ROOM FINISH SCHEDULE

ADMINISTRATION BUILDING

ROOM NO.	ROOM NAME	FLOOR		WALL BASE	WALL FINISH				CEILING			COMMENTS
		MATERIAL	FINISH		NORTH (A)	EAST (B)	SOUTH (C)	WEST (D)	MATERIAL	FINISH	HEIGHT AFF	
100	LOBBY	CONC	LVT-1	RB-1	P-1	P-1, P-5	P-1	P-1, P-5	OPEN TO STRUCTURE	P-4	SEE RCP	CG-1; CG-2; P-5 SEE INTERIOR FINISH PLAN FOR LOCATIONS.
100MR	MEN'S RESTROOM	CONC	PT-1	PT-3A	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	GYP BD	P-3	SEE RCP	TP-1; US-1
100ML	MEN'S LOCKER ROOM	CONC	PT-1	PT-4	P-1	P-6	P-1	P-1	OPEN TO STRUCTURE	P-4	SEE RCP	CG-1; P-6 SEE INTERIOR FINISH PLAN FOR LOCATIONS.
100MS	MEN'S SHOWER	CONC	PT-1	PT-3A	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	GYP BD	P-3	SEE RCP	SHOWER STALL WALLS = WPS-1, SHOWER STALL FLOORS = PT-2, SHOWER STALL CURB = PT-1
100WR	WOMEN'S RESTROOM	CONC	PT-1	PT-3A	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	GYP BD	P-3	SEE RCP	TP-1
100WL	WOMEN'S LOCKER ROOM	CONC	PT-1	PT-4	P-1	P-6	P-1	P-1	OPEN TO STRUCTURE	P-4	SEE RCP	CG-1; P-6 SEE INTERIOR FINISH PLAN FOR LOCATIONS.
100WS	WOMEN'S SHOWER	CONC	PT-1	PT-3A	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	PT-3A, PT-3B, P-1	GYP BD	P-3	SEE RCP	SHOWER STALL WALLS = WPS-1, SHOWER STALL FLOORS = PT-2, SHOWER STALL CURB = PT-1
100JC	JAN	CONC	PT-1	PT-4	P-1	PT-3A, P-1	PT-3A, P-1	P-1	GYP BD	P-3	SEE RCP	
100BR	BREAK ROOM	CONC	LVT-2	RB-1	P-5	P-1	P-1	P-1	OPEN TO STRUCTURE	P-4	SEE RCP	CG-1; CG-2; P-5 SEE INTERIOR FINISH PLAN FOR LOCATIONS. SS-1; PL-2; WS-1.
101	OPEN OFFICE	CONC	CPT-1	RB-1	P-1	P-5	P-1	P-1	OPEN TO STRUCTURE	P-4	SEE RCP	SS-1; PL-1; WS-1
102	CONF	CONC	CPT-2	RB-1	P-1	P-1	P-5	P-1	OPEN TO STRUCTURE	P-4	SEE RCP	WS-1
103	OFFICE 1	CONC	CPT-2	RB-1	P-1	P-1	P-1	P-5	OPEN TO STRUCTURE	P-4	SEE RCP	
104	OFFICE 2	CONC	CPT-2	RB-1	P-1	P-5	P-1	P-1	OPEN TO STRUCTURE	P-4	SEE RCP	WS-1
101TE	TC	CONC	ESDEF-1	RB-1	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	P-3	SEE RCP	
101EC	ELEC	CONC	ESDEF-1	RB-1	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	P-3	SEE RCP	

MAINTENANCE SHOP

ROOM NO.	ROOM NAME	FLOOR		WALL BASE	WALL FINISH				CEILING			COMMENTS
		MATERIAL	FINISH		NORTH (A)	EAST (B)	SOUTH (C)	WEST (D)	MATERIAL	FINISH	HEIGHT AFF	
201	STOREKEEPER	CONC	CONC-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	
202	S&G OPEN SHOP & STORAGE	CONC	CONC-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	
203	WOOD SHOP	CONC	CONC-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	
204	ELEC/TC	CONC	ESDEF-1	ESDEF-1	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	
205	MAINTENANCE SHOP	CONC	CONC-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	
206	STORAGE ROOM	CONC	CONC-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	
206A	MAINTENANCE SHOP MEZZANINE	PEMB	CPG-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	HANDRAIL, GUARDRAIL, RAILINGS = PAINT P-2
207	AUTO SHOP	CONC	EF-1	EF-1	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	PIT CURB = EF-2, PIT WALLS = P-1, PIT FLOOR = EF-1
207A	AUTO SHOP MEZZANINE	PEMB	CPG-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	HANDRAIL, GUARDRAIL, RAILINGS = PAINT P-2
208	WELDING	CONC	CONC-1	N/A	P-1	P-1	P-1	P-1	OPEN TO STRUCTURE	N/A	SEE RCP	

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ROOM FINISH SCHEDULE

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

JOB NUMBER
P10882

SHEET
A-602
141 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

DOOR SCHEDULE

ADMINISTRATION BUILDING

DOOR NUMBER	DOOR TYPE	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS THRESHOLD	PERFORMANCE LEVEL	UL FIRE RATED ASSEMBLY (MIN.)	FINISH HDWR GROUP	COMMENTS
100A	B	6' - 0"	7' - 0"	1 3/4"	HM	PE-6 (EXT), P-2 (INT)	HM	PE-6 (EXT), P-2 (INT)	4/A-612	5/A-612, 6/A-612	12/A-612	4	--	004	W/ VISION PANEL W/ 1" INSULATED GLAZING
100B	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6 (EXT), P-2 (INT)	HM	PE-6 (EXT), P-2 (INT)	1/A-612	2/A-612, 3/A-612	12/A-612	4	--	002	
100MR-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	5/A-613	4	20-MIN	010	
100ML-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	6/A-613	4	--	010	
100ML-B	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6 (EXT), P-2 (INT)	HM	PE-6 (EXT), P-2 (INT)	1/A-612	2/A-612, 3/A-612	10/A-612	4	--	002	
100MS-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	6/A-613	4	--	010	
100WR-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	5/A-613	4	20-MIN	010	
100WL-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	6/A-613	4	--	010	
100WL-B	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6 (EXT), P-2 (INT)	HM	PE-6 (EXT), P-2 (INT)	1/A-612 SIM	2/A-612, 3/A-612	10/A-612	4	--	002	
100WS-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	6/A-613	4	--	010	
100JC-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	4/A-613	4	20-MIN	007	
100BR-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	2/A-613	4	20-MIN	007	W/ VISION PANEL (100 SQ IN MAX)
100BR-B	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6 (EXT), P-2 (INT)	HM	PE-6 (EXT), P-2 (INT)	1/A-612 SIM	2/A-612, 3/A-612	12/A-612	4	--	002	
101A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	2/A-613	4	20-MIN	007	W/ VISION PANEL (100 SQ IN MAX)
101B	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	2/A-613	4	20-MIN	008	W/ VISION PANEL (100 SQ IN MAX)
102A	A	3' - 0"	7' - 0"	1 3/4"	SCWD	PL-1	HM	P-2	1/A-613	1/A-613	3/A-613	4	--	009	W/ VISION PANEL
103A	A	3' - 0"	7' - 0"	1 3/4"	SCWD	PL-1	HM	P-2	1/A-613	1/A-613	3/A-613	2	--	009	W/ VISION PANEL
104A	A	3' - 0"	7' - 0"	1 3/4"	SCWD	PL-1	HM	P-2	1/A-613	1/A-613	3/A-613	2	--	009	W/ VISION PANEL
101TE-A	A	3' - 0"	7' - 0"	1 3/4"	HM	P-2	HM	P-2	1/A-613	1/A-613	2/A-613	4	20-MIN	008	
101EC-A	B	6' - 0"	7' - 0"	1 3/4"	HM	PE-6 (EXT), P-2 (INT)	HM	PE-6 (EXT), P-2 (INT)	1/A-612	2/A-612, 3/A-612	12/A-612	4	--	005	

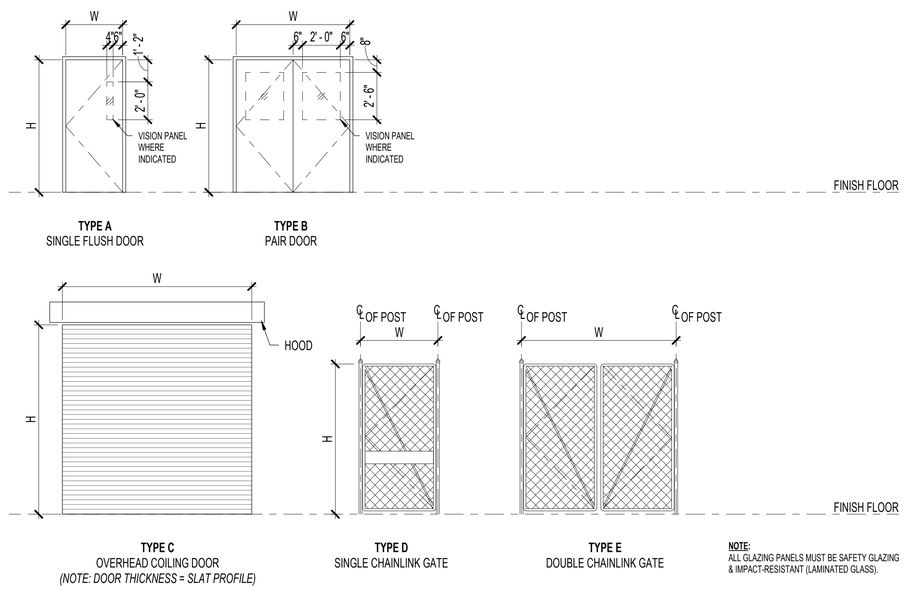
MAINTENANCE SHOP

DOOR NUMBER	DOOR TYPE	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS THRESHOLD	PERFORMANCE LEVEL	UL FIRE RATED ASSEMBLY (MIN.)	FINISH HDWR GROUP	COMMENTS
201A	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	001	
201B	C	15' - 4"	13' - 0"	3"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	8/A-614	10/A-614, 11/A-614	9/A-614	--	--	--	MOTOR OPERATED, SEE ALSO ELEC
201C	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	001	
202A	B	6' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	003	
203A	C	15' - 4"	13' - 0"	3"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	8/A-614	10/A-614, 11/A-614	9/A-614	--	--	--	MOTOR OPERATED, SEE ALSO ELEC
203B	B	6' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	003	
203C	B	6' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-613	8/A-613	9/A-613	4	--	006	
204A	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	002	
205A	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	001	
205B	C	15' - 4"	13' - 0"	3"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	8/A-614	10/A-614, 11/A-614	9/A-614	--	--	--	MOTOR OPERATED, SEE ALSO ELEC
205C	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	001	
206A	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	001	
206B	C	15' - 4"	16' - 0"	3"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	8/A-614	10/A-614, 11/A-614	9/A-614	--	--	--	MOTOR OPERATED, SEE ALSO ELEC
207A	C	15' - 4"	16' - 0"	3"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	8/A-614	10/A-614, 11/A-614	9/A-614	--	--	--	MOTOR OPERATED, SEE ALSO ELEC
207B	A	3' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	001	
207C	B	6' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-613	8/A-613	9/A-613	4	--	006	
208A	B	8' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	003	
208B	B	8' - 0"	7' - 0"	1 3/4"	HM	PE-6	HM	PE-6	7/A-612	9/A-612	12/A-612	4	--	003	

GATES

DOOR NUMBER	DOOR TYPE	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS THRESHOLD	PERFORMANCE LEVEL	UL FIRE RATED ASSEMBLY (MIN.)	FINISH HDWR GROUP	COMMENTS
G205	D	3' - 0"	8' - 0"	1 1/2"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	--	--	--	--	--	--	
G209	E	8' - 0"	8' - 0"	1 1/2"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	--	--	--	--	--	--	3'-0" W (RHRA LEAF) & 5'-0" W (LHRA LEAF)
GS01	D	3' - 0"	7' - 0"	1 1/2"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	--	--	--	--	--	--	
GS02	D	3' - 0"	7' - 0"	1 1/2"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	--	--	--	--	--	--	
GS03	E	15' - 8"	6' - 0"	1 1/2"	GALV STL	PRE-FIN	GALV STL	PRE-FIN	--	--	--	--	--	--	

NOTE:
FOR CHAINLINK FENCE & GATE DETAILS, SEE SHT A-535



TYPE A
SINGLE FLUSH DOOR

TYPE B
PAIR DOOR

TYPE C
OVERHEAD COILING DOOR
(NOTE: DOOR THICKNESS = SLAT PROFILE)

TYPE D
SINGLE CHAINLINK GATE

TYPE E
DOUBLE CHAINLINK GATE

NOTE:
ALL GLAZING PANELS MUST BE SAFETY GLAZING & IMPACT-RESISTANT (LAMINATED GLASS).

DOOR TYPES

NTS

REVISION	DATE	DESCRIPTION	BY	APPROVED

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

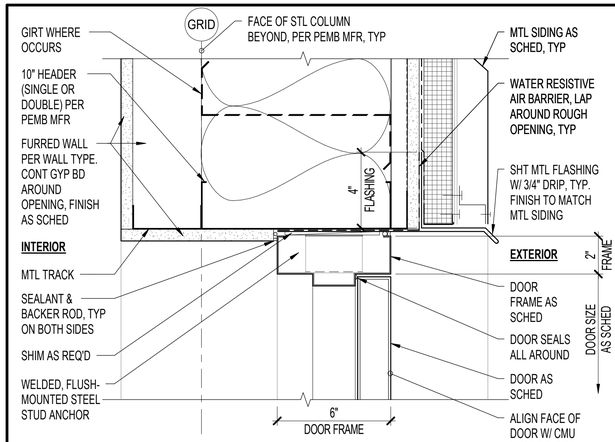
SHEET TITLE
DOOR SCHEDULE AND TYPES

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

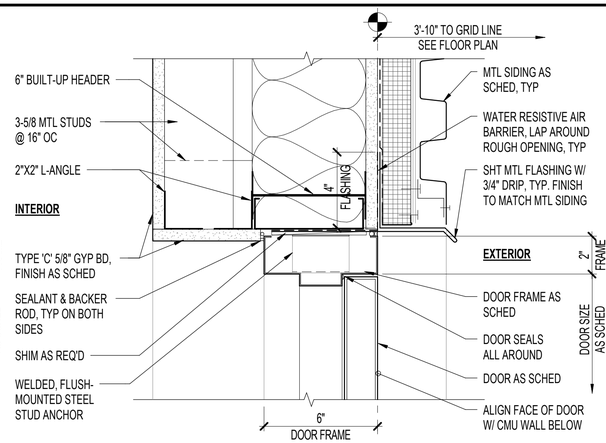
JOB NUMBER
P10882

SHEET
A-611
142 OF 273 SHTS

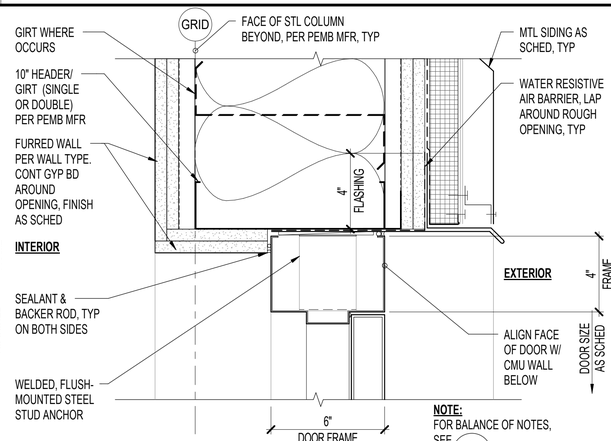
FINAL SUBMITTAL - MAY 2026



1 DOOR HEAD @ METAL GIRT WALL
3" = 1'-0"

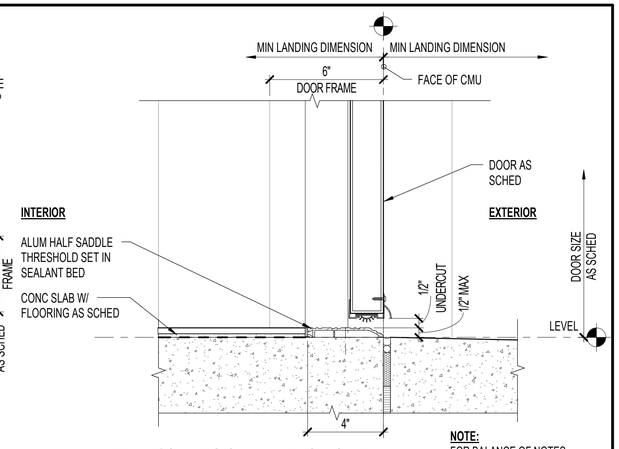


4 DOOR HEAD @ METAL STUD WALL
3" = 1'-0"



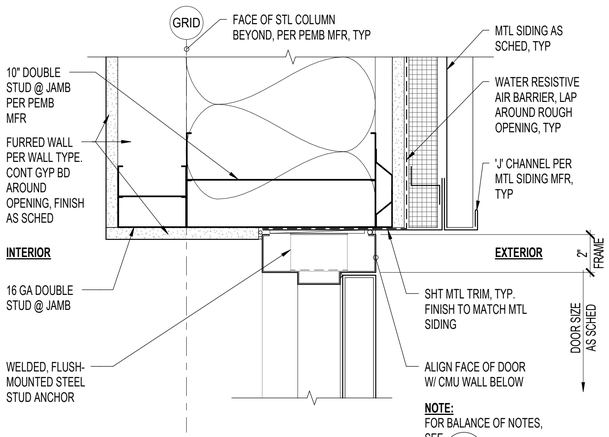
NOTE:
FOR BALANCE OF NOTES, SEE 1 A-612

7 DOOR HEAD @ METAL GIRT WALL
3" = 1'-0"



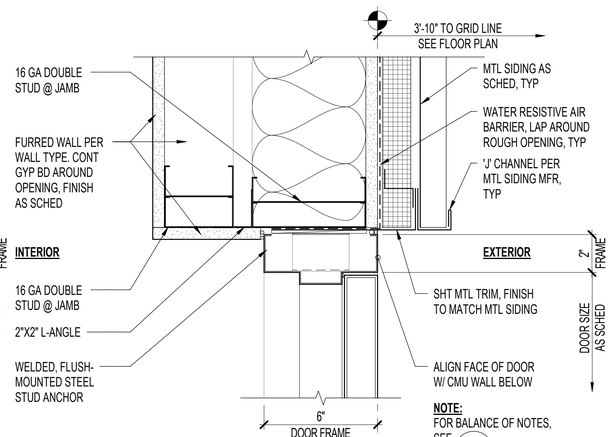
NOTE:
FOR BALANCE OF NOTES, SEE 11 A-612

10 EXTERIOR DOOR THRESHOLD
3" = 1'-0"



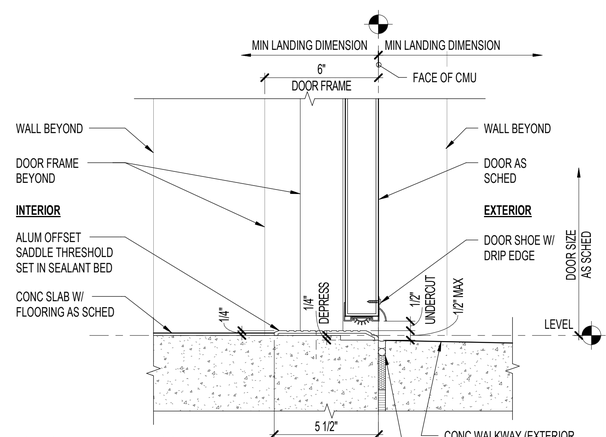
NOTE:
FOR BALANCE OF NOTES, SEE 1 A-612

2 DOOR JAMB @ METAL GIRT WALL
3" = 1'-0"



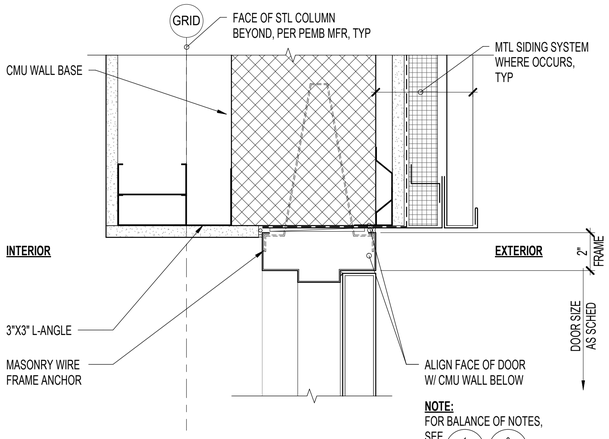
NOTE:
FOR BALANCE OF NOTES, SEE 4 A-612

5 DOOR JAMB @ METAL STUD WALL
3" = 1'-0"



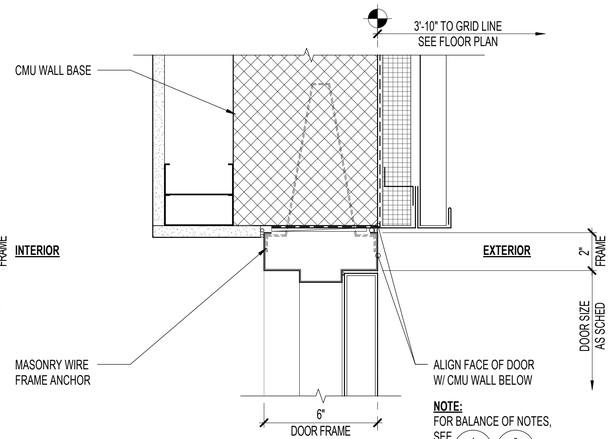
NOTE FOR MIN LANDING DIMENSIONS:
1. IF ACCESSIBLE RAMP, MIN 60", NFPA 101, 7.2.3.2(4)
2. IF NON-ACCESSIBLE RAMP, MIN 48", NFPA 101, 7.2.5.4.2(5)
3. IF DOOR LANDING, MIN WIDTH OF WIDEST DOOR LEAF, NFPA 101, 7.2.1.3.2

11 EXTERIOR DOOR THRESHOLD
3" = 1'-0"



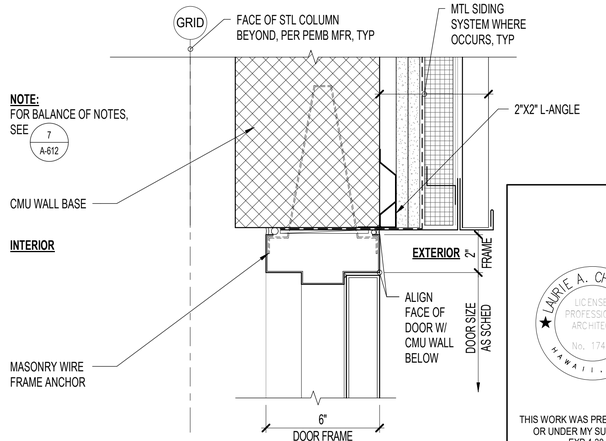
NOTE:
FOR BALANCE OF NOTES, SEE 1 A-612 2 A-612

3 DOOR JAMB @ CMU WALL BASE
3" = 1'-0"



NOTE:
FOR BALANCE OF NOTES, SEE 4 A-612 5 A-612

6 DOOR JAMB @ CMU WALL BASE
3" = 1'-0"



8 DOOR JAMB @ CMU WALL BASE
3" = 1'-0"

0 3" 6" 9"
SCALE: 3" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

LAURIE A. CHIKAZAWA — LICENSED PROFESSIONAL ARCHITECT — No. 17476 — HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-26

RMA ARCHITECTS INC

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

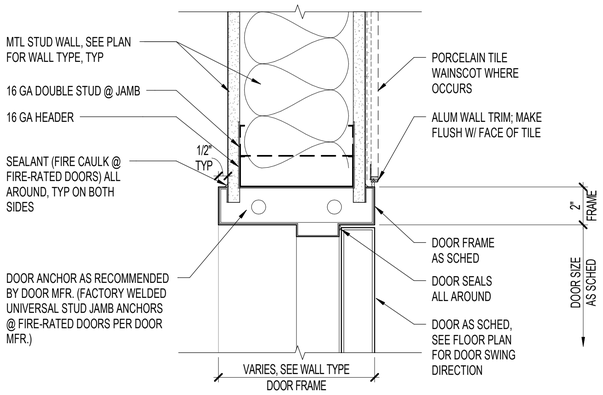
SHEET TITLE
DETAILS - DOOR

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

JOB NUMBER P10882

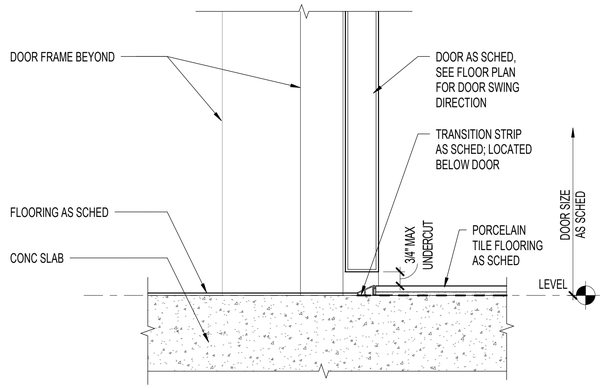
SHEET A-612
143 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026



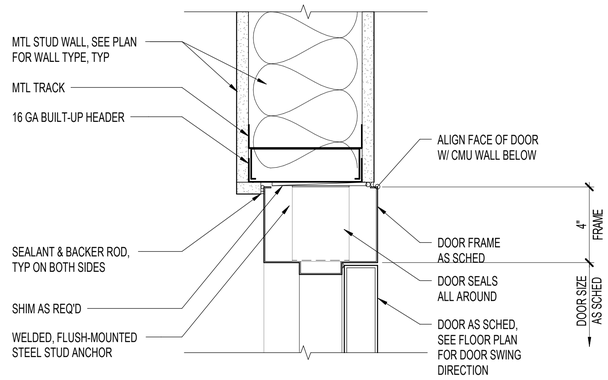
1 DOOR HEAD (JAMB SIM) @ MTL STD WALL

3" = 1'-0"



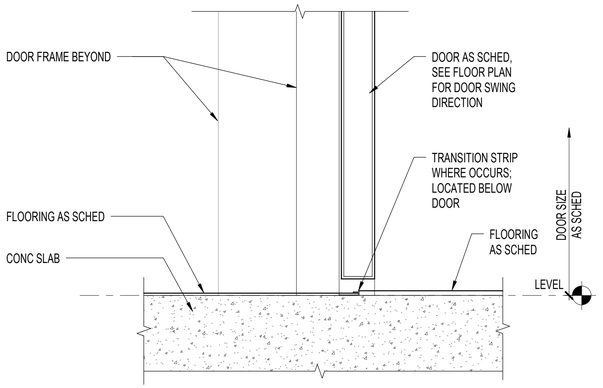
4 DOOR THRESHOLD - LVT TO TILE

3" = 1'-0"



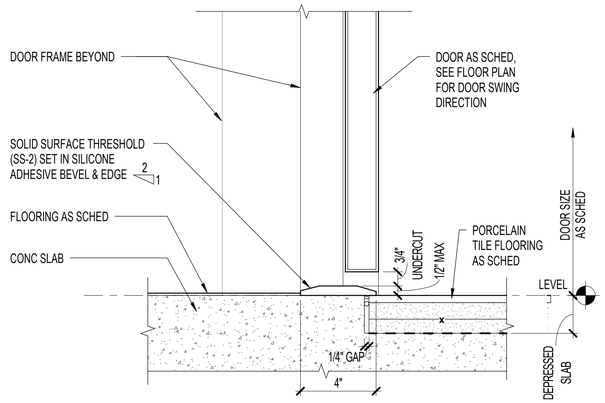
7 DOOR HEAD @ STACKED WALL

3" = 1'-0"



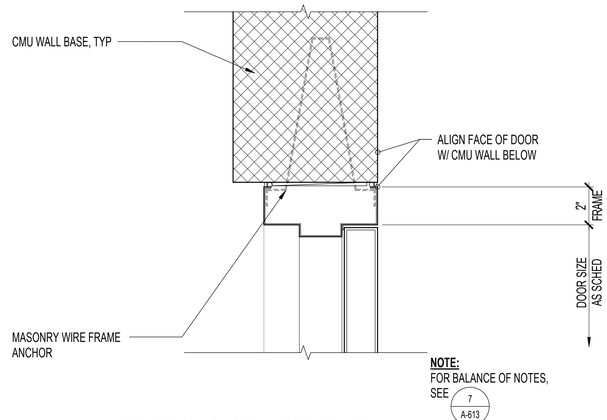
2 DOOR THRESHOLD - LVT TO CARPET/LVT/ESDEF

3" = 1'-0"



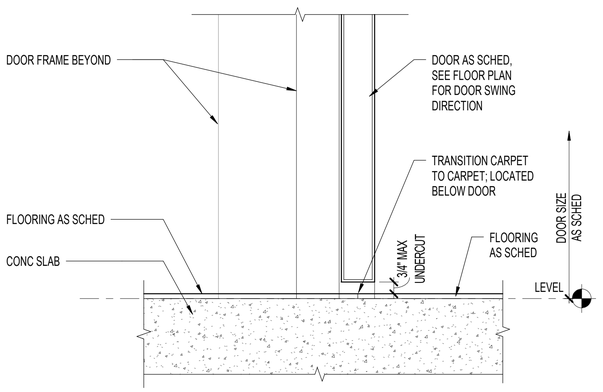
5 DOOR THRESHOLD - LVT TO TILE (DEPRESSED SLAB)

3" = 1'-0"



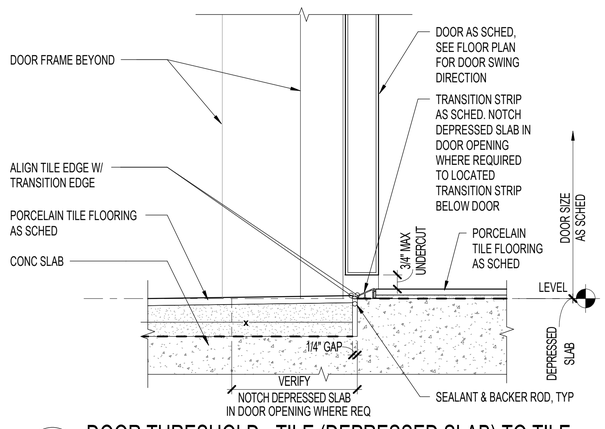
8 DOOR JAMB @ STACKED WALL

3" = 1'-0"



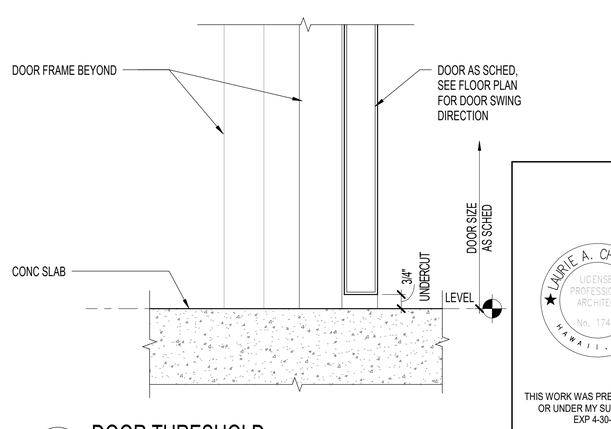
3 DOOR THRESHOLD - CARPET TO CARPET

3" = 1'-0"



6 DOOR THRESHOLD - TILE (DEPRESSED SLAB) TO TILE

3" = 1'-0"



9 DOOR THRESHOLD

3" = 1'-0"

0 3" 6" 9"

SCALE: 3" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HARBORS

JOB TITLE

HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE

DETAILS - DOOR

LAURIE A. CHIKAZAWA — LICENSED PROFESSIONAL ARCHITECT — No. 17476 — HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

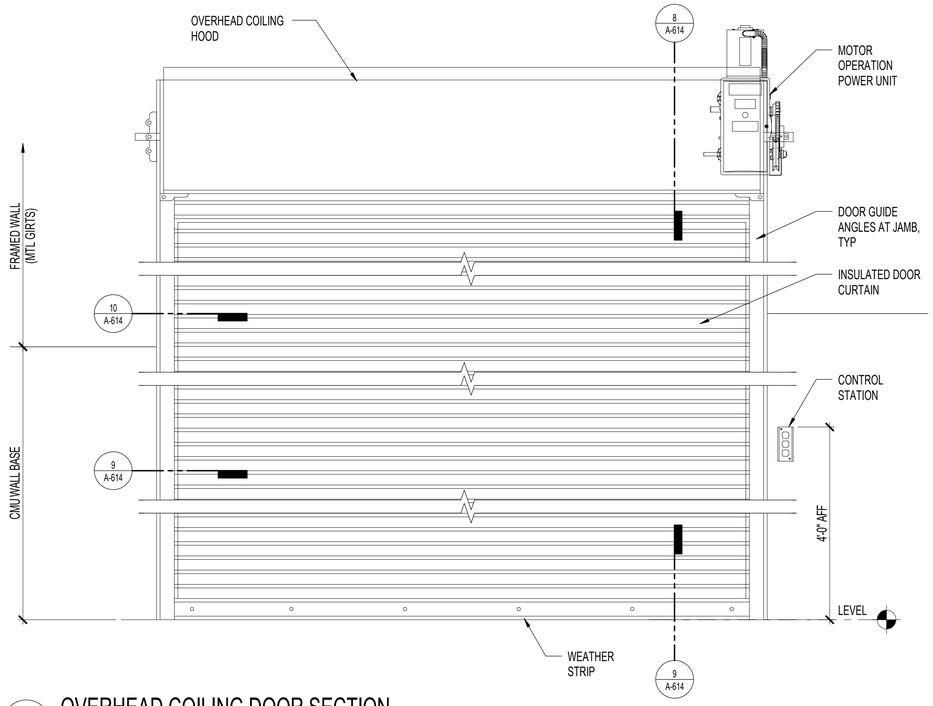
DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

JOB NUMBER P10882

SHEET A-613

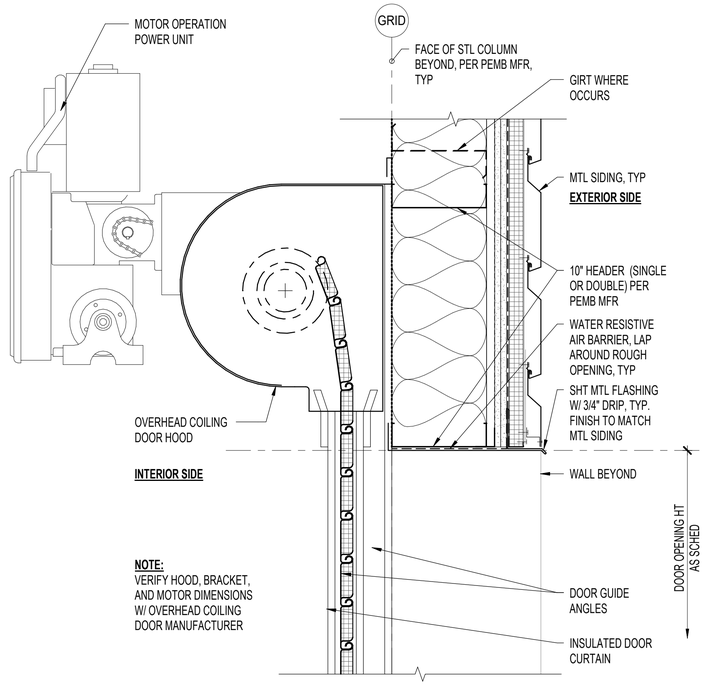
144 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026



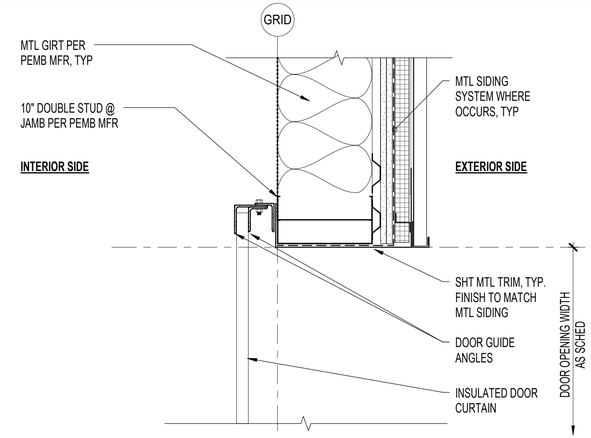
2 OVERHEAD COILING DOOR SECTION

3/4" = 1'-0"



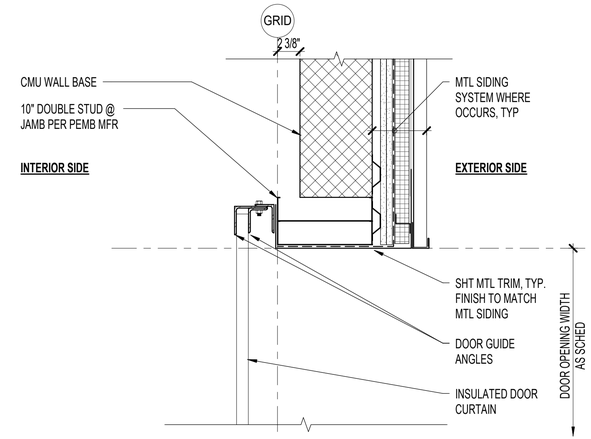
8 OVERHEAD COILING DOOR HEAD @ MTL GIRT

1 1/2" = 1'-0"



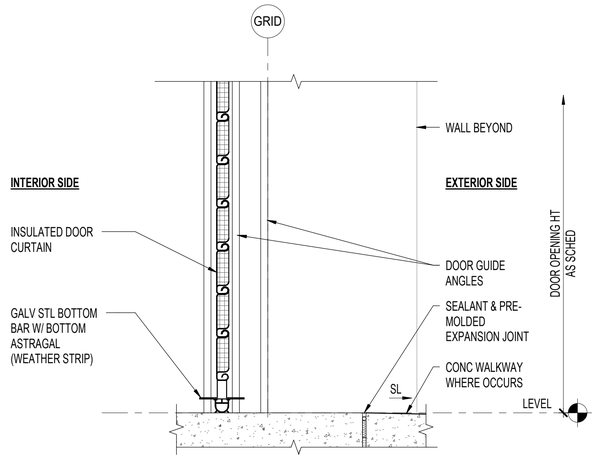
10 OVERHEAD COILING DOOR JAMB @ MTL GIRT

1 1/2" = 1'-0"



11 OVERHEAD COILING DOOR JAMB @ CMU WALL

1 1/2" = 1'-0"



9 OVERHEAD COILING DOOR THRESHOLD

1 1/2" = 1'-0"

0 1' 2' 3'

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

0 6" 1' 18"

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

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE

HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE

DETAILS - DOOR

LAURIE A. CHIKAZAWA LICENSED PROFESSIONAL ARCHITECT No. 17476 HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

JOB NUMBER P10882

SHEET A-614

145 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

WINDOW SCHEDULE

ADMINISTRATION BUILDING

MARK	WINDOW TYPE	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	SILL HEIGHT	FRAME MATERIAL	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	COMMENTS
100BR-A	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
100BR-B	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
100BR-C	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
100BR-D	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
100BR-E	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
100BR-F	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
101A	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
101B	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
101C	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
101D	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
102A	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
102B	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
102C	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	
104A	A	5' - 0"	4' - 0"	4' - 0"	ALUM	PRE-FIN	1/A-622	2/A-622	3/A-622	



A FIXED

WINDOW TYPES

1/4" = 1'-0"

NOTES:
1. ALL GLAZING PANELS MUST BE SAFETY GLAZING & IMPACT-RESISTANT (LAMINATED GLASS).
2. SEE COLOR AND MATERIAL SELECTION SCHED FOR ALUMINUM FRAME FINISH.

LOUVER SCHEDULE

ADMINISTRATION BUILDING

MARK	WINDOW TYPE	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	SILL HEIGHT	FRAME MATERIAL	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	COMMENTS
L.A1	L.A	3' - 4"	2' - 0"	9' - 0"	ALUM	PRE-FIN	4/A-622	5/A-622	6/A-622	
L.A2	L.A	3' - 4"	1' - 0"	9' - 0"	ALUM	PRE-FIN	4/A-622	5/A-622	6/A-622	
L.A3	L.A	5' - 0"	2' - 0"	9' - 0"	ALUM	PRE-FIN	4/A-622	5/A-622	6/A-622	
L.A4	L.A	3' - 4"	2' - 0"	9' - 0"	ALUM	PRE-FIN	4/A-622	5/A-622	6/A-622	

MAINTENANCE SHOP

MARK	WINDOW TYPE	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	SILL HEIGHT	FRAME MATERIAL	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	COMMENTS
L.M1	L.A	7' - 0"	2' - 6"	14' - 0"	ALUM	PRE-FIN	4/A-622 SIM	5/A-622 SIM	6/A-622 SIM	
L.M2	L.A	7' - 0"	2' - 6"	14' - 0"	ALUM	PRE-FIN	4/A-622 SIM	5/A-622 SIM	6/A-622 SIM	
L.M3	L.A	3' - 4"	1' - 6"	16' - 0"	ALUM	PRE-FIN	4/A-622 SIM	5/A-622 SIM	6/A-622 SIM	
L.M4	L.A	3' - 4"	2' - 0"	16' - 0"	ALUM	PRE-FIN	4/A-622 SIM	5/A-622 SIM	6/A-622 SIM	
L.M5	L.A	3' - 4"	1' - 6"	5' - 10"	ALUM	PRE-FIN	7/A-622	8/A-622	9/A-622	
L.M6	L.A	7' - 0"	2' - 6"	19' - 0"	ALUM	PRE-FIN	4/A-622 SIM	5/A-622 SIM	6/A-622 SIM	
L.M7	L.A	7' - 0"	2' - 6"	19' - 0"	ALUM	PRE-FIN	4/A-622 SIM	5/A-622 SIM	6/A-622 SIM	



LA FIXED LOUVER

LOUVER TYPES

1/4" = 1'-0"

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

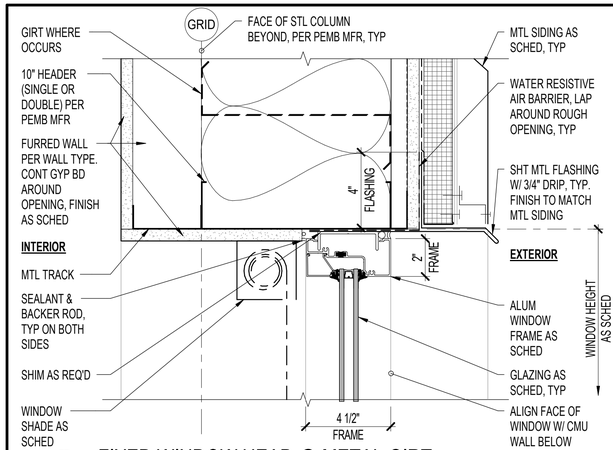
SHEET TITLE
WINDOW AND LOUVER SCHEDULE AND TYPES

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

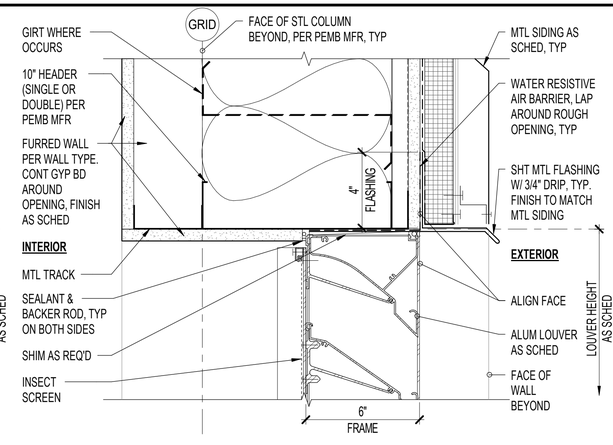
JOB NUMBER
P10882

SHEET
A-621
146 OF 273 SHTS.

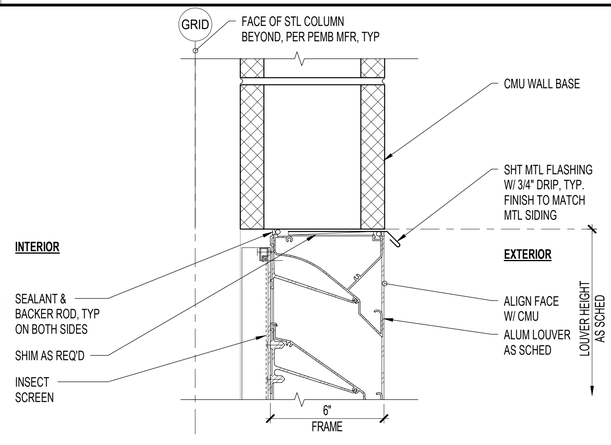
FINAL SUBMITTAL - MAY 2026



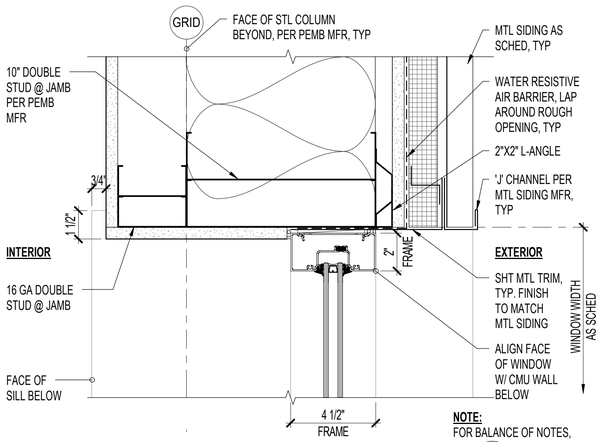
1 FIXED WINDOW HEAD @ METAL GIRT
3" = 1'-0"



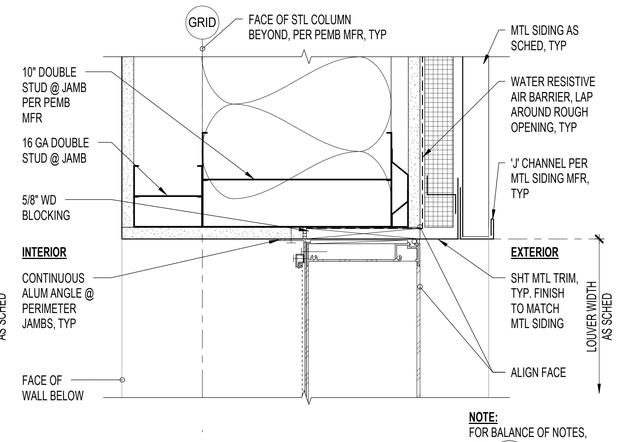
4 LOUVER HEAD @ METAL GIRT
3" = 1'-0"



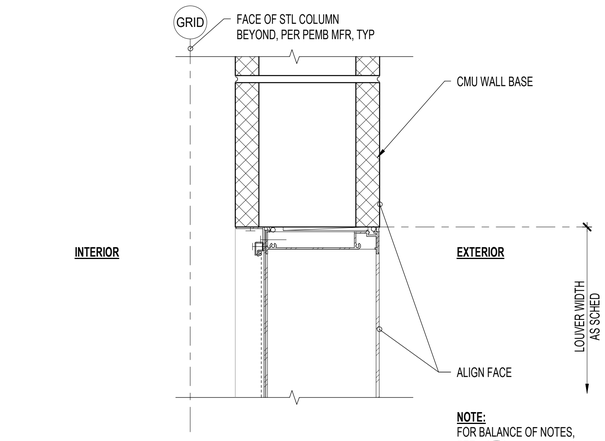
7 LOUVER HEAD @ CMU
3" = 1'-0"



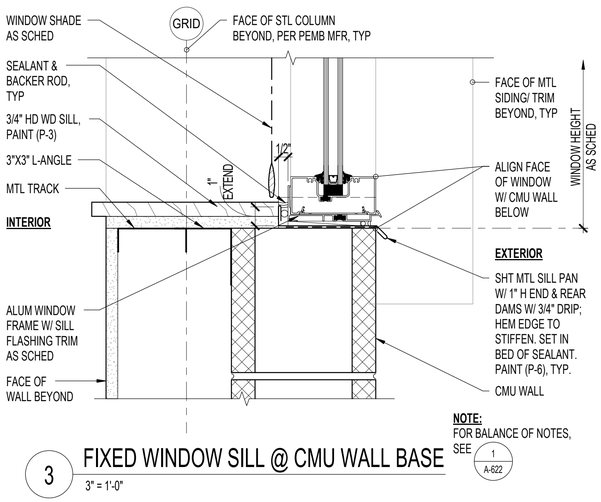
2 FIXED WINDOW JAMB @ METAL GIRT
3" = 1'-0"



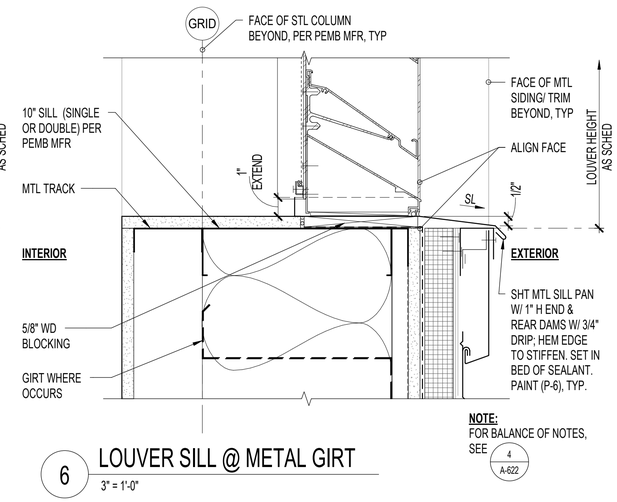
5 LOUVER JAMB @ METAL GIRT
3" = 1'-0"



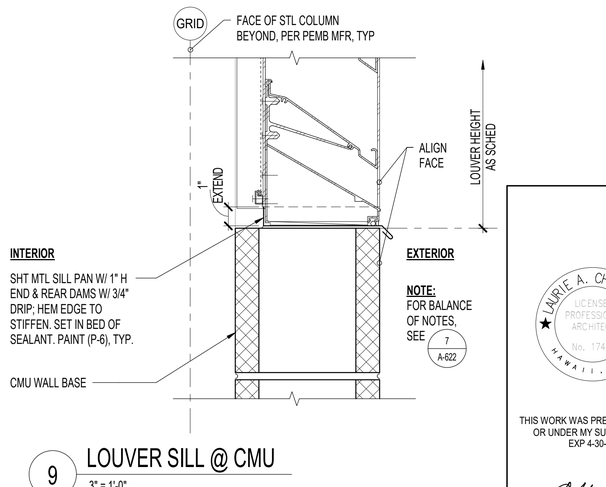
8 LOUVER JAMB @ CMU
3" = 1'-0"



3 FIXED WINDOW SILL @ CMU WALL BASE
3" = 1'-0"



6 LOUVER SILL @ METAL GIRT
3" = 1'-0"



9 LOUVER SILL @ CMU
3" = 1'-0"

0 3" 6" 9"
SCALE: 3" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
DETAILS - WINDOW AND LOUVER

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
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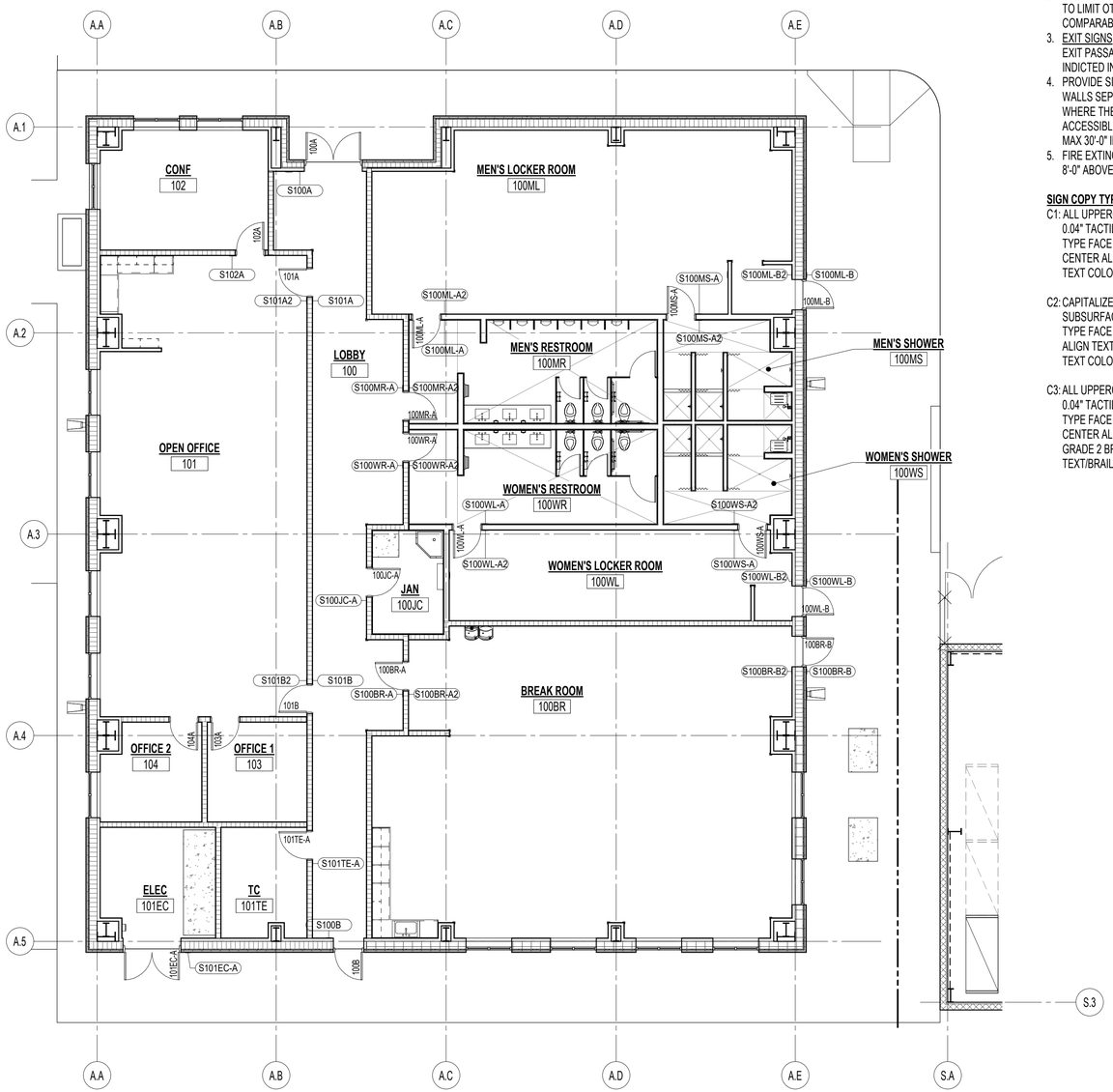
RMA ARCHITECTS INC

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

JOB NUMBER
P10882

SHEET
A-622
147 OF 273 SHTS

FINAL SUBMITTAL - MAY 2026



A SIGNAGE PLAN - ADMIN BUILDING

1/8" = 1'-0"

SIGNAGE NOTES:

1. FOR SIGN MOUNTING DETAILS, SEE SHTA-003
2. BRAND NAMES, COLORS AND CODE NUMBERS ARE LISTED ONLY FOR REFERENCE AND NOT INTENDED TO LIMIT OTHER MANUFACTURERS. COLORS AND PRODUCTS OF OTHER MANUFACTURERS WITH COMPARABLE QUALITY, COLOR AND TEXTURE ARE ACCEPTABLE.
3. EXIT SIGNS TYPE "C" SHALL BE PROVIDED AND LOCATED AT THE LATCH SIDE OF ALL EXIT DOORS AND EXIT PASSAGEWAY DOORS. EXIT SIGNS MARKING THE PATH OF EGRESS TRAVEL TO EXITS ARE INDICTED IN THE LIFE SAFETY FLOOR PLANS.
4. PROVIDE SIGN TYPE "F" AT ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE PARTITIONS, AND WALLS SEPARATING ELECTRICAL HAZARD CLASSIFIED SPCE. LOCATE SIGNS 2'-0" FROM TOP OF WALL WHERE THERE IS NO FINISHED CEILING. WHERE FINISH CEILING OCCURS, LOCATED SIGNS IN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING, OR ATTIC SPACES. SIGNS SHALL BE LOCATED AT MAX 30'-0" INTERVALS HORIZONTALLY.
5. FIRE EXTINGUISHER SIGN TYPE "G", SHALL BE LOCATED ABOVE FIRE EXTINGUISHERS, TOP OF SIGN AT 8'-0" ABOVE FINISH FLOOR.

SIGN COPY TYPES (C#):

C1: ALL UPPERCASE CHARACTERS;
0.04" TACTILE CHARACTERS AND PICTOGRAMS;
TYPE FACE (ADA COMPLIANT): CENTURY GOTHIC;
CENTER ALIGN, UNLESS OTHERWISE INDICATED IN DETAIL;
TEXT COLOR: MATCH SHERWIN WILLIAMS - SW7101 FUTON

C2: CAPITALIZE EACH WORD;
SUBSURFACE CHARACTERS AND PICTOGRAMS;
TYPE FACE (ADA COMPLIANT): CENTURY GOTHIC;
ALIGN TEXT AS INDICATED IN DETAIL;
TEXT COLOR: MATCH SHERWIN WILLIAMS - SW7101 FUTON

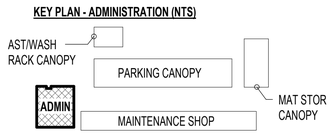
C3: ALL UPPERCASE CHARACTERS;
0.04" TACTILE CHARACTERS AND PICTOGRAMS;
TYPE FACE (ADA COMPLIANT): CENTURY GOTHIC;
CENTER ALIGN, UNLESS OTHERWISE INDICATED IN DETAIL;
GRADE 2 BRAILLE APPROPRIATE TO MESSAGE
TEXT/BRAILLE COLOR: MATCH SHERWIN WILLIAMS - SW7101 FUTON

SIGNAGE SCHEDULE

ADMINISTRATION BUILDING

SIGN NUMBER	SPACE/AREA LOCATION	ROOM NUMBER	DOOR # LOCATION	MOUNTING LOCATION	SIGN TYPE	SIGN MESSAGE
S100A	100 LOBBY	EXT	100A	WALL ON LEFT SIDE OF DOOR	C	<EXIT>
S100B	100 LOBBY	EXT	100B	LATCH SIDE	C	<EXIT>
S100MR-A	100 LOBBY	100MR	100MR-A	LATCH SIDE	D	<MEN>
S100MR-A2	100MR MEN'S RESTROOM	100	100MR-A	LATCH SIDE	C	<EXIT>
S100ML-A	100MR MEN'S RESTROOM	100ML	100ML-A	LATCH SIDE	A.1	<Men's><Locker Room>
S100ML-A2	100ML MEN'S LOCKER ROOM	100MR	100ML-A	LATCH SIDE	A.1	<Men's><Restroom>
S100ML-B	EXTERIOR	100WL	100ML-B	LATCH SIDE	B	<Men's><Locker Room>
S100ML-B2	100ML MEN'S LOCKER ROOM	EXT	100ML-B	LATCH SIDE	C	<EXIT>
S100MS-A	100ML MEN'S LOCKER ROOM	100MS	100MS-A	LATCH SIDE	A.1	<Men's><Shower Room>
S100MS-A2	100MS MEN'S SHOWER	100ML	100MS-A	LATCH SIDE	A.1	<Men's><Locker Room>
S100WR-A	100 LOBBY	100WR	100WR-A	LATCH SIDE	D	<WOMEN>
S100WR-A2	100WR WOMEN'S RESTROOM	100	100WR-A	LATCH SIDE	C	<EXIT>
S100WL-A	100WR WOMEN'S RESTROOM	100WL	100WL-A	LATCH SIDE	A.1	<Women's><Locker Room>
S100WL-A2	100WL WOMEN'S LOCKER ROOM	100WR	100WL-A	LATCH SIDE	A.1	<Women's><Restroom>
S100WL-B	EXTERIOR	100WL	100WL-B	LATCH SIDE	B	<Women's><Locker Room>
S100WL-B2	100WL WOMEN'S LOCKER ROOM	EXT	100WL-B	LATCH SIDE	C	<EXIT>
S100WS-A	100WL WOMEN'S LOCKER ROOM	100WS	100WS-A	LATCH SIDE	A.1	<Women's><Shower Room>
S100WS-A2	100WS WOMEN'S SHOWER	100WL	100WS-A	LATCH SIDE	A.1	<Women's><Locker Room>
S100JC-A	100 LOBBY	100JC	100JC-A	LATCH SIDE	A	<100JC><Janitor's><Closet>
S100BR-A	100 LOBBY	100BR	100BR-A	LATCH SIDE	A	<100BR><Break><Room>
S100BR-A2	100BR BREAK ROOM	100	100BR-A	LATCH SIDE	C	<EXIT>
S100BR-B	EXTERIOR	100BR	100BR-B	LATCH SIDE	B	<Break Room>
S100BR-B2	100BR BREAK ROOM	EXT	100BR-B	LATCH SIDE	C	<EXIT>
S101A	100 LOBBY	101	101A	LATCH SIDE	A	<101><DOT-Harbors><Administration><Office>
S101A2	101 OPEN OFFICE	100	101A	LATCH SIDE	C	<EXIT>
S101B	100 LOBBY	101	101B	LATCH SIDE	A	<101><DOT-Harbors><Administration><Office>
S101B2	101 OPEN OFFICE	100	101B	LATCH SIDE	C	<EXIT>
S102A	101 OPEN OFFICE	102	102A	LATCH SIDE	A.1	<Conference><Room>
S101TE-A	100 LOBBY	101TE	101TE-A	LATCH SIDE	A	<101TE><Telecommunication><Room>
S101EC-A	EXTERIOR	101EC	101EC-A	LATCH SIDE	B	<Electrical>

KEY PLAN - ADMINISTRATION (NTS)



0 4' 8' 16'

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

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

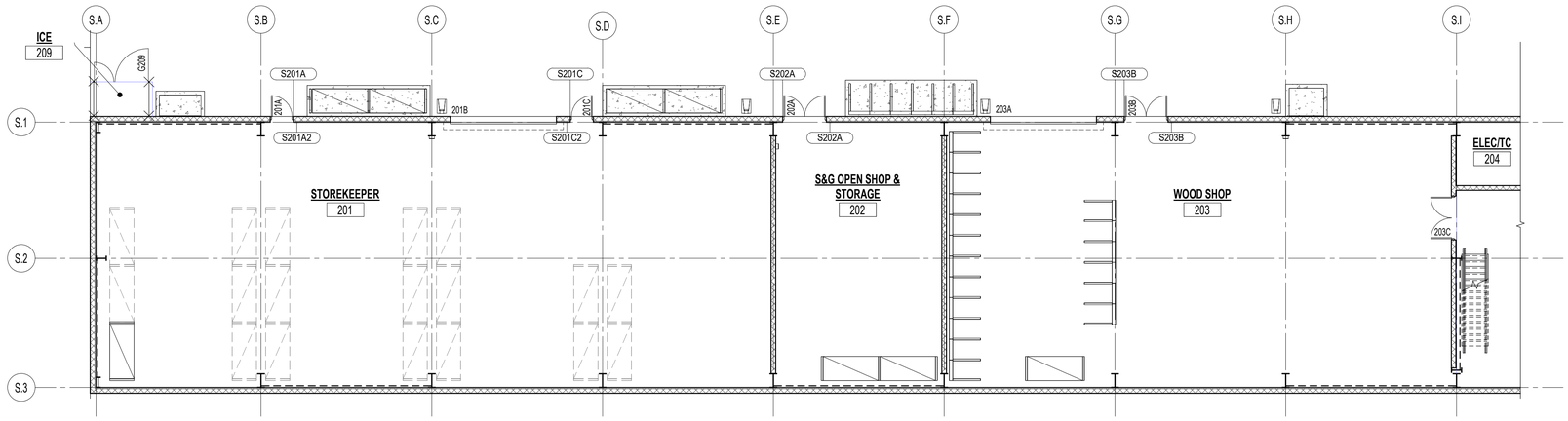
SHEET TITLE
SIGNAGE SCHEDULE & PLAN - ADMINISTRATION

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

JOB NUMBER
P10882

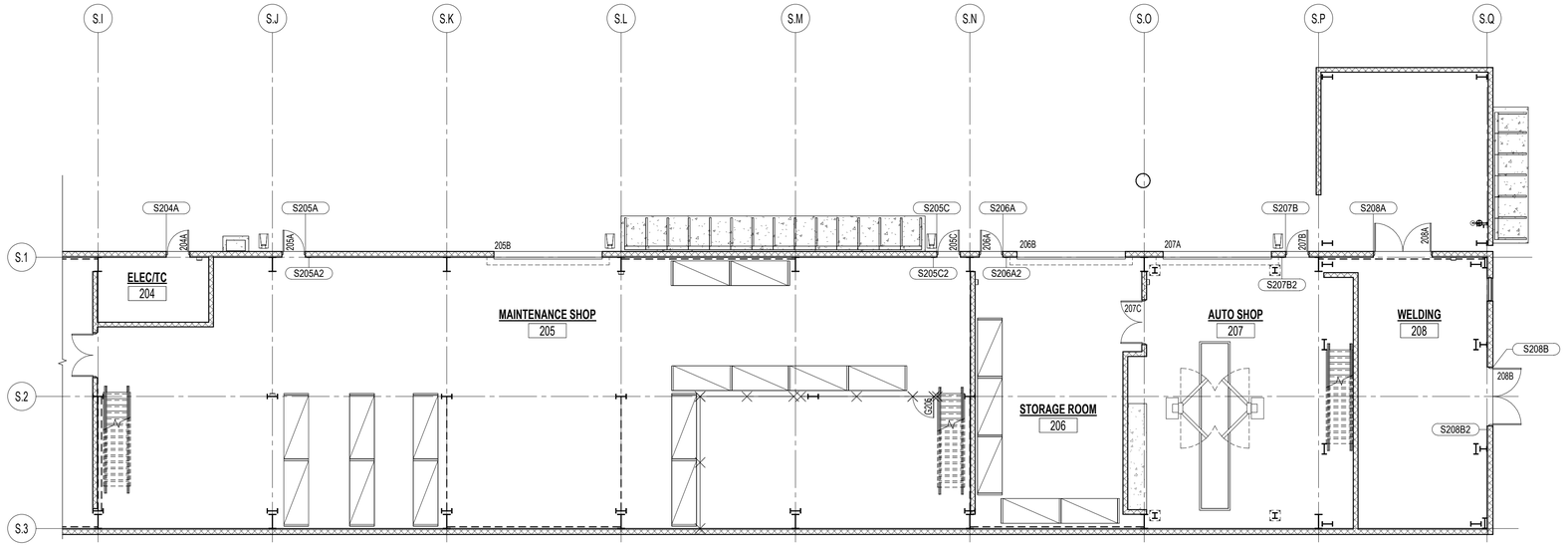
SHEET
A-631
148 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026



A SIGNAGE PLAN - MAINTENANCE SHOP (EWA WING)

3/32" = 1'-0"



B SIGNAGE PLAN - MAINTENANCE SHOP (DIAMOND HEAD WING)

3/32" = 1'-0"

SIGNAGE SCHEDULE

MAINTENANCE SHOP

SIGN NUMBER	SPACE/AREA LOCATION	ROOM NUMBER	DOOR # LOCATION	MOUNTING LOCATION	SIGN TYPE	SIGN MESSAGE
S201A	EXTERIOR	201	201A	PAINTED ON DOOR	H	<201><STOREKEEPER>
S201A2	201 STOREKEEPER	EXT	201A	LATCH SIDE	C	<EXIT>
S201C	EXTERIOR	201	201C	PAINTED ON DOOR	H	<201><STOREKEEPER>
S201C2	201 STOREKEEPER	EXT	201C	LATCH SIDE	C	<EXIT>
S202A	EXTERIOR	202	202A	PAINTED ON DOOR	H	<202><S&G SHOP>
S202A	202 S&G OPEN SHOP & STORAGE	EXT	202A	LATCH SIDE	C	<EXIT>
S203B	EXTERIOR	203	203B	PAINTED ON DOOR	H	<203><WOOD SHOP>
S203B	203 WOOD SHOP	EXT	203B	LATCH SIDE	C	<EXIT>
S204A	EXTERIOR	204	204A	PAINTED ON DOOR	H	<204><ELEC RM>
S205A	EXTERIOR	205	205A	PAINTED ON DOOR	H	<205><MAINT. SHOP>
S205A2	205 MAINTENANCE SHOP	EXT	205A	LATCH SIDE	C	<EXIT>
S205C	EXTERIOR	205	205C	PAINTED ON DOOR	H	<205><MAINT. SHOP>
S205C2	205 MAINTENANCE SHOP	EXT	205C	LATCH SIDE	C	<EXIT>
S206A	EXTERIOR	206	206A	PAINTED ON DOOR	H	<206><STORAGE ROOM>
S206A2	206 STORAGE ROOM	EXT	206A	LATCH SIDE	C	<EXIT>
S207B	EXTERIOR	207	207B	PAINTED ON DOOR	H	<207><AUTO SHOP>
S207B2	207 AUTO SHOP	EXT	207B	LATCH SIDE	C	<EXIT>
S208A	EXTERIOR	208	208A	PAINTED ON DOOR	H	<208><WELDING>
S208B	EXTERIOR	208	208B	PAINTED ON DOOR	H	<208><WELDING>
S208B2	208 WELDING	EXT	208B	LATCH SIDE	C	<EXIT>

SIGNAGE NOTES:

1. FOR SIGN MOUNTING DETAILS, SEE SHTA-003
2. BRAND NAMES, COLORS AND CODE NUMBERS ARE LISTED ONLY FOR REFERENCE AND NOT INTENDED TO LIMIT OTHER MANUFACTURERS. COLORS AND PRODUCTS OF OTHER MANUFACTURERS WITH COMPARABLE QUALITY, COLOR AND TEXTURE ARE ACCEPTABLE.
3. EXIT SIGNS TYPE "C" SHALL BE PROVIDED AND LOCATED AT THE LATCH SIDE OF ALL EXIT DOORS AND EXIT PASSAGEWAY DOORS. EXIT SIGNS MARKING THE PATH OF EGRESS TRAVEL TO EXITS ARE INDICTED IN THE LIFE SAFETY FLOOR PLANS.
4. PROVIDE SIGN TYPE "F" AT ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE PARTITIONS, AND WALLS SEPARATING ELECTRICAL HAZARD CLASSIFIED SPCE. LOCATE SIGNS 2'-0" FROM TOP OF WALL WHERE THERE IS NO FINISHED CEILING. WHERE FINISH CEILING OCCURS, LOCATED SIGNS IN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING, OR ATTIC SPACES. SIGNS SHALL BE LOCATED AT MAX 30'-0" INTERVALS HORIZONTALLY.
5. FIRE EXTINGUISHER SIGN TYPE "G", SHALL BE LOCATED ABOVE FIRE EXTINGUISHERS, TOP OF SIGN AT 8'-0" ABOVE FINISH FLOOR.

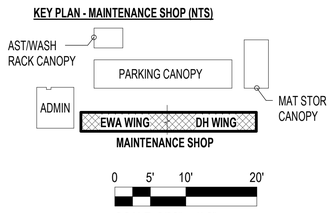
SIGN COPY TYPES (C#):

C1: ALL UPPERCASE CHARACTERS;
0.04" TACTILE CHARACTERS AND PICTOGRAMS;
TYPE FACE (ADA COMPLIANT): CENTURY GOTHIC;
CENTER ALIGN, UNLESS OTHERWISE INDICATED IN DETAIL;
TEXT COLOR: MATCH SHERWIN WILLIAMS - SW7101 FUTON

C2: CAPITALIZE EACH WORD;
SUBSURFACE CHARACTERS AND PICTOGRAMS;
TYPE FACE (ADA COMPLIANT): CENTURY GOTHIC;
ALIGN TEXT AS INDICATED IN DETAIL;
TEXT COLOR: MATCH SHERWIN WILLIAMS - SW7101 FUTON

C3: ALL UPPERCASE CHARACTERS;
0.04" TACTILE CHARACTERS AND PICTOGRAMS;
TYPE FACE (ADA COMPLIANT): CENTURY GOTHIC;
CENTER ALIGN, UNLESS OTHERWISE INDICATED IN DETAIL;
GRADE 2 BRAILLE APPROPRIATE TO MESSAGE
TEXT/BRAILLE COLOR: MATCH SHERWIN WILLIAMS - SW7101 FUTON

KEY PLAN - MAINTENANCE SHOP (NTS)



SCALE: 3/32" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

LAURIE A. CHIKAZAWA — LICENSED PROFESSIONAL ARCHITECT — No. 17476 — HAWAII, USA

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EXP 4-30-28

RMA ARCHITECTS INC

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

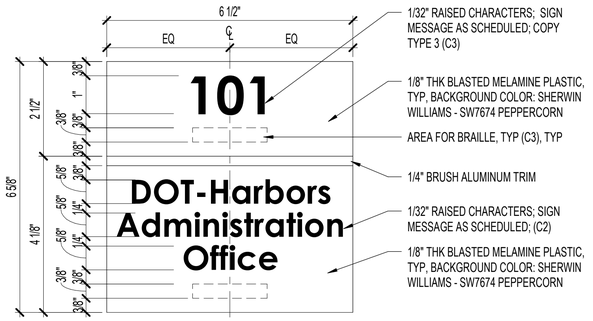
SHEET TITLE
SIGNAGE SCHEDULE & PLANS - MAINTENANCE SHOP

DESIGNED BY:	LC
DRAWN BY:	ER, LC
CHECKED BY:	LC
DATE:	05/2026
SCALE:	AS SHOWN

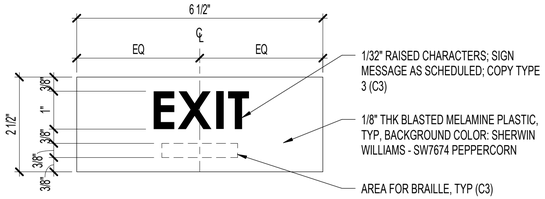
JOB NUMBER
P10882

SHEET
A-632
149 OF 273 SHTS

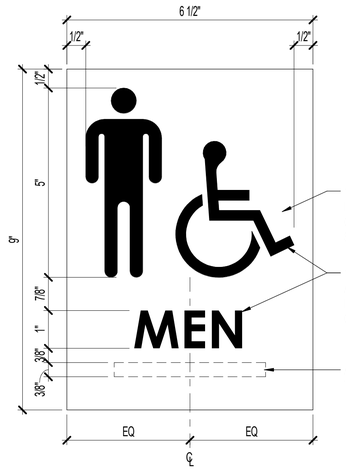
FINAL SUBMITTAL - MAY 2026

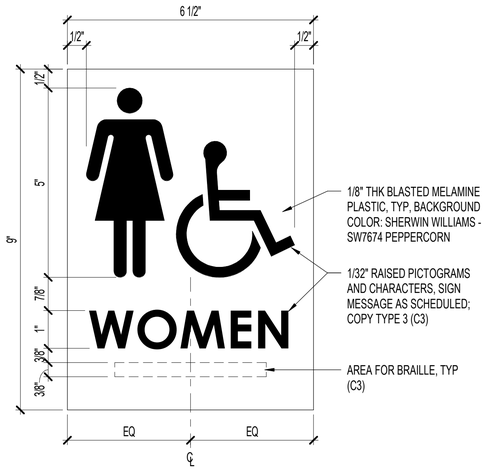


1 SIGN TYPE "A"
6" = 1'-0"



4 SIGN TYPE "C"
6" = 1'-0"





7 SIGN TYPE "D"
6" = 1'-0"

2 SIGN TYPE "A.1"
6" = 1'-0"

5 SIGN TYPE "F"
6" = 1'-0"

11 SIGN TYPE "H" - EXTERIOR SIGNAGE
3/4" = 1'-0"

3 SIGN TYPE "B" - EXTERIOR SIGNAGE
6" = 1'-0"

6 SIGN TYPE "G"
6" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

0 1" 2" 3" 4"
SCALE: 6" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
DETAILS - SIGNAGE

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

DESIGNED BY:	LC
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CHECKED BY:	LC
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SCALE:	AS SHOWN

JOB NUMBER
P10882

SHEET
A-633
150 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

FURNITURE, FIXTURES AND EQUIPMENT (FF&E) LEGEND AND NOTES

ACCESSORIES (AC-#)

AC-1a	WASTE RECEPTACLE, LARGE
AC-1b	[NOT IN USE]
AC-1c	WASTE RECEPTACLE, SMALL
AC-2a	RECYCLING RECEPTACLE, LARGE
AC-2b	RECYCLING RECEPTACLE, SMALL
AC-3	[NOT IN USE]
AC-4	BULLETIN BOARD
AC-5a	SHOWER CURTAIN, 42"W
AC-5b	SHOWER CURTAIN, 108"W
AC-6a	WHITEBOARD, LARGE
AC-6b	WHITEBOARD, SMALL
AC-7	SDS STATION
AC-8	KEY STORAGE, 400 SLOTS
AC-9	HOUSEKEEPING CART
AC-10	VACUUM CLEANER
AC-11	TV MONITOR, 65"
AC-12	TV WALL MOUNT
AC-13	[NOT IN USE]
AC-14	SHREDDER
AC-15	ANTI-FATIGUE MAT

APPLIANCES (AP-#)

AP-1	REFRIGERATOR, RESIDENTIAL
AP-2	COFFEE MAKER
AP-3	MICROWAVE
AP-4a	ICE MACHINE
AP-4b	ICE MACHINE, BIN
AP-4c	ICE MACHINE, CONDENSER

CHAIR (CH-#)

CH-1	CHAIR, GUEST
CH-2a	ADA BENCH, 42"
CH-2b	ADA BENCH, 48"
CH-2c	ADA BENCH, 48" W/ BACK
CH-3	CHAIR, MULTIPURPOSE
CH-4	CHAIR, CONFERENCE
CH-5	CHAIR, TASK
CH-6	STOOL
CH-7	[NOT IN USE]
CH-8	MECHANIC SEAT
CH-9	ADA SHOWER BENCH, FOLDABLE

EXTERIOR (EX-#)

EXT-1	BENCH, EXTERIOR
EXT-2	BULLETIN BOARD, ENCLOSED
EXT-3	WASTE RECEPTACLE, EXTERIOR
EXT-4	SMOKER'S POLE
EXT-5	PICNIC TABLE

STORAGE (ST-#)

ST-1	LOCKER, 75"H
ST-2	LATERAL FILE, 36 X 18
ST-3a	STORAGE SHELF, 3FT
ST-3b	STORAGE SHELF, 60X24
ST-3c	STORAGE SHELF, 48X24
ST-4a	STORAGE CABINET, 48X24
ST-4b	STORAGE CABINET, 60X24
ST-5a	TOOL CABINET, LARGE
ST-5b	[NOT IN USE]
ST-6	SMALL PARTS ORGANIZER, 64 SLOTS
ST-7a	TIRE RACK, SINGLE-SIDED
ST-7b	TIRE RACK, DOUBLE-SIDED
ST-8	BIN, TOOLS

TABLE (T-#)

T-1	TABLE, 60X36
T-2	TABLE, CONFERENCE
T-3	[NOT IN USE]
T-4	TABLE, 30X30

WORKSTATIONS (WS-#)

WS-1a	WORKBENCH, 120X36
WS-1b	WORKBENCH, 72X36
WS-1c	WORKBENCH, 48X36
WS-2	DESK, L-SHAPE
WS-2a	DESK, L-SHAPE W/ MODESTY PANEL
WS-3	DESK, STRAIGHT
WS-4	DESK, TOUCH-DOWN

EXISTING TO BE RELOCATED

	SAW HORSE
	PALLET JACK
	MOP AND WRINGER BUCKET SET
	BROOM AND DUSTPAN SET
	DUST MOP
	HANDTRUCK
	UTILITY CART
	LADDER
	INDUSTRIAL FAN
	STEP STOOL
	PUSH BROOM
	ROLL LADDER
	SPILL KIT
	FLOOR IS WET SIGN
	PAINT STENCIL STORAGE
	FLOOR CREEPER
	OIL DISPOSAL
01	RADIAL ARM SAW, 16", DE WALT
02	STATIONARY CABINET SAW, SAWSTOP
03	SHEAR, BRAKE AND ROLL MACHINE, DAYTON
04	PORTABLE CONCRETE MIXER, MUD MIXER
05	WOODWORKING BANDSAW, 15" JET
06	BELT AND DISC SANDER, POWERMATIC
07	ROLLING MITER SAW W/ STAND, DE WALT
08	RADIAL ARM SAW, 10", DELTA
09	DRILL PRESS, STANDING, DELTA
10	FORKLIFT CHARGER
11	BENCH GRINDER, 8"
12	WATER JETTER, RIGID, KJ-2200
13	DRUM DRAIN, MARATHON
14	DRUM DRAIN, RIGID
15	LATHE, RIGID
16	512A LIFT
17	CHARGER, ASSOCIATED
18	CHARGER, PROLIX
19	BENCH GRINDER, AUTOSHOP
20	VEHICLE LIFT
21	RIM CLAMP TIRE CHANGER, COATS
22	WHEEL BALANCER, COATS
23	GENERATOR SET
24	DRILL PRESS, STANDING, DELTA MODEL 20
25	BANDSAW, WELDING
26	24-36" PLANER
27	6-8" JOINTER
28	LINCOLN IDEALARC 250 AMP SHOP WELDER
29	PAINT TOOL 1
30	CINCINNATI ELECTRICAL CO. 12" BENCH GRINDER
32	UNIVERSAL WET/DRY GRINDER, DELTA
33	BENCH GRINDER, DELTA
34	AIR COMPRESSOR, INGERSOLL RAND
35	DRILL PRESS, FLOOR 120 VAC, DAYTON 17"
36	GRINDER W/ STAND 120 VAC, DAYTON 8"
37	PARTS WASHER
38	FORKLIFT CHARGER, LARGE
41	PAINT STRIPPER
42	MITER SAW, HAND HELD
43	PORTABLE PRESSURE WASHER
E. CAB	STORAGE CABINET, 60X24, STRONGHOLD
E. CAB	STORAGE CABINET, JUSTRITE
E. CAB	HILTI CABINET
E. CAB	TOOL CABINET, LARGE, SNAP-ON
E. CT	WOOD MOBILE CART
E. CT	PLATFORM CART
E. FC	FLAMMABLE CABINET, 60 GAL
E. FC	FLAMMABLE CABINET, 55 GAL
E. FC	FLAMMABLE CABINET, 45 GAL
E. FC	FLAMMABLE CABINET, 30 GAL
E. FC	FLAMMABLE CABINET, 22 GAL
E. FC	FLAMMABLE CABINET, 90 GAL
E. LKR	LOCKER, 18X24
E. LKR	GAS CYLINDER LOCKER, 31X30
E. RK	SPOOL RACK
E. ST	OIL STORAGE PALLET, ENPAC
E. ST	SIGN STORAGE SHELF
E. TK	WATER TANK
E. VAC	WET/DRY VACUUM (SHOP VAC)
E. WB	WORKBENCH, 42X24
E. WS	WORKSTATION 1, WELDING
E. WS	WORKSTATION 2, WELDING

END USER PROVIDED

31	KEY CUTTING STATION
39	PORTABLE WELDER
40	GAS CART

FF&E LEGEND



FF&E ITEMS

EXISTING TO BE RELOACTED OR END USER PROVIDED



NEW FF&E TAGS

FURNITURE CATEGORY TAG

A	= ARTWORK
AC	= ACCESSORIES
AP	= APPLIANCES
CH	= CHAIR
E	= EQUIPMENT
EX	= EXTERIOR
ST	= STORAGE
T	= TABLE
WS	= WORKSTATION



EXISTING FF&E TAGS

EXISTING FURNITURE CATEGORY TAG

#	= EXISTING EQUIPMENT	
E. CAB	= "	" CABINETS
E. CT	= "	" CART
E. FC	= "	" FLAMMABLE CABINET
E. LKR	= "	" LOCKER
E. RK	= "	" RACK
E. ST	= "	" STORAGE
E. TK	= "	" WATER TANK
E. VAC	= "	" SHOP VACUUM
E. WB	= "	" WORKBENCH
E. WS	= "	" WORKSTATION

FF&E NOTES:

1. THE FF&E INCLUDES OFFICE FURNITURE, STORAGE AND SHOP EQUIPMENT.
2. FURNITURE LAYOUT IS SHOWN FOR REFERENCE ONLY.
3. MANUFACTURERS ARE LISTED FOR REFERENCE TO ESTABLISH LEVEL OF QUALITY, COLOR, TEXTURE, ETC. AND NOT INTENDED TO LIMIT PRODUCTS FROM OTHER MANUFACTURERS. PRODUCTS OF OTHER MANUFACTURERS WITH COMPARABLE QUALITY, COLOR, AND TEXTURE, ETC. THAT MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ARE ACCEPTABLE.
4. THE FF&E SHOWN ON THE "I" SHEETS ARE TO PROCURE AND SUPERVISE INSTALLATION OF THE FF&E, UNLESS INDICATED AS 'EXISTING' OR 'END USER PROVIDED'.

REVISION	DATE	DESCRIPTION	BY	APPROVED

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
HAWAII, USA

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EXP 4-30-28

RMA ARCHITECTS INC

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
FF&E LEGEND AND NOTES

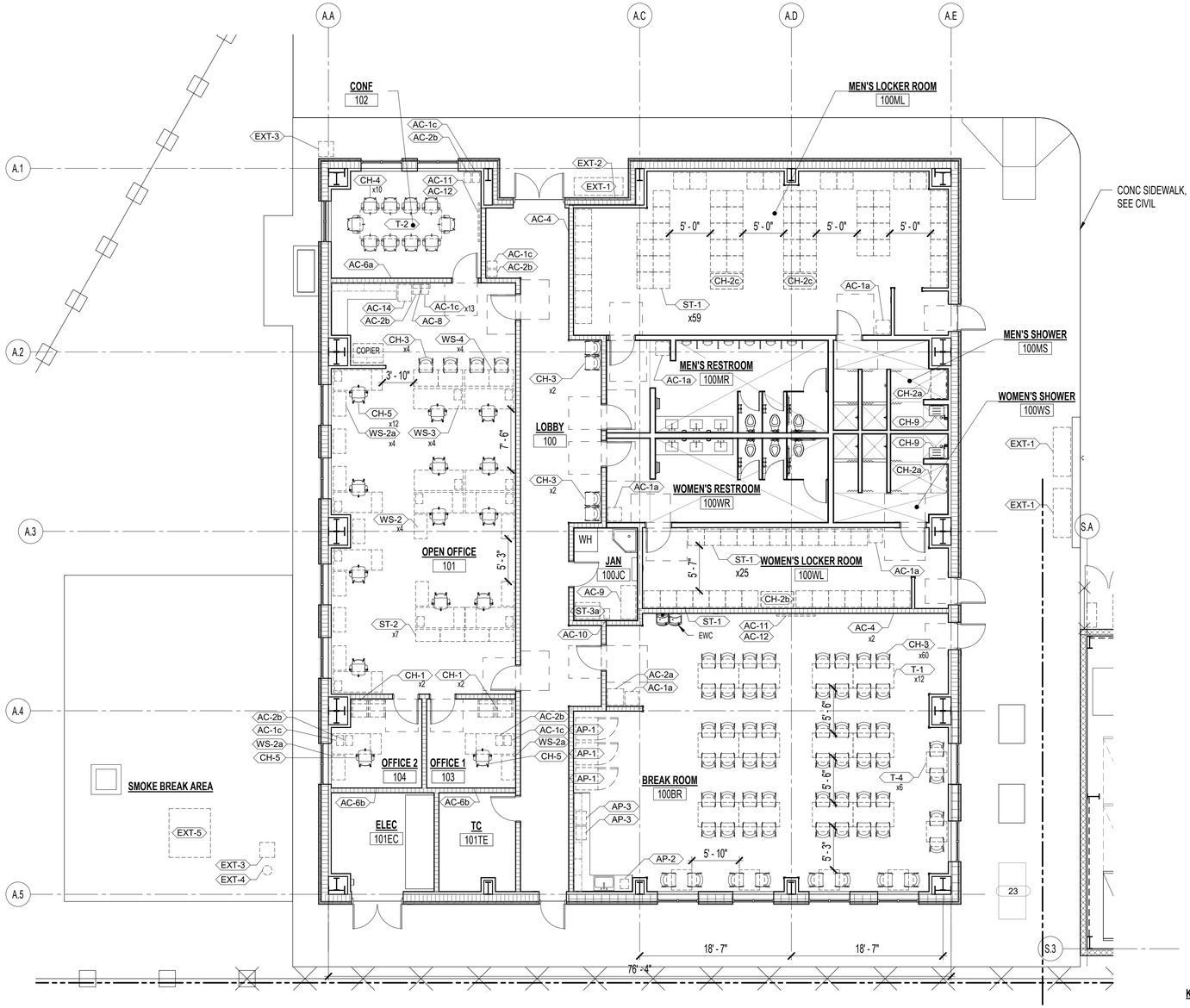
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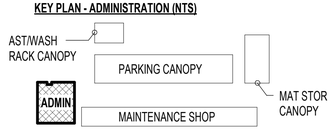
JOB NUMBER
P10882

SHEET
I-001
151 OF 273 SHTS

FINAL SUBMITTAL - MAY 2026

FF&E NOTES:
1. SEE SHEET 1-001 - FF&E LEGEND & NOTES FOR CORRESPONDING CODES .





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

A FIRST FLOOR FF&E PLAN - ADMINISTRATION
1/8" = 1'-0"

PLAN NORTH

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DEPARTMENT OF TRANSPORTATION
HARBORS

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
FIRST FLOOR FF&E PLAN - ADMINISTRATION

LAURIE A. CHIKAZAWA
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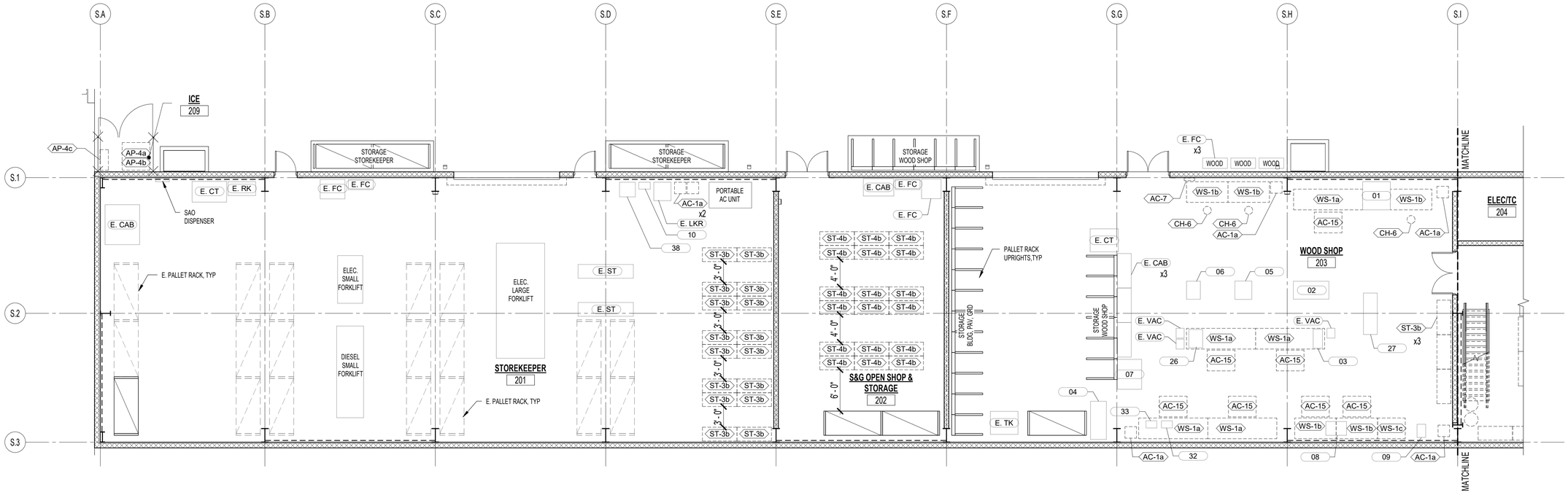
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JOB NUMBER
P10882

SHEET
I-101
152 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

FF&E NOTES:
1. SEE SHEET 1-001 - FF&E LEGEND & NOTES FOR CORRESPONDING CODES .

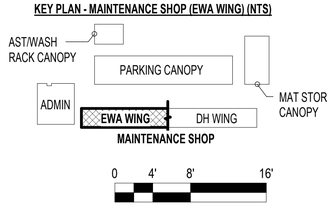


A FIRST FLOOR FF&E PLAN - MAINTENANCE SHOP (EWA WING)

1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (EWA WING) (NTS)



0 4' 8' 16'

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

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JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
FIRST FLOOR FF&E PLAN - MAINTENANCE SHOP (EWA WING)

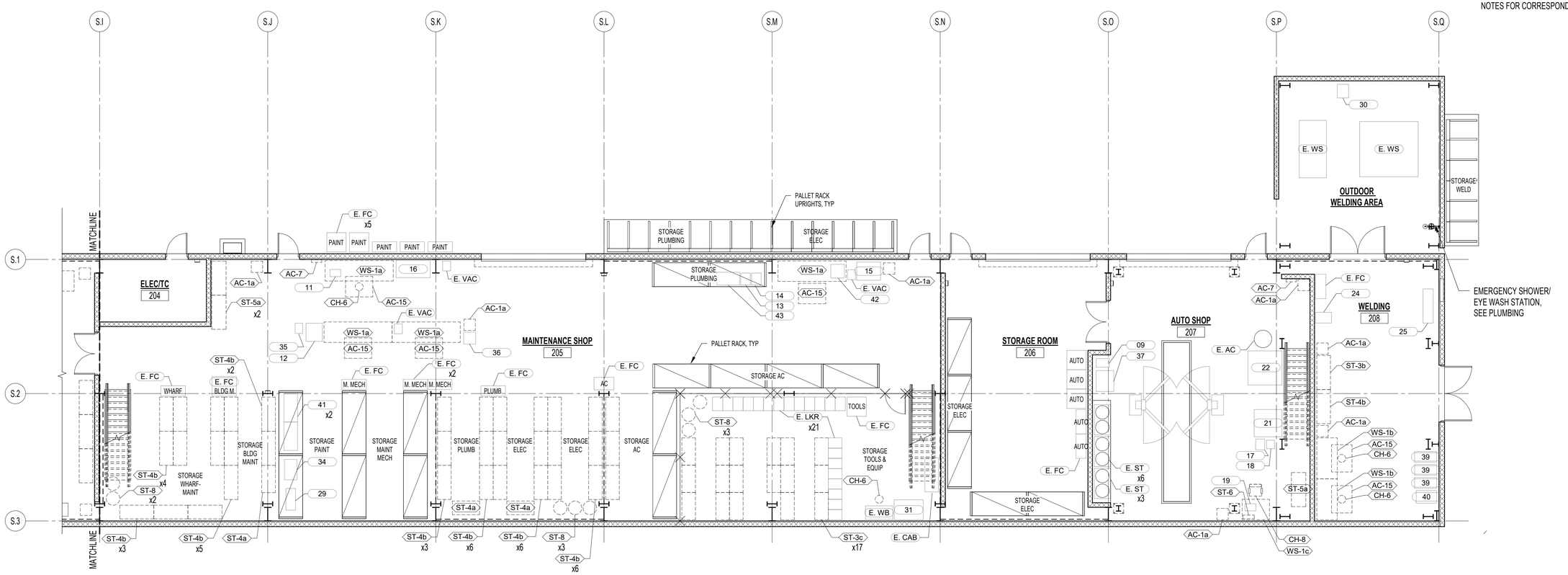
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SCALE:	AS SHOWN

JOB NUMBER
P10882

SHEET
I-111
153 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

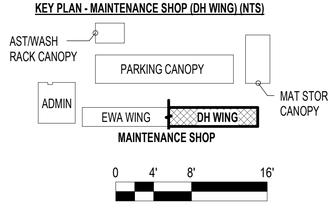
FF&E NOTES:
1. SEE SHEET 1-001 - FF&E LEGEND & NOTES FOR CORRESPONDING CODES .



