



South Perspective



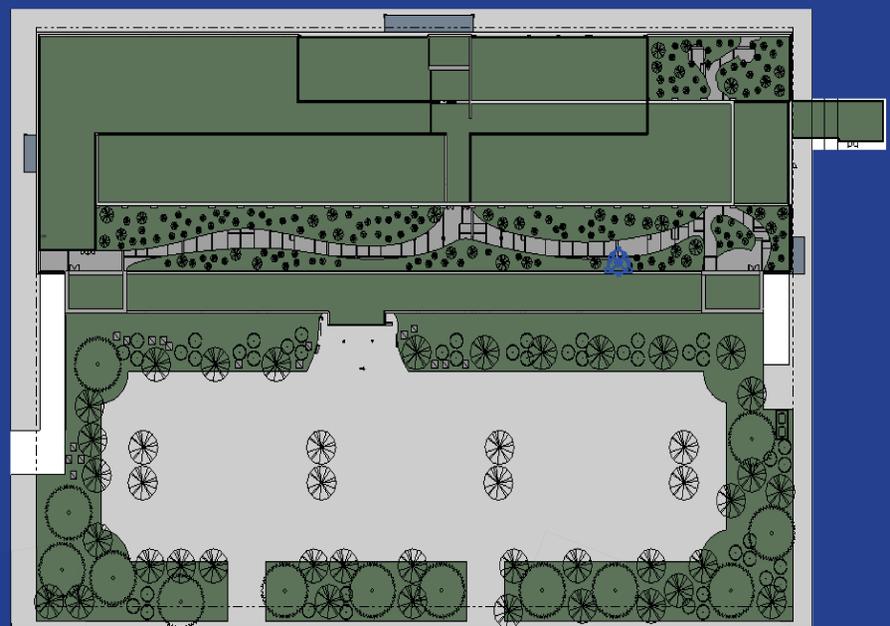
North - West Perspective



North - East Perspective



Roof view looking down to 1st floor through light tower



Site with vegetation, green roof and parking



Site with Adjacent East and West lots

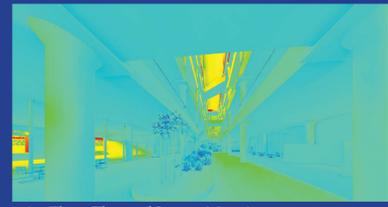
The two adjacent sites to the east and west of the building site have been incorporated into the overall and future site design. These sites will add additional parking as the building and site become more popular. The sites also contain community gardens for the building occupants and the surrounding neighborhood. The east lot will also have outdoor spaces for the daycare and pets. These two sites show the future expansion of the building site into the surrounding community and the positive impact renewing an industrial site can have on the neighborhood.



Summer Solstice, 8am



Winter Solstice, 8am



1st Floor Thermal Image Morning



1st Floor Thermal Image Noon



1st Floor Thermal Image Afternoon

**Preserving the Past:**

The industrial plants have been abandoned to deteriorate. The buildings and their stories should be preserved by remodeling using passive designs. There are a growing number of abandoned industrial sites in the US and Detroit has an abundance of these abandoned industrial plants in need of renewal. The rise of energy shortages in parts of the US are concerning and need to be addressed. The implementation of passive systems within existing buildings should be a major consideration within each design.



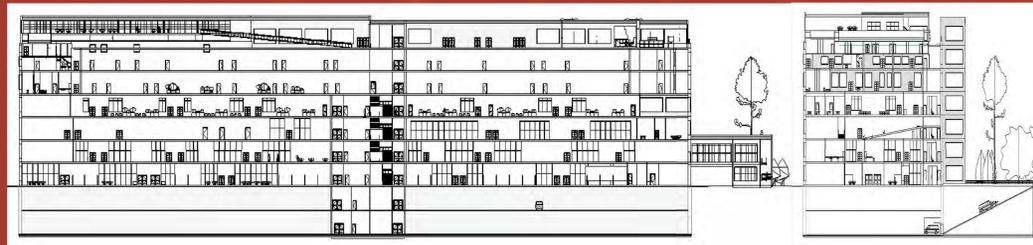
Original Site 1919

**Image on Left:**

The Fischer Body Plant #21 was designed and built in 1919 by Albert Kahn on Piquette Street in Detroit, MI. The building was originally used to manufacture automobile undercarriages 'Bodies by Fisher' for companies such as Ford, Cadillac, Hudson and GMC from the 1920's-1960's. Albert Kahn created an open floor plan with large exterior windows for daylighting and structural rows of concrete columns running throughout the interior. The redesign of the building uses the original concrete columns, walls and large blue glass windows preserving the original integrity of the building.



