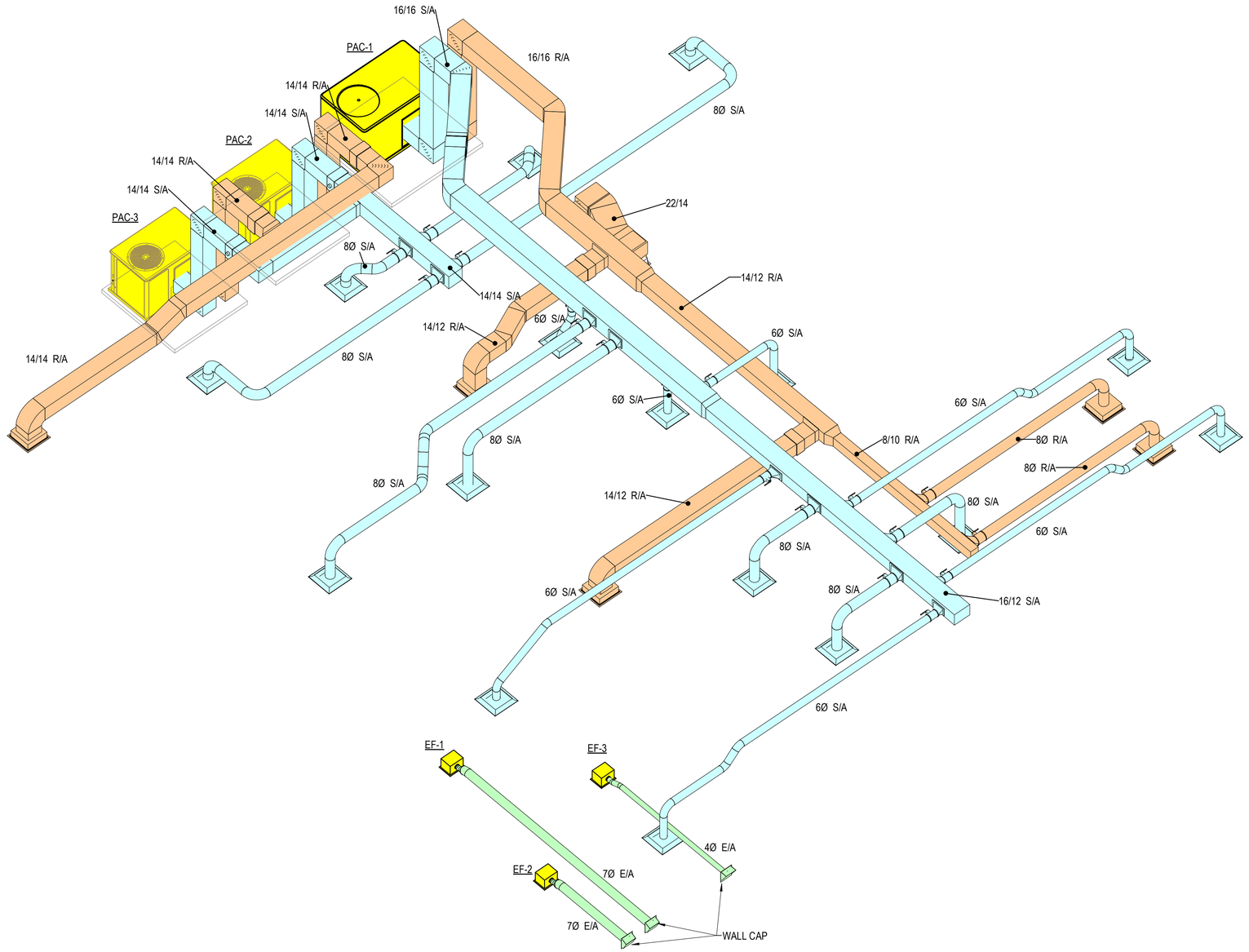
CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**
Issue Date **02-20-2025**
Sheet Title
MECHANICAL CONTROLS
Sheet Number
M-701



1 HVAC DUCTWORK ISOMETRIC
NOT TO SCALE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11828
JOEL FUNKHOUSER
02-20-2025

Notes

1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number 2024-210
Issue Date 02-20-2025
Sheet Title

MECHANICAL
ISOMETRIC

Sheet Number

M-901

ELECTRICAL SYMBOLS

RECEPTACLES (MOUNTED 18" AFF UNLESS INDICATED OTHERWISE)

- DUPLEX RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
- DUPLEX RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R) MOUNT 4" ABOVE COUNTER TOP, SINK, OR BACKSPLASH (IF PRESENT)
- SINGLE RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
- FLOOR RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
- SINGLE RECEPTACLE OUTLET (20A, 250V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 6-20R)
- SINGLE RECEPTACLE OUTLET (30A, 250V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 6-30R)
- 1 SINGLE SPECIAL-PURPOSE RECEPTACLE OUTLET; NUMBER CORRESPONDS TO THE SPECIAL-PURPOSE RECEPTACLE SCHEDULE
- DUPLEX RECEPTACLE MOUNTED IN CEILING (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
- TWO (2) DUPLEX RECEPTACLES MOUNTED IN DOUBLE GANG BACKBOX (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
- TWO (2) DUPLEX RECEPTACLES FLOOR MOUNTED IN DOUBLE GANG BACKBOX (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)

LIGHT FIXTURES (SEE FIXTURE SCHEDULE ON E-602 FOR TYPE)

- LIGHT FIXTURE, CEILING MOUNTED
- LIGHT FIXTURE, CEILING MOUNTED, ON EMERGENCY CIRCUIT
- LIGHT FIXTURE, CEILING MOUNTED, WITH EMERGENCY SELF CONTAINED BATTERY PACK. BATTERY PACK IS TO REMAIN UNSWITCHED.
- LIGHT FIXTURE, WALL MOUNTED
- LIGHT FIXTURE, INDUSTRIAL STRIP, SURFACE OR PENDANT MOUNTED
- LIGHT FIXTURE, CEILING MOUNTED
- LIGHT FIXTURE, WALL MOUNTED
- EMERGENCY BATTERY POWERED LIGHTING UNIT, WITH SELF CONTAINED BATTERY, CHARGER, ETC. (REFER TO FIXTURE SCHEDULE FOR BATTERY TYPE, VOLTAGE, LAMP TYPE, WATTAGE, ETC.) TRIANGLES DEPICT QUANTITY AND AIMING OF LAMP HEADS
- COMBO EXIT/EMERGENCY SIGN, LIGHTED, CEILING MOUNTED. SHADED AREA INDICATES FACE. ARROW DEPICTS DIRECTIONAL ARROW ON SIGN. WHEN REQUIRED BY THE FIXTURE SCHEDULE, AN EMERGENCY SELF-CONTAINED BATTERY PACK IS TO REMAIN UNSWITCHED.
- COMBO EXIT/EMERGENCY SIGN, LIGHTED, WALL MOUNTED AT 7'-6" AFF (TO BOTTOM OF SIGN) UNLESS INDICATED OTHERWISE. ARROW DEPICTS DIRECTIONAL ARROW ON SIGN. WHEN REQUIRED BY THE FIXTURE SCHEDULE, AN EMERGENCY SELF-CONTAINED BATTERY PACK IS TO REMAIN UNSWITCHED.
- FLOOD LIGHT, ARROW INDICATES DIRECTION OF BEAM
- PARKING AREA LIGHT FIXTURE, POLE MOUNTED

LIGHT FIXTURE IDENTIFICATION

A ○ a — LOWER CASE LETTER BESIDE FIXTURE DENOTES SWITCH CONTROL (WHERE APPLICABLE)

UPPER CASE LETTER BESIDE EACH FIXTURE DENOTES FIXTURE TYPE.

SWITCHGEAR

- MAGNETIC MOTOR STARTER (FURNISHED BY DIVISION 23, UNLESS NOTED OTHERWISE)
- ELECTRICAL PANELBOARD, FLUSH MOUNTED
- ELECTRICAL PANELBOARD, SURFACE MOUNTED
- SAFETY SWITCH; 30A CURRENT RATING UNLESS NOTED OTHERWISE. +4'-0" TO HANDLE
- 30 F20 FUSIBLE SAFETY SWITCH; CURRENT RATING AND FUSE RATING NOTED. +4'-0" TO HANDLE
- CB CIRCUIT BREAKER IN WALL MOUNTED ENCLOSURE
- T ELECTRICAL TRANSFORMER, FLOOR MOUNTED UNLESS INDICATED OTHERWISE

ELECTRICAL SYMBOLS

SWITCHES (MOUNTED AT 46", UNLESS INDICATED OTHERWISE) (LOWER CASE LETTER INDICATES DEVICES CONTROLLED)

- S_a SWITCH, SINGLE POLE, 20A
- S_2 SWITCH, DOUBLE POLE, 20A SWITCH
- S_3 3-WAY, 20A SWITCH
- S_4 4-WAY, 20A SWITCH
- S_M SINGLE POLE MANUAL MOTOR STARTING SWITCH, WITH THERMAL OVERLOAD ELEMENT AND PROVISIONS FOR LOCKING OPEN
- S_D SWITCH, DIMMING (COORDINATE WITH FIXTURE MANUFACTURER)
- S_{LV} LOW VOLTAGE WITH MOMENTARY CONTACTS SWITCH
- S_O OCCUPANCY SENSOR, WALL MOUNTED, DUAL TECHNOLOGY
- OS OCCUPANCY SENSOR, CEILING MOUNTED, DUAL TECHNOLOGY
- +6' AFF MULTIPLE DEVICES LOCATED SIDE BY SIDE (OR ABOVE AND BELOW, IF DIFFERENT ELEVATIONS ARE SHOWN) AT THE LOCATION INDICATED)

SINGLE LINE

- CIRCUIT BREAKER, TRIP RATING AS INDICATED, 3 POLE OR AS INDICATED
- 60A DISCONNECT SWITCH OR LOAD INTERRUPTER SWITCH, CURRENT RATING AS INDICATED, 3 POLE OR AS INDICATED
- GFI SWITCH WITH GROUND FAULT INTERRUPTER
- F30 FRS FUSE, CURRENT RATING AND TYPE WHEN INDICATED
- TRANSFORMER, DESCRIPTION AS NOTED OR PER SCHEDULE
- CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER
- SS PHASE SELECTOR SWITCH
- A AMMETER
- V VOLTMETER
- WH WATT-HOUR METER
- SPD SURGE PROTECTIVE DEVICE
- AUTOMATIC TRANSFER SWITCH
- G GENERATOR

SECURITY

- M MAGNETIC ALARM SWITCH
- D DURESS ALARM SWITCH
- MD MOTION DETECTOR
- CD CAPACITIVE DETECTOR
- CCTV CAMERA LOCATION, CEILING MOUNTED UNLESS INDICATED OTHERWISE
- KS KEYPAD ACCESS ALARM OVERRIDE CONTROL
- REX ELECTRIC PUSH-BUTTON; "REX" INDICATES REQUEST TO EXIT PUSH BUTTON
- CARD READER
- ES ELECTRIC STRIKE
- DPS DOOR POSITION SWITCH
- EL ELECTRIC LATCH

