APPROVED BY
BUREAU OF EXPLOSIVES

DATE 4-21-99

LOADING AND BRACING● IN END OPENING ISO CONTAINERS OF PROPELLING CHARGES PACKED IN CYLINDRICAL METAL CONTAINERS

M18 SERIES CONTAINERS

INDEX

● **LOADING AND BRACING SPECIFICATIONS SET FORTH WITHIN THIS DRAWING ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY TRAILER/CONTAINER-ON-FLATCAR (T/COFC) RAIL CARRIER SERVICE. THESE SPECIFICATIONS MAY ALSO BE USED FOR LOADS THAT ARE TO BE MOVED BY MOTOR OR WATER CARRIERS.**

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY
INDUSTRIAL OPERATIONS COMMAND

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U.S. ARMY MATERIEL COMMAND

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CLASS	DIVISION	DRAWING	FILE
19	48	4154/5	15PM1002

PROJECT CA 175/5-80

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 OUTLOADING PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE FOR THE M18 SERIES PROPELLING CHARGE CONTAINER ASSEMBLED ON THE 40" X 48" 4-WAY ENTRY PALLET. SEE PAGE 3 AND AMC DRAWING 19-48-4042A/5-20PM1001 FOR DETAILS OF THE PALLET UNIT. CAUTION: REGARDLESS OF THE QUANTITY OF CONTAINERS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF THE END OPENING ISO CONTAINER MUST NOT BE EXCEEDED.

C. THE LOAD AS SHOWN IS BASED ON A 4,700 POUND 20' LONG BY 8' WIDE BY 8'-6" HIGH END OPENING ISO CONTAINER WITH INSIDE DIMENSIONS OF 19'-4" LONG BY 92" WIDE BY 93" HIGH, WITH A MAXIMUM GROSS WEIGHT OF 52,910 POUNDS. OLDER/OTHER CONTAINERS MAY HAVE A TOTAL INSIDE HEIGHT OF 95", BUT A CLEAR HEIGHT UNDER THE ROOF BOWS OF 93", VERIFY INSIDE CONTAINER HEIGHT 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 UNBLOCKED 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 CENTER FILL ASSEMBLIES. NAIL EACH ADDITIONAL PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE THICKNESS AND/OR QUANTITY OF THE VERTICAL OR HORIZONTAL PIECES IN THE CENTER FILL ASSEMBLIES 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 FORWARD WALL. PIECES OF DUNNAGE MATERIAL MUST BE LAMINATED TO THE BUFFER PIECES ON THE FORWARD 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 FORWARD WALL, 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.

(CONTINUED AT RIGHT)

(GENERAL NOTES CONTINUED)

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.

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.

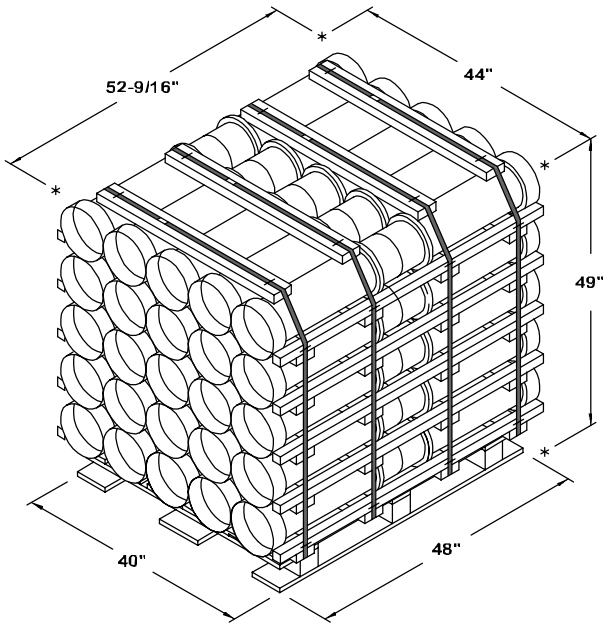
P. THE QUANTITY OF PALLET UNITS SHOWN IN THE LOAD ON PAGES 4 THROUGH 10 MAY BE REDUCED FOR SHIPMENT, IF DESIRED. SEE THE OMITTED UNIT ASSEMBLY ON PAGE 14.

1. IF A LOAD IS REDUCED BY ONLY A SMALL AMOUNT (ONE OR TWO 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 TWO LADING UNITS), LADING UNITS SHOULD BE ELIMINATED AS REQUIRED AND THE TOTAL LOAD 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.

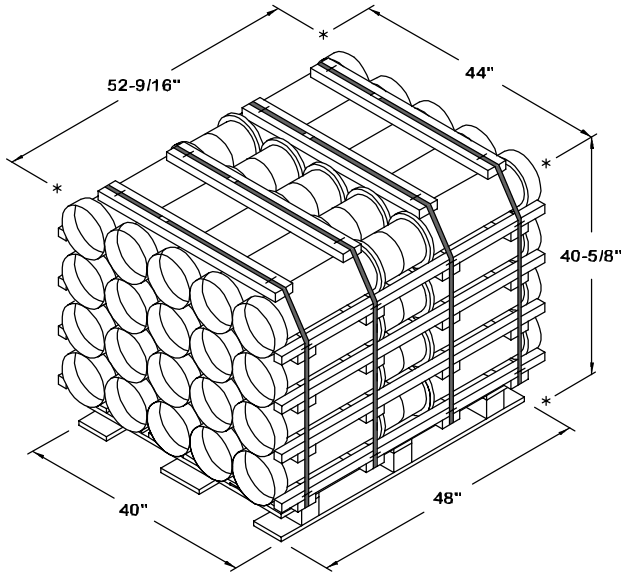
MATERIAL SPECIFICATIONS

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.
STEEL, STRUCTURAL - - - - -:	ASTM A501, STEEL STRUCTURAL TUBING; AND ASTM A570, STEEL, STRIP, HOT-ROLLED, GRADE 36 (MINIMUM).



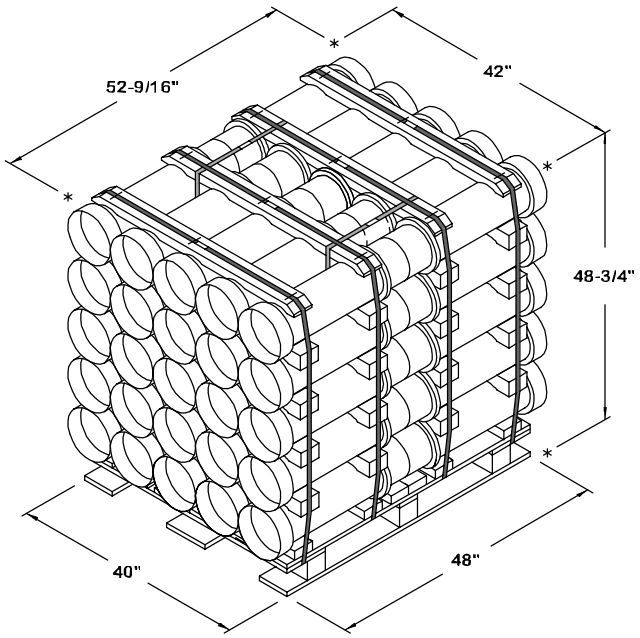
FLAT DUNNAGE METHOD UNIT (BASIC HEIGHT)

CONTAINER - - - - - - - - - 50 EACH @ 31 LBS (APPROX)
CUBE - - - - - - - - - - - - 65.6 CUBIC FEET (APPROX)
GROSS WEIGHT - - - - - - - 1,779 POUNDS (APPROX)



