

# **STRENGTHENING CHICAGO'S SUSTAINABLE DEVELOPMENT POLICY**



# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Former Policy Impact/Outcomes

- Chicago's **Sustainable Development Policy** requires projects receiving public funding or needing special approvals to incorporate sustainable design elements (requirements vary by project type):
  - Building Certification (LEED, ENERGY STAR, Green Globes)
  - Green Roof (100% or 50% in-conjunction with certification)
  - Exceed Stormwater Ordinance performance requirements

### LEED Buildings:

**Chicago Tribune**



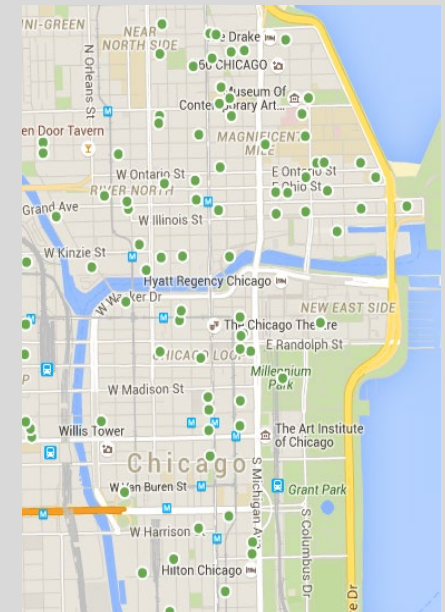
***"Illinois named No. 1 in LEED certification"***

#### Illinois #1 in LEED for Third Consecutive Year

Dear Jamie,

USGBC announced today that **Illinois ranks #1 in the nation for LEED certified space**. That makes it *three years in a row* Illinois has been #1 based on the per capita rankings released every year. Click [here](#) to view the press release and the 2015 list of Top 10 States for LEED.

### Green Roofs:

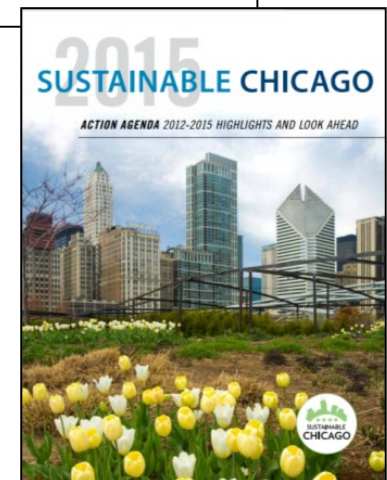


**As of 2013, the City of Chicago had 509 vegetated roofs, covering 5.5MM square feet**

# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Sustainability Context

- The **Chicago Climate Action Plan** established greenhouse gas emission targets
  - 25% GHG reduction by 2020, 80% by 2050
  - Focus on energy, transportation, waste, & adaptation
- The **Sustainable Chicago Action Agenda** prioritized specific activities to drive near-term progress
  - Mutually-reinforcing citywide and cross-sector goals
  - Focus on economy, energy, transportation, waste, water open spaces & healthy food, climate




### Recent Efforts (Not Exhaustive)



## CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY


### Objectives of the Policy Refresh

- Build a “smarter” policy:
  - Reflect changes in market developments since 2004
  - Incorporate broader environmental context
  - Recognize innovation in sustainable design
  - Increase flexibility in meeting the City’s sustainability goals
  - Create environmental, social and economic value in development projects
- Enable impact / outcome tracking

 <b>City of Chicago</b> <i>Sustainable Development Policy</i>	<i>(Only applies to all Non-Residential Agreements, Planned Developments, Site Plan Submittals and Conditional Landmark Development Agreements. For Department of Planning and Development, see Chapter 5 of Green Building Code. For Department of Public Works, see Chapter 6 of Green Building Code.)</i>		
	Financial Assistance (PPV/Incentive Set-Aside/Write-Down) (Employment Zone Grants) (CDBG Housing Assistance)	(Industrial Use, Redevelopment) (Emergence Zone Tax Breaks) (Black Participation Loans) (Easement 1) (Easement 2)	Non-Financial Assistance (Planned Developments) (Landmark Protection/Ordinance Development)
<b>Residential</b>			
Single-Fam. Proj. 1% Multi-Units 1 + 4 units	Building Certification		
6+ new Townhomes (10%)	100% Green Roof + Building Certification	50% Green Roof + Building Certification	50% Green Roof + Building Certification
6+ new Medium-Rise Units (including Townhomes)	100% Green Roof + Building Certification	50% Green Roof + Building Certification	50% Green Roof + Building Certification
10% Affordable Units or CHW	Building Certification	Building Certification	Building Certification
<b>Industrial</b>			
Logistics	100% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification	75% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification	75% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification
Community Centers, Government Buildings and Schools	50% Green Roof + LEED Certification	25% Green Roof + LEED Certification	25% Green Roof + LEED Certification
Industrial			
100% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification or 50% Green Roof + 50% VJA shading in 3 yrs	100% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification or 50% Green Roof + 50% VJA shading in 3 yrs	100% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification or 50% Green Roof + 50% VJA shading in 3 yrs	100% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification or 50% Green Roof + 50% VJA shading in 3 yrs
<b>Commercial</b>			
Mid-rise (over 10,000 sq.ft. floorplate)	100% Green Roof + LEED Certification or 50% Green Roof + 50% VJA shading in 3 yrs	50% Green Roof + e-coded ASHRAE 90-1.2004 or 50% Green Roof + LEED Certification or 50% Green Roof + 50% VJA shading in 3 yrs	50% Green Roof + e-coded ASHRAE 90-1.2004 or 50% Green Roof + LEED Certification or 50% Green Roof + 50% VJA shading in 3 yrs
Mid-rise (over 10,000 sq.ft. floorplate)	100% Green Roof + LEED Certification	100% Green Roof + e-coded ASHRAE 90-1.2004 or 100% Green Roof + LEED Certification	100% Green Roof + e-coded ASHRAE 90-1.2004
Stately (over 10,000 sq.ft. floorplate)	E-coded ASHRAE 90-1.2004 or 50% shading after 3 years	E-coded ASHRAE 90-1.2004	E-coded ASHRAE 90-1.2004
<b>Office</b>	100% Green Roof + LEED Certification	100% Green Roof + e-coded ASHRAE 90-1.2004 or 50% Green Roof + LEED Certification	50% Green Roof + LEED Certification
<b>Existing Buildings and Landmark Buildings</b>	Building Certification or LEED Certification or e-coded ASHRAE 90-1.2004	50% Green Roof + e-coded ASHRAE 90-1.2004	50% Green Roof + e-coded ASHRAE 90-1.2004



Chicago Sustainable Development Policy 2017 1/18


**DPPD**  
 Department of Planning and  
 Policy Development

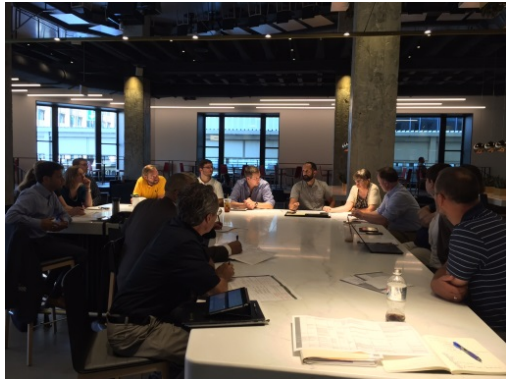
Compliance Tables		Table Required		Sustainable Strategic Items																								
Table	Table Number	Table Title	Table Description	Table	Planning		Implementation		Monitoring		Evaluation		Table															
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Table 23: Sustainable Development Policy 2017																												

General Development Projects (GDP) - New Construction	100 projects required
20-40% Affordable Development Projects (20-40% Affordability)	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 20%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 40%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 60%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 80%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 100%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 120%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 140%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 160%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 180%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 200%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 220%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 240%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 260%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 280%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 300%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 320%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 340%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 360%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 380%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 400%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 420%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 440%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 460%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 480%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 500%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 520%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 540%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 560%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 580%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 600%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 620%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 640%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 660%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 680%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 700%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 720%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 740%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 760%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 780%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 800%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 820%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 840%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 860%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 880%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 900%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 920%	100 projects required
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20-40% Affordable Development Projects (20-40% Affordability) - 960%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 980%	100 projects required
20-40% Affordable Development Projects (20-40% Affordability) - 1000%	100 projects required

Notes: 1. 20-40% Affordable Development Projects (20-40% Affordability) - 20%: 20% of the total number of projects required. 2. 20-40% Affordable Development Projects (20-40% Affordability) - 40%: 40% of the total number of projects required. 3. 20-40% Affordable Development Projects (20-40% Affordability) - 60%: 60% of the total number of projects required. 4. 20-40% Affordable Development Projects (20-40% Affordability) - 80%: 80% of the total number of projects required. 5. 20-40% Affordable Development Projects (20-40% Affordability) - 100%: 100% of the total number of projects required. 6. 20-40% Affordable Development Projects (20-40% Affordability) - 120%: 120% of the total number of projects required. 7. 20-40% Affordable Development Projects (20-40% Affordability) - 140%: 140% of the total number of projects required. 8. 20-40% Affordable Development Projects (20-40% Affordability) - 160%: 160% of the total number of projects required. 9. 20-40% Affordable Development Projects (20-40% Affordability) - 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900%: 900% of the total number of projects required. 46. 20-40% Affordable Development Projects (20-40% Affordability) - 920%: 920% of the total number of projects required. 47. 20-40% Affordable Development Projects (20-40% Affordability) - 940%: 940% of the total number of projects required. 48. 20-40% Affordable Development Projects (20-40% Affordability) - 960%: 960% of the total number of projects required. 49. 20-40% Affordable Development Projects (20-40% Affordability) - 980%: 980% of the total number of projects required. 50. 20-40% Affordable Development Projects (20-40% Affordability) - 1000%: 1000% of the total number of projects required.