ELECTRICAL SYMBOLS

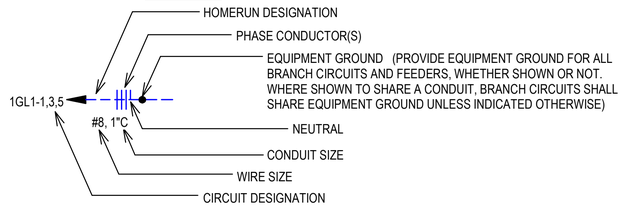
TELEPHONE/COMMUNICATIONS/DATA (OUTLETS SHALL BE MOUNTED 18" AFF UNLESS INDICATED OTHERWISE)

- TELEPHONE OUTLET. OUTLET BOX WITH 1" C STUBBED ABOVE ACCESSIBLE CEILING SPACE AND PULL CORD. SUBSCRIPT: W - WALL MOUNTED AT 54" AFF;
- TELEPHONE FLOOR OUTLET. OUTLET BOX WITH 1" C STUBBED ABOVE ACCESSIBLE CEILING SPACE AND PULL CORD.
- DATA OUTLET. OUTLET BOX WITH 1" C STUBBED ABOVE ACCESSIBLE CEILING SPACE AND PULL CORD.
- DATA FLOOR OUTLET. OUTLET BOX WITH 1" C STUBBED ABOVE ACCESSIBLE CEILING SPACE AND PULL CORD.
- COMBINATION VOICE/DATA OUTLET. OUTLET BOX WITH 1" C STUBBED ABOVE ACCESSIBLE CEILING SPACE AND PULL CORD.
- COMBINATION VOICE/DATA FLOOR OUTLET. OUTLET BOX WITH 1" C STUBBED ABOVE ACCESSIBLE CEILING SPACE AND PULL CORD.
- 4'-0" HIGH x 3/4" THICK FIRE-RETARDANT PLYWOOD BACKBOARD. SEE PLANS FOR LENGTH.
- 2 WIRELESS ACCESS POINT OUTLET CEILING MOUNTED. OUTLET BOX WITH 1" C STUBBED ABOVE ACCESS CEILING SPACE AND PULL CORD. NUMBER INDICATES QUANTITY OF DATA JACKS. ABSENCE OF A NUMBER INDICATES ONE DATA JACK.

MISCELLANEOUS

- JUNCTION BOX, WALL MOUNT AS INDICATED
- JUNCTION BOX, CEILING MOUNT AS INDICATED
- CLOCK OUTLET, WALL MOUNTED 7'-6" AFF
- MOTOR
- 10' BARE #6 COILED & EXOTHERMICALLY WELDED TO COLUMN
- TV CABLE TELEVISION OUTLET BOX MOUNTED 18" AFF WITH CONDUIT STUBBED ABOVE CEILING. PROVIDE PULL CORD.
- CONDUIT RUN, EXPOSED
- CONDUIT RUN, CONCEALED
- FLEXIBLE CONDUIT

CIRCUIT INFORMATION



- CIRCUIT DESIGNATION INDICATES PANELBOARD AND CIRCUIT(S) TO WHICH HOMERUN IS CONNECTED.
- WIRE SIZE SHALL BE NO. 12, UNLESS INDICATED OTHERWISE.
- CONDUIT SIZE SHALL BE MINIMUM ALLOWED BY SPECIFICATIONS FOR NO. 12 SIZE WIRE, 3/4" FOR NO. 10, UNLESS INDICATED OTHERWISE.

CIRCUIT INFORMATION PROVIDED AT THE HOMERUN SYMBOL SHALL APPLY THE ENTIRE LENGTH OF THE CIRCUIT (FROM PANELBOARD TO LAST LOAD).

WHEN NO PHASE CONDUCTOR OR NEUTRAL IS INDICATED AT THE HOMERUN SYMBOL, PROVIDE ONE PHASE CONDUCTOR AND ONE NEUTRAL, BOTH NO. 12.

SWITCHING CONDUCTORS, CONDUCTORS FOR NIGHT LIGHT CIRCUITS (UNSWITCHED), ETC. ARE NOT SHOWN, BUT SHALL BE PROVIDED AS NECESSARY.

WIRE SIZE INDICATED ON THESE DOCUMENTS AS INDICATED BY "NO." OR "#" HAS THE SAME MEANING AS "AWG" (N.E.C. NOMENCLATURE). (I.E."NO. 12" OR "# 12" MEANS "12AWG" IN N.E.C. NOMENCLATURE.)

ABBREVIATIONS:

AFF = ABOVE FINISHED FLOOR
AFG = ABOVE FINISHED GRADE
AFL = ABOVE FINISHED LANDING
GFI = GROUND FAULT INTERRUPTER
IG = ISOLATED GROUND
UIO = UNLESS INDICATED OTHERWISE
WP = WEATHERPROOF CONSTRUCTION
OF/OI = OWNER FURNISHED / OWNER INSTALLED
CF/CI = CONTRACTOR FURNISHED / CONTRACTOR INSTALLED
OF/CI = OWNER FURNISHED / CONTRACTOR INSTALLED
TYP = TYPICAL
NIC = NOT IN CONTRACT

GENERAL SYMBOLS NOTES:

1. ALL SYMBOLS MAY NOT BE USED.

2. MOUNTING HEIGHTS ARE ABOVE FINISHED FLOOR OR GRADE TO THE CENTER LINE OF THE OUTLET, DEVICE, ETC. UNLESS INDICATED OTHERWISE.

3. LARGE AMPACITY CIRCUIT DESIGNATION EXAMPLE: 4 SETS OF 3#500, #250, #1/0G, 4"C MEANS IN EACH OF FOUR 4" CONDUITS INSTALL THREE 500 kCM CONDUCTORS, ONE 250 kCM NEUTRAL AND ONE #1/0 GROUND.

COLOR LEGEND:

- EXISTING TO REMAIN
- DEMOLISH
- NEW CONSTRUCTION

LINESTYLE LEGEND:

- DEMOLISH
- EXISTING TO REMAIN
- NEW

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION — CROMWELL ARCHITECTS/ ENGINEERS #5 — ARKANSAS-ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 9401 — JAMES S. MCELRATH

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

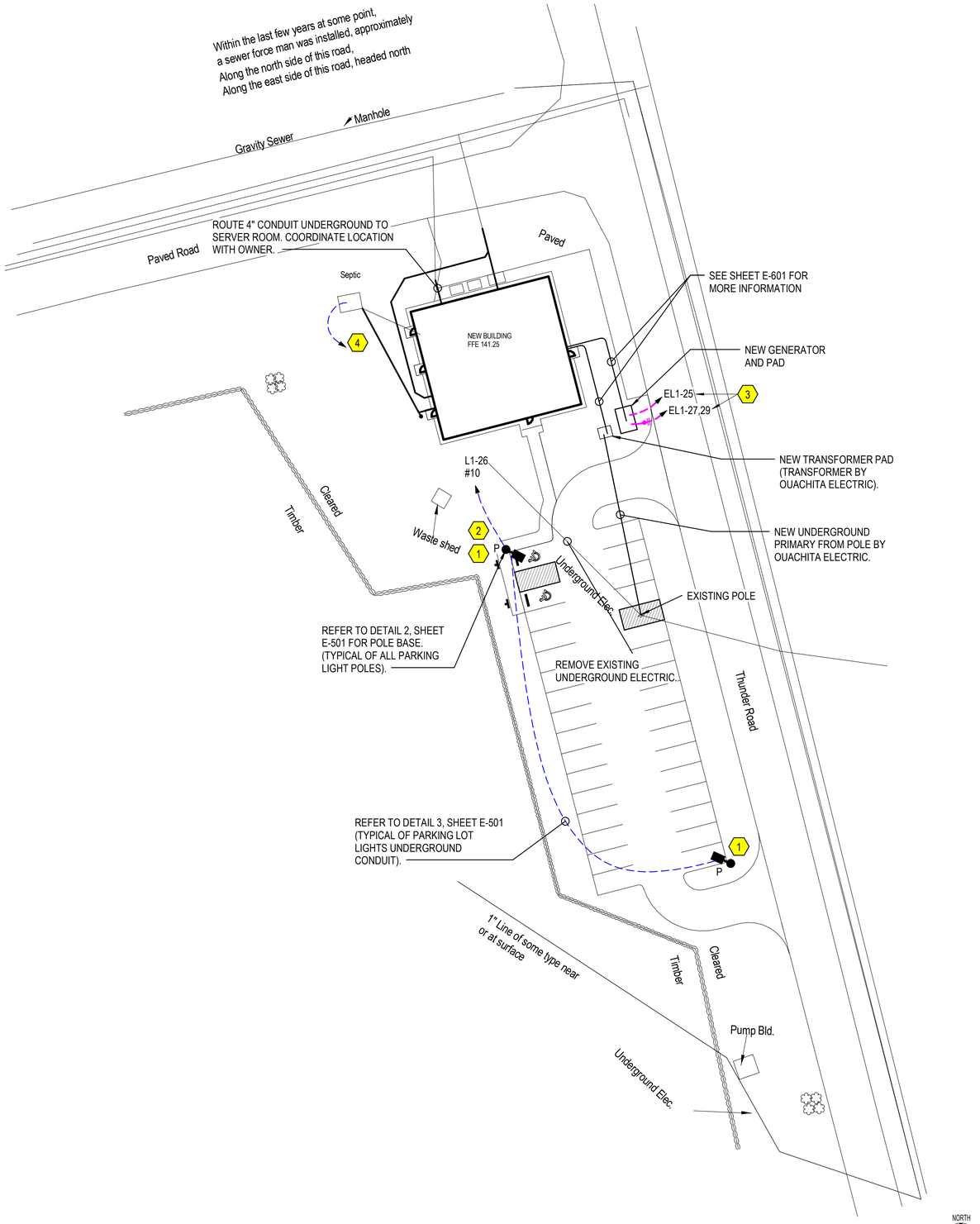
Issue Date **02-20-2025**

Sheet Title

ELECTRICAL LEGEND

Sheet Number

E-001



1 ELECTRICAL SITE PLAN NEW
1" = 30'-0"

GENERAL NOTES:

A. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTORS EXPENSE.

B. CONDUIT ROUTING IS FOR ILLUSTRATION PURPOSES ONLY. VERIFY AND COORDINATE WITH OTHER UTILITIES AND DISCIPLINES FOR PROPER ROUTING TO AVOID CONFLICTS.

