

# BIRD LINK

DEPLOYABLE HABITAT

SHARING URBAN SPACE WITH NATIVE SPECIES

Public Art Project Sara D Roosevelt Park 2018



# BIRDLINK

Designer and Executive Director

**Anina Gerchick**

Sponsored by

**The New York City Audubon Society**

**The New York City Department of Parks and Recreation**

Generous Support from

**The Public Hotel**

**City Parks Foundation**

Partners

The Sara D. Roosevelt Park Coalition

The Greenbelt Native Plant Center City of New York, Dept of Parks & Recreation Natural Resources Group

Cornell Lab of Ornithology

Audubon Plants for Birds

Bio Bus

The Lower East Side Partnership

Robert Silman Associates Structural Engineers d.p.c

Donald Sussman Landscape onsultant



“IF YOU TAKE CARE  
OF THE BIRDS,  
YOU TAKE CARE  
OF MOST OF THE  
ENVIRONMENTAL  
PROBLEMS IN THE  
WORLD.”

—THOMAS LOVEJOY  
*biologist and "godfather  
of biodiversity"*

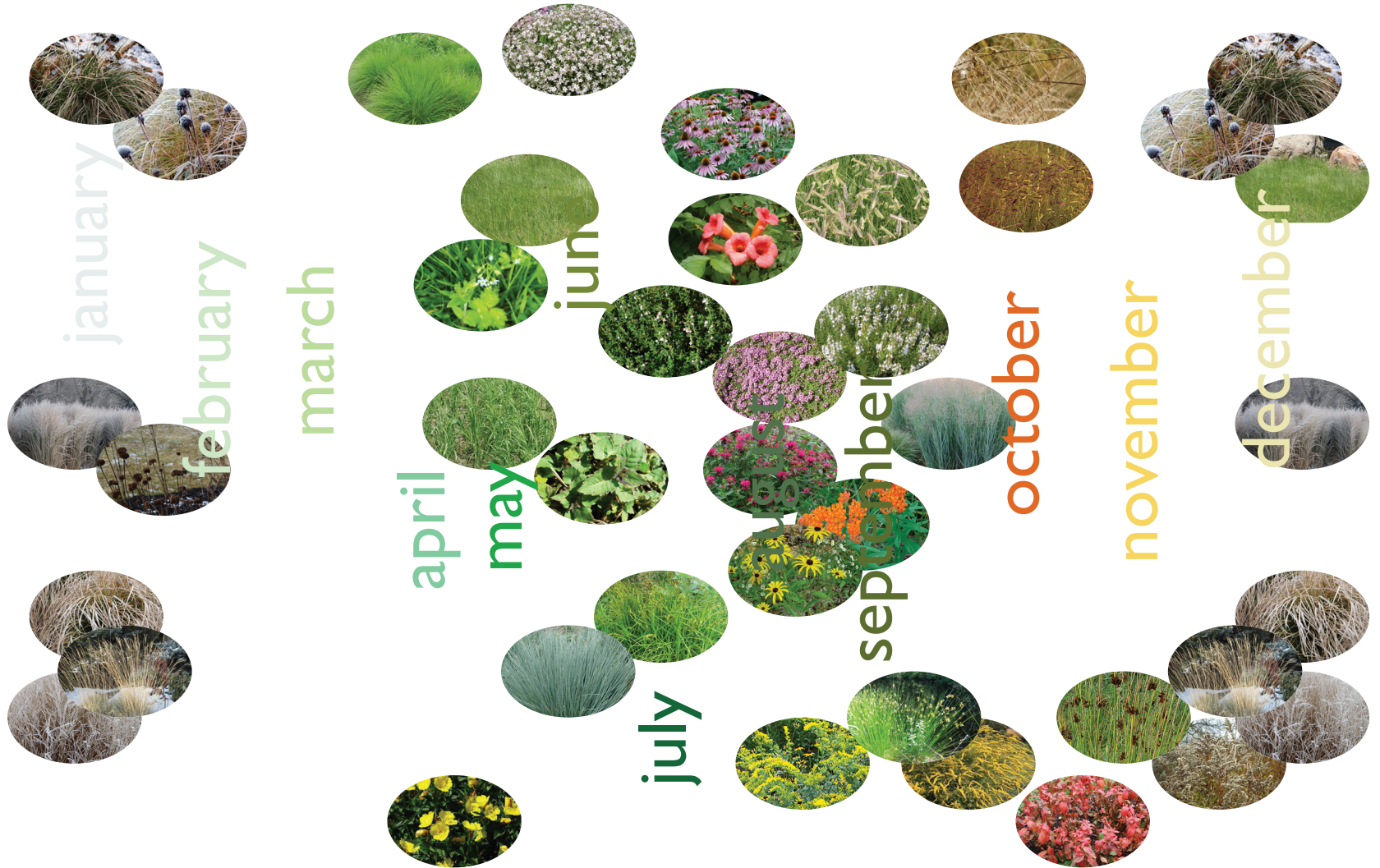
# BIRDLINK Plants



*Gypsophila repens*  
*Deschampsia cespitosa*  
*Echinaceae purpurea*  
*Bouteloua gracilis*  
*Campsis radicans*  
*Myosotis laxa*  
*Thymus vulgaris*  
*Thymus serpyllum*  
*Panicum virgatum*  
*Monarda didyma*  
*Asclepias tuberosa*  
*Rudbeckia hirta*  
*Carex muskingumensis*  
*Helictotrichon sempervirens*  
*Juncus effusus*  
*Solidago shortii* 'Cascade'  
*Oenothera fruticosa*

