TECHNICAL MANUAL

AVIATION UNIT MAINTENANCE INCLUDING REPAIR PARTS FOR TOOL SET COMPANY SIZE, SET NO. 2 AIRMOBILE (NSN 4920-00-567-0476) (LIN W60206)

HEADQUARTERS, DEPARTMENT OF THE ARMY

11 APRIL 1978

WARNING

PRECAUTIONARY DATA

Personnel performing operations, procedures and practices which are included or implied in the Technical Manual shall observe the following warnings. Disregard of these warnings and precautionary information can cause serious injury, death or destruction of material.

WARNING

A minimum of two persons are needed when moving or lifting the environmental control units (each weighing 290 pounds). Make sure that both circuit breakers (60A and 30A) on the circuit breaker panel are in the off position before installing the environmental control units to the interior of shelter, The shelter contains voltages that are dangerous if contacted. Before removing either electric cables or components, make certain electrical power is completely disconnected. Install and connect grounding rods before energizing shelter.

CLEANING SOLVENTS

Cleaning solvents may be toxic. Use in well ventilated areas. Avoid prolonged inhalation of fumes or direct contact with skin, Do not use solvents near open flame or in areas where very high temperatures prevail, Shelter must have adequate ventilation when cleaning solvents are being used.

COMPRESSED AIR

Do not direct compressed air near or directly against skin. Do not use air under high pressure or from a source not having a moisture trap when drying parts. Do not roll bearings with compressed air,

WARNING

An operating procedure, practice, etc., which, if not correctly followed, could result in personnel injury or loss of life.

CAUTION

An operating procedure, practice, etc., which, if not strictly observed, could result in damage to or destruction of equipment.

NOTE

An operating procedure, condition, etc., which is essential to highlight.

CHANGE
NO. 3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 15 0ctober 1993

Aviation Unit Maintenance Including Repair Parts
for
TOOL SET COMPANY SIZE,
SET NO. 2 AIRMOBILE
(NSN 4920-00-567-0476)
(LIN W60206)

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AVIATION UNIT MAINTENANCE INCLUDING REPAIR PARTS
FOR TOOL SET COMPANY SIZE,
SET NO. 2 AIRMOBILE
(NSN 4920-00-567-0476)
(LIN W60206)

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Chapter 1	1-1 and 1-2	1-1 and 1-2
Chapter 2	2-1 and 2-1	2-1 and 2-2
Chapter 3	3-1 and 3-2	3-1 and 3-2
Appendix A	A-1/A-2	A-1/A-2
Appendix B	B-1 and B-2	B-1 and B-2
	C-3 through C-6	C-3 through 3-6

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AVIATION UNIT MAINTENANCE INCLUDING REPAIR PARTS
FOR TOOL SET COMPANY SIZE,
SET NO. 2 AIRMOBILE
(NSN 4920-00-567-0476)
(LIN W60206)

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	Remove pages	Insert pages
Chapter 1	1-1 thru 1-3/1-4	1-1 thru 1-3/1-4
Chapter 2	2-1 and 2-2	2-1 and 2-2
Chapter 3	3-1 thru 3-4	3-1 thru 3-4
Appendix D	D-69/D-70	D-69/D-70
	D-71/D-72	D-71/D-72

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TECHNICAL MANUAL
No. 55-4920-403-20&P

Headquarters
Department of the Army
Washington, DC, 11 April 1978

Aviation Unit Maintenance Including Repair Parts Tool Set Company Size, Set No. 2 Airmobile (NSN 4920-00-567-0476 (LIN W60206)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistake or if you know of a way to improve the procedure, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 (Test) located in the back of this manual, directly to Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, Missouri 63120-1798. A reply will be furnished to you.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope. This manual is for your use in operating and maintaining the aviation unit maintenance shop set and equipment mounted in the portable shelter. It provides the necessary information about the shelter, storage for the tools, equipment and working space for personnel performing aviation unit maintenance of aircraft material.

1-2. Maintenance Forms and Records. Maintenance forms and records which you are required to use are listed and explained in DA PAM 738-751.

1-3. Administrative Storage. Refer to TM 740-90-1 for storage requirements.

1-4. Calibration. There are several items in the AVUM No. 2 shop set which require periodic calibration, for example, torque wrenches, dial indicators, etc. This equipment should be calibrated in accordance with procedures and practices contained in TB 43-180.

1-5. Quality Assurance/Quality Control (QA/QC). There are no quality assurance/quality control manuals pertaining to this material.

1-6. Destruction of Material to Prevent Enemy Use. Refer to TM 750-244-3 for procedures concerning destruction of this material.

1-7. Reporting of Equipment Improvement Recommendations (EIR). If your tool set company size, set No. 2 airmobile needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to the address specified in DA PAM 738-751.

Section II. DESCRIPTION AND TABULATED DATA

1-8. Description.

a. Refer to TB 43-0124 for the basic description of the portable S-280 shelter.

b. Each S-280 shelter is modified per drawing 4920-EG-056 (figure D-2) to a shelter suitable for aviation unit maintenance.

c. Each 4920-EG-056 shelter (figure D-2) is further modified per drawing 4920-EG-054 (figure D-1) to a common AVUM No. 2 shelter.

d. The 4920-EG-054 AVUM No. 2 shelters (figure D-1) are then finished per drawing 4920-EG-057 (figure D-3) into three specific configurations which make up the AVUM No. 2 complex.

1-9. Shelter Features.

a. A hook to assist in balancing tail rotors is installed in the No. 1 shelter of each complex.

WARNING

Loads exceeding 75 pounds should not be applied to ceiling hook.

b. Mobilizer brackets are installed on all shelters per drawing 4920-EG-080 (figure D-6) to allow ground handling with the M-720 dolly set. Details on the use of the M-720 dolly set can be found in TM 9-2330-285-14.

c. Assistance in troubleshooting the electrical system is available by referring to drawings

4920-EG-056 (figure D-2) for shelter wiring, 4920-EG-058 (figure D-4) for cable wiring and 4920-EG-077 (figure D-5) for power distribution panel wiring.

d. Power cables may be field repaired using a standard blade screwdriver to replace connector. (Refer to drawing 4920-EG-058 (figure D-4).)

e. Repairs to the shelter itself should follow the guidance given in the shelter TB 43-0124.

f. Compressed air service panel is provided to route air from an outside air compressor into each shelter.

g. Duplex type weatherproof electrical outlet located on the power inlet panel is provided to power trouble lights and hand tools used outside each shelter.

1-10. Shelter Components and Location. For shelter components and location, refer to drawings 4920-EG-054 (figure D-1) and 4920-EG-057 (figure D-3).

a. Angle iron frames and brackets, as illustrated in figures D-1 and D-2, are secured to the shelter floor and walls.

b. The work table (item 5, figure D-1) is secured to the right wall and floor by brackets.

c. Wall mounted shelf/table (item 3, figure D-1) is secured to the left wall of shelter.

d. The environmental control unit (ECU) is secured to its support item 11, figure D-2) through the opening in the back-wall of the shelter for operation and secured to bracket assembly (item 6, figure D-2) for storage and shipment.

e. The vise (item 11, figure D-3) and grinding machine (item 12, figure D-3) are mounted on the work table located on the right side of the appropriate shelter as shown in drawing 4920-EG-057 (figure D-3).

f. Storage space is provided in the drawers of the work table for storing other components of the shop set. These components will normally be received on initial shipment in boxes strapped to the shelter floor. It will be the responsibility of the aviation unit repairman to unpack, check items for quantity and serviceability, and-stow them in drawers of the appropriate work table (item 5, figure D-1).

g. Components of the AVUM No. 2 tool set are listed and illustrated in Supply Catalog SC 4920-99-CL-A92.

1-11. Tabulated Data.

a. Type of construction: stressed skin aluminum foam-core with laminated bond between skin and foam-core.

b. Dimensions of the shelters are as follows:

	Maximum outside dimensions (inches)		
Shelter Type No.	Length	Width	Height
S-280/G	147	87	83-3/8

c. Power requirement: 208 volt 60 Hz 3 Phase 4 wire.

d. Weight: 2200 pounds per shelter (less ECU).

e. Transportability:

(1) Ground handling is accomplished by using dolly set M-720 with brackets installed on each shelter by fork lift or crane.

CAUTION

When transporting a shelter by air, avoid dropping the shelter or sudden jerks on the lifting rings, since serious structural damage will result.

(2) Shelters are airmobile by helicopter sling loading and by regular air cargo shipment. (Refer to TB 43-0124.)

1-12. Electrical Power.

a. Electrical power is transmitted from a 60 Hz mobile electric generator through the power distribution panel to the shelters by a heavy-duty power cable.

CAUTION

Be sure generator is set for 208V 3 phase operation.

b. The power distribution panel (item 1, figure D-5) is provided to isolate shelters electrically from each other, to provide a means of safely connecting and disconnecting individual shelters without disturbing others in the complex, and to progressively load the generator.

c. Supplied ground rod and grounding cable are intended for field use. If shelter is operated on a hard stand, drive ground rod as close to shelter as possible or use other suitable existing nearby ground. DO NOT SPLICE GROUND CABLE. If supplied ground cable is too short, use at least No. 6 AWG wire of suitable length. Always keep ground cables as short as possible. For additional information, refer to TC 11-6 GROUNDING TECHNIQUES.

1-13. Spares, Repair Parts, Special Tools and Other Special Support Equipment.

a. There are no special tools or equipment required for maintenance of the S-280 shelter.

b. Repair parts are listed in Appendix C for the shelter modification. Repair parts for the basic S-280 shelter are listed in TM 11-5410-213-14P.

CHAPTER 2

OPERATOR/CREW MAINTENANCE INSTRUCTIONS

2-1. Service Upon Receipt of Material from Storage or Initial Issue.

a. Shelters will normally be received in the following condition:

(1) Storage frames for the environmental control unit will be installed.

(2) Work table, shelf/table and fire extinguisher are already attached to the floor and wall of the shelter.

(3) Power cable (item 2, figure D-4) is stored under the work table.

(4) The grinding machine and vise will be installed as illustrated in figure D-3.

(5) Components of tool sets will normally be boxed and strapped to the shelter floor.

(6) Environmental control units, which are TOE items, will normally be shipped separately from the shelter.

b. Cleaning and stowage will be performed as follows.

NOTE

Inspect all material after cleaning for deterioration or damage.

(1) Remove web straps securing boxed components of the shop set.

(2) Unpack components of shop set from boxes. Remove preservative material from tools and store tools in the drawers of work table. Repair or replace damaged or missing material.

(3) Remove packing and preservative materials from vise and grinding machine.

(4) If shelters are to be transported to another location before being put into operation, perform the following operations:

(a) Place the environmental control units in storage frames and secure with web straps (figure D-7).

WARNING

A minimum of two persons are needed when moving or lifting the environmental control unit.

(b) Secure power cable under work table.

2-2. Preparing Shelter for Operation.

a. Using the handles, raise one end of the environmental control unit and slide it out of the frame.

b. ECU shipping bracket may be removed from floor and stowed in a convenient place.

WARNING

Make sure that both 3 phase circuit breakers (60A and 20A) on the circuit breaker panel are In the off position before proceeding with the next step.

c. Open ECU mounting port and install ECU on the shelter mounting shelf. Connect ECU power cable (item 44, figure D-2).

d. Open shelter vent on door.

e. Drive ground stake and connect to ground post on shelter in accordance with TC 11-6.

f. Set power distribution panel next to generator set and attach pigtail to generator.

WARNING

Make sure generator Is set for 208V 3 phase operation and pigtall leads are connected in accordance with drawing 4920-EG-077 (figure D-5).

g. Lay power cables from each shelter to the power distribution panel.

h. Make sure all circuit breakers in the shelter are off, then connect power cable to shelter.

i. Connect power cable to power distribution panel.

j. Connect the cable assembly from power distribution panel to generator pigtail cable assembly.

WARNING

The shelter contains voltages that are dangerous if contacted. Before removing either electric cables or components, make certain electrical power is completely disconnected. Do not connect or disconnect power cables while energized. Install and connect grounding rods before energizing shelter.

k. Start generator and energize shops in the following sequence:

(1) Close (turn on) generator main breaker.

(2) Close (turn on) power panel breaker.

(3) Close (turn on) shelter main breaker.

2-3. Instructions for Moving Shelter.

a. Make sure generator power is off, open main breaker, then disconnect power cable from generator pigtail and store on power panel storage plate.

b. Disconnect power cable from shelter.

c. If necessary, retrieve from storage the ECU mounting frame and install frame on shelter floor with four hexagon-head capscrews and lockwashers.

d. Remove environmental control unit from shelter mounting shelf and place in ECU frame on shelter floor, then secure the environmental control unit with web straps. (Refer to figure D-7.)

e. Close ECU mounting shelf.

f. Remove ground rod and save for reuse.

g. Close shelter vent.

h. Secure the power cable (item 2, figure D-4) under work table,

i. Place all tools and components of the shop sets in drawers of the work table.

i. All loose items to be transported in shelter must be secured and strapped down.

k. Close shelter for movement in accordance with the instructions contained in TB 43-0124.

2-4. Operation.

a. Refer to appropriate technical manuals and manufacturer's literature for operation of grinding machine.

b. Remove tools from storage drawers in work table as required for performing aviation unit maintenance of aircraft -material. Return tools to proper storage location when not in use.

CHAPTER 3

AVIATION UNIT MAINTENANCE INSTRUCTIONS

Section I. GENERAL

3-1. Descriptive Information.

a. Refer to TB 43-0124 for aviation unit maintenance to be performed on the shelter.

b. Maintenance of grinding machine can be found in the appropriate technical manuals and manufacturer's literature.

c. Replace unserviceable components of shop set.

d. Refer to the maintenance allocation chart (Appendix B) for aviation unit maintenance to be performed on the shop set.

e. Information on care, repair and parts for the environmental control unit can be 'found in TM 5-4120-239-14.

f. Power cables may be field repaired using a standard blade screwdriver to replace connector. Refer to drawing 4920-EG-058 (figure D-4).

g. Have an aircraft electrician or other qualified person work on electrical parts of the shelter.

Section II. MAINTENANCE INSTRUCTIONS

3-2. Shelter Maintenance. Inspect shelter carefully for defects. Refer to TB 43-0124 and TM 11-5410-213-14P for repair procedures and replacement parts.

3-3. Fixture Maintenance.

a. *Work Table.* The worktable is part of the tool set and replacements may be ordered from the Supply Catalog. Remove and save the mounting bolts, lag screws and brackets (items 10, 17 and 25, figure D-1) from the original work table. Place the new worktable on the floor mounting plates (item 26, figure D-1) and install bolts. Bolt angle brackets (item 10, figure D-1) to wall; then, using the bottom hole as a guide, drill the table top and install lag screws.

b. ECU Shipping Bracket. If the ECU shipping bracket or its straps are found to be unserviceable, remove the four bolts and Iockwashers securing it to the floor, replace with a new bracket and reinstall the bolts and Iockwashers.

c. *ECU Shelf Assembly.*

(1) The ECU support cable assembly (item 12, figure D-2) may be replaced by drilling out the two blind rivets (item 85, figure D-2), removing the two screws (item 88, figure D-2) and removing the hook (item 101, figure D-2) from the "D" ring on the shelter. Position the new cable assembly and install the appropriate hardware. Be sure to crimp the hook over the "D'' ring to secure it.

(2) The ECU support shelf itself may be replaced by removing the "D" ring as previously explained and removing three screws (item 96, figure D-2). Reverse this procedure to install a new shelf support.

(3) The hinge (item 69, figure D-2) may be replaced by removing three screws (item 96, figure D-2) and drilling out 13 rivets (item 97, figure D-2). Rivet the replacement hinge to the shelter and reinstall three screws.

d. Compressed Air Panel.

(1) The plug assembly (item 9, figure D-2) may be replaced by drilling the rivet (item 84,

figure D-2), removing the old assembly and riveting a new assembly in its place.

(2) The compressed air panel assembly (item 8, figure D-2) may be replaced by removing the air-oil separator (item 102, figure D-2), piping (items 65 and 66, figure D-2) and unbolting the panel. Sealant (item 81, figure D-2) should be applied to the new panel before it is bolted in place. Reinstall the piping and air-oil separator.

(3) The air-oil separator (item 102, figure D-2) may be replaced by removing two bolts and washers (items 89 and 103, figure D-2) and disconnecting the separator from the piping (item 65, figure D-2).

e. Fire *Extinguisher* Bracket. The fire extinguisher bracket (item 99, figure D-2) may be replaced by removing four bolts, Iockwashers and flat washers (items 112, 113 and 114, figure D-2) and installing a new bracket using the hardware removed from the old one.

f. *Shelf/Table.* The shelf/table (item 3, figure D-1) may be replaced by removing eight bolts (item 17, figure D-1) and installing a new shelf/table using the hardware removed from the old one.

g. *Hook Board.* The hook board (item 4, figure D-1) may be replaced by removing two bolts and washers (items 13, 14 and 21, figure D-1) and installing a new hook board using the hardware removed from the old one.

WARNING

All electrical repairs or replacement should be performed by an aircraft electrician or other qualified person.

3-4. Electrical Components Maintenance.

a Shelter Power *Cable.*

(1) The shelter power cable (item 2, figure D-4) should be carefully inspected for breaks in the jacket insulation and corrosion of the electrical contacts.

(2) The connectors (items 3 and 4, figure D-4) may be replaced using a standard blade screwdriver to remove the connector covers and loosen the screws holding the wires in the contacts. Be sure to insert the wires in the same contact on the new connector that they were installed in on the old connector. Connectors should be wired in accordance with instructions given in drawing 4920-EG-058 (figure D-4).

WARNING

If connectors are improperly wired, a serious electrical shock hazard may result.

(3) Following repairs or replacement of parts to the shelter power cable, it should be checked with an ohmeter for proper connections between connectors and to insure there are no shorts between contacts.

NOTE

The ground contact is bonded to the *connector* case.

b. Light Fixtures. Light fixtures (item 53, figure D-2) should be inspected for broken lamp contacts or other damage. The lamp (item 55, figure D-2) and lamp protector (item 56, figure D-2) may be replaced by removing the screws (item 107, figure D-2) holding the retaining straps (item 54, figure D-2) to the light fixture. To replace the light fixture assembly (item 5, figure D-2), first turn off the 20 amp circuit breaker that supplies power to the lights in the circuit breaker panel (items 29 and 30, figure D-2). Using a trouble light to illuminate the shelter, remove the lamp and protector as previously described. Remove the cover of the fixture, disconnect the power wires, remove the nut holding the conduit connector (item 36, figure D-2) to the fixture and remove the screws and washers (items 95 and 111, figure D-2) securing the fixture to the ceiling. Feed power wires through the end of the new fixture and secure to the ceiling with screws and washers (items 95 and 111, figure D-2). Install conduit connector nut, connect power wires, install fixture cover, lamp, and lamp protector, then retaining straps. Turn circuit breaker back on and insure the new fixture is operating properly.

c. Power Inlet Panel.

(1) Inspect the power inlet panel (item 3, figure D-2) for loose ground stud (item 28, figure D-2), corroded power inlet connector (item 25, figure D-2) and damaged electrical outlet cover and connector (items 24 and 26, figure D-2), Replace the power inlet connector (item 25, figure D-2) by first de-energizing and removing shelter power cable. Next remove screws and power inlet box cover (item 17, figure D-2). Remove four bolts, washers and nuts (items 108, 109 and 110, figure D-2) which hold connector to panel and, using a standard blade screwdriver, loosen contact screws and remove wires from contacts.

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NOTE

Be sure to note which wires are connected to which number contact. Refer to the shelter wiring diagram in drawing 4920-EG-056 (figure D-2) for assistance. Install the new receptacle by inserting and securing the wires first. Then install the mounting hardware and reinstall the power inlet panel cover.

(2) The ground stud (item 28, figure D-2) may be replaced by de-energizing the shelter, removing ground stake wire and removing the power inlet box cover as previously described.

WARNING

As an extra safety precaution, remove the shelter power cable from the power inlet connector.

(3) Loosen the nut securing the stud and remove the damaged stud. Clean away any build up of corrosion then install a new ground stud, secure the inside ground wire, and tighten the mounting nut. Replace the power box cover, fasten the ground stake wire outside, and reconnect the shelter power cable.

(4) Replacement of the weatherproof outlet cover (item 24, figure D-2) should be preceded by turning off the circuit breaker supplying power to the outlet. Remove the screw holding the weatherproof cover in palce and replace. If the outlet (item 26, figure D-2) needs replacement, de-energize the shelter and remove the power inlet box cover as previously described. Remove screws and nuts holding the outlet to the panel. Remove the wires from the connector and discard the damaged connector. Install wires on the new connector, install mounting hardware, and weatherproof cover plate. Reinstall power box cover and energize the shelter.

(5) Repairs to the power inlet panel should be limited to replacing loose rivets and repairing dents and minor sheet metal punctures.

d. Circuit Breaker Panel.

(1) In the unlikely event the entire circuit breaker panel (items 29 and 30, figure D-2) requires replacement due to damage to the case or electrical damage to the bus bars, a new panel may be installed, De-energize the shelter and remove the power cable from the power inlet connector. Use a trouble light to illuminate the shelter. Remove the cover (item 30, figure D-2) and disconnect all wires,

NOTE

Put a masking tape label on each wire as it is *disconnected to aid in proper reassembly.*

(2) Loosen and remove all conduit connector retaining nuts. Remove four screws (item 111, figure D-2) holding the panel to the backing plate. Install new panel using the sheet metal screws removed from the old one. Punch out appropriate knock-outs and insert conduit connectors. Install conduit connector retaining nuts. Install serviceable circuit breakers from the old panel or new ones by snapping them into place in the same position as on the old panel. Connect wires as previously labeled and refer to the shelter wiring diagram in drawing 4920-EG-056 (figure D-2). Replace breaker panel cover and re-energize shelter. Check all circuits for proper operation.

e. *Circuit Breakers.* Circuit breakers (items 31, 32 and 33, figure D-2) are replaced when they become physically damaged or fail electrically to operate properly. De-energize shelter and remove shelter power cable. Illuminate the shelter with a trouble light. Remove circuit breaker panel cover (item 30, figure D-2). Disconnect the wire attached to the circuit breaker and remove the breaker by pulling outward and to the side. Snap in a proper size replacement, reconnect the wire and reinstall panel cover. Re-energize the shelter and check circuit for proper operation.

f. ECU Power Cable.

(1) Check cable (item 44, figure D-2) for signs of fraying, cracks, etc.

WARNING

All repairs/replacement to the ECU cable/connector should be performed with the 30 amp 3 phase circuit breaker turned off.

(2) The power connector (item 27, figure D-2) may be repaired by resoldering broken wires. Minor damage to the cable jacket may be repaired by wrapping with plastic electricians tape. To-replace the cable and connector, remove the box cover plate (item 22, figure D-2) and disconnect the cable wires. Loosen the cable clamp (item 35, figure D-2) and remove cable. Install new cable and tighten clamp. Connect cable wires to shelter wiring and solder connector (item 27, figure D-2) to free end of cable in accordance with shelter wiring diagram in drawing 4920-EG-056 (figure D-2). Test connector with an ohmeter for shorts between contacts.

CAUTION

Be sure that power is off before testing any circuit with an ohmeter.

(3) Test connector with a suitable voltmeter for proper phase connections.

NOTE

ECU has 3 phase motors which will ma/function if proper phase connections are not maintained.

g. Inside Electrical Outlets. Turn off circuit breaker supplying power to the inside electrical outlets. Remove cover plate (item 23, figure D-2), remove screws securing receptacle (item *26,* figure D-2) to box and remove wires from receptacle. Install new receptacle connecting wires the same as on the old one. Install mounting screws and cover plate. Turn on circuit breaker and check circuit for proper operation.

3-5. Major TOE Maintenance. Maintain all major TOE items in accordance with applicable TMs, some of which are called out in the remarks section of the MAC chart.

APPENDIX A

REFERENCES

A-1. General. Consult the following publications frequently for the latest changes or revisions of references and for new publications relating to material covered in this manual.

A-2. Forms.

DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2407	Maintenance Request

A-3. Publications.

DA PAM 738-751	Functional Users Manual for The Army Maintenance Management System Aviation (TAMMS-A)
TM 740-90-1	Administrative Storage of Equipment
TM 750-244-3	Procedures for Destruction of Equipment to Prevent Enemy Use (Mobility Equipment Command)
TM 5-4120-352-14	Operator, Organizational, Direct Support and General Support Maintenance Manual Air Conditioner, Horizontal Compact, 9,000 BTU (Frame Models)
TM 5-4120-352-20P	Organizational Maintenance Repair Parts and Special Tools List for Air Conditioner, Horizontal, Compact 9000 BTU
TB 43-0124	Maintenance and Repair Procedures for S-141/G, S-144/G, S-250/G, S-280/G and S-318/G Type Shelters
SC 4920-99-CL-A92	Tool Set, Aviation Unit Maintenance Company Size, Set No. 2, Airmobile
TM 11-5410-213-14P	Operator, Organizational, DS, GS and Depot Maintenance Repair Parts and Special Tools List Shelter, Electrical Equipment S-280A/G and S-280 B/G
TM 9-2330-285-14	Operator, Organizational, DS and GS Maintenance Manual M-720 Dolly Set
TM 5-6115-275-14	Operator, Organizational, DS and GS Maintenance Manual for Generator Set 10 KW
TM 5-6115-275-24P	Operator, Organizational, DS and GS Maintenance Repair Parts and Special Tools List for Generator Set 10 KW
TB 43-180	Calibration Requirements for Army Material
TC 11-6	Grounding Techniques

APPENDIX B

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. General.

a. This section provides a general explaonation of all maintenance and repair functions authorized at various maintenance levels.

b. The maintenance allocation chart (MAC) in Section II designates overall responsibility for the performance of maintenance functions on the identified end item or component. The implementation of the maintenance functions upon the end item or component will be consistent with the assigned maintenance functions.

B-2. Maintenance Functions.

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and detect incipient failure by measuring the mechanical or electrical characteristics or an item and comparing those characteristics with prescribed standards,

c. *Service.* Operations required periodically to keep an item in proper operating condition, i.e., to clean (decontaminate), preserve, drain, paint, or replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

cf. *Adjust.* To maintain, within prescribed limits, by bringing into or exact position, or by setting the operating characteristics to specified parameters.

e. *Align.* To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. *Install.* The act of emplacing, seating or fixing into position an item, part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

h. *Replace.* The act of substituting a serviceable like part, subassembly or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services or other maintenance actions to restore serviceability to an item by correcting specific damage, fault, malfunction or failure in a part, subassembly, module (component or assembly), end item or system.

j. *Overhaul.* That maintenance effort (services/actions) necessary to restore an item to a completely serviceable/operational conditional prescribed by maintenance standards (i. e., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc.) considered in classifying Army equipments/components.

B-3. Explanation of Columns in the Maintenance Allocation Chart.

a. Column 1, *Group Number,* Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies and modules with the next higher assembly.

b. *Colurnn* 2, *Cornponent/Assernb/y.* Column 2 contains the name of components, assemblies, subassemblies and modules for which maintenance is authorized.

c. *Column 3, Maintenance Functions. Col*umn 3 lists the functions to be performed on the item listed in column 2. (For detailed explanation of these functions, see paragraph B-2.)

d. Column 4, Maintenance Level. Column 4 specifies, by the listing of a "work time" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform the maintenance function at the indicated level of maintenance. If the number of complexity of the tasks within the listed maintenance function vary at different maintenance levels, appropriate "work time" figures will be shown for each level. The number of manhours specified by the "work time" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item or system) to a serviceable condition under typical field operating conditions. This time ineludes preparation time, troubleshooting time and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance levels are as follows:

AVUM - Operator or Crew.

e. *Column 5, Tools and Equipment.* Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TMDE and support equipment required to perform the designated function.

f. Column 6, Remarks. This column shall, when applicable, contain a letter code, in alphabetical order, which shall be keyed to the remarks contained in Section IV.

NOTE

Excessive or extensive damage beyond AVUM No. 2 repair or replacement capability should be returned to depot for overhaul.

Section III. SPECIAL TOOL AND SPECIAL TEST EQUIPMENT REQUIREMENTS

No special tools or test equipment required.

Section IV. MAINTENANCE ALLOCATION CHART REMARKS

B-4. Explanations.

a. Refer to TB 43-0124 and TM 11-5410-213-14P for shelter repairs and replacement parts.

b. Inspect and maintain in accordance with TM 5-4120-352-14 and TM 5-4120-352-20P.

c. Inspect and maintain in accordance with TM 5-6115-275-14 and TM 5-6115-275-24P.

d. Inspect and maintain in accordance with TM 9-2330-285-14.

e. Maintain in accordance with applicable TMs.

MAINTENANCE ALLOCATION CHART
(AVSCOM Reg 310-10)

NOMENCLATURE OF END ITEMS

Tool Set Company Size, Set No. 2 Airmobile

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQUIPMENT	(6) REMARKS
			AVUM	AVIM	DEPOT		
01	Shelter	inspect repair	1.0 hr				A
02	Fixtures						
0201	Work Table	inspect replace	.25 hr 1.0 hr				
0202	ECU Shipping Bracket	inspect replace	.25 hr .25 hr				
0203	ECU Shelf Assy	inspect replace repair	.25 hr 1.50 hr .75 hr				
0204	Compressed Air Panel	inspect replace	.25 hr .5 hr				
0205	Fire Extinguisher Bracket	inspect replace	.25 hr .25 hr				
0206	Shelf/Table	inspect replace	.25 hr .50 hr				
0207	Hook Board	inspect replace	.25 hr .25 hr				
03	Electrical Components						
0301	Shelter Power Cable	inspect replace repair test	.5 hr .5 hr 1.5 hr .25 hr				
0302	Light Fixtures	inspect replace	.25 hr .50 hr				
0303	Power Inlet Panel	inspect replace repair	.25 hr 1.50 hr .50 hr				
0304	Circuit Breaker Panel	inspect replace test	.25 hr 2.0 hr .25 hr				
0305	Circuit Breaker	inspect replace	.25 hr .5 hr				

APPENDIX B

MAINTENANCE ALLOCATION CHART
(AVSCOM Reg 310-10)

NOMENCLATURE OF END ITEMS

Tool Set Company Size, Set No. 2 Airmoible

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY			(5) TOOLS AND EQUIPMENT	(6) REMARKS
			AVUM	AVIM	DEPOT		
0306	ECU Power Cable	inspect repair replace test	.25 hr .75 hr .75 hr .25 hr				
0307	Inside Electrical Outlets	inspect replace test	.25 hr .25 hr .25 hr				
04	Major TOE items						
0401	ECU						B
0402	Generator						C
0403	Dolly Set						D
0404	Air Compressor						E

APPENDIX C

REPAIR PARTS AND SPECIAL TOOLS LIST
(Current as of 22 NOVEMBER 1977)

Section I. INTRODUCTION

C-1. Scope.

This appendix lists spares and repair parts required for performance of Aviation Unit Maintenance (AVUM) of the Shelter Assembly, P/N 49Z0EG056-1, NSN 4920-01-9004. It authorizes the requisitioning and issue of spares and repair parts as indicated by the source and maintenance codes.

C-2. General.

This Repair Parts and Special Tools List is divided into the following sections:

a. Section II. Repair Parts List. A list of spares and repair parts authorized for use in the performance of maintenance.

b. Section III. Special Tools List. Not Applicable.

c. *Section IV. National Stock Number and Part Number Index.* A list, in National Item Identification Number (NIIN) sequence of all National Stock numbers (NSN) appearing in the listings, followed by a list, in alphameric sequence, of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

C-3. Explanation of Columns.

a. Illustration. This column is divided as follows:

(1) *Figure Number.* Indicates the figure number of the illustration on which the item is shown.

(2) *Item Number. The* number used to identify each item called out in the illustration.

b. Source, Maintenance and Recoverability Codes (SMR).

(1) *Source Code.* Source codes indicate the manner of acquiring support items for maintenance, repair or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

Code		*Definition*
PB	___	Item procured and stocked for insurance purpose because essentiality dictates that a minimum quantity be available in the supply systems.
X A	___	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
X D	___	A support item that is not stocked. When required, item will be procured throught normal supply channels.
XC	___	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above, except those coded XA and aircraft support items as restricted by AR 700-42.

(2) Maintenance Code. Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace and use the support item. The maintenance code entered in the third position will indicate the following level of maintenance:

Code		*Application/Explanation*
O	——	Support item is removed, replaced, used at the Aviation Unit Maintenance level.

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain the following maintenance code:

Code	*Application/Explanation*
Z	—— Nonreparable. No repair is authorized.

(3) Recoverability Code. Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

Code	*Definition*
Z	—— Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.

c. National Stock Number. Indicates the National stock number assigned to the item and which will be used for requisitioning purposes.

d. Part Number. Indicates the primary number used by the manufacturer (individual, company, firm corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards and inspection requirements, to identify an item or range of items.

NOTE

When a stock numbered item is requisitioned, the item received may have a different part number than the part being replaced.

e. Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code listed in SB 708-42 which is used to identify the manufacturer, distributor, or Government agency, etc.

f. Description. Indicates the Federal item name and, if required, a minimum description to identify the item.

g. *Unit of Measure (U/M).* Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr, etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

h. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable (e.g., shims, spacers, etc.).

C-4. Special Information. Not Applicable.

C-5. How to Locate Repair Parts.

a. When National Stock Number or Part Number is Unknown:

(1) *First.* Find the illustration covering the XXXX to which the item belongs.

(2) *Second.* Identify the item on the illustration and note the illustration figure and item number of the item.

(3) *Third.* Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. When National Stock Number or Part Number is known.

(1) *First.* Using the Index of National Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index is in ascending NIIN sequence followed by a list of part numbers in alphameric sequence, cross-referenced to the illustration figure number and item number.

(2) *Second.* After finding the figure and item number, locate the figure and item number in the repair parts list.

C-6. Abbreviations. Not Applicable.

(1) ILLUSTRATION (A) FIG NO	(B) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(5) FSCM	PART NUMBER	(6) DESCRIPTION	USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
						BULK MATERIAL			
BULK		XDOZZ				CONDUIT,THIN, WALL--1,049 IN. DIA		FT	V
BULK		XDOZZ				CONDUIT, THIN WALL--0.50 IN.DIA		FT	V
BULK		XDOZZ		96906	MS35831-3E	HINGE, BUTT--0.125 IN. THK		FT	V
BULK		PBOZZ	9320-00-143-6952			RUBBER SHEET, CELLULAR--0.625 IN.THK,MIL-R-6130,TYPE II		FT	V
BULK		PBOZZ	9320-00-232-2435			RUBBER SHEET, CELLULAR--0.125 IN.THK,MIL-R-6130,TYPE I		FT	V

SECTION IV. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

STOCK NUMBER	FIGURE NO	ITEM NO	STOCK NUMBER	FIGURE NO	ITEM NO
5310-00-045-3296	D3	28	5325-00-290-8240	D2	105
5310-00-058-1626	D3	37	5975-00-581-0768	D2	24
5310-00-113-3757	D3	33	5925-00-583-7941	D2	33
9320-00-143-6952	BULK		5310-00-584-5272	D3	32
6240-00-152-2987	D2	55	5325-00-637-2369	D2	106
5310-00-167-0837	D3	35	5325-00-637-9541	D3	36
5310-00-167-0839	D3	31	4730-00-640-0254	D2	62
5975-00-188-1164	D2	23	5925-00-828-4018	D2	32
4730-00-196-1493	D2	65	5935-00-860-7319	D2	26
5306-00-208-6090	D3	34	5340-00-897-2542	D3	15
6210-00-229-5828	D2	53	5935-00-918-2302	D2	25
9320-00-232-2435	BULK		5310-00-934-9751	D3	29
4920-00-242-4101	D2	102	5925-00-968-1491	D2	31
4730-00-249-3917	D2	66	5305-00-984-7363	D3	27
4210-00-270-4512	D2	98	4920-01-044-2087	D4	1
5975-00-281-0090	D2	21	4920-01-052-5637	D5	1
			4920-01-220-8035	D5	4

PART NUMBER	FSCM	FIG NO	ITEM NO	PART NUMBER	FSCM	FIG NO	ITEM NO
AN5-7A	88044	D2	108	4002-7W	71286	D2	105
AN6-33A	88044	D3	34	4920-EG-077-1	81996	D5	1
AN8-27A	88044	D3	30	4920EG056-102	81996	D2	102
AN912-5D	88044	D2	64	4920EG056-12	81996	D2	12
AN960-616L	88044	D2	114	4920EG056-21	81996	D2	21
AN960-616L	88044	D3	35	4920EG056-22	81996	D2	22
AN960-818L	88044	D3	31	4920EG056-23	81996	D2	23
AR48-922	15235	D2	25	4920EG056-24	81996	D2	24
F40CW	08108	D2	55	4920EG056-26	81996	D2	26
MS24641-53	96906	D3	23	4920EG056-3	81996	D2	3
MS27950-2	96906	D2	100	4920EG056-31	81996	D2	31
MS27953-1	96906	D2	101	4920EG056-32	81996	D2	32
MS27954-1	96906	D2	77	4920EG056-33	81996	D2	33
MS3106R18-11SC	96906	D2	27	4920EG056-34	81996	D2	34
MS35191-272	96906	D3	27	4920EG056 35	81996	D2	35
MS35291-60	96906	D2	112	4920EG056 36	81996	D2	36
MS35338-43	96906	D3	28	4920EG056-37	81996	D2	37
MS35338-45	96906	D2	110	4920EG056-38	81996	D2	38
MS35338-46	96906	D2	113	4920EG056-53	81996	D2	53
MS35338-46	96906	D3	36	4920EG056-62	81996	D2	62
MS35338-48	96906	D3	32	4920EG056-65	81996	D2	65
MS35650-302	96906	D3	29	4920EG056-66	81996	D2	66
MS35650-3212	96906	D2	109	4920EG056-68	81996	D2	68
MS35650-3382	96906	D3	37	4920EG056-8	81996	D2	8
MS35650-3392	96906	D3	33	4920EG056-98	81996	D2	98
MS35831-3E	96906	BULK		4920EG056-99	81996	D2	99
MS51926-4	96906	D3	17	4920EG057-5	81996	D3	5
MS51929-6	96906	D3	16	4920EG057-6	81996	D3	6
S31KB425	25472	D3	25	4920EG057-7	81996	D3	7
214-16	71286	D2	106	4920EG057-8	81996	D3	8
2260	83209	D2	56	4920EG058-2	81996	D4	1
3013W46	60680	D3	126	66R1-1-4	76786	D3	15

U.S. GOVERNMENT PRINTING OFFICE: 1987 - 754-030/60109

(1) ILLUSTRATION (A) FIG NO	(B) ITEM NO	(2) SMR CODE	(3) FEDERAL STOCK NUMBER	(5) PART NUMBER	FSCM	(6) DESCRIPTION	USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
						BULK MATERIAL			
BULK		XDOZZ				CONDUIT,THIN WALL--1.049 IN.DIA		FT	V
BULK		XDOZZ				CONDUIT,THIN WALL--0.50 IN.DIA		FT	V
BULK		XDOZZ		MS35831	96906	HINGE,BUTT--0.125 IN.THK		FT	V
BULK		PBOZZ	9320-00-143-6952			RUBBER SHEET,CELLULAR--0.625 IN.THK,MIL-R-6130,TYPE II		FT	V
BULK		PBOZZ	9320-00-232-2435			RUBBER SHEET,CELLULAR--0.1125 IN.THK,MIL-R-6130,TYPE I		FT	V

SECTION IV. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

STOCK NUMBER	FIGURE NO	ITEM NO	STOCK NUMBER	FIGURE NO	ITEM NO
5310-00-045-3296	D3	28	5325-00-290-8240	D2	105
5310-00-058-1626	D3	37	5975-00-581-0768	D2	24
5310-00-113-3757	D3	33	5925-00-583-7941	D2	33
9320-00-143-6952	BULK		5310-00-584-5272	D3	32
6240-00-152-2987	D2	55	5325-00-637-2369	D2	106
5310-00-167-0837	D3	35	5310-00-637-9541	D3	36
5310-00-167-0839	D3	31	4730-00-640-0254	D2	62
5975-00-188-1164	D2	23	5925-00-828-4018	D2	32
4730-00-196-1493	D2	65	5935-00-860-7319	D2	26
5306-00-208-6090	D3	34	5340-00-897-2542	D3	15
6210-00-229-5828	D2	53	5935-00-918-2302	D2	25
9320-00-232-2435	BULK		5310-00-934-9751	D3	29
4920-00-242-4101	D2	102	5925-00-968-1491	D2	31
4730-00-249-3917	D2	66	5305-00-984-7363	D3	27
4210-00-270-4512	D2	98	4920-01-044-2087	D4	1
5975-00-281-0090	D2	21	4920-01-052-5637		