C. CONTROL SITE LIGHTING THROUGH LIGHTING CONTACTOR PANEL.

D. REFER TO DETAIL 4, SHEET E-501 FOR GENERATOR PAD DETAIL.

E. REFER TO DETAIL 2, SHEET E-502 FOR TRANSFORMER PAD DETAIL.

KEYED NOTES:

1. SEE LIGHT FIXTURE SCHEDULE, SHEET E-602 FOR FIXTURE TYPE P.
2. MOUNT CAMERA ON POLE AND TIE INTO LIGHTING CIRCUIT L1-26.
3. VERIFY POWER CONNECTION REQUIREMENTS FOR BLOCK HEATER AND BATTERY CHARGER WITH GENERATOR MANUFACTURER.
4. POWER EXISTING LIFT STATION PUMP. PROVIDE POWER FROM NEW ELECTRICAL ROOM. FIELD VERIFY VOLTAGE REQUIREMENTS AND BREAKER SIZE AND TYPE AND WIRE SIZE. COORDINATE WITH OWNER.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS-ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9401
JAMES S. MCELRATH

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

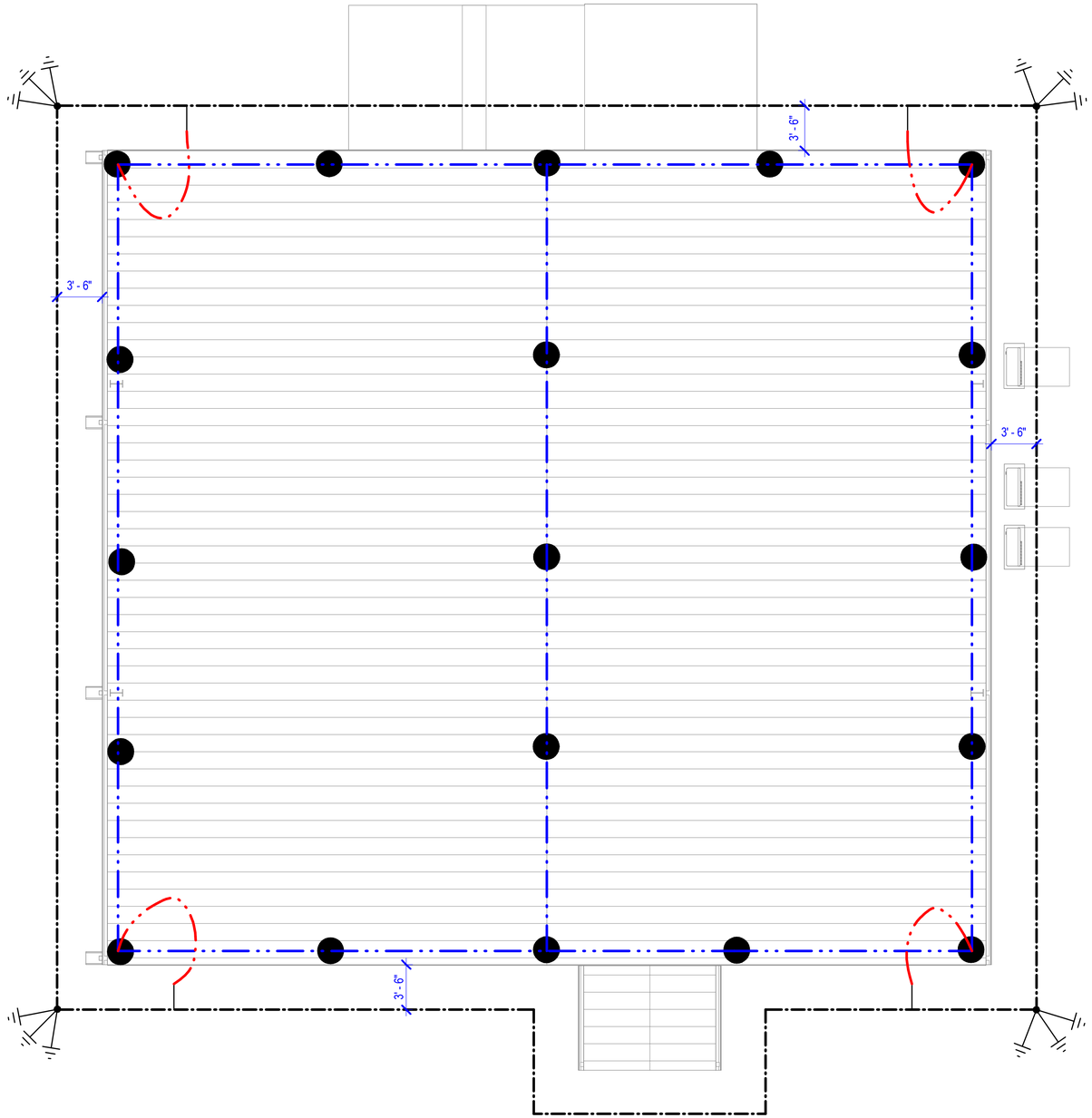
Issue Date **02-20-2025**

Sheet Title

ELECTRICAL SITE PLAN

Sheet Number

ES101



1 LIGHTNING PROTECTION PLAN
3/16" = 1'-0"

NORTH

0 4 8 16

SCALE : 3/16" = 1'-0"

GENERAL NOTES:

A. LIGHTNING PROTECTION DESIGN IS TO SHOW INTENT ONLY. PROVIDE A COMPLETE SYSTEM DESIGN BY A LIGHTNING PROTECTION CONTRACTOR BASED ON PLANS AND SPECIFICATIONS. PROVIDE UL MASTER LABEL ON SYSTEM. RETEST EXISTING SYSTEM AS REQUIRED TO OBTAIN MASTER LABEL. ADD SERVICE ENTRANCE SURGE SUPPRESSION OR OTHER DEVICES TO EXISTING EQUIPMENT AS REQUIRED TO ACHIEVE MASTER LABEL.

B. ALL MATERIALS SHALL BE CLASS I, UNDERWRITERS LABORATORIES LISTED AND LABELED. LABELS TO BE ON ALL AIR TERMINALS AND AT 10' INTERVALS ON CONDUCTOR CABLE.

C. LOCATE AIR TERMINALS AS SHOWN AND AS REQUIRED BY NFPA 780. ENSURE THAT ALL AIR TERMINALS ARE WITHIN 2'-0" OF OUTSIDE BUILDING EDGE, OUTSIDE CORNER. ENSURE AIR TERMINAL PROJECTS 10" ABOVE OBJECT PROTECTED AND THAT SPACING DOES NOT EXCEED 20'-0". AIR TERMINALS 2'-0" ABOVE OBJECT PROTECTED SHALL NOT EXCEED SPACING OF 25'-0".

D. MAINTAIN DOWNWARD OR HORIZONTAL COURSING OF MAIN CONDUCTOR CABLE AND ENSURE THAT ALL BENDS HAVE AT LEAST AN 8" RADIUS AND DO NOT EXCEED 90 DEGREES.

E. SUPPORT ALL EXPOSED CONDUCTOR CABLE AT 3'-0" ON CENTER MAXIMUM.

F. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS REQUIRED BY CODE(S)/STANDARD(S).

G. INTERCONNECT LIGHTNING PROTECTION GROUND WITH OTHER BUILDING GROUND SYSTEMS AS REQUIRED BY CODE(S)/STANDARD(S).

H. BOND METAL BODIES ON ROOF THAT ARE OUTSIDE THE ZONE OF PROTECTION THAT ARE SUBJECT TO A DIRECT LIGHTNING STRIKE OR WHICH EXCEED THE HEIGHT OF ADJACENT AIR TERMINALS WITH MAIN SIZE CONDUCTOR CABLE. TYPICAL METAL BODIES INCLUDE BUT ARE NOT LIMITED TO: EXHAUST FANS, VENTS, HANDRAILS, AIR HANDLING UNITS, LADDERS, ANTENNAS, COOLING TOWERS, SKYLIGHTS, ETC.

I. ACTUAL JOBSITE CONDITIONS MAY ALTER SOME AIR TERMINAL AND GROUNDING LOCATIONS.

J. INSTALL GROUND ELECTRODES AS SHOWN AND AS REQUIRED BY CODE(S)/STANDARD(S) BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0" BELOW GRADE AND 2'-0" FROM FOUNDATION WALL. ELECTRODES SHALL PENETRATE EARTH AT LEAST 10'-0".

K. STRUCTURAL STEEL MAY BE USED AS A DOWN CONDUCTOR WHERE PERMITTED BY NFPA 780. MAKE ADDITIONAL CONNECTIONS AS REQUIRED BY NFPA 780.

L. ADJUST LOCATIONS IN FIELD AS REQUIRED TO COMPLY WITH NFPA 780 BASED ON ACTUAL CONDITIONS.

M. PROVIDE SURGE PROTECTION DEVICES MEETING THE REQUIREMENTS OF NFPA 780 FOR ALL POWER SERVICE ENTRANCES AND CONDUCTIVE COMMUNICATIONS SYSTEMS, AND ANTENNA SYSTEMS. MAKE ALL CONNECTIONS.

N. PROTECT DOWN CONDUCTORS IN CONDUIT, ENTIRE VERTICAL ROUTING ON EXTERIOR OF BUILDING. PAINT TO MATCH ADJACENT SURFACE.

O. REPAIR AREAS DISTURBED FOR GROUND ROD INSTALLATION TO EXISTING OR BETTER CONDITIONS AND GRADE PRIOR TO INSTALLATION. CUT AND REPAIR CONCRETE AT EXISTING JOINTS WHERE APPLICABLE.

P. FIBER OPTIC DATA LINE BURIED BELOW NEW BUILDING FOOTPRINT. LINE MUST NOT BE DISTURBED. COORDINATE WITH AEROJET.

LIGHTNING PROTECTION LEGEND:

- SURFACE MOUNTED LIGHTNING PROTECTION MAIN CONDUCTOR
- AIR TERMINAL
- DOWN CONDUCTOR
- GROUND ROD
- COUNTERPOISE CONDUCTOR
- GROUND WIRE