A FIRST FLOOR FF&E PLAN - MAINTENANCE SHOP (DIAMOND HEAD WING)
1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (DH WING) (NTS)



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

LAURIE A. CHIKAZAWA
LICENSED PROFESSIONAL ARCHITECT
No. 17476
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

RMA ARCHITECTS INC

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

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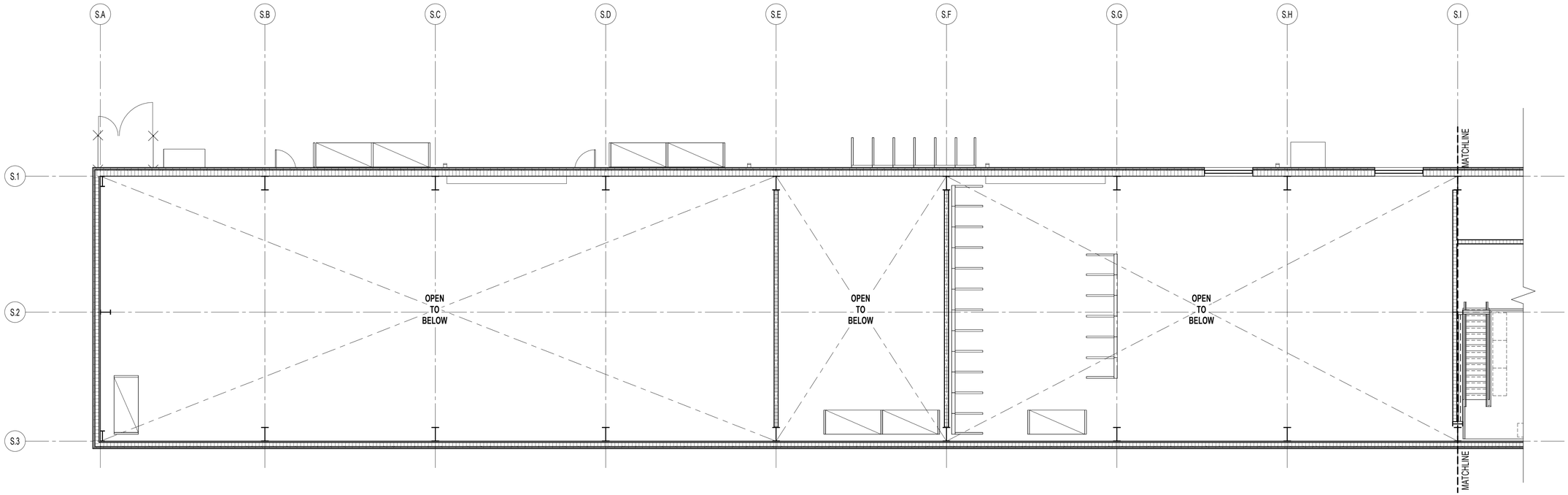
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SHEET
I-112
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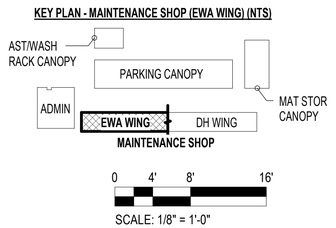
FF&E NOTES:
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A MEZZANINE FF&E PLAN - MAINTENANCE SHOP (EWA WING)
1/8" = 1'-0"

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KEY PLAN - MAINTENANCE SHOP (EWA WING) (NTS)



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

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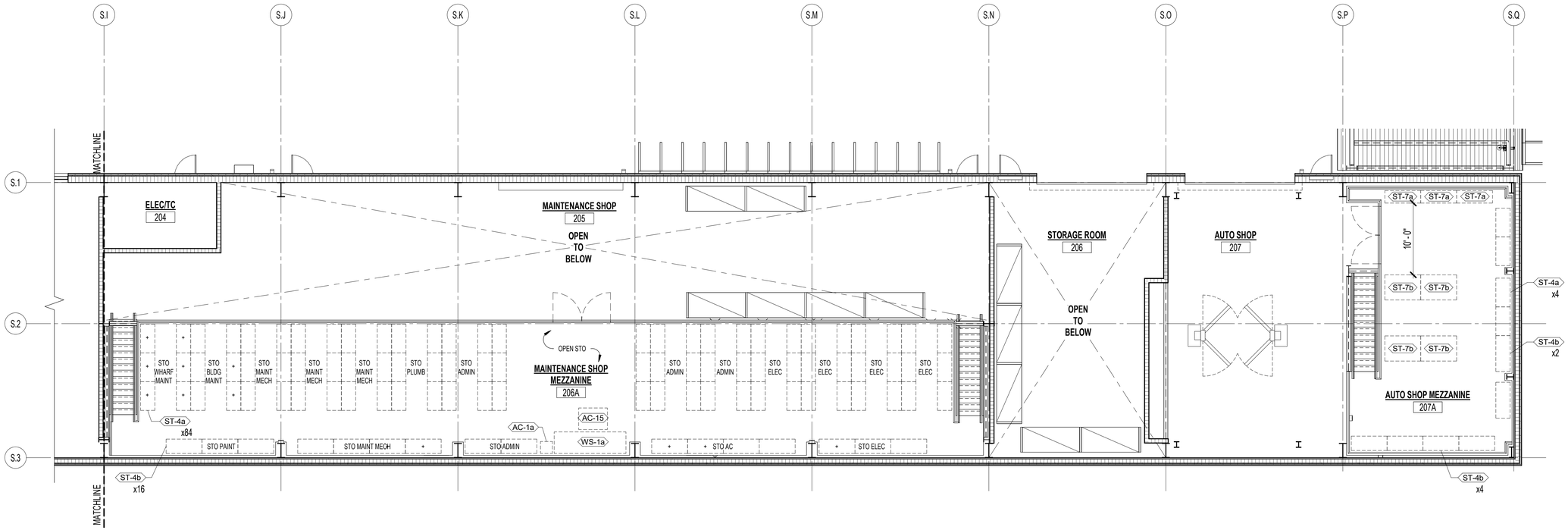
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P10882

SHEET
I-113
155 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

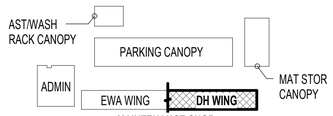
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A MEZZANINE FF&E PLAN - MAINTENANCE SHOP (DIAMOND HEAD WING)
1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (DH WING) (NTS)



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

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BASEYARD RELOCATION AT AUIKI STREET

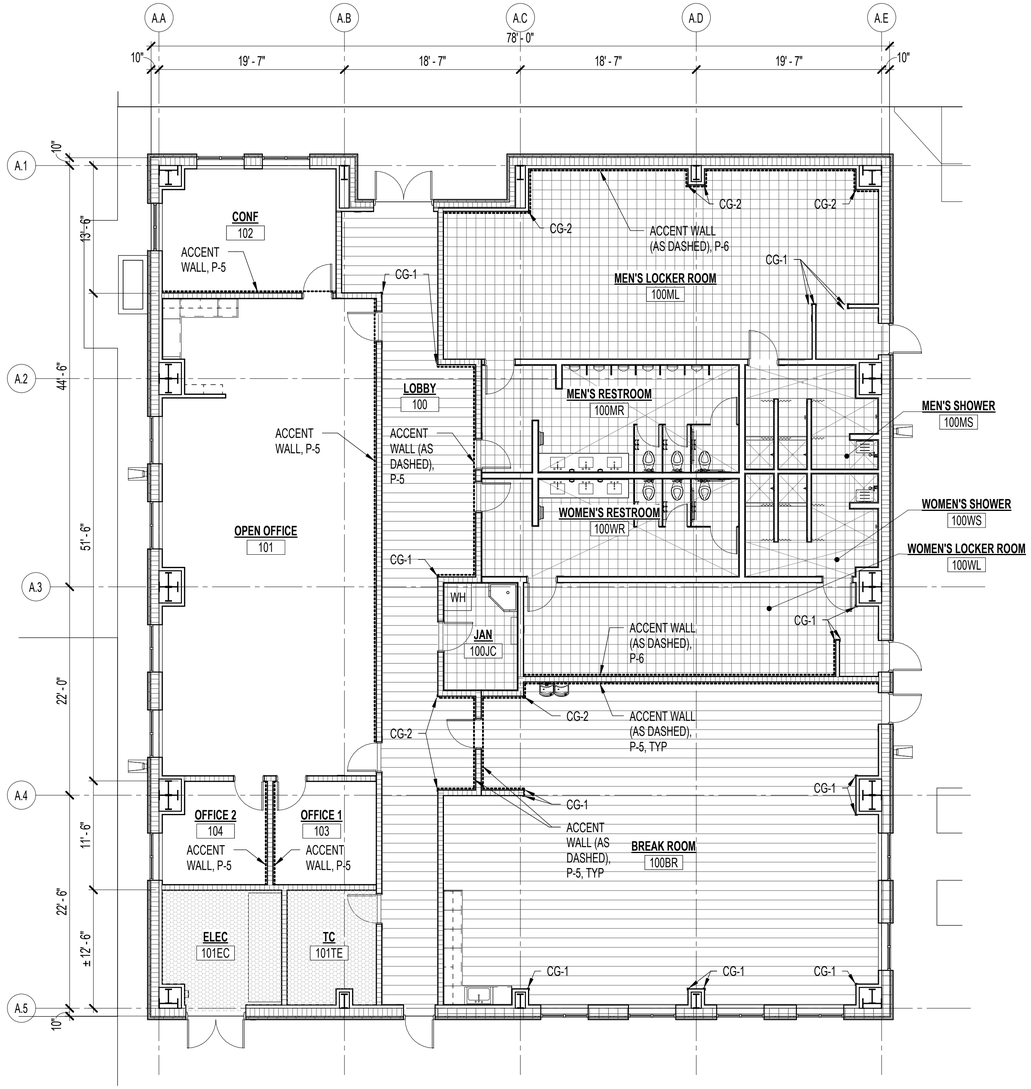
SHEET TITLE
MEZZANINE FF&E PLAN - MAINTENANCE SHOP (DIAMOND HEAD WING)

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SHEET
I-114
156 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026



A INTERIOR FINISH PLAN - ADMINISTRATION

1/8" = 1'-0"

PLAN NORTH

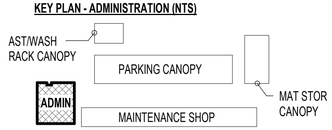
FINISH LEGEND

CPT-#	CARPET TILE
ESDEF-#	ELECTROSTATIC DISSIPATIVE EPOXY FLOORING
LVT-#	LUXURY VINYL TILE
PT-#	PORCELAIN TILE
P-#	ACCENT WALL LOCATIONS

NOTE:

1. FOR CEILING FINISHES, REFER TO ARCH REFLECTED CEILING PLANS.

KEY PLAN - ADMINISTRATION (NTS)



0 4' 8' 16'

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

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RMA ARCHITECTS INC

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
INTERIOR FINISH PLAN - ADMINISTRATION

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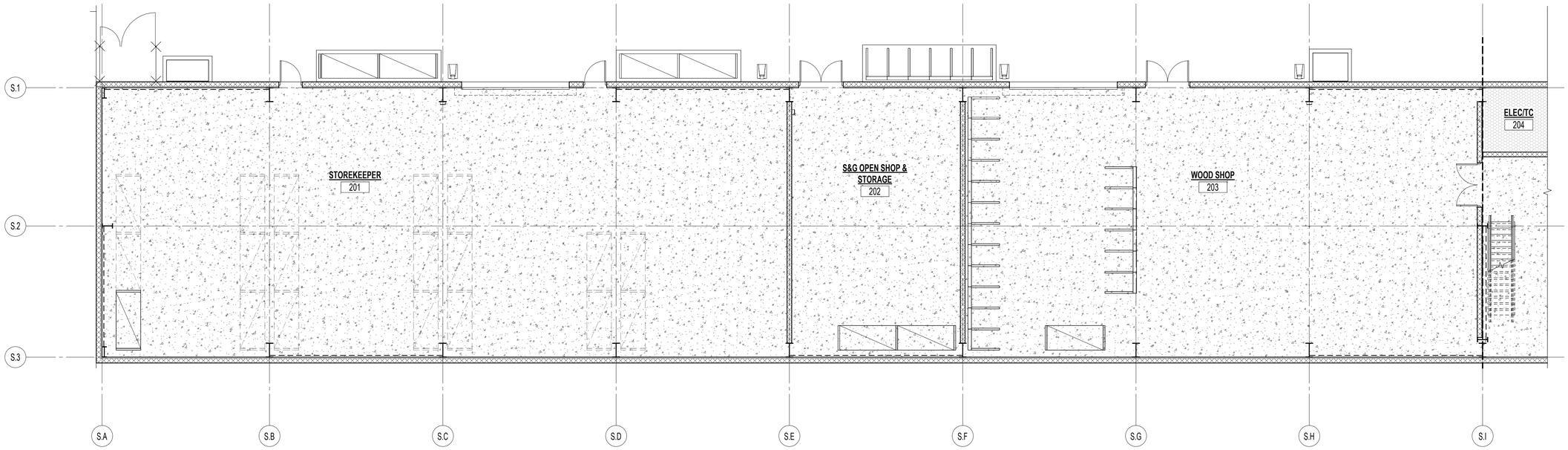
SHEET
I-121
157 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

FINISH LEGEND

	CONC-X	CONCRETE
	EF-X	EPOXY FLOORING
	ESDEF-X	ELECTROSTATIC DISSIPATIVE EPOXY FLOORING

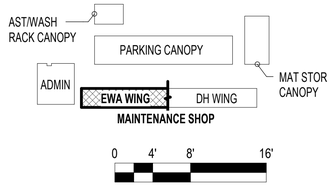
NOTE:
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A INTERIOR FINISH PLAN - MAINTENANCE SHOP (EWA WING)
1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (EWA WING) (NTS)



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

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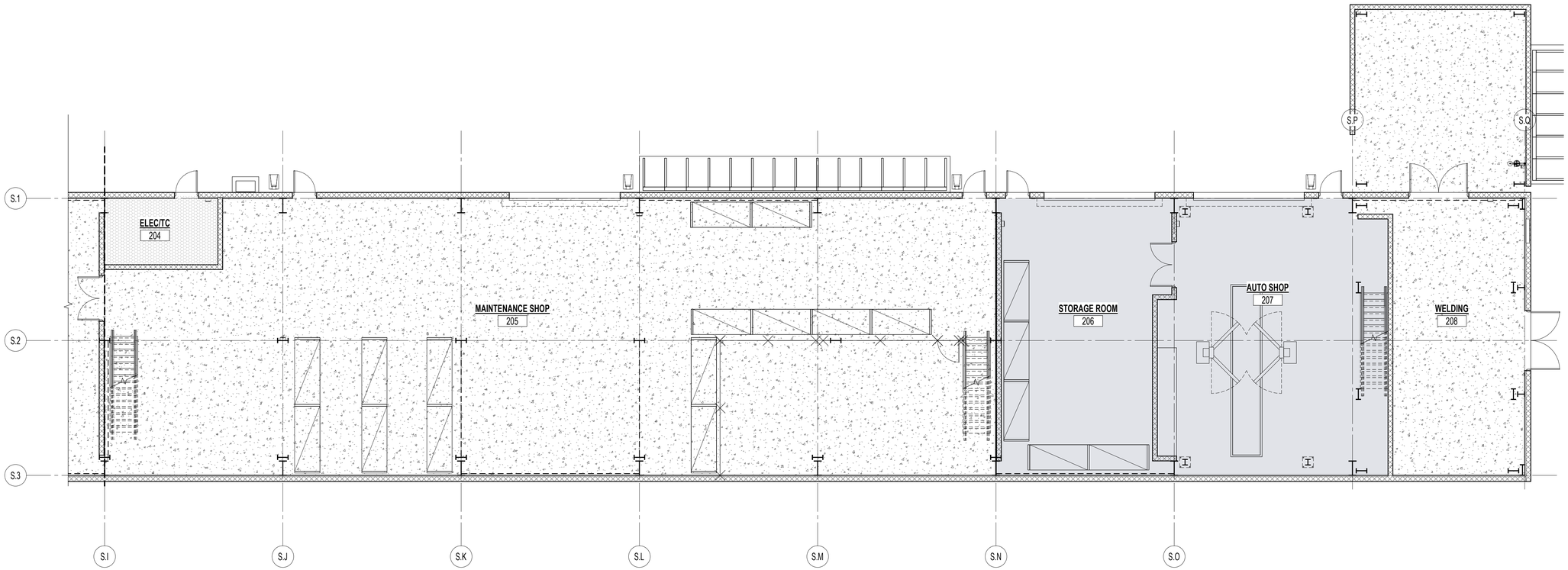
SHEET
I-122
158 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

FINISH LEGEND

	CONC-X	CONCRETE
	EF-X	EPOXY FLOORING
	ESDEF-X	ELECTROSTATIC DISSIPATIVE EPOXY FLOORING

NOTE:
1. FOR CEILING FINISHES, REFER TO ARCH REFLECTED CEILING PLANS.

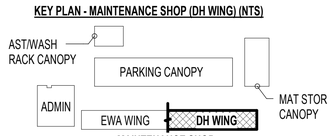


A INTERIOR FINISH PLAN - MAINTENANCE SHOP (DIAMOND HEAD WING)

1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (DH WING) (NTS)



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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
INTERIOR FINISH PLAN - MAINTENANCE SHOP (DIAMOND HEAD WING)

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I-123
159 OF 273 SHTS.

FINAL SUBMITTAL - MAY 2026

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FIRE SAFETY NOTES

1. FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH CHAPTER 16, 2021 NFPA 1, AS AMENDED.
2. WHERE BUILDING ALTERATIONS REQUIRED MODIFICATIONS OF EXISTING FIRE SUPPRESSION SYSTEMS, THE CONTRACTOR SHALL IMPAIR ONLY SECTIONS OF THE SYSTEM WHERE THE WORK IS INVOLVED AND THE REMAINDER OF THE SYSTEM SHALL BE KEPT IN SERVICE. PRIOR TO IMPAIRING THE WATER SUPPLY TO ANY FIRE SUPPRESSION SYSTEM, THE CONTRACTOR SHALL COMPLY WITH ALL PROVISION OF NFPA 1, 2021, CHAPTER 16.
3. WHERE THE BUILDING IS PROTECTED BY FIRE PROTECTION SYSTEMS, SUCH SYSTEMS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES DURING ALTERATION.
4. WHERE ALTERATION REQUIRES MODIFICATION OF A PORTION OF THE FIRE PROTECTION SYSTEM, THE REMAINDER OF THE SYSTEM SHALL BE KEPT IN SERVICE AND THE FIRE DEPARTMENT SHALL BE NOTIFIED.
5. WHEN IT IS NECESSARY TO SHUT DOWN THE SYSTEM, THE AHJ SHALL HAVE THE AUTHORITY TO ENFORCE ALTERNATE MEASURES OF PROTECTION UNTIL THE SYSTEM IS RETURNED TO SERVICE.
6. AS NECESSARY DURING EMERGENCIES, MAINTENANCE DRILLS, PRESCRIBED TESTING, ALTERATIONS, OR RENOVATIONS, PORTABLE OR FIXED FIRE-EXTINGUISHING SYSTEMS OR DEVICES OR ANY FIRE-WARNING SYSTEM SHALL BE PERMITTED TO BE MADE INOPERABLE OR INACCESSIBLE. A FIRE WATCH SHALL BE REQUIRED AS SPECIFIED IN NFPA 1, AS AMENDED, AT NO COST TO THE AHJ.
7. STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND CHAPTER 16, 2021 PER NFPA 1, AS AMENDED.
8. THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE THAT CONSTRUCTION DOCUMENTS FOR ALL FIRE PROTECTION SYSTEMS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL AND A PERMIT BE ISSUED PRIOR TO THE INSTALLATION, REHABILITATION, OR MODIFICATION. FURTHER, THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE THAT FULL ACCEPTANCE TESTS OF THE SYSTEMS BE PERFORMED IN THE AHJ'S PRESENCE PRIOR TO FINAL SYSTEM CERTIFICATION.
9. FIRE ALARM SYSTEMS, FIRE HYDRANT SYSTEMS, FIRE-EXTINGUISHERS, STANDPIPES, AND OTHER FIRE PROTECTION SYSTEMS AND APPURTENANCES REQUIRED BY THIS CODE SHALL BE APPROVED BY THE AHJ AS TO INSTALLATION AND LOCATION AND SHALL BE SUBJECT TO ACCEPTANCE TESTS REQUIRED BY THE APPROPRIATE COUNTY AGENCY. A COPY OF A SYSTEM'S UNSATISFACTORY INSPECTION AND MAINTENANCE TEST REPORT SHALL BE SUBMITTED TO THE AHJ BY TESTING COMPANY WITHIN (5) WORKING DAYS AFTER THE COMPLETION OF THE TEST. NFPA 1, CHAPTER 13 AS AMENDED.
10. NFPA 1 SECTION 1.14.4 - REVIEW AND APPROVAL BY THE AHJ SHALL NOT RELIEVE THE APPLICANT OF THE RESPONSIBILITY OF COMPLIANCE WITH THIS CODE.
11. NFPA 1 SECTION 1.3.6.3 - REPAIRS, RENOVATIONS, ALTERATIONS, RECONSTRUCTION, CHANGE OF OCCUPANCY, AND ADDITIONS TO BUILDINGS SHALL CONFORM TO THIS CODE, NFPA 101, AND THE BUILDING CODE.
12. NFPA 1 SECTION 13.7.3.2.1.3 - BEFORE REQUESTING FINAL APPROVAL OF INSTALLATION, IF REQUIRED BY THE AHJ, THE INSTALLING CONTRACTOR SHALL FURNISH A WRIITTEN STATEMENT STATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH APPROVED PLANS AND TESTED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS AND THE APPRORIATE NFPA REQUIREMENTS.
13. NFPA 1 SECTION 13.7.3.2.1.4 - THE RECORD OF COMPLETION FORM, FIGURE 10.18.2.1.1 OF NFPA 72 SHALL BE PERMITTED TO BE A PART OF THE WRITTEN STATEMENT REQUIRED IN 13.7.3.2.1.3. WHEN MORE THAN ONE CONTRACTOR HAS BEEN RESPONSIBLE FOR THE INSTALLATION, EACH CONTRACTOR SHALL COMPLETE THE PORTIONS OF THE FORM FOR WHICH THAT CONTRACTOR HAD RESPONSIBILITY.
14. NFPA 1 SECTION 16.1.1 - STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND THIS CHAPTER. 2021 NFPA 1.
15. ROH SECTION 18-5.2 - ONE SET OF APPROVED PLANS, SPECIFICATIONS, AND COMPUTATIONS SHALL BE RETAINED BY THE BUILDING OFFICIAL FOR A PERIOD OF NOT LESS THAN 90 DAYS FROM DATE OF COMPLETION OF THE WORK COVERED THEREIN, AND ONE SET OF APPROVED PLANS SHALL BE RETURNED TO THE APPLICANT, AND SAID SET SHALL BE KEPT ON THE SITE OF THE BUILDING OR WORK AT ALL TIMES DURING WHICH THE WORK AUTHORIZED THEREBY IS IN PROGRESS.

FIRE PROTECTION GENERAL NOTES

1. FIRE PROTECTION SYSTEM DESIGN, INSTALLATION, MATERIALS, AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE, AS AMENDED AND THE 2021 NFPA 1 UNIFORM FIRE CODE, AS AMENDED.
2. PROVIDE APPROVED FIRESTOPPING MATERIALS FOR ALL PIPE AND CONDUITS PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS, AND CEILING ASSEMBLIES. SEE ARCH DRAWINGS FOR LOCATION OF RATED WALLS, PARTITIONS, AND CEILING ASSEMBLIES.
3. FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH CHAPTER 16, 2021 NFPA 1, AS AMENDED.
4. SEE ELECTRICAL DRAWINGS FOR BUILDING FIRE ALARM SYSTEM.

FIRE SPRINKLER SYSTEM NOTES

1. THESE FIRE SPRINKLER PLANS ARE CONCEPTUAL AND ARE NOT INTENDED TO BE WORKING DRAWINGS. TWO (2) SETS OF COMPLETE WORKING PLANS (SHOP DRAWINGS), HYDRAULIC CALCULATIONS, AND MANUFACTURER'S DATA, PREPARED IN ACCORDANCE WITH NFPA 13, REVIEWED AND STAMPED BY A LICENSED PROFESSIONAL, SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO INSTALLATION. ONE SET OF AS-BUILT DRAWINGS STAMPED AND SIGNED BY A HAWAII LICENSED MECHANICAL ENGINEER WITH THE FPSI APPROVAL STAMP SHALL BE SUBMITTED TO THE DPP BUILDING DIVISION ALONG WITH THE FPSI FINAL REPORT/LETTER PRIOR TO CLOSING OF THE BUILDING.
2. ALL DEVICES AND EQUIPMENT SHALL BE UL LISTED OR FM APPROVED.

FIRE SPRINKLER SYSTEM NOTES (CONT.)

3. DESCRIPTION:

   PROVIDE WET PIPE FIRE SPRINKLER PROTECTION THROUGHOUT INDICATED BUILDINGS TO PROVIDE 100% COVERAGE.

4. THE SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13 AND AS FOLLOWS:

   MAINTENANCE SHOP AND PARKING CANOPY:

   OCCUPANCY CLASSIFICATION AND DESIGN CRITERIA:

   SEE SHEETS F-404, F-405, AND F-406 FOR OCCUPANCY CLASSIFICATIONS AND DESIGN CRITERIA

   FIRE SPRINKLER INFORMATION:

   SEE SHEET F-002 FOR FIRE SPRINKLER LEGEND

5. WATER SUPPLY INFORMATION: (BOARD OF WATER SUPPLY LETTER DATED 06/09/2023 FOR WATER SUPPLY ALONG AUIKI ST)

   LOCATION: FIRE HYDRANT FH #M05589

STATIC PRESSURE:	76 PSI
RESIDUAL PRESSURE:	58 PSI
FLOW AT RESIDUAL PRESSURE:	4,000 GPM

6. DESIGN AND INSTALLATION

   FIRE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13 THE HYDRAULIC CALCULATIONS SHALL INCLUDE A 10 PSI SAFETY FACTOR BETWEEN THE AVAILABLE WATER SUPPLY AND THE SYSTEM DEMAND, INCLUDING THE HOSE STREAM ALLOWANCE.

7. PROPER TYPES OF SPARE SPRINKLERS, STOPPERS, AND WRENCHES SHALL BE PROVIDED AND STORED IN A CABINET AT THE RISER AS FOLLOWS:

   A. SPRINKLERS:

LESS THAN 300 SPRINKLERS	MINIMUM 6 SPARE SPRINKLERS
300 TO 1000 SPRINKLERS	MINIMUM 12 SPARE SPRINKLERS
MORE THAN 1000 SPRINKLERS	MINIMUM 24 SPARE SPRINKLERS

   B. THREE (3) SPRINKLER STOPPERS

   C. ONE (1) SPRINKLER WRENCH

   THE STOCK OF SPARE SPRINKLERS, STOPPERS AND WRENCHES SHALL INCLUDE ALL TYPES, RATINGS AND SIZES INSTALLED IN THE SYSTEM

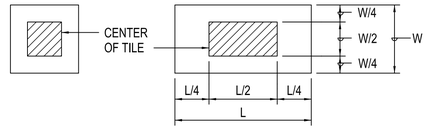
8. FIRE SPRINKLER AND PIPING LAYOUTS ARE CONCEPTUAL. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE LOCATION OF ALL SPRINKLER COMPONENTS RELATIVE TO PARTITIONS, LIGHT FIXTURES, MECHANICAL DUCTWORK, MECHANICAL PIPES, CABLE TRAYS, ELECTRICAL CONDUIT, STRUCTURAL MEMBERS, ARCHITECTURAL FEATURES, AUDIOVISUAL EQUIPMENT, SIGNAGE, FIXED FURNITURE, OFFICE PARTITIONS, POWER POLES, ETC.
8. FIRE SPRINKLER RISERS SHALL BE INSTALLED CLEAR OF WINDOWS AND OTHER OPENINGS AT THE LOCATIONS SHOWN.
10. FIRE SPRINKLER PIPING SHALL BE PROVIDED WITH SWAY BRACING AND BRANCH LINE RESTRAINT IN ACCORDANCE WITH NFPA 13.
11. PROVIDE FIRE SPRINKLERS UNDER FIXED OBSTRUCTIONS (DUCTS, SOFFITS, ETC.) OVER 4 FT. IN WIDTH.
12. PIPING:

    FIRE SPRINKLER PIPING SHALL COMPLY WITH NFPA 13, EXCEPT THAT PLASTIC PIPE AND COPPER TUBING WILL NOT BE PERMITTED. ALL PIPING SHALL BE STEEL. PIPING LESS THAN 2.5 INCHES SHALL BE SCHEDULE 40. PIPING 2.5 INCHES AND LARGER SHALL BE SCHEDULE 10 OR 40.

13. SPRINKLER PIPING IN FINISHED AREAS SHALL BE CONCEALED FROM VIEW. IN AREAS WITH UNFINISHED CEILINGS, EXPOSED SPRINKLER PIPING AND FITTINGS SHALL BE PAINTED TO MATCH EXISTING AREA.
14. FIRE SPRINKLER PIPING AND HANGERS SHALL NOT TOUCH OR BE USED TO SUPPORT NON-SYSTEM COMPONENTS (CONDUITS, CABLES, MECHANICAL, DUCTWORK, CEILING, GRID, ETC.)
15. FIRE SPRINKLER PIPING SHALL NOT BE ROUTED BELOW AIR HANDLING UNITS OR OBSTRUCT MAINTENANCE ACCESS TO AIR CONDITIONING, PLUMBING, ELECTRICAL, OR TELECOMMUNICATION EQUIPMENT.
16. IN DEDICATED ELECTRICAL ELECTRONICS, I.T. CEILING AND SIMILAR ROOMS WITH EXPOSED CEILING, FIRE SPRINKLERS AND PIPING SHALL NOT BE ROUTED DIRECTLY ABOVE ELECTRICAL PANELS, SERVER RACKS, EQUIPMENTS (E.G. TRANSFORMERS, ETC.)
17. PROVIDE APPROVED FIRESTOPPING MATERIAL IN ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND FLOOR/CEILING ASSEMBLIES.
18. PROVIDE LISTED GUARDS WHERE FIRE SPRINKLERS ARE SUBJECT TO MECHANICAL DAMAGE, WHERE FIRE SPRINKLER DEFLECTOR IS LOCATED LESS THAN 7'-0" ABOVE FINISHED FLOOR, AND WHERE INDICATED ON DRAWINGS.

FIRE SPRINKLER SYSTEM NOTES (CONT.)

19. FIRE SPRINKLER HEADS SHALL BE PLACED APPROXIMATELY IN THE CENTER OF THE CEILING TILE WHEREVER POSSIBLE. THE CENTER SHALL MEAN WITHIN THE CENTER 50% OF THE TILE, AS SHOWN.



20. TESTING:

    PERFORM OPERATIONAL AND HYDROSTATIC TESTS FOR FIRE SPRINKLER PIPING IN ACCORDANCE WITH NFPA 13.

21. FIRE SPRINKLER SHALL BE SUPERVISED FOR WATERFLOW AND VALVE TAMPER BY THE BUILDING FIRE ALARM SYSTEM IN ACCORDANCE WITH 2018 IBC SECTION 903.4, AS AMENDED.
22. SEE ELECTRICAL DRAWINGS FOR CONNECTION OF WET PIPE SPRINKLER SYSTEM WATERFLOW, PRESSURE, AND TAMPER SWITCHES TO THE BUILDING FIRE ALARM SYSTEM. WIRING AND MODULES BY ELECTRICAL CONTRACTOR.

FIRE SPRINKLER UNDERGROUND NOTES:

1. UNDERGROUND FIRE PROTECTION WATER LINE DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 24 AND STATE OF HAWAII WATER SYSTEM STANDINGS.
2. PROVIDE AWWA C901 SDR 11 HDPE PIPING AND FITTING FOR UNDERGROUND PIPING.
3. DEVICES AND EQUIPMENT SHALL BE UL LISTED OR FM APPROVED FOR UNDERGROUND FIRE SERVICE.
4. DEPTH COVER SHALL BE IN ACCORDANCE WITH NFPA 13.
5. PROVIDE THRUST BLOCK RESTRAINT AT CHANGES IN DIRECTION OF PIPE.
6. PROVIDE HYDROSTATIC TESTING AND FLUSHING OF NEW UNDERGROUND PIPING IN ACCORDANCE WITH NFPA 24.

FIRE EXTINGUISHER NOTES

1. PROVIDE PORTABLE FIRE EXTINGUISHERS IN ACCORDANCE WITH NFPA 10, AS AMENDED.
2. FIRE EXTINGUISHERS SHALL BE PROVIDED THROUGHOUT THE BUILDINGS TO PROVIDE 100% COVERAGE.
3. FIRE EXTINGUISHERS SHALL BE UL LISTED OR FM APPROVED.
4. FOR FIRE EXTINGUISHER LOCATION SERVING THE AST/WASH RACK CANOPY, PLEASE REFER TO ARCH SHEET A-151.

CAREY S. NAKAGAWA
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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
FIRE SUPPRESSION NOTES

DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
F-001
160 OF 273 SHTS.

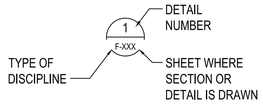
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FIRE SUPPRESSION LEGEND & ABBREVIATIONS

SYMBOLS	ABBREVIATIONS	DESCRIPTION
	AFF	ABOVE FINISHED FLOOR
⋈	AUX	AUXILIARY DRAIN
	BESS	BATTERY ENERGY STORAGE SYSTEM
		BUTTERFLY VALVE
	CHEM	CHEMICAL
	ELEV	ELEVATOR
FDC	FDC	FIRE DEPARTMENT CONNECTION
SM	FEC	FIRE EXTINGUISHER IN SURFACE MOUNTED FIRE EXTINGUISHER CABINET, 4A:80B:C MULTIPURPOSE DRY CHEMICAL (NEW)
WP	FEC	FIRE EXTINGUISHER IN WEATHERPROOF SURFACE-MOUNTED FIRE EXTINGUISHER CABINET, 4A:80B:C MULTIPURPOSE DRY CHEMICAL (NEW)
SR	FEC	FIRE EXTINGUISHER IN SEMI-RECESSED FIRE EXTINGUISHER CABINET, 4A:80B:C MULTIPURPOSE DRY CHEMICAL (NEW)
	FE	BRACKET MOUNTED FIRE EXTINGUISHER, 4A:80B:C MULTIPURPOSE DRY CHEMICAL (NEW)
	FH	FIRE HYDRANT (EXST)
	FH	FIRE HYDRANT (NEW)
	FSR	FIRE SPRINKLER RISER (NEW)
W#		UNDERGROUND FIRE LINE, PIPING (EXST)
W#		UNDERGROUND FIRE LINE, PIPING (NEW)
	FS	FIRE SPRINKLER SYSTEM, PIPING (NEW)
PS	PS	FIRE SPRINKLER SYSTEM, PRESSURE SWITCH (NEW)
TS	TS	FIRE SPRINKLER SYSTEM, TAMPER SWITCH (NEW)
WF	WF	FIRE SPRINKLER SYSTEM, WATERFLOW SWITCH (NEW)
	FLR	FLOOR
	MAX/MIN	MAXIMUM/MINIMUM
	NO/NC	NORMALLY OPEN/NORMALLY CLOSE
		PIPE CAP
		PIPE ELBOW DOWN
		PIPE PLUG
	CONT	PIPE CONTINUATION
	UP/DN	PIPE UP/DOWN
		PIPE TEE DOWN
	POC/POR	POINT OF CONNECTION/POINT OF REMOVAL
		PIPE REDUCER
	TYP	TYPICAL

SYMBOL LEGEND



SECTION AND DETAIL SYMBOL

FIRE SPRINKLER LEGEND

SYMBOLS	DESCRIPTION	
●	FIRE SPRINKLER TYPE: FIRE SPRINKLER K-FACTOR: FIRE SPRINKLER TEMPERATURE RATING: FIRE SPRINKLER RESPONSE TYPE:	ESFR PENDENT WITH BRASS FINISH K = 25.2 MINIMUM 165 DEGREES F MINIMUM FAST RESPONSE
○	FIRE SPRINKLER FINISH: FIRE SPRINKLER K-FACTOR: FIRE SPRINKLER TEMPERATURE RATING: FIRE SPRINKLER RESPONSE TYPE:	UPRIGHT WITH BRASS FINISH K = 5.6 MINIMUM 155 DEGREES F QUICK RESPONSE
WP ○	FIRE SPRINKLER FINISH: FIRE SPRINKLER K-FACTOR: FIRE SPRINKLER TEMPERATURE RATING: FIRE SPRINKLER RESPONSE TYPE:	UPRIGHT WITH ENT FINISH K = 5.6 MINIMUM 155 DEGREES F QUICK RESPONSE
WP	FIRE SPRINKLER TYPE: FIRE SPRINKLER K-FACTOR: FIRE SPRINKLER TEMPERATURE RATING: FIRE SPRINKLER RESPONSE TYPE:	UPRIGHT WITH ENT FINISH K = 11.2 MINIMUM 155 DEGREES F QUICK RESPONSE

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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
FIRE SUPPRESSION
LEGENDS AND ABBREVIATIONS

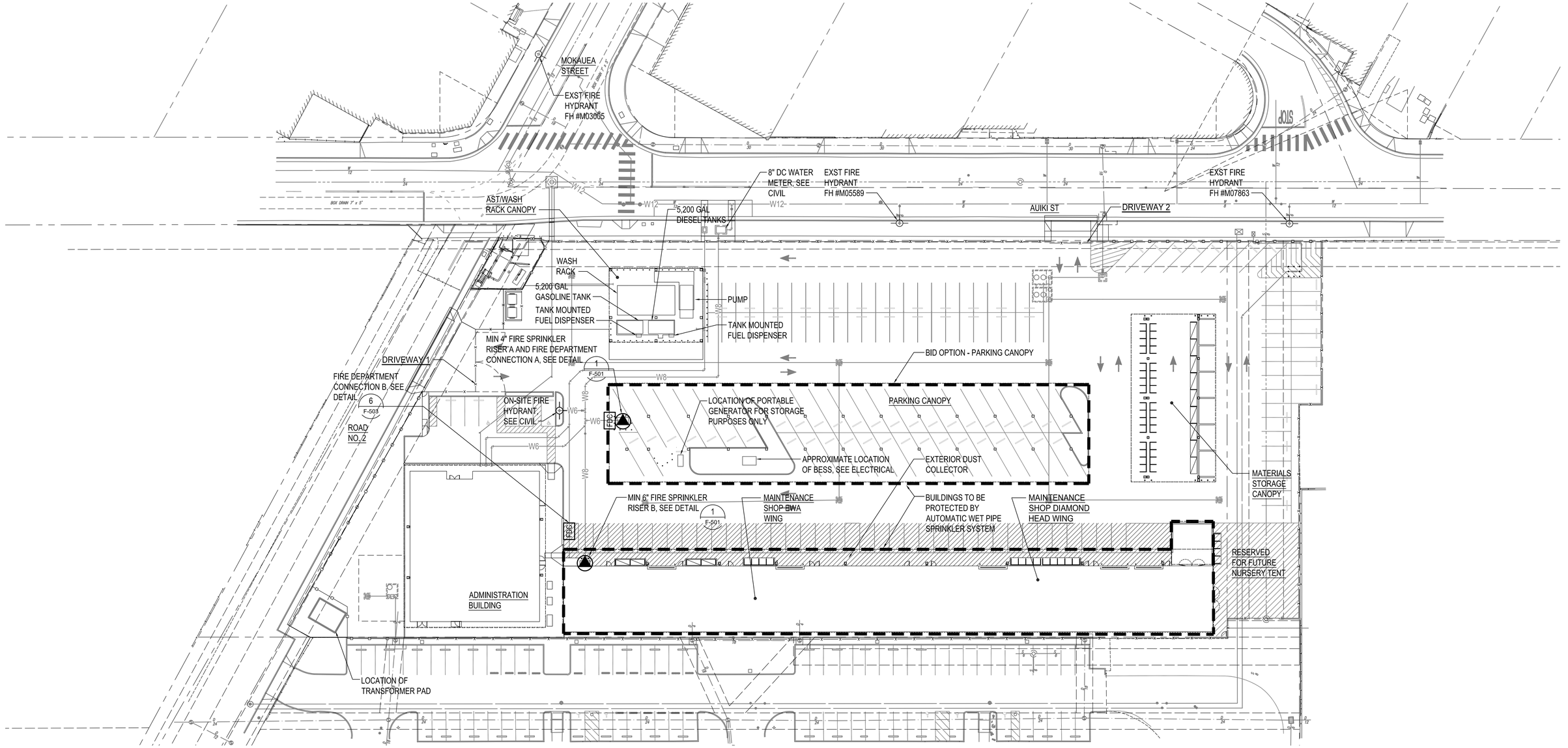
DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
F-002
161 OF 273 SHTS.

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1 FIRE SUPPRESSION SITE PLAN

1" = 30'-0"

NOTES:

1. FIRE SPRINKLER RISERS AND UNDERGROUND PIPING SHOWN FOR REFERENCE ONLY.

PLAN NORTH

0 30' 60'

SCALE: 1" = 30'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
FIRE PROTECTION SITE PLAN

CAREY S. NAKAGAWA
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THERMAL ENGINEERING CORPORATION

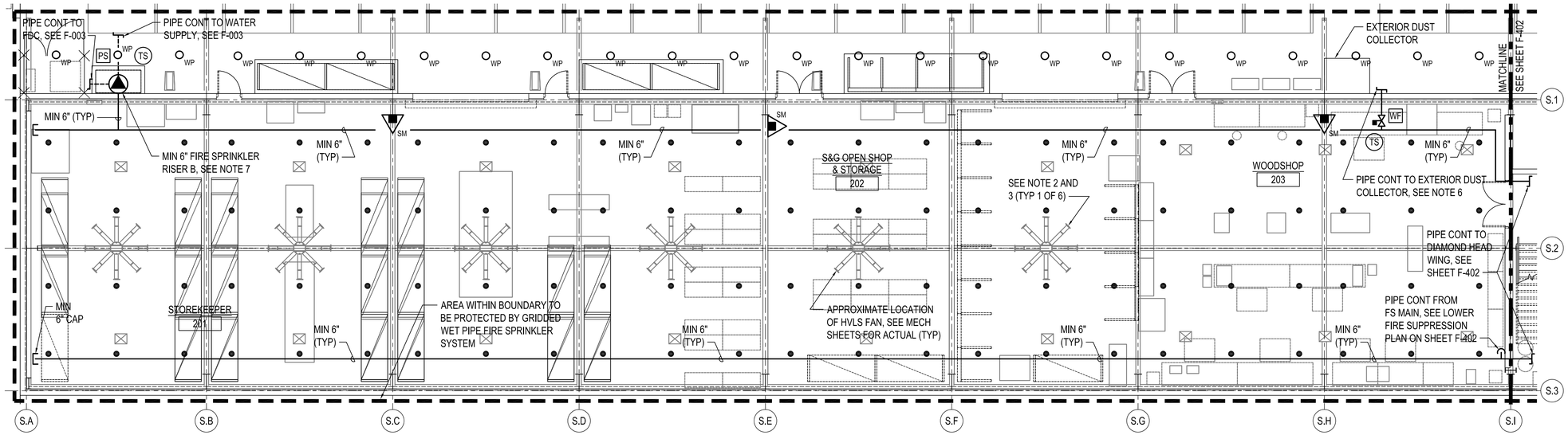
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JOB NUMBER
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SHEET
F-003
162 OF 273 SHTS.

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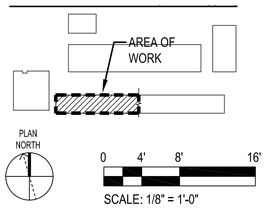


1 MAINTENANCE SHOP EWA WING FIRE SUPPRESSION PLAN

1/8" = 1'-0"

NOTES:

1. FIRE SPRINKLER PIPING AND FIRE SPRINKLER HEAD PLACEMENT SHOWN FOR COORDINATION PURPOSES ONLY.
2. THE VERTICAL CLEARANCE BETWEEN THE HVLS FAN AND THE FIRE SPRINKLER DEFLECTOR SHALL BE A MINIMUM 3'-0" PER NFPA 13 (2019) SECTION 19.2.7(1).
3. ALL HVLS FANS SHALL BE INTERLOCKED TO SHUTDOWN IMMEDIATELY UPON A WATERFLOW ALARM PER NFPA 13 (2019) SECTION 19.2.7(4)
4. FOR INSTALLATIONS INVOLVING ESFR FIRE SPRINKLERS, THE MINIMUM VERTICAL CLEARANCE BETWEEN THE TOP OF STORAGE AND THE ESFR FIRE SPRINKLER DEFLECTOR SHALL BE 3'-0" PER NFPA 13 (2019) SECTION 14.2.12.
5. FOR INSTALLATIONS INVOLVING STANDARD COVERAGE FIRE SPRINKLERS, THE MINIMUM VERTICAL CLEARANCE BETWEEN THE TOP OF STORAGE AND THE STANDARD COVERAGE FIRE SPRINKLER DEFLECTOR SHALL BE 1'-6" PER NFPA 13 (2019) SECTION 10.2.8.1.
6. CONTRACTOR SHALL REVIEW MANUFACTURER'S INSTRUCTIONS TO VERIFY THE POINT OF CONNECTION FOR FIRE SPRINKLER SERVING THE EXTERIOR DUST COLLECTOR.
7. FOR FIRE SPRINKLER RISER CONFIGUIRATION B, SEE DETAIL 1/F-501
8. PROVIDE LATERAL AND LONGITUINDAL SWAY BRACING IN ACCORDANCE WITH NFPA 13 AND AT CHANGES IN DIRECTION OF PIPING, SEE DETAIL 3/F-503, 4/F-503
9. PROVIDE HANGERS IN ACCORDANCE WITH NFPA 13, SEE DETAIL 1/F-502, 1/F-503
10. PROVIDE BRANCH LINE RESTRAINT IN ACCORDANCE WITH NFPA 13, SEE DETAIL 2/F-502, 2/F-503
11. PIPE PENETRATIONS THROUGH WALLS MUST BE SEALED, SEE DETAIL 1/F-505, 2/F-505
12. PROVIDE FIRE EXTINGUISHERS IN ACCORDANCE WITH NFPA 1, SEE DETAIL 3/F-502, 4/F-502



CAREY S. NAKAGAWA — LICENSED PROFESSIONAL ENGINEER — No. 16319-M — HAWAII, U.S.A.

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THERMAL ENGINEERING CORPORATION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MAINTENANCE SHOP EWA WING
FIRE SUPPRESSION PLAN

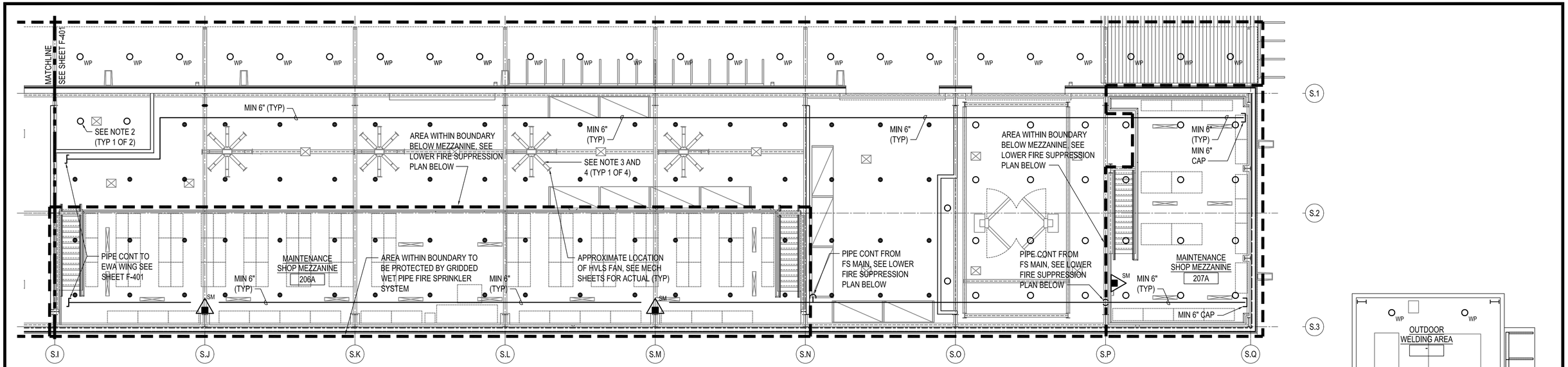
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DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
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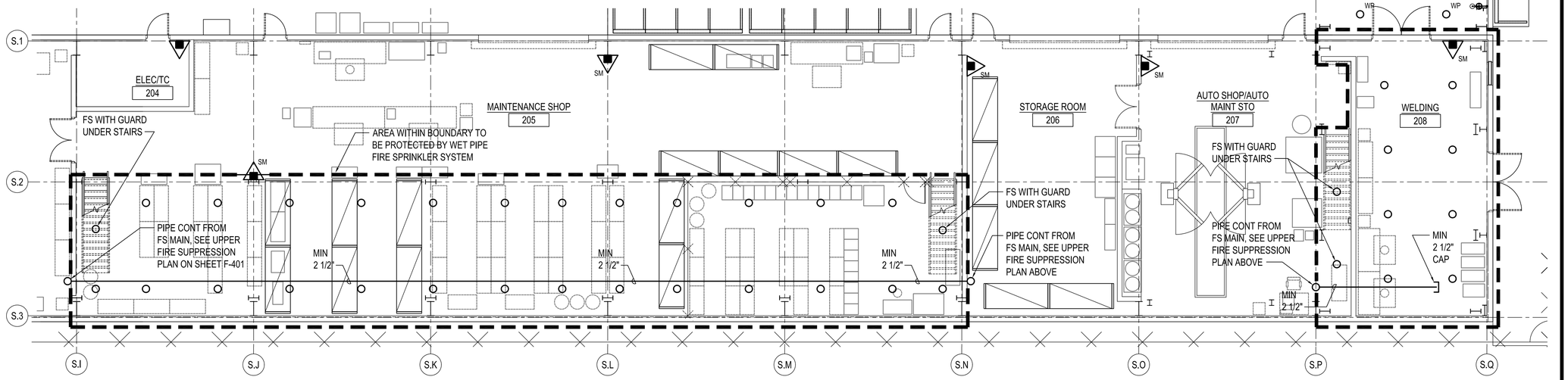
SHEET
F-401
163 OF 273 SHTS.

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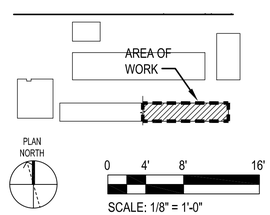
1 MAINTENANCE SHOP DIAMOND HEAD WING UPPER FIRE SUPPRESSION PLAN
1/8" = 1'-0"



2 MAINTENANCE SHOP DIAMOND HEAD WING LOWER FIRE SUPPRESSION PLAN
1/8" = 1'-0"

NOTES:

1. FIRE SPRINKLER PIPING AND FIRE SPRINKLER HEAD PLACEMENT SHOWN FOR COORDINATION PURPOSES ONLY.
2. FIRE SPRINKLER HEADS AND FIRE SPRINKLER PIPING SHALL NOT BE OVERHEAD OF ANY ELECTRICAL OR TELECOM EQUIPMENT.
3. THE VERTICAL CLEARANCE BETWEEN THE HVLS FAN AND THE FIRE SPRINKLER DEFLECTOR SHALL BE A MINIMUM 3'-0" PER NFPA 13 (2019) SECTION 19.2.7(1).
4. ALL HVLS FANS SHALL BE INTERLOCKED TO SHUTDOWN IMMEDIATELY UPON A WATER FLOW ALARM PER NFPA 13 (2019) SECTION 19.2.7.(4).
5. FOR INSTALLATIONS INVOLVING ESFR FIRE SPRINKLERS, THE MINIMUM VERTICAL CLEARANCE BETWEEN THE TOP OF STORAGE AND THE ESFR FIRE SPRINKLER DEFLECTOR SHALL BE 3'-0" PER NFPA 13 (2019) SECTION 14.2.12.
6. FOR INSTALLATIONS INVOLVING STANDARD COVERAGE FIRE SPRINKLERS, THE MINIMUM VERTICAL CLEARANCE BETWEEN THE TOP OF STORAGE AND THE STANDARD COVERAGE FIRE SPRINKLER DEFLECTOR SHALL BE 1'-6" PER NFPA 13 (2019) SECTION 10.2.8.1.
7. PROVIDE HANGERS IN ACCORDANCE WITH NFPA 13 SEE DETAIL 1/F-502, 1/F-503, 1/F-504
8. PROVIDE LATERAL AND LONGITUINDAL SWAY BRACING IN ACCORDANCE WITH NFPA 13 AND AT CHANGES IN DIRECTION OF PIPING, SEE DETAIL 3/F-503, 4/F-503, 3/F-504, 4/F-504
9. PROVIDE BRANCH LINE RESTRAINT IN ACCORDANCE WITH NFPA 13, SEE DETAIL 2/F-502, 2/F-503, 2/F-504
10. PIPE PENETRATIONS THROUGH WALLS MUST BE SEALED, SEE DETAIL 1/F-505, 2/F-505
11. PROVIDE FIRE EXTINGUISHERS IN ACCORDANCE WITH NFPA 1, SEE DETAIL 3/F-502, 4/F-502, 6/F-502



CAREY S. NAKAGAWA ★ LICENSED PROFESSIONAL ENGINEER ★ No. 16319-M ★ HAWAII, U.S.A.

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THERMAL ENGINEERING CORPORATION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MAINTENANCE SHOP DIAMOND HEAD WING FIRE SUPPRESSION PLAN

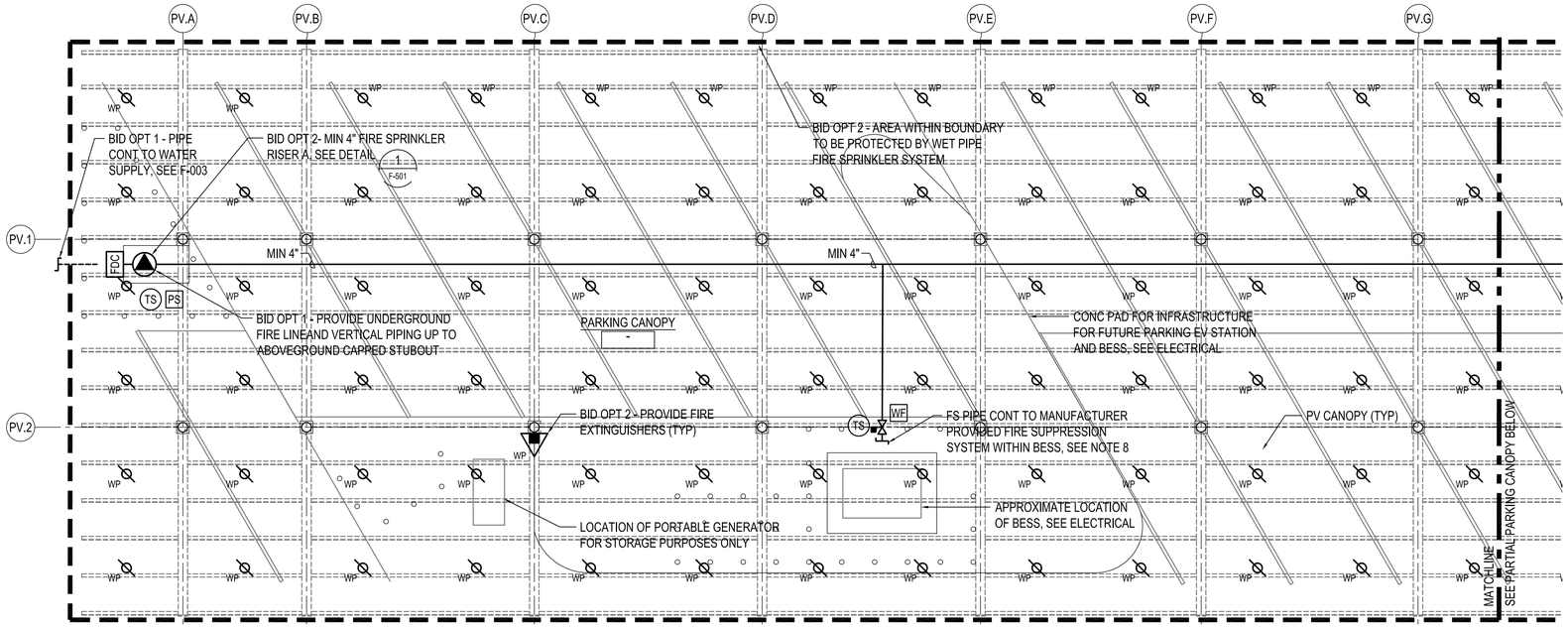
DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER P10981

SHEET F-402
164 OF 273 SHTS.

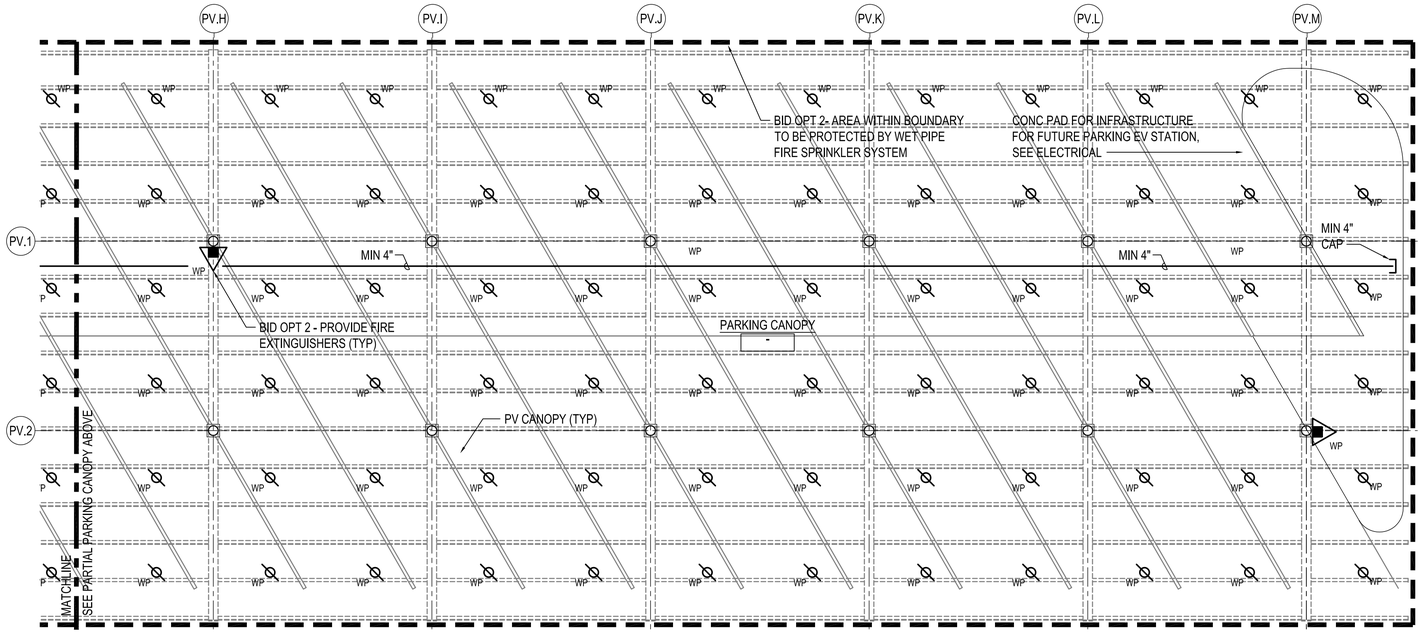
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1 PARTIAL PARKING CANOPY FIRE SUPPRESSION PLAN

1/8" = 1'-0"



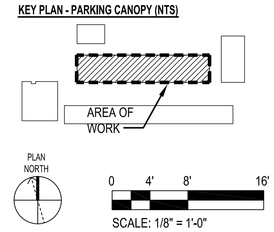
2 PARTIAL PARKING CANOPY FIRE SUPPRESSION PLAN

1/8" = 1'-0"

NOTES:

1. FIRE SPRINKLER PIPING AND FIRE SPRINKLER HEAD PLACEMENT SHOWN FOR COORDINATION PURPOSES ONLY.
2. FOR INSTALLATIONS INVOLVING STANDARD COVERAGE FIRE SPRINKLERS, THE MINIMUM VERTICAL CLEARANCE BETWEEN THE TOP OF STORED VEHICLES AND THE STANDARD COVERAGE FIRE SPRINKLER DEFLECTOR SHALL BE 1'-6" PER NFPA 13 (2019) SECTION 10.2.8.1.
3. FOR FIRE SPRINKLER RISER CONFIGURATION A, SEE DETAIL 1 / F-501
4. PROVIDE LATERAL AND LONGITUINDAL SWAY BRACING IN ACCORDANCE WITH NFPA 13 AND AT CHANGES IN DIRECTION OF PIPING, SEE DETAIL 3 / F-503, 4 / F-503
5. PROVIDE HANGERS IN ACCORDANCE WITH NFPA 13, SEE DETAIL 1 / F-502, 1 / F-503
6. PROVIDE BRANCH LINE RESTRAINT IN ACCORDANCE WITH NFPA 13, SEE DETAIL 2 / F-502, 2 / F-503
7. PROVIDE FIRE EXTINGUISHERS IN ACCORDANCE WITH NFPA 1, SEE DETAIL 5 / F-502
8. CONTRACTOR SHALL REVIEW MANUFACTURER'S INSTRUCTIONS TO VERIFY THE PIPING SIZING AND THE POINT OF CONNECTION SUPPLYING THE FIRE SUPPRESSION SYSTEM SERVING THE BESS.

KEY PLAN - PARKING CANOPY (NTS)



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

REVISION	DATE	DESCRIPTION	BY	APPROVED

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HAWAII, U.S.A.

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THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PARKING CANOPY FIRE SUPPRESSION PLAN

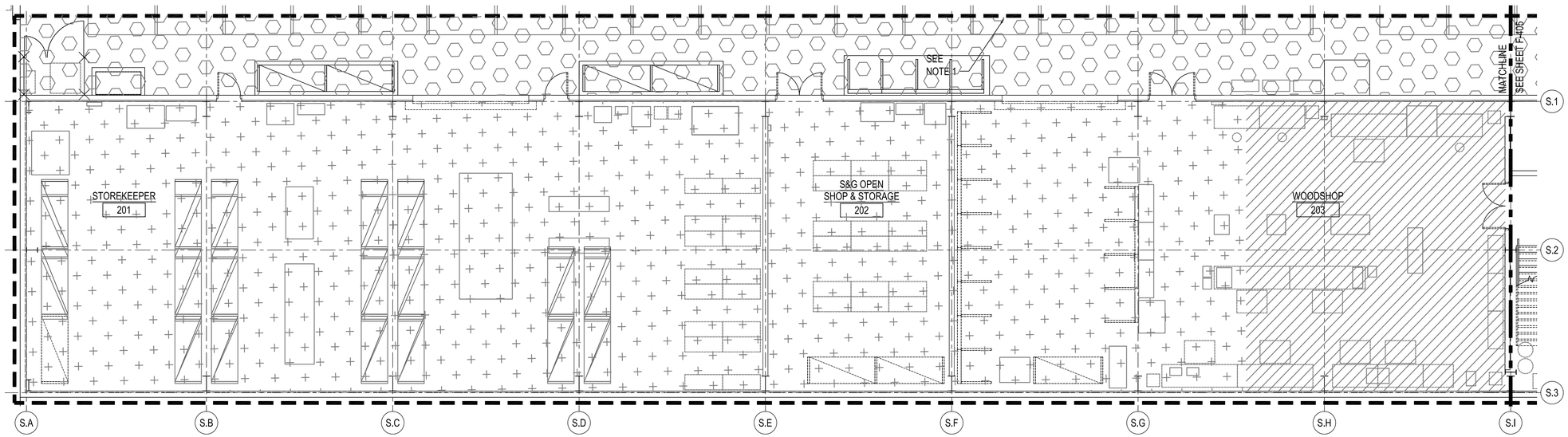
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SCALE:	AS SHOWN

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P10981

SHEET
F-403
165 OF 273 SHTS.

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1 MAINTENANCE SHOP EWA WING FIRE SUPPRESSION DESIGN CRITERIA PLAN

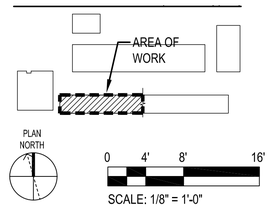
1/8" = 1'-0"

FIRE SPRINKLER HAZARD TABLE:

HATCH SYMBOL	
	SPRINKLER TYPE: ESFR SPRINKLER ORIENTATION: PENDENT COMMODITY CLASS: CLASS I - IV MAX STORAGE HEIGHT: 20'-0" MAX CEILING HEIGHT: 25'-0" NOMINAL K-FACTOR: 25.2 MINIMUM DESIGN DEMAND: 12 SPRINKLERS @ 15 PSI END PRESSURE
	OCCUPANCY: ORDINARY HAZARD GROUP 2 DESIGN AREA: 1500 SF, NO REDUCTIONS DESIGN DENSITY: 0.20 GPM/SF HOSE STREAM: 250 GPM
	OCCUPANCY: EXTRA HAZARD 1 DESIGN AREA: 2500 SF, NO REDUCTIONS DESIGN DENSITY: 0.30 GPM/SF HOSE STREAM: 500 GPM

NOTES:

1. DESIGN CRITERIA ONLY APPLICABLE WITHIN THE BOUNDARY.



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THERMAL ENGINEERING CORPORATION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MAINTENANCE SHOP EWA WING FIRE SUPPRESSION DESIGN CRITERIA PLAN

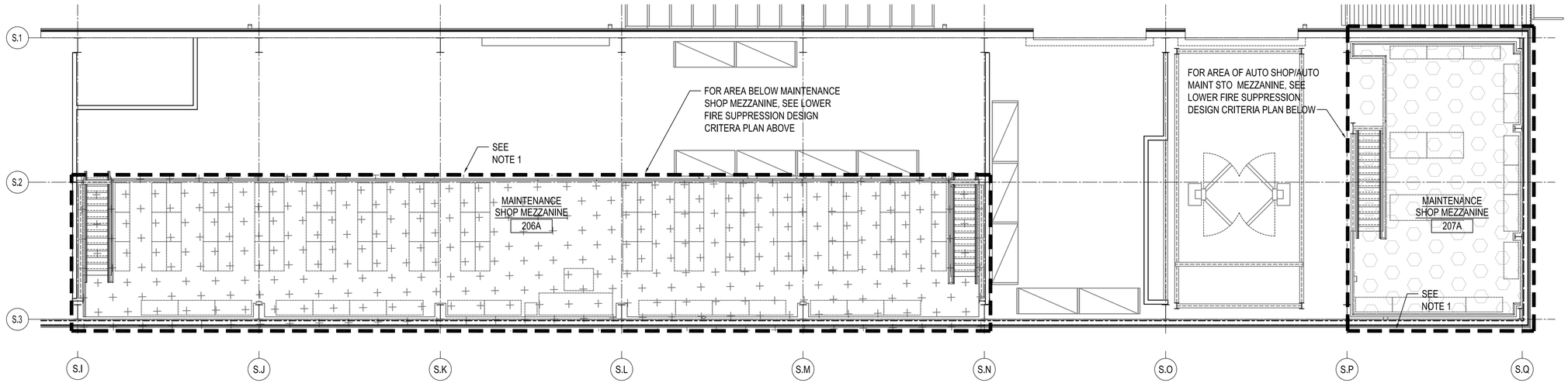
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SHEET
F-404
166 OF 273 SHTS.

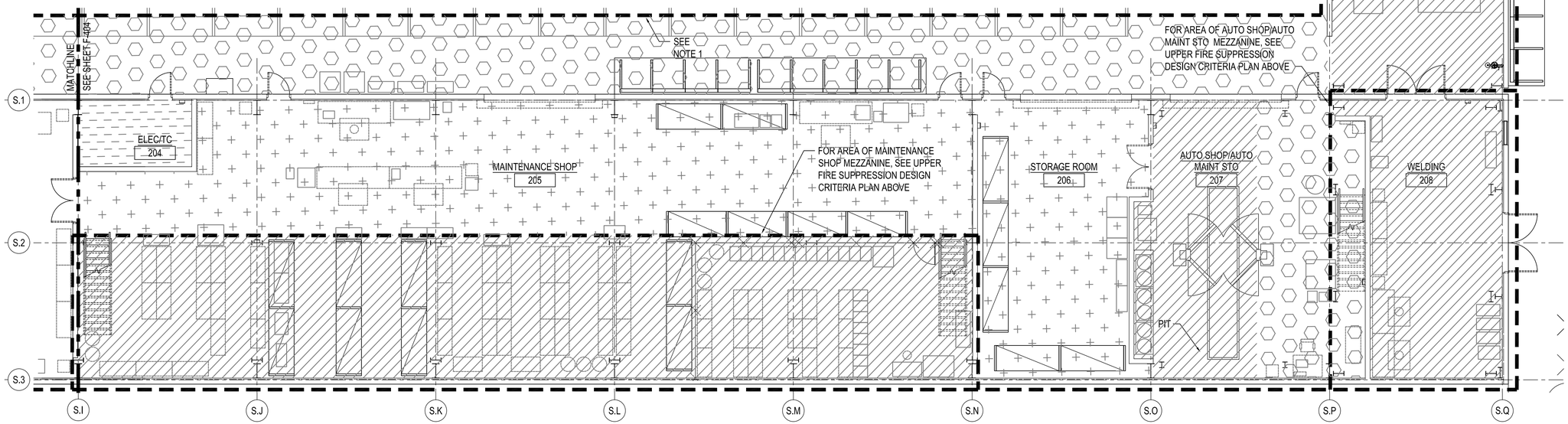
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1 MAINTENANCE SHOP DIAMOND HEAD WING UPPER FIRE SUPPRESSION DESIGN CRITERIA PLAN

1/8" = 1'-0"



2 MAINTENANCE SHOP DIAMOND HEAD WING LOWER FIRE SUPPRESSION DESIGN CRITERIA PLAN

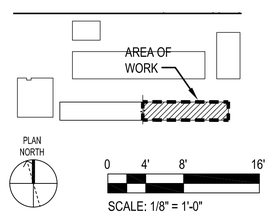
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HATCH SYMBOL		HATCH SYMBOL	
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			OCCUPANCY: ORDINARY HAZARD GROUP 1 DESIGN AREA:1500 SF, NO REDUCTIONS DESIGN DENSITY: 0.15 GPM/SF HOSE STREAM: 250 GPM
	OCCUPANCY: EXTRA HAZARD 1 DESIGN AREA:1500 SF, NO REDUCTIONS DESIGN DENSITY: 0.30 GPM/SF HOSE STREAM: 500 GPM		

NOTES:

1. DESIGN CRITERIA ONLY APPLICABLE WITHIN THE BOUNDARY.



CARLY S. NAKAGAWA LICENSED PROFESSIONAL ENGINEER No. 16319-M HAWAII, U.S.A.

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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MAINTENANCE SHOP DIAMOND HEAD WING FIRE SUPPRESSION DESIGN CRITERIA PLAN

DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

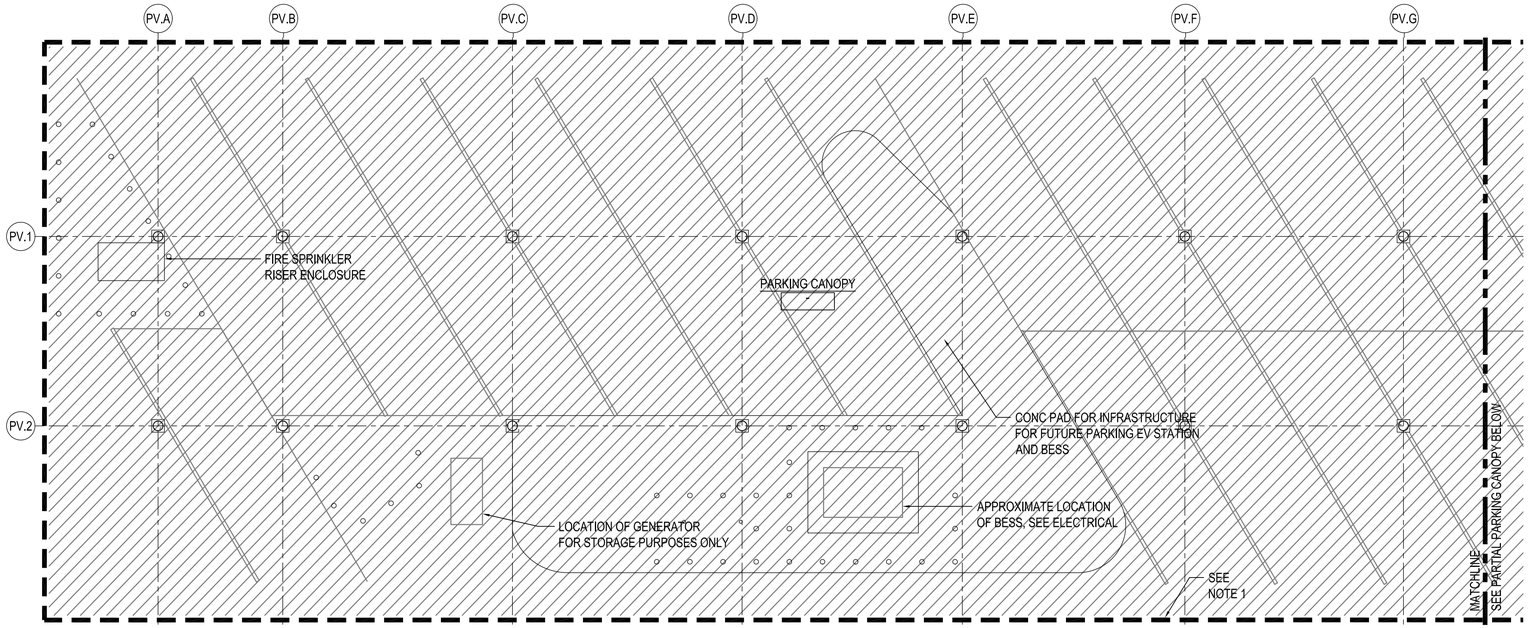
JOB NUMBER P10981

SHEET F-405

167 OF 273 SHTS.

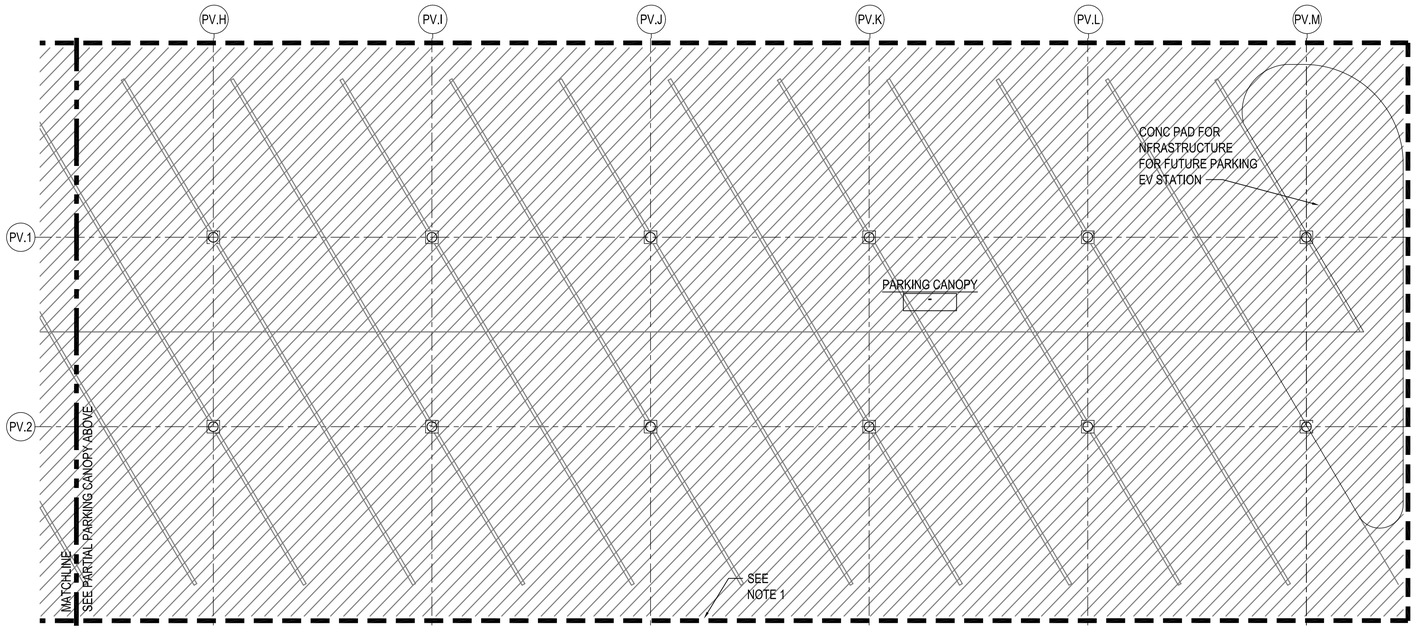
100% SUBMITTAL - SEPTEMBER 2026

G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\F-406 PRK CNPY FR SUP DGN CRT PLN.dwg, 9/4/2026 5:44:15 PM, michael, Bluebeam PDF



1 PARTIAL PARKING CANOPY FIRE SUPPRESSION DESIGN CRITERIA PLAN

1/8" = 1'-0"



2 PARTIAL PARKING CANOPY FIRE SUPPRESSION DESIGN CRITERIA PLAN

1/8" = 1'-0"

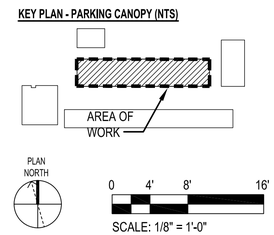
FIRE SPRINKLER HAZARD TABLE:

HATCH SYMBOL	
	OCCUPANCY: ORDINARY HAZARD GROUP 2 DESIGN AREA: 1500 SF, NO REDUCTIONS DESIGN DENSITY: 0.20 GPM/SF HOSE STREAM: 250 GPM

NOTES:

1. DESIGN CRITERIA ONLY APPLICABLE WITHIN THE BOUNDARY.

KEY PLAN - PARKING CANOPY (NTS)



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

REVISION	DATE	DESCRIPTION	BY	APPROVED

CARLY S. NAKAGAWA LICENSED PROFESSIONAL ENGINEER No. 16319-M HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PARKING CANOPY FIRE
SUPPRESSION DESIGN CRITERIA PLAN

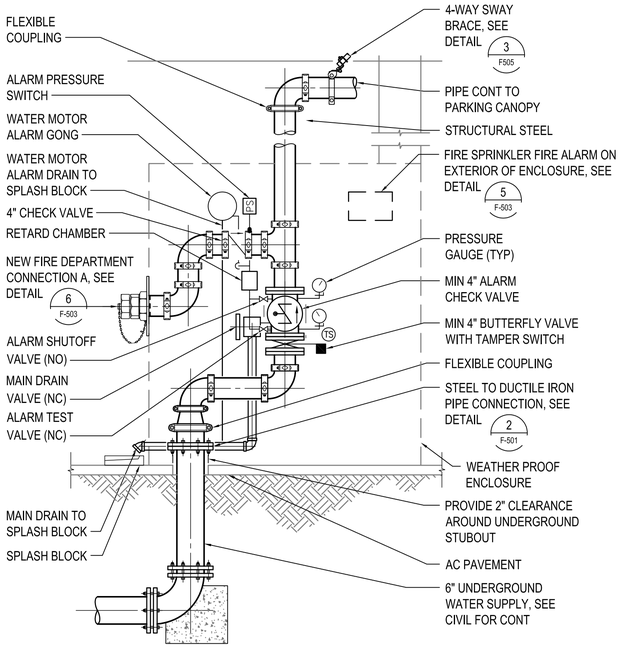
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DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

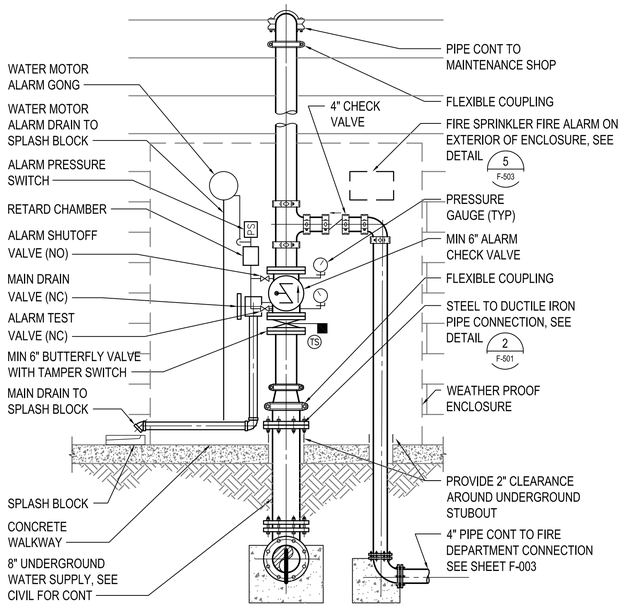
SHEET
F-406
168 OF 273 SHTS.

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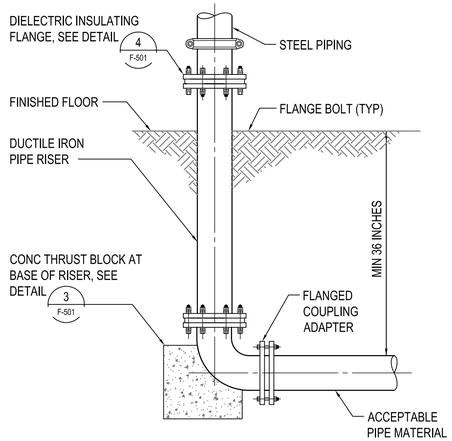
FIRE SPRINKLER RISER A



FIRE SPRINKLER RISER B

1 F-501 FIRE SPRINKLER RISER DETAIL

SCALE: NONE

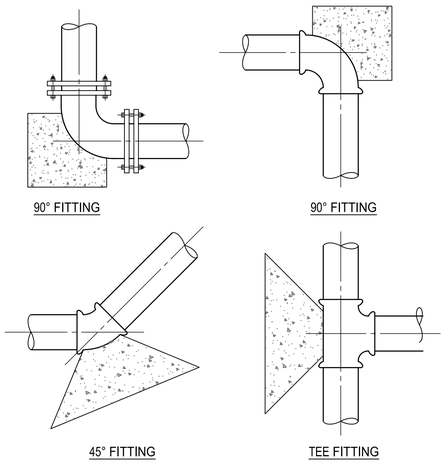


NOTES:

1. SIZE AND NUMBER OF ALL THREAD TIE ROD ASSEMBLY TO BE IN ACCORDANCE WITH NPFA 13

2 F-501 TYPICAL CONNECTION TO UNDERGROUND PIPING DETAIL

SCALE: NONE

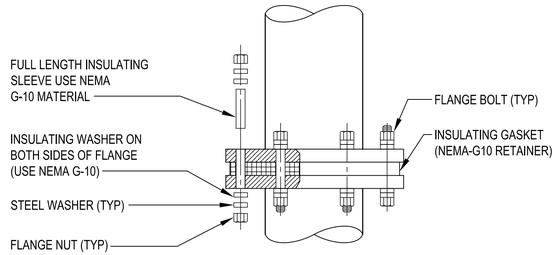


NOTES:

1. THRUST BLOCK SIZING MUST BE IN ACCORDANCE WITH NFPA 13 AND SHALL BE BASED ON A SOIL BEARING STRENGTH OF 1,500 LB/SF FOR DENSE SAND AND GRAVEL SAND.
2. THRUST BLOCKS MUST BE CAST AGAINST UNDISTURBED, INTACT CUT FACE CONSISTING OF DENSE OR FIRM SOIL
3. FOR CONCRETE THRUST BLOCK, SEE DETAIL 3 F501

3 F-501 TYPICAL THRUST BLOCK DETAIL

SCALE: NONE

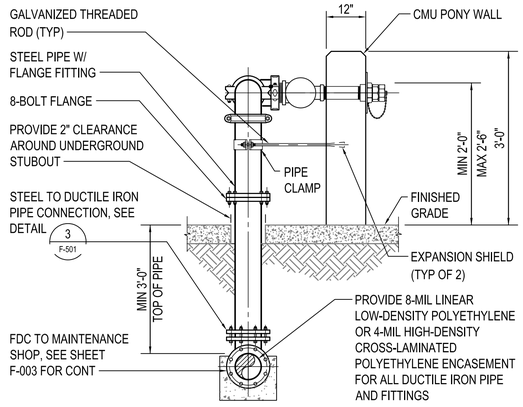


NOTES:

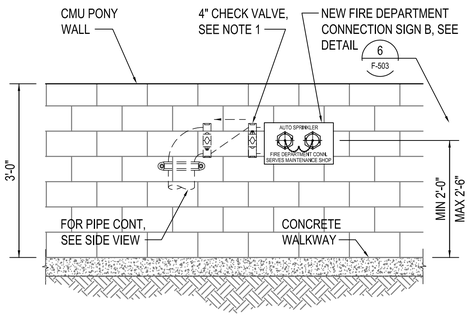
1. POLYETHYLENE. MYLAR, AND PHENOLIC INSULATING SLEEVES AND WASHERS ARE NOT ACCEPTABLE AND WILL BE REJECTED. PROVIDE NEMA G-10 TYPE INSULATING SLEEVES AND WASHERS.
2. DOUBLE INSULATING WASHERS ARE REQUIRED (ONE FOR EACH SIDE OF EACH FLANGE ROD).
3. FULL FACE GASKETS REQUIRED. GASKET RETAINER MUST BE HIGH COMPRESSIVE STRENGTH ASTM G-10 MATERIAL.
4. NEW GRADE 8 BOLT AND NUTS REQUIRED FOR EACH FLANGE.
5. HARDWARE QUANTITIES IN INSULATING FLANGE KIT WILL VARY BASED ON GASKET PATTERN AND PIPE SIZE.
6. DO NOT COAT OR SPRAY INSULATING COMPONENTS WITH GREASE.
7. AFTER INSULATING FLANGE KIT IS COMPLETELY INSTALLED, WRAP FLANGE WITH MIN. 3 LAYERS OF PIPE JOINT TAPE WRAP.

4 F-501 DIELECTRIC INSULATING FLANGE

SCALE: NONE



SIDE VIEW



FRONT VIEW

NOTES:

1. STUB OUT CLOSER TO MONUMENT IF CHECK VALVE UL LISTED OR FM APPROVED TO BE INSTALLED IN THE VERTICAL POSITION WITH FLOW DOWNWARD IS PROVIDED, OTHERWISE PROVIDE HORIZONTALLY MOUNTED CHECK VALVE AS SHOWN.
2. PAINT ALL EXPOSED METALLIC FIRE SPRINKLER PIPING, FITTINGS, SUPPORTS, AND EQUIPMENT.

5 F-501 TYPICAL FIRE DEPARTMENT CONNECTION MONUMENT DETAIL

SCALE: NONE

CAREY S. NAKAGAWA — LICENSED PROFESSIONAL ENGINEER — No. 16319—M — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
DETAILS

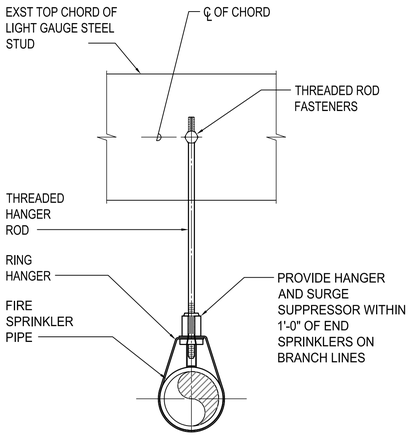
DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
F-501
169 OF 273 SHTS.

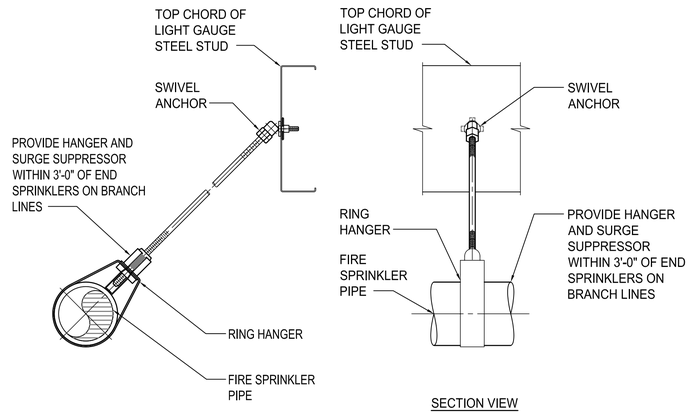
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1 F-502 HANGER FOR LIGHT GAUGE STUD DETAIL

SCALE: NONE

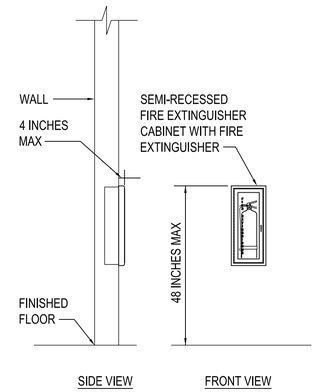


NOTES:

1. PIPING WITH HANGER RODS LESS THAN 6" IN LENGTH DO NOT REQUIRE BRANCH LINE RESTRAINT PER NFPA 13 (2019) PARAGRAPH 18.5.6.

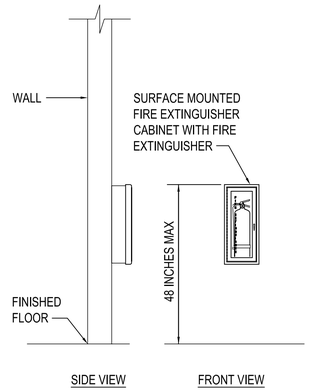
2 F-502 BRANCH LINE RESTRAINT FOR LIGHT GAUGE STUD DETAIL

SCALE: NONE



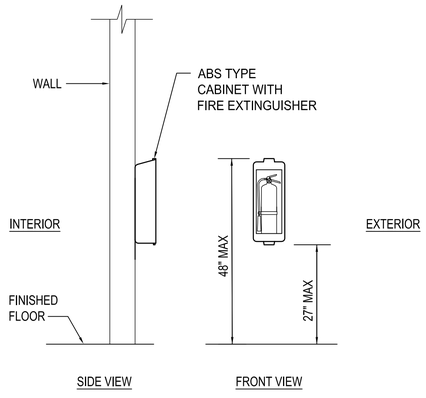
3 F-502 TYPICAL FIRE EXTINGUISHER AND CABINET INSTALLATION DETAIL

SCALE: NONE



4 F-502 TYPICAL FIRE EXTINGUISHER AND CABINET INSTALLATION DETAIL

SCALE: NONE

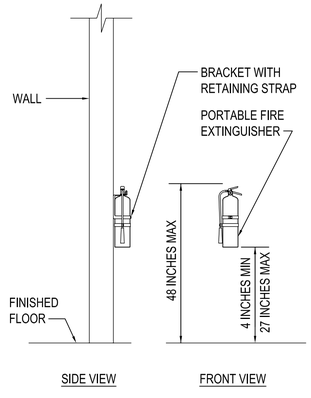


NOTE:

CAULK FASTENER PENETRATIONS WITH WATERPROOF SEALANT WHERE CABINET IS INSTALLED ON EXTERIOR WALL.

5 F-502 TYPICAL FIRE EXTINGUISHER AND CABINET INSTALLATION DETAIL

SCALE: NONE



6 F-502 TYPICAL BRACKET MOUNTED FIRE EXTINGUISHER INSTALLATION DETAIL

SCALE: NONE

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

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EXP 4-30-28

THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
DETAILS

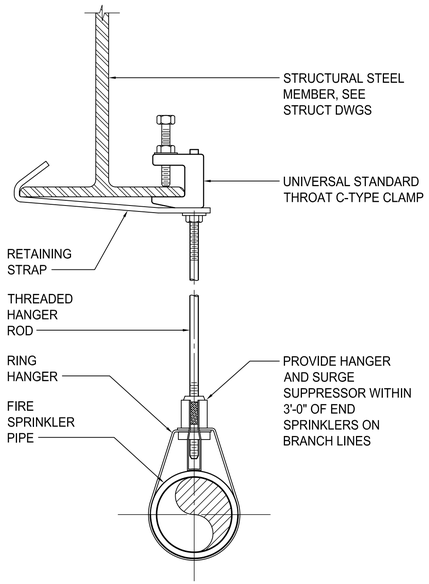
DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
F-502
170 OF 273 SHTS.

