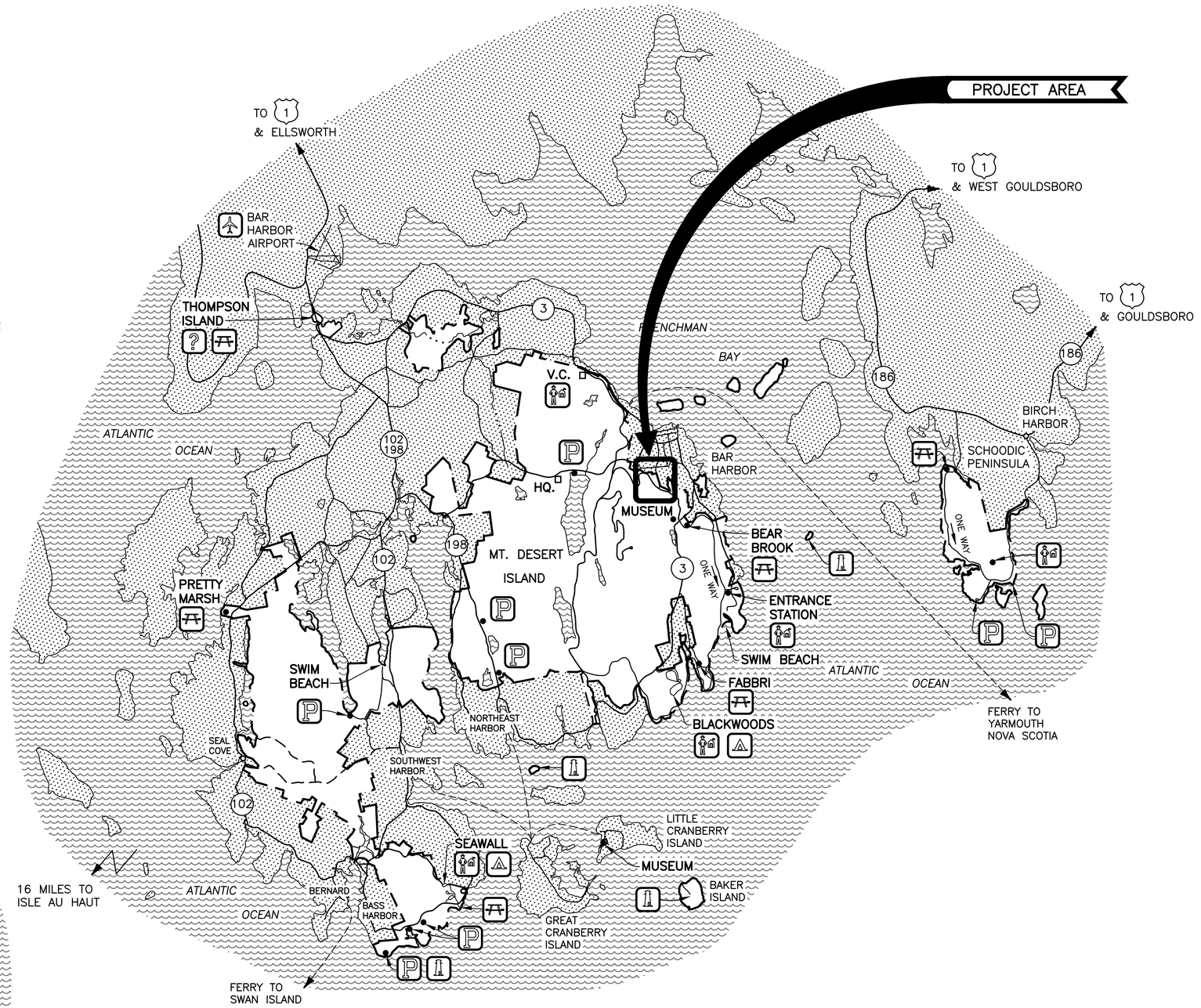
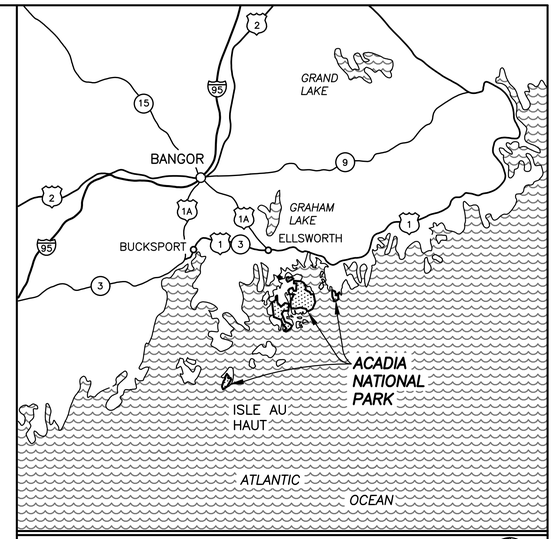
LEGEND

- PARK BOUNDARY
- COUNTY LINE
- PAVED ROAD
- UNPAVED ROAD
- FERRY ROUTE
- RIVER
- V.C. — VISITOR CENTER
- HQ. — PARK HEADQUARTERS
- RANGER STATION
- INFORMATION CENTER
- PARKING
- PICNIC AREA
- CAMPGROUND
- LIGHTHOUSE
- AIRPORT





ACADIA NATIONAL PARK

SCALE OF MILES
1 0 1 2 3
1 0 1 2 3 4
SCALE OF KILOMETERS

A/E FIRM — A/E CONTRACT NUMBER		
PRIME/STRUCTURAL:	ARCHITECT:	MEP:
HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	DGC ELLSWORTH, ME	CARPENTER ASSOC. OLD TOWN, ME
CIVIL:	LANDSCAPE:	
VHB	COPLON ASSOC.	
SOUTH PORTLAND, ME	MT. DESERT, ME	

Mark	Sheet	REVISION	Date

QUALITY DESIGN CERTIFICATION

- ☐ Prepared in Accordance with Design Development (Title I) Drawing No.
  OR
- ☐ Variance from Design Development (Title I) Approved by Superintendent on Date
  OR
- ☐ Construction Drawing Not Preceded by Design Development (Title I)

Project Manager Date

FINAL CONSTRUCTION DRAWINGS

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
DENVER SERVICE CENTER

TITLE OF DRAWING
HARDEN FARM EMPLOYEE HOUSING PHASE 1C

LOCATION WITHIN PARK
KEBO STREET
NAME OF PARK
ACADIA NATIONAL PARK

REGION: NORTHEAST
COUNTY: HANCOCK
STATE: MAINE

DRAWING NO. 123 60025A
PMIS/PKG NO. 309000
SHEET 1 OF 131

CIVIL ENGINEERING:
VHB
SHEETS 1 TO 20

LANDSCAPE ARCHITECTURE:
COPLON ASSOCIATES
SHEETS 21 TO 22

BUILDING ARCHITECTURE:
DGC ARCHITECTS
SHEETS 23 TO 39
SHEETS 74 TO 93

STRUCTURAL ENGINEERING:
HEDEFINE ENGINEERING & DESIGN, INC.
SHEETS 40 TO 47
SHEETS 94 TO 101

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION ENGINEERING:
CARPENTER ASSOCIATES
SHEETS 48 TO 73
SHEETS 102 TO 131

BASIC DATA: BOUNDARY MAP 123/80,011 5/86; USGS TOPO MAP 1971; PARK MINI FOLDER; COVER SHEET REVISED & REDRAWN 1/94. UPDATED 10/98. SGS.

SHEET INDEX

SHEET	SUBSHEET	TITLE OF SHEET
1		COVER
2	C1A	SHEET INDEX
3	C1B	LEGEND & ABBREVIATIONS
4	C1C	GENERAL NOTES
5	C1D	PHASING PLAN & LOCATION MAP
6	C2	EXISTING CONDITIONS
7	C3A	SITE PREPARATION NOTES
8	C3B	SITE PREPARATION PLAN
9	C4	SITE LAYOUT AND MATERIALS PLAN
10	C5A	SITE UTILITY LAYOUT PLAN
11	C5B	SITE LIGHTING PLAN
12	C6	SITE GRADING AND DRAINAGE PLAN
13	C7	EROSION & SEDIMENTATION CONTROL PLAN
14	C8	DETAILS (1 OF 7)
15	C9	DETAILS (2 OF 7)
16	C10	DETAILS (3 OF 7)
17	C11	DETAILS (4 OF 7)
18	C12	DETAILS (5 OF 7)
19	C13	DETAILS (6 OF 7)
20	C14	DETAILS (7 OF 7)
21	L1	SITE PLANTING PLAN (1 OF 2)
22	L2	SITE PLANTING PLAN (2 OF 2)
6-PLEX FLAT		
23	G0	COVER SHEET
24	G1	ABBREVIATIONS, SYMBOLS NOTES, & KEYNOTES
25	G2	CONSTRUCTION ASSEMBLIES
26	G3	UNIT PLAN – INTERIOR & EXTERIOR
27	A1	CODE SUMMARY SHEET
28	A2	SCHEDULES
29	A3	FLOOR PLAN
30	A4	ROOF PLAN
31	A5	BUILDING ELEVATIONS SOUTH & WEST
32	A6	BUILDING ELEVATIONS NORTH & EAST
33	A7	BUILDING SECTION
34	A8	WALL SECTIONS
35	A9	REFLECTED CEILING PLAN
36	A10	EXTERIOR DETAILS
37	A11	EXTERIOR DETAILS
38	A12	ROOF DETAILS
39	A13	INTERIOR DETAILS
40	S0	GENERAL NOTES
41	S1	LOAD MAPS & ADDITIONAL NOTES
42	S2A	FOUNDATION PLAN WEST
43	S2B	FOUNDATION PLAN EAST
44	S3A	ROOF FRAMING PLAN WEST
45	S3B	ROOF FRAMING PLAN EAST
46	S4	FOUNDATION DETAILS
47	S5	FRAMING DETAILS
48	M1	MECHANICAL LEGEND
49	M2	MECHANICAL DUCTWORK PLAN
50	M3	MECHANICAL DUCTWORK ATTIC PLAN
51	M4	MECHANICAL PIPING PLAN
52	M5	MECHANICAL DETAILS
53	M6	MECHANICAL DETAILS
54	M7	MECHANICAL SCHEDULES
55	E1	ELECTRICAL LEGEND
56	E2	ELECTRICAL POWER AND DATA PLAN
57	E3	ELECTRICAL POWER AND DATA ATTIC PLAN
58	E4	ELECTRIC DIAGRAM AND LOAD CALCULATIONS
59	E5	ELECTRICAL SCHEDULES
60	E6	ELECTRICAL LIGHTING PLAN
61	E7	ELECTRICAL LIGHTING ATTIC PLAN
62	P1	PLUMBING LEGEND
63	P2	PLUMBING SANITARY AND VENTING PLAN
64	P3	BELOW SLAB RADON PIPING PLAN
65	P4	DOMESTIC PLUMBING PLAN
66	P5	PLUMBING SCHEDULES
67	P6	PLUMBING DETAILS
68	FP1	FIRE PROTECTION LEGEND
69	FP2	FIRE PROTECTION ALARM LEGEND
70	FP3	FIRE PROTECTION PLAN
71	FP4	FIRE PROTECTION ATTIC PLAN
72	FP5	SPRINKLER PLAN
73	FP6	SPRINKLER ATTIC PLAN

SHEET	SUBSHEET	TITLE OF SHEET
8-BEDROOM DORM		
74	G0	COVER SHEET
75	G1	ABBREVIATIONS, SYMBOLS NOTES, & KEYNOTES
76	G2	CONSTRUCTION ASSEMBLIES
77	A1	CODE SUMMARY
78	A2	SCHEDULES
79	A3	FLOOR PLAN – WEST
80	A4	FLOOR PLAN – EAST
81	A5	ROOF PLAN – WEST
82	A6	ROOF PLAN – EAST
83	A7	BUILDING ELEVATIONS WEST
84	A8	BUILDING ELEVATIONS EAST
85	A9	BUILDING SECTIONS
86	A10	WALL SECTIONS
87	A11	ENLARGED PLANS & INTERIOR ELEVATIONS
88	A12	REFLECTED CEILING PLAN – WEST
89	A13	REFLECTED CEILING PLAN – EAST
90	A14	EXTERIOR DETAILS
91	A15	EXTERIOR DETAILS
92	A16	ROOF DETAIL
93	A17	INTERIOR DETAILS
94	S0	GENERAL NOTES
95	S1	LOAD MAPS & NOTES
96	S2A	FOUNDATION PLAN WEST
97	S2B	FOUNDATION PLAN EAST
98	S3A	ROOF FRAMING PLAN WEST
99	S3B	ROOF FRAMING PLAN EAST
100	S4	FOUNDATION DETAILS
101	S5	FRAMING DETAILS
102	M1	MECHANICAL LEGEND
103	M2	MECHANICAL DUCTWORK PLAN – WEST
104	M3	MECHANICAL DUCTWORK PLAN – EAST
105	M4	MECHANICAL PIPING PLAN – WEST
106	M5	MECHANICAL PIPING PLAN – EAST
107	M6	MECHANICAL DETAILS
108	M7	MECHANICAL DETAILS
109	M8	MECHANICAL SCHEDULES
110	M9	MECHANICAL SCHEDULES
111	E1	ELECTRICAL LEGEND
112	E2	ELECTRICAL POWER AND DATA PLAN – WEST
113	E3	ELECTRICAL POWER AND DATA PLAN – EAST
114	E4	ELECTRIC DIAGRAMS AND LOAD CALCULATIONS
115	E5	ELECTRICAL SCHEDULES
116	E6	ELECTRICAL LIGHTING PLAN – WEST
117	E7	ELECTRICAL LIGHTING PLAN – EAST
118	P1	PLUMBING LEGEND
119	P2	PLUMBING SANITARY AND VENTING PLAN – WEST
120	P3	PLUMBING SANITARY AND VENTING PLAN – EAST
121	P4	BELOW SLAB RADON PIPING PLAN
122	P5	DOMESTIC PLUMBING PLAN – WEST
123	P6	DOMESTIC PLUMBING PLAN – EAST
124	P7	PLUMBING SCHEDULES
125	P8	PLUMBING DETAILS
126	FP1	FIRE PROTECTION LEGEND
127	FP2	FIRE PROTECTION ALARM LEGEND
128	FP3	FIRE PROTECTION PLAN – WEST
129	FP4	FIRE PROTECTION PLAN – EAST
130	FP5	SPRINKLER PLAN – WEST
131	FP6	SPRINKLER PLAN – EAST

2/27/2025 12:02 JPIRAINO R2023 \\vhb.com\gbl\proj\portland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C1AB_SHEET_INDEX & LEGEND.dwg

STATE OF MAINE DAVID A. SENUS 10791 LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM CADD JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C1A	TITLE OF SHEET SHEET INDEX HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 2 OF 131

LEGEND

EXIST.	PROP.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT–OF–WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF		BORDERING LAND SUBJECT TO FLOODING
BZ		WETLAND BUFFER ZONE
NDZ		NO DISTURB ZONE
200'RA		200' RIVERFRONT AREA
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
	CG	CURB AND GUTTER
CC	ECC	EXTRUDED CONCRETE CURB
CC	MCC	MONOLITHIC CONCRETE CURB
CC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
	LOW	LIMIT OF WORK
	XXXXXX	REMOVE AND DISPOSE
		BUILDING
	TAG	BUILDING ENTRANCE
	TAG	LOADING DOCK
		BOLLARD
ID	ID	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR

EXIST.	PROP.	
10	10	PARKING COUNT
	C10	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN–ACCESSIBLE PARKING
		CONCRETE
		HEAVY DUTY PAVEMENT
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
		WETLAND AREA
		SEPTIC SEASONAL AREA
TC 27.35 ×	TC 27.35 ×	TOP OF CURB ELEVATION
BC 26.85 ×	BC 26.85 ×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
45.0 TW 38.5 BW ×	45.0 TW 38.5 BW ×	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
D		DRAIN MANHOLE CONCENTRIC
D		DRAIN MANHOLE ECCENTRIC
TD		TRENCH DRAIN
		PLUG OR CAP
		CLEANOUT
		FLARED END SECTION
		HEADWALL
S SMH		SEWER MANHOLE CONCENTRIC
S		SEWER MANHOLE ECCENTRIC

EXIST.	PROP.	
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
TSV	TSV	TAPPING SLEEVE, VALVE & BOX
		FIRE DEPARTMENT CONNECTION
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GG	GG	GAS GATE
GM	GM	GAS METER
E	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
T	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH		HAND HOLE
PB	PB	PULL BOX
HS		HEADSTONES
		TRAFFIC SIGN
		GATE
		MATCHLINE

ABBREVIATIONS

GENERAL	
ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
INT	INTERSECTION
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL
VGC	VERTICAL GRANITE CURB

UTILITY	
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

2/27/2025 12:02 JPIRANO R2028 \\vhb.com\gbl\proj\sportlond\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C1AB_SHEET_INDEX & LEGEND.dwg

STATE OF MAINE DAVID A. SENUS 10791 PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C1B	TITLE OF SHEET LEGEND & ABBREVIATIONS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 3 OF 131

GENERAL NOTES

GENERAL

1. CONTRACTOR SHALL NOTIFY "DIG–SAFE" (811 OR 888–344–7233) AT LEAST 72 HOURS NOT INCLUDING SATURDAYS, SUNDAYS AND LEGAL MAINE HOLIDAYS, BUT NOT MORE THAN 30 CALENDAR DAYS, PRIOR TO THE COMMENCEMENT OF EXCAVATION.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT, THE NATIONAL PARK SERVICE (NPS) DENVER SERVICE CENTER (DSC) DESIGN REQUIREMENTS, AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).

4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE LOAM AND SEED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE GOVERNMENT.

5. WORK WITHIN THE LOCAL RIGHTS–OF–WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS–OF–WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

6. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.

7. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

8. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

9. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.

10. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.

11. DAMAGE RESULTING FROM CONSTRUCTION LOADS & ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO CONTRACTING OFFICER.

12. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO CONTRACTING OFFICER.

13. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (CGP) PROGRAM. PRIOR TO THE START OF CONSTRUCTION CONTRACTOR IS TO PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE NPDES REGULATIONS. CONTRACTOR TO WORK WITH ACADIA NATIONAL PARK TO ENSURE PROPER NOTICES HAVE BEEN FILED WITH APPLICABLE REGULATORY AUTHORITIES. US ARMY CORP OF ENGINEERS PERMIT ISSUED UNDER #NAE–2024–00762.

UTILITIES

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE CONTRACTING OFFICER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.

2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE CONTRACTING OFFICER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES CONTRACTING OFFICER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS. NOTIFY CONTRACTING OFFICER IF A CONFLICT ARISES BETWEEN THE PLAN ELEVATIONS AND THE FIELD CONDITIONS IMMEDIATELY AND PRIOR TO COMPLETED INSTALLATION.

4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:

   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH

   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH

   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH CONTRACTING OFFICER.

6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.

7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:

   A. WATER PIPES SHALL BE THICKNESS CLASS 56, DUCTILE IRON CEMENT LINED (DICL) PIPE AND WRAPPED IN V–BIO POLYETHYLENE.

   B. SANITARY SEWER PIPES SHALL BE SDR 35 POLYVINYL CHLORIDE (PVC) SEWER PIPE.

   C. STORM DRAINAGE PIPES SHALL BE SDR 35 POLYVINYL CHLORIDE (PVC), UNLESS OTHERWISE NOTED ON THE PLANS

   D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.

8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.

9. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

LAYOUT AND MATERIALS

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.

2. CURB RADII ARE NOTED ON PLANS.

3. CURBING SHALL BE VGC WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.

4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.

5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.

6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

7. THE UTILITIES ANTICIPATED TO SERVE THE PROJECT AND THEIR CONTACT INFORMATION ARE AS FOLLOWS:

   VERSANT POWER
   BOB PEASLEY
   PO BOX 932
   BANGOR, ME 04402–0932
   TOLL FREE: 1–855–363–7211
   LOCAL: 207–973–2000

   BAR HARBOR WATER DIVISION
   50 PUBLIC WORKS WAY
   BAR HARBOR, ME 04609
   LOCAL: 207–288–3555

   CONSOLIDATED COMMUNICATIONS
   1–844–YOUR–CCI

   SPECTRUM
   1–855–860–9068

DEMOLITION

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.

2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.

3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.

4 THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.

5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE CONTRACTING OFFICER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE CONTRACTING OFFICER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE CONTRACTING OFFICER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE CONTRACTING OFFICER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

EROSION CONTROL

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.

2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY–FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.

3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.

4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.

5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

EXISTING CONDITIONS INFORMATION

1. BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY PLISGA & DAY AND FROM PLANS OF RECORD. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY PLISGA & DAY, DURING AUGUST 2018 TO OCTOBER 2023.

   A. DELINEATION OF THE WETLANDS AND PLACEMENT OF THE FLAGS WAS PERFORMED BY: BURMAN LAND AND TREE COMPANY, LLC & ATLANTIC RESOURCE CO, LLC FOR PLANNING PURPOSES ONLY

2. TOPOGRAPHY: ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM S.W. COLE.

DOCUMENT USE

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.

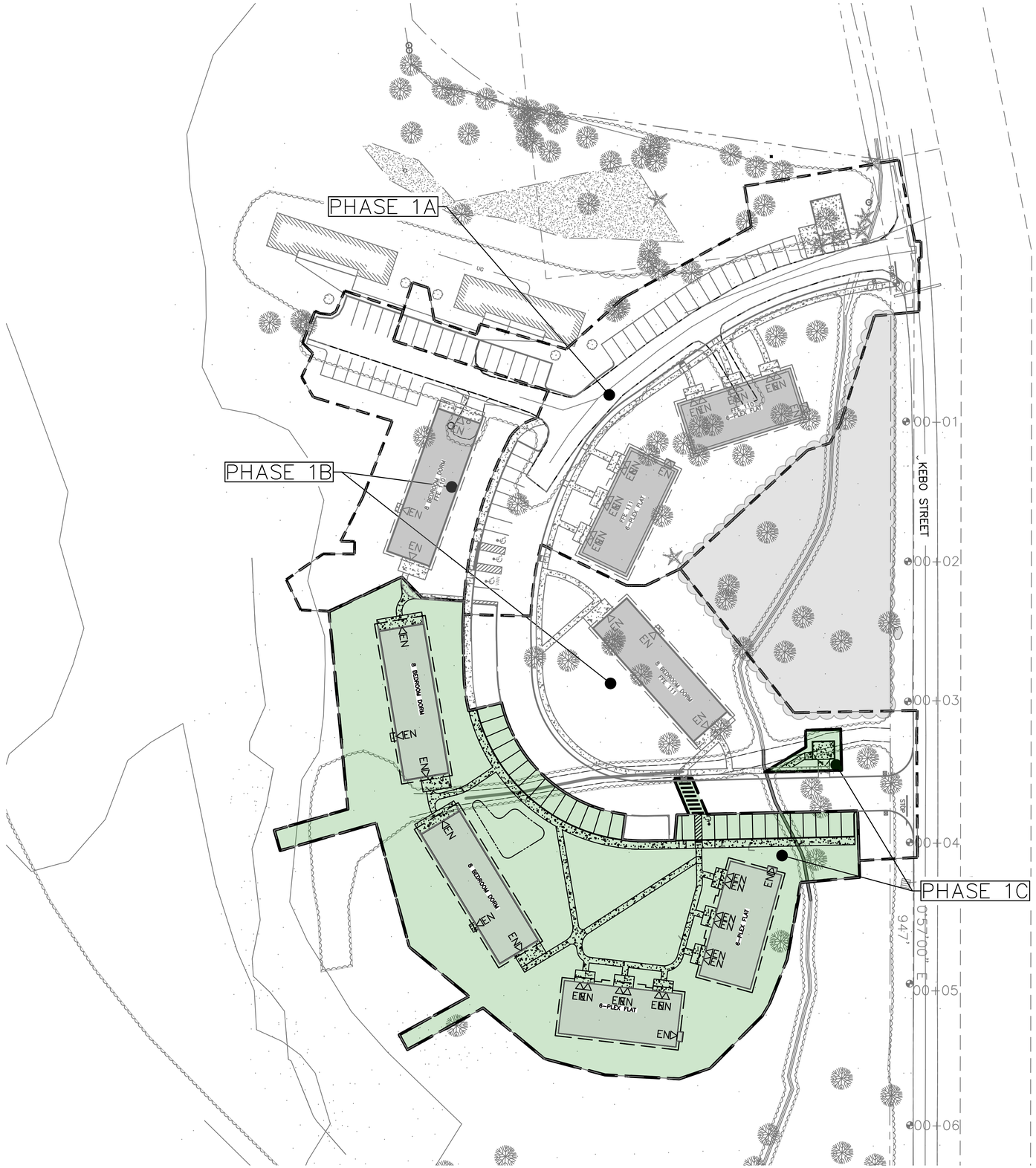
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

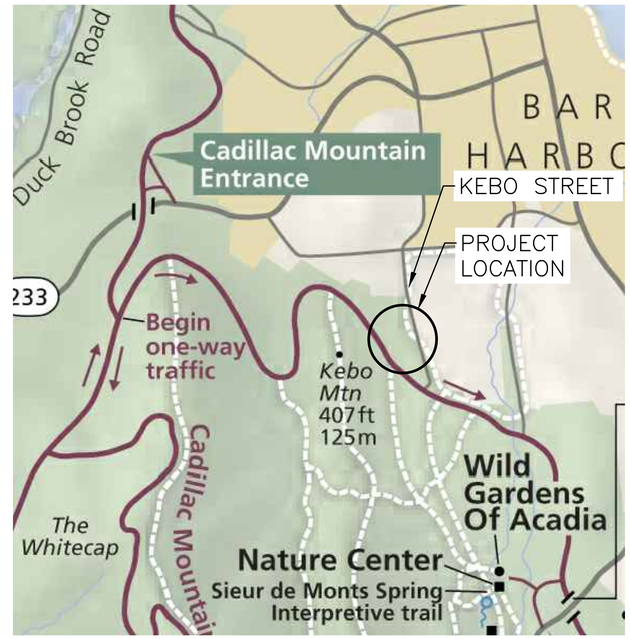
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

STATE OF MAINE — DAVID A. SENUS — 10791 — PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C1C	TITLE OF SHEET GENERAL NOTES HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 4 OF 131

2/27/2025 12:03 JPIRAINO R2023 \\vhb.com\gbl\proj\portland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C1C_GENERAL NOTES.dwg





NOT TO SCALE

DAVID A. SENUS 10791 STATE OF MAINE LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C1D	TITLE OF SHEET PHASING PLAN & LOCATION MAP HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 5 OF 131

2/27/2025 11:58 JPIRAINO R2023 \\vhb.com\gbl\proj\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C1D_LOC-MAP.dwg

SURVEY NOTES:

1. BASE PLAN: THE PROPERTY LINES SHOW WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY PLISGA & DAY AND FROM PLANS OF RECORD. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON ACTUAL FIELD SURVEY OERFORMED ON THE GROUND BY PLISGA & DAY, DURING AUGUST 2018 TO OCTOBER 2023.

2. 2023 RESOURCE NOTE: PROTECTED NATURAL RESOURCES SHOWN WERE DELINEATED IN JULY OF 2018 BY BURMAN LAND AND TREE COMPANY, LLC & ATLANTIC RESOURCE CO, LLC FOR PLANNING PURPOSES ONLY. VERNAL POOL SURVEYS WERE COMPLETED IN THE SPRING OF 2023 AND WETLAND BOUNDARIES WERE REVIEWED AND UPDATED IN SEPTEMBER,2023 BY ATLANTIC RESOURCE CO, LLC. PROTECTED NATURAL RESOURCES WERE IDENTIFIED AND DELINEATED IN GENERAL ACCORDANCE WITH THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION NATURAL RESOURCES PROTECTION ACT; THE UNITED STATED DEPARTMENT OF THE ARMY STATE OF MAINE GENERAL PERMIT (OCTOBER 2015–2020), THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987), THE U.S. ARMY CORPS OF ENGINEERS REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (2012) AND THE 2016 NATIONAL PARK SERVICE PROCEDURAL MANUAL #77–1. RESOURCE BOUNDARIES WERE LOCATED WITH A SUB–METER GPS. IN SOME CASES ACCURACY MAY EXCEED 1 METER.

3. VOLUME AND PAGE CITATIONS SHOWN HEREON REFER TO THE HANCOCK COUNTY REGISTRY OF DEEDS.

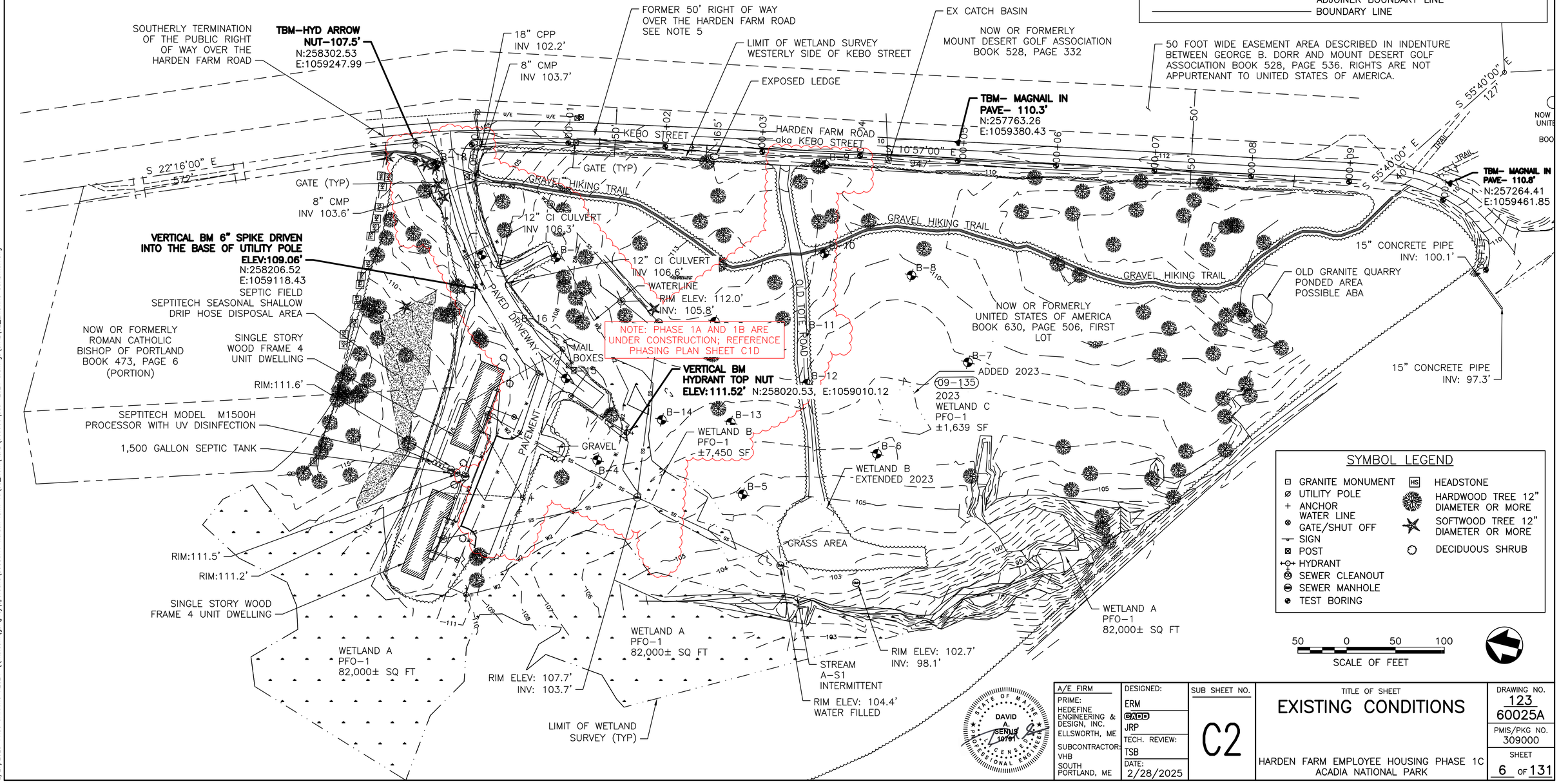
4. COORDINATES AND NORTH ORIENTATION BASED ON MAINE COORDINATE SYSTEM OF 1983, EAST ZONE (2011)(EPOCH:2010.000) IGS08. COORDINATE VALUES SHOWN ARE IN U.S. SURVEY FEET AND ARE PROVIDED AS AN AID IN LOCATION. THE PHYSICAL LOCATION OF A COORDINATE LABELED POINT SUPERSEDES SAID COORDINATE PROJECT COMBINED GROUND TO GRID SCALE FACTOR IS 0.99990484. ELEVATIONS PROVIDED REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) (GEOID 18).

5. THE HARDEN FARM ROAD WAS ESTABLISHED AS A 33–FOOT WIDE PUBLIC RIGHT OF WAY, FEBRUARY 14, 1889; PUBLIC RIGHT OF WAY RE–DEFINED AND WIDEN TO 50 FEET, FEBRUARY 16, 1916. THE SUBJECT PROPERTY INCLUDES FEE STRIP LOCATED BETWEEN THE WESTERLY LINE OF THE ORIGINAL HARDEN FARM ROAD RIGHT OF WAY AND THE LAND OF ROMAN CATHOLIC BISHOP OF PORTLAND. THE STRIP IS SUBJECT TO RIGHTS OF WAY APPURTENANT TO LAND OF ROMAN CATHOLIC BISHOP OF PORTLAND. THE PUBLIC RIGHT OF WAY SOUTHERLY OF THE CEMETERY WAS DISCONTINUED BY THE TOWN OF BAR HARBOR ON MARCH 7, 1950.

6. BORINGS PERFORMED BY S.W. COLE IN JANUARY OF 2024. REFER TO GEOTECHNICAL REPORT FOR DETAILS.

LINETYPE LEGEND

- WIRE FENCE
- TREE LINE
- ELECTRIC WIRES UNDERGROUND
- WATER SUPPLY LINE
- WATER LINE MARKED BY CENTERLINE IN 2023
- UNDERGROUND UTILITIES
- ELECTRIC WIRES UNDERGROUND
- ELECTRIC WIRES OVERHEAD
- SANITARY SEWER CURRENT
- SANITARY SEWER DISUSED
- SEWER MARKED BY CENTERLINE IN 2023
- CONTOUR 1 FOOT INTERVAL
- INDEX CONTOUR 5 FOOT INTERVAL
- WETLAND BOUNDARY
- STREAM
- PAVEMENT OR GRAVEL
- INTERIOR/LOT LINE
- EASEMENT LINE
- ADJOINER BOUNDARY LINE
- BOUNDARY LINE



SYMBOL LEGEND

- GRANITE MONUMENT
- UTILITY POLE
- ANCHOR
- WATER LINE GATE/SHUT OFF
- SIGN
- POST
- HYDRANT
- SEWER CLEANOUT
- SEWER MANHOLE
- TEST BORING
- HEADSTONE
- HARDWOOD TREE 12" DIAMETER OR MORE
- SOFTWOOD TREE 12" DIAMETER OR MORE
- DECIDUOUS SHRUB

50 0 50 100
SCALE OF FEET

DAVID A. SENUS 10791 STATE OF MAINE LICENSED PROFESSIONAL ENGINEER

A/E FIRM: PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME; SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM; DRAWN: JRP; TECH. REVIEW: TSB; DATE: 2/28/2025	SUB SHEET NO. C2	TITLE OF SHEET: EXISTING CONDITIONS — HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A; PMIS/PKG NO. 309000; SHEET 6 OF 131

2/27/2025 11:59 JPIRAINO R2024 \\vhb.com\gbl\pro\\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\CIVIL\C2_EXISTING CONDITION.dwg

SITE PREPARATION NOTES:

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF DEMOLITION INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

2. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE CONTRACTING OFFICER OR IT'S REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.

3. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.

4. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.

5. THE DEMOLITION LIMITS (LOW) DEPICTED IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.

6. EXISTING UTILITIES AND FEATURES TO REMAIN SHALL BE MAINTAINED AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS.

7. EXISTING UTILITY LINES NOT SPECIFICALLY NOTED OR SHOWN WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE CAPPED, EXTENDED, PROTECTED, REMOVED, OR REWORKED AS DIRECTED OR REQUIRED BY THE CONTRACTING OFFICER.

8. CM/CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS FROM LOCAL AND STATE AUTHORITIES TO COMPLETE THE WORK.

9. CM/CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL SAFETY REGULATIONS TO PROTECT THE PUBLIC WHILE DEMOLITION WORK IS BEING PERFORMED.

10. FURNISH, ERECT AND MAINTAIN ALL TEMPORARY BARRICADES, FENCES, COVERINGS, ENCLOSURES, SIGNS AND LIGHTING AS MAY BE REQUIRED TO CARRY ON DEMOLITION WORK IN A SAFE AND LEGAL MANNER, WITHOUT IMPACTING PEDESTRIAN ACCESSIBILITY ON PUBLIC SIDEWALKS.

11. CATCH BASINS WITHIN THE LIMIT OF WORK AND IN THE IMMEDIATE VICINITY OF THE LIMIT OF WORK SHALL BE FITTED WITH SEDIMENTATION TRAPS UNTIL THE SITE IS PERMANENTLY STABILIZED.

12. CM/CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.

13. DO NOT USE EXPLOSIVES FOR BUILDING DEMOLITION.

14. DUST CONTROL TREATMENTS SHALL BE APPLIED AS NECESSARY TO CONTROL AND REDUCE THE AMOUNT OF DUST WHICH MAY CAUSE OFF SITE DAMAGE, BE A HEALTH HAZARD TO HUMANS, WILDLIFE AND PLANT LIFE, OR POSE A HAZARD TO TRAFFIC SAFETY.

15. ADJOINING STREETS AND PROPERTIES SHALL BE KEPT FREE OF DEBRIS RESULTING FROM THE DEMOLITION AND SHALL BE BROOM CLEANED ON A DAILY BASIS.

16. HOURS OF OPERATION TO BE AS PER LOCAL ORDINANCE. CM/CONTRACTOR TO VERIFY PRIOR TO STARTING ON SITE OPERATIONS.

17. WHERE CONNECTIONS TO EXISTING UTILITIES ARE PROPOSED, THE CM/CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE EXISTING UTILITY AT THE CONNECTION POINT PRIOR TO ORDERING MATERIALS OR DEMOLISHING ANY UNUSED PORTIONS OF THE UTILITY AS SPECIFICALLY CALLED OUT ON THIS PLAN. TEST PITS SHALL BE COMPLETED FOR ALL UNDERGROUND UTILITY CONNECTIONS. DISCREPANCIES WITH THE EXISTING CONDITIONS INFORMATION SHOWN SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR DIRECTION.

18. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SITE ACCESS AND SITE SECURITY AT ALL TIMES DURING CONSTRUCTION.

19. ALL EXISTING TREES AND STUMPS WITHIN THE LIMIT OF DEMOLITION SHALL BE REMOVED AND DISPOSED OF OFF SITE AT A SAFE, APPROVED LOCATION UNLESS OTHERWISE NOTED.

20. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING CONSTRUCTION EXITS AT ALL CONSTRUCTION VEHICLE ACCESS POINTS ONTO DISTURBED AREAS OF THE SITE. CONSTRUCTION EXITS SHALL BE MAINTAINED UNTIL DISTURBED PORTIONS OF THE SITE ARE STABILIZED AS DETERMINED BY THE CONTRACTING OFFICER

21. CONTRACTOR MUST MAINTAIN ALL EXISTING SERVICES TO THE ABUTTING PROPERTY.

22. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.

23. THE SITE CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR IN ACCORDANCE WITH THE REQUIREMENTS OF THE MAINE CONSTRUCTION GENERAL PERMIT. THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS. RECORDS OF THE INSPECTIONS WILL BE PREPARED AND MAINTAINED ON-SITE BY THE CONTRACTOR.

ASBESTOS CEMENT PIPE REMOVAL:

1. RECORD DRAWINGS INDICATE THAT THE EXISTING WATER AND SEWER PIPE ON THE PROPERTY IS 6" ASBESTOS CEMENT PIPE.

2. THE PROJECT WILL CONSIST OF THE INTACT REMOVAL AND DISPOSAL OF APPROXIMATELY 65 LINEAR FEET OF BURIED 6" DIAMETER ASBESTOS CEMENT WATER AND SEWER PIPE.

3. ALL WORK SHALL BE PERFORMED IN GENERAL ACCORDANCE WITH MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MAINEDEP) ASBESTOS REGULATIONS.

4. ALL ASBESTOS REMOVAL ACTIVITIES SHALL BE CONDUCTED BY A MAINEDEP LICENSED ASBESTOS CONTRACTOR.

5. CONTRACTOR SHALL PREPARE A WRITTEN WORK PLAN DETAILING THE METHODS THAT WILL BE USED TO SAFELY EXCAVATE, REMOVE, HANDLE, TRANSPORT, AND DISPOSE OF THE ASBESTOS CEMENT PIPE. THE WORK PLAN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE CONTRACTING OFFICER PRIOR TO THE START OF WORK.

6. THE WORK PLAN SHOULD INCLUDE THE FOLLOWING PROCEDURES AT A MINIMUM:

   A. THE CONTRACTOR SHALL EXCAVATE ON EACH SIDE OF THE PIPE WITHOUT DAMAGING THE PIPE. HAND EXCAVATION IN THE AREAS IMMEDIATELY SURROUNDING THE PIPE IS REQUIRED TO ENSURE NO DAMAGE.

   B. PIPE SHALL BE REMOVED INTACT WHENEVER POSSIBLE. PIPE SECTIONS WILL BE WRAPPED IN 2-LAYERS OF 6-MIL POLY SHEETING AND TAPED AT ALL SEAMS, THEN PLACED IN A COVERED WASTE CONTAINER FOR PROPER TRANSPORTATION AND DISPOSAL.

   C. WHERE IT IS NECESSARY FOR THE CONTRACTOR TO BREAK THE PIPE INTO MANAGEABLE SIZE SECTIONS FOR REMOVAL AND DISPOSAL, THE CONTRACTOR SHALL PERFORM THE FOLLOWING STEPS:

      C.1. HAND EXCAVATION ON EACH SIDE AND BENEATH LOCATION OF PLANNED BREAK.
      C.2. PLACE A LAYER OF 6 MIL POLY SHEETING UNDER THE PIPE WHERE BREAK WILL OCCUR.
      C.3. BREAK PIPE USING DUST MINIMIZING TECHNIQUES SUCH AS CRACKING THE PIPE WITH HAND TOOLS AND SPRAY THE PIPE WITH AMENDED WATER MIST WHILE BREAKING.
      C.4. REMOVE THE INTACT SECTIONS OF PIPE. AFTER THE PIPE IS CLEARED, FOLD THE POLY SHEETING IN ONTO ITSELF, IMMEDIATELY BAG IN 6-MIL BAGS GOOSENECKED AND TAPED, THEN DISPOSE OF AS ASBESTOS WASTE.

   D. ANY PIECES OF BROKEN PIPE FOUND DURING EXCAVATION SHALL BE PICKED UP BY HAND, DOUBLE BAGGED, AND TREATED AS ASBESTOS WASTE.

   E. IF PULVERIZED PIPE IS OBSERVED IN SOIL, THE SOIL CONTAINING THE PULVERIZED PIPE SHALL BE SKIMMED UNTIL VISUALLY CLEAR. THE AFFECTED SOIL MUST BE DOUBLE BAGGED AND HANDLED AS ASBESTOS WASTE.

7. ALL ASBESTOS WASTE SHALL BE DOUBLE BAGGED OR WRAPPED WITH 2 LAYERS OF SEALED 6 MIL POLY SHEETING OR BAGS AND PLACED IN A COVERED WASTE CONTAINER.

8. ALL LOCATIONS WHERE ASBESTOS PIPING WAS REMOVED SHALL BE VISUALLY INSPECTED BY THE MAINEDEP LICENSED ASBESTOS CONTRACTOR PRIOR TO BACKFILLING THE AREA. IF ANY ASBESTOS WASTE/DEBRIS/DUST IS OBSERVED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SKIMMING THE SOIL AND DISPOSING OF ANY OF THIS SOIL AND DEBRIS AS ASBESTOS WASTE UNTIL VISUALLY CLEAR.

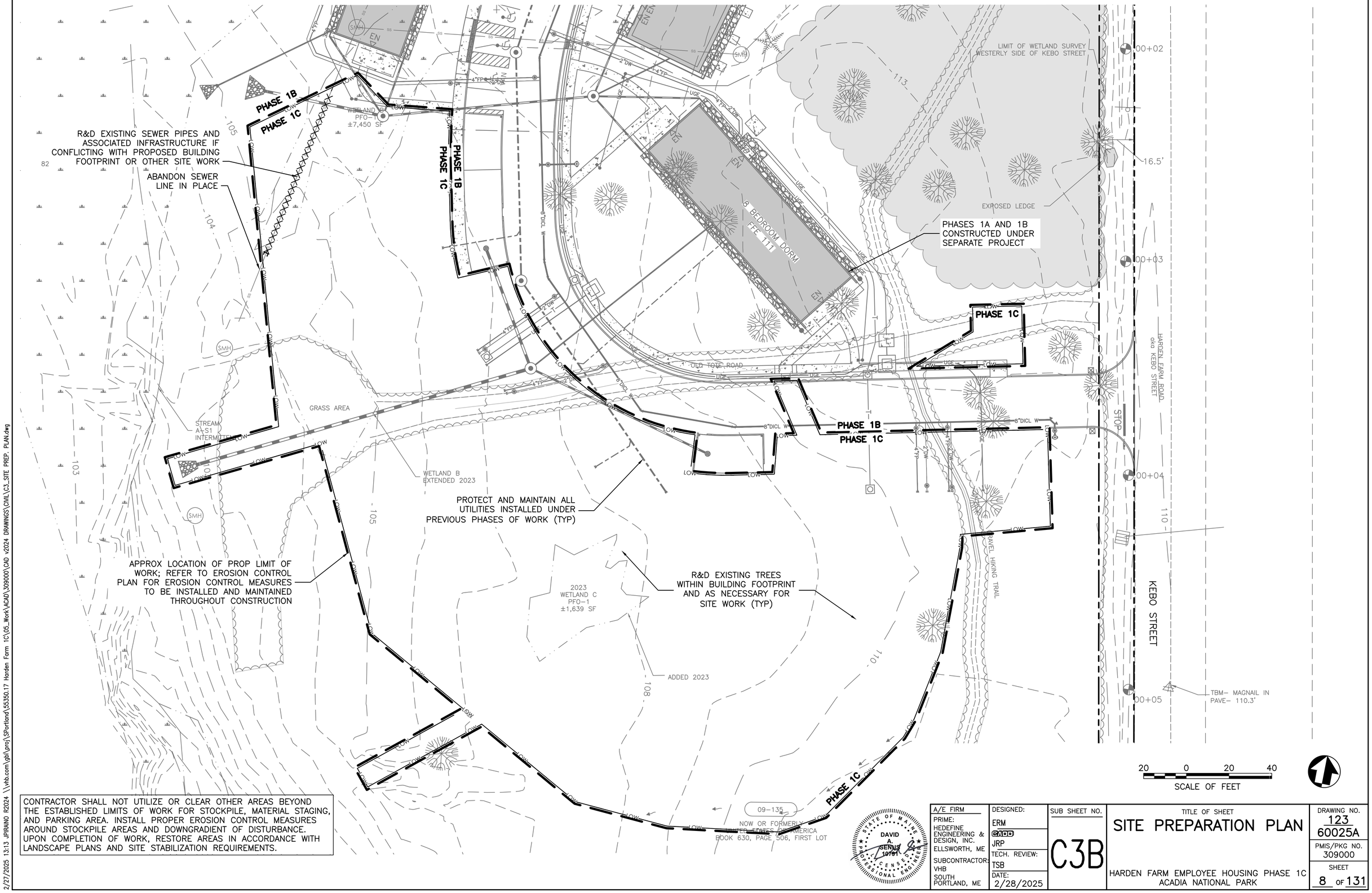
9. ALL ASBESTOS WASTE SHALL BE TRANSPORTED TO AND DISPOSED OF IN AN APPROVED ASBESTOS WASTE LANDFILL IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

10. ALL WASTE MANIFESTS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER IMMEDIATELY. FINAL PAYMENT FOR SERVICES WILL NOT BE MADE UNTIL MANIFESTS ARE RECEIVED.

STATE OF MAINE · DAVID A. SENUS · 10791 · PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM CADD JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C3A	TITLE OF SHEET SITE PREPARATION NOTES HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 7 OF 131

2/27/2025 12:00 JPIRAINO R2024 \\vhb.com\gbl\proj\SPortland\55350.17 Harden Farm 1C\05_Work\ACAD\309000\CAD v2024 DRAWINGS\CIVIL\C3_SITE PREP. PLAN.dwg

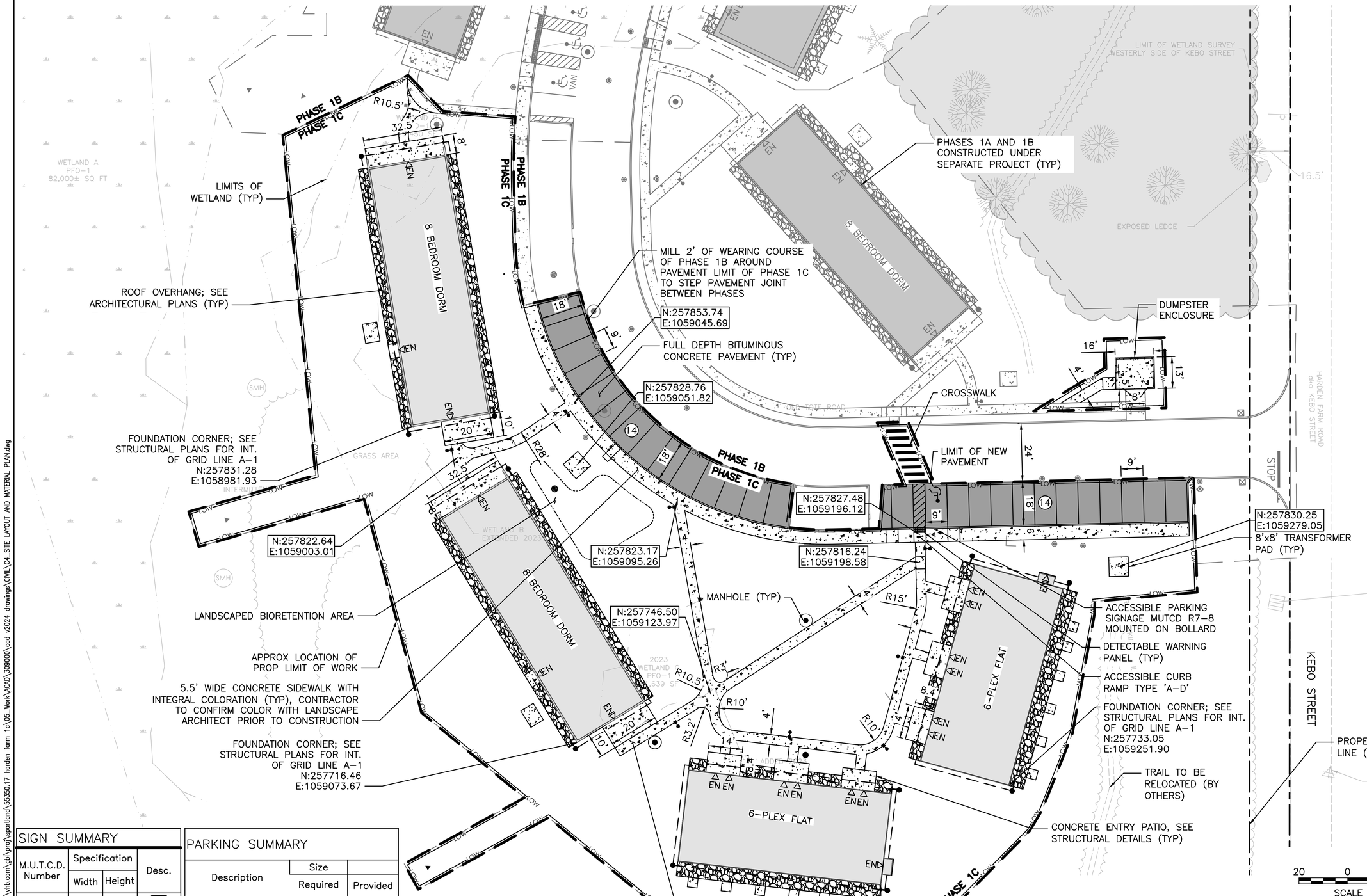


CONTRACTOR SHALL NOT UTILIZE OR CLEAR OTHER AREAS BEYOND THE ESTABLISHED LIMITS OF WORK FOR STOCKPILE, MATERIAL STAGING, AND PARKING AREA. INSTALL PROPER EROSION CONTROL MEASURES AROUND STOCKPILE AREAS AND DOWNGRADIENT OF DISTURBANCE. UPON COMPLETION OF WORK, RESTORE AREAS IN ACCORDANCE WITH LANDSCAPE PLANS AND SITE STABILIZATION REQUIREMENTS.

DAVID A. SENUS 10791 STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM CADD JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C3B	TITLE OF SHEET SITE PREPARATION PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 8 OF 131

2/27/2025 13:13 JPIRAINO R2024 \\vhb.com\gbl\proj\SPortland\55350.17 Harden Farm 1C\05_Work\ACAD\309000\CAD v2024 DRAWINGS\CIVIL\C3_SITE PREP_PLAN.dwg



SIGN SUMMARY			
M.U.T.C.D. Number	Specification		Desc.
	Width	Height	
R1–1	30"	30"	STOP
R7–8	12"	18"	RESERVED PARKING

PARKING SUMMARY		
Description	Size	
	Required	Provided
Standard Spaces	9 x 18	27
Standard Accessible Spaces*	9 x 18	1
Total Spaces		28

*WITHIN PHASE 1A/1B, VAN ACCESSIBLE SPACE INCLUDED.

DAVID A. SENUS 10791 STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	ERM	C4	SITE LAYOUT AND MATERIALS PLAN	123 60025A
SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	CADD JRP		HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	PMIS/PKG NO. 309000
	TECH. REVIEW: TSB			SHEET 9 OF 131
	DATE: 2/28/2025			

2/27/2025 12:03 JPIRAINO R2024 \\vhb.com\gbl\pro\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\CIVIL\C4_SITE LAYOUT AND MATERIAL PLAN.dwg

CONNECT 4" SEWER SERVICE FROM EXISTING 4" SEWER; INV=104.71

PHASE 1B
PHASE 1C

8 BEDROOM DORM

INV=105.05

8'x6' MECHANICAL PAD (TYP); SEE MEP PLANS

(2) 1.5" EV PVC CONDUITS

RIM ELEV: 104.4'
WATER FILLED

STREAM A-S1 INTERMITTENT

GRASS AREA

PROTECT AND MAINTAIN DRAINAGE OUTLET INSTALLED IN PHASE 1A/1B

SMH
RIM ELEV: 102.7'
INV: 98.1'

APPROX LOCATION OF PROP LIMIT OF WORK

CONNECT DOMESTIC WATER SERVICE TO BUILDING (TYP), COORDINATE WITH MEP

CONNECT FIRE PROTECTION SERVICE TO BUILDING (TYP), COORDINATE WITH MEP

N:257722.62
E:1059105.17

12" SDR-35 PVC OUTLET PIPE

RIPRAP (TYP)

DRAIN & SEWER CROSSING; MAINTAIN 6" SEPARATION
DRAIN INV=104.71
SEWER INV=105.79

4'x4' MECHANICAL PAD (TYP); SEE MEP DETAILS

WETLAND B EXTENDED 2023

8 BEDROOM DORM

INV=105.50

2023 WETLAND C PFO-1 1,639 SF

STUB CONDUIT FOR FUTURE EV PARKING SPACES; CONTRACTOR TO COOORDINATE WITH CMR PRIOR TO INSTALLATION

(4) 4" ELECTRIC SECONDARY CONDUITS (TYP)

8 BEDROOM DORM

LIMIT OF WETLAND SURVEY WESTERLY SIDE OF KEBO STREET

16.5'

EXPOSED LEDGE

CONNECT 4" SEWER SERVICE FROM EXISTING 4" SEWER; INV.=104.70

CONNECT 8" SEWER SERVICE FROM EXISTING 8" SEWER; INV.=104.30

(2) 2" TELECOM CONDUITS (TYP)

CONNECT 4" DICL FIRE PROTECTION SERICE TO EXISTING STUBBED 4" DICL (TYP)

PHASE 1B
PHASE 1C

CONNECT 2" COPPER DOMESTIC WATER SERVICE TO EXISTING STUBBED 2" COPPER LINE (TYP)

N:257783.88
E:1059156.67

SMH-5
RIM:108.38

INV=104.65

INV=107.00
INV=104.75

INV=106.00

6-PLEX FLAT

6-PLEX FLAT

TRANSFORMER; REFER TO DETAILS FOR BOLLARD PROTECTION. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER (TYP)

EXIST CB

KEBO STREET

TBM= MAGNAIL IN PAVE= 110.3'

HARDEN FARM RD aka KEBO STREET

CONNECT ELECTRIC AND TELECOMMUNICATIONS SERVICE TO BUILDING (TYP), COORDINATE WITH MEP

CONNECT SEWER SERVICE TO BUILDING (TYP), COORDINATE WITH MEP

PHASE 1C

09-135

NOW OR FORMERLY
BOOK 630, PAGE 506, FIRST LOT

20 0 20 40
SCALE OF FEET

2/27/2025 12:27 JPIRAINO R2024 \\vhb.com\gbl\proj\SPortland\55350.17 Harden Farm 1C\05_Work\ACAD\309000\CAD v2024 DRAWINGS\CIVIL\05_SITE UTILITY LAYOUT PLAN.dwg

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C5A	TITLE OF SHEET SITE UTILITY LAYOUT PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 10 OF 131

STATE OF MAINE
DAVID A. SENUS 10791
PROFESSIONAL ENGINEER

SITE LIGHTING FIXTURE SCHEDULE				
SYMBOL	QUANTITY	MAKE AND MODEL	POWER (WATTS)	NOTES
■●	9	BASIS OF DESIGN: TUMBLER AREA LIGHT BY LANDSCAPE FORMS (OR EQUAL IN ACCORDANCE WITH THE SALIENT CHARACTERISTICS NOTED BELOW) TML–16–A–1–TII//TML–01//TMF21–P–T–BRONZE METALLIC 16 LED, 350MA, TII DISTRIBUTION, CLEAR LENS//SINGLE COLUMN BRACKET//13.8FT ALUMINUM POLE, 4.5 DIAMETER	20W	--

NOTE:
1. CONTRACTOR SHALL PROVIDE AND INSTALL 13.8FT POLE WITH TWIST LOCK AND SUPPORTS FOR EACH LIGHT FIXTURE AS REQUIRED.
2. CONTRACTOR SHALL PROVIDE AND INSTALL PHOTO/MOTION SENSOR FOR EACH LIGHT POLE FIXTURE THAT IS COMPATIBLE WITH AND AS SPECIFIED BY THE SELECTED FIXTURE MANUFACTURER.
3. BASIS OF DESIGN: TUMBLER AREA LIGHT MANUFACTURED BY LANDSCAPE FORMS MODEL TML–16–A–1–TII//TML–01//TMF2IP
   "OR EQUAL" OPTIONS SHALL BE POLE MOUNTED PEDESTRIAN LIGHTS WITH THE FOLLOWING SALIENT CHARACTERISTICS:
   ROUND CAST ALUMINUM LUMINAIRE WITH FRAMELESS GLASS LENS. LUMINAIRE SIZE: 10" TALL WITH 11 3/4" DIAMETER AT BOTTOM OF UNIT. LIGHT SOURCE TO BE PCB LED, COLOR TEMP 3000K. POWER SUPPLY 120V–277V. PROTECTION CLASS IP66, EPA 0.84FT². HOUSING COLOR TO BE METALLIC BRONZE. LAMPING: 350MA 16LED TII DISTRIBUTION WITH CLEAR LENS.
   LUMINAIRE TO BE A SINGLE MOUNT ON 13.8' TALL, 4.5" DIAMETER ROUND POLE. COLOR: METALLIC BRONZE. LUMINAIRE MOUNTS TO A DIE–CAST BRACKET ON THE POLE AND IS SECURED WITH TWO SCREWS.

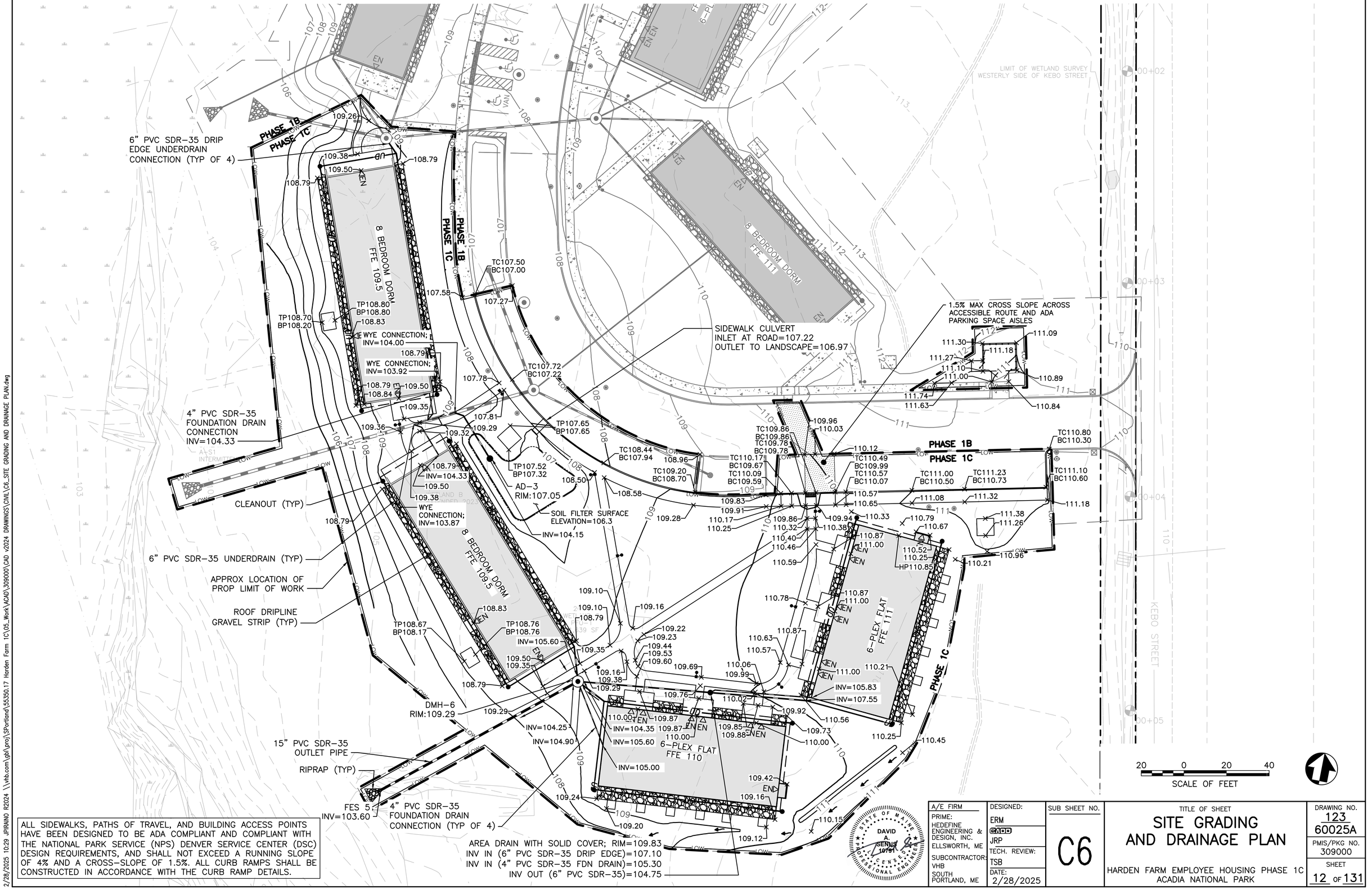
PHASE 1B
PHASE 1C
8 BEDROOM DORM
WETLAND B
PFO–1
7450 SF
RIM ELEV: 104.4'
WATER FILLED
STREAM
A–S1
INTERMITTENT
GRASS AREA
N:257824.43
E:1058998.09
N:257848.23
E:1059044.51
N:257818.98
E:1059092.52
LIGHT POLE (TYP)
3/4" SITE LIGHTING
CONDUIT (TYP)
OLD TOTE ROAD
HARDEN FARM ROAD
aka KEBO STREET
N:257822.70
E:1059201.26
WETLAND B
EXTENDED 2023
N:257784.80
E:1059113.99
2023
WETLAND C
PFO–1
1,639 SF
N:257776.61
E:1059196.77
6–PLEX FLAT
N:257736.82
E:1059159.12
N:257738.26
E:1059199.54
ADDED 2023
N:257730.96
E:1059113.31
09–135
NOW OR FORMERLY
ACADIA LODGES OF AMERICA
BOOK 638, PAGE 306, FIRST LOT
RIM ELEV:
102.7'
INV: 98.1'
TRAVEL HIKING TRAIL
EXIST CB
KEBO STREET
TBM– MAGNAIL IN
PAVE– 110.3'

20 0 20 40
SCALE OF FEET

DAVID A. SENUS 10791 — STATE OF MAINE — REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C5B	TITLE OF SHEET SITE LIGHTING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 11 OF 131

2/27/2025 12:27 JPIRAINO R2024 \\vhb.com\gbl\proj\SPortland\55350.17 Harden Farm 1C\05_Work\ACAD\309000\CAD x2024 DRAWINGS\CIVIL\C5_SITE UTILITY LAYOUT PLAN.dwg

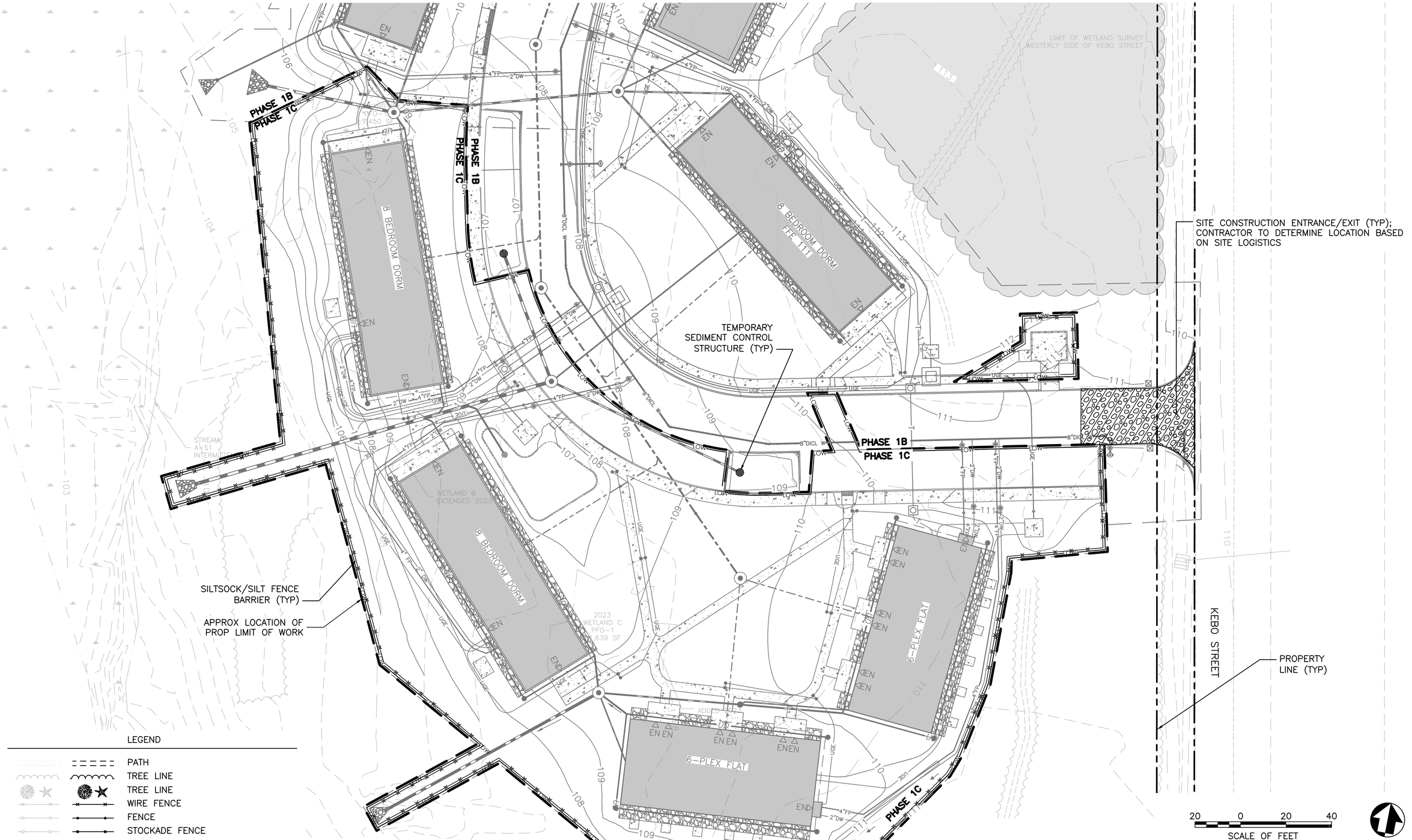


ALL SIDEWALKS, PATHS OF TRAVEL, AND BUILDING ACCESS POINTS HAVE BEEN DESIGNED TO BE ADA COMPLIANT AND COMPLIANT WITH THE NATIONAL PARK SERVICE (NPS) DENVER SERVICE CENTER (DSC) DESIGN REQUIREMENTS, AND SHALL NOT EXCEED A RUNNING SLOPE OF 4% AND A CROSS-SLOPE OF 1.5%. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURB RAMP DETAILS.

DAVID A. SENUS 10791 STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM CADD: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C6	TITLE OF SHEET SITE GRADING AND DRAINAGE PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 12 of 131

2/28/2025 10:29 JPIRAINO R2024 \\vhb.com\gbl\proj\SPortland\55350.17 Harden Farm 1C\05_Work\ACAD\309000\CAD v2024 DRAWINGS\CIVIL\C6_SITE GRADING AND DRAINAGE PLAN.dwg



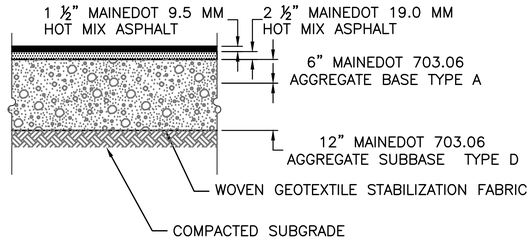
LEGEND

- PATH
- TREE LINE
- TREE LINE
- WIRE FENCE
- FENCE
- STOCKADE FENCE
- STREAM / POND / WATER COURSE
- SILT FENCE
- SILT SOCK
- SEDIMENT CONTROL STRUCTURE

DAVID A. SENUS 10791 STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C7	TITLE OF SHEET EROSION & SEDIMENTATION CONTROL PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 13 OF 131

2/27/2025 12:02 JPIRAINO R2024 \\vhb.com\gbl\proj\SPortland\55350.17 Harden Farm 1C\05_Work\ACAD\309000\CAD v2024 DRAWINGS\CIVIL\C7_EROSION CONTROL PLAN.dwg

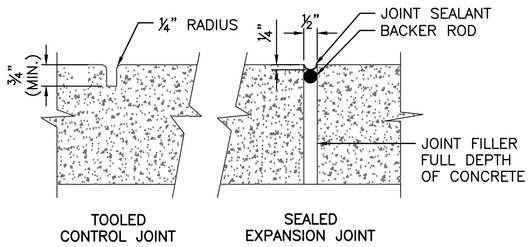


NOTES

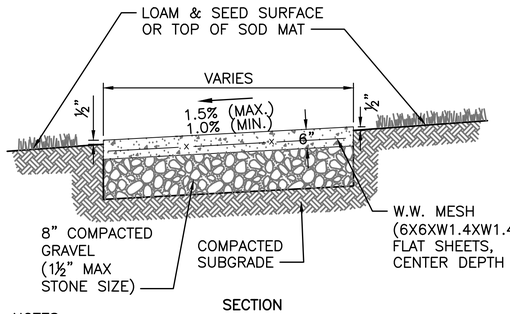
STANDARD DUTY FLEXIBLE PAVEMENT

PAVEMENT SECTIONS ARE BASED ON INFORMATION PROVIDED BY GEOTECHNICAL ENGINEER.

BITUMINOUS CONCRETE PAVEMENT SECTIONS
N.T.S.



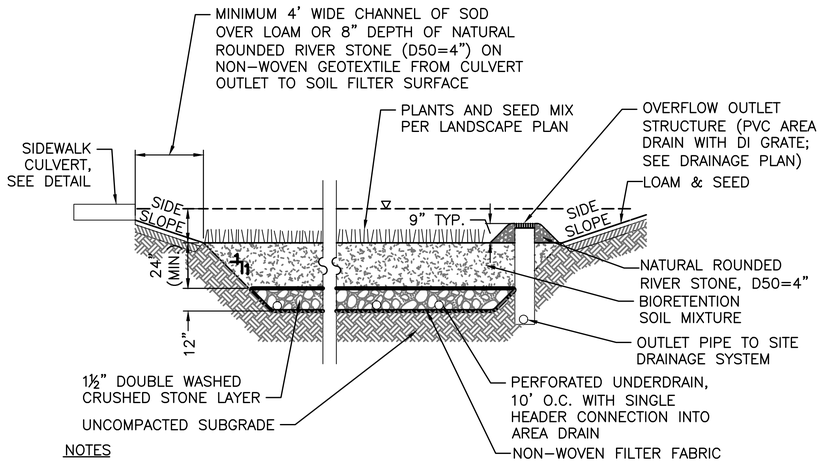
CONCRETE JOINTS
N.T.S.



NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE SAWCUT CONTROL JOINTS AT 6' O.C. OR AS NOTED ON PLANS.
4. PROVIDE MEDIUM BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
5. ALL EXPOSED CONCRETE SURFACES SHALL BE SEALED WITH A SILANE-SILOXANE PRODUCT.
6. CONCRETE FOR SIDEWALKS TO BE INTEGRAL COLOR CONCRETE. CONTRACTOR TO CONFIRM WITH CONTRACTING OFFICER PRIOR TO POURING.
7. MAXIMUM RUNNING GRADE (PATH OF TRAVEL) SHALL NOT EXCEED 4% FOR ALL PROJECT SIDEWALKS, WITH THE EXCEPTION OF ACCESSIBLE CURB RAMP LOCATIONS, AS DETAILED.

CONCRETE SIDEWALK IN LANDSCAPE AREA
N.T.S.

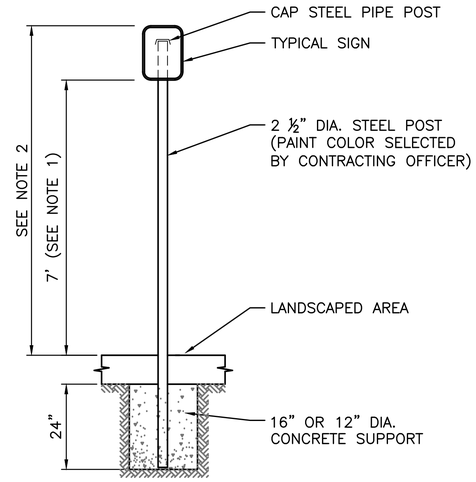


NOTES

1. INSTALL UNDERDRAINS AT 10 FEET ON CENTER. CONNECT TO DRAINS PER PLAN.
2. SIDE SLOPES SHALL BE 3:1 MAX. 2% MIN.

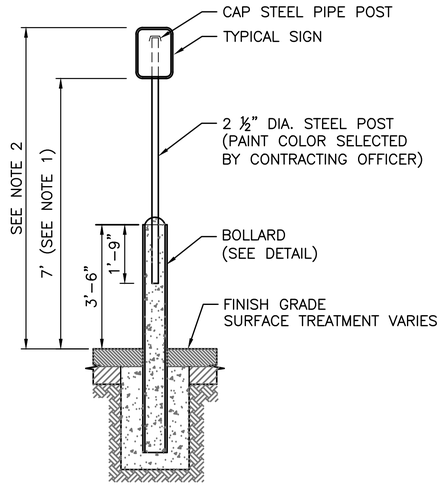
BIORETENTION BASIN
N.T.S.

VERTICAL GRANITE CURB
N.T.S.



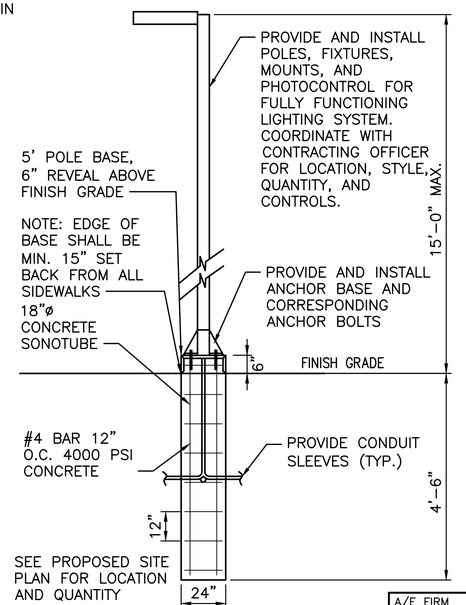
1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

SIGN POST – TYPE 'A'
N.T.S.

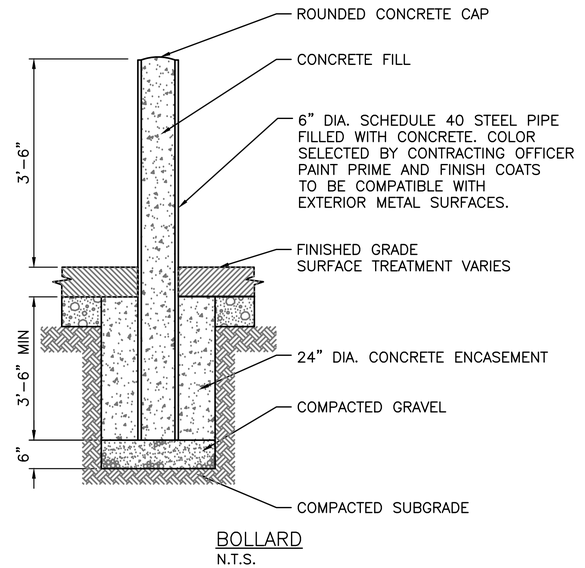


1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

SIGN POST – TYPE 'B'
N.T.S.



LIGHT POLE DETAIL
N.T.S.

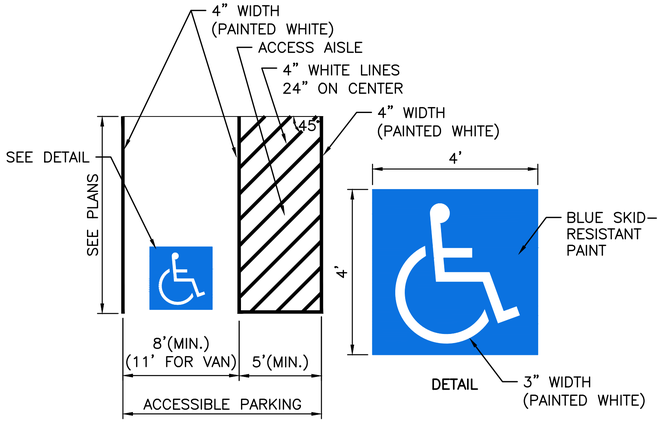


BOLLARD
N.T.S.

STATE OF MAINE
DAVID A. SENUS
10781
REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C8	TITLE OF SHEET DETAILS (1 OF 7) HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 14 OF 131

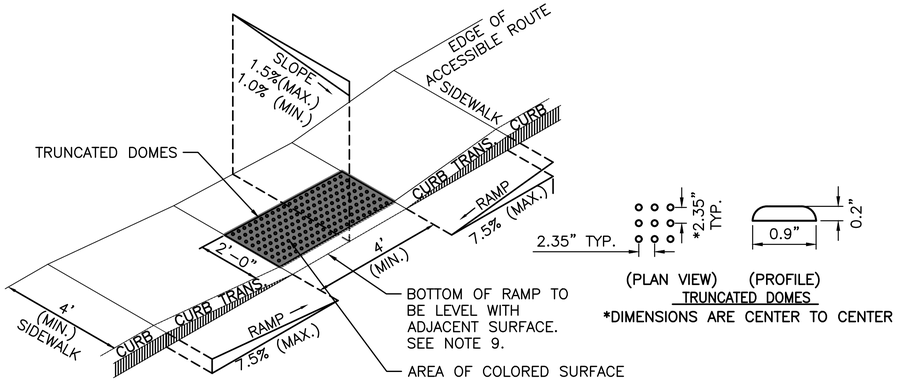
2/27/2025 12:03 JPRIANO R2028 \\vhb.com\gbl\proj\portland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C8-C14_DETAILS.dwg



NOTES

1. ALL DIMENSIONS TO CENTER OF 4" PAVEMENT STRIPING.
2. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.

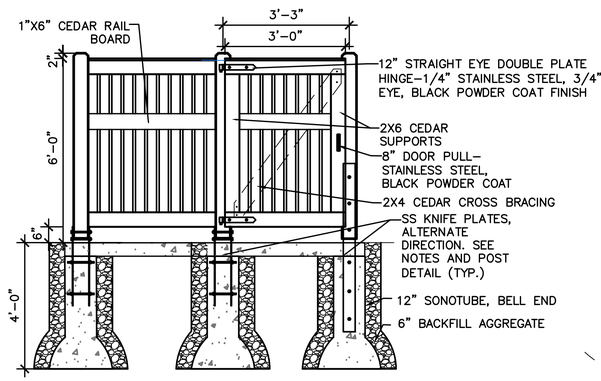
ACCESSIBLE PARKING SPACE
N.T.S.



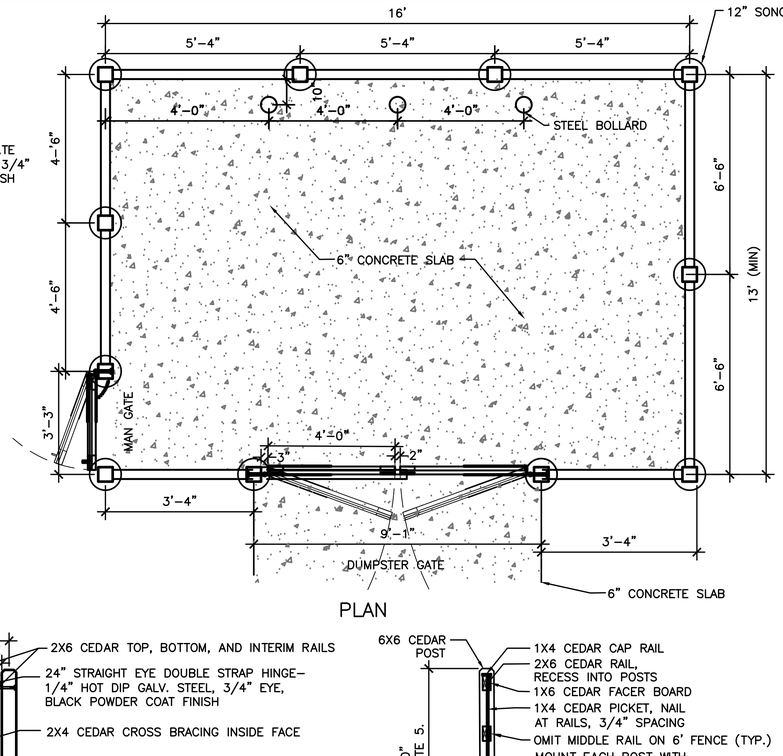
NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 4%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.

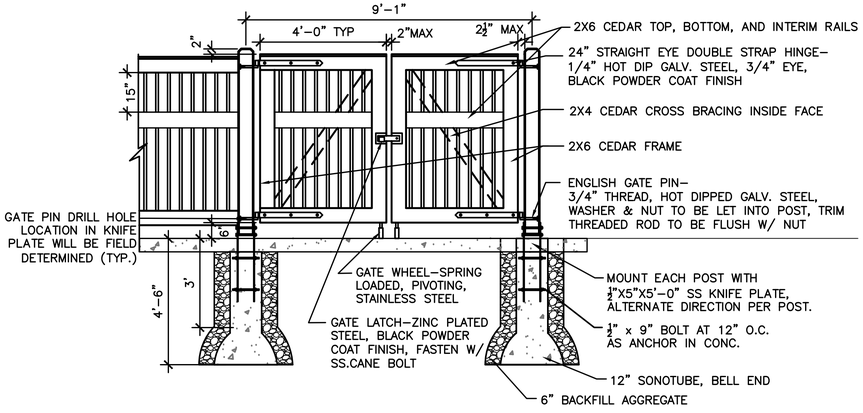
ACCESSIBLE CURB RAMP (ACR) TYPE 'A-D'
N.T.S.



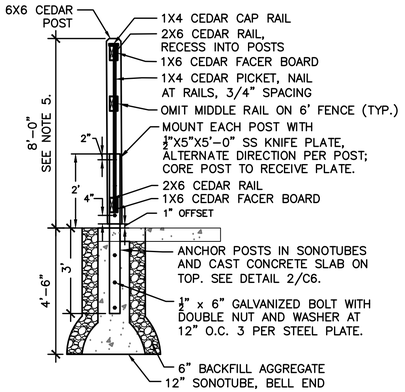
MAN GATE ELEVATION



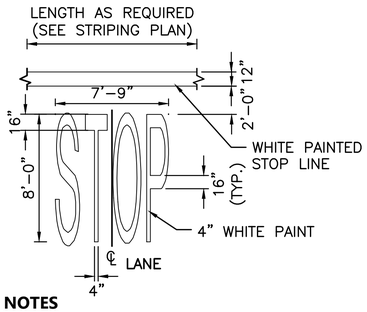
PLAN



DUMPSTER GATE ELEVATION



TYP ENCLOSURE SECTION

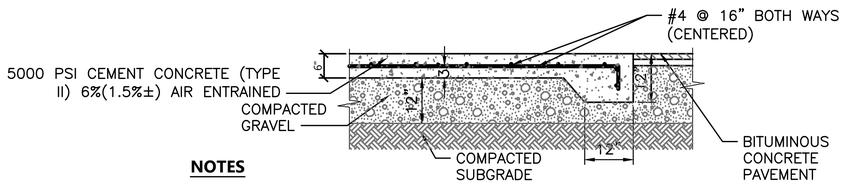


NOTES

1. PAVEMENT MARKINGS TO BE INSTALLED FOR ON SITE WORK IN LOCATIONS SHOWN.

PAINTED STOP BAR
N.T.S.

DUMPSTER ENCLOSURE
N.T.S.



NOTES

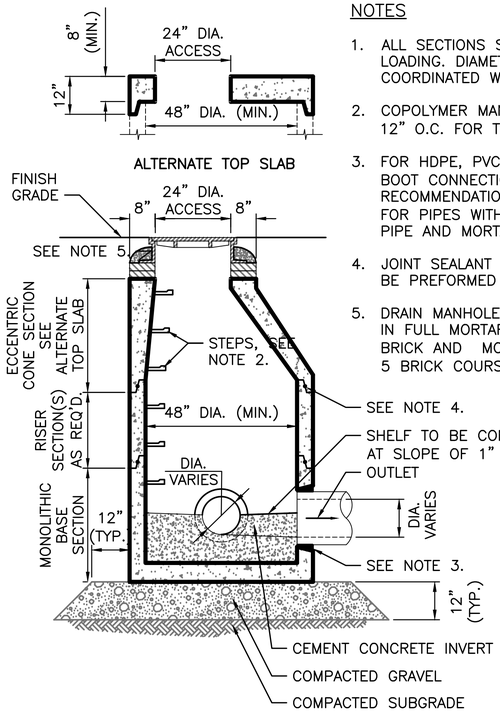
1. SIZE OF PAD TO BE AS INDICATED ON PLANS.
2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 30 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD.

DUMPSTER PAD
N.T.S.

STATE OF MAINE
DAVID A. SENUS
10791
REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C9	TITLE OF SHEET DETAILS (2 OF 7) HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 15 OF 131

2/27/2025 12:03 JPIRANO R2024 \\vhb.com\gbl\proj\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C8-C14_DETAILS.dwg



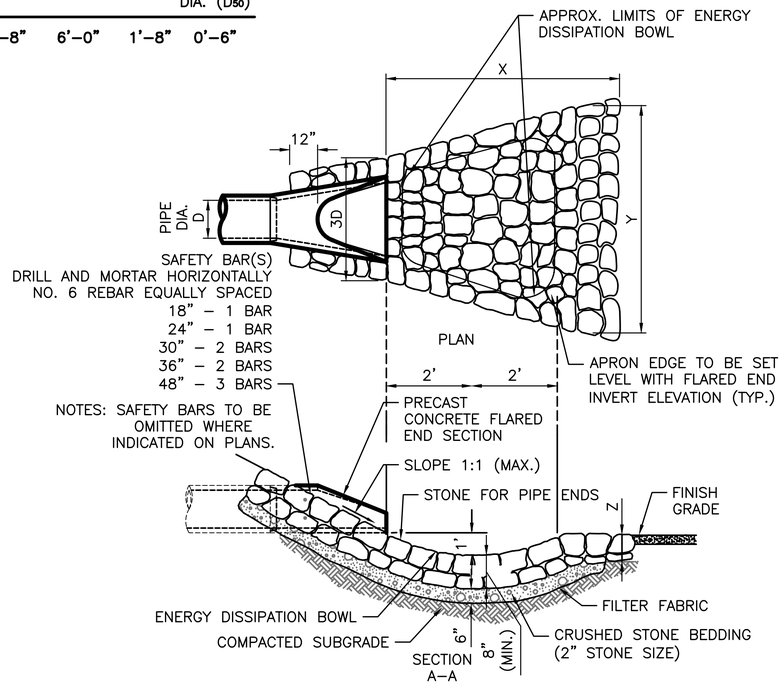
DRAIN MANHOLE (DMH)
N.T.S.

NOTES

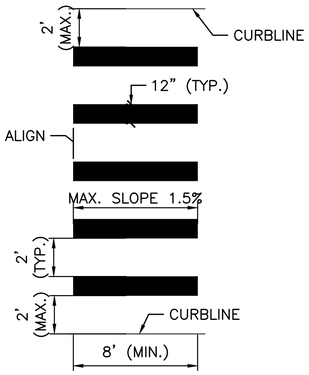
1. ALL SECTIONS SHALL BE DESIGNED FOR HS–20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

RIPRAP STONE

FES NO.	X	Y	Z	STONE DIA. (D_{50})
5	4'–8"	6'–0"	1'–8"	0'–6"



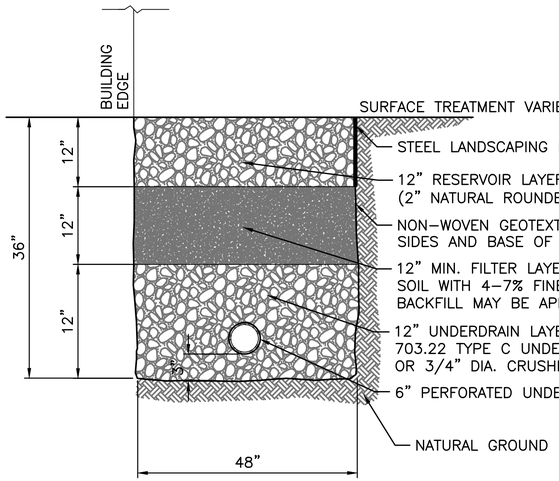
FLARED END SECTION (FES) WITH STONE PROTECTION
N.T.S.
(APPLIES TO AREAS NOT VISIBLE FROM PARK ROADWAY)



NOTES

1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO – 6 INCH LINES) WILL BE ACCEPTED.
2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE.
3. ALL LONGITUDINAL CROSSWALK LINES SHALL BE THE SAME LENGTH AND PROPERLY ALIGNED.
4. CROSS WALK SIDESLOPE SHALL NOT EXCEED 1.5%.

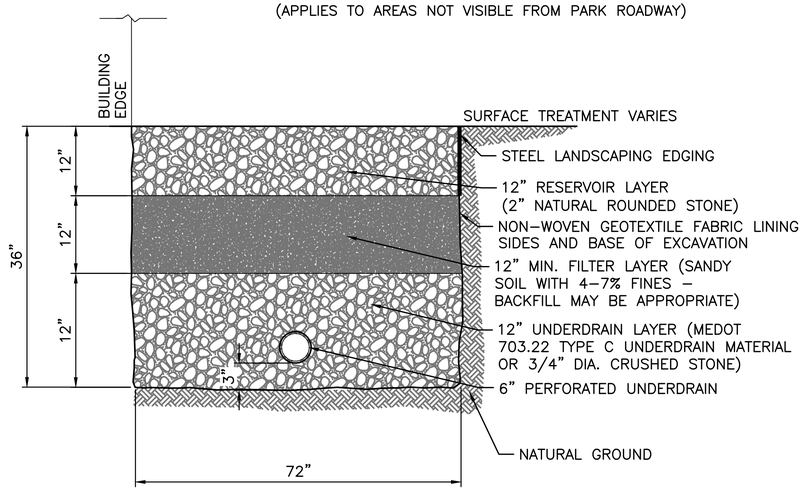
CROSSWALK
N.T.S.



NOTES

1. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE SYSTEM.
2. DO NOT PLACE SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

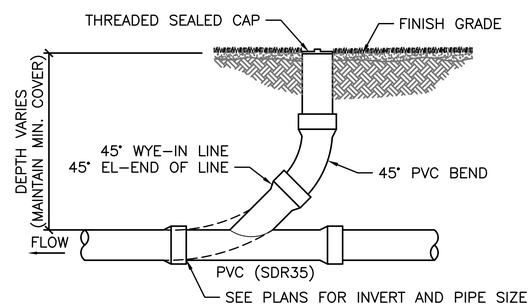
4' DRIP EDGE TRENCH (WITH UNDERDRAIN)
N.T.S.



NOTES

1. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE SYSTEM.
2. DO NOT PLACE SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

6' DRIP EDGE TRENCH (WITH UNDERDRAIN)
N.T.S.

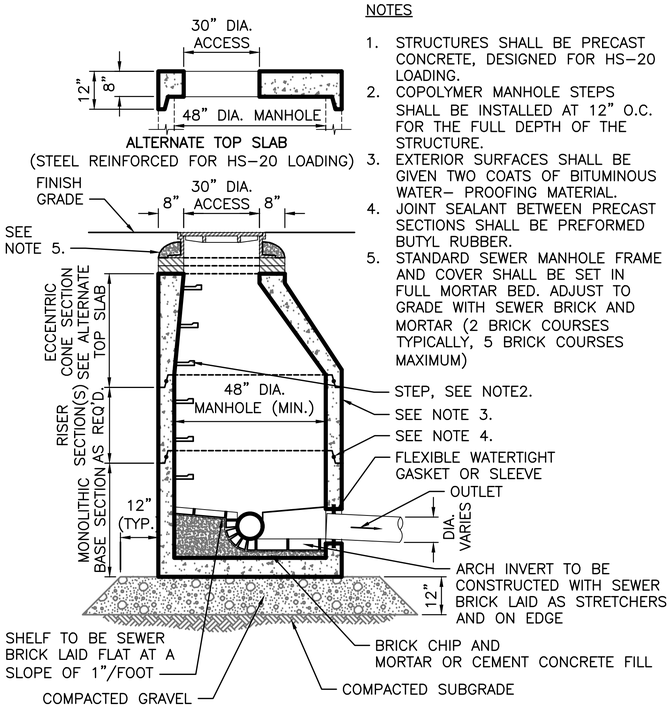


CLEANOUT (CO) – LANDSCAPE AREA
N.T.S.

DAVID A. SENNS 10791 — STATE OF MAINE — REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C10	TITLE OF SHEET DETAILS (3 OF 7) HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 16 OF 131	

2/27/2025 12:03 JPIRAINO R2028 \\vhb.com\gbl\pro\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C8-C14_DETAILS.dwg

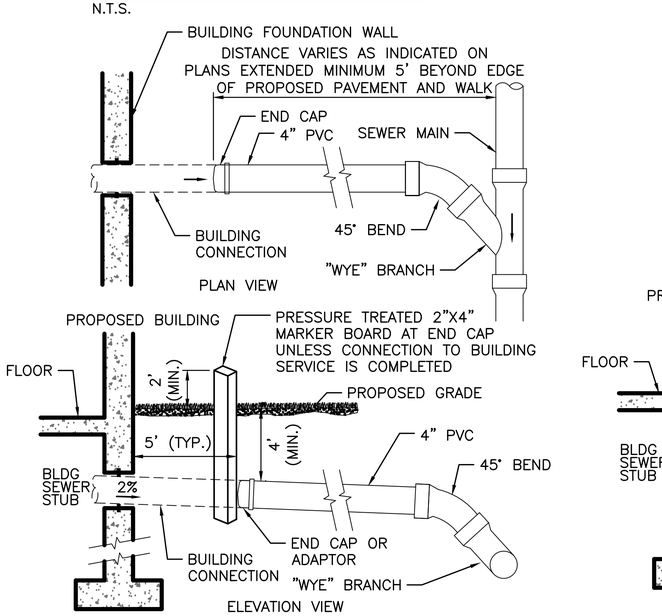


NOTES

1. STRUCTURES SHALL BE PRECAST CONCRETE, DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER- PROOFING MATERIAL.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH SEWER BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

SANITARY SEWER MANHOLE (SMH)

N.T.S.

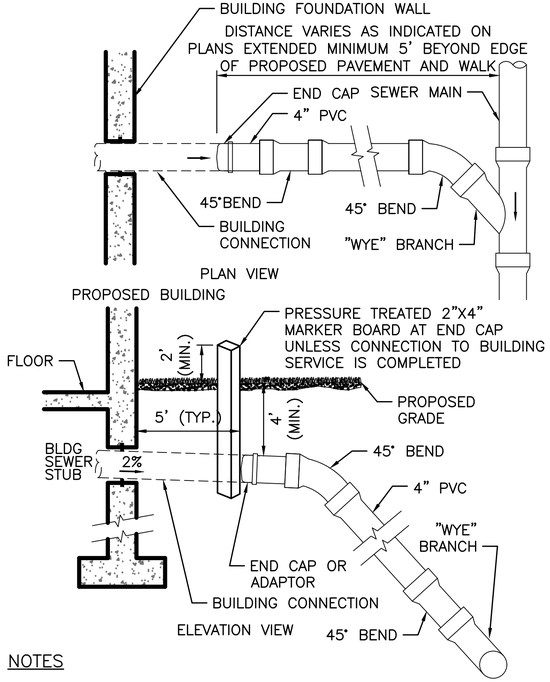


NOTES

1. PIPE AND FITTING MATERIALS TO BE PVC SDR35, MEETING ASTM 3034 FOR USE WITH SANITARY SEWER SYSTEMS.
2. ADAPTOR TO BE PREMANUFACTURED UNIT FOR CONNECTION OF PIPE TYPES

TYPICAL WYE CONNECTION DETAIL

N.T.S.

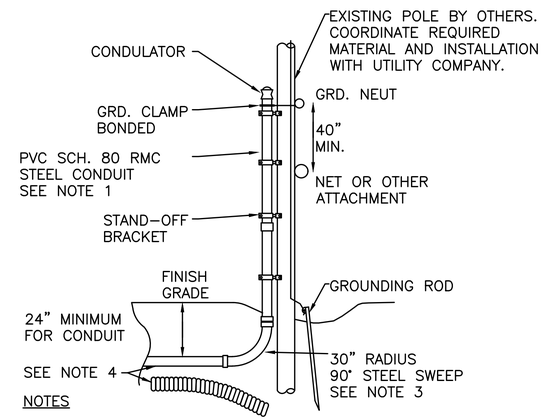


NOTES

1. PIPE AND FITTING MATERIALS TO BE PVC SDR35, MEETING ASTM 3034 FOR USE WITH SANITARY SEWER SYSTEMS.
2. ADAPTOR TO BE PREMANUFACTURED UNIT FOR CONNECTION OF PIPE TYPES

TYPICAL WYE AND CHIMNEY DETAIL

N.T.S.



NOTES

1. R.M.C. -RIGID METAL CONDUIT, GALV. 2" MINIMUM SIZE. 4" MINIMUM SIZE FOR ALL 3 PHASE SECONDARY UNDERGROUND FIRST 10' SECTION STEEL.
2. CONDUIT NEED ONLY TO EXTEND ABOVE NEUTRAL WIRE, BUT ALWAYS MUST BE AT 3'-4" OR MORE ABOVE TELEPHONE CABLES.
3. STEEL SWEEP NOT NEEDED FOR DIRECT BURIED CABLE, HOWEVER A BUSHING IS REQUIRED.
4. DRAINAGE HOLES IN DUCT LINE AND SUB DRAIN REQUIRED.

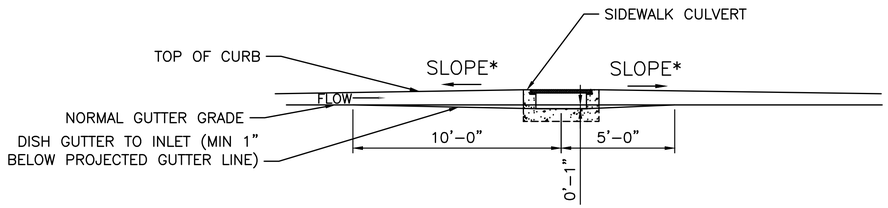
TYPICAL CONDUIT DROP FROM RISER POLE DETAIL

N.T.S.

2/27/2025 12:03 JPIRAINO R2028 \\vhb.com\gbl\pro\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C8-C14_DETAILS.dwg

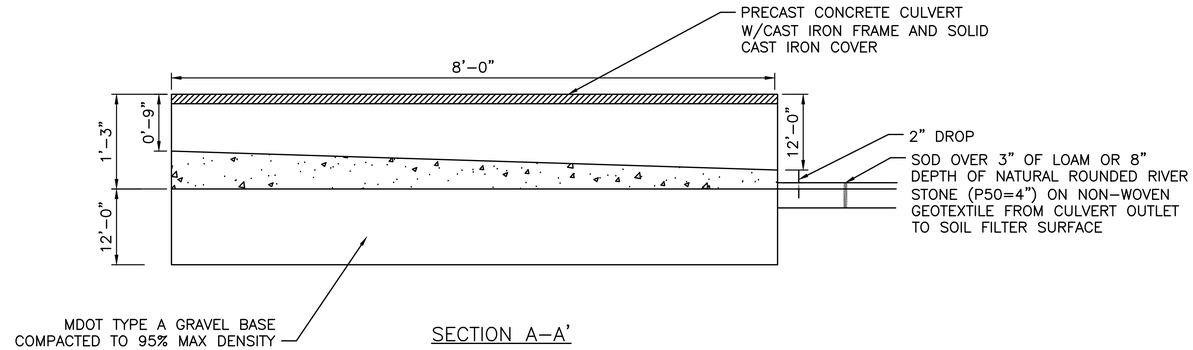
DAVID A. SENUS 10791 STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM CHKD JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C11	TITLE OF SHEET DETAILS (4 OF 7) HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 17 OF 131

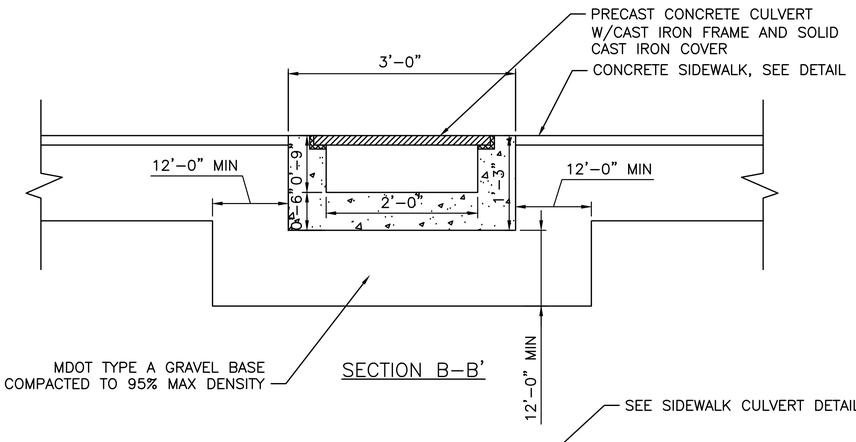


* TOP OF CURB AND SIDEWALK SLOPED TO MATCH TOP OF SIDEWALK CULVERT GRADE, AND RUNNING SLOPE SHALL NOT EXCEED 4%.

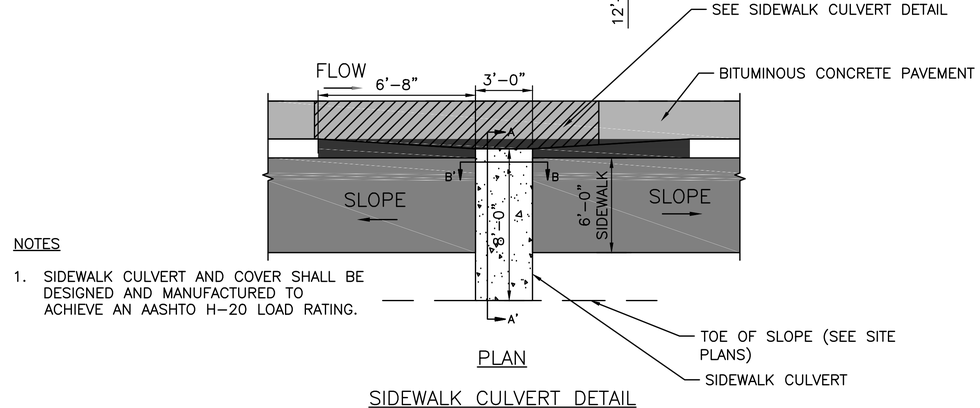
CULVERT GUTTER DETAIL
N.T.S.



SECTION A-A'



SECTION B-B'



NOTES

1. SIDEWALK CULVERT AND COVER SHALL BE DESIGNED AND MANUFACTURED TO ACHIEVE AN AASHTO H-20 LOAD RATING.

PLAN

SIDEWALK CULVERT DETAIL
N.T.S.

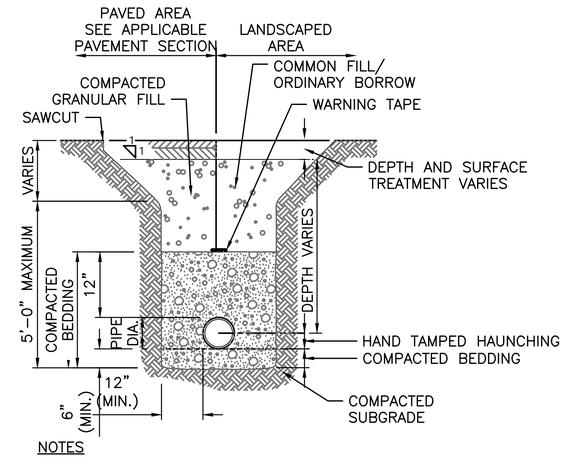
RESTRAINED JOINTS

FITTINGS	NUMBER OF JOINTS TO RESTRAIN ON EITHER SIDE OF FITTING (BASED ON 18-FOOT PIPE LENGTH)
90 DEGREE BEND	3
45 DEGREE BEND	2
22-1/2 DEGREE BEND	2
TEE:	
BRANCH	3
RUN	2

NOTES

1. PIPE WITH RESTRAINED JOINTS SHALL BE INSTALLED IN ALL AREAS WHERE THE PIPE IS WITHIN FILL MATERIALS AND ALSO AT LOCATIONS SHOWN ON THE DRAWINGS. RESTRAINED JOINTS SHALL BE INSTALLED AT BENDS, REDUCERS, TEES, VALVES, DEAD ENDS, AND HYDRANTS. THE MINIMUM LENGTH OF PIPE TO BE RESTRAINED ON EITHER SIDE OF THE JOINT SHALL BE AS SHOWN ON THE TABLE ABOVE. THE FITTINGS OF THE NEW PIPING SHALL BE FOR RESTRAINED JOINTS, AS MARKED ON THE DRAWINGS.
2. NO RESTRAINING IS REQUIRED IN THE DIRECTION OF THE EXISTING PIPE IF ONLY A SHORT LENGTH OF IT IS EXPOSED IN THE TRENCH FOR MAKING A CONNECTION.
3. RESTRAINED JOINT ASSEMBLIES FOR PUSH-ON PIPE AND FITTINGS SHALL BE MADE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.

RESTRAINED JOINTS FOR WATER PIPE
N.T.S.



NOTES

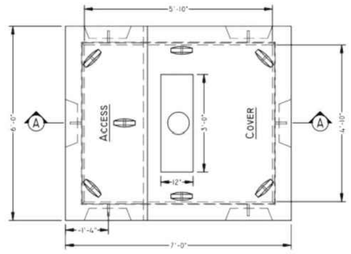
1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. COMPACTED GRANULAR FILL MAY CONSIST OF GRAVEL, CRUSHED STONE, SAND, OR OTHER MATERIAL AS APPROVED BY CONTRACTING OFFICER.

UTILITY TRENCH
N.T.S.

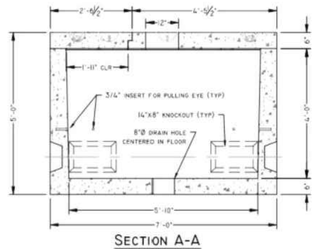
STATE OF MAINE DAVID A. SENUS 10791 PROFESSIONAL LICENSED ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C12	TITLE OF SHEET DETAILS (5 OF 7) HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 18 OF 131

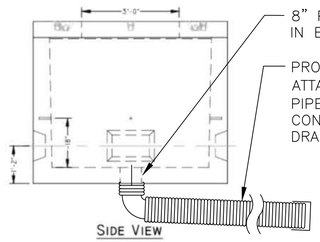
2/27/2025 12:03 JPIRAINO R2028 \\vhb.com\gbl\proj\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C8-C14_DETAILS.dwg



PLAN VIEW



SECTION A-A

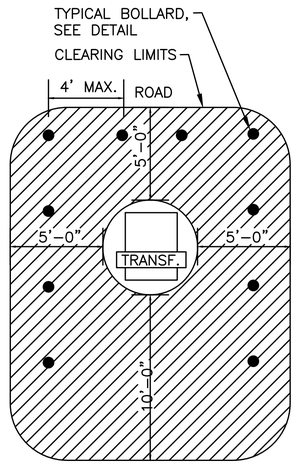


SIDE VIEW

NOTE:
1. COORDINATE SIZE AND VAULT REQUIREMENTS WITH LOCAL UTILITY. ADJUST AS REQUIRED.
2. CONCRETE COMPRESSIVE STRENGTH: 5000 PSI @ 28 DAYS
3. AIR ENTRAINMENT: 4–6%
4. GRADE 60 REINFORCEMENT
5. PULLING EYES ±4.5" ℄ ABOVE KNOCKOUTS (TYP)
6. SEALANT AROUND BASE OF ACCESS / COVER NOT PERMITTED
7. KNOCKOUTS LOCATED UNDER ACCESS TO BE USED FOR PRIMARY CONDUCTORS ONLY

6'X7' SPLIT TOP TRANSFORMER PAD

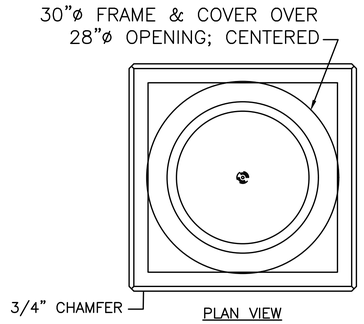
N.T.S. SOURCE: VERSANT



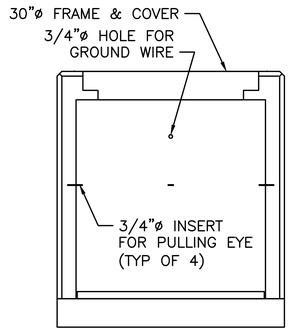
NOTES GRASS
1. NO OBSTRUCTIONS IN DESIGNATED SPACE (EXCEPT FOR BOLLARDS)..
2. NO VERTICAL OBSTRUCTIONS.
3. PROVIDE PROPER DRAINAGE.
4. BOLLARDS IN FRONT OF TRANSFORMER CABINET DOOR SHALL HAVE A CLEARANCE OF 4'–5'.