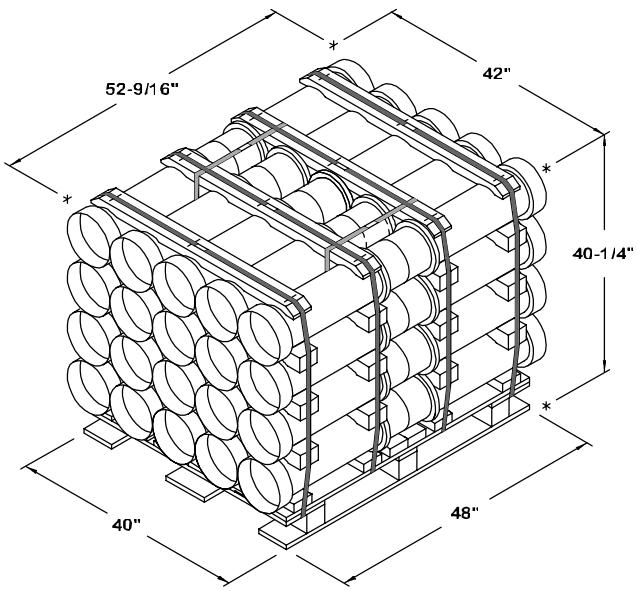
FLAT DUNNAGE METHOD UNIT (DECREASED HEIGHT)

CONTAINER - - - - - - - - - 40 EACH @ 31 LBS (APPROX)
CUBE - - - - - - - - - - - - 54.4 CUBIC FEET (APPROX)
GROSS WEIGHT - - - - - - - 1,443 POUNDS (APPROX)



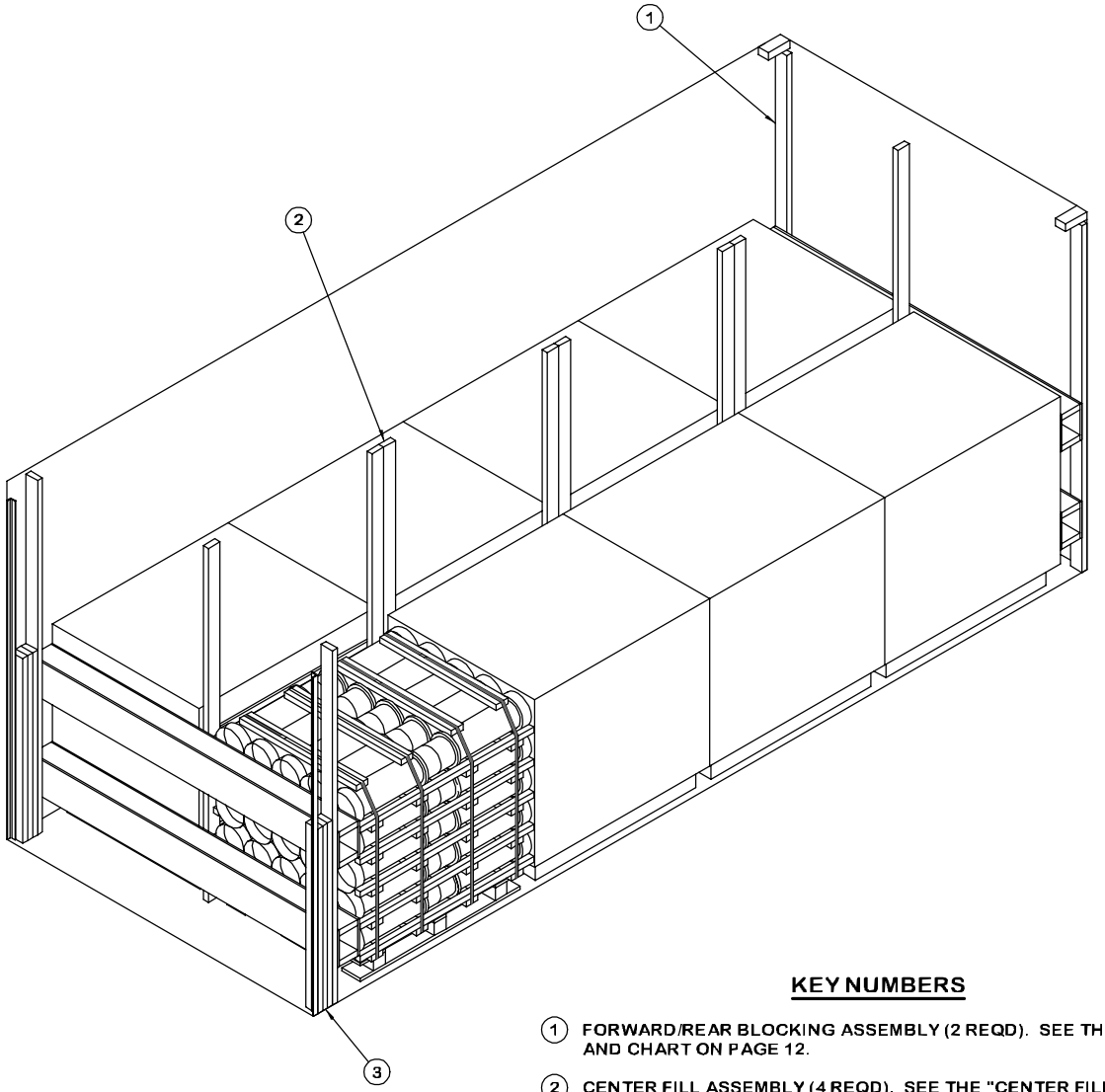
ROUTED DUNNAGE METHOD UNIT (BASIC HEIGHT)

CONTAINER - - - - - - - - - 50 EACH @ 31 LBS (APPROX)
CUBE - - - - - - - - - - - - 62.3 CUBIC FEET (APPROX)
GROSS WEIGHT - - - - - - - 1,792 POUNDS (APPROX)



ROUTED DUNNAGE METHOD UNIT (DECREASED HEIGHT)

CONTAINER - - - - - - - - - 40 EACH @ 31 LBS (APPROX)
CUBE - - - - - - - - - - - - 51.4 CUBIC FEET (APPROX)
GROSS WEIGHT - - - - - - - 1,453 POUNDS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

(1) FORWARD/REAR BLOCKING ASSEMBLY (2 REQD). SEE THE DETAIL AND CHART ON PAGE 12.

(2) CENTER FILL ASSEMBLY (4 REQD). SEE THE "CENTER FILL ASSEMBLY A" DETAIL AND CHART ON PAGE 13.

(3) FILL MATERIAL, 4" WIDE BY 48" LONG MATERIAL (AS REQD). NAIL THE FIRST PIECE TO THE REAR BLOCKING ASSEMBLY W/5 NAILS OF A SUITABLE SIZE (10d NAILS FOR 2" THICK MATERIAL). NAIL EACH ADDITIONAL PIECE TO THE PREVIOUS PIECE IN A SIMILAR MANNER. NOTE: MULTIPLE PIECES MAY BE LAMINATED TOGETHER FIRST AND THEN TOENAILED TO THE REAR BLOCKING ASSEMBLY.