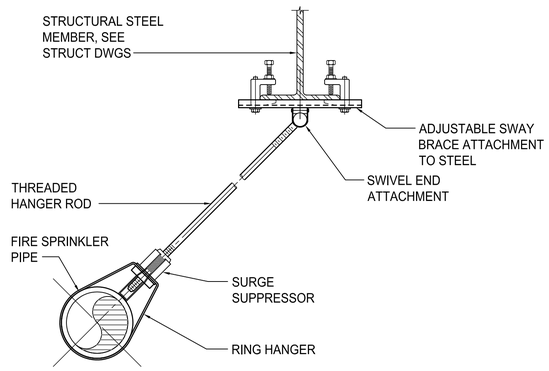
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1 F-503 TYPICAL HANGER FOR STRUCTURAL STEEL DETAIL

SCALE: NONE

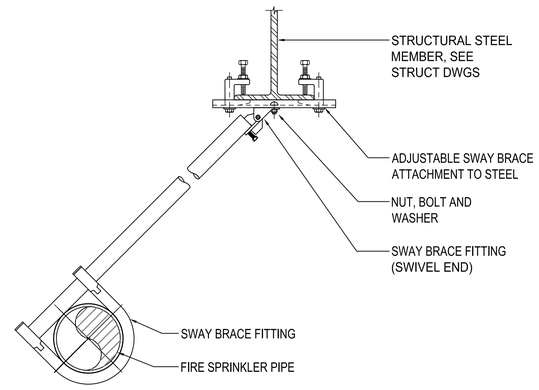


NOTES:

1. PIPING WITH HANGER RODS LESS THAN 6" IN LENGTH DO NOT REQUIRE BRANCH LINE RESTRAINT PER NFPA 13 (2019) PARAGRAPH 18.5.6.

2 F-503 BRANCH LINE RESTRAINT FOR STRUCTURAL STEEL DETAIL

SCALE: NONE

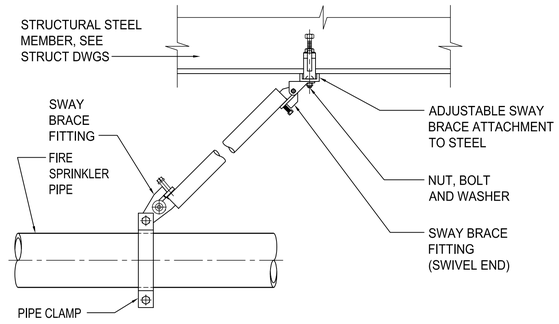


NOTES:

1. SWAY BRACING COMPONENTS, SIZING, AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13.
2. SWAY BRACE ANGLE SHALL BE BETWEEN 45 DEGREES TO 90 DEGREES FROM VERTICAL.

3 F-503 LATERAL SWAY BRACE FOR STRUCTURAL STEEL DETAIL

SCALE: NONE



NOTES:

1. SWAY BRACING COMPONENTS, SIZING, AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13.
2. SWAY BRACE ANGLE SHALL BE BETWEEN 45 DEGREES TO 90 DEGREES FROM VERTICAL.

4 F-503 LONGITUDINAL SWAY BRACE FOR STRUCTURAL STEEL DETAIL

SCALE: NONE

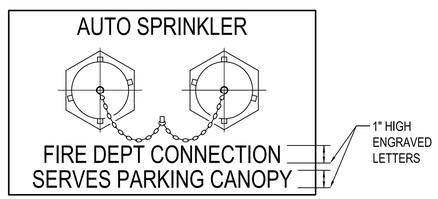


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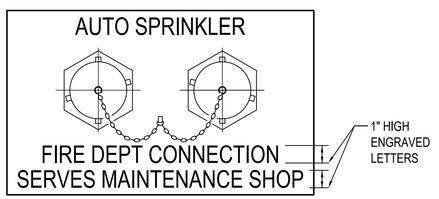
1. SIGN SHALL BE MOUNTED ADJACENT TO WATER MOTOR GONG.
2. SIMILAR WORDING ON WATER MOTOR ALARM GONG SHALL BE ACCEPTABLE INSTEAD OF SEPARATE SIGN.

5 F-503 FIRE SPRINKLER ALARM SIGN DETAIL

SCALE: NONE



FIRE DEPARTMENT CONNECITON A



FIRE DEPARTMENT CONNECTION B

6 F-503 TYPICAL FIRE DEPARTMENT CONNECTION COVER PLATE DETAIL

SCALE: NONE

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
DETAILS

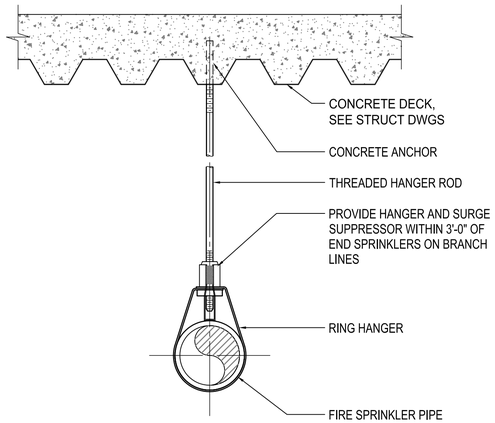
DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
F-503
171 OF 273 SHTS.

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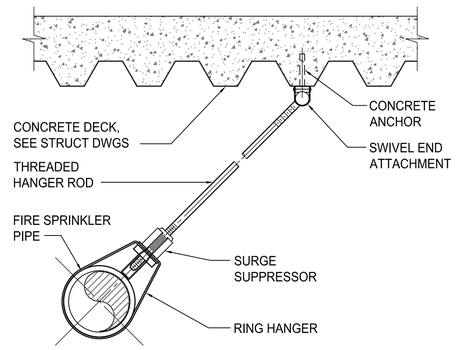


NOTES:

1. CONCRETE SCREW ANCHORS SHALL BE LISTED FOR INSTALLATION INTO CRACKED CONCRETE AND FOR INSTALLATION INTO COMPOSITE DECK (CONCRETE FILLED METAL DECK) SYSTEM. INSTALL CONCRETE SCREW ANCHORS IN ACCORDANCE WITH LISTED INSTALLATION INSTRUCTIONS.
2. PIPE SIZE SHALL BE 4" DIAMETER OR LESS, OR IN ACCORDANCE WITH CONCRETE ANCHOR LISTING.

1 F-504 HANGER FOR COMPOSITE DECK DETAIL

SCALE: NONE

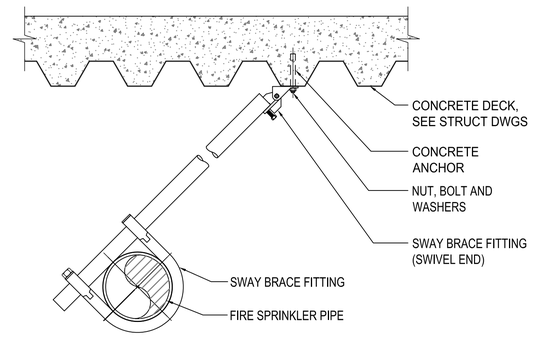


NOTES:

1. PIPING WITH HANGER RODS LESS THAN 6" IN LENGTH DO NOT REQUIRE BRANCH LINE RESTRAINT PER NFPA 13 (2019) SECTION 18.5.6.
2. CONCRETE SCREW ANCHORS SHALL BE LISTED FOR INSTALLATION INTO CRACKED CONCRETE AND FOR INSTALLATION INTO COMPOSITE DECK (CONCRETE FILLED METAL DECK) SYSTEM. INSTALL CONCRETE SCREW ANCHORS IN ACCORDANCE WITH LISTED INSTALLATION INSTRUCTIONS.
3. PIPE SIZE SHALL BE 4" DIAMETER OR LESS, OR IN ACCORDANCE WITH CONCRETE ANCHOR LISTING.

2 F-504 BRANCH LINE RESTRAINT FOR COMPOSITE DETAIL

SCALE: NONE

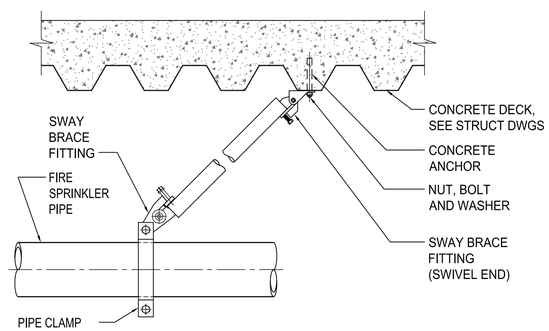


NOTES:

1. SWAY BRACING COMPONENTS, SIZING, AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13.
2. SWAY BRACE ANGLE SHALL BE BETWEEN 45 DEGREES TO 90 DEGREES FROM VERTICAL.

3 F-504 LONGITUDINAL SWAY BRACE FOR COMPOSITE DECK DETAIL

SCALE: NONE



NOTES:

1. SWAY BRACING COMPONENTS, SIZING, AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13.
2. SWAY BRACE ANGLE SHALL BE BETWEEN 45 DEGREES TO 90 DEGREES FROM VERTICAL.

4 F-504 LONGITUDINAL SWAY BRACE FOR COMPOSITE DECK DETAIL

SCALE: NONE

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
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HARBORS

JOB TITLE
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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
DETAILS

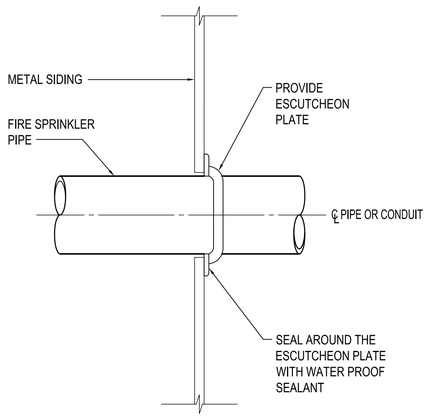
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F-504
172 OF 273 SHTS.

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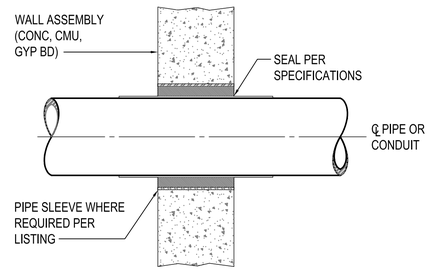


NOTES:

1. CONTRACTOR SHALL PROVIDE A UL LISTED THROUGH PENETRATION FIRE STOP SYSTEM OR BUILDING CODE EQUIVALENT FOR FIRE RATED BARRIERS.
2. PROVIDE SPRINKLER PIPE CLEARANCES IN ACCORDANCE WITH NFPA 13.

1 F-505 TYPICAL PIPE AND CONDUIT THRU EXTERIOR WALL DETAIL

SCALE: NONE

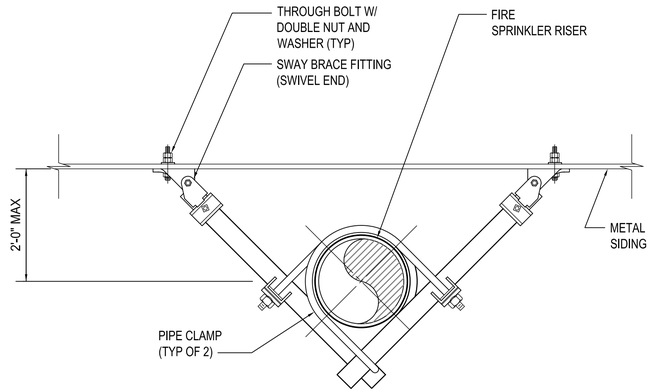


NOTES:

1. CONTRACTOR MUST PROVIDE APPROVED FIRESTOPPING FOR FIRE RATED WALLS.
2. PROVIDE SPRINKLER PIPE CLEARANCES IN ACCORDANCE WITH NFPA 13.

2 F-505 TYPICAL CONDUIT AND PIPE THRU WALL DETAIL

SCALE: NONE



NOTES:

1. SWAY BRACING COMPONENTS, SIZING, AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13.

3 F-505 4-WAY SWAY BRACE DETAIL

SCALE: NONE

CAREY S. NAKAGAWA
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No. 16319-M
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EXP 4-30-28

THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
DETAILS

DESIGNED BY:	JMA
DRAWN BY:	TEC
CHECKED BY:	SSA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
F-505
173 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

G:\2023\23016 Oahu District Baseyard ReAocation\Drawings\running set\P-001 PLUMBING LEGEND AND ABBREVIATIONS.dwg, 9/4/2026 4:39:12 PM, michael, Bluebeam PDF

LEGEND AND ABBREVIATIONS

SYMBOLS	ABBREVIATIONS	DESCRIPTIONS	SYMBOLS	ABBREVIATIONS	DESCRIPTIONS	SYMBOLS	ABBREVIATIONS	DESCRIPTIONS
	AFF	ABOVE FINISHED FLOOR		EWH	ELECTRIC WATER HEATER		PV	PLUG VALVE
	AP	ACCESS PANEL		EXST	EXISTING		POC	POINT OF CONNECTION
	ABS	ACRYLONITRILE-BUTADIENE-STYRENE			FLEXIBLE JOINT		PVC	POLYVINYL CHLORIDE
	APPROX	APPROXIMATELY		FCO	FLOOR CLEANOUT			PRESSURE GAUGE
	ARCH	ARCHITECTURAL		FD	FLOOR DRAIN		PRV	PRESSURE REDUCING VALVE
		BALL VALVE		FIN FLR	FINISHED FLOOR		QTY	QUANTITY
		BUTTERFLY VALVE		FS	FLOOR SINK		RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
	BWS	BOARD OF WATER SUPPLY		FU	FIXTURE UNIT		SHD	SHOWER DRAIN
CD	CD	CONDENSATE DRAIN		GV	GATE VALVE		SL	SLOPE IN DIRECTION OF THE ARROW
	CO	CLEANOUT		GPD	GALLONS PER DAY			STRAINER
		CHECK VALVE		GPF	GALLONS PER FLUSH		SS	STAINLESS STEEL
	CLG	CEILING		GPM	GALLONS PER MINUTE		STRUCT	STRUCTURAL
	CLR	CLEARANCE		HB W/VB	HOSE BIBB W/ VACUUM BREAKER		S OR W	SOIL OR WASTE
	CONC	CONCRETE		HW	HOT WATER		SQ	SQUARE
	CONN	CONNECTION		HWR	HOT WATER RETURN		TEMP	TEMPERATURE
	CONT	CONTINUATION		HWS	HOT WATER SUPPLY	TW	TW	TEMPERED WATER
	CW	COLD WATER		Hz	HERTZ	TWR	TWR	TEMPERED WATER RETURN
		DEMOLITION		kW	KILOWATT		TWRP	TEMPERED WATER RECIRCULATION PUMP
Ø	DIA	DIAMETER		MAX	MAXIMUM		THK	THICK
	DN	DOWN		MIN	MINIMUM			THERMOMETER
	DWGS	DRAWINGS			NEW WORK		TMV	THERMOSTATIC MIXING VALVE
	DWV	DRAIN WASTE VENT		NC	NORMALLY CLOSED		TYP	TYPICAL
	ELEC	ELECTRICAL		NO	NORMALLY OPEN			UNION
	ES	EMERGENCY SHOWER AND EYEWASH		NO	NUMBER		V	VENT OR VOLTS
	ET	EXPANSION TANK		P.D.I	PLUMBING & DRAINAGE INSTITUTE		VTR	VENT THRU ROOF
	ETP	ELECTRIC TRAP PRIMER		Pa	PASCAL		WCO	WALL CLEANOUT
	EWC	ELECTRIC WATER COOLER		PH	PHASE		WHA	WATER HAMMER ARRESTOR

PLUMBING FIXTURE SCHEDULE AND CONNECTION SIZE

	DESCRIPTION	CW	HW	DRAIN	VENT	MAX. CONSUMPTION
WC	WATER CLOSET, FLUSH VALVE, FLOOR MOUNT, FLOOR OUTLET	1"	N/A	3"	2"	1.28 GPF
A-WC	ACCESSIBLE WATER CLOSET, FLUSH VALVE, FLOOR MOUNT, FLOOR OUTLET	1"	N/A	3"	2"	1.28 GPF
A-UR	ACCESSIBLE URINAL, FLUSH VALVE	3/4"	N/A	2"	2"	0.125 GPF
SHO	SHOWER	1/2"	1/2"	2"	2"	1.75 GPF
A-SHO	ACCESSIBLE SHOWER	1/2"	1/2"	2"	2"	1.75 GPF
LAV	LAVATORY	1/2"	N/A	2"	2"	0.5 GPM
A-LAV	ACCESSIBLE LAVATORY	1/2"	N/A	2"	2"	0.5 GPM
MS	MOP SINK	1/2"	N/A	3"	2"	2.2 GPM
A-SK	ACCESSIBLE KITCHEN SINK	1/2"	N/A	2"	2"	1.5 GPM
EWC	ELECTRIC WATER COOLER	1/2"	N/A	2"	2"	
EES	EMERGENCY EYEWASH SHOWER	1 1/4"	N/A	N/A	N/A	MIN 20 GPM
HB-1	HOSE BIBB, EXTERIOR, VACUUM BREAKER	3/4"	N/A	N/A	N/A	
HB-2	HOSE BIBB, INTERIOR, VACUUM BREAKER	3/4"	N/A	N/A	N/A	

SYMBOL LEGEND



CITY AND COUNTY OF HONOLULU
REVISED ORDINANCES OF HONOLULU 2021
CHAPTER 16B

To the best of my knowledge, this project's design substantially conforms to the State Energy Conservation Code for:

- ☐ Building Component Systems
- ☐ Electrical Component Systems
- ☒ Mechanical Component Systems

Signature:
Name: CAREY S. NAKAGAWA
Title: VICE-PRESIDENT
License No: 16319-M
Date: 09/03/2026

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

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EXP 4-30-28

THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PLUMBING LEGEND AND ABBREVIATIONS

DESIGNED BY:	MWH
DRAWN BY:	TEC
CHECKED BY:	CSN
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
P-001
174 OF 273 SHTS.

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G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-002 PLUMBING NOTES AND BOARD OF WATER FLOW REQUIREMENTS.dwg, 9/4/2026 4:39:18 PM, michael, Bluebeam PDF

PLUMBING NOTES

1. FOR ADDITIONAL NOTES SEE SHEET M-001.
2. CONTRACTOR MUST VERIFY ALL CONDITIONS PRIOR TO FABRICATION, INSTALLATION AND COMMENCEMENT OF ALL WORK TO BE DONE. COORDINATE ALL WORK TO BE DONE WITH OTHER TRADES.
3. ALL DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
4. CONTRACTOR MUST COORDINATE ALL WORK WITH OTHER TRADES AND FIELD CONDITIONS AFFECTING OR AFFECTED BY THIS INSTALLATION. SHOULD CONFLICTS OCCUR, THE CONTRACTING OFFICER MUST BE NOTIFIED IMMEDIATELY.
5. PROVIDE DIELECTRIC CONNECTIONS AT ALL FERROUS TO COPPER CONNECTIONS.
6. PROVIDE FIRE STOPPING AT ALL PIPE AND DUCT PENETRATIONS THROUGH FIRE RATED WALLS AND SMOKE WALLS AND FLOORS.
7. PROVIDE EPOXY COATING ON ALL EXTERIOR PIPING AND SUPPORTS.
8. CONTRACTOR MUST PROVIDE SUPPLEMENTAL STEEL FOR SUPPORT OF DUCTS, PIPING AND OTHER MECHANICAL EQUIPMENT AS INDICATED IN STRUCTURAL DRAWINGS. DO NOT DRILL STRUCTURAL STEEL OR JOISTS.
9. INSTALLATION OF ELECTRICAL ITEMS (E.G. CABLE TRAYS, CONDUITS, ETC.) IN THE CEILING CAVITY MUST BE CLOSELY COORDINATED WITH ALL TRADES (I.E. HVAC, FIRE PROTECTION SYSTEMS, ACCESS FLOOR, ETC.) TO AVOID CONFLICTS AND TO INSURE PROPER CLEARANCES ARE MET.
10. ALL MOTOR CONTROLLERS AND CONTROL PANELS MUST BE INSTALLED WITH CLEARANCE SPACES IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.
11. UNLESS OTHERWISE INDICATED, MOUNT ALL WALL MOUNTED MECHANICAL DEVICES PANELS, SWITCHES, ETC AT 48" AFF TO THE TOP OF THE DEVICE.
12. ALL ROOF, WALL AND FLOOR PENETRATIONS MUST BE VERIFIED AND COORDINATED WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
13. COORDINATE ALL ACCESS PANEL LOCATIONS WITH THE ARCHITECTURAL DRAWINGS AND CENTER ON THE EQUIPMENT OR DEVICE IT SERVES (eg WHA, VALVES, ETC). FOR 1 HOUR RATED WALLS AND ROOF/CEILING ASSEMBLIES, PROVIDE MINIMUM 1 HOUR RATED ACCESS PANELS.
14. CONTRACTOR MUST ENSURE THAT ALL EQUIPMENT AND PIPING ARE INSTALLED WITH MANUFACTURER'S RECOMMENDED ACCESS SPACE FOR MAINTENANCE, OPERATION AND CODES. ALL EQUIPMENT MUST BE CAPABLE OF FITTING INTO THE SPACES ALLOCATED WHILE MEETING THE MANUFACTURER'S RECOMMENDED ACCESS REQUIREMENTS. REVIEW ALL SPACES WHERE EQUIPMENT IS TO BE INSTALLED PRIOR TO ORDERING OF EQUIPMENT AND NOTIFY THE CONTRACTING OFFICER OF ANY INADEQUATE CLEARANCES OR CONDITIONS THAT WILL PREVENT PROPER INSTALLATION, MAINTENANCE AND OPERATION OF THE EQUIPMENT.
15. ALL SINKS, FLOOR DRAINS, FLOOR SINKS AND OTHER WASTE WATER CONNECTIONS WHICH ACCEPT PROCESS/WASHDOWN WATER, MUST BE PROVIDED WITH 1/4" SCREENED OPENINGS MAXIMUM.
16. PROVIDE SEISMIC BRACING AS SPECIFIED.
17. UNLESS OTHERWISE INDICATED, MOUNT ALL HOSE BIBBS AT 24" AFF.
18. NO PIPING OR DUCTS ALLOWED ABOVE THE ELECTRIC ROOM OR TELECOMMUNICATIONS ROOM UNLESS THEY ARE SERVING THAT ROOM.
19. ALL GAPS AT THE PENETRATIONS THROUGH FIRE RATED CEILING AND WALL ASSEMBLIES FOR DUCTS, PIPES, PIPE AND DUCT SUPPORTS, RODS, STRAPS, CONTROL CONDUITS, ETC. MUST BE SEALED WITH APPROVED FIRE STOPPING MATERIAL AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY. SEE ARCH DRAWINGS FOR LOCATION OF FIRE RATED WALLS & CEILINGS.
20. FOR VENT THROUGH ROOF FLASHING DETAIL, COORDINATE WITH ARCHITECTURAL.
21. PROVIDE HIGH POINT VENTS AT ALL HIGH POINTS TO PREVENT TRAPPING OF AIR.
22. COORDINATE INSTALLATION OF ALL WALL CLEANOUTS TO BE ABOVE THE FLOORING COVE BASE.
23. PROVIDE WATER CLOSETS WITH ELONGATED BOWL AND OPEN FRONT SEAT.

PLUMBING FIXTURE TO BE ADDED

FIXTURE TYPE	QUANTITY	WATER	
		FU/FIX	TOTAL FU
WATER CLOSET (FLUSH VALVE)	6	3.4	20.4
URINAL (FLUSH VALVE)	6	1.7	10.2
LAVATORY	6	0.6	3.6
SHOWER	6	1.6	9.6
EWC	2	0.6	1.2
KITCHEN SINK	1	1.6	1.6
MOP SINK	1	2	2
HOSE BIBB	1	2.5	2.5
HOSE BIBB (ADDITIONAL)	13	1	13
TRAP PRIMER	3	0.6	1.8
SUBTOTAL			65.9
TOTAL GPM			57

BOARD OF WATER SUPPLY FLOW REQUIREMENTS

PREMISE ID NUMBER (ID): -

METER NUMBER (M/N): NEW

DESCRIPTION	FU	GPM	GPD
A. PROPOSED DOMESTIC: (ALL FIXTURES BEING INSTALLED)	65.9	57	1,000
B. PROPOSED IRRIGATION:	-	-	-
C. PROPOSED OTHER:	0	0	0
D. TOTAL PROPOSED: (DO NOT INCLUDE IRRIGATION GPM IF LESS THAN DOMESTIC & DONE DURING OFF-PEAK HOURS)	65.9	57	1,000
E. DEMOLITION: (ALL FIXTURES BEING REMOVED) DEMO PERMIT #XXXXX-XX-XXXX DATE: -	18	14	50
F. NET CHANGE: (SUBTRACT "E" FROM "D" ABOVE)	47.9	43	950
G. EXISTING TO REMAIN: (OTHER FIXTURES SERVICED BY THIS METER BUT NOT AFFECTED BY PROJECT)	0	0	0
H. EXISTING IRRIGATION: (HIGHEST VALVE DEMAND)	0	0	0
YEAR INSTALLED: -			
BUILDING PERMIT#: -			
I. GRAND TOTAL: (ADD "D", "G" AND "H" ABOVE)	65.9	57	1,000

NOTES:

1. NO IRRIGATION WILL BE PROVIDED.
2. A/C WORK WILL NOT AFFECT WATER DEMAND.
3. FIRE SPRINKLER SYSTEM IS ON SEPARATE DESIGNATED WATER METER (METER NUMBER: XXXXXXXXXX) AND WILL NOT AFFECT THE NEW DOMESTIC WATER METER.

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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PLUMBING NOTES AND BOARD OF WATER FLOW REQUIREMENTS

DESIGNED BY:	MWH
DRAWN BY:	TEC
CHECKED BY:	CSN
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
P-002
175 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

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BOX DRAIN 7' x 5'

FOR WORK IN THIS AREA, SEE SHEETS P-405

PUMP

WASH RACK

UNIVERSAL WASTE

MATERIALS STORAGE CANOPY

BOAT SHED

PARKING CANOPY

FOR WORK IN THIS AREA, SEE SHEETS P-401

FOR WORK IN THIS AREA, SEE SHEETS P-402

FOR WORK IN THIS AREA, SEE SHEETS P-403

FOR WORK IN THIS AREA, SEE SHEETS P-404

ADMINISTRATION BUILDING

MAINTENANCE SHOP - EWA WING

MAINTENANCE SHOP - DIAMOND HEAD WING

1 PLUMBING SITE PLAN
1" = 20'-0"

PLAN NORTH

0 10' 20' 40'
SCALE: 1" = 20'-0"

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PLUMBING SITE PLAN

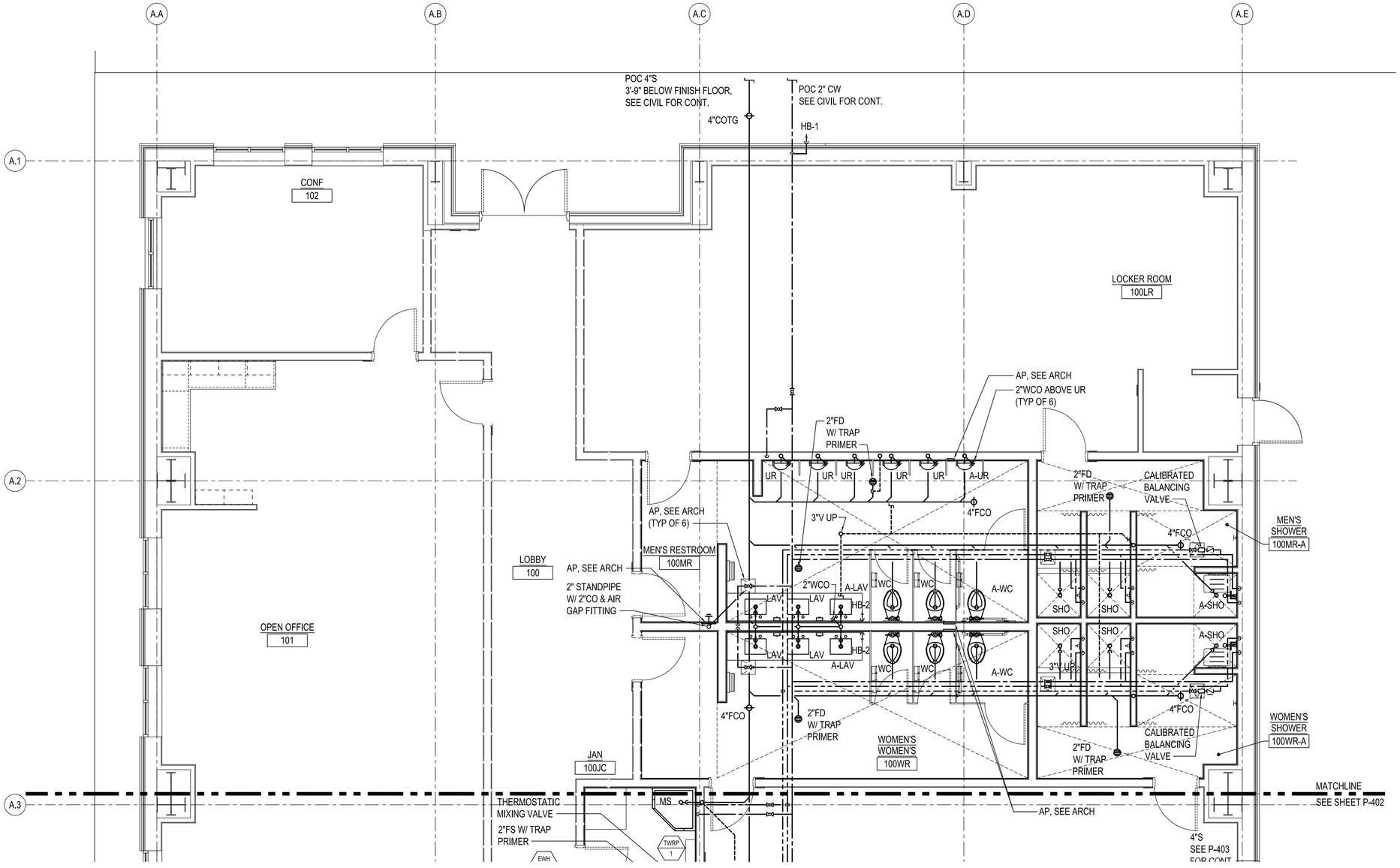
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JOB NUMBER
P10981

SHEET
P-003
176 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

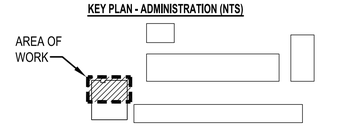
G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-401 ADMIN BUILDING PARTIAL PLUMBING PLAN.dwg, 9/4/2026 4:39:31 PM, michael, Bluebeam PDF



1 ADMIN BUILDING PARTIAL PLUMBING PLAN
1/4" = 1'-0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



0 2' 4' 8'
SCALE: 1/4" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

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HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ADMIN BUILDING PARTIAL PLUMBING PLAN

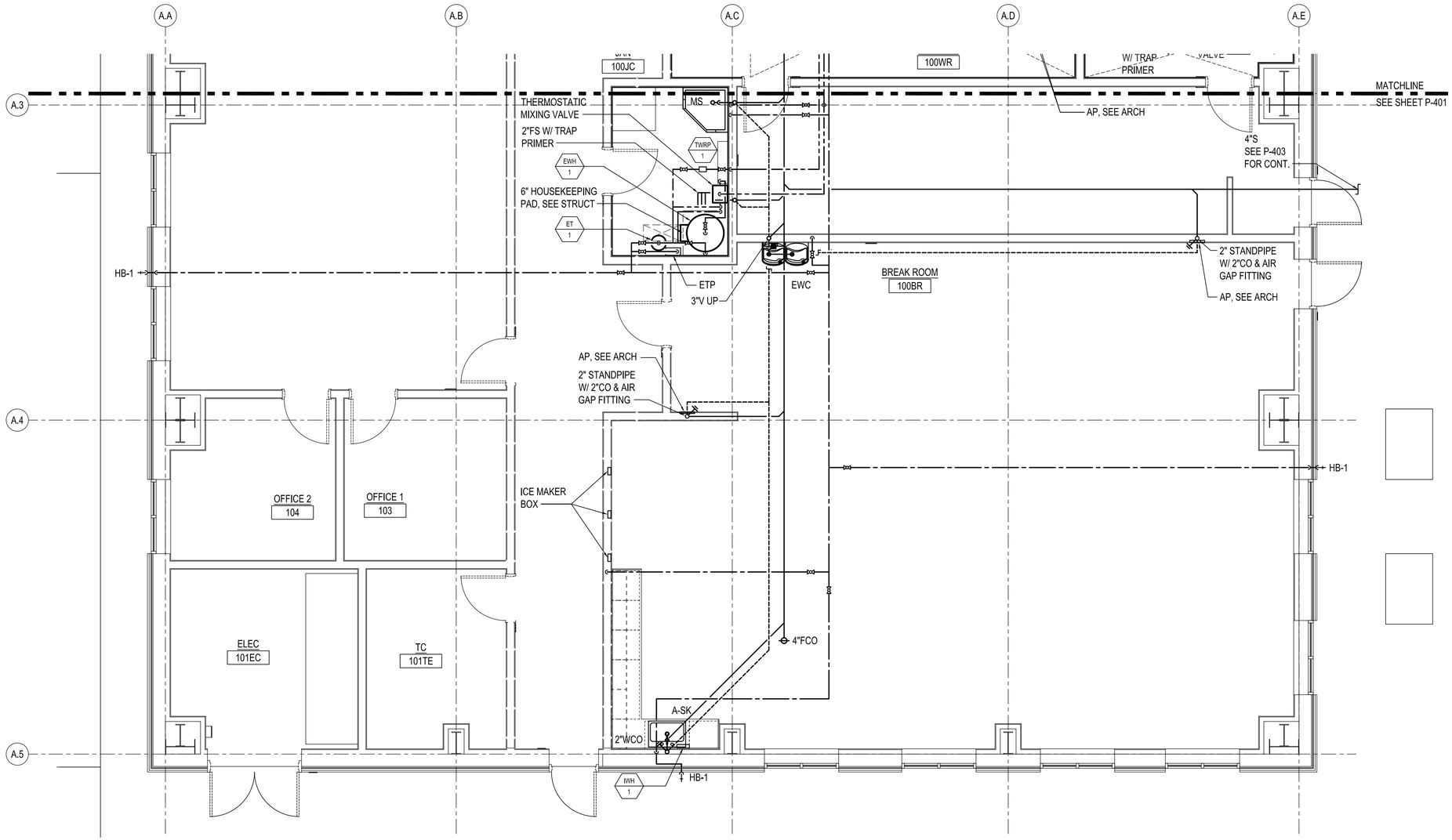
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DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
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SHEET
P-401
177 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-402 ADMIN BUILDING PARTIAL PLUMBING PLAN.dwg, 9/4/2026 4:39:37 PM, michael, Bluebeam PDF

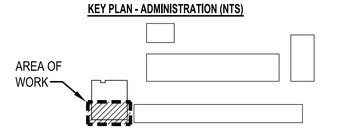


1 ADMIN BUILDING PARTIAL PLUMBING PLAN

1/4" = 1'-0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



0 2' 4' 8'

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

REVISION	DATE	DESCRIPTION	BY	APPROVED

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STATE OF HAWAII
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HARBORS

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HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ADMIN BUILDING PARTIAL PLUMBING PLAN

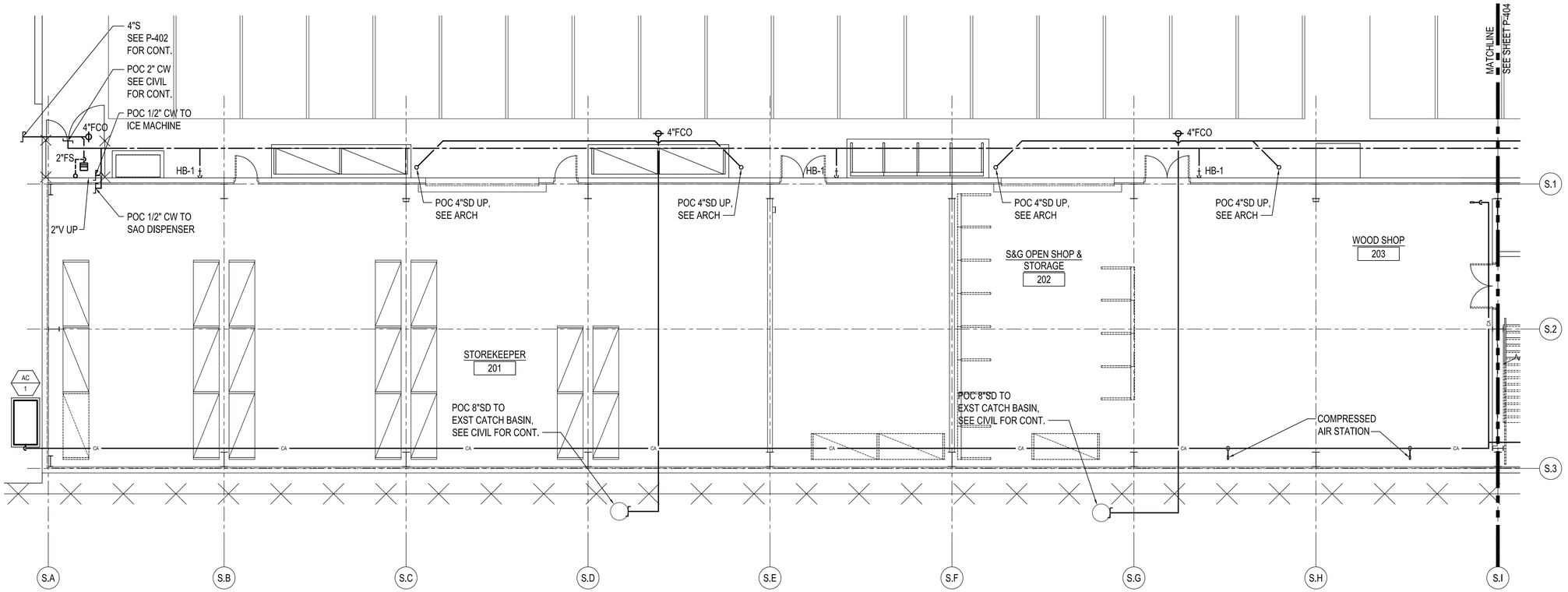
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SHEET
P-402
178 OF 273 SHTS.

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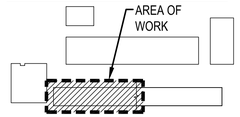
G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-403 MAINTENANCE SHOP EWA WING PLUMBING PLAN.dwg, 9/4/2026 4:39:44 PM, michael, Bluebeam PDF



1 MAINTENANCE SHOP EWA WING PLUMBING PLAN
1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (DH WING) (NTS)



0 4' 8' 16'

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

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HARBORS

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SHEET TITLE
MAINTENANCE SHOP EWA WING PLUMBING PLAN

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THERMAL ENGINEERING CORPORATION

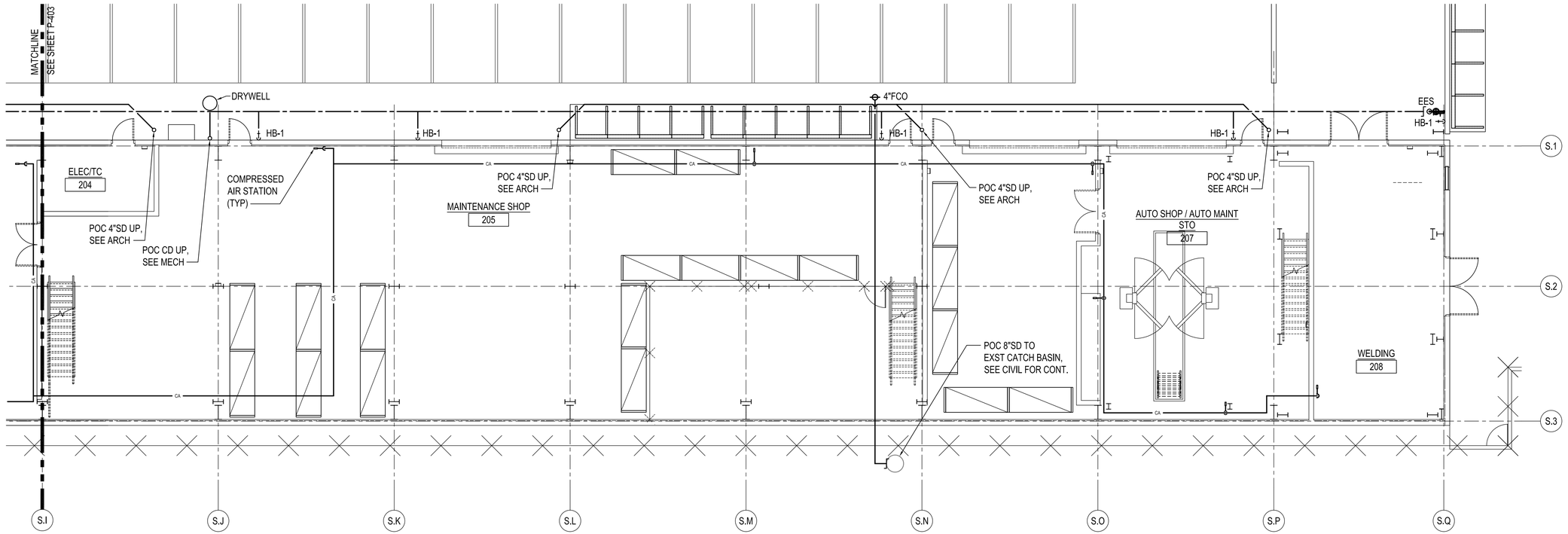
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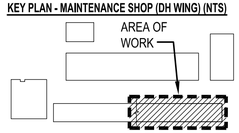
G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-404 MAINTENANCE SHOP DIAMOND HEAD WING PLUMBING PLAN.dwg, 9/4/2026 4:39:51 PM, michael, Bluebeam PDF



1 MAINTENANCE SHOP DIAMOND HEAD WING PLUMBING PLAN
1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (DH WING) (NTS)



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

REVISION	DATE	DESCRIPTION	BY	APPROVED

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MAINTENANCE SHOP DIAMOND HEAD WING PLUMBING PLAN

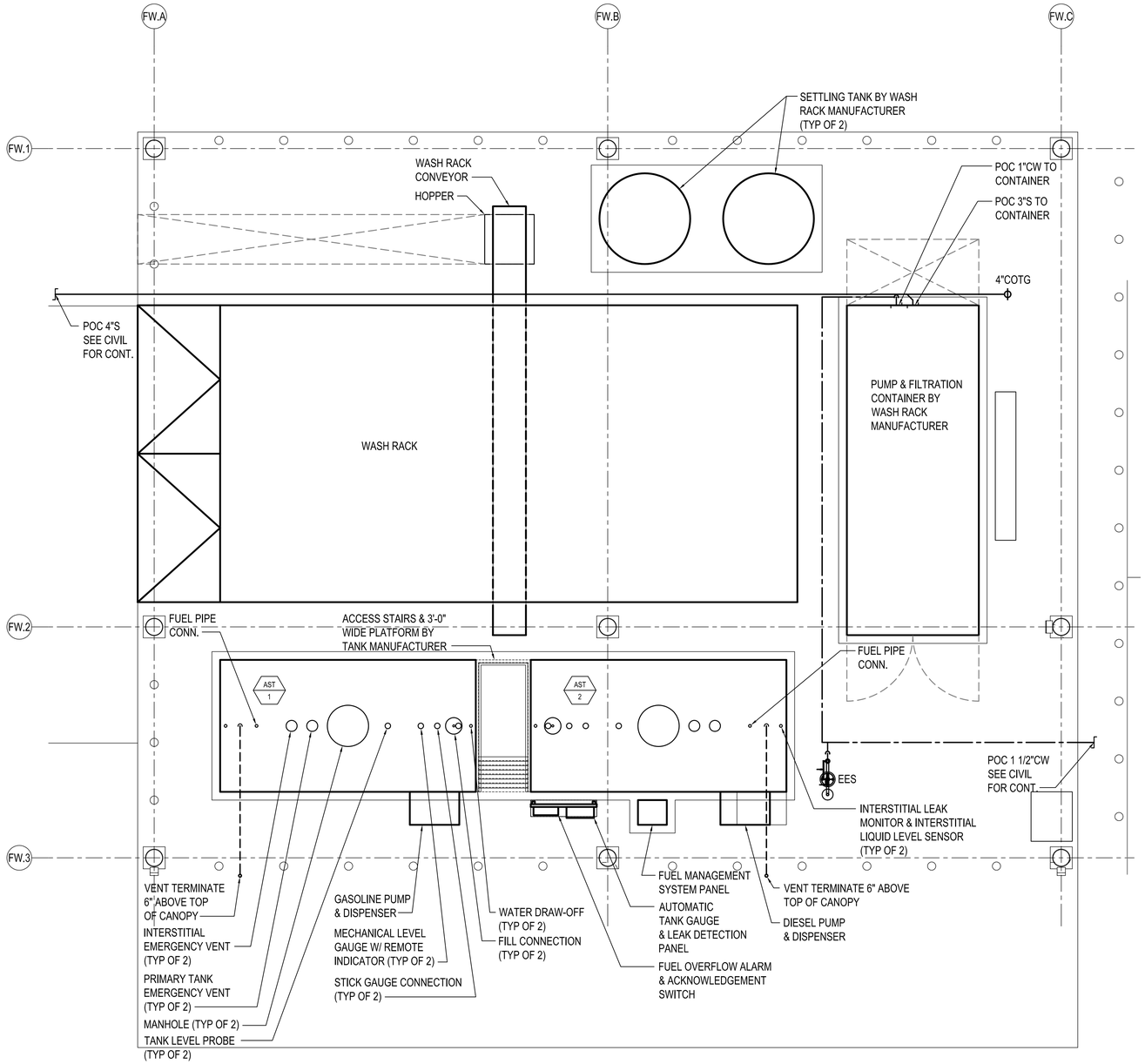
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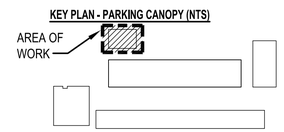
G:\2023\23016 Oahu District Baseyard Relocation\Drawings\vumming set\P-405 FUEL TANK AND WASH RACK PLUMBING PLAN.dwg, 9/4/2026 4:39:58 PM, michael, Bluebeam PDF



1 FUEL TANK AND WASH RACK PLUMBING PLAN
1/4" = 1'-0"

PLAN NORTH

KEY PLAN - PARKING CANOPY (NTS)



0 2' 4' 8'
SCALE: 1/4" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
FUEL TANK AND WASH RACK PLUMBING PLAN

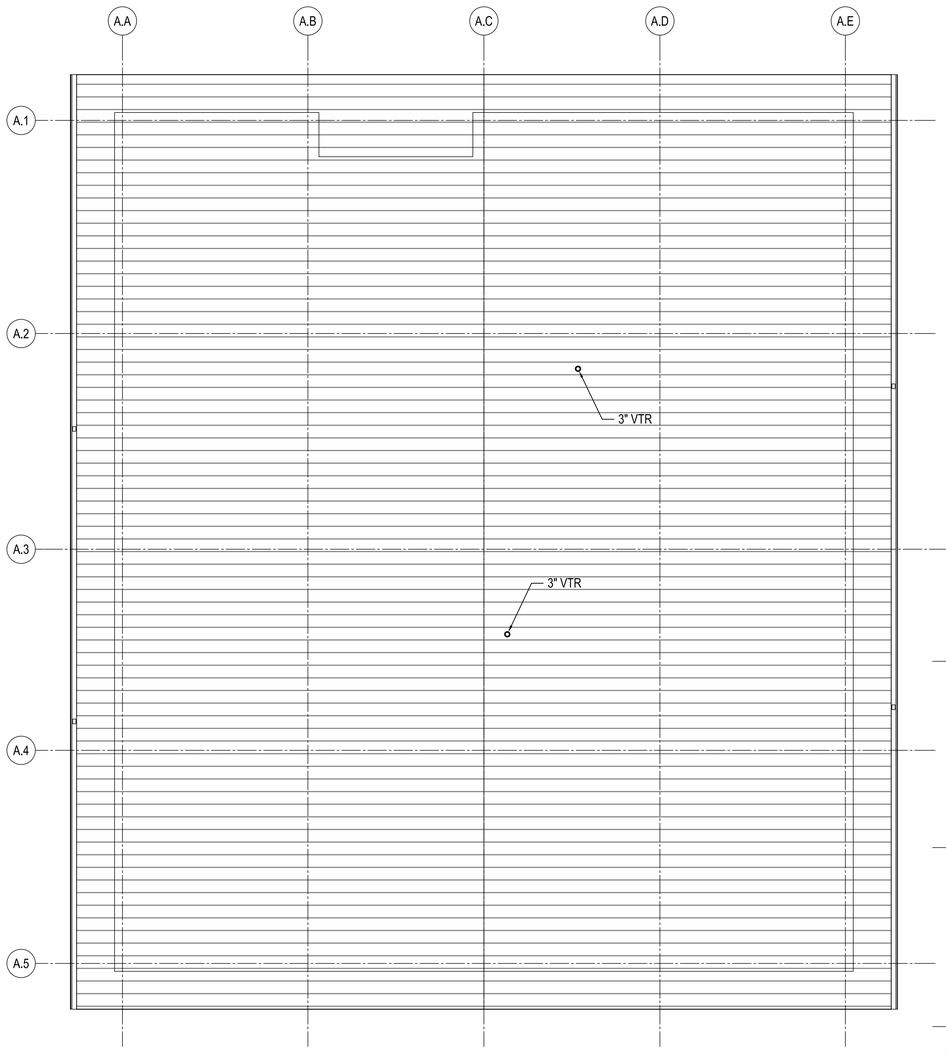
DESIGNED BY:	MWH
DRAWN BY:	TEC
CHECKED BY:	CSN
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

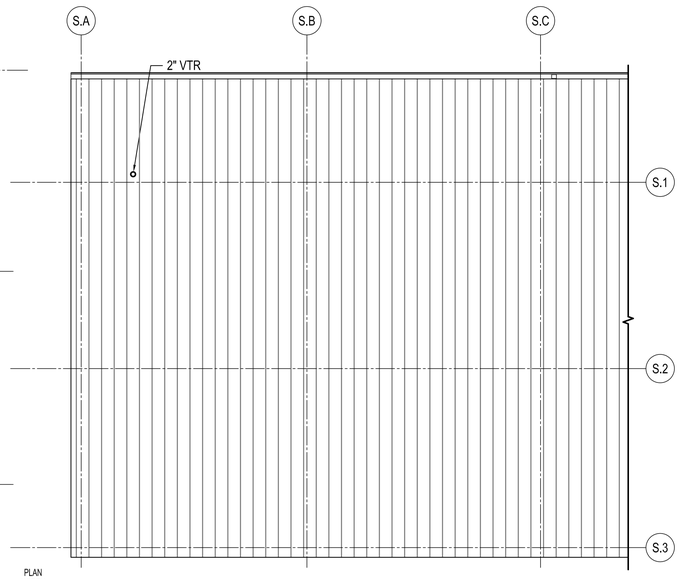
SHEET
P-405
181 OF 273 SHTS.

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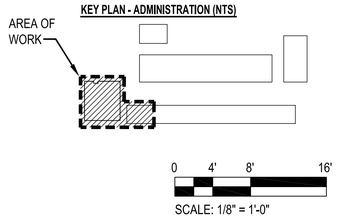
G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-406 ADMIN BUILDING ROOF AND PARTIAL MAINTENANCE SHOP EWA WING ROOF PLUMBING PLAN.dwg, 9/4/2026 4:40:04 PM, michael, Bluebeam PDF



1 ADMIN BUILDING ROOF AND PARTIAL MAINTENANCE SHOP EWA WING ROOF PLUMBING PLAN
1/8" = 1'-0"



PLAN NORTH



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

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SHEET TITLE
ADMIN BUILDING ROOF AND PARTIAL MAINTENANCE SHOP EWA WING ROOF PLUMBING PLAN

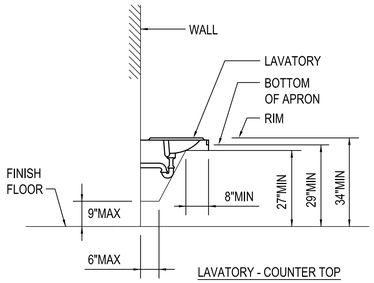
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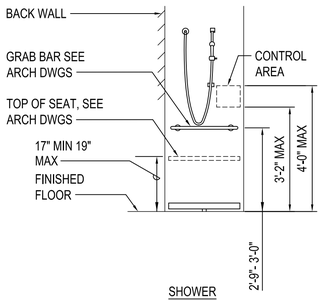
SHEET
P-406
182 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

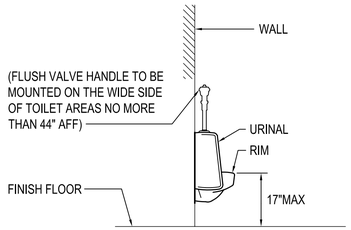
G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-501 PLUMBING DETAILS.dwg, 9/4/2025 4:40:10 PM, michael, Bluebeam PDF



LAVATORY - COUNTER TOP

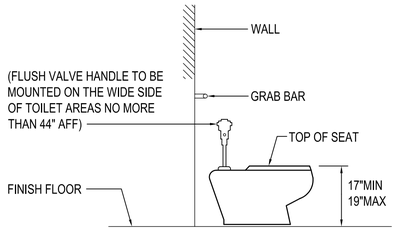


SHOWER



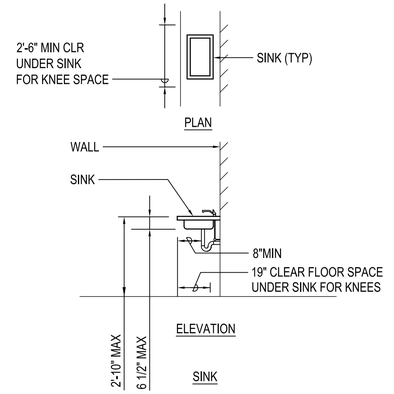
NOTE: FORCE TO ACTUATE FLUSH VALVE SHALL BE LESS THAN 5 LBS.

URINAL - STALL



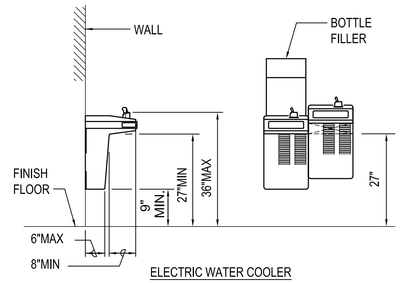
NOTE: FORCE TO ACTUATE FLUSH VALVE SHALL BE LESS THAN 5 LBS.

WATER CLOSET



ELEVATION

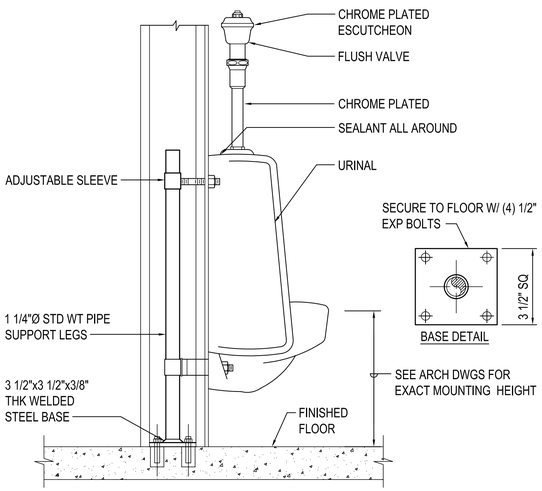
SINK



ELECTRIC WATER COOLER

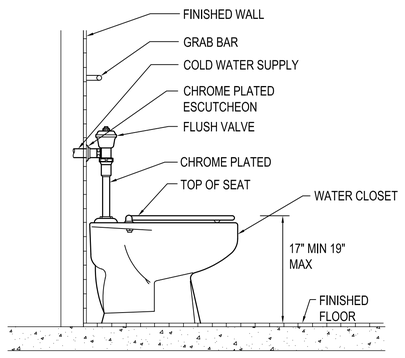
1 P-501 ACCESSIBLE PLUMBING FIXTURE REQUIREMENT DETAILS

SCALE: NONE



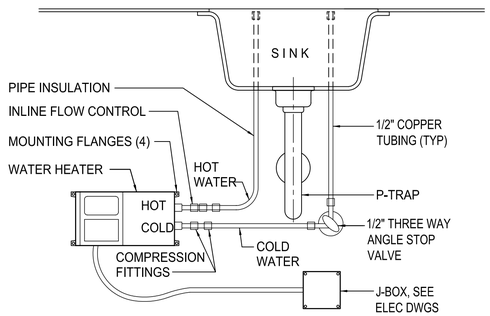
2 P-501 WALL MOUNTED URINAL DETAIL

SCALE: NONE



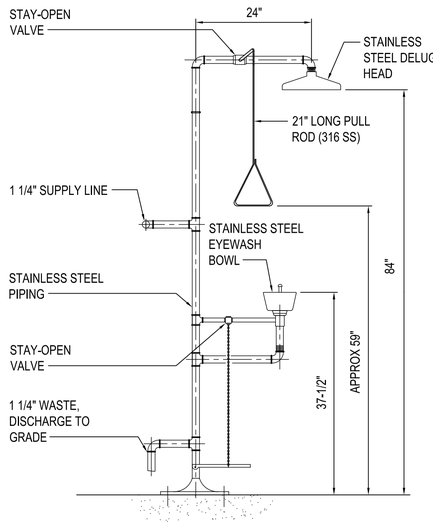
3 P-501 FLUSH VALVE WATER CLOSET

SCALE: NONE



4 P-501 INSTANTANEOUS WATER HEATER DETAIL

SCALE: NONE



5 P-501 EMERGENCY SHOWER & EYEWASH DETAIL

SCALE: NONE

CAREY S. NAKAGAWA
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HAWAII, U.S.A.

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SHEET TITLE
PLUMBING DETAILS

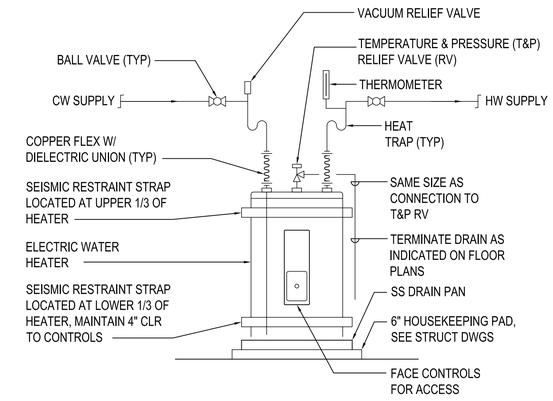
DESIGNED BY:	MWH
DRAWN BY:	TEC
CHECKED BY:	CSN
DATE:	09/2026
SCALE:	AS SHOWN

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P10981

SHEET
P-501
183 OF 273 SHTS.

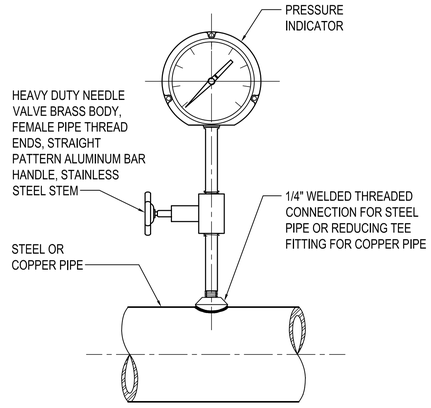
100% SUBMITTAL - SEPTEMBER 2026

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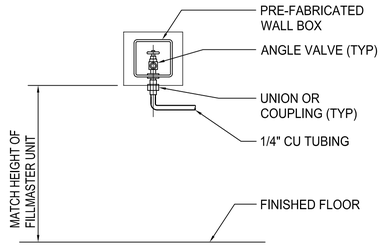
1 P-502 ELECTRIC WATER HEATER DETAIL

SCALE: NONE



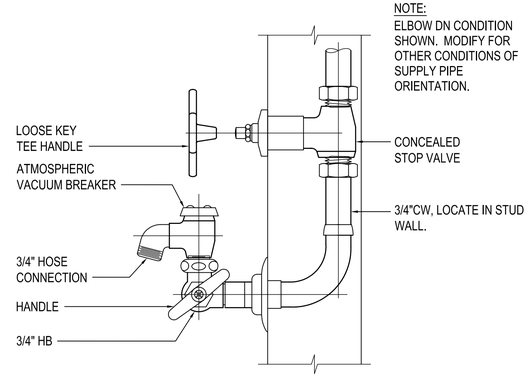
2 P-502 DIRECT MOUNTED WATER PRESSURE GAUGE DETAIL

SCALE: NONE



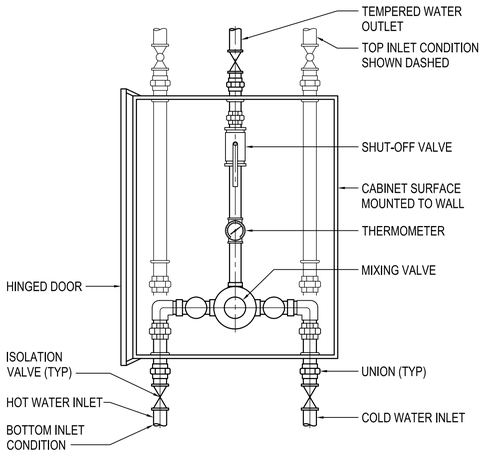
3 P-502 WALL BOX DETAIL

SCALE: NONE



4 P-502 INTERIOR HOSE BIBB DETAIL

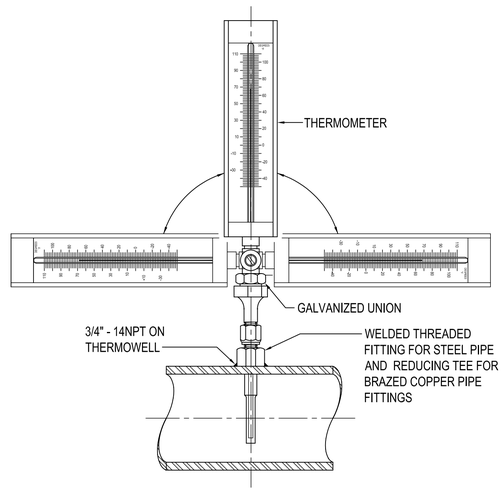
SCALE: NONE



NOTES:
1. SET MIXING VALVES AT 120°F TEMPERATURE SETTING.
2. SEE WATER PIPING DIAGRAM FOR CONNECTIONS TO CW, HW, AND TW SYSTEMS.
3. SEE ISOMETRIC PIPING DIAGRAM FOR INLET CONDITION.

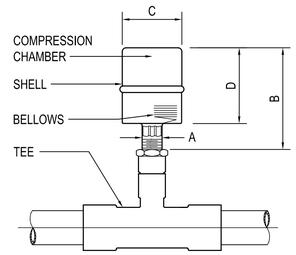
5 P-502 THERMOSTATIC MIXING VALVE DETAIL

SCALE: NONE



6 P-502 ADJUSTABLE ANGLE THERMOMETER DETAIL

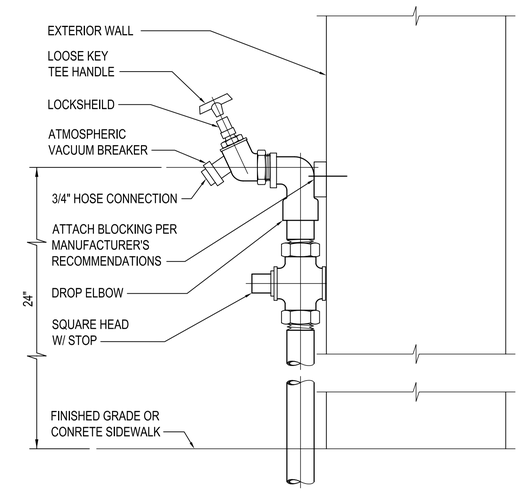
SCALE: NONE



PDI SYMBOL	FIXTURE UNIT RATING	A SIZE	B SIZE	C SIZE	D SIZE
A	1 - 11	3/4"	2 5/8"	3 1/4"	1 7/16"
B	12 - 32	1"	3"	3 1/4"	1 3/4"
C	33 - 60	1"	3 5/8"	3 1/4"	2 1/4"
D	61 - 113	1"	5 1/8"	3 1/4"	3 1/4"
E	114 - 154	1"	5 1/2"	3 1/4"	4 1/8"
F	155 - 330	1"	6 5/8"	3 1/4"	5 1/4"

7 P-502 WATER HAMMER ARRESTER DETAIL

SCALE: NONE



8 P-502 EXTERIOR HOSE BIBB DETAIL

SCALE: NONE

CAREY S. NAKAGAWA
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HAWAII, U.S.A.

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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PLUMBING DETAILS

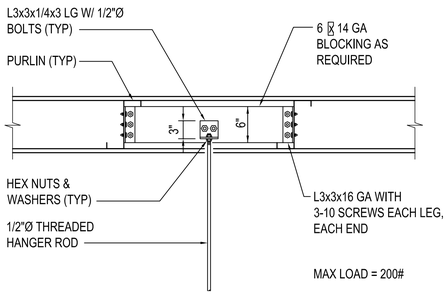
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DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

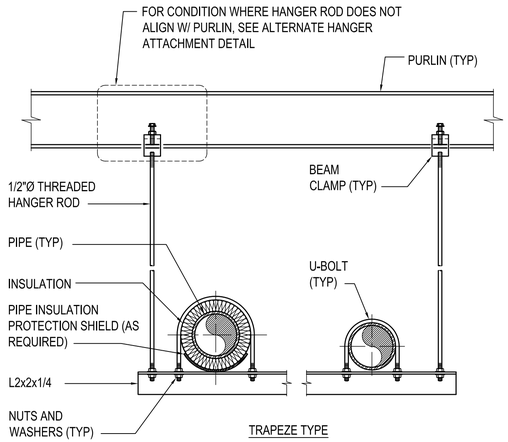
SHEET
P-502
184 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

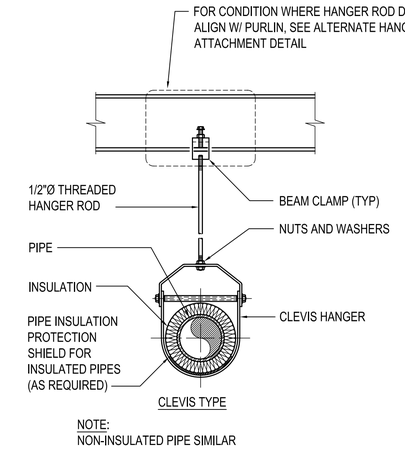
G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-503 PLUMBING DETAILS.dwg, 9/4/2026 4:40:20 PM, michael, Bluebeam PDF



1 M-503 ALTERNATE HANGER ATTACHMENT DETAIL
SCALE: NONE

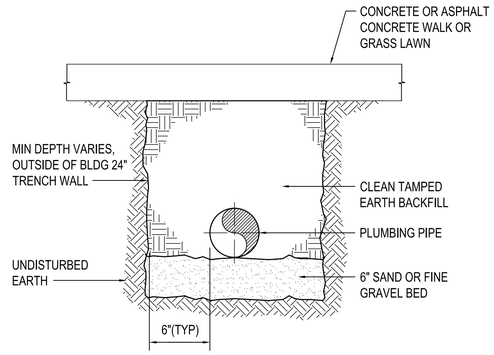


2 M-503 PIPE HANGER DETAIL
SCALE: NONE

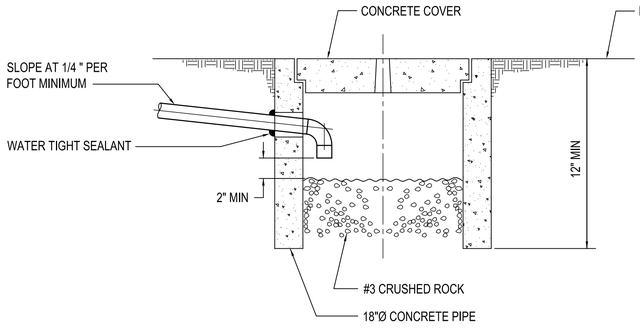


NOTE:
NON-INSULATED PIPE SIMILAR

3 M-503 PIPE HANGER DETAIL
SCALE: NONE



4 P-503 TYPICAL TRENCH DETAIL
SCALE: NONE



4 M-503 DRYWELL DETAIL
SCALE: NONE

REVISION	DATE	DESCRIPTION	BY	APPROVED

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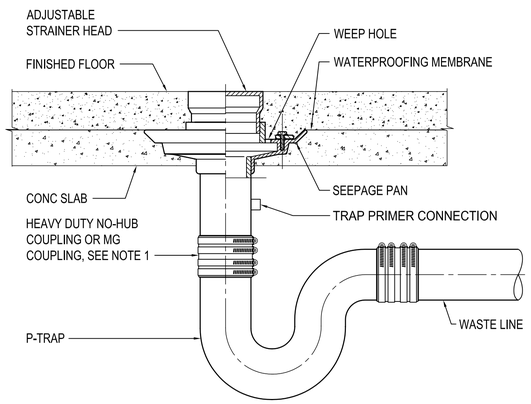
DESIGNED BY:	MWH
DRAWN BY:	TEC
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DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
P-503
185 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

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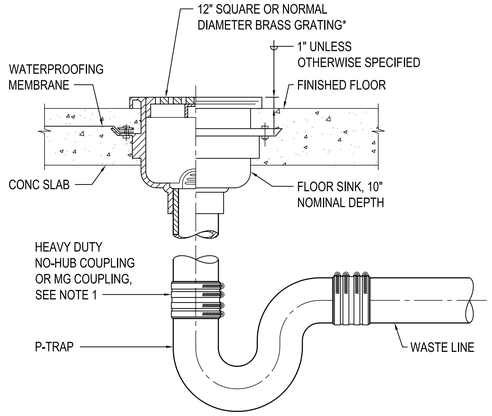


NOTE:

1. UNDERGROUND DWV PIPES ARE ABS PIPES & FITTING WITH SOLVENT JOINT CONNECTIONS.

1 P-504 FLOOR DRAIN W/ TRAP PRIMER DETAIL

SCALE: NONE



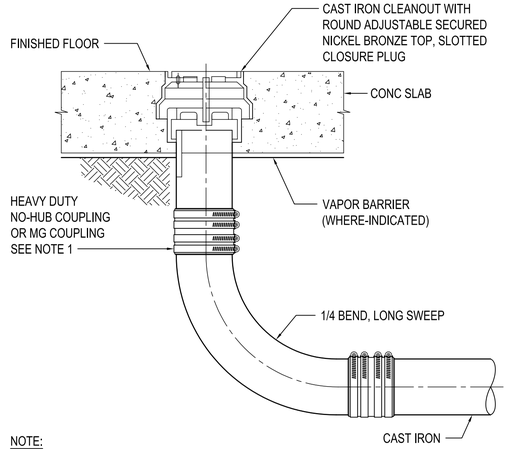
* PROVIDE 3/4 GRATE FOR FLOOR SINKS RECEIVING INDIRECT WASTES, UNLESS OTHERWISE INDICATED.

NOTE:

1. UNDERGROUND DWV PIPES ARE ABS PIPES & FITTING WITH SOLVENT JOINT CONNECTIONS.

2 P-504 FLOOR SINK DETAIL

SCALE: NONE

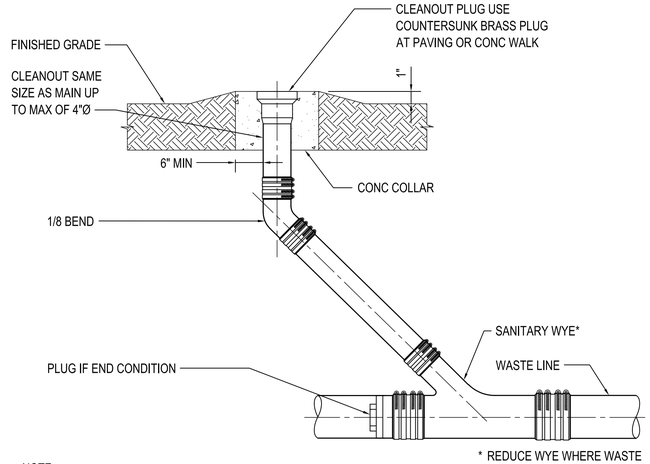


NOTE:

1. UNDERGROUND DWV PIPES ARE ABS PIPES & FITTING WITH SOLVENT JOINT CONNECTIONS.

3 P-504 FLOOR CLEANOUT DETAIL

SCALE: NONE



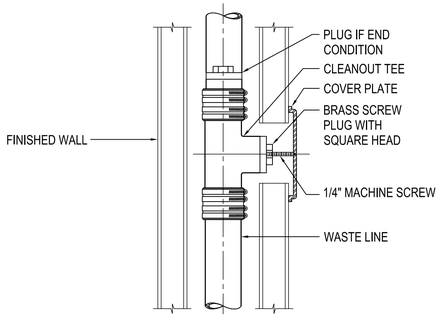
NOTE:

1. UNDERGROUND DWV PIPES ARE ABS PIPES & FITTING WITH SOLVENT JOINT CONNECTIONS.

* REDUCE WYE WHERE WASTE LINE IS LARGER THAN 4"

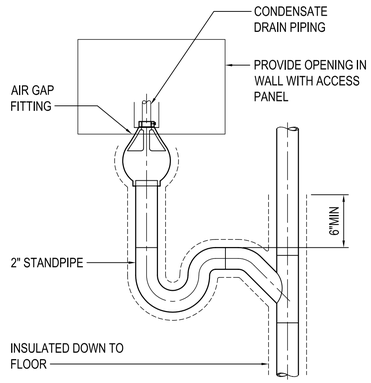
4 P-504 CLEANOUT TO GRADE DETAIL

SCALE: NONE



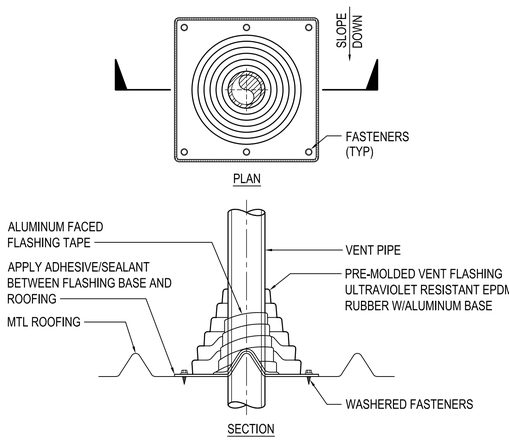
5 P-504 WALL CLEANOUT DETAIL

SCALE: NONE



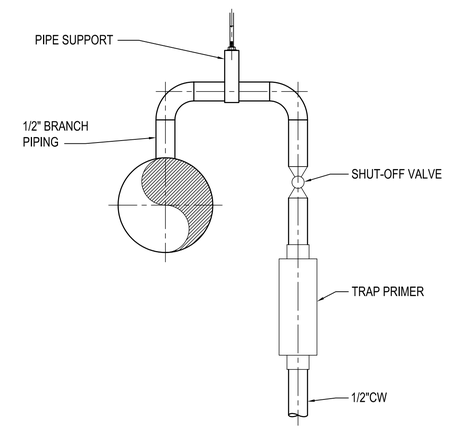
6 P-504 STANDPIPE DETAIL

SCALE: NONE



7 P-504 VENT THRU ROOF DETAIL

SCALE: NONE



8 P-504 TRAP PRIMER DETAIL

SCALE: NONE

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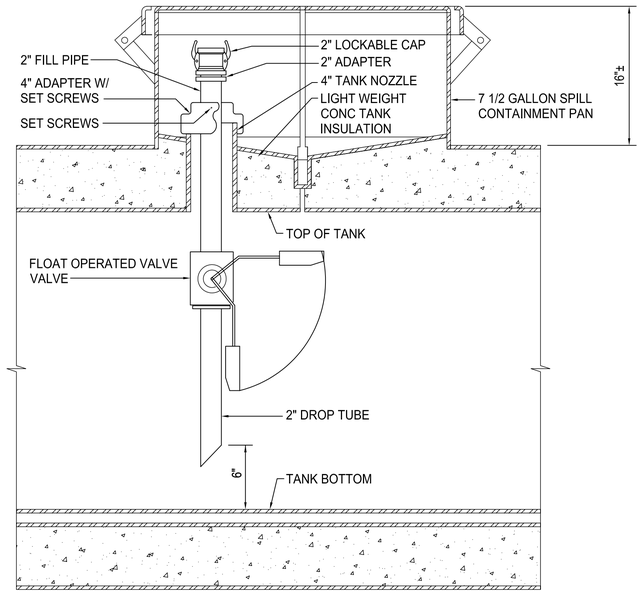
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SHEET
P-504
186 OF 273 SHTS.

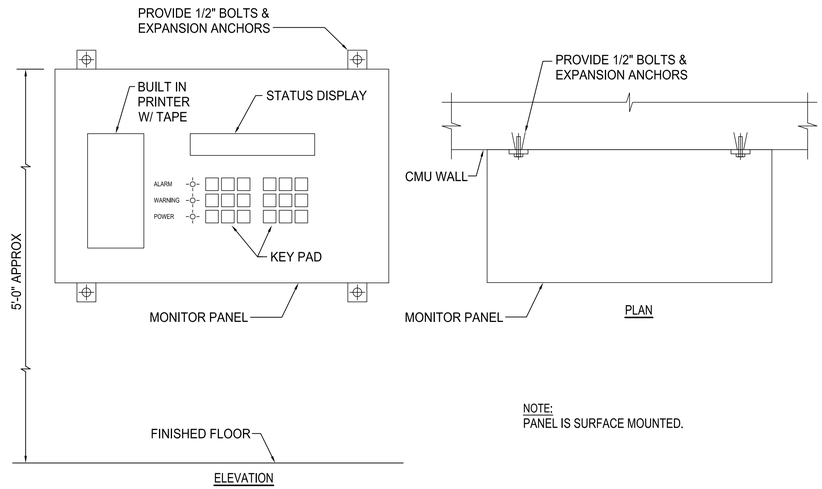
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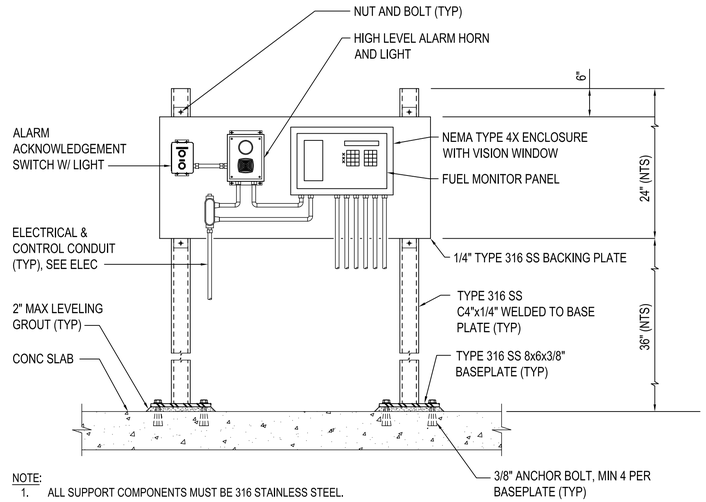
1 P-505 FUEL STORAGE TANK FILL CONNECTION WITH FILL LIMITER AND OVERFILL CONTAINMENT DETAIL

SCALE: NONE



2 P-505 FUEL MONITOR PANEL DETAIL

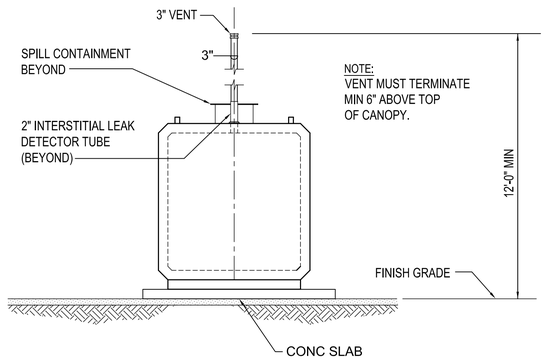
SCALE: NONE



NOTE:
1. ALL SUPPORT COMPONENTS MUST BE 316 STAINLESS STEEL.
2. PROVIDE C4"x1/4" AT MID HEIGHT OF BACKING PLATE TO STIFFEN PLATE.

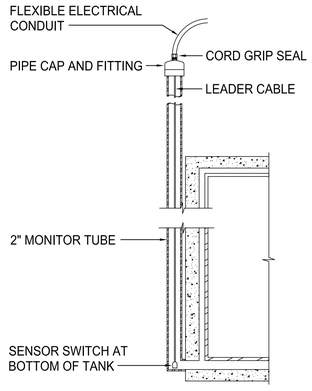
3 P-505 FUEL MONITORING SYSTEM MOUNTING DETAIL

SCALE: NONE



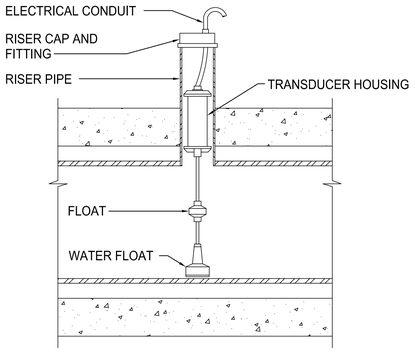
4 P-505 ABOVEGROUND FUEL STORAGE TANK ELEVATION DETAIL

SCALE: NONE



5 P-505 FUEL STORAGE TANK INTERSTITIAL LEAK DETECTOR TUBE DETAIL

SCALE: NONE



6 P-505 FUEL STORAGE TANK LEVEL PROBE DETAIL

SCALE: NONE

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HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PLUMBING DETAILS

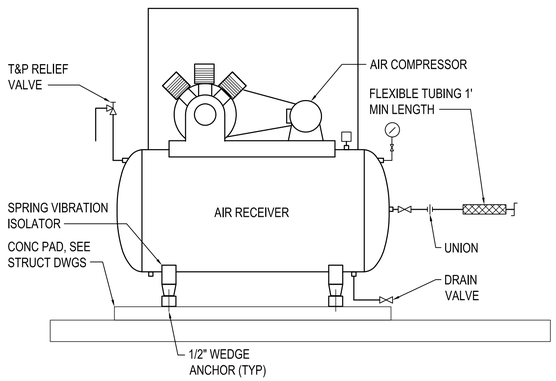
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SHEET
P-505
187 OF 273 SHTS.

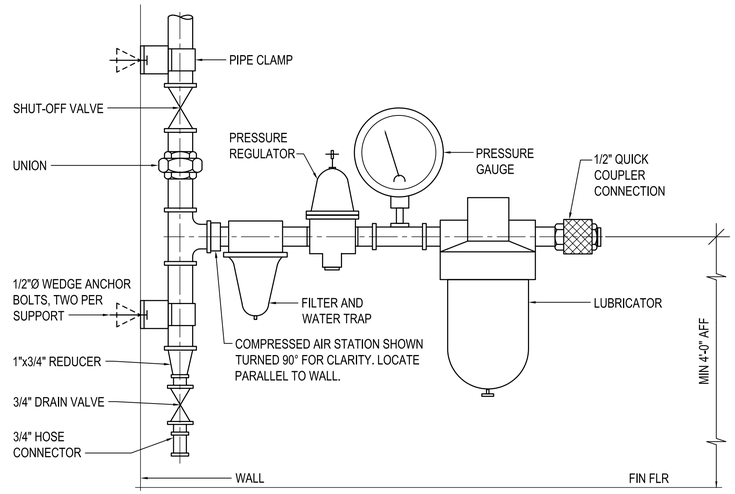
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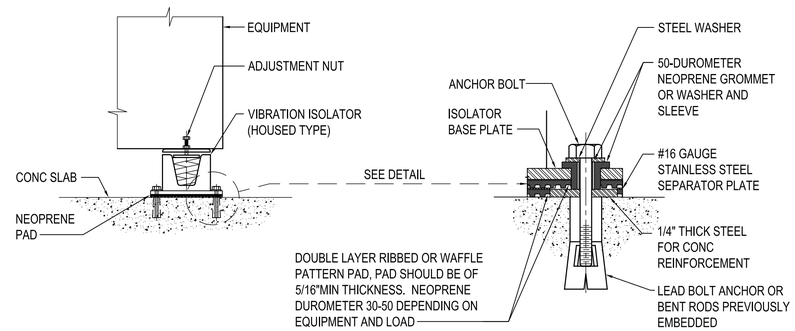
1 P-506 AIR COMPRESSOR PIPING SCHEMATIC DETAIL

SCALE: NONE



2 P-506 COMPRESSED AIR STATION DETAIL

SCALE: NONE



3 P-506 SPRING VIBRATION ISOLATION MOUNTING DETAIL

SCALE: NONE

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SHEET TITLE
PLUMBING DETAILS

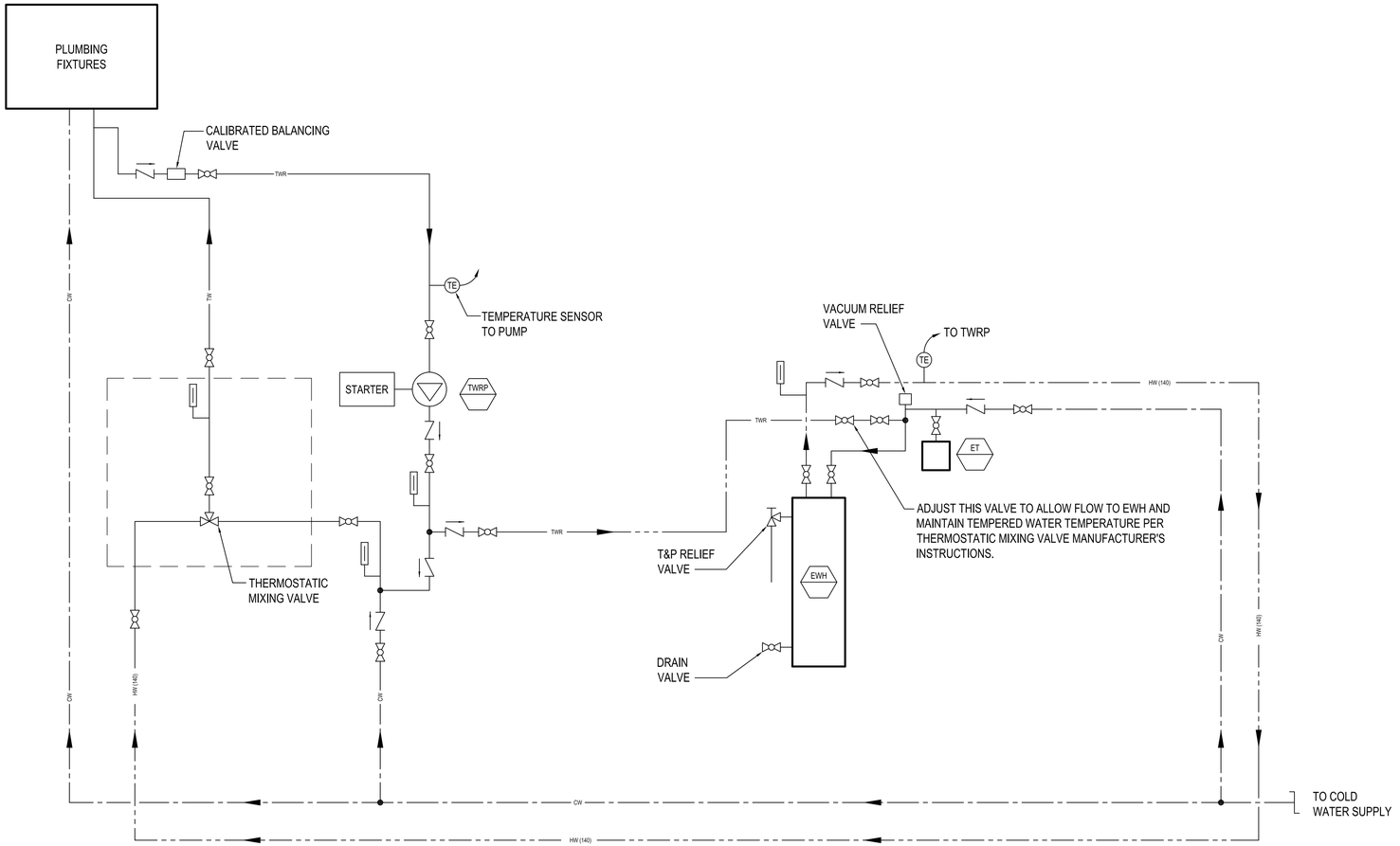
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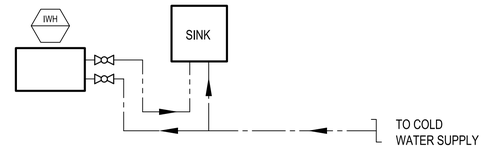
100% SUBMITTAL - SEPTEMBER 2026

G:\2023\23016 Oahu District Baseyard ReAocation\Drawings\running set\P-601 HOT WATER SYSTEM SCHEMATIC DIAGRAM AND SEQUENCE OF OPERATION.dwg, 9/4/2026 4:40:42 PM, michael, Bluebeam PDF



DOMESTIC HOT WATER SYSTEM SCHEMATIC DIAGRAM

SCALE: NONE



INSTANTANEOUS HOT WATER SCHEMATIC DIAGRAM

SCALE: NONE

SEQUENCE OF OPERATION

DOMESTIC HOT WATER SYSTEM

1. DOMESTIC HOT WATER IS SUPPLIED AT 140 DEG F BY AN ELECTRIC WATER HEATER.
2. THE DOMESTIC HOT WATER IS TEMPERED AT THE THERMOSTATIC MIXING VALVE AND SUPPLIED TO THE FACILITY AS TEMPERED WATER AT 110 DEG F
3. TEMPERED WATER RETURN:
   - 3.1. A TEMPERED WATER RETURN PUMP IS PROVIDED TO MAINTAIN THE TEMPERATURE IN THE TEMPERED WATER SYSTEM.
   - 3.2. THE TEMPERED WATER RETURN PUMP IS ACTIVATED WHEN THE TEMPERATURE IN THE TEMPERED WATER SYSTEM DROPS BELOW 100 DEG F.

INSTANTANEOUS HOT WATER SYSTEM

1. POINT OF USE INSTANTANEOUS HOT WATER IS PROVIDED TO SINKS ONLY.
2. WHEN THE SINK IS NOT IN USE, THE HEATER IS DE-ENERGIZED. WHEN THE SINK IS IN USE, THE HEATER IS ENERGIZED AND PROVIDES HOT WATER TO THE SINK.

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JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
HOT WATER SYSTEM SCHEMATIC DIAGRAM AND SEQUENCE OF OPERATION

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P-601
189 OF 273 SHTS.

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G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\P-602 EQUIPMENT SCHEDULES.dwg, 9/4/2026 4:40:47 PM, michael, Bluebeam PDF

ELECTRIC WATER HEATER SCHEDULE

TAG NO.	LOCATION	STORAGE CAPACITY (GAL)	INPUT KILOWATTS	NUMBER OF ELEMENTS	WATER TEMPERATURE RISE (°F)	RECOVERY RATE (GPH)	DIMENSIONS (IN)	WATER TEMPERATURE		POWER V/PH/HZ	APPROX. DRY WEIGHT (LBS)	REMARKS
								ENTERING (°F)	LEAVING (°F)			
EWH 1	JANITOR	120	12	3	70	72	30"Ø x 62"H	72	140	208/3/60	390	

TEMPERED WATER RETURN PUMP SCHEDULE

TAG NO.	TYPE	SERVICE	FLOW RATE (GPM)	TOTAL DYNAMIC HEAD (FT)	MOTOR		REMARKS
					HP	POWER	
TWRP 1	CIRCULATOR	DOMESTIC HOT WATER	1.0	15	0.1	115V/1Ø/60HZ	

EXPANSION TANK SCHEDULE

TAG NO.	LOCATION	SERVICE	TANK VOL (GAL)	ACCEPT. VOL (GAL)	LENGTH (IN)	DIAMETER (IN)	MAX PRESSURE (PSI)	MAX TEMP (°F)	WEIGHT (LBS)	REMARKS
ET 1	JANITOR	DOMESTIC HOT WATER	8.5	7.1	19.2	12.5	150	200	15	

INSTANTANEOUS WATER HEATER SCHEDULE

TAG NO.	LOCATION	INPUT KILOWATTS	NUMBER OF ELEMENTS	WATER TEMPERATURE RISE (°F)	RECOVERY RATE (GPM)	ACTIVATION (GPM)	DIMENSIONS (WxHxD)	WATER TEMPERATURE		POWER V/PH/HZ	REMARKS
								ENTERING (°F)	LEAVING (°F)		
IWH 1	BREAK ROOM	8.3	1	38	1.5	0.65	6"x10"x3"	70	108	208/1/60	

ABOVE GROUND FUEL STORAGE TANK SCHEDULE

TAG NO.	PRODUCT STORED	LOCATION	TYPE	NOMINAL PRIMARY TANK VOLUME (GAL)	NOMINAL TANK DIMENSIONS			FUEL DISPENSER				APPROX. DRY WEIGHT (LBS)	REMARKS
					WIDTH	LENGTH	OVERALL HEIGHT	TYPE	MAX GPM	POWER V/PH/HZ	MOTOR HP		
AST 1	GASOLINE FUEL	PARKING AREA	ABOVE GROUND	5,200	7'-11"	15'-6"	9'-3"	SIDE MOUNT SUCTION	22	115/1/60	1	59,200	PROVIDE UL-2085 TANK WITH FUEL DISPENSER AND ACCESS PLATFORM WITH LADDER
AST 2	DIESEL FUEL	PARKING AREA	ABOVE GROUND	5,200	7'-11"	15'-6"	9'-3"	SIDE MOUNT SUCTION	22	115/1/60	1	59,200	PROVIDE UL-2085 TANK WITH FUEL DISPENSER AND ACCESS PLATFORM WITH LADDER

AIR COMPRESSOR SCHEDULE

TAG NO.	TYPE	CAPACITY	MOTOR		TANK	WEIGHT (LBS)	REMARKS
			HP	POWER			
AC 1	OIL LESS, RECIPROCATING	35.4 CFM @ 175 PSIG	10	460V/3Ø/60HZ	120 GAL, HORIZONTAL	1,570	PROVIDE INTEGRAL STARTER, CONTROLS. RELIEF VALVE, DRAINER, VIBRATION ISOLATORS, SAFETY DEVICES AND ACCESSORIES.