TRANSFORMER & PRIMARY EQUIPMENT CLEARANCES

N.T.S. SOURCE: VERSANT



PLAN VIEW

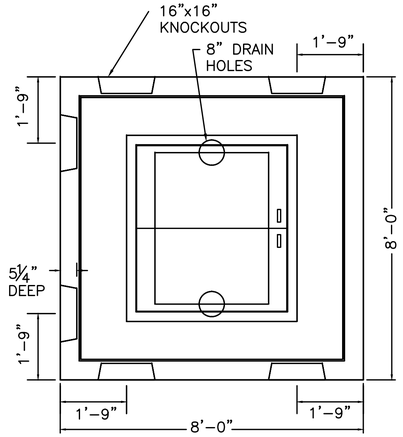


ELEVATION VIEW

*PROVIDE DRAIN TO DAY LIGHT FOR ALL GROUND STRUCTURES
*PROVIDE GROUNDING AS NECESSARY

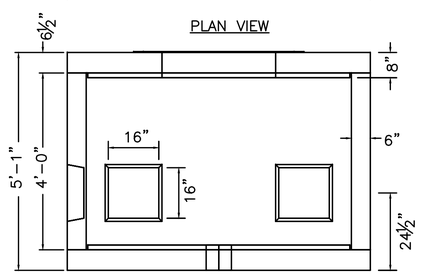
4'X4' TELECOM PULLBOX STRUCTURE

N.T.S. SOURCE: VERSANT



*PROVIDE DRAIN TO DAY LIGHT FOR ALL GROUND STRUCTURES
*PROVIDE GROUNDING AS NECESSARY

PLAN VIEW

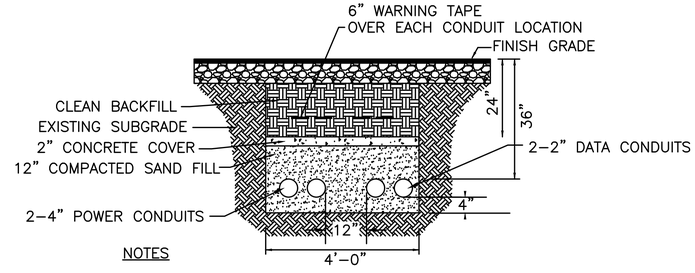


CONCRETE SPECIFICATIONS:
1. 5000 PSI AFTER 28 DAYS.
2. REINFORCING IS GRADE 60, CONCRETE DESIGNED FOR H–20 LOADING.
3. CONTRACTOR TO SUPPLY LOADING SPECIFICATIONS, OTHERWISE H–20 LOADING.
4. THREADED INSERTS FOR PULLING EYES TO BE 4½" ABOVE TAPERED KNOCKOUTS.
5. S.S. HARDWARE, SLAM–LOCK, LIFT ARM, RECESSED STAPLE, 8" SKIRT.

ELEVATION VIEW

8'X8' ELECTRICAL PULLBOX STRUCTURE

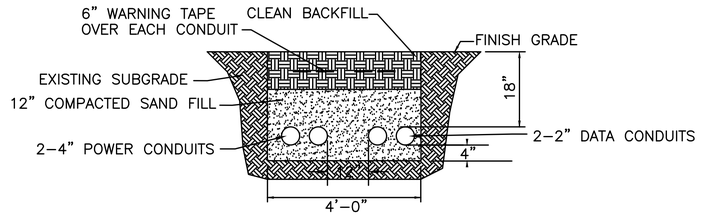
N.T.S. SOURCE: VERSANT



NOTES
1. CONDUITS RUN HORIZONTAL TO WATER OR GAS LINES MUST HAVE A MINIMUM 36" HORIZONTAL SEPARATION.
2. ALL FOREIGN UTILITY PERPENDICULAR CROSSINGS MUST HAVE 12" MINIMUM SEPARATION FROM DUCTBANK.
3. CONDUIT SHALL BE PVC, SCH. 40. (OR 80 ON RISER) OR PVC COATED RIGID STEEL. SIZE AS INDICATED ON DRAWINGS.
4. DUCTBANK TO BE SUPPORTED AT REGULAR INTERVALS NOT EXCEEDING 5'–0" (TYPICAL VERSANT).
5. PROVIDE PULL ROPE IN EACH CONDUIT LABELED AT EACH END.
6. DUCT BANK CONCRETE MUST EXCEED 3,000 PSI.
7. COORDINATE DUCTBANK WORK WITH APPROPRIATE UTILITY.

PRIMARY DUCTBANK

N.T.S. SOURCE: VERSANT



NOTES
1. CONDUITS RUN HORIZONTAL TO WATER OR GAS LINES MUST HAVE A MINIMUM 36" HORIZONTAL SEPARATION.
2. ALL FOREIGN UTILITY PERPENDICULAR CROSSINGS MUST HAVE 12" MINIMUM SEPARATION FROM DUCTBANK.
3. CONDUIT SHALL BE PVC, SCH. 40. OR PVC COATED RIGID STEEL. SIZE AS INDICATED ON DRAWINGS.
4. DUCTBANK TO BE SUPPORTED AT REGULAR INTERVALS NOT EXCEEDING 5'–0" (TYPICAL VERSANT).
5. PROVIDE PULL ROPE IN EACH CONDUIT LABELED AT EACH END.
6. DUCT BANK CONCRETE MUST EXCEED 3,000 PSI.
7. COORDINATE DUCTBANK WORK WITH APPROPRIATE UTILITY.

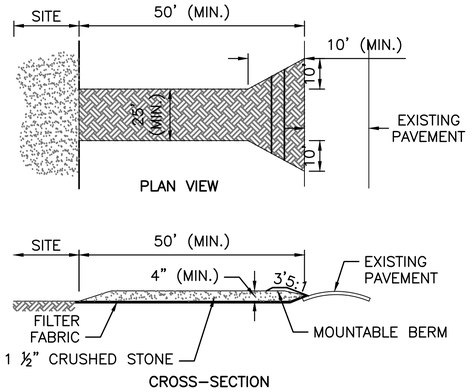
SECONDARY DUCTBANK

N.T.S. SOURCE: VERSANT

STATE OF MAINE DAVID A. SENUS 10791 REGISTERED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C13	TITLE OF SHEET DETAILS (6 OF 7) HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 19 OF 131

2/27/2025 12:03 JPIRRAINO R2024 \\vhb.com\gbl\pro\}\portland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C8-C14_DETAILS.dwg



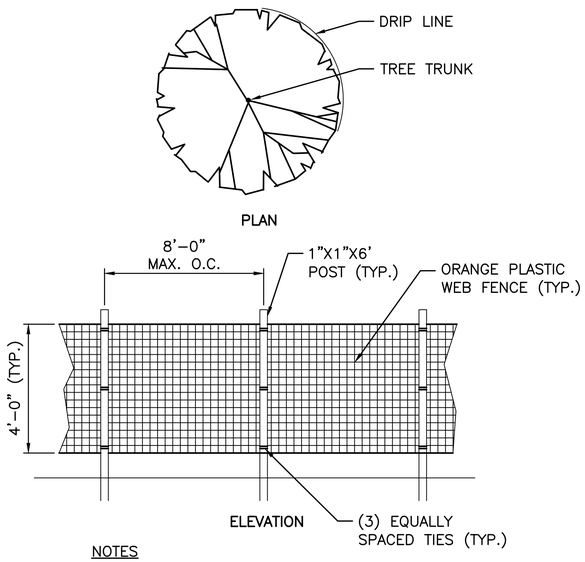
NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.

3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

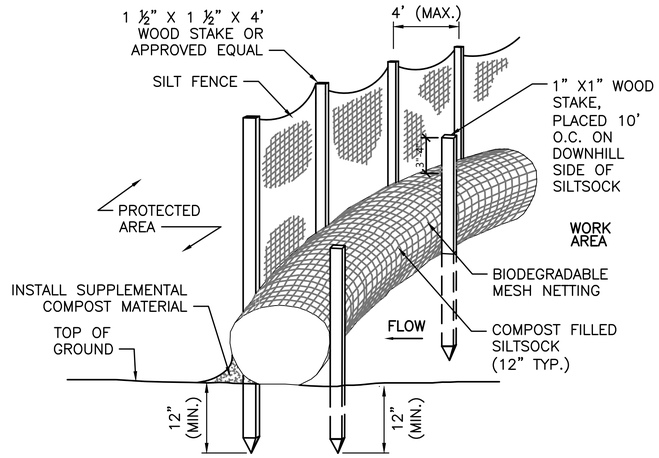
STABILIZED CONSTRUCTION EXIT
N.T.S.



NOTES

1. INSTALL TREE PROTECTION FENCE AT THE DRIP LINE OF EXISTING TREES TO REMAIN.

TREE PROTECTION FENCE
N.T.S.



NOTES

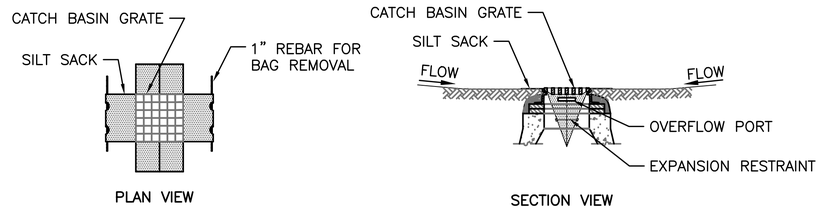
1. SILT SOCKS SHALL OVERLAP A MINIMUM OF 12 INCHES.

2. SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

3. UPON SITE STABILIZATION, COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE CONTRACTING OFFICER.

4. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

SILT SOCK/SILT FENCE BARRIER
N.T.S.



NOTES

1. INSTALL SILT SACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND STRAW BALES HAVE BEEN REMOVED.

2. GRATE TO BE PLACED OVER SILT SACK.

3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

SILT SACK SEDIMENT TRAP
N.T.S.

STATE OF MAINE
DAVID A. SENUS 10791
PROFESSIONAL ENGINEER
LICENSED

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: VHB SOUTH PORTLAND, ME	DESIGNED: ERM DRAWN: JRP TECH. REVIEW: TSB DATE: 2/28/2025	SUB SHEET NO. C14	TITLE OF SHEET DETAILS (7 OF 7) HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 20 OF 131

2/27/2025 12:03 JPIRANO R2024 \\vhb.com\gbl\proj\sportland\55350.17 harden farm 1c\05_Work\ACAD\309000\cad v2024 drawings\GEN\C8-C14_DETAILS.dwg

TYPICAL PLANT BED MULCHING LIMIT DETAIL
NTS

See Sheet L2 for Plant List, Planting Notes and Planting Details

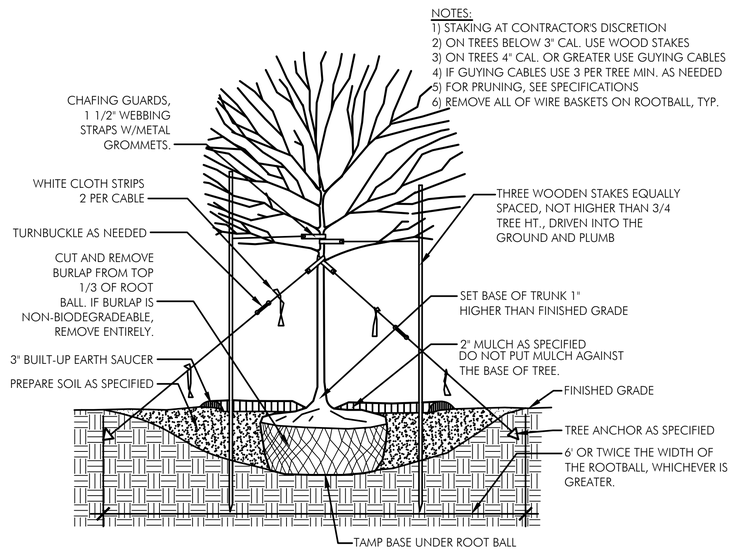
PHASE 1C SITE PLANTING PLAN

20 0 20 40
SCALE OF FEET
1" = 20'-0"

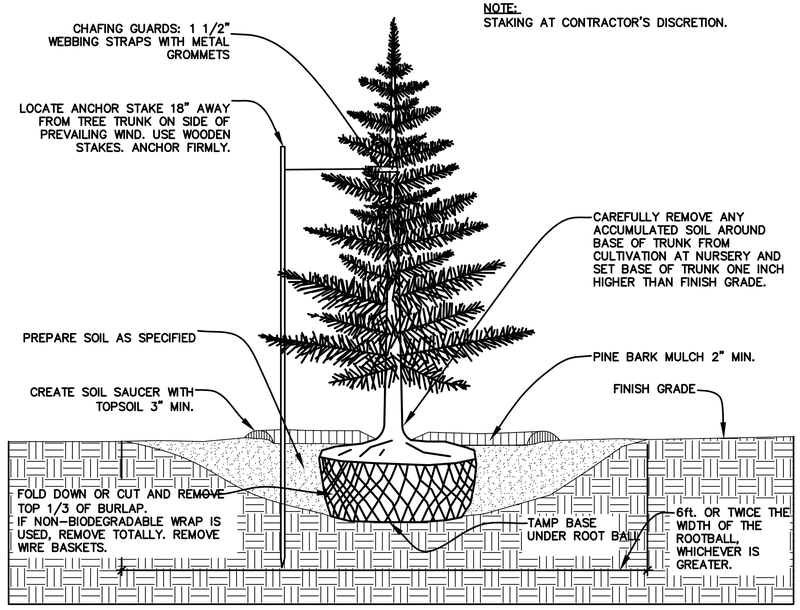
REGISTERED LANDSCAPE ARCHITECT · SAMUEL R. COPLON No. 100 · STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: COPLON ASSOC. MT. DESERT, ME	DESIGNED: SRC DRAWN: SRC TECH. REVIEW: SRC DATE: 2/28/2025	SUB SHEET NO. L1	TITLE OF SHEET SITE PLANTING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 21 OF 131

2/19/2025 16:28 SAM R2024 Y:\Active Projects\ANP Harden Farm Phase 1C\CAD\ANP Harden Farm Phase 1C – Landscape.dwg



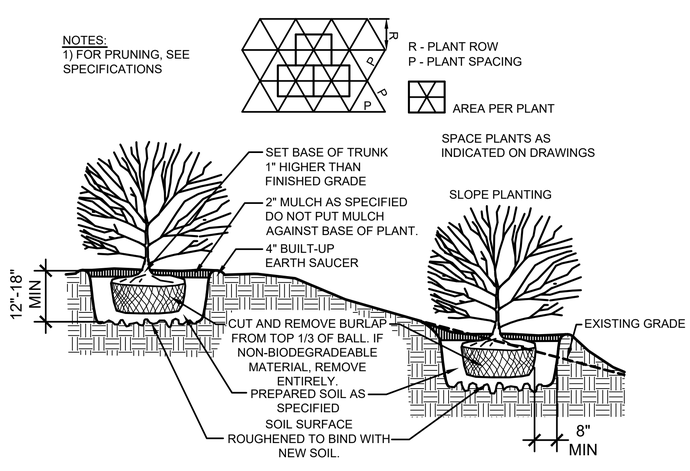
DECIDUOUS TREE PLANTING DETAIL
NTS



CONIFEROUS TREE PLANTING DETAIL
NTS

PLANT LIST

	SYM	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	REMARKS
TREES							
7	AR	Acer rubrum	Red Maple	2.5"-3" cal	B&B	As Shown	specimen
1	AR-M	Acer rubrum Red Sunset	Red maple	10'-12'	B&B	As Shown	Multistem - min 3 leaders
4	AS	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	2.5"-3" cal	B&B	As Shown	specimen
3	BP	Betula populifolia 'White Spire'	Whitespire Grey Birch	2"-2.5" cal	B&B	As Shown	specimen
6	BP-M	Betula populifolia 'White Spire'	Whitespire Grey Birch	10-12' Multi	B&B	As Shown	Min. three leader specimen
4	OV	Ostrya virginiana	American Hophornbeam	2"-2.5"cal	B&B	As Shown	specimen
6	PS-0	Picea glauca	White Spruce	3'-4'	B&B	As Shown	Full, field grown, non sheared
5	PG1	Picea glauca	White Spruce	5'-6'	B&B	As Shown	Full, field grown, non sheared
7	PG2	Picea glauca	White Spruce	7'-8'	B&B	As Shown	Full, field grown, non sheared
6	PS-0	Pinus strobus	White Pine	3'-4'	B&B	As Shown	Full, field grown, non sheared
3	PS	Pinus strobus	low	7'-8'	B&B	As Shown	Full, field grown, non sheared
3	QR	Quercus rubra	Red Oak	3"-3.5"	B&B	As Shown	Specimen
SHRUBS							
4	AM	Aronia melanocarpa 'Viking'	Viking Black Chokecherry	#5	Cont.	6' o.c. or As Shown	Full
12	CS	Cornus sericea 'Arctic Fire"	Artic Fire Red Osier Dogwood	#3	Cont.	3' o.c.	
47	CP	Comptonia peregrina	Sweet fern	#3	Cont.	3' o.c.	Full
16	DL	Diervilla lonicera	Dwarf Bush Honeysuckle	#5	Cont.	4' o.c.	Full
7	HV	Hamamelis virginiana	Common Witchhazel	#5	Cont.	As Shown	Full
2	IV	Ilex verticillata 'Sparkleberry'	Winterberry	#5	Cont.	As Shown	Full
1	IV-M	Ilex verticillata 'Jim Dandy'	Winterberry (male)	#3	Cont.	As Shown	Full
43	JH	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Juniper	#3	Cont.	6' o.c. or As Shown	Full
30	MG	Myrica gale	Sweetgale	#3	Cont.	3' o.c. or As Shown	Full
16	MP	Myrica pensylvanica	Northern Bayberry	#5	Cont.	As Shown	
8	SL	Spirea latifolia	Meadowsweet	#3	Cont.	As Shown	
15	VN	Viburnum nudum 'Winterthur'	Winthur Smooth Viurnum	#5	Cont.	As Shown	Full
REVEGETATION							
8	BAr	Betula allgehaniensis	Yellow Birch	2.5-3'	Cont		
8	BPr	Betula populifolia	Gray Birch	3'-4'	Cont		
16	PGr	Picea glauca	White Spruce	2.5'-3'	Cont		
8	PSr	Pinus Strobus	White Pine	2.5'-3'	Cont		



SHRUB PLANTING DETAIL
NTS

PLANTING NOTES

1. CONTRACTOR : VERIFY THE LOCATION OF ALL UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICT TO THE OWNERS REPRESENTATIVE.

2. PLANT NO TREES OR SHRUBS BEFORE ACCEPTANCE OF FINISH GRADING. C.O.R RESERVES THE RIGHT TO REJECT PLANTS PRIOR TO AND AFTER PLANTING.

3. LAWN AREAS WITHIN THE LIMIT OF WORK OR OUTSIDE THE LIMIT OF WORK WHICH ARE DISTURBED DURING CONSTRUCTION (INCLUDING PLANTING OPERATIONS) SHALL BE RETURNED TO ORIGINAL GRADE, LOAMED AND SEEDED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE GOVERNMENT.

4. PLANTS SHALL BE WELL WATERED THROUGHOUT THE FIRST GROWING SEASON.

5. LOAM & SEED ALL DISTURBED AREAS NOT NOTED TO RECEIVE OTHER TREATMENT.

6. PLANT BEDS FOR SHRUB PLANTINGS SHALL BE CONTINUOUS UNLESS NOTED OTHERWISE. SEE MULCHING DETAIL.

7. C.O.R. TO APPROVE PLANT MATERIALS PRIOR TO PLANTING.

8. C.O.R. TO LAYOUT ALL PLANTINGS PRIOR TO PLANTING.

9. NO SUBSTITUTION OF PLANT SPECIES OR VARIETIES WITHOUT PRIOR WRITTEN APPROVAL.

10. COMPLETE QUANTITIES OF PLANTS TO BE AVAILABLE ON SITE AT THE TIME OF PLANTING FOR FIELD LAYOUT BY C.O.R.

11. LOOSE OR CRACKED ROOTBALLS ARE UNACCEPTABLE AND WILL BE REJECTED.

12. REMOVE TOP 2/3 OF WIRE BASKETS. REMOVE TOP 1/3 OF BURLAP. SYNTHETIC BURLAP WILL NOT BE ACCEPTED. FOR CONTAINER PLANTS, REMOVE CONTAINER AND SCARIFY EDGES OF ROOTBALL 1/2 INCH DEEP IN A MINIMUM OF FOUR LOCATIONS AND AT BOTTOM OF ROOTBALL.

13. RAISE AND REPLANT PLANT MATERIAL THAT SETTLES AFTER PLANTING AND WATERING.

14. WATER PLANTS THOROUGHLY AFTER INSTALLATION, A MINIMUM OF TWICE WITHIN THE FIRST 24 HOURS.

REGISTERED LANDSCAPE ARCHITECT SAMUEL R. COPLON No. 100 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS COPLON ASSOC. MT. DESERT, ME	DESIGNED: SRC DRAWN: SRC TECH. REVIEW: SRC DATE: 2/28/2025	SUB SHEET NO. L2	TITLE OF SHEET PLANTING NOTES and DETAILS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 22 OF 131

2/19/2025 16:28 SAM R2024 Y:\Active Projects\ANP Harden Farm Phase 1C\CAD\ANP Harden Farm Phase 1C - Landscape.dwg

HARDEN FARM EMPLOYEE HOUSING PHASE 1C

6–1 BEDROOM
1 BATHROOM

UNIT MIX & AREA CALCULATIONS:

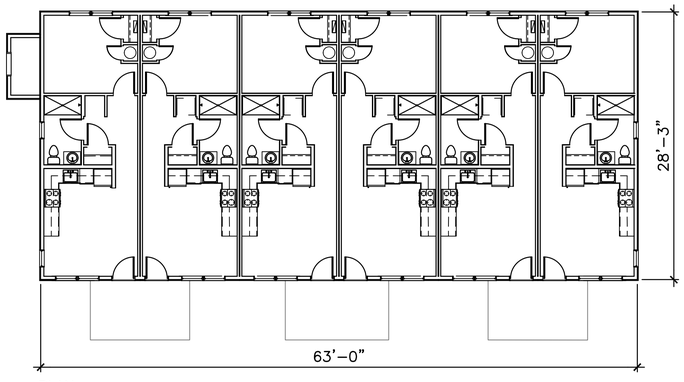
LEVEL	GROSS BUILDING SF	COMMON AREAS SF	UNIT TYPE	UNIT AREA (GROSS)	UNIT AREA (NET)	UNIT COUNT
LEVEL 01	3,163.98 SF (LIVING AREA)	21 SF	1 BED INTERIOR	527.33 SF	481.74 SF	4
			1 BED EXTERIOR	527.33 SF	478.68 SF	2
TOTALS:	3,163.98 SF					6

NOTES:

1. CALCULATIONS FOR THE GROSS AREAS ARE BASED ON THE OUTSIDE FACE OF STUDS IN EXTERIOR WALLS, AND TO THE GRID LINE ON DEMISING WALLS. THE NET AREAS ARE BASED ON FINISH FACE TO FINISH FACE OF WALLS.
2. COMMON AREAS REFER TO THE RISER ROOM.



FRONT ELEVATION



PLAN

SHEET LIST

SHEET	SUB SHEET	TITLE OF SHEET
GENERAL		
23	G0	COVER SHEET
24	G1	ABBREVIATIONS SYMBOLS AND NOTES
25	G2	CONSTRUCTION ASSEMBLIES
26	G3	UNIT PLAN – INTERIOR & EXTERIOR
CIVIL		SEE SITE PACKAGE
ARCHITECTURAL		
27	A1	CODE SUMMARY
28	A2	SCHEDULES
29	A3	FLOOR PLAN
30	A4	ROOF PLAN
31	A5	BUILDING ELEVATIONS – SOUTH & WEST
32	A6	BUILDING ELEVATIONS – NORTH & EAST
33	A7	BUILDING SECTIONS
34	A8	WALL SECTIONS
35	A9	REFLECTED CEILING PLAN
36	A10	EXTERIOR DETAILS
37	A11	EXTERIOR DETAILS
38	A12	ROOF DETAILS
39	A13	INTERIOR DETAILS

SHEET	SUB SHEET	TITLE OF SHEET
STRUCTURAL		
40	S0	STRUCTURAL NOTES
41	S1	LOAD MAPS & ADDITIONAL NOTES
42	S2A	FOUNDATION PLAN WEST
43	S2B	FOUNDATION PLAN EAST
44	S3A	ROOF FRAMING PLAN WEST
45	S3B	ROOF FRAMING PLAN EAST
46	S4	FOUNDATION DETAILS
47	S5	FRAMING DETAILS
48	M1	MECHANICAL LEGEND
49	M2	MECHANICAL DUCTWORK PLAN
50	M3	MECHANICAL DUCTWORK ATTIC PLAN
51	M4	MECHANICAL PIPING PLAN
52	M5	MECHANICAL DETAILS
53	M6	MECHANICAL DETAILS
54	M7	MECHANICAL SCHEDULES
55	E1	ELECTRICAL LEGEND
56	E2	ELECTRICAL POWER AND DATA PLAN
57	E3	ELECTRICAL POWER AND DATA ATTIC PLAN
58	E4	ELECTRICAL DIAGRAM AND SCHEDULES
59	E5	ELECTRICAL SCHEDULES
60	E6	ELECTRICAL LIGHTING PLAN
61	E7	ELECTRICAL LIGHTING ATTIC PLAN
62	P1	PLUMBING LEGEND
63	P2	SANITARY AND VENTING PLAN
64	P3	BELOW SLAB RADON PIPING PLAN
65	P4	DOMESTIC PLUMBING PLAN
66	P5	PLUMBING SCHEDULES
67	P6	PLUMBING DETAILS
68	FP1	FIRE PROTECTION LEGEND
69	FP2	FIRE PROTECTION ALARM LEGEND
70	FP3	FIRE PROTECTION PLAN
71	FP4	FIRE PROTECTION ATTIC PLAN
72	FP5	SPRINKLER PLAN
73	FP6	SPRINKLER ATTIC PLAN

LICENSED ARCHITECT CARLA M. HASKELL No. 2748 STATE OF MAINE

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	MW	G0	COVER SHEET	123 60025A
SUBCONTRACTOR: DGC ELLSWORTH, ME	ADD AND			PMIS/PKG NO. 309000
	TECH. REVIEW: MW		6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	SHEET 23 OF 131
	DATE: 2/28/2025			

ABBREVIATIONS

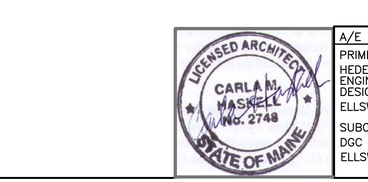
&	AND
@	AT
#	NUMBER
±	PLUS OR MINUS
ABA	ARCHITECTURAL BARRIERS ACT
ADDL	ADDITIONAL
AFF	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
ALUM	ALUMINUM
BD	BOARD
BED	BEDROOM
BLDG	BUILDING
BLKG	BLOCKING
B.O.	BOTTOM OF
℄	CENTERLINE
CB	CEMENTITIOUS BOARD
CJ	CONTROL JOINT
CLG	CEILING
CL	CLOSET
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT(S)
C.O.	CONTRACTING OFFICER
COL(S)	COLUMN(S)
CONC	CONCRETE
CONT	CONTINUOUS
CONSTR	CONSTRUCTION
CORR	CORRIDOR
CPT	CARPET
CT	CERAMIC TILE
D	DRYER
DIA	DIAMETER
DIM	DIMENSION
DR	DOOR
DS	DOWNSPOUT
DW	DISHWASHER
EA	EACH
EL	ELEVATION
ELEC	ELECTRIC(AL)
EQ	EQUAL
EQUIP	EQUIPMENT
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FG	FIBERGLASS
FIG	FIGURE
FIN	FINISH(ED)
FLR	FLOOR
FN	FURNACE
F.O.	FACE OF
FOS	FACE OF STUD, SLAB
FRP	FIBER REINFORCED PLASTIC
GA	GAUGE, GYPSUM ASSOCIATION
GALV	GALVANIZE(D)
GB	GRAB BAR
GYP	GYPSUM
GWB	GYPSUM WALL BOARD
HM	HOLLOW METAL
HR	HOUR
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
INFO	INFORMATION
INT	INTERIOR
IRC	INTERNATIONAL RESIDENTIAL CODE

LIN	LINEN
MANUF	MANUFACTURER
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL AND PLUMBING ENGINEERING
MDF	MEDIUM DENSITY FIBERBOARD
MIL	MILLIMETER
MIN	MINIMUM
MIRR	MIRROR(ED)
MTL	METAL
(N)	NEW
NA	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NUMBER
NPS	NATIONAL PARK SERVICE
O.C.	ON CENTER
OFOI	OWNER FURNISH/OWNER INSTALL
OH	OVERHEAD
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
OTS	OPEN TO STRUCTURE
PERF	PERFORATE(D)
PL	PLATE, PROPERTY LINE
PLAM	PLASTIC LAMINATE
PT	PRESSURE TREATED
PTD	PAINTED
PV	PHOTOVOLTAIC
PVC	POLYVINYL CHLORIDE
RCP	REFLECTED CEILING PLAN
REF	REFRIGERATOR, REFERENCE
REQD	REQUIRED
REV	REVERSE(D)
RO	ROUGH OPENING
RS	RESILIENT SHEET GOODS
RWB	RESILIENT WALL BASE
SAMF	SELF-ADHERED MEMBRANE FLASHING
SC	SOLID CORE
SF	SQUARE FEET
SIM	SIMILAR
SPEC	SPECIFICATION(S)
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STOR	STORAGE
STRUCT	STRUCTURAL
T	TEMPERED, TREAD
TBD	TO BE DETERMINED
TEL	TELEPHONE
THK	THICK
TJI	TRUSS JOIST I-JOIST
T.O.	TOP OF
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
VRFY	VERIFY
W	WASHER
W/	WITH
WASO	WASHINGTON, D.C. AREA SERVICE OFFICE
WD	WOOD
WH	WATER HEATER
WIN	WINDOW
WR	WATER RESISTANT
WRB	WEATHER RESISTANT BARRIER
W/D	WASHER AND DRYER

KEYNOTES

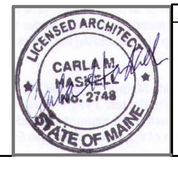
A10 SUBSTRUCTURE	
KEYNOTE	**A1010 STANDARD FOUNDATIONS (SF)**
SF1	SPREAD, STRIP FOOTINGS
SF2	PERIMETER DRAIN SYSTEMS
KEYNOTE	**A1030 SUBSTRUCTURE (S)**
S1	SLAB ON GRADE, 4" CONCRETE WITH WELDED WIRE MESH
KEYNOTE	**B1030 ROOF CONSTRUCTION (RF)**
RF1	SLOPED ROOF, PRE-MANUFACTURED TRUSSES
RF2	SPRAY FOAM INSULATION R60 WITH INTUMESCENT PAINT
B20 EXTERIOR CLOSURE	
KEYNOTE	**B2010 EXTERIOR WALL CONSTRUCTION (WE)**
WE1A	WOOD FRAME CONSTRUCTION ONSITE, 2x
KEYNOTE	**B2015 EXTERIOR WALLS SUBSTRATE & INSULATION (WS)**
WS1	1/2" OSB SHEATHING
WS2	2" R9 COMPOSITE INSULATING WALL SHEATHING
WS3	WEATHER-RESISTANT BARRIER
WS4	WALL INSULATION, R21
KEYNOTE	**B2015 EXTERIOR WALLS FINISH (WFE)**
WFE4	CEDAR SHINGLES WITH BREATHABLE/DRAINABLE UNDERLAYMENT
KEYNOTE	**B2017 EXTERIOR SOFFITS & FASCIA (EX)**
EX1	COMPOSITE TRIM & FASCIA
KEYNOTE	**B2020 EXTERIOR WALL PROJECTIONS (WP)**
WP1	CONCRETE PORCH
KEYNOTE	**B2030 EXTERIOR WINDOWS (WD)**
WD1	FIBERGLASS, INSULATED SINGLE HUNG, DOUBLE GLAZED
KEYNOTE	**B2040 EXTERIOR DOORS (DE)**
DE1	PRE-HUNG EXTERIOR DOOR, INSULATED FIBERGLASS, PREFINISHED
B30 ROOFING	
KEYNOTE	**B3010 ROOF COVERINGS (RC)**
RC1	ARCHITECTURAL ASPHALT SYSTEM, 30 YEAR WARRANTY
RC3	ICE AND WATER SHIELD
C10 INTERIOR CONSTRUCTION	
KEYNOTE	**C1010 INTERIOR PARTITIONS (WI)**
WI1	2X WOOD STUD FRAMED PARTITION
WI2	5/8" GYPSUM BOARD
WI3	VAPOR BARRIER
WI7	WALL INSULATION - R13 BATT
WI8	MOISTURE RESISTANT 1/2" GYPSUM BOARD
WI9	5/8" TYPE X GYPSUM BOARD
KEYNOTE	**C1020 INTERIOR DOORS (DI)**
DI1	PRE-HUNG, 6-PANEL, SOLID CORE
KEYNOTE	**C1021 INTERIOR HARDWARE (H)**
HI1	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 2 NOTE: MUST BE COMPATIBLE WITH PARK STANDARD
HI2	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 1
HI3	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 3
HI4	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 2
HI5	EXTERIOR HARDWARE PER ANSI/BHMA, GRADE 1
KEYNOTE	**C1030 FURNISHINGS (FN)**
FN1	COUNTERTOPS AND BACKSPLASH, LAMINATED, BULLNOSE EDGE
FN3	CABINETS, LIGHT OAK RESIDENTIAL W/ STILE & RAIL PANEL DOORS
KEYNOTE	**C1040 FITTINGS (FT)**
FT1	CLOSET SHELVING, PAINTED WOOD
FT4	WINDOW SILLS, PAINTED WOOD
FT6	TRIM, DOOR CASING, PAINTED WOOD
KEYNOTE	**C1050 SPECIALTIES (SP)**
SP1	IDENTIFYING DEVICES
SP2	STORAGE SHELVING, PAINTED PARTICLE BOARD
SP3	MIRRORS, WALL ADHERED, PLATE GLASS
C30 INTERIOR FINISHES	
KEYNOTE	**C3020 FLOOR FINISHES (FF)**
FF1	LVT FLOORING
FF2	RESILIENT SHEET GOODS FLOORING
FF5	RESILIENT WALL BASE
KEYNOTE	**C3010 WALL FINISHES (WF)**
WF1	PAINTING
WF4	PORCELAIN TILE
KEYNOTE	**C3030 CEILING FINISHES (CF)**
CF1	PAINTING
E10 EQUIPMENT	
KEYNOTE	**E1015 KITCHEN APPLIANCES (KI)**
KI1	REFRIGERATOR
KI2	RANGE
KI3	DISHWASHER
KI4	RANGE HOOD
KI6	WASHER/DRYER COMBO
KI8	SINK
E20 FURNISHINGS	
KEYNOTE	**E2010 FIXED FURNISHINGS (FX)**
FX1	MINIBLINDS
FX2	SHADES
FX3	OTHER

SYMBOLS



GENERAL NOTES

1. ALL DIMENSIONS ARE TO THE FACE OF STUD, CENTERLINE OF COLUMNS, FACE OF CONCRETE WALLS, FACE OF CMU WALLS, CENTERLINE OF FIXTURES, AND CENTERLINE OF OPENINGS, UNLESS OTHERWISE NOTED.
2. ALL PENETRATIONS THROUGH WALLS SHALL BE SEALED WITH FIRE STOPPING SYSTEMS AS REQUIRED TO ACHIEVE THE RESPECTIVE FIRE-RESISTIVE RATING AND SMOKE SEAL AS REQUIRED BY CODE. SEE SHEET A1 FOR SPECIFIC CODE INFORMATION.
3. CONTRACTOR SHALL PROVIDE WOOD BLOCKING AS REQUIRED FOR THE PROPER ANCHORAGE OF ALL WALL ATTACHED ITEMS SUCH AS TOILET ACCESSORIES, WALL-MOUNTED FIXTURES, DOOR STOPS, ETC.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING WORK AND WORKING CONDITIONS AND SHALL VERIFY EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. NO CLAIMS FOR EXTRA COMPENSATION FOR WORK THAT COULD HAVE BEEN FORESEEN BY SUCH INSPECTION, WHETHER SHOWN ON CONTRACT DOCUMENTS OR NOT, SHALL BE ACCEPTED OR PAID.
5. VERIFY SIZE, COORDINATE LOCATION, AND CHARACTERISTICS OF ALL WORK AND EQUIPMENT TO BE FURNISHED BEFORE ANY CONSTRUCTION BEGINS.
6. CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK AND EQUIPMENT WITH EACH TRADE.
7. INSTALL METAL TRIM ON ALL GYPSUM BOARD EDGES ABUTTING OTHER MATERIALS AND WHERE GYPSUM BOARD IS STOPPED SHORT OF OTHER MATERIALS TO FORM A RECESS OR REVEAL. ALL GYPSUM BOARD SHOULD BE INSTALLED 1/2" OFF OF CONCRETE SURFACES,
8. CONTRACTOR TO VERIFY THAT REQUIRED OPERATION AND MAINTENANCE CLEARANCES ARE PROVIDED FOR ALL EQUIPMENT ITEMS. INSTALL ALL ITEMS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS EXCEPT WHEN IN CONFLICT WITH THE SPECIFICATIONS HEREIN, IN WHICH CASE THE MORE STRINGENT REQUIREMENTS SHALL BE COMPLIED WITH. NOTIFY THE ARCHITECT IN WRITING OF ANY CONFLICTS.
9. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL REQUIRED UTILITY SHUT-DOWNS WITH THE ARCHITECT AND PARK POINT OF CONTACT, NOTIFY THE ARCHITECT OF INTENDED SHUTDOWN AT LEAST 48 HOURS PRIOR TO SCHEDULED SHUTDOWN.
10. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IF HAZARDOUS MATERIAL IS ENCOUNTERED DURING DEMOLITION OR CONSTRUCTION. REMOVAL AND DISPOSAL OF HAZARDOUS MATERIALS SHALL BE ACCOMPLISHED IN COMPLIANCE WITH STATE REGULATIONS. IT IS NOT ANTICIPATED THAT ASBESTOS OR OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE AREA OF WORK.
11. COORDINATE THE AVAILABILITY AND LOCATION OF RECYCLING DUMPSTER AND TRASH DUMPSTER WITH THE ARCHITECT. TRASH SHALL BE DISPOSED OF AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ).

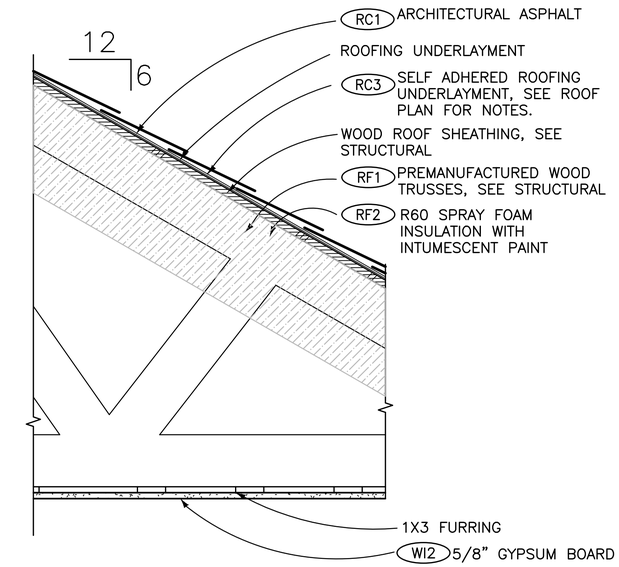


A/E FIRM	
PRIME:	HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME
SUBCONTRACTOR:	DGC ELLSWORTH, ME
DESIGNED:	MW
CADD	AND
TECH. REVIEW:	MW
DATE:	2/28/2025
SUB SHEET NO.	G1

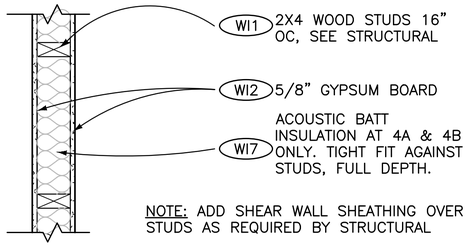
TITLE OF SHEET
ABBREVIATIONS, SYMBOLS NOTES & KEYNOTES

6-PLEX FLAT
HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	24 OF 131



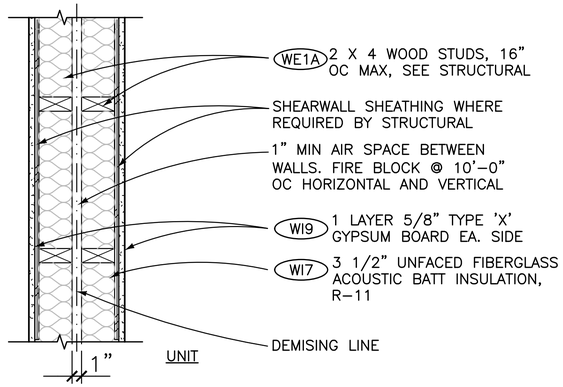
1 NON–RATED SLOPED ROOF/CEILING



4B PROVIDE MOISTURE RESISTANT GYPSUM WALLBOARD AT WET WALL LOCATIONS, ADD 3 1/2" ACOUSTIC BATT INSULATION.

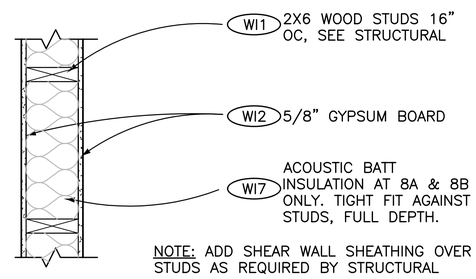
4A 3 1/2" ACOUSTIC BATT INSULATION IN STUD CAVITY

4 NON–RATED INTERIOR WALL



5A PROVIDE 5/8" TYPE X MOISTURE RESISTANT GYPSUM WALLBOARD AT WET WALL LOCATIONS. PROVIDE TILE AND BACKER BOARD AT SHOWER.

5 1HR INTERIOR FIRE RATED DEMISING WALL
ASSEMBLY: GA WP 3370 (OR EQUAL)
FIRE: 1–HR, STC: 52

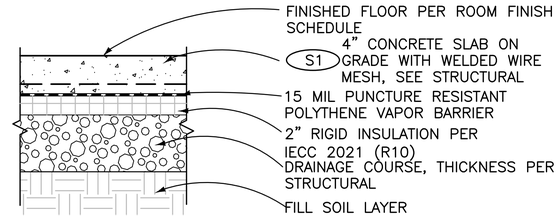


8C 1/2" OSB ON EXTERIOR, GYP BOARD ON INTERIOR

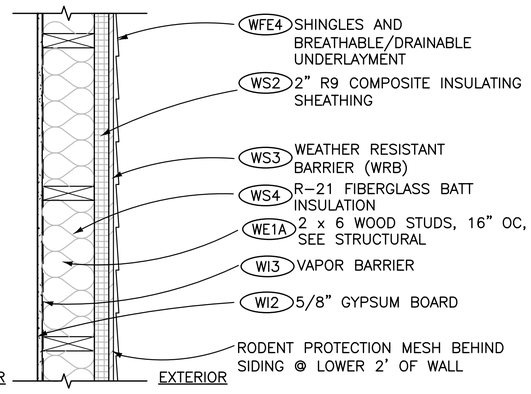
8B PROVIDE MOSITURE RESISTANT GYPSUM WALLBOARD AT WET WALL LOCATIONS, PROVIDE 5 1/2" ACOUSTIC BATT INSULATION IN STUD CAVITY.

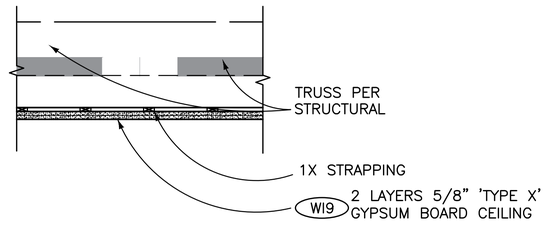
8A 5 1/2" ACOUSTIC BATT INSULATION IN STUD CAVITY

8 NON–RATED INTERIOR WALL



11 SLAB ON GRADE





6 1–HR RATED CEILING
ASSEMBLY: GA FILE n. RC2602
FIRE: 1–HR, STC: 49

3B PORCELAIN TILE & BACKER BOARD ON INTERIOR SIDE AT KITCHEN SINK WALL.

3A MOISTURE RESISTANT GYPSUM WALL BOARD AT INTERIOR SIDE AT WET WALL LOCATIONS.

3 EXTERIOR WALL

GENERAL NOTES

1. LOCATE THERMAL INSULATION ON THE COLD SIDE (IN WINTER) OF DOMESTIC WATER PIPES AS REQUIRED TO PROTECT PIPES FROM FREEZING.
2. PROVIDE ADDITIONAL FRAMING, BLOCKING, AND FINISHES AS REQUIRED FOR ACCESS PANELS AND DOORS.
3. PROVIDE ADDITIONAL BLOCKING OR INSERTS AS REQUIRED TO SUPPORT SHELVING, TOWEL BARS, RAILINGS, AND ALL OTHER WALL–MOUNTED ACCESSORIES AND EQUIPMENT.
4. WALLS RATED FOR FIRE AND/OR SOUND MUST BE CONSTRUCTED AS DOCUMENTED TO ACHIEVE TESTED VALUE.
5. HOLD ALL GWB 1/2" ABOVE FINISH FLOOR FOR CAPILLARY BREAK

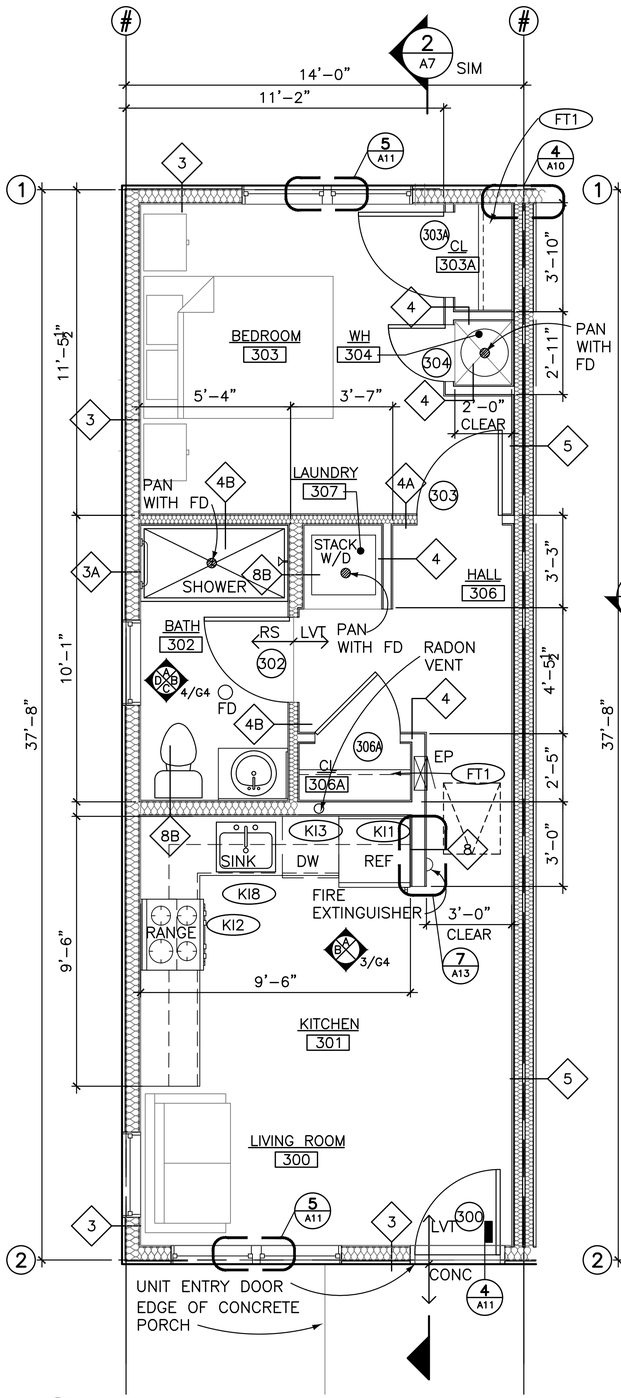
LEGEND

SEE SHEETS G1 FOR KEYNOTES

12 6 0 12
SCALE OF INCHES
1–1/2" = 1'–0"

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

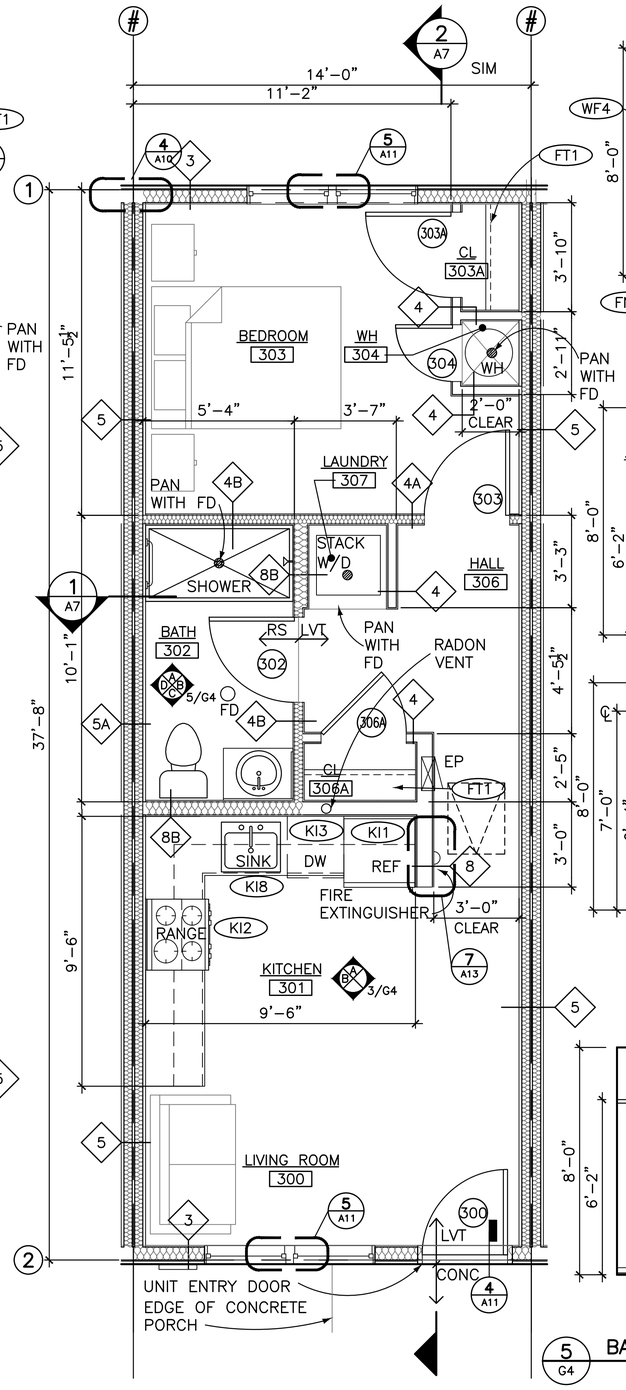
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. G2	TITLE OF SHEET CONSTRUCTION ASSEMBLIES 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 25 OF 131



1 BEDROOM EXTERIOR UNIT FLOOR PLAN (1 / G4)

UNIT KEY PLAN

UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6



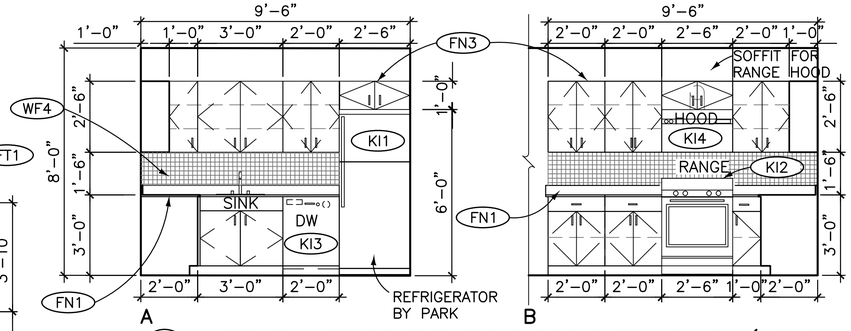
1 BEDROOM INTERIOR UNIT FLOOR PLAN (2 / G4)

UNIT KEY PLAN

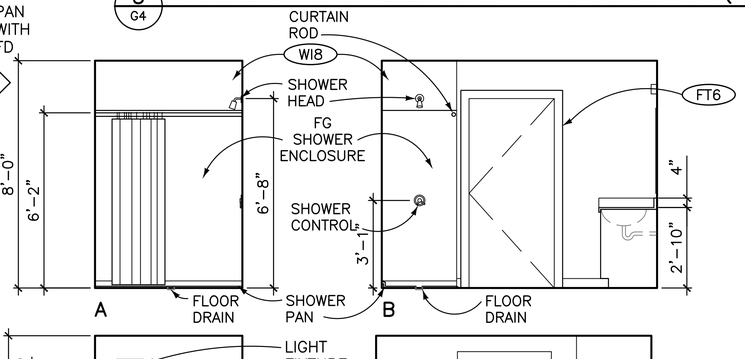
UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6

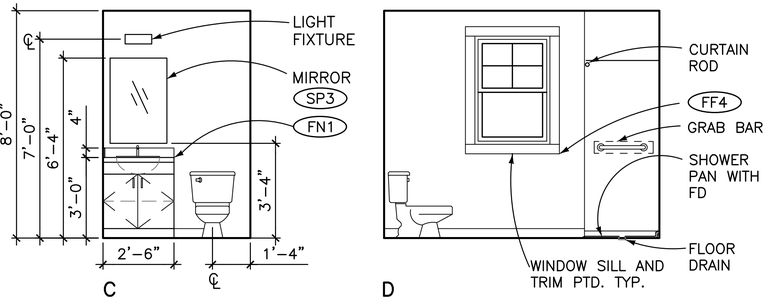
SCALE OF FEET: 2 0 2 4 6 — 3/8" = 1'-0"

PLAN NORTH

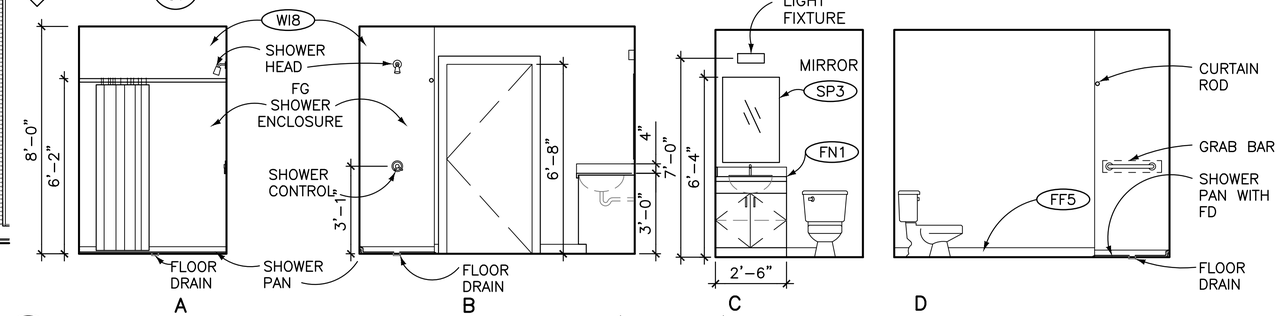


3 / G4 KITCHEN INTERIOR ELEVATIONS ROOMS 301 & 401 (MIRRORED)





4 / G4 BATHROOM INTERIOR ELEVATIONS ROOM 302 & 402 (MIRRORED)



5 / G4 BATHROOM INTERIOR ELEVATIONS ROOM 302 & 402 (MIRRORED)

GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
3. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
4. DOOR AND CASED OPENINGS ADJACENT TO WALL INTERSECTIONS SHALL BE LOCATED SO THAT THE EDGE OF THE FINISHED OPENING IS FOUR INCHES FROM THE FACE OF THE ADJACENT WALL, UNO.
5. OPERABLE PARTS OF LIGHTING, ENVIRONMENTAL, AND SECURITY CONTROLS, AND ELECTRICAL RECEPTACLES SHALL BE MOUNTED BETWEEN 15" AND 48" AFF.
6. ALL DIMENSIONS ARE TO THE STRUCTURAL GRID, FACE OF STUD, AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
7. PROVIDE POSITIVE SLOPE TO DRAIN(S) AT ¼" PER FOOT SLOPE UNLESS OTHERWISE NOTED.

LEGEND

- FLOOR DRAIN
- ### SEE SHEETS G1 FOR KEYNOTES
- # SEE SHEET G2 FOR CONSTRUCTION ASSEMBLIES
- (#) SEE SHEET A2 FOR DOOR SCHEDULE
- EP ELECTRICAL PANEL
- ATTIC ACCESS HATCH DOOR

LICENSED ARCHITECT — CARLA M. MASKELL — NO. 2748 — STATE OF MAINE

A/E FIRM	PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME
DESIGNED:	MW
DRAWN:	AND
TECH. REVIEW:	MW
DATE:	2/28/2025
SUB SHEET NO.	G3

TITLE OF SHEET
UNIT PLAN – INTERIOR & EXTERIOR
6-PLEX FLAT
HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	26 OF 131

BUILDING CODE SUMMARY

PROJECT DESCRIPTION:
THIS PROJECT INCLUDES THE PLANS FOR WASO HOUSING PROTOTYPE BUILDING #3, A SINGLE STORY BUILDING WITH (6) 1–BEDROOM UNITS AND INTERCHANGEABLE BUILDING COMPONENT OPTIONS.

PROJECT ADDRESS:	HARDEN FARM ROAD (KEBO ST)
BUILDING CODE EDITION: (PRE–REQUIRED BY JURISDICTION)	2021 INTERNATIONAL BUILDING CODE INTERNATIONAL MECHANICAL CODE INTERNATIONAL PLUMBING CODE NATIONAL ELECTRICAL CODE
OCCUPANCY GROUP:	R–2
CONSTRUCTION TYPE:	V–B, NFPA 13D SPRINKLERED
OCCUPANCY TYPE:	DORMITORY

BUILDING HEIGHTS AND AREA PER TABLES 504.3, 504.4 AND 506.2:

	HEIGHT	STORIES	GROSS AREA
ALLOWED:	60 FEET	3	7,000 SF
PROPOSED:	21 FT	1	3,164

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS PER TABLE 601

BUILDING ELEMENT	FIRE RESISTANCE RATING (HOURS)
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS – EXTERIOR	0
BEARING WALLS – INTERIOR	0
NON–BEARING WALLS – INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS PER TABLE 602

SEPARATION DISTANCE (FEET)	FIRE RESISTANCE RATING (HOURS)
X < 5	1
5 ≤ X < 10	1
10 ≤ X < 30	0
X ≥ 30	0

FIRE DETECTION AND SUPPRESSION PER CHAPTER 9

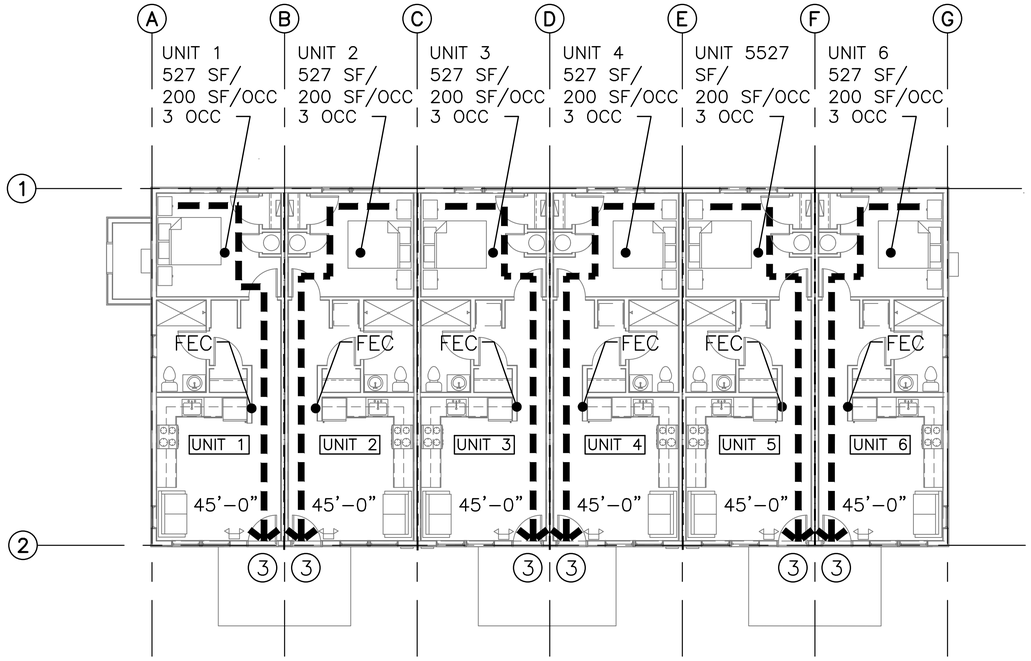
	REQUIRED	PROVIDED
FIRE ALARM SYSTEM	YES	YES
SMOKE DETECTION SYSTEM	YES	YES
SPRINKLER SYSTEM	YES	YES
STANDPIPE SYSTEM	NO	NO
CARBON MONOXIDE DETECTORS	YES	YES
FIRE EXTINGUISHERS AND CABINETS	YES	YES

PER 903.3.1.2, AUTOMATIC SPRINKLER SYSTEMS IN GROUP R OCCUPANCIES UP TO AND INCLUDING FOUR STORIES IN HEIGHT IN BUILDINGS NOT EXCEEDING 60 FT IN HEIGHT ABOVE GRADE PLANE SHALL BE PERMITTED TO BE INSTALLED THROUGHOUT IN ACCORDANCE WITH NFPA 13D.

OCCUPANCY LOAD (TABLE 1004.5) AND EXITING CHAPTER 10
OCCUPANT LOAD FACTOR: (R–2) 1:200 GROSS
TOTAL BUILDING OCCUPANTS: (R–2) = 18

PLUMBING FIXTURES PER TABLE 2902.1

	REQUIRED	PROVIDED
WATER CLOSET (PER DWELLING UNIT)	1	1
LAVATORY (PER DWELLING UNIT)	1	1
KITCHEN SINK (PER DWELLING UNIT)	1	1
WASHER CONNECTION (PER 20 DWELLING UNITS)	1	6



1 / A1 CODE SUMMARY PLAN

BUILDING TOTAL:
18 OCCUPANTS

LEGEND

XX'–XX"	TRAVEL DISTANCE
➡	EMERGENCY EGRESS PATH
- - - -	1 HR FIRE RATED
◯	OCCUPANTS AT EXIT
OCC	OCCUPANT
XX SF	TOTAL SF
FEC	FIRE EXTINGUISHER CABINET
	ILLUMINATED EXIT SIGN

8 0 8 16
SCALE OF FEET

PLAN NORTH

GENERAL NOTES:

1. ALL BUILDINGS SHALL MEET LOCAL CODE REQUIREMENTS.
2. ALL BATHROOMS SHALL HAVE RESCUE HARDWARE.

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM
PRIME:
HEDEFINE ENGINEERING & DESIGN, INC.
ELLSWORTH, ME
SUBCONTRACTOR:
DGC
ELLSWORTH, ME

DESIGNED: MW
CADD AND
TECH. REVIEW: MW
DATE: 2/28/2025

SUB SHEET NO. A1

TITLE OF SHEET
CODE SUMMARY SHEET
6–PLEX FLAT
HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO. XXX 60025
PMIS/PKG NO. 309000
SHEET 27 OF 131

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM TITLE	FLOOR			BASE			WALL FINISH			CEILING FINISH			REMARKS
		MATERIAL	FINISH	KEYNOTES	MATERIAL	FINISH	KEYNOTES	MATERIAL	FINISH	KEYNOTES	MATERIAL	FINISH	KEYNOTES	
111	RISER ROOM	CONC	SEALED	–	RWB	–	FF5	GYP/PLY	PTD	WF1	PLYWOOD	PTD	CF1	
300, 400	LIVING ROOM	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
301, 401	KITCHEN	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
302, 402	BATHROOM	RS	–	FF2	RWB	–	FF5	MR	PTD	WF1, WF4	GYP	PTD	CF1	FG ENCLOSURE @ SHOWER
303, 403	BEDROOM	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ 303A, 403A CLOSET
304, 404	WH CLOSET	LVT/FG	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
306, 406	HALL	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
306A,406A	CLOSET	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
307, 407	LAUNDRY	LVT/FG	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
308, 408	ERV	OSB			RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	ATTIC MECHANICAL SPACE

1 / A2 FINISH SCHEDULE

DOOR SCHEDULE

SYMBOL	LOCATION	SIZE (WIDTH X HEIGHT)	TYPE	THICKNESS	DOOR		FRAME			HARDWARE GEN KEYNOTES	REMARKS
					MATERIAL	FINISH	MATERIAL	FINISH	GEN KEYNOTES		
300, 400	UNIT ENTRY	3'–0" X 7'–0"	1	1 3/4"	FG	PAINT	WD	PAINT	FT6	HI5	PRE–HUNG DOOR FRAME REINFORCEMENT, STRIKE MASTER II, OR EQUAL TO BE PROVIDED BY CONTRACTOR.
111	RISER ROOM	3'–0" X 6'–8"	1	1 3/4"	FG	PAINT	WD	PAINT	FT6	HI5	DOOR FRAME REINFORCEMENT, STRIKE MASTER II, OR EQUAL TO BE PROVIDED BY CONTRACTOR.
302, 402	BATHROOM	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HI1	PRIVACY
303, 403	BEDROOM	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HI1	PRIVACY
303A, 403A	BEDROOM CLOSET	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HI3	DUMMY
304, 404	WH CLOSET	2'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HI3	STORAGE
306	HALL CLOSET	2'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HI3	DUMMY
306A,406A	HALL CLOSET	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HI3	DUMMY

2 / A2 DOOR SCHEDULE

WINDOW SCHEDULE

SYMBOL	RO (WIDTH X HEIGHT)	MANUFACTURER	WINDOW					COMMENTS
			MATERIAL	MODEL	EXT. FINISH	INT. FINISH	OPERATION	
A	2'–6" X 3'–6"	PER SPEC	FIBERGLASS	100SERIES	TBD	TBD	SINGLE HUNG	EX1, FT4
B	3'–0" X 5'–0"	PER SPEC	FIBERGLASS	100SERIES	TBD	TBD	SINGLE HUNG	EX1, FT4

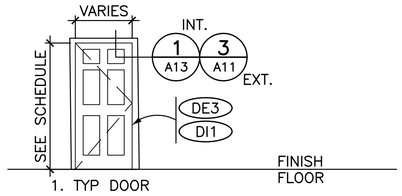
3 / A2 WINDOW SCHEDULE

GENERAL NOTES

1. WINDOW SIZES ARE APPROXIMATE AND MUST BE VERIFIED WITH FINAL DIMENSIONS FOR FINISH SYSTEM.
2. CONTINUE MAIN OR SERVICING ROOM FLOOR FINISH WITHIN CLOSETS.
3. PROVIDE RESILIENT THRESHOLDS AT ALL FLOOR MATERIAL CHANGES.
4. PROVIDE ADDITIONAL FRAMING, BLOCKING AND FINISHES AS REQUIRED FOR DOORS.

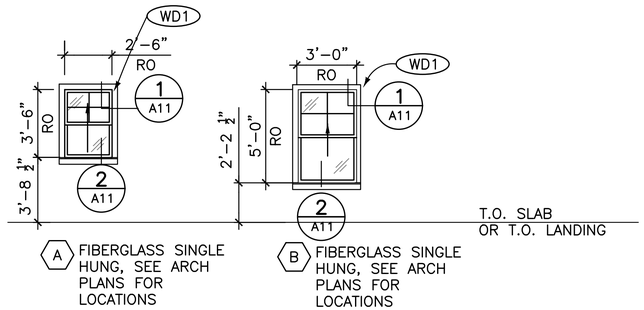
LEGEND

(###) SEE SHEET G1 FOR KEYNOTES



1. TYP DOOR

4 / A2 DOOR TYPES



A FIBERGLASS SINGLE HUNG, SEE ARCH PLANS FOR LOCATIONS

B FIBERGLASS SINGLE HUNG, SEE ARCH PLANS FOR LOCATIONS

5 / A2 WINDOW TYPES

4 0 4 8
SCALE OF FEET
1/4" = 1'–0"

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW DRAWN: AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A2	TITLE OF SHEET SCHEDULES 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 28 OF 131

GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. CONSTRUCTION ASSEMBLY DESCRIPTIONS: SEE SHEET G2.
3. ALL DIMENSIONS ARE TO THE STRUCTURAL GRID, FACE OF STUD, CENTERLINE OF WALL AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
4. DOOR AND CASED OPENINGS INDICATED NEARBY WALL INTERSECTIONS SHALL BE LOCATED SO THAT THE EDGE OF THE FINISHED OPENING IS FOUR INCHES FROM THE FACE OF THE NEARBY WALL, UNO.

84'–0"

14'–0" 1 BEDROOM UNIT | 14'–0" 1 BEDROOM UNIT | 14'–0" 1 BEDROOM UNIT | 14'–0" 1 BEDROOM UNIT | 14'–0" 1 BEDROOM UNIT | 14'–0" 1 BEDROOM UNIT

CONC PAD FOR CONDENSERS. TO BE COORDINATED WITH MECH.

UNIT 1 | UNIT 2 | UNIT 3 | UNIT 4 | UNIT 5 | UNIT 6

RISER ROOM 111 | BEDROOM 303 | BEDROOM 403 | LIVING ROOM 300 | LIVING ROOM 400 | KITCHEN 301 | KITCHEN 401 | BATH 302 | BATH 402 | LAUNDRY 307 | LAUNDRY 407 | HALL 306 | HALL 406 | CL 303A | CL 403A | CL 306A | CL 406A | WH 304 | WH 404

37'–8" | 18'–0" | 9'–0" | 4'–8" | 2'–0" | 3'–0" | 8'–6" | 5'–2" | 2'–4" | 5'–1" | 7'–0" | 7'–1"

ROOF ABOVE, TYP

PORCH COVER, TYP.

6X6 TREATED WOOD POST, TYP.

WP1 CONCRETE ENTRY PATIO

LEGEND

- ONE HOUR FIRE WALL CONSTRUCTION
- ERV ROOM ABOVE
- ### SEE SHEET G1 FOR KEYNOTES
- # SEE SHEET G2 FOR CONSTRUCTION ASSEMBLY DESCRIPTIONS
- # SEE SHEET A2 FOR WINDOW SCHEDULE
- # SEE SHEET A2 FOR DOOR SCHEDULE
- EP ELECTRICAL PANEL

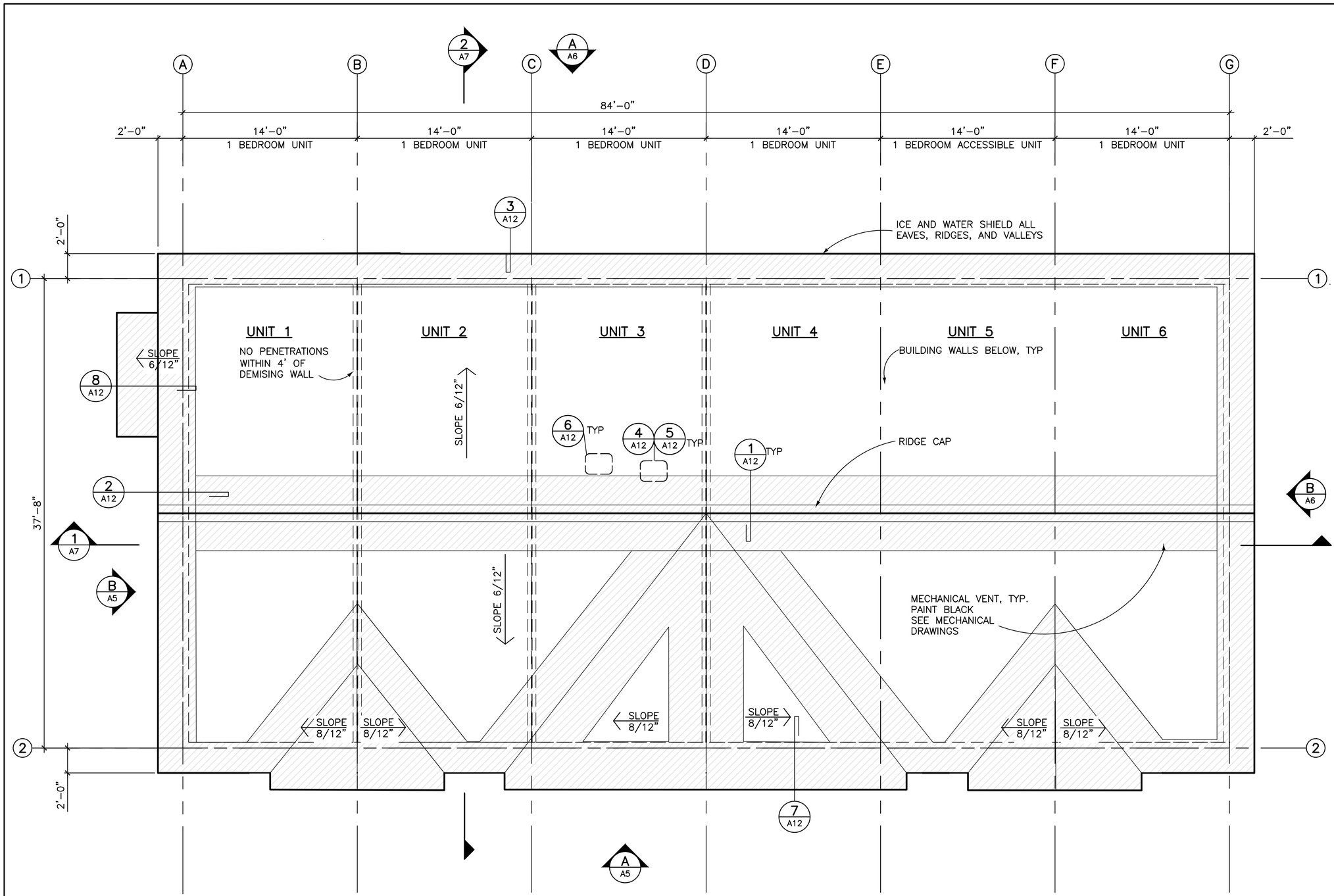
SCALE OF FEET: 4 0 4 8 — 1/4" = 1'–0"

PLAN NORTH

1 A3 FLOOR PLAN – LIVING AREA 3164 SF

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A3	TITLE OF SHEET FLOOR PLAN 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 29 OF 131



1 A5A ROOF PLAN

GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. CONSTRUCTION ASSEMBLY DESCRIPTIONS: SEE SHEET G2.
3. ALL DIMENSIONS ARE TO THE STRUCTURAL GRID, FACE OF STUD, CENTERLINE OF WALL, AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
4. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.
5. SEE EXTERIOR DETAILS FOR ROOF PENETRATION DETAILS. FOR OTHER ROOF PENETRATIONS, SEE MECHANICAL AND ELECTRICAL DRAWINGS.
6. COORDINATE THE LOCATION OF ALL ROOF PENETRATIONS AND ASSOCIATED ROOF APPURTENANCES WITH MECHANICAL.
7. MAINTAIN 4'-0" CLEARANCE BETWEEN ALL ROOF PENETRATIONS AND THE DEMISING WALLS PER INTERNATIONAL RESIDENTIAL CODE.

LEGEND

- (###) SEE SHEET G1 FOR KEYNOTES
- ICE AND WATER SHIELD
- — — — LINE OF BUILDING BELOW

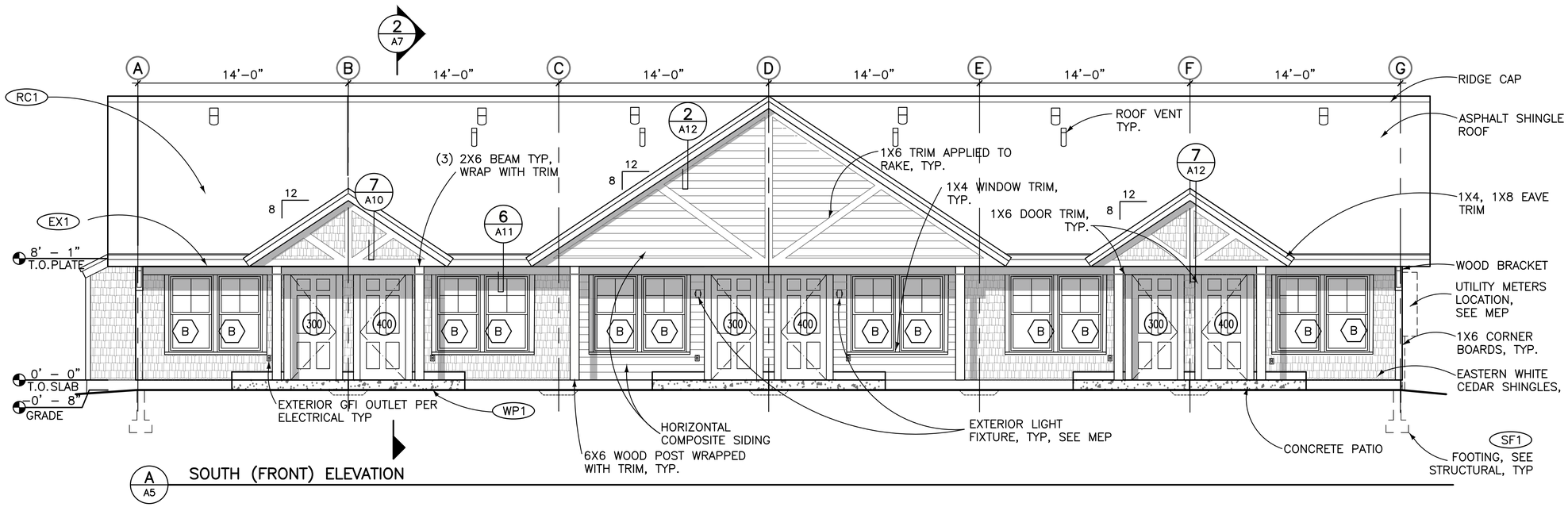
4 0 4 8 SCALE OF FEET

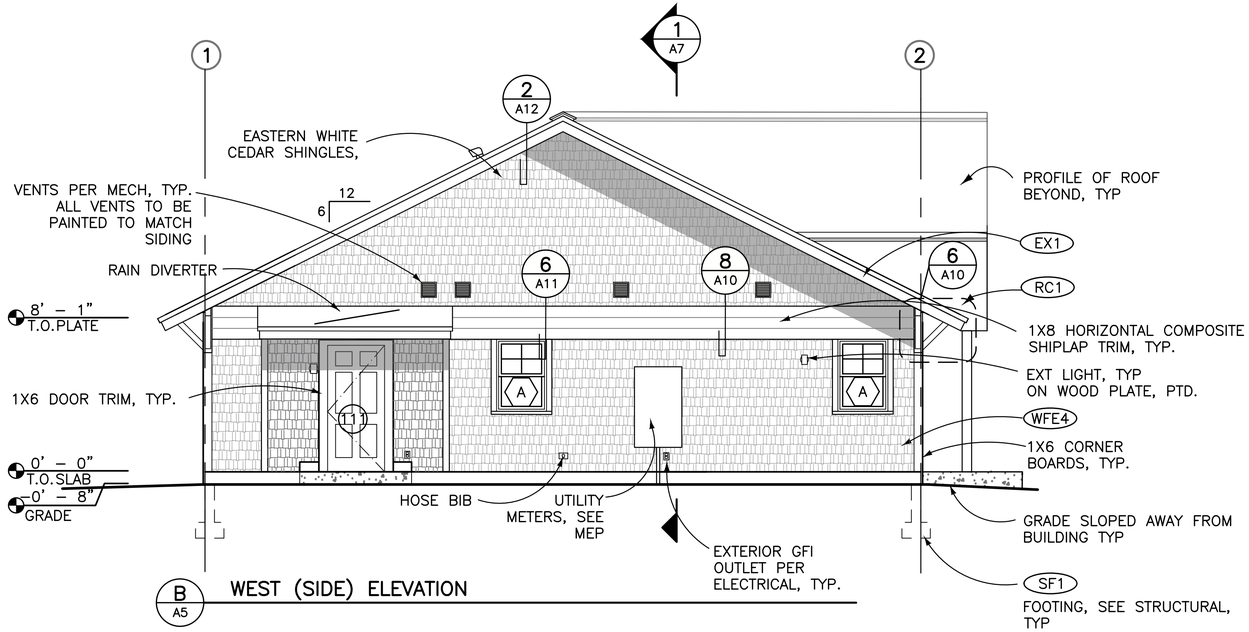
1/4" = 1'-0"

PLAN NORTH

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM	PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME
DESIGNED:	MW
CADD	AND
TECH. REVIEW:	MW
DATE:	2/28/2025
SUB SHEET NO.	A4
TITLE OF SHEET	ROOF PLAN
	6-PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK
DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	30 OF 131





GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
3. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
4. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.

MATERIAL/COLOR:	TO BE SELECTED BY ARCHITECT.
ROOF:	ASPHALT SHINGLE
TRIM:	COMPOSITE, PREFINSIHED
SHINGLES:	EWC CLEAR ALT1: PREFINISHED, STAINED SEMI–TRANSPARENT
SHIPLAP:	COMPOSITE, FACTORY–PRIMED PAINTED IN FIELD
WINDOWS:	FIBERGLASS, FACTORY–FINISHED

LEGEND

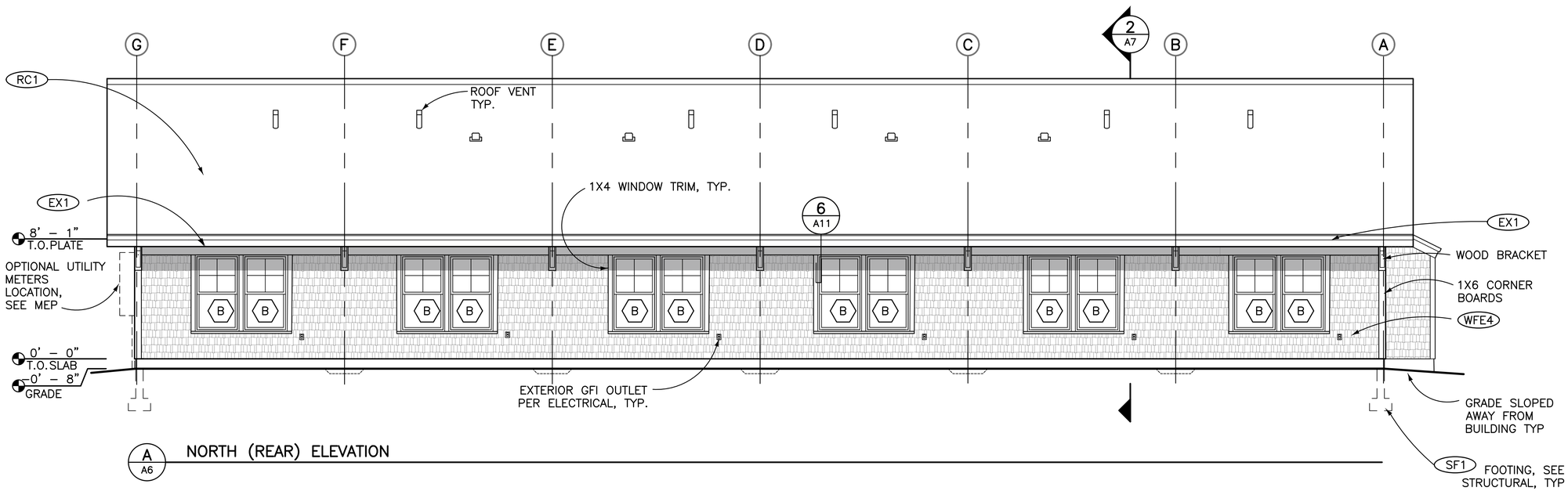
- ### — SEE SHEET G1 FOR KEYNOTES
- # — SEE SHEET A2 FOR WINDOW SCHEDULE
- # — SEE SHEET A2 FOR DOOR SCHEDULE

4 0 4 8 SCALE OF FEET

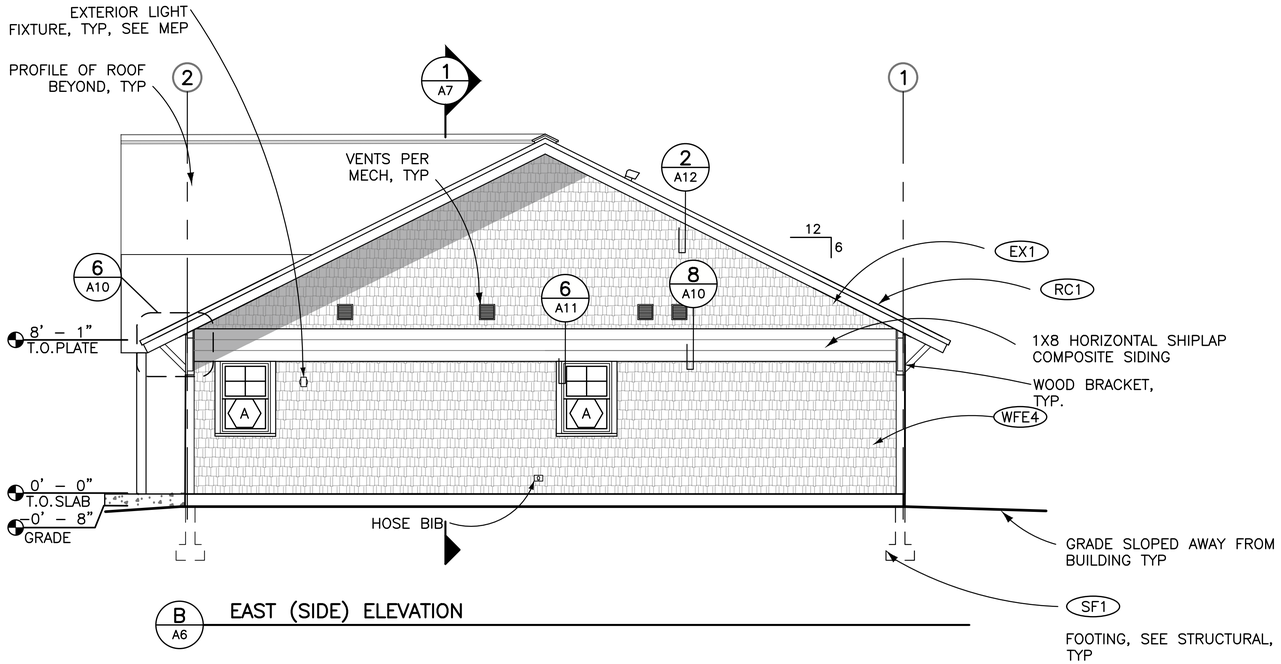
1/4" = 1'–0"

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM	
PRIME:	HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME
SUBCONTRACTOR:	DGC ELLSWORTH, ME
DESIGNED:	MW
CADD	AND
TECH. REVIEW:	MW
DATE:	2/28/2025
SUB SHEET NO.	A5
TITLE OF SHEET	BUILDING ELEVATIONS SOUTH & WEST
	6–PLEX FLAT
	HARDEN FARM EMPLOYEE HOUSING PHASE 1C
	ACADIA NATIONAL PARK
DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	31 OF 131



A / A6 NORTH (REAR) ELEVATION



B / A6 EAST (SIDE) ELEVATION

GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
3. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
4. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.

MATERIAL/COLOR:	TO BE SELECTED BY ARCHITECT.
ROOF:	ASPHALT SHINGLE
TRIM:	COMPOSITE, PREFINSIHED
SHINGLES:	EWC CLEAR ALT1: PREFINISHED, STAINED SEMI–TRANSPARENT
SHIPLAP:	COMPOSITE, FACTORY–PRIMED PAINTED IN FIELD
WINDOWS:	FIBERGLASS, FACTORY–FINISHED

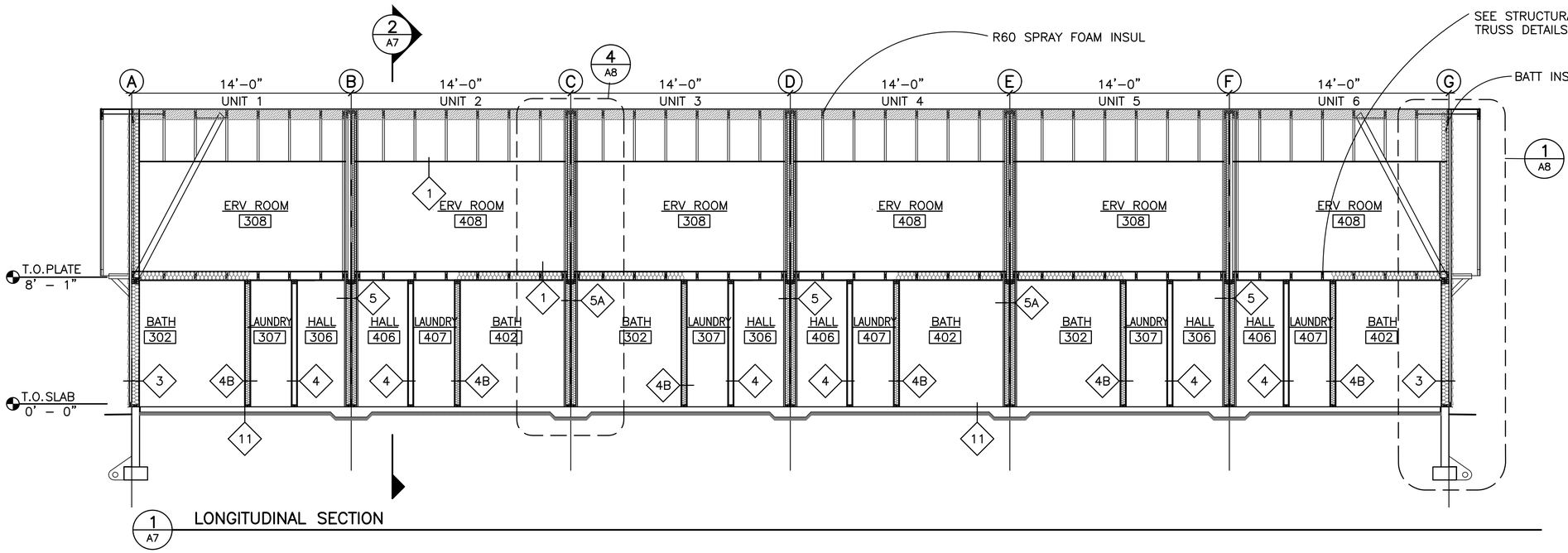
LEGEND

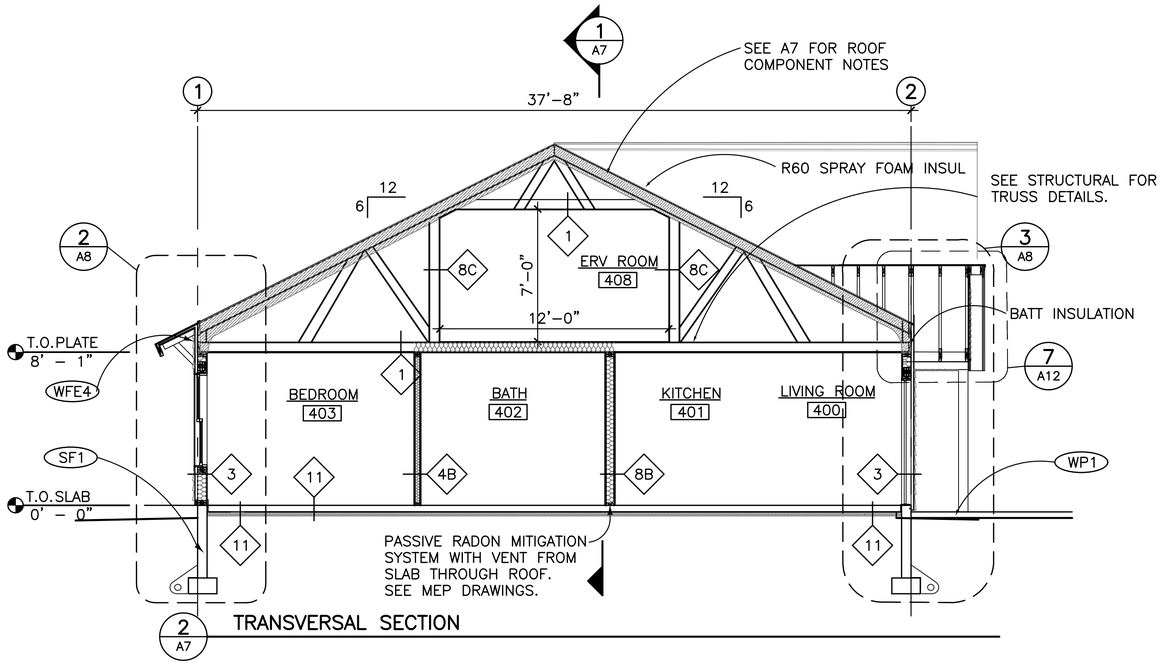
- (###) SEE SHEET G1 FOR KEYNOTES
- (#) SEE SHEET A2 FOR WINDOW SCHEDULE
- (#) SEE SHEET A2 FOR DOOR SCHEDULE

4 0 4 8
SCALE OF FEET
1/4" = 1'–0"

LICENSED ARCHITECT CARLA M. HASKELL No. 2748 STATE OF MAINE

A/E FIRM	PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME
DESIGNED:	MW
DRAWN:	AND
TECH. REVIEW:	MW
DATE:	2/28/2025
SUB SHEET NO.	A6
TITLE OF SHEET	BUILDING ELEVATIONS NORTH & EAST
	6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK
DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	32 OF 131





GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. CONSTRUCTION ASSEMBLY DESCRIPTIONS: SEE SHEET G2.
3. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
4. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
5. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.

LEGEND

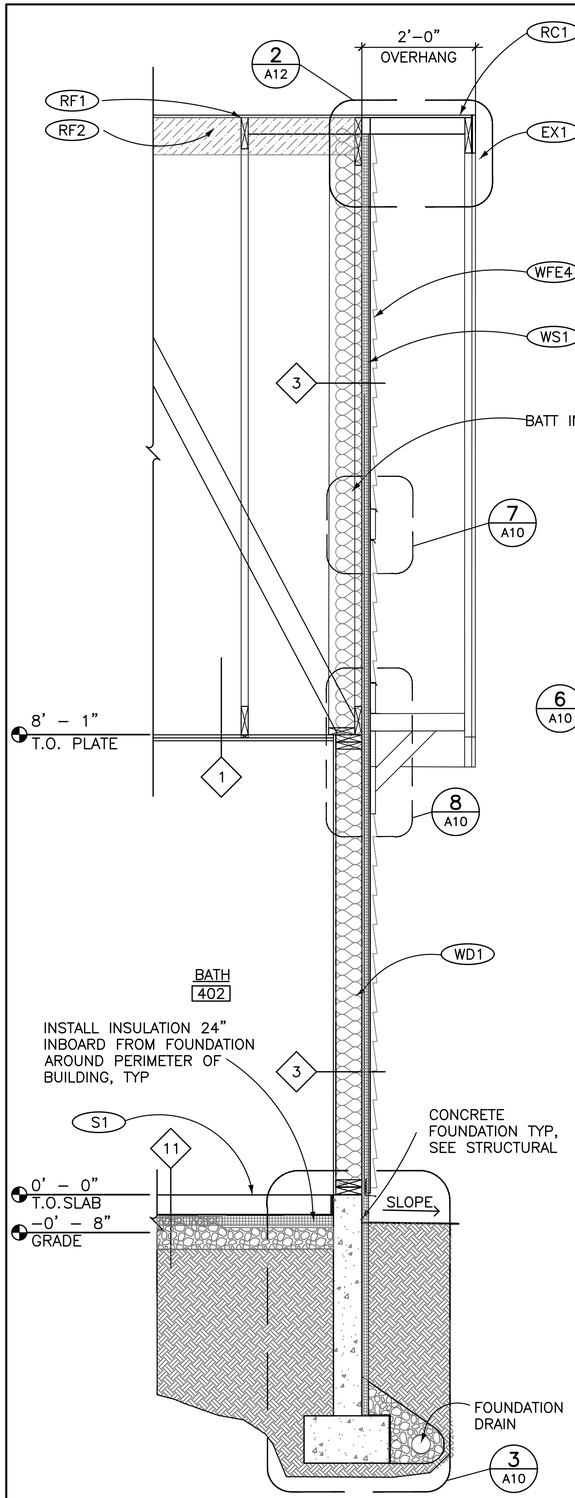
(###) SEE SHEET G1 FOR KEYNOTES.

(##) SEE SHEET G2 FOR ROOF, FLOOR, AND WALL ASSEMBLIES

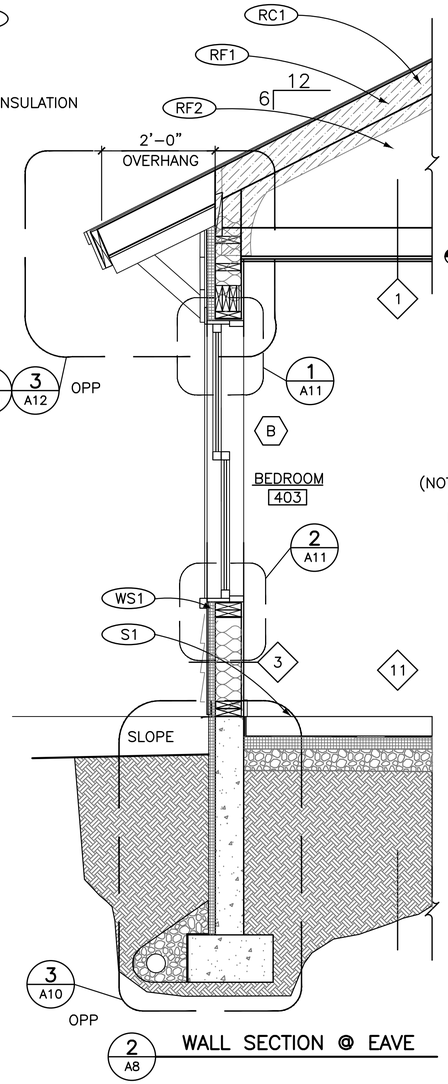
4 0 4 8 1/4" = 1'–0"
SCALE OF FEET

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A7	TITLE OF SHEET BUILDING SECTION 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 33 OF 131



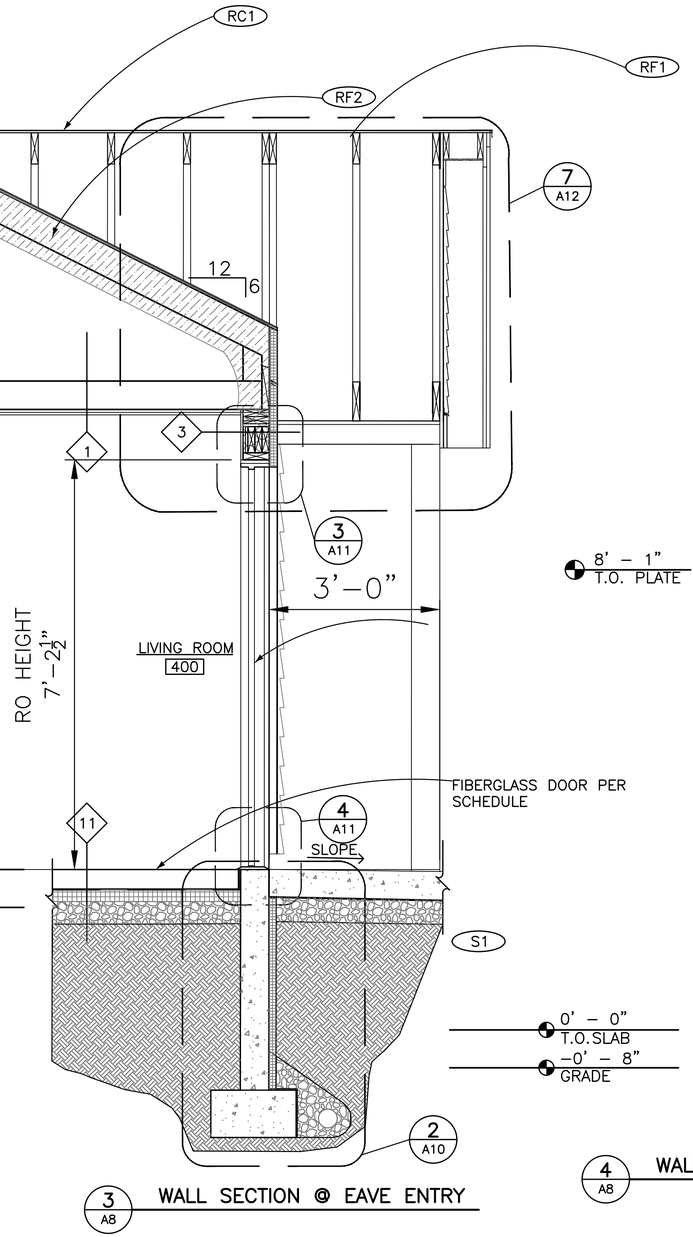
1 A8 WALL SECTION @ RAKE



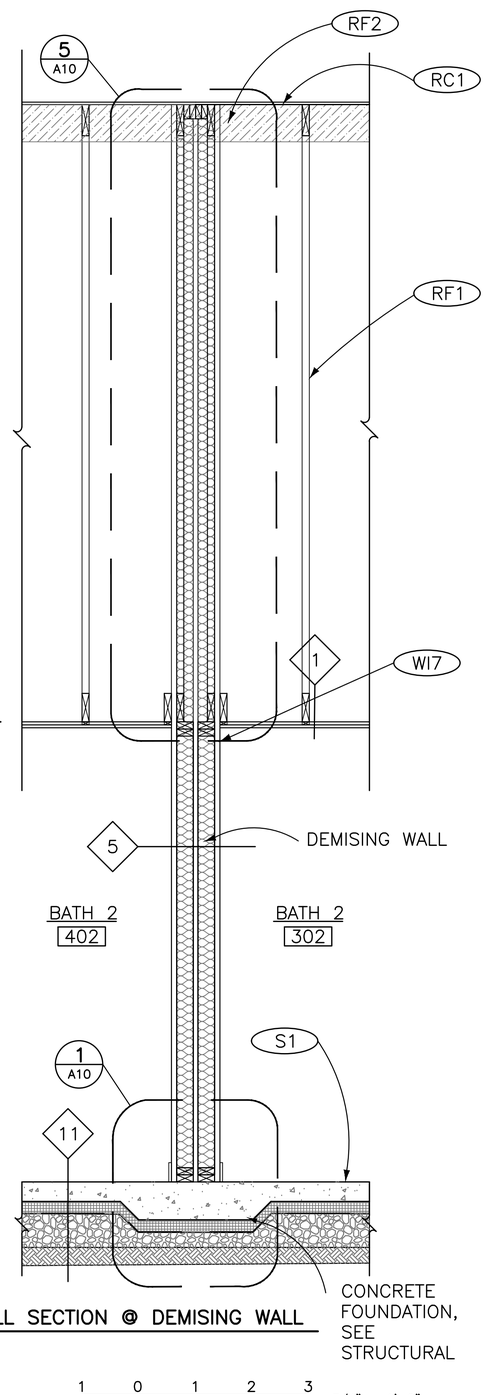
2 A8 WALL SECTION @ EAVE

(NOTE: ALL WINDOWS TO ALIGN WITH ENTRY DOOR HEAD HEIGHT.)

RO HEIGHT
7' – 2½"



3 A8 WALL SECTION @ EAVE ENTRY



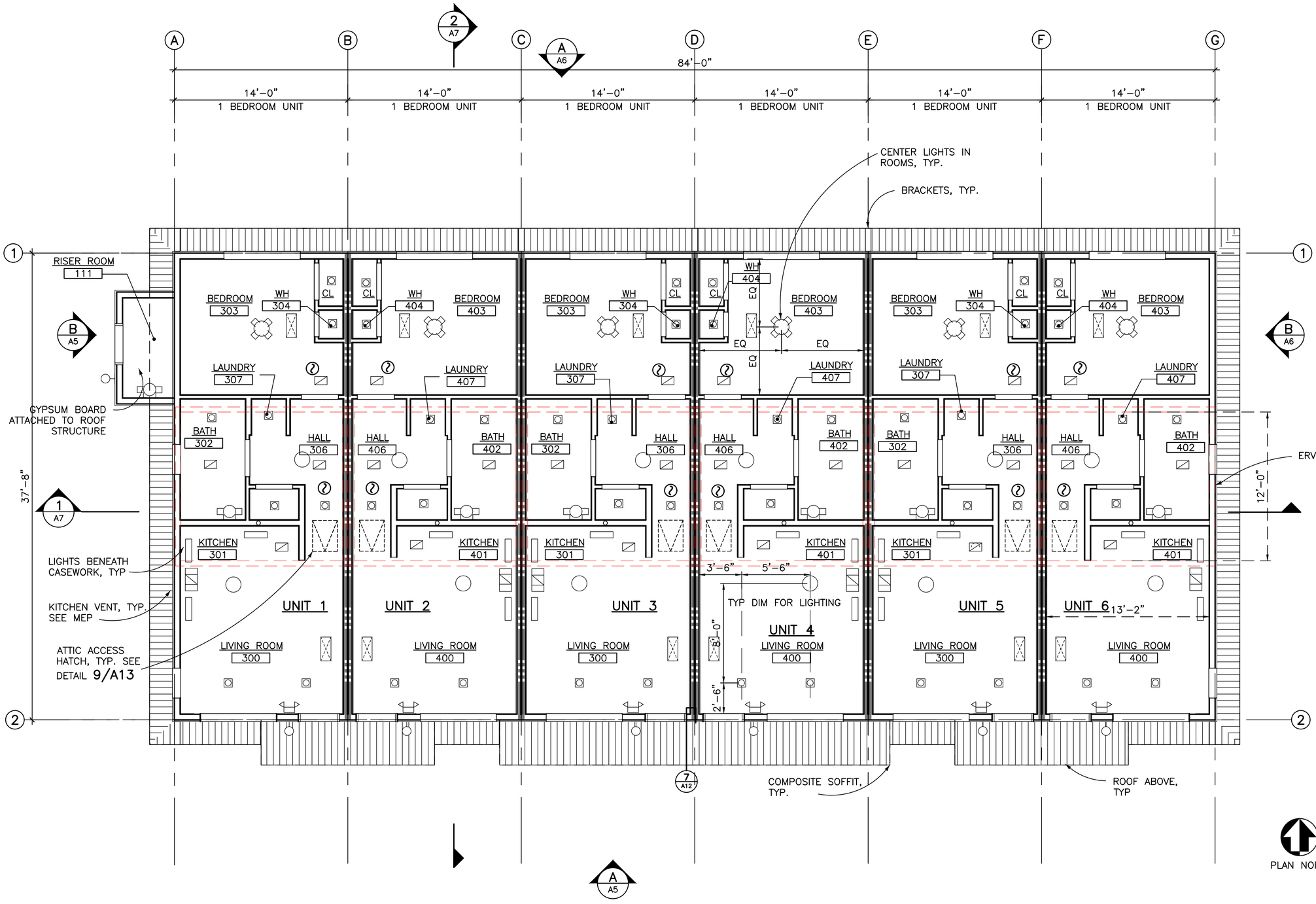
4 A8 WALL SECTION @ DEMISING WALL

1 0 1 2 3
SCALE OF FEET

3/4" = 1'–0"

LICENSED ARCHITECT
CARLA M. MASKELL
No. 2748
STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A8	TITLE OF SHEET WALL SECTIONS 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 34 OF 131



GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. CONSTRUCTION ASSEMBLY DESCRIPTIONS: SEE SHEET G2.
3. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
4. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
5. ALL DIMENSIONS ARE TO FACE OF STUD AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
6. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.
7. LIGHTS ARE SHOWN FOR REFERENCE ONLY, SEE ELECTRICAL FOR INFORMATION
8. ALL CEILINGS TO HAVE CF1–PAINTED GYPSUM BOARD CEILINGS.
9. RISER ROOM TO HAVE 1HR RATED CEILING PER 6/G2
10. ALL BATHROOMS TO HAVE MOISTURE RESISTANT GYPSUM BOARD CEILINGS, PTD.