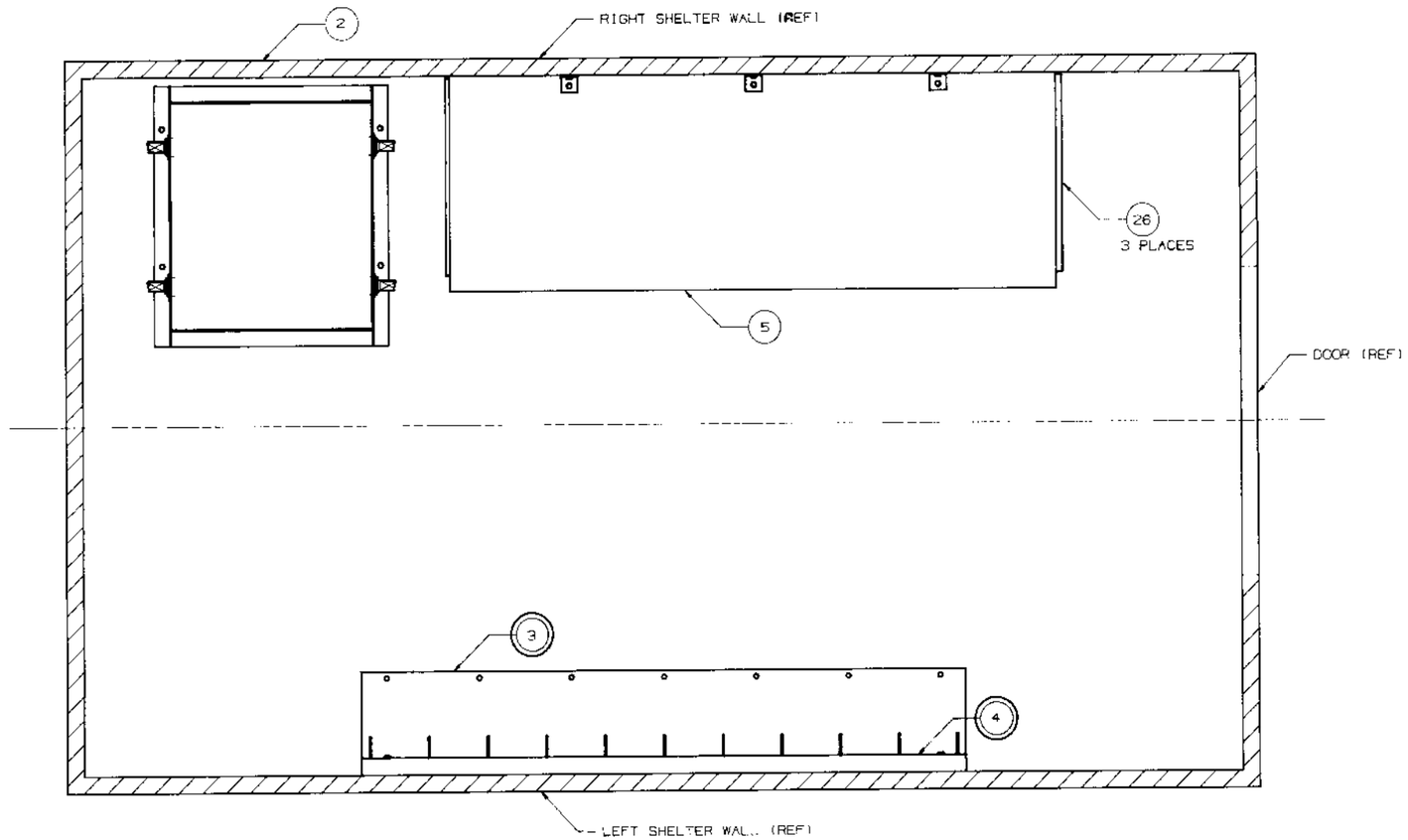
PART NUMBER	FSCM	FIG NO	ITEM NO	PART NUMBER	FSCM	FIG NO	ITEM NO
AN5-7A	88044	D2	108	4002-7W	71286	D2	105
AN6-33A	88044	D3	34	4920-EG-077-1	81996	D5	1
AN8-27A	88044	D3	30	4920EG056-102	81996	D2	102
AN912-5D	88044	D2	64	4920EG056-12	81996	D2	12
AN960-616L	88044	D2	114	4920EG056-21	81996	D2	21
AN960-616L	88044	D3	35	4920EG056-22	81996	D2	22
AN960-818L	88044	D3	31	4920EG056-23	81996	D2	23
AR48-922	15235	D2	25	4920EG056-24	81996	D2	24
F40CW	08108	D2	55	4920EG056-26	81996	D2	26
MS24641-53	96906	D3	23	4920EG056-3	81996	D2	3
MS27950-2	96906	D2	100	4920EG056-31	81996	D2	31
MS27953-1	96906	D2	101	4920EG056-32	81996	D2	32
MS27954-1	96906	D2	77	4920EG056-33	81996	D2	33
MS3106R18-11SC	96906	D2	27	4920EG056-34	81996	D2	34
MS35191-272	96906	D3	27	4920EG056-35	81996	D2	35
MS35291-60	96906	D2	112	4920EG056-36	81996	D2	36
MS35338-43	96906	D3	28	4920EG056-37	81996	D2	37
MS35338-45	96906	D2	110	4920EG056-38	81996	D2	38
MS35338-46	96906	D2	113	4920EG056-53	81996	D2	53
MS35338-46	96906	D3	36	4920EG056-62	81996	D2	62
MS35338-48	96906	D3	32	4920EG056-65	81996	D2	65
MS35650-302	96906	D3	29	4920EG056-66	81996	D2	66
MS35650-3212	96906	D2	109	4920EG056-68	81996	D2	68
MS35650-3382	96906	D3	37	4920EG056-8	81996	D2	8
MS35650-3392	96906	D3	33	4920EG056-98	81996	D2	98
MS35831-3E	96906	BULK		4920EG056-99	81996	D2	99
MS51926-4	96906	D3	17	4920EG057-5	81996	D3	5
MS51929-6	96906	D3	16	4920EG057-6	81996	D3	6
S31KB425	25472	D3	25	4920EG057-7	81996	D3	7
214-16	71286	D2	106	4920EG057-8	81996	D3	8
2260	83209	D2	56	4920EG058-2	81996	D4	1
3013W46	60680	D2	105	662R1-1-4	76786	D3	15

APPENDIX D

SHELTER DRAWINGS

Shelter drawings are located in this appendix section.

REVISIONS				
SYM	ZONE	DESCRIPTION	DATE	APPROVED
F		REVISED	11Aug78	GMS



VIEW OF SHELTER FLOOR
SCALE 1/8 SIZE

ITEM NO	QTY REQD	NOMENCLATURE OR DESCRIPTION	SMR CODE	PART OR IDENTIFYING NO	FEDERAL STOCK NO
26	3	PLATE FLOOR		AISI 1010/1020	25 X 2 00 X 23 00
25	3	SCREW LAG		MS16992 41	3/8 NOM 7 TPI X 1 50 L
24	3	SCREW CAP HEX HD		MS35291 55	3/8-16UNC X 50 L
23	3	SCREW CAP HEX HD		MS35291 64	3/8-16UNC X 1 50 L
21	2	SCREW CAP HEX HD		MS35291 69	3/8 16UNC X 2 75 L
20	14	NUT HEX		MS35649 2252	1/4-20UNC X 19 W
19	10	SCREW C SINK HD		MS51960 82	1/4 20UNC X 56 L
18	4	SCREW C SINK HD		MS5 960 86	1/4 20UNC X 1 00 L
17	17	SCREW CAP HEX HD		MS35291 82	3/8 16UNC X 1 25 L
16	14	WASHER LOCK		MS35338 44	26 ID X 06
15	14	WASHER FLAT		AN960 4 6L	26 ID X 03 W
14	10	WASHER LOCK		MS35338-46	38 ID X 09 W
13	10	WASHER FLAT		AN960 616L	39 ID X 03 W
12	11	HOOK		MCMASTER CARR P/N 9423K 4 (19 DIA X 3 38 L)	
11	19	RIVNUT HEAD TYPE		BFG P/N 537 KB455	3/8 16UNC
10	3	CLIP		AISI 1010/1020	19 X 2 00 X 2 00
9	1	SHELF TOP		MASONITE TEMPERED	25 X 12 00 X 72 00
8	4	BRACE		AISI 1010/1020	25 X 1 25 X 18 35
7	1	SHELF		AISI 1010/1020	06 X 15 0 X 74 0
6	1	PANEL		SOFT WOOD	2 0 X 6 0 X 72 0
5	1	TABLE		FSN4920-205-3048	
4	1	PANEL ASSEMBLY			C/O ITEMS 6 & 12
3	1	SHELF ASSEMBLY			C/O ITEMS 7 8 9 15 16 18 19 & 20
2	1	S280 SHELTER MODIFIED			4920 EG 056
1	1	AVUM NO 2 MODIFICATION			C/O ALL ITEMS ABOVE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH
TOLERANCES ON DECIMALS NGL
NA X ± 1 ±1
XX 03

DRAWN	E GARCIA	11 2 72
CHKD		
SUBMTD		
APVD		11/14/72

AVIATION UNIT MAINTENANCE
NC 2 MODIFICATION

MFR	CODE ID NO	SIZE	DWG NO
	81996	D	4920-EG-054

NEXT ASSY USED ON | NOTED | SHEET 1 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2, Modification (Sheet 1 of 8)*

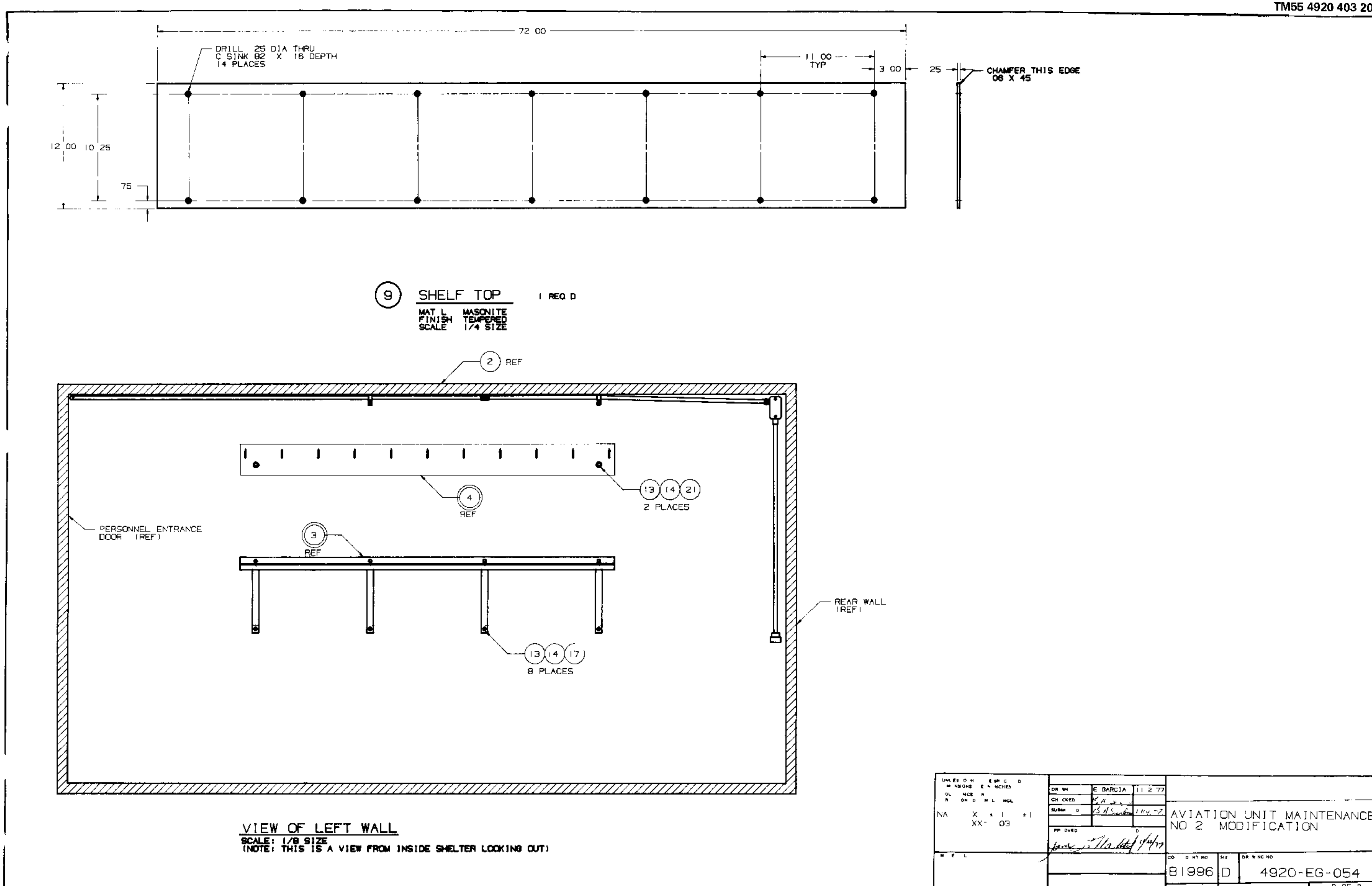

72 00
DRILL 25 DIA THRU
C SINK 82 X 16 DEPTH
14 PLACES
11 00
TYP
3 00
25
CHAMFER THIS EDGE
06 X 45
12 00
10 25
75
9
SHELF TOP
1 REQ D
MAT L MASONITE
FINISH TEMPERED
SCALE 1/4 SIZE
2 REF
4 REF
13 14 21
2 PLACES
PERSONNEL ENTRANCE
DOOR (REF)
3 REF
REAR WALL
(REF)
13 14 17
8 PLACES
VIEW OF LEFT WALL
SCALE: 1/8 SIZE
(NOTE: THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)
E GARCIA
AVIATION UNIT MAINTENANCE
NO 2 MODIFICATION
81996
D
4920-EG-054
SCALE NOTED
SHEET 2 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2, Modification (Sheet 2 of 8)*

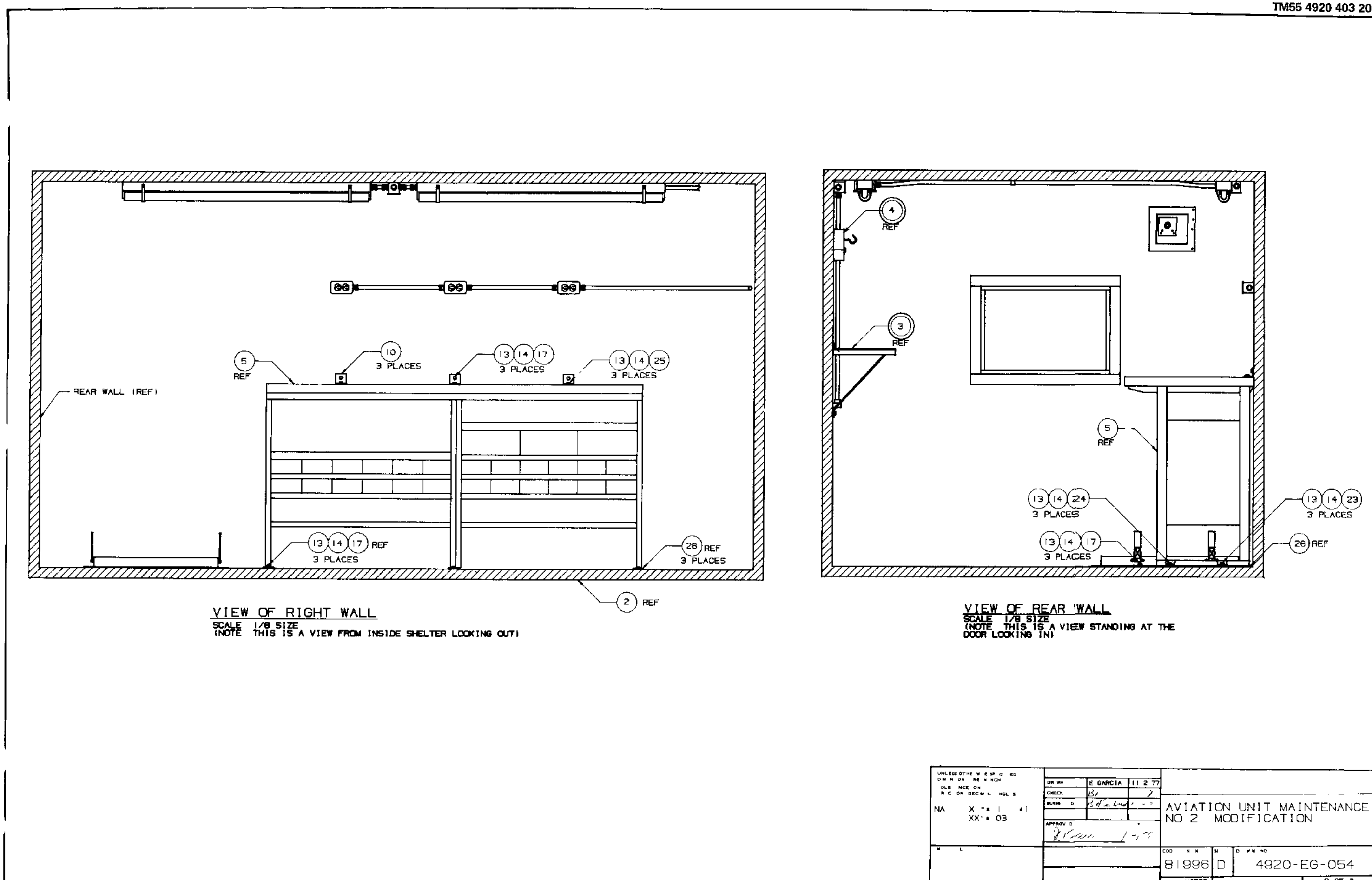
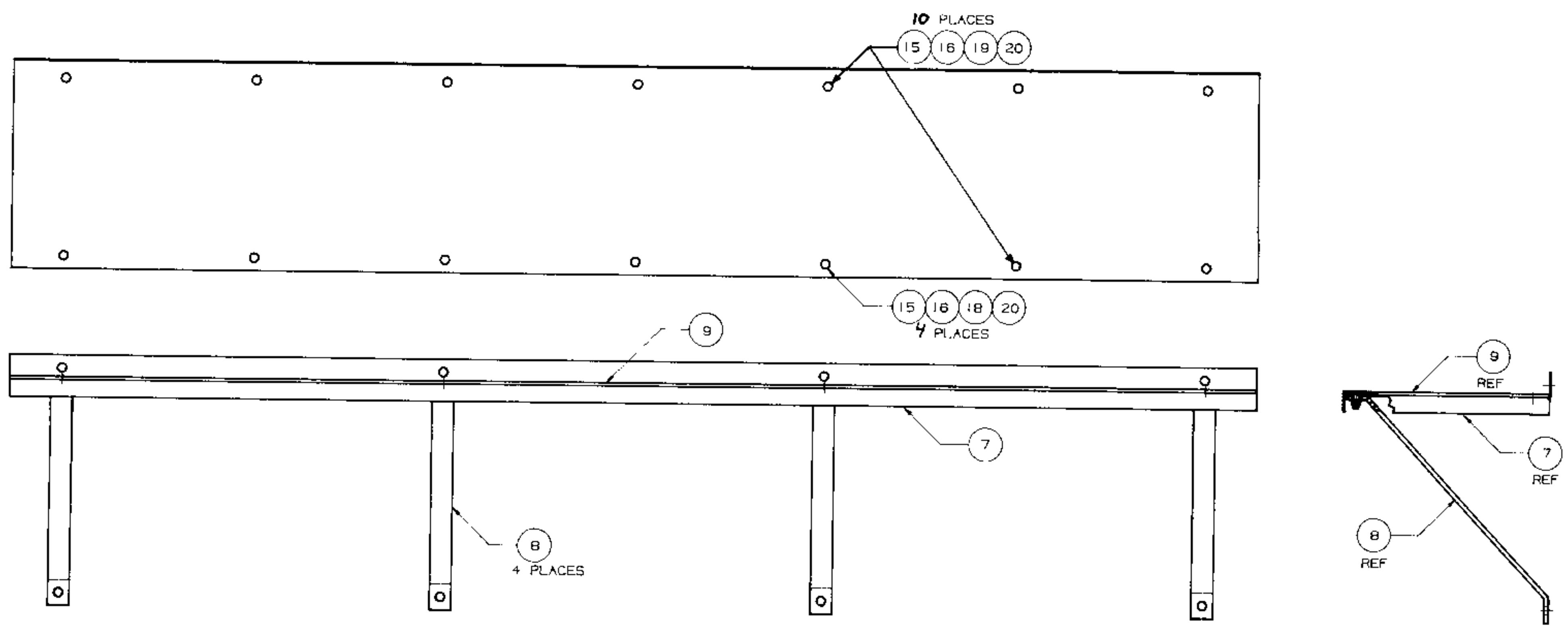

REAR WALL (REF)
5 REF
10 3 PLACES
13 14 17 3 PLACES
13 14 25 3 PLACES
13 14 17 REF 3 PLACES
26 REF 3 PLACES
2 REF
VIEW OF RIGHT WALL
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)
4 REF
3 REF
5 REF
13 14 24 3 PLACES
13 14 17 3 PLACES
13 14 23 3 PLACES
26 REF
VIEW OF REAR WALL
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW STANDING AT THE DOOR LOOKING IN)
E GARCIA
AVIATION UNIT MAINTENANCE NO 2 MODIFICATION
81996 D 4920-EG-054
NOTED
3 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2, Modification (Sheet 3 of 8)*



3 SHELF ASSEMBLY
SCALE 1/4 SIZE

1 REQ D

E GARCIA 11 2 77

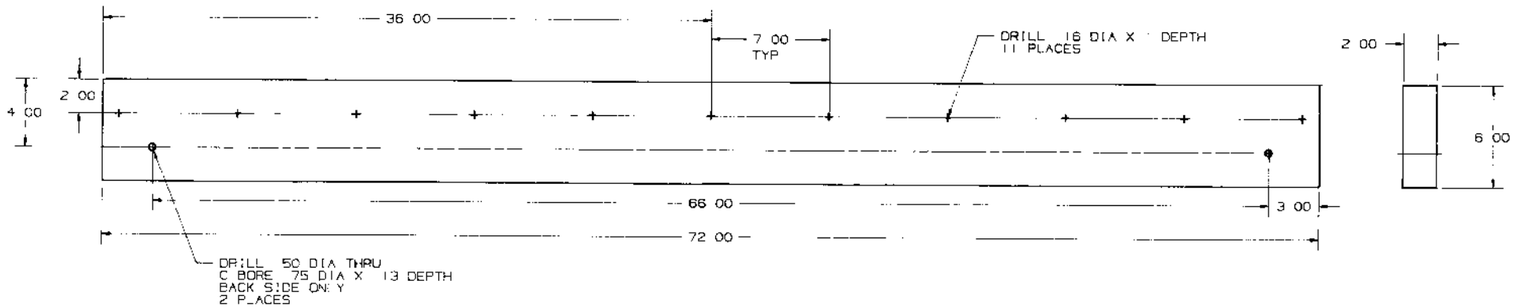
AVIATION UNIT MAINTENANCE NO 2 MODIFICATION

81996 D 4920-EG-054

NOTED

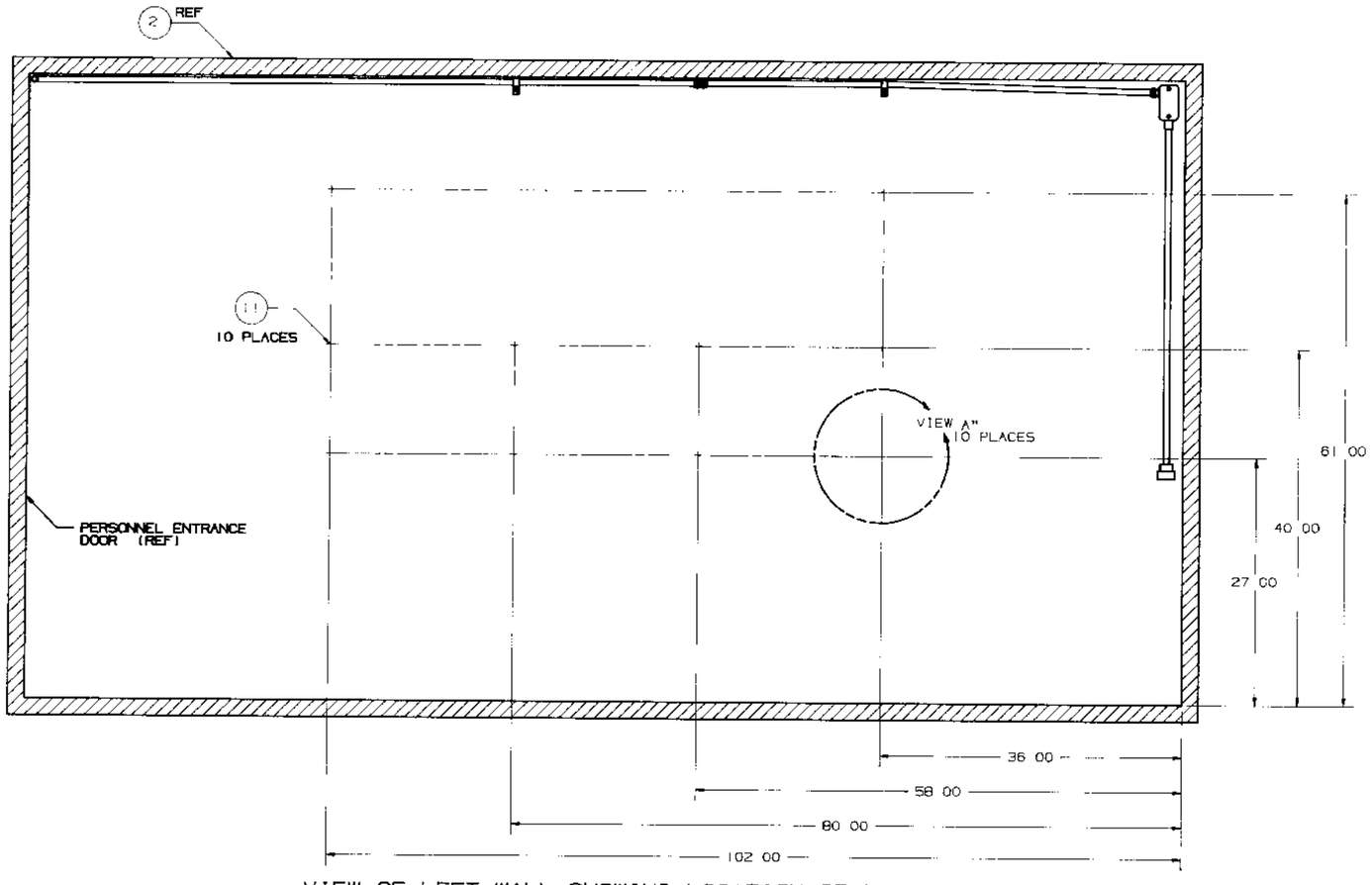
4 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2, Modification (Sheet 4 of 8)*



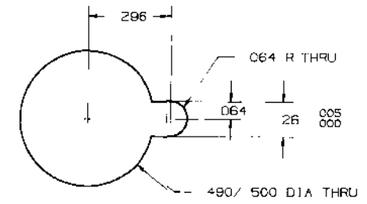
(6) PANEL — 1 REQ D

MAT L SOFT WOOD
FINISH NONE
SCALE 1/4 SIZE



VIEW OF LEFT WALL SHOWING LOCATION OF RIVNUTS

SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)



VIEW "A"

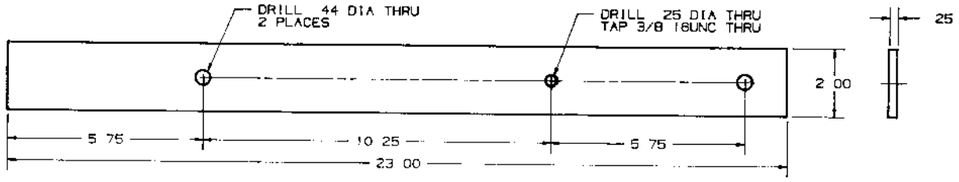
SCALE 4 TIMES SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DR BH	E GARCIA	11 2 77
	CH CK		
	SU M D		
NA	APPROV		
XX ± 03			

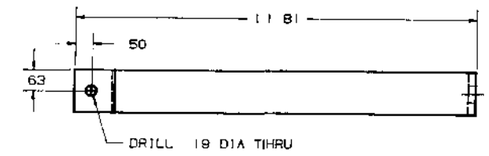
AVIATION UNIT MAINTENANCE
NO 2 MODIFICATION

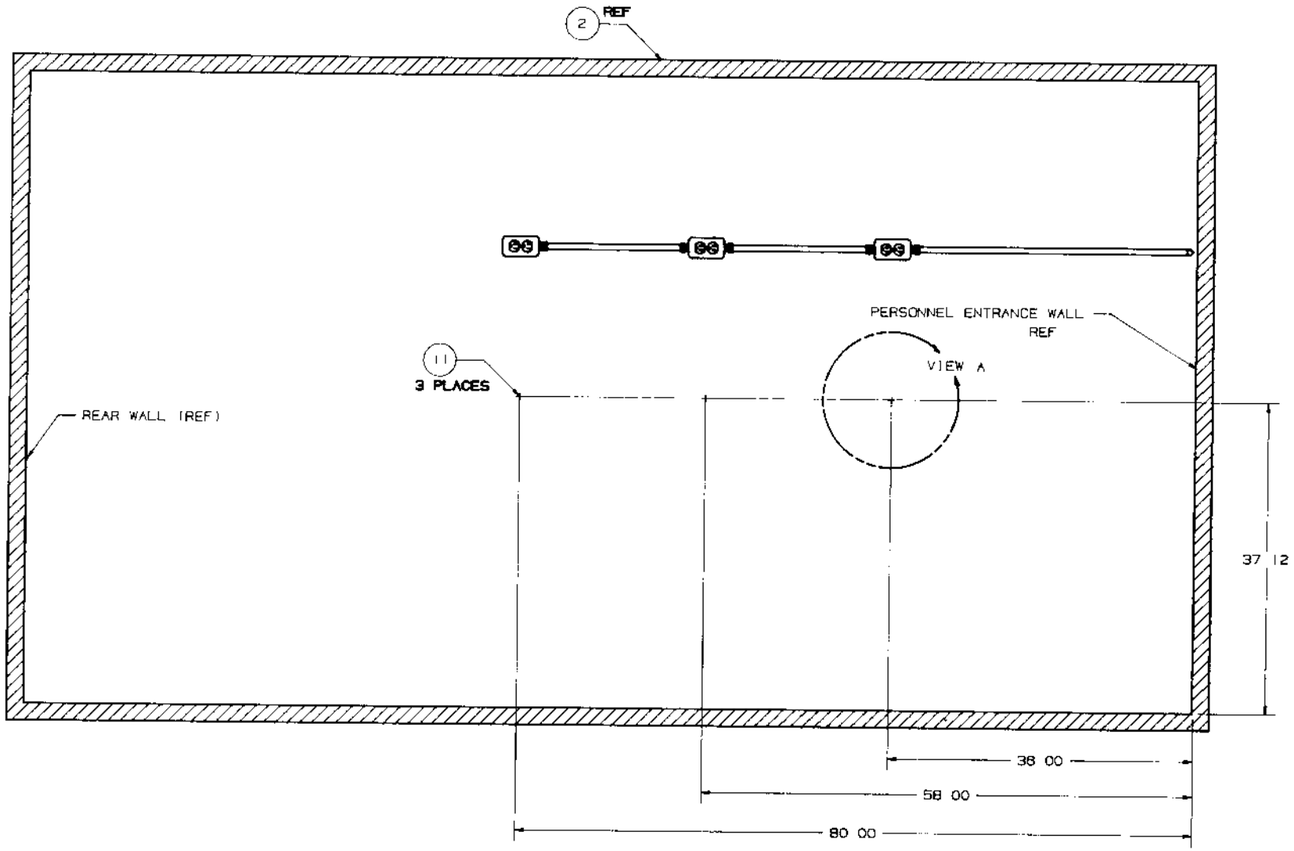
COD D W N	SIZE	D W N
81996	D	4920-EG-054
C L NOTED		SHEET 5 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2, Modification (Sheet 5 of 8)*

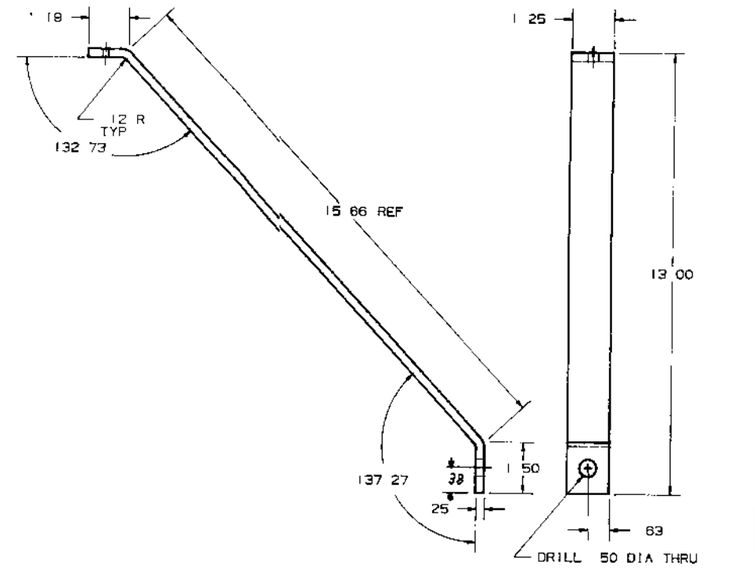


(26) FLOOR PLATE 3 REQ D
MAT L AISI 1010/1020
FINISH PRIME AND PAINT OD
SCALE 1/2 SIZE





VIEW OF RIGHT WALL SHOWING LOCATION OF RIVNUTS
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)



(8) BRACE 4 REQ D
MAT L AISI 1010/1020
FINISH: PRIME AND PAINT OD
SCALE: 1/2 SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS ANGLES	DRAWN	E GARCIA	11 2 77
	CHECKED		
NA X ± 1 ± 1 XX 03	SUBM E		
	APPROVED		
MATERIAL	AVIATION UNIT MAINTENANCE NO 2 MODIFICATION		
	CODE IDENT 81996	SIZE D	DRAWING 4920-EG-054
	FINISH NOTED		SHEET 6 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2, Modification (Sheet 6 of 8)*

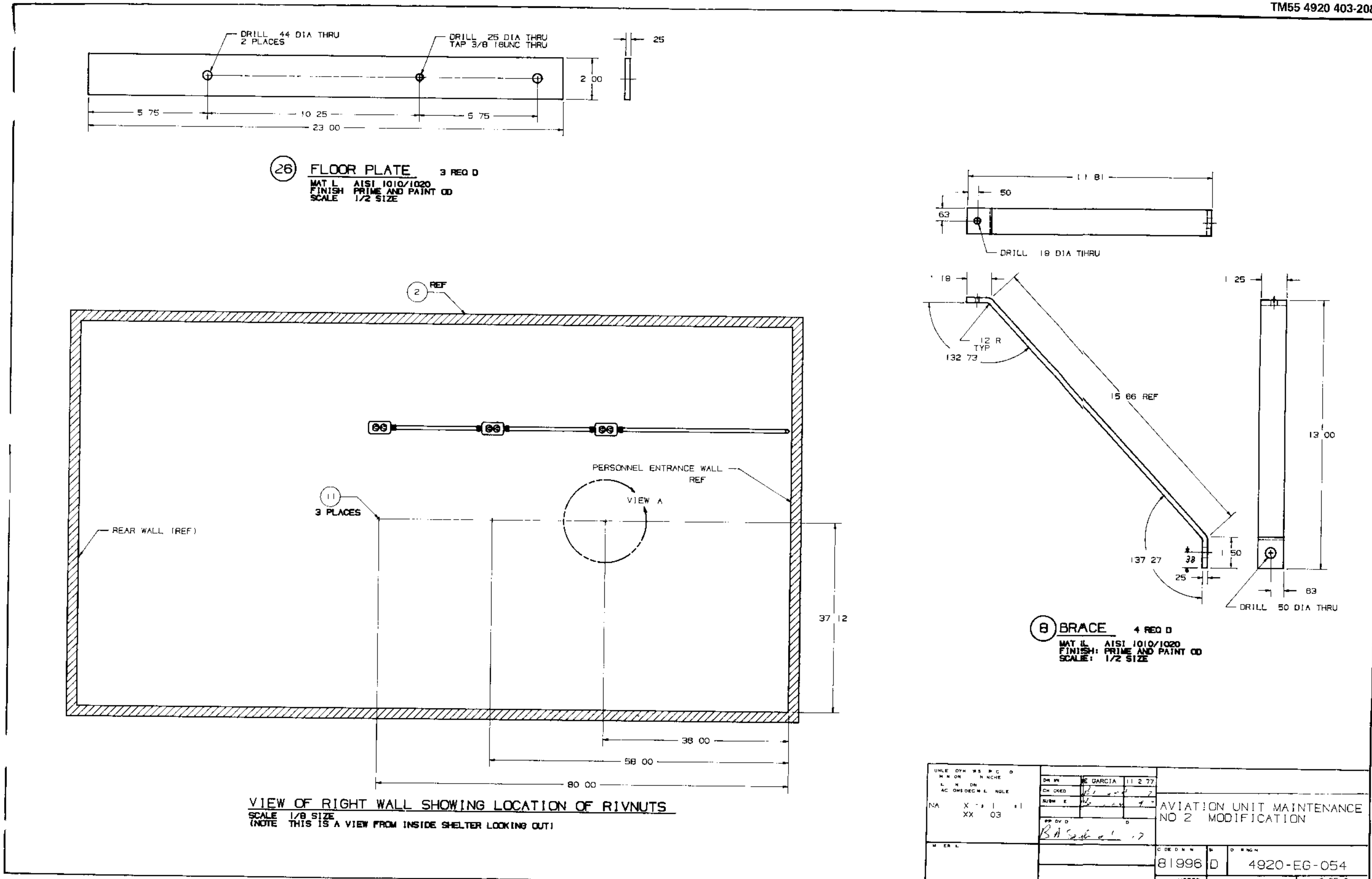
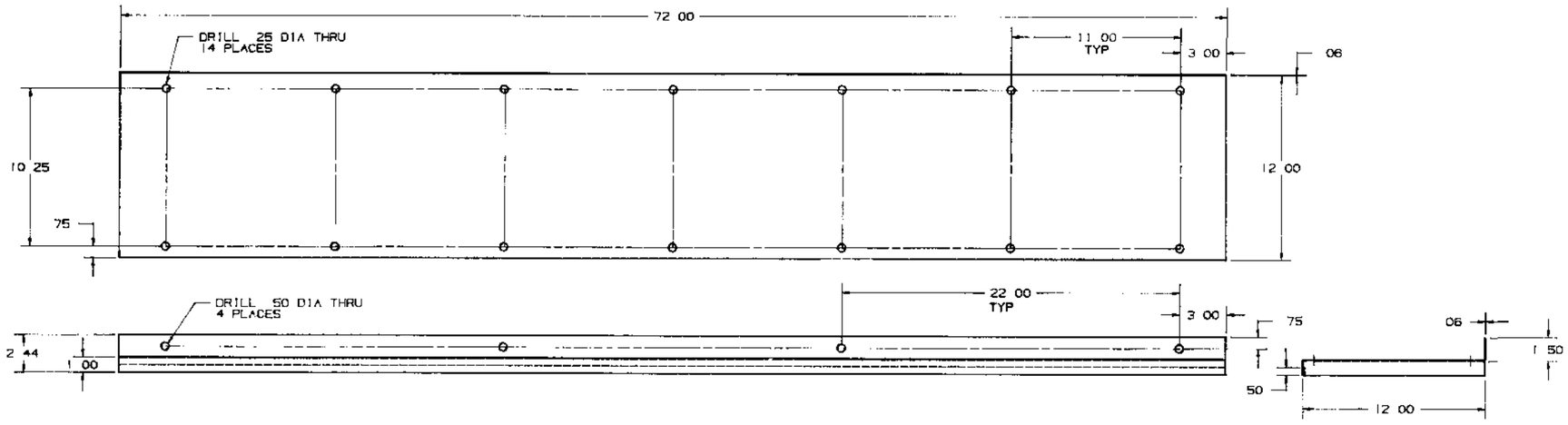