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HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
EQUIPMENT SCHEDULES

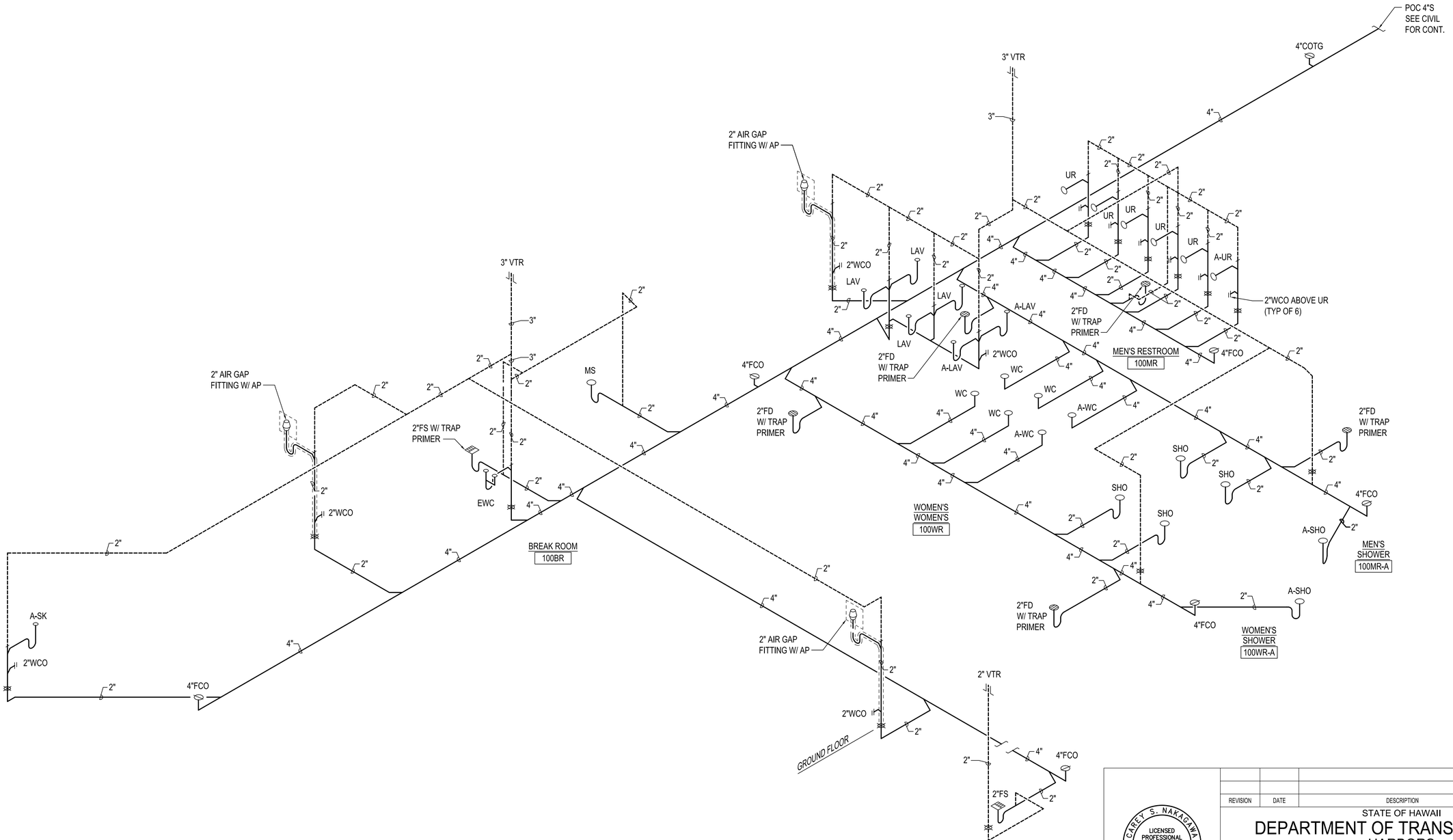
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JOB NUMBER
P10981

SHEET
P-602
190 OF 273 SHTS.

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1 SANITARY PIPING DIAGRAM
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HARBORS

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
SANITARY PIPING DIAGRAM

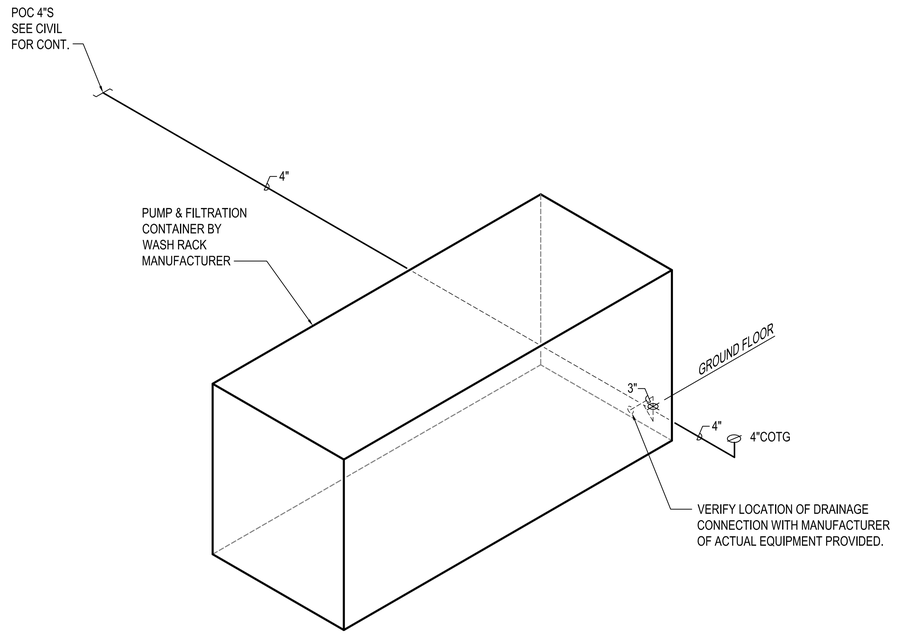
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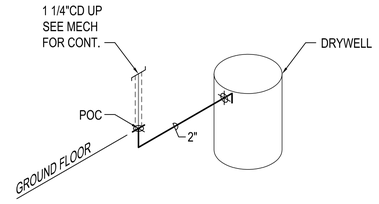
SHEET
P-901
191 OF 273 SHTS.

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1 SANITARY PIPING DIAGRAM
SCALE: NONE



2 DRYWELL SANITARY PIPING DIAGRAM
SCALE: NONE

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
SANITARY PIPING DIAGRAM

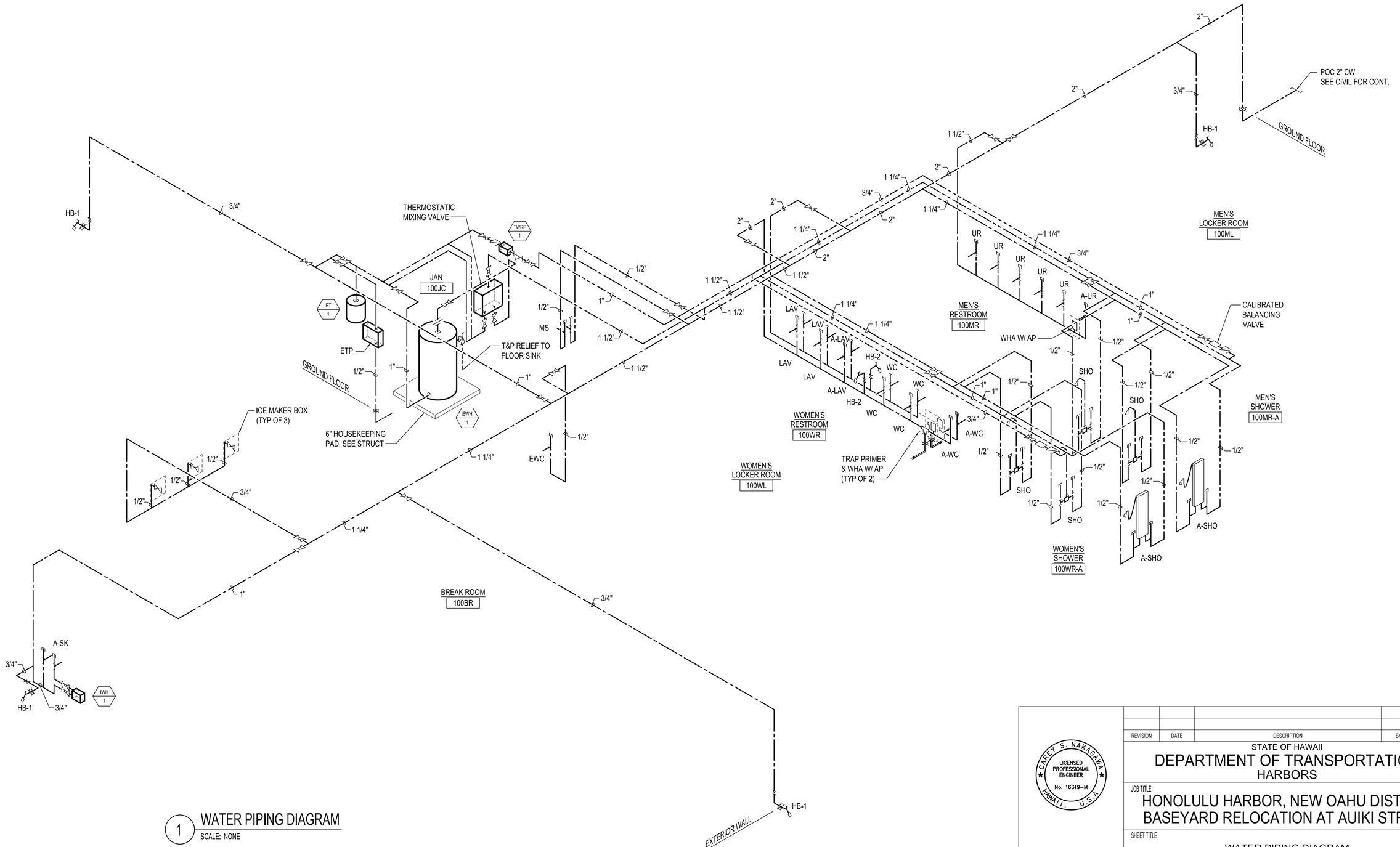
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P-902
192 OF 273 SHTS.

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1 WATER PIPING DIAGRAM
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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
WATER PIPING DIAGRAM

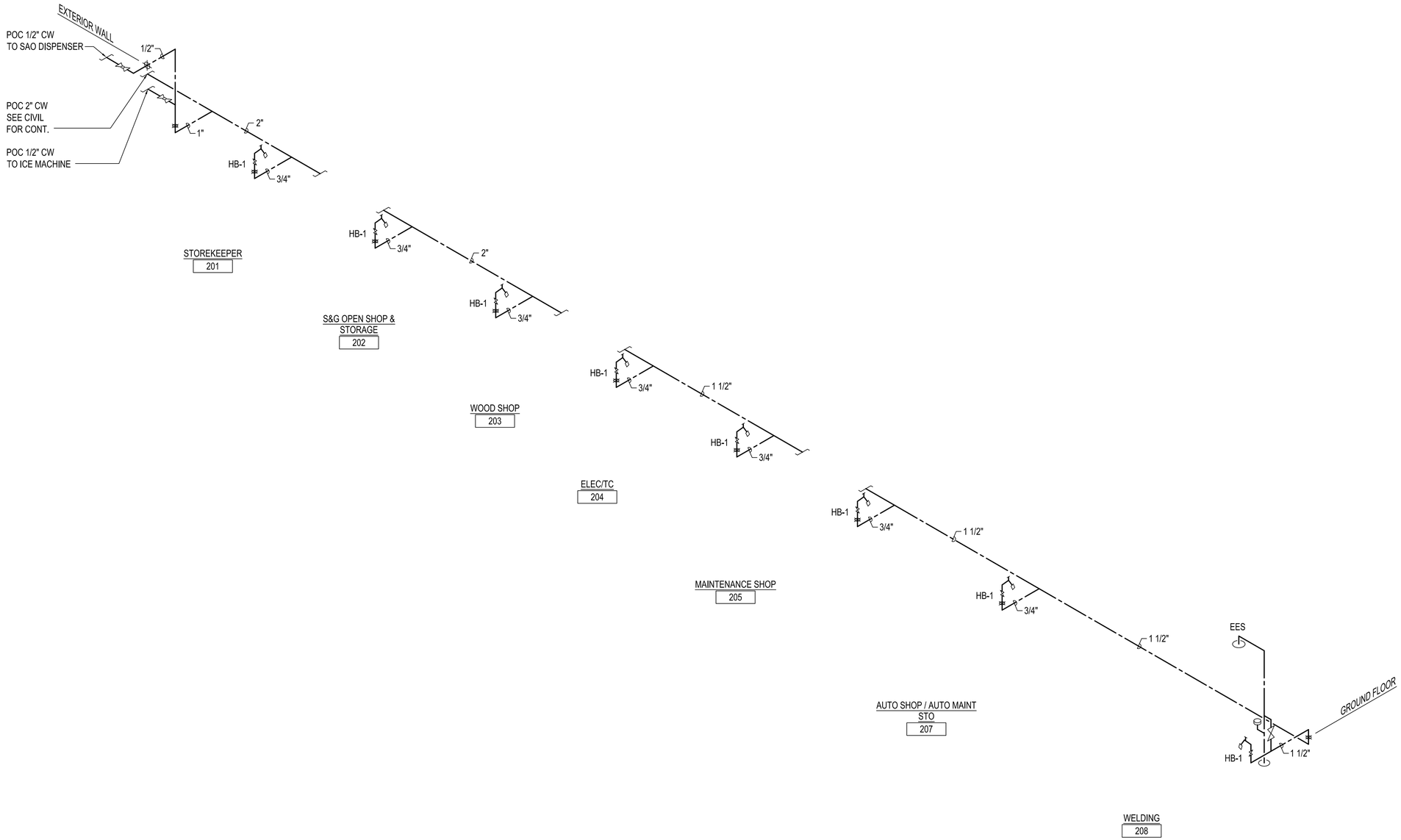
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P-903
193 OF 273 SHTS.

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
WATER PIPING DIAGRAM

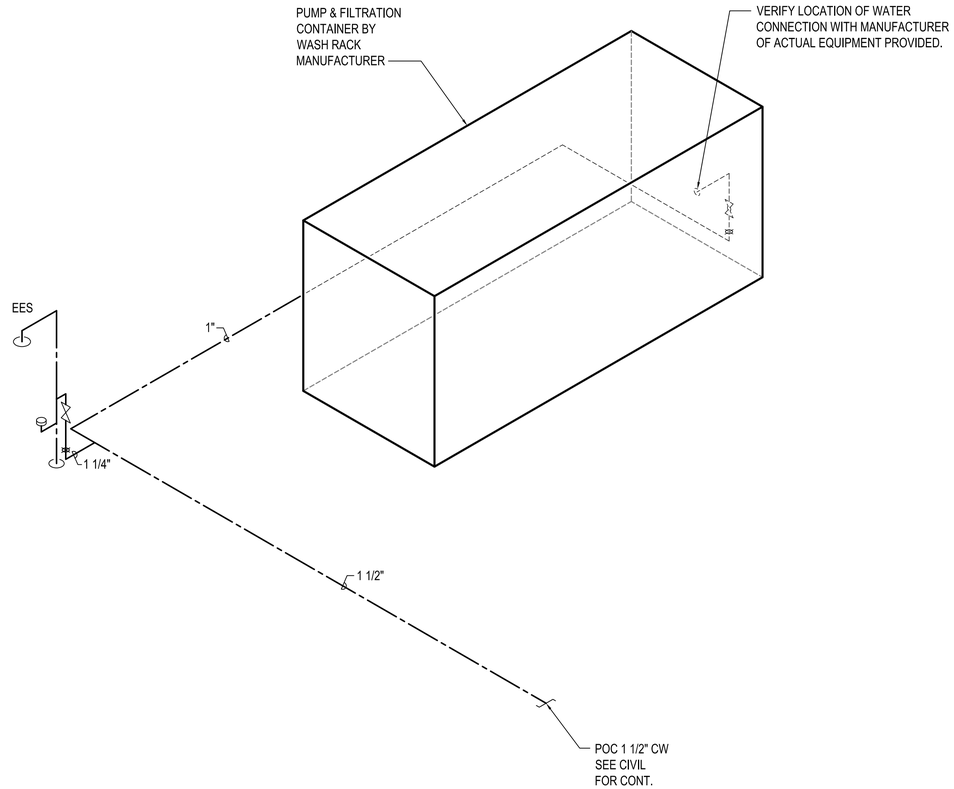
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194 OF 273 SHTS.

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1 WATER PIPING DIAGRAM
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HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
WATER PIPING DIAGRAM

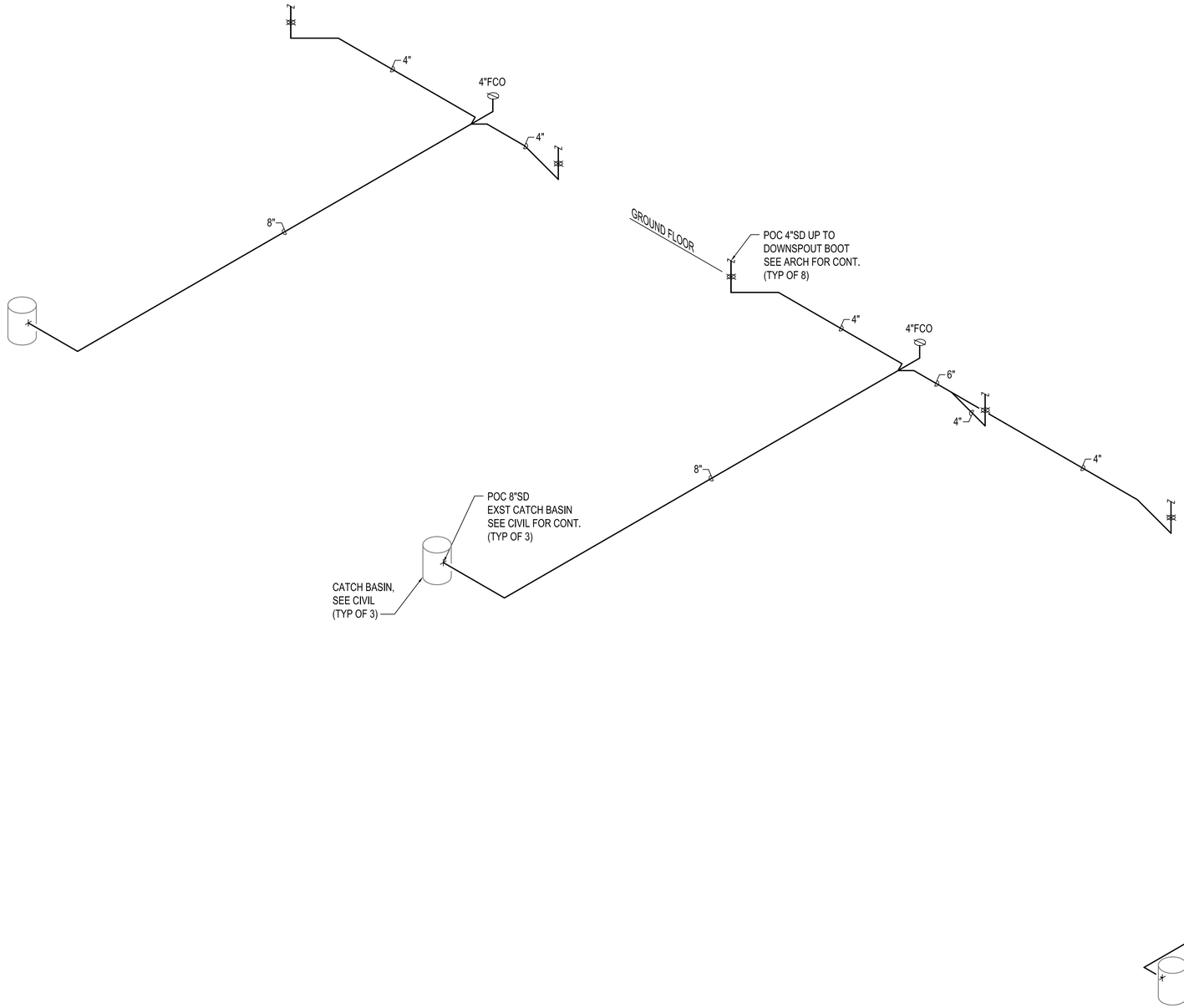
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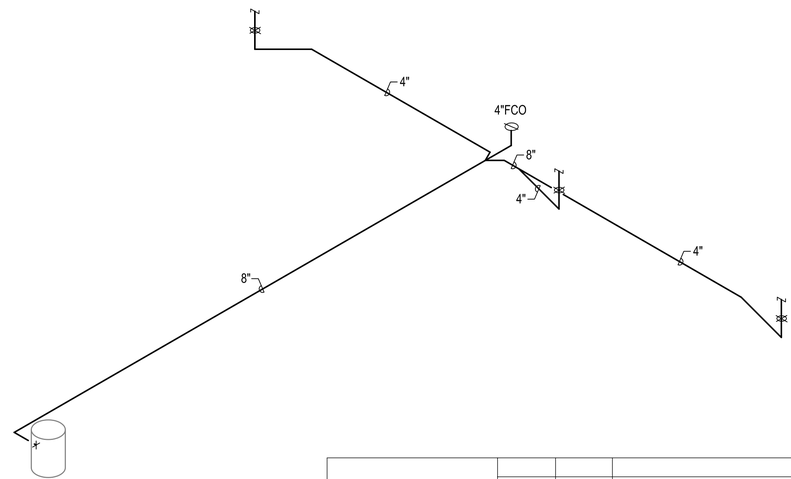
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195 OF 273 SHTS.

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1 STORM DRAIN PIPING DIAGRAM
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SHEET TITLE
STORM DRAIN PIPING DIAGRAM

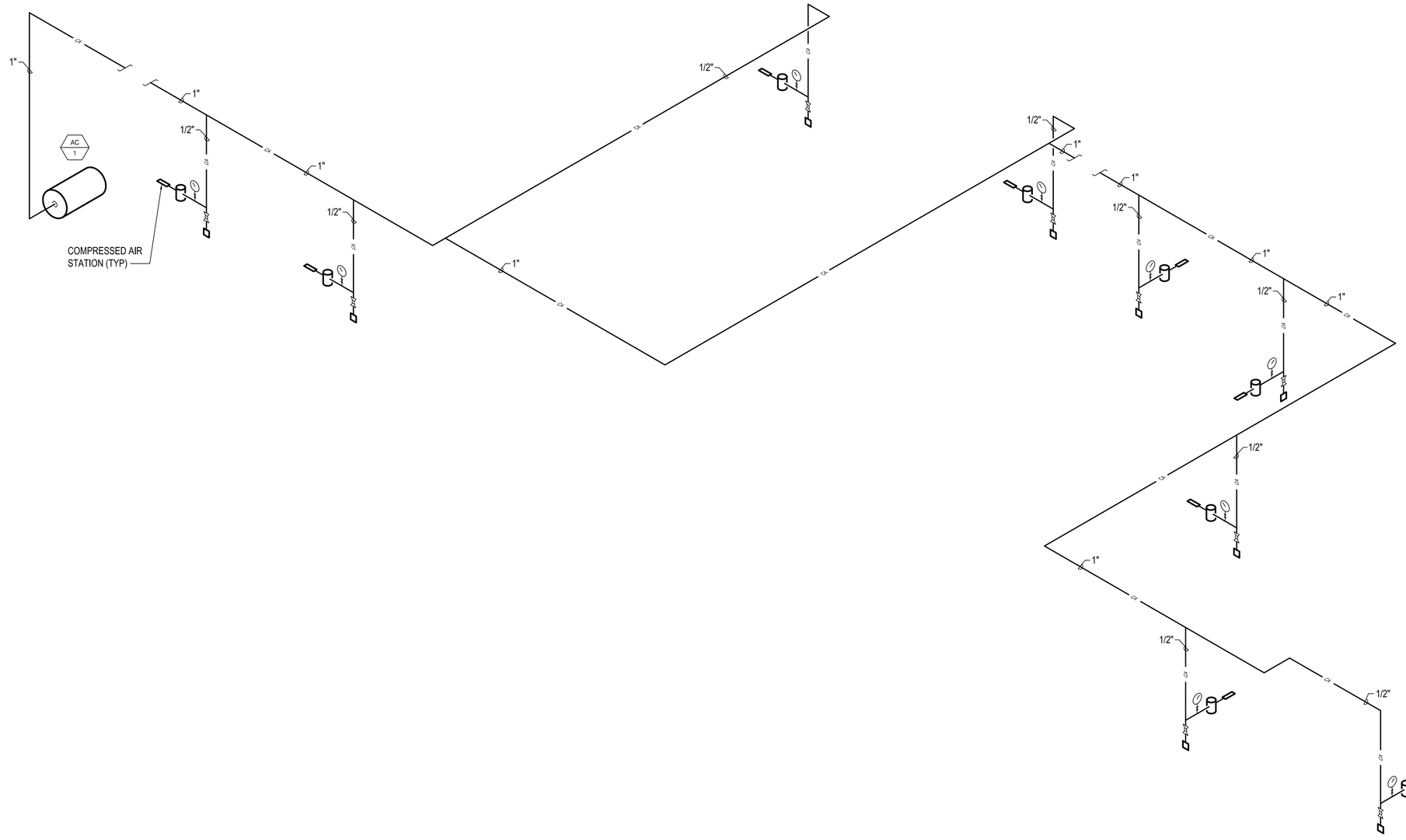
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196 OF 273 SHTS.

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1 COMPRESSED AIR PIPING DIAGRAM
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HARBORS

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
COMPRESSED AIR PIPING DIAGRAM

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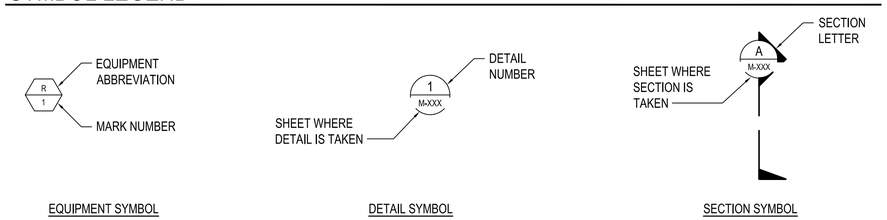
SHEET
P-907
197 OF 273 SHTS.

G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\M-001 MECHANICAL LEGEND, ABBREVIATIONS AND NOTES.dwg, 9/4/2026 4:37:36 PM, michael, Bluebeam PDF

LEGEND AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION	SYMBOL	ABBREVIATION	DESCRIPTION
	A	AMP		LRA	LOCKED ROTOR AMPS
	A/C	AIR CONDITIONING		M	MOTOR
	AFF	ABOVE FINISHED FLOOR		MAX	MAXIMUM
	AHU	AIR HANDLING UNIT		MCA	MINIMUM CURRENT AMP CAPACITY
	AMB	AMBIENT	M	MD	MOTORIZED DAMPER
	APPROX	APPROXIMATELY			
	ARCH	ARCHITECTURAL		MIN	MINIMUM
BD		BACKDRAFT DAMPER		MOCP	MAXIMUM OVER CURRENT PROTECTION
	BFV	BUTTERFLY VALVE			NEW EQUIPMENT
	BV	BALL VALVE		NC	NORMALLY CLOSED
		CHECK VALVE		NO	NORMALLY OPEN
	CH	CHILLER		OA	OUTSIDE AIR
	CHW	CHILLED WATER		O.C.	ON CENTER
CHWR	CHWR	CHILLED WATER RETURN		POC	POINT OF CONNECTION
CHWS	CHWS	CHILLED WATER SUPPLY		PC	PRE-COOLING COIL
CO2	C02	CARBON DIOXIDE MONITOR		PH	PHASE
		COMBINATION FIRE SMOKE DAMPER (HORIZONTAL)		ΔP	PRESSURE DROP
		COMBINATION FIRE SMOKE DAMPER (VERTICAL)		PRV	PRESSURE REDUCING VALVE
CD		CONCEALED DAMPER			
	CONC	CONCRETE			PRESSURE GAUGE W/ SHUTOFF VALVE
CD	CD	CONDENSATE DRAIN			
	CFM	CUBIC FEET PER MINUTE			PLUG VALVE
	CONN	CONNECTION		RA	RETURN AIR
	CONT	CONTINUATION		RAR	RETURN AIR REGISTER
	DB	DECIBEL			
	DBA	DECIBEL, ABSOLUTE		RLA	RATED LOAD AMPS
Ø	DIA	DIAMETER		RPM	REVOLUTIONS PER MINUTE
	DPS	DIFFERENTIAL PRESSURE SENSOR		QTY	QUANTITY
	DN	DOWN		SA	SUPPLY AIR
	DWGS	DRAWINGS		SAD	SUPPLY AIR DIFFUSER
	EA	EXHAUST AIR			
	EAR	EXHAUST AIR REGISTER		SAR	SUPPLY AIR REGISTER
				SCC	SENSIBLE COOLING CAPACITY
	EAT	ENTERING AIR TEMPERATURE	SD	SD	DUCT SMOKE DETECTOR
	ECHWT	ENTERING CHILLED WATER TEMPERATURE		SL	SLOPE
	EER	ENERGY EFFICIENCY RATING			SMOKE DAMPER (HORIZONTAL)
	EF	EXHAUST FAN			SMOKE DAMPER (VERTICAL)
	ELEC	ELECTRICAL		SS	STAINLESS STEEL
	ESP	EXTERNAL STATIC PRESSURE		ST	STORAGE TANK
	EXH	EXHAUST		TA	TRANSFER AIR
	FCU	FAN COIL UNIT			TO BE REMOVED OR DEMOLISHED
		FIRE DAMPER (HORIZONTAL)		TCC	TOTAL COOLING CAPACITY
		FIRE DAMPER (VERTICAL)		TE	TEMPERATURE SENSOR
	FCV	FLOW CONTROL VALVE		TEMP	TEMPERATURE
	FE	FLOW ELEMENT	TE		TEMPERATURE ELEMENT W/ THERMOWELL
	FLEX CONN	FLEX CONNECTION			
	FLR	FLOOR	T	T-STAT	THERMOSTAT
	GPM	GALLONS PER MINUTE		TYP	TYPICAL
	GRND	GROUND			UNION
	GV	GATE VALVE		V	VOLT
	HZ	HERTZ		VAV	VARIABLE AIR VOLUME
	IPLV	INTEGRATED PART LOAD VALUE	VD	VD	VOLUME DAMPER
	LCHWT	LEAVING CHILLED WATER TEMPERATURE		VFD	VARIABLE FREQUENCY DRIVE

SYMBOL LEGEND



MECHANICAL NOTES

1. CONTRACTOR MUST VERIFY ALL CONDITIONS PRIOR TO FABRICATION, INSTALLATION AND COMMENCEMENT OF ALL WORK TO BE DONE. COORDINATE ALL WORK TO BE DONE WITH OTHER TRADES.
2. ALL DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
3. CONTRACTOR MUST COORDINATE ALL WORK WITH OTHER TRADES AND FIELD CONDITIONS AFFECTING OR AFFECTED BY THIS INSTALLATION. SHOULD CONFLICTS OCCUR, THE CONTRACTING OFFICER MUST BE NOTIFIED IMMEDIATELY.
4. ALL DUCT DIMENSIONS SHOWN NUMERICALLY ARE NET INSIDE DIMENSIONS AND DO NOT INCLUDE INSULATION THICKNESS. ALL SUPPLY AND RETURN AIR DUCTS MUST BE WRAPPED WITH 1 1/2" THICK INSULATION UNLESS OTHERWISE NOTED.
5. ALL ITEMS ARE NEW UNLESS OTHERWISE NOTED.
6. PROVIDE DIELECTRIC CONNECTIONS AT ALL FERROUS TO COPPER CONNECTIONS.
7. CONTRACTOR MUST PROVIDE SUPPLEMENTAL STEEL FOR SUPPORT OF DUCTS, PIPING AND OTHER MECHANICAL EQUIPMENT AS INDICATED IN STRUCTURAL DRAWINGS OR AS REQUIRED.
8. INSTALLATION OF MECHANICAL ITEMS (E.G. HVAC, PLUMBING, FIRE PROTECTION, ETC.) IN THE CEILING CAVITY MUST BE CLOSELY COORDINATED WITH ALL TRADES (I.E. ARCHITECTURAL, STRUCTURAL, ELECTRICAL, CABLE TRAY AND CONDUITS) TO AVOID CONFLICTS AND TO INSURE PROPER CLEARANCES ARE MET.
9. ALL MOTOR CONTROLLERS AND CONTROL PANELS MUST BE INSTALLED WITH CLEARANCE SPACES IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.
10. UNLESS OTHERWISE INDICATED, MOUNT ALL WALL MOUNTED MECHANICAL DEVICES, PANELS, SWITCHES, ETC. AT 48" AFF TO THE TOP OF THE DEVICE.
11. ALL ROOF, WALL AND FLOOR PENETRATIONS MUST BE VERIFIED AND COORDINATED WITH THE STRUCTURAL/ARCHITECTURAL DRAWINGS.
12. CONDENSATE DRAINS MUST BE CONTINUOUSLY SLOPED AT 1/4" PER FOOT MINIMUM. INSULATE ALL ABOVE GRADE CONDENSATE DRAIN LINES WITH 1" THICK INSULATION MINIMUM OR AS INDICATED. PROVIDE PIPE FITTINGS & INSULATION FOR ALL FCU'S AND AHU'S, TO FLOOR SINK OR OTHER APPROVED RECEPTOR.
13. CONTRACTOR MUST ENSURE THAT ALL EQUIPMENT AND PIPING ARE INSTALLED WITH MANUFACTURER'S RECOMMENDED ACCESS SPACE FOR MAINTENANCE, OPERATION & CODES. ALL EQUIPMENT SUPPORTS AND PIPING MUST NOT OBSTRUCT EQUIPMENT ACCESS AREA FOR MAINTENANCE SERVICE AND REPAIR. ALL EQUIPMENT SHALL BE CAPABLE OF FITTING INTO THE SPACES ALLOCATED WHILE MEETING THE MANUFACTURER'S RECOMMENDED ACCESS REQUIREMENTS. REVIEW ALL SPACES WHERE EQUIPMENT IS TO BE INSTALLED PRIOR TO ORDERING OF EQUIPMENT AND NOTIFY THE CONTRACTING OFFICER OF ANY INADEQUATE CLEARANCES OR CONDITIONS THAT WILL PREVENT PROPER INSTALLATION, MAINTENANCE AND OPERATION OF THE EQUIPMENT.
14. FOR ALL WALL MOUNTED THERMOSTATS, SENSORS & SWITCHES, PROVIDE ALL CONDUIT & JUNCTION BOXES IN WALL (INCLUDING CMU WALLS) WHERE CONDITION OCCURS. EXPOSED CONDUIT & JUNCTION BOXES WILL NOT BE ALLOWED.
15. PROVIDE SEISMIC BRACING AS SPECIFIED.
16. NO PIPING OR DUCTS ALLOWED ABOVE THE ELECTRIC ROOM OR TELECOMMUNICATIONS ROOM UNLESS THEY ARE SERVING THAT ROOM.
17. ALL GAPS AT THE PENETRATIONS THROUGH FIRE RATED CEILING AND WALL ASSEMBLIES FOR DUCTS, PIPES, PIPE AND DUCT SUPPORTS, RODS, STRAPS, CONTROL CONDUITS, ETC. MUST BE SEALED WITH APPROVED FIRESTOPPING MATERIAL AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY. SEE ARCH DRAWINGS FOR LOCATION OF FIRE RATED WALLS & CEILING.
18. TAPS TO ALL AIR DEVICES MUST BE PROVIDED WITH VOLUME DAMPER WHETHER SHOWN OR NOT.
19. CONTRACTORS TO VERIFY ADEQUATE TRAP HEIGHT WITH 6" HOUSEKEEPING PAD. INDICATED. IF HEIGHT OF AHU IS TOO LOW, INCREASE HEIGHT OF HOUSEKEEPING PAD AS REQUIRED FOR PROPER TRAP HEIGHT.
20. COORDINATE DUCT INSTALLATION WITH CEILING GRID TIE WIRES. CEILING GRID TIE WIRES MUST NOT TOUCH DUCTWORK, PIPING, OR EQUIPMENT.
21. INTERIOR PIPING AND EQUIPMENT SUPPORTS MUST BE HOT DIPPED GALVANIZED AFTER FABRICATION. ALL EXTERIOR PIPING AND DUCTWORK SUPPORTS MUST BE TYPE 316L SS. PAINT ALL EXTERIOR SUPPORTS TO MATCH ADJACENT AREAS.
22. INDOOR AIR QUALITY MANAGEMENT DURING CONSTRUCTION:
    A. CONTRACTOR MUST PROVIDE TEMPORARY MERV 8 FILTERS ON ALL RETURN AIR REGISTERS OR OPEN DUCTS, IF THE AIR HANDLING UNIT IS USED FOR VENTILATION DURING CONSTRUCTION. SECURE FILTERS WITH PAINTER'S TAPE OR OTHER SUITABLE METHOD TO PREVENT DAMAGES TO FINISHES. REPLACE FILTERS MONTHLY.
    B. ALL DUCTS MUST BE BROUGHT TO THE JOBSITE WITH ENDS SEALED. SEAL THE OPENING OF INSTALLED DUCTWORK WITH PLASTIC.
    C. REPLACE ALL FILTERS PRIOR TO OCCUPANCY.
23. COORDINATE PAINTING OF EXPOSED DUCTWORK, AIR DEVICES, CONDUITS AND SUPPORT ELEMENTS WITH ARCHITECT. ALL EXPOSED ITEMS MUST BE PAINTED.
24. COORDINATE ALL ACCESS PANEL LOCATIONS WITH THE ARCHITECTURAL DRAWINGS AND CENTER ON THE EQUIPMENT OR DEVICE IT SERVES (E.G. WHA, VALVES, ETC.). FOR 1 HOUR RATED WALLS AND ROOF/CEILING ASSEMBLIES, PROVIDE MINIMUM 1 HOUR RATED ACCESS PANELS.
25. COORDINATE ALL HOUSEKEEPING PADS WITH STRUCTURAL.
26. SIZE REFRIGERANT PIPING FOR ACTUAL EQUIPMENT SELECTED AND PER MANUFACTURER'S REQUIREMENTS.
27. PROVIDE ALL NECESSARY BELTS AND SHEAVES TO BALANCE EQUIPMENT TO THE REQUIRED VALUES.
28. INSULATE THE BACKS OF ALL SUPPLY DIFFUSERS PER DETAIL.
29. LABEL ALL CONTROL PANELS, MOTORIZED VALVES, MOTORIZED DAMPERS AND OTHER POWERED CONTROL DEVICES TO INDICATE CIRCUIT AND ELECTRICAL PANEL DESIGNATION FROM WHICH POWER IS PROVIDED.
30. ALL EQUIPMENT SUPPORT AND PIPE HANGER COMPONENTS LOCATED OUTDOORS, INCLUDING BUT NOT LIMITED TO STEEL MEMBERS, PLATES, PIPES, CLAMPS, BOLTS, ANCHORS, FASTENERS, AND HARDWARE, SHALL BE OF TYPE 316L STAINLESS STEEL. ITEM THAT WILL BE WELDED OR FLAME CUT MUST BE OF TYPE 316L.
31. AFTER EQUIPMENT, DUCTS, PIPING, AND RELATED WORK IS COMPLETED, TEST, ADJUST AND BALANCE A/C AND VENTILATION SYSTEMS.
32. PROVIDE BLAST GATES AT THE DUCT CONNECTION TO ALL WOOD WORKING EQUIPMENT.

CITY AND COUNTY OF HONOLULU
REVISED ORDINANCES OF HONOLULU 2021
CHAPTER 16B

To the best of my knowledge, this project's design substantially conforms to the State Energy Conservation Code for:

- ☐ Building Component Systems
- ☐ Electrical Component Systems
- ☒ Mechanical Component Systems

Signature: _____ Date: 09/03/2026
Name: CAREY S. NAKAGAWA
Title: VICE-PRESIDENT
License No: 16319-M

REVISION	DATE	DESCRIPTION	BY	APPROVED

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MECHANICAL LEGEND, ABBREVIATIONS AND NOTES

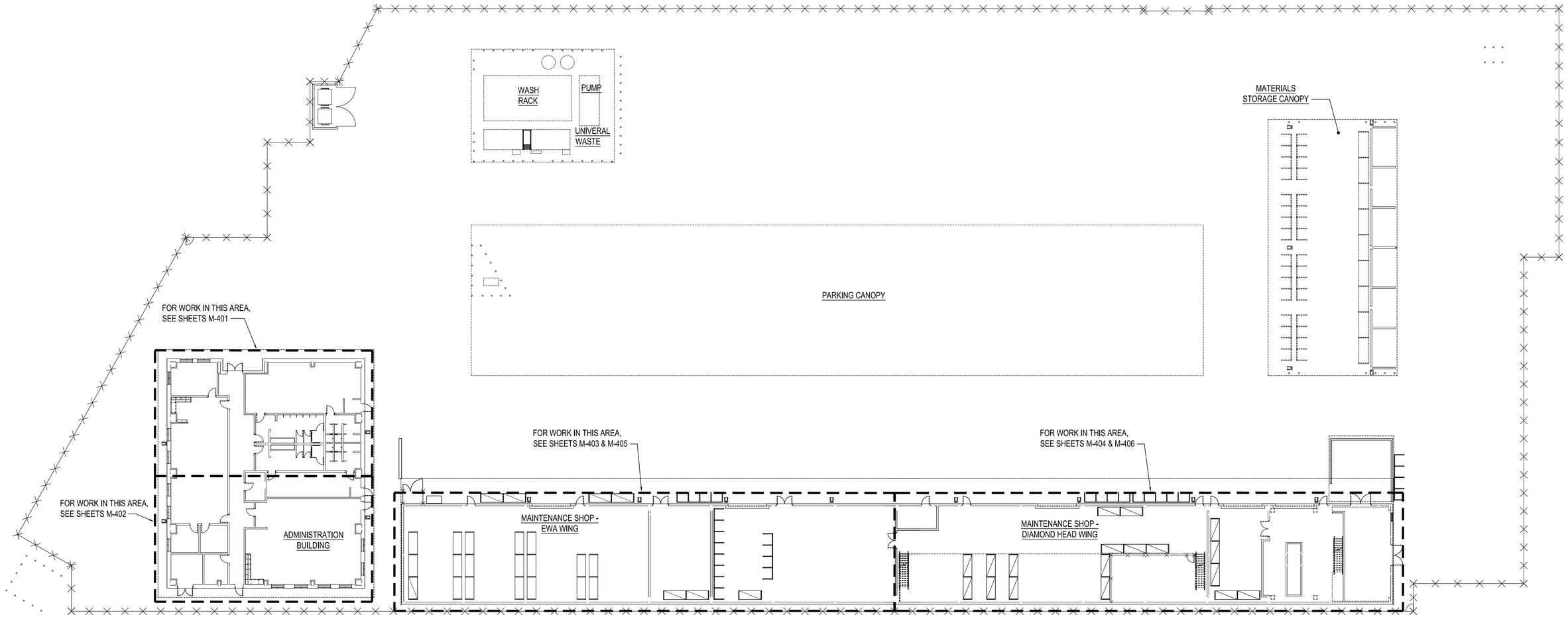
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JOB NUMBER
P10981

SHEET
M-001
198 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\M-002 MECHANICAL KEY PLAN.dwg, 9/4/2026 4:37:43 PM, michael, Bluebeam PDF



1 MECHANICAL KEY PLAN
1" = 20'-0"

PLAN NORTH

0 10' 20' 40'
SCALE: 1" = 20'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

CARLEY S. NAKAGAWA
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THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

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HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MECHANICAL KEY PLAN

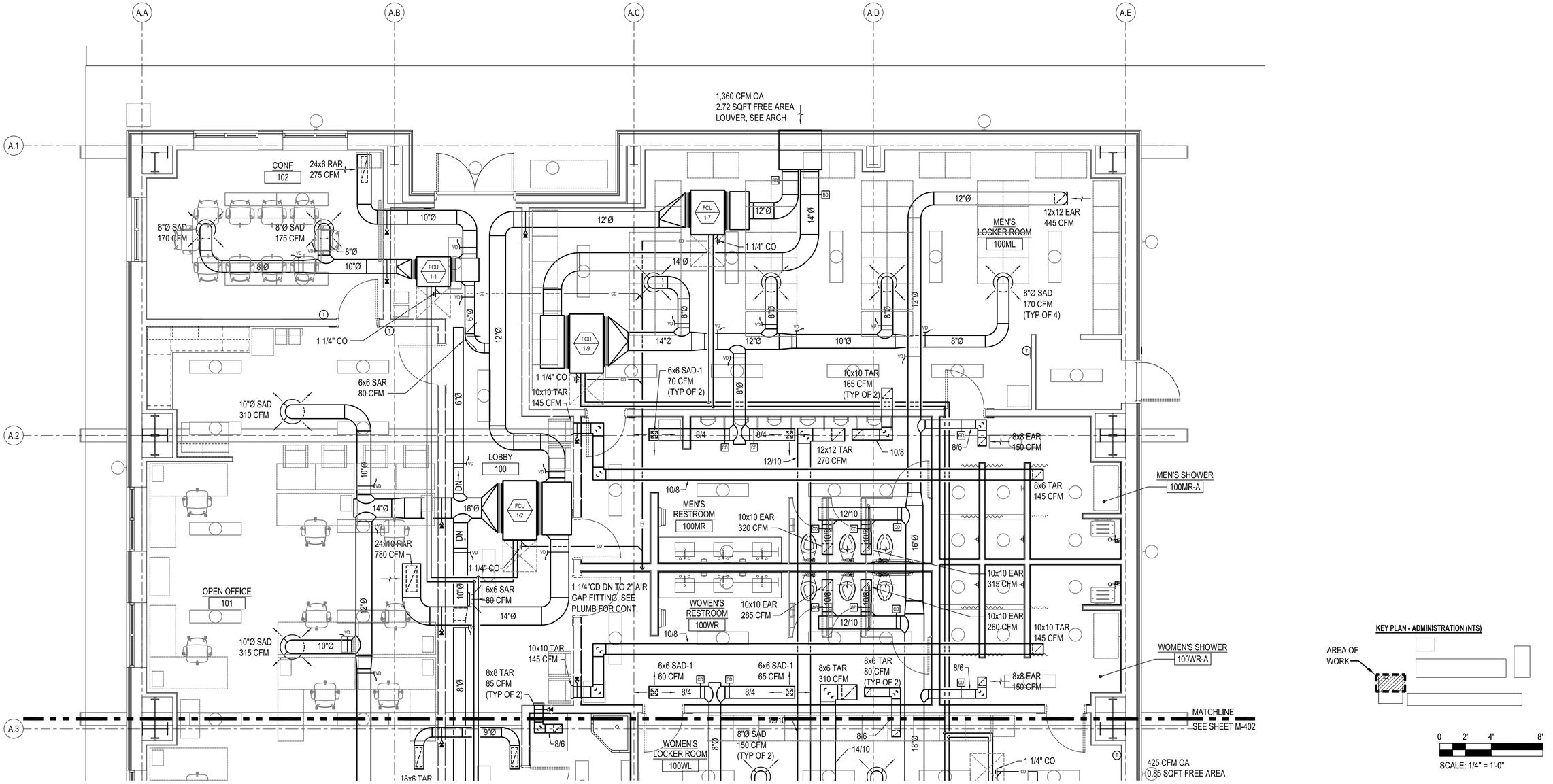
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SCALE:	AS SHOWN

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SHEET
M-002
199 OF 273 SHTS.

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G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\M-401 ADMIN BUILDING PARTIAL MECHANICAL PLAN.dwg, 9/4/2026 4:37:51 PM, michael, Bluebeam PDF



1 ADMIN BUILDING PARTIAL MECHANICAL PLAN
1/4" = 1'-0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

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THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ADMIN BUILDING PARTIAL MECHANICAL PLAN

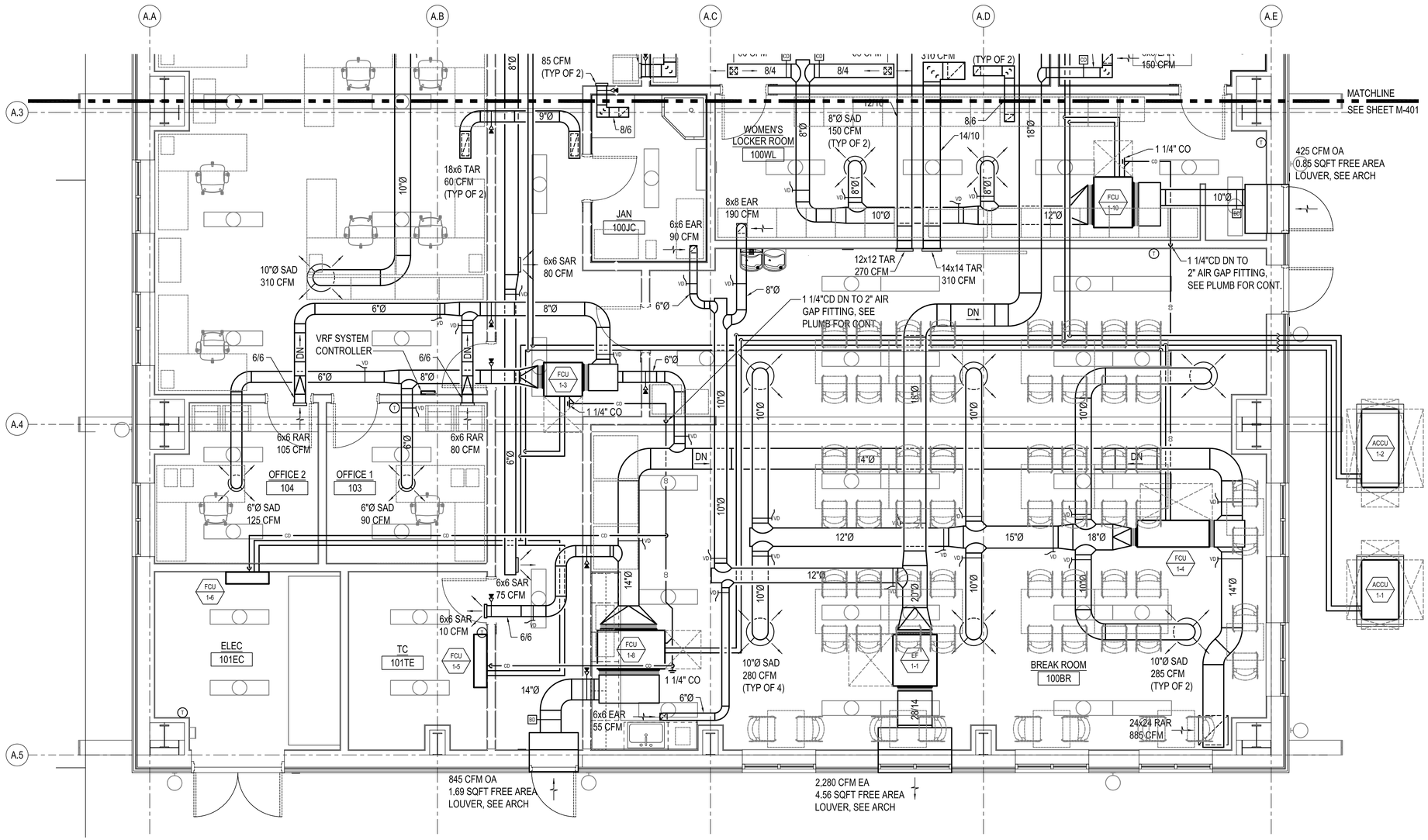
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DATE:	09/2026
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SHEET
M-401
200 OF 273 SHTS.

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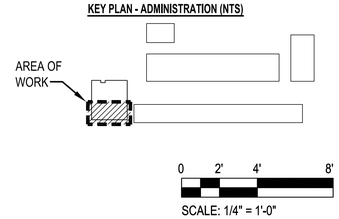


1 ADMIN BUILDING PARTIAL MECHANICAL PLAN

1/4" = 1'-0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



0 2' 4' 8'

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

REVISION	DATE	DESCRIPTION	BY	APPROVED

CAREY S. NAKAGAWA
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THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ADMIN BUILDING PARTIAL MECHANICAL PLAN

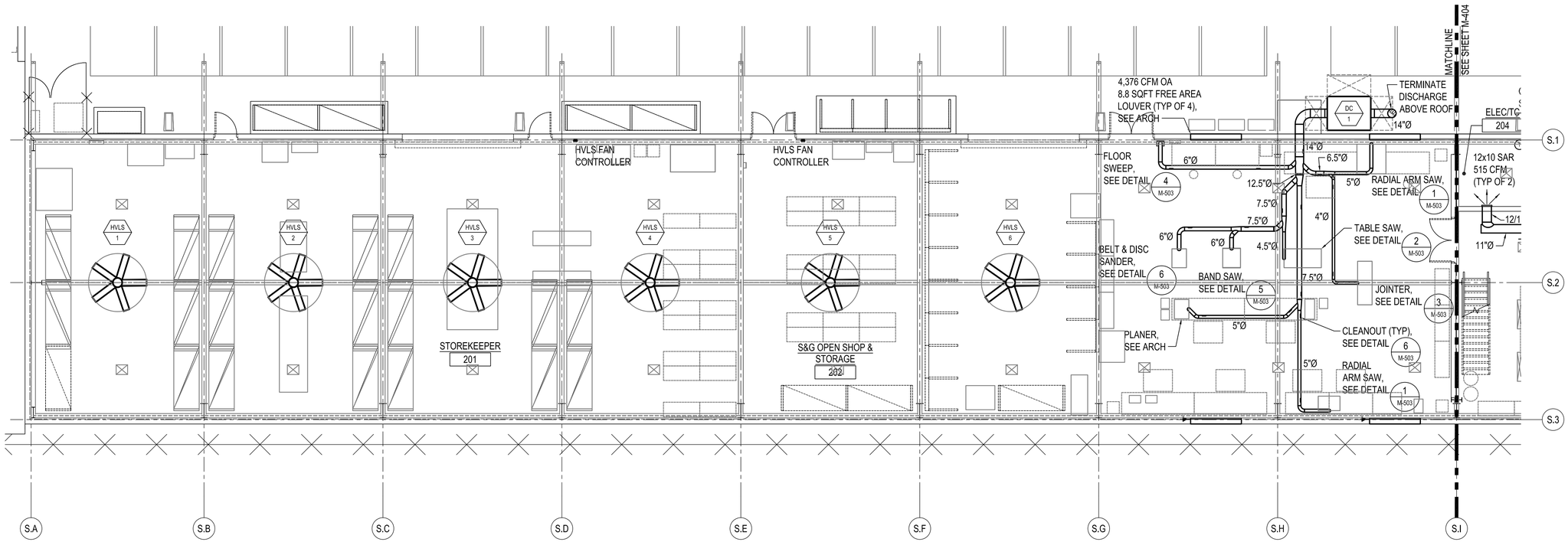
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P10981

SHEET
M-402
201 OF 273 SHTS.

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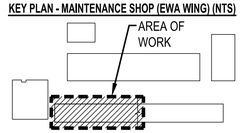
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1 MAINTENANCE SHOP EWA WING MECHANICAL PLAN
1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (EWA WING) (NTS)



0 4' 8' 16'

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

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STATE OF HAWAII
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JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MAINTENANCE SHOP EWA WING MECHANICAL PLAN

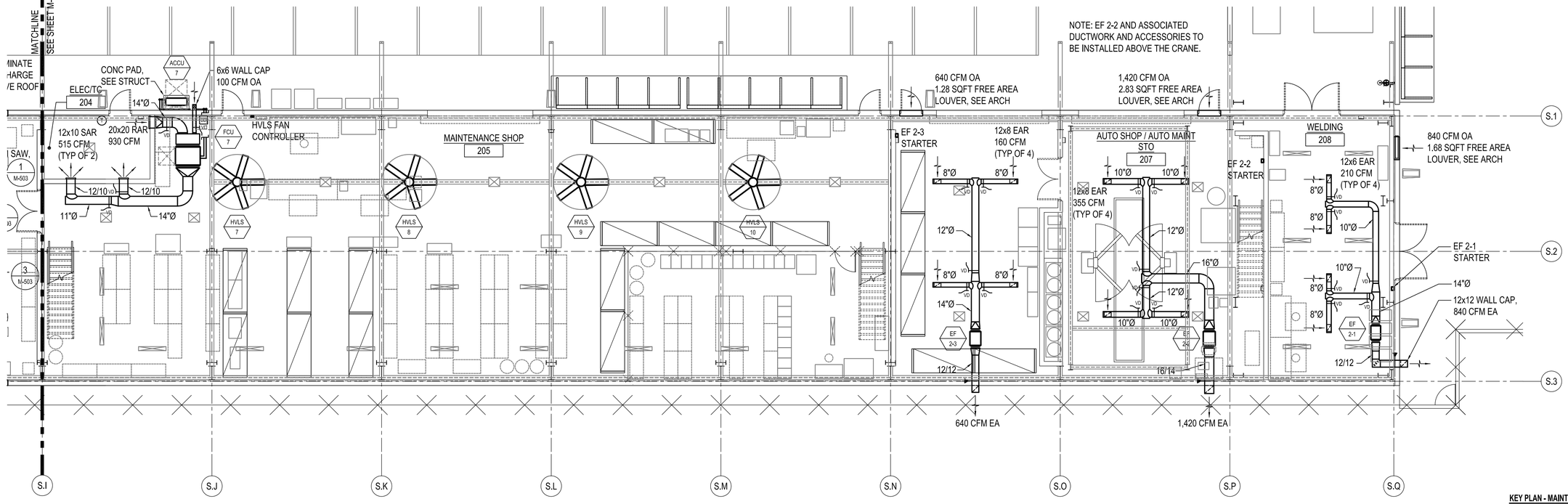
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DATE:	09/2026
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JOB NUMBER
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SHEET
M-403
202 OF 273 SHTS.

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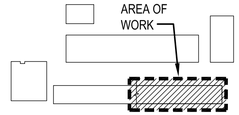
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1 MAINTENANCE SHOP DIAMOND HEAD WING MECHANICAL PLAN
1/8" = 1'-0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (DH WING) (NTS)



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

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THERMAL ENGINEERING CORPORATION

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BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MAINTENANCE SHOP DIAMOND HEAD WING MECHANICAL PLAN

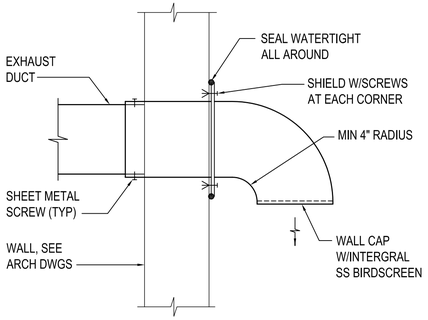
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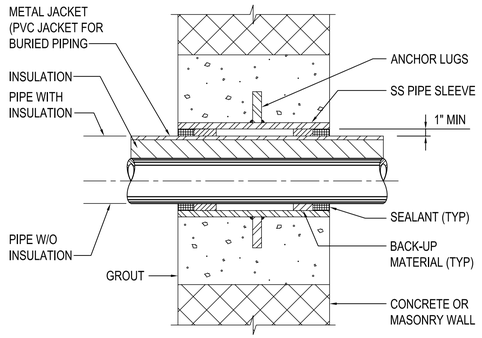
SHEET
M-404
203 OF 273 SHTS.

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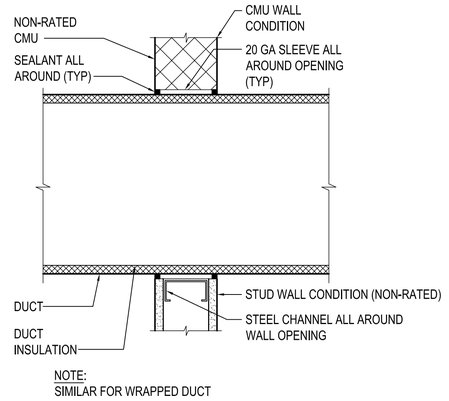
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1 M-501 WALL CAP DETAIL
SCALE: NONE

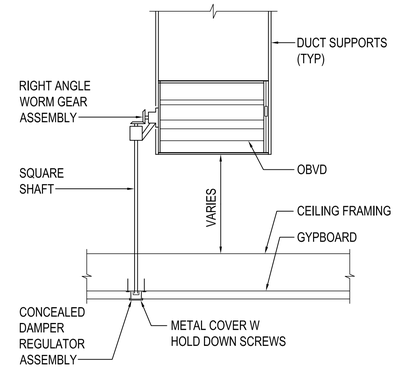


2 M-501 WALL PIPE PENETRATION DETAIL
SCALE: NONE

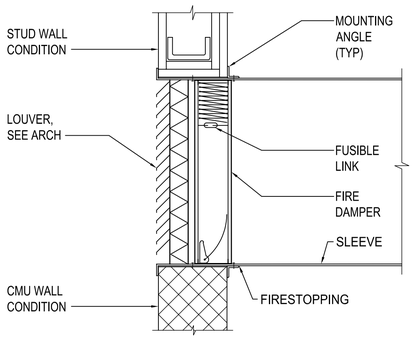


NOTE:
SIMILAR FOR WRAPPED DUCT

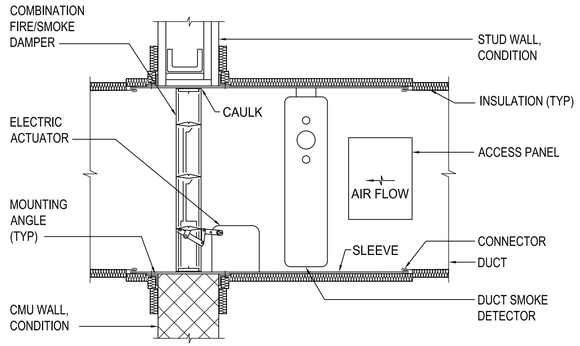
3 M-501 DUCT PENETRATION DETAIL
SCALE: NONE



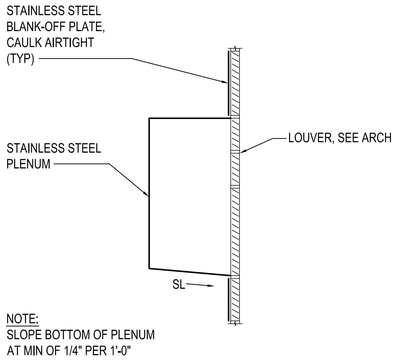
4 M-501 CONCEALED DAMPER ACTUATOR DETAIL
SCALE: NONE



5 M-501 TERMINAL FIRE DAMPER DETAIL
SCALE: NONE

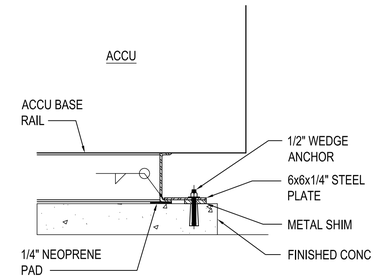


6 M-501 COMBINATION FIRE/SMOKE DAMPER DETAIL
SCALE: NONE



NOTE:
SLOPE BOTTOM OF PLENUM AT MIN OF 1/4" PER 1'-0"

7 M-501 LOUVER PLENUM DETAIL
SCALE: NONE



8 M-501 ACCU MOUNTING DETAIL
SCALE: NONE

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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MECHANICAL DETAILS

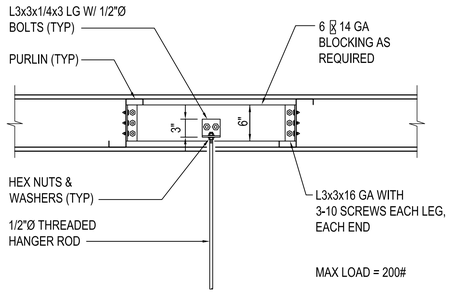
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JOB NUMBER
P10981

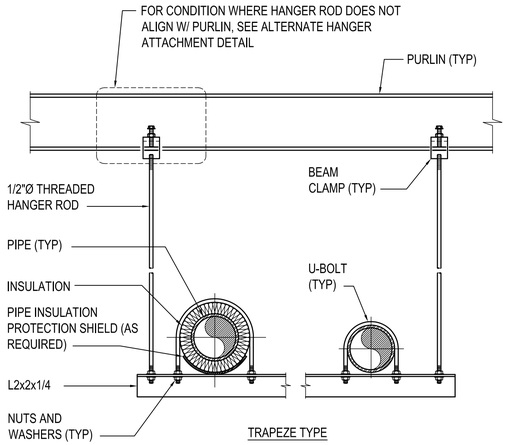
SHEET
M-501
204 OF 273 SHTS.

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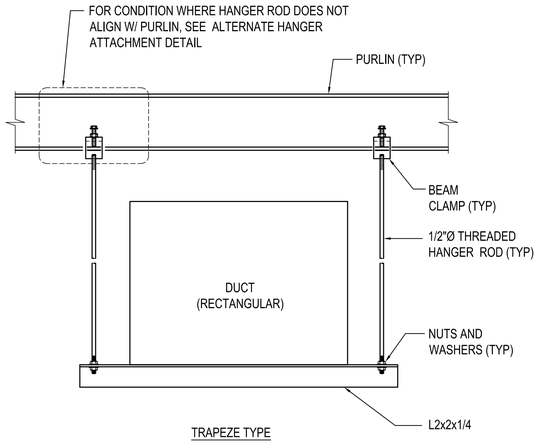
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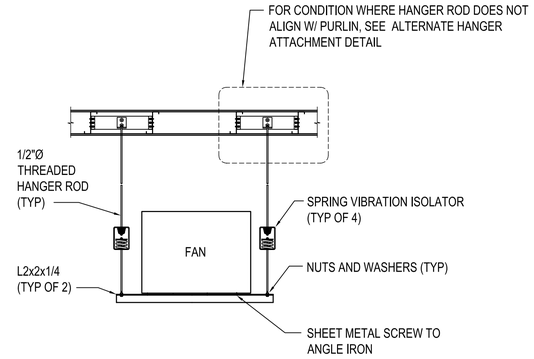
1 M-502 ALTERNATE HANGER ATTACHMENT DETAIL
SCALE: NONE



2 M-502 PIPE HANGER DETAIL
SCALE: NONE



3 M-502 TRAPEZE DUCT HANGER
SCALE: NONE



4 M-502 EQUIPMENT HANGER DETAIL
SCALE: NONE

NOTE:
NON-INSULATED PIPE SIMILAR

5 M-502 PIPE HANGER DETAIL
SCALE: NONE

NOTE:
1. REFRIGERANT AND CONDENSATE DRAIN PIPING COMBINED, SHOWN FOR SIMPLICITY.
2. CONDENSATE DRAIN PIPING SHALL BE INSULATED AS DESCRIBED IN THE SPECIFICATIONS.

6 M-502 PIPE SUPPORT DETAIL
SCALE: NONE

7 M-502 VERTICAL FIRE DAMPER DETAIL
SCALE: NONE

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

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EXP 4-30-28

THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MECHANICAL DETAILS

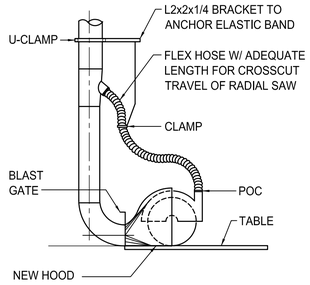
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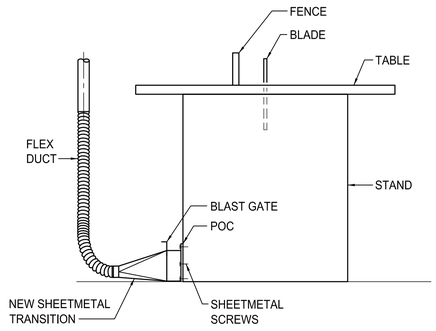
SHEET
M-502
205 OF 273 SHTS.

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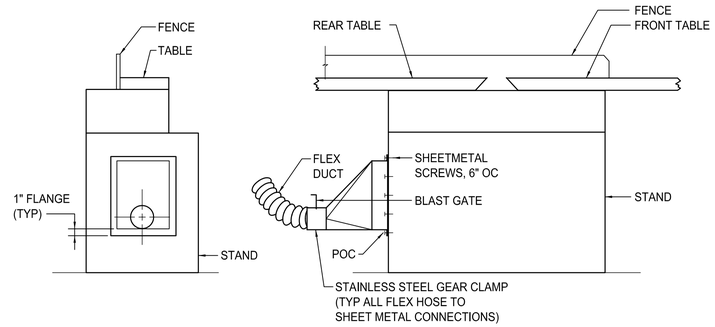
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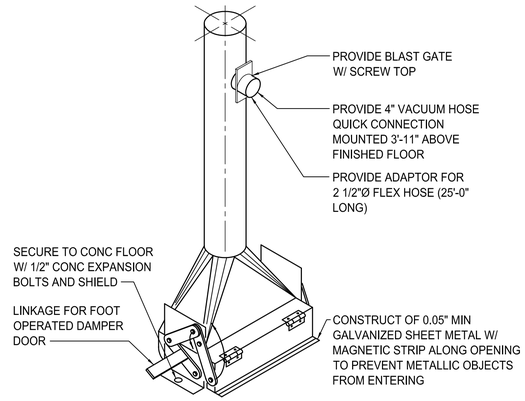
1 M-503 RADIAL ARM SAW DETAIL
SCALE: NONE



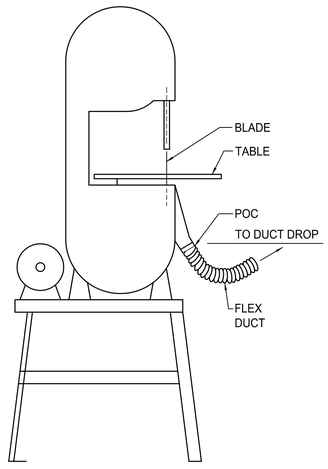
2 M-503 TABLE SAW DETAIL
SCALE: NONE



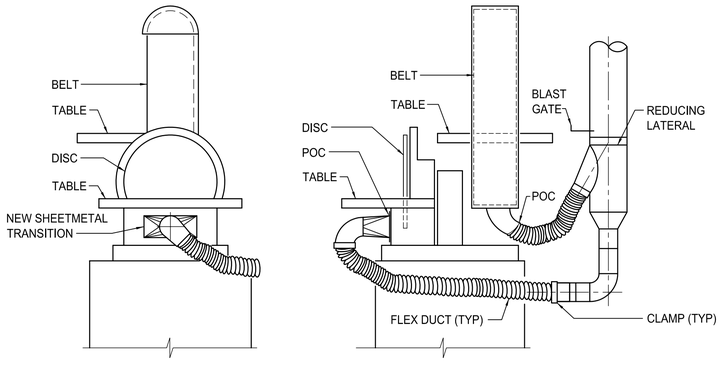
3 M-503 JOINTER DETAIL
SCALE: NONE



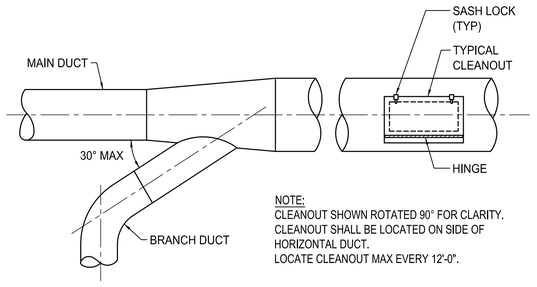
4 M-503 FLOOR SWEEP DETAIL
SCALE: NONE



5 M-503 BAND SAW DETAIL
SCALE: NONE



6 M-503 DISC & BELT SANDER DETAIL
SCALE: NONE



7 M-503 TYPICAL NEW DUCT BRANCH AND CLEANOUT DETAIL
SCALE: NONE

REVISION	DATE	DESCRIPTION	BY	APPROVED

CAREY S. NAKAGAWA — LICENSED PROFESSIONAL ENGINEER — No. 16319-M — HAWAII, U.S.A.

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EXP 4-30-28

THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MECHANICAL DETAILS

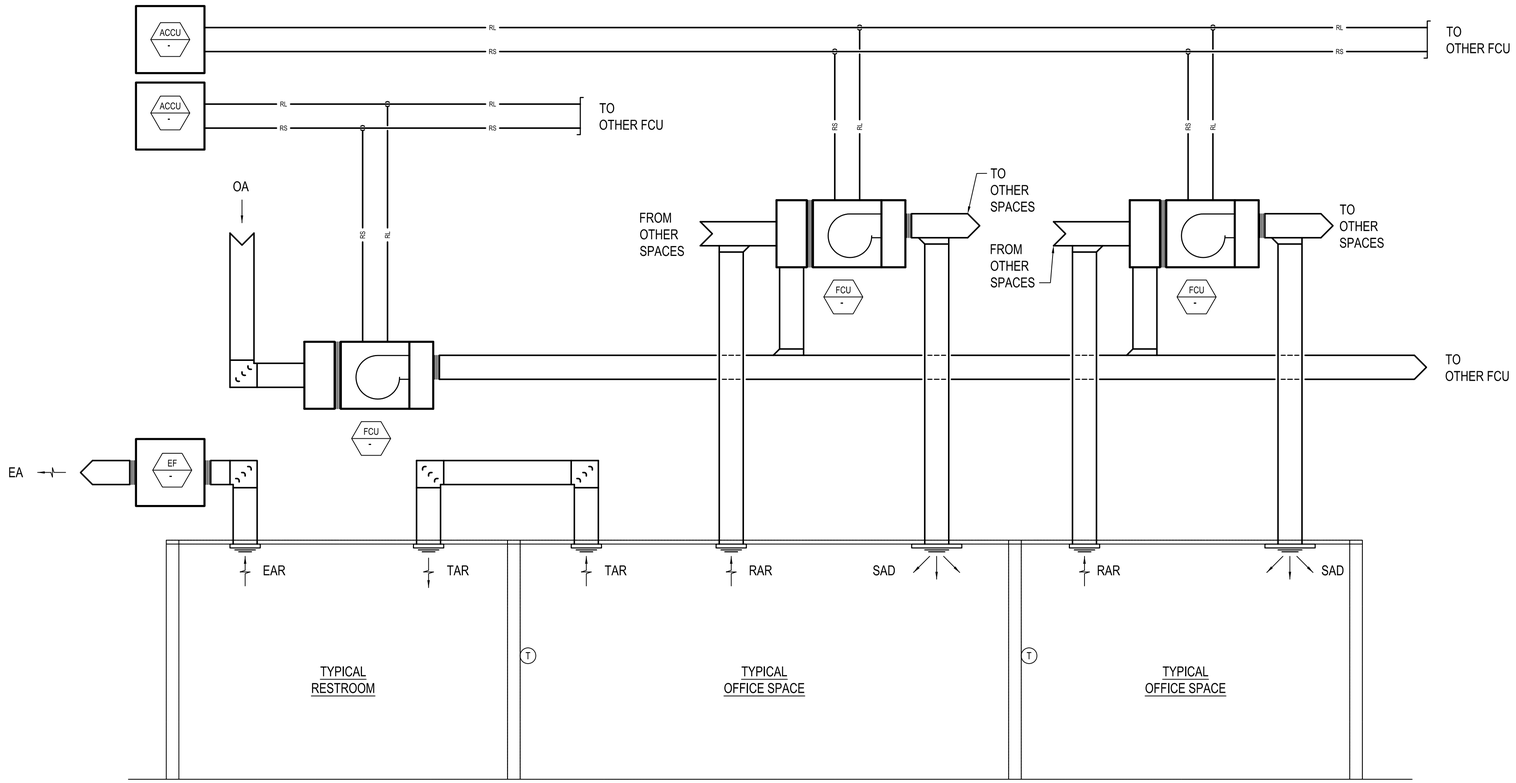
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DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
M-503
206 OF 273 SHTS.

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G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\M-601 AIRSIDE SCHEMATIC DIAGRAM AND SEQUENCE OF OPERATION.dwg, 9/4/2026 4:38:37 PM, michael, Bluebeam PDF



TYPICAL AIRSIDE SCHEMATIC DIAGRAM

SCALE: NONE

SEQUENCE OF OPERATION

VRF SYSTEM

1. ALL ACCU'S ARE CONTROLLED BY A SINGLE CENTRAL SYSTEM CONTROLLER.
2. ALL ACCU'S SHALL RUN DURING BUSINESS HOURS TO MAINTAIN ROOM CONDITIONS.
3. THE ACCU INTERNAL CONTROLS (IC) INITIATE THE STARTUP SEQUENCE ON A CALL FOR COOLING FROM THE FAN COIL UNITS (FCU). THE STARTUP SEQUENCE LOADS THE ACCU, WHICH INCLUDES ENERGIZING THE COMPRESSOR CONTACTOR, LOADING THE COMPRESSOR IF IT STARTS UNLOADED AND ENERGIZING THE OUTDOOR FAN CONTACTORS IF ALL SAFETIES ARE SATISFIED. THE ACCU INTERNAL CONTROLS LOAD AND UNLOAD THE LEAD COMPRESSOR TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 55 DEGREES F. THE NEXT COMPRESSOR STARTS AND RUNS IF THE LOAD IS NOT SATISFIED.
4. WHEN COMMANDED ON, THE ACCU AND FCU STARTS AND RUNS CONTINUOUSLY. THE UNIT CONTROLLER MUST MODULATE AND/OR STAGE COOLING TO MAINTAIN THE SUPPLY AIR TEMPERATURE AT SETPOINT.
5. IF A CALL FOR COOLING OCCURS WITHIN 5 MINUTES OF THE LAST COMPRESSOR SHUTDOWN, THE ANTI-CYCLE DEVICE DELAYS STARTING OF THE COMPRESSOR FOR 5 MINUTES. AFTER THE 5 MINUTE PERIOD, THE COMPRESSOR AND OUTDOOR FAN ARE STARTED AND OPERATED TO MEET THE COOLING LOAD.
6. ROOM TEMPERATURE SETPOINTS SHALL BE 75 DEGREES F FOR EMPLOYEE OCCUPIED ROOMS AND 75 DEGREES F FOR UNOCCUPIED ROOMS, PUBLIC SPACES, AND CORRIDORS.
7. LOSS OF NORMAL ELECTRICAL POWER OPERATION: UPON LOSS OF ELECTRICAL POWER, THE ACCU WILL RESTART AUTOMATICALLY AFTER ELECTRICAL POWER IS RESTORED.
8. CENTRAL SYSTEM CONTROLLER SHALL MONITOR INDOOR UNITS.

EXHAUST FANS

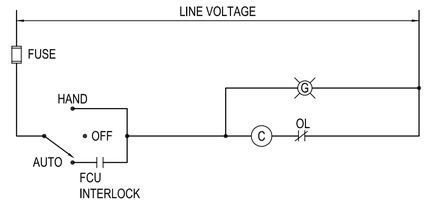
1. ADMIN BUILDING EF 1-1 SHALL BE INTERLOCKED WITH FCU 1-4 AND SHALL START AND RUN WHEN FCU 1-4 RUNS TO MAINTAIN AIR BALANCE WITHIN THE BUILDING. EF 1-1 MUST BE DE-ENERGIZED WHEN FCU 1-4 IS DE-ENERGIZED.
2. MAINTENANCE SHOP EF 2-1, 2-2, AND 2-3 SHALL BE MANUALLY ACTIVATED. MAINTENANCE SHOP EF'S SHALL RUN CONTINUOUSLY UNTIL COMMANDED TO TURN OFF.

HIGH VOLUME LOW SPEED FANS

1. ALL HVLS FANS SHALL RUN CONTINUOUSLY DURING BUSINESS HOURS.
2. HVLS FANS WITHIN THE SAME ROOM SHALL BE GROUPED AND CONTROLLED BY THE SAME CONTROLLER.

ELECTRICAL AND TELECOM ROOMS

1. ACCU'S AND FCU'S SERVING THE ELECTRICAL AND TELECOM ROOMS SHALL OPERATE 24 HOURS A DAY, 7 DAYS A WEEK.



EF 1-1 CONTROL DIAGRAM

SCALE: NONE

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THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
AIRSIDE SCHEMATIC DIAGRAM AND SEQUENCE OF OPERATION

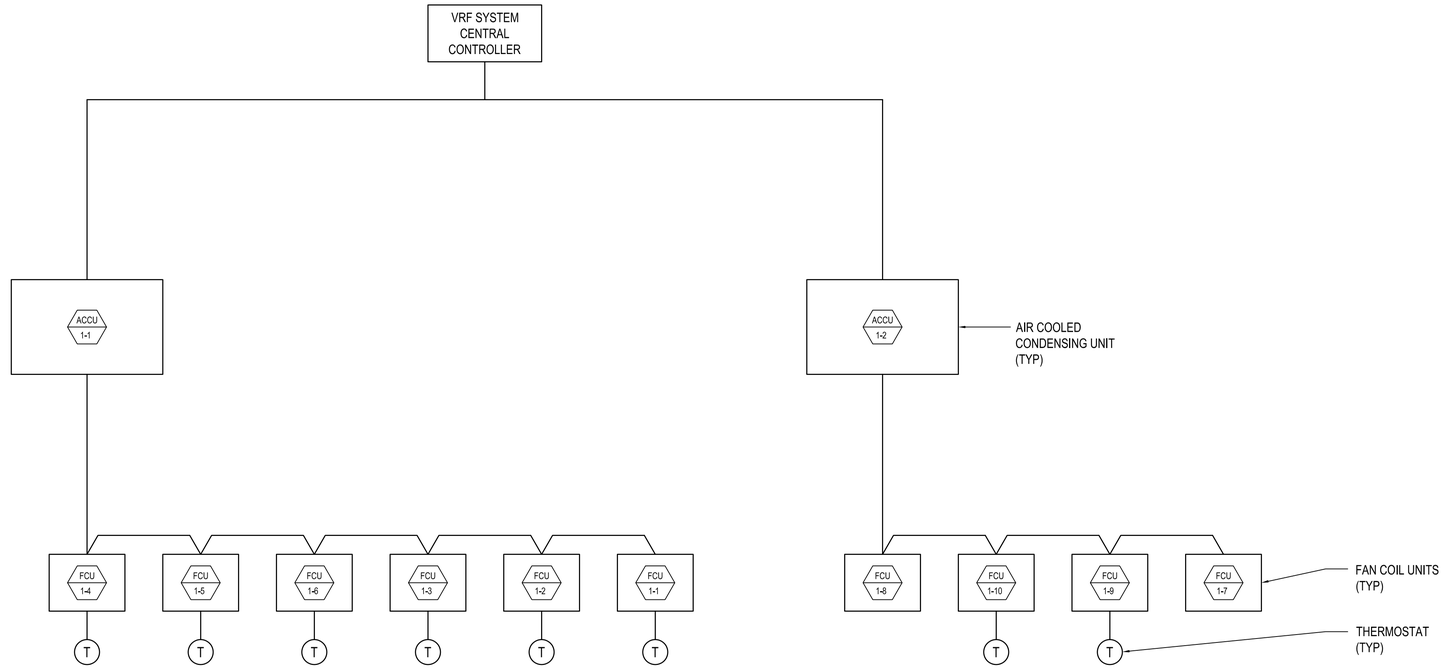
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DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
M-601
207 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

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VRF SYSTEM CONTROL SCHEMATIC DIAGRAM

SCALE: NONE

REVISION	DATE	DESCRIPTION	BY	APPROVED

CAREY S. NAKAGAWA
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No. 16319-M
HAWAII, U.S.A.

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EXP 4-30-26

THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
CONTROL SCHEMATIC DIAGRAM

DESIGNED BY:	MWH
DRAWN BY:	TEC
CHECKED BY:	CSN
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
M-602
206 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

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VRF AIR COOLED CONDITIONING UNIT SCHEDULE

TAG NO.	LOCATION	TYPE	REFRIG	NOMINAL CAPACITY (TONS)	TOTAL CAPACITY COOLING (BTUH)	TOTAL CAPACITY SENSIBLE (BTUH)	AMBIENT AIR TEMP (°F)	MIN SEER	ELECTRICAL					WEIGHT (LBS)	REMARKS
									V	PH	Hz	MCA	MOCP		
ACCU 1-1	ADMIN BLDG	MULTI-ZONE VRF	R-32	8	95,200	77,800	89	13.4	208	3	60	69	100	644	PROVIDE FACTORY APPLIED CORROSION INHIBITOR COATING ON CONDENSER COIL AND CASING.
ACCU 1-2	ADMIN BLDG	MULTI-ZONE VRF	R-32	14	167,700	101,300	89	13.4	208	3	60	73.5	100	876	PROVIDE FACTORY APPLIED CORROSION INHIBITOR COATING ON CONDENSER COIL AND CASING.

NOTE: PROVIDE MATCHED ACCU'S AND FCU'S FROM THE SAME MANUFACTURER.

DX AIR COOLED CONDENSING UNIT SCHEDULE

TAG NO.	UNIT SERVED	CAPACITY (BTUH)	COMPRESSOR		FAN		AMBIENT AIR (°F)	WEIGHT (LBS)	ELECTRICAL			MIN SEER	REMARKS
			QTY	TYPE	MOTOR	QTY			POWER V/PH/HZ	MCA (A)	MOCP (A)		
ACCU 2-1	FCU 2-1	24,500	1	TWIN, ROTARY	138 WATTS	1	89	194	208/1/60	15.7	37	13.4	PROVIDE FACTORY APPLIED CORROSION INHIBITOR COATING ON CONDENSER COIL AND CASING.

NOTE: PROVIDE MATCHED ACCU'S AND FCU'S FROM THE SAME MANUFACTURER.

VRF FAN COIL UNIT SCHEDULE

TAG NO.	TYPE	LOCATION	FAN SELECTION					COOLING COIL SECTION				FILTER SECTION		ELECTRICAL			WEIGHT (LBS)	REMARKS
			SA (CFM)	OA (CFM)	E.S.P. ("w.g.)	DRIVE	MOTOR (WATT)	EAT (DB/WB)	LAT (DB/WB)	TCC (BTUH)	SCC (BTUH)	THICKNESS (IN)	TYPE	POWER V/PH/HZ	MCA	MOCP		
FCU 1-1	DUCTED, HORIZONTAL	CONFERENCE 102	345	70	0.38	DIRECT	157	73.6 / 63.1	56.0 / 55.0	8,100	6,500	2	MERV 13	208/1/60	1.70	15	60	PROVIDE FILTER BOX, MATCH WITH ACCU 1-1
FCU 1-2	DUCTED, HORIZONTAL	OPEN OFFICE 101, LOBBY 100	1,250	470	0.50	DIRECT	259	69.9 / 60.3	55.0 / 54.1	21,600	20,100	2	MERV 13	208/1/60	3.70	15	106	PROVIDE FILTER BOX, MATCH WITH ACCU 1-1
FCU 1-3	DUCTED, HORIZONTAL	OFFICE 103 & 104	215	30	0.38	DIRECT	157	74.9 / 61.9	55.1 / 53.8	4,800	4,500	2	MERV 13	208/1/60	1.10	15	57	PROVIDE FILTER BOX, MATCH WITH ACCU 1-1
FCU 1-4	DUCTED, HORIZONTAL	BREAK ROOM 100BR	1,690	805	0.38	DIRECT	300	67.7 / 60.7	55.2 / 54.6	29,300	22,800	2	MERV 13	208/1/60	4.38	15	86	PROVIDE FILTER BOX, MATCH WITH ACCU 1-1
FCU 1-5	DUCTLESS, WALL MOUNTED	TELECOM 101TE	680	10	N/A	DIRECT	38	76.4 / 61.3	55.4 / 53.2	15,400	15,400	2	MERV 13	208/1/60	0.60	15	33	PROVIDE CONDENSATE PUMP, MATCH WITH ACCU 1-1
FCU 1-6	DUCTLESS, WALL MOUNTED	ELECTRICAL 101EC	325	0	N/A	DIRECT	24	77.1 / 46.9	55.7 / 35.9	7,500	7,500	2	MERV 13	208/1/60	0.40	15	24	PROVIDE CONDENSATE PUMP, MATCH WITH ACCU 1-1
FCU 1-7	DUCTED, HORIZONTAL, OUTSIDE AIR	MEN'S LOCKER ROOM 100ML	540	540	0.50	DIRECT	190	89.0 / 73.0	53.6 / 52.6	34,900	20,600	2	MERV 13	208/1/60	1.90	15	84	PROVIDE FILTER BOX, MATCH WITH ACCU 1-2
FCU 1-8	DUCTED, HORIZONTAL, OUTSIDE AIR	BREAK ROOM 100BR	845	845	0.50	DIRECT	259	89.0 / 73.0	53.6 / 52.6	54,700	32,300	2	MERV 13	208/1/60	4.00	15	106	PROVIDE FILTER BOX, MATCH WITH ACCU 1-2
FCU 1-9	DUCTED, HORIZONTAL, OUTSIDE AIR	MEN'S LOCKER ROOM 100ML	820	820	0.63	DIRECT	259	88.3 / 72.3	57.7 / 56.4	50,600	32,300	2	MERV 13	208/1/60	4.00	15	106	PROVIDE FILTER BOX, MATCH WITH ACCU 1-2
FCU 1-10	DUCTED, HORIZONTAL, OUTSIDE AIR	WOMEN'S LOCKER ROOM 100WL	425	425	0.50	DIRECT	190	89.4 / 72.9	57.7 / 56.4	25,300	16,100	2	MERV 13	208/1/60	1.90	15	84	PROVIDE FILTER BOX, MATCH WITH ACCU 1-2

NOTE: PROVIDE MATCHED ACCU'S AND FCU'S FROM THE SAME MANUFACTURER. PROVIDE REFRIGERANT LEAK DETECTION AND SAFETY SHUTOFF VALVES AS REQUIRED BY THE MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.

DX FAN COIL UNIT SCHEDULE

TAG NO.	TYPE	LOCATION	FAN SELECTION					COOLING COIL SECTION				FILTER SECTION		ELECTRICAL			WEIGHT (LBS)	REMARKS
			SA (CFM)	OA (CFM)	E.S.P. ("w.g.)	DRIVE	MOTOR (WATT)	EAT (DB/WB)	LAT (DB/WB)	TCC (BTUH)	SCC (BTUH)	THICKNESS (IN)	TYPE	POWER V/PH/HZ	MCA	MOCP		
FCU 2-1	DUCTED, HORIZONTAL	ELEC/TC 204	1,030	100	0.38	DIRECT	310	77.8 / 62.8	55.9 / 54.5	24,500	24,200	2	MERV 13	208/1/60	2.39	15	93	MATCH WITH ACCU 2-1

NOTE: PROVIDE MATCHED ACCU'S AND FCU'S FROM THE SAME MANUFACTURER. PROVIDE REFRIGERANT LEAK DETECTION AND SAFETY SHUTOFF VALVES AS REQUIRED BY THE MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.

EXHAUST FAN SCHEDULE

TAG NO.	AREA SERVED	TYPE	CFM	E.S.P. ("w.g.)	DRIVE	MOTOR		FAN RPM	POWER V/PH/Hz	OUTLET SOUND DATA								SONES	WEIGHT (LBS)	REMARKS
						HP	ENCLOSURE			62.5	125	250	500	1000	2000	4000	8000			
EF 1-1	RESTROOMS, SHOWERS, JANITOR, BREAK ROOM, LOCKER ROOM	INLINE	2,280	0.63	BELT	1	ODP	937	208/3/60	81	78	75	75	75	70	67	65	15.7	330	
EF 2-1	208 WELDING	INLINE	840	0.75	BELT	1/4	ODP	1,725	208/1/60	72	76	66	65	60	56	51	49	8.1	47	
EF 2-2	207 AUTO SHOP	INLINE	1,420	0.75	BELT	3/4	ODP	1,429	208/1/60	72	76	70	62	56	55	50	47	8.0	66	
EF 2-3	206 STORAGE	INLINE	640	0.75	BELT	1/4	ODP	1,682	208/1/60	80	86	68	69	60	54	54	51	12.1	50	

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THERMAL ENGINEERING CORPORATION

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STATE OF HAWAII
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SHEET TITLE
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SHEET
M-603
209 OF 273 SHTS.

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HIGH VOLUME LOW SPEED FAN SCHEDULE

TAG	AREA SERVED	IMPELLER DIAMETER (FT)	CFM	DRIVE	MOTOR		FAN RPM	POWER V/PH/Hz	SOUND PRESSURE (dBA)	WEIGHT (LBS)	REMARKS
					HP	DRIVE					
HVLS 1	201 STROEKEEPER	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 2	201 STROEKEEPER	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 3	201 STROEKEEPER	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 4	201 STROEKEEPER	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 5	202 S&G OPEN SHOP & STORAGE	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 6	203 WOOD SHOP	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 7	205 MAINTENANCE SHOP	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 8	205 MAINTENANCE SHOP	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 9	205 MAINTENANCE SHOP	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	
HVLS 10	205 MAINTENANCE SHOP	8	7,603	DIRECT, VFD	1/4	ODP	64	115/1/60	29	88	

DUST COLLECTOR SCHEDULE

TAG	AREA SERVED	TYPE	CFM	E.S.P. ("w.g.)	DRIVE	MOTOR		FAN RPM	FILTER		POWER V/PH/Hz	WEIGHT (LBS)	REMARKS
						HP	ENCLOSURE		QTY	TYPE			
DC 1	203 WOOD SHOP	SELF-CONTAINED FUNNEL BOTTOM	4,515	12.6	BELT	15	TEFC	3,450	2	FABRIC BAG CARTRIDGE	460/3/60	1,500	PROVIDE AUTOMATIC SHAKER & 55 GAL DRUM. PROVIDE SLIDE GATE AT DISCHARGE CONNECTION TO DRUM.