LEGEND

- ERV ROOM
- 1HR FIRE WALL
- MECHANICAL VENT (SUPPLY/RETURN)
- UNDER CABINET LIGHT
- KITCHEN HOOD
- SURFACE MOUNTED LIGHT FIXTURE
- SURFACE MOUNTED FAN AND LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- RECESSED DOWNLIGHT
- ### SEE SHEET G1 FOR KEYNOTES
- SMOKE/CARBON MONOXIDE DETECTOR
- ATTIC ACCESS HATCH
- EMERGENCY EXIT LIGHT

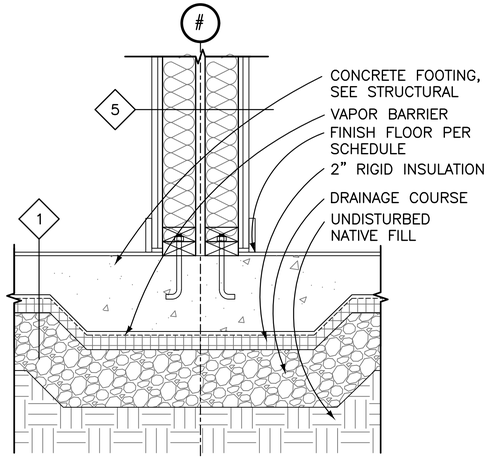
PLAN NORTH

4 0 4 8
SCALE OF FEET
1/4" = 1'-0"

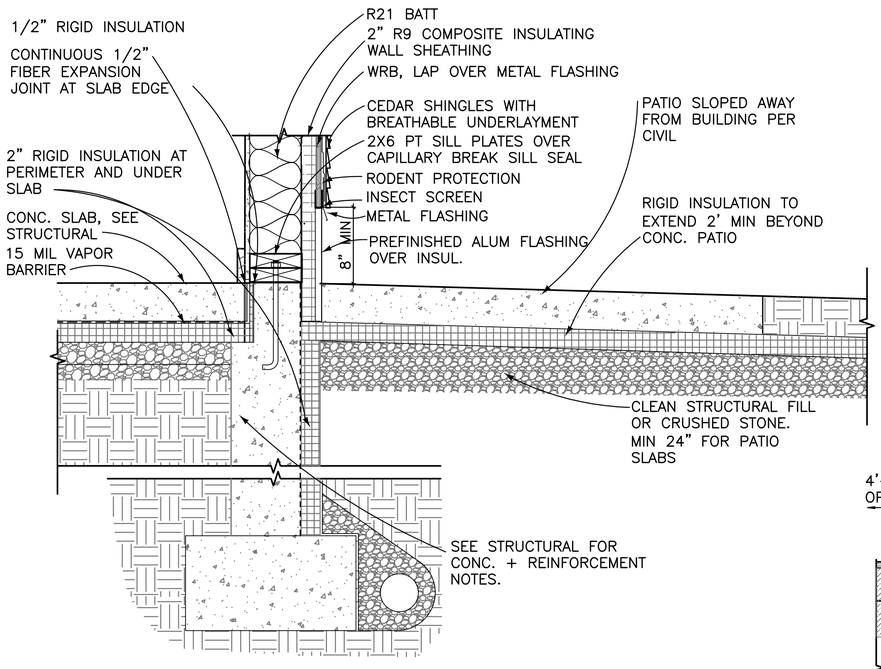
1 A9 REFLECTED CEILING PLAN

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

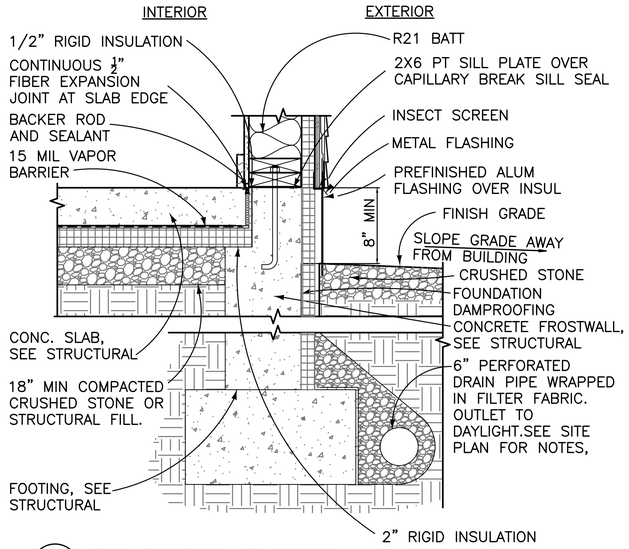
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A9	TITLE OF SHEET REFLECTED CEILING PLAN 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 35 OF 131



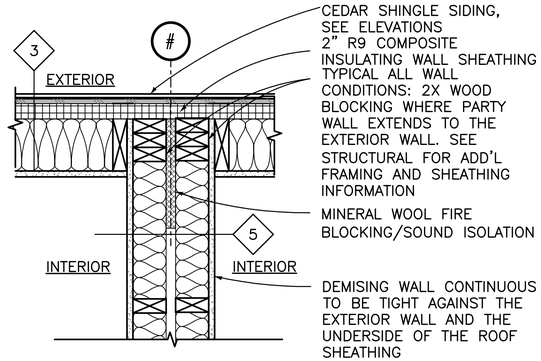
1 A10 **FOOTING AT DEMISING WALL**
SCALE (A)



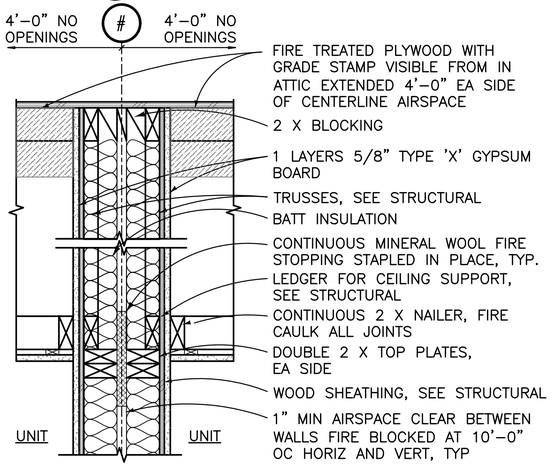
2 A10 **TYP FOOTING AT FRONT PATIO**
SCALE (A)



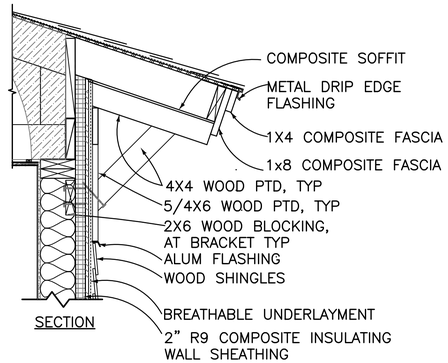
3 A10 **TYP FOOTING AT GRADE**
SCALE (A)



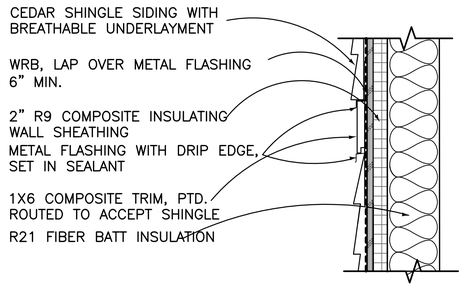
4 A10 **DEMISING WALL AT EXT WALL – PLAN**
SCALE (A)



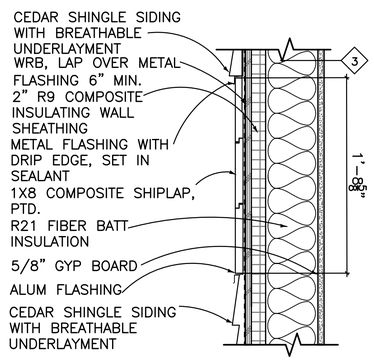
5 A10 **DEMISING WALL AT ROOF TRUSS**
SCALE (A)



6 A10 **BRACKET DETAIL**
SCALE (B)



7 A10 **TRIM AT GABLE END, TYP.**
SCALE (A)



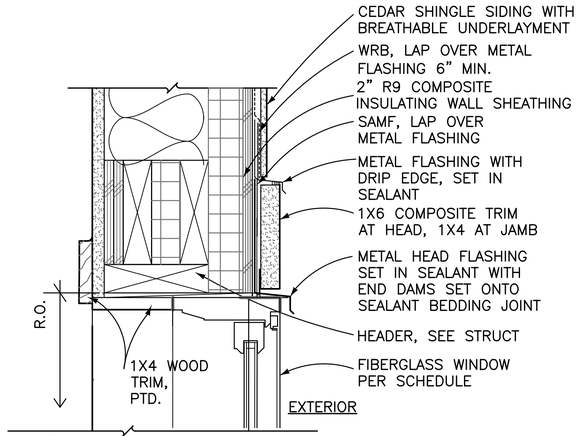
8 A10 **SHIPLAP TRIM, TYP.**
SCALE (A)

SCALE (B) 1 0 1 2 1"=1'–0"
SCALE OF FEET

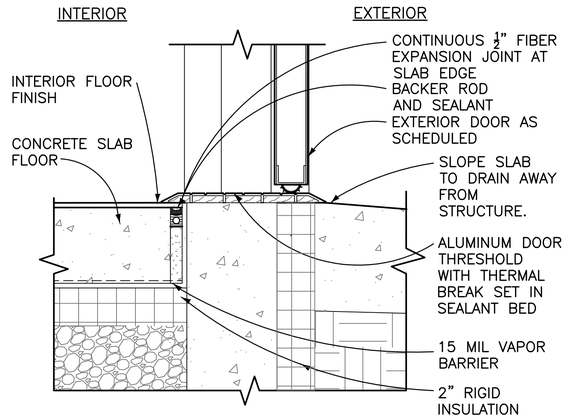
SCALE (A) 12 6 0 12 1-1/2" = 1'–0"
SCALE OF INCHES

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

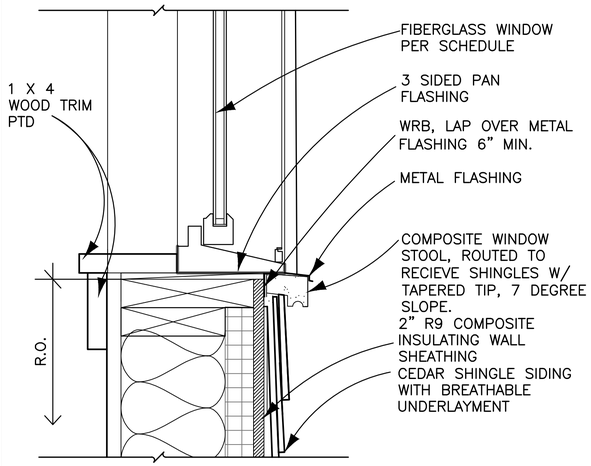
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW DRAWN: AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A10	TITLE OF SHEET EXTERIOR DETAILS 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 36 OF 131



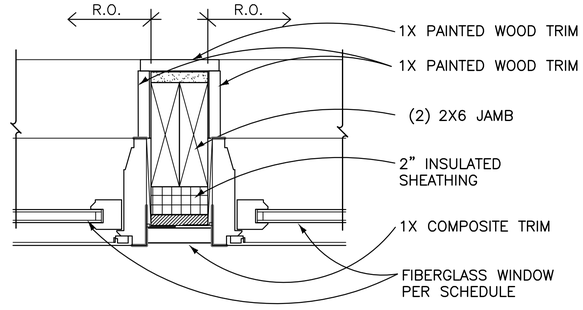
1 A11 TYP WINDOW HEAD (JAMB SIMILAR)
SCALE (A)



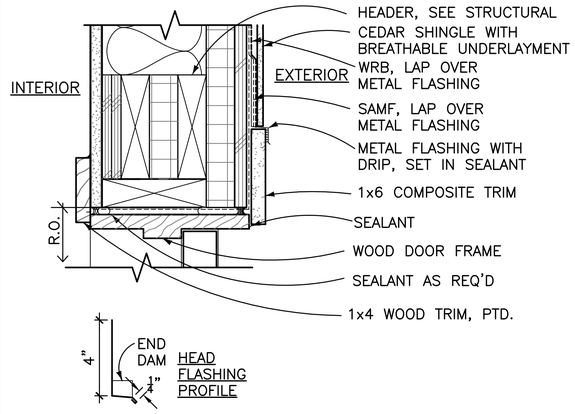
4 A11 TYPICAL EXT DOOR THRESHOLD
SCALE (A)



2 A11 TYPICAL WINDOW SILL
SCALE (A)

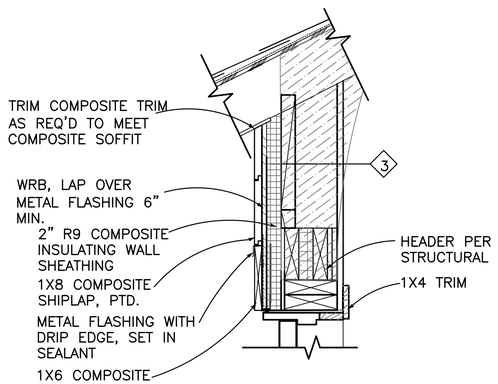


5 A11 TYPICAL WINDOW MULL
SCALE (A)

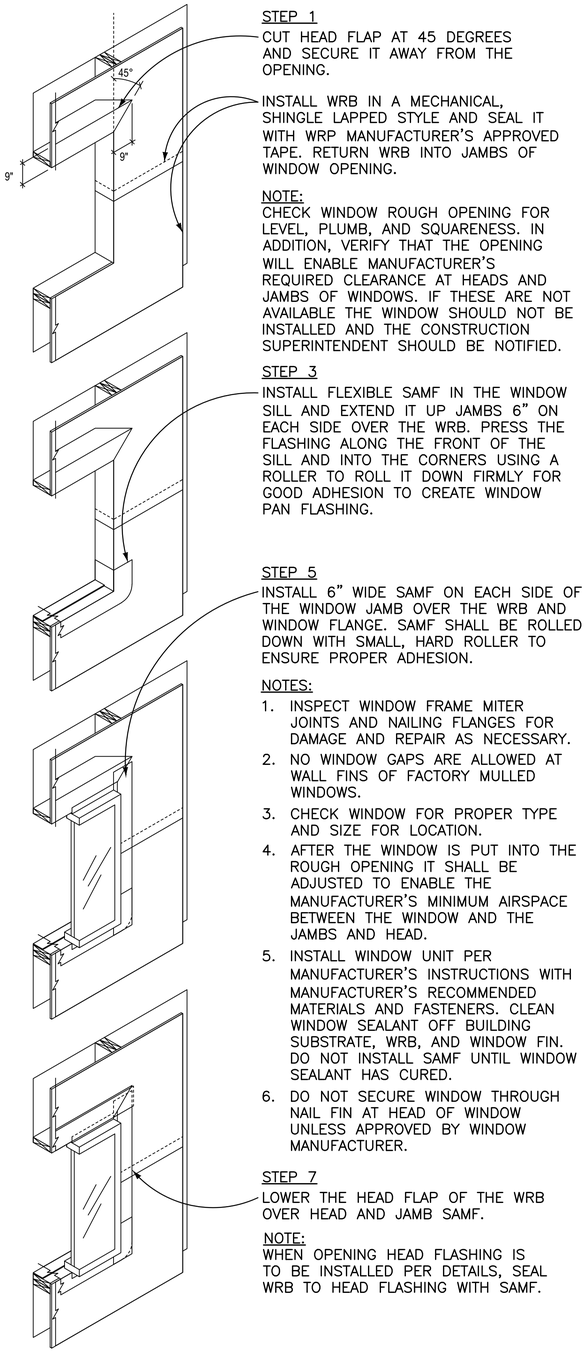


NOTE: PROVIDE WEATHER WRAP PER 6/A11

3 A11 TYPICAL DOOR HEAD (JAMB SIMILAR)
SCALE (A)



6 A11 SHIPLAP TRIM @ DOOR & WINDOWS
SCALE (B)



STEP 1
CUT HEAD FLAP AT 45 DEGREES AND SECURE IT AWAY FROM THE OPENING.

INSTALL WRB IN A MECHANICAL, SHINGLE LAPPED STYLE AND SEAL IT WITH WRP MANUFACTURER'S APPROVED TAPE. RETURN WRB INTO JAMBS OF WINDOW OPENING.

NOTE:
CHECK WINDOW ROUGH OPENING FOR LEVEL, PLUMB, AND SQUARENESS. IN ADDITION, VERIFY THAT THE OPENING WILL ENABLE MANUFACTURER'S REQUIRED CLEARANCE AT HEADS AND JAMBS OF WINDOWS. IF THESE ARE NOT AVAILABLE THE WINDOW SHOULD NOT BE INSTALLED AND THE CONSTRUCTION SUPERINTENDENT SHOULD BE NOTIFIED.

STEP 3
INSTALL FLEXIBLE SAMF IN THE WINDOW SILL AND EXTEND IT UP JAMBS 6" ON EACH SIDE OVER THE WRB. PRESS THE FLASHING ALONG THE FRONT OF THE SILL AND INTO THE CORNERS USING A ROLLER TO ROLL IT DOWN FIRMLY FOR GOOD ADHESION TO CREATE WINDOW PAN FLASHING.

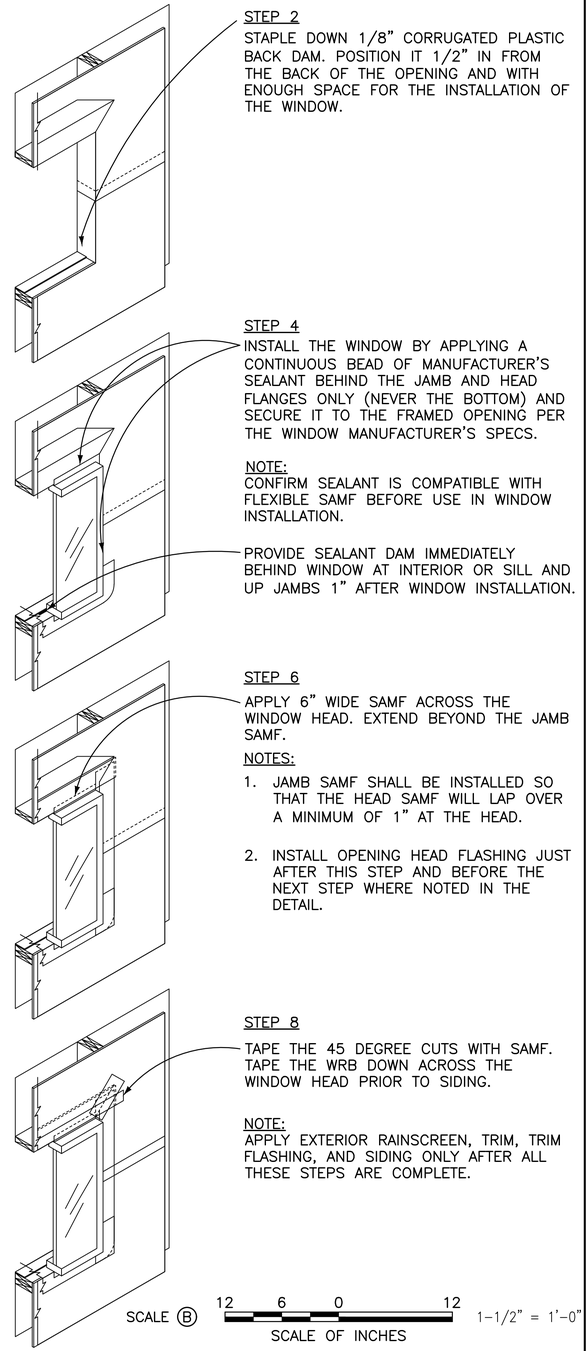
STEP 5
INSTALL 6" WIDE SAMF ON EACH SIDE OF THE WINDOW JAMB OVER THE WRB AND WINDOW FLANGE. SAMF SHALL BE ROLLED DOWN WITH SMALL, HARD ROLLER TO ENSURE PROPER ADHESION.

NOTES:
1. INSPECT WINDOW FRAME MITER JOINTS AND NAILING FLANGES FOR DAMAGE AND REPAIR AS NECESSARY.
2. NO WINDOW GAPS ARE ALLOWED AT WALL FINS OF FACTORY MULLED WINDOWS.
3. CHECK WINDOW FOR PROPER TYPE AND SIZE FOR LOCATION.
4. AFTER THE WINDOW IS PUT INTO THE ROUGH OPENING IT SHALL BE ADJUSTED TO ENABLE THE MANUFACTURER'S MINIMUM AIRSPACE BETWEEN THE WINDOW AND THE JAMBS AND HEAD.
5. INSTALL WINDOW UNIT PER MANUFACTURER'S INSTRUCTIONS WITH MANUFACTURER'S RECOMMENDED MATERIALS AND FASTENERS. CLEAN WINDOW SEALANT OFF BUILDING SUBSTRATE, WRB, AND WINDOW FIN. DO NOT INSTALL SAMF UNTIL WINDOW SEALANT HAS CURED.
6. DO NOT SECURE WINDOW THROUGH NAIL FIN AT HEAD OF WINDOW UNLESS APPROVED BY WINDOW MANUFACTURER.

STEP 7
LOWER THE HEAD FLAP OF THE WRB OVER HEAD AND JAMB SAMF.

NOTE:
WHEN OPENING HEAD FLASHING IS TO BE INSTALLED PER DETAILS, SEAL WRB TO HEAD FLASHING WITH SAMF.

7 A11 TYP EXTERIOR OPENINGS WEATHER WRAP
NOT TO SCALE



STEP 2
STAPLE DOWN 1/8" CORRUGATED PLASTIC BACK DAM. POSITION IT 1/2" IN FROM THE BACK OF THE OPENING AND WITH ENOUGH SPACE FOR THE INSTALLATION OF THE WINDOW.

STEP 4
INSTALL THE WINDOW BY APPLYING A CONTINUOUS BEAD OF MANUFACTURER'S SEALANT BEHIND THE JAMB AND HEAD FLANGES ONLY (NEVER THE BOTTOM) AND SECURE IT TO THE FRAMED OPENING PER THE WINDOW MANUFACTURER'S SPECS.

NOTE:
CONFIRM SEALANT IS COMPATIBLE WITH FLEXIBLE SAMF BEFORE USE IN WINDOW INSTALLATION.

PROVIDE SEALANT DAM IMMEDIATELY BEHIND WINDOW AT INTERIOR OR SILL AND UP JAMBS 1" AFTER WINDOW INSTALLATION.

STEP 6
APPLY 6" WIDE SAMF ACROSS THE WINDOW HEAD. EXTEND BEYOND THE JAMB SAMF.

NOTES:
1. JAMB SAMF SHALL BE INSTALLED SO THAT THE HEAD SAMF WILL LAP OVER A MINIMUM OF 1" AT THE HEAD.
2. INSTALL OPENING HEAD FLASHING JUST AFTER THIS STEP AND BEFORE THE NEXT STEP WHERE NOTED IN THE DETAIL.

STEP 8
TAPE THE 45 DEGREE CUTS WITH SAMF. TAPE THE WRB DOWN ACROSS THE WINDOW HEAD PRIOR TO SIDING.

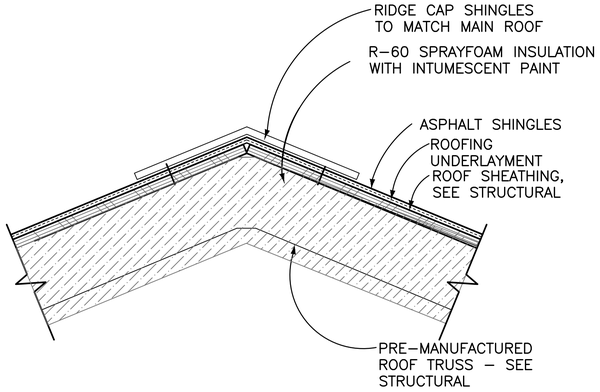
NOTE:
APPLY EXTERIOR RAINSCREEN, TRIM, TRIM FLASHING, AND SIDING ONLY AFTER ALL THESE STEPS ARE COMPLETE.

SCALE (B) 12 6 0 12 SCALE OF INCHES 1-1/2" = 1'-0"

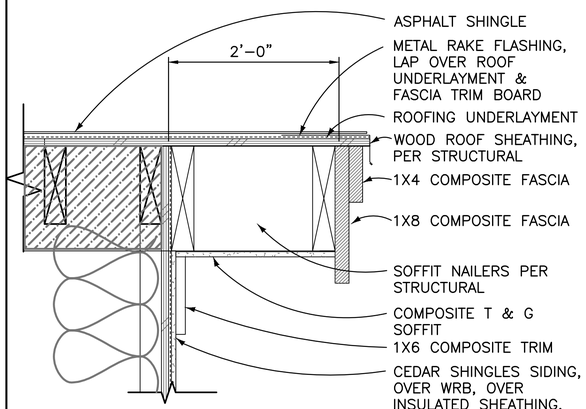
SCALE (A) 6 3 0 6 SCALE OF INCHES 3" = 1'-0"

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

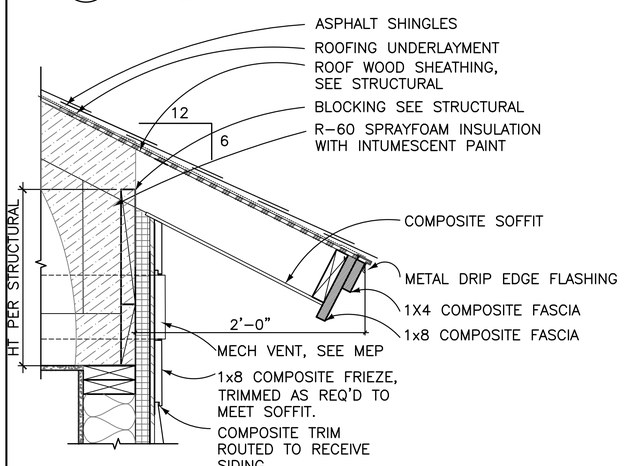
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A11	TITLE OF SHEET EXTERIOR DETAILS 6-PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 37 OF 131



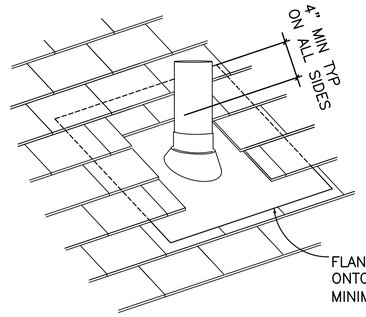
1 A12 **TYP ROOF RIDGE**
SCALE (A)



2 A12 **TYPICAL ROOF RAKE**
SCALE (A)

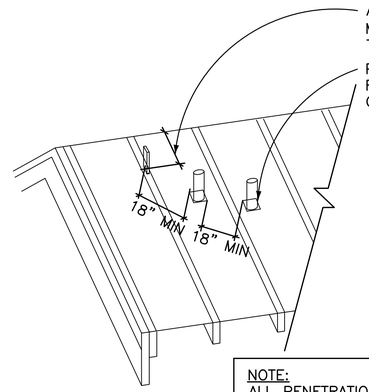


3 A12 **ROOF EAVE**
SCALE (B)



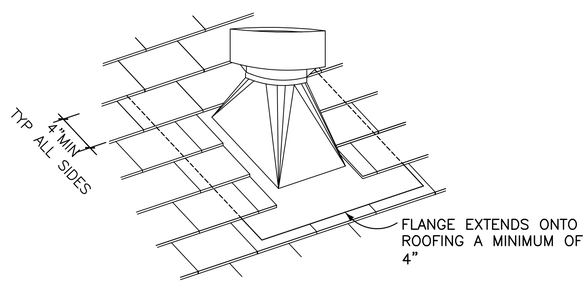
NOTE:
FLASHING IS SIMILAR FOR ANY SIMILAR TYPE OF ROOF PENETRATION

4 A12 **PLUMBING PENETRATION AT ROOF**
NOT TO SCALE



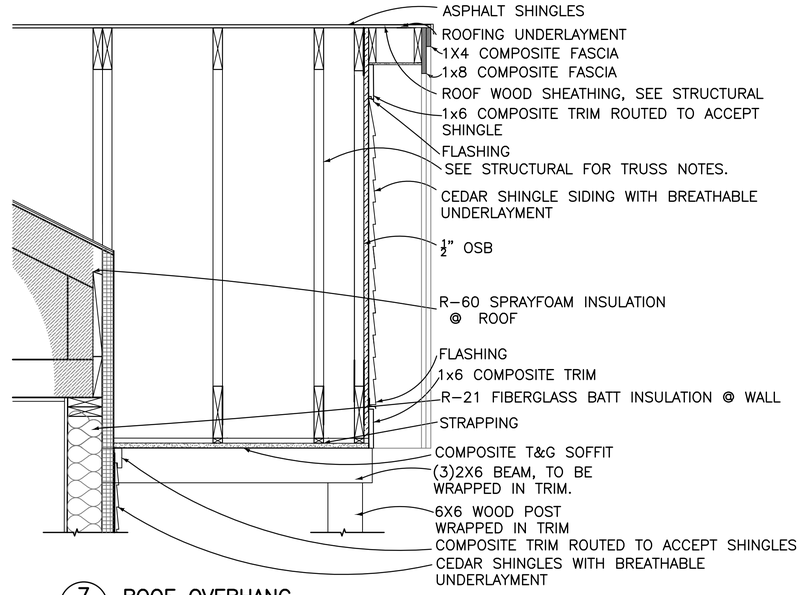
NOTE:
ALL PENETRATIONS TO BE A MIN OF 18" APART MEASURED FROM THE EDGE OF THE PENETRATION, TO ALLOW FOR PROPER ROOF APPLICATION

5 A12 **PENETRATIONS AT ROOF**
NOT TO SCALE

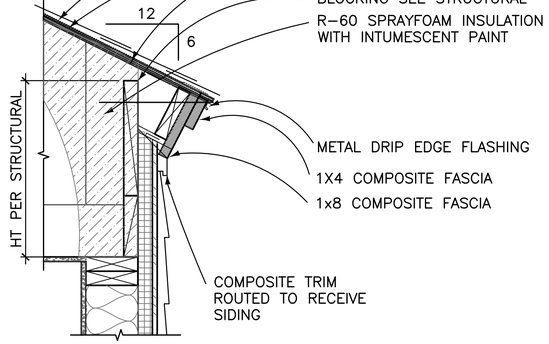


NOTE:
FLASHING IS SIMILAR FOR ANY TYPE OF ROOF PENETRATIONS

6 A12 **VENTILATION PENETRATION AT ROOF**
NOT TO SCALE



7 A12 **ROOF OVERHANG**
SCALE (B)



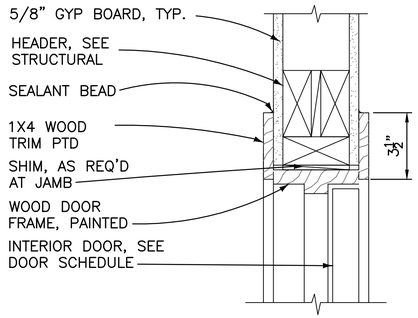
8 A12 **ROOF EAVE AT RISER ROOM**
SCALE (B)

SCALE (A) 6 3 0 6 — 3" = 1'–0"
SCALE OF INCHES

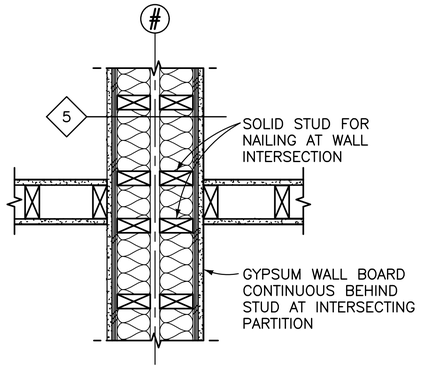
SCALE (B) 1 0 1 2 — 1"=1'–0"
SCALE OF FEET

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

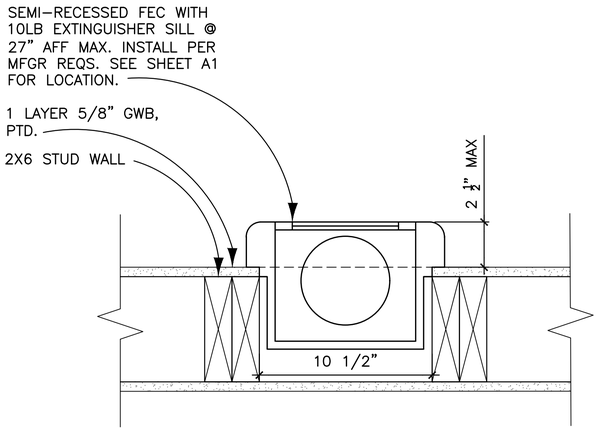
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW DRAWN: AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A12	TITLE OF SHEET ROOF DETAILS 6–PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 38 OF 131



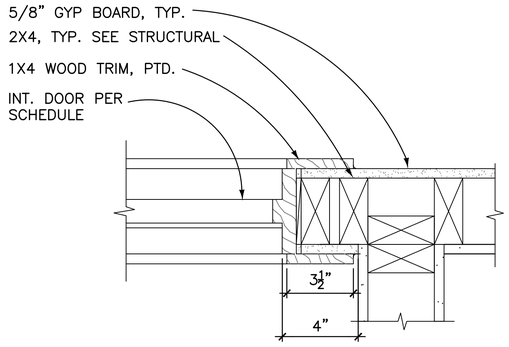
1 A13 TYP INTERIOR DOOR HEAD (JAMB SIM)
SCALE (A)



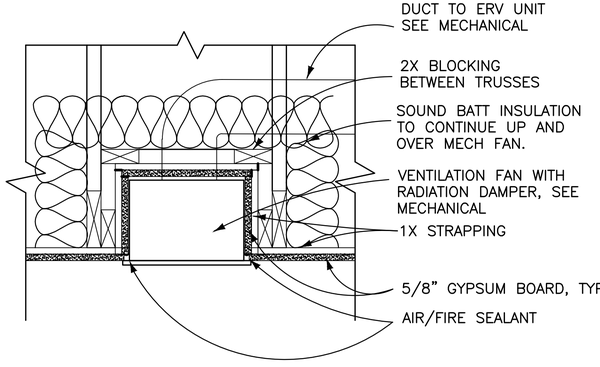
4 A13 DEMISING WALL AT UNRATED WALL
SCALE (B)



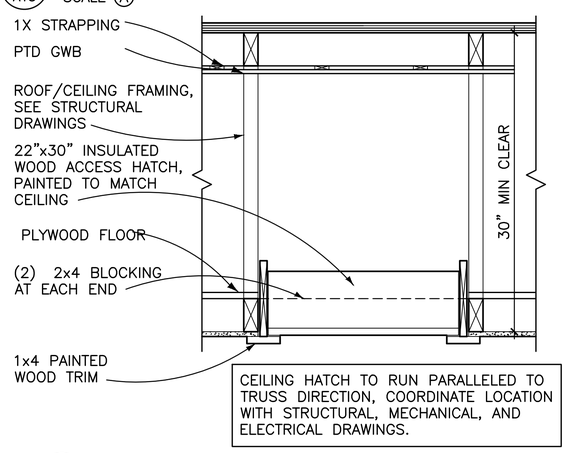
7 A13 FEC DETAIL
SCALE (A)



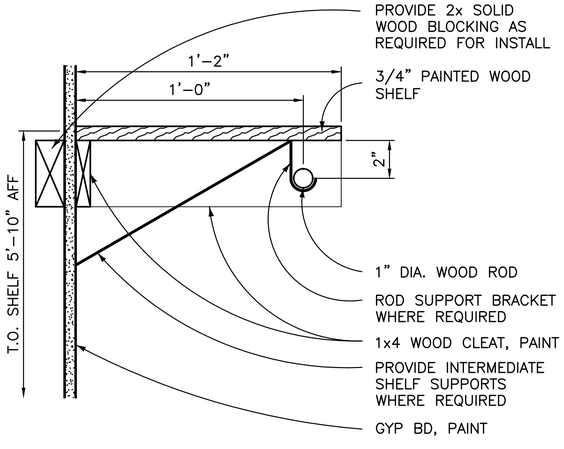
2 A13 TYPICAL INTERIOR JAMB
SCALE (A)



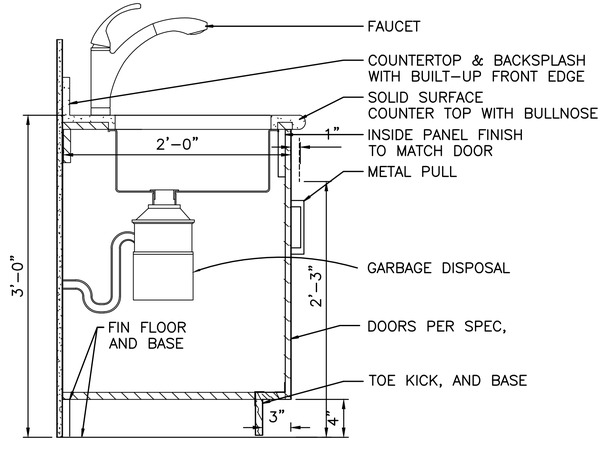
5 A13 MECH FAN AT CEILING
SCALE (B)



9 A13 CEILING SECTION AT ATTIC HATCH
SCALE (B)



3 A13 SHELF & ROD AT CLOSET
SCALE (A)



6 A13 COUNTER AT KITCHEN
SCALE (B)

SCALE (B) 12 6 0 12 — SCALE OF INCHES — 1-1/2" = 1'-0"

SCALE (A) 6 3 0 6 — SCALE OF INCHES — 3" = 1'-0"

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A13	TITLE OF SHEET INTERIOR DETAILS 6-PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 39 OF 131

GENERAL NOTES

GENERAL REQUIREMENTS
GOVERNING CODE
THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE 2021 INTERNATIONAL BUILDING CODE (IBC).

THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK. USE DETAILS MARKED "TYPICAL" WHEREVER THEY APPLY.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING DETAILS AND ACCURACY OF THE WORK; FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; FOR SELECTING FABRICATION PROCESSES; FOR TECHNIQUES OF ASSEMBLY; AND FOR PERFORMING WORK IN A SAFE AND SECURE MANNER.

THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA.

THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND REQUIREMENTS FOR EXECUTING IT PROPERLY. THE STRUCTURE SHOWN ON THE PLANS HAS BEEN DESIGNED FOR STABILITY UNDER THE FINAL CONFIGURATION ONLY.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICTS BETWEEN THE DRAWINGS AND THE ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER BEFORE PROCEEDING WITH THE WORK.

DESIGN LOADS SEE LOAD MAPS

ROOF DEAD: SEE TRUSS DESIGN LOAD TABLE (S1)
WALL DEAD: 14 PSF
FLOOR LIVE: 40 PSF
ROOF LIVE: 20 PSF
SNOW: GROUND SNOW (Pg): 50 PSF
FLAT SNOW LOAD (Pf): 42.0 PSF
EXPOSURE B ("PARTIALLY EXPOSED")
EXPOSURE FACTOR: Ce = 1.0
IMPORTANCE FACTOR: I = 1.0
THERMAL FACTOR: Ct = 1.2 (UNHEATED)
ROOF SLOPE FACTOR: Cs = 1.0
DRIFT SURCHARGE LOADS (Pd): PER ASCE 7-16 (SEE LOAD MAP)
UNBALANCED SNOW LOAD: PER ASCE 7-16 (SEE LOAD MAP)
FROST DEPTH: 54"*
WIND: 110 MPH Vult
RISK CAT. II
EXPOSURE B
Cpi +/-0.18
SEISMIC Ss=0.224g
S1=0.065g
SITE CLASS D
RISK CAT. II
SYS: SHEATHED LIGHT FRAMED WOOD WALLS
METHOD: EQUIVALENT LATERAL FORCE
*OBTAINED FROM GEOTECHNICAL REPORT REFERENCED IN SOILS SECTION BELOW

SOILS
THE FOLLOWING SOIL PARAMETERS WERE OBTAINED FROM A REPORT ENTITLED "EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES" DATED FEBRUARY 8, 2024, PREPARED BY S.W. COLE ENGINEERING, INC. (37 LIBERTY DRIVE, BANGOR, ME 04401, (207)848-5714)

ALLOWABLE BEARING PRESSURE	3000 PSF
COEFFICIENT OF SHEAR FRICTION	0.3
INTERNAL FRICTION ANGLE (COMPACTED STRUCTURAL FILL):	30°
AT-REST LATERAL EARTH PRESSURE COEFFICIENT:	0.5

INSPECTIONS
FOUNDATIONS, FOOTINGS, UNDER SLAB SYSTEMS AND FRAMING ARE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL IN ACCORDANCE WITH IBC SECTION 1705. CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE BUILDING OFFICIAL. SEE STATEMENT OF SPECIAL INSPECTIONS ON SHEET S1.

SUBMITTALS:
SHOP DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO FABRICATION AND CONSTRUCTION REGARDING ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING:

CONCRETE MIX DESIGNS, CONCRETE REINFORCEMENT, EMBEDDED STEEL ITEMS, AND PREFABRICATED WOOD TRUSSES.

IF THE SHOP DRAWINGS DIFFER FROM, OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE THE CONTRACTING OFFICER.

DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS, INCLUDING PREFABRICATED WOOD TRUSSES SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED, AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO FABRICATION. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE, CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE CODES LISTED ABOVE AND THE LOADS OUTLINED ABOVE.

THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. ANY CONNECTIONS TO STRUCTURE NOT CONFORMING TO SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA), OR SPECIFICALLY DETAILED ON THE MECHANICAL ENGINEER'S DRAWINGS, SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED, AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO FABRICATION.

FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM, OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO CONSTRUCTION.

CAST-IN-PLACE CONCRETE
CONCRETE WORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".

CONTRACTOR TO SUBMIT ALL MIX DESIGNS REQUIRED BY ACI 301 SECTIONS 4.2.1. CONTRACTOR TO VERIFY CONCRETE STRENGTHS BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39. CONTRACTOR TO USE THE FOLLOWING MIX DESIGN REQUIREMENTS

CONCRETE MIX SPECIFICATION TABLE

LOCATION	f'c MIN PSI	TEST AGE (DAYS)	MAX W/CM RATIO	AIR CONTENT (%)	MAX AGGREGATE SIZE (IN.)	NOTES
FOOTINGS	3,500	28	0.55	4.5%± 1.5%	1½"	
WALLS	4,500	28	0.45	6.0%± 1.5%	¾"	
EXTERIOR SLABS	4,000	28	0.45	6.0%± 1.5%	¾"	
INTERIOR SLABS	3,000	28	N/A	3.0%± MAX	¾"	CONTRACTOR TO PREVENT SLABS FROM FREEZING

HIGHER WATER/CEMENT RATIOS THAN SHOWN ABOVE MAY BE USED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318-14, CHAPTER 19.

SLAG CONFORMING TO ASTM C989 MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS, ALONG WITH TEST DATA AS REQUIRED, A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE POURING. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.

CONCRETE REINFORCING
CONCRETE REINFORCING SHALL CONFORM TO ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE".

CONTRACTOR SHALL SUBMIT PLACING DRAWINGS SHOW FABRICATION DIMENSIONS AND LOCATIONS FOR PLACEMENT OF REINFORCEMENT AND REINFORCEMENT SUPPORTS.

MATERIALS
REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED BARS AND ASTM A185 FOR SMOOTH WELDED WIRE FABRIC (WWF), UNLESS OTHERWISE NOTED. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE. BARS IN SLABS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315. WELDING OF REINFORCING STEEL IS NOT PERMITTED.

UNLESS OTHERWISE NOTED ON PLANS, CONCRETE COVER SHALL BE:

USE	COVER
SLAB BARS	1.5" TOP COVER
WALL BARS:	
INTERIOR FACES	3/4"
EXPOSED TO EARTH OR WEATHER	1-1/2" (#5 AND SMALLER) 2" (#6 AND LARGER)
FOOTING BARS	3" BOTTOM COVER
ALL OTHER LOCATIONS	1-1/2"

SPLICES
SPLICES SHALL CONFORM TO ACI 301, SECTION 3.3.2.7 "SPLICES". LAP SPLICES SHALL CONFORM TO THE TABLE BELOW:

REINFORCING SPLICE LENGTHS (CLASS B) GRADE 60 f'c = 4.0 ksi						
BAR SIZE	#3	#4	#5	#6	#7	#8
UNCOATED	1'-6"	2'-0"	2'-0"	2'-6"	2'-9"	3'-7"

CONCRETE ACCESSORIES:
PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED, GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED. NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER CASTING.

EPOXY ADHESIVE: EPOXY ADHESIVE SHALL CONFORM TO ASTM C881 AND SHALL BE A TWO- COMPONENT, LIQUID EPOXY WITH NON-SAG CONSISTENCY AND A LONG POT LIFE, AND SHALL BE SUITABLE FOR USE ON DRY OR DAMP SURFACES. MINIMUM SLANT SHEAR STRENGTH SHALL BE 5,000 PSI, AND MINIMUM TENSILE STRENGTH SHALL BE 4,000 PSI. HOLES FOR GROUTED RODS AND REBAR SHALL BE 1/4" LARGER THAN THE BAR DIAMETER. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL STEEL
STRUCTURAL STEEL IS DESIGNED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS. CONSTRUCTIONS SHALL CONFORM TO CHAPTER 22 OF THE IBC.

MATERIALS

STRUCTURAL STEEL SHALL BE THE TYPES AND STRENGTHS LISTED BELOW:

STRUCTURAL BARS AND PLATES (PL)	ASTM A36, FY=36KSI
WELDING ELECTRODES	E70XX UNLESS OTHERWISE NOTED

WELDING SHALL CONFORM TO AWS D1.1 AND VISUALLY CONFORM TO AWS SECTION 6 AND TABLE 6.1. WELDERS SHALL BE QUALIFIED FOR THE SPECIFIC PREQUALIFIED JOINTS REQUIRED BY THE DESIGN AND CERTIFIED IN ACCORDANCE WITH AWS REQUIREMENTS. WELDING SHALL BE DONE IN ACCORDANCE WITH APPROPRIATE WELD PROCEDURE SPECIFICATIONS (WPSS); WELDERS SHALL BE FAMILIAR WITH THE APPLICABLE WSPSS. WELDING SHALL BE DONE WITH AWS PREQUALIFIED WELDING PROCESSES UNLESS OTHERWISE APPROVED. WELDER QUALIFICATIONS AND WPSS SHALL BE MAINTAINED AT THE SITE OF THE WORK AND SHALL BE READILY AVAILABLE FOR INSPECTION UPON REQUEST, BOTH IN THE SHOP AND IN THE FIELD.

TIMBER MEMBERS
TIMBER MEMBER, INCLUDING WOOD TRUSSES, SHALL CONFIRM TO CHAPTER 23 OF THE 2021 IBC AND THE STANDARDS LISTED THEREIN. GANG NAILED TRUSSES (ALSO KNOWN AS METAL PLATE CONNECTED WOOD TRUSSES OR ENGINEERED WOOD TRUSSES), OPEN WEB WOOD JOISTS, AND CLOSED WEB WOOD JOISTS, SHALL ALL BE IN ACCORDANCE WITH SPEC SECTION 061745 "WOOD TRUSSES AND JOINTS".

SUBMITTALS
SUPPLY SHOP DRAWINGS AND CALCULATIONS STAMPED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED FOR THE ENGINEERED WOOD TRUSSES. LOADINGS SHALL BE AS NOTED ON THE PLANS.

MATERIALS
ALL SAWN LUMBER AND PREMANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY. SAWN LUMBER SHALL CONFORM TO GRADING RULES OF WWPA, WCLIB OR NLGA AND THE TABLE BELOW, FINGER JOINTED STUDS ARE NOT PERMITTED ON THIS PROJECT.

USE	GRADE
JOISTS, PLANKING, BLOCKING, AND WALL STUDS	
2" TO 4" THICK, 2" AND WIDER	SPRUCE-PINE-FIR NO. 1/2
WALL PLATES & NAILERS	
2" TO 4" THICK, 2" AND WIDER	SPRUCE-PINE-FIR NO. 1/2
BEAMS/STRINGERS	SPRUCE-PINE-FIR NO. 1/2
POSTS	SPRUCE-PINE-FIR NO. 1/2

ALL BLOCKING SHALL BE FULL DEPTH MINIMUM 2X WIDTH AND SHALL BE CONNECTED BY MINIMUM 1 FASTENER @ 16" O.C.

ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE TREATED UNLESS AN APPROVED BARRIER IS PROVIDED. PT LUMBER SHALL BE SOUTHERN YELLOW PINE NO. 1/2 OR BETTER WITH MINIMUM Fb = 1500 PSI. PT LUMBER SHALL MEET USE CATEGORIES AS FOLLOWS (BASED ON AMERICAN WOOD PROTECTION ASSOCIATION STANDARD UI-08):
PLATES: USE CATEGORY UC2
EXTERIOR POSTS: USE CATEGORY UC41
EXTERIOR CONSTRUCTION NOT IN CONTACT WITH GROUND: USE CATEGORY UC3B

ALL SHEATHING SHALL BE APA RATED. UNLESS OTHERWISE NOTED ON DRAWINGS, INSTALL ROOF AND FLOOR PANELS WITH LONG DIMENSIONS ACROSS SUPPORTS AND THE PANEL CONTINUOUS OVER TWO OR MORE SPANS. END JOINTS SHALL OCCUR OVER SUPPORTS. GRADE MARKING OF SHEATHING CERTIFICATION IS REQUIRED. SEE NOTES ON FOUNDATION PLANS.

TIMBER CONNECTORS SHALL BE "STRONG TIE" BY SIMPSON COMPANY AS SPECIFIED IN THEIR CURRENT CATALOG. ALTERNATE CONNECTORS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR THE FOLLOWING SALIENT CHARACTERISTICS: EQUIVALENT OR GREATER LOAD CAPACITIES AND ARE REVIEWED AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO ORDERING. CONNECTORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. WHERE STRAPS ARE USED AS HOLD-DOWNS, NAIL STRAP TO WOOD FRAMING JUST PRIOR TO DRYWALL APPLICATION, AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE. PREMATURE NAILING OF THE STRAP MAY LEAD TO STRAP BUCKLING AND POTENTIAL FINISH DAMAGE.

WHERE CONNECTORS ARE IN EXPOSED EXTERIOR APPLICATIONS IN CONTACT WITH PRESERVATIVE TREATED WOOD (PT) OTHER THAN CCA, CONNECTORS SHALL BE EITHER BATCH HOT-DIPPED GALVANIZED, MECHANICALLY GALVANIZED, OR STAINLESS STEEL.

STATE OF MAINE ALINA WORTH No. 11164 LICENSED PROFESSIONAL ENGINEER

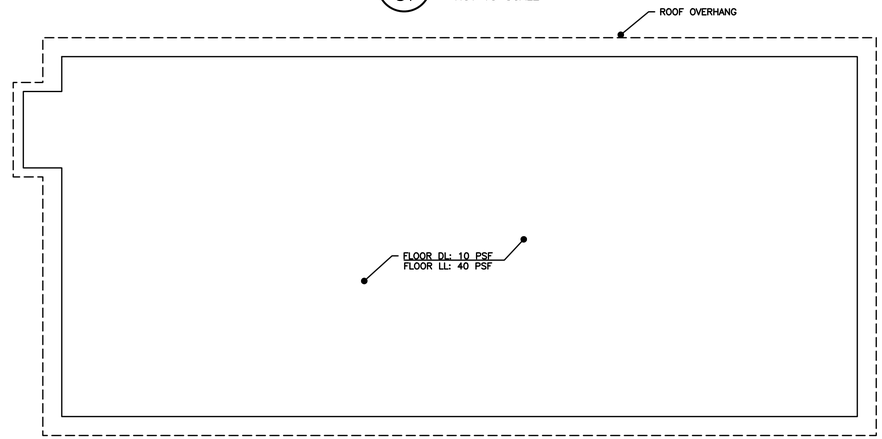
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S0	TITLE OF SHEET GENERAL NOTES 6-PLEX FLAT HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 40 OF 131

2/21/2025 15:20 LAM R2024 C:\Users\lam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S0 & S1 GENERAL NOTES.dwg

STATEMENT OF SPECIAL INSPECTIONS				
PER SECTION 1705 OF THE 2021 IBC, THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTIONS AS REQUIRED BY AHJ:				
CONCRETE CONSTRUCTION				
VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. INSPECT FOOTING & WALL REINFORCEMENT, AND VERIFY PLACEMENT.		X	ACI 318: CHAPTER 20, 25.2, 25.3, 26.6–1, 26.6.3	
2. INSPECT ANCHORS CAST INTO CONCRETE WALLS.		X	ACI 318: 17.8.2	
3. INSPECT ADHESIVE ANCHORS POST–INSTALLED IN HARDENED CONCRETE.		X	ACI 318: 17.8.2	
4. VERIFY USE OF REQUIRED DESIGN MIX FOR FOOTINGS & WALLS.		X	ACI 318: CHAPTER 19, 26.4.3, 26.4.4	1904.1, 1904.2,
5. PRIOR TO CONCRETE PLACEMENT FOR FOOTINGS & WALLS, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X		ASTM C172, ASTM C31, ACI 318 26.4, 26.12	
6. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. (FOOTINGS & WALLS ONLY)		X	ACI 318: 26.5.3–26.5.5	
WOOD CONSTRUCTION				
VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. INSPECTION OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION, EXCEPT WHERE THE FABRICATOR HAS BEEN APPROVED TO PERFORM WORK WITHOUT SPECIAL INSPECTIONS.		X	--	1704.2.5
SOIL & BUILDING PAD INSPECTIONS				
VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		X	--	1705.6
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		X		
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		X		
4. VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT & COMPACTION OF COMPACTED FILL.	X			
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		X		
WIND RESISTANCE				
VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
EXEMPTED BY IBC 1705.12 POINT #1				
SEISMIC RESISTANCE				
VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
EXEMPTED BY IBC 1705.13 POINT #1				

1/S1 LOAD MAPS

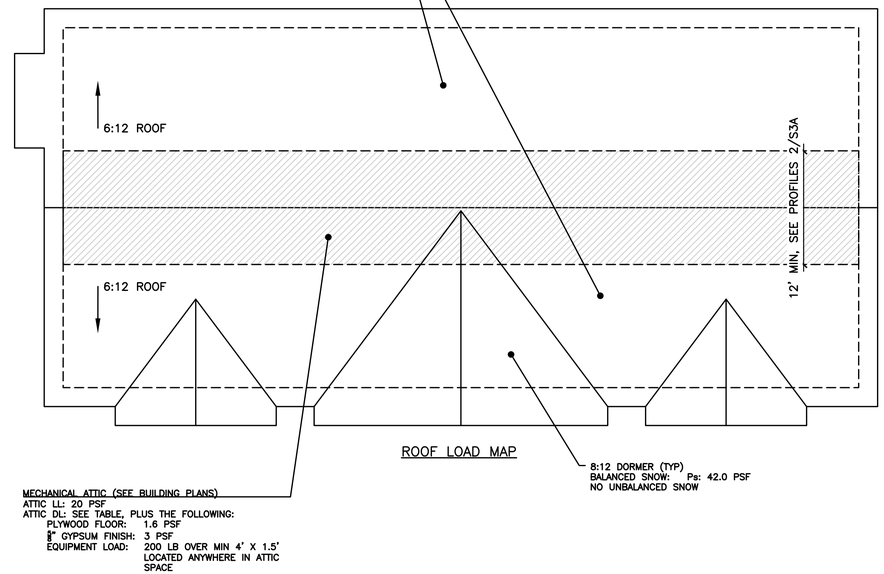
NOT TO SCALE



FIRST FLOOR SLAB LOAD MAP

ROOF DL: SEE TABLE
ROOF LL: 20 PSF
BALANCED SNOW: Ps: 42.0 PSF
UNBALANCED SNOW: LEEWARD Ps: 50 PSF
WINDWARD Ps: 0 PSF

ALL LOADS PER ASCE 7–16



ROOF LOAD MAP

MECHANICAL ATTIC (SEE BUILDING PLANS)
ATTIC LL: 20 PSF
ATTIC DL: SEE TABLE, PLUS THE FOLLOWING:
PLYWOOD FLOOR: 1.6 PSF
½" GYPSUM FINISH: 3 PSF
EQUIPMENT LOAD: 200 LB OVER MIN 4' X 1.5' LOCATED ANYWHERE IN ATTIC SPACE

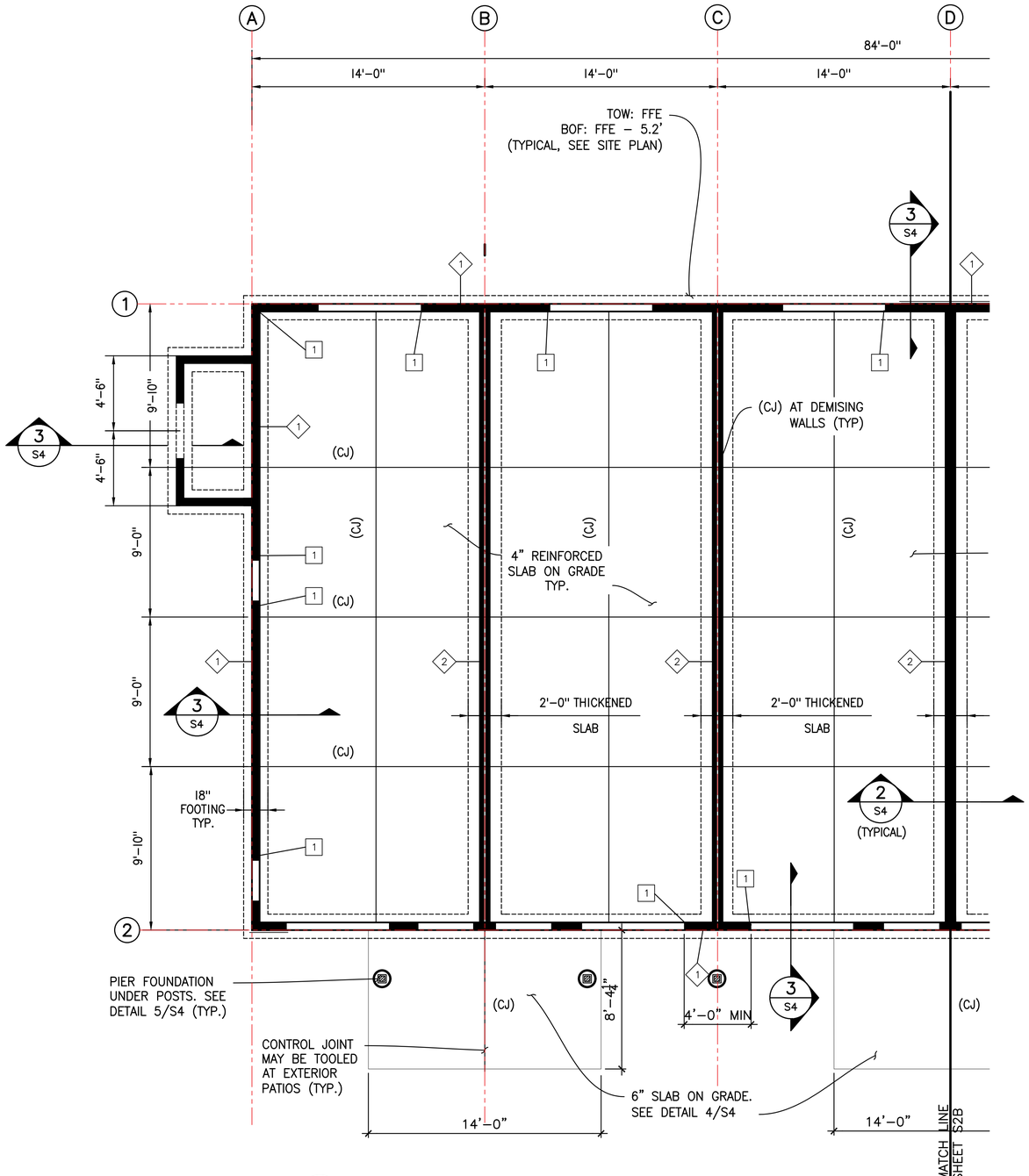
8:12 DORMER (TYP)
BALANCED SNOW: Ps: 42.0 PSF
NO UNBALANCED SNOW

ROOF TRUSS DESIGN DEAD LOADS		
TOP CHORD (TC):	ROOFING ALLOWANCE	3 PSF
	PLYWOOD DECK	3 PSF
	INSULATION	1.2 PSF
	SOLAR ALLOWANCE	5 PSF
	TC TOTAL:	12.2 PSF
BOTTOM CHORD* (BC):	STRAPPING	0.5 PSF
	½" GYPSUM	2 PSF
	MECH. DUCT ALLOWANCE (SEE MAP FOR ADDITIONAL ATTIC EQUIPMENT LOADS)	4 PSF
	SPRINKLER SYSTEM ALLOWANCE	2 PSF
	BC TOTAL:	8.5 PSF
*SEE LOAD MAP FOR ADDITIONAL MECHANICAL ATTIC LOADING		

STATE OF MAINE ALINA WATT No. 11164 LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S1	TITLE OF SHEET LOAD MAPS & ADDITIONAL NOTES **6–PLEX FLAT** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 41 OF 131

2/21/2025 15:20 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_ Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S0 & S1 GENERAL NOTES.dwg



1 S2A FIRST FLOOR AND FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS UNLESS NOTED OTHERWISE.
2. ALL CONTINUOUS FOOTINGS SHALL BE 11" DEEP AND 1'-6" WIDE UNLESS NOTED OTHERWISE. SEE FOUNDATION DETAIL 3/S4
3. CONTRACTOR TO SUBMIT CONTROL JOINT PLAN TO CONTRACTING OFFICER. MAX SPACING SHALL BE 10'-0". REF. 1/S4.
4. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
5. [#] INDICATES HOLDDOWN TYPE, SEE 7/S5 FOR MORE INFORMATION.
6. ◇# INDICATES WALL TYPE, SEE TABLE THIS PAGE.
7. TYPICAL WALL TO BE SPF NO. 1 / NO. 2, 2x6 STUDS @ 16" O.C. WITH 15/32" STRUCTURAL SHEATHING, UNLESS OTHERWISE NOTED.
8. REFERENCE 1/S4 FOR TYP SLAB INFO.
9. FASTENERS IN SHEAR WALLS TO BE 10d 0.135"ø x 3-1/2" NAILS INSTALLED WITH MINIMUM 1 1/2" PENETRATION INTO FRAMING MEMBERS.
10. REFERENCE 1/S5 FOR ADDITIONAL WALL FRAMING DETAILS.

SHEAR WALL SCHEDULE

			FASTENER SPACING	
MARK	FRAMING	SHEATHING	FIELD	EDGE
◇1	2x6 @ 16" OC	HUBER R-9 INSULATED SHEATHING, PANEL EDGES BLOCKED	12"	3"
◇2	DOUBLE 2x4 @ 16" OC	15/32" STRUCTURAL SHEATHING, EACH SIDE	12"	6"

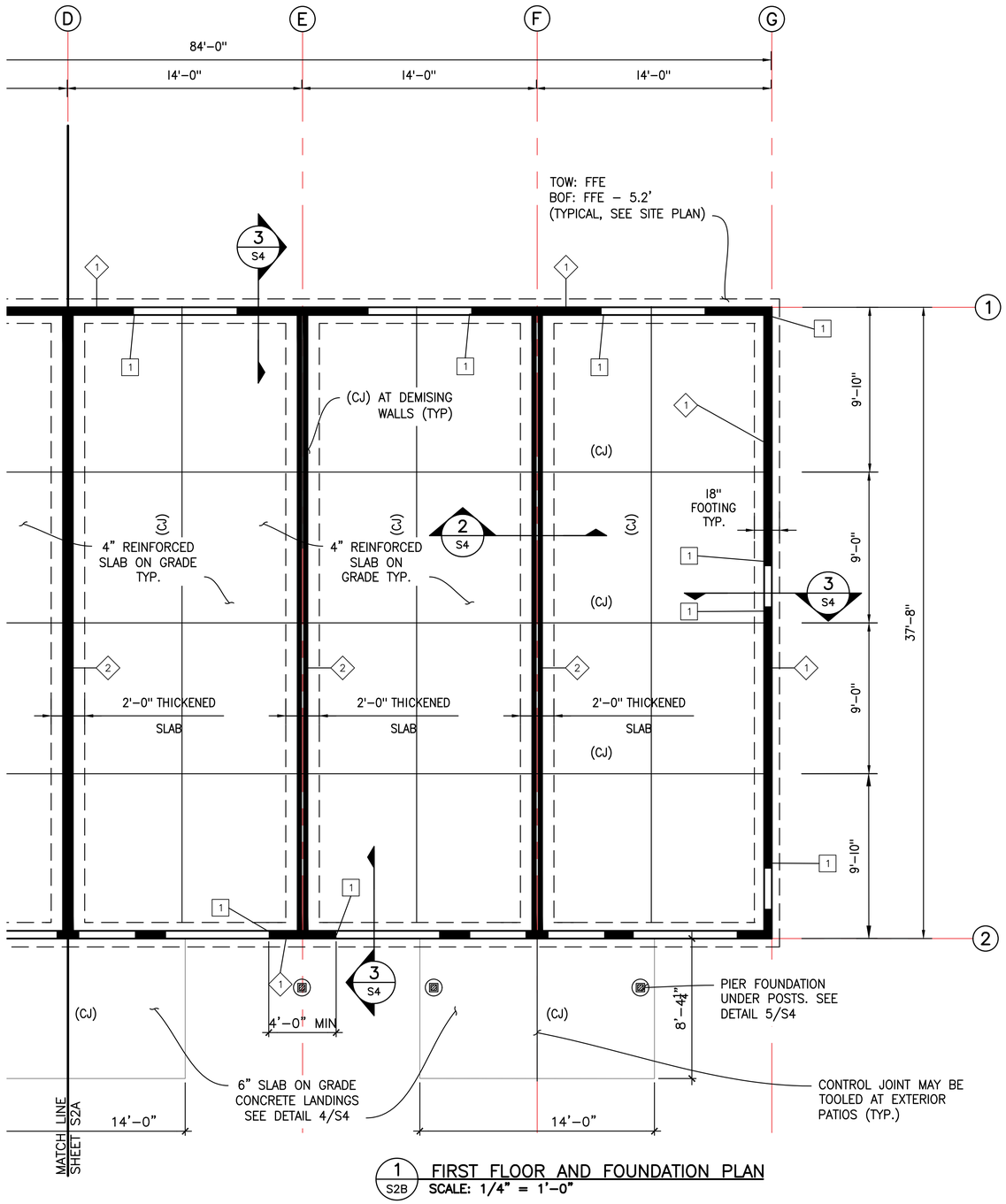
PLAN NORTH

4 0 4 8
SCALE OF FEET

STATE OF MAINE ALINA WORTH No. 11164 LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW CADD LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S2A	TITLE OF SHEET FOUNDATION PLAN WEST **6-PLEX FLAT** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 42 OF 131

2/21/2025 15:20 UAM R2024 C:\Users\Uam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S2A FOUNDATION - WEST.dwg



1 S2B **FIRST FLOOR AND FOUNDATION PLAN**
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS UNLESS NOTED OTHERWISE.
2. ALL CONTINUOUS FOOTINGS SHALL BE 11" DEEP AND 1'-6" WIDE UNLESS NOTED OTHERWISE. SEE FOUNDATION DETAIL 3/S4
3. CONTRACTOR TO SUBMIT CONTROL JOINT PLAN TO CONTRACTING OFFICER. MAX SPACING SHALL BE 10'-0". REF. 1/S4.
4. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
5. [#] INDICATES HOLDDOWN TYPE, SEE 7/S5 FOR MORE INFORMATION.
6. ◇# INDICATES WALL TYPE, SEE TABLE THIS PAGE.
7. TYPICAL WALL TO BE SPF NO. 1 / NO. 2, 2x6 STUDS @ 16" O.C. WITH 15/32" STRUCTURAL SHEATHING, UNLESS OTHERWISE NOTED.
8. REFERENCE 1/S4 FOR TYP SLAB INFO.
9. FASTENERS IN SHEAR WALLS TO BE 10d 0.135" DIA. X 3 1/2" NAILS INSTALLED WITH MINIMUM 1 1/2" PENETRATION INTO FRAMING MEMBERS.
10. REFERENCE 1/S5 FOR ADDITIONAL WALL FRAMING DETAILS.

SHEAR WALL SCHEDULE

			FASTENER SPACING	
MARK	FRAMING	SHEATHING	FIELD	EDGE
◇1	2x6 @ 16" OC	HUBER R-9 INSULATED SHEATHING, PANEL EDGES BLOCKED	12"	3"
◇2	DOUBLE 2x4 @ 16" OC	15/32" STRUCTURAL SHEATHING EACH SIDE	12"	6"

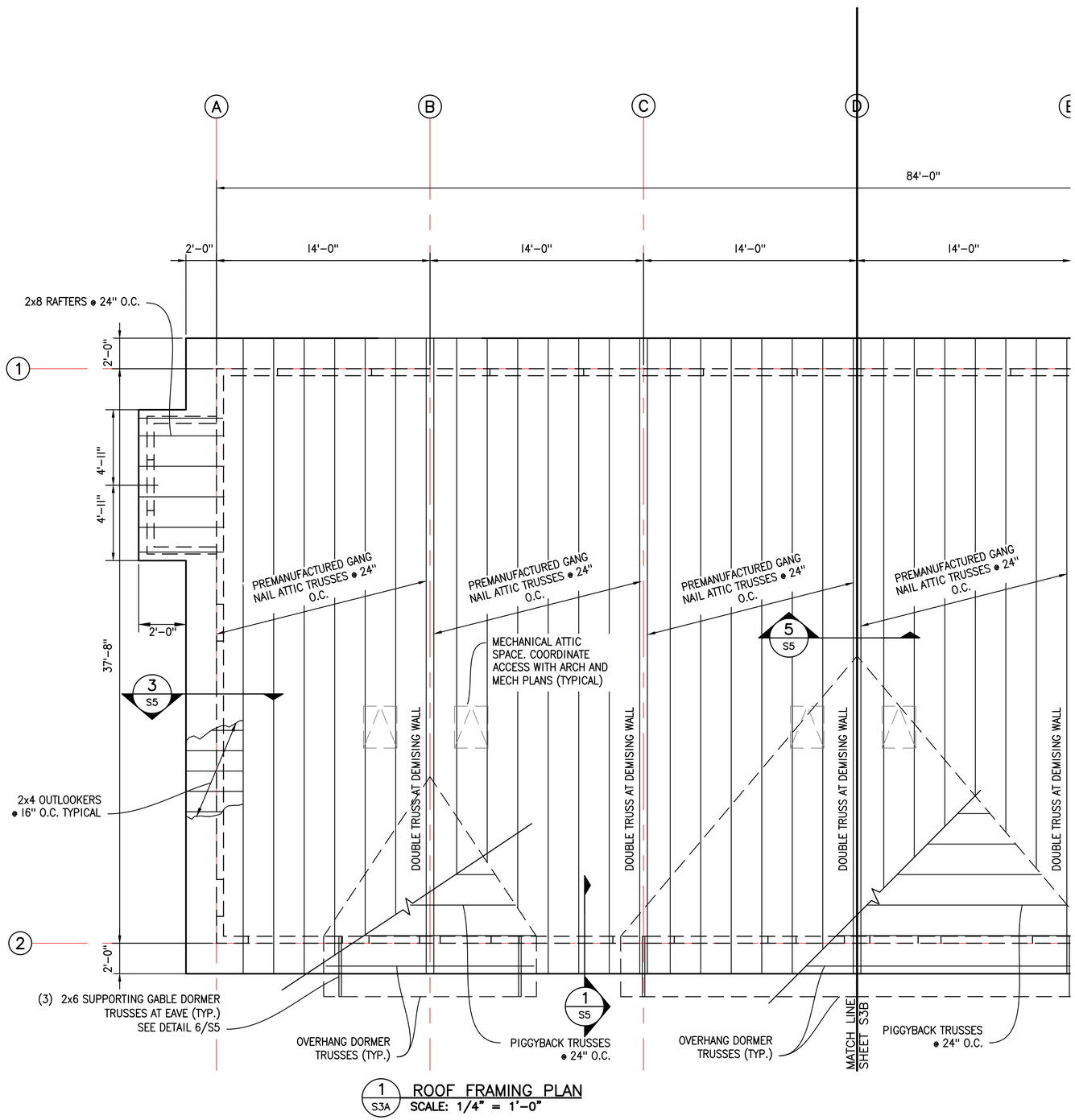
PLAN NORTH

4 0 4 8
SCALE OF FEET

STATE OF MAINE · ALINA WYATT · No. 11164 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DADD LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S2B	TITLE OF SHEET FOUNDATION PLAN EAST **6-PLEX FLAT** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 43 OF 131

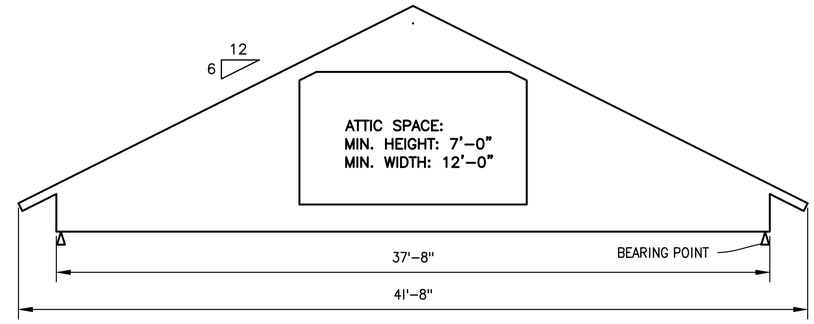
2/21/2025 15:20 UAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S2B FOUNDATION - EAST.dwg



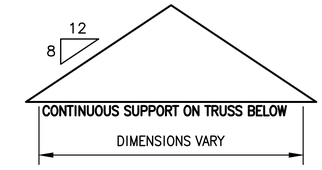
1 S3A ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES

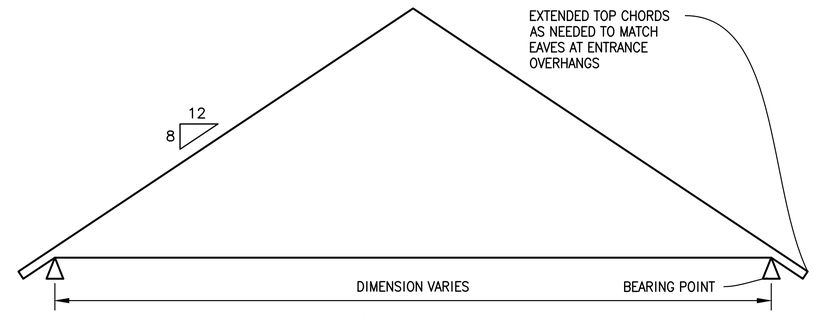
1. PROVIDE ¾" THICK T&G SHEATHING–GRADE PLYWOOD WITH 0.131" DIA. x 2½" NAILS AT 6" O.C. AT PANEL EDGES, DIAPHRAGM EDGES, AND WHERE INDICATED ON PLAN. 12" O.C. WITHIN PANEL. PROVIDE SOLID BLOCKING ALONG ALL EDGES OF ROOF DIAPHRAGM.
2. TIMBER CONNECTORS ARE INDICATED AS SIMPSON STRONG TIE. ALTERNATE PRE–APPROVED EQUIVALENT CONNECTORS ARE PERMITTED, REFERENCE GENERAL NOTES FOR MORE INFORMATION.



ATTIC TRUSS PROFILE



PIGGYBACK DORMER TRUSS PROFILE



OVERHANG DORMER TRUSS PROFILE

2 S3A ROOF TRUSS PROFILES
SCALE: 1/4" = 1'-0"

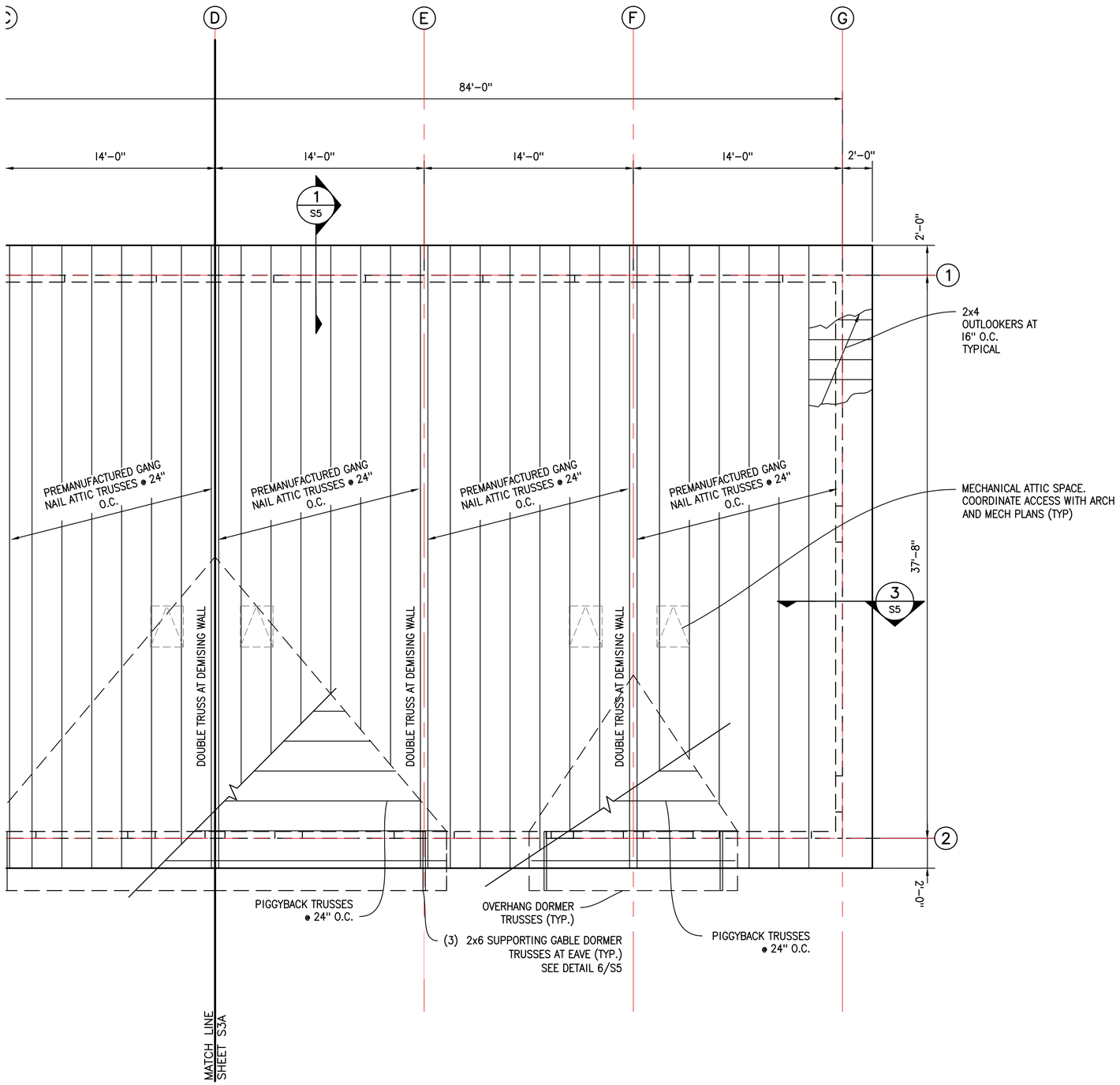
PLAN NORTH

4 0 4 8
SCALE OF FEET

STATE OF MAINE ALINA WATT No. 11164 LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S3A	TITLE OF SHEET ROOF FRAMING PLAN WEST **6–PLEX FLAT** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 44 OF 131

2/21/2025 15:20 LWM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S3A ROOF FRAMING - WEST.dwg



1 S3B ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES

1. PROVIDE ¾" THICK T&G SHEATHING–GRADE PLYWOOD WITH 0.131" DIA. x 2½" NAILS AT 6" O.C. AT PANEL EDGES, DIAPHRAGM EDGES, AND WHERE INDICATED ON PLAN. 12" O.C. WITHIN PANEL. PROVIDE SOLID BLOCKING ALONG ALL EDGES OF ROOF DIAPHRAGM.
2. TIMBER CONNECTORS ARE INDICATED AS SIMPSON STRONG TIE. ALTERNATE PRE–APPROVED EQUIVALENT CONNECTORS ARE PERMITTED, REFERENCE GENERAL NOTES FOR MORE INFORMATION.
3. SEE 2/3A FOR TRUSS PROFILES

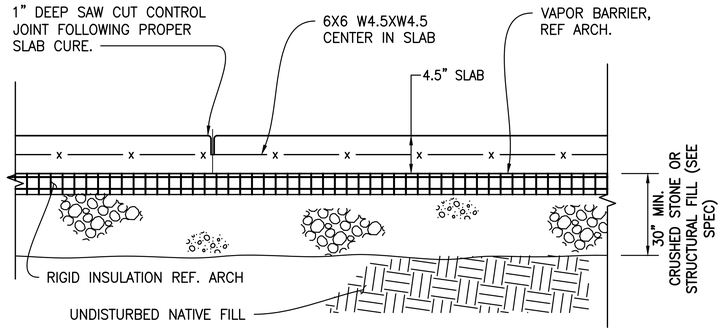
PLAN NORTH

4 0 4 8
SCALE OF FEET

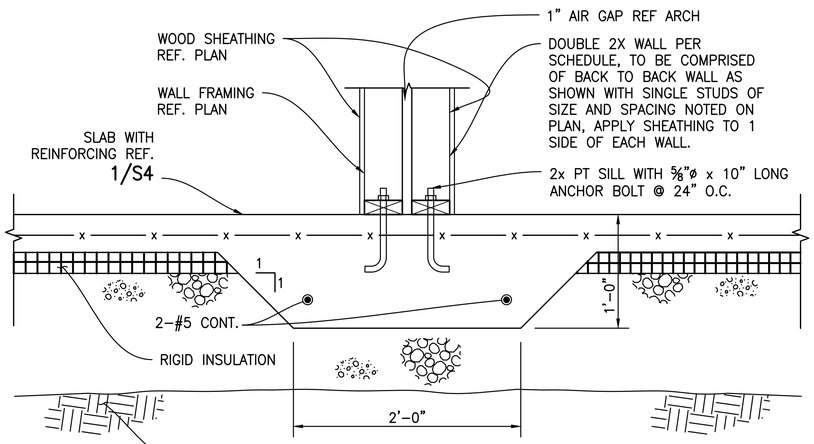
STATE OF MAINE
ALINA WATT
No. 11164
LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW CADD LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S3B	TITLE OF SHEET ROOF FRAMING PLAN EAST **6–PLEX FLAT** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 45 OF 131

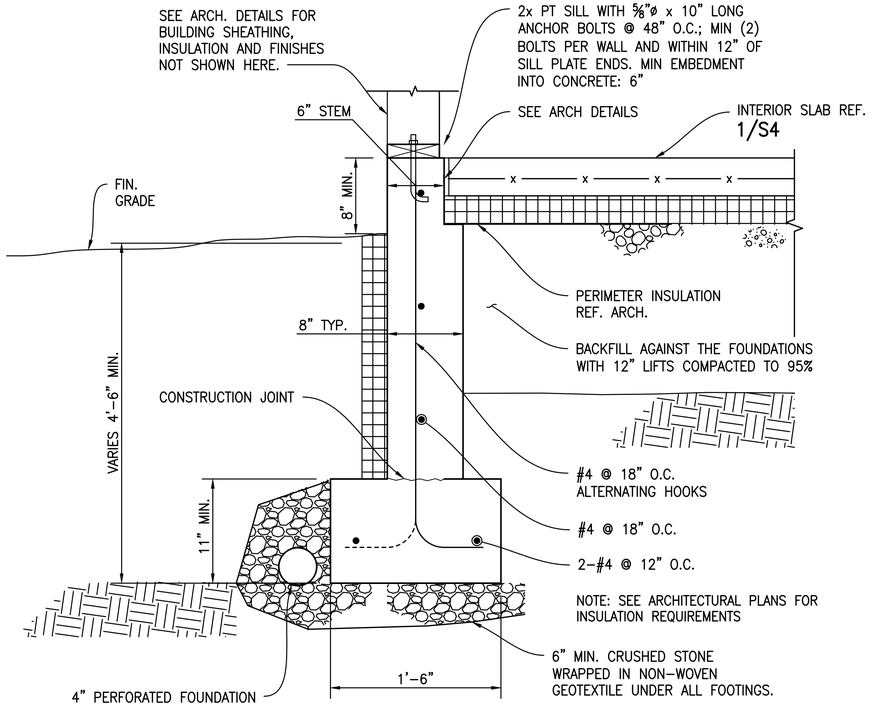
2/21/2025 09:11 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S3B ROOF FRAMING - EAST.dwg



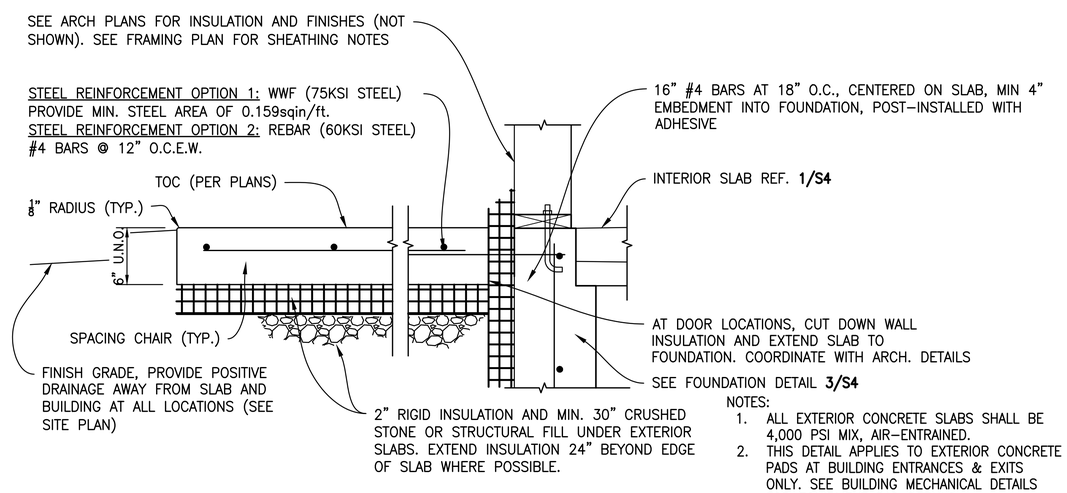
1 / S4 TYP. SLAB DETAIL
SCALE (A)



2 / S4 THICKENED SLAB DETAIL
SCALE (A)



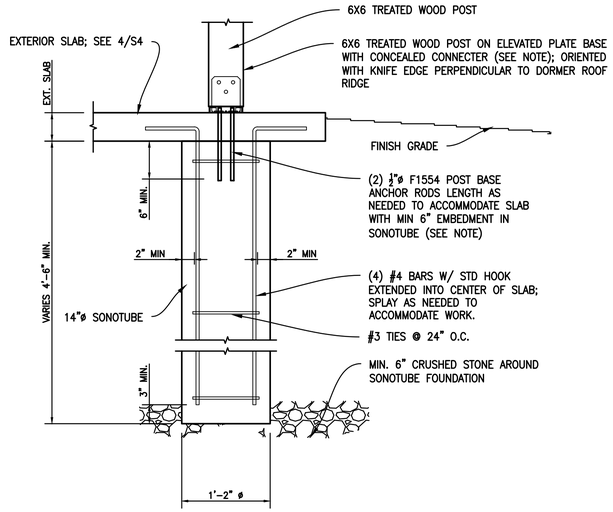
3 / S4 TYP. FOOTING DETAIL
SCALE (A)



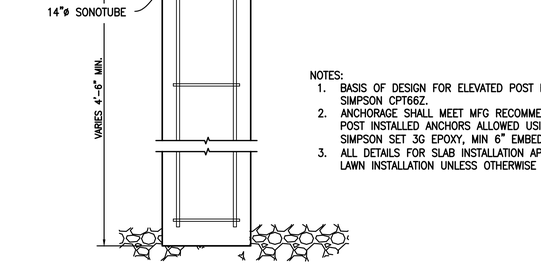
NOTES:
1. ALL EXTERIOR CONCRETE SLABS SHALL BE 4,000 PSI MIX, AIR-ENTRAINED.
2. THIS DETAIL APPLIES TO EXTERIOR CONCRETE PADS AT BUILDING ENTRANCES & EXITS ONLY. SEE BUILDING MECHANICAL DETAILS FOR EQUIPMENT PAD DETAILS.

4 / S4 TYPICAL EXTERIOR SLAB CONNECTION DETAIL
SCALE (A)

EXTERIOR SLAB INSTALLATION



LAWN INSTALLATION



NOTES:
1. BASIS OF DESIGN FOR ELEVATED POST BASE: SIMPSON CPT66Z.
2. ANCHORAGE SHALL MEET MFG RECOMMENDATIONS. POST INSTALLED ANCHORS ALLOWED USING SIMPSON SET 3G EPOXY, MIN 6" EMBEDMENT
3. ALL DETAILS FOR SLAB INSTALLATION APPLY TO LAWN INSTALLATION UNLESS OTHERWISE NOTED.

5 / S4 POST FOUNDATION DETAIL
SCALE (B)

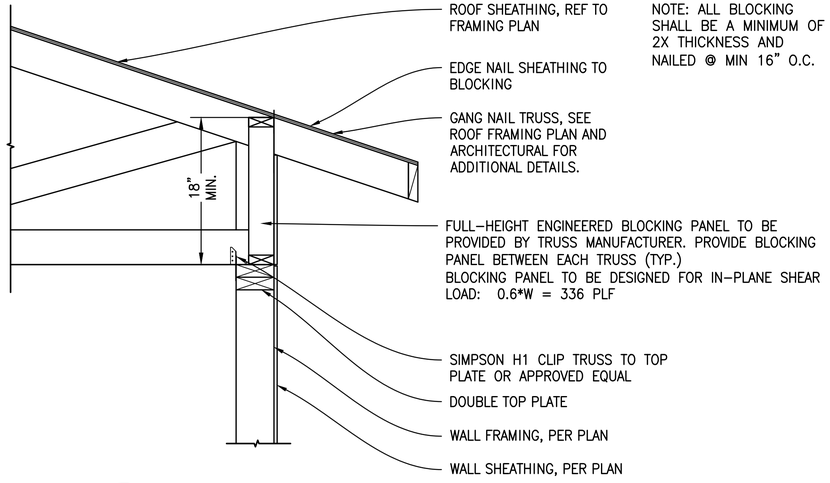
SCALE (A) 8 0 8 16
SCALE OF INCHES

SCALE (B) 12 0 12 24
SCALE OF INCHES

STATE OF MAINE ALINA WATT No. 11164 LICENSED PROFESSIONAL ENGINEER

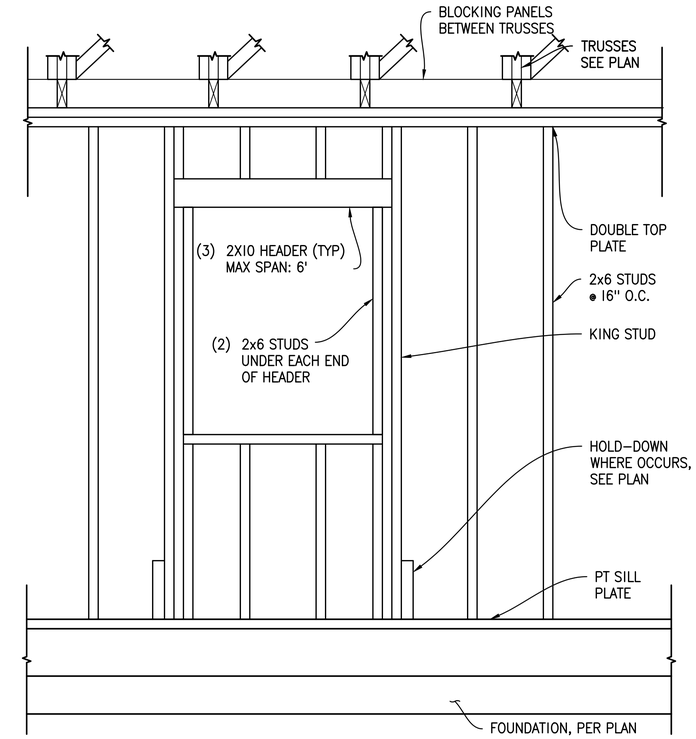
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S4	TITLE OF SHEET FOUNDATION DETAILS **6-PLEX FLAT** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 46 of 131

2/21/2025 15:21 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\2308 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S4 FOUNDATION DET.dwg

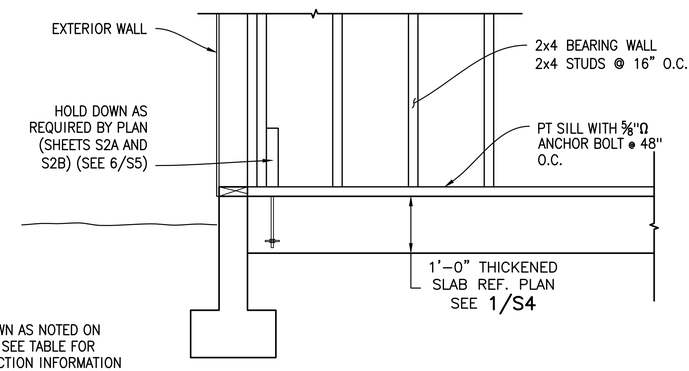


NOTE: ALL BLOCKING SHALL BE A MINIMUM OF 2X THICKNESS AND NAILED @ MIN 16" O.C.

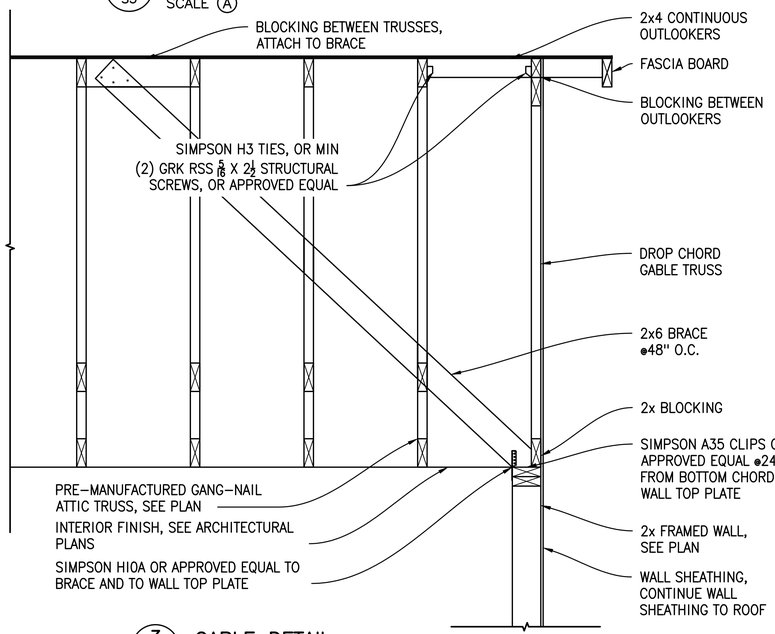
1 S5 **FRAMING DETAIL**
SCALE Ⓐ



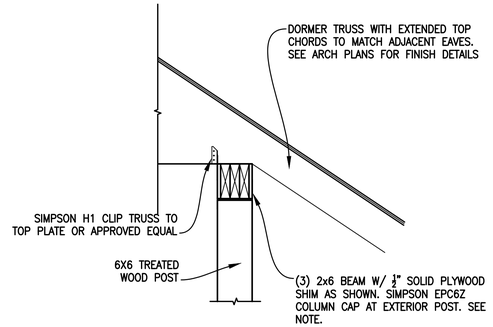
2 S5 **EXTERIOR WALL**
SCALE Ⓑ



4 S5 **INTERIOR BEARING WALL DETAIL**
SCALE Ⓑ

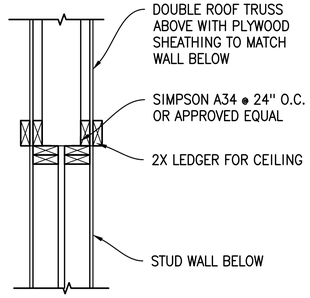


3 S5 **GABLE DETAIL**
SCALE Ⓑ

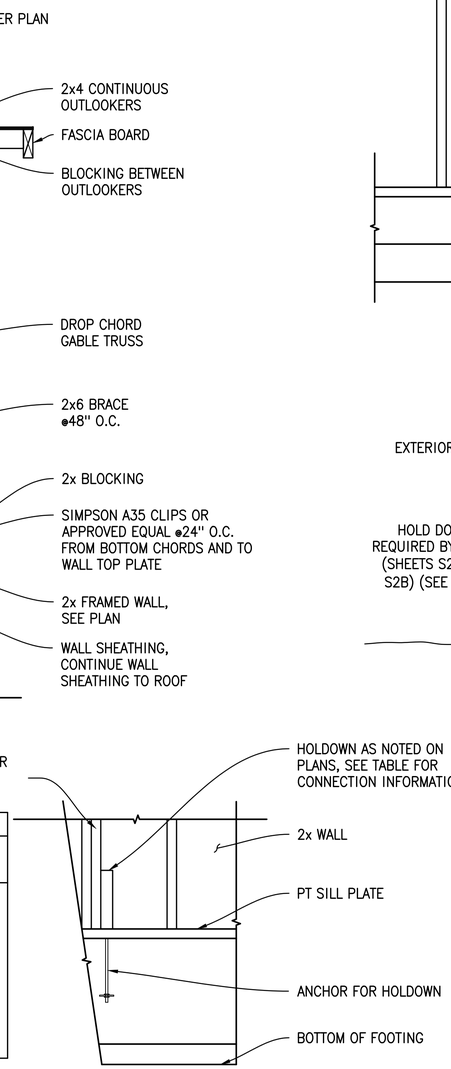


NOTES:
1. (3)2X6 BEAM SUPPORTED AT WALL BY MIN (3)2X6 STUDS DOWN TO FOUNDATION OR HEADER

6 S5 **DORMER OVERHANG DETAIL**
SCALE Ⓐ



5 S5 **WALL / ROOF CONNECTION AT DEMISING WALLS**
SCALE Ⓐ



HOLDOWN REQUIREMENTS

#	HOLDOWN TYPE	MIN ALLOWABLE TENSION	CONNECTOR REQUIREMENTS	ANCHOR
1	DTT2Z OR APPROVED EQUAL	1825 LBS	8 – SDS ¼" X 1½" INTO MINIMUM 2" NOMINAL THICKNESS STUD	½"ø x 12" GALVANIZED A 307 ROD WITH 2" SQUARE PLATE WASHER AND (2) NUTS AT END EMBEDDED IN CONCRETE. BASIS OF DESIGN: PAB4-12 BY STRONG-TIE. MIN EMBEDMENT IN CONCRETE 6", CENTERED ON STEM POST-INSTALLED OPTION: ⅞"ø X 18" F1554 GR36 ANCHOR ROD SET IN SIMPSON AT-XP EPOXY, MIN 6" EMBEDMENT

7 S5 **HOLDOWN DETAIL**
SCALE Ⓑ

SCALE Ⓑ 8 0 8 16
SCALE OF INCHES

SCALE Ⓐ 12 0 12 24
SCALE OF INCHES

STATE OF MAINE · ALINA WATT · No. 11164 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW CADD LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S5	TITLE OF SHEET FRAMING DETAILS **6-PLEX FLAT** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 47 of 131

2/21/2025 09:09 LWM R2024 C:\Users\lwm\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\6-PLEX FLAT\S5 FRAMING DET.dwg

DUCTWORK SYMBOLS

ROUND SUPPLY OR OUTSIDE AIR DUCT UP

ROUND RETURN OR EXHAUST AIR DUCT UP

DIRECTION OF AIRFLOW

FC — FLEXIBLE CONNECTION

VOLUME DAMPER (OPPOSED BLADE TYP.)

FD — FIRE DAMPER (WITH ACCESS DOORS UPSTREAM & DOWN STREAM OF DAMPER)

MOD — MOTOR OPERATED DAMPER

12x10 — RECTANGULAR DUCT SIZE– FIRST # IS SIDE SHOWN

FLEXIBLE DUCT (5'MAX. LENGTH)

ONE–WAY INDOOR UNIT

AIR OUTLET

RECTANGULAR SUPPLY OR OUTSIDE AIR DUCT UP

RECTANGULAR RETURN OR EXHAUST DUCT UP

12"ø — ROUND DUCT DIAMETER IN INCHES

45° ROUND DUCT ELBOW

90° ROUND DUCT ELBOW

RECTANGULAR DUCT TRANSITION TO ROUND DUCT

SA DIFFUSER

RA/EA GRILLE

))))) TURNING VANES

EF — BATHROOM EXHAUST FAN

D — DRYER VENT

RH — RANGE HOOD VENT

WC — EXTERIOR WALL CAP, BACKDRAFT DAMPER, AND BIRDSCREEN EXCEPT FOR DRYER VENT. COORDINATE STYLE AND COLOR WITH BUILDING PLANS

TYPICAL REGISTER/GRILLE

SG–1 / XX CFM — SUPPLY GRILLE, ALL GRILLES AND DIFFUSERS SHALL HAVE VOLUME DAMPERS INSTALLED

EG–1 / XX CFM — EXHAUST GRILLE, ALL GRILLES AND DIFFUSERS SHALL HAVE VOLUME DAMPERS INSTALLED

TYPICAL CEILING DIFFUSER

SD–1 / XX CFM — SUPPLY DUCT DIFFUSER TAG WITH AIRFLOW (CUBIC FEET PER MINUTE)

TYPICAL FLEX DUCT CONNECTION TO DIFFUSER (SEE DETAIL)

ARROWS/LINES INDICATE DIRECTION OF AIRFLOW

RG–1 / XX CFM — RETURN GRILLE DIFFUSER TAG WITH AIRFLOW (CUBIC FEET PER MINUTE)

TYPICAL FLEX DUCT CONNECTION TO DIFFUSER (SEE DETAIL)

GRILLE, REGISTERS, DIFFUSERS & AIRFLOW

ABBREV.	DESIGNATION	ABBREV.	DESIGNATION
RG	RETURN GRILLE	EA	EXHAUST AIR
SD	SUPPLY DIFFUSER	OA	OUTDOOR AIR
VD	VOLUME DAMPER	RA	RETURN AIR
EG	EXHAUST GRILLE	SA	SUPPLY AIR

EQUIPMENT TAG LEGEND

TAG	DESIGNATION
CU–1	CONDENSING UNIT DESIGNATION
DH–1	DUCT HEATER DESIGNATION
ERV–1	ENERGY RECOVERY VENTILATOR DESIGNATION
IU–1	INDOOR UNIT DESIGNATION
L–1	LOUVER DESIGNATION
RH–1	RANGE HOOD DESIGNATION

PIPING SERVICE LEGEND

PIPING LINE DESIGNATIONS

PIPE SIZE → 6"HWS ← SERVICE DESIGNATION

NEW	DESCRIPTION
——CD——	CONDENSATE DRAIN
——L——	A.C. REF. LIQUID
——S——	A.C. REF. SUCTION (VAPOR)
—— R ——	REFRIGERANT PIPING

HEATING AND VENTING SYMBOLS

PIPING SYMBOLS DESCRIPTION

BALANCING VALVE

TRIPLE DUTY VALVE

SHUT–OFF VALVE

BACKFLOW PREVENTER

CHECK VALVE

STRAINER W/DRAIN & HOSE CONN.

PRESSURE RELIEF VALVE

PRESSURE REDUCING VALVE (WATER)

T — THERMOSTAT; INSTALL AT 60" AFF, 48" IN ADA SPACES

UNION

INCREASER OR DECREASER CONCENTRIC

INCREASER OR DECREASER ECCENTRIC

DRIP LEG

AUTOMATIC AIR VENT

PIPE GUIDE

PIPE ANCHOR

DIRECTION OF FLOW

PIPE CAP

PIPE RISE/DROP

THERMOMETER

PRESSURE GAUGE

LOW VOLTAGE THERMOSTAT/CONTROL WIRING

UH–1 / 11.7 MBH — EQUIPMENT TAG IDENTIFICATION

MISCELLANEOUS ABBREVIATIONS

ABBREV.	DESIGNATION	ABBREV.	DESIGNATION
A	ANCHOR	HZ	HERTZ
AD	ACCESS DOOR	LAT	LEAVING AIR TEMP.
AFF	ABOVE FINISHED FLOOR	LWT	LEAVING WATER TEMPERATURE
BTU	BRITISH THERMAL UNITS	MAX	MAXIMUM
CD	CONDENSATE DRAINAGE	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE	MD	MANUAL DAMPER
DB	DRY BULB	MIN	MINIMUM
EAT	ENTERING AIR TEMP.	MOD	MOTOR OPERATED DAMPER
ECC	ECCENTRIC	N.C.	NORMALLY CLOSED
EWT	ENTERING WATER TEMPERATURE	OA	OUTSIDE AIR
FA	FRESH AIR	RPM	REVOLUTIONS PER MINUTE
FC	FLEXIBLE CONNECTION	SP	STATIC PRESSURE
FD	FIRE DAMPER	TV	TURNING VANES
FLA	FULL LOAD AMPS	TYP.	TYPICAL
GPM	GALLONS PER MINUTE	VD	VOLUME DAMPER
HP	HORSEPOWER	WB	WET BULB
HVAC	HEATING, VENTILATING & AIR CONDITIONING	ZD	ZONE DAMPER

MECHANICAL GENERAL NOTES:

1. ALL SPACE THERMOSTATS SHALL BE MOUNTED 48" TO TOP OF THERMOSTATS ABOVE FINISHED FLOOR (AFF).
2. FLEXIBLE DUCTWORK CONNECTIONS SHALL BE PROVIDED BETWEEN MOTORIZED UNITS AND DUCTWORK CONNECTIONS. NO IMMEDIATE FLEX DUCT OR ELBOWS.
3. PROVIDE ACCESS DOORS IN EQUIPMENT AND DUCTWORK FOR ACCESS TO DAMPERS, MOTORS, FILTERS, FANS, VALVES, AND ON BOTH SIDES OF HEATING COILS.
4. PIPING SHALL BE RUN AS DIRECT AS POSSIBLE, PARALLEL TO & FORMING RIGHT ANGLES TO THE LINES OF THE BUILDING, SUPPORTED FROM THE STRUCTURE, FREE FROM POCKETS & SAGS & PITCHED TO LOW POINT DRAINS.
5. LOCATE ALL VALVES FOR EASY ACCESS & OPERATION. DO NOT LOCATE VALVES W/STEMS BELOW HORIZONTAL. PROVIDE AND INSTALL ACCESS DOORS WHERE REQUIRED AND AT ALL VALVE LOCATIONS WHICH ARE INACCESSIBLE.
6. ALL EXTERIOR WALL PENETRATIONS SHALL BE SEALED WEATHERTIGHT AND WATERTIGHT.
7. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
8. DUCTWORK SHALL BE COORDINATED TO PREVENT ANY INTERFERENCES W/ PLUMBING, PIPING, ELECTRICAL, STRUCTURAL, FIRE PROTECTION, BUILDING, AND OTHER WORK. CONTRACTOR SHALL COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.
9. WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL AND STATE CODES AND REGULATIONS.
10. ALL DUCT SIZES INDICATED ARE OUTSIDE (SHEET METAL) DIMENSIONS.
11. ALL CUTTING AND PATCHING SHALL BE PROVIDED BY GENERAL CONTRACTOR.
12. ALL ELBOWS IN DUCTWORK SHALL HAVE TURNING VANES.
13. ALL DUCTWORK AND PIPING SHALL BE INSULATED.
14. HVAC SYSTEM SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REPORTS SHALL BE PROVIDED AT THE END OF THE PROJECT TO THE ENGINEER FOR REVIEW. CONTRACTOR SHALL MODIFY DUCTWORK, DAMPERS, ETC. AS REQUIRED TO MEET DESIGN CRITERIA.
15. ALL PIPING SHALL BE RUN CONCEALED AND ON WARM SIDE OF BUILDING INSULATION WHEREVER POSSIBLE UNLESS NOTED OTHERWISE.
16. PIPING AND DUCTWORK IS SHOWN DIAGRAMMATICALLY. EXACT LOCATION ROUTE TO BE ADJUSTED AS REQUIRED TO SUIT FIELD CONDITIONS AND EQUIPMENT REQUIREMENTS.
17. ALL DIMENSIONS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD. MODIFY AS REQUIRED.
18. ALL REDUCTIONS IN HOT WATER PIPING SIZES SHALL BE IN THE DIRECTION OF FLOW AND SHALL BE ACCOMPLISHED WITH INVERTED ECCENTRIC REDUCERS.
19. PROVIDE AUTOMATIC AIR VENTS AT ALL LOCATIONS WHERE WATER PIPING DROPS IN THE DIRECTION OF FLOW, AT ALL HIGH POINTS AND ELSEWHERE AS INDICATED ON DRAWINGS.
20. PROVIDE DRAINS AT ALL LOW POINTS IN THE WATER PIPING SYSTEM.
21. COPPER PIPING SHALL BE TYPE 'L' OR 'K'. TYPE 'M' SHALL NOT BE USED FOR THIS PROJECT.
22. VENTILATION DUCTWORK SHALL BE OF GALVANIZED SHEET METAL AND SHALL BE NEW COPPER–BEARING SHEETS OF LOCK–FORMING QUALITY. ZINC COATING THAT WILL FLAKE OR PEEL UNDER ANY FORMING OPERATION, OR LAMINATED SHEETS WILL NOT BE ALLOWED. THICKNESS OF METAL FOR RECTANGULAR DUCTS, INCLUDING ELBOWS AND OTHER DETAILS, SHALL BE 24 GAUGE. DUCTWORK INSTALLED SHALL BE HARD DUCTWORK THROUGHOUT, WITH THE EXCEPTION OF FLEXIBLE DUCTWORK AT MOTORIZED UNITS AND FLEXIBLE CONNECTIONS AT DIFFUSER/GRILLE LOCATIONS ONLY.
23. ALL PIPING THROUGH ROOFS, WALLS AND PARTITIONS SHALL HAVE PIPE SLEEVES. ALL PIPING PENETRATING FIRE RATED WALLS, FIRE RATED PARTITIONS OR FLOORS SHALL BE PROTECTED WITH A LISTED FIRE STOPPING SYSTEM PER NFPA 101, "CODE FOR SAFETY TO LIFE FROM FIRE IN BUILDING AND STRUCTURES", LATEST EDITION.
24. ALL SA, RA, EA, AND OA BRANCHES, DIFFUSERS, GRILLES, AND DUCTWORK SHALL HAVE BALANCE DAMPERS.
25. ALL EXHAUST FAN AND KITCHEN HOOD DUCTWORK SHALL BE RIGID METAL. PITCH EXHAUST FAN AND DRYER VENT DUCTWORK TO DRAIN.
26. CONTRACTOR SHALL PROVIDE LOW VOLTAGE THERMOSTATS FOR EACH ZONE SHOWN ON PLANS. CONNECT THERMOSTATS TO HEATING/COOLING ZONE VALVES WHERE REQUIRED.
27. CONTRACTOR SHALL PROVIDE, AND INSTALL FIRE RATED DAMPERS AT ALL RATED ASSEMBLIES INCLUDING SHAFT WALLS, FLOOR/CEILING ASSEMBLIES, AND 2–HOUR RATED WALLS.
28. CONTRACTOR SHALL PROVIDE AND INSTALL CEILING RADIATION DAMPERS AT ALL CEILING DUCTWORK PENETRATIONS.
29. STRUCTURAL MEMBERS SHALL NOT BE CUT, NOTCHED, OR BORED WITHOUT APPROVAL FROM ENGINEER.
30. PIPE SIZING BASED ON TYPE "L" COPPER. VERIFY SIZING WITH ENGINEER IF ALTERNATE PIPING IS PROPOSED.
31. CONTRACTOR SHALL CONCEAL ALL DUCTWORK ABOVE CEILINGS. MODIFY CEILINGS AND/OR DUCTWORK AS REQUIRED.
32. CONTRACTOR SHALL ENSURE ALL EXHAUST OUTLETS ARE A MINIMUM DISTANCE OF 3'–0" TO WINDOWS OR DOORS AND A MINIMUM OF 10'–0" TO INTAKE AIR LOUVERS/VENTS. PROVIDE AND INSTALL INLINE BOOSTER FANS FOR DRYER EXHAUST IF DUCTWORK DEVELOPED LENGTH EXCEEDS 35'–0".
33. DUCTWORK DESIGNED TO BE INSTALLED IN MECHANICAL/ATTIC SPACE AND DROP/RISE TO DIFFUSERS, GRILLES, INDOOR UNITS, ETC.

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

STATE OF MAINE — TIMOTHY D. BRAGG — 12075 — LICENSED PROFESSIONAL ENGINEER

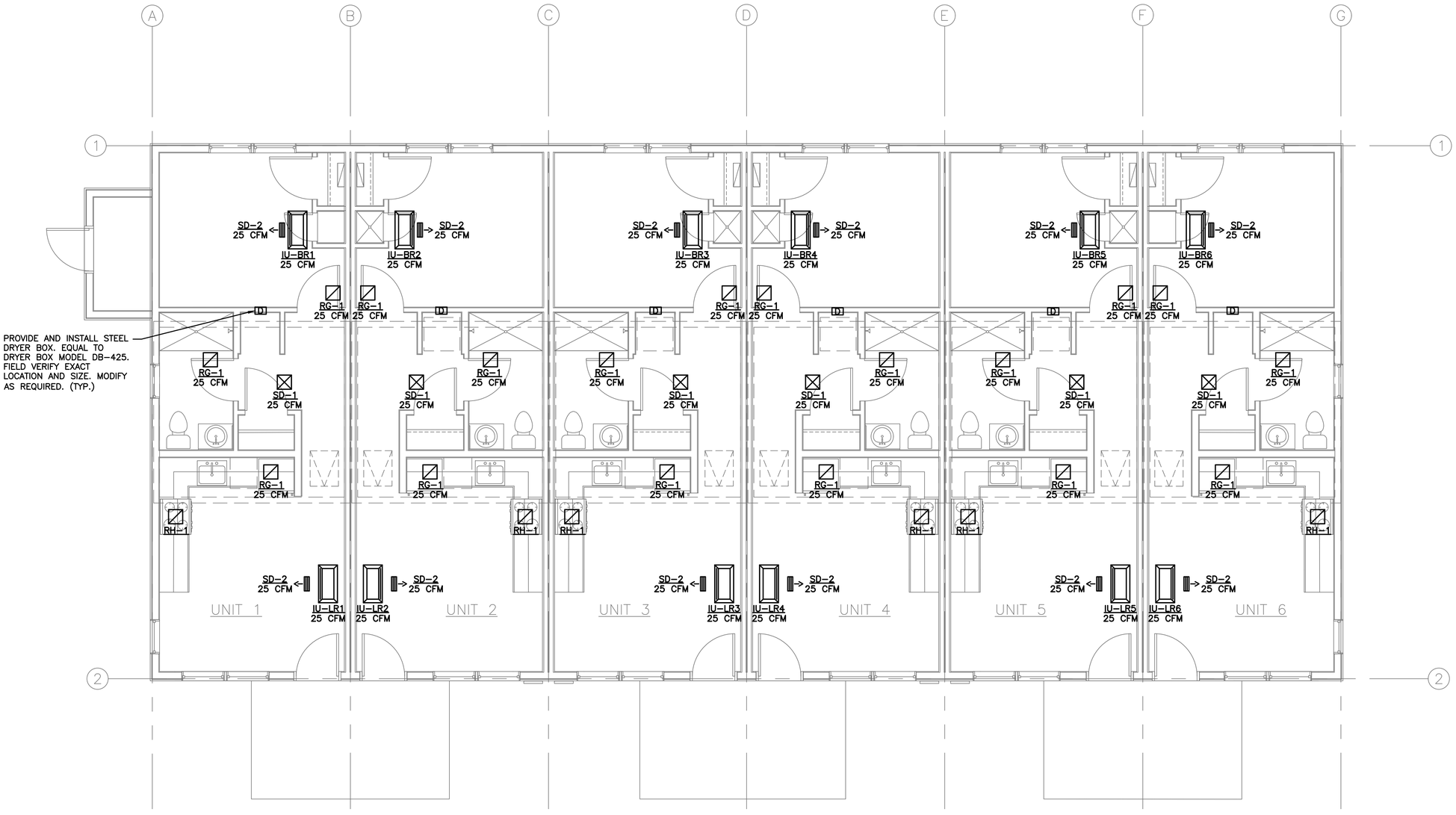
A/E FIRM	
PRIME:	HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME
SUBCONTRACTOR:	CARPENTER ASSOCIATES OLD TOWN, ME
DESIGNED:	KEEZER
DRAWN:	EATON
TECH. REVIEW:	BRAGG
DATE:	02/28/2025
SUB SHEET NO.	M1

TITLE OF SHEET
6–PLEX FLAT MECHANICAL LEGEND

HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	48 OF 131

Feb 26, 2025 – 9:35am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–6PLEX_V8.dwg jonah



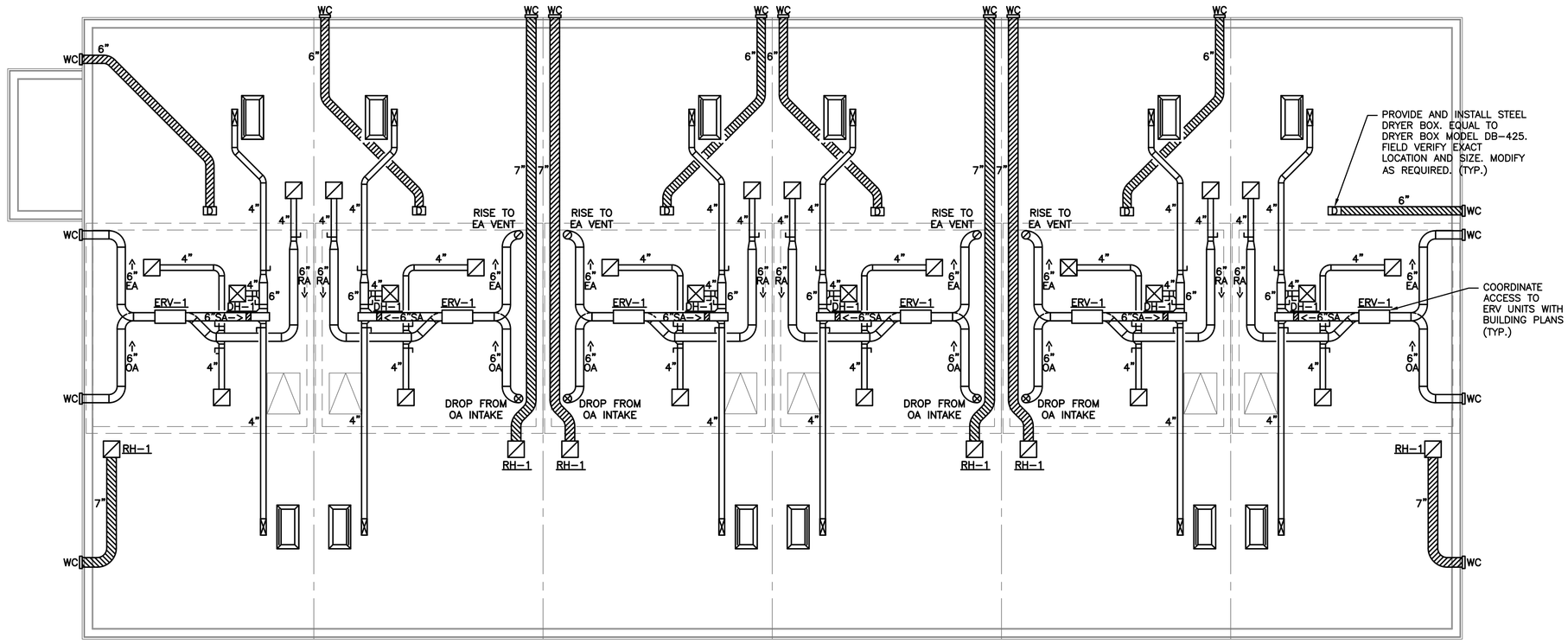
1 M2 MECHANICAL DUCTWORK PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE · HANDY BRAGG 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M2	TITLE OF SHEET 6-PLEX FLAT MECHANICAL DUCTWORK PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 49 OF 131	

Feb 26, 2025 - 9:35am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



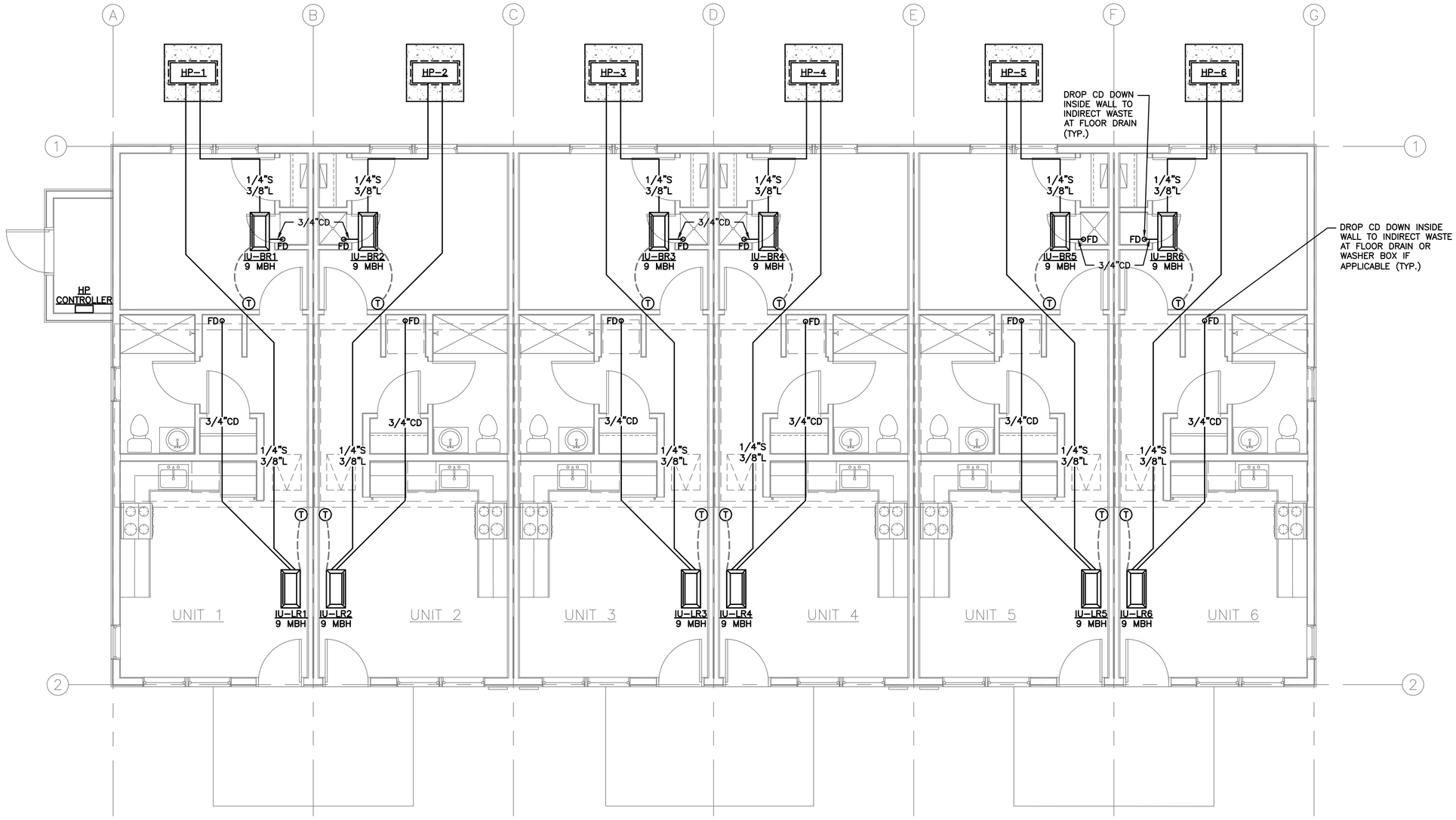
1 / M3 MECHANICAL DUCTWORK ATTIC PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE · BRAGG · 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M3	TITLE OF SHEET 6-PLEX FLAT MECHANICAL DUCTWORK ATTIC PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 50 OF 131

Feb 26, 2025 - 9:35am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



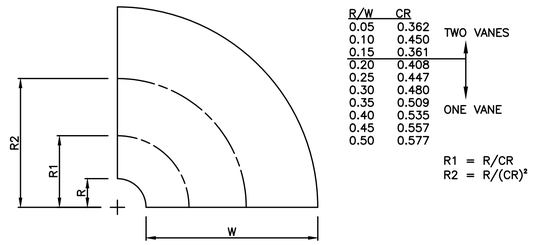
1 M4 MECHANICAL PIPING PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE · RANDY BRAGG 12575 12/31/26 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M4	TITLE OF SHEET 6-PLEX FLAT MECHANICAL PIPING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 51 OF 131

Feb 26, 2025 - 9:35am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



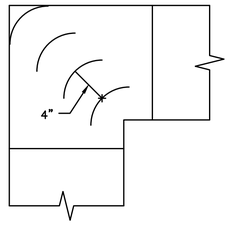
R/W	CR	
0.05	0.362	TWO VANES
0.10	0.450	
0.15	0.361	
0.20	0.408	ONE VANE
0.25	0.447	
0.30	0.480	
0.35	0.509	
0.40	0.535	
0.45	0.557	
0.50	0.577	

R1 = R/CR
R2 = R/(CR)²

1 M5 SPLITTER VANE DETAIL (SHORT RADIUS RECTANGULAR ELBOWS)

NO SCALE

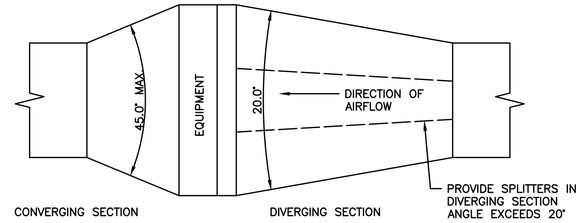
NOTE:
FOR SMOOTH RADIUS RECTANGULAR ELBOWS WHERE R/W IS 0.5 OR LESS, PROVIDE SPLITTER VANES.



