

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

SHOP EQUIPMENT, MECHANICAL
MAINTENANCE SHOP (4940-00-209-6227),
INSTALLATION IN THREE MAINTENANCE
SHELTERS (4940-00-919-8409)

H E A D Q U A R T E R S , D E P A R T M E N T O F T H E A R M Y

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*This bulletin supersedes TB 9-4940-313-30, 9 February 1968, including all changes.

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1. General

- a. Instructions contained in this bulletin are to be used as a guide for installation of mechanical maintenance shop equipment (4940-00-209-6227) in three maintenance shelters (4940-00-919-8409).
- b. Slight variations to the installation instructions may be made at the discretion of the officer in charge.
- c. Complete lists of items contained in this shop are found in SC 5180-95-CL-A71 and SC 4940-95-CL-A52.

WARNING

All electrically powered tools and equipment must be grounded prior to use.

CAUTION

Special care should be exercised to avoid damage to electrical connectors, wiring, or electrical equipment.

- d. Personnel performing this installation should have a practical knowledge of electricity.
- e. Items not mentioned in this bulletin, that may be components of the shop, may be stowed in cabinets and drawers or secured in such a manner as to avoid damage in transit.

CAUTION

To preserve its waterproof characteristics, precautions should be taken not to puncture the outer skin when drilling holes into the walls or floor of the shelter.

- f. All necessary additional holes in the walls or floor of the shelter will be drilled into the ribs and blind rivet nuts or rivnuts inserted and secured in these holes. Location of the ribs is indicated by a "V" stamped directly over each rib end on the floor and wall surfaces of the shelter.
- g. All dimensions, fastener sizes, and hardware sizes are in inches.
- h. When entering the shelter, curbside is at right and roadside is at left.

2. Location of Equipment

- a. The floor plan for set one shelter, showing location of equipment installed, is shown in figure 1. Curbside (right side) is shown in figure 2. Roadside (left side) is shown in figure 3. A list of mounting hardware required for installation is included in table 1. A list of components requiring mounting is included in table 2.

2. Location of Equipment—Continued

Table 1. Mounting Hardware

MS/part no.	Size and description	Qty	Application
AN970-5	5/16 Flat Washer	10	Table top installation, support angles
MS27130-S72	5/16-18 Blind Rivet Nut	30	Shelter wall
MS27130-A73	5/16-18 Blind Rivet Nut	38	Shelter floor
MS27183-11	5/16 Flat Washer	72	Cabinets, shelves, shelf assemblies, grinding machine, table top, table top supports
MS27183-13	3/8 Flat Washer	8	Drill stand
MS27183-17	1/2 Flat Washer	8	Vise
MS35190-308	5/16-18 UNC 2A Machine Screw 1-1/2 L	58	Table top, support angles, cabinets, shelf assemblies
MS35338-140	5/16 Lockwasher	151	Table top supports, table top, support angles, cabinets, shelf assemblies, grinding machine, shelves
MS35338-141	3/8 Lockwasher	8	Drill stand
MS35338-143	1/2 Lockwasher	8	Vise
MS51937-2	Eye Bolt	12	Hoist, trestles, stools
MS51967-5	5/16-18 Hex Nut	83	Table top, grinding machine, cabinets, support angles, table top supports, shelves, shelf assemblies
MS51967-8	3/8-16 Hex Nut	8	Drill stand
MS51967-14	1/2-13 Hex Nut	8	Vise
MS90725-32	5/16-18 UNC 2A Hex Head Capscrew X 3/4 L	21	Cabinets, shelves, table top supports, shelf assemblies

2. Location of Equipment—Continued

Table 1. Mounting Hardware—Continued

MS/part no.	Size and description	Qty	Application
MS90725-36	5/16-18 UNC 2A Hex Head Capscrew X 1-1/4 L	30	Support angles, shelves
MS90725-38	5/16-18 UNC 2A Hex Head Capscrew X 1-1/2 L	42	Table top supports, shelf assemblies, grinding machine
MS90725-65	3/8-16 UNC 2A Hex Head Capscrew X 1-3/4 L	8	Drill stand
MS90725-117	1/2-13 UNC 2A Hex Head Capscrew X 2-1/2 L	8	Vise
11020947-15	Retaining Strap	5	Hoist, trestles, stools
11020947-20	Retaining Strap	1	Hoist

Table 2. Components to be Mounted

NSN	Qty	Description	Figure no.
7125-00-999-1123	5	CABINET, SMALL PARTS STORAGE: 20 drawer	2-3-5-6
7125-00-991-2857	6	CABINET, STORAGE: 1 compartment	2-3-5-6-9
5130-00-204-2718	2	DRILL, ELECTRIC PORTABLE: 1/2-inch cap. with stand	1-2-4-5-31
3415-00-517-7754	2	GRINDING MACHINE, UTILITY	1-3-4-6-31
3950-00-889-8723	1	HOIST CHAIN	4
7110-00-634-8596	3	STOOL, REVOLVING	7
4910-00-251-8013	8	TRESTLE, MOTOR VEHICLE MAINTENANCE	7
5120-00-293-1439	2	WISE, MACHINISTS	1-2-4-5-31

2. Location of Equipment—Continued

b. The floor plan for set two shelter, showing location of equipment installed, is shown in figure 4. Curbside (right side) is shown in figure 5. Roadside (left side) is shown in figure 6. A list of mounting hard-ware required for installation is included in table 1. A list of components requiring mounting is included in table 2.

c. The floor plan for set three shelter, showing location of equipment installed, is shown in figure 7. Curbside (right side) is shown in figure 8. Roadside (left side) is shown in figure 9. A list of mounting hard-ware required for installation is included in table 1. A list of components requiring mounting is included in table 2.

d. Fabricate the shelf assemblies, shelf support bars, support angles, table top supports, metal shelves, and table tops as shown in figures 14 thru 30.

e. Hand blind riveter (5120-00-973-0376) is used for installing blind rivet nuts in shelter floors and walls. Install blind rivet nuts in accordance with MIL-N-47187.

3. Installation

a. Install twelve blind rivet nuts (MS27130-A73) in set one and set two shelter floors in accordance with dimensions shown in figure 10.

b. Install ten blind rivet nuts (MS27130-S72) in set one and set two shelter walls in accordance with dimensions shown in figure 11.

c. Install fourteen blind rivet nuts (MS27130-A73) in set three shelter floor in accordance with dimensions shown in figure 12.

d. Install ten blind rivet nuts (MS27130-S72) in set three shelter walls in accordance with dimensions shown in figure 13.

e. Loosely fasten shelf support bars until shelf supports on opposite end have been in-stalled. This will allow metal shelf to be positioned correctly.

f. Use shims where necessary to ensure all shelves and table tops are level.

g. Follow steps (1) thru (24) below for set one storage cabinet and table top installation.

(1) Position storage cabinet (7125-00- 991-2857) and a small parts storage cabinet (7125 -00-999-1123) on front right side of set one shelter. Refer to figure 2 for location.

(2) Position a right-hand table top sup-port (7542027) (figure 14) over blind rivet nuts in shelter floor, located 48-7/8 inches from front of shelter and 4 and 16 inches from right side of shelter. Fasten right-hand table top support to floor, using two 5/16- X 1-1/2-in. hex head capscrews (MS90725-38) and two 5/16-in. lockwashers (MS35338-140).

(3) Place storage cabinet (7125-00-991- 2857) on rear right side of set one shelter, Refer to figure 2 for location.

(4) Position a left-hand table top support (7542026) (figure 15) over blind rivet nuts in shelter floor, located 63 inches from rear of shelter and 4 and 16 inches from right side of shelter. Fasten to floor, using two 5/16- X 1-1/2-in. hex head capscrews (MS90725-38) and two 5/16-in. lockwashers (MS35338-140).

(5) Position a right-hand table top sup-port (7542027) (figure 14) over blind rivet nuts in shelter floor 37-1/2 inches from rear of shelter and 4 and 16 inches from right side of shelter. Move small parts storage cabinet as required. Fasten to floor, using two 5/16- X 1-1/2-in. hex head capscrews (MS90725-38) and two 5/16-in. lockwashers (MS35338-140).

(6) Place right-hand table top (7542030) (figure 16) in position on top of cabinets on right side of shelter. Line up holes in right-hand table top with holes in table top supports. Fasten to table top supports, using six 5/16- X 1-1/2-in. machine screws (MS35190-308) through table top, six 5/16-in. lockwashers (MS35338-140) and six 5/16-in. hex nuts (MS51967-5) on underside.

3. Installation-Continued

(7) Position right-hand rear support angle (7542016) (figure 17) over blind rivet nuts in rear shelter wall. Secure right-hand rear support angle to wall with two 5/16- X 1-1/4-in. hex head capscrews (MS90725-36) and two 5/16-in. lockwashers (MS35338-140).

(8) position right-hand front support angle (7542036) (figure 18) over blind rivet nuts in front shelter wall. Secure to wall, using two 5/16- X 1-1/4-in. hex head cap-screws (MS90725-36) and two 5/16-in. lock-washers (MS35338-140).

(9) Shift the three cabinets to lineup with back edge of right-hand table top. Use a letter R drill (0.34-inch diam nominal) to drill two holes through right-hand front support angle, table top, and storage cabinet. Fasten together, using two 5/16- X 1-1/2-in. machine screws (MS35190-308) through right-hand front support angle, table top, and storage cabinet. Install two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on underside of inside storage cabinet.

(10) Install two 5/16-in. X 1-1/2-in. machine screws (MS35190-308) through right-hand rear support angle and table top, and two 5/16-in. flat washers (AN970-5), two 5/16-in. lockwashers (MS35338-140), and two 5/16-in. hex nuts (MS51967-5) on underside to secure table top.

CAUTION

Ensure cabinet drawer adjacent to hole location is removed before drilling.

(11) Drill two 0.34-inch diameter holes through right-hand table top support (7542027) and small parts storage cabinet (7125-00-999-1 123) installed at front of shelter. Locate holes 18-1/4 inches above shelter floor and 2 and 14 inches in from right side of table top support. Secure by using two 5/16- X 3/4-in. hex head capscrews (MS90725-32) and two 5/16-in. flat washers (MS27183-11) on table top support side. Use two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on inside of small parts storage cabinet.

CAUTION

Ensure cabinet drawer adjacent to hole location is removed before drilling.

(12) Drill two 0.34-inch diameter holes through left-hand table top support (7542026) and storage cabinet (7125-00-991-2857) in-stalled toward rear of shelter. Locate holes 18-1/4 inches above shelter floor and 2 and 14 inches in from right side of table top support. Secure with two 5/16- X 3/4-in. hex head cap screws (MS90725-32) and two 5/16-in. fiat washers (MS27183-11) on table top bench support side. Use two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on inside of storage cabinet.

(13) Fasten metal shelf (7542028) (figure 19) to rear shelter wall, using shelf support bar (7542020) (figure 20). Line up holes in shelf support bar with blind rivet nuts located on rear wall 23-1/2 inches from shelter floor. Place two 5/16- X 1-1/4-in. hex head capscrews (MS90725-36) and two 5/16-in. lock-washers (MS35338-140) through shelf support bar. Place a 5/16-in. flat washer (MS27183-11) on each capscrew between wall and shelf support bar. Lightly fasten to wall. Hook edge of metal shelf over shelf support bar (7542020) on shelter wall.

CAUTION

Ensure cabinet drawer adjacent to hole location is removed before drilling.

(14) Locate and drill two 0.34-inch diameter holes 23-1/2 inches from shelter floor and 3-1/2 and 12-1/4 inches from right side of right-hand table top support (7542027) on rear side of shelter through storage cabinet (7125-00-991-2857). Fasten metal shelf by inserting two 5/16- X 3/4-in. hex head cap-screws (MS90725-32) with 5/16-in. flat washers (MS27183-11) through metal shelf (7542028), right-hand table top support, and small parts storage cabinet. Install two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) to capscrews on inside of storage cabinet.

(15) Tighten two capscrews holding shelf support bar (7542020) to rear shelter wall.

3. Installation-Continued

(16) Place a storage cabinet (7125-00- 991-2857) against front wall on roadside (left side) of shelter, Place a small parts storage cabinet (7125-00-999-1123) next to other storage cabinet (figure 3).

(17) Position a left-hand table top sup-port (7542026) over blind rivet nuts in shelter floor located 48-7/8 inches from front wall. Fasten to floor, using two 5/16- X 1-1/2-in. hex head capscrews (MS90725-38) and two 5/16-in. lockwashers (MS35338-140).

(18) Assemble shelf assembly (7542023) in accordance with figure 21. Leave all bolts loose until wood shelves are in place, Tighten all bolts. Place shelf assembly in shelter on left side against rear wall over blind rivet nuts in floor located 2-3/4 inches, 29-1/4 inches, and 58-1/4 inches from rear wall. Install four 5/16- X 1-1/2-in. hex head capscrews (MS90725-38), four 5/16-in. lockwashers (MS35338-140), and four 5/16-in. flat washers (MS27183-11) to secure shelf assembly to floor.

(19) Place left-hand table top (7542031) (figure 22) in position on top of cabinets and shelf assembly on left side of shelter. Make sure beveled corner of table top is at rear of shelter to provide clearance for door latch. Line up holes in top with holes in left-hand table top support. Fasten table top to sup-port by inserting two 5/16- X 1-1/2-in. machine screws (MS35190-308) through table top and support. Install two 5/16-in. lock-washers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on underside. Install four 5/16- X 1-1/2-in. machine screws (MS35190- 308) through table top and shelf assembly; on underside install four 5/16-in. flat washers (MS27183-11), four 5/16-in. lockwashers (MS35338-140), and four 5/16-in. hex nuts (MS51967-5) to secure table top to shelf assembly.

(20) Secure left-hand rear support angle (7542037) (figure 23) to rear shelter wall by lining up left-hand rear support angle over blind rivet nuts in wall. Install two 5/16- X 1-1/4-in. hex head capscrews (MS90725-36) and two 5/16-in. lockwashers (MS35338-140).(21) Secure left-hand front support angle (7542017) (figure 24) over blind rivet nuts in front shelter wall. Secure to wall, using two 5/16- X 1-1/4-in. hex head cap-screws (MS90725-36) and two 5/16-in. lock-washers (MS35338-140).

(22) Shift the two storage cabinets to line up with back edge of table top. Drill two 0.34-inch diameter holes through left-hand front support angle, table top, and storage cabinet. Fasten together by installing two 5/16- X 1-1/2-in. machine screws (MS35190- 308) through left-hand front support angle, table top, and storage cabinet. Install two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on inside storage cabinet.

(23) Insert two 5/16- X 1-1/2-in. ma-chine screws (MS35190-308) through left-hand rear support angle and table top. Install two 5/16-in. flat washers (AN970-5), two 5/16-in. lockwashers (MS35338-140), and two 5/16-in. hex nuts (MS51967-5) on underside to secure table top.

CAUTION

Ensure cabinet drawer adjacent to hole location is removed before drilling.

(24) Drill two 0.34-inch diameter holes through left-hand table top support (7542026) and small parts storage cabinet (7125-00-999- 1123). Locate holes 18-1/4 inches above shelter floor and 2 and 14 inches from roadside edge of the table top support. Secure with two 5/16- X 3/4-in. hex head capscrews (MS90725-32) and two 5/16-in. flat washers (MS27183-11) on table top support side. In-stall two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on in-side of small parts storage cabinet.

h. Follow steps (1) and (2) below for set two storage cabinet and table top installation.

(1) Set two curbside storage cabinet and table top installation is identical to set one installation (steps 3g(1) thru (15)) with the following exceptions. Substitute a small parts storage cabinet (7125-00-999-1123) for the storage cabinet (7125-00-991-2857) in paragraphs 3g(3), 3g(12), and 3g(14).

3. Installation-Continued

(2) Set two roadside storage cabinet and table top installation is identical to installation procedures (steps 3g(16) thru (24)) for set one.

i. Follow steps (1) thru (17) below for set three storage cabinet and table top installation.

(1) Assemble two shelf assemblies (7542022) in accordance with figure 25. Leave all bolts loose until wood shelves are in place. Tighten bolts. Place shelf assemblies in shelter on curbside. One shelf assembly is positioned against front wall over blind rivet nuts in floor located 26-1/4 and 52-1/2 inches from front wall. Position other shelf assembly against rear wall over blind rivet nuts in floor located 26-1/4 and 52-1/2 inches from front wall. Position other shelf assembly against rear wall over blind rivet nuts in floor located 26-1/4 and 52-1/2 inches from rear wall. Secure shelf assemblies to floor, using four 5/16- X 1-1/2-in. hex head capscrews (MS90725-38), four 5/16-in. lockwashers (MS35338-140), and four 5/16-in. flat washers (MS27183-11) for each shelf assembly.

(2) Place right-hand table top (7542032) (figure 26) on top of the shelf assemblies (7542022). Secure right-hand table top to shelf assemblies by installing four 5/16- X 1-1/2-in. machine screws (MS35190- 308) through table top and four 5/16-in. flat washers (MS27183-11), four 5/16-in. lock-washers (MS35338-140), and four 5/16-in. hex nuts (MS51967-5) on underside.

(3) Secure right-hand rear support angle (7542016) to rear shelter wall by lining up holes in right-hand rear support angle over blind rivet nuts in wall. Install two 5/16- X 1-1/4-in. hex head capscrews (MS90725-36) and two 5/16-in. lockwashers (MS35338-140).

(4) Secure right-hand front support angle (7542036) to front shelter wall by lining up holes in right-hand front support angle over blind rivet nuts in wall. Install two 5/16- X 1-1/4-in. hex head capscrews (MS90725-36) and two 5/16-in. lockwashers (MS35338-140).

(5) Make sure that shelf assemblies are flush with back of table top. Drill two 0.34-inch diameter holes through the front and rear support angles and table top. Secure front and rear support angles, table top, and shelf assemblies together by inserting four 5/16- X 1-1/2-in. machine screws (MS35190- 308) through front and rear support angles, table top, and shelf assemblies. Install four 5/16-in. flat washers (MS27183-11), four 5/16-in. lockwashers (MS35338-140), and four 5/16-in. hex nuts (MS51967-5) on underside.

(6) Place a storage cabinet (7125-00- 991-2857) against front wall on roadside (left side) of shelter. Place an assembled shelf assembly (7542021) (figure 27) in position over blind rivet nuts located 38-7/8 and 85-3/8 inches from rear wall.

(7) Fasten shelf assembly (7542021) to shelter floor, using four 5/16- X 1-1/2-in. hex head capscrews (MS90725-38), four 5/16-in. lockwashers (MS35338-140), and four 5/16-in. flat washers (MS27183-11).

(8) Position a left-hand table top support (7542026) over blind rivet nuts in shelter floor located 24-7/8 inches from front wall. Fasten to floor, using two 5/16- X 1-1/2-in. hex head capscrews (MS90725-38) and two 5/16-in. lockwashers (MS35338-140).