RECOMMENDED SEQUENTIAL LOADING PROCEDURES

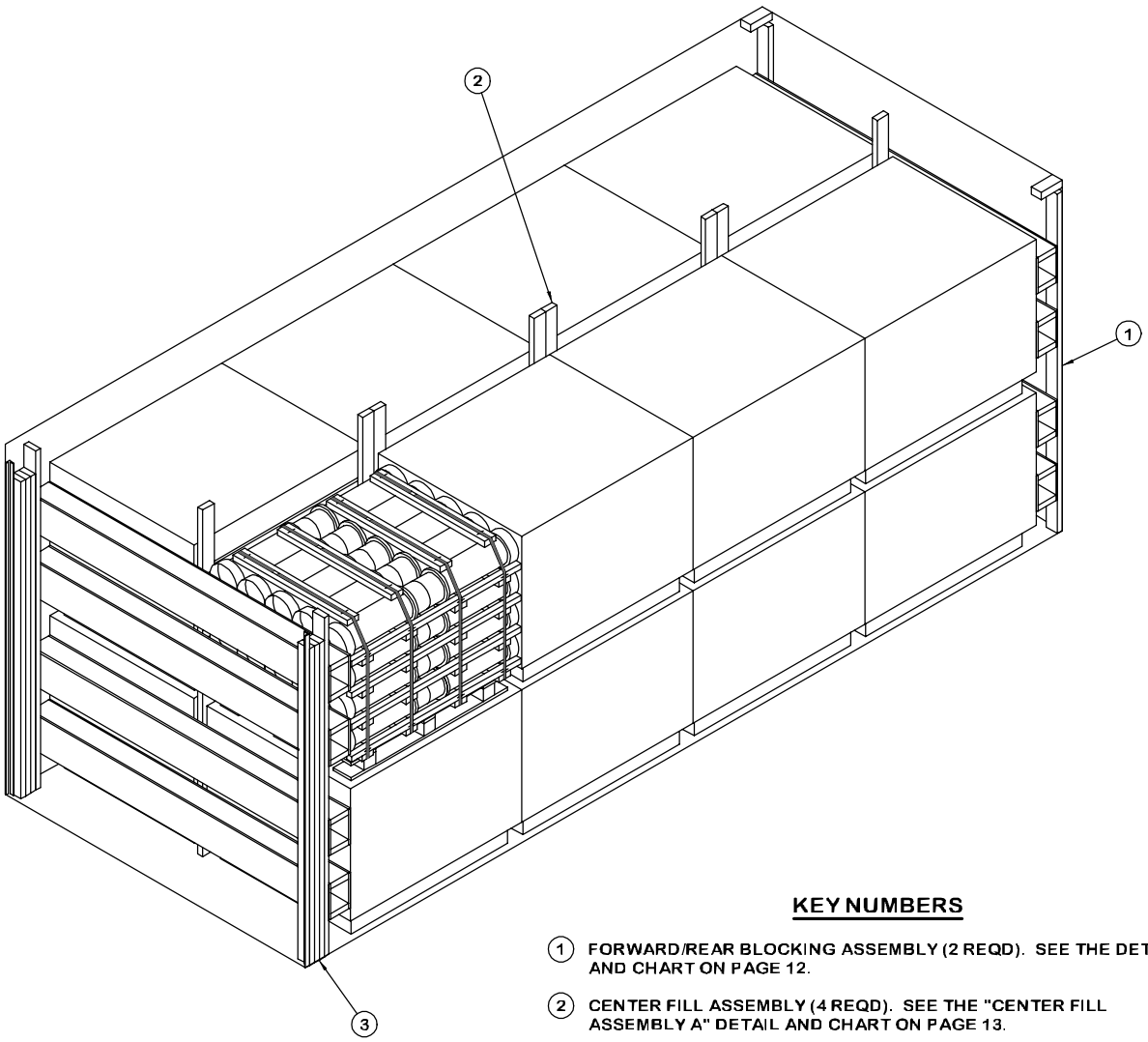
1. PREFABRICATE TWO FORWARD/REAR BLOCKING ASSEMBLIES AND FOUR CENTER FILL ASSEMBLIES A.
2. INSTALL THE FORWARD BLOCKING ASSEMBLY.
3. LOAD TWO PALLET UNITS AND INSTALL ONE CENTER FILL ASSEMBLY.
4. REPEAT STEP 3 THREE TIMES.
5. INSTALL THE REAR BLOCKING ASSEMBLY.
6. INSTALL THE SOLID FILL MATERIAL.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" x 4" 2" x 4" 2" x 6"	71 116 61	24 78 61
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	240 62	1-1/2 1
PLYWOOD, 1/2" - - - 48.03 SQ FT REQD - - - 66-1/4 LBS		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	14,232 LBS
DUNNAGE		395 LBS
CONTAINER		4,700 LBS
TOTAL WEIGHT		19,327 LBS (APPROX)

8-UNIT LOAD (FLAT DUNNAGE METHOD - BASIC HEIGHT)



ISOMETRIC VIEW

KEY NUMBERS

(1) FORWARD/REAR BLOCKING ASSEMBLY (2 REQD). SEE THE DETAIL AND CHART ON PAGE 12.

(2) CENTER FILL ASSEMBLY (4 REQD). SEE THE "CENTER FILL ASSEMBLY A" DETAIL AND CHART ON PAGE 13.

(3) FILL MATERIAL, 4" WIDE BY 7'-0" LONG MATERIAL (AS REQD). NAIL THE FIRST PIECE TO THE REAR BLOCKING ASSEMBLY W/8 NAILS OF A SUITABLE SIZE (10d NAILS FOR 2" THICK MATERIAL). NAIL EACH ADDITIONAL PIECE TO THE PREVIOUS PIECE IN A SIMILAR MANNER. NOTE: MULTIPLE PIECES MAY BE LAMINATED TOGETHER FIRST AND THEN TOENAILED TO THE REAR BLOCKING ASSEMBLY.

RECOMMENDED SEQUENTIAL LOADING PROCEDURES

1. PREFABRICATE TWO FORWARD/REAR BLOCKING ASSEMBLIES AND FOUR CENTER FILL ASSEMBLIES A.
2. INSTALL THE FORWARD BLOCKING ASSEMBLY.
3. LOAD FOUR PALLET UNITS AND INSTALL ONE CENTER FILL ASSEMBLY.
4. REPEAT STEP 3 THREE TIMES.
5. INSTALL THE REAR BLOCKING ASSEMBLY.
6. INSTALL THE SOLID FILL MATERIAL.

