



Purpose

Our goal is to revitalize the currently abandoned Torre David in Caracas, Venezuela to improve the quality of the community by increasing green infrastructure, water features, and access to public transportation.

Project Team

Ana Carreon
Lead Architect

Muhammad Evans
Lead Engineer

Madison Schlaff
Design & Interior

Victor Johnston
Landscape Architect

Nicolette Beguerisse
LEED & Sustainability

Josue Castillo
Structural Engineering

Location: Torre David, Caracas, Venezuela

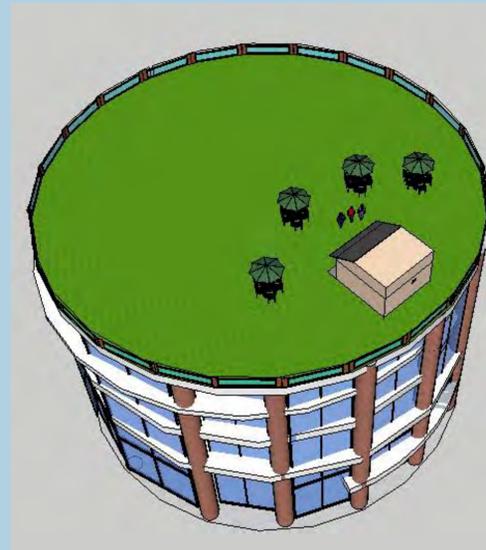
The Tower of David was originally funded by a Venezuelan banking firm in the 1980s, but with the crash in the price of oil, the building ended up not being funded properly. The building has been abandoned in recent years and it has become a symbol of the economic collapse and failure in the Venezuelan government. The building has been inhabited by thousands of homeless over the years. The government is currently evicting homeless from the building into other shelters outside the city.

The Project

We will revitalize the lower portion of the tower which was originally designed to be the central atrium of the building. Turning the currently abandoned atrium into a cultural meeting place with cafes, museums, and other accommodations will hopefully cause investors to further develop the tower behind the atrium. This will change the perception for all of Venezuela and we hope that our initial investment will transform the Tower of David from a blemish to the country to a sign of hope and transformation.

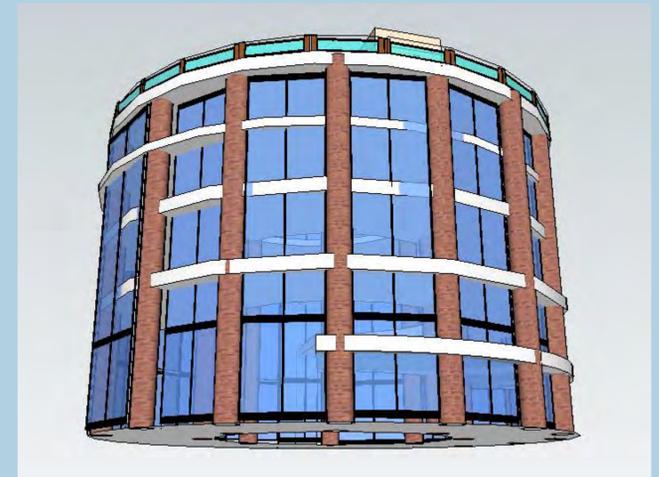


Our Design



Our building will feature cutting edge technology and building tactics. Every door will be automated, and every floor will have modern restrooms and water fountains.

We will cut cost by utilizing more cost-effective options such as stained concrete instead of tile. Our building is mostly outdoors so we will only need air conditioning on the first and fourth floors.



In order to break the commonalities between building facades in the area our team has decided to use a mixture of curtain wall and columns. The curtain wall will consist of tempered glass to allow viewing from outside as well as inside while simultaneously keeping a cool temperature inside the building. We choose glass paneling to create a contemporary look along with stone cladded columns circling the building's circumference every 17.5 feet. The paneling will lay along the entire exterior, showcasing store fronts, art galleries and the various activities taking place within the center.

