



STATE OF CALIFORNIA  
Department of General Services - Office of Procurement

Purchase Order No. Rev. Date  
**62092** 6/30/2008

**PURCHASE ORDER**

Form GSOP 1-PIN (04/98)

Supplier No.	Solicitation No.	Delivery Date	FOB Point	Invoice Terms
802367	56816	60 Days ARO	Destination	

GLOBAL ENVIRONMENTAL NETWORK P.O. BOX 8068 FOUNTAIN VALLEY, CA 92728 Attn: MICHAEL HORNER  Phone: 714-479-1199	<i>S</i> DEPT. OF TRANSPORTATION <i>h T</i> DPAC WAREHOUSE MS-17 <i>i o</i> 2001 EVERGREEN STREET <i>p</i> SACRAMENTO, CA 95815 Attn: MITCH MCINTYRE 9163241190	<i>C</i> DEPT. OF TRANSPORTATION <i>h T</i> ASC PAYABLES MS-25 <i>r o</i> P. O. BOX 168018 <i>g e</i> SACRAMENTO, CA 95816	
	<i>Agency Billing</i> 60006	<i>Agency Purchase Estimate</i> 22-W1334JW	<i>Purchase Estimate</i> 67092 <i>Revision</i> 0
	<i>Agency Contact</i> JOHN WILLIAMS	<i>Phone</i> 916-227-6031	<i>Date Received</i>

Item No.	Quantity	Unit	Commodity Code	Description	Unit Price	Extension
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THE GENERAL PROVISIONS FOR NON-IT COMMODITIES ARE HEREBY INCORPORATED BY REFERENCE. THESE GENERAL PROVISIONS CAN BE OBTAINED BY PHONING (916) 375-4400 OR BY ACCESSING OUR WEBSITE AT:  
[www.documents.dgs.ca.gov/pd/modellang/GPnonIT0407.pdf](http://www.documents.dgs.ca.gov/pd/modellang/GPnonIT0407.pdf)

THE FOLLOWING INFORMATION IS PROVIDED FOR AGENCY USE ONLY:

PRIME CONTRACTOR: SB

FISCAL YEAR: 2007/2008

1	22230	EA	9705-001-0009-7	CONE TRAFFIC 28"	14.1100	313,665.30
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Traffic Cones, 28" per attached specifications  
9705-07BS-002 of six (6) pages, dated 4/23/08

**Total Value: 313,665.30**

FOR THE PURPOSE OF THIS AWARD, ONLY F.O.B. Destination will be accepted.

This Purchase order has been registered into the state contact and procurement registration system (<https://www.scprs.dgs.ca.gov/>). The registration number is: 20200708323325.

NOTE: Attachments accompany this PO as follow:

SPECIFICATIONS

ATTACHED #9705-07BS-002 OF SIX (6) PAGES DATED APRIL 23, 2008

PALLET SPECIFICATIONS

ATTACHED #3990-01A-01 OF THREE (3) PAGES DATED JANUARY 2001

This purchase order is being awarded on July 17th, 2008 pursuant to Government Code Section 13332.17. Any encumbrances made pursuant to this purchase order shall be construed to have been made on the last day of the preceding fiscal year.

Sales and/or use tax to be extra unless noted above

Buyer  EVONNE ROGERS	Phone 916-375-4346	BOC Number
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STATE OF CALIFORNIA

Department of General Services - Office of Procurement

**PURCHASE ORDER CONTINUATION**

Form GSOP 2-PIN (04/98)

<i>Purchase Order No.</i>	<i>Revision</i>	<i>Date</i>	<i>Supplier No.</i>	<i>Supplier Name</i>
62092		6/30/2008	802367	GLOBAL ENVIRONMENTAL NETWORK

<i>Item No.</i>	<i>Quantity</i>	<i>Unit</i>	<i>Commodity Code</i>	<i>Description</i>	<i>Unit Price</i>	<i>Extension</i>
<p>CHANGE ORDERS:</p> <p>Any Purchase Order resulting from this bid may be amended, modified, or terminated at any time by mutual agreement of the parties in writing. Change orders amending, modifying or terminating the Purchase Order, including any modifications of the compensation payable, may be issued only by the State Procurement Officer. All such change orders shall be in writing and issued only upon written concurrence of the supplier. Termination, as that term is used in this section, does not include termination for default of the supplier.</p>						



1. SCOPE

1.1 This specification covers 28" plastic traffic cones designed to provide fluorescent red-orange delineation and cones with an approved two-band (6" and 4") reflective sleeve for day and nighttime delineation.

