



Fostering the Land Ethic through the legacy of Aldo Leopold



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Building a Foundation



Wooden forms will hold the foundation footers



Aluminum forms mark where foundation walls will be



The crew pours concrete into aluminum wall forms

When LMS Construction began excavation of the site, we were all surprised to learn the accuracy of the term “Sand Counties.” To date, we have only found one large granite boulder, most likely a glacial erratic dropped there thousands of years ago. The pure sand has made excavation faster and easier, and can still be compacted enough to form an adequate building surface.

Wooden guides are laid out in the excavated area to create the shape and location of the foundation footers. All placement is measured from one tiny metal pin in the ground, the control point, ensuring a match of the exact specs from the architectural drawings.



Concrete is poured into the wooden forms

Once the footer forms are laid out, a concrete mixer comes on site. The wet concrete is poured down a trough into the wooden guides. The construction crew smooths out the poured concrete and places rebar poles into it at even intervals before it sets.



Leopold pine boards create a textured surface in the concrete

Aluminum forms are mounted together and assembled against the footer. The rebar sticking out of the footer will be inside of the poured wall and help to stabilize it. Wooden boards are attached to the inside of the forms.



Finished wall is sprayed with waterproofing and covered with insulation

When the concrete is poured into the forms it will dry against the boards and when they are removed, it will leave a textured pattern in the concrete. The boards used here are leftover slabs of Leopold pine that were not high enough quality to use as building material. Instead they will leave an impression of Leopold pine in the concrete wall.



Backhoe creates compacted soil surface for pouring floor

Once the wall is dry and the forms have been removed, the crew marks a chalk line on the wall to mark the level of the soil on the finished building. All of the foundation below that line will be directly exposed to ground moisture and therefore must be waterproofed to avoid seepage. A black waterproof coating is sprayed onto the walls. It is then covered with 1" thick pink insulation panels. Although the foundation does not need insulation for thermal purposes, this foam helps to protect the waterproofing from rocks or other sharp material in the soil that might gouge or puncture the coating.



Crew smooths concrete into floor

Once the foundation walls are finished, the inside of the foundation is back-filled with the excavated soil up to the desired floor level. The soil is compacted with a special flat head mounted on the arm of a backhoe. This creates a firm surface for the concrete floor. Concrete is then poured onto the compacted soil and raked out evenly by the crew. They then smooth it into the flat interior floor of the building



This completed sub floor will be under the finished wood floor in the meeting hall in the new Legacy Center

Building design by:
The Kubala Washatko Architects
Cedarburg, WI

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LMS Construction
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