

Enhancing Outdoor Common Spaces

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Bloomberg Associates

Objective

We believe there is significant opportunity to **improve the health and quality of life for residents** through strategic interventions to **reduce the impact of extreme heat and enhance common outdoor spaces.**

Overview

- This guide identifies a range of interventions to reduce the impact of heat and enhance outdoor common spaces at social housing sites
- Examples were gathered from interventions at social housing sites and from low-cost improvements in public squares and plazas in cities around the world
- Rather than in-depth case studies, these examples are intended to present the universe of possibility and inspire creative thinking and strategic planning



Guiding Principles

- Maximize cooling impact (shading, air flow, and materials)
- Responsive to the needs of residents
- Improve public safety (including visibility and lighting)
- Low-cost (capital and maintenance)
- Promote social interaction

Local Engagement

- Residents should guide projects wherever possible and be involved in all stages of design, implementation, and maintenance
- Engage in design to understand their needs and develop early project buy-in
- Engage in implementation to encourage a sense of ownership and pride in the project
- Engage in ongoing maintenance, including watering plants, moving tables and chairs, and pulling down umbrellas
- There are a variety of tools to effectively engage residents, ranging from workshops to fun and festive activities, such as the social dinner image on the right

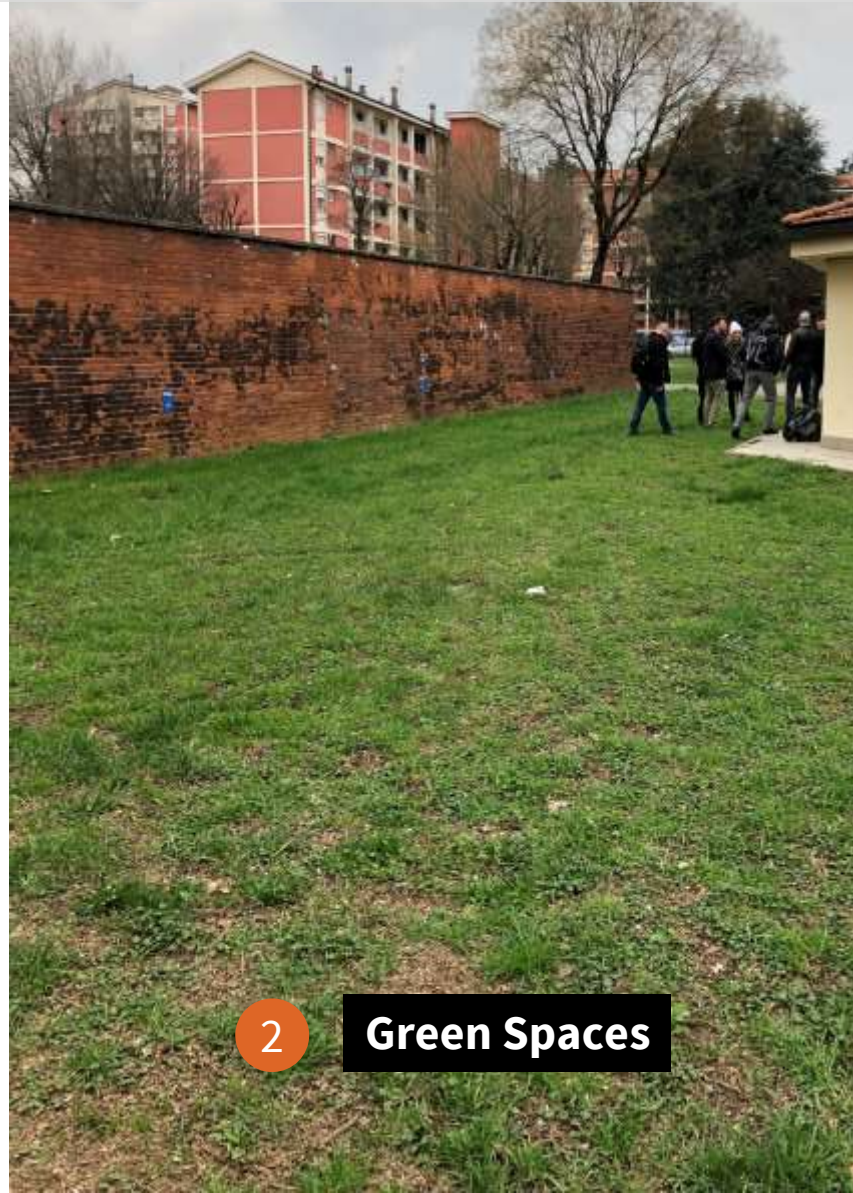


Intervention Sites – Outdoor Common Space Typologies



1

Grey Spaces



2

Green Spaces



3

Hybrid Spaces

Interventions in Grey Spaces

Design Elements

Grey spaces at social housing sites present a key opportunity to improve the overall quality of outdoor common spaces.

