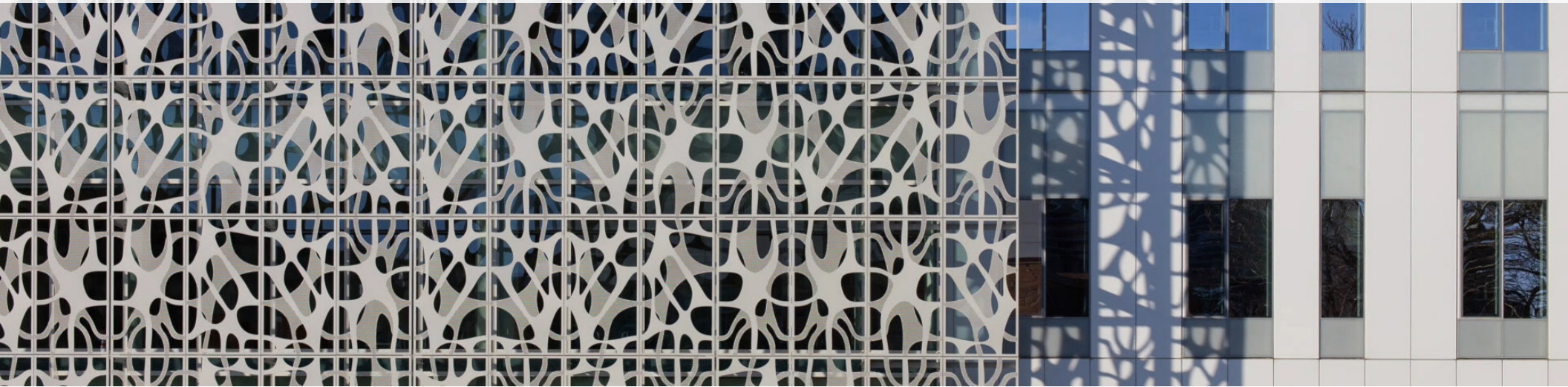


# University of Pennsylvania Stephen A. Levin Building for Neural and Behavioral Sciences

Philadelphia, Pennsylvania

Project Category: Institutional Architecture



**SITE:** The project is sited at the west edge of the University of Pennsylvania campus between numerous historic and recent campus buildings, a revered botanical garden, a busy intersection, and the west Philadelphia neighborhood. In the existing condition, decades-old 'temporary' buildings dotted the site with haphazard paved areas and unplanned plantings. A high overgrown berm separated the neighborhood sidewalk from the site, a condition both uninviting and impenetrable.

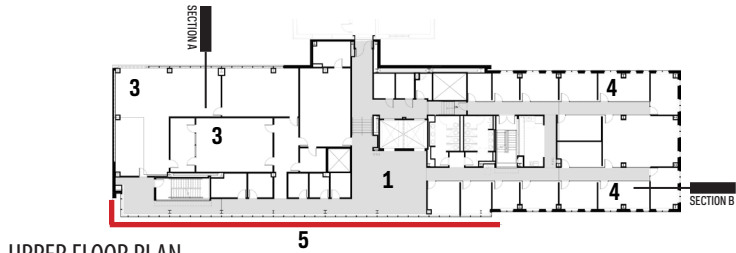
**PROGRAM:** Seeking to create greater integration of the study of genes, the brain and behavior, the University of Pennsylvania desired to bring together their psychology, biology and behavioral sciences programs into a common facility. Specifically, the program includes dry labs, wet teaching labs, a 180-seat auditorium, a team teaching space, Principal investigator/graduate student/post doc offices, and student study and collaborative space. The University envisioned the new building as an iconic center for a new life sciences precinct, as well as a connection to the previously shielded botanical garden and disconnected adjacent neighborhood.

**SOLUTION:** The University's master plan anticipated that the new building would be sited parallel to the street. Instead, the building is designed perpendicular to the street in order to free up open space to the south. This allows for the creation a new life sciences quad, a multi-use open green

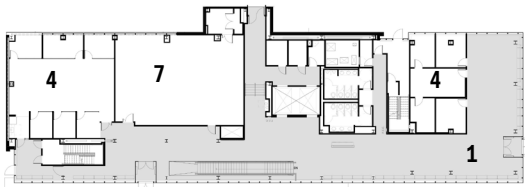
space, reinforcing interaction between the academic community and urban community to the west. The building bar form is divided into functional overlapping volumes. A green copper-clad volume contains the laboratory spaces and addresses the public street. A pure white glass-and-metal volume contains faculty offices and gently cantilevers into the garden, minimizing foundations in order to protect the roots of existing mature trees. The green copper, white metal, and glass were chosen to allow the building to act as a point of welcome relief between the neighboring dark brick buildings. South-facing corridors and collaboration spaces feature floor-to-ceiling windows protected by a distinctive sunscreen that conceptually connects the garden to the street, providing a sculptural backdrop to the activities in the new life sciences quad. The sunscreen reduces heat load and glare, yet allows for expansive views from the interior. The building interior features generous daylit spaces for students and faculty to socialize and exchange ideas. While the nearby buildings are configured with largely opaque façades, the Levin Building's ground floor lobby faces, and is immersed in, the adjacent garden. In total, the Levin Building and its site stimulate and reinforce numerous connections—between University and neighborhood, students and faculty, multiple buildings and programs, biology and psychology, and building and nature, creating an inspiring, state-of-the-art environment for the next generation of teaching and research.