2. APPLICABLE SPECIFICATIONS / STANDARDS

2.2 Specifications and standards referenced in this document in effect on the opening of the Invitation for Bid, form a part of this specification.

2.3 All cones supplied shall meet the NCHRP (National Cooperative Highway Research Project) Report 350 Criteria for Category 1 devices. Supplier shall provide self-certification upon request to the Transportation Laboratory.

3. REQUIREMENTS

**Material**

3.1 Cone Only:

The conical section of the traffic cones shall be composed of a polyvinyl chloride compound. The minimum thickness of this layer shall be the maximum required thickness of the conical section. The bottom layer of the base shall be composed of a high-density weighted polyvinyl chloride or molded rubber. This layer shall be securely and permanently bonded to the bottom end of the conical section. The conical section may be either standard as shown in the Figure 2 "Fluorescent Plastic Traffic Cones" or recessed for protection of the retroreflective sleeves.

3.2 Cone with Retroreflective Sleeve:

The cone shall be made with the same material as described in Paragraph II.A.1, except it shall have a two-band (6 and 4 inch) reflective sleeve permanently bonded to it. The reflective sleeve shall meet the photometric requirements below and shall be bonded to the cone with a water-based or pressure sensitive adhesive. After bonding onto the cone, the sleeve shall be free of wrinkles.

Sleeve material shall meet specification requirements in ASTM Designation: D 4956, for Type III or Type VI sheeting.

**Workmanship**

3.3 Traffic cones shall exhibit good workmanship and shall be free of burns, discoloration, streaks, runs, air bubbles and other objectionable marks or defects which effect appearance and serviceability. The inner and outer surfaces of the conical portion, above the base, shall be smooth; bumps, ridges or voids at any location shall be cause for rejection.

**Color**

3.4 The outer layer of the conical section shall be a bright fluorescent red-orange when tested according to ASTM Designation: E-991 and plotted on the CIE chromaticity chart with chromaticity coordinates as given in Table I.

X	Y
0.590	0.410
0.560	0.380
0.610	0.310
0.690	0.310

**TABLE I**

**Stacking**

- 3.5 Cones when stacked shall nest neatly, separate easily and shall be compatible with the referenced brand cones and be manufactured to the dimensions specified on Figure 2 "Fluorescent Plastic Traffic Cones"

**Base**

- 3.6 Cone base shall have cleats with minimum dimensions as shown on Figure 2 "Fluorescent Plastic Traffic Cones with Sleeves".

**Identification and Ink Adhesion Test**

- 3.7 "CALTRANS" shall be imprinted vertically on the conical section with a minimum of ½" high letters. The top of the uppermost letter shall be positioned at least one inch below the 4-inch band of retroreflective sheeting. The method of application shall produce neat, easily read, permanent lettering that cannot be removed without damaging the cone.

Apply a 3M Company Scotch Brand, number 600, cellophane tape over several of the inked letters. Use the eraser end of a pencil and rub gently to ensure that the tape is bonded securely to the cone. Pull tape back upon itself (180 degrees) and in a smooth even movement remove the tape. The lettering shall remain visible and readable upon the cone.

**Inspection**

- 3.8 Traffic cones shall be sampled and tested by the Department of Transportation (DOT), Engineering Services, Materials Engineering and Testing Services. Sampling will be prior to shipment or at the point of delivery, at the option of the State.

An official sample of traffic cones shall consist of four randomly selected cones representing lot quantities ≤4,000 units. For lots >4,000 units, one additional cone shall be sampled for each additional 1,000 cones or fraction thereof.

Material not meeting specifications will be rejected. Time required for testing shall be ≤30 days.

By request, the State shall have free entry at all times to such parts of the manufacturer's plant related to production or quality control of traffic cones. All quality control test results shall be made available to the DOT inspector.

