

SEED A LOT: SIDEWALK SHARE

CHICAGO ARCHITECTURE BIENNIAL 2021

FRAMEWORK





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Introduction

The Available City, the 2021 edition of the Chicago Architecture Biennial, is a framework for a collaborative, community-led design approach that presents transformative possibilities for vacant urban spaces that are created with and for local residents. With outreach to various designers and likeminded interests, the aim is to put forth the value that lies within underutilized spaces. Through workshops, installations, activations, performances, and programs, The Available City is a platform for global conversation that asks how design can foster collective engagement and agency to identify new forms of shared space in urban areas.

The **Seed A Lot: Sidewalk Share** project for the 2021 Chicago Architecture Biennial transforms a 21-foot setback on a contaminated vacant lot into an immersive rewilding landscape, creating areas for communal respite and wildlife habitat. This project highlights resiliency and the ability to reclaim a former industrial site within a short time frame, while actively working to reverse the effects of past disinvestment. It also serves as a template for the activation of vacant land and for corridor creation in urban settings, and demonstrates the benefits of more equitable public access to green spaces.

By applying innovative landscapes and unique approaches to underutilized or contaminated land, property owners and community members can carry out straightforward strategies that have long lasting positive impacts.

Beyond adding beauty and vegetation to a barren landscape, **Seed A Lot: Sidewalk Share** creates social, economic, and ecological benefits. Adding trees and green landscapes to underutilized lots helps to create “tree equity” in communities that lag behind a city’s average tree canopy. Tree equity is important due to the positive outcomes green landscapes have on the the emotional wellbeing of its residents. A positive correlation exists between the tree canopy density of an area and the property values. Ecologically, this project attracts pollinators, ensures the persistence of vegetation in the community, sequesters carbon from the air, produces oxygen, and mitigates the Urban Heat Island Effect via evaporative cooling.

This landscape intervention is a springboard and proof of concept that serves to inform a broader investigation, analysis, and a written framework plan to help scale similar solutions across diverse open lot conditions in Chicago and beyond.

Seed A Lot: Sidewalk Share reflects Omni Ecosystems’ mission to intergrate science and design into working landscapes to improve resillency within the built environment, and to empower healthier, happier humans.

2. Site Conditions

Grand Boulevard's Tree Canopy

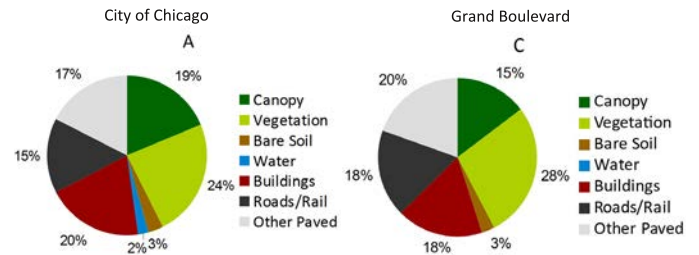
The Chicago Region Trees Initiative (CRTI) addresses problems associated with Chicago's tree canopies, and researches Chicago's urban forests. Chicago's total tree canopy coverage is 19%, and **Seed A Lot: Sidewalk Share's** Grand Boulevard neighborhood has a lower percentage of tree canopy of only 15%. Grand Boulevard also has a higher percentage of paved surfaces (20%) than the city as a whole (17%). Most of the tree canopy coverage exists in parks and along transit lines. According to the CRTI, Grand Boulevard has the potential to increase its urban forest canopy to as much as 65% coverage, with the most opportunity for increased canopy coverage in the neighborhood's abundant vacant lots.

Flood Risks

The parcel of land **Seed A Lot: Sidewalk Share** sits upon is vulnerable to flooding. A correlation exists between areas now at risk of flooding and the racist redlining maps commissioned by the federal Home Owner's Loan Corporation (HOLC) in the 1930s and 1940s. HOLC graded neighborhoods based on their "desirability." D, the lowest designation, was often assigned to neighborhoods with large black or minority populations, generating disenfranchisement and disinvestment in these communities. **Seed A Lot: Sidewalk Share** falls within District 74 of the Chicago HOLC map, which received a D for its desirability.

Seed A Lot: Sidewalk Share adds 34 trees to Grand Boulevard's tree canopy, and increases its stormwater management capacity by 57,225 gallons, in an area particularly vulnerable to flooding.

