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# LOADING AND BRACING<sup>⊕</sup> IN SIDE OPENING ISO CONTAINERS OF 8” M188 AND M188A1 PROPELLING CHARGES, PACKED IN PA66 CY- LINDRICAL METAL CONTAINERS, ON WOODEN PALLETS

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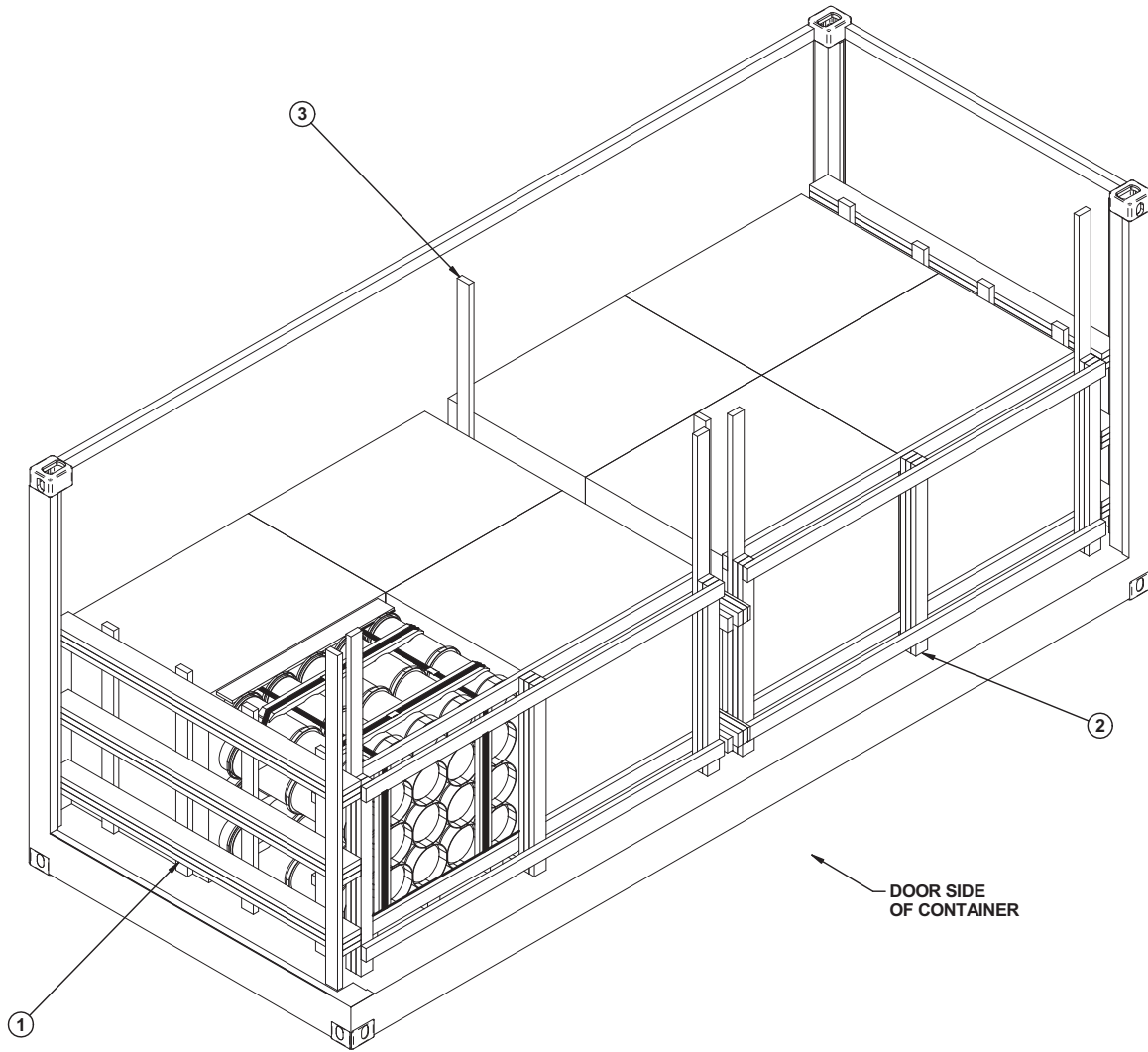
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⊕ THE PROCEDURES SHOWN HEREIN ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY TRAILER/CONTAINER-ON-FLATCAR (T/COFC) RAIL, MOTOR, OR WATER CARRIERS.

## U.S. ARMY MATERIEL COMMAND DRAWING

<p>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND</p> <p>RUS.ALLEN.J .1230354282</p> <p><small>Digitally signed by RUS.ALLEN.J.1230354282 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=RUS.ALLEN.J.1230354282 Date: 2011.01.03 14:26:39 -06'00'</small></p>		<p><b>CAUTION: VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 8.</b></p>			
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		<p>VALIDATION ENGINEERING DIVISION</p>	<p>BARICKMAN. PHILIP.W.123 0202202</p> <p><small>Digitally signed by BARICKMAN.PHILIP.W.1230202202 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BARICKMAN.PHILIP.W.1230202202 Date: 2010.11.24 11:01:53 -06'00'</small></p>	<p>FILE</p>	<p>DIVISION</p>
		<p>ENGINEERING DIRECTORATE</p>	<p>BEAVER.JERRY. W.1230949952</p> <p><small>Digitally signed by BEAVER.JERRY.W.1230949952 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BEAVER.JERRY.W.1230949952 Date: 2010.12.01 09:47:15 -06'00'</small></p>	<p>DRAWING</p>	<p>19</p>
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				<p>FILE</p>	<p>15PM1003</p>



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① END BLOCKING ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 5.
- ② SIDE GATE (2 REQD). SEE THE DETAIL ON PAGE 6.
- ③ CENTER FILL ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 5.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	284	190
2" X 6"	174	174
NAILS	NO. REQD	POUNDS
10d (3")	212	3.25

**LOAD AS SHOWN\***

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	13,888 LBS
DUNNAGE		730 LBS
CONTAINER		6,050 LBS
<b>TOTAL WEIGHT</b>		<b>20,668 LBS (APPROX)</b>

\* THE LOAD DEPICTED ABOVE SHOWS THE ROUTED DUNNAGE PALLET UNIT.