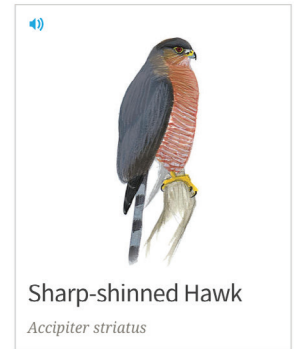
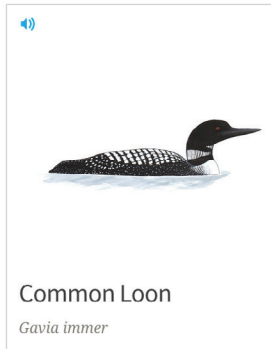
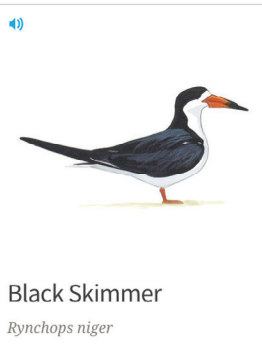
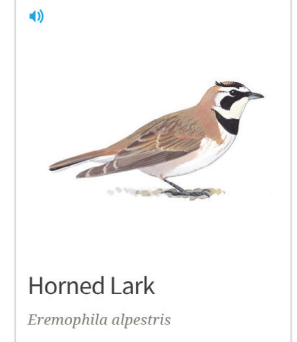


# BIRDLINK Plant Blooming Schedule



# NEW YORK Species Of Special Concern

## Local and Migratory Birds

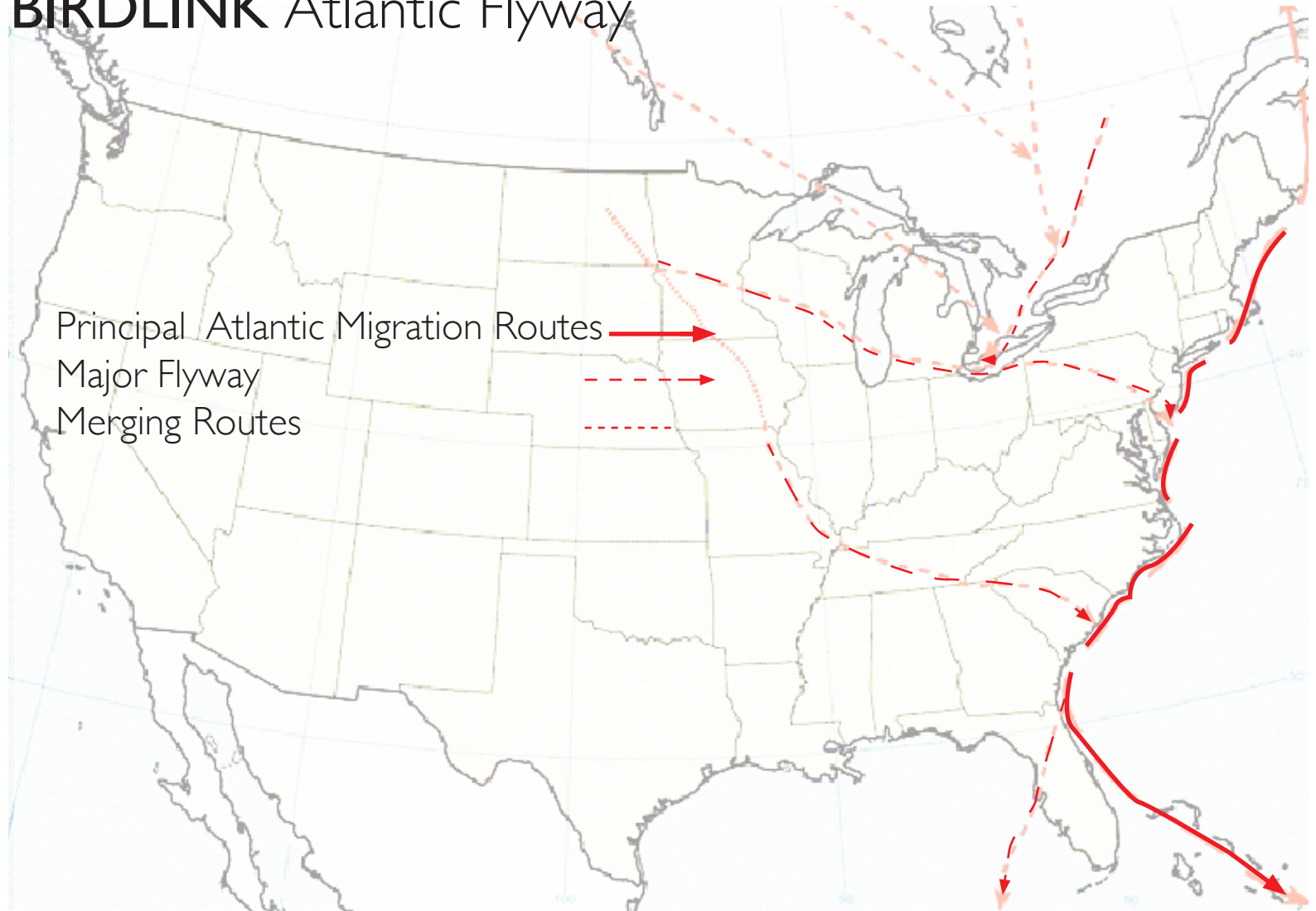


Robins- the iconic bird of childhood currently suffer a 30% loss; part of a large trend among bird populations. One-third of wintering North American bird populations have declined since 1966.