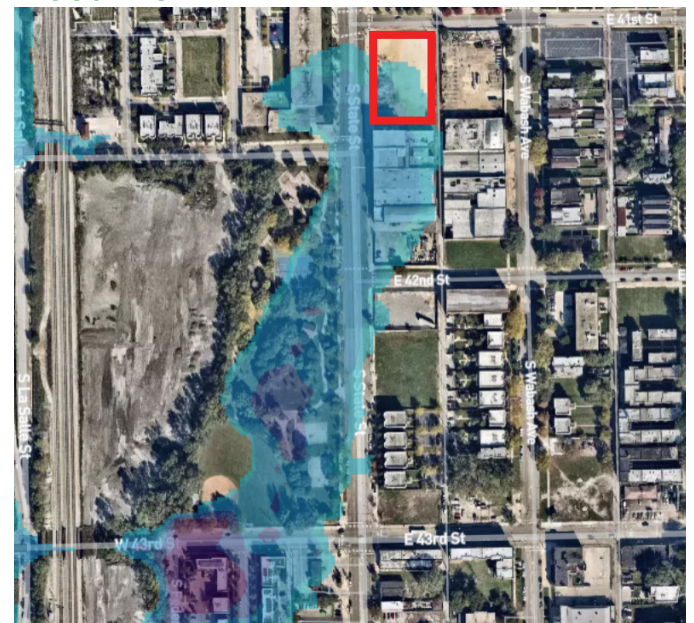
Land Coverage



Canopy Coverage



Flood Risk

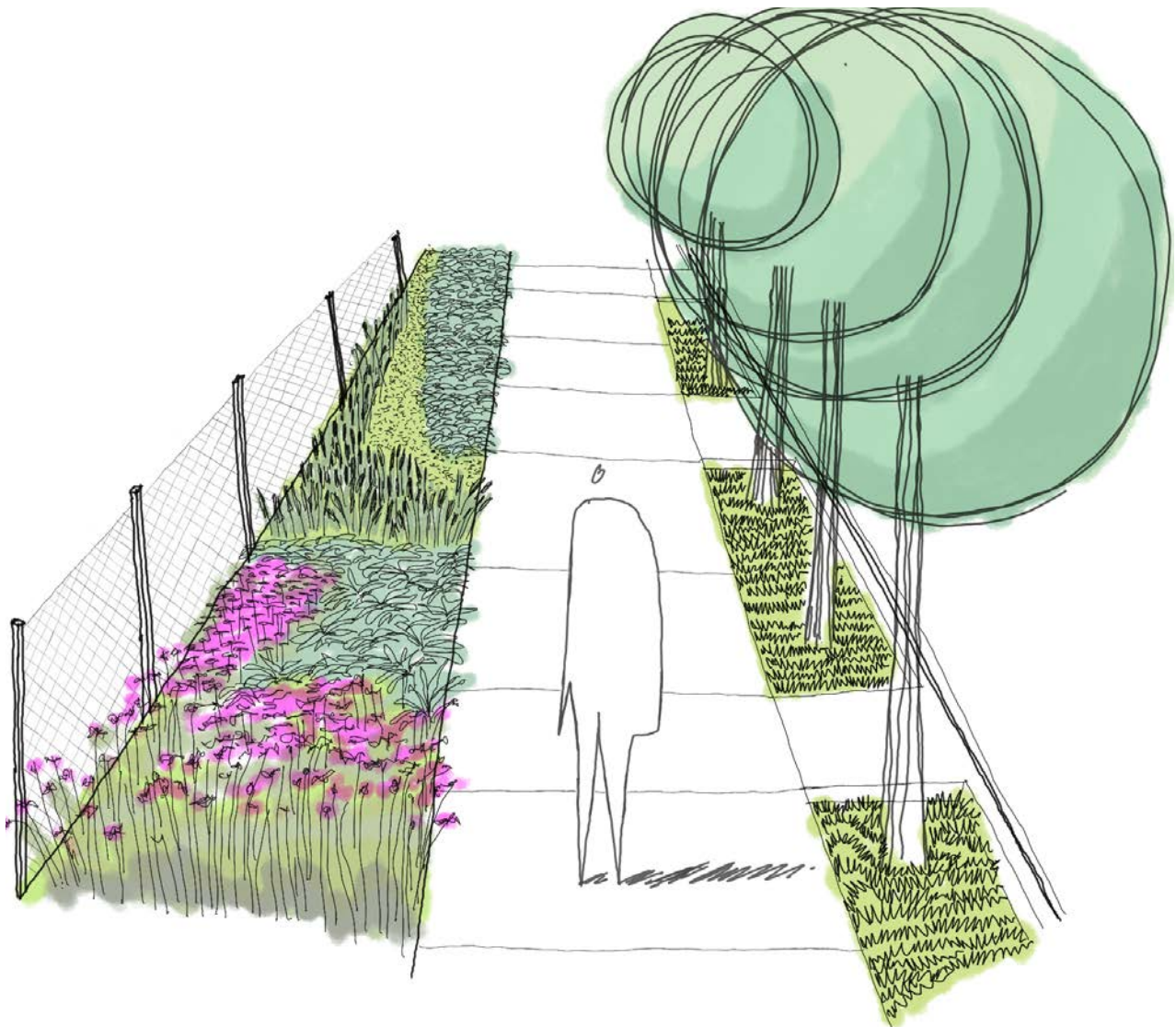


2. Site Conditions

4101 S. State Street's Abandoned Lot

4101 S State St. formerly housed a dry cleaner, which contaminated the site, resulting in a brownfield. A high barbed wire fence surrounded the lot, resulting in an unwelcoming communal eyesore. The impermeable barrier superimposed over much of the lot caused large pools of water, contributing to local flooding risks.

With a combination of small but effective improvements to the site, the changes reveal the true nature of a space that puts forth community and life.