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

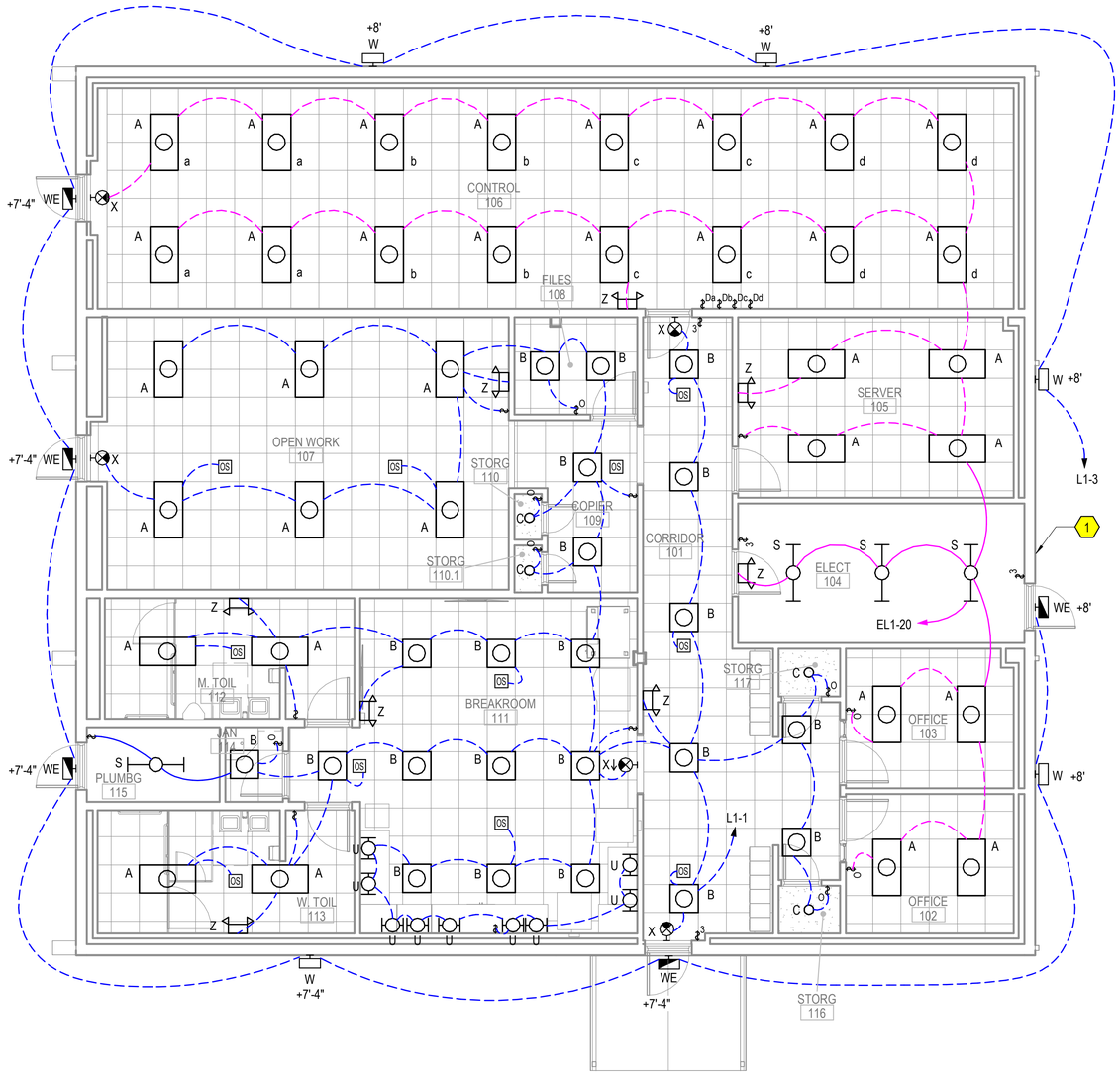
CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
JAMES MCBRAYER
REGISTERED PROFESSIONAL ENGINEER
No. 9401
02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**
Issue Date **02-20-2025**
Sheet Title
LIGHTNING PROTECTION PLAN
Sheet Number
EG101



1 LIGHTING PLAN
3/16" = 1'-0"

NORTH

0 4 8 16
SCALE : 3/16" = 1'-0"

GENERAL NOTES:

A. ADJUST THE QUANTITY AND LOCATIONS OF OCCUPANCY SENSORS AS NECESSARY FOR FULL ROOM COVERAGE (MAXIMUM OF 500 SQ. FT COVERAGE PER SENSOR). LOCATE SENSORS SUCH THAT THE DISTANCE BETWEEN SENSORS AND HVAC REGISTERS IS NO LESS THAN THE MINIMUM DISTANCE RECOMMENDED BY THE SENSOR MANUFACTURER.

B. CONNECT THE OCCUPANCY SENSORS TO CONTROL ALL NORMAL POWER LIGHT FIXTURES IN THE ROOM IN WHICH THEY ARE INSTALLED UNLESS OTHERWISE INDICATED.

C. LOCATED POWER PACKS FOR OCCUPANCY SENSORS ABOVE CEILING WHERE ACCESSIBLE.

D. SET OCCUPANCY SENSORS FOR A 15-MINUTE TIME DELAY.

E. SET ALL WALL-MOUNT OCCUPANCY SENESORS TO MANUAL-ON / AUTOMATIC-OFF.

F. MAKE ALL FINAL SENSITIVITY AND RANGE ADJUSTMENTS ON OCCUPANCY SENSORS PER MANUFACTURER'S INSTRUCTIONS.

G. REFER TO DETAIL 1, SHEET E-501 FOR EXTERIOR LIGHT CONTACTOR DETAIL.

H. MOUNT TYPE S LIGHTS AT 8'-0" AFF. COORDINATE PLACEMENT WITH OTHER DISCIPLINES.

KEYED NOTES:

1 DUSK TO DAWN PHOTOCELL, MOUNT AND AIM PHOTOCELL PER MANUFACTURER REQUIREMENTS.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS
#5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9401
JAMES S. WEERATH
02-20-2025

Notes

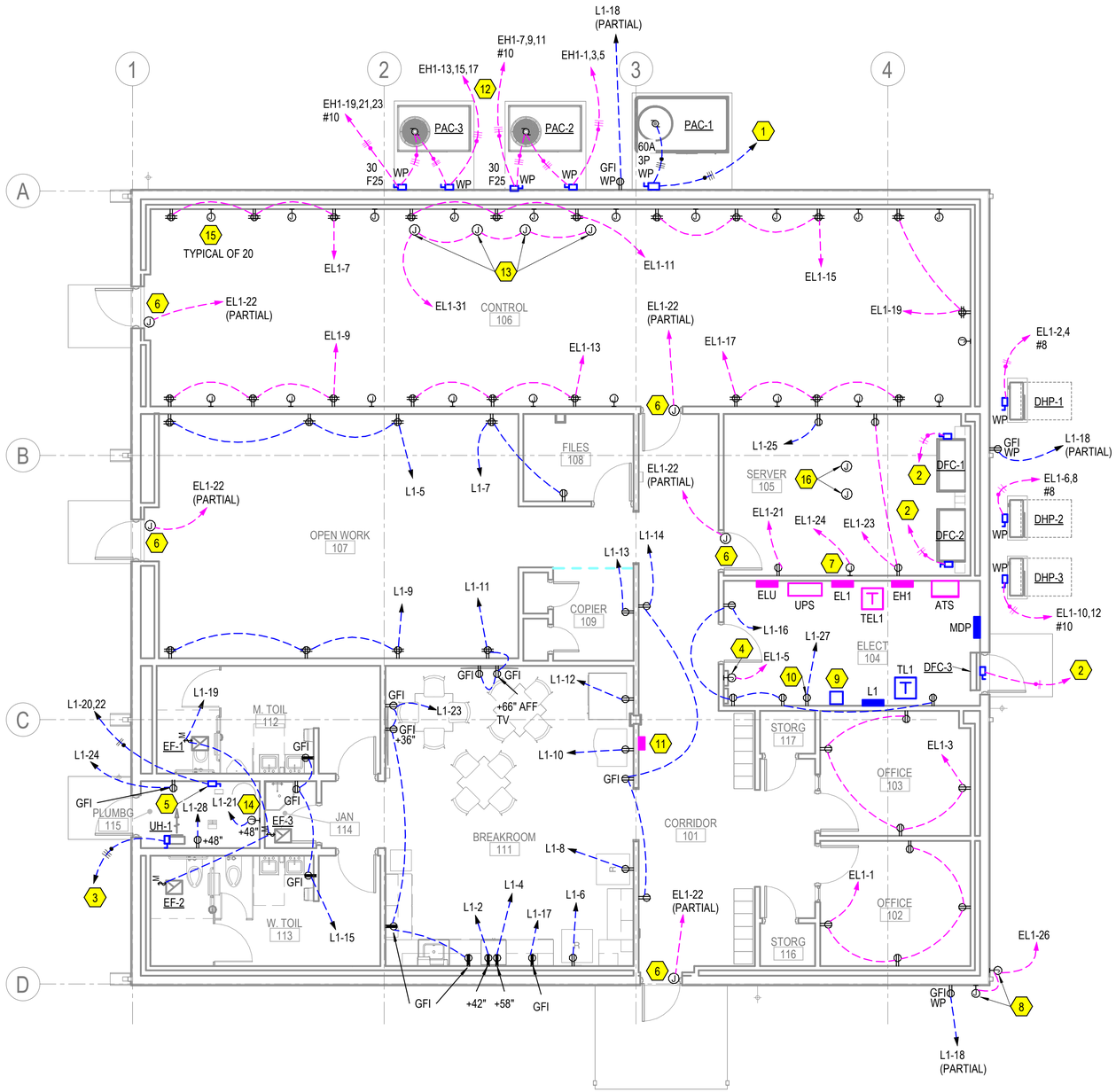
1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title
LIGHTING PLAN

Sheet Number
EL101



1 POWER PLAN

3/16" = 1'-0"

NORTH

0 4 8 16

SCALE : 3/16" = 1'-0"

GENERAL NOTES:

A. CONTRACTOR SHALL WIRE EQUIPMENT PER MANUFACTURER INSTRUCTIONS. ALL WIRING AND CONNECTIONS SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

B. COORDINATE ALL CONDUIT LOCATIONS WITH OTHER DISCIPLINES.

C. POWER INDICATED ON PLANS IS BASIS OF DESIGN. IF DIFFERENT EQUIPMENT IS USED CONTRACTOR SHALL PROVIDE POWER PER MAUNFACTURER'S RECOMMENDATIONS AT NO EXTRA CHARGE.

KEYED NOTES:

1. REFER TO SINGLE LINE FOR MECHANICAL EQUIPMENT CIRCUIT INFORMATION.
2. OUTDOOR POWERS INDOOR UNIT. COORDINATE WITH MECHANICAL.
3. DISCONNECT POWERS ELECTRIC UNIT HEATER UH-1. SEE SINGLE LINE DIAGRAM FOR MECHANICAL EQUIPMENT CIRCUIT INFORMATION. COORDINATE EXACT LOCATION WITH INSTALLER.
4. JUNCTION BOX FOR FACP. COORDINATE EXACT LOCATION WITH INSTALLER.
5. DISCONNECT POWERS EWH-1 WATER HEATER. COORDINATE EXACT LOCATION WITH PLUMBING.
6. JUNCTION BOX FOR POWER CONNECTION TO DOOR HARDWARE/ACCESS CONTROL SYSTEM. MOUNT ABOVE DOOR. COORDINATE EXACT REQUIREMENTS WITH INSTALLER
7. JUNCTION BOX FOR ACCESS CONTROL PANEL POWER. COORDINATE MOUNTING HEIGHT AND EXACT LOCATION WITH INSTALLER.
8. JUNCTION BOX FOR CCTV. COORDINATE MOUNTING HEIGHT AND EXACT LOCATION WITH INSTALLER.
9. FUSE CABINET FOR PAC UNITS. COORDINATE MOUNTING HEIGHT AND EXACT LOCATION WITH INSTALLER.
10. RECEPTACLE FOR ALLERTON DDC PANEL. COORDINATE MOUNTING HEIGHT AND EXACT LOCATION WITH INSTALLER.
11. REMOTE GENERATOR ANNUNCIATOR PANEL. ROUTE 1" CONDUIT TO GENERATOR LOCATION. USE MANUFACTURER RECOMMENED CABLE TYPE AND SIZE.
12. PROVIDE A TOTAL OF 6 15A FUSES FOR OWNER'S MODIFICATIONS TO PAC-2 AND PAC-3.
13. JUNCTION BOX FOR POWER CONNECTION TO MOTORIZED ISOLATION DAMPER. COORDINATE EXACT LOCATION WITH MECHANICAL.
14. JUNCTION BOX TO POWER HWRP-1. COORDINATE EXACT LOCATION WITH INSTALLER.
15. JUNCTION BOX FOR POWER CONNECTION IN PLC CABINET. PROVIDE BACKBOX AND 1" CONDUIT TO ABOVE CEILING. COORDINATE WITH OWNER AND R.L. CONSULTING.
16. POWER CONNECTION FOR R.L. CONSULTING SERVER RACK. COORDINATE LOCATION WITH R.L. CONSULTING.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN, ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9401
MELAS MCELRATH
02-20-2025