2 M5 TURNING VANE DETAIL (RECTANGULAR ELBOWS)

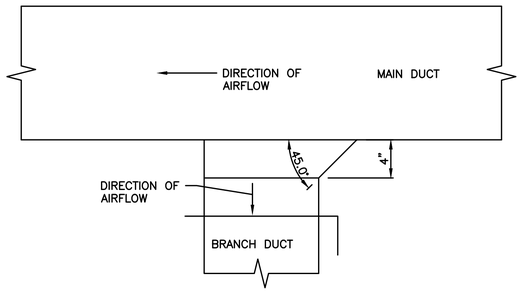
NO SCALE

NOTE:
IF LESS THAN (4) TURNING VANES FIT, PROVIDE 2" VANES. IF LESS THAN (4) 2" VANES FIT, PROVIDE RADIUS ELBOW.



3 M5 DUCT TRANSITION DETAIL

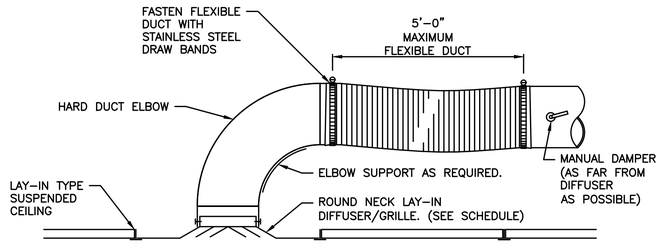
NO SCALE



4 M5 45° TAKEOFF DETAIL (SUPPLY/RETURN DUCT)

NO SCALE

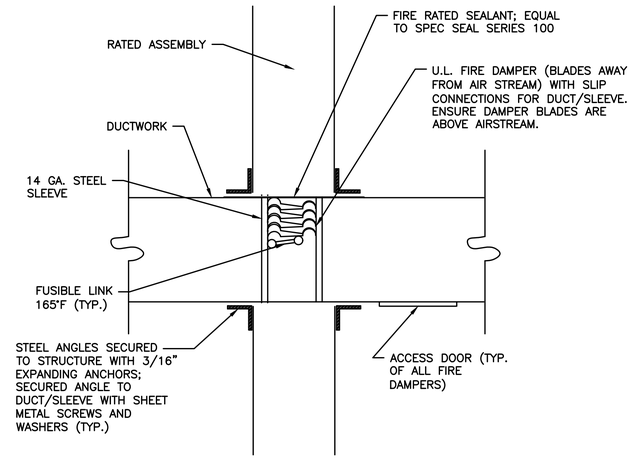
NOTE:
1. POSITION VOLUME DAMPER AT LEAST (BUT NO MORE THAN WHERE POSSIBLE) (2) EQUIVALENT DUCT DIAMETERS FROM MAIN DUCT.
2. RETURN TAKEOFF SIMILAR.



5 M5 ROUND NECK GRILLE AND DIFFUSER DETAIL

NO SCALE

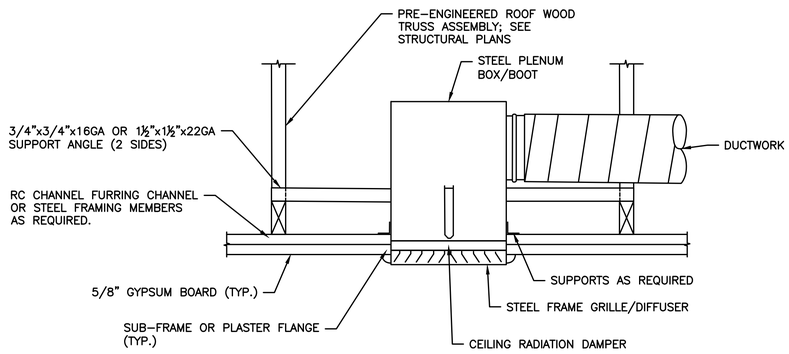
NOTE:
PROVIDE AND INSTALL ADAPTERS AS REQUIRED.



6 M5 FIRE DAMPER/DUCT PENETRATION DETAIL

NO SCALE

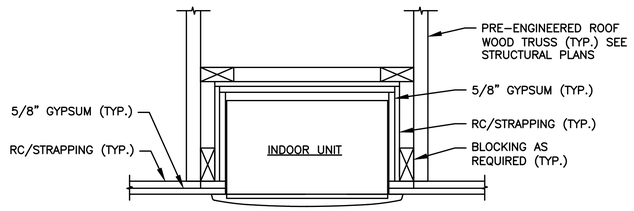
NOTE:
FIRE DAMPERS THROUGH FLOOR SIMILAR.



7 M5 CEILING RADIATION DAMPER DETAIL

NO SCALE

NOTE:
1. CEILING RADIATION DAMPER SHALL BE RUSKIN CFD77-SB OR EQUAL.
2. CEILING RADIATION DAMPER FOR VRF UNITS OKAY TO UTILIZE RUSKIN CFDR7T OR EQUAL FOR ROUND DUCTWORK CONNECTIONS.
3. EXACT DETAIL MAY VARY, MODIFY AS REQUIRED TO MEET CEILING RADIATION DAMPER REQUIREMENTS. ENSURE CEILING RADIATION DAMPER MEETS UL LISTING AS REQUIRED.
4. CEILING RADIATION DAMPER SHALL BE INSTALLED AT ALL DIFFUSERS, GRILLES, VRF'S, AND DUCTWORK PENETRATIONS.



8 M5 INDOOR HEATING/COOLING UNIT DETAIL

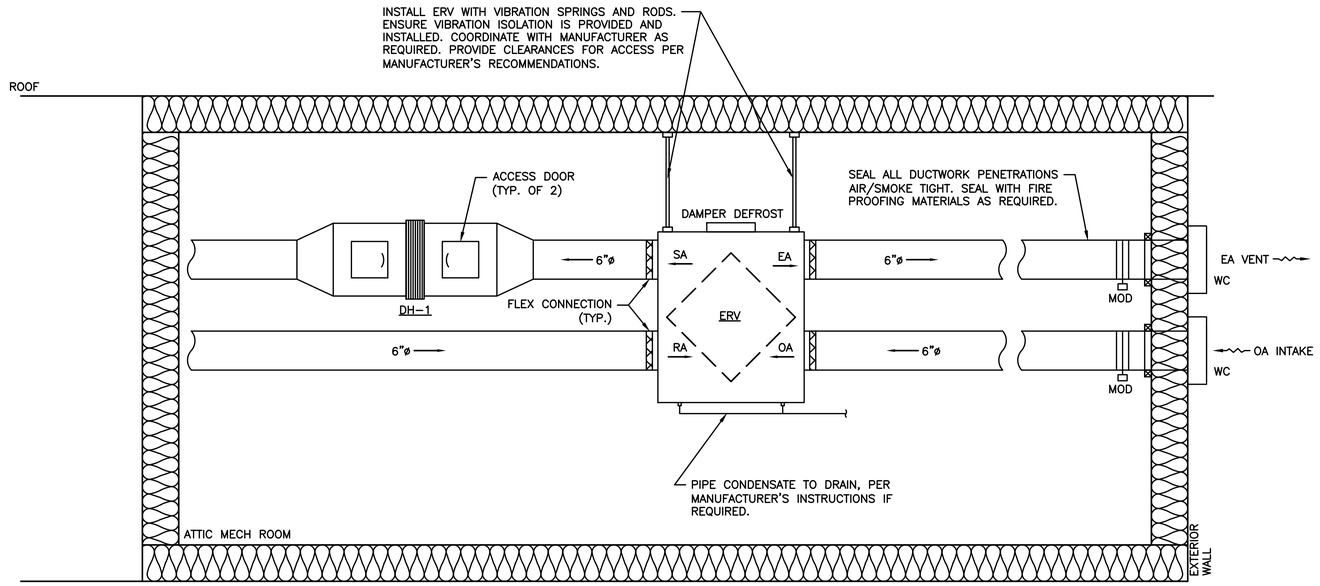
NO SCALE

NOTE:
EXACT DETAIL MAY VARY. MODIFY AS REQUIRED TO ENSURE VRF INDOOR UNIT'S ENCLOSURE IS SEALED TIGHT AND MAINTAIN CEILING FIRE RATING AS REQUIRED. SEAL ALL PENETRATIONS AS REQUIRED.

STATE OF MAINE · HANDY BRAGG · 12115 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M5	TITLE OF SHEET 6-PLEX FLAT MECHANICAL DETAILS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 52 OF 131

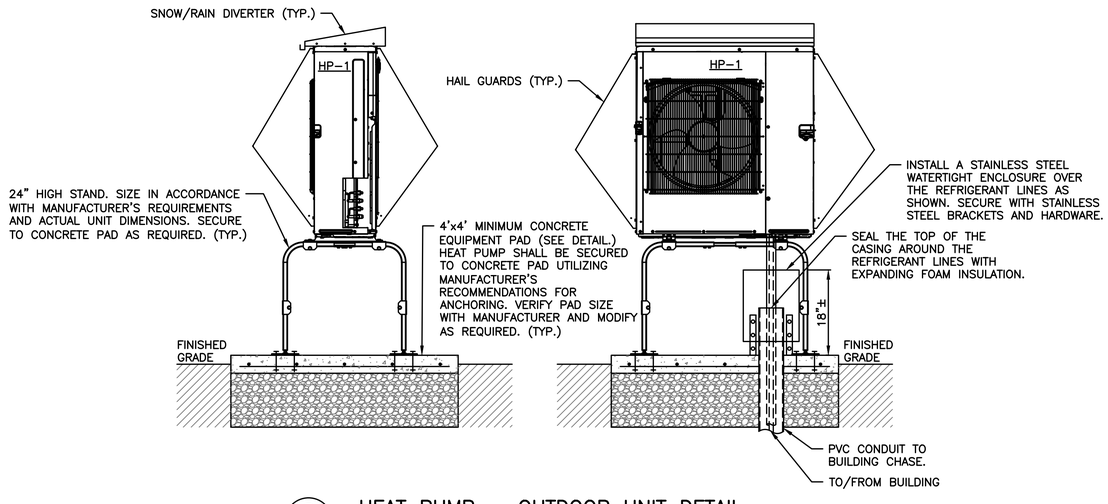
Feb 26, 2025 - 9:35am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



1 / M6 **ERV ELEVATION DETAIL**

NO SCALE

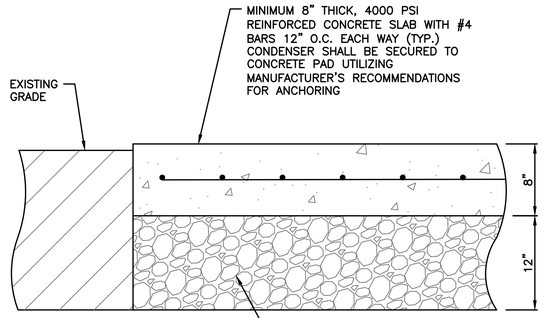
NOTE:
1. COORDINATE ATTIC MECH ROOM SPACE WITH BUILDING DRAWINGS.
2. ACTUAL LAYOUT MAY VARY, MODIFY DUCTWORK, SUPPORTS, ETC. AS REQUIRED. DUCTWORK SHOWN FOR CLARITY.
3. EA AND OA INTAKE LOUVERS/WALL CAPS SHALL BE INSTALLED AT SAME ELEVATION. SEE BUILDING DRAWINGS AND MODIFY DUCTWORK, LOUVERS/WALL CAPS, ETC. AS REQUIRED. DUCTWORK SHOWN FOR CLARITY.
4. ERV'S INSTALLED IN UNITS 2-5 SHALL UTILIZE THRU-ROOF VENTS AS INDICATED IN SCHEDULE NOTES.
5. COORDINATE INSULATION REQUIREMENTS WITH ARCHITECTURAL PLANS.



2 / M6 **HEAT PUMP – OUTDOOR UNIT DETAIL**

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

NOTE:
DETAIL MAY VARY, DEPENDING ON PROJECT. MODIFY AS REQUIRED. ENSURE REFRIGERANT PIPING IS INSTALLED AND PROTECTED FROM DAMAGE FROM HP-1 TO BUILDING.



3 / M6 **CONCRETE EQUIPMENT PAD DETAIL**

NO SCALE

NOTE:
CONTRACTOR SHALL COORDINATE, PROVIDE, AND INSTALL BOND-OUTS FOR UNDERGROUND UTILITIES WHERE REQUIRED.

STATE OF MAINE — HANDY BAGGS — 12675 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M6	TITLE OF SHEET 6-PLEX FLAT MECHANICAL DETAILS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 53 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

ENERGY RECOVERY VENTILATOR SCHEDULE (6-PLEX FLAT)

BASIS OF DESIGN: RENEWAIRE*

TAG	QUANTITY	MODEL	EXHAUST (CFM)	SUPPLY (CFM)	E.S.P. (IN. WG)	TOTAL EFFECTIVENESS		FILTERS		MOTOR (WATTS)		ELECTRICAL (V/PH/HZ)	FLA	MCA	MOCP	NOTES
						SUMMER	WINTER	RA	OA	OA	RA					
ERV-1	6	EV PREMIUM S	75	75	0.75	58%	71%	13	13	42	37	240/1/60	0.85	15	15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

NOTES:
1. PROVIDE AND INSTALL MOD AT OA INLET AND EA OUTLET. MOD SHALL OPEN/CLOSE ON UNIT STATUS ON/OFF.
2. PROVIDE ELECTRIC DUCT HEATER AS SCHEDULED.
3. VARIABLE SPEED ECM DIRECT DRIVE MOTORS.
4. PROVIDE PROGRAMMABLE TIMER FOR OCCUPIED/UNOCCUPIED CYCLE.
5. PROVIDE ADJUSTABLE BALANCING DAMPERS FOR SA, RA, EA, OA.
6. PROVIDE WALL LOUVERS OR WALL CAPS AS REQUIRED.
7. PROVIDE AND INSTALL DISCONNECT SWITCH.
8. MERV 13 FILTERS.
9. PROVIDE AND INSTALL VIBRATION ISOLATION SPRINGS, PADS, AND HANGING ROD AS REQUIRED. COORDINATE WITH MANUFACTURER AND MODIFY AS REQUIRED.
10. PROVIDE INTEGRATED PREMIUM CONTROLS, WITH BACNET CONNECTION FOR FUTURE DDC SYSTEM CONNECTION.
11. PROVIDE AND INSTALL 6" INSULATED INTAKE AND EXHAUST ROOF VENTS EQUAL TO ROOF GOOSE VENT RG-6-1E INSULATED FOR APARTMENT UNITS 2-5 ON INTERIOR OF BUILDING.
12. PROVIDE AND INSTALL COMMUNICATION WIRING FROM ERV CONTROLLER TO CONTROLLER IN RISER ROOM.

DUCT HEATER SCHEDULE (6-PLEX FLAT)

BASIS OF DESIGN: RENEWAIRE*

TAG	QUANTITY	SIZE (IN)	CAPACITY (KW)	TYPE	ELECTRICAL				NOTES
					V/PH	FLA	MCA	MOCP	
DH-1	6	6"ø	2	ELECTRICAL	240/1	8.3	10.4	15	1

NOTES:
1. PROVIDE WITH TEMPERATURE SENSOR, CONNECT TO ERV CONTROLS.

KITCHEN RANGEHOOD PERFORMANCE SCHEDULE (6-PLEX FLAT)

BASIS OF DESIGN: BROAN*

TAG	AIRFLOW (CFM)	S. P. (IN. WG)	MOTOR HP (WATTS)	SOUND (SONES)	ELECTRICAL (V/PH/HZ)	MODEL	OPTIONS/ACCESSORIES
RH-1	250	.11	78	5.0	120/1/60		SETUP FOR RECIRCULATION

NOTES:
1. COORDINATE COLOR WITH CONTRACTING OFFICER.

REGISTER, GRILL, & DIFFUSER SCHEDULE (6-PLEX FLAT)

BASIS OF DESIGN: PRICE*

TAG	MODEL	TYPE	MOUNTING	PATTERN	NOMINAL CFM	THROW-T50 (FT)	STATIC PRESSURE: MAX. INCHES WG	NOISE: MAX. NC	SIZE (INCHES)	NECK SIZE (INCHES)	NOTES
SD-1	SMD	LOUVERED DIFFUSER	SURFACE	4-WAY 4A - CORE	20-40	15	0.065	--	12x12	6	1, 2
SD-2	LV	LINEAR VANE DIFFUSER	SURFACE	1-WAY DEFLECTION	30	15	0.01	--	4¼x12	4	1, 2
RG-1	535	LOUVERED GRILLE	SURFACE	1/2" BLADE SPACING - 45° DEFLECTION	30-50	--	0.035	--	6x6	--	1, 2

NOTES:
1. WHITE POWDER COAT FINISH.
2. PROVIDE AND INSTALL SURFACE MOUNT FRAMES AS REQUIRED.

HEAT PUMP INDOOR UNIT SCHEDULE (6-PLEX FLAT)

BASIS OF DESIGN: TRANE*

TAG REFRENCE	SYSTEM	LOCATION	MODEL	CFM	CAPACITY (MBH)		ELECTRICAL			NOTES
					HEAT	COOL	VOLT/PH	MCA	MOP	
IU-BR1	HP-1	UNIT 1 BEDROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-1	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-LR1	HP-1	UNIT 1 LIVING ROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-1	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-BR2	HP-2	UNIT 2 BEDROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-2	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-LR2	HP-2	UNIT 2 LIVING ROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-2	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-BR3	HP-3	UNIT 3 BEDROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-3	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-LR3	HP-3	UNIT 3 LIVING ROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-3	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-BR4	HP-4	UNIT 4 BEDROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-4	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-LR4	HP-4	UNIT 4 LIVING ROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-4	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-BR5	HP-5	UNIT 5 BEDROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-5	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-LR5	HP-5	UNIT 5 LIVING ROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-5	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-BR6	HP-6	UNIT 6 BEDROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-6	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
IU-LR6	HP-6	UNIT 6 LIVING ROOM	NTXUKS09A112AA	25	9	9	208/230V 1-PH	POWERED BY HP-6	--	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

NOTES:
1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB).
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB).
3. SEE OUTDOOR UNIT SCHEDULE FOR OUTDOOR AMBIENT CONDITIONS, CONNECTED CAPACITY, AND OTHER FACTORS ASSOCIATED WITH CORRECTED CAPACITIES.
4. SEE SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.
5. FULL DEMAND CORRECTED CAPACITY INCLUDES DE-RATE ASSOCIATED WITH INDOOR VS. OUTDOOR CONNECTED CAPACITY INDICATED ON OUTDOOR UNIT SCHEDULE FOR ASSOCIATED SYSTEM. PARTIAL CORRECTED CAPACITY ASSUMES SUFFICIENT DIVERSITY EXISTS SUCH THAT THE CONNECTED CAPACITY DE-RATE DOES NOT APPLY. IT IS THE DESIGNER'S RESPONSIBILITY TO ENSURE "DIAMOND SYSTEM BUILDER" IS SET IN THE APPROPRIATE OUTPUT CAPACITY SETTING (FULL DEMAND/PARTIAL DEMAND) PRIOR TO GENERATING THIS SCHEDULE.
6. PROVIDE RELAY KIT FOR EXTERNAL HEATER ADAPTER THAT CONNECTS TO CN24 ON INDOOR CONTROL BOARD.
7. PROVIDE AND INSTALL TT-24B-J CENTRAL CONTROLLER IN MECH ROOM. COORDINATE EXACT LOCATION WITH CONTRACTING OFFICER. ENSURE CAT6E IS INSTALLED TO EACH UNIT FROM CONTROLLER ROOM.
8. PROVIDE AND INSTALL SIMPLE MA THERMOSTAT FOR EACH ZONE AS INDICATED. COORDINATE WITH EH'S AS REQUIRED. PROVIDE AND INSTALL COMMUNICATION WIRING FROM THERMOSTATS TO CONTROLLER FOR FUTURE CONNECTIVITY.
9. PROVIDE AND INSTALL CONDENSATE PUMPS AS REQUIRED TO ALLOW CONDENSATE TO DRAIN TO FLOOR DRAINS AS INDICATED. PROVIDE POWER CIRCUIT AS REQUIRED.
10. INDOOR UNITS SHALL BE PRIMARY STAGE OF HEAT. ELECTRICAL HEAT SHALL BE SECOND STAGE OF HEAT.
11. PROVIDE AND INSTALL AIR INTAKE TAKE-OFF/SMOOTH ELBOW AS REQUIRED. COORDINATE FITMENT IN FIELD, COORDINATE WITH ALL TRADES.
12. PROVIDE REFRIGERANT R454B EQUIVALENT MODEL.

HEAT PUMP OUTDOOR UNIT SCHEDULE (6-PLEX FLAT)

BASIS OF DESIGN: TRANE*

EQUIPMENT TAG	MODEL	ELECTRICAL				EFFICIENCY			CAPACITY (MBH)		NOTES
		VOLT/PH	MCA	MOCP	RLA	EER	SEER	HSPF	COOL	HEAT	
HP-1	NTXMPH24A132AA	240V/ 1-PH	30.5	40	--	10	15.5	9	18	18	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HP-2	NTXMPH24A132AA	240V/ 1-PH	30.5	40	--	10	15.5	9	18	18	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HP-3	NTXMPH24A132AA	240V/ 1-PH	30.5	40	--	10	15.5	9	18	18	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HP-4	NTXMPH24A132AA	240V/ 1-PH	30.5	40	--	10	15.5	9	18	18	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HP-5	NTXMPH24A132AA	240V/ 1-PH	30.5	40	--	10	15.5	9	18	18	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
HP-6	NTXMPH24A132AA	240V/ 1-PH	30.5	40	--	10	15.5	9	18	18	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

NOTES:
1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB).
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB).
3. EFFICIENCY VALUES FOR EER, IEER, COP ARE BASED ON AHRI 1230 TEST METHOD FOR MIXTURE OF DUCTED & NON-DUCTED INDOOR UNITS.
4. CONTRACTOR SHALL ADD FIELD CHARGE IN ADDITION TO FACTORY CHARGE IF REQUIRED, THIS MUST BE UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT.
5. FACTORY REPRESENTATIVES SHALL REVIEW THE PROJECT PRIOR TO AND THROUGHOUT THE INSTALLATION OF CITY MULTI EQUIPMENT.
6. FACTORY REPRESENTATIVES SHALL STARTUP AND COMMISSION CITY MULTI EQUIPMENT UPON COMPLETION OF EQUIPMENT INSTALLATIONS.
7. FACTORY REPRESENTATIVES SHALL PROVIDE ON-SITE ASSISTANCE FOR THE BMS INTEGRATION OF THE CITY MULTI EQUIPMENT.
8. FACTORY REPRESENTATIVES SHALL PROVIDE END-USER TRAINING ON THE CITY MULTI EQUIPMENT UPON COMPLETION OF THE INSTALLATION OF EQUIPMENT.
9. PROVIDE SNOW/HAIL KIT TO PREVENT DAMAGE OR SNOW BUILD-UP IN SEVERE WINTER CLIMATES.
10. PROVIDE 24" SUPER STAND KIT OR EQUAL.
11. PROVIDE ANTI-CORROSION FOR OUTDOOR UNIT.
12. PROVIDE REFRIGERANT R454B EQUIVALENT MODEL.

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE — LICENSED PROFESSIONAL ENGINEER — BRAGG — 2/28/25

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M7	TITLE OF SHEET 6-PLEX FLAT MECHANICAL SCHEDULES HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 54 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

ELECTRICAL POWER AND SYSTEMS LEGEND

- MOTOR, SINGLE–PHASE
- MOTOR, THREE–PHASE
- EARTH GROUND
- BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH LEG CONDUCTORS. ONE SEPARATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN; NOT SHOWN
- PB — PULL BOX
- PANELBOARD CABINET, RECESSED MOUNTED
- PANELBOARD CABINET, SURFACE MOUNTED
- P1 — PANEL DESIGNATION
- DROP CORD RECEPTACLE, 120V, 20 AMP COMMERCIAL SPEC. GRADE, SEE DETAIL
- FLOOR OR CEILING MOUNTED QUAD RECEPTACLE
- FLOOR OR CEILING MOUNTED SPECIAL PURPOSE EQUIPMENT CONNECTION
- DUPLEX GROUNDED RECEPTACLE, 120V, 20 AMP, COMMERCIAL SPECIFICATIONS:
  - GFI =GROUND FAULT CIRCUIT INTERRUPTER
  - WP =WEATHER PROOF
  - RT =RAIN–TIGHT WHILE IN USE
  - 48" =48" ABOVE FINISHED FLOOR
  - F =MOUNT FLUSH
  - SW =RECEPTACLE WITH SWITCH
  - C =CEILING HEIGHT, FLUSH MOUNT
  - S =SURFACE MOUNT
  - BC =BELOW COUNTER
  - CT =AT COUNTER TOP
  - MIC =GFI MICROWAVE
  - REF =GFI REFRIGERATOR
  - WM =GFI WASHING MACHINE
  - DW =GFI DISHWASHER
  - XX" =INSTALLED HEIGHT AT SPECIAL LOCATIONS AS INDICATED
- EQUIPMENT CONNECTION
- S — EQUIPMENT CONNECTION WITH POWER ON/OFF SWITCH
- 3R — EQUIPMENT CONNECTION WITH DISCONNECT SWITCH
  - 3R = NEMA 3R ENCLOSURE
  - 4X = NEMA 4X ENCLOSURE
- QUAD GROUNDED RECEPTACLE, 120V, 20 AMP, COMMERCIAL SPEC. GRADE
- SINGLE RECEPTACLE
- RECEPTACLE, SPECIAL PURPOSE
  - A = 120V, 20A, 1 PHASE, 2–POLE, 3W, NEMA 5–20R.
  - B = 208V, 20A, 1 PHASE, 2–POLE, 3W, NEMA 6–20R.
  - C = 120V, 30A, 1 PHASE, 2–POLE, 3W, NEMA 5–30R.
  - D = 208V, 30A, 1 PHASE, 2–POLE, 3W, NEMA 6–30R.
  - E = 208V, 60A, 1 PHASE, 3–POLE, 4W, NEMA 14–60R.
  - F = 208V, 30A, 3 PHASE, 3–POLE 4W, NEMA 15–30R.
  - G = 208V, 50A, 3 PHASE, 3 POLE, 4W, NEMA 15–30R.
  - H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15–60R.
- T — TRANSFORMER
- DISCONNECT SWITCH, FUSED
- DISCONNECT SWITCH, UNFUSED
- M / MCB — UTILITY METER ENCLOSURE
  - MCB = MAIN CIRCUIT BREAKER
- ELECTRIC BASEBOARD HEATING UNIT WITH POWER CONNECTION
- T — THERMOSTAT (COORDINATE WITH MECHANICAL PLANS)
- LOW VOLTAGE WIRING (COORDINATE WITH MECHANICAL PLANS)

ELECTRICAL DATA/TELECOMMUNICATIONS LEGEND

- SINGLE JACK
  - C = CABLE (COAXIAL)
  - P = PHONE (ANALOG)
  - D = DATA (CAT6 RJ45)
- COMBINATION PHONE/DATA JACK
  - D/D = DATA/DATA
  - D/P = DATA/PHONE
  - D/C = DATA/CABLE
  - P/P = PHONE/PHONE
- TELEPHONE/COMMUNICATIONS TERMINAL, BACKBOARD, HUB, SWITCH, OR ROUTER CABINET, SIZE DEPENDS ON NUMBER OF REQUIRED JACKS. COORDINATE WITH UTILITY AND CONTRACTING OFFICER.
- IT RACK SIZE DEPENDS ON NUMBER OF SWITCHES REQUIRED. COORDINATE WITH UTILITY AND CONTRACTING OFFICER.
- PA — PA SPEAKER SYSTEM

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

ELECTRICAL LIGHTING LEGEND

- A — LIGHT FIXTURE, RECESSED, LETTER INDICATES TYPE, SEE SCHEDULE.
- B — LIGHT FIXTURE, SURFACE MOUNTED, LETTER INDICATES TYPE, SEE SCHEDULE.
- C — LIGHT FIXTURE, EXTERIOR WALL MOUNT, LETTER INDICATES TYPE, SEE SCHEDULE.
- OS — OCCUPANCY SENSOR
- S — ROCKER STYLE SWITCH, 120V, 20 AMP:
  - BLANK = SINGLE POLE
  - 2 = DOUBLE POLE
  - 3 = THREE–WAY
  - 4 = FOUR–WAY
  - D = DIMMER
  - K = KEY OPERATED
  - LV= LOW VOLTAGE
  - L = LOCK
  - LM= LOW VOLTAGE MASTER
  - P = WITH PILOT LIGHT
  - RC= REMOTE CONTROL
  - T = TIMER OPERATED
  - WP= WEATHER PROOF
  - X = EXPLOSION PROOF
  - M = MOTION DETECTOR
  - OS = OCCUPANCY SENSOR
- EMERGENCY LIGHT FIXTURE, LETTER INDICATES TYPE, SEE SCHEDULE.
- EXIT — EXIT LIGHT FIXTURE, LETTER INDICATES TYPE, SEE SCHEDULE.
- EXIT — EMERGENCY/EXIT COMBO LIGHT FIXTURE, LETTER INDICATES TYPE, SEE SCHEDULE.

ELECTRICAL ABBREVIATIONS

AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DFCI	DUAL FUNCTION CIRCUIT INTERRUPTER
DISC	DISCONNECT
DN	DOWN
EH	ELECTRIC HEATER
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FLA	FULL LOAD AMPS
FT	FEET OR FOOT
G OR GND	GROUND OR GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HZ	HERTZ
kW	KILOWATT
LED	LIGHT EMITTING DIODE
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MOD	MOTOR OPERATED DAMPER
MLO	MAIN LUGS ONLY
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NTS	NOT TO SCALE
P	POLE
PWR	POWER
S	SWITCH
SPD	SURGE PROTECTIVE DEVICE
TYP	TYPICAL
UGE	UNDERGROUND ELECTRICAL
V	VOLT
VA	VOLT AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WH	WATER HEATER
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL POWER NOTES

1. ALL WORK SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE. IT IS THE INTENT OF THESE PLANS TO SHOW A FULLY OPERABLE ELECTRICAL SYSTEM ALTHOUGH NOT ALL DETAILS ARE SHOWN. IT IS THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO ENSURE THE SYSTEM OPERATES AS INTENDED.
2. WALLS SHOWN ON DRAWING MAY NOT BE REPRESENTATIVE OF ACTUAL WALL TYPES AND CONDITIONS. REFER TO BUILDING DRAWINGS FOR ACTUAL FLOOR, WALL, AND CEILING TYPES FOR SUPPORT AND PENETRATION INFORMATION.
3. PROVIDE PULL BOXES, JUNCTION BOXES, WIREWAYS, ETC., AS NEEDED AND/OR REQUIRED BY NEC.
4. CONTRACTOR TO INSTALL ALL WIRING, CABLING, CONDUITS, ETC. FROM ALL RECEPTACLE, SWITCHES, AND JACK LOCATIONS TO ELECTRICAL PANEL AND DATA RACK AS REQUIRED.
5. RUBBER INSULATORS REQUIRED AT ANY AND ALL ELECTRICAL/MECHANICAL/PLUMBING UNITS WHICH ATTACH TO ANY STRUCTURAL MEMBERS.
6. ALL RECEPTACLES SHALL BE SHALL BE MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED. ALL SWITCHES SHALL BE MOUNTED AT 48" A.F.F. UNLESS OTHERWISE NOTED.
7. ENSURE ALL ELECTRICAL DISCONNECTS, CIRCUITS, RECEPTACLES, SWITCHES, DEVICES, AND PANEL BOARDS ARE GROUNDED APPROPRIATELY ACCORDING TO NEC. ELECTRICAL DISCONNECTS SHALL BE INSTALLED AT ALL EQUIPMENT LOCATIONS, WATER HEATERS, UNIT HEATERS, ERV UNITS, ETC.
8. CONTRACTOR SHALL COORDINATE ALL LOW AND HIGH VOLTAGE CONDUCTORS, CONDUITS, AND EQUIPMENT WITH MECHANICAL CONTRACTOR.
9. MINIMUM BRANCH CIRCUIT CONDUIT SIZE SHALL BE 3/4".
10. PROVIDE AND INSTALL CONDUITS FOR ALL FEEDERS. MINIMUM SIZE SHALL BE 3/4" SIZE.
11. CONTRACTOR SHALL PROVIDE AND INSTALL HEAVY DUTY DISCONNECT SWITCHES.
12. CONTRACTOR SHALL ROUTE A SEPARATE EQUIPMENT GROUND CONDUCTOR, SIZED PER NEC REQUIREMENTS IN CONDUITS.
13. PANELS SHALL BE PROVIDED WITH 25% MINIMUM SPARE CAPACITY FOR FUTURE EXPANSION.
14. ALL WIRING SHALL BE COPPER THWN/THHN (THERMOPLASTIC HEAT & WATER RESISTANT NYLON COATED/THERMOPLASTIC HIGH HEAT RESISTANT NYLON COATED). FEEDER WIRING SHALL UTILIZE COPPER THWN/THHN. UNDERGROUND WIRING SHALL UTILIZE COPPER THWN/XHHW. (CROSS–LINKED HIGH HEAT WATER–RESISTANT INSULATED WIRE.)
15. MC/AC SHALL NOT BE UTILIZED.
16. PANEL AND EQUIPMENT BUSSES SHALL UTILIZE COPPER.
17. UNDERGROUND CONDUITS SHALL UTILIZE SCHEDULE 40 PVC. SCHEDULE 80 PVC SHALL BE UTILIZED WHERE PHYSICAL DAMAGE WILL OCCUR. PVC COATED RIGID METAL ELBOWS FOR RISERS TO GRADE.
18. NON–METALLIC CONDUIT SHALL NOT BE UTILIZED IN INTERIOR LOCATIONS UNLESS REQUIRED BY CODE.
19. BRANCH CIRCUIT MAXIMUM OF 1500VA FOR EACH 20A, 120V CIRCUIT.
20. ALL EXTERIOR PULL BOXES, CT BOXES, DISCONNECT SWITCHES, AND PANEL ENCLOSURES SHALL BE STAINLESS STEEL NEMA 4X.
21. CONTRACTOR SHALL PROVIDE AND INSTALL OWNER DIGITAL DEMAND METER. METER EQUAL TO LEVITON SERIES 2000, NEMA 4X ENCLOSURE, SOLID CORE CT. THIS METER SHALL BE IN ADDITION TO THE UTILITY METER. (1) DIGITAL METER PER BUILDING.
22. LOCAL UTILITY WILL BE: VERSANT POWER. CONTACT: BOB PEASLEY

ELECTRICAL DATA NOTES

1. CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS, ETC. TO COMPLETE THE INTENT OF THE PROPOSED DATA, PHONE, CABLE SYSTEM INCLUDING COORDINATION WITH CONTRACTING OFFICER SERVICE PROVIDERS AS REQUIRED.
2. CONTRACTOR SHALL PROVIDE CABLE MANAGEMENT SYSTEM FOR SERVICE AS REQUIRED. (DATA, PHONE, CABLE) ALL CABLES SHALL BE RUN NEATLY, PROPERLY BOUND, SEPARATE BOUND COLOR CODE AND IN AN ORTHOGONAL MANNER. NO DIAGONAL RUNS WILL BE ALLOWED.
3. CONTRACTOR SHALL PROVIDE RECEPTACLES FOR ALL SYSTEMS AS REQUIRED.
4. CONTRACTOR SHALL PROVIDE AND INSTALL ALL DATA JACKS, CABLING, CONDUITS, AND FACE PLATES. CONTRACTOR TO INSTALL RECEPTACLES BOXES. CONTRACTOR TO PROVIDE AND INSTALL ALL WIRING FROM ALL DEVICES TO/FROM BOXES, JACKS, AND SERVER /RACK SYSTEM.
5. ENSURE 5 FEET OF SLACK CABLE EXISTS AT EACH JACK LOCATION AND EXTRA 15 FEET SLACK CABLING AT SERVER/RACK SYSTEMS. CONTRACTOR SHALL LABEL ALL CABLING AT JACKS AND SERVERS/RACKS. CONTRACTOR IS RESPONSIBLE FOR REWORK OF MIS–LABELED CABLING.
6. CONTRACTOR SHALL ENSURE ALL EIA/TIA STANDARDS ARE FOLLOWED AND MAINTAINED.
7. CATEGORY 6 CABLING SHALL BE UTILIZED. ENSURE (2) CABLES PER 3/4" CONDUIT MAX. (1) DATA, (1) VOICE PER VOICE/DATA OUTLET (TYP.) TERMINATE ALL CABLING.
8. CONTRACTOR SHALL COORDINATE WITH LOCAL PHONE/INTERNET PROVIDER AS REQUIRED.

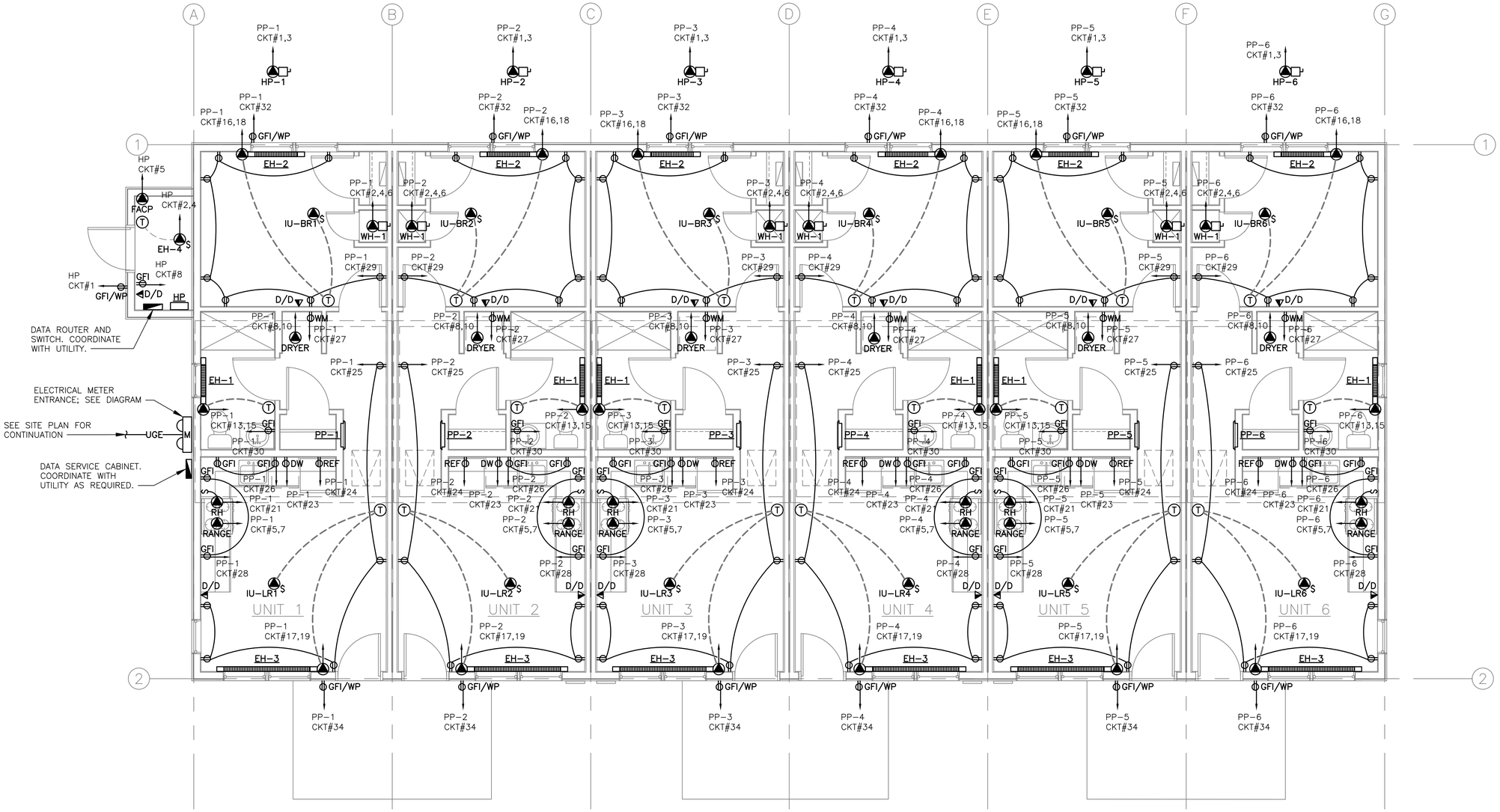
ELECTRICAL LIGHTING NOTES:

1. ALL LIGHTING CIRCUITS ARE SHOWN DIAGRAMMATICALLY.
2. MULTIPLE CONDUCTORS FOR SWITCHING NOT ALWAYS SHOWN. MULTIPLE CONDUCTORS FOR THREE–WAY SWITCHING NOT SHOWN. PROVIDE APPROPRIATE NUMBER OF CONDUCTORS FOR ALL CIRCUITS.
3. FOR LIGHTING ON OCCUPANCY SENSOR SWITCHING, ONLY OCCUPANCY SENSOR LOCATION IS SHOWN. PROVIDE ALL OTHER APPROPRIATE ASSOCIATED HARDWARE AS NEEDED.
4. CONTRACTOR SHALL COORDINATE LIGHTING PANEL CIRCUITS AS REQUIRED.
5. CONTRACTOR TO INSTALL ALL WIRING, CONDUITS, ETC. FROM ALL LIGHTING LOCATIONS TO ELECTRICAL ROOM AND/OR PANELBOARD LOCATIONS.
6. ENSURE ALL ELECTRICAL DISCONNECTS, CIRCUITS, RECEPTACLES, SWITCHES, DEVICES, AND PANEL BOARDS ARE GROUNDED APPROPRIATELY ACCORDING TO NEC.
7. ALL EXTERIOR LIGHTS SHALL HAVE EMERGENCY POWER BACKUP.
8. ALL EXTERIOR LIGHTING TO HAVE PHOTOCELL SENSOR CONTROLS AND MANUAL SWITCH CONTROLS FOR OVERRIDE OPERATION.
9. CONTRACTOR SHALL SUPPLY AND INSTALL ALL REQUIRED MOUNTING ACCESSORIES FOR ALL LIGHT FIXTURES. ALL LIGHTS SHALL HAVE 0–10V DIMMING CAPABILITIES.
10. ALL EXTERIOR LIGHTS SHALL BE WET RATED.
11. CONTRACTOR SHALL ENSURE ALL EMERGENCY LIGHTS HAVE ADEQUATE COVERAGE TO MAINTAIN MINIMUM OF 1FC AT ALL CORRIDORS, EGRESS PATHWAYS, AND EXIT DOORS TO PUBLIC WAY. CONTRACTOR SHALL MODIFY AND/OR ADD ADDITIONAL FIXTURES TO MEET LIFE SAFETY STANDARDS.
12. CONTRACTOR SHALL ENSURE ALL SWITCHES ARE ROCKER STYLE SWITCHES.

STATE OF MAINE — BRADLEY BRAGG 12775 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM	PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME
DESIGNED:	KEEZER
CADD	EATON
TECH. REVIEW:	BRAGG
DATE:	02/28/2025
SUB SHEET NO.	E1
TITLE OF SHEET	6–PLEX FLAT ELECTRICAL LEGEND
	HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK
DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	55 OF 131

Feb 26, 2025 – 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–6PLEX_V8.dwg jonah



1 E2 ELECTRICAL POWER AND DATA PLAN

ELECTRIC HEATER SCHEDULE (6-PLEX FLAT) — BASIS OF DESIGN: STELPRO*

TAG	QUANTITY	MODEL	LENGTH (INCHES)	WATTS	BTU/HR	VOLTS	FLA	MCA	MOCP	TOTAL KVA	NOTES
EH-1	6	ABA0752	39	750	2,560	208	3.6	4.5	20	0.94	1, 2, 3
EH-2	6	ABA1002	48	1,000	3,413	208	4.8	6.0	20	1.25	1, 2, 3
EH-3	6	ABA2002	85	2,000	6,825	208	9.6	12	20	2.5	1, 2, 3
EH-4	1	ASHU0223C24CHAR	--	2,000	6,825	208	9.6	12	20	2.5	1, 2, 3

NOTES:
1. COORDINATE CONTROL WITH VRF THERMOSTATS. COMBINE INTO SINGLE THERMOSTAT AS AVAILABLE. EH SHALL BE SECONDARY STAGE OF HEAT.
2. COLOR SHALL BE WHITE.
3. PROVIDE AND INSTALL 24V THERMOSTAT, RELAY, AND TRANSFORMER AS REQUIRED.

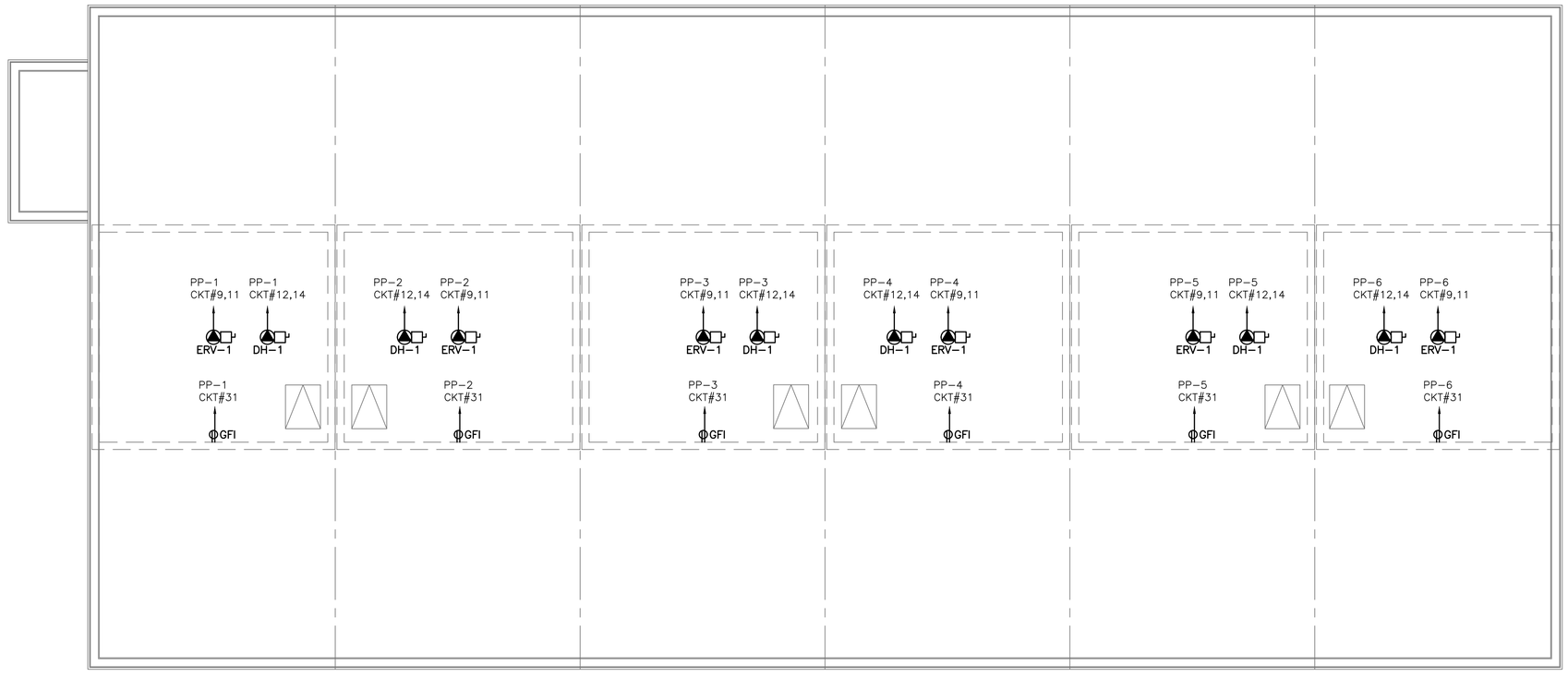
*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

4 0 4 8
SCALE OF FEET

STATE OF MAINE — RANDY BRAGG 12915 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. E2	TITLE OF SHEET: 6-PLEX FLAT ELECTRICAL POWER AND DATA PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 56 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



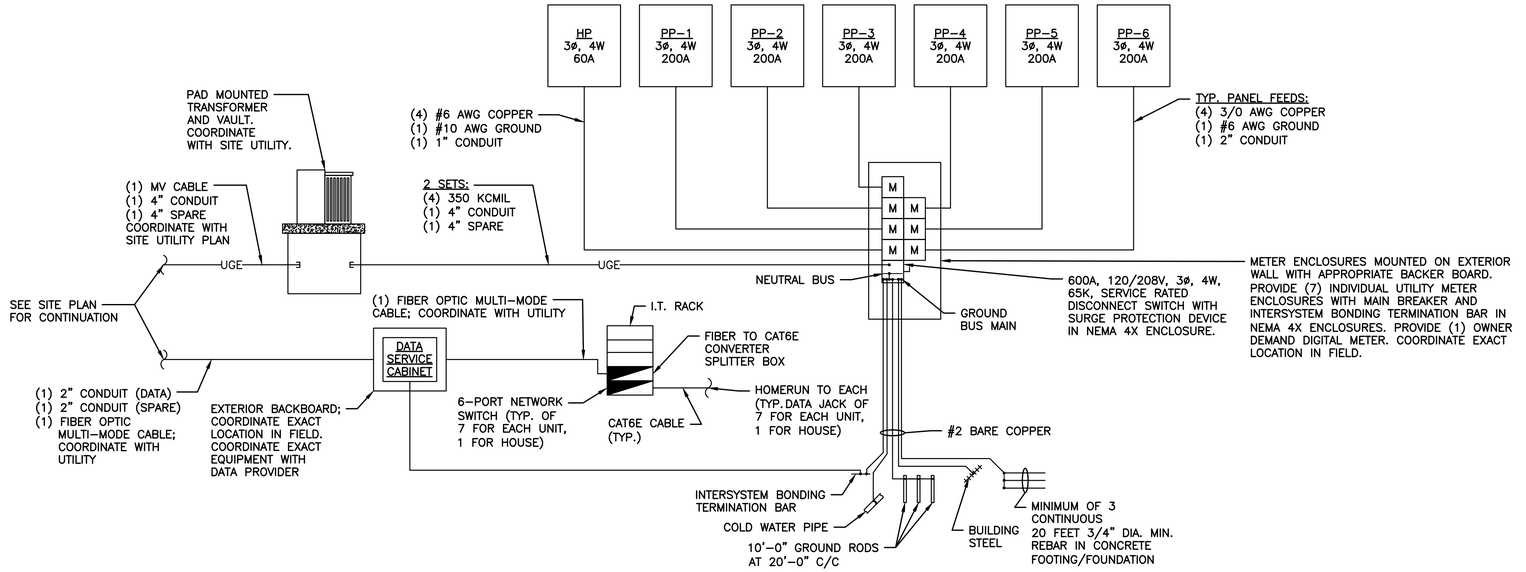
1 / E3 ELECTRICAL POWER AND DATA ATTIC PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE · RANDY BRAGG · 2/27/25 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. E3	TITLE OF SHEET 6-PLEX FLAT ELECTRICAL POWER AND DATA ATTIC PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 57 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



1/E4 ELECTRICAL POWER/DATA ONE-LINE DIAGRAM

NO SCALE

NOTE:
1. CONDUCTOR SIZING BASED ON COPPER, 75°C RATED.
2. CONTRACTOR TO COORDINATE WITH UTILITIES FOR EXACT EQUIPMENT LAYOUT REQUIREMENTS. MODIFY AS REQUIRED

PANEL LOAD CALCULATION			
TYPICAL POWER PANEL UNIT			
SQUARE FEET		=	536
GENERAL LOADS:			**(VA)**
LIGHTING			1608
(2) SMALL APPLIANCE CKTS			3000
(1) LAUNDRY CKT			1500
		Sub-Total	6108
	3000VA @100%		3000
	3108VA @ 35%		1088
GENERAL LIGHTING DEMAND		=	**4088**
APPLIANCES:			
WATER HEATER			4500
REFRIGERATOR			1400
DISHWASHER			1030
MICROWAVE			1000
RANGE HOOD			800
ERV			260
DH			2000
		Sub-Total	10990
APPLIANCE DEMAND		=	**10990**
DRYER DEMAND		=	**5000**
RANGE DEMAND		=	**8000**
HVAC DEMAND		=	**7300**
SERVICE ENTRANCE DEMAND		=	**35378**
			AMPS
SERVICE DEMAND LOAD		=	**147**
SPARE CAPACITY = 25%		=	**37**
MINIMUM SERVICE REQUIRED		=	**200**

BUILDING SERVICE LOAD CALCULATION		
SIX APARTMENT UNITS + ONE HOUSE PANEL		
		VA
TYPICAL APARTMENT PANEL LOAD	=	35378
HOUSE PANEL LOAD	=	2300
TOTAL DEMAND LOAD	=	37678
NUMBER OF DWELLING UNITS	=	6
NEC 220.84 DEMAND FACTOR	=	0.44
TOTAL SERVICE ENTRANCE LOAD	=	99470
		AMPS
TOTAL DEMAND LOAD AT 240V	=	414
SPARE CAPACITY OF 25%	=	104
Sub-Total	=	518
MINIMUM SERVICE REQUIRED	=	**600**
NOTE: AVAILABLE FAULT CURRENT = 65K (BASED ON INFINITE SOURCE)		

STATE OF MAINE
BRAGG
12/17/25
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. E4	TITLE OF SHEET 6-PLEX FLAT ELECTRICAL DIAGRAM AND LOAD CALCULATIONS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 58 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

NEW PANEL	PANEL NAME: HOUSE PANEL													POWER					
VOLTAGE: 120/208V	PHASE: 3					WIRE: 4							MAIN TYPE: MCB					LOCATION: SPRINKLER ROOM	
60A						FED FROM: DISCONNECT SWITCH							22K RATED					MOUNTING: SURFACE	
SERVICE	BREAKER			CIRCUIT		CKT#	LEFT PHASE LOAD (KVA)			RIGHT PHASE LOAD (KVA)			CKT#	CIRCUIT		BREAKER			SERVICE
	POLE	AMPS	TYPE	CONDUCTOR SIZE	CONDUIT SIZE		A	B	C	A	B	C		CONDUIT SIZE	CONDUCTOR SIZE	TYPE	AMPS	POLE	
SERVICE RECEPTACLE	1P	20A	GFCI	12 AWG	3/4"	1	1.5			1.25			2	3/4"	12 AWG		20A	2P	EH-4
RISER ROOM LIGHT	1P	20A	AFCI	12 AWG	3/4"	3		0.05			1.25		4						
FACP	1P	20A		12 AWG	3/4"	5			1.2			0.06	6	3/4"	12 AWG		20A	1P	EXTERIOR LIGHTS
SPARE	2P	20A				7				1.5			8	3/4"	12 AWG	DFCI	20A	1P	RISER ROOM RECEPTACLE
						9							10				20A	1P	SPARE
SPARE	1P	20A				11							12				20A	1P	SPARE
SPARE	1P	20A				13							14				20A	1P	SPARE
SPARE	1P	20A				15							16				20A	1P	SPARE
SPARE	1P	20A				17							18				20A	1P	SPARE
SPARE	1P	20A				19							20				20A	1P	SPARE
							A		B			C							
TOTAL PHASE LOADS (KVA):							4.3		1.3			1.3							
TOTAL DEMAND LOAD (KVA):							6.8												
TOTAL DEMAND CURRENT (AMPS):							19												

NOTES:
1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL AFCI/GFCI/DFCI BREAKERS AS NOTED AND AS REQUIRED TO MEET 2023 NEC.
2. CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTIVE DEVICE EQUAL TO EATON SPD200208Y1K, 200KA PER PHASE.
3. CONTRACTOR SHALL BALANCE ALL PHASES AS REQUIRED.
4. CONDUCTOR SIZING BASED ON COPPER, 75°C RATED.
5. GFCI/AFCI BREAKERS AND ASSOCIATED BRANCH CIRCUIT RECEPTACLES MAY BE UTILIZED IN LIEU OF DFCI BREAKERS.

NEW PANEL	PANEL NAME: PP-1/2/3/4/5/6													POWER					
VOLTAGE: 120/208V	PHASE: 3					WIRE: 4							MAIN TYPE: MCB					LOCATION: CORRIDOR	
200A						FED FROM: METER DISCONNECT							22K RATED					MOUNTING: RECESSED	
SERVICE	BREAKER			CIRCUIT		CKT#	LEFT PHASE LOAD (KVA)			RIGHT PHASE LOAD (KVA)			CKT#	CIRCUIT		BREAKER			SERVICE
	POLE	AMPS	TYPE	CONDUCTOR SIZE	CONDUIT SIZE		A	B	C	A	B	C		CONDUIT SIZE	CONDUCTOR SIZE	TYPE	AMPS	POLE	
HP-1	2P	40A		#10 AWG	3/4"	1	3.15			1.88			2	3/4"	#12 AWG		20A	3P	WH-1
						3		3.15			1.88		4						
RANGE	2P	40A	DFCI	#8 AWG	3/4"	5			4.00			1.88	6						
						7	4.00			4.00			8	3/4"	#8 AWG	GFCI	40A	2P	DRYER
ERV-1	2P	15A		#12 AWG	3/4"	9		0.11			4.00		10						
						11			0.11			1.08	12	3/4"	#12 AWG		15A	2P	DH-1
EH-1	2P	20A		#12 AWG	3/4"	13	0.47			1.08			14						
						15		0.47			0.63		16	3/4"	#12 AWG		20A	2P	EH-2
EH-3	2P	20A		#12 AWG	3/4"	17			1.25			0.63	18						
						19	1.25			2.08			20	3/4"	#12 AWG	DFCI	20A	2P	HT-1
RANGE HOOD	1P	20A	DFCI	#12 AWG	3/4"	21		0.80			2.08		22						
DISHWASHER	1P	20A	DFCI	#12 AWG	3/4"	23			1.20			1.40	24	3/4"	#12 AWG	DFCI	20A	1P	REFRIGERATOR
LIVING ROOM RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	25	1.20			1.50			26	3/4"	#12 AWG	DFCI	20A	1P	KITCHEN RECEPTACLES #1
WASHING MACHINE	1P	20A	DFCI	#12 AWG	3/4"	27		1.20			1.50		28	3/4"	#12 AWG	DFCI	20A	1P	KITCHEN RECEPTACLES #2
BEDROOM RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	29			1.20			1.50	30	3/4"	#12 AWG	GFCI	20A	1P	BATH RECEPTACLE
ATTIC MECH RM RECEPTACLE	1P	20A	AFCI	#12 AWG	3/4"	31	1.20			1.20			32	3/4"	#12 AWG	GFCI	20A	1P	HP SERVICE RECEPTACLE
BEDROOM/BATH LIGHTS	1P	20A	AFCI	#12 AWG	3/4"	33		0.08			1.20		34	3/4"	#12 AWG	GFCI	20A	1P	EXTERIOR RECEPTACLE
EXTERIOR/KITCHEN/LIVING LIGHTS	1P	20A	AFCI	#12 AWG	3/4"	35			0.18			0.07	36	3/4"	#12 AWG	AFCI	20A	1P	ATTIC LIGHTS
SPARE	1P	20A				37							38				20A	1P	SPARE
SPARE	1P	20A				39							40				20A	1P	SPARE
SPARE	1P	20A				41							42				20A	1P	SPARE
SPARE	1P	20A				43							44				20A	1P	SPARE
SPARE	1P	20A				45							46				20A	1P	SPARE
SPARE	1P	20A				47							48				20A	1P	SPARE
SPARE	1P	20A				49							50				20A	1P	SPARE
SPARE	1P	20A				51							52				20A	1P	SPARE
SPARE	1P	20A				53							54				20A	1P	SPARE
							A		B			C							
TOTAL PHASE LOADS (KVA):							23.0		11.3			14.5							
TOTAL DEMAND LOAD (KVA):							49												
TOTAL DEMAND CURRENT (AMPS):							136												

NOTES:
1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL AFCI/GFCI/DFCI BREAKERS AS NOTED AND AS REQUIRED TO MEET 2023 NEC.
2. CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTIVE DEVICE EQUAL TO EATON SPD200208Y1K, 200KA PER PHASE.
3. CONTRACTOR SHALL BALANCE ALL PHASES AS REQUIRED.
4. CONDUCTOR SIZING BASED ON COPPER, 75°C RATED.
5. GFCI/AFCI BREAKERS AND ASSOCIATED BRANCH CIRCUIT RECEPTACLES MAY BE UTILIZED IN LIEU OF DFCI BREAKERS.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE (PER UNIT)

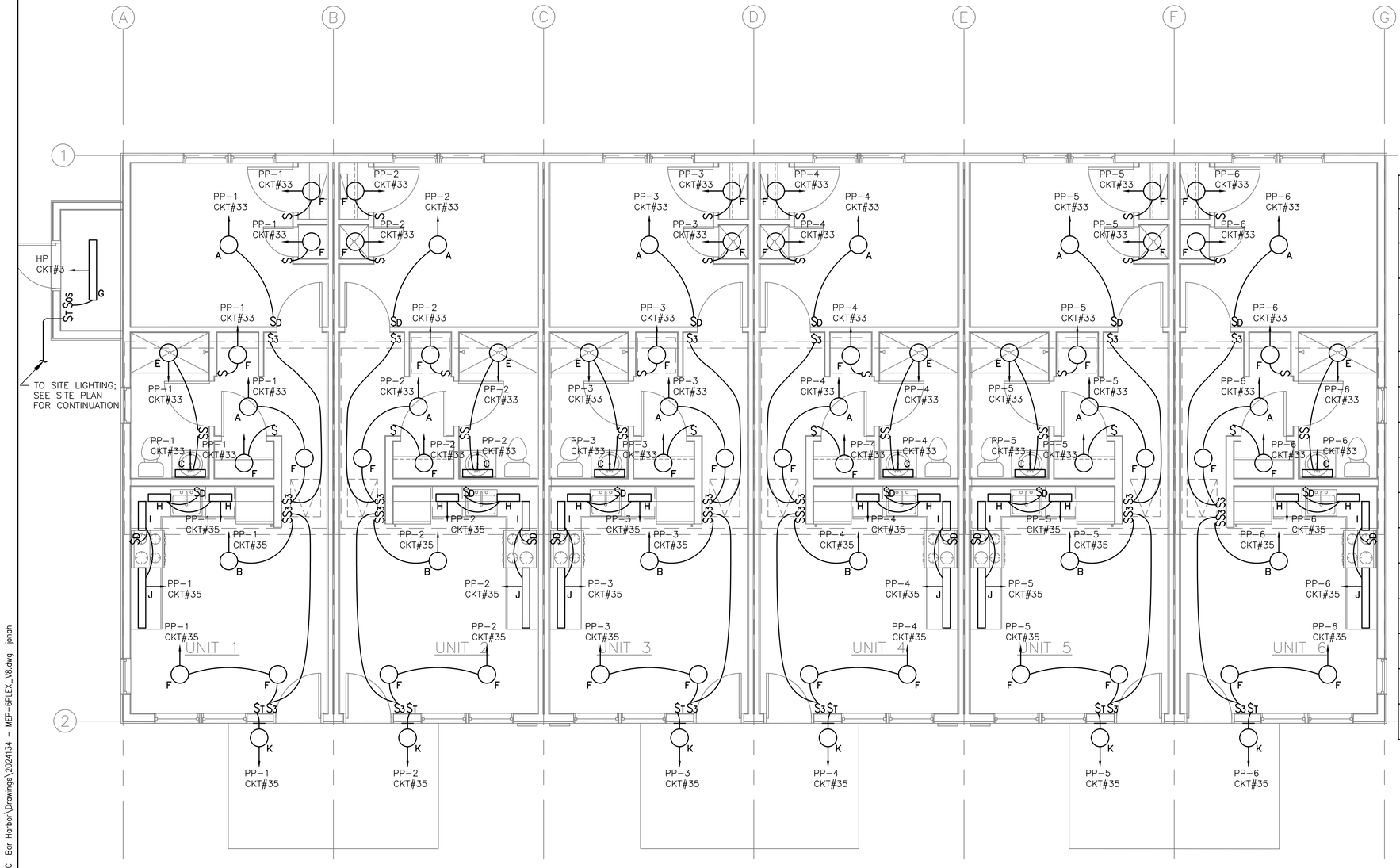
EQUIPMENT TAG	DESCRIPTION	LOCATION	PHASE	VOLTS	FLA	MCA	MOCP	LOAD (KVA)	NOTES
ERV-1	ENERGY RECOVERY UNIT	ATTIC	1	208	0.85	1.1	15	0.221	--
DH-1	DUCT HEATER	ATTIC	1	208	8.3	10.4	15	2.16	--
RH-1	RANGE HOOD	KITCHEN	1	120	0.7	1	20	0.008	--
EH-1	ELECTRIC BASEBOARD	UNIT BEDROOMS	1	208	3.6	4.5	20	0.94	2
EH-2	ELECTRIC BASEBOARD	UNIT BATHROOMS	1	208	4.8	6.0	20	1.25	2
EH-3	ELECTRIC BASEBOARD	UNIT LIVING ROOMS	1	208	9.6	12	20	2.5	2
EH-4	ELECTRIC UNIT HEATER	RISER ROOM	1	208	9.6	12	20	2.5	--
HP-1	HEAT PUMP UNIT	EXTERIOR	1	208	30.5	30.5	40	6.3	--
HT-1	ELECTRIC HEAT TRACE	VARIES	1	208	16	20	20	4.16	--
WH-1	ELECTRIC WATER HEATER	CLOSET	3	208	12.5	15.6	20	5.63	--

NOTES:
1. THE ABOVE INFORMATION IS FOR A SPECIFIC MANUFACTURER. ACTUAL LOADS FOR EQUIPMENT MAY BE DIFFERENT. COORDINATE WITH MECHANICAL EQUIPMENT SUBMITTALS FOR LOADS AND OVER CURRENT PROTECTION REQUIREMENTS PRIOR TO INSTALLATION OF WIRING.
2. MODIFY CIRCUITS AS REQUIRED IF ADDITIONAL ELEMENTS/EQUIPMENT IS CONNECTED.

STATE OF MAINE
BRIAN BRAGG
12775
LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. E5	TITLE OF SHEET 6-PLEX FLAT ELECTRICAL SCHEDULES HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 59 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



1 E6 ELECTRICAL LIGHTING PLAN

LIGHTING FIXTURE SCHEDULE*

FIXTURE TAG	SYMBOL	MAKE AND MODEL	DESCRIPTION	POWER (WATTS)	NOTES
A	◯	BROWNLEE LIGHTING INC. 2061-14-BZ-R22-FL1-30K OR EQUAL	14" ROUND LED SURFACE MOUNT LIGHT	24W	--
B	◯	BROWNLEE LIGHTING INC. 2061-18-BZ-R34-FL1-30K OR EQUAL	18" ROUND LED SURFACE MOUNT LIGHT	34W	--
C	▯	LITHONIA LIGHTING FMVCCLS-24IN-MVOLT-30K35K40K-90CRI-KR OR EQUAL	2' CYLINDER WALL MOUNT LIGHT	19W	--
D	▯	LITHONIA LIGHTING FMVCCLS-48IN-MVOLT-30K35K40K-90CRI-KR OR EQUAL	4' CYLINDER WALL MOUNT LIGHT	27W	NOT USED FOR 6-PLEX FLAT
E	◯	INDY L4-23LM-30K-MVOLT-G4-80CRI-ZT-P-CD-WET OR EQUAL	RECESSED LED LENSED DOWNLIGHT	12W	--
F	◯	INDY L4-23LM-30K-MVOLT-G4-80CRI-ZT-P-CD OR EQUAL	RECESSED LED DOWNLIGHT	12W	--
G	▯	LITHONIA LIGHTING CSS-L48-AL03-(4000)-MVOLT-SWW3-(35)-80CRI OR EQUAL	4' LINEAR LED STRIP LIGHT	37W	--
H	▯	JUNO LIGHTING UCES-18IN-SWW6-90CRI-WH-M6 OR EQUAL	UNDERCABINET 18" LINEAR LED LIGHT	9W	--
I	▯	JUNO LIGHTING UCES-24IN-SWW4-90CRI-WH-M6 OR EQUAL	UNDERCABINET 24" LINEAR LED LIGHT	11W	--
J	▯	JUNO LIGHTING UCES-36IN-SWW4-90CRI-WH-M6 OR EQUAL	UNDERCABINET 48" LINEAR LED LIGHT	17W	--
K	◯	BOWMAN 4 OUTDOOR WALL 700WSBOW-Z-LED830 OR EQUAL	OUTDOOR WALL SCONCE LED LIGHT	18W	PHOTOCELL CONTROL, 90 MIN BATTERY BACKUP
L	⬭	LITHONIA LIGHTING ELM2L OR EQUAL	LED EMERGENCY LIGHT	1W	90 MIN BATTERY BACKUP
M	EXIT	LITHONIA LIGHTING LQM-S-W-3-R-120/277 OR EQUAL	LED EXIT LIGHT	1.5W	90 MIN BATTERY BACKUP
N	EXIT	LITHONIA LIGHTING LQM-S-W-3-R-120/277 OR EQUAL	LED EMERGENCY COMBO LIGHT	1.5W	90 MIN BATTERY BACKUP

NOTE:
1. PROVIDE AND INSTALL PHOTOCELL SENSOR CONTROL FOR ALL EXTERIOR LIGHT FIXTURES.
2. PROVIDE AND INSTALL 0-10V/DIMMING DRIVERS FOR EACH FIXTURE.
3. NOT ALL FIXTURES MAY BE INCLUDED; VERIFY FIXTURE TYPES AND QUANTITY WITH PLAN.
4. PROVIDE AND INSTALL PHOTOCELL AND BATTERY BACKUP AS AN ACCESSORY TO TYPE 'K' FIXTURE.

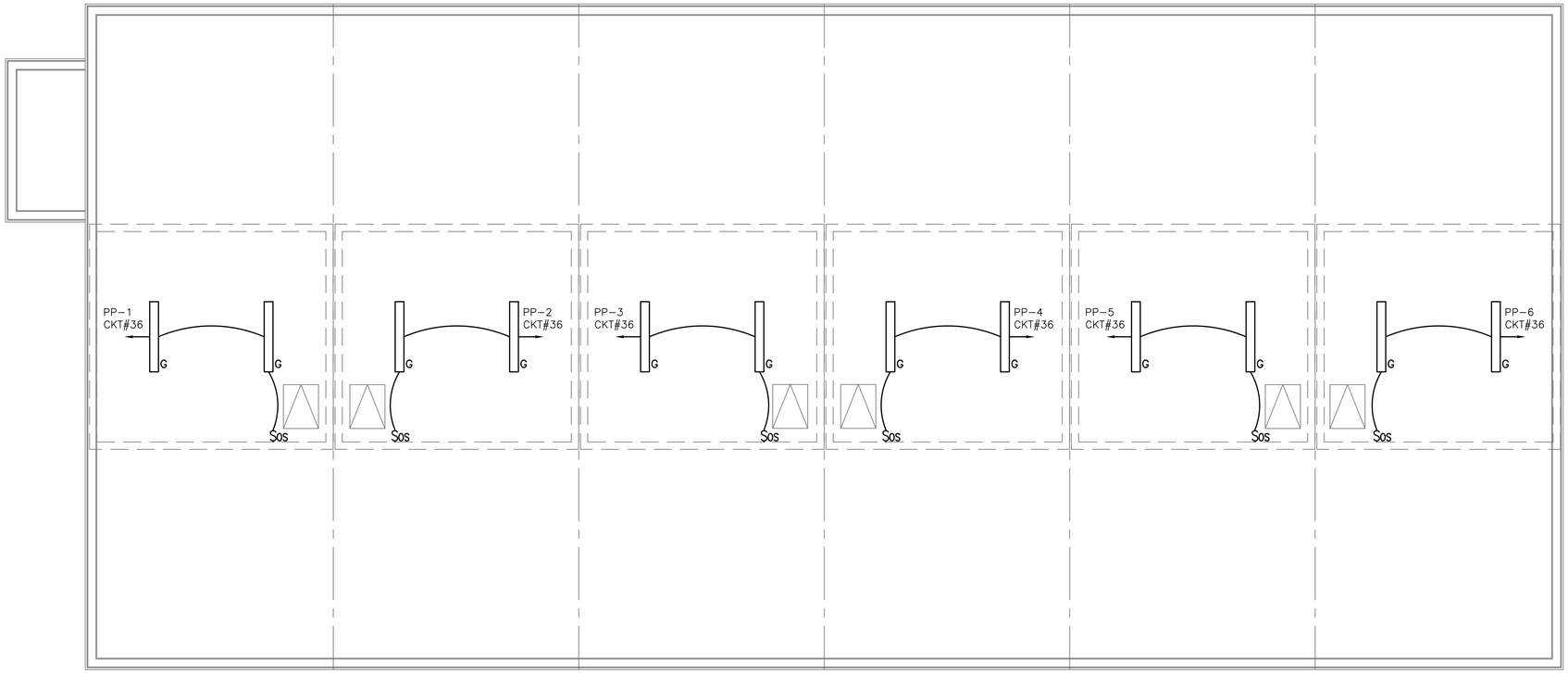
4 0 4 8
SCALE OF FEET

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE · RANDY BRAGG · 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	E6	6-PLEX FLAT ELECTRICAL LIGHTING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 60025A PMIS/PKG NO. 309000 SHEET 60 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



1 E7 ELECTRICAL LIGHTING ATTIC PLAN

LIGHTING FIXTURE SCHEDULE*

FIXTURE TAG	SYMBOL	MAKE AND MODEL	DESCRIPTION	POWER (WATTS)	NOTES
A	◯	BROWNLEE LIGHTING INC. 2061-14-BZ-R22-FL1-30K OR EQUAL	14" ROUND LED SURFACE MOUNT LIGHT	24W	--
B	◯	BROWNLEE LIGHTING INC. 2061-18-BZ-R34-FL1-30K OR EQUAL	18" ROUND LED SURFACE MOUNT LIGHT	34W	--
C	▯	LITHONIA LIGHTING FMVCCLS-24IN-MVOLT-30K35K40K-90CRI-KR OR EQUAL	2' CYLINDER WALL MOUNT LIGHT	19W	--
D	▯	LITHONIA LIGHTING FMVCCLS-48IN-MVOLT-30K35K40K-90CRI-KR OR EQUAL	4' CYLINDER WALL MOUNT LIGHT	27W	NOT USED FOR 6-PLEX FLAT
E	◯	INDY L4-23LM-30K-MVOLT-G4-80CRI-ZT-P-CD-WET OR EQUAL	RECESSED LED LENSED DOWNLIGHT	12W	--
F	◯	INDY L4-23LM-30K-MVOLT-G4-80CRI-ZT-P-CD OR EQUAL	RECESSED LED DOWNLIGHT	12W	--
G	▯	LITHONIA LIGHTING CSS-L48-AL03-(4000)-MVOLT-SWW3-(35)-80CRI OR EQUAL	4' LINEAR LED STRIP LIGHT	37W	--
H	▯	JUNO LIGHTING UCES-18IN-SWW6-90CRI-WH-M6 OR EQUAL	UNDERCABINET 18" LINEAR LED LIGHT	9W	--
I	▯	JUNO LIGHTING UCES-24IN-SWW4-90CRI-WH-M6 OR EQUAL	UNDERCABINET 24" LINEAR LED LIGHT	11W	--
J	▯	JUNO LIGHTING UCES-36IN-SWW4-90CRI-WH-M6 OR EQUAL	UNDERCABINET 48" LINEAR LED LIGHT	17W	--
K	⚲	BOWMAN 4 OUTDOOR WALL 700WSBOW-Z-LED830 OR EQUAL	OUTDOOR WALL SCONCE LED LIGHT	18W	PHOTOCELL CONTROL, 90 MIN BATTERY BACKUP
L	▭	LITHONIA LIGHTING ELM2L OR EQUAL	LED EMERGENCY LIGHT	1W	90 MIN BATTERY BACKUP
M	EXIT	LITHONIA LIGHTING LQM-S-W-3-R-120/277 OR EQUAL	LED EXIT LIGHT	1.5W	90 MIN BATTERY BACKUP
N	EXIT ▭	LITHONIA LIGHTING LQM-S-W-3-R-120/277 OR EQUAL	LED EMERGENCY COMBO LIGHT	1.5W	90 MIN BATTERY BACKUP

NOTE:
1. PROVIDE AND INSTALL PHOTOCELL SENSOR CONTROL FOR ALL EXTERIOR LIGHT FIXTURES.
2. PROVIDE AND INSTALL 0-10V/DIMMING DRIVERS FOR EACH FIXTURE.
3. NOT ALL FIXTURES MAY BE INCLUDED; VERIFY FIXTURE TYPES AND QUANTITY WITH PLAN.
4. PROVIDE AND INSTALL PHOTOCELL AND BATTERY BACKUP AS AN ACCESSORY TO TYPE 'K' FIXTURE.

4 0 4 8
SCALE OF FEET

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE · 6-8-27 · ANDY BRAGG 20175 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	E7	6-PLEX FLAT ELECTRICAL LIGHTING ATTIC PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 60025A PMIS/PKG NO. 309000 SHEET 61 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

PLUMBING LEGEND

- COLD WATER PIPING
- HOT WATER SUPPLY PIPING
- BELOW SLAB SANITARY PIPING
- VENT PIPING
- CONDENSATE DRAIN PIPING
- BALANCING VALVE
- TRIPLE DUTY VALVE
- SHUT–OFF VALVE
- BACKFLOW PREVENTER
- CHECK VALVE
- STRAINER W/DRAIN & HOSE CONN.
- PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE (WATER)
- UNION
- INCREASER OR DECREASER CONCENTRIC
- INCREASER OR DECREASER ECCENTRIC
- DRIP LEG
- AUTOMATIC AIR VENT
- PIPE GUIDE
- PIPE ANCHOR
- DIRECTION OF FLOW
- PIPE CAP
- PIPE RISE/DROP
- THERMOMETER
- PRESSURE GAUGE
- AQUASTAT
- ROOF DRAIN
- CLEAN OUT
- WALL CLEAN OUT
- FLOOR CLEAN OUT
- FLOOR DRAIN
- VENT TO ATTIC
- VENT THRU ROOF
- ABOVE FINISHED FLOOR
- BELOW FINISHED FLOOR
- BELOW SLAB
- HOSE BIBB
- PRESSURE SWITCH
- DRAIN
- STRAINER
- DIRECTION OF FLOW
- AIR VENT
- CONCRETE SLOPE DIRECTION

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
BFP	REDUCED PRESSURE BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CO	CLEANOUT
CW	COLD WATER
DHW	DOMESTIC HOT WATER
DW	DISHWASHER
ET	EXPANSION TANK
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GAL	GALLON
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HW	HOT WATER
KW	KILOWATT
MBH	1000 BTUH
PSI	POUNDS PER SQUARE INCH
RWL	RAIN WATER LEADER
SAN	SANITARY SEWER
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
TMV	THERMOSTATIC MIXING VALVE
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
V	VENT
VTA	VENT TO ATTIC
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER

PLUMBING NOTES:

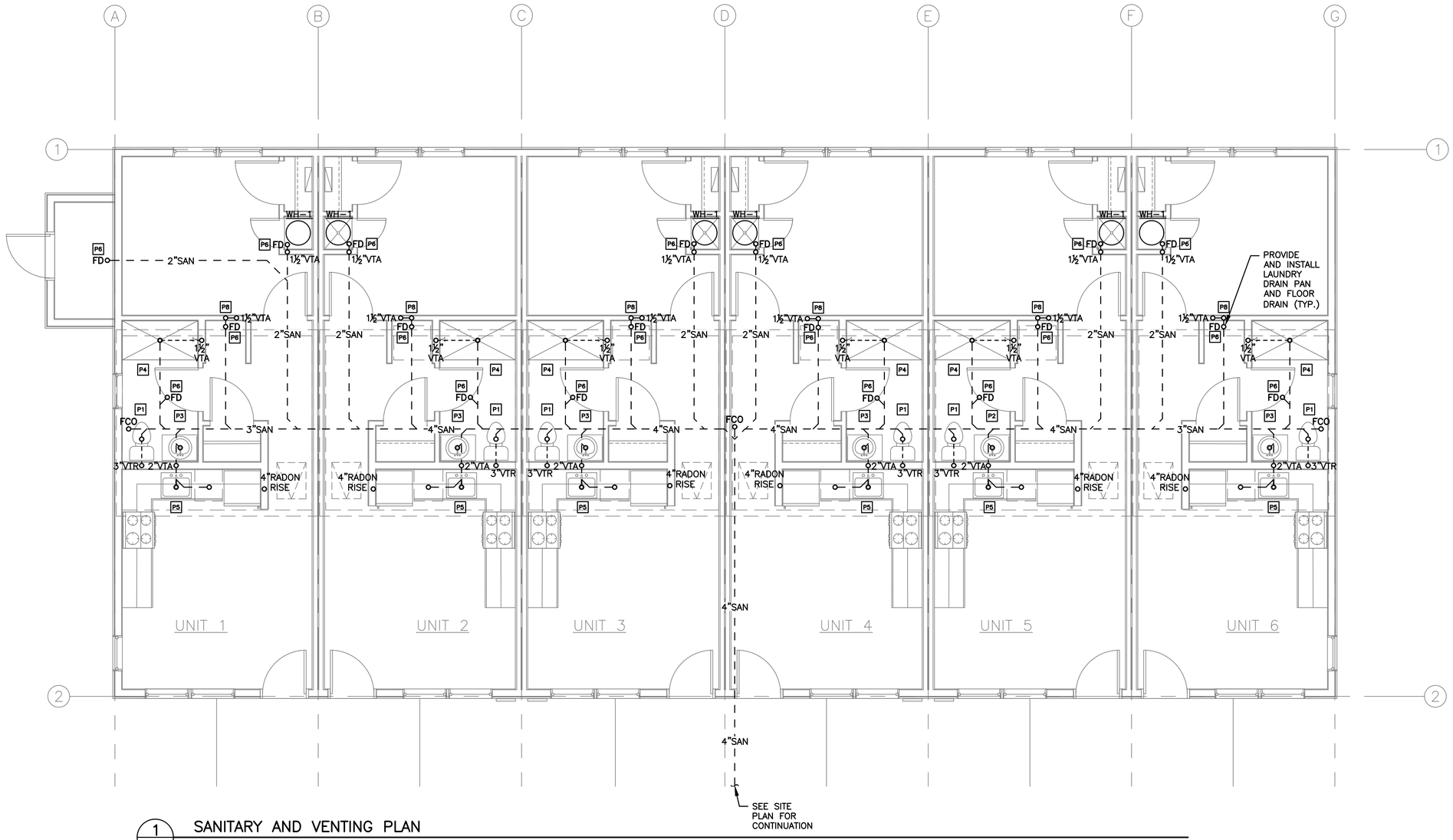
1. WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2021 UNIFORM PLUMBING CODE, AND ALL CONTRACT DOCUMENTS.
2. COORDINATE LOCATION OF PLUMBING WITH ALL OTHER TRADES. REFER TO BUILDING PLANS, MECHANICAL AND ELECTRICAL PLANS FOR COORDINATION. MODIFY SUPPORTS, PIPING, AND EQUIPMENT AS REQUIRED.
3. ALL PIPING SHALL BE RUN CONCEALED WHERE POSSIBLE.
4. ALL PIPING IS SHOWN DIAGRAMMATICALLY. ACTUAL LOCATIONS AND LAYOUT SHALL BE DETERMINED IN THE FIELD AND UPDATED ON PLANS FOR FINAL AS BUILTS. NOT ALL VENTING, CLEANOUTS, AND PIPING MAY BE SHOWN. ENSURE ALL COMPONENTS ARE INSTALLED IN FIELD.
5. NO STRUCTURAL MEMBER SHALL BE CUT OR ALTERED WITHOUT WRITTEN APPROVAL OF ENGINEER.
6. ALL PLUMBING SHALL BE SUPPORTED FROM THE BUILDING'S STRUCTURAL FRAMING.
7. ALL PIPING SHALL BE NEW, INSTALLED PARALLEL TO BUILDING LINES, AND PITCHED TO LOW POINTS.
8. ALL PIPING THROUGH ROOFS, WALLS AND PARTITIONS SHALL HAVE PIPE SLEEVES. ALL PIPING PENETRATING FIRE RATED WALLS, FIRE RATED PARTITIONS, EXTERIOR WALLS, CEILING, OR FLOORS SHALL BE PROTECTED WITH A LISTED FIRE STOPPING SYSTEM PER NFPA 101, "CODE FOR SAFETY TO LIFE FROM FIRE IN BUILDING AND STRUCTURES", LATEST EDITION.
9. ALL PIPING, BURIED OR OTHERWISE, SHALL BE INSULATED.
10. PROVIDE SHOCK ABSORBERS SIZED TO P.D.I. STANDARDS WHERE REQUIRED TO AVOID WATER HAMMER. PROVIDE SHOCK ABSORBERS UPSTREAM FROM ALL WATER CLOSETS AND AT ALL QUICK ACTING DEVICES.
11. PROVIDE DRAW–OFFS AT LOW POINTS IN DOMESTIC WATER PIPING. PITCH PIPING TO DRAINS.
12. PROVIDE ACCESSIBLE CLEANOUTS WHERE INDICATED OR WHERE REQUIRED BY CODE.
13. ALL FIXTURES SHALL HAVE FLOW RESTRICTORS AND BE WATER SAVING TYPES. ALL FLUSH HANDLES TO BE LOCATED ON OPEN SIDE.
14. ALL PIPING DROPS TO FIXTURES SHALL BE ANCHORED SOLID TO WALL WITH STEEL SUPPORT BRACKETS AND ADJUSTABLE CLIPS.
15. BELOW SLAB SANITARY WASTE PIPING SHALL BE MINIMUM 2" SIZE OR IN ACCORDANCE WITH PLANS.
16. ALL WALL FIXTURES SHALL BE CARRIER MOUNTED. COORDINATE CARRIER DIMENSIONS, CONFIGURATION (COMPACT, VERTICAL AND HORIZONTAL) WITH CHASES AND STRUCTURAL MEMBERS. MODIFY FRAMING AND CARRIERS AS REQUIRED.
17. ALL VENT PIPING IS NOT SHOWN ON THE PLANS. VENT PER PLUMBING CODE REQUIREMENTS. ALL FIXTURES SHALL BE BACK VENTED. COORDINATE VENT PIPING ROOF PENETRATIONS WITH OWNER AND ARCHITECT. VENT PIPING TO ATTIC SHALL COMBINE INTO VTR STACK AS REQUIRED.
18. TOP OF FLOOR DRAINS SHALL BE SET FLUSH WITH FINISHED FLOOR.
19. RUBBER INSULATORS REQUIRED AT ANY AND ALL PLUMBING/MECHANICAL/ELECTRICAL UNITS WHICH ATTACH TO STRUCTURAL MEMBERS.
20. CONTRACTOR SHALL PERFORM A COMPLETE FLUSH AFTER ALL CONSTRUCTION IS COMPLETE.
21. CONTRACTOR TO PROVIDE AND INSTALL ACCESS PANELS WHERE REQUIRED. COORDINATE ACCESS PANEL LOCATIONS WITH DRAIN VALVES, MIXING VALVES, SHUT–OFF VALVES, PIPING CONNECTIONS, AND TO ACCOMMODATE CONNECTIONS. ACCESS PANELS MUST BE INSTALLED AT PIPING AND ASSOCIATED VALVES THAT WILL NEED TO BE ACCESSED FOR MAINTENANCE/SERVICE. THE ACCESS PANELS NEED TO BE 12"x12" MINIMUM, AND SHALL BE FIRE RATED AT ALL FLOOR/CEILING ASSEMBLIES AND WHERE REQUIRED OTHERWISE.
22. CONTRACTOR TO PROVIDE, INSTALL, TEST AND VERIFY ALL DOMESTIC HOT WATER TEMPERATURES. ALL SINKS/SHOWERS SHALL BE NO GREATER THAN 109°F, TEST AND VERIFY ALL MIXING VALVES. ALL LAVATORIES AND SINKS SHALL HAVE MIXING VALVES AT POINT OF USE. ADJUST HOT WATER TEMPERATURE AT ALL FIXTURES TO MEET DESIGN INTENT AND CODE LIMITS. COORDINATE WITH OWNER FOR REQUIRED TEMPERATURES AT ALL FIXTURES, MODIFY AS REQUIRED.
23. PROVIDE VALVES AT ALL BRANCH LOCATIONS AND ALL PLUMBING FIXTURES.
24. CONTRACTOR TO PROVIDE AND INSTALL ALL REQUIRED PIPING, DRAINS, VENTS, ETC. FOR ALL PLUMBING SYSTEMS AND FIXTURES. COORDINATE WITH ALL OTHER TRADES AND OWNER AS REQUIRED.
25. CONTRACTOR SHALL PROVIDE ALL PIPING AS REQUIRED FOR COMPLETE INSTALLATION OF ALL SYSTEMS. NOT ALL TEES, BRANCHES, VALVES, RISERS, ETC. MAY BE SHOWN. CONTRACTOR SHALL VERIFY PIPING IS CONNECTED TO ALL FIXTURES, EQUIPMENT, HEAT EXCHANGERS, TANKS. ETC.
26. CONTRACTOR SHALL INSTALL PIPING IN WALLS WHERE APPLICABLE.
27. CONTRACTOR SHALL COORDINATE ALL PIPING REQUIREMENTS AND PATHWAYS WITH OWNER AND ENGINEER. ADJUST QUANTITY, SIZE, AND ROUTE AS REQUIRED.
28. CONTRACTOR SHALL COMBINE VENTS FOR PLUMBING FIXTURES WHERE APPLICABLE. VENTS SHALL RISE TO ATTIC TO COMBINE PRIOR TO VENTING THRU THE ROOF. NO VERTICAL WET VENTING SHALL BE ALLOWED.
29. CONTRACTOR SHALL ENSURE ALL FLOOR DRAINS SHALL HAVE TRAP PRIMER CONNECTIONS AND CW PIPING TO ALL FLOOR DRAINS.
30. CONTRACTOR SHALL PROVIDE AND INSTALL DRAIN VALVES WITH DRAIN/HOSE CONNECTIONS FOR DRAINING/BLOWING OUT DOMESTIC PIPING THROUGHOUT THE BUILDING FOR SHUT DOWNS. TYPICAL FOR EACH INDIVIDUAL UNIT.

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

Feb 26, 2025 – 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–6PLEX_V8.dwg jonah

STATE OF MAINE — RANDY BRAGG — 12675 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P1	TITLE OF SHEET 6–PLEX FLAT PLUMBING LEGEND HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 62 OF 131	



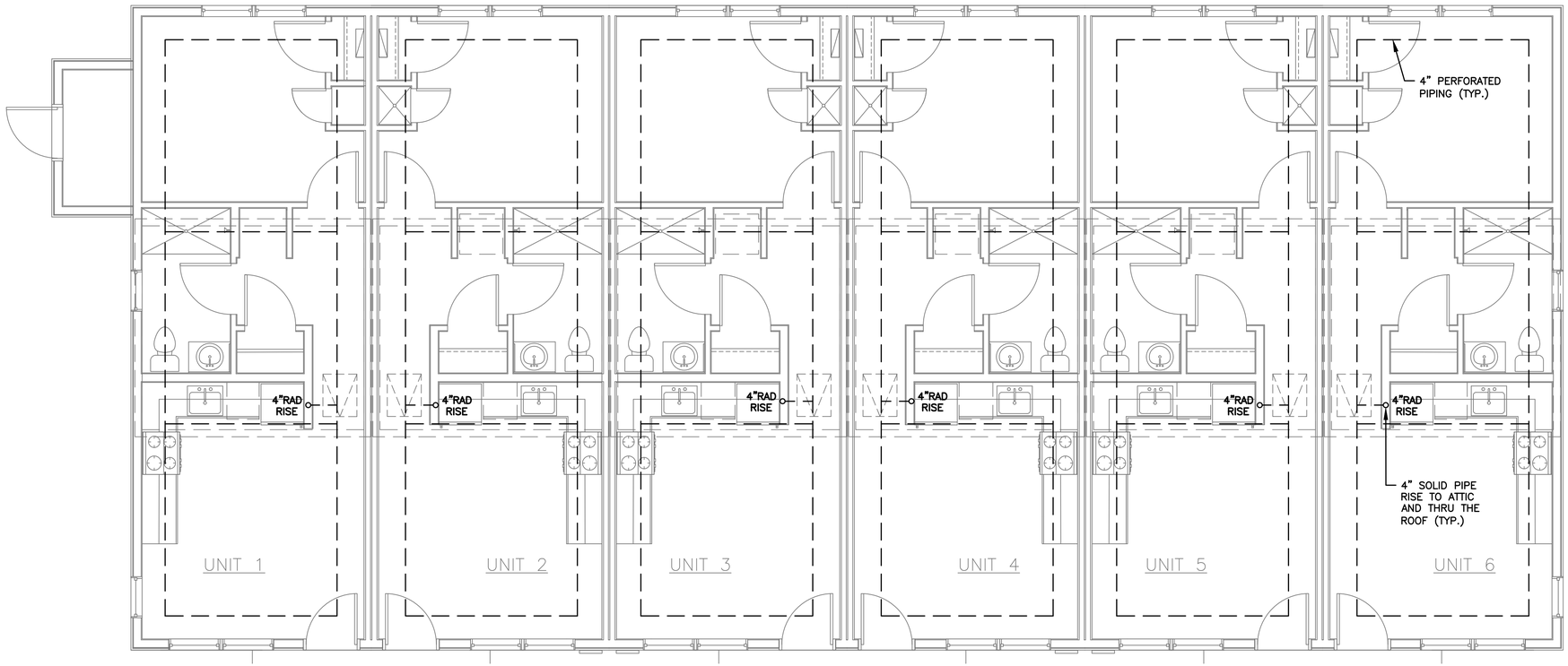
1 / P2 SANITARY AND VENTING PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE · BRAGG · 12/17/25 · LICENSED PROFESSIONAL ENGINEER

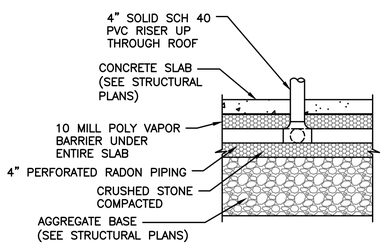
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P2	TITLE OF SHEET 6-PLEX FLAT PLUMBING SANITARY AND VENTING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 63 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



1 P3 BELOW SLAB RADON PIPING PLAN

NOTES:
1. POLYETHYLENE SHEETING SHALL HAVE A MINIMUM OVERLAP OF 12". SHEETING SHALL BE SEALED AT ALL SEAMS.
2. PERFORATED PIPING SHALL HAVE POSITIVE SLOPE TOWARDS SOIL IF NOT LESS THAN ⅛"/FT. PIPING SHALL BE SEALED AT ALL JOINTS.
3. ALL CONCRETE PENETRATIONS, CONTROL-JOINTS, AND SLAB PERIMETER SHALL BE SEALED WITH CAULKING THAT MEETS ASTM C920 CLASS 25 OR HIGHER.
4. COORDINATE PIPING WITH STRUCTURAL PLANS, MODIFY LOCATION AS REQUIRED.



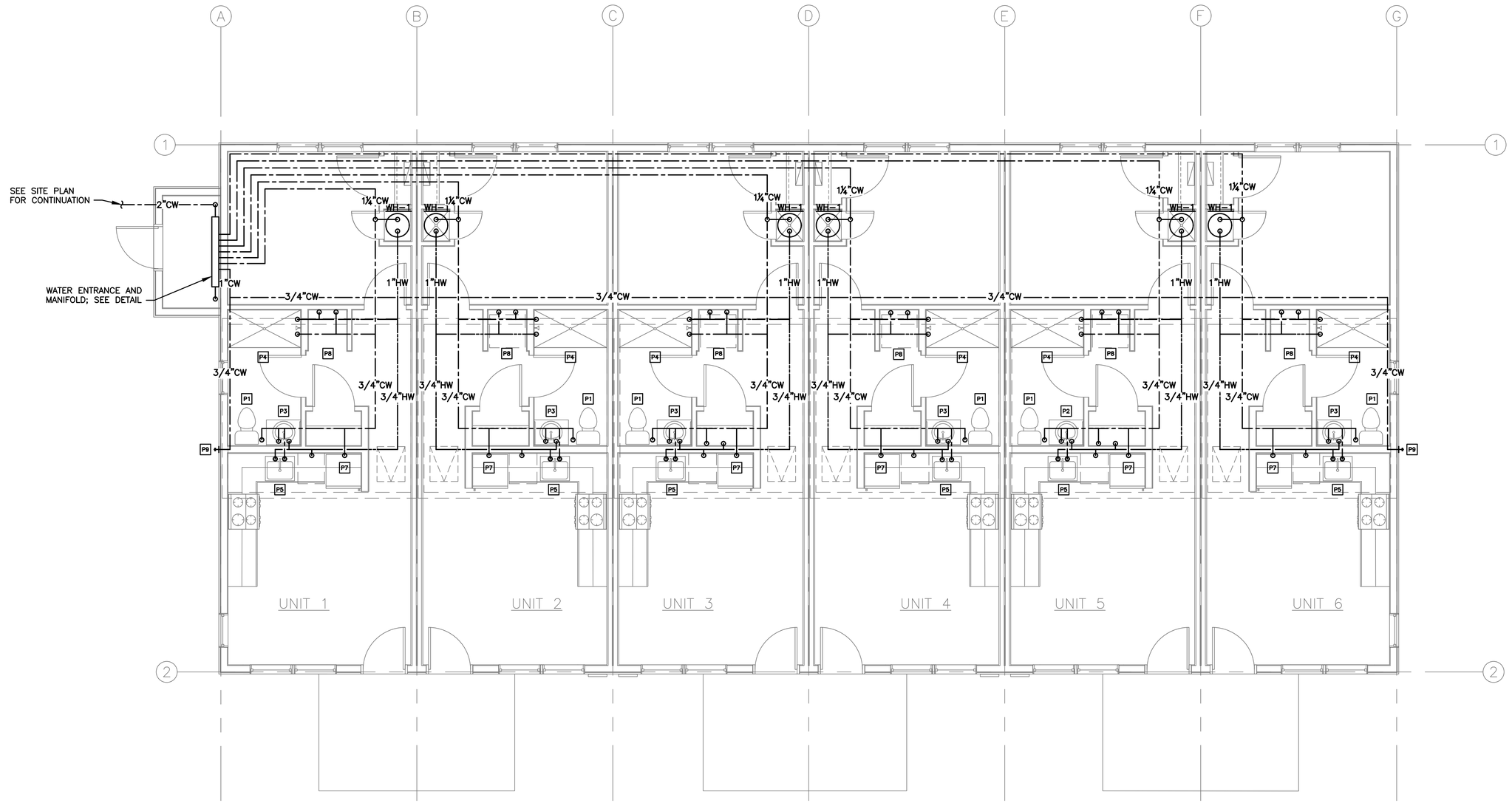
2 P3 RADON PIPING DETAIL
NO SCALE

4 0 4 8
SCALE OF FEET

STATE OF MAINE — BRAGG — 12575 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P3	TITLE OF SHEET 6-PLEX FLAT BELOW SLAB RADON PIPING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 64 OF 131

Feb 26, 2025 - 9:36am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



1 / P4 DOMESTIC PLUMBING PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE
RANDY BRAGG
LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P4	TITLE OF SHEET 6-PLEX FLAT DOMESTIC PLUMBING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 65 OF 131

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

PLUMBING FIXTURE & CONNECTION SCHEDULE*

SYMBOL	FIXTURE	DESCRIPTION	WASTE	VENT	CW	HW	NOTES
P1	WATER CLOSET	AMERICAN STANDARD #215AA.104/.105, CADET PRO RIGHT HEIGHT, WHITE, ELONGATED BOWL, 1.28 GPF, 16–1/2" HIGH, WITH #5321.110 "EVERCLEAN" SOLID PLASTIC WHITE SEAT WITH SLOW CLOSE COVER AND SNAP–OFF HINGES. TRIP LEVER SHALL BE ON OPEN SIDE OF WATER CLOSET, NOT IN ROOM'S CORNER. TANK COMPLETE WITH AQUAGUARD LINER #4188A.154/.155.	3"	2"	3/4"	--	--
P2	ADA LAVATORY	AMERICAN STANDARD DECORUM #9024.001EC WITH TRAP, NIPPLES, DRAIN, GRID STRAINER, BRACKET SUPPORT AMERICAN STANDARD #775B.105 FAUCET WITH #PK00.WRK POWER KIT.	1½"	1½"	1/2"	1/2"	--
P3	LAVATORY	AMERICAN STANDARD RELIANT DROP–IN COUNTER SINK MODEL #0475247 WITH TRAP, NIPPLES, DRAIN AND AMERICAN STANDARD #775B.105 FAUCET WITH #PK00.WRK.	1½"	1½"	1/2"	1/2"	--
P4	30"x60" SHOWER	AQUATIC MODEL #16030STT WITH GRAB BARS, AND DRAIN. AMERICAN STANDARD FLUENT SHOWER TRIM WITH PRESSURE BALANCE VALVE	2"	1½"	1/2"	1/2"	--
P5	KITCHEN SINK	AMERICAN STANDARD COLONY 33"x22" #20DB.8332283S.075, 8" DEEP DOUBLE–BOWL, 3–HOLE WITH AMERICAN STANDARD COLONY PRO #7074.300 SINGLE LEVER 1.5 GPM FAUCET, HOSE SPRAY, WITH STRAINER, AND WASTE FITTINGS.	1½"	1½"	1/2"	1/2"	--
P6	FLOOR DRAIN	ZURN #ZN–Z415B–P WITH TRAP PRIMER CONNECTION. SIZE ACCORDING TO PIPE AND LOCATION.	2"	2"	1/2"	--	--
P7	ICE MAKER OUTLET BOX	OATEY FIRE RATED ICE MAKER OUTLET BOX MODEL #37385 WITH 6 FOOT STAINLESS STEEL LINE	--	--	1/2"	--	--
P8	WASHING MACHINE VALVE BOX	OATEY QUADTRO WASHING MACHINE BOX MODEL #38540. DRAIN SHALL BE TRAPPED 2", RISER TO ACCEPT 1–1/4" O.D. HOSE FROM MACHINE WITH FACEPLATE, AND BRACKETS.	2"	1½"	3/4"	3/4"	--
P9	HOSE BIBB	WOODFORD MODEL 19, FREEZELESS, AUTOMATIC DRAINING, ANTI–SIPHON. MODEL TO MATCH WALL THICKNESS.	--	--	3/4"	--	--

NOTES:
1. FIXTURES SHALL HAVE STOPS ON COLD WATER AND HOT WATER SUPPLIES.
2. PROVIDE AND INSTALL POINT OF USE MIXING VALVE; ASSE 1070 COMPLIANT AT ALL LAVATORIES AND SINKS.
3. CONTRACTOR SHALL VERIFY WALL THICKNESS OF HOSE BIBB AND MODIFY MODEL PART NUMBER AS REQUIRED. PROVIDE AND INSTALL WALL SUPPORT/BACKER AS REQUIRED. COORDINATE WITH CONTRACTING OFFICER.
4. SHOWER VALVE SHALL BE ASSE 1016 COMPLIANT.
5. HEAT TRACE MUST BE INSTALLED ALONG MAIN PIPING AND BRANCHES TO WITHIN 4'± OF EACH INDIVIDUAL HOT WATER PLUMBING FIXTURE.

WATER HEATER SCHEDULE — BASIS OF DESIGN: BRADFORD WHITE*

TAG	STORAGE (GAL)	RECOVERY @ 100°F RISE (GPH)	FIRST HOUR RATING (GPH)	DIA. (IN)	HW/CW CONN (IN)	MODEL	HEATER ELEMENT (KW)	ELECTRICAL (V/PH/HZ)	FLA	MCA	MOCP	NOTES
WH–1	40	19	53	20"	3/4"	RE340T6	4.5	208/3/60	12.5	15.6	20	1

NOTES:
1. SET TANK TEMPERATURE TO 140°F (ADJ).
2. PROVIDE AND INSTALL DRAIN PAN. PROVIDE DRAIN PAN OUTLET TO FLOOR DRAIN.

EXPANSION TANK SCHEDULE — BASIS OF DESIGN: AMTROL*

TAG	SERVES	MODEL #	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	DIA. (IN)	HEIGHT (IN)	NOTES
ET–1	WH–1	ST–5	2.0	--	8	13	--

HEAT TRACE SCHEDULE — BASIS OF DESIGN: RAYCHEM*

TAG	MODEL	VOLTS	AMPS	MAXIMUM LENGTH OF CIRCUIT (FT.)	CONTROLLER	NOTES
HT–1	HWAT–R2	240	20	330	HWAT–ECO–GF	1, 2, 3

NOTES:
1. HT–1 SERVES WH–1 AND ASSOCIATED FIXTURES. SET TEMP OF HEAT TRACE TO 120°F (ADJ.)
2. PROVIDE AND INSTALL ALL REQUIRED ACCESSORIES, CONTROLLER, SENSORS, AND CONNECTION KITS AS REQUIRED.
3. HT–1 SHALL BE INSTALLED ALONG ALL HW PIPING TO WITHIN 2 FT. OF FIXTURES AS REQUIRED PER CODE. PROVIDE AND INSTALL ADDITIONAL CIRCUITS AS REQUIRED IF LENGTH IS GREATER THAN 330 FEET.

THERMOSTATIC MIXING VALVE SCHEDULE — BASIS OF DESIGN: CALEFFI*

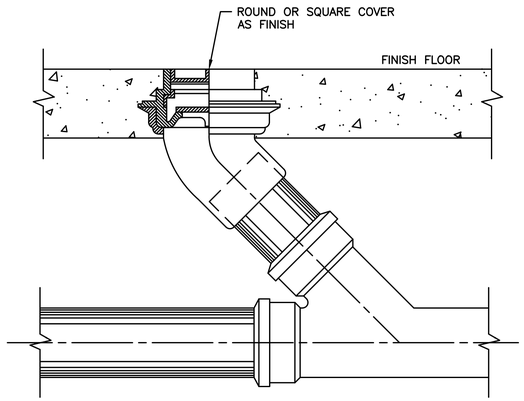
TAG	MODEL	MIN. FLOW (GPM)	MAX. FLOW (GPM)	PRESSURE DROP AT 9 GPM (PSI)	NOTES
TMV–1	ANGLEMIX 520	0.5	9	8	--

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE — BRADY BRAGG — 12777 — 02/28/25 — LICENSED PROFESSIONAL ENGINEER

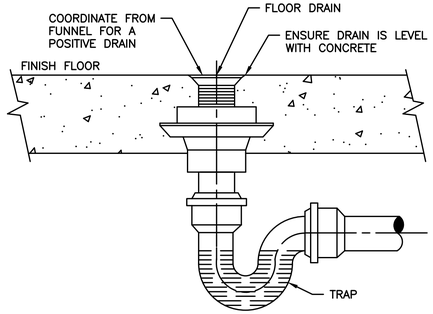
A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER CADD: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	P5	6–PLEX FLAT PLUMBING SCHEDULES HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 60025A
				PMIS/PKG NO. 309000
				SHEET 66 OF 131

Feb 26, 2025 – 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–6PLEX_V8.dwg jonah



1 P6 FLOOR CLEANOUT DETAIL

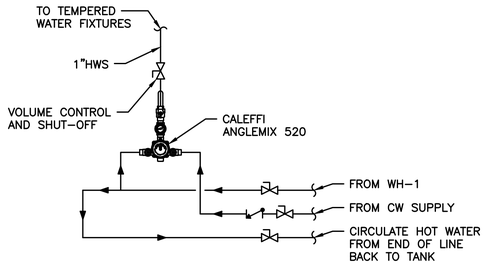
NO SCALE



2 P6 FLOOR DRAIN INSTALLATION DETAIL

NO SCALE

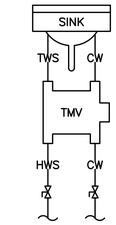
NOTE:
ALL TRAPS SHALL HAVE TRAP PRIMER CONNECTION AND 1/2" WATER PIPING TO NEARBY MAIN SUPPLY LINE.