**Tolerance**

- 3.9 100% of the original official sampling of each lot of cones shall comply with all requirements.

**4. DIMENSIONS AND PHYSICAL PROPERTIES**

- 4.1 Cones shall be manufactured to the dimensions specified on Figure 2 "Fluorescent Plastic Traffic Cones with Sleeves" and the dimensions given in Table II.
- 4.2 Tensile strength of the joint where the conical portion of the cone joins the base shall be ≥13.8 Lbs per inch of width. See Test Note E.

Total Height	28" $\pm$ 1/2"
Total Mass	$\geq$ 10 Lbs
Mass of base	$\geq$ 6.5 Lbs
Wall thickness (see Test Note B):	Top and middle: $\geq$ 0.1" Bottom: $\geq$ 0.112"
Tensile strength (see Test Note C):	$\geq$ 1200 psi
Elongation (see Test Note C):	$>$ 200 %
Tensile stress @ 200% elongation (see Test Note C):	$\geq$ 1000 psi
Hardness, Shore A2, conical section (see Test Note D):	80 $\pm$ 10
<b>TABLE II</b>	

#### Fold Test

- 4.3 Place cone in normal position on a flat and level surface and fold at a point near the middle of its vertical height. Hold the upper tip of the cone for ten seconds in a position immediately adjacent to the base and touching the surface upon which the base is resting. When released, the cone shall return to its original vertical position in  $\leq$ 15 seconds.

#### Heat Resistance

- 4.4 Suspend a 3 Lbs weight inside the conical section of the traffic cone utilizing a wire attached to the center of a flat metal disc spanning and resting upon top of the cone. Place weighted cone in an upright position in a preheated air circulating 82° C oven. After 1 hour, cone shall not exhibit significant slump or sag.

#### Cold Resistance

- 4.5 Cones, shall be conditioned a minimum of 2 hours at -17°C (0° F) in an environmentally controlled test chamber. A steel ball weighing 2 Lbs shall be dropped a distance of 5' through a virtually frictionless vertical guide to impact the surface of the cone. The surface of the cone being struck by the steel ball shall be in a horizontal position supported by one edge of the cone's base and held in position by a support at the narrow or top end of the cone. The cones shall be subjected to three impact tests spaced  $\geq$ 6" apart. Fracturing, cracking or splitting of conical section and/or base shall constitute failure.

#### Color Fastness

- 4.6 The exterior side of a coupon cut from the cone shall be exposed for 500 hours in accordance with ASTM Designation: G 155, Table X3.1, Cycle 1 in a Xenon Arc Light Apparatus. After exposure the test specimen shall meet the color requirements of this specification.

#### Base bend test

- 4.7 Remove the base of the cone by cutting the conical section at its junction with the top surface of the base. Bend the base 180° around a rigidly mounted round mandrel with the upper surface of the base adjacent

to the mandrel and clamp base securely in that position. The diameter of the mandrel shall be 2". Two minutes after clamping base into 180° bend position, examine base for failure represented by splitting or tearing. If no failure has occurred, a knife cut  $\frac{1}{32}$ " deep shall be made on the outside radius of the bend and parallel with the longitudinal axis of the mandrel. Wait two minutes after making knife cut and examine. Tearing of the base material  $\geq \frac{1}{8}$ " beyond depth of cut represents failure.