DRILL .44 DIA THRU 2 PLACES
DRILL .25 DIA THRU TAP 3/8 16UNC THRU
5 75
10 25
5 75
23 00
2 00
25
26 FLOOR PLATE 3 REQ D
MAT L AISI 1010/1020
FINISH PRIME AND PAINT OD
SCALE 1/2 SIZE
11 81
50
63
DRILL 19 DIA THRU
2 REF
PERSONNEL ENTRANCE WALL REF
VIEW A
11 3 PLACES
REAR WALL (REF)
37 12
38 00
58 00
80 00
VIEW OF RIGHT WALL SHOWING LOCATION OF RIVNUTS
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)
12 R TYP
132 73
15 66 REF
137 27
1 50
25
1 25
13 00
63
DRILL 50 DIA THRU
8 BRACE 4 REQ D
MAT L AISI 1010/1020
FINISH: PRIME AND PAINT OD
SCALE: 1/2 SIZE
E GARCIA
AVIATION UNIT MAINTENANCE NO 2 MODIFICATION
81996 D 4920-EG-054
6 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2, Modification (Sheet 6 of 8)*



(7) SHELF 1 REQ D

MAT L AISI 1010/1020
FINISH PRIME AND PAINT OD
SCALE 1/4 SIZE

NA	X XX	I 03	I

DR W E GARCIA 11 2 77
SUBM E

AVIATION UNIT MAINTENANCE
NO 2 MODIFICATION

8i996 D 492C-EG-054

CL NOTED SH 8 OF 8

Figure D-1. *Aviation Unit Maintenance NO 2 Modification (Sheet 8 of 8)*

SYM	ZONE	REVISIONS DESCRIPTION	DATE	APPROVED
D		REDRAWN	1-78	BAS
E		REVISED	11/20/78	BAS

ITEM NO	QTY REQD	NOMENCLATURE OR DESCRIPTION	PART OR IDENTIFYING NO	SPECIFICATION
115	4	SCREW CAP HEX	MS90725-59	3/8 16UNC X 88 L
114	8	WASHER, FLAT	AN960 816L	39 ID X 03 W
113	8	WASHER LOCK	MS35338 46	38 ID X 09 W
112	8	SCREW, CAP HEX HD	MS35291 80	3/8 16UNC X 1 00 L
111	22	SCREW, THD FORMING	MS24641-51	#10 X 75 L
110	4	WASHER, LOCK	MS35338 45	32 ID X 08 W
109	4	NUT, HEX	MS35650 3312	5/16 24UNF X 22 W
108	4	SCREW, CAP HEX HD	AN5 7A	5/16-24UNF X 97 L
107	16	SCREW, THD FORMING	MS24641-24	#6 X 38 L
106	2	RECEPTACLE, CAMLOC	FSN 5325 637 2369	CAMLOC P/N 214 16 (REF)
105	2	STUD ASSY, CAMLOC	FSN 5325 290 8240	CAMLOC P/N 4002-7W (REF)
104	1	PLATE PROTECTOR	5052 H32 ALUM	06 X 8 50 X 9 00
103	2	WASHER FLAT	A960 416L	26 ID X 03 W
102	1	SEPARATOR, AIR OIL	FSN 4940-242 4101	
101	2	HOOK, TURNBUCKLE	MS27953 1	1/4-20UNC LH THD
100	2	EYE TURNBUCKLE	MS27950 2	1/4 20UNC RH THD
99	1	BRACKET FIRE EXTING	FSN 4210-595-4085	
98	1	FIRE EXTINGUISHER	FSN 4210 270 4512	
97	13	RIVET, BLIND	MS20604874	13 DIA X 19- 25 GRIP
96	3	SCREW, MACH FLAT HD	MS35191 272	#10-32UNF X 50 L
95	8	WASHER FLAT	AN960 10L	20 ID X 03 W
93	12	RIVNUT, HEAD TYPE	BFG P/N S37 KB455	3/8 16UNC
92	2	WASHER FLAT	AN960-6L	15 ID X 02 W
91	2	NUT, HEX	MS35649-262	#6 32UNC X 11 W
90	4	SCREW, CAP HEX HD	MS35291 3	1/4 20UNC X 50 L
89	2	SCREW, CAP HEX HD	MS35291 13	1/4-20UNC X 1 75 L
88	4	SCREW, THD FORMING	MS24617 31	#10 X 50 L
87	2	D RING ASSY	REMOVED FROM OUTSIDE REAR WALL OF SHELTER	
86	2	SPACER	1010/1020 STEEL	28 ID X 50 OD X 1 75 L
85	4	RIVET, BLIND	MS20604B6T4	19 DIA X 13 25 GRIP
84	88	RIVET, BLIND	MS20604B4T3	13 DIA X 13- 19 GRIP
83	1	SCREW, CAP SOC HD	NAS608 832-8	#8 32UNC X 50 L
82	AR	ADHESIVE, CONTACT	FSN 8040-262 9031	
81	AR	SEALANT SILICONE RBR	RTV 732	MIL-A 46106
80	2	DECAL, VENT	MIL-M-43719 TYPE 1	CLASS 1
79	1	DECAL, GROUND	MIL-M-43719 TYPE 1	CLASS 1
78	1	TROUGH	5052 H32 ALUMINUM	03 X 1 50 X 28 75
77	2	BODY, TURNBUCKLE	MS27954 1	1/4 20UNC
76	4	SLEEVE SPLICING	FSN 4030-132-9163	13 DIA CABLE
75	6 FT	CABLE, WIRE	FSN 4010-171-4236	13 DIA X 7 X 7
74	7 FT	GASKET RUBBER	FSN 9320 143-6952	63 X 1 88
73	7 FT	GASKET, RUBBER	FSN 9320-232 2435	13 X 75
72	1	PLATE, ECU SUPPORT	5052 H32 ALUMINUM	50 X 17 69 X 26 25
71	2	FRAMING, SIDE	5052 H32 ALUMINUM	03 X 6 00 X 16 94
70	2	FRAMING, END	5052-H32 ALUMINUM	03 X 6 00 X 28 75
69	1	HINGE, ECU DOOR	MS35831-3F FSN 5340 146-2491 (MODIFY AS SHOWN)	
68	1	PLUG	FSN 4730-012-7951	1/4NPT
67	1	WIRE ROPE ASSY	MS17351 2	06 DIA X 6 00 L
66	1	ELBOW	FSN 4730-249 3917	1/2NPT
65	2	NIPPLE	FSN 4730 196 1483	1/2NPT
64	1	BUSHING, REDUCER	AN912 5D	1/2NPT TO 1/4NPT
63	1	PLATE	1010/1020 STEEL	25 X 3 50 X 3 50
62	1	COUPLING, PIPE	FSN 4730 640 0254	1/2NPT
61	1	MOUNTING PLATE	5052 H32 ALUMINUM	09 X 5 69 X 6 00
60	1	ANGLE, UPPER	5052 H32 ALUMINUM	09 X 3 56 X 9 00
59	1	ANGLE, LOWER	5052 H32 ALUMINUM	09 X 3 68 X 9 00
58	1	ANGLE, RH	5052 H32 ALUMINUM	09 X 3 56 X 9 00
57	1	ANGLE, LH	5052-H32 ALUMINUM	09 X 3 56 X 9 00

LIST OF MATERIALS OR PARTS LIST (CONTINUED)

ITEM NO	QTY REQD	NOMENCLATURE OR DESCRIPTION	PART OR IDENTIFYING NO	SPECIFICATION
56	4	PROTECTOR, LAMP	MCGILL P/N 2260 CODE IDENT #83209	
55	4	LAMP, FLUORESCENT	FSN 6240 152 2987 P/N F40CW	
54	8	STRAP, RETAINING	5052 H32 ALUMINUM	015 X 50 X 7 63
53	4	FIXTURE LIGHT	NSN 6210-00 229 5828 LITHONIA P/N S140RS	
52	4 FT	WIRE 6AWG BLUE STRD	FSN 6145-184 5471	
51	4 FT	WIRE, 6AWG RED STRD	FSN 6145 184-5474	
50	4 FT	WIRE, 6AWG BLACK STRD	FSN 6145 923 2220	
49	4 FT	WIRE, 6AWG WHITE STRD	FSN 6145 184 3877	
48	19 FT	WIRE, 10AWG BLUE	NSN 6145 00 577 8172	
47	19 FT	WIRE, 10AWG RED	NSN 6145 00 184 5349	
46	19 FT	WIRE, 10AWG BLACK	NSN 6145 00 191 2575	
45	19 FT	WIRE, 10AWG WHITE	NSN 6145-00 184 5349	
44	4 FT	CABLE 4 COND, 10AWG	FSN 6145-057-2309	
43	15 FT	WIRE, 12AWG GREEN	NSN 6145 00 191 2570	
42	26 FT	WIRE, 12AWG BLACK	FSN 6145 990 3002	
41	26 FT	WIRE, 12AWG WHITE	FSN 6145 990 3003	
40	4 FT	CONDUIT, THIN WALL	FSN 5975 178 1218	1 00 DIA THIN WALL
39	26 FT	CONDUIT, THIN WALL	FSN 5975-178-1216	50 DIA THIN WALL
38	4	CONNECTOR BOX MTG	FSN 5975 100-8730	1 00 DIA THIN WALL
37	2	COUPLING CONDUIT	FSN 5975 100 8714	50 DIA THIN WALL
36	22	CONNECTOR BOX MTG	FSN 5975 100 8721	50 DIA THIN WALL
35	1	CLAMP CABLE BOX MTG	NSN 5975-00 152 1144 50 ROMEX	
34	4	CLAMP CONDUIT	FSN 5340 924 1683	50 DIA THIN WALL
33	3	CIRCUIT BREAKER	FSN 5925 583 7941	20A SINGLE PHASE
32	1	CIRCUIT BREAKER	FSN 5925 828 4018	30A 3 PHASE
31	1	CIRCUIT BREAKER	FSN 5925 968 1491	60A 3 PHASE
30	1	COVER LOAD CENTER	SQUARE D P/N 00C125	
29	1	LOAD CENTER	SQUARE D P/N 00412 24	
28	1	CLAMP ELECTRICAL	FSN 5999-016-2471	
27	1	CONNECTOR	MS3106F18-11S(C) FSN 5935-725 4153	
26	4	RECEPTACLE DUPLEX	FSN 5935 860-7319 OR FSN 5935 016 2470	
25	1	RECEPTACLE	FSN 5935 918 2302	
24	1	BOX PLATE WEATHERPRF	FSN 5975 581-0768	
23	3	BOX PLATE DUPLEX	FSN 5975 188-1164	
22	4	BOX PLATE BLANK	FSN 5975 280 7921	
21	5	BOX ELECTRICAL	FSN 5975 281 0090	
20	2	BOX MODIFIED	FSN 5975 281 0090	MODIFY AS SHOWN
19	1	PLATE	5052 H32 ALUMINUM	09 X 9 00 X 20 50
18	4	FRAME END	5052-H32 ALUMINUM	09 X 8 56 X 15 00
17	1	COVER PWR INLET BOX	5052 H32 ALUMINUM	09 X 14 00 X 14 00
16	1	PLATE PROTECTOR	5052-H32 ALUMINUM	09 X 15 00 X 15 00
15	1	POWER INLET PANEL	5052 H32 ALUMINUM	09 X 13 68 X 12 00
14	1	SHELTER ASSEMBLY	NSN 5410 00 117 2868	
12	2	ECU SUPPORT CABLE ASSEMBLY		C/O ITEMS 75, 76, 77, 87, 100 & 101
11	1	ECU SUPPORT ASSEMBLY		C/O ITEMS 12 69 72 73 82 85 88 & 96
9	1	PLUG ASSEMBLY		C/O ITEMS 67, 68 & 83
8	1	COMPRESSED AIR PANEL ASSEMBLY		C/O ITEMS 62 & 63
7	1	COMPRESSED AIR OUTLET ASSEMBLY		C/O ITEMS 57, 58, 59, 60 & 61
6	1	ECU SHIPPING BRACKET ASSEMBLY		4920-EG 076
5	4	LIGHT FIXTURE ASSEMBLY		C/O ITEMS 53, 54, 55, 56 & 107
4	1	POWER INLET BOX ASSEMBLY		C/O ITEMS 15 & 16
3	1	POWER PANEL ASSEMBLY		C/O ITEMS 4, 24, 25, 26, 28, 81, 82, 108, 109 & 110
1	1	MODIFIED SHELTER ASSEMBLY		CONSISTS OF ALL ITEMS

LIST OF MATERIALS OR PARTS LIST

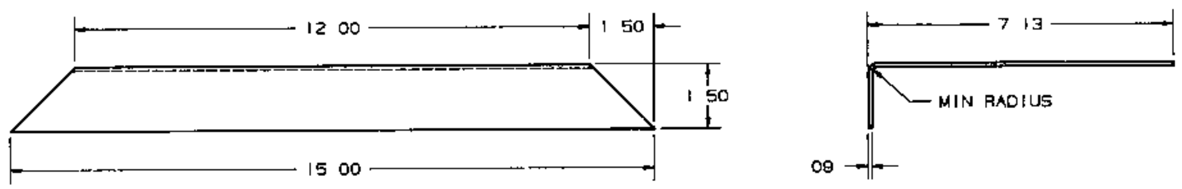
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES
TOLERANCE ON
NA XX ± 03 ±1
X ± 1

DRAWN	E GARCIA	1 78
CHECKED	B A Sanchez	11/20/78
SUBMITTED		
APPROVED		11/23/78

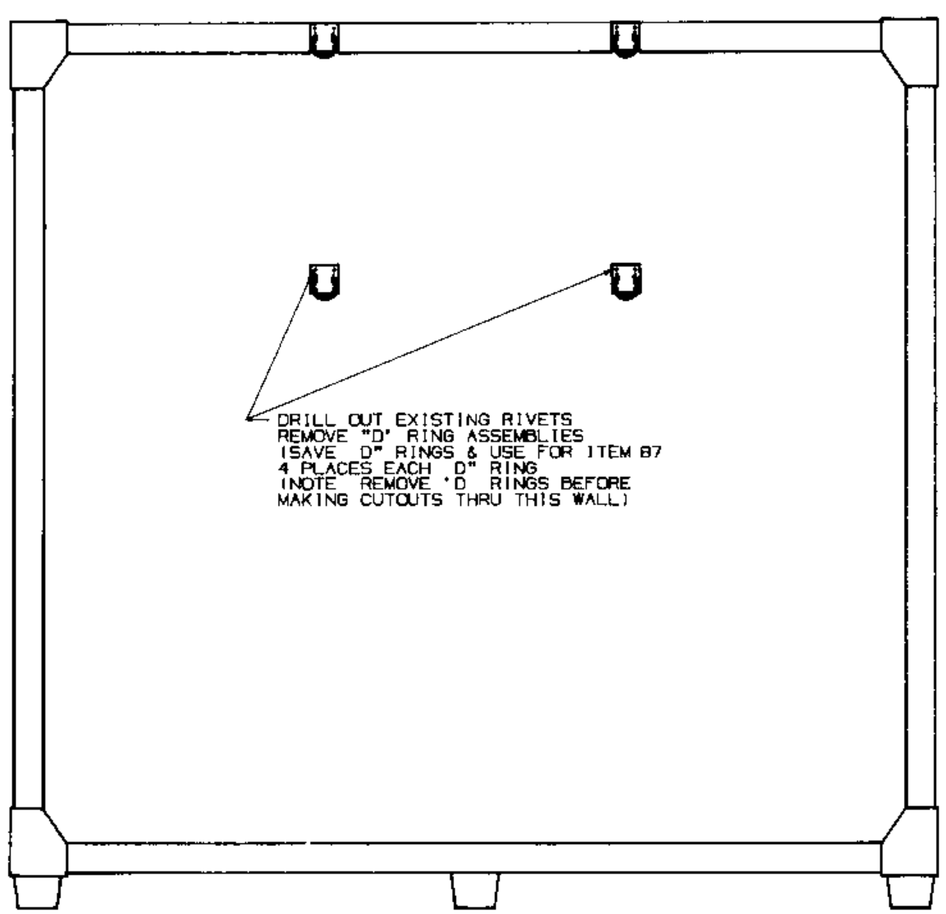
SHELTER S-280
MODIFICATION OF

CODE IDENT NO 81996 | SIZE D | DWG NO 4920-EG-056
SCALE NOTED | SHEET 1 OF 18

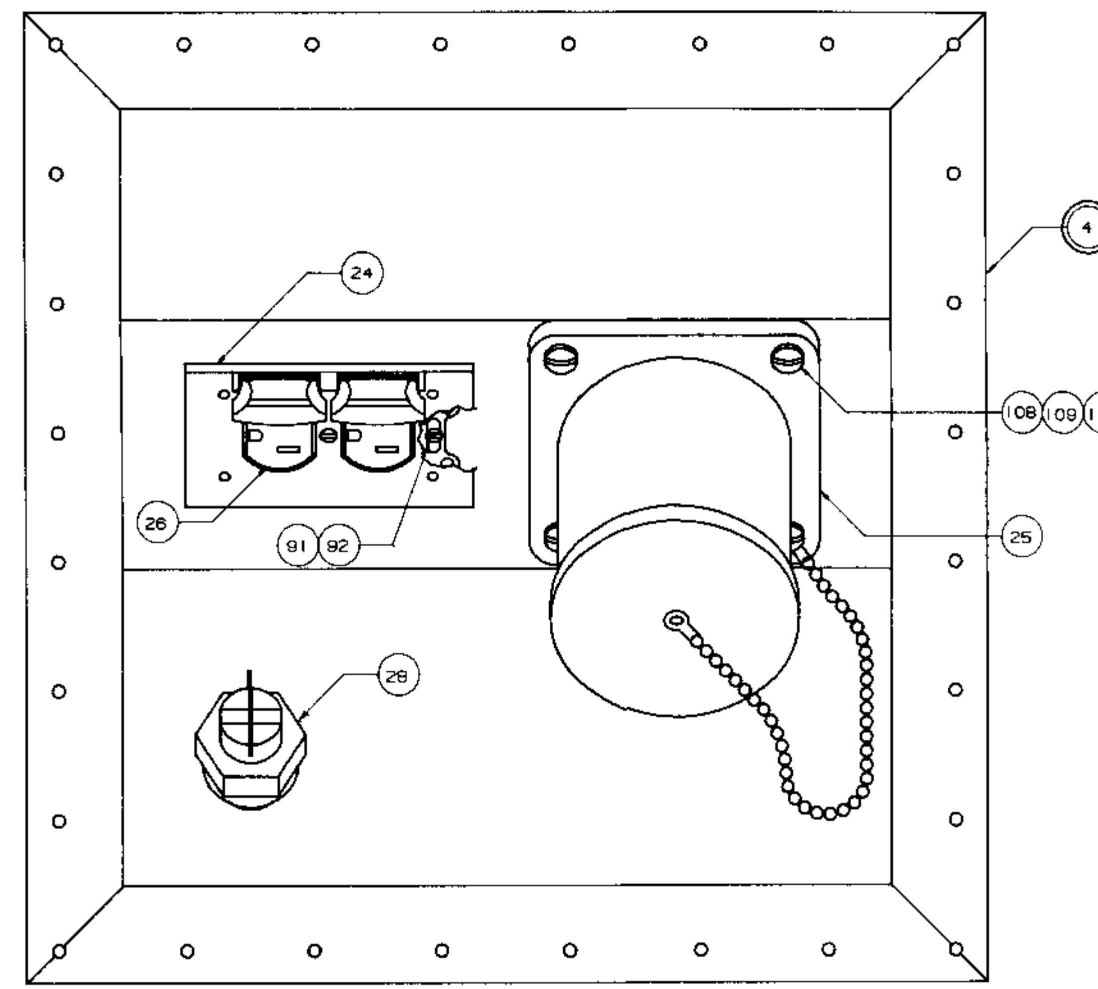
Figure D-2. *Shelter, S 280 Modification of (Sheet 1 of 18)*



(18) FRAME, END 4 REQ D
MAT L 5052 H32 ALUMINUM
FINISH NONE
SCALE 1/2 SIZE



VIEW OF REAR WALL SHOWING REMOVAL OF "D" RING ASSEMBLIES
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM OUTSIDE REAR WALL LOOKING IN)



(3) POWER PANEL ASSEMBLY 1-REQ D
SCALE 3/4 SIZE

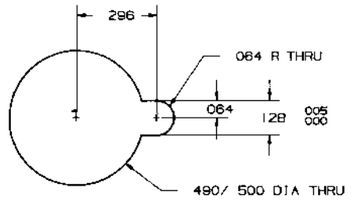
SHELTER S 280
MODIFICATION OF

N/A X ± .1
XX ± .03

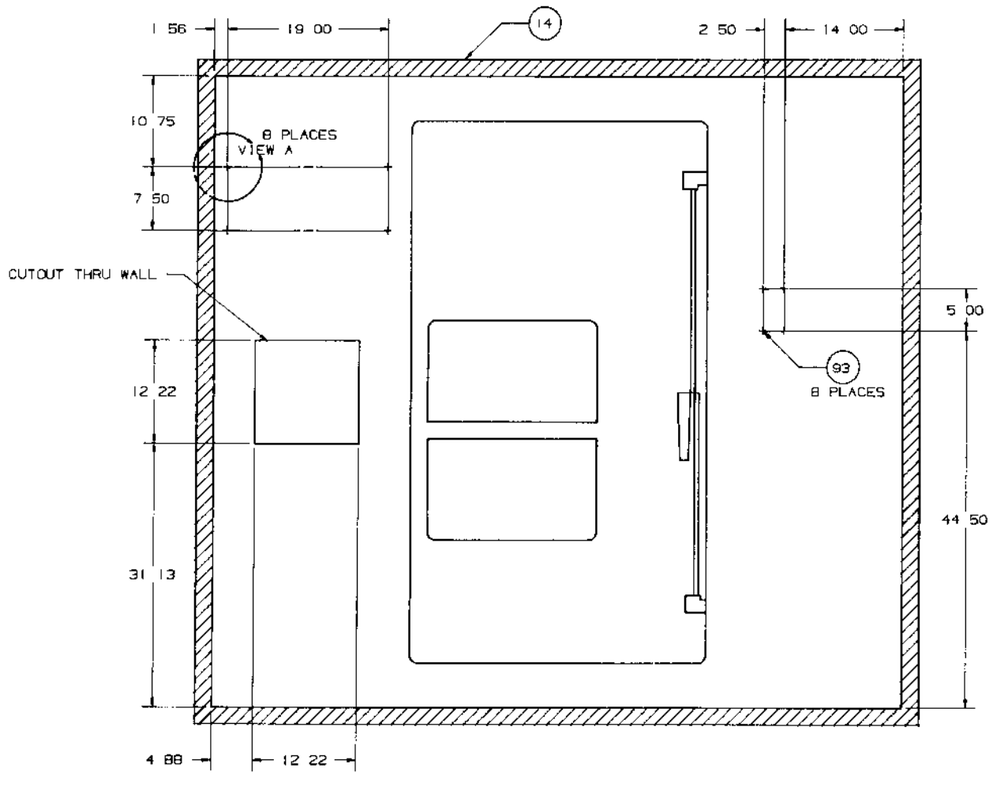
APPROVED 25 OCT 77

CODE IDENT NO 81996 SIZE D DWG NO 4920-EG-056
SCALE NOTED SHEET 2 OF 18

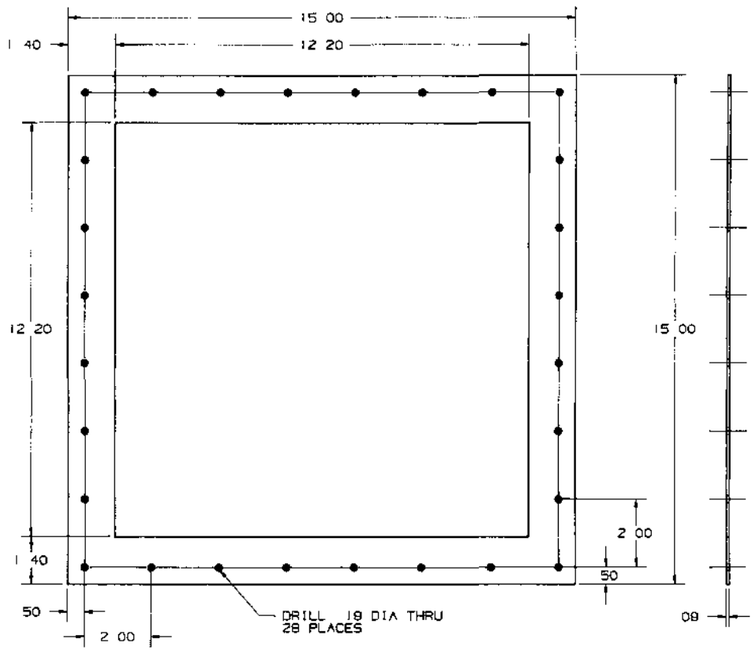
Figure D-2. *Shelter, S 280, Modification of (Sheet 2 of 18)*



VIEW "A"
SCALE 4 TIMES SIZE



VIEW OF PERSONNEL ENTRANCE WALL SHOWING LOCATION OF RIVNUT HOLES AND CUTOUT THRU WALL
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)



(16) PLATE, PROTECTOR 1 REQ D
MAT L ALUM 5052 H32
FINISH PRIME & PAINT OD
SCALE 1/2 SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES LEADING ZEROS ARE REQUIRED AND UNTOLERANCED DECIMALS ARE N/A X ± 1 XX ± 03 ±1	DRAWN		SHELTER S-280 MODIFICATION OF
	CHECKED		
	SUBMITTED		
	APPROVED	25 OCT 93	
M L			CODE IDENT 81996 · SIZE D · DWG NO 4920-EG-056 · CALF NOTED · SHEET 3 OF 18

Figure D-2. *Shelter, S 280 Modification of (Sheet 3 of 18)*

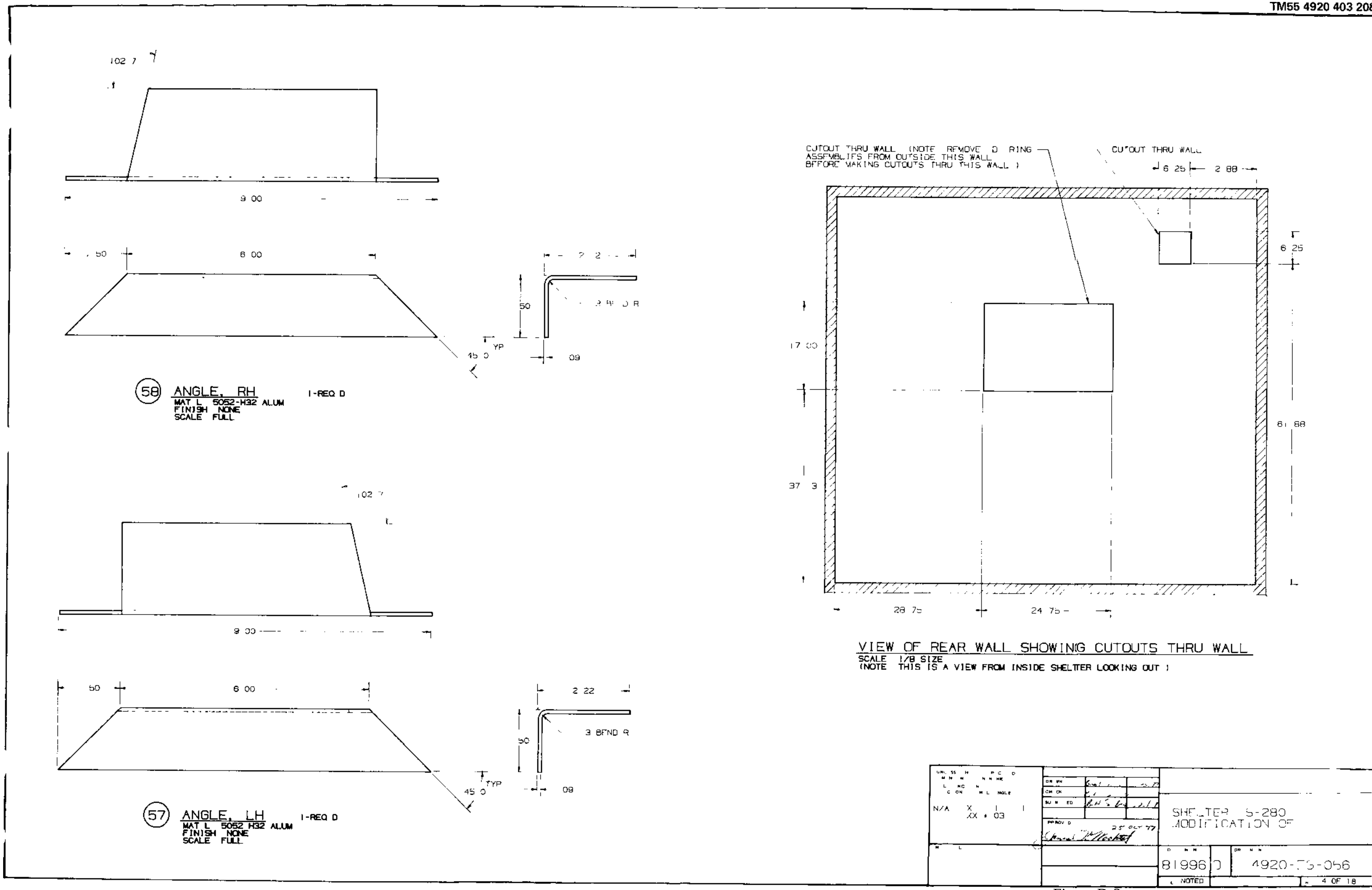
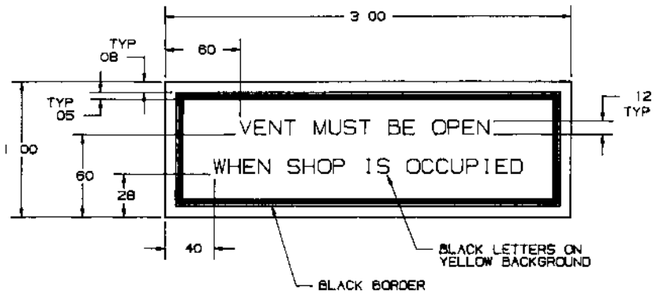
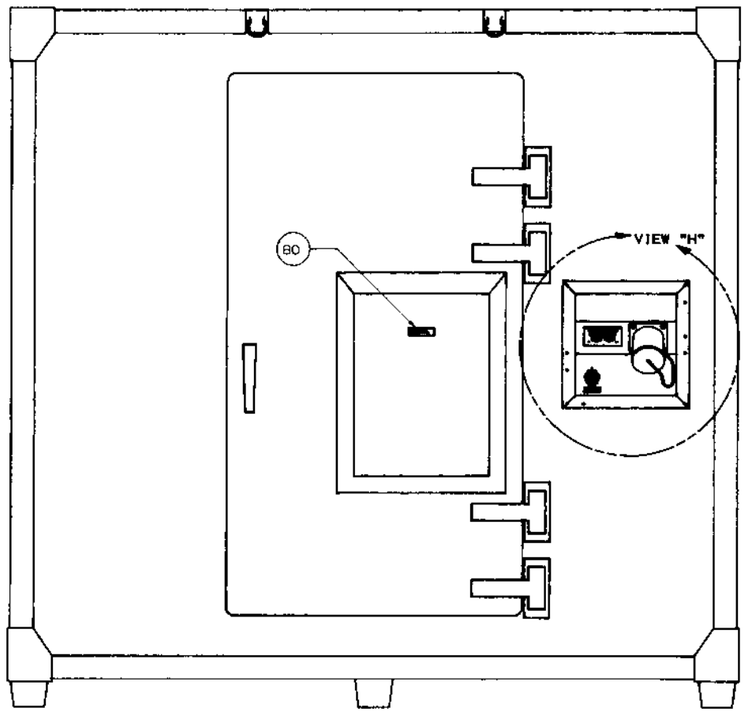

58 ANGLE, RH 1-REQ D
MAT L 5052-H32 ALUM
FINISH NONE
SCALE FULL
57 ANGLE, LH 1-REQ D
MAT L 5052 H32 ALUM
FINISH NONE
SCALE FULL
CUTOUT THRU WALL (NOTE REMOVE D RING ASSEMBLIES FROM OUTSIDE THIS WALL BEFORE MAKING CUTOUTS THRU THIS WALL)
CUTOUT THRU WALL
VIEW OF REAR WALL SHOWING CUTOUTS THRU WALL
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)
SHELTER S-280
MODIFICATION OF
81996
4920-75-056
4 OF 18

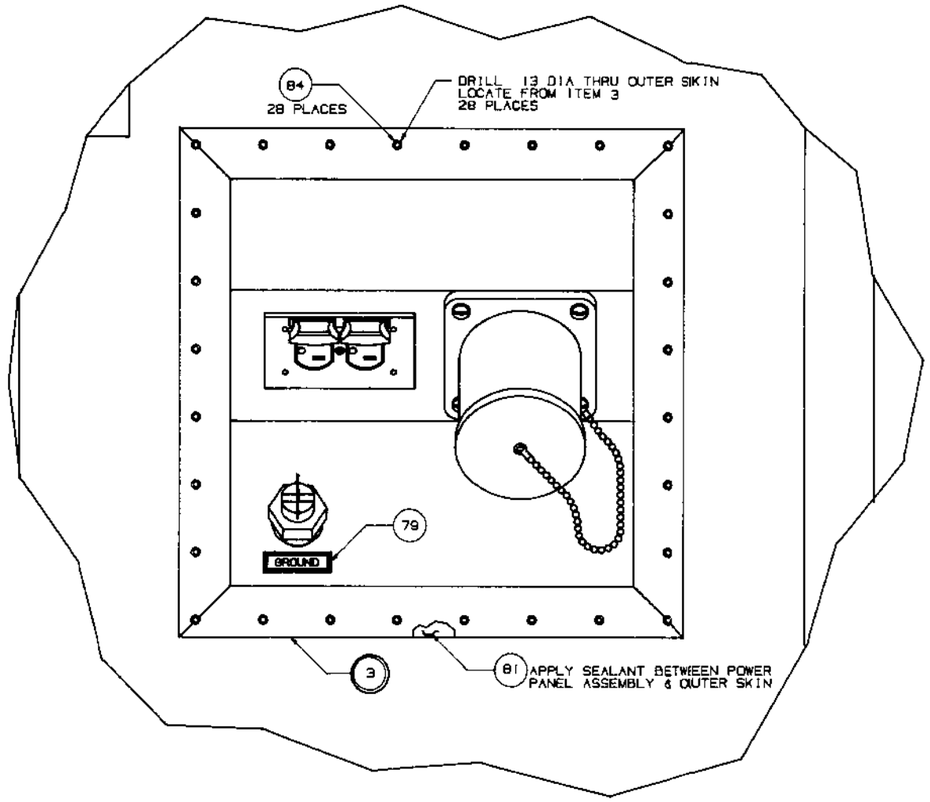
Figure D-2. *Shelter S 280, Modification of (Sheet 4 of 18)*



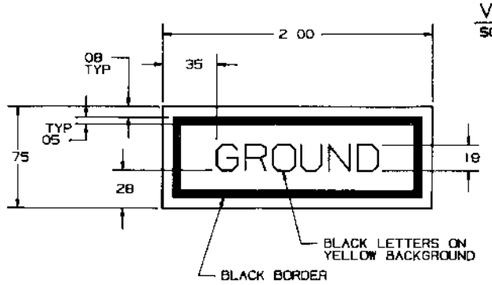
(80) DECAL, VENT 2 REQ D
MFG AS PER MIL-M 43719 TYPE I CL I
SCALE TWICE SIZE



VIEW OF PERSONNEL ENTRANCE WALL
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM OUTSIDE SHELTER LOOKING IN)



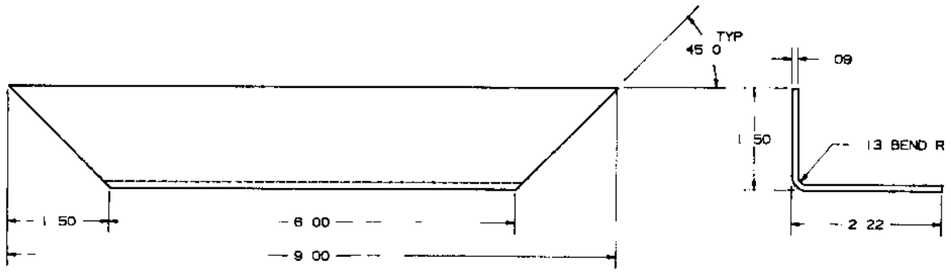
VIEW "H"
SCALE 1/2 SIZE



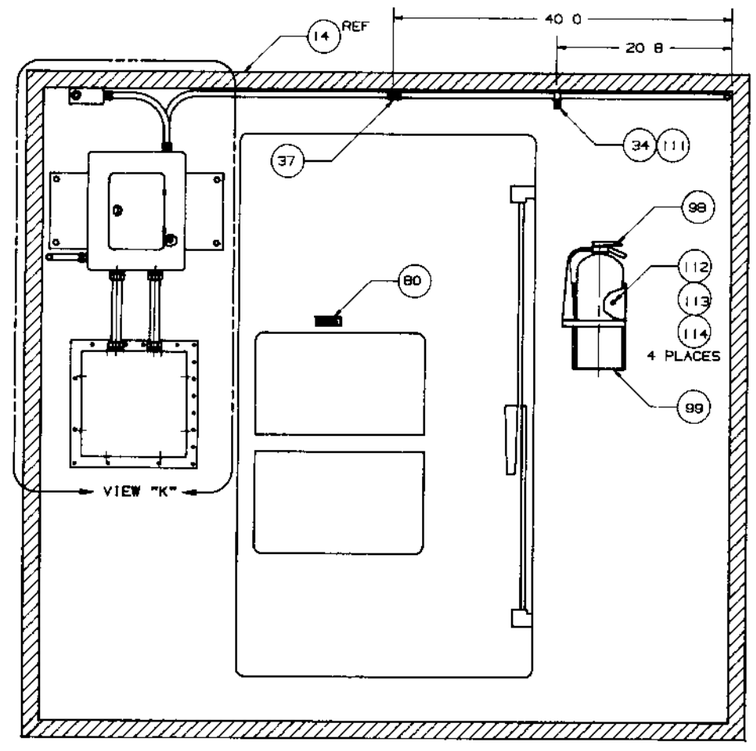
(79) DECAL, GROUND 1 REQ D
MFG AS PER MIL-M-43719 TYPE I CL I
SCALE TWICE SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
OTHER NC ON
ACCEPTABLE ON DECIMALS ANGLES
N/A
X ± 1 ±1
XX ± 03
DRAWN
CHECKED
SUBMITTED
APPROVED
SHELTER S-280
MODIFICATION OF
CODE IDENT NO 81996
SIZE D
DRAWING NO 4920-EG-056
SCALE NOTED
SHEET 5 OF 18

