

PROJECT TITLE

# The Assembly

LOCATION

Pittsburgh, PA

DATE OF COMPLETION

2022

CATEGORY

Historic Resources

## Project Statement

When it opened in 1915, Pittsburgh’s Ford Motor Plant was one of 31 identical structures across the country where Model Ts were assembled, sold, and serviced. Today the Plant has been adapted and expanded into The Assembly—a 524,366 SF LEED Gold life sciences hub that contains all the pieces of a typical innovation district within one city block: biomedical research labs, leasable workspace for entrepreneurs, parking, collaboration spaces, an auditorium, and retail. The success of this project lies in its balance of great creativity and restraint, with original industrial spaces reimaged for novel uses. The plant’s vertical crane shed now serves as a collaborative atrium, and former factory floors support life-saving biomedical discoveries. On the exterior, The Assembly’s new addition brings vitality to the neighborhood—its crisp form, dramatic entry, and terracotta cladding offer a distinct counterpoint to the Ford Plant while establishing identity for the innovation program within.

## Design Narrative

**How does this project address Design for Integration, Wellbeing, and Discovery?**

**INTEGRATION** / By repurposing an industrial relic into a hub for biomedical research, The Assembly transformed an underutilized structure into a catalyst for adjacent Pittsburgh neighborhoods. In doing so, the project achieved triple bottom line solutions: returning economic activity to a dormant site, reducing carbon emissions through building reuse, and bringing vitality to surrounding communities.

**WELL-BEING** / True to its innovation mission, The Assembly is designed to facilitate human connection, with generous amenities dedicated to collaboration, gathering, and knowledge sharing. The crane shed—naturally daylit, furnished with comfortable lounge seating, and vertically connected via an irresistible stair—embodies The Assembly’s emphasis on physiological and social well-being.

**DISCOVERY** / The Assembly invites a sense of discovery by celebrating the plant’s history. The design exercised great restraint, prioritizing respectful interventions, and preserving the building’s original character. Ford artifacts and supersized historic photos are featured throughout public spaces, connecting occupants to the plant’s legacy.

## Community Engagement

**How does this project address Design for Equitable Communities and Economy?**

**EQUITABLE COMMUNITIES** / The Assembly is an extroverted development that prioritizes urban placemaking, community-serving retail, and intellectual collisions. Through its adjacency to research collaborators at UPMC and Hillman Cancer Institute, The Assembly supports a new knowledge community and encourages connections between scientists, private industry, and the community. Public engagement throughout the design process resulted in a solution that more positively contributes to surrounding Bloomfield and Shadyside neighborhoods. Community feedback directly influenced the final approach to streetscape, vehicular and bicycle parking, and site access.

**ECONOMY** / As a developer-led project, The Assembly was driven with a rigor around cost and efficiency. An innovative approach to financing allowed the team to unlock \$20 million in historic tax credits, making an otherwise prohibitive project viable. To meet a fast-track schedule while circumventing a tight labor market, the existing Ford Building’s new penthouse was prefabricated while the new addition’s terracotta cladding was embedded in precast.

## Sustainability and Resilience

**How does this project address Design for Ecosystems, Water, Energy, Resources, and Change?**

**RESOURCES** / The most sustainable building is that which already exists, and the Ford Plant’s rehabilitation preserved an existing structure while drastically reducing the carbon emissions associated with all-new construction. A study is underway to measure The Assembly’s actual embodied carbon savings.

**CHANGE** / The reimagining of a 100-year-old derelict factory into a biomedical research hub demonstrates the ability of unlikely structures to be adapted for tomorrow’s economy. The renewed Assembly maximizes its adaptability for future change with a flexible laboratory lab that has already proven successful in enabling a last-minute change in user groups moving in.

**WATER** / The project reduced potable water use by 21.68% for core and shell (tracking closer to 40% for TI) and employs water-efficient landscaping and a green roof, mitigating stormwater runoff.

**ENERGY** / The Assembly achieved energy cost savings of 18.6% for core and shell and is designed to meet a higher efficiency with tenant improvements.

## JURY CITATION CHECKLIST

X	Design for Integration
	Design for Wellbeing
	Design for Discovery
	Design for Equitable Communities
	Design for Economy
X	Design for Resources
X	Design for Change
	Design for Ecosystems
	Design for Water
	Design for Energy

# The Assembly

Wexford Science + Technology / University of Pittsburgh

AIA | DC Chapter  
Design Awards



# From Model T to Modern Medicine

When Henry Ford introduced the Model T in 1908, it changed the world—transforming manufacturing, revolutionizing mobility, and accelerating the United States into modernity. Once a bustling center of activity, Pittsburgh's Historic Ford Motor Plant was one of 31 across the country where Model Ts were mass assembled, sold out of a showroom, and subsequently serviced all in one building. As with much of America's stock of industrial

architecture, the plant stopped producing cars by midcentury. Meanwhile, the surrounding Bloomfield neighborhood has continued to evolve as University of Pittsburgh Medical Center (UPMC) and the Hillman Cancer Center moved in, inspiring new interest in the underutilized structure.