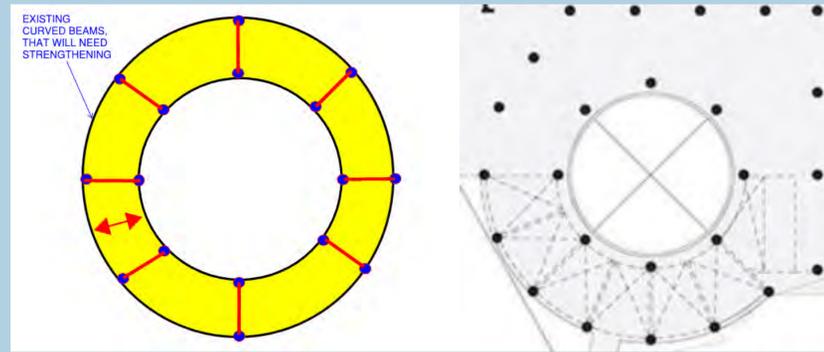
Structural & Framing

Additional load assessment

Design team has researched that all floors of existing atrium must have designed for load occupancy category "Public Space" (i.e 100 psf of live load based on ASCE-07). The newly renovated facility will have similar occupancy and loading category. But roof level will see significantly more live load and superimposed dead load than existing building.

Strengthening of Existing Structure

Design team expects strengthening of roof level framing elements and columns. We prescribe use of Fiber Reinforced Polymer (FRP) or External post tensioning around beams as needed. FRP wrap around column will help achieving extra strength.

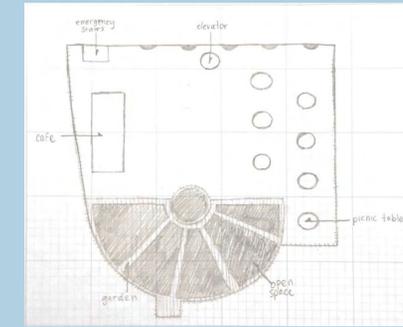


Sustainability

Our new and improved building will be able to efficiently sustain itself for many years to come. We will keep our water supply by reusing and repurposing the water in our building and by funneling rain water from the green roof and garden. The building will generate its own power along with having conventional energy with large solar panels along the sides. We plan to add on to our building in the future to make sure it ages gracefully and doesn't fall behind. We will also insulate the building so that power can be conserved wherever possible.

Our structure, Torre David, is LEED Silver, due to us having an efficient way to reduce the parking footprint. Having a sustainable site by using our open area that we have, helping the habitat around, by having a rainwater capture filter, as well as our Indoor environmental quality almost earned us LEED Gold.

Floor Plans & Interior



- Floor 5**
- Green roof
 - Café
 - Study area



- Floor 4**
- Art gallery featuring local artists



- Floor 2 & 3**
- Shopping mall



- Floor 1**
- Food court with local foods and restaurants

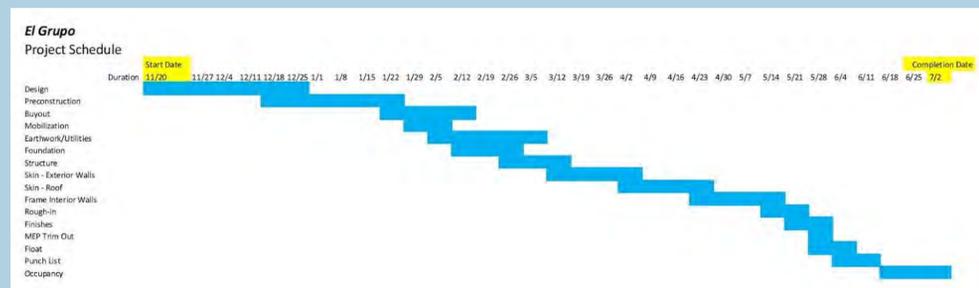


- Ground Floor**
- Fountain
 - Atrium
 - Welcome Area

For the interiors overall we took a more contemporary approach while incorporating nature aspects towards floors 1-4 and for the 5th floor we went for the more nature than the others since it is the rooftop and going to be outdoors. With the modern aspect we wanted to keep it clean and easy to understand but also keep it open, which is why we are using glass more than concrete. As well with the flooring we polished the concrete flooring to have a sleek look to it and give it the more open feel.

Schedule

Total Renovation Duration: 9 months



Budget

Total Renovation Budget: 10.17 Million USD
 Cost per sq.ft = 583\$/sq.ft