Notes

2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number **2024-210**

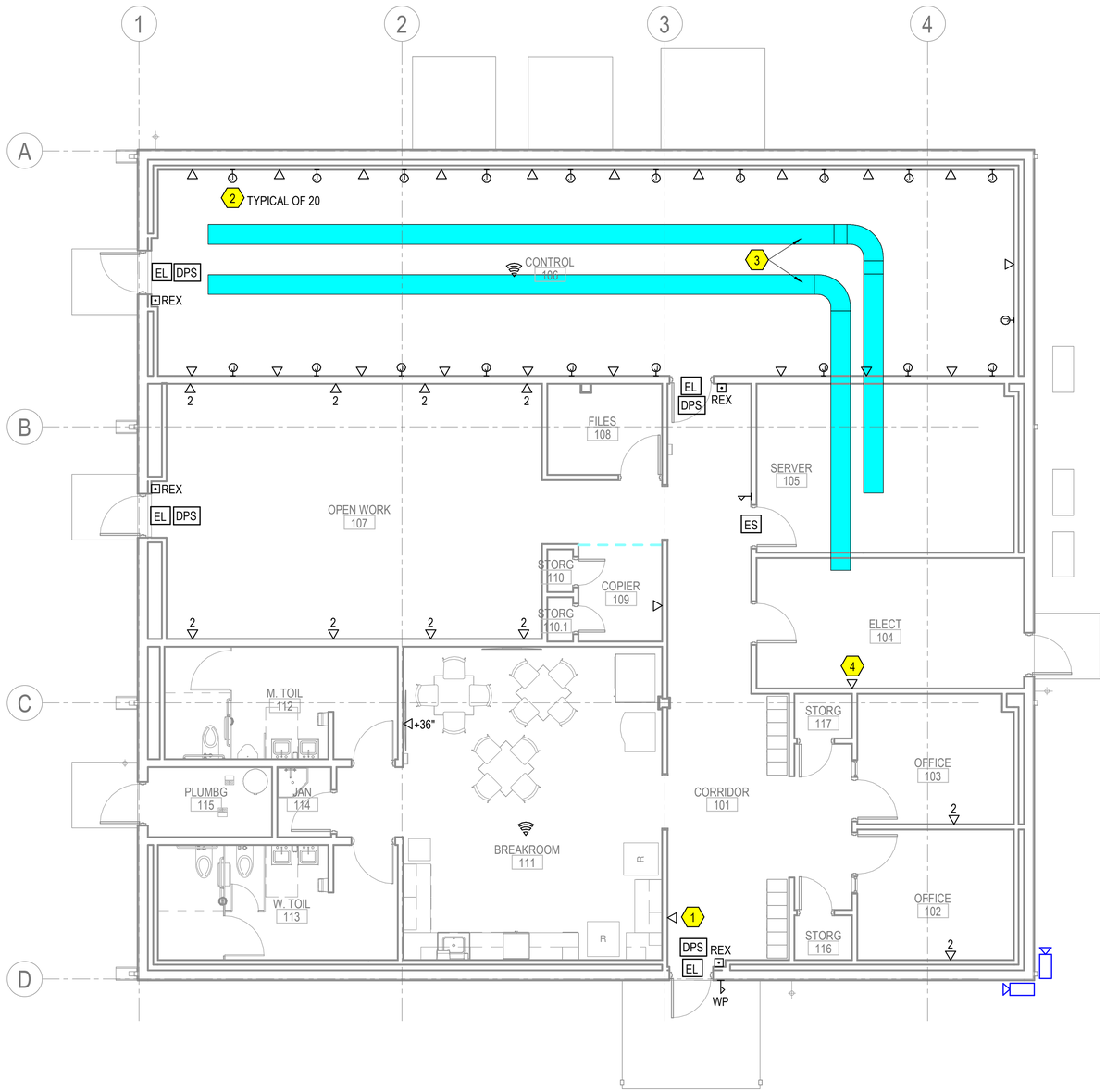
Issue Date **02-20-2025**

Sheet Title

POWER PLAN

Sheet Number

EP101



1 SYSTEMS PLAN

3/16" = 1'-0"

NORTH

0 4 8 16

SCALE : 3/16" = 1'-0"

GENERAL NOTES:

A. REFER TO DETAIL 1, SHEET E-502 FOR ACCESS CONTROL DOOR DETAIL. COORDINATE ALL REQUIREMENTS WITH OWNER.

B. DATA RACKS BY OWNER AND R.L. CONSULTING. COORDINATE LOCATIONS WITH OWNER.

C. PROVIDE DATA CABLING AND PATCH PANELS FOR AEROJET NETWORK. ROUTE CABLING TO AEROJET DATA RACK. COORDINATE LOCATION WITH OWNER.

KEYED NOTES:

1. DATA DROP FOR KEY BOX. COORDINATE EXACT LOCATION WITH OWNER.
2. JUNCTION BOX FOR DATA CONNECTION IN PLC CABINET. PROVIDE BACKBOX AND 1" CONDUIT TO ABOVE CEILING. COORDINATE WITH OWNER AND R.L. CONSULTING.
3. CABLE TRAYS PROVIDED AND INSTALLED BY OTHERS. SHOWN FOR COORDINATION PURPOSES.
4. PROVIDE DATA CONNECTION TO ALLERTON DDC PANEL. COORDINATE WITH MECHANICAL.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS
#5
ARKANSAS ENGINEER

STATE OF ARKANSAS
JAMES S. McELRATH
REGISTERED PROFESSIONAL ENGINEER
No. 9401

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

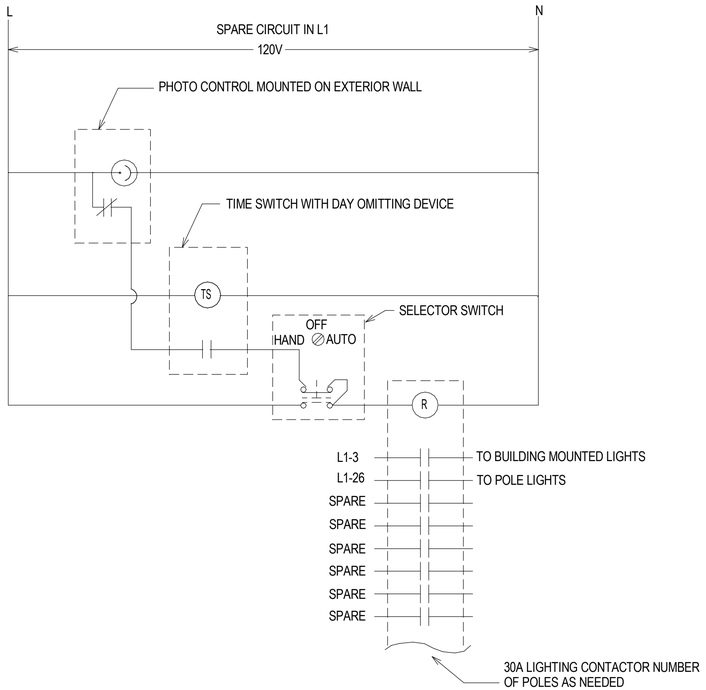
Issue Date **02-20-2025**

Sheet Title

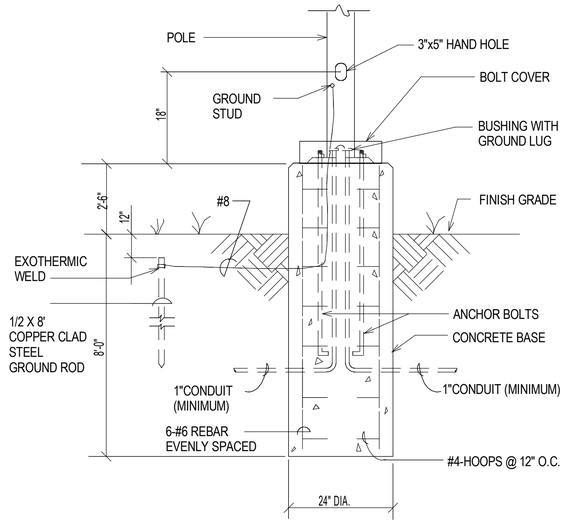
SYSTEMS PLAN

Sheet Number

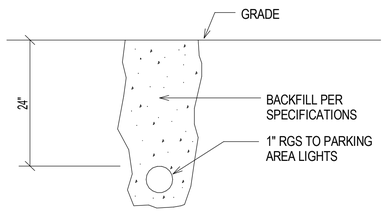
ET101



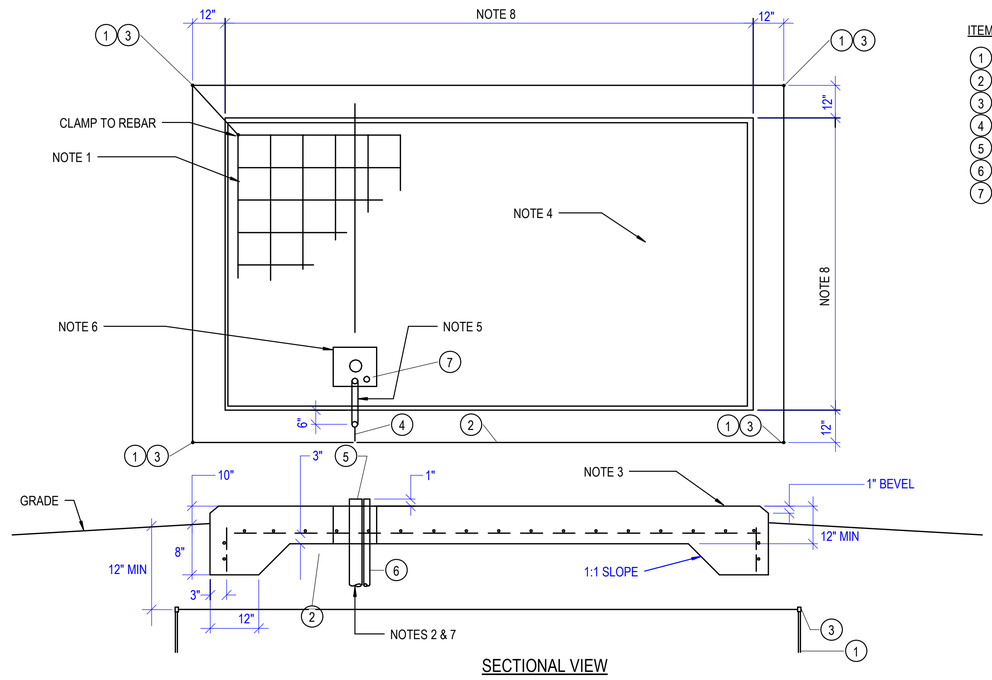
1 TIME SWITCH SCHEMATIC DIAGRAM
N.T.S.