The North American Bird Conservation Initiative (NABCI) states that more than one-third of North American bird species are at risk of extinction.



# BIRDLINK Atlantic Flyway



## Migratory Birds of New York

Northern Cardinal  
Northern Flicker  
Orchard Oriole  
Pine Grosbeak  
Pine Siskin  
Pine Warbler  
Purple Finch  
Red-breasted Nuthatch

American Tree Sparrow  
Baltimore Oriole  
Black-capped Chickadee  
Blue Grosbeak  
Blue Jay  
Brown Thrasher  
Chipping Sparrow  
Common Redpoll

Dark-eyed Junco  
Eastern Bluebird  
Eastern Meadowlark  
Eastern Towhee  
Evening Grosbeak  
Field Sparrow  
Hermit Thrush  
House Finch

Red-winged Blackbird  
Ruby-crowned Kinglet  
Ruby-throated Hummingbird  
Song Sparrow  
Red-breasted Nuthatch  
White-throated Sparrow  
Yellow-rumped Warble

# BIRDLINK

**A constructed habitat for bird conservation sparks recognition of our shared urban ecosystem. What's good for birds is good for people**

**BIRDLINK** is an interactive native-plant sculpture, designed to support urban birds and engage community. This spiraling green-wall grid is a living tapestry of native plants, with windows framing a park on one side and a bustling urban intersection on the other. More broadly, BIRDLINK is a network of installations intended to link fragmented urban habitats nation-wide, promote awareness of species that share our space, and build community. This project addresses global climate change at a local level, and will involve neighborhood students and residents in citizen science efforts for conservation.

During the four-season cycle, plants will take root within a coil of wire baskets that become food and shelter for passing birds. Milkweeds feed hummingbirds and Monarch Butterflies. Honeysuckles are nectar hotspots, and fall and winter berries attract species like Purple Finches and Hermit Thrushes.

BIRDLINK attracts people as a beautiful curiosity and then alerts them to the importance of habitat conservation

**Citizen Science:** Mobile bird and plant ID apps, bird surveys for the collection of data for conservation research by Cornell Lab of Ornithology and Audubon. Engagement in conservation practices using bird counts for Audubon and NABCI (North American Bird Conservation Initiative) use breeding bird surveys (BBS) and eBird mobile app encourage science education.

## **BIRDLINK in New York City**

The first prototype will be installed at Sara D. Roosevelt Park on Manhattan's Lower East Side, in time for the spring bird migrations of 2018 that bring birds to our city as they cross the Atlantic Flyway.