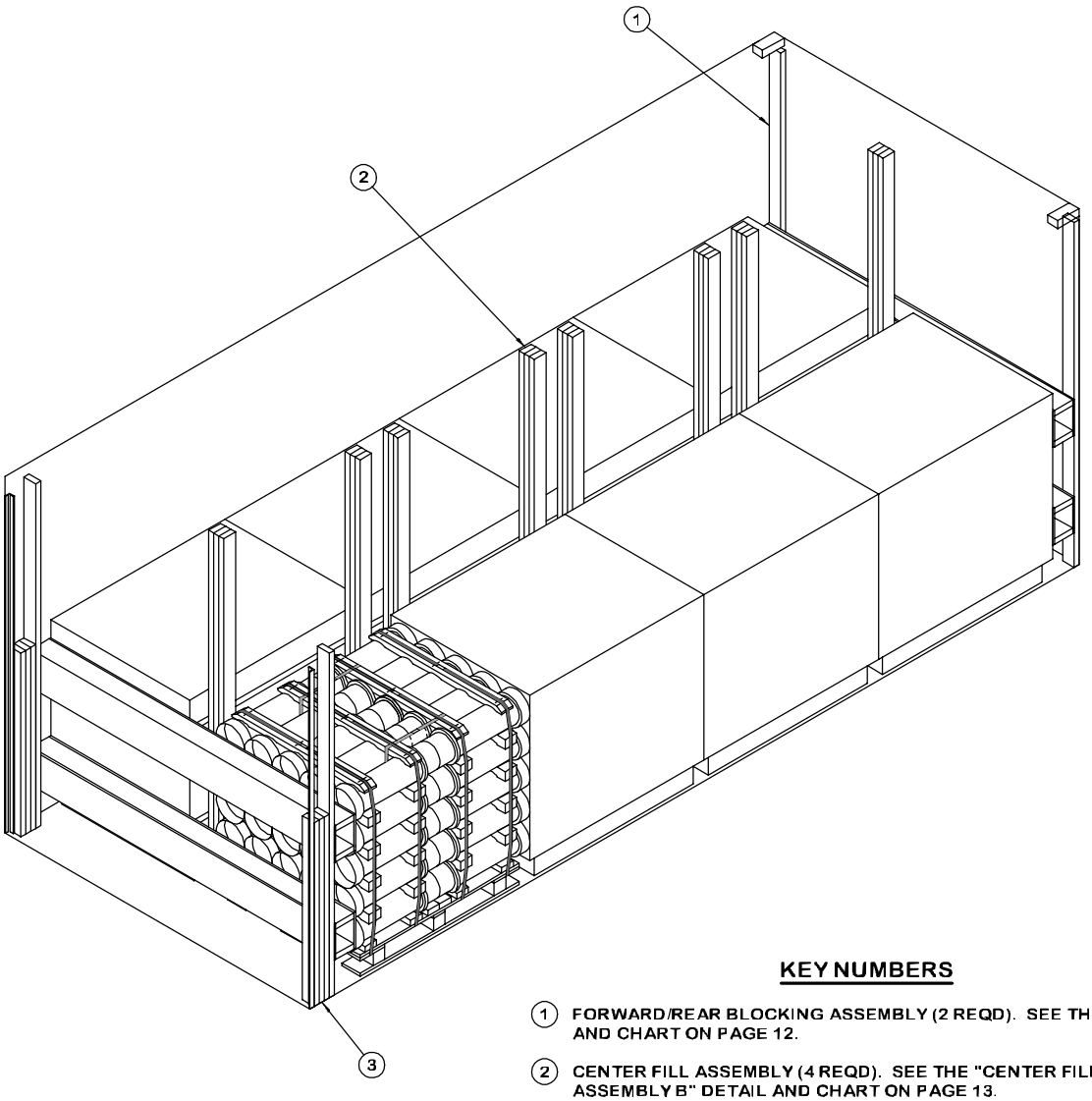
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" x 4" 2" x 4" 2" x 6"	141 134 122	47 90 122
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	480 112	3 1-3/4
PLYWOOD, 1/2" - - - 96.06 SQ FT REQD - - 132-1/4 LBS		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	23,088 LBS
DUNNAGE		655 LBS
CONTAINER		4,700 LBS
TOTAL WEIGHT		28,443 LBS (APPROX)

16-UNIT LOAD (FLAT DUNNAGE METHOD - DECREASED HEIGHT)

PROJECT CA 175/5-80



ISOMETRIC VIEW

KEY NUMBERS

(1) FORWARD/REAR BLOCKING ASSEMBLY (2 REQD). SEE THE DETAIL AND CHART ON PAGE 12.

(2) CENTER FILL ASSEMBLY (4 REQD). SEE THE "CENTER FILL ASSEMBLY B" DETAIL AND CHART ON PAGE 13.

(3) FILL MATERIAL, 4" WIDE BY 48" LONG MATERIAL (AS REQD). NAIL THE FIRST PIECE TO THE REAR BLOCKING ASSEMBLY W/5 NAILS OF A SUITABLE SIZE (10d NAILS FOR 2" THICK MATERIAL). NAIL EACH ADDITIONAL PIECE TO THE PREVIOUS PIECE IN A SIMILAR MANNER. NOTE: MULTIPLE PIECES MAY BE LAMINATED TOGETHER FIRST AND THEN TOENAILED TO THE REAR BLOCKING ASSEMBLY.

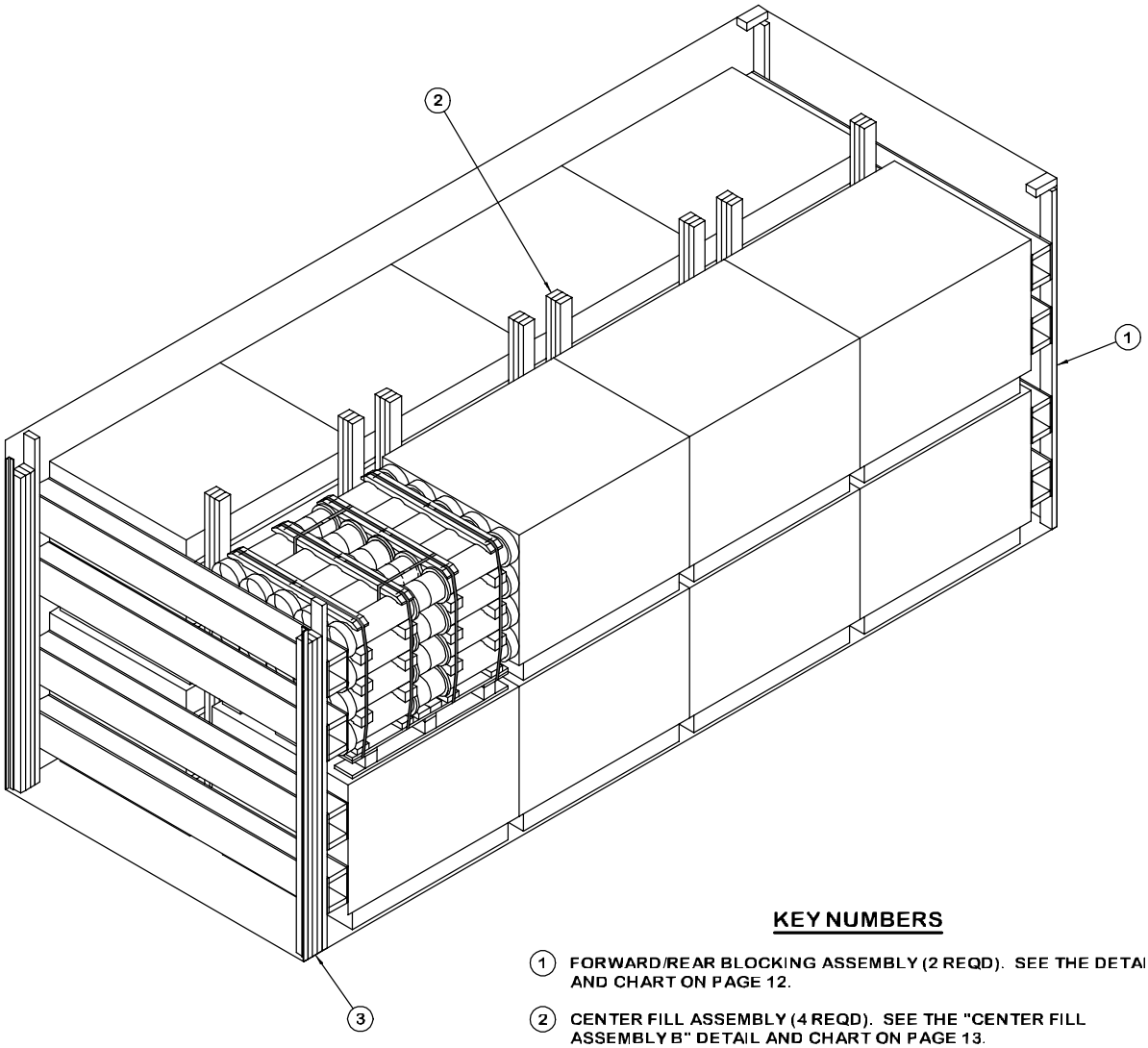
RECOMMENDED SEQUENTIAL LOADING PROCEDURES

1. PREFABRICATE TWO FORWARD/REAR BLOCKING ASSEMBLIES AND FOUR CENTER FILL ASSEMBLIES B.
2. INSTALL THE FORWARD BLOCKING ASSEMBLY.
3. LOAD TWO PALLET UNITS AND INSTALL ONE CENTER FILL ASSEMBLY.
4. REPEAT STEP 3 THREE TIMES.
5. INSTALL THE REAR BLOCKING ASSEMBLY.
6. INSTALL THE SOLID FILL MATERIAL.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4" 2" X 6"	239 131	160 131
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	176 254	1-1/4 4
PLYWOOD, 1/2" - - - 48.03 SQ FT REQD - - - 66-1/4 LBS		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	8	14,336 LBS
DUNNAGE		654 LBS
CONTAINER		4,700 LBS
TOTAL WEIGHT		19,690 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

(1) FORWARD/REAR BLOCKING ASSEMBLY (2 REQD). SEE THE DETAIL AND CHART ON PAGE 12.