## Policy Update Process

- **Feb 2016:** Assembled committee of experts



Andrew Billing (**stormwater**), Alison Lindburg (energy efficiency), Benjamin Skelton (**energy efficiency**), Samantha Bingham (**alternative transportation**), Carl Giometti (**bird-friendly design**), Ron Daye (landscape), Meg George (PD process), Jade Paul (**sustainable landscapes**), Jeff Wickenkamp (**stormwater**), John Mlande (**energy efficiency**), Judith Pollock (bird-friendly design), Katie Kaluzny (building certification), Laura Demink (ecology), Laura Umek (**ecology**), Billy McGhee (building certification), Tom Price (sustainable landscapes), Cindy Roubik (**historic preservation and design**), Noah Szafraniec (**PD process**), Terry Guen (sustainable landscapes), Karen Weigert (**sustainability**), Chris Wheat (sustainability), Christopher Dillion (**Developer**)

- **Feb – July 2016:** Met three times as large group then broke up into sub-groups and each group met separately
- **July 2016:** Held two meetings with developers to review framework
- **Oct 2016:** Posted draft on October 3 and met with 15 stakeholder groups to obtain feedback
- **Dec 2016:** Re-assembled committee to discuss feedback and discuss changes
- **Dec 2016:** Posted new draft based on feedback and provided 2 week public comment period
- **Jan 2017:** Implemented updated policy

# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY: Updated Policy



## Chicago Sustainable Development Policy 2017.01.12

Compliance Options		Points Required	Sustainable Strategies Menu																																			
Compliance Paths	Starting Points	Number of Optional Points Required <small>New Construction / Substantial Rehab / Moderate Rehab</small>	Health	Energy								Stormwater						Landscapes			Green Roofs		Water		Transportation							Solid Waste	Work Force	Wildlife				
			1.1 Achieve WELL Building Standard	2.1 Designed to earn the Energy Star	2.2 Exceed Energy Code (5%)	2.3 Exeed Energy Code (10%)	2.4 Exeed Energy Code (25%)	2.5 Exeed Energy Code (40%)	2.6 Onsite Renewable Energy (3%)	2.7 Onsite Renewable Energy (5%)	3.1 Exceed Stormwater Ordinance by 25%	3.2 Exceed Stormwater Ordinance by 50%	3.3 100% Stormwater Infiltration	3.4 Sump Pump Capture & Reuse	3.5 100-year detention for lot-to-lot buildings	3.6 100-year Detention for Bypass	4.1 Working Landscapes	4.2 Natural Landscapes	4.3 Tree Planting	4.4 Achieve Sustainable Sites Certification	5.1 Green Roof 50-100%	5.2 Green Roof 100%	6.1 Indoor Water Use Reduction (25%)	6.2 Indoor Water Use Reduction (40%)	7.1 Proximity to Transit Service	7.2 Bikeshare Sponsorship	7.3 Bike Parking Residential	7.4 Bike Parking Commercial & Industrial	7.5 EV Charging Stations	7.6 EV Charger Readiness	7.7 CTA Digital Displays	8.1 80% Waste Diversion	8.2 Workforce Development	9.1 Bird Protection (Basic)	9.2 Bird Protection (Enhanced)			
Options Without Certification																																						
All Options Available			0	100 / 50 / 25	40	30	20	30	40	50	10	20	10	20	40	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	10	5	10				
Options With Certification																																						
LEED Platinum			95	5 / 0 / 0	40	NA	NA	NA	NA	NA	NA	10	20	40	5	5	5	5	NA	NA	NA	20	10	20	NA	NA	NA	5	NA	NA	NA	10	5	5	NA	10	5	10
LEED Gold			90	10 / 0 / 0	40	NA	NA	NA	NA	50	10	20	10	20	40	5	5	5	5	NA	5	20	10	20	NA	NA	20	NA	5	NA	NA	10	5	5	10	10	5	10
LEED Silver			80	20 / 0 / 0	40	NA	NA	NA	NA	40	50	10	20	10	20	40	5	5	5	5	5	20	10	20	NA	20	NA	5	NA	NA	10	5	5	10	10	5	10	
Green Globes 4-Globes			90	10 / 0 / 0	40	NA	NA	NA	NA	NA	50	10	20	10	20	40	5	5	5	5	NA	NA	5	20	10	20	NA	NA	NA	10	5	5	10	10	10	5	10	
Green Globes 3-Globes			80	20 / 0 / 0	40	NA	NA	NA	NA	40	50	10	20	10	20	40	5	5	5	5	NA	5	20	10	20	NA	NA	NA	5	NA	NA	10	5	5	10	10	5	10
Green Globes 2-Globes			70	30 / 0 / 0	40	NA	NA	NA	NA	40	50	10	20	10	20	40	5	5	5	5	5	5	20	10	20	NA	20	NA	5	NA	NA	10	5	5	10	10	5	10
Living Building Challenge			100	0 / 0 / 0	40	NA	NA	NA	NA	NA	NA	NA	10	20	40	5	5	5	NA	NA	NA	20	NA	NA	NA	NA	NA	NA	10	5	NA	NA	10	5	10	10	5	10
Living Building Challenge Petal			90	10 / 0 / 0	40	NA	20	30	40	50	NA	NA	10	20	40	5	5	5	5	NA	5	20	10	20	10	20	NA	5	NA	NA	10	5	5	10	10	5	10	
Enterprise Green Communities*			80	20 / 0 / 0	40	NA	NA	NA	NA	NA	10	20	10	20	40	5	5	5	5	5	5	20	10	20	10	20	5	5	NA	NA	10	5	5	10	10	5	10	
PassiveHouse			70	30 / 0 / 0	40	NA	NA	NA	NA	NA	10	20	10	20	40	5	5	5	5	5	5	20	10	20	10	20	5	5	5	5	10	5	5	10	10	5	10	

\*only available to affordable housing projects funded by DPD's Housing Bureau

Planned Development Projects (PD) - New Construction	100 points required
TIF Funded Development Projects (TIF) - New Construction*	100 points required
DPD Housing, Multi-family (>5 units) Projects (DPD-H MF) - New Constr	100 points required
PD, TIF, DPD-H MF and Class L - Renovation Projects*	
Moderate Renovation Projects	25 points required
Substantial Renovation Projects	50 points required

\*does not apply to TIF assistance of less than \$1M (including but not limited to TIF-NIP, TIF Purchase Rehab, Streamlined TIF and SBIF programs)

**Moderate Renovation Projects** = projects including partial or minor upgrades to building systems and minor repairs to the exterior envelope

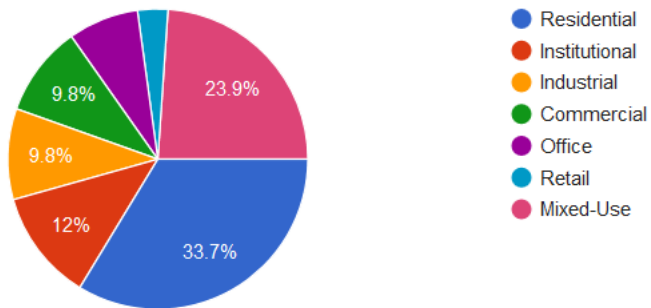
**Substantial Renovation Projects** = projects including new and/or upgraded building systems and extensive repairs to the exterior envelope

# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Results

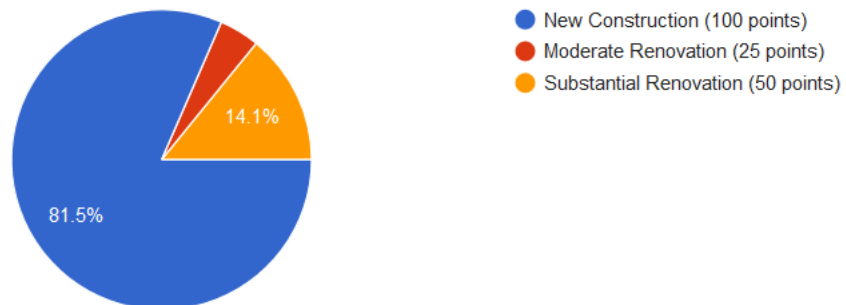
### Project Type

92 responses



### Project Description

92 responses

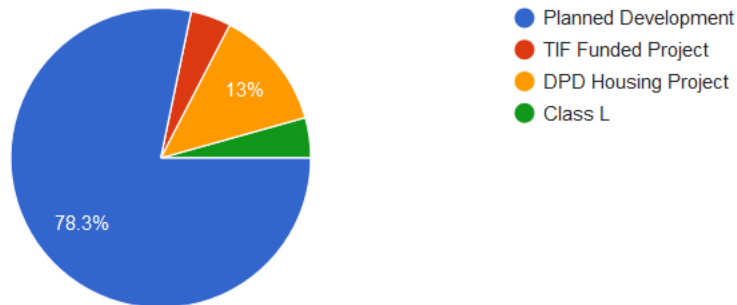


# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Results

### Project Designation

92 responses



### Select this project's certification level

92 responses



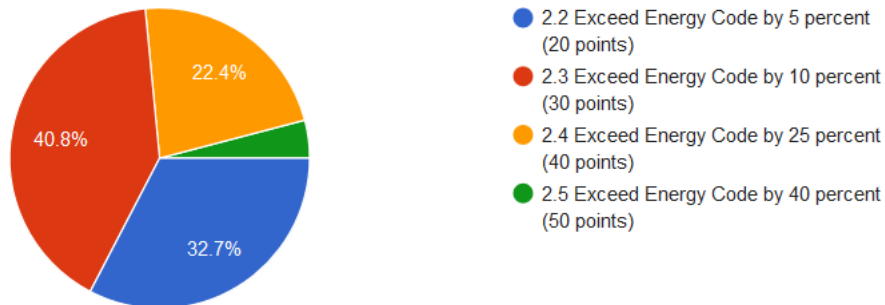
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# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Results

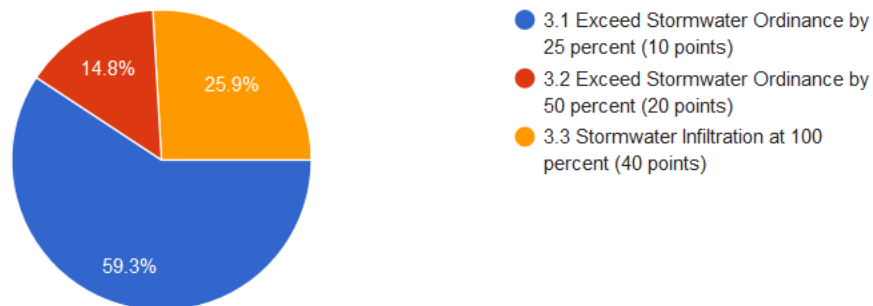
### Exceed Energy Code (choose no more than one)

49 responses



### Stormwater Volume Reduction (choose no more than one)

27 responses



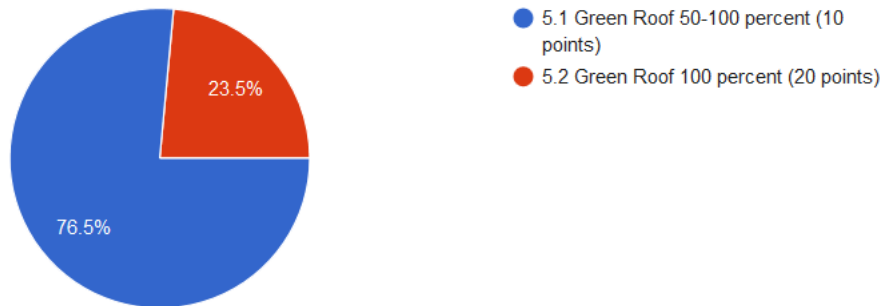
# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Results

