

RECOMMENDED
WEST COAST WOOD
PALLET SPECIFICATIONS
for the
GROCERY INDUSTRY

ENDORISING ORGANIZATIONS

NATIONAL ASSOCIATION OF FOOD CHAINS

UNITED FRESH FRUIT & VEGETABLE ASSOCIATION

Endorsement Pending From:

GROCERY MANUFACTURERS OF AMERICA, INC.

COOPERATIVE FOOD DISTRIBUTORS OF AMERICA

NATIONAL-AMERICAN WHOLESALE GROCERS' ASSOCIATION

NATIONAL ASSOCIATION OF CONVENIENCE STORES, INC.

SUPER MARKET INSTITUTE, INC.

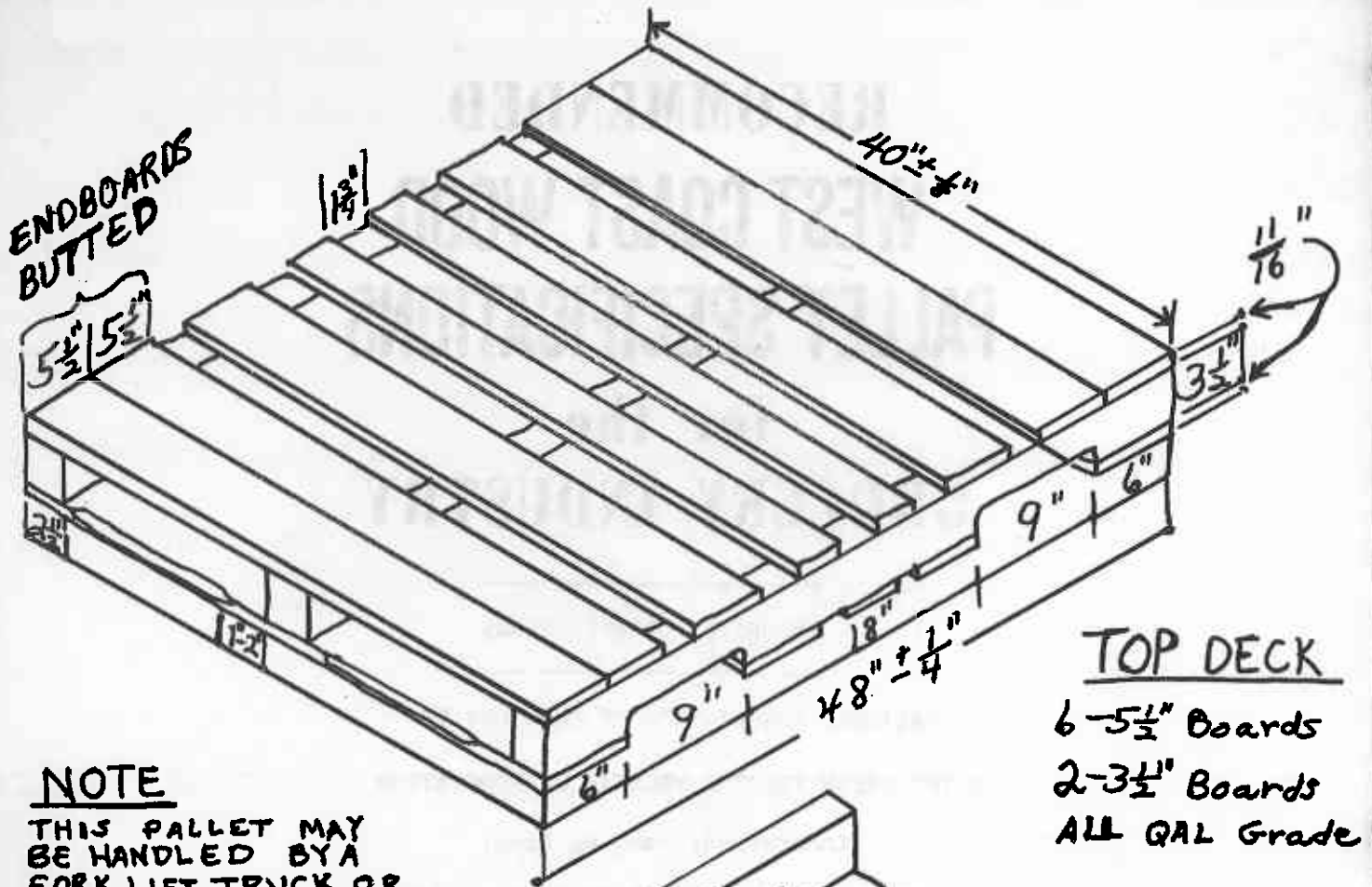
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GROCERY PALLET COUNCIL, INC.
221 North LaSalle Street
Chicago, Illinois 60601