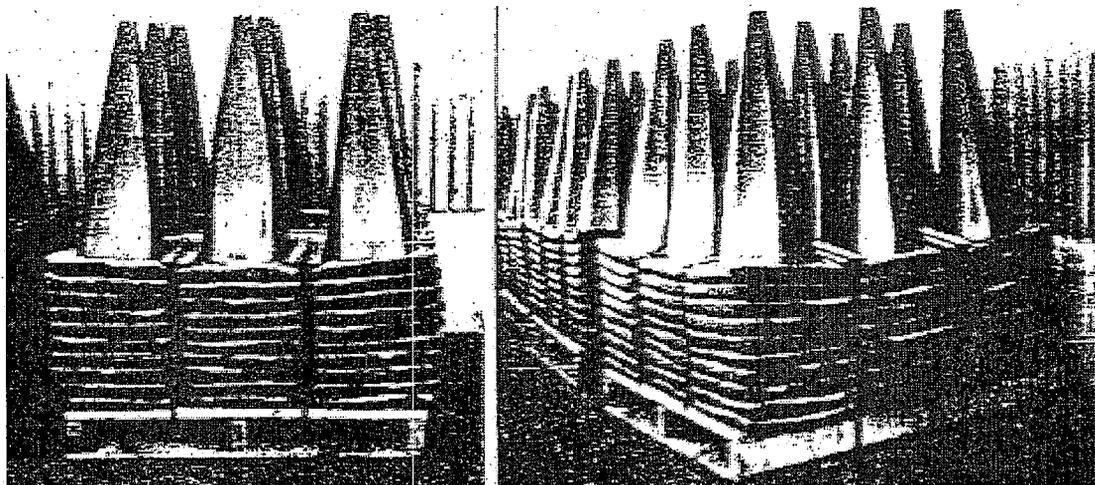
#### 5. TEST NOTES

- A. Unless otherwise indicated, all tests shall be performed on samples conditioned a minimum of 40 hours at  $25 \pm 2^\circ\text{C}$  and  $50 \pm 5\%$  relative humidity.
- B. Wall thickness shall be measured on the conical section 1 to 3 inches from the base, 1 to 3 inches from the top, and at the middle.
- C. Tensile strength, elongation and tensile stress shall be determined on the conical section of the cone only, in accordance with ASTM Designation; D 638. The test specimens shall be Type IV. The rate of jaw separation shall be 20 in per minute.
- D. Hardness shall be determined in accordance with the ASTM Designation: D 2240. The durometer shall be Type A2, with a total weight of 4.4 Lbs (2 Kg) centered on the axis of the indenter. The scale shall be read 15 seconds after the pressure foot is in firm contact with test specimen.
- E. Three reduced section test specimens shall be cut from each cone to be tested. The reduced section shall be a neatly trimmed 2 inches width at the joint between cone and base. Length of test specimen will vary depending on size of cone being tested but in all cases the length must be sufficient to permit clamping ends of specimen in standard textile jaws or other suitable grips of a tensile test machine. Test machine shall be capable of maintaining the specified jaw separation rate of 6 inches per minute. Divide the total load required to separate the specimen by the area of the PVC section at the joint. Report the average of the three tests.

#### 6. PACKAGING FOR 28 INCH CONES

- 6.1 Twenty-eight cones are not be packaged in cartons. Ninety (90) cones shall be placed on 44"X44" or 45"X45" wooden pallets of good condition and secured as shown in Figure 1. The reinforced plastic strapping used shall be  $\geq \frac{3}{4}$ " wide.

After cones have been stacked on pallet, base portion of cones must be plastic wrapped to minimize shifting while in transit and have a black plastic pallet cover placed over cones to protect them from fading due to sun exposure while being stored outside. To prevent damage to the cones, pallets shall not be stacked.