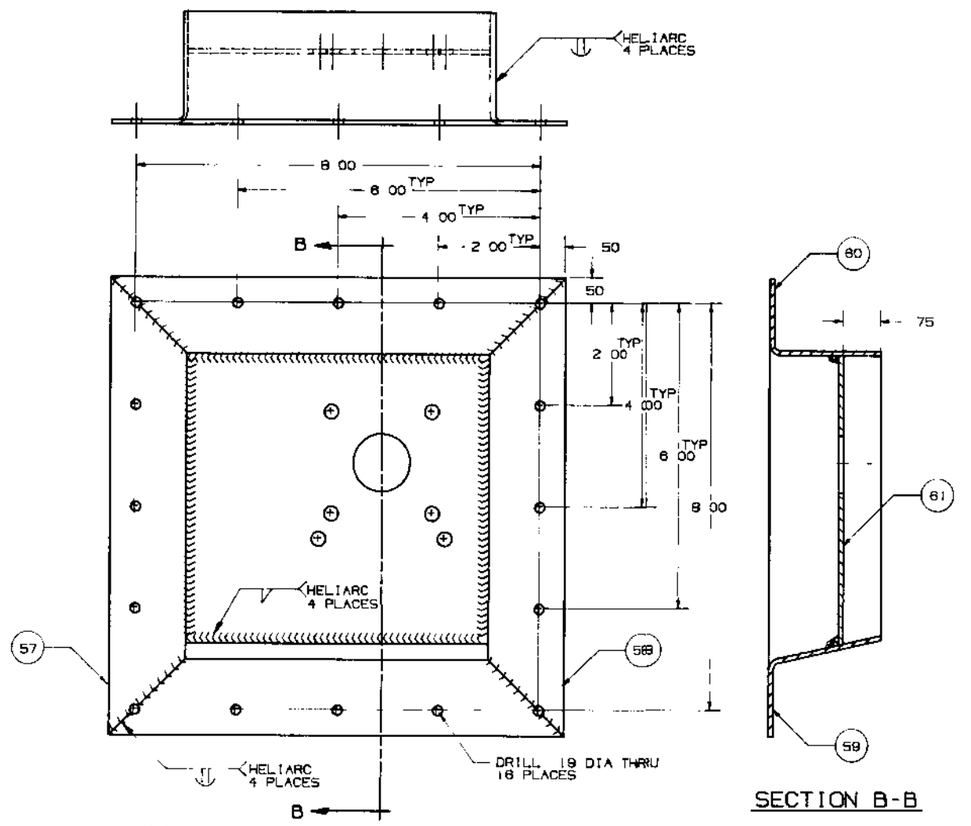
Figure D-2. *Shelter, S 280, Modification of (Sheet 5 of 18)*



(60) ANGLE, UPPER
MAT'L 5052 H32 ALUM
FINISH NONE
SCALE FULL
1 REQ D



VIEW OF FRONT ENTRANCE WALL
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)



(7) COMPRESSED AIR OUTLET ASSY
FINISH PRIME & PAINT OD
SCALE 3/4 SIZE
1-REQ D

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
REMOVE BURRS AND SHARP EDGES
N/A
XX-± 03
DR WN Engleman 10 Oct 77
CH CKED [illegible] 11 Oct 77
SUBM ED [illegible] 11 Oct 77
APPROVED [illegible] 25 OCT 77
MATERIAL

SHELTER S-280
MODIFICATION OF

COD IDENT NO 81996
SIZE D
DRAWING NO 4920-FG-056
SHEET 6 OF 18
UNLESS NOTED

Figure D-2. *Shelter, S 280, Modification of (Sheet 6 of 18)*

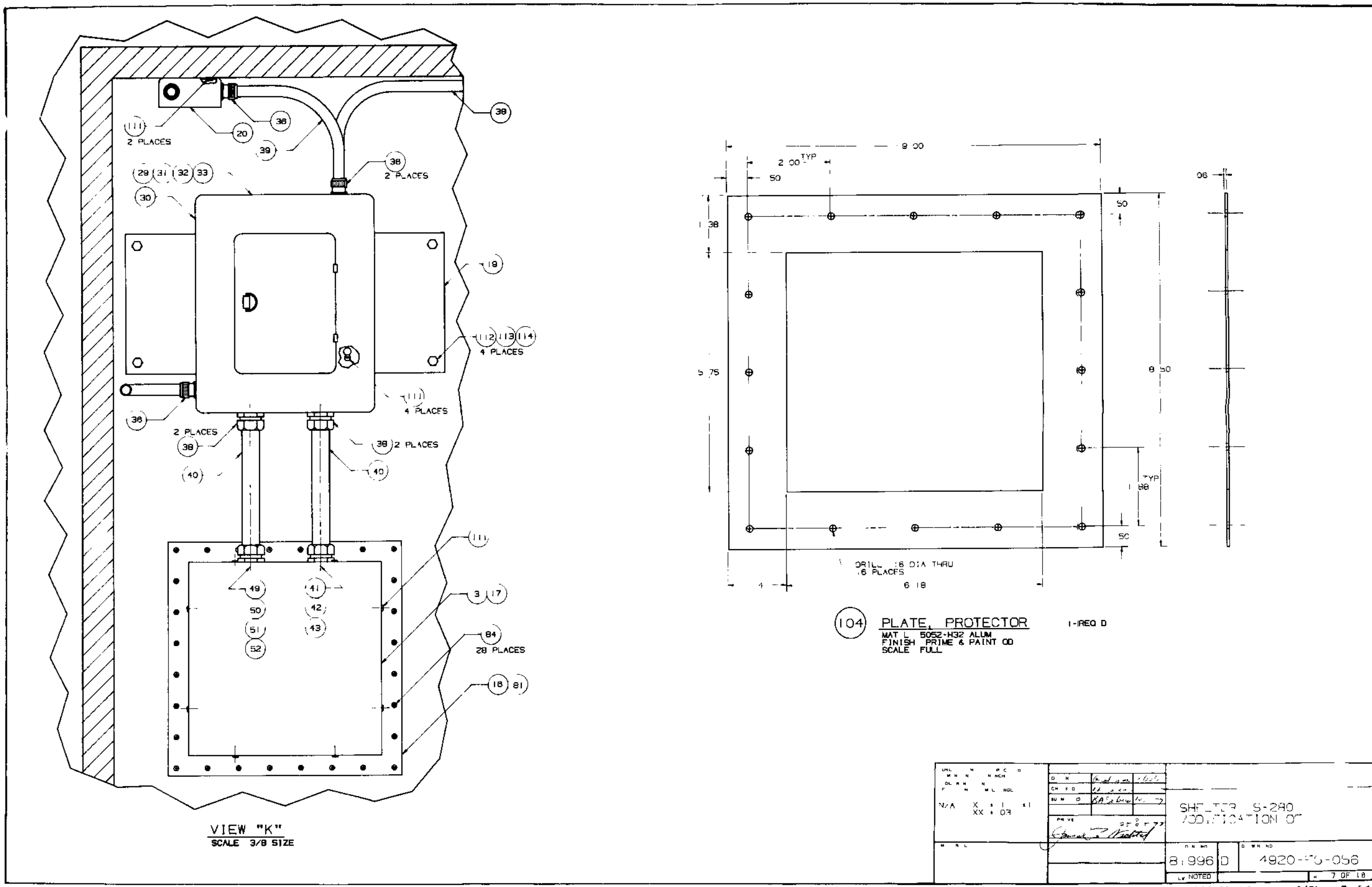


Figure D-2. *Shelter S 280, Modification of (Sheet 7 of 18)*

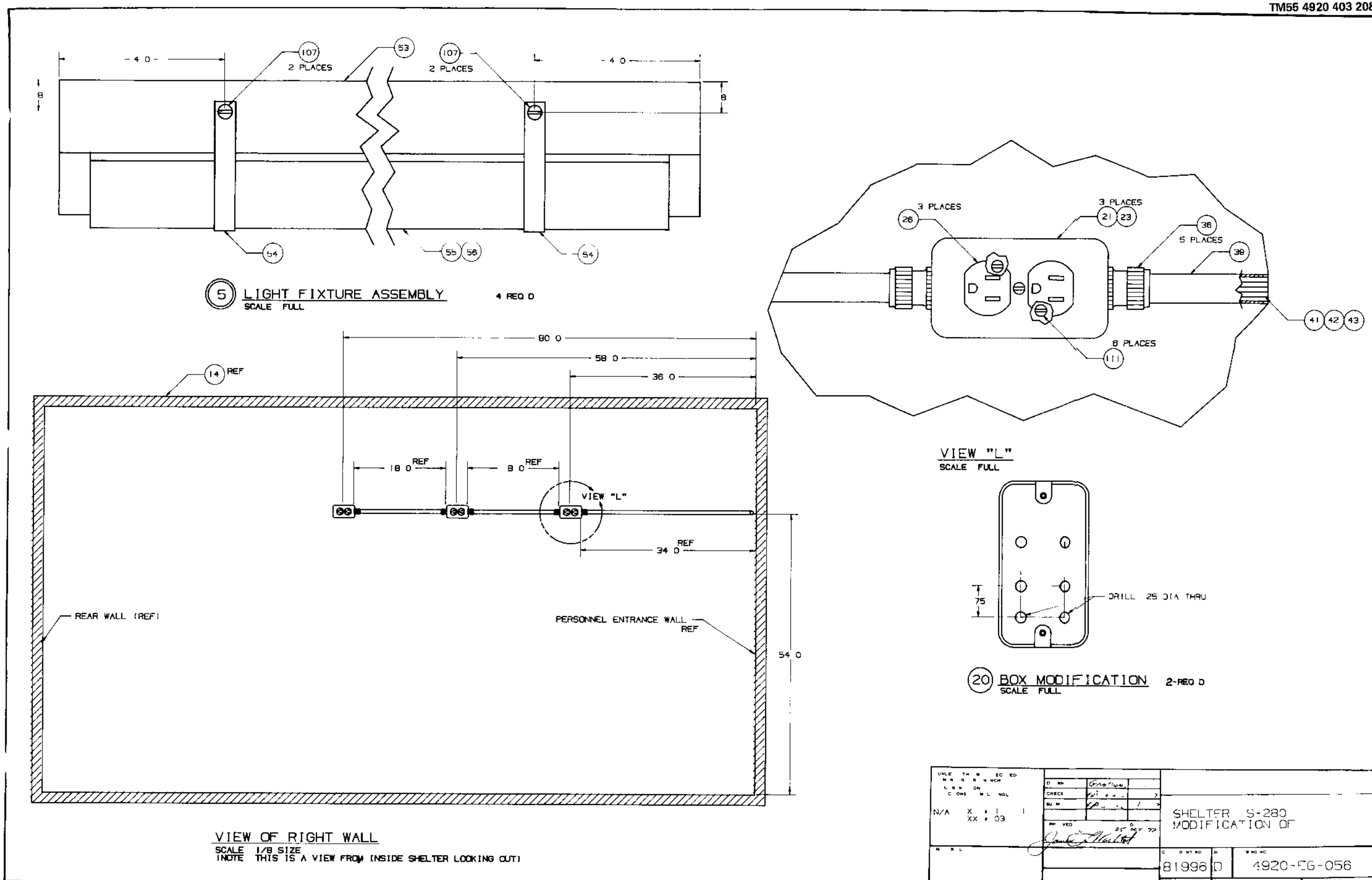
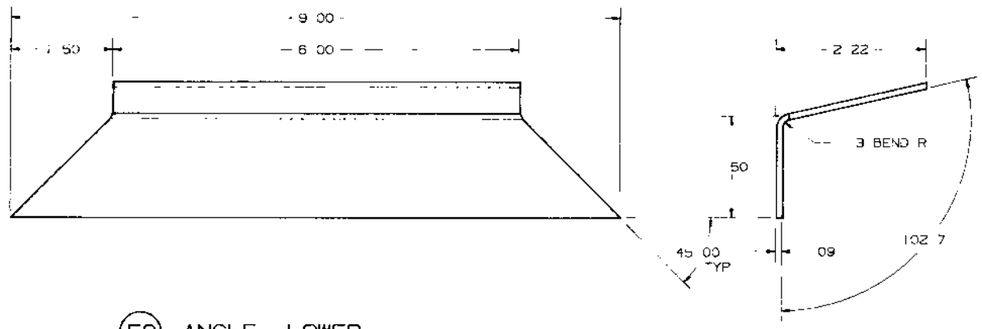
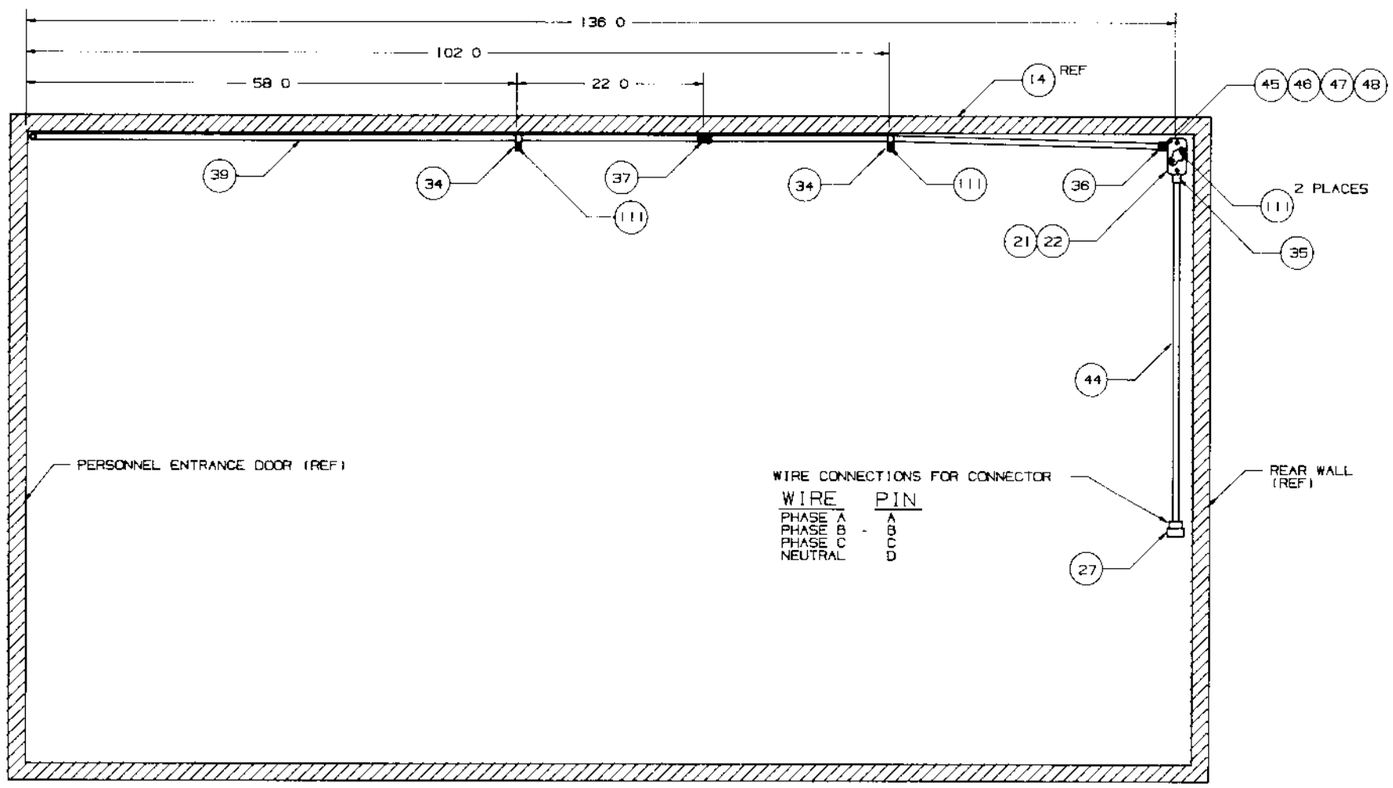

2 PLACES
2 PLACES
5 LIGHT FIXTURE ASSEMBLY
SCALE FULL
4 REQ D
3 PLACES
3 PLACES
5 PLACES
8 PLACES
VIEW "L"
SCALE FULL
14 REF
REAR WALL (REF)
PERSONNEL ENTRANCE WALL REF
VIEW "L"
DRILL .25 DIA THRU
20 BOX MODIFICATION
SCALE FULL
2-REQ D
VIEW OF RIGHT WALL
SCALE 1/8 SIZE
NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)
SHELTER S-280
MODIFICATION OF
81996
D
4920-EG-056
SCALE NOTED
8 OF 18

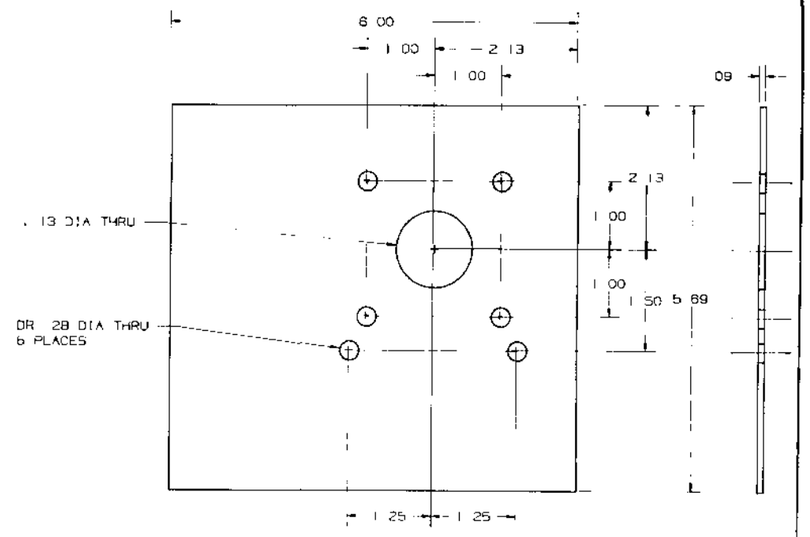
Figure D-2. *Shelter, S 280, Modification of (Sheet 8 of 18)*



(59) ANGLE, LOWER — 1 REQ D
MAT L 5052 H32 ALUM
FINISH NONE
SCALE FULL



VIEW OF LEFT WALL
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)



(61) MOUNTING PLATE — 1 REQ D
MAT L 5052-H32 ALUM
FINISH NONE
SCALE FULL

N/A	X XX	03	SHELTER S 280 MODIFICATION OF
			8.996 D 4920-[illegible]-056
			NOTED 9 OF 18

Figure D-2. *Shelter S 280, Modification of (Sheet 9 of 18)*

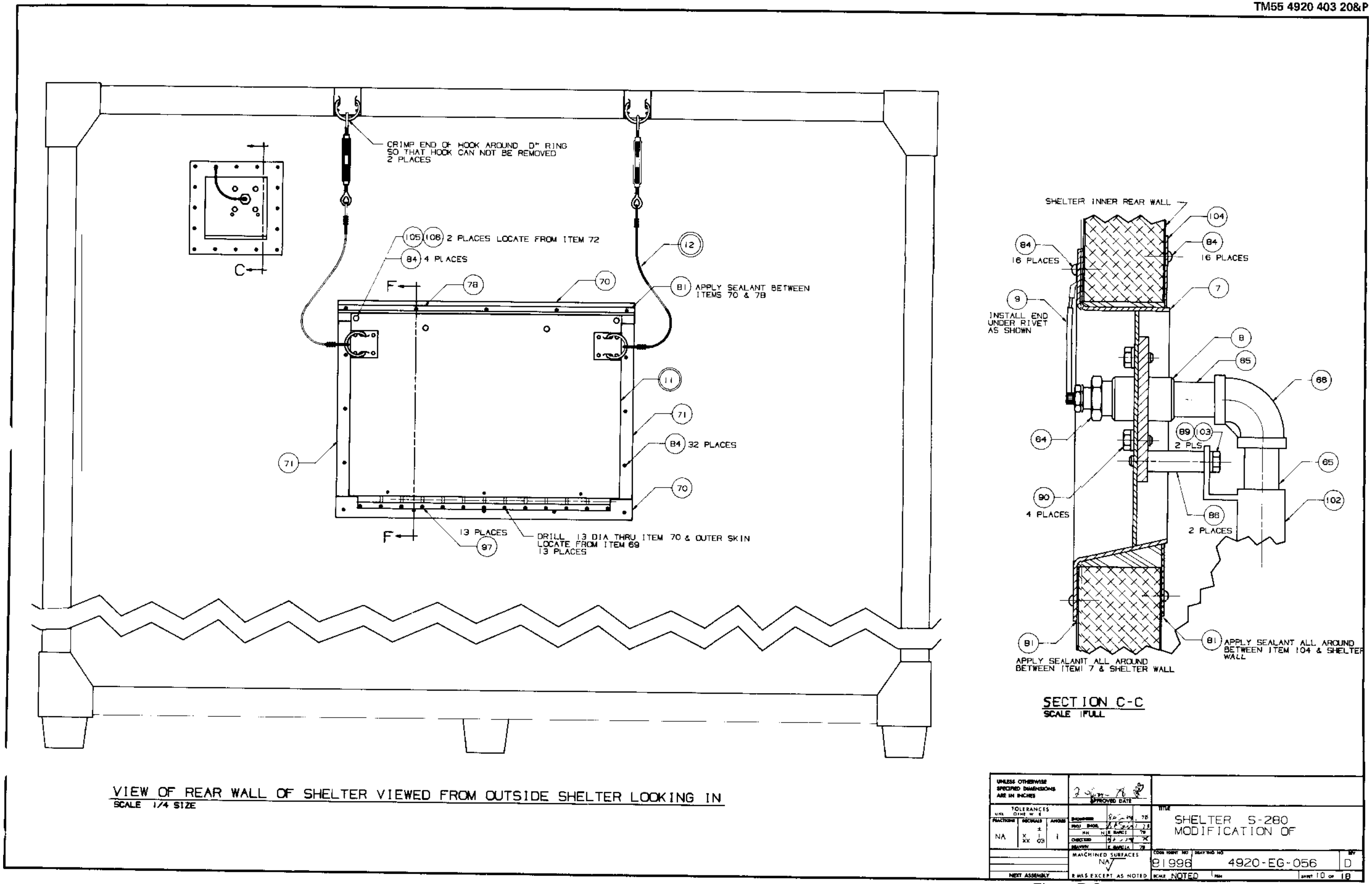
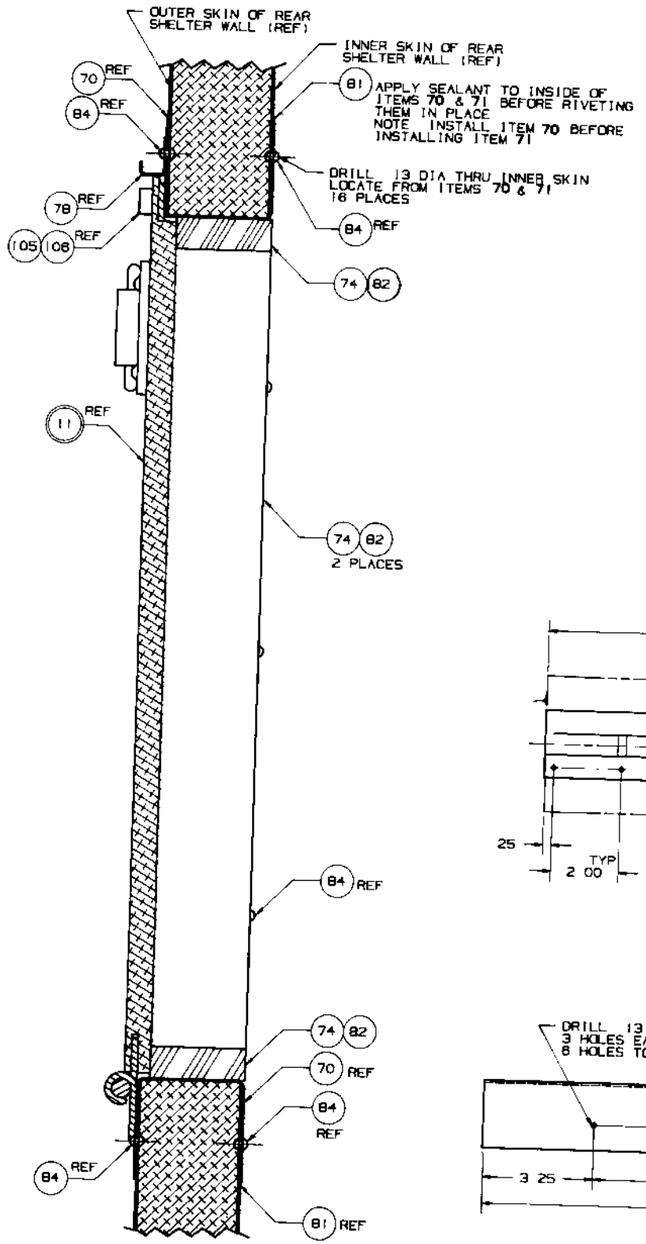
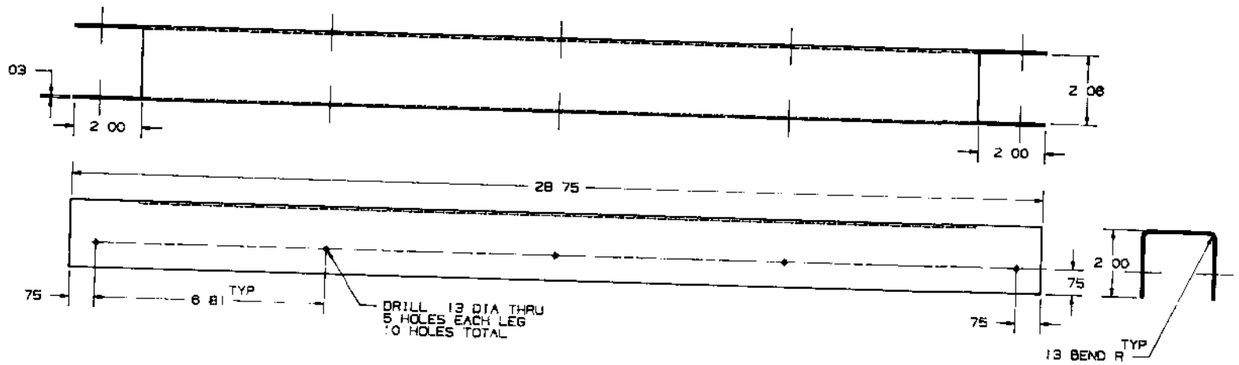

CRIMP END OF HOOK AROUND "D" RING SO THAT HOOK CAN NOT BE REMOVED 2 PLACES
105 106 2 PLACES LOCATE FROM ITEM 72
84 4 PLACES
12
78
70
81 APPLY SEALANT BETWEEN ITEMS 70 & 78
11
71
84 32 PLACES
71
70
13 PLACES
97
DRILL .13 DIA THRU ITEM 70 & OUTER SKIN LOCATE FROM ITEM 69 13 PLACES
C
F
VIEW OF REAR WALL OF SHELTER VIEWED FROM OUTSIDE SHELTER LOOKING IN
SCALE 1/4 SIZE
SHELTER INNER REAR WALL
104
84 16 PLACES
84 16 PLACES
7
9
INSTALL END UNDER RIVET AS SHOWN
8
85
66
64
89 103 2 PLS
65
90 4 PLACES
86 2 PLACES
102
81 APPLY SEALANT ALL AROUND BETWEEN ITEM 7 & SHELTER WALL
81 APPLY SEALANT ALL AROUND BETWEEN ITEM 104 & SHELTER WALL
SECTION C-C
SCALE FULL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES
NA
APPROVED DATE
SHELTER S-280
MODIFICATION OF
MACHINED SURFACES
NEXT ASSEMBLY
81996
4920-EG-056
D
NOTED
10 OF 18

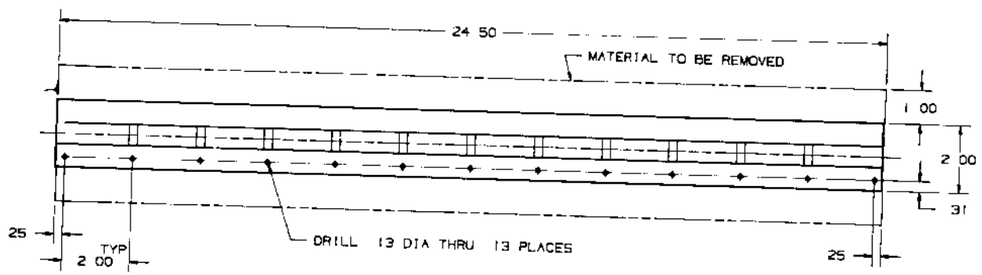
Figure D-2. *Shelter, S 280, Modification of (Sheet 10 of 18)*



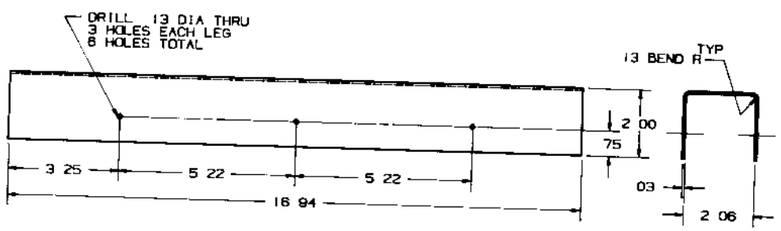
SECTION F-F
SCALE 3/4 SIZE



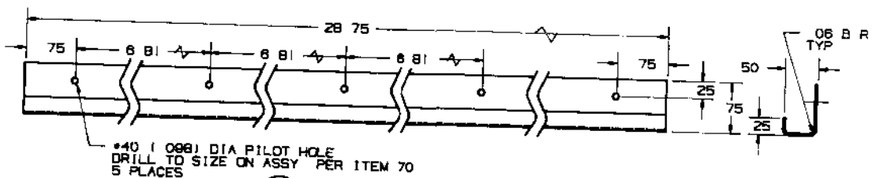
(70) END FRAMING — 2-REQ D
MAT'L 5052-H32 ALUM
FINISH PRIME & PAINT OD
SCALE 1/2 SIZE



(69) HINGE, ECU DOOR — 1-REQ D
MAT'L MS35831 3E (MODIFIED AS SHOWN)
FINISH NONE
SCALE 1/2 SIZE



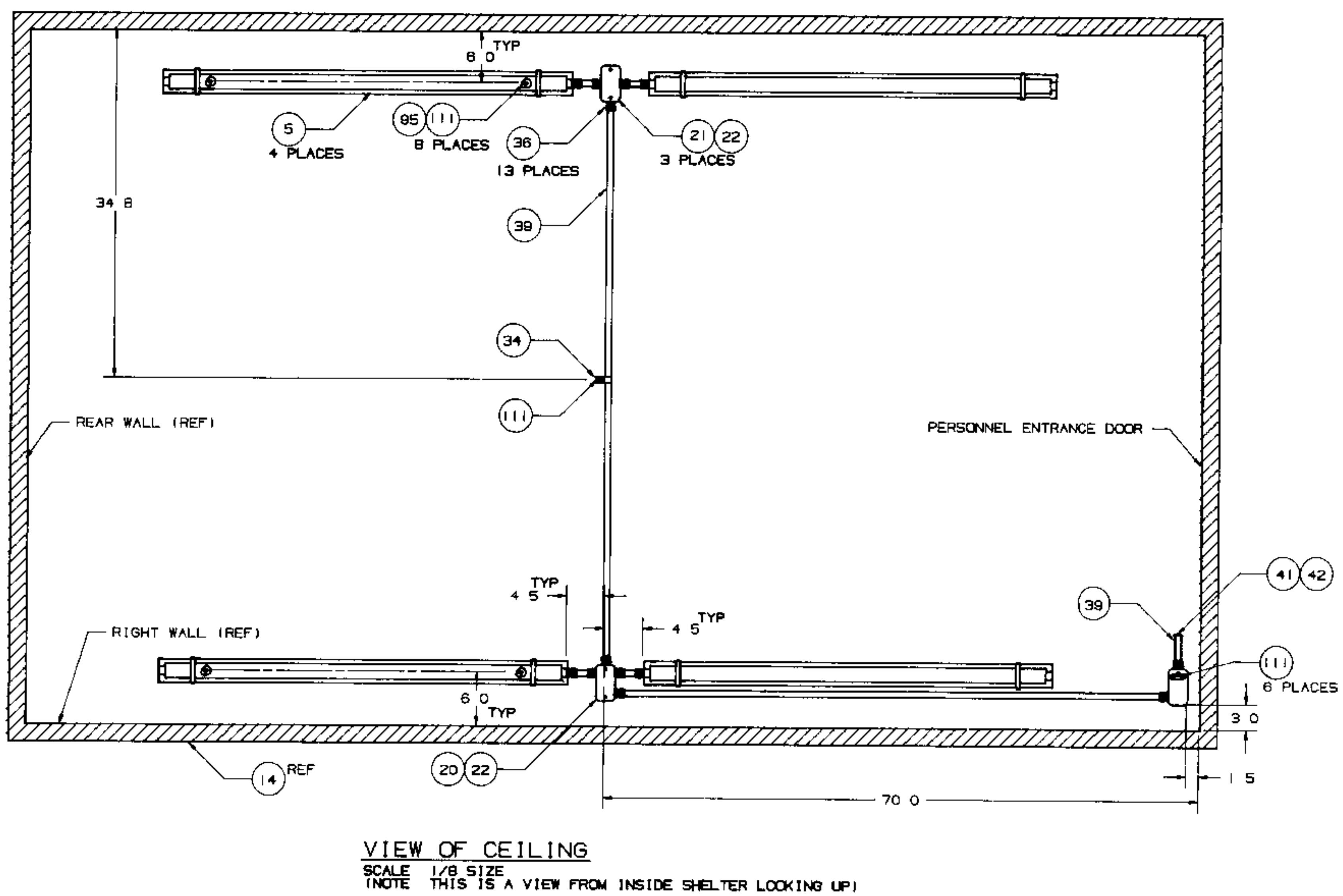
(71) SIDE FRAMING — 2-REQ D
MAT'L 5052-H32 ALUM
FINISH PRIME & PAINT OD
SCALE 1/2 SIZE

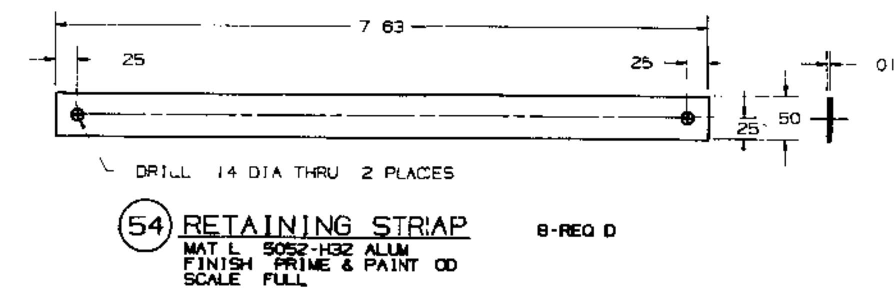


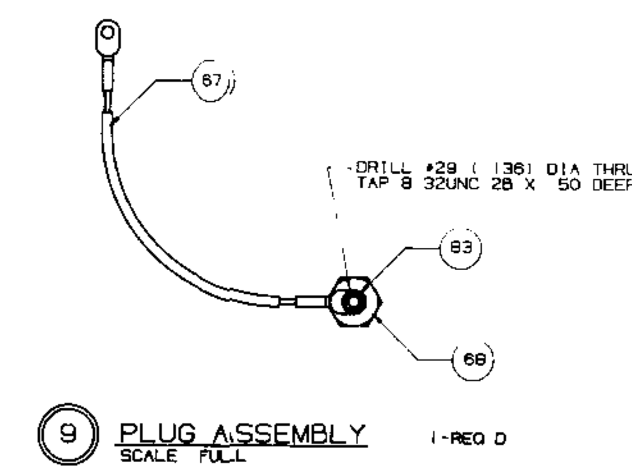
(78) TROUGH — 1-REQ D
MAT'L .032 (5052 H32 ALUM
FINISH PRIME AND PAINT OD
SCALE FULL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED DATE	TITLE: SHELTER S-280 MODIFICATION OF
TOLERANCES: FRACTIONS NA; DECIMALS X ±.1, XX ±.03; ANGLES ±1°	ENGINEER / PROJ ENGR / DRAFTING / CHECKED / DRAWN	
MACHINED SURFACES: NA; RMS (EXCEPT AS NOTED)	NEXT ASSEMBLY	CODE IDENT NO 81996; DRAWING NO 4920-EG-056; REV D; SCALE NOTED; SHEET 11 OF 18

Figure D-2. *Shelter, S 280, Modification of (Sheet 11 of 18)*







SHELTER S-280
MODIFICATION OF

81996 D 4920-EG-056

NOTED 12 OF 18

Figure D-2. *Shelter, S 280 Modification of (Sheet 12 of 18)*

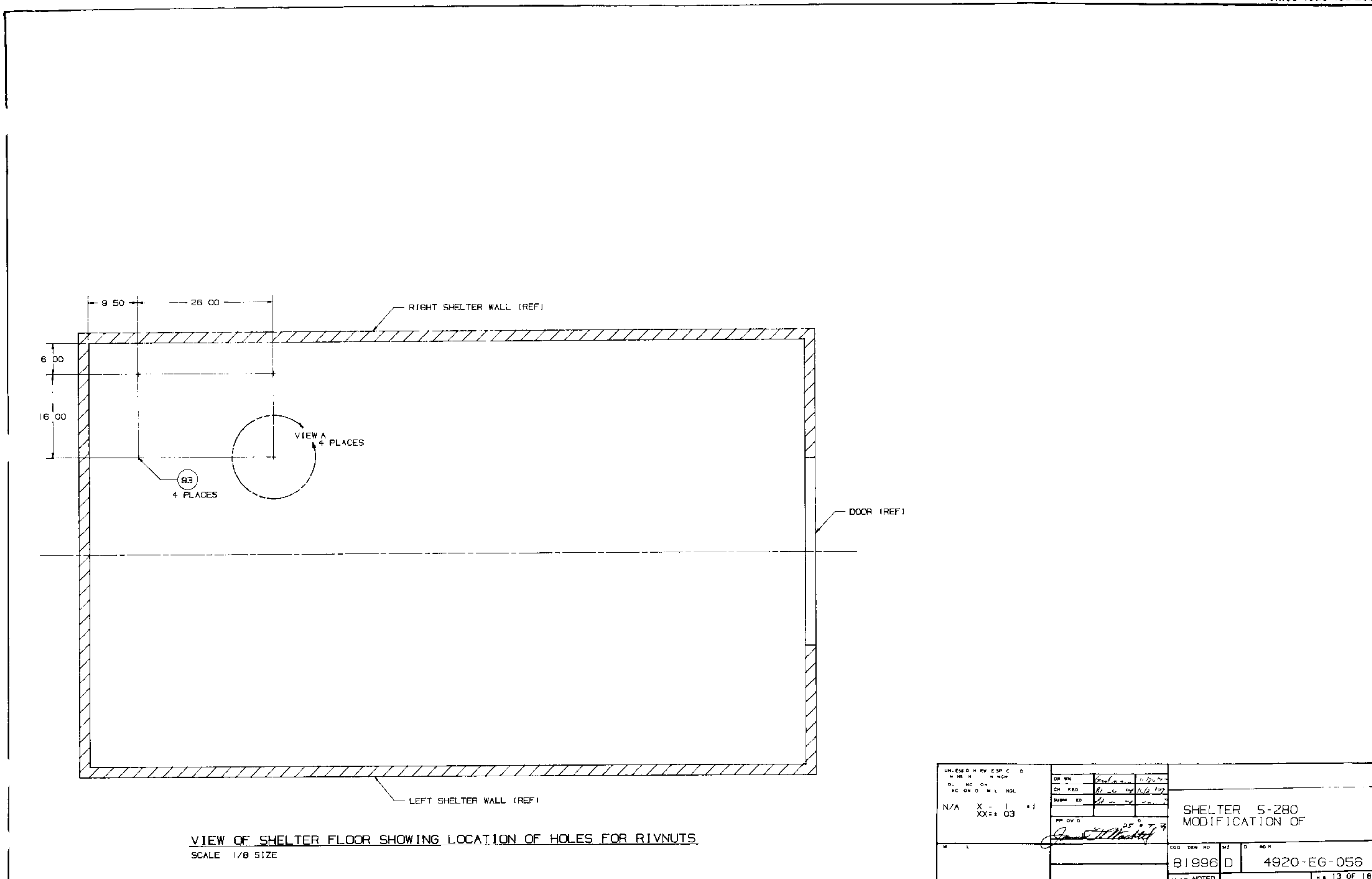
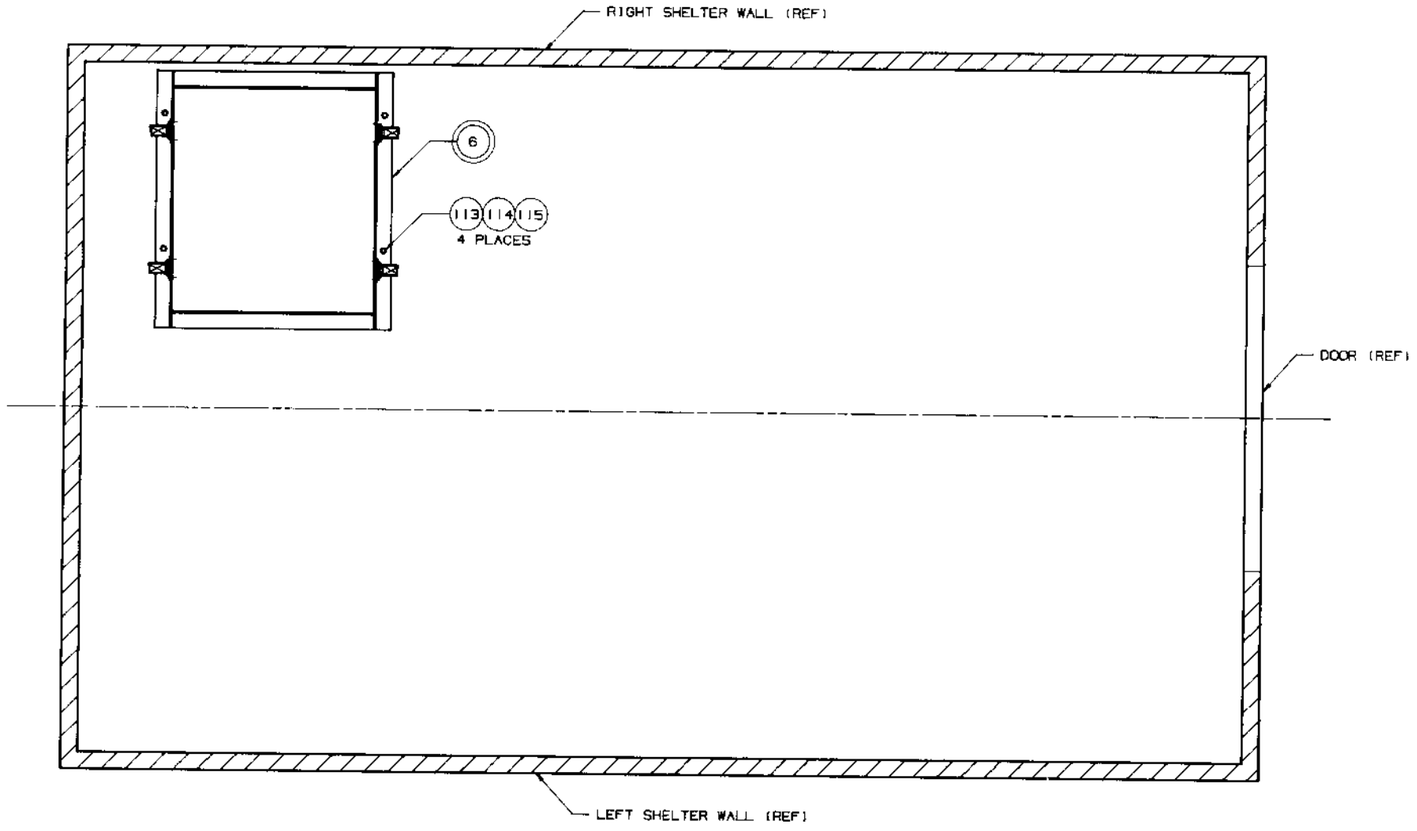