**GENERAL NOTES**

**(GENERAL NOTES CONTINUED)**

- 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 LOADS OF 8" M188 AND M188A1 PROPELLING CHARGES PACKED IN PA66 SERIES METAL CONTAINERS. SUBSEQUENT REFERENCE TO PALLET UNIT HEREIN MEANS THE PALLET UNIT WITH AMMUNITION ITEMS. SEE PAGE 6 AND AMC DRAWING 19-48-4042A/10-20PM1001 FOR DETAILS OF THE PALLET UNIT. **CAUTION:** REGARDLESS OF THE QUANTITY OF CONTAINERS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF THE SIDE OPENING ISO CONTAINER MUST NOT BE EXCEEDED.
- C. THE LOAD AS SHOWN IS BASED ON A 6,050 POUND 20' LONG BY 8' WIDE BY 8'-6" HIGH SIDE OPENING ISO CONTAINER WITH INSIDE DIMENSIONS OF 19'-6-1/4" LONG BY 90" WIDE BY 89" HIGH, WITH A MAXIMUM GROSS WEIGHT OF 52,910 POUNDS. OLDER/OTHER CONTAINERS MAY HAVE DIFFERENT INSIDE MEASUREMENTS, VERIFY INSIDE CONTAINER DIMENSIONS PRIOR TO FABRICATING DUNNAGE. THE LOAD IS DESIGNED FOR TRAILER/CONTAINER-ON-FLATCAR (T/COFC) SHIPMENT, HOWEVER, THE LOAD AS DESIGNED CAN ALSO BE MOVED BY OTHER SURFACE MODES OF TRANSPORT. **NOTICE:** OTHER CONTAINERS OF THE SAME DESIGN CONFIGURATION CAN BE USED.
- D. WHEN LOADING PALLET UNITS, THEY ARE TO BE POSITIONED SO AS TO ACHIEVE A TIGHT LOAD (TIGHT AGAINST THE DUNNAGE ASSEMBLIES). THE UNLOCKED SPACE ACROSS THE WIDTH OF A LOAD BAY IS NOT TO EXCEED 1-1/2". EXCESSIVE SLACK CAN BE ELIMINATED FROM A LOAD BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE HORIZONTAL PIECES ON THE SIDE GATES. NAIL EACH ADDITIONAL PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE THICKNESS, AND/OR QUANTITY OF THE FILL PIECES IN THE SIDE GATES MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE SIZE OF THE PALLET UNIT.
- E. DUNNAGE LUMBER SPECIFIED IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- F. A STAGGERED NAILING PATTERN WILL BE USED WHENEVER 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.
- G. IN SOME CONTAINERS THERE IS A SLOT AT THE CORNERS OF THE ENDWALL. PIECES OF DUNNAGE MATERIAL MUST BE LAMINATED TO THE BUFFER PIECES ON THE END BLOCKING ASSEMBLY TO PROVIDE A FLAT SURFACE FOR THE BUFFER PIECES. A PIECE OF 2" X 4", 2" X 3" OR A SPECIAL WIDTH PIECE CUT-TO-FIT CAN BE USED. THIS FILL PIECE WILL BE NAILED WITH ONE APPROPRIATELY SIZED NAIL EVERY 12". NOTE THAT SOME CONTAINERS ARE EQUIPPED WITH "TIE-BARS" IN THE CORNER SLOT, WHICH PRECLUDE THE USE OF A FULL HEIGHT FILL PIECE. WHEN "TIE-BARS" ARE PRESENT, THE FILL PIECE MUST BE INSTALLED IN SEGMENTS DESIGNED TO FIT BETWEEN THE "TIE-BARS" VERTICALLY. THE FILL PIECE(S) IS NOT REQUIRED WHEN THE CORNER PORTIONS OF THE CONTAINER FORWARD WALL ARE SMOOTH AND FLAT. DO NOT ALLOW ANY DUNNAGE ASSEMBLY TO CONTACT THE CONTAINER ENDWALLS, ONLY THE CORNER POSTS OF THE CONTAINER SHOULD BE USED FOR FORWARD LONGITUDINAL BLOCKING.
- H. WHETHER A CONTAINER IS FULL OR IS LOADED WITH A REDUCED QUANTITY OF LADING UNITS, THE LENGTHWISE CENTER OF GRAVITY OF THE LOAD MUST BE WITHIN 12", IN EITHER DIRECTION, OF THE MID-POINT OF THE CONTAINER.
- J. **CAUTION:** DO NOT NAIL DUNNAGE MATERIAL TO THE CONTAINER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- K. PORTIONS OF THE CONTAINER DEPICTED WITHIN THIS DRAWING, SUCH AS THE SIDEWALL, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- L. **MAXIMUM LOAD WEIGHT CRITERIA:**

THE MAXIMUM LOAD WEIGHTS ARE CONTROLLED BY EQUIPMENT CAPABILITY FACTORS. 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. 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 INTERMODAL CONTAINER SYSTEM.

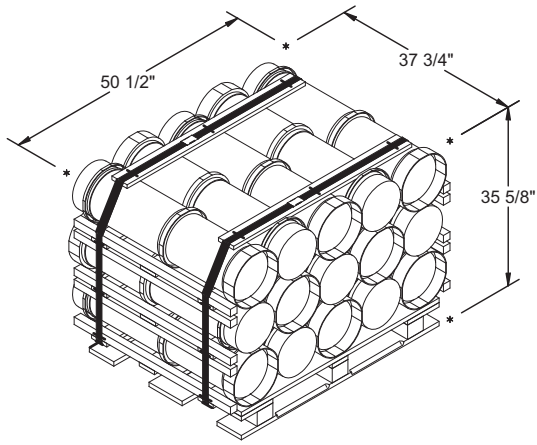
- M. REQUIREMENTS CITED WITHIN THE ASSOCIATION OF AMERICAN RAILROADS (AAR) INTERMODAL LOADING GUIDE APPLY WHEN THE SHIPMENT MOVES BY TRAILER/CONTAINER-ON-FLATCAR (T/COFC). SPECIAL T/COFC NOTES FOLLOW:
  1. A LOADED CONTAINER MUST BE ON A CHASSIS EQUIPPED WITH TWO BOGIE ASSEMBLIES WHEN BEING MOVED IN TOFC SERVICE.
  2. THE LOAD LIMIT OF A T/COFC RAILCAR 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.