(2) CENTER FILL ASSEMBLY (4 REQD). SEE THE "CENTER FILL ASSEMBLY B" DETAIL AND CHART ON PAGE 13.

(3) FILL MATERIAL, 4" WIDE BY 7'-0" LONG MATERIAL (AS REQD). NAIL THE FIRST PIECE TO THE REAR BLOCKING ASSEMBLY W/8 NAILS OF A SUITABLE SIZE (10d NAILS FOR 2" THICK MATERIAL). NAIL EACH ADDITIONAL PIECE TO THE PREVIOUS PIECE IN A SIMILAR MANNER. NOTE: MULTIPLE PIECES MAY BE LAMINATED TOGETHER FIRST AND THEN TOENAILED TO THE REAR BLOCKING ASSEMBLY.

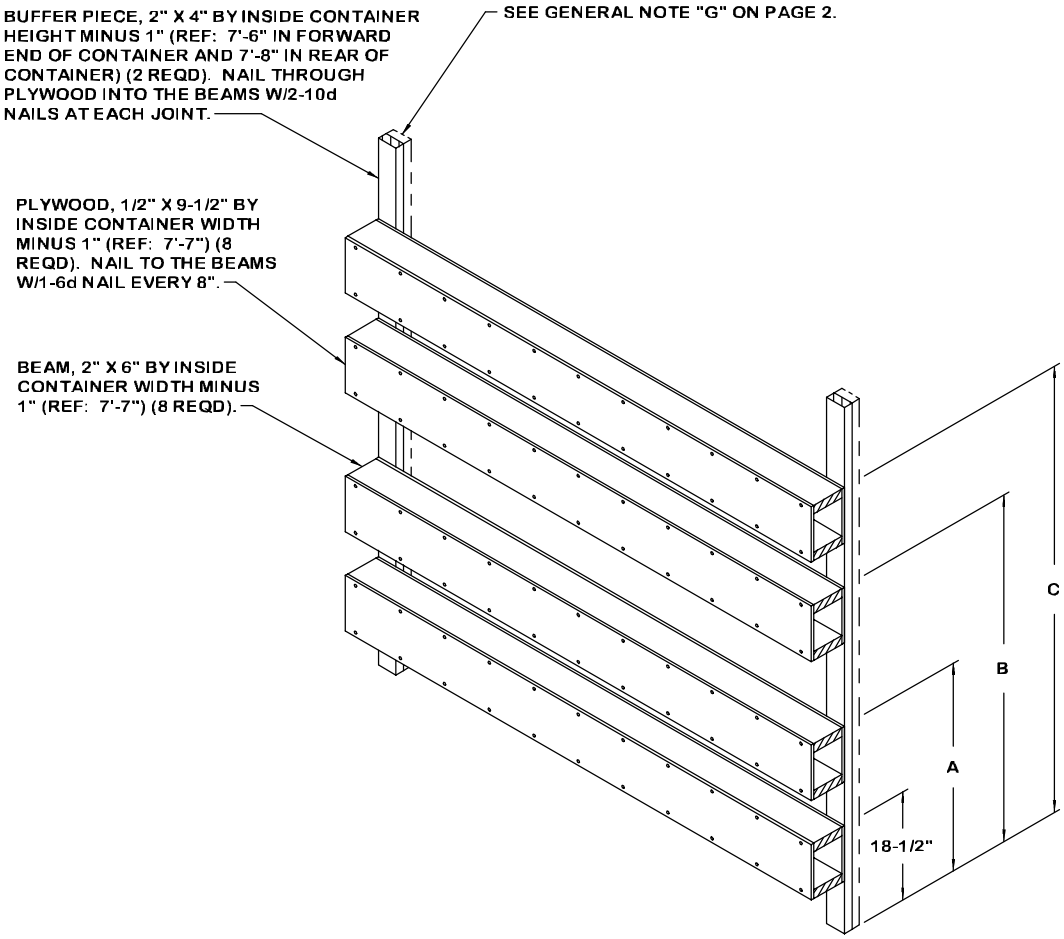
RECOMMENDED SEQUENTIAL LOADING PROCEDURES

1. PREFABRICATE TWO FORWARD/REAR BLOCKING ASSEMBLIES AND FOUR CENTER FILL ASSEMBLIES B.
2. INSTALL THE FORWARD BLOCKING ASSEMBLY.
3. LOAD FOUR PALLET UNITS AND INSTALL ONE CENTER FILL ASSEMBLY.
4. REPEAT STEP 3 THREE TIMES.
5. INSTALL THE REAR BLOCKING ASSEMBLY.
6. INSTALL THE SOLID FILL MATERIAL.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4" 2" X 6"	257 262	172 262
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	352 350	2-1/4 5-1/2
PLYWOOD, 1/2" - - - 96.06 SQ FT REQD - - 132-1/4 LBS		

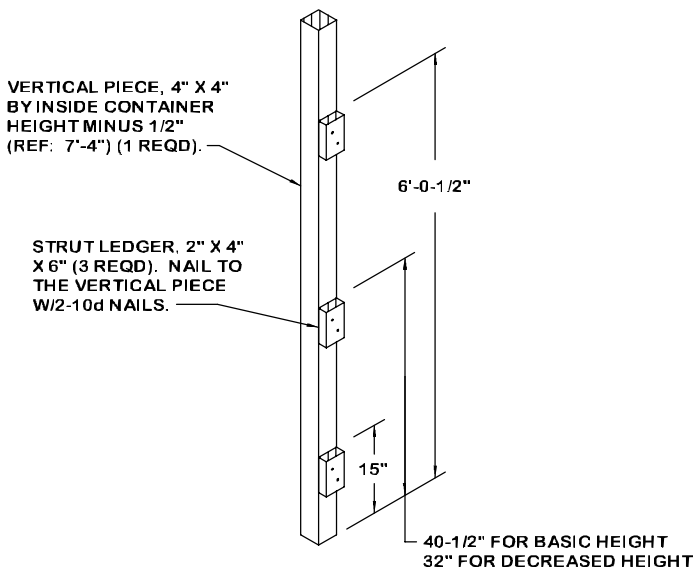
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	16	23,248 LBS
DUNNAGE		1,008 LBS
CONTAINER		4,700 LBS
TOTAL WEIGHT		28,956 LBS (APPROX)



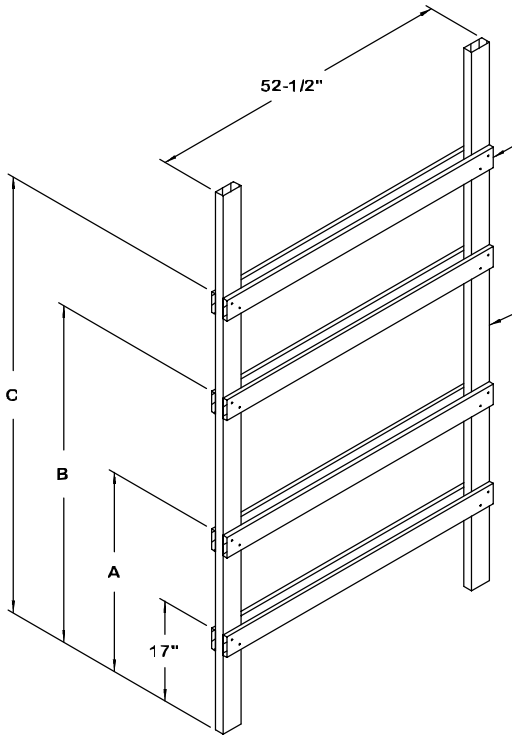
FORWARD/REAR BLOCKING ASSEMBLY

NOTE: FOR A ONE-HIGH LOAD, ELIMINATE THE TOP TWO BOX BEAM ASSEMBLIES.