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
No. 16319-M
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

THERMAL ENGINEERING CORPORATION

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
EQUIPMENT SCHEDULES

DESIGNED BY:	MWH
DRAWN BY:	TEC
CHECKED BY:	CSN
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

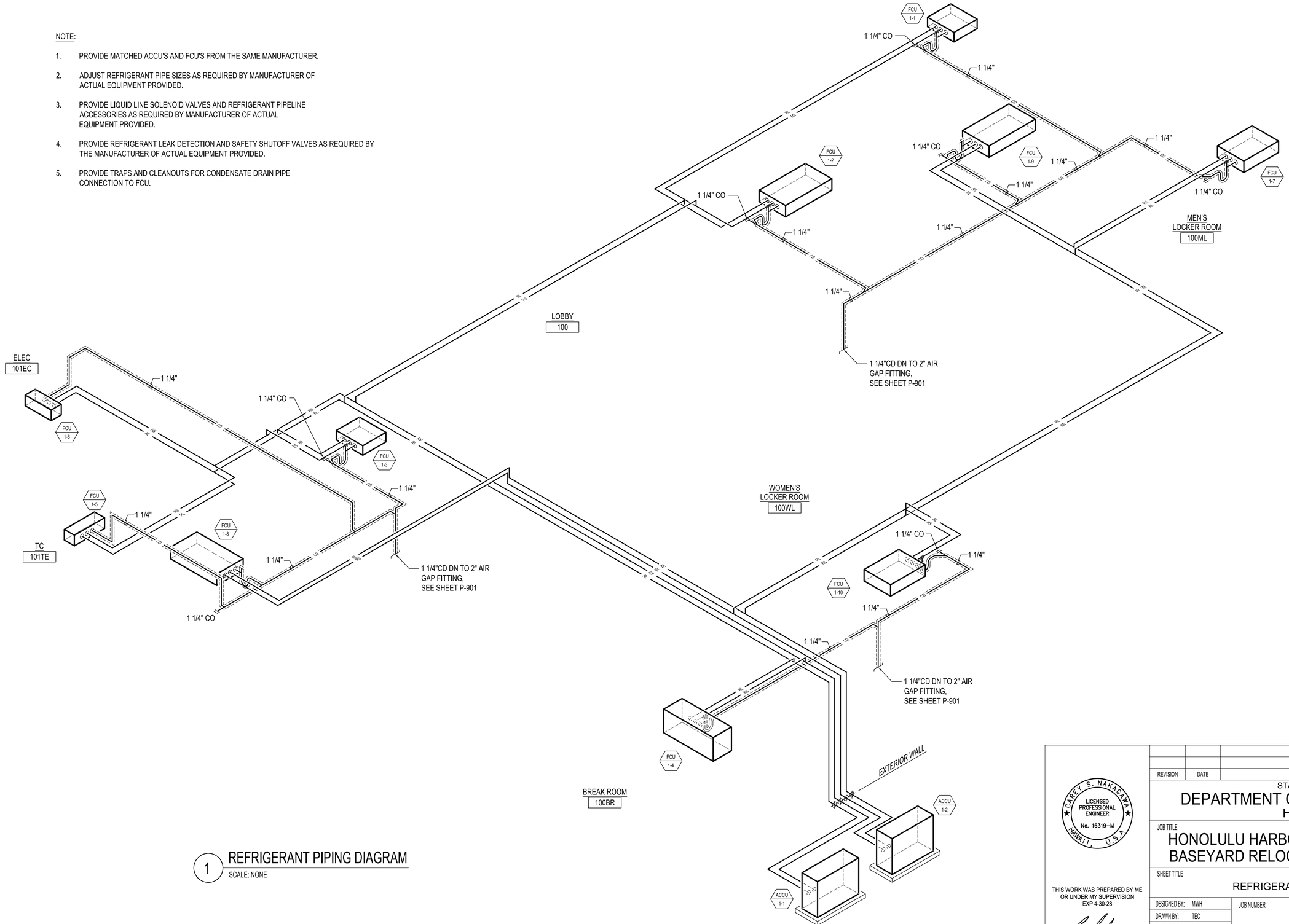
SHEET
M-604
210 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

G:\2023\23016 Oahu District Baseyard Relocation\Drawings\running set\M-901 REFRIGERANT PIPING DIAGRAM.dwg, 9/4/2026 4:38:59 PM, michael, Bluebeam PDF

NOTE:

1. PROVIDE MATCHED ACCU'S AND FCU'S FROM THE SAME MANUFACTURER.
2. ADJUST REFRIGERANT PIPE SIZES AS REQUIRED BY MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.
3. PROVIDE LIQUID LINE SOLENOID VALVES AND REFRIGERANT PIPELINE ACCESSORIES AS REQUIRED BY MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.
4. PROVIDE REFRIGERANT LEAK DETECTION AND SAFETY SHUTOFF VALVES AS REQUIRED BY THE MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.
5. PROVIDE TRAPS AND CLEANOUTS FOR CONDENSATE DRAIN PIPE CONNECTION TO FCU.



1 REFRIGERANT PIPING DIAGRAM
SCALE: NONE

REVISION	DATE	DESCRIPTION	BY	APPROVED

CAREY S. NAKAGAWA
LICENSED PROFESSIONAL ENGINEER
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EXP 4-30-28

THERMAL ENGINEERING CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
REFRIGERANT PIPING DIAGRAM

DESIGNED BY:	MWH
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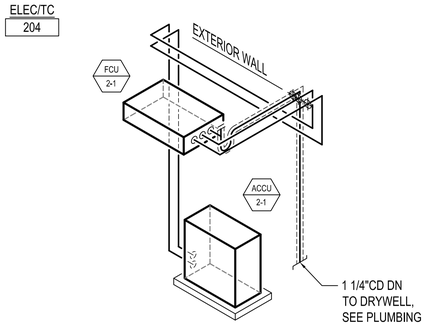
SHEET
M-901
211 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

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NOTE:

1. PROVIDE MATCHED ACCU'S AND FCU'S FROM THE SAME MANUFACTURER.
2. ADJUST REFRIGERANT PIPE SIZES AS REQUIRED BY MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.
3. PROVIDE LIQUID LINE SOLENOID VALVES AND REFRIGERANT PIPELINE ACCESSORIES AS REQUIRED BY MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.
4. PROVIDE REFRIGERANT LEAK DETECTION AND SAFETY SHUTOFF VALVES AS REQUIRED BY THE MANUFACTURER OF ACTUAL EQUIPMENT PROVIDED.
5. PROVIDE TRAPS AND CLEANOUTS FOR CONDENSATE DRAIN PIPE CONNECTION TO FCU.



1 REFRIGERANT PIPING DIAGRAM
SCALE: NONE

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
REFRIGERANT PIPING DIAGRAM

CAREY S. NAKAGAWA
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EXP 4-30-28

THERMAL ENGINEERING CORPORATION

DESIGNED BY:	MWH
DRAWN BY:	TEC
CHECKED BY:	CSN
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
M-902
212 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

ELECTRICAL SYMBOL LIST

MOUNTING HEIGHT FROM FLOOR TO		(SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN)		
		SYMBOL		
TOP	℄	EXISTING	NEW	DESCRIPTION
			(1)	LUMINAIRE, CEILING MOUNTED OR SUSPENDED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
			(1)	LUMINAIRE WITH EMERGENCY BATTERY PACK, CEILING MOUNTED OR SUSPENDED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
			(1)	LUMINAIRE, CEILING MOUNTED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
			(1)	LUMINAIRE, WALL MOUNTED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
			(1)	LUMINAIRE, WALL MOUNTED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
			(1)	LUMINAIRE, CEILING MOUNTED OR SUSPENDED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
	7'–6"			EMERGENCY LIGHTING UNIT, WALL MOUNTED
	7'–0"			ILLUMINATED EXIT SIGN, WALL MOUNTED, DIRECTIONAL ARROWS AS INDICATED
	46"		^{a}	LIGHT SWITCH, 1P20A, 120/277V, WALL MOUNTED (LETTER INDICATES LUMINAIRES CONTROLLED)
	46"		$_{2}^{a}$	TWO POLE SWITCH, 20A, 120/277V, 1 HP MAX (LETTER INDICATES LUMINAIRES CONTROLLED)
	46"		$_{3}^{a}$	THREE WAY SWITCH, 20A, 120/277V (LETTER INDICATES LUMINAIRES CONTROLLED)
	46"		$_{4}^{a}$	FOUR WAY SWITCH, 20A, 120/277V (LETTER INDICATES LUMINAIRES CONTROLLED)
			$_{2}$	TWO POLE TOGGLE SWITCH, 20A, 120/277V, 1 HP MAX
	46"		S $_{a}$	LOW VOLTAGE LIGHTING CONTROL STATION (LETTER INDICATES LUMINAIRES CONTROLLED)
	46"		D $_{a}$	LOW VOLTAGE DIMMING CONTROL STATION (LETTER INDICATES LUMINAIRES CONTROLLED)
	46"		$_{a}$	OCCUPANCY SENSOR/WALL SWITCH (LETTER INDICATES LUMINAIRES CONTROLLED)
			RC	LIGHTING ROOM CONTROLLER
			OS	OCCUPANCY SENSOR, CEILING MOUNTED OR SUSPENDED AT +8'–0"
	7'–0"			OCCUPANCY SENSOR, WALL MOUNTED
	18"			DUPLEX RECEPTACLE, GROUNDING TYPE, 125V, NEMA 5–20R
	18"			DUPLEX RECEPTACLE, GFCI, 125V, NEMA 5–20R
	18"			QUADRUPLEX RECEPTACLE, GROUNDING TYPE, 125V, NEMA TYPE 5–20R
	60"			SPECIAL PURPOSE RECEPTACLE, SINGLE, VOLTAGE AND NEMA CONFIGURATION AS NOTED
				SPECIAL PURPOSE RECEPTACLE, SINGLE, CONDUIT MOUNTED, VOLTAGE AND NEMA CONFIGURATION AS NOTED
				POWER/TELECOM OUTLET, FLUSH FLOOR MOUNTED
	18"			INFORMATION OUTLET (VOICE/DATA)
				TELECOMMUNICATIONS EQUIPMENT RACK, FLOOR MOUNTED
6'–0"				PANELBOARD
				ELECTRICAL EQUIPMENT
5'–0"				NON–FUSED SAFETY SWITCH
5'–0"				ENCLOSED CIRCUIT BREAKER
			J	JUNCTION BOX, SMALL, WALL MOUNTED
			J	JUNCTION BOX, LARGE, WALL MOUNTED
			J	JUNCTION BOX, SMALL, HORIZONTALLY MOUNTED
			J	JUNCTION BOX, LARGE, HORIZONTALLY MOUNTED
				EQUIPMENT TERMINATION WITH FLEXIBLE CONDUIT WHIP

MOUNTING HEIGHT FROM FLOOR TO		(SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN)		
		SYMBOL		
TOP	℄	EXISTING	NEW	DESCRIPTION
			V	SECURITY CAMERA, WALL MOUNTED
			V	SECURITY CAMERA, CEILING MOUNTED
			A	WIRELESS ACCESS POINT OUTLET BOX, WALL MOUNTED
			A	WIRELESS ACCESS POINT OUTLET BOX, CEILING MOUNTED
5'–0"				FIRE ALARM PANEL, TYPE AS INDICATED
			S	SMOKE SENSOR, CEILING MOUNTED
	46"		F	FIRE ALARM MANUAL PULL STATION
	7'–0"		F	FIRE ALARM AUDIO/VISUAL (15 CANDELA) SIGNALLING DEVICE
	7'–0"		F	FIRE ALARM AUDIO/VISUAL (75 CANDELA) SIGNALLING DEVICE
	7'–0"		F	FIRE ALARM VISUAL (15 CANDELA) SIGNALLING DEVICE
			FS	FIRE ALARM FLOW SWITCH CONNECTION
			TS	FIRE ALARM TAMPER SWITCH CONNECTION
			AM	FIRE ALARM ADDRESSABLE MODULE
			M	SYSTEMS FURNITURE POWER CONNECTION WITH FLEXIBLE WHIP
			1	SHOP EQUIPMENT IDENTIFIER, NUMBER AS INDICATED ON EQUIPMENT SCHEDULE
				WEATHERPROOF MUSHROOM HEAD PUSHBUTTON
				ROLL–UP DOOR CONTROL STATION CONNECTION, CONTROL STATION BY ROLL–UP DOOR MANUFACTURER
			A–1,3	HOMERUN ARROW TO PANELBOARD, LETTER INDICATES PANELBOARD, NUMBERS INDICATE CIRCUITS (HASHMARKS INDICATE QUANTITY OF CURRENT–CARRYING WIRES WITHIN, NO HASHMARKS INDICATE 2 CURRENT–CARRYING WIRES WITHIN)
			E	CONDUIT STUB, 3/4" MINIMUM CONDUIT UNLESS OTHERWISE NOTED
		—·— e —·—		UNDERGROUND DUCTLINE
				INTERIOR WORK: CONCEALED CONDUIT IN FINISHED FLOOR OR BELOW GRADE (HASHMARKS INDICATE QUANTITY OF CURRENT CARRYING CONDUCTORS WITHIN, NO HASHMARKS INDICATE 2 CURRENT CARRYING CONDUCTORS WITHIN) EXTERIOR WORK: CONCRETE ENCASED UNDERGROUND DUCT LINE, SEE DUCT INDICATOR AND SCHEDULE ON E–104 FOR CONDUCTOR SIZES
				CONCEALED CONDUIT IN CEILING OR WALLS, (HASHMARKS INDICATE QUANTITY OF CURRENT–CARRYING CONDUCTORS WITHIN, NO HASHMARKS INDICATE 2 CURRENT CARRYING CONDUCTORS WITHIN
				EXPOSED RACEWAY, PROVIDE STRAP 8'–0" ON CENTER MAXIMUM (HASHMARKS INDICATE QUANTITY OF CURRENT–CARRYING CONDUCTORS WITHIN, NO HASHMARKS INDICATE 2 CURRENT CARRYING CONDUCTORS WITHIN)
			F	RACEWAY, FIRE ALARM
			D	RACEWAY, VOICE/DATA
		— eOH/_ —	— OH/_ —	OVERHEAD CONDUCTORS (P/S/T) P=PRIMARY S=SECONDARY T=TELECOMMUNICATIONS

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No. 10017–E
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ELECTRICAL SYMBOL LIST

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
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JOB NUMBER
P10981

SHEET
E-001
213 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

ELECTRICAL SYMBOL LIST

MOUNTING HEIGHT FROM FLOOR TO		(SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN)		
		SYMBOL		
TOP	℄		NEW	DESCRIPTION
				POWER TRANSFORMER
				GROUND
				CURRENT TRANSFORMER
				CIRCUIT BREAKER
				SPLICE
				NON–FUSED DISCONNECT SWITCH
			+42"	DENOTES 42" ABOVE FINISHED FLOOR OR GRADE
			ACCU	AIR COOLED CONDENSING UNIT
			AFF	ABOVE FINISHED FLOOR
			A/V	AUDIO/VISUAL
			CCTV	CLOSED–CIRCUIT TELEVISION
			EF	EXHAUST FAN
			EWH	ELECTRIC WATER HEATER
			EP	EXPLOSIONPROOF
			EV	ELECTRIC VEHICLE
			FA	FIRE ALARM
			FCU	FAN COIL UNIT
			GFCI	GROUND FAULT CIRCUIT INTERRUPTER
			GND	GROUND
			HECO	HAWAIIAN ELECTRIC COMPANY
			HH	HANDHOLE
			HP	HORSEPOWER
			HRP	HOT WATER RECIRCULATING PUMP
			HT	HAWAIIAN TELCOM
			KVA	KILOVOLT–AMPERE
			MCA	MINIMUM CIRCUIT AMPACITY
			PA	PUBLIC ADDRESS
			PV	PHOTOVOLTAIC
			SF	SUPPLY FAN
			SS	STAINLESS STEEL
			WP	WEATHERPROOF
			XFMR	TRANSFORMER
				DENOTES DEMOLITION/REMOVAL
				DUCT SECTION INDICATOR, SEE DUCT SCHEDULE ON E–104
				NOTE INDICATOR
				DETAIL INDICATOR: TOP HALF DENOTES DETAIL NUMBER, BOTTOM HALF DENOTES SHEET NUMBER

GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL COMPLY WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL ELECTRICAL SAFETY CODE AND ORDINANCES OF THE CITY AND COUNTY OF HONOLULU. CONSTRUCTION PRACTICES SHALL CONFORM TO THE LATEST EDITION OF AMERICAN ELECTRICIANS' HANDBOOK BY CROFT, AND APPLICABLE INSTRUCTIONS OF MANUFACTURERS OF EQUIPMENT AND MATERIAL SUPPLIED FOR THIS PROJECT.

2. THE DRAWINGS DO NOT REFLECT ALL THE EXISTING CONDITIONS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. VISIT THE PROJECT SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS, THE EXTENT OF ANY DEMOLITION, RELOCATION, RECONNECTION, AND THE NEW WORK PRIOR TO THE START OF ON–SITE CONSTRUCTION ACTIVITIES. REPORT ANY DISCREPANCIES AND/OR DIFFERENCES BETWEEN THE EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS TO THE STATE. RESOLVE ALL DISCREPANCIES AND QUESTIONS PRIOR TO THE START OF WORK. BID SUBMISSION SHALL BE CONSIDERED AS EVIDENCE THAT THE CONTRACTOR HAS VISITED THE SITE AND RESOLVED ALL DISCREPANCIES AND QUESTIONS AND NO EXTRA PAYMENT WILL BE AUTHORIZED FOR WORK REQUIRED BY THE CONTRACTOR'S FAILURE TO DO SO.

3. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

4. WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT, ALTHOUGH NOT SPECIFICALLY REFERRED TO IN THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

5. THE LOCATION OF ALL ELECTRICAL APPARATUS AND DEVICES ARE APPROXIMATE AND BEFORE INSTALLING, STUDY THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DETAILS AND MAKE INSTALLATION IN THE MOST LOGICAL MANNER. ANY PIECE OF EQUIPMENT/DEVICE MAY BE RELOCATED WITHIN 10' BEFORE INSTALLATION AT THE DIRECTION OF THE CONSTRUCTION ENGINEER WITHOUT ADDITIONAL COST TO THE PROJECT.

6. SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF THE PROJECT'S WORK, THE CONTRACTOR SHALL MARK SUCH CHANGES ON THE AS–BUILT DRAWINGS. IF THESE CHANGES REQUIRE AN ALTERNATE METHOD TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS TO REFLECT THE PROPOSED ALTERNATE METHODS TO THE STATE FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION SHALL NOT BE CONSIDERED AN ITEM FOR EXTRA COST.

7. AN ADHESIVE VINYL NAMEPLATE SHALL BE PROVIDED FOR ALL SWITCHES, RECEPTACLES, AND MISCELLANEOUS DEVICES REQUIRING POWER. THE NAMEPLATE SHALL INDICATE THE PANELBOARD SERVING THE DEVICE AND THE CORRESPONDING CIRCUIT ASSIGNMENT. LETTERING SHALL BE A MINIMUM OF 1/4" HIGH. UTILIZE BROTHER "P–TOUCH" LABEL MAKER OR APPROVED SUBSTITUTE.

8. A GREEN, EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH THE NEC ARTICLE 250 SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS WHETHER INDICATED ON CONTRACT DRAWINGS OR NOT.

9. DO NOT USE A COMMON NEUTRAL FOR MULTIPLE BRANCH CIRCUITS INSTALLED IN A COMMON CONDUIT. PROVIDE A DEDICATED NEUTRAL FOR EACH INDIVIDUAL CIRCUIT. WHERE MULTIPLE DEDICATED NETURALS ARE INSTALLED IN A COMMON CONDUIT, PROVIDE COLOR CODING OF THE DIFFERENT NEUTRAL CONDUCTORS IN ACCORDANCE WITH NEC 2020 (WHITE, GRAY, THREE CONTINUOUS WHITE OR GRAY STRIPES, ETC.).

10. PROVIDE NYLON PULLSTRING IN ALL EMPTY CONDUITS UNLESS OTHERWISE INDICATED.

11. THE TELECOMMUNICATIONS RACEWAY SYSTEM INSTALLATION SHALL COMPLY WITH ANSI/TIA–569–A UNLESS OTHERWISE NOTED.

12. TELECOMMUNICATION SYSTEM CONDUITS SHALL CONTAIN NO MORE THAN TWO 90 DEGREE BENDS BETWEEN PULL POINTS/PULL BOXES.

13. CONDUIT BODIES (e.g LB, LR, etc.) SHALL NOT BE PERMITTED IN THE TELECOMMUNICATIONS RACEWAY SYSTEMS UNLESS SPECIFICALLY INDICATED TO BE UTILIZED AND LISTED FOR TELECOMMUNICATIONS SYSTEM USE.

14. PROVIDE INSULATED BUSHINGS AT ALL TELECOMMUNICATIONS CONDUIT TERMINATIONS AT ALL BOXES, BACKBOARDS, AND CONDUIT STUBS.

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COFFMAN ENGINEERS, INC.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ELECTRICAL SYMBOL LIST, NOTES

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-002
214 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

HAWAIIAN ELECTRIC COMPANY NOTES:

1. LOCATION OF HAWAIIAN ELECTRIC FACILITIES

   THE LOCATION OF HAWAIIAN ELECTRIC'S OVERHEAD AND UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATIONS OF THE FACILITIES AND SHALL EXERCISE PROPER CARE IN EXCAVATING AND WORKING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES AND UTILITY CROSSINGS ARE SHOWN, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS AND CROSSINGS TO VERIFY THE DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO HAWAIIAN ELECTRIC'S FACILITIES WHETHER SHOWN OR NOT SHOWN ON THE PLANS.

2. COMPLIANCE WITH HAWAII OCCUPATIONAL SAFETY AND HEALTH LAWS

   THE CONTRACTOR SHALL COMPLY WITH THE STATE OF HAWAII'S OCCUPATIONAL SAFETY AND HEALTH LAWS AND REGULATIONS, INCLUDING WITHOUT LIMITATION, THOSE RELATED TO WORKING ON OR NEAR EXPOSED OR ENERGIZED ELECTRICAL LINES AND EQUIPMENT.

3. EXCAVATION CLEARANCE

   THE CONTRACTOR SHALL OBTAIN AN EXCAVATION CLEARANCE FROM HAWAIIAN ELECTRIC'S PLANNING AND DESIGN SECTION OF THE TRANSMISSION & DISTRIBUTION ENGINEERING DEPARTMENT (808-543-5654) LOCATED AT 820 WARD AVENUE, 4TH FLOOR, A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO STARTING CONSTRUCTION.

4. CAUTION!!! ELECTRICAL HAZARD!!!

   EXISTING HAWAIIAN ELECTRIC OVERHEAD AND UNDERGROUND LINES ARE ENERGIZED AND WILL REMAIN ENERGIZED DURING CONSTRUCTION UNLESS PRIOR SPECIAL ARRANGEMENTS HAVE BEEN MADE WITH HAWAIIAN ELECTRIC. ONLY HAWAIIAN ELECTRIC PERSONNEL ARE TO HANDLE THESE ENERGIZED LINES AND ERECT TEMPORARY GUARDS TO PROTECT THESE LINES FROM DAMAGE. THE CONTRACTOR SHALL WORK CAUTIOUSLY AT ALL TIMES TO AVOID ACCIDENTS AND DAMAGE TO EXISTING HAWAIIAN ELECTRIC FACILITIES, WHICH CAN RESULT IN ELECTROCUTION.

5. OVERHEAD LINES

   STATE LAW (OSHA) REQUIRES THAT A WORKER AND THE LONGEST OBJECT HE OR SHE MAY CONTACT CANNOT COME CLOSER THAN A SPECIFIED MINIMUM RADIAL CLEARANCE WHEN WORKING CLOSE TO OR UNDER ANY OVERHEAD LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE INFORMED OF AND COMPLY WITH THE LAW.

   AT ANY TIME SHOULD THE CONTRACTOR ANTICIPATE THAT HIS WORK WILL RESULT IN THE NEED TO ENCROACH WITHIN THE MINIMUM REQUIRED CLEARANCE AS STATED IN THE LAW, THE CONTRACTOR SHALL NOTIFY HAWAIIAN ELECTRIC AT LEAST THREE (3) MONTHS PRIOR TO THE PLANNED ENCROACHMENT SO THAT, IF FEASIBLE, THE NECESSARY PROTECTIONS (E.G. RELOCATE OR DE-ENERGIZE HAWAIIAN ELECTRIC LINES) CAN BE INVESTIGATED. HAWAIIAN ELECTRIC MAY ALSO BE ABLE TO BLANKET ITS DISTRIBUTION (12kV AND BELOW) LINES TO PROVIDE A VISUAL AID IN PREVENTING ACCIDENTAL CONTACT. HAWAIIAN ELECTRIC'S COST OF SAFEGUARDING OR IDENTIFYING ITS LINES WILL BE CHARGED TO THE CONTRACTOR.

   CONTACT HAWAIIAN ELECTRIC'S CUSTOMER INSTALLATIONS DIVISION AT 808-543-7070 FOR ASSISTANCE IN IDENTIFYING AND SAFEGUARDING OVERHEAD POWER LINES.

6. POLE BRACING

   A) CONTRACTOR SHALL NOT EXCAVATE WITHIN 10 FEET OF HAWAIIAN ELECTRIC'S UTILITY POLES OR ANY ANCHOR SYSTEM SUPPORTING THE UTILITY POLE. IF CONTRACTOR MUST EXCAVATE AN AREA MORE THAN 12 INCHES DEEP BY 12 INCHES WIDE, AND CLOSER THAN 10 FEET FROM A UTILITY POLE OR ITS ANCHOR SYSTEM, EXCEPT WHEN EXCAVATING FOR RISERS IN A SINGLE TRENCH NOT WIDER THAN 12 INCHES AND NOT DEEPER THAN 3 FEET, CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING, SUPPORTING, SECURING AND TAKING ALL PRECAUTIONS TO PREVENT DAMAGE TO OR LEANING OF EXISTING POLES. BEFORE COMMENCING SUCH EXCAVATION, CONTRACTOR MUST NOTIFY HAWAIIAN ELECTRIC WHICH MAY LEAD TO IMPLEMENTING POLE BRACING REQUIREMENTS. HAWAIIAN ELECTRIC REQUIRES A MINIMUM OF TEN (10) WORKING DAYS TO CONDUCT THE REVIEW OF CONTRACTOR'S SUBMITTAL. CONTRACTOR SHALL SUBMIT ITS BRACING CALCULATIONS AND DRAWINGS, PREPARED AND STAMPED BY A LICENSED STRUCTURAL ENGINEER, TO HAWAIIAN ELECTRIC'S CUSTOMER RELATIONS (808-543-7070) FOR REVIEW. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF THE TEMPORARY POLE BRACING SYSTEM, AS WELL AS ALL COSTS INCURRED BY HAWAIIAN ELECTRIC TO REVIEW CONTRACTOR'S DRAWINGS AND TO REPAIR OR STRAIGHTEN POLES IMPACTED BY CONTRACTOR'S ACTIVITIES, INCLUDING RESPONSE AND RESTORATION COSTS INCURRED BY HAWAIIAN ELECTRIC ARISING OUT OF OR RELATED TO OUTAGES CAUSED BY CONTRACTOR'S FAILURE TO MEET THE FOREGOING REQUIREMENTS. HAWAIIAN ELECTRIC'S RECEIPT OF POLE BRACING CALCULATION OR DRAWING SUBMITTALS OF ANY CONTRACTOR, INCLUDING WORK PROCEDURE, SHALL NOT RELIEVE CONTRACTOR FROM ANY LIABILITY RESULTING FROM CONTRACTOR'S EXCAVATION NEAR OR AROUND HAWAIIAN ELECTRIC'S UTILITY POLES.

   B) HAWAIIAN ELECTRIC MAY PROVIDE TO THE CUSTOMER INFORMATION RELATED TO POLE BRACING, INCLUDING CALCULATIONS AND OTHER BASIC ENGINEERING. HOWEVER, HAWAIIAN ELECTRIC PROVIDES THIS INFORMATION FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT WARRANT ANY OF THE INFORMATION PROVIDED TO CUSTOMER. HAWAIIAN ELECTRIC HEREBY DISCLAIMS ANY LIABILITY ASSOCIATED WITH THE CUSTOMER'S USE OF INFORMATION PROVIDED TO THE CUSTOMER FROM HAWAIIAN ELECTRIC. IT IS THE CUSTOMER'S DUTY TO OBTAIN ENGINEERING FROM ITS OWN ENGINEER OR CONTRACTOR IN ORDER TO BRACE POLES AND THE USE OF HAWAIIAN ELECTRIC'S INFORMATION DOES NOT EXCUSE THE CUSTOMER FROM PERFORMING ITS OWN EVALUATION OF THE BRACING NEEDS. SHOULD THE CUSTOMER INSTALL BRACING AT ANY POLE LOCATION, CUSTOMER SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS HAWAIIAN ELECTRIC FROM ANY THIRD-PARTY CLAIMS ASSOCIATED WITH THE CUSTOMER'S BRACING OF A POLE. SHOULD THE WORK CUSTOMER PERFORMS AT OR NEAR THE POLE LOCATION COMPROMISE THE POLE OR ITS SURROUNDINGS IN ANY WAY, CUSTOMER SHALL RESTORE OF REPLACE THE POLE SO THAT IT IS NO LONGER COMPROMISED.

7. UNDERGROUND LINES

   THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND LINES. HAWAIIAN ELECTRIC'S EXISTING ELECTRICAL CABLES ARE ENERGIZED AND WILL REMAIN ENERGIZED DURING CONSTRUCTION. ONLY HAWAIIAN ELECTRIC PERSONNEL ARE TO BREAK INTO EXISTING HAWAIIAN ELECTRIC FACILITIES, HANDLE THESE CABLES, AND ERECT TEMPORARY

   GUARDS TO PROTECT THESE CABLES FROM DAMAGE. THE COST OF HAWAIIAN ELECTRIC'S ASSISTANCE IN PROVIDING PROPER SUPPORT AND PROTECTION OF ITS UNDERGROUND LINES WILL BE CHARGED TO THE CONTRACTOR. FOR ASSISTANCE/COORDINATION IN PROVIDING

   PROPER SUPPORT AND PROTECTION OF THESE LINES, THE CONTRACTOR SHALL CALL HAWAIIAN ELECTRIC'S CUSTOMER RELATIONS AT 808-543-7070 A MINIMUM OF TEN (10) WORKING DAYS IN ADVANCE.

   SPECIAL PRECAUTIONS ARE REQUIRED WHEN EXCAVATING NEAR HAWAIIAN ELECTRIC'S 138kV OR 46kV UNDERGROUND LINES (SEE HAWAIIAN ELECTRIC INSTRUCTIONS TO CONSULTANTS/CONTRACTORS ON "EXCAVATION NEAR HAWAIIAN ELECTRIC'S UNDERGROUND 138kV AND/OR 46kV LINES" FOR DETAILED REQUIREMENTS).

   FOR VERIFICATION OF UNDERGROUND LINES, THE CONTRACTOR SHALL CALL THE HAWAII ONE CALL CENTER AT 866-423-7287 MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE.

8. UNDERGROUND FUEL PIPELINES

   THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF HAWAIIAN ELECTRIC'S UNDERGROUND FUEL OIL PIPELINES. SPECIAL PRECAUTIONS ARE REQUIRED WHEN EXCAVATING NEAR HAWAIIAN ELECTRIC'S UNDERGROUND FUEL OIL PIPELINES (SEE HAWAIIAN ELECTRIC'S SPECIFIC FUEL PIPELINE "GUIDELINES" TO CONSULTANTS/CONTRACTORS ON EXCAVATION NEAR HAWAIIAN ELECTRIC'S UNDERGROUND FUEL PIPELINES FOR DETAILED REQUIREMENTS).

9. EXCAVATIONS

   WHEN TRENCH EXCAVATION IS ADJACENT TO OR BENEATH HAWAIIAN ELECTRIC'S EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR:

   A) ARRANGING FOR HAWAIIAN ELECTRIC STANDBY PERSONNEL TO OBSERVE WORK AT CONTRACTOR'S COST.

   B) SHEETING, BRACING, OR OTHERWISE SUPPORTING THE EXCAVATION AND STABILIZING THE EXISTING GROUND TO RENDER IT SAFE AND SECURE AND TO PREVENT POSSIBLE SLIDES, CAVE-INS, AND SETTLEMENTS.

   C) PROPERLY SUPPORTING EXISTING STRUCTURES OR FACILITIES WITH BEAMS, STRUTS, UNDER-PINNINGS, OR OTHER NECESSARY METHODS TO FULLY PROTECT IT FROM DAMAGE.

   D) BACKFILLING WITH PROPER BACKFILL MATERIAL INCLUDING SPECIAL THERMAL BACKFILL WHERE EXISTING (REFER TO ENGINEERING DIVISION FOR THERMAL BACKFILL SPECIFICATIONS).

10. RELOCATION OF HAWAIIAN ELECTRIC FACILITIES

    ANY WORK REQUIRED TO RELOCATE OR MODIFY HAWAIIAN ELECTRIC FACILITIES SHALL BE DONE BY HAWAIIAN ELECTRIC, OR BY THE CONTRACTOR UNDER HAWAIIAN ELECTRIC'S SUPERVISION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION, AND SHALL PROVIDE NECESSARY SUPPORT FOR HAWAIIAN ELECTRIC'S WORK, WHICH MAY INCLUDE, BUT NOT BE LIMITED TO, STAKING OF POLE/ANCHOR LOCATIONS, IDENTIFYING RIGHT OF WAY AND PROPERTY LINES, EXCAVATION AND BACKFILL, PERMITS AND TRAFFIC CONTROL, BARRICADING, AND RESTORATION OF PAVEMENT, SIDEWALKS, AND OTHER FACILITIES.

    ALL COSTS ASSOCIATED WITH ANY RELOCATION OR MODIFICATION (EITHER TEMPORARY OR PERMANENT) FOR THE CONVENIENCE OF THE CONTRACTOR, OR TO ENABLE THE CONTRACTOR TO PERFORM HIS WORK IN A SAFE AND EXPEDITIOUS MANNER IN FULFILLING HIS CONTRACT OBLIGATIONS SHALL BE BORNE BY THE CONTRACTOR.

11. CONFLICTS

    ANY REDESIGN OR RELOCATION OF HAWAIIAN ELECTRIC'S FACILITIES NOT SHOWN ON THE PLANS MAY BE CAUSE FOR LENGTHY DELAYS. THE CONTRACTOR ACKNOWLEDGES THAT HAWAIIAN ELECTRIC IS NOT RESPONSIBLE FOR ANY DELAY OR DAMAGE THAT MAY ARISE AS A RESULT OF ANY CONFLICTS DISCOVERED OR IDENTIFIED WITH RESPECT TO THE LOCATION OR CONSTRUCTION OF HAWAIIAN ELECTRIC'S ELECTRICAL FACILITIES IN THE FIELD, REGARDLESS OF WHETHER THE CONTRACTOR HAS MET THE REQUESTED MINIMUM ADVANCE NOTICES. IN ORDER TO MINIMIZE ANY DELAY OR IMPACT ARISING FROM SUCH CONFLICTS, HAWAIIAN ELECTRIC SHOULD BE NOTIFIED IMMEDIATELY UPON DISCOVERY OR IDENTIFICATION OF SUCH CONFLICT.

12. DAMAGE TO HAWAIIAN ELECTRIC FACILITIES

    THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL HAWAIIAN ELECTRIC SURFACE AND SUBSURFACE UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO HAWAIIAN ELECTRIC'S FACILITIES AS A RESULT OF HIS OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY REPORT SUCH DAMAGES OR ANY HAZARDOUS CONDITIONS RELATED TO HAWAIIAN ELECTRIC'S LINES TO HAWAIIAN ELECTRIC'S TROUBLE DISPATCHER AT 808-548-7961. REPAIR WORK SHALL BE DONE BY HAWAIIAN ELECTRIC OR BY THE CONTRACTOR UNDER HAWAIIAN ELECTRIC'S SUPERVISION. COSTS FOR DAMAGES TO HAWAIIAN ELECTRIC'S FACILITIES SHALL BE BORNE BY THE CONTRACTOR.

    IN CASE OF DAMAGE OR SUSPECTED DAMAGE TO HAWAIIAN ELECTRIC'S FUEL PIPELINE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY HAWAIIAN ELECTRIC'S SECURITY COMMAND CENTER AT 808-543-7685 (A 24-HOUR NUMBER) SO HAWAIIAN ELECTRIC PERSONNEL CAN SECURE THE DAMAGED SECTION AND REPORT ANY OIL SPILLS TO THE PROPER AUTHORITIES. ALL COSTS ASSOCIATED WITH THE DAMAGE, REPAIR, AND OIL SPILL CLEANUP SHALL BE BORNE BY THE CONTRACTOR.

13. HAWAIIAN ELECTRIC STAND-BY PERSONNEL

    THE CONTRACTOR MAY REQUEST HAWAIIAN ELECTRIC TO PROVIDE AN INSPECTOR TO STAND-BY DURING CONSTRUCTION NEAR HAWAIIAN ELECTRIC'S FACILITIES. THE COST OF SUCH INSPECTION WILL BE CHARGED TO THE CONTRACTOR.

    THE CONTRACTOR SHALL CALL HAWAIIAN ELECTRIC'S CUSTOMER RELATIONS AT 808-543-7070 A MINIMUM OF THREE (3) MONTHS IN ADVANCE TO ARRANGE FOR HAWAIIAN ELECTRIC STAND-BY PERSONNEL.

14. CLEARANCES

    THE FOLLOWING CLEARANCES SHALL BE MAINTAINED BETWEEN HAWAIIAN ELECTRIC'S DUCTLINE AND ALL ADJACENT STRUCTURES (CHARTED AND UNCHARTED) IN THE TRENCH: SEE TABLE 1 & 2 ON SHEET E-004. THE CONTRACTOR SHALL NOTIFY THE HARBORS CONSTRUCTION MANAGER & HAWAIIAN ELECTRIC OF ANY HEAT SOURCES (POWER CABLE DUCT BANK, STEAMLINE, ETC.) ENCOUNTERED THAT ARE NOT PROPERLY IDENTIFIED ON THE DRAWING.

15. INDEMNITY

    THE CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS HAWAIIAN ELECTRIC FROM AND AGAINST ALL LOSSES, DAMAGES, CLAIMS, AND ACTIONS, INCLUDING BUT NOT LIMITED TO REASONABLE ATTORNEY'S FEES AND COSTS BASED UPON OR ARISING OUT OF DAMAGE TO PROPERTY OR INJURIES TO PERSONS, OR OTHER TORTIOUS ACTS CAUSED OR CONTRIBUTED TO BY CONTRACTOR OR ANYONE ACTING UNDER ITS DIRECTION OR CONTROL OR ON ITS BEHALF; PROVIDED CONTRACTOR'S INDEMNITY SHALL NOT BE APPLICABLE TO ANY LIABILITY BASED UPON THE SOLE NEGLIGENCE OF HAWAIIAN ELECTRIC.

16. SCHEDULE

    CONTRACTOR SHALL FURNISH HIS CONSTRUCTION SCHEDULE SIX (6) MONTHS PRIOR TO STARTING WORK ON HAWAIIAN ELECTRIC FACILITIES. CONTRACTOR SHALL GIVE HAWAIIAN ELECTRIC, IN WRITING, THREE (3) MONTHS NOTICE TO PROCEED WITH HAWAIIAN ELECTRIC'S PORTION OF WORK.

17. AUTHORITY

    ALL CONSTRUCTION, RESTORATION WORK, AND INSPECTION SHALL BE SUBJECT TO WHICHEVER GOVERNMENTAL AGENCY HAS AUTHORITY OVER THE WORK.

18. SPECIFICATIONS

    CONSTRUCTION OF HAWAIIAN ELECTRIC'S UNDERGROUND FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISIONS OF HAWAIIAN ELECTRIC SPECIFICATIONS CS7001, CS7003, CS7202, CS9301, AND CS9401 AND APPLICABLE HAWAIIAN ELECTRIC STANDARDS.

19. CONSTRUCTION

    CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES TO PROPERLY PERFORM AND FULLY COMPLETE ALL WORK SHOWN ON THE CONTRACT, DRAWINGS, AND SPECIFICATIONS. ALL MATERIALS SHALL BE NEW AND MANUFACTURED IN THE UNITED STATES OF AMERICA. ALL MANHOLE, HANDHOLE, AND DUCTLINE INSTALLATIONS SHALL BE INSPECTED AND APPROVED BY HAWAIIAN ELECTRIC PRIOR TO EXCAVATION AND PRIOR TO PLACING CONCRETE.

    CONTRACTOR SHALL NOTIFY HAWAIIAN ELECTRIC'S INSPECTION GROUP AT 808-543-2567 AT LEAST FIVE (5) WORKING DAYS PRIOR TO INSTALLING FACILITIES OR PLACING CONCRETE.

    CONTRACTOR TO COORDINATE WORK TO BREAK INTO HAWAIIAN ELECTRIC'S EXISTING ELECTRICAL FACILITIES WITH HAWAIIAN ELECTRIC'S INSPECTION GROUP AT 808-543-2567 AT LEAST TEN (10) WORKING DAYS IN ADVANCE.

20. STAKEOUT

    THE CONTRACTOR SHALL ARRANGE FOR TONEOUTS OF ALL UNDERGROUND FACILITIES AND SHALL STAKEOUT ALL PROPOSED HAWAIIAN ELECTRIC FACILITIES WITHIN THE PROJECT AREA SO AS TO NOT CONFLICT WITH ANY UTILITY (EXISTING OR PROPOSED) AND ANY PROPOSED CONSTRUCTION OR IMPROVEMENT WORK FOR VERIFICATION BY HAWAIIAN ELECTRIC BEFORE PROCEEDING WITH HAWAIIAN ELECTRIC WORK.

21. DUCTLINES

    ALL DUCTLINE INSTALLATIONS SHALL BE PVC SCHEDULE 40 ENCASED IN CONCRETE, UNLESS OTHERWISE NOTED. ALL COMPLETED DUCTLINES SHALL BE MANDREL TESTED BY THE CONTRACTOR IN THE PRESENCE OF HAWAIIAN ELECTRIC'S INSPECTOR USING HAWAIIAN ELECTRIC'S STANDARD PRACTICE. THE CONTRACTOR SHALL INSTALL 1800# TENSILE STRENGTH MULETAPE PULL LINE IN ALL COMPLETED DUCTLINES AFTER MANDREL TESTING IS COMPLETE.

22. JOINT POLE REMOVAL

    THE LAST JOINT POLE OCCUPANT OFF THE POLES SHALL REMOVE THE POLES.

23. AS-BUILT PLANS

    THE CONTRACTOR SHALL PROVIDE HAWAIIAN ELECTRIC WITH A SET OF ELECTRONIC AND HARD COPY PLANS OF EACH SHEET SHOWING THE OFFSETS, STATIONING, AND VERTICAL ELEVATION OF THE DUCT LINE(S) CONSTRUCTED.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
HAWAIIAN ELECTRIC NOTES

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-003
215 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

TABLE 1: GUIDELINES FOR MINIMUM HORIZONTAL (PARALLEL) CLEARANCES BETWEEN HAWAIIAN ELECTRIC AND OTHER UNDERGROUND UTILITIES

UNDERGROUND UTILITY	HAWAIIAN ELECTRIC DIRECT BURIED CABLE	HAWAIIAN ELECTRIC DIRECT BURIED IN CONDUIT (NO CONCRETE ENCASEMENT)	HAWAIIAN ELECTRIC 3" (MINIMUM) CONCRETE ENCASEMENT	APPLICABLE NOTES:
HAWAIIAN ELECTRIC DB CONDUITS	12"	3	0"	
HAWAIIAN ELECTRIC 3" ENCASEMENT	0"	0"	0"	
TELEPHONE / CATV DB	12"	12"	6"	
TELEPHONE / CATV DB DUCTS	12"	12"	6"	
TELEPHONE / CATV 3" ENCASEMENT	0"	0"	0"	5
TRAFFIC SIGNAL	12"	12"	12"	
WATER DB (BWS OWNED)	36"	36"	36"	1, 4
CUSTOMER OWNED WATER SERVICE LATERALS	12"	12"	12"	
WATER (CONCRETE JACKETED) (BWS OWNED)	36"	36"	36"	1, 4
GAS DB	12"	12"	12"	1
GAS (CONCRETE JACKETED)	12"	12"	12"	1
SEWER DB	36"	36"	36"	1, 2
SEWER (CONCRETE JACKETED)	36"	36"	36"	1, 2
DRAIN	12"	12"	12"	1
FUEL PIPELINES				3

NOTES:

1. WHERE SPACE IS AVAILABLE, PARALLEL CLEARANCE TO OTHER UTILITIES, OR FOREIGN STRUCTURES OTHER THAN COMMUNICATION OR TRAFFIC SIGNAL SHALL BE 36".
2. IF 36" CLEARANCE CANNOT BE MET:
   - IF CLEARANCE IS LESS THAN 12", JACKET SEWER LINE WITH REINFORCED CONCRETE (PER HAWAIIAN ELECTRIC'S STD. 30-1030) FOR A DISTANCE OF 5' PLUS PIPE DIAMETER.
   - IF CLEARANCE IS BETWEEN 12" AND 36", JACKET SEWER LINE WITH PLAIN CONCRETE.
3. ALL FUEL PIPELINE CROSSINGS SHALL BE REVIEWED AND APPROVED BY THE COMPANY THAT OWNS AND MAINTAINS IT.
4. 5 FEET CLEAR TO WATER MAINS 16" AND LARGER.
5. FOR SITUATIONS WITH 0" MINIMUM SEPARATION, A 6" SEPARATION IS RECOMMENDED.
6. CLEARANCES MEASURED FROM OUTER EDGES OR DIAMETERS OF UTILITIES. WHENEVER CONCRETE JACKETS ARE INVOLVED, CLEARANCES SHALL BE TOTAL CLEAR DISTANCE BETWEEN THE CONCRETE JACKET AND UTILITY CONCERNED.

TABLE 2: GUIDELINES FOR MINIMUM VERTICAL (CROSSING) CLEARANCES HAWAIIAN ELECTRIC AND OTHER UNDERGROUND UTILITIES

UNDERGROUND UTILITY	HAWAIIAN ELECTRIC DIRECT BURIED CABLE	HAWAIIAN ELECTRIC DIRECT BURIED IN CONDUIT (NO CONCRETE ENCASEMENT)	HAWAIIAN ELECTRIC 3" (MINIMUM) CONCRETE ENCASEMENT	APPLICABLE NOTES:
HAWAIIAN ELECTRIC DB CONDUITS	6"	3"	0"	
HAWAIIAN ELECTRIC 3" ENCASEMENT	0"	0"	0"	
TELEPHONE / CATV DB	12"	12"	6"	
TELEPHONE / CATV DB DUCTS	12"	12"	6"	
TELEPHONE / CATV 3" ENCASEMENT	0"	0"	0"	3
TRAFFIC SIGNAL	12"	12"	6"	
WATER DB (BWS OWNED)	12"	12"	12"	5
CUSTOMER OWNED WATER SERVICE LATERALS	6"	6"	6"	
WATER (CONCRETE JACKETED) (BWS OWNED)	12"	12"	12"	5
GAS DB	12"	12"	12"	
GAS (CONCRETE JACKETED)	12"	12"	12"	
SEWER DB	24"	24"	24"	1
SEWER (CONCRETE JACKETED)	24"	24"	24"	1
DRAIN	12"	12"	6"	
FUEL PIPELINES				2

NOTES:

1. IF 36" CLEARANCE CANNOT BE MET:
   - IF CLEARANCE IS LESS THAN 12", JACKET SEWER LINE WITH REINFORCED CONCRETE (PER HAWAIIAN ELECTRIC'S STD. 30-1030) FOR A DISTANCE OF 5' PLUS PIPE DIAMETER.
   - IF CLEARANCE IS BETWEEN 12" AND 24", JACKET SEWER LINE WITH PLAIN CONCRETE.
2. ALL FUEL PIPELINE CROSSINGS SHALL BE REVIEWED AND APPROVED BY THE COMPANY THAT OWNS AND MAINTAINS IT.
3. FOR SITUATIONS WITH 0" MINIMUM SEPARATION, A 6" SEPARATION IS RECOMMENDED.
4. CLEARANCES MEASURED FROM OUTER EDGES OR DIAMETERS OF UTILITIES. WHENEVER CONCRETE JACKETS ARE INVOLVED, CLEARANCES SHALL BE TOTAL CLEAR DISTANCE BETWEEN THE CONCRETE JACKET AND UTILITY CONCERNED.
5. 36" CLEARANCE IS REQUIRED FOR TRENCHLESS INSTALLATION WORK.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
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P10981

SHEET
E-004
216 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

HAWAIIAN TELCOM
GENERAL CONSTRUCTION/DESIGN NOTES:

1. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS FROM THE CITY OR STATE, AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENT TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.

2. THE CONTRACTOR SHALL PROVIDE ALL TELECOM DRAWINGS TO HT-PLANREVIEWS@HAWAIIANTEL.COM FOR REVIEW & APPROVAL AT LEAST 3 MONTHS AHEAD OF THE START OF CONSTRUCTION.

3. THE CONTRACTOR SHALL SUBMIT AN EXCAVATION PERMIT AND TONING REQUEST TO HAWAIIAN TELCOM'S EXCAVATION PERMIT TEAM AT HT-EXCAVATIONS@HAWAIIANTEL.COM OR AT HTTP://WWW.HAWAIIANTEL.COM/EXCAVATION.

4. PRIOR TO THE EXCAVATION OF THE DUCTLINE, THE CONTRACTOR SHALL REQUEST HAWAIIAN TELCOM TO LOCATE EXISTING DUCTLINE WHEREVER REQUIRED. CALL ONE-CALL AT #811 FOR UNDERGROUND CABLE LOCATING AND MARKING, FIVE (5) CALENDAR DAYS ADVANCE NOTICE IS REQUIRED. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY.

5. CONTRACTOR SHALL EXERCISE EXTREME CAUTION AND SHALL MAINTAIN PROPER CLEARANCES WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF HAWAIIAN TELCOM FACILITIES. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND SHALL BE LIABLE FOR ANY DAMAGES TO HAWAIIAN TELCOM FACILITIES. ANY DAMAGES SHALL BE REPORTED IMMEDIATELY TO HAWAIIAN TELCOM'S REPAIR SECTION AT 808-643-3456. AS A RESULT OF THEIR OPERATIONS, ADJUSTMENTS TO THE NEW DUCTLINE ALIGNMENT, IF REQUIRED, SHALL BE MADE TO PROVIDE THE REQUIRED CLEARANCES.

6. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE EXISTING CABLES OR DUCTS. A HAWAIIAN TELCOM INSPECTOR OR DESIGNATED REPRESENTATIVE IS REQUIRED TO BE AT ANY JOB SITE WHENEVER THERE WILL BE A BREAKAGE INTO OR ENTRY INTO ANY STRUCTURE THAT CONTAIN HAWAIIAN TELCOM FACILITIES. TEMPORARY CABLE AND DUCT SUPPORTS SHALL BE PROVIDED WHEREVER NECESSARY.

7. THE CONTRACTOR SHALL NOTIFY HAWAIIAN TELCOM'S INSPECTOR OR DESIGNATED REPRESENTATIVE A MINIMUM OF FIVE (5) CALENDAR DAYS PRIOR TO EXCAVATION, BRACING, OR BACKFILLING OF HAWAIIAN TELCOM'S STRUCTURES OR FACILITIES. EMAIL HT-INSPECTORS@HAWAIIANTEL.COM TO FIND AN INSPECTOR IN YOUR AREA.

8. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE HAWAIIAN TELCOM STANDARD SPECIFICATIONS FOR PLACING COMMUNICATIONS SYSTEMS. ALL SUBSEQUENT AMENDMENTS AND ADDITIONS, AND ALL OTHER PERTINENT STANDARDS FOR TELECOMMUNICATION CONSTRUCTION. CONTRACTOR SHALL FAMILIARIZE THEIR PERSONNEL BY OBTAINING APPLICABLE SPECIFICATIONS.

9. WHEN EXCAVATION IS ADJACENT TO OR BENEATH HAWAIIAN TELCOM'S EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR SHALL:

   a. SHEET AND/OR BRACE THE EXCAVATION TO PREVENT SLIDES, CAVE-INS, OR SETTLEMENTS TO ENSURE NO MOVEMENT TO HAWAIIAN TELCOM'S STRUCTURES OR FACILITIES.

   b. PROTECT EXISTING STRUCTURES AND/OR FACILITIES WITH BEAMS, STRUTS, OR UNDERPINNING WHILE EXCAVATING BENEATH THEM TO ENSURE NO MOVEMENT TO HAWAIIAN TELCOM'S STRUCTURES OR FACILITIES.

10. THE CONTRACTOR SHALL BRACE ALL POLES OR LIGHT STANDARDS NEAR THE NEW DUCTLINE, MAINTENANCE HOLE, OR HANDHOLE DURING THEIR OPERATIONS.

11. THE CONTRACTOR SHALL SAW-CUT A.C. PAVEMENT AND CONCRETE GUTTER WHEREVER NEW MAINTENANCE HOLES, HANDHOLES, OR DUCTLINES ARE TO BE PLACED AND SHALL RESTORE TO EXISTING CONDITION OR BETTER.

12. THE CONTRACTOR SHALL COMPLY WITH THE POLICY ADOPTED BY THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY, CONCERNING THE REPLACEMENT OF CONCRETE SIDEWALKS AFTER EXCAVATION WORK.

13. THE UNDERGROUND PIPES, CABLES, OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM THEIR SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.

14. WHEREVER CONNECTIONS TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES PRIOR TO EXCAVATION OF THE MAIN TRENCHES TO VERIFY THEIR LOCATIONS AND DEPTHS.

15. TRENCH SHALL HAVE A FLAT SURFACE AND SHALL BE DEEP ENOUGH TO OBTAIN MINIMUM COVER (SEE TRENCH DETAIL DRAWING 34028 IN SECTION 12).

   a. 12" BACKFILL ABOVE CONCRETE ENCASED OR DIRECT BURIED CONDUITS MUST BE SOFT EARTH OR SAND AND FREE OF ROCKS. FILL MUST BE ABLE TO PASS THROUGH A 1/2" SCREEN.

16. THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE COST FOR SUPPLEMENTARY MEASURES, WHICH WILL BE REQUIRED BY THE FEDERAL, STATE, OR COUNTY, SHALL BE BORNE BY THE CONTRACTOR.

17. THE CONTRACTOR SHALL PUMP ALL MAINTENANCE HOLES DRY DURING FINAL INSPECTION.

18. THE INSPECTOR IS NOT REQUIRED TO ACCEPT THE INFRASTRUCTURE UNTIL ALL CONSTRUCTION WORK IN THE AREA IS COMPLETE.

19. THE CONTRACTOR SHALL NOTIFY HAWAIIAN TELCOM INSPECTOR 5 CALENDAR DAYS PRIOR TO THE POURING OF CONCRETE OR BACKFILLING.

20. WHEN CONNECTING TO MAINTENANCE HOLES WALLS, ALL EXISTING REINFORCING BARS SHALL BE LEFT INTACT. DUCTS SHALL BE ADJUSTED IN THE FIELD IN ORDER TO CLEAR REINFORCING BARS.

21. IN JOINT TRENCH APPLICATIONS, HT DUCTS SHOULD NOT BE COVERED BY OTHER DUCTS IN PARALLEL. HT DUCTS CANNOT CROSS UNDER POWER FACILITIES.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT ALL REQUIRED LINES AND GRADES AND SHALL PRESERVE ALL BENCH MARKS AND WORKING POINTS NECESSARY TO LAY OUT THE WORK CORRECTLY. THE NEW DUCT LINE SHALL BE ADJUSTED BY THE CONTRACTOR TO SUIT THE EXISTING CONDITIONS AND THE DETAILS AS DESCRIBED IN THE PLANS.

23. MINIMUM CONCRETE STRENGTH (PER BICSI OSPDRM6 C-3) SHALL BE:

FOR DUCT LINE & CONCRETE PADS	3000 PSI AT 28 DAYS
FOR MAINTENANCE HOLE	4000 – 4500 PSI AT 28 DAYS OR AS SPECIFIED IN APPROVED DRAWING

24. BENDS IN THE DUCT ALIGNMENT, SHALL HAVE A MINIMUM RADIUS OF 25 FEET FOR A CHANGE OF DIRECTION OF MORE THAN 5 DEGREES, EITHER HORIZONTALLY OR VERTICALLY, BUT THE MAXIMUM VERTICAL CURVE SHALL BE 30 DEGREES. THE MAXIMUM NUMBER OF 30 DEGREE BENDS SHOULD NOT ADD UP TO OVER 180 DEGREES.

   a. ALL 90 DEGREE C-BENDS AT A POLE OR AT THE BUILDING FLOOR SLAB PENETRATION, SHALL HAVE A BEND RADIUS OF TEN TIMES THE DIAMETER OF THE DUCT OR GREATER. MANUFACTURED 90 DEGREE DUCT BENDS MAY BE USED ONLY FOR SERVICE POLE, EQUIPMENT RISERS, OR BUILDING ENTRY, UNLESS SPECIFICALLY INDICATED AS ACCEPTABLE.

   b. LIMIT RUNS TO (2) 90 DEGREE BENDS, AND U-BENDS NOT ALLOWED.

25. CONDUIT RISER ON SERVICE POLE SHALL TERMINATE AT LEAST 6" ABOVE GRADE WITH RISER ENDS CAPPED WITH WEATHER HEAD OR PLUGGED WITH DUCT SEAL.

   a. WHEN TELEPHONE AND ELECTRIC SERVICE CONDUITS TERMINATE ON THE SAME SERVICE POLE, PREFERABLY, THE TWO CONDUITS SHOULD BE PLACED OPPOSITE EACH OTHER ON THE SERVICE POLE. HOWEVER, IT IS PERMISSIBLE TO PLACE CONDUITS WITH LESS SEPARATION BUT NOT LESS THAN 1/4 OF THE CIRCUMFERENCE OF THE POLE (CLIMBING SPACE MUST BE MAINTAINED).

   b. RISER CONDUIT SHALL BE PROPERLY STRAPPED.

   c. MULETAPE OR APPROVED EQUIVALENT SHALL BE INSTALLED IN ALL CONDUITS.

26. SUGGESTED MAXIMUM LENGTHS BETWEEN MAINTENANCE HOLES ARE 450', 350' BETWEEN 3x5 OR 4x6 HANDHOLES, 250' BETWEEN 2x4 PULLBOXES, AND 150' BETWEEN METER BOXES; SUBJECT TO ENGINEERING APPROVAL.

27. RECOMMEND 18" UNDER SIDEWALK BUT NOT LESS THAN 12" ON PRIVATE PROPERTY, AND 36" MINIMUM IN THE RIGHT OF WAY OR UNDER PAVED AREAS.

28. CLEARANCE FROM POWER OR FOREIGN CONDUIT – 3" WHEN ENCASED IN CONCRETE; 4" WHEN SEPARATED WITH BRICK OR MASON; OR 12" OF WELL TAMPED EARTH. 6" WHEN CROSSING OR 12" WHEN PARALLEL TO FOREIGN OBJECTS, I.E., POWER, WATER OR SEWER PIPE, ETC.

   a. 6" WHEN CONCRETE ENCASED FROM LOCAL POWER COMPANY.

   b. TELECOM SHOULD BE ABOVE ELECTRICAL WHEN UNDERGROUND.

   c. BWS REQUIRES A 3' MINIMUM CLEARANCE TO WATER MAINS (OR 5' MINIMUM TO WATER MAINS 16" AND LARGER) ON OAHU ONLY.

   d. CHECK WITH LOCAL UTILITIES FOR ANY CHANGES TO THEIR SPACING REQUIREMENTS AS WELL.

29. MINIMUM PROTECTION REQUIREMENTS FOR FACILITIES SUBJECTED TO VEHICULAR TRAFFIC:

CONDUIT SIZE	TYPE	METHOD OF CONSTRUCTION
2" OR 4"	PVC SCHEDULE 40	CONCRETE ENCASED PREFERRED OR REQUIRED IF LESS THAN 36" BELOW GRADE OR OTHER APPLICABLE NESC REQUIREMENTS (WHICHEVER IS SMALLER)

30. STRONGLY RECOMMEND THAT TREES WITH AGGRESSIVE ROOT SYSTEMS ARE NOT PLANTED NEAR CONDUIT SYSTEM.

31. AFTER DUCTLINE HAS BEEN COMPLETED, A MANDREL WITH A SQUARE FRONT NOT LESS THAN 12" LONG AND HAVING A DIAMETER OF 1/4" LESS THAN THE INSIDE DIAMETER OF THE DUCT, SHALL BE PULLED THROUGH EACH DUCT AFTER WHICH A BRUSH WITH STIFF BRISTLES SHALL BE PULLED THROUGH TO MAKE CERTAIN THAT NO PARTICLES OF EARTH, SAND, OR GRAVEL HAVE BEEN LEFT INSIDE. DUCTS SHALL BE COMPLETELY DRY AND CLEAN.

32. ALL DUCTS AND CONDUITS SHALL HAVE AN 1800# POLYESTER MULE-TAPE (NEPTCO, WP1800P, HAWAIIAN TELCOM MATERIAL CODE NO. 571154) INSTALLED THROUGHOUT ITS ENTIRE LENGTH. ALL DUCTS SHALL BE CAPPED TO PREVENT ENTRY OF FOREIGN MATERIAL DURING CONSTRUCTION AND AT THE COMPLETION OF INSTALLATION.

HAWAIIAN TELCOM NOTES:

GENERAL CONSTRUCTION NOTES FOR WORK WITHIN A BUILDING

1. METALLIC ENTRANCE CONDUITS SHALL BE GROUNDED.

2. ALL CONDUITS WITHIN A BUILDING SHALL:

   a) BE INSTALLED IN THE SHORTEST AND STRAIGHTEST POSSIBLE RUN.

   b) HAVE NO SECTION LONGER THAN 100 FEET NOR CONTAIN MORE THAN TWO 90-DEGREE BENDS. AN APPROVED SIZED JUNCTION BOX OR GUTTER BOX SHALL BE PLACED IF THIS IS EXCEEDED.

   c) ALL BENDS SHALL BE LONG SWEEP RADIUS BENDS BUT THE INSIDE RADIUS OF THE BEND MUST NEVER BE LESS THAN TEN TIMES THE DIAMETER OF THE CONDUIT.

3. DUCTS AND/OR CONDUITS INSTALLED FOR USAGE BY HAWAIIAN TELCOM SHALL BE INSPECTED BY HAWAIIAN TELCOM.

4. ALL CONSTRUCTION MUST BE INSPECTED AND APPROVED BY HAWAIIAN TELCOM PRIOR TO THE INSTALLATION OF ANY OF ITS FACILITIES AND THE ENERGIZING OF ITS SYSTEMS.

5. CONTRACTOR AND/OR CUSTOMER SHALL PROVIDE HAWAIIAN TELCOM WITH SUFFICIENT INSTALLATION TIME IN THEIR OCCUPANCY TIMETABLE.

6. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND FURNISH ALL LABOR AND EQUIPMENT NECESSARY.

7. THE CONTRACTOR SHALL PROVIDE A 5/8" X 8" GALVANIZED GROUND ROD BELOW THE TELEPHONE CABINET OR BACKBOARD AND A #6 TW INSULATED GREEN GROUND WIRE WITH A 3' COIL. TELEPHONE CABINETS SHALL BE GROUNDED.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
HAWAIIAN TELCOM NOTES

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-005
217 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

SPECTRUM GENERAL CONTRACTOR'S NOTES:

1. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENT TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.

2. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THESE UTILITIES AS A RESULT OF HIS OPERATIONS. ADJUSTMENTS TO THE NEW DUCTLINE ALIGNMENT, IF REQUIRED, SHALL BE MADE TO PROVIDE THE REQUIRED CLEARANCES.

3. THE CONTRACTOR SHALL BRACE ALL POLES OR LIGHT STANDARDS NEAR THE NEW DUCTLINE, MANHOLE OR HANDHOLE DURING ITS OPERATIONS.

4. THE CONTRACTOR SHALL SAW-CUT A.C. PAVEMENT, CONCRETE GUTTER, AND CONCRETE SIDEWALK WHEREVER NEW MANHOLES, HANDHOLES, PULLBOXES OR DUCTLINES ARE TO BE PLACED AND SHALL RESTORE TO EXISTING CONDITION OR BETTER.

5. THE UNDERGROUND PIPES, CABLES, OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREAS. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.

6. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE COST FOR SUPPLEMENTARY MEASURES, WHICH WILL BE REQUIRED BY THE CITY AND COUNTY, SHALL BE BORNE BY THE CONTRACTOR.

7. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE OF HAWAII, DEPARTMENT OF HEALTH.

8. PRIOR TO THE EXCAVATION OF THE DUCTLINE, THE CONTRACTOR SHALL REQUEST THAT SPECTRUM TO LOCATE EXISTING DUCTLINE WHEREVER REQUIRED.

9. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE EXISTING CABLES OR DUCTS. ANY WORK INVOLVING EXISTING CABLES OR DUCTS SHALL BE DONE IN THE PRESENCE OF THE SPECTRUM INSPECTOR OR HIS REPRESENTATIVE. TEMPORARY CABLE AND DUCT SUPPORT SHALL BE PROVIDED WHEREVER NECESSARY.

10. THE CONTRACTOR SHALL NOTIFY THE SPECTRUM INSPECTOR 72 HOURS PRIOR TO THE START OF WORK ON CATV INFRASTRUCTURE, POURING CONCRETE, OR BACKFILLING. SPECTRUM INSPECTORS: PERRY SAMUELU AT (808) 387-2496 OR PAUL CASPILLO AT (808) 497-1637.

11. WHEREVER CONNECTIONS TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES PRIOR TO EXCAVATION OF THE MAIN TRENCHES TO VERIFY THEIR LOCATIONS AND DEPTHS.

12. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND FURNISH ALL LABOR AND EQUIPMENT NECESSARY TO INSTALL THE DUCTLINE IN PLACE COMPLETE.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT ALL REQUIRED LINES AND GRADES AND SHALL PRESERVE ALL BENCH MARKS AND WORKING POINTS NECESSARY TO LAY OUT THE WORK CORRECTLY. THE NEW DUCTLINE SHALL BE ADJUSTED BY THE CONTRACTOR TO SUIT THE EXISTING CONDITIONS AND THE DETAILS AS DESCRIBED IN THE PLANS.

14. THE LOCATION OF CATV FACILITIES SHOWN ON PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AS TO ITS ACTUAL FIXED LOCATION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN CLOSE PROXIMITY OF CATV FACILITIES.

15. THE CONTRACTOR SHALL OBTAIN EXCAVATION PERMIT CLEARANCE FROM SPECTRUM ENGINEERING SECTION LOCATED AT 200 AKAMAINUI ST., MIILLILANI TECH PARK.

16. FOR ANY FIELD ASSISTANCE OR VERIFICATION OF CATV FACILITIES, THE CONTRACTOR SHALL CALL SPECTRUM ENGINEERING AND CONSTRUCTION SERVICES AT (808) 625-8570 OR EMAIL: HAW.ENGINEERINGRESEARCH@CHARTER.COM.

17. ANY WORK REQUIRED TO RELOCATE CATV FACILITIES SHALL BE DONE BY SPECTRUM AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION REQUIREMENTS AND ASSOCIATED COSTS.

18. ANY DAMAGE TO SPECTRUM FACILITIES SHALL BE REPORTED TO SPECTRUM'S TOC DEPARTMENT AT (808) 625-8169.

19. THE CONTRACTOR SHALL TUNNEL UNDER EXISTING CONCRETE CURB AND GUTTER AS NECESSARY TO EXTEND CONDUIT INTO EXISTING CATV PULLBOX AND INTO THE PROPOSED POWER SUPPLY PULLBOX.

20. AT LOCATIONS WHERE EXISTING CATV PULLBOX REPLACEMENT IS PROPOSED, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTION NOT TO DAMAGE THE EXISTING CABLES IN THE PULLBOX. ALL DAMAGES TO EXISTING CABLES SHALL BE REPAIRED BY SPECTRUM AND PAID FOR BY THE CONTRACTOR.

21. COORDINATE ALL PENETRATION OF TELEPHONE PULLBOXES WITH HAWAIIAN TEL INSPECTOR.

22. SMOOTH FINISH INSIDE WALL OF EXISTING PULLBOXES AND HANDHOLES TO ITS ORIGINAL CONDITION OR BETTER.

23. ALL NEW CONCRETE ENCASED CONDUIT SHALL BE PVC PIPE-SCHEDULE 40. ALL NEW DIRECT-BURIED CONDUIT SHALL BE PVC PIPE-SCHEDULE 80. USE OF ANY OTHER MATERIAL TYPE (GTS, ETC.) SHALL BE LIMITED TO MATCHING EXISTING FACILITIES. CONNECTION OF DISSIMILAR MATERIALS TO REQUIRE APPROVAL FROM SPECTRUM INSPECTOR AND ENGINEERING DEPT.

24. THE CONTRACTOR SHALL PLACE POLY CORD THROUGHOUT PROJECT, AND SECURE IN MANHOLES, HANDHOLES, AND PULLBOXES.

25. FOR 3" CONDUITS OR LARGER, THE CONTRACTOR SHALL INSTALL NEPTCO WP1800 MULETAPE OR APPROVED EQUAL IN ALL DUCTLINES, LEAVE MULETAPE IN PLACE FOR FUTURE USE AS A PULL OR FISH LINE, UNLESS OTHERWISE NOTED. REFERENCE GTE MATERIAL CODE NO. 571154. ALL DUCTS SHALL BE CAPPED TO PREVENT ENTRY OF FOREIGN MATERIAL DURING CONSTRUCTION AND AT COMPLETION OF INSTALLATION. ENDBELLS ARE REQUIRED FOR CONDUITS 2" AND LARGER.

26. PENETRATION INTO PULLBOXES IF NECESSARY TO BE FROM FACTORY INSTALLED OPENING OR FROM BRICKS POSITION. PENETRATION FROM PULLBOX WALLS IS NOT ACCEPTABLE.

27. BENDS IN THE DUCT ALIGNMENT, DUE TO CHANGES IN GRADE SHALL HAVE A MINIMUM RADIUS OF 20-FEET. ALL 90-DEGREE C-BENDS AT A POLE OR AT THE BUILDING FLOOR SLAB PENETRATION, SHALL HAVE A BEND RADIUS OF 10 TIMES THE DIAMETER OF THE DUCT OR GREATER.

28. MINIMUM LENGTH OF CONDUIT USED SHALL NOT BE LESS THAN 5-FEET IN LENGTH. USE OF PARTIAL CONDUIT SECTIONS ALLOWABLE IS AT SPECTRUM INSPECTOR(S) DISCRETION.

29. ALL CONDUITS SHALL ENTER THROUGH THE END "SHORT WALL" OF THE PULLBOX. ENTRY SHALL BE AT 90 DEGREES (PERPENDICULAR) TO WALL FACE WITH BENDS NO LESS THAN 12" FROM EXTERIOR WALL.

30. A MINIMUM OF (2) PRECAST SECTIONS MUST BE USED ON ALL 2x4 OR 2x6 PULLBOXES.

31. ALL NEW CONSTRUCTION SHALL UTILIZE CONCRETE PRECAST BASE UNLESS OTHERWISE APPROVED OR SPECIFIED BY SPECTRUM INSPECTOR(S).

32. FOR PULLBOX LOCATIONS WHERE VEHICULAR INTRUSIONS ARE POSSIBLE, CONCRETE COLLAR REQUIRED PER SPECTRUM STANDARDS AND SPECIFICATIONS MANUAL. EXAMPLES INCLUDE BUT NOT LIMITED TO, ROLLED/RIBBON CURBS, CURB/HEADERS LESS THAN 5" IN HEIGHT, VEHICLE TRAVELWAYS WITH NO DEFINED CURB/HEADER, ETC. FOR NON-SIDEWALK AREAS, SEE CHAPTER 2: FIGURE 18.1c., 19.1c., AND 20.1b. IN THE SPECTRUM SPECIFICATIONS MANUAL.

33. WHEN THREE (3) OR MORE 4" CONDUITS ENTER ONE END WALL OF ANY PULLBOX, ONLY BRICK BASES WILL BE ALLOWED UNLESS OTHERWISE INSTRUCTED/APPROVED BY SPECTRUM INSPECTOR(S).

34. TWO MINIMUM LAYERS OF BRICKS TO BE USED LOWER THAN THE LOWEST DUCT ENTERING THE PULLBOX. TOP LAYER OF BRICK TO BE FLUSH WITH TOP OF CONDUIT OR HIGHER.

35. FOR UPGRADE/REPAIRS TO EXISTING PULLBOXES, BRICKS MAY BE USED AND SHALL ALWAYS BE AT LEAST TWO LAYERS LOWER THAN THE LOWEST DUCT ENTERING THE PULLBOX.

36. AT NO TIME SHALL CEMENT MORTAR, WOOD, OR ANY OTHER MATERIAL BE USED BETWEEN PRECAST SECTIONS.

37. LEVELING OR RAISING OF BOXES TO GRADE MUST BE DONE:

    A) PRE-CAST BASE(S) USING GRAVEL LAYER UNDER BASE (TYPE 3B OR EQUIVALENT APPROVED BY SPECTRUM INSPECTOR).

    B) BRICK BASE(S) – ADJUSTMENTS TO BRICKWORK SECTION. THE PERMANENT INSTALLATION OF WOODEN WEDGES TO ACCOMPLISH THIS PURPOSE WILL NOT BE ACCEPTED.

39. 5/8" x 8" COPPER GROUND RODS SHALL BE PLACED IN ALL PULLBOXES UNLESS OTHERWISE DIRECTED BY SPECTRUM. GROUND RODS WILL BE PLACED IN THE CORNER 3" TO 4" FROM THE WALL AND AWAY FROM ANY CONDUIT WITH NO MORE THAN 8" STICKING UP ABOVE GROUND.

40. TRENCHING TO BE BY HAND DIGGING NEAR AND ACROSS EXISTING UTILITY LINES.

41. MINIMUM CLEARANCE BETWEEN STREET LIGHT STANDARDS AND FIRE HYDRANTS SHALL BE THREE FEET.

42. UNDERGROUND UTILITIES SHOWN HEREON IS FOR INFORMATION ONLY. NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INSTALLATION.

43. FOR UNDERGROUND CABLE LOCATING AND MARKING, FIVE WORKING DAYS ADVANCE NOTICE IS REQUIRED. THREE WORKING DAYS ADVANCE NOTICE IS REQUIRED FOR ANY INSPECTION BY A DESIGNATED REPRESENTATIVE. CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE ANY EXISTING CABLES OR DUCTS. SPECTRUM INSPECTOR OR DESIGNATED REPRESENTATIVE IS REQUIRED TO BE AT ANY JOB SITE WHENEVER THERE WILL BE A BREAKAGE INTO OR ENTRY INTO ANY STRUCTURE THAT CONTAIN SPECTRUM FACILITIES.

44. CONCRETE STRENGTH SHALL BE 3000 PSI IN 28 DAYS.

45. CURING AND BACKFILLING. MAINTAIN CONCRETE IN A MOIST CONDITION FOR 24 HOURS MINIMUM FOR 3,000 PSI AND 48 HOURS MINIMUM FOR 2,500 PSI BEFORE COMPACTED. BACKFILLING: 72 HOURS MINIMUM BEFORE PERMITTING MOTOR TRAFFIC LOAD ON DUCTLINE. CURING METHOD SHALL MEET SPECTRUM INSPECTOR'S APPROVAL.

46. INSTALL 4-MIL. THICK ORANGE COLOR WARNING TAPE 4-INCH WIDE ENTIRE LENGTH OF TRENCH WHEN PLACING CATV CONDUITS. TAPE SHOULD READ "CAUTION BURIED CABLE LINE BELOW". MANUFACTURED BY HARRIS INDUSTRIES, INC. CATALOG NUMBER UT-43 OR EQUIVALENT TAPE. TAPE TO BE INSTALLED 12-INCHES ABOVE CONDUIT OR IF CONCRETE JACKET IS INVOLVED, THEN 12-INCHES ABOVE JACKET.

47. AFTER DUCTLINE HAS BEEN COMPLETED, A MANDREL WITH A SQUARE FRONT NOT LESS THAN 12-INCH LONG AND HAVING A DIAMETER OF 1/4-INCH LESS THAN THE INSIDE DIAMETER OF DUCT, SHALL BE PULLED THROUGH EACH DUCT AFTER WHICH A BRUSH WITH STIFF BRISTLES SHALL BE PULLED THROUGH TO MAKE CERTAIN THAT NO PARTICLES OF EARTH, SAND, OR GRAVEL HAVE BEEN LEFT INSIDE. DUCTS SHALL BE COMPLETELY DRY AND CLEAN.

48. METALLIC ENTRANCE CONDUITS SHALL BE GROUNDED.

49. ALL CONDUITS WITHIN A BUILDING SHALL:

    A) BE INSTALLED IN THE SHORTEST AND STRAIGHTEST POSSIBLE RUN.

    B) HAVE NO SECTION LONGER THAN 100-FEET NOR CONTAIN MORE THAN TWO 90-DEGREE BENDS. AN APPROVED SIZED JUNCTION BOX OR GUTTER BOX SHALL BE PLACED IF THIS IS EXCEEDED.

    C) ALL BENDS SHALL BE LONG SWEEP-RADIUS BENDS BUT THE INSIDE RADIUS OF THE BEND MUST NEVER BE LESS THAN TEN TIMES THE DIAMETER OF THE CONDUIT.

50. ALL CONSTRUCTION MUST BE INSPECTED AND APPROVED BY SPECTRUM PRIOR TO THE INSTALLATION OF ANY OF ITS FACILITIES AND THE ENERGIZING OF ITS SYSTEM.

51. CONTRACTOR AND/OR CUSTOMER SHALL PROVIDE SPECTRUM WITH SUFFICIENT INSTALLATION TIME IN THEIR OCCUPANCY TIME TABLE.

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
SPECTRUM NOTES

DESIGNED BY:	ADMUC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-006
218 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

FIRE ALARM NOTES:

1. FIRE ALARM SYSTEMS SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH NFPA 1 2021, STATE OF HAWAII HRS CHAPTER 132, CITY AND COUNTY OF HONOLULU CHAPTER 20 ROH, 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN SECTION 215 AND 702.1, AND OTHER NATIONALLY RECOGNIZED STANDARDS.

2. UPON COMPLETION OF THE INSTALLATION, A SATISFACTORY TEST SHALL BE CONDUCTED IN THE PRESENCE OF THE FIRE CHIEF.

3. REPAIRS, RENOVATIONS, ALTERATIONS, RECONSTRUCTION, CHANGE OF OCCUPANCY, AND ADDITIONS TO BUILDINGS SHALL CONFORM TO THIS CODE, NFPA 101, AND THE BUILDING CODE. 1.3.6.3, 2021 NFPA 1, AS AMENDED.

4. STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND THIS CHAPTER. 16.1.1, 2021 NFPA 1.

5. 1.14 PLAN REVIEW
   1.14.4 REVIEW AND APPROVAL BY THE AHJ SHALL NOT RELIEVE THE APPLICANT OF THE RESPONSIBILITY OF COMPLIANCE WITH THIS CODE. 2021 NFPA 1, AS AMENDED.

6. 1.9 LIABILITY
   1.9.4 THIS CODE SHALL NOT BE CONSTRUED TO RELIEVE FROM OR LESSEN THE RESPONSIBILITY OF ANY PERSON OWNING, OPERATING, OR CONTROLLING ANY BUILDING OR STRUCTURE FOR ANY DAMAGES TO PERSONS OR PROPERTY CAUSED BY DEFECTS, NOR SHALL THE CODE ENFORCEMENT AGENCY OR ITS PARENT JURISDICTION BE HELD AS ASSUMING ANY SUCH LIABILITY BY REASON OF THE INSPECTIONS AUTHORIZED BY THIS CODE OR ANY PERMITS OR CERTIFICATES ISSUED UNDER THIS CODE. 2021 NFPA 1.

7. FIRE SAFETY DURING ALTERATION
   a. 16.5.4.1 WHERE THE BUILDING IS PROTECTED BY FIRE PROTECTION SYSTEMS, SUCH SYSTEMS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES DURING ALTERATION. 2021 NFPA 1.

   b. 16.5.4.2 WHERE ALTERATION REQUIRES MODIFICATION OF A PORTION OF THE FIRE PROTECTION SYSTEM, THE REMAINDER OF THE SYSTEM SHALL BE KEPT IN SERVICE AND THE FIRE DEPARTMENT SHALL BE NOTIFIED. 2021 NFPA 1.

   c. 16.5.4.3 WHEN IT IS NECESSARY TO SHUT DOWN THE SYSTEM, THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE ALTERNATE MEASURES OF PROTECTION UNTIL THE SYSTEM IS RETURNED TO SERVICE. 2021 NFPA 1.

   d. 10.7.1.1 AS NECESSARY DURING EMERGENCIES, MAINTENANCE, DRILLS, PRESCRIBED TESTING, ALTERATIONS, OR RENOVATIONS, PORTABLE OR FIXED FIRE–EXTINGUISHING SYSTEMS OR DEVICES OR ANY FIRE–WARNING SYSTEM SHALL BE PERMITTED TO BE MADE INOPERATIVE OR INACCESSIBLE. A FIRE WATCH SHALL BE REQUIRED AS SPECIFIED IN SECTIONS 13.3.3.6.5.2(4)(b), 13.7.1.4.3, 16.5.4, 34.7.3.3, 41.2.2.6, 41.2.2.7, 41.2.4, 41.3.6, 41.4.1, 34.6.4.3, AND 25.1.8 AT NO COST TO THE AHJ. 2021 NFPA 1.

10. AUTHORITY HAVING JURISDICTION, NFPA 1 2021, SECTION 4.5, AS AMENDED
    a. 4.5.1.1 THE AHJ SHALL DETERMINE WHETHER THE PROVISIONS OF THIS CODE ARE MET.

    b. 4.5.1.2 WHERE IT IS EVIDENT THAT A REASONABLE DEGREE OF SAFETY IS PROVIDED, ANY REQUIREMENT SHALL BE PERMITTED TO BE MODIFIED IF ITS APPLICATION WOULD BE HAZARDOUS UNDER NORMAL OCCUPANCY CONDITIONS IN THE JUDGEMENT OF THE AHJ.

11. FUNDAMENTAL REQUIREMENTS, NFPA 1 2021, SECTION 10.1, AS AMENDED
    10.1.1 EVERY NEW AND EXISTING BUILDING OR STRUCTURE SHALL BE CONSTRUCTED, ARRANGED, EQUIPPED, MAINTAINED, AND OPERATED IN ACCORDANCE WITH THIS CODE SO AS TO PROVIDE A REASONABLE LEVEL OF LIFE SAFETY, PROPERTY PROTECTION, AND PUBLIC WELFARE FROM THE ACTUAL AND POTENTIAL HAZARDS CREATED BY FIRE, EXPLOSION, AND OTHER HAZARDOUS CONDITIONS.

12. AHJ APPROVAL, NFPA 1 2021, CHAPTER 13, AS AMENDED
    a. 13.1.1 THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE THAT CONSTRUCTION DOCUMENTS FOR ALL FIRE PROTECTION SYSTEMS BE SUBMITTED FOR REVIEW AND APPROVAL AND A PERMIT BE ISSUED PRIOR TO THE INSTALLATION, REHABILITATION, OR MODIFICATION (FOR ADDITIONAL INFORMATION CONCERNING CONSTRUCTION DOCUMENTS, SEE SECTION 1.14). FURTHER, THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE THAT FULL ACCEPTANCE TESTS OF THE SYSTEMS BE PERFORMED IN THE AHJ'S PRESENCE PRIOR TO FINAL SYSTEM CERTIFICATION.

    b FIRE ALARM SYSTEMS; FIRE HYDRANT SYSTEMS; FIRE–EXTINGUISHING SYSTEMS; STANDPIPES; AND OTHER FIRE–PROTECTION SYSTEMS AND APPURTENANCES REQUIRED BY THIS CODE SHALL BE APPROVED BY THE AHJ AS TO INSTALLATION AND LOCATION AND SHALL BE SUBJECT TO ACCEPTANCE TESTS REQUIRED BY HAWAII FIRE DEPARTMENT.

    c. A COPY OF A SYSTEM'S UNSATISFACTORY INSPECTION AND MAINTENANCE TEST RECORD SHALL BE SUBMITTED TO THE AHJ BY THE TESTING COMPANY WITHIN FIVE (5) WORKING DAYS AFTER THE COMPLETION OF THE TEST.

13. APPROVAL AND ACCEPTANCE.
    a. 13.7.3.2.3.2 BEFORE REQUESTING FINAL APPROVAL OF THE INSTALLATION, IF REQUIRED BY THE AHJ, THE INSTALLING CONTRACTOR SHALL FURNISH A WRITTEN STATEMENT STATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH APPROVED PLANS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPROPRIATE NFPA REQUIREMENTS. 2021 NFPA 1.

    b. 13.7.3.2.3.6.2 THE RECORD OF COMPLETION DOCUMENTATION SHALL BE COMPLETED BY THE INSTALLING CONTRACTOR AND SUBMITTED TO THE ENFORCING AUTHORITY HAVING JURISDICTION AND THE OWNER AT THE CONCLUSION OF THE JOB. THE RECORD OF COMPLETION DOCUMENTATION SHALL BE PERMITTED TO BE PART OF THE WRITTEN STATEMENT REQUIRED IN 13.7.3.2.3.2 AND PART OF THE DOCUMENTS THAT SUPPORT THE REQUIREMENTS OF 13.7.3.2.3.8. WHEN MORE THAN ONE CONTRACTOR HAS BEEN RESPONSIBLE FOR THE INSTALLATION, EACH CONTRACTOR SHALL COMPLETE THE PORTIONS OF THE DOCUMENTATION FOR WHICH THAT CONTRACTOR HAS RESPONSIBILITY.

14. 13.1.2 THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE PROPER TESTING AND MAINTENANCE OF THE EQUIPMENT AND SYSTEMS. 2021 NFPA 1.

15. DETECTION, ALARM, AND COMMUNICATION SYSTEMS
    a. 13.7.1.1 WHERE BUILDING FIRE ALARM SYSTEMS OR AUTOMATIC FIRE DETECTORS ARE REQUIRED BY OTHER SECTIONS OF THIS CODE, THEY SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NFPA 70, NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE, AND SECTION 13.7. 2021 NFPA 1, AS AMENDED.

    b. FIRE ALARM SYSTEM INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE AND 2021 NFPA 1, AS AMENDED.

    c. 13.7.1.7.3 A MANUAL FIRE ALARM BOX SHALL BE PROVIDED AS FOLLOWS, UNLESS MODIFIED BY ANOTHER SECTION OF THE CODE.

       i. FOR NEW ALARM SYSTEM INSTALLATIONS, THE MANUAL FIRE ALARM BOX SHALL BE LOCATED WITHIN 5 FT (1.5 M) OF EXIT DOORWAYS.

       ii. FOR EXISTING ALARM SYSTEM INSTALLATIONS, THE MANUAL FIRE ALARM BOX EITHER SHALL BE PROVIDED IN THE NATURAL EXIT ACCESS PATH NEAR EACH REQUIRED EXIT OR WITHIN 5 FT (1.5 M) OF EXIT DOORWAYS.

    d. 13.7.1.7.4 MANUAL FIRE ALARM BOXES SHALL BE MOUNTED ON BOTH SIDES OF GROUPED OPENINGS OVER 40 FT (12.2 M) IN WIDTH, AND WITHIN 60 INCHES (1.5 M) OF EACH SIDE OF THE OPENING.

    e. 13.7.1.7.5* ADDITIONAL MANUAL FIRE ALARM BOXES SHALL BE LOCATED SO THAT, ON ANY GIVEN FLOOR IN ANY PART OF THE BUILDING, NO HORIZONTAL DISTANCE ON THAT FLOOR EXCEEDING 200 FT (60M) SHALL NEED TO BE TRAVERSED TO REACH A MANUAL FIRE ALARM BOX. [101:9.6.2.5]

    f. 13.7.1.9.6 UNLESS OTHERWISE PROVIDED IN 13.7.1.9.6.1 THROUGH 13.7.1.9.6.8, NOTIFICATION SIGNALS FOR OCCUPANTS TO EVACUATE SHALL BE BY AUDIBLE AND VISIBLE SIGNALS IN ACCORDANCE WITH NFPA 72 AND ICC A117.1, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, OR OTHER MEANS OF NOTIFICATION ACCEPTABLE TO THE AHJ. [101:9.6.3.6] NFPA 1 2021.

    g. ALL VISUAL SIGNALLING DEVICES SHALL BE SYNCHRONIZED.

    h. 13.7.1.9.8 AUDIBILITY. AUDIBLE ALARM NOTIFICATION APPLIANCES SHALL PRODUCE SIGNALS THAT ARE DISTINCTIVE FROM AUDIBLE SIGNALS USED FOR OTHER PURPOSES IN A GIVEN BUILDING. NFPA 1 2021. [101:9.6.3.8]

    i. ALARM–SIGNALING DEVICES SHALL PRODUCE A SOUND THAT EXCEEDS THE AVERAGE AMBIENT SOUND LEVEL IN THE ROOM OR SPACE BY 15 DECIBELS MINIMUM, OR EXCEEDS ANY MAXIMUM SOUND LEVEL WITH A DURATION OF 60 SECONDS MINIMUM BY 5 DECIBELS MINIMUM, WHICHEVER IS GREATER. SOUND LEVELS FOR ALARM SIGNALS SHALL BE 110 DECIBELS MAXIMUM.

    j. THE CONTRACTOR AND FIRE ALARM VENDOR SHALL ENSURE AUDIBILITY IS MET THROUGH ALL OCCUPIABLE AREAS AND SPACES. AUDIBILITY WILL BE THOROUGHLY CHECKED AT THE TIME OF ALARM ACCEPTANCE TESTING.

    k. THE STANDARD EVACUATION SIGNAL SHALL BE SYNCHRONIZED WITHIN A NOTIFICATION ZONE.

16. NFPA 72 10.15* PROTECTION OF FIRE ALARM SYSTEM. IN AREAS THAT ARE NOT CONTINUOUSLY OCCUPIED, AUTOMATIC SMOKE DETECTION SHALL BE PROVIDED AT THE LOCATION OF EACH FIRE ALARM CONTROL UNIT(S), NOTIFICATION APPLIANCE POWER EXTENDERS, AND SUPERVISING STATION TRANSMITTING EQUIPMENT TO PROVIDE NOTIFICATION OF FIRE AT THAT LOCATION.
    EXCEPTION: WHERE AMBIENT CONDITIONS PROHIBIT INSTALLATION OF AUTOMATIC SMOKE DETECTION, AUTOMATIC HEAT DETECTION SHALL BE PERMITTED.

17. PORTABLE FIRE EXTINGUISHERS: 13.6.1.1 THE SELECTION, INSTALLATION, INSPECTION, MAINTENANCE, RECHARGING, AND TESTING OF PORTABLE FIRE EXTINGUISHERS SHALL BE ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, AND SECTION 13.6 2021 NFPA 1.

18. 18.2 FIRE DEPARTMENT ACCESS, 2021 NFPA 1
    18.2.1 FIRE DEPARTMENT ACCESS AND FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 18.2.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

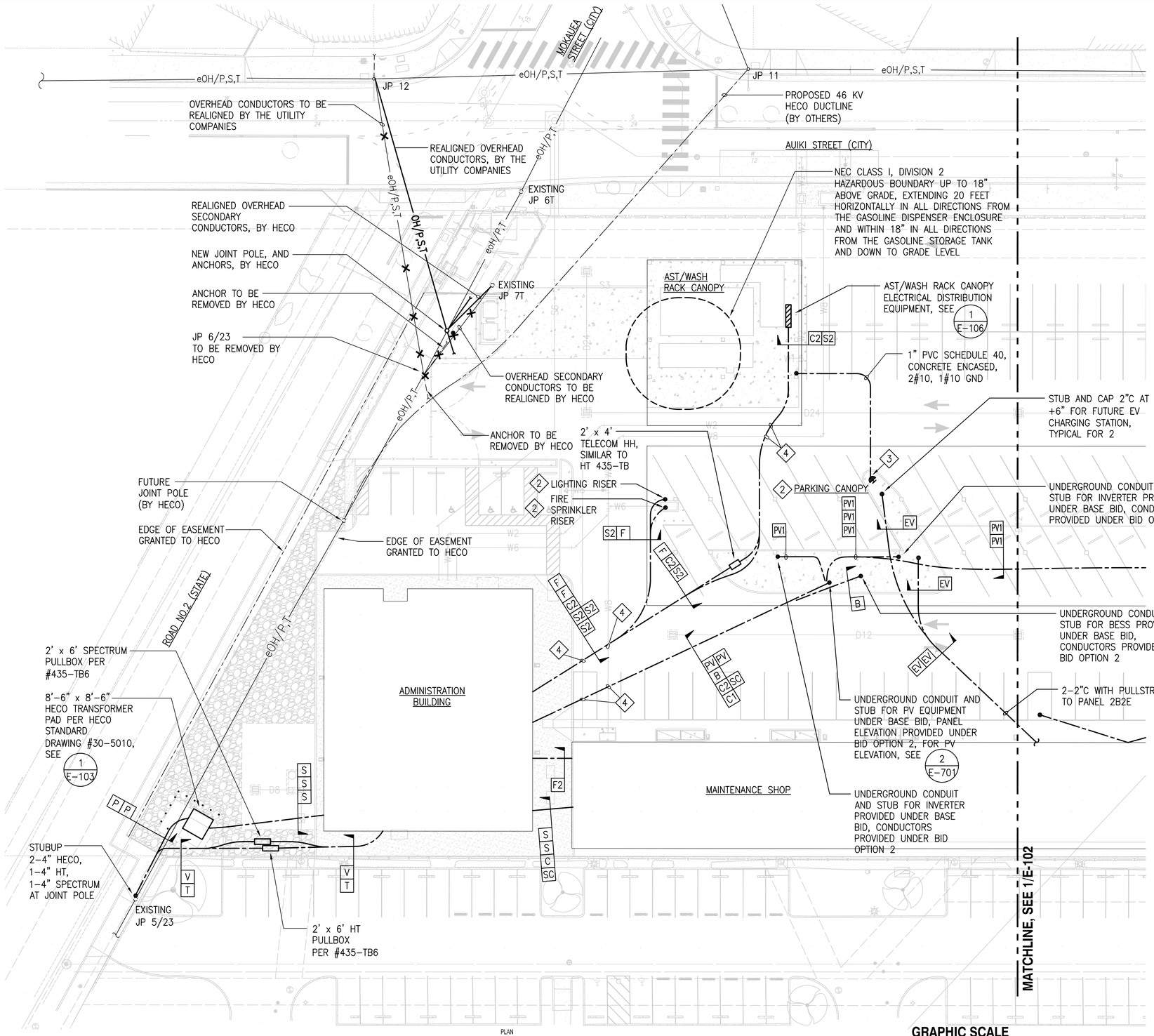
SHEET TITLE
FIRE ALARM NOTES

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-007
219 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



NOTES:

1. PROVIDE UNDER BID OPTION 1.
2. PROVIDE UNDER BID OPTION 2.
3. FUEL DISPENSER EMERGENCY SHUTOFF PUSHBUTTON SWITCH #2 AND "EMERGENCY FUEL SHUTOFF" SIGN.
4. PROVIDE 24" VERTICAL CLEARANCE FROM TOP OF CONCRETE JACKET TO WATER LINE.

