

REV NO. 1 APPROVED BY  
 BUREAU OF EXPLOSIVES  
*J. H. ...*  
 SUPERVISOR, MILITARY & INTERMODAL SERVICES  
 DATE 8/19/91

# LOADING AND BRACING<sup>①</sup> IN MILVAN CONTAINERS<sup>⊕</sup> OF PALLETIZED UNITS OF PROPELLING CHARGES PACKED IN CYLINDRICAL METAL CONTAINERS FOR SHIPMENT BY T/COFC RAIL CARRIER

FOR ITEMIZED INDEX, SEE PAGE 3.

① LOADING AND BRACING SPECIFICATIONS SET FORTH WITHIN THIS DRAWING ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY TRAILER/CONTAINER-ON-FLAT-CAR (T/COFC) RAIL CARRIER SERVICE. THESE SPECIFICATIONS MAY ALSO BE USED FOR LOADS THAT ARE TO BE MOVED BY MOTOR OR WATER CARRIERS. SEE GENERAL NOTE "L" ON PAGE 2.

⊕ ONLY MILVAN CONTAINERS WHICH HAVE BEEN MODIFIED TO INCLUDE A MECHANICAL LOAD BRACING SYSTEM THAT SATISFIES THE REQUIREMENTS OF THE BUREAU OF EXPLOSIVES PAMPHLET 6C WILL BE USED FOR THE MOVEMENT OF AMMUNITION BY T/COFC SERVICE. CAUTION: OTHER REQUIREMENTS OF PAMPHLET 6C ALSO APPLY.

REVISIONS				DRAFTER	TYPIST	CHECKER	TECHNICIAN	ENGINEER
				SW	TM	ORG	RS#	
				SMCAC-DEV		SMCAC-DEO		SMCAC-DE
1	OCT 91	ASH DEV DEO DE	<i>Daniel E. ...</i> <i>William J. Ernst</i>	<i>W.K.</i>	<i>TM</i>	<i>W. ...</i>	<i>W. Ernst</i>	
		DEV DEO DE		<i>Jacques E. ...</i>				
		DEV DEO DE		APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND (AMC) <i>Thomas L. ...</i> U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL				
		DEV DEO DE		U.S. ARMY MATERIEL COMMAND				
		DEV DEO DE		OCTOBER 1991				
		DEV DEO DE		CLASS	DIVISION	DRAWING	FILE	
		DEV DEO DE		19	48	4106	15PM 1001	

**DO NOT SCALE**

**GENERAL NOTES**

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE SPECIFIED OUTLOADING PROCEDURES ARE APPLICABLE TO PALLETIZED UNITS OF PROPELLING CHARGES. FOR DETAILS AND WEIGHTS OF THE PALLETIZED UNITS, SEE PAGES 4 THRU 11 OF THIS DRAWING AND APPENDICES TO AMC DRAWING 19-48-4042A-20PM1001. THE DIMENSIONS AND WEIGHTS OF PALLET UNITS TO BE SHIPPED MAY VARY SLIGHTLY FROM THE DIMENSIONS AND WEIGHTS DISPLAYED HEREIN. HOWEVER, THE VARIATIONS WILL NOT NEGATE THE USE OF OUTLOADING PROCEDURES SPECIFIED BY THIS DRAWING. OUTLOADING PROCEDURES SELECTED FROM THIS DRAWING FOR AN ITEM TO BE SHIPPED MUST CONFORM WITH THE SPECIFICATIONS OF THE "INDEX OF OUTLOADING PROCEDURES" CHART ON PAGE 3. A LOAD MAY BE MIXED OR OTHER TYPES OF LADING ITEMS MAY BE LOADED IN A CONTAINER WHICH IS PARTIALLY LOADED WITH A DESIGNATED ITEM, PROVIDING THE TOTAL LOAD IS COMPATIBLE, EXISTING DIRECTIVES ARE NOT VIOLATED, AND THE OTHER LADING ITEMS ARE BLOCKED AND BRACED TO EQUAL THE BLOCKING AND BRACING CRITERIA SPECIFIED. PALLET UNITS WILL NOT BE MIXED WITHIN A LOAD BAY. **CAUTION:** REGARDLESS OF THE QUANTITY OF PALLET UNITS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF 44,800 POUNDS MUST NOT BE EXCEEDED. SEE GENERAL NOTE "K" FOR SPECIFIC LOAD WEIGHT GUIDANCE.
- C. THE LOADS AS SHOWN ARE BASED ON A 20' LONG BY 8' WIDE BY 8' HIGH MILVAN CONTAINER WITH INSIDE DIMENSIONS OF 19'-4" LONG BY 7'-1/2" WIDE BY 8" HIGH. THE LOADS ARE DESIGNED FOR TRAILER/CONTAINER-ON-FLAT-CAR (T/COFC) SHIPMENT.
- D. THE SPECIFIED OUTLOADING PROCEDURES ARE FOR CONTAINERS EQUIPPED WITH SELF-CONTAINED MECHANICAL BRACING DEVICES AS DESCRIBED WITHIN BUREAU OF EXPLOSIVES PAMPHLET 6C. CROSS MEMBER ATTACHMENT FACILITIES WITHIN THESE CONTAINERS MUST PROVIDE FOR THE INSTALLATION OF LOAD BLOCKING CROSS MEMBERS AT THE HEIGHTS SPECIFIED. THE HEIGHT DIMENSIONS SPECIFIED WITHIN THIS DRAWING FOR THE INSTALLATION OF CROSS MEMBERS CONFORM WITH BUREAU OF EXPLOSIVES PAMPHLET 6C, WITH THE EXCEPTION THAT TWO (2) ADDITIONAL BELT RAILS HAVE BEEN SHOWN; ONE AT 72" AND ONE AT 83" HEIGHT FROM THE CONTAINER FLOOR. VOIDS LENGTHWISE WITHIN THE LOAD MUST BE HELD TO A MINIMUM. CROSS MEMBERS MUST BE PLACED AGAINST THE LADING AS TIGHTLY AS THE HOLE SPACING IN THE CROSS MEMBER ATTACHMENT FACILITY PERMITS. EACH CROSS MEMBER WILL BE INSTALLED WITH THE ENDS ATTACHED AS NEARLY AS POSSIBLE IN "MATED" POSITIONS (AT EQUAL HEIGHTS AND AT EQUAL DISTANCES FROM THE END OF THE CONTAINER). CROSS MEMBERS IN EMPTY CONTAINERS AND THOSE NOT USED IN LOADED CONTAINERS MUST BE FASTENED INTO BELT RAILS FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH CONTAINER MUST REMAIN THEREWITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS. SEE THE "FILL DETAIL" ON PAGE 56 FOR THE DUNNAGING METHOD REQUIRED TO ELIMINATE AN EXCESSIVE LENGTHWISE VOID WITHIN A LOAD. THE LOAD BLOCKING COMPONENT DESIGNATED AS "CROSS MEMBER" HEREIN, IS IDENTIFIED AS "BEAM ASSEMBLY" WITHIN TM 55-8115-200-24, DATED SEPTEMBER 1972. THE BEAM ASSEMBLY IS FURTHER IDENTIFIED AS FSN 8115-165-6623.
- E. DUNNAGE LUMBER SPECIFIED IS OF A NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- F. **CAUTION:** DO NOT NAIL DUNNAGE MATERIAL TO THE CONTAINER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- G. A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES OR WHEN LAMINATING DUNNAGE. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- H. PORTIONS OF THE CONTAINER DEPICTED WITHIN THIS DRAWING, SUCH AS ONE OF THE SIDEWALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- J. TO FACILITATE LOADING OPERATIONS AND TO PREVENT DAMAGE TO PALLET UNIT STRAPS, PARTICULARLY IN THOSE LOADS WHICH HAVE A MINIMAL LATERAL VOID BETWEEN UNITS, "SHOEHORN" TYPE DEVICES CAN BE USED WHEN LOADING THE UNITS INTO A MILVAN. THESE DEVICES WILL CONSIST OF TWO (2) PIECES OF 1/8" TEMPERED HARDBOARD (MASONITE OR A SIMILAR MATERIAL) OR THIN-GAGE SHEET METAL, APPROXIMATELY 48" X 48" IN SIZE. AFTER ONE UNIT IS POSITIONED IN THE CONTAINER, PLACE ONE "SHOEHORN" DEVICE AGAINST THE SIDE OF THAT UNIT AND THE OTHER DEVICE AGAINST THE CONTAINER SIDEWALL. THIS WILL PROVIDE SMOOTH SURFACES TO PREVENT STRAP "HANG-UP" WHEN POSITIONING THE LATERALLY ADJACENT PALLET UNIT IN PLACE. AFTER THE UNIT IS IN PLACE, THE "SHOEHORN" DEVICES WILL BE REMOVED.  
(CONTINUED AT RIGHT)

**MATERIAL SPECIFICATIONS**

- LUMBER** ----- : SEE TM 743-200-1, DUNNAGE LUMBER: FED SPEC MM-L-751.
- NAILS** ----- : COMMON, FED SPEC FF-N-105.
- WIRE** ----- : FED SPEC QQ-W-461. ANNEALED, BLACK.
- STRAP STAPLE** ----- : COMMERCIAL GRADE.
- PLYWOOD** ----- : GROUP B, CONSTRUCTION AND INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR EXTERIOR GRADE MAY BE SUBSTITUTED; FED SPEC NN-P-530.

**K. MAXIMUM LOAD WEIGHT CRITERIA:**

THE ITEMIZED LOAD WEIGHTS ARE CONTROLLED BY EQUIPMENT CAPABILITY FACTORS. ALSO, THESE LISTED LOAD WEIGHTS IDENTIFY THE COMBINED WEIGHT OF AMMUNITION LADING UNITS AND DUNNAGE THAT CAN BE PLACED INTO ONE MILVAN CONTAINER WITHOUT VIOLATING ONE OR MORE OF THE "CAPABILITY FACTORS". SEE NOTES 1 AND 2.

- 39,100 LBS IN 20-FT CONTAINER (W/O CHASSIS) ABOARD CONTAINERSHIP.  
39,100 LBS IN CONTAINER ON 20-FT CHASSIS WITH DOUBLE BOGIE. SEE NOTE 3.  
25,300 LBS IN CONTAINER ON 20-FT CHASSIS WITH SINGLE BOGIE. SEE NOTE 4.  
21,300 LBS IN EACH CONTAINER ON 40-FT CHASSIS (COUPLED WITH DOUBLE BOGIE). SEE NOTE 3.  
19,300 LBS IN 20-FT CONTAINER (W/O CHASSIS) ABOARD FIXED-WING AIRCRAFT.  
39,100 LBS IN 20-FT CONTAINER (W/O CHASSIS) FOR ROTARY-WING AIRCRAFT. SEE NOTE 5.

**NOTE 1:** DUNNAGE INCLUDES MATERIALS, OTHER THAN COMPONENTS OF THE MECHANICAL LOAD-BRACING SYSTEM, USED TO BLOCK AND BRACE A LOAD.

**NOTE 2:** ALTHOUGH THE HEAVIEST MAXIMUM LOADS ARE DELINEATED IN THE LOAD VIEWS, PROVISIONS ARE INCLUDED WITHIN THIS DRAWING SO THAT THE BASIC LOADS CAN BE ADJUSTED TO SATISFY A LESSER QUANTITY OF LADING UNITS. ADDITIONAL INSTRUCTIONS ARE FURNISHED IN THE "SPECIAL NOTE" SECTION ON THE PAGE OPPOSITE THE LOAD VIEW.

**NOTE 3:** DEPENDING ON TRANSPORTATION ROUTING, IT MAY BE NECESSARY TO REDUCE THE LOAD WEIGHT TO SATISFY "WEIGHT LAWS" OF CERTAIN STATES. ALSO, IT MAY BE NECESSARY TO REDUCE THE LOAD WEIGHT TO SATISFY OTHER WEIGHT RESTRICTIONS IMPOSED ON THE MILVAN SYSTEM.

**NOTE 4:** BY SPECIAL AUTHORITY, IT MAY BE POSSIBLE TO MOVE HEAVIER LOADS ON SINGLE BOGIE CHASSIS WITHIN AN INSTALLATION.

**NOTE 5:** IT WILL BE NECESSARY TO REDUCE THE WEIGHT OF SOME LOADS TO BE MOVED BY ROTARY-WINGED AIRCRAFT, DEPENDING ON THE "LIFT" CAPABILITY OF THE SCHEDULED AIRCRAFT.

**L. SPECIAL T/COFC NOTES:**

- CAUTION:** LOADED CONTAINERS MUST BE ON CHASSIS EQUIPPED WITH TWO BOGIE ASSEMBLIES WHEN BEING MOVED IN TOFC SERVICE, REGARDLESS OF LOAD WEIGHT WITHIN THE CONTAINERS.
  - LOAD LIMITS OF T/COFC RAIL CARS MUST NOT BE EXCEEDED, NOR WILL A CAR BE LOADED SO THAT THE TRUCK UNDER ONE END OF THE CAR CARRIES MORE THAN ONE-HALF OF THE LOAD LIMIT FOR THAT CAR.
  - CHASSIS/CONTAINERS COUPLED INTO A 40-FOOT TRAILER CONFIGURATION MUST BE PLACED AT THE B-END OF A TOFC RAIL CAR. THE REAR END OF THE 40-FOOT UNIT WILL OVER-HANG THE END OF THE CAR IF IT IS PLACED AT THE A-END. TWENTY-FOOT AND 40-FOOT UNITS CAN BE LOADED ON THE SAME CAR.
- M. CAUTION:** EXERCISE CARE WHEN POSITIONING THE PALLET UNITS INTO THE CONTAINER TO INSURE THAT THE UNITS ARE PLACED AS CLOSELY AS PRACTICAL AGAINST THE SIDE WALLS OF THE CONTAINER. IN ANY LOAD, THE COMBINED TOTAL VOID ACROSS THE WIDTH OF A BRACED LOAD MUST NOT EXCEED ONE AND ONE-HALF INCHES (1-1/2"), UNLESS OTHERWISE SPECIFIED.
- N.** WHEN A MILVAN CONTAINER IS TO BE LOADED WITH A REDUCED QUANTITY OF LADING UNITS, THE LENGTHWISE CENTER OF GRAVITY OF A LOAD MUST BE WITHIN 12", IN EITHER DIRECTION, OF THE MIDPOINT IN A MILVAN.
- O.** POWER DRIVEN STAPLES MAY BE USED AS ALTERNATIVE FASTENERS FOR NAILS WHEN CONSTRUCTING DUNNAGE ASSEMBLIES WHICH ARE TO BE USED IN THE DELINEATED MILVAN LOADS SHOWN THROUGHOUT THIS DRAWING. THE STAPLES TO BE USED MUST BE EQUAL IN LENGTH TO THE SPECIFIED NAIL SIZE AND MUST BE SUBSTITUTED ON A ONE STAPLE FOR ONE NAIL BASIS. STAPLES WHICH ARE 2-1/2" OR LESS IN LENGTH SHOULD BE IN ACCORDANCE WITH FEDERAL SPECIFICATION FF-N-105 AS NEARLY AS PRACTICABLE. STAPLES WHICH ARE LONGER THAN 2-1/2" WILL BE A COMMERCIAL GRADE, OF A QUALITY EQUIVALENT TO THOSE MANUFACTURED BY SENCOR PRODUCTS INCORPORATED.
- P.** THE PROCEDURES DEPICTED WITHIN THIS DRAWING ARE BASED ON ENGLISH MEASUREMENTS. THE METRIC EQUIVALENT MAY BE COMPUTED BY USING 1" EQUALS 25.4MM. METRIC EQUIVALENTS FOR WEIGHTS ARE BASED ON 1 POUND EQUALS 0.454 KG.

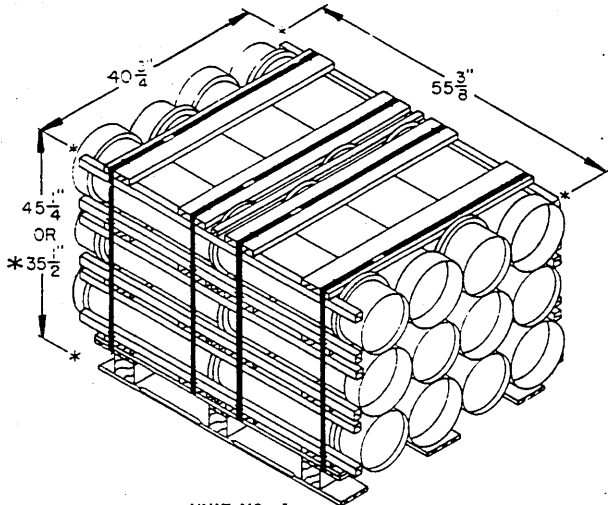
**REVISION**

REVISION NO. 1 DATED OCTOBER 1991 CONSISTS OF:

- ADDING ADDITIONAL PALLET UNITS.

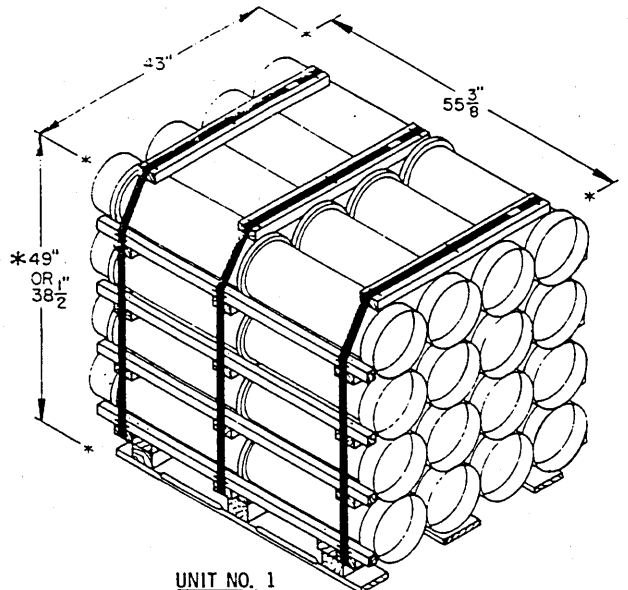
ITEMIZED INDEX

LINE NO.	ITEM IDENTIFICATION	PALLET UNIT DIMENSIONS L X W X H (INCHES)	UNIT WEIGHT (POUNDS)	UNIT NO.	UNIT DETAIL ON PAGE	LOADING DETAIL ON PAGE (S)
1	M10 CNTR, ALTERNATED CONTAINERS	40-3/4 X 55-3/8 X 35-1/2	1,632	1	4	14, 15
2	M10 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	40-3/4 X 55-3/8 X 45-1/4	2,174	1	4	12, 13
3	M10 CNTR, FLAT DUNNAGE METHOD	43 X 55-3/8 X 49	2,123	1	4	12, 13
4	M10 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	43 X 55-3/8 X 38-1/2	1,623	1	4	14, 15
5	M10 CNTR, ROUTED DUNNAGE METHOD	42 X 55-3/8 X 48-5/8	2,119	1	4	12, 13
6	M10 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	42 X 55-3/8 X 38	1,623	1	4	14, 15
7	M13 CNTR, FLAT DUNNAGE METHOD	41-1/2 X 55 X 45-7/8	1,749	2	4	16, 17
8	M13 CNTR, FLAT DUNNAGE METHOD ( DECREASED -HEIGHT UNIT )	41-1/2 X 55 X 38-1/8	1,421	2	4	18, 19
9	M13 CNTR, ROUTED DUNNAGE METHOD	40 X 55 X 44-7/8	1,761	2	4	16, 17
10	M13 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40 X 55 X 37-1/8	1,447	2	4	18, 19
11	M14 CNTR, ALTERNATED CONTAINERS	37-1/2 X 49-1/2 X 36	1,304	3	4	22, 23
12	M14 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	37-1/2 X 49-1/2 X 41-15/16	1,554	3	4	20, 21
13	M14 CNTR, FLAT DUNNAGE METHOD	40-1/2 X 49-1/2 X 47-1/8	1,433	3	5	20, 21
14	M14 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40-1/2 X 49-1/2 X 40-7/16	1,219	3	5	22, 23
15	M14 CNTR, ROUTED DUNNAGE METHOD	40-1/2 X 48 X 47	1,435	3	5	20, 21
16	M14 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40-1/2 X 48 X 40-1/4	1,225	3	5	22, 23
17	M16 CNTR, ALTERNATED CONTAINERS	42-5/8 X 49 X 36-1/4	1,472	4	5	30, 31
18	M16 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	42-5/8 X 49 X 44	1,820	4	5	28, 29
19	M16 CNTR, FLAT DUNNAGE METHOD	44-1/8 X 52-1/2 X 49	1,870	4	5	24, 25
20	M16 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	44-1/8 X 52-1/2 X 40-5/8	1,524	4	5	26, 27
21	M16 CNTR, ROUTED DUNNAGE METHOD	44-1/8 X 50-1/2 X 48-3/4	1,848	4	5	24, 25
22	M16 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	44-1/8 X 50-1/2 X 40-1/4	1,507	4	5	26, 27
23	M18 CNTR, FLAT DUNNAGE METHOD	44 X 52-9/16 X 49	1,779	5	5	32, 33
24	M18 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	44 X 52-9/16 X 40-5/8	1,444	5	5	34, 35
25	M18 CNTR, ROUTED DUNNAGE METHOD	42 X 52-9/16 X 48-3/4	1,792	5	6	32, 33
26	M18 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	42 X 52-9/16 X 40-1/4	1,468	5	6	34, 35
27	M19 CNTR, FLAT DUNNAGE METHOD	40-5/8 X 58-1/2 X 46-1/4	1,872	6	6	36, 37
28	M19 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40-5/8 X 58-1/2 X 36-1/2	1,431	6	6	38, 39
29	M19 CNTR, ROUTED DUNNAGE METHOD	40 X 58-1/2 X 45-7/8	1,873	6	6	36, 37
30	M19 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40 X 58-1/2 X 36	1,443	6	6	38, 39
31	M460 CNTR, ALTERNATED CONTAINERS	40 X 55 X 42-5/8	1,905	7	6	38, 39
32	M460 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	40 X 55 X 51-5/8	2,364	7	6	36, 37
33	M460 CNTR, FLAT DUNNAGE METHOD	40-3/4 X 55 X 46-1/4	1,879	7	6	16, 17
34	M460 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40-3/4 X 55 X 35-1/2	1,438	7	6	18, 19
35	M460 CNTR, ROUTED DUNNAGE METHOD	40 X 55 X 45-7/8	1,875	7	6	16, 17
36	M460 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40 X 55 X 36	1,444	7	6	18, 19
37	M460 CNTR, W/PROTECTIVE COVER	40 X 55 X 45-1/2	2,005	8	7	40, 41
38	M460 CNTR, W/PROTECTIVE COVER ( DECREASED-HEIGHT UNIT )	40 X 55 X 35-1/2	1,525	8	7	42, 43
39	PA37 CNTR, ALTERNATED CONTAINERS	35-3/4 X 47-1/2 X 38-1/2	1,160	9	7	52, 53
40	PA37 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	35-3/4 X 47-1/2 X 46-1/8	1,819	9	7	20, 21
41	PA37 CNTR, FLAT DUNNAGE METHOD	35-3/4 X 52-1/2 X 49	1,452	9	7	44, 45
42	PA37 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	35-3/4 X 52-1/2 X 40-5/8	1,266	9	7	46, 47
43	PA37 CNTR, ROUTED DUNNAGE METHOD	35-3/4 X 51 X 48-3/4	1,429	9	7	44, 45
44	PA37 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	35-3/4 X 51 X 40-3/8	1,160	9	7	46, 47
45	PA66 CNTR, ALTERNATED CONTAINERS	37-3/4 X 50-1/2 X 35-5/8	1,273	10	7	30, 31
46	PA66 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	37-3/4 X 50-1/2 X 45-3/8	1,677	10	7	28, 29
47	PA66 CNTR, FLAT DUNNAGE METHOD	40-3/4 X 53-1/2 X 49	1,738	10	7	44, 45
48	PA66 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40-3/4 X 53-1/2 X 38-1/2	1,332	10	7	46, 47
49	PA66 CNTR, ROUTED DUNNAGE METHOD	40-3/4 X 52-1/2 X 48-1/2	1,736	10	8	44, 45
50	PA66 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	40-3/4 X 52-1/2 X 37-7/8	1,337	10	8	46, 47
51	PA68 CNTR, ALTERNATED CONTAINERS	38 X 48-1/2 X 36-3/4	1,333	11	8	30, 31
52	PA68 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	38 X 48-1/2 X 44-3/8	1,652	11	8	28, 29
53	PA68 CNTR, FLAT DUNNAGE METHOD	41 X 51-1/2 X 40-1/2	1,400	11	8	46, 47
54	PA68 CNTR, FLAT DUNNAGE METHOD ( INCREASED-HEIGHT UNIT )	41 X 51-1/2 X 48-7/8	1,726	11	8	44, 45
55	PA68 CNTR, ROUTED DUNNAGE METHOD	41 X 50-1/2 X 403/8	1,385	11	8	46, 47
56	PA68 CNTR, ROUTED DUNNAGE METHOD ( INCREASED-HEIGHT UNIT )	41 X 50-1/2 X 48-3/4	1,704	11	8	44, 45
57	PA75 CNTR, ALTERNATED CONTAINERS	35-1/4 X 45-1/2 X 41-1/2	1,238	12	8	30, 31
58	PA75 CNTR, ALTERNATED CONTAINERS ( INCREASED-HEIGHT UNIT )	35-1/4 X 45-1/2 X 48-1/2	1,475	12	8	28, 29
59	PA75 CNTR, FLAT DUNNAGE METHOD	35-1/4 X 48-5/8 X 45-7/8	1,260	12	8	20, 21
60	PA75 CNTR, FLAT DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	35-1/4 X 48-5/8 X 38-1/8	1,026	12	8	22, 23
61	PA75 CNTR, ROUTED DUNNAGE METHOD	35-1/4 X 46-3/4 X 45-5/8	1,260	12	9	20, 21
62	PA75 CNTR, ROUTED DUNNAGE METHOD ( DECREASED-HEIGHT UNIT )	35-1/4 X 46-3/4 X 37-3/4	1,033	12	9	22, 23
63	PA91 CNTR, PALLET UNIT	36 X 47-3/4 X 51-1/4	2,025	13	9	20, 21
64	PA91 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	36 X 47-3/4 X 43-3/4	1,697	13	9	22, 23
65	PA92 CNTR, PALLET UNIT	36-5/8 X 48-3/4 X 52-1/2	1,930	14	9	20, 21
66	PA92 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	36-5/8 X 48-3/4 X 43-1/4	1,558	14	9	22, 23
67	PA93 CNTR, PALLET UNIT	40 X 56 X 51-1/8	2,137	15	9	36, 37
68	PA93 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	40 X 56 X 42-1/8	1,723	15	9	38, 39
69	PA94 CNTR, PALLET UNIT	35-1/2 X 46-3/4 X 49-7/8	1,471	16	9	20, 21
70	PA94 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	35-1/2 X 46-3/4 X 43-5/8	1,269	16	9	22, 23
71	PA95 CNTR, PALLET UNIT	38-5/8 X 50 X 48-7/8	1,839	17	9	48, 49
72	PA95 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	38-5/8 X 50 X 41-3/4	1,539	17	9	50, 51
73	PA96 CNTR, PALLET UNIT	36-1/8 X 48 X 51-1/8	1,783	18	10	20, 21
74	PA96 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	36-1/8 X 48 X 43-5/8	1,498	18	10	22, 23
75	PA97 CNTR, PALLET UNIT	41-3/4 X 50 X 52-5/8	1,919	19	10	48, 49
76	PA97 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	41-3/4 X 50 X 37-1/8	1,320	19	10	50, 51
77	PA99 CNTR, PALLET UNIT	35 X 46-1/2 X 49-5/8	1,715	20	10	50, 21
78	PA99 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	35 X 46-1/2 X 42-3/8	1,442	20	10	22, 23
79	PA100 CNTR, PALLET UNIT	36 X 48-1/2 X 51-3/4	1,478	21	10	20, 21
80	PA100 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	36 X 48-1/2 X 38-5/8	1,077	21	10	22, 23
81	PA103 CNTR, PALLET UNIT	40-5/8 X 55 X 48-7/8	2,186	23	11	48, 49
82	PA106 CNTR, PALLET UNIT	40-5/8 X 55 X 41-3/4	1,681	23	11	50, 51
83	PA106 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )	35-1/4 X 45-3/4 X 48-7/8	1,540	24	11	20, 21
84	PA107 CNTR, PALLET UNIT	35-1/4 X 45-3/4 X 41-3/4	1,407	24	11	22, 23
85	PA107 CNTR, PALLET UNIT ( DECREASED-HEIGHT UNIT )					



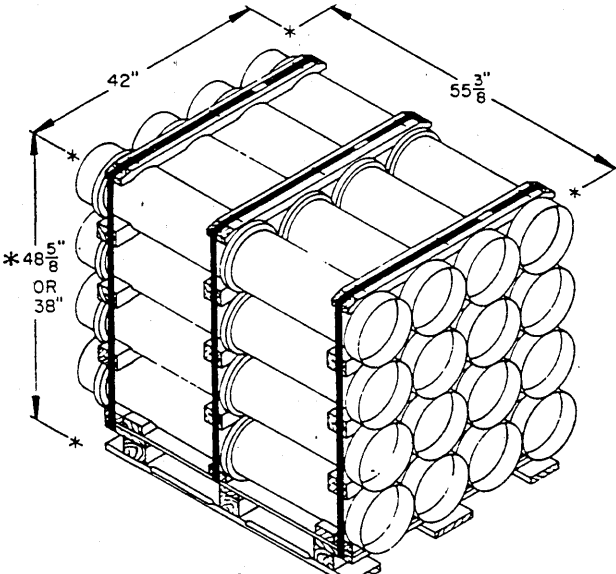
**UNIT NO. 1**  
ALTERNATED CONTAINERS

UNIT WEIGHT ----- 1,632 - 2,174 LBS (APPROX)  
CUBE ----- 46.4 - 59.1 CUBIC FEET



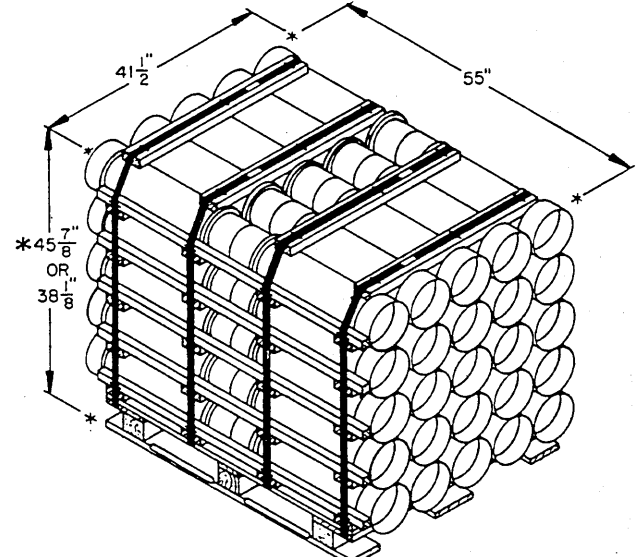
**UNIT NO. 1**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,623 - 2,123 LBS (APPROX)  
CUBE ----- 53.1 - 67.5 CUBIC FEET



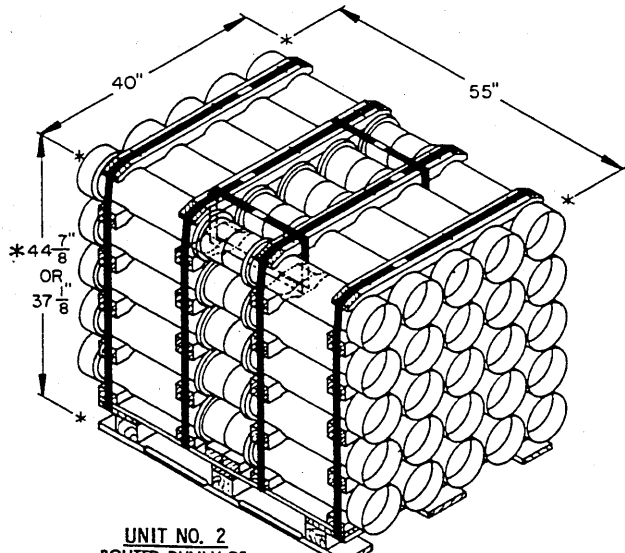
**UNIT NO. 1**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,623 - 2,119 LBS (APPROX)  
CUBE ----- 51.1 - 65.4 CUBIC FEET



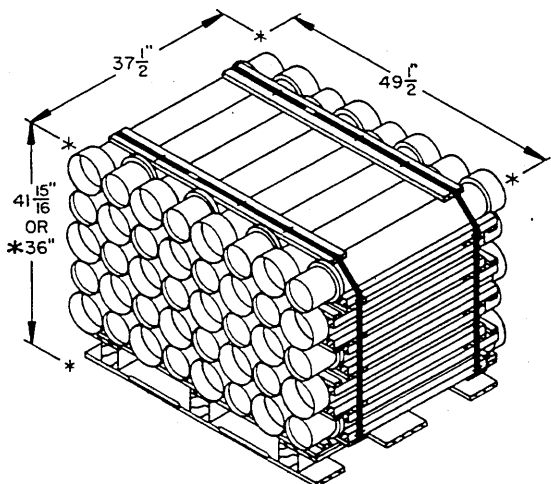
**UNIT NO. 2**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,421 - 1,749 LBS (APPROX)  
CUBE ----- 50.4 - 60.6 CUBIC FEET



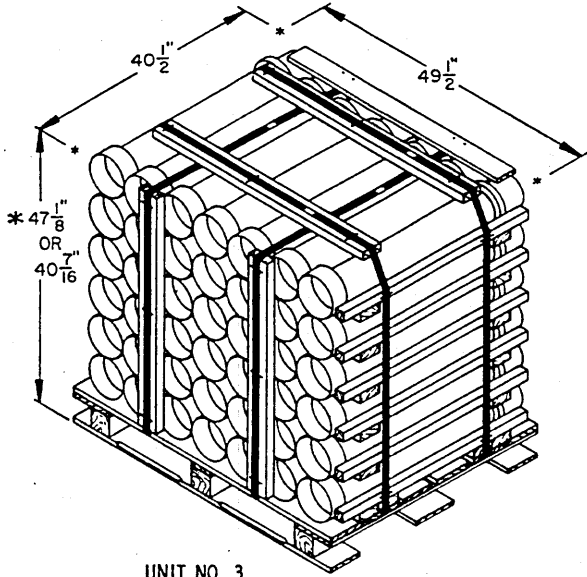
**UNIT NO. 2**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,447 - 1,761 LBS (APPROX)  
CUBE ----- 47.3 - 57.1 CUBIC FEET



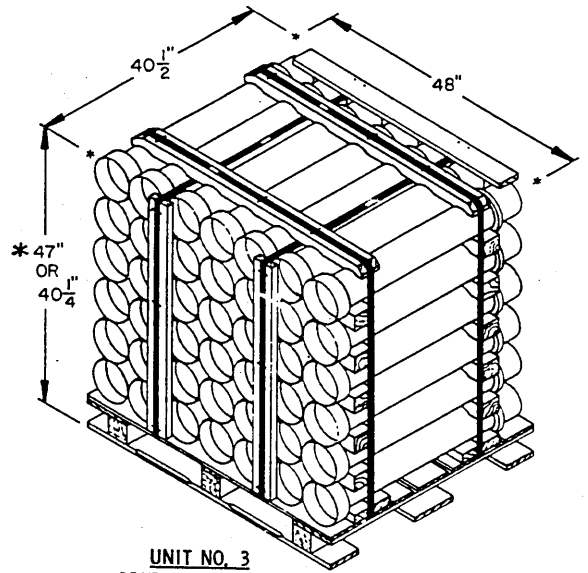
**UNIT NO. 3**  
ALTERNATED CONTAINER

UNIT WEIGHT ----- 1,304 - 1,554 LBS (APPROX)  
CUBE ----- 38.7 - 45.1 CUBIC FEET



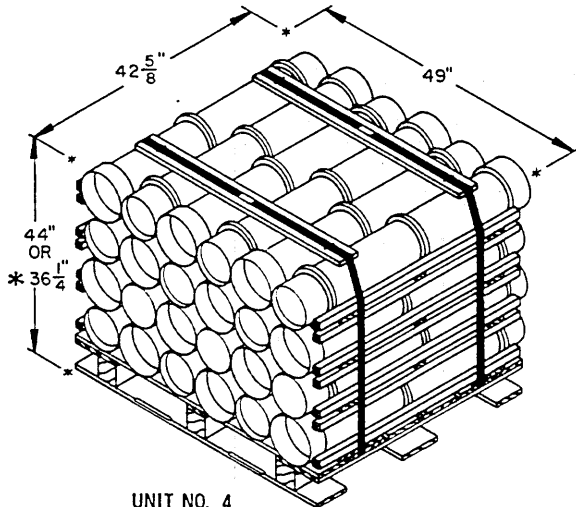
**UNIT NO. 3**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,219 - 1,433 LBS (APPROX)  
CUBE ----- 46.9 - 54.7 CUBIC FEET