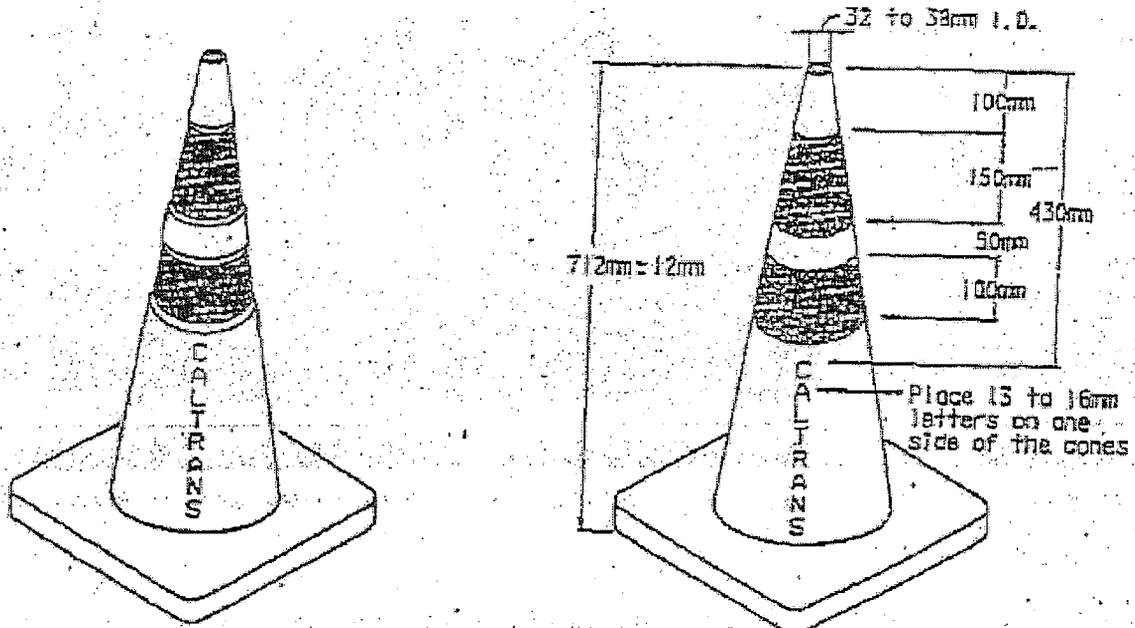


**FIGURE 1: PACKAGING FOR FLUORESCENT PLASTIC TRAFFIC CONES**

#### **7. PRE-QUALIFICATION PROCEDURE**

- 7.1 New products may be added for future solicitations to the Acceptable Brands List. If interested, please have your manufacturer submit a Product Information Form to the New Product Coordinator at the Transportation Laboratory. For questions regarding this procedure contact: Devinder Singh, Traffic Operations, (916) 654-4715 or Andy Rogerson, Transportation Laboratory, (916) 227-7289.

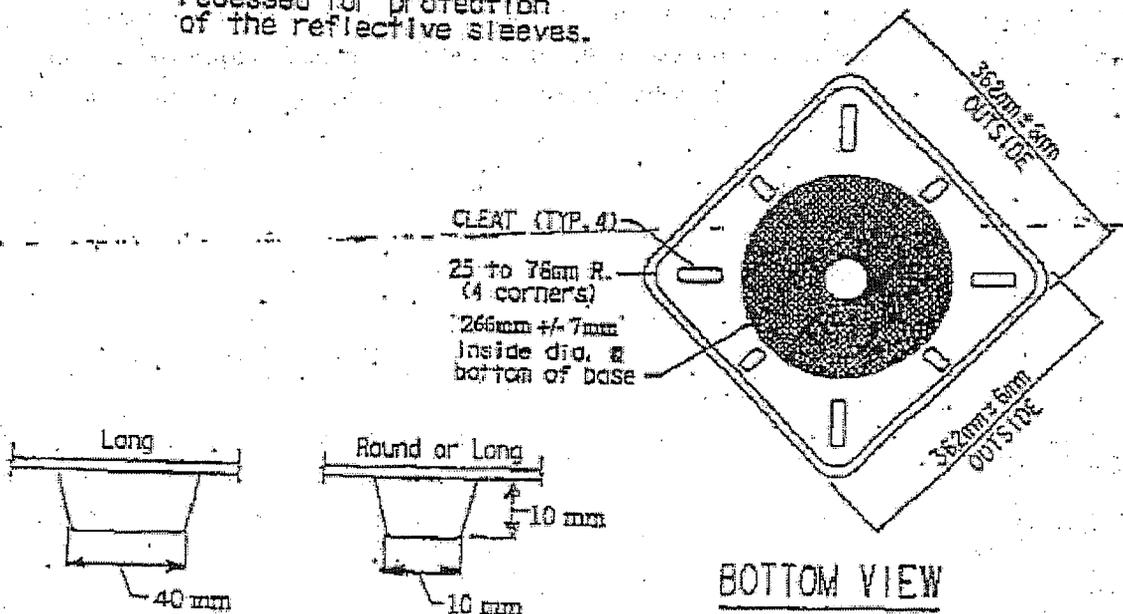
Cones and sleeves shall be tested and approved separately by the Department of Transportation. A list of approved sheeting and cones can be obtained from the Translab, 5900 Folsom Boulevard, Sacramento CA, 95819. Once approved, the vendor shall be responsible for permanently bonding the sleeves to the cones.