# BIRDLINK SITE Sara D. Roosevelt Park





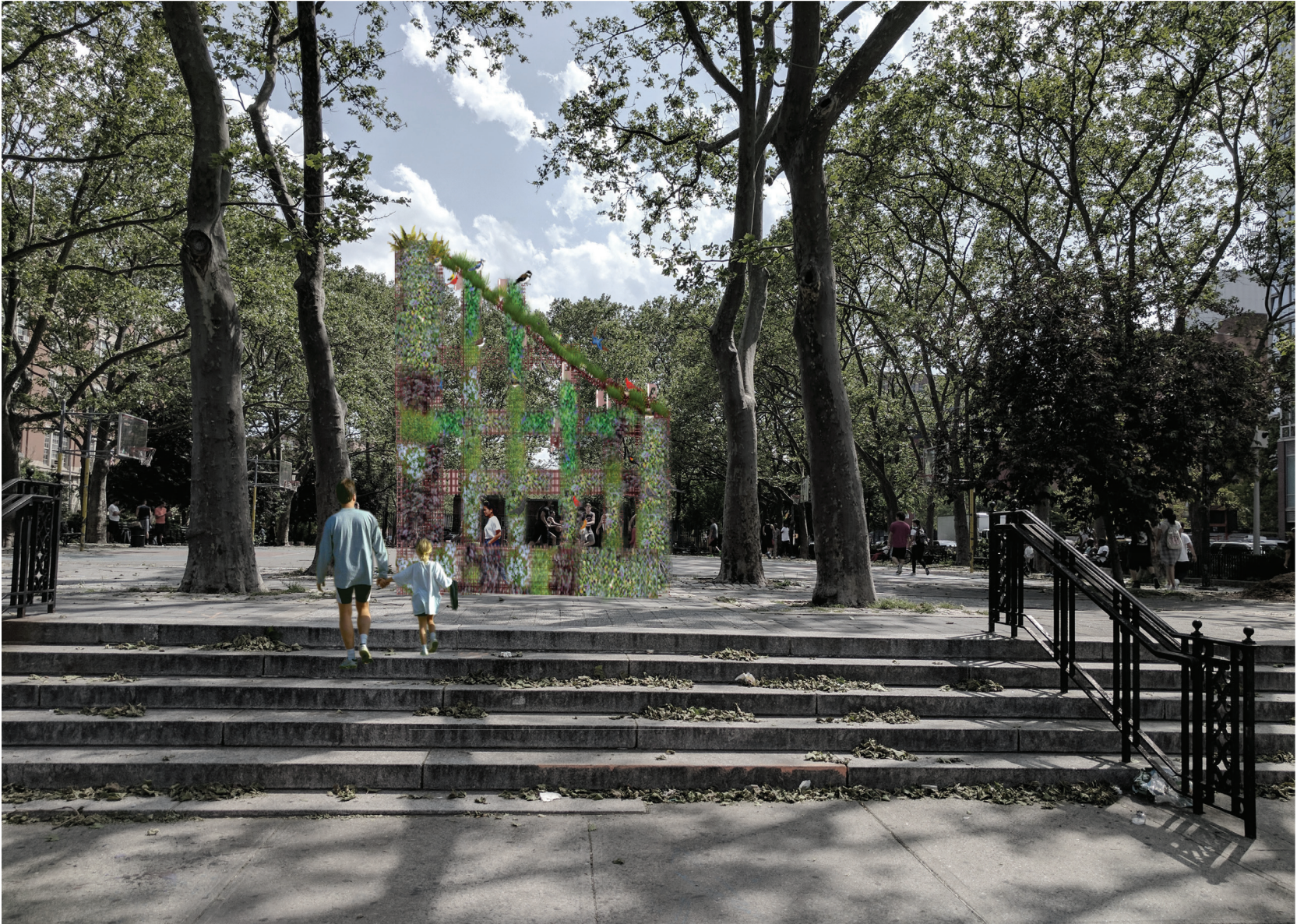
# BIRDLINK Public Space



Public spaces need activation to create community.



# BIRDLINK East Houston Street Plaza

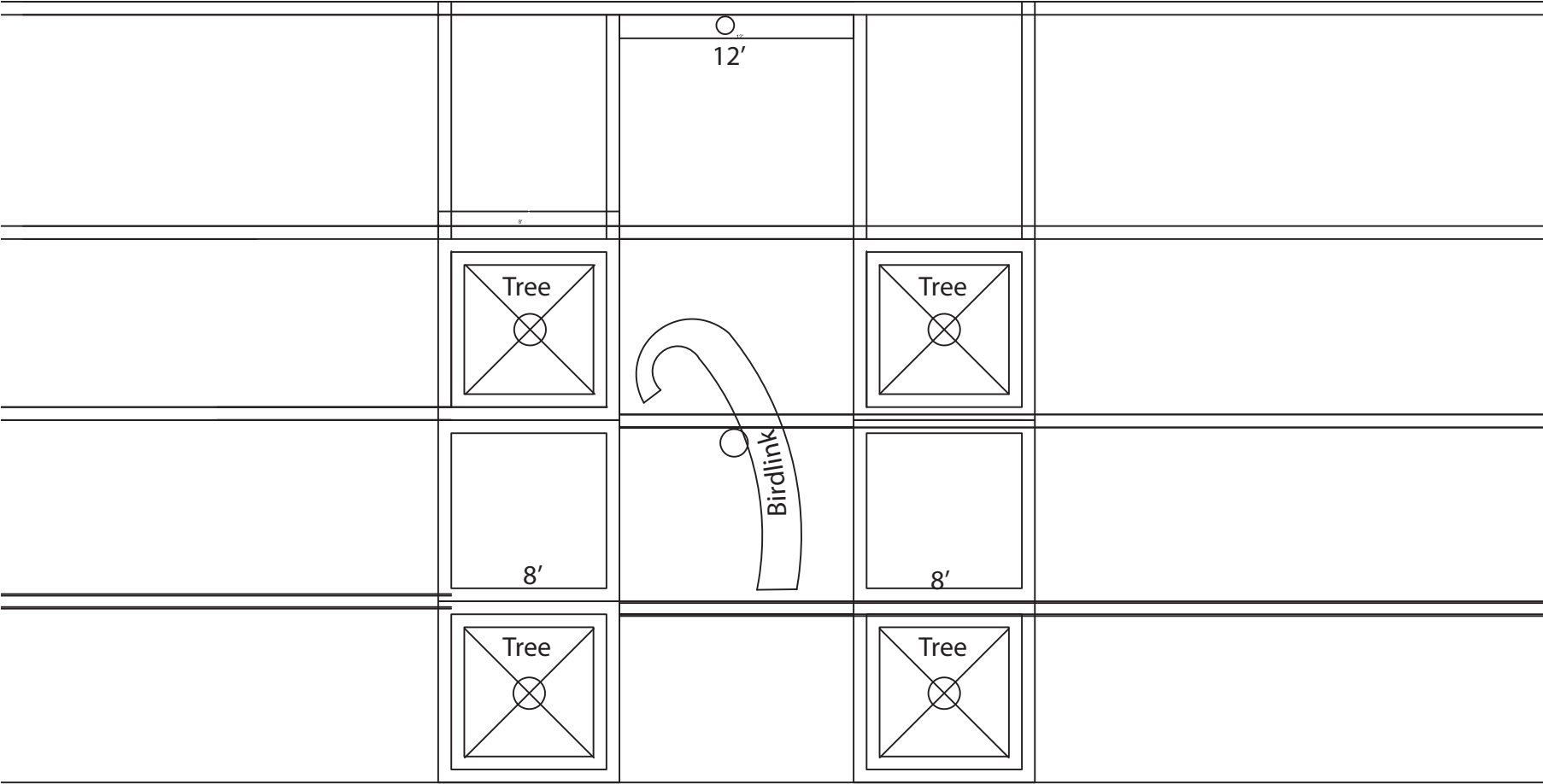


Artificial structures play a role in conservation and education and increase green space.