3 P6 THERMOSTATIC MIXING VALVE DIAGRAM (TMV-1)

NO SCALE

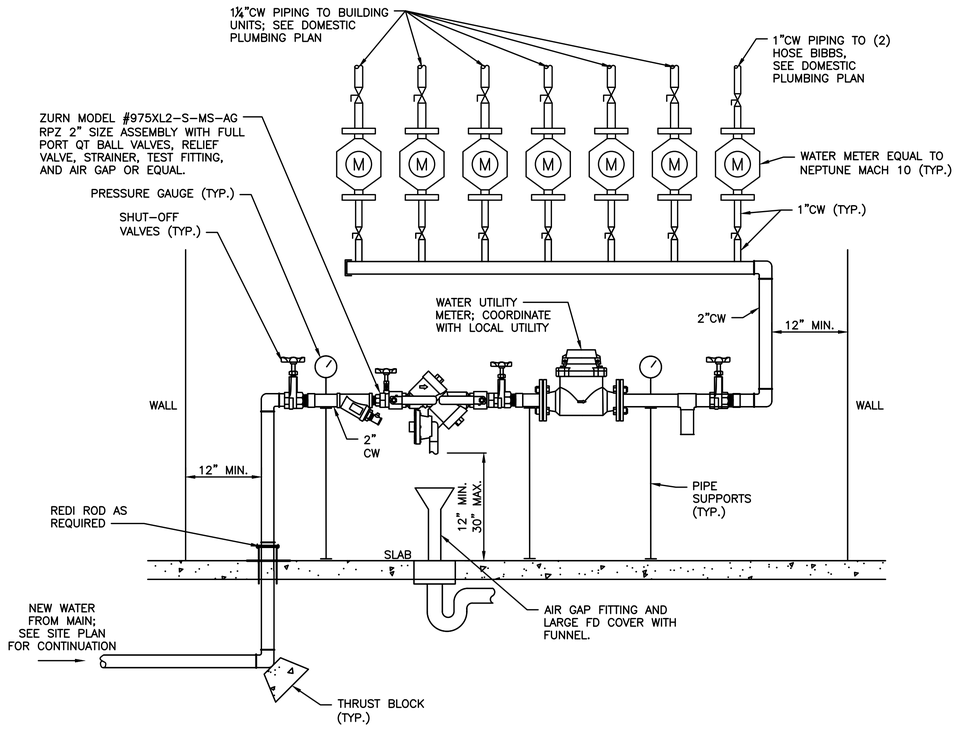
NOTES:
1. INSTALL ACCORDING TO MANUFACTURER'S REQUIREMENTS. NOT ALL VALVES, PIPING, OR DEVICES MAY BE SHOWN.
2. SET THERMOSTATIC MIXING VALVE TO 130°F. (ADJ.)



4 P6 SINK/LAVATORY MIXING VALVE PIPING DIAGRAM

NO SCALE

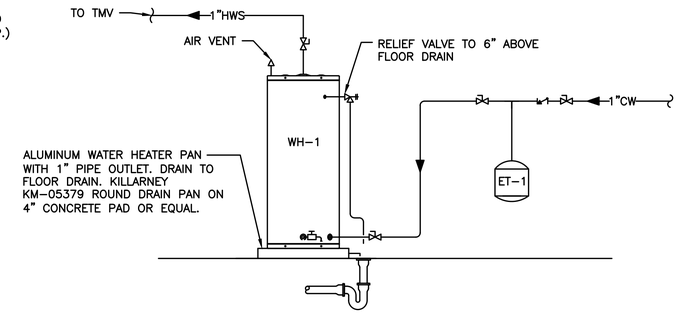
NOTES:
1. COLD WATER PIPING SHALL CONNECT TO SINK AND MIXING VALVE WITH USE OF COLD WATER BYPASS. POINT OF USE MIXING VALVES TO BE INSTALLED THROUGHOUT BUILDING AT ALL KITCHEN SINKS AND LAVATORIES.
2. CONTRACTOR SHALL INSTALL ASSE 1070 MIXING VALVE AT ALL LAVATORIES AND SINKS. BASED ON CALEFFI 5212 SINK MIXER OR EQUAL.
3. SET MIXING VALVE TO 110-120°F. FIELD ADJUST DEPENDING ON SERVICE. COORDINATE WITH CONTRACTING OFFICER.



5 P6 WATER ENTRANCE AND MANIFOLD DETAIL

NO SCALE

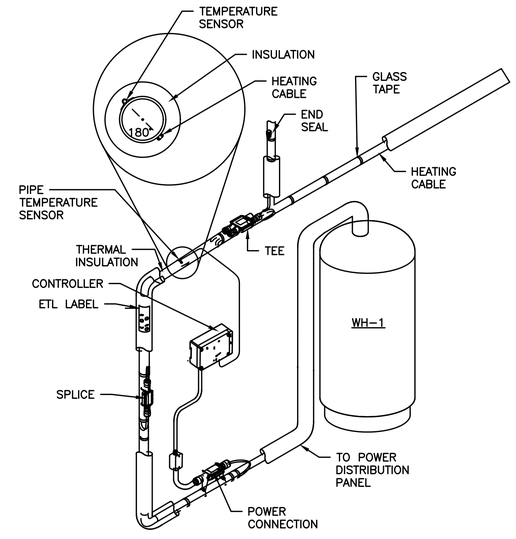
NOTES:
1. EASY ACCESS TO METERS AND BACKFLOWS IS REQUIRED AT ALL TIMES.
2. ASSEMBLIES MUST BE A MINIMUM OF 12" FROM ANY WALL OR OBSTRUCTION.
3. WATER METER EQUAL TO NEPTUNE MACH 10 ULTRASONIC METER. PROVIDE DATA DROP FOR FUTURE CONNECTIVITY.
4. SECURE MANIFOLD AND METERS TO STRUCTURAL MEMBERS AND FLOOR AS REQUIRED.



6 P6 DOMESTIC WATER HEATER PIPING SCHEMATIC

NO SCALE

NOTE:
SET TANK TEMPERATURE TO 140°F. (ADJ.)



7 P6 DOMESTIC HOT WATER ELECTRIC HEAT TRACE DETAILS

NO SCALE

NOTES:
1. PIPE INSULATION REMOVED FOR CLARITY. ALL PIPES MUST BE FULLY INSULATED.
2. HEAT TRACE MUST BE INSTALLED ALONG MAIN PIPING AND BRANCHES TO WITHIN 2'± OF EACH INDIVIDUAL PLUMBING FIXTURE PER ENERGY CODE.
3. SET HEAT TRACE TEMPERATURE TO 120°F. (ADJ.)

STATE OF MAINE · BRAGG · 2/27/25 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P6	TITLE OF SHEET 6-PLEX FLAT PLUMBING DETAILS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 67 OF 131

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

SPRINKLER GENERAL NOTES:

1. SPRINKLER SYSTEM TO BE INSTALLED PER NFPA 13D REQUIREMENTS: STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2019 EDITION.

2. THE FIRE PROTECTION SYSTEM INTENT IS TO MEET THE MINIMUM REQUIREMENTS OF NFPA 13D, PLUS ADDITIONAL COVERAGE AREAS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS TO COMPLETE THE INTENT OF A FULLY COMPLIANT SYSTEM, INCLUDING SPECIALTY WORK FOR CONCEALED COMPONENTS. WORK INCLUDES ALL ELECTRICAL AND CONNECTIONS TO EXISTING SYSTEMS.

3. A COPY OF THE FINAL SPRINKLER SYSTEMS DESIGN SHALL BE SUBMITTED, INCLUDING HYDRAULIC CALCULATIONS; PIPING, HEADS, HANGERS; FIRE ALARM, DETECTION, NOTIFICATION DEVICES, ETC. FOR APPROVAL PRIOR TO BEGINNING WORK.

4. CONTRACTOR SHALL COORDINATE THE SPRINKLER ELEVATIONS TO CORRESPOND WITH THE CEILING HEIGHT. COORDINATE WITH THE GENERAL CONTRACTOR AT NO ADDITIONAL COST.

5. THE DESIGN SHOWN ON THESE CONTRACT DOCUMENTS IS TO PROVIDE GUIDANCE FOR BIDDING AND TO OBTAIN APPROVAL OF THE AUTHORITY HAVING JURISDICTION. SUBMIT COMPLETE FIRE SPRINKLER SHOP DRAWINGS AS REQUIRED TO THE GOVERNMENT'S DESIGNATED REVIEWER. BASE DESIGN UPON THESE DRAWINGS AND AS REQUIRED BY THE SPECIFICATIONS. SHOP DRAWINGS SHALL INCLUDE ELEVATIONS, HANGER LOCATIONS, PIPE LENGTHS, DIMENSIONS, FABRICATIONS METHODS, MATERIAL DATA, AND ADDITIONAL INFORMATION NECESSARY TO CLARIFY THE INTENT OF INSTALLATION. CONTRACTOR SHALL PROVIDE PIPE SIZE, SPRINKLER SPACING, AND SYSTEM CONFIGURATION AS SHOWN. ALTERNATES MUST BE APPROVED IN WRITING BY FIRE PROTECTION CONTRACTING OFFICER OF RECORD DOCUMENTS PRIOR TO BID.

6. COORDINATE LOCATIONS OF FIRE PROTECTION COMPONENTS, INCLUDING PIPING, ALARMS, DRAINS, TEST POINTS, ETC, WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS, OBSTRUCTION TO SPRINKLER DISCHARGE MUST BE CONSIDERED DURING SHOP DRAWING PRODUCTION AND INSTALLATION: ADDITIONAL SPRINKLERS MAY BE REQUIRED AT NO ADDITIONAL COST. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7. PENETRATIONS OF "RATED ASSEMBLIES" SHALL BE FIRE STOPPED WITH AN APPROVED MATERIAL PER METHODS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

8. CONTRACTOR MUST VISIT THE SITE AND REVIEW ALL CONSTRUCTION DOCUMENTS PRIOR TO BID.

9. CONTRACTOR MUST VERIFY ALL DROP DOWN LOCATIONS PRIOR TO INSTALLATION.

10. ALL PIPING MUST BE COORDINATED AROUND FRAMING MEMBERS AND PROPERLY INSTALLED INSIDE THE JOIST.

11. CONTRACTOR SHALL ROUTE PIPING AROUND ALL OBSTRUCTIONS AND PROVIDE SPRINKLER PROTECTION UNDER OBSTRUCTIONS, AS DETAILED IN NFPA #13 STANDARDS AS PART OF THE FIELD COORDINATION AT NO ADDITIONAL COST.

12. ALL SPRINKLER DEFLECTOR DISTANCE REQUIREMENTS SHALL BE IN ACCORDANCE TO THE STANDARDS OUTLINED IN NFPA #13.

13. ALL PIPING PASSING THROUGH CMU WALLS SHALL BE INSTALLED WITH ONE-INCH CLEARANCE ON ALL SIDES. (CORE DIAMETER-EQUAL TO PIPE +2"). ALL CORES SHALL BE COORDINATED WITH STRUCTURAL REINFORCING. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CORING WITH PROPER CLEARANCE AT ALL FOUNDATION WALLS. (CONCRETE, CMU, GRANITE, ETC.) GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A TWO-INCH CLEARANCE AROUND ALL PIPING PASSING THROUGH CONCRETE SLABS. THE SPRINKLER CONTRACTOR SHALL FILL ALL CLEARANCES WITH APPROVED MASTIC.

14. PENETRATIONS OF ASSEMBLIES SHALL BE FIRE STOPPED WITH APPROVED MATERIALS.

15. PROVIDE FLUSHING CONNECTIONS IN ACCORDANCE WITH THE STANDARDS OUTLINED IN NFPA #13.

16. PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS.

17. EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, ETC.

18. COORDINATE SPRINKLER LOCATIONS WITH BUILDING CEILING PLAN.

19. INTERFACE SPRINKLER SYSTEM WITH FIRE PROTECTION SYSTEM. CONTRACTOR SHALL PROVIDE ALL REQUIRED DEVICES TO ENSURE FULLY OPERATIONAL AND COMPLIANT SYSTEM.

20. ALL MATERIALS SHALL BE UL LISTED AND FM APPROVED. SPRINKLER PIPE SHALL BE MANUFACTURED TO STANDARDS RECOGNIZED BY NFPA #13. THREADED PIPE SHALL HAVE A CORROSION RESISTANCE RATING OF 1.0 OR GREATER. CRIMP-TYPE COUPLINGS SHALL NOT BE USED. THREADABLE THINWALL PIPE WITH CORROSION RESISTANCE RATING OF LESS THAN 1.0 SHALL BE USED ONLY WITH ROLL GROOVE FITTING.

21. SPRINKLER SYSTEM SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA 13D, AFTER COMPLETION OF WORK.

22. DO NOT HANG OR SUPPORT ANY LOADS OR MAKE ANY ATTACHMENTS TO THE ROOF DECK OR JOIST BRIDGING.

23. SAMMY SCREWS ARE NOT PERMITTED.

24. CEILING FLANGES ARE NOT PERMITTED.

25. PROVIDE RETAINING STRAPS ON HANGERS WHERE REQUIRED.

26. INSTALL FLEXIBLE FROST FREE DRY (WHERE SPECIFIED) CONCEALED FLAT PLATE, CONCEALED PENDANT, OR RECESSED SIDEWALL COMMERCIAL QUICK RESPONSE SPRINKLER SYSTEM EQUAL TO VICFLEX. LIMIT TO (4) 90° BENDS. PROVIDE NECESSARY CORING, DEMOLITION, AND REPAIR OF FINISHES TO CONCEAL PIPING, ETC. AND INSTALL THE HEAD IN THE PROPER LOCATION FOR PROVIDING THE DESIRED COVERAGE. COORDINATE WORK WITH ALL TRADES.

27. FIRE SPRINKLER SYSTEM SHALL BE DESIGNED BY A FIRE PROTECTION ENGINEER OR A NICET LEVEL 3 TECHNICIAN. SPRINKLER SYSTEM, PIPING, AND HEADS ARE SHOWN AS A GENERAL SCHEMATIC GUIDE ONLY. MODIFY PIPING AND HEADS AS REQUIRED TO MEET NFPA REQUIREMENTS.

28. CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS AS SHOWN ON THE DRAWINGS AND AS REQUIRED PER NFPA 1:13.6.

SPRINKLER SUBMITTAL REQUIREMENTS:

THE FOLLOWING DETAILS MUST BE INCLUDED ON BOTH SHOP DRAWING SUBMITTAL, AS WELL AS AS-BUILT DRAWING SUBMITTALS:

1. NAME OF CONTRACTING OFFICER AND OCCUPANT(S).
2. LOCATION, INCLUDING STREET ADDRESS.
3. POINT OF COMPASS.
4. LOCATION OF PARTITIONS.
5. OCCUPANCY CLASS OF EACH AREA OR ROOM.
6. SIZE OF CITY MAIN IN STREET AND WHETHER DEAD END OR CIRCULATING.
7. MAKE, TYPE, MODEL, AND NOMINAL K-FACTOR OF SPRINKLERS INCLUDING SPRINKLER IDENTIFICATION NUMBER.
8. TEMPERATURE RATING AND LOCATION OF HIGH TEMPERATURE SPRINKLERS.
9. NUMBER OF SPRINKLERS IN EACH AREA.
10. APPROXIMATE CAPACITY IN GALLONS OF EACH DRY PIPE SYSTEM.
11. PIPE TYPE AND SCHEDULE OF WALL THICKNESS.
12. NOMINAL PIPE SIZE AND CUTTING LENGTHS OF PIPE (OR CENTERLINE DIMENSIONS).
13. LOCATION AND SIZE OF RISER NIPPLES.
14. TYPE AND LOCATIONS OF HANGERS, BRACES, AND METHODS OF SECURING SPRINKLERS WHEN APPLICABLE.
15. ALL CONTROL VALVES, CHECK VALVES, DRAIN PIPES, AND TEST CONNECTIONS.
16. MAKE, TYPE, MODEL, AND SIZE OF ALARM OR DRY PIPE VALVE.
17. KIND AND LOCATION OF ALARM.
18. SIZE AND LOCATION OF STANDPIPE RISERS, HOSE OUTLETS, HAND HOSE, MONITOR NOZZLES, AND RELATED EQUIPMENT.
19. FOR HYDRAULICALLY DESIGNED SYSTEMS, PROVIDE INFORMATION ON THE HYDRAULIC DATA NAMEPLATE.
20. HYDRAULIC REFERENCE POINT SHOWN ON THE PLAN THAT CORRESPOND WITH COMPARABLE REFERENCE POINTS ON THE. HYDRAULIC CALCULATION SHEETS
21. THE MINIMUM RATE OF WATER APPLICATION (DENSITY OR FLOW OR DISCHARGE PRESSURE), THE DESIGN AREA OF WATER APPLICATION, IN-RACK SPRINKLER DEMAND, AND THE WATER REQUIRED FOR HOSE STREAMS BOTH INSIDE AND OUTSIDE.
22. THE TOTAL QUANTITY OF WATER AND THE PRESSURE REQUIRED NOTED AT A COMMON REFERENCE POINT FOR EACH. SYSTEM
23. CALCULATION OF LOADS FOR SIZING AND DETAILS OF SWAY BRACING PREVENTORS (MANUFACTURERS, SIZE, TYPE).
24. LOCATION OF HYDRANTS.
25. SIZE, LOCATION, AND PIPING ARRANGEMENT OF FIRE DEPARTMENT CONNECTIONS.
26. EDITION YEAR OF NFPA #13 THAT THE SPRINKLER SYSTEM IS DESIGNED TO.
27. INFORMATION ABOUT BACKFLOW.
28. QUALIFICATIONS OF DESIGNER AND INSTALLER.

SPRINKLER SYSTEM LEGEND

SPRINKLER HEADS

- UPRIGHT SPRINKLER
- PENDENT SPRINKLER
- SIDEWALL SPRINKLER (FROST FREE HEADS)

VALVES

- DRY VALVE
- INDICATING BUTTERFLY VALVE

WATER SERVICE

- DOUBLE CHECK BACKFLOW PREVENTER
- FIRE DEPARTMENT CONNECTION

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

STATE OF MAINE — RANDY BRAGG 12575 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP1	TITLE OF SHEET 6-PLEX FLAT FIRE PROTECTION LEGEND HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 68 OF 131

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

FIRE ALARM SYSTEM NARRATIVE:

PROJECT SCOPE: TO INCLUDE NEW DEVICES AS REQUIRED BY CURRENT CODES AND STANDARDS.

ALL WORK SHALL BE IN ACCORDANCE TO NFPA 70, NATIONAL ELECTRICAL CODE, INTEGRATED FIRE ALARM SYSTEM TO BE INSTALLED/MODIFIED PER NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE, 2019 EDITION.

A COMPLETE SUBMITTAL PACKAGE SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ANY WORK BEING PERFORMED. THE SUBMITTALS SHALL INCLUDE, IN ADDITION TO ANY REQUIRED BY THE SPECIFICATIONS, BUILDING PLANS SHOWING ALL DEVICE(S), LOCATION(S), NETWORK ADDRESS, LOOP OR NODE NUMBER, WIRING DIAGRAMS SHOWING TYPICAL WIRING OF EACH TYPE OF DEVICE, AND ROUTING WIRING. CALCULATIONS SHALL INCLUDE: BATTERY SIZING, LOOP VOLTAGE DROP, AND RESISTANCE.

COMPONENTS:
ALL NEW FIRE ALARM EQUIPMENT SHALL BE UL LISTED AND LABELED FOR THE INTENDED USE AND/OR FM APPROVED WHERE APPLICABLE.

TESTING:
THE FIRE ALARM SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA 72 AND RECORDED ON THE CONTRACTOR'S MATERIAL & TEST CERTIFICATE.

1. FIRE ALARM SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES:
   - MANUAL STATIONS
   - HEAT DETECTORS
   - SMOKE DETECTORS
   - AUTOMATIC SPRINKLER SYSTEM WATER FLOW
   - FIRE EXTINGUISHING SYSTEM OPERATION
   - FIRE STANDPIPE SYSTEM OPERATION

2. FIRE ALARM SIGNAL SHALL INITIATE THE FOLLOWING ACTIONS:
   - ALARM NOTIFICATION APPLIANCES SHALL OPERATE CONTINUOUSLY
   - IDENTIFY ALARM AT THE FACP AND ALL ANNUNCIATER PANELS
   - DE–ENERGISE ELECTROMAGNETIC DOOR HOLDERS
   - TRANSMIT ALARM SIGNAL TO THE REMOTE RECEIVING STATIONS
   - UNLOCK ELECTRIC DOOR LOCKS IN DESIGNATED EGRESS PATHS
   - RELEASE FIRE AND SMOKE DOORS HELP OPEN BY MAGNETIC DOOR HOLDERS
   - ACTIVATE VOICE COMMUNICATION SYSTEM
   - SWITCH HVAC EQUIPMENT CONTROL TO FIRE ALARM MODE
   - CLOSE SMOKE DAMPERS IN AIR DUCTS OF SYSTEM SERVING THE ZONE WHERE THE FIRE ALARM WAS INITIATED
   - RECORD EVENTS IN THE SYSTEM MEMORY

3. SUPERVISORY SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING ACTIONS:
   - OPERATION OF A FIRE–PROTECTION SYSTEM VALVE TAMPER

4. SYSTEM TROUBLE SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES OR ACTIONS:
   - OPEN CIRCUITS, SHORTS AND GROUNDS OR WIRING FOR INITIATING DEVICE, SIGNALING LINE, AND NOTIFICATION–APPLIANCE CIRCUITS
   - OPENING, TAMPERING, OR REMOVAL OF ALARM–INITIATING AND SUPERVISORY SIGNAL–INITIATING DEVICES
   - LOSS OF PRIMARY POWER AT THE FACP
   - GROUND OR A SINGLE BREAK IN FACP INTERNAL CIRCUITS
   - ABNORMAL AC VOLTAGE AT THE FACP
   - A BREAK IN STANDBY BATTERY CIRCUITRY
   - FAILURE OF BATTERY CHARGING
   - ABNORMAL POSITION OF ANY SWITCH AT THE FACP OR ANNUNCIATOR
   - FIRE–PUMP POWER FAILURE, INCLUDING A DEAD–PHASE OR PHASE–REVERSAL CONDITION
   - LOW–AIR–PRESSURE SWITCH OPERATION ON A DRY–PIPE OR PREACTION SPRINKLER SYSTEM
   - TROUBLE SIGNAL IF GENERATOR ALARM IS ACTIVATED
   - TROUBLE SIGNAL IF ANY PSNH ATS OVERRIDE SWITCH IS ENGAGED

5. SYSTEM TROUBLE AND SUPERVISORY SIGNAL ACTIONS:
   - RING TROUBLE BELL, ACTIVATE AMBER BEACON AND ANNUNCIATE THE FACP

FIRE ALARM DEVICES LEGEND

FACP	FIRE ALARM CONTROL PANEL
ANN	FIRE ALARM ANNUNCIATOR
H	HEAT DETECTOR, 135°F 200 = BOILER ROOM HEAT DETECTOR, 200°F RATE OF RISE TYPE
S	SMOKE DETECTOR D = DUCT SYSTEM SMOKE DETECTOR
C	CARBON MONOXIDE DETECTOR
S/C	COMBO SMOKE/CARBON MONOXIDE DETECTOR
P	FIRE ALARM SYSTEM MANUAL PULL STATION, 48" A.F.F.
F 15	FIRE ALARM SYSTEM HORN/STROBE, 80" A.F.F UNLESS OTHERWISE INDICATED. CANDELA RATING AS REQUIRED (15, 30, 75, 110)
F 30	FIRE ALARM SYSTEM STROBE ONLY, 80" A.F.F UNLESS OTHERWISE INDICATED. CANDELA RATING AS REQUIRED (15, 30, 75, 110)
F C	FIRE ALARM SYSTEM HORN/STROBE – CEILING MOUNTED
STS	SPRINKLER SYSTEM TAMPER SWITCH, COORDINATE WITH SPIRINKLER PLAN
SFS	SPRINKLER SYSTEM FLOW SWITCH, COORDINATE WITH SPIRINKLER PLAN
SPS	SPRINKLER SYSTEM PRESSURE SWITCH, COORDINATE WITH SPIRINKLER PLAN
GD	GAS DETECTOR (MACURCO GD–2A OR EQUAL)
KB	KNOXBOX; COORDINATE WITH CONTRACTING OFFICER AND FIRE DEPARTMENT
VRF/HP	MACURCO – RD–VRF SERIES OR EQUAL
EXIT	EXIT SIGN, CEILING/WALL MOUNTED, COORDINATE WITH LIGHTING PLAN
	EMERGENCY LIGHT, WALL MOUNTED, COORDINATE WITH LIGHTING PLAN
	EXTERIOR EMERGENCY WALL MOUNTED LIGHT WITH 90 MIN. BACKUP, COORDINATE WITH LIGHTING PLAN
DH	DOOR HOLDERS
EXIT	EXIT SIGN, UNIVERSAL MOUNT, COORDINATE WITH LIGHTING PLAN
FE	FIRE EXTINGUISHER; COORDINATE WITH BUILDING PLANS

FIRE ALARM NOTES:

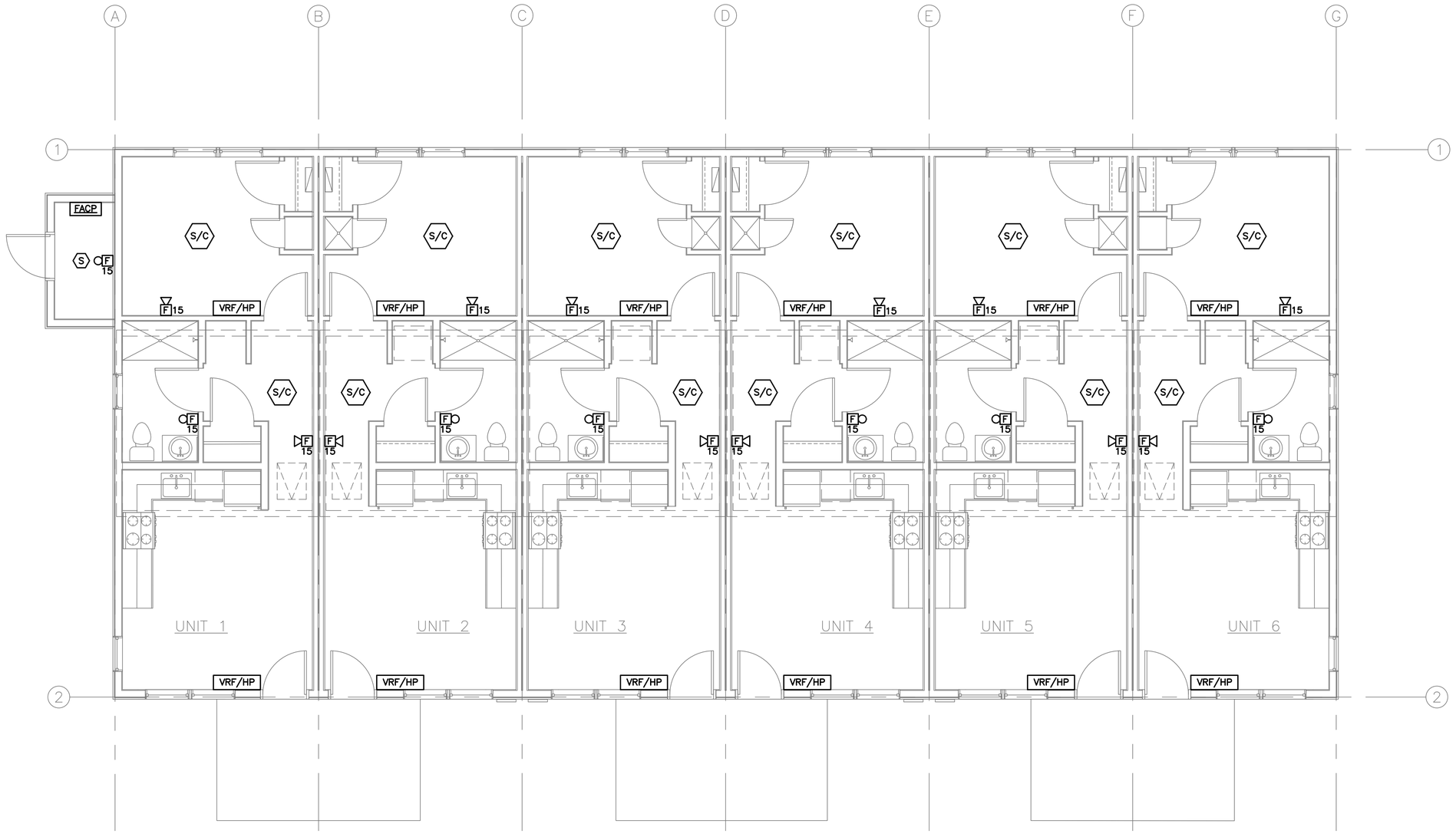
1. ALL WORK SHALL BE IN COMPLIANCE WITH NFPA 70 – THE NATIONAL ELECTRICAL CODE, INTEGRATED FIRE ALARM SYSTEM TO BE INSTALLED/MODIFIED PER NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE, 2019 EDITION. IT IS THE INTENT OF THESE PLANS TO SHOW FULLY OPERABLE FIRE ALARM SYSTEMS ALTHOUGH NOT ALL DETAILS MAY BE SHOWN. PROVIDE ALL EQUIPMENT, PANELS, DEVICES, WIRING, CONTROL MODULES, INTERFACE MODULES, RELAY MODULES, ENCLOSURES, COMMUNICATORS, POWER SUPPLIES, MUNICIPAL MASTER BOX CONNECTIONS, HVAC SYSTEM CONNECTIONS, SPRINKLER SYSTEM CONNECTIONS, ELEVATOR CONNECTIONS, KITCHEN HOOD SUPPRESSION SYSTEM CONNECTIONS, ETC. AS REQUIRED.
2. THE CONTRACTOR SHALL CONFIRM ACTUAL CONDITIONS PRIOR TO THE START OF WORK.
3. WIRING SHALL BE RUN CONCEALED WHEREVER POSSIBLE. WHEN ABSOLUTELY NECESSARY, EXPOSED WIRING IN FINISHED SPACES SHALL BE IN ONE PIECE RECTANGULAR STEEL RACEWAY EQUAL TO WIRE MOLD (TM) #V500/V700 SERIES SYSTEM WITH ALL REQUIRED ACCESSORIES, LOW PROFILE, SCRATCH RESISTANT IVORY OR WHITE PAINTABLE FINISH, REMOVABLE COVER, UL5 AND ADA COMPLIANT. METAL CONDUIT (EMT) MAY BE USED AS APPROVED BY THE CONTRACTING OFFICER/ENGINEER. PAINT TO MATCH EXISTING FINISH IN FINISHED AREAS.
4. SIZE ALL STROBE DEVICE CANDELA ACCORDING TO SPACE REQUIREMENTS.
5. ENSURE FIRE ALARM PANEL HAS COMMUNICATION SYSTEM INSTALLED PER NFPA 72 REQUIREMENTS.
6. FIRE ALARM SYSTEM DEVICE LOCATIONS SHOWN ARE APPROXIMATE. ADJUST LOCATIONS OF DEVICES AS REQUIRED TO ACCOMMODATE ACTUAL CONDITIONS.
7. INSTALL HVAC SYSTEM DUCT SMOKE DETECTORS AT SUPPLY AND RETURN DUCTWORK IN ERV–1. TIE–IN TO FIRE ALARM SYSTEM AS REQUIRED.
8. CONNECT SPRINKLER SYSTEMS FLOW AND TAMPER SWITCHES INTO FIRE ALARM SYSTEM AS REQUIRED.
9. THE CONTRACTOR SHALL VERIFY ALL ROOM NAMES AND NUMBERS TO REFLECT ACTUAL CONDITIONS.
10. FIRE DEVICES SHOWN MAY NOT REPRESENT ALL DEVICES NEEDED PER NFPA #72. FIRE ALARM SYSTEM SHALL BE DESIGNED AND INSTALLED PER NFPA #72 STANDARDS AND BEST PRACTICES. CONTRACTOR TO PROVIDE COMPLETE OPERATIONAL NFPA #72 FIRE ALARM SYSTEM FOR FACILITY. CONTRACTOR SHALL BE REQUIRED TO ENSURE ALL DEVICES REQUIRED ARE INSTALLED PER PLANS, AND NFPA 72 REQUIREMENTS.
11. CONTRACTOR SHALL PROVIDE DOOR STOP HOLDERS WHERE REQUIRED.
12. CONTRACTOR TO INSTALL ALL WIRING, CONDUITS, ETC. FROM ALL DEVICE LOCATIONS, DETECTORS, HORN/STROBES, ANNUNCIATORS, ETC. TO ELECTRICAL ROOM AND/OR PANELS. FIRE SYSTEM CONTRACTOR NOT RESPONSIBLE FOR PULLING WIRES, AND INSTALLING CONDUIT.
13. RUBBER INSULATORS REQUIRED AT ANY AND ALL ELECTRICAL/MECHANICAL/PLUMBING UNITS WHICH ATTACH TO ANY STRUCTURAL MEMBERS.
14. ENSURE ALL CONTROL PANELS AND ENCLOSURES ARE GROUNDED APPROPRIATELY ACCORDING TO NEC.
15. FIRE SPRINKLERS (SECTION 12.3.5)
    - MUST BE SUPERVISED (ALARMED TO A CONSTANTLY ATTENDED LOCATION) (TAMPER SWITCHES ON CONTROL VALVES)
    - MUST BE TIED INTO FIRE ALARM CONTROL PANEL
    - USE QUICK RESPONSE FIRE SPRINKLERS
16. ALARMS
    - MUST HAVE SECONDARY POWER, GENERATOR WILL SUFFICE
    - MUST HAVE (1) SMOKE DETECTOR BY FIRE ALARM CONTROL PANEL (FACP) (SECTION 9.6.1.8)
    - COORDINATE LOCATION OF FACP WITH LOCAL FIRE DEPARTMENT
17. ALL DEVICES IN SLEEPING AREAS SHALL BE LOW FREQUENCY TYPE DEVICES.

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

STATE OF MAINE — 6/30/27 — RANDY BAGGS 2021718 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP2	TITLE OF SHEET 6–PLEX FLAT FIRE PROTECTION ALARM LEGEND HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 69 OF 131

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–6PLEX_V8.dwg jonah



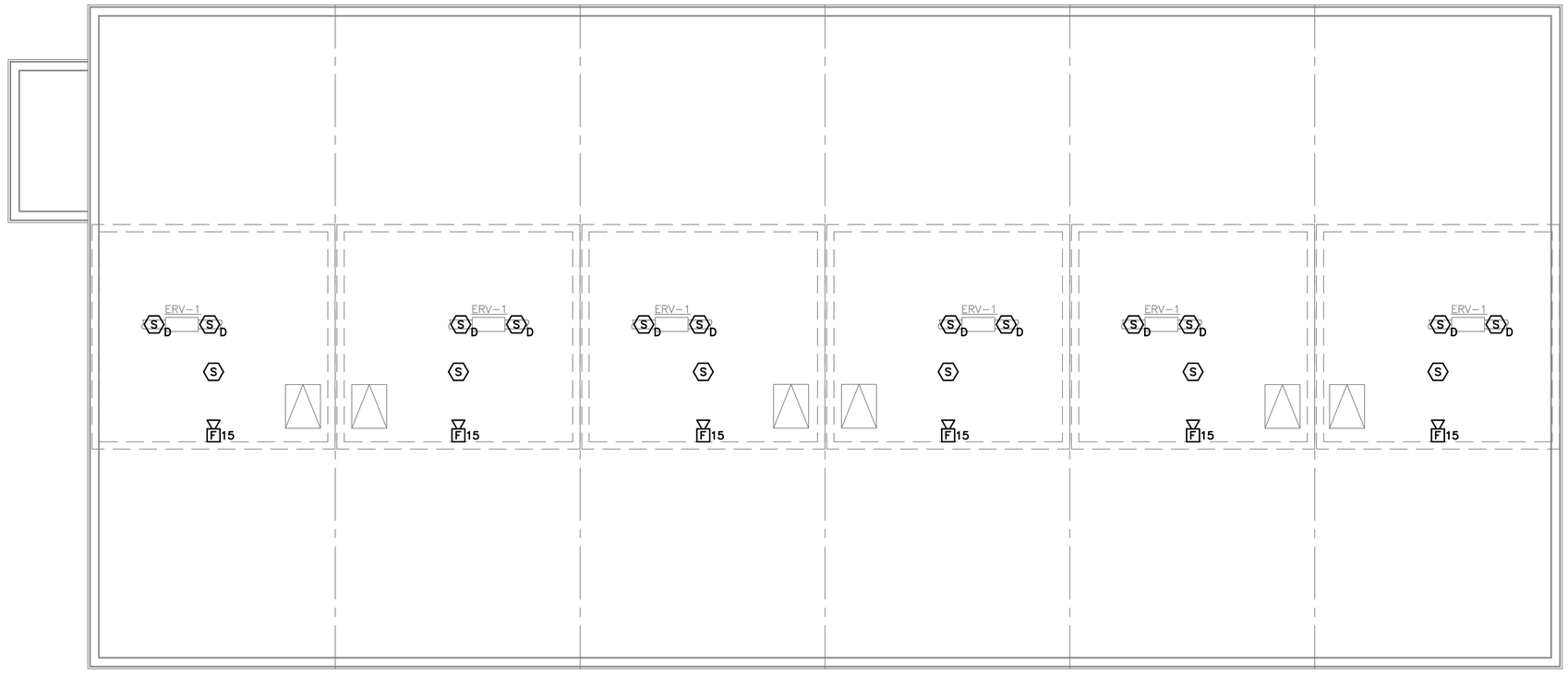
1 FP3 FIRE PROTECTION PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE · HANDY BRAGG 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP3	TITLE OF SHEET 6–PLEX FLAT FIRE PROTECTION PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 70 OF 131

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah



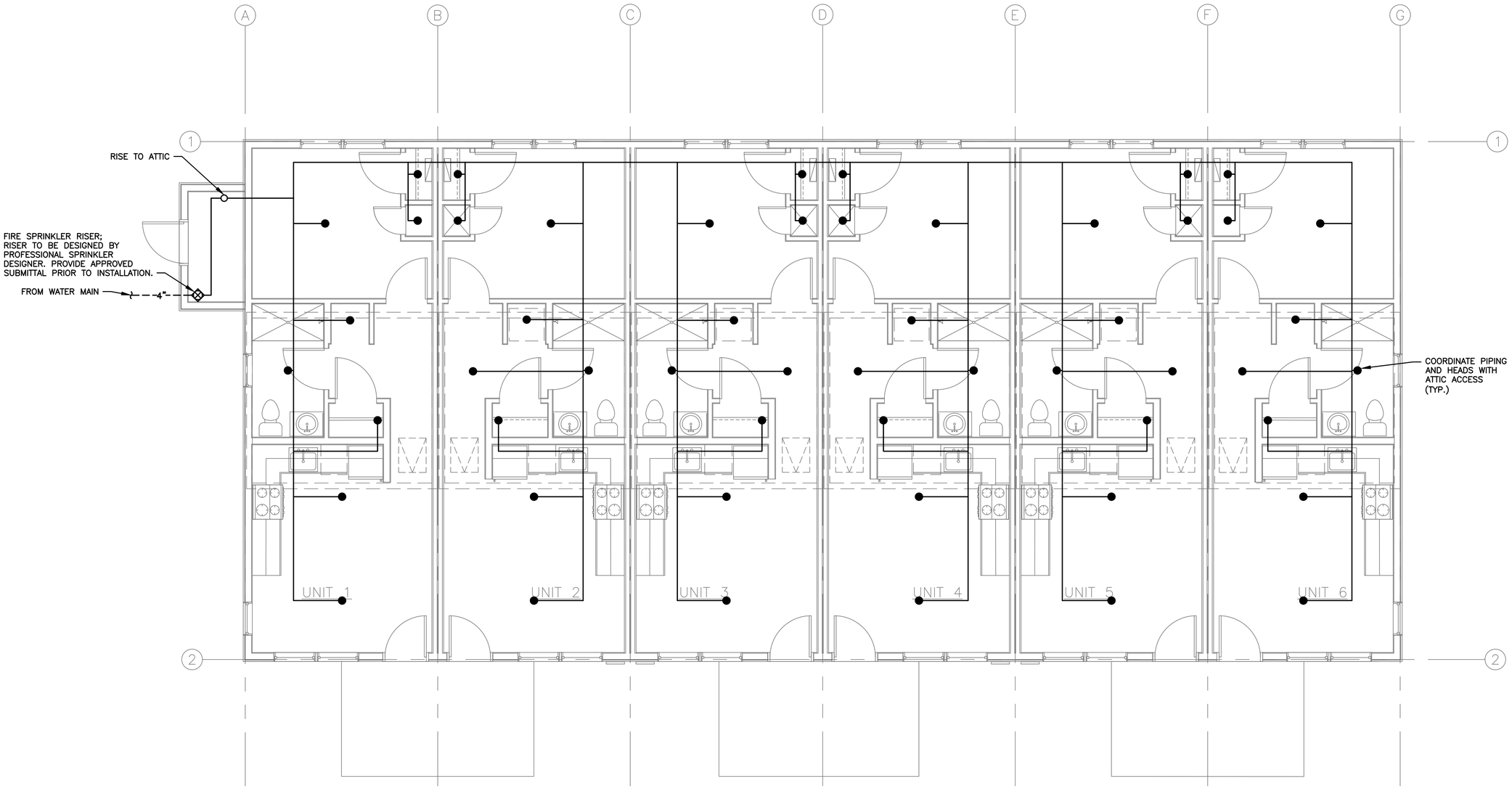
1 FP4 FIRE PROTECTION ATTIC PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE
RANDY BRAGG
LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP4	TITLE OF SHEET 6-PLEX FLAT FIRE PROTECTION ATTIC PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 71 OF 131

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V6.dwg jonah



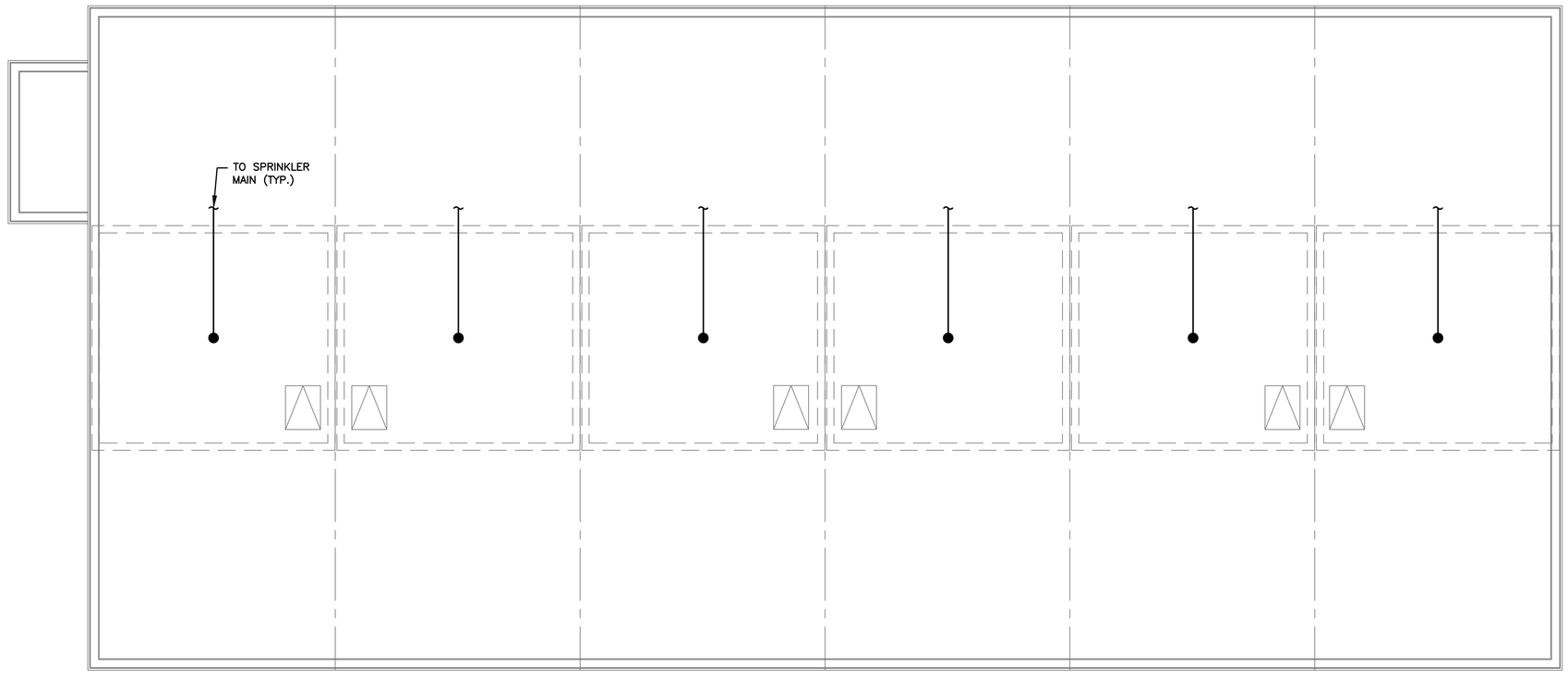
1 FP5 SPRINKLER PLAN

4 0 4 8
SCALE OF FEET

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

STATE OF MAINE
HANDY BRAGG
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP5	TITLE OF SHEET 6-PLEX FLAT SPRINKLER PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 72 OF 131



1 FP6 SPRINKLER ATTIC PLAN

4 0 4 8
SCALE OF FEET

STATE OF MAINE
BRADY
BRAGG
2/27/25
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP6	TITLE OF SHEET 6-PLEX FLAT SPRINKLER ATTIC PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 73 OF 131	

Feb 26, 2025 - 9:37am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-6PLEX_V8.dwg jonah

HARDEN FARM EMPLOYEE HOUSING PHASE 1C

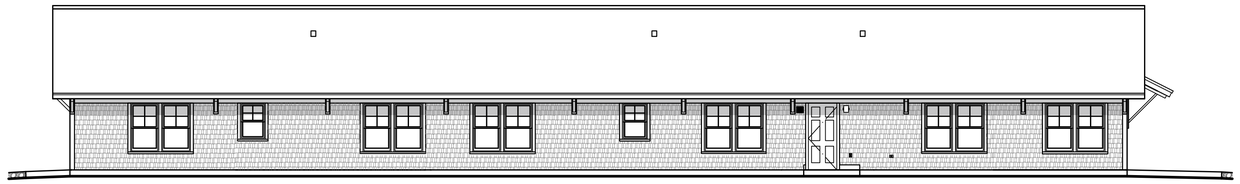
8 BEDROOMS
4 BATHROOMS

UNIT MIX & AREA CALCULATIONS:

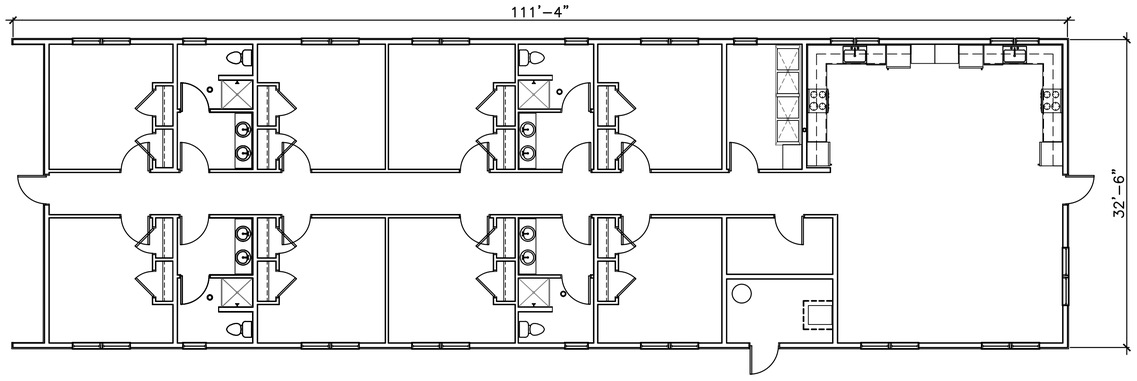
LEVEL	GROSS BUILDING SF	COMMON AREAS SF	UNIT TYPE	UNIT AREA (GROSS)	UNIT AREA (NET)	UNIT COUNT
LEVEL 01	3515 SF (GROSS UNIT +COMMON AREAS)	530 SF	8BEDS & 4BATHS	2024 SF	1,728 SF	8
TOTAL:	3515 SF					

NOTES:

1. CALCULATIONS FOR THE GROSS AREAS ARE BASED ON THE OUTSIDE FACE OF STUDS AT EXTERIOR WALLS, AND TO THE GRID LINE ON DEMISING WALLS. THE NET AREAS ARE BASED ON FINISH FACE TO FINISH FACE OF WALLS.
2. COMMON AREAS INCLUDE STORAGES, CORRIDORS AND MECHANICAL ROOMS.



8 BDRM SIDE ELEVATION



8 BDRM FLOOR PLAN

SHEET LIST

SHEET	SUB SHEET	TITLE OF SHEET
GENERAL		
74	G0	COVER SHEET
75	G1	ABBREVIATIONS SYMBOLS AND NOTES
76	G2	CONSTRUCTION ASSEMBLIES
CIVIL		SEE SITE PACKAGE
ARCHITECTURAL		
77	A1	CODE SUMMARY
78	A2	SCHEDULES
79	A3	FLOOR PLAN – WEST
80	A4	FLOOR PLAN – EAST
81	A5	ROOF PLAN – WEST
82	A6	ROOF PLAN – EAST
83	A7	BUILDING ELEVATIONS – WEST
84	A8	BUILDING ELEVATIONS – EAST
85	A9	BUILDING SECTIONS
86	A10	WALL SECTIONS
87	A11	ENLARGED PLANS & INTERIOR ELEVATIONS
88	A12	REFLECTED CEILING PLAN – WEST
89	A13	REFLECTED CEILING PLAN – EAST
90	A14	EXTERIOR DETAILS
91	A15	EXTERIOR DETAILS
92	A16	ROOF DETAILS
93	A17	INTERIOR DETAILS

SHEET	SUB SHEET	TITLE OF SHEET
STRUCTURAL		
94	S0	STRUCTURAL NOTES
95	S1	LOAD MAP & NOTES
96	S2A	FOUNDATION PLAN WEST
97	S2B	FOUNDATION PLAN EAST
98	S3A	ROOF FRAMING PLAN WEST
99	S3B	ROOF FRAMING PLAN EAST
100	S4	FOUNDATION DETAILS
101	S5	FRAMING DETAILS
MEP		
102	M1	MECHANICAL LEGEND
103	M2	MECHANICAL DUCTWORK PLAN WEST
104	M3	MECHANICAL DUCTWORK PLAN EAST
105	M4	MECHANICAL PIPING PLAN WEST
106	M5	MECHANICAL PIPING PLAN EAST
107	M6	MECHANICAL DETAILS
108	M7	MECHANICAL DETAILS
109	M8	MECHANICAL SCHEDULES
110	M9	MECHANICAL SCHEDULES
111	E1	ELECTRICAL LEGEND
112	E2	ELECTRICAL POWER AND DATA PLAN WEST
113	E3	ELECTRICAL POWER AND DATA PLAN EAST
114	E4	ELECTRICAL DIAGRAM AND LOAD CALCULATIONS
115	E5	ELECTRICAL SCHEDULES
116	E6	ELECTRICAL LIGHTING PLAN WEST
117	E7	ELECTRICAL LIGHTING PLAN EAST
118	P1	PLUMBING LEGEND
119	P2	PLUMBING LEGEND
120	P3	SANITARY AND VENTING PLAN WEST
121	P4	SANITARY AND VENTING PLAN EAST
122	P5	DOMESTIC PLUMBING PLAN WEST
123	P6	DOMESTIC PLUMBING PLAN EAST
124	P7	PLUMBING SCHEDULES
125	P8	PLUMBING DETAILS
126	FP1	FIRE PROTECTION LEGEND
127	FP2	FIRE PROTECTION LEGEND
128	FP3	FIRE PROTECTION PLAN WEST
129	FP4	FIRE PROTECTION PLAN EAST
130	FP5	SPRINKLER PLAN WEST
131	FP6	SPRINKLER PLAN EAST

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM
PRIME:
HEDEFINE ENGINEERING & DESIGN, INC.
ELLSWORTH, ME
SUBCONTRACTOR:
DGC
ELLSWORTH, ME

DESIGNED: MW
CADD AND
TECH. REVIEW: MW
DATE: 2/28/2025

SUB SHEET NO. G0

TITLE OF SHEET
COVER SHEET

8-BEDROOM DORM
HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO. 123 60025A
PMIS/PKG NO. 309000
SHEET 74 OF 131

ABBREVIATIONS

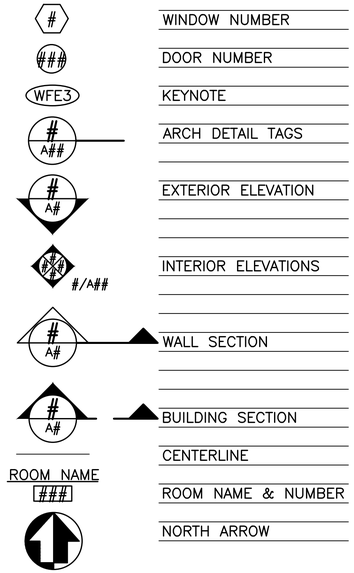
&	AND
@	AT
#	NUMBER
±	PLUS OR MINUS
ABA	ARCHITECTURAL BARRIERS ACT
ADDL	ADDITIONAL
AFF	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
ALUM	ALUMINUM
BD	BOARD
BED	BEDROOM
BLDG	BUILDING
BLKG	BLOCKING
B.O.	BOTTOM OF
℄	CENTERLINE
CB	CEMENTITIOUS BOARD
CJ	CONTROL JOINT
CLG	CEILING
CL	CLOSET
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT(S)
C.O.	CONTRACTING OFFICER
COL(S)	COLUMN(S)
CONC	CONCRETE
CONT	CONTINUOUS
CONSTR	CONSTRUCTION
CORR	CORRIDOR
CPT	CARPET
CT	CERAMIC TILE
D	DRYER
DIA	DIAMETER
DIM	DIMENSION
DR	DOOR
DS	DOWNSPOUT
DW	DISHWASHER
EA	EACH
EL	ELEVATION
ELEC	ELECTRIC(AL)
EQ	EQUAL
EQUIP	EQUIPMENT
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FG	FIBERGLASS
FIG	FIGURE
FIN	FINISH(ED)
FLR	FLOOR
FN	FURNACE
F.O.	FACE OF
FOS	FACE OF STUD, SLAB
FRP	FIBER REINFORCED PLASTIC
GA	GAUGE, GYPSUM ASSOCIATION
GALV	GALVANIZE(D)
GB	GRAB BAR
GYP	GYPSUM
GWB	GYPSUM WALL BOARD
HM	HOLLOW METAL
HR	HOUR
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
INFO	INFORMATION
INT	INTERIOR
IRC	INTERNATIONAL RESIDENTIAL CODE

LIN	LINEN
MANUF	MANUFACTURER
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL AND PLUMBING ENGINEERING
MDF	MEDIUM DENSITY FIBERBOARD
MIL	MILLIMETER
MIN	MINIMUM
MIRR	MIRROR(ED)
MTL	METAL
(N)	NEW
NA	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NUMBER
NPS	NATIONAL PARK SERVICE
O.C.	ON CENTER
OFOI	OWNER FURNISH/OWNER INSTALL
OH	OVERHEAD
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
OTS	OPEN TO STRUCTURE
PERF	PERFORATE(D)
PL	PLATE, PROPERTY LINE
PLAM	PLASTIC LAMINATE
PT	PRESSURE TREATED
PTD	PAINTED
PV	PHOTOVOLTAIC
PVC	POLYVINYL CHLORIDE
RCP	REFLECTED CEILING PLAN
REF	REFRIGERATOR, REFERENCE
REQD	REQUIRED
REV	REVERSE(D)
RO	ROUGH OPENING
RS	RESILIENT SHEET GOODS
RWB	RESILIENT WALL BASE
SAMF	SELF-ADHERED MEMBRANE FLASHING
SC	SOLID CORE
SF	SQUARE FEET
SIM	SIMILAR
SPEC	SPECIFICATION(S)
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STOR	STORAGE
STRUCT	STRUCTURAL
T	TEMPERED, TREAD
TBD	TO BE DETERMINED
TEL	TELEPHONE
THK	THICK
TJI	TRUSS JOIST I-JOIST
T.O.	TOP OF
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
VRFY	VERIFY
W	WASHER
W/	WITH
WASO	WASHINGTON, D.C. AREA SERVICE OFFICE
WD	WOOD
WH	WATER HEATER
WIN	WINDOW
WR	WATER RESISTANT
WRB	WEATHER RESISTANT BARRIER
W/D	WASHER AND DRYER

KEYNOTES

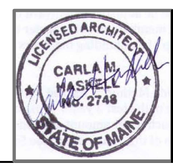
A10 SUBSTRUCTURE	
KEYNOTE	**A1010 STANDARD FOUNDATIONS (SF)**
SF1	SPREAD, STRIP FOOTINGS
SF2	PERIMETER DRAIN SYSTEMS
KEYNOTE	**A1030 SUBSTRUCTURE (S)**
S1	SLAB ON GRADE, 4" CONCRETE WITH WELDED WIRE MESH
KEYNOTE	**B1030 ROOF CONSTRUCTION (RF)**
RF1	SLOPED ROOF, PRE-MANUFACTURED TRUSSES
RF2	SPRAY FOAM INSULATION R60 WITH INTUMESCENT PAINT
B20 EXTERIOR CLOSURE	
KEYNOTE	**B2010 EXTERIOR WALL CONSTRUCTION (WE)**
WE1A	WOOD FRAME CONSTRUCTION ONSITE, 2x
KEYNOTE	**B2015 EXTERIOR WALLS SUBSTRATE & INSULATION (WS)**
WS1	1/2" OSB SHEATHING
WS2	2" R9 COMPOSITE INSULATING WALL SHEATHING
WS3	WEATHER-RESISTANT BARRIER
WS4	WALL INSULATION, R21
KEYNOTE	**B2015 EXTERIOR WALLS FINISH (WFE)**
WFE4	CEDAR SHINGLES WITH BREATHABLE/DRAINABLE UNDERLAYMENT
KEYNOTE	**B2017 EXTERIOR SOFFITS & FASCIA (EX)**
EX1	COMPOSITE TRIM & FASCIA
KEYNOTE	**B2020 EXTERIOR WALL PROJECTIONS (WP)**
WP1	CONCRETE PORCH
KEYNOTE	**B2030 EXTERIOR WINDOWS (WD)**
WD1	FIBERGLASS, INSULATED SINGLE HUNG, DOUBLE GLAZED
KEYNOTE	**B2040 EXTERIOR DOORS (DE)**
DE1	PRE-HUNG EXTERIOR DOOR, INSULATED FIBERGLASS, PREFINISHED
B30 ROOFING	
KEYNOTE	**B3010 ROOF COVERINGS (RC)**
RC1	ARCHITECTURAL ASPHALT SYSTEM, 30 YEAR WARRANTY
RC3	ICE AND WATER SHIELD
C10 INTERIOR CONSTRUCTION	
KEYNOTE	**C1010 INTERIOR PARTITIONS (WI)**
WI1	2X WOOD STUD FRAMED PARTITION
WI2	5/8" GYPSUM BOARD
WI3	VAPOR BARRIER
WI7	WALL INSULATION - R13 BATT
WI8	MOISTURE RESISTANT 1/2" GYPSUM BOARD
WI9	5/8" TYPE X GYPSUM BOARD
KEYNOTE	**C1020 INTERIOR DOORS (DI)**
DI1	PRE-HUNG, 6-PANEL, SOLID CORE
KEYNOTE	**C1021 INTERIOR HARDWARE (H)**
HI1	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 2 NOTE: MUST BE COMPATIBLE WITH PARK STANDARD
HI2	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 1
HI3	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 3
HI4	INTERIOR HARDWARE PER ANSI/BHMA, GRADE 2
HI5	EXTERIOR HARDWARE PER ANSI/BHMA, GRADE 1
KEYNOTE	**C1030 FURNISHINGS (FN)**
FN1	COUNTERTOPS AND BACKSPLASH, LAMINATED, BULLNOSE EDGE
FN3	CABINETS, LIGHT OAK RESIDENTIAL W/ STILE & RAIL PANEL DOORS
KEYNOTE	**C1040 FITTINGS (FT)**
FT1	CLOSET SHELVING, PAINTED WOOD
FT4	WINDOW SILLS, PAINTED WOOD
FT6	TRIM, DOOR CASING, PAINTED WOOD
KEYNOTE	**C1050 SPECIALTIES (SP)**
SP1	IDENTIFYING DEVICES
SP2	STORAGE SHELVING, PAINTED PARTICLE BOARD
SP3	MIRRORS, WALL ADHERED, PLATE GLASS
C30 INTERIOR FINISHES	
KEYNOTE	**C3020 FLOOR FINISHES (FF)**
FF1	LVT FLOORING
FF2	RESILIENT SHEET GOODS FLOORING
FF5	RESILIENT WALL BASE
KEYNOTE	**C3010 WALL FINISHES (WF)**
WF1	PAINTING
WF4	PORCELAIN TILE
KEYNOTE	**C3030 CEILING FINISHES (CF)**
CF1	PAINTING
E10 EQUIPMENT	
KEYNOTE	**E1015 KITCHEN APPLIANCES (KI)**
KI1	REFRIGERATOR
KI2	RANGE
KI3	DISHWASHER
KI4	RANGE HOOD
KI6	WASHER
KI7	DRYER
KI8	SINK
E20 FURNISHINGS	
KEYNOTE	**E2010 FIXED FURNISHINGS (FX)**
FX1	MINIBLINDS
FX2	SHADES
FX3	OTHER

SYMBOLS

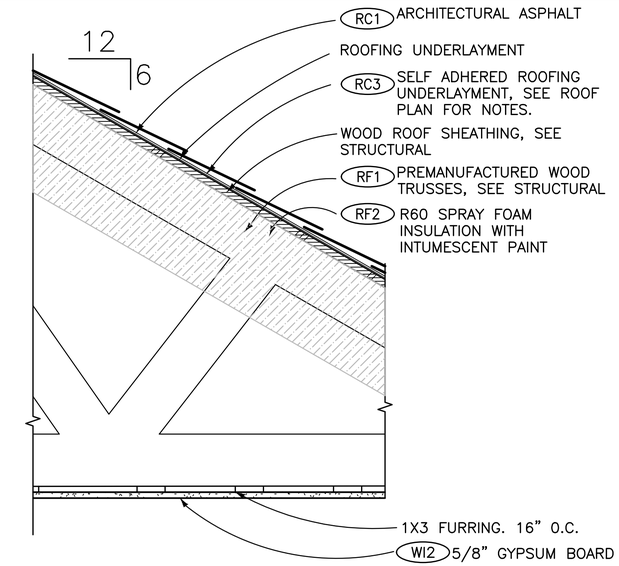


GENERAL NOTES

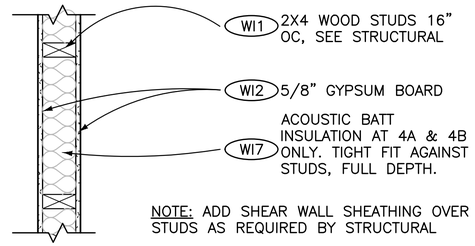
1. ALL DIMENSIONS ARE TO THE FACE OF STUD, CENTERLINE OF COLUMNS, FACE OF CONCRETE WALLS, FACE OF CMU WALLS, CENTERLINE OF FIXTURES, AND CENTERLINE OF OPENINGS, UNLESS OTHERWISE NOTED.
2. ALL PENETRATIONS THROUGH WALLS SHALL BE SEALED WITH FIRE STOPPING SYSTEMS AS REQUIRED TO ACHIEVE THE RESPECTIVE FIRE-RESISTIVE RATING AND SMOKE SEAL AS REQUIRED BY CODE. SEE SHEET A1 FOR SPECIFIC CODE INFORMATION.
3. CONTRACTOR SHALL PROVIDE WOOD BLOCKING AS REQUIRED FOR THE PROPER ANCHORAGE OF ALL WALL ATTACHED ITEMS SUCH AS TOILET ACCESSORIES, WALL-MOUNTED FIXTURES, DOOR STOPS, ETC.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING WORK AND WORKING CONDITIONS AND SHALL VERIFY EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. NO CLAIMS FOR EXTRA COMPENSATION FOR WORK THAT COULD HAVE BEEN FORESEEN BY SUCH INSPECTION, WHETHER SHOWN ON CONTRACT DOCUMENTS OR NOT, SHALL BE ACCEPTED OR PAID.
5. VERIFY SIZE, COORDINATE LOCATION, AND CHARACTERISTICS OF ALL WORK AND EQUIPMENT TO BE FURNISHED BEFORE ANY CONSTRUCTION BEGINS.
6. CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK AND EQUIPMENT WITH EACH TRADE.
7. INSTALL METAL TRIM ON ALL GYPSUM BOARD EDGES ABUTTING OTHER MATERIALS AND WHERE GYPSUM BOARD IS STOPPED SHORT OF OTHER MATERIALS TO FORM A RECESS OR REVEAL. ALL GYPSUM BOARD SHOULD BE INSTALLED 1/2" OFF OF CONCRETE SURFACES,
8. CONTRACTOR TO VERIFY THAT REQUIRED OPERATION AND MAINTENANCE CLEARANCES ARE PROVIDED FOR ALL EQUIPMENT ITEMS. INSTALL ALL ITEMS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS EXCEPT WHEN IN CONFLICT WITH THE SPECIFICATIONS HEREIN, IN WHICH CASE THE MORE STRINGENT REQUIREMENTS SHALL BE COMPLIED WITH. NOTIFY THE ARCHITECT IN WRITING OF ANY CONFLICTS.
9. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL REQUIRED UTILITY SHUT-DOWNS WITH THE ARCHITECT AND PARK POINT OF CONTACT, NOTIFY THE ARCHITECT OF INTENDED SHUTDOWN AT LEAST 48 HOURS PRIOR TO SCHEDULED SHUTDOWN.
10. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IF HAZARDOUS MATERIAL IS ENCOUNTERED DURING DEMOLITION OR CONSTRUCTION. REMOVAL AND DISPOSAL OF HAZARDOUS MATERIALS SHALL BE ACCOMPLISHED IN COMPLIANCE WITH STATE REGULATIONS. IT IS NOT ANTICIPATED THAT ASBESTOS OR OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE AREA OF WORK.
11. COORDINATE THE AVAILABILITY AND LOCATION OF RECYCLING DUMPSTER AND TRASH DUMPSTER WITH THE ARCHITECT. TRASH SHALL BE DISPOSED OF AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ).



A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. G1	TITLE OF SHEET ABBREVIATIONS, SYMBOLS NOTES & KEYNOTES 8-BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 75 OF 131



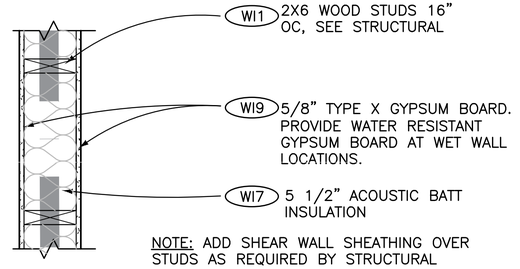
1 NON–RATED SLOPED ROOF/CEILING



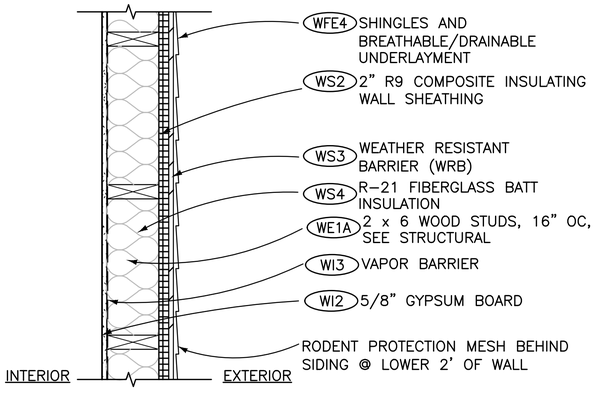
4B PROVIDE MOISTURE RESISTANT GYPSUM WALLBOARD AT WET WALL LOCATIONS, ADD 3 1/2" ACOUSTIC BATT INSULATION.

4A 3 1/2" ACOUSTIC BATT INSULATION IN STUD CAVITY

4 NON–RATED INTERIOR WALL



5 1HR INTERIOR FIRE RATED WALL
ASSEMBLY: UL U305
FIRE: 1–HR, STC: 34

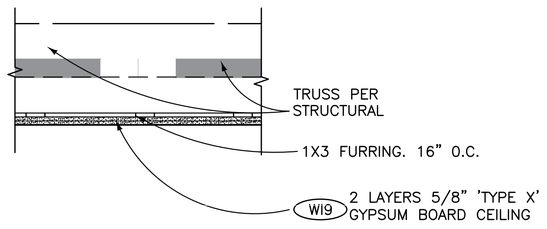


3C SHINGLES, OSB AND BREATHABLE UNDERLAYMENT AT INTERIOR SIDE. IN LIEU OF GYPSUM BOARD AND VAPOR BARRIER

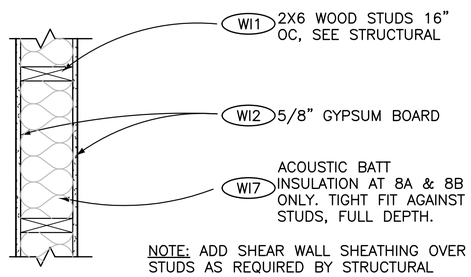
3B PORCELAIN TILE & BACKER BOARD ON INTERIOR SIDE AT KITCHEN SINK WALL.

3A MOISTURE RESISTANT GYPSUM WALL BOARD AT INTERIOR SIDE AT WET WALL LOCATIONS.

3 EXTERIOR WALL



6 1–HR RATED CEILING
ASSEMBLY: GA FILE n. RC2602
FIRE: 1–HR, STC: 49

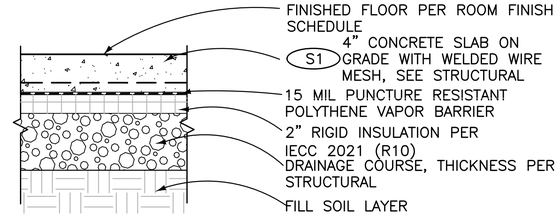


8C $\frac{1}{2}$" OSB ON EXTERIOR WALL AND GYP BOARD ON INTERIOR

8B PROVIDE MOISTURE RESISTANT GYPSUM WALLBOARD AT WET WALL LOCATIONS, PROVIDE 5 1/2" ACOUSTIC BATT INSULATION IN STUD CAVITY.

8A 5 1/2" ACOUSTIC BATT INSULATION IN STUD CAVITY

8 NON–RATED INTERIOR WALL



11 SLAB ON GRADE

GENERAL NOTES

1. LOCATE THERMAL INSULATION ON THE COLD SIDE (IN WINTER) OF DOMESTIC WATER PIPES AS REQUIRED TO PROTECT PIPES FROM FREEZING.
2. PROVIDE ADDITIONAL FRAMING, BLOCKING, AND FINISHES AS REQUIRED FOR ACCESS PANELS AND DOORS.
3. PROVIDE ADDITIONAL BLOCKING OR INSERTS AS REQUIRED TO SUPPORT SHELVING, TOWEL BARS, RAILINGS, AND ALL OTHER WALL–MOUNTED ACCESSORIES AND EQUIPMENT.
4. WALLS RATED FOR FIRE AND/OR SOUND MUST BE CONSTRUCTED AS DOCUMENTED TO ACHIEVE TESTED VALUE.
5. HOLD ALL GWB $\frac{1}{2}$" ABOVE FINISH FLOOR FOR CAPILLARY BREAK

LEGEND

SEE SHEETS G1 FOR KEYNOTES

12 6 0 12
SCALE OF INCHES
1–1/2" = 1'–0"

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM	
PRIME:	HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME
SUBCONTRACTOR:	DGC ELLSWORTH, ME
DESIGNED:	MW
DRAWN:	AND
TECH. REVIEW:	MW
DATE:	2/28/2025
SUB SHEET NO.	G2

TITLE OF SHEET
CONSTRUCTION ASSEMBLIES
8–BEDROOM DORM
HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	76 OF 131

BUILDING CODE SUMMARY

PROJECT DESCRIPTION:
THIS PROJECT INCLUDES THE PLANS FOR AN ACADIA NATIONAL PARK SERVICE HOUSING PROJECT CONSISTING OF A SINGLE STORY DORMITORY WITH 8 BEDROOMS, 4 BATHROOMS, 2 COMMUNAL KITCHENS AND A LARGE LIVING SPACE.

PROJECT ADDRESS: HARDEN FARM ROAD (KEBO ST)

BUILDING CODE EDITION:	2021 INTERNATIONAL BUILDING CODE
(PRE-REQUIRED BY JURISDICTION)	INTERNATIONAL MECHANICAL CODE
	INTERNATIONAL PLUMBING CODE
	NATIONAL ELECTRICAL CODE

OCUPANCY GROUP: R-2
CONSTRUCTION TYPE: V-B, NFPA 13D SPRINKLERED

BUILDING HEIGHTS AND AREA PER TABLES 504.3, 504.4 AND 506.2:

	HEIGHT	STORIES	GROSS AREA
ALLOWED:	60 FEET	3	7,000 SF
PROPOSED:	20 FT	1	3,515 SF

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS PER TABLE 601

BUILDING ELEMENT	FIRE RESISTANCE RATING (HOURS)
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS – EXTERIOR	0
BEARING WALLS – INTERIOR	0
NON-BEARING WALLS – INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS PER TABLE 602

SEPARATION DISTANCE (FEET)	FIRE RESISTANCE RATING (HOURS)
X < 5	1
5 ≤ X < 10	1
10 ≤ X < 30	0
X ≥ 30	0

FIRE DETECTION AND SUPPRESSION NFPA 13D SYSTEM OR INSTALLED IN ACCORDANCE WITH SECTION P2904.

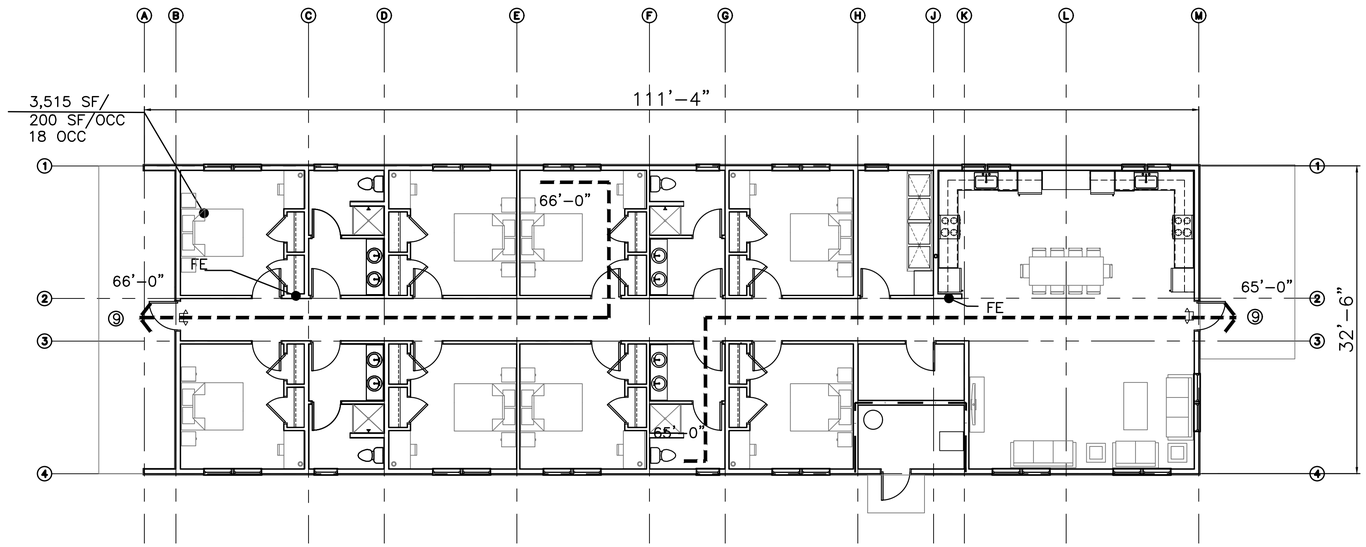
	REQUIRED	PROVIDED
FIRE ALARM SYSTEM	YES	YES
SMOKE DETECTION SYSTEM	YES	YES
SPRINKLER SYSTEM	YES	YES
STANDPIPE SYSTEM	NO	NO
CARBON MONOXIDE DETECTORS	YES	YES
FIRE EXTINGUISHERS AND CABINETS	YES	YES

EXITS PROVIDED: 2

OCCUPANCY TYPE: DORMITORY

PER 903.3.1.2, AUTOMATIC SPRINKLER SYSTEMS IN GROUP R OCCUPANCIES UP TO AND INCLUDING FOUR STORIES IN HEIGHT IN BUILDINGS NOT EXCEEDING 60 FT IN HEIGHT ABOVE GRADE PLANE SHALL BE PERMITTED TO BE INSTALLED THROUGHOUT IN ACCORDANCE WITH NFPA 13D.

OCCUPANCY LOAD (TABLE 1004.5) AND EXITING CHAPTER 10
OCCUPANT LOAD FACTOR: (R-2) 1:200 GROSS
TOTAL BUILDING OCCUPANTS: (R-2) = 18



1 / A1 CODE SUMMARY PLAN

BUILDING TOTAL:
18 OCCUPANTS

LEGEND

XX'-XX"	TRAVEL DISTANCE
---→	EMERGENCY EGRESS PATH
— · —	1 HR FIRE RATED
Ⓧ	OCCUPANTS AT EXIT
OCC	OCCUPANT
XX SF	TOTAL SF
FE	FIRE EXTINGUISHER
	ILLUMINATED EXIT SIGN

PLAN NORTH

GENERAL NOTES:

1. MECHANICAL ROOM CEILING TO BE 1 HR RATED.
2. ALL BATHROOMS TO HAVE RESCUE HARDWARE.
3. ALL BUILDINGS SHALLMEET LOCAL CODE REQUIREMENTS.

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM
PRIME:
HEDEFINE ENGINEERING & DESIGN, INC.
ELLSWORTH, ME
SUBCONTRACTOR:
DGC
ELLSWORTH, ME

DESIGNED: MW
CADD: AND
TECH. REVIEW: MW
DATE: 2/28/2025

SUB SHEET NO. A1

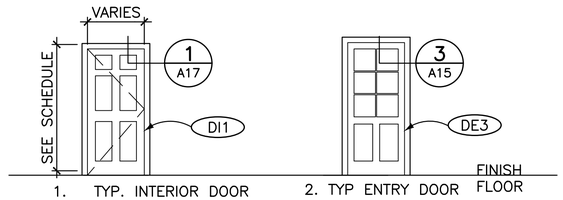
TITLE OF SHEET
CODE SUMMARY

8-BEDROOM DORM
HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO. 123 60025A
PMIS/PKG NO. 309000
SHEET 77 OF 131

ROOM NUMBER	ROOM TITLE	FLOOR			BASE			WALL FINISH			CEILING FINISH			REMARKS
		MATERIAL	FINISH	KEYNOTES	MATERIAL	FINISH	KEYNOTES	MATERIAL	FINISH	KEYNOTES	MATERIAL	FINISH	KEYNOTES	
801	HALL	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
802,802A 802B	BEDROOM 1	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 802A & 802B
803	BATHROOM 1	RS/FG	–	FF2	RWB	–	FF5	WR	PTD	WF1	GYP	PTD	CF1	FG ENCLOSURE @ SHOWER
804,804A 804B	BEDROOM 2	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 804A & 804B
805,805A 805B	BEDROOM 3	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 805A & 805B
806	BATHROOM 2	RS/FG	–	FF2	RWB	–	FF5	WR	PTD	WF1	GYP	PTD	CF1	FG ENCLOSURE @ SHOWER
807,807A 807B	BEDROOM 4	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 807A & 807B
808	LAUNDRY	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	FG DRAIN PAD BELOW EQUIPMENT ONLY
809	KITCHEN	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
810	KITCHEN 2	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
811	LIVING ROOM	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
812	STORAGE	RS	–	–	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
813	MECHANICAL	CONC	SEALED	–	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	
814,814A 814B	BEDROOM 5	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 814A & 814B
815	BATHROOM 3	RS/FG	–	FF2	RWB	–	FF5	WR	PTD	WF1	GYP	PTD	CF1	FG ENCLOSURE @ SHOWER
816,816A 816B	BEDROOM 6	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 816A & 816B
817,817A 817B	BEDROOM 7	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 817A & 817B
818	BATHROOM 4	RS/FG	–	FF2	RWB	–	FF5	WR	PTD	WF1	GYP	PTD	CF1	FG ENCLOSURE @ SHOWER
819,819A 819B	BEDROOM 8	LVT	–	FF1	RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	SAME FINISHES @ CLOSETS 819A & 819B
820	ERV ROOM	OSB	–		RWB	–	FF5	GYP	PTD	WF1	GYP	PTD	CF1	ATTIC MECHANICAL SPACE

1 A2 FINISH SCHEDULE



4 A2 DOOR TYPES

GENERAL NOTES

1. WINDOW SIZES ARE APPROXIMATE AND MUST BE VERIFIED WITH FINAL DIMENSIONS FOR FINISH SYSTEM.
2. CONTINUE MAIN OR SERVICING ROOM FLOOR FINISH WITHIN CLOSETS.
3. PROVIDE RESILIENT THRESHOLDS AT ALL FLOOR MATERIAL CHANGES.
4. PROVIDE ADDITIONAL FRAMING, BLOCKING AND FINISHES AS REQUIRED FOR DOORS.

SYMBOL	LOCATION	SIZE (WIDTH X HEIGHT)	TYPE	THICKNESS	DOOR		FRAME			HARDWARE GEN KEYNOTES	REMARKS
					MATERIAL	FINISH	MATERIAL	FINISH	GEN KEYNOTES		
800A, 800B	UNIT ENTRY	3'–0" X 7'–0"	2	1 3/4"	FG	PAINT	WD	PAINT	FT6	ENTRY, HI5	DOOR FRAME REINFORCEMENT, STRIKE MASTER II, OR EQUAL TO BE PROVIDED BY CONTRACTOR.
801A,801B	BEDROOM	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	PRIVACY, HI1	CLOSER, EACH BEDROOM TO HAVE KEYED DEADBOLT
802A, 802B	BEDROOM 1 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	
803A,803B	BATHROOM 1	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	PRIVACY, HI1	CLOSER
804A, 804B	BEDROOM 2 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	
805A, 805B	BEDROOM 3 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	
806A,806B	BATHROOM 2	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	PRIVACY, HI1	CLOSER
807A, 807B	BEDROOM 4 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	
808	LAUNDRY	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	PASSAGE, HI3	CLOSER
812	STORAGE	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	STORAGE ROOM LOCK, HI5	DOOR FRAME REINFORCEMENT, STRIKE MASTER II, OR EQUAL TO BE PROVIDED BY CONTRACTOR, CLOSER.
813	MECHANICAL	3'–0" X 7'–0"	1	1 3/4"	FG	PAINT	WD	PAINT	FT6	STORAGE ROOM LOCK, HI5	DOOR FRAME REINFORCEMENT, STRIKE MASTER II, OR EQUAL TO BE PROVIDED BY CONTRACTOR.
814A, 814B	BEDROOM 5 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	
815A,815B	BATHROOM 3	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	PRIVACY, HI1	CLOSER
816A, 816B	BEDROOM 6 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	
817A, 817B	BEDROOM 7 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	
818A,818B	BATHROOM 4	3'–0" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	PRIVACY, HI1	CLOSER
819A, 819B	BEDROOM 8 CLOSET	2'–8" X 6'–8"	1	1 3/4"	SC	PAINT	WD	PAINT	FT6	HALF DUMMY, HI3	

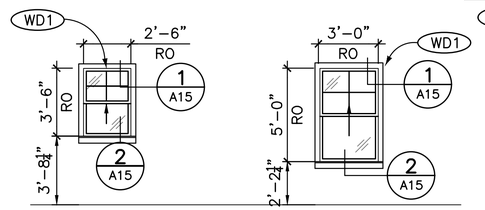
2 A2 DOOR SCHEDULE

NOTES

1. PROVIDE ADDITIONAL FRAMING, BLOCKING AND FINISHES AS REQUIRED FOR DOORS.

LEGEND

SEE SHEET G1 FOR KEYNOTES



A FIBERGLASS SINGLE HUNG, SEE ARCH PLANS FOR LOCATIONS

B FIBERGLASS SINGLE HUNG, SEE ARCH PLANS FOR LOCATIONS

SYMBOL	RO (WIDTH X HEIGHT)	MANUFACTURER	WINDOW					COMMENTS
			MATERIAL	MODEL	EXT. FINISH	INT. FINISH	OPERATION	
A	2'–6" X 3'–6"	PER SPEC	FIBERGLASS	100SERIES	TBD	TBD	SINGLE HUNG	EX1, FT4
B	3'–0" X 5'–0"	PER SPEC	FIBERGLASS	100SERIES	TBD	TBD	SINGLE HUNG	EX1, FT4

5 A2 WINDOW TYPES

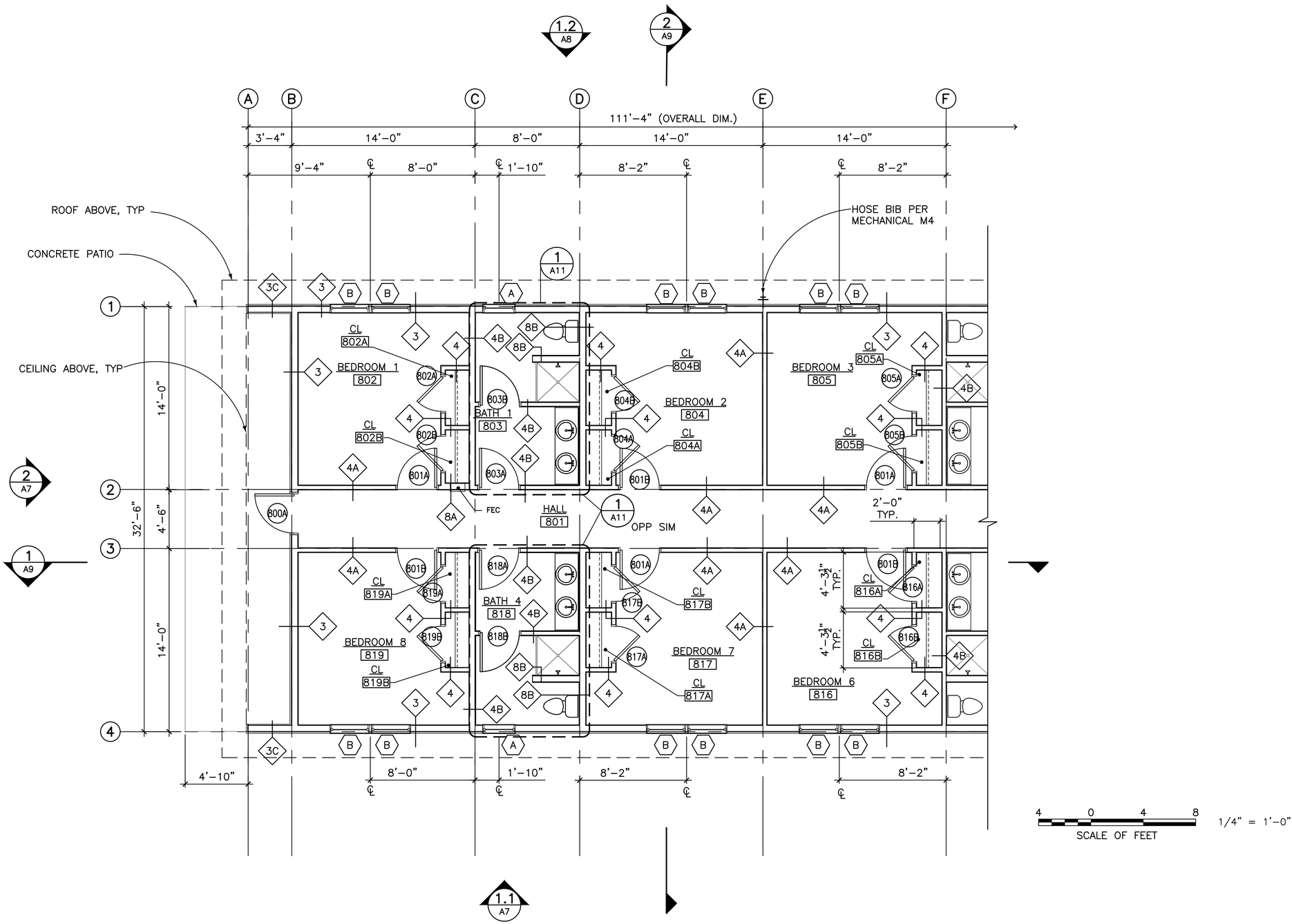
3 A2 WINDOW SCHEDULE

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	MW	A2	SCHEDULES	123 60025A
SUBCONTRACTOR: DGC ELLSWORTH, ME	CADD AND TECH. REVIEW: MW		8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	PMIS/PKG NO. 309000
	DATE: 2/28/2025			SHEET 78 OF 131

GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. CONSTRUCTION ASSEMBLY DESCRIPTIONS: SEE SHEET G2.
3. ALL DIMENSIONS ARE TO THE STRUCTURAL GRID, FACE OF STUD, CENTERLINE OF WALL AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
4. DOOR AND CASED OPENINGS INDICATED NEARBY WALL INTERSECTIONS SHALL BE LOCATED SO THAT THE EDGE OF THE FINISHED OPENING IS FOUR INCHES FROM THE FACE OF THE NEARBY WALL, UNO.



4 0 4 8
SCALE OF FEET

1/4" = 1'–0"

LEGEND

- ### — SEE SHEET G1 FOR KEYNOTES
- # — SEE SHEET G2 FOR CONSTRUCTION ASSEMBLY DESCRIPTIONS.
- # — SEE SHEET A2 FOR WINDOW SCHEDULE.
- # — SEE SHEET A2 FOR DOOR SCHEDULE.
- PLAN NORTH

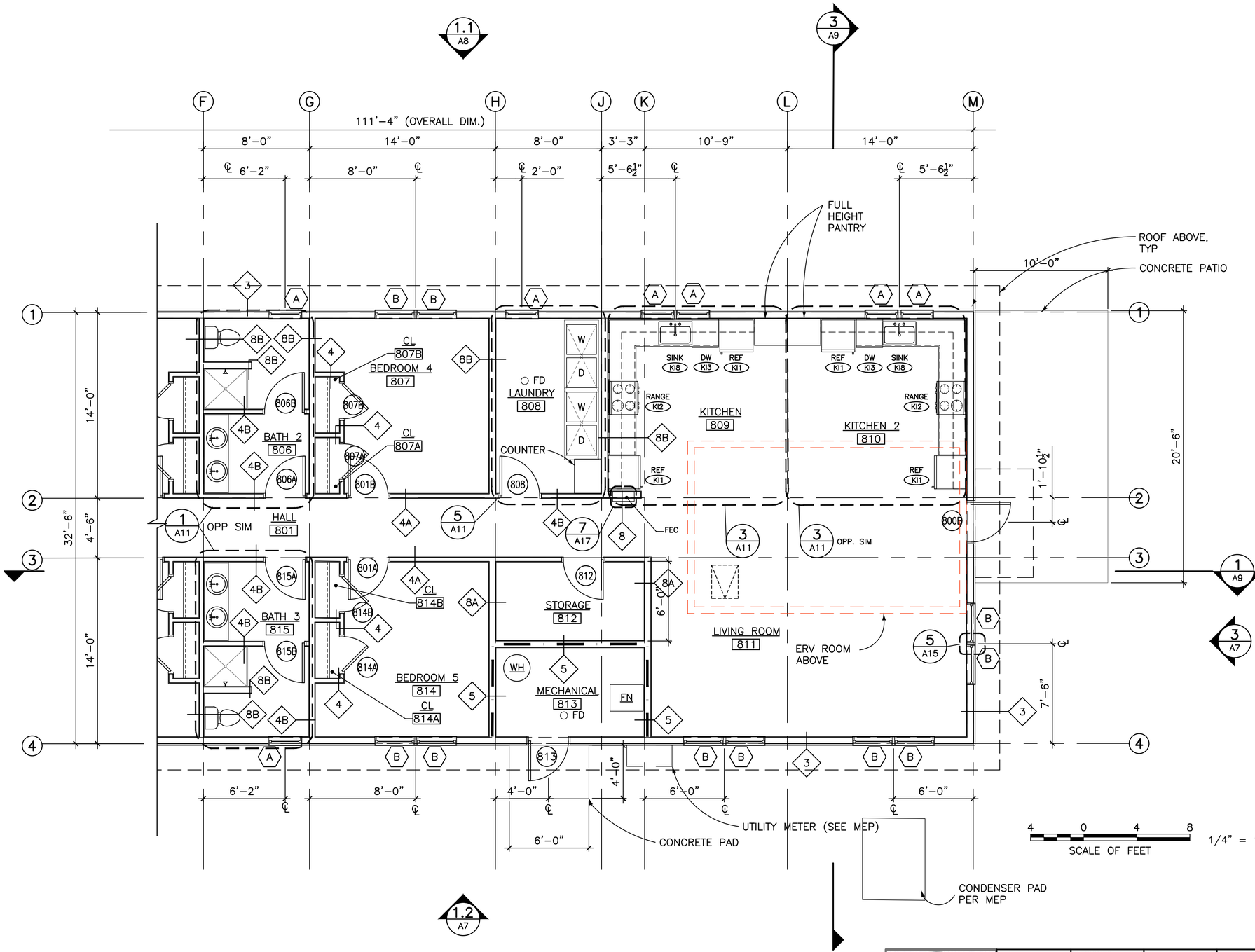
1 A3 FLOOR PLAN – WEST

LICENSED ARCHITECT CARLA M. HASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A3	TITLE OF SHEET FLOOR PLAN – WEST 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 79 OF 131

GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. CONSTRUCTION ASSEMBLY DESCRIPTIONS: SEE SHEET G2.
3. ALL DIMENSIONS ARE TO THE STRUCTURAL GRID, FACE OF STUD, CENTERLINE OF WALL AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
4. DOOR AND CASED OPENINGS INDICATED NEARBY WALL INTERSECTIONS SHALL BE LOCATED SO THAT THE EDGE OF THE FINISHED OPENING IS FOUR INCHES FROM THE FACE OF THE NEARBY WALL, UNO.



LEGEND

- ### SEE SHEET G1 FOR KEYNOTES
- # SEE SHEET G2 FOR CONSTRUCTION ASSEMBLY DESCRIPTIONS.
- # SEE SHEET A2 FOR WINDOW SCHEDULE.
- # SEE SHEET A2 FOR DOOR SCHEDULE.

PLAN NORTH

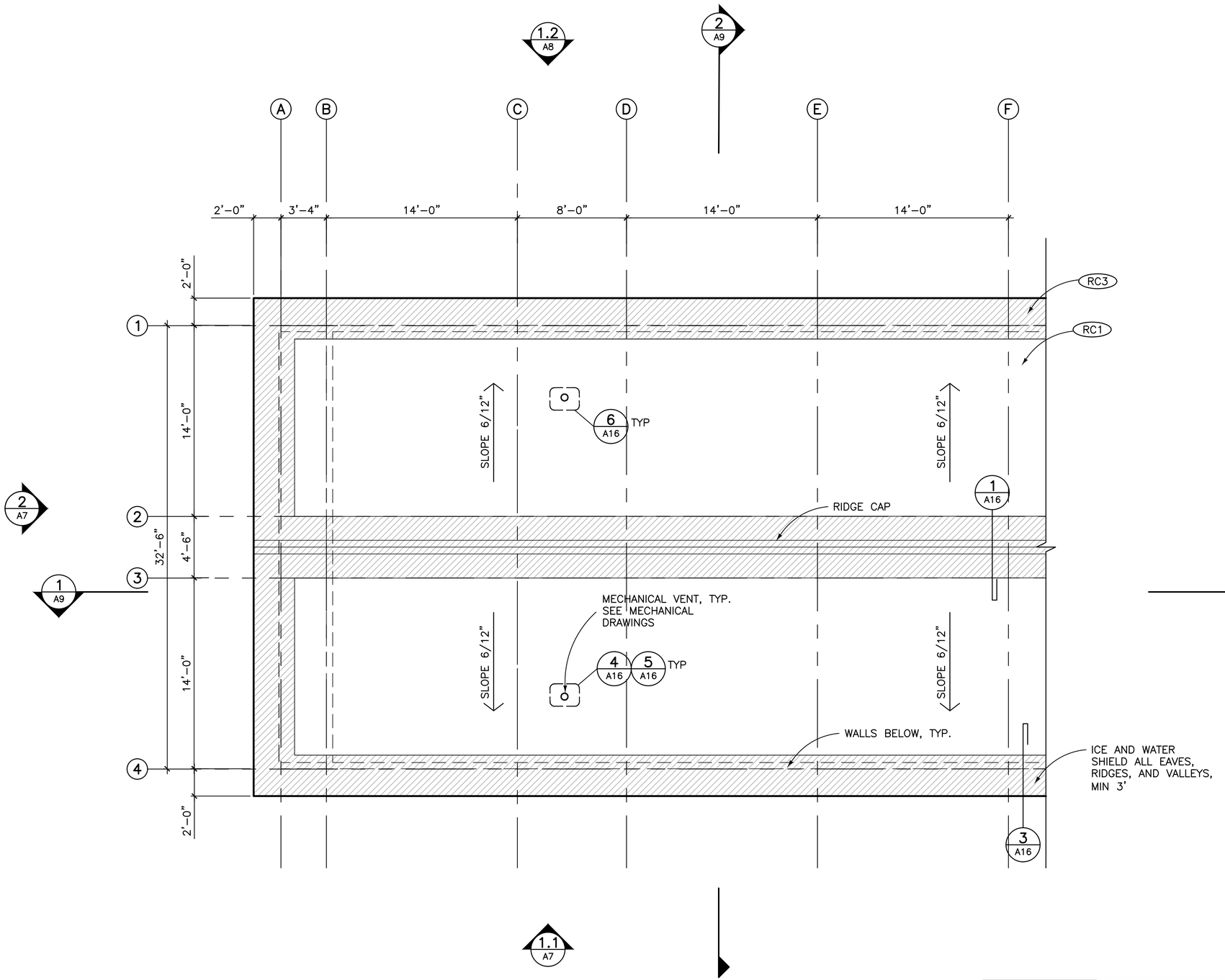
1 A4 FLOOR PLAN – EAST

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A4	TITLE OF SHEET FLOOR PLAN – EAST 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 80 OF 131

GENERAL NOTES

1. ALL DIMENSIONS ARE TO THE STRUCTURAL GRID, FACE OF STUD, CENTERLINE OF WALL, AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
2. SEE EXTERIOR DETAILS FOR ROOF PENETRATION DETAILS. FOR OTHER ROOF PENETRATIONS, SEE MECHANICAL AND ELECTRICAL DRAWINGS.
3. COORDINATE THE LOCATION OF ALL ROOF PENETRATIONS AND ASSOCIATED ROOF APPURTENANCES WITH MECHANICAL. FOR TYPICAL PENETRATION DETAILS SEE SHEET A16.



LEGEND

- ### — SEE SHEET G1 FOR KEYNOTES
- — — — LINE OF BUILDING BELOW
- ICE AND WATER SHIELD

4 0 4 8 SCALE OF FEET — 1/4" = 1'–0"

PLAN NORTH

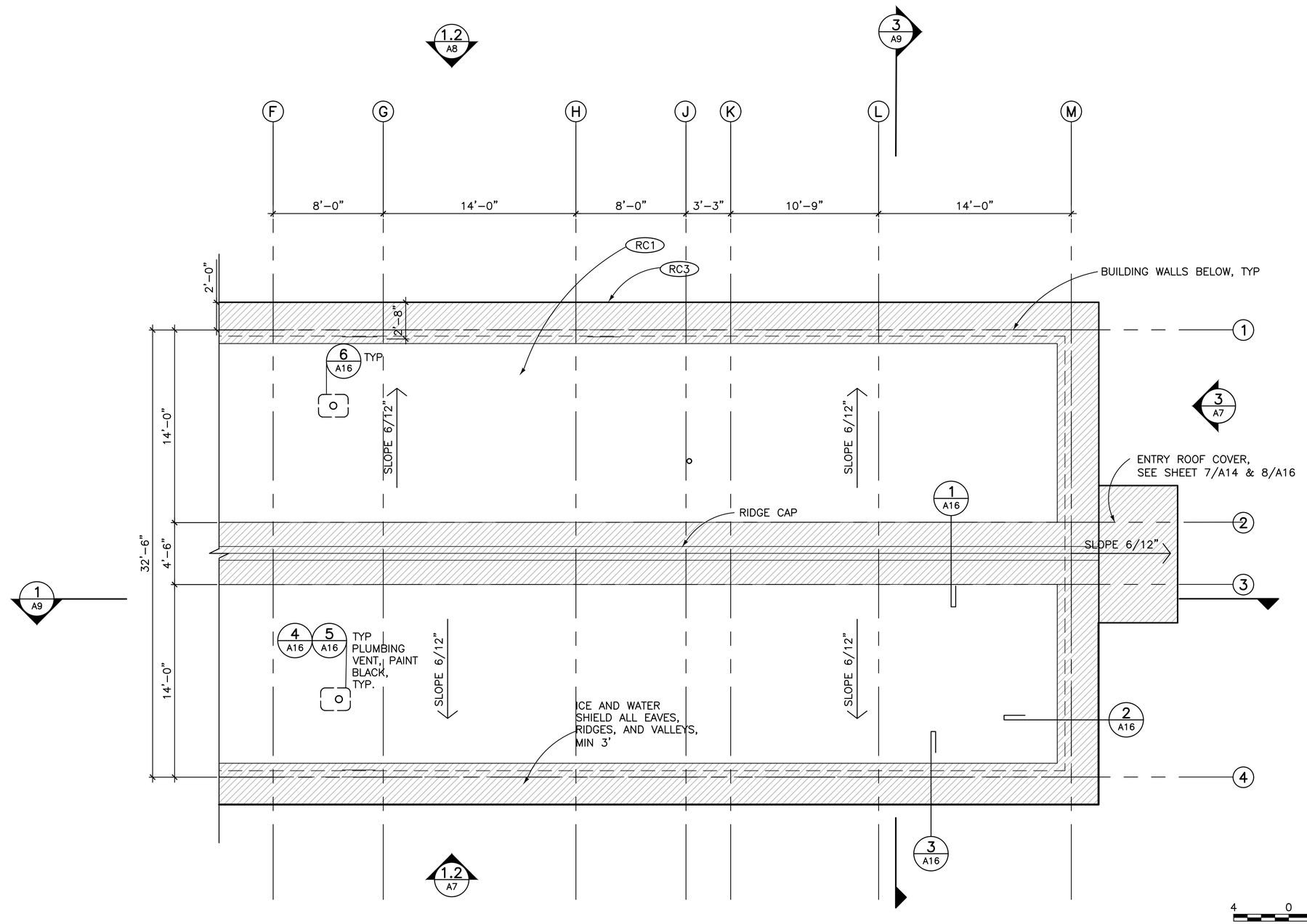
1 A5 ROOF PLAN – WEST

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A5	TITLE OF SHEET ROOF PLAN – WEST 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 81 OF 131

GENERAL NOTES

1. CONSTRUCTION ASSEMBLY DESCRIPTIONS: SEE SHEET G2.
2. ALL DIMENSIONS ARE TO THE STRUCTURAL GRID, FACE OF STUD, CENTERLINE OF WALL, AND CENTER LINE OF OPENING, UNLESS NOTED OTHERWISE.
3. SEE EXTERIOR DETAILS FOR ROOF PENETRATION DETAILS. FOR OTHER ROOF PENETRATIONS, SEE MECHANICAL AND ELECTRICAL DRAWINGS.
4. COORDINATE THE LOCATION OF ALL ROOF PENETRATIONS AND ASSOCIATED ROOF APPURTENANCES WITH MECHANICAL. FOR TYPICAL PENETRATION DETAILS SEE SHEET A16.



LEGEND

- ### — SEE SHEET G1 FOR KEYNOTES
- — — — LINE OF BUILDING BELOW
- ICE AND WATER SHIELD

4 0 4 8 SCALE OF FEET — 1/4" = 1'–0"

PLAN NORTH

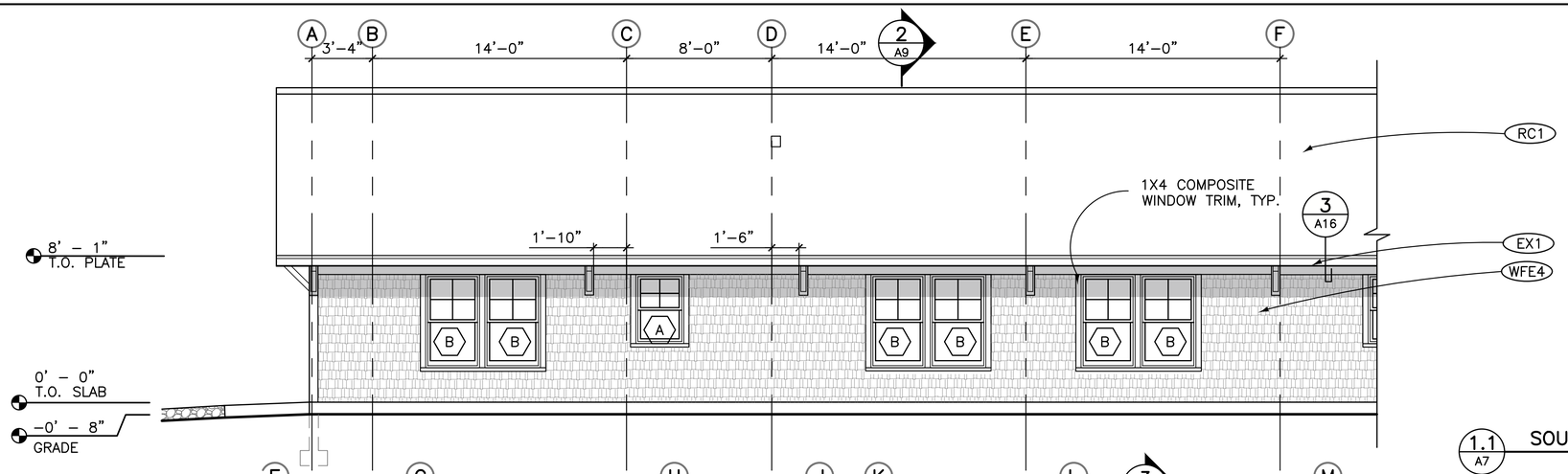
1 A6 ROOF PLAN – EAST

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

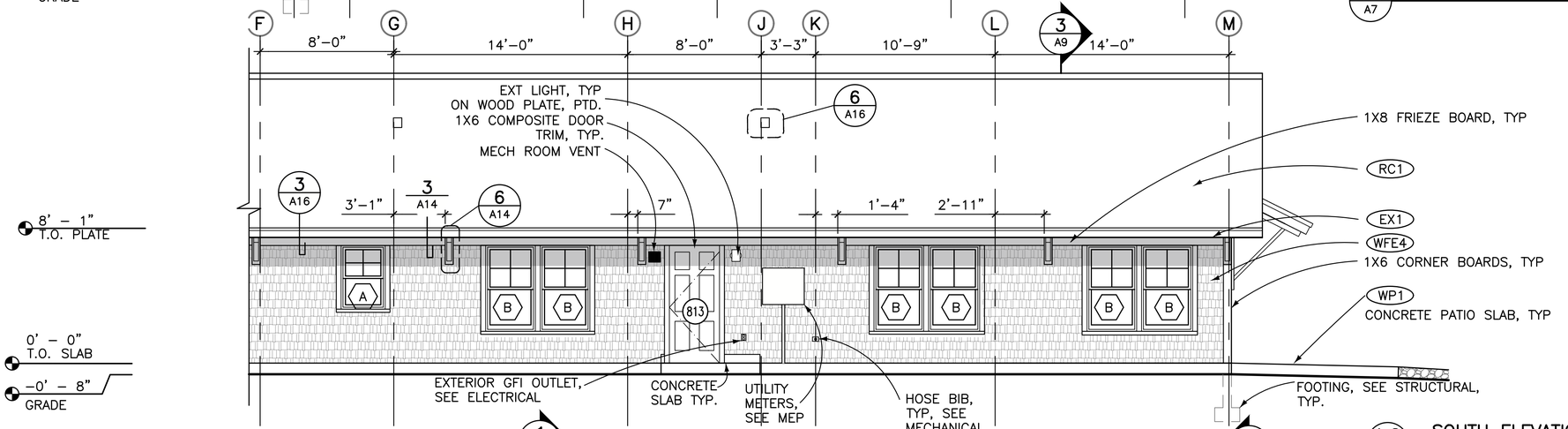
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A6	TITLE OF SHEET ROOF PLAN – EAST 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 82 OF 131

GENERAL NOTES

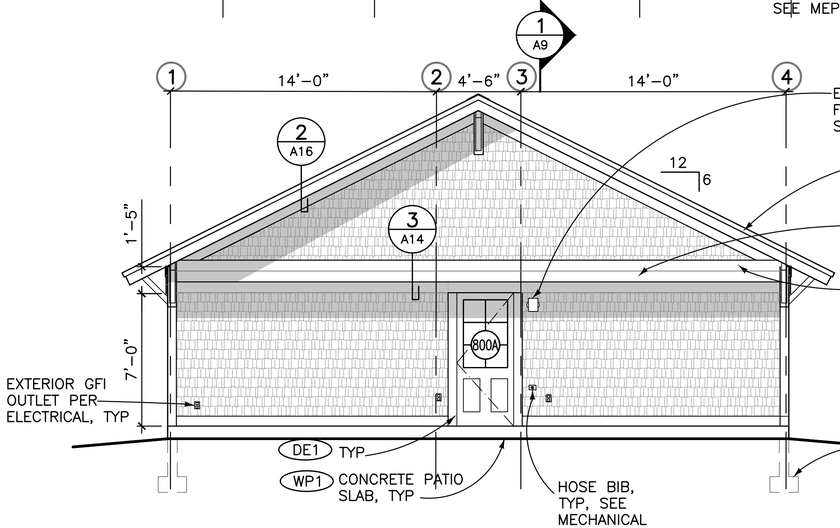
1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
3. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
4. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.



