

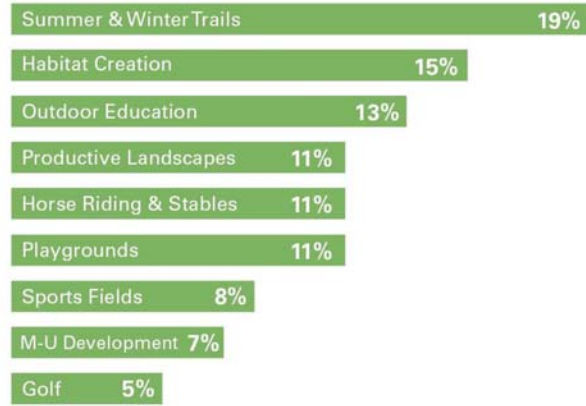
PUBLIC MEETING #2: COMMUNITY INPUT + KEYPAD POLLING

GREEN STORMWATER INFRASTRUCTURE + LAND USE

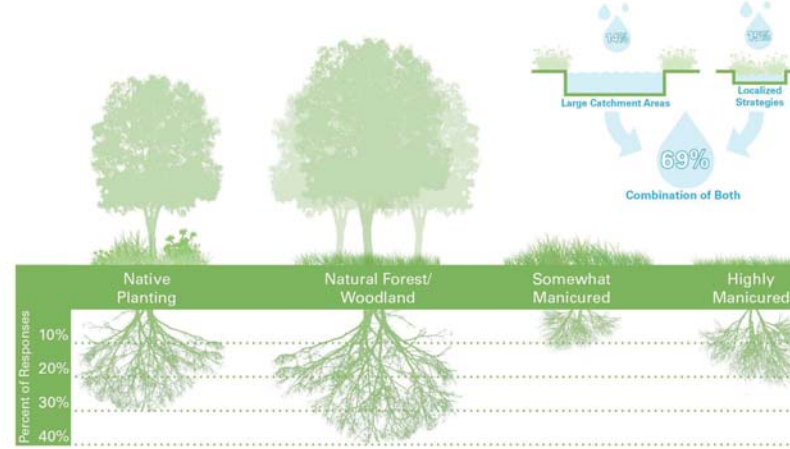
Percentage of the public attendees that support a greenway along the Rouge River.



If the former Rogell Golf Course were to be changed, what type of activities would you like to see?



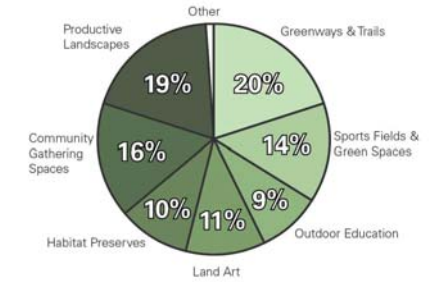
If you were to re- envision the former Rogell Golf Course, how would the edges look?



Which of the following stormwater strategies do you prefer?

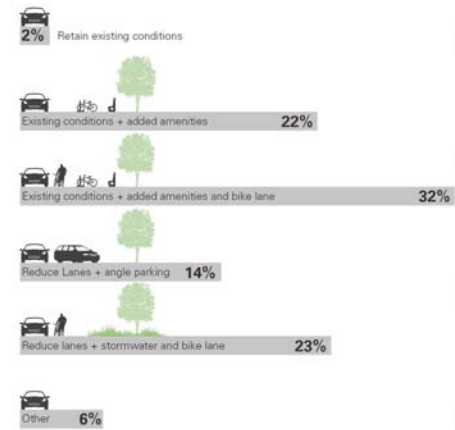


Green Stormwater Infrastructure can connect neighborhoods to amenities. Which of the following amenities would you like to see more of in your neighborhood utilizing vacant lots?

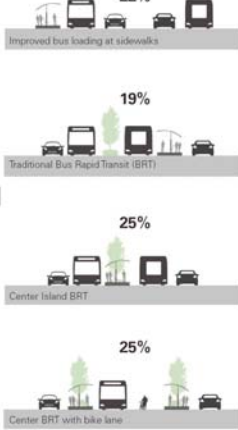


STREETSCAPE AND MOBILITY

Which of these street alternatives best align with your vision for streets in Northwest Detroit?