# BIRDLINK Site Layout At Sara D. Roosevelt Park

Basketball Court

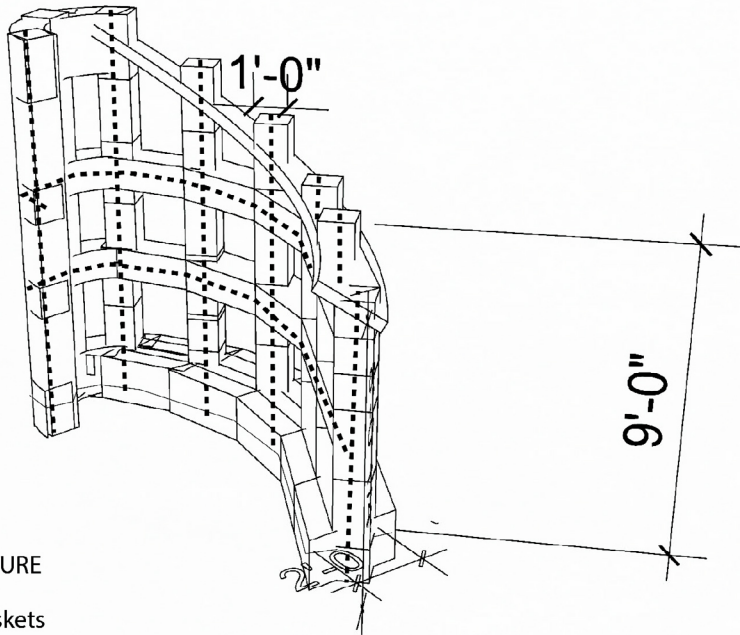
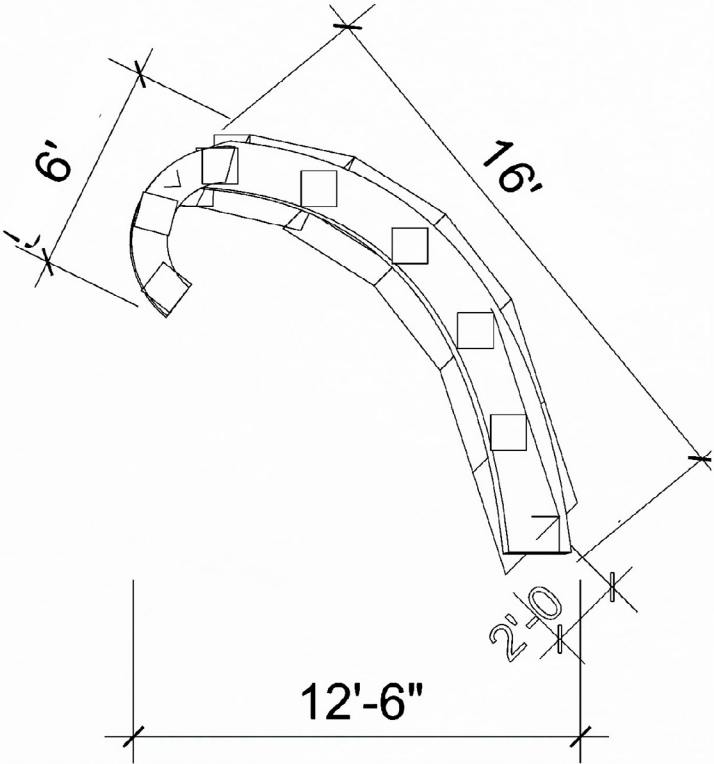
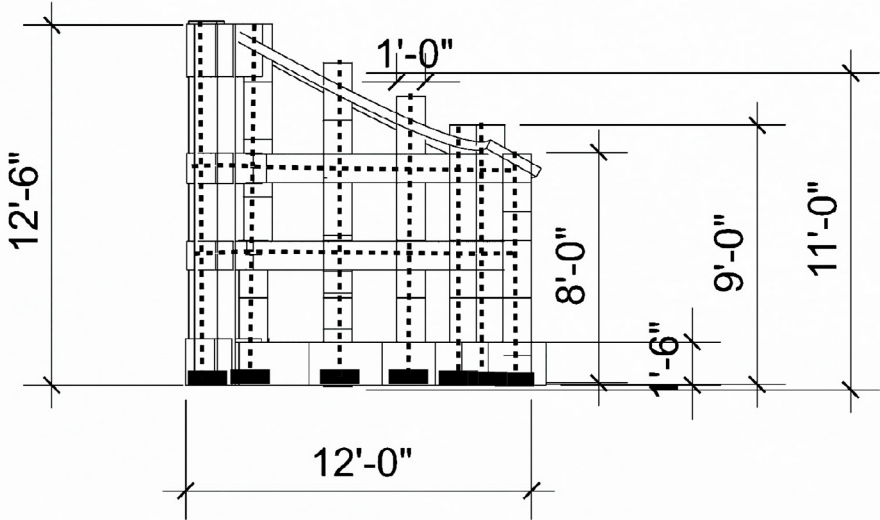
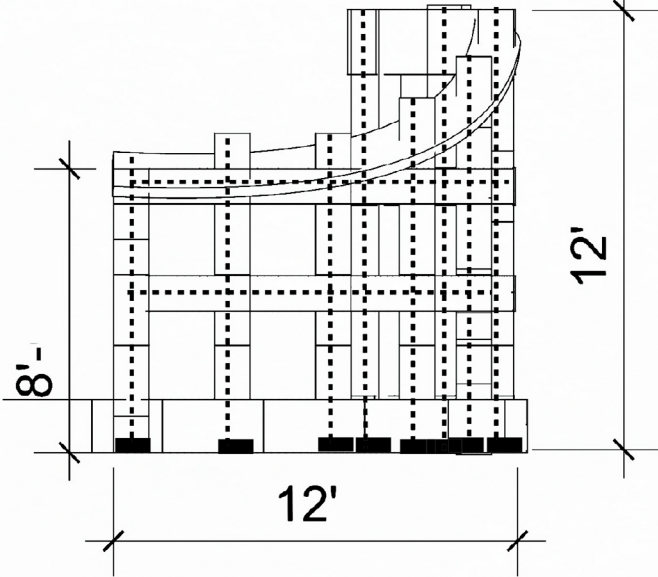