(CONTINUED AT RIGHT)

- N. DURING INTRASTATE AND/OR INTERSTATE MOVES BY MOTOR CARRIER, A PROPER CHASSIS OR MODIFIED FLATBED TRAILER MUST BE USED TO PRECLUDE VIOLATION OF ONE OR MORE "WEIGHT LAWS" APPLICABLE TO THE STATE OR STATES INVOLVED.
- O. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454 KG.
- P. THE QUANTITY OF PALLET UNITS SHOWN IN THE LOAD ON PAGE 2 MAY BE REDUCED FOR SHIPMENT, IF DESIRED. SEE THE "LESS-THAN-FULL-LOAD PROCEDURE" ON PAGE 8.
  1. IF A LOAD IS REDUCED BY ONLY A SMALL AMOUNT (ONE, TWO, OR THREE LADING UNITS), LADING UNITS NORMALLY MAY BE ELIMINATED FROM THE CENTER OF THE LOAD.
  2. IF A LOAD IS REDUCED BY A LARGE AMOUNT (MORE THAN THREE LADING UNITS), LADING UNITS SHOULD BE ELIMINATED AS REQUIRED AND THE VOID IN THE LONGITUDINAL CENTER OF THE CONTAINER SHIFTED FORE OR AFT, AS NECESSARY, TO ACHIEVE A SYMMETRICAL WEIGHT DISTRIBUTION. THE DEPICTED PROCEDURES WILL BE FOLLOWED AS CLOSELY AS POSSIBLE, MAKING ONLY THOSE ADJUSTMENTS TO THE DUNNAGE WHICH ARE REQUIRED TO ACCOMMODATE THE NUMBER OF UNITS TO BE SHIPPED.
- Q. **NOTE:** SEPARATOR GATES MUST BE USED WHEN LOADING ALTERNATED CONTAINER PALLET UNITS. INSTALL SEPARATOR GATES BETWEEN PALLET UNITS OR WHEREVER METAL TO METAL CONTACT EXISTS. IN ADDITION, SIDE FILL ASSEMBLIES ARE PLACED ON BOTH SIDES OF THE LOAD, AS DEPICTED ON PAGE 8.
- R. LOAD-BLOCKING STRUTS WHICH ARE 48" OR LONGER MUST BE STIFFENED BY THE APPLICATION OF HORIZONTAL AND VERTICAL STRUT BRACING AS SHOWN ON PAGE 8. BRACING IS NOT REQUIRED IF THE STRUTS FOR THE LOAD BEING SHIPPED ARE SHORTER THAN 48". THE LENGTH OF THE LOAD-BLOCKING STRUTS SHOULD BE KEPT AS SHORT AS POSSIBLE (APPROX 18" MINIMUM), BUT IN THE EVENT IT IS NECESSARY TO USE STRUTS WHICH ARE 8'-0" OR MORE IN LENGTH, IT WILL BE NECESSARY TO APPLY AN ADDITIONAL SET OF HORIZONTAL AND VERTICAL STRUT BRACING PIECES. STRUT BRACING SHOULD BE APPLIED SO AS TO PROVIDE NEARLY EQUAL SPACES BETWEEN THE BRACING PIECES AND THE CENTER GATES AND/OR BETWEEN ADJACENT STRUT BRACING PIECES. NOTE THAT HORIZONTAL STRUT BRACING PIECES FOR THE UPPER LEVEL OF STRUTS FOR ALL BUT THE UPPERMOST TIER OF A LOAD MAY BE DIFFICULT TO APPLY TO THE TOP SURFACES OF THE STRUT AS DEPICTED. STRUT BRACING WILL BE EQUALLY EFFECTIVE IF APPLIED TO THE UNDER SIDE OF THOSE STRUTS. SEE THE "LESS-THAN-FULL-LOAD PROCEDURE" ON PAGE 8 FOR DETAILS.

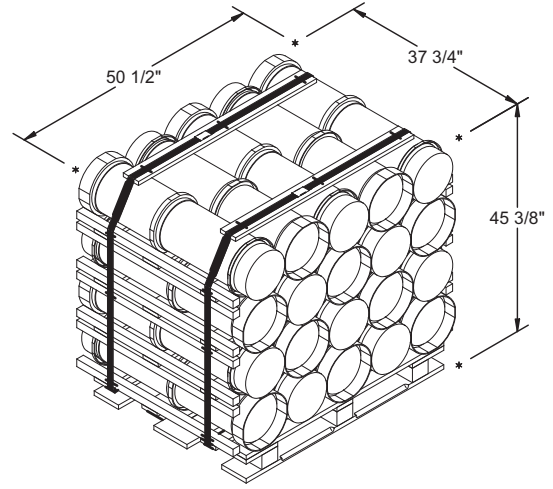
**MATERIAL SPECIFICATIONS**

- LUMBER** - - - - - : SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS 20.
- NAILS** - - - - - : ASTM F1667; COMMON STEEL NAIL NLCMS OR NLCMMS).
- PLYWOOD** - - - - - : COMMERCIAL ITEM DESCRIPTION A-A-55057, INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.
- WIRE, CARBON STEEL** - : ASTM A853; ANNEALED AT FINISH, BLACK OXIDE FINISH, 0.0800" DIA, GRADE 1006 OR BETTER.
- STAPLE** - - - - - : ASTM F1667; STFCs-189 OR STFCs-207, 15/16" OR 1" CROWN WIDTH X 3/4" LEG LENGTH FOR 3/4" STRAPPING, OR STFCs-224, 1-17/32" CROWN WIDTH X 3/4" LEG LENGTH FOR 1-1/4" STRAPPING.