November, 1976



GPC West Coast Wood Pallet Specification

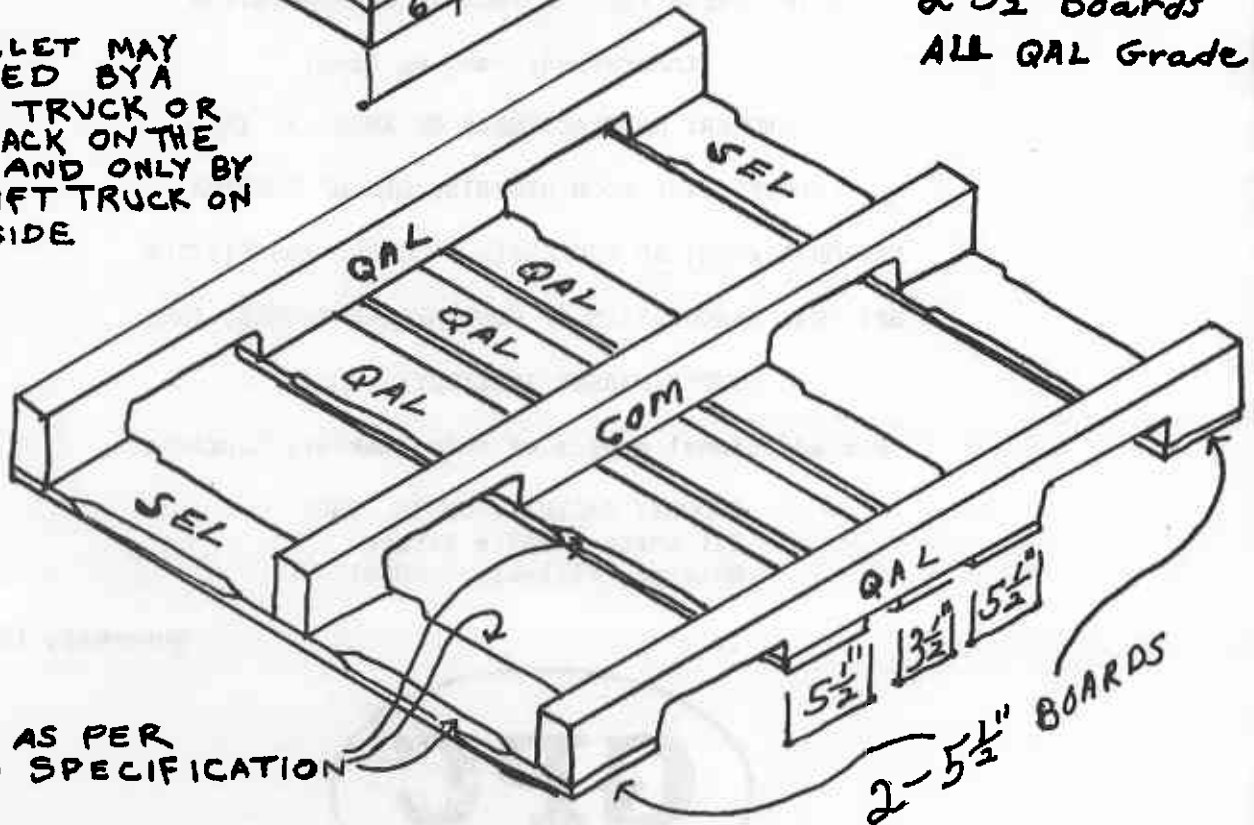


TOP DECK

- 6-5 1/2" Boards
- 2-3 1/2" Boards
- ALL QAL Grade

NOTE

THIS PALLET MAY BE HANDLED BY A FORK LIFT TRUCK OR PALLET JACK ON THE 40" SIDE AND ONLY BY A FORK LIFT TRUCK ON THE 48" SIDE



CHAMFER AS PER DETAILED SPECIFICATION

BOTTOM DECK

RECOMMENDED WEST COAST WOOD PALLET SPECIFICATION FOR THE GROCERY INDUSTRY

November, 1976

I. SIZE AND TYPE OF PALLET

Pallet shall be 48" x 40"; flush non-reversible, four-way modified. (See accompanying drawing for details.)

