

UNITIZATION PROCEDURES FOR
 BRADLEY ARMOR TILE COMBINA-
 TION PALLET, PACKED VARIOUS
 QUANTITIES IN VARIOUS WOODEN
 BOXES, UNITIZED 17 BOXES PER
 35" X 45-1/2" PALLET; APPROX
 CONTAINER SIZE VARIES

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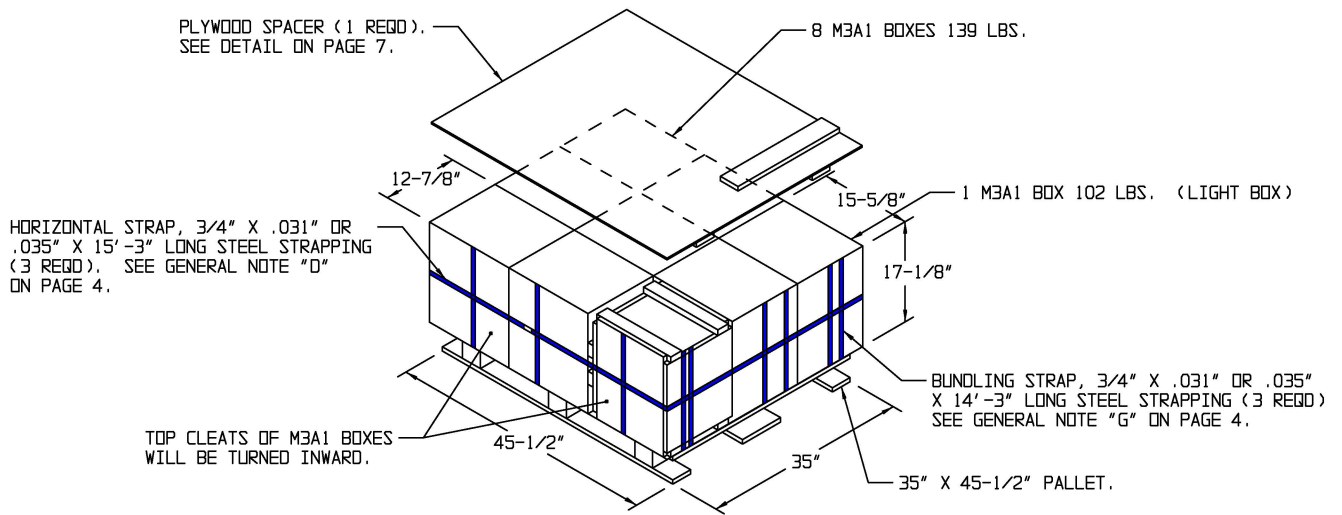
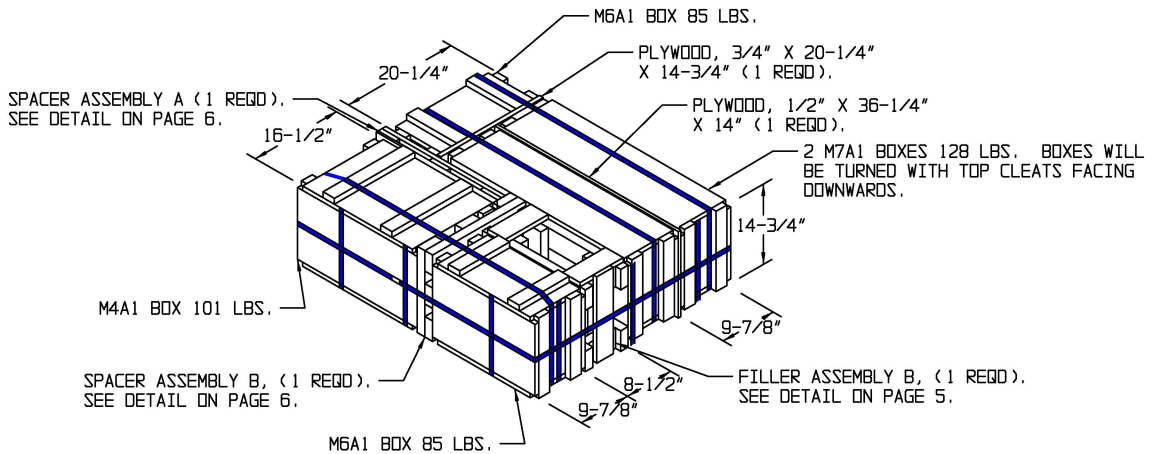
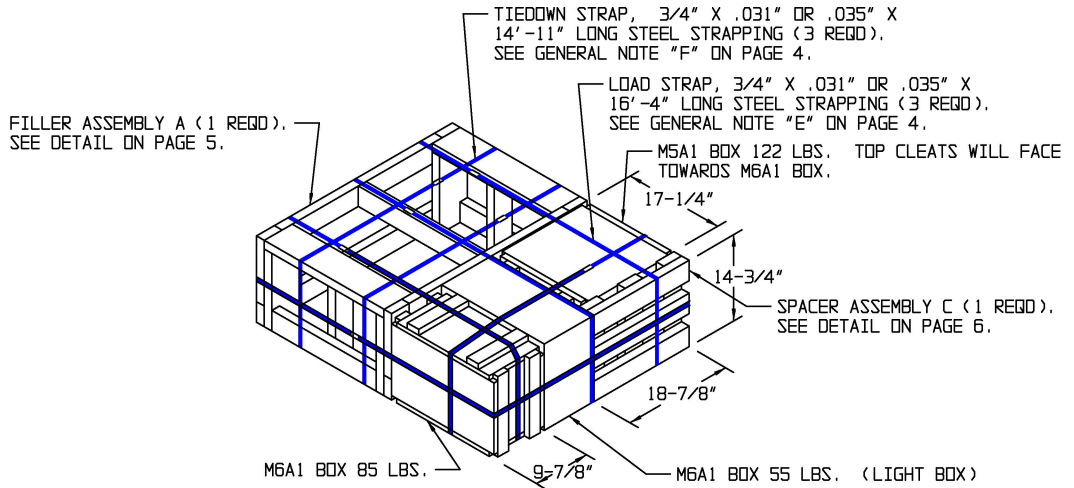
U. S. ARMY MATERIEL COMMAND DRAWING			
APPROVED, U. S. ARMY INDUSTRIAL OPERATIONS COMMAND		DRAFTSMAN	BETTY J. KUNDERT
<i>mk</i> <i>David Baker</i> AMSTA-AR-ESK		ENGINEER	SANDRA M. SCHULTZ
<i>Justin Fore</i> AMSIO-TH		SUPPLY ENGINEERING DIVISION	TRANSPORTATION ENGINEERING DIVISION
APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIEL COMMAND		<i>T. J. ...</i>	<i>W. ...</i>
<i>(Signature)</i>		LOGISTICS ENGINEERING OFFICE	
U. S. ARMY DEFENSE AMMUNITION CENTER		MAY 1997	
		CLASS	DIVISION
		DRAWING	FILE
		19	48
		4221/8	20PA 1009