### 5. Green Roofs

Choose no more than one

34 responses

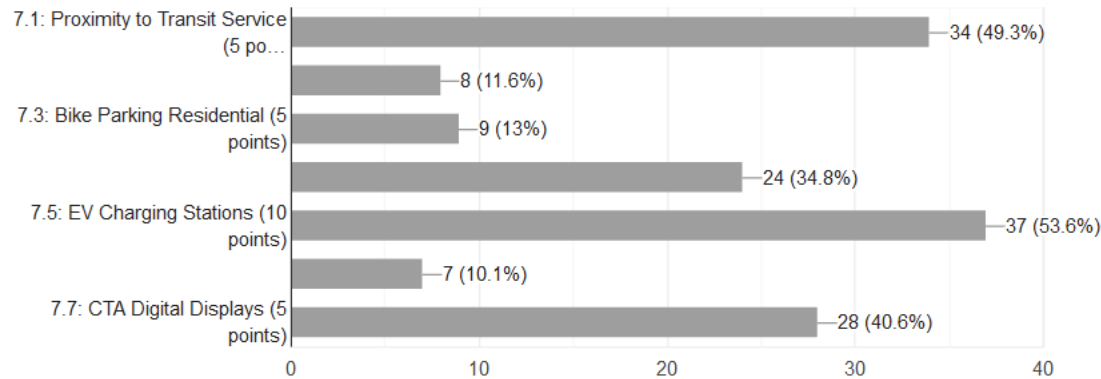


# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Results

### 7. Transportation Strategies

69 responses

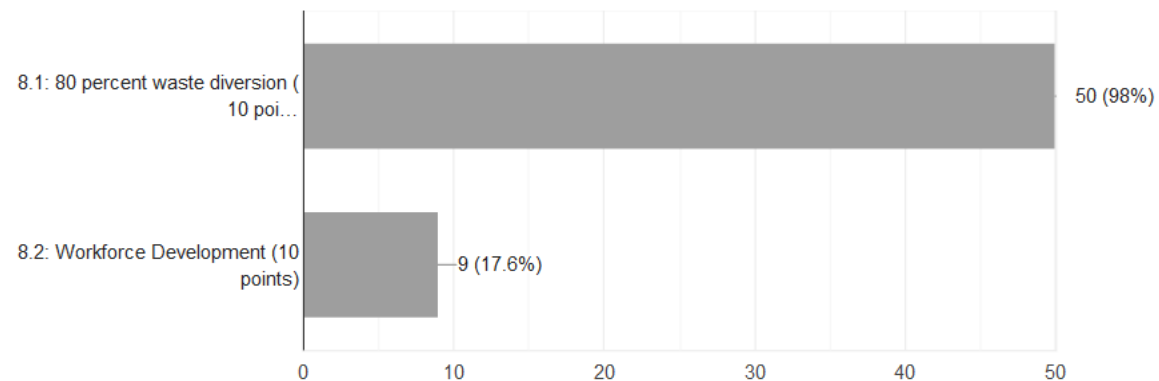


# CITY OF CHICAGO SUSTAINABLE DEVELOPMENT POLICY:

## Results

### 8. Solid Waste/Work Force

51 responses



# Resilient Corridors | 2019



# Project Background



Initiated by HUD  
grant related to  
April 2013 flood  
event

project location

# Challenge



## Objectives

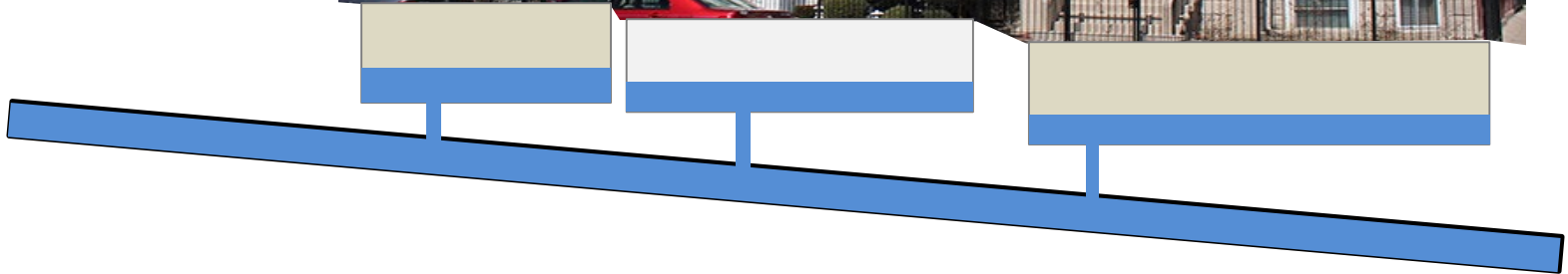
---

**Reduce basement flooding risk by activating city-owned, vacant lots**

**Create beautiful public spaces that can be maintained by local stewards**

**Design and construct in 2017/2018**

# Basement Flooding



# Basement Flooding



# Approach



**Runnel**

**Rain Garden**

**Plaza**

**Passive Recreation**

**Urban Farm**

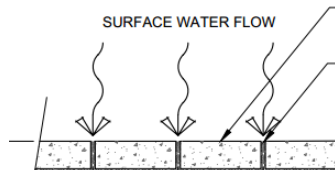
**Permeable Pavement**

**Choose sites with best opportunity to reduce basement flooding**

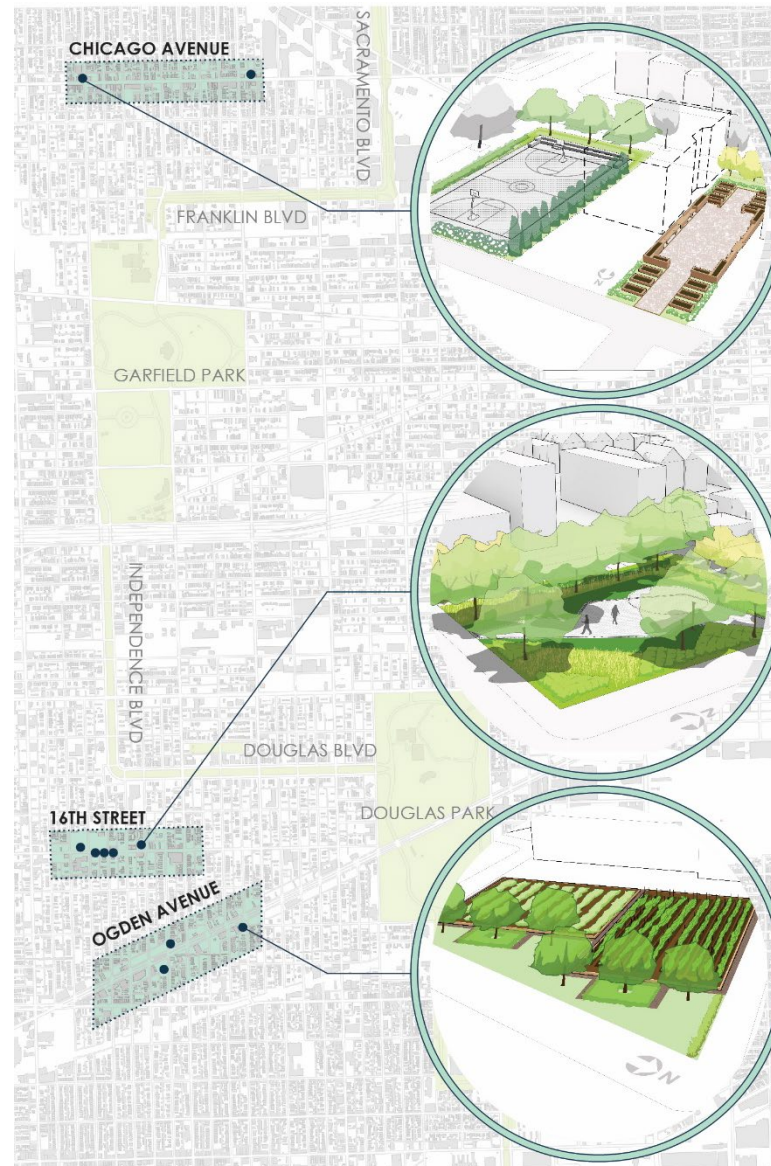
**Green Infrastructure**

**Underground Storage**

**Bring water from the ROW into sites**



# Resilient Corridors

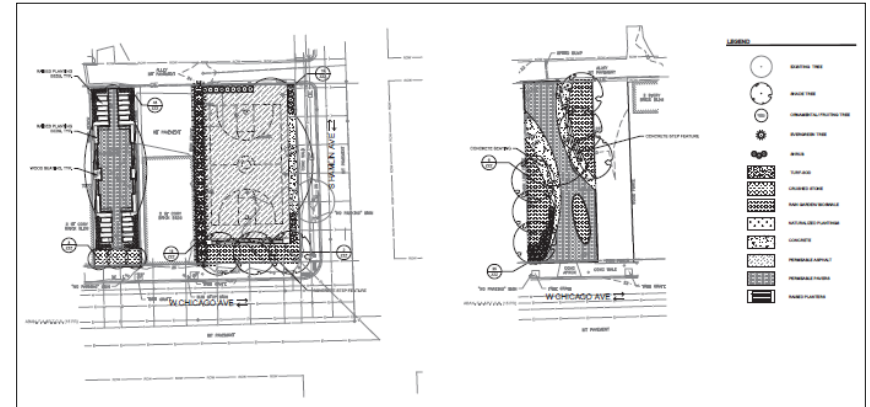


**3** corridors  
**10** project areas  
**23** parcels



# Chicago Avenue

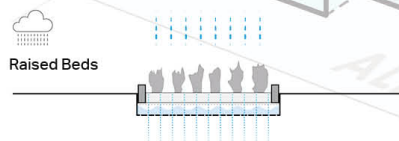
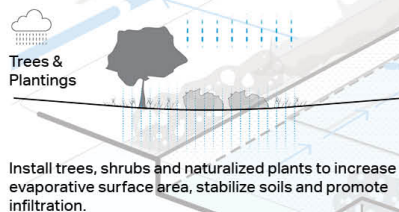
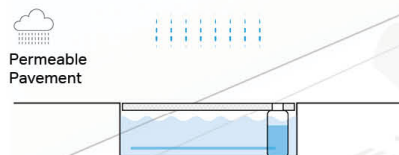
27<sup>th</sup> Ward



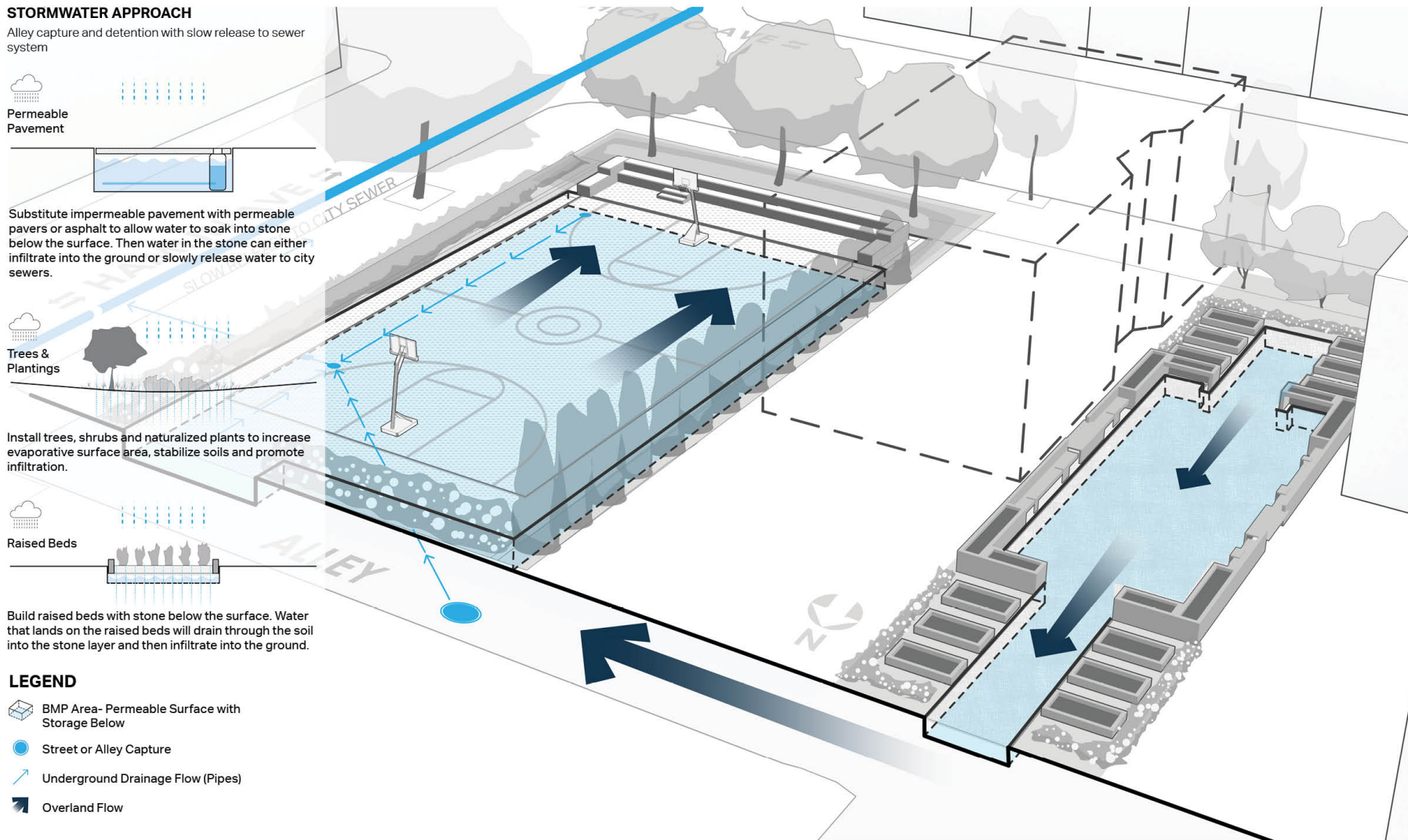
Site #	Community Group	Complimentary Projects	Brief Description	Stormwater Approach
1a	Kelly YMCA & Franciscan Brothers	New youth and senior programming	Multi-use permeable hardscape	Alley capture and detention with slow release to sewer system
1b	Kelly YMCA & Franciscan Brothers	New youth and senior programming	Multi-use permeable hardscape and vegetable garden	Zero discharge site
02	West Humboldt Development Council	Future CPD skatepark	Gateway to future skatepark	Zero discharge site

**STORMWATER APPROACH**

Alley capture and detention with slow release to sewer system

**LEGEND**

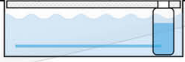
- BMP Area- Permeable Surface with Storage Below
- Street or Alley Capture
- Underground Drainage Flow (Pipes)
- Overland Flow





**STORMWATER APPROACH**

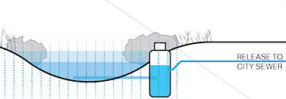
Zero discharge site (no water taken in from the street)

Permeable  
Pavement

Substitute impermeable pavement with permeable pavers or asphalt to allow water to soak into stone below the surface. Then water in the stone can either infiltrate into the ground or slowly release water to city sewers.