Steps

Sidewalk on East Houston Street



# BIRDLINK Structural Dimensions



- BIRDLINK STRUCTURE
-  Gabion Baskets
  -  Rebar
  -  Cement Footing

# BIRDLINK Green Wall Material

Gabion Fill, Stone, Re-used Concrete, Felt, Soil, and Plants



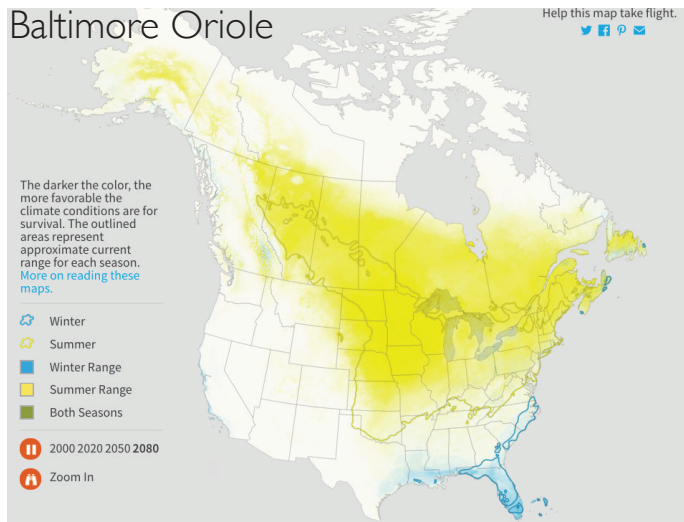


# BIRDLINK Time Frame

## Construction, Planting, Maintenance, Public Outreach Programming

- Structure in place spring 2018
- Plants added as seeds and plugs throughout the growing season
- Autumn and winter growth and berries to be maintained as the year passes
- De-installation scheduled for 2019 -final planting into permanent site TBD with Parks Dept.
- Plants originate at Staten Island Native Plant Nursery
- Planting and maintenance phases overseen by Gerchick and community collaborators throughout the year
- Event and education programming throughout the year in concert with local schools and community organizations
- Community participation in regular maintenance, ecological and cultural programs
- Citizen science projects with the Audubon Society and The Cornell Ornithology Lab
- and Bio Bus
- Mobile apps are free and available to help people contribute observations to avian population surveys
- Art and citizen science projects to be coordinated with local schools and community centers in the neighborhood, and during public events with the general public with coordination with Sara D. Roosevelt Parks Coalition

# CLIMATE CHANGE Projection of Migration Patterns

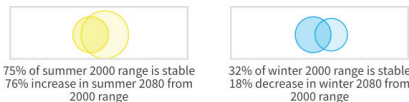


Immortalized by a baseball team and named for the colors of the second Lord Baltimore's coat of arms, this species is a common breeder across much of eastern North America in areas with large broad-leaved trees. Cottonwoods are a particular favorite for placing its long, pendulous nest. If it can adapt to the changing climate, a substantial increase in climatically suitable area and relatively stable summer range are projected—both potentially good news for the species. However its limited North American winter range may shrink. Most Baltimore Orioles winter in the Neotropics, thus additional data from that region will strengthen Audubon's climate model predictions.