(9) Place left-hand table top (7542033) (figure 28) in position on top of storage cabinet and shelf assembly on left side of shelter. Make sure beveled corner of table top is at rear of shelter to provide clearance for door latch. Fasten table top to table top support by installing two 5/16- X 1-1/2-in. machine screws (MS35190-308) through table top and two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on under-side. Install four 5/16- X 1-1/2-in. machine screws (MS35190-308) through table top and four 5/16-in. flat washers (MS27183-11), four 5/16-in. lockwashers (MS35338-140), and four 5/16-in. hex nuts (MS51967-5) on underside to secure table top to shelf assembly.

(10) Secure left-hand rear support angle (7542037) to rear shelter wall by lining up holes in left-hand rear support angle with blind rivet nuts in wall. Use two 5/16- X 1-1/4-in. hex head capscrews (MS90725-36) and two 5/16-in. lockwashers (MS35338-140).

3. Installation-Continued

(11) Secure left-hand front support angle (7542017) to front shelter wall by lining up holes in left-hand front support angle with blind rivet nuts in wall. Use two 5/16- X 1-1/4-in. hex head capscrews (MS90725-36) and two 5/16-in. lockwashers (MS35338-140).

(12) Make sure storage cabinet (7125- 00-991-2857) and shelf assembly (7542021) are flush with back of table top. Drill two 0.34-inch diameter holes through the front and rear support angles, table top, and storage cabinet. Secure front support angle and table top to storage cabinet by installing two 5/16- X 1-1/2 in. machine screws (MS35190- 308) through support angle and into storage cabinet. Use two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on inside of storage cabinet. Secure rear support angle to table top by in-stalling two 5/16- X 1-1/2-in. machine screws (MS35190-308) through support angle and table top. Use two 5/16-in. flat washers (AN970-5), two 5/16-in. lockwashers (MS35338-140), and two 5/16-in. hex nuts (MS51967-5) on underside of table top.

(13) Locate and drill two 0.34-inch diameter holes 18-1/4 inches from shelter floor and 2 and 14 inches in from left side of left-hand table top support (7542026) through storage cabinet (7125-00-991-2857). Insert two 5/16- X 3/4-in. hex head capscrews (MS90725- 32) and two 5/16-in. flat washers (MS27183- 11) from table top support side. Secure with two 5/16-in. lockwashers (MS35338-140) and two 5/16-in. hex nuts (MS51967-5) on inside of storage cabinet.

(14) Fasten metal shelf (7542029) (figure 29) to rear shelter wall, using shelf support bar (7542020). Line up holes in shelf support bar with blind rivet nuts located on rear wall 23-1/2 inches from shelter floor. Place two 5/16- X 1-1/4-in, hex head capscrews (MS90725-36) and two 5/16-in. lockwashers (MS35338-140) through shelf support bar. Place a 5/16-in flat washer (MS27183-11) on each capscrew between wall and shelf support bar. Lightly fasten to wall.

(15) Hook edge of metal shelf (7542029) over shelf support bar (7542020) on shelter wall. Locate existing holes in shelf assembly (7542021) 23-1/2 inches from floor. Insert two 5/16- X 3/4-in. hex head capscrews (MS90725-32) through shelf support bar (7542019) (figure 30). Place a 5/16-in. flat washer (MS27183-11) on each capscrew. Position holes in shelf assembly over the two hex head capscrews and loosely fasten in place, using two 5/16-in. flat washers (MS27183-11), two 5/16-in. lockwashers (MS35338-140), and two 5/16-in. hex nuts (MS51967-5.).

(16) Hook edge of metal shelf (7542029) over shelf support bar (7542020). Hold in place by inserting a 5/16- X 3/4-in. hex head capscrew (MS90725-32) with a 5/16-in. flat washer (MS27183-11) through shelf support bar. Place a 5/16-in. flat washer (MS27183-11) on the capscrew and install through hole in metal shelf. Install a 5/16-in. lockwasher (MS35338-140) and 5/16-in. hex nut (MS51967-5) to secure metal shelf to shelf support bar.

(17) Tighten two hex head capscrews in each shelf support bar to hold metal shelf securely.

CAUTION

Ensure two top drawers of small parts storage cabinet are removed before drilling.

j. To mount drill and drill stand (sets one and two), position drill and drill stand (5130- 00-204-2718) on curbside (right side) table top in accordance with dimensions shown in figure 31. Using drill stand base as a template, mark hole positions on table top. Use a 13/32-inch drill to drill four 0.41-inch nominal diameter holes, where marked, through table top and small parts storage cabinet. Place drill stand over drilled holes in table top. In-stall four 3/8- X 13/4-in. hex head capscrews (MS90725-65) through drill base, table top, and small parts storage cabinet. Secure by placing four 3/8-in. (MS27183-13), four flat washers 3/8-in. lockwashers (MS35338-141), and four 3/8-in. hex nuts (MS51967-8) on capscrews inside small parts storage cabinet. Tighten nuts and replace drawers.

3. Installation-Continued

CAUTION

Ensure two top drawers of small parts storage cabinet are removed before drilling (set two).

k. To mount machinists vise (sets one and two), position machinists vise (5120-00- 293-1439) on curbside table top in accordance with dimensions shown in figure 31. Using machinists vise base as a template, mark four mounting hole positions. Use 17/32-inch drill to drill four 0.53-inch nominal diameter holes, where marked, through table top and small parts storage cabinet. Place machinists vise over drilled holes in table top and small parts storage cabinet. Install four 1/2- X 2-1/2-in. hex head capscrews (MS90725-117) with four 1/2-in. flat washers (MS27183-17) through small parts storage cabinet, table top, and machinists vise from inside small parts storage cabinet. Secure by installing four 1/2-in. lockwashers (MS35338-143) and four 1/2-in. hex nuts (MS51967-14) on four capscrews on top of vise base. Tighten nuts and replace drawers.

CAUTION

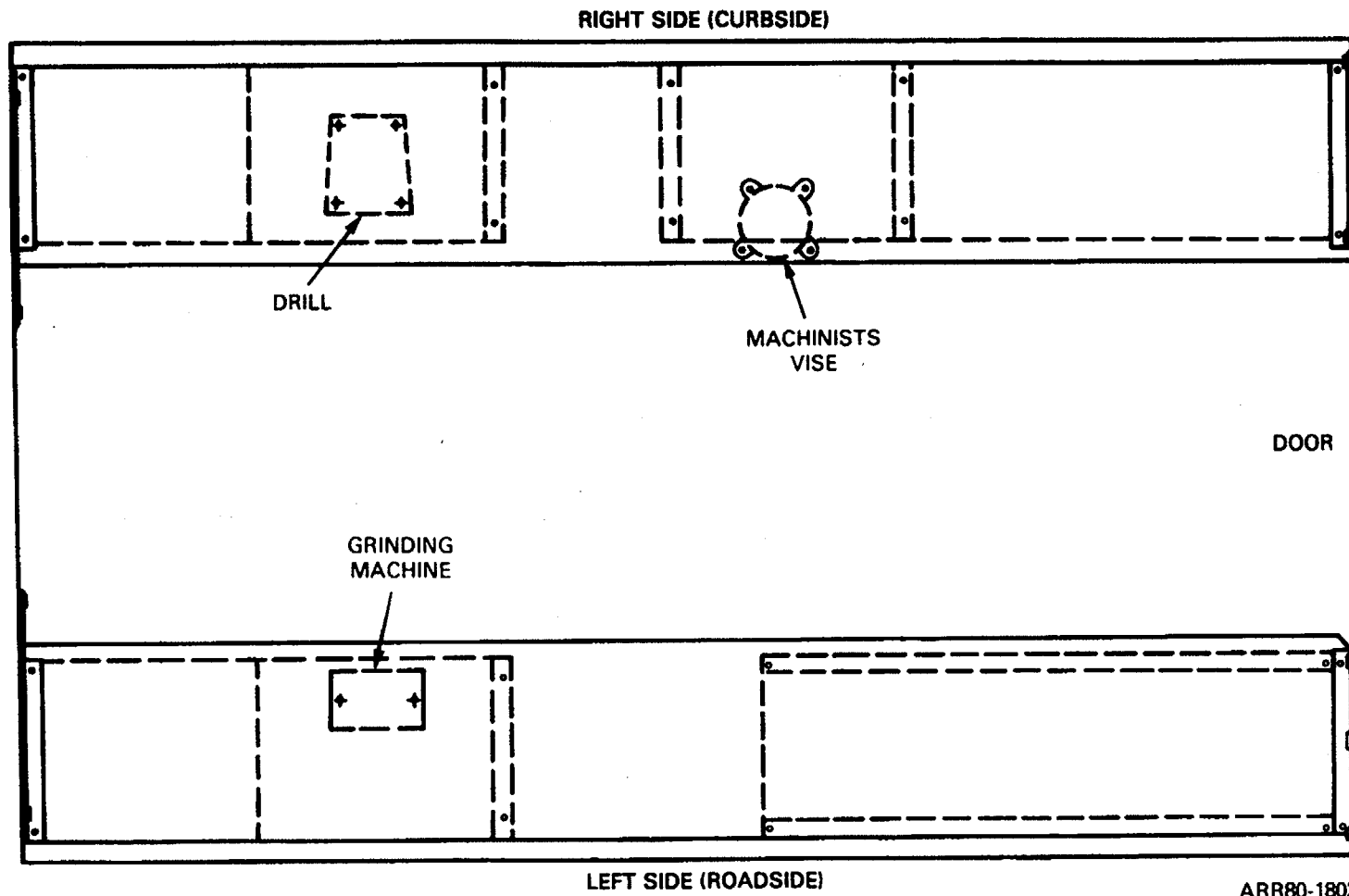
Ensure two top drawers of small parts storage cabinet are removed before drilling.

l. To mount utility grinding machine (sets one and two), position utility grinding machine (34 15-00-517-7754) on roadside table top in accordance with dimensions shown in figure 31. Using utility grinding machine base as a template, mark two mounting hole positions. Drill two 0.34-inch diameter holes through table top and small parts storage cabinet. Place utility grinding machine over drilled holes in table top. Install two 5/16- X 1-1/2-in, hex head capscrews (MS90725-38) through grinding machine base, table top, and small parts storage cabinet. Install two 5/16-in. flat washers (MS27183-11), two 5/16-in. lockwashers (MS35338-140), and two 5/16-in. hex nuts (MS51967-5) from inside of small parts storage cabinet. Tighten nuts and replace drawers.

m. Mark small parts storage cabinet drawers with letters 1/2-inch high, using black marking ink on 1-1/8- X 2-3/8-inch white index paper (220-lb stock, grade B, UU-P-258).per

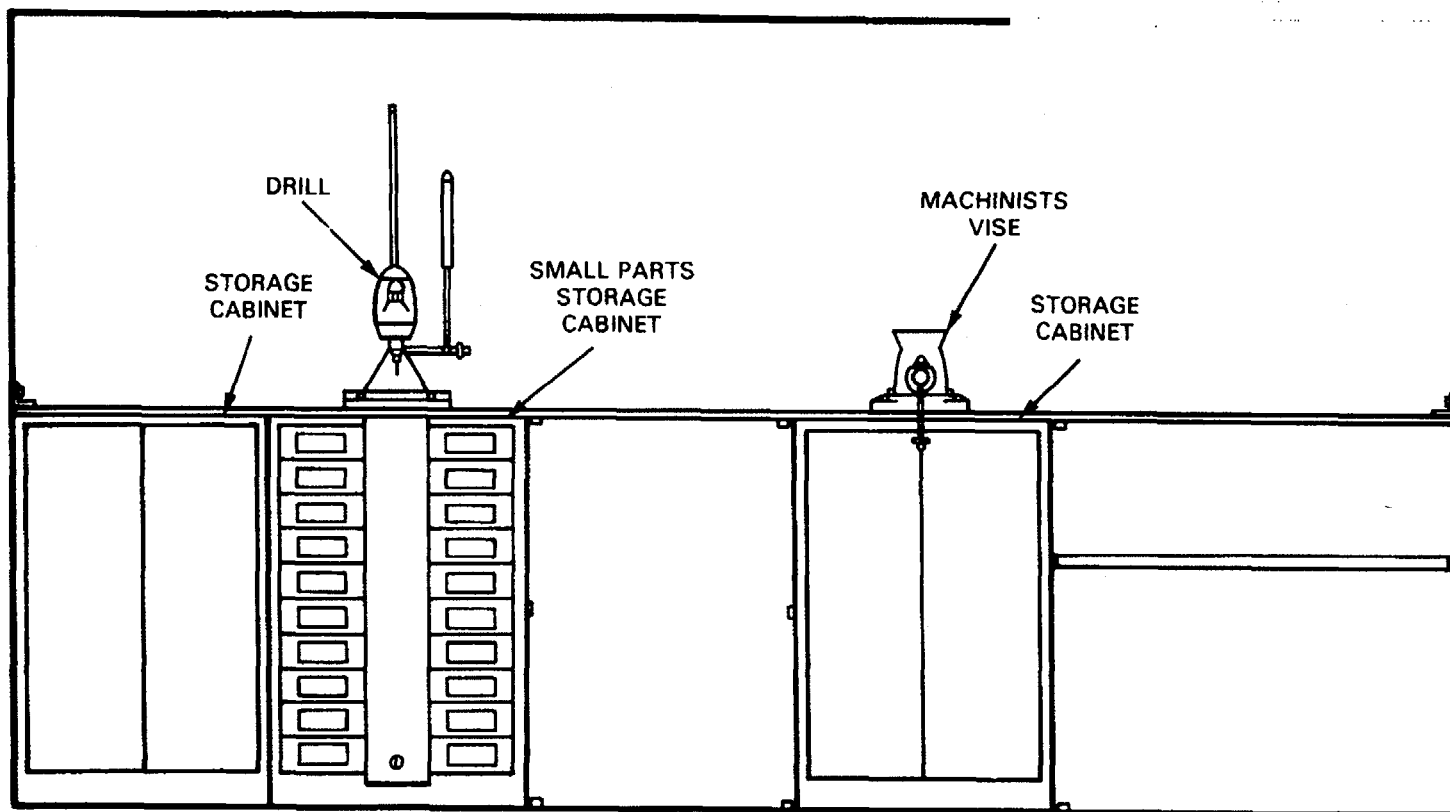
n. Stowage of automotive maintenance hoisting unit for set two is shown in figure 4. Locate equipment box near rear and in center of shelter floor. Insert four eye bolts (MS51937-2) into blind rivet nuts in floor. Secure in place, using two retaining straps (4940-01-112-8282).

o. Stowage of three revolving stools and eight motor vehicle maintenance trestles for set 3 is shown in figure 7. Place motor vehicle maintenance trestles on shelter floor near rear and in center of shelter. Install eight eye bolts (MS51937-2) into blind rivet nut holes in floor. Place three revolving stools on top of motor vehicle maintenance trestles; and secure in place, using four retaining straps (4940-01-112-8282).



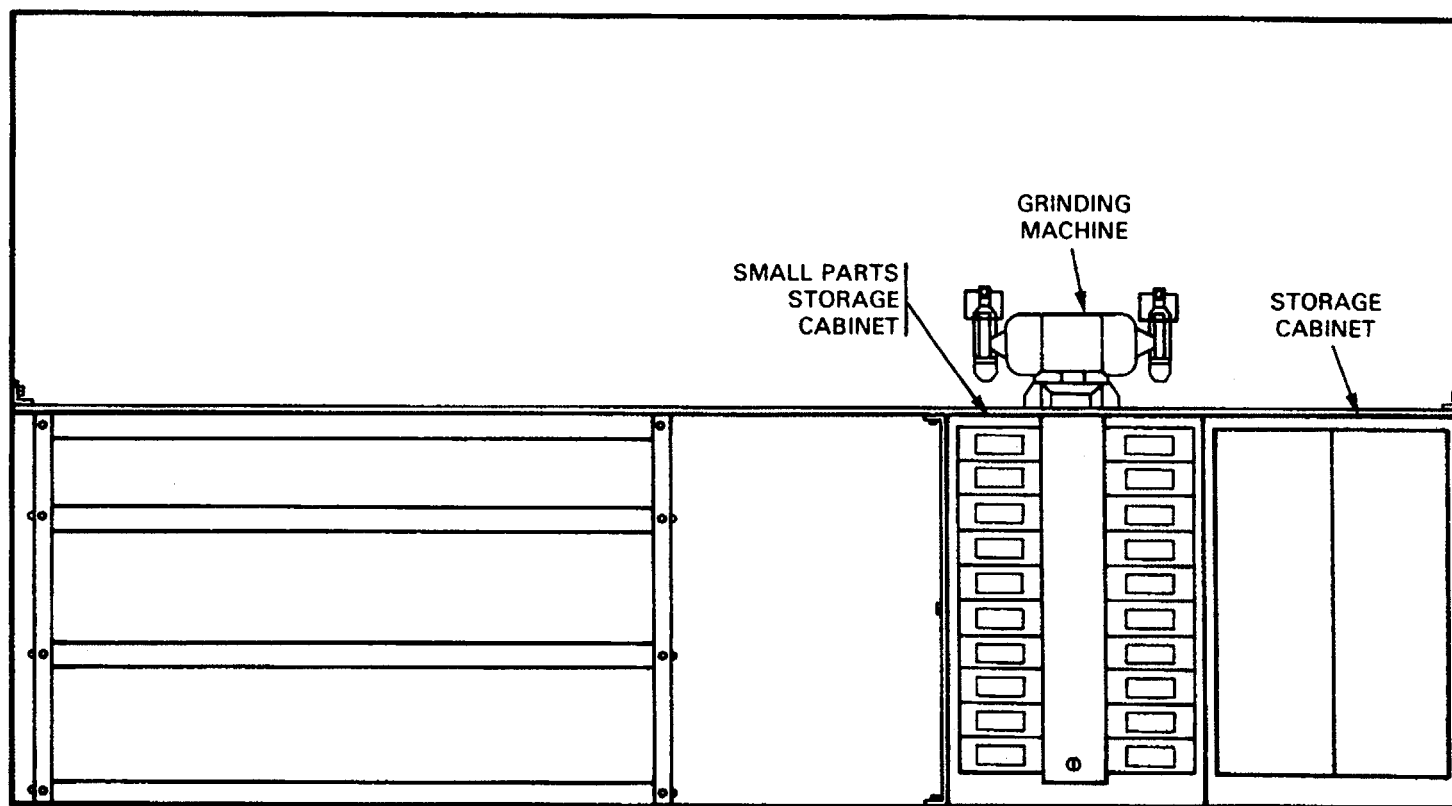
ARR80-1802

Figure 1. Floor plan of set one shelter.