II. TYPE AND QUALITY OF LUMBER

A. Allowable Species

Lumber shall be sound, square edge, free of mold and noxious odors. The following western softwood species are to be used:

Douglas Fir
Western Hemlock
Larch

B. Moisture Content

Any degree of seasoning acceptable.

C. Permissible Defects, Characteristics, and Lumber Grades

For purposes of this standard, lumber is classified as Select (SEL), Quality (QAL), and Commercial (COM). As per the drawing, outside stringers, all top deckboards, and bottom center cluster boards are to be QAL grade or better. The center stringer is to be COM grade or better. Bottom deck endboards are to be SEL grade or better. These grades are defined as follows:

<u>SELECT (SEL)</u>	<u>QUALITY (QAL)</u>	<u>COMMERCIAL (COM)</u>
<u>Knots:</u>		
Average diameter of sound knots no greater than 1-3/8" per 5-1/2" piece. No unsound knots or holes permitted. Not knots in nailing area nor on lead edge of endboard. No more than 6 maximum size knots per piece to be separated by at least 4" of sound wood.	Average diameter of sound knots no greater than 1-3/16" per 3-1/2" piece and 1-13/16" per 5-1/2" piece. Unsound knots or holes no greater than 1/2 sound knot. No knots in nailing area nor on lead edge of endboards. Maximum 1/2" knot over notch. No more than 10 maximum size knots per piece to be separated by at least 4" of sound wood.	Average diameter of sound knots no greater than 1-3/4" per 3-1/2" piece. Unsound knots or holes no greater than 1/2 sound knot. Only sound knots permitted in nailing area. Maximum 1/2" knot over notch. No more than 13 maximum knots per piece to be separated by at least 2" of sound wood.
<u>Splits, Shakes, and Seasoning Checks:</u>		
Fine, if not through the deckboard nor longer than 1-7/8" and confined to center half of width of piece.	Fine, straight through 1/2 length of deckboard confined to center half of width of piece.	Heavy, straight through the length of piece provided it does not divide deckboards in 2 or more pieces and does not run out the width of piece.
<u>White Speck:</u>		
None permitted	25% maximum permitted in sound wood of deckboards as measured by volume with no honeycomb. 15% maximum permitted in sound wood of stringers as measured by volume with no honeycomb.	Unlimited sound honeycomb permitted in deckboards. Unlimited white speck permitted in stringers but no honeycomb.
<u>Grain Deviation:</u>		
Not to exceed 1" deviation in each 12" of length except for local deviation.	Not to exceed 1" deviation in each 10" of length except for local deviations.	Not to exceed 1" deviation in each 6" of length except for local deviation.

SELECT (SEL)QUALITY (QAL)COMMERCIAL (COM)Wane: (All Grades)

No more than 5 pieces per pallet to contain wane provided it is not on exposed surface or outside edge and provided no nail is driven into or through it on end deckboards or outside stringers.

Unsound Wood:

None permitted

Treated as unsound knots in deckboards but not permitted in stringers.

Treated as unsound knots for deckboards and stringers.

Fitch:

Small pockets or streaks not over 3" in length.

Small pockets or streaks not over 6" long in deckboards nor 3" long on width of stringer. Not permitted on stringer thickness.

No limit if in streaks and sound for deckboards and stringers.

Surfacing Skips:

No more than 1/16" deep nor longer than 4" on an occasional piece.

Hit and miss 1/16" deep nor longer than 12" on an occasional piece.

Hit and miss 1/16" deep, full length for deckboards maximum 24" long for stringers on an occasional piece.

Torn Grain:

Slight permitted on no more than 25% of pieces.

Slight unlimited but heavy permitted on no more than 25% of pieces.

Unlimited provided no nail is driven into or through heavy torn grain.

Warp:Cup: 1/8" in 6" of width
Crook: 1/8" in 24" of length1/8" in 6" of width
1/8" in 24" of lengthNo restriction
No restrictionPin Worm Holes:

30 per square foot of area

30 per square foot of area

No restriction

Stain:

No restriction provided it is sound wood.

No restriction provided it is sound wood.

No restriction provided it is sound wood.

Combined Characteristics:

Combination of characteristics at or near their limits must not exceed one combination of any 2 of these characteristics per piece.