Not Welcoming



Remove Barbed Wire Fence



Not Permeable



Add Absorptive Soil



No Edging-Not Suitable For Loose Soil



Add Soil Retention Barrier



No Seating Or Community Space



Welcome Community Use

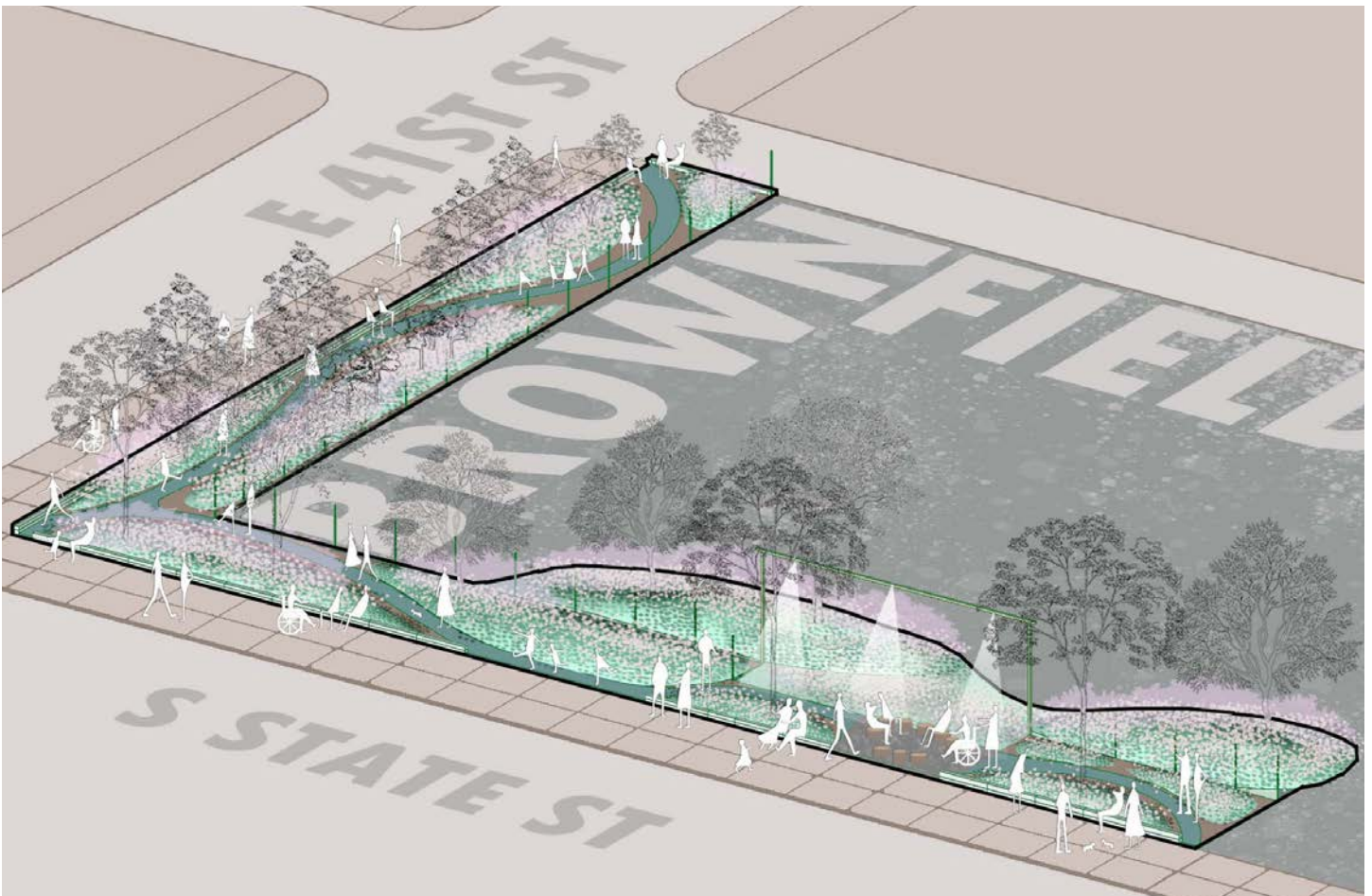
3. Omni Ecosystems's Plan

Site Improvements Build Connectivity

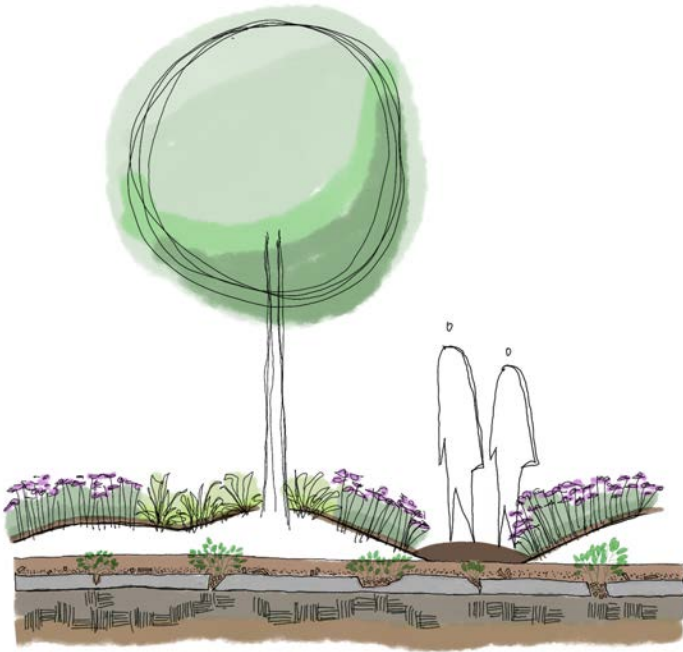
Two guiding principles of the **Seed A Lot: Sidewalk Share** framework are to expand public access and to improve resiliency in the built environment. There are several design decisions that compose a “Kit of parts” that can be applicable to many vacant lot typologies. In this particular brownfield, berms built throughout the site allow for water retention and drainage, while adding spatial dimension, growing tall and dipping low over intervals of space. The berms over