Trees &  
Plantings

Install trees, shrubs and naturalized plants to increase evaporative surface area, stabilize soils and promote infiltration.

Rain  
Garden

Depress an area of the site and plant natives to allow water to store on the surface and soak into the stone below the surface. Then water in the stone can either infiltrate into the ground or slowly release water to the city sewers.

**LEGEND**BMP Area- Permeable Surface with  
Storage Below

Street or Alley Capture



Underground Drainage Flow (Pipes)



Overland Flow

**02 CHICAGO MID BLOCK**

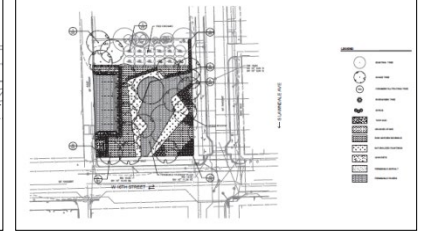
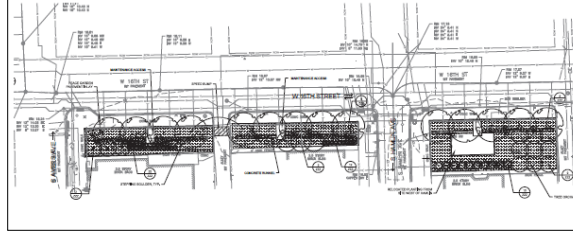
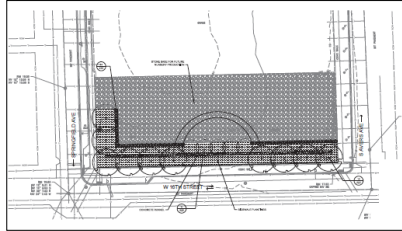




DEL KAR PHARMACY INC.

16<sup>th</sup> Street

24<sup>th</sup> ward



Site #	Community Group	Complimentary Projects	Brief Description	Stormwater Approach
03	Gardeneers	Youth training and education about edible trees and shrubs	Landscape and edge treatment	Stormwater capture, storage and slow release to sewer system
04-06	MLK Bloom Gardens	Youth training and education about edible trees and shrubs	Streetscape passive garden and adventure play	Downspout disconnection and passive alley runoff capture
07	Delkar Pharmacy non-profit	New restaurant and hair salon	Community gathering flex space	Stormwater storage for onsite runoff with restricted discharge

**STORMWATER APPROACH**

Stormwater street capture, storage, and slow release into the sewer system



Rain water is absorbed in gently sloping areas of naturalized plantings where it collects in a decorative channel during heavy rain events. These runnels lead to underground stone aggregate storage where water can either infiltrate into the ground or slowly release water to city sewers.

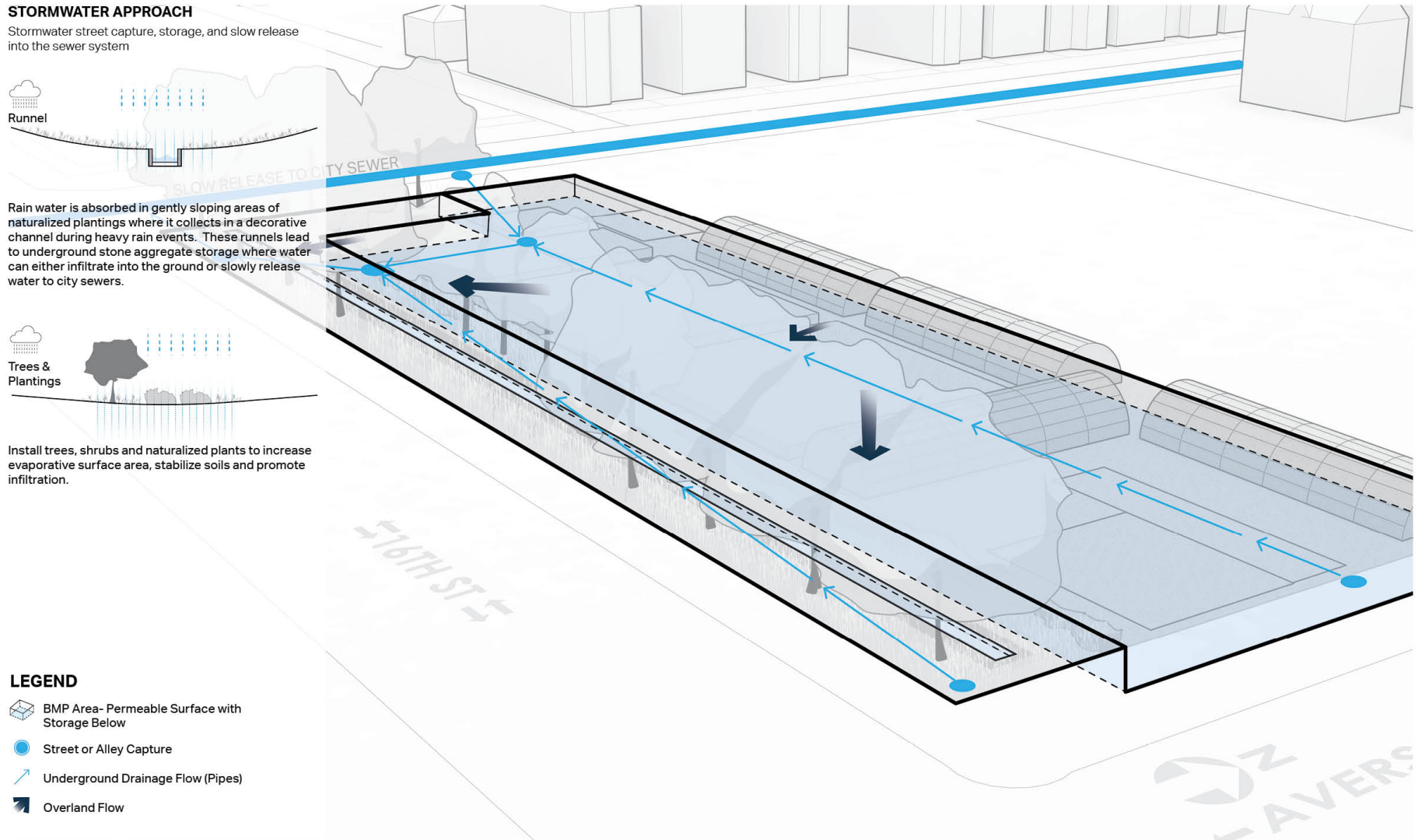


Install trees, shrubs and naturalized plants to increase evaporative surface area, stabilize soils and promote infiltration.

**LEGEND**

- BMP Area- Permeable Surface with Storage Below
- Street or Alley Capture
- Underground Drainage Flow (Pipes)
- Overland Flow