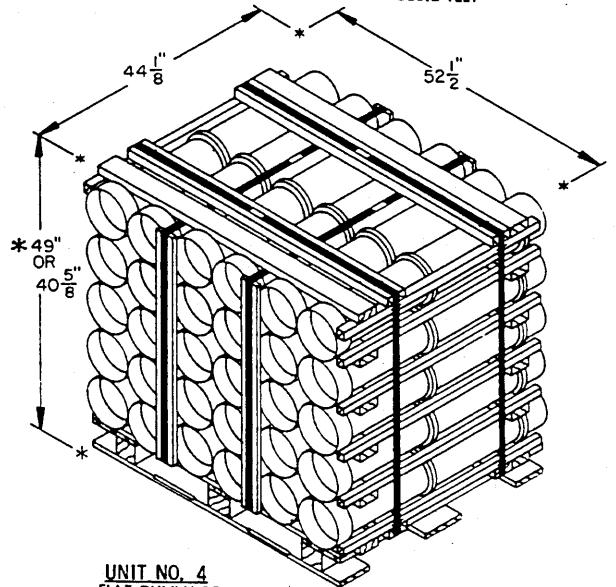
**UNIT NO. 3**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,225 - 1,435 LBS (APPROX)  
CUBE ----- 45.3 - 52.9 CUBIC FEET



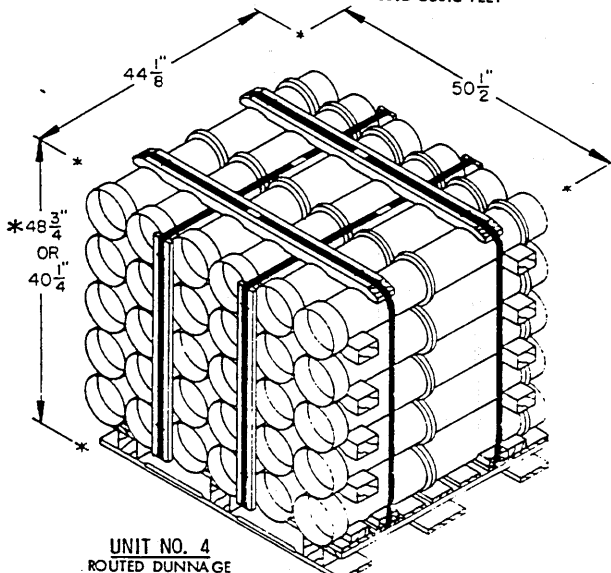
**UNIT NO. 4**  
ALTERNATED CONTAINERS

UNIT WEIGHT ----- 1,472 - 1,820 LBS (APPROX)  
CUBE ----- 43.8 - 53.2 CUBIC FEET



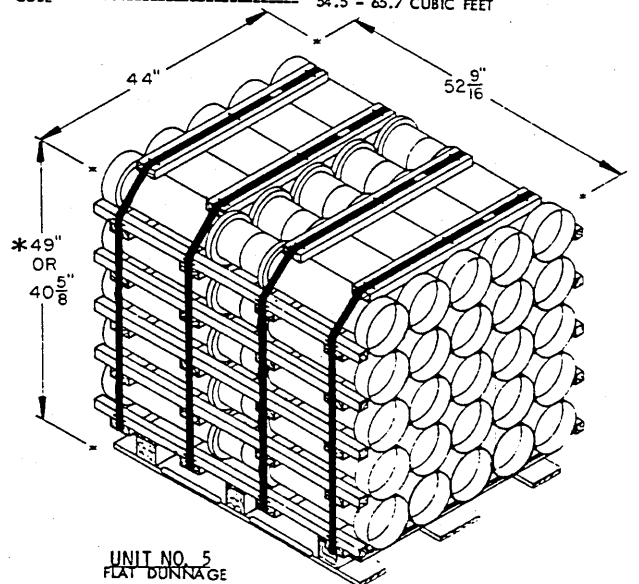
**UNIT NO. 4**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,524 - 1,870 LBS (APPROX)  
CUBE ----- 54.5 - 65.7 CUBIC FEET



**UNIT NO. 4**  
ROUTED DUNNAGE

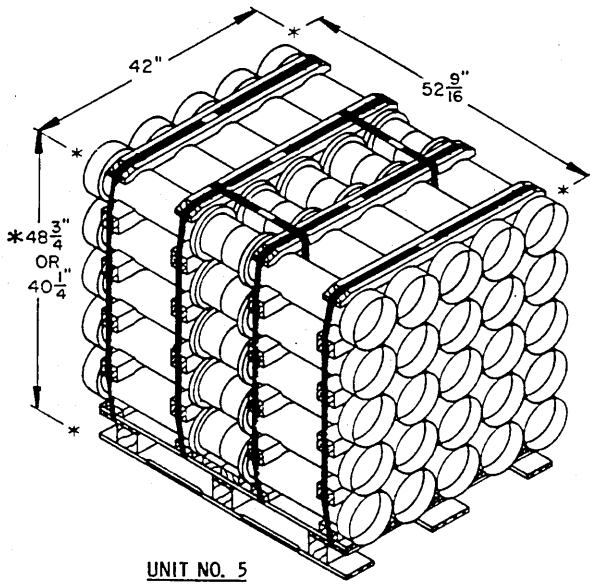
UNIT WEIGHT ----- 1,507 - 1,848 LBS (APPROX)  
CUBE ----- 51.9 - 62.9 CUBIC FEET



**UNIT NO. 5**  
FLAT DUNNAGE

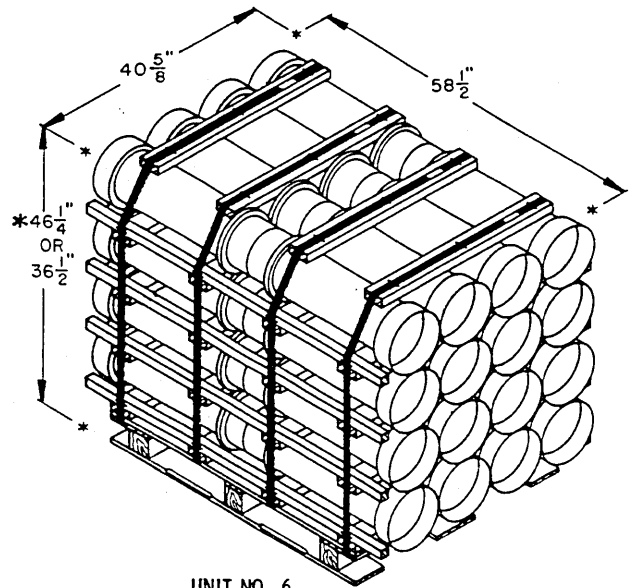
UNIT WEIGHT ----- 1,444 - 1,779 LBS (APPROX)  
CUBE ----- 54.4 - 65.6 CUBIC FEET

**PALLET UNIT DETAILS**



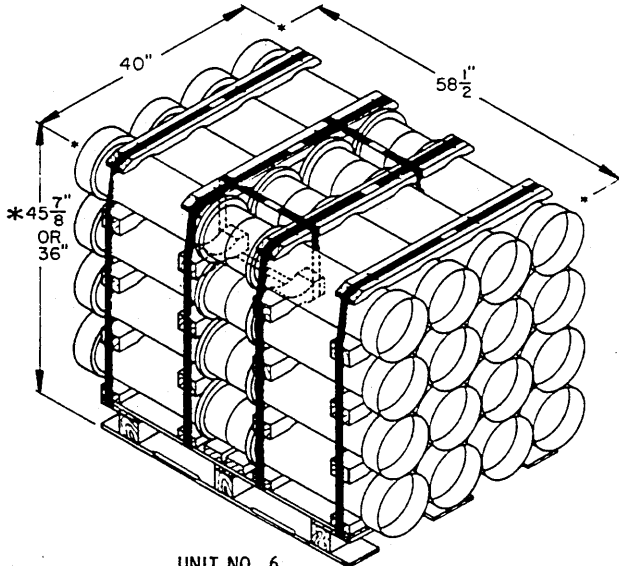
**UNIT NO. 5**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,468 - 1,792 LBS (APPROX)  
CUBE ----- 51.4 - 62.3 CUBIC FEET



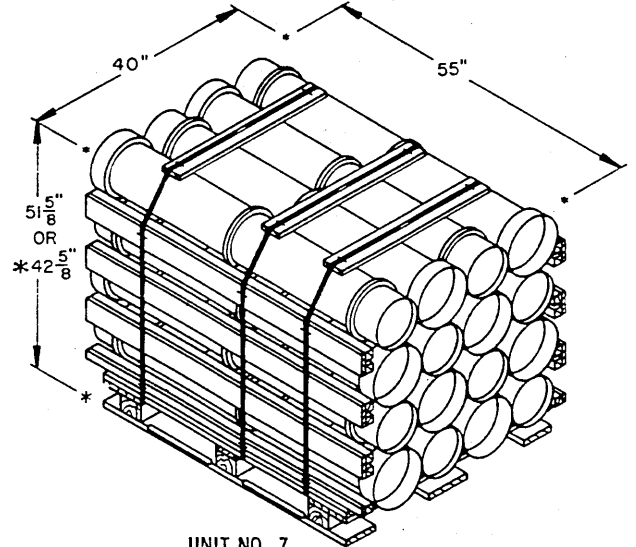
**UNIT NO. 6**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,431 - 1,872 LBS (APPROX)  
CUBE ----- 50.2 - 63.6 CUBIC FEET



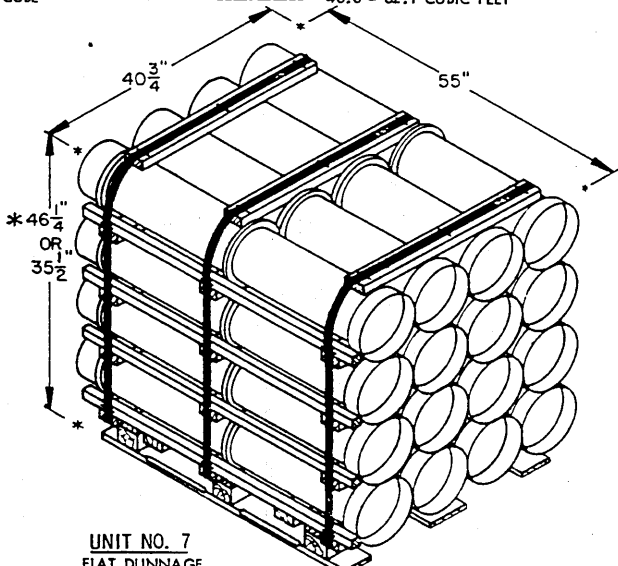
**UNIT NO. 6**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,443 - 1,873 LBS (APPROX)  
CUBE ----- 48.8 - 62.1 CUBIC FEET



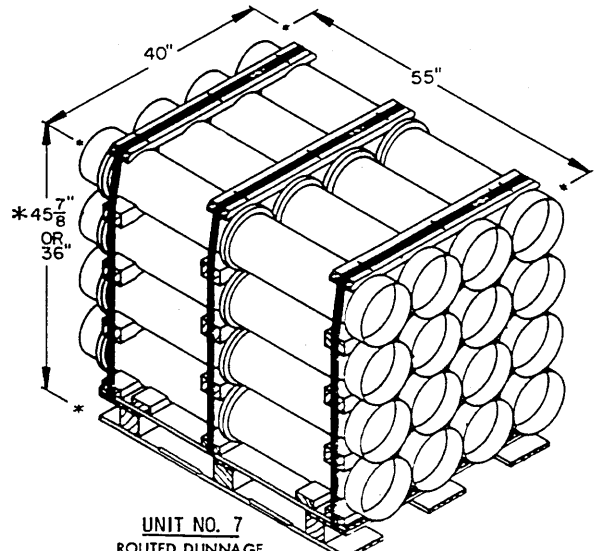
**UNIT NO. 7**  
ALTERNATED CONTAINERS

UNIT WEIGHT ----- 1,905 - 2,364 LBS (APPROX)  
CUBE ----- 54.3 - 65.7 CUBIC FEET



**UNIT NO. 7**  
FLAT DUNNAGE

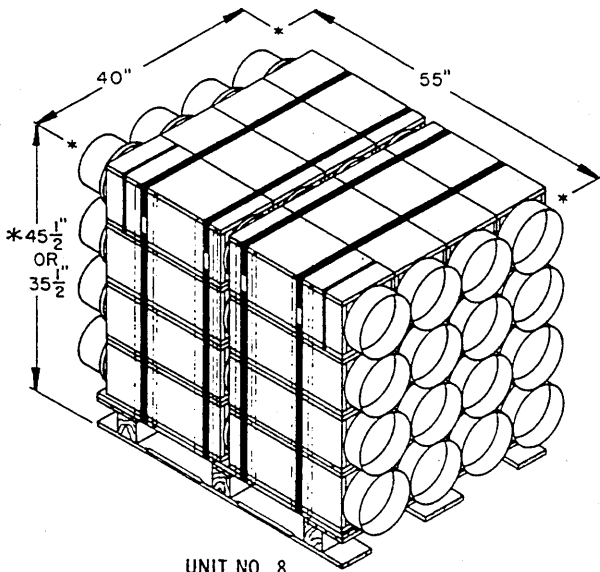
1,438 - 1,879 LBS (APPROX)  
47.2 - 60.0 CUBIC FEET



**UNIT NO. 7**  
ROUTED DUNNAGE

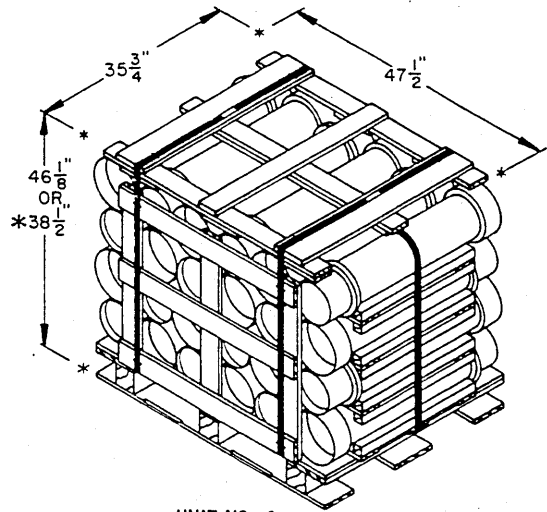
UNIT WEIGHT ----- 1,444 - 1,875 LBS (APPROX)  
CUBE ----- 45.8 - 58.4 CUBIC FEET

**PALLET UNIT DETAILS**



**UNIT NO. 8**

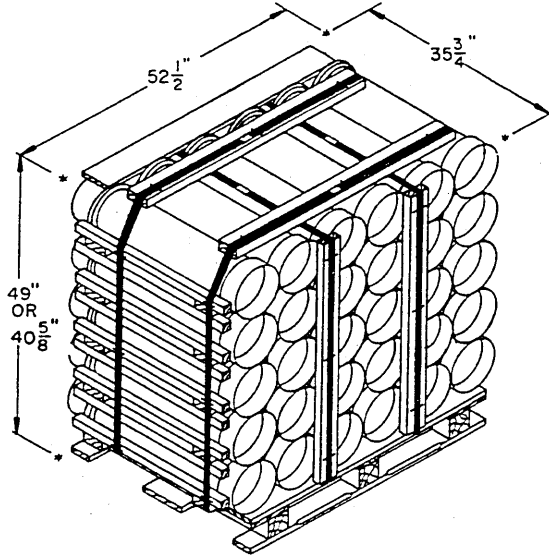
UNIT WEIGHT ----- 1,525 - 2,005 LBS (APPROX)  
 CUBE ----- 45.2 - 57.9 CUBIC FEET



**UNIT NO. 9**

ALTERNATED CONTAINERS

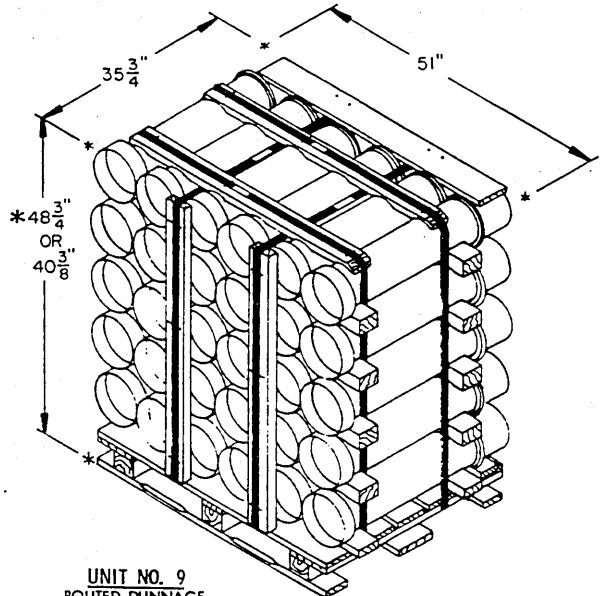
UNIT WEIGHT ----- 1,160 - 1,819 LBS (APPROX)  
 CUBE ----- 37.8 - 45.3 CUBIC FEET



**UNIT NO. 9**

FLAT DUNNAGE

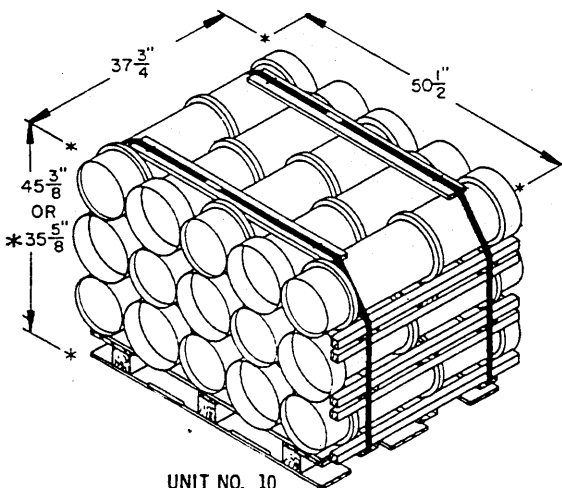
UNIT WEIGHT ----- 1,272 - 1,452 LBS (APPROX)  
 CUBE ----- 44.1 - 53.2 CUBIC FEET



**UNIT NO. 9**

ROUTED DUNNAGE

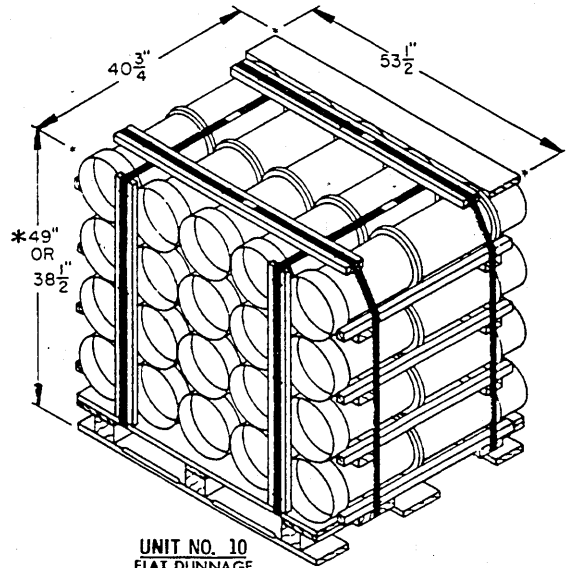
UNIT WEIGHT ----- 1,429 - 1,160 LBS (APPROX)  
 CUBE ----- 42.6 - 51.4 CUBIC FEET



**UNIT NO. 10**

ALTERNATED CONTAINERS

UNIT WEIGHT ----- 1,273 - 1,677 LBS (APPROX)  
 CUBE ----- 39.3 - 50.1 CUBIC FEET

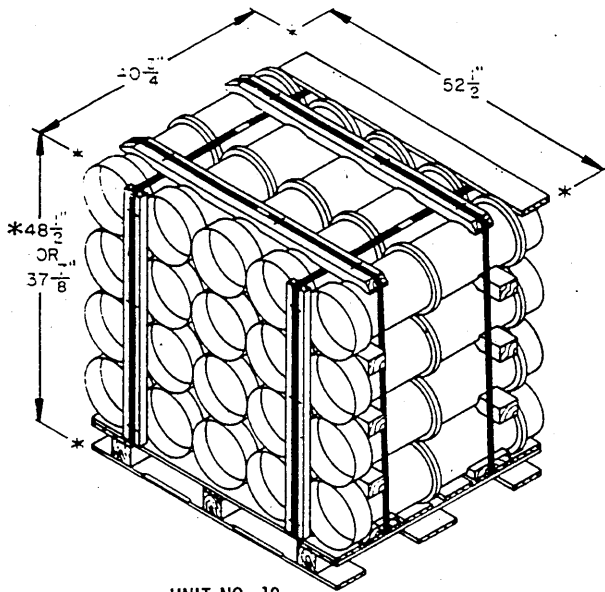


**UNIT NO. 10**

FLAT DUNNAGE

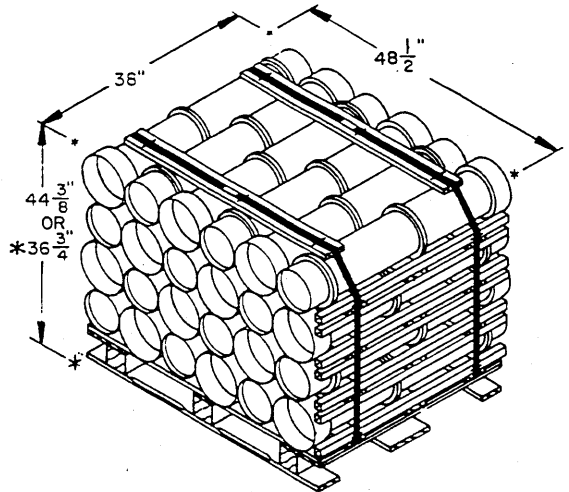
UNIT WEIGHT ----- 1,332 - 1,738 LBS (APPROX)  
 CUBE ----- 48.6 - 61.8 CUBIC FEET

**PALLET UNIT DETAILS**



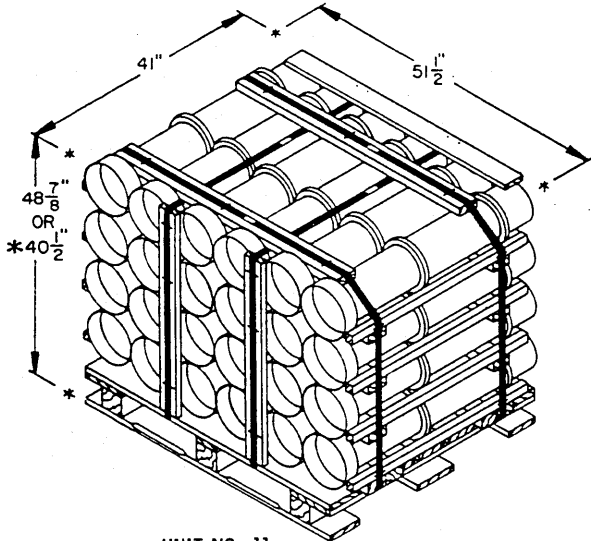
**UNIT NO. 10**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,337 - 1,736 LBS (APPROX)  
CUBE ----- 46.9 - 60.1 CUBIC FEET



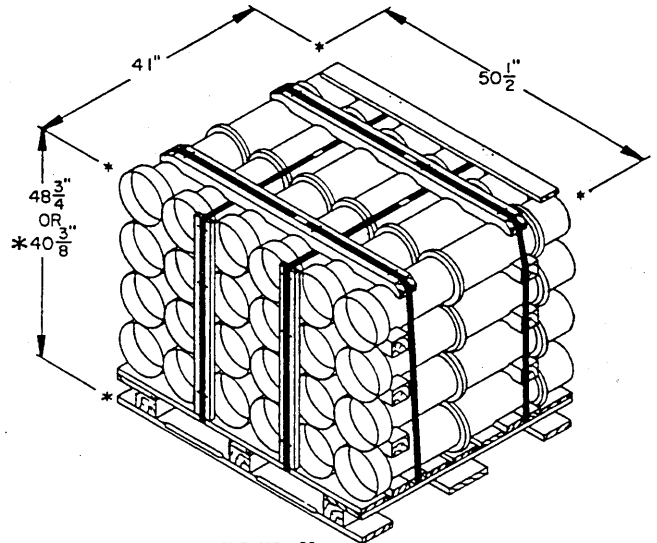
**UNIT NO. 11**  
ALTERNATED CONTAINERS

UNIT WEIGHT ----- 1,333 - 1,652 LBS (APPROX)  
CUBE ----- 38.6 - 46.6 CUBIC FEET



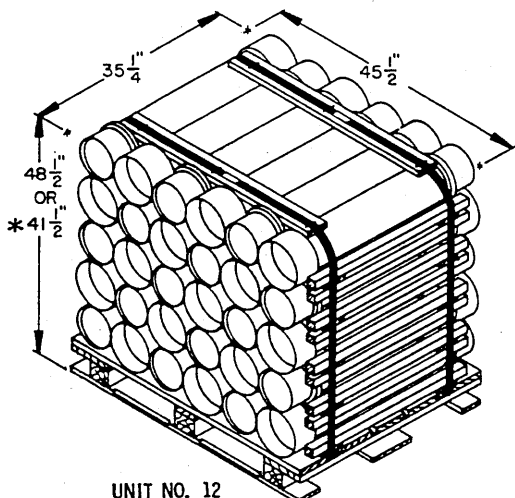
**UNIT NO. 11**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,400 - 1,726 LBS (APPROX)  
CUBE ----- 49.5 - 59.7 CUBIC FEET



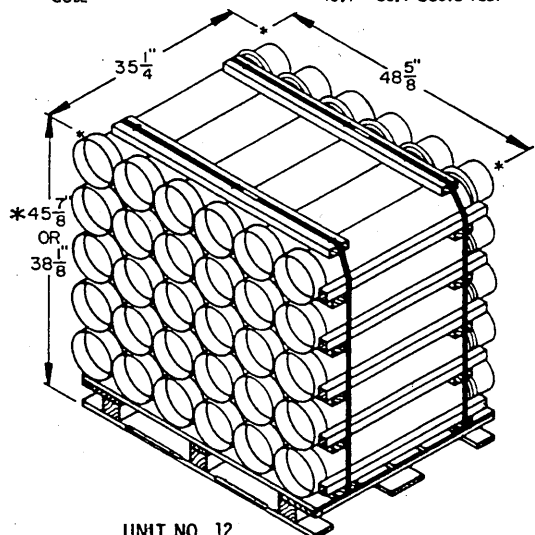
**UNIT NO. 11**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,385 - 1,704 LBS (APPROX)  
CUBE ----- 48.4 - 58.4 CUBIC FEET



**UNIT NO. 12**  
ALTERNATED CONTAINERS

UNIT WEIGHT ----- 1,238 - 1,475 LBS (APPROX)  
CUBE ----- 38.5 - 45.0 CUBIC FEET

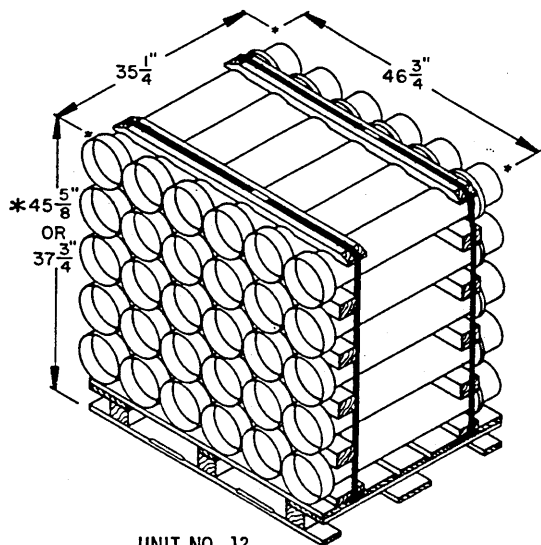


**UNIT NO. 12**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,026 - 1,260 LBS (APPROX)  
CUBE ----- 37.8 - 45.5 CUBIC FEET

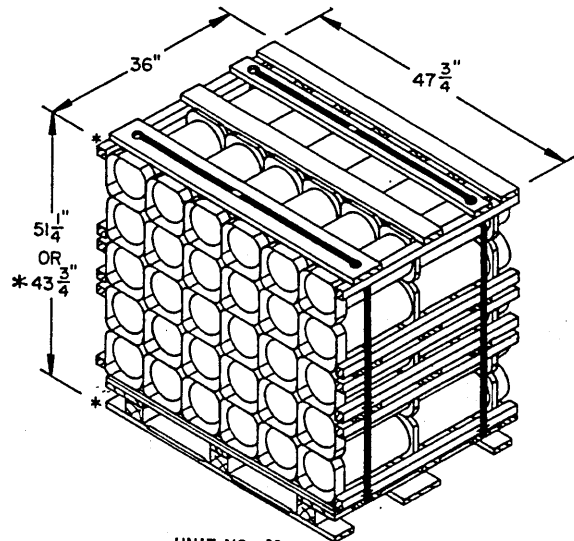
**PALLET UNIT DETAILS**





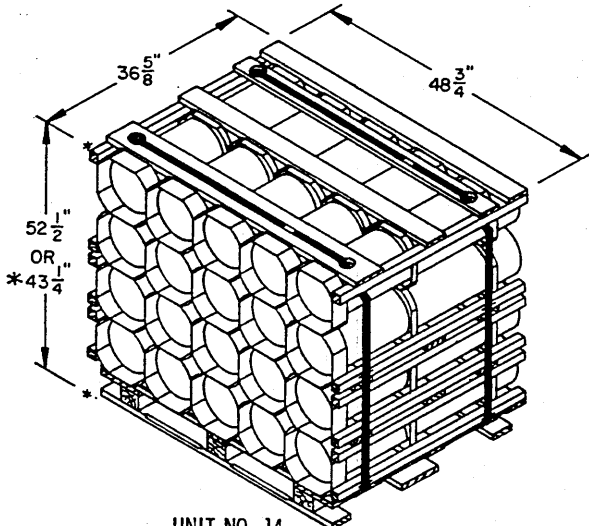
**UNIT NO. 12**  
ROUTED DUNNAGE

UNIT WEIGHT ----- 1,033 - 1,260 LBS (APPROX)  
CUBE ----- 36.0 - 43.5 CUBIC FEET



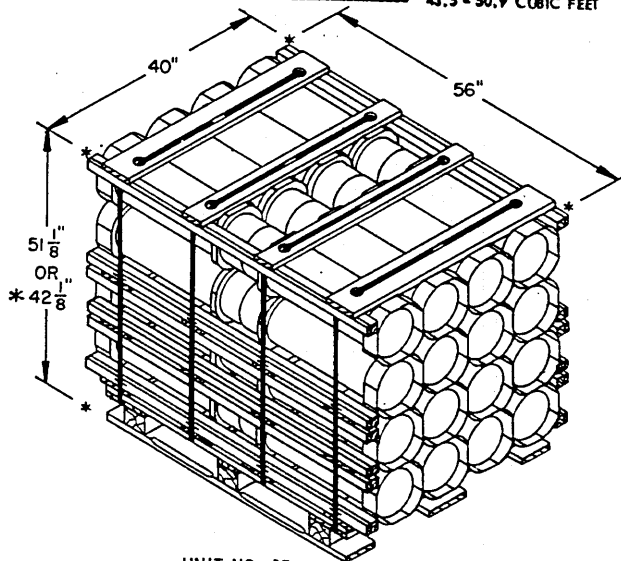
**UNIT NO. 13**  
FLAT DUNNAGE

UNIT WEIGHT ----- 1,697 - 2,025 LBS (APPROX)  
CUBE ----- 43.5 - 50.9 CUBIC FEET



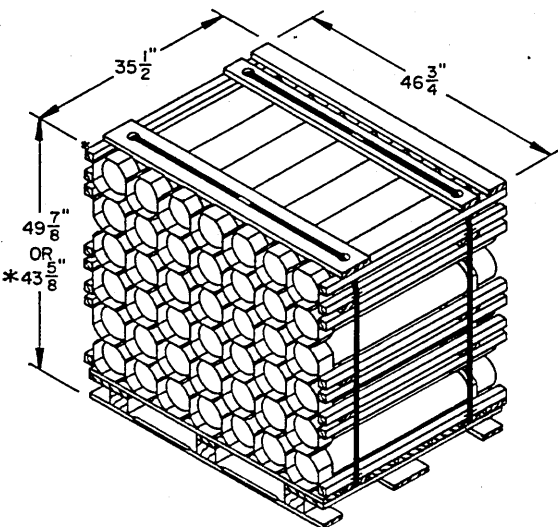
**UNIT NO. 14**

UNIT WEIGHT ----- 1,558 - 1,930 LBS (APPROX)  
CUBE ----- 44.7 - 54.2 CUBIC FEET



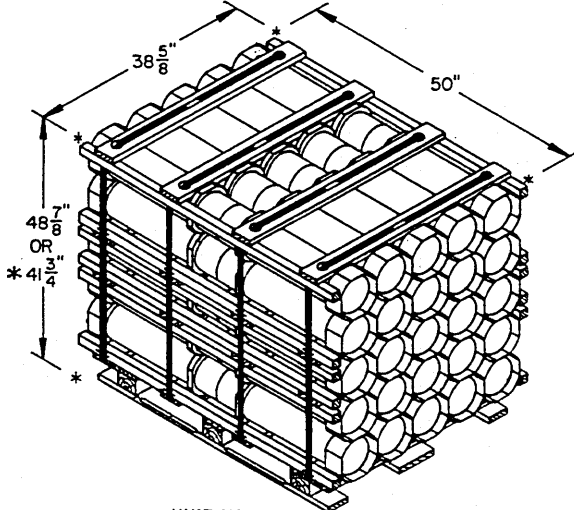
**UNIT NO. 15**

UNIT WEIGHT ----- 1,723 - 2,137 LBS (APPROX)  
CUBE ----- 54.6 - 66.3 CUBIC FEET



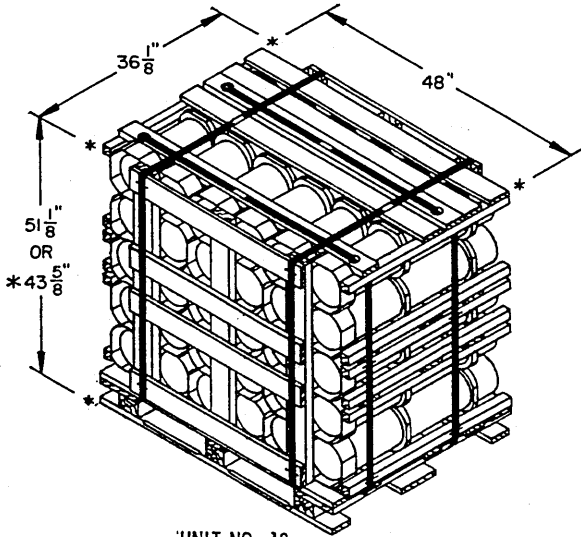
**UNIT NO. 16**

UNIT WEIGHT ----- 1,269 - 1,471 LBS (APPROX)  
CUBE ----- 41.9 - 47.9 CUBIC FEET



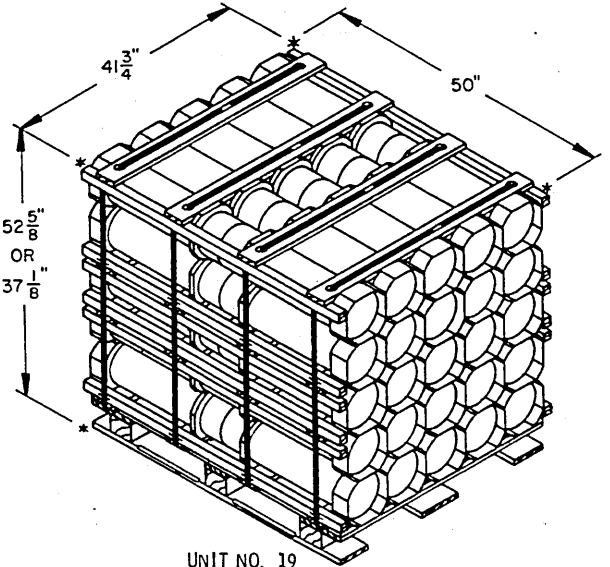
**UNIT NO. 17**

UNIT WEIGHT ----- 1,539 - 1,839 LBS (APPROX)  
CUBE ----- 46.7 - 54.6 CUBIC FEET



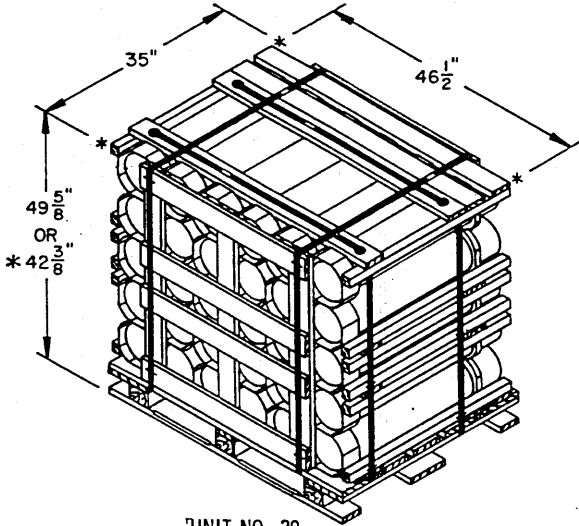
UNIT NO. 18

UNIT WEIGHT ----- 1,498 - 1,783 LBS (APPROX)  
 CUBE ----- 43.8 - 51.3 CUBIC FEET



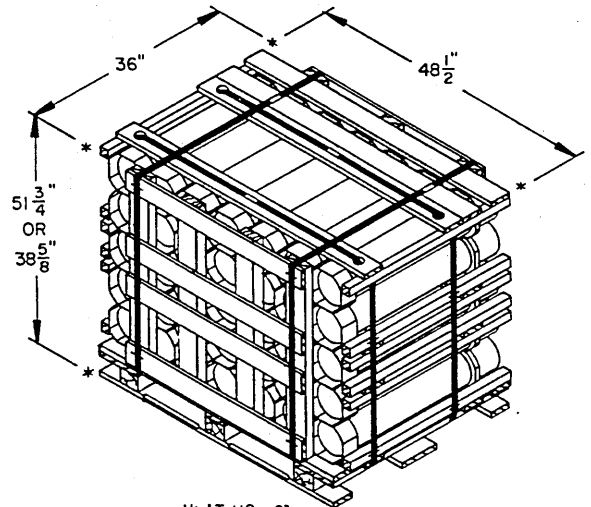
UNIT NO. 19

UNIT WEIGHT ----- 1,320 - 1,919 LBS (APPROX)  
 CUBE ----- 44.8 - 63.6 CUBIC FEET



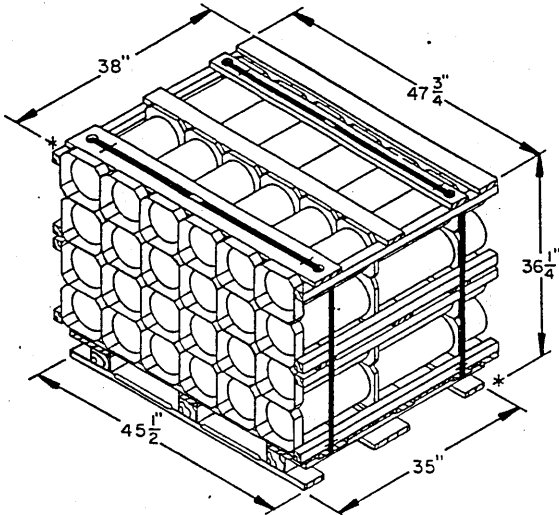
UNIT NO. 20

UNIT WEIGHT ----- 1,442 - 1,715 LBS (APPROX)  
 CUBE ----- 39.6 - 46.7 CUBIC FEET



UNIT NO. 21

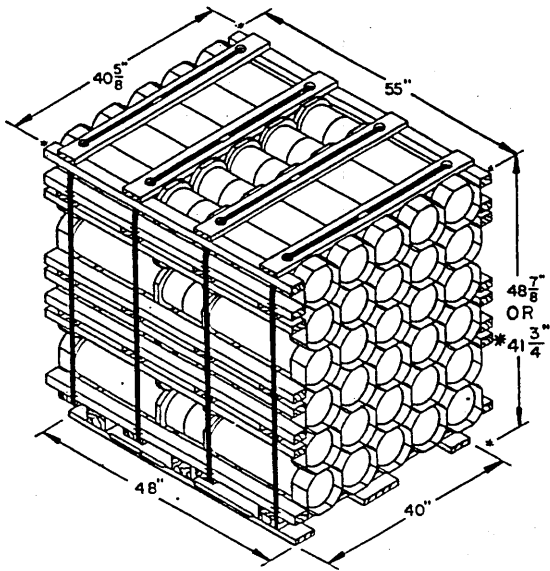
UNIT WEIGHT ----- 1,077 - 1,478 LBS (APPROX)  
 CUBE ----- 39.0 - 52.3 CUBIC FEET