Current Site 2019



W- E Section

N- S Section

This site has become a mixed-use space incorporating retail, restaurants, daycare, pet services, farmers market and gardens, an education center, library and computer lab, after school program, theater, residential and public spaces. The project was designed for a variety of people and users including, students, renters, gardeners, shop owners, and public entertainment.

Ownership of the building will be a co-op, the owners of the retail spaces on the 1st & 2nd floors and students attending the education center on the 3rd & 4th floors will be allowed to work and live in the building ensuring the care and upkeep of the building and site. The renewal of this site using passive design will create a positive impact within the neighborhood of Milwaukee Junction and the city of Detroit.



South Elevation



East Elevation



North Elevation



North Perspective

# Obnovit - Renew

## Meaning in a name:

Obnovit means renew in Czechoslovakia. Inspiration for this site started when I inheriting my Great-Grandfathers 1952 Henry J automobile which he bought new. It has all of its original parts, aphoulstry, engine, color and has been passed down through the family. My great-grandfather was Bohemian and even though the country no longer exists, the language they spoke was Czech and so this is to honor the past while looking to the future.



South Perspective looking West

## Passive Design and A Building

This thesis program has taken a deteriorating industrial building, the Fisher Body Plant #21 in Detroit, MI built in 1919 by Albert Kahn and has created an adaptive reuse space using passive design. There are apartments on the 5th-6th floors, shops, restaurants, farmers market, daycare and pet boarding on the 1st-2nd floors, offices, meeting spaces, theater and an education center on the 3rd-4th floors incorporating both commercial and residential spaces. Passive systems include a light tower cut through the center of the building to provide daylighting and ventilation to the lower floors. A green roof was designed to collect rainwater and melting snow into storage tanks located under the parking lot, which will collect and filter both rain water and gray water for use throughout the building for flushing toilets and watering vegetation. The roof also has a pool, exercise space, pet area, lounge, and park. Other passive systems include vegetation around the site for shade and filtered air, solar panels on the exterior and shading devices on the south and west sides. The exterior windows on the 5th and 6th floors were taken out and a new exterior wall was set in to the building to create balconies for the residences providing shade and garden spaces for the building users. Parking was added below grade and on vacant lots adjacent to the site along with transit lines. The two adjacent sites provide green space, parking and community gardens for the farmers market.