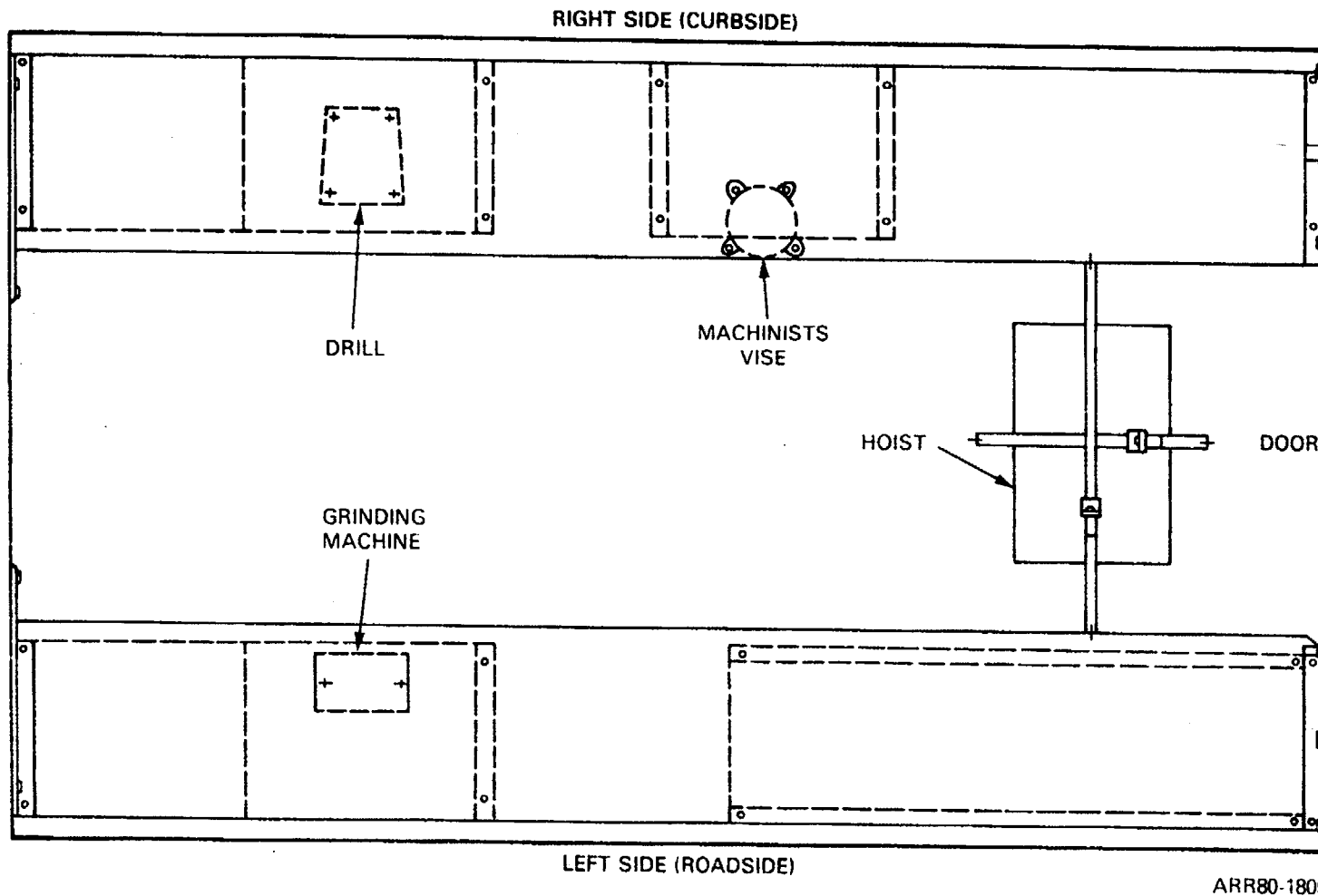
ARR80-1803

Figure 2. Right side (curbside) of set one shelter.



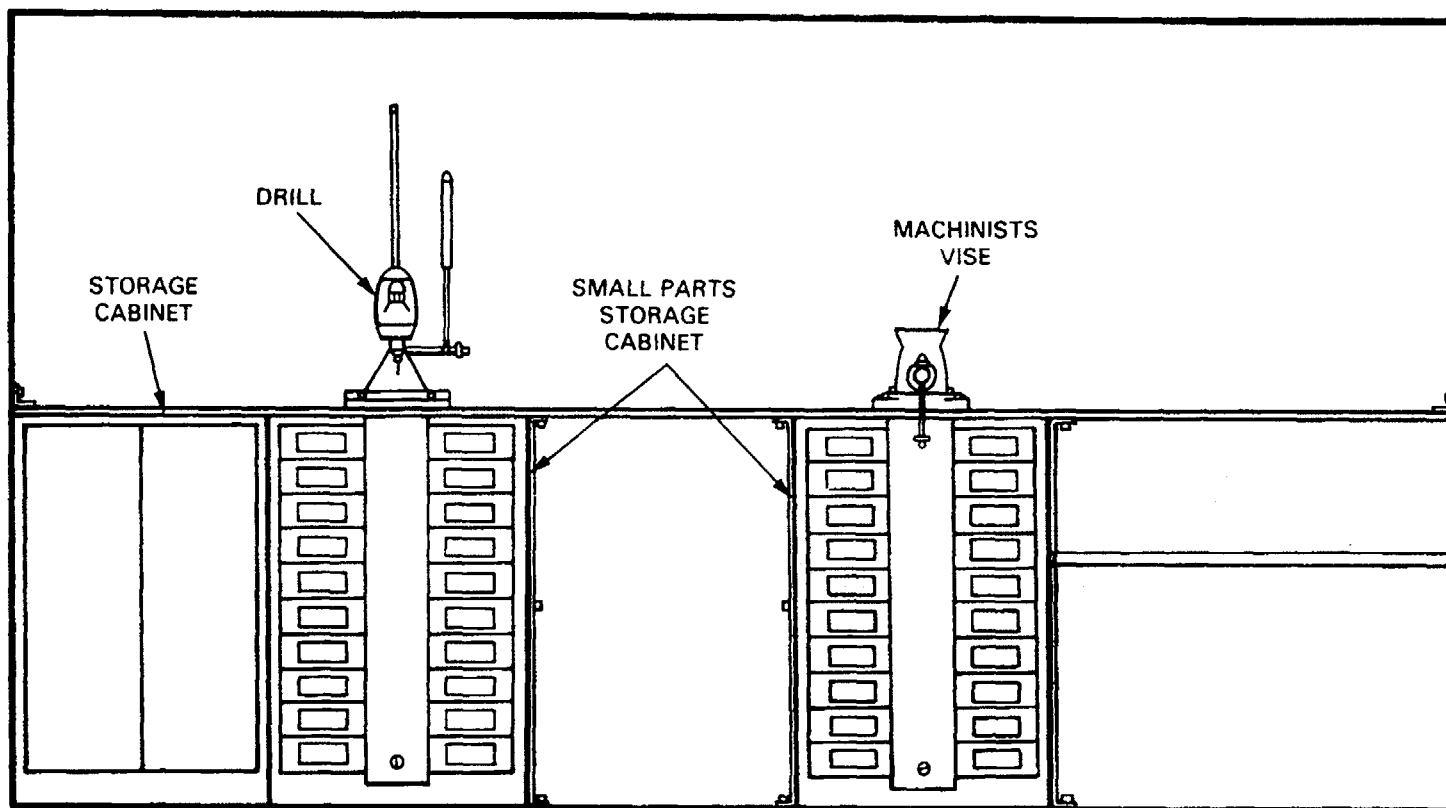
ARR80-1804

Figure 3. Left side (roadside) of set one shelter.



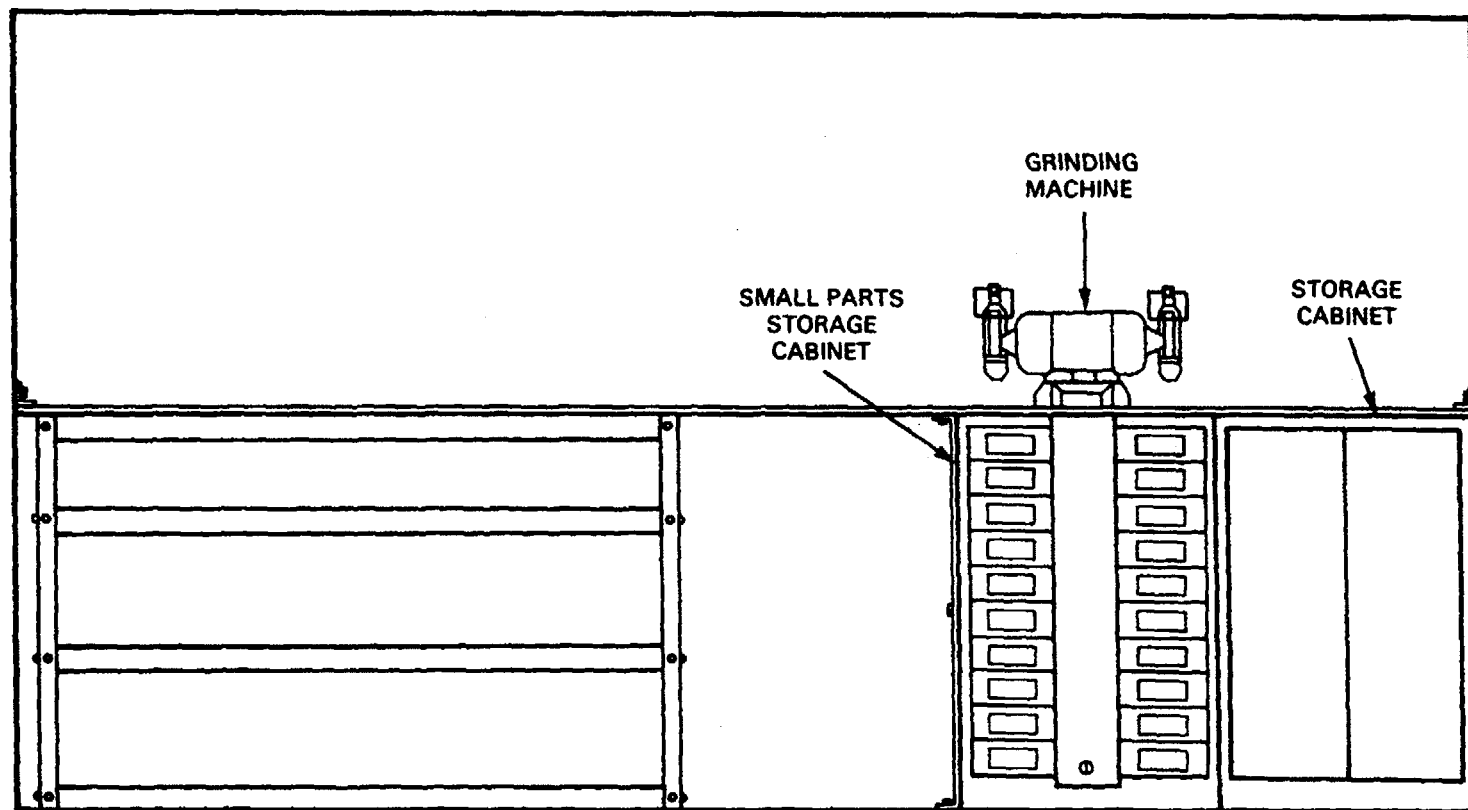
ARR80-1805

Figure 4. Floor plan of set two shelter.



ARR80-1806

Figure 5. Right side (curbside) of set two shelter.



ARR80-1807

Figure 6. Left side (roadside) of set two shelter.

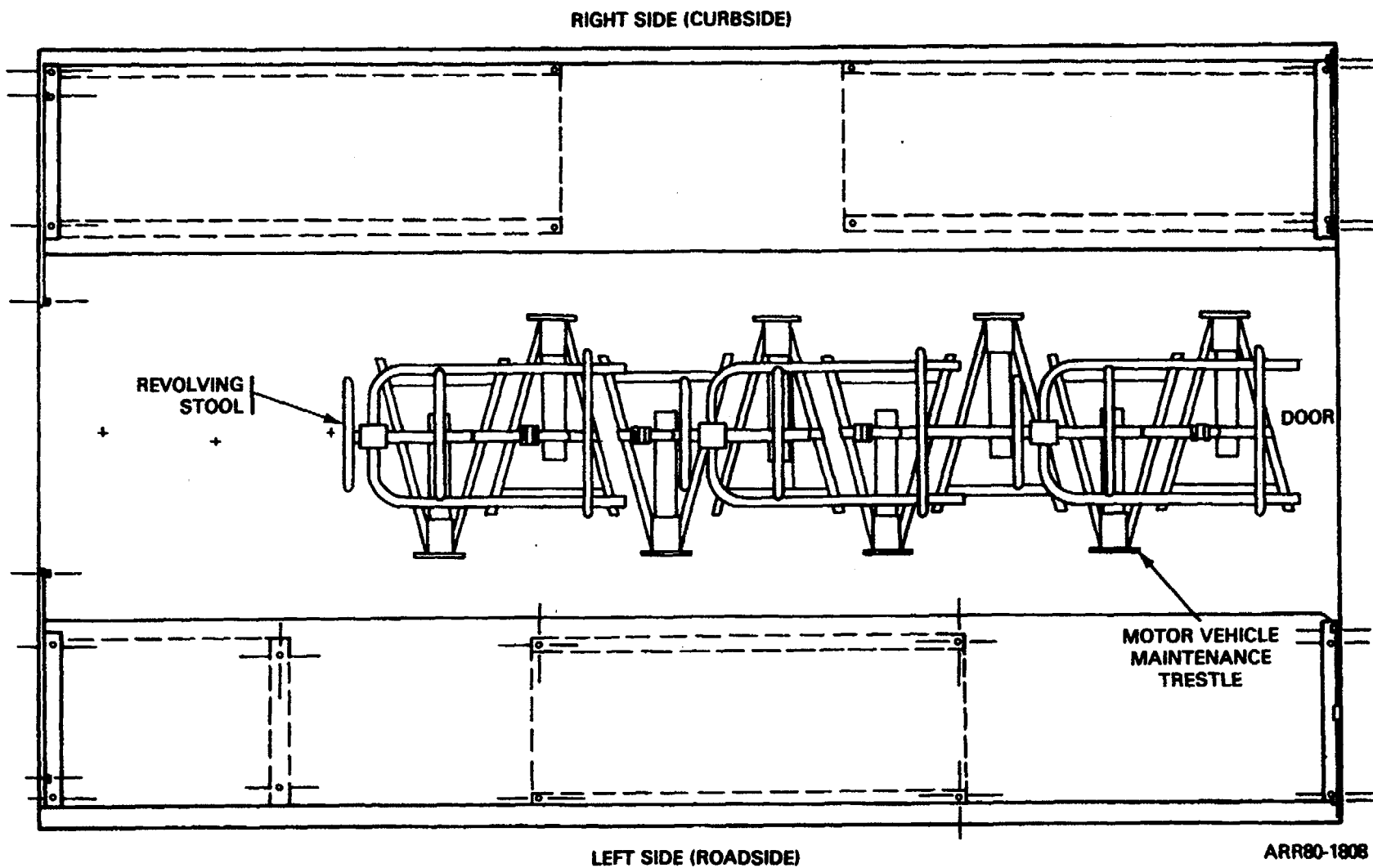
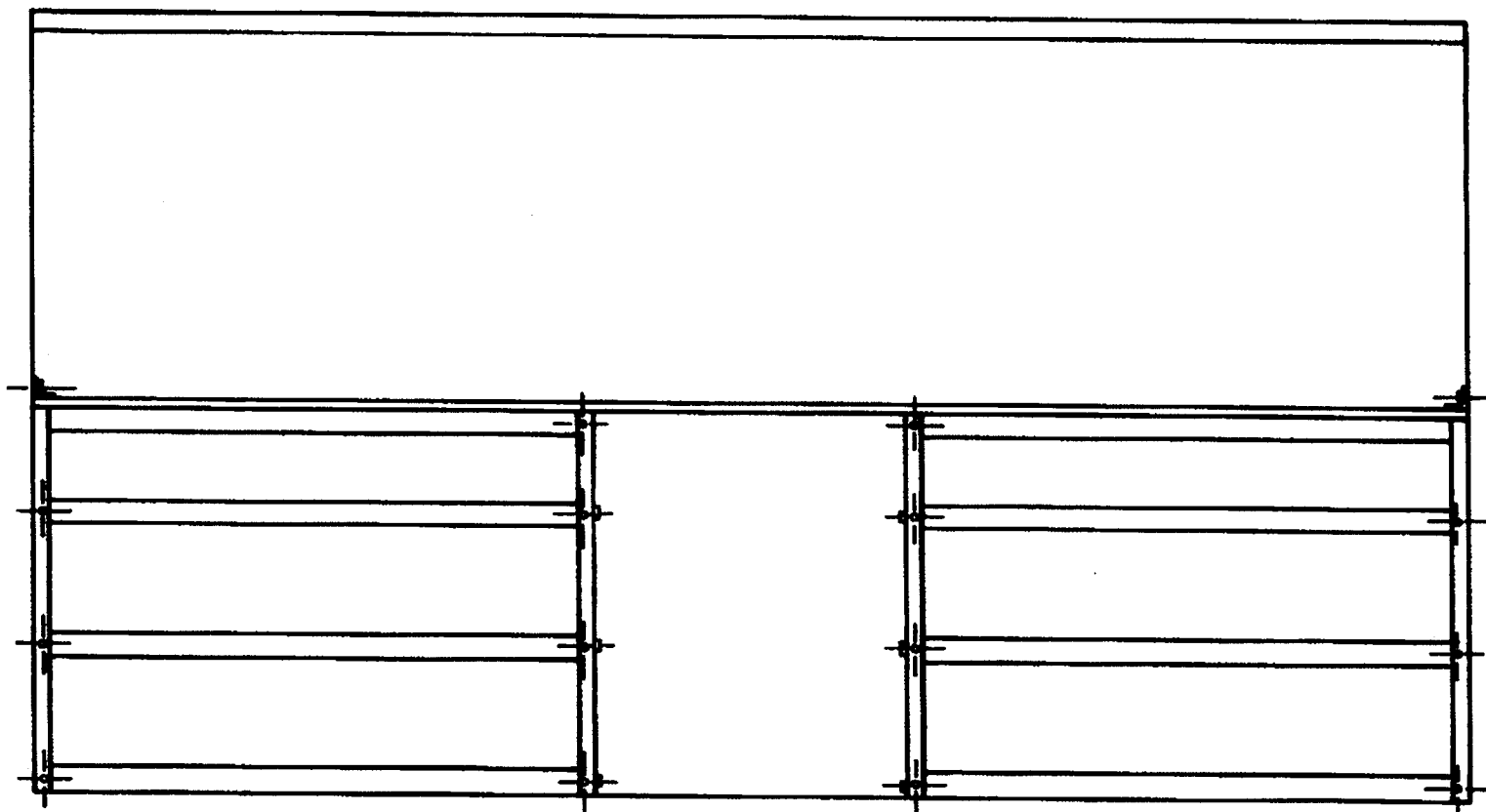
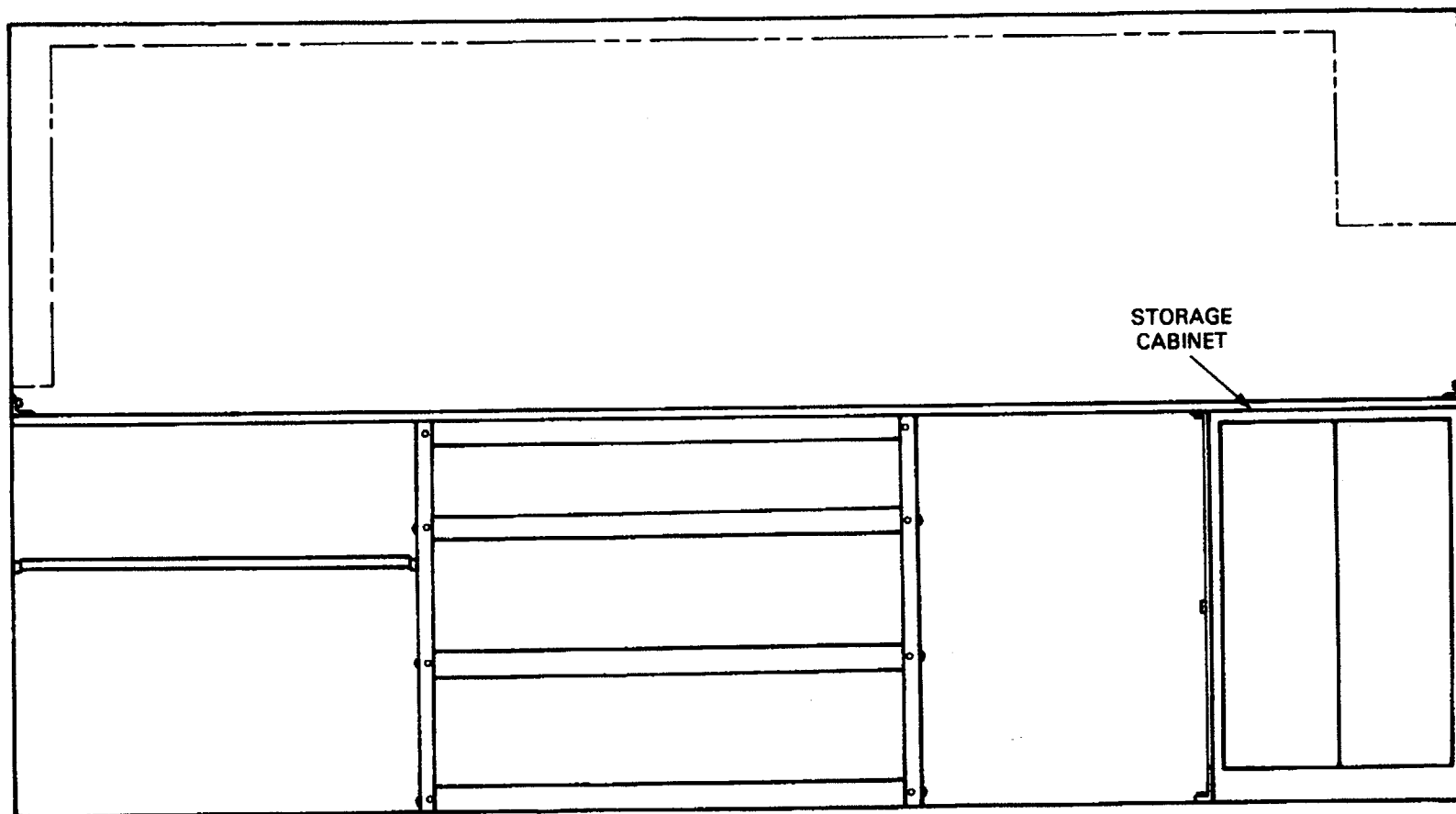


