

**Carnegie Mellon University**  
Environmental Health & Safety

## Doghouse Construction Standards

*Revised: 9/22/2025*

Construction for Spring Carnival Doghouse building will adhere to the following construction standards. In addition to the specific items listed throughout this document, generally accepted good practices are expected to be used in all cases.

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## 1. Introduction

This document outlines the minimum requirements for designing, constructing, and operating doghouses for the university's annual Spring Carnival. These are intended to provide a reasonable level of safety while ensuring that student organizations can express their creativity. The following requirements are based on an assessment of local building and fire codes, occupational safety and health standards, feedback from the university's property insurance providers and established best practices.

## 2. Definitions

- a. **Committee:** when used with no qualifying phrases, shall refer to the Spring Carnival Booth Committee and members of the Spring Carnival Executive Board.
- b. **Carnival Booth Committee:** A group of selected individuals comprised of the Head of Booth, Director of Fraternity, Director of Sorority, Director of Independent, Director(s) of Blitz/Doghouse and more who are responsible for reviewing and approving the organization's booth design/drawings before they are built.
- c. **Carnival Executive Board:** Representatives from Facilities Management and Campus Services (FMCS), Environmental Health and Safety (EHS), University Police (UP), University Events, SIT and other departments who support the Carnival Booth Committee throughout the booth event and carnival planning to ensure needed resources are obtained/available during build week, carnival and teardown.
- d. **Doghouse Booth Chair(s):** Those responsible for knowing Doghouse Construction Standards and Terms and Conditions, along with all mandates that are created by the Head(s) of Booth. They are held responsible for disseminating information to their organization's members and for adhering to the Doghouse Construction Standards.
- e. **Booth Builders:** Booth Builders are members of organizations who are to build responsibly, listen to their Booth Chairs and members of SCC to ensure safe building of their Booth.
- f. **Build week:** The week before carnival, when organizations build their booths for carnival.
- g. **Doghouse:** small wooden boxes no more than 4x4x4' and may be of different sizes, colors and themes.
- h. **Environmental Health and Safety (EHS):** The university department whose responsibility is to ensure the safety and environmental sustainability of all endeavors across campus, including Booth and Spring Carnival in general. Members of EHS will be present during Build Week and will assist in inspecting the physical structures throughout the build process.
- i. **Head(s) of Booth:** leads the Booth Committee and oversees all construction-related booth matters including holding Booth Chair meetings, revising plans and being the bridge between student organizations that build a Booth and the appropriate Carnegie Mellon staff and faculty involved.
- j. **Midway:** refers to the entire Spring Carnival midway or, as appropriate, the portion of the College of Fine Arts parking lot and adjacent roadways under control of the Committee.
- k. **Move-on:** When organizations move their materials to their plot on Midway, typically the Friday before build week.
- l. **Organizations:** A group of students who have been recognized by the Student Government. Specifically for this document, organizations reference the student groups who are participating in booth-building activities.

- m. Spring Carnival:** The 10 days from the Friday of Move-on when construction begins, through Build Week and Operations, until the Sunday of Teardown when the demolition and clearing of all carnival-related activities occur.
- n. Spring Carnival Advisor:** The representative from the Office of Student Involvement & Traditions (SIT) and the Division of Student Affairs (DoSA) designated to oversee Spring Carnival. The advisor attends meetings, meets regularly with members of the Executive Board, and has a major presence on Midway throughout the build process.
- o. Spring Carnival Committee Chair(s):** The entity that plans and runs all SCC general body meetings, holds executive board meetings and oversees the activities of all committees. The SCC Chair(s) is the main point of contact for Spring Carnival-related matters, communicates with campus stakeholders, and delegates tasks to the heads of various committees.
- p. Structural Oversight Committee (SOC):** A group of individuals comprised of at least the Head of Booth, Spring Carnival Committee Advisor, Faculty Booth Plan Reviewer(s), Fire Safety Manager (EHS), Electrical Supervisor (FMCS) and the Green Practices Committee (GPC) who are responsible for reviewing and approving organization's booth design/drawings before they are built. This committee also reviews and approves the structures at different points in the building process to ensure booths are built according to approved plans.
- q. Structures:** Booths that are under construction.
- r. Teardown:** The day after carnival, in which organizations tear down and dispose of or store their booth/structure components.

### **3. Roles and Responsibilities**

- a. Carnival Booth Committee:**
  - i. Reviews organizations' booth plans prior to Build Week to approve all construction-related activity
  - ii. Works closely with EHS and FMCS
  - iii. Collaborates with the faculty member(s) who do the final review and approval of the organization booth plans
  - iv. Assist in developing a safety rubric sheet for committee members and midway watch shifts to use throughout build week
- b. Structural Oversight Committee (SOC):**
  - i. Reviews the Spring Carnival Booth Building Construction Standards and ensure Teardown safety.
- c. Organizations:**
  - i. Remain up to date with and adhere to carnival construction standards.
  - ii. Submit booth drawings and plans to the Structural Oversight Committee and update program as needed based on committee feedback.
  - iii. Submit updated programs when construction plans change or adjust to manage design changes.
  - iv. Build and tear down structures in accordance with the organization's approved plans
  - v. Adhere to safety requirements (i.e. PPE requirements, safety training, and housekeeping) when on Midway.
  - vi. The Committee, or a subcommittee appointed for the purpose, reserves the right to declare any condition, material, design, or activity to be unsafe at its sole discretion.