UNIT NO. 22

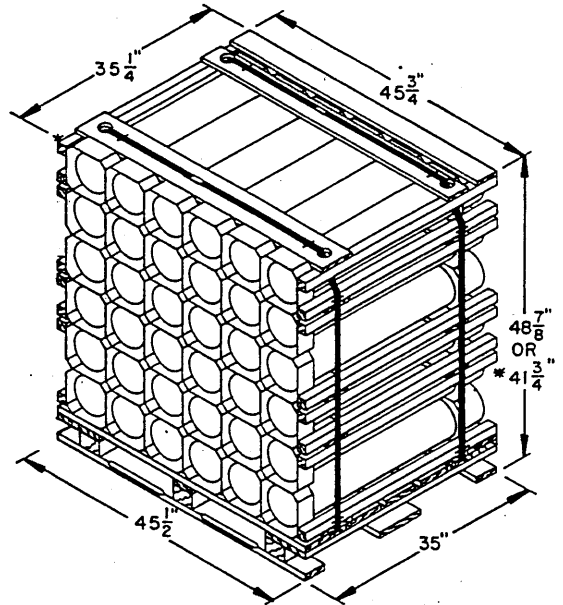
UNIT WEIGHT ----- 1,418 (APPROX)  
 CUBE ----- 38.06 CUBIC FEET

PALLET UNIT DETAILS



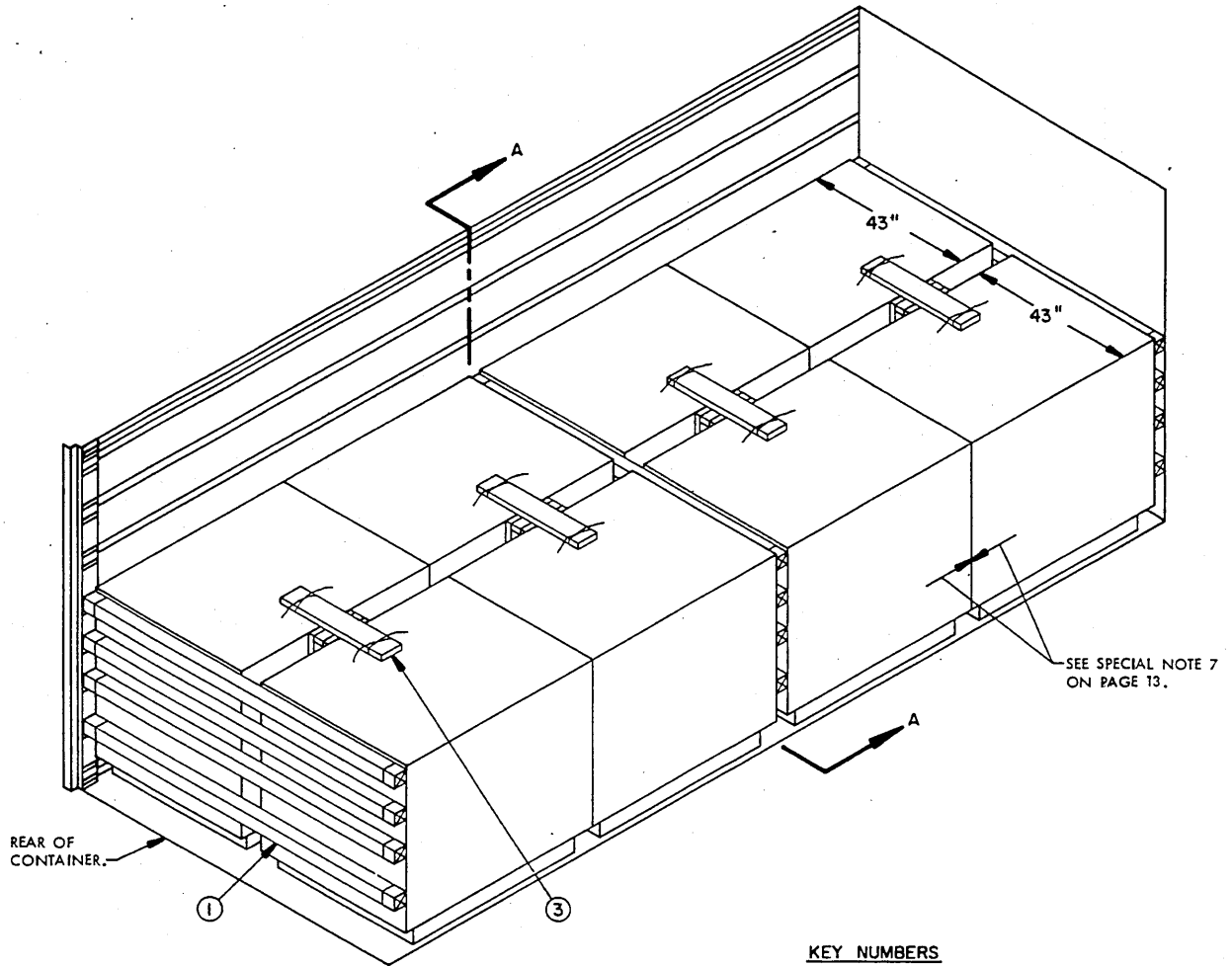
UNIT NO. 23

UNIT WEIGHT-----1,681 - 2,186 LBS (APPROX)  
 CUBE-----54.0 - 63.2 CUBIC FEET



UNIT NO. 24

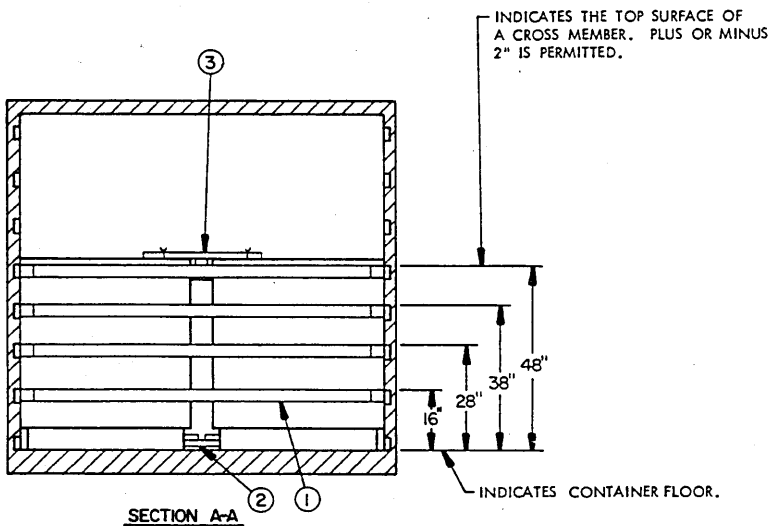
UNIT WEIGHT-----1,407 - 1,540 LBS (APPROX)  
 CUBE-----39.0 - 45.6 CUBIC FEET



ISOMETRIC VIEW

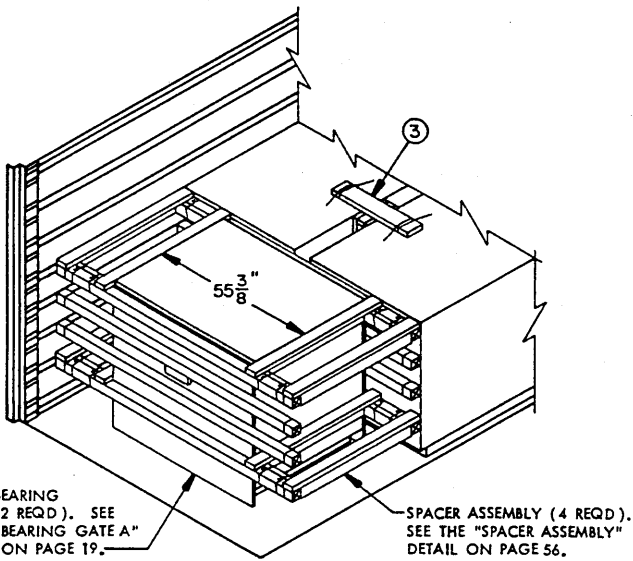
KEY NUMBERS

- ① CROSS MEMBER (12 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION A-A" VIEW.
- ② ANTI-SWAY BRACE (4 REQD). SEE THE "ANTI-SWAY BRACE B" DETAIL ON PAGE 56.
- ③ TOP SPACER (4 REQD). SEE THE "TOP SPACER A" DETAIL ON PAGE 15.



**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" SECTION ON PAGES 12 AND 13 ARE BASED ON THE 16-CONTAINER, PALLET UNIT NO. 1 SHOWN ON PAGE 4, WITH A UNIT WEIGHT OF 2,123 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, THE METHOD SPECIFIED IN THE "ALTERNATIVE LOADING PATTERN A" DETAIL MAY BE REQUIRED, TO CONFORM TO "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED. SEE SPECIAL NOTES 2 AND 3.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM OR NEAR THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN A" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE "ALTERNATIVE LOADING PATTERN A" DETAIL WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.
4. THE SPACER ASSEMBLY NEED NOT BE FABRICATED FOR A DRIVE FIT. THE ASSEMBLY SHOULD BE FABRICATED SO THAT IT CAN BE EASILY INSTALLED. HOWEVER, IT MUST FIT TIGHT ENOUGH SO AS TO NOT ALLOW MORE THAN ONE-HALF INCH (1/2") VOID ACROSS THE WIDTH OF A BRACED LOAD. SEE "SPACER ASSEMBLY SECUREMENT" DETAIL ON PAGE 56. SEE SPECIAL NOTE 5 BELOW.
5. WHEN INSTALLING SPACER ASSEMBLIES IN THE LOAD, THE ASSEMBLIES MUST BE WIRE TIED IN PLACE. THE TIE WIRE WILL FORM A COMPLETE LOOP AROUND THE STRUT OF THE SPACER ASSEMBLY AND THE ADJACENT CROSS MEMBER. BRING THE ENDS OF THE WIRE TOGETHER AND TWIST TAUT. ALSO, THE TIE WIRE MUST BE SECURED TO THE SPACER ASSEMBLY WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE, OR WITH A STRAP STAPLE. THE NAIL MAY BE DRIVEN INTO THE SIDE OR TOP OF A SPACER ASSEMBLY STRUT.
6. THESE PROCEDURES CAN ALSO BE USED WHEN OUTLOADING THE 16-CONTAINER PALLET UNIT NO. 8 SHOWN ON PAGE 7, WITH A UNIT WEIGHT OF 1,860 POUNDS
7. ALL LONGITUDINALLY ADJACENT PALLET UNITS WILL BE POSITIONED IN THE CONTAINER WITH BASE END AGAINST BASE END OR BELL END AGAINST BELL END.



**ALTERNATIVE LOADING PATTERN A**

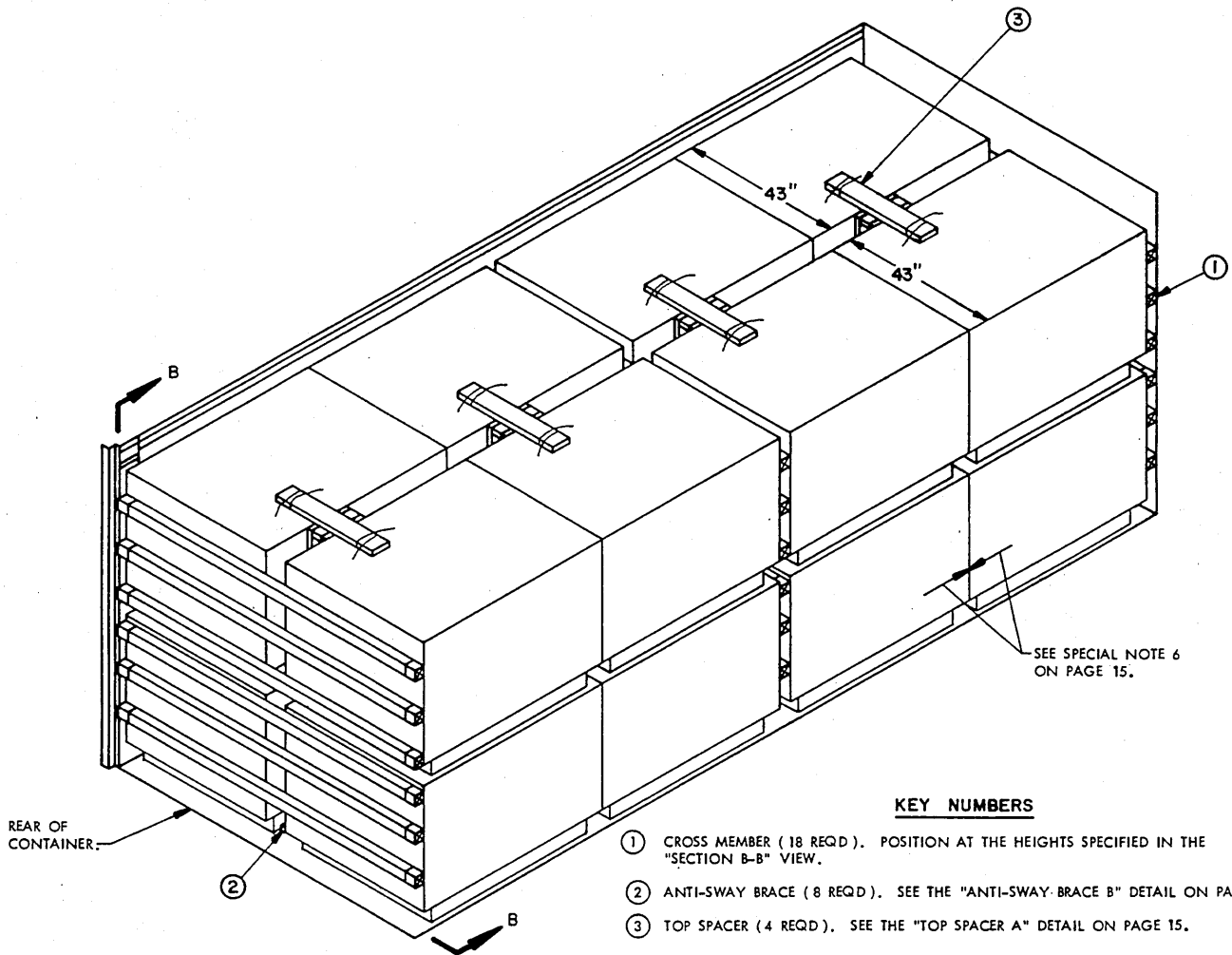
THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	51	34
2" X 6"	18	18
NAILS	NO. REQD	POUNDS
10d (3")	104	1-1/2
NO. 14 GAGE WIRE ----- 16' REQD -----		NIL
CROSS MEMBER -----		12 REQD

**LOAD AS SHOWN ( SEE SPECIAL NOTES 1 AND 6 ).**

ITEM	QUANTITY	WEIGHT ( APPROX )
PALLET UNIT -----	8 -----	16,984 LBS
DUNNAGE -----		106 LBS
CONTAINER -----		5,700 LBS

TOTAL GROSS WEIGHT ----- 22,790 LBS

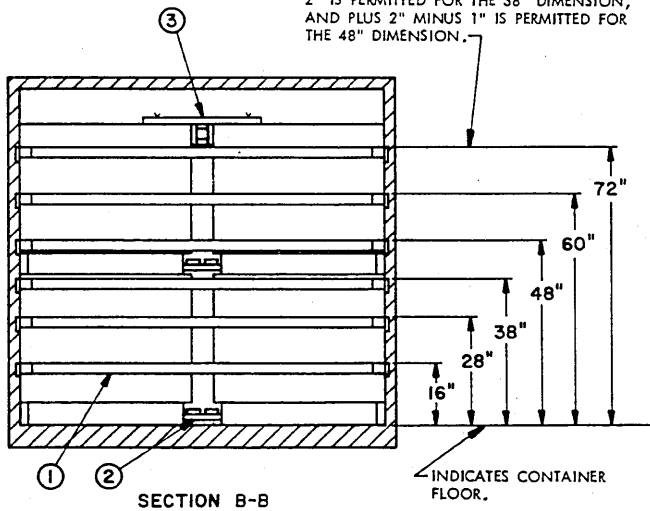


**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① CROSS MEMBER ( 18 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION B-B" VIEW.
- ② ANTI-SWAY BRACE ( 8 REQD ). SEE THE "ANTI-SWAY BRACE B" DETAIL ON PAGE 56.
- ③ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER A" DETAIL ON PAGE 15.

INDICATES THE TOP SURFACE OF A CROSS MEMBER. PLUS OR MINUS 2" IS PERMITTED FOR THE 16", 28", 60", AND 72" DIMENSIONS, PLUS 1" MINUS 2" IS PERMITTED FOR THE 38" DIMENSION, AND PLUS 2" MINUS 1" IS PERMITTED FOR THE 48" DIMENSION.

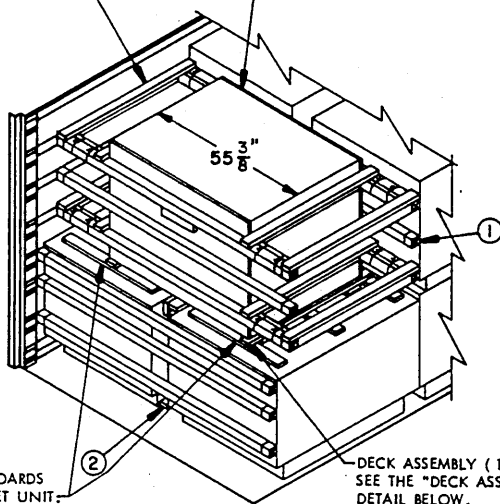


**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 14 AND 15 ARE BASED ON THE 12-CONTAINER, PALLET UNIT NO. 1 SHOWN ON PAGE 4, WITH A UNIT WEIGHT OF 1,623 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN B" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.
4. THE TOP SPACER NEED NOT BE FABRICATED FOR A "DRIVE" FIT, HOWEVER, IT MUST FIT TIGHT ENOUGH SO AS TO NOT ALLOW MORE THAN ONE-HALF INCH (1/2") VOID ACROSS THE WIDTH OF A BRACED LOAD.
5. THESE PROCEDURES CAN ALSO BE USED WHEN OUTLOADING THE 12-CONTAINER PALLET UNIT NO. 8 SHOWN ON PAGE 18, WITH A UNIT WEIGHT OF 1,398 POUNDS WHEN THEY ARE PALLETIZED ON FLAT DUNNAGE.
6. ALL LONGITUDINALLY ADJACENT PALLET UNITS WILL BE POSITIONED IN THE CONTAINER WITH BASE END AGAINST BASE END OR BELL END AGAINST BELL END.

SPACER ASSEMBLY (4 REQD). SEE THE "SPACER ASSEMBLY" DETAIL ON PAGE 56.

LOAD BEARING GATE (2 REQD). SEE "LOAD BEARING GATE A" DETAIL ON PAGE 19.



STRAPPING BOARDS OF THE PALLET UNIT.

DECK ASSEMBLY (1 REQD). SEE THE "DECK ASSEMBLY A" DETAIL BELOW.

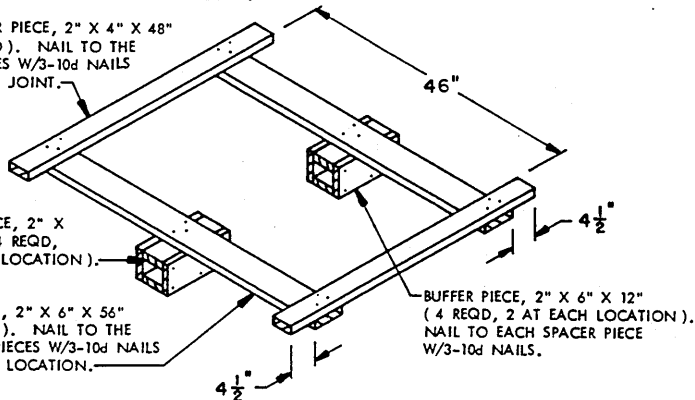
**ALTERNATIVE LOADING PATTERN B**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

RETAINER PIECE, 2" X 4" X 48" (2 REQD). NAIL TO THE TIE PIECES W/3-10d NAILS AT EACH JOINT.

SPACER PIECE, 2" X 4" X 12" (4 REQD, 2 AT EACH LOCATION).

TIE PIECE, 2" X 6" X 56" (2 REQD). NAIL TO THE SPACER PIECES W/3-10d NAILS AT EACH LOCATION.



BUFFER PIECE, 2" X 6" X 12" (4 REQD, 2 AT EACH LOCATION). NAIL TO EACH SPACER PIECE W/3-10d NAILS.

**DECK ASSEMBLY A**

BUFFER PIECE, 2" X 6" X 12" (2 REQD). NAIL TO THE SPACER PIECES W/3-10d NAILS AT EACH JOINT.

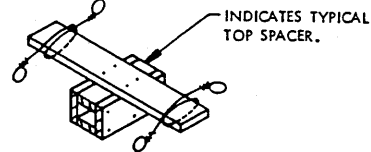
SPACER PIECE, 2" X 4" X 12" (2 REQD).

RETAINER PIECE, 2" X 6" X 30" (1 REQD). NAIL TO THE BUFFER PIECES W/2-10d NAILS AT EACH JOINT.

**TOP SPACER A**

SEE "TOP SPACER SECUREMENT" DETAIL AT RIGHT AND SPECIAL NOTE 4 ABOVE.

TIE WIRE, NO. 14 GAGE WIRE BY LENGTH TO SUIT (2 REQD PER SPACER). INSTALL WIRE TO FORM A COMPLETE LOOP AROUND THE RETAINER PIECE. ATTACH EACH END TO A PALLET UNIT UNITIZING STRAP. SECURE TO THE RETAINER PIECE WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE, OR WITH A STRAP STAPLE ON EACH WIRE.



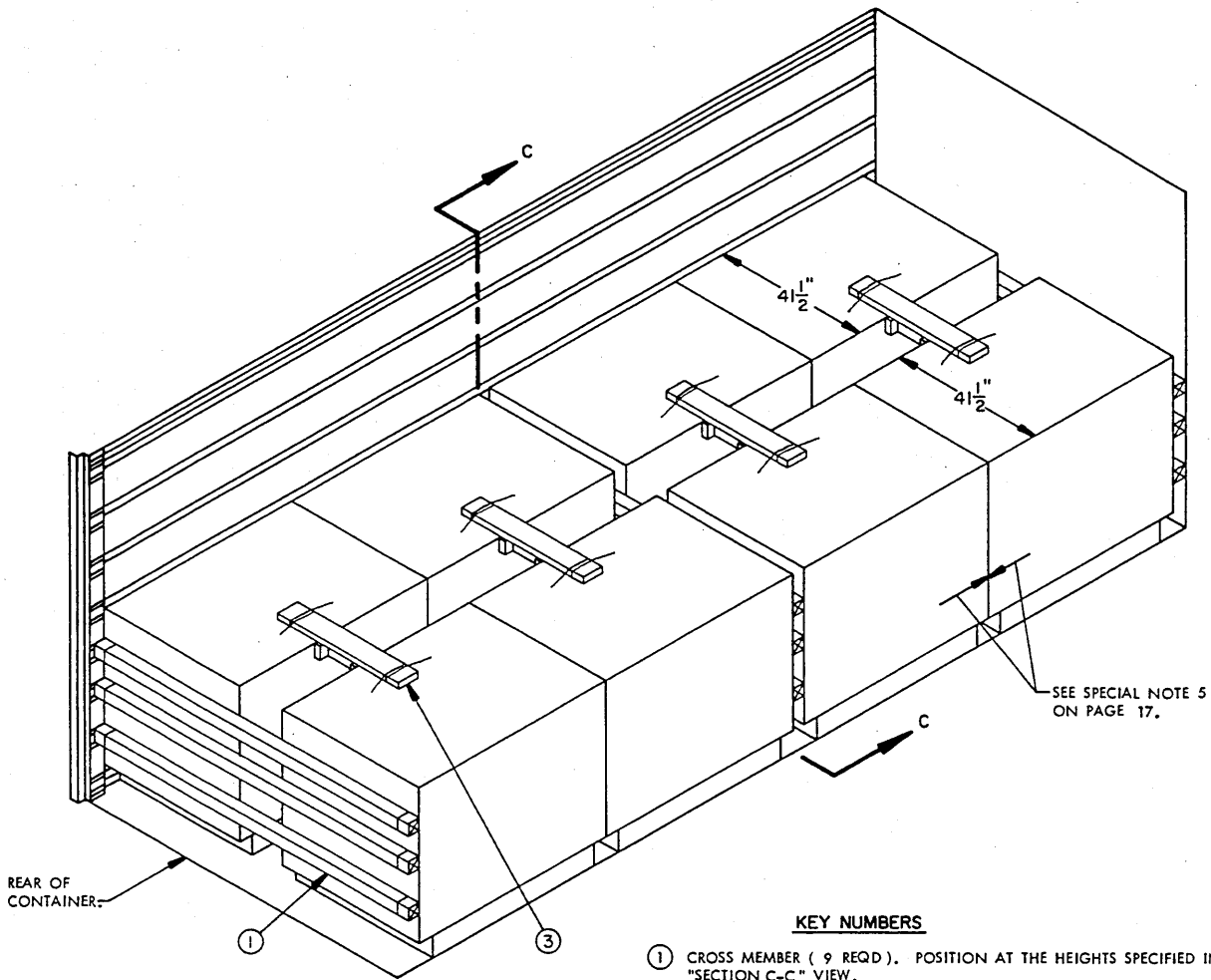
**TOP SPACER SECUREMENT**

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	86	58
2" X 6"	18	18
NAILS	NO. REQD	POUNDS
10d (3")	128	2
WIRE, NO. 14 GAGE	16' REQD	NIL
CROSS MEMBER		18 REQD

**LOAD AS SHOWN (SEE SPECIAL NOTES 1 AND 5).**

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	25,968 LBS
DUNNAGE		154 LBS
CONTAINER		5,700 LBS

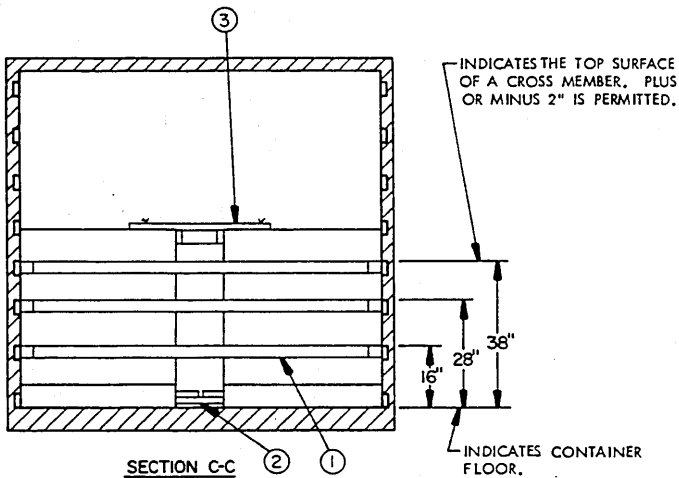
TOTAL GROSS WEIGHT --- 31,822 LBS



ISOMETRIC VIEW

KEY NUMBERS

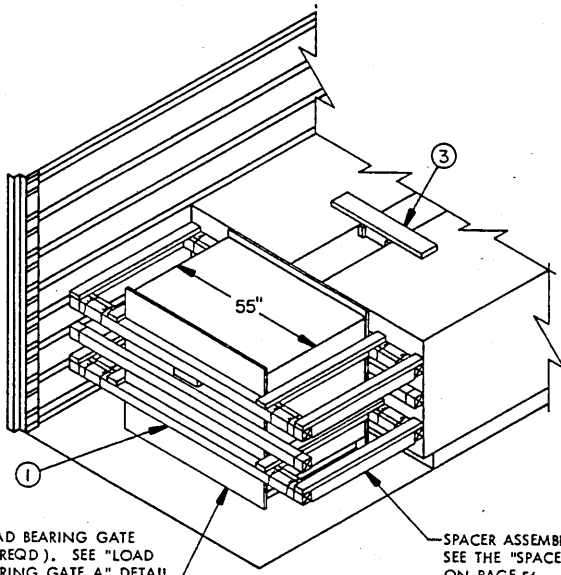
- ① CROSS MEMBER ( 9 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION C-C" VIEW.
- ② ANTI-SWAY BRACE ( 4 REQD ). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ③ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER B" DETAIL ON PAGE 19.





SPECIAL NOTES:

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 16 AND 17 ARE BASED ON THE 50-CONTAINER, PALLET UNIT NO. 2 SHOWN ON PAGE 4, WITH A UNIT WEIGHT OF 1,749 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN C" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.
4. THESE PROCEDURES CAN ALSO BE USED WHEN OUTLOADING THE 16-CONTAINER PALLET UNIT NO. 7 SHOWN ON PAGE 6, WHEN THEY ARE PALLETIZED ON ROUTED DUNNAGE OR FLAT DUNNAGE.
5. ALL LONGITUDINALLY ADJACENT PALLET UNITS WILL BE POSITIONED IN THE CONTAINER WITH BASE END AGAINST BASE END OR BELL END AGAINST BELL END.



LOAD BEARING GATE  
(2 REQD). SEE "LOAD  
BEARING GATE A" DETAIL  
ON PAGE 19.

SPACER ASSEMBLY (4 REQD).  
SEE THE "SPACER ASSEMBLY" DETAIL  
ON PAGE 56.

ALTERNATIVE LOADING PATTERN C

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED  
IN A "REDUCED-LOAD" CONTAINER LOAD.

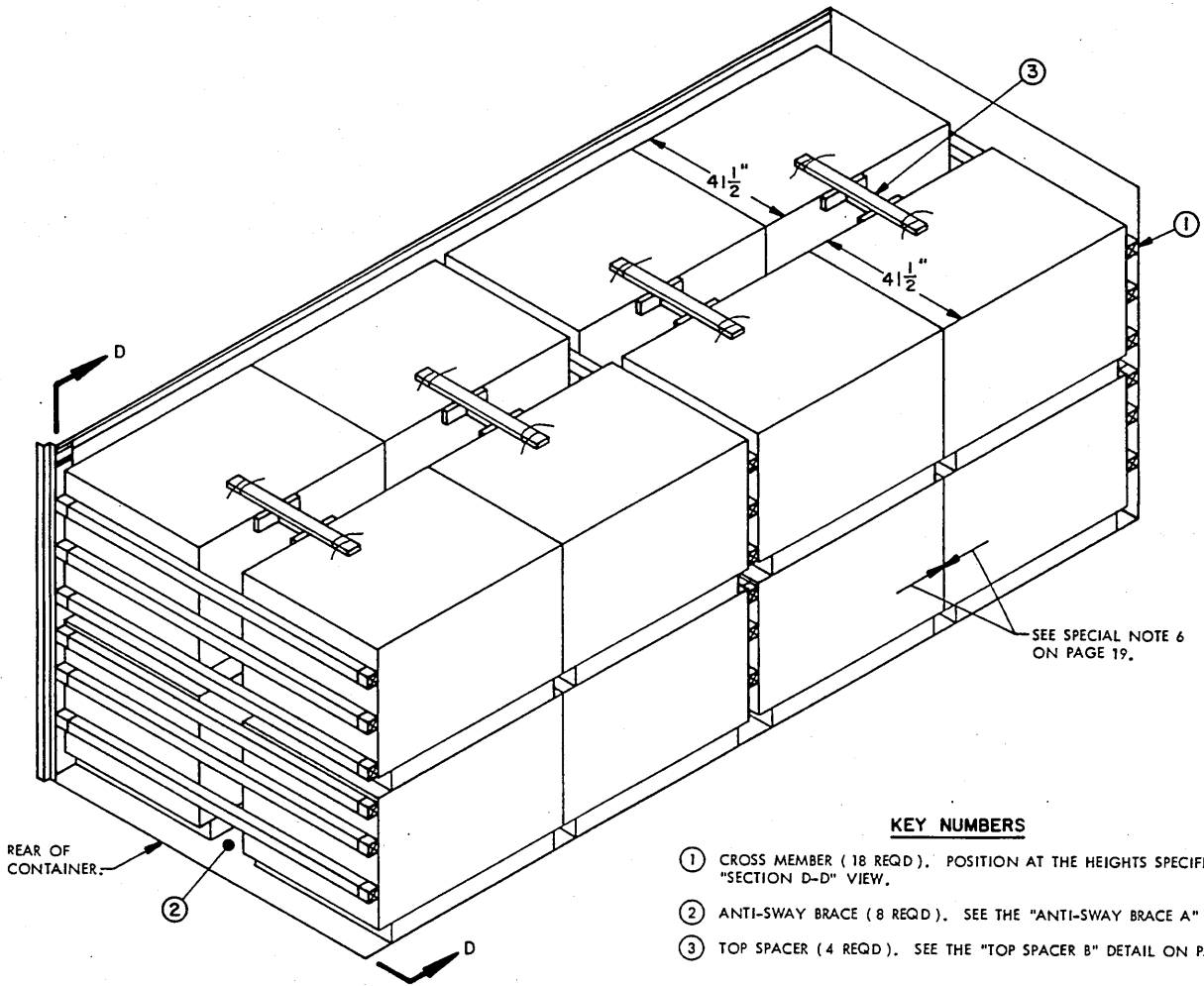
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	40	26
2" X 6"	27	27
NAILS	NO. REQD	POUNDS
10d (3")	80	1-1/4
WIRE, NO. 14 GAGE -----	16' REQD -----	NIL
CROSS MEMBER -----		9 REQD

LOAD AS SHOWN (SEE SPECIAL NOTES 1 AND 4)

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT -----	8 -----	13,992 LBS
DUNNAGE -----		107 LBS
CONTAINER -----		5,700 LBS

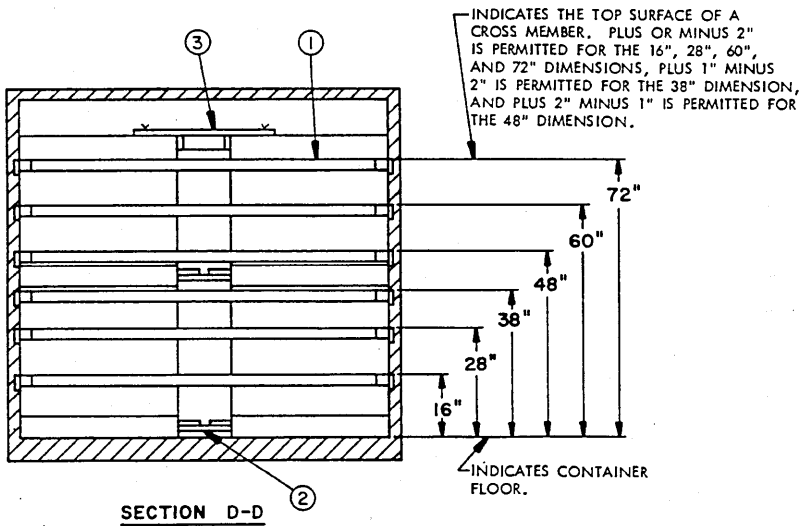
TOTAL GROSS WEIGHT ----- 19,799 LBS



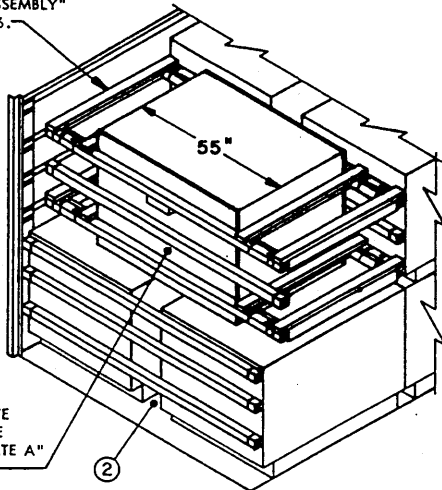
**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① CROSS MEMBER ( 18 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION D-D" VIEW.
- ② ANTI-SWAY BRACE ( 8 REQD ). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ③ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER B" DETAIL ON PAGE 19.