1 ELECTRICAL SITE PLAN - 1
SCALE: 1" = 20'-0"

PLAN NORTH

GRAPHIC SCALE
20' 0' 20' 40' 60'
1" = 20'

MICHELE N. ADOLPHO
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REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

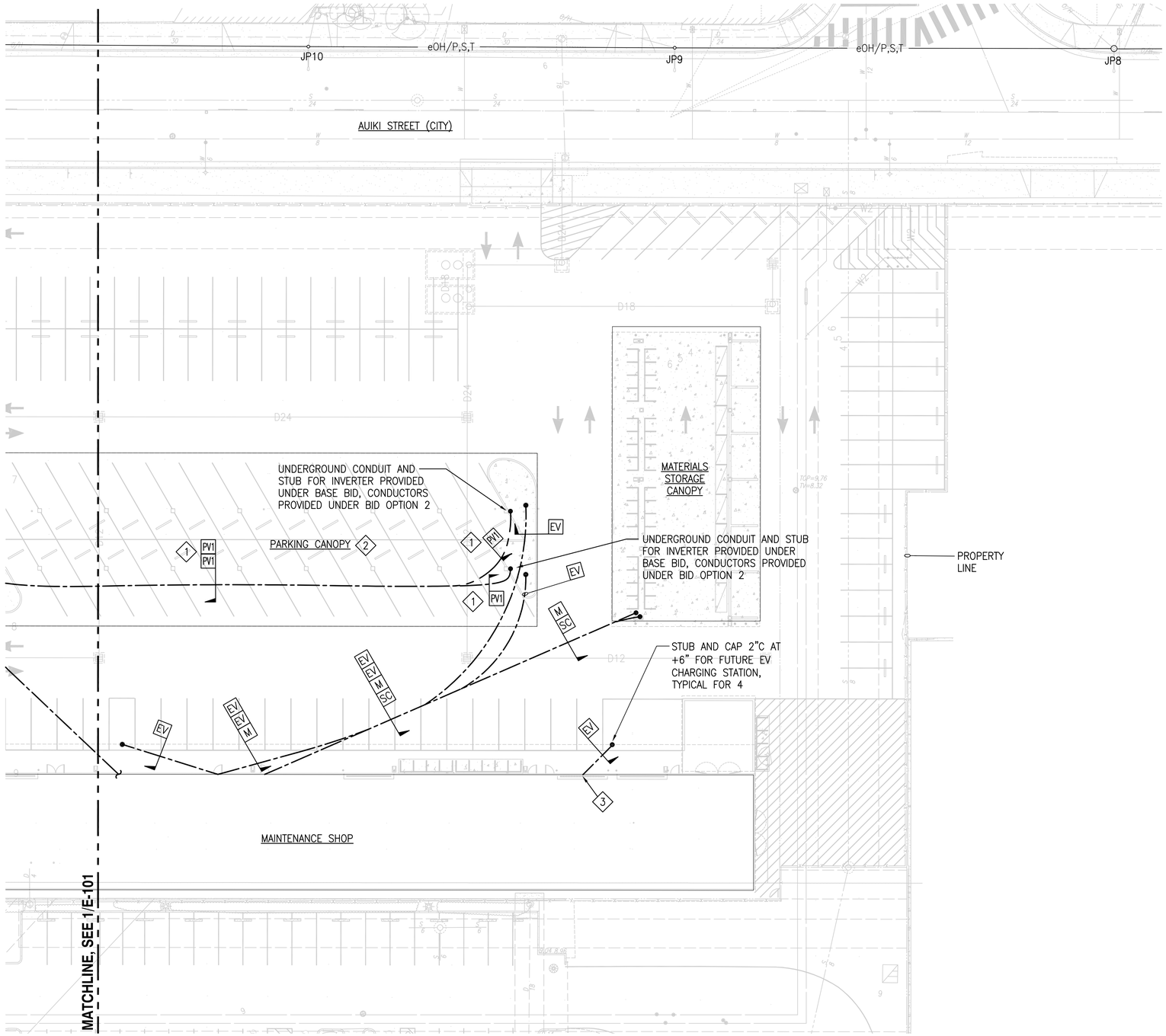
SHEET TITLE
ELECTRICAL SITE PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-101
220 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



NOTES:

1. PROVIDE UNDER BID OPTION 1.
2. PROVIDE UNDER BID OPTION 2.
3. TO PANEL 2B2E, TYPICAL FOR FUTURE EV CHARGING STATIONS.

1 ELECTRICAL SITE PLAN - 2
SCALE: 1" = 20'-0"

PLAN NORTH

GRAPHIC SCALE

20' 0' 20' 40' 60'

1" = 20'

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No. 10017-E
HAWAII, U.S.A.

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REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

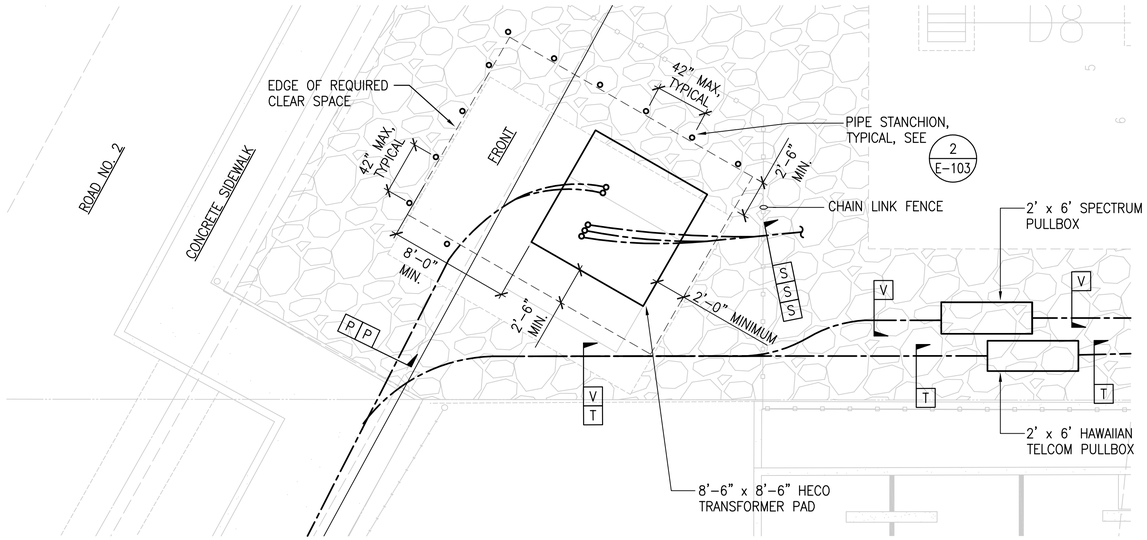
SHEET TITLE
ELECTRICAL SITE PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-102
221 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



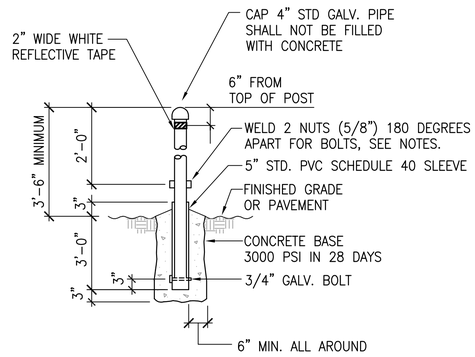
1 HECO TRANSFORMER PAD ELECTRICAL PLAN

SCALE: 1" = 5'-0"

PLAN NORTH

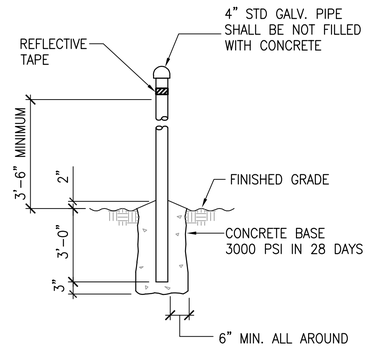
NOTES:

1. BOLLARDS ARE TO BE PAINTED YELLOW AS PER ANSI SPEC Z535.1 TO COMPLY WITH OSHA STANDARDS FOR COLORING CODE.
2. BEFORE PROCEEDING WORK, CONTACT ONE-CALL FOR THE LOCATION OF UNDERGROUND ELECTRICAL LINES.



2 REMOVABLE PIPE STANCHION

NOT TO SCALE



3 FIXED PIPE STANCHION

NOT TO SCALE

GRAPHIC SCALE

5' 0' 5' 10' 15'

1" = 5'

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DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

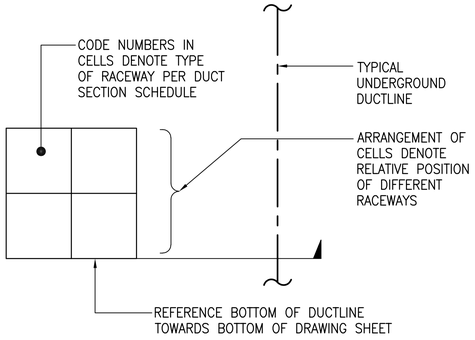
SHEET TITLE
HECO TRANSFORMER PAD DETAILS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

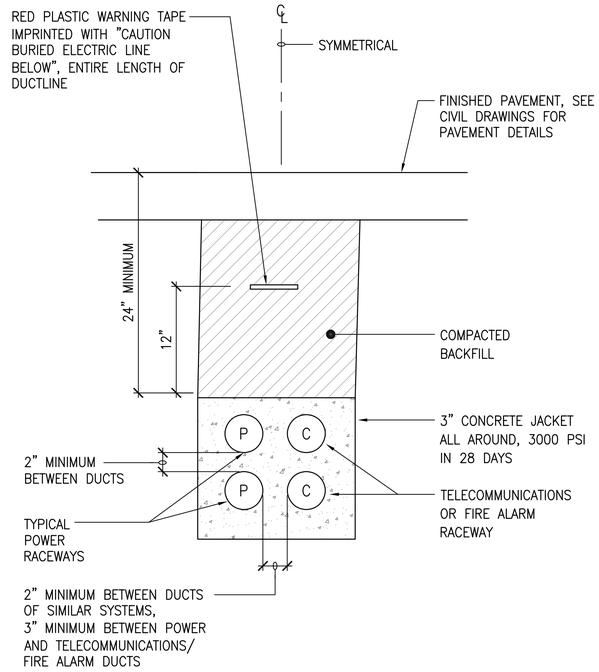
SHEET
E-103
222 OF 273 SHTS.

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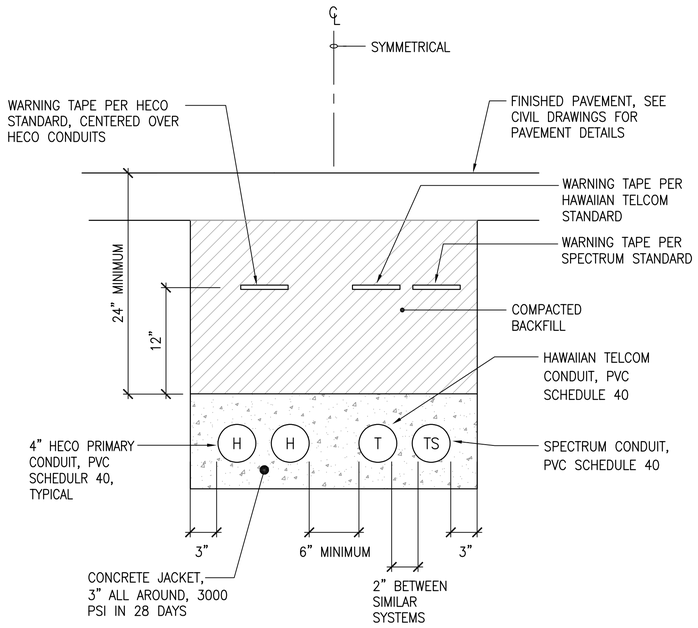
1 DUCT INDICATOR FLAG CODE

SCALE: NONE



3 TYPICAL DUCT SECTION

NOT TO SCALE



2 UTILITY COMPANY DUCT SECTION

NOT TO SCALE

DUCT SCHEDULE

TYPE	DESCRIPTION	SIZE	CONDUCTORS
P	HECO PRIMARY, PVC SCHEDULE 40, CONCRETE ENCASED	4"	BY HECO, PROVIDE MULETAPE
S	SECONDARY POWER, PVC SCHEDULE 40, CONCRETE ENCASED	4"	SEE ONE-LINE DIAGRAM
S2	SECONDARY POWER, PVC SCHEDULE 40, CONCRETE ENCASED	2"	SEE ONE-LINE DIAGRAM
S3	SECONDARY POWER, PVC SCHEDULE 40, CONCRETE ENCASED	3"	SEE ONE-LINE DIAGRAM
M	MATERIALS STORAGE CANOPY POWER, PVC SCHEDULE 40, CONCRETE ENCASED	1"	4#10, 2#10 GND
T	HAWAIIAN TELCOM, PVC SCHEDULE 40, CONCRETE ENCASED	4"	BY HAWAIIAN TELCOM, PROVIDE MULETAPE
V	SPECTRUM, PVC SCHEDULE 40, CONCRETE ENCASED	4"	BY SPECTRUM, PROVIDE MULETAPE
C	STATE TELECOMMUNICATIONS, PVC SCHEDULE 40, CONCRETE ENCASED	4"	SEE TELECOMMUNICATIONS DIAGRAM
C1	STATE TELECOMMUNICATIONS, PVC SCHEDULE 40, CONCRETE ENCASED	1"	SEE TELECOMMUNICATIONS DIAGRAM
C2	STATE TELECOMMUNICATIONS, PVC SCHEDULE 40, CONCRETE ENCASED	2"	SEE TELECOMMUNICATIONS DIAGRAM
EV	EV CHARGING STATION POWER, PVC SCHEDULE 40, CONCRETE ENCASED	2"	PROVIDE PULLSTRING
PV	PV, PVC SCHEDULE 40, CONCRETE ENCASED	4"	SEE ONE-LINE DIAGRAM
PV1	PV, PVC SCHEDULE 40, CONCRETE ENCASED	1 1/2"	SEE ONE-LINE DIAGRAM
F2	FIRE ALARM, PVC SCHEDULE 40, CONCRETE ENCASED	2"	SEE FIRE ALARM DIAGRAM
F	FIRE ALARM, PVC SCHEDULE 40, CONCRETE ENCASED	1"	SEE FIRE ALARM DIAGRAM
B	BATTERY ENERGY STORAGE SYSTEM, PVC SCHEDULE 40, CONCRETE ENCASED	1 1/2"	SEE ONE-LINE DIAGRAM
SC	SECURITY CAMERA, PVC SCHEDULE 40, CONCRETE ENCASED	2"	SEE TELECOMMUNICATIONS DIAGRAM

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

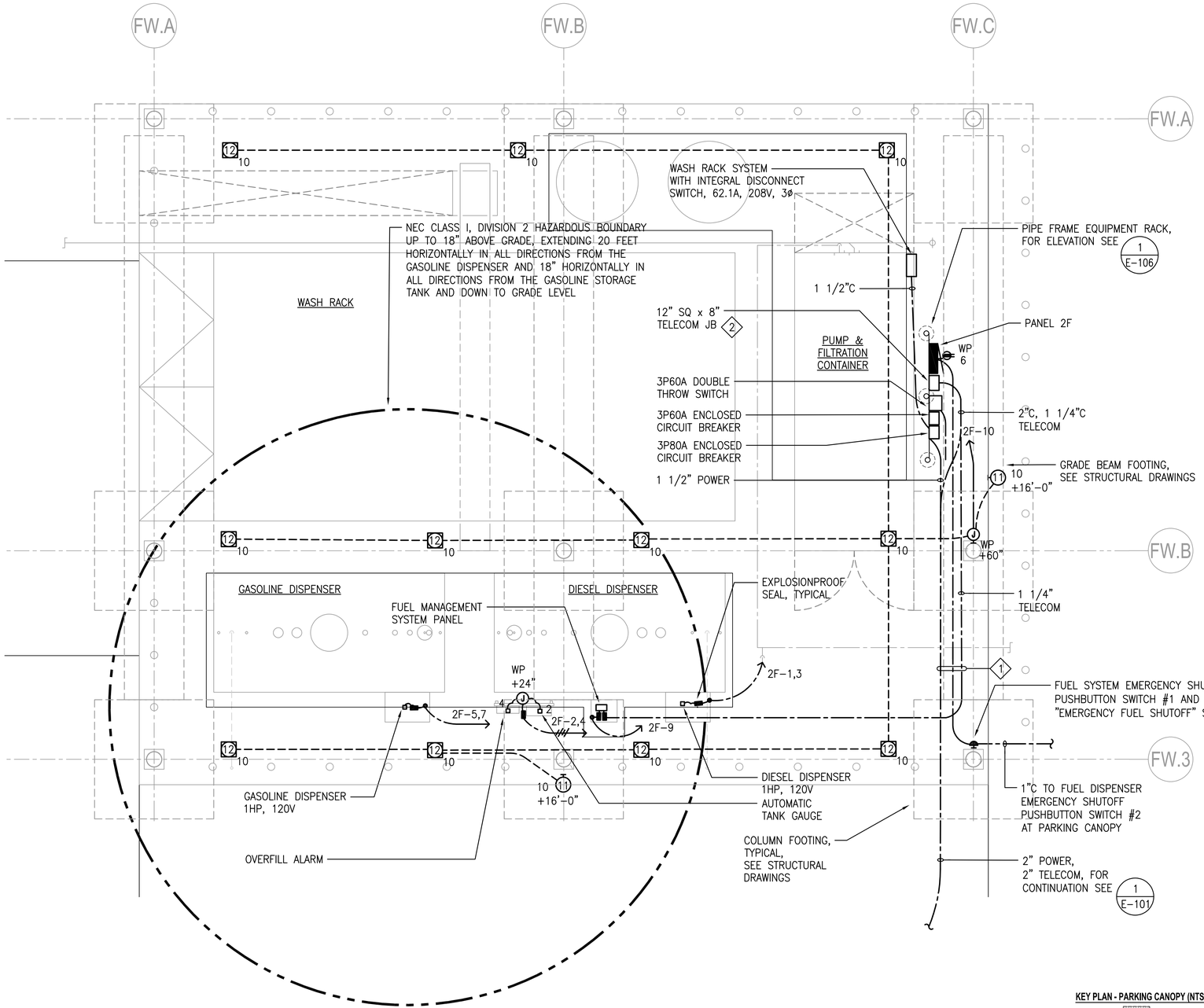
SHEET TITLE
DUCT DETAILS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-104
223 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 AST/WASH RACK CANOPY ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

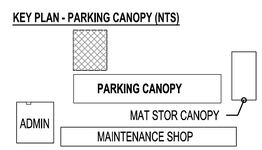
WIRE SIZE (AWG)	CKT NO	USE	CKT POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
10	1	DIESEL PUMP/DISPENSER	2	/	2.0	0.2		20	1	AUTOMATIC TANK GAUGE	2	12
10	3	SWITCHED NEUTRAL	/	30		–	0.2	20	1	OVERFILL ALARM	4	12
10	5	GASOLINE PUMP/DISPENSER	2	/			2.0	0.2	20	1	MAINTENANCE RECEPTACLE	6	12
10	7	SWITCHED NEUTRAL	/	30	–	0.2			20	1	E-STOP CONTROL POWER	8	12
12	9	FUEL MANAGEMENT PANEL	1	20		0.5	0.5		20	1	LIGHTS	10	12
–	11	PFB	1	–				–	–	–	1	PFB	12	–
–	13	PFB	1	–	–	–				–	1	PFB	14	–
–	15	PFB	1	–			–	–		–	1	PFB	16	–
–	17	PFB	1	–					–	–	–	1	PFB	18	–
		CONNECTED LOAD/PHASE			2.4		1.2		2.2						
		TOTAL CONNECTED LOAD			5.8 KVA										
		DEMAND FACTOR			0.8										
		TOTAL DEMAND LOAD			4.6 KVA= 12.8 AMPS										

PANEL 2F
208/120 VOLTS, 3 PHASE, 4 WIRE
100A MAIN LUGS
NEMA 4X, STAINLESS STEEL TYPE 316
MIN AIC: 10,000
MOUNTING: SURFACE

NOTES:

1. RUN CONDUITS BELOW NEW FOOTING. CONDUITS SHALL NOT RUN HORIZONTALLY THROUGH THE FOOTING. TOP OF FOOTING APPROXIMATELY 1'-0" TO 1'-4" BELOW GRADE, 2'-0" THICK, FOR ADDITIONAL DETAIL SEE STRUCTURAL DRAWINGS.
2. EMERGENCY FUEL DISPENSER CONTACTOR SHUTDOWN ABOVE JUNCTION BOX.

KEY PLAN - PARKING CANOPY (NTS)



GRAPHIC SCALE
5' 0 5' 10'
1/4" = 1'-0"

PLAN NORTH

REVISION	DATE	DESCRIPTION	BY	APPROVED

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

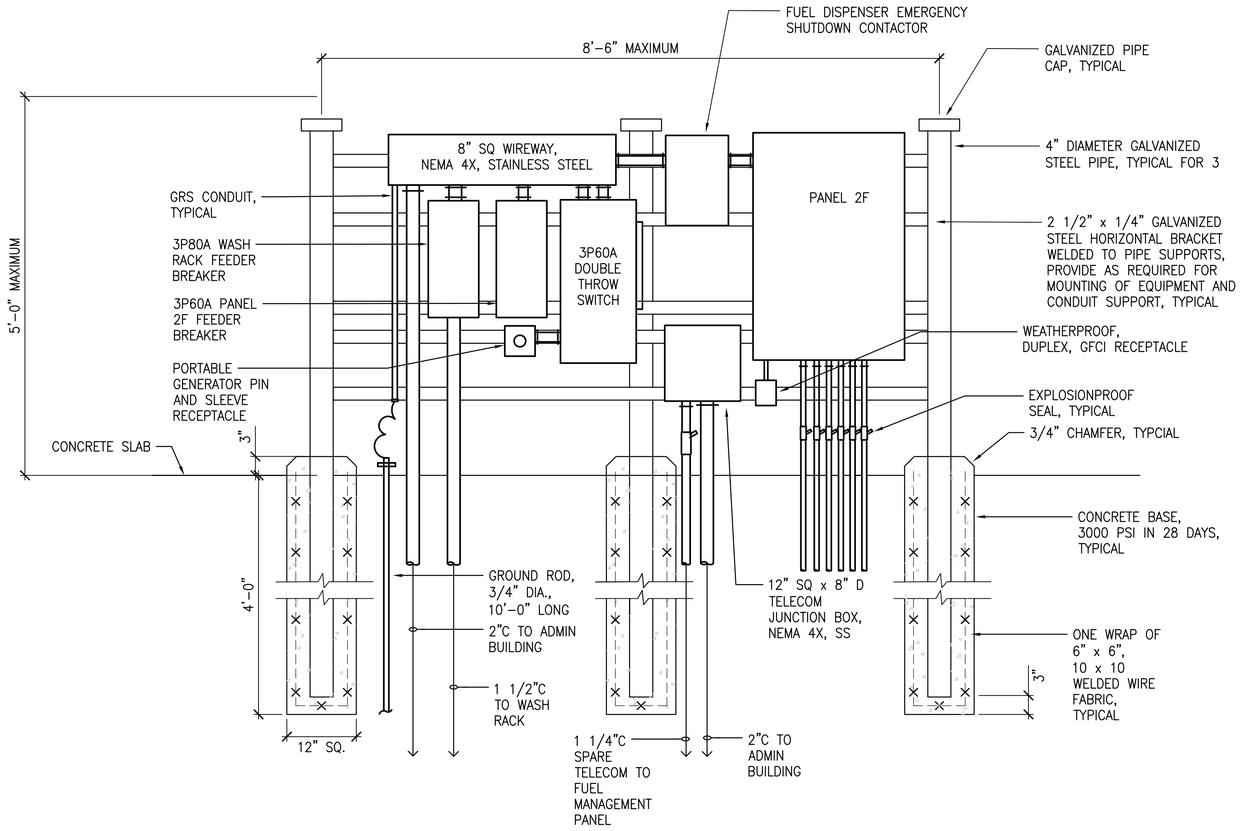
SHEET TITLE
AST AND WASH RACK CANOPY ELECTRICAL PLAN

DESIGNED BY:	ADMUC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER P10981

SHEET E-105
224 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 AST/WASH RACK CANOPY ELECTRICAL EQUIPMENT ELEVATION

NOT TO SCALE

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LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

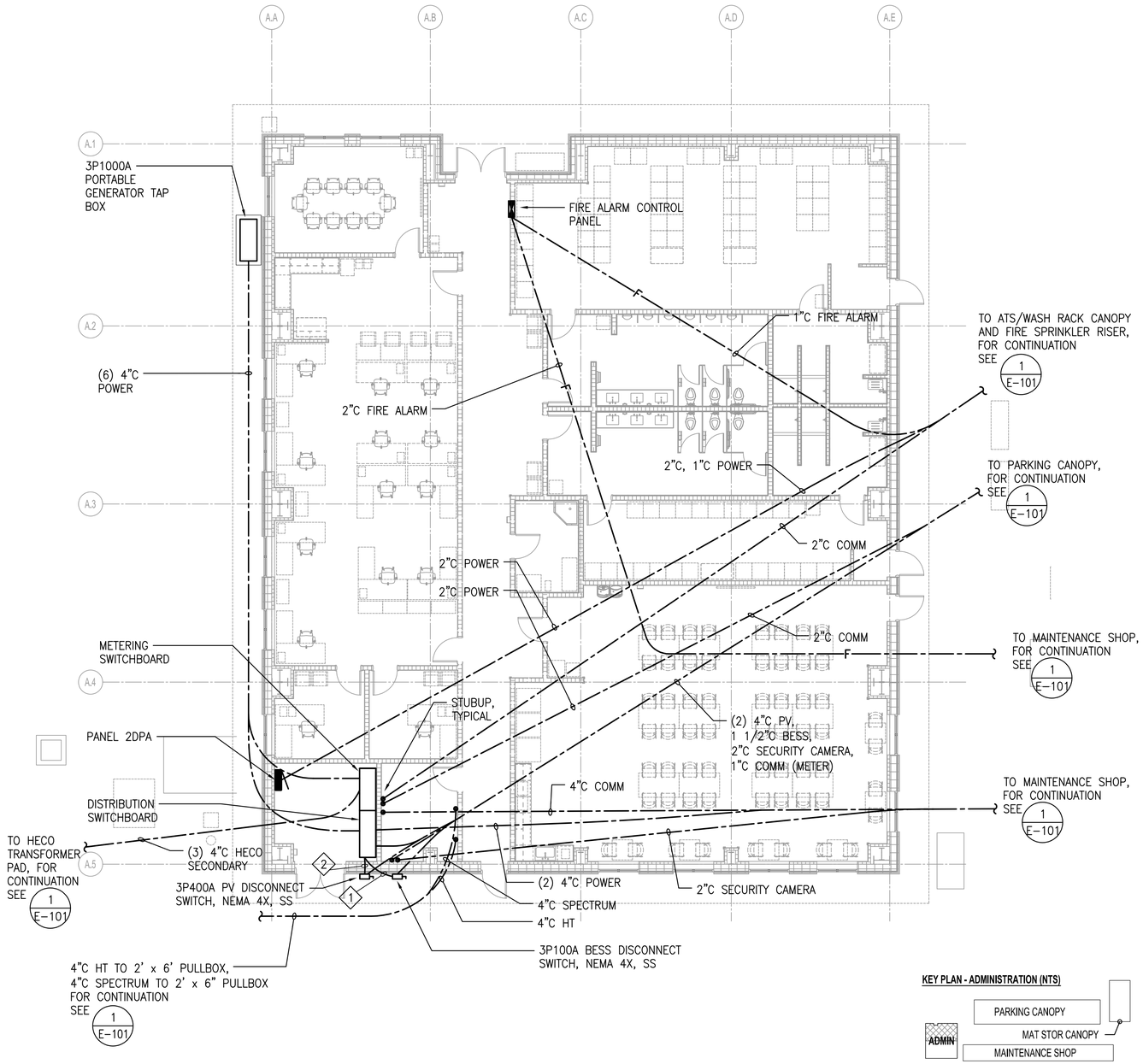
SHEET TITLE
AST AND WASH RACK CANOPY EQUIPMENT ELEVATION

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-106
225 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 ADMINISTRATION BUILDING - OVERALL POWER PLAN

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

PLAN NORTH

NOTES:

1. 1 1/2"C BATTERY ENERGY STORAGE SYSTEM (BESS)
2. (2) 4"C PV
3. 1"C COMM (METER)

KEY PLAN - ADMINISTRATION (NTS)

GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
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HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

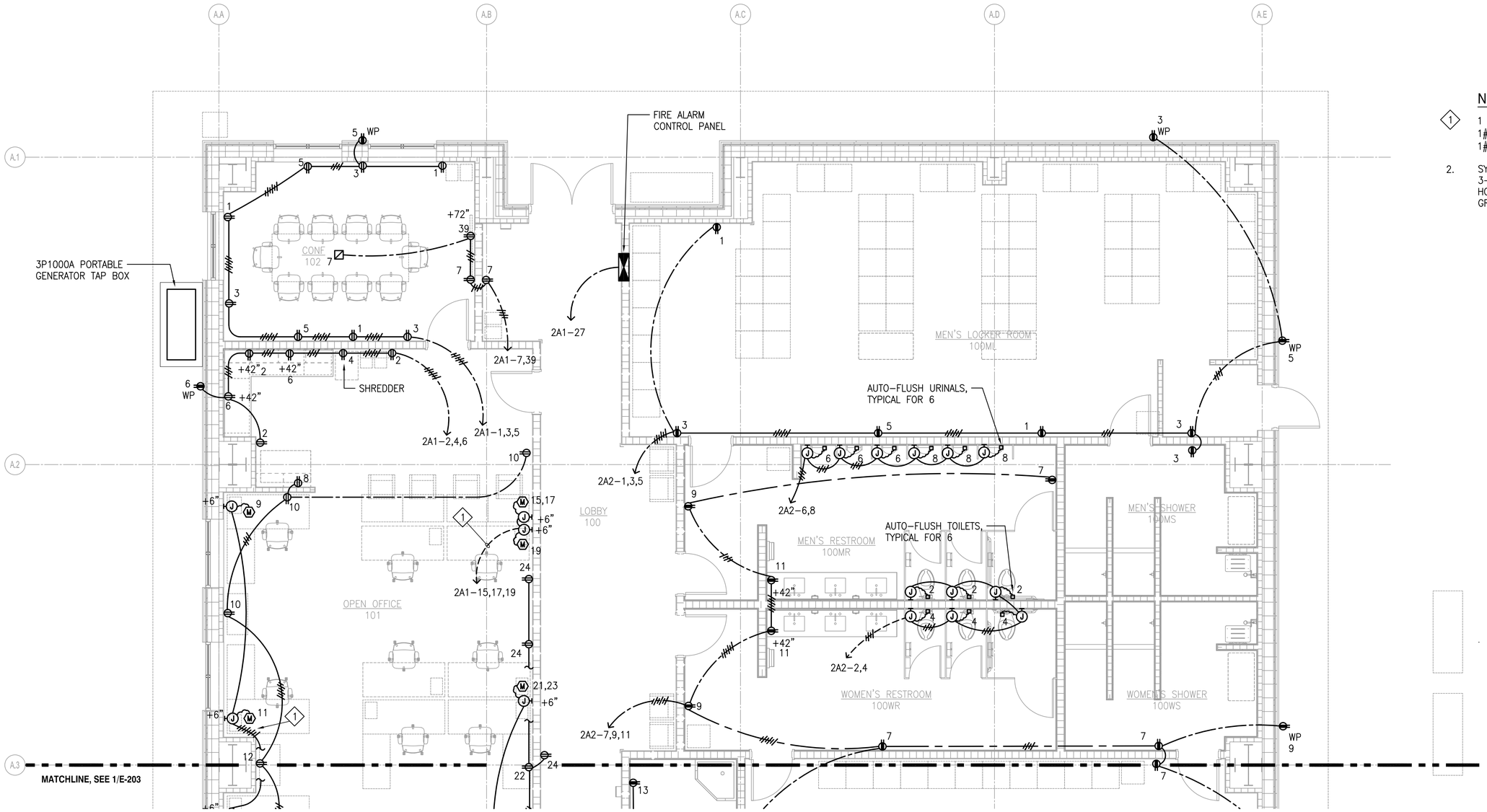
SHEET TITLE
ADMINISTRATION BUILDING - OVERALL POWER PLAN

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-201
226 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



NOTES:

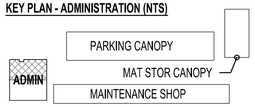
1. 1 1/4", 3#12, 3#12 (DEDICATED NEUTRALS), 1#12 (COMMON GROUND), 1#12 (DEDICATED GROUND).
2. SYSTEMS FURNITURE CONFIGURATION IS A 3-CIRCUIT, 8-WIRE SYSTEM CONSISTING OF 3 HOT, 3 DEDICATED NEUTRALS, 1 DEDICATED GROUND, AND 1 COMMON GROUND.

1 ADMINISTRATION BUILDING - POWER PLAN - 1

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

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'-0"

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JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

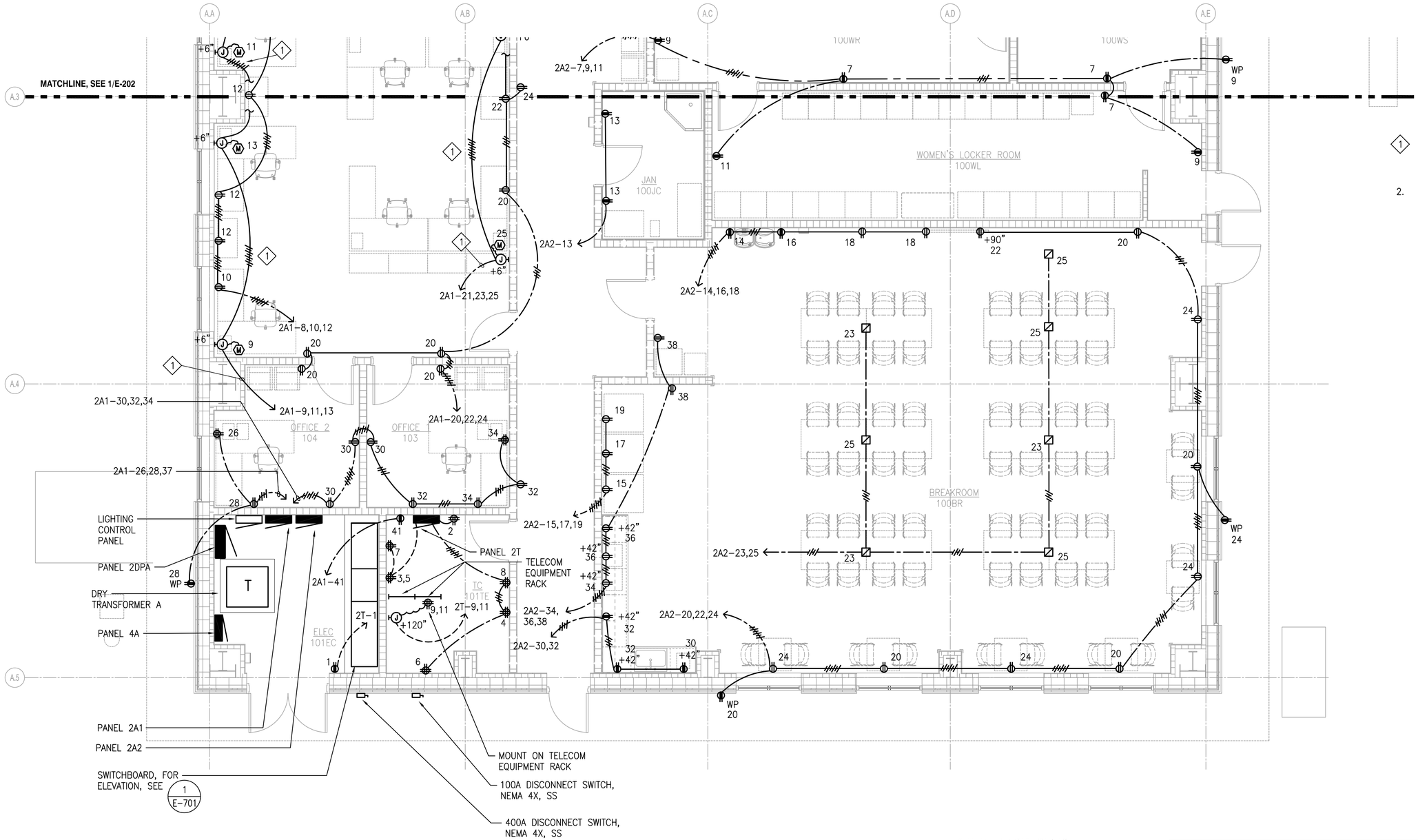
SHEET TITLE
ADMINISTRATION BUILDING - POWER AND OUTLETS PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-202
227 OF 273 SHTS.

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NOTES:

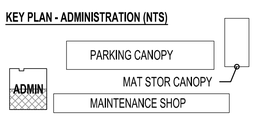
1. 1 1/4", 3#12, 3#12 (DEDICATED NEUTRALS), 1#12 (COMMON GROUND), 1#12 (DEDICATED GROUND).
2. SYSTEMS FURNITURE CONFIGURATION IS A 3-CIRCUIT, 8-WIRE SYSTEM CONSISTING OF 3 HOT, 3 DEDICATED NEUTRALS, 1 DEDICATED GROUND, AND 1 COMMON GROUND.

1 ADMINISTRATION BUILDING - POWER PLAN - 2

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

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

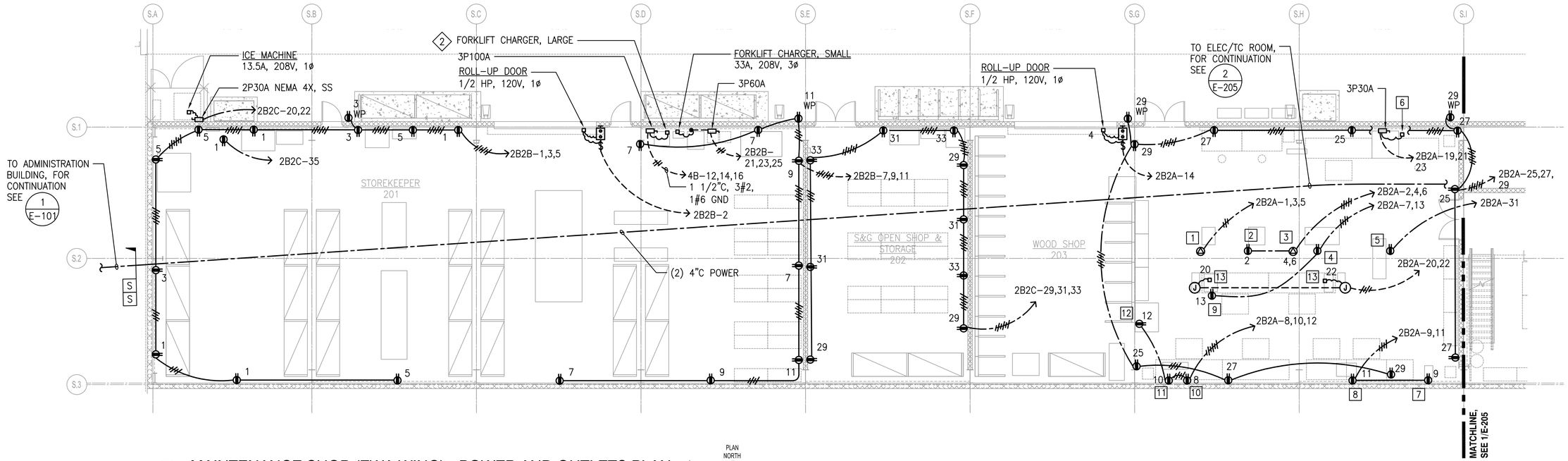
SHEET TITLE
ADMINISTRATION BUILDING - POWER AND OUTLETS PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-203
228 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP (EWA WING) - POWER AND OUTLETS PLAN - 1

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

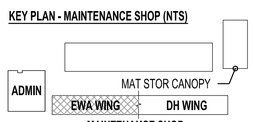
PLAN NORTH

EQUIPMENT SCHEDULE					
NUMBER	EQUIPMENT	VOLTAGE	PHASE	LOAD	RECEPTACLE
1	BELT AND DISC SANDER	208	3	2 HP	NEMA L14-20R (1)
2	BAND SAW	120	1	1.75 HP	NEMA 5-20R (1)
3	STATIONARY CABINET SAW	208	1	13.2 FLA	NEMA 6-15R (1)
4	STATIONARY CABINET SAW, DUST COLLECTOR	120	1	20A	NEMA 5-20R (1)
5	JOINTER	120	1	20A	NEMA 5-20R (1)
6	DEWALT RADIAL ARM SAW 16"	208	3	5 HP	HARDWIRED
7	DRILL PRESS	120	1	0.75 HP	NEMA 5-20R
8	RADIAL ARM SAW 10"	120	1	1.5 HP	NEMA 5-20R
9	PLANAR	120	1	20A	NEMA 5-20R
10	WET/DRY GRINDER	120	1	0.2 HP	NEMA 5-20R
11	BENCH GRINDER	120	1	0.2 HP	NEMA 5-20R
12	ROLLING MITER SAW	120	1	15 FLA	NEMA 5-20R (1)
13	CORD REEL	120	1	20A	HARDWIRED

NOTES:

1. CONDUIT MOUNTED AT +6" AFF, SEE 3 E-705
2. FORKLIFT CHARGER TO BE PROVIDED BY HARBORS. ELECTRICAL RATINGS BASED OFF A 480V CHARGER WITH A MAXIMUM 71A INPUT CURRENT. ELECTRICAL REQUIREMENTS TO BE COORDINATED WITH THE ACTUAL RATING OF THE CHARGER SUPPLIED.

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-26

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

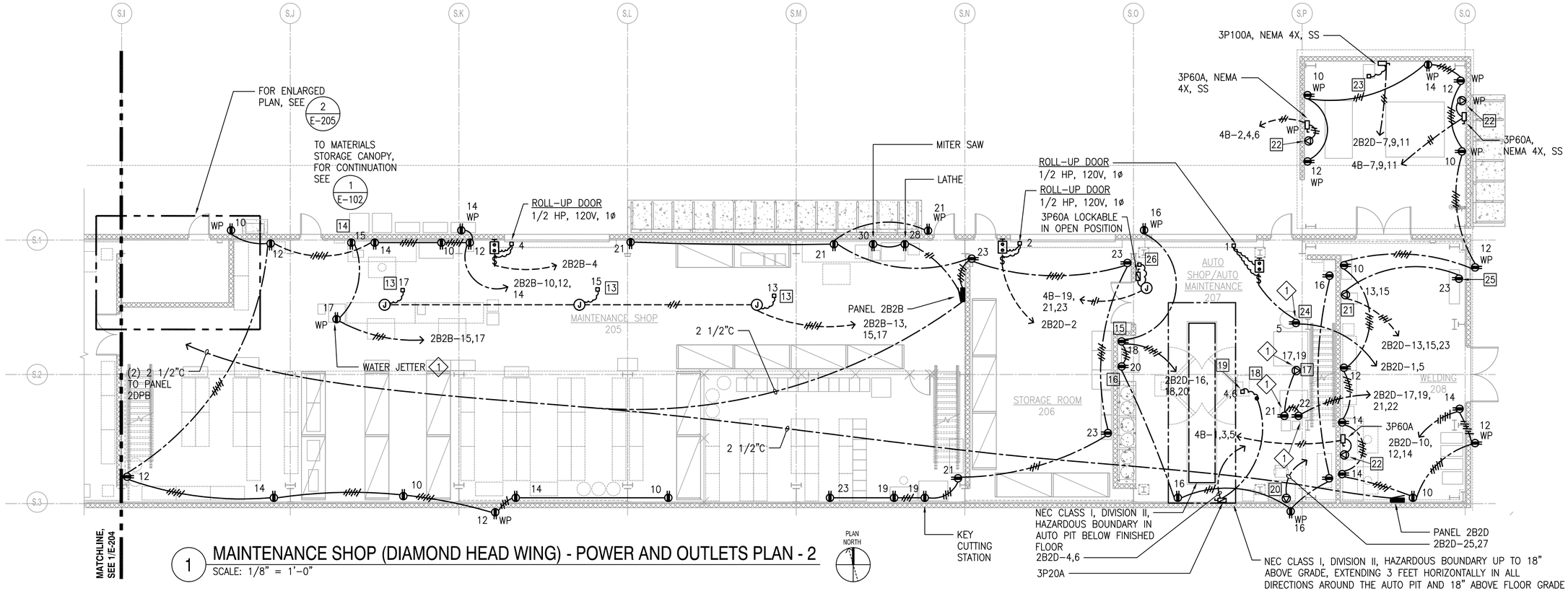
SHEET TITLE
MAINTENANCE SHOP - POWER AND OUTLETS PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

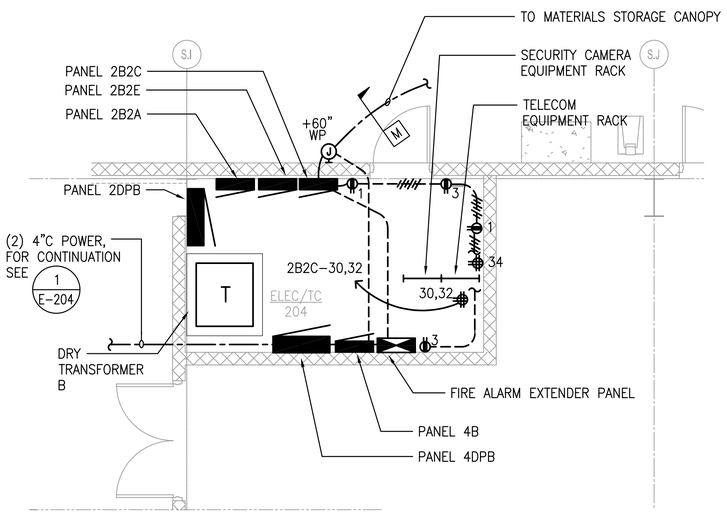
JOB NUMBER
P10981

SHEET
E-204
229 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP (DIAMOND HEAD WING) - POWER AND OUTLETS PLAN - 2
SCALE: 1/8" = 1'-0"



2 MAINTENANCE SHOP (DH) - ENLARGED ELEC/TC ROOM 204 POWER PLAN
SCALE: 1/4" = 1'-0"

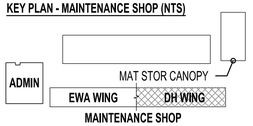
EQUIPMENT SCHEDULE

NUMBER	EQUIPMENT	VOLTAGE	PHASE	LOAD	RECEPTACLE
13	CORD REEL	120	1	20A	HARDWIRED
14	BENCH GRINDER	120	1	20A	NEMA 5-20R
15	DRILL PRESS (AUTO SHOP)	120	1	0.75 HP	NEMA 5-20R
16	PARTS WASHER	120	1	20A	NEMA 5-20R
17	WHEEL BALANCER	208	1	2 HP	NEMA 6-20R
18	CHARGER	120	1	20A	NEMA 5-20R
19	VEHICLE LIFT	208	1	2 HP	HARDWIRED
20	BENCH GRINDER	208	1	16A	NEMA 6-20R
21	DRILL PRESS (WELDING)	208	1	1.5 HP	NEMA 6-20R
22	WELDER	480	3	1.5 HP	NEMA 14-50R
23	GRINDER	208	1	50A	HARDWIRED
24	RIM CLAMPER	120	1	20A	NEMA 5-20R
25	BAND SAW	120	1	1.5 HP	NEMA 5-20R
26	OVERHEAD CRANE	480	3	20 FLA	HARDWIRED

NOTE:

1 CONDUIT MOUNTED AT +6" AFF, SEE 3 / E-705

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'
1/8" = 1'-0"
5' 0 5' 10'
1/4" = 1'-0"

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

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COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

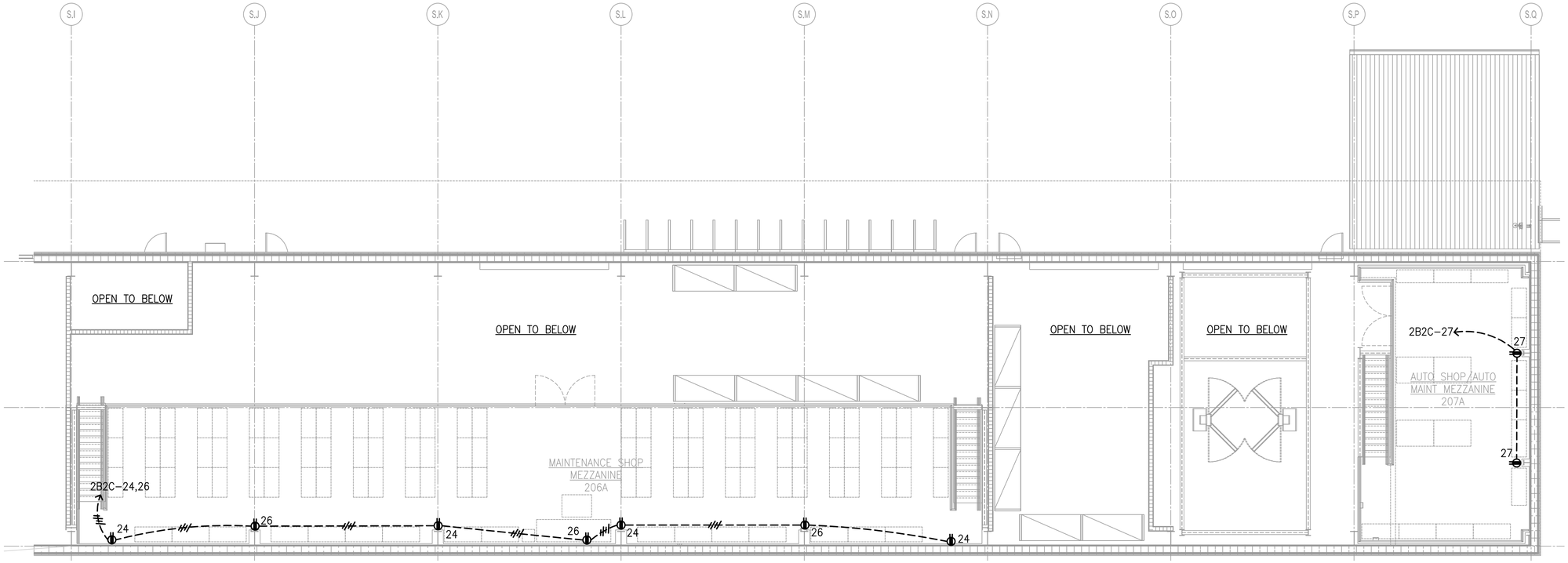
SHEET TITLE
MAINTENANCE SHOP - POWER AND OUTLETS PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER P10981

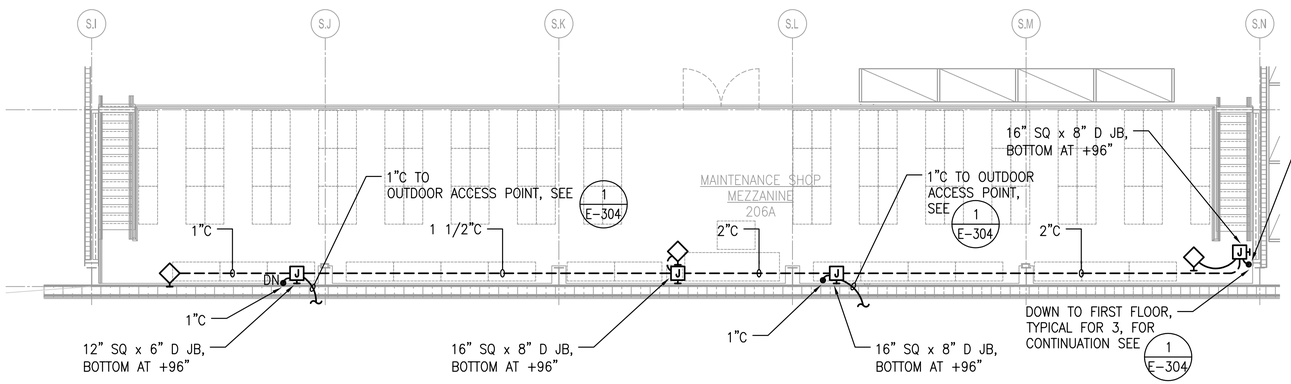
SHEET E-205
230 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP MEZZANINE (DIAMOND HEAD WING) - POWER PLAN

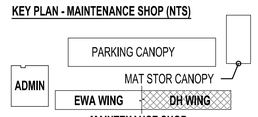
SCALE: 1/8" = 1'-0"



2 MAINTENANCE SHOP MEZZANINE - ROOM 206A TELECOMMUNICATIONS PLAN

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

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

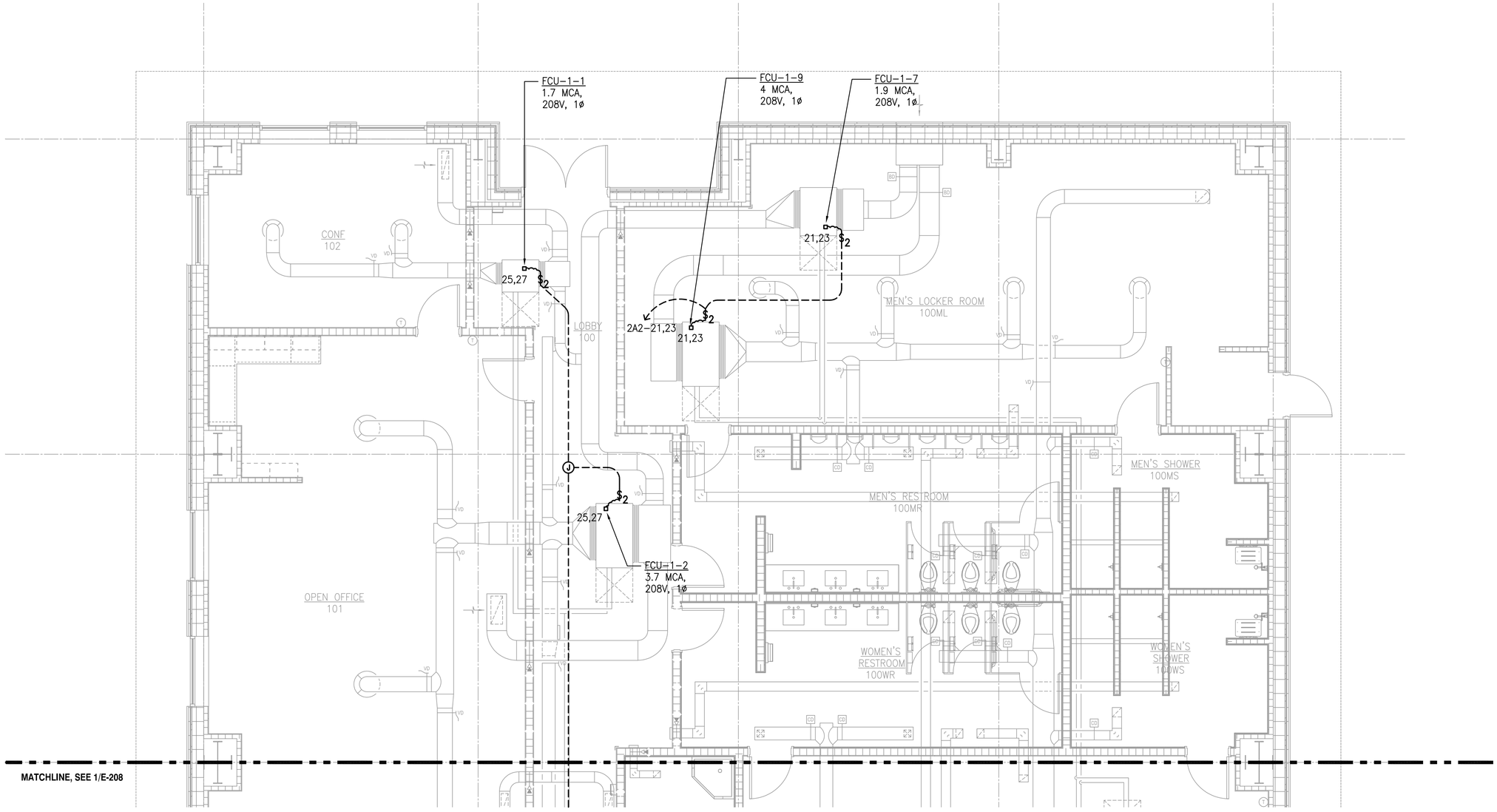
SHEET TITLE
MAINTENANCE SHOP MEZZANINE - POWER & TELECOMMUNICATIONS PLANS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-206
231 OF 273 SHTS.

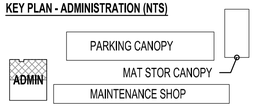
100% SUBMITTAL - SEPTEMBER 2026



1 ADMINISTRATION BUILDING - MECHANICAL EQUIPMENT POWER PLAN - 1
SCALE: 1/4" = 1'-0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

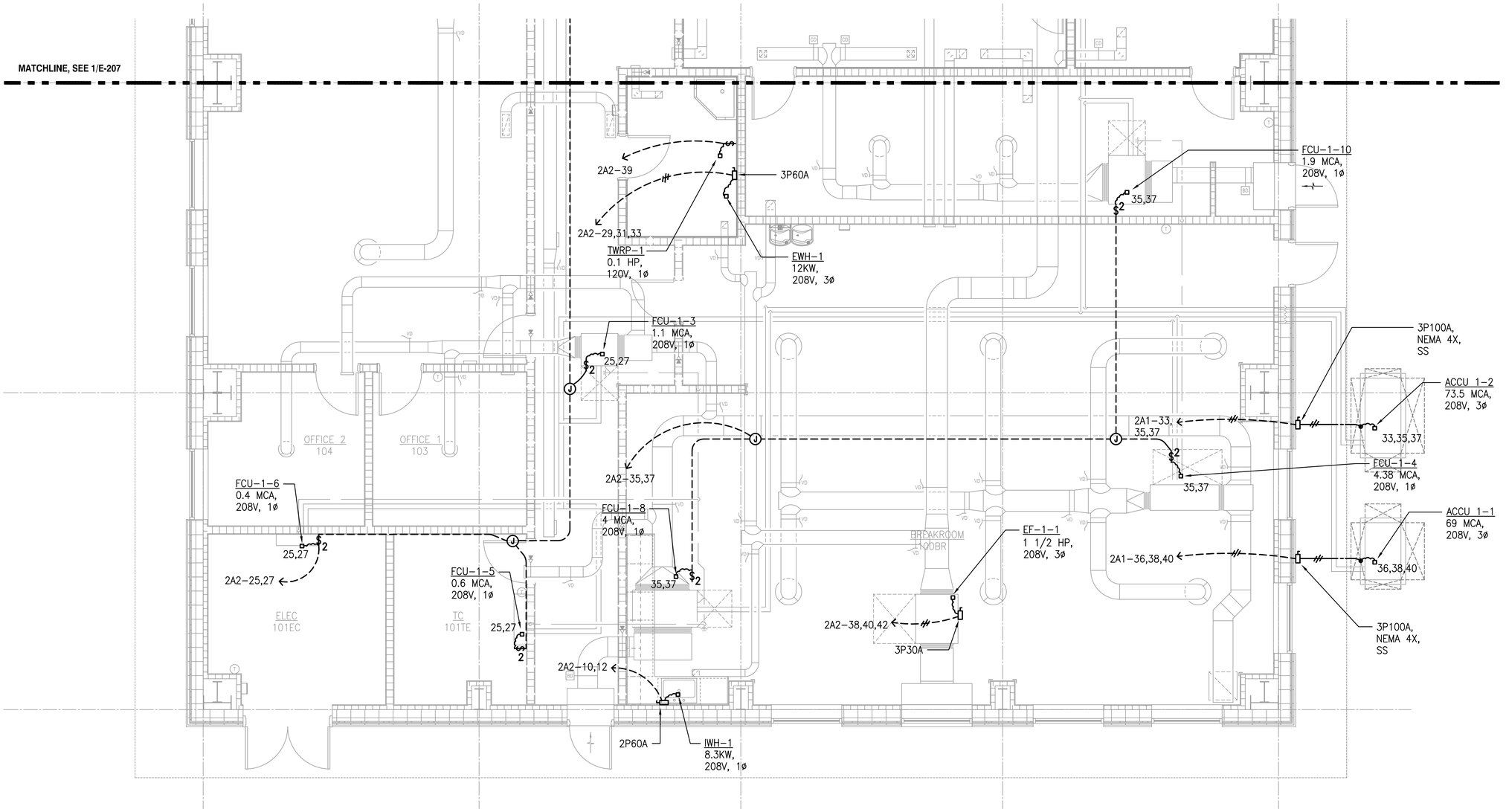
SHEET TITLE
ADMINISTRATION BUILDING - MECHANICAL EQUIPMENT POWER PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-207
232 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

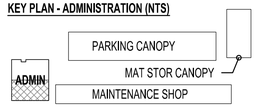


1 ADMINISTRATION BUILDING - MECHANICAL EQUIPMENT POWER PLAN - 2

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

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

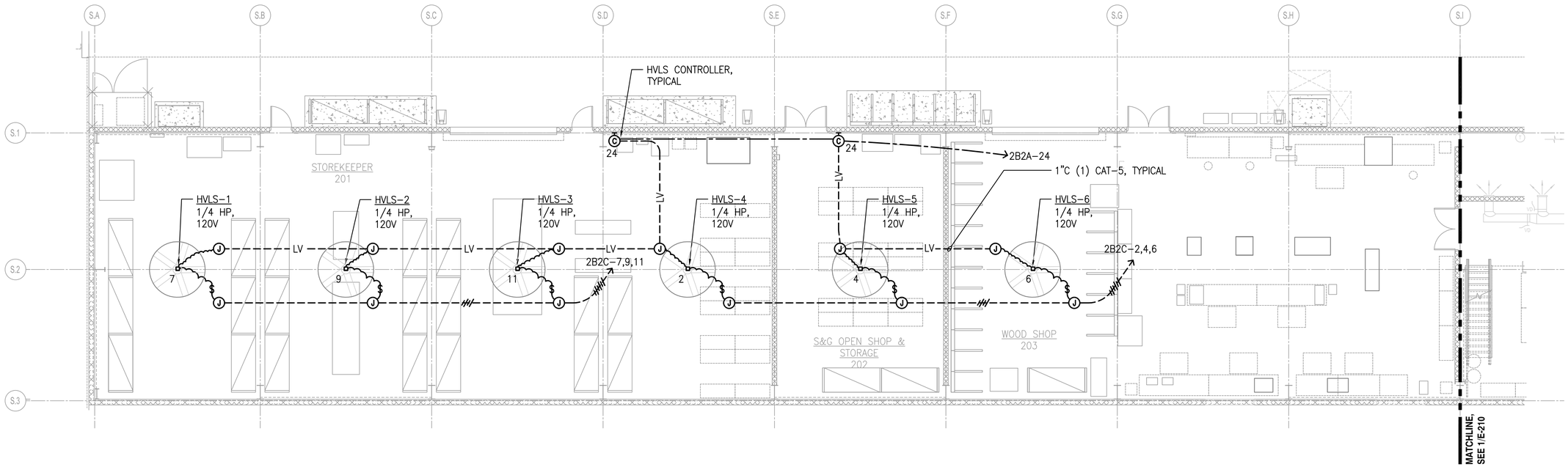
SHEET TITLE
ADMINISTRATION BUILDING - MECHANICAL EQUIPMENT POWER PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-208
233 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP (EWA WING) - MECHANICAL EQUIPMENT POWER PLAN - 1

SCALE: 1/8" = 1'–0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'–0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE

HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE

MAINTENANCE SHOP - MECHANICAL EQUIPMENT POWER PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER

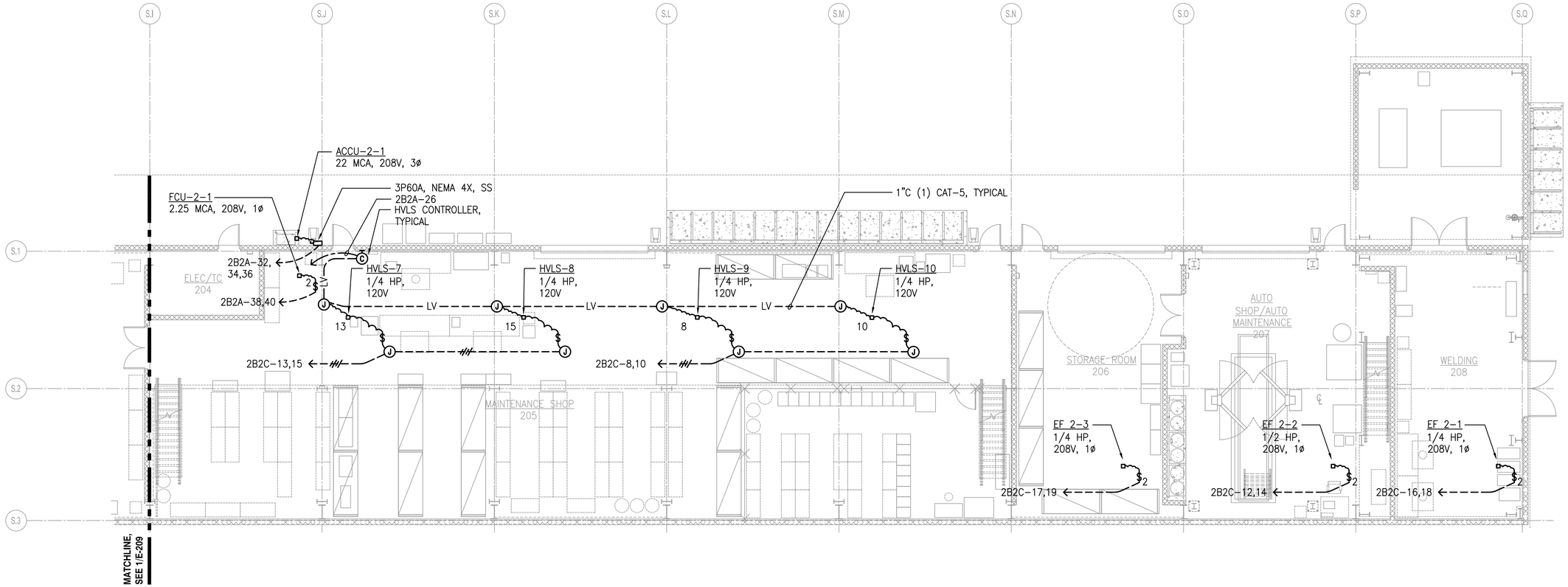
P10981

SHEET

E-209

234 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

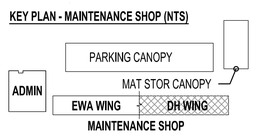


1 MAINTENANCE SHOP (DIAMOND HEAD WING) - MECHANICAL EQUIPMENT POWER PLAN - 2

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

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

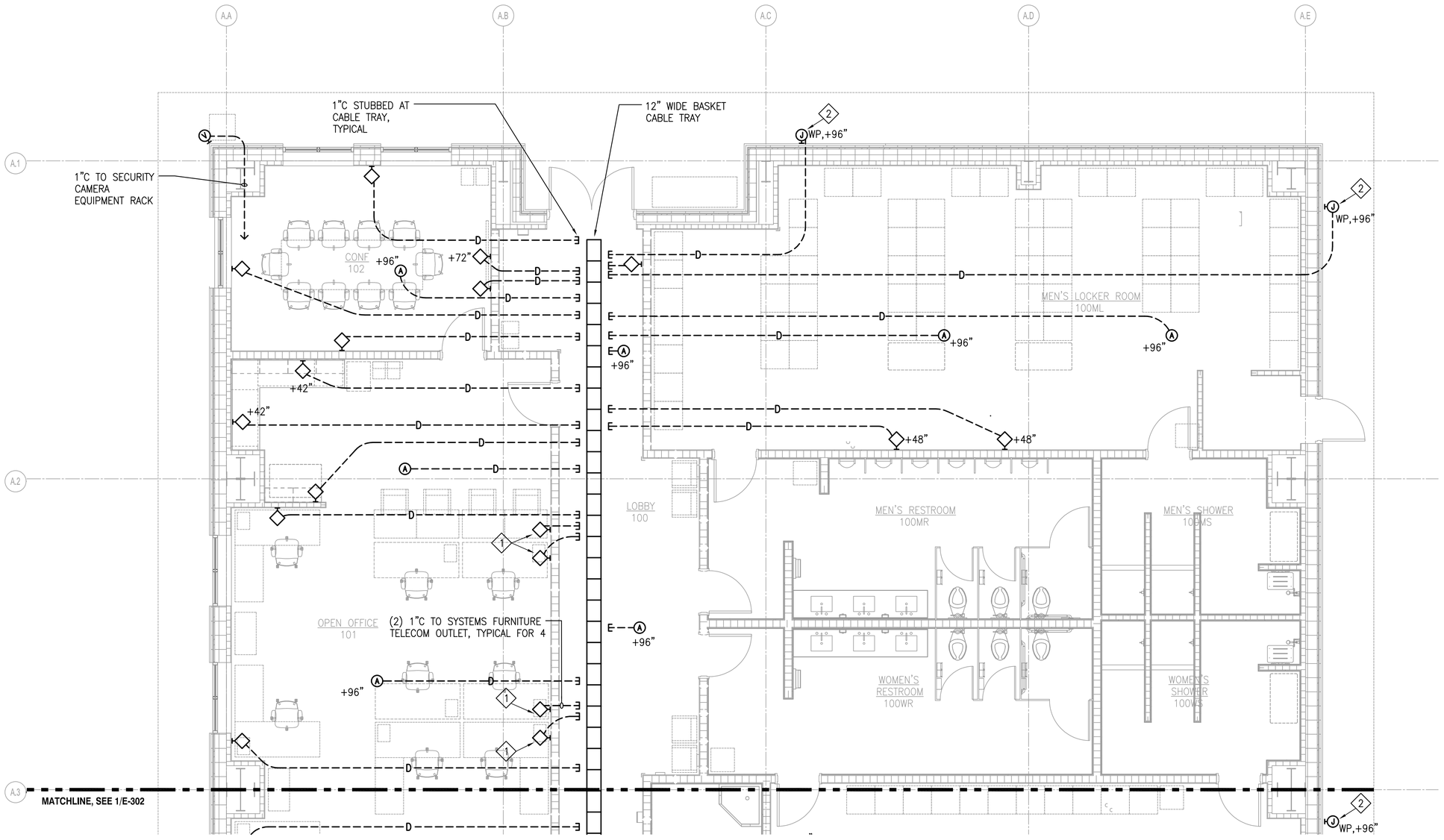
SHEET TITLE
MAINTENANCE SHOP - MECHANICAL EQUIPMENT POWER PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-210
235 OF 273 SHTS.

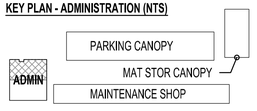
100% SUBMITTAL - SEPTEMBER 2026



NOTES:

1. 3–RJ45 CATEGORY–6 UTP DATA JACKS IN TELECOMMUNICATIONS OUTLET, PROVIDE (3) CAT–6 CABLES TO OUTLET. FOR ADDITIONAL DETAIL SEE 1/E–703
2. 4" SQ x 2" D WEATHERPROOF JUNCTION BOX, MOUNT AT +96" AFF. FOR ADDITIONAL DETAIL SEE 2/E–704

KEY PLAN - ADMINISTRATION (NTS)



1 ADMINISTRATION - TELECOMMUNICATIONS PLAN - 1

SCALE: 1/4" = 1'–0"

PLAN NORTH

GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'–0"

REVISION	DATE	DESCRIPTION	BY	APPROVED

MICHELE N. ADOLPHO — LICENSED PROFESSIONAL ENGINEER — No. 10017–E — HAWAII, U.S.A.

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COFFMAN ENGINEERS, INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
ADMINISTRATION BUILDING - TELECOMMUNICATIONS PLAN - 1

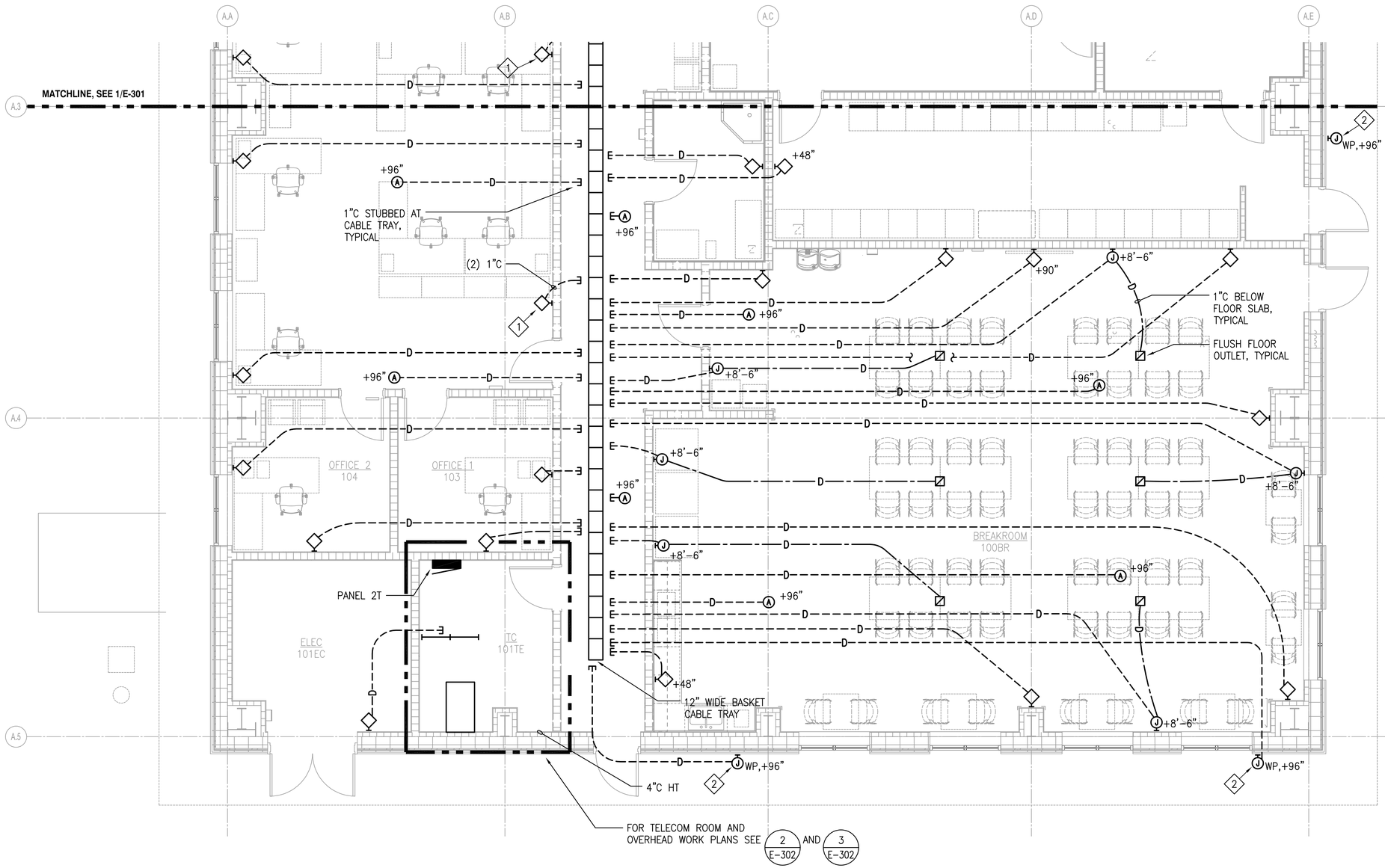
DESIGNED BY:	ADMUC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER P10981

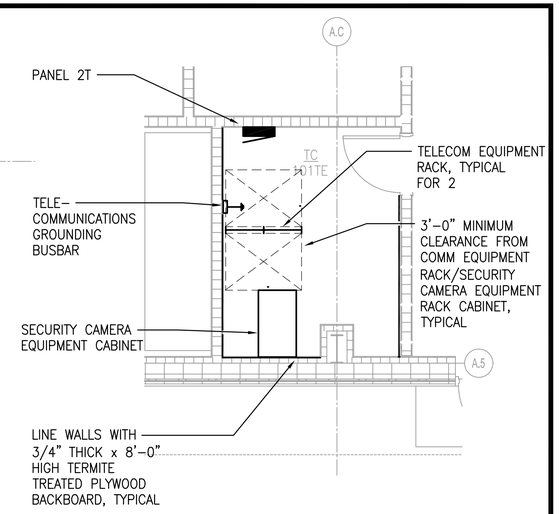
SHEET E-301

236 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 ADMINISTRATION - TELECOMMUNICATIONS PLAN - 2
SCALE: 1/4" = 1'-0"



2 TELECOM ROOM PLAN
SCALE: 1/4" = 1'-0"

3 TELECOM ROOM PLAN-OVERHEAD WORK
SCALE: 1/4" = 1'-0"

NOTES:

1. 4-RJ45 CATEGORY-6 UTP DATA JACKS IN TELECOMMUNICATIONS OUTLET, PROVIDE 4 CAT-6 CABLES TO OUTLET, FOR ADDITIONAL DETAIL SEE 1 E-703
2. 4" SQ x 2" D JUNCTION BOX FOR OUTDOOR ACCESS POINT. FOR ADDITIONAL DETAIL SEE 2 E-704

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

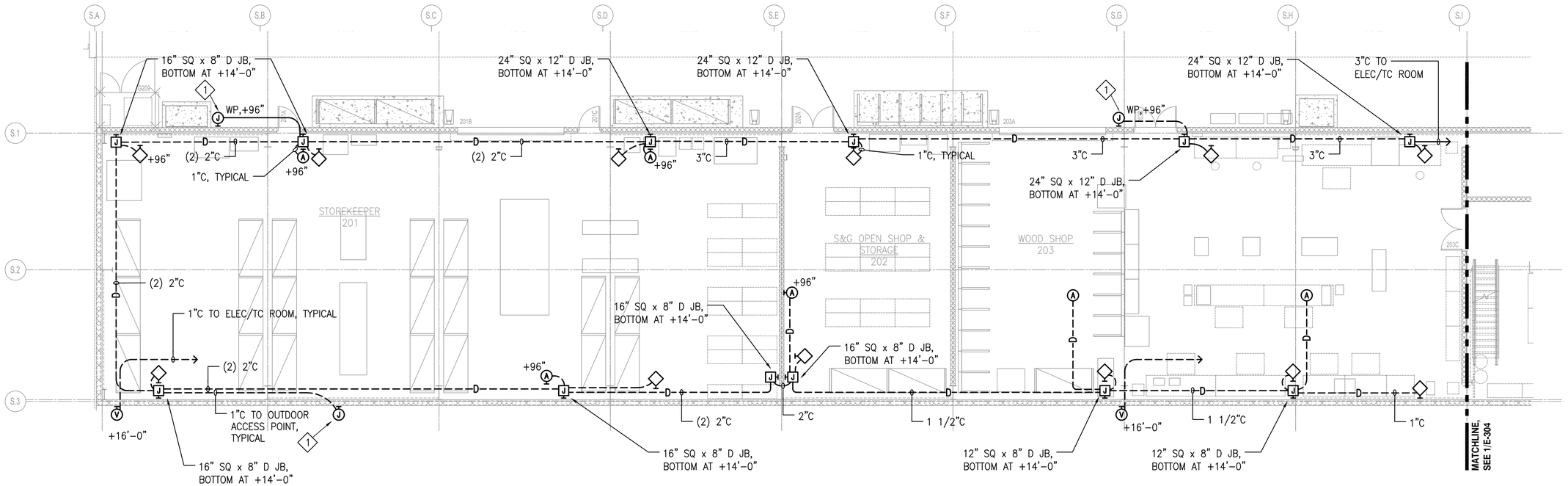
SHEET TITLE
ADMINISTRATION BUILDING - TELECOMMUNICATIONS PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-302
237 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP (EWA WING) - TELECOMMUNICATIONS PLAN - 1

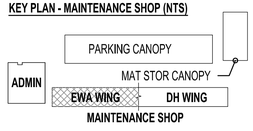
SCALE: 1/8" = 1'-0"

PLAN NORTH

NOTE:

1 4" SQ x 2" D WEATHERPROOF JUNCTION BOX, MOUNT AT +96" AFF. FOR ADDITIONAL DETAIL SEE 2/E-704

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE

HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE

MAINTENANCE SHOP - TELECOMMUNICATIONS PLAN - 1

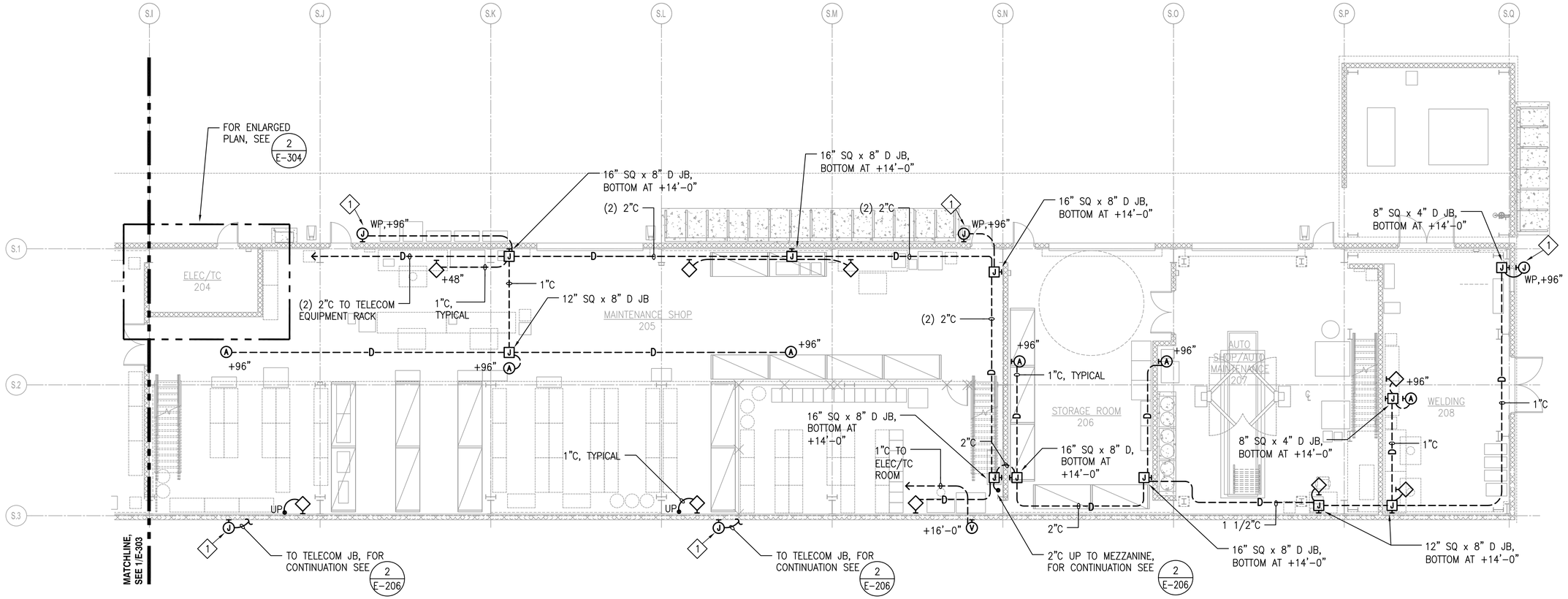
DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER P10981

SHEET E-303

238 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



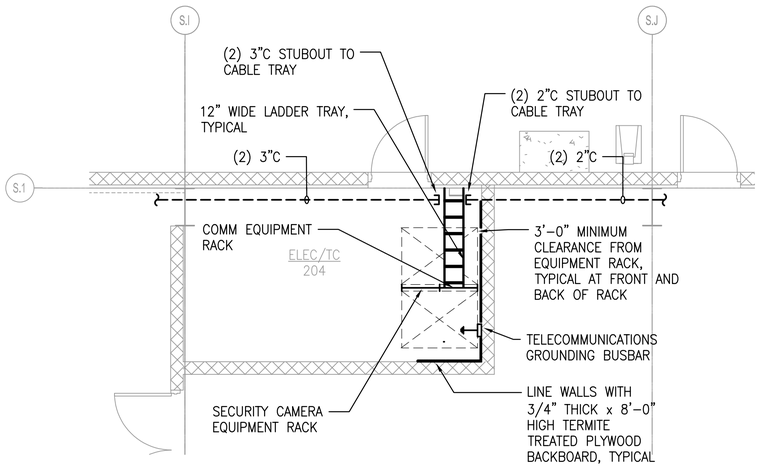
1 MAINTENANCE SHOP (DIAMOND HEAD WING) - TELECOMMUNICATIONS PLAN - 2

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

PLAN NORTH

NOTE:

1 4" SQ x 2" D JUNCTION BOX, MOUNT AT +96" AFF. FOR ADDITIONAL DETAIL SEE 2 E-704



2 MAINTENANCE SHOP (DIAMOND HEAD WING) - ENLARGED TELECOMMUNICATIONS PLAN

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

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

5' 0 5' 10'

1/4" = 1'-0"

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

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COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MAINTENANCE SHOP - TELECOMMUNICATIONS PLAN - 2

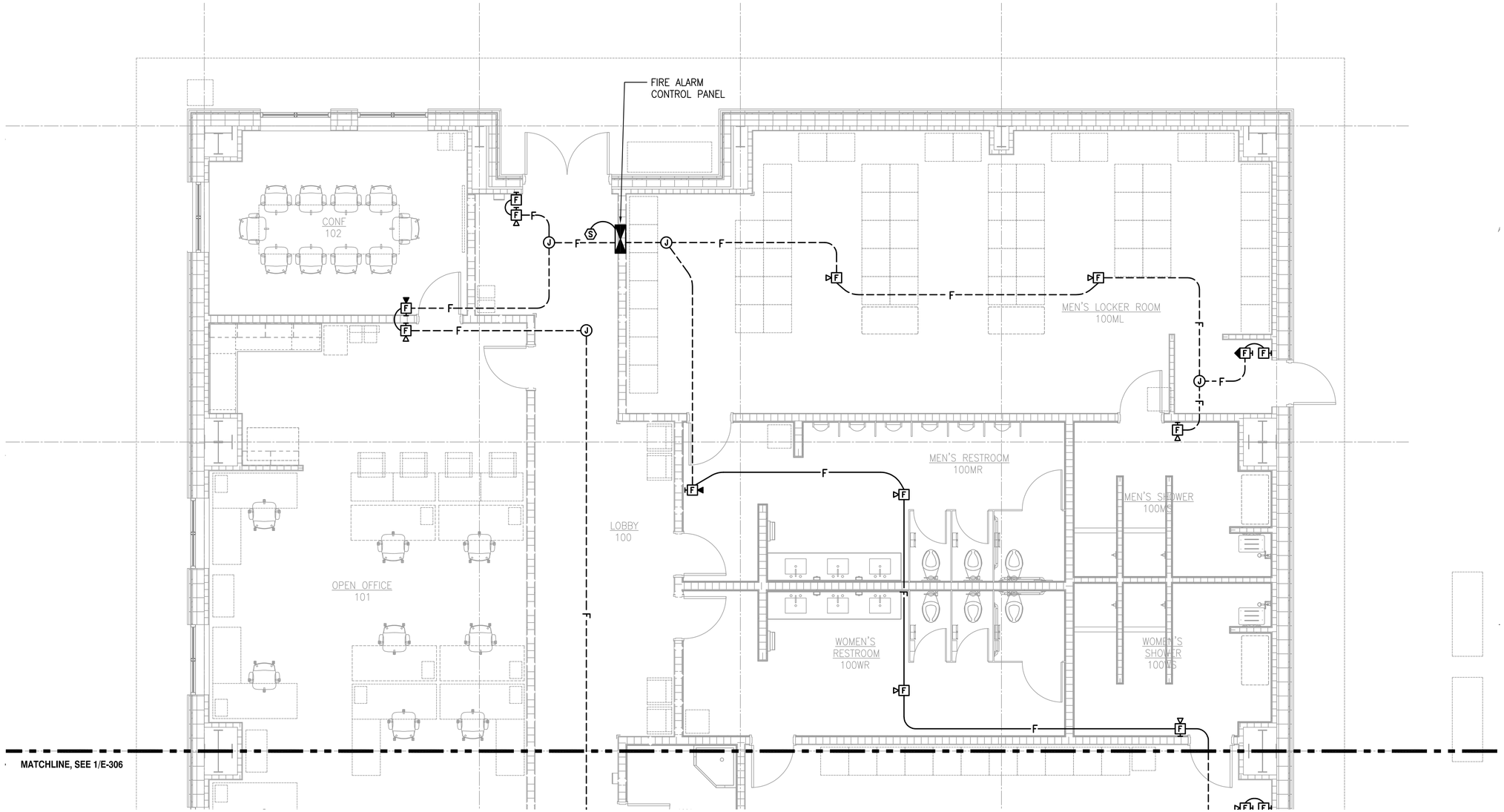
DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER P10981

SHEET E-304

239 OF 273 SHTS.

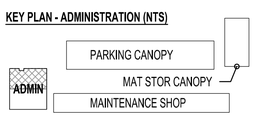
100% SUBMITTAL - SEPTEMBER 2026



1 ADMINISTRATION BUILDING - FIRE ALARM PLAN - 1
SCALE: 1/4" = 1'-0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

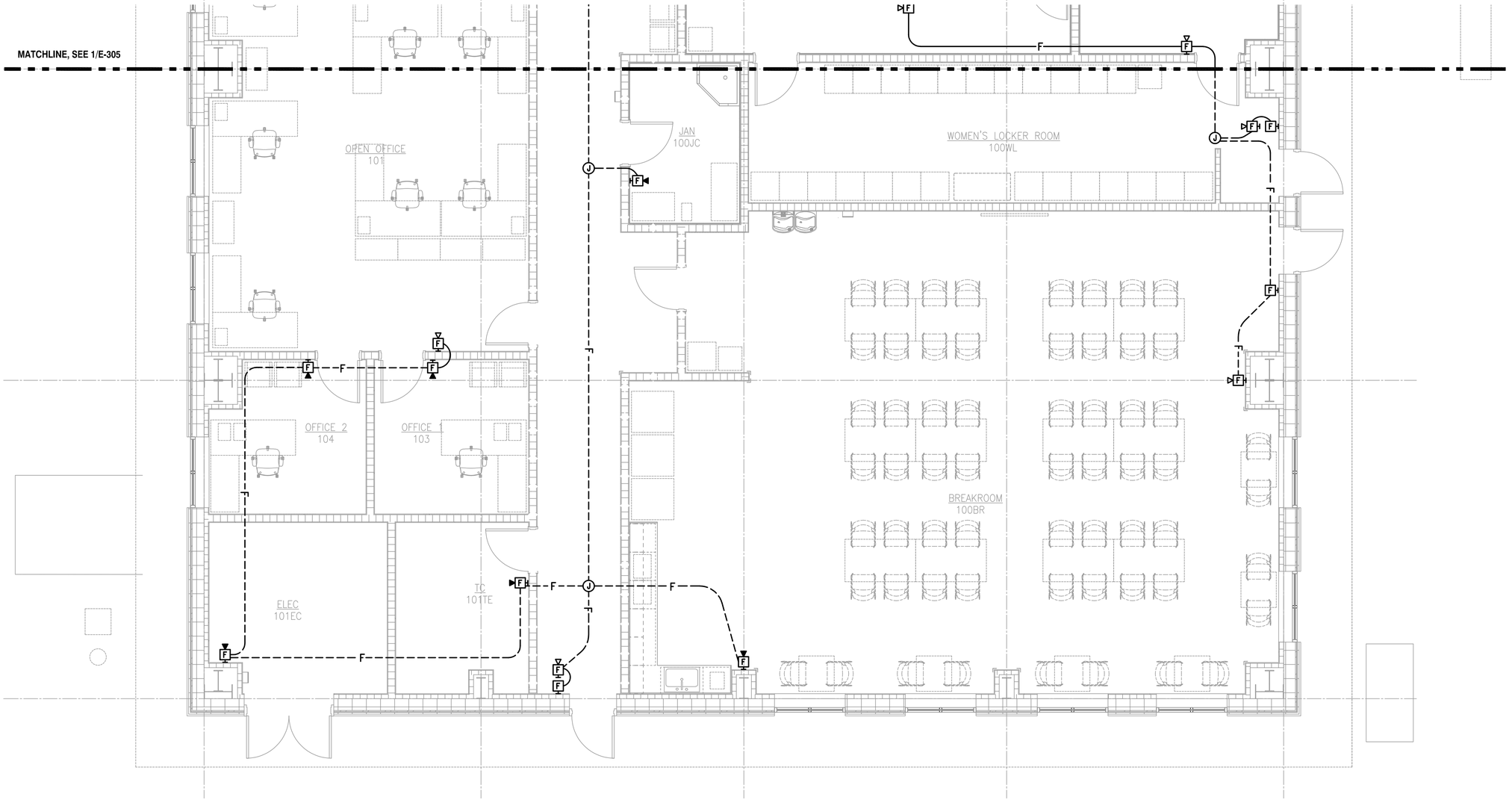
SHEET TITLE
ADMINISTRATION BUILDING - FIRE ALARM PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-305
240 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 ADMINISTRATION BUILDING - FIRE ALARM PLAN - 2
SCALE: 1/4" = 1'-0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

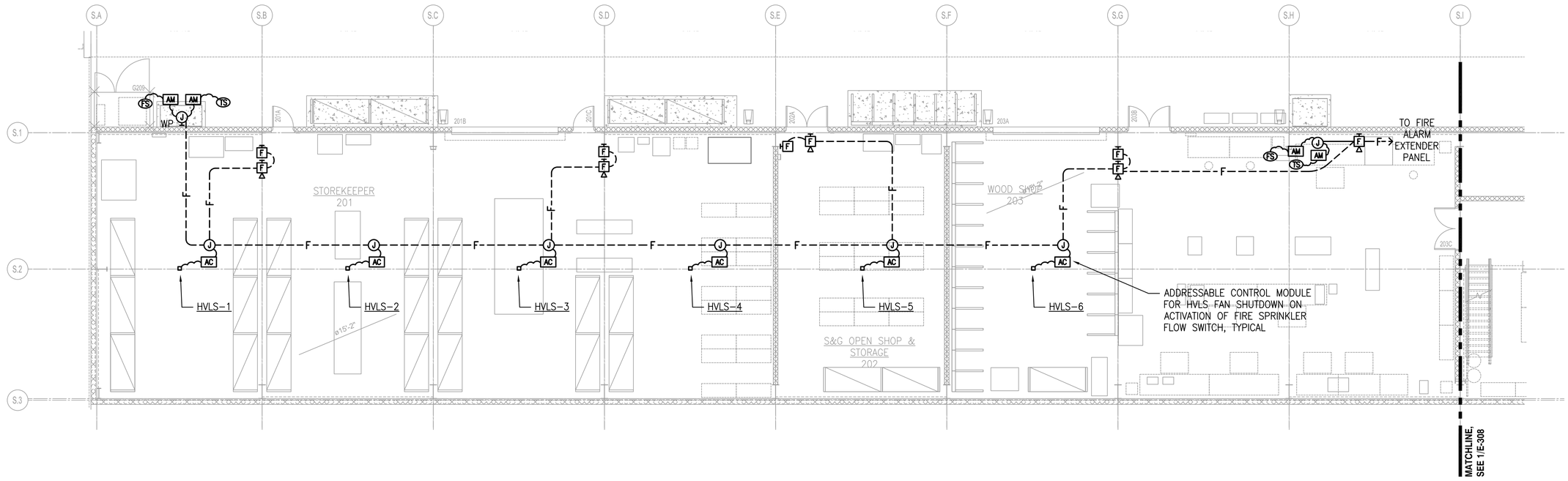
SHEET TITLE
ADMINISTRATION BUILDING - FIRE ALARM PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-306
241 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP (EWA WING) - FIRE ALARM PLAN - 1

SCALE: 1/8" = 1'–0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'–0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE

HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE

MAINTENANCE SHOP - FIRE ALARM PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

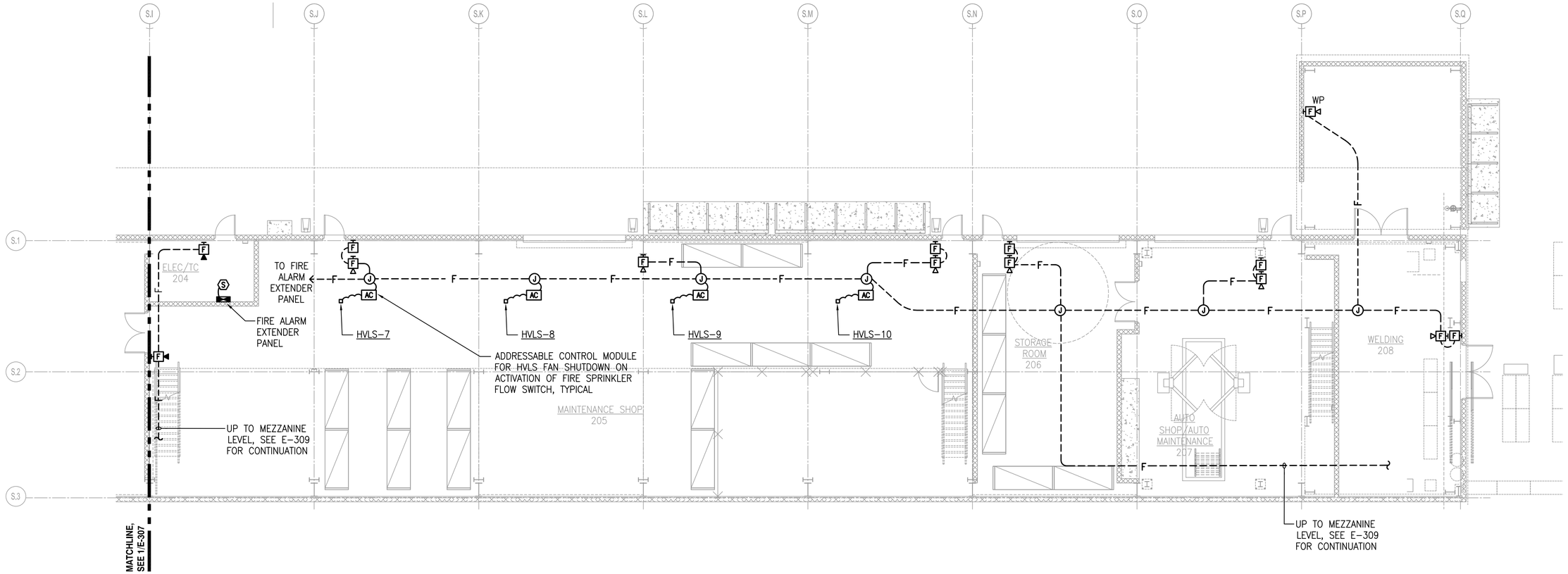
JOB NUMBER

P10981

SHEET

E-307

242 OF 273 SHTS.

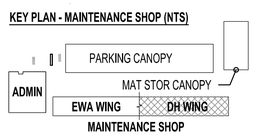


1 MAINTENANCE SHOP (DIAMOND HEAD WING) - FIRE ALARM PLAN - 2

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

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

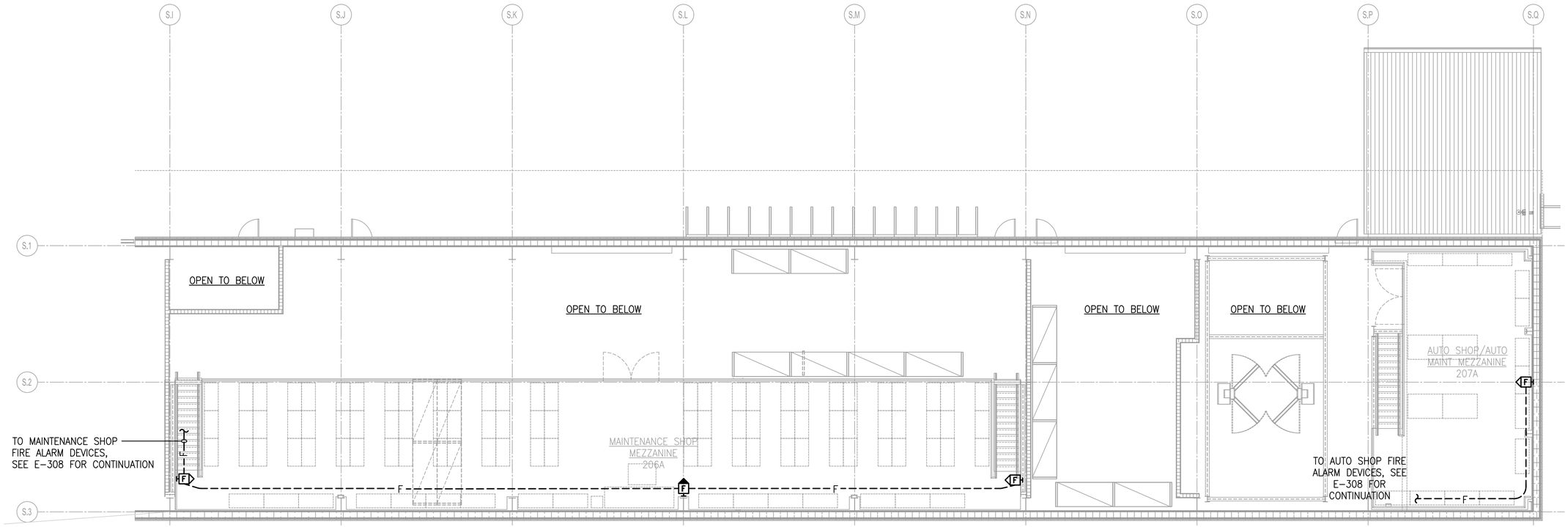
SHEET TITLE
MAINTENANCE SHOP - FIRE ALARM PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-308
243 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP MEZZANINE (DIAMOND HEAD WING) - FIRE ALARM PLAN

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

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

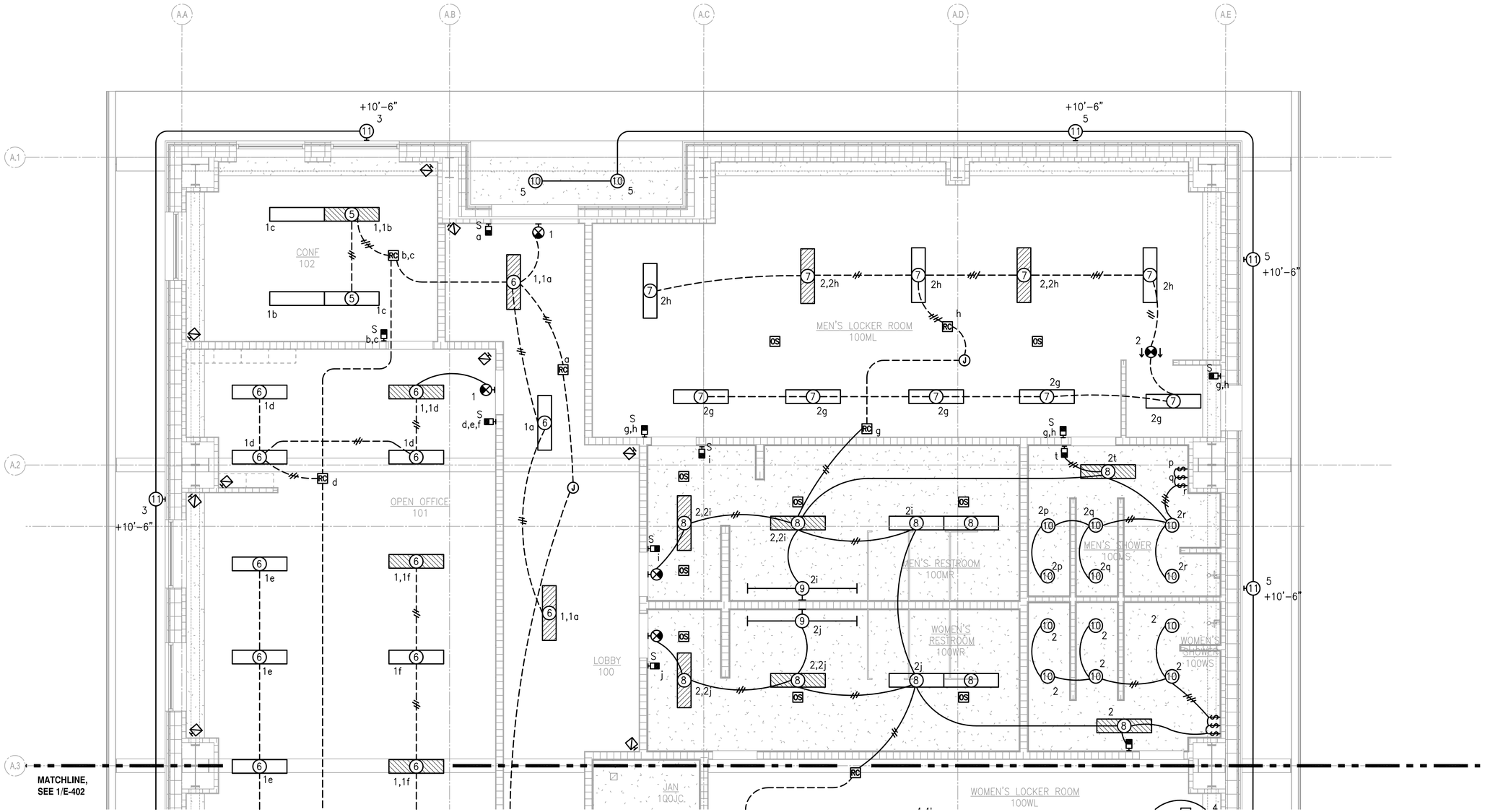
SHEET TITLE
MAINTENANCE SHOP MEZZANINE - FIRE ALARM PLAN

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-309
244 OF 273 SHTS.