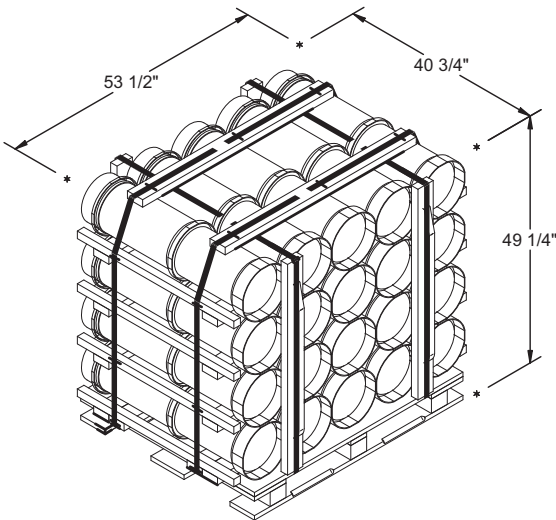
**ALTERNATED CONTAINER PALLET UNIT DATA**

GROSS WEIGHT - - - - - 1,273 LBS  
 CUBE - - - - - 39.3 CU FT



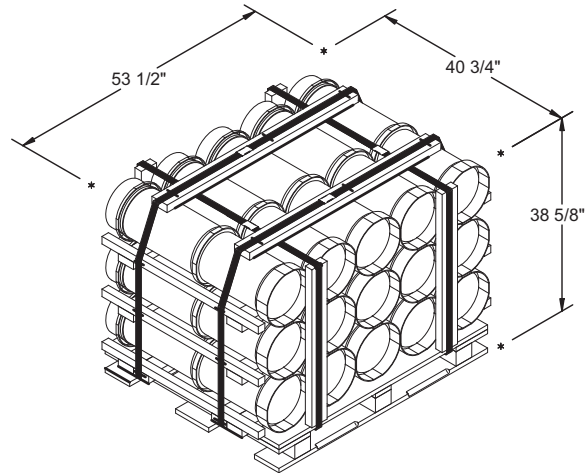
**ALTERNATED CONTAINER INCREASED HEIGHT PALLET UNIT DATA**

GROSS WEIGHT - - - - - 1,658 LBS  
 CUBE - - - - - 50.1 CU FT



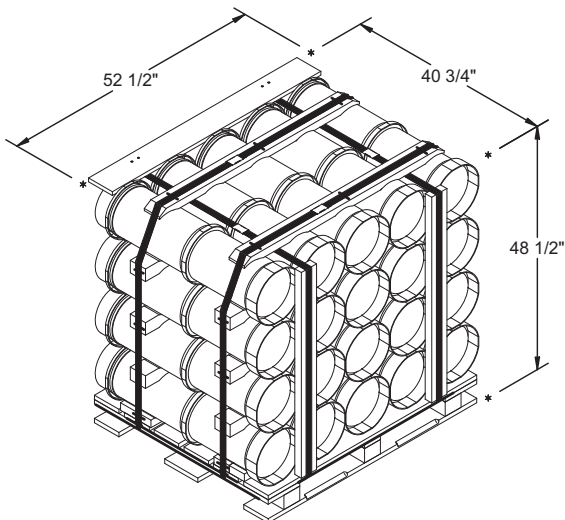
**FLAT DUNNAGE PALLET UNIT DATA**

GROSS WEIGHT - - - - - 1,745 LBS  
 CUBE - - - - - 61.8 CU FT



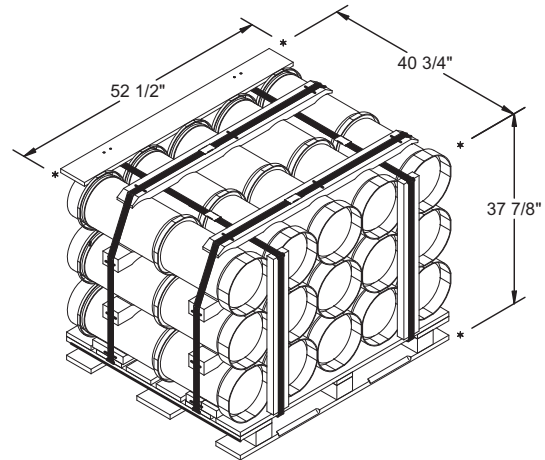
**FLAT DUNNAGE REDUCED HEIGHT PALLET UNIT DATA**

GROSS WEIGHT - - - - - 1,350 LBS  
 CUBE - - - - - 48.6 CU FT



**ROUTED DUNNAGE PALLET UNIT DATA**

GROSS WEIGHT - - - - - 1,736 LBS  
 CUBE - - - - - 60.1 CU FT



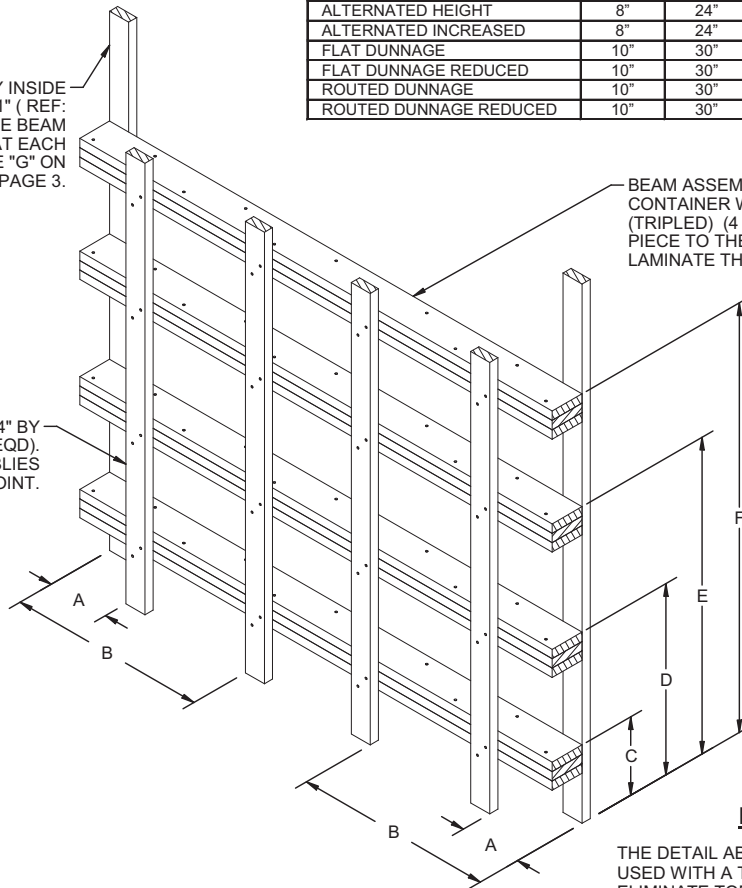
**ROUTED DUNNAGE REDUCED HEIGHT PALLET UNIT DATA**

GROSS WEIGHT - - - - - 1,351 LBS  
 CUBE - - - - - 46.9 CU FT

DIMENSION CHART						
PALLET UNIT	A	B	C	D	E	F
ALTERNATED HEIGHT	8"	24"	10"	30"	46"	66"
ALTERNATED INCREASED	8"	24"	10"	38"	---	---
FLAT DUNNAGE	10"	30"	10"	42"	---	---
FLAT DUNNAGE REDUCED	10"	30"	10"	32"	48"	70"
ROUTED DUNNAGE	10"	30"	8"	40"	46"	6'-6"
ROUTED DUNNAGE REDUCED	10"	30"	8"	30"	---	---

BUFFER PIECE, 2" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1" ( REF: 7'-1" ) ( 2 REQD ). NAIL TO THE BEAM ASSEMBLIES W/2-10d NAILS AT EACH JOINT. SEE GENERAL NOTE "G" ON PAGE 3.