2 LIGHTING POLE BASE TYPE
N.T.S.



3 TYPICAL UNDERGROUND RACEWAY
N.T.S.



SECTIONAL VIEW

ITEM:	DESCRIPTION
1	ROD, GROUND, 3/4" X 10'-0"
2	CONDUCTOR, COPPER #2/0 BARE
3	CLAMP GROUND ROD
4	CONNECTOR, COMPRESSION #2/0 COPPER
5	CONDUIT BUSHING
6	CONDUIT, POWER
7	CONDUIT, CONTROLS

NOTES:

1. REINFORCING #5 BARS 12" C TO C BOTH WAYS.
2. WHEN INSTALLING CONDUIT DISTURB GROUND IN FOUNDATION AREA AS LITTLE AS POSSIBLE.
3. TOP OF FOUNDATION TO BE SMOOTH AND LEVEL. FINAL GRADE SHALL SLOPE AWAY FROM PAD.
4. CONCRETE SHALL BE 2500 PSI AT 28 DAYS.
5. CONTRACTOR TO FURNISH 1" CONDUIT UNDER PAD FOR GROUND WIRE .
6. OPENING SHALL BE PROVIDED FOR CONDUIT AS SHOWN. CONDUIT SHALL NOT BE CONCRETED IN. CONTRACTOR SHALL VERIFY DIMESNTIONS OF OPENING AND REQUIRED LOCATIONS.
7. STUB OUT 2'-0" BEYOND PAD.
8. PAD TO BE 4'-0" GREATER THAN GENERATOR HOUSING. VERIFY WITH EQUIPMENT MANUFACTURER.

4 GENERATOR PAD
N.T.S.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9401
JAMES S. MCELRATH
02-20-2025

Notes

2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

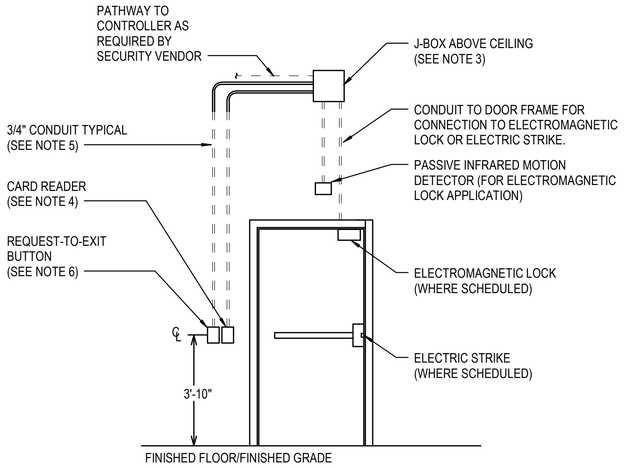
Issue Date **02-20-2025**

Sheet Title

ELECTRICAL DETAILS

Sheet Number

E-501



CARD ACCESS NOTES: (ELECTROMAGNETIC LOCK OR ELECTRIC STRIKE APPLICATIONS)

1. PROVIDE JUNCTION BOXES, BACK BOXES AND CONDUITS WITH PULL WIRE FOR ACCESS CONTROL SYSTEM AT INDICATED DOORS. COORDINATE REQUIREMENTS AT EACH DOOR WITH OWNER'S SECURITY VENDOR, PRIOR TO ROUGH-IN.

2. ALL J-BOXES SHALL BE ACCESSIBLE.

3. MOUNT J-BOX ABOVE CEILING ON SECURE SIDE.

4. INSTALL CARD READER AT 3'-10" ABOVE FINISHED FLOOR ON UN-SECURE SIDE OF DOOR. INSTALL IN MULLION, WHERE REQUIRED.

5. ALL CONDUIT TO BE 3/4" UNLESS SPECIFIED OTHERWISE. CONCEAL CONDUIT IN STUD WALL LOCATIONS. FLEXIBLE CONDUIT MAY BE USED IF NECESSARY IN EXISTING WALLS. SURFACE MOUNT ON CMU AND IMP WALLS. REFER TO SYSTEMS GENERAL NOTE H ON ET001 FOR MORE MOUNTING INFORMATION.

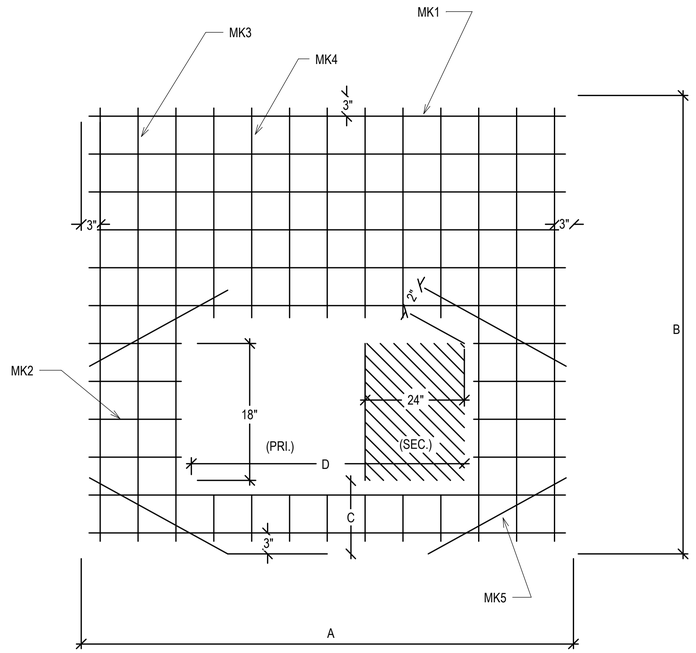
6. PROVIDE REQUEST-TO-EXIT BUTTON (FOR ELECTROMAGNETIC LOCK APPLICATION) MOUNTED 3'-10" ABOVE FINISHED FLOOR ON SECURE SIDE OF DOOR.

7. PROVIDE CONDUIT FOR DOOR POSITION SWITCH.

8. COORDINATE WITH ARCHITECTURAL ELEVATIONS AND DOOR SCHEDULES FOR ACTUAL DOOR APPEARANCE AND LOCATIONS.

1 ACCESS CONTROLLED DOORS

N.T.S.



PAD	TRANSFORMER kVA	DIMENSIONS IN INCHES					REINFORCING BAR DIMENSIONS				
		A	B	C	D	E	MK1	MK2	MK3	MK4	MK5
#1	45, 75, 150, 300, 500	76	62	10	42	6	7 #4, 70"	6 #4, 10"	6 #4, 57"	6 #4, 28"	4 #4, 26"
#2	750, 1000, 1500, 2500	104	100	10	54	8	12 #4, 98"	6 #4, 19"	6 #4, 94"	7 #4, 66"	4 #4, 29"

2 THREE-PHASE TRANSFORMER PAD

N.T.S.

GENERAL NOTES:

1. CONCRETE SHALL BE 3,000 PSI; REBAR SHALL BE SET 6" O.C. EACH WAY AND SECURELY TIED TOGETHER; MINIMUM 2" CONCRETE COVER OVER REBAR.

2. PAD SHALL BE CONSTRUCTED ON LEVEL, WELL COMPACTED SOIL TO AVOID SETTLING.

3. LOCATION AND ORIENTATION OF PAD, AND PLACEMENT OF CONDUIT STUB-UPS MUST BE APPROVED BY COOPERATIVE PRIOR TO CONSTRUCTION.

4. MINIMUM OF 10' OF CLEAR AREA TO THE FRONT AND 3' OF CLEAR AREA TO THE BACK AND SIDES OF THE TRANSFORMER REQUIRED.

5. TRANSFORMER SHALL NOT BE LOCATED IN THE EXHAUST AREA OF RADIATORS, BUILDING VENTS, AC CONDENSERS, OR OTHER HEAT PRODUCING EQUIPMENT.

6. THE EDGE OF THE PAD MUST BE WITHIN 10' OF A PARKING AREA, DRIVE, OR OTHER AREA WHICH IS READILY ACCESSIBLE TO HEAVY TRUCKS TO FACILITATE DELIVERY AND MAINTENANCE OF THE TRANSFORMER.

7. IF THE TRANSFORMER IS LOCATED WITHIN 5' OF A PARKING LOT, LOADING AREA, DRIVEWAY, ETC., STEEL POSTS MUST BE SET AROUND THE TRANSFORMER TO PROTECT IT FROM TRAFFIC. THE POSTS MUST BE LOCATED AT LEAST 5' IN FRONT OF THE PAD SO THEY DO NOT OBSTRUCT THE OPENING OF THE ACCESS DOORS LOCATED ON FRONT OF THE TRANSFORMER. THE POSTS MUST BE AT LEAST 8" DIAMETER CONCRETE-FILLED STEEL PIPE, SET IN CONCRETE TO A DEPTH OF 30", EXTEND 48" ABOVE GRADE, AND SPACED NO MORE THAN 5' APART.

8. COOPERATIVE PROVIDES AND INSTALLS GROUND RODS AND CONNECTIONS FOR TRANSFORMER AT INSTALLATION.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9401
SAMUEL S. MCERTH