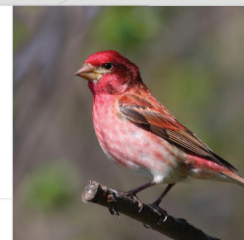
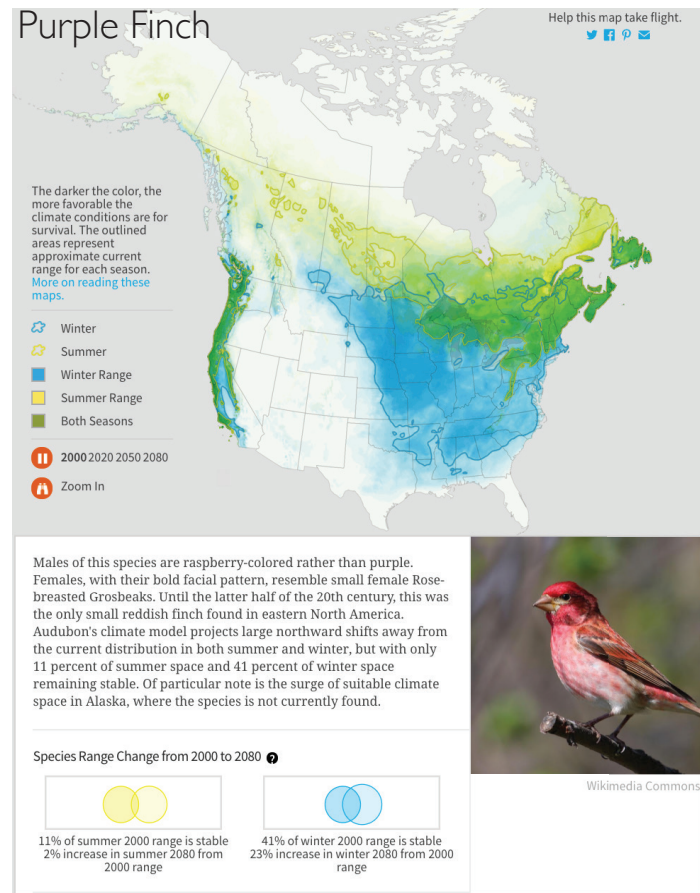


Patty McGann/Flickr Creative Commons

## Species Range Change from 2000 to 2080



Birds migrate to move from areas of low or decreasing resources to areas of high or increasing resources. The two primary resources being sought are food and nesting locations. Many species can withstand freezing temperatures as long as an adequate supply of food is available.

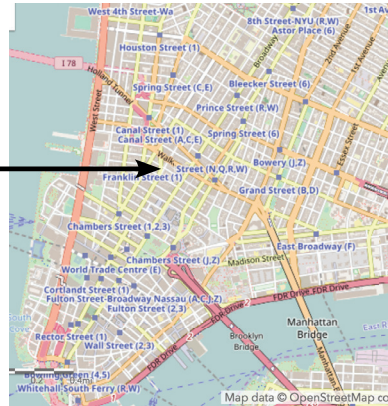
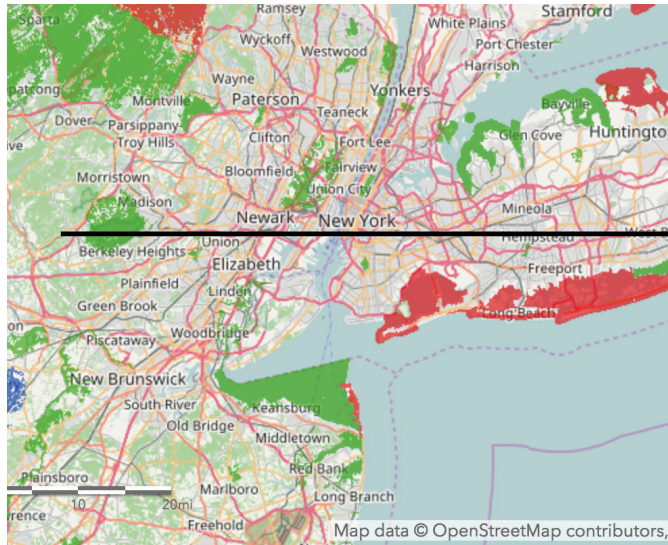


Wikimedia Commons

Long-distance Migrants typically move from breeding ranges in the United States and Canada to wintering grounds in Central and South America despite the arduous journeys involved, long-distance migration is a feature of some 350 species of North American birds.



# BIRDLINK Context



Healthy & Threatened

Sample Neighborhood Network

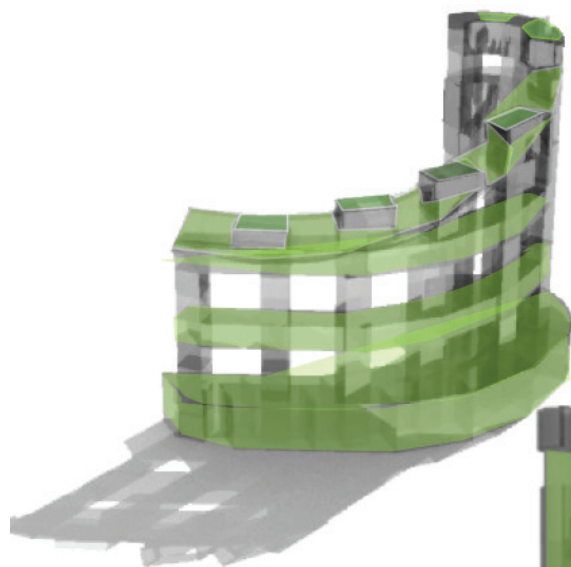
Sites in Network

BIRDLINK is a project that builds upon current work designing for ecological challenges. Design for biodiversity starts in cities with small experiments to restore wildlife habitat with ecological infrastructure. This is the idea of adaptive infrastructure to bring safe passage. A landscape network strategy connects fragmented habitat across scales by building complex functions into the landscape to make communities and wildlife more resilient to climate and other changes.