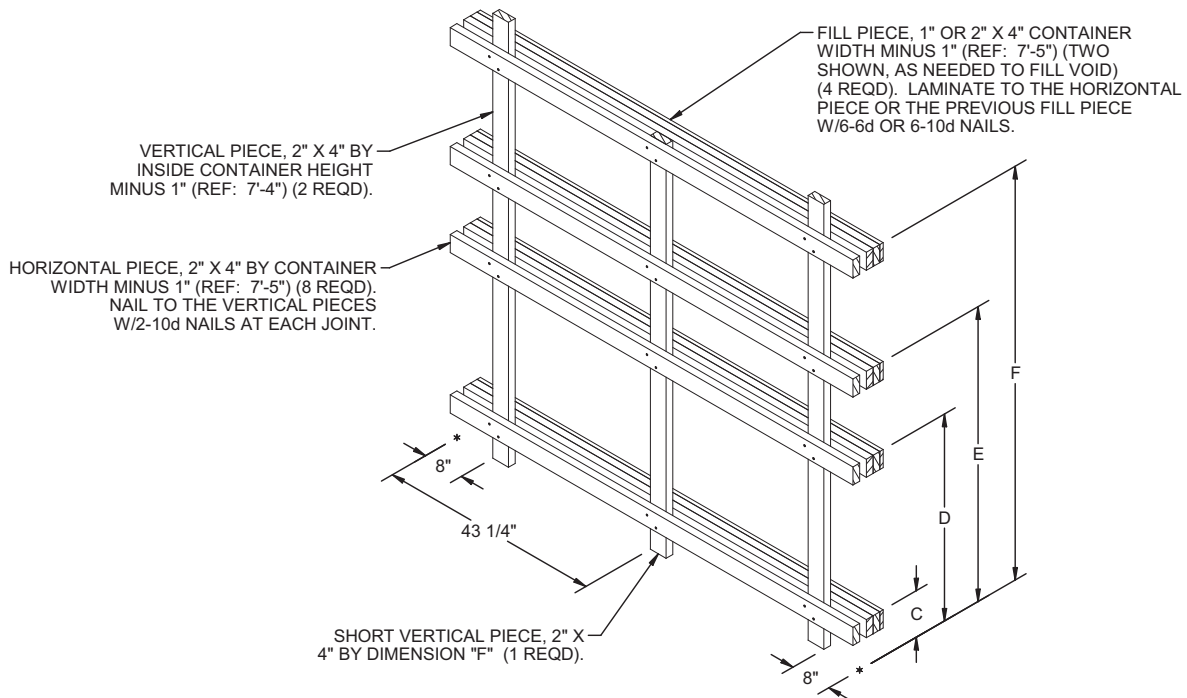
LOAD BEARING PIECE, 2" X 4" BY DIMENSION "F" PLUS 6" ( 4 REQD ). NAIL TO THE BEAM ASSEMBLIES W/2-10d NAILS AT EACH JOINT.



BEAM ASSEMBLY, 2" X 6" BY INSIDE CONTAINER WIDTH MINUS 1" ( REF: 7'-2" ) ( TRIPLED ) ( 4 REQD ). LAMINATE THE FIRST PIECE TO THE SECOND PIECE W/11-10d NAILS. LAMINATE THE THIRD PIECE IN A LIKE MANNER.

**END BLOCKING ASSEMBLY**

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED WITH A TWO HIGH LOAD. FOR ONE HIGH LOAD, ELIMINATE TOP TWO BEAM ASSEMBLIES.



VERTICAL PIECE, 2" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1" ( REF: 7'-4" ) ( 2 REQD ).