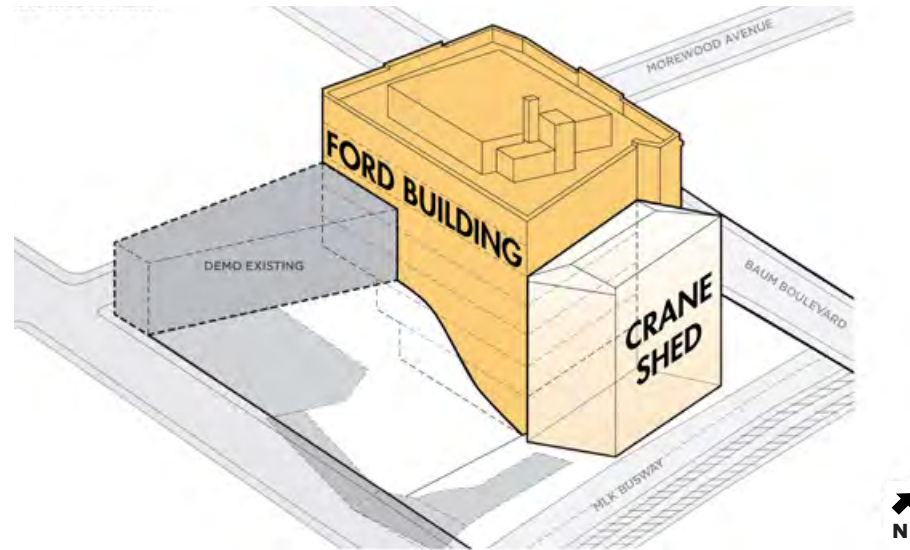
The plant's **Northwest Corner** housed a prominent retail showroom advertising newly minted Model Ts fresh off the assembly line.



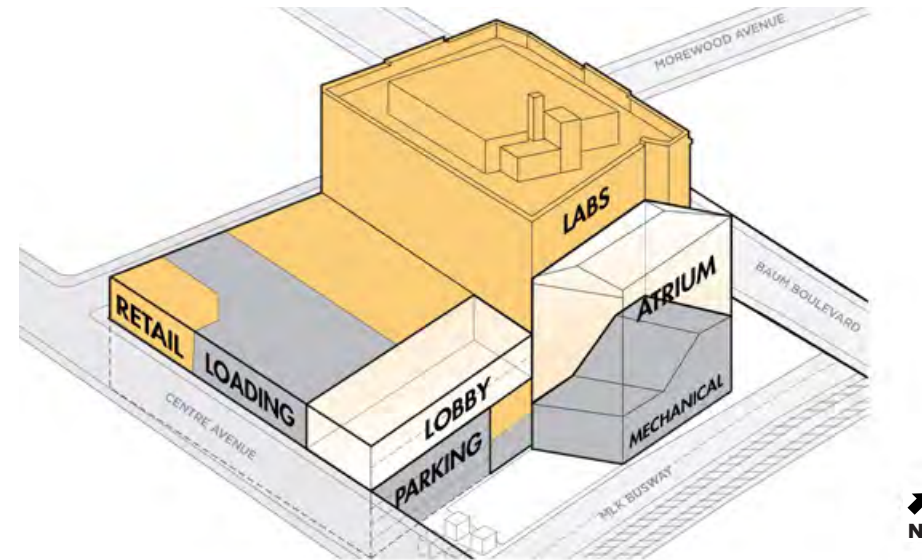
A **vertical crane shed** was strategically sited adjacent to railroad tracks, enabling the convenient offloading of auto parts.

# Project Phasing

## Existing Condition

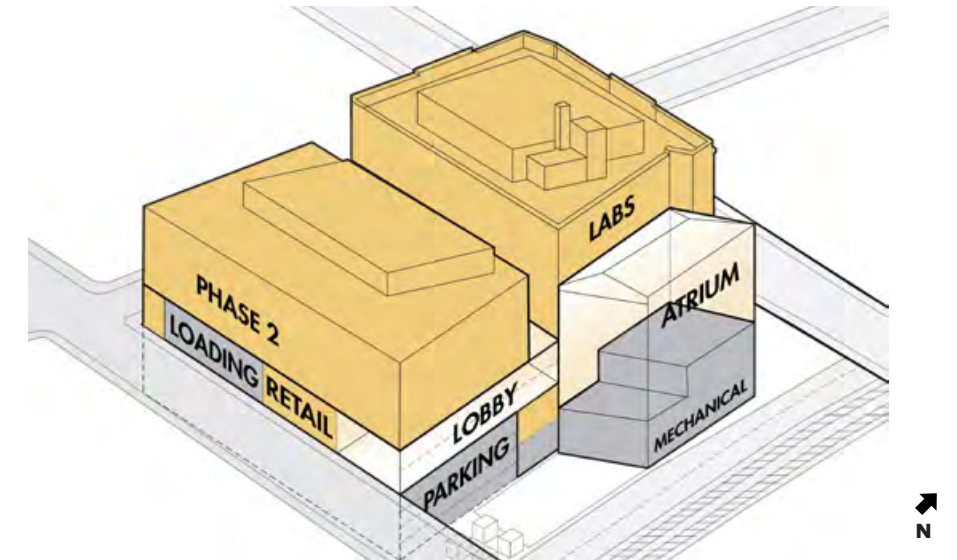


## Phase 1



Phase 1 initiated the renovation of the Ford Plant into research labs for University of Pittsburgh and the transformation of the Crane Shed into a collaborative atrium. The new addition's podium was built, establishing parking, retail, loading, and a lobby connecting new and old structures.