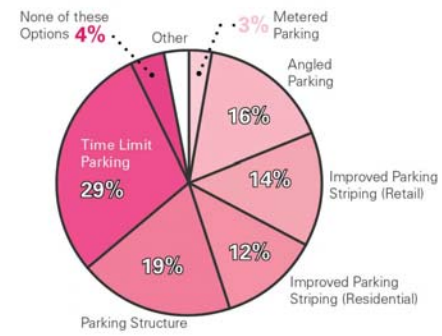
Which of the following alternatives do you prefer for bus travel?



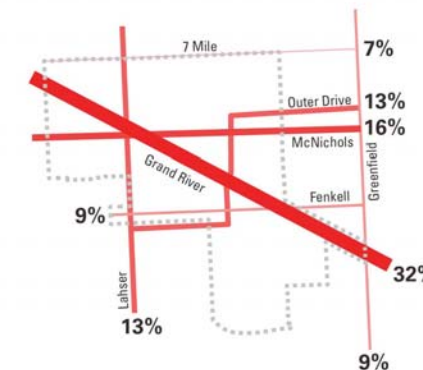
Where do you most want to see improvements along Grand River Avenue?



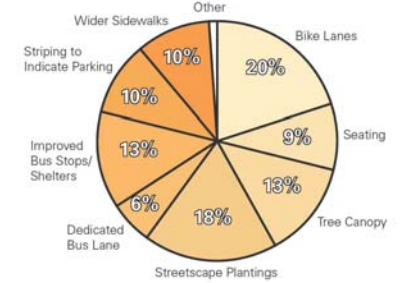
Which of the following would you most be in favor of in terms of parking?



Which streets should be considered for road diets and pedestrian improvements?

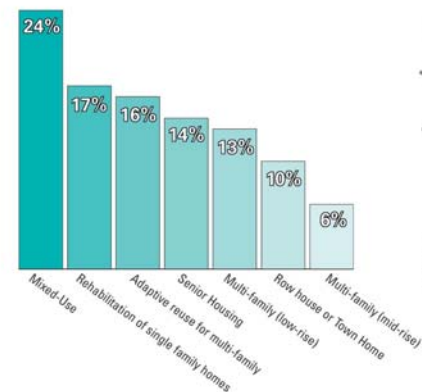


Which of these streetscape amenities would you most like to see?



HISTORIC PRESERVATION + HOUSING + ECONOMIC DEVELOPMENT

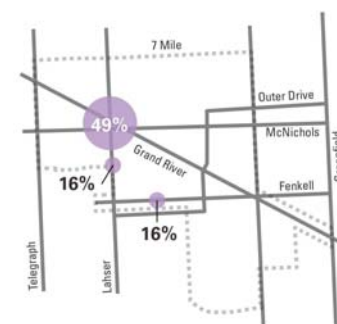
What type of residential development are you most interested in seeing in Northwest Detroit?



Which of these culturally important areas are you most interested in seeing preserved or reused?



There is an interest in the creation of an African Caribbean Marketplace in Northwest Detroit. Where do you think this should be located?