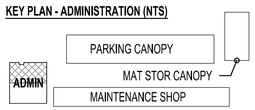
100% SUBMITTAL - SEPTEMBER 2026



1 ADMINISTRATION BUILDING - LIGHTING PLAN - 1
SCALE: 1/4" = 1'–0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'–0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

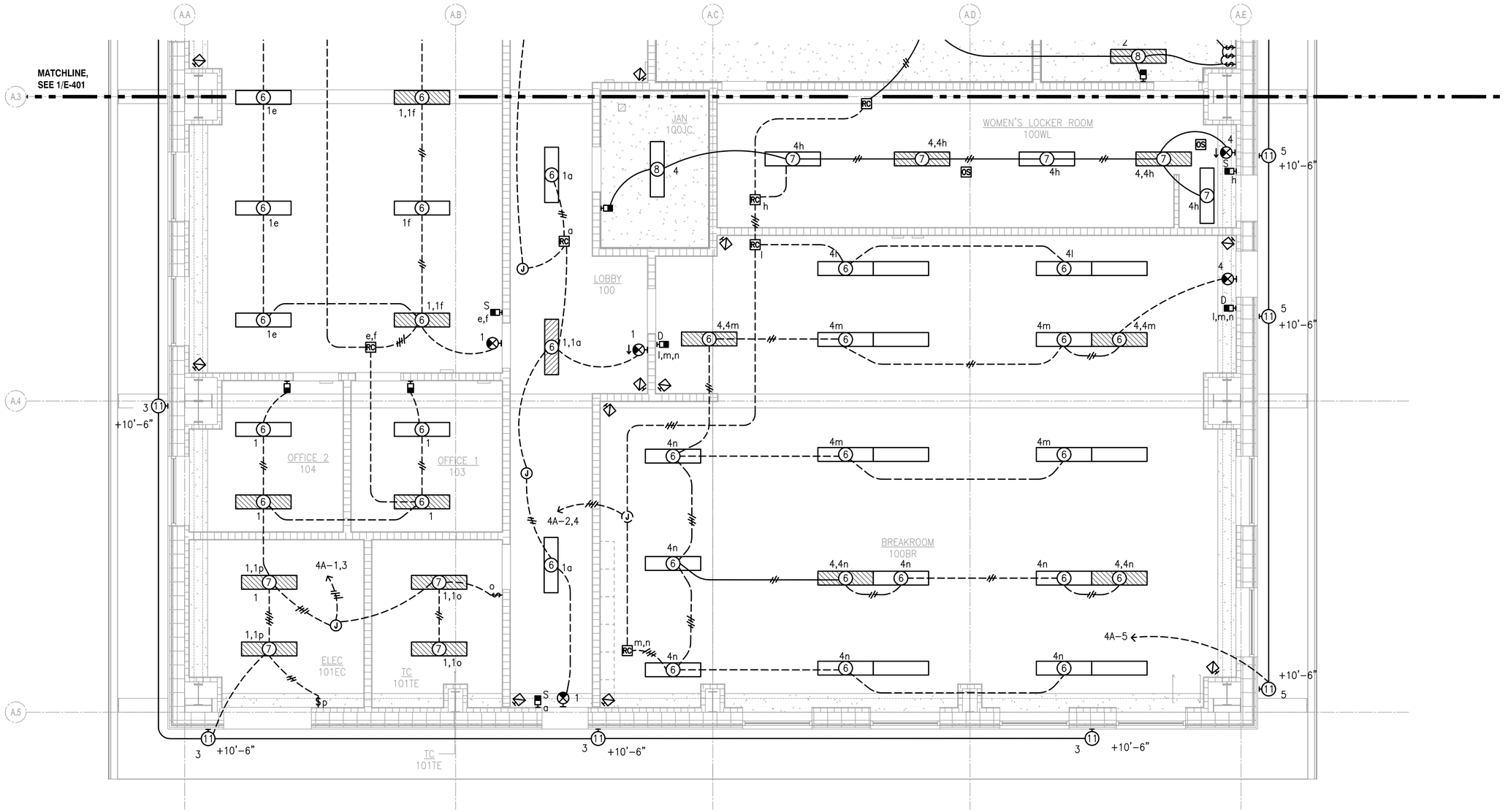
SHEET TITLE
ADMINISTRATION BUILDING - LIGHTING PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-401
245 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

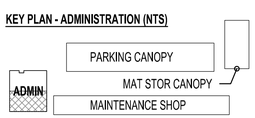


1 ADMINISTRATION BUILDING - LIGHTING PLAN - 2

SCALE: 1/4" = 1'–0"

PLAN NORTH

KEY PLAN - ADMINISTRATION (NTS)



GRAPHIC SCALE

5' 0 5' 10'

1/4" = 1'–0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

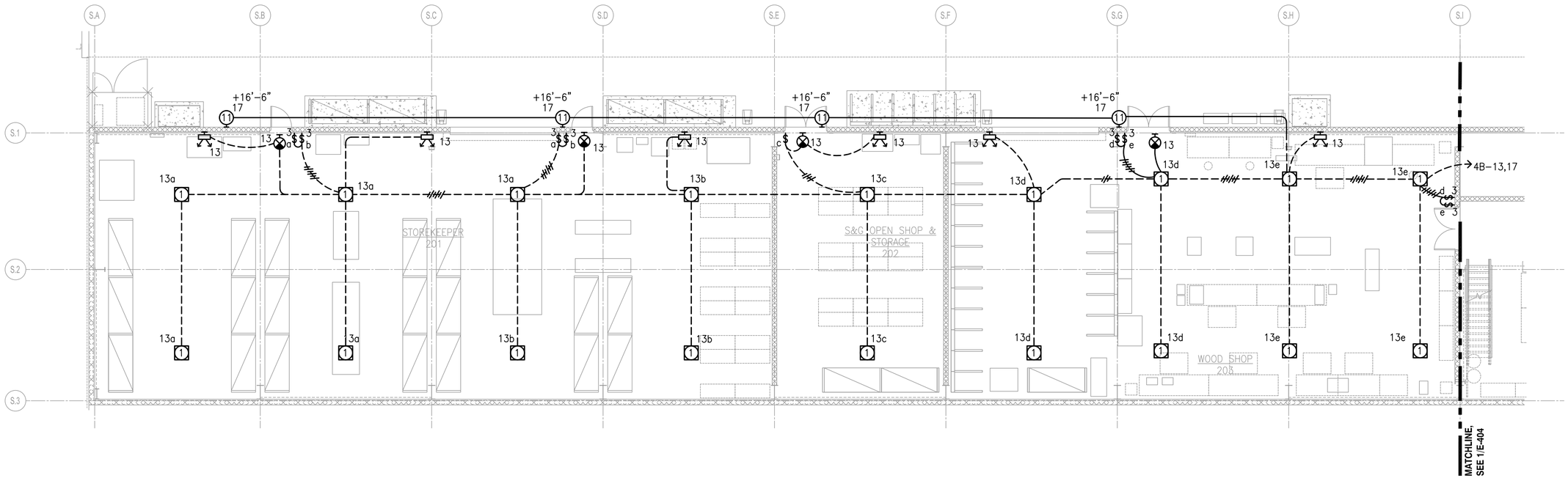
SHEET TITLE
ADMINISTRATION BUILDING - LIGHTING PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-402
246 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MAINTENANCE SHOP (EWA WING) - LIGHTING PLAN - 1

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

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

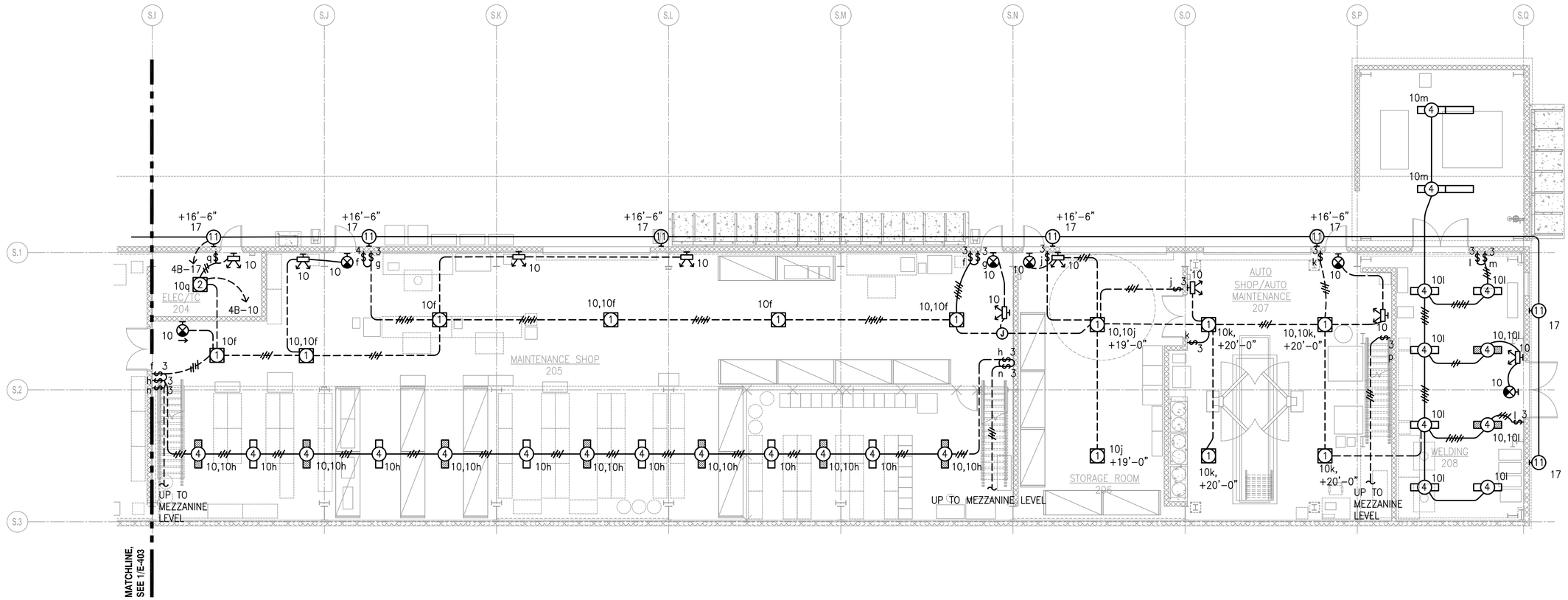
SHEET TITLE
MAINTENANCE SHOP - LIGHTING PLAN - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-403
247 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

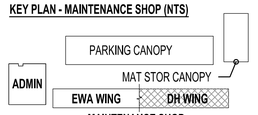


1 MAINTENANCE SHOP (DIAMOND HEAD WING) - LIGHTING PLAN - 2

SCALE: 1/8" = 1'–0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'–0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-26

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE

HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE

MAINTENANCE SHOP - LIGHTING PLAN - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER

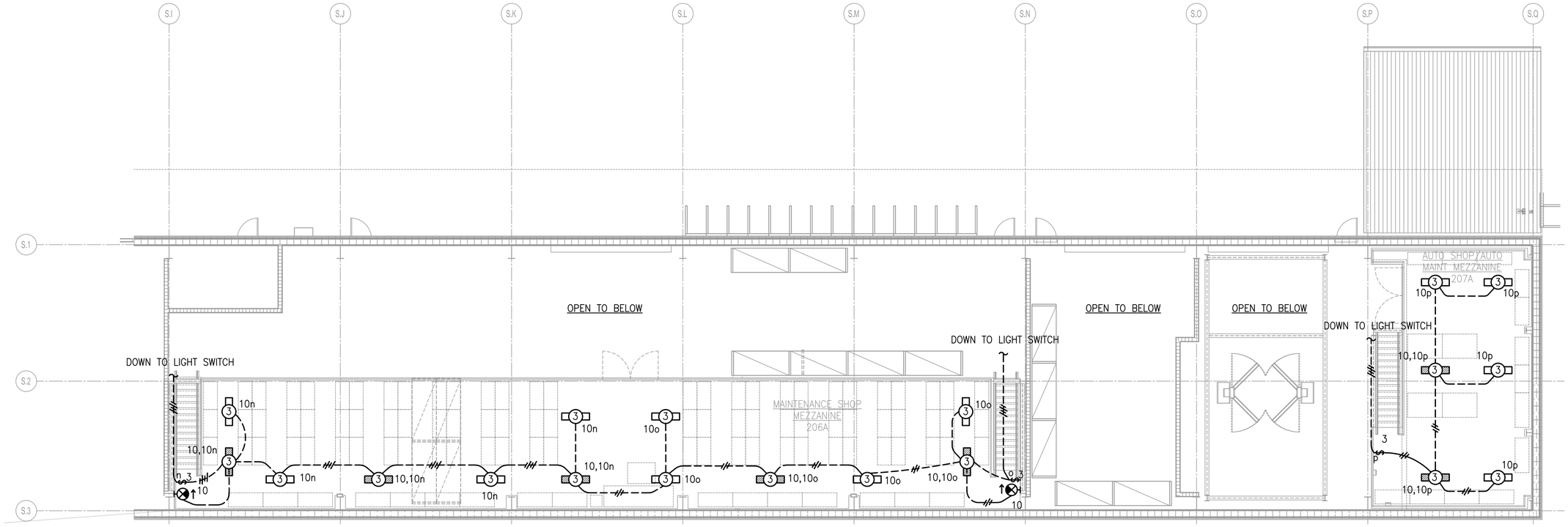
P10981

SHEET

E-404

248 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

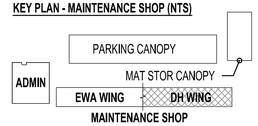


1 MAINTENANCE SHOP MEZZANINE (DIAMOND HEAD WING) - LIGHTING PLAN

SCALE: 1/8" = 1'–0"

PLAN NORTH

KEY PLAN - MAINTENANCE SHOP (NTS)



GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'–0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

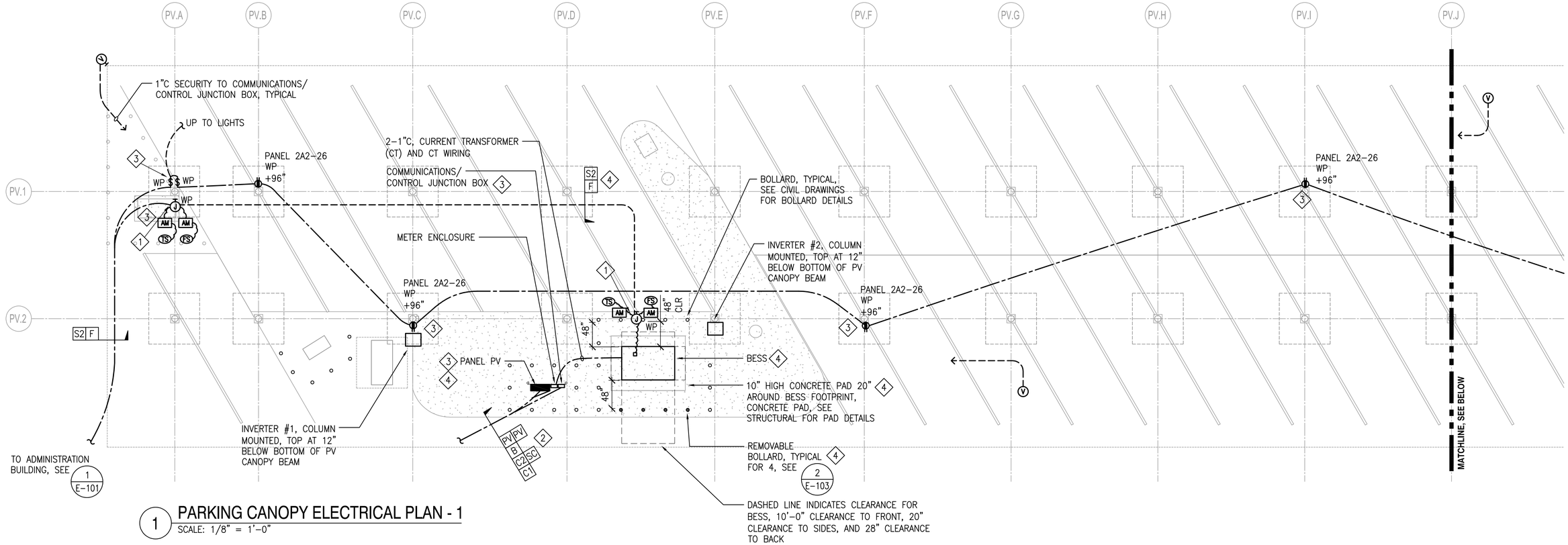
SHEET TITLE
MAINTENANCE SHOP MEZZANINE - LIGHTING PLAN

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

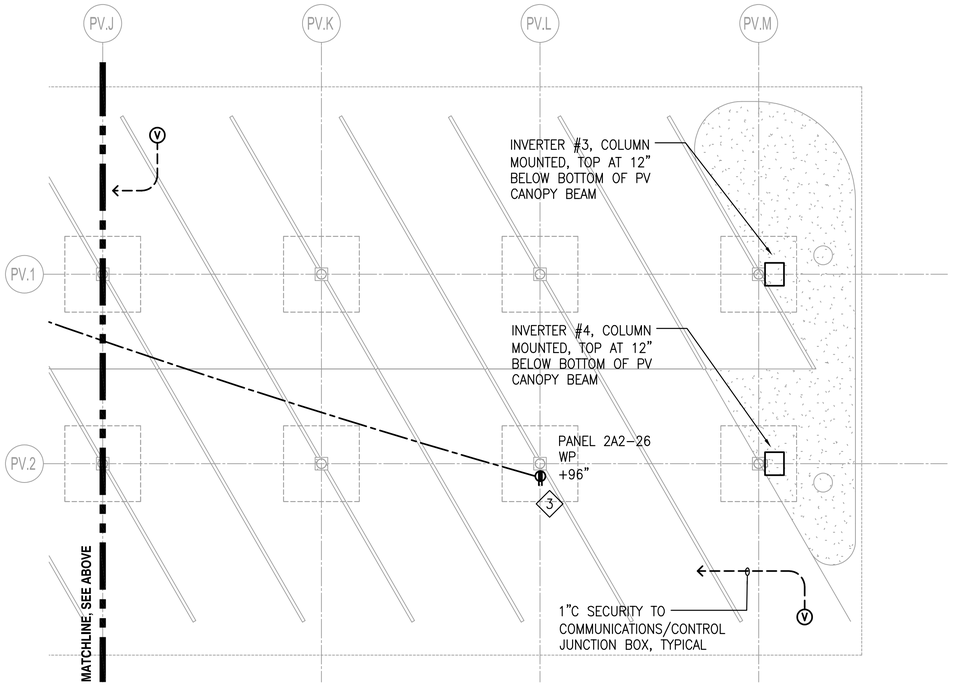
SHEET
E-405
249 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 PARKING CANOPY ELECTRICAL PLAN - 1

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



2 PARKING CANOPY ELECTRICAL PLAN - 2

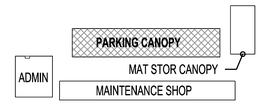
SCALE: 1/8" = 1'-0"

ALL WORK ON THIS SHEET IS BID OPTION 2 UNLESS OTHERWISE NOTED

NOTES:

1. PROVIDE FIRE ALARM CIRCUIT CONNECTION TO FIRE SUPPRESSION SYSTEM IN BID OPTION 4. FOR ADDITIONAL DETAIL SEE 1 E-604
2. PROVIDE IN BASE BID.
3. STUBUP UNDERGROUND CONDUITS AT +6", CAP AND SEAL IN BASE BID.
4. PROVIDE IN BID OPTION 4.

KEY PLAN - PARKING CANOPY (NTS)



PLAN NORTH

GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

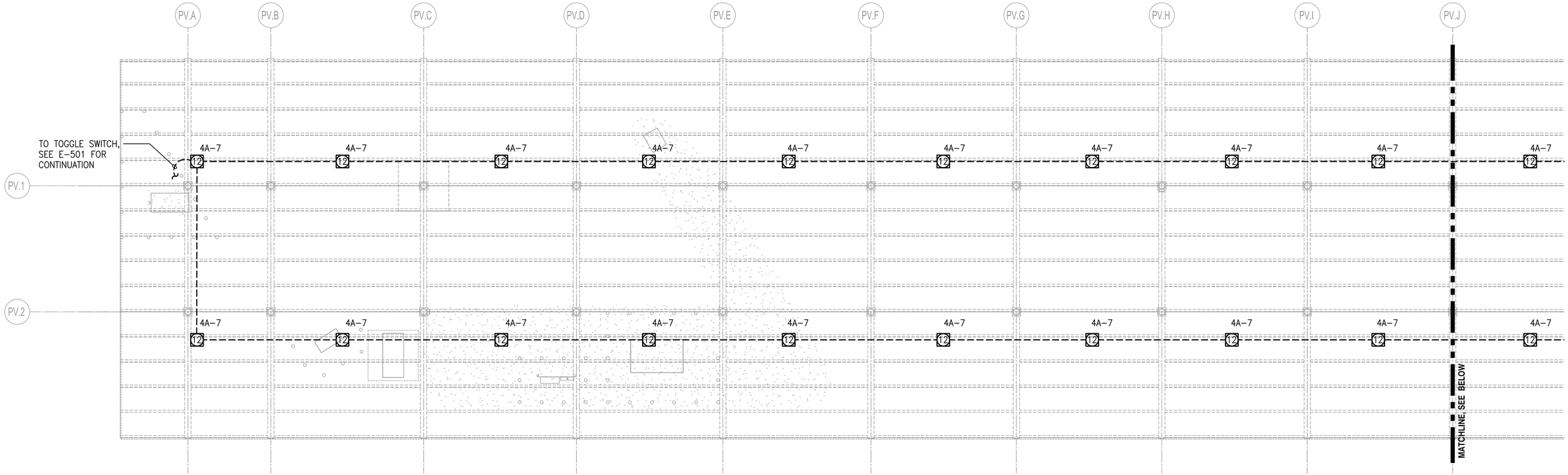
SHEET TITLE
PARKING CANOPY - ELECTRICAL PLAN

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

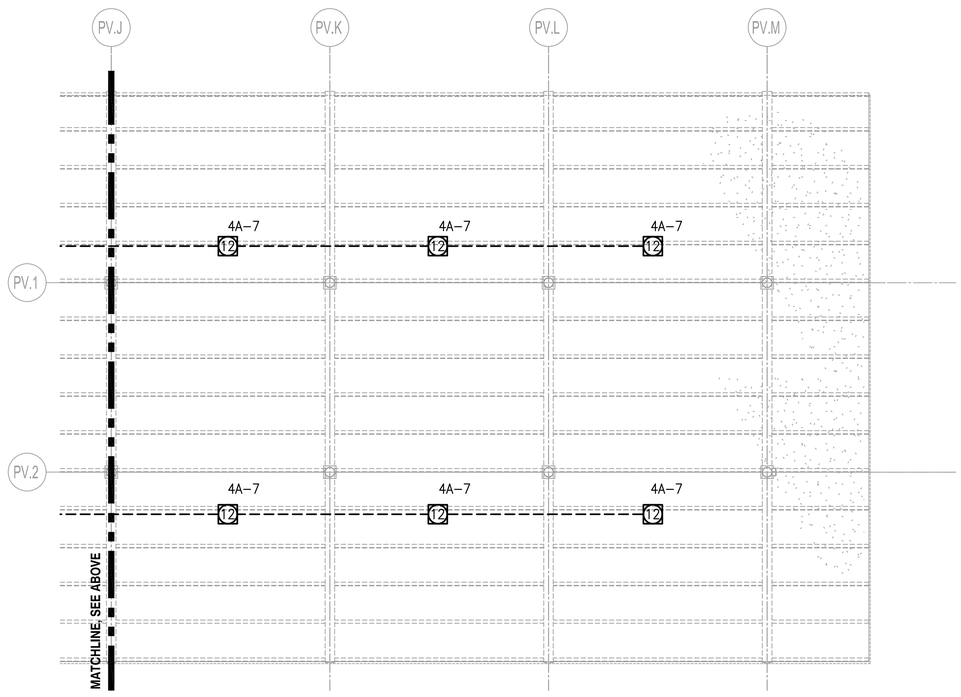
JOB NUMBER
P10981

SHEET
E-501
250 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



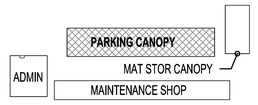
1 PARKING CANOPY LIGHTING PLAN - 1
SCALE: 1/8" = 1'-0"



2 PARKING CANOPY LIGHTING PLAN - 2
SCALE: 1/8" = 1'-0"

ALL WORK ON THIS SHEET IS BID OPTION 2 UNLESS OTHERWISE NOTED

KEY PLAN - PARKING CANOPY (NTS)



PLAN NORTH

GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

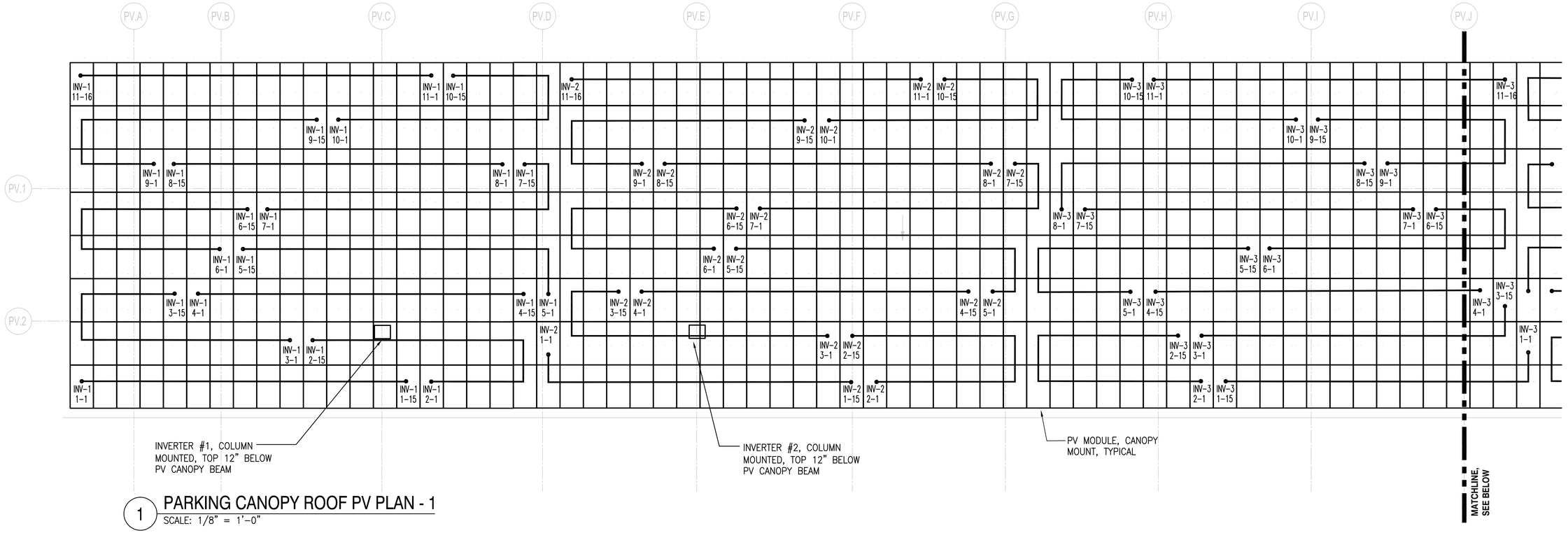
SHEET TITLE
PARKING CANOPY - LIGHTING PLAN

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

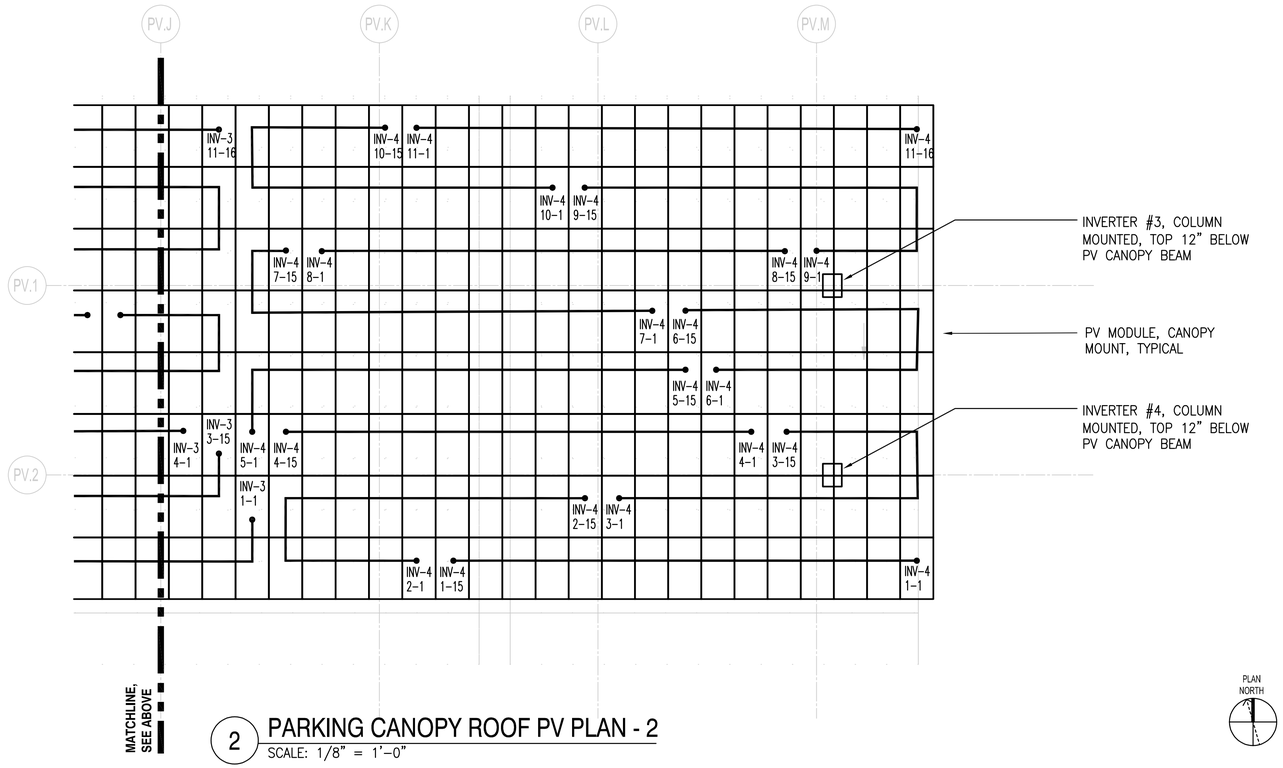
JOB NUMBER
P10981

SHEET
E-502
251 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



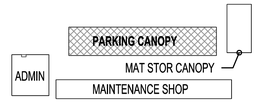
1 PARKING CANOPY ROOF PV PLAN - 1
SCALE: 1/8" = 1'-0"



2 PARKING CANOPY ROOF PV PLAN - 2
SCALE: 1/8" = 1'-0"

ALL WORK ON THIS SHEET IS BID OPTION 2 UNLESS OTHERWISE NOTED

KEY PLAN - PARKING CANOPY (NTS)



PLAN NORTH

GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

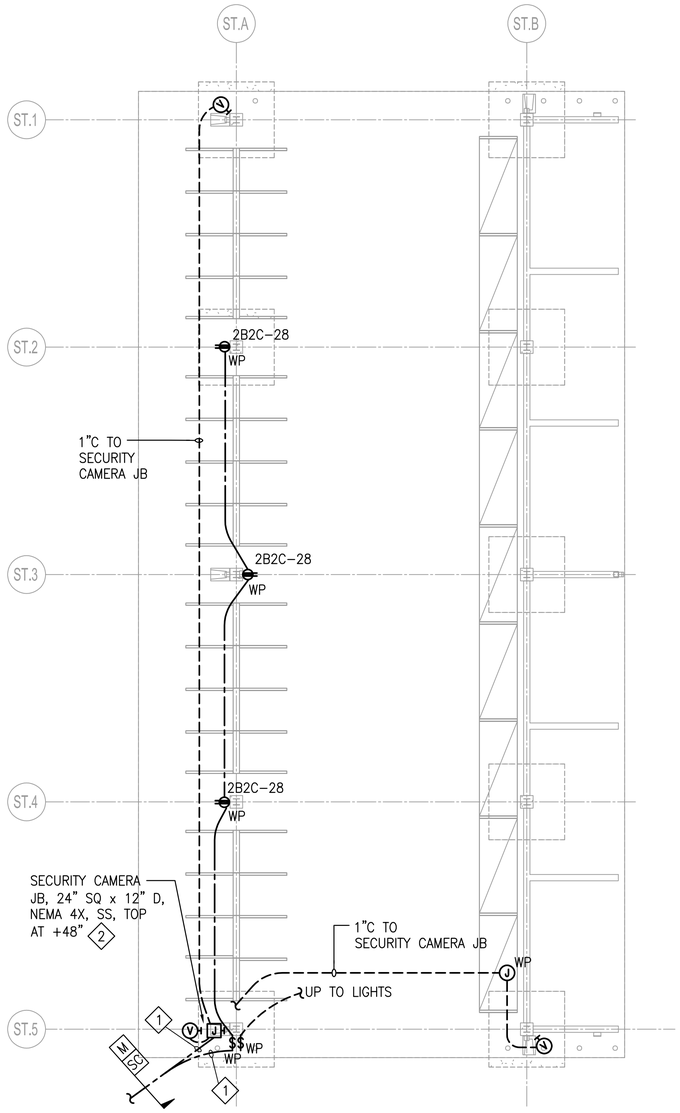
SHEET TITLE
PARKING CANOPY - ROOF PV PLAN

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

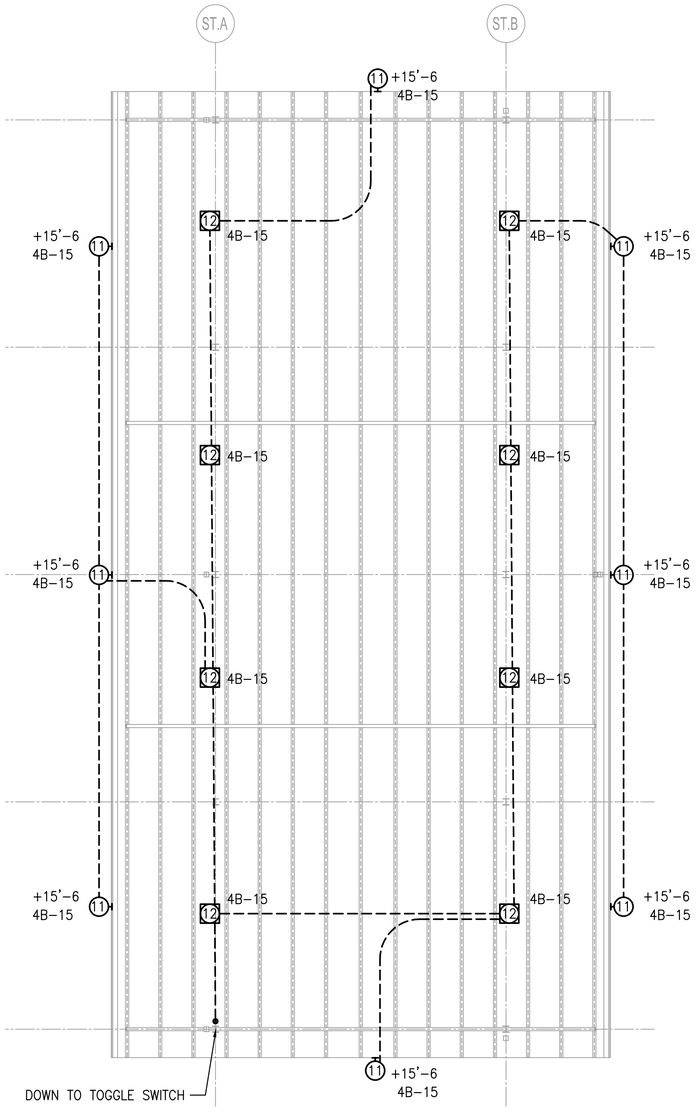
JOB NUMBER
P10981

SHEET
E-503
252 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 MATERIALS STORAGE CANOPY - POWER PLAN
SCALE: 1/8" = 1'-0"

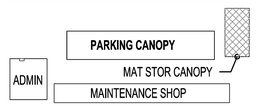


2 MATERIALS STORAGE CANOPY - LIGHTING PLAN
SCALE: 1/8" = 1'-0"

NOTES:

1. RUN CONDUITS BELOW NEW FOOTING. CONDUITS SHALL NOT RUN HORIZONTALLY THROUGH THE FOOTING. TOP OF FOOTING APPROXIMATELY 1'-0" TO 1'-4" BELOW GRADE, 2'-0" THICK, FOR ADDITIONAL DETAIL SEE STRUCTURAL DRAWINGS.
2. SUPPORTS BY PRE-ENGINEERED BUILDING MANUFACTURER.

KEY PLAN - MATERIALS STORAGE CANOPY (NTS)



PLAN NORTH

GRAPHIC SCALE

5' 0 5' 10' 15' 20' 25'

1/8" = 1'-0"

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MATERIALS STORAGE CANOPY - ELECTRICAL PLANS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-504
253 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

7 1 1/2"C, 3#2, 1#8 GND

7 1 1/2"C, 3#2, 1#8 GND

2–1"C, COMMUNICATION WIRING TERMINATED IN BESS C–CAB 6

STUB TO LOCATION OF PV EQUIPMENT UNDER BASE BID TO PANEL 2A1– 27,29,31, AUXILARY POWER FOR BESS HVAC SYSTEM, TERMINATED IN C–CAB 6

2"C, 3#1, 1#6 GND, CONDUCTORS TO BE VERIFIED PER MANUFACTURER 6

2"C COMMUNICATION WITH PULLSTRING TO IDF IN ADMINISTRATION TELECOM ROOM

12" SQUARE x 6" DEEP NEMA 4X, SS COMM JUNCTION BOX ON PV EQUIPMENT, SEE E–701 FOR DETAIL

1"C, COMMUNICATION WIRING

6 BESS 50KW/203KWH 480Y/277V

6 FACTORY WIRING, TYPICAL

3P100A BESS DISCONNECT SWITCH EXTERIOR OF ELECTRICAL ROOM, NEMA 4X, SS

3P100A

3P400A

4"C, 4–500 KCMIL 1#1/0 GND 7

3P400A PV DISCONNECT SWITCH EXTERIOR OF ELECTRICAL ROOM, NEMA 4X, SS

4"C, 4–500 KCMIL, 1#1/0 GND 7

STUB TO LOCATION OF PV EQUIPMENT UNDER BASE BID

STUB TO LOCATION OF PV EQUIPMENT UNDER BASE BID

1 5 M

1"C, COMMUNICATION WIRING 4

1 1/2"C, 3#2, 1#6 GND 4

INVERTER INV–1

INVERTER INV–2

INVERTER INV–3

INVERTER INV–4

2 5 3 5

3P100A

3P400A

PANEL PV 5

1 1/2"C, 3#1/0, 1#6 GND 4 5

1"C, #2/0 GND 5

3/4"C, 2#10, 1#6 GND 5

MAINTENANCE SHOP

3P450A

(2) 4"C, 4–250 KCMIL, 1#1/0 GND

TYPE 2 SPD WITH DISCONNECT SWITCH

3P400A

3P225A

2 1/2"C, 4#4/0, 1#4 GND

PANEL 4B

TYPE 2 SPD WITH DISCONNECT SWITCH

DRY TRANSFORMER B 225 KVA, 480V TO 208/120V, 3ø, 4W

3P350A

4"C, 3–500 KCMIL, 1#1/0 GND

1"C, #2/0 GND

(2) 4"C, 4–350 KCMIL, 1#2/0 GND

3P600A

3P200A

2 1/2"C, 4#3/0, 1#6 GND

PANEL 2B2A

PANEL 2B2B

PANEL 2B2C

PANEL 2B2D

PANEL 2B2E

PANEL 2DPB

4"C, 4–500 KCMIL, 1#1/0 GND

PANEL 4DPB

1"C, #1/0 GND

PORTABLE GENERATOR TAP BOX 1000A, 480/277V, 3ø, 4W WITH GROUND, 35 KAIC BREAKERS, NEMA 3R STAINLESS STEEL TYPE 316 ENCLOSURE

3 SETS OF 400A MALE CAM–LOCK CONNECTORS FOR PORTABLE GENERATOR CONNECTION

1 M

3P1000A

MECHANICALLY INTERLOCKED

3P1000A

(3) 4"C, 4–500 KCMIL 1#2/0 GND

(3)4"C, 4–500 KCMIL 1#2/0 GND

DISTRIBUTION SWITCHBOARD 480/277V, 3ø, 4W 1200A BUS, 65 KAIC

DRY TRANSFORMER A 225 KVA, 480V TO 208/120V, 3ø, 4W

3P250A

4"C, 3–250 KCMIL, 1#1/0 GND

1"C, #1/0 GND

(2) 3"C, 4#4/0, 1#1/0 GND

3P450A

3P100A

PANEL 4A

2"C, 4#2, 1#6 GND

3P100A

3P300A

3"C, 4#350 KCMIL, 1#2 GND

PANEL 2A1

3P150A

2"C, 4#1/0, 1#6 GND

PANEL 2A2

3P60A

1 1/4"C, 4#6, 1#8 GND

PANEL 2T

PANEL 2DPA

3P1000A

STUBUP 2–4"C AT JP 5/23

HECO METER SOCKET 13 JAW WITH TEST BYPASS

M CTS BY HECO

METERING SWITCHBOARD 480/277V, 3ø, 4W 1200A BUS, 65 KAIC

N G

1"C, #2/0 GND

HECO PAD MOUNTED TRANSFORMER, 480/277V, 3ø, 4W SECONDARY

2–4"C WITH MULETAPE

(3)4"C, 4–500 KCMIL 1#2/0 GND

ADMINISTRATION BUILDING

AST/FUEL CANOPY

2"C, 4#2, 1#6 GND

8" SQUARE WIREWAY, NEMA 4X, STAINLESS STEEL

3/4"C, #6 GND

1 1/2"C, 4#4, 1#6 GND

1 1/4"C, 4#6, 1#8 GND

3P80A BREAKER NEMA 4X STAINLESS STEEL, 22 kAIC

3P60A BREAKER NEMA 4X STAINLESS STEEL, 22 kAIC

3P60A DOUBLE–THROW SWITCH, NEMA 4X, STAINLESS STEEL

PANEL 2F

1 1/2"C, 4#4, 1#6 GND

1 1/4"C, 4#6, 1#8 GND

1 1/4"C, 4#6, 1#8 GND

WASH RACK 62.1A, 208V, 3ø

60A, 4P5W PIN AND SLEEVE RECEPTACLE

NOTES:

1. CUSTOMER METER CAPABLE OF RECORDING HOURLY, DAILY, MONTHLY AND ANNUAL ENERGY USE, POWER AND POWER FACTOR. ALL METER DATA TO BE STORED FOR AT LEAST 36 MONTHS. DATA MUST BE REMOTELY ACCESSIBLE.
2. 62KW INVERTER, WITH INTEGRAL AC AND DC DISCONNECTS.
3. 166 PV MODULES, 485W.
4. BID OPTION 1
5. BID OPTION 2
6. BID OPTION 4
7. CONDUIT PROVIDED UNDER BASE BID, CONDUCTORS PROVIDED UNDER BID OPTION 2

1 ONE LINE DIAGRAM
NO SCALE

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-26

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

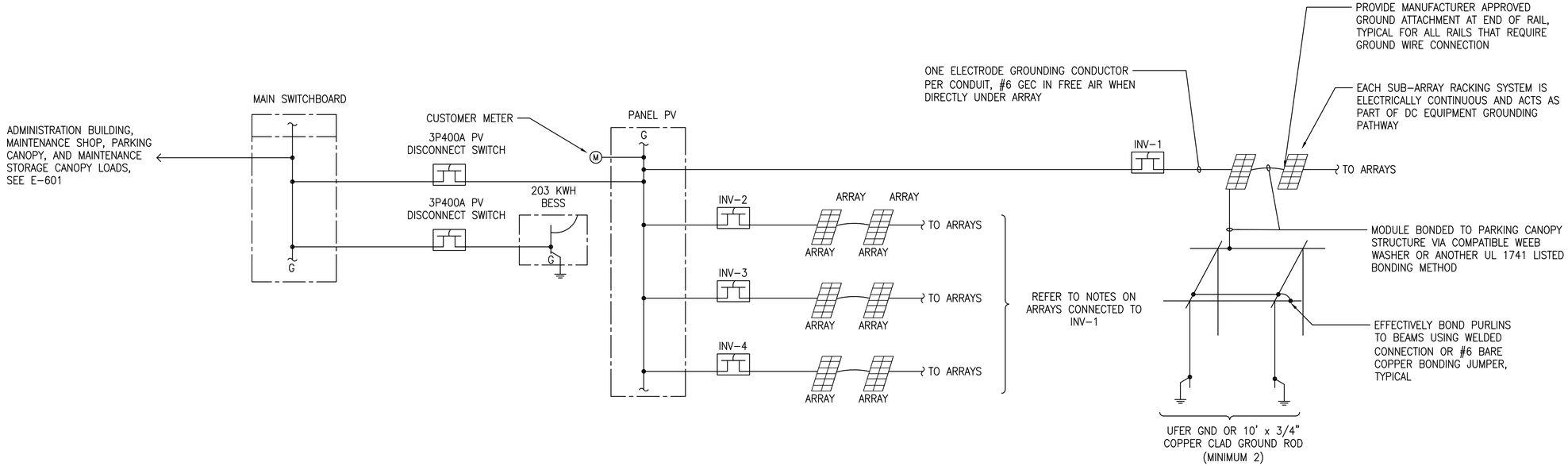
SHEET TITLE
ONE-LINE DIAGRAM

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

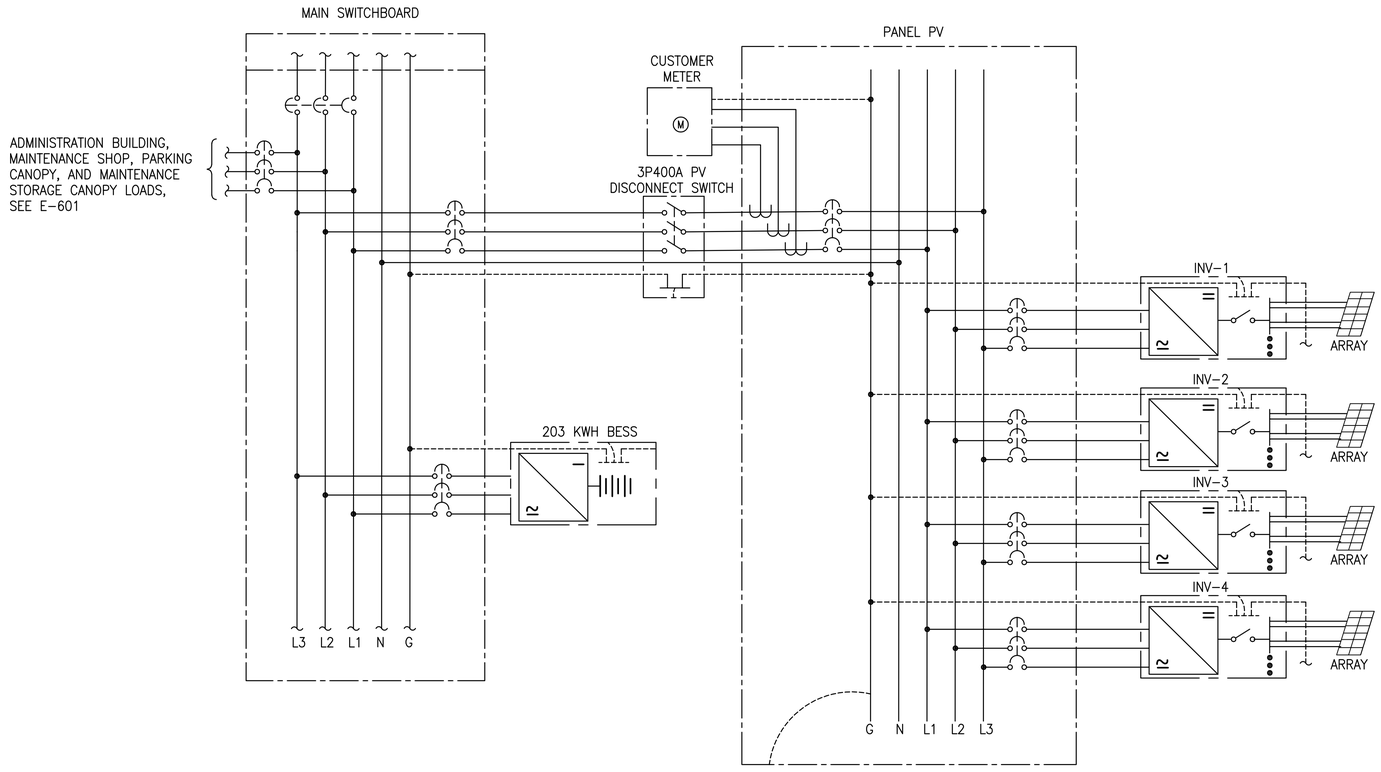
JOB NUMBER
P10981

SHEET
E-601
254 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 PV/BESS GROUNDING RISER DIAGRAM
NO SCALE



2 PV/BESS THREE-LINE DIAGRAM
NO SCALE

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

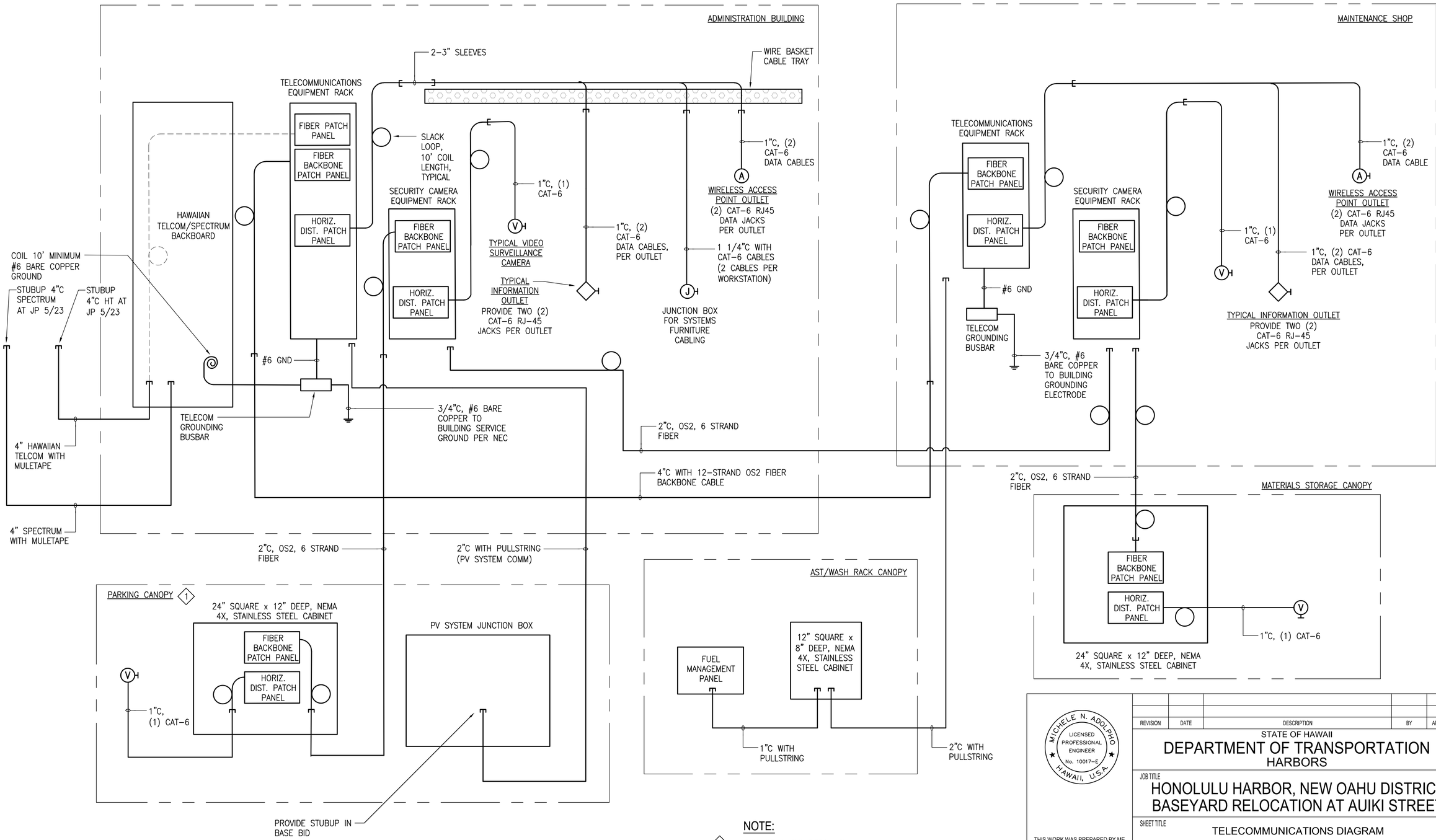
SHEET TITLE
PV/BESS GROUNDING RISER DIAGRAM AND THREE-LINE DIAGRAM

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-602
--- OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 TELECOMMUNICATIONS DIAGRAM
SCALE: NONE

NOTE:
1 PROVIDE IN BID OPTION 2.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

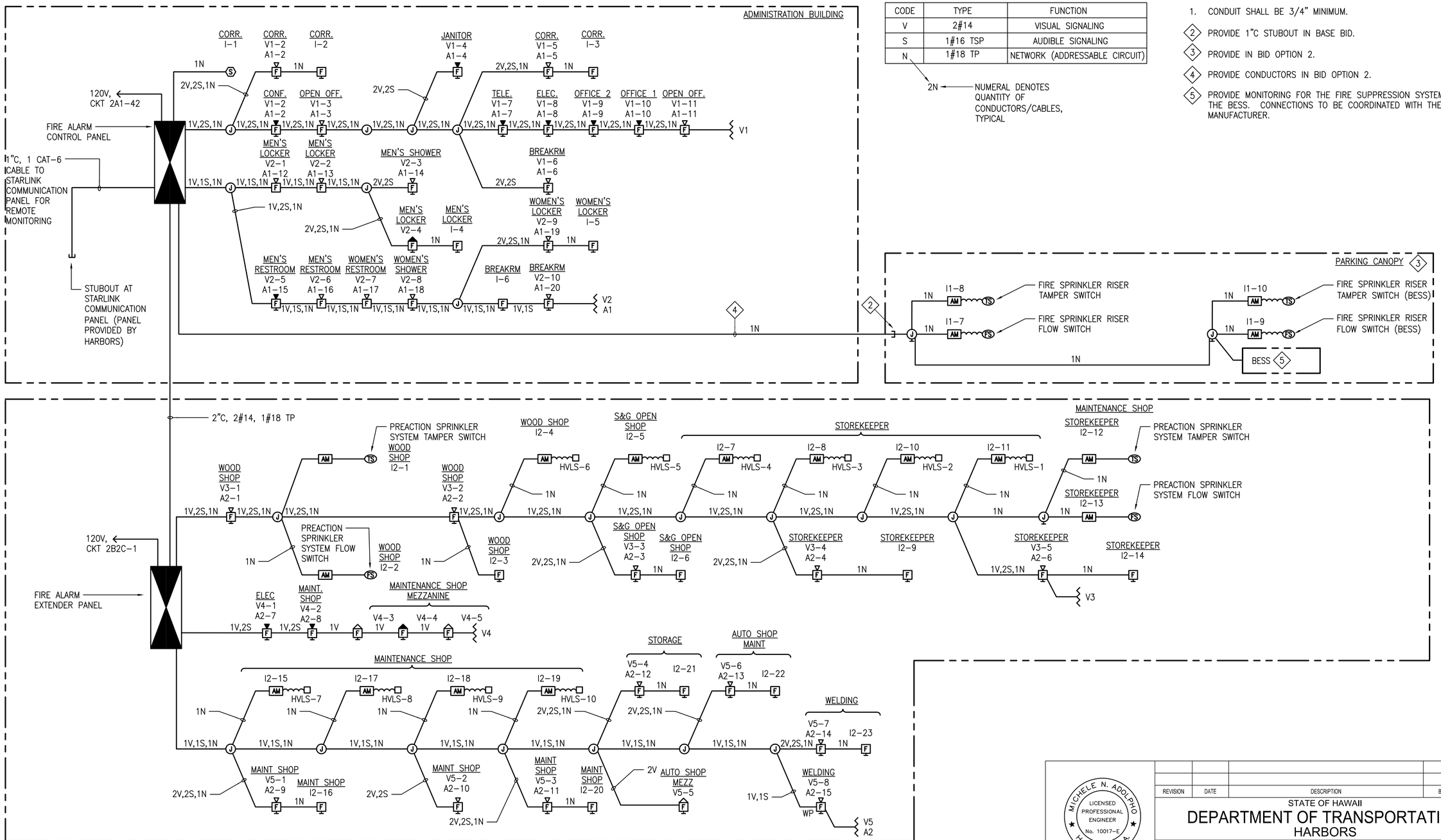
SHEET TITLE
TELECOMMUNICATIONS DIAGRAM

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-603
256 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



FIRE ALARM CONDUCTOR CODE

CODE	TYPE	FUNCTION
V	2#14	VISUAL SIGNALING
S	1#16 TSP	AUDIBLE SIGNALING
N	1#18 TP	NETWORK (ADDRESSABLE CIRCUIT)

2N — NUMERAL DENOTES QUANTITY OF CONDUCTORS/CABLES, TYPICAL

NOTES:

1. CONDUIT SHALL BE 3/4" MINIMUM.
2. PROVIDE 1"C STUBOUT IN BASE BID.
3. PROVIDE IN BID OPTION 2.
4. PROVIDE CONDUCTORS IN BID OPTION 2.
5. PROVIDE MONITORING FOR THE FIRE SUPPRESSION SYSTEM OF THE BESS. CONNECTIONS TO BE COORDINATED WITH THE BESS MANUFACTURER.

1 / E-604 FIRE ALARM DIAGRAM
NO SCALE

MICHELE N. ADOLPHO — LICENSED PROFESSIONAL ENGINEER — No. 10017-E — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

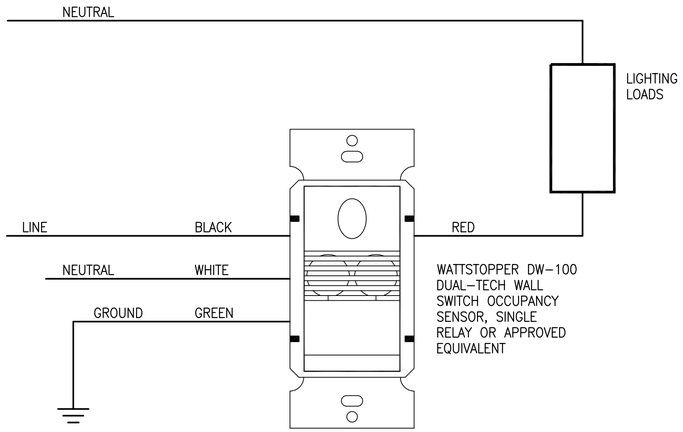
SHEET TITLE
FIRE ALARM DIAGRAM

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

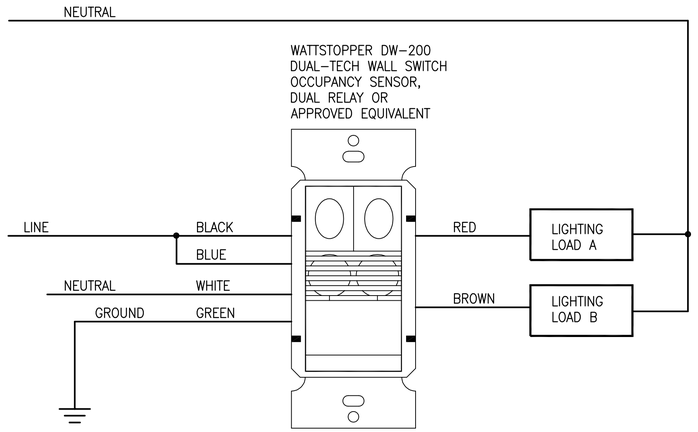
JOB NUMBER
P10981

SHEET
E-604
257 OF 273 SHTS.

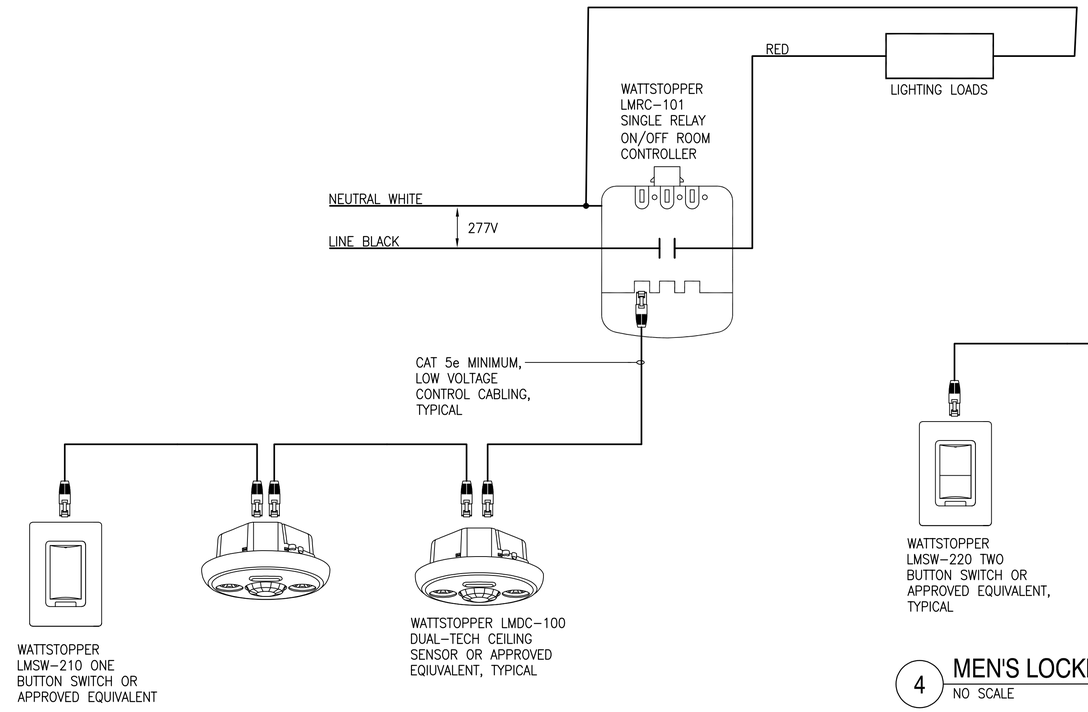
100% SUBMITTAL - SEPTEMBER 2026



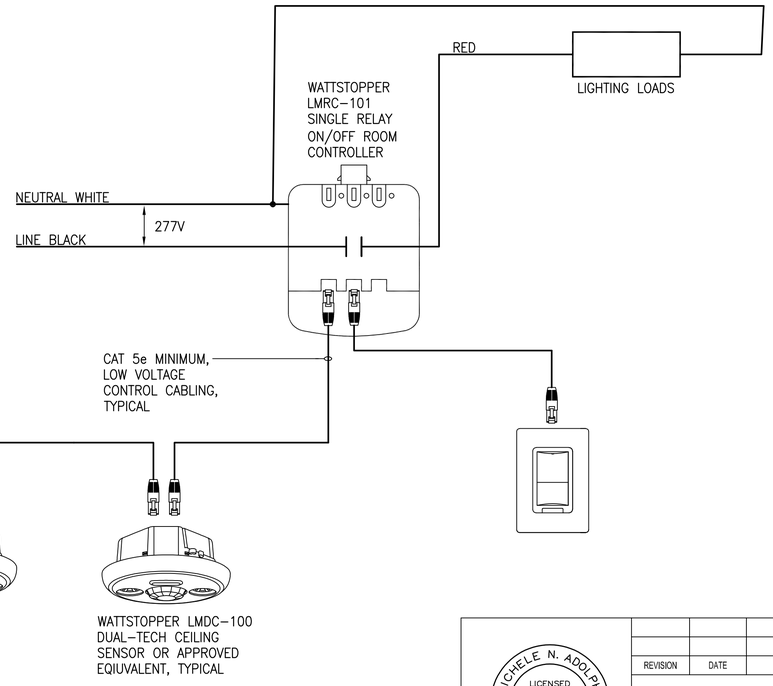
1 SELF-CONTAINED OCCUPANCY SENSOR/WALL SWITCH CONTROL SCHEMATIC
NO SCALE
(JANITOR, VESTIBULES)



2 SELF-CONTAINED OCCUPANCY SENSOR/WALL SWITCH CONTROL SCHEMATIC
NO SCALE
(PRIVATE OFFICES)



3 TYPICAL RESTROOM LIGHTING CONTROL SCHEMATIC
NO SCALE
(WOMEN'S LOCKER ROOM SIMILAR)



4 MEN'S LOCKER ROOM LIGHTING CONTROL SCHEMATIC
NO SCALE

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

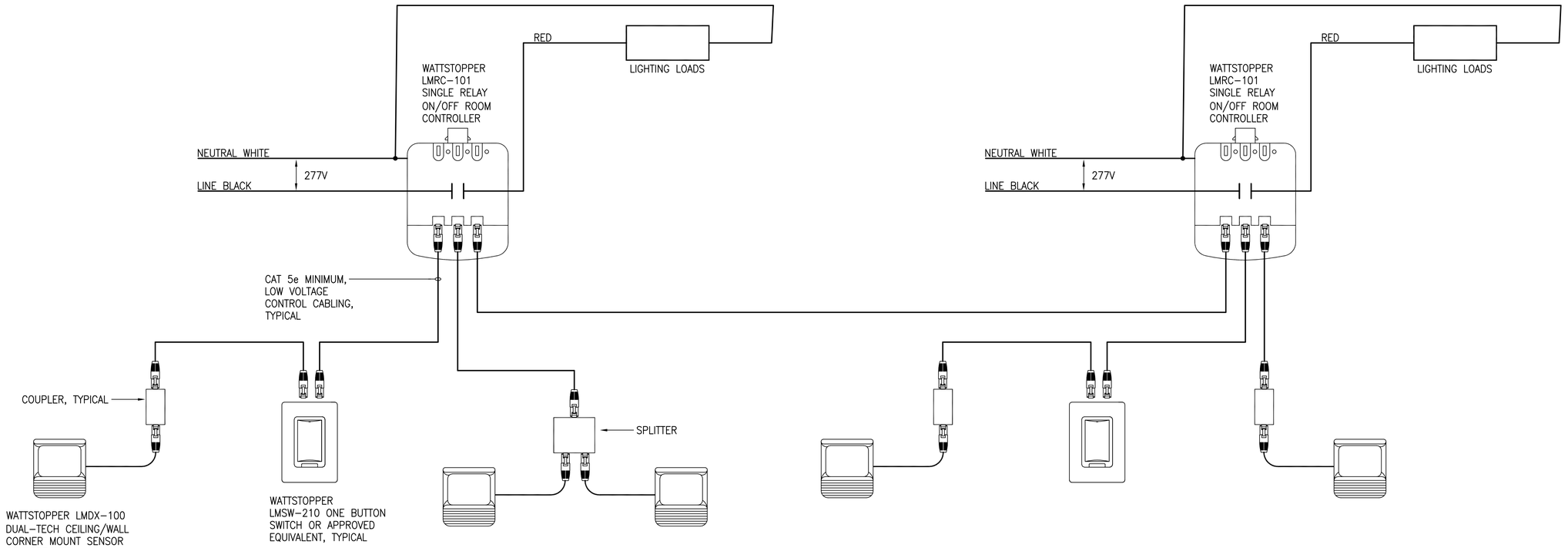
SHEET TITLE
LIGHTING CONTROL SCHEMATIC DIAGRAMS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

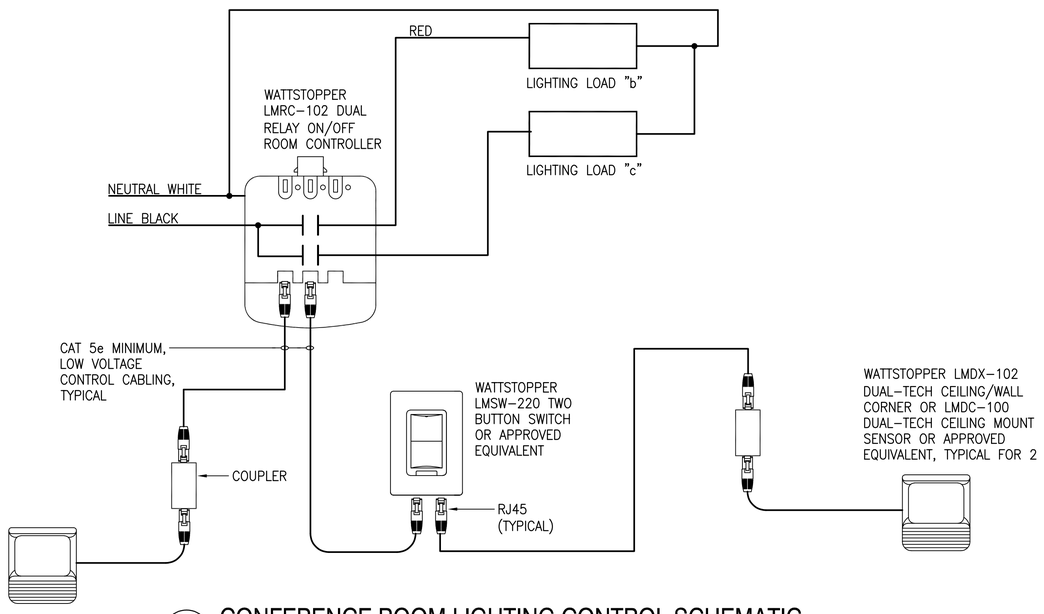
JOB NUMBER
P10981

SHEET
E-605
258 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 ADMIN BLDG LOBBYCORRIDOR LIGHTING CONTROL SCHEMATIC
NO SCALE



2 CONFERENCE ROOM LIGHTING CONTROL SCHEMATIC
NO SCALE

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
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REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

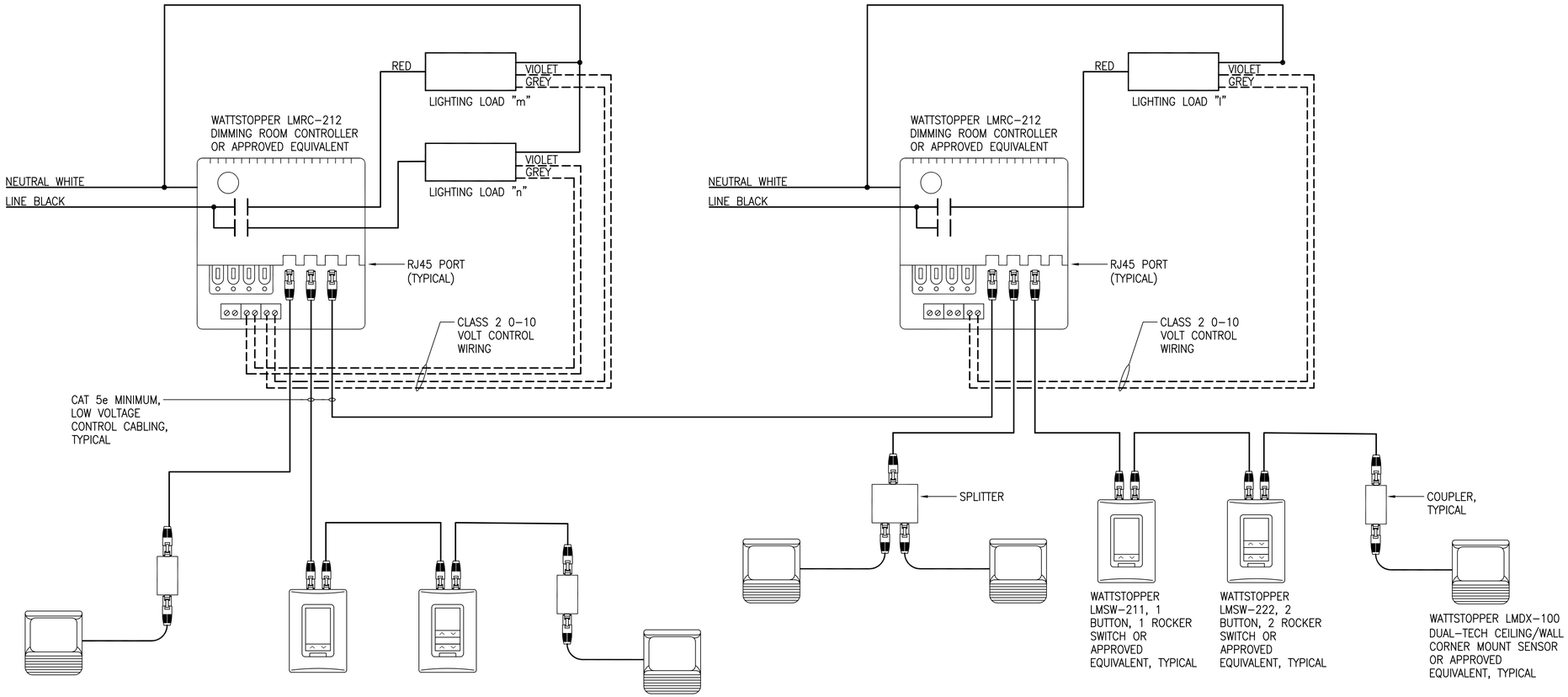
SHEET TITLE
LIGHTING CONTROL SCHEMATIC DIAGRAMS

DESIGNED BY:	ADMUC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-606
259 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026



1 BREAK ROOM LIGHTING CONTROL SCHEMATIC
NO SCALE

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

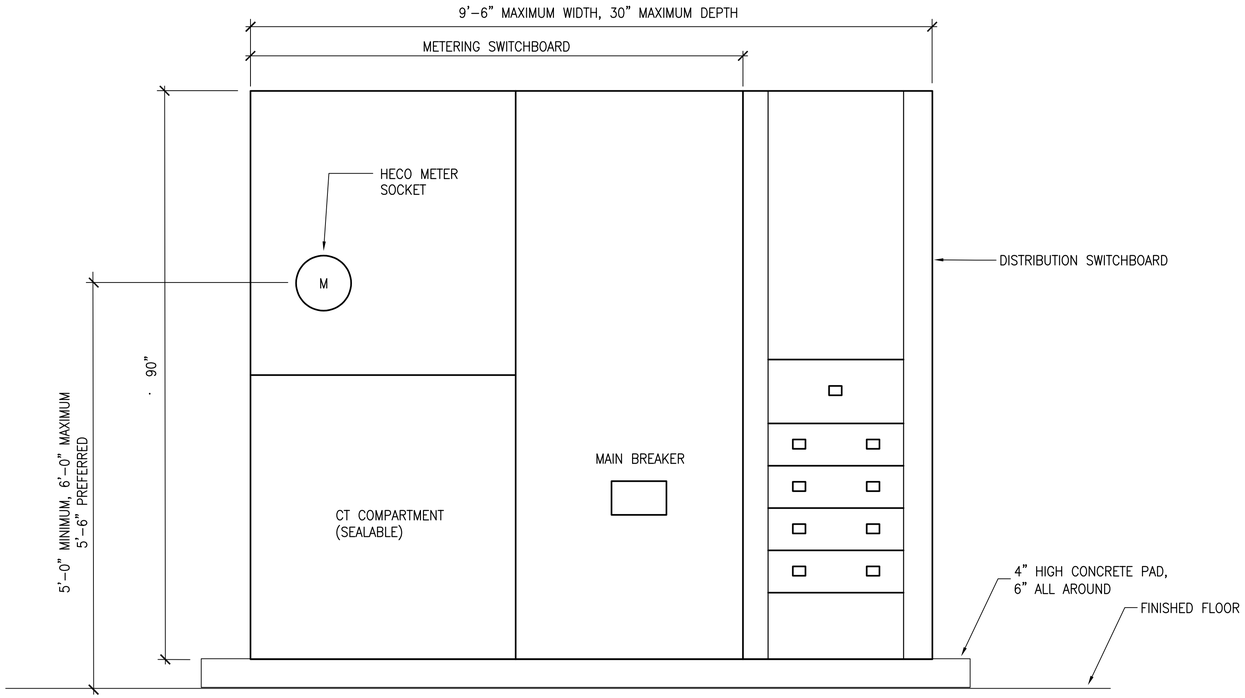
SHEET TITLE
LIGHTING CONTROL SCHEMATIC DIAGRAMS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

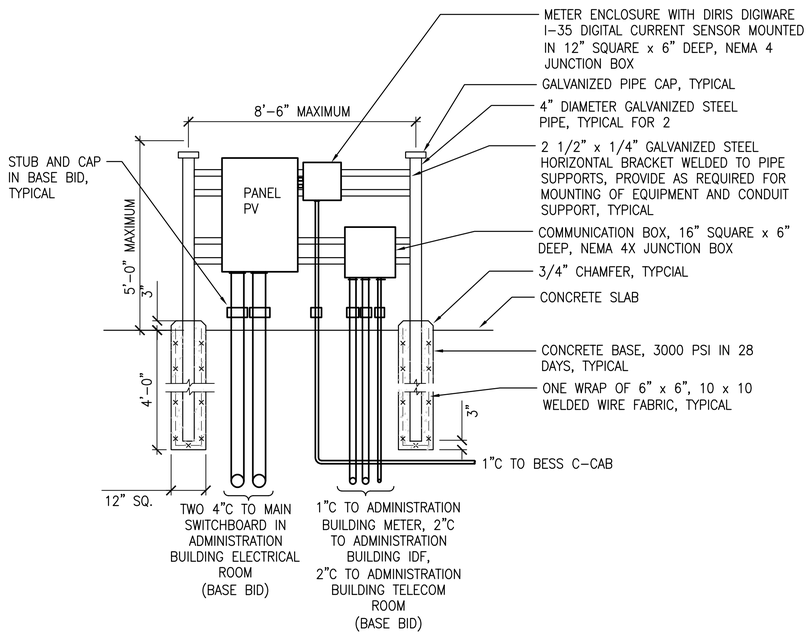
JOB NUMBER
P10981

SHEET
E-607
260 OF 273 SHTS.

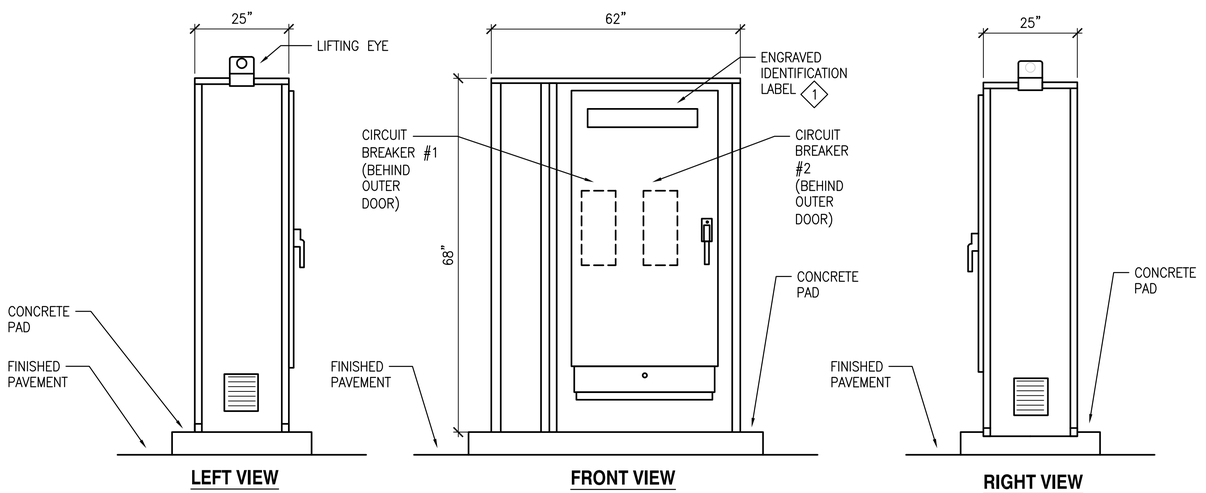
100% SUBMITTAL - SEPTEMBER 2026



1 SWITCHBOARD ELEVATION
NOT TO SCALE



2 PV CANOPY EQUIPMENT ELEVATION - BID OPTION 4
NOT TO SCALE



3 MANUAL TRANSFER SWITCH ELEVATION
NOT TO SCALE

IDENTIFICATION LABEL NOTE:

1 IDENTIFICATION LABEL TO READ:
"PORTABLE GENERATOR PANEL
480Y/277V, 3PH, 4W
NON-SEPARATELY DERIVED"

NOTES:

1. COMPLETE ASSEMBLY SHALL BE U.L. LISTED AS A MANUAL TRANSFER SWITCH PER U.L. 1008, AND THE ENCLOSURE SHALL BE NEMA 3R, STAINLESS STEEL TYPE 316.
2. THE OUTER DOOR SHALL INCLUDE NON-ADJUSTABLE QUICK RELEASE LATCHES REQUIRING NO TOOLS TO OPEN THE ENCLOSURE.
3. THE DROP DOWN HINGED WIRE OPENING COVERS SHALL INCLUDE CAPTIVE QUARTER-TURN LATCHES ALLOWING ACCESS WITHOUT TOOLS.
4. A PADLOCK HASP SHALL BE PROVIDED FOR THE OUTER DOOR.
5. BREAKER 1 IS THE NORMAL/UTILITY POWER BREAKER. BREAKER 2 IS THE PORTABLE GENERATOR BREAKER.
6. BREAKERS 1 AND 2 SHALL BE MECHANICALLY INTERLOCKED TO PREVENT BOTH BREAKERS FROM BEING CLOSED AT THE SAME TIME.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

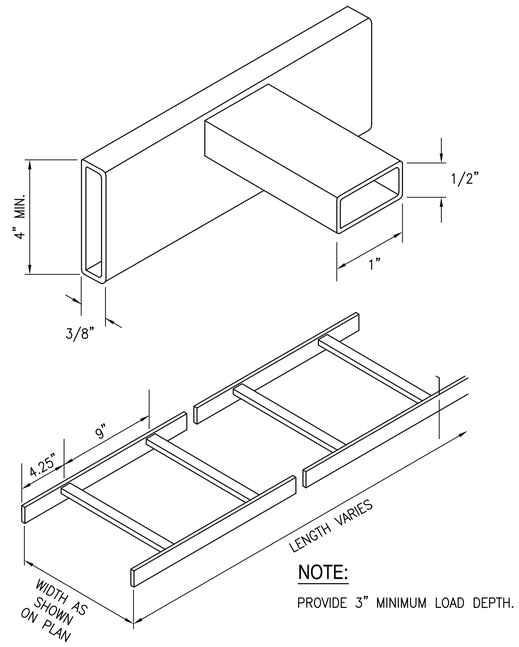
SHEET TITLE
ELECTRICAL DETAILS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-701
261 OF 273 SHTS.