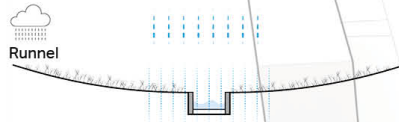
**03** 16TH AND HAMLIN



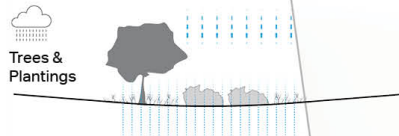


**STORMWATER APPROACH**

Downspout disconnection and passive alley runoff capture



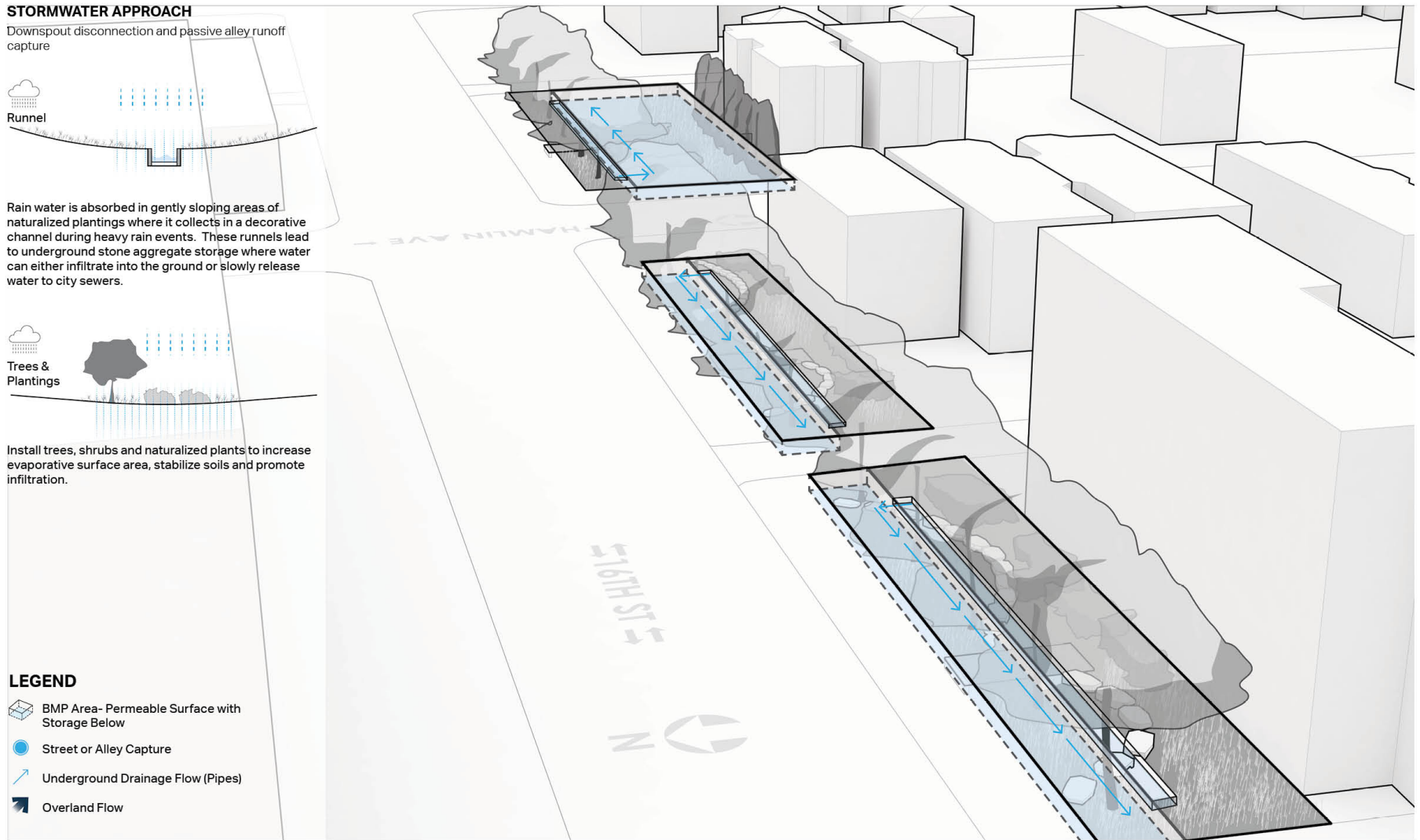
Rain water is absorbed in gently sloping areas of naturalized plantings where it collects in a decorative channel during heavy rain events. These runnels lead to underground stone aggregate storage where water can either infiltrate into the ground or slowly release water to city sewers.



Install trees, shrubs and naturalized plants to increase evaporative surface area, stabilize soils and promote infiltration.

**LEGEND**

-  BMP Area- Permeable Surface with Storage Below
-  Street or Alley Capture
-  Underground Drainage Flow (Pipes)
-  Overland Flow



**04-06** 16TH AND HAMLIN



**STORMWATER APPROACH**

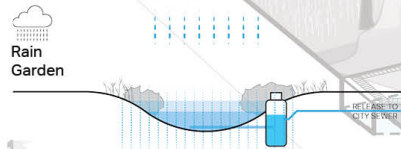
Stormwater storage for on-site runoff with slow release to sewer system.



Substitute impermeable pavement with permeable pavers or asphalt to allow water to soak into stone below the surface. Then water in the stone can either infiltrate into the ground or slowly release water to city sewers.



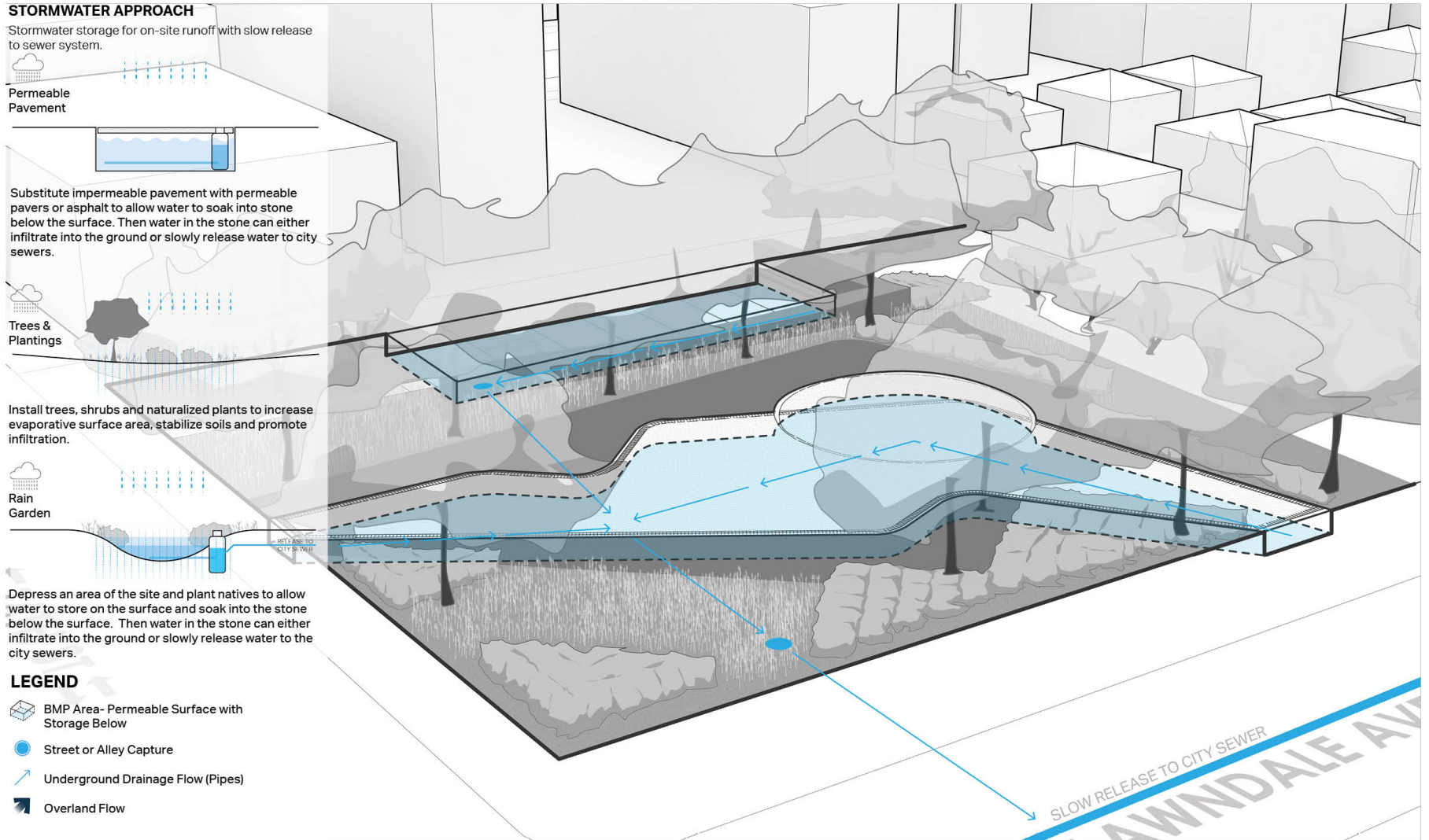
Install trees, shrubs and naturalized plants to increase evaporative surface area, stabilize soils and promote infiltration.



Depress an area of the site and plant natives to allow water to store on the surface and soak into the stone below the surface. Then water in the stone can either infiltrate into the ground or slowly release water to the city sewers.

**LEGEND**

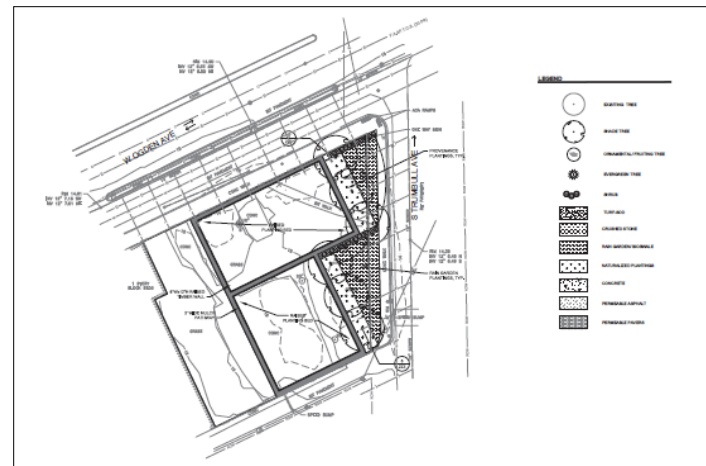
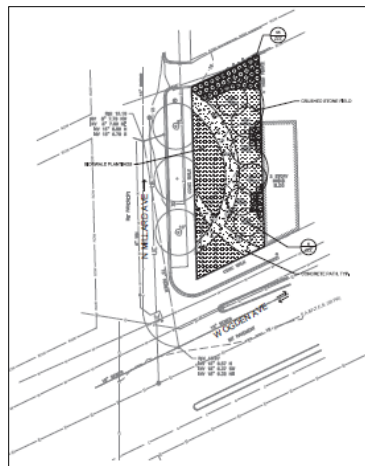
- BMP Area- Permeable Surface with Storage Below
- Street or Alley Capture
- Underground Drainage Flow (Pipes)
- Overland Flow

**07 16TH AND LAWNDAL**



# Ogden Avenue

24<sup>th</sup> Ward



Site #	Community Group	Complimentary Projects	Brief Description	Stormwater Approach
08	Lawndale Christian Health Center		Passive garden and block gateway	Stormwater landscape feature with stormwater capture
09	Lawndale Christian Health Center	Two basketball courts with bleachers to be used for tournament and league play	Leisure garden adjacent to future basketball venue	Stormwater capture, storage, and slow release into sewer system
10	Chicago Botanic Garden	New production garden for graduates of training garden	Production garden for incubator training garden	Stormwater capture, storage, and slow release into sewer system

**STORMWATER APPROACH**

Stormwater street capture and slow release into the city sewer system.



