

# A School Bus Stop

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## BUILDING TYPE

Throughout the Palouse of north Idaho and eastern Washington, small school bus stop shelters dot the landscape. These small structures are much needed during the harsh Winters. We chose this unique building type as a vehicle to study form in the landscape. Ultimately, the desired form and difficult site inspired unusual construction methods.

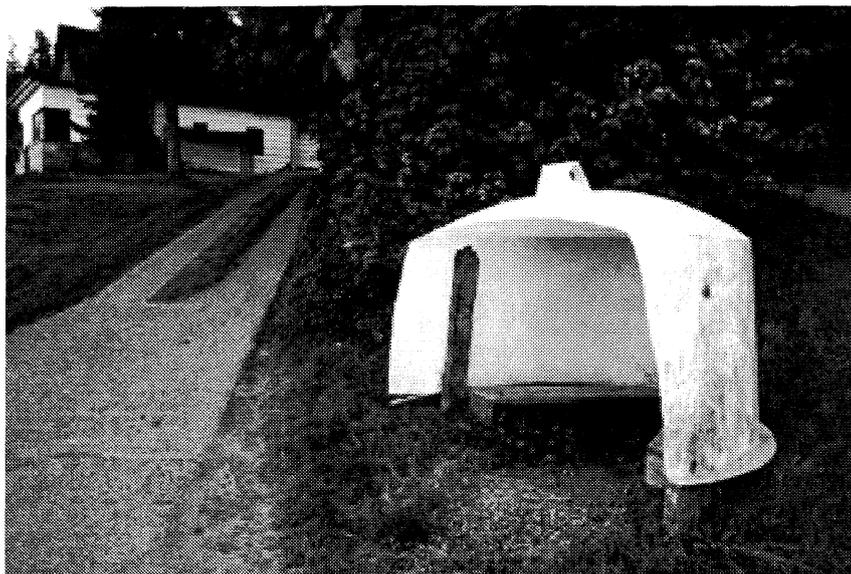
## SITE

The selected site - offering tremendous views south across the Palouse and to mountains beyond - is on the foot of Moscow Mountain north of Moscow, Idaho. The most appropriate site, to take advantage of the view and to ensure safe use, was a steeply sloped bank - 30 inches of slope over six feet of building depth.

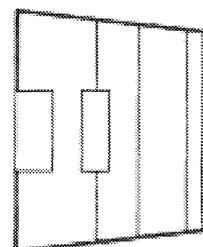
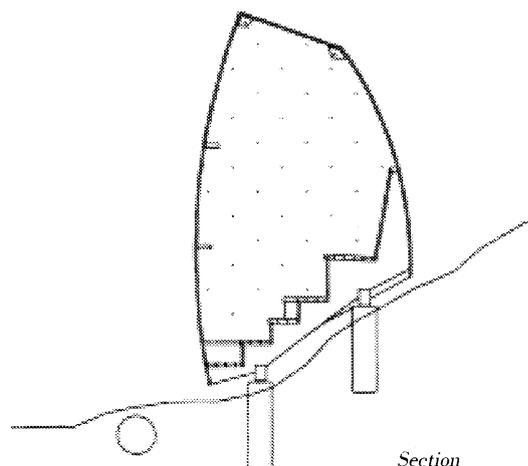
## FORM

The building is a bulging form that expresses its function as a shelter for children. Built using a  $\frac{3}{4}$  inch thick structural skin, the need for interior bracing is removed revealing the exterior in the interior and vice versa. This stressed skin allowed the exterior to be only  $1\frac{1}{2}$  inches larger than the interior.

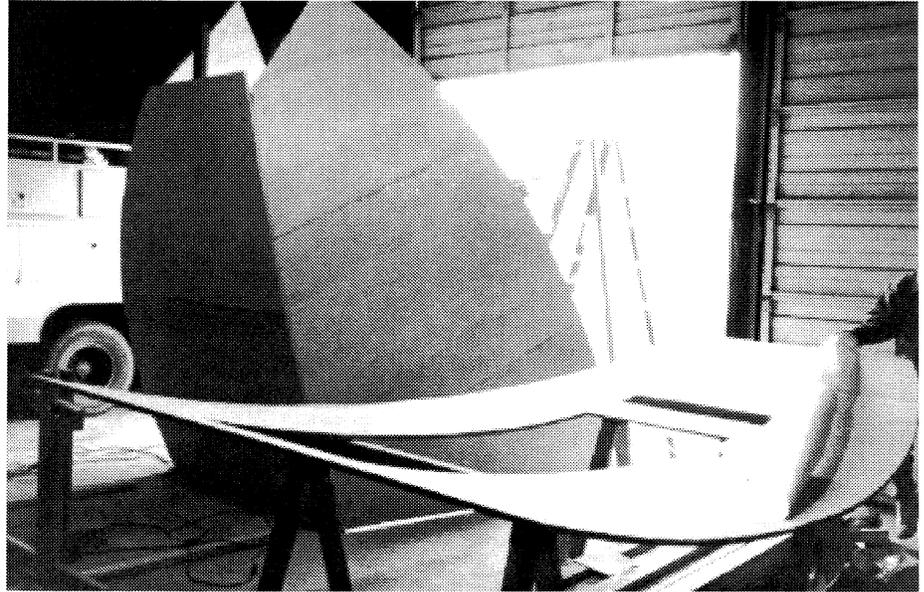
The site informs the building with its steep slope and spectacular views to and away from the site. The gaze across the Palouse is captured and the vista of the road toward the site is terminated.



*Precedent*



*Plan*



The slope inspired a seating arrangement similar to gymnasium bleachers. The open door - required to maintain view and safety - allows some snow and rain to enter the shelter. The stepped seating provides the dual benefit of lifting the users up the slope of the site and keeps a row of seats clear of snow and mud.

#### CONSTRUCTION

The idea of a pregnant shape was realized by fabricating bent plywood. Each side of the structure is cut from a single sheet of 8 x 12 foot curved plywood. The plywood was formed by gluing, screwing, and clamping three layers of ¼ inch plywood together in a radius mold. Each side was cut to the correct shape after tracing full scale patterns - enlarged from a small cardboard model - onto the pre-formed plywood. Eight steel brackets located in the far corners of the building were used to assemble and bend the walls to the finished shape. The top brackets hold the roof/ceiling in place. Seating was built with stringers spanning from front to back. The stringers rest on two beams attached to concrete pilings - leaving the enclosed skin to float above the ground.