DOOR POST VERTICAL

FORWARD/REAR BLOCKING CHART			
	DIMENSION		
PALLET UNIT	A	B	C
FLAT (BASIC)	44"	- -	- -
FLAT (DECREASED)	35-1/2"	59-1/4"	6' -4-1/4"
ROUTED (BASIC)	44"	- -	- -
ROUTED (DECREASED)	35-1/2"	59"	6' -3-3/4"



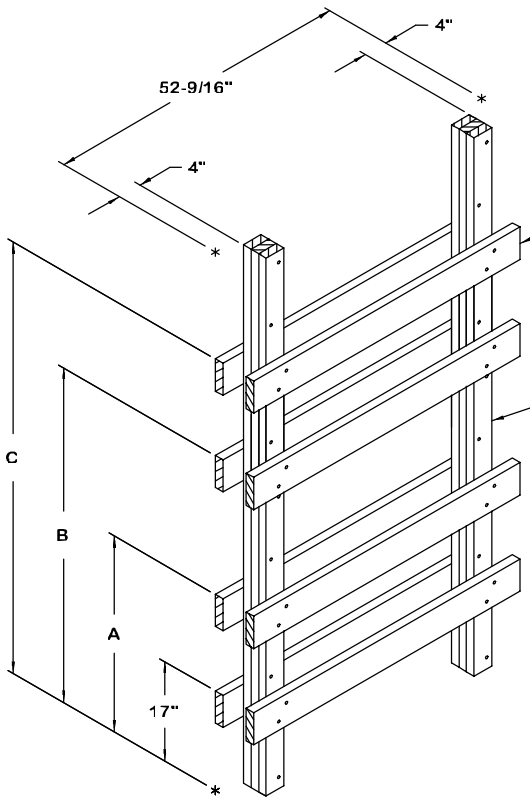
HORIZONTAL PIECE, 1" X 4" X 52-1/2" (4 REQD FOR BASIC HEIGHT, 8 REQD FOR DECREASED HEIGHT). NAIL TO THE VERTICAL PIECES W/2-6d NAILS AT EACH END.

VERTICAL PIECE, 2" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1" (REF: 7'-8") (2 REQD).

CENTER FILL CHART A			
	DIMENSION		
PALLET	A	B	C
BASIC	42-1/2"	- -	- -
DECREASED	34"	57-1/2"	6'-2-1/2"

CENTER FILL ASSEMBLY A

NOTE: FOR A ONE-HIGH LOAD, ELIMINATE THE TOP TWO BOX BEAM ASSEMBLIES.



HORIZONTAL PIECE, 2" X 6" X 52-1/2" (4 REQD FOR BASIC HEIGHT, 8 REQD FOR DECREASED HEIGHT). NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

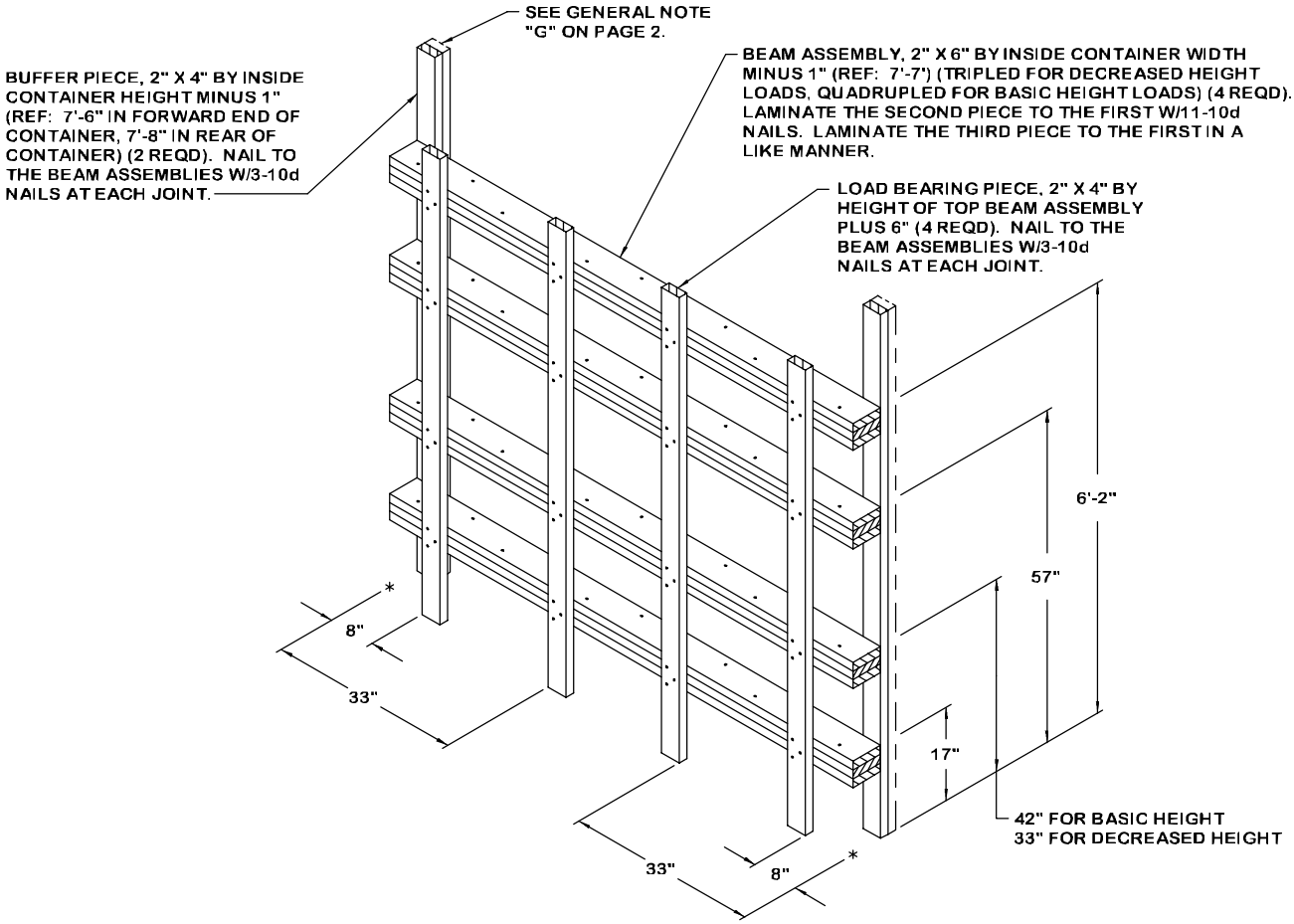
VERTICAL PIECE, 2" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1" (REF: 7'-8") (TRIPLED) (2 REQD). LAMINATE EACH PIECE TO THE PREVIOUS PIECE W/1-10d NAIL EVERY 12".