DO NOT SCALE

PALLET UNIT DATA				
ITEMS INCLUDED		HAZARD CLASS AND DIVISION •		APPROX WEIGHT LBS
NSN	DODIC	OD CLASS	COMP GROUP	
1375-				
01-453-7834	MN42	1.4	D	2,052
01-453-7835	MN43	1.4	D	2,209
* *				

• HAZARD CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

* * THIS UNIT IS PART OF A SET, FOR NSN INFORMATION PLEASE CONSULT COMBINATION OF ADOPTED ITEMS DRAWINGS 12982782 OR 12982783.



PALLET UNIT

SEE GENERAL NOTE "B" ON PAGE 4.

17 BOXES OF TILES	-----	2,003 LBS (APPROX)
DUNNAGE	-----	141 LBS
PALLET	-----	65 LBS

TOTAL WEIGHT	---	2,209 LBS (APPROX)
CUBE	---	54.9 CU FT (APPROX)

OVERALL UNIT LOAD SIZE 46-7/8" L X 38-5/8" W X 52-3/8" H

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) AND CONFORMS TO MIL-STD-1660.
- B. DIMENSIONS, CUBE AND WEIGHT OF A PALLET UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE BOXES AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. 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 25.4 MM AND ONE POUND EQUALS 0.454 KG.
- D. INSTALL EACH HORIZONTAL STRAP TO BE LOCATED AS SHOWN. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF TIEDOWN AND LOAD STRAPS.
- E. THE LOAD STRAPS WILL NOT BE THREADED THROUGH THE STRAP SLOTS OF A PALLET. THE LOAD STRAPS MAY BE THREADED THROUGH THE CLEATS OF THE BOXES OR PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING BOXES ON THE PALLET. LOAD STRAPS MUST BE TENSIONED PRIOR TO THE APPLICATION OF TIEDOWN STRAPS AND AFTER THE APPLICATION OF HORIZONTAL STRAPS.
- F. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE DECK BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE LOAD STRAPS AND HORIZONTAL STRAPS HAVE BEEN TENSIONED AND SEALED.
- G. INSTALL EACH BUNDLING STRAP TO ENCIRCLE THE BOTTOM TWO LAYERS OF BOXES AND FILLERS ON THE PALLET. THE BUNDLING STRAPS MAY BE THREADED THROUGH THE CLEATS OF THE BOXES OR PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING BOXES ON THE PALLET. THE BUNDLING STRAPS WILL NOT BE THREADED THROUGH THE STRAP SLOTS OF THE PALLET. THE BUNDLING STRAPS MUST BE APPLIED BEFORE THE THIRD LAYER IS LOADED ONTO THE PALLET AND AFTER THE HORIZONTAL STRAPS ARE APPLIED TO THE FIRST AND SECOND LAYERS.
- H. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS DRAWING.
 CARLOADING - - - - 19-48-4115-5PA1002
 TRUCKLOADING - - - - 19-48-4117-11PA1003
 STORAGE - - - - - 19-48-4118-1-2-3-4-14-22PA1002
 END OPENING ISO
 CONTAINER - - - - - 19-48-4153-15PA1002
 MILVAN - - - - - 19-48-4166-15PA1003
 SIDE OPENING ISO
 CONTAINER - - - - - 19-48-4267-15PA1009
- J. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS DRAWING, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS DRAWING.
- K. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING ARMOR TILE WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE BOX PACK DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- L. THE STYLE 1A PALLET DELINEATED IN THE DETAIL ON PAGE 3 NEED NOT HAVE CHAMFERS OR STRAP SLOTS AS SPECIFIED WITHIN MILITARY SPECIFICATION MIL-P-15011 WHEN USED FOR THE UNITIZATION OF ITEMS COVERED BY THIS DRAWING.
- M. ALL DUNNAGE, SUCH AS FILLER OR SPACER ASSEMBLIES, USED IN UNIT LOADS SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED IN MIL-B-2427 FOR CLEATED WOODEN BOXES. IF THE DUNNAGE CONSISTS OF MORE THAN ONE COMPONENT, IT MUST BE ASSEMBLED PRIOR TO TREATMENT. THE LETTERS PA DENOTING PQ56 (COPPER-8-QUINOLINDIOLATE), PB DENOTING M-GARD W550 (ZINC NAPHTHENATE EMULSIFIABLE) OR PC DENOTING M-GARD W510 OR CUNAPSD 5 (COPPER NAPHTHENATE) MUST BE APPLIED TO THE WOOD DUNNAGE IN LETTERS AT LEAST ONE INCH HIGH.
- N. THE WOODEN BOXES ARE MIL-STD-2427 BOXES. FOR DETAILS OF THE M3 OR M3A1 BOX SEE DRAWING 12590204, FOR THE M4 OR M4A1 BOX SEE 12561423, FOR THE M5 OR M5A1 BOX SEE 12590209, FOR THE M6 OR M6A1 BOX SEE 12590330 AND FOR THE M7 OR M7A1 BOX SEE 12590323.