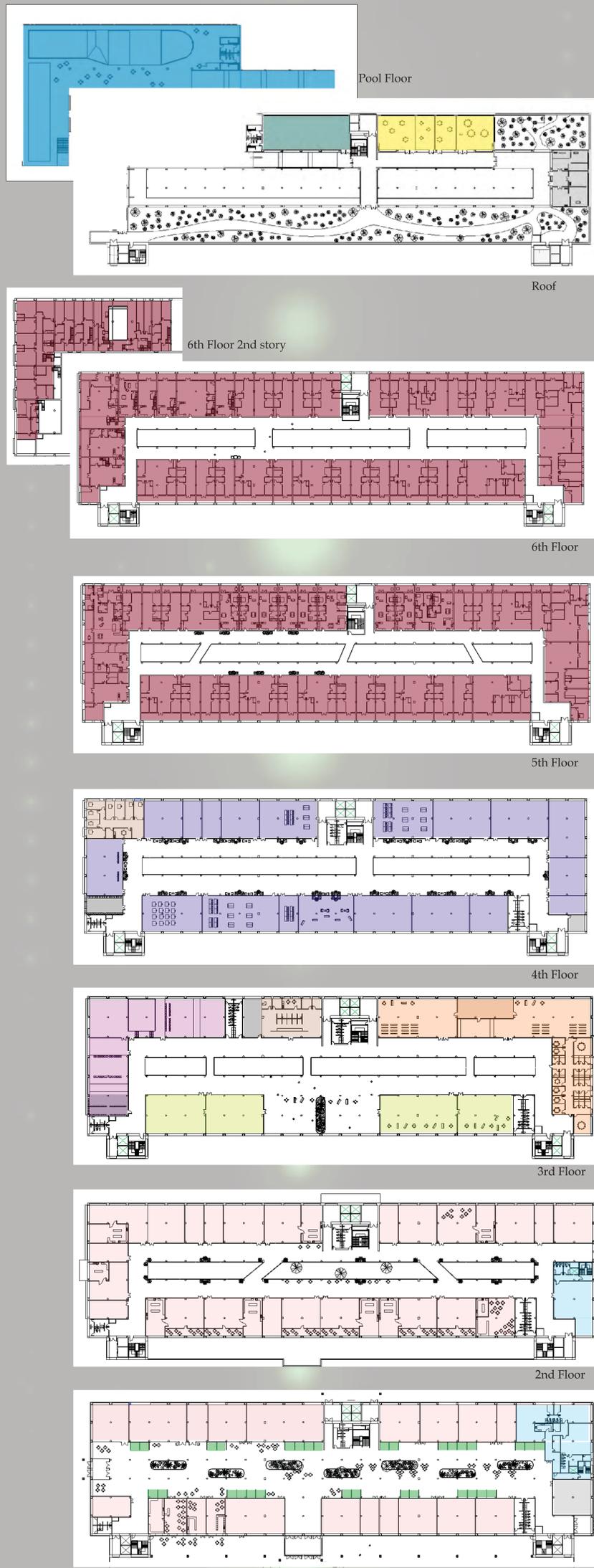
*Image on Left:* The building was vacated in 1993 and has been abandoned and left to scrappers and spray paint artists. This building which once played an important role in shaping the nation and automobile history is now fading into history.

The design of this industrial site can be applied not just to this building but to any industrial site around the country.

"Unless someone like you cares a whole awful lot, nothing is going to get better. It's not." Dr. Seuss.



West Elevation



Pool View



Roof Area

Vegetation/Cooling/Shade



Apartment



Balcony

Daylighting/Shade



3rd Floor Lounge

Daylighting/Shade



South Patio 1st Floor

Vegetation/ventilation/Shade



Interior Lobby 1st Floor

Daylighting/Vegetation

## Program:

- |   |  |  |  |
|---|--|--|--|
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Retail - 60,615sf                         | <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Daycare: 100 kids   | <span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span> Education Space:                        | <span style="display:inline-block; width:15px; height:15px; background-color:lightpink; border:1px solid black;"></span> Residential: 1,2,3,4 bedroom apartments |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Restaurants - 20,200sf                | <span style="display:inline-block; width:15px; height:15px; background-color:lightyellow; border:1px solid black;"></span> Classroom space   | <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Library                                 | <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Roof Area:                              |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Farmers Market: Indoor booths Gardens | <span style="display:inline-block; width:15px; height:15px; background-color:lightyellow; border:1px solid black;"></span> Pet Area: 1st floor Boarding Roof top Exercise space Outdoor park | <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Computer rooms Meeting rooms Study spaces | <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Pool                                    |
|   |  | <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Classrooms                              | <span style="display:inline-block; width:15px; height:15px; background-color:lightyellow; border:1px solid black;"></span> Exercise space                        |
|   |  | <span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span> After school program                    | <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Roof top lounge                         |
|   |  | <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Faculty/Employee Offices                | <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Roof top garden/park                    |
|   |  | <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Theater                                 | <span style="display:inline-block; width:15px; height:15px; background-color:lightgrey; border:1px solid black;"></span> Utility space                           |
|   |  |  | <span style="display:inline-block; width:15px; height:15px; background-color:lightgrey; border:1px solid black;"></span> Restrooms                               |