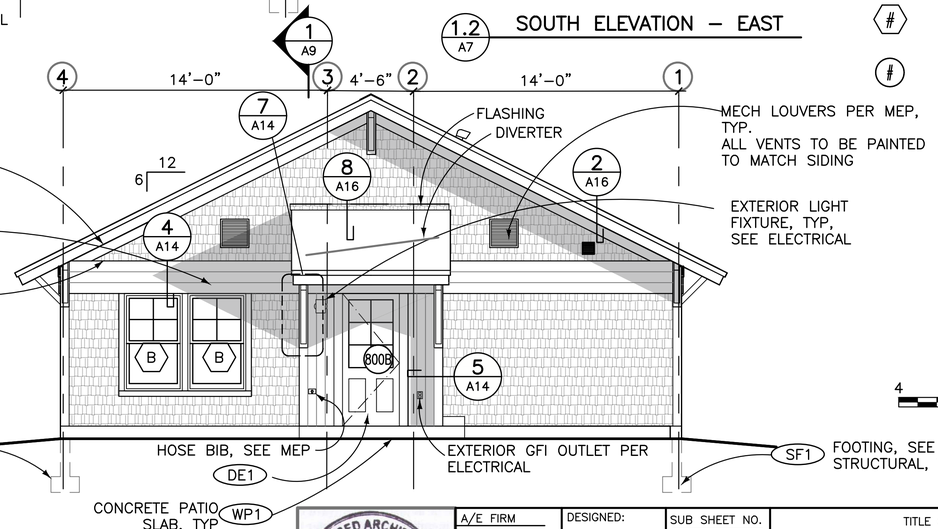
1.1 A7 SOUTH ELEVATION – WEST



2 A7 WEST ELEVATION



3 A7 EAST ELEVATION



1.2 A7 SOUTH ELEVATION – EAST

MATERIAL/COLOR:	TO BE SELECTED BY ARCHITECT.
ROOF:	ASPHALT SHINGLE
TRIM:	COMPOSITE, PREFINSIHED
SHINGLES:	EWC CLEAR ALT1: PREFINISHED SEMI TRANSPARENT STAIN.
SHIPLAP:	COMPOSITE, FACTORY–PRIMED PAINTED IN FIELD
WINDOWS:	FIBERGLASS, FACTORY–FINISHED

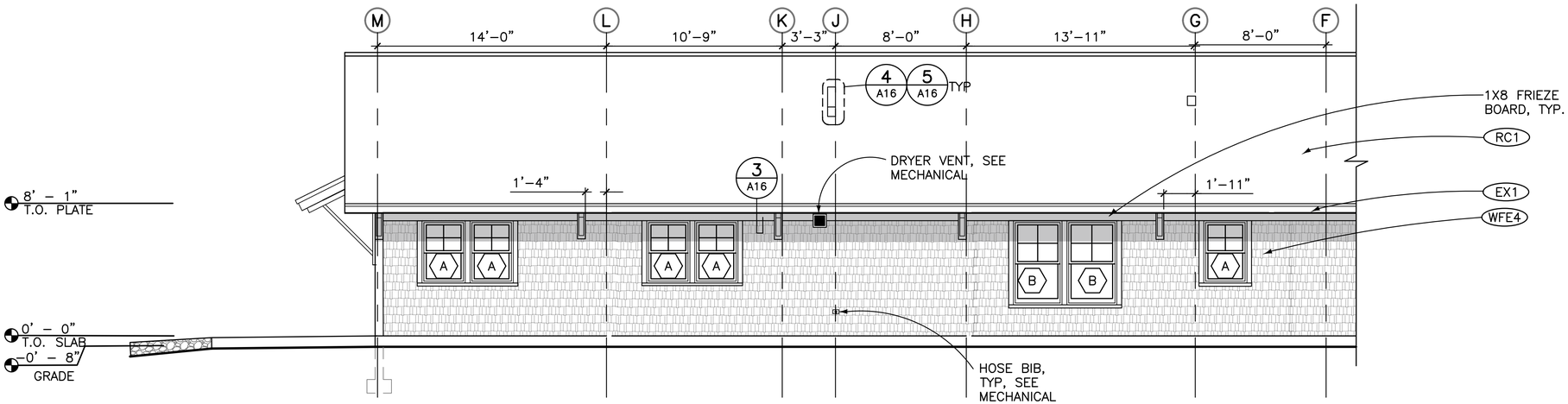
LEGEND

###	SEE SHEET G1 FOR KEYNOTES
#	SEE SHEET A2 FOR WINDOW SCHEDULE
#	SEE SHEET A2 FOR DOOR SCHEDULE

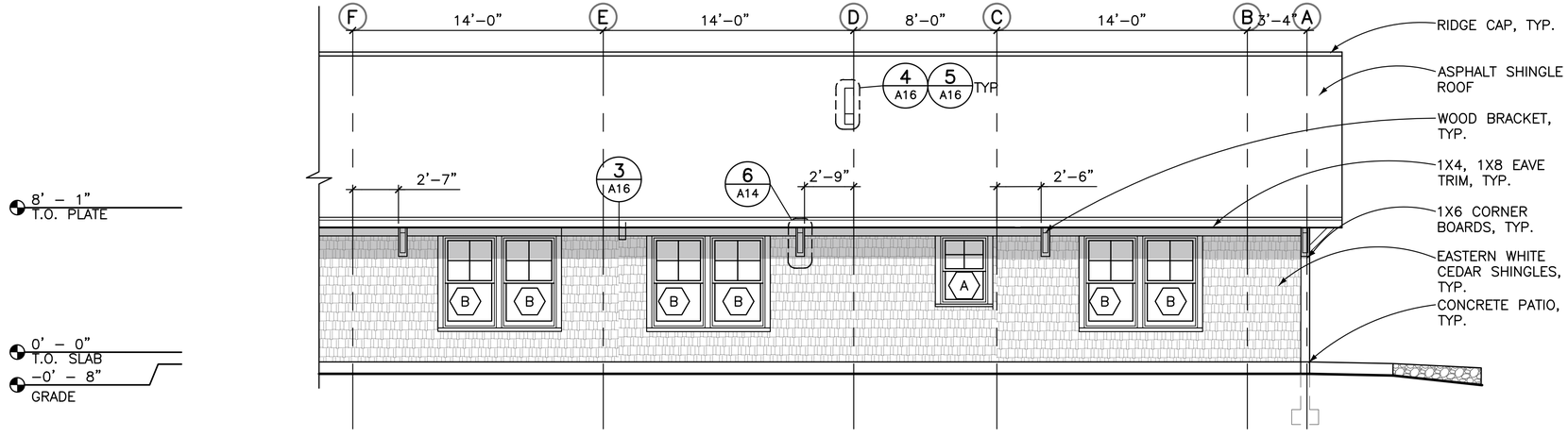
4 0 4 8 1/4" = 1'–0"
SCALE OF FEET

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM	PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME
DESIGNED:	MW
DRAWN:	AND
TECH. REVIEW:	MW
DATE:	2/28/2025
SUB SHEET NO.	A7
TITLE OF SHEET	BUILDING ELEVATIONS WEST
	8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK
DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	83 OF 131



1.1 A8 NORTH ELEVATION – EAST



1.2 A8 NORTH ELEVATION – WEST

GENERAL NOTES

1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
3. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
4. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.

MATERIAL/COLOR:	TO BE SELECTED BY ARCHITECT.
ROOF:	ASPHALT SHINGLE
TRIM:	COMPOSITE, PREFINSIHED
SHINGLES:	EWC CLEAR ALT1: PREFINISHED SEMI TRANSPARENT STAIN
SHIPLAP:	COMPOSITE, FACTORY–PRIMED PAINTED IN FIELD
WINDOWS:	FIBERGLASS, FACTORY–FINISHED

LEGEND

###	SEE SHEET G1 FOR KEYNOTES
#	SEE SHEET A2 FOR WINDOW SCHEDULE
#	SEE SHEET A2 FOR DOOR SCHEDULE

4 0 4 8 1/4" = 1'–0"
SCALE OF FEET

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM
PRIME:
HEDEFINE ENGINEERING & DESIGN, INC.
ELLSWORTH, ME
SUBCONTRACTOR:
DGC
ELLSWORTH, ME

DESIGNED: MW
CADD AND
TECH. REVIEW: MW
DATE: 2/28/2025

SUB SHEET NO. A8

TITLE OF SHEET
BUILDING ELEVATIONS EAST
8–BEDROOM DORM
HARDEN FARM EMPLOYEE HOUSING PHASE 1C
ACADIA NATIONAL PARK

DRAWING NO. 123 60025A
PMIS/PKG NO. 309000
SHEET 84 OF 131

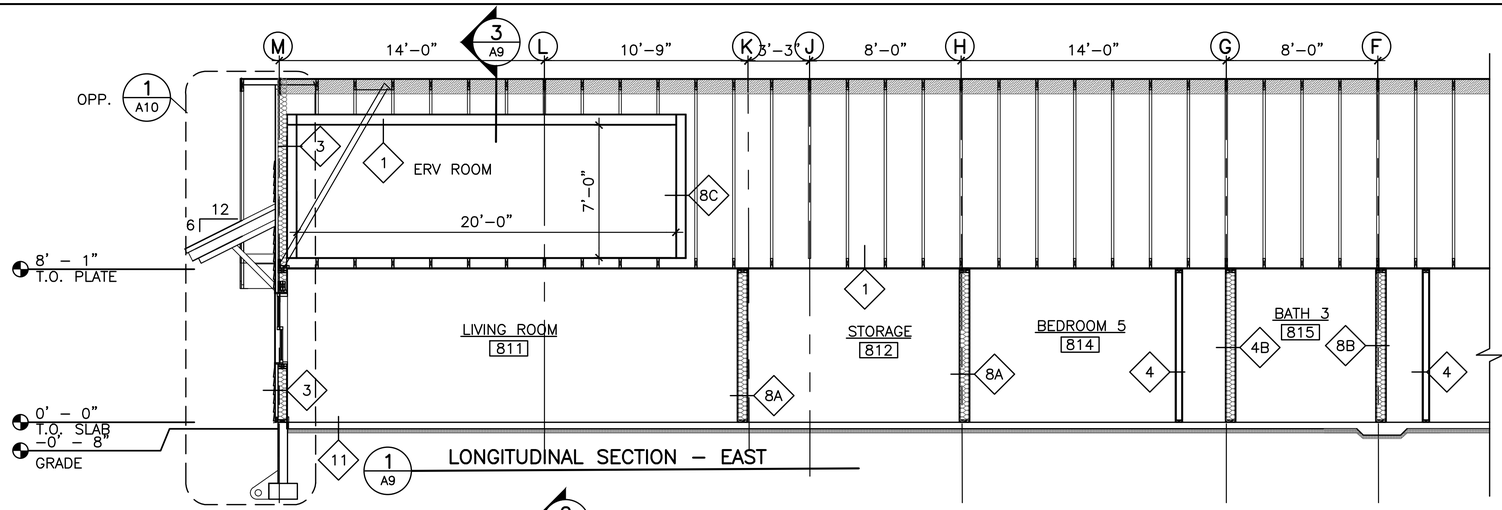
GENERAL NOTES

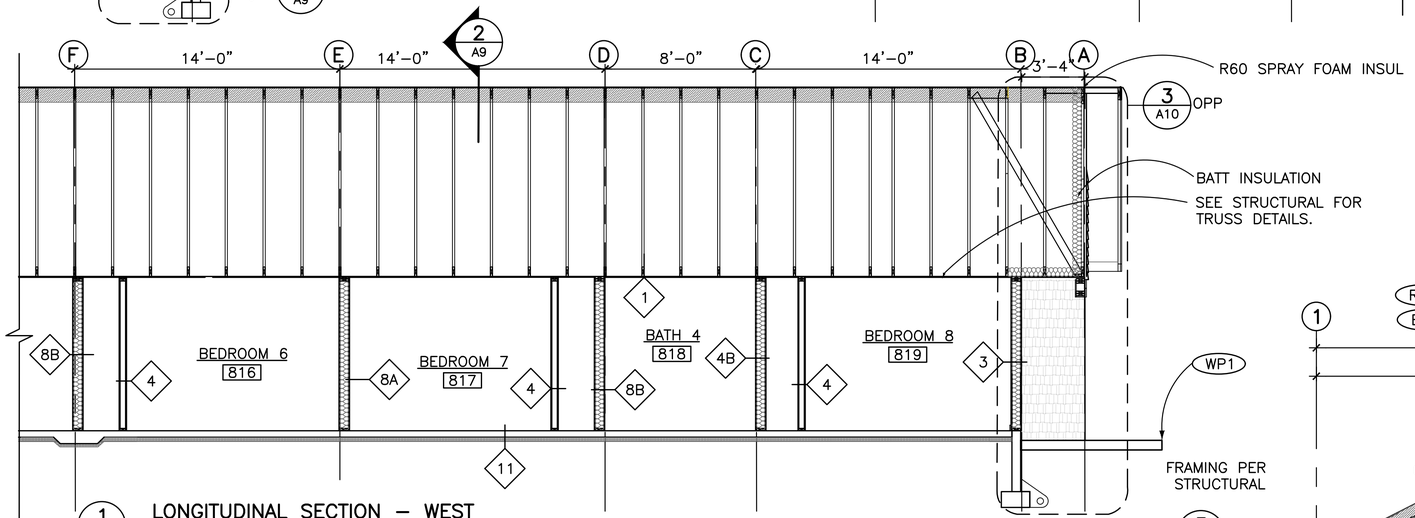
1. ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND: SEE SHEET G1.
2. MECHANICAL SYSTEMS & EQUIPMENT: SEE MECHANICAL DRAWINGS.
3. ELECTRICAL LIGHTING & EQUIPMENT: SEE ELECTRICAL DRAWINGS.
4. SEE BUILDING FLOOR PLAN FOR BUILDING DIMENSIONS.

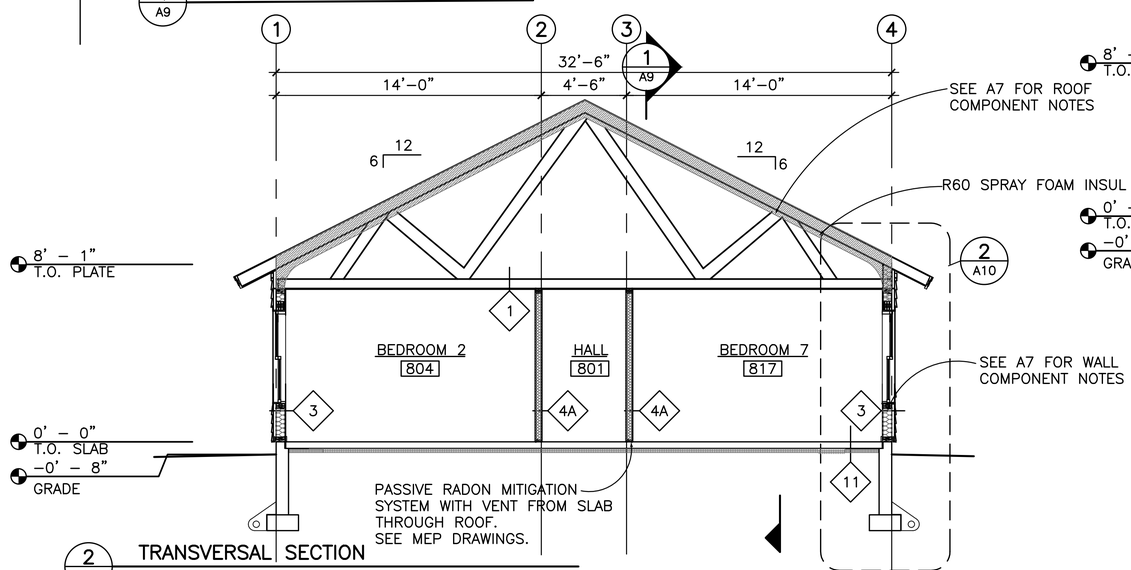
LEGEND

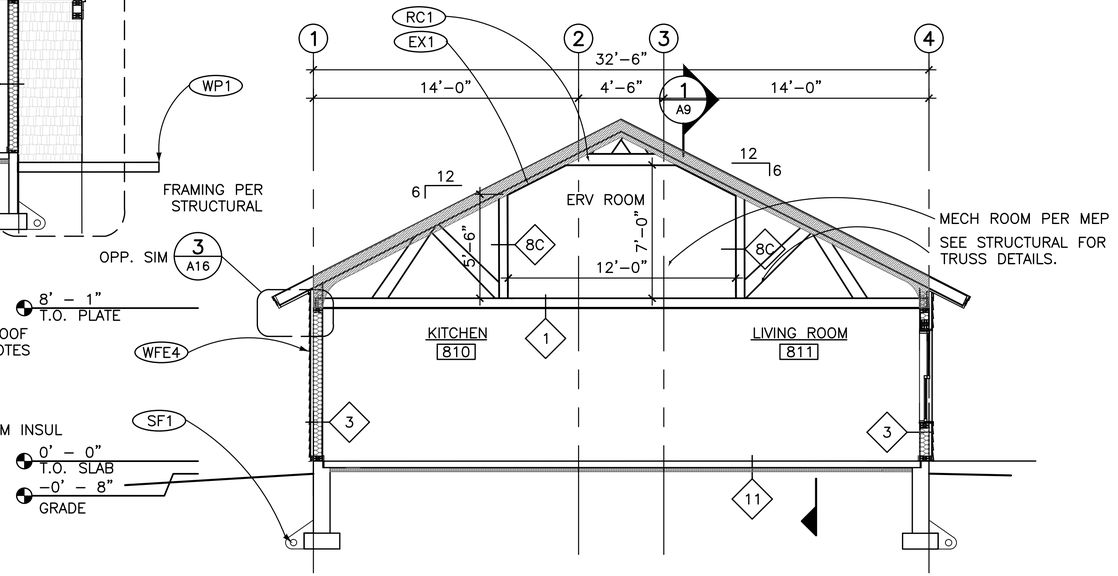
SEE SHEET G1 FOR KEYNOTES.

SEE SHEET G2 FOR ROOF, FLOOR, AND WALL ASSEMBLIES





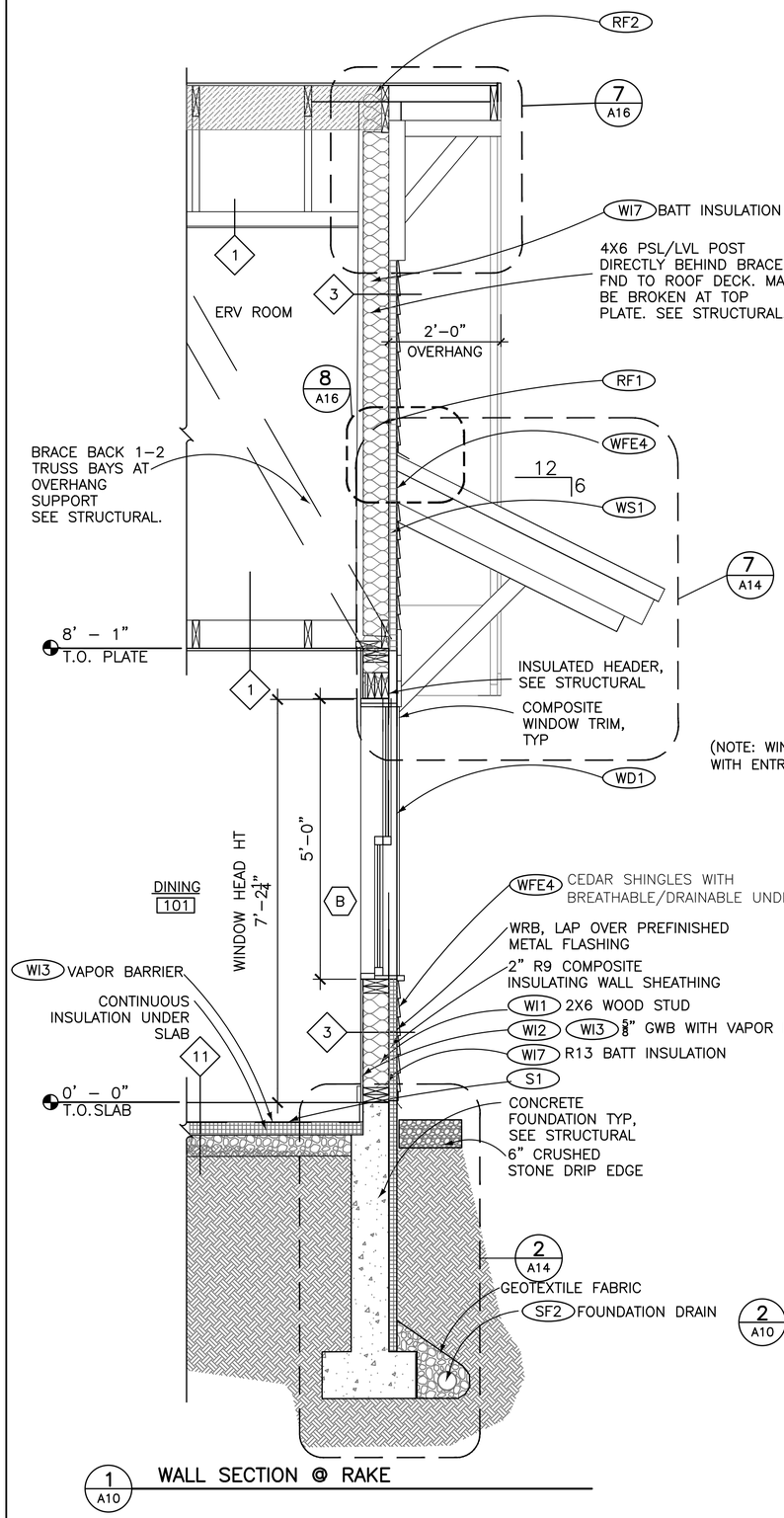




4 0 4 8
SCALE OF FEET
1/4" = 1'–0"

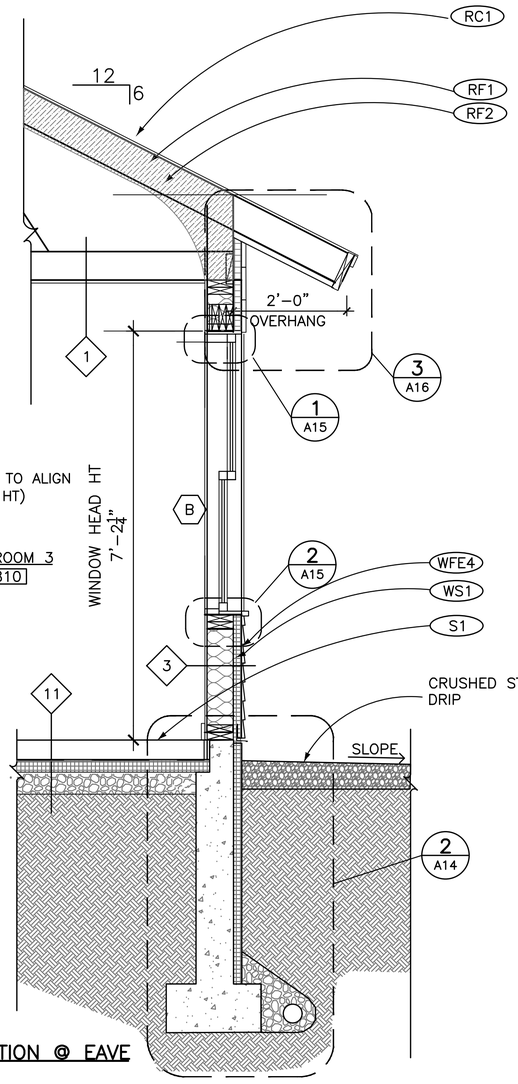
LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW DRAWN: AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A9	TITLE OF SHEET BUILDING SECTIONS 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 85 OF 131

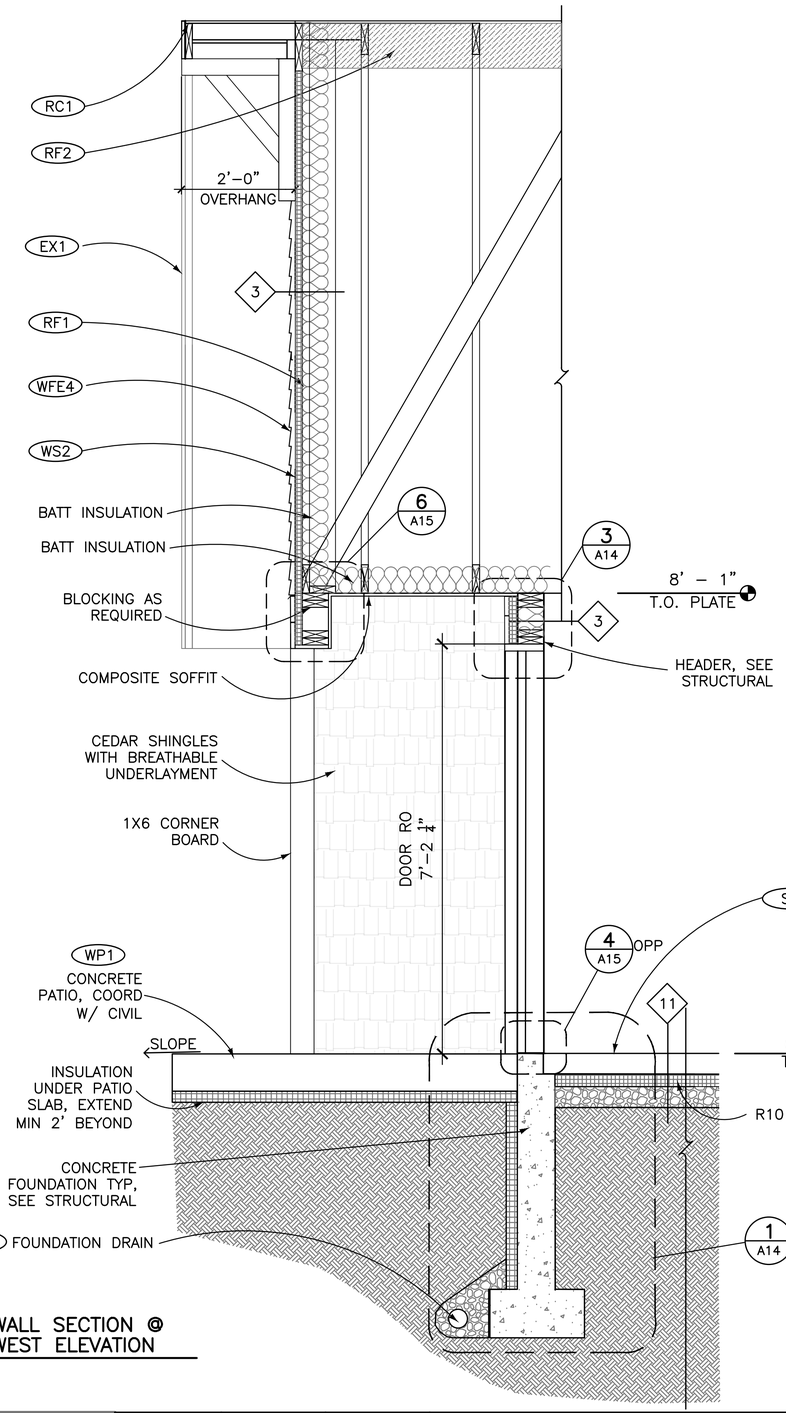


1 A10 WALL SECTION @ RAKE

(NOTE: WINDOW HEAD HT TO ALIGN WITH ENTRY DOOR HEAD HT)



2 A10 WALL SECTION @ EAVE

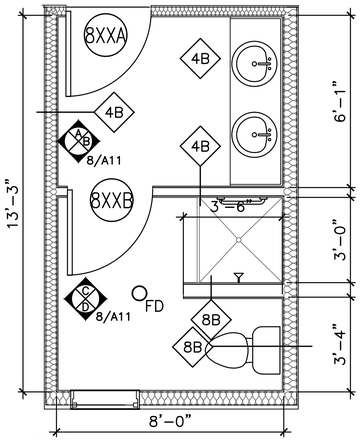


3 A10 WALL SECTION @ WEST ELEVATION

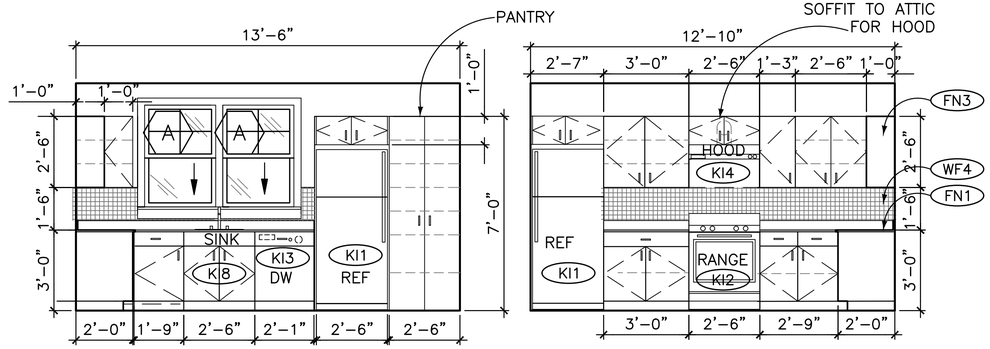
1 0 1 2 3
SCALE OF FEET
3/4" = 1'–0"

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW DRAWN: AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A10	TITLE OF SHEET WALL SECTIONS 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 86 OF 131

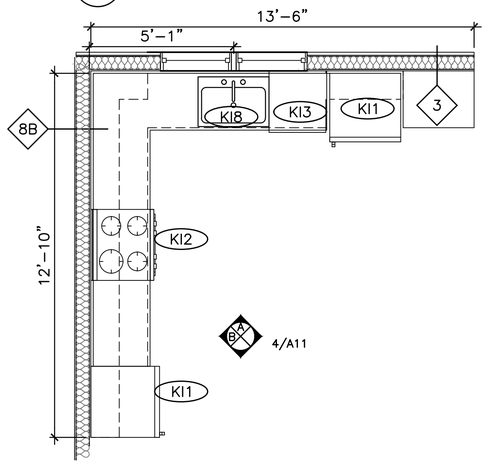


1 A11 ENLARGED PLAN–BATH, TYP.

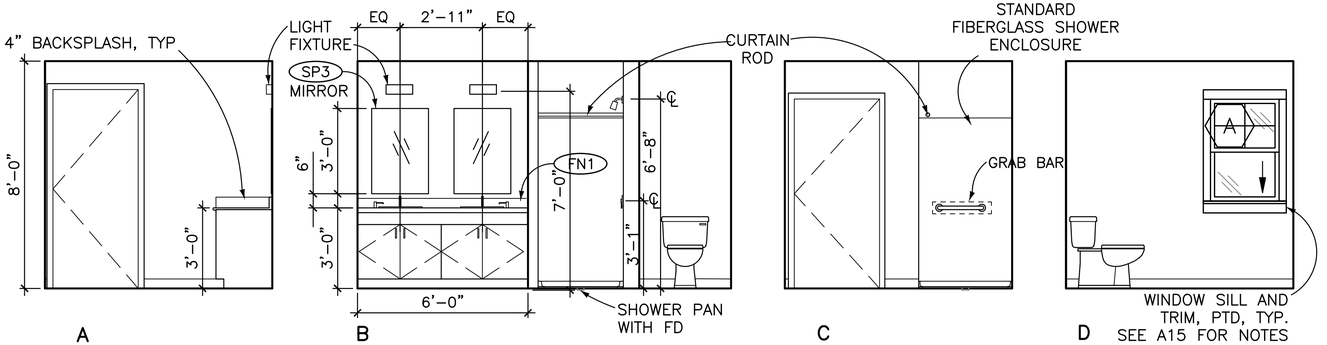


A B

2 A11 INTERIOR ELEVATIONS – KITCHEN, TYP.

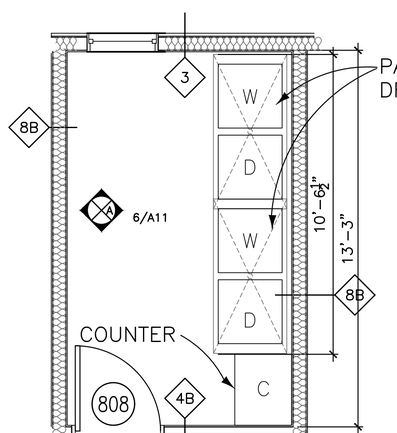


3 A11 ENLARGED PLAN–KITCHEN, TYP.

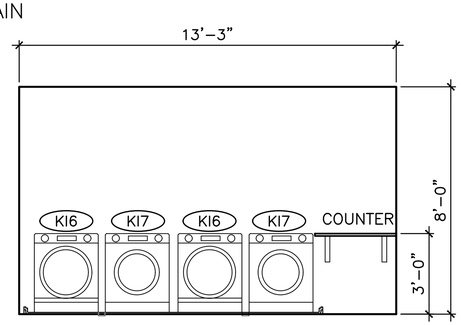


A B C D

4 A11 INTERIOR ELEVATIONS – TYP BATH



5 A11 ENLARGED PLAN–LAUNDRY 808



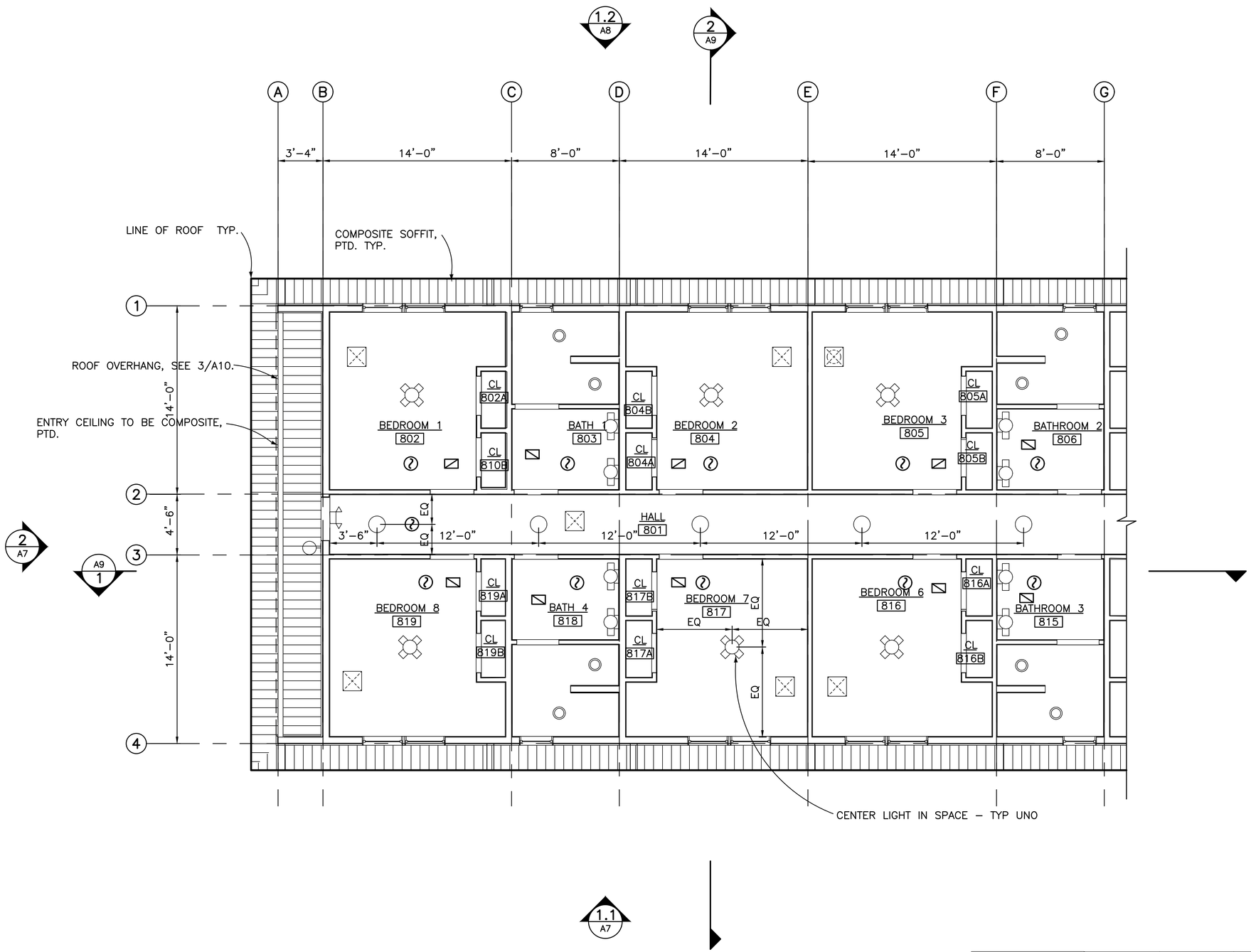
6 A11 INTERIOR ELEVATIONS–LAUNDRY 808

2 0 2 4 6 SCALE OF FEET

3/8" = 1'-0"

LICENSED ARCHITECT CARLA M. MASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A11	TITLE OF SHEET ENLARGED PLANS & INTERIOR ELEVATIONS 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 87 OF 131



1 A12 REFLECTED CEILING PLAN – WEST

GENERAL NOTES

1. ALL CEILINGS TO HAVE CF1– PAINTED GYPSUM BOARD CEILING FINISH.
2. MECHANICAL ROOM TO HAVE 1HR RATED CEILING PER 6/G2
3. ALL BATHROOMS AND LAUNDRY AREAS TO HAVE MOISTURE RESISTANT GYPSUM BOARD CEILINGS, PTD.

LEGEND

- 1HR FIRE WALL
- MECHANICAL VENT
- UNDERCABINET LIGHT
- RECESSED LIGHT
- STRIPLIGHT
- SURFACE MOUNTED LIGHT FIXTURE
- SURFACE MOUNTED FAN AND LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- ### SEE SHEET G1 FOR KEYNOTES
- SMOKE/CARBON MONOXIDE DETECTOR
- ATTIC ACCESS HATCH
- EMERGENCY EXIT LIGHT
- ERV ROOM

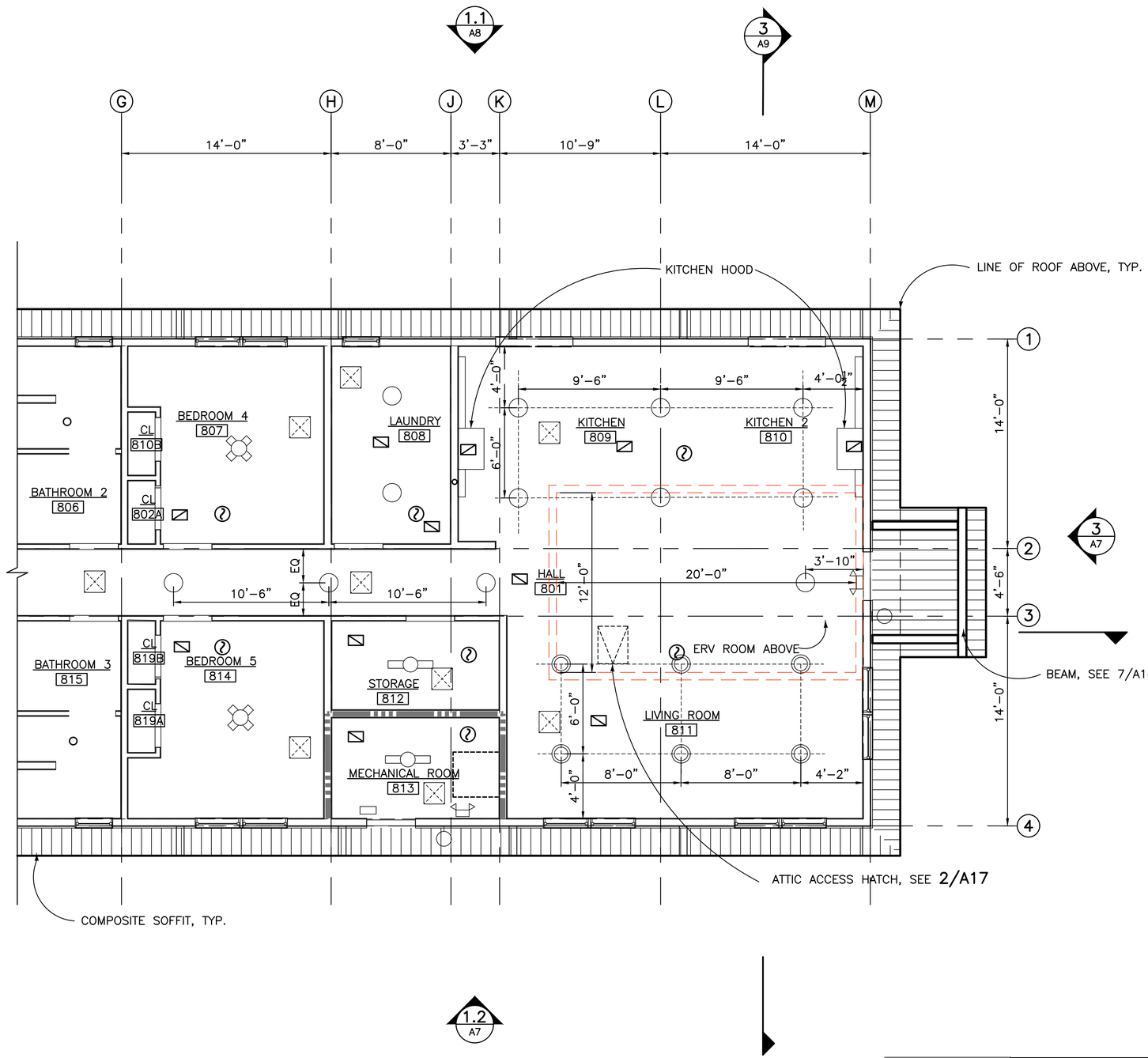
4 0 4 8
SCALE OF FEET

1/4" = 1'–0"

PLAN NORTH

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A12	TITLE OF SHEET REFLECTED CEILING PLAN WEST 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 88 OF 131



GENERAL NOTES

1. ALL CEILINGS TO HAVE CF1– PAINTED GYPSUM BOARD CEILING FINISH.
2. MECHANICAL ROOM TO HAVE 1HR RATED CEILING PER 6/G2
3. ALL BATHROOMS AND LAUNDRY AREAS TO HAVE MOISTURE RESISTANT GYPSUM BOARD CEILINGS, PTD.

LEGEND

- 1HR FIRE WALL
- MECHANICAL VENT
- UNDERCABINET LIGHT
- RECESSED LIGHT
- STRIPLIGHT
- SURFACE MOUNTED LIGHT FIXTURE
- SURFACE MOUNTED FAN AND LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- ### SEE SHEET G1 FOR KEYNOTES
- SMOKE/CARBON MONOXIDE DETECTOR
- ATTIC ACCESS HATCH
- EMERGENCY EXIT LIGHT
- ERV ROOM

4 0 4 8
SCALE OF FEET

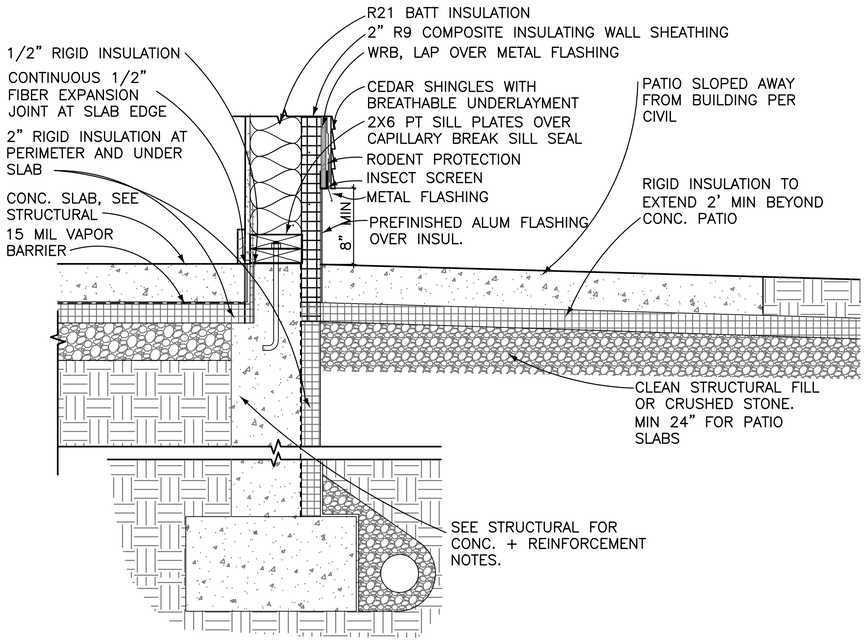
1/4" = 1'-0"

PLAN NORTH

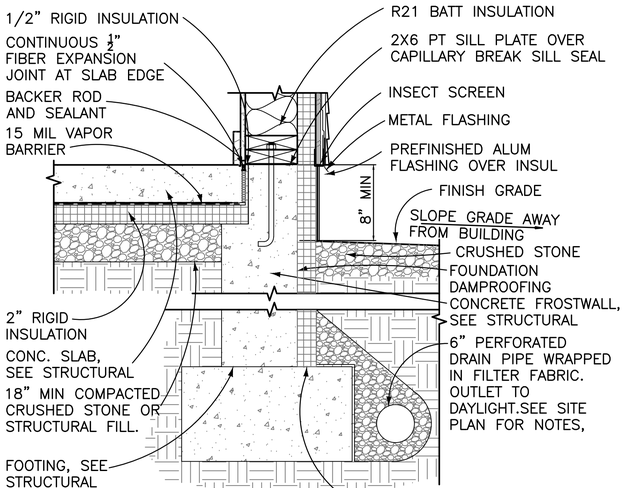
1 A13 REFLECTED CEILING PLAN – EAST

LICENSED ARCHITECT CARLA M. HASKELL NO. 2748 STATE OF MAINE

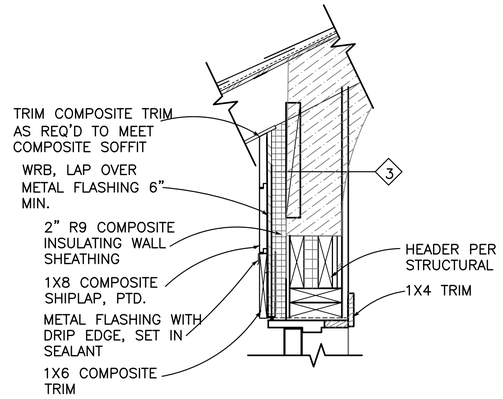
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A13	TITLE OF SHEET REFLECTED CEILING PLAN EAST 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 89 OF 131



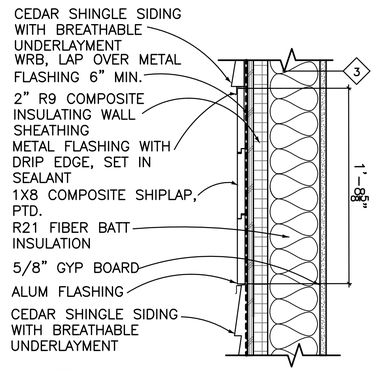
1 / A14 TYP FOOTING AT PATIO
SCALE Ⓒ



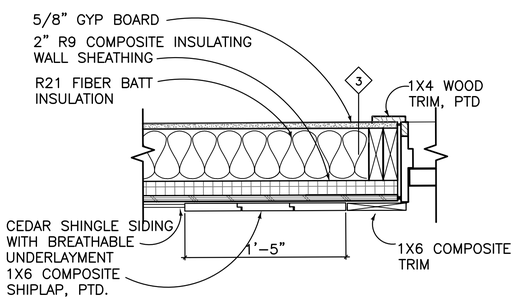
2 / A14 TYP FOOTING AT GRADE
SCALE Ⓒ



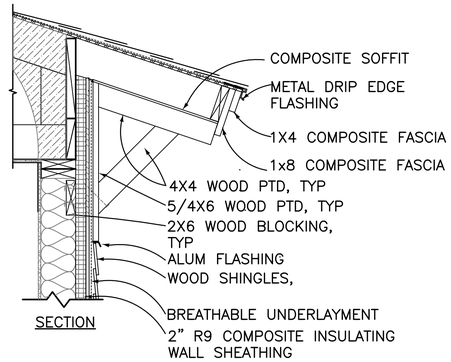
3 / A14 SHIPLAP TRIM @ DOOR & WINDOWS
SCALE Ⓒ



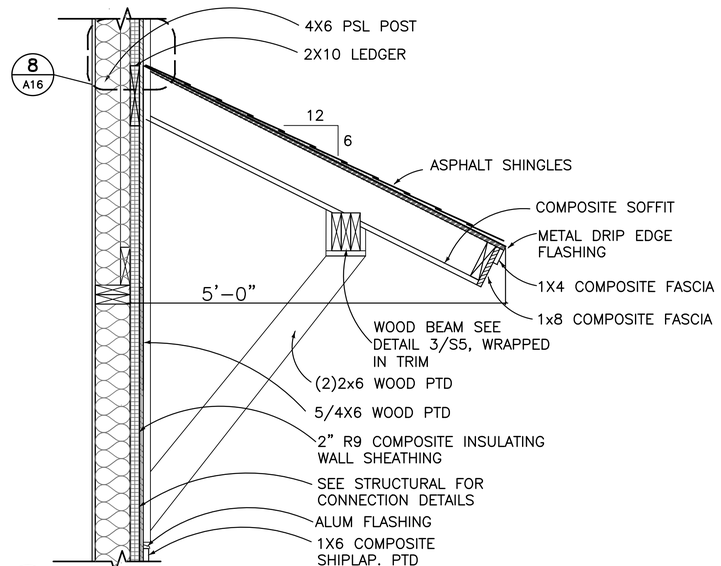
4 / A14 SHIPLAP TRIM, TYP.
SCALE Ⓒ



5 / A14 SHIPLAP TRIM @ ENTRY WALL (PLAN)
SCALE Ⓒ



6 / A14 BRACKET@ MAIN ROOF
SCALE Ⓐ



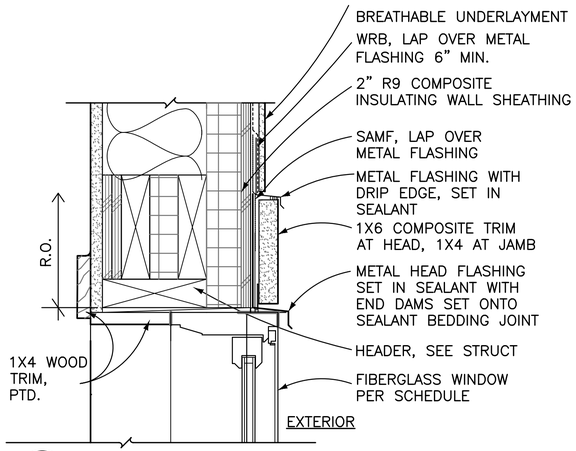
7 / A14 BRACKET AT ENTRY ROOF
SCALE Ⓐ

SCALE Ⓐ 1 0 1 2 — SCALE OF FEET — 1"=1'-0"

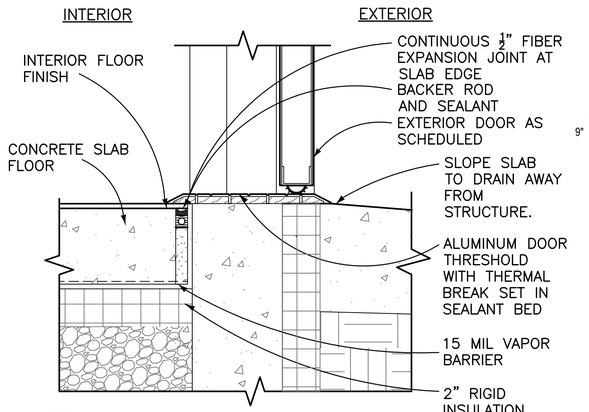
SCALE Ⓒ 12 6 0 12 — SCALE OF INCHES — 1-1/2" = 1'-0"

LICENSED ARCHITECT CARLA M. MASKELL NO. 2748 STATE OF MAINE

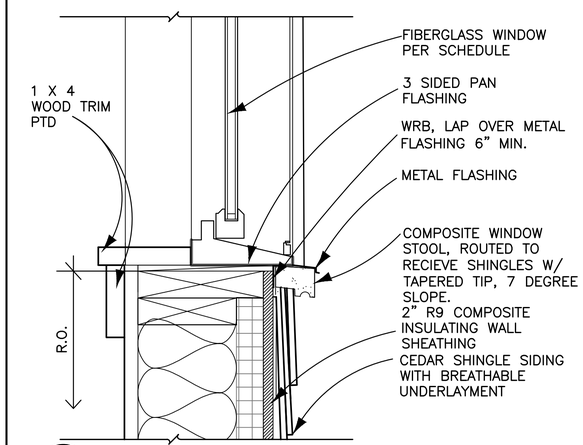
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A14	TITLE OF SHEET EXTERIOR DETAILS 8-BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 90 OF 131



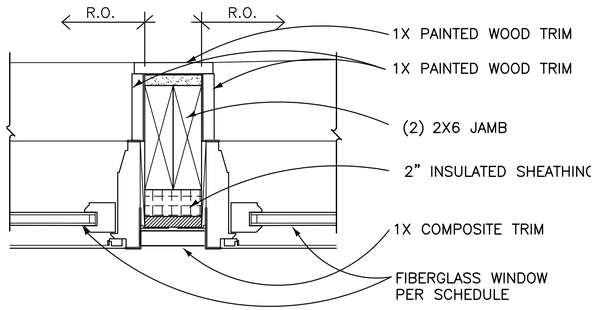
1 A15 TYP WINDOW HEAD (JAMB SIMILAR)
SCALE A



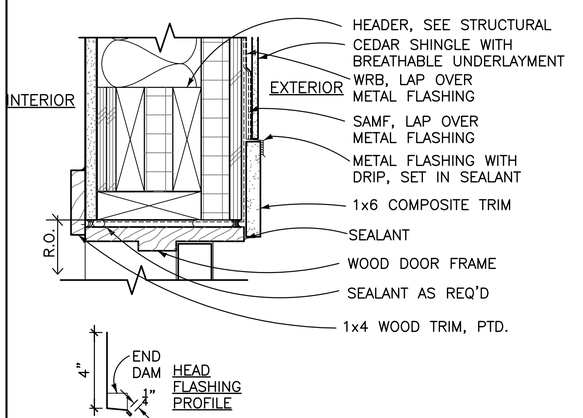
4 A15 TYPICAL DOOR THRESHOLD
SCALE A



2 A15 TYPICAL WINDOW SILL
SCALE A

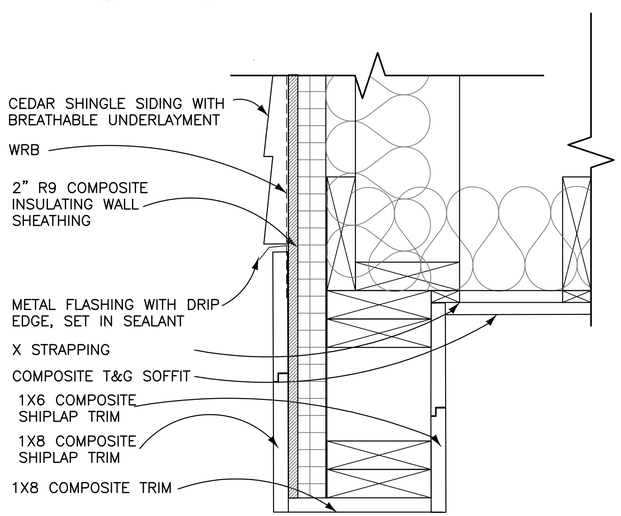


5 A15 TYPICAL WINDOW MULL
SCALE A

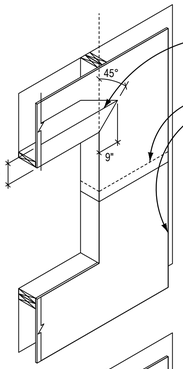


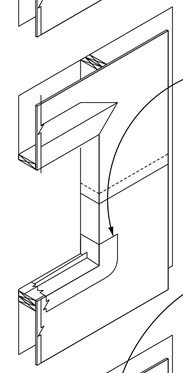
NOTE: PROVIDE WEATHER WRAP PER 7/A15

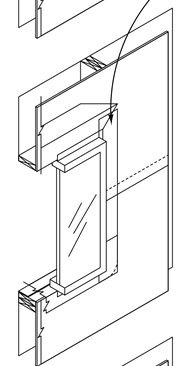
3 A15 TYPICAL DOOR HEAD (JAMB SIMILAR)
SCALE A

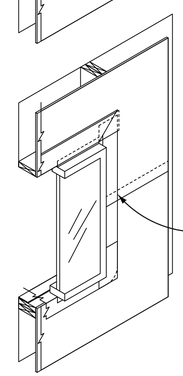


6 A15 OVERHANG AT ENTRY
SCALE A









STEP 1
CUT HEAD FLAP AT 45 DEGREES AND SECURE IT AWAY FROM THE OPENING.

INSTALL WRB IN A MECHANICAL, SHINGLE LAPPED STYLE AND SEAL IT WITH WRP MANUFACTURER'S APPROVED TAPE. RETURN WRB INTO JAMBS OF WINDOW OPENING.

NOTE:
CHECK WINDOW ROUGH OPENING FOR LEVEL, PLUMB, AND SQUARENESS. IN ADDITION, VERIFY THAT THE OPENING WILL ENABLE MANUFACTURER'S REQUIRED CLEARANCE AT HEADS AND JAMBS OF WINDOWS. IF THESE ARE NOT AVAILABLE THE WINDOW SHOULD NOT BE INSTALLED AND THE CONSTRUCTION SUPERINTENDENT SHOULD BE NOTIFIED.

STEP 3
INSTALL FLEXIBLE SAMF IN THE WINDOW SILL AND EXTEND IT UP JAMBS 6" ON EACH SIDE OVER THE WRB. PRESS THE FLASHING ALONG THE FRONT OF THE SILL AND INTO THE CORNERS USING A ROLLER TO ROLL IT DOWN FIRMLY. CREATE WINDOW PAN FLASHING BY TURNING UP ON THE INTERIOR.

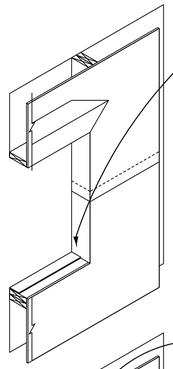
STEP 5
INSTALL 6" WIDE SAMF ON EACH SIDE OF THE WINDOW JAMB OVER THE WRB AND WINDOW FLANGE. SAMF SHALL BE ROLLED DOWN WITH SMALL, HARD ROLLER TO ENSURE PROPER ADHESION.

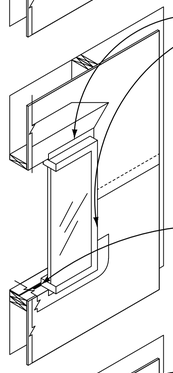
NOTES:
1. INSPECT WINDOW FRAME MITER JOINTS AND NAILING FLANGES FOR DAMAGE AND REPAIR AS NECESSARY.
2. NO WINDOW GAPS ARE ALLOWED AT WALL FINS OF FACTORY MULLED WINDOWS.
3. CHECK WINDOW FOR PROPER TYPE AND SIZE FOR LOCATION.
4. AFTER THE WINDOW IS PUT INTO THE ROUGH OPENING IT SHALL BE ADJUSTED TO ENABLE THE MANUFACTURER'S MINIMUM AIRSPACE BETWEEN THE WINDOW AND THE JAMBS AND HEAD.
5. INSTALL WINDOW UNIT PER MANUFACTURER'S INSTRUCTIONS WITH MANUFACTURER'S RECOMMENDED MATERIALS AND FASTENERS. CLEAN WINDOW SEALANT OFF BUILDING SUBSTRATE, WRB, AND WINDOW FIN. DO NOT INSTALL SAMF UNTIL WINDOW SEALANT HAS CURED.
6. DO NOT SECURE WINDOW THROUGH NAIL FIN AT HEAD OF WINDOW UNLESS APPROVED BY WINDOW MANUFACTURER.

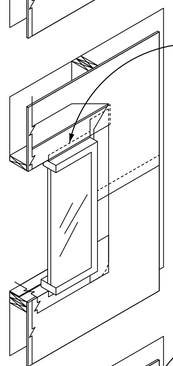
STEP 7
LOWER THE HEAD FLAP OF THE WRB OVER HEAD AND JAMB SAMF.

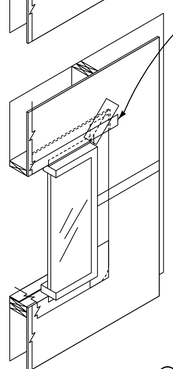
NOTE:
WHEN OPENING HEAD FLASHING IS TO BE INSTALLED PER DETAILS, SEAL WRB TO HEAD FLASHING WITH SAMF.

7 A15 TYP EXTERIOR OPENINGS WEATHER WRAP
NOT TO SCALE









STEP 2
STAPLE DOWN 1/8" CORRUGATED PLASTIC BACK DAM. POSITION IT 1/2" IN FROM THE BACK OF THE OPENING AND WITH ENOUGH SPACE FOR THE INSTALLATION OF THE WINDOW.

STEP 4
INSTALL THE WINDOW BY APPLYING A CONTINUOUS BEAD OF MANUFACTURER'S SEALANT BEHIND THE JAMB AND HEAD FLANGES ONLY (NEVER THE BOTTOM) AND SECURE IT TO THE FRAMED OPENING PER THE WINDOW MANUFACTURER'S SPECS.

NOTE:
CONFIRM SEALANT IS COMPATIBLE WITH FLEXIBLE SAMF BEFORE USE IN WINDOW INSTALLATION.

PROVIDE SEALANT DAM IMMEDIATELY BEHIND WINDOW AT INTERIOR OR SILL AND UP JAMBS 1" AFTER WINDOW INSTALLATION.

STEP 6
APPLY 6" WIDE SAMF ACROSS THE WINDOW HEAD. EXTEND BEYOND THE JAMB SAMF.

NOTES:
1. JAMB SAMF SHALL BE INSTALLED SO THAT THE HEAD SAMF WILL LAP OVER A MINIMUM OF 1" AT THE HEAD.
2. INSTALL OPENING HEAD FLASHING JUST AFTER THIS STEP AND BEFORE THE NEXT STEP WHERE NOTED IN THE DETAIL.

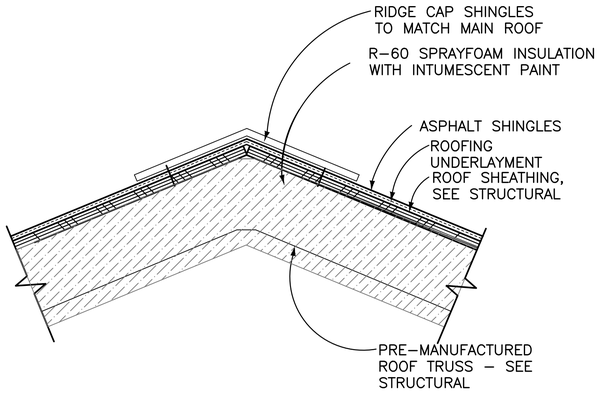
STEP 8
TAPE THE 45 DEGREE CUTS WITH SAMF. TAPE THE WRB DOWN ACROSS THE WINDOW HEAD PRIOR TO SIDING.

NOTE:
APPLY EXTERIOR RAINSCREEN, TRIM, TRIM FLASHING, AND SIDING ONLY AFTER ALL THESE STEPS ARE COMPLETE.

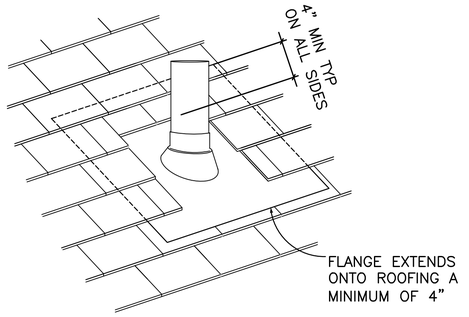
SCALE A
6 3 0 6
SCALE OF INCHES
3" = 1'-0"

LICENSED ARCHITECT
CARLA M. MASKELL
NO. 2748
STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW DRAWN: AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A15	TITLE OF SHEET EXTERIOR DETAILS 8-BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. XXX 60025A PMIS/PKG NO. 309000 SHEET 91 OF 131

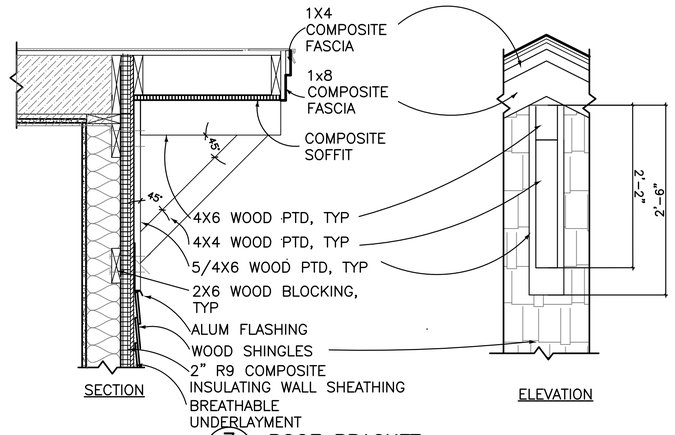


1 A16 **TYP ROOF RIDGE**
NOT TO SCALE

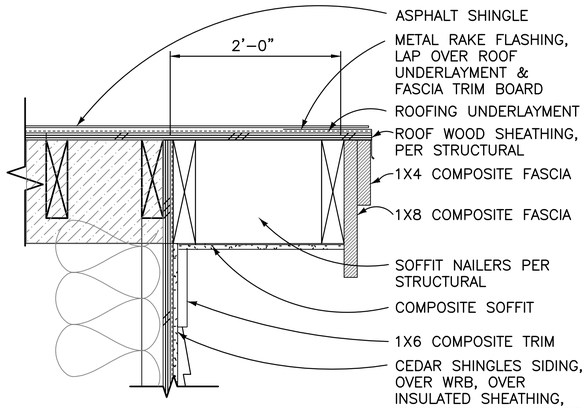


NOTE:
FLASHING IS SIMILAR FOR ANY SIMILAR TYPE OF ROOF PENETRATION

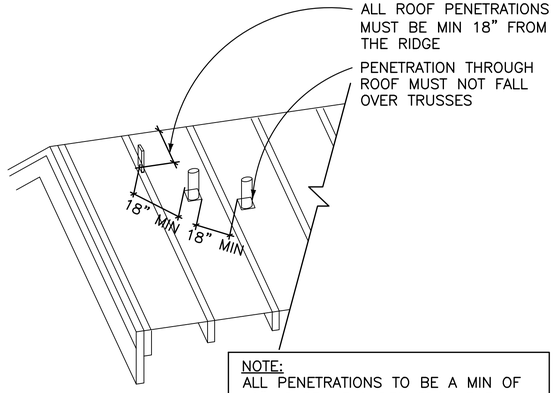
4 A16 **PLUMBING PENETRATION AT ROOF**
NOT TO SCALE



7 A16 **ROOF BRACKET**
SCALE C

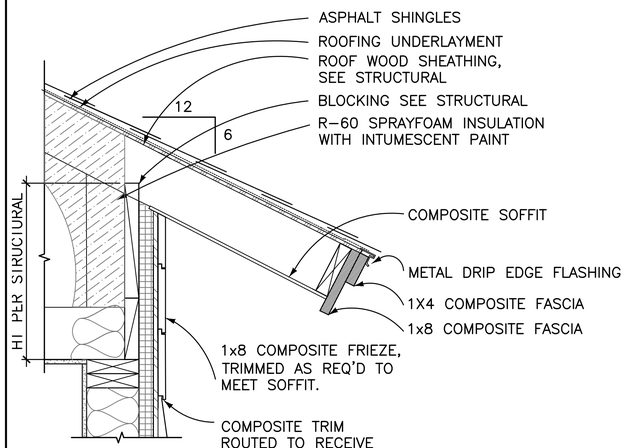


2 A16 **TYPICAL ROOF RAKE**
SCALE A

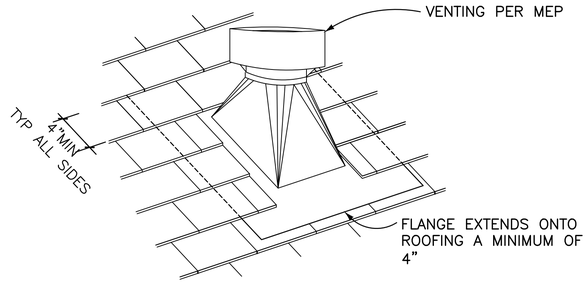


NOTE:
ALL PENETRATIONS TO BE A MIN OF 18" APART MEASURED FROM THE EDGE OF THE PENETRATION, TO ALLOW FOR PROPER ROOF APPLICATION.
ALL VENTS TO BE PAINTED BLACK.

5 A16 **PENETRATIONS AT ROOF**
NOT TO SCALE

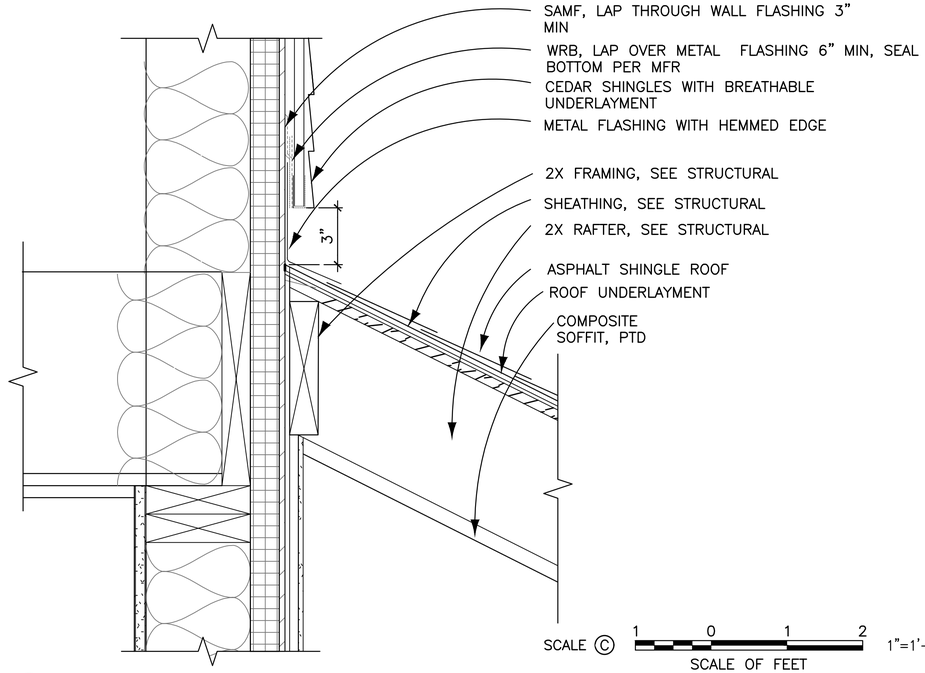


3 A16 **TYP ROOF EAVE**



NOTE:
FLASHING IS SIMILAR FOR ANY TYPE OF ROOF PENETRATIONS

6 A16 **VENTILATION PENETRATION AT ROOF**
NOT TO SCALE



8 A16 **ENTRY ROOF / WALL DETAIL**
SCALE A

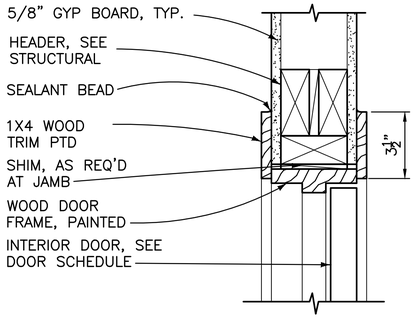
SCALE C 1 0 1 2 — SCALE OF FEET — 1"=1'–0"

SCALE B 12 6 0 12 — SCALE OF INCHES — 1–1/2" = 1'–0"

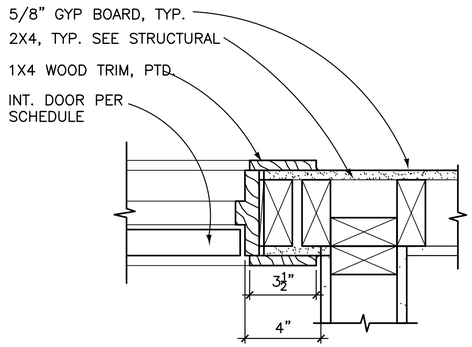
SCALE A 6 3 0 6 — SCALE OF INCHES — 3" = 1'–0"



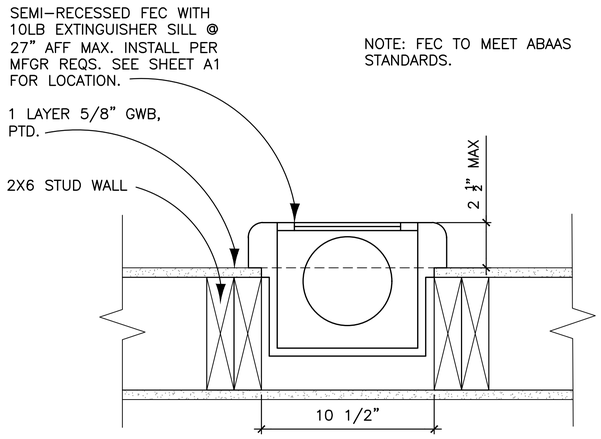
A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A16	TITLE OF SHEET ROOF DETAIL 8–BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 92 OF 131



1 A17 **TYP INTERIOR DOOR HEAD (JAMB SIM)**
SCALE (A)

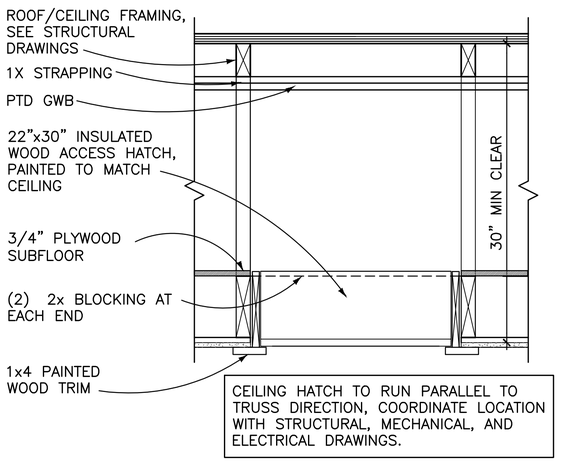


4 A17 **TYPICAL INTERIOR DOOR JAM**
SCALE (A)



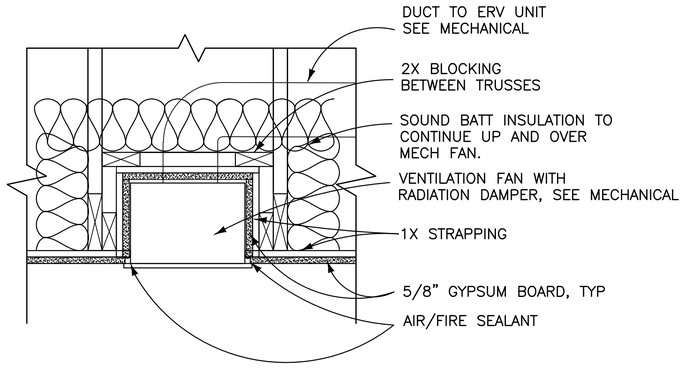
NOTE: FEC TO MEET ABAAS STANDARDS.

7 A17 **FEC DETAIL**
SCALE (A)

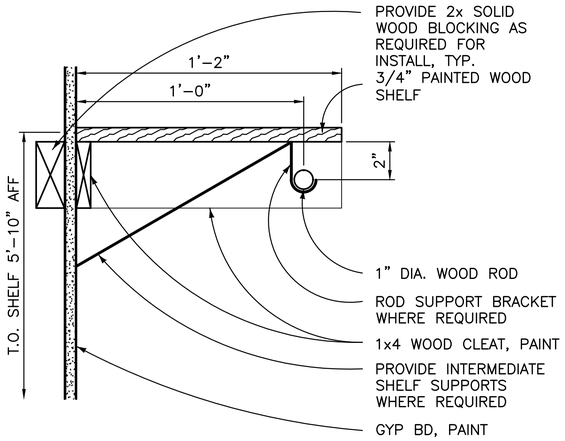


CEILING HATCH TO RUN PARALLEL TO TRUSS DIRECTION, COORDINATE LOCATION WITH STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.

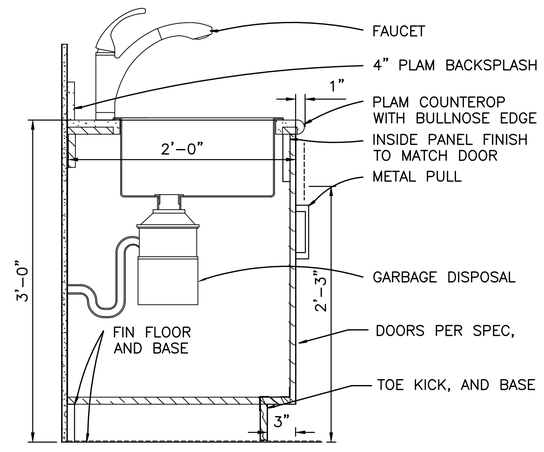
2 A17 **CEILING SECTION AT ATTIC HATCH**
SCALE (B)



5 A17 **MECH FAN AT CEILING**
SCALE (B)



3 A17 **SHELF & ROD AT CLOSET**
SCALE (A)



6 A17 **COUNTER AT KITCHEN**
SCALE (B)

SCALE (B) 12 6 0 12 — SCALE OF INCHES — 1-1/2" = 1'-0"

SCALE (A) 6 3 0 6 — SCALE OF INCHES — 3" = 1'-0"

LICENSED ARCHITECT CARLA M. HASKELL No. 2748 STATE OF MAINE

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: DGC ELLSWORTH, ME	DESIGNED: MW CADD AND TECH. REVIEW: MW DATE: 2/28/2025	SUB SHEET NO. A17	TITLE OF SHEET INTERIOR DETAILS 8-BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 93 OF 131

GENERAL NOTES

GENERAL REQUIREMENTS
GOVERNING CODE
THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE 2021 INTERNATIONAL BUILDING CODE (IBC).

THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK. USE DETAILS MARKED "TYPICAL" WHEREVER THEY APPLY.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING DETAILS AND ACCURACY OF THE WORK; FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; FOR SELECTING FABRICATION PROCESSES; FOR TECHNIQUES OF ASSEMBLY; AND FOR PERFORMING WORK IN A SAFE AND SECURE MANNER.

THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA.

THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND REQUIREMENTS FOR EXECUTING IT PROPERLY. THE STRUCTURE SHOWN ON THE PLANS HAS BEEN DESIGNED FOR STABILITY UNDER THE FINAL CONFIGURATION ONLY.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICTS BETWEEN THE DRAWINGS AND THE ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER BEFORE PROCEEDING WITH THE WORK.

DESIGN LOADS SEE LOAD MAPS

ROOF DEAD: SEE TRUSS DESIGN LOAD TABLE (S1)
WALL DEAD: 14 PSF
FLOOR LIVE: 40 PSF
ROOF LIVE: 20 PSF
SNOW: GROUND SNOW (Pg): 50 PSF
FLAT SNOW LOAD (Pf): 42.0 PSF
EXPOSURE B ("PARTIALLY EXPOSED")
EXPOSURE FACTOR: Ce = 1.0
IMPORTANCE FACTOR: I = 1.0
THERMAL FACTOR: Ct = 1.2 (UNHEATED)
ROOF SLOPE FACTOR: Cs = 1.0
DRIFT SURCHARGE LOADS (Pd): PER ASCE 7-16 (SEE LOAD MAP)
UNBALANCED SNOW LOAD: PER ASCE 7-16 (SEE LOAD MAP)
FROST DEPTH: 54"*
WIND: 110 MPH Vult
RISK CAT. II
EXPOSURE B
Cpi +/-0.18
SEISMIC Ss=0.224g
S1=0.065g
SITE CLASS D
RISK CAT. II
SYS: SHEATHED LIGHT FRAMED WOOD WALLS
METHOD: EQUIVALENT LATERAL FORCE
*OBTAINED FROM GEOTECHNICAL REPORT REFERENCED IN SOILS SECTION BELOW

SOILS
THE FOLLOWING SOIL PARAMETERS WERE OBTAINED FROM A REPORT ENTITLED "EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES" DATED FEBRUARY 8, 2024, PREPARED BY S.W. COLE ENGINEERING, INC. (37 LIBERTY DRIVE, BANGOR, ME 04401, (207)848-5714)

ALLOWABLE BEARING PRESSURE	3000 PSF
COEFFICIENT OF SHEAR FRICTION	0.3
INTERNAL FRICTION ANGLE (COMPACTED STRUCTURAL FILL):	30°
AT-REST LATERAL EARTH PRESSURE COEFFICIENT:	0.5

INSPECTIONS
FOUNDATIONS, FOOTINGS, UNDER SLAB SYSTEMS AND FRAMING ARE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL IN ACCORDANCE WITH IBC SECTION 1705. CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE BUILDING OFFICIAL. SEE STATEMENT OF SPECIAL INSPECTIONS ON SHEET S1.

SUBMITTALS:
SHOP DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO FABRICATION AND CONSTRUCTION REGARDING ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING:

CONCRETE MIX DESIGNS, CONCRETE REINFORCEMENT, EMBEDDED STEEL ITEMS, AND PREFABRICATED WOOD TRUSSES.

IF THE SHOP DRAWINGS DIFFER FROM, OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE THE CONTRACTING OFFICER.

DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS, INCLUDING PREFABRICATED WOOD TRUSSES SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED, AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO FABRICATION. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE, CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE CODES LISTED ABOVE AND THE LOADS OUTLINED ABOVE.

THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. ANY CONNECTIONS TO STRUCTURE NOT CONFORMING TO SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA), OR SPECIFICALLY DETAILED ON THE MECHANICAL ENGINEER'S DRAWINGS, SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED, AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO FABRICATION.

FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM, OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER PRIOR TO CONSTRUCTION.

CAST-IN-PLACE CONCRETE
CONCRETE WORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".

CONTRACTOR TO SUBMIT ALL MIX DESIGNS REQUIRED BY ACI 301 SECTIONS 4.2.1. CONTRACTOR TO VERIFY CONCRETE STRENGTHS BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39. CONTRACTOR TO USE THE FOLLOWING MIX DESIGN REQUIREMENTS

CONCRETE MIX SPECIFICATION TABLE

LOCATION	f'c MIN PSI	TEST AGE (DAYS)	MAX W/CM RATIO	AIR CONTENT (%)	MAX AGGREGATE SIZE (IN.)	NOTES
FOOTINGS	3,500	28	0.55	4.5%± 1.5%	¾"	
WALLS	4,500	28	0.45	6.0%± 1.5%	¾"	
EXTERIOR SLABS	4,000	28	0.45	6.0%± 1.5%	¾"	
INTERIOR SLABS	3,000	28	N/A	3.0%± MAX	¾"	CONTRACTOR TO PREVENT SLABS FROM FREEZING

HIGHER WATER/CEMENT RATIOS THAN SHOWN ABOVE MAY BE USED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318-14, CHAPTER 19.

SLAG CONFORMING TO ASTM C989 MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS, ALONG WITH TEST DATA AS REQUIRED, A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE POURING. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.

CONCRETE REINFORCING
CONCRETE REINFORCING SHALL CONFORM TO ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE".

CONTRACTOR SHALL SUBMIT PLACING DRAWINGS SHOW FABRICATION DIMENSIONS AND LOCATIONS FOR PLACEMENT OF REINFORCEMENT AND REINFORCEMENT SUPPORTS.

MATERIALS
REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED BARS AND ASTM A185 FOR SMOOTH WELDED WIRE FABRIC (WWF), UNLESS OTHERWISE NOTED. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE. BARS IN SLABS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315. WELDING OF REINFORCING STEEL IS NOT PERMITTED.

UNLESS OTHERWISE NOTED ON PLANS, CONCRETE COVER SHALL BE:

USE	COVER
SLAB BARS	1.5" TOP COVER
WALL BARS:	
INTERIOR FACES	3/4"
EXPOSED TO EARTH OR WEATHER	1-1/2" (#5 AND SMALLER) 2" (#6 AND LARGER)
FOOTING BARS	3" BOTTOM COVER
ALL OTHER LOCATIONS	1-1/2"

SPLICES
SPLICES SHALL CONFORM TO ACI 301, SECTION 3.3.2.7 "SPLICES". LAP SPLICES SHALL CONFORM TO THE TABLE BELOW:

REINFORCING SPLICE LENGTHS (CLASS B) GRADE 60						f'c = 4.0 ksi
BAR SIZE	#3	#4	#5	#6	#7	#8
UNCOATED	1'-6"	2'-0"	2'-0"	2'-6"	2'-9"	3'-7"

CONCRETE ACCESSORIES:
PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED, GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED. NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER CASTING.

EPOXY ADHESIVE: EPOXY ADHESIVE SHALL CONFORM TO ASTM C881 AND SHALL BE A TWO- COMPONENT, LIQUID EPOXY WITH NON-SAG CONSISTENCY AND A LONG POT LIFE, AND SHALL BE SUITABLE FOR USE ON DRY OR DAMP SURFACES. MINIMUM SLANT SHEAR STRENGTH SHALL BE 5,000 PSI, AND MINIMUM TENSILE STRENGTH SHALL BE 4,000 PSI. HOLES FOR GROUTED RODS AND REBAR SHALL BE 1/4" LARGER THAN THE BAR DIAMETER. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL STEEL
STRUCTURAL STEEL IS DESIGNED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS. CONSTRUCTIONS SHALL CONFORM TO CHAPTER 22 OF THE IBC.

MATERIALS

STRUCTURAL STEEL SHALL BE THE TYPES AND STRENGTHS LISTED BELOW:

STRUCTURAL BARS AND PLATES (PL)	ASTM A36, FY=36KSI
WELDING ELECTRODES	E70XX UNLESS OTHERWISE NOTED

WELDING SHALL CONFORM TO AWS D1.1 AND VISUALLY CONFORM TO AWS SECTION 6 AND TABLE 6.1. WELDERS SHALL BE QUALIFIED FOR THE SPECIFIC PREQUALIFIED JOINTS REQUIRED BY THE DESIGN AND CERTIFIED IN ACCORDANCE WITH AWS REQUIREMENTS. WELDING SHALL BE DONE IN ACCORDANCE WITH APPROPRIATE WELD PROCEDURE SPECIFICATIONS (WPSS); WELDERS SHALL BE FAMILIAR WITH THE APPLICABLE WSPSS. WELDING SHALL BE DONE WITH AWS PREQUALIFIED WELDING PROCESSES UNLESS OTHERWISE APPROVED. WELDER QUALIFICATIONS AND WPSS SHALL BE MAINTAINED AT THE SITE OF THE WORK AND SHALL BE READILY AVAILABLE FOR INSPECTION UPON REQUEST, BOTH IN THE SHOP AND IN THE FIELD.

TIMBER MEMBERS
TIMBER MEMBER, INCLUDING WOOD TRUSSES, SHALL CONFIRM TO CHAPTER 23 OF THE 2021 IBC AND THE STANDARDS LISTED THEREIN. GANG NAILED TRUSSES (ALSO KNOWN AS METAL PLATE CONNECTED WOOD TRUSSES OR ENGINEERED WOOD TRUSSES), OPEN WEB WOOD JOISTS, AND CLOSED WEB WOOD JOISTS, SHALL ALL BE IN ACCORDANCE WITH SPEC SECTION 061745 "WOOD TRUSSES AND JOINTS".

SUBMITTALS
SUPPLY SHOP DRAWINGS AND CALCULATIONS STAMPED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED FOR THE ENGINEERED WOOD TRUSSES. LOADINGS SHALL BE AS NOTED ON THE PLANS.

MATERIALS
ALL SAWN LUMBER AND PREMANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY. SAWN LUMBER SHALL CONFORM TO GRADING RULES OF WWPA, WCLIB OR NLGA AND THE TABLE BELOW, FINGER JOINTED STUDS ARE NOT PERMITTED ON THIS PROJECT.

USE	GRADE
JOISTS, PLANKING, BLOCKING, AND WALL STUDS	
2" TO 4" THICK, 2" AND WIDER	SPRUCE-PINE-FIR NO. 1/2
WALL PLATES & NAILERS	
2" TO 4" THICK, 2" AND WIDER	SPRUCE-PINE-FIR NO. 1/2
BEAMS/STRINGERS	SPRUCE-PINE-FIR NO. 1/2
POSTS	SPRUCE-PINE-FIR NO. 1/2

ALL BLOCKING SHALL BE FULL DEPTH MINIMUM 2X WIDTH AND SHALL BE CONNECTED BY MINIMUM 1 FASTENER @ 16" O.C.

ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE TREATED UNLESS AN APPROVED BARRIER IS PROVIDED. PT LUMBER SHALL BE SOUTHERN YELLOW PINE NO. 1/2 OR BETTER WITH MINIMUM Fb = 1500 PSI. PT LUMBER SHALL MEET USE CATEGORIES AS FOLLOWS (BASED ON AMERICAN WOOD PROTECTION ASSOCIATION STANDARD UI-08):
PLATES: USE CATEGORY UC2
EXTERIOR POSTS: USE CATEGORY UC41
EXTERIOR CONSTRUCTION NOT IN CONTACT WITH GROUND: USE CATEGORY UC3B

ALL SHEATHING SHALL BE APA RATED. UNLESS OTHERWISE NOTED ON DRAWINGS, INSTALL ROOF AND FLOOR PANELS WITH LONG DIMENSIONS ACROSS SUPPORTS AND THE PANEL CONTINUOUS OVER TWO OR MORE SPANS. END JOINTS SHALL OCCUR OVER SUPPORTS. GRADE MARKING OF SHEATHING CERTIFICATION IS REQUIRED. SEE NOTES ON FOUNDATION PLANS.

TIMBER CONNECTORS SHALL BE "STRONG TIE" BY SIMPSON COMPANY AS SPECIFIED IN THEIR CURRENT CATALOG. ALTERNATE CONNECTORS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR THE FOLLOWING SALIENT CHARACTERISTICS: EQUIVALENT OR GREATER LOAD CAPACITIES AND ARE REVIEWED AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO ORDERING. CONNECTORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. WHERE STRAPS ARE USED AS HOLD-DOWNS, NAIL STRAP TO WOOD FRAMING JUST PRIOR TO DRYWALL APPLICATION, AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE. PREMATURE NAILING OF THE STRAP MAY LEAD TO STRAP BUCKLING AND POTENTIAL FINISH DAMAGE.

WHERE CONNECTORS ARE IN EXPOSED EXTERIOR APPLICATIONS IN CONTACT WITH PRESERVATIVE TREATED WOOD (PT) OTHER THAN CCA, CONNECTORS SHALL BE EITHER BATCH HOT-DIPPED GALVANIZED, MECHANICALLY GALVANIZED, OR STAINLESS STEEL.

STATE OF MAINE — LIAM WATT — No. 11164 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S0	TITLE OF SHEET GENERAL NOTES 8-BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 94 OF 131

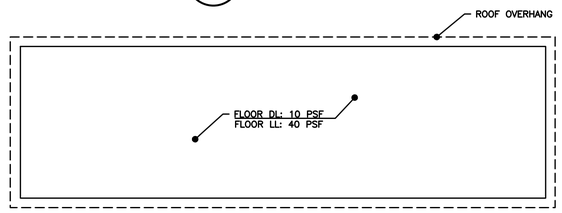
1/21/2025 14:44 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S0 & S1 GENERAL NOTES.dwg

STATEMENT OF SPECIAL INSPECTIONS				
PER SECTION 1705 OF THE 2021 IBC, THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTIONS AS REQUIRED BY AHJ:				
CONCRETE CONSTRUCTION				
VERIFICATION & INSPECTION	**CONTINUOUS**	**PERIODIC**	**REFERENCE STANDARD**	**IBC REFERENCE**
1. INSPECT FOOTING & WALL REINFORCEMENT, AND VERIFY PLACEMENT.		X	ACI 318: CHAPTER 20, 25.2, 25.3, 26.6–1, 26.6.3	
2. INSPECT ANCHORS CAST INTO CONCRETE WALLS.		X	ACI 318: 17.8.2	
3. INSPECT ADHESIVE ANCHORS POST–INSTALLED IN HARDENED CONCRETE.		X	ACI 318: 17.8.2	
4. VERIFY USE OF REQUIRED DESIGN MIX FOR FOOTINGS & WALLS.		X	ACI 318: CHAPTER 19, 26.4.3, 26.4.4	1904.1, 1904.2,
5. PRIOR TO CONCRETE PLACEMENT FOR FOOTINGS & WALLS, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X		ASTM C172, ASTM C31, ACI 318 26.4, 26.12	
6. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. (FOOTINGS & WALLS ONLY)		X	ACI 318: 26.5.3–26.5.5	
WOOD CONSTRUCTION				
VERIFICATION & INSPECTION	**CONTINUOUS**	**PERIODIC**	**REFERENCE STANDARD**	**IBC REFERENCE**
1. INSPECTION OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION, EXCEPT WHERE THE FABRICATOR HAS BEEN APPROVED TO PERFORM WORK WITHOUT SPECIAL INSPECTIONS.		X	--	1704.2.5
SOIL & BUILDING PAD INSPECTIONS				
VERIFICATION & INSPECTION	**CONTINUOUS**	**PERIODIC**	**REFERENCE STANDARD**	**IBC REFERENCE**
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		X	--	1705.6
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		X		
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		X		
4. VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT & COMPACTION OF COMPACTED FILL.	X			
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		X		
WIND RESISTANCE				
VERIFICATION & INSPECTION	**CONTINUOUS**	**PERIODIC**	**REFERENCE STANDARD**	**IBC REFERENCE**
EXEMPTED BY IBC 1705.12 POINT #1				
SEISMIC RESISTANCE				
VERIFICATION & INSPECTION	**CONTINUOUS**	**PERIODIC**	**REFERENCE STANDARD**	**IBC REFERENCE**
EXEMPTED BY IBC 1705.13 POINT #1				

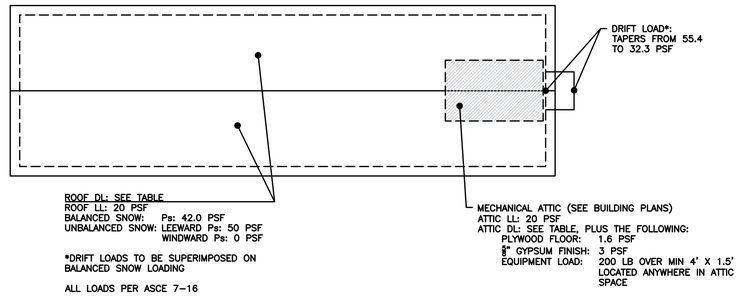
ROOF TRUSS DESIGN DEAD LOADS		
TOP CHORD (TC):	ROOFING ALLOWANCE	3 PSF
	PLYWOOD DECK	3 PSF
	INSULATION	1.2 PSF
	SOLAR ALLOWANCE	5 PSF
	TC TOTAL:	12.2 PSF
BOTTOM CHORD (BC):	STRAPPING	0.5 PSF
	½" GYPSUM	2 PSF
	MECH. DUCT ALLOWANCE (SEE MAP FOR ADDITIONAL ATTIC EQUIPMENT LOADS)	4 PSF
	SPRINKLER SYSTEM ALLOWANCE	2 PSF
	BC TOTAL:	8.5 PSF

1/S1 LOAD MAPS

NOT TO SCALE



FIRST FLOOR SLAB LOAD MAP

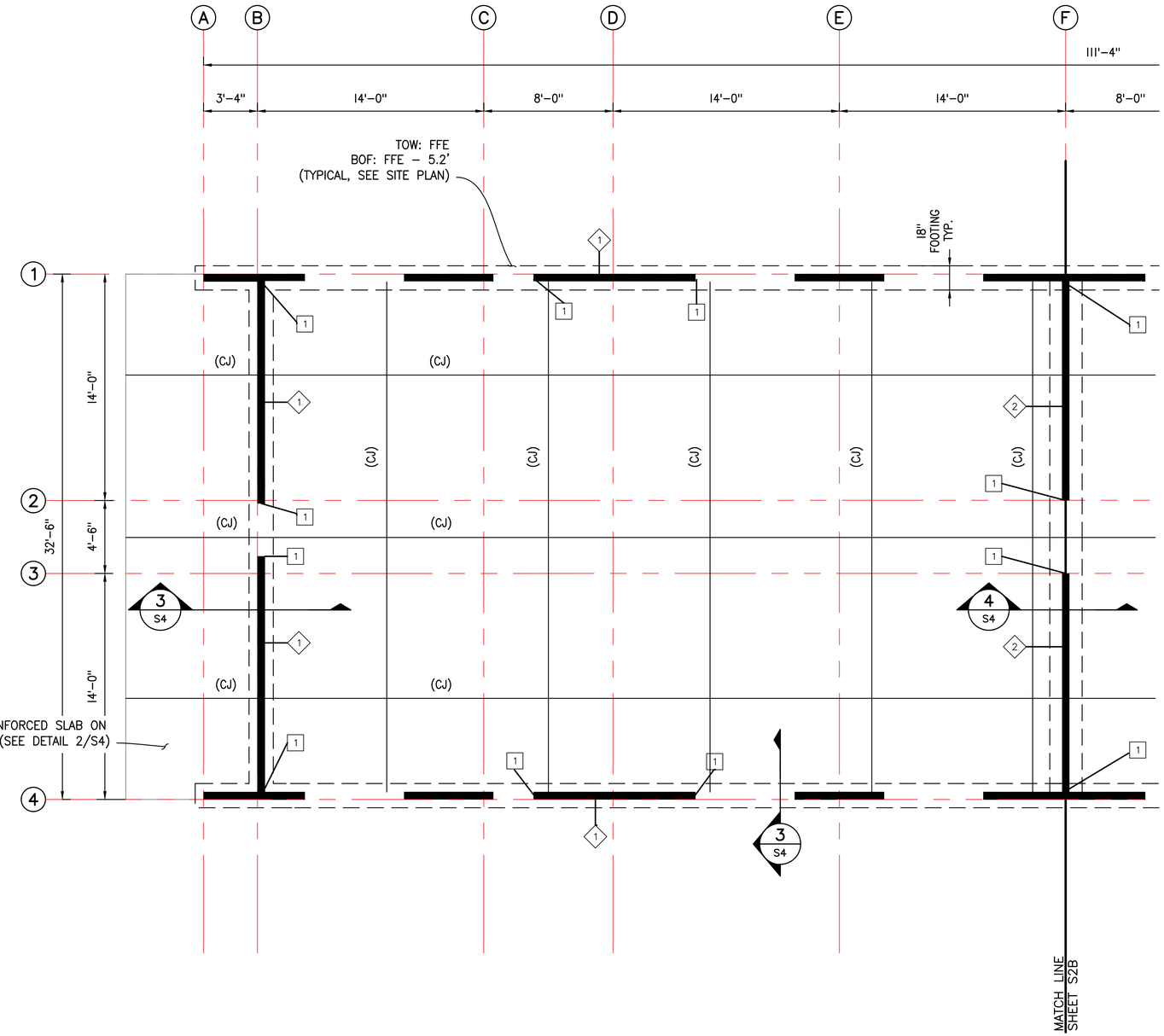


ROOF LOAD MAP

STATE OF MAINE · ALINA WYATT · No. 11164 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S1	TITLE OF SHEET LOAD MAP & NOTES **8–BEDROOM DORM** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 95 OF 131

1/21/2025 14:44 IAM R2024 C:\Users\iam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S0 & S1 GENERAL NOTES.dwg



1 S2A FIRST FLOOR AND FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS UNLESS NOTED OTHERWISE.
2. ALL CONTINUOUS FOOTINGS SHALL BE 11" DEEP AND 1'-6" WIDE UNLESS NOTED OTHERWISE. SEE FOUNDATION DETAIL 3/S4
3. CONTRACTOR TO SUBMIT CONTROL JOINT PLAN TO CONTRACTING OFFICER. MAX SPACING SHALL BE 10'-0". REF. 1/S4.
4. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
5. HD INDICATES HOLDDOWN TYPE, SEE 5/S4 FOR MORE INFORMATION.
6. (#) INDICATES WALL TYPE, SEE TABLE THIS PAGE.
7. TYPICAL WALL TO BE SPF NO.1 / NO.2, 2x6 STUDS @ 16" O.C. WITH 15/32" STRUCTURAL SHEATHING, UNLESS NOTED OTHERWISE.
8. REFERENCE 1/S4 FOR TYP SLAB INFO.
9. FASTENERS IN SHEAR WALLS TO BE 10d 0.135"Ωx3¼" NAILS INSTALLED WITH MINIMUM 1 1/2" PENETRATION INTO FRAMING MEMBERS.
10. REF. 1/S5 FOR ADDITIONAL WALL DETAILS.

BEARING/SHEAR WALL SCHEDULE

MARK	FRAMING	SHEATHING	FASTENER SPACING FIELD	FASTENER SPACING EDGE
(1)	2x6 @ 16" OC	HUBER R-9 INSULATED SHEATHING, PANEL EDGES BLOCKED	12"	3"
(2)	2x4 @ 16" OC	INTERIOR SHEAR WALL, MIN. 15/32" STRUCTURAL I OSB SHEATHING ONE SIDE, PANEL EDGES BLOCKED	12"	6"

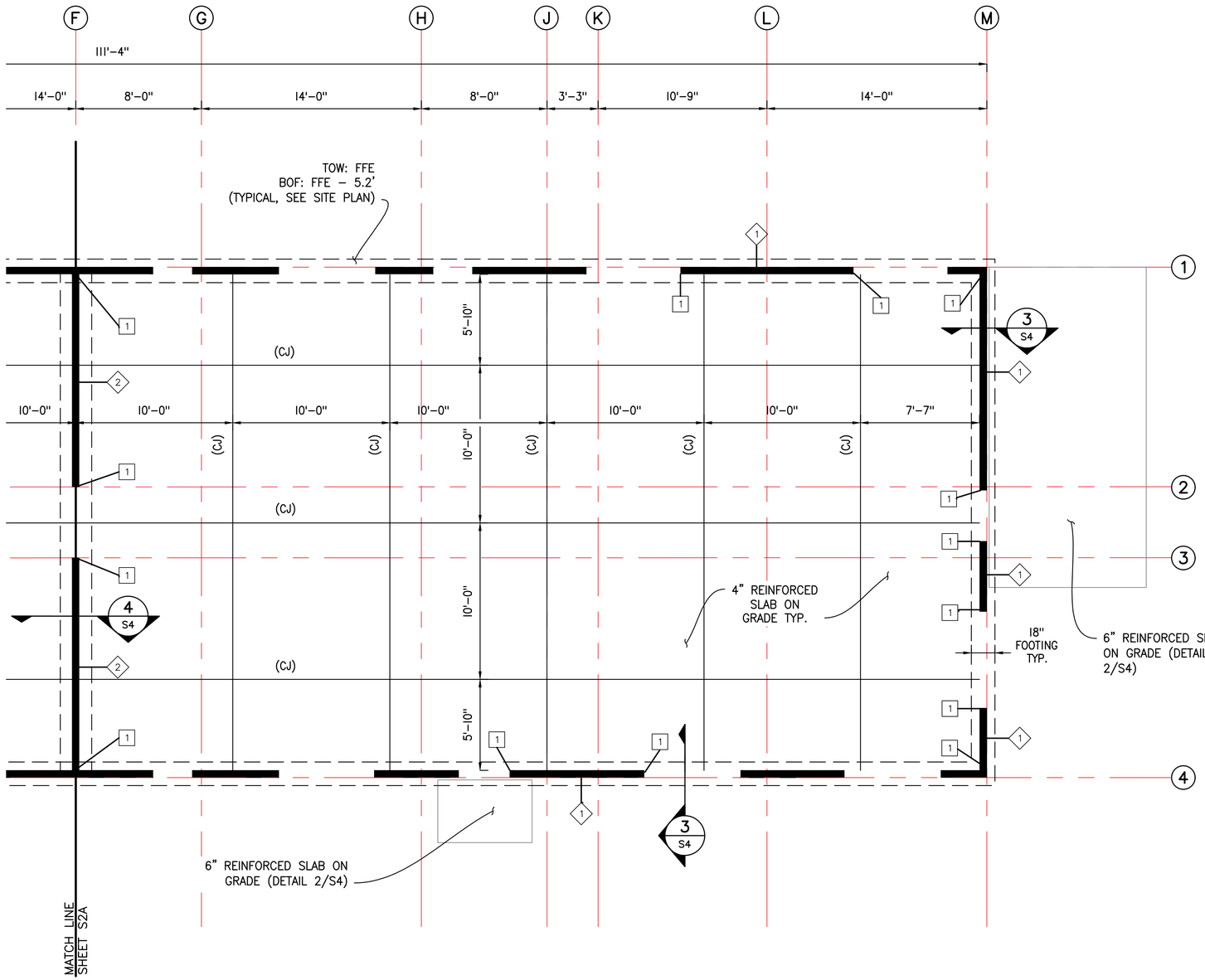
4 0 4 8
SCALE OF FEET

PLAN NORTH

STATE OF MAINE · ALINA WYATT · No. 11164 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S2A	TITLE OF SHEET FOUNDATION PLAN WEST 8-BEDROOM DORM HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 96 OF 131

2/21/2025 15:18 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S2A FOUNDATION PLAN WEST.dwg



1 / S2B FIRST FLOOR AND FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS UNLESS NOTED OTHERWISE.
2. ALL CONTINUOUS FOOTINGS SHALL BE 11" DEEP AND 1'-6" WIDE UNLESS NOTED OTHERWISE. SEE FOUNDATION DETAIL 3/S4
3. CONTRACTOR TO SUBMIT CONTROL JOINT PLAN TO CONTRACTING OFFICER. MAX SPACING SHALL BE 10'-0". REF. 1/S4.
4. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
5. ⊟ INDICATES HOLDDOWN TYPE, SEE 5/S4 FOR MORE INFORMATION.
6. ◇ (#) INDICATES WALL TYPE, SEE TABLE THIS PAGE.
7. TYPICAL WALL TO BE SPF NO.1 / NO.2, 2x6 STUDS @ 16" O.C. WITH 15/32" STRUCTURAL SHEATHING, UNLESS NOTED OTHERWISE.
8. REFERENCE 1/S4 FOR TYP SLAB INFO.
9. FASTENERS IN SHEAR WALLS TO BE 10d 0.135Ωx3¼"NAILS INSTALLED WITH MINIMUM 1 1/2" PENETRATION INTO FRAMING MEMBERS.
10. REF. 1/S5 FOR ADDITIONAL WALL DETAILS.

BEARING/SHEAR WALL SCHEDULE

MARK	FRAMING	SHEATHING	FASTENER SPACING FIELD	FASTENER SPACING EDGE
1	2x6 @ 16" CC	HUBER R-9 INSULATED SHEATHING, PANEL EDGES BLOCKED	12"	3"
2	2x4 @ 16" OC	INTERIOR SHEAR WALL, MIN. 15/32" STRUCTURAL I OSB SHEATHING ONE SIDE, PANEL EDGES BLOCKED	12"	6"

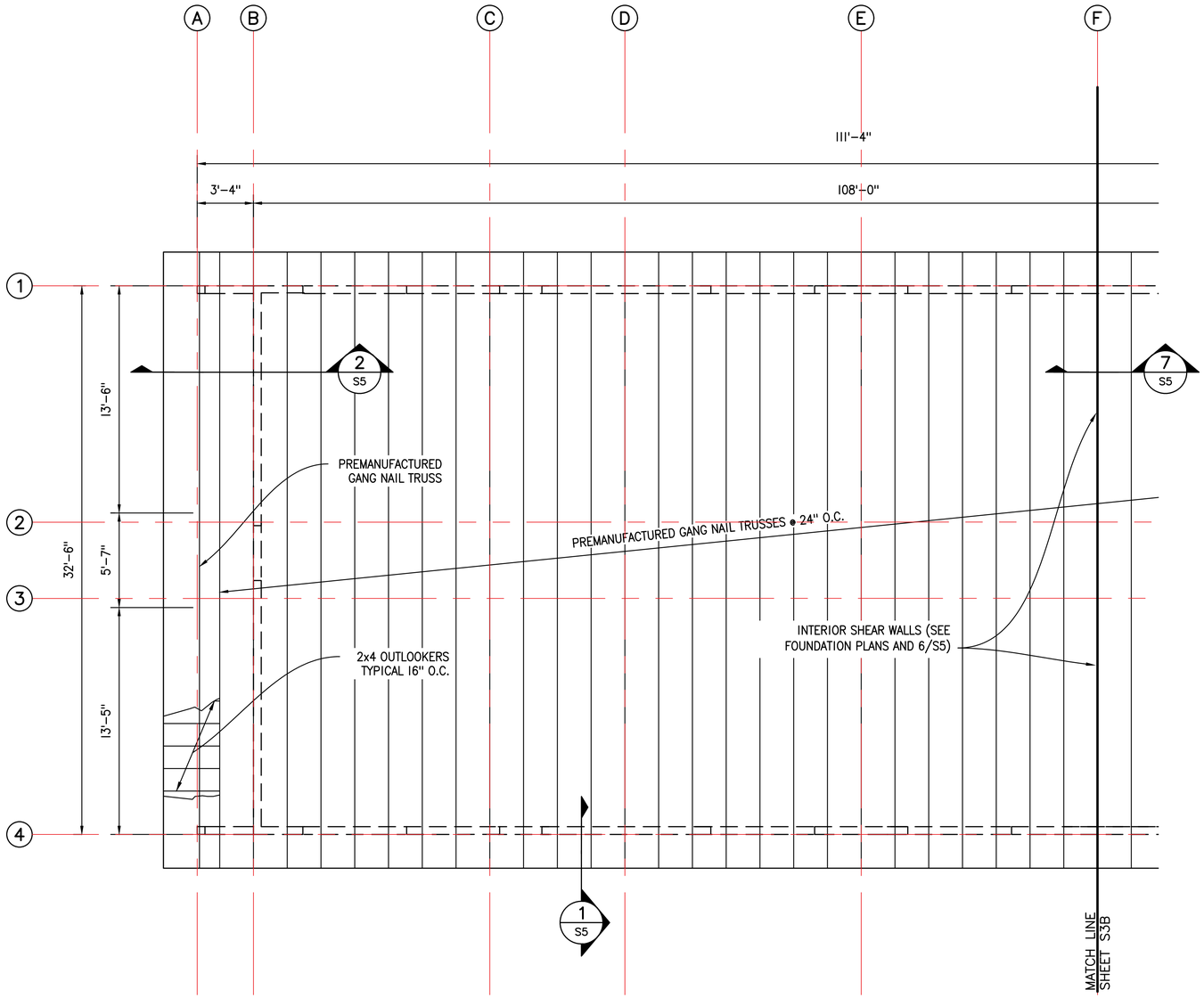
SCALE OF FEET: 4 0 4 8

PLAN NORTH

STATE OF MAINE · ALINA WARTY · No. 11164 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S2B	TITLE OF SHEET FOUNDATION PLAN EAST **8-BEDROOM DORM** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 97 OF 131

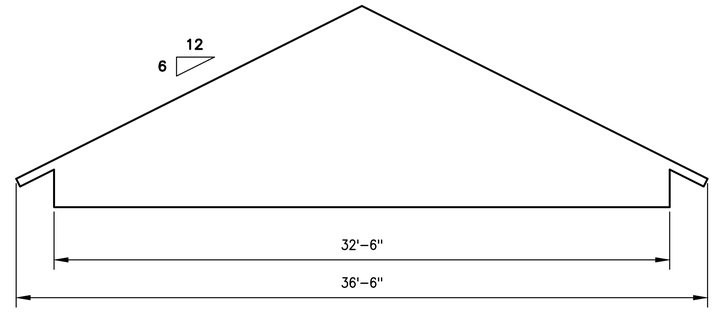
2/21/2025 15:18 UAW R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S2B FOUNDATION PLAN EAST.dwg



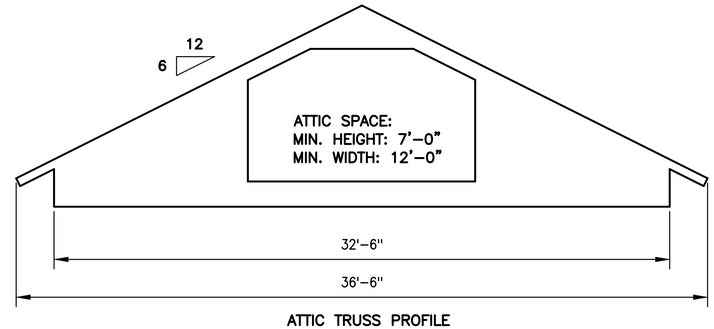
1 S3A ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES

1. PROVIDE ¾" THICK T&G SHEATHING–GRADE PLYWOOD WITH 0.131" DIA. x 2½" NAILS AT 6" O.C. AT PANEL EDGES, DIAPHRAGM EDGES, AND WHERE INDICATED ON PLAN. 12" O.C. WITHIN PANEL. PROVIDE SOLID BLOCKING ALONG ALL EDGES OF ROOF DIAPHRAGMS.
2. TIMBER CONNECTORS ARE INDICATED AS SIMPSON STRONG TIE. ALTERNATE PRE–APPROVED EQUIVALENT CONNECTIONS ARE PERMITTED, REFERENCE GENERAL NOTES FOR MORE INFORMATION.