tree rootballs negate the need to dig down into contaminated ground to house the rootballs, while also making smaller trees appear larger. The berms protect the roots and expand the permeable surface area over the now buried impermeable subsurface.

Seating along the perimeter of the site, and the gathering space centered along South State Street invite the community to engage with and enjoy the landscape. The mulch path curves throughout the project, encouraging the community to meander through the space. A dedicated irrigation system is woven through the mounds to ensure the vegetation is sufficiently hydrated.

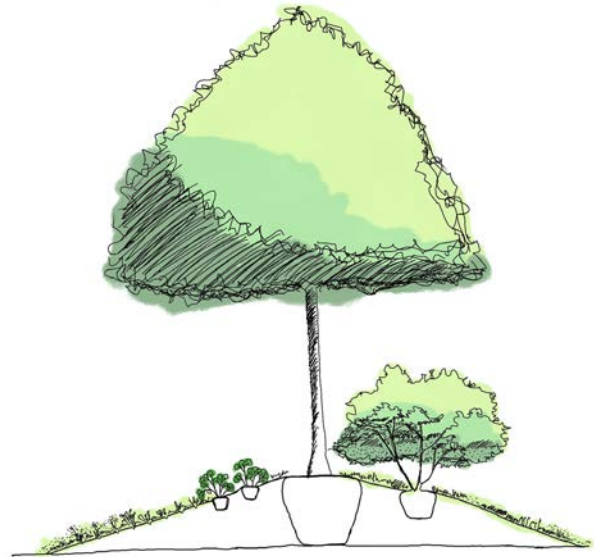
These design interventions can stand alone or can work in tandem with each other to create an ecological “machine” that has environmental and socioeconomic benefits.