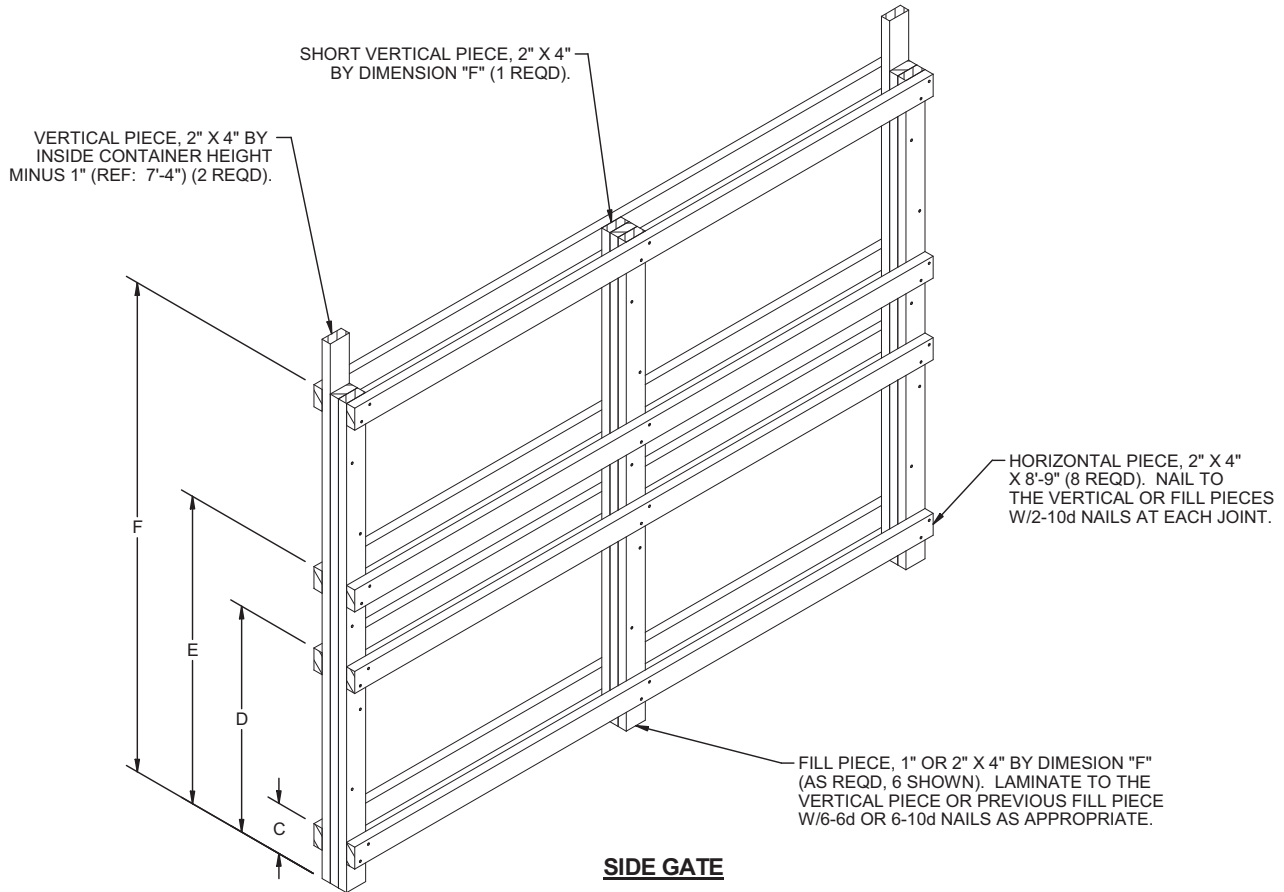
HORIZONTAL PIECE, 2" X 4" BY CONTAINER WIDTH MINUS 1" ( REF: 7'-5" ) ( 8 REQD ). NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

FILL PIECE, 1" OR 2" X 4" CONTAINER WIDTH MINUS 1" ( REF: 7'-5" ) ( TWO SHOWN, AS NEEDED TO FILL VOID ) ( 4 REQD ). LAMINATE TO THE HORIZONTAL PIECE OR THE PREVIOUS FILL PIECE W/6-6d OR 6-10d NAILS.

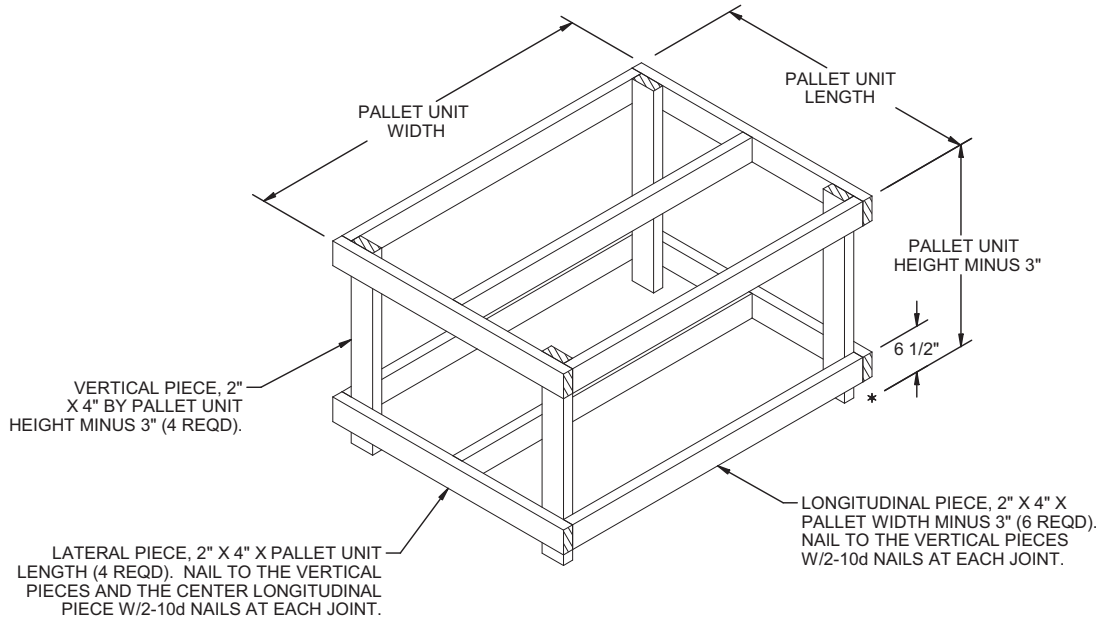
SHORT VERTICAL PIECE, 2" X 4" BY DIMENSION "F" ( 1 REQD ).

**CENTER FILL ASSEMBLY**

THE DETAIL ABOVE DEPICTS AN ASSEMBLY ADEQUATE TO FILL A VOID GREATER THAN 6" AND LESS THAN 7-1/2". SEE GENERAL NOTE "D" ON PAGE 3 AND THE "DIMENSION CHART" ABOVE.



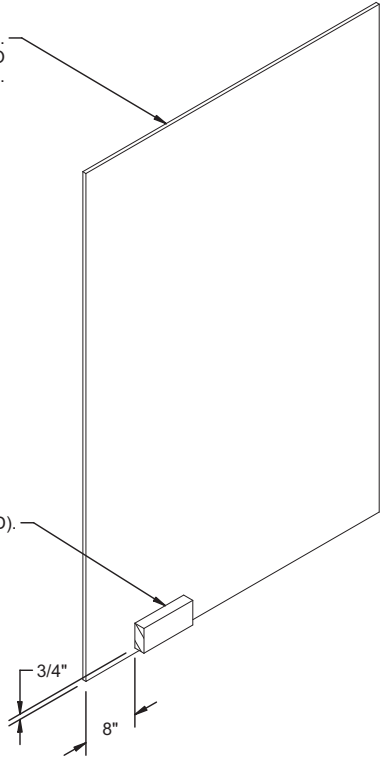
THE DETAIL ABOVE DEPICTS A SIDE GATE TO BE USED WITH A TWO PALLET UNIT WIDE, TWO HIGH LOAD. FOR A ONE PALLET UNIT WIDE GATE, ELIMINATE THE THREE CENTER FILL AND SHORT VERTICAL PIECES AND REDUCE THE LENGTH OF THE HORIZONTAL PIECES TO THE PALLET UNIT WIDTH. FOR SINGLE LAYER LOAD, ELIMINATE THE UPPER FOUR HORIZONTAL PIECES, AND REDUCE THE LENGTH OF THE FILL AND SHORT VERTICAL PIECES TO DIMENSION "D". SEE THE DIMENSION CHART ON PAGE 5.