GABLE ROOF TRUSS PROFILE



ATTIC TRUSS PROFILE

2 S3A ROOF TRUSS PROFILES
SCALE: 1/4" = 1'-0"

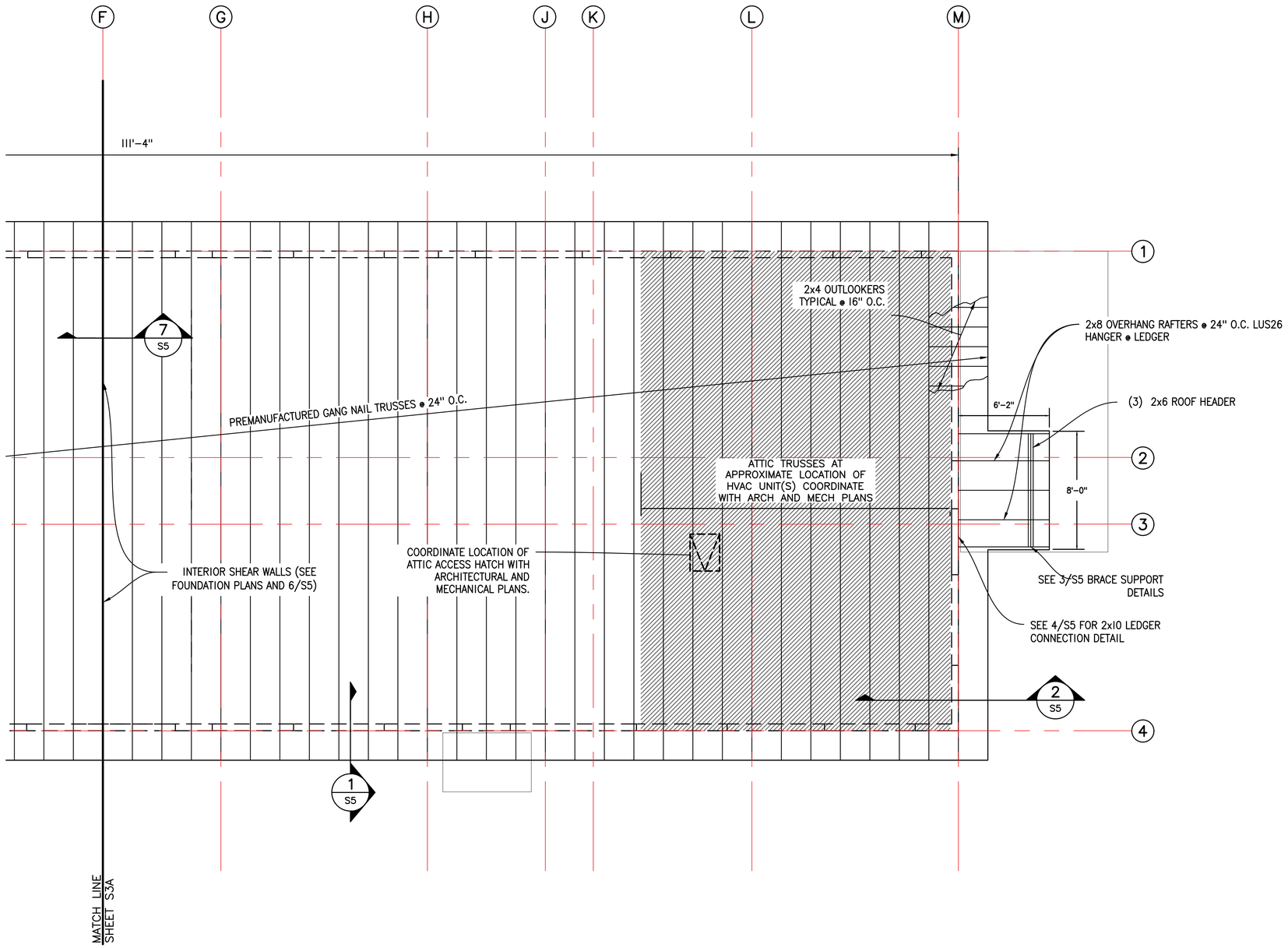
4 0 4 8
SCALE OF FEET

PLAN NORTH

STATE OF MAINE · ALMA WARREN · No. 11164 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S3A	TITLE OF SHEET ROOF FRAMING PLAN WEST **8–BEDROOM DORM** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 98 OF 131

1/21/2025 14:43 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S3A ROOF FRAMING WEST.dwg



1 S3B ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES

1. PROVIDE 5/8" PLYWOOD ROOF SHEATHING W/ 1 1/2" 16 GA STAPLES • 4"OC AT ALL PANEL EDGES AND 12"OC IN FIELD. STAPLES TO HAVE MINIMUM 7/16" CROWN INSTALLED PARALLEL TO LONG DIMENSION OF FRAMING MEMBER. ALTERNATELY, SHEATHING MAY BE ATTACHED USING 10d NAILS MIN 1 1/2" INTO FRAMING MEMBERS.
2. TIMBER CONNECTORS ARE INDICATED AS SIMPSON STRONG TIE. ALTERNATE PRE-APPROVED EQUIVALENT CONNECTIONS ARE PERMITTED, REFERENCE GENERAL NOTES FOR MORE INFORMATION.
3. SEE S3A FOR TRUSS PROFILES.

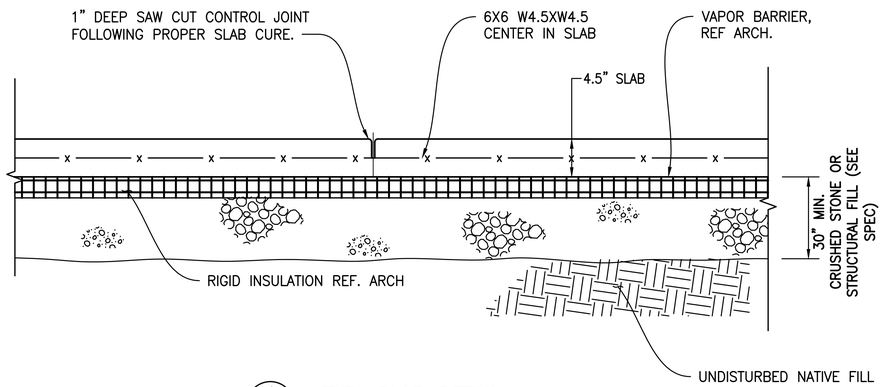
4 0 4 8
SCALE OF FEET

PLAN NORTH

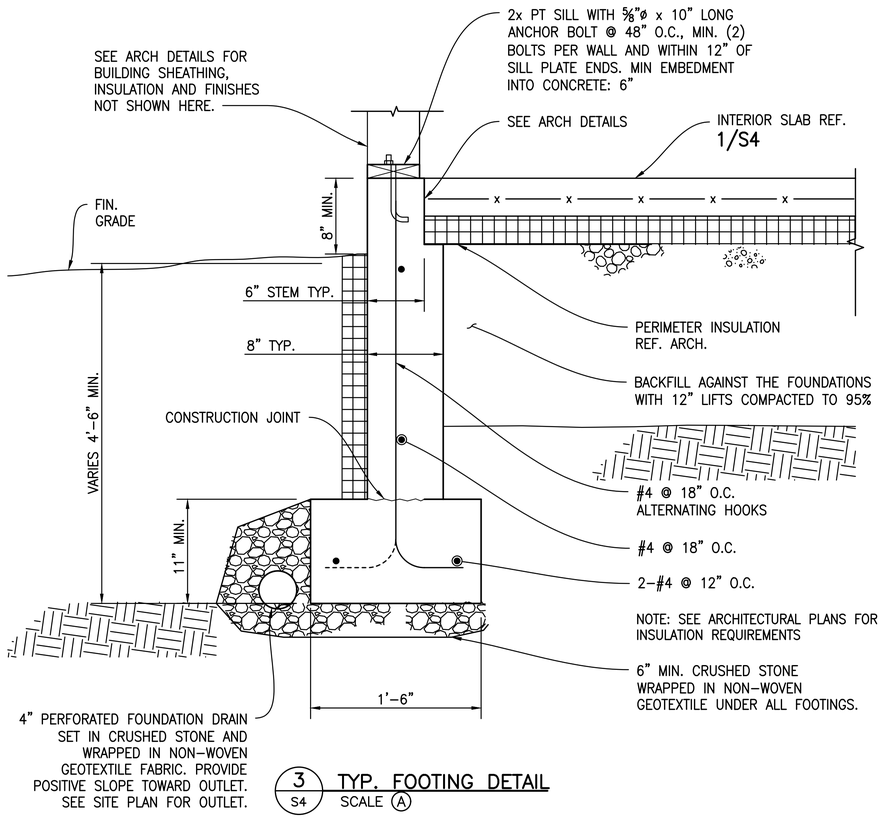
STATE OF MAINE ALINA WATT No. 11164 LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW CADD LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S3B	TITLE OF SHEET ROOF FRAMING PLAN EAST **8-BEDROOM DORM** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 99 OF 131

1/21/2025 14:44 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S3B ROOF FRAMING EAST.dwg



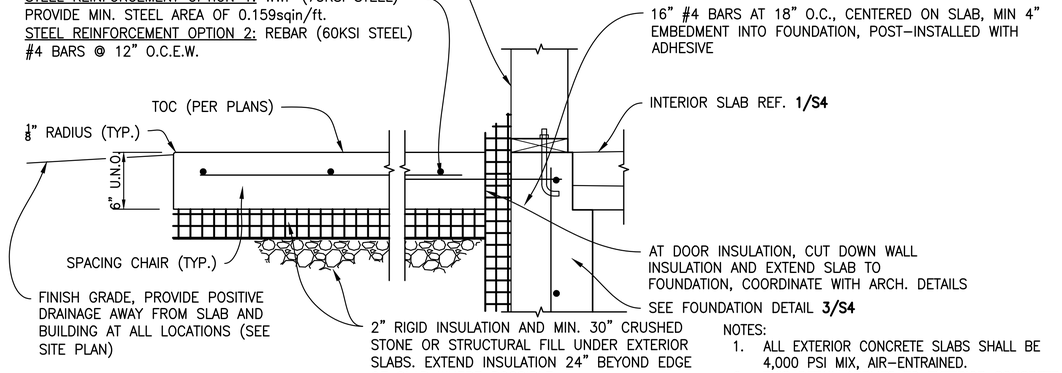
1 S4 TYP. SLAB DETAIL
SCALE (A)



3 S4 TYP. FOOTING DETAIL
SCALE (A)

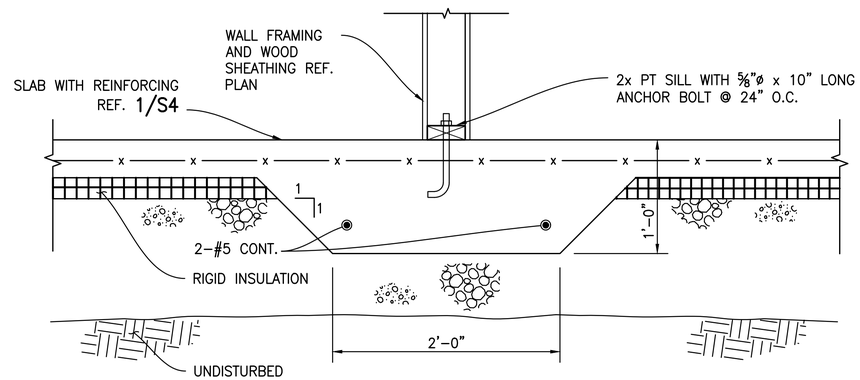
SEE ARCH PLANS FOR INSULATION AND FINISHES (NOT SHOWN). SEE FRAMING PLAN FOR SHEATHING NOTES

STEEL REINFORCEMENT OPTION 1: WWF (75KSI STEEL) PROVIDE MIN. STEEL AREA OF 0.159sqin/ft.
STEEL REINFORCEMENT OPTION 2: REBAR (60KSI STEEL) #4 BARS @ 12" O.C.E.W.



NOTES:
1. ALL EXTERIOR CONCRETE SLABS SHALL BE 4,000 PSI MIX, AIR-ENTRAINED.
2. THIS DETAIL APPLIES TO EXTERIOR CONCRETE PADS AT BUILDING ENTRANCES & EXITS ONLY. SEE BUILDING MECHANICAL DETAILS FOR EQUIPMENT PAD DETAILS.

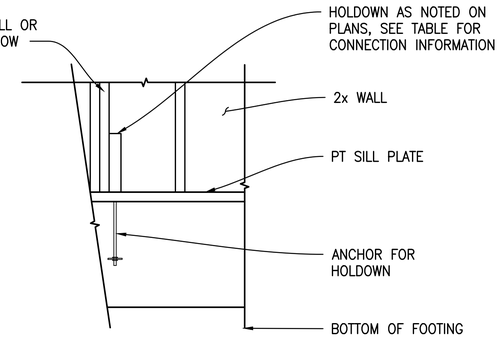
2 S4 TYPICAL EXTERIOR SLAB CONNECTION DETAIL
SCALE (A)



4 S4 THICKENED SLAB DETAIL
SCALE (A)

HOLDOWN REQUIREMENTS

#	HOLDOWN TYPE	MIN ALLOWABLE TENSION	CONNECTOR REQUIREMENTS	ANCHOR
1	DTT2Z OR APPROVED EQUAL	1825 LBS	8 – SDS ¼" X 1½" INTO MINIMUM 2" NOMINAL THICKNESS STUD	½"ø x 12" GALVANIZED A 307 ROD WITH 2" SQUARE PLATE WASHER AND (2) NUTS AT END EMBEDDED IN CONCRETE. BASIS OF DESIGN: PAB4-12 BY STRONG-TIE. MIN EMBEDMENT IN CONCRETE 6", CENTERED ON STEM. (AT INTERIOR SHEAR WALLS, CENTER WALL FRAMING AND HOLDOWN ON THICKENED SLAB) POST-INSTALLED OPTION: ⅞"ø X 18" F1554 GR36 ANCHOR ROD SET IN SIMPSON AT-XP EPOXY OR APPROVED EQUAL MEETING THE MINIMUM ALLOWABLE TENSION CAPACITY, MIN 6" EMBEDMENT



5 S4 HOLDOWN DETAIL
SCALE (B)

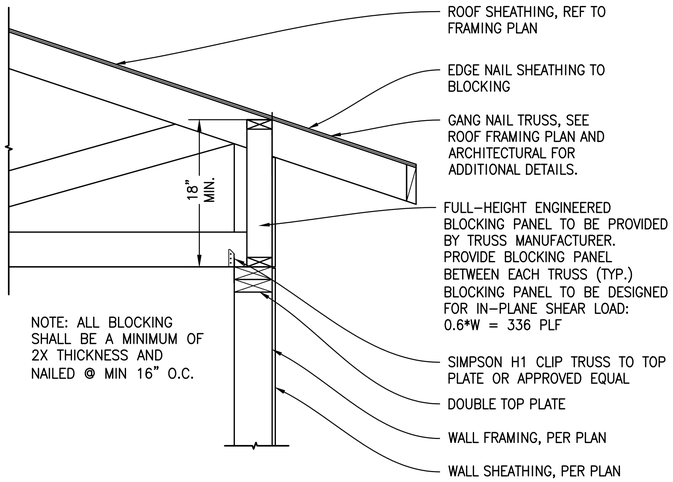
SCALE (B) 8 0 8 16
SCALE OF INCHES

SCALE (A) 8 0 8 16
SCALE OF INCHES

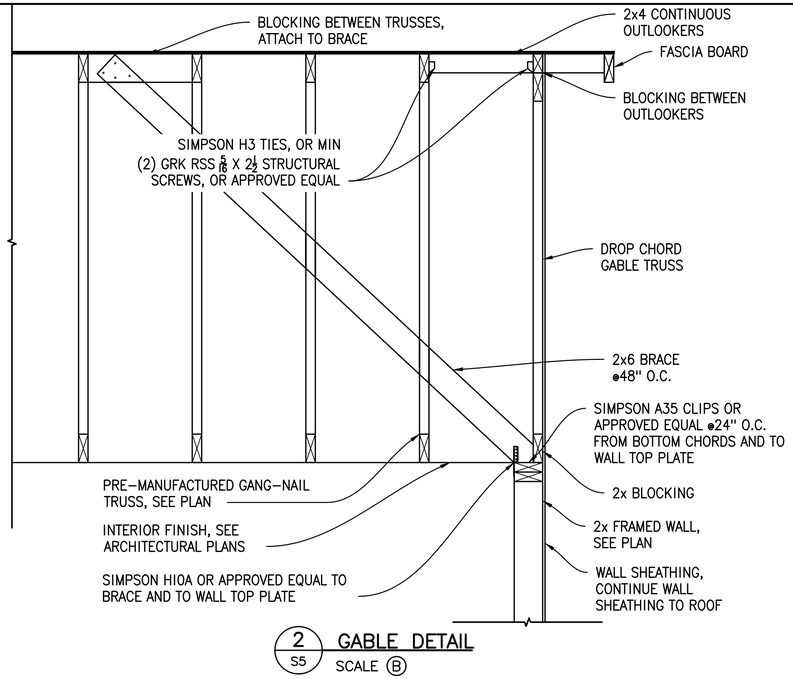
STATE OF MAINE — LIAM WATT — No. 11164 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW CADD: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S4	TITLE OF SHEET FOUNDATION DETAILS **8-BEDROOM DORM** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 100 OF 131

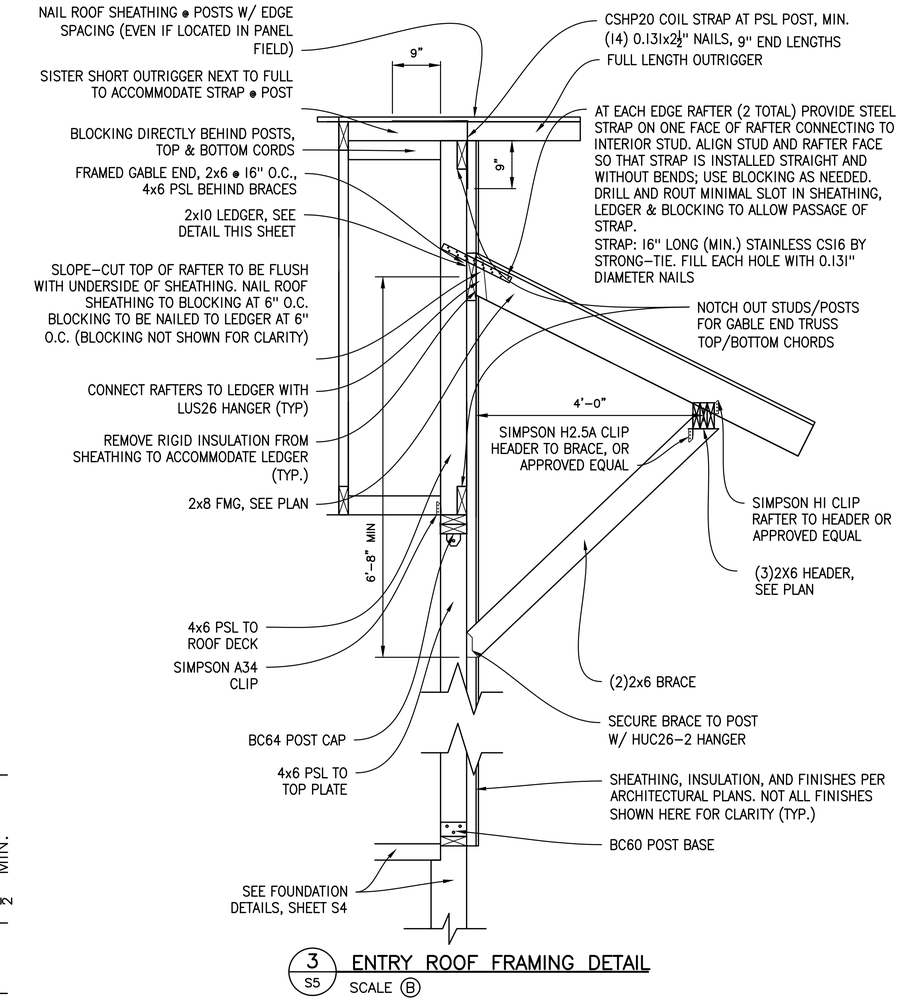
1/21/2025 14:44 LIAM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S4 FOUNDATION DETAILS.dwg



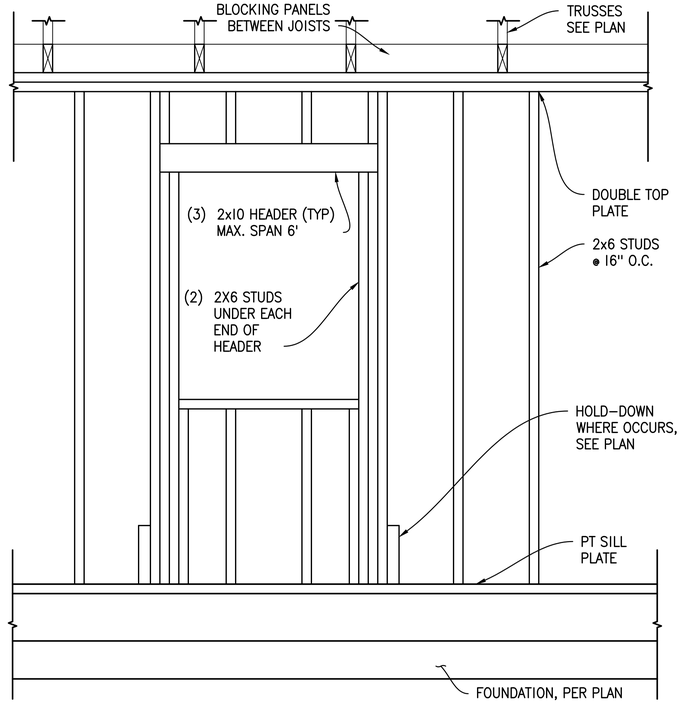
1 S5 FRAMING DETAIL
SCALE (A)



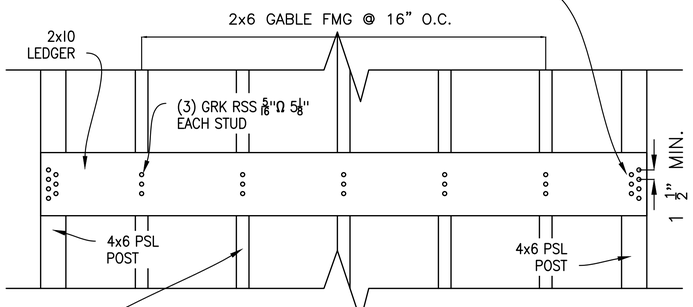
2 S5 GABLE DETAIL
SCALE (B)



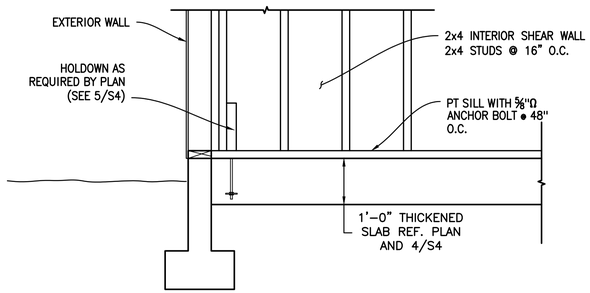
3 S5 ENTRY ROOF FRAMING DETAIL
SCALE (B)



5 S5 EXTERIOR WALL
SCALE (B)



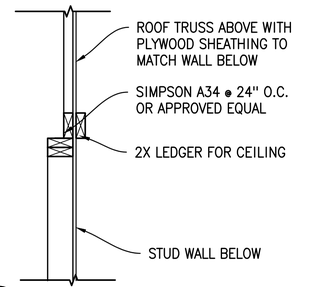
4 S5 LEDGER DETAIL
SCALE (B)



6 S5 INTERIOR SHEAR WALL FRAMING
SCALE (A)

SCALE (B) 8 0 8 16
SCALE OF INCHES

SCALE (A) 12 0 12 24
SCALE OF INCHES



7 S5 WALL/ROOF CONNECTION AT INTERIOR SHEAR WALL
SCALE (A)

STATE OF MAINE ALINA WATT No. 11164 LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: N/A	DESIGNED: AW DRAWN: LH TECH. REVIEW: RC DATE: 02/28/2025	SUB SHEET NO. S5	TITLE OF SHEET FRAMING DETAILS **8-BEDROOM DORM** HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 101 OF 131

2/14/2025 00:15 LWM R2024 C:\Users\liam\OneDrive - Hedefine Engineering & Design\Documents - HED Office\Projects\23008 Harden Farm Housing_Phase 1c\Drawings\WORKING\STRUCTURAL\8-BR DORM\S5 FRAMING DETAILS.dwg

DUCTWORK SYMBOLS

ROUND SUPPLY OR OUTSIDE AIR DUCT UP

ROUND RETURN OR EXHAUST AIR DUCT UP

DIRECTION OF AIRFLOW

FC — FLEXIBLE CONNECTION

VOLUME DAMPER (OPPOSED BLADE TYP.)

FD — FIRE DAMPER (WITH ACCESS DOORS UPSTREAM & DOWN STREAM OF DAMPER)

MOD — MOTOR OPERATED DAMPER

12x10 — RECTANGULAR DUCT SIZE– FIRST # IS SIDE SHOWN

FLEXIBLE DUCT (5'MAX. LENGTH)

ONE–WAY INDOOR UNIT — AIR OUTLET

RECTANGULAR SUPPLY OR OUTSIDE AIR DUCT UP

RECTANGULAR RETURN OR EXHAUST DUCT UP

12"ø — ROUND DUCT DIAMETER IN INCHES

45° ROUND DUCT ELBOW

90° ROUND DUCT ELBOW

RECTANGULAR DUCT TRANSITION TO ROUND DUCT

SA DIFFUSER

RA/EA GRILLE

))))) TURNING VANES

EF — BATHROOM EXHAUST FAN

D — DRYER VENT

RH — RANGE HOOD VENT

WC — EXTERIOR WALL CAP, BACKDRAFT DAMPER, AND BIRDSCREEN EXCEPT FOR DRYER VENT. COORDINATE STYLE AND COLOR WITH BUILDING PLANS

TYPICAL REGISTER/GRILLE

SG–1 / XX CFM — SUPPLY GRILLE, ALL GRILLES AND DIFFUSERS SHALL HAVE VOLUME DAMPERS INSTALLED

EG–1 / XX CFM — EXHAUST GRILLE, ALL GRILLES AND DIFFUSERS SHALL HAVE VOLUME DAMPERS INSTALLED

TYPICAL CEILING DIFFUSER

SD–1 / XX CFM — SUPPLY DUCT DIFFUSER TAG WITH AIRFLOW (CUBIC FEET PER MINUTE)

TYPICAL FLEX DUCT CONNECTION TO DIFFUSER (SEE DETAIL)

ARROWS/LINES INDICATE DIRECTION OF AIRFLOW

RG–1 / XX CFM — RETURN GRILLE DIFFUSER TAG WITH AIRFLOW (CUBIC FEET PER MINUTE)

TYPICAL FLEX DUCT CONNECTION TO DIFFUSER (SEE DETAIL)

GRILLE, REGISTERS, DIFFUSERS & AIRFLOW

ABBREV.	DESIGNATION	ABBREV.	DESIGNATION
RG	RETURN GRILLE	EA	EXHAUST AIR
SD	SUPPLY DIFFUSER	OA	OUTDOOR AIR
VD	VOLUME DAMPER	RA	RETURN AIR
EG	EXHAUST GRILLE	SA	SUPPLY AIR

EQUIPMENT TAG LEGEND

TAG	DESIGNATION
CU–1	CONDENSING UNIT DESIGNATION
DH–1	DUCT HEATER DESIGNATION
ERV–1	ENERGY RECOVERY VENTILATOR DESIGNATION
IU–1	INDOOR UNIT DESIGNATION
L–1	LOUVER DESIGNATION
RH–1	RANGE HOOD DESIGNATION

PIPING SERVICE LEGEND

PIPING LINE DESIGNATIONS

PIPE SIZE — 6"HWS — SERVICE DESIGNATION

NEW	DESCRIPTION
——CD——	CONDENSATE DRAIN
——L——	A.C. REF. LIQUID
——S——	A.C. REF. SUCTION (VAPOR)
—— R ——	REFRIGERANT PIPING

HEATING AND VENTING SYMBOLS

PIPING SYMBOLS DESCRIPTION

BALANCING VALVE

TRIPLE DUTY VALVE

SHUT–OFF VALVE

BACKFLOW PREVENTER

CHECK VALVE

STRAINER W/DRAIN & HOSE CONN.

PRESSURE RELIEF VALVE

PRESSURE REDUCING VALVE (WATER)

T — THERMOSTAT; INSTALL AT 60" AFF, 48" IN ADA SPACES

UNION

INCREASER OR DECREASER CONCENTRIC

INCREASER OR DECREASER ECCENTRIC

DRIP LEG

AUTOMATIC AIR VENT

PIPE GUIDE

PIPE ANCHOR

DIRECTION OF FLOW

PIPE CAP

PIPE RISE/DROP

THERMOMETER

PRESSURE GAUGE

LOW VOLTAGE THERMOSTAT/CONTROL WIRING

UH–1 / 11.7 MBH — EQUIPMENT TAG IDENTIFICATION

MISCELLANEOUS ABBREVIATIONS

ABBREV.	DESIGNATION	ABBREV.	DESIGNATION
A	ANCHOR	HZ	HERTZ
AD	ACCESS DOOR	LAT	LEAVING AIR TEMP.
AFF	ABOVE FINISHED FLOOR	LWT	LEAVING WATER TEMPERATURE
BTU	BRITISH THERMAL UNITS	MAX	MAXIMUM
CD	CONDENSATE DRAINAGE	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE	MD	MANUAL DAMPER
DB	DRY BULB	MIN	MINIMUM
EAT	ENTERING AIR TEMP.	MOD	MOTOR OPERATED DAMPER
ECC	ECCENTRIC	N.C.	NORMALLY CLOSED
EWT	ENTERING WATER TEMPERATURE	OA	OUTSIDE AIR
FA	FRESH AIR	RPM	REVOLUTIONS PER MINUTE
FC	FLEXIBLE CONNECTION	SP	STATIC PRESSURE
FD	FIRE DAMPER	TV	TURNING VANES
FLA	FULL LOAD AMPS	TYP.	TYPICAL
GPM	GALLONS PER MINUTE	VD	VOLUME DAMPER
HP	HORSEPOWER	WB	WET BULB
HVAC	HEATING, VENTILATING & AIR CONDITIONING	ZD	ZONE DAMPER

MECHANICAL GENERAL NOTES:

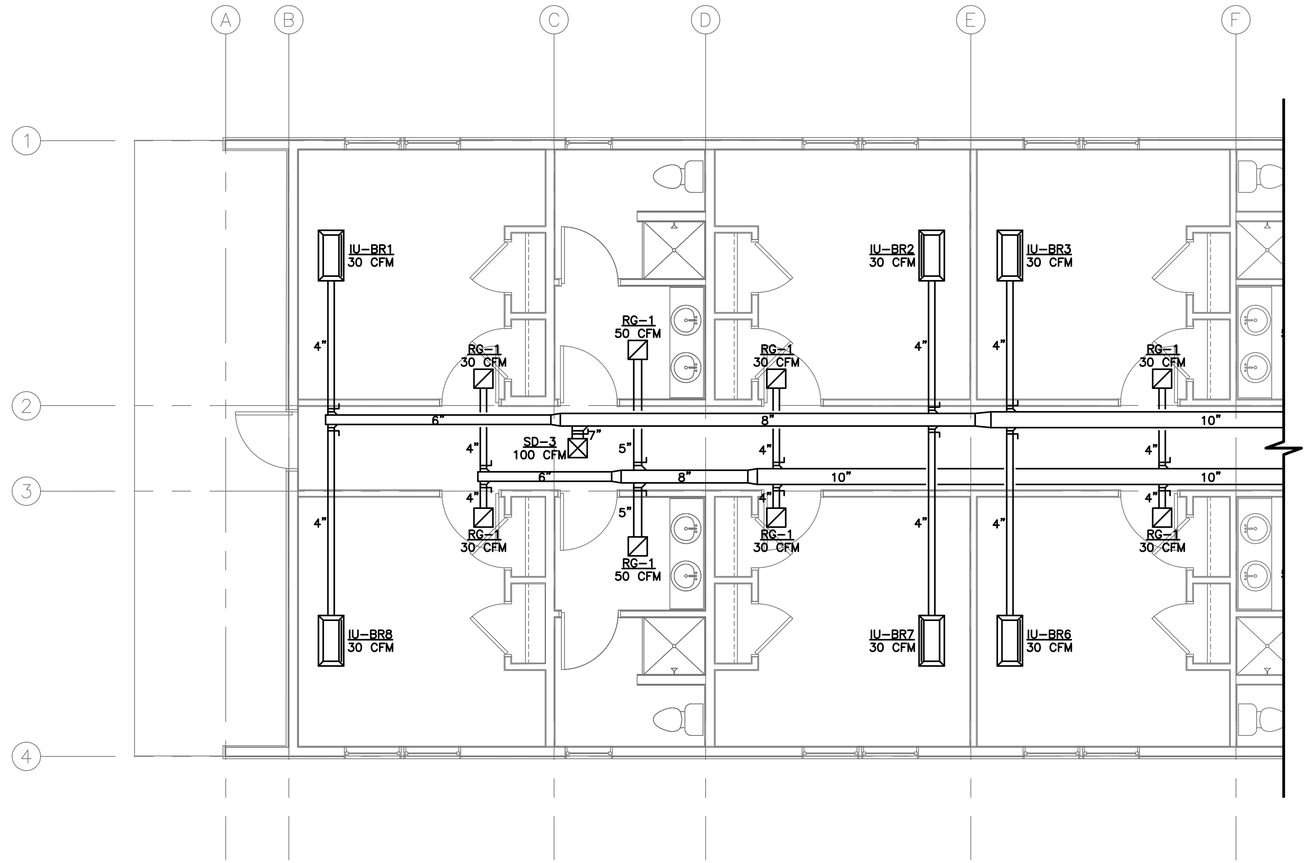
1. ALL SPACE THERMOSTATS SHALL BE MOUNTED 48" TO TOP OF THERMOSTATS ABOVE FINISHED FLOOR (AFF).
2. FLEXIBLE DUCTWORK CONNECTIONS SHALL BE PROVIDED BETWEEN MOTORIZED UNITS AND DUCTWORK CONNECTIONS. NO IMMEDIATE FLEX DUCT OR ELBOWS.
3. PROVIDE ACCESS DOORS IN EQUIPMENT AND DUCTWORK FOR ACCESS TO DAMPERS, MOTORS, FILTERS, FANS, VALVES, AND ON BOTH SIDES OF HEATING COILS.
4. PIPING SHALL BE RUN AS DIRECT AS POSSIBLE, PARALLEL TO & FORMING RIGHT ANGLES TO THE LINES OF THE BUILDING, SUPPORTED FROM THE STRUCTURE, FREE FROM POCKETS & SAGS & PITCHED TO LOW POINT DRAINS.
5. LOCATE ALL VALVES FOR EASY ACCESS & OPERATION. DO NOT LOCATE VALVES W/STEMS BELOW HORIZONTAL. PROVIDE AND INSTALL ACCESS DOORS WHERE REQUIRED AND AT ALL VALVE LOCATIONS WHICH ARE INACCESSIBLE.
6. ALL EXTERIOR WALL PENETRATIONS SHALL BE SEALED WEATHERTIGHT AND WATERTIGHT.
7. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
8. DUCTWORK SHALL BE COORDINATED TO PREVENT ANY INTERFERENCES W/ PLUMBING, PIPING, ELECTRICAL, STRUCTURAL, FIRE PROTECTION, BUILDING, AND OTHER WORK. CONTRACTOR SHALL COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.
9. WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL AND STATE CODES AND REGULATIONS.
10. ALL DUCT SIZES INDICATED ARE OUTSIDE (SHEET METAL) DIMENSIONS.
11. ALL CUTTING AND PATCHING SHALL BE PROVIDED BY GENERAL CONTRACTOR.
12. ALL ELBOWS IN DUCTWORK SHALL HAVE TURNING VANES.
13. ALL DUCTWORK AND PIPING SHALL BE INSULATED.
14. HVAC SYSTEM SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REPORTS SHALL BE PROVIDED AT THE END OF THE PROJECT TO THE ENGINEER FOR REVIEW. CONTRACTOR SHALL MODIFY DUCTWORK, DAMPERS, ETC. AS REQUIRED TO MEET DESIGN CRITERIA.
15. ALL PIPING SHALL BE RUN CONCEALED AND ON WARM SIDE OF BUILDING INSULATION WHEREVER POSSIBLE UNLESS NOTED OTHERWISE.
16. PIPING AND DUCTWORK IS SHOWN DIAGRAMMATICALLY. EXACT LOCATION ROUTE TO BE ADJUSTED AS REQUIRED TO SUIT FIELD CONDITIONS AND EQUIPMENT REQUIREMENTS.
17. ALL DIMENSIONS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD. MODIFY AS REQUIRED.
18. ALL REDUCTIONS IN HOT WATER PIPING SIZES SHALL BE IN THE DIRECTION OF FLOW AND SHALL BE ACCOMPLISHED WITH INVERTED ECCENTRIC REDUCERS.
19. PROVIDE AUTOMATIC AIR VENTS AT ALL LOCATIONS WHERE WATER PIPING DROPS IN THE DIRECTION OF FLOW, AT ALL HIGH POINTS AND ELSEWHERE AS INDICATED ON DRAWINGS.
20. PROVIDE DRAINS AT ALL LOW POINTS IN THE WATER PIPING SYSTEM.
21. COPPER PIPING SHALL BE TYPE 'L' OR 'K'. TYPE 'M' SHALL NOT BE USED FOR THIS PROJECT.
22. VENTILATION DUCTWORK SHALL BE OF GALVANIZED SHEET METAL AND SHALL BE NEW COPPER–BEARING SHEETS OF LOCK–FORMING QUALITY. ZINC COATING THAT WILL FLAKE OR PEEL UNDER ANY FORMING OPERATION, OR LAMINATED SHEETS WILL NOT BE ALLOWED. THICKNESS OF METAL FOR RECTANGULAR DUCTS, INCLUDING ELBOWS AND OTHER DETAILS, SHALL BE 24 GAUGE. DUCTWORK INSTALLED SHALL BE HARD DUCTWORK THROUGHOUT, WITH THE EXCEPTION OF FLEXIBLE DUCTWORK AT MOTORIZED UNITS AND FLEXIBLE CONNECTIONS AT DIFFUSER/GRILLE LOCATIONS ONLY.
23. ALL PIPING THROUGH ROOFS, WALLS AND PARTITIONS SHALL HAVE PIPE SLEEVES. ALL PIPING PENETRATING FIRE RATED WALLS, FIRE RATED PARTITIONS OR FLOORS SHALL BE PROTECTED WITH A LISTED FIRE STOPPING SYSTEM PER NFPA 101, "CODE FOR SAFETY TO LIFE FROM FIRE IN BUILDING AND STRUCTURES", LATEST EDITION.
24. ALL SA, RA, EA, AND OA BRANCHES, DIFFUSERS, GRILLES, AND DUCTWORK SHALL HAVE BALANCE DAMPERS.
25. ALL EXHAUST FAN AND KITCHEN HOOD DUCTWORK SHALL BE RIGID METAL. PITCH EXHAUST FAN AND DRYER VENT DUCTWORK TO DRAIN.
26. CONTRACTOR SHALL PROVIDE LOW VOLTAGE THERMOSTATS FOR EACH ZONE SHOWN ON PLANS. CONNECT THERMOSTATS TO HEATING/COOLING ZONE VALVES WHERE REQUIRED.
27. CONTRACTOR SHALL PROVIDE, AND INSTALL FIRE RATED DAMPERS AT ALL RATED ASSEMBLIES INCLUDING SHAFT WALLS, FLOOR/CEILING ASSEMBLIES, AND 2–HOUR RATED WALLS.
28. CONTRACTOR SHALL PROVIDE AND INSTALL CEILING RADIATION DAMPERS AT ALL CEILING DUCTWORK PENETRATIONS.
29. STRUCTURAL MEMBERS SHALL NOT BE CUT, NOTCHED, OR BORED WITHOUT APPROVAL FROM ENGINEER.
30. PIPE SIZING BASED ON TYPE "L" COPPER. VERIFY SIZING WITH ENGINEER IF ALTERNATE PIPING IS PROPOSED.
31. CONTRACTOR SHALL CONCEAL ALL DUCTWORK ABOVE CEILINGS. MODIFY CEILINGS AND/OR DUCTWORK AS REQUIRED.
32. CONTRACTOR SHALL ENSURE ALL EXHAUST OUTLETS ARE A MINIMUM DISTANCE OF 3'–0" TO WINDOWS OR DOORS AND A MINIMUM OF 10'–0" TO INTAKE AIR LOUVERS/VENTS. PROVIDE AND INSTALL INLINE BOOSTER FANS FOR DRYER EXHAUST IF DUCTWORK DEVELOPED LENGTH EXCEEDS 35'–0".
33. DUCTWORK DESIGNED TO BE INSTALLED IN MECHANICAL/ATTIC SPACE AND DROP/RISE TO DIFFUSERS, GRILLES, INDOOR UNITS, ETC.

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

STATE OF MAINE — BRADLEY BRAGG — 12178 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER DRAWN BY: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	M1	8–BEDROOM DORM MECHANICAL LEGEND HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 / 60025A PMIS/PKG NO. 309000 SHEET 102 OF 131

Feb 26, 2025 – 9:46am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V8.dwg jonah



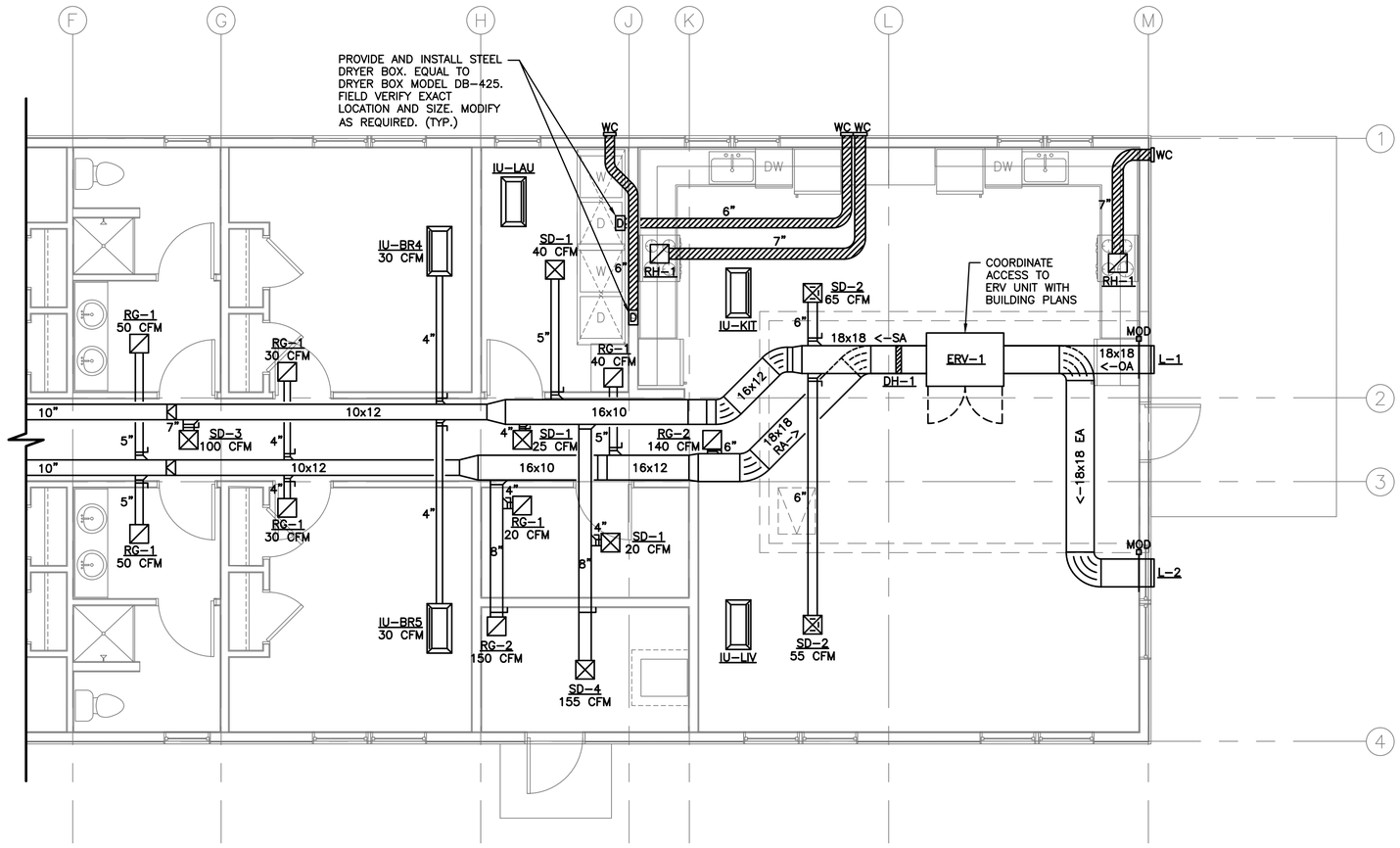
1 / M2 MECHANICAL DUCTWORK PLAN – WEST

4 0 4 8
SCALE OF FEET

Feb 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

STATE OF MAINE BRAGG 12475 LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M2	TITLE OF SHEET 8–BEDROOM DORM MECHANICAL DUCTWORK PLAN – WEST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 103 OF 131



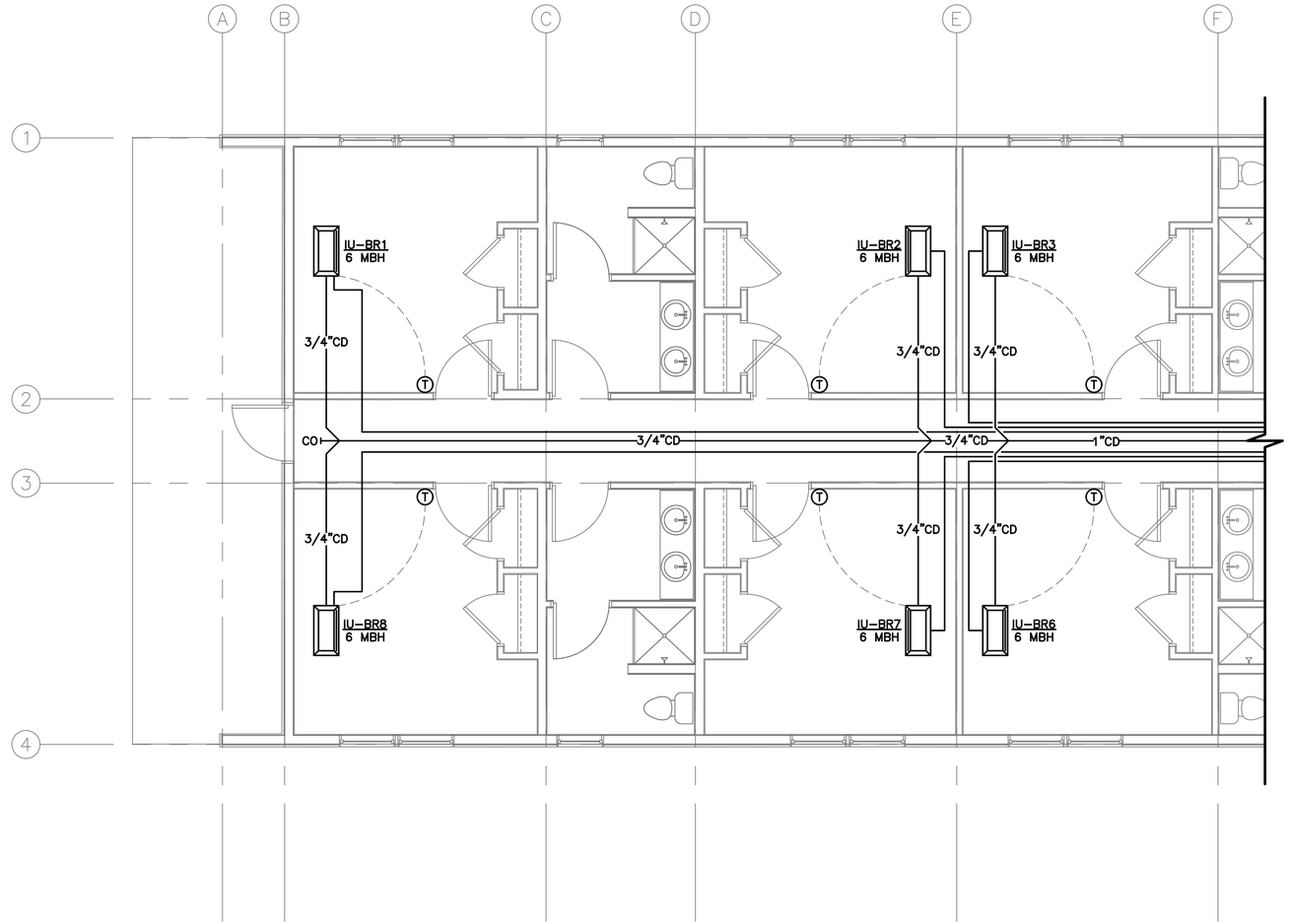
1 M3 MECHANICAL DUCTWORK PLAN – EAST

4 0 4 8
SCALE OF FEET

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M3	TITLE OF SHEET 8-BEDROOM DORM MECHANICAL DUCTWORK PLAN – EAST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 104 OF 131

STATE OF MAINE · BRAGG · 12/31/25 · LICENSED PROFESSIONAL ENGINEER

Feb 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



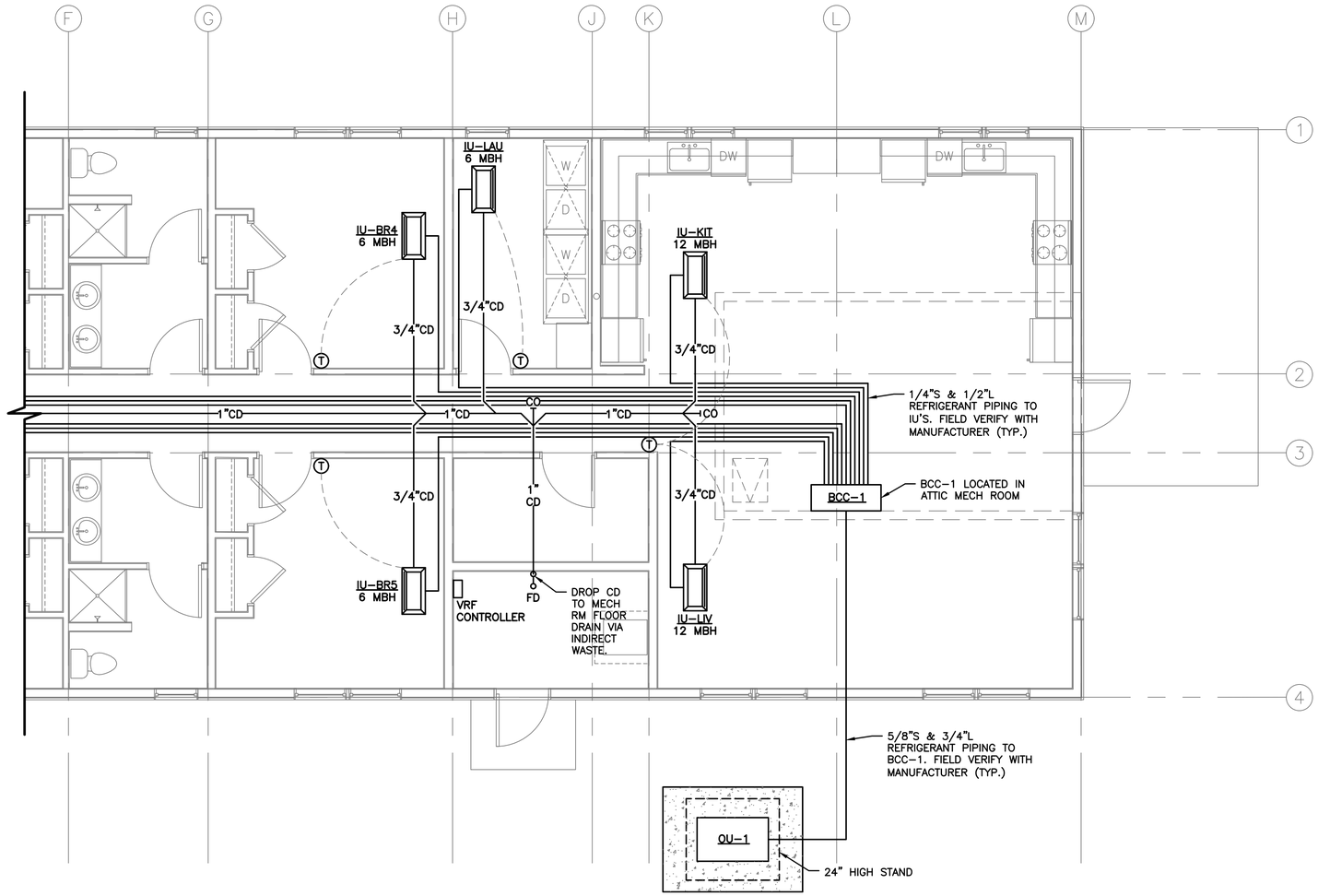
1 / M4 MECHANICAL PIPING PLAN – WEST

4 0 4 8
SCALE OF FEET

STATE OF MAINE
RANDY BRAGG
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M4	TITLE OF SHEET 8–BEDROOM DORM MECHANICAL PIPING PLAN – WEST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 105 OF 131

Feb 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



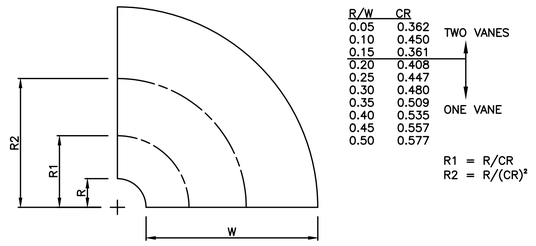
1 M5 MECHANICAL PIPING PLAN – EAST

4 0 4 8
SCALE OF FEET

Feb. 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

STATE OF MAINE
HANDY
BRAGG
12575
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M5	TITLE OF SHEET 8-BEDROOM DORM MECHANICAL PIPING PLAN – EAST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 106 OF 131



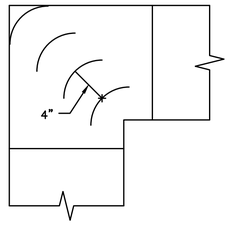
R/W	CR	
0.05	0.362	TWO VANES
0.10	0.450	
0.15	0.361	
0.20	0.408	ONE VANE
0.25	0.447	
0.30	0.480	
0.35	0.509	
0.40	0.535	
0.45	0.557	
0.50	0.577	

R1 = R/CR
R2 = R/(CR)²

1 M6 SPLITTER VANE DETAIL (SHORT RADIUS RECTANGULAR ELBOWS)

NO SCALE

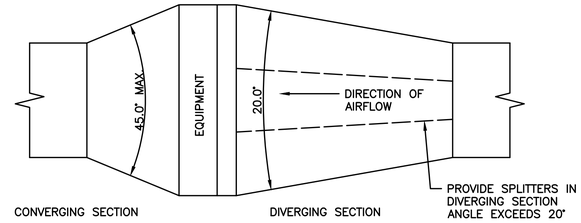
NOTE:
FOR SMOOTH RADIUS RECTANGULAR ELBOWS WHERE R/W IS 0.5 OR LESS, PROVIDE SPLITTER VANES.



2 M6 TURNING VANE DETAIL (RECTANGULAR ELBOWS)

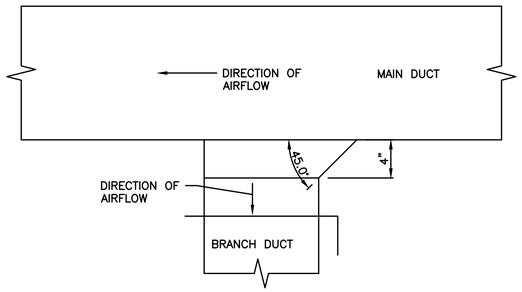
NO SCALE

NOTE:
IF LESS THAN (4) TURNING VANES FIT, PROVIDE 2" VANES. IF LESS THAN (4) 2" VANES FIT, PROVIDE RADIUS ELBOW.



3 M6 DUCT TRANSITION DETAIL

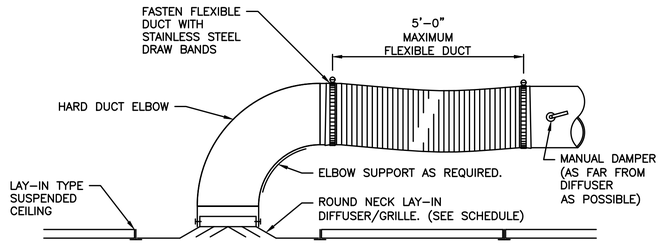
NO SCALE



4 M6 45° TAKEOFF DETAIL (SUPPLY/RETURN DUCT)

NO SCALE

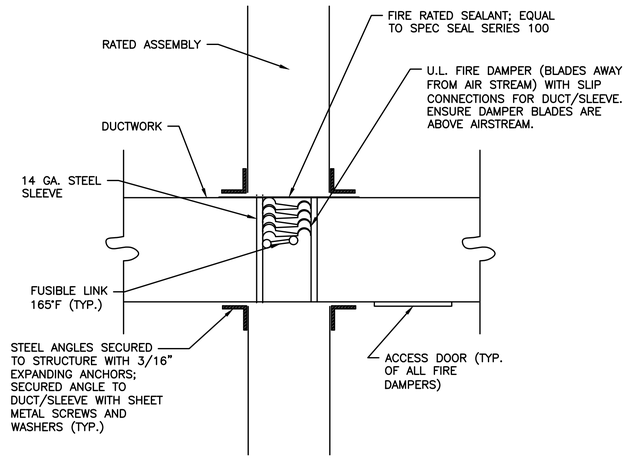
NOTE:
1. POSITION VOLUME DAMPER AT LEAST (BUT NO MORE THAN WHERE POSSIBLE) (2) EQUIVALENT DUCT DIAMETERS FROM MAIN DUCT.
2. RETURN TAKEOFF SIMILAR.



5 M6 ROUND NECK GRILLE AND DIFFUSER DETAIL

NO SCALE

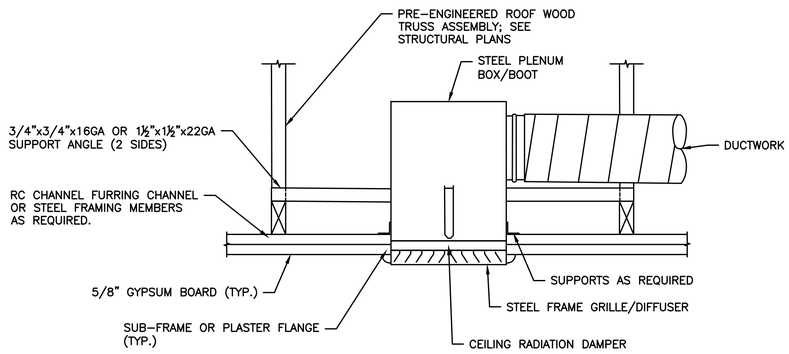
NOTE:
PROVIDE AND INSTALL ADAPTERS AS REQUIRED.



6 M6 FIRE DAMPER/DUCT PENETRATION DETAIL

NO SCALE

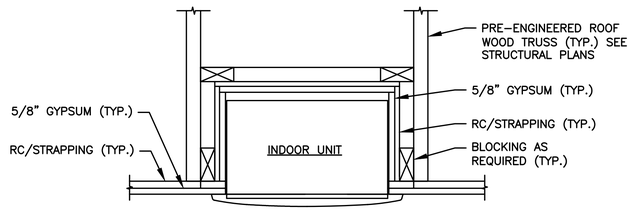
NOTE:
FIRE DAMPERS THROUGH FLOOR SIMILAR.



7 M6 CEILING RADIATION DAMPER DETAIL

NO SCALE

NOTE:
1. CEILING RADIATION DAMPER SHALL BE RUSKIN CFD77-SB OR EQUAL.
2. CEILING RADIATION DAMPER FOR VRF UNITS OKAY TO UTILIZE RUSKIN CFDR7T OR EQUAL FOR ROUND DUCTWORK CONNECTIONS.
3. EXACT DETAIL MAY VARY, MODIFY AS REQUIRED TO MEET CEILING RADIATION DAMPER REQUIREMENTS. ENSURE CEILING RADIATION DAMPER MEETS UL LISTING AS REQUIRED.
4. CEILING RADIATION DAMPER SHALL BE INSTALLED AT ALL DIFFUSERS, GRILLES, VRF'S, AND DUCTWORK PENETRATIONS.



8 M6 INDOOR HEATING/COOLING UNIT DETAIL

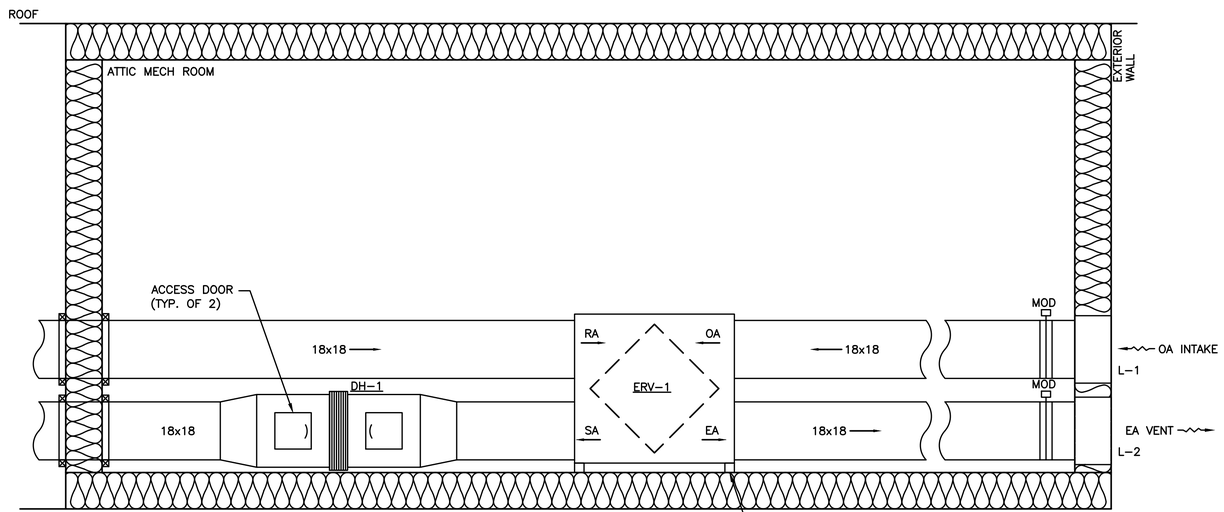
NO SCALE

NOTE:
EXACT DETAIL MAY VARY. MODIFY AS REQUIRED TO ENSURE VRF INDOOR UNIT'S ENCLOSURE IS SEALED TIGHT AND MAINTAIN CEILING FIRE RATING AS REQUIRED. SEAL ALL PENETRATIONS AS REQUIRED.

STATE OF MAINE
HANDY BRAGG
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M6	TITLE OF SHEET 8-BEDROOM DORM MECHANICAL DETAILS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 107 OF 131

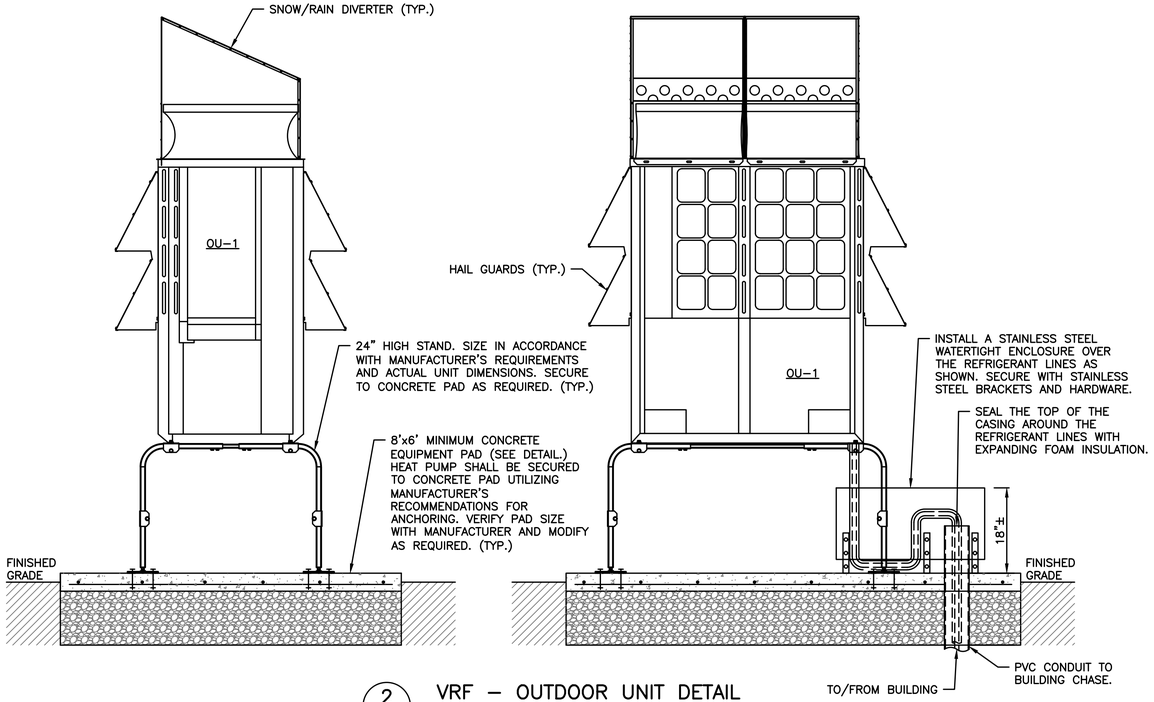
Feb. 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



1 / M7 **ERV ELEVATION DETAIL**

NO SCALE

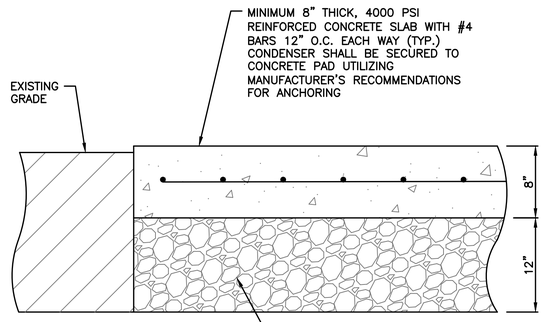
NOTE:
1. COORDINATE ATTIC MECH ROOM SPACE WITH BUILDING DRAWINGS.
2. ACTUAL LAYOUT MAY VARY, MODIFY DUCTWORK, SUPPORTS, ETC. AS REQUIRED. DUCTWORK SHOWN FOR CLARITY.
3. EA AND OA INTAKE LOUVERS SHALL BE INSTALLED AT SAME ELEVATION. SEE BUILDING DRAWINGS AND MODIFY DUCTWORK, LOUVERS, ETC. AS REQUIRED. DUCTWORK SHOWN FOR CLARITY.
4. COORDINATE INSULATION REQUIREMENTS WITH ARCHITECTURAL PLANS.



2 / M7 **VRF – OUTDOOR UNIT DETAIL**

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

NOTE:
DETAIL MAY VARY, DEPENDING ON PROJECT. MODIFY AS REQUIRED. ENSURE REFRIGERANT PIPING IS INSTALLED AND PROTECTED FROM DAMAGE FROM OU-1 TO BUILDING.



3 / M7 **CONCRETE EQUIPMENT PAD DETAIL**

NO SCALE

NOTE:
CONTRACTOR SHALL COORDINATE, PROVIDE, AND INSTALL BOND-OUTS FOR UNDERGROUND UTILITIES WHERE REQUIRED.

STATE OF MAINE · HANDY BRAGG · 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. M7	TITLE OF SHEET 8-BEDROOM DORM MECHANICAL DETAILS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 108 OF 131

Feb 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

ENERGY RECOVERY VENTILATOR SCHEDULE (8–BEDROOM DORM)

BASIS OF DESIGN: RENEWAIRE*

TAG	MODEL	EXHAUST (CFM ON HI)	SUPPLY (CFM ON HI)	E.S.P. (IN. WG)	TOTAL EFFECTIVENESS		FILTERS		MOTOR (WATTS)		ELECTRICAL (V/PH/HZ)	FLA	MCA	MOCP	NOTES
					SUMMER	WINTER	EA	OA	OA	RA					
ERV–1	HE1.5JINV–S15EE–DGN4–L	795	800	1.25	59%	74%	13	13	403	396	208/1/60	9.9	12.4	15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

NOTES:
1. PROVIDE AND INSTALL MOD AT OA INLET AND EA OUTLET. MOD SHALL OPEN/CLOSE ON UNIT STATUS ON/OFF.
2. PROVIDE ELECTRIC DUCT HEATER AS SCHEDULED.
3. VARIABLE SPEED ECM DIRECT DRIVE MOTORS.
4. PROVIDE PROGRAMMABLE TIMER FOR OCCUPIED/UNOCCUPIED CYCLE.
5. PROVIDE ADJUSTABLE BALANCING DAMPERS FOR SA, RA, EA, OA.
6. PROVIDE LOUVERS AS SCHEDULED.
7. PROVIDE AND INSTALL DISCONNECT SWITCH.
8. MERV 13 FILTERS.
9. PROVIDE AND INSTALL VIBRATION ISOLATION SPRINGS, PADS, AND HANGING ROD AS REQUIRED. COORDINATE WITH MANUFACTURER.
10. PROVIDE INTEGRATED PREMIUM CONTROLS, WITH BACNET CONNECTION FOR FUTURE DDC SYSTEM CONNECTION.
11. PROVIDE AND INSTALL COMMUNICATION WIRING FROM ERV–1 CONTROLS TO BUILDING CONTROLLER IN MECH ROOM.

DUCT HEATER SCHEDULE (8–BEDROOM DORM)

BASIS OF DESIGN: RENEWAIRE*

TAG	SIZE (IN)	KW	TYPE	ELECTRICAL				NOTES
				V/PH	FLA	MCA	MOCP	
DH–1	18x18	8	ELECTRICAL	208/3	22.2	27.8	30	1

NOTES:
1. PROVIDE WITH TEMPERATURE SENSOR, CONNECT TO ERV CONTROLS.

KITCHEN RANGEHOOD PERFORMANCE SCHEDULE (8–BEDROOM DORM)

BASIS OF DESIGN: BROAN*

TAG	AIRFLOW (CFM)	S. P. (IN. WG)	MOTOR HP (WATTS)	SOUND (SONES)	ELECTRICAL (V/PH/HZ)	MODEL	OPTIONS/ACCESSORIES
RH–1	250	.11	78	5.0	120/1/60	BCSEK130	SETUP FOR RECIRCULATION

NOTES:
1. COORDINATE COLOR WITH CONTRACTING OFFICER.

REGISTER, GRILL, & DIFFUSER SCHEDULE (8–BEDROOM DORM)

BASIS OF DESIGN: PRICE*

TAG	MODEL	TYPE	MOUNTING	PATTERN	NOMINAL CFM	THROW–T50 (FT)	STATIC PRESSURE: MAX. INCHES WG	NOISE: MAX. NC	SIZE (INCHES)	NECK SIZE (INCHES)	NOTES
SD–1	SMD	LOUVERED DIFFUSER	SURFACE	4–WAY 4A – CORE	20–40	15	0.065	––	12x12	6	1, 2
SD–2	SMD	LOUVERED DIFFUSER	SURFACE	3–WAY 3A – CORE	55–65	15	0.065	––	12x12	6	1, 2
SD–3	SMD	LOUVERED DIFFUSER	SURFACE	4–WAY 4A – CORE	100	15	0.065	––	12x12	6	1, 2
SD–4	SMD	LOUVERED DIFFUSER	SURFACE	4–WAY 4A – CORE	155	18	0.065	––	24x24	8	1, 2
RG–1	535	LOUVERED GRILLE	SURFACE	1/2" BLADE SPACING – 45° DEFLECTION	30–50	––	0.035	––	6x6	––	1, 2
RG–2	535	LOUVERED GRILLE	SURFACE	1/2" BLADE SPACING – 45° DEFLECTION	140–150	––	0.035	––	10x10	––	1, 2

NOTES:
1. WHITE POWDER COAT FINISH.
2. PROVIDE AND INSTALL SURFACE MOUNT FRAMES AS REQUIRED.

LOUVER PERFORMANCE SCHEDULE (8–BEDROOM DORM)

BASIS OF DESIGN: GREENHECK*

TAG	SIZE (H x W)	AIRFLOW (CFM)	S.P. LOSS (IN. WG)	FREE AREA (SQ. FT.)	SERVES	MODEL
L–1	18"x24"	800	0.075	1.27	ERV–1 OA	ESD–635
L–2	18"x24"	800	0.07	1.27	ERV–1 EA	ESD–635

NOTE:
COLOR TO MATCH SIDING.

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE — BRADLEY RAGAN 12775 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM	
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	
SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	
DESIGNED: KEEZER	
CADD: EATON	
TECH. REVIEW: BRAGG	
DATE: 02/28/2025	
SUB SHEET NO.	M8
TITLE OF SHEET	8–BEDROOM DORM MECHANICAL SCHEDULES
	HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK
DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	109 OF 131

Feb 26, 2025 – 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V8.dwg jonah

MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF INDOOR UNIT SCHEDULE (8-BEDROOM DORM) — BASIS OF DESIGN: TRANE*

SYSTEM TAG	ROOM NAME	EQUIPMENT TAG	M-NET ADDRESS	MODEL	TYPE	NOMINAL COOLING CAPACITY (BTU/HR)	NOMINAL HEATING CAPACITY (BTU/HR)	REFRIGERANT PIPE (SUCTION/DISCHARGE)	VOLTAGE/ PHASE	ELECTRICAL MCA/MOCP	CONDENSATE REMOVAL RATE (GAL)	NOTES
OU-1	BEDROOM 1	IU-BR1	1	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	BEDROOM 2	IU-BR2	2	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	BEDROOM 3	IU-BR3	3	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	BEDROOM 4	IU-BR4	4	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	BEDROOM 5	IU-BR5	5	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	BEDROOM 6	IU-BR6	6	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	BEDROOM 7	IU-BR7	7	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	BEDROOM 8	IU-BR8	8	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	LAUNDRY	IU-LAU	9	TPMFYP006BM140F	CEILING CASSETTE (ONE-WAY)	6,000	6,700	1/4 / 1/2	208/230V 1-PHASE	0.25/15	0.11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	KITCHEN	IU-KIT	10	TPMFYP012BM140F	CEILING CASSETTE (ONE-WAY)	12,000	13,500	1/4 / 1/2	208/230V 1-PHASE	0.26/15	0.5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
OU-1	LIVING ROOM	IU-LIV	11	TPMFYP012BM140F	CEILING CASSETTE (ONE-WAY)	12,000	13,500	1/4 / 1/2	208/230V 1-PHASE	0.26/15	0.5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

NOTES:
1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB).
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB).
3. SEE OUTDOOR UNIT SCHEDULE FOR OUTDOOR AMBIENT CONDITIONS, CONNECTED CAPACITY, AND OTHER FACTORS ASSOCIATED WITH CORRECTED CAPACITIES.
4. SEE MANUFACTURER SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.
5. PROVIDE RELAY KIT FOR EXTERNAL HEATER ADAPTER THAT CONNECTS TO CN24 ON INDOOR CONTROL BOARD.
6. PROVIDE AND INSTALL TE-200 CENTRAL CONTROLLER. INSTALL CONTROLLER IN MECH ROOM. PROVIDE AND INSTALL CAT6E TO EACH INDOOR UNIT/THERMOSTAT FROM CONTROLLER.
7. PROVIDE AND INSTALL SIMPLE MA THERMOSTAT FOR EACH ZONE AS INDICATED. COORDINATE WITH ELECTRIC HEAT AS REQUIRED.
8. PROVIDE AND INSTALL CONDENSATE PUMPS AS REQUIRED TO ALLOW CONDENSATE TO DRAIN TO MECH ROOM FLOOR DRAIN AS INDICATED. PROVIDE POWER CIRCUIT AS REQUIRED.
9. PROVIDE BACNET COMMUNICATIONS WIRING TO EACH IU AND THERMOSTAT AS REQUIRED FOR FUTURE CONNECTIVITY.
10. INDOOR UNITS SHALL BE PRIMARY STAGE OF HEAT. ELECTRICAL HEAT SHALL BE SECOND STAGE OF HEAT.
11. PROVIDE AND INSTALL AIR INTAKE TAKE-OFF/SMOOTH ELBOW AS REQUIRED. COORDINATE FITMENT IN FIELD, COORDINATE WITH ALL TRADES.
12. PROVIDE REFRIGERANT R454B EQUIVALENT MODEL.

VRF OUTDOOR CONDENSER UNIT SCHEDULE (8-BEDROOM DORM) — BASIS OF DESIGN: TRANE*

SYSTEM TAG	EQUIPMENT TAG	M-NET ADDRESS	MODEL NUMBER	MODULES	NOMINAL COOLING CAPACITY (BTU)	NOMINAL HEATING CAPACITY (BTU)	EFFICIENCY RATINGS EER/IEER/COP	REFRIG. PIPE DIM HIGH/LOW PRESSURE (INCH) (SEE NOTE 4)	SOUND PRESSURE (DBA)	PRELIMINARY ADDED FIELD CHARGE (SEE NOTE 5)	ELECTRICAL PER MODULE – 208/230V			NOTES
											VOLT/PH	MCA	MOCP	
OU-1	OU-1	51	TURYH0723AN41AN	P72	72,000	80,000	13.1/25.6/4.1	5/8 / 3/4	56.5/58	19.8	208V/ 3-PHASE	54	60	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

NOTES:
1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB).
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB).
3. EFFICIENCY VALUES FOR EER, IEER, COP ARE BASED ON AHRI 1230 TEST METHOD FOR MIXTURE OF DUCTED & NON-DUCTED INDOOR UNITS.
4. ADD REFRIGERANT FIELD CHARGE IN ADDITION TO FACTORY CHARGE, THIS MUST BE UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT. COORDINATE WITH MANUFACTURER; FIELD VERIFY.
5. FACTORY REPRESENTATIVES SHALL REVIEW THE PROJECT PRIOR TO AND THROUGHOUT THE INSTALLATION OF CITY MULTI EQUIPMENT.
6. FACTORY REPRESENTATIVES SHALL STARTUP AND COMMISSION CITY MULTI EQUIPMENT UPON COMPLETION OF EQUIPMENT INSTALLATIONS.
7. FACTORY REPRESENTATIVES SHALL PROVIDE ON-SITE ASSISTANCE FOR THE BMS INTEGRATION OF THE CITY MULTI EQUIPMENT.
8. FACTORY REPRESENTATIVES SHALL PROVIDE END-USER TRAINING ON THE CITY MULTI EQUIPMENT UPON COMPLETION OF THE INSTALLATION OF EQUIPMENT.
9. PROVIDE SNOW/HAIL KIT TO PREVENT DAMAGE OR SNOW BUILD-UP IN SEVERE WINTER CLIMATES.
10. PROVIDE 24" STAND KIT.
11. PROVIDE BACNET COMMUNICATIONS WIRING TO CU-1 AND BCC-1 AS REQUIRED FOR FUTURE CONNECTIVITY.
12. OUTDOOR UNIT SHALL UTILIZE ANTI-CORROSION PROTECTION.
13. PROVIDE REFRIGERANT R454B EQUIVALENT MODEL.

VRF HEAT RECOVERY BRANCH CIRCUIT CONTROLLER SCHEDULE (8-BEDROOM DORM) — BASIS OF DESIGN: TRANE*

SYSTEM TAG	TAG REFERENCE	M-NET ADDRESS	MODEL NUMBER	TYPE(DOUBLE MAIN/SUB)	NUMBER OF PORTS	CONNECTED CAPACITY TO BC	VOLTAGE/ PHASE	POWER COOLING 208V/230V (KW)	POWER HEATING 208V/230V (KW)	MCA 208/230	NOTES/OPTIONS
OU-1	BCC-1	52	TCMBG1012SJ11N4	SINGLE	12	78,000.0	208/230V/1PH	0.182/0.235	0.091/0.118	1.1/1.29	1, 2, 3, 4, 5

NOTES:
1. INCLUDE DIAMONDBACK BALL VALVES BV-SERIES, 700PSIG WORKING PRESSURE, FULL PORT, 410A RATED.
2. PROVIDE REFRIGERATION BALL VALVE-BRAZE/SCHRADER/INSULATED – 3/8" SIZE.
3. PROVIDE REFRIGERATION BALL VALVE-BRAZE/SCHRADER/INSULATED – 5/8" SIZE.
4. PROVIDE CONDENSATE PUMP FOR INDOOR UNITS UP TO 120,000 BTUS 100-240VAC AS REQUIRED.
5. PROVIDE BACNET COMMUNICATIONS WIRING TO CU-1 AND BCC-1 AS REQUIRED FOR FUTURE CONNECTIVITY.

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE — BRIAN BRAGG 12775 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	KEEZER	M9	8-BEDROOM DORM MECHANICAL SCHEDULES	123 60025A
SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	CADD EATON		HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	PMIS/PKG NO. 309000
	TECH. REVIEW: BRAGG			SHEET 110 OF 131
	DATE: 02/28/2025			

Feb 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-BEDROOM_V8.dwg jonah

ELECTRICAL POWER AND SYSTEMS LEGEND

- MOTOR, SINGLE–PHASE
- MOTOR, THREE–PHASE
- EARTH GROUND
- BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH LEG CONDUCTORS. ONE SEPARATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN; NOT SHOWN
- PB — PULL BOX
- PANELBOARD CABINET, RECESSED MOUNTED
- PANELBOARD CABINET, SURFACE MOUNTED
- P1 — PANEL DESIGNATION
- DROP CORD RECEPTACLE, 120V, 20 AMP COMMERCIAL SPEC. GRADE, SEE DETAIL
- FLOOR OR CEILING MOUNTED QUAD RECEPTACLE
- FLOOR OR CEILING MOUNTED SPECIAL PURPOSE EQUIPMENT CONNECTION
- DUPLEX GROUNDED RECEPTACLE, 120V, 20 AMP, COMMERCIAL SPECIFICATIONS:
  - GFI =GROUND FAULT CIRCUIT INTERRUPTER
  - WP =WEATHER PROOF
  - RT =RAIN–TIGHT WHILE IN USE
  - 48" =48" ABOVE FINISHED FLOOR
  - F =MOUNT FLUSH
  - SW =RECEPTACLE WITH SWITCH
  - C =CEILING HEIGHT, FLUSH MOUNT
  - S =SURFACE MOUNT
  - BC =BELOW COUNTER
  - CT =AT COUNTER TOP
  - MIC =GFI MICROWAVE
  - REF =GFI REFRIGERATOR
  - WM =GFI WASHING MACHINE
  - DW =GFI DISHWASHER
  - XX" =INSTALLED HEIGHT AT SPECIAL LOCATIONS AS INDICATED
- EQUIPMENT CONNECTION
- S — EQUIPMENT CONNECTION WITH POWER ON/OFF SWITCH
- 3R — EQUIPMENT CONNECTION WITH DISCONNECT SWITCH
  - 3R = NEMA 3R ENCLOSURE
  - 4X = NEMA 4X ENCLOSURE
- QUAD GROUNDED RECEPTACLE, 120V, 20 AMP, COMMERCIAL SPEC. GRADE
- SINGLE RECEPTACLE
- RECEPTACLE, SPECIAL PURPOSE
  - A = 120V, 20A, 1 PHASE, 2–POLE, 3W, NEMA 5–20R.
  - B = 208V, 20A, 1 PHASE, 2–POLE, 3W, NEMA 6–20R.
  - C = 120V, 30A, 1 PHASE, 2–POLE, 3W, NEMA 5–30R.
  - D = 208V, 30A, 1 PHASE, 2–POLE, 3W, NEMA 6–30R.
  - E = 208V, 60A, 1 PHASE, 3–POLE, 4W, NEMA 14–60R.
  - F = 208V, 30A, 3 PHASE, 3–POLE 4W, NEMA 15–30R.
  - G = 208V, 50A, 3 PHASE, 3 POLE, 4W, NEMA 15–30R.
  - H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15–60R.
- T — TRANSFORMER
- DISCONNECT SWITCH, FUSED
- DISCONNECT SWITCH, UNFUSED
- M — UTILITY METER ENCLOSURE
  - MCB — MCB = MAIN CIRCUIT BREAKER
- ELECTRIC BASEBOARD HEATING UNIT WITH POWER CONNECTION
- T — THERMOSTAT (COORDINATE WITH MECHANICAL PLANS)
- LOW VOLTAGE WIRING (COORDINATE WITH MECHANICAL PLANS)

ELECTRICAL DATA/TELECOMMUNICATIONS LEGEND

- SINGLE JACK
  - C = CABLE (COAXIAL)
  - P = PHONE (ANALOG)
  - D = DATA (CAT6 RJ45)
- COMBINATION PHONE/DATA JACK
  - D/D = DATA/DATA
  - D/P = DATA/PHONE
  - D/C = DATA/CABLE
  - P/P = PHONE/PHONE
- TELEPHONE/COMMUNICATIONS TERMINAL, BACKBOARD, HUB, SWITCH, OR ROUTER CABINET, SIZE DEPENDS ON NUMBER OF REQUIRED JACKS. COORDINATE WITH UTILITY AND CONTRACTING OFFICER.
- IT RACK SIZE DEPENDS ON NUMBER OF SWITCHES REQUIRED. COORDINATE WITH UTILITY AND CONTRACTING OFFICER.
- PA — PA SPEAKER SYSTEM

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

ELECTRICAL LIGHTING LEGEND

- A — LIGHT FIXTURE, RECESSED, LETTER INDICATES TYPE, SEE SCHEDULE.
- B — LIGHT FIXTURE, SURFACE MOUNTED, LETTER INDICATES TYPE, SEE SCHEDULE.
- C — LIGHT FIXTURE, EXTERIOR WALL MOUNT, LETTER INDICATES TYPE, SEE SCHEDULE.
- OS — OCCUPANCY SENSOR
- S — ROCKER STYLE SWITCH, 120V, 20 AMP:
  - BLANK = SINGLE POLE
  - 2 = DOUBLE POLE
  - 3 = THREE–WAY
  - 4 = FOUR–WAY
  - D = DIMMER
  - K = KEY OPERATED
  - LV= LOW VOLTAGE
  - L = LOCK
  - LM= LOW VOLTAGE MASTER
  - P = WITH PILOT LIGHT
  - RC= REMOTE CONTROL
  - T = TIMER OPERATED
  - WP= WEATHER PROOF
  - X = EXPLOSION PROOF
  - M = MOTION DETECTOR
  - OS = OCCUPANCY SENSOR
- EMERGENCY LIGHT FIXTURE, LETTER INDICATES TYPE, SEE SCHEDULE.
- EXIT — EXIT LIGHT FIXTURE, LETTER INDICATES TYPE, SEE SCHEDULE.
- EXIT — EMERGENCY/EXIT COMBO LIGHT FIXTURE, LETTER INDICATES TYPE, SEE SCHEDULE.

ELECTRICAL ABBREVIATIONS

AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DFCI	DUAL FUNCTION CIRCUIT INTERRUPTER
DISC	DISCONNECT
DN	DOWN
EH	ELECTRIC HEATER
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FLA	FULL LOAD AMPS
FT	FEET OR FOOT
G OR GND	GROUND OR GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HZ	HERTZ
kW	KILOWATT
LED	LIGHT EMITTING DIODE
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MOD	MOTOR OPERATED DAMPER
MLO	MAIN LUGS ONLY
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NTS	NOT TO SCALE
P	POLE
PWR	POWER
S	SWITCH
SPD	SURGE PROTECTIVE DEVICE
TYP	TYPICAL
UGE	UNDERGROUND ELECTRICAL
V	VOLT
VA	VOLT AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WH	WATER HEATER
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL POWER NOTES

1. ALL WORK SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE. IT IS THE INTENT OF THESE PLANS TO SHOW A FULLY OPERABLE ELECTRICAL SYSTEM ALTHOUGH NOT ALL DETAILS ARE SHOWN. IT IS THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO ENSURE THE SYSTEM OPERATES AS INTENDED.
2. WALLS SHOWN ON DRAWING MAY NOT BE REPRESENTATIVE OF ACTUAL WALL TYPES AND CONDITIONS. REFER TO BUILDING DRAWINGS FOR ACTUAL FLOOR, WALL, AND CEILING TYPES FOR SUPPORT AND PENETRATION INFORMATION.
3. PROVIDE PULL BOXES, JUNCTION BOXES, WIREWAYS, ETC., AS NEEDED AND/OR REQUIRED BY NEC.
4. CONTRACTOR TO INSTALL ALL WIRING, CABLING, CONDUITS, ETC. FROM ALL RECEPTACLE, SWITCHES, AND JACK LOCATIONS TO ELECTRICAL PANEL AND DATA RACK AS REQUIRED.
5. RUBBER INSULATORS REQUIRED AT ANY AND ALL ELECTRICAL/MECHANICAL/PLUMBING UNITS WHICH ATTACH TO ANY STRUCTURAL MEMBERS.
6. ALL RECEPTACLES SHALL BE SHALL BE MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED. ALL SWITCHES SHALL BE MOUNTED AT 48" A.F.F. UNLESS OTHERWISE NOTED.
7. ENSURE ALL ELECTRICAL DISCONNECTS, CIRCUITS, RECEPTACLES, SWITCHES, DEVICES, AND PANEL BOARDS ARE GROUNDED APPROPRIATELY ACCORDING TO NEC. ELECTRICAL DISCONNECTS SHALL BE INSTALLED AT ALL EQUIPMENT LOCATIONS, WATER HEATERS, UNIT HEATERS, ERV UNITS, ETC.
8. CONTRACTOR SHALL COORDINATE ALL LOW AND HIGH VOLTAGE CONDUCTORS, CONDUITS, AND EQUIPMENT WITH MECHANICAL CONTRACTOR.
9. MINIMUM BRANCH CIRCUIT CONDUIT SIZE SHALL BE 3/4".
10. PROVIDE AND INSTALL CONDUITS FOR ALL FEEDERS. MINIMUM SIZE SHALL BE 3/4" SIZE.
11. CONTRACTOR SHALL PROVIDE AND INSTALL HEAVY DUTY DISCONNECT SWITCHES.
12. CONTRACTOR SHALL ROUTE A SEPARATE EQUIPMENT GROUND CONDUCTOR, SIZED PER NEC REQUIREMENTS IN CONDUITS.
13. PANELS SHALL BE PROVIDED WITH 25% MINIMUM SPARE CAPACITY FOR FUTURE EXPANSION.
14. ALL WIRING SHALL BE COPPER THWN/THHN (THERMOPLASTIC HEAT & WATER RESISTANT NYLON COATED/THERMOPLASTIC HIGH HEAT RESISTANT NYLON COATED). FEEDER WIRING SHALL UTILIZE COPPER THWN/THHN. UNDERGROUND WIRING SHALL UTILIZE COPPER THWN/XHHW. (CROSS–LINKED HIGH HEAT WATER–RESISTANT INSULATED WIRE.)
15. MC/AC SHALL NOT BE UTILIZED.
16. PANEL AND EQUIPMENT BUSSES SHALL UTILIZE COPPER.
17. UNDERGROUND CONDUITS SHALL UTILIZE SCHEDULE 40 PVC. SCHEDULE 80 PVC SHALL BE UTILIZED WHERE PHYSICAL DAMAGE WILL OCCUR. PVC COATED RIGID METAL ELBOWS FOR RISERS TO GRADE.
18. NON–METALLIC CONDUIT SHALL NOT BE UTILIZED IN INTERIOR LOCATIONS UNLESS REQUIRED BY CODE.
19. BRANCH CIRCUIT MAXIMUM OF 1500VA FOR EACH 20A, 120V CIRCUIT.
20. ALL EXTERIOR PULL BOXES, CT BOXES, DISCONNECT SWITCHES, AND PANEL ENCLOSURES SHALL BE STAINLESS STEEL NEMA 4X.
21. CONTRACTOR SHALL PROVIDE AND INSTALL OWNER DIGITAL DEMAND METER. METER EQUAL TO LEVITON SERIES 2000, NEMA 4X ENCLOSURE, SOLID CORE CT. THIS SHALL BE IN ADDITION TO THE UTILITY METER. (1) DIGITAL METER PER BUILDING.
22. LOCAL UTILITY WILL BE: VERSANT POWER. CONTACT: BOB PEASLEY

ELECTRICAL DATA NOTES

1. CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS, ETC. TO COMPLETE THE INTENT OF THE PROPOSED DATA, PHONE, CABLE SYSTEM INCLUDING COORDINATION WITH CONTRACTING OFFICER SERVICE PROVIDERS AS REQUIRED.
2. CONTRACTOR SHALL PROVIDE CABLE MANAGEMENT SYSTEM FOR SERVICE AS REQUIRED. (DATA, PHONE, CABLE) ALL CABLES SHALL BE RUN NEATLY, PROPERLY BOUND, SEPARATE BOUND COLOR CODE AND IN AN ORTHOGONAL MANNER. NO DIAGONAL RUNS WILL BE ALLOWED.
3. CONTRACTOR SHALL PROVIDE RECEPTACLES FOR ALL SYSTEMS AS REQUIRED.
4. CONTRACTOR SHALL PROVIDE AND INSTALL ALL DATA JACKS, CABLING, CONDUITS, AND FACE PLATES. CONTRACTOR TO INSTALL RECEPTACLES BOXES. CONTRACTOR TO PROVIDE AND INSTALL ALL WIRING FROM ALL DEVICES TO/FROM BOXES, JACKS, AND SERVER /RACK SYSTEM.
5. ENSURE 5 FEET OF SLACK CABLE EXISTS AT EACH JACK LOCATION AND EXTRA 15 FEET SLACK CABLING AT SERVER/RACK SYSTEMS. CONTRACTOR SHALL LABEL ALL CABLING AT JACKS AND SERVERS/RACKS. CONTRACTOR IS RESPONSIBLE FOR REWORK OF MIS–LABELED CABLING.
6. CONTRACTOR SHALL ENSURE ALL EIA/TIA STANDARDS ARE FOLLOWED AND MAINTAINED.
7. CATEGORY 6 CABLING SHALL BE UTILIZED. ENSURE (2) CABLES PER 3/4" CONDUIT MAX. (1) DATA, (1) VOICE PER VOICE/DATA OUTLET (TYP.) TERMINATE ALL CABLING.
8. CONTRACTOR SHALL COORDINATE WITH LOCAL PHONE/INTERNET PROVIDER AS REQUIRED.

ELECTRICAL LIGHTING NOTES:

1. ALL LIGHTING CIRCUITS ARE SHOWN DIAGRAMMATICALLY.
2. MULTIPLE CONDUCTORS FOR SWITCHING NOT ALWAYS SHOWN. MULTIPLE CONDUCTORS FOR THREE–WAY SWITCHING NOT SHOWN. PROVIDE APPROPRIATE NUMBER OF CONDUCTORS FOR ALL CIRCUITS.
3. FOR LIGHTING ON OCCUPANCY SENSOR SWITCHING, ONLY OCCUPANCY SENSOR LOCATION IS SHOWN. PROVIDE ALL OTHER APPROPRIATE ASSOCIATED HARDWARE AS NEEDED.
4. CONTRACTOR SHALL COORDINATE LIGHTING PANEL CIRCUITS AS REQUIRED.
5. CONTRACTOR TO INSTALL ALL WIRING, CONDUITS, ETC. FROM ALL LIGHTING LOCATIONS TO ELECTRICAL ROOM AND/OR PANELBOARD LOCATIONS.
6. ENSURE ALL ELECTRICAL DISCONNECTS, CIRCUITS, RECEPTACLES, SWITCHES, DEVICES, AND PANEL BOARDS ARE GROUNDED APPROPRIATELY ACCORDING TO NEC.
7. ALL EXTERIOR LIGHTS SHALL HAVE EMERGENCY POWER BACKUP.
8. ALL EXTERIOR LIGHTING TO HAVE PHOTOCELL SENSOR CONTROLS AND MANUAL SWITCH CONTROLS FOR OVERRIDE OPERATION.
9. CONTRACTOR SHALL SUPPLY AND INSTALL ALL REQUIRED MOUNTING ACCESSORIES FOR ALL LIGHT FIXTURES. ALL LIGHTS SHALL HAVE 0–10V DIMMING CAPABILITIES.
10. ALL EXTERIOR LIGHTS SHALL BE WET RATED.
11. CONTRACTOR SHALL ENSURE ALL EMERGENCY LIGHTS HAVE ADEQUATE COVERAGE TO MAINTAIN MINIMUM OF 1FC AT ALL CORRIDORS, EGRESS PATHWAYS, AND EXIT DOORS TO PUBLIC WAY. CONTRACTOR SHALL MODIFY AND/OR ADD ADDITIONAL FIXTURES TO MEET LIFE SAFETY STANDARDS.
12. CONTRACTOR SHALL ENSURE ALL SWITCHES ARE ROCKER STYLE SWITCHES.

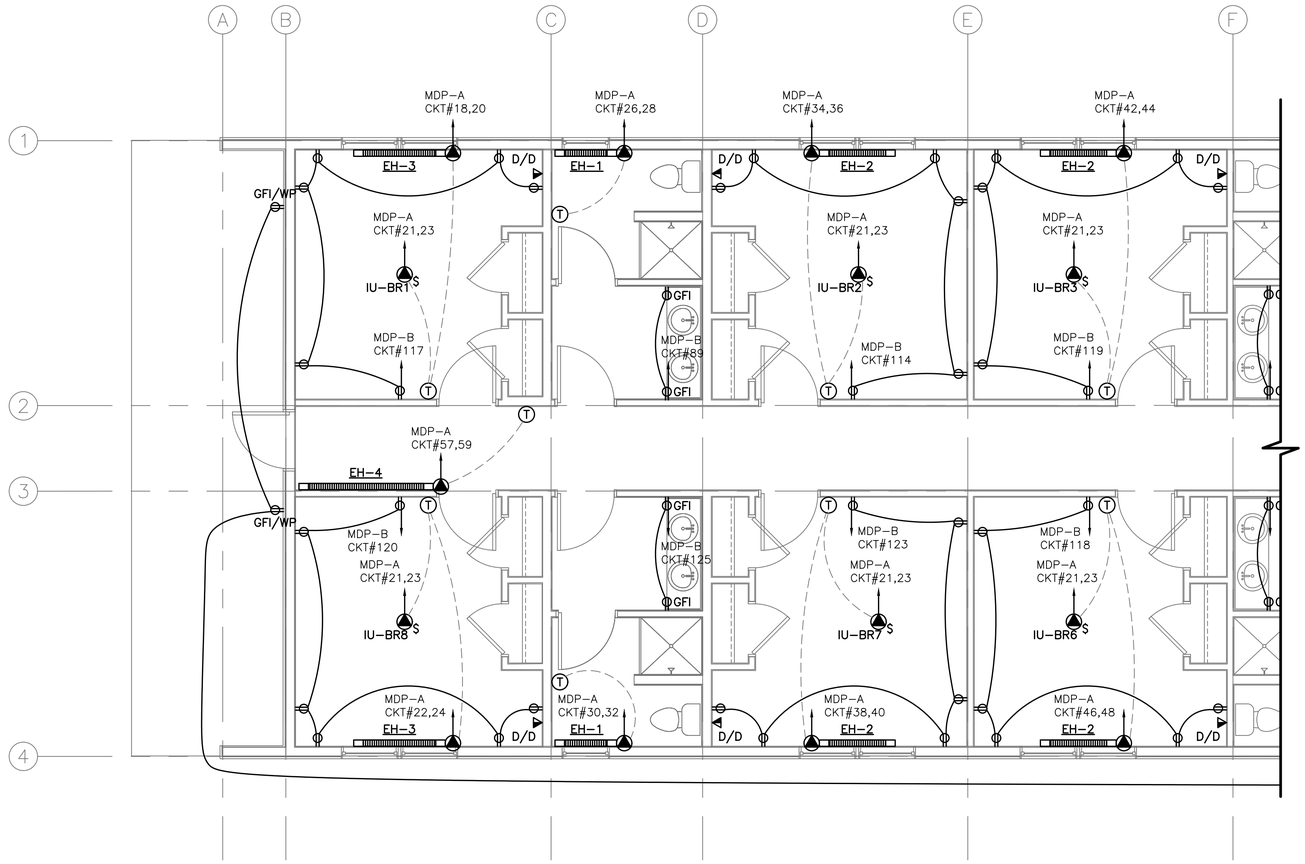
STATE OF MAINE — BRIAN BRAGG — 12775 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM	
PRIME:	HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME
SUBCONTRACTOR:	CARPENTER ASSOCIATES OLD TOWN, ME
DESIGNED:	KEEZER
CADD	EATON
TECH. REVIEW:	BRAGG
DATE:	02/28/2025
SUB SHEET NO.	E1
TITLE OF SHEET	8–BEDROOM DORM ELECTRICAL LEGEND
	HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK
DRAWING NO.	123 60025A
PMIS/PKG NO.	309000
SHEET	111 OF 131

Feb 26, 2025 – 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V8.dwg jondh

ELECTRIC HEATER SCHEDULE (8–BEDROOM DORM)										BASIS OF DESIGN: STELPRO*
TAG	QUANTITY	MODEL	LENGTH (INCHES)	WATTS	BTU/HR	VOLTS	FLA	MCA	MOCP	TOTAL KVA	NOTES
EH–1	5	ABA0752	39	750	2,560	208	3.0	4.5	20	3.2	1, 2, 3
EH–2	6	ABA1002	48	1,000	3,413	208	4.8	6.0	20	5.2	1, 2, 3
EH–3	2	ABA1252	58	1,250	4,266	208	6.0	7.5	20	2.2	1, 2, 3
EH–4	4	ABA2002	85	2,000	6,825	208	9.6	12.0	20	6.8	1, 2, 3
EH–5	1	ASHU0223C24CHAR	––	2,000	6,825	208	9.6	12.0	20	1.7	1, 2, 3

NOTES:
1. COORDINATE CONTROL WITH VRF THERMOSTATS. COMBINE INTO SINGLE THERMOSTAT AS AVAILABLE. EH SHALL BE SECONDARY STAGE OF HEAT.
2. COLOR SHALL BE WHITE.
3. PROVIDE AND INSTALL 24V THERMOSTAT, RELAY, AND TRANSFORMER AS REQUIRED.
4. LINK EH–4 CONTROL SIGNAL TOGETHER IN LIVING ROOM.



1 E2 ELECTRICAL POWER AND DATA PLAN – WEST

4 0 4 8
SCALE OF FEET

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

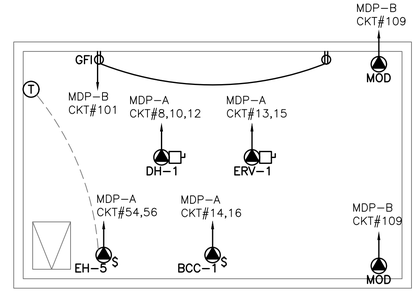
STATE OF MAINE · BRAGG · LICENSED PROFESSIONAL ENGINEER

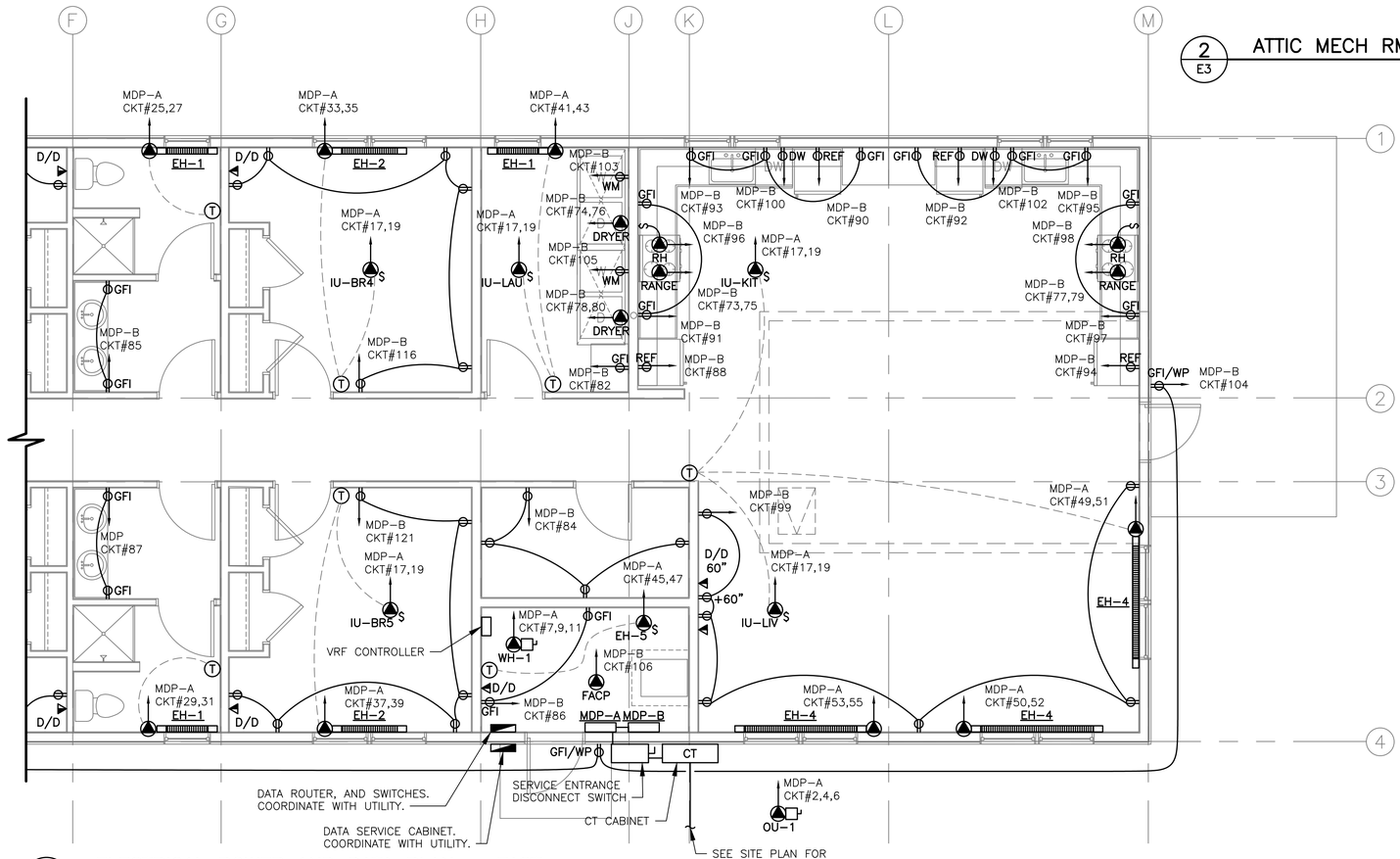
A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	KEEZER	E2	8–BEDROOM DORM ELECTRICAL POWER AND DATA PLAN – WEST	123 60025A
SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	CADD EATON		HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	PMIS/PKG NO. 309000
	TECH. REVIEW: BRAGG			SHEET 112 OF 131
	DATE: 02/28/2025			

Feb 26, 2025 – 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–BEDROOM_V8.dwg jonah

ELECTRIC HEATER SCHEDULE (8–BEDROOM DORM)										BASIS OF DESIGN: STELPRO*
TAG	QUANTITY	MODEL	LENGTH (INCHES)	WATTS	BTU/HR	VOLTS	FLA	MCA	MOCP	TOTAL KVA	NOTES
EH–1	5	ABA0752	39	750	2,560	208	3.0	4.5	20	3.2	1, 2, 3
EH–2	6	ABA1002	48	1,000	3,413	208	4.8	6.0	20	5.2	1, 2, 3
EH–3	2	ABA1252	58	1,250	4,266	208	6.0	7.5	20	2.2	1, 2, 3
EH–4	4	ABA2002	85	2,000	6,825	208	9.6	12.0	20	6.8	1, 2, 3
EH–5	1	ASHU0223C24CHAR	––	2,000	6,825	208	9.6	12.0	20	1.7	1, 2, 3

NOTES:
1. COORDINATE CONTROL WITH VRF THERMOSTATS. COMBINE INTO SINGLE THERMOSTAT AS AVAILABLE. EH SHALL BE SECONDARY STAGE OF HEAT.
2. COLOR SHALL BE WHITE.
3. PROVIDE AND INSTALL 24V THERMOSTAT, RELAY, AND TRANSFORMER AS REQUIRED.
4. LINK EH–4 CONTROL SIGNAL TOGETHER IN LIVING ROOM.





1 E3 ELECTRICAL POWER AND DATA PLAN – EAST

2 E3 ATTIC MECH RM ELECTRICAL POWER AND DATA PLAN

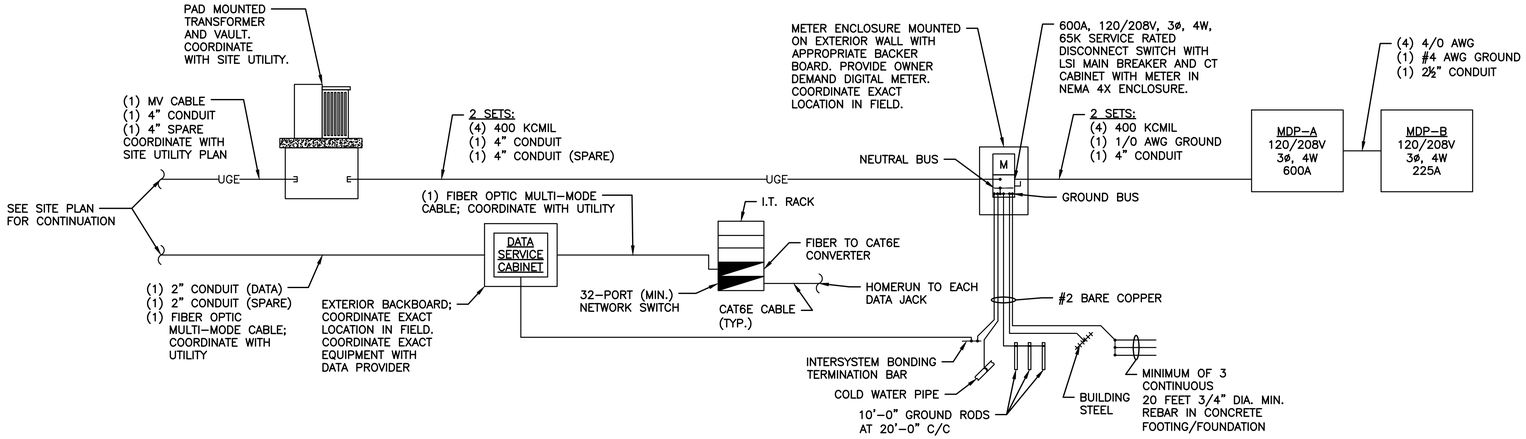
4 0 4 8
SCALE OF FEET

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE — BRADLEY BRAGG 12675 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	KEEZER	E3	8–BEDROOM DORM ELECTRICAL POWER AND DATA PLAN – EAST	123 60025A
SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	EATON		HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	PMIS/PKG NO. 309000
	TECH. REVIEW: BRAGG			SHEET 113 OF 131
	DATE: 02/28/2025			

Feb 26, 2025 – 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V8.dwg jonah



1 / E4 ELECTRICAL POWER/DATA ONE-LINE DIAGRAM

NO SCALE

NOTE:
1. CONDUCTOR SIZING BASED ON COPPER, 75'C RATED.
2. CONTRACTOR TO COORDINATE WITH UTILITIES FOR EXACT EQUIPMENT AND LAYOUT REQUIREMENTS. MODIFY AS REQUIRED

BUILDING LOAD CALCULATION

SQUARE FEET		=	3823
GENERAL LOADS:			**(VA)**
LIGHTING			11469
(4) SMALL APPLIANCE CKTS			6000
(2) LAUNDRY CKT			3000
		Sub-Total	20469
	3000VA @100%		3000
	3108VA @ 35%		6114
GENERAL LIGHTING DEMAND		=	**9114**
APPLIANCES:			
WATER HEATER			36000
REFRIGERATOR			5600
DISHWASHER			2060
MICROWAVE			3260
RANGE HOOD			1600
ERV			2100
DH			8000
		Sub-Total	58620
APPLIANCE DEMAND		=	**58620**
DRYER DEMAND		=	**10000**
RANGE DEMAND		=	**11000**
HVAC DEMAND		=	**32800**
SERVICE ENTRANCE DEMAND		=	**121534**
			AMPS
SERVICE DEMAND LOAD		=	**338**
SPARE CAPACITY = 25%		=	**84**
MINIMUM SERVICE REQUIRED		=	**600**

NOTE: AVAILABLE FAULT CURRENT = 65K (BASED ON INFINITE SOURCE)

STATE OF MAINE · HANDY BRAGG 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. E4	TITLE OF SHEET 8-BEDROOM DORM ELECTRICAL DIAGRAM AND LOAD CALCULATIONS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 114 OF 131	

Feb. 26, 2025 - 9:47am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

PANEL NAME: MDP-A

NEW PANEL																	POWER
VOLTAGE: 120/208V	PHASE: 3					WIRE: 4						MAIN TYPE: MDP WITH MAIN BREAKER					LOCATION: MECH ROOM
600A						FED FROM: DISCONNECT SWITCH						65K RATED					MOUNTING: SURFACE
SERVICE	BREAKER			CIRCUIT		CKT #	LEFT PHASE LOAD (KVA)			RIGHT PHASE LOAD (KVA)			CKT #	CIRCUIT		BREAKER			SERVICE
	POLE	AMPS	TYPE	CONDUCTOR SIZE	CONDUIT SIZE		A	B	C	A	B	C		CONDUIT SIZE	CONDUCTOR SIZE	TYPE	AMPS	POLE	
MDP-B	3P	225A		4/0 AWG	2-1/2"	1	20.3			6.5			2						
						3		20.3			6.5		4	1"	#6 AWG		60A	3P	OU-1
						5			20.3			6.5	6						
WH-1	3P	125A		#1 AWG	1-1/2"	7	12			2.7			8						
						9		12			2.7		10	3/4"	#10 AWG		30A	3P	DH-1
						11			12			2.7	12						
ERV-1	2P	15A		#12 AWG	3/4"	13	1.1			0.06			14						
						15		1.1			0.06		16	3/4"	#12 AWG		20A	2P	BCC-1
IU-LAU/KIT/LIV/BR4/BR5	2P	20A		#12 AWG	3/4"	17			0.25			0.65	18	3/4"	#12 AWG		20A	2P	EH-3 BEDROOM 1
						19	0.25			0.65			20						
IU-BR1/BR2/BR3/BR6/BR7/BR8	2P	20A		#12 AWG	3/4"	21		0.25			0.65		22	3/4"	#12 AWG		20A	2P	EH-3 BEDROOM 8
						23			0.25			0.65	24						
EH-1 BATH	2P	20A		#12 AWG	3/4"	25	0.32			0.32			26						
						27		0.32			0.32		28	3/4"	#12 AWG		20A	2P	EH-1 BATH
EH-1 BATH	2P	20A		#12 AWG	3/4"	29			0.32			0.32	30						
						31	0.32			0.32			32	3/4"	#12 AWG		20A	2P	EH-1 BATH
EH-2 BEDROOM 4	2P	20A		#12 AWG	3/4"	33		0.44			0.44		34						
						35			0.44			0.44	36	3/4"	#12 AWG		20A	2P	EH-2 BEDROOM 2
EH-2 BEDROOM 5	2P	20A		#12 AWG	3/4"	37	0.44			0.44			38						
						39		0.44			0.44		40	3/4"	#12 AWG		20A	2P	EH-2 BEDROOM 7
EH-1 LAUNDRY	2P	20A		#12 AWG	3/4"	41			0.32			0.44	42						
						43	0.32			0.44			44	3/4"	#12 AWG		20A	2P	EH-2 BEDROOM 3
EH-5 MECH ROOM	2P	20A		#12 AWG	3/4"	45		0.85			0.44		46						
						47			0.85			0.44	48	3/4"	#12 AWG		20A	2P	EH-2 BEDROOM 6
EH-4 LIVING ROOM #1	2P	20A		#12 AWG	3/4"	49	0.85			0.85			50						
						51		0.85			0.85		52	3/4"	#12 AWG		20A	2P	EH-5 LIVING ROOM #2
EH-4 LIVING ROOM #3	2P	20A		#12 AWG	3/4"	53			0.85			0.85	54						
						55	0.85			0.85			56	3/4"	#12 AWG		20A	2P	EH-5 ATTIC
EH-4 CORRIDOR	2P	20A		#12 AWG	3/4"	57							58				20A	1P	SPARE
						59							60				20A	1P	SPARE
SPARE	2P	20A				61							62				20A	1P	SPARE
						63							64				20A	1P	SPARE
SPARE	1P	20A				65							66				20A	1P	SPARE
SPARE	1P	20A				67							68				20A	1P	SPARE
SPARE	1P	20A				69							70				20A	1P	SPARE
SPARE	1P	20A				71							72				20A	1P	SPARE
							A		B		C								
TOTAL PHASE LOADS (KVA) :							50		49		49								
TOTAL DEMAND LOAD (KVA):							147												
TOTAL DEMAND CURRENT (AMPS):							410												

NOTES:
1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL AFCI/GFCI/DFCI BREAKERS AS NOTED AND AS REQUIRED TO MEET 2023 NEC.
2. CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTIVE DEVICE EQUAL TO EATON SPD200208Y1K, 200KA PER PHASE.
3. CONTRACTOR SHALL BALANCE ALL PHASES AS REQUIRED.
4. CONDUCTOR SIZING BASED ON COPPER, 75°C RATED.