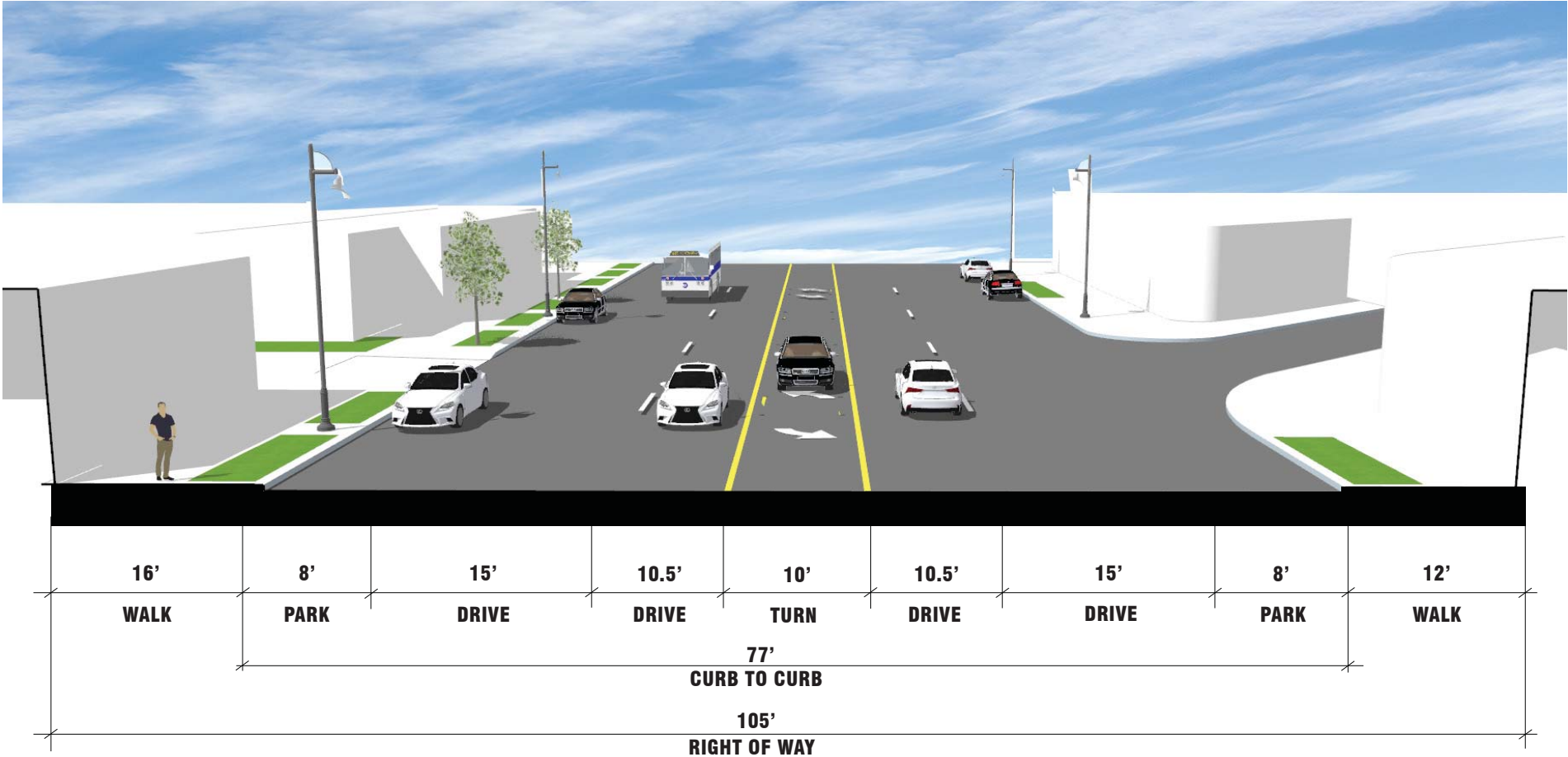


Which of the following types of projects do you think should be implemented first?