RECESSED

STANDARD

The conical section may be either standard or recessed for protection of the reflective sleeves.



BOTTOM VIEW

CLEAT DETAILS

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE OF BUSINESS MANAGEMENT  
 MATERIAL OPERATIONS

FIGURE 2: FLUORESCENT PLASTIC TRAFFIC CONES WITH SLEEVES

## STATE OF CALIFORNIA SPECIFICATION PALLETS, WOODEN

### 1 SCOPE

This specification covers pallets intended for use with low lift pallet trucks or forklift trucks.

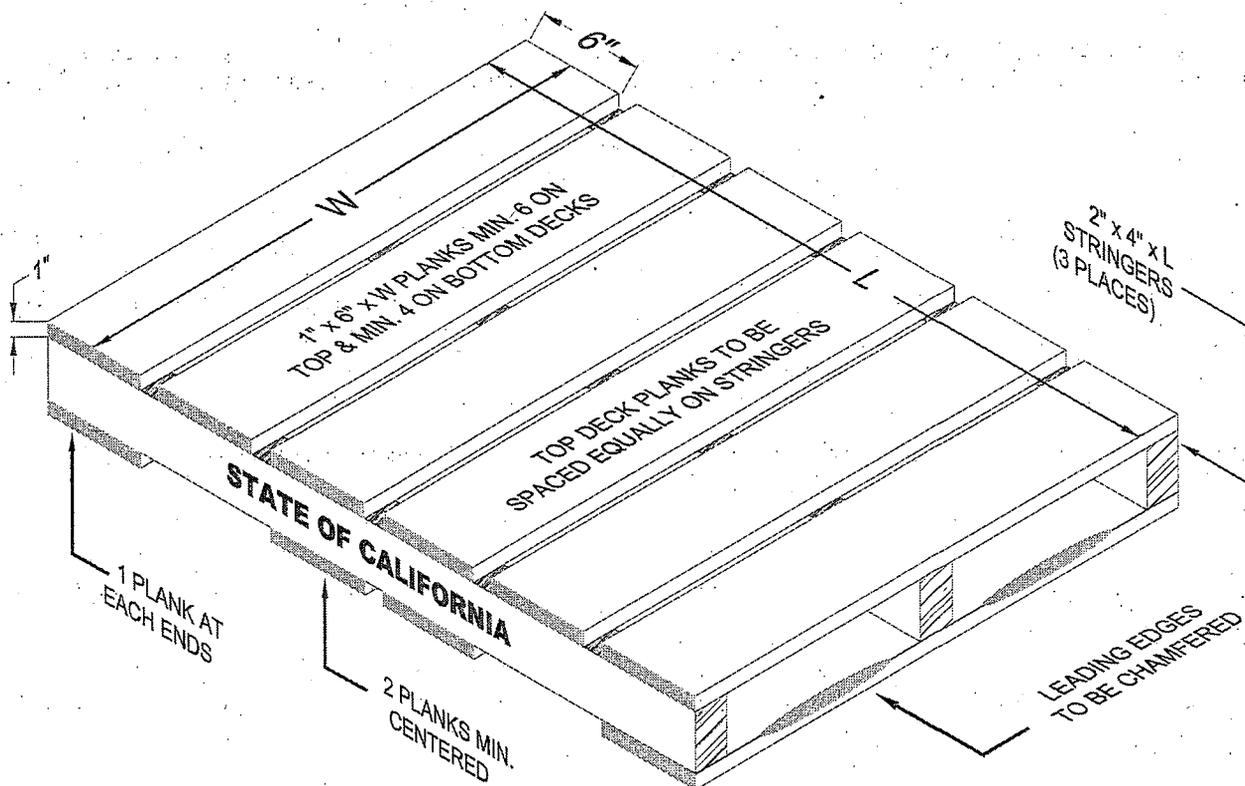
### 2 SPECIFICATION AND STANDARDS

Specifications and standards referenced in this document in effect on the opening of the Invitation for Bid form a part of this specification where referenced.