## Phase 2



In Phase 2, renovations to the Ford Plant and Crane Shed were finalized, and the new addition's podium was topped with three levels of shelled leasable lab / workplace for private industry and entrepreneurs.

Before



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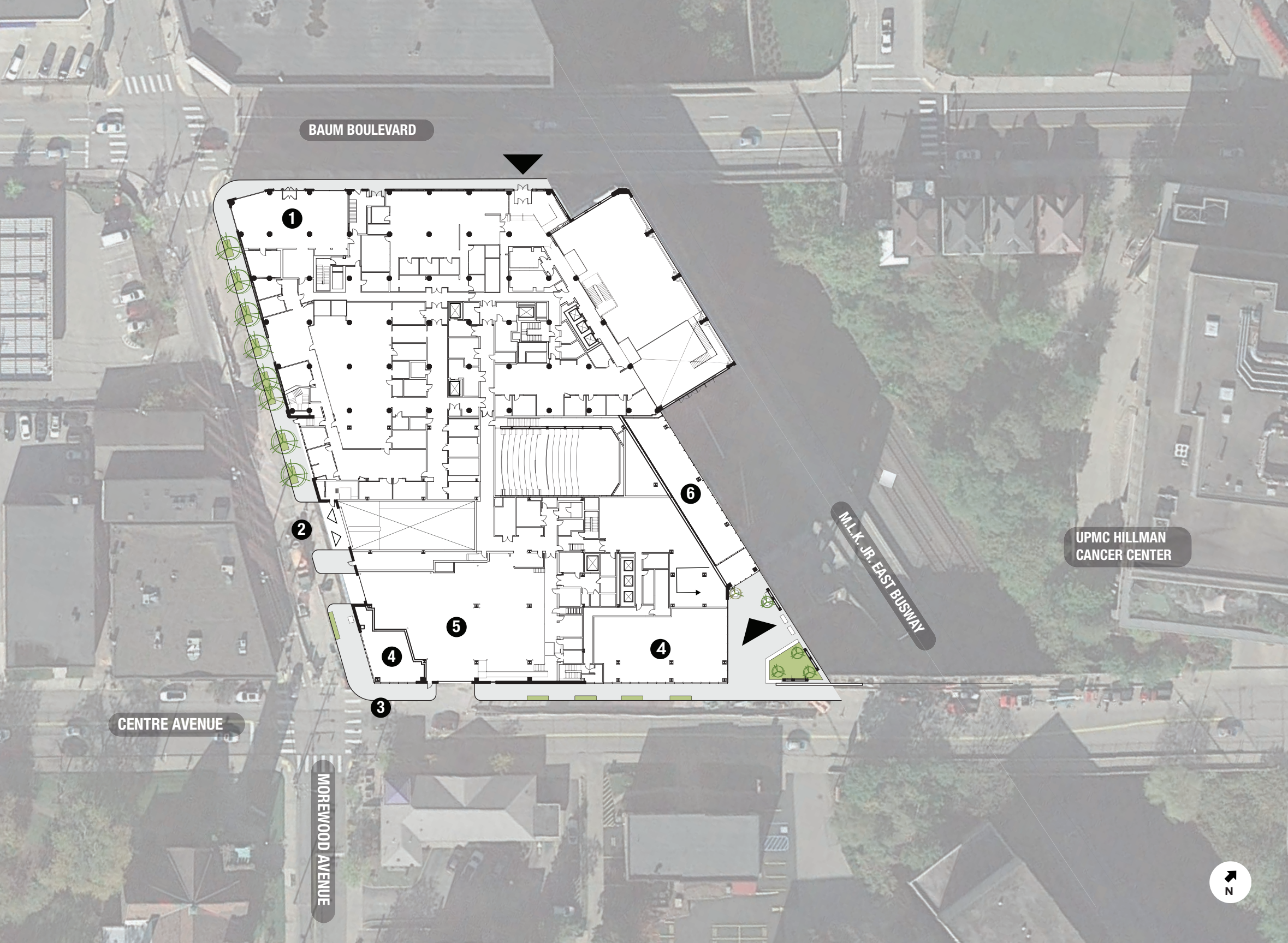
Much like Ford's vision for an all-in-one building, the transformed and expanded plant assembles all the pieces of a typical innovation district within one city block.

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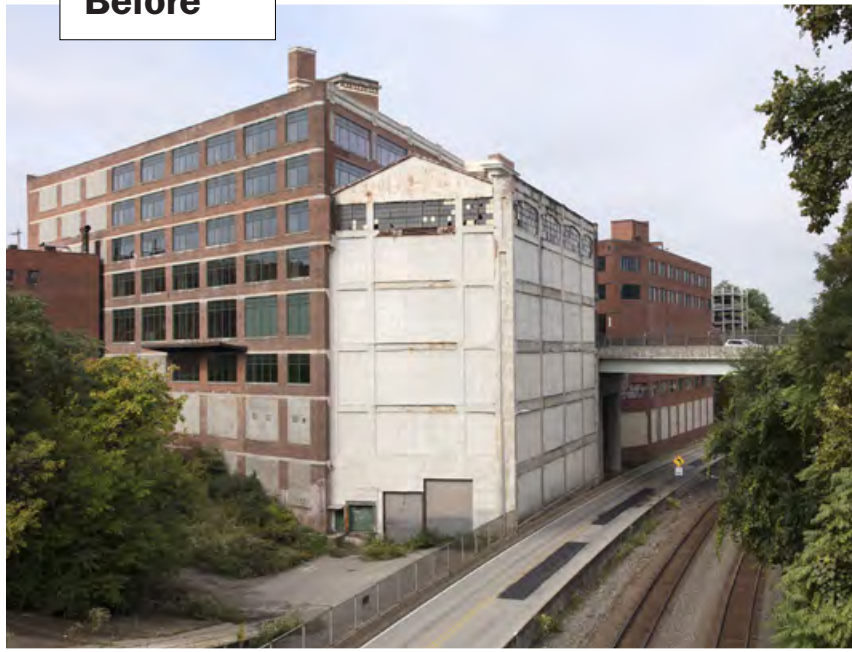
# Site Context