GRAND RIVER STREETScape ALTERNATIVES

GRAND RIVER AVENUE: EXISTING CONDITIONS

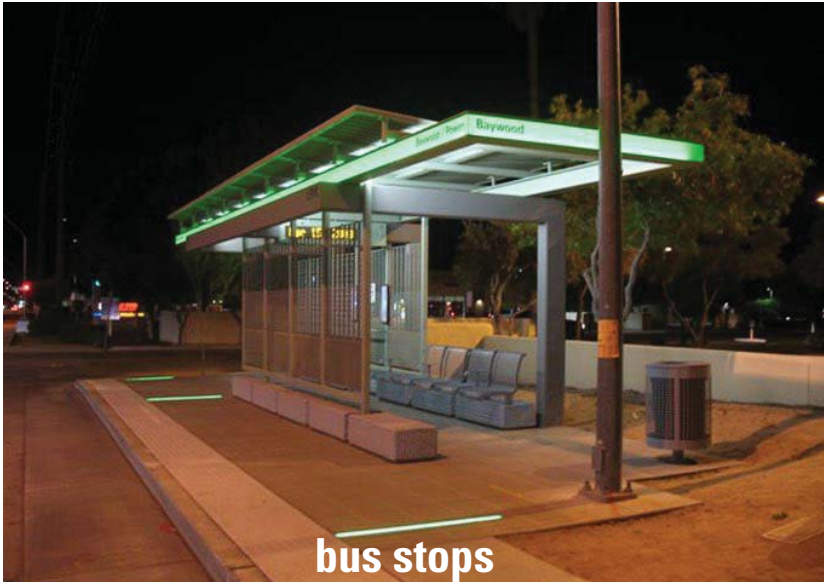
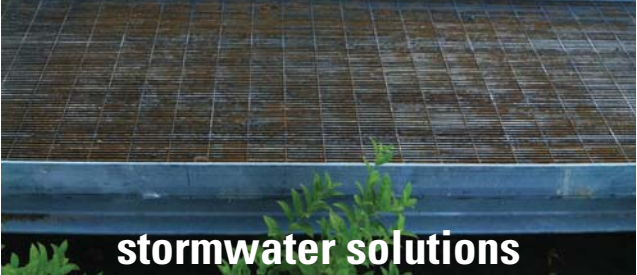