Trees & Plantings

Install trees, shrubs and naturalized plants to increase evaporative surface area, stabilize soils and promote infiltration.



Rain Garden

Depress an area of the site and plant natives to allow water to store on the surface and soak into the stone below the surface. Then water in the stone can either infiltrate into the ground or slowly release water to the city sewers.

**LEGEND**

BMP Area- Permeable Surface with Storage Below



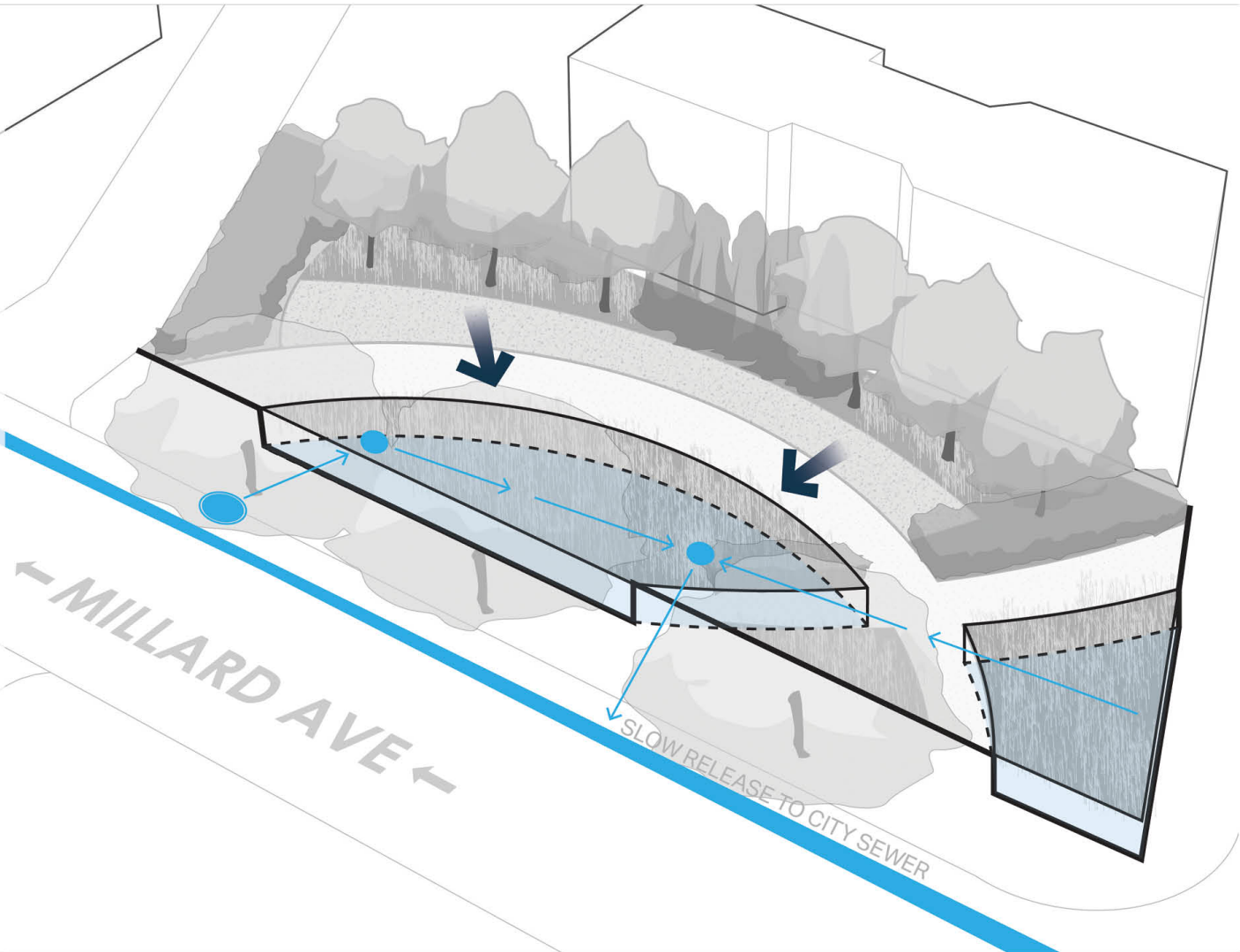
Street or Alley Capture



Underground Drainage Flow (Pipes)



Overland Flow

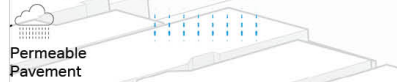


**08** OGDEN AND N. MILLARD



**STORMWATER APPROACH**

Stormwater capture, storage, and slow release into sewer system.



Substitute impermeable pavement with permeable pavers or asphalt to allow water to soak into stone below the surface. Then water in the stone can either infiltrate into the ground or slowly release water to city sewers.



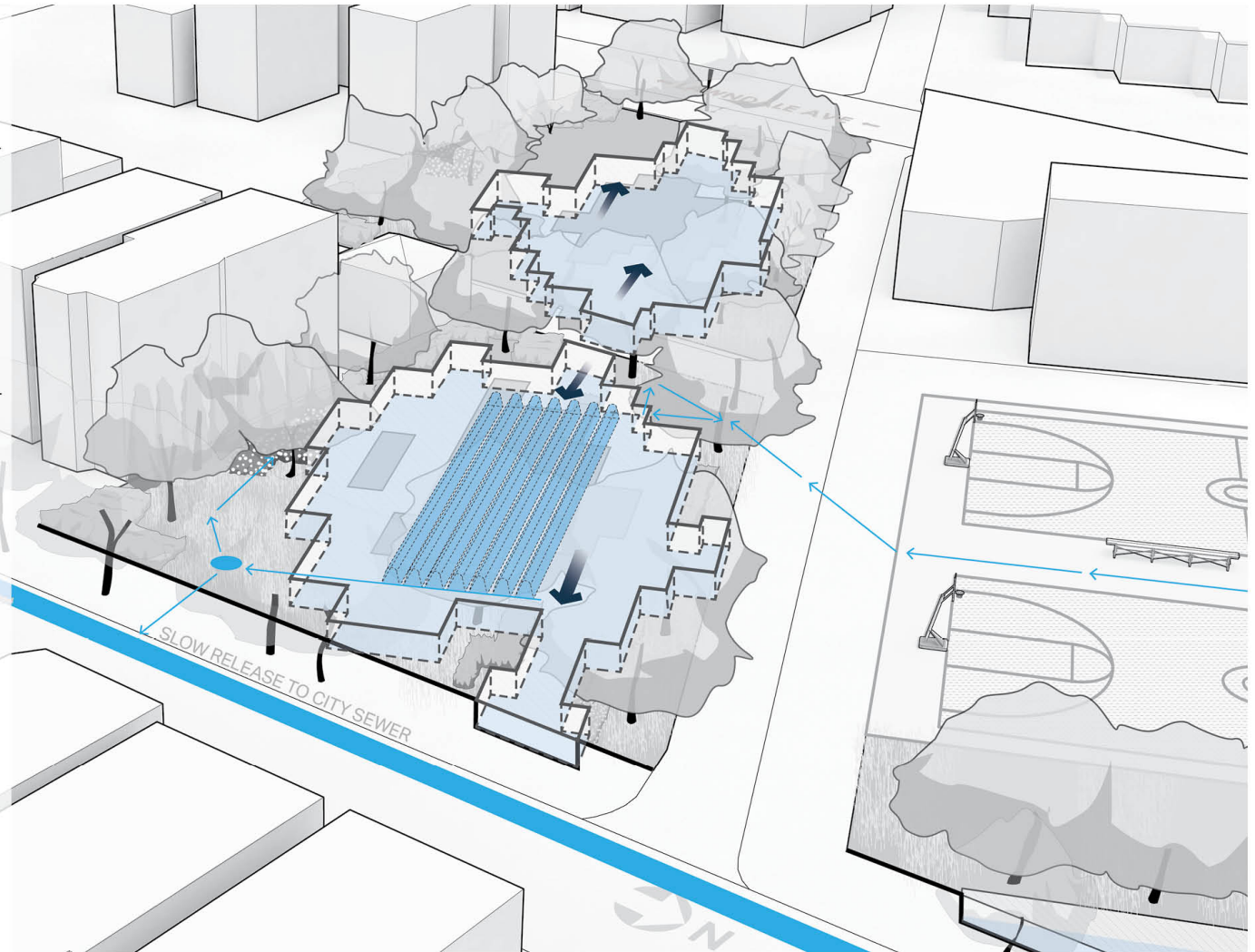
Install trees, shrubs and naturalized plants to increase evaporative surface area, stabilize soils and promote infiltration.