The Ford Plant's proximity to research collaborators at University of Pittsburgh Medical Center and the Hillman Cancer Institute attracted the attention of University of Pittsburgh, who sought proximity to its research collaborators.

- ① HISTORIC SHOWROOM
- ② PARKING ENTRANCE
- ③ BUS STOP
- ④ RETAIL
- ⑤ LOADING DOCK
- ⑥ LOBBY



**Before**



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The new addition's articulated corner along Centre Avenue marks The Assembly's southern entry. A planned future restaurant will further activate the street, bringing a vital amenity to adjacent communities.

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*View northwest from Centre Avenue*

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Clad in precast terracotta, the new addition complements the brick plant in materiality, form, and industrial character while remaining architecturally distinct.

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*View southeast from Morewood Avenue*

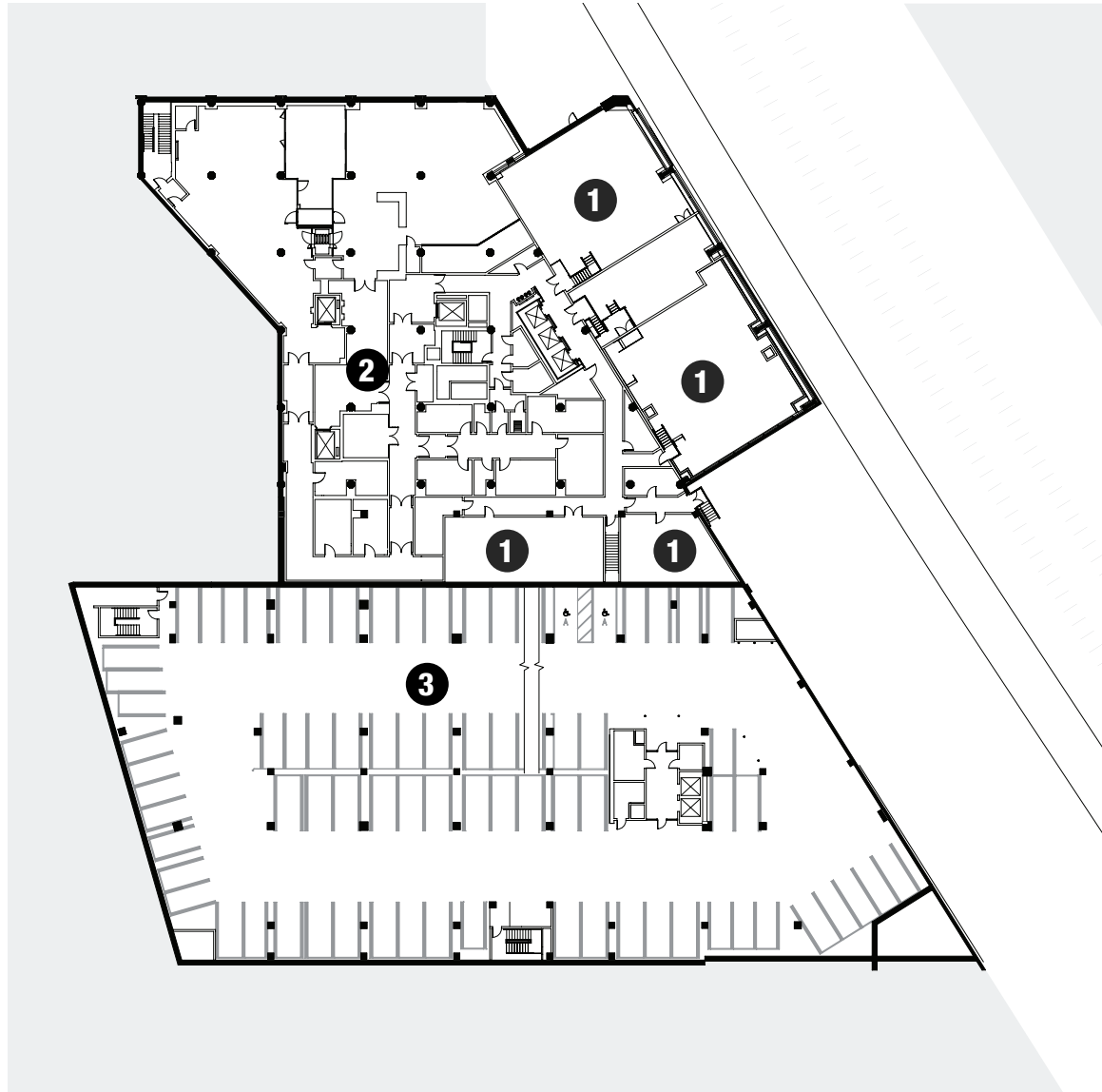