Figure 7. Floor plan of set three shelter.



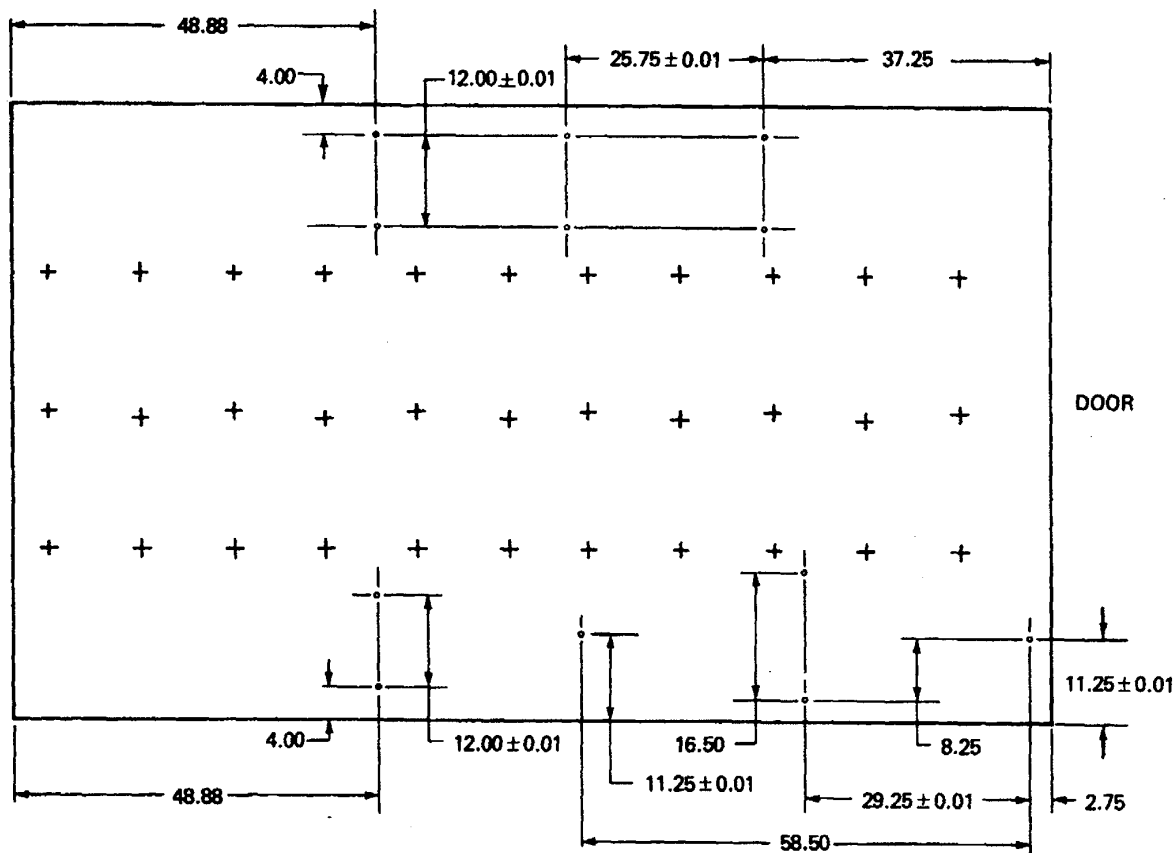
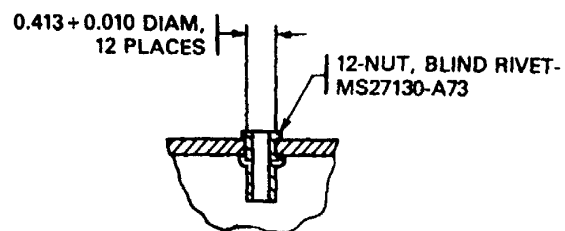
ARR80-1849

Figure 8. Right side (curbside) of set three shelter.



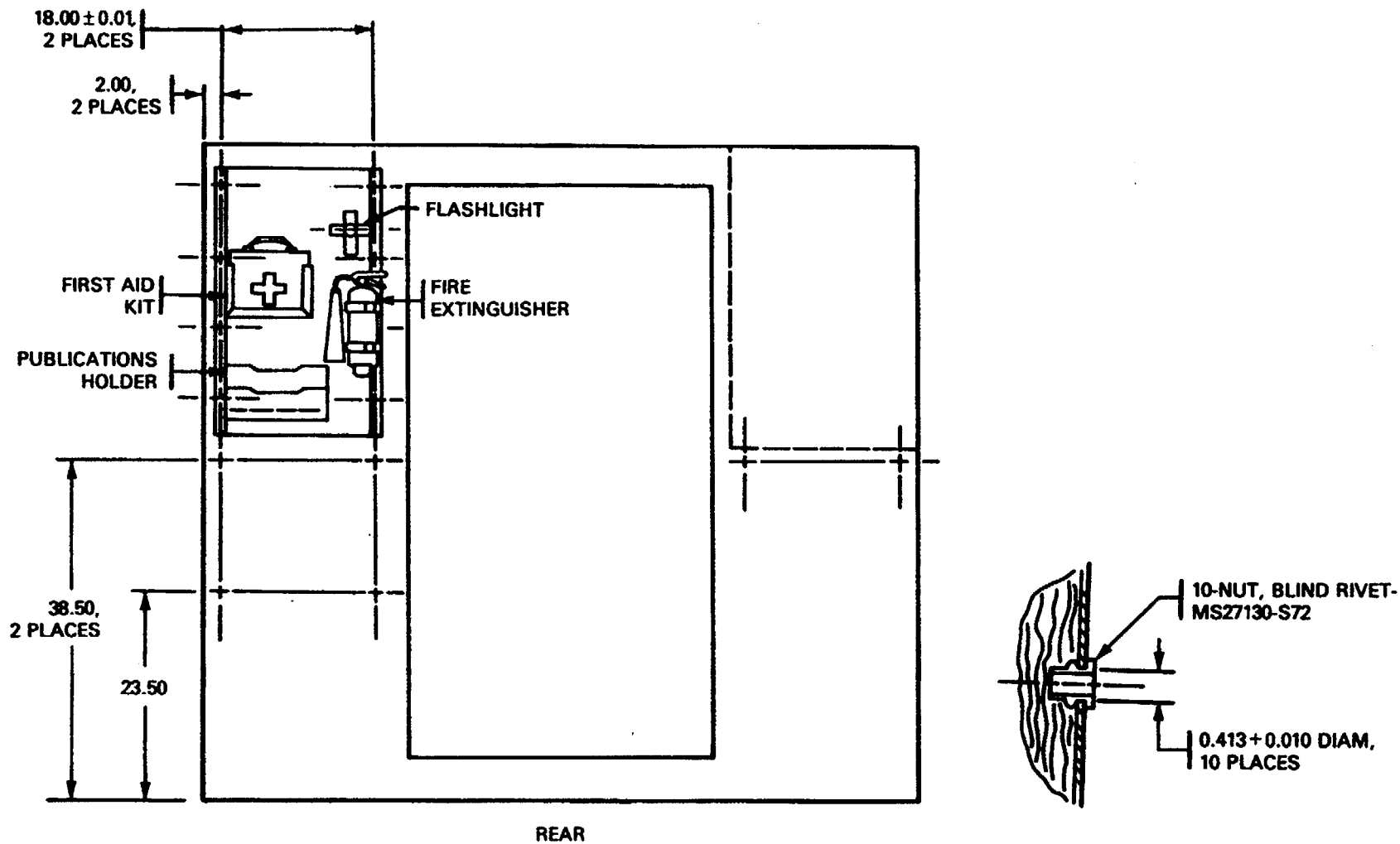
ARR80-1850

Figure 9. Left side (roadside) of set three shelter.



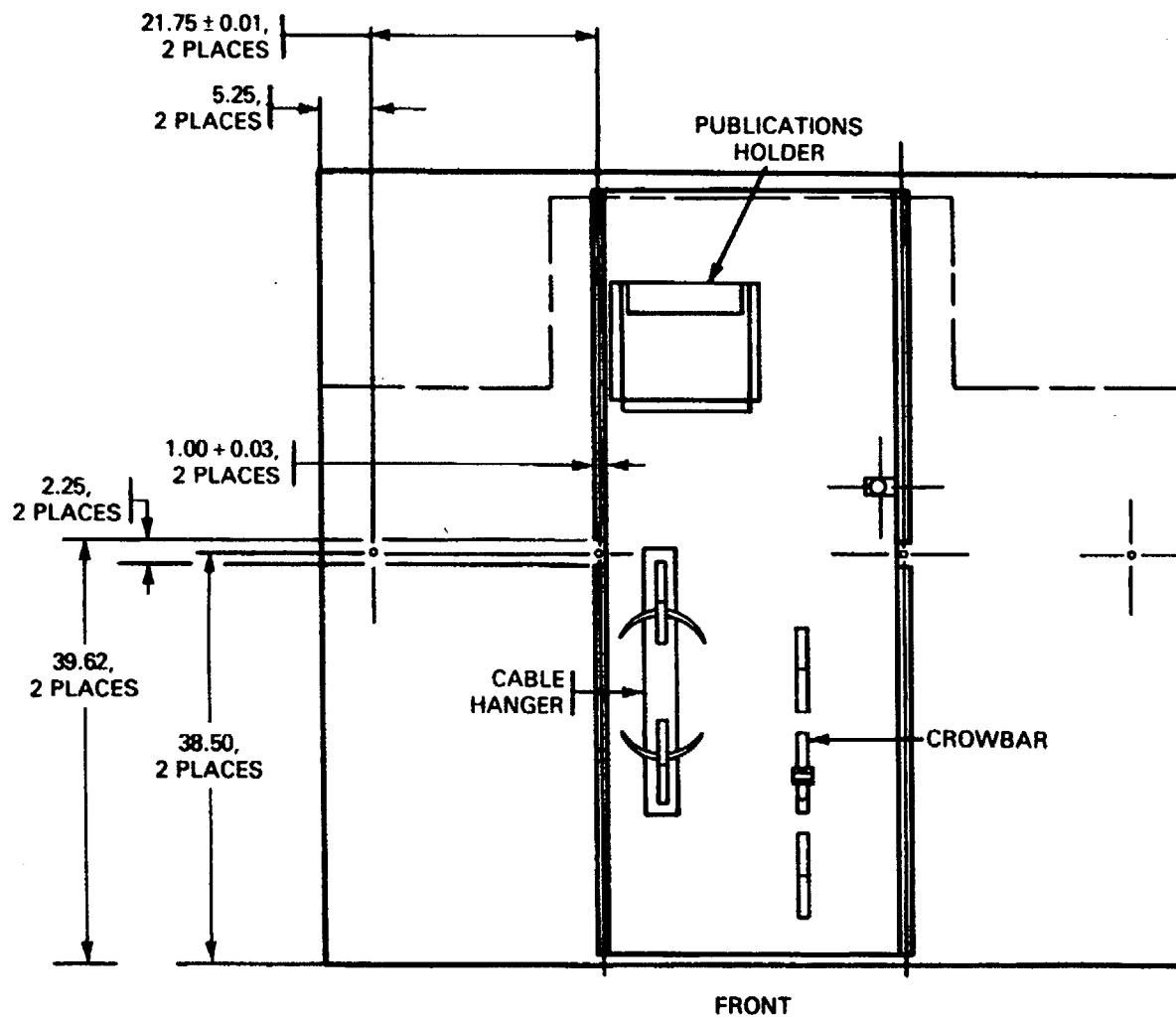
ARR80-1851

Figure 10. Blind rivet nut location in set one and set two shelters.



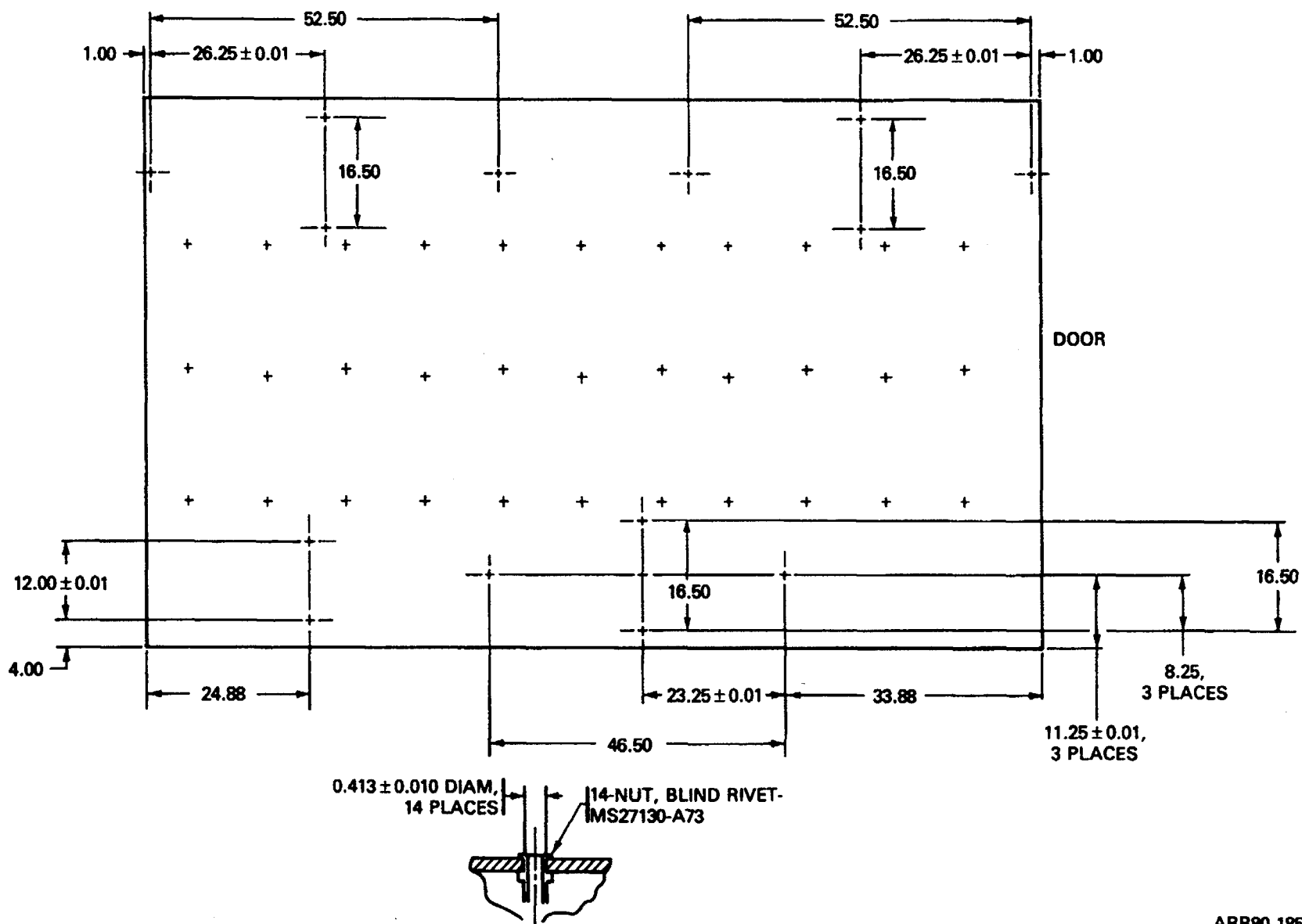
ARR80-1852

Figure 11. Blind rivet nut location in set one and set two shelter walls
(Sheet 1 of 2)