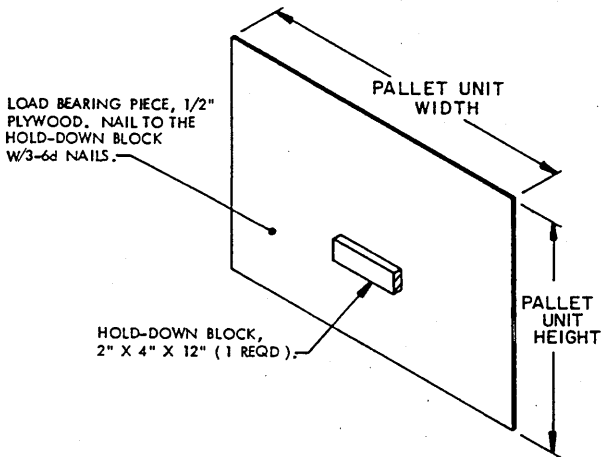
SPACER ASSEMBLY (4 REQD).  
SEE THE "SPACER ASSEMBLY"  
DETAIL ON PAGE 56.



LOAD BEARING GATE  
(2 REQD). SEE THE  
"LOAD BEARING GATE A"  
DETAIL BELOW.

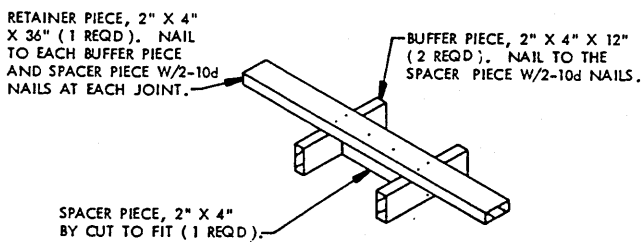
**ALTERNATIVE LOADING PATTERN D**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED  
IN A "REDUCED-LOAD" CONTAINER LOAD.



**LOAD BEARING GATE A**

SEE SPECIAL NOTE 7 ABOVE.

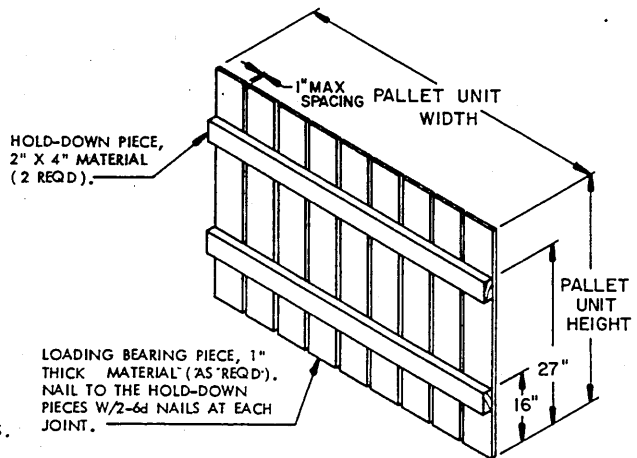


**TOP SPACER B**

SEE "TOP SPACER SECUREMENT" DETAIL ON PAGE 15 AND  
SPECIAL NOTE 4 ABOVE.

**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 18 AND 19 ARE BASED ON THE 40-CONTAINER, PALLET UNIT NO. 2 SHOWN ON PAGE 4, WITH A UNIT WEIGHT OF 1,421 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN D" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.
4. THE TOP SPACER NEED NOT BE FABRICATED FOR A "DRIVE" FIT, HOWEVER, IT MUST FIT TIGHT ENOUGH SO AS TO NOT ALLOW MORE THAN ONE-HALF INCH (1/2") VOID ACROSS THE WIDTH OF A BRACED LOAD.
5. THESE PROCEDURES CAN ALSO BE USED WHEN OUTLOADING THE TWELVE-CONTAINER PALLET UNIT NO. 7 SHOWN ON PAGE 6, WITH A UNIT WEIGHT OF 1,444 POUNDS WHEN THEY ARE PALLETIZED ON ROUTED DUNNAGE.
6. ALL LONGITUDINALLY ADJACENT PALLET UNITS WILL BE POSITIONED IN THE CONTAINER WITH BASE END AGAINST BASE END OR BELL END AGAINST BELL END.
7. IF PLYWOOD IS NOT AVAILABLE OR IF DESIRED, THE LOAD BEARING GATES MAY BE FABRICATED FROM NOMINAL ONE-INCH AND TWO-INCH LUMBER. SEE THE "ALTERNATIVE LOAD BEARING GATE A" DETAIL BELOW. THE HEIGHT OF THE HOLD-DOWN PIECES OR BLOCKS MUST BE ADJUSTED AS REQUIRED FOR THE DIFFERENT CROSS MEMBER LOCATIONS. A HOLD-DOWN PIECE OR BLOCK MUST BE LOCATED UNDER A CROSS MEMBER AS SHOWN IN THE LOAD VIEWS. RANDOM WIDTH MATERIAL MAY BE USED FOR THE SPECIFIED 1" THICK PIECE.



**ALTERNATIVE LOAD BEARING GATE A**

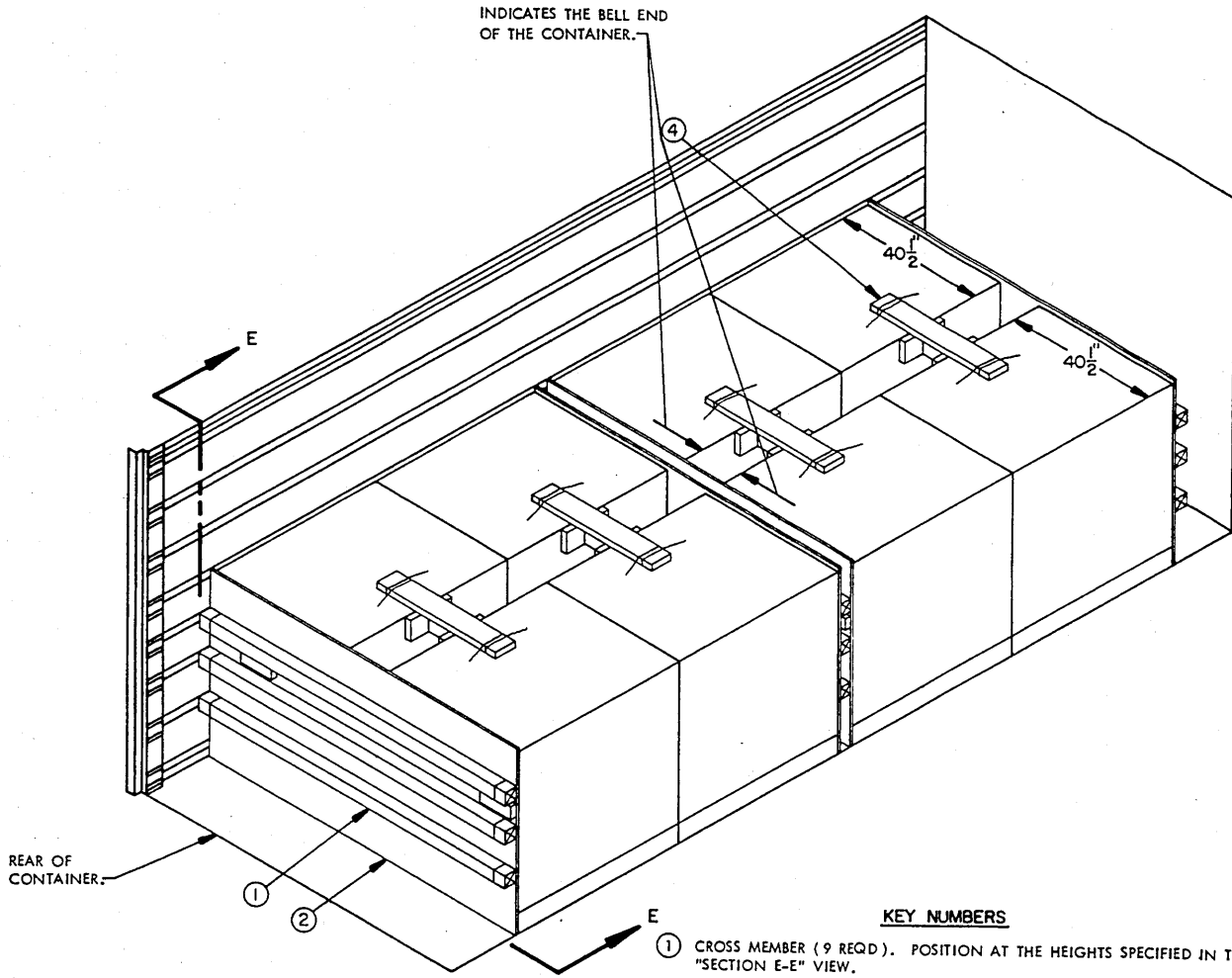
SEE SPECIAL NOTE 7 ABOVE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	56	37
2" X 6"	54	54
NAILS	NO. REQD	POUNDS
10d (3")	104	2
WIRE, NO. 14 GAGE	16' REQD	NIL
CROSS MEMBER		18 REQD

**LOAD AS SHOWN** (SEE SPECIAL NOTES 1 AND 5).

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	22,736 LBS
DUNNAGE		184 LBS
CONTAINER		5,700 LBS

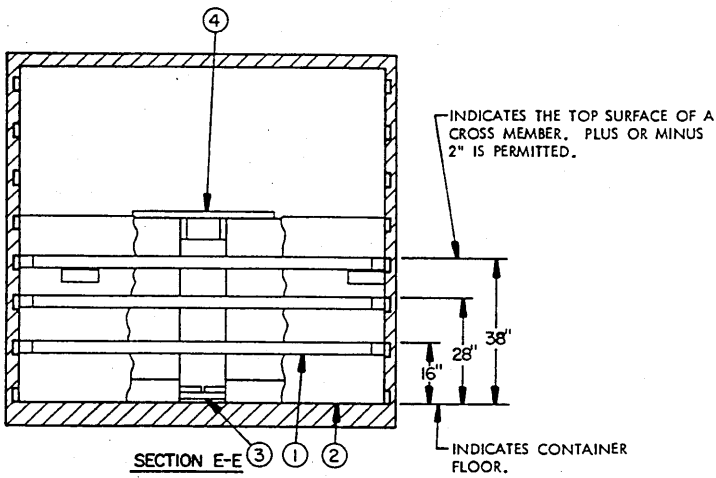
TOTAL GROSS WEIGHT ----- 28,620 LBS



ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER (9 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION E-E" VIEW.
- ② LOAD BEARING GATE (4 REQD). SEE THE "LOAD BEARING GATE B" DETAIL ON PAGE 21.
- ③ ANTI-SWAY BRACE (4 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ④ TOP SPACER (4 REQD). SEE THE "TOP SPACER D" DETAIL ON PAGE 39.

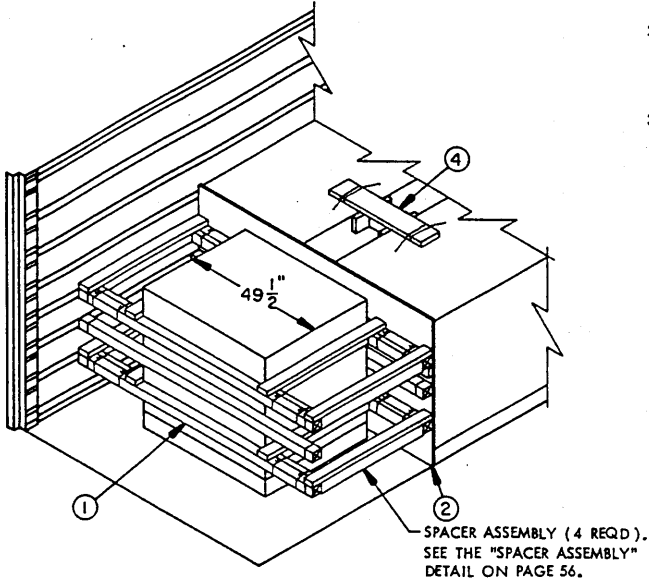


SECTION E-E

INDICATES CONTAINER FLOOR.

( SPECIAL NOTES CONTINUED )

4. IF PLYWOOD IS NOT AVAILABLE OR IF DESIRED, THE LOAD BEARING GATES MAY BE FABRICATED FROM NOMINAL ONE-INCH AND TWO-INCH LUMBER. SEE THE "ALTERNATIVE LOAD BEARING GATE B" DETAIL BELOW. RANDOM WIDTH MATERIAL MAY BE USED FOR THE SPECIFIED 1" THICK PIECES.



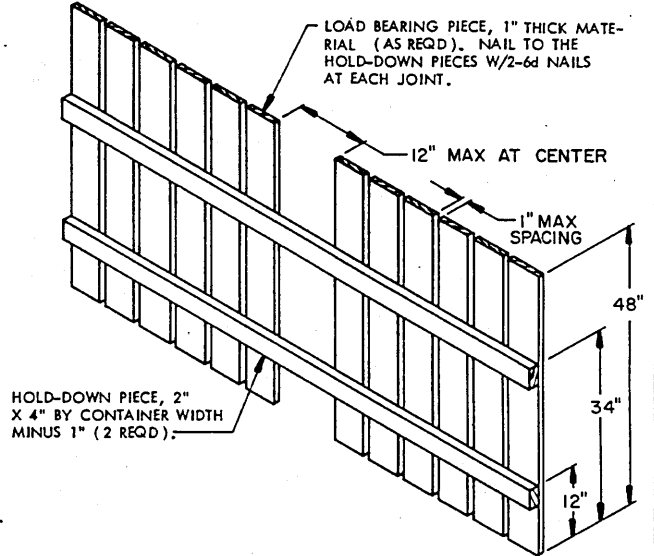
**ALTERNATIVE LOADING PATTERN E**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 20 AND 21 ARE BASED ON THE 42-CONTAINER, PALLET UNIT NO. 3 SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,433 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN E" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.

( CONTINUED AT LEFT )



**ALTERNATIVE LOAD BEARING GATE B**

SEE SPECIAL NOTE 4 ABOVE.

HOLD-DOWN BLOCK, 2" X 4" X 12" (2 REQD).

CONTAINER WIDTH MINUS 1"

LOAD BEARING PIECE, 1/2" PLYWOOD (1 REQD). NAIL TO EACH HOLD-DOWN BLOCK W/3-6d NAILS.

**LOAD BEARING GATE B**

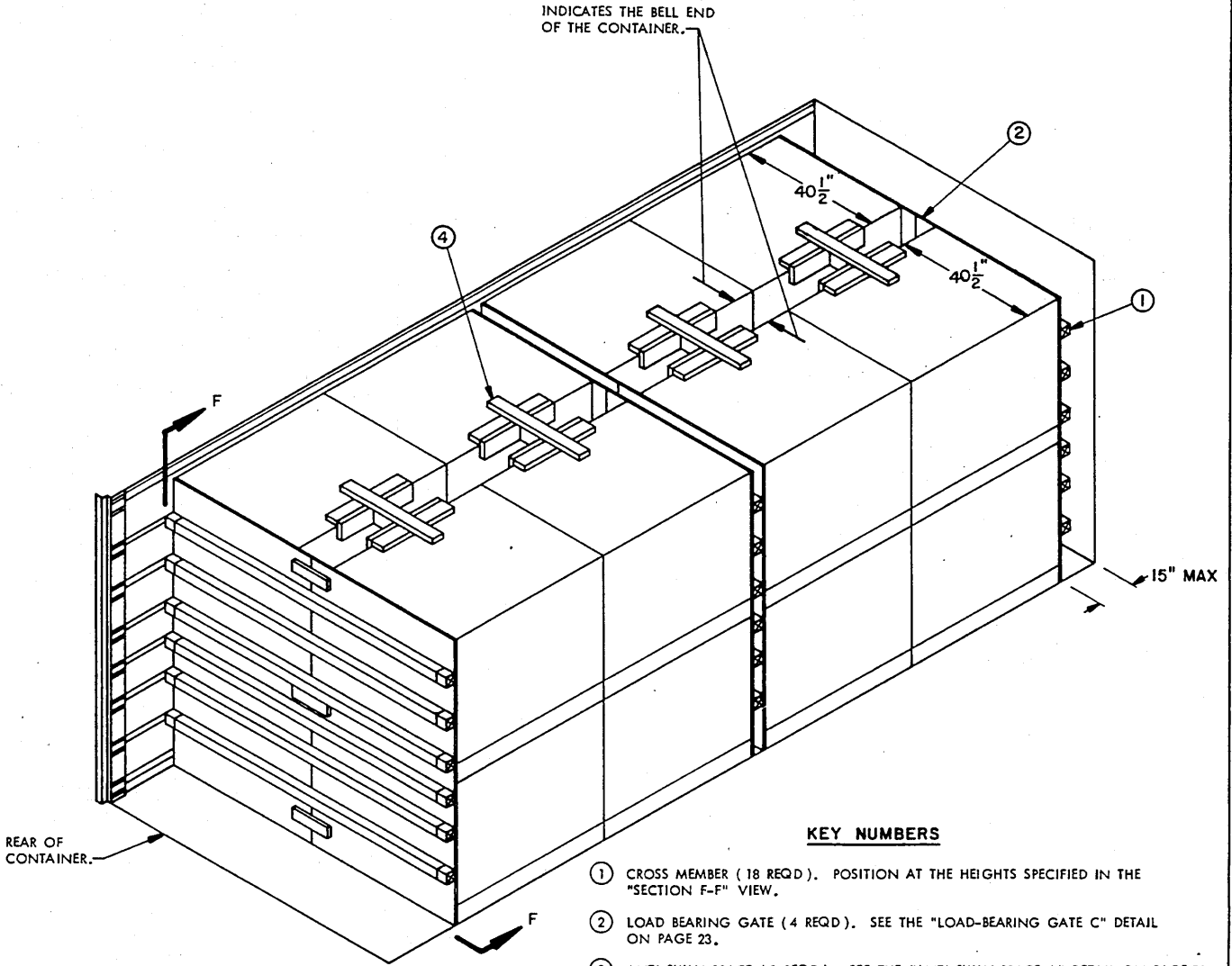
SEE SPECIAL NOTE 4 ABOVE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	24	16
2" X 6"	51	51
NAILS	NO. REQD	POUNDS
6d (2")	24	NIL
10d (3")	88	1-1/4
PLYWOOD, 1/2"	123 SQ FT	168 LBS
WIRE, NO. 14 GAGE	16' REQD	NIL
CROSS MEMBER		9 REQD

**LOAD AS SHOWN (SEE SPECIAL NOTE 1).**

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	11,464 LBS
DUNNAGE		303 LBS
CONTAINER		5,700 LBS

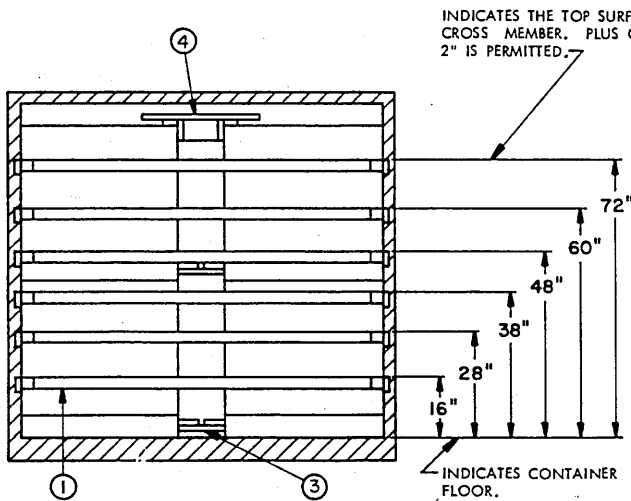
TOTAL GROSS WEIGHT — 17,467 LBS



**ISOMETRIC VIEW**

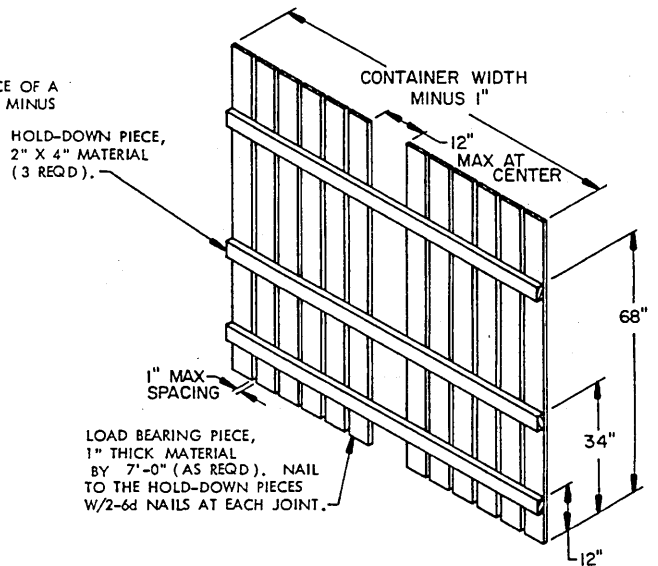
**KEY NUMBERS**

- ① CROSS MEMBER (18 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION F-F" VIEW.
- ② LOAD BEARING GATE (4 REQD). SEE THE "LOAD-BEARING GATE C" DETAIL ON PAGE 23.
- ③ ANTI-SWAY BRACE (8 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ④ TOP SPACER (4 REQD). SEE THE "TOP SPACER C" DETAIL ON PAGE 23.



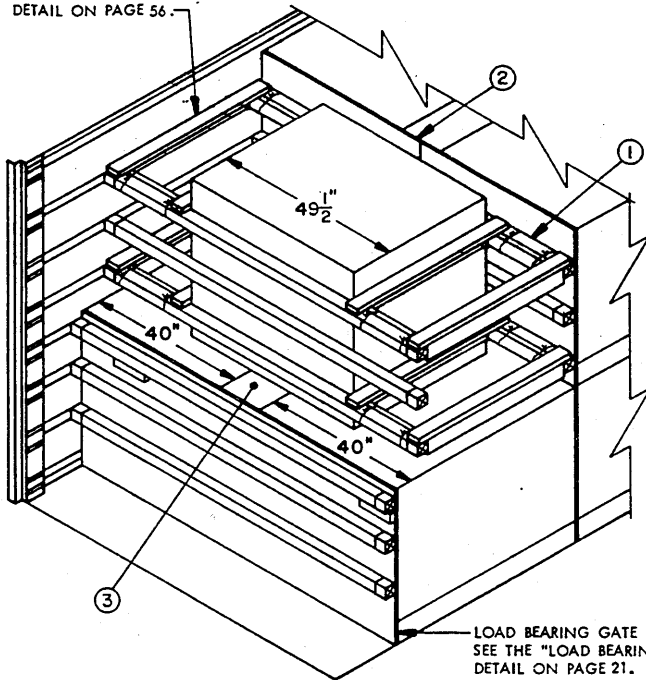
**SECTION F-F**

THE LOAD BEARING GATE, PIECE MARKED ②, HAS BEEN OMITTED FOR CLARITY PURPOSES.



**ALTERNATIVE LOAD BEARING GATE C**

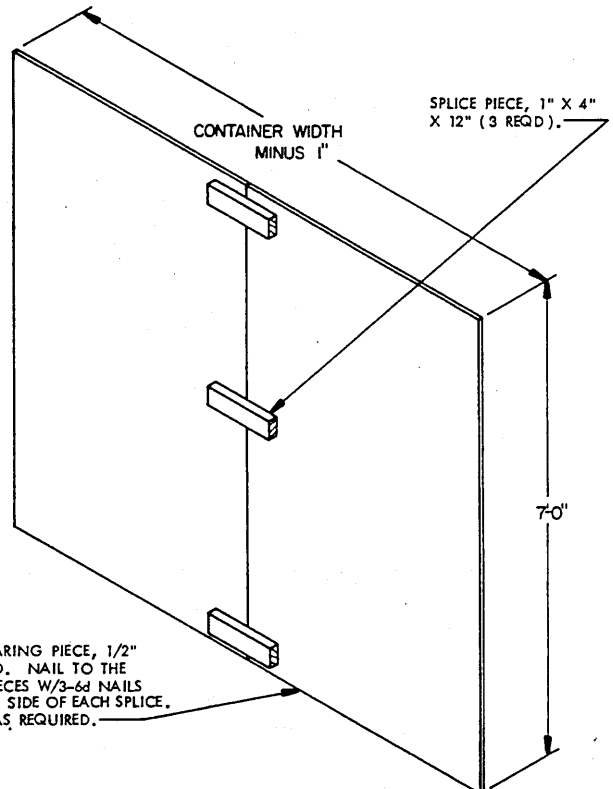
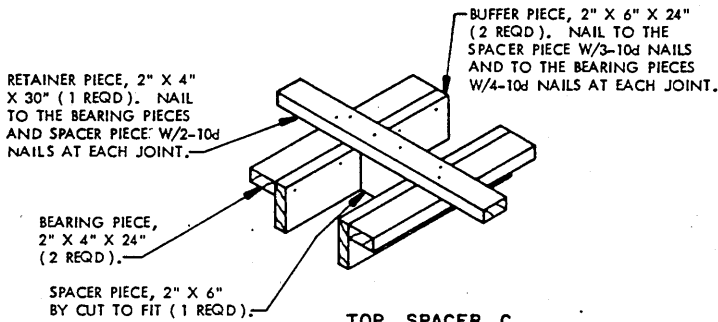
SPACER ASSEMBLY (4 REQD).  
SEE THE "SPACER ASSEMBLY"  
DETAIL ON PAGE 56.



LOAD BEARING GATE (1 REQD).  
SEE THE "LOAD BEARING GATE B"  
DETAIL ON PAGE 21.

**ALTERNATIVE LOADING PATTERN F**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED  
IN A "REDUCED-LOAD" CONTAINER LOAD.



**LOAD BEARING GATE C**  
SEE SPECIAL NOTE 5 ABOVE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	12	4
2" X 4"	58	39
2" X 6"	74	74
NAILS	NO. REQD	POUNDS
6d (2")	96	1/2
10d (3")	208	3-1/4
PLYWOOD, 1/2"	210 SQ FT REQD	286 LBS
WIRE, NO. 14 GAGE	16' REQD	NIL
CROSS MEMBER		18 REQD

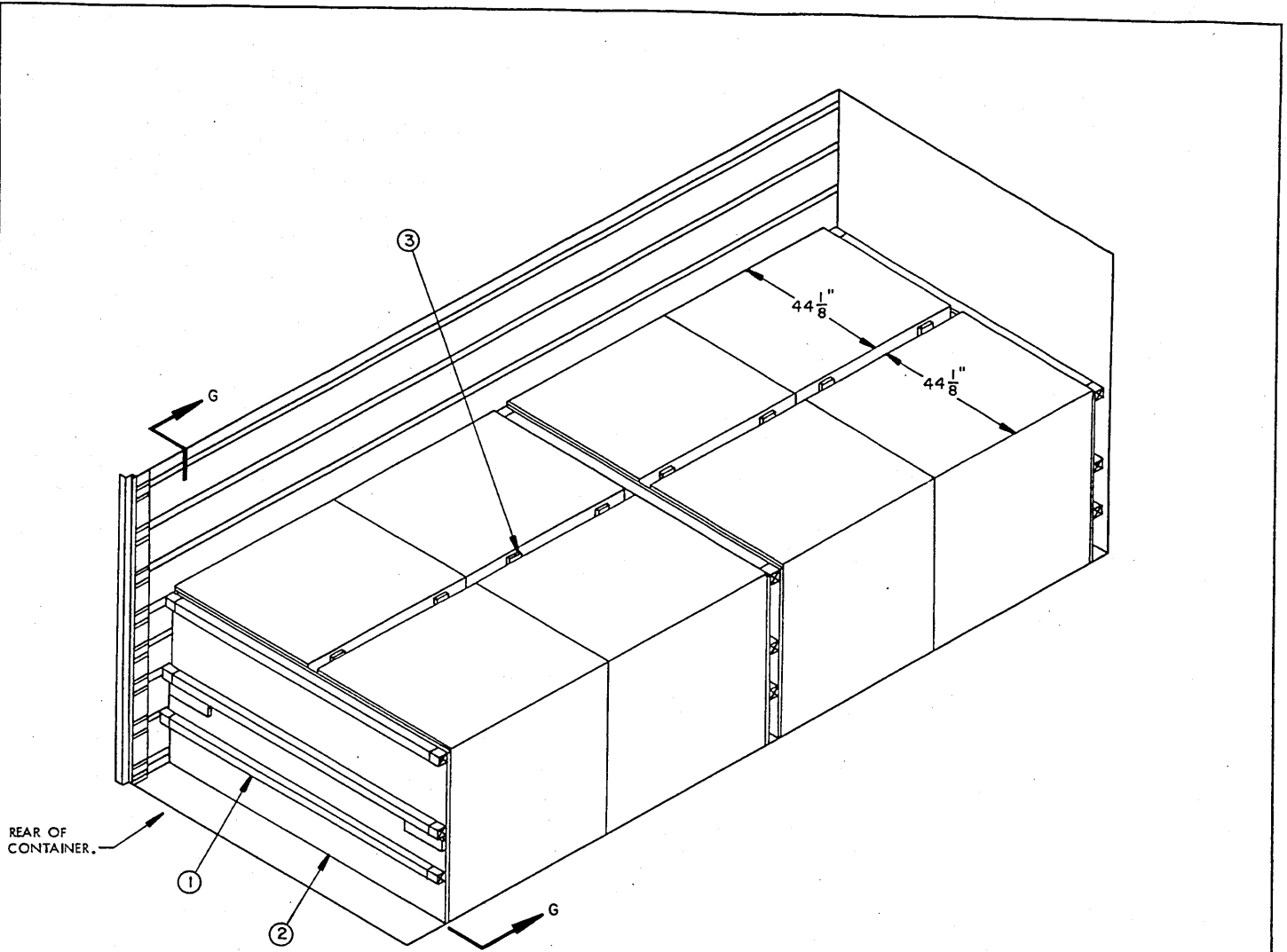
**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 22 AND 23 ARE BASED ON THE 35-CONTAINER, PALLET UNIT NO. 3 SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,219 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN F" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.
4. THE TOP SPACER NEED NOT BE FABRICATED FOR A "DRIVE" FIT, HOWEVER, IT MUST FIT TIGHT ENOUGH SO AS TO NOT ALLOW MORE THAN ONE-HALF INCH (1/2") VOID ACROSS THE WIDTH OF A BRACED LOAD.
5. IF PLYWOOD IS NOT AVAILABLE OR IF DESIRED, THE LOAD BEARING GATES MAY BE FABRICATED FROM NOMINAL ONE-INCH AND TWO-INCH LUMBER. SEE THE "ALTERNATIVE LOAD BEARING GATE C" DETAIL ON PAGE 22. RANDOM WIDTH MATERIAL MAY BE USED FOR THE SPECIFIED 1" THICK PIECES.

**LOAD AS SHOWN (SEE SPECIAL NOTE 1)**

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	19,504 LBS
DUNNAGE		524 LBS
CONTAINER		5,700 LBS

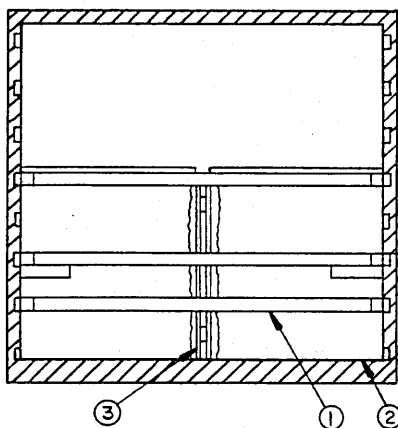
TOTAL GROSS WEIGHT----- 25,728 LBS



ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER (9 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION G-G" VIEW.
- ② LOAD BEARING GATE (4 REQD). SEE THE "LOAD BEARING GATE D" DETAIL ON PAGE 25.
- ③ ANTI-SWAY ASSEMBLY (4 REQD). SEE THE "ANTI-SWAY ASSEMBLY A" DETAIL ON PAGE 25.



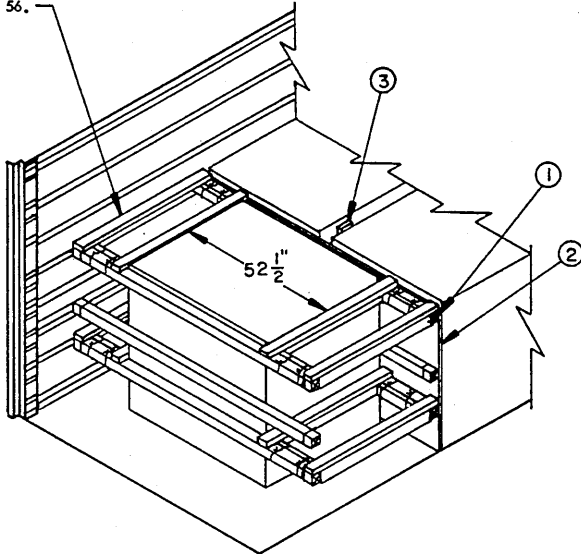
SECTION G-G

INDICATES THE TOP SURFACE OF A CROSS MEMBER. PLUS OR MINUS 2" FOR THE 16" AND 28" DIMENSIONS AND PLUS 0" MINUS 2" IS PERMITTED FOR THE 48" DIMENSION.

INDICATES CONTAINER FLOOR.



SPACER ASSEMBLY ( 4 REQD ). SEE THE "SPACER ASSEMBLY" DETAIL ON PAGE 56.