- **De-paving**
- **Seating**
- **Shade as Public Art**
- **Lighten surfaces**
- **Permeable pavement**
- **Asphalt art**
- **Water/Green Wall**
- **Misting**
- **Play equipment**
- **Above-ground planters**

De-paving

Description: Retrofit of social housing project in London to address drainage and stormwater management needs while adding green to a grey area



**Improved drainage through
green installation**



Seating

Description: A 'parklet' in Philadelphia takes over a street parking space through a simple installation of planter boxes to mark the space, wooden seating, greenery and shade

Multiple seating options that remain cool

Wood planter box

Floor to bring the parklet to sidewalk grade



Shade as Public Art

Description: The 'Umbrellas Street Project' used 1,000 colorful parasols to bring shade to a pedestrianized street in a historic part of the city



Lighten surfaces

Description: A City crew in Los Angeles installs new cool pavement surface coating along a street as a pilot project to test the reduction in temperature



← - - - 'CoolSeal' coating

Note: In 2019, Bloomberg Associates completed an assessment of commercially available pavement coatings and the appropriate places for use (see Appendix for details)

Permeable Pavement

Description: This Milan social housing site shows how permeable pavement can be used in grey areas to help with cooling and drainage



Permeable pavement



Asphalt art

Description: In Asheville, North Carolina, a local bicycle advocacy group led the painting of a street mural entirely by community volunteers, with a total material cost of \$3,000 USD

Painted asphalt

Note: In 2019, Bloomberg Associates published a guidebook on Asphalt Art (see Appendix for details)

Asphalt art

Description: In Portland, OR, nonprofit organization City Repair leads volunteers to implement street mural projects in partnership with the Department of Transportation



← -- **Asphalt painted by volunteers**

Note: In 2019, Bloomberg Associates published a guidebook on Asphalt Art (see Appendix for details)

Water/Green Wall

Description: Paley Park utilizes a 6m wall of water and green walls to cool the space and provide a calm and quiet oasis in the middle of Midtown Manhattan



Water wall provides cooling

Green wall

Flexible seating

Shade trees

Misting

Description: A bus-stop in Daegu in South Korea uses a public misting system built into the shade canopy to provide relief to users of public transit as they wait for the bus



Misting system

Misting

Description: A public square in France uses suspended overhead wires to provide cooling mist in an otherwise unprotected and exposed outdoor space



Misting system

Play equipment

Description: A social housing project in San Pablo, California included outdoor play equipment for children, which is shared with an on-site daycare center for kids.



↑
Play equipment →

Above-ground planters

Description: Lafayette Greens in Detroit uses a grid of above-ground planters to transform a vacant lot into a small urban community garden.



Above-ground planters

Interventions in Green Spaces

Design Elements

Grey spaces at social housing sites present key opportunities to improve the overall quality of outdoor common spaces.

- **Community garden**
- **Mini Forest**
- **Play equipment**
- **Water**

Community Garden

Description: This is a community garden in Dublin, in an area with limited green space. The local community has fought to keep the space undeveloped.



