

Plan for New Bee Lab at the University of Minnesota

Bees play a keystone role in the productivity of American agriculture through the pollination of fruits, vegetables, nuts, and seeds. Habitat destruction, pesticides, bee diseases and parasites and the new mysterious Colony Collapse Disorder have created a honey bee crisis. Our native bees are also declining due to unprecedented habitat loss, pesticide threats and their own introduced diseases. You can help bees by supporting our efforts to keep bees healthy and on their own six feet.

The Department of Entomology has maintained an internationally recognized research and outreach program on honey bees since 1918 and currently provides the only program in a five state area (MN, WI, IA, ND and SD), the top honey-producing region in the US. Dr. Marla Spivak, Distinguished McKnight Professor, runs the University's Bee Lab, with excellent technical support of Mr. Gary Reuter. The goal of the Bee Lab's research is to promote the health of bee pollinators. Current federally funded research projects include studies on factors causing Colony Collapse Disorder, breeding bees for resistance to diseases and parasites, and discovering the benefits of propolis (bee-collected plant resins) to bee and human health.

The University's current Bee Lab facilities are outdated and inadequate to accommodate basic requirements for research and are physically separated across the University's St. Paul Campus. We have plans to construct a new Bee Lab on the St Paul Campus to consolidate this important program.

This unique Bee Lab will combine a state-of-the-art research lab with a teaching space for the public to experience bees on a beautiful and safe rooftop setting. The new facility will serve as an interface between rural and urban agriculture, and between the public and the University of Minnesota.

We invite you to join our effort to help bees!

Financial contributions can be made directly to:

On line - www.extension.umn.edu/honeybees.

By mail - University of Minnesota Foundation
Fund #7168 Bee Center
C-M 3854
P.O. Box 70870
Saint Paul, MN 55170-3854



Program Analysis

Findings from the study of bees serve as indicators for many environmental issues such as global warming. Working with University of Minnesota bee researchers, DLR Group quickly realized the importance of supporting this research with a design that would best provide for lab experiments, observation of bees and extraction of honey.

In addition, while brainstorming with University planning, interpretive and fund raising groups, it became evident that designing an exciting interface between research and public spaces could greatly stimulate public awareness and also maximize fund raising efforts.

The lab facilities within the research component will be a quality research and learning environment that will facilitate further accomplishments by nationally recognized research staff at the University of Minnesota.

Conceptually, the public component of the design represents an abstraction of a bee hive within a natural setting. “The Hive”, as an interpretive center space for the greater community, advertises the research within the building. A transparent image of bees in a honeycomb is back-lit and laminated to the expanse of glass at the entry. This allow for the lobby to appear as a glowing honeycomb beacon at night. Once, inside the Lobby, there are interactive displays, video monitors and views into the Honey Extraction Room - all of these features are a means of engaging people in the fascinating world of bees and bee research. Open for a variety of educational, social and environmental events, the interpretive center activities are planned to be coordinated between the Bee Research Facility and the Bell Museum of Natural History.

The building’s exterior massing includes the metal panel “Hive”, vine-covered cast stone walls and tree planters that engage the greater site, a pre-cast concrete “Research Box”, and Rooftop Garden Apiary. This material selection allows the Bee Research Facility to relate to both its immediate neighbor - the Bell Museum of Natural History, and to the nearby Saint Paul campus fabric.

There are also opportunities for visiting research events, seminars, classes and outreach programs to take place in this facility. The Public Lobby will be used for engaging the public in bee research and will also serve as a multi-use space. From an Upper Lobby, visitors can view the adjacent Bell Museum of Natural History, as well as watch the researchers interact with bees on the Rooftop Garden Apiary.

DESIGN GOALS:

- Connect to the Site (Site Design should integrate building, landscape and adjacent Bell Museum/nature walk)
- Express a Tripartite Relationship (public front piece - “The Hive”, functional “Research Box” and Rooftop Garden Apiary)
- Balance the Interface Between Private Research and Public Awareness
- Showcase the Prominent Research Within
- Maximize the treatment of Sustainable Features as Design Elements
- Provide for Short-Term Flexibility and Long-Term Adaptability