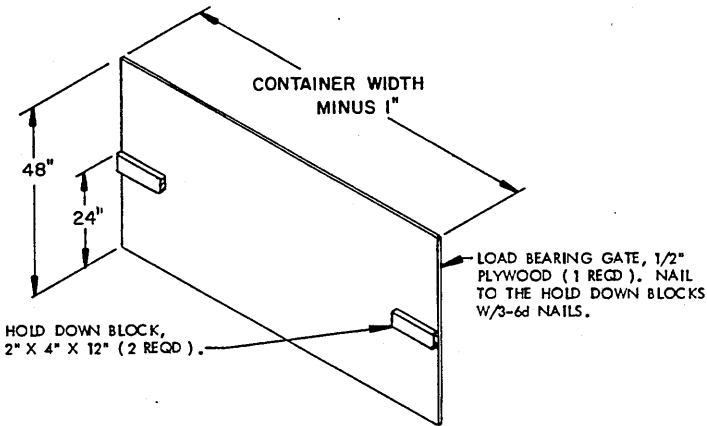


**ALTERNATIVE LOADING PATTERN G**

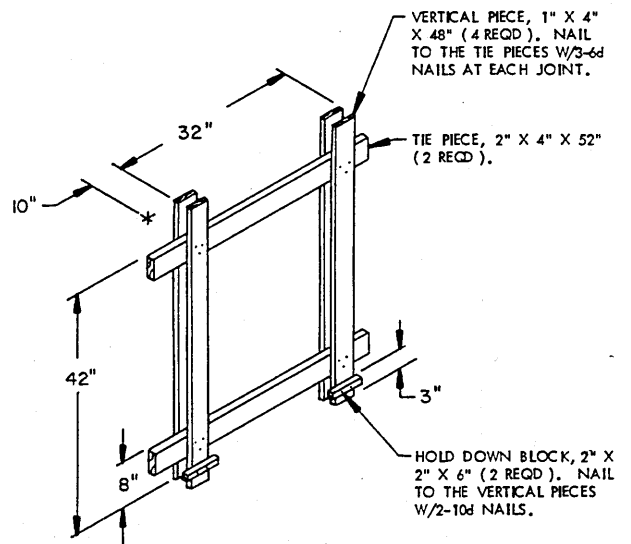
THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 24 AND 25 ARE BASED ON THE 30-CONTAINER, PALLET UNIT NO. 4 SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,870 LBS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN G" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.



**LOAD BEARING GATE D**

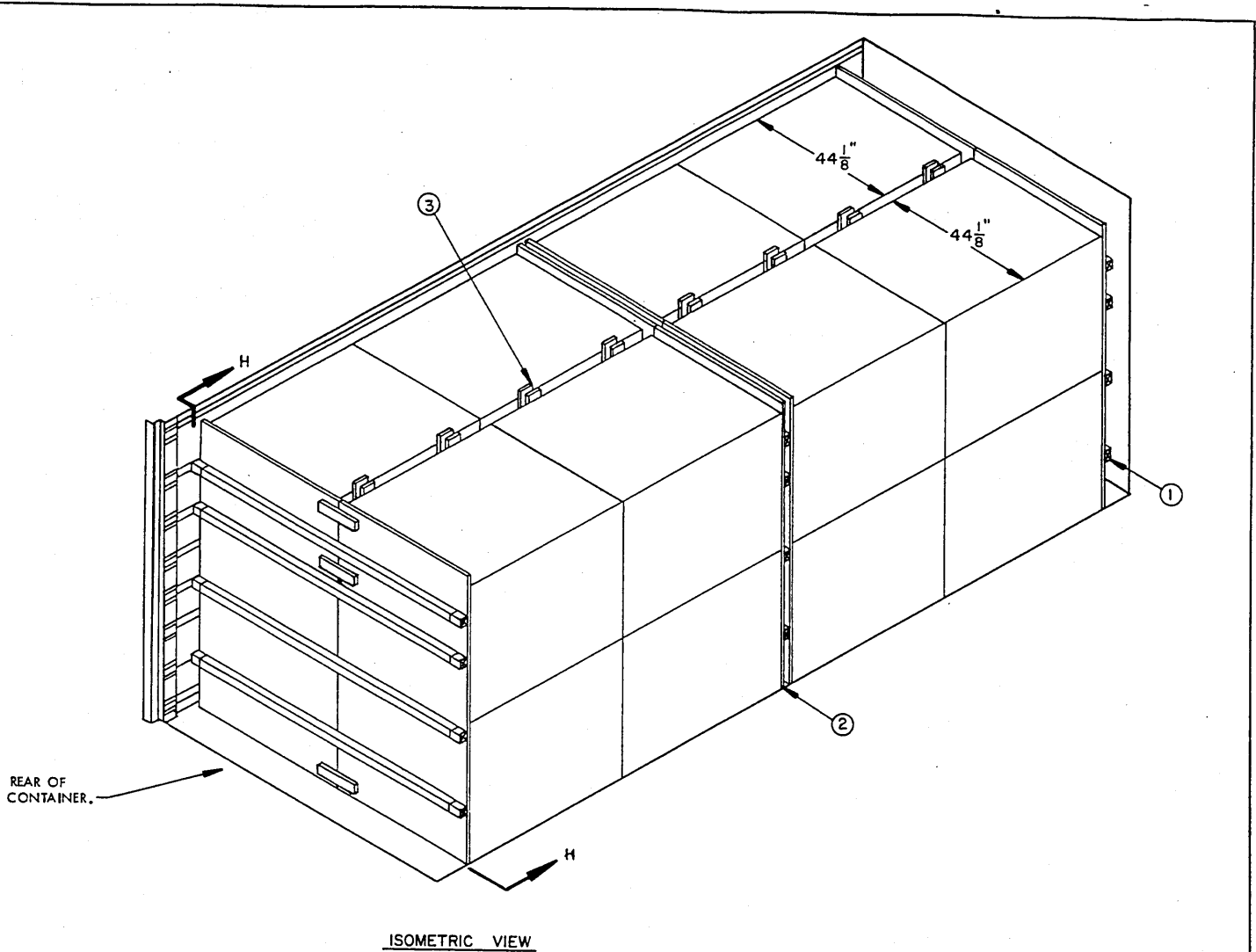


**ANTI-SWAY ASSEMBLY A**

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	14,960 LBS
DUNNAGE		283 LBS
CONTAINER		5,700 LBS
<b>TOTAL GROSS WEIGHT</b>		<b>20,943 LBS</b>

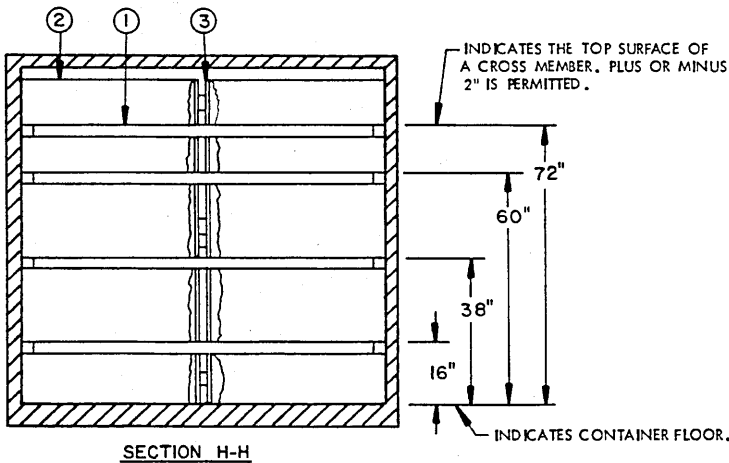
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	64	22
2" X 2"	4	2
2" X 4"	43	29
NAILS	NO. REQD	POUNDS
6d (2")	120	3/4
10d (3")	16	1/4
PLYWOOD, 1/2"	120 SQ. FT REQD	176 LBS
CROSS MEMBER		9 REQD



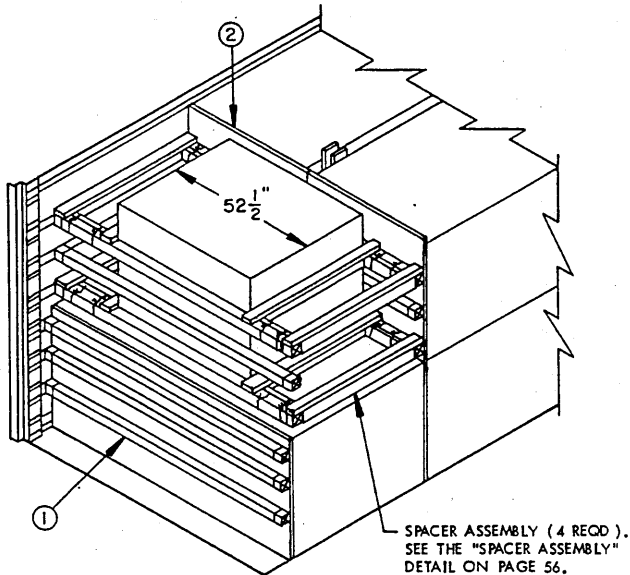
ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER ( 12 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION H-H" VIEW.
- ② LOAD BEARING GATE ( 4 REQD ). SEE THE "LOAD BEARING GATE C" DETAIL ON PAGE 23.
- ③ ANTI-SWAY ASSEMBLY ( 4 REQD ). SEE THE "ANTI-SWAY ASSEMBLY B" DETAIL ON PAGE 27.



SECTION H-H



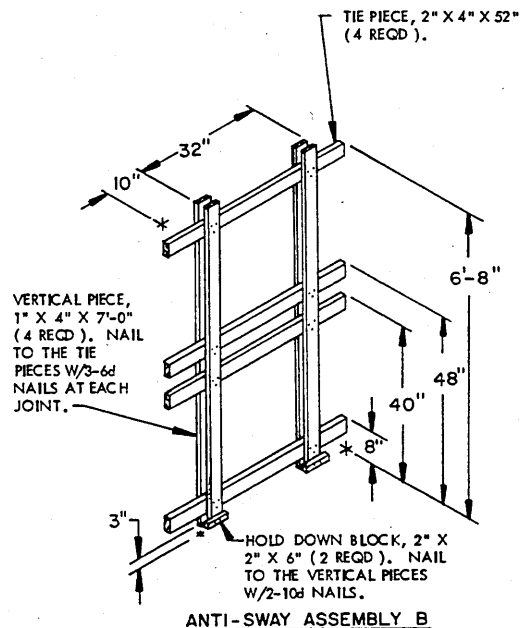
**ALTERNATIVE LOADING PATTERN H**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

**SPECIAL NOTES:**

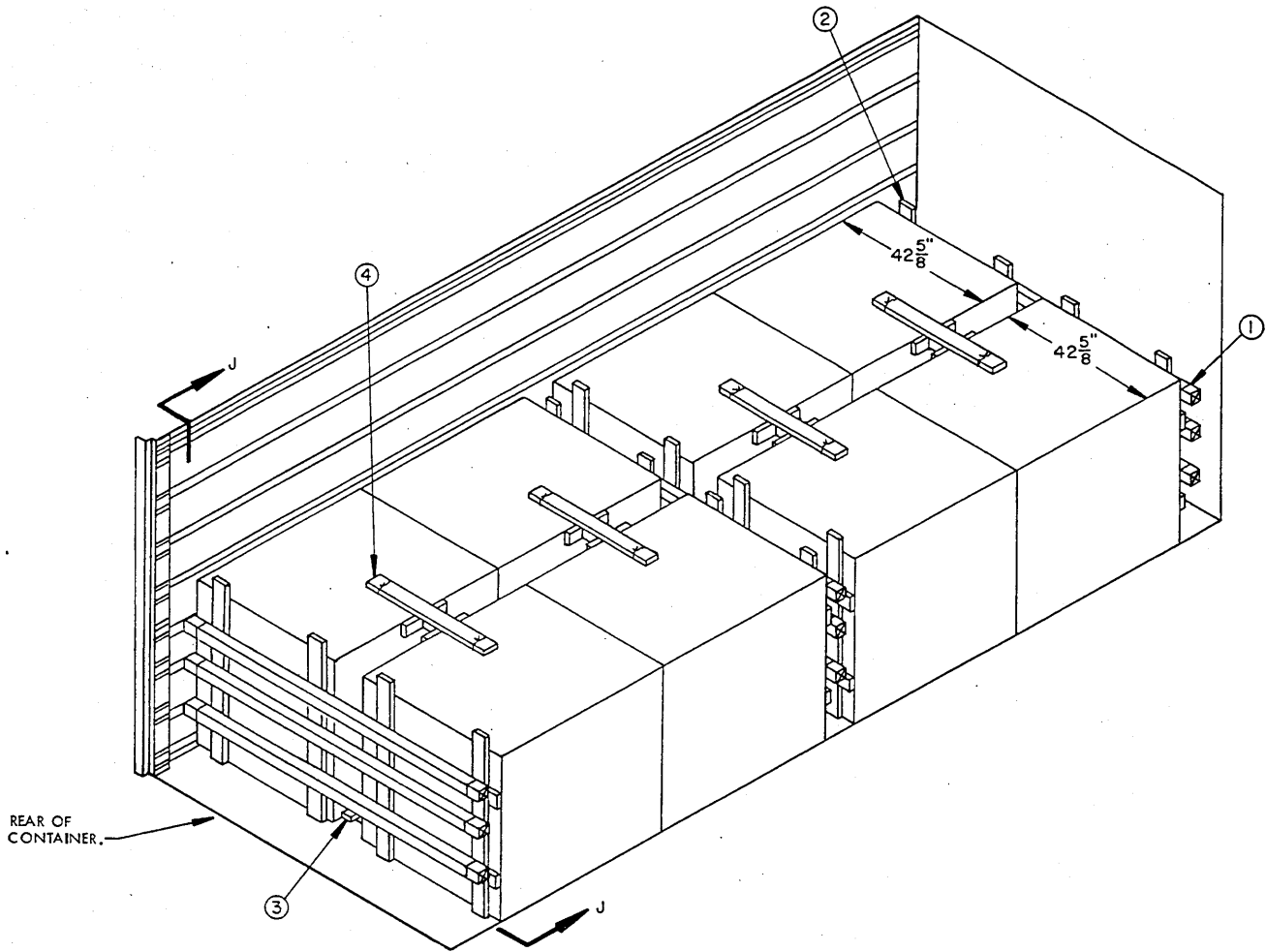
1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 26 AND 27 ARE BASED ON 24-CONTAINER, PALLET UNIT NO. 4 SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,524 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN H" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	124	42
2" X 2"	4	2
2" X 4"	70	46
NAILS	NO. REQD	POUNDS
6d (2")	264	1-1/2
10d (3")	16	1/4
PLYWOOD, 1/2"	211 SQ. FT. REQD	290 LBS
CROSS MEMBER	12 REQD	



**LOAD AS SHOWN**

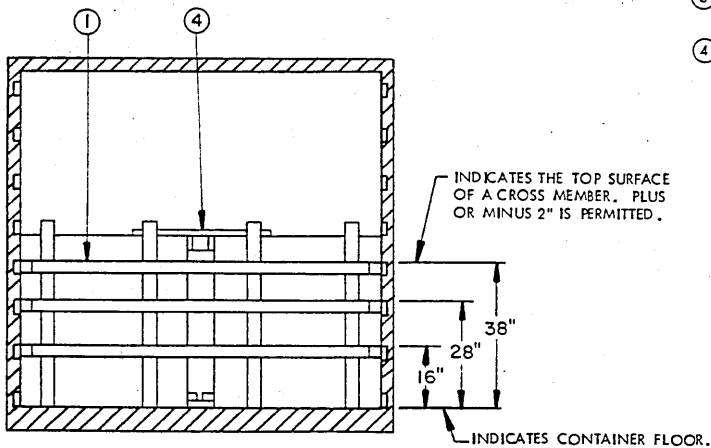
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	24,384 LBS
DUNNAGE		476 LBS
CONTAINER		5,700 LBS
<b>TOTAL GROSS WEIGHT</b>		<b>30,560 LBS</b>



ISOMETRIC VIEW

KEY NUMBERS

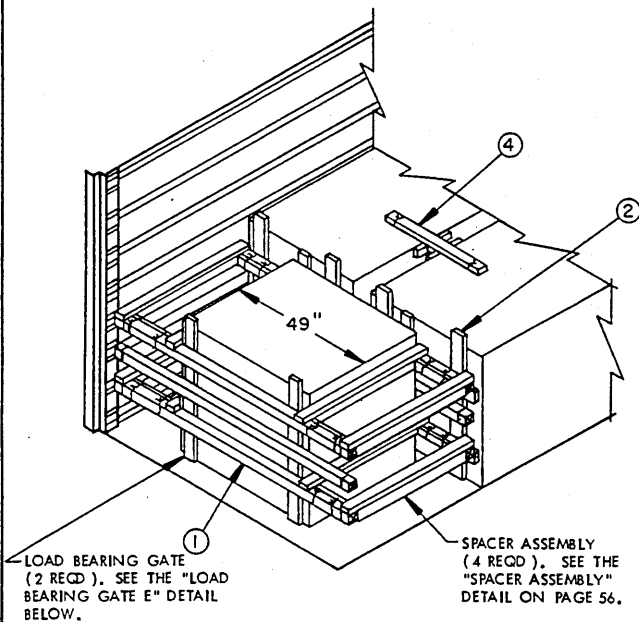
- ① CROSS MEMBER ( 9 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION J-J" VIEW.
- ② LOAD BEARING GATE ( 4 REQD ). SEE THE "LOAD BEARING GATE D" DETAIL ON PAGE 29.
- ③ ANTI-SWAY BRACE ( 4 REQD ). SEE THE "ANTI-SWAY BRACE B" DETAIL ON PAGE 56.
- ④ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER B" DETAIL ON PAGE 19.



SECTION J-J

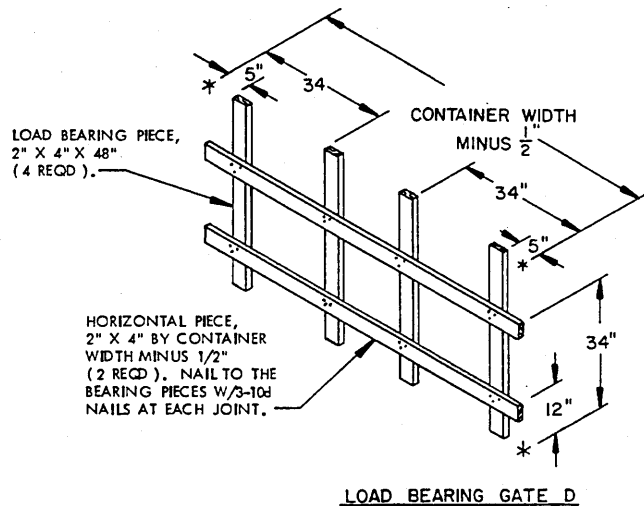
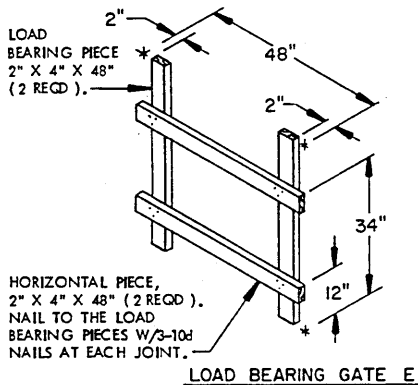
**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 28 AND 29 ARE BASED ON THE 24-CONTAINER, PALLET UNIT NO. 4 (ALTERNATED) SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,820 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN J" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.



**ALTERNATIVE LOADING PATTERN J**

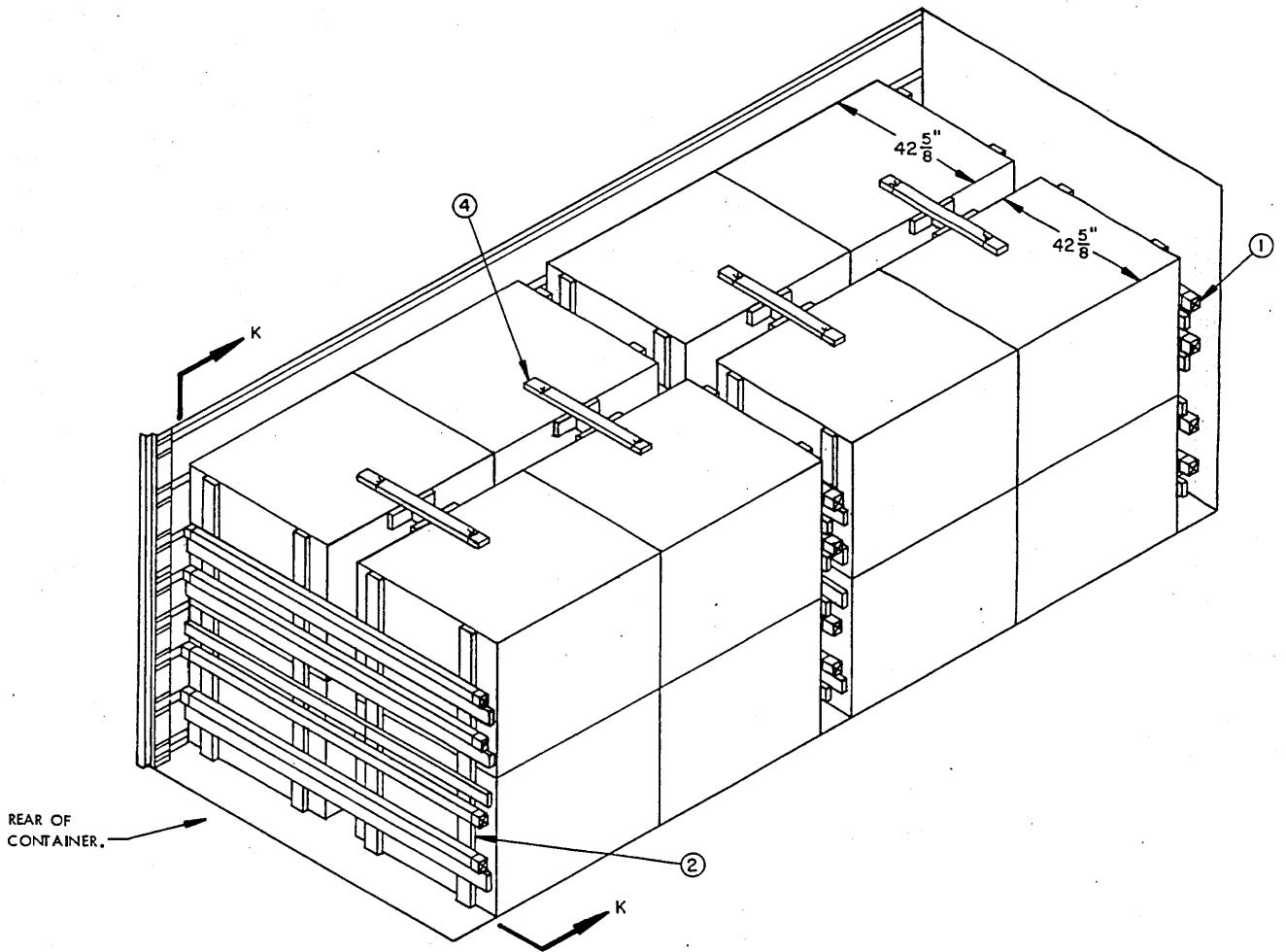
THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.



BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	188	125
NAILS	NO. REQD	POUNDS
10d (3")	168	2-1/2
WIRE, NO. 14 GAGE	12' REQD	NIL
CROSS MEMBER	9 REQD	

**LOAD AS SHOWN**

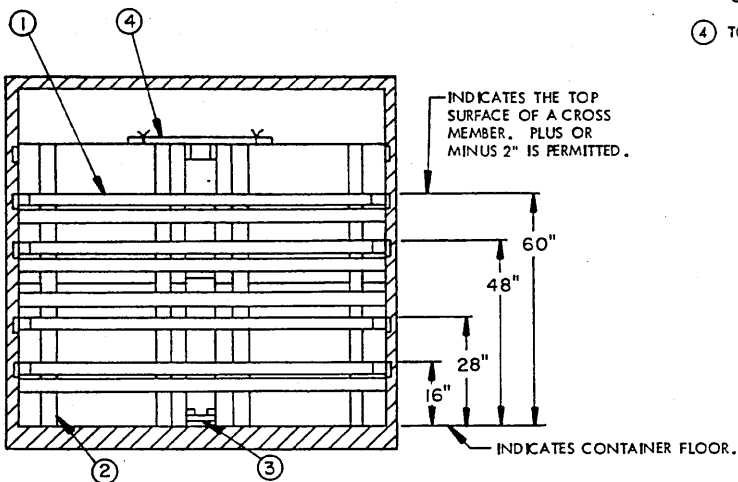
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	14,560 LBS
DUNNAGE		253 LBS
CONTAINER		5,700 LBS
<b>TOTAL GROSS WEIGHT</b>		<b>20,513 LBS</b>



ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER (12 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION K-K" VIEW.
- ② LOAD BEARING GATE (4 REQD). SEE THE "LOAD BEARING GATE F" DETAIL ON PAGE 31.
- ③ ANTI-SWAY BRACE (8 REQD). SEE THE "ANTI-SWAY BRACE B" DETAIL ON PAGE 56.
- ④ TOP SPACER (4 REQD). SEE THE "TOP SPACER B" DETAIL ON PAGE 19.

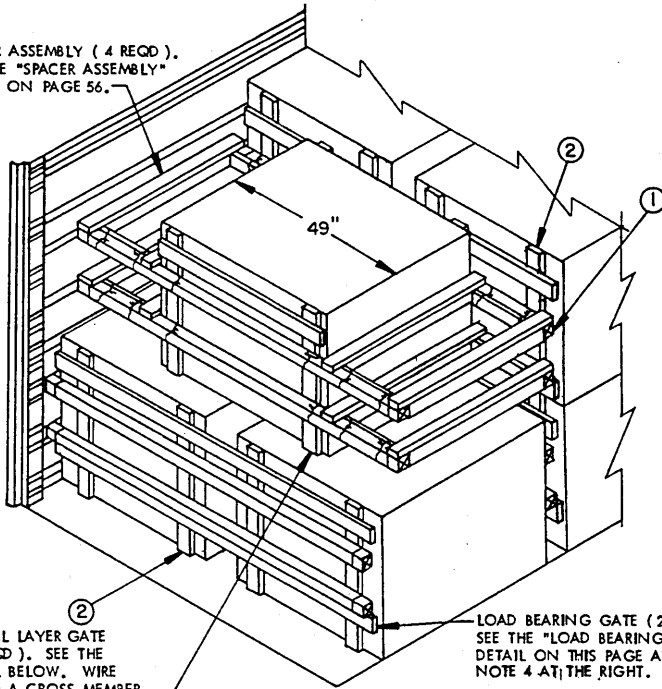


SECTION K-K

**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGE 30 AND 31 ARE BASED ON THE 18-CONTAINER, PALLET UNIT NO. 4 (ALTERNATED) SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,472 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN K" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOAD.
4. FOR SHIPMENT OF FIFTEEN-UNIT LOADS AS DEPICTED IN THE DETAIL AT THE LEFT, TWO "LOAD BEARING GATES F" MUST BE MODIFIED BY OMITTING THE UPPER TWO GATE HOLD DOWN PIECES AND CHANGING THE LENGTH OF THE LOAD BEARING PIECES TO 36".

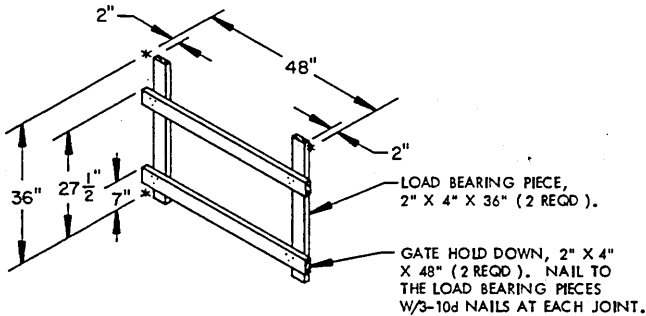
SPACER ASSEMBLY ( 4 REQD ).  
SEE THE "SPACER ASSEMBLY"  
DETAIL ON PAGE 56.



PARTIAL LAYER GATE  
( 2 REQD ). SEE THE  
DETAIL BELOW. WIRE  
TIE TO A CROSS MEMBER  
AS SHOWN.

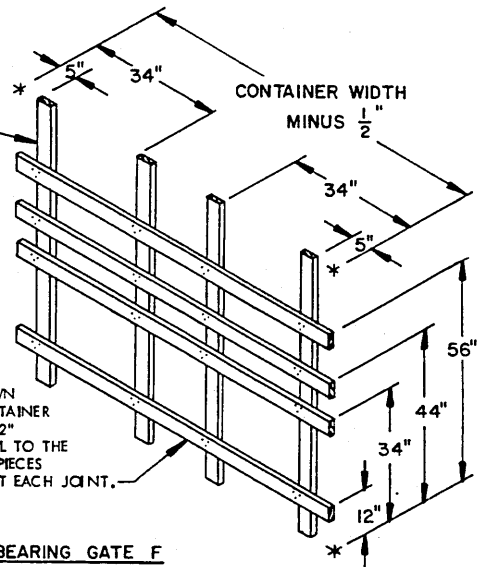
LOAD BEARING GATE ( 2 REQD ).  
SEE THE "LOAD BEARING GATE F"  
DETAIL ON THIS PAGE AND SPECIAL  
NOTE 4 AT THE RIGHT.

**ALTERNATIVE LOADING PATTERN K**



**PARTIAL LAYER GATE**

LOAD BEARING  
PIECE, 2" X 4"  
X 72" ( 4 REQD ).



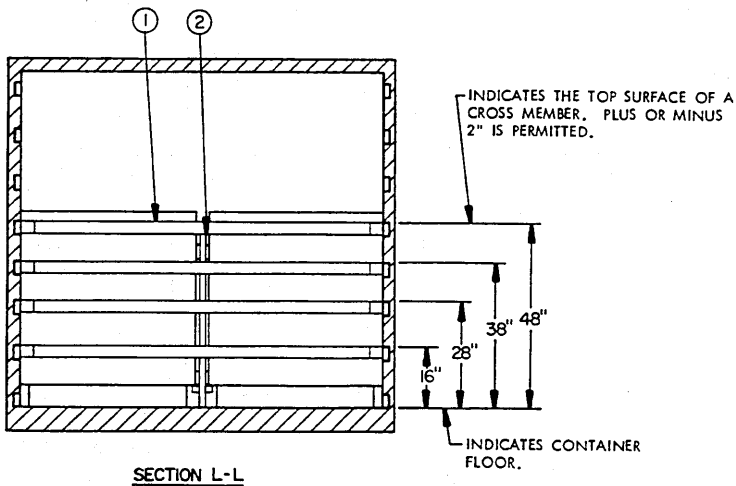
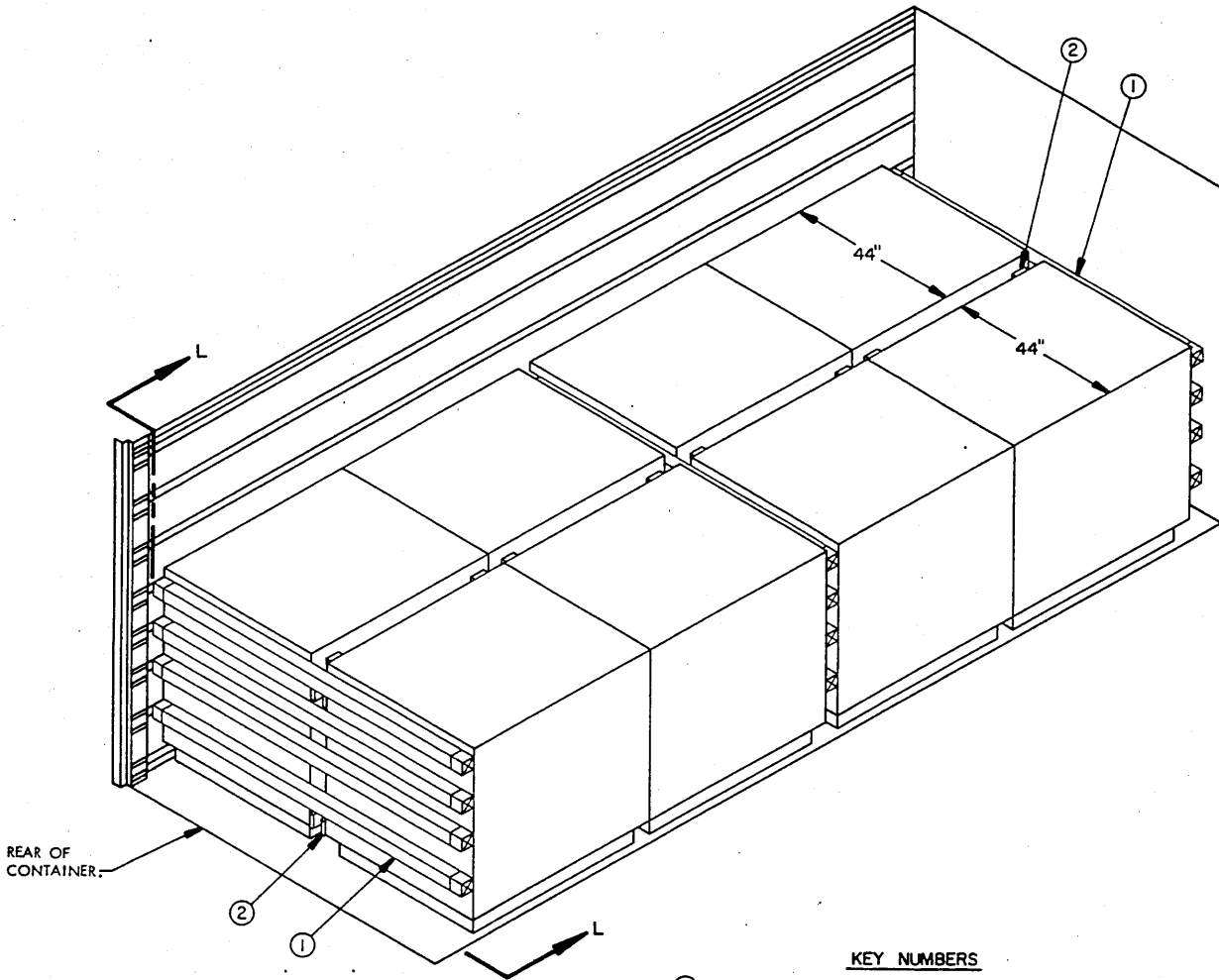
**LOAD BEARING GATE F**

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	325	217
NAILS	NO. REQD	POUNDS
10d ( 3" )	296	4-1/2
WIRE, NO. 14 GAGE	12' REQD	NIL
CROSS MEMBER	12 REQD	

GATE HOLD DOWN  
2" X 4" BY CONTAINER  
WIDTH MINUS 1/2"  
( 4 REQD ). NAIL TO THE  
LOAD BEARING PIECES  
W/3-10d NAILS AT EACH JOINT.

**LOAD AS SHOWN**

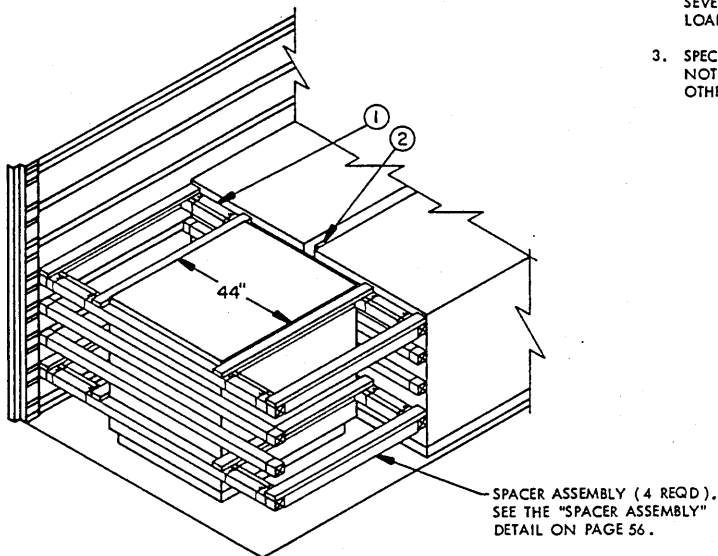
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	23,552 LBS
DUNNAGE		439 LBS
CONTAINER		5,700 LBS
<b>TOTAL GROSS WEIGHT</b>		<b>29,691 LBS</b>





**SPECIAL NOTES:**

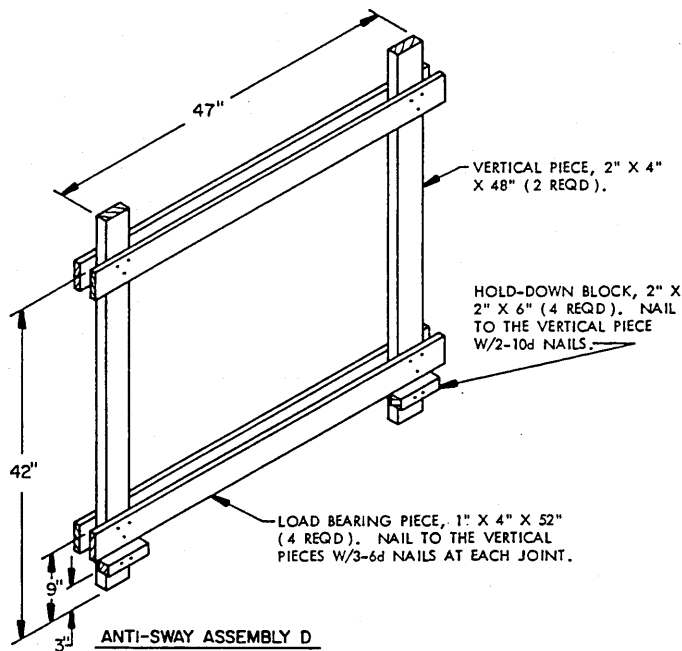
1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 32 AND 33 ARE BASED ON THE 50-CONTAINER, PALLET UNIT NO. 5 SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,779 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN L" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.