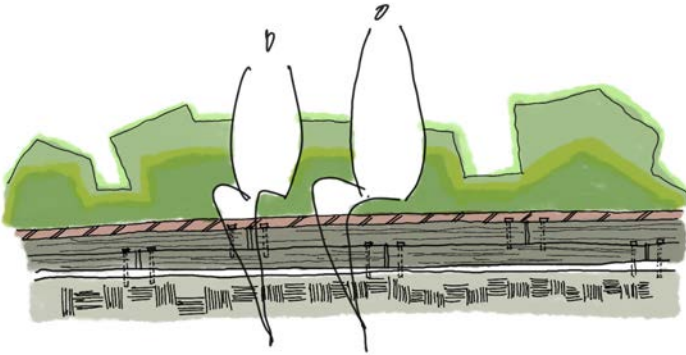
3. Omni Ecosystems's Plan Kit of Parts



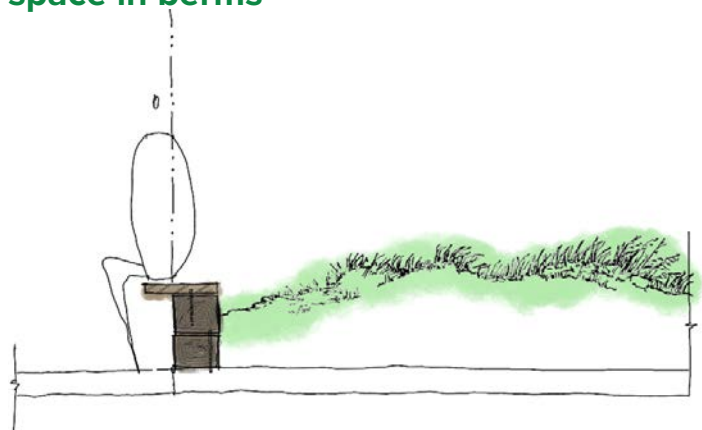
1. Berm build up adds stormwater management over impermeable surface



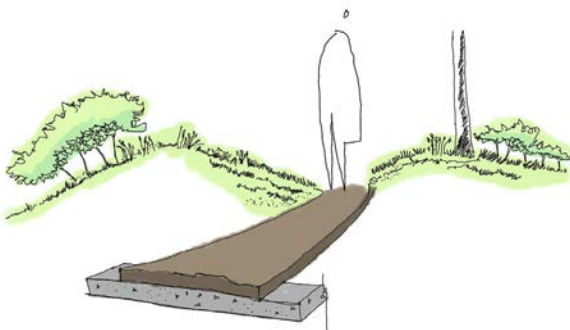
2. Plant root balls utilize ample rooting space in berms



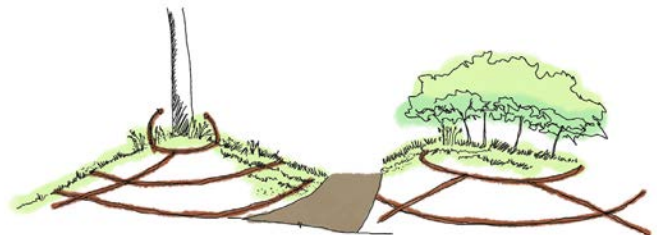
3. Soil edge restraint



4. Edge restraint functional as seating



5. Mulch path over existing site



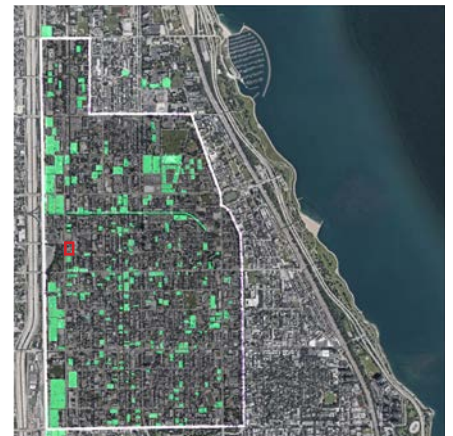
6. Embedded irrigation lines in media

3. Omni Ecosystems' Plan

Framework Document

The City of Chicago has nearly 30,000 parcels of vacant land, including both brownfields and greenfields. Applying Omni Ecosystems' plan, underutilized lots can generate interest in historically overlooked communities, can mitigate the urban heat island effect, can reduce the strain on Chicago's stormwater and sewage system during heavy rain events, and can expand the urban tree canopy.

Omni Ecosystems aims to develop an expanded written framework plan explaining how **Seed A Lot: Sidewalk Share's** prototype can be adapted and implemented across a range of budgets and project types.





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