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

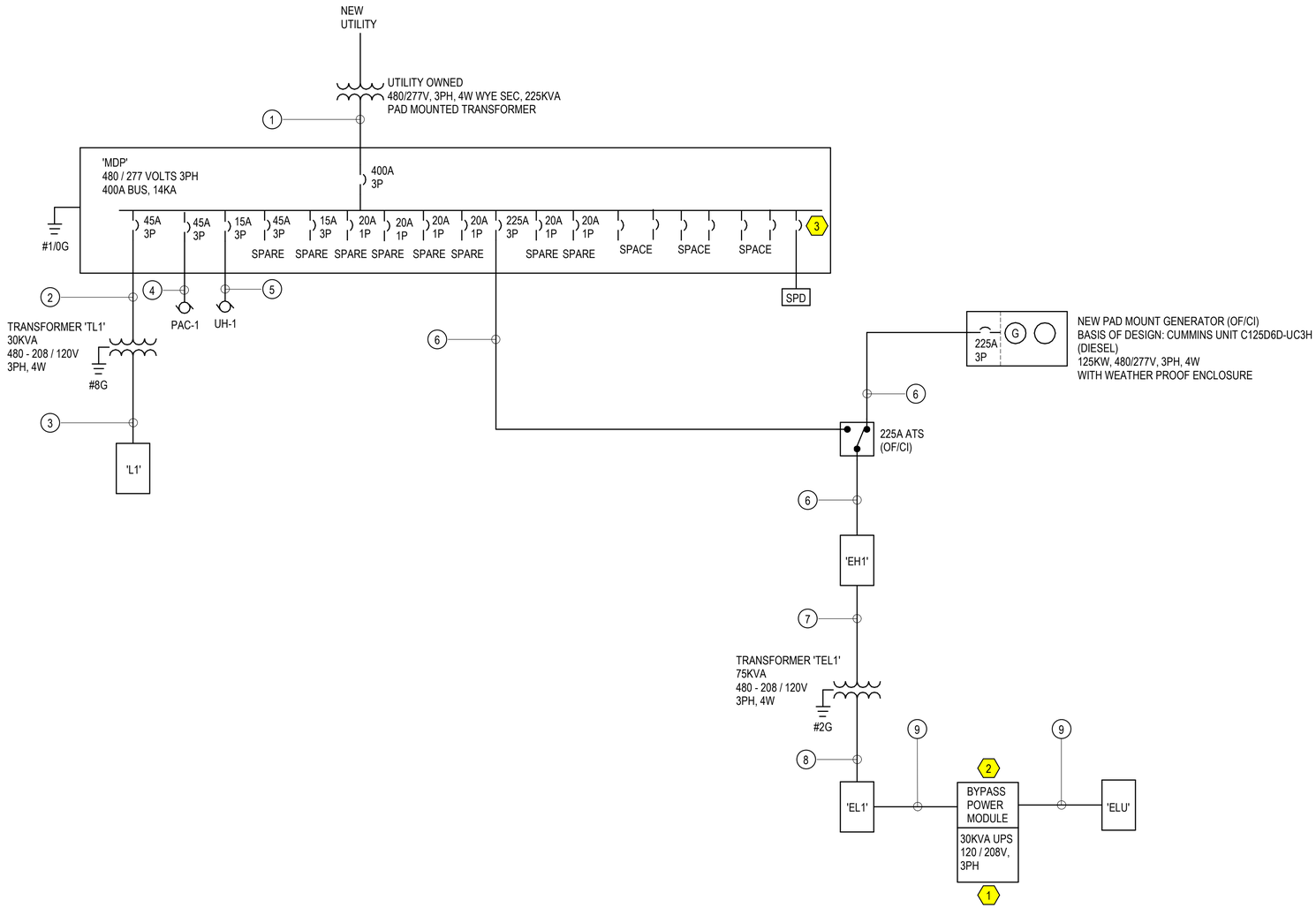
Issue Date **02-20-2025**

Sheet Title

ELECTRICAL DETAILS

Sheet Number

E-502



1 SINGLE-LINE DIAGRAM

N.T.S.

FEEDER SCHEDULE						
NUMBER	SETS	PHASE CONDUCTORS (PER SET)	NEUTRAL CONDUCTORS (PER SET)	GROUND CONDUCTORS (PER SET)	CONDUIT SIZE (PER SET)	NOTES
1	2	3#3/0	1#3/0	-	2.5"	
2	1	3#6	-	1#10	1"	
3	1	3#2	1#2	1#6	1.5"	
4	1	3#6	-	1#10	1"	
5	1	3#12	-	1#12	0.5"	
6	1	3#4/0	1#4/0	1#4	2.5"	
7	1	3#2	-	1#6	1.25"	
8	2	3#1/0	1#1/0	1#4	2"	
9	1	3#1/0	1#1/0	1#6	2"	

GENERAL NOTES-

1. ELECTRICAL CONTRACTOR TO COORDINATE THE MAXIMUM NO. OF SETS OF SERVICE ENTRANCE CONDUCTORS WITH UTILITY AND SWITCHBOARD EQUIPMENT PROVIDER.
2. ELECTRICAL CONTRACTOR TO COORDINATE AND PROVIDE APPROPRIATE LUG SETS AS REQUIRED FOR ALL TERMINATIONS SUITABLE TO CONDUCTOR TYPE, WIRE SPACE, AND ALL OTHER REQUIREMENTS.
3. FIELD CONDITIONS OF ACTUAL INSTALLATION MAY REQUIRE ELECTRICAL CONTRACTOR TO ADJUST CONDUCTOR AND CONDUIT SIZES UPWARD PER NEC REQUIREMENTS FOR DERATINGS, VOLTAGE DROP, ETC.
4. ALL RACEWAY SIZES (EMT/GRSC/PVC 40) ARE TO BE BASED ON THE NEC TABLE 4 (CHAPTER 9), 40% FILL COLUMN.

2 FEEDER SCHEDULE

N.T.S.

KEYED NOTES:

1. VERTIV LIEBERT EXM UPS 30KVA #47SA030DAC40758, 120/208V, 3-PHASE, OF/CI.
2. VERTIV MAINTENANCE BYPASS CABINET #47MBD32CC0R1UWZ, 120/208V, 3-PHASE, OF/CI.
3. CIRCUIT BREAKER AND CONDUCTOR SIZES PER MANUFACTURER'S RECOMMENDATIONS.

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project

AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9401
JAMES S. McBRIDE

02-20-2025

Notes

1. **CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED**
2. **THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.**

Project Number **2024-210**

Issue Date **02-20-2025**

Sheet Title

ELECTRICAL
SINGLE-LINE DIAGRAM

Sheet Number

E-601

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	VOLTAGE	SOURCE	MAXIMUM FIXTURE WATTAGE	DESCRIPTION	KEYED NOTES
A	COOPER METALUX	24FP3140C	UNV	LED	30	2X4 TROFFER	
B	COOPER METALUX	22FP2140C	UNV	LED	21	2X2 TROFFER	
C	HALO	HC605D010-HM60525840-61WDC	UNV	LED	6	6" CAN LIGHT	
P	MCGRAW-EDISON	GALN-SA4C-740-U-T4FT-BZ	UNV	LED	213	SITE LIGHTING MOUNTED ON 25FT POLE	
S	COOPER METALUX	4SNX-31SL-LW-UNV-L840-CD1 WITH AYC-CHAIN/SET-U	UNV	LED	20	4FT LED INDUSTRIAL STRIP WITH FROSTED WIDE LENS	
U	HALO	HU30M-SCTD-18-MB / HU30MUNVMSMB	UNV	LED	7	18" UNDERCABINET LIGHT	
W	LITHONIA LIGHTING	DSXW1LED-P4-40K-70CRI-T2M-MVOLT-SRM-DWHXD	MVOLT	LED	29	EXTERIOR WALL PACK	
WE	LITHONIA LIGHTING	DSXW1LED-P4-40K-70CRI-T2M-MVOLT-SRM-E20WC-DWHXD	MVOLT	LED	29	EXTERIOR WALL PACK	1
X	SURELITES	APC7RG	UNV	LED	5	COMBO EXIT/EMERGENCY LIGHT	1, 2
Z	SURELITES	SELHP100R3	UNV	LED	3	EGRESS LIGHT	

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. PROVIDE FLANGE KIT AS REQUIRED

LIGHTING FIXTURE SCHEDULE KEYED NOTES:

1. BATTERY BACK UP.

2. ARROWS AND FACES PER PLANS

PANEL MDP — MOUNTING SURFACE — LOCATION ELECT 104 — MAIN BUS RATING 400 AMPS
MAIN CB — POLES 3 — FRAME 400 — TRIP 400
VOLTAGE 480Y/277 — PHASE 3 — MINIMUM BREAKER INTERRUPTING CAPACITY 14KA
ACCESSORIES SN + EQP GND + SPD

DEVICE			BRANCH CIRCUIT			NO	PHASE LOAD VOLT AMPS			NO	BRANCH CIRCUIT			DEVICE		
AMPS TRIP	POLES	TYPE	LOAD	DESCRIPTION	VOLT AMPS		A	B	C		VOLT AMPS	DESCRIPTION	LOAD	TYPE	POLES	AMPS TRIP
45	3		H	PAC-1	11917	1	13302			2	1385	UH-1	H		3	15
-	-		H	-	11917	3		13302		4	1385	-	H		-	-
-	-		H	-	11917	5			13302	6	1385	-	H		-	-
225	3		M	EH1	45748	7	55748			8	10000	30KVA TL1 XFMR	M		3	45
-	-		M	EH1	45748	9		55748		10	10000	-	M		-	-
-	-		M	EH1	45748	11			55748	12	10000	-	M		-	-
45	3			SPARE		13				14		SPARE			3	15
-	-			-		15				16		-			-	-
-	-			-		17				18		-			-	-
20	1			SPARE		19				20		SPARE			1	20
20	1			SPARE		21				22		SPARE			1	20
20	1			SPARE		23				24		SPARE			1	20
20	1			SPACE		25				26		SPACE			1	20
20	1			SPACE		27				28		SPACE			1	20
20	1			SPACE		29				30		SPACE			1	20
					TOTAL		69050	69050	69050		207	KVA (CONNECTED)	249	AMPS (CONNECTED)		
											207	KVA (DEMAND)	249	AMPS (DEMAND)		

PANEL SCHEDULE LEGEND

MAIN
CB = CIRCUIT BREAKER
LO = LUGS ONLY

BRANCH CIRCUIT BREAKER TYPE
A = ARC FAULT CIRCUIT INTERRUPTER
G = GROUND FAULT CIRCUIT INTERRUPTER
S = SHUNT TRIP
V = VARIABLE (ADJUSTABLE TRIP)
E = EQUIPMENT GROUND FAULT PROTECTION
L = LOCKOUT DEVICE
O = LOCK ON DEVICE OR BREAKER
R = RED MARKING ON BREAKER

LOAD TYPE
L = LIGHTING
R = RECEPTACLE
H = HVAC
M = MISCELLANEOUS
V = VARIOUS
S = SUBFED

MISCELLANEOUS
SN = SOLID NEUTRAL
EQP GND = EQUIPMENT GROUND BUS
IG = INSULATED GROUND BUS
SPD = SURGE PROTECTIVE DEVICE
AIC = AMPERE INTERRUPTING CAPACITY
KAIC = KILO AMPERE INTERRUPTING CAPACITY

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp
CERTIFICATE OF AUTHORIZATION — CROMWELL ARCHITECTS/ ENGINEERS #5 — ARKANSAS ENGINEER
STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 9401 — SAMUEL S. MCELRATH
02-20-2025

Notes
1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number 2024-210
Issue Date 02-20-2025
Sheet Title ELECTRICAL SCHEDULES
Sheet Number E-602

PANEL L1 | MOUNTING SURFACE | LOCATION ELECT 104 | MAIN BUS RATING 100 AMPS
MAIN CB | POLES 3 | FRAME 100 | TRIP 100
VOLTAGE 208Y/120 | PHASE 3 | MINIMUM BREAKER INTERRUPTING CAPACITY 10KA
ACCESSORIES SN + EQP GND