**ALTERNATIVE LOADING PATTERN L**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

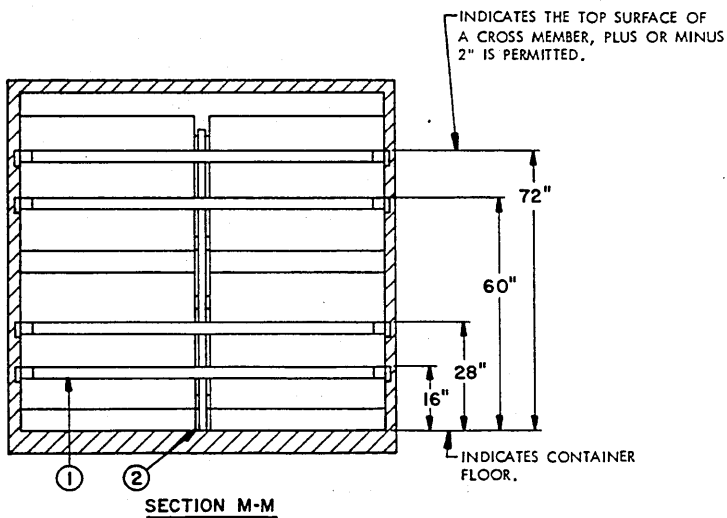
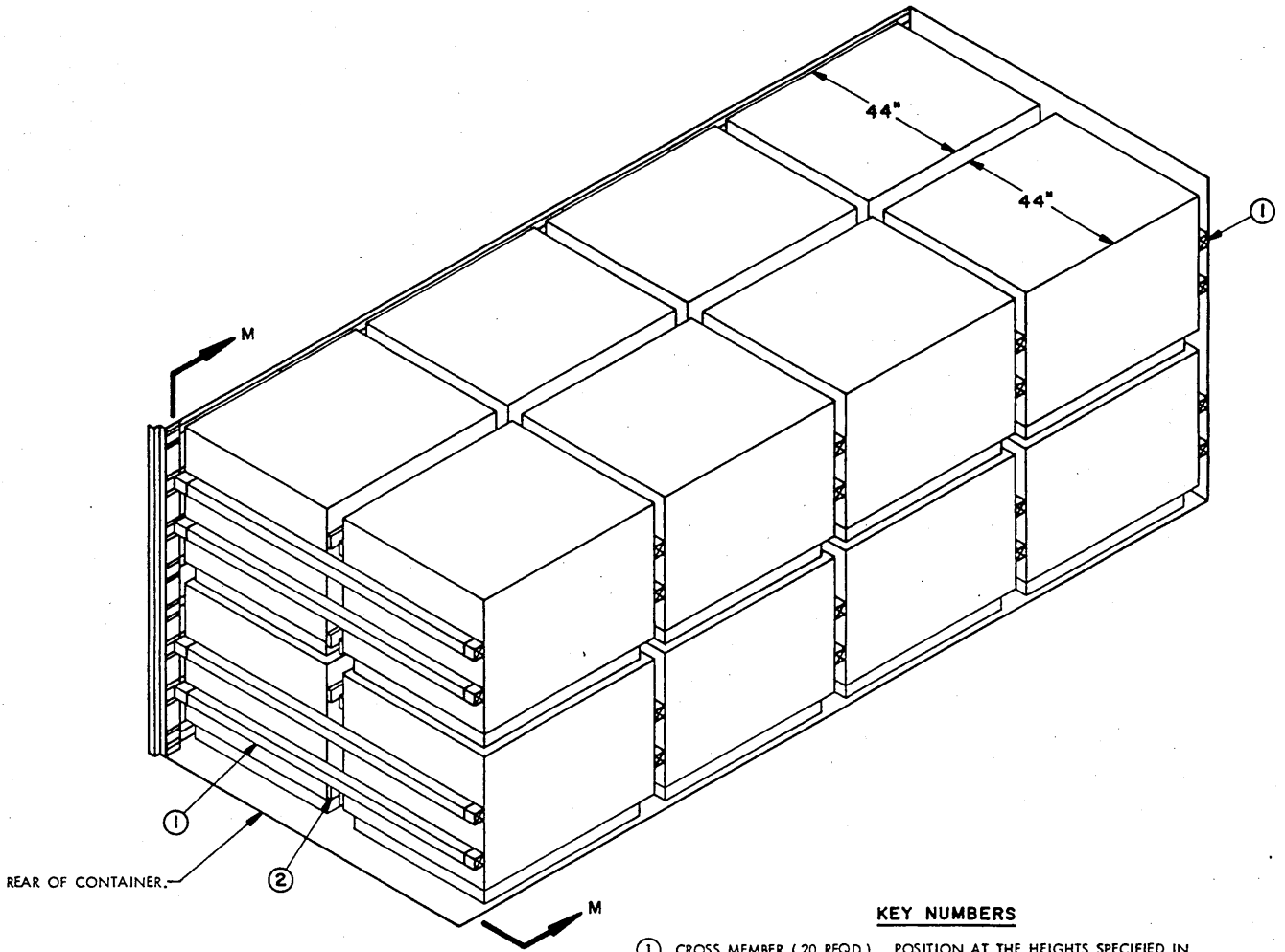
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	70	23
2" X 2"	8	3
2" X 4"	32	22
NAILS	NO. REQD	POUNDS
6d (2")	96	1/2
10d (3")	32	1/2
CROSS MEMBER	-----	12 REQD



**LOAD AS SHOWN (SEE SPECIAL NOTE 1).**

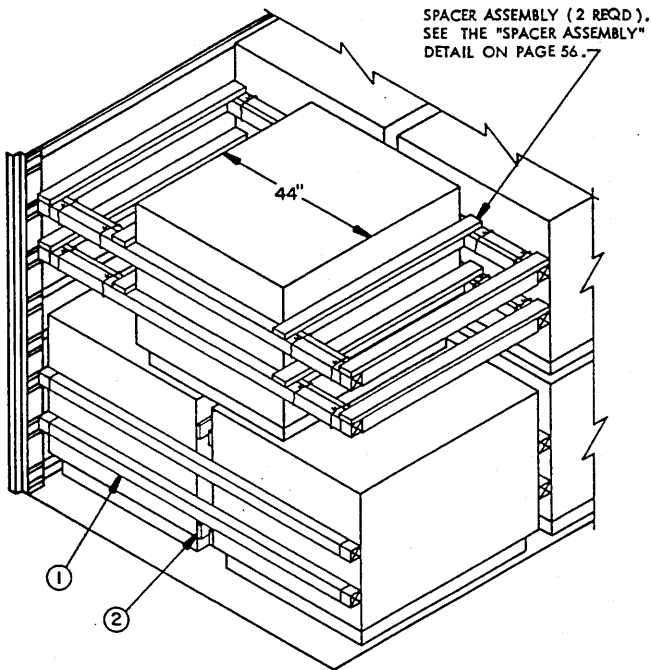
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	14,232 LBS
DUNNAGE	-----	97 LBS
CONTAINER	-----	5,700 LBS

TOTAL GROSS WEIGHT -- 20,029 LBS



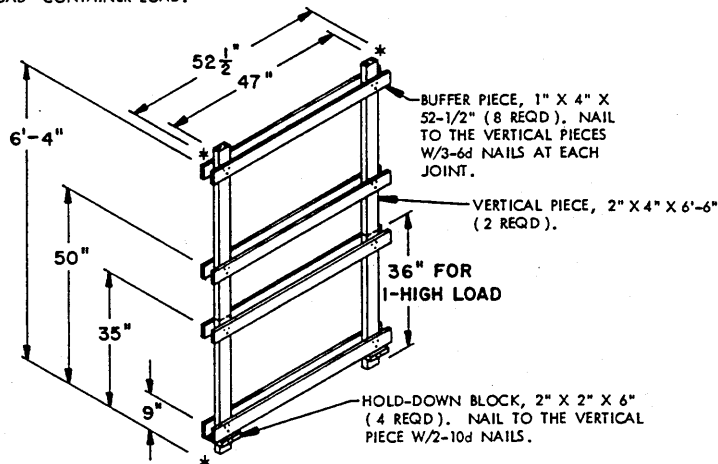
**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 34 AND 35 ARE BASED ON THE 40-CONTAINER, PALLET UNIT NO. 5 SHOWN ON PAGE 5, WITH A UNIT WEIGHT OF 1,444 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN M" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.



**ALTERNATIVE LOADING PATTERN M**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.



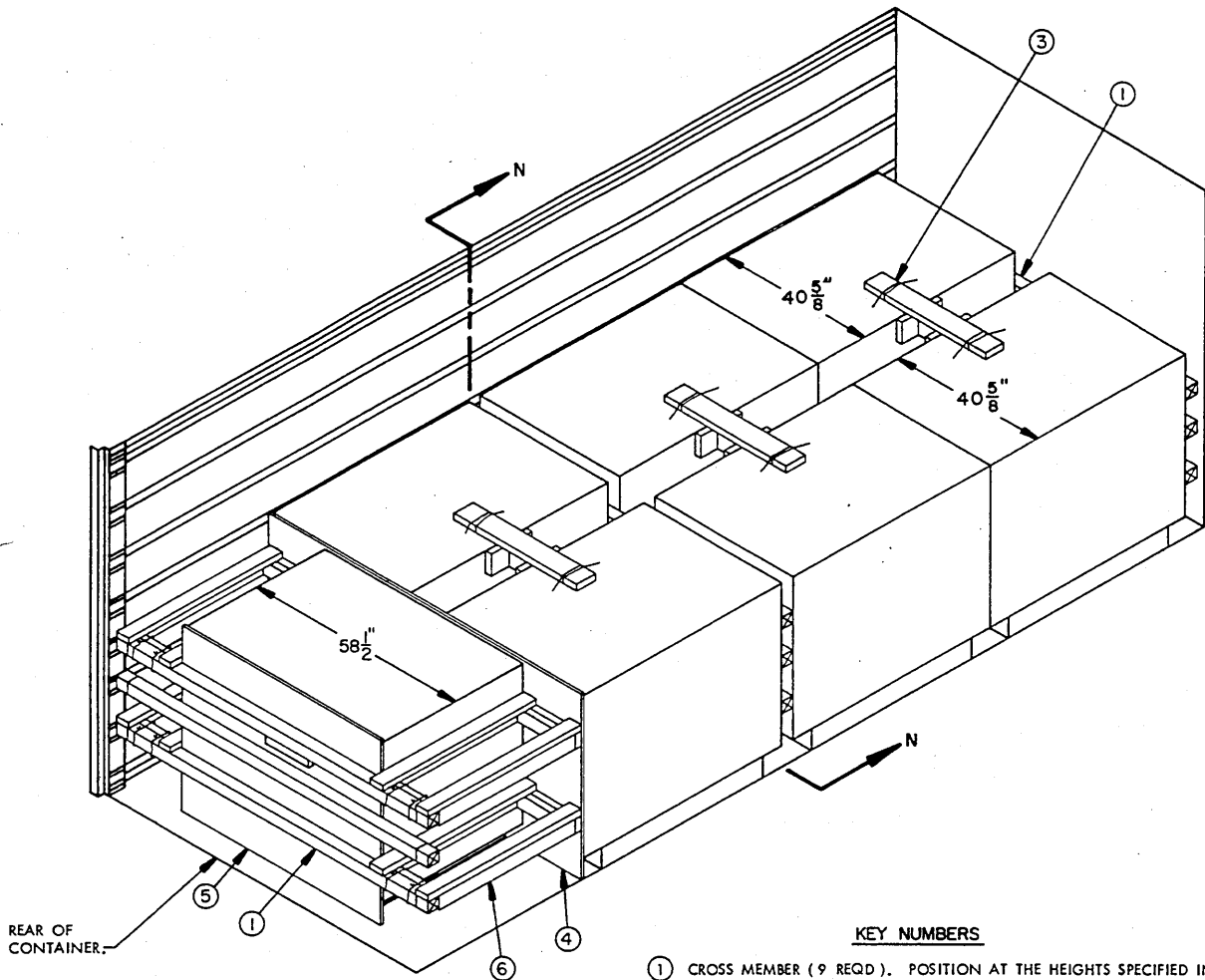
**ANTI-SWAY ASSEMBLY C**

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	140	47
2" X 2"	8	3
2" X 4"	52	35
NAILS	NO. REQD	POUNDS
6d (2")	192	1-1/4
10d (3")	32	1/2
CROSS MEMBER	20 REQD	

**LOAD AS SHOWN** (SEE SPECIAL NOTE 1).

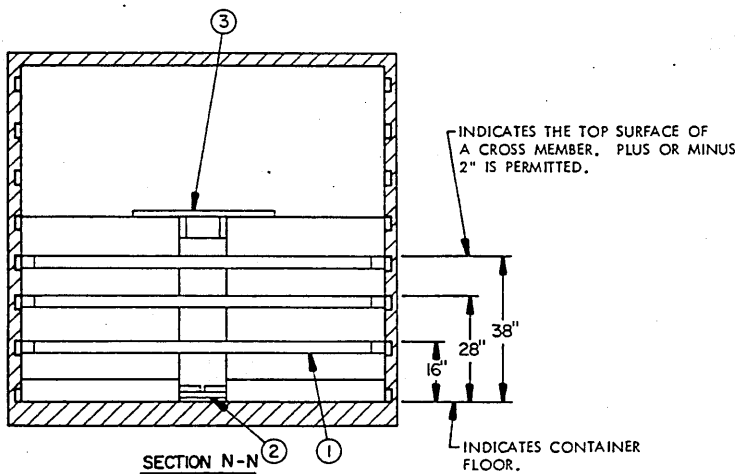
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	23,104 LBS
DUNNAGE		172 LBS
CONTAINER		5,700 LBS

TOTAL GROSS WEIGHT - 28,976 LBS



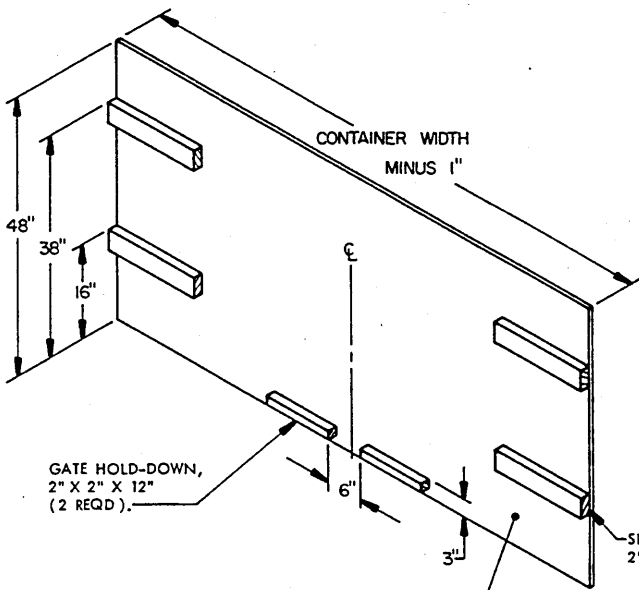
**KEY NUMBERS**

- ① CROSS MEMBER (9 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION N-N" VIEW.
- ② ANTI-SWAY BRACE (3 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56
- ③ TOP SPACER (3 REQD). SEE THE "TOP SPACER D" DETAIL ON PAGE 39.
- ④ LOAD BEARING GATE (1 REQD). SEE THE "LOAD BEARING GATE G" DETAIL ON PAGE 37.
- ⑤ LOAD BEARING GATE (1 REQD). SEE THE "LOAD BEARING GATE A" DETAIL ON PAGE 19.
- ⑥ SPACER ASSEMBLY (4 REQD). SEE THE "ALTERNATIVE SPACER ASSEMBLY" DETAIL ON PAGE 37. NAIL TO LOAD BEARING GATE E W/2-10d NAILS AT EACH JOINT.



**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 36 AND 37 ARE BASED ON THE 32-CONTAINER, PALLET UNIT NO. 6 SHOWN ON PAGE 6, WITH A UNIT WEIGHT OF 1,872 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTE 2 FOR PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE CONTAINER. FOR EXAMPLE, IF ONLY SIX UNITS ARE TO BE LOADED, THE REARWARD MOST PALLET UNIT SHOULD BE ELIMINATED. CROSS MEMBERS AND DUNNAGE MUST BE ADJUSTED AS REQUIRED.
3. THE SPACER ASSEMBLY NEED NOT BE FABRICATED FOR A "DRIVE" FIT. THE ASSEMBLY SHOULD BE FABRICATED SO THAT IT CAN BE EASILY INSTALLED. HOWEVER, IT MUST FIT TIGHT ENOUGH SO AS TO NOT ALLOW MORE THAN ONE-HALF INCH (1/2") VOID ACROSS THE WIDTH OF A BRACED LOAD. SEE "SPACER ASSEMBLY SECUREMENT" DETAIL ON PAGE 56.
4. WHEN INSTALLING SPACER ASSEMBLIES IN THE LOAD, ONE END MUST BE WIRE TIED IN PLACE. THE TIE WIRE WILL FORM A COMPLETE LOOP AROUND THE STRUT OF THE SPACER ASSEMBLY AND THE ADJACENT CROSS MEMBER. BRING THE ENDS OF THE WIRE TOGETHER AND TWIST TAUT. ALSO, THE TIE WIRE MUST BE SECURED TO THE SPACER ASSEMBLY WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE, OR WITH A STRAP STAPLE. THE NAIL MAY BE DRIVEN INTO THE SIDE OR TOP OF A SPACER ASSEMBLY STRUT.
5. IF PLYWOOD IS NOT AVAILABLE OR IF DESIRED, THE LOAD BEARING GATES MAY BE FABRICATED FROM NOMINAL ONE-INCH AND TWO-INCH LUMBER. SEE THE "ALTERNATIVE LOAD BEARING GATE E" DETAIL BELOW. RANDOM WIDTH MATERIAL MAY BE USED FOR THE SPECIFIED 1" THICK PIECES, PROVIDING THE SPACING BETWEEN THE BOARDS DOES NOT EXCEED ONE-INCH (1") AND PROVIDING A FULL HEIGHT BEARING SURFACE FOR THE PROPELLING CHARGE CONTAINERS IS MAINTAINED AS SPECIFIED.

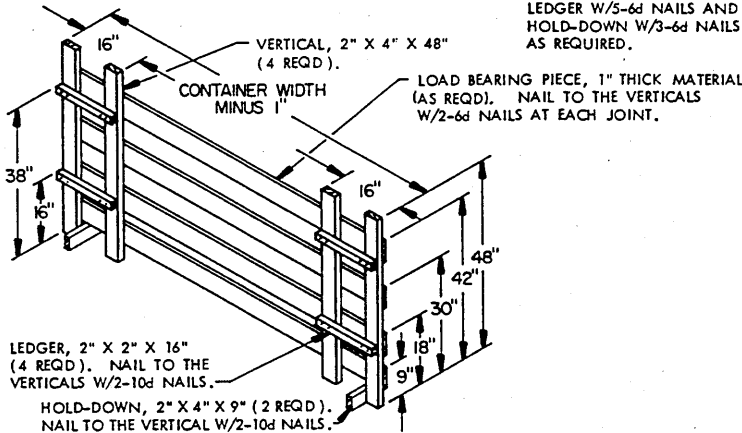


GATE HOLD-DOWN, 2" X 2" X 12" (2 REQD).

SPACER ASSEMBLY LEDGER, 2" X 4" X 16" (4 REQD).

**LOAD BEARING GATE G**  
SEE SPECIAL NOTE 5 AT THE RIGHT.

LOAD BEARING GATE, 1/2" PLYWOOD (1 REQD). NAIL TO THE SPACER ASSEMBLY LEDGER W/5-6d NAILS AND TO THE GATE HOLD-DOWN W/3-6d NAILS. CLINCH AS REQUIRED.



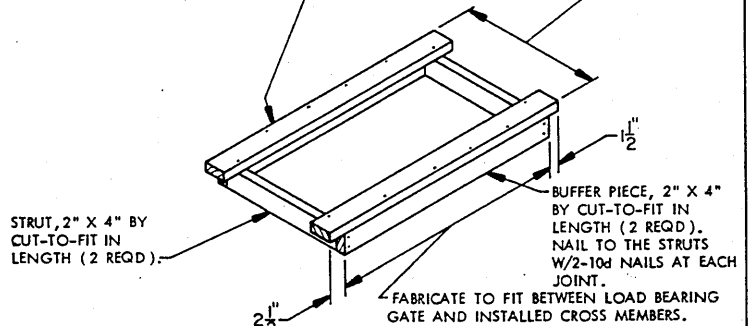
LEDGER, 2" X 2" X 16" (4 REQD). NAIL TO THE VERTICALS W/2-10d NAILS.

HOLD-DOWN, 2" X 4" X 9" (2 REQD). NAIL TO THE VERTICAL W/2-10d NAILS.

**ALTERNATIVE LOAD BEARING GATE G**

RETAINER PIECE, 2" X 4" BY CUT-TO-FIT IN LENGTH (2 REQD). NAIL TO THE STRUTS W/1-10d NAIL AT EACH JOINT AND TO THE BUFFER PIECE W/4-10d NAILS.

FABRICATE TO FIT BETWEEN CONTAINER SIDE WALL AND PALLET UNIT.



**ALTERNATIVE SPACER ASSEMBLY**  
(2" X 4" MATERIAL).

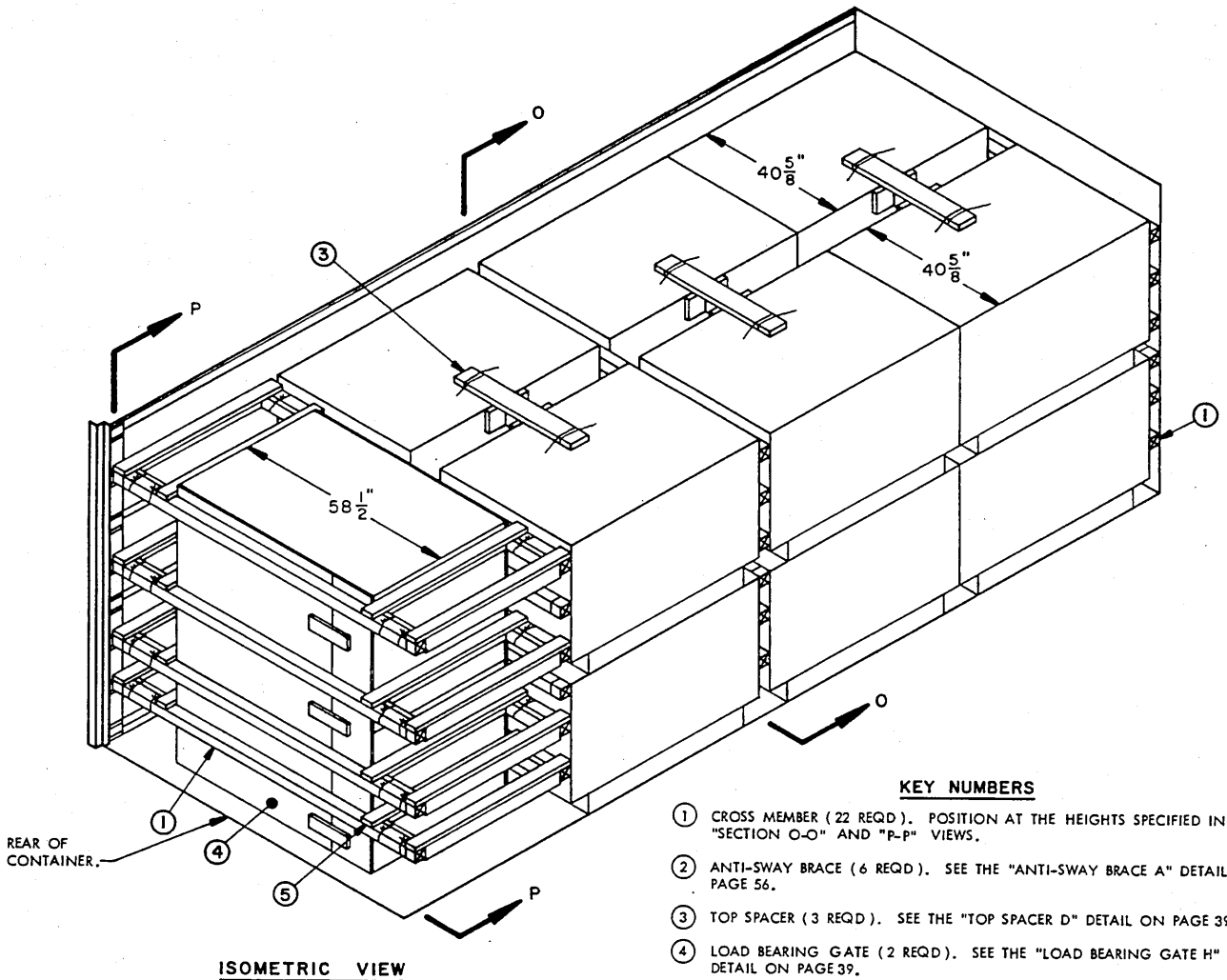
SEE SPECIAL NOTES 3 AND 4.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	2	1
2" X 4"	85	55
2" X 6"	38	38
NAILS	NO. REQD	POUNDS
6d (2")	29	1/4
10d (3")	140	2-1/4
PLYWOOD, 1/2"	50 SQ FT REQD	69 LBS
WIRE, NO. 14 GAGE	12' REQD	NIL
CROSS MEMBER		9 REQD

**LOAD AS SHOWN** (SEE SPECIAL NOTE 1).

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	7	13,104 LBS
DUNNAGE		260 LBS
CONTAINER		5,700 LBS

TOTAL GROSS WEIGHT ---- 19,064 LBS

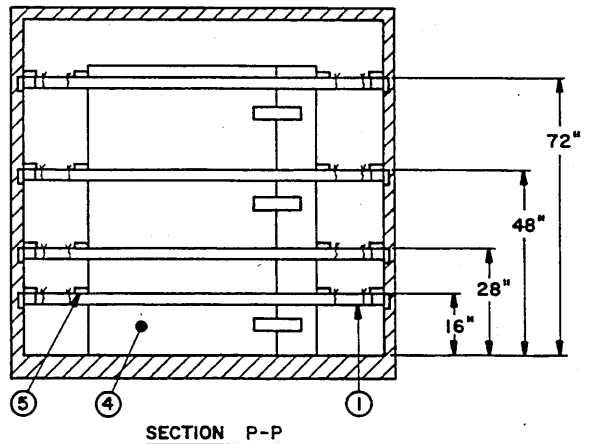
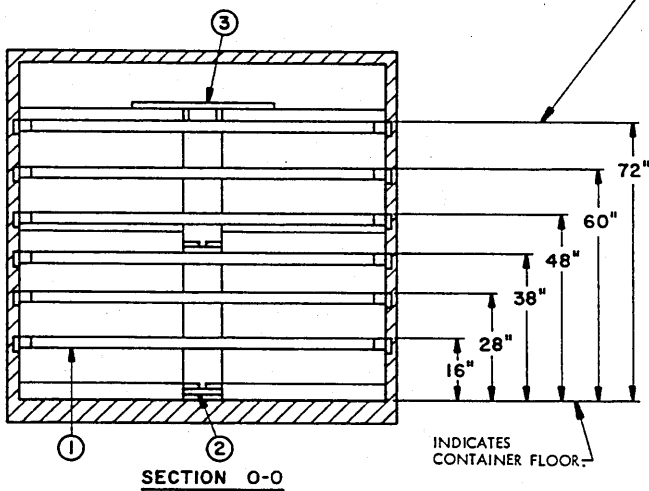


**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① CROSS MEMBER (22 REQD.). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION O-O" AND "P-P" VIEWS.
- ② ANTI-SWAY BRACE (6 REQD.). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ③ TOP SPACER (3 REQD.). SEE THE "TOP SPACER D" DETAIL ON PAGE 39.
- ④ LOAD BEARING GATE (2 REQD.). SEE THE "LOAD BEARING GATE H" DETAIL ON PAGE 39.
- ⑤ SPACER ASSEMBLY (8 REQD.). SEE THE "SPACER ASSEMBLY" DETAIL ON PAGE 56.

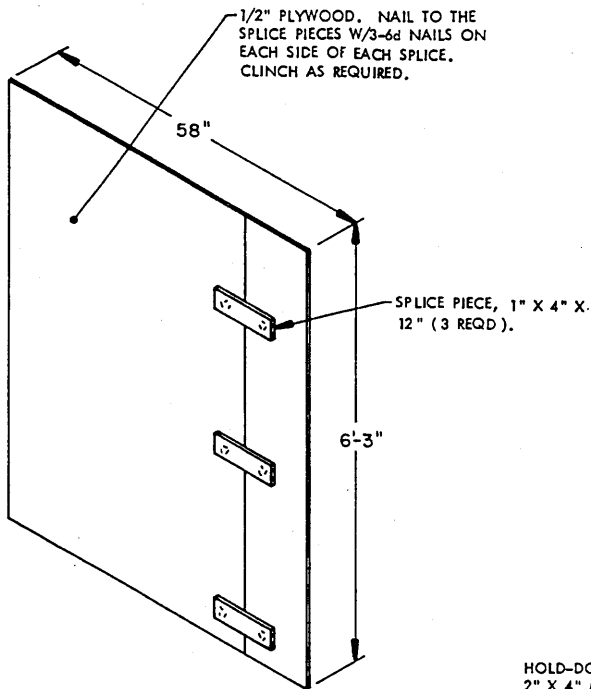
INDICATES THE TOP SURFACE OF A CROSS MEMBER, PLUS OR MINUS 2" IS PERMITTED.



PALLET UNITS AND DUNNAGE IN FRONT OF THE REAR LOAD BAY HAVE NOT BEEN SHOWN IN THE "SECTION P-P" VIEW FOR CLARITY PURPOSES.

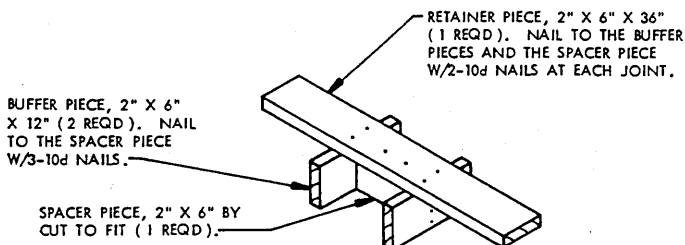
**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 38 AND 39 ARE BASED ON THE 24-CONTAINER, PALLET UNIT NO. 6 SHOWN ON PAGE 6 WITH A UNIT WEIGHT OF 1,431 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY THIRTEEN UNITS ARE TO BE LOADED, THE REARWARD MOST SECOND LAYER PALLET UNIT SHOULD BE ELIMINATED. CROSS MEMBERS AND DUNNAGE MUST BE ADJUSTED AS REQUIRED.
3. IF PLYWOOD IS NOT AVAILABLE OR IF DESIRED, THE LOAD BEARING GATES MAY BE FABRICATED FROM NOMINAL ONE-INCH AND TWO-INCH LUMBER. SEE THE "ALTERNATIVE LOAD BEARING GATE F" DETAIL BELOW. RANDOM WIDTH MATERIAL MAY BE USED FOR THE SPECIFIED 1" THICK PIECES.



**LOAD BEARING GATE H**

SEE SPECIAL NOTE 3 AT THE RIGHT.

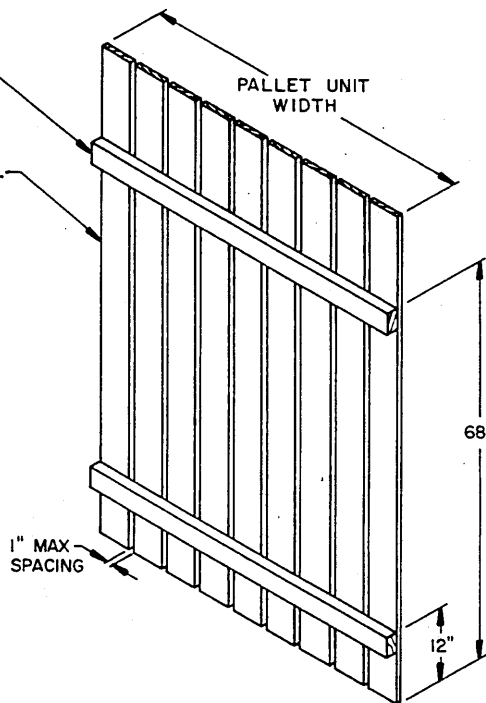


**TOP SPACER D**

SEE "TOP SPACER SECUREMENT" DETAIL ON PAGE 29.

HOLD-DOWN PIECE, 2" X 4" MATERIAL (2 REQD).

LOAD BEARING PIECE, 1" THICK MATERIAL BY 6'-0" LONG (AS REQD). NAIL TO THE HOLD-DOWN PIECES W/2-6d NAILS AT EACH JOINT.



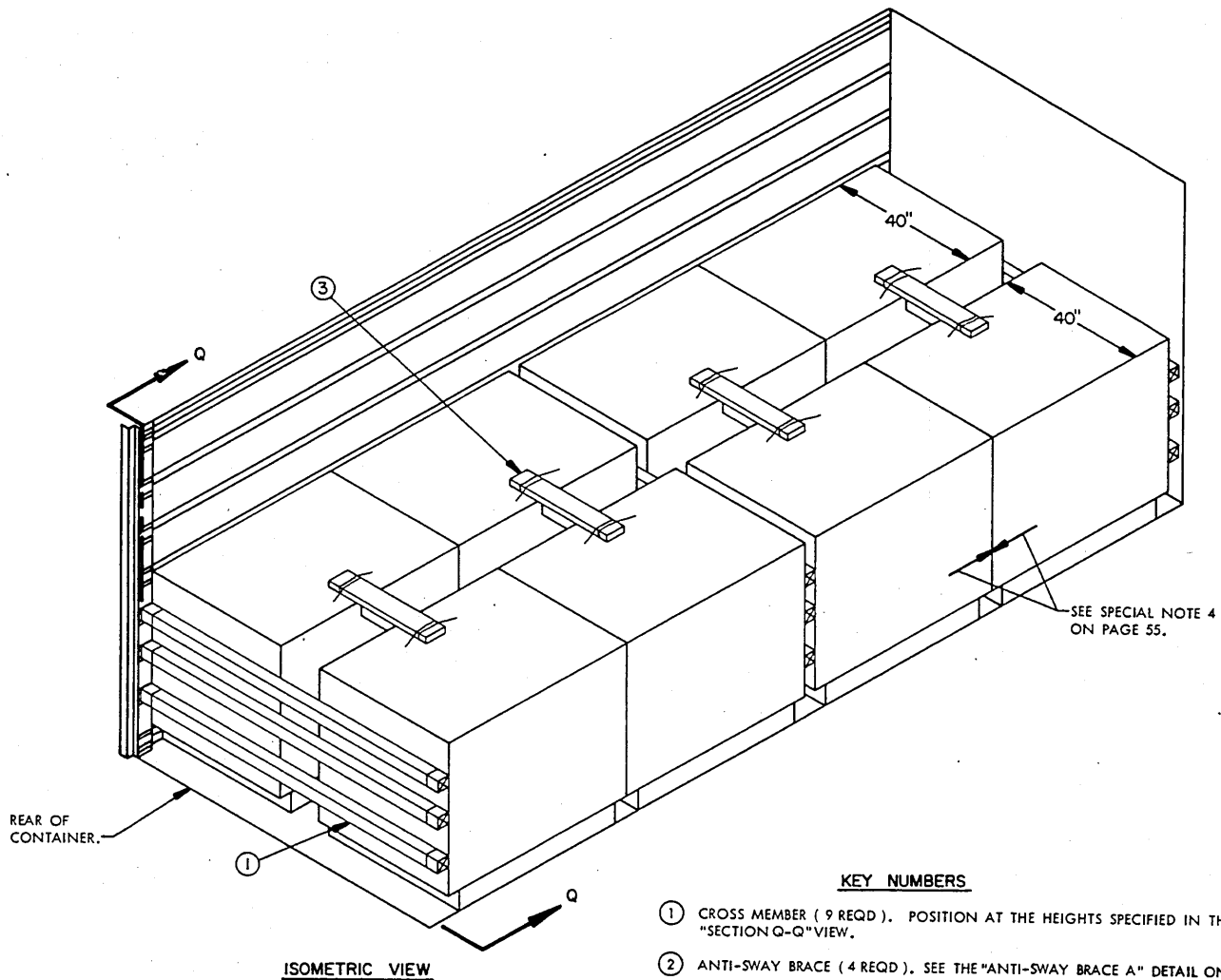
**ALTERNATIVE LOAD BEARING GATE H**

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	6	2
2" X 4"	134	90
2" X 6"	18	18
NAILS	NO. REQD	POUNDS
6d (2")	36	1/4
10d (3")	222	3-1/2
PLYWOOD, 1/2" -----	60 SQ-FT REQD -----	83 LBS
WIRE, NO. 14 GAGE -----	48' REQD -----	1 LB
CROSS MEMBER -----	22 REQD	

**LOAD AS SHOWN** (SEE SPECIAL NOTE 1).

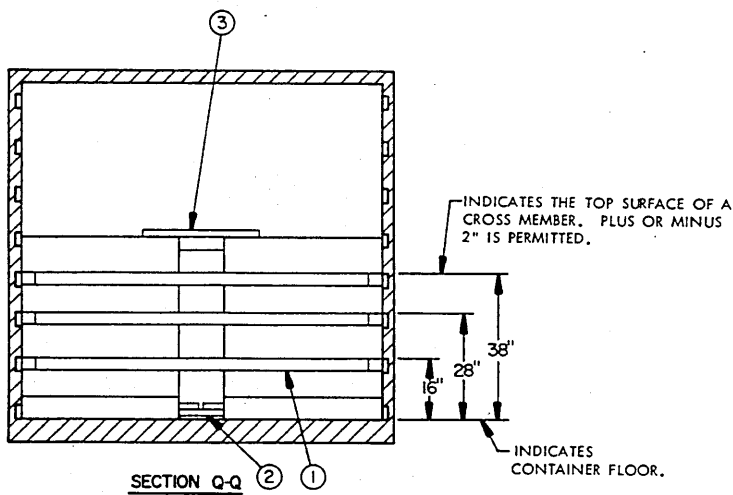
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT -----	14 -----	20,034 LBS
DUNNAGE -----		308 LBS
CONTAINER -----		5,700 LBS

TOTAL GROSS WEIGHT -- 26,042 LBS



**KEY NUMBERS**

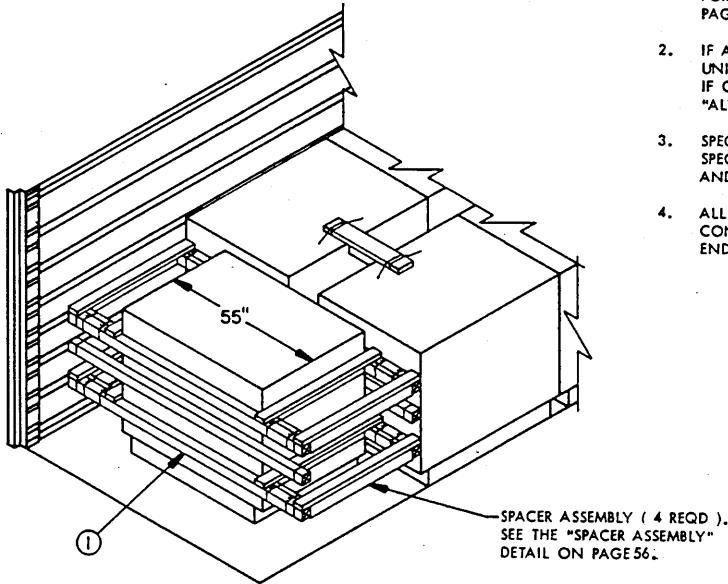
- ① CROSS MEMBER ( 9 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION Q-Q" VIEW.
- ② ANTI-SWAY BRACE ( 4 REQD ). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ③ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER E" DETAIL ON PAGE 43.