FOR MINUS ONE PALLET UNIT. NO MORE THAN THREE FILLER ASSEMBLIES MAY BE USED PER TWO HIGH LOAD, AND NO MORE THAN ONE FILLER ASSEMBLY MAY BE USED PER ONE HIGH LOAD. DO NOT INSTALL FILLER ASSEMBLY IMMEDIATELY ADJACENT TO CENTER FILL ASSEMBLY OR GATE.

PLYWOOD, 1/2" X 48" X 8'-0" (1 REQD).  
 NAIL THROUGH THE PLYWOOD INTO  
 THE HOLD-DOWN PIECE W/3-6d NAILS.

HOLD-DOWN PIECE, 2" X 4" X 12' (1 REQD).



**SEPARATOR GATE**

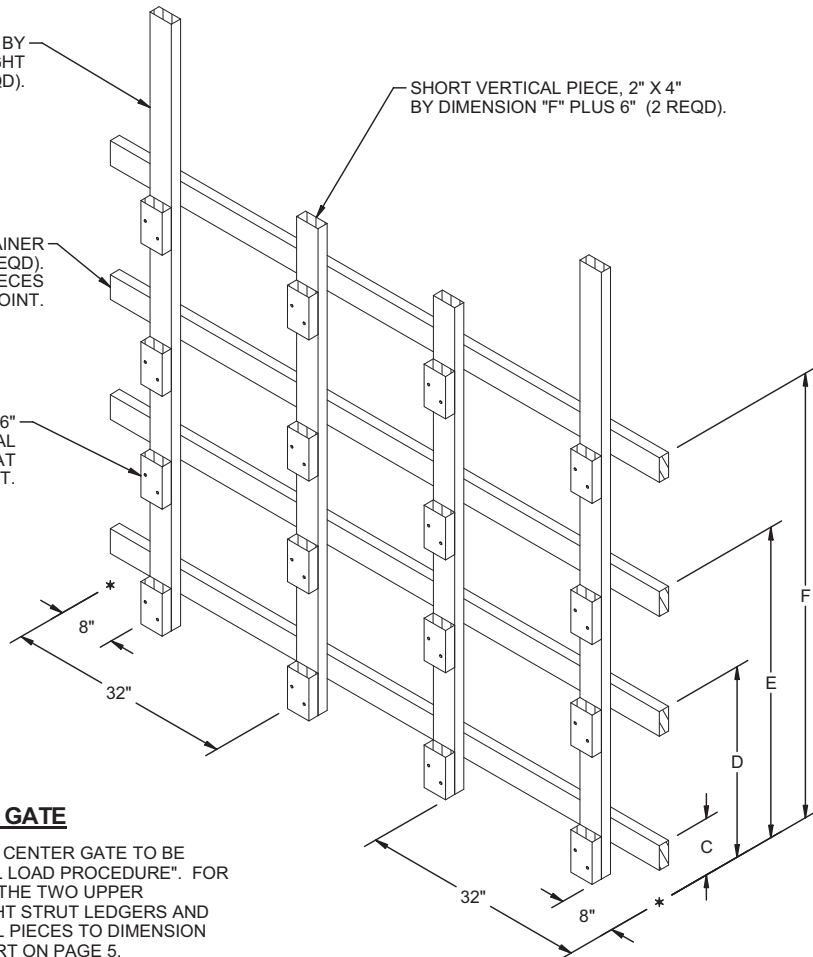
TO BE USED WITH A TWO HIGH ALTERNATED PALLET  
 UNIT LOAD. FOR ONE HIGH LOAD, REDUCE THE HEIGHT  
 OF THE PLYWOOD TO 48".

VERTICAL PIECE, 2" X 4" BY  
 INSIDE CONTAINER HEIGHT  
 MINUS 1" (REF: 7'-4") (2 REQD).

SHORT VERTICAL PIECE, 2" X 4"  
 BY DIMENSION "F" PLUS 6" (2 REQD).

HORIZONTAL PIECE, 2" X 4" BY CONTAINER  
 WIDTH MINUS 1" (REF: 7'-5") (4 REQD).  
 NAIL TO THE VERTICAL PIECES  
 W/2-10d NAILS AT EACH JOINT.

STRUT LEDGER, 2" X 4" X 6"  
 (16 REQD). NAIL TO VERTICAL  
 PIECES W/2-10d NAILS AT  
 EACH JOINT.