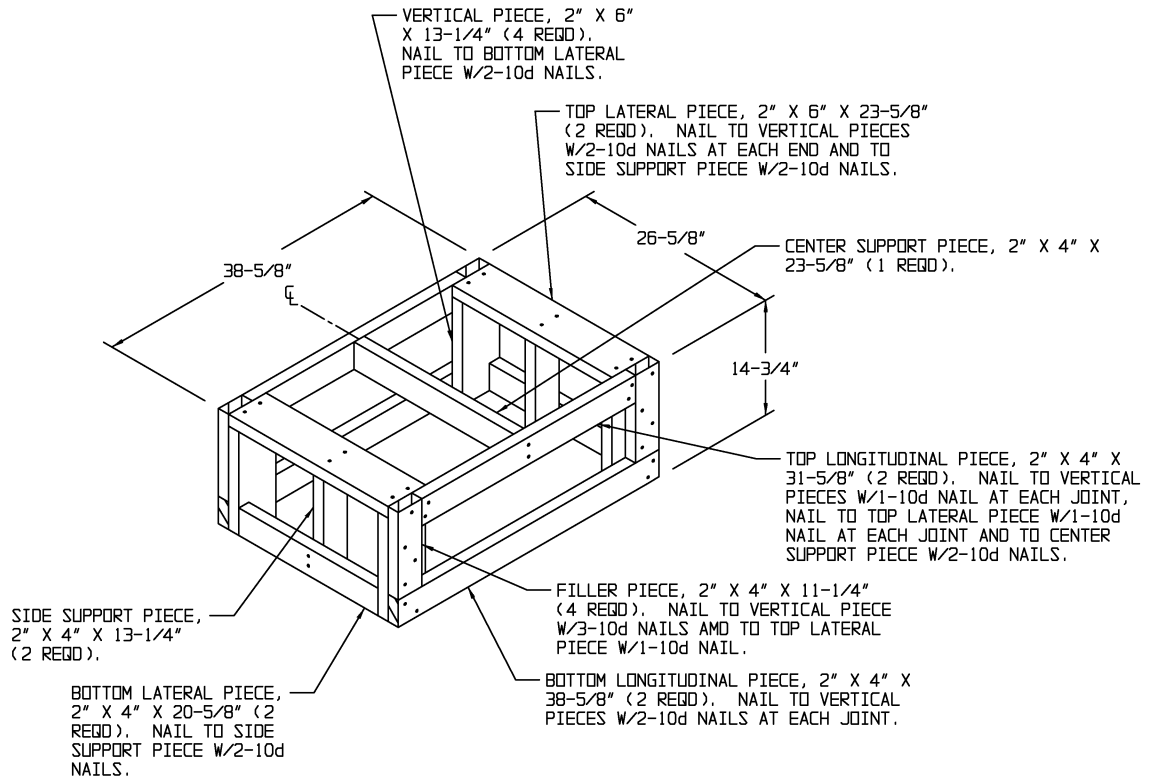
- P. DIMENSIONS GIVEN FOR DUNNAGE (FILLER ASSEMBLIES, SPACER ASSEMBLIES AND PLYWOOD) WILL BE FIELD CHECKED PRIOR TO THEIR ASSEMBLY. THIS GUIDANCE MUST BE APPLIED PRIOR TO BEGINNING A PALLETIZING OPERATION BECAUSE DIMENSIONS OF WOODEN BOXES WILL VARY. DUE TO VARIATIONS OF PACKAGE DIMENSIONS, ADJUSTMENTS MAY BE REQUIRED AS TO THE LOCATION AND/OR SIZE OF CERTAIN PIECES ON DUNNAGE ASSEMBLIES. THIS DRAWING USES ADVISORY OUTSIDE DIMENSIONS PROVIDED IN THE BOX DRAWINGS LISTED IN GENERAL NOTE "N".
- Q. UNIT LOAD MARKING WILL BE ACCOMPLISHED IN ACCORDANCE WITH DRAWING ACV00561, UNIT LOAD MARKING FOR SHIPMENT AND STORAGE, AMMUNITION AND EXPLOSIVES.