**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 40 AND 41 ARE BASED ON THE 16-CONTAINER, PALLET UNIT NO. 8 SHOWN ON PAGE 7 WITH A UNIT WEIGHT OF 2,005 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN N" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.
4. ALL LONGITUDINALLY ADJACENT PALLET UNITS WILL BE POSITIONED IN THE CONTAINER WITH BASE END AGAINST BASE END OR BELL END AGAINST BELL END.



**ALTERNATIVE LOADING PATTERN N**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

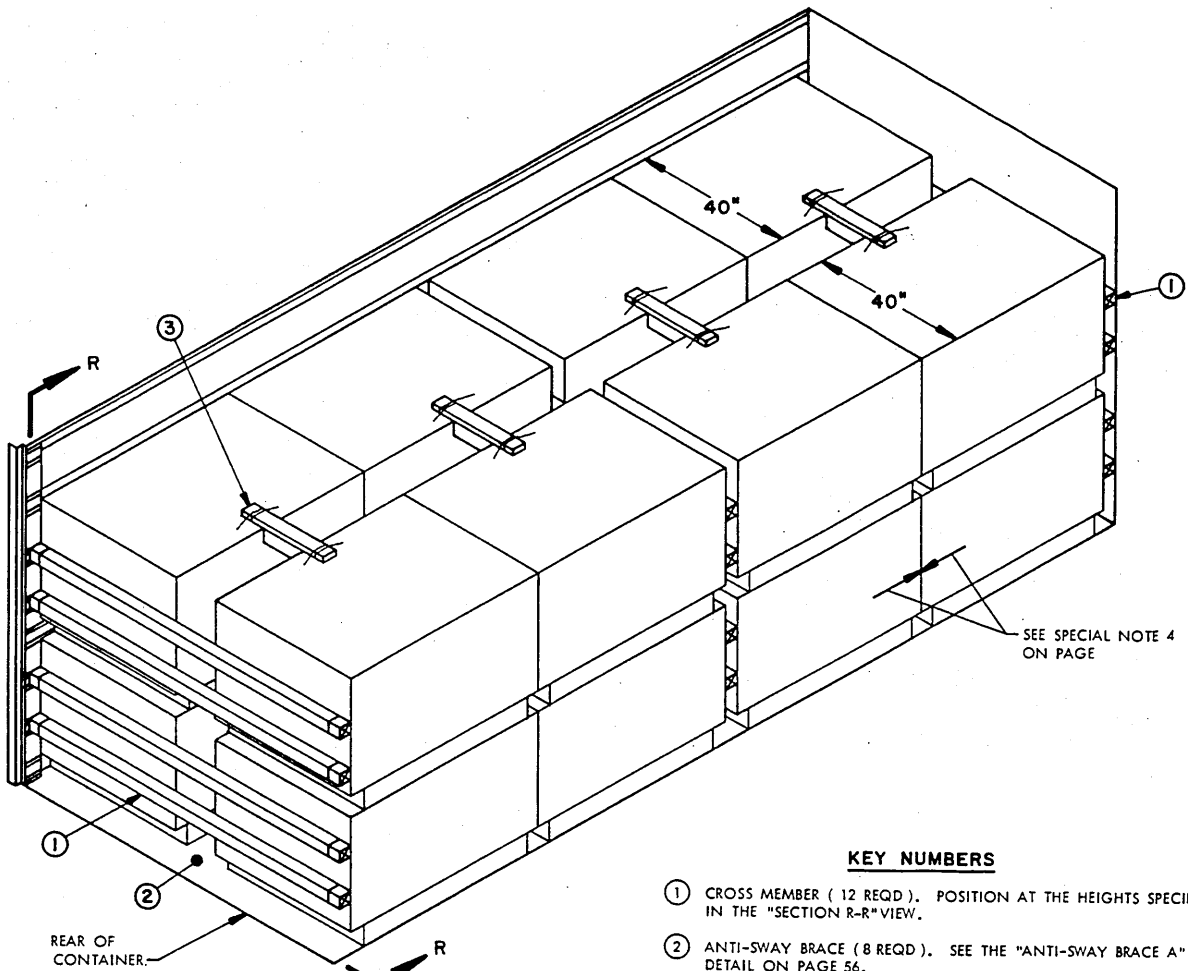
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	24	16
2" X 6"	27	27
4" X 4"	4	5
NAILS	NO. REQD	POUNDS
10d ( 3" )	40	3/4
WIRE, NO. 14 GAGE -----	16' REQD -----	NIL
CROSS MEMBER -----		9 REQD

**LOAD AS SHOWN ( SEE SPECIAL NOTE 1 ).**

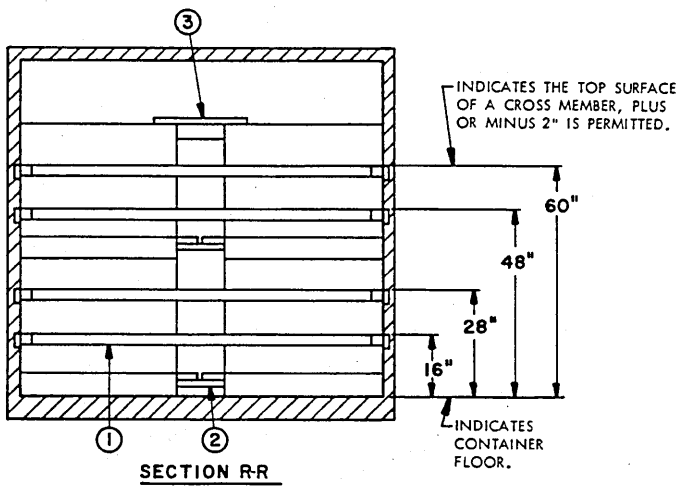
ITEM	QUANTITY	WEIGHT ( APPROX )
PALLET UNIT -----	8 -----	16, 040 LBS
DUNNAGE -----		97 LBS
CONTAINER -----		5,700 LBS

TOTAL GROSS WEIGHT ---21, 837 LBS



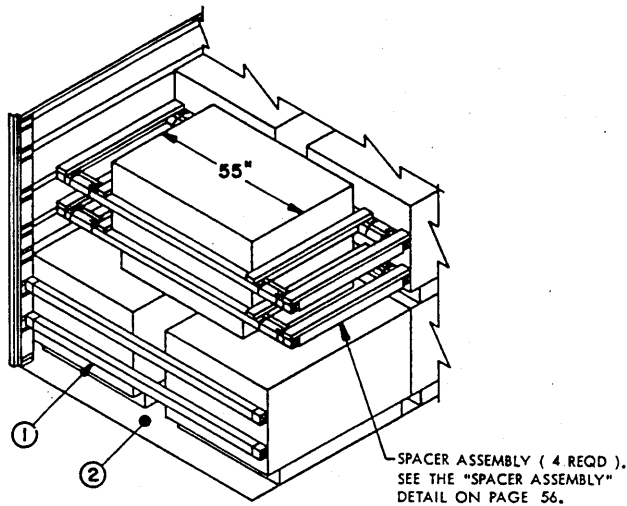
**KEY NUMBERS**

- ① CROSS MEMBER ( 12 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION R-R" VIEW.
- ② ANTI-SWAY BRACE ( 8 REQD ). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ③ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER E" DETAIL ON PAGE 43.



**SPECIAL NOTES:**

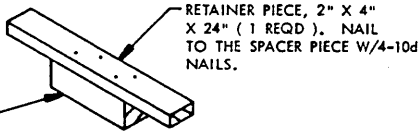
1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 42 AND 43 ARE BASED ON THE 12-CONTAINER, PALLET UNIT NO. 8 SHOWN ON PAGE 7 WITH A UNIT WEIGHT OF 1,525 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN O" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.
4. ALL LONGITUDINALLY ADJACENT PALLET UNITS WILL BE POSITIONED IN THE CONTAINER WITH BASE END AGAINST BASE END OR BELL END AGAINST BELL END.



**ALTERNATIVE LOADING PATTERN O**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

SPACER PIECE, 4" X 4" BY CUT TO FIT ( 1 REQD ). A TRIPLED 2" X 4" BY CUT TO FIT PIECE MAY BE USED IN LIEU OF THE 4" X 4" PIECE. LAMINATE W/10d NAILS.



**TOP SPACER E**

SEE "TOP SPACER SECUREMENT" DETAIL ON PAGE 15.

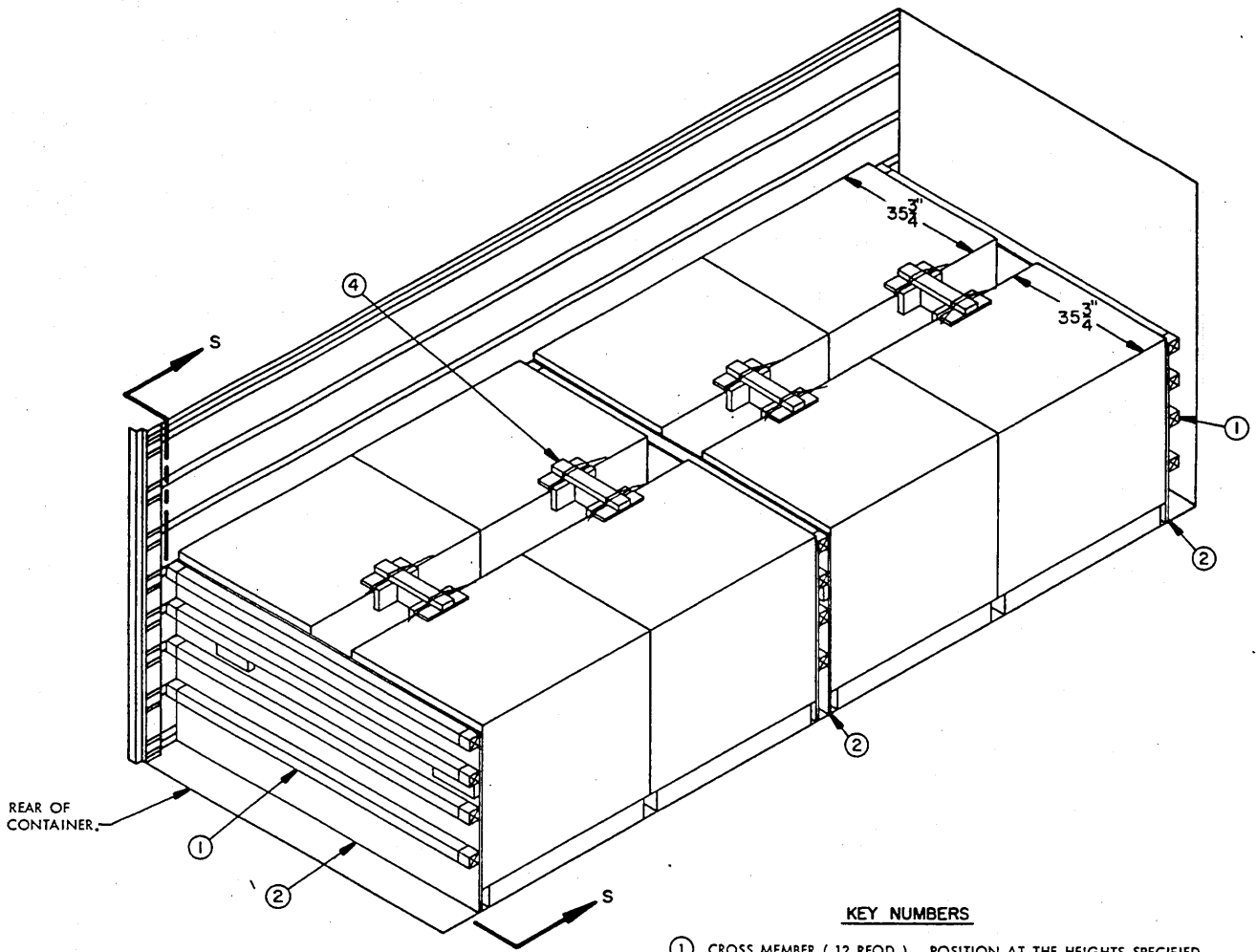
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	40	27
2" X 6"	54	54
4" X 4"	4	6
NAILS	NO. REQD	POUNDS
10d ( 3" )	88	1-1/4
WIRE, NO. 14 GAGE-----	16' REQD -----	NIL
CROSS MEMBER-----		12 REQD

**LOAD AS SHOWN ( SEE SPECIAL NOTE 1 ).**

ITEM	QUANTITY	WEIGHT ( APPROX )
PALLET UNIT-----	16-----	24,400 LBS
DUNNAGE-----		175 LBS
CONTAINER-----		5,700 LBS

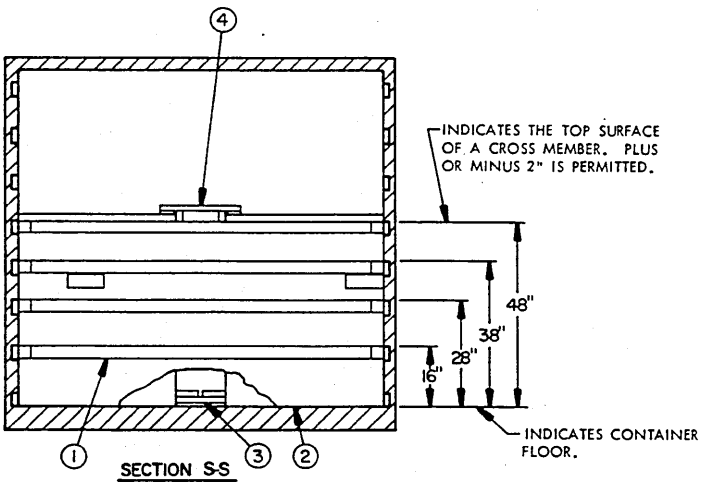
TOTAL GROSS WEIGHT-----30,275 LBS



**ISOMETRIC VIEW**

**KEY NUMBERS**

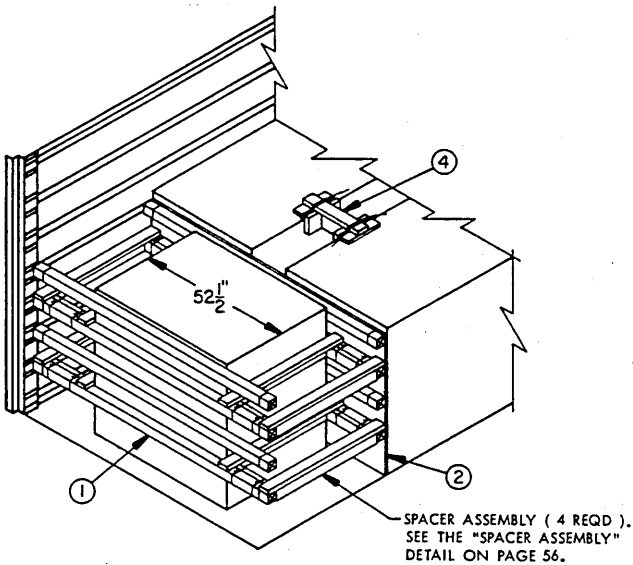
- ① CROSS MEMBER ( 12 REQD ), POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION S-S" VIEW.
- ② LOAD BEARING GATE ( 4 REQD ). SEE THE "LOAD BEARING GATE B" DETAIL ON PAGE 21 AND SPECIAL NOTE 4 ON PAGE 45.
- ③ ANTI-SWAY BRACE ( 4 REQD ). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ④ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER F" DETAIL ON PAGE 47.



**SECTION S-S**

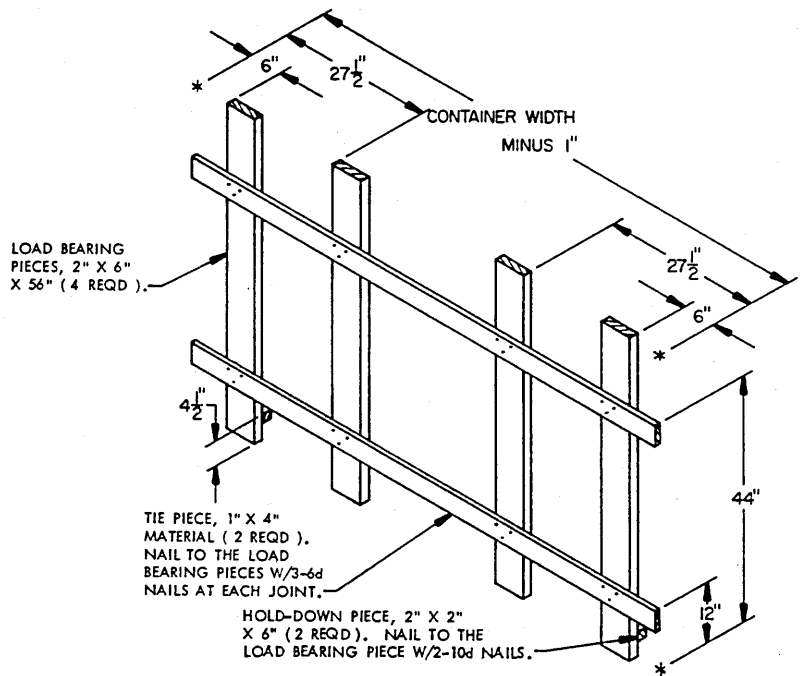
**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 44 AND 45 ARE BASED ON THE 30-CONTAINER, PALLET UNIT NO. 9 SHOWN ON PAGE 7 WITH A UNIT WEIGHT OF 1,452 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN P" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD" AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.
4. IF PLYWOOD IS NOT AVAILABLE OR IF DESIRED, THE LOAD BEARING GATE MAY BE FABRICATED FROM NOMINAL ONE-INCH AND TWO-INCH LUMBER. SEE THE "ALTERNATIVE LOAD BEARING GATE J" DETAIL BELOW.
5. THESE PROCEDURES CAN ALSO BE USED WHEN OUTLOADING THE 30-CONTAINER PALLET UNIT NO. 11, SHOWN ON PAGE 8, WITH A UNIT WEIGHT OF 1,726 POUNDS.



**ALTERNATIVE LOADING PATTERN P**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.



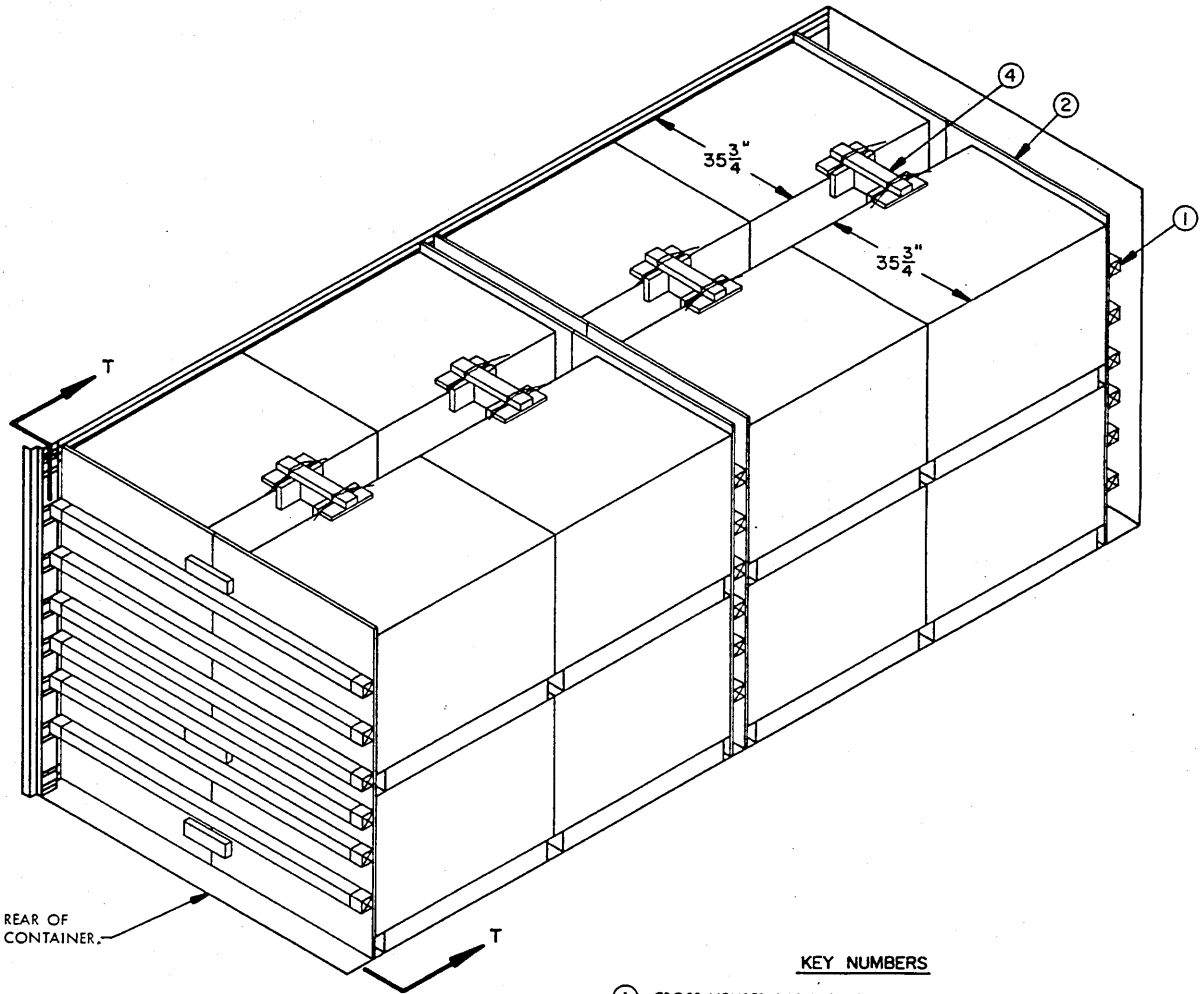
**ALTERNATIVE LOAD BEARING GATE J**

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
2" X 4"	31	20
2" X 6"	39	39
NAILS	NO. REQD	POUNDS
6d ( 2" )	48	1/4
10d ( 3" )	80	1-1/4
PLYWOOD, 1/2"	120 SQ. FT. REQD	165 LBS
WIRE, NO. 14 GAGE	16' REQD	NIL
CROSS MEMBER		12 REQD

**LOAD AS SHOWN ( SEE SPECIAL NOTES 1 AND 5).**

ITEM	QUANTITY	WEIGHT ( APPROX )
PALLET UNIT	8	11,616 LBS
DUNNAGE		299 LBS
CONTAINER		5,700 LBS

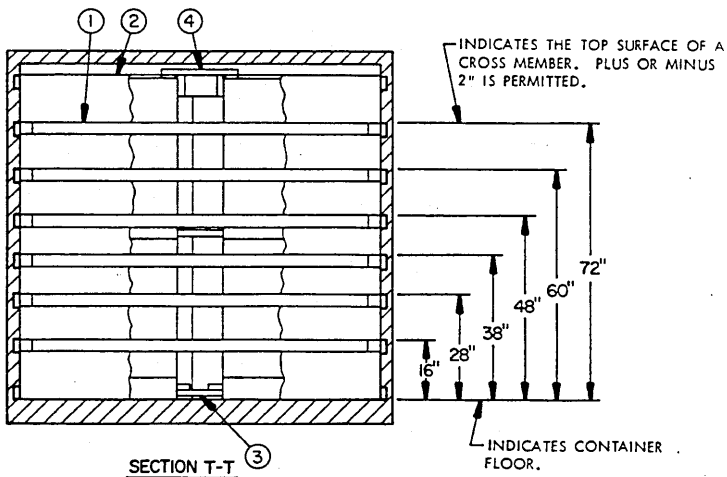
TOTAL GROSS WEIGHT ----- 17,606 LBS



ISOMETRIC VIEW

**KEY NUMBERS**

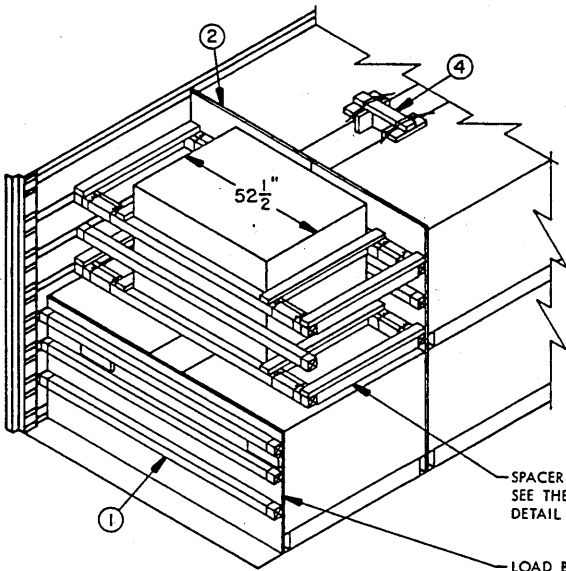
- ① CROSS MEMBER ( 18 REQD ). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION T-T" VIEW.
- ② LOAD BEARING GATE ( 4 REQD ). SEE THE "LOAD BEARING GATE C" DETAIL ON PAGE 23.
- ③ ANTI-SWAY BRACE ( 8 REQD ). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ④ TOP SPACER ( 4 REQD ). SEE THE "TOP SPACER F" DETAIL ON PAGE 47.



SECTION T-T ③

**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 46 AND 47 ARE BASED ON THE 24 CONTAINER, PALLET UNIT NO. 9 SHOWN ON PAGE 7 WITH A UNIT WEIGHT OF 1,266 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM WITH THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN Q" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD" AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.
4. THE TOP SPACER NEED NOT BE FABRICATED FOR A "DRIVE" FIT, HOWEVER, IT MUST FIT TIGHT ENOUGH SO AS TO NOT ALLOW MORE THAN ONE-HALF INCH ( 1/2" ) VOID ACROSS THE WIDTH OF A BRACED LOAD.
5. THESE PROCEDURES CAN ALSO BE USED WHEN OUTLOADING THE 15-CONTAINER PALLET UNIT NO. 10 SHOWN ON PAGE 7 WITH A UNIT WEIGHT OF 1,332 POUNDS.
6. IF PLYWOOD IS NOT AVAILABLE OR IF DESIRED, THE LOAD BEARING GATE MAY BE FABRICATED FROM NOMINAL ONE-INCH AND TWO-INCH LUMBER. SEE THE "ALTERNATIVE LOAD BEARING GATE J" DETAIL ON PAGE 49.



SPACER ASSEMBLY ( 4 REQD ).  
SEE THE "SPACER ASSEMBLY"  
DETAIL ON PAGE 56.

LOAD BEARING GATE ( 1 REQD ). SEE  
THE "LOAD BEARING GATE B" DETAIL  
ON PAGE 21.

**ALTERNATIVE LOADING PATTERN Q**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

RETAINER PIECE, 2" X 4" X 24" ( 1 REQD ). NAIL TO THE BUFFER PIECES AND THE SPACER PIECE W/2-10d NAILS AT EACH JOINT.

BUFFER PIECE, 2" X 6" X 12" ( 2 REQD ). NAIL TO THE SPACER PIECE W/3-10d NAILS.

SPACER PIECE, 2" X 6" BY CUT TO FIT ( 1 REQD ).

SUPPORT PIECE, 1" X 4" X 12" ( 2 REQD ). NAIL TO THE RETAINER PIECE W/3-6d NAILS.

**TOP SPACER F**

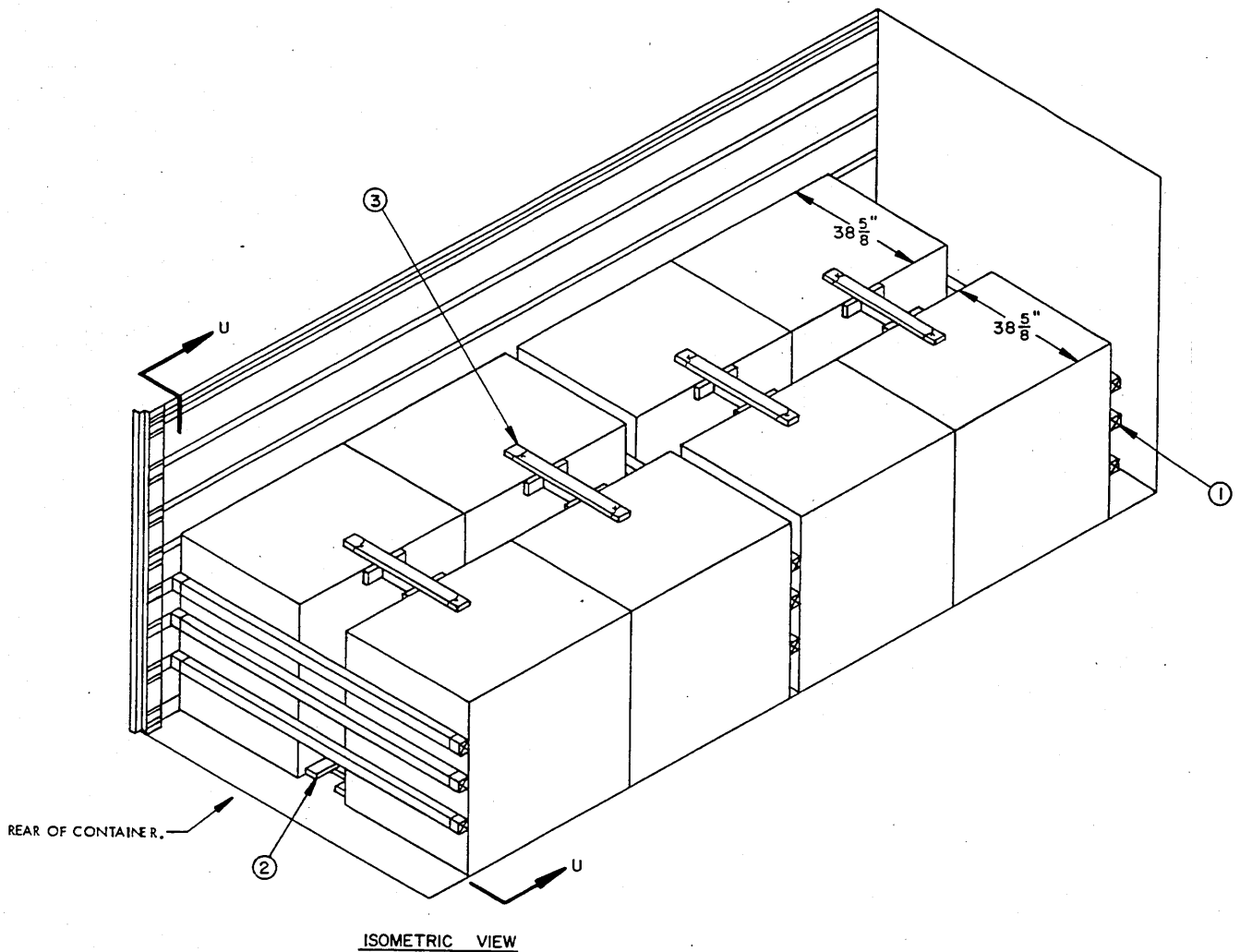
SEE "TOP SPACER SECUREMENT" DETAIL ON PAGE 15 AND SPECIAL NOTE 4 ABOVE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
2" X 4"	52	35
2" X 6"	68	68
NAILS	NO. REQD	POUNDS
6d ( 2" )	96	3/4
10d ( 3" )	120	2
WIRE, NO. 14 GAGE	16' REQD	NIL
PLYWOOD, 1/2"	210 SQ FT REQD	289 LBS
CROSS MEMBER		18 REQD

**LOAD AS SHOWN** ( SEE SPECIAL NOTES 1 AND 5 ).

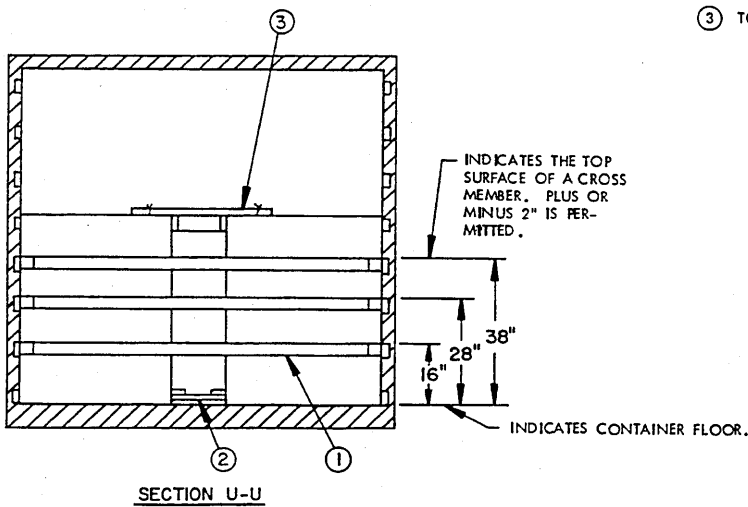
ITEM	QUANTITY	WEIGHT ( APPROX )
PALLET UNIT	16	20,256 LBS
DUNNAGE		504 LBS
CONTAINER		5,700 LBS

TOTAL GROSS WEIGHT-----26,460 LBS



**KEY NUMBERS**

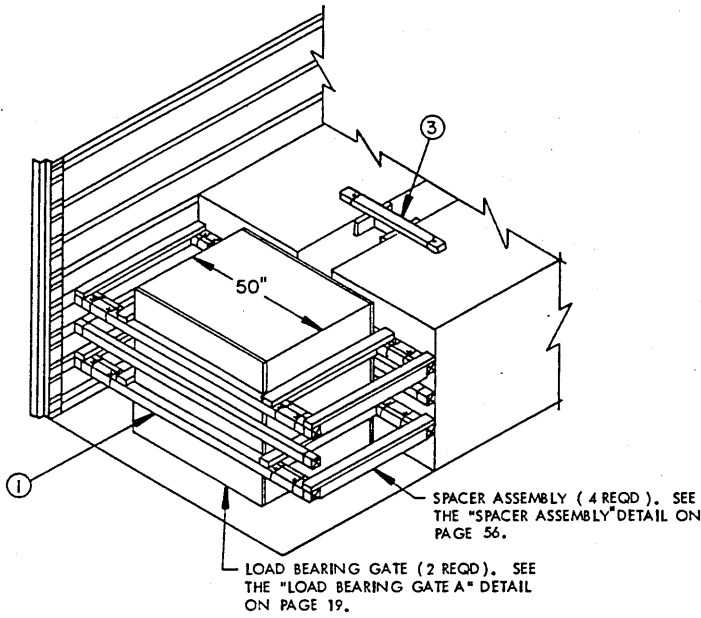
- ① CROSS MEMBER (9 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION U-U" VIEW.
- ② ANTI-SWAY BRACE (4 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ③ TOP SPACER (4 REQD). SEE THE "TOP SPACER B" DETAIL ON PAGE 19.