DEVICE			BRANCH CIRCUIT				PHASE LOAD VOLT AMPS				BRANCH CIRCUIT				DEVICE		
AMPS TRIP	POLES	TYPE	LOAD	DESCRIPTION	VOLT AMPS	NO	A	B	C	NO	VOLT AMPS	DESCRIPTION	LOAD	TYPE	POLES	AMPS TRIP
20	1		L	101 / 107 - 117 LTG	898	1	1998			2	1100	MICROWAVE BRK RM 111	R	G	1	20
20	1		L	EXT LTG	290	3		1390		4	1100	MICROWAVE BRK RM 111	R	G	1	20
20	1		R	OPEN WORK RECPTS	1080	5			2080	6	1000	REFRIG BRK RM 111	R	G	1	20
20	1		R	OPEN WORK RECPTS	1080	7	2080			8	1000	REFRIG BRK RM 111	R	G	1	20
20	1		R	OPEN WORK RECPTS	1080	9		2080		10	1000	VENDING BRK RM 111	R	G	1	20
20	1		R	BRK RM RECPT	720	11			1720	12	1000	VENDING BRK RM 111	R	G	1	20
20	1		R	COPIER	1000	13	1540			14	540	CORRIDOR RECPT	R		1	20
20	1		R	112 / 113 / 114 RECPT	540	15		1260		16	720	ELECT 104 RECPT	R		1	20
20	1		R	COFFEE MAKER BRK 111	1500	17			2040	18	540	EXTERIOR RECPTS	R		1	20
20	1		H	EXHAUST FANS	294	19	1794			20	1500	EWH-1	M	G	2	20
20	1	G	M	HWRP-1	1680	21		3180		22	1500	-	M		-	-
20	1		R	BRK RM 111 RECPTS	720	23			900	24	180	MAINT RECPT RM 115	R		1	20
20	1		R	SERVER RECPT	180	25	606			26	426	PARKING LOT LIGHTING	L		1	20
20	1		R	ALLERTON DDC PNL REC	180	27		680		28	500	WS-1 RECPT	M	G	1	20
20	1			SPARE		29				30		SPARE			1	20
20	1			SPARE		31				32		SPARE			1	20
20	1			SPARE		33				34		SPARE			1	20
				SPACE		35				36		SPACE				
				SPACE		37				38		SPACE				
				SPACE		39				40		SPACE				
				SPACE		41				42		SPACE				
				TOTAL			8018	8590	6740		23	KVA (CONNECTED)			65	AMPS (CONNECTED)
											20	KVA (DEMAND)			56	AMPS (DEMAND)

PANEL EH1 | MOUNTING SURFACE | LOCATION ELECT 104 | MAIN BUS RATING 225 AMPS
MAIN CB | POLES 3 | FRAME 225 | TRIP 225
VOLTAGE 480Y/277 | PHASE 3 | MINIMUM BREAKER INTERRUPTING CAPACITY 14KA
ACCESSORIES SN + EQP GND

DEVICE			BRANCH CIRCUIT				PHASE LOAD VOLT AMPS				BRANCH CIRCUIT				DEVICE		
AMPS TRIP	POLES	TYPE	LOAD	DESCRIPTION	VOLT AMPS	NO	A	B	C	NO	VOLT AMPS	DESCRIPTION	LOAD	TYPE	POLES	AMPS TRIP
20	3		H	PAC-2 HEATING	4000	1	29000			2	25000	75KVA TEL1 XFMR	M		3	125
-	-		H	-	4000	3		29000		4	25000	-	M		-	-
-	-		H	-	4000	5			29000	6	25000	-	M		-	-
25	3		H	PAC-2	6374	7	6374			8		SPARE			3	20
-	-		H	-	6374	9		6374		10		-			-	-
-	-		H	-	6374	11			6374	12		-			-	-
20	3		H	PAC-3 HEATING	4000	13	4000			14		SPARE			3	20
-	-		H		4000	15		4000		16		-			-	-
-	-		H		4000	17			4000	18		-			-	-
25	3		H	PAC-3	6374	19	6374			20		SPARE			3	25
-	-		H	-	6374	21		6374		22		-			-	-
-	-		H	-	6374	23			6374	24		-			-	-
20	1			SPARE		25				26		SPARE			3	25
20	1			SPARE		27				28		-			-	-
20	1			SPARE		29				30		-			-	-
20	1			SPARE		31				32		SPARE			1	20
20	1			SPARE		33				34		SPARE			1	20
				SPACE		35				36		SPACE				
				SPACE		37				38		SPACE				
				SPACE		39				40		SPACE				
				SPACE		41				42		SPACE				
				TOTAL			45748	45748	45748		137	KVA (CONNECTED)			165	AMPS (CONNECTED)
											137	KVA (DEMAND)			165	AMPS (DEMAND)

PANEL EL1 | MOUNTING SURFACE | LOCATION ELECT 104 | MAIN BUS RATING 225 AMPS
MAIN LO | POLES | FRAME | TRIP
VOLTAGE 208Y/120 | PHASE 3 | MINIMUM BREAKER INTERRUPTING CAPACITY 10KA
ACCESSORIES SN + EQP GND

DEVICE			BRANCH CIRCUIT				PHASE LOAD VOLT AMPS				BRANCH CIRCUIT				DEVICE		
AMPS TRIP	POLES	TYPE	LOAD	DESCRIPTION	VOLT AMPS	NO	A	B	C	NO	VOLT AMPS	DESCRIPTION	LOAD	TYPE	POLES	AMPS TRIP
20	1		R	OFFICE 102 RECPT	720	1	3008			2	2288	DFC-1 / DHP-1	H		2	35
20	1		R	OFFICE 103 RECPT	720	3		3008		4	2288	-	H		-	-
20	1	L	M	FACP	1000	5			3288	6	2288	DFC-2 / DHP-2	H		2	35
20	1		R	CONTROL 106 RECPTS	1080	7	3368			8	2288	-	H		-	-
20	1		R	CONTROL 106 RECPTS	1080	9		3056		10	1976	DFC-3 / DHP-3	H		2	25
20	1		R	CONTROL 106 RECPTS	1080	11			3056	12	1976	-	H		-	-
20	1		R	CONTROL 106 RECPTS	1080	13	11080			14	10000	30 KVA UPS	M		3	150
20	1		R	CONTROL 106 RECPTS	1080	15		11080		16	10000	-	M		-	-
20	1		R	CONTROL 106 RECPTS	1080	17			11080	18	10000	-	M		-	-
20	1		R	CONTROL 106 RECPTS	720	19	1520			20	800	102 - 106 LTG	L		1	20
20	1		R	SERVER 105 RECPTS	180	21		680		22	500	ACCESS CTRL/HARDWARE	M		1	20
20	1		R	SERVER 105 RECPTS	360	23			1360	24	1000	ACCESS CONTROL PNL	M		1	20
20	1		M	GENSET BATTERY CHARG	1200	25	1300			26	100	CCTV	M		1	15
20	2		M	BLOCK HEATER	800	27		800		28		SPARE			2	35
20	-		M	-	800	29			800	30		-			-	-
20	1		H	ISOLATION DAMPERS	100	31	100			32		SPARE			2	25
20	1			SPARE		33				34		-			-	-
				SPACE		35				36		SPACE				
				SPACE		37				38		SPACE				
				SPACE		39				40		SPACE				
				SPACE		41				42		SPACE				
				TOTAL			20376	18624	19584		59	KVA (CONNECTED)			163	AMPS (CONNECTED)
											59	KVA (DEMAND)			163	AMPS (DEMAND)

PANEL ELU | MOUNTING SURFACE | LOCATION ELECT 104 | MAIN BUS RATING 150 AMPS
MAIN CB | POLES 3 | FRAME 150 | TRIP 150
VOLTAGE 208Y/120 | PHASE 3 | MINIMUM BREAKER INTERRUPTING CAPACITY 10KA
ACCESSORIES SN + EQP GND

DEVICE			BRANCH CIRCUIT				PHASE LOAD VOLT AMPS				BRANCH CIRCUIT				DEVICE		
AMPS TRIP	POLES	TYPE	LOAD	DESCRIPTION	VOLT AMPS	NO	A	B	C	NO	VOLT AMPS	DESCRIPTION	LOAD	TYPE	POLES	AMPS TRIP
30	2			SERVER APU 1		1				2		GRINDER 57 PLC 3			1	20
-	-			-		3				4		DRYER 58 PLC 3			1	20
20	2			SERVER APU 2		5				6		MIXER 70 PLC 3			1	20
-	-			-		7				8		GRINDER 74 PLC 3			1	20
20	1			GRINDER 20 PLC 3		9				10		MIXER 114 PLC 3			1	20
20	1			MIXER 22 PLC 3		11				12		SPARE PLC 3			1	20
20	1			MIXER 23 PLC 3		13				14		SPARE PLC 3			1	20
20	1			MIXER 24 PLC 3		15				16		SPARE PLC 3			1	20
20	1			MIXER 25 PLC 3		17				18		SPARE PLC 3			1	20
20	1			GRINDER 27 PLC 3		19				20		SPARE PLC 3			1	20
20	1			GRINDER 35 PLC 3		21				22		SPARE PLC 3			1	20
20	1			MIXER 51 PLC 3		23				24		SPARE			1	20
20	1			SPARGING 56 PLC 3		25				26		SPARE			1	20
30	2			SPARE		27				28		SPARE			2	30
-	-			-		29				30		-			-	-
30	2			SPARE		31				32		SPARE			2	30
-	-			-		33				34		-			-	-
20	1			SPARE		35				36		SPARE			1	20
				SPACE		37				38		SPACE				
				SPACE		39				40		SPACE				
				SPACE		41				42		SPACE				
				TOTAL			0	0	0		0	KVA (CONNECTED)			0	AMPS (CONNECTED)
											0	KVA (DEMAND)			0	AMPS (DEMAND)

PANEL SCHEDULE LEGEND

MAIN
CB = CIRCUIT BREAKER
LO = LUGS ONLY

BRANCH CIRCUIT BREAKER TYPE
A = ARC FAULT CIRCUIT INTERRUPTER
G = GROUND FAULT CIRCUIT INTERRUPTER
S = SHUNT TRIP
V = VARIABLE (ADJUSTABLE TRIP)
E = EQUIPMENT GROUND FAULT PROTECTION
L = LOCKOUT DEVICE
O = LOCK ON DEVICE OR BREAKER
R = RED MARKING ON BREAKER

LOAD TYPE
L = LIGHTING
R = RECEPTACLE
H = HVAC
M = MISCELLANEOUS
V = VARIOUS
S = SUBFED

MISCELLANEOUS
SN = SOLID NEUTRAL
EQP GND = EQUIPMENT GROUND BUS
IG = INSULATED GROUND BUS
SPD = SURGE PROTECTIVE DEVICE
AIC = AMPERE INTERRUPTING CAPACITY
KAIC = KILO AMPERE INTERRUPTING CAPACITY

CROMWELL
1300 East 6th Street Little Rock, AR 72202
501.372.2900 cromwell.com

Project
AEROJET ROCKETDYNE
A17 CONTROL BUILDING
EAST CAMDEN,
ARKANSAS

Design Phase
CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp
CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS-ENGINEER
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9401
JAMES S. MCELRATH
02-20-2025

Notes
1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number 2024-210
Issue Date 02-20-2025
Sheet Title ELECTRICAL SCHEDULES
Sheet Number E-603