NORTHWEST DETROIT

GRAND RIVER CORRIDOR + GREEN STORMWATER INFRASTRUCTURE MASTER PLAN

GRAND RIVER STREETScape ALTERNATIVES

CHARACTER IMAGERY



NORTHWEST DETROIT

GRAND RIVER CORRIDOR + GREEN STORMWATER INFRASTRUCTURE MASTER PLAN

GRAND RIVER STREETScape ALTERNATIVES

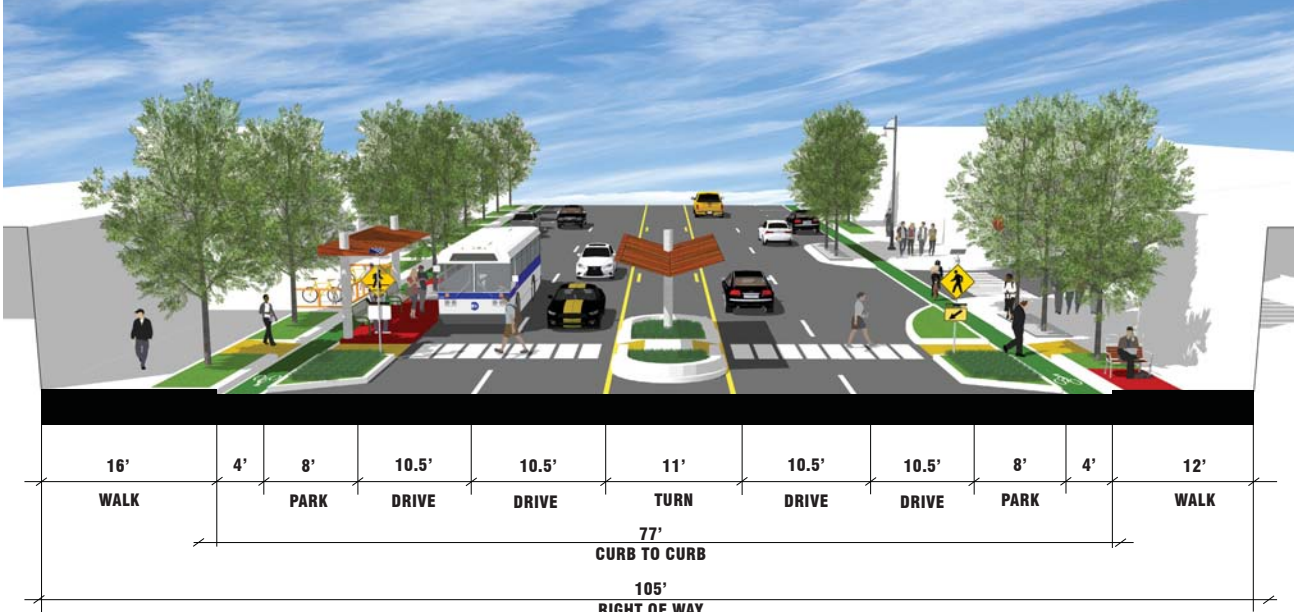
GRAND RIVER AVENUE: ALTERNATIVE 1

Existing + Amenities

PLAN VIEW



PERSPECTIVE VIEW



Alternative 1 includes protected bike lanes, bike parking, additional street trees, curb bulb outs, improved bus shelters, better striping with high visibility crosswalks, mid-block crossing with rapid flashing beacons as well as signage, ADA accessibility, benches, and trash cans.

Crossing time reduced from 22 seconds to 15 seconds.

NORTHWEST DETROIT

GRAND RIVER CORRIDOR + GREEN STORMWATER INFRASTRUCTURE MASTER PLAN

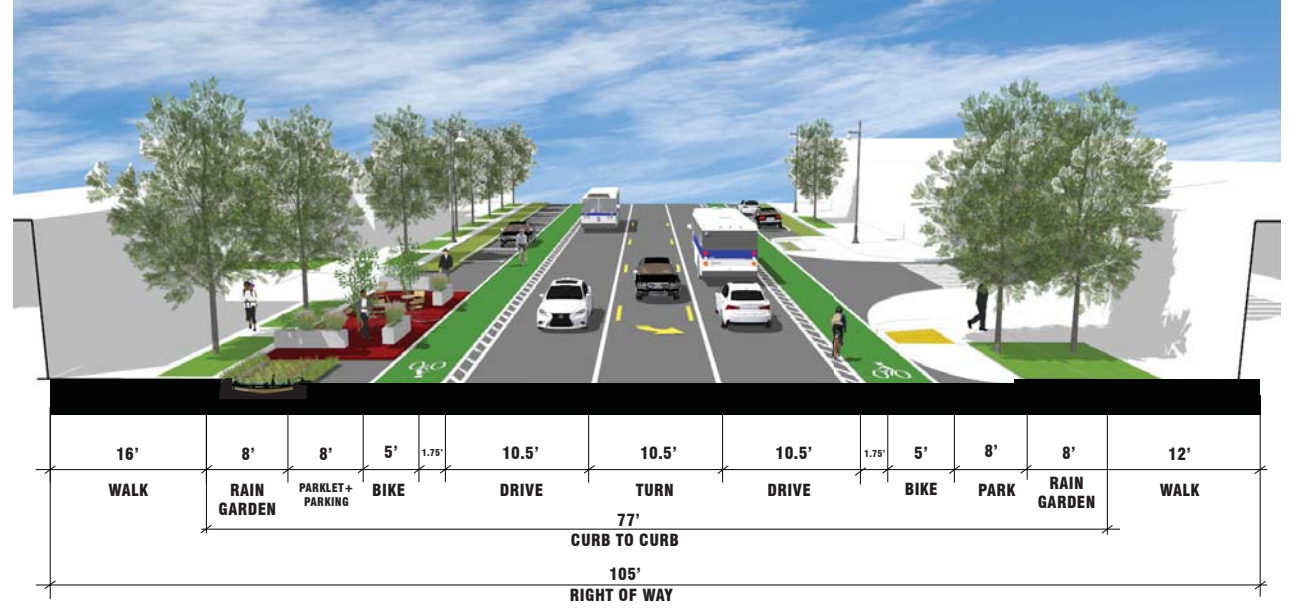
GRAND RIVER AVENUE: ALTERNATIVE 2

Amenities + Green Stormwater Infrastructure

PLAN VIEW



PERSPECTIVE VIEW



Alternative 2 integrates plantings into the streetscape to manage stormwater and reduces Grand River to three lanes. This option can include many of the amenities found in option 1, while also creating a framework where local dining can expand into the street by utilizing space over the stormwater management areas and parking spaces.