View southeast from Baum Boulevard



# Floor Plans

Level B2



- 1 MECHANICAL
- 2 RESEARCH
- 3 PARKING

Level B1

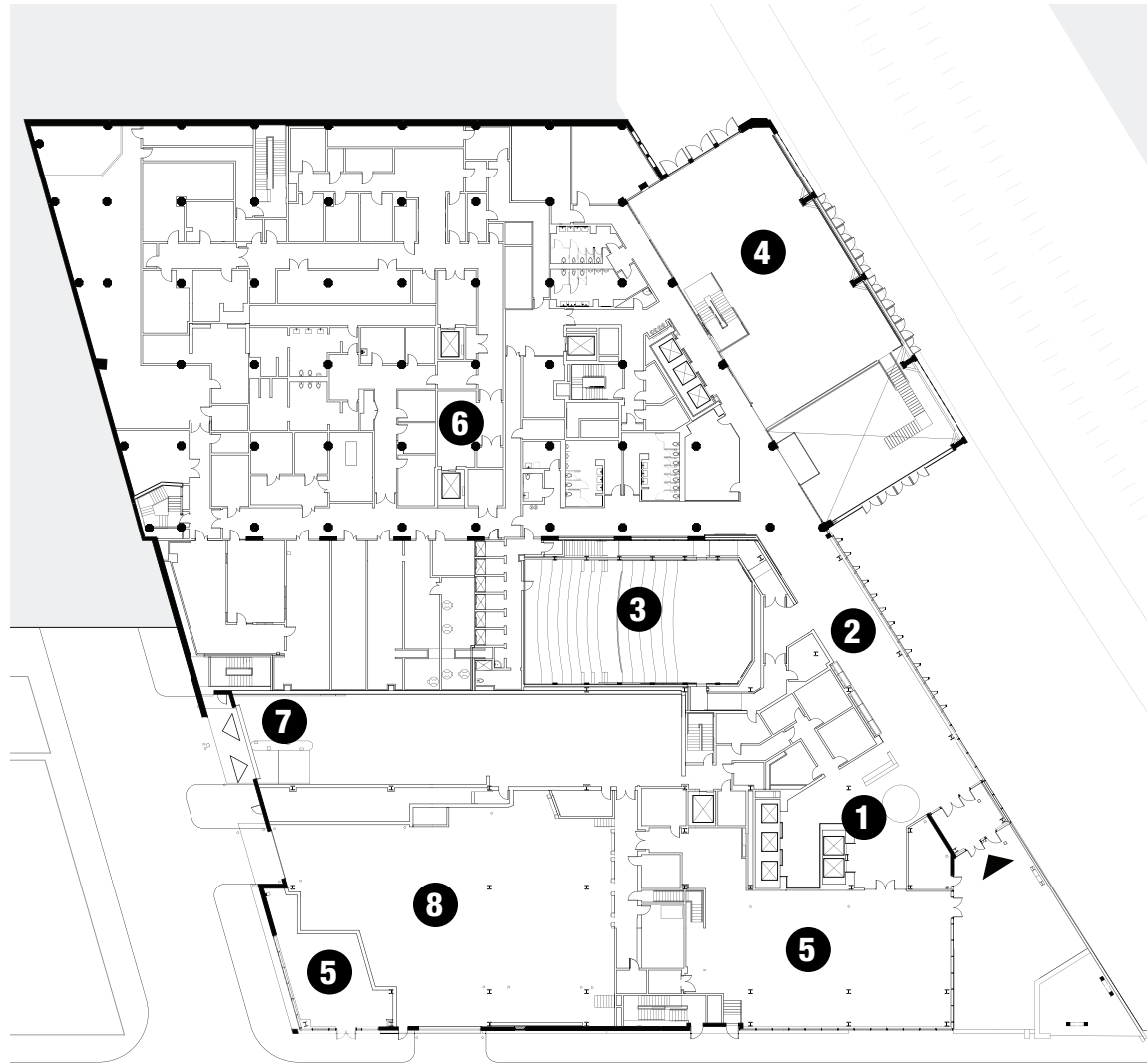


- 1 ATRIUM
- 2 COLLABORATION
- 3 MECHANICAL
- 4 RESEARCH
- 5 PARKING



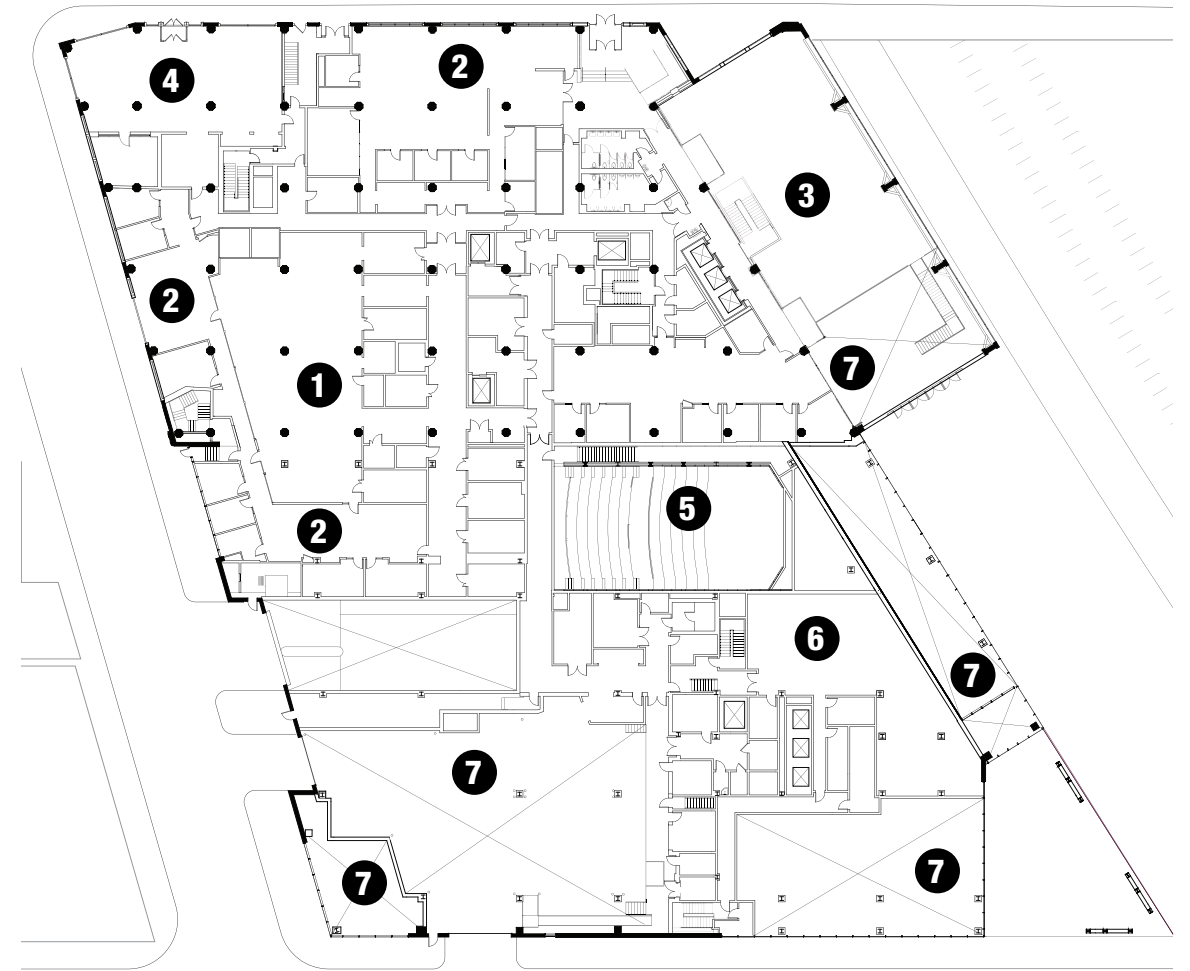
# Floor Plans

Level G



- 1 RECEPTION
- 2 LOBBY
- 3 AUDITORIUM
- 4 ATRIUM
- 5 RETAIL
- 6 RESEARCH
- 7 PARKING ENTRANCE
- 8 LOADING

Level 1

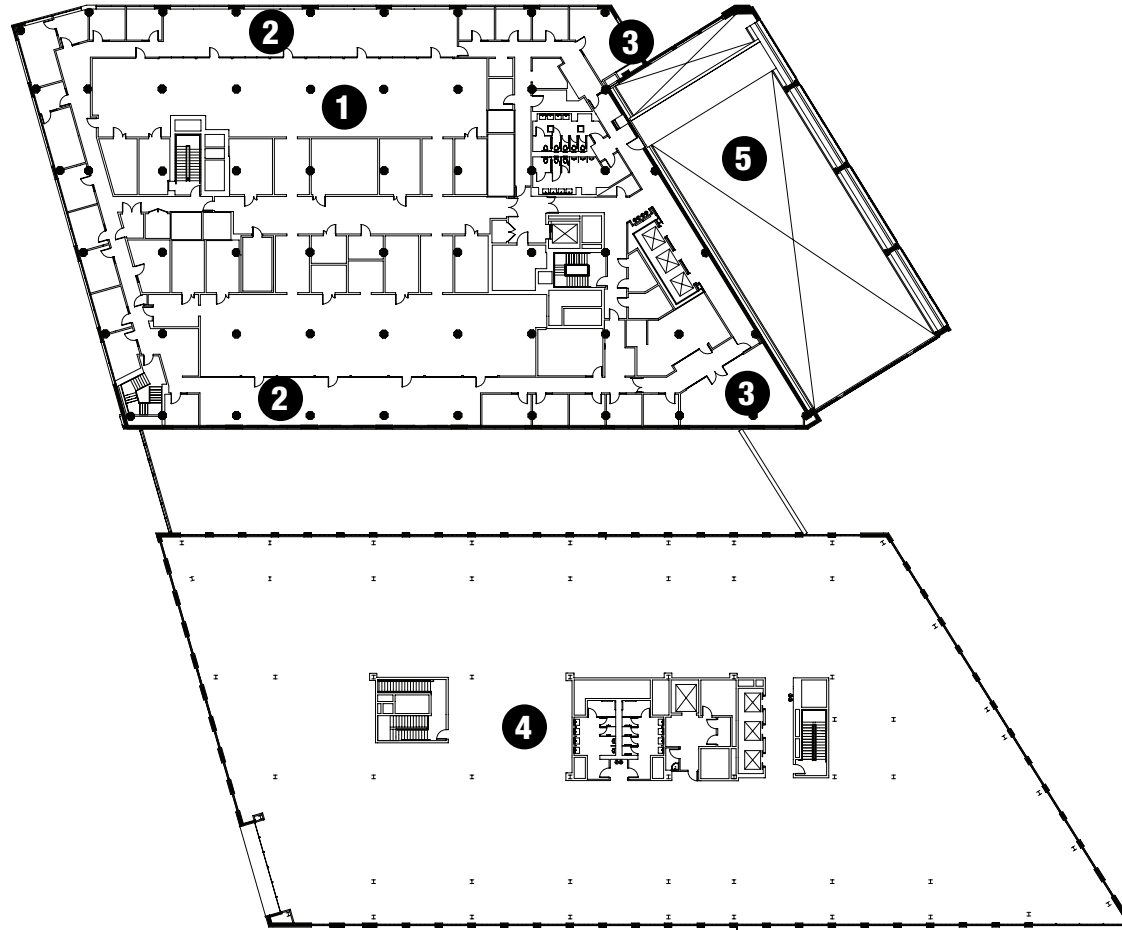


- 1 RESEARCH
- 2 OPEN OFFICE
- 3 ATRIUM
- 4 RETAIL / HISTORIC SHOWROOM