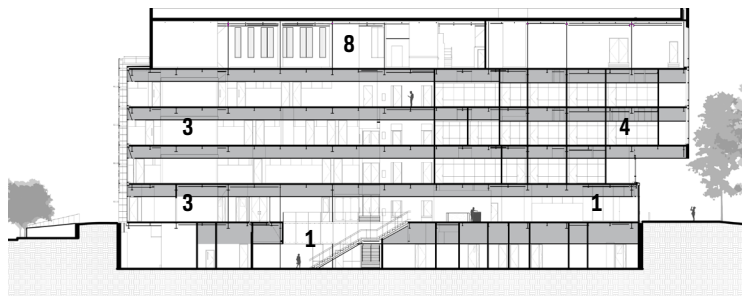
View from the south. The Levin Building is an iconic backdrop to the new life sciences quad. The building, paired with the new open space, defines a new life sciences precinct for the campus.



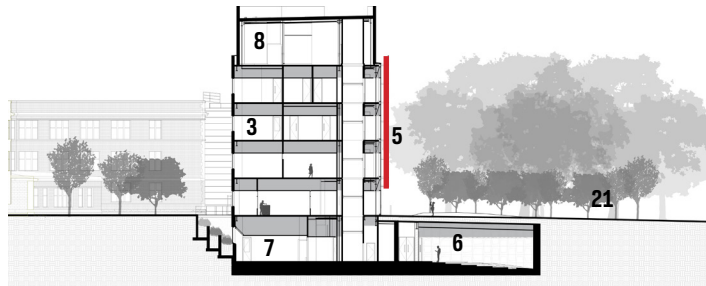
UPPER FLOOR PLAN



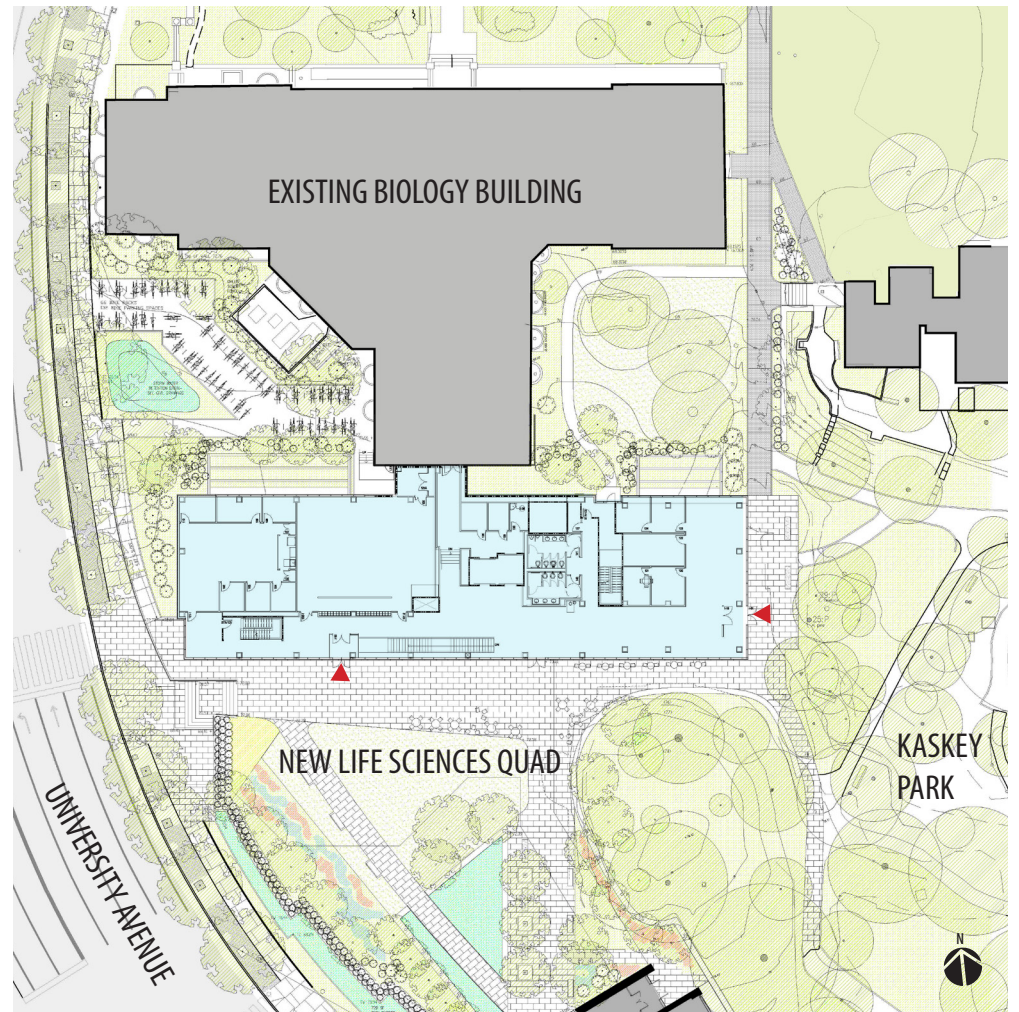
GROUND FLOOR PLAN



SECTION B



SECTION A



SITE PLAN

- KEY**
- 1 CIRCULATION/ COLLABORATION
  - 3 LAB BLOCK
  - 4 OFFICES
  - 5 SUNSCREEN
  - 6 AUDITORIUM
  - 7 CLASSROOM

# Building Plans and Sections



View from northwest. The copper lab volume contrasts well with Leidy Labs. The windows become larger on the north side where the lab workrooms are located.

What was once an overgrown embankment is now a welcoming gateway into the west edge of campus.



View from Hamilton Walk. The building's east cantilever allowed foundation elements to be pushed back in order to protect the nearby tree roots.

The east cantilever forms a porch welcoming students and faculty into the building.

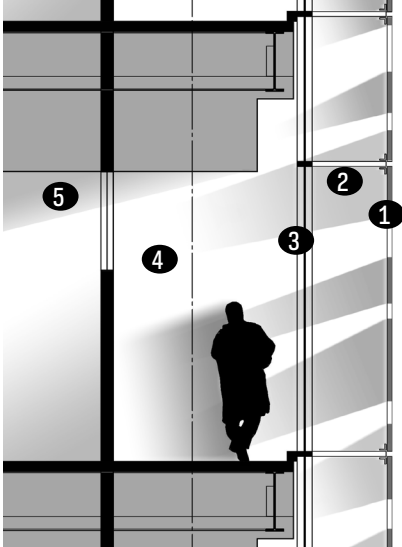


In contrast to the adjacent brick campus buildings, the Levin Building features a transparent ground floor that connects the interior to the adjacent botanical garden.