PANEL NAME: MDP-B

NEW PANEL																	POWER
VOLTAGE: 120/208V	PHASE: 3					WIRE: 4						MAIN TYPE: MCB					LOCATION: MECH ROOM
225A						FED FROM: MDP-A						22K RATED					MOUNTING: SURFACE
SERVICE	BREAKER			CIRCUIT		CKT #	LEFT PHASE LOAD (KVA)			RIGHT PHASE LOAD (KVA)			CKT #	CIRCUIT		BREAKER			SERVICE
	POLE	AMPS	TYPE	CONDUCTOR SIZE	CONDUIT SIZE		A	B	C	A	B	C		CONDUIT SIZE	CONDUCTOR SIZE	TYPE	AMPS	POLE	
RANGE	2P	40A	DFCI	#8 AWG	3/4"	73	4.0			4.0			74						
						75		4.0			4.0		76	3/4"	#8 AWG	GFCI	40A	2P	DRYER
RANGE	2P	40A	DFCI	#8 AWG	3/4"	77			4.0			4.0	78						
						79	4.0			4.0			80	3/4"	#8 AWG	GFCI	40A	2P	DRYER
HT-1	2P	40A	DFCI	#12 AWG	3/4"	81		1.65			0.8		82	3/4"	#12 AWG	DFCI	20A	1P	LAUNDRY RECEPTACLE
						83			1.65			0.36	84	3/4"	#12 AWG	AFCI	20A	1P	STORAGE RECEPTACLES
BATHROOM 1 RECEPTACLES	1P	20A	GFCI	#12 AWG	3/4"	85	1.2			0.18			86	3/4"	#12 AWG	DFCI	20A	1P	MECH ROOM RECEPTACLES
BATHROOM 2 RECEPTACLES	1P	20A	GFCI	#12 AWG	3/4"	87		1.2			1.2		88	3/4"	#12 AWG	DFCI	20A	1P	REFRIGERATOR
BATHROOM 3 RECEPTACLES	1P	20A	GFCI	#12 AWG	3/4"	89			1.2			1.2	90	3/4"	#12 AWG	DFCI	20A	1P	REFRIGERATOR
KITCHEN CKT #1	1P	20A	DFCI	#12 AWG	3/4"	91	1.2			1.2			92	3/4"	#12 AWG	DFCI	20A	1P	REFRIGERATOR
KITCHEN CKT #2	1P	20A	DFCI	#12 AWG	3/4"	93		1.2			1.2		94	3/4"	#12 AWG	DFCI	20A	1P	REFRIGERATOR
KITCHEN CKT #3	1P	20A	DFCI	#12 AWG	3/4"	95			1.2			0.8	96	3/4"	#12 AWG	DFCI	20A	1P	RANGE HOOD
KITCHEN CKT #4	1P	20A	DFCI	#12 AWG	3/4"	97	1.2			0.8			98	3/4"	#12 AWG	DFCI	20A	1P	RANGE HOOD
LIVING ROOM RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	99		0.63			1.2		100	3/4"	#12 AWG	DFCI	20A	1P	DISHWASHER
ATTIC RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	101			0.18			1.2	102	3/4"	#12 AWG	DFCI	20A	1P	DISHWASHER
WASHING MACHINE	1P	20A	DFCI	#12 AWG	3/4"	103	1.2			0.36			104	3/4"	#12 AWG	GFCI	20A	1P	EXTERIOR RECEPTACLES
WASHING MACHINE	1P	20A	DFCI	#12 AWG	3/4"	105		1.2			1.2		106	3/4"	#12 AWG		20A	1P	FACP
CONDENSATE PUMPS	1P	20A		#12 AWG	3/4"	107			0.18			0.24	108	3/4"	#12 AWG	DFCI	20A	1P	BATH LIGHTS
MOD-1/2	1P	20A		#12 AWG	3/4"	109	0.18			0.12			110	3/4"	#12 AWG	AFCI	20A	1P	MECH RM/STORAGE/LAUNDRY LIGHTS
BEDROOM 1/2/3/4 LIGHTS	1P	20A	AFCI	#12 AWG	3/4"	111		0.1			0.1		112	3/4"	#12 AWG	DFCI	20A	1P	EXTERIOR LIGHTS
BEDROOM 5/6/7/8 LIGHTS	1P	20A	AFCI	#12 AWG	3/4"	113			0.1			0.54	114	3/4"	#12 AWG	AFCI	20A	1P	BEDROOM 2 RECEPTACLES
KITCHEN/ LIVING RM/ATTIC LIGHTS	1P	20A	AFCI	#12 AWG	3/4"	115	0.38			0.54			116	3/4"	#12 AWG	AFCI	20A	1P	BEDROOM 4 RECEPTACLES
BEDROOM 1 RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	117		0.54			0.54		118	3/4"	#12 AWG	AFCI	20A	1P	BEDROOM 6 RECEPTACLES
BEDROOM 3 RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	119			0.54			0.54	120	3/4"	#12 AWG	AFCI	20A	1P	BEDROOM 8 RECEPTACLES
BEDROOM 5 RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	121	0.54						122				20A	1P	SPARE
BEDROOM 7 RECEPTACLES	1P	20A	AFCI	#12 AWG	3/4"	123		0.54					124				20A	1P	SPARE
BATHROOM 4 RECEPTACES	1P	20A	GFCI	#12 AWG	3/4"	125			0.18				126				20A	1P	SPARE
SPARE	1P	20A				127							128				20A	1P	SPARE
SPARE	1P	20A				129							130				20A	1P	SPARE
SPARE	1P	20A				131							132				20A	1P	SPARE
SPARE	1P	20A				133							134				20A	1P	SPARE
SPARE	1P	20A				135							136				20A	1P	SPARE
SPARE	1P	20A				137							138				20A	1P	SPARE
SPARE	1P	20A				139							140				20A	1P	SPARE
SPARE	1P	20A				141							142				20A	1P	SPARE
SPARE	1P	20A				143							144				20A	1P	SPARE
							A		B		C								
TOTAL PHASE LOADS (KVA) :							25		21		18								
TOTAL DEMAND LOAD (KVA):							65												
TOTAL DEMAND CURRENT (AMPS):							179												

NOTES:
1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL AFCI/GFCI/DFCI BREAKERS AS NOTED AND AS REQUIRED TO MEET 2023 NEC.
2. CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTIVE DEVICE EQUAL TO EATON SPD200208Y1K, 200KA PER PHASE.
3. CONTRACTOR SHALL BALANCE ALL PHASES AS REQUIRED.
4. CONDUCTOR SIZING BASED ON COPPER, 75°C RATED.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE (5–BEDROOM)

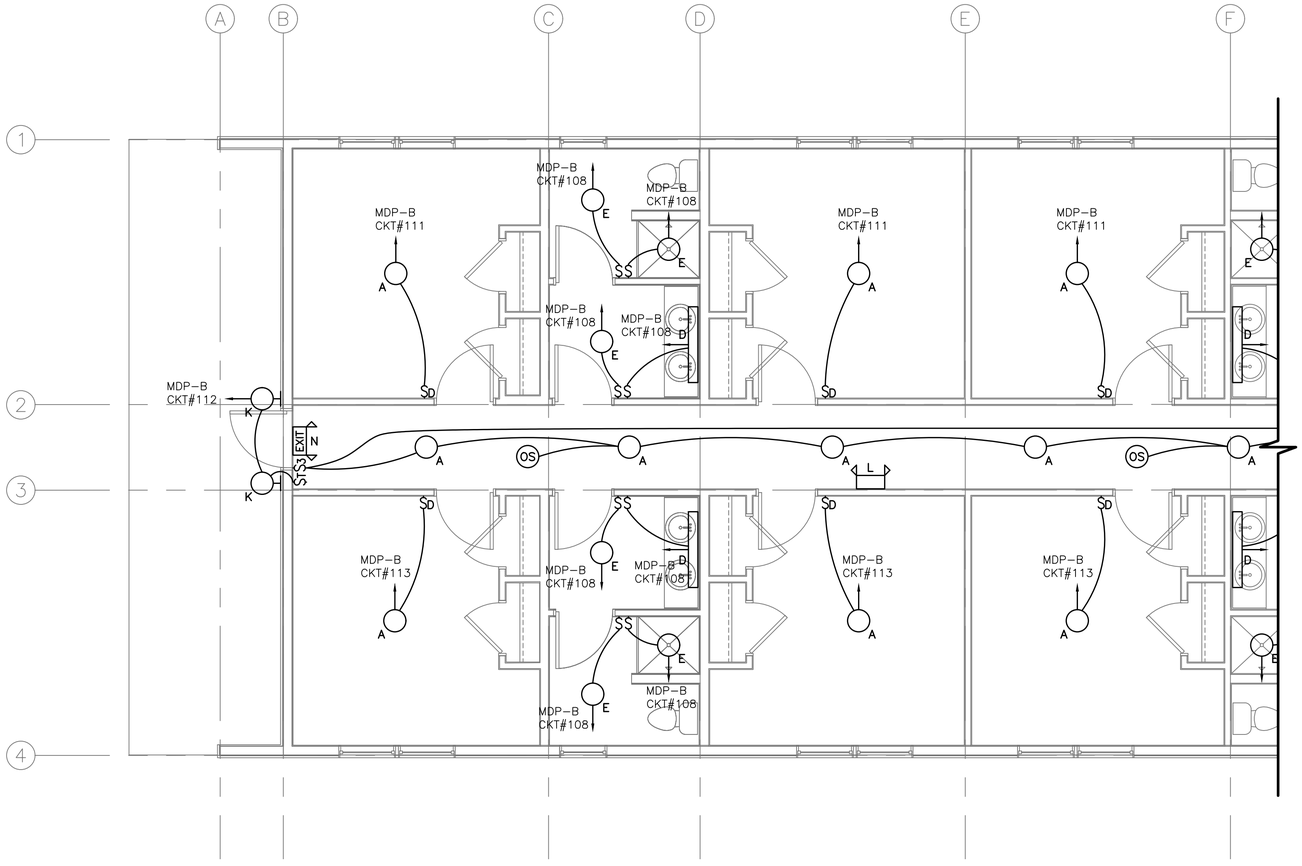
EQUIPMENT TAG	DESCRIPTION	LOCATION	PHASE	VOLTS	FLA	MCA	MOCP	LOAD (KVA)	NOTES
ERV–1	ENERGY RECOVERY UNIT	ATTIC	1	208	9.9	12.4	15	2.1	––
DH–1	DUCT HEATER	ATTIC	3	208	22.2	27.8	30	8	––
RH–1	RANGE HOOD	KITCHEN	1	120	0.7	1	20	0.08	––
EH–1	ELECTRIC BASEBOARD	LAUNDRY & RESTROOMS	1	208	3.1	3.9	20	0.64	2
EH–2	ELECTRIC BASEBOARD	BEDROOMS 2,3,4,5,6,7	1	208	4.2	5.3	20	0.87	2
EH–3	ELECTRIC BASEBOARD	BEDROOMS 1 & 8	1	208	5.2	6.5	20	1.1	2
EH–4	ELECTRIC BASEBOARD	LIVING RM/ HALLWAY	1	208	8.3	10.4	20	1.7	2
EH–5	ELECTRIC UNIT HEATER	MECH ROOM	1	208	8.3	10.4	20	1.7	––
OU–1	VRF CONDENSING UNIT	EXTERIOR	3	208	54	54	60	19.4	––
IU–BR1	VRF INDOOR UNIT	BEDROOM 1	1	208	0.21	0.25	20	0.05	––
IU–BR2	VRF INDOOR UNIT	BEDROOM 2	1	208	0.21	0.25	20	0.05	––
IU–BR3	VRF INDOOR UNIT	BEDROOM 3	1	208	0.21	0.25	20	0.05	––
IU–BR4	VRF INDOOR UNIT	BEDROOM 4	1	208	0.21	0.25	20	0.05	––
IU–BR5	VRF INDOOR UNIT	BEDROOM 5	1	208	0.21	0.25	20	0.05	––
IU–BR6	VRF INDOOR UNIT	BEDROOM 6	1	208	0.21	0.25	20	0.05	––
IU–BR7	VRF INDOOR UNIT	BEDROOM 7	1	208	0.21	0.25	20	0.05	––
IU–BR8	VRF INDOOR UNIT	BEDROOM 8	1	208	0.21	0.25	20	0.05	––
IU–LAU	VRF INDOOR UNIT	LAUNDRY	1	208	0.21	0.25	20	0.05	––
IU–KIT	VRF INDOOR UNIT	KITCHEN	1	208	0.21	0.26	20	0.05	––
IU–LIV	VRF INDOOR UNIT	LIVING ROOM	1	208	0.21	0.26	20	0.05	––
BCC–1	VRF BRANCH CONTROLLER	ATTIC	1	208	0.59	1.1	20	0.12	––
HT–1	ELECTRIC HEAT TRACE	VARIES	1	208	16	16	20	3.3	––
WH–1	ELECTRIC WATER HEATER	MECH ROOM	3	208	100	125	125	36	––

NOTES:
1. THE ABOVE INFORMATION IS FOR A SPECIFIC MANUFACTURER. ACTUAL LOADS FOR EQUIPMENT MAY BE DIFFERENT. COORDINATE WITH MECHANICAL EQUIPMENT SUBMITTALS FOR LOADS AND OVER CURRENT PROTECTION REQUIREMENTS PRIOR TO INSTALLATION OF WIRING.
2. MODIFY CIRCUITS AS REQUIRED IF ADDITIONAL ELEMENTS/EQUIPMENT IS CONNECTED.

STATE OF MAINE — RANDY BAGLEY 12175 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. E5	TITLE OF SHEET 8–BEDROOM DORM ELECTRICAL SCHEDULES HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 115 OF 131

Feb 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



1 E6 ELECTRICAL LIGHTING PLAN – WEST

LIGHTING FIXTURE SCHEDULE*					
FIXTURE TAG	SYMBOL	MAKE AND MODEL	DESCRIPTION	POWER (WATTS)	NOTES
A	◯	BROWNLEE LIGHTING INC. 2061–14–BZ–R22–FL1–30K OR EQUAL	14" ROUND LED SURFACE MOUNT LIGHT	24W	--
B	◯	BROWNLEE LIGHTING INC. 2061–18–BZ–R34–FL1–30K OR EQUAL	18" ROUND LED SURFACE MOUNT LIGHT	34W	--
C	▯	LITHONIA LIGHTING FMVCCLS–24IN–MVOLT–30K35K40K–90CRI–KR OR EQUAL	2' CYLINDER WALL MOUNT LIGHT	19W	--
D	▯	LITHONIA LIGHTING FMVCCLS–48IN–MVOLT–30K35K40K–90CRI–KR OR EQUAL	4' CYLINDER WALL MOUNT LIGHT	27W	NOT USED FOR 6–PLEX FLAT
E	◯	INDY L4–23LM–30K–MVOLT–G4–80CRI–ZT–P–CD–WET OR EQUAL	RECESSED LED LENSED DOWNLIGHT	12W	--
F	◯	INDY L4–23LM–30K–MVOLT–G4–80CRI–ZT–P–CD OR EQUAL	RECESSED LED DOWNLIGHT	12W	--
G	▯	LITHONIA LIGHTING CSS–L48–ALO3–(4000)–MVOLT–SWW3–(35)–80CRI OR EQUAL	4' LINEAR LED STRIP LIGHT	37W	--
H	▯	JUNO LIGHTING UCES–18IN–SWW6–90CRI–WH–M6 OR EQUAL	UNDERCABINET 18" LINEAR LED LIGHT	9W	--
I	▯	JUNO LIGHTING UCES–24IN–SWW4–90CRI–WH–M6 OR EQUAL	UNDERCABINET 24" LINEAR LED LIGHT	11W	--
J	▯	JUNO LIGHTING UCES–36IN–SWW4–90CRI–WH–M6 OR EQUAL	UNDERCABINET 48" LINEAR LED LIGHT	17W	--
K	◯	BOWMAN 4 OUTDOOR WALL 700WSBOW–Z–LED830 OR EQUAL	OUTDOOR WALL SCONCE LED LIGHT	18W	PHOTOCELL CONTROL, 90 MIN BATTERY BACKUP
L	◁▭▷	LITHONIA LIGHTING ELM2L OR EQUAL	LED EMERGENCY LIGHT	1W	90 MIN BATTERY BACKUP
M	EXIT	LITHONIA LIGHTING LQM–S–W–3–R–120/277 OR EQUAL	LED EXIT LIGHT	1.5W	90 MIN BATTERY BACKUP
N	◁EXIT▷	LITHONIA LIGHTING LQM–S–W–3–R–120/277 OR EQUAL	LED EMERGENCY COMBO LIGHT	1.5W	90 MIN BATTERY BACKUP

NOTE:
1. PROVIDE AND INSTALL PHOTOCELL SENSOR CONTROL FOR ALL EXTERIOR LIGHT FIXTURES.
2. PROVIDE AND INSTALL 0–10V/DIMMING DRIVERS FOR EACH FIXTURE.
3. NOT ALL FIXTURES MAY BE INCLUDED; VERIFY FIXTURE TYPES AND QUANTITY WITH PLAN.
4. PROVIDE AND INSTALL PHOTOCELL AND BATTERY BACKUP AS AN ACCESSORY TO TYPE 'K' FIXTURE.

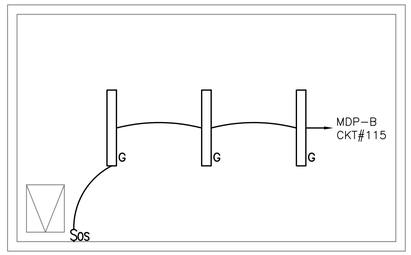
4 0 4 8
SCALE OF FEET

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

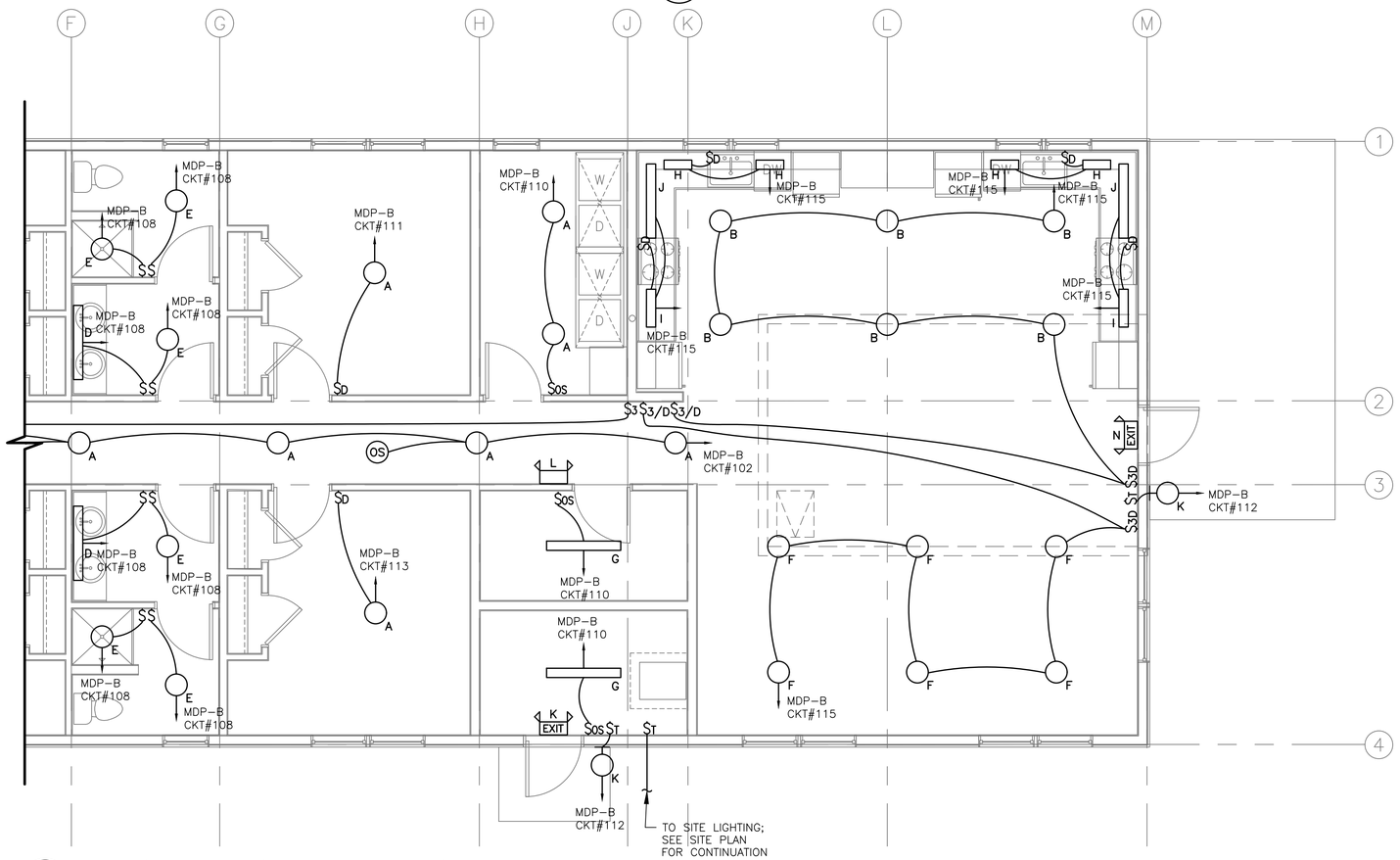
STATE OF MAINE RANDY BRAGG 12575 LICENSED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	E6	8–BEDROOM DORM ELECTRICAL LIGHTING PLAN – WEST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 60025A PMIS/PKG NO. 309000 SHEET 116 OF 131

Feb 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



2 / E7 ATTIC MECH RM ELECTRICAL LIGHTING PLAN



1 / E7 ELECTRICAL LIGHTING PLAN – EAST

LIGHTING FIXTURE SCHEDULE*					
FIXTURE TAG	SYMBOL	MAKE AND MODEL	DESCRIPTION	POWER (WATTS)	NOTES
A	◯	BROWNLEE LIGHTING INC. 2061–14–BZ–R22–FL1–30K OR EQUAL	14" ROUND LED SURFACE MOUNT LIGHT	24W	--
B	◯	BROWNLEE LIGHTING INC. 2061–18–BZ–R34–FL1–30K OR EQUAL	18" ROUND LED SURFACE MOUNT LIGHT	34W	--
C	▯	LITHONIA LIGHTING FMVCCLS–24IN–MVOLT–30K35K40K–90CRI–KR OR EQUAL	2' CYLINDER WALL MOUNT LIGHT	19W	--
D	▯	LITHONIA LIGHTING FMVCCLS–48IN–MVOLT–30K35K40K–90CRI–KR OR EQUAL	4' CYLINDER WALL MOUNT LIGHT	27W	NOT USED FOR 6–PLEX FLAT
E	◯	INDY L4–23LM–30K–MVOLT–G4–80CRI–ZT–P–CD–WET OR EQUAL	RECESSED LED LENSED DOWNLIGHT	12W	--
F	◯	INDY L4–23LM–30K–MVOLT–G4–80CRI–ZT–P–CD OR EQUAL	RECESSED LED DOWNLIGHT	12W	--
G	▯	LITHONIA LIGHTING CSS–L48–ALO3–(4000)–MVOLT–SWW3–(35)–80CRI OR EQUAL	4' LINEAR LED STRIP LIGHT	37W	--
H	▯	JUNO LIGHTING UCES–18IN–SWW6–90CRI–WH–M6 OR EQUAL	UNDERCABINET 18" LINEAR LED LIGHT	9W	--
I	▯	JUNO LIGHTING UCES–24IN–SWW4–90CRI–WH–M6 OR EQUAL	UNDERCABINET 24" LINEAR LED LIGHT	11W	--
J	▯	JUNO LIGHTING UCES–36IN–SWW4–90CRI–WH–M6 OR EQUAL	UNDERCABINET 48" LINEAR LED LIGHT	17W	--
K	⚲	BOWMAN 4 OUTDOOR WALL 700WSBOW–Z–LED830 OR EQUAL	OUTDOOR WALL SCONCE LED LIGHT	18W	PHOTOCELL CONTROL, 90 MIN BATTERY BACKUP
L	▭	LITHONIA LIGHTING ELM2L OR EQUAL	LED EMERGENCY LIGHT	1W	90 MIN BATTERY BACKUP
M	EXIT	LITHONIA LIGHTING LQM–S–W–3–R–120/277 OR EQUAL	LED EXIT LIGHT	1.5W	90 MIN BATTERY BACKUP
N	EXIT	LITHONIA LIGHTING LQM–S–W–3–R–120/277 OR EQUAL	LED EMERGENCY COMBO LIGHT	1.5W	90 MIN BATTERY BACKUP

NOTE:
1. PROVIDE AND INSTALL PHOTOCELL SENSOR CONTROL FOR ALL EXTERIOR LIGHT FIXTURES.
2. PROVIDE AND INSTALL 0–10V/DIMMING DRIVERS FOR EACH FIXTURE.
3. NOT ALL FIXTURES MAY BE INCLUDED; VERIFY FIXTURE TYPES AND QUANTITY WITH PLAN.
4. PROVIDE AND INSTALL PHOTOCELL AND BATTERY BACKUP AS AN ACCESSORY TO TYPE 'K' FIXTURE.

4 0 4 8
SCALE OF FEET

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE · RANDY BRAGG · 12115 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	E7	8–BEDROOM DORM ELECTRICAL LIGHTING PLAN – EAST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 60025A PMIS/PKG NO. 309000 SHEET 117 OF 131

Feb. 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

PLUMBING LEGEND

- CW — COLD WATER PIPING
- HWS — HOT WATER SUPPLY PIPING
- SAN — BELOW SLAB SANITARY PIPING
- V — VENT PIPING
- CD — CONDENSATE DRAIN PIPING
- BALANCING VALVE
- TRIPLE DUTY VALVE
- SHUT–OFF VALVE
- BACKFLOW PREVENTER
- CHECK VALVE
- STRAINER W/DRAIN & HOSE CONN.
- PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE (WATER)
- UNION
- INCREASER OR DECREASER CONCENTRIC
- INCREASER OR DECREASER ECCENTRIC
- DRIP LEG
- AUTOMATIC AIR VENT
- PIPE GUIDE
- PIPE ANCHOR
- DIRECTION OF FLOW
- PIPE CAP
- PIPE RISE/DROP
- THERMOMETER
- PRESSURE GAUGE
- (A) AQUASTAT
- RD — ROOF DRAIN
- CO — CLEAN OUT
- WCO — WALL CLEAN OUT
- FCO — FLOOR CLEAN OUT
- FD — FLOOR DRAIN
- VTA — VENT TO ATTIC
- VTR — VENT THRU ROOF
- AFF — ABOVE FINISHED FLOOR
- BFF — BELOW FINISHED FLOOR
- BS — BELOW SLAB
- HOSE BIBB
- P — PRESSURE SWITCH
- DRAIN
- STRAINER
- DIRECTION OF FLOW
- AIR VENT
- CONCRETE SLOPE DIRECTION

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
BFP	REDUCED PRESSURE BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CO	CLEANOUT
CW	COLD WATER
DHW	DOMESTIC HOT WATER
DW	DISHWASHER
ET	EXPANSION TANK
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GAL	GALLON
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HW	HOT WATER
KW	KILOWATT
MBH	1000 BTUH
PSI	POUNDS PER SQUARE INCH
RWL	RAIN WATER LEADER
SAN	SANITARY SEWER
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
TMV	THERMOSTATIC MIXING VALVE
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
V	VENT
VTA	VENT TO ATTIC
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER

PLUMBING NOTES:

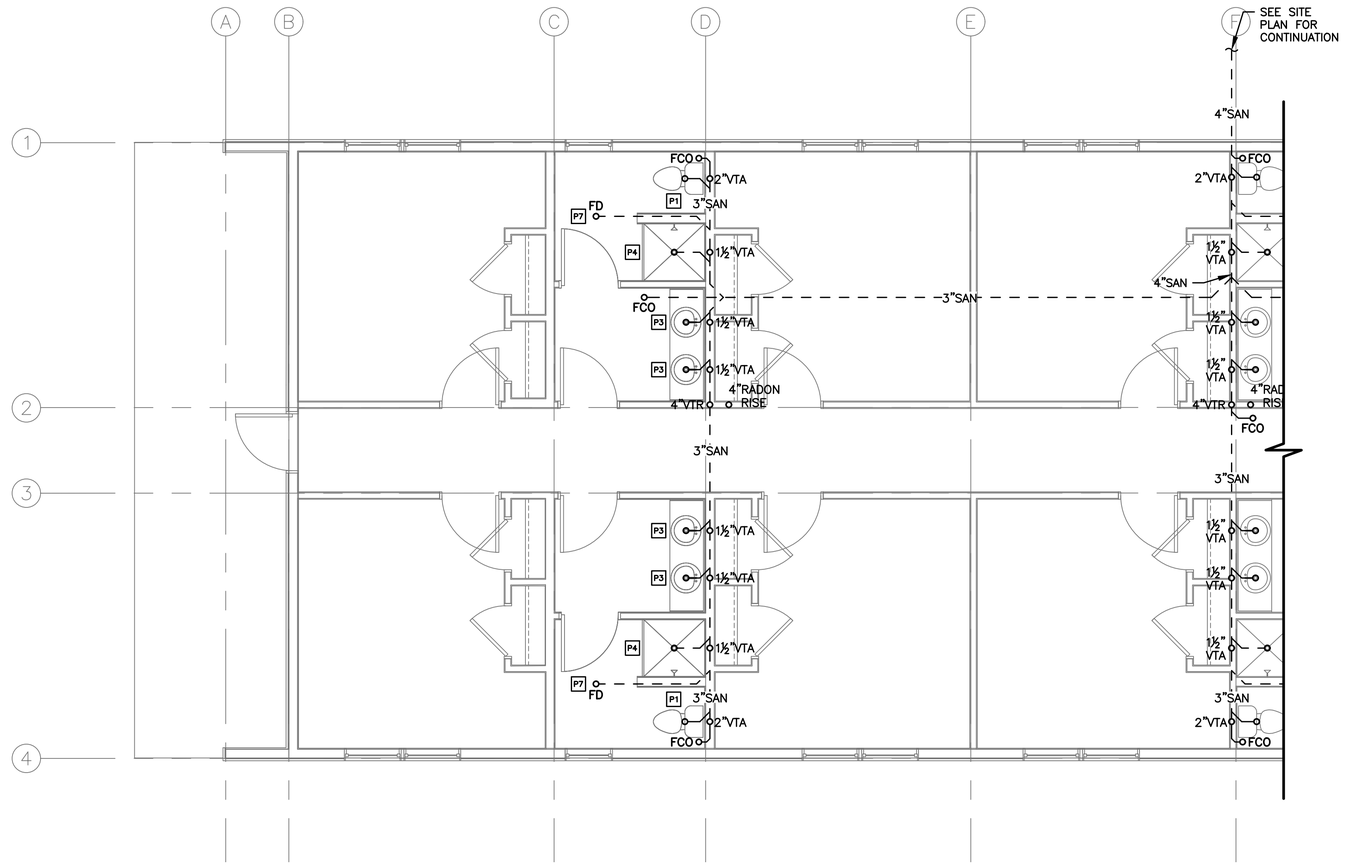
1. WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2021 UNIFORM PLUMBING CODE, AND ALL CONTRACT DOCUMENTS.
2. COORDINATE LOCATION OF PLUMBING WITH ALL OTHER TRADES. REFER TO BUILDING PLANS, MECHANICAL AND ELECTRICAL PLANS FOR COORDINATION. MODIFY SUPPORTS, PIPING, AND EQUIPMENT AS REQUIRED.
3. ALL PIPING SHALL BE RUN CONCEALED WHERE POSSIBLE.
4. ALL PIPING IS SHOWN DIAGRAMMATICALLY. ACTUAL LOCATIONS AND LAYOUT SHALL BE DETERMINED IN THE FIELD AND UPDATED ON PLANS FOR FINAL AS BUILTS. NOT ALL VENTING, CLEANOUTS, AND PIPING MAY BE SHOWN. ENSURE ALL COMPONENTS ARE INSTALLED IN FIELD.
5. NO STRUCTURAL MEMBER SHALL BE CUT OR ALTERED WITHOUT WRITTEN APPROVAL OF ENGINEER.
6. ALL PLUMBING SHALL BE SUPPORTED FROM THE BUILDING'S STRUCTURAL FRAMING.
7. ALL PIPING SHALL BE NEW, INSTALLED PARALLEL TO BUILDING LINES, AND PITCHED TO LOW POINTS.
8. ALL PIPING THROUGH ROOFS, WALLS AND PARTITIONS SHALL HAVE PIPE SLEEVES. ALL PIPING PENETRATING FIRE RATED WALLS, FIRE RATED PARTITIONS, EXTERIOR WALLS, CEILING, OR FLOORS SHALL BE PROTECTED WITH A LISTED FIRE STOPPING SYSTEM PER NFPA 101, "CODE FOR SAFETY TO LIFE FROM FIRE IN BUILDING AND STRUCTURES", LATEST EDITION.
9. ALL PIPING, BURIED OR OTHERWISE, SHALL BE INSULATED.
10. PROVIDE SHOCK ABSORBERS SIZED TO P.D.I. STANDARDS WHERE REQUIRED TO AVOID WATER HAMMER. PROVIDE SHOCK ABSORBERS UPSTREAM FROM ALL WATER CLOSETS AND AT ALL QUICK ACTING DEVICES.
11. PROVIDE DRAW–OFFS AT LOW POINTS IN DOMESTIC WATER PIPING. PITCH PIPING TO DRAINS.
12. PROVIDE ACCESSIBLE CLEANOUTS WHERE INDICATED OR WHERE REQUIRED BY CODE.
13. ALL FIXTURES SHALL HAVE FLOW RESTRICTORS AND BE WATER SAVING TYPES. ALL FLUSH HANDLES TO BE LOCATED ON OPEN SIDE.
14. ALL PIPING DROPS TO FIXTURES SHALL BE ANCHORED SOLID TO WALL WITH STEEL SUPPORT BRACKETS AND ADJUSTABLE CLIPS.
15. BELOW SLAB SANITARY WASTE PIPING SHALL BE MINIMUM 2" SIZE OR IN ACCORDANCE WITH PLANS.
16. ALL WALL FIXTURES SHALL BE CARRIER MOUNTED. COORDINATE CARRIER DIMENSIONS, CONFIGURATION (COMPACT, VERTICAL AND HORIZONTAL) WITH CHASES AND STRUCTURAL MEMBERS. MODIFY FRAMING AND CARRIERS AS REQUIRED.
17. ALL VENT PIPING IS NOT SHOWN ON THE PLANS. VENT PER PLUMBING CODE REQUIREMENTS. ALL FIXTURES SHALL BE BACK VENTED. COORDINATE VENT PIPING ROOF PENETRATIONS WITH OWNER AND ARCHITECT. VENT PIPING TO ATTIC SHALL COMBINE INTO VTR STACK AS REQUIRED.
18. TOP OF FLOOR DRAINS SHALL BE SET FLUSH WITH FINISHED FLOOR.
19. RUBBER INSULATORS REQUIRED AT ANY AND ALL PLUMBING/MECHANICAL/ELECTRICAL UNITS WHICH ATTACH TO STRUCTURAL MEMBERS.
20. CONTRACTOR SHALL PERFORM A COMPLETE FLUSH AFTER ALL CONSTRUCTION IS COMPLETE.
21. CONTRACTOR TO PROVIDE AND INSTALL ACCESS PANELS WHERE REQUIRED. COORDINATE ACCESS PANEL LOCATIONS WITH DRAIN VALVES, MIXING VALVES, SHUT–OFF VALVES, PIPING CONNECTIONS, AND TO ACCOMMODATE CONNECTIONS. ACCESS PANELS MUST BE INSTALLED AT PIPING AND ASSOCIATED VALVES THAT WILL NEED TO BE ACCESSED FOR MAINTENANCE/SERVICE. THE ACCESS PANELS NEED TO BE 12"x12" MINIMUM, AND SHALL BE FIRE RATED AT ALL FLOOR/CEILING ASSEMBLIES AND WHERE REQUIRED OTHERWISE.
22. CONTRACTOR TO PROVIDE, INSTALL, TEST AND VERIFY ALL DOMESTIC HOT WATER TEMPERATURES. ALL SINKS/SHOWERS SHALL BE NO GREATER THAN 109°F, TEST AND VERIFY ALL MIXING VALVES. ALL LAVATORIES AND SINKS SHALL HAVE MIXING VALVES AT POINT OF USE. ADJUST HOT WATER TEMPERATURE AT ALL FIXTURES TO MEET DESIGN INTENT AND CODE LIMITS. COORDINATE WITH OWNER FOR REQUIRED TEMPERATURES AT ALL FIXTURES, MODIFY AS REQUIRED.
23. PROVIDE VALVES AT ALL BRANCH LOCATIONS AND ALL PLUMBING FIXTURES.
24. CONTRACTOR TO PROVIDE AND INSTALL ALL REQUIRED PIPING, DRAINS, VENTS, ETC. FOR ALL PLUMBING SYSTEMS AND FIXTURES. COORDINATE WITH ALL OTHER TRADES AND OWNER AS REQUIRED.
25. CONTRACTOR SHALL PROVIDE ALL PIPING AS REQUIRED FOR COMPLETE INSTALLATION OF ALL SYSTEMS. NOT ALL TEES, BRANCHES, VALVES, RISERS, ETC. MAY BE SHOWN. CONTRACTOR SHALL VERIFY PIPING IS CONNECTED TO ALL FIXTURES, EQUIPMENT, HEAT EXCHANGERS, TANKS. ETC.
26. CONTRACTOR SHALL INSTALL PIPING IN WALLS WHERE APPLICABLE.
27. CONTRACTOR SHALL COORDINATE ALL PIPING REQUIREMENTS AND PATHWAYS WITH OWNER AND ENGINEER. ADJUST QUANTITY, SIZE, AND ROUTE AS REQUIRED.
28. CONTRACTOR SHALL COMBINE VENTS FOR PLUMBING FIXTURES WHERE APPLICABLE. VENTS SHALL RISE TO ATTIC TO COMBINE PRIOR TO VENTING THRU THE ROOF. NO VERTICAL WET VENTING SHALL BE ALLOWED.
29. CONTRACTOR SHALL ENSURE ALL FLOOR DRAINS SHALL HAVE TRAP PRIMER CONNECTIONS AND CW PIPING TO ALL FLOOR DRAINS.
30. CONTRACTOR SHALL PROVIDE AND INSTALL DRAIN VALVES WITH DRAIN/HOSE CONNECTIONS FOR DRAINING/BLOWING OUT DOMESTIC PIPING THROUGHOUT THE BUILDING FOR SHUT DOWNS. TYPICAL FOR EACH INDIVIDUAL UNIT.

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

STATE OF MAINE — RANDY BRAGG — 12975 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P1	TITLE OF SHEET 8–BEDROOM DORM PLUMBING LEGEND HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 118 OF 131

Feb 26, 2025 – 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V8.dwg jonah



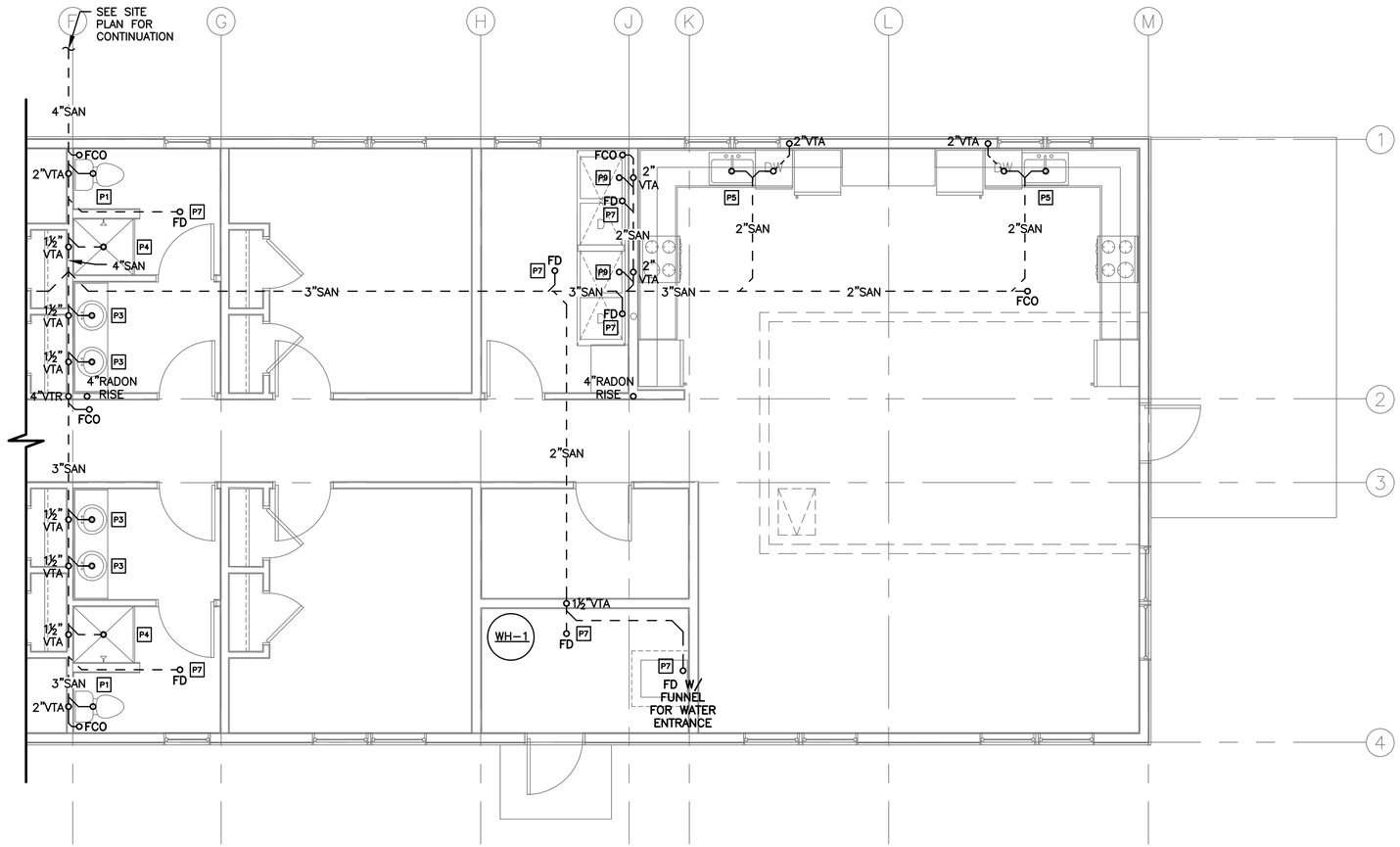
1 P2 SANITARY & VENTING PLAN – WEST

4 0 4 8
SCALE OF FEET

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P2	TITLE OF SHEET 8–BEDROOM DORM PLUMBING SANITARY & VENTING PLAN – WEST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 119 OF 131

STATE OF MAINE · RANDY BAGLEY 12575 · LICENSED PROFESSIONAL ENGINEER

Feb 26, 2025 – 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V6.dwg jonah



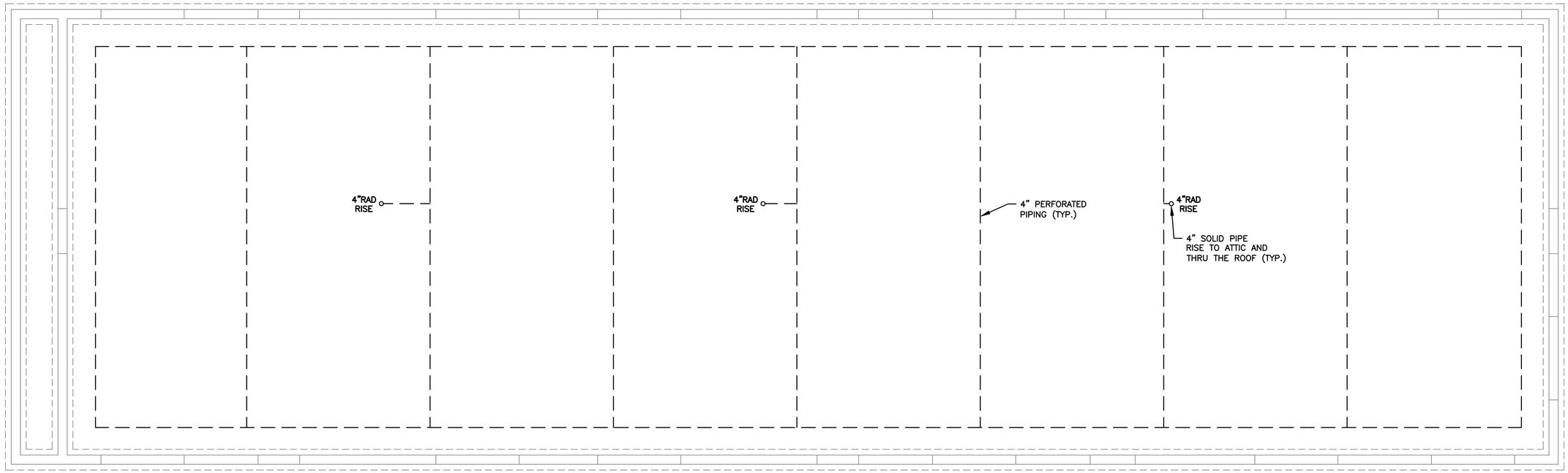
1 P3 SANITARY & VENTING PLAN – EAST

4 0 4 8
SCALE OF FEET

Feb 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

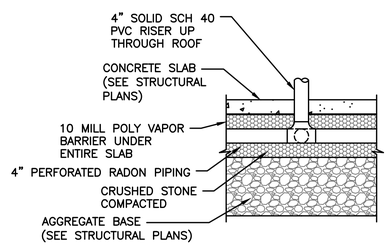
STATE OF MAINE · RANDY BRAGG 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P3	TITLE OF SHEET 8–BEDROOM DORM PLUMBING SANITARY & VENTING PLAN – EAST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 120 OF 131



1 P4 BELOW SLAB RADON PIPING PLAN

NOTES:
1. POLYETHYLENE SHEETING SHALL HAVE A MINIMUM OVERLAP OF 12". SHEETING SHALL BE SEALED AT ALL SEAMS.
2. PERFORATED PIPING SHALL HAVE POSITIVE SLOPE TOWARDS SOIL IF NOT LESS THAN ⅛"/FT. PIPING SHALL BE SEALED AT ALL JOINTS.
3. ALL CONCRETE PENETRATIONS, CONTROL-JOINTS, AND SLAB PERIMETER SHALL BE SEALED WITH CAULKING THAT MEETS ASTM C920 CLASS 25 OR HIGHER.
4. COORDINATE PIPING WITH STRUCTURAL PLANS, MODIFY LOCATION AS REQUIRED.



2 P4 RADON PIPING DETAIL

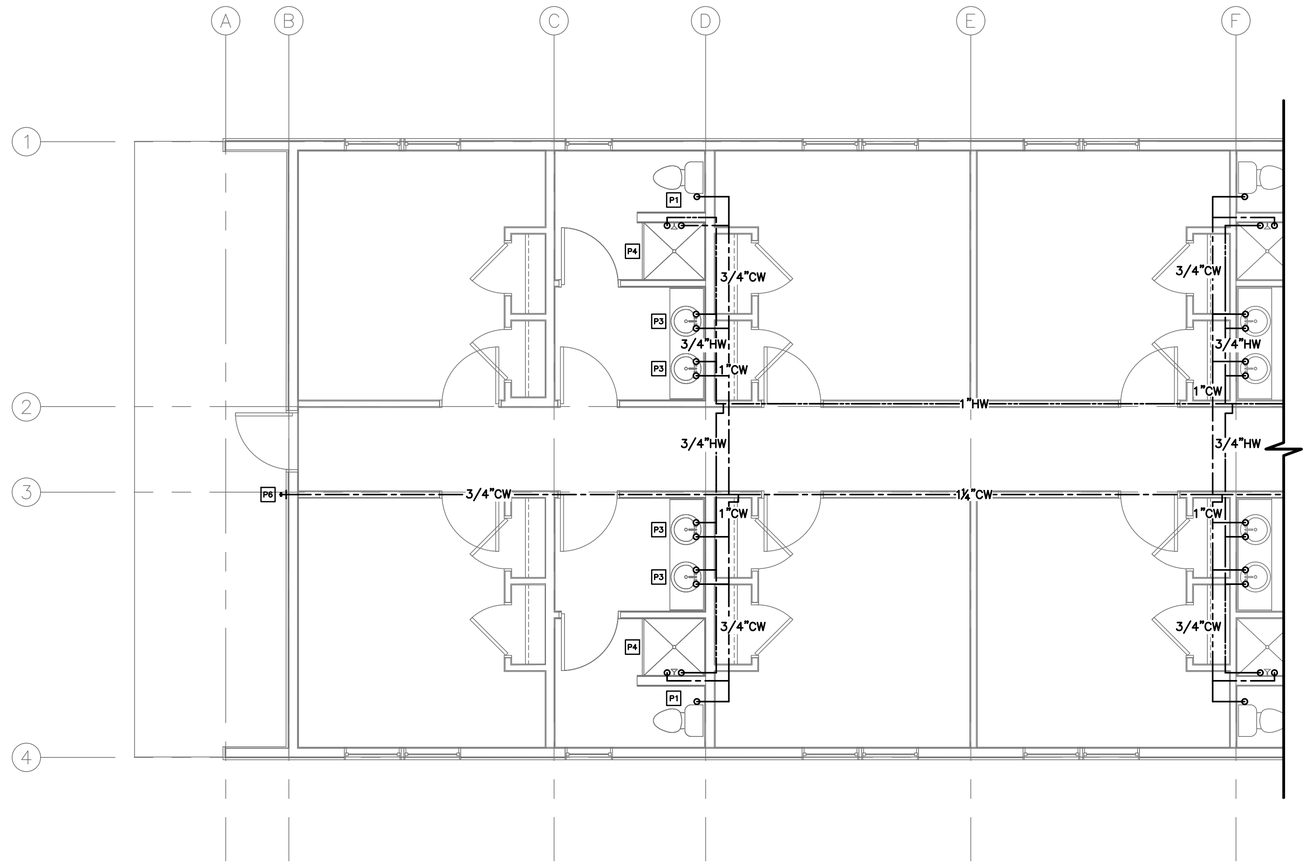
NO SCALE

4 0 4 8
SCALE OF FEET

STATE OF MAINE — RYAN D. BRAGG 12825 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P4	TITLE OF SHEET 8-BEDROOM DORM BELOW SLAB RADON PIPING PLAN HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 121 OF 131	

Feb 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



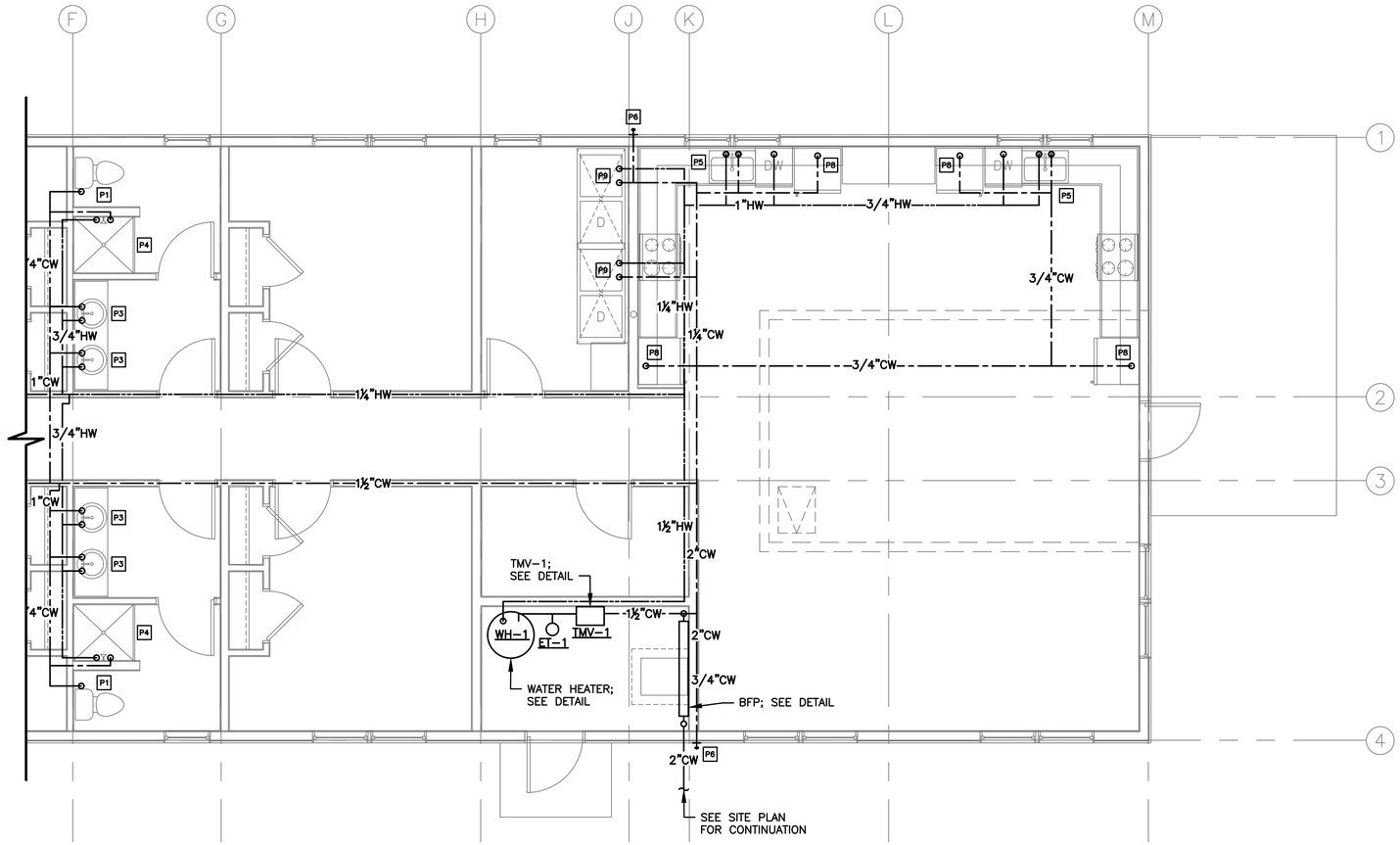
1/P4 DOMESTIC PLUMBING PLAN – WEST

4 0 4 8
SCALE OF FEET

Feb 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

STATE OF MAINE · BRAGG · 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P5	TITLE OF SHEET 8–BEDROOM DORM DOMESTIC PLUMBING PLAN – WEST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 122 OF 131



1 / P5 DOMESTIC PLUMBING PLAN – EAST

4 0 4 8
SCALE OF FEET

STATE OF MAINE
HANDY
BRAGG
12575
12/31/26
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	P6	8–BEDROOM DORM DOMESTIC PLUMBING PLAN – EAST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 60025A PMIS/PKG NO. 309000 SHEET 123 OF 131

Feb. 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

PLUMBING FIXTURE & CONNECTION SCHEDULE*

SYMBOL	FIXTURE	DESCRIPTION	WASTE	VENT	CW	HW	NOTES
P1	WATER CLOSET	AMERICAN STANDARD #215AA.104/.105, CADET PRO RIGHT HEIGHT, WHITE, ELONGATED BOWL, 1.28 GPF, 16–1/2" HIGH, WITH #5321.110 "EVERCLEAN" SOLID PLASTIC WHITE SEAT WITH SLOW CLOSE COVER AND SNAP–OFF HINGES. TRIP LEVER SHALL BE ON OPEN SIDE OF WATER CLOSET, NOT IN ROOM'S CORNER. TANK COMPLETE WITH AQUAGUARD LINER #4188A.154/.155.	3"	2"	3/4"	--	--
P2	ADA LAVATORY	AMERICAN STANDARD DECORUM #9024.001EC WITH TRAP, NIPPLES, DRAIN, GRID STRAINER, BRACKET SUPPORT AMERICAN STANDARD #775B.105 FAUCET WITH #PK00.WRK POWER KIT.	1½"	1½"	1/2"	1/2"	--
P3	LAVATORY	AMERICAN STANDARD RELIANT DROP–IN COUNTER SINK MODEL #0475247 WITH TRAP, NIPPLES, DRAIN AND AMERICAN STANDARD #775B.105 FAUCET WITH #PK00.WRK.	1½"	1½"	1/2"	1/2"	--
P4	3'x3' SHOWER	AQUATIC MODEL #1363BFRF WITH GRAB BARS, FOLDING SHOWER SEAT, VINYL FLEXIBLE DAM, WEIGHTED SHOWER CURTAIN AND ROD, SLIDE BAR WITH HANDHELD SHOWER, PRESSURE BALANCE VALVE, CAULKLESS DRAIN, SOAP DISH, AND REMOVABLE THRESHOLD.	2"	1½"	1/2"	1/2"	--
P5	ADA KITCHEN SINK	AMERICAN STANDARD COLONY 33"x22" #22DB.6332283S.075, 6" DEEP DOUBLE–BOWL, 3–HOLE, WITH AMERICAN STANDARD COLONY PRO #7074.300 SINGLE LEVER 1.5 GPM FAUCET, HOSE SPRAY, WITH STRAINER, AND WASTE FITTINGS.	1½"	1½"	1/2"	1/2"	--
P6	HOSE BIBB	WOODFORD MODEL 19, FREEZELESS, AUTOMATIC DRAINING, ANTI–SIPHON. MODEL TO MATCH WALL THICKNESS.	--	--	3/4"	--	--
P7	FLOOR DRAIN	ZURN #ZN–Z415B–P WITH TRAP PRIMER CONNECTION. SIZE ACCORDING TO PIPE AND LOCATION.	2"	2"	1/2"	--	--
P8	ICE MAKER OUTLET BOX	OATEY FIRE RATED ICE MAKER OUTLET BOX MODEL #37385 WITH 6 FOOT STAINLESS STEEL LINE	--	--	1/2"	--	--
P9	WASHING MACHINE VALVE BOX	OATEY QUADTRO WASHING MACHINE BOX MODEL #38540. DRAIN SHALL BE TRAPPED 2", RISER TO ACCEPT 1–1/4" O.D. HOSE FROM MACHINE WITH FACEPLATE, AND BRACKETS.	2"	1½"	3/4"	3/4"	--

NOTES:
1. FIXTURES SHALL HAVE STOPS ON COLD WATER AND HOT WATER SUPPLIES.
2. PROVIDE AND INSTALL POINT OF USE MIXING VALVE; ASSE 1070 COMPLIANT AT ALL LAVATORIES AND SINKS.
3. CONTRACTOR SHALL VERIFY WALL THICKNESS OF HOSE BIBB AND MODIFY MODEL PART NUMBER AS REQUIRED. PROVIDE AND INSTALL WALL SUPPORT/BACKER AS REQUIRED. COORDINATE WITH CONTRACTING OFFICER.
4. SHOWER VALVE SHALL BE ASSE 1016 COMPLIANT.
5. HEAT TRACE MUST BE INSTALLED ALONG MAIN PIPING AND BRANCHES TO WITHIN 4'± OF EACH INDIVIDUAL HOT WATER PLUMBING FIXTURE.

WATER HEATER SCHEDULE — BASIS OF DESIGN: BRADFORD WHITE*

TAG	STORAGE (GAL)	RECOVERY @ 100°F RISE (GPH)	FIRST HOUR RATING (GPH)	DIA. (IN)	HW/CW CONN (IN)	MODEL	HEATER ELEMENT (KW)	ELECTRICAL (V/PH/HZ)	FLA	MCA	MOCP	NOTES
WH–1	119	147	236	30¼"	1½"	CEHD120(A)26 3*CF	36	208/3/60	100	125	125	1, 2

NOTES:
1. SET TANK TEMPERATURE TO 140°F (ADJ).
2. PROVIDE AND INSTALL DRAIN PAN. PROVIDE DRAIN PAN OUTLET TO FLOOR DRAIN.

EXPANSION TANK SCHEDULE — BASIS OF DESIGN: AMTROL*

TAG	SERVES	MODEL #	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	DIA. (IN)	HEIGHT (IN)	NOTES
ET–1	WH–1	ST–25V	10.3	--	15	19	--

HEAT TRACE SCHEDULE — BASIS OF DESIGN: RAYCHEM*

TAG	MODEL	VOLTS	AMPS	MAXIMUM LENGTH OF CIRCUIT (FT.)	CONTROLLER	NOTES
HT–1	HWAT–R2	208	20	330	HWAT–ECO–GF	1, 2, 3

NOTES:
1. HT–1 SERVES WH–1 AND ASSOCIATED FIXTURES. SET TEMP OF HEAT TRACE TO 120°F (ADJ.)
2. PROVIDE AND INSTALL ALL REQUIRED ACCESSORIES, CONTROLLER, SENSORS, AND CONNECTION KITS AS REQUIRED.
3. HT–1 SHALL BE INSTALLED ALONG ALL HW PIPING TO WITHIN 2 FT. OF FIXTURES AS REQUIRED PER CODE. PROVIDE AND INSTALL ADDITIONAL CIRCUITS AS REQUIRED IF LENGTH IS GREATER THAN 330 FEET.

THERMOSTATIC MIXING VALVE SCHEDULE — BASIS OF DESIGN: LEONARD*

TAG	MODEL	MIN. FLOW (GPM)	PRESSURE DROP AT 40 GPM (PSI)	NOTES
TMV–1	NUCLEUS PROTON PNV–125–LF	.25	5	1, 2

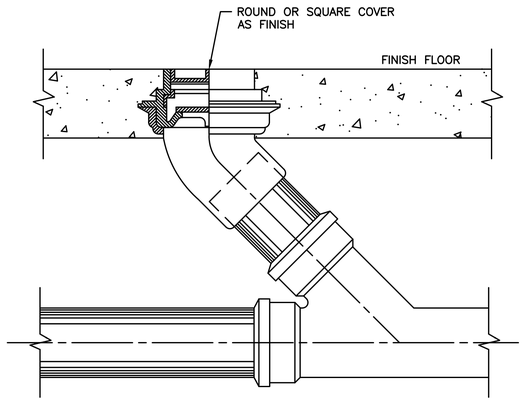
NOTES:
1. PROVIDE AND INSTALL POWER CIRCUIT WITHIN 5FT OF TMV–1.
2. PROVIDE AND INSTALL 2.5 ENHANCED CONTROLLER WITH 3T SENSORS.

*NOTE:
ACCEPTABLE PRODUCTS INCLUDE THE BASIS OF DESIGN PRODUCTS AS NOTED AND EQUAL PRODUCTS THAT MEET THE SALIENT PHYSICAL, FUNCTIONAL, AND PERFORMANCE CHARACTERISTICS SPECIFIED WITHIN THESE TABLES AND WITHIN APPLICABLE SPECIFICATIONS. PRODUCTS SHALL COMPLY WITH THE BUY AMERICAN ACT.

STATE OF MAINE — BRADY BRAGG — 12577 — 2/28/25 — LICENSED PROFESSIONAL ENGINEER

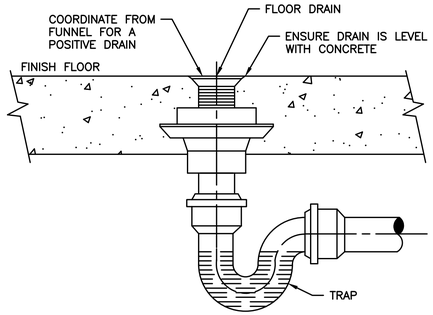
A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME	KEEZER	P7	8–BEDROOM DORM PLUMBING SCHEDULES	123 / 60025A
SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	CADD: EATON			PMIS/PKG NO. 309000
	TECH. REVIEW: BRAGG		HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	SHEET 124 OF 131
	DATE: 02/28/2025			

Feb 26, 2025 – 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–BEEDROOM_V8.dwg jonah



1 P8 FLOOR CLEANOUT DETAIL

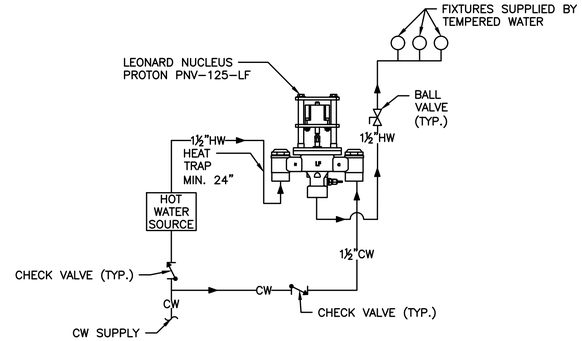
NO SCALE



2 P8 FLOOR DRAIN INSTALLATION DETAIL

NO SCALE

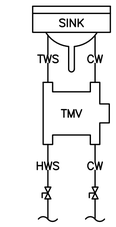
NOTES:
ALL TRAPS SHALL HAVE TRAP PRIMER CONNECTION AND 1/2" WATER PIPING TO NEARBY MAIN SUPPLY LINE.



3 P8 THERMOSTATIC MIXING VALVE DIAGRAM (TMV-1)

NO SCALE

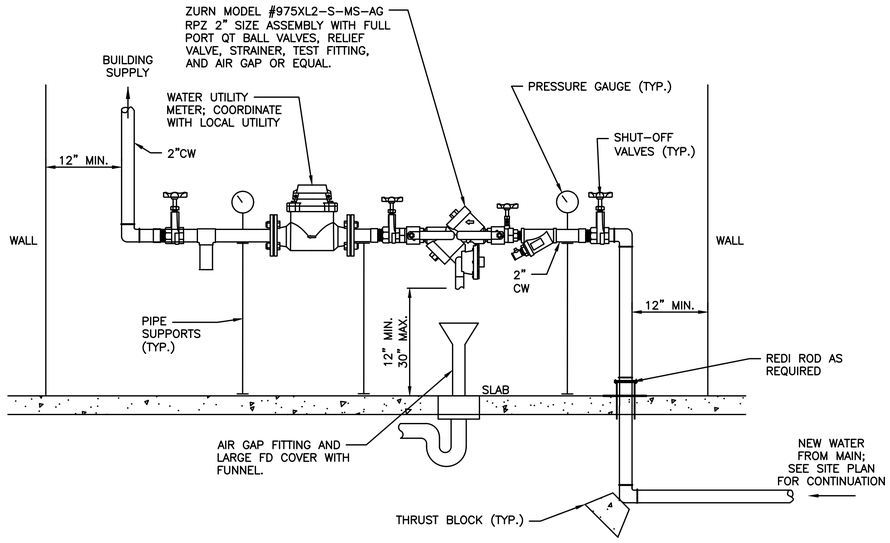
NOTES:
1. INSTALL ACCORDING TO MANUFACTURER'S REQUIREMENTS. NOT ALL VALVES, PIPING, OR DEVICES MAY BE SHOWN.
2. SET THERMOSTATIC MIXING VALVE TO 130°F. (ADJ.)



4 P8 SINK/LAVATORY MIXING VALVE PIPING DIAGRAM

NO SCALE

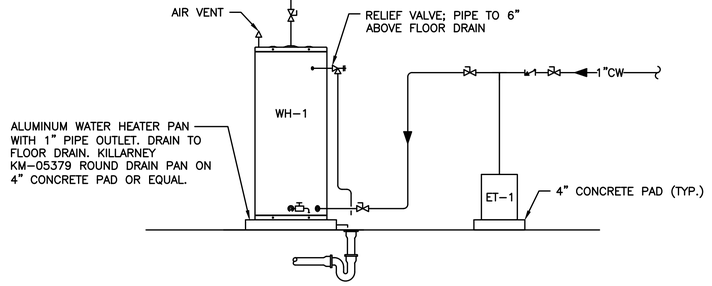
NOTES:
1. COLD WATER PIPING SHALL CONNECT TO SINK AND MIXING VALVE WITH USE OF COLD WATER BYPASS. POINT OF USE MIXING VALVES TO BE INSTALLED THROUGHOUT BUILDING AT ALL KITCHEN SINKS AND LAVATORIES.
2. CONTRACTOR SHALL INSTALL ASSE 1070 MIXING VALVE AT ALL LAVATORIES AND SINKS. BASED ON CALEFFI 5212 SINK MIXER OR EQUAL.
3. SET MIXING VALVE TO 110-120°F. FIELD ADJUST DEPENDING ON SERVICE. COORDINATE WITH CONTRACTING OFFICER.



5 P8 NEW WATER ENTRANCE DETAIL

NO SCALE

NOTES:
1. EASY ACCESS TO METERS AND BACKFLOWS IS REQUIRED AT ALL TIMES.
2. ASSEMBLIES MUST BE A MINIMUM OF 12" FROM ANY WALL OR OBSTRUCTION.



6 P8 DOMESTIC WATER HEATER PIPING SCHEMATIC

NO SCALE

NOTES:
1. SET TANK TEMPERATURE TO 140°F. (ADJ.)

7 P8 DOMESTIC HOT WATER ELECTRIC HEAT TRACE DETAILS

NO SCALE

NOTES:
1. PIPE INSULATION REMOVED FOR CLARITY. ALL PIPES MUST BE FULLY INSULATED.
2. HEAT TRACE MUST BE INSTALLED ALONG MAIN PIPING AND BRANCHES TO WITHIN 2'± OF EACH INDIVIDUAL PLUMBING FIXTURE PER ENERGY CODE.
3. SET HEAT TRACE TEMPERATURE TO 120°F. (ADJ.)

STATE OF MAINE — RANDY BRAGG 12075 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. P8	TITLE OF SHEET 8-BEDROOM DORM PLUMBING DETAILS HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 125 OF 131

Feb 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

SPRINKLER GENERAL NOTES:

1. SPRINKLER SYSTEM TO BE INSTALLED PER NFPA 13D REQUIREMENTS: STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2019 EDITION.

2. THE FIRE PROTECTION SYSTEM INTENT IS TO MEET THE MINIMUM REQUIREMENTS OF NFPA 13D, PLUS ADDITIONAL COVERAGE AREAS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS TO COMPLETE THE INTENT OF A FULLY COMPLIANT SYSTEM, INCLUDING SPECIALTY WORK FOR CONCEALED COMPONENTS. WORK INCLUDES ALL ELECTRICAL AND CONNECTIONS TO EXISTING SYSTEMS.

3. A COPY OF THE FINAL SPRINKLER SYSTEMS DESIGN SHALL BE SUBMITTED, INCLUDING HYDRAULIC CALCULATIONS; PIPING, HEADS, HANGERS; FIRE ALARM, DETECTION, NOTIFICATION DEVICES, ETC. FOR APPROVAL PRIOR TO BEGINNING WORK.

4. CONTRACTOR SHALL COORDINATE THE SPRINKLER ELEVATIONS TO CORRESPOND WITH THE CEILING HEIGHT. COORDINATE WITH THE GENERAL CONTRACTOR AT NO ADDITIONAL COST.

5. THE DESIGN SHOWN ON THESE CONTRACT DOCUMENTS IS TO PROVIDE GUIDANCE FOR BIDDING AND TO OBTAIN APPROVAL OF THE AUTHORITY HAVING JURISDICTION. SUBMIT COMPLETE FIRE SPRINKLER SHOP DRAWINGS AS REQUIRED TO THE GOVERNMENT'S DESIGNATED REVIEWER. BASE DESIGN UPON THESE DRAWINGS AND AS REQUIRED BY THE SPECIFICATIONS. SHOP DRAWINGS SHALL INCLUDE ELEVATIONS, HANGER LOCATIONS, PIPE LENGTHS, DIMENSIONS, FABRICATIONS METHODS, MATERIAL DATA, AND ADDITIONAL INFORMATION NECESSARY TO CLARIFY THE INTENT OF INSTALLATION. CONTRACTOR SHALL PROVIDE PIPE SIZE, SPRINKLER SPACING, AND SYSTEM CONFIGURATION AS SHOWN. ALTERNATES MUST BE APPROVED IN WRITING BY FIRE PROTECTION CONTRACTING OFFICER OF RECORD DOCUMENTS PRIOR TO BID.

6. COORDINATE LOCATIONS OF FIRE PROTECTION COMPONENTS, INCLUDING PIPING, ALARMS, DRAINS, TEST POINTS, ETC, WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS, OBSTRUCTION TO SPRINKLER DISCHARGE MUST BE CONSIDERED DURING SHOP DRAWING PRODUCTION AND INSTALLATION: ADDITIONAL SPRINKLERS MAY BE REQUIRED AT NO ADDITIONAL COST. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7. PENETRATIONS OF "RATED ASSEMBLIES" SHALL BE FIRE STOPPED WITH AN APPROVED MATERIAL PER METHODS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

8. CONTRACTOR MUST VISIT THE SITE AND REVIEW ALL CONSTRUCTION DOCUMENTS PRIOR TO BID.

9. CONTRACTOR MUST VERIFY ALL DROP DOWN LOCATIONS PRIOR TO INSTALLATION.

10. ALL PIPING MUST BE COORDINATED AROUND FRAMING MEMBERS AND PROPERLY INSTALLED INSIDE THE JOIST.

11. CONTRACTOR SHALL ROUTE PIPING AROUND ALL OBSTRUCTIONS AND PROVIDE SPRINKLER PROTECTION UNDER OBSTRUCTIONS, AS DETAILED IN NFPA #13 STANDARDS AS PART OF THE FIELD COORDINATION AT NO ADDITIONAL COST.

12. ALL SPRINKLER DEFLECTOR DISTANCE REQUIREMENTS SHALL BE IN ACCORDANCE TO THE STANDARDS OUTLINED IN NFPA #13.

13. ALL PIPING PASSING THROUGH CMU WALLS SHALL BE INSTALLED WITH ONE-INCH CLEARANCE ON ALL SIDES. (CORE DIAMETER-EQUAL TO PIPE +2"). ALL CORES SHALL BE COORDINATED WITH STRUCTURAL REINFORCING. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CORING WITH PROPER CLEARANCE AT ALL FOUNDATION WALLS. (CONCRETE, CMU, GRANITE, ETC.) GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A TWO-INCH CLEARANCE AROUND ALL PIPING PASSING THROUGH CONCRETE SLABS. THE SPRINKLER CONTRACTOR SHALL FILL ALL CLEARANCES WITH APPROVED MASTIC.

14. PENETRATIONS OF ASSEMBLIES SHALL BE FIRE STOPPED WITH APPROVED MATERIALS.

15. PROVIDE FLUSHING CONNECTIONS IN ACCORDANCE WITH THE STANDARDS OUTLINED IN NFPA #13.

16. PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS.

17. EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, ETC.

18. COORDINATE SPRINKLER LOCATIONS WITH BUILDING CEILING PLAN.

19. INTERFACE SPRINKLER SYSTEM WITH FIRE PROTECTION SYSTEM. CONTRACTOR SHALL PROVIDE ALL REQUIRED DEVICES TO ENSURE FULLY OPERATIONAL AND COMPLIANT SYSTEM.

20. ALL MATERIALS SHALL BE UL LISTED AND FM APPROVED. SPRINKLER PIPE SHALL BE MANUFACTURED TO STANDARDS RECOGNIZED BY NFPA #13. THREADED PIPE SHALL HAVE A CORROSION RESISTANCE RATING OF 1.0 OR GREATER. CRIMP-TYPE COUPLINGS SHALL NOT BE USED. THREADABLE THINWALL PIPE WITH CORROSION RESISTANCE RATING OF LESS THAN 1.0 SHALL BE USED ONLY WITH ROLL GROOVE FITTING.

21. SPRINKLER SYSTEM SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA 13D, AFTER COMPLETION OF WORK.

22. DO NOT HANG OR SUPPORT ANY LOADS OR MAKE ANY ATTACHMENTS TO THE ROOF DECK OR JOIST BRIDGING.

23. SAMMY SCREWS ARE NOT PERMITTED.

24. CEILING FLANGES ARE NOT PERMITTED.

25. PROVIDE RETAINING STRAPS ON HANGERS WHERE REQUIRED.

26. INSTALL FLEXIBLE FROST FREE DRY (WHERE SPECIFIED) CONCEALED FLAT PLATE, CONCEALED PENDANT, OR RECESSED SIDEWALL COMMERCIAL QUICK RESPONSE SPRINKLER SYSTEM EQUAL TO VICFLEX. LIMIT TO (4) 90° BENDS. PROVIDE NECESSARY CORING, DEMOLITION, AND REPAIR OF FINISHES TO CONCEAL PIPING, ETC. AND INSTALL THE HEAD IN THE PROPER LOCATION FOR PROVIDING THE DESIRED COVERAGE. COORDINATE WORK WITH ALL TRADES.

27. FIRE SPRINKLER SYSTEM SHALL BE DESIGNED BY A FIRE PROTECTION ENGINEER OR A NICET LEVEL 3 TECHNICIAN. SPRINKLER SYSTEM, PIPING, AND HEADS ARE SHOWN AS A GENERAL SCHEMATIC GUIDE ONLY. MODIFY PIPING AND HEADS AS REQUIRED TO MEET NFPA REQUIREMENTS.

28. CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS AS SHOWN ON THE DRAWINGS AND AS REQUIRED PER NFPA 1:13.6.

SPRINKLER SUBMITTAL REQUIREMENTS:

THE FOLLOWING DETAILS MUST BE INCLUDED ON BOTH SHOP DRAWING SUBMITTAL, AS WELL AS AS-BUILT DRAWING SUBMITTALS:

1. NAME OF CONTRACTING OFFICER AND OCCUPANT(S).
2. LOCATION, INCLUDING STREET ADDRESS.
3. POINT OF COMPASS.
4. LOCATION OF PARTITIONS.
5. OCCUPANCY CLASS OF EACH AREA OR ROOM.
6. SIZE OF CITY MAIN IN STREET AND WHETHER DEAD END OR CIRCULATING.
7. MAKE, TYPE, MODEL, AND NOMINAL K-FACTOR OF SPRINKLERS INCLUDING SPRINKLER IDENTIFICATION NUMBER.
8. TEMPERATURE RATING AND LOCATION OF HIGH TEMPERATURE SPRINKLERS.
9. NUMBER OF SPRINKLERS IN EACH AREA.
10. APPROXIMATE CAPACITY IN GALLONS OF EACH DRY PIPE SYSTEM.
11. PIPE TYPE AND SCHEDULE OF WALL THICKNESS.
12. NOMINAL PIPE SIZE AND CUTTING LENGTHS OF PIPE (OR CENTERLINE DIMENSIONS).
13. LOCATION AND SIZE OF RISER NIPPLES.
14. TYPE AND LOCATIONS OF HANGERS, BRACES, AND METHODS OF SECURING SPRINKLERS WHEN APPLICABLE.
15. ALL CONTROL VALVES, CHECK VALVES, DRAIN PIPES, AND TEST CONNECTIONS.
16. MAKE, TYPE, MODEL, AND SIZE OF ALARM OR DRY PIPE VALVE.
17. KIND AND LOCATION OF ALARM.
18. SIZE AND LOCATION OF STANDPIPE RISERS, HOSE OUTLETS, HAND HOSE, MONITOR NOZZLES, AND RELATED EQUIPMENT.
19. FOR HYDRAULICALLY DESIGNED SYSTEMS, PROVIDE INFORMATION ON THE HYDRAULIC DATA NAMEPLATE.
20. HYDRAULIC REFERENCE POINT SHOWN ON THE PLAN THAT CORRESPOND WITH COMPARABLE REFERENCE POINTS ON THE. HYDRAULIC CALCULATION SHEETS
21. THE MINIMUM RATE OF WATER APPLICATION (DENSITY OR FLOW OR DISCHARGE PRESSURE), THE DESIGN AREA OF WATER APPLICATION, IN-RACK SPRINKLER DEMAND, AND THE WATER REQUIRED FOR HOSE STREAMS BOTH INSIDE AND OUTSIDE.
22. THE TOTAL QUANTITY OF WATER AND THE PRESSURE REQUIRED NOTED AT A COMMON REFERENCE POINT FOR EACH. SYSTEM
23. CALCULATION OF LOADS FOR SIZING AND DETAILS OF SWAY BRACING PREVENTORS (MANUFACTURERS, SIZE, TYPE).
24. LOCATION OF HYDRANTS.
25. SIZE, LOCATION, AND PIPING ARRANGEMENT OF FIRE DEPARTMENT CONNECTIONS.
26. EDITION YEAR OF NFPA #13 THAT THE SPRINKLER SYSTEM IS DESIGNED TO.
27. INFORMATION ABOUT BACKFLOW.
28. QUALIFICATIONS OF DESIGNER AND INSTALLER.

SPRINKLER SYSTEM LEGEND

SPRINKLER HEADS

- UPRIGHT SPRINKLER
- PENDENT SPRINKLER
- SIDEWALL SPRINKLER (FROST FREE HEADS)

VALVES

- DRY VALVE
- INDICATING BUTTERFLY VALVE

WATER SERVICE

- DOUBLE CHECK BACKFLOW PREVENTER
- FIRE DEPARTMENT CONNECTION

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

STATE OF MAINE · ANDY BRAGG · 12575 · LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP1	TITLE OF SHEET 8-BEDROOM DORM FIRE PROTECTION LEGEND HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 126 OF 131

Feb 26, 2025 - 9:48am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

FIRE ALARM SYSTEM NARRATIVE:

PROJECT SCOPE: TO INCLUDE NEW DEVICES AS REQUIRED BY CURRENT CODES AND STANDARDS.

ALL WORK SHALL BE IN ACCORDANCE TO NFPA 70, NATIONAL ELECTRICAL CODE, INTEGRATED FIRE ALARM SYSTEM TO BE INSTALLED/MODIFIED PER NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE, 2019 EDITION.

A COMPLETE SUBMITTAL PACKAGE SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ANY WORK BEING PERFORMED. THE SUBMITTALS SHALL INCLUDE, IN ADDITION TO ANY REQUIRED BY THE SPECIFICATIONS, BUILDING PLANS SHOWING ALL DEVICE(S), LOCATION(S), NETWORK ADDRESS, LOOP OR NODE NUMBER, WIRING DIAGRAMS SHOWING TYPICAL WIRING OF EACH TYPE OF DEVICE, AND ROUTING WIRING. CALCULATIONS SHALL INCLUDE: BATTERY SIZING, LOOP VOLTAGE DROP, AND RESISTANCE.

COMPONENTS:
ALL NEW FIRE ALARM EQUIPMENT SHALL BE UL LISTED AND LABELED FOR THE INTENDED USE AND/OR FM APPROVED WHERE APPLICABLE.

TESTING:
THE FIRE ALARM SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA 72 AND RECORDED ON THE CONTRACTOR'S MATERIAL & TEST CERTIFICATE.

1. FIRE ALARM SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES:
   - MANUAL STATIONS
   - HEAT DETECTORS
   - SMOKE DETECTORS
   - AUTOMATIC SPRINKLER SYSTEM WATER FLOW
   - FIRE EXTINGUISHING SYSTEM OPERATION
   - FIRE STANDPIPE SYSTEM OPERATION

2. FIRE ALARM SIGNAL SHALL INITIATE THE FOLLOWING ACTIONS:
   - ALARM NOTIFICATION APPLIANCES SHALL OPERATE CONTINUOUSLY
   - IDENTIFY ALARM AT THE FACP AND ALL ANNUNCIATER PANELS
   - DE-ENERGISE ELECTROMAGNETIC DOOR HOLDERS
   - TRANSMIT ALARM SIGNAL TO THE REMOTE RECEIVING STATIONS
   - UNLOCK ELECTRIC DOOR LOCKS IN DESIGNATED EGRESS PATHS
   - RELEASE FIRE AND SMOKE DOORS HELP OPEN BY MAGNETIC DOOR HOLDERS
   - ACTIVATE VOICE COMMUNICATION SYSTEM
   - SWITCH HVAC EQUIPMENT CONTROL TO FIRE ALARM MODE
   - CLOSE SMOKE DAMPERS IN AIR DUCTS OF SYSTEM SERVING THE ZONE WHERE THE FIRE ALARM WAS INITIATED
   - RECORD EVENTS IN THE SYSTEM MEMORY

3. SUPERVISORY SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING ACTIONS:
   - OPERATION OF A FIRE-PROTECTION SYSTEM VALVE TAMPER

4. SYSTEM TROUBLE SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES OR ACTIONS:
   - OPEN CIRCUITS, SHORTS AND GROUNDS OR WIRING FOR INITIATING DEVICE, SIGNALING LINE, AND NOTIFICATION-APPLIANCE CIRCUITS
   - OPENING, TAMPERING, OR REMOVAL OF ALARM-INITIATING AND SUPERVISORY SIGNAL-INITIATING DEVICES
   - LOSS OF PRIMARY POWER AT THE FACP
   - GROUND OR A SINGLE BREAK IN FACP INTERNAL CIRCUITS
   - ABNORMAL AC VOLTAGE AT THE FACP
   - A BREAK IN STANDBY BATTERY CIRCUITRY
   - FAILURE OF BATTERY CHARGING
   - ABNORMAL POSITION OF ANY SWITCH AT THE FACP OR ANNUNCIATOR
   - FIRE-PUMP POWER FAILURE, INCLUDING A DEAD-PHASE OR PHASE-REVERSAL CONDITION
   - LOW-AIR-PRESSURE SWITCH OPERATION ON A DRY-PIPE OR PREACTION SPRINKLER SYSTEM
   - TROUBLE SIGNAL IF GENERATOR ALARM IS ACTIVATED
   - TROUBLE SIGNAL IF ANY PSNH ATS OVERRIDE SWITCH IS ENGAGED

5. SYSTEM TROUBLE AND SUPERVISORY SIGNAL ACTIONS:
   - RING TROUBLE BELL, ACTIVATE AMBER BEACON AND ANNUNCIATE THE FACP

FIRE ALARM DEVICES LEGEND

FACP	FIRE ALARM CONTROL PANEL
ANN	FIRE ALARM ANNUNCIATOR
H	HEAT DETECTOR, 135°F 200 = BOILER ROOM HEAT DETECTOR, 200°F RATE OF RISE TYPE
S	SMOKE DETECTOR D = DUCT SYSTEM SMOKE DETECTOR
C	CARBON MONOXIDE DETECTOR
S/C	COMBO SMOKE/CARBON MONOXIDE DETECTOR
P	FIRE ALARM SYSTEM MANUAL PULL STATION, 48" A.F.F.
F 15	FIRE ALARM SYSTEM HORN/STROBE, 80" A.F.F UNLESS OTHERWISE INDICATED. CANDELA RATING AS REQUIRED (15, 30, 75, 110)
F 30	FIRE ALARM SYSTEM STROBE ONLY, 80" A.F.F UNLESS OTHERWISE INDICATED. CANDELA RATING AS REQUIRED (15, 30, 75, 110)
F C	FIRE ALARM SYSTEM HORN/STROBE - CEILING MOUNTED
STS	SPRINKLER SYSTEM TAMPER SWITCH, COORDINATE WITH SPIRINKLER PLAN
SFS	SPRINKLER SYSTEM FLOW SWITCH, COORDINATE WITH SPIRINKLER PLAN
SPS	SPRINKLER SYSTEM PRESSURE SWITCH, COORDINATE WITH SPIRINKLER PLAN
GD	GAS DETECTOR (MACURCO GD-2A OR EQUAL)
KB	KNOXBOX; COORDINATE WITH CONTRACTING OFFICER AND FIRE DEPARTMENT
VRF/HP	MACURCO - RD-VRF SERIES OR EQUAL
EXIT	EXIT SIGN, CEILING/WALL MOUNTED, COORDINATE WITH LIGHTING PLAN
	EMERGENCY LIGHT, WALL MOUNTED, COORDINATE WITH LIGHTING PLAN
	EXTERIOR EMERGENCY WALL MOUNTED LIGHT WITH 90 MIN. BACKUP, COORDINATE WITH LIGHTING PLAN
DH	DOOR HOLDERS
EXIT	EXIT SIGN, UNIVERSAL MOUNT, COORDINATE WITH LIGHTING PLAN
FE	FIRE EXTINGUISHER; COORDINATE WITH BUILDING PLANS

FIRE ALARM NOTES:

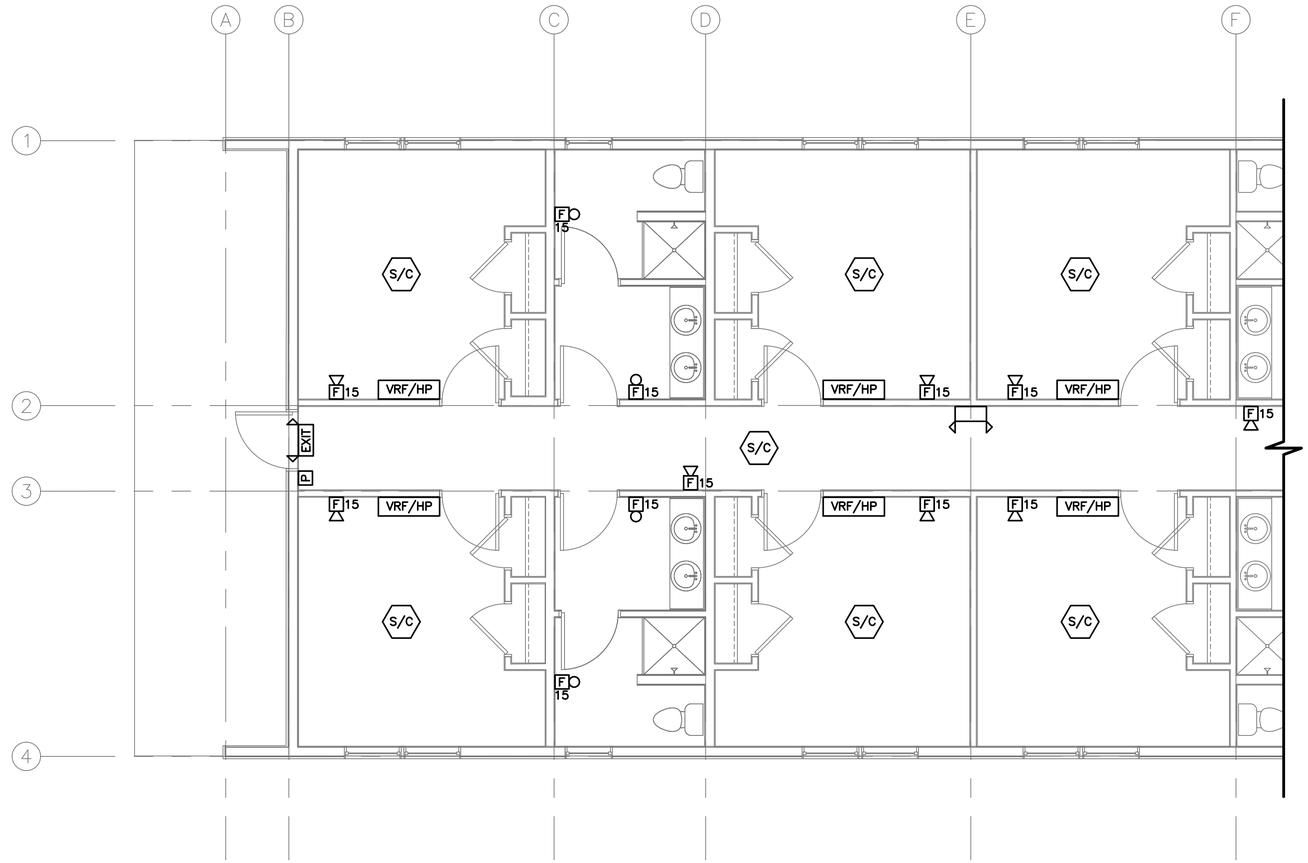
1. ALL WORK SHALL BE IN COMPLIANCE WITH NFPA 70 - THE NATIONAL ELECTRICAL CODE, INTEGRATED FIRE ALARM SYSTEM TO BE INSTALLED/MODIFIED PER NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE, 2019 EDITION. IT IS THE INTENT OF THESE PLANS TO SHOW FULLY OPERABLE FIRE ALARM SYSTEMS ALTHOUGH NOT ALL DETAILS MAY BE SHOWN. PROVIDE ALL EQUIPMENT, PANELS, DEVICES, WIRING, CONTROL MODULES, INTERFACE MODULES, RELAY MODULES, ENCLOSURES, COMMUNICATORS, POWER SUPPLIES, MUNICIPAL MASTER BOX CONNECTIONS, HVAC SYSTEM CONNECTIONS, SPRINKLER SYSTEM CONNECTIONS, ELEVATOR CONNECTIONS, KITCHEN HOOD SUPPRESSION SYSTEM CONNECTIONS, ETC. AS REQUIRED.
2. THE CONTRACTOR SHALL CONFIRM ACTUAL CONDITIONS PRIOR TO THE START OF WORK.
3. WIRING SHALL BE RUN CONCEALED WHEREVER POSSIBLE. WHEN ABSOLUTELY NECESSARY, EXPOSED WIRING IN FINISHED SPACES SHALL BE IN ONE PIECE RECTANGULAR STEEL RACEWAY EQUAL TO WIRE MOLD (TM) #V500/V700 SERIES SYSTEM WITH ALL REQUIRED ACCESSORIES, LOW PROFILE, SCRATCH RESISTANT IVORY OR WHITE PAINTABLE FINISH, REMOVABLE COVER, UL5 AND ADA COMPLIANT. METAL CONDUIT (EMT) MAY BE USED AS APPROVED BY THE CONTRACTING OFFICER/ENGINEER. PAINT TO MATCH EXISTING FINISH IN FINISHED AREAS.
4. SIZE ALL STROBE DEVICE CANDELA ACCORDING TO SPACE REQUIREMENTS.
5. ENSURE FIRE ALARM PANEL HAS COMMUNICATION SYSTEM INSTALLED PER NFPA 72 REQUIREMENTS.
6. FIRE ALARM SYSTEM DEVICE LOCATIONS SHOWN ARE APPROXIMATE. ADJUST LOCATIONS OF DEVICES AS REQUIRED TO ACCOMMODATE ACTUAL CONDITIONS.
7. INSTALL HVAC SYSTEM DUCT SMOKE DETECTORS AT SUPPLY AND RETURN DUCTWORK IN ERV-1. TIE-IN TO FIRE ALARM SYSTEM AS REQUIRED.
8. CONNECT SPRINKLER SYSTEMS FLOW AND TAMPER SWITCHES INTO FIRE ALARM SYSTEM AS REQUIRED.
9. THE CONTRACTOR SHALL VERIFY ALL ROOM NAMES AND NUMBERS TO REFLECT ACTUAL CONDITIONS.
10. FIRE DEVICES SHOWN MAY NOT REPRESENT ALL DEVICES NEEDED PER NFPA #72. FIRE ALARM SYSTEM SHALL BE DESIGNED AND INSTALLED PER NFPA #72 STANDARDS AND BEST PRACTICES. CONTRACTOR TO PROVIDE COMPLETE OPERATIONAL NFPA #72 FIRE ALARM SYSTEM FOR FACILITY. CONTRACTOR SHALL BE REQUIRED TO ENSURE ALL DEVICES REQUIRED ARE INSTALLED PER PLANS, AND NFPA 72 REQUIREMENTS.
11. CONTRACTOR SHALL PROVIDE DOOR STOP HOLDERS WHERE REQUIRED.
12. CONTRACTOR TO INSTALL ALL WIRING, CONDUITS, ETC. FROM ALL DEVICE LOCATIONS, DETECTORS, HORN/STROBES, ANNUNCIATORS, ETC. TO ELECTRICAL ROOM AND/OR PANELS. FIRE SYSTEM CONTRACTOR NOT RESPONSIBLE FOR PULLING WIRES, AND INSTALLING CONDUIT.
13. RUBBER INSULATORS REQUIRED AT ANY AND ALL ELECTRICAL/MECHANICAL/PLUMBING UNITS WHICH ATTACH TO ANY STRUCTURAL MEMBERS.
14. ENSURE ALL CONTROL PANELS AND ENCLOSURES ARE GROUNDED APPROPRIATELY ACCORDING TO NEC.
15. FIRE SPRINKLERS (SECTION 12.3.5)
    - MUST BE SUPERVISED (ALARMED TO A CONSTANTLY ATTENDED LOCATION) (TAMPER SWITCHES ON CONTROL VALVES)
    - MUST BE TIED INTO FIRE ALARM CONTROL PANEL
    - USE QUICK RESPONSE FIRE SPRINKLERS
16. ALARMS
    - MUST HAVE SECONDARY POWER, GENERATOR WILL SUFFICE
    - MUST HAVE (1) SMOKE DETECTOR BY FIRE ALARM CONTROL PANEL (FACP) (SECTION 9.6.1.8)
    - COORDINATE LOCATION OF FACP WITH LOCAL FIRE DEPARTMENT
17. ALL DEVICES IN SLEEPING AREAS SHALL BE LOW FREQUENCY TYPE DEVICES.

NOT ALL SYMBOLS/ABBREVIATIONS MAY BE USED FOR THIS PROJECT

STATE OF MAINE — RANDY BAGGS 12975 — LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER DRAWN: EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP2	TITLE OF SHEET 8-BEDROOM DORM FIRE PROTECTION ALARM LEGEND HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 127 OF 131

Feb 26, 2025 - 9:49am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



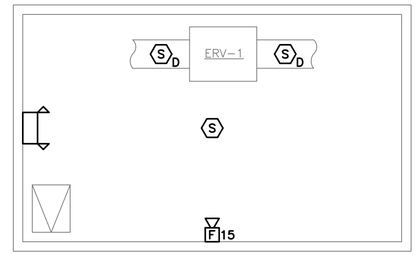
1 FP3 FIRE PROTECTION PLAN – WEST

4 0 4 8
SCALE OF FEET

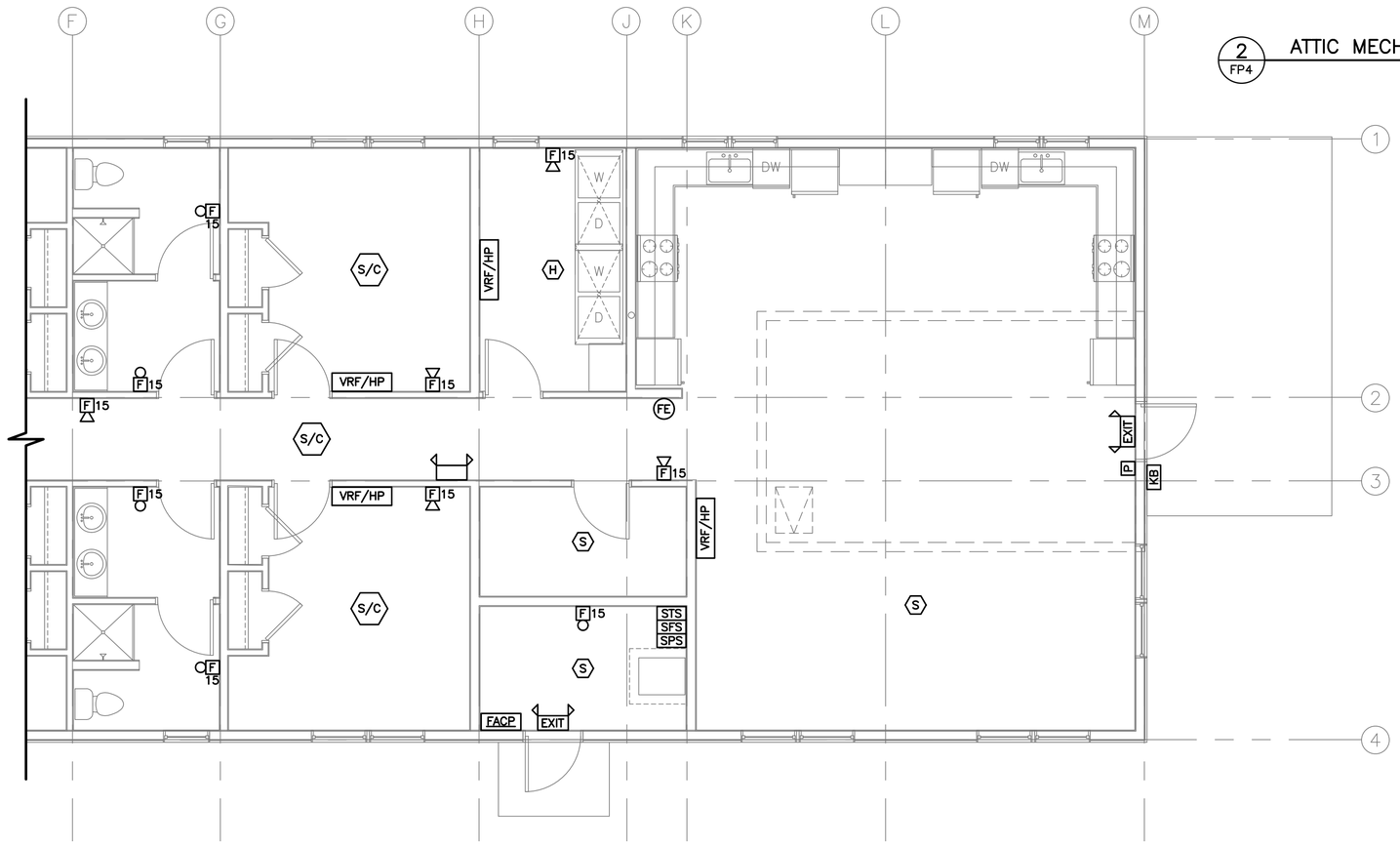
STATE OF MAINE
ANDY BRAGG
12175
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	FP3	8–BEDROOM DORM FIRE PROTECTION PLAN – WEST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	123 60025A PMIS/PKG NO. 309000 SHEET 128 OF 131

Feb 26, 2025 - 9:49am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah



2 FP4 ATTIC MECH RM FIRE PROTECTION PLAN



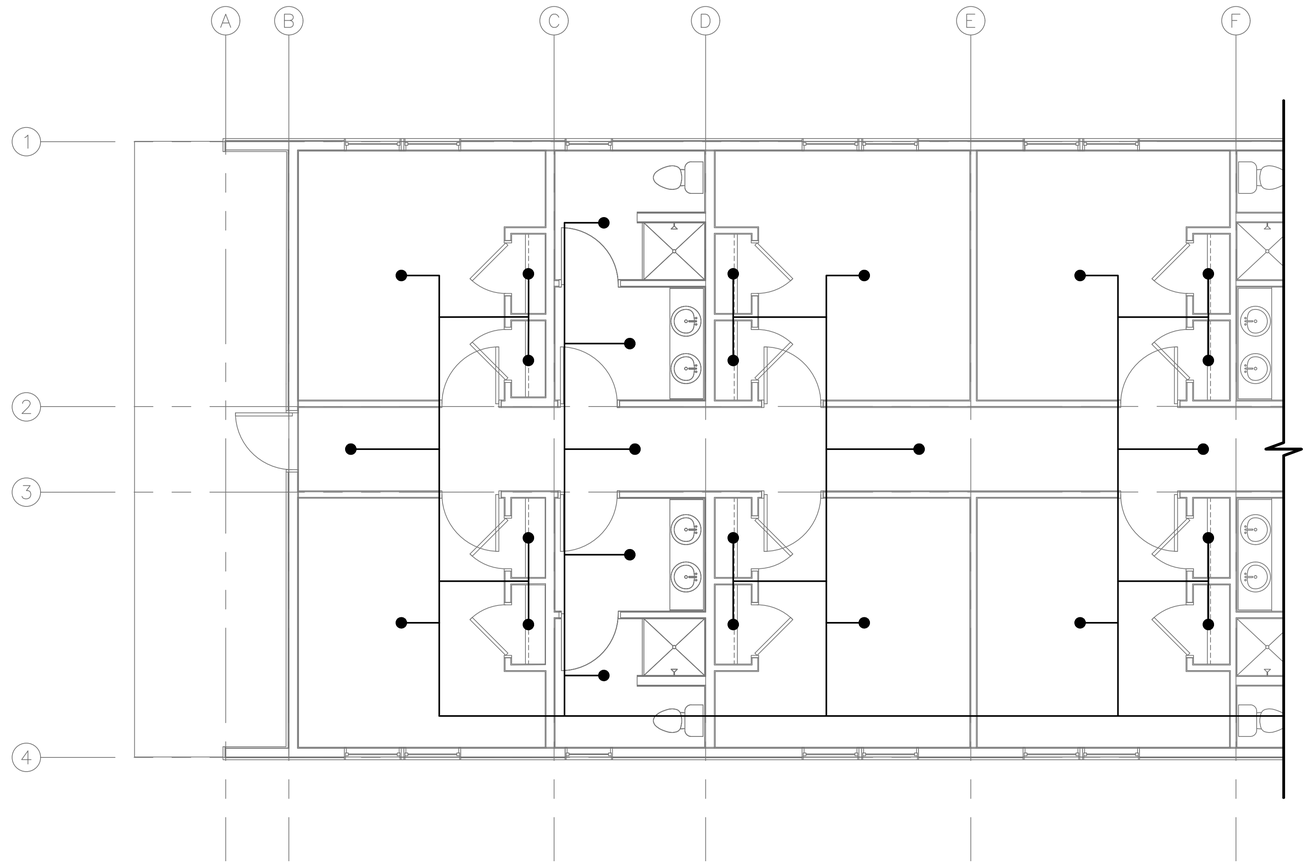
1 FP4 FIRE PROTECTION PLAN – EAST

4 0 4 8
SCALE OF FEET

Feb 26, 2025 - 9:49am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 - MEP-8BEDROOM_V8.dwg jonah

STATE OF MAINE
TIMOTHY BRAGG 12675
LICENSED PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTORS: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP4	TITLE OF SHEET 8–BEDROOM DORM FIRE PROTECTION PLAN – EAST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 129 OF 131



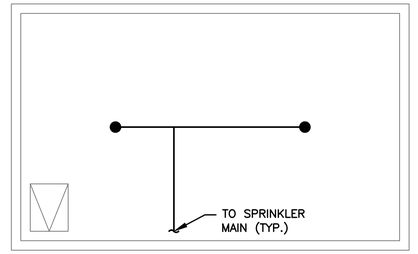
1 FP5 SPRINKLER PLAN – WEST

4 0 4 8
SCALE OF FEET

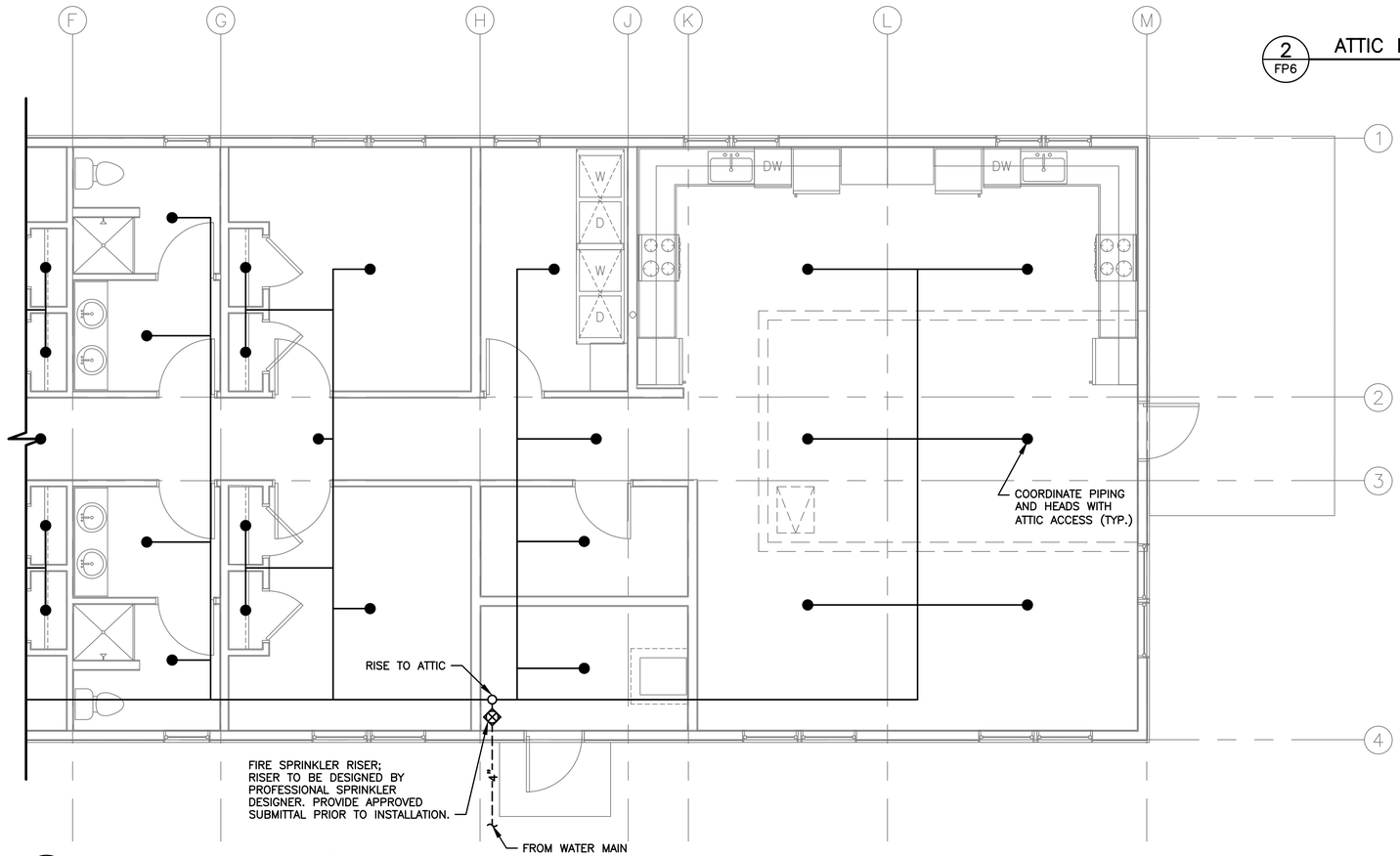
STATE OF MAINE
BRAGG
12575
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP5	TITLE OF SHEET 8–BEDROOM DORM SPRINKLER PLAN – WEST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 130 OF 131

Feb 26, 2025 – 9:49am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V8.dwg jonah



2 FP6 ATTIC MECH RM SPRINKLER PLAN



1 FP6 SPRINKLER PLAN – EAST

4 0 4 8
SCALE OF FEET

STATE OF MAINE
BRAGG
12575
LICENSED
PROFESSIONAL ENGINEER

A/E FIRM PRIME: HEDEFINE ENGINEERING & DESIGN, INC. ELLSWORTH, ME SUBCONTRACTOR: CARPENTER ASSOCIATES OLD TOWN, ME	DESIGNED: KEEZER CADD EATON TECH. REVIEW: BRAGG DATE: 02/28/2025	SUB SHEET NO. FP6	TITLE OF SHEET 8–BEDROOM DORM SPRINKLER PLAN – EAST HARDEN FARM EMPLOYEE HOUSING PHASE 1C ACADIA NATIONAL PARK	DRAWING NO. 123 60025A PMIS/PKG NO. 309000 SHEET 131 OF 131

Feb 26, 2025 – 9:49am
H:\Projects\2024\2024134 Hedefine Harden Farm Housing 1C Bar Harbor\Drawings\2024134 – MEP–8BEDROOM_V8.dwg jonah