**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGE 48 AND 49 ARE BASED ON THE 50-CONTAINER, PALLET UNIT NO. 17 SHOWN ON PAGE 9, WITH A UNIT WEIGHT OF 1,839 POUNDS. IF A HEAVIER UNIT IS OUT-LOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM WITH THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY SEVEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN R" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC" LOAD AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN EIGHT-UNIT LOADS.



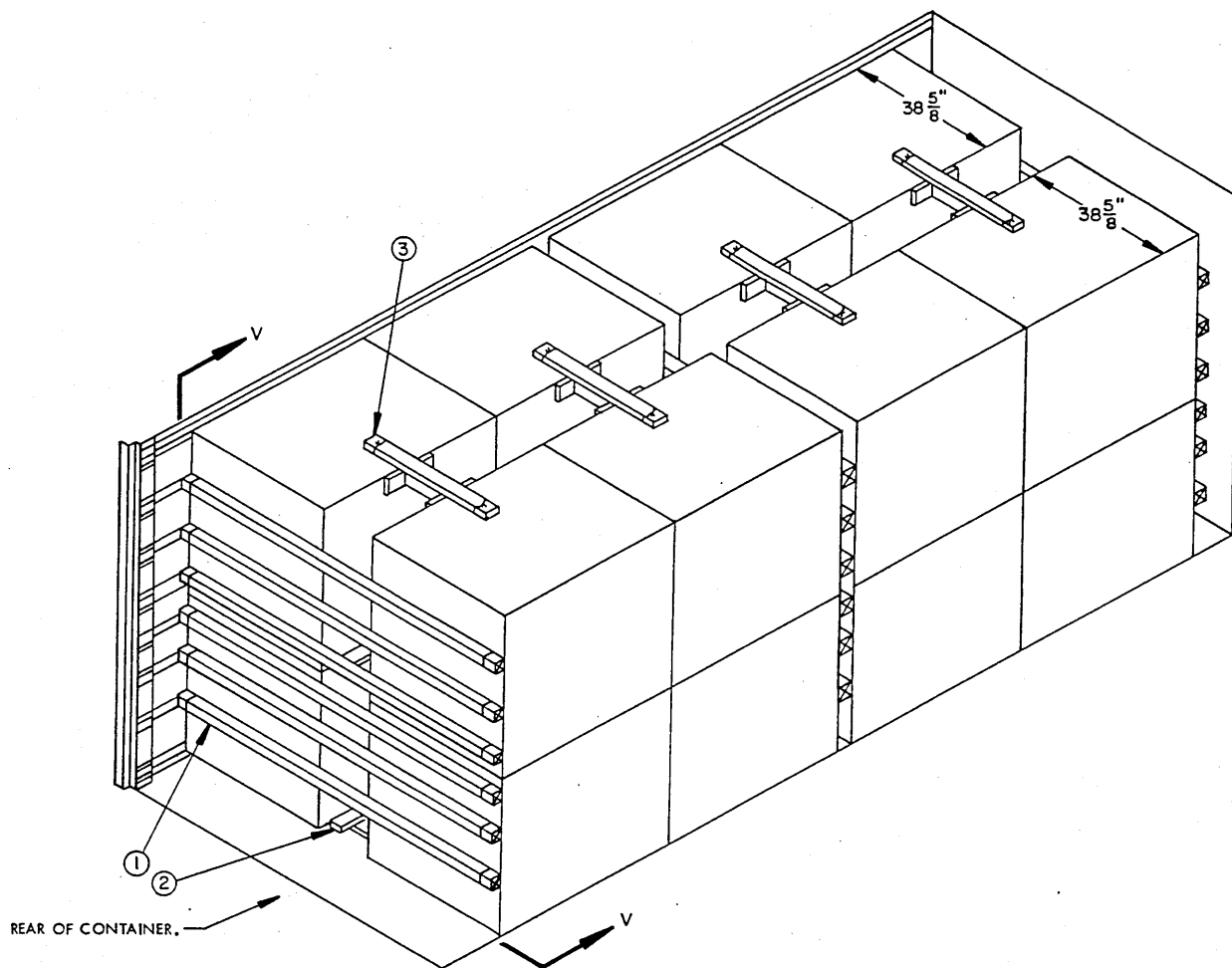
**ALTERNATIVE LOADING PATTERN R**

THE DETAIL ABOVE DEPKTS A BLOCKING METHOD TO BE USED IN A "REDUCED-LOAD" CONTAINER LOAD.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	28	19
2" X 6"	39	39
NAILS	NO. REQD	POUNDS
10d ( 3" )	62	1
WIRE, NO. 14 GAGE	-----12' REQD	-----NIL
CROSS MEMBER	-----9 REQD	

**LOAD AS SHOWN**

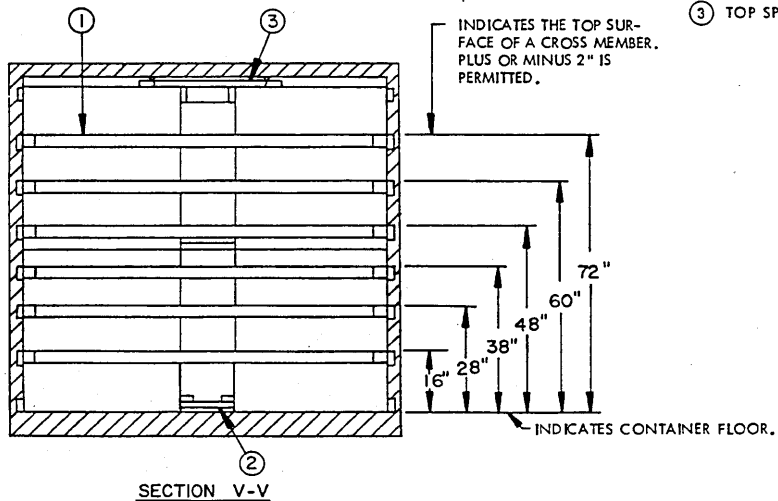
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	14,712 LBS
DUNNAGE		117 LBS
CONTAINER		5,700 LBS
TOTAL GROSS WEIGHT		20,529 LBS



ISOMETRIC VIEW

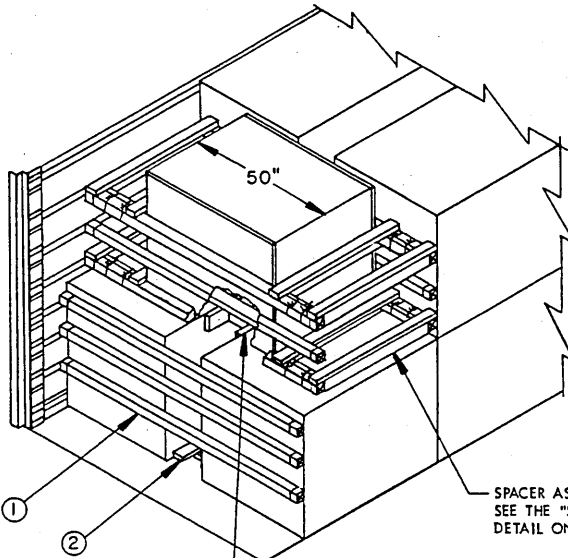
KEY NUMBERS

- ① CROSS MEMBER (18 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION V-V" VIEW.
- ② ANTI-SWAY BRACE (8 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ③ TOP SPACER (4 REQD). SEE THE "TOP SPACER B" DETAIL ON PAGE 19.



**SPECIAL NOTES:**

1. THE LOAD VIEWS AND THE "LOAD AS SHOWN ON PAGES 50 AND 51 ARE BASED ON THE 40-CONTAINER, PALLET UNIT NO. 17 SHOWN ON PAGE 9, WITH A UNIT WEIGHT OF 1,539 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY FIFTEEN UNITS ARE TO BE LOADED, THE METHOD SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN S" DETAIL AT THE LEFT MUST BE APPLIED.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.

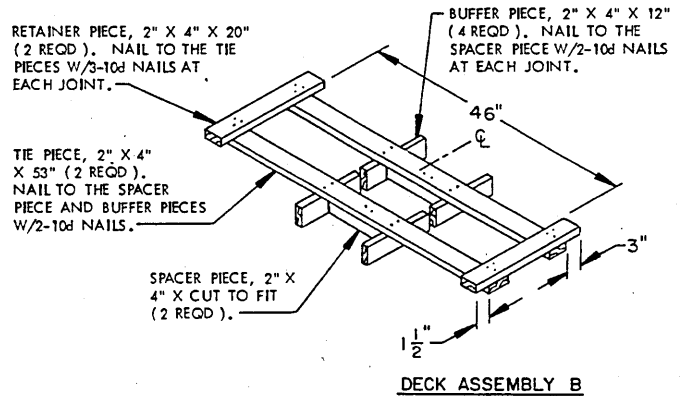


DECK ASSEMBLY (1 REQD). SEE THE "DECK ASSEMBLY B" ON THIS PAGE.

SPACER ASSEMBLY (4 REQD). SEE THE "SPACER ASSEMBLY" DETAIL ON PAGE 56.

**ALTERNATIVE LOADING PATTERN S**

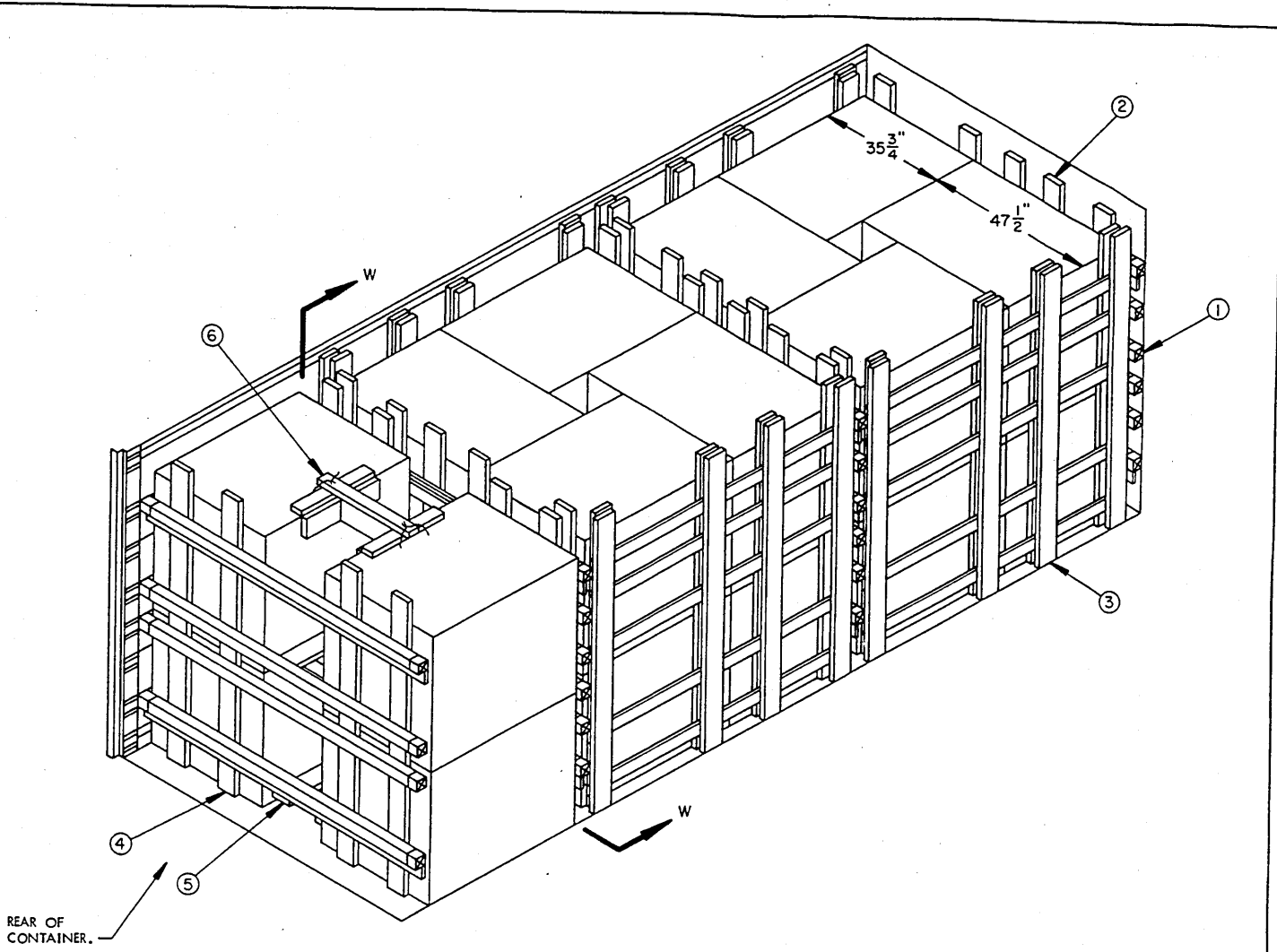
THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A "REDUCED LOAD" CONTAINER LOAD.



BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	44	30
2" X 6"	66	66
NAILS	NO. REQD	POUNDS
10d (3")	104	1-1/2
WIRE, NO. 14 GAGE	-----12' REQD-----	NIL
CROSS MEMBER	-----	18 REQD

**LOAD AS SHOWN**

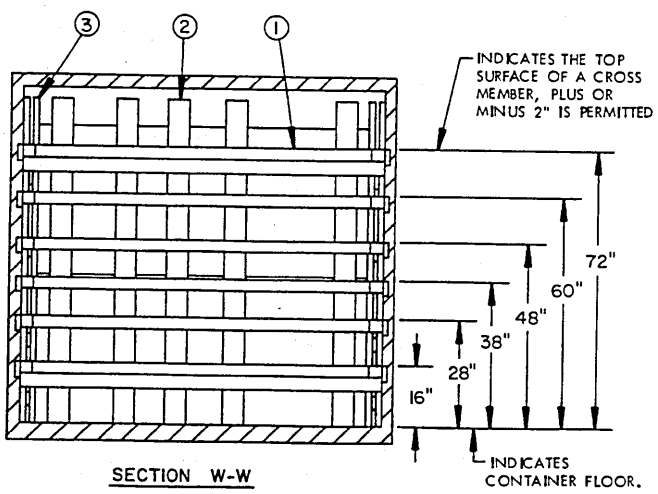
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	-----16-----	24, 624 LBS
DUNNAGE	-----	194 LBS
CONTAINER	-----	5, 700 LBS
TOTAL GROSS WEIGHT		----- 30, 518 LBS



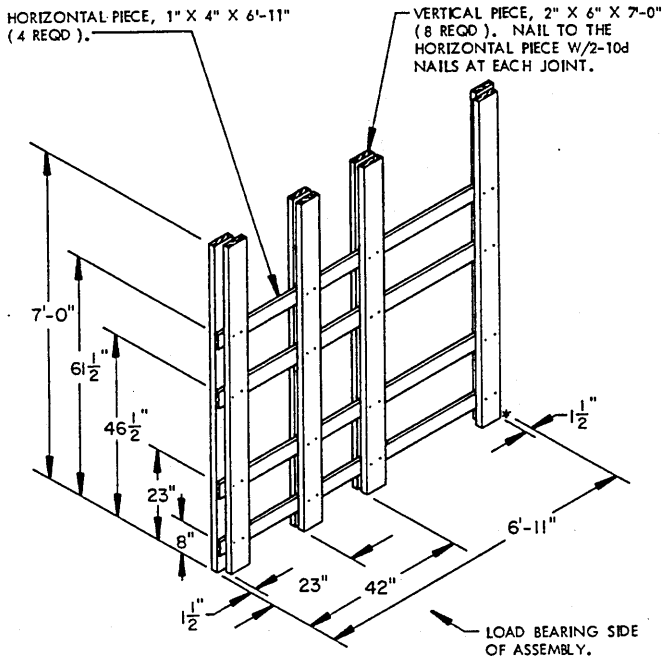
ISOMETRIC VIEW

**KEY NUMBERS**

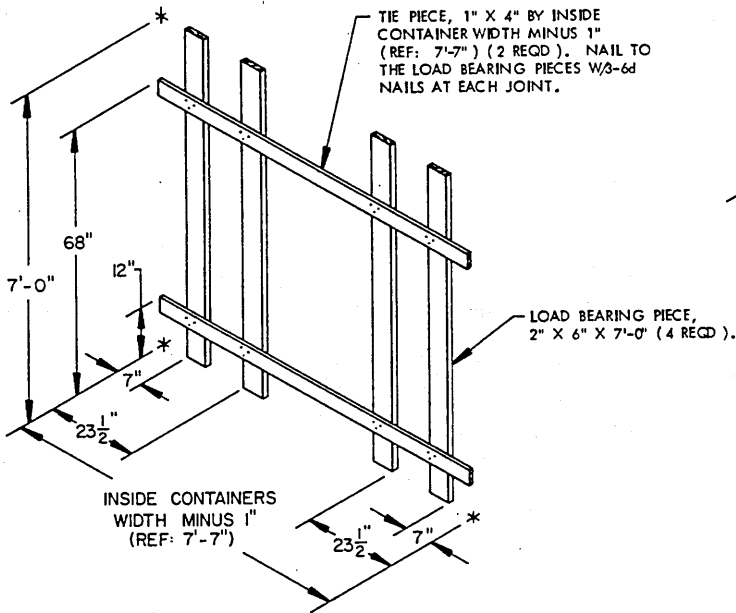
- ① CROSS MEMBER (22 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION W-W" VIEW.
- ② LOAD BEARING GATE (4 REQD). SEE THE "LOAD BEARING GATE K" DETAIL ON PAGE 53 AND GENERAL NOTE "G" ON PAGE 2.
- ③ SIDE FILL ASSEMBLY (4 REQD). SEE THE "SIDE FILL ASSEMBLY A" DETAIL ON PAGE 53 AND GENERAL NOTE "M" ON PAGE 2.
- ④ LOAD BEARING GATE (2 REQD). SEE THE "LOAD BEARING GATE L" DETAIL ON PAGE 53.
- ⑤ ANTI-SWAY BRACE (2 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 56.
- ⑥ TOP SPACER (1 REQD). SEE THE "TOP SPACER C" DETAIL ON PAGE 23.



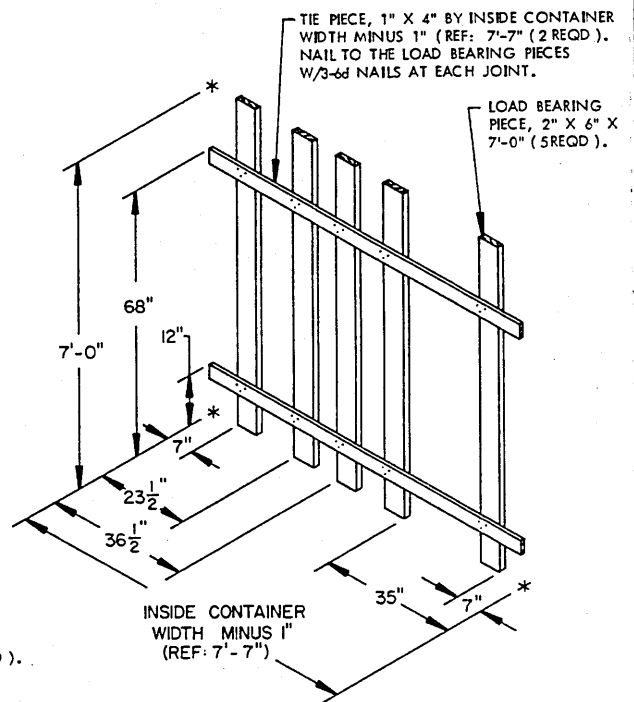
SECTION W-W



SIDE FILL ASSEMBLY A



LOAD BEARING GATE L



LOAD BEARING GATE K

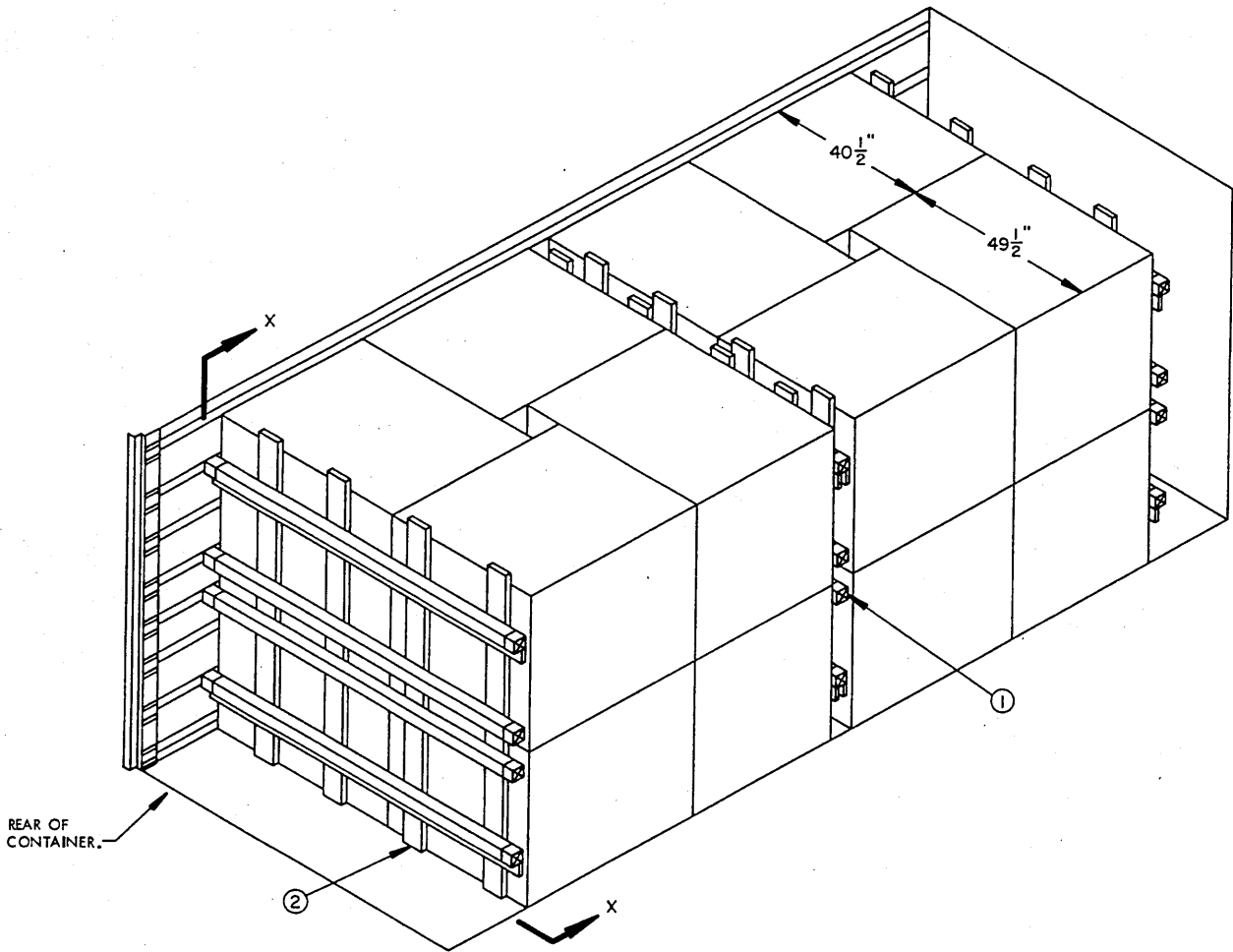
SPECIAL NOTES:

1. THE CHIMNEY PATTERN LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 52 AND 53 ARE BASED ON THE 18-CONTAINER, PALLET UNIT NO. 9 SHOWN ON PAGE 7, WITH A UNIT WEIGHT OF 1,650 POUNDS. IF A HEAVIER UNIT IS UNLOADED, SEE SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, PALLET UNITS SHOULD BE ELIMINATED FROM THE REAR OF THE LOAD. FOR EXAMPLE, IF ONLY NINETEEN UNITS ARE TO BE LOADED, A METHOD SIMILAR TO THAT SPECIFIED BY THE "ALTERNATIVE LOADING PATTERN O" DETAIL ON PAGE 47 MUST BE APPLIED. SEE GENERAL NOTE "N" ON PAGE 2.
3. SPECIFICATIONS FOR THE "BASIC LOAD", AND FOR THE PROVISIONS OF SPECIAL NOTE 2. WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN TWENTY-UNIT LOADS.
4. THE TOP SPACER PIECE MARKED (C), NEED NOT BE FABRICATED FOR A "DRIVE" FIT, HOWEVER, IT MUST FIT TIGHT ENOUGH SO AS TO NOT ALLOW MORE THAN ONE-HALF INCH (1/2") VOID ACROSS THE WIDTH OF A BRACED LOAD.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	202	68
2" X 4"	15	10
2" X 6"	439	439
NAILS	NO. REQD	POUNDS
6d (2")	168	1
10d (3")	294	4-3/4
WIRE, NO. 14 GAGE	4' REQD	NIL
CROSS MEMBER		22 REQD

LOAD AS SHOWN

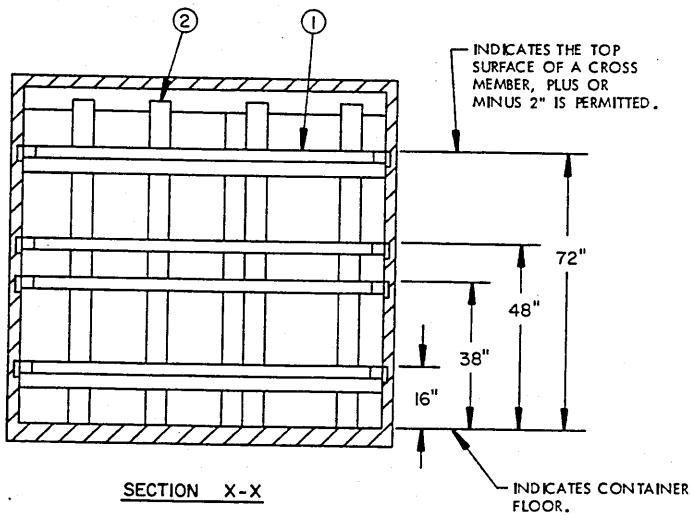
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	20	33,000 LBS
DUNNAGE		1,040 LBS
CONTAINER		5,700 LBS
TOTAL WEIGHT		39,740 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

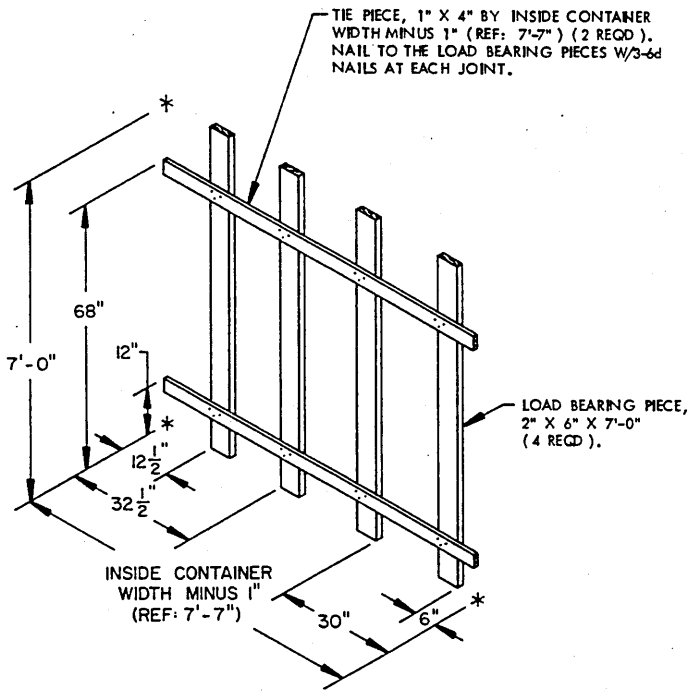
- ① CROSS MEMBERS (12 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION X-X" VIEW.
- ② LOAD BEARING GATE (4 REQD). SEE THE "LOAD BEARING GATE M" DETAIL ON PAGE 55 AND GENERAL NOTE "G" ON PAGE 2.



SECTION X-X

**SPECIAL NOTES:**

1. THE CHIMNEY PATTERN LOAD VIEWS AND THE "LOAD AS SHOWN" ON PAGES 54 AND 55 ARE BASED ON A TYPICAL PALLET UNIT WITH DIMENSIONS OF 40-1/2" LONG BY 49-1/2" WIDE BY 40-7/16" HIGH AND A WEIGHT OF 1,219 POUNDS. IF A HEAVIER UNIT IS OUTLOADED, SEE "SPECIAL NOTES 2 AND 3 FOR THE PROCEDURES THAT MUST BE USED TO CONFORM TO THE "CAPABILITY FACTORS" AS DIRECTED BY GENERAL NOTE "K" ON PAGE 2. A TOTAL GROSS WEIGHT OF 44,800 POUNDS MUST NOT BE EXCEEDED.
2. IF A CONTAINER IS TO BE LOADED WITH LESS UNITS THAN SHOWN, THE PROCEDURES DEPICTED ON PAGE 54 MAY ONLY BE USED FOR SHIPPING OF FOUR, EIGHT, OR SIXTEEN PALLET UNITS IN ORDER TO COMPLY WITH GENERAL NOTE "N" ON PAGE 2.
3. SPECIFICATIONS FOR THE "BASIC LOAD, AND FOR THE PROVISIONS OF SPECIAL NOTE 2 WILL BE APPLIED SEPARATELY OR IN COMBINATION TO BLOCK AND BRACE OTHER THAN SIXTEEN-UNIT LOADS.



**LOAD BEARING GATE M**

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	61	21
2" X 6"	112	112
NAILS	NO. REQD	POUNDS
6d (2")	96	3/4
CROSS MEMBER		12 REQD

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	19,504 LBS
DUNNAGE		267 LBS
CONTAINER		5,700 LBS
<b>TOTAL WEIGHT</b>		<b>25,471 LBS (APPROX)</b>

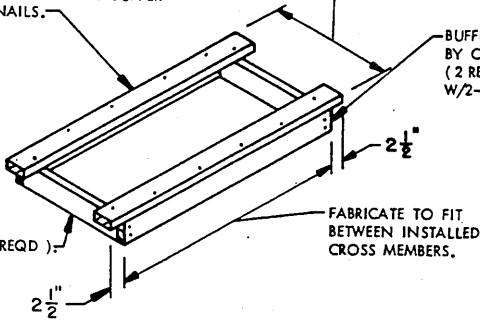
RETAINER PIECE, 2" X 4" BY CUT-TO-FIT IN LENGTH (2 REQD). NAIL TO THE STRUTS W/1-10d NAIL AT EACH JOINT AND TO THE BUFFER PIECE W/4-10d NAILS.

FABRICATE TO FIT BETWEEN CONTAINER SIDE WALL AND PALLET UNIT.

BUFFER PIECE, 2" X 4" BY CUT-TO-FIT IN LENGTH (2 REQD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.

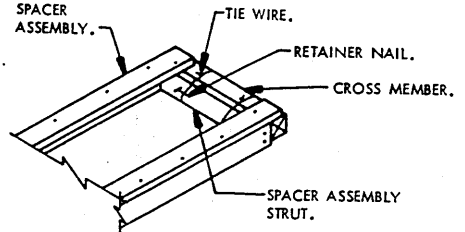
STRUT, 2" X 4" BY CUT-TO-SUIT IN LENGTH (2 REQD).

FABRICATE TO FIT BETWEEN INSTALLED CROSS MEMBERS.



**SPACER ASSEMBLY**

SEE "SPACER ASSEMBLY SECUREMENT" DETAIL AT RIGHT AND SPECIAL NOTE 4 AND 5 ON PAGE 13.



**SPACER ASSEMBLY SECUREMENT**

SEE SPECIAL NOTE 5 ON PAGE 13.

BUFFER PIECE, 2" X 6" BY THE DISTANCE BETWEEN OUTSIDE PALLET POSTS PLUS 6" (2 REQD) POSITION AGAINST THE PALLET POSTS AND NAIL TO THE RETAINER PIECES W/2-10d NAILS AT EACH JOINT.

FABRICATE TO FIT BETWEEN LATERALLY ADJACENT PALLETS.

BUFFER PIECE, 2" X 4" BY THE DISTANCE BETWEEN OUTSIDE PALLET POSTS PLUS 6" (2 REQD). POSITION AGAINST THE PALLET POSTS AND NAIL TO THE RETAINER PIECES W/2-10d NAILS AT EACH JOINT.

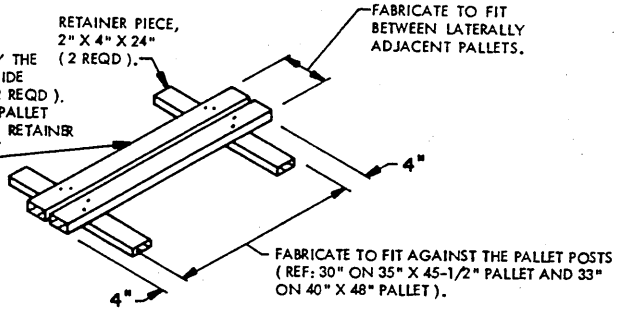
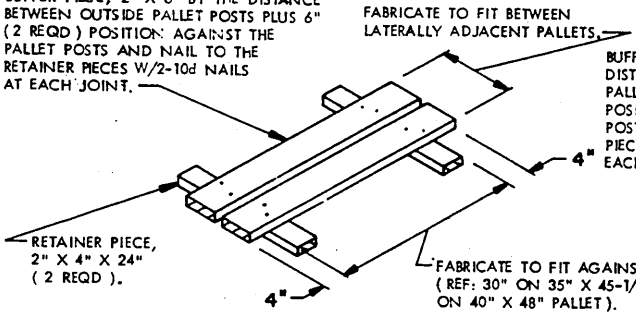
RETAINER PIECE, 2" X 4" X 24" (2 REQD).

FABRICATE TO FIT BETWEEN LATERALLY ADJACENT PALLETS.

RETAINER PIECE, 2" X 4" X 24" (2 REQD).

FABRICATE TO FIT AGAINST THE PALLET POSTS (REF: 30" ON 35" X 45-1/2" PALLET AND 33" ON 40" X 48" PALLET).

FABRICATE TO FIT AGAINST THE PALLET POSTS (REF: 30" ON 35" X 45-1/2" PALLET AND 33" ON 40" X 48" PALLET).



**ANTI-SWAY BRACE A**

THIS ASSEMBLY MUST BE FABRICATED IN PLACE BETWEEN PALLET UNITS. SEE "ANTI-SWAY BRACE INSTALLATION" DETAIL BELOW.

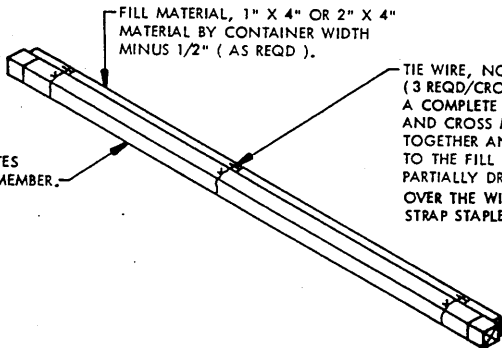
**ANTI-SWAY BRACE B**

THIS ASSEMBLY MUST BE FABRICATED IN PLACE BETWEEN PALLET UNITS.

FILL MATERIAL, 1" X 4" OR 2" X 4" MATERIAL BY CONTAINER WIDTH MINUS 1/2" (AS REQD).

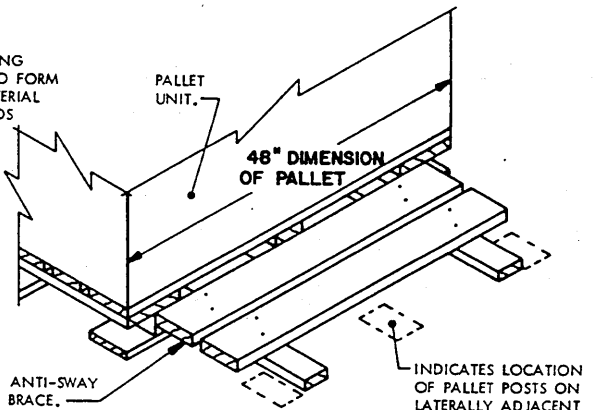
INDICATES CROSS MEMBER.

TIE WIRE, NO. 14 GAGE WIRE 18" LONG (3 REQD/CROSS MEMBER). INSTALL TO FORM A COMPLETE LOOP AROUND FILL MATERIAL AND CROSS MEMBER. BRING THE ENDS TOGETHER AND TWIST TAUT. SECURE TO THE FILL MATERIAL WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE, OR WITH A STRAP STAPLE.



**FILL DETAIL**

THIS DETAIL DEPICTS METHOD OF POSITIONING FILL MATERIAL BETWEEN CROSS MEMBER AND LADING, WHEN THE VOID BETWEEN THE TWO IS GREATER THAN ONE INCH (1") FOR LONGITUDINAL BRACING.



**ANTI-SWAY BRACE INSTALLATION**