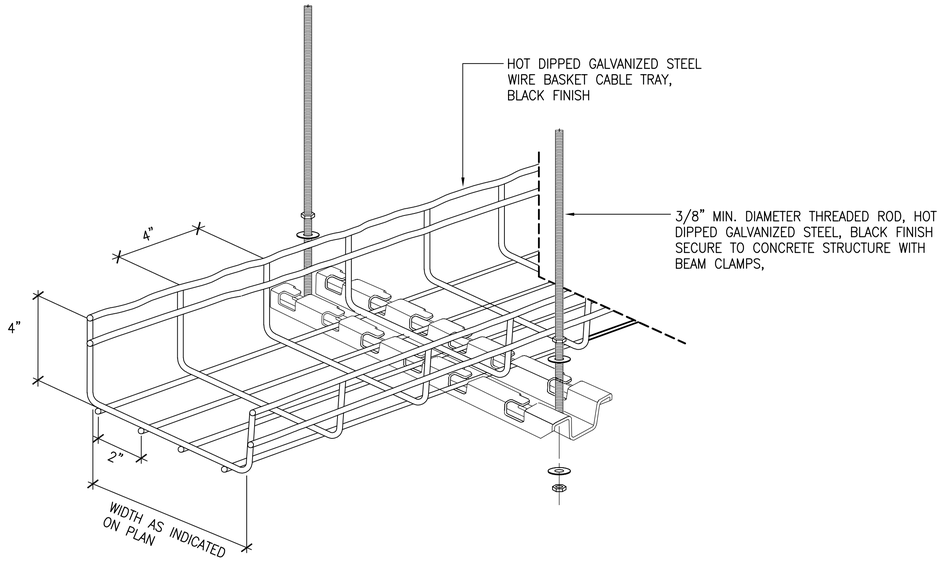
100% SUBMITTAL - SEPTEMBER 2026



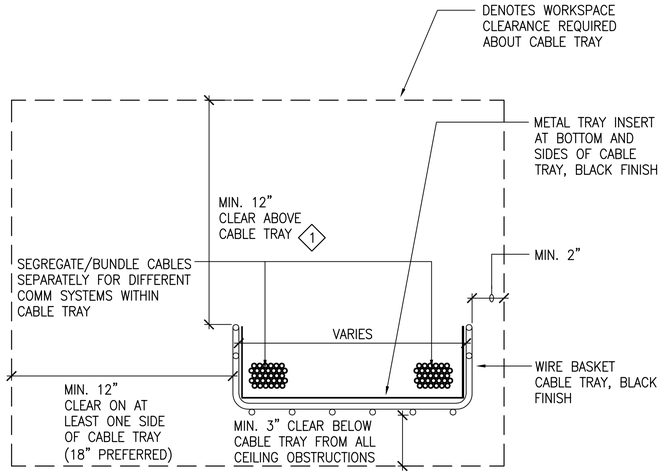
NOTE:

PROVIDE 3" MINIMUM LOAD DEPTH.

1 TYPICAL CABLE RUNWAY
NOT TO SCALE



3 CELING SUSPENDED WIRE BASKET CABLE TRAY SUPPORT
NOT TO SCALE



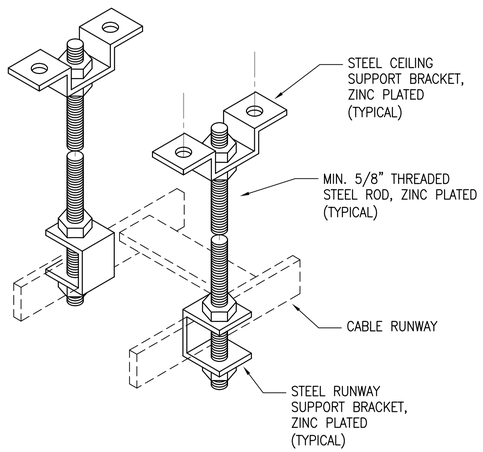
NOTE:

1 MINIMUM WORKSPACE CLEARANCE CAN BE REDUCED TO 6-INCHES MIN. AT SELECTED LOCATIONS TO ALLOW FOR UTILITY CROSSINGS SO LONG AS THE WIDTH OF THE UTIILTY CROSSINGS ARE MINIMIZED AND ARE NO LONGER THAN 4-FEET IN LENGTH.

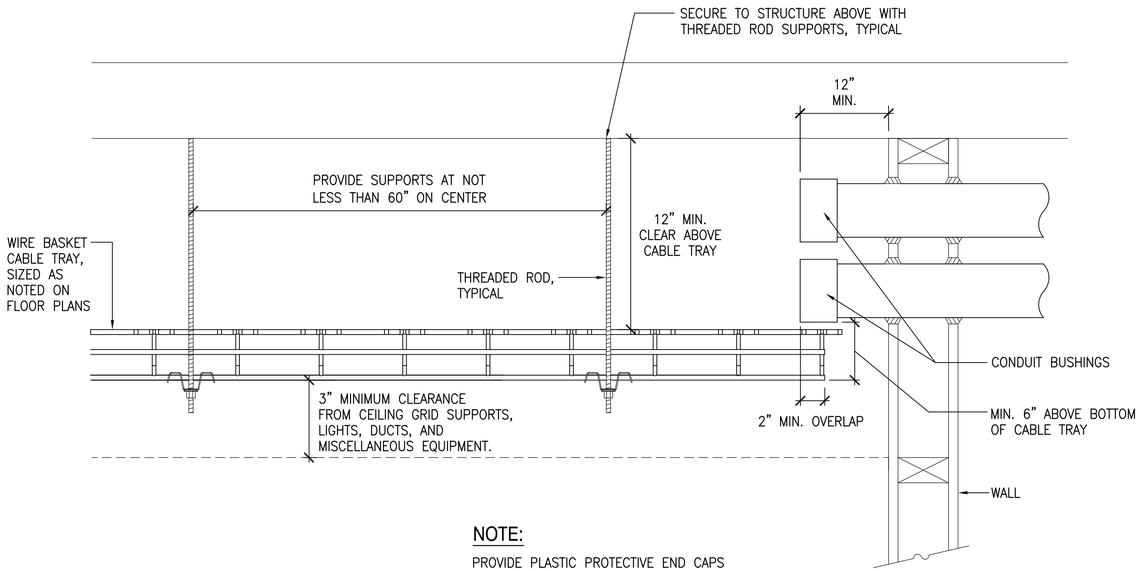
5 WIRE BASKET TRAY CLEARANCES
NOT TO SCALE

NOTE:

PROVIDE NO. 2 AWG BARE COPPER WIRE THROUGHOUT THE CABLE TRAY/CABLE RUNWAY SYSTEM AND BOND TO EACH SECTION. ADJACENT CABLE TRAY/CABLE RUNWAY SECTIONS SHALL BE BONDED TOGETHER BY CONNECTOR PLATES OF AN IDENTICAL TYPE AS THE CABLE TRAY SECTIONS.



2 CABLE RUNWAY SUPPORT
NOT TO SCALE



NOTE:

PROVIDE PLASTIC PROTECTIVE END CAPS ON CABLE TRAYS

4 CABLE TRAY/CONDUIT WALL PENETRATION
NOT TO SCALE

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

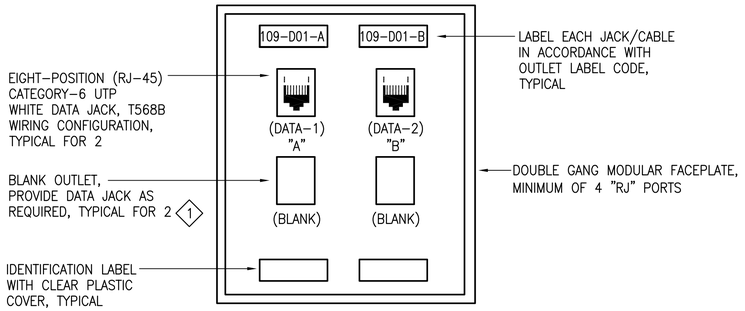
SHEET TITLE
TELECOMMUNICATION DETAILS - 1

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-702
262 OF 273 SHTS.

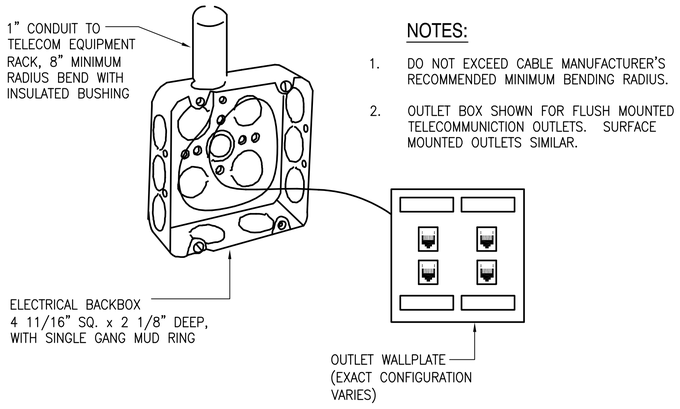
100% SUBMITTAL - SEPTEMBER 2026



NOTE:

1 THREE OR FOUR JACKS REQUIRED FOR SYSTEMS FURNITURE. PROVIDE DATA JACKS AND LABEL APPROPRIATELY.

1 TYPICAL TELECOMMUNICATIONS OUTLET
NOT TO SCALE



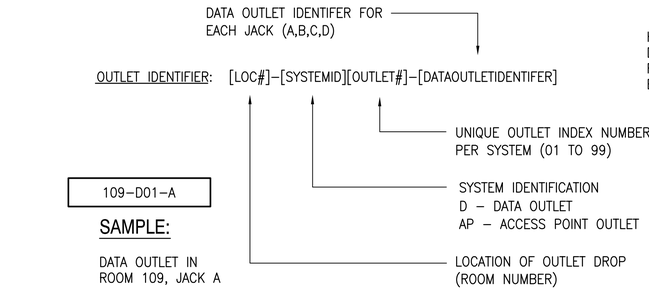
NOTES:

1. DO NOT EXCEED CABLE MANUFACTURER'S RECOMMENDED MINIMUM BENDING RADIUS.
2. OUTLET BOX SHOWN FOR FLUSH MOUNTED TELECOMMUNICTION OUTLETS. SURFACE MOUNTED OUTLETS SIMILAR.

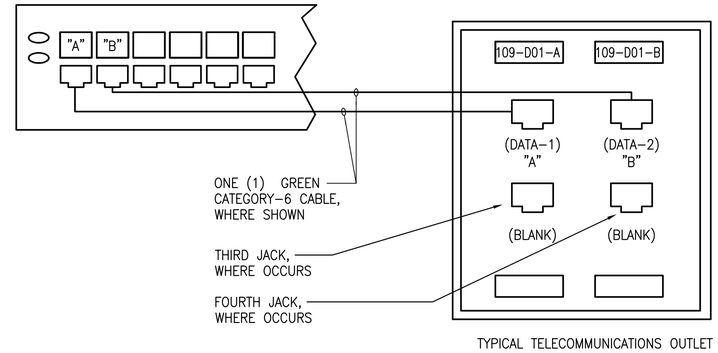
NOTE:

FLUSH MOUNTED OUTLET BOX SHOWN. SURFACE MOUNTED OUTLET BOX SIMILAR.

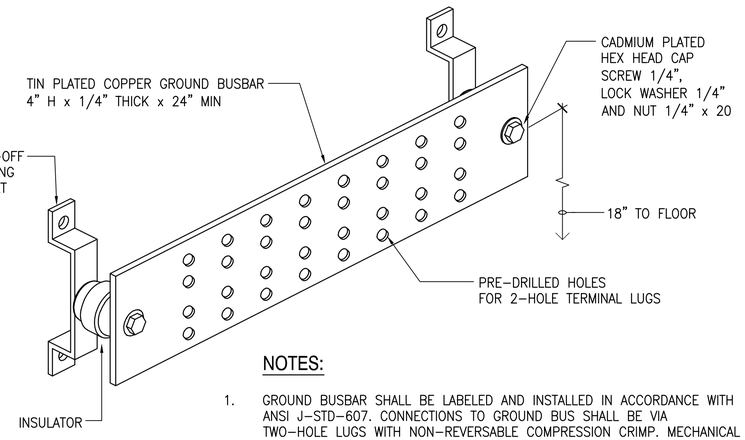
4 TYPICAL TELECOMMUNICATIONS OUTLET BOX
NOT TO SCALE



2 TELECOMMUNICATIONS OUTLET LABELING SCHEME
NO SCALE



3 TYPICAL TELECOMMUNICATIONS OUTLET WIRING DIAGRAM
NOT TO SCALE



NOTES:

1. GROUND BUSBAR SHALL BE LABELED AND INSTALLED IN ACCORDANCE WITH ANSI J-STD-607. CONNECTIONS TO GROUND BUS SHALL BE VIA TWO-HOLE LUGS WITH NON-REVERSABLE COMPRESSION CRIMP. MECHANICAL LUG CONNECTIONS SHALL NOT BE USED.
2. PROVIDE #6 COPPER GROUND CONDUCTOR CONNECTION TO BUILDING ELECTRICAL SERVICE GROUND.
3. PROVIDE, AT A MINIMUM, A #6 COPPER GROUND CONNECTION TO TELECOM EQUIPMENT RACK.

5 TELECOMMUNICATIONS GROUNDING BUSBAR
NOT TO SCALE

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

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COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

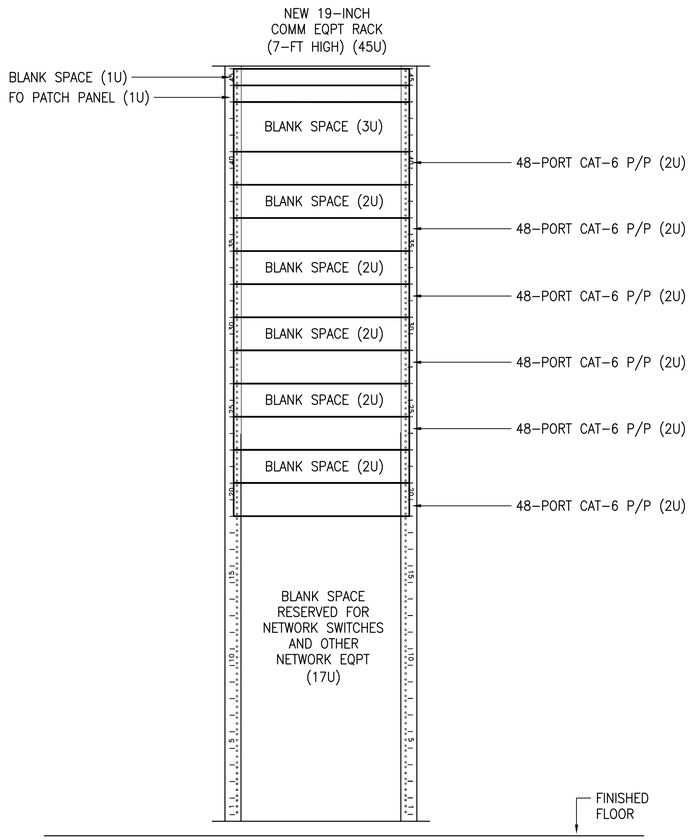
SHEET TITLE
TELECOMMUNICATION DETAILS - 2

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

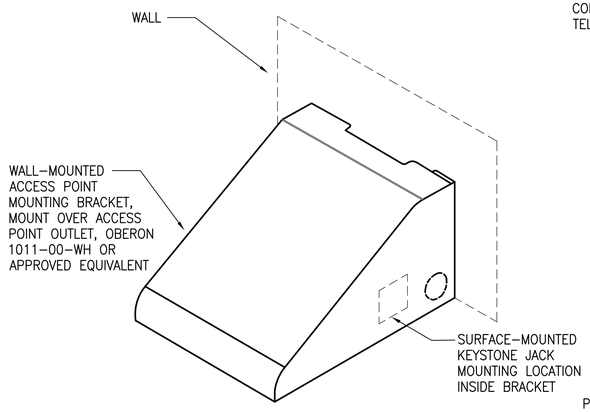
JOB NUMBER
P10981

SHEET
E-703
263 OF 273 SHTS.

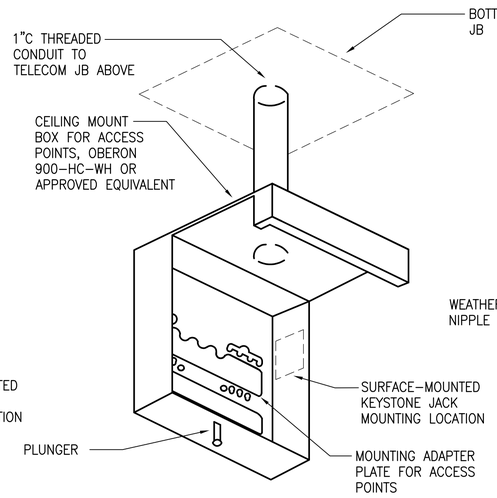
100% SUBMITTAL - SEPTEMBER 2026



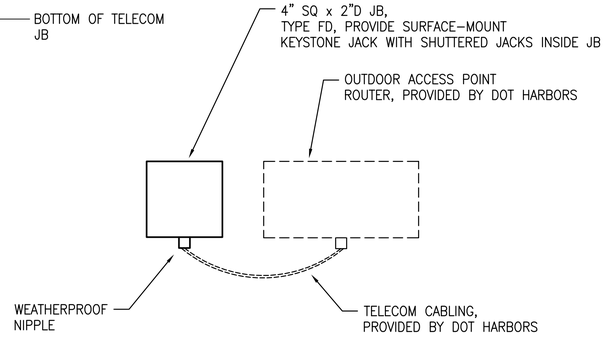
1 TYPICAL TELECOMMUNICATIONS EQUIPMENT RACK
NOT TO SCALE



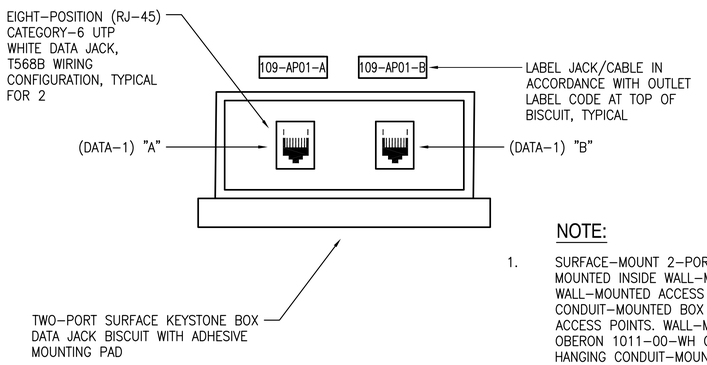
WALL-MOUNTED ACCESS POINT



HANGING CONDUIT-MOUNTED ACCESS POINT



OUTDOOR ACCESS POINT



NOTE:

1. SURFACE-MOUNT 2-PORT KEYSTONE JACK TO BE MOUNTED INSIDE WALL-MOUNTED BRACKET FOR WALL-MOUNTED ACCESS POINTS OR HANGING CONDUIT-MOUNTED BOX FOR CEILING-MOUNTED ACCESS POINTS. WALL-MOUNTED BRACKET: OBERON 1011-00-WH OR APPROVED EQUIVALENT
HANGING CONDUIT-MOUNTED BOX: OBERON-900-HC-WH OR APPROVED EQUIVALENT

SURFACE MOUNT BOX 2-PORT KEYSTONE JACK

2 WIRELESS ACCESS POINT DETAILS
NOT TO SCALE

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

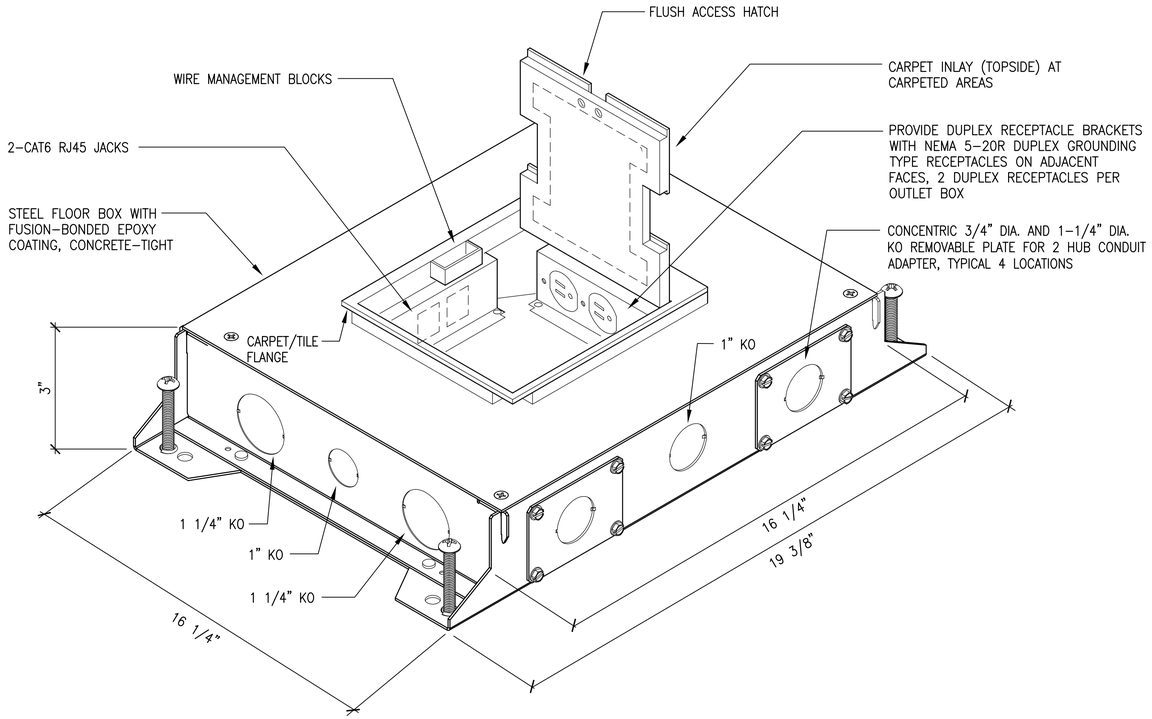
SHEET TITLE
TELECOMMUNICATION DETAILS - 3

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

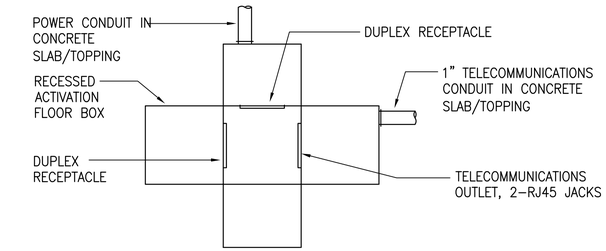
JOB NUMBER
P10981

SHEET
E-704
264 OF 273 SHTS.

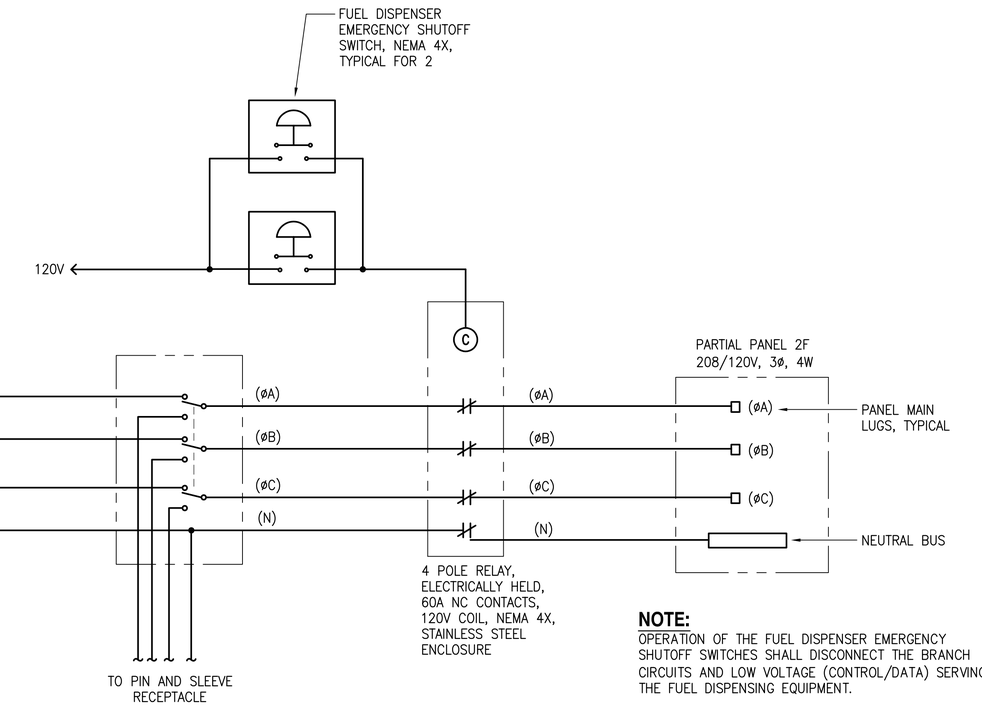
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1 COMBINATION POWER/DATA FLOOR OUTLET
NOT TO SCALE

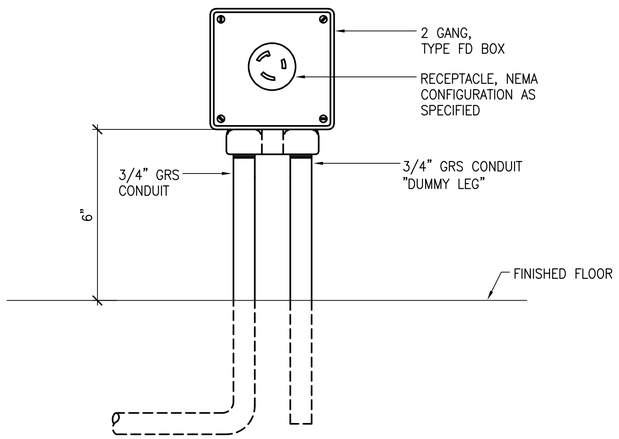


2 TYPICAL FLOOR OUTLET CONDUIT ROUTING
NOT TO SCALE

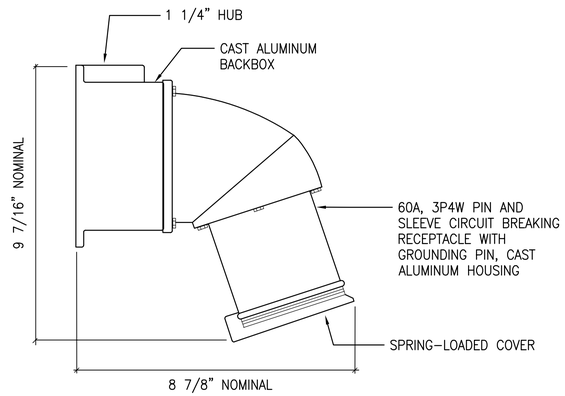


NOTE:
OPERATION OF THE FUEL DISPENSER EMERGENCY SHUTOFF SWITCHES SHALL DISCONNECT THE BRANCH CIRCUITS AND LOW VOLTAGE (CONTROL/DATA) SERVING THE FUEL DISPENSING EQUIPMENT.

5 FUEL DISPENSER EMERGENCY SHUTOFF CONTROL DIAGRAM
NO SCALE



3 CONDUIT MOUNTED RECEPTACLE
NOT TO SCALE



4 PIN AND SLEEVE RECEPTACLE
NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY	APPROVED

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

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EXP 4-30-28

COFFMAN ENGINEERS, INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
MISCELLANEOUS ELECTRICAL DETAILS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-705
265 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

PANEL 4A

480/277 VOLTS, 3 PHASE, 4 WIRE
100A MAIN LUGS
MIN AIC: 35,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1	L-100,101,101EC/TC,102,103,104	1	20	1.6 | 1.0			20	1	L-100 MS/MR/ML/WS/WR/WL	2	12
12	3	L-EXTERIOR	1	20		1.0 | 1.5		20	1	L-BREAKROOM, JANITOR	4	12
12	5	L-OFFICE 1 AND OFFICE 2	1	20			1.5 | 1.0	20	1	SPARE	6	–
12	7	L-PARKING CANOPY	1	20	2.0 | 1.0			20	1	SPARE	8	–
–	9	SPARE	1	20		1.0 | 1.0		20	1	SPARE	10	–
–	11	SPARE	1	20			1.0 | 1.0	20	1	SPARE	12	–
–	13	PFB	1	–	– | –			–	1	PFB	14	–
–	15	PFB	1	–		– | –		–	1	PFB	16	–
–	17	PFB	1	–			– | –	–	1	PFB	18	–
–	19	PFB	1	–	– | –			–	1	PFB	20	–
–	21	PFB	1	–		– | –		–	1	PFB	22	–
–	23	PFB	1	–			– | –	–	1	PFB	24	–
		CONNECTED LOAD/PHASE			5.6	4.5	4.5					
		TOTAL CONNECTED LOAD			14.6 KVA							
		DEMAND FACTOR			0.7							
		TOTAL DEMAND LOAD			10.2 KVA= 12.3 AMPS							

PANEL 2DPA

208/120 VOLTS, 3 PHASE, 4 WIRE
3P450 AMP MAIN BREAKER
30" MINIMUM WIDTH
MIN AIC: 42,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
4/0	1		3		30 | 16.5				3		2	1/0
4/0	3	PANEL 2A1				30 | 16.5				PANEL 2A2	4	1/0
4/0	5			300			30 | 16.5	150			6	1/0
6	7		3		3.6 | –			–	1	PFB	8	–
6	9	PANEL 2T				3.6 | –		–	1	PFB	10	–
6	11			60			3.6 | –	–	1	PFB	12	–
2	13		3		7.5 | –			–	1	PFB	14	–
2	15	AST/FUEL CANOPY				7.5 | –		–	1	PFB	16	–
2	17			100			7.5 | –	–	1	PFB	18	–
–	19	PFB	1	–	– | –			–	1	PFB	20	–
–	21	PFB	1	–		– | –		–	1	PFB	22	–
–	23	PFB	1	–			– | –	–	1	PFB	24	–
		CONNECTED LOAD/PHASE			57.6	57.6	57.6					
		TOTAL CONNECTED LOAD			172.8 KVA							
		DEMAND FACTOR			0.6							
		TOTAL DEMAND LOAD			103.7 KVA= 287.9 AMPS							

PANEL 2T

208/120 VOLTS, 3 PHASE, 4 WIRE
100A MAIN LUGS
MIN AIC: 22,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1	R-ELEC RM	1	20	1.2 | 1.2			20	1	R-TELE	2	12
12	3	R- TELECOM EQPT RACK	1	20		1.2 | 1.2		20	1	R-TELE (HAWAIIAN TELCOM)	4	12
12	5	R- TELECOM EQPT RACK	1	20			1.2 | 1.2	20	1	R- SECURITY CAMERA EQPT RACK	6	12
12	7	R-TELE	1	20	0.6 | 1.2			20	1	R- SPECTRUM	8	12
12	9	R- TELECOM EQPT RACK	1	20		1.2 | 0.6		20	1	SPARE	10	–
12	11	R- TELECOM EQPT RACK	1	20			1.2 | 0.6	20	1	SPARE	12	–
–	13	SPARE	1	20	0.6 | –			–	1	PFB	14	–
–	15	SPARE	1	20		0.6 | –		–	1	PFB	16	–
–	17	SPARE	1	20			0.6 | –	–	1	PFB	18	–
		CONNECTED LOAD/PHASE			4.8	4.8	4.8					
		TOTAL CONNECTED LOAD			14.4 KVA							
		DEMAND FACTOR			0.8							
		TOTAL DEMAND LOAD			11.6 KVA= 32.0 AMPS							

PANEL 2A1

208/120 VOLTS, 3 PHASE, 4 WIRE
400 AMP MAIN LUGS
MIN AIC: 22,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT POLE	CKT BKR AMP	CONN LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1	R-CONF 102	1	20	0.6 | 0.6			20	1	R-OPEN OFF 101	2	12
12	3	R-CONF 102	1	20		0.6 | 1.0		20	1	SHREDDER	4	12
12	5	R-CONF 102	1	20			0.4 | 0.6	20	1	R-OPEN OFF 101	6	12
12	7	R-CONF 102/MONITOR	1	20	0.6 | 1.2			20	1	XEROX	8	12
12	9	MODULAR FURNITURE	1	20		0.8 | 1.0		20	1	WORKSTATION RM 101	10	12
12	11	MODULAR FURNITURE	1	20			0.8 | 0.4	20	1	R-OPEN OFF 101	12	12
12	13	MODULAR FURNITURE	1	20	0.8 | 1.0			20	1	WORKSTATION RM 101	14	12
12	15	MODULAR FURNITURE	1	20		0.8 | 0.8		20	1	R-OPEN OFF 101	16	12
12	17	MODULAR FURNITURE	1	20			0.8 | 0.4	20	1	WORKSTATION RM 101	18	12
12	19	MODULAR FURNITURE	1	20	0.8 | 1.0			20	1	R-OPEN OFF 101	20	12
12	21	MODULAR FURNITURE	1	20		0.8 | 1.0		20	1	WORKSTATION RM 101	22	12
12	23	MODULAR FURNITURE	1	20			0.8 | 0.8	20	1	R-OPEN OFF 101	24	12
12	25	MODULAR FURNITURE	1	20	0.8 | 0.8			20	1	WORKSTATION RM 104	26	12
12	27		3			4.1 | 0.4		20	1	R-OFFICE 2	28	12
12	29	BESS AUXILIARY POWER					4.1 | 0.6	20	1	R-OFFICE 1 AND 2	30	12
12	31			20	4.1 | 0.4			20	1	R-OFFICE 1	32	12
2	33		3			8.8 | 1.0		20	1	WORKSTATION RM 103	34	12
2	35	ACCU 1-2					8.8 | 8.3		3		36	2
2	37			100	8.8 | 8.3					ACCU 1-1	38	2
12	39	R-CONF MONITOR	1	20		0.5 | 8.3		100			40	2
12	41	R-TELECOM	1	20			0.5 | 0.5	20	1	FIRE ALARM CONTROL PANEL	42	12
		CONNECTED LOAD/PHASE			29.8	29.9	27.8					
		TOTAL CONNECTED LOAD			87.5 KVA							
		DEMAND FACTOR			0.7							
		TOTAL DEMAND LOAD			70 KVA= 194.3 AMPS							

PANEL 2A2

208/120 VOLTS, 3 PHASE, 4 WIRE
225 AMP MAIN LUGS
MIN AIC: 22,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT POLE	CKT BKR AMP	CONN LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1	R-MEN LOCKER	1	20	0.4 | 1.0			20	1	MEN RESTROOM TOILET	2	12
12	3	R-MEN LOCKER	1	20		0.8 | 1.0		20	1	WOMEN RESTROOM TOILET	4	12
12	5	R-MEN LOCKER	1	20			0.4 | 1.0	20	1	URINAL AUTO-FLUSH	6	12
12	7	R-MEN/WOMEN	1	20	0.8 | 1.0			20	1	URINAL AUTO-FLUSH	8	12
12	9	R-MEN/WOMEN	1	20		0.8 | 4.6			2	IWH-1	10	6
12	11	R-MEN/WOMEN	1	20			0.6 | 4.6	60			12	6
12	13	R-JANITOR	1	20	0.4 | 1.0			20	1	EWC BREAKROOM	14	12
12	15	REFRIGERATOR-BREAKRM	1	20		0.7 | 1.0		20	1	EWC BREAKROOM	16	12
12	17	REFRIGERATOR-BREAKRM	1	20			0.7 | 0.4	20	1	R-BREAKROOM	18	12
12	19	REFRIGERATOR-BREAKRM	1	20	0.7 | 1.0			20	1	R-BREAKROOM	20	12
12	21	FCU-1-7,9	2			0.6 | 0.5		20	1	R-MONITOR	22	12
12	23			15			0.6 | 1.0	20	1	R-BREAKROOM	24	12
12	25	FCU 1-1,2,3,5,6	2		0.8 | 0.8			20	1	R-PARKING CANOPY GFCI	26	12
12	27			15		0.8 | 0.5		20	1	SPARE	28	12
2	29		3				4.3 | 0.7	20	1	R-COFFEE	30	12
2	31	EWH-1			4.3 | 0.6			20	1	R-BREAKROOM COUNTER	32	12
2	33			100		4.3 | 0.7		20	1	MICROWAVE	34	12
12	35	FCU 1-4,8,10	2				1.1 | 0.7	20	1	MICROWAVE	36	12
12	37			15	1.1 | 0.7				3		38	8
12	39	TWRP-1	1	20		0.7 | 0.7				EF-1-1	40	8
–	41	SPARE	1	20			0.5 | 0.7	30			42	8
		CONNECTED LOAD/PHASE			14.6	17.7	17.3					
		TOTAL CONNECTED LOAD			49.6 KVA							
		DEMAND FACTOR			0.7							
		TOTAL DEMAND LOAD			35 KVA= 97 AMPS							

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PANEL SCHEDULES

DESIGNED BY:	ADMUC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-801
266 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

PANEL 4DPB

480/277 VOLTS, 3 PHASE, 4 WIRE
3P400 AMP MAIN BREAKER
30" MINIMUM WIDTH
MIN AIC: 35,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
4/0	1		3		48.0 | 75.0				3		2	500
4/0	3	PANEL 4B				48.0 | 75.0				225 KVA TRANSFORMER	4	500
4/0	5			225			48.0 | 75.0	350			6	500
–	7	PFB	1	–	– –			–	1	PFB	8	–
–	9	PFB	1	–		– –		–	1	PFB	10	–
–	11	PFB	1	–			– –	–	1	PFB	12	–
–	13	PFB	1	–	– –			–	1	PFB	14	–
–	15	PFB	1	–		– –		–	1	PFB	16	–
–	17	PFB	1	–			– –	–	1	PFB	18	–
–	19	PFB	1	–	– –			–	1	PFB	20	–
–	21	PFB	1	–		– –		–	1	PFB	22	–
–	23	PFB	1	–			– –	–	1	PFB	24	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	123.0	123.0	123.0
TOTAL CONNECTED LOAD	369 KVA		
DEMAND FACTOR	0.7		
TOTAL DEMAND LOAD	258.3 KVA=	310.6 AMPS	

PANEL 4B

480/277 VOLTS, 3 PHASE, 4 WIRE
225 AMP MAIN LUGS
MIN AIC: 14,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
6	1		3		8.0 | 8.0				3		2	6
6	3	WELDER				8.0 | 8.0				WELDER	4	6
6	5			50			8.0 | 8.0	50			6	6
6	7		3		8.0 | 2.0			20	1	L-EWA LIGHTS	8	12
6	9	WELDER				8.0 | 2.0		20	1	L-EWA LIGHTS	10	12
6	11			50			8.0 | 13.0		3		12	2
12	13	L-DIAMOND HEAD LIGHTS	1	20	1.5 | 13.0					FORKLIFT CHARGER, LARGE	14	2
12	15	L-MATERIAL CANOPY	1	20		0.5 | 13.0		90			16	2
12	17	L-EXTERIOR NL	1	20			1.2 | 2.0	20	1	SPARE	18	–
6	19		3		8.0 –			–	1	PFB	20	–
6	21	OVERHEAD CRANE				8.0 –		–	1	PFB	22	–
6	23			50			8.0 –	–	1	PFB	24	–
–	25	PFB	1	–	– –			–	1	PFB	26	–
–	27	PFB	1	–		– –		–	1	PFB	28	–
–	29	PFB	1	–			– –	–	1	PFB	30	–
–	31	PFB	1	–	– –			–	1	PFB	32	–
–	33	PFB	1	–		– –		–	1	PFB	34	–
–	35	PFB	1	–			– –	–	1	PFB	36	–
–	37	PFB	1	–	– –			–	1	PFB	38	–
–	39	PFB	1	–		– –		–	1	PFB	40	–
–	41	PFB	1	–			– –	–	1	PFB	42	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	48.5	47.5	48.2
TOTAL CONNECTED LOAD	144.2 KVA		
DEMAND FACTOR	0.5		
TOTAL DEMAND LOAD	72.1 KVA=	86.7 AMPS	

PANEL 2B2A

208/120 VOLTS, 3 PHASE, 4 WIRE
225 AMP MAIN LUGS
MIN AIC: 10,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1		3		1.2 | 1.2			20	1	BAND SAW	2	10
12	3	BELT AND SAND DISC SANDER				1.2 | 1.7			2	STATIONARY CABINET SAW	4	10
12	5			20			1.2 | 1.7	15			6	10
12	7	STATIONARY CABINET SAW- DUST COLLECTOR	1	20	1.2 | 1.5			20	1	WET/DRY GRINDER	8	12
12	9	DRILL PRESS – WOOD	1	20		1.2 | 1.2		20	1	BENCH GRINDER – WOOD	10	12
12	11	RADIAL ARM SAW 10"	1	20			1.2 | 1.2	20	1	ROLLING MITER SAW	12	12
12	13	PLANAR	1	20	1.2 | 1.5			20	1	ROLLUP DOOR-WOOD SHOP	14	12
–	15	SPARE	1	20		0.5 | 0.5		20	1	SPARE	16	12
12	17	DRILL PRESS	1	20			1.2 | 0.5	20	1	SPARE	18	12
10	19		3		0.8 | 1.2			20	1	CORD REEL	20	12
10	21	DEWALT RADIAL ARM SAW 16"				0.8 | 1.2		20	1	CORD REEL	22	12
10	23			30			0.8 | 1.0	20	1	HVLS – CONTROLLER DH	24	12
12	25	R-WOOD SHOP	1	20	0.8 | 1.0			20	1	HVLS- CONTROLLER EWA	26	12
12	27	R-WOOD SHOP	1	20		0.8 –		–	1	PFB	28	–
12	29	R-WOOD SHOP	1	20			0.8 –	–	1	PFB	30	–
12	31	JOINTER	1	20	1.0 | 2.3				3		32	6
–	33	SPARE	1	20		0.5 | 2.3				ACCU-2-1	34	6
12	35	BAND SAW	1	20			1.2 | 2.3	60			36	6
–	37	SPARE	1	20	0.5 –			–	1	PFB	38	–
12	39	FCU-2-1	2			0.2 –		–	1	PFB	40	–
12	41			15			0.2 –	–	1	PFB	42	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	15.4	12.1	13.3
TOTAL CONNECTED LOAD	40.8 KVA		
DEMAND FACTOR	0.6		
TOTAL DEMAND LOAD	24.5 KVA=	68 AMPS	

PANEL 2DPB

208/120 VOLTS, 3 PHASE, 4 WIRE
3P600 AMP MAIN BREAKER
30" MINIMUM WIDTH
MIN AIC: 22,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
3/0	1		3		14 | 13				3		2	3/0
3/0	3	PANEL 2B2A				14 | 13				PANEL 2B2C	4	3/0
3/0	5			200			14 | 13	200			6	3/0
3/0	7		3		10 | 13				3		8	3/0
3/0	9	PANEL 2B2B				10 | 13				PANEL 2B2D	10	3/0
3/0	11			200			10 | 13	200			12	–
4/0	13		3		29 –			–	1	PFB	14	–
4/0	15	PANEL 2B2E				29 –		–	1	PFB	16	–
4/0	17			400			29 –	–	1	PFB	18	–
–	19	PFB	1	–	– –			–	1	PFB	20	–
–	21	PFB	1	–		– –		–	1	PFB	22	–
–	23	PFB	1	–			– –	–	1	PFB	24	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	79	79	79
TOTAL CONNECTED LOAD	229 KVA		
DEMAND FACTOR	0.7		
TOTAL DEMAND LOAD	160.3 KVA=	445 AMPS	

PANEL 2B2B

208/120 VOLTS, 3 PHASE, 4 WIRE
225 AMP MAIN LUGS
MIN AIC: 10,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1	STORE KEEPER	1	20	0.8 | 1.5			20	1	ROLLUP DOOR-STOREKEEPER	2	12
12	3	STORE KEEPER	1	20		0.6 | 1.5		20	1	ROLLUP DOOR-MAINT SHOP	4	12
12	5	STORE KEEPER	1	20			0.6 | 0.8	20	1	R-MAINT SHOP	6	12
12	7	STORE KEEPER	1	20	0.6 | 0.6			20	1	R-MAINT SHOP	8	12
12	9	STORE KEEPER	1	20		0.4 | 0.8		20	1	R-MAINT SHOP	10	12
12	11	STORE KEEPER	1	20			0.4 | 1.2	20	1	LATHE	12	12
12	13	CORD REEL	1	20	1.2 | 1.2			20	1	MITER SAW	14	12
12	15	CORD REEL	1	20		1.2 | 0.8		20	1	SPARE	16	–
12	17	CORD REEL	1	20			1.2 | 0.5	20	1	SPARE	18	–
12	19	R-MAINT SHOP	1	20	0.4 | 0.5			20	1	SPARE	20	–
12	21	R-MAINT SHOP	1	20		0.8 | 0.5		20	1	SPARE	22	–
12	23	R-STOR ROOM	1	20			0.8 | 0.5	20	1	SPARE	24	–
12	25	BENCH GRINDER- MAINTENANCE	1	30	1.2 | 0.5			20	1	SPARE	26	–
12	27	WATER JETTER	1	20		1.2 | 0.5		20	1	SPARE	28	–
–	29	SPARE	1	20			0.5 | 0.5	20	1	SPARE	30	–
–	31	PFB	1	20	– 0.5			20	1	SPARE	32	–
–	33	PFB	1	20		– –		–	1	PFB	34	–
–	35	PRB	1	20			– –	–	1	PFB	36	–
–	37	PFB	1	20	– –			–	1	PFB	38	–
–	39	PFB	1	20		– –		–	1	PFB	40	–
–	41	PFB	1	20			– –	–	1	PFB	42	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	9.0	8.3	7.0
TOTAL CONNECTED LOAD	24.3 KVA		
DEMAND FACTOR	0.7		
TOTAL DEMAND LOAD	17 KVA=	47.3 AMPS	

PANEL 2B2C

208/120 VOLTS, 3 PHASE, 4 WIRE
225 AMP MAIN LUGS
MIN AIC: 10,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1	FIRE ALARM EXTENDER PANEL	1	20	0.5 | 0.9			20	1	HVLS-4	2	12
–	3	SPARE	1	–		– | 0.9		20	1	HVLS-5	4	12
–	5	SPARE	1	–			– | 0.9	20	1	HVLS-6	6	12
12	7	HVLS-1	1	20	0.9 | 0.9			20	1	HVLS-9	8	12
12	9	HVLS-2	1	20		0.9 | 0.9		20	1	HVLS-10	10	12
12	11	HVLS-3	1	20			0.9 | 0.7		2	EF 2-2	12	12
12	13	HVLS-7	1	20	0.9 | 0.7			20			14	12
12	15	HVLS-8	1	20		0.9 | 0.4			2	EF 2-1	16	12
12	17	EF 2-3	2				0.4 | 0.4	15		18	12
12	19			15	0.4 | 1.4				2	ICE MACHINE	20	10
6	21		3			4.0 | 1.4		30			22	10
6	23	FORKLIFT CHARGER, SMALL					4.0 | 0.6	20	1	R-MAINT SHOP MEZZ	24	12
6	25			60	4.0 | 0.8			20	1	R-MAINT SHOP MEZZ	26	12
12	27	R-AUTO SHOP MEZZ	1	20		0.4 | 0.6		20	1	R-MATERIAL CANOPY GFCI	28	12
12	29	R-S+G STORAGE	1	20			0.6 | 1.2	20	1	R- COMM EQPT RACK	30	12
12	31	R-S+G STORAGE	1	20	0.6 | 1.2			20	1	R- COMM EQPT RACK	32	12
12	33	R-S+G STORAGE	1	20		0.6 | 1.2		20	1	R- SECURITY CAMERA EQPT RACK	34	12
12	35	SAO DISPENSER	1	20			0.5 | 0.5	20	1	SPARE	36	–
–	37	PFB	1	20	– –			20	1	PFB	38	–
–	39	PFB	1	20		– –		20	1	PFB	40	–
–	41	PFB	1	20			– –	20	1	PFB	42	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	13.2	12.2	10.7
TOTAL CONNECTED LOAD	36.1 KVA		
DEMAND FACTOR	0.8		
TOTAL DEMAND LOAD	28.9 KVA=	80.2 AMPS	

NOTES:

PANEL 2B2D

208/120 VOLTS, 3 PHASE, 4 WIRE
225 AMP MAIN LUGS
MIN AIC: 10,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
12	1	ROLLUP DOOR-AUTO	1	30	1.5 | 1.5			20	1	ROLLUP DOOR-STORAGE	2	12
–	3	SPARE	1	20		0.5 | 1.7			2	VEHICLE LIFT	4	12
12	5	RIM CLAMPER	1	20			1.2 | 1.7	20			6	12
6	7		3		4.0 –				1	SPARE	8	–
6	9	BENCH GRINDER- WELDING				4.0 | 0.8		20	1	R-WELDING	10	12
6	11			50			4.0 | 0.8	20	1	R-WELDING	12	12
12	13	DRILL PRESS-WELDING	2		1.4 | 1.0			20	1	R-WELDING	14	12
12	15			20		1.4 | 0.6		20	1	R- AUTO SHOP	16	12
12	17	WHEEL BALANCER	2				1.7 | 1.0	20	1	PARTS WASHER-AUTO	18	12
12	19			20	1.7 | 0.8			20	1	DRILL PRESS- AUTO	20	12
12	21	CHARGER	1	20		1.2 | 1.2		20	1	CHARGER	22	12
12	23	BAND SAW	1	20			0.5 | 0.5	20	1	SPARE	24	–
12	25	BENCH GRINDER- AUTO	2		1.7 –			–	1	PFB	26	–
12	27			20		1.7 –		–	1	PFB	28	–
–	29	PFB	1	–			– –	–	1	PFB	30	–
–	31	PFB	1	–	– –			–	1	PFB	32	–
–	33	PFB	1	–		– –		–	1	PFB	34	–
–	35	PFB	1	–			– –	–	1	PFB	36	–
–	37	PFB	1	–	– –			–	1	PFB	38	–
–	39	PFB	1	–		– –		–	1	PFB	40	–
–	41	PFB	1	–			– –	–	1	PFB	42	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	13.6	12.7	11.4
TOTAL CONNECTED LOAD	37.7 KVA		
DEMAND FACTOR	0.8		
TOTAL DEMAND LOAD	30 KVA=	83 AMPS	

PANEL 2B2E

208/120 VOLTS, 3 PHASE, 4 WIRE
400 AMP MAIN LUGS
MIN AIC: 10,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
–	1	EV CHARGING STATION (FUTURE)	2		3.6 | 3.6			40		EV CHARGING STATION (FUTURE)	2	–
–	3			40		3.6 | 3.6			2		4	–
–	5	EV CHARGING STATION (FUTURE)	2				3.6 | 3.6	40		EV CHARGING STATION (FUTURE)	6	–
–	7			40	3.6 | 3.6				2		8	–
–	9	EV CHARGING STATION (FUTURE)	2			3.6 | 3.6		40		EV CHARGING STATION (FUTURE)	10	–
–	11			40			3.6 | 3.6		2		12	–
–	13	EV CHARGING STATION (FUTURE)	2		3.6 | 3.6			40		EV CHARGING STATION (FUTURE)	14	–
–	15			40		3.6 | 3.6			2		16	–
–	17	EV CHARGING STATION (FUTURE)	2				3.6 | 3.6	40		EV CHARGING STATION (FUTURE)	18	–
–	19			40	3.6 | 3.6				2		20	–
–	21	EV CHARGING STATION (FUTURE)	2			3.6 | 3.6		40		EV CHARGING STATION (FUTURE)	22	–
–	23			40			3.6 | 3.6		2		24	–
–	25	PFB			– –			–	1	PFB	26	–
–	27	PFB				– –		–	1	PFB	28	–
–	29	PFB					– –	–	1	PFB	30	–
–	31	PFB			– –			–	1	PFB	32	–
–	33	PFB				– –		–	1	PFB	34	–
–	35	PFB					– –	–	1	PFB	36	–
–	37	PFB			– –			–	1	PFB	38	–
–	39	PFB				– –		–	1	PFB	40	–
–	41	PFB					– –	–	1	PFB	42	–

	PHASE A	PHASE B	PHASE C
CONNECTED LOAD/PHASE	28.8	28.8	2.8
TOTAL CONNECTED LOAD	86.4 KVA		
DEMAND FACTOR	1.0		
TOTAL DEMAND LOAD	86.4 KVA=	240 AMPS	

1 COORDINATE ELECTRICAL REQUIREMENTS OF FORKLIFT CHARGER WITH THE ACTUAL RATING OF THE CHARGER SUPPLIED.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PANEL SCHEDULES

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-802
267 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMPS
1	HIGH BAY, IP66 RATED, HIGH AMBIENT (65 DEGREE) RATED, WET LOCATION, CORROSION RESISTANT FINISH, LOW IRON TEMPERED IK08 IMPACT RATED GLASS LENS, 120 DEGREE OPTICS, 4" MAXIMUM, HOUSING DEPTH, STEM MOUNT, 277V, 0-10V DIMMING DRIVER GE ABR2-0-1-24-S-47-QQ-V-23-R OR APPROVED EQUIVALENT	STEM MOUNTED, BOTTOM AT +16-0"	LED, 178W, 23,000 NOMINAL LUMENS, 4000K
2	HIGH BAY, IP66 RATED, HIGH AMBIENT (65 DEGREE) RATED, WET LOCATION, CORROSION RESISTANT FINISH, LOW IRON TEMPERED IK08 IMPACT RATED GLASS LENS, 120 DEGREE OPTICS, 4" MAXIMUM, HOUSING DEPTH, STEM MOUNT, 277V, 0-10V DIMMING DRIVER GE ABR2-0-1-12-S-47-QQ-V-23-R OR APPROVED EQUIVALENT	STEM MOUNTED, BOTTOM AT +16-0"	LED, 75W, 12,000 NOMINAL LUMENS, 4000K
3	ENCLOSED AND GASKETED INDUSTRIAL, 4 FOOT LONG, FIBERGLASS HOUSING, RIBBED FROSTED, POLYCARBONATE LENS, WET LOCATION, EMERGENCY BATTERY WHERE INDICATED COLUMBIA LIGHTING LXEM4-40HL-RFP-E-XEDPM OR APPROVED EQUIVALENT	STEM MOUNTED, MOUNTING HEIGHT AS INDICATED	LED, 47W, 5719 NOMINAL LUMENS, 4000K
4	ENCLOSED AND GASKETED INDUSTRIAL, FIBERGLASS HOUSING, RIBBED FROSTED, POLYCARBONATE LENS, WET LOCATION, EMERGENCY BATTERY WHERE INDICATED COLUMBIA LIGHTING LXEM4-40HL-RFP-E OR APPROVED EQUIVALENT	SURFACE MOUNTED	LED, 47W, 5719 NOMINAL LUMENS, 4000K
5	4" SQUARE x 4'-0" LINEAR, FLUSH LENS, BATWING DISTRIBUTION, EXTRUDED ALUMINUM HOUSING, BLACK FINISH, AIRCRAFT CABLE MOUNT, 1250 LUMEN EMERGENCY BATTERY PACK WHERE INDICATED COLUMBIA LIGHTING #BPRO4-LIN-FLSH-LED4-MO-4'-YBK-BTW-SC-UNV-CA144"-DM01-EMHE OR APPROVED EQUIVALENT	SUSPENDED, MOUNTING HEIGHT +8'-0"	LED, 22.4W, 2880 NOMINAL LUMENS, 4000K
6	4" SQUARE x 4'-0" LINEAR, FLUSH LENS, BATWING DISTRIBUTION, EXTRUDED ALUMINUM HOUSING, BLACK FINISH, AIRCRAFT CABLE MOUNT, 1250 LUMEN EMERGENCY BATTERY PACK WHERE INDICATED COLUMBIA LIGHTING #BPRO4-LIN-FLSH-LED4-SO-4'-YBK-BTW-SC-UNV-CA144"-DM01-EMHE OR APPROVED EQUIVALENT	SUSPENDED, MOUNTING HEIGHT +8'-0"	LED, 44.8W, 4000 NOMINAL LUMENS, 4000K
7	8" WIDE x 4'-0" LONG WRAPAROUND, CODE-GAUGE STEEL HOUSING, PAINTED AFTER FABRICATION, PRISMATIC ACRYLIC LENS, DAMP LOCATION, 1400 LUMEN EMERGENCY BATTERY PACK WHERE INDICATED COLUMBIA LIGHTING #LAW-4-40-VW-E-U-ELL14 OR APPROVED EQUIVALENT	STEM MOUNTED, MOUNTING HEIGHT +8'-0"	LED, 27W, 3300 NOMINAL LUMENS, 4000K
8	1' x 4' PRISMATIC TROFFER, FROSTED ACRYLIC PATTERN #12, 0.125" THICK SHIELDING, FLAT WHITE ALUMINUM DOOR FRAME, 1,400 LUMEN EMERGENCY BATTERY WHERE INDICATED COLUMBIA LIGHTING LJT14-40-LW-G-FA-A12125F-E-U-ELL14 OR APPROVED EQUIVALENT	RECESSED IN GYPBOARD CEILING	LED, 34W, 3,800 NOMINAL LUMENS, 4000K
9	LED, WALL BRACKET, 4-FOOT LONG, ANODIZED EXTRUDED ALUMINUM HOUSING, INJECTION MOLDED END CAPS, FROSTED ACRYLIC RECTILINEAR LENS, 4" MAX DEPTH, DAMP LOCATION, 2492 NOMINAL LUMENS, 277V COLUMBIA #CWM-4-40-XW-SM-FR-FA-EU	WALL MOUNTED, MOUNTING HEIGHT +6'-6"	LED, 18W, 2,492 NOMINAL LUMENS, 4000K
10	ROUIND DOWNLIGHT, 6" APERTURE, SEMI-DIFFUSE REFLECTOR, REGRESSED CLEAR GASKETED LENS, WHITE NON-CONDUCTIVE TRIM PRESCOLITE LF6SL-DM1-6LFSL-15L-40K-TRG/WNCT-CL OR APPROVED EQUIVALENT	RECESSED IN GYPBOARD CEILING	LED, 16W, 1500 NOMINAL LUMENS, 4000K
11	AREA LIGHT, WALL MOUNTED, DIECAST ALUMINUM HOUSING, 3G VIBRATION RATED, FULLY SHIELDED IMPACT RESISTANT TEMPERED GLASS LENS, ASYMMETRIC FORWARD THROW, DARK BRONZE POLYESTER POWDER COASTAL FINISH, 120/277V GE LIGHTING #EALP03-0-Q4-AF-7-40-N-D-V1-DKBZ-L-R-Y OR APPROVED EQUIVALENT	WALL MOUNTED HEIGHT INDICATED ON PLAN	LED, 570W, 70,000 NOMINAL LUMENS, 4000K
12	LED HIGH BAY, IP66 RATED, HIGH AMBIENT (65 DEGREE) RATED, WET LOCATION, CORROSION RESISTANT FINISH, LOW IRON TEMPERED IK08 IMPACT RATED GLASS LENS, 120 DEGREE OPTICS, 4" MAXIMUM, HOUSING DEPTH, STEM MOUNT, 120/277V, 0-10V DIMMING DRIVER GE LIGHTING #ABR2-0-1-24-S-47-QQ-V-23-R OR APPROVED EQUIVALENT	STEM MOUNTED, BOTTOM AT +16-0"	LED, 178W, 23,000 NOMINAL LUMENS, 4000K
13	LED, EXPLOSION-PROOF, CORROSION RESISTANT COPPER-FREE HOUSING, CLEAR DIFFUSER, 2" x 32" W, 3,734 NOMINAL LUMENS, 64 WATT, 277V, SINGLE FUSE HUBBELL LIGHTIING #L1L-7-IE05-30-C-F OR APPROVED EQUIVALENT	WALL MOUNTED IN VEHICLE PIT	LED, 22W, 4000 NOMINAL LUMENS, 4000K
	EMERGENCY WALL PACK, POLYCARBONATE FULLY GASKETED CORROSION-RESISTANT NEMA 4X HOUSING, DIE-CAST ALUMINUM, ADJUSTABLE LED LAMP HEADS WITH POLYCARBONATE LENSES DUAL-LITE DYN SERIES OR APPROVED EQUIVALENT	WALL MOUNTED	LED
	LED EXIT SIGN, DIE CAST BRUSHED ALUMINUM HOUSING, WHITE FINISH, RED LETTERING, RED CHEVRONS AS INDICATED, INTEGRAL BACKUP BATTERY WITH TEST SIWTCH DUAL-LITE SE SERIES	WALL MOUNTED AT +8'-0"	2-6W LED

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HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
LUMINAIRE SCHEDULE

DESIGNED BY:	ADMUC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
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JOB NUMBER
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SHEET
E-803
268 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

WARNING: PHOTOVOLTAIC POWER SOURCE

SOLAR DC CIRCUIT LABEL
6-1/2" X 1"
RED WITH WHITE LETTERS
LABEL MUST BE REFLECTIVE, WEATHER RESISTANT, AND SUITABLE FOR ENVIRONMENTAL CONDITIONS

APPLY LABEL AT VISIBLE LOCATIONS ON ALL EXPOSED RACEWAYS, BOXES, ENCLOSURES, AND CONDUIT BODIES WHICH CONTAIN PV SYSTEM DC CIRCUIT CONDUCTORS. SPACING BETWEEN LABELS SHALL NOT EXCEED 10 FEET.

PHOTOVOLTAIC DC DISCONNECT
- WARNING -
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION
MAXIMUM VOLTAGE: 1000 V DC

DC DISCONNECT PLACARD
6" X 3"
RED WITH WHITE LETTERS

MOUNT ON ALL CORE1 INVERTERS

PV SYSTEM DISCONNECT

PV DISCONNECT LABEL
2-1/2" X 1"
RED WITH WHITE LETTERS

MOUNT ON ALL PV SYSTEM DISCONNECTS

- WARNING -
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

PV DISCONNECT WARNING LABEL
2-1/2" X 1"
RED WITH WHITE LETTERS

MOUNT ON PV SYSTEM DISCONNECTS

INV-X

INVERTER LABEL PLACARD
2-1/2" X 1"
RED BACKGROUND WITH 3/8" MIN CAPITAL WHITE LETTERS, REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR ENVIRONMENTAL CONDITIONS

MOUNT ON EACH INVERTER, NUMBERED AS INDICATED ON PLANS

EQUIPMENT I.D.: (E.G. PANEL PV)
VOLTAGE: (E.G. 480V 3PH, 3W)
FED FROM: (E.G. MSB)

PANEL LABEL PLACARD
2-1/2" X 1"
RED BACKGROUND WITH 3/8" MIN CAPITAL WHITE LETTERS, REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR ENVIRONMENTAL CONDITIONS

MOUNT ON EACH PANELBOARD

ENERGY STORAGE SYSTEM DISCONNECT
- WARNING -
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION
NOMINAL AC VOLTAGE: 480VAC
MAXIMUM DC VOLTAGE: 1000VDC

BESS DISCONNECT PLACARD
6" X 3"
RED WITH WHITE LETTERS

MOUNT ON ALL BESS DISCONNECTING BREAKERS

RATED AC OUTPUT CURRENT: 320A
NOMINAL OPERATING AC VOLTAGE: 480V

DANGER

AUTHORIZED PERSONNEL ONLY

- WARNING -
ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS. TERMINALS ON BOTH LINE AND LOAD SIDE MAY BE ENERGIZED IN OPEN POSITION

6" X 3"
RED WITH WHITE LETTERS

MOUNT AT PV OCPD DISCONNECT

WARNING:
THIS EQUIPMENT FED BY MULTIPLE SOURCES.
TOTAL RATING OF ALL OVERCURRENT DEVICES EXCLUDING MAIN SUPPLY OVERCURRENT DEVICE SHALL NOT EXCEED AMPACITY OF BUSBAR

6-1/2" x 1"
RED WITH WHITE LETTERS
LABEL MUST BE REFLECTIVE AND SUITABLE FOR ENVIRONMENTAL CONDITIONS.

MOUNT AT PANEL PV

CAUTION:
THIS PANEL FED FROM PV AND BESS

POWER SOURCE IDENTIFICATION LABEL
PERMANENTLY AFFIXED, SUITABLE FOR ENVIRONMENTAL CONDITIONS

MOUNT AT MAIN SWITCHBOARD

CAUTION:
THIS PANEL FED FROM PV

POWER SOURCE IDENTIFICATION LABEL
PERMANENTLY AFFIXED, SUITABLE FOR ENVIRONMENTAL CONDITIONS

MOUNT AT PANEL PV

WARNING:
POWER SOURCE OUTPUT CONNECTION - DO NOT RELOCATE THIS OVERCURRENT DEVICE.

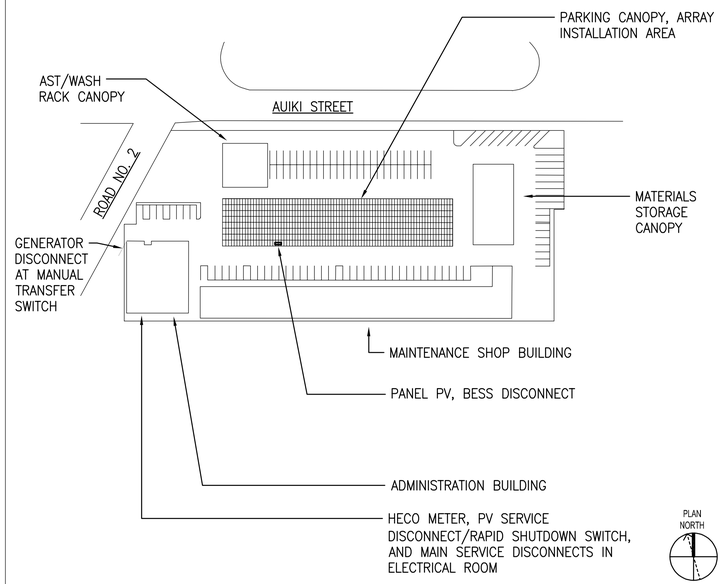
6-1/2" x 1"
RED WITH WHITE LETTERS
LABEL MUST BE REFLECTIVE AND SUITABLE FOR ENVIRONMENTAL CONDITIONS.

MOUNT AT PANEL PV

CONTRACTOR TO PROVIDE ADDRESS ON MAP PLACARD

CAUTION

MULTIPLE SOURCES OF POWER
POWER TO THIS SERVICE IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS AS SHOWN



PER NEC 705.10

MOUNT AT SERVICE DISCONNECTS AND PV DISCONNECTS

DISCONNECT DIRECTORY

RED WITH WHITE LETTERS LABEL MUST BE REFLECTIVE AND SUITABLE FOR ENVIRONMENTAL CONDITIONS

1 MAP PLACARD
NO SCALE

ALL WORK ON THIS SHEET IS BID OPTION 2 UNLESS OTHERWISE NOTED

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

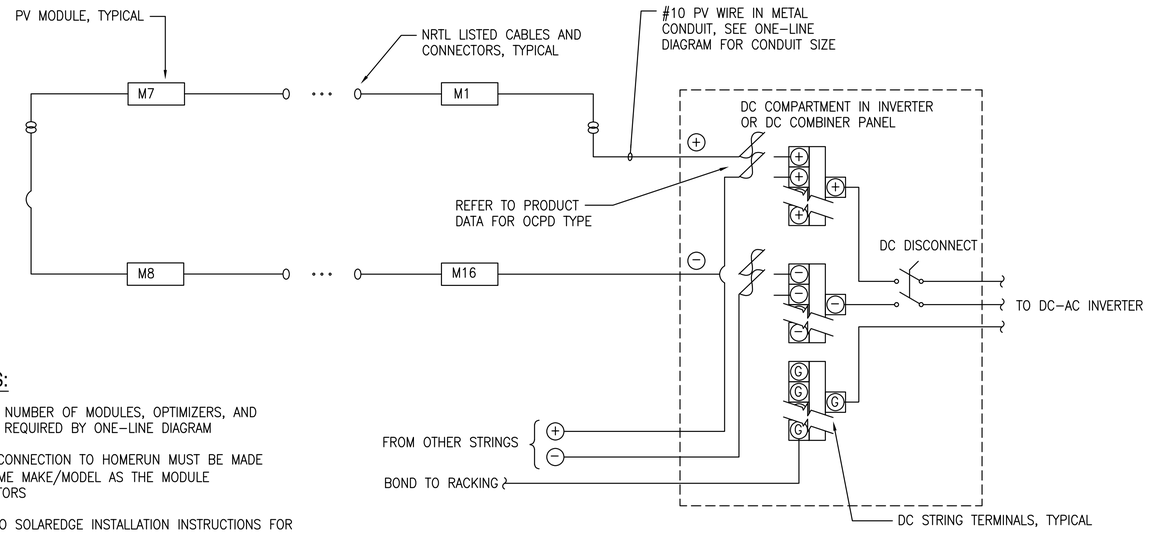
SHEET TITLE
PV DETAILS

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-901
269 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

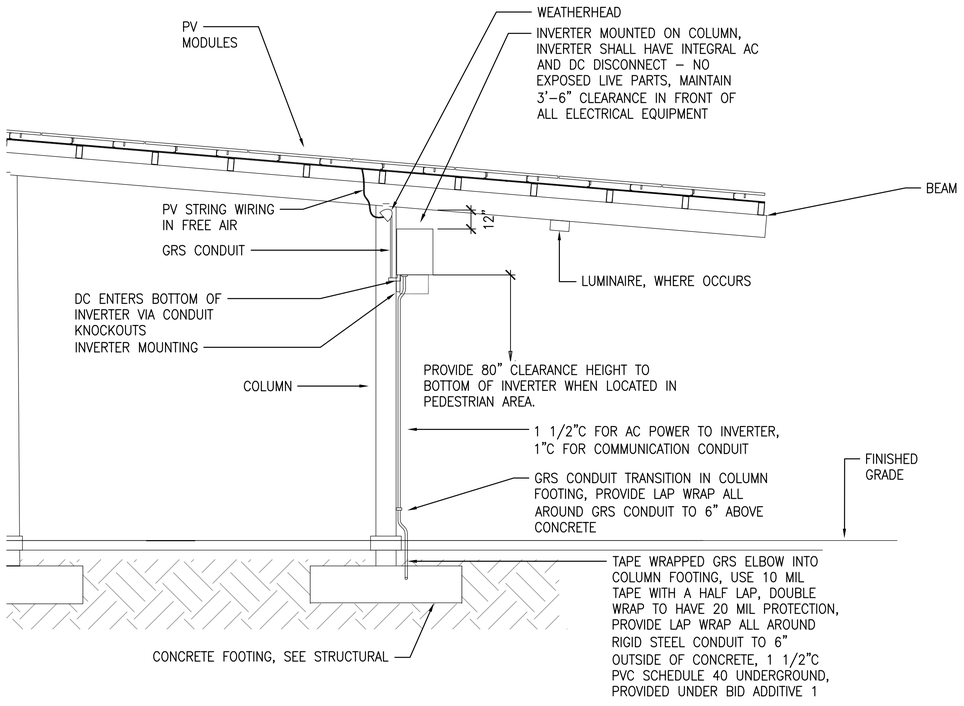


NOTES:

1. PROVIDE NUMBER OF MODULES, OPTIMIZERS, AND STRINGS REQUIRED BY ONE-LINE DIAGRAM
2. STRING CONNECTION TO HOMERUN MUST BE MADE WITH SAME MAKE/MODEL AS THE MODULE CONNECTORS
3. REFER TO SOLAREDGE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION. WIRE PER MANUFACTURER'S INSTRUCTIONS

1 PV MODULE STRING CONNECTION DETAIL

NO SCALE



2 PARKING CANOPY INVERTER ELEVATION

NOT TO SCALE

ALL WORK ON THIS SHEET IS BID OPTION 2 UNLESS OTHERWISE NOTED

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PV DETAILS

DESIGNED BY:	ADMJC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

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SHEET
E-902
270 OF 273 SHTS.

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SUMMARY

PROJECT	OAHU BASEYARD RELOCATION
LOCATION (CITY, STATE)	HONOLULU, HAWAII (OAHU)
ADDRESS	AUIKI STREET
MIN TEMP (°F)	60.1
MAX TEMP (°F)	90.5
MIN TEMP (°C)	15.6
MAX TEMP (°C)	32.5
MFG TEMP CORRECTION FACTOR	1.03
INVERTERS	
MODEL	STP-62-US-41
INVERTER QUANTITY	4
INVERTER MAX POWER (KW)	62.5
INVERTER OUTPUT VOLTAGE (V)	480
INVERTER MAX INPUT VOLTAGE (V)	1000
INVERTER MAX MPPT VOLTAGE (V)	1000
INVERTER MIN MPPT VOLTAGE (V)	150
INVERTER MAX OUTPUT CURRENT (A)	80
INVERTER A EFFICIENCY	97.5%
PV MODULES	
PV MODULE MAKE/MODEL	QCELLS, Q.PEAK DUO XL-G10 485
MODULE QUANTITY	664
MODULE MAX POWER -STC (W)	485
MODULE MAX POWER - PTC (W)	451.9
MODULE VOLTAGE VOC - STC (V)	53.63
MODULE VOLTAGE VMP - STC (V)	45.63
MODULE CURRENT ISC (A)	11.16
MODULE CURRENT IMP (A)	10.63
MODULE TEMP COEF. VOC	0.27
TOTALS	
PROPOSED SYSTEM KW (DC@STC)	322
PROPOSED SYSTEM KW (AC)	292.6
PV SOURCE CURRENT A (AC) @ 480V 3 PH	80
DC:AC RATIO	1.29
MAX ALLOWABLE MODULES PER STRING	16
STRING VOC PER MFG CALCULATION (V)	879.9

ARRAY CALCULATIONS

ARRAY	INVERTER #	INVERTER	MODULES PER STRING	# OF STRINGS	TOTAL # OF MODULES	MODULE POWER @ STC (W)	MODULE POWER @ PTC (W)	INVERTER CURRENT (A)	INVERTER EFFICIENCY	INVERTER POWER (KW)	INVERTER POWER (KVA)	DC/AC RATIO	KW DC @STC	KW DC @PTC	KW AC @CEC
PARKING LOT CANOPY	INV-1	STP-60-US-41	15	10	166	485	451.9	80	97.5%	62.5	66.25	1.29	80.51	75	73.14
			16	1											
	INV-2	STP-60-US-41	15	10	166	485	451.9	80	97.5%	62.5	66.25	1.29	80.51	75	73.14
			16	1											
	INV-3	STP-60-US-41	15	10	166	485	451.9	80	97.5%	62.5	66.25	1.29	80.51	75	73.14
			16	1											
	INV-4	STP-60-US-41	15	10	166	485	451.9	80	97.5%	62.5	66.25	1.29	80.51	75	73.14
			16	1											
TOTAL:				44	664					250	265		322.04	300	292.6

WIRING CALCULATIONS

CIRCUIT	CURRENT WITH CORRECTION FACTOR APPLIED (A)	OCPD SIZE (A)	INSULATION TYPE	CONDUCTOR MATERIAL	SETS	CONDUCTOR SIZE (AWG)
DC STRING TO INV (Isc)	17.4	20	1000V PV WIRE	COPPER	1	PV WIRE #10
INV-1 TO PANEL PV	100	100	THWN-2	COPPER	1	#2
INV-2 TO PANEL PV	100	100	THWN-2	COPPER	1	#2
INV-3 TO PANEL PV	100	100	THWN-2	COPPER	1	#1/0
INV-4 TO PANEL PV	100	100	THWN-2	COPPER	1	#1/0
PANEL PV TO SWITCHBOARD	400	400	THWN-2	COPPER	2	350 KCMIL
BESS TO SWITCHBOARD	400	400	THWN-2	COPPER	2	350 KCMIL

VOLTAGE DROP CALCULATIONS

CIRCUIT	CURRENT (A)	APPROXIMATE DISTANCE (ft)	WIRE AREA (mil)	SYSTEM VOLTAGE (V)	VOLTAGE DROP (V)	TOTAL WORSE CASE VOLTAGE DROP (%)
DC STRING TO INV (Isc)	10.63	280	10380	480	7.18	0.72
INV-1 TO PANEL PV	80	50	66360	480	1.35	0.99
INV-2 TO PANEL PV	80	55	66360	480	1.48	
INV-3 TO PANEL PV	80	250	66360	480	4.23	
INV-4 TO PANEL PV	80	280	66360	480	4.73	
PANEL PV TO SWITCHBOARD	320	200	700000	480	2.04	0.43
BESS TO SWITCHBOARD	320	225	700000	480	2.30	0.48
OVERALL WORST CASE VOLTAGE DROP (AC+DC)						2.78

PANEL PV

480/277 VOLTS, 3 PHASE, 4 WIRE
3P400A MAIN BREAKER
MIN AIC: 22,000
MOUNTING: SURFACE

WIRE SIZE (AWG)	CKT NO	USE	CKT BKR POLE	CKT BKR AMP	CONNECTED LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT BKR AMP	CKT BKR POLE	USE	CKT NO	WIRE SIZE (AWG)
2	1		3		–	–			3		2	1/0
2	3	INV-1				–	–			INV-3	4	1/0
2	5			100			–	– 100			6	1/0
2	7		3		–	–			3		8	1/0
2	9	INV-2				–	–			INV-4	10	1/0
2	11			100			–	– 100			12	1/0
–	13	PFB	1	–	–	–			– 1	PFB	14	–
–	15	PFB	1	–		–	–		– 1	PFB	16	–
–	17	PFB	1	–			–	–	– 1	PFB	18	–
		CONNECTED LOAD/PHASE			–	–	–					
		TOTAL CONNECTED LOAD			– KVA							
		DEMAND FACTOR			–							
		TOTAL DEMAND LOAD			– KVA=		– AMPS					

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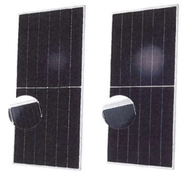
SHEET
E-903
271 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

Q.PEAK DUO XL-G10 SERIES

475 - 490 Wp | 156 Cells
21.2 % Maximum Module Efficiency

MODEL Q.PEAK DUO XL-10.3 / BFG



6 busbar cell technology

12 busbar cell technology

Bifacial energy yield gain of up to 20 %
Bifacial Q.ANTUM solar cells with zero gap cell layout make efficient use of light shining on the module rear-side for radically improved LCOE.

Low electricity generation costs
Q.ANTUM DUO Z combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology for higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 21.2%.

A reliable investment
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty[1].

Enduring high performance
Long-term yield security with Anti LeTID Technology, Anti PID Technology[2], Hot-Spot Protect.

Frame for versatile mounting options
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).

Innovative all-weather technology
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

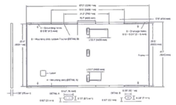
[1] See data sheet on rear for further information.
[2] APT test conditions according to IEC TS 62804-1:2015, method B (-1500 V, 168 h) including post-treatment according to IEC 61215-1-1:Ed. 2:2021

The ideal solution for:
Ground mounted solar panels

Q.PEAK DUO XL-G10 SERIES

▪ Mechanical Specification

Format	87.2 in × 41.1 in × 1.38 in (including frame) (2216 mm × 1045 mm × 35 mm)
Weight	64.2 lbs (29.1 kg)
Front Cover	0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	0.08 in (2.0 mm) semi-tempered glass
Frame	Anodized aluminum
Cell	6 × 26 monocrystalline Q.ANTUM solar half cells
Junction box	2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 55.1 in (1400 mm), (-) ≥ 55.1 in (1400 mm)
Connector	Stäubli MC4, Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, IP68



▪ Electrical Characteristics

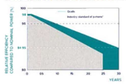
POWER CLASS			475		480		485		490	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / -0 W)				BSTC[2]		BSTC[2]		BSTC[2]		BSTC[2]
Minimum	Power at MPP[3]	P_{MPP} [W]	475	519.6	480	525.0	485	530.5	490	536.0
	Short Circuit Current[3]	I_{SC} [A]	11.08	12.12	11.12	12.17	11.16	12.21	11.20	12.26
	Open Circuit Voltage[3]	V_{OC} [V]	53.15	53.34	53.39	53.58	53.63	53.82	53.86	54.06
	Current at MPP	I_{MPP} [A]	10.55	11.54	10.59	11.58	10.63	11.63	10.67	11.67
	Voltage at MPP	V_{MPP} [V]	45.03	45.02	45.33	45.32	45.63	45.62	45.93	45.92
	Efficiency[3]	η [%]	≥ 20.5		≥ 20.7		≥ 20.9		≥ 21.2	

Bifaciality of P_{MPP} and I_{SC}: 70 % ± 5 % – Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2
[1] Measurement tolerances: P_{MPP} ± 3 %; I_{SC}; V_{OC} ± 5 % at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 [2] BSTC: 1000 W/m² + φ_1 = 135 W/m², φ = 70 % ± 5 %, 25 ± 2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[1]					
Minimum	Power at MPP	P_{MPP} [W]	357.6	361.4	365.1	368.9
	Short Circuit Current	I_{SC} [A]	8.92	8.96	8.99	9.02
	Open Circuit Voltage	V_{OC} [V]	50.27	50.49	50.72	50.95
	Current at MPP	I_{MPP} [A]	8.30	8.34	8.37	8.40
	Voltage at MPP	V_{MPP} [V]	43.06	43.35	43.63	43.92

[1] 800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

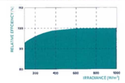


At least 98 % of nominal power during first year. Thereafter max. 0.45 % degradation per year. At least 95.45 % of nominal power up to 10 years. At least 84.95 % of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organisation of your respective country.

[1] Standard terms of guarantee for the S.Pro companies with the highest production capacity in 2023 (February 2023).

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS						
Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	-0.27
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°F]	109 ± 5.4 (43 ± 3 °C)

▪ Properties for System Design

Maximum System Voltage	V_{SYS}	[V]	1500
Minimum Series Fuse Rating		[A DC]	20
Max. Design Load, Push / Pull[1]		[lbs / ft²]	75 (3600 Pa) / 33 (1600 Pa)
Max. Test Load, Push / Pull[1]		[lbs / ft²]	113 (5400 Pa) / 50 (2400 Pa)

[1] See Installation Manual

PV module classification: Class II
Fire Rating based on ANSI / UL 61730: TYPE 29*
Permitted Module Temperature on Continuous Duty: -40 °F up to +185 °F (-40 °C up to +85 °C)

*New Type is similar to Type 3 but with metallic frame

▪ Qualifications and Certificates

Qcells pursues minimizing paper output in consideration of the global environment.

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product. Hanwha Q CELLS America Inc. 400 Spectrum Center Drive, Suite 1401, Irvine, CA 92618, USA | TEL: +1 (949) 748-59-96 | EMAIL: inquiry.us@qcells.com | WEB: www.qcells.com

Specifications subject to technical changes © Hanwha Q CELLS America Inc. 2024_Q.PEAK_DUO_XL-G10.3 BFG_series_475-490_2024-01_Rev01_EN

Qcells

/ STP 33-US-41 / STP 50-US-41 / STP 62-US-41



Sunny Tripower CORE1-US

33 / 50 / 62

It stands on its own

/ **Complies with IEEE 1547-2018 and UL 1741 SB standards**

UL 3741 LISTED PV Hazard Control | SMA Smart Connected | SMA ShadeFix | c UL us

Fully integrated
- No additional racking required for rooftop installation
- Integrated DC and AC disconnects and overvoltage protection
- 12 direct string inputs for reduced labor and material costs
- Up to 60% faster commercial PV system installation

Increased power, flexibility
- Six MPP trackers for flexible stringing and maximum power production
- Achieve an optimized design using SMA Sunny Design with NEC 690.8(A)(1)(a)(2) when calculating maximum current on systems over 100kW
- ShadeFix, SMA's proprietary shade management solution, optimizes at the string level
- Intelligent string monitoring to pinpoint array performance issues

Enhanced safety, reliability
- Integrated SunSpec PLC signal for module-level rapid shutdown
- DC AFCI arc-fault protection certified to Standard UL 1699B Ed. 1

Smart monitoring, control, service
- I-V curve diagnostic function to visualize and document PV string electrical characteristics
- Increased ROI with SMA energyOS cross sector energy management platform
- SMA Smart Connected proactive O&M solution reduces time spent diagnosing and servicing in the field

The Sunny Tripower CORE1 is the world's first free-standing PV inverter for commercial rooftops, carports, ground mount and repowering legacy solar projects.

From distribution to construction to operation, the Sunny Tripower CORE1 enables logistical, material, labor and service cost reductions, and is the most versatile, cost-effective commercial solution available. Integrated SunSpec PLC for rapid shutdown and enhanced DC AFCI arc-fault protection ensure compliance to the latest safety codes and standards. With Sunny Tripower CORE1 and SMA's energyOS cross sector energy management platform, system integrators can deliver comprehensive commercial energy solutions for increased ROI.

Outdoor Medium Fire Risk CERTIFIED | Rapid Shutdown CERTIFIED | UL 3741 PV Hazard Control

Technical data	Sunny Tripower CORE1 33-US	Sunny Tripower CORE1 50-US	Sunny Tripower CORE1 62-US
Input (DC)			
Maximum array power	50000 Wp STC	75000 Wp STC	93750 Wp STC
Maximum system voltage		1000 V	
Rated MPP voltage range	330 V ... 800 V	500 V ... 800 V	550 V ... 800 V
MPP operating voltage range		150 V ... 1000 V	
Minimum DC voltage / start voltage		150 V / 188 V	
MPP trackers / strings per MPP input		6 / 2	
Maximum usable operating input current / per MPP tracker		120 A / 20 A	
Maximum short circuit current per MPPT / per string input		32 A / 30 A	
Output (AC)			
Nominal output power	33300 W	50000 W	62500 W
Maximum apparent power	33300 VA	53000 VA	66000 VA
Output phases / line connections		3 / 3 (N) PE	
Nominal AC voltage		480 V / 277 V WYE	
AC voltage range		244 V ... 305 V	
Maximum output current	40 A	64 A	80 A
Rated grid frequency		60 Hz	
Grid frequency / range		50 Hz, 60 Hz / -6 Hz ... +6Hz	
Power factor at rated power / adjustable displacement		1 / 0.0 leading ... 0.0 lagging	
Harmonics THD		<3%	
Efficiency			
CEC efficiency	97.5%	97.5%	97.5%
Protection and safety features			
Load rated DC disconnect		•	
Load rated AC disconnect		•	
Ground fault monitoring / Riso / Differential current		•/•	
DC AFCI arc-fault protection		•	
SunSpec PLC signal for rapid shutdown		•	
DC reverse polarity protection		•	
AC short circuit protection		•	
DC surge protection: Type 2 / Type 1+2		O / O	
AC surge protection: Type 2 / Type 1+2		O / O	
Protection class / overvoltage category (as per UL 840)		I / IV	
General data			
Device dimensions (W / H / D)		621 mm / 733 mm / 569 mm (24.4 in x 28.8 in x 22.4 in)	
Device weight		84 kg (185 lbs)	
Operating temperature range		-25 °C ... +60 °C (-13 °F ... +140 °F)	
Storage temperature range		-40 °C ... +70 °C (-40 °F ... +158 °F)	
Audible noise emissions (full power @ 1m and 25 °C)		65 dB(A)	
Topology		Transformerless	
Cooling concept		OptiCool (forced convection, variable speed fans)	
Enclosure protection rating		Type 4X, 3SX (as per UL 50E)	
Corrosivity classification according to IEC 61701		C3*	
Maximum permissible relative humidity (non-condensing)		100%	
Additional information			
Mounting		Free-standing with included mounting feet	
DC connection		Amphenol UTX PV or H4Plus connectors	
AC connection		Screw terminals - 4 AWG to 4/0 AWG CU/AL	
LED indicators (Status / Fault / Communication)		•	
Network interfaces: Ethernet / WLAN / RS485		● (2 ports) / ▲ / O	
Data protocols: SMA Modbus / SunSpec IEEE 1547 Modbus / Webconnect		•/•/•	
ShadeFix technology for string level optimization		•	
Intelligent string performance monitoring		•	
I-V curve diagnostic function		•	
Integrated Plant Control / Q on Demand 24/7		•/•	
SMA Smart Connected (proactive monitoring and service support)		•	
Certifications			
Certifications and approvals		UL 1741, UL 1699B Ed. 1, UL 1998, CSA 22.2 107.1, PV Rapid Shutdown System Equipment, UL 3741	
FCC compliance		FCC Part 15 Class A	
Grid interconnection standards		IEEE 1547-2018, UL 1741 SA/SB - CA Rule 21, HECO SRD V2.0	
Advanced grid support capabilities		L/HFRT, L/HVRT, Volt-VAr, Volt-Watt, Frequency-Watt, Ramp Rate Control, Fixed Power Factor	
Warranty			
Standard		10 years	
Optional extensions		15 / 20 years	
Type designation	STP 33-US-41	STP 50-US-41	STP 62-US-41

○ Optional features ● Standard features - Not available ▲ Subject to availability Data at nominal conditions - status: 08/2023 * ≥ 2 km from the coast

Accessories

SMA Data Manager M (DSMA-US-20) | SMA Sensor Module (MID.SENS5-40) | Universal Mounting System (SMA_KIT-10) | AC Surge Protection Module Kit (AC_SPD_KIT1-10, AC_SPD_KIT2_T1T2) | DC Surge Protection Module Kit (DC_SPD_KIT4-10, DC_SPD_KIT5_T1T2)

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Toll Free +1 888 4 SMA USA
www.SMA-America.com

SMA America, LLC

ALL WORK ON THIS SHEET IS BID ADDITIVE 2 UNLESS OTHERWISE NOTED

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PV CUT SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

DESIGNED BY:	ADM/JC
DRAWN BY:	CAD
CHECKED BY:	MA
DATE:	09/2026
SCALE:	AS SHOWN

JOB NUMBER
P10981

SHEET
E-904
272 OF 273 SHTS.

100% SUBMITTAL - SEPTEMBER 2026

SUNSYS HES L SKID

SUNSYS HES L© SKID

All-in-One Plug-and-Play Energy Storage Systems
from 50 kVA / 203 kWh to 300 kVA / 609 kWh



The solution for

- EV charging infrastructure
- Commercial and industrial buildings
- Microgrids

Strong points

- Quick and easy installation
- Multiple configurations available
- Easy to ship and redeploy
- Commissioning ready
- Combines the best technologies

Conformity to standards

- Safety: UL 9540-2023; UL 9540A; UL 1973; NFPA 855; NFPA 68
- EMC: FCC part 15 Level A
- Environment: RoHS; REACH, IEC 61249
- Communication protocol: Modbus TCP; SunSpec 2.0
- Grid code: UL 1741 SB; UL 1741 PCS CRD; IEEE 1547-2018; IEEE 1547.1-2020; CA Rule 21
- CEC listed

Please consult us for additional standards.

Expert Services

Our experienced and skilled team is at your service to make your projects a success!

- **Project development:** pre-sales support, project design.
- **Deployment & integration:** training, field inspection, pre-commissioning, commissioning.
- **Operation:** maintenance contracts, replacement of spare parts, remote monitoring.
- Cloud data storage.
- Extended product warranty and performance guarantee.

For more information, please contact us.

Function

The SUNSYS HES L SKID is a compact modular battery energy storage system, ideal for easy installation, transport and maintenance. This system is available in a wide range of configurations, with power from 50 to 300 kVA and energy storage capacity from 203 to 609 kWh. This system has been designed for on-grid and off-grid applications. Delivered fully assembled, the SUNSYS HES L SKID system is factory tested, wired and delivered ready for use.

Advantages

Quick and easy installation
All cabinets within the energy storage system are delivered pre-assembled, mounted and factory wired on a specially designed metal structure (SKID).
This solution considerably reduces installation time, limiting the cost of associated structural works whilst still ensuring optimum quality.
Once the system is delivered on site, the only tasks left are connecting the AC power and communication cables.

Multiple configurations available
The system offers several configurations thanks to a complete range of SKID modules, consisting of the SUNSYS HES L cabinets: C-Cab and B-Cab.
This flexibility enables the size of the system to be adjusted to precisely meet the specific needs of each project.
Thanks to these configurations, we are able to cover a wide range of energy storage projects and applications.

Easy to ship and redeploy
The entire system is integrated onto a metal SKID, making it easy to ship, transport and move. It can easily be moved to a different site to meet future needs. Our one-piece integrated SKID-based systems make transport especially easy. Our standard configurations (up to 5m / 16.5ft) are easy to handle and can be forklifted, minimising transport and handling costs.

Commissioning ready
Systems are pre-commissioned in our factory, significantly reducing the time needed for on-site commissioning by our technical team. Every system is also factory tested with initial battery cycling completed, ensuring successful on-site installation and operation.
This reduces the time and cost of installation for our customers, enabling them to achieve faster return on investment.

Combines the best technologies
The SUNSYS HES L SKID brings together the very best of conversion, battery and distribution technologies. Jointly designed with CATL, the products are fully compatible. Batteries are available with 0.5C rating, covering a wide range of energy storage applications.
The complete system has been validated and certified in accordance with the most stringent European and American standards. Its fire protection system includes heat and smoke detectors, an aerosol fire extinguishing system, a dry pipe to connect a water inlet and a deflagration panel.

Many system configurations are available to meet customer requirements

	Energy	1B-CAB	2B-CAB	3B-CAB
	Power	203 kWh	406 kWh	609 kWh
1 C-CAB	50 kVA	3.4		
	100 kVA	2.5	3.4	5.2
	150 kVA		2.2	3.4
	200 kVA		2.0	2.5
	250 kVA			2.0
	300 kVA			2.0

Duration shown in AC useable energy at BOL.
Power derating to respect 0.5 CP.

SKID Configurations	Power	Energy	Weight	Width	Depth	Height	Transport
1C-CAB / 1 B-CAB	50 kW	203 kWh	3,546 kg (7,817 lbs)	2,532 mm (99.6 in)	1,600 mm (62.9 in)	2,560 mm (100.8 in)	Forklift or Lifting rings
	100 kW						
1C-CAB / 2 B-CAB	100 kW	406 kWh	5,716 kg (12,601 lbs)	3,925 mm (154.5 in)			
	150 kW						
	200 kW						
1C-CAB / 3B-CAB	100 kW	609 kWh	7,886kg (17,341)	5,318 mm (209.3 in)			
	150 kW						
	200 kW						
	250 kW						
	300 kW						

SUNSYS HES L SKID 1C-CAB 1B-CAB

SUNSYS HES L SKID 1C-CAB 2B-CAB

SUNSYS HES L SKID 1C-CAB 3B-CAB

Technical characteristics

System information						
Power modularity	50 kVA power modules – up to 300 kVA					
Symmetrical overload	110% for 60 min – 125% for 20 min – 150% for 60 sec					
Chemistry	LFP – Lithium Iron Phosphate					
Energy Nameplate	203.7 kWh per rack					
AC/AC Max Round Trip Efficiency	90%					
Maximum P-ratio	0.5					
Maximum DC current	82 A charging / 87 A discharging per 50 kVA power module					
Power rating	50 kVA	100 kVA	150 kVA	200 kVA	250 kVA	300 kVA
AC rated current	60 A	120 A	180 A	241 A	301 A	361 A
AC max. temporary current (overload)	90 A	180 A	271 A	361 A	451 A	541 A
AC connections	Up to 4x95mm²/3/0AWG - 3x150mm²/300MCM - 2x185mm²/350MCM					
Rated voltage (Un)	480 Vac (3ph+N) ±20%					
Rated frequency	60 Hz ±5%					
Fire protection	Fire Safety System including smoke detectors, heat detectors and aerosol and deflagration venting panel					
Environment						
Degree of protection	IP 55 / NEMA 3R (Outdoor)					
Operation temperature	-20 °C to +45 °C / -4 °F to +113 °F without derating - up to +50 °C / 122°F with derating					
Storage temperature	-20 °C to +60 °C / -4 °F to +140°F					
Acoustic level at 1 m	<64.6 dB					
Maximum altitude	1000 m / 3280 ft. without derating (consult us for requirements above this)					

Also available

SUNSYS HES XXL©
High power energy storage system
from 0.5 MVA / 1.6 MWh to 6 MVA / 24 MWh

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP 4-30-28

COFFMAN ENGINEERS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS

JOB TITLE
HONOLULU HARBOR, NEW OAHU DISTRICT
BASEYARD RELOCATION AT AUIKI STREET

SHEET TITLE
PV CUT SHEETS

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100% SUBMITTAL - SEPTEMBER 2026