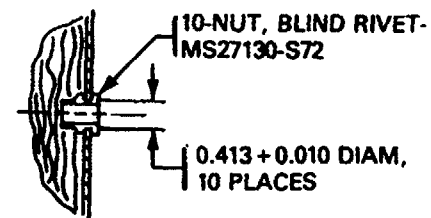
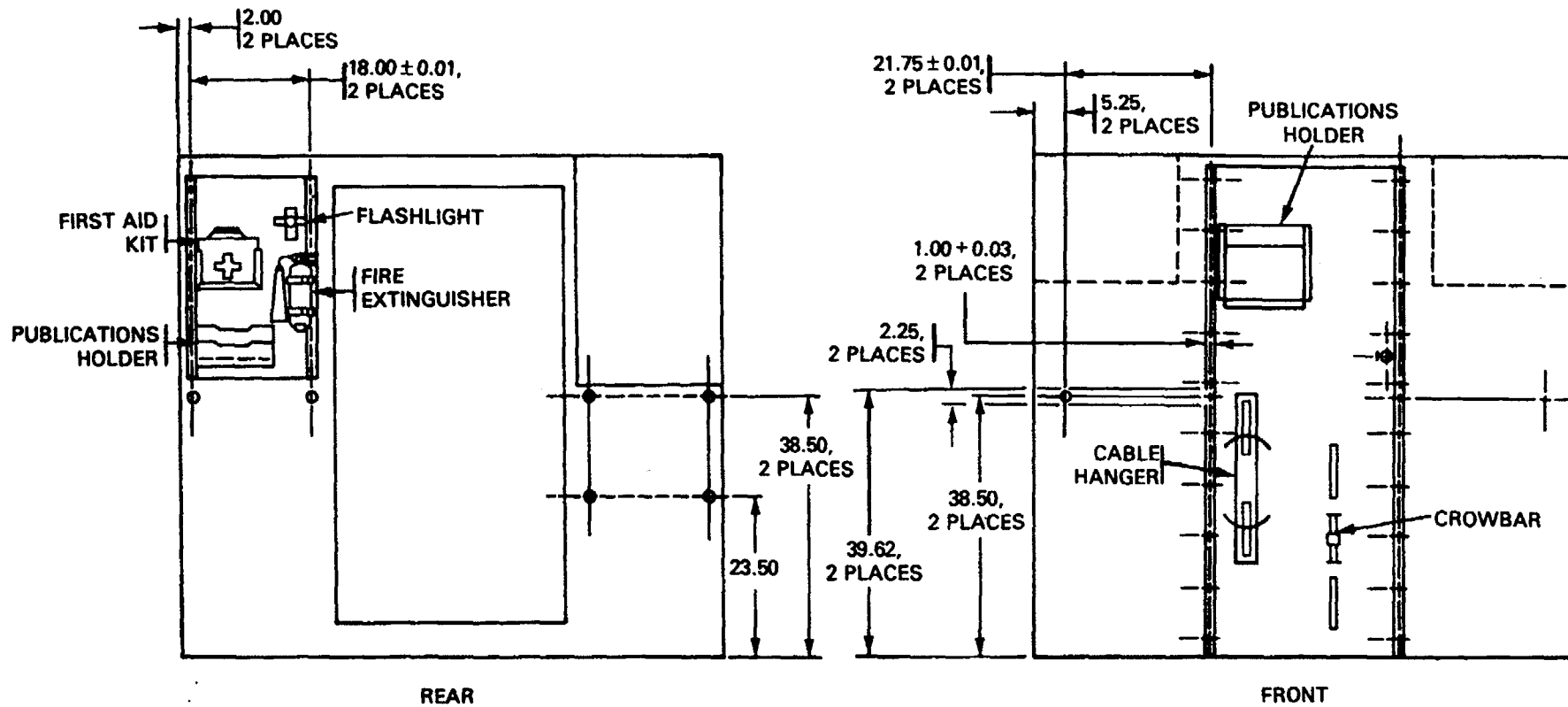
ARR80-1853

Figure 11. Blind rivet nut location in set one and set two shelter walls
(Sheet 2 of 2)



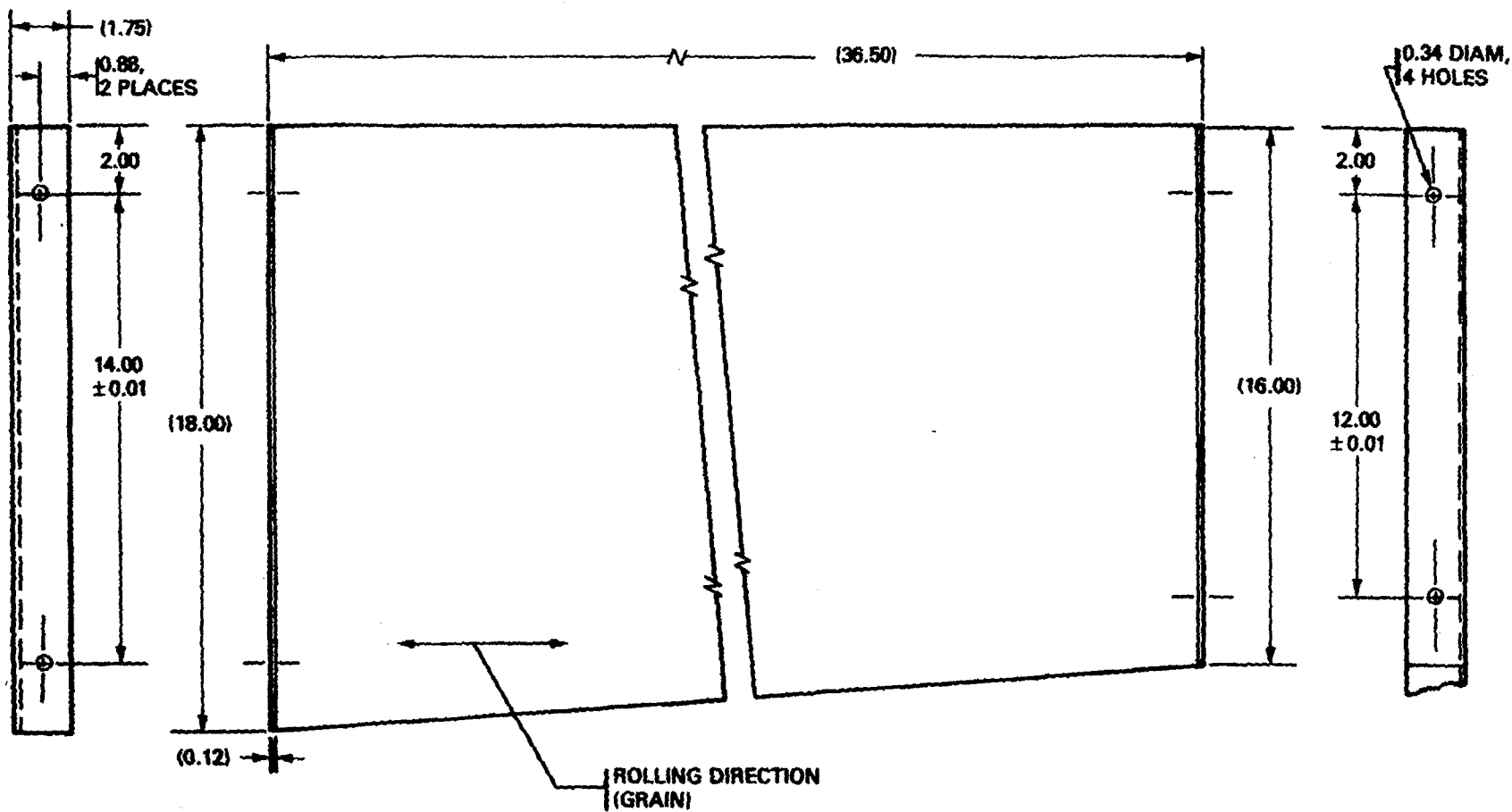
ARR80-1854

Figure 12. Blind rivet nut location in set three shelter floor.



ARR80-1855

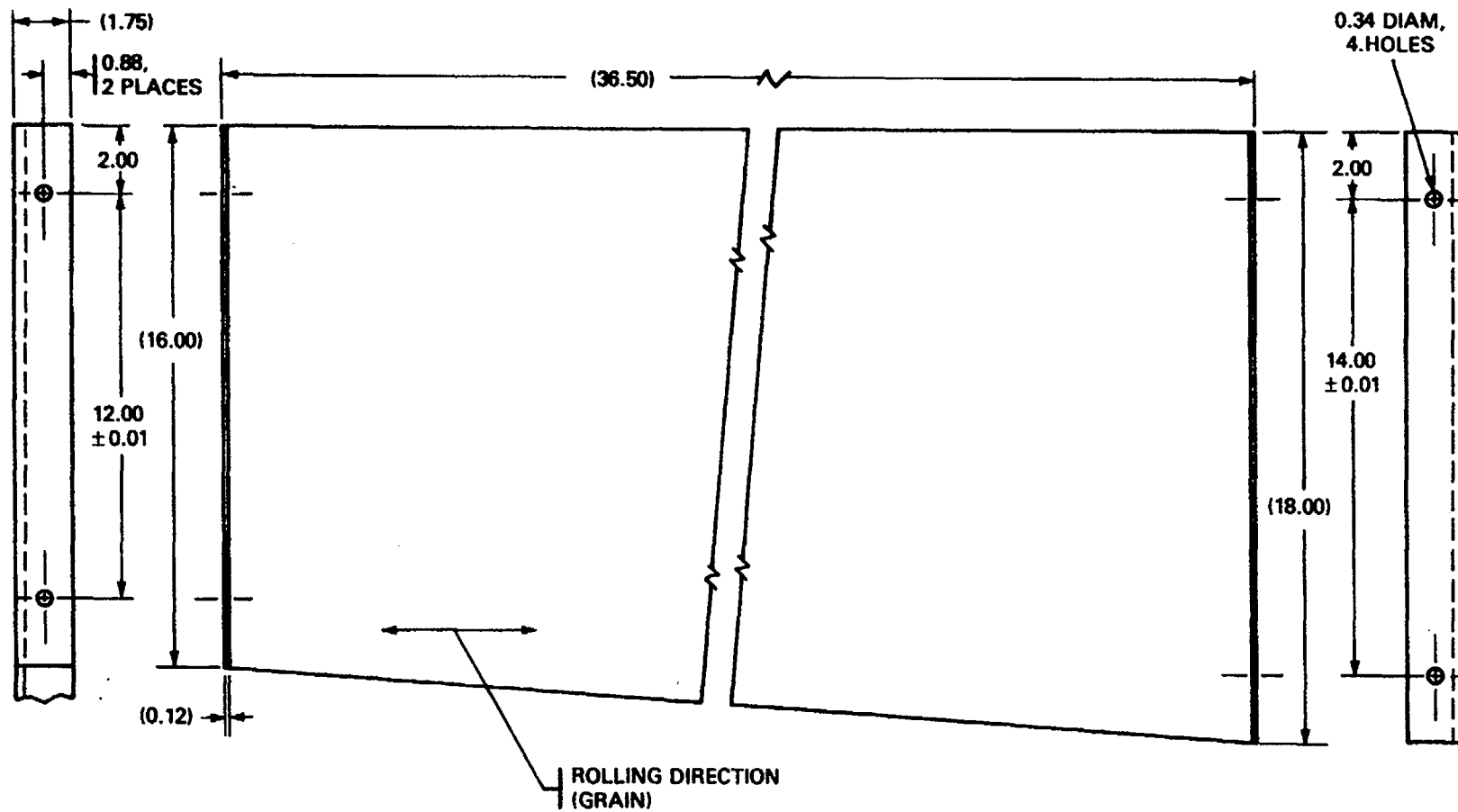
Figure 13. Blind rivet nut location in set three shelter wall.



NOTE
 MAKE FROM ALUMINUM SHEET 6061 PER QQ-A-250/11 OR EQUAL.
 MARK WITH PN PER MIL-STD-130.

ARR80-1856

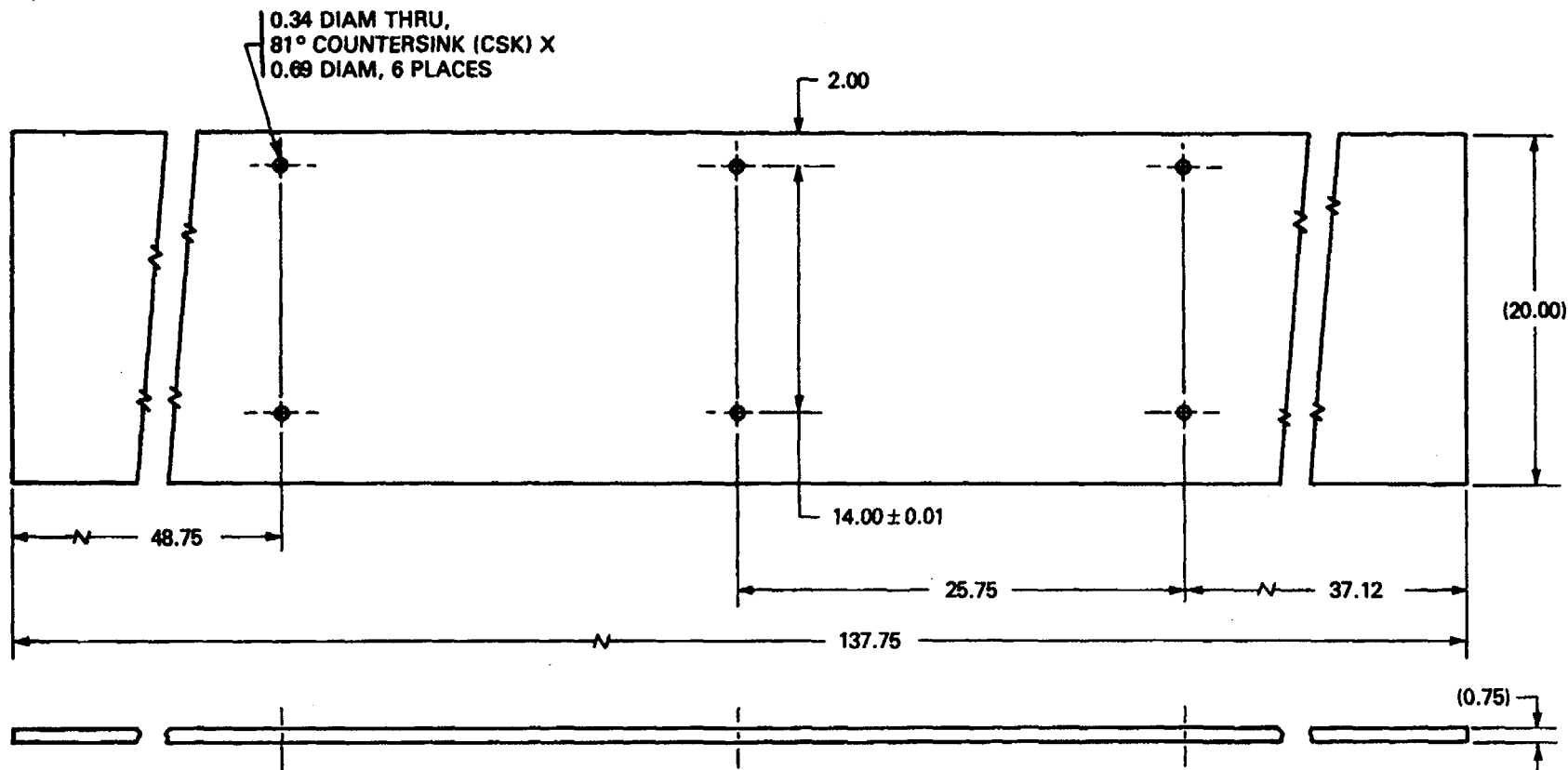
Figure 14. Right-hand table top support.



NOTE
 MAKE FROM ALUMINUM SHEET 6061 PER QQ-A-250/11 OR EQUAL.
 MARK WITH PN PER MIL-STD-130.

ARR80-1857

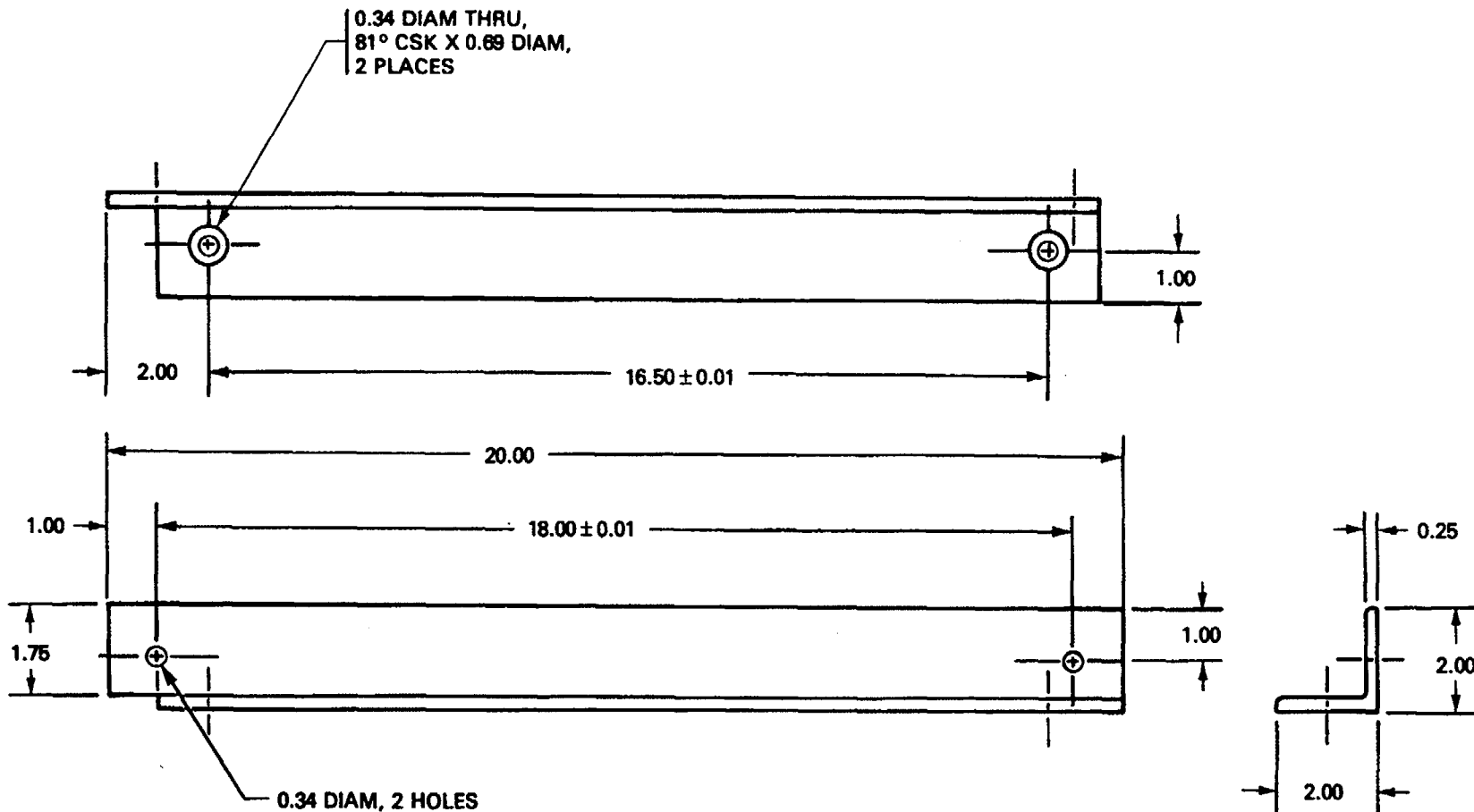
Figure 15. Left-hand table top support.