BIRDLINK is designed for ecological function with the aesthetics to communicate with the public.

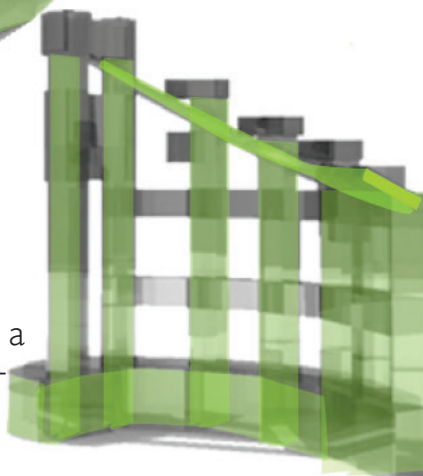
# BIRDLINK Citizen Science Education

Events • Observation • Technology • Outreach to Schools and Community Organizations



Nesting areas near the top-of the sculpture are made with transparent material to allow observation from below or from the side.

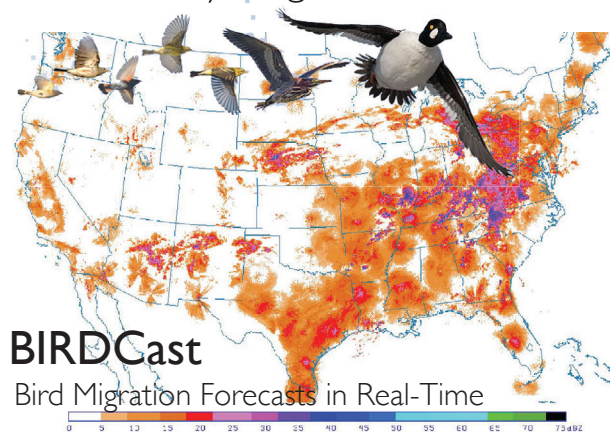
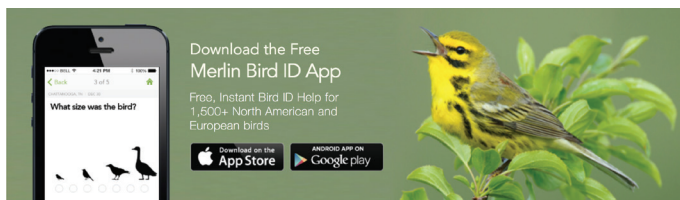
House Finch, Mourning Dove, and American Robin appreciate a nesting ledge, as well as an overhang to accommodate a nest.



## eBird

A joint project by the Cornell Lab of Ornithology and Audubon

eBird is a free online program that allows birders to track their sightings, while other birders watch and search in real-time.



The Cornell Lab of Ornithology

## Celebrate Urban Birds

### Let's get started!



**Learn to identify the 16 focal species.** Use the enclosed bird-ID guide and silhouette posters. If you want to obtain a regional list of focal species, visit [celebrateurbanbirds.org/regional](http://celebrateurbanbirds.org/regional)

**Pick a place to watch birds and stick to it!** Your bird-watching area should be 50 feet by 50 feet—about the size of half a basketball court. Find and remember the visual boundaries of your area. Don't change your bird-watching area.



**Spend just 10 minutes observing birds.**

- ✓ Tell us if you see—or don't see—any of the focal species.
- ✓ If you can't confidently identify a species, select "Unsure."
- ✓ Zero means a lot! Send us your information even if you see no birds.
- ✓ Only report birds inside your bird-watching area.
- ✓ Mornings are best.



**Repeat your observation three times** in the same bird-watching area anytime within a month.



**Send your data.** Citizen science happens when everyone shares their observations.

### Have fun!



Illustrations by Barbara Science Illustration (Chloe Lam (center) and Liz Clayton Fuller (bird-ID illustrations))

June, 2016

Visit us at [CelebrateUrbanBirds.org](http://CelebrateUrbanBirds.org)



# BIRDLINK Future Neighborhood Network Strategy



BIRDLINK interactive native plant sculptures function singly or as part of a larger network to support species by rebuilding native flora and fauna into the urban fabric. They attract resident and migrating birds and green city spaces.



# BLOOMING SCHEDULE

*Oenothera speciosa*

*Achillea millefolium*

*Oxalis corniculata*

*Geranium maculatum*

*Parthenocissus quinquefolia*

*Vinca minor*

*Ajuga reptans*

*Chasmanthium latifolium*

*Hakonechloa macra*

*Phlox divaricata*

*Galium odoratum*

*Athyrium filix-femina*

*Heuchera villosa*

*Liriope spicata*

*Helleborus x hybridus* 'Winterqueen Strain'







# BIRDLINK Planting Sketches



drawing by SALEMBIER



# BIRDLINK Birdpark



oil on canvas 48 x 34 inches



paintings by GERCHICK





Anina Gerchick is a public installation artist, landscape architect and painter . Her public work combines ecological functionality and enhancement of urban public space with a focus on climate challenges that include the species that share our built environment. Her paintings have been exhibited in New York City, internationally and in the Southeastern US.