### 3 REQUIREMENTS

#### 3.1 Material

The pallets shall be constructed from nominal size standard or better (West Coast Lumber Inspection Bureau, Standard Grading Rules for West Coast Lumber) grade Douglas Fir, Hemlock, Larch or Hem-Fir. The stringers shall be S4S and the decking S4S or S1S2E (re-



**FIG. 1 - TYPE 2  
WOODEN PALLET**

sawed) with no edge knots. Sawed side is to be assembled to the inside of the pallets. Fastening shall be accomplished with 2¼ inch (+1/16 inch) 7 penny flat head drive screws (helical threaded nail) or 2¼ (+1/16 inch) #10 wire gauge annular ring nails as recommended in Specifications and Grades for Warehouse. Permanent or Returnable Pallets of West Coast Woods as published by the National Wooden Pallet and Container Association (Specifications and Grades, NWPCA).

### 3.2 Non-Standard Duty-Cycle Pallets

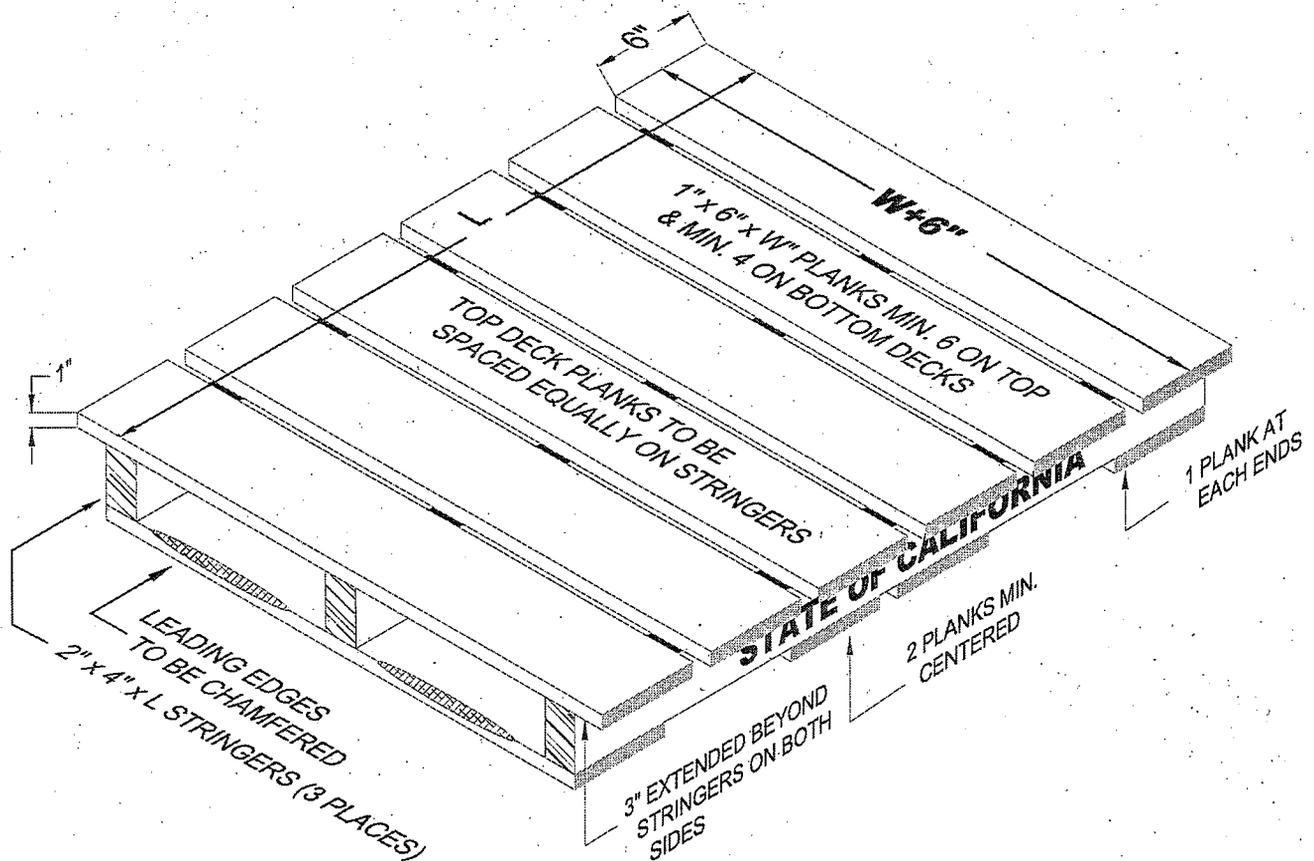
When specifically requested by the user, pallets may be manufactured using pine, oak or ash woods.