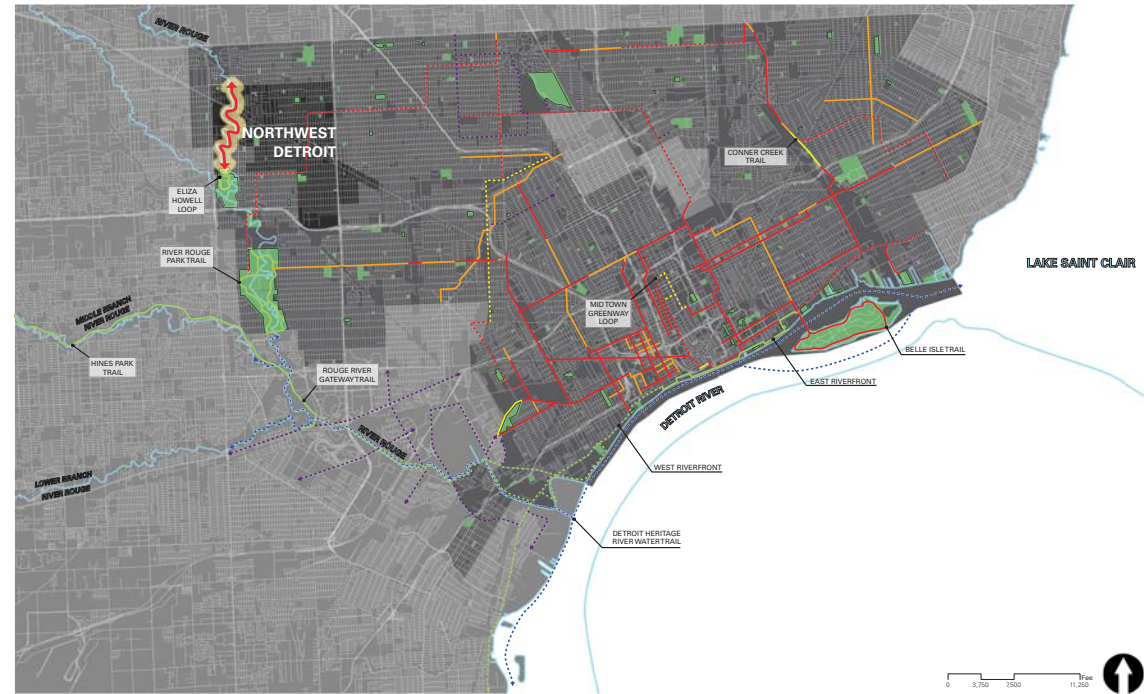
Crossing time reduced from 22 seconds to 13 seconds.

THE ROUGEWAY A GREENWAY ALONG THE ROUGE RIVER

LINKING NORTHWEST DETROIT TO REGIONAL TRAILS

LEGEND

- Study Area Boundary
- Detroit City Limits
- Surrounding Suburbs
- Existing On-Street Bike Lane
- Planned On-Street Bike Lane
- Sharrow Bike Lane
- Existing Off-Street Bike Lane
- Planned Off-Street Bike Lane
- Existing Pedestrian Trail
- Planned Pedestrian Trail
- Planned Neighborhood Connection
- River / Lake
- Planned Water Trail
- Park



WHAT IS A GREENWAY?



A greenway is a recreational trail connecting community members to natural spaces and local destinations. The Dequindre Cut is a local example of a greenway.