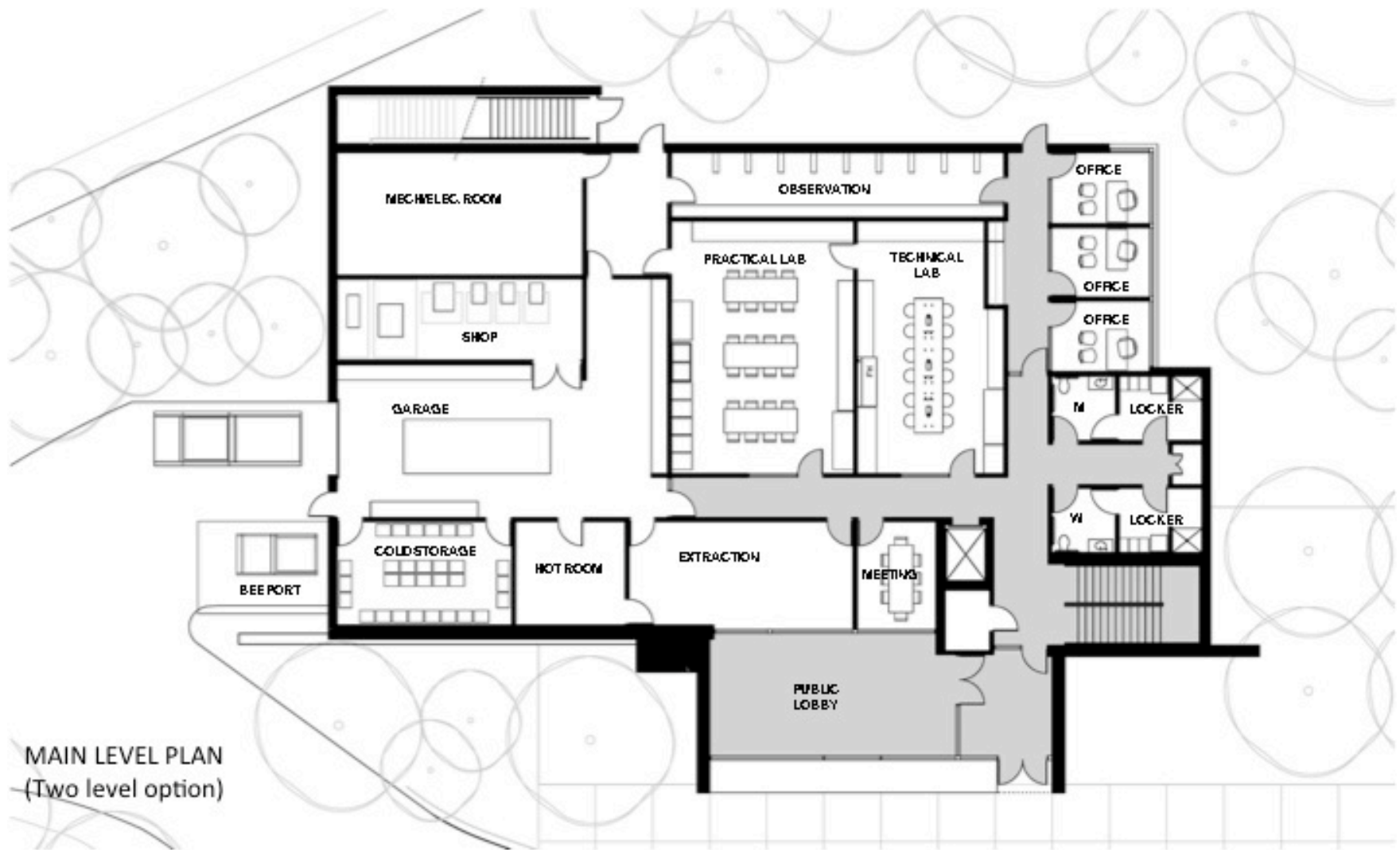
PERSPECTIVE – Two Level Option



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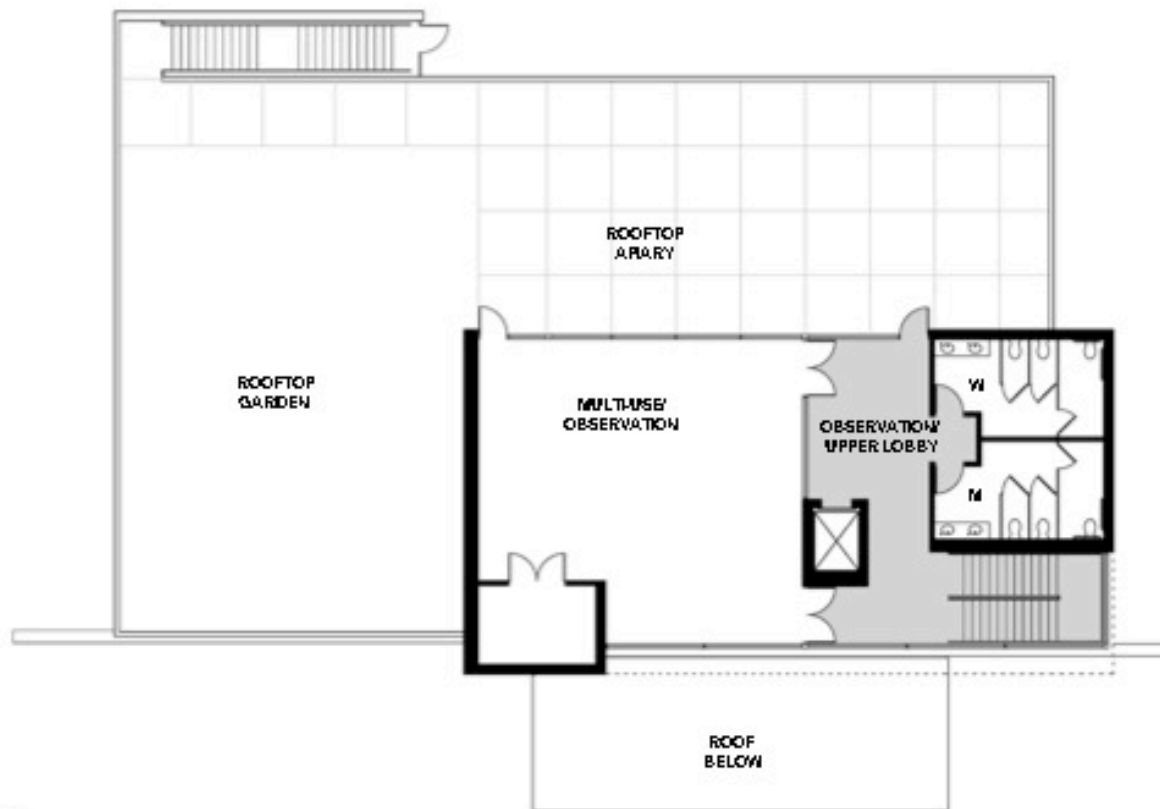
BEE RESEARCH FACILITY

 DLR Group



MAIN LEVEL PLAN
(Two level option)





UPPER LEVEL PLAN
(Two level option)



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BEE RESEARCH FACILITY



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