← -- Shared storage space

Communal planting -- -- →

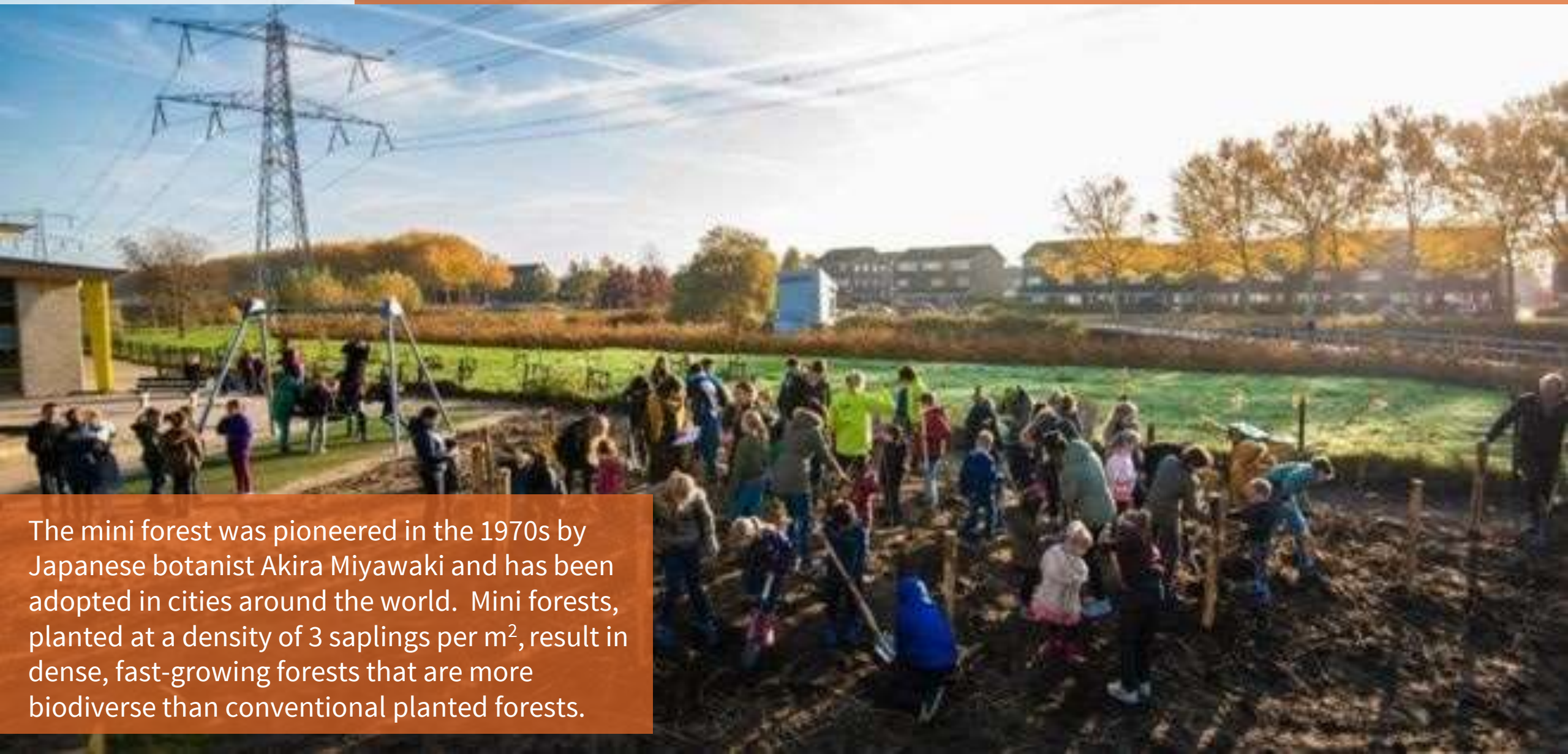
Community Garden

Description: The Emerson Avenue Community Garden in Los Angeles hosts regular volunteer days for local residents to garden



Mini Forest

Description: City staff and volunteers in Oxfordshire recently planted the first 'tiny forest' in the UK with 600 native tree species in a 200m² plot in partnership with EarthWatch NGO



The mini forest was pioneered in the 1970s by Japanese botanist Akira Miyawaki and has been adopted in cities around the world. Mini forests, planted at a density of 3 saplings per m², result in dense, fast-growing forests that are more biodiverse than conventional planted forests.

Play equipment

Description: A town in New Jersey installed 'gym-quality' exercise equipment that attracts a wide range of ages to the well-shaded space



Water

Description: Lexington, KY installed a temporary splash park during the summer months to provide a cooling opportunity for kids in a public park, paid for by donations from local groups



← - - - Temporary splash fountain

Interventions in Hybrid Spaces

Design Elements

Hybrid spaces, with both green and grey surfaces, at social housing sites present key opportunities to improve the overall quality of outdoor common spaces.

- **Greening**
- **Seating**
- **Above-ground planters**
- **Shade**
- **Planted buffers**
- **Mini Forest**
- **Exercise equipment**

Greening

Description: The Benny Farm housing development in Montreal utilizes circular dense planting areas to add greenery to a small courtyard space



Seating

Description: A social housing project in New York City uses brightly colored seating to enliven a small space, utilizing both fixed and flexible seating options



Fixed benches



Fixed tables and moveable chairs



Above-ground Planters

Description: A project outside London to 'climate-proof' social housing added simple wooden planter boxes to allow local residents to grow food