- 5 AUDITORIUM
- 6 MECHANICAL
- 7 OPEN TO BELOW



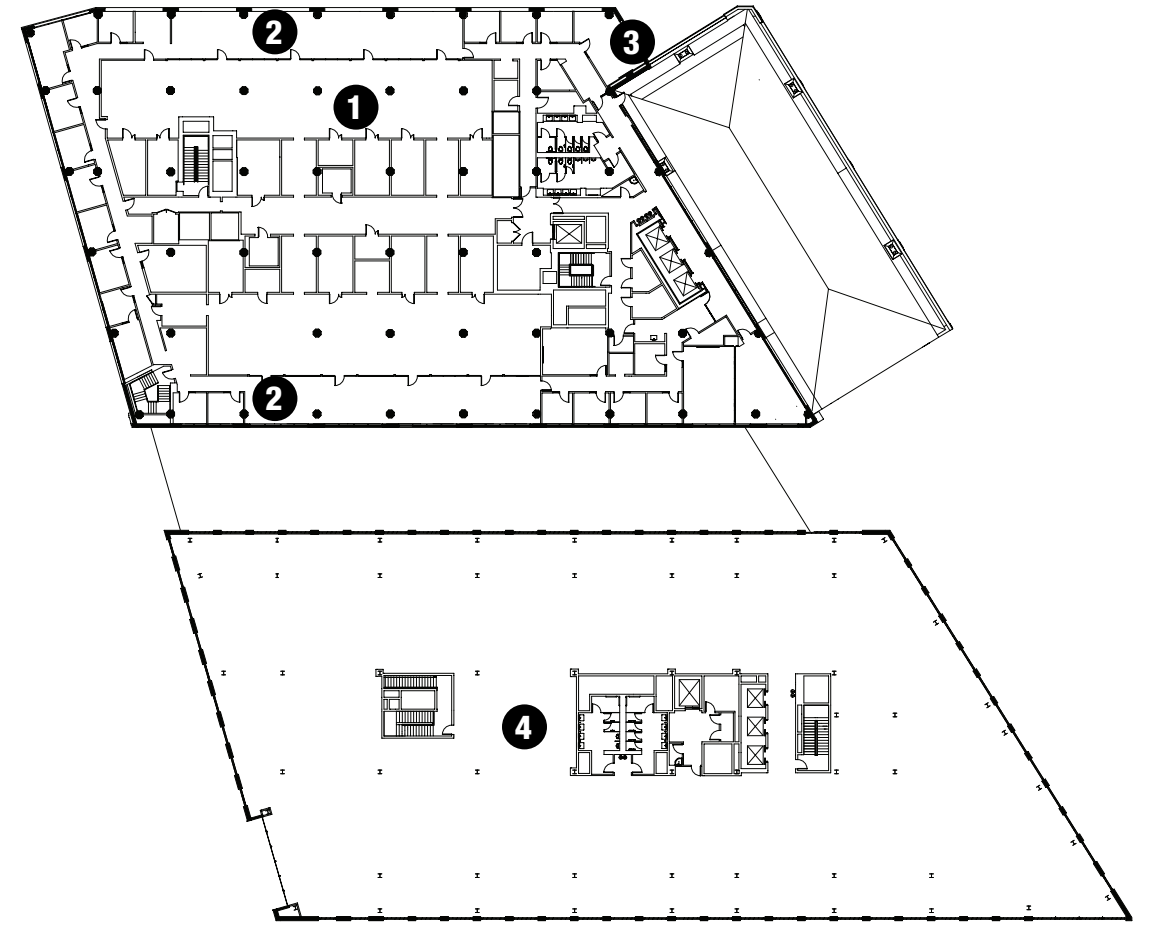
# Floor Plans

## Typical Floor



- 1 RESEARCH
- 2 OPEN OFFICE
- 3 COLLABORATION
- 4 TENANT FIT-OUT
- 5 OPEN TO ATRIUM BELOW

## Level 5



- 1 RESEARCH
- 2 OPEN OFFICE
- 3 COLLABORATION
- 4 TENANT FIT-OUT



# Connecting People & Ideas

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A new entryway along Centre Avenue welcomes users into a warm and colorful lobby that connects the new addition with the rehabilitated Ford Plant.