MATERIAL SPECIFICATIONS

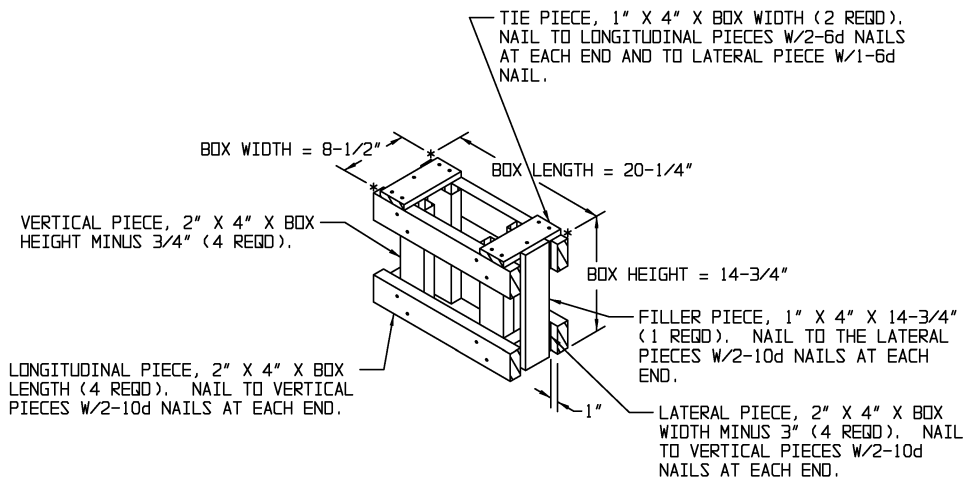
- PALLET - - - - - : MIL SPEC MIL-P-15011; 4-WAY ENTRY, STYLE 1A, TYPE I, CLASS 1, PRESERVATIVE TREATED.
- LUMBER - - - - - : SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS-20.
- NAILS - - - - - : ASTM F1667; COMMON STEEL NAIL (NLCMS OR NLCMS). ALT: UNDERLAYMENT NAIL (NLUL), PALLET NAIL (NLPL), OR COOLER NAIL (NLCL) OF SAME SIZE.
- PLYWOOD - - - - - : COMMERCIAL ITEM DESCRIPTION A-A-55057, TYPE A, CONSTRUCTION AND 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.
- STRAPPING, STEEL - - - : ASTM D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY, FINISH B (GRADE 2), SIZE 3/4" X .035" OR .031".
- SEAL, STRAP - - - - - : ASTM D3953; CLASS H, FINISH B (GRADE 2), DOUBLE NOTCH TYPE, STYLE I, II, III, OR IV. ALTERNATIVE SEAL FINISH: SIGNODE PAINTED SEALS MAY BE USED AS AN ALTERNATIVE IF ALL SURFACES ARE PAINTED. GRITTED BACKING IS NOT PERMITTED.
- STAPLE - - - - - : ASTM F1667; 15/16" OR 1" CROWN WIDTH X 3/4" LEG LENGTH FOR 3/4" STRAPPING, TYPE IV, STYLE 3.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	21.65	7.22
2" X 4"	53.01	35.34
2" X 6"	8.35	8.35
NAILS	NO. REQD	POUNDS
4d (1-1/2")	34	0.12
6d (2")	28	0.16
10d (3")	124	1.91
PALLET, 35" X 45-1/2"	1 REQD	65 LBS
STEEL STRAPPING, 3/4"	-182.25' REQD	-16.27 LBS
SEAL FOR 3/4" STRAPPING	-12 REQD	- NIL
PLYWOOD, 1/4"	12.43 SQ FT REQD	8.55 LBS
PLYWOOD, 3/8"	2.42 SQ FT REQD	2.50 LBS
PLYWOOD, 1/2"	3.52 SQ FT REQD	4.84 LBS
PLYWOOD, 3/4"	2.07 SQ FT REQD	4.27 LBS