**CENTER GATE**

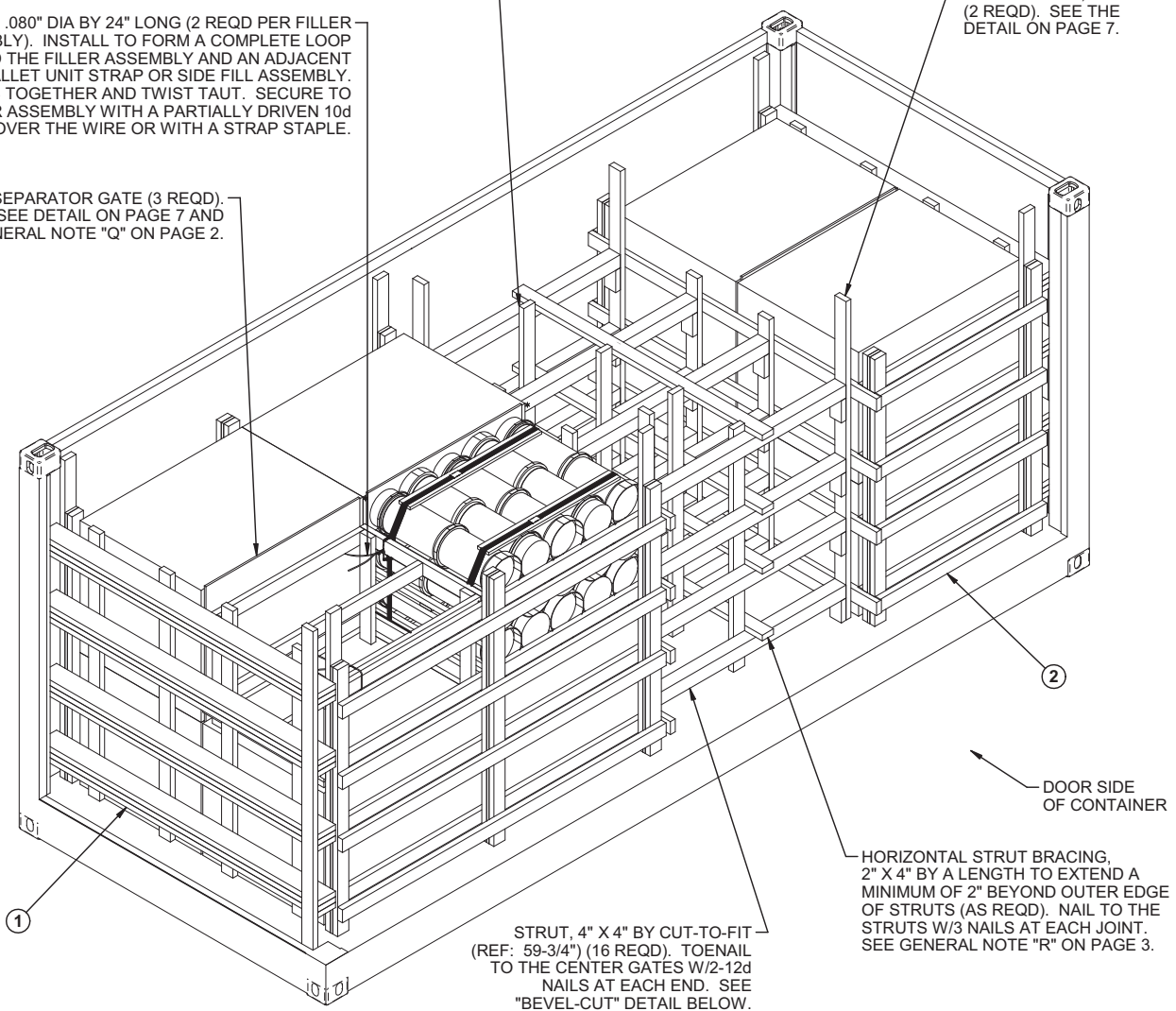
THE DETAIL ABOVE DEPICTS A CENTER GATE TO BE  
 USED IN THE "LESS-THAN-FULL LOAD PROCEDURE". FOR  
 A ONE HIGH LOAD, ELIMINATE THE TWO UPPER  
 HORIZONTAL PIECES AND EIGHT STRUT LEDGERS AND  
 REDUCE THE SHORT VERTICAL PIECES TO DIMENSION  
 "D". SEE THE DIMENSION CHART ON PAGE 5.

VERTICAL STRUT BRACING, 2" X 4"  
BY A LENGTH TO EXTEND A MINIMUM  
OF 2" ABOVE THE TOP STRUT (AS REQD).  
NAIL TO THE STRUTS W/3-10d NAILS AT EACH  
JOINT. SEE GENERAL NOTE "R" ON PAGE 3.

TIE WIRE, .080" DIA BY 24" LONG (2 REQD PER FILLER  
ASSEMBLY). INSTALL TO FORM A COMPLETE LOOP  
AROUND THE FILLER ASSEMBLY AND AN ADJACENT  
PALLET UNIT STRAP OR SIDE FILL ASSEMBLY.  
BRING ENDS TOGETHER AND TWIST TAUT. SECURE TO  
THE FILLER ASSEMBLY WITH A PARTIALLY DRIVEN 10d  
NAIL BENT OVER THE WIRE OR WITH A STRAP STAPLE.

SEPARATOR GATE (3 REQD).  
SEE DETAIL ON PAGE 7 AND  
GENERAL NOTE "Q" ON PAGE 2.

CENTER GATE,  
(2 REQD). SEE THE  
DETAIL ON PAGE 7.



STRUT, 4" X 4" BY CUT-TO-FIT  
(REF: 59-3/4") (16 REQD). TO NAIL  
TO THE CENTER GATES W/2-12d  
NAILS AT EACH END. SEE  
"BEVEL-CUT" DETAIL BELOW.

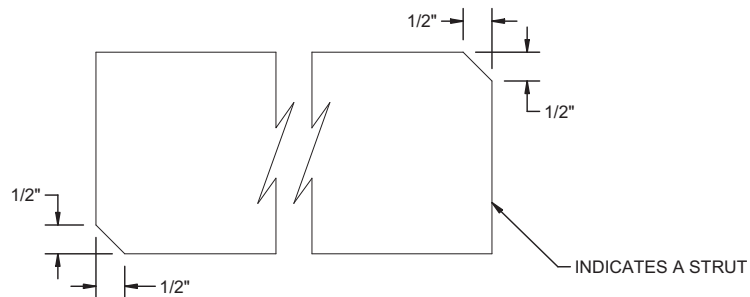
HORIZONTAL STRUT BRACING,  
2" X 4" BY A LENGTH TO EXTEND A  
MINIMUM OF 2" BEYOND OUTER EDGE  
OF STRUTS (AS REQD). NAIL TO THE  
STRUTS W/3 NAILS AT EACH JOINT.  
SEE GENERAL NOTE "R" ON PAGE 3.

DOOR SIDE  
OF CONTAINER

### LESS-THAN-FULL-LOAD PROCEDURE

### ISOMETRIC VIEW

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE  
USED IN A LESS-THAN-FULL CONTAINER LOAD (LESS THAN  
16 UNITS) AND DEPICTS THE ALTERNATED CONTAINER  
PALLET UNIT. KEY NUMBERS REFER TO KEY NUMBERS ON  
PAGE 2, WITH THE EXCEPTION OF AN ADDITIONAL TWO  
SIDE GATES. SEE GENERAL NOTES "H" AND "P" ON PAGE 3.



### BEVEL CUT

IF DESIRED, EACH END OF A STRUT MAY BE BEVEL-CUT  
AS SHOWN ABOVE TO FACILITATE INSTALLING THE  
STRUTS WITH A "DRIVE" FIT.