NOTE
MAKE FROM BENELEX 401 OR EQUAL.
MARK WITH PN PER MIL-STD-130.

ARR80-1858

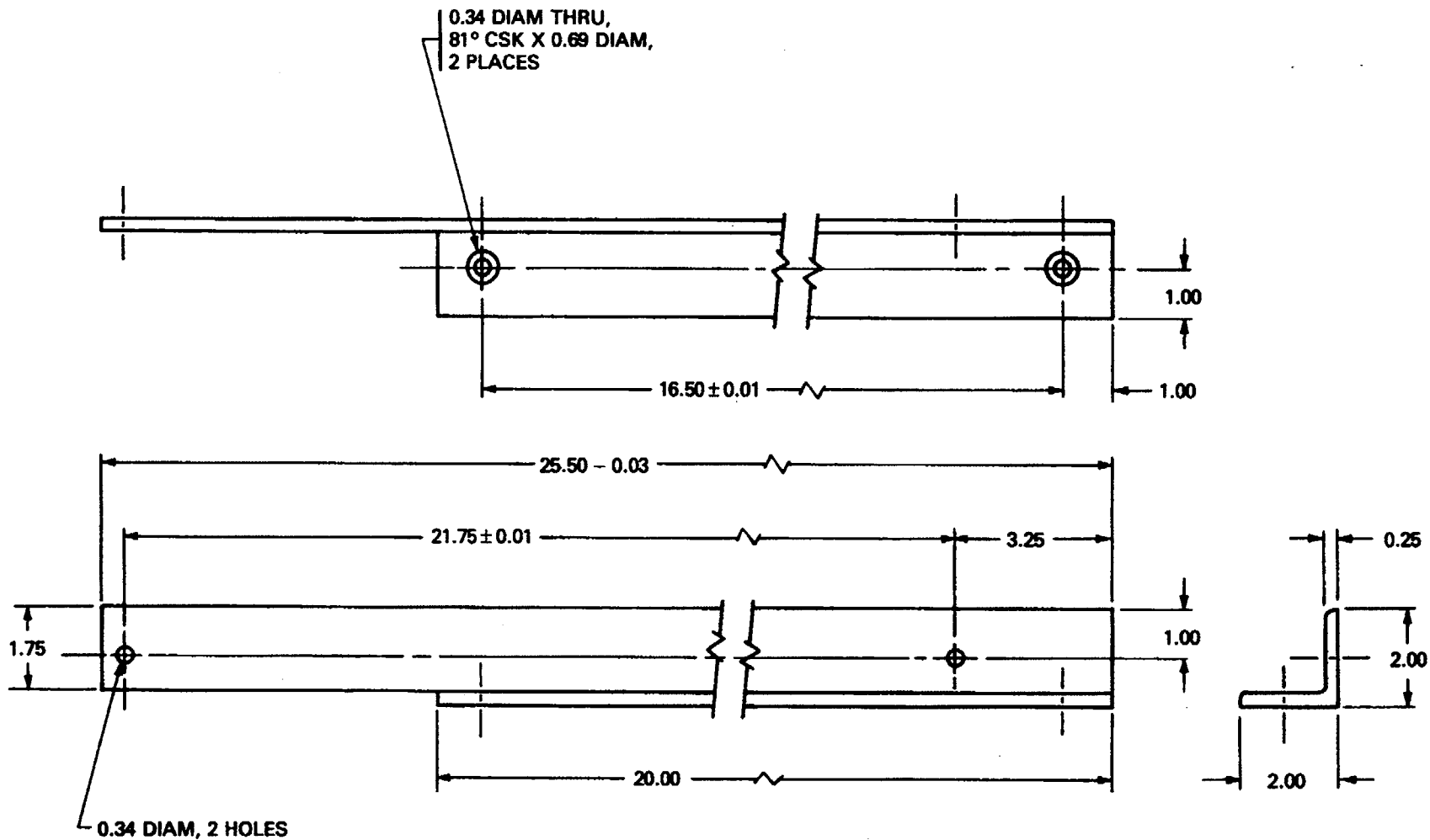
Figure 16. Right-hand table top (set one and set two).



NOTE
 MAKE FROM ALUMINUM ALLOY, ANGLE 6061-0, PER QQ-
 A-200/8, OR EQUAL. BREAK ALL SHARP EDGES;
 DEBURR ALL HOLES. MARK WITH PN PER MIL-STD-130.

ARR80-2392

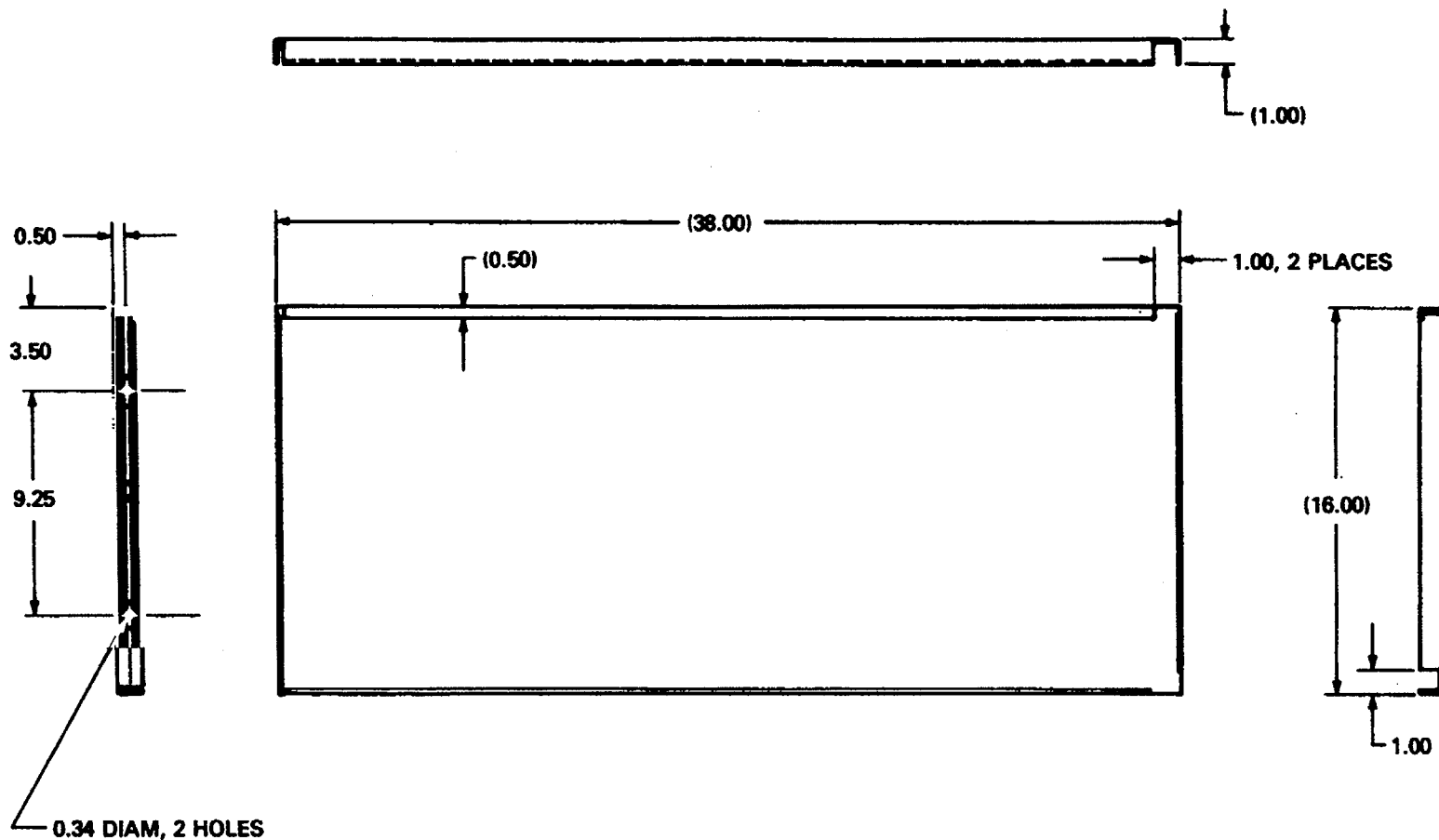
Figure 17. Right-hand rear support angle.



NOTE
MAKE FROM ALUMINUM ANGLE PER QQ-A-225/8 OR EQUAL.
BREAK ALL SHARP EDGES; DEBURR ALL HOLES. MARK WITH
PN PER MIL-STD-130.

ARR80-2393

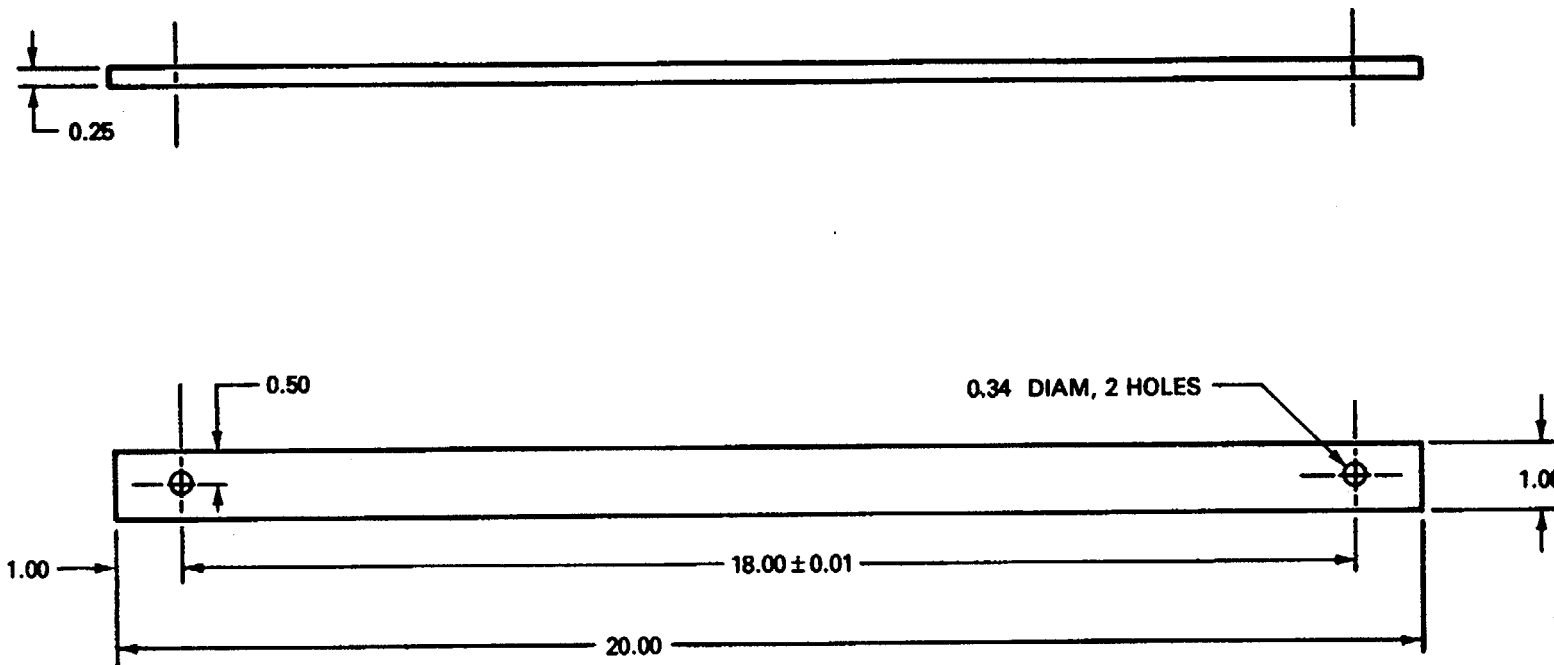
Figure 18. Right-hand front support angle.



NOTE
MAKE FROM STEEL, CR PER QQ-S-698 OR EQUAL.
MARK WITH PN PER MIL-STD-130.

ARR80-2394

Figure 19. Metal shelf (set one and set two).



NOTE
 MAKE FROM ALUMINUM ALLOY, 6061-0, PER QQ-A-200/8, OR
 EQUAL. BREAK ALL SHARP EDGES; DEBURR ALL HOLES.
 MARK WITH PN PER MIL-STD-130.

ARR80-2395

Figure 20. Shelf support bar (wall end).

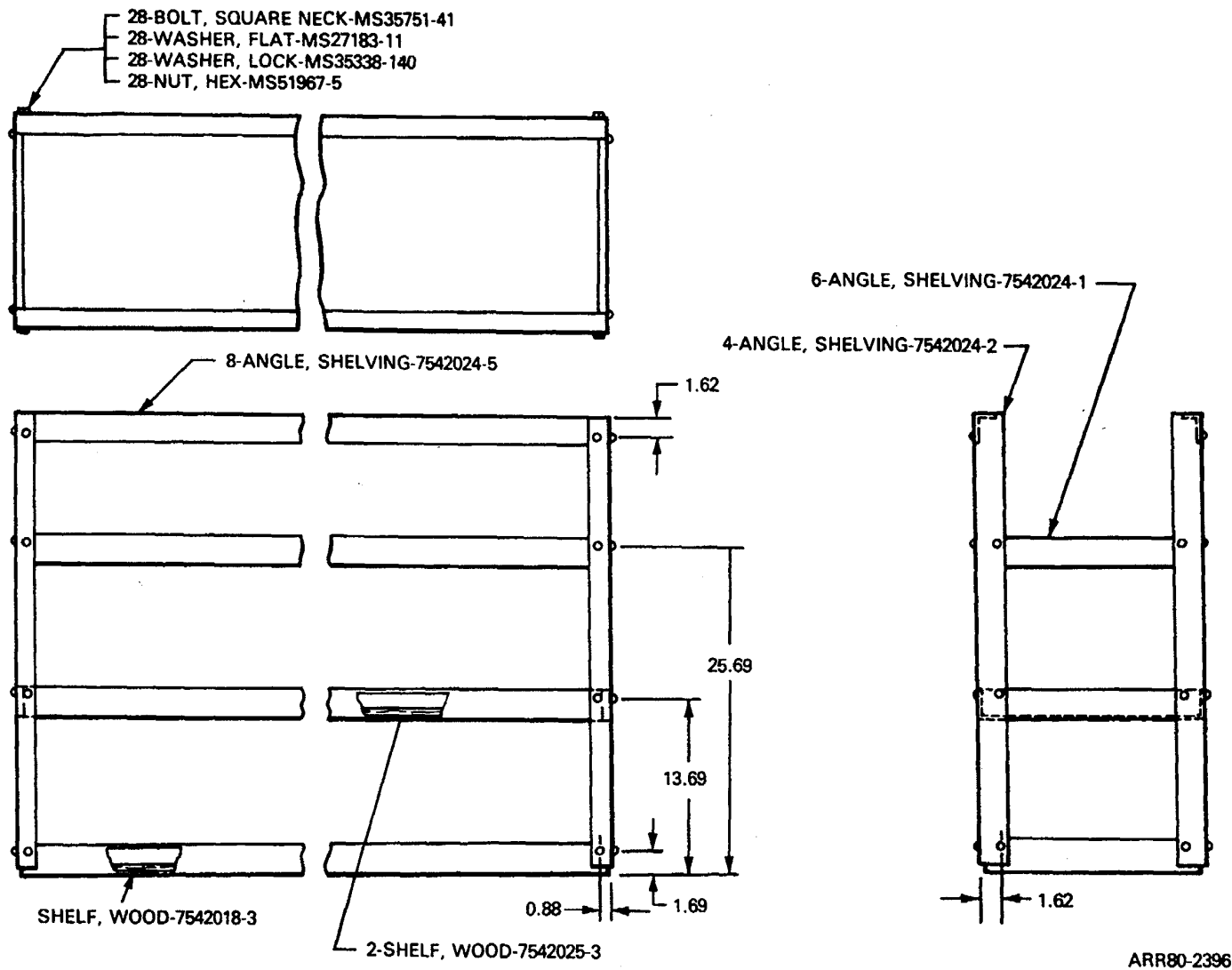
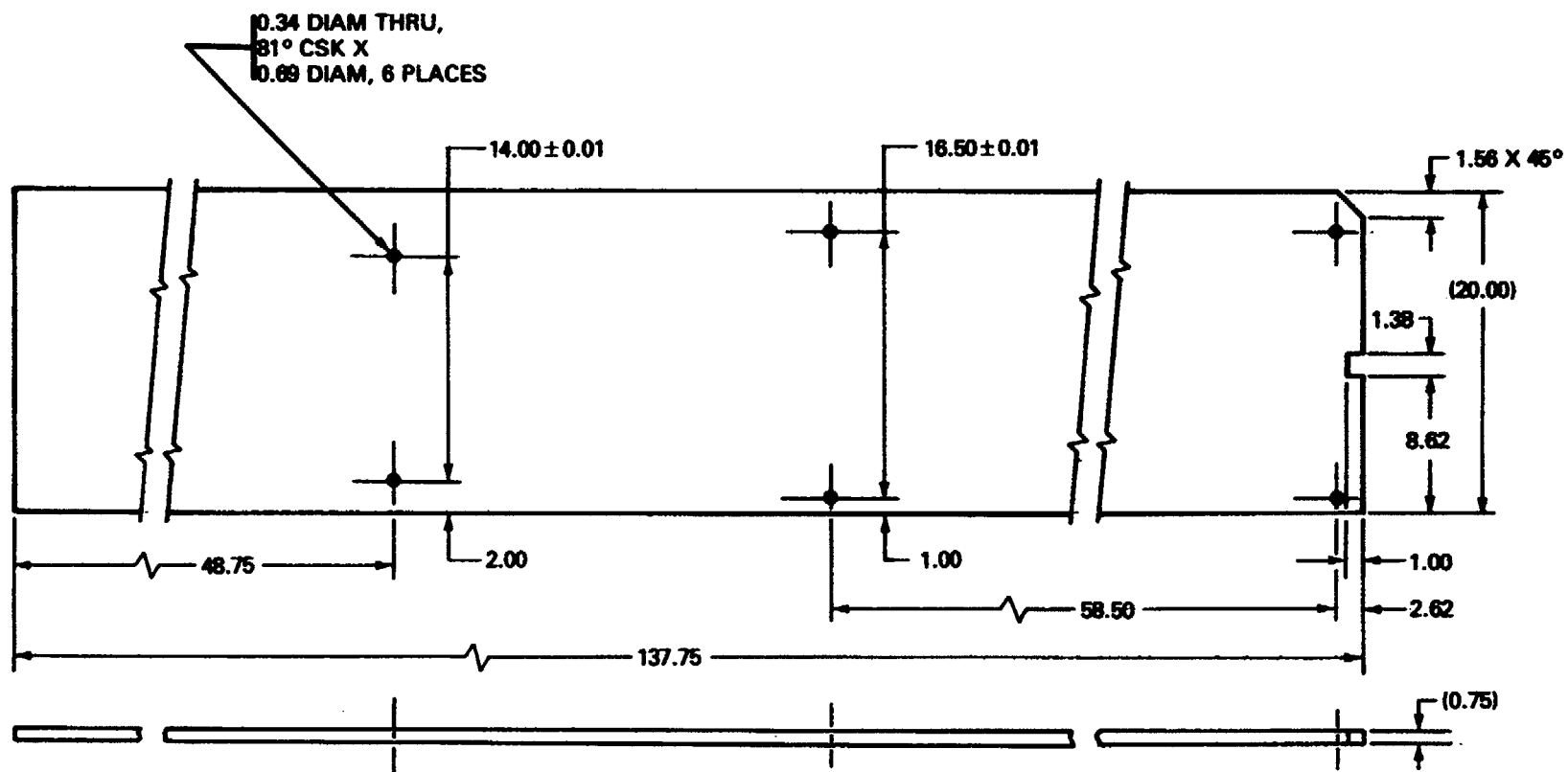