**d. EHS:**

- i. Assist with the coordination and implementation of various safety trainings to include – Scissor lift training, forklift training, hand and power tool, student shop safety, personal protective equipment, hazard communication, fire extinguisher training, etc.
- ii. Provide support to the Carnival Booth Committee in their efforts to coordinate and plan booth and carnival activities
- iii. Obtain needed personal protective equipment and scissor lifts for build week
- iv. Provide fire safety guidance and support, including the coordination and delivery of fire extinguishers to be placed throughout Midway.
- v. Assist Carnival Booth Committee review and approve proposed booth drawings
- vi. Perform final fire safety checks of Booths on the morning of Carnival

**4. Inspections**

- a. SCC will inspect doghouses once completed before they are moved to their final display location.
- b. EHS will inspect doghouses for safety hazards
- c. Structures are subject to additional unscheduled inspections at any time.

**5. Construction and Demolition**

- a. Construction and demolition of structures must proceed in a safe manner, both for those involved in those activities and for others nearby.
- b. Construction may not begin before approval of all plans by the Head(s) of Booth
- c. Construction and demolition must proceed according to the approved plans. Any Organization deviating from the approved plans will be required to stop all other work until the deviation from the plans is corrected. Alternatively, an organization may submit revised plans to address the change; work may start again once the revised plans are approved.
- d. Unless otherwise designated by the Committee, the Midway is a construction site from the start of the move-on process until the Midway opens to the public, and then again from the start of tear-down until the Committee declares that teardown has completed.
- e. Appropriate personal protective equipment (including hard hats, safety glasses and closed-toed shoes) must be worn by all persons in that area while Midway is deemed to be a construction site.
- f. All persons on Midway must always wear safety glasses. When using bladed instruments, safety glasses are required. Sunglasses and prescription glasses are not a substitute for safety glasses. Gloves and long pants are recommended to be worn when appropriate.
- g. Long hair must be secured and tucked in to prevent entanglement with powered rotating equipment including powered hand drills.

**6. Plan Submission and Approval**

All plans submitted for approval must be in PDF format with each page sized to print on 8<sup>1</sup>/<sub>2</sub>x11 inch paper. **Plans must include:**

- a. Floor plans, sections, and details showing all structural elements with additional details for prefabricated components, support beams and posts, doors, windows, structural connections between walls, stairs, ramps, and railings. All elements must be fully

dimensioned.

- b. Drawings of all decorative elements including fastener details.
- c. A complete description of all structural and decorative materials used that includes an estimate of the total quantities of each used.
- d. A list of all interior decorations and furnishings that will have a fire-retardant coating applied and a product data sheet showing the instructions for the type of fire-retardant coating that will be used.
- e. Brief description of building sequence and transportation to UC Colonnade
- f. A description (with drawings, if appropriate) of how the structure will be removed from UC Colonnade and disposed of or stored.
- g. A description of the doghouse to be printed in Spring Carnival literature

Plans shall be submitted electronically and reviewed by the Booth Committee. The organization will be informed of the results of the review. An opportunity will be given to resubmit modified plans if the original plans are not approved as submitted.

## 7. Booth Dimensions

### a. Height Limits

- i. All heights are measured from the lowest point of the plot.
- ii. For dog houses, the maximum dimensions is 4'x4'x4', including all decorations

## 8. Structural Design

### a. Lumber Quality

- i. Material showing signs of deterioration, or that is past its useful life shall not be used.

### b. Floor Design

- i. Floors are optional. The sidewalk can serve as the floor of the doghouse.
- ii. Floor joists must be installed no farther apart than 16 inches on center. Joists are limited to the maximum spans shown here:

<b>Nominal Size</b>	<b>Floor Joist Maximum Span</b>
2x4	4'0"

- iii. The ends of all rafters must sit on a wall or on the ground. Beams cannot float.

### c. Flooring

- i. Floor sheathing must be no less than 3/4-inch thick (nominal) plywood properly installed.
- ii. Flooring must be plywood only - Oriented Strand Board (OSB) is not permitted for use on floors.
- iii. All plywood seams must have joists below them.

### d. Walls

- i. Structural walls may be made up of 2x4 (nominal) lumber or larger spaced no further apart than 16-inches on center for all booth types.
- ii. At least one side of each structural wall must be covered with no less than 3/8 inch thick (nominal) plywood or oriented strand board (OSB) properly installed.

