

SULPHUR DELL

A PROTOTYPE FOR RESILIENT URBANISM

Design and Development Strategy

The Sulphur Dell Market District is a healthy lifestyle community that catalyzes the revitalization of the city of Nashville and is prototypical of resilient urbanism for cities of a similar size. Based on the idea that a healthy lifestyle starts with a healthy landscape, the proposal is based on a landscape framework of layered strategies of ecology, mobility and food. Drawing from the existing heritage and identity of the site, the framework creates the conditions for a diverse and resilient urban district that will continue to change and mature over time.

Sulphur Dell was originally a wetland along the west bank of the Cumberland River, taking its name from the spring that once fed a stream traversing the site. As a result the area was not prime for development and was gradually filled to become an industrial district, persisting today as an underused derelict site that divides downtown Nashville from the established residential communities to the Northwest. The site hosts the city's largest farmers' market which is open 7 days a week providing local fresh produce and supporting artisans, restaurateurs and locally owned businesses. The surrounding neighbourhoods however are some of the poorest in the country with income levels under \$20,000/year and with over 60% of children living in poverty. The large vehicle-oriented street grid of the site further divides different social groups creating a barrier between the fine grain of the residential fabric and the irregular historic grid of laneways and alleys in the city centre. Much of the site is prone to flooding due to seasonal changes in the river flow and extreme storm events such as the flood of 2010. A large portion of the area is covered in paved surfaces that exacerbate runoff and contribute to flash floods during storm events.

The proposal rethinks these challenges as opportunities for generating a diverse and dynamic neighbourhood rooted in the site's past identity yet able to change and adapt over time. The Sulphur Dell spring and stream are uncovered to provide a stormwater swale greenway that protects the site from flooding and provides a valuable amenity to the community around it. Nashville's historic Farmer's Market is relocated to a new Market Hall and plaza on the riverfront, celebrating the city's food culture and reconnecting it to the Cumberland river by repurposing the old Ironworks shed. A large park space adjacent to the market is designed to be floodable during extreme storm events. Named Market Commons, it recalls the city's riverside public square that was lost to urban renewal. Heritage buildings like the historic John Geist & Sons Blacksmith Shop and the Stockyards are adaptively reused as restaurants and a culinary school, supporting the food culture of the district and offering cooking classes to the community. Vacant lots awaiting redevelopment are planted with species that degrade trace contaminants left from their industrial past, and improve the quality of the soil for community-run urban agriculture. The exposure and engagement of the community in the food, water, and waste cycles of their neighbourhood contributes to a deeper awareness of urban metabolism and more responsible consumption.

The proposal includes a new campus for the Meharry Medical College for Health Research and Clinical Education in collaboration with Fisk and Vanderbilt Universities, occupying the urban edge of the site to reinforce health education and serve the broader community with clinics, a fitness centre, and community wellness centre. An intricate network of streets, and alleys interconnect the neighbourhood providing multiple modes of transportation with off-road dedicated bike paths and bus lanes, and prioritizing pedestrian culture through porous block perimeters and courtyards. The fabric of the neighbourhood combines a diverse mix of uses and housing types in every block to draw a wide range of residents, and make healthy lifestyles accessible to the greater community.

The project not only creates a series of iconic public places that will catalyze the redevelopment of the Sulphur Dell District, but also establishes typological strategies that can be applied beyond the site to the rest of the city as part of a larger scale vision for revitalizing Nashville. Sulphur Dell will be a destination for food, health, and iconic public open space, providing prime real estate for offices and institutions, and drawing suburban dwellers back to the city to experience the benefits of urban life. The district will be a prototype for resilient urbanism of America's mid size cities, offering a diverse and adaptable urban environment that facilitates a healthy urban lifestyle.

Financial Strategy

Development on the Sulphur Dell site is undertaken as a public-private partnership with Metro Nashville and the Owners. Metro's interest in revitalizing the area, as well as carrying out initiatives to further improve flood resilience and walkable urban living, encourage them to support the development with a grant by funding the landscape and public infrastructure costs associated with the development. Mutual interest in a successful development gives the owners the ability to carry out plans to attain the condo units on the riverfront via Metro's use of eminent domain, in order to relocate the existing Farmer's Market to a new Public Hall. Legal fees associated with the acquisition on the riverfront have been taken in to account, as well as a conservative outlook for construction in anticipation of delays.

The owners' significant land holdings serve as collateral for an 8% construction loan which is then rolled over in to a permanent loan. Although it is assumed that the Owner would eventually take out a lower interest permanent loan at stabilization, the pro forma has been modelled with a more conservative approach. The debt balance is \$401m collateralized over a period of ten years. Draws for construction are taken in the first eight years with the remaining two years of the hold period serving to pay down the loan; the remainder being entirely paid off at the end of the last year, on sale.

Equity is furnished by both the owner as well as a portion by Meharry Medical College, in partnership with Fisk and Vanderbilt Universities who are looking to own a portion of the medical clinic and wellness centers to be located on the north-western portion of the site.

Public subsidies are further provided to fund the mixed-income portions of the development. Affordable units at 20% of the total in each mixed-income project, rented out at 50% of the average median income for Nashville-Davidson County (20/50) are eligible for tax credits. This district is further classified as a Qualified Census Tract (QCT), making it eligible for a 30% basis boost to the portion of credits. Credits are syndicated at 90% of a 9% per annum of the basis. Federal Tax Credits are also syndicated at the same rate, provided for the preservation of Historic Buildings as part of the Federal Historic Preservation Tax Incentive, furnishing 20% of the costs of rehabilitation.

The attached pro forma signals a significant return to Owners on capital (22% levered btirr), as well as a healthy debt coverage and loan to value ratio.