CONNECTING TO THE RIVER



TRAILS AND TRAILHEADS



Hiking and Biking along the River



Educational Opportunities



GSI Demonstration Projects

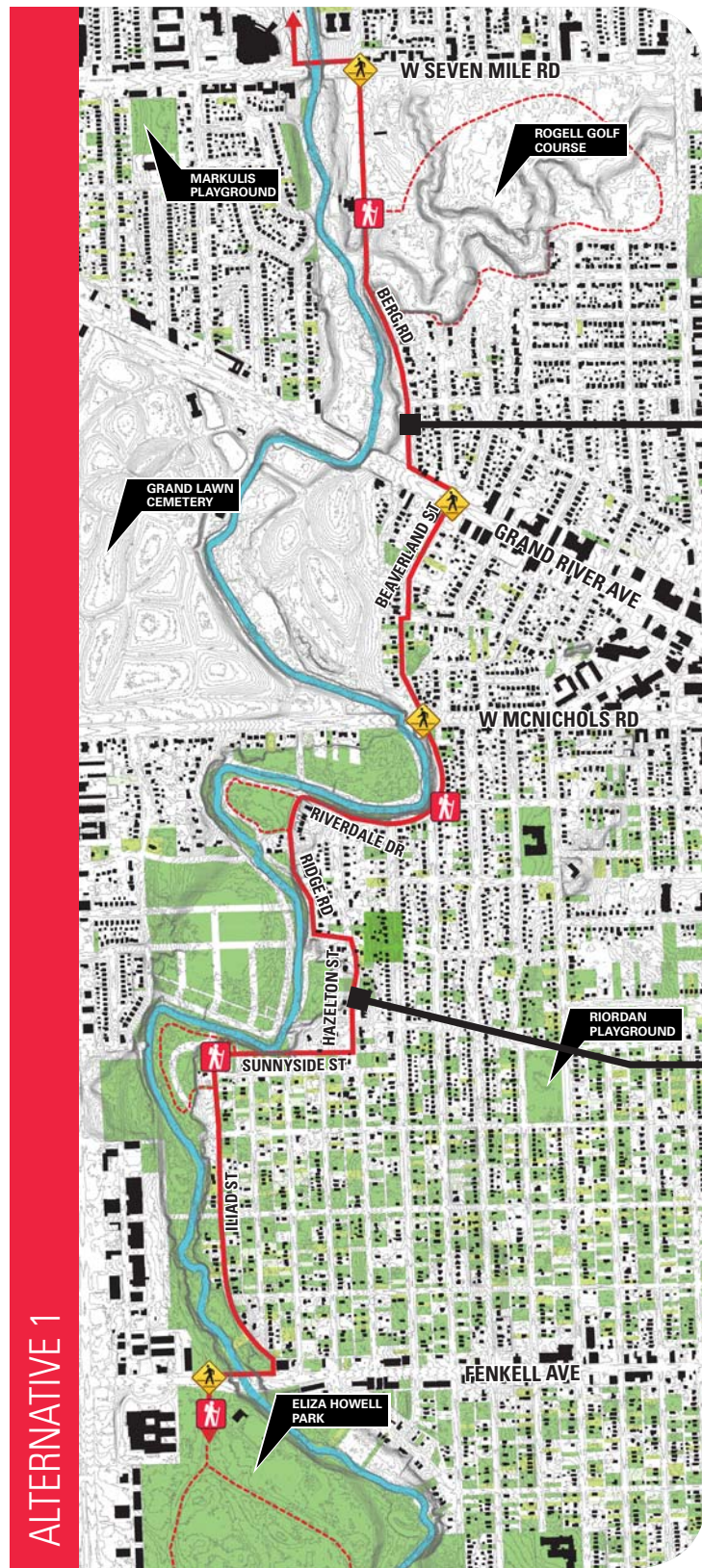


Engaging with Nature

NORTHWEST DETROIT

GRAND RIVER CORRIDOR + GREEN STORMWATER INFRASTRUCTURE MASTER PLAN

THE ROUGEWAY ROUTE OPTIONS



ALTERNATIVE 1

- 2.8** MILES OF ON-STREET FACILITIES
- 4** NEIGHBORHOOD TRAILHEAD CONNECTIONS

Alternative 1 takes advantage of some of the **existing infrastructure** in Northwest Detroit to define the path for the Rougeway. Existing streets will incorporate **on-street greenway facilities** to accommodate pedestrians and bikers. Vacant parcels along these streets and adjacent to the Rouge River can be used to incorporate additional trail facilities, picnic areas, gardens and educational demonstrations.

ROUGEWAY ALONG BERG ROAD