- iii. All structural sheathing panel edges must be completely backed by framing. Interior, non-structural partitions do not need sheathing.
- iv. Studs must be one piece - cannot screw two smaller pieces into a larger piece

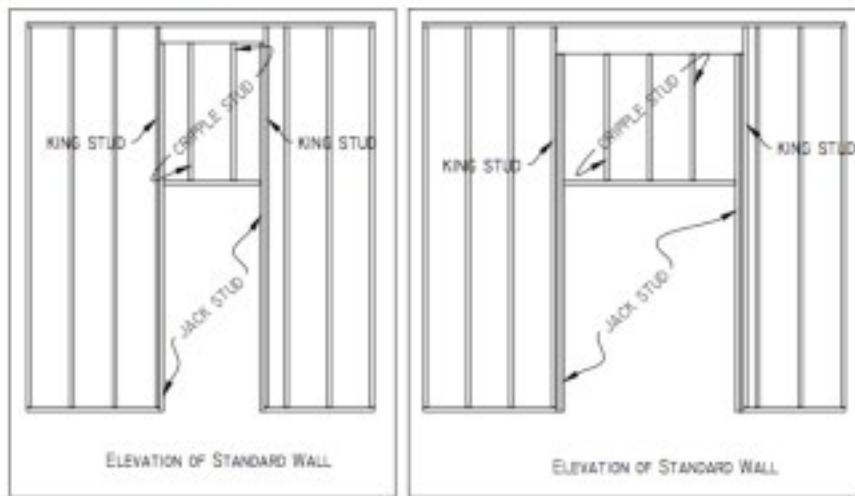
#### e. Headers/Beams

- i. Any gaps in structural walls or studs spaced more than 16-inches on center (i.e., doors or windows) must have properly supported headers.
- ii. Headers must be made from two (2) 2x4s turned on their side so that the longer dimension is vertical and screwed together.
- iii. Headers are limited to the maximum spans shown here:

Material	Max Span
Double 2x4	4'0"

HEADER ABOVE DOOR OPENING IS SUPPORTED BY JACK STUDS AND KING STUDS. HEADER SHOULD BE AT THE TOP OF THE WALL WITH CRIPPLE STUDS RUNNING TO THE TOP OF THE DOOR OPENING.

DOUBLE JACK STUD MAY BE NECESSARY IF SPAN IS LARGER THAN A SINGLE DOOR OR HAS A LARGE LOAD.



## 9. Roof Design

Roof rafters must be installed no farther apart than 24 inches on center and limited to the spans shown here:

Nominal Size	Roof Rafter Maximum Span
2x4	4'0"

- i. The ends of all rafters must sit on a wall or by a beam and posts below by 1.5". Roof beams cannot float.
- ii. Roofs must be no less than 3/8-inch (nominal) plywood or oriented strand board (OSB) properly installed.

## 10. Joist Hangers and Fasteners

Joist hangers are not needed for doghouse construction

## 11. Fire Safety

Not allowed	Minimize
<ul style="list-style-type: none"><li>• No plastic or sheeting permitted as a permanent part of the structure</li><li>• Halogen lamps</li><li>• Straw, hay, dry grass, or similar materials;</li><li>• Open flames;</li><li>• Smoking;</li><li>• Smoke or fog machines;</li><li>• Plastic sheeting or tarps;</li><li>• Flammable liquids (paint thinner, oil base paints, gasoline);</li></ul>	Plastic should be used at a minimum

- a. No smoking or open flames shall be permitted on the Midway at any time.
- b. No flammable gasses or liquids may be used in the construction of the structure or as a part of the structure itself. This includes oil-based paints or paint thinners and gasoline.
- c. Combustible interior furnishings, decorations, and props must have a fire-retardant coating applied to them, where feasible. All instructions and limitations of the fire-retardant must be adhered to.
- d. Straw, hay, dry grass, or similar materials are not permitted.
- e. Foam, including styrofoam, may ONLY be used in the construction of a free-standing prop or decoration. Foam shall not be applied to walls, floors, or ceilings.
- f. No plastic sheeting or tarps are permitted as a permanent part of the structure. They may be used during inclement weather as a temporary cover only when Midway is not open and as long as they are secured properly while in use and removed when the inclement weather ends.
- g. Fog machines or other devices that can produce the appearance of smoke are not permitted on the Spring Carnival Midway.

## 12. Paint

Organizations must use tarps for canvas while painting. No paint should be able to get on sidewalks or the parking lot.

## 13. Other Unsafe Conditions

The Committee, or a subcommittee appointed for the purpose, reserves the right to declare any condition, material, design, or activity to be unsafe at its sole discretion with support of the whole

committee. The Unsafe Conditions Committee will also review elements brought to their attention that are questioned to be unsafe. Organizations shall comply with all instructions given as a result.

Any member of the committee listed below can curtail and stop any unsafe conditions while the committee discusses. Where feasible, reasonable opportunities will be given to correct the problem or problems before the structure is closed permanently. No person may have any part of his/her body under or on any component that is not structurally supported. The committee will be comprised of the following people:

- a. Advisor of Spring Carnival Committee
- b. Chair(s) of Spring Carnival Committee
- c. Head(s) of Booth for Spring Carnival Committee
- d. Structural Oversight Faculty Member
- e. Fire Safety Manager, Environmental Health and Safety
- f. Director or Designee from Environmental Health and Safety

#### **14. Revisions**

Date	Documented Changes	Initials
08/26/2025	Created Doghouse Standards	PJZ & YMR (SCC)