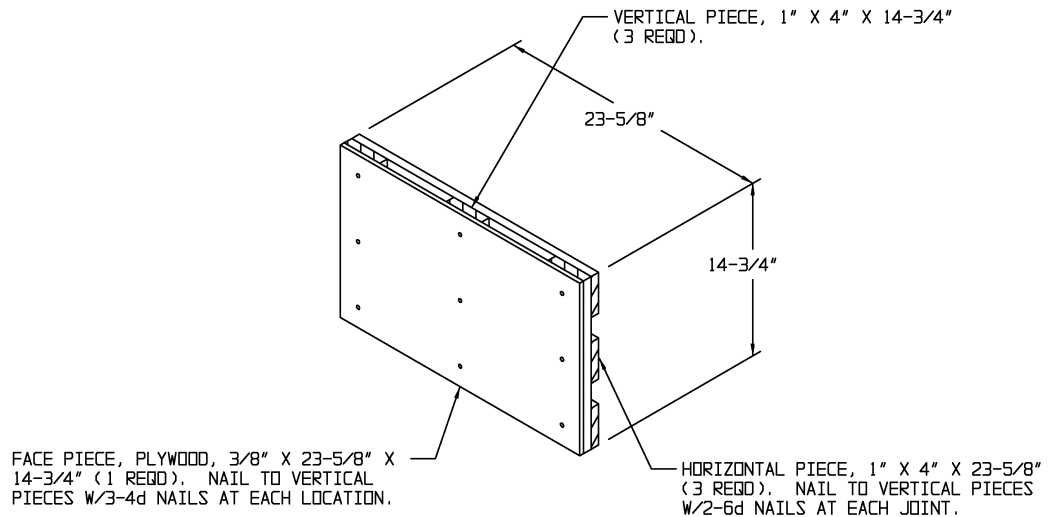
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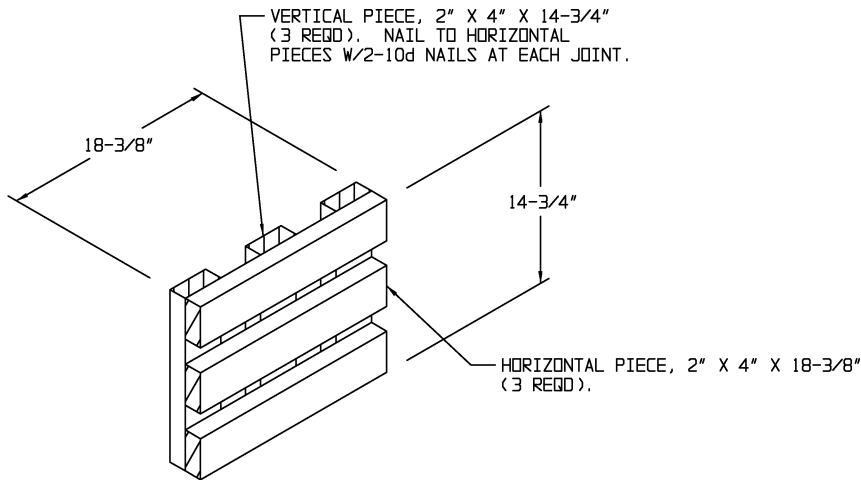
FILLER ASSEMBLY A