Combination of characteristics at or near their limits must not materially weaken the strength of the piece.

Combination of characteristics at or near their limits must not materially weaken the strength of the piece.

III. LUMBER PREPARATION

Lumber must be smooth sawn or surfaced to square edge, uniform dimensions.

IV. TYPE AND QUALITY OF FASTENERS

Type: Helically Threaded

Length: 2-1/4"

Wire Diameter: 0.110" minimum to 0.120" maximum

Thread Angle: 60 degrees \pm 5 degrees

Hardened: (or tempered) to bend not more than 28 degrees on the MIBANT Nail Tester.

Threaded Body Outside Diameter: 0.123" minimum to 0.143" maximum but must exceed wire diameter by at least 0.013"

Head Diameter: Average 9/32" \pm 1/32"

Point: Diamond (not longer than 5/32"), no point, or chisel. No part of the point may exceed the wire diameter.

Flutes: 4-5

-more-

V. DIMENSIONS, SPACING AND ARRANGEMENT

A. Deckboards

Thickness: 11/16" plus 1/16" minus 1/32"
Length: 39-7/8" to 40-1/8" range

Top Deckboards

End deckboards are to be 5-1/2" wide plus 1/4" minus 1/32". There are to be 6 intermediate top deckboards, 4 of which are to be 5-1/2" wide plus 1/4" minus 1/32" and two 3-1/2" boards plus 1/4" minus 1/32". Second boards are to be 5-1/2" wide and butted tight to end deckboards. Spacing between centerboards to be 1-3/4" ± 1/4". Deckboards must provide a minimum cumulative surface of 40".

Bottom Deckboards

The two end deckboards are to be 5-1/2" plus 1/4" minus 1/32". The 3 intermediate bottom deckboards shall consist of two 5-1/2" wide boards plus 1/4" minus 1/32" and one 3-1/2" board plus 1/4" minus 1/32" positioned as per the drawing.

Bottom deckboards shall not protrude over any notch opening. Outer edges of the center cluster shall be flush with the inside of the notches. Ends of all deckboards shall be flush with outside of stringers. Bottom deckboards must provide a minimum cumulative surface of 25-1/2".

Chamfer inner and outer edges of bottom deck edgeboards and wheel space edges of center cluster boards to within 1/4" to 1/2" of bottom face. All chamfers to be cut at 35 - 45 degree angle and to extend within 2" but not closer than 1" of stringers at each end of chamfer.

B. Stringer Dimensions and Placement

Stringer dimensions shall be width: 2-1/2" ± 1/8",
Length: 48" ± 1/8". Height: 3-1/2" plus 1/4" minus 1/32".

Notch openings shall be 9" wide, plus 1/4" minus 0. Notch openings shall not be closer than 6" from the ends of the stringers, plus 1/4" minus 0. Stringer notches shall have a depth of 1-1/2" and shall have round corners with a radius of 3/4"; the top of the notch shall be flat cut between the corner radii.

Center stringer shall be parallel to and equidistant between outside stringers.

VI. ASSEMBLY

A. Predrilling

Predrilling of deckboards shall be required when nails are hand driven. When predrilling is required the outer ends of the deckboards shall be predrilled approximately 1/32" larger than the nail shank. When pallets are assembled by nailing machines, predrilling is not required.

B. Nailing

The number of nails which shall be employed at all bearing points for the various widths of deckboards is as follows:

<u>Width of Deckboard</u>	<u>Number of Nails</u>
3-1/2"	2
5-1/2"	3

Nails shall be staggered alternately on either side of stringer centerline and countersunk 1/16" deep.

VII. WORKMANSHIP

- A. Protruding nail heads or points are not permitted. Bent over nails must be driven below surface of deckboards.
- B. Deviation in dimension of assembled pallets shall be limited to 3/8" out-of-square (3/4" difference in diagonals), plus or minus 3/16" in overall pallet length or width.
- C. No combination of defects in workmanship, including nail splits, which will adversely affect the strength of the pallet to a material extent will be permitted.

VIII. IDENTIFICATION OF PALLETS

Pallets shall be marked on the exterior surface of one outside stringer, in letters of not less than 1-inch, to clearly show that the pallet meets GPC Standards, the manufacturer's designation, and otherwise conforms to pallet marking specifications developed and approved by the Grocery Pallet Council, Inc.

Pallets shall also be marked with the pallet species type "W".