CENTER FILL CHART B			
	DIMENSION		
PALLET	A	B	C
BASIC	42"	- -	- -
DECREASED	33-1/2"	57-1/4"	6'-1-3/4"

CENTER FILL ASSEMBLY B

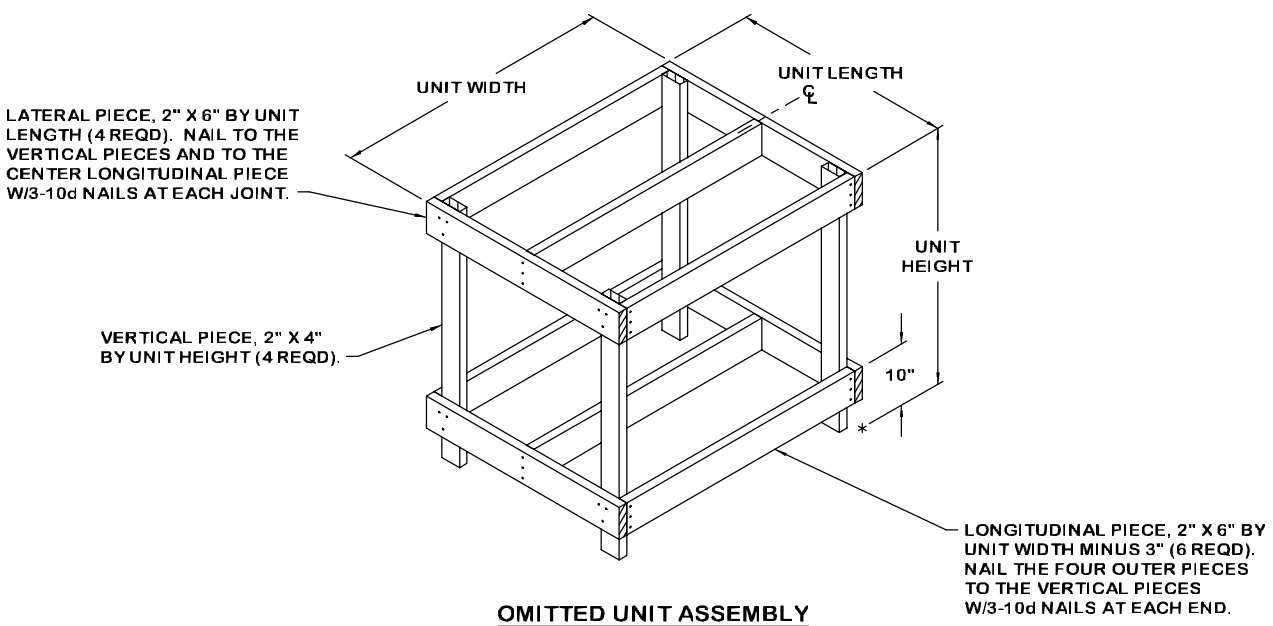
NOTE: FOR A ONE-HIGH LOAD, ELIMINATE THE TOP TWO BOX BEAM ASSEMBLIES.

DETAILS



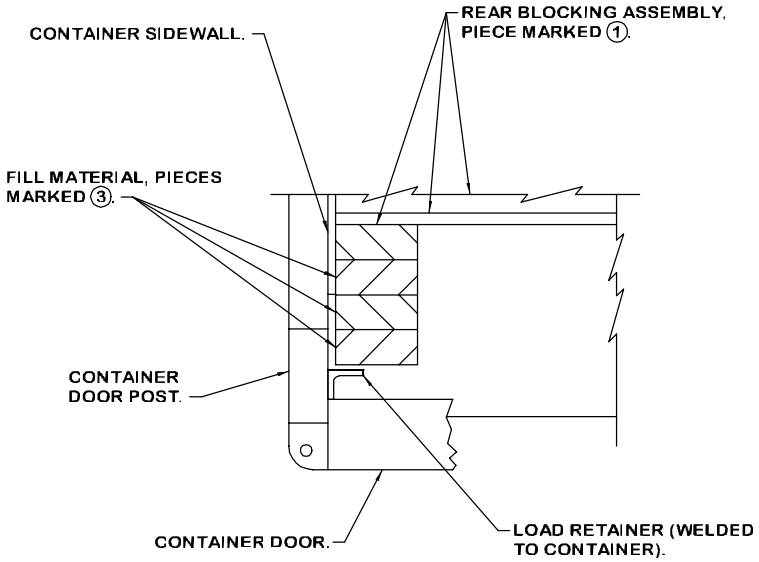
ALTERNATIVE FORWARD/REAR BLOCKING ASSEMBLY

THE ALTERNATIVE FORWARD/REAR BLOCKING ASSEMBLY MAY BE USED IN PLACE OF ANY OF THE FORWARD/REAR BLOCKING ASSEMBLIES DEPICTED HEREIN, IF DESIRED. FOR A BASIC HEIGHT LOAD, OMIT THE TOP TWO BEAM ASSEMBLIES.



OMITTED UNIT ASSEMBLY

THIS ASSEMBLY IS FOR USE IN PLACE OF AN OMITTED PALLET UNIT. NO MORE THAN THREE OMITTED UNIT ASSEMBLIES MAY BE USED PER LOAD. DO NOT INSTALL AN OMITTED UNIT ASSEMBLY IMMEDITATELY ADJACENT TO ANOTHER OMITTED UNIT ASSEMBLY.

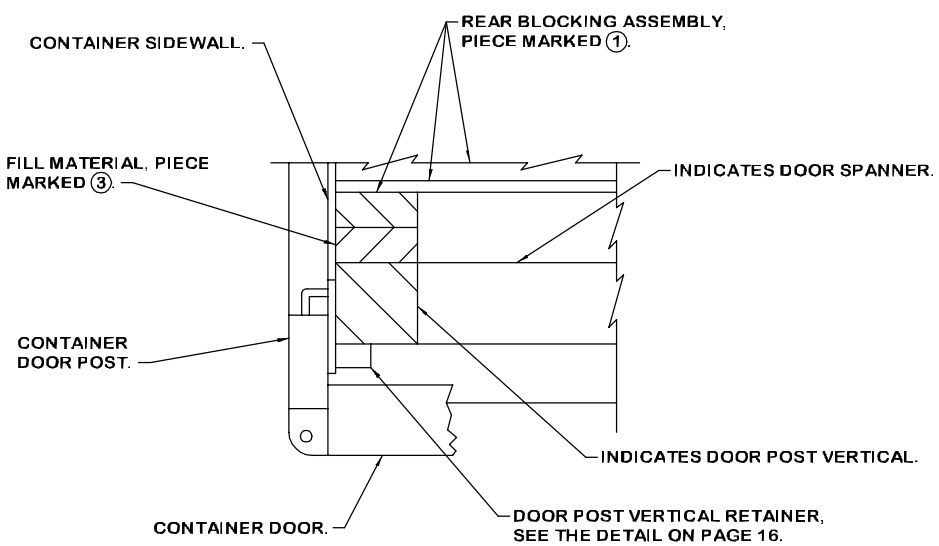


DETAIL A

A PARTIAL PLAN VIEW OF THE LEFT REAR PORTION OF THE CONTAINER IS SHOWN DEPICTING THE PROPER POSITION OF THE FILL MATERIAL AND ADJACENT DUNNAGE PIECES.