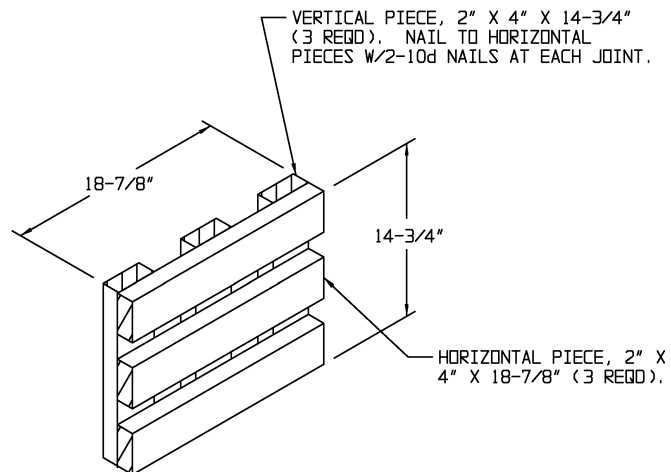
FILLER ASSEMBLY B



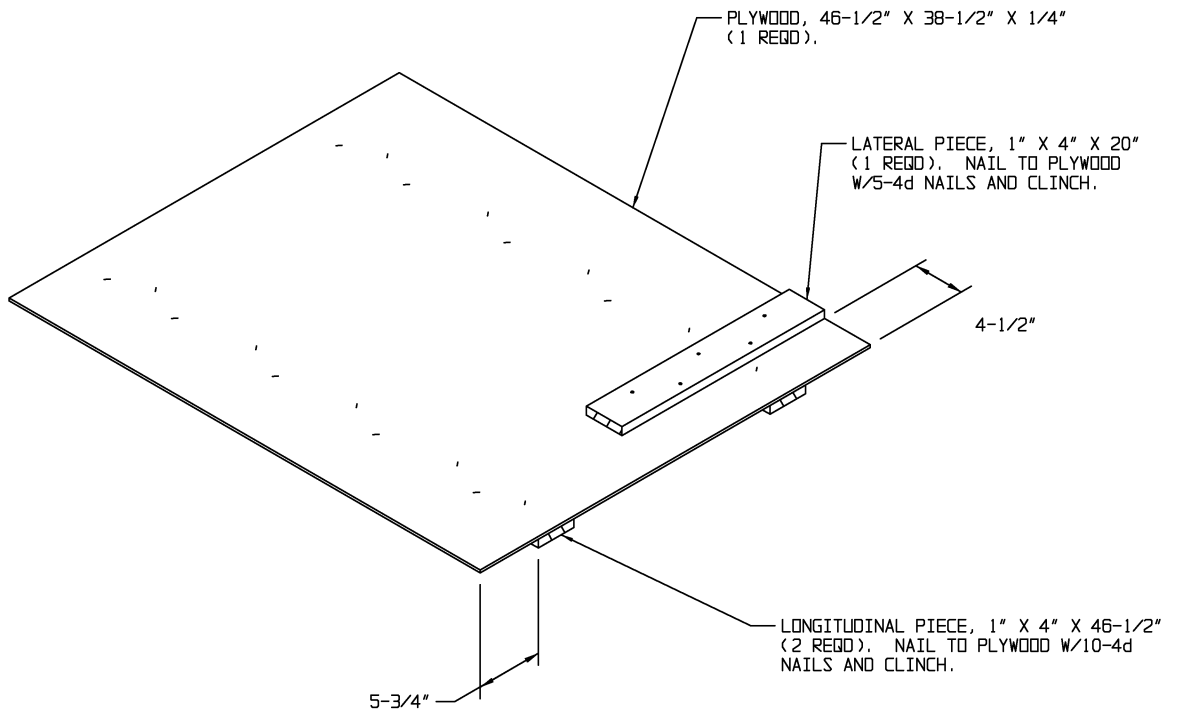
SPACER ASSEMBLY A



SPACER ASSEMBLY B



SPACER ASSEMBLY C



PLYWOOD SPACER