### 3.3 Construction

Pallet type and construction shall comply with Specifications and Grades, NWPCA. The pallets shall be Grade "Quality" (QAL).

The decking shall be secured with 3 nails or screws at each surface of contact with the stringer. Nails shall not be within ½ inch of deck-board edges or another nails.

All leading and outside edges of the bottom deck shall be chamfered. The chamfers shall be at least 12 inches long and shall be cut on an approximate 35 degree angle to the face so as to leave an edge adjacent to the chamfer not less than ¼ inch nor more than ½ inch from the outer



**FIG. 2 - TYPE 4  
SINGLE WING WOODEN PALLET**

edge of the deck-board. The chamfer shall extend to within 3 inches of the stringers. Pallet configuration shall comply with table below.

COMMONLY USED PALLET TYPES & SIZE			
SIZE	TYPE	TOP DECK	BOTTOM DECK
1	2 (Fig. 1)	42"L x 36"W Six 1" x 6" x 36" deck-boards, spaced evenly along the pallet width	42"L x 36"W Min. Four 1" x 6" x 36" boards. One placed each end of the stringers Two at center of the stringers
2	2 (Fig. 1)	42"L x 42"W Six 1" x 6" x 42" deck-boards, spaced evenly along the pallet width	42"L x 42"W Min. Four 1" x 6" x 42" boards. One placed each end of the stringers Two at center of the stringers
3	2 (Fig. 1)	44"L x 44"W Six 1" x 6" x 44" deck-boards, spaced evenly along the pallet width	44"L x 44"W Min. Four 1" x 6" x 44" boards. One placed each end of the stringers Two at center of the stringers(Fig. 1)
4	2 (Fig. 1)	45"L x 36"W Six 1" x 6" x 36" deck-boards, spaced evenly along the pallet width	45"L x 36"W Min. Four 1" x 6" x 36" boards. One placed each end of the stringers Two at center of the stringers
5	2 (Fig. 1)	46"L x 44"W Six 1" x 6" x 44" deck-boards, spaced evenly along the pallet width	46"L x 44"W Min. Four 1" x 6" x 44" boards. One placed each end of the stringers Two at center of the stringers
6	2 (Fig. 1)	48"L x 48"W Six 1" x 6" x 48" deck-boards, spaced evenly along the pallet width	48"L x 48"W Min. Four 1" x 6" x 48" boards. One placed each end of the stringers Two at center of the stringers
<b>Note:</b> SIZE 1, TYPE 4 - has a single wing applied to top deck.			
1	4 (Fig. 2)	42"L x 36"W Six 1" x 6" x 36" deck-boards, spaced evenly along the pallet width with 3" wings extending beyond the stringers outboard faces	42"L x 30"W Min. Four 1" x 6" x 36" boards. One placed each end of the stringers, Two at center of the stringers.

#### 4 SAMPLING AND INSPECTION

This commodity will be sampled and inspected for compliance to this specification as deemed necessary. Sampling and inspection by attributes will be in accordance with ANSI/ASQ Z1.4-1993, Sampling Procedures and Tables for Inspection by Attributes. An inspection lot is defined as one delivery to one agency at one time.

##### 4.1 Workmanship

The pallets shall be free from defects as outlined under Grade "Quality" (QAL) in the "Specifications and Grades", NWPCA.

#### 5 MARKING

Each pallet shall be marked (two places), "STATE OF CALIFORNIA". Marking shall be easily readable, in black letters and on outboard faces of stringers.