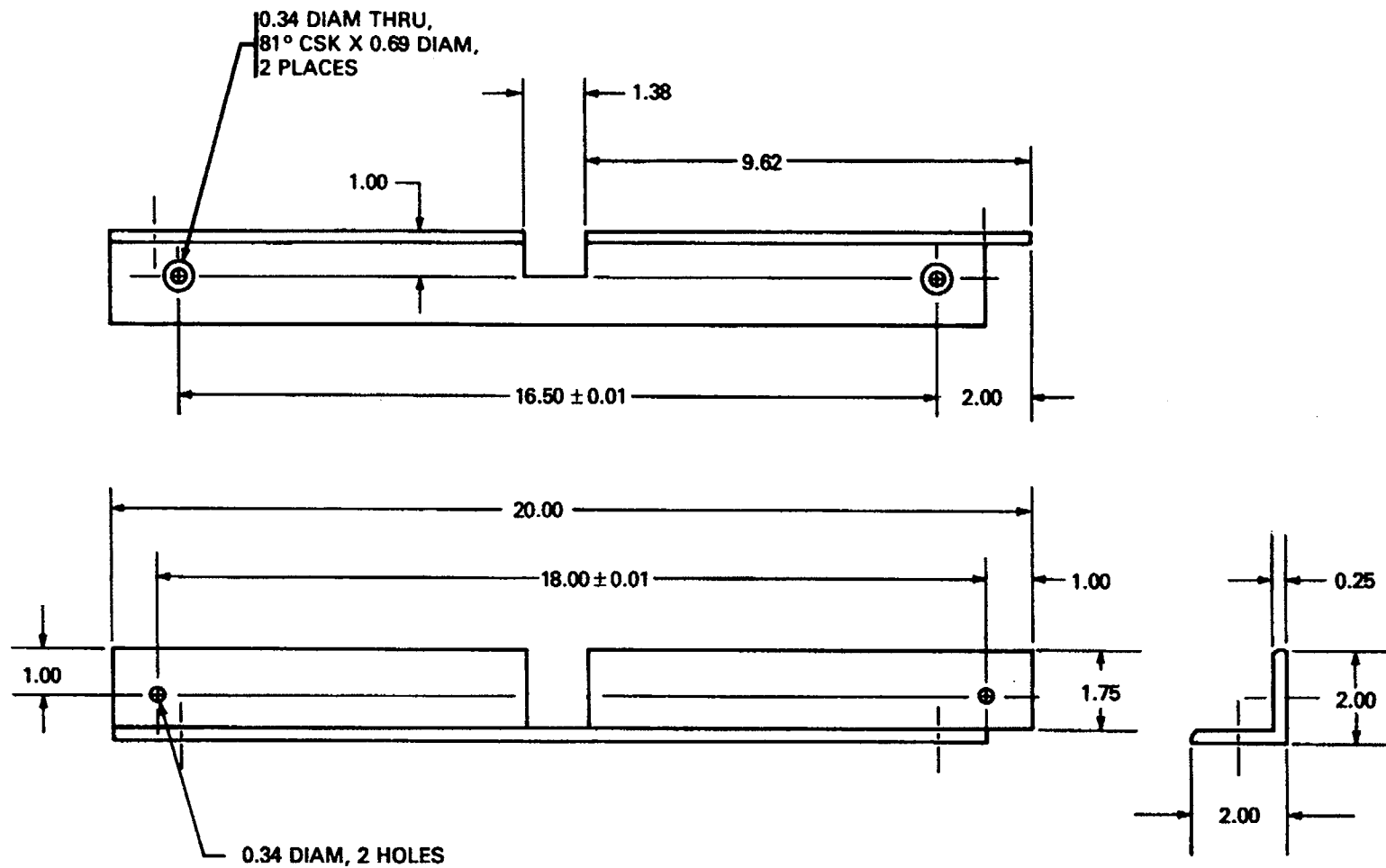
Figure 21. Shelf assembly (set one and set two).



NOTE
MAKE FROM BENELEX 401 OR EQUAL.
MARK WITH PN PER MIL-STD-130.

ARR80-2397

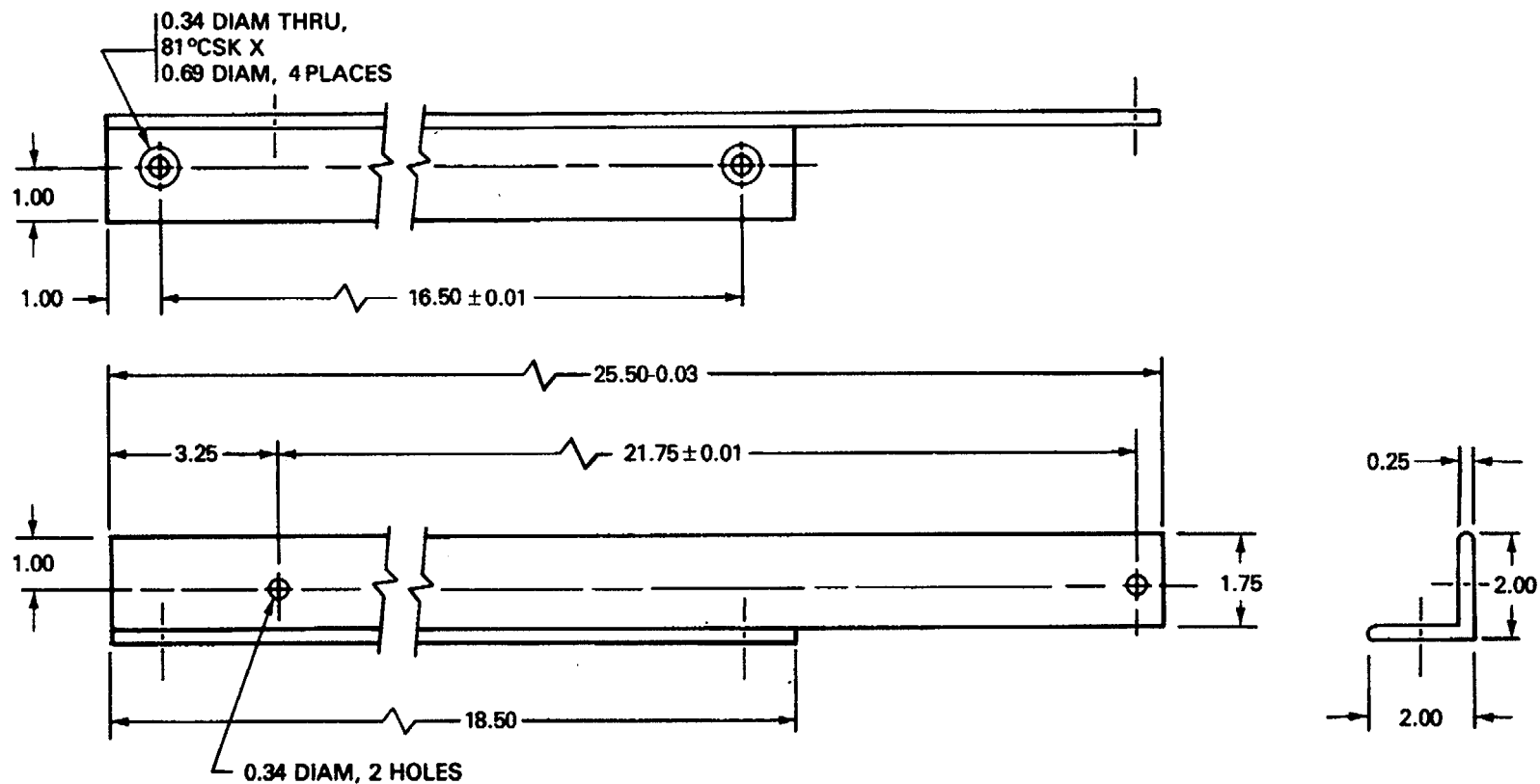
Figure 22. Left-hand table top (set one and set two).



NOTE
 MAKE FROM ALUMINUM ALLOY, ANGLE, 6061-0, PER QQ-A-200/8, OR EQUAL. BREAK ALL SHARP EDGES; DEBURR ALL HOLES. MARK WITH PN PER MIL-STD-130.

ARR80-2398

Figure 23. Left-hand rear support angle.



NOTE
 MAKE FROM ALUMINUM ANGLE PER QQ-A-225/8 OR EQUAL.
 BREAK ALL SHARP EDGES; DEBURR ALL HOLES. MARK WITH
 PN PER MIL-STD-130.

ARR80-2399

Figure 24. Left-hand front support angle.

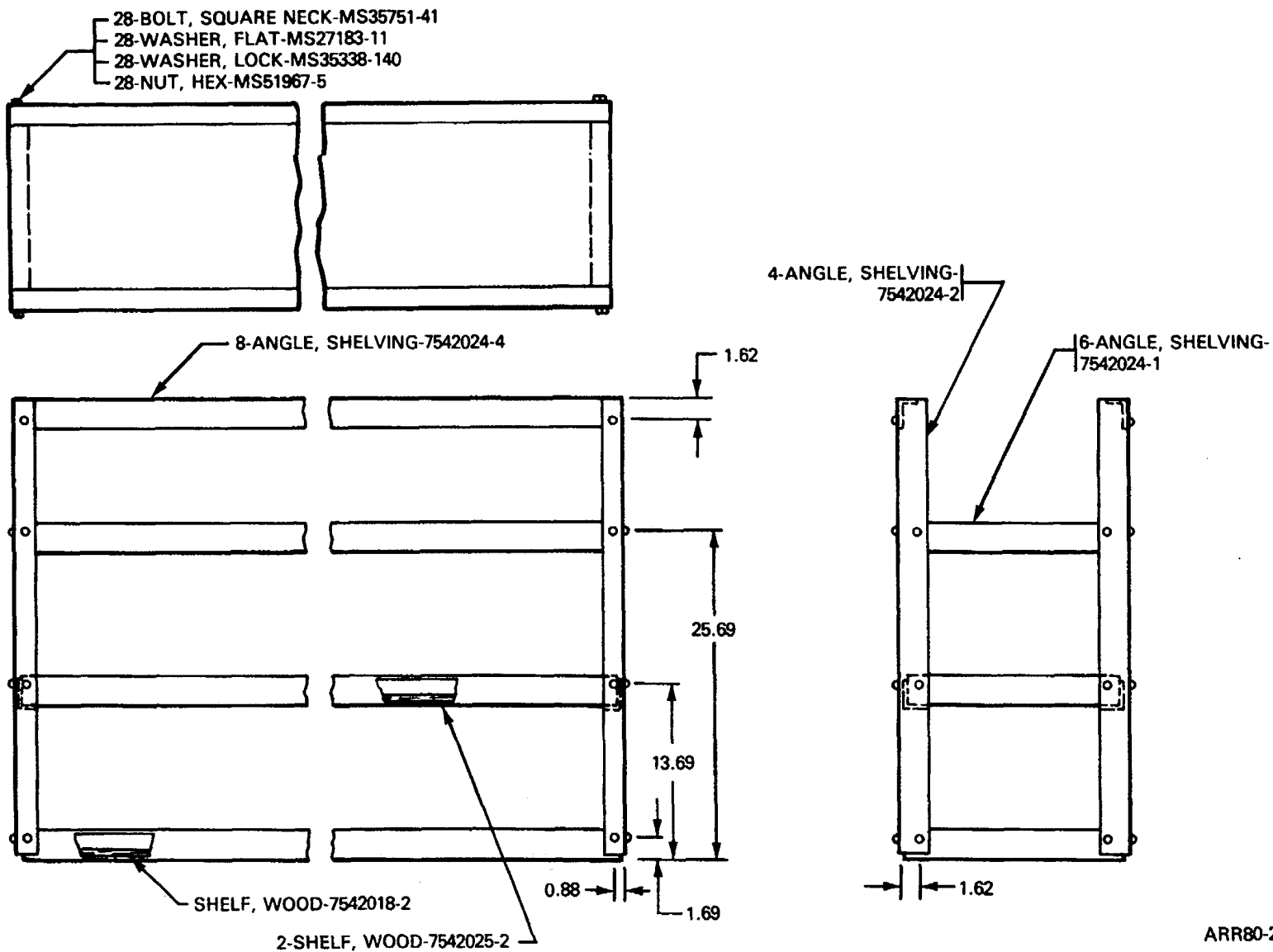
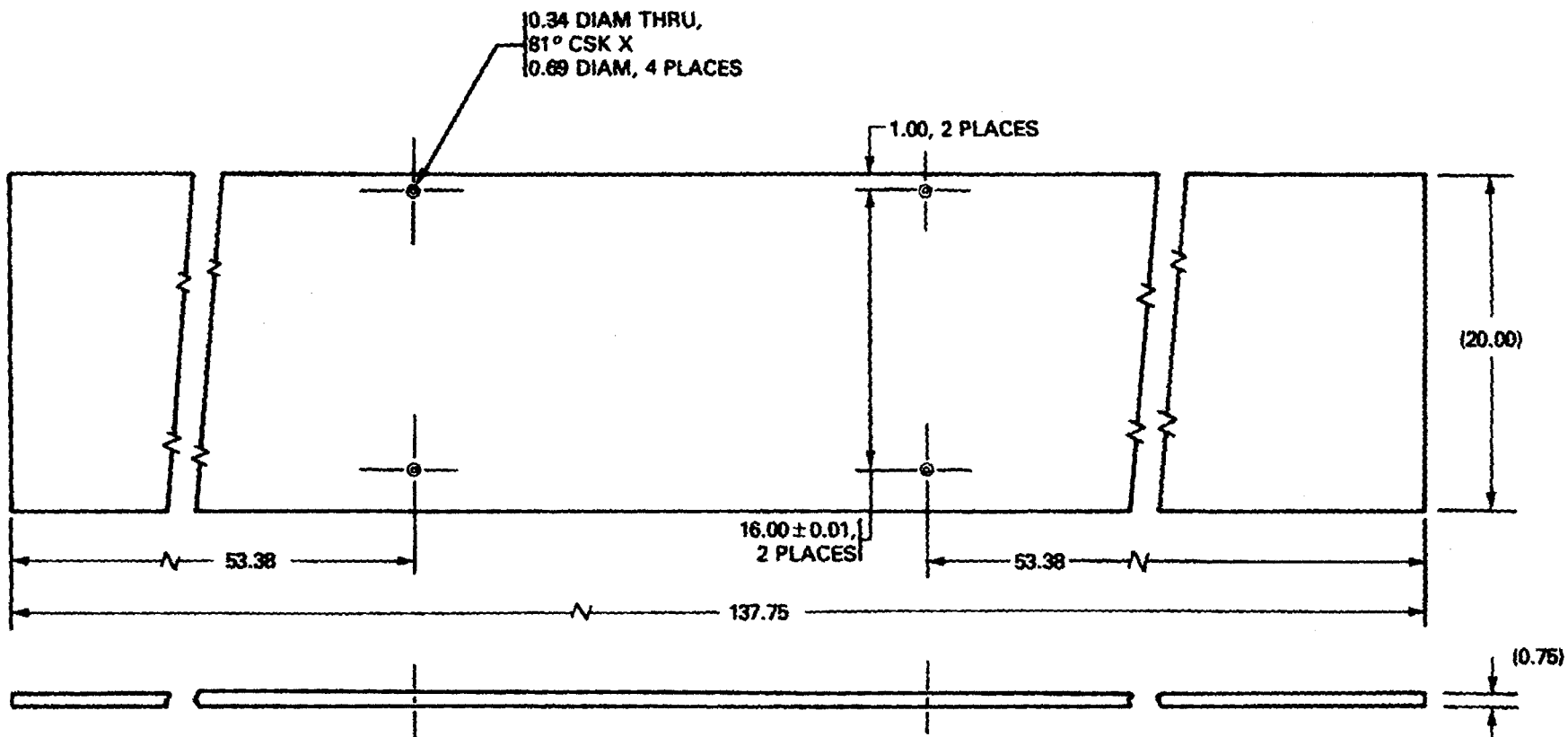


Figure 25. Shelf assembly (set three, curbside)



NOTE
MAKE FROM BENELEX 401 OR EQUAL.
MARK WITH PN PER MIL-STD-130.

ARR80-2401

Figure 26. Right-hand table top (set three).