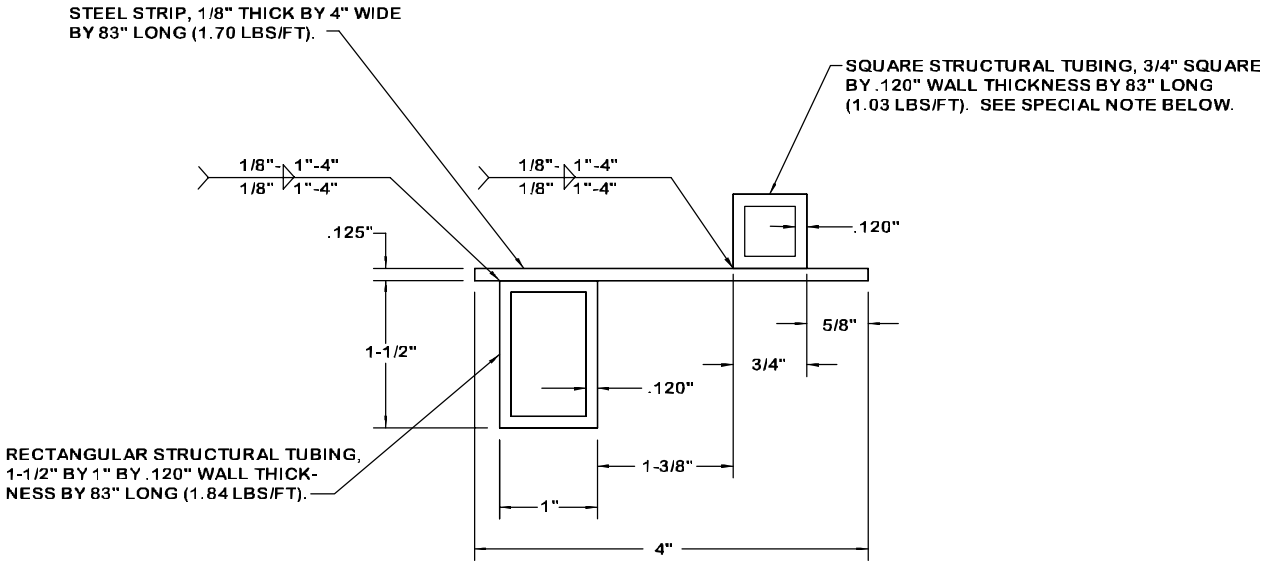
SPECIAL NOTE:

WHEN ISO CONTAINERS ARE NOT EQUIPPED WITH PRE-WELDED LOAD RETAINERS, AS DEPICTED IN "DETAIL A" ABOVE, DOOR POST VERTICALS, DOOR POST VERTICAL RETAINERS AND DOOR SPANNERS WILL BE REQUIRED FOR THE LOADS DEPICTED HEREIN. SEE VARIOUS LOADS WITHIN AMC DRAWING 19-48-4153-15PA1002 FOR EXAMPLES. SEE PAGE 16 FOR DETAILS OF THE METAL DOOR POST VERTICAL RETAINER AND PAGE 12 FOR DETAIL OF THE DOOR POST VERTICAL.

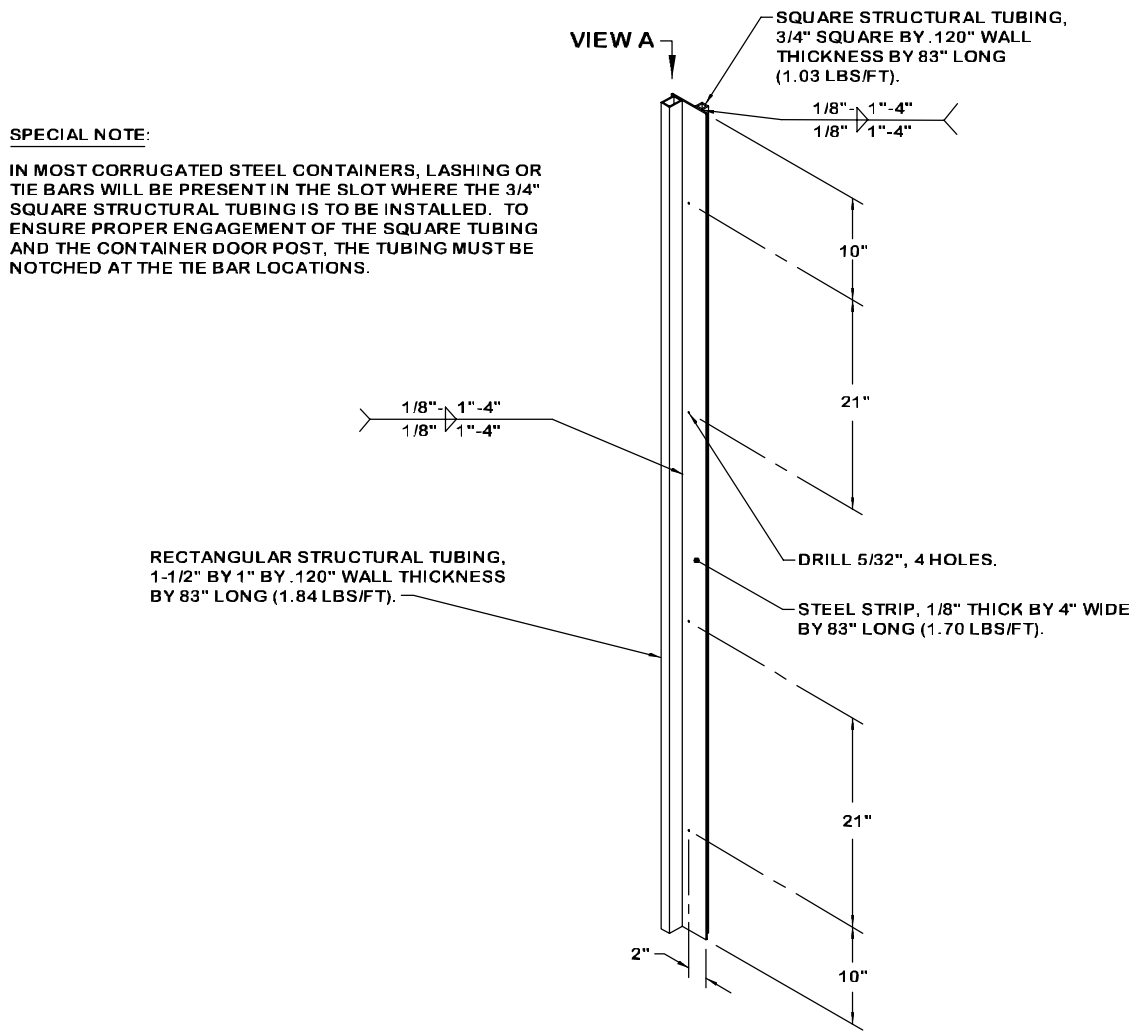


DETAIL B

A PARTIAL PLAN VIEW OF THE LEFT REAR PORTION OF THE CONTAINER IS SHOWN DEPICTING THE PROPER POSITION OF THE DOOR POST VERTICAL RETAINER AND ADJACENT DUNNAGE PIECES.



VIEW A



SPECIAL NOTE:

IN MOST CORRUGATED STEEL CONTAINERS, LASHING OR TIE BARS WILL BE PRESENT IN THE SLOT WHERE THE 3/4" SQUARE STRUCTURAL TUBING IS TO BE INSTALLED. TO ENSURE PROPER ENGAGEMENT OF THE SQUARE TUBING AND THE CONTAINER DOOR POST, THE TUBING MUST BE NOTCHED AT THE TIE BAR LOCATIONS.

DOOR POST VERTICAL RETAINER

NOTE: THE ABOVE ASSEMBLY HAS BEEN SHOWN ROTATED 90° FROM THE ORIENTATION IN WHICH IT IS INSTALLED IN THE LEFT REAR CORNER OF THE CONTAINER. THE ASSEMBLY HAS BEEN ROTATED FOR HOLE LOCATION CLARITY.