Above-ground planter box

Shade

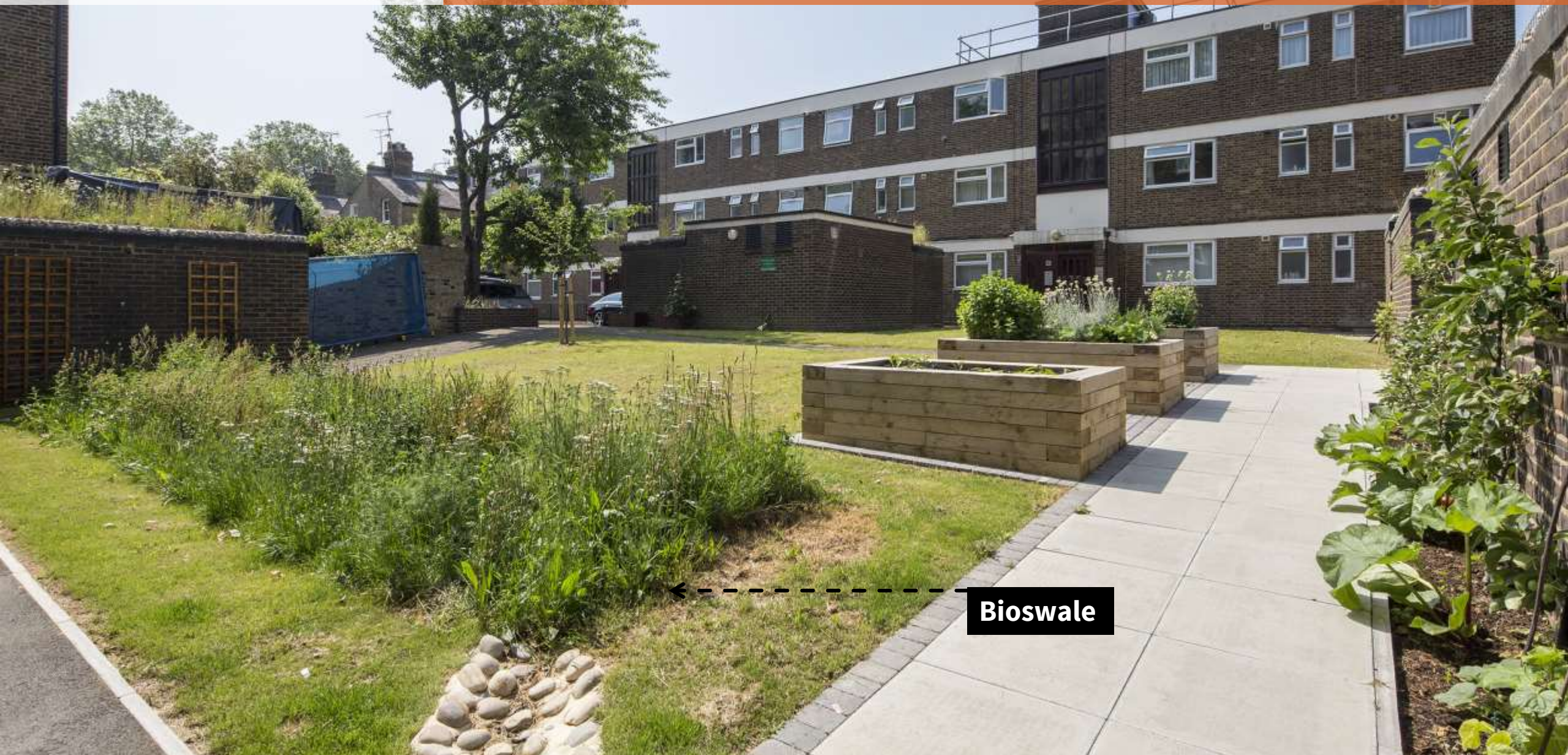
Description: A high school in California uses fabric 'shade sails' to provide cover to outdoor eating and gathering spaces for students

Fabric shade sails



Planted buffer

Description: The climate-proofing of social housing included new bioswales that serve as planted buffers for the green area and improve drainage



Bioswale

Mini Forest

Description: Volunteers in Paris prepare the soil for a new mini forest to be planted alongside a highway to reduce noise and improve air quality



Compost from local horse stables

Exercise Equipment

Description: A senior housing development in Malaysia included an 'outdoor gym' for elderly residents to use for daily exercises



↑
↓
Exercise equipment for elderly
← →

Combining Elements

Description: Social housing project in Singapore with a plaza on top of an underground garage that combines lighting with diverse seating and greenery

Fixed table for social seating

Lighting

Planters also serve as fixed seating

Moveable seating



Combining Elements

Description: Social housing project in London utilized a variety of natural materials that won't get hot in the sun

Wooden play equipment



JARDIN MEWS ENS

New tree planting



Permeable flooring



Imagining the future of outdoor common spaces ...

BEFORE



AFTER



APPENDIX

Appendix - Resources



Asphalt Art Guide

Bloomberg Associates

Cool Pavements Research

Bloomberg Associates

Healthy Housing for All

Urban Land Institute, Center for Active Design

Design Guidelines – Rehabilitation of NYCHA Residential Buildings

NYC Housing Authority

Designing New York: Quality Affordable Housing

NYC Public Design Commission