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*Centre Avenue Lobby*

Centre Avenue Lobby



Auditorium



Shared Conference Amenity

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The ground- and first-floor circulation spine links north and south building entries with more than 25,000 SF of shared amenities: interaction areas, an auditorium, and the collaborative crane shed.

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**Before**



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Shipped by rail, Model T kits were offloaded in the crane shed prior to assembly. Today the iconic space serves as a light-filled atrium where scientists and research partners can collaborate.

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*Crane Shed*

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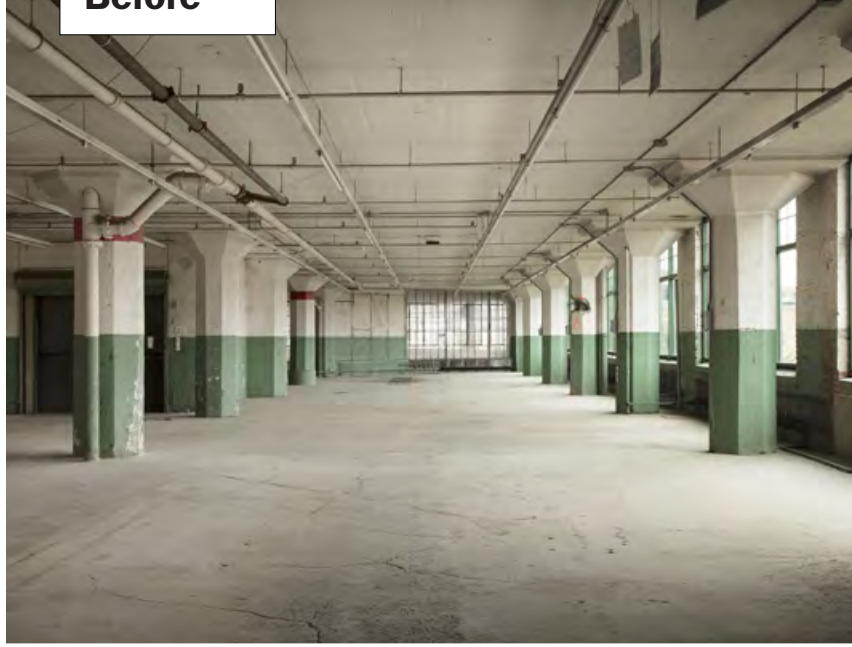
Cantilevered vertical platforms once served as landing points for auto parts hoisted to upper-level assembly floors. Today, scientists looking for reprieve from the lab bench can find solace in these semi-enclosed nooks overlooking the crane shed's bustling activity.

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**Before**



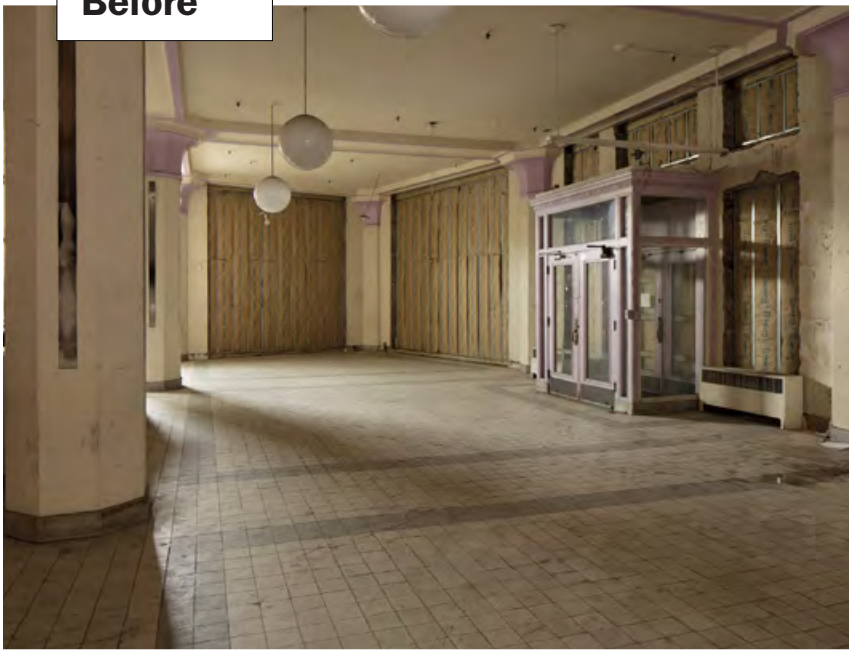
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Upper-level assembly floors now house biomedical research laboratories. With perimeter offices and write-up stations ringing central labs, the planning solution allows natural daylighting and transparency between work environments.

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**Before**



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The transformation of the Model T showroom into market retail preserves original architectural elements, from the octagonal columns to the showroom windows, infusing the space with authenticity and character.

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*Baum Boulevard Lobby*



*Centre Avenue Lobby*

**Supersized historic photos of the Ford plant and other building artifacts are prominently featured throughout the public spaces prompting moments of discovery and inviting users to experience its history.**