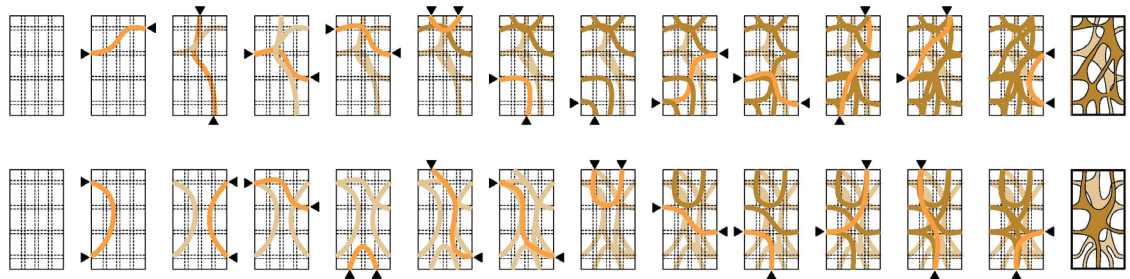
A below grade auditorium features gently warped panels that are edge-lit to softly emphasize their geometry.

The stair to the lower level is open and bright. The perforated wood ceiling is designed to become brighter at circulation intensive areas of the building.

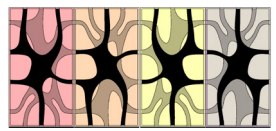


Section through sunscren

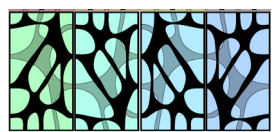
- 1 1/4" ALUMINUM SUNSCREEN (CUT AND PERFORATED)
- 2 GAP FOR WINDOW WASHING
- 3 GLASS CURTAINWALL
- 4 CORRIDOR TO ACCESS LABS
- 5 CLERESTORY FOR BORROWED LIGHT



The buildup and layering of connections on a grid allow the panels to connect to each other in any orientation (dark is solid, light is perforated).



Panel type 'A', four possible positions (mirrored vertically, horizontally, and both)



Panel type 'B', four possible positions (mirrored vertically, horizontally, and both)



Upper level elevator lobbies double as collaboration space. Writable glass walls provide a medium for reflection. Furniture can be arranged to suit the discussion.



The sunscren's shadow and reflections animate the lab corridors throughout the day.





At night the sunscreen's figure-ground reverses exposing the warm glow of activity within the building.