Figure D-2. *Shelter, S 280, Modification of (Sheet 13 of 18)*



VIEW OF SHELTER FLOOR SHOWING INSTALLATION OF ECU SHIPPING BRACKET ASSEMBLY
SCALE 1/8 SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED DATE	
TOLERANCES FRACTIONS: NA; DECIMALS: X ±.1, XX ±.03; ANGULAR: 1	ENGINEER; PROJ. MGR.; CHIN AN; CHECKED; NAVSEA	TITLE: SHELTER S-280 MODIFICATION OF
M CHINED SURFACES NA; NEXT ASSEMBLY; ALL OTHER S EXCEPT AS NOTED	CODE IDENT NO. 81996; DRAWING NO. 4920-EG-056; REV D; SCALE NOTED; SHEET 14 OF 18	

Figure D-2. *Shelter, S 280, Modification of (Sheet 14 of 18)*

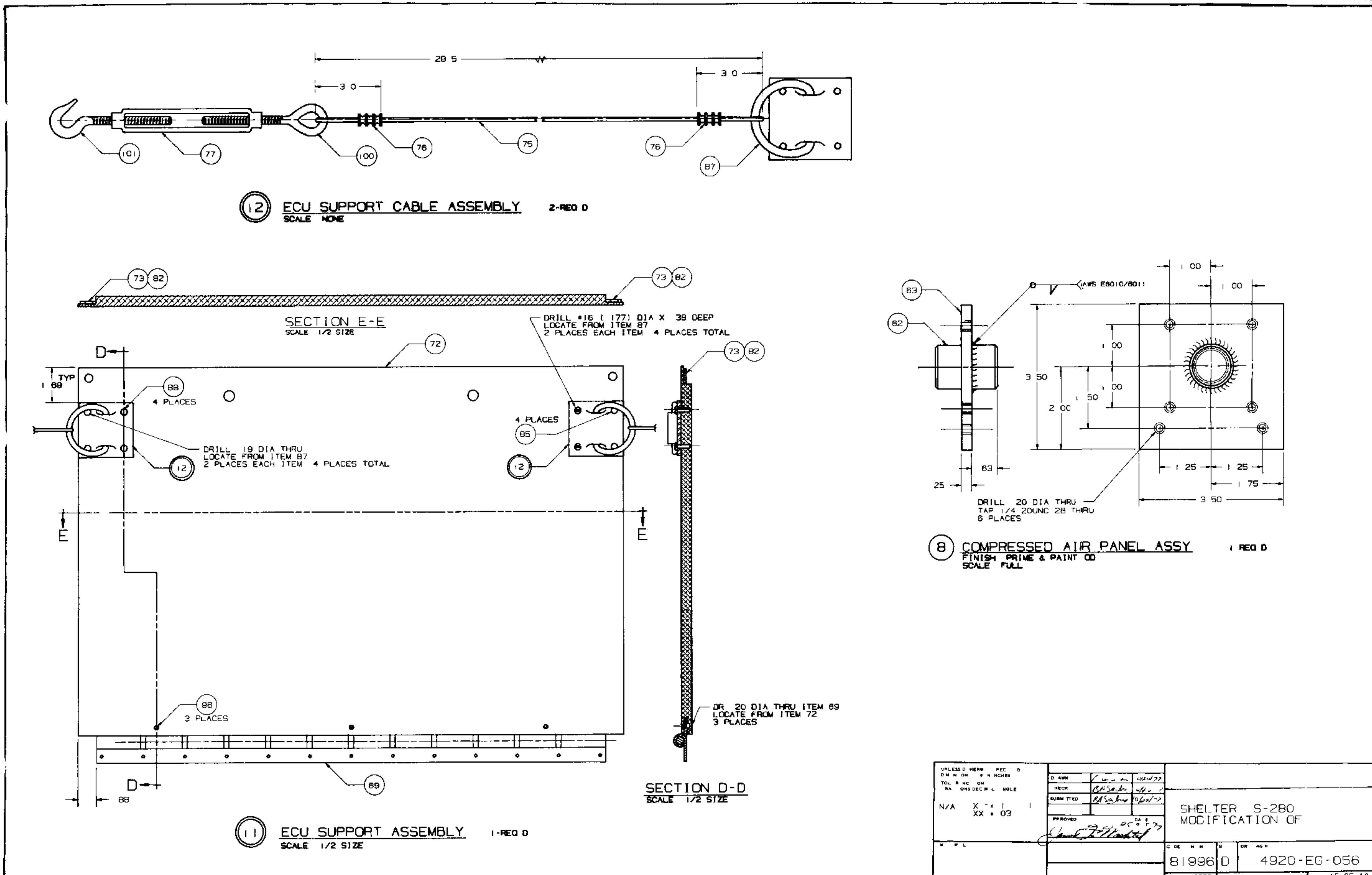
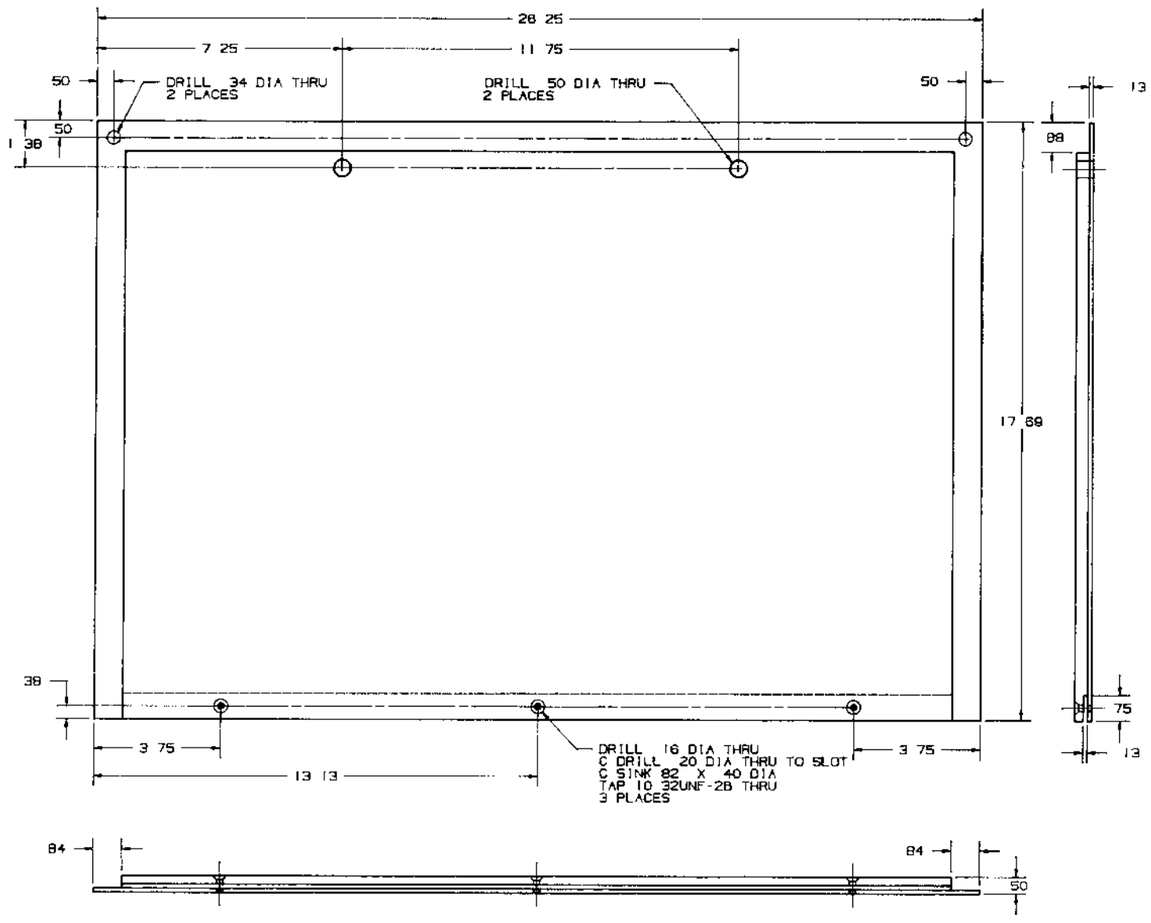
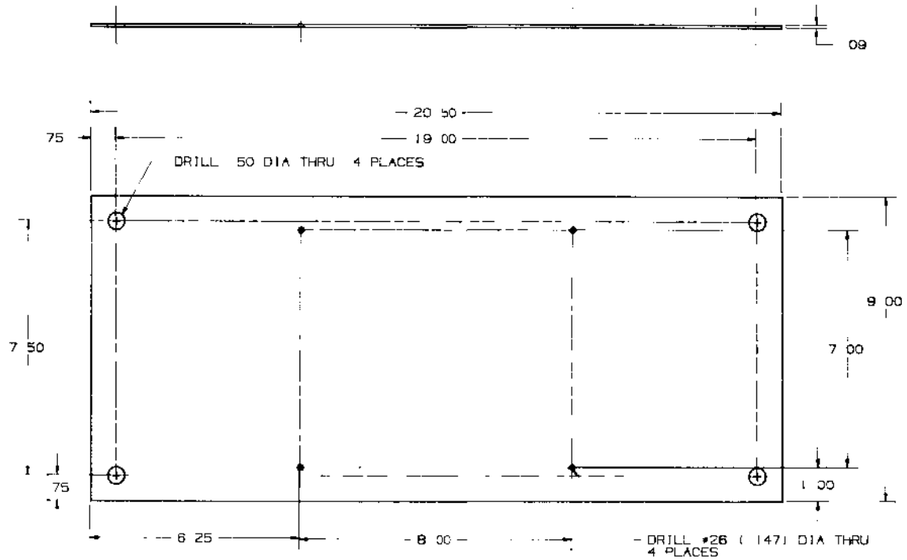

28 5
3 0
3 0
101
77
100
76
75
76
87
12 ECU SUPPORT CABLE ASSEMBLY 2-REQ D
SCALE NONE
73 82
73 82
SECTION E-E
SCALE 1/2 SIZE
DRILL #16 (.177) DIA X .38 DEEP
LOCATE FROM ITEM 87
2 PLACES EACH ITEM 4 PLACES TOTAL
72
73 82
88
4 PLACES
4 PLACES
85
DRILL .19 DIA THRU
LOCATE FROM ITEM 87
2 PLACES EACH ITEM 4 PLACES TOTAL
98
3 PLACES
DR .20 DIA THRU ITEM 69
LOCATE FROM ITEM 72
3 PLACES
69
SECTION D-D
SCALE 1/2 SIZE
11 ECU SUPPORT ASSEMBLY 1-REQ D
SCALE 1/2 SIZE
63
62
AWS E6010/6011
1 00
1 00
3 50
2 00
1 50
63
25
1 25
1 25
1 75
3 50
DRILL .20 DIA THRU
TAP 1/4 20UNC 28 THRU
6 PLACES
8 COMPRESSED AIR PANEL ASSY 1 REQ D
FINISH PRIME & PAINT OD
SCALE FULL
N/A
X = .1
XX = .03
SHELTER S-280
MODIFICATION OF
81996 D 4920-EC-056
SCALE NOTED
15 OF 18

Figure D-2. *Shelter, S 280, Modification of (Sheet 15 of 18)*



(72) ECU SUPPORT 1 REQ D
MAT L 5052-H32 ALUM
FINISH NONE
SCALE 1/2 SIZE



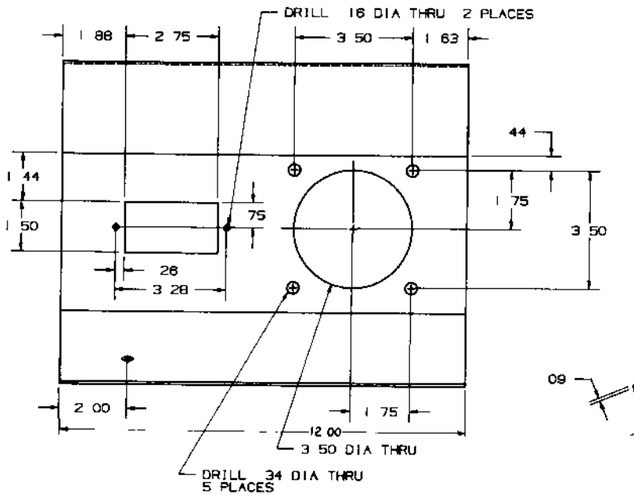
(19) PLATE 1-REQ D
MAT L ALUM 5052 H32
FINISH PRIME & PAINT OD
SCALE 1/2 SIZE

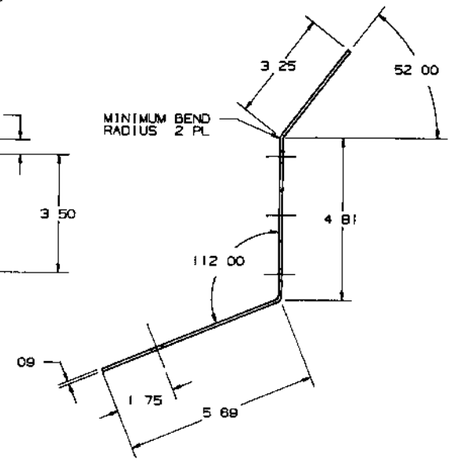
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONAL ANGULAR			
DRWN			
CHCK			
SUPVR			
APPROVED 25 OCT 77			
N/A	X XX	1 03	1
MATL			

SHELTER S-280
MODIFICATION OF

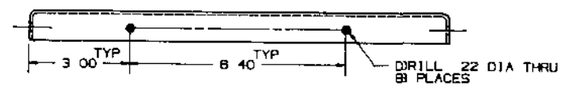
CODE IDENT	D	DWG NO
81996	D	4920-FG-056
C L NOTED		SHEET 16 OF 18

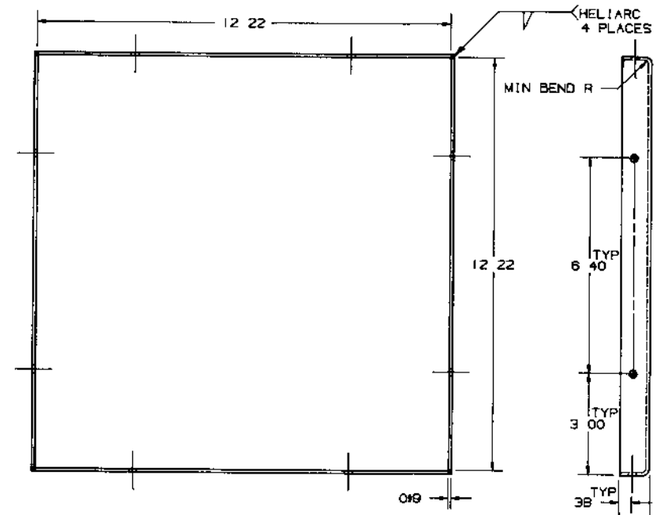
Figure D-2. *Shelter, S 280 Modification of (Sheet 16 of 18)*



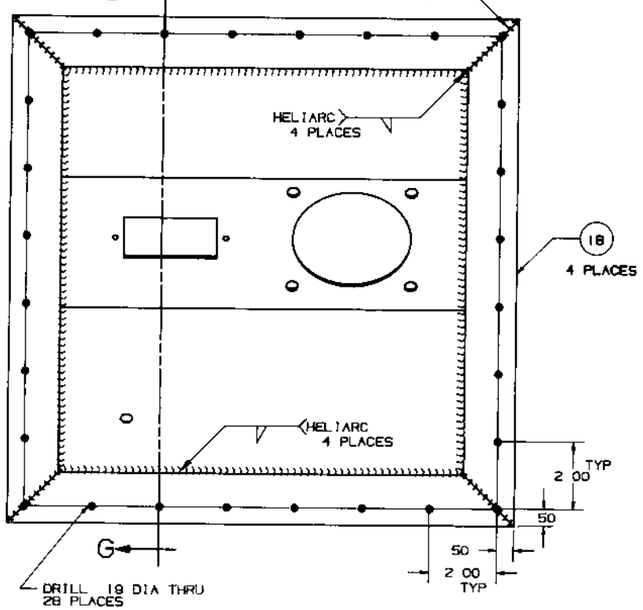


(15) POWER INLET PANEL — 1 REQ D
MAT L 5052-H32 ALUMINUM
FINISH NONE
SCALE 1/2 SIZE

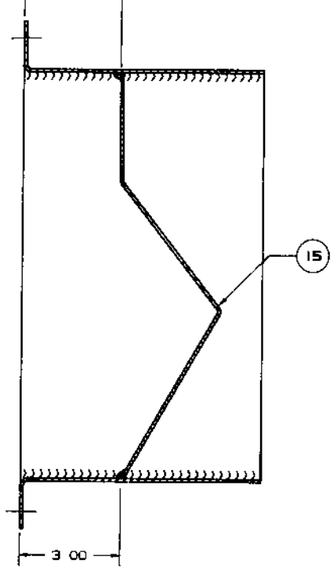




(17) COVER, POWER INLIET BOX — 1 REQ D
MAT L ALUM 5052-H32
FINISH PRIME & PAINT OD
SCALE 1/2 SIZE



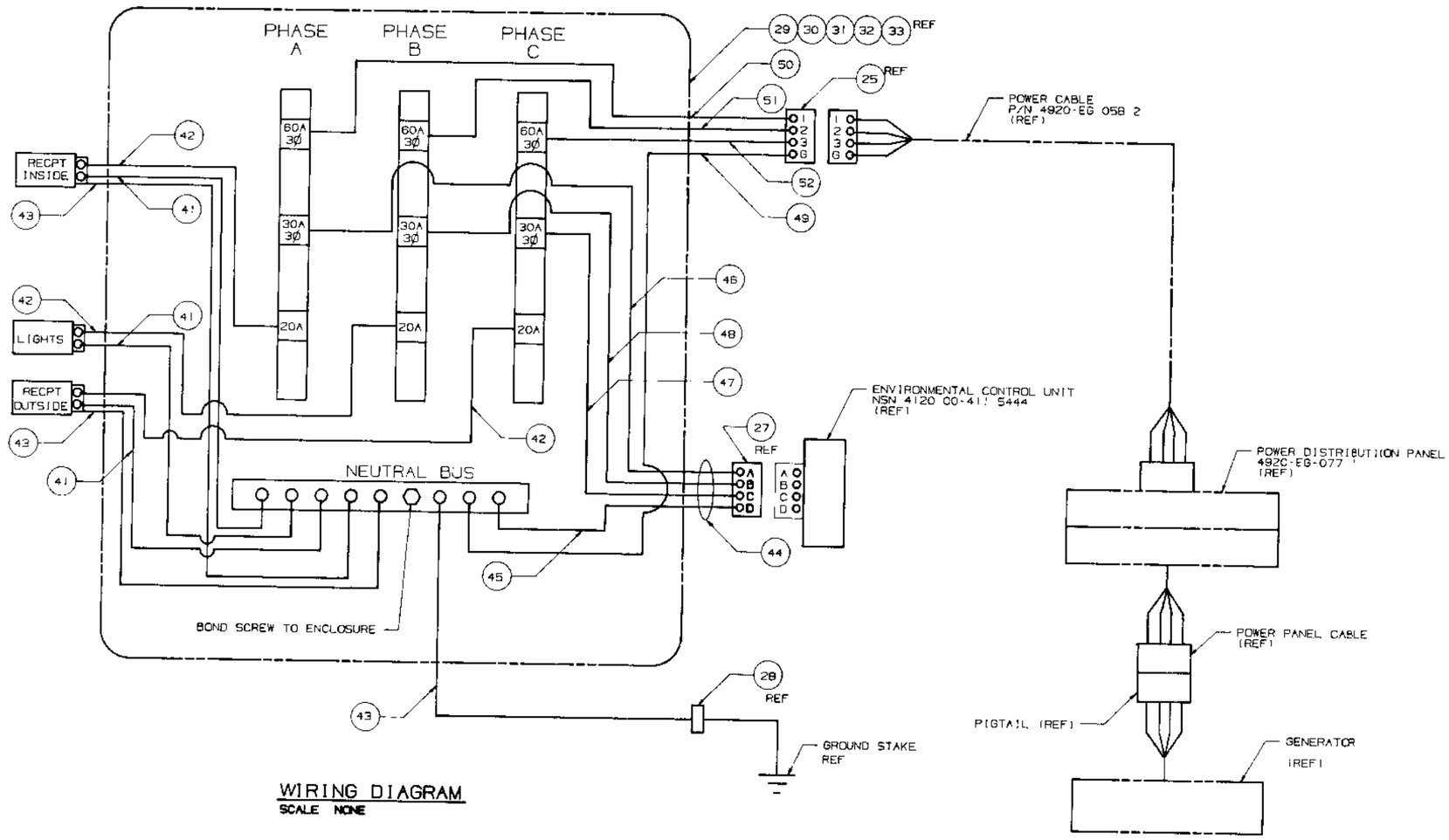
(4) POWER INLET BOX ASSEMBLY
FINISH PRIME & PAINT OD
SCALE 1/2 SIZE



SECTION G-G
SCALE 1/2 SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES			
DRAWN	Engl	25 Oct 77	
CHECKED	H.J.	" "	
SUBM ED	B.A. Seberg	25 Oct 77	
APPROVED	[signature]	25 Oct 77	
N/A	X ± 1 ±1 XX ± 03		SHELTER S 280 MODIFICATION OF
MATERIAL		CODE IDENT 81996	SIZE D
		SCALE NOTED	DRAWING NO 4920-EG-056
			SHEET 17 OF 18

Figure D-2. *Shelter, S 280 Modification of (Sheet 17 of 18)*



WIRING DIAGRAM
SCALE NONE

UNLESS OTHERWISE SPECIFIED DIMENSION RE IN INCHES
TOLERANCE ON DECIMAL HOLE
NA XX ± 03 ± 1
X ± 1

DR BY	E GARCIA	1 78
CHECK		
SUBMITTED		
APP'D BY		12/1/78

MATERIAL

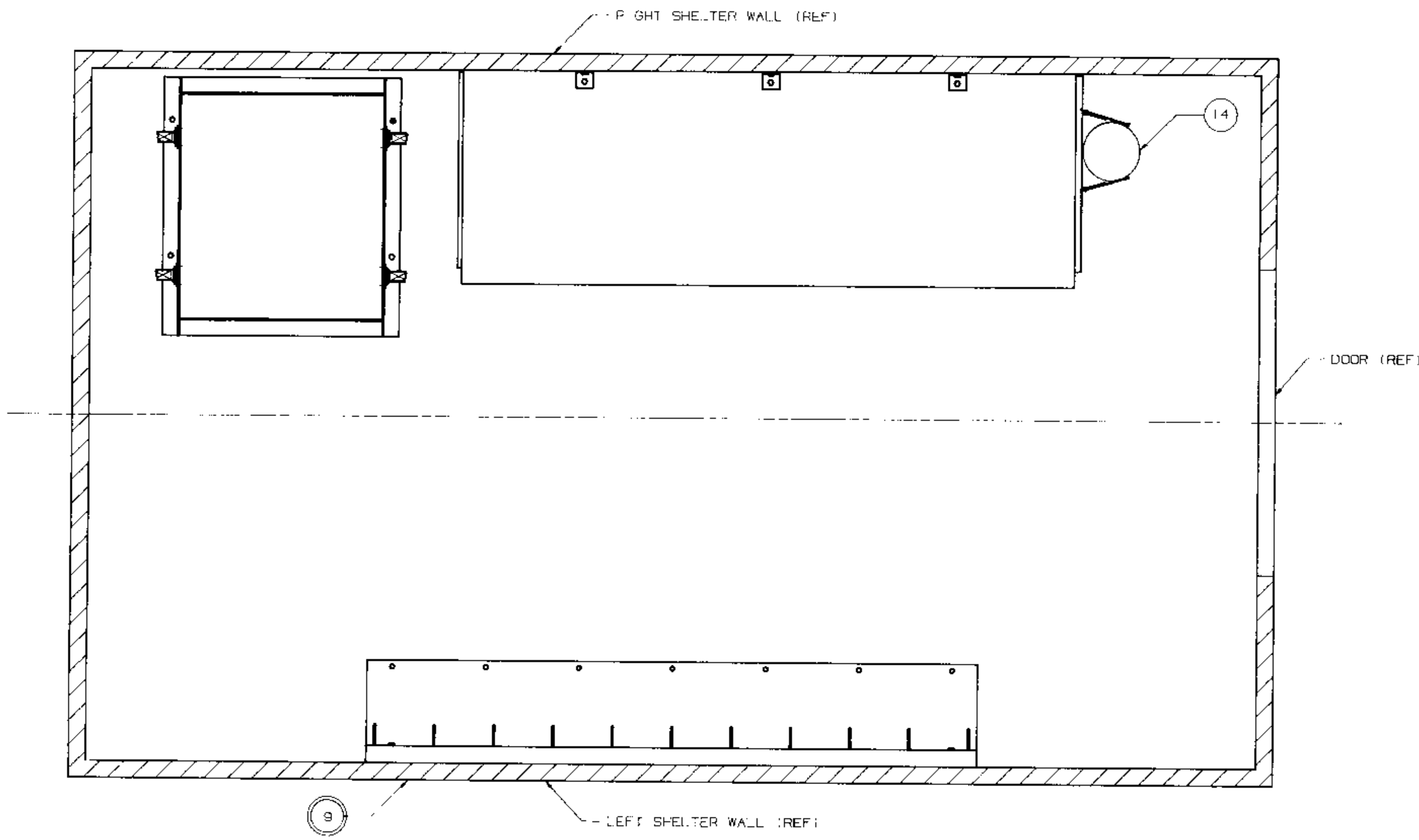
SHELTER, S-280
MODIFICATION OF

CODENO 81996 | SIZE D | DWG NO 4920-EG-056

SCALE NOTED | SHEET 18 OF 18

Figure D-2. *Shelter, S 280, Modification of (Sheet 18 of 18)*

SYM	ZONE	DESCRIPTION	DATE	APPROVED
A		REV SED	11/...	BRB



(2) VIEW OF SHELTER #1 FLOOR
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING DOWN)

ITEM NO	QTY REQD	NOMENCLATURE OR DESCRIPTION	PART OR IDENTIFYING NO	DESCRIPTION
38	1	NUT PLAIN HEX	MS35649 2312	5/16-18 UNC X 21W
37	2	NUT PLAIN HEX	MS35650 3382	3/8-24 UNF X 25W
36	2	WASHER LOCK	MS35338 46	38ID X 09W
35	2	WASHER FLAT	AN960-616L	39ID X 03W
34	2	BOLT MACHIN	AN6-33A	3/8 24 UNF X 3 45L
33	8	NUT PLAIN HEX	MS35650 3392	1/2-20 UNF X 44W
32	8	WASHER LOCK	MS35338-48	51ID X 13W
31	8	WASHER FLAT	AN960 816L	52ID X 03W
30	8	BOLT MACHINE	AN8 27A	1/2 20 UNF X 2 87L
29	4	NUT PLAIN HEX	MS35650-302	•10 32 UNF X 13W
28	4	WASHER LOCK	MS35338 43	19ID X 05W
27	4	SCREW MACH C SK HD	MS35191 272	•10 32 UNF X 50L
26	1	EYE BOLT THREADED	MCMASTER CARR P/N 3013W46 5/16 18 UNC	
25	1	RIVNUT, HEAD TYPE	BFG P/N 531 KB425	5/16-18 UNC
24	1	DECAL	MIL M-43719 TYPE I CLASS I	
23	16	SCREW, THREAD FORMING	MS24641 53	•10 X 1 00L
22	4	WEBBING TEXT NYLON	MIL W 27285 CL R COLOR OD 1 25W X 36 0L	
21	4	WEBBING TEXT NYLON	MIL W 27285 CL R COLOR OD 1 25W X 32 5L	
20	AR	THREAD NYLON	MIL T 7807 TYPE V SIZE 12	
19	1	WEBBING TEXT NYLON	MIL-W-27285 CL R COLOR OD 1 25W X 16 0L	
18	1	WEBBING TEXT NYLON	MIL W 27285 CL R COLOR OD 1 25W X 12 5L	
17	5	CLIP END	MS51926 4	
16	5	BUCKLE SPRING ACT	MS51929 6	
15	10	LOOP FOOTMAN S	662R 1 1/4 FMC76786 FSN 5340 897-2542	
14	3	PAIL	FSN 7240 160 0455	
13	2	CASE SET	FSN 8115 663-0213	
12	1	GRINDER	FSN 3415 517 7754	
11	2	VISE	FSN 5120-293 1439	
10				
9	3	AVUM NO 2 MODIFIED SHELTER	4920 EG 054 FMC 81996	
8	4	STRAP TIP ASSEMBLY		C/O ITEMS 15 17 20 & 21
7	4	STRAP BUCKLE ASSEMBLY		C/O ITEMS 15 16 20 & 22
6	1	STRAP TIP ASSEMBLY		C/O ITEMS 15 17 18 & 20
5	1	STRAP BUCKLE ASSEMBLY		C/O ITEMS 15, 16, 19 & 20
4	1	SHELTER NO 3		C/O ITEMS 7 8 9 11 13 23 30 THRU 37
3	1	SHELTER NO 2		C/O ITEMS 7 8 9 11 13 23 30 THRU 33
2	1	SHELTER NO 1		C/O ITEMS 5 6 9 14 24 THRU 29 & 38
1	1	AVUM NO 2 CONFIGURATION		C/O ALL ITEMS LISTED ABOVE

LIST OF MATERIAL OR PARTS LIST

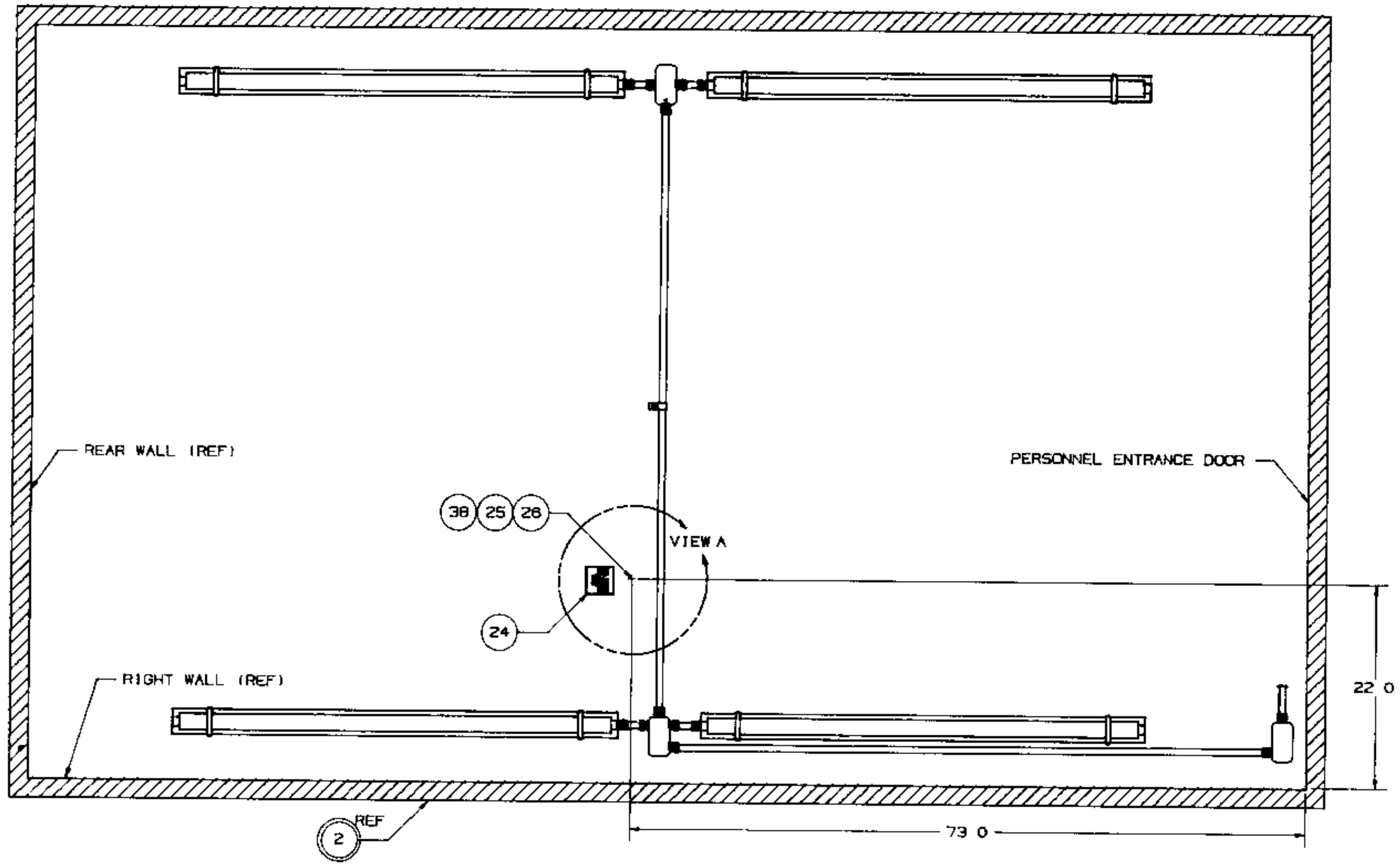
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES
N/A X 1 1
XX 03

DRAWN	U PATTON	11/8/77
CHECK	[signature]	11/6/77
SUBMITTED	[signature]	
APPROVED	[signature]	11/10/77

AVUM NO 2
CONFIGURATION

CODE IDENT NO 81996 SIZE D DWG NO 4920-EG-057
SCALE NOTED SHEET 1 OF 7

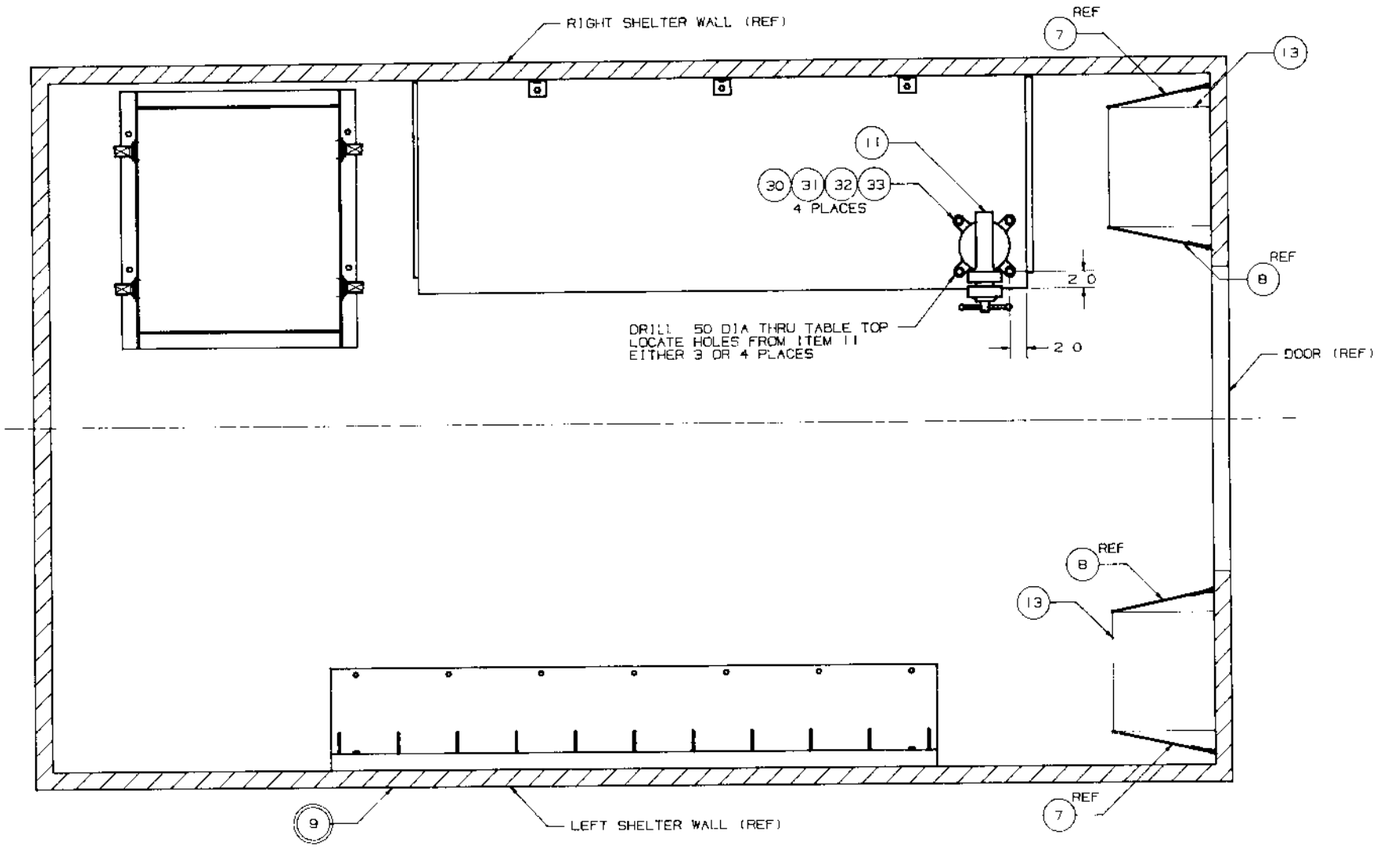
Figure D-3. *AVUM NO 2, Configuration (Sheet 1 of 7)*



VIEW OF CEILING OF SHELTER #1
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING UP)

N/A X ± 1 XX ± 03	DRAWN J PATTON 11/8/77	AVUM NO 2 CONFIGURATION
	81996	D	4920-EG-057
	NOTED	SHEET 2 OF 7

Figure D-3. *AVUM NO 2, Configuration (Sheet 2 of 7)*



③ VIEW OF SHELTER #2 FLOOR

SCALE 1/8 SIZE
INOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING DOWN!