Substitute impermeable pavement with permeable pavers to allow water to soak into stone and in open chambers below the surface. Then water in the large storage volumes can either infiltrate into the ground or slowly release water to city sewers.

**LEGEND**

- BMP Area- Permeable Surface with Storage Below
- Street or Alley Capture
- Underground Drainage Flow (Pipes)
- Overland Flow



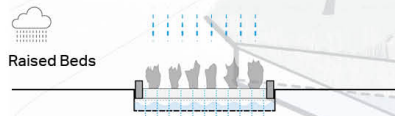


**STORMWATER APPROACH**

Street capture, storage, and slow release into sewer system






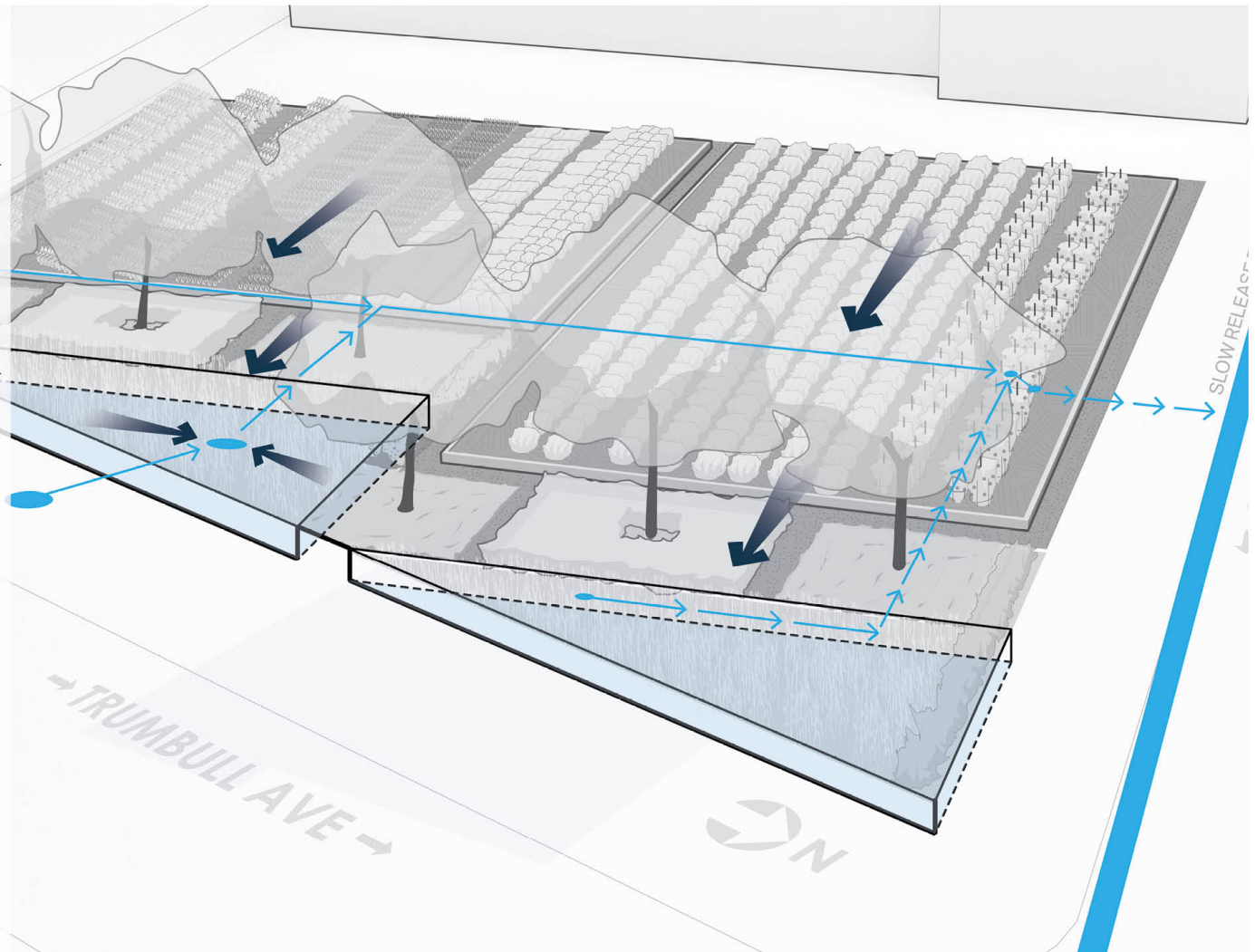
Install trees, shrubs and naturalized plants to increase evaporative surface area, stabilize soils and promote infiltration.



Build raised beds with stone below the surface. Water that lands on the raised beds will drain through the soil into the stone layer and then infiltrate into the ground.

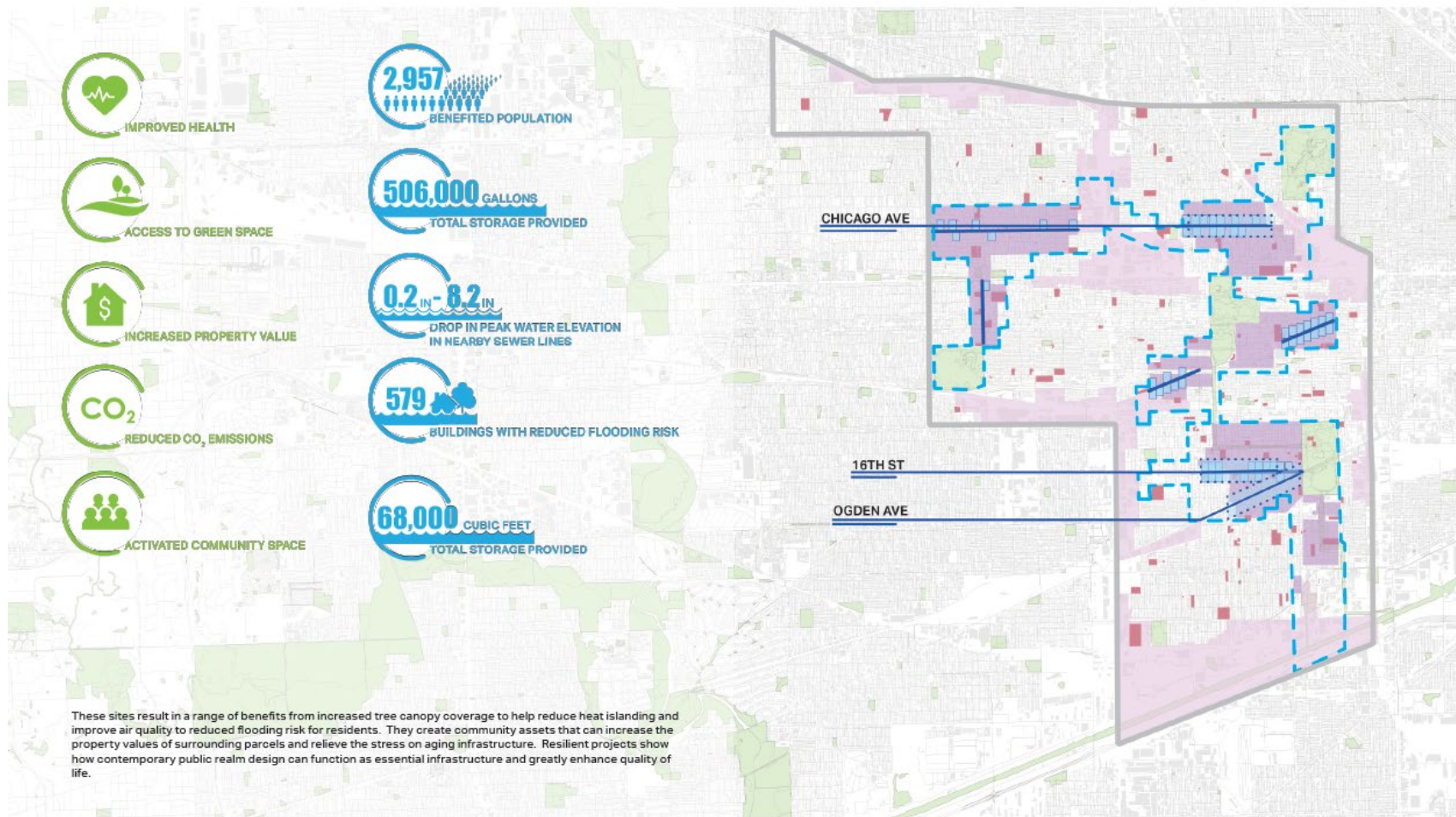
**LEGEND**

-  BMP Area- Permeable Surface with Storage Below
-  Street or Alley Capture
-  Underground Drainage Flow (Pipes)
-  Overland Flow



# 10 OGDEN AND TRUMBULL





## OVERALL BENEFITS