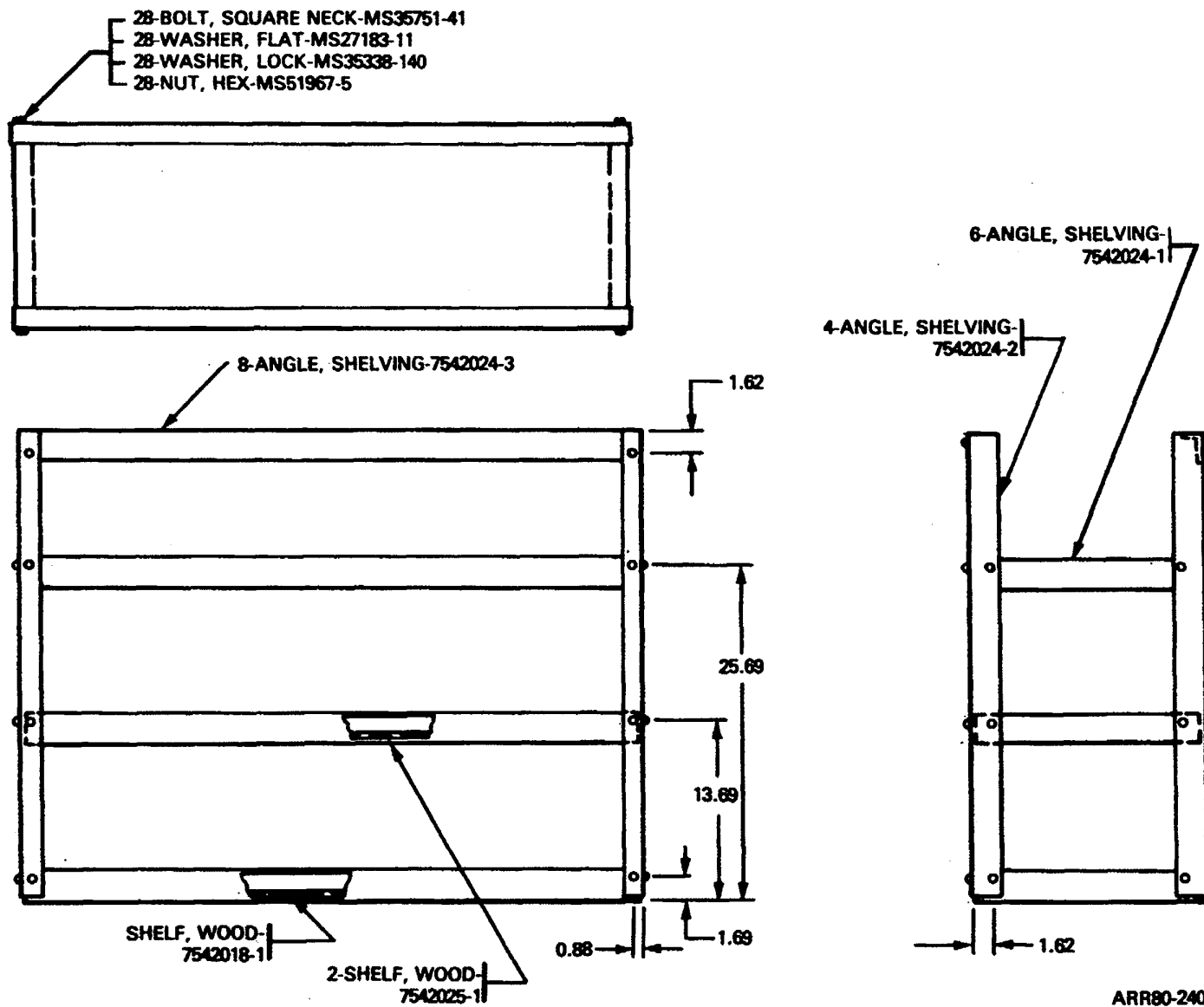
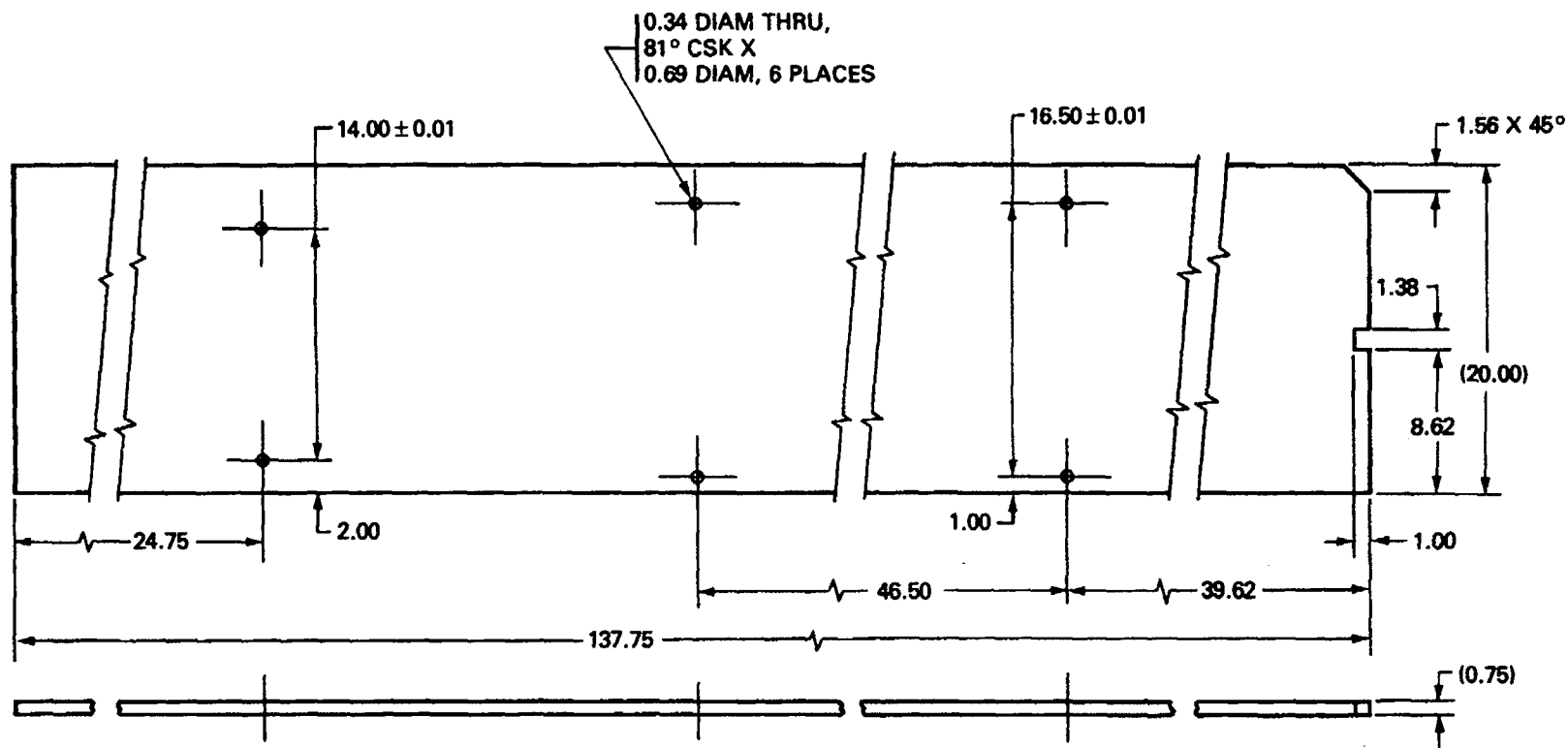


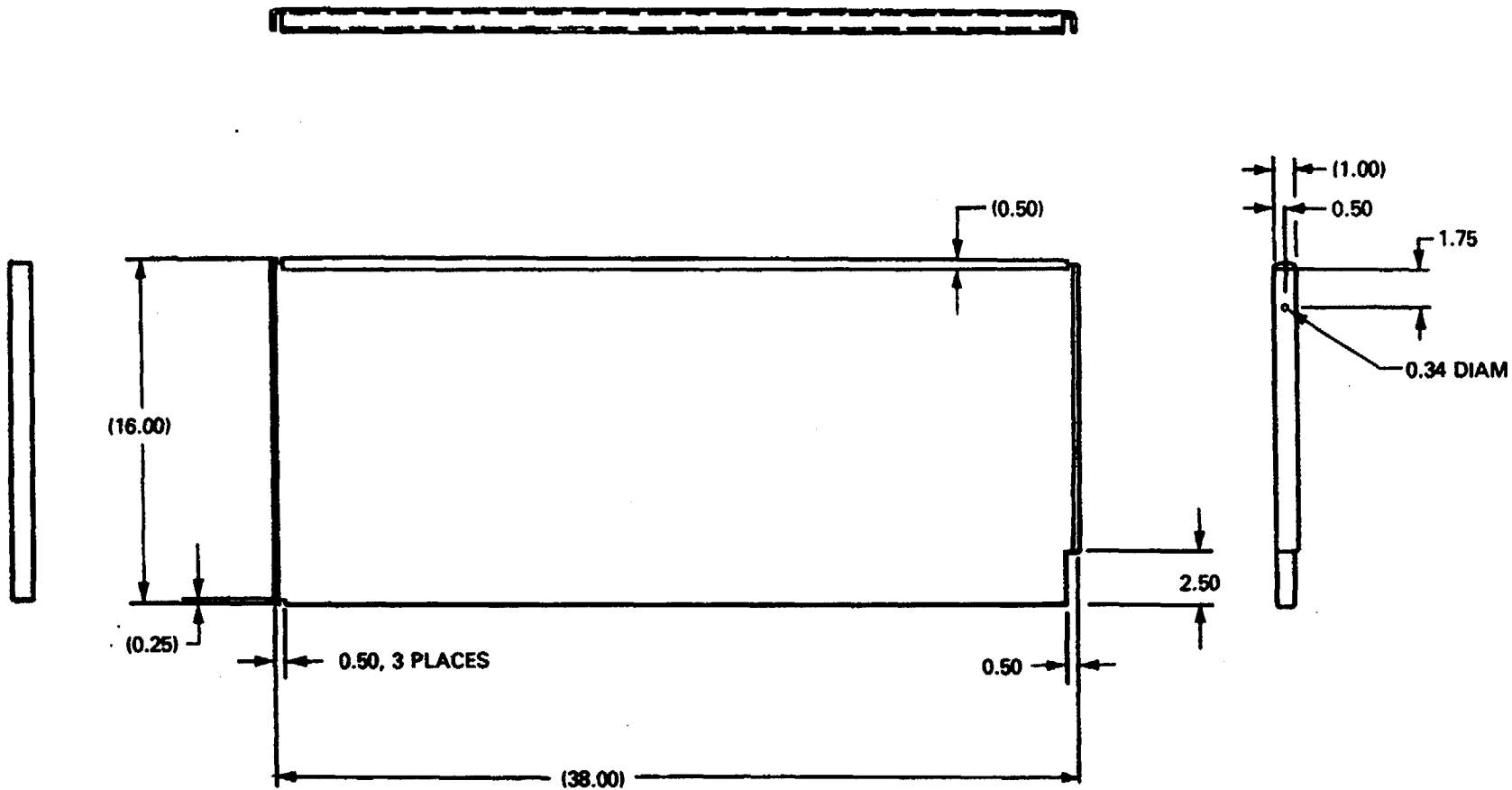
Figure 27. Shelf assembly (set three, roadside).



NOTE
MAKE FROM BENELEX 401 OR EQUAL.
MARK WITH PN PER MIL-STD-130.

ARR80-2403

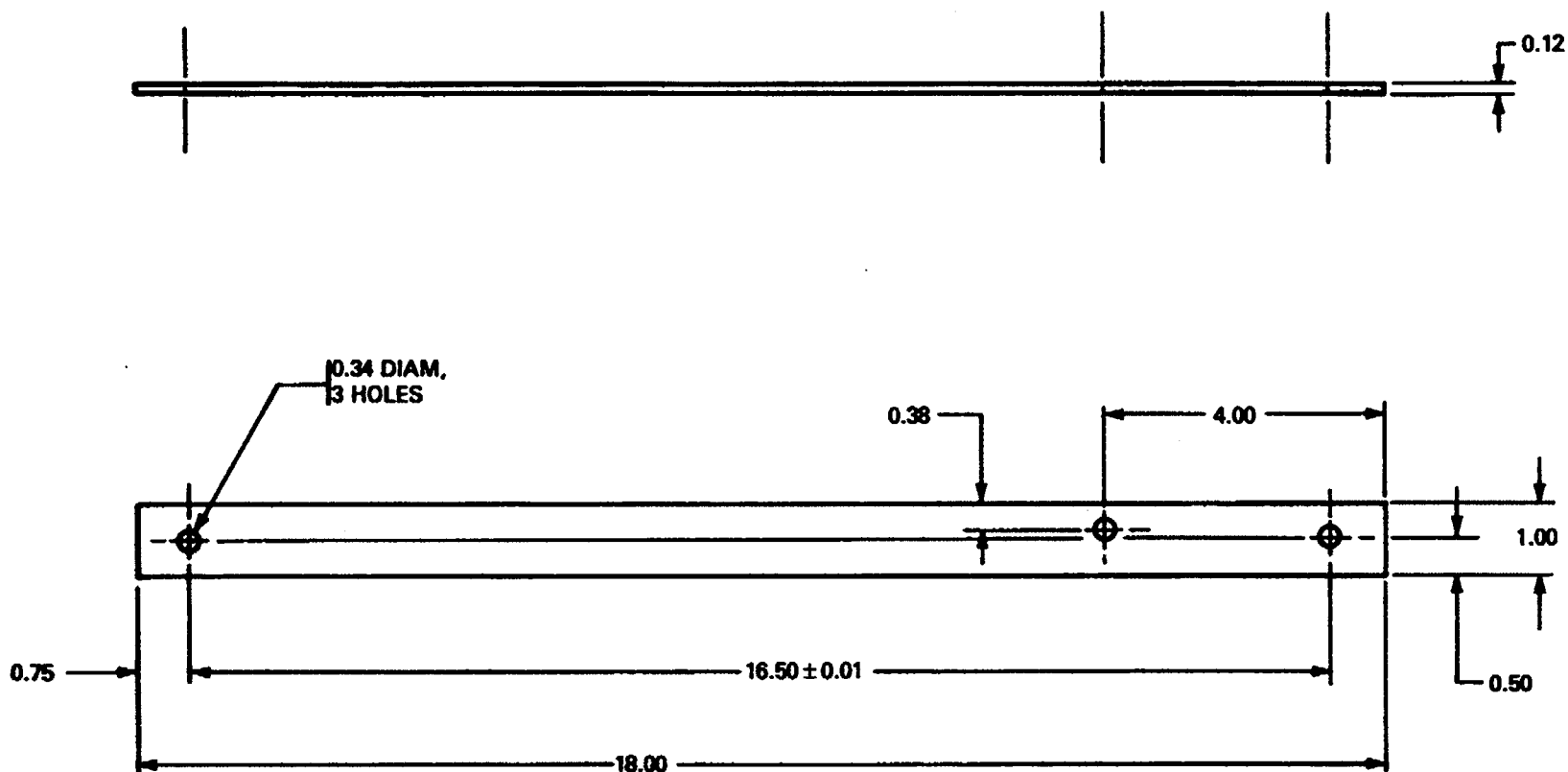
Figure 28. Left-hand table top (set three).



NOTE
MAKE FROM STEEL, CR PER QQ-S-698 OR EQUAL.
MARK WITH PN PER MIL-STD-130.

ARR80-2404

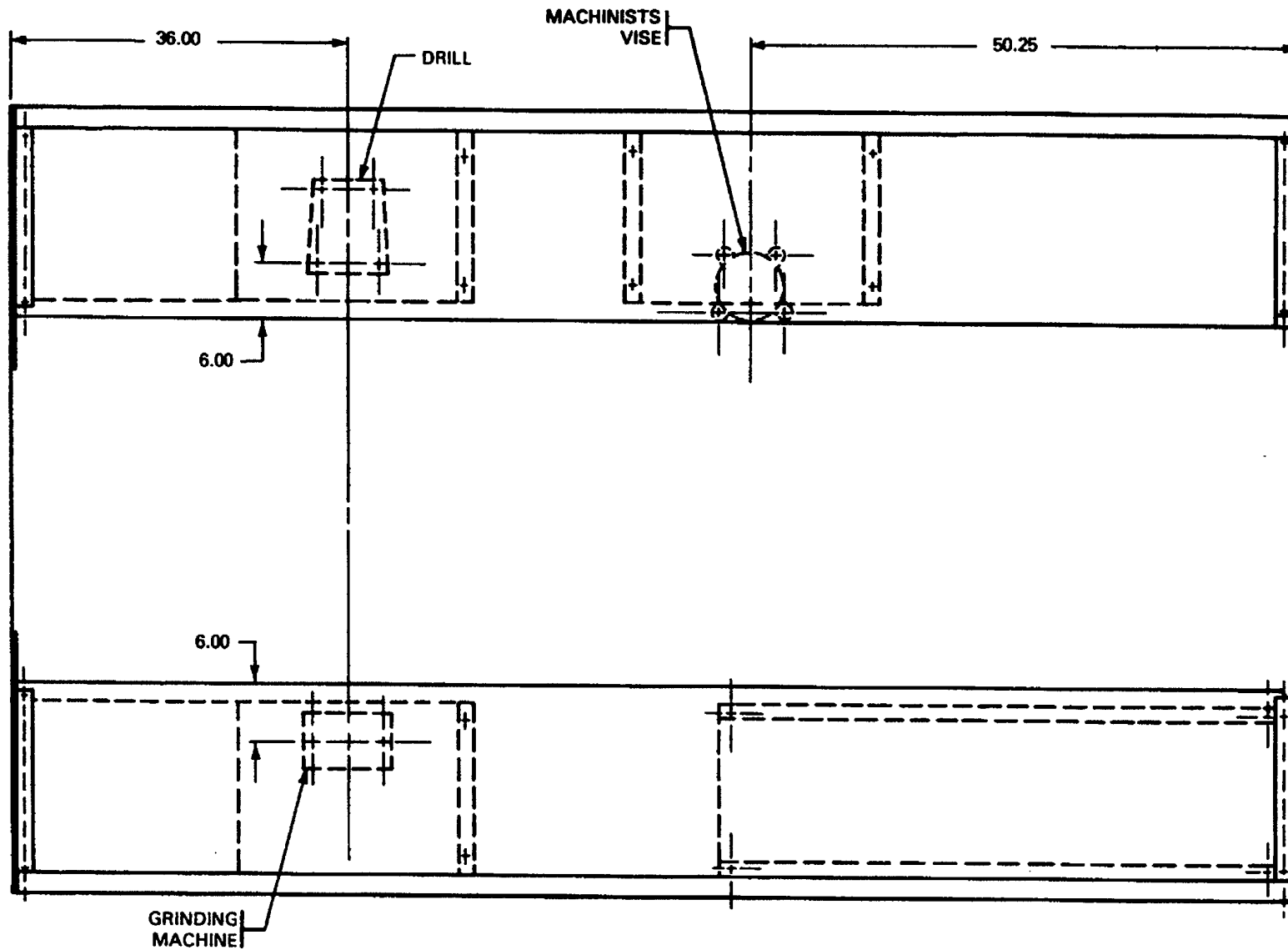
Figure 29. Metal shelf (set three).



NOTE
MAKE FROM ALUMINUM ALLOY, 6061-0, PER QQ-A-200/8,
OR EQUAL. BREAK ALL SHARP EDGES; DEBURR ALL HOLES.
MARK WITH PN PER MIL-STD-130.

ARR80-2405

Figure 30. Shelf support bar.



ARR80-2406

Figure 31. Dimensions for equipment mounting.

41(42 blank)

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E. C. MEYER
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Brigadier General, United States Army
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