DRAWN	J PATTON	11/8/77	AVUM NO 2 CONFIGURATION
CHECK			
SUBM ED			
APPR VED		DA	
CODE IDENT NO	SIZE	DRAWING NO	
81996	D	4920-EG-057	
SCALE NOTED		SHEET 3 OF 7	

Figure D-3. *AVUM NO 2, Configuration (Sheet 3 of 7)*

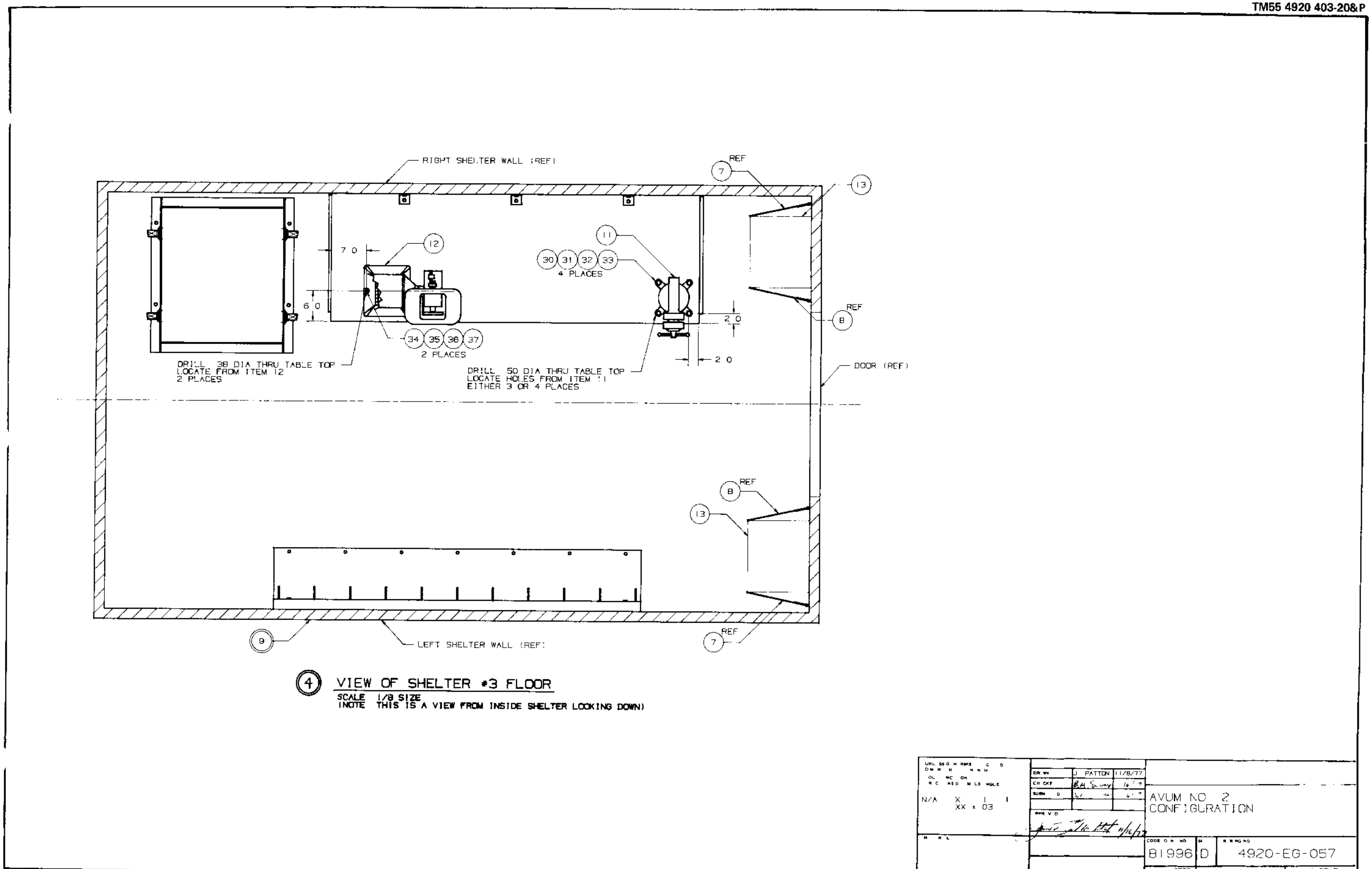

RIGHT SHELTER WALL (REF)
REF
7
13
12
11
7 0
30 31 32 33
4 PLACES
6 0
2 0
REF
8
34 35 36 37
2 PLACES
2 0
DOOR (REF)
DRILL .38 DIA THRU TABLE TOP
LOCATE FROM ITEM 12
2 PLACES
DRILL .50 DIA THRU TABLE TOP
LOCATE HOLES FROM ITEM 11
EITHER 3 OR 4 PLACES
REF
8
13
9
LEFT SHELTER WALL (REF)
REF
7
4
VIEW OF SHELTER #3 FLOOR
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING DOWN)
N/A
X
XX ± 03
J. PATTON 11/8/77
AVUM NO 2
CONFIGURATION
81996 D 4920-EG-057
SCALE NOTED
4 OF 7

Figure D-3. *AVUM NO 2, Configuration (Sheet 4 of 7)*

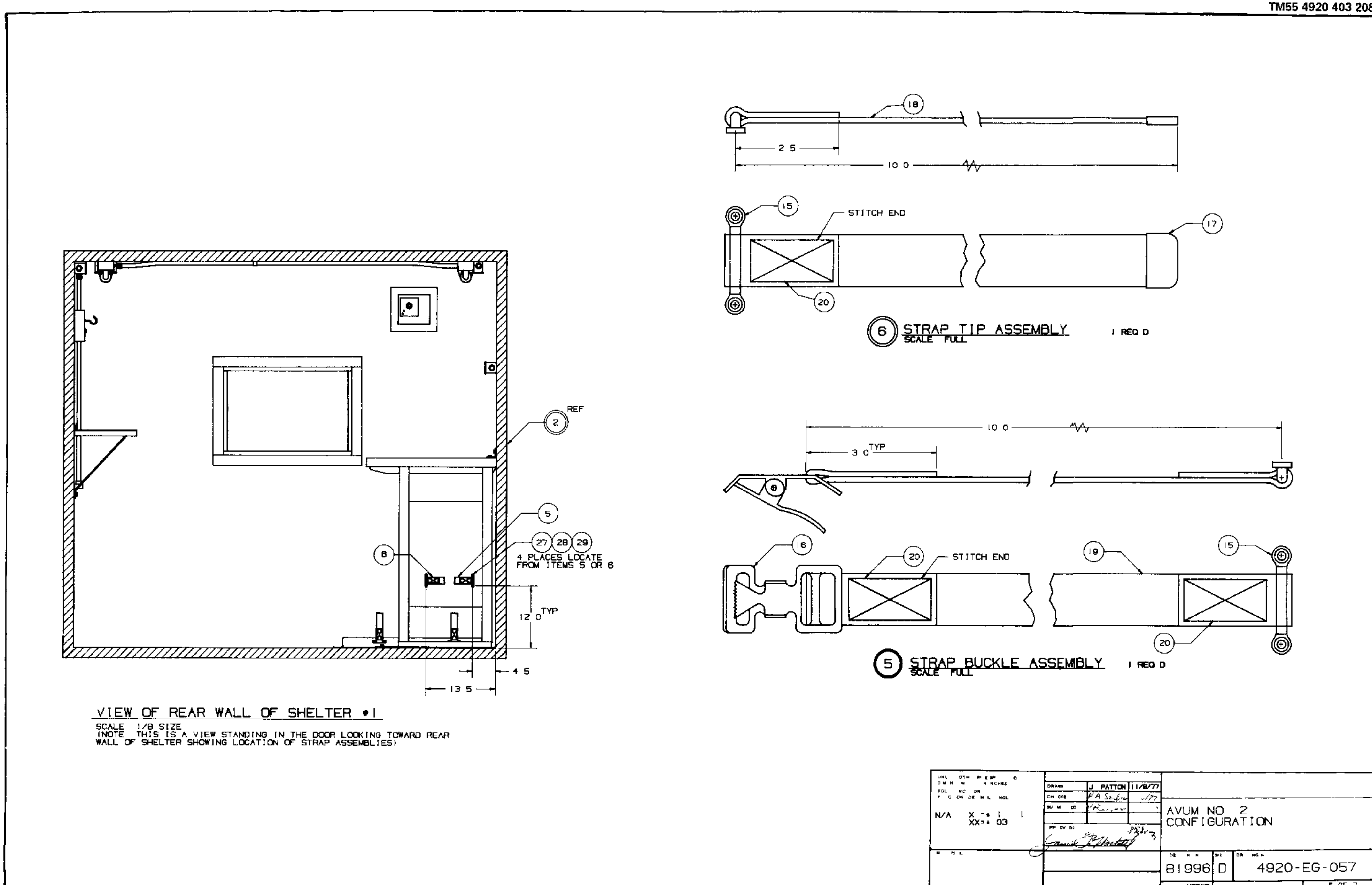
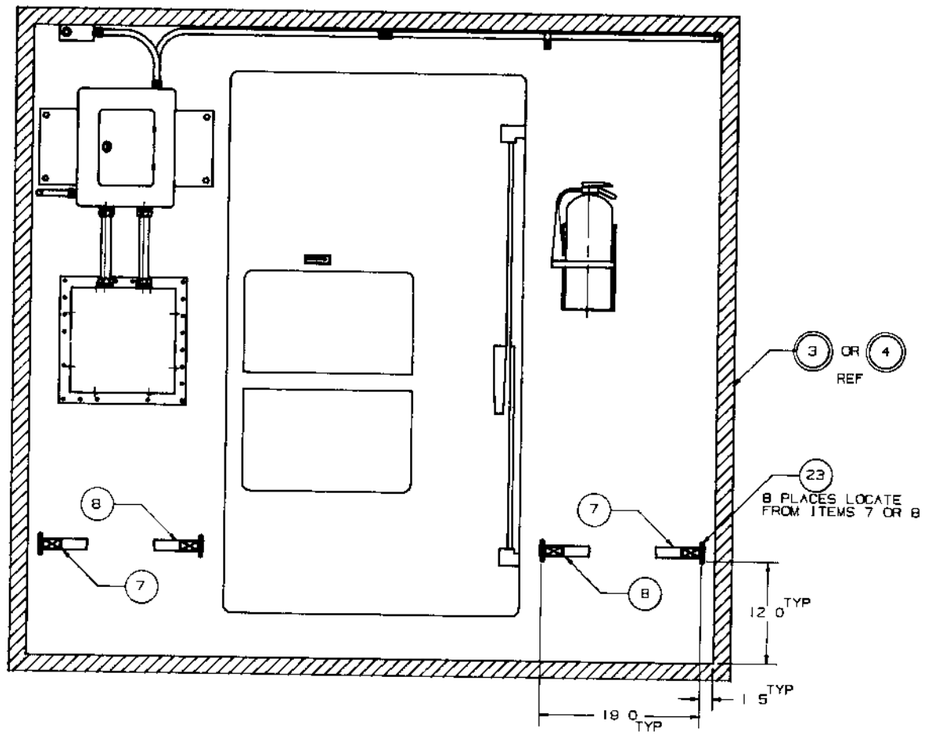
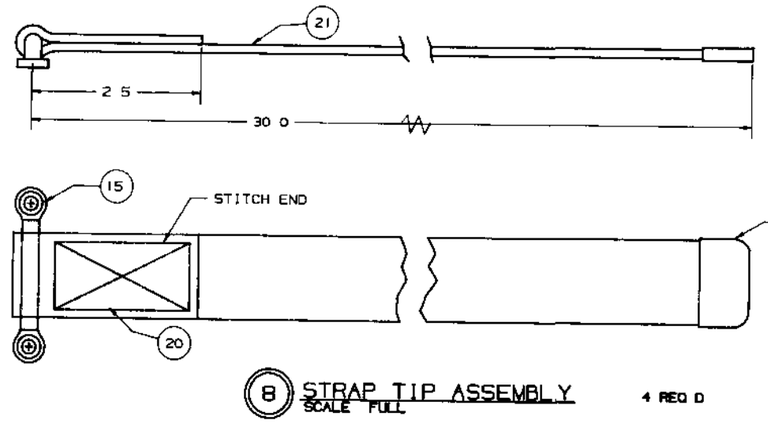


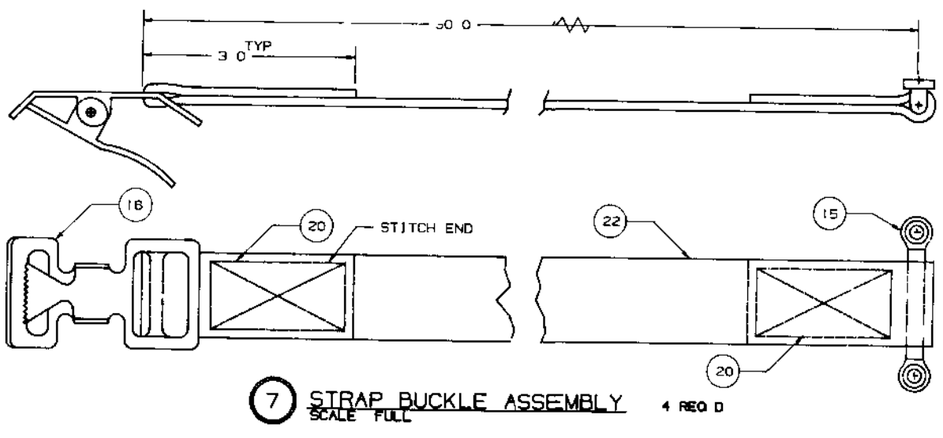
Figure D-3. *AVUM NO 2, Configuration (Sheet 5 of 7)*



VIEW OF FRONT ENTRANCE WALL OF SHELTERS #2 OR #3
SHOWING LOCATION OF TIE-DOWN STRAPS
SCALE 1/8 SIZE
(NOTE THIS IS A VIEW FROM INSIDE SHELTER LOOKING OUT)



8 STRAP TIP ASSEMBLY 4 REQ D
SCALE FULL



7 STRAP BUCKLE ASSEMBLY 4 REQ D
SCALE FULL

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES		DRAWN	J PATTON 11/8/77
REMOVE ALL BURRS AND SHARP CORNERS		CHECKED	
N/A	X = ± 1 1° XX = ± 03	SUBM	
MATERIAL		APPROVED	17 Nov 77
		AVUM NO 2, CONFIGURATION	
		CODE IDENT NO 81996	SIZE D
		DRAWING NO 4920-EG-057	
		NOTED	SHEET 6 OF 7

Figure D-3. *AVUM NO 2, Configuration (Sheet 6 of 7)*

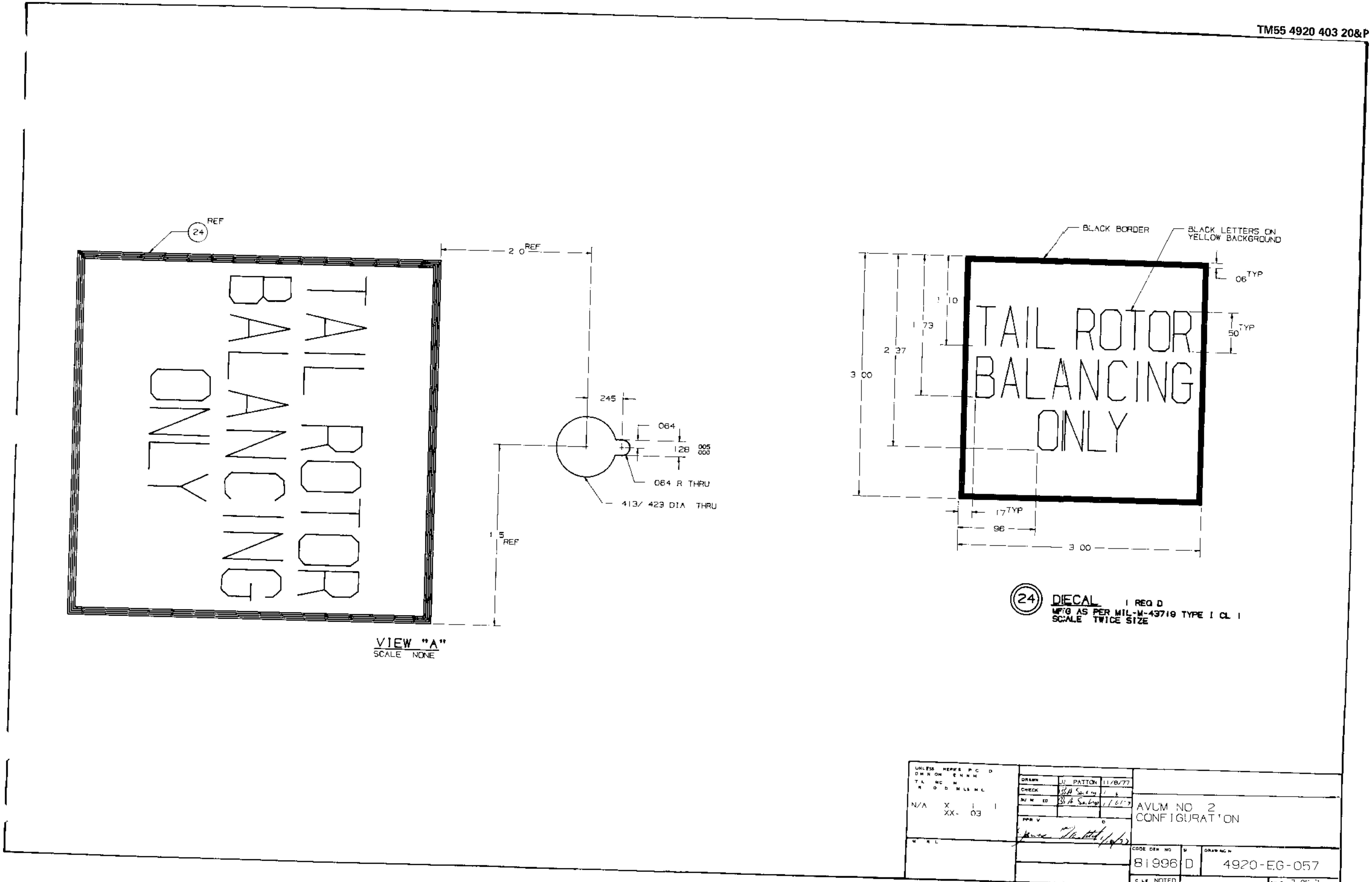
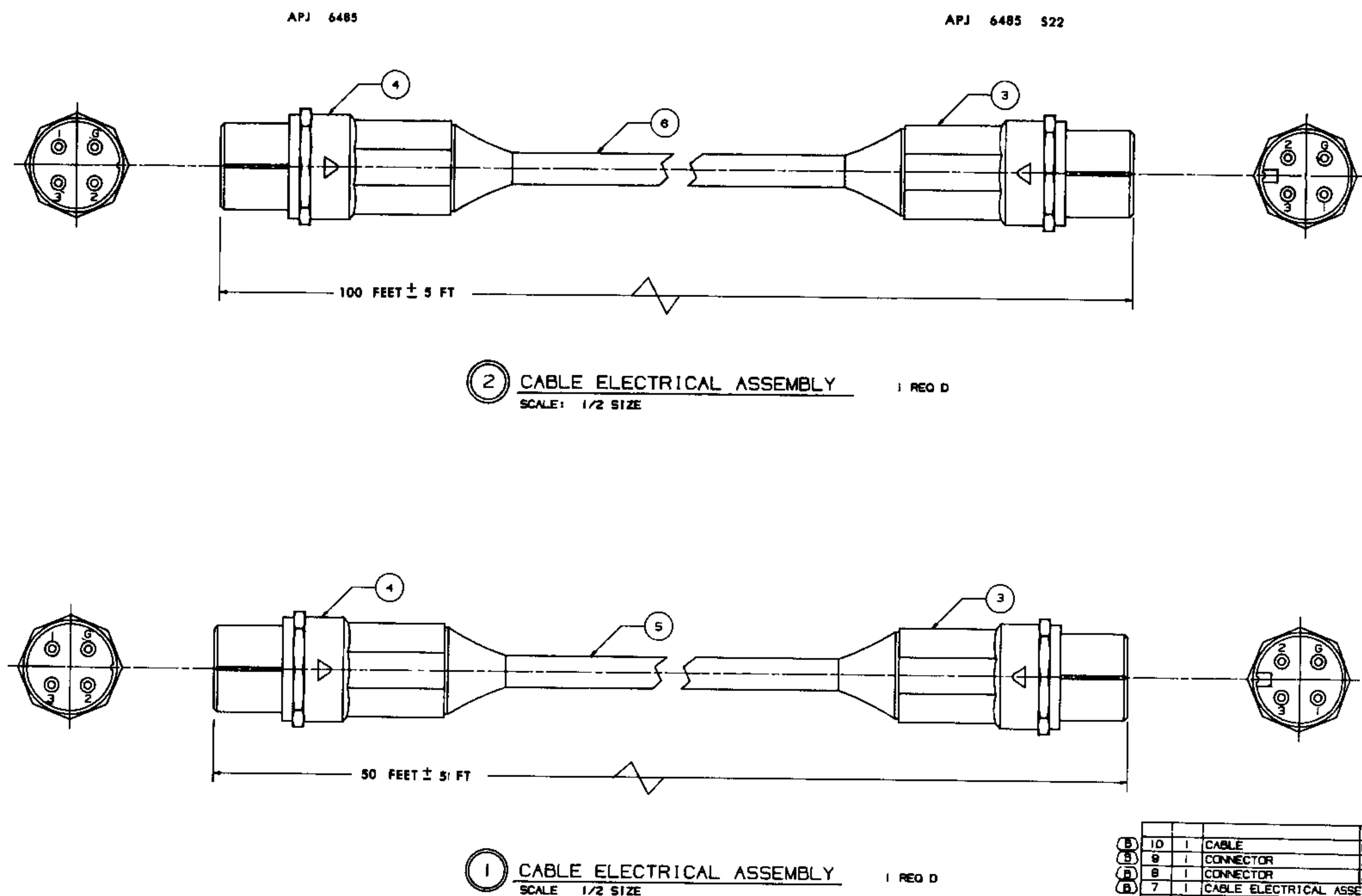


Figure D-3. *AVUM NO 2, Configuration (Sheet 7 of 7)*

SYM	ZONE	DESCRIPTION	DATE	APPROVED
A		REDRAWN	[illegible]	[illegible]
B		REDRAWN ADDED ASSEMBLY 7 AND WIRING DIAGRAM, AND DELETED NOTES	[illegible]	[illegible]

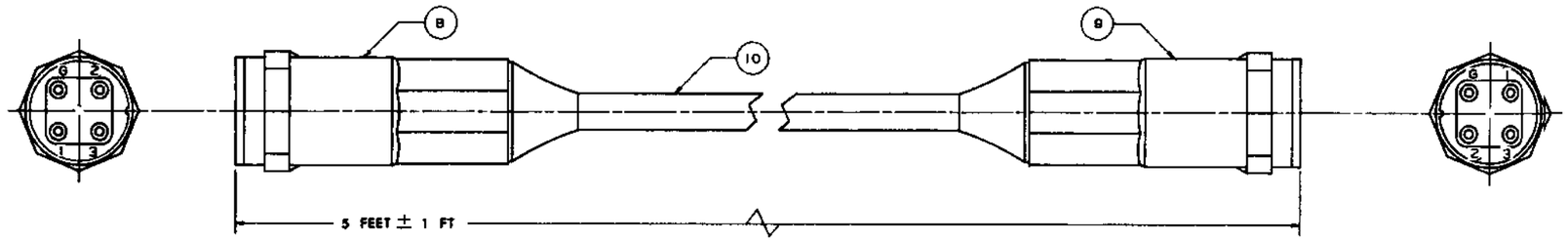


	ITEM NO	QTY REQD	NOMENCLATURE OR DESCRIPTION	PART OR IDENTIFYING NO	SPEC C N
B	10	1	CABLE	MIL C-343200 CO 03 HLF (3/8-3/10 R) 1010 5 FT L	
B	9	1	CONNECTOR	APR 6485-S22	CROUSE-HINDS
B	8	1	CONNECTOR	APR 6485	CROUSE HINDS
B	7	1	CABLE ELECTRICAL ASSEMBLY		C/O 8 9 & 10
	6	1	CABLE	MIL C 34320 CO-03 HLF (3/8-3/10 R) 1010 100 FT L	
	5	1	CABLE	MIL-C-34320 CO 03 HLF (3/8 3/10 R) 1010 50 FT L	
	4	1	CONNECTOR	APJ 6485	CROUSE HINDS
	3	1	CONNECTOR	APJ 6485 S22	CROUSE HINDS
	2	1	CABLE ELECTRICAL ASSEMBLY		C/O 3 4 & 6
	1	1	CABLE ELECTRICAL ASSEMBLY		C/O 3 4 & 5

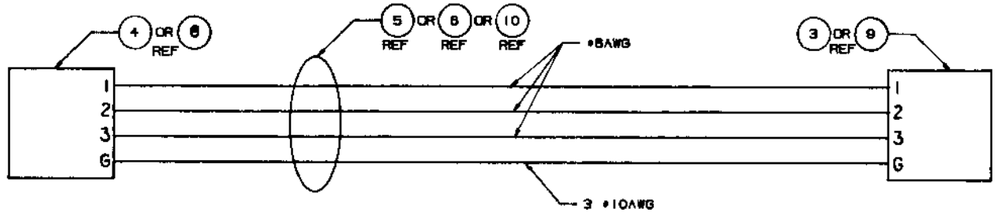
LIST OF MATERIALS OR PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES NA NA NA	DRAWN [illegible] 12/5/77 CHECKED [illegible] SUBMITTED [illegible] APPROVED [illegible]	CABLE ASSEMBLY, ELECTRICAL
		CODE IDENT NO 81996 SIZE D DWG NO 4920-EG-058
		SCALE NOTED SHEET 1 OF 2

Figure D-4. Cable Assembly, Electrical (Sheet 1of 2)



(B) (7) CABLE ELECTRICAL EXTENSION ASSY 1 REQ D
SCALE: 1/2 SIZE

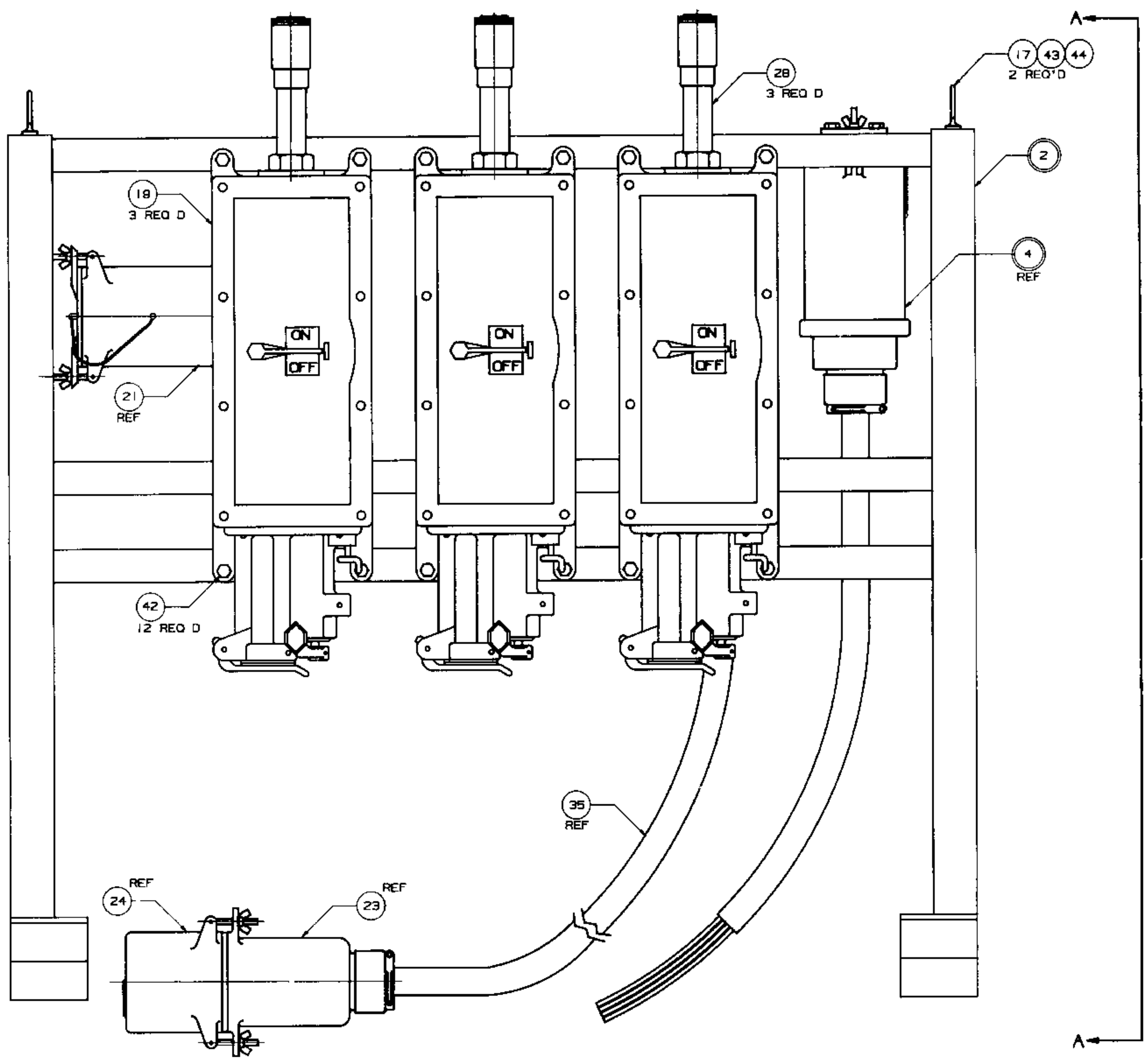


(B) UNIVERSAL WIRING DIAGRAM FOR CABLE ASSEMBLIES
SCALE NONE

UNLESS OTHERWISE SPECIFIED DIMENSION ARE IN INCHES. DIMENSIONS ARE NOMINAL UNLESS TOLERANCED.	DRAWN	CABLE ASSEMBLY, ELECTRICAL
NA NA NA	CHECKED	
M L	SUBM'D	
	APPROVED 7 DEC 77	CODE IDENT NO 81996 / SIZE D / DRAWING NO 4920-EG-058
		C L NOTED / SHEET 2 OF 2

Figure D-4. Cable Assembly, Electrical (Sheet 2 of 2)

REV	ZONE	DESCRIPTION	DATE	APPROVED
A		REVISED	1/20/78	BRS



1 POWER PANEL ASSEMBLY 1 REQ D
SCALE 3/8 SIZE

ITEM NO	Q Y QC	N M NCL U DESC P ON	N YN N	C C N
50				
49				
48	5 FT	WIRE STRD WHITE 6AWG	FSN 6145 184 3877	
47	5 FT	WIRE STRD RED 6AWG	FSN 6145-184 5474	
46	5 FT	WIRE STRD BLUE 6AWG	FSN 6145-184-5471	
45	5 FT	WIRE STRD BLACK 6AWG	FSN 6145 923 2220	
44	2	NUT HEX	MS35649 2382	3/8-16UNC X 25 W
43	2	WASHER LOCK	MS35338 46	38 ID X 09 W
42	22	SCREW CAP HEX HD	MS35291 60	3/8 16UNC X 1 00 L
41				
40				
39	12	COVER GUTTER TAP	ALSCO ELECTRIC P/N GC 2	
38	12	GUTTER TAP	ALSCO ELECTRIC P/N GA2 4	
37				
36	1	PLATE CABLE STORAGE	AISI 1010/1020	38 X 3 00 X 10 00
35	22 FT	CABLE 4 COND •2 AWG	MIL C 13777/1A TYPE 0416350	
34	3	COUPLING, CLOSE	FSN 4730 186 1469	1 00 DIA X 1 50
33				
32				
31	6	GASKET	WEAVER ELECTRIC P/N GIN	
30	6	COVER PLATE	WEAVER ELECTRIC P/N CC1	
29	6	ELBOW FITTINC	WEAVER ELECTRIC P/N 1LBW	
28	3	NIPPLE, PIPE	FSN 4730-196 1526	1 00 DIA X 4 00
27	3	CONDUIT, THIN WALL	FSN 5975-178 1218	1 00 DIA X 4 00
26	6	CONNECTOR BOX MTG	FSN 5975-100 8730	1 00 DIA THIN WALL
25	1	CLAMP, CABLE, BOX	CROUSE-HINDS P/N CGB588	
24	1	CAP	CROUSE HINDS P/N CPK104	
23	1	PLUG	CROUSE-HINDS P/N AP20465	
22	1	COVER	CROUSE HINDS P/N AJ18	
21	1	RECEPTACLE BOX MTG	CROUSE HINDS P/N AR2042	
20	1	BOX, JUNCTION	CROUSE-HINDS P/N WJB241210 (MODIFIED)	
19	3	BOX, C/B	CROUSE HINDS P/N DBR56742 WT70-3	
18	1	RECEPTACLE	CROUSE HINDS P/N APR20425	
17	2	RING, LIFTING	MS51937 3	3/8 16UNC OR FSN 5306-056-8012
16	AR	SEALANT, SILCONE RUBBER	RTV 732	MIL-A 46106
15	4	SCREW LAG	MS16992-41	38 NOM X 1 50 L
14	4	ANGLE LEG	AISI 1010/1020	19 X 2 00∠ X 36 50
13	2	ANGLE TOP	AISI 1010/1020	19 X 2 00∠ X 21 00
12	2	ANGLE CENTER	AISI 1010/1020	19 X 2 00∠ X 29 00
11	2	SKID	HARD WOOD	4 0 X 4 0 NOM X 36 00
10	4	PLATE	AISI 1010/1020	25 X 3 50 X 3 50
9	2	CHANNEL	AISI 1010/1020	19 X 1 5 ⊔ X 3 00 X 43 12
8	1	CHANNEL	AISI 1010/1020	19 X 1 5 ⊔ X 3 00 X 43 25
7	2	PLATE	AISI 1010/1020	25 X 3 00 X 18 56
6	1	POWER CABLE ASSY		C/O ITEMS 23 24 & 35
5	6	ELBOW FITTING ASSY		C/O ITEMS 29, 30 & 31
4	1	CABLE ASSEMBLY		C/O ITEMS 18 22 & 35
3	4	LEG ASSEMBLY		C/O ITEMS 10 & 14
2	1	FRAME ASSEMBLY	C/O ITEMS 3 7 8 9 11 12 13 15 THRU 36 & 42	
1	1	POWER DISTRIBUTION PANEL ASSEMBLY		CONSISTS OF ALL ITEMS

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES
±1/32 X ±1 ±1
XX ± 03

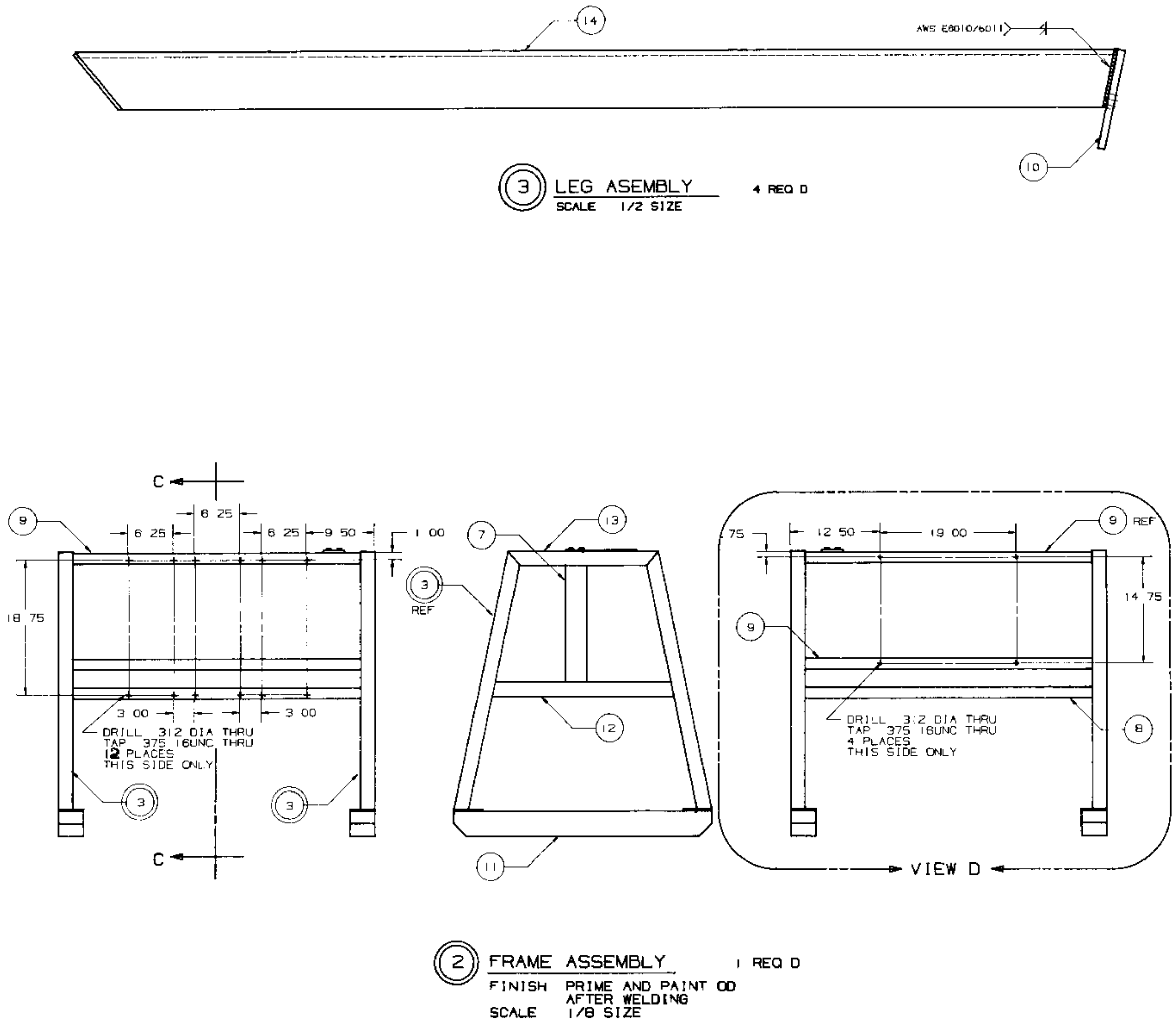
DR WN	E GARCIA	9 27 77
CH CK	[illegible]	[illegible]
SU M T ED	[illegible]	[illegible]

POWER DISTRIBUTION PANEL

81996 | D | 4920-EG-077

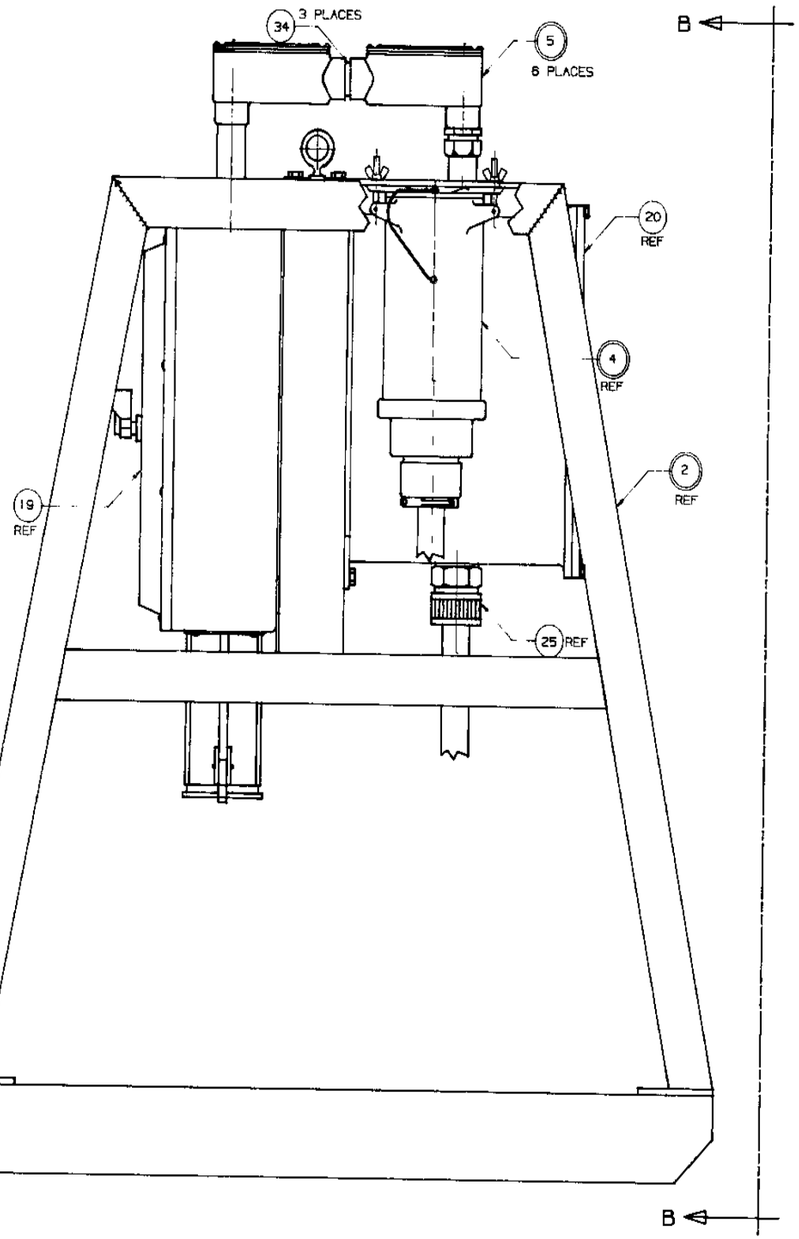
SHEET 1 OF 12

Figure D-5. *Power Distribution Panel (Sheet 1 of 12)*

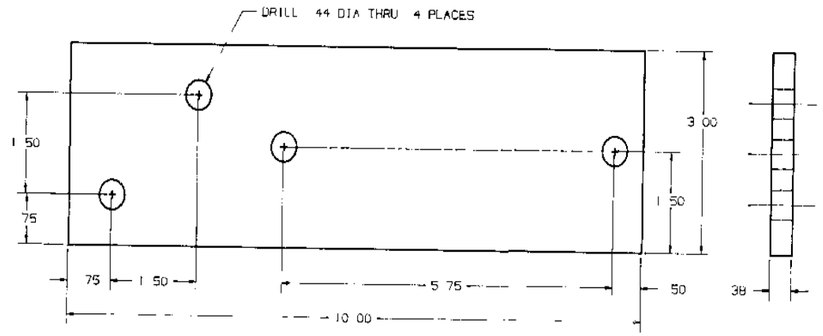


±1/32 X ±.1 XX ±.03 ±1°	DRAWN E GARCIA 9 27 77	POWER DISTRIBUTION PANEL
	CODE IDENT NO 81996	SIZE D
	DWG NO 4920-EG-077	SCALE NOTED SHEET 2 OF 12

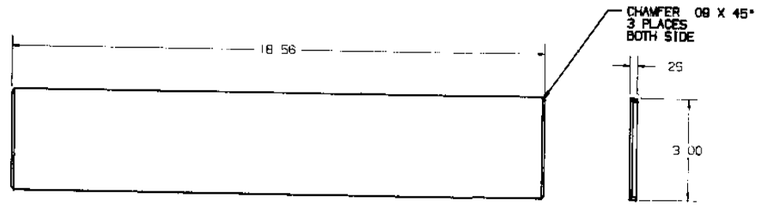
Figure D-5. *Power Distribution Panel (Sheet 2 of 12)*



VIEW A A
SCALE 3/8 SIZE



36 PLATE, CABLE ASSY STORAGE — 1 REQ D
MAT'L AISI 1010/1020
FINISH NONE
SCALE FULL



7 PLATE — 2 REQ D
MAT'L AISI 1010/1020
FINISH NONE
SCALE 1/2 SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS ANGLES ±1/32 XX ± .03 ± 1°	DR BM	E. GARCIA	8 27 77
	CHECKED	B.A. Santos	10/3/77
	SUBMITTED	K.H. Sevier	10.31.77
	APPROVED	J. Kluever	11/14/77
	POWER DISTRIBUTION PANEL		
	CODE IDENT NO 81996	SIZE D	DRAWING NO 4920-EG-077
	SCALE NOTED		SHEET 3 OF 12

Figure D-5. *Power Distribution Panel (Sheet 3 of 12)*

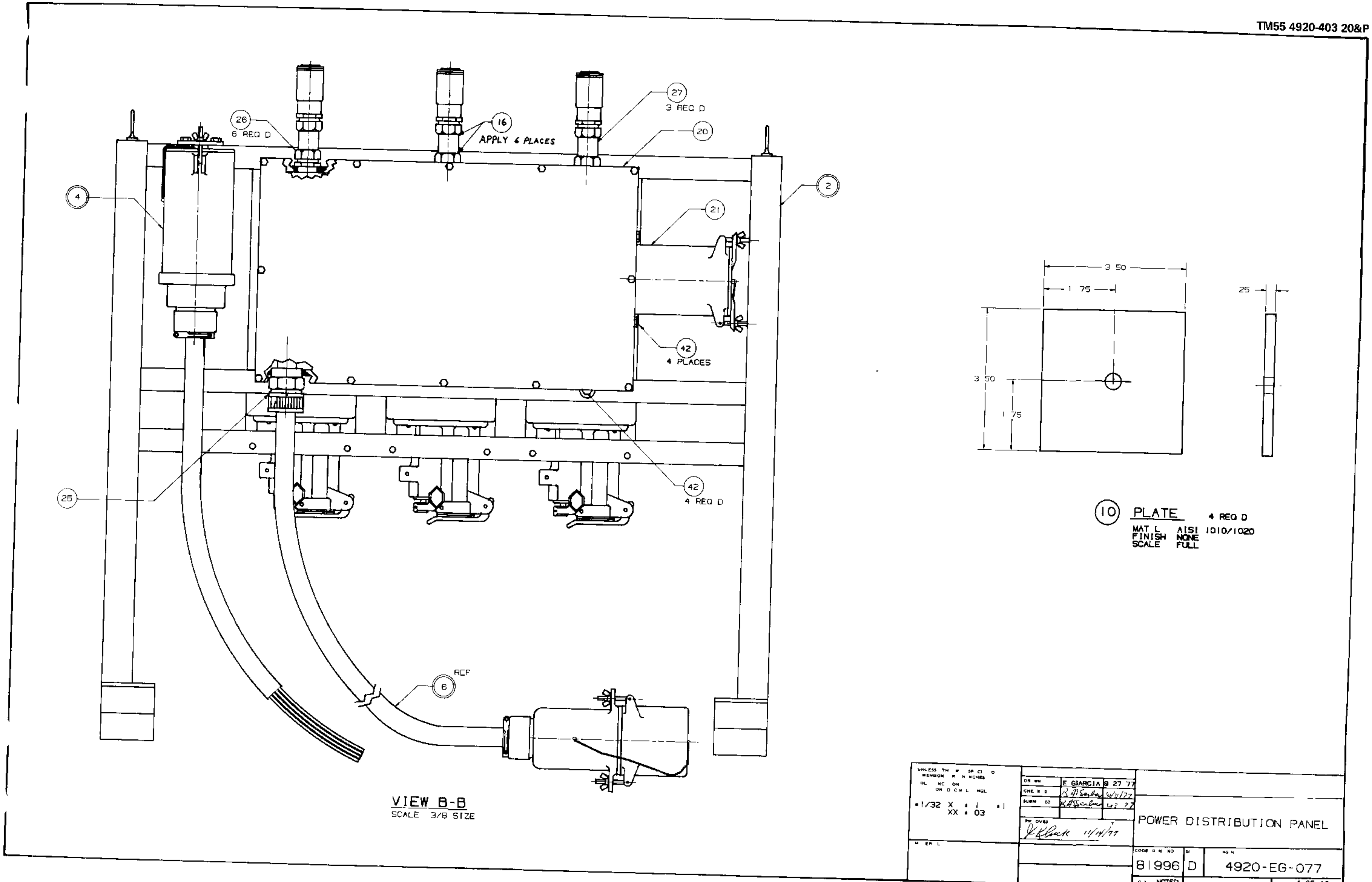
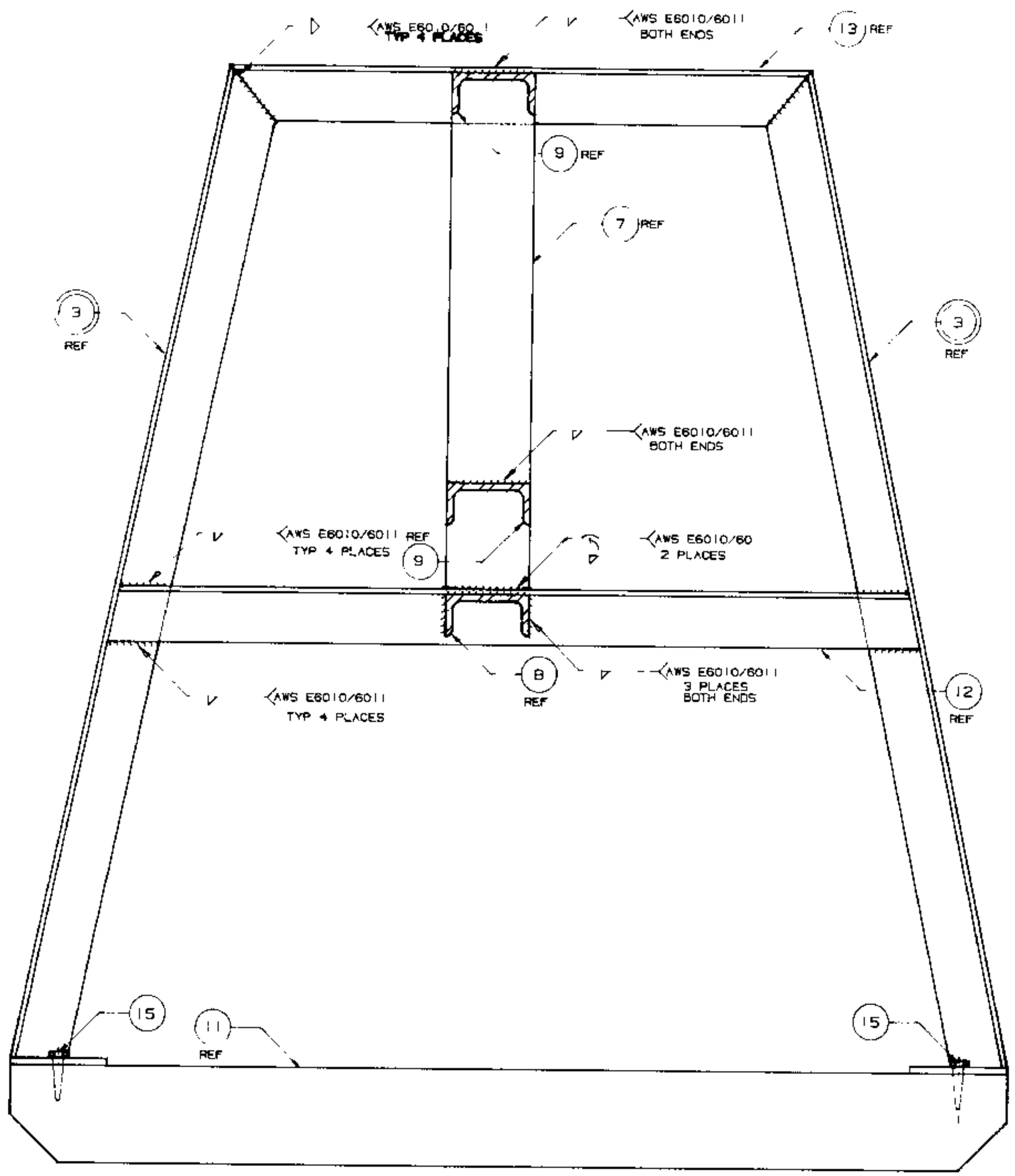
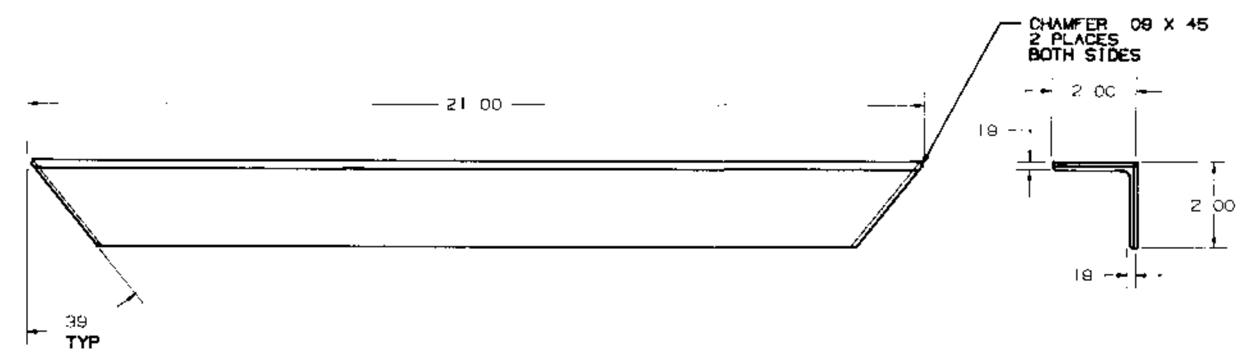


Figure D-5. *Power Distribution Panel (Sheet 4 of 12)*



SECTION C-C

SCALE 3/8 SIZE



(13) ANGLE, TOP 2 REQ D

MAT L AISI 1010/1020
FINISH NONE
SCALE 1/2 SIZE

±1/32 X ±.1
XX ±.03

DRAWN E GARCIA 9 27 77

POWER DISTRIBUTION PANEL

81996 D 4920-EG-077

SCALE NOTED SHEET 5 OF 12

Figure D-5. *Power Distribution Panel (Sheet 5 of 12)*

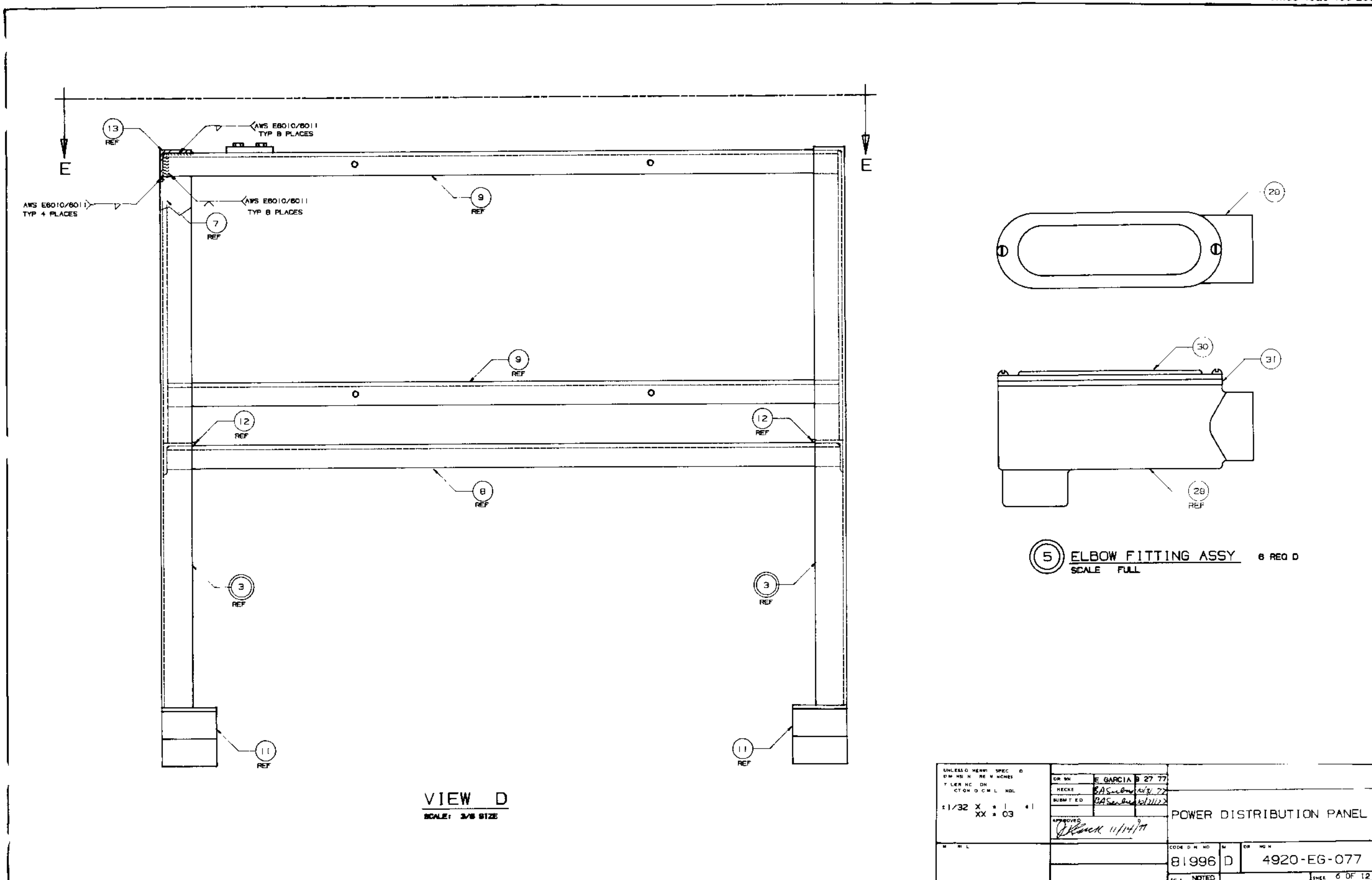


Figure D-5. *Power Distribution Panel (Sheet 6 of 12)*

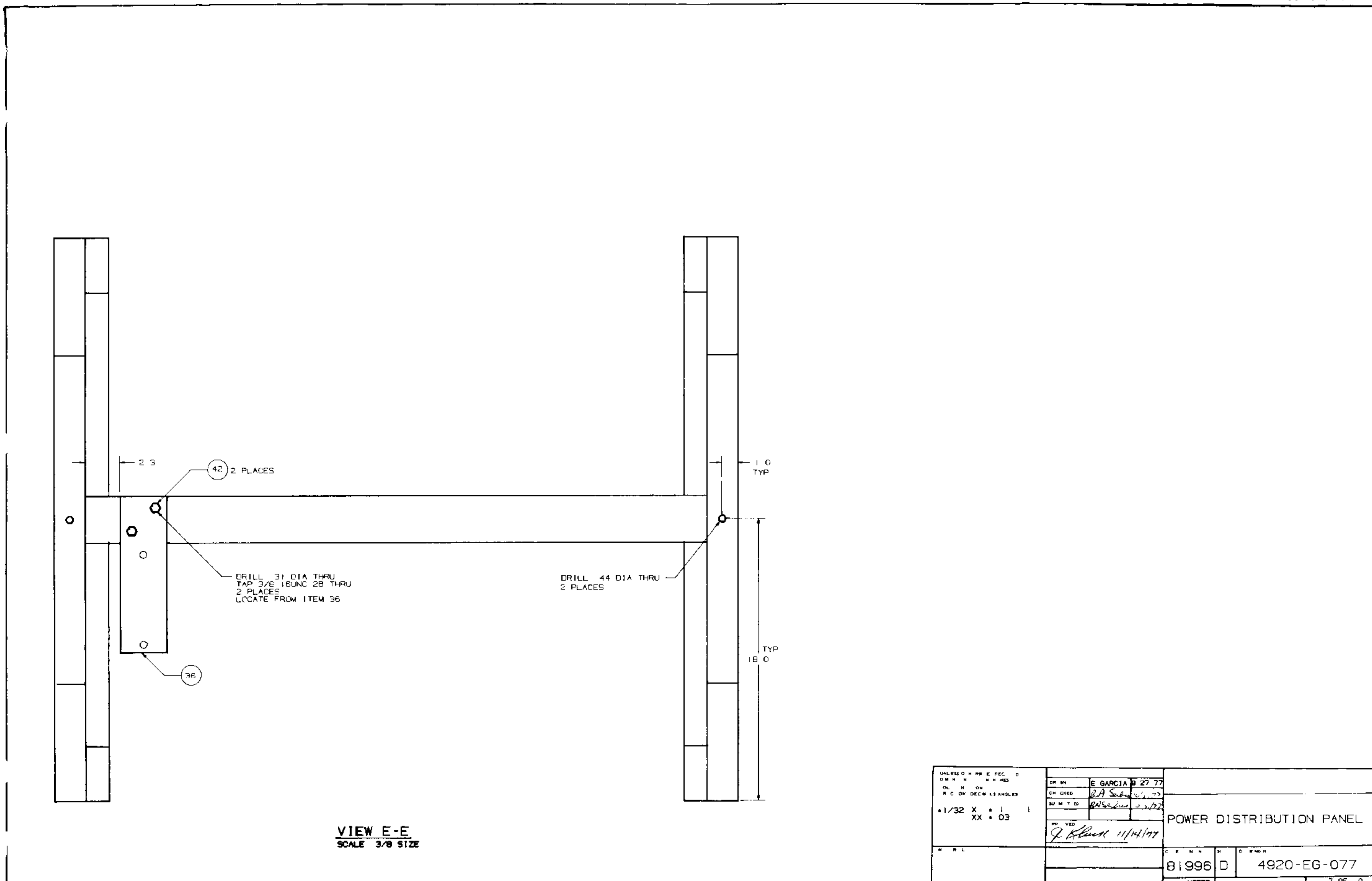
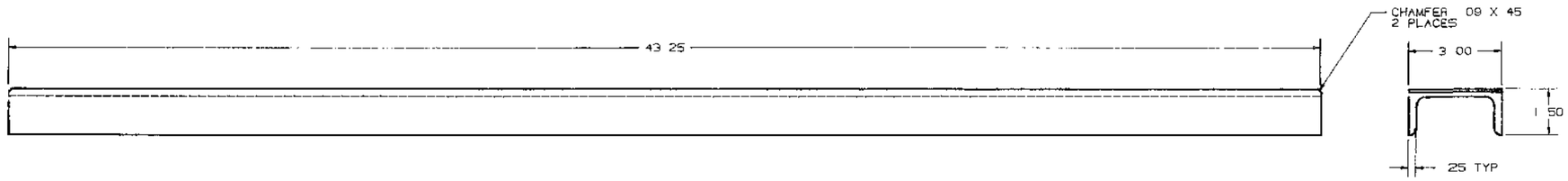
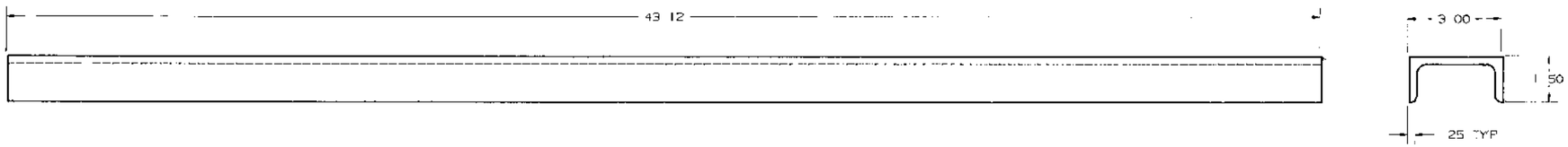


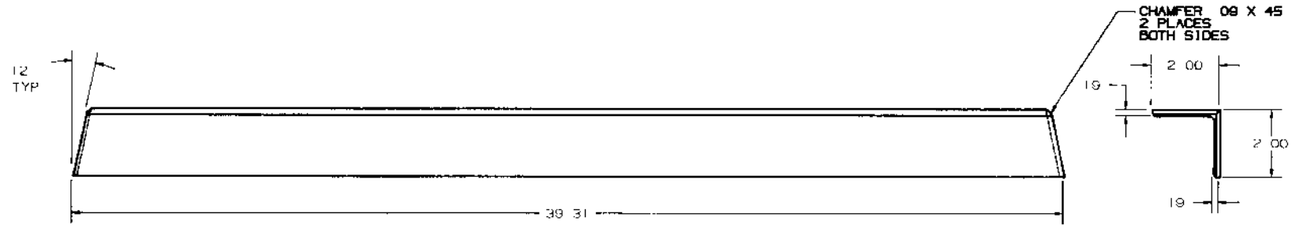
Figure D-5. *Power Distribution Panel (Sheet 7 of 12)*



(8) CHANNEL 1 REQ D
MAT L AISI 1010/1020
FINISH NONE
SCALE 1/2 SIZE



(9) CHANNEL 2-REQ D
MAT L AISI 1010/1020
FINISH NONE
SCALE 1/2 SIZE



(12) ANGLE, CENTER 2 REQ D
MAT L AISI 1010/1020
FINISH NONE
SCALE 1/2 SIZE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ON
FRACTIONS ±1/32 X.XX± .03
DRAWN E GARCIA 9 27 77
CHK K B A Sedney 10 3 77
UBM ID K J Sanders 10 3 77
PROJ ENGR J K Clark 11/4/77
MATERIAL
POWER DISTRIBUTION PANEL
CONTR 81996 D
DWG NO 4920-EG-077
SCALE NOTED
SHEET 8 OF 12

Figure D-5. *Power Distribution Panel (Sheet 8 of 12)*

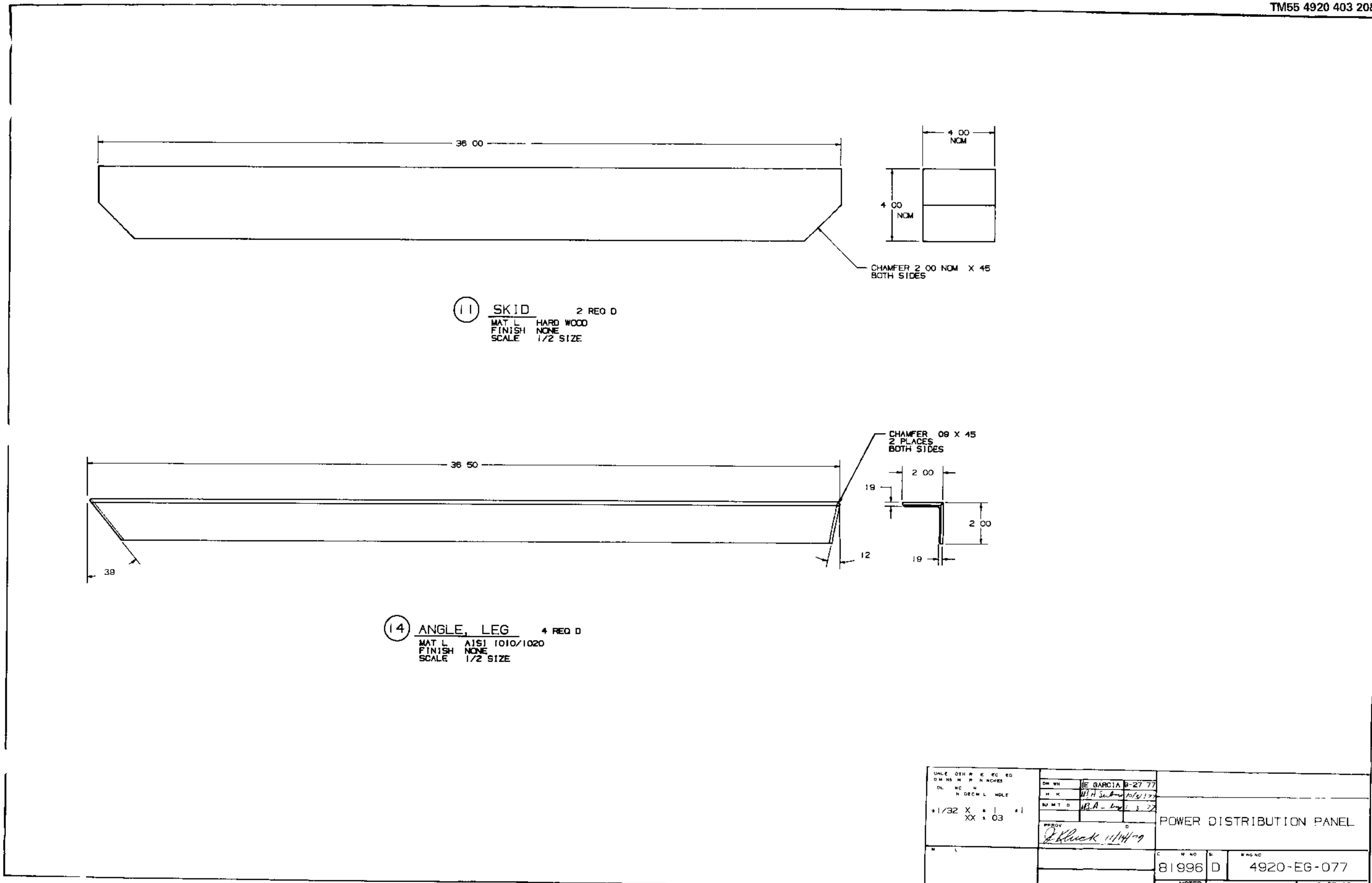


Figure D-5. *Power Distribution Panel (Sheet 9 of 12)*

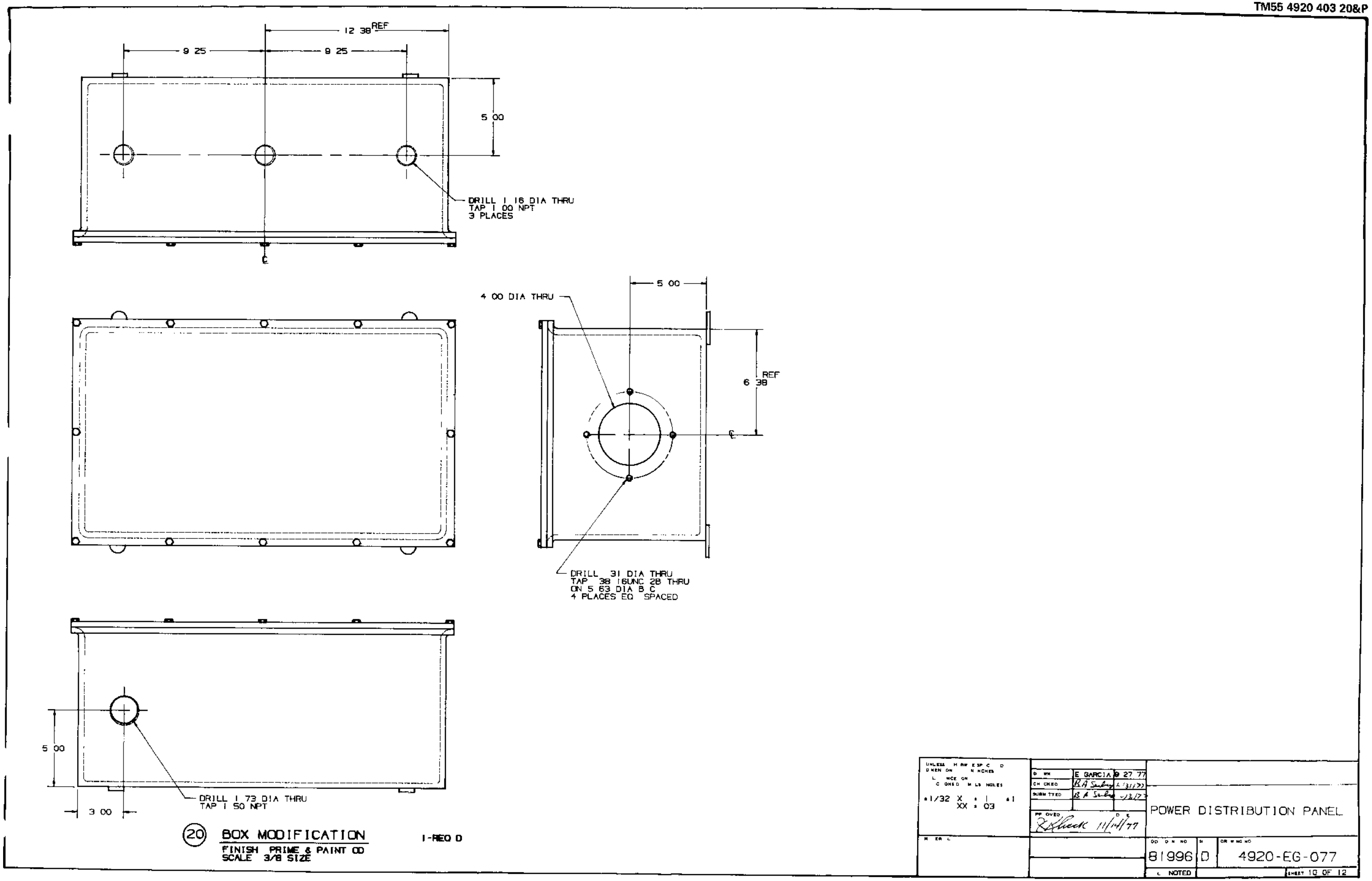
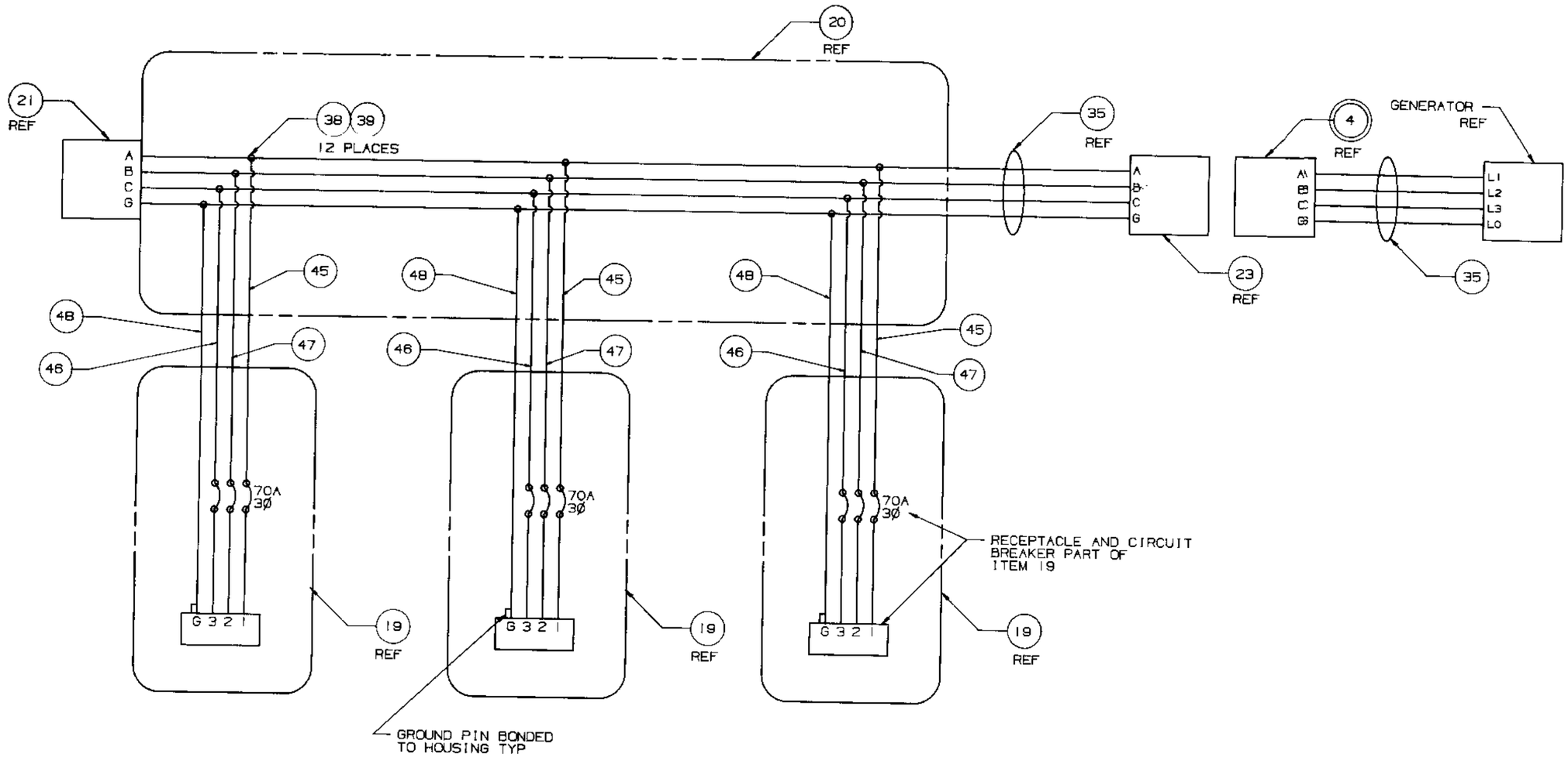


Figure D-5. *Power Distribution Panel (Sheet 10 of 12)*

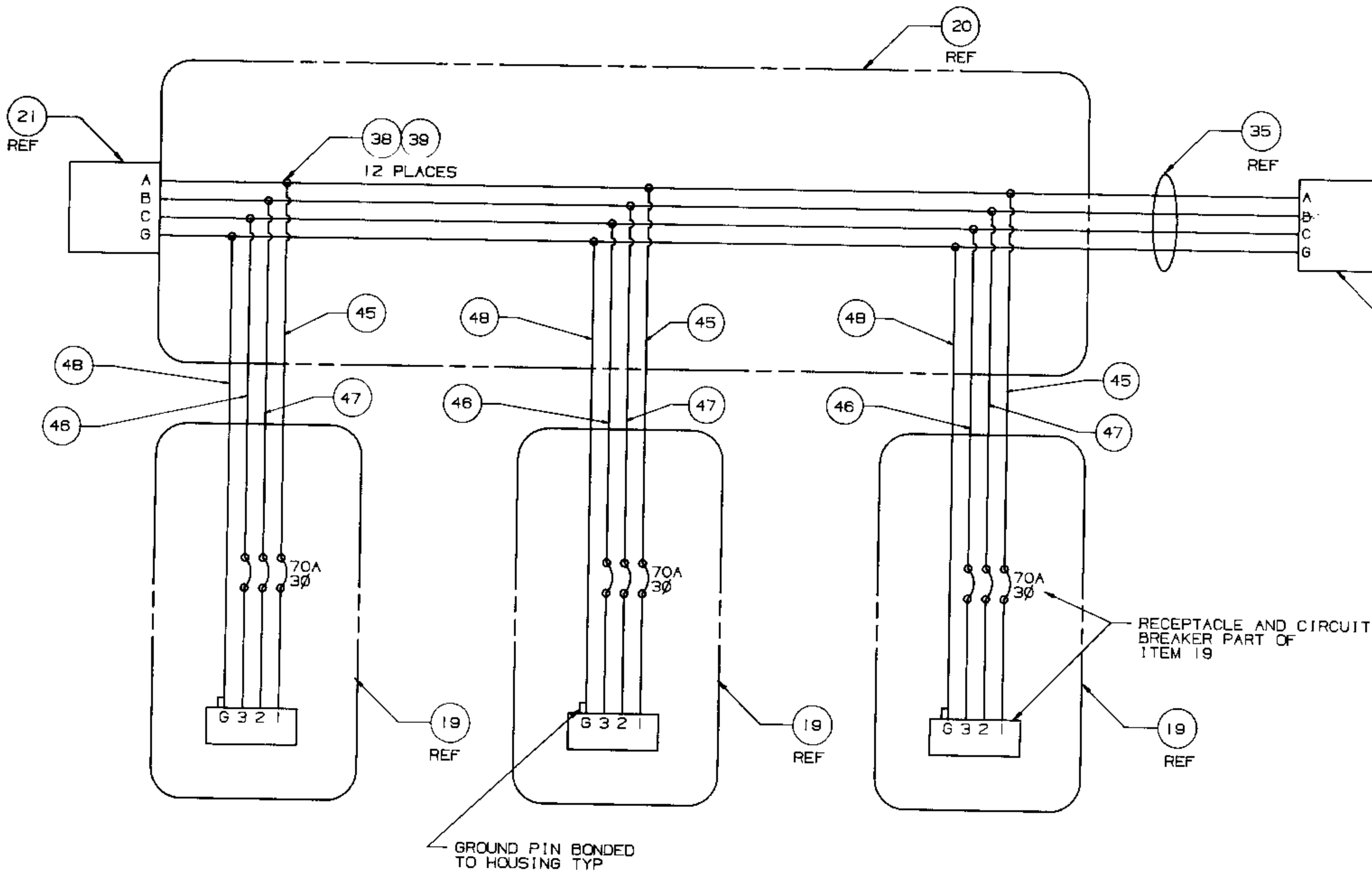


WIRING DIAGRAM

SCALE NONE

DR BY	E GARCIA	8 27 77	POWER DISTRIBUTION PANEL
CHECKED		10/31/77	
SU BY ED		11/3/77	
APPROV'D		11/4/77	
			CODE NO 81996 · SIZE D · DWG NO 4920-EG-077
			SCALE NOTED · SHEET 12 OF 12

Figure D-5. *Power Distribution Panel (Sheet 12 of 12)*



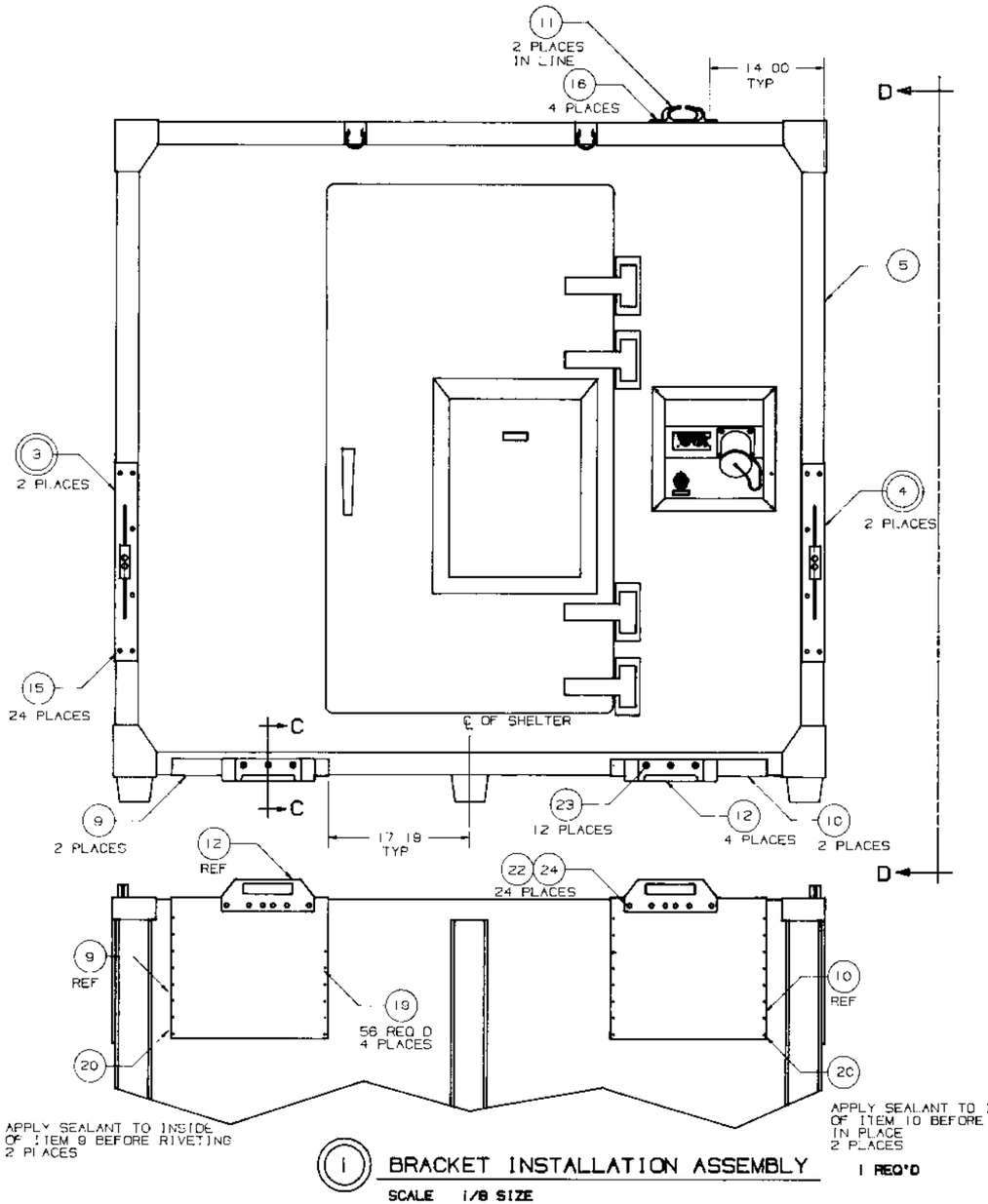
WIRING DIAGRAM

SCALE NONE

DR: E GARCIA 8 27 77		POWER DISTRIBUTION PANEL
81996	D	4920-EG-077
SCALE NOTED		SHEET 12 OF 12

Figure D-5. *Power Distribution Panel (Sheet 12 of 12)*

REVISIONS				
SYM	N	DESCRIPTION	DATE	APPROVED
A		REVISED	11/26/79	[illegible]



1 BRACKET INSTALLATION ASSEMBLY
SCALE 1/8 SIZE
1 REQ'D

ITEM NO	QTY	NOMENCLATURE OR DESCRIPTION	DRAWING NUMBER	SPECIFICATION
24	24	SCREW CAP HEX HD	MS90725 65	3/8 16UNC X 1 75
23	12	SCREW CAP SOC HD	MS16997 105	3/8 16UNC X 2 5
22	24	WASHER LOCK	MS35338 46	38 ID X 09 THICK
21	60	RIVNUT HD TYPE	5330 413 4935	3/8 16UNC (BFG P/N 537-KB455)
20	AR	SEALANT SILICONE RBR	RTV 732	PER MIL A 46106
19	428	RIVET BLIND	5320 865 8994	1/8 DIA
16	4	SCREW MACH C SK HD	MS35190 304	5/16 18UNC X 75
15	24	SCREW CAP HEX HD	MS90725 60	3/8 16UNC X 1 00
14	4	RIVNUT HD TYPE	5310 159 8277	5/16 18UNC
12	4	BRACKET DOLLY	356 ALUM ALLOY CASTING	CLASS B
11	2	BRACKE	356 ALUM ALLOY CASTING	CLASS B
10	2	BRACKET ADAPTER	AISI 1010/1020	12 X 19 00 X 19 06
9	2	BRACKET ADAPTER	AISI 1010/1020	12 X 19 00 X 19 06
8	4	BLOCK	AISI 1010/1020	1 25 X 1 50 X 4 00
7	8	GUSSET	AISI 1010/1020	25 X 1 50 X 4 75
6	4	BRACKET PLATE	AISI 1010/1020	12 X 20 63 X 24 00
5	1	SHELTER		4920 EG 056
4	2	BRACKET ASSEMBLY		C/O ITEMS 6 7 8
3	2	BRACKET ASSEMBLY		C/O ITEMS 6 7 8
1	1	MOBILIZER BRACKET INSTALLATION ASSEMBLY		C/O ALL ITEMS ABOVE

LIST OF MATERIALS OR PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS ± ANGLES NA DECIMALS XX ± .03 ± 1 XXX .010

DRAWN	E GARCIA	11/77
CHECKED	[illegible]	11/8/77
SUBMITTED	[illegible]	11/8/77
APPROVED	[illegible]	12/1/77

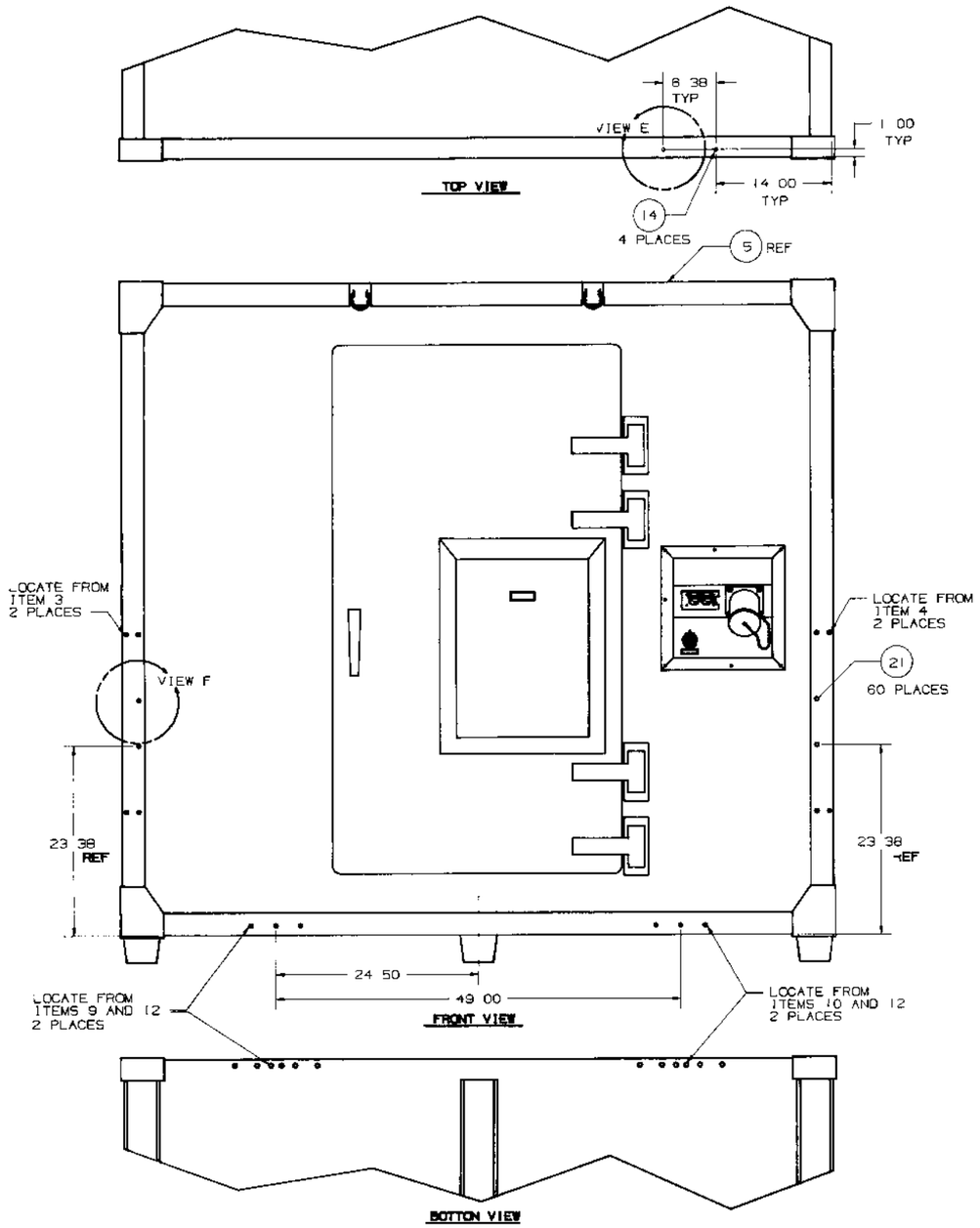
MATERIAL

MOBILIZER BRACKET INSTALLATION

CODE IDENT NO	SIZE	DRAWING NO
81996	D	4920-EG-080

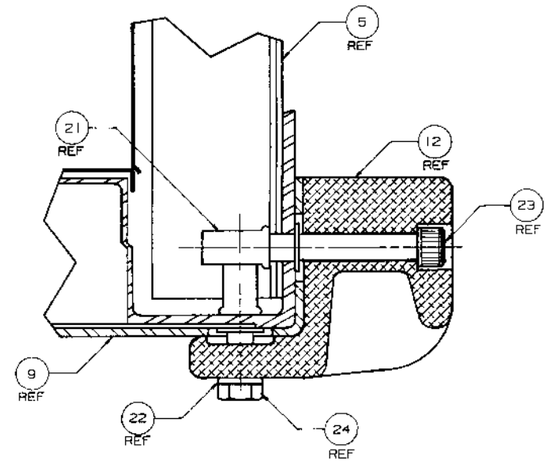
SCALE | SHEET 1 OF 7

Figure D-6. *Mobilizer Bracket, Installation (Sheet 1 of 7)*



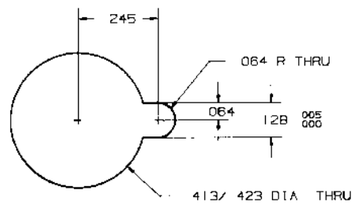
VIEW SHOWING INSTALLATION OF RIVNUTS

SCALE 1/8 SIZE



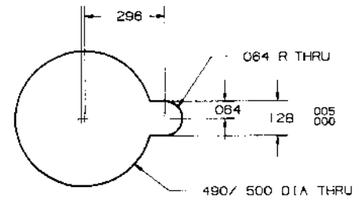
SECTION C-C

SCALE FULL



VIEW "E"

SCALE 4 TIMES SIZE



VIEW "F"

SCALE 4 TIMES SIZE

DR WN	E GARCIA	11/77	MOBILIZER BRACKET INSTALLATION
CH CKE			
SUBM			
APPROV D			
NA XX - 03 I XXX 010			CODE NO 81996 D DR NO 4920-EG-080
			SHEET 2 OF 7

Figure D-6. *Mobilizer Bracket, Installation (Sheet 2 of 7)*

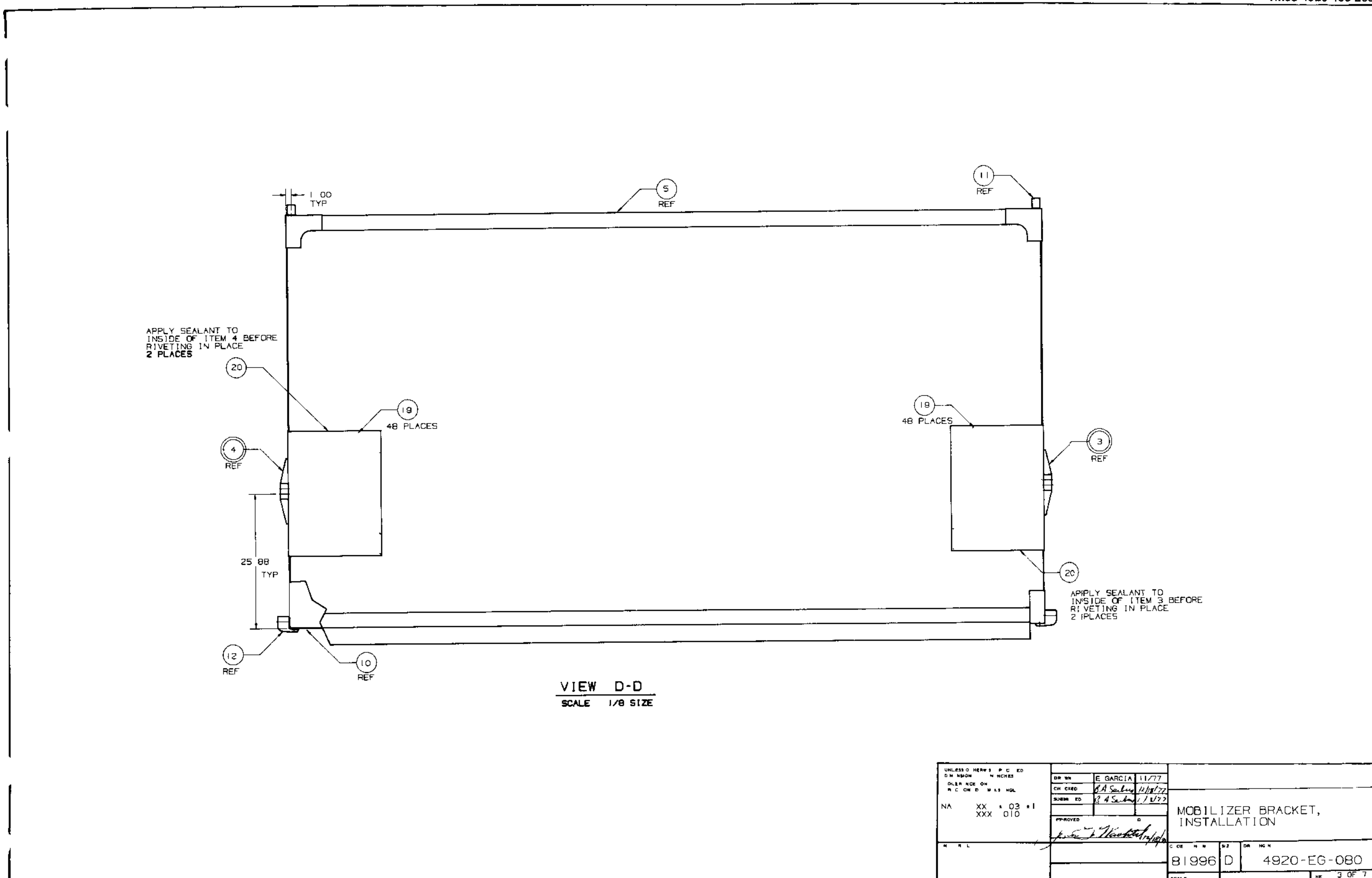


Figure D-6. *Mobilizer Bracket, Installation (Sheet 3 of 7)*

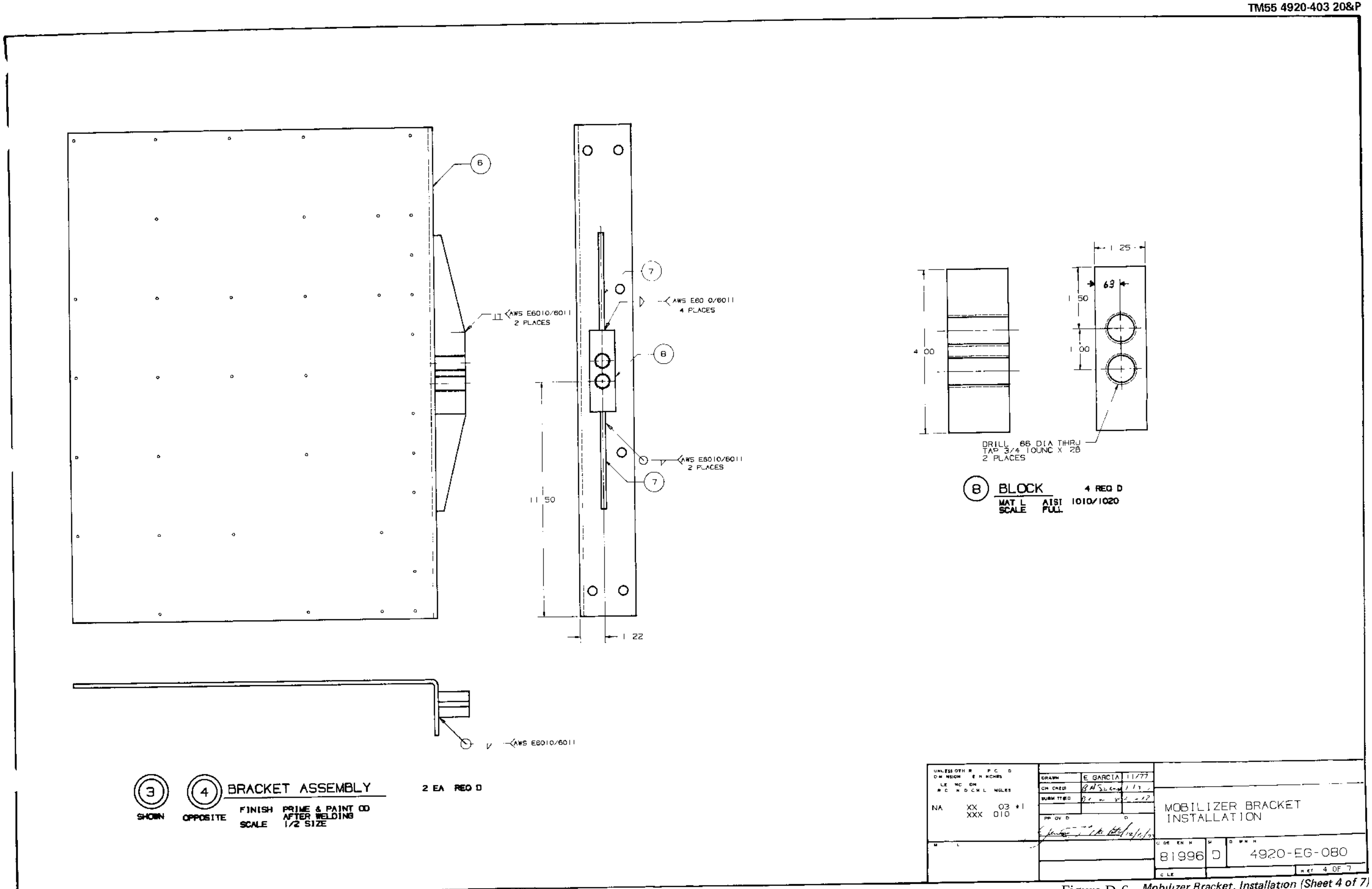


Figure D-6. *Mobilizer Bracket, Installation (Sheet 4 of 7)*

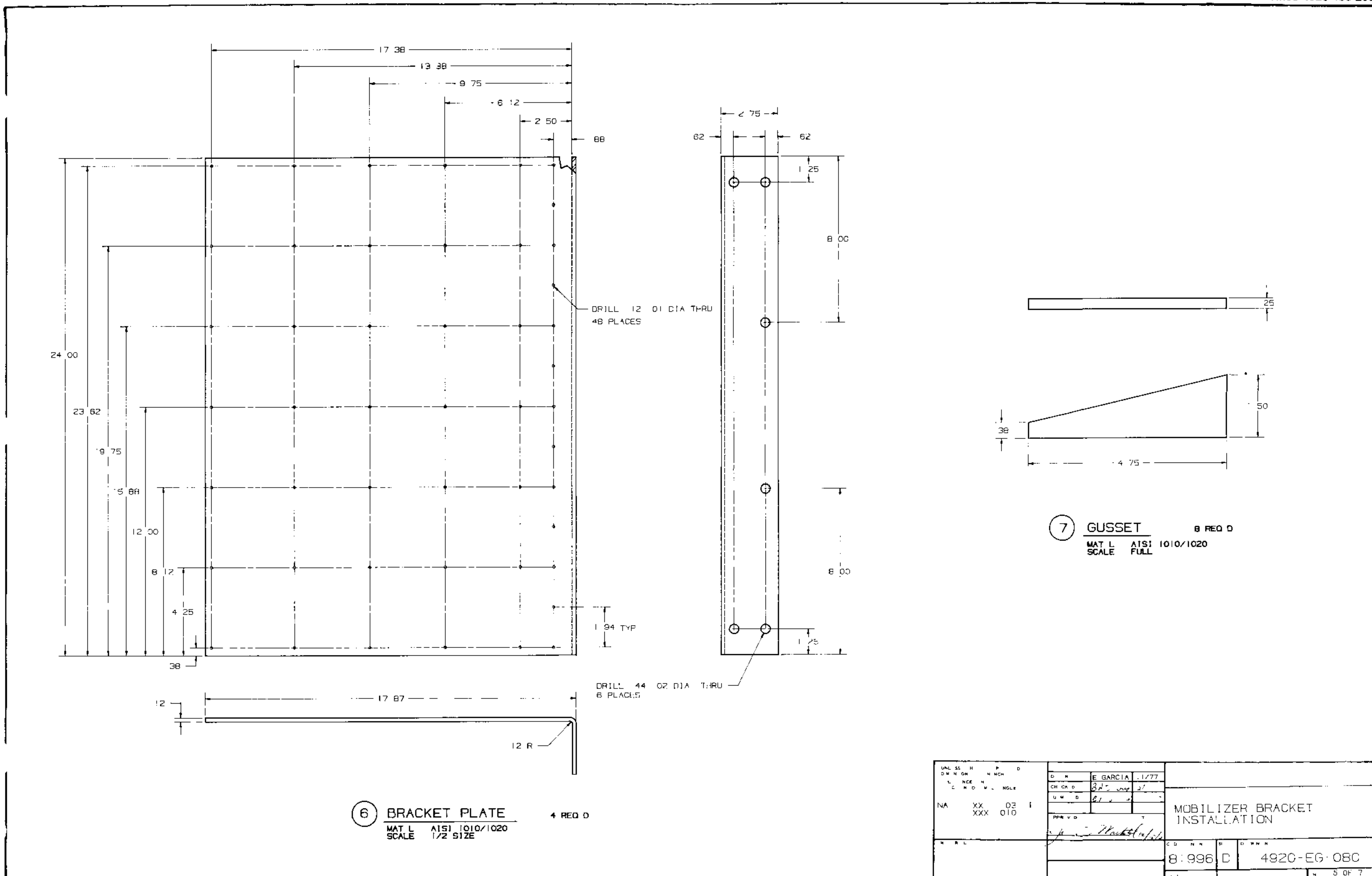


Figure D-6. *Mobilizer Bracket, Installation (Sheet 5 of 7)*

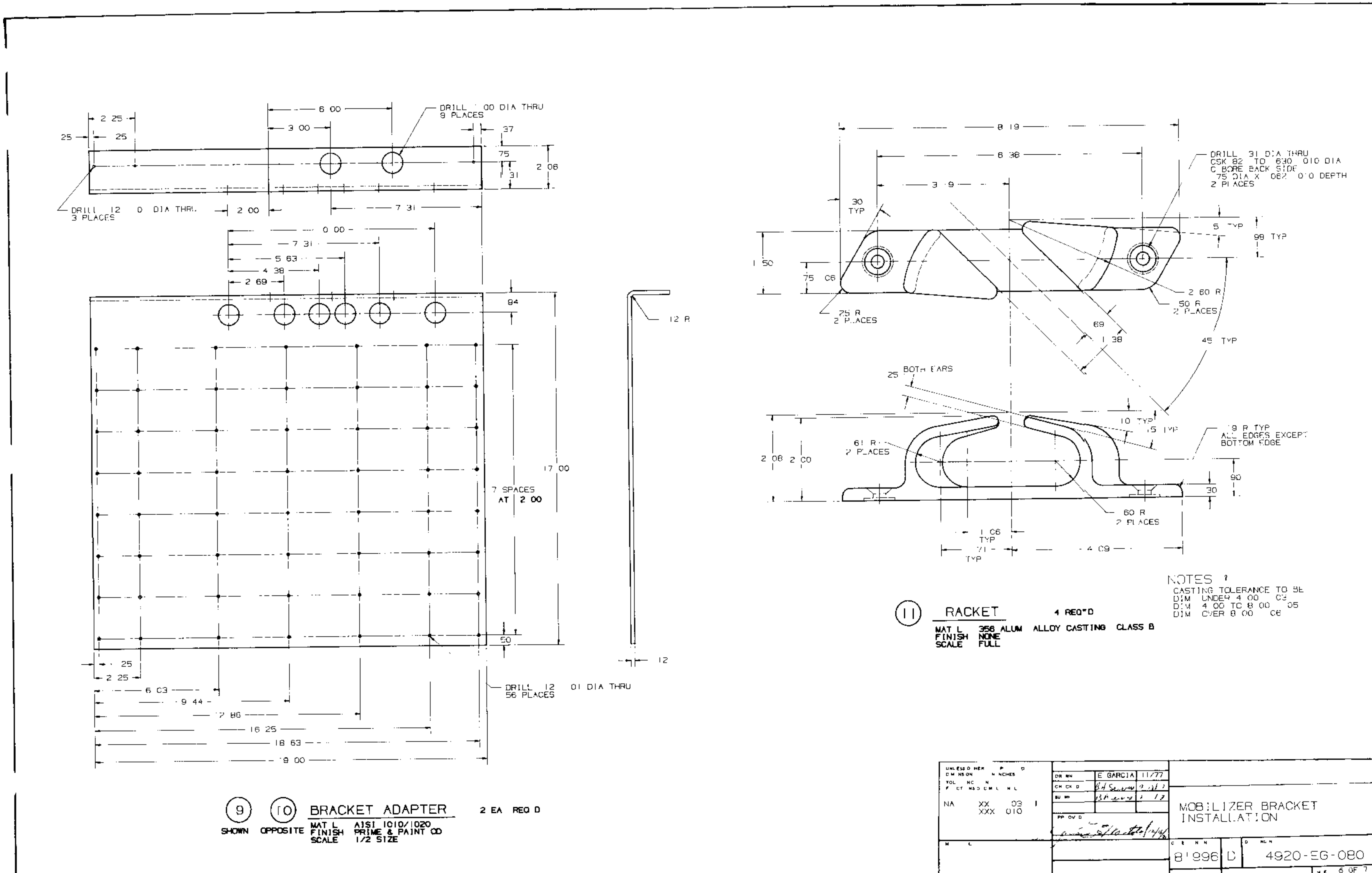
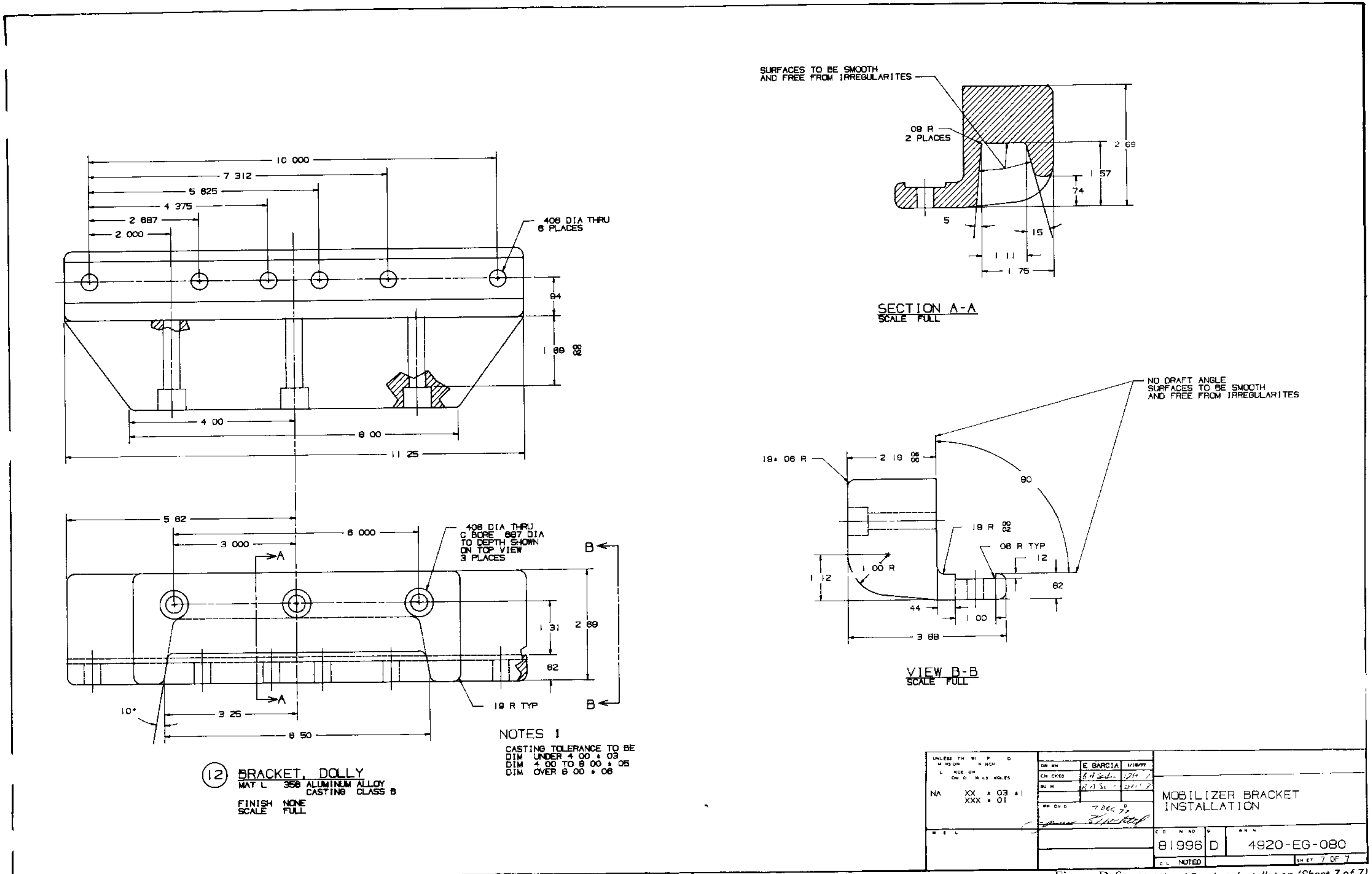
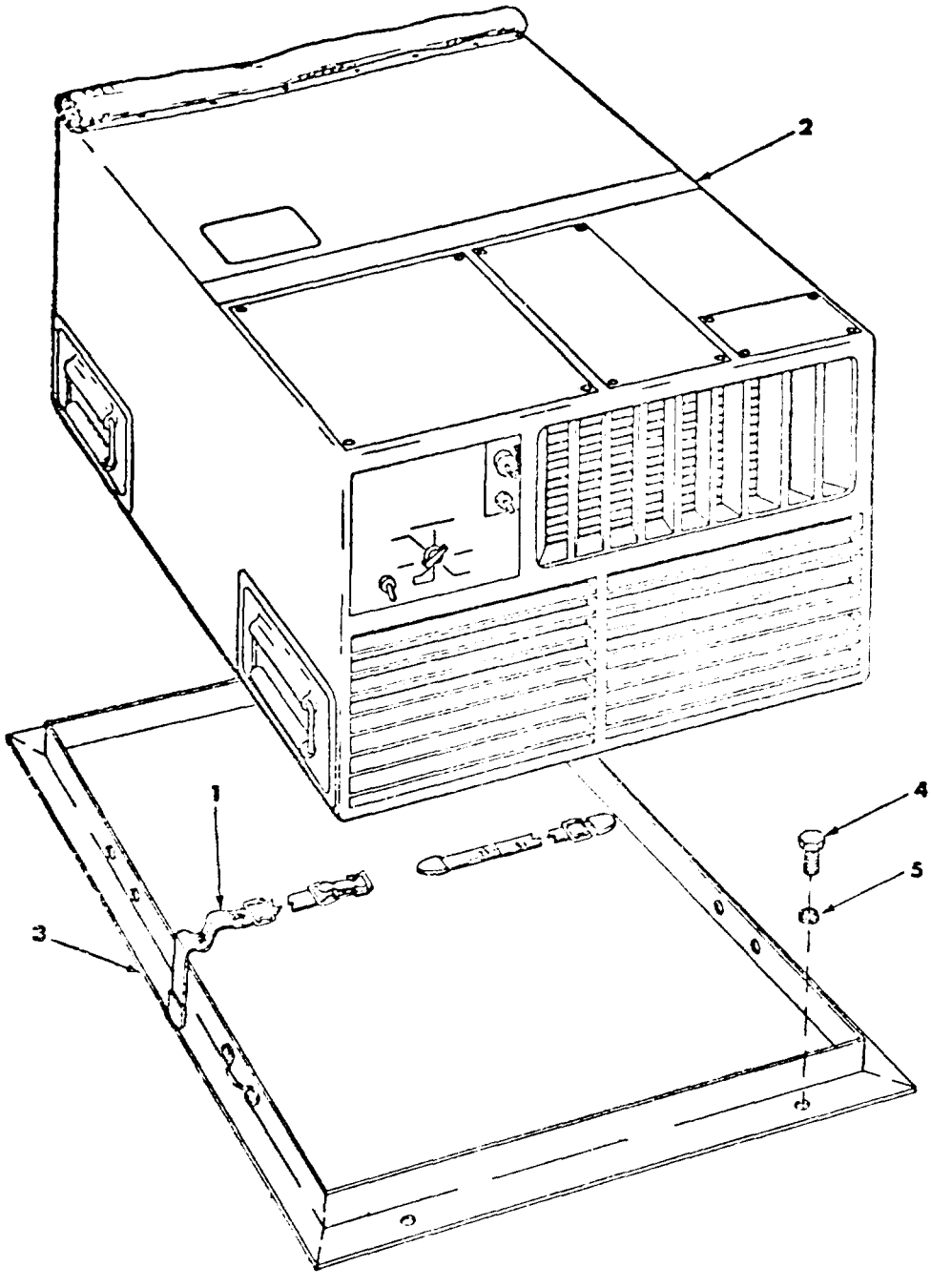


Figure D-6. *Mobilizer Bracket, Installation (Sheet 6 of 7)*



SURFACES TO BE SMOOTH AND FREE FROM IRREGULARITES
SECTION A-A
SCALE FULL
NO DRAFT ANGLE SURFACES TO BE SMOOTH AND FREE FROM IRREGULARITES
VIEW B-B
SCALE FULL
408 DIA THRU 6 PLACES
408 DIA THRU C BORE 687 DIA TO DEPTH SHOWN ON TOP VIEW 3 PLACES
19 R TYP
(12) BRACKET, DOLLY
MAT L 356 ALUMINUM ALLOY CASTING CLASS B
FINISH NONE
SCALE FULL
NOTES 1
CASTING TOLERANCE TO BE
DIM UNDER 4 00 ± 03
DIM 4 00 TO 8 00 ± 05
DIM OVER 8 00 ± 06
MOBILIZER BRACKET INSTALLATION
81996 D 4920-EG-080
SHEET 7 OF 7

Figure D-6. *Mobilized Bracket, Installation (Sheet 7 of 7)*



Legend for Figure D-7:

1. Web strap.
2. Environmental control unit
3. Frame
4. Capscrew
5. Lockwasher

Figure D-7. Environmental control unit (ECU) - location/mounting for transport.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS

SOMETHING WRONG WITH THIS MANUAL?

THEN. . .JOT DOWN THE DOPE ABOUT IT ON THIS FORM, TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (YOUR UNIT'S COMPLETE ADDRESS)
PFC JOHN DOE
CoA, 3d ENGINEER BN
FT. LEONARD WOOD MO 63108

DATE 16 DEC 74

PUBLICATION NUMBER	DATE	TITLE
TM5-6115-200-20 AND P	1 APR 72	GENERATOR SET 10 KW NSN 6115-00-231-7286

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO.	PARAGRAPH	FIGURE NO.	TABLE NO.
6	2-1 a		
21		4-3	
125	line 20		

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

In line 6 of paragraph 2-1a the manual states the engine has 6 cylinders. The engine on my set only has 4 cylinders. Change the manual to show 4 cylinders

Callout 16 on figure 4-3 is pointing at a bolt. In the key to fig. 4-3, item 16 is called a shim. Please correct one or the other.

I ordered a gasket, item 19 on figure B-16 by NSN 2910-00-762-3001. I got a gasket but it doesn't fit. Supply says I got what I ordered so the NSN is wrong. Please give me a good NSN

SAMPLE

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER
JOHN DOE, PFC (268) 317-7111

SIGN HERE:
John Doe

DA FORM 1 AUG 74 2028-2 (TEST)

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR MANUAL "FIND," MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

TEAR ALONG DOTTED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS

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DATE

PUBLICATION NUMBER	DATE	TITLE
TM 55-4920-403-20&P	11 Apr 78	AVUM Including RPSTLs for Tool Set, Company Size, Set. No. 2 Airmobile

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PAGE NO.	PARAGRAPH	FIGURE NO.	TABLE NO.

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TM 55-4920-403-20&P	11 Apr 78	AVUM Including RPSTLs for Tool Set, Company Size, Set. No. 2 Airmobile

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TM 55-4920-403-20&P	11 Apr 78	AVUM Including RPSTLs for Tool Set Company Size, Set. No. 2 Airmobile

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PAGE NO.	PARAGRAPH	FIGURE NO.	TABLE NO.

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By Order of the Secretary of the Army:

BERNARD W. ROGERS
General, United States Army
Chief of Staff

Official:

J. C. PENNINGTON
Brigadier General, United States Army
The Adjutant General

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***U.S. GOVERNMENT PRINTING OFFICE: 1978–765-117/146**

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = . 39 inch
1 decimenter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = . 15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigrams = . 035 ounce
1 dekagram = 10 grams = . 35 ounce
1 hectogram = 10 dekagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = . 34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 38.82 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = . 155 sq. inch
1 sq. decimenter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = . 386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = . 06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	3.94
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.365	metric tons	short tons	1.102
pound-inches	newton-meters	.11375			

Temperature (Exact)

°F	Fahrenheit temperature	**5/9 (after subtracting** 32)	Celsius temperature	°C

034333