DPW TEMPORARY OFFICES (BUILDING 023 - 023A)

DEPARTMENT OF THE ARMY
PUERTO RICO ARMY NATIONAL GUARD

MAJ GEN MIGUEL A. MENDEZ
ADJUTANT GENERAL

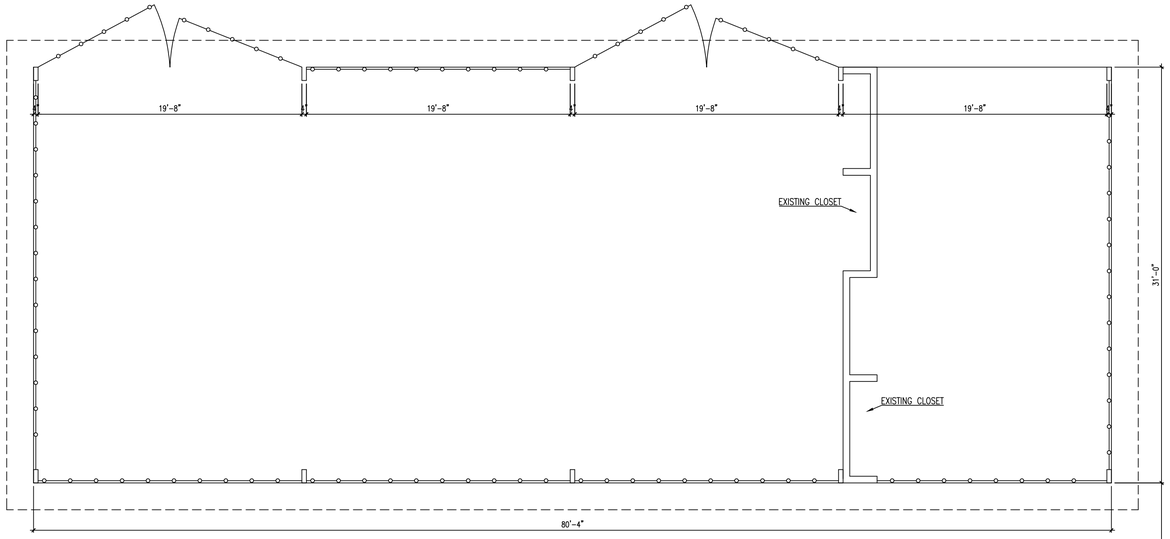
LTC JOSE L. RIVERA
GARRISON COMMANDER

NUM.	DESCRIPTION	PAGE
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2	EXISTING PLAN BUILDINGS 023 & 023A	S-1
3	DEMOLITION PLAN BUILDINGS 023 & 023A	D-1
4	PROPOSED FLOOR PLAN BUILDING 023 & 023A	A-1
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8	LIGHTNING RECEPTACLE & DATA PLAN BUILDING 023	E-1
9	ELECTRICAL NOTES	E-2
10	ELECTRICAL DETAILS	E-3
11	AIR CONDITIONING PLAN BUILDING 023	M-1

DIRECTORATE OF ENGINEERING

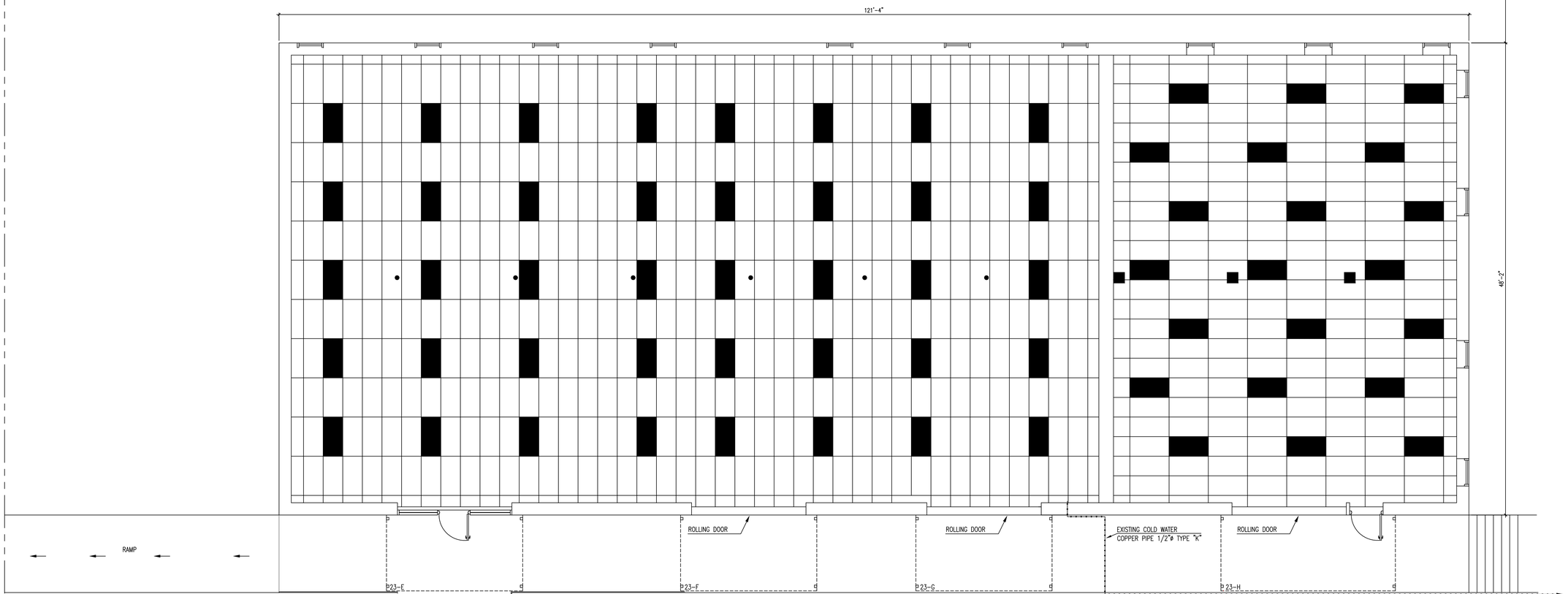
DIRECTORATE OF PUBLIC WORKS
CAMP SANTIAGO JOINT TRAINING CENTER

CPT ARMANDO CRUZ
STATE ROAD PR 1 INT. 154 KM 89.5
TEL. (787) 289-1400 EXT. 7050



EXISTING FLOOR PLAN BUILDING 023A

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



EXISTING FLOOR PLAN BUILDING 023

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

N

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DIRECTORATE OF ENGINEERING

PUERTO RICO ARMY NATIONAL GUARD

DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

AS BUILT EXISTING FLOOR PLAN BUILDINGS 023 & 023A

NO.	DESCRIPTION	DATE
1		

REVISIONS

PROJECT:

SHEET TITLE:

DESIGN:

DRAWN: OMAR ALVARADO

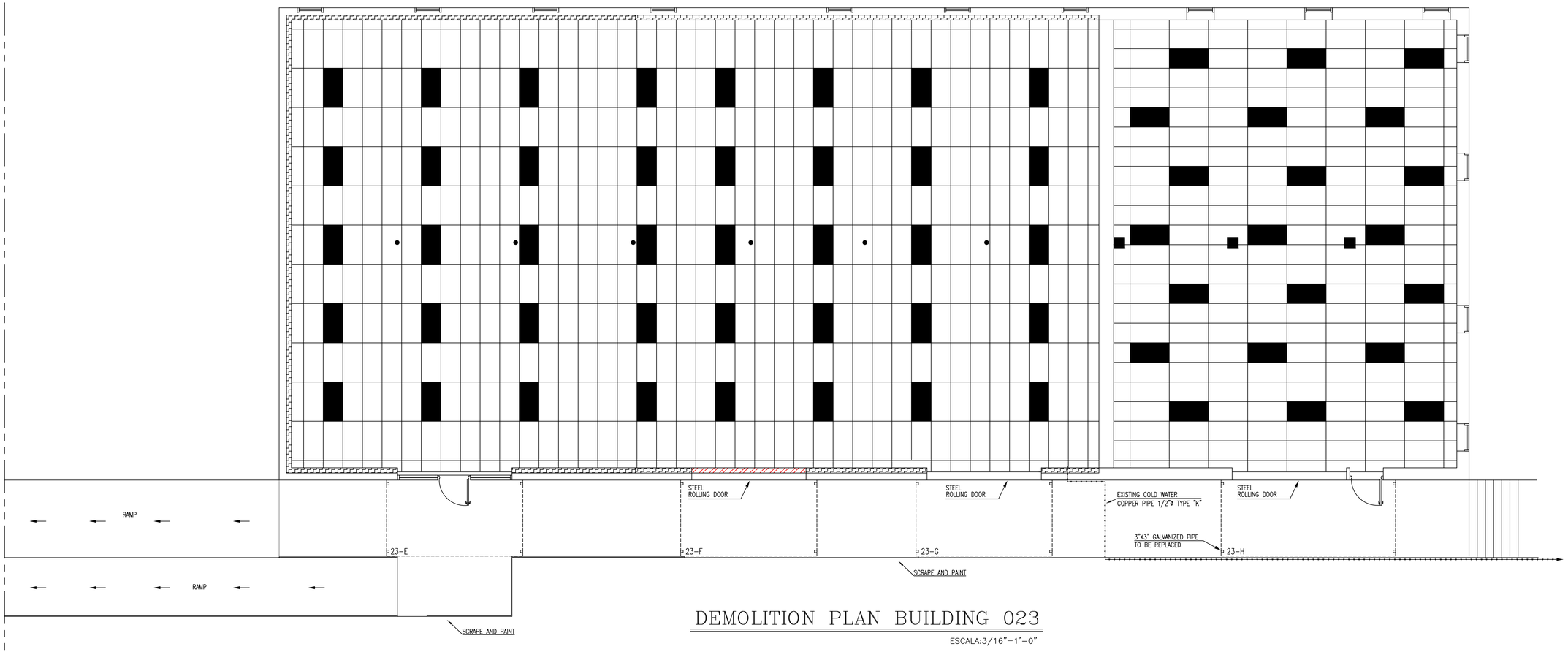
SUPERVISOR:

DATE: 2025/1/9

SCALE: 3/16=1'

SHEET: 2 OF TOTAL SHEETS: 11

SHEET NAME: S-1



DEMOLITION PLAN BUILDING 023

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

LEYEND BUILDING 023	
□ 23-H	REPLACE GALVANIZED 3X3 PIPE AT INLET 23-H
	REMOVE PLASTER WALLS TO INSTALL NEW
	REMOVE PLASTER WALLS

N

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PUERTO RICO ARMY NATIONAL GUARD

PROJECT: DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

SHEET TITLE: DEMOLITION PLAN BUILDINGS 023

NO.	DESCRIPTION	DATE
1	REVISIONS	

DESIGN:

DRAWN: OMAR ALVARADO

SUPERVISOR:

DATE: 2025/1/9

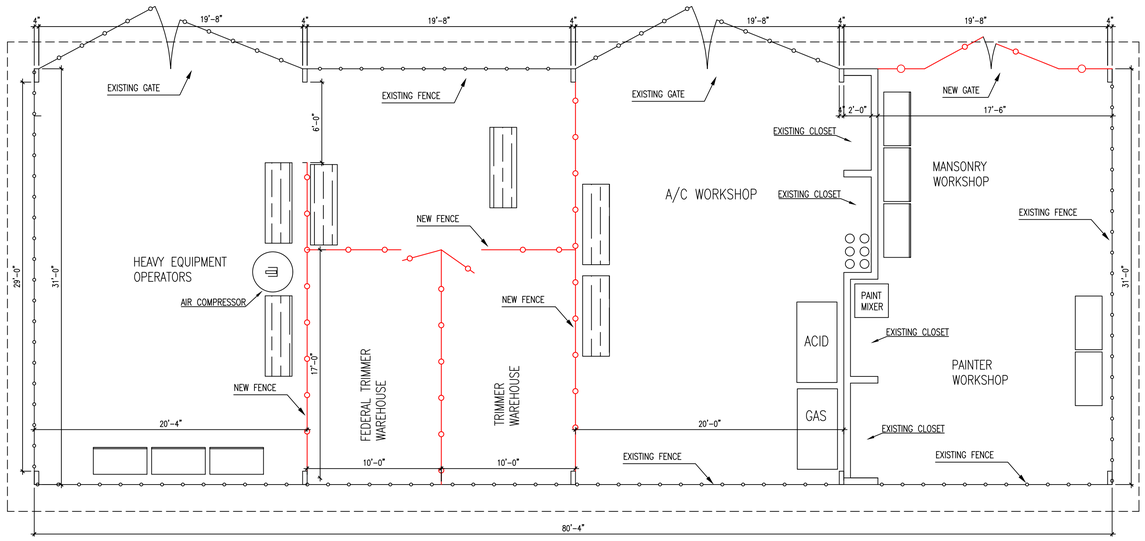
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SHEET: 3 OF TOTAL SHEETS: 11

SHEET NAME: D-1

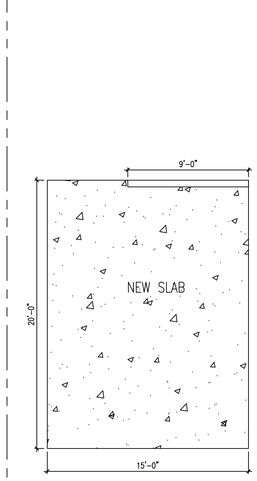
LEYEND BUILDING 023A

NEW CYCLONE FENCE TO BE INSTALLED



PROPOSED FLOOR PLAN BUILDING 023A

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



LEYEND BUILDING 023

GYPSUM BOARD WALL TO THE CEILING

INSTALL SECURITY BARS

INSTALL SAFETY CHAIN

PROPOSED FLOOR PLAN BUILDING 023

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

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PUERTO RICO ARMY NATIONAL GUARD

PROJECT: DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

SHEET TITLE: PROPOSED FLOOR PLAN BUILDING 023 & 023A

NO.	DESCRIPTION	DATE
1	REVISIONS	

DESIGN:

DRAWN: OMAR ALVARADO

SUPERVISOR:

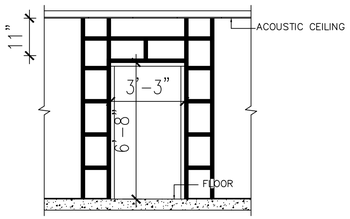
DATE: 2025/1/9

SCALE: 3/16=1'

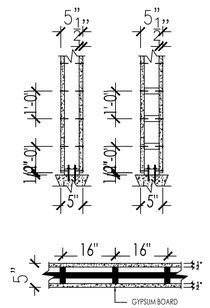
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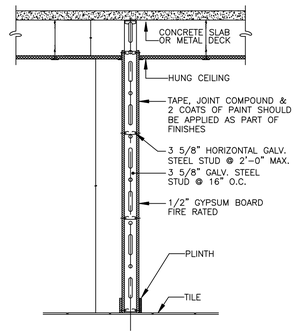
SHEET NAME: A-1

GYPSUM BOARD WALL DETAIL

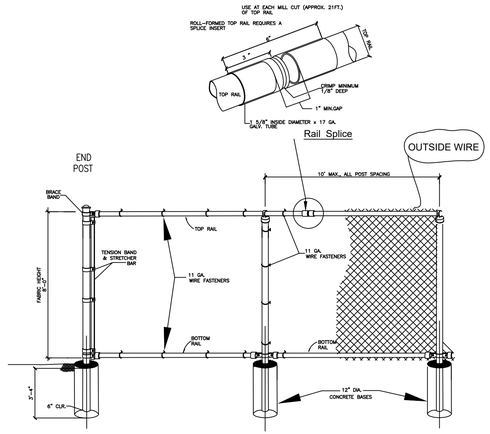


REINFORCEMENT DETAIL
DOOR OPENINGS ON
GYPSUM BOARD WALLS

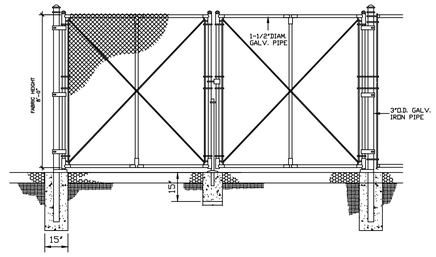




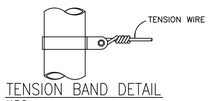
TYPICAL GYPSUM BOARD WALL SECTION
N.T.S.



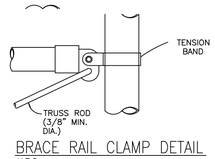
FENCE DETAIL



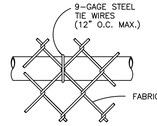
GATE ELEVATION



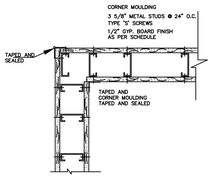
TENSION BAND DETAIL
N.T.S.



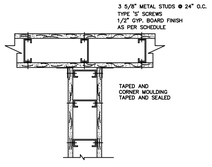
BRACE RAIL CLAMP DETAIL
N.T.S.



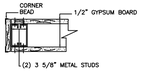
BRACE RAIL ATTACHMENT
N.T.S.



CORNER DETAIL
N.T.S.

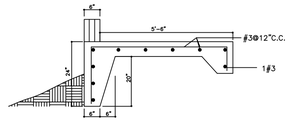


INTERSECTION DETAIL #2
N.T.S.



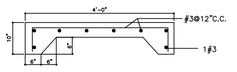
END DETAIL
N.T.S.

SIDEWALK DETAIL



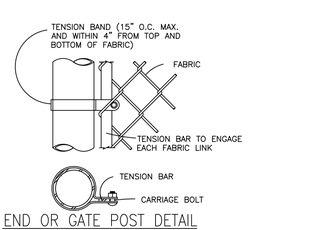
SIDEWALK SECTION (A)

NOTE: FINISH, WITH BRUSH.
CONST. JOINT EVERY 10'-0"

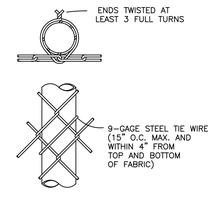


SIDEWALK SECTION (B)

NOTE: FINISH, WITH BRUSH.
CONST. JOINT EVERY 10'-0"



END OR GATE POST DETAIL
N.T.S.

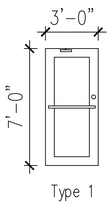


LINE POST ATTACHMENTS
N.T.S.

NOTES:

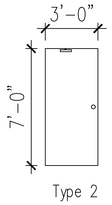
1. CHAIN LINK FENCE–INDUSTRIAL GAGE 9
2. LINE POSTS 2 1/2" O.D. GALV. – STD. WEIGHT PIPE – 3.65 LBS PER LIN. FT.
3. TOP RAIL 1 5/8" O.D. GALV. – STD. WEIGHT PIPE – 2.27 LBS. PER LIN. FT.
4. CORNER POST 2 1/2" O.D. GALV. – STD. WEIGHT PIPE – 3.65 LBS PER LIN. FT.
5. TENSION WIRE GA. No. 7 GALVANIZED.
6. GATE POSTS 4" O.D. GALV. – STD. WEIGHT PIPE – 7.3 LBS PER LIN. FT.
7. GALVANIZED CHAIN LINK GA. 9–2"x2" 1.2 OUNCES GALVANIZED.
8. STD. WEIGHT PIPE = SCHEDULE 40
9. ALL FITTINGS – HEAVY DUTY.
10. MILL CERTIFICATE SHALL BE SUBMITTED.

DOOR DETAIL



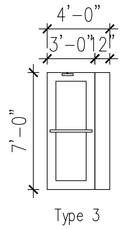
Type 1

10" Bottom Rail Standard
4 1/2" Flush Mount Frame
1/8" Extruded Aluminum
Brushed Aluminum Finish
Glass 1/4" Solar Bronze
Pivots Installed
ASTM Approved
Dead bolt 4870 Series Sargent
1331 Series Door Closer Sargent



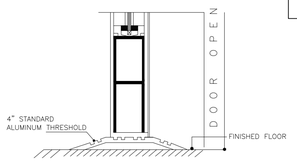
Type 2

1 3/4" Thick stiffened
Flushed Metal door Gauge 16
Honey Comb Core
Gauge 14 Steel Frame
ASTM Approved
7th Line Series Sargent
1331 Series Door Closer Sargent

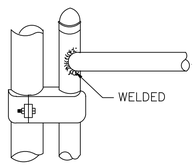


Type 3

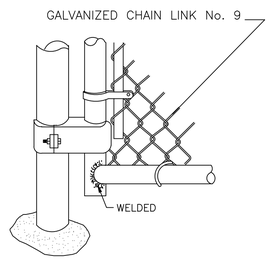
10" Bottom Rail Standard
4 1/2" Flush Mount Frame
1/8" Extruded Aluminum
Brushed Aluminum Finish
Glass 1/4" Solar Bronze
Pivots Installed
ASTM Approved
Dead bolt 4870 Series Sargent
Two 1331 Series Door Closers Sargent
Top & Bottom locks for both doors



THRESHOLD DETAIL FOR DOOR
N.T.S.



Upper Gate Hinge
NOT TO SCALE



Lower Gate Hinge
NOT TO SCALE

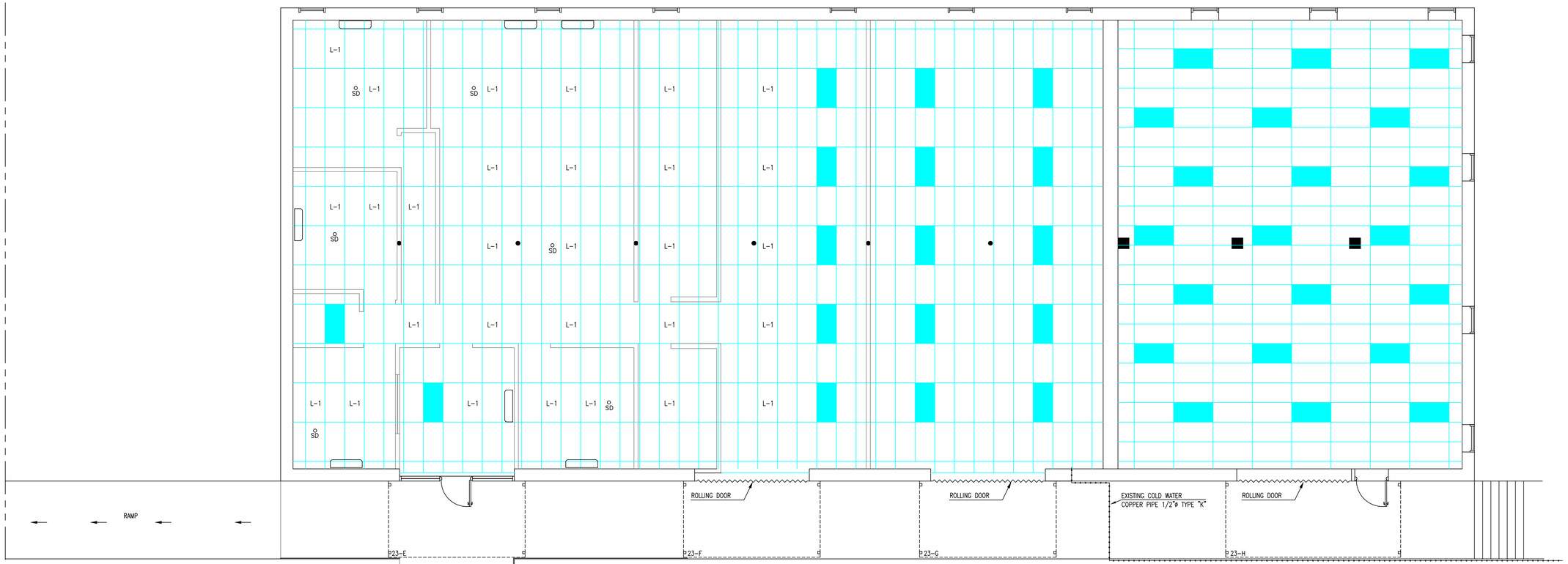
PUERTO RICO ARMY NATIONAL GUARD
DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)
CAMP SANTIAGO , SALINAS, PUERTO RICO
DETAILS

NO.	DESCRIPTION	DATE
	REVISIONS	

CERTIFIED:

DIRECTORATE OF ENGINEERING

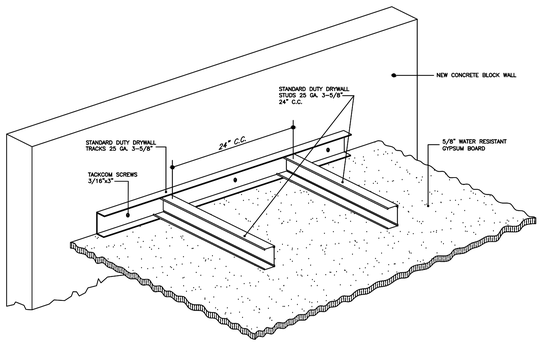
DESIGN:
DRAWN: OMAR ALVARADO
SUPERVISOR:
DATE: 2025/1/9
SCALE: 3/16=1'
SHEET: 5 OF TOTAL SHEETS: 11
SHEET NAME: A-2



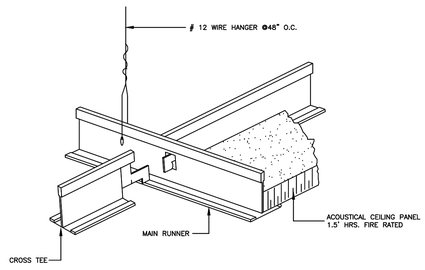
CEILING PLAN BUILDING 023

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

LEYEND	
	LIGHTS TO STAY IN PLACE
L-1	RELOCATE EXISTING LIGHTS TO L1



GYPSUM BOARD HUNG CEILING DETAIL
N.T.S



TYPICAL HUNG CEILING DETAIL
N.T.S

CEILING NOTES:

1. ALL ACOUSTICAL CEILING SHALL BE EQUAL OR SIMILAR TO ARMSTRONG PRODUCT.

2. TYPE: VL RH90 (PERFORATED) /MINERAL FIBER #871, 24"x48"x5/8", NCR=0.55,FIRE GUARD, HUMIDITY (SAG) RESISTANCE- HUMI GUARD MAX, LIGHT REFLECTANCE OF 0.81, 1.05#/SF, VINYL FACAD MEMBRANE,WET-FORMED MINERAL FIBER. TEXTURE FINE AT ALL TOILET ROOMS.

3. CEILING SUSPENSION SYSTEM: PRELUDE XL FIRE GUARD 15/16" EXPOSED TEE GRID, FOR ALL AREAS. BLACK COLOR FINISH.

4. ALL SUSPENDED ACOUSTICAL CEILINGS SHALL BE MOUNTED AT 8'-0" ABOVE FINISH FLOOR ELEVATION.

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PUERTO RICO ARMY NATIONAL GUARD

PROJECT: DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

SHEET TITLE: CEILING PLAN

NO.	DESCRIPTION	DATE
1	REVISIONS	

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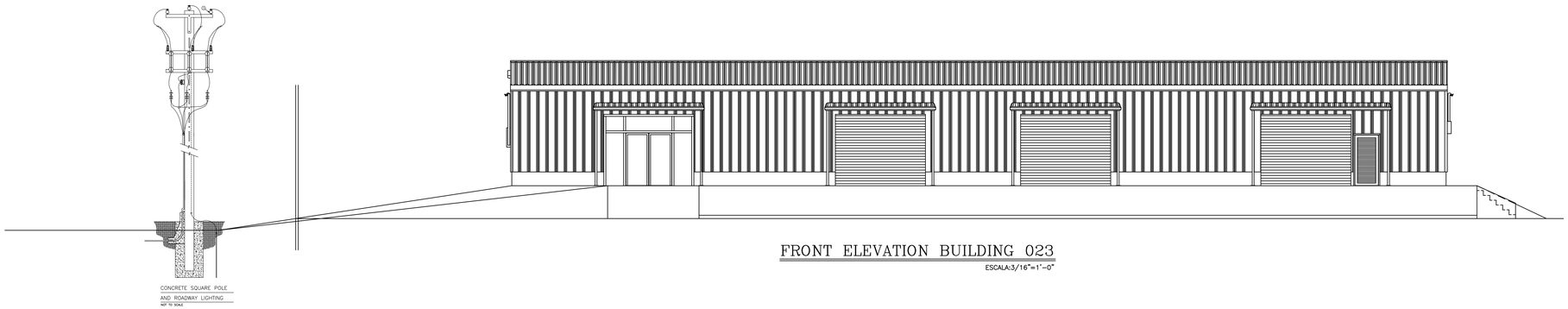
DRAWN: OMAR ALVARADO

SUPERVISOR:

DATE: 2025/1/9 SCALE: 3/16=1'

SHEET: 6 OF TOTAL SHEETS: 11

SHEET NAME: A-3

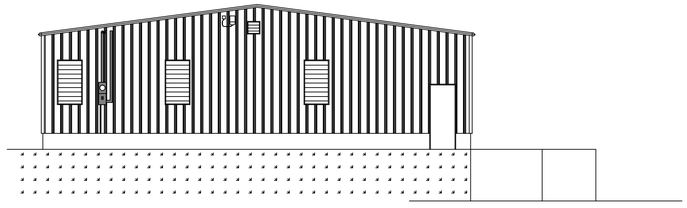


FRONT ELEVATION BUILDING 023

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

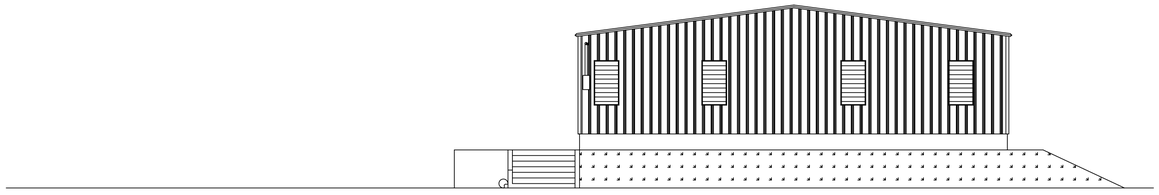
REAR ELEVATION BUILDING 023

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



LEFT LATERAL ELEVATION BUILDING 023

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



RIGHT LATERAL ELEVATION BUILDING 023

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

N

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DIRECTORATE OF ENGINEERING

PUERTO RICO ARMY NATIONAL GUARD

PROJECT: DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

SHEET TITLE: ELEVATION PLAN BUILDING 023

NO.	DESCRIPTION	DATE NO.	DESCRIPTION	DATE
1			REVISIONS	

DESIGN:

DRAWN: OMAR ALVARADO

SUPERVISOR:

DATE: 2025/1/9

SCALE: 1/8=1'

SHEET: 7 OF TOTAL SHEETS: 11

SHEET NAME: A-4

NEW PANEL BOARD SCHEDULE (BLDG 23A) AREA								
CIRCUITS	AMPS RATED	NO. OF POLES	CONDUCTOR 600 V		CONDUIT		SERVICE	REMARKS
			SIZE	INSULATION	SIZE IN "	TYPE		
1 - 4	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	LIGHTING	
5 - 7	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	RECEPTACLES	
8	50	2	3 - 6 AWG	THHW	3/4	PVC SCH 40	RECEPTACLES	

EXISTING PANEL BOARD SCHEDULE (BLDG 023) WORKSHOP AREA (E-1)								
CIRCUITS	AMPS RATED	NO. OF POLES	CONDUCTOR 600 V		CONDUIT		SERVICE	REMARKS
			SIZE	INSULATION	SIZE IN "	TYPE		
1 - 5	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	RECEPTACLES	
8 - 15	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	LIGHTING	

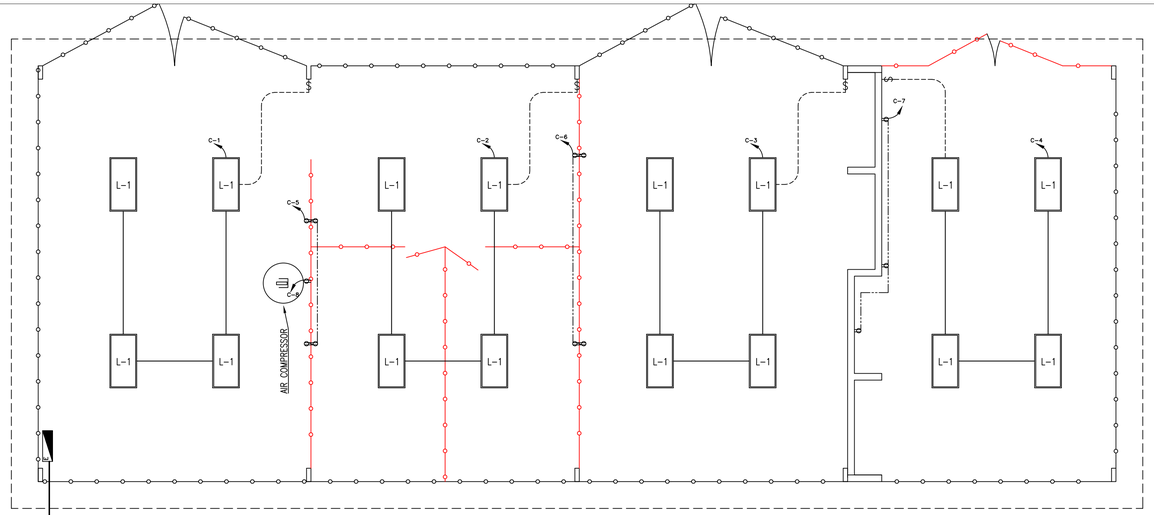
EXISTING PANEL BOARD SCHEDULE (BLDG 023) OFFICE AREA (E-2)								
CIRCUITS	AMPS RATED	NO. OF POLES	CONDUCTOR 600 V		CONDUIT		SERVICE	REMARKS
			SIZE	INSULATION	SIZE IN "	TYPE		
1 - 4	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	RECEPTACLES	
5 - 8	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	LIGHTING	

NEW PANEL BOARD SCHEDULE (BLDG 023) OFFICE AREA (E-3)								
CIRCUITS	AMPS RATED	NO. OF POLES	CONDUCTOR 600 V		CONDUIT		SERVICE	REMARKS
			SIZE	INSULATION	SIZE IN "	TYPE		
1 - 8	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	RECEPTACLES	
9 - 12	20	1	3 -12 AWG	THHW	3/4	PVC SCH 40	LIGHTING	
13 - 30	20	2	3 -10 AWG	THHW	3/4	PVC SCH 40	A/C	

NOTES:
1. NO EXPOSED CONDUITS ALLOWED UNLESS APPROVED.
2. ALL CABLES TO BE COPPER.
3. EXPOSED CONDUITS WILL BE RIGID GALVANIZED PIPES.
4. AN ALLOWANCE OF $15,000.00 FOR ADDITIONAL ELECTRIC WORKS MUST BE CONSIDERED.

LEYEND:

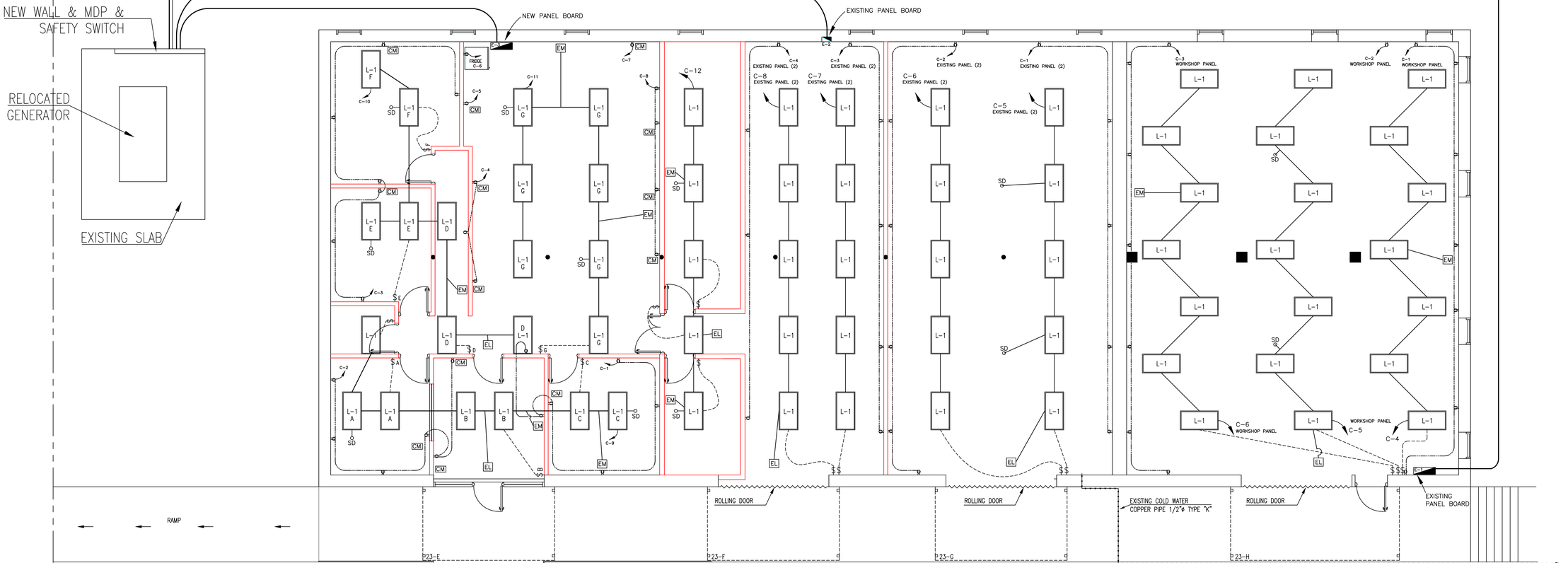
- ELECTRICAL CONDUIT
- SWITCH CONDUIT
- RECEPTACLE CONDUIT
- L1 — CREE MODEL CR 24 2' X 4' ARCHITECTURAL LED TROFFER
- SINGLE SWITCH 120 V 15 A @ 4'– 6" FROM GROUND. WHITE WITH STAINLESS STEEL COVER SIMILAR TO LEVINTON DECORA
- NEW ELECTRICAL PANEL 120V / 240 V 100 SPACES
- SD — SMOKE DETECTOR 120 V AC/DC
- EL — EXIT LIGHT 120V/BATTERY BACK UP
- EM — EMERGENCY LIGHT 120V/BATTERY BACKUP
- DOUBLE ELECTRICAL OUTLET WITH GROUND TERMINAL 15 AMP, @ 1"– 6" FROM GROUND LEVINTON DECORA STAINLESS STEEL COVER
- CM — INTERNET 2" X 4" JUNCTION BOX WITH STAINLESS STEEL ETHERNET COVER 1" CONDUIT RUNNING THROUGH THE WALL



LIGHTNING & RECEPTACLE PLAN BUILDING 023A

ESCALA:3/16"=1'–0"

TO NEW ELECTRICAL PANEL BUILDING 023A



LIGHTNING & RECEPTACLE PLAN BUILDING 023

ESCALA:3/16"=1'–0"

CERTIFIED:

DIRECTORATE OF ENGINEERING

PUERTO RICO ARMY NATIONAL GUARD

PROJECT: DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

SHEET TITLE: LIGHTNING RECEPTACLE & DATA PLAN BUILDING 023

NO. | DESCRIPTION | DATE NO. | DESCRIPTION | DATE

REVISIONS

DESIGN:

DRAWN: OMAR ALVARADO

SUPERVISOR:

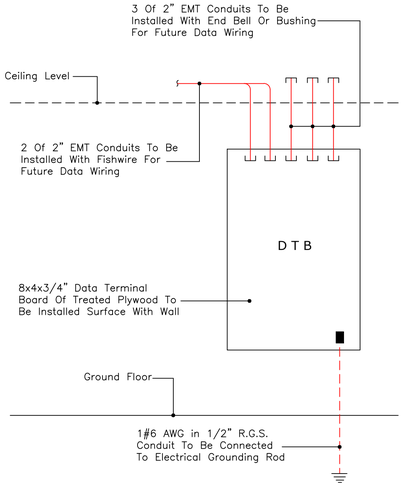
DATE: 2025/1/9 | SCALE: 3/16=1'

SHEET: 8 | TOTAL SHEETS: OF 11

SHEET NAME: E-1

NOTE:

1. ELECTRICAL RISER WILL BE INSTALLED (TYPICAL TYPE) WITH SAFETY SWITCH 120/240 VOLTS, SOLID NEUTRAL DISTRIBUTION PANEL 120/240 VOLTS, 225 AMPS, 2 POLES, 22 SPACES (RAINTIGHT).
2. ELECTRICAL SERVICE WILL BE SUPPLIED FROM NEAREST POLE AND WILL BE CONNECTED TO THREE CONDUCTORS #3 THW COOPER IN RIGID GALVANIZED CONDUIT 2" DIAM., ENDING WITH TYPE "F" CONDULET.
3. ELECTRICAL RISER WILL BE FIXED ALSO WITH A COOPER CONDUCTOR #8 IN RIGID GALVANIZED CONDUIT 2" DIAM., ATTACHED WITH A 5/8" x 6'-0" COOPER WELD BAR.
4. CIRCUITS WILL BE DISTRIBUTED AS THE BETTER KNOW OF THE ELECTRICAL TECHNICIAN ON DISTRIBUTION PANEL.



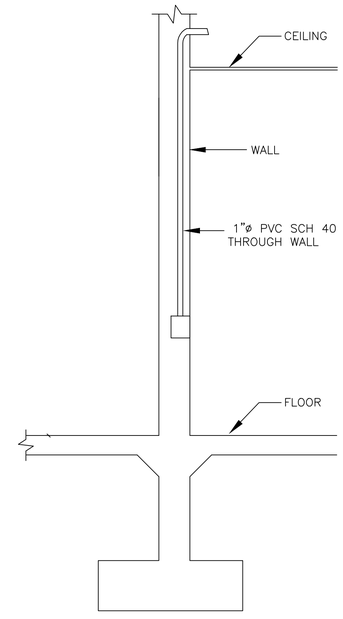
DATA ONE LINE DIAGRAM
N.T.S

ELECTRICAL NOTES:

1. ALL WORK SHALL BE STRICTLY COORDINATED WITH OWNER'S REPRESENTATIVE, A WRITTEN NOTICE TO PROCEEDE FROM THE OWNER IS REQUIRED PRIOR START THE CONSTRUCTION WORKS. ALL MATERIALS AND INSTALLATION SHALL CONFORM TO THE OWNER'S STANDARDS AND SPECIFICATION.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED INSURANCES ACCORDING TO OWNER'S REPRESENTATIVE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE.
3. ALL ELECTRICAL CONSTRUCTION WORKS SHALL BE DONE IN A THOROUGH AND WORKMANLIKE MANNER BY A LICENSED CONTRACTOR FOR A FULLY OPERATIVE SYSTEM IN ACCORDANCE WITH THE PLANS, SPECS AND CONSTRUCTION DRAWINGS. THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL, FIRE AND LOCAL CODES HAVING JURISDICTION SHALL BE FOLLOWED.
4. ELECTRICAL CONTRACTOR SHALL VISIT THE PROJECT PRIOR BID AND SHALL ADJUST HIS WORK TO ALL CONDITIONS FOUNDED ON SITE ACCORDING TO ARCHITECTURAL, CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS. ALL ADJUSTMENTS AND CHANGES REQUIRED DUE TO EXISTING CONDITIONS SHALL BE INCLUDED IN HIS BID.
5. SPECIAL CONDITIONS APPLY TO ELECTRICAL DRAWINGS, THEY ARE SCHEMATICS. ELECTRICAL CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS NECESSARIES TO PROVIDE A COMPLETE INSTALLATION READY FOR USE ACCORDING TO DRAWINGS AND SPECIFICATIONS.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MANUFACTURER'S SUPPLIER EXACT REQUIREMENTS FOR THE INSTALLATION AND PROTECTION OF ALL ELECTRICAL EQUIPMENTS AND MATERIALS PRIOR BID. ALL EQUIPMENTS AND MATERIALS SHALL BE NEW EXCEPT UNLESS OTHERWISE INDICATED AND SHALL BEAR UNDERWRITTERS AND UNION LABLES.
7. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL ALL ELECTRICAL EQUIPMENTS INCLUDING CONTROL PANELS, OUTLETS, DEVICES, WIRING, ETC. ACCORDING TO DRAWINGS UNLESS OTHERWISE INDICATED.
8. ALL DISTRIBUTION PANELBOARDS SHALL BE CONSTRUCTED WITH A GROUND BUS SEPARATE FROM NEUTRAL ONE TO CONNECT ALL GROUNDING GREEN WIRES. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE, PLUG-IN TYPE NOT ALLOWED. PROVIDE IDENTIFICATION OF ALL BRANCH CIRCUITS ON A TYPEWRITTEN DIRECTORY CARD IN THE PANEL DOOR.
9. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR BALANCING ALL LOADS ON EACH DISTRIBUTION PANELBOARD. MAXIMUN LOAD FOR EACH BRANCH CIRCUITS IS EIGHTY PERCENT. (80%)
10. ALL ELECTRICALL EQUIPMENTS SHALL BE CLEARLY IDENTIFIED WITH YELLOW ENAMEL PAINT OR ANY OTHER APPROVED METHOD ACCORDING TO DRAWINGS, NO FREE HAND IDENTIFICATION ALLOWED.
11. ALL METERBANKS, METER SOCKETS, DISTRIBUTION PANELBOARDS, SAFETY SWITCHES AND ANY OTHER ELECTRICAL MATERIAL SHALL BE CONSTRUCTED WITH COOPER BUSES, NOT ALLUMINUM ALLOWED.
12. ELECTRICAL, TELEPHONE, C.A.T.V., INTERCOM, DATA AND ANY OTHER SYSTEM SHALL BE GROUNDED AS PER LATEST EDITION NATIONAL ELECTRICAL CODE, ALL GROUND SYSTEM SHALL HAVE MAXIMUM RESISTANCE OF 5 OHMS. PROVIDED BOND WIRES IN ALL CONDUICTS AND GROUND TYPE BUSHINGS AS REQUIRED.
13. ALL ELECTRICAL CONDUCTORS SHALL BE COPPER WITH 600V INSULATION AND #12 AWG MINIMUM UNLESS OTHERWISE INDICATED. ALUMINUM WIRE IS NOT PERMITTED UNLESS SPECIFIED.
14. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ENGINEER EXACT FINAL LOCATION OF ELECTRICAL, TELEPHONE, C.A.T.V., DATA, INTERCOM AND ANY OTHER OUTLET OR EQUIPMENT PRIOR TO INSTALLATION.
15. ELECTRICAL CONTRACTOR SHALL INSTALL UNISTRUT CHANNELS AND HANGERS TO PROVIDE MECHANICAL SUPPORT TO ALL CONDUICTS EXPOSED IN CEILING PLENUM.
16. PROVIDE ELECTRICAL IDENTYFYING PVC WARNING RIBBON FOR UNDERGROUND LINES INSTALLED OVER ALL DIRECT BURIAL UNDERGROUND CONDUICT AND DUCTS AT 12" BELLOW FINAL FLOOR. IT IT SHALL BE 6" WIDE YELLOW COLOR AND PERMANENTLY PRINTED WITH CONTINUOUS 1-1/4" X 5/8" BLACK LETTERS WITH WORDS " PELIGRO - PELIGRO" AT THE TOP AND " LINEAS ELECTRICAS DEBAJO" AT BOTTOM.
17. NO CONDUIT SHALL BE SMALLER THAN 3/4" IN DIAMETER.
18. PROVIDE NO. 12 TW GREEN BONDING JUMPER BETWEEN THE OUTLET BOX GROUNDING SCREW AND ALL RECEPTACLES GROUND TERMINALS.
19. ALL WIRING DEVICE SHALL BE SPECIFICATION GRADE.
20. ALL CONDUCTORS #8 AWG AND ABOVE SHALL BE STRANDED.
21. ALL EXPOUSED CONDUITS SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING THE RECOMENDATIONS OF NEC 1999, SECTION 347-8.
22. HOMERUMS TO PANEL BOARD EXCEEDING ONE HUNDRED FEETS SHALL BE WIRED WITH #8 AWG PHASE CONDUCTORS AND #10 AWG GROUNDING CONDUCTOR USING 1" CONDUIT.
23. GROUNDING CONDUCTOR FOR ISOLATED GROUND BUS SHALL BE INSTALLED DIRECTLY WITH #8 AWG PHASE CONDUCTORS NEARES GROUND ROD. NOT FROM GROUNDING BUS BAR OF SUPPLY PANEL BOARD. SEE ELECTRICAL RISER DIAGRAM AND TYPICAL ISOLATED DISTRIBUTION PANEL BOARD CONNECTION DETAIL.
24. EACH CIRCUIT SHALL INCLUDE A SEPARATOR NEWMAN AND GROUNDING CONDUCTORS INSTALLED DIRECTLY TO PANEL BOARD.

NOTES:

1) ALL MATERIAL WILL BE NEW AND BUY AMERICA COMPLIANT FREE OF DEFECTS.
2) ALL EXPOSED CONDUITS WILL BE RIGID GALVANIZED.
3) ALL RECEPTACLES INSTALLED IN CIRCUITS OF 15 Y 20 AMPERES MUST BE BORNE TYPE FOR GROUND CONECTION ("GROUND TYPE").
4) INSTALL CONDUCTOR #12TW GREEN BEETWEEN THE "BORNE" GROUND FROM THE OUTLET TO "BORNE" GROUND OF THE ELECTRICAL BOX.
5) THE CONTRACTOR WILL BE RESPONSIBLE TO ABIDE BY THE PREPA CODES AND THE ARTICLES OF THE APPLICABLE NATIONAL ELECTRICAL CODES DURING CONSTRUCTION.



TYPICAL INSTALLATION FOR COMUNICATION
N.T.S

CERTIFIED:

DIRECTORATE OF ENGINEERING

PUERTO RICO ARMY NATIONAL GUARD

DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

PROJECT:

ELECTRICAL NOTES

SHEET TITLE:

NO.	DESCRIPTION	DATE
1	REVISIONS	

DESIGN:

DRAWN: OMAR ALVARADO

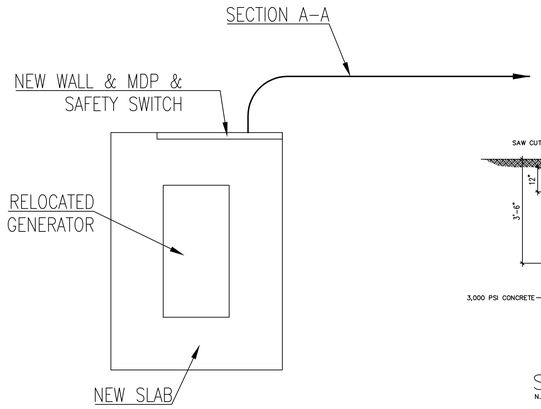
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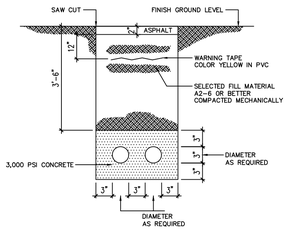
DATE: 2025/1/9

SCALE: N.T.S.

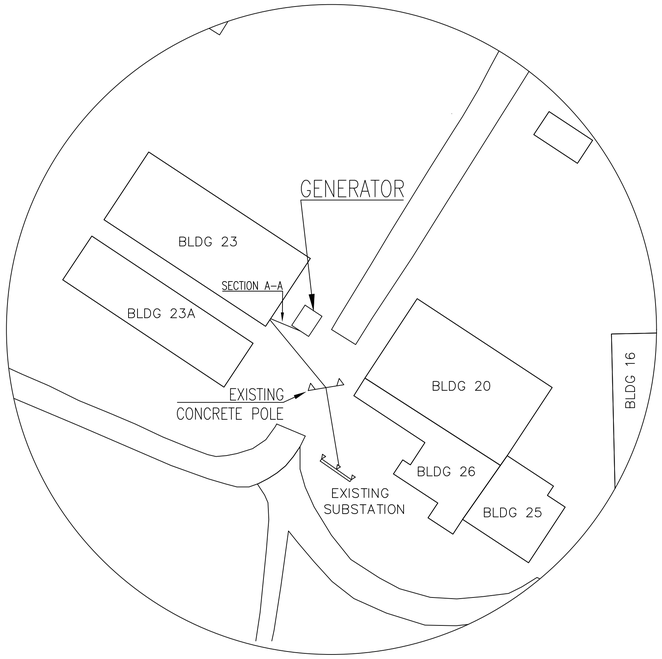
SHEET: 9 OF TOTAL SHEETS: 11

SHEET NAME: E-2

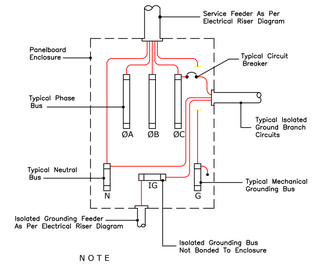




SECTION A–A
N.T.S



NEW FEEDER DIAGRAM
N.T.S

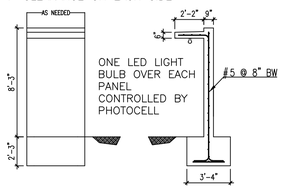


NOTE

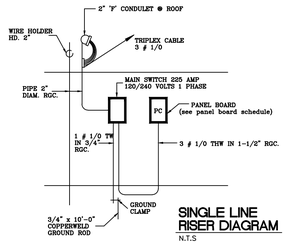
THIS DIAGRAM IS FOR ILLUSTRATIVE PURPOSE ONLY, WIRING AS SPECIFIED ON DRAWINGS, AS PER MANUFACTURER REQUIREMENTS.

TYPICAL ISOLATED DISTRIBUTION PANELBOARD CONNECTION DETAIL
N.T.S

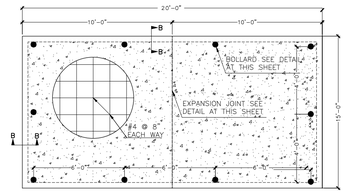
1' CLEARANCE ON EACH SIDE



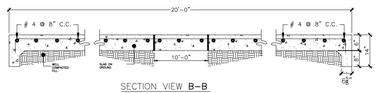
WALL FOR PANELS
N.T.S



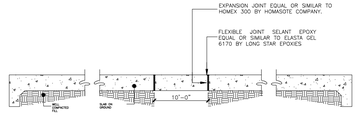
SINGLE LINE RISER DIAGRAM
N.T.S



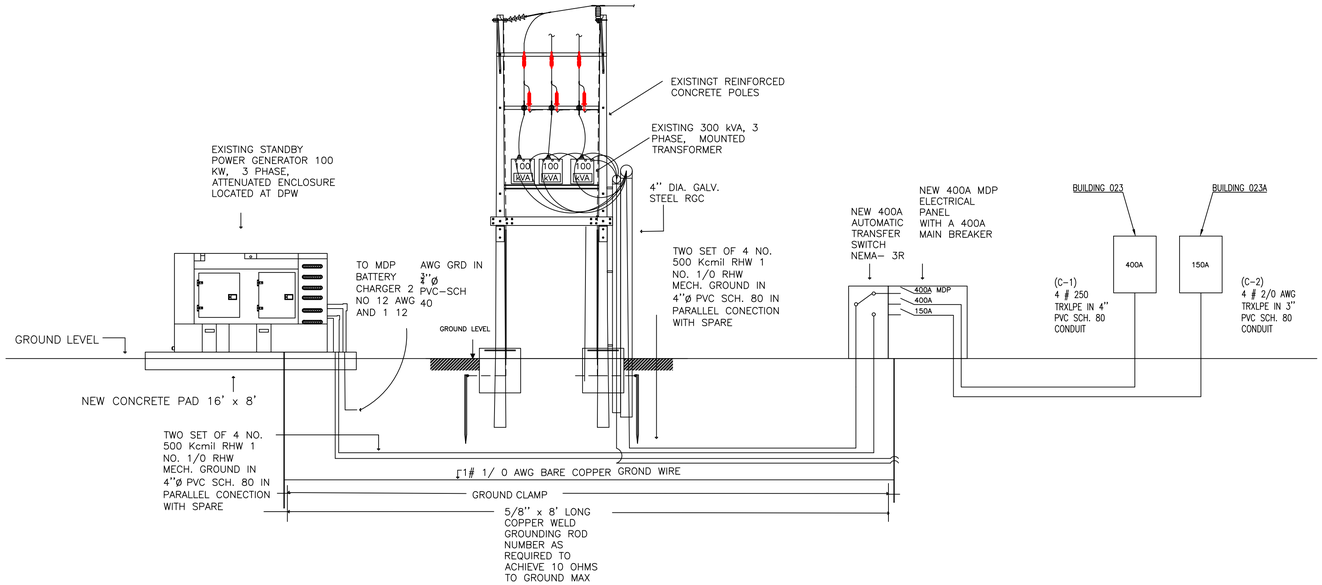
CONCRETE PAD DETAIL
NOT TO SCALE

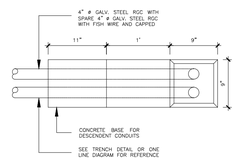


SECTION VIEW B–B
NOT TO SCALE

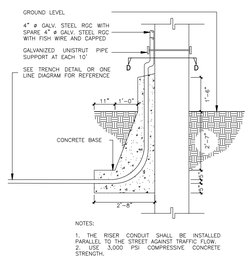


EXPANSION JOINT DETAIL
NOT TO SCALE





SECTION D–D
NO TO SCALE

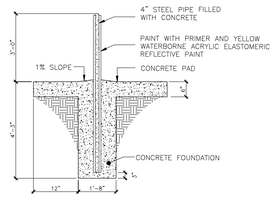


NOTES:
1. THE RISER CONDUIT SHALL BE INSTALLED PARALLEL TO THE STREET AGAINST TRAFFIC FLOW.
2. USE 3,000 PSI COMPRESSIVE CONCRETE STRENGTH.

RISER CONDUIT DETAIL
NO TO SCALE

CONCRETE NOTES

1. USE A 6 MILS VAPOR BARRIER BELOW ANY CONCRETE MIX POURING ON GROUND
2. USE 3,500 PSI CONCRETE COMPRESSIVE STRENGTH
3. A NON–EXPANSIVE AND INORGANIC SOIL MATERIAL MEETING THE REQUIREMENTS OF AN A–2–4 OR BETTER (A–1–a OR a–1–b) GRANULAR MATERIAL IN ACCORDANCE TO ASTM D 3282
4. ALL FILL BELOW SLABS ON GROUND OR FOUNDATIONS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY AND SHALL CONFORM TO THE ASTM D–1557.



BOLLARD DETAIL
NOT TO SCALE

CERTIFIED:

DIRECTORATE OF ENGINEERING

PUERTO RICO ARMY NATIONAL GUARD

PROJECT: DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)

CAMP SANTIAGO , SALINAS, PUERTO RICO

SHEET TITLE: ELECTRICAL DETAILS

NO.	DESCRIPTION	DATE
	REVISIONS	

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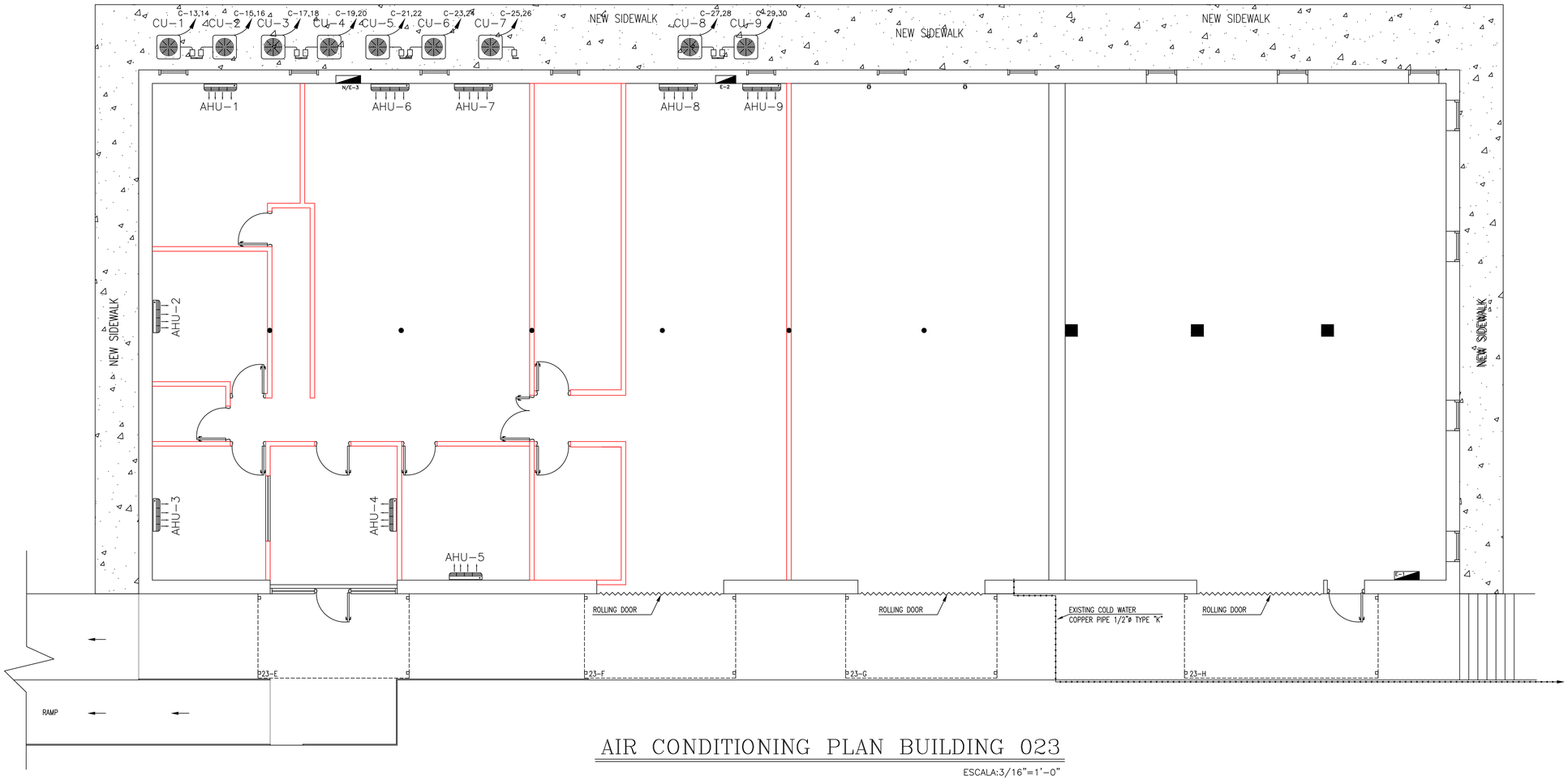
DRAWN: OMAR ALVARADO

SUPERVISOR:

DATE: 2025/1/9 SCALE: N.T.S.

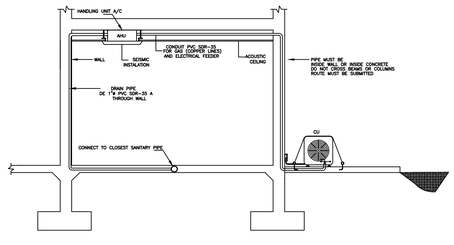
SHEET: 10 OF TOTAL SHEETS: 11

SHEET NAME: E-3



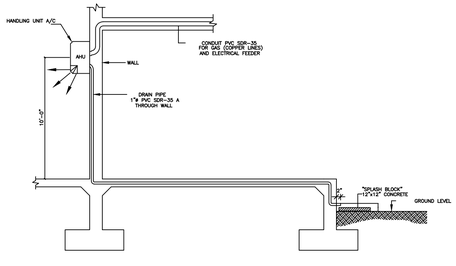
AIR CONDITIONING PLAN BUILDING 023

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



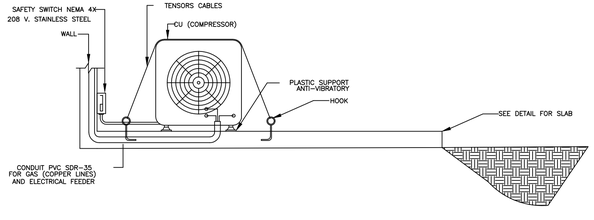
TYPICAL INSTALLATION FOR A/C UNITS
"CASSETTE"

N.T.S.



TYPICAL INSTALLATION FOR A/C UNITS
"MINI-SPLIT"

N.T.S.



LEYEND:

- DISCONNECTIVE 208V, 40 AMP., WATER PROOF "RANTIGHT" NEMA 3R
- COMPRESSOR A/C
- AIR HANDLING UNIT A/C

LIST OF THE MECHANICAL EQUIPMENT	
MRCD.	SPECIFICATIONS AND DESCRIPTION OF EQUIPMENT
AHU-1 & CU-1	"MINI-SPLIT" TRANE 208-230-3-60 24,000 BTU/HR. 3 PHASE
AHU-2 & CU-2	"MINI-SPLIT" TRANE 208-230-3-60 18,000 BTU/HR. 3 PHASE
AHU-3 & CU-3	"MINI-SPLIT" TRANE 208-230-3-60 18,000 BTU/HR. 3 PHASE
AHU-4 & CU-4	"MINI-SPLIT" TRANE 208-230-3-60 18,000 BTU/HR. 3 PHASE
AHU-5 & CU-5	"MINI-SPLIT" TRANE 208-230-3-60 18,000 BTU/HR. 3 PHASE
AHU-6 & CU-6	"MINI-SPLIT" TRANE 208-230-3-60 36,000 BTU/HR. 3 PHASE
AHU-7 & CU-7	"MINI-SPLIT" TRANE 208-230-3-60 36,000 BTU/HR. 3 PHASE
AHU-8 & CU-8	"MINI-SPLIT" TRANE 208-230-3-60 36,000 BTU/HR. 3 PHASE
AHU-9 & CU-9	"MINI-SPLIT" TRANE 208-230-3-60 36,000 BTU/HR. 3 PHASE

A/C NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES AND OWNER CRITERIA. ALL FEES AND TAXES RELATED TO INSPECTIONS, PERMITS AND LICENSES SHALL BE PAID FOR BY THIS CONTRACTOR.
2. ALL WORKS SHALL BE ACCOMPLISHED BY EXPERIENCED PERSONNEL IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF THE ASHRAE HANDBOOK AND ALL APPLICABLE CODES AND THOSE OF THE MANUFACTURERS OF THE EQUIPMENT AND MATERIALS TO BE INSTALL.
3. THIS CONTRACTOR SHALL VISIT THE JOB SITE AND PREMISES AND BE FAMILIAR WITH THE JOB CONDITIONS PRIOR TO SUBMITTING BID.
4. AIR CONDITIONING AND VENTILATING SYSTEM SHALL BE COMPLETE IN EVERY DETAIL AND SHALL INCLUDE ALL ITEMS NECESSARY FOR A COMPLETE AND FUNCTIONING INSTALLATION, SUBJECT TO FINAL APPROVAL OF OWNER. ALL MATERIAL USED FOR THE JOB SHALL BE NEW AND THE BEST OF THEIR KINDS. ALL EQUIPMENT USED SHALL BEAR A U.L. LABEL.
5. MECHANICAL CONTRACTOR SHALL VERIFY VOLTAGE OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING OF EQUIPMENT AND PROVIDE MOTORS AND MOTORS STARTERS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE OF THE COORDINATION AND THE PROVISION OF ANY POWER REQUIREMENT FOR THE EQUIPMENT CONTROL SYSTEM.
6. AIR CONDITIONING DUCTWORK SHALL BE FABRICATED FROM PRIME QUALITY GALVANIZED STEEL SHEETS AND BE OF LOW PRESSURE SYSTEM CONSTRUCTION, AS PER S.M.A.C.N.A. STANDARDS. ALL DUCTWORK JOINTS SHALL BE SEALED WITH 2" DUCT TAPE. PROVIDE SPLITTER OR VOLUME DAMPERS AT EACH SUPPLY DUCT TAKE OFF TO PROVIDE THE MEANS FOR PROPER SYSTEM AIR BALANCING.
7. INDOOR SUPPLY AND RETURN DUCTWORK SHALL BE COVERED WITH U.L. APPROVED, 1-1/2" INSULATION. THIS INSULATION SHALL BE JOHNS-MANVILLE TYPE MICROLITER DUCT INSULATION
8. THIS CONTRACTOR SHALL SUPPLY AND INSTALL SUPPORTS AND HANGERS FOR DUCTWORK. THESE SUPPORTS AND HANGERS SHALL BE IN ACCORDANCE WITH SECTION IV, OF SMACNA HVCA DUCT CONSTRUCTION STANDARDS, FIRST EDITION.
9. ALL DUCT AND PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER AND WHENEVER POSSIBLE, PARALLEL RUNS OF HORIZONTAL PIPING SHALL BE GROUPED TOGETHER ON TRAPEZE UNISTRUT TYPE HANGERS. PIPES SHALL BE FASTENED BY MEANS OF GALVANIZED STEEL PIPE CLAMPS. A PVC SLEEVE SHALL BE PROVIDED BETWEEN PIPE AND HANGER TO AVOID GALVANIC ACTION. SPACING OF PIPE SUPPORTS SHALL NOT EXCEED 8 FEET FOR PIPES UP TO 2 INCHES AND 10 FEET ON ALL OTHER PIPING.
10. DRAIN LINES FROM THE AIR CONDITIONING UNITS SHALL BE TAKE TO OPEN DRAIN CONNECTIONS. THESE LINES SHALL BE PLASTIC PVC (1-1/2" DIAMETER) SCHEDULE 40 TYPE I, WITH SOLDER JOINTS AND FITTINGS WITH A MINIMUM SLOPE OF 1/4"/FT. PROVIDE WITH CLEANOUTS AND SUPPORTS ALONG THE LINE OF DRAIN. THE DRAIN SHALL BE INSULATED WITH 1/2" THICKNESS FOAM PLASTIC CLOSED CELL (K=0.28) SEALED WITH ADEQUATE ADHESIVE AT CEILINGS.
11. THE MECHANICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL ELECTRICAL CONTROLS, SAFETY SWITCHES AND ACCESSORIES NOT INDICATED IN THE ELECTRICAL DRAWINGS AND NECESSARY FOR THE PROPER OPERATION OF THE EQUIPMENT IN ACCORDANCE WITH MECHANICAL EQUIPMENT MANUFACTURERS' RECOMMENDATIONS AND THE NATIONAL ELECTRIC CODE.
12. THE MECHANICAL CONTRACTOR PERFORM ALL WIRING AND CONNECTIONS (POWER AND CONTROL) NOT INDICATED IN THE ELECTRICAL DRAWINGS AND NECESSARY FOR THE PROPER OPERATION OF THE MECHANICAL EQUIPMENT IN STRICT ACCORDANCE WITH THE RULES OF THE NATIONAL ELECTRICAL CODE.
13. THE CONTRACTOR SHALL TAKE EVERY PRECAUTIONS IN ORDER TO MINIMIZED OR ELIMINATE THE TRASMISSION OF NOISE OR VIBRATION FROM THE EQUIPMENT, PIPING SYSTEM OR DUCT SYSTEM TO THE CONDITIONING SPACE.
14. BALANCING OF THE AIR CONDITIONING AND VENTILATION SYSTEM WILL BE PERFORMED BY MECHANICAL CONTRACTOR.
15. ANY PIPE OR DUCT ENTERING OR PASSING THROUGH WALLS OR PLENUM LIMITS MUST BE PERFECTLY SEALED AT ALL POINT WHERE ITS PERFORATED THE WALL OR THE LIMITING PARTITIONS.
16. FINAL LOCATION OF AIR CONDITIONING AND VENTILATION EQUIPMENT, WALL AND ROOF PENETRATIONS AND PIPING AND DUCTWORK RUNNING SHALL BE COORDINATED WITH THE ENGINEER, THE OWNER AND THE GENERAL CONTRACTOR.

N

CERTIFIED:

DIRECTORATE OF ENGINEERING

PUERTO RICO ARMY NATIONAL GUARD

PROJECT: DPW TEMPORARY OFFICES (BUILDIN 023 & 023A)
CAMP SANTIAGO - SALINAS, PUERTO RICO

SHEET TITLE: AIR CONDITIONING PLAN BUILDING 023

NO.	DESCRIPTION	DATE
1	REVISIONS	

DESIGN:

DRAWN: OMAR ALVARADO

SUPERVISOR:

DATE: 2025/1/9 SCALE: 3/16=1'

SHEET: 11 OF TOTAL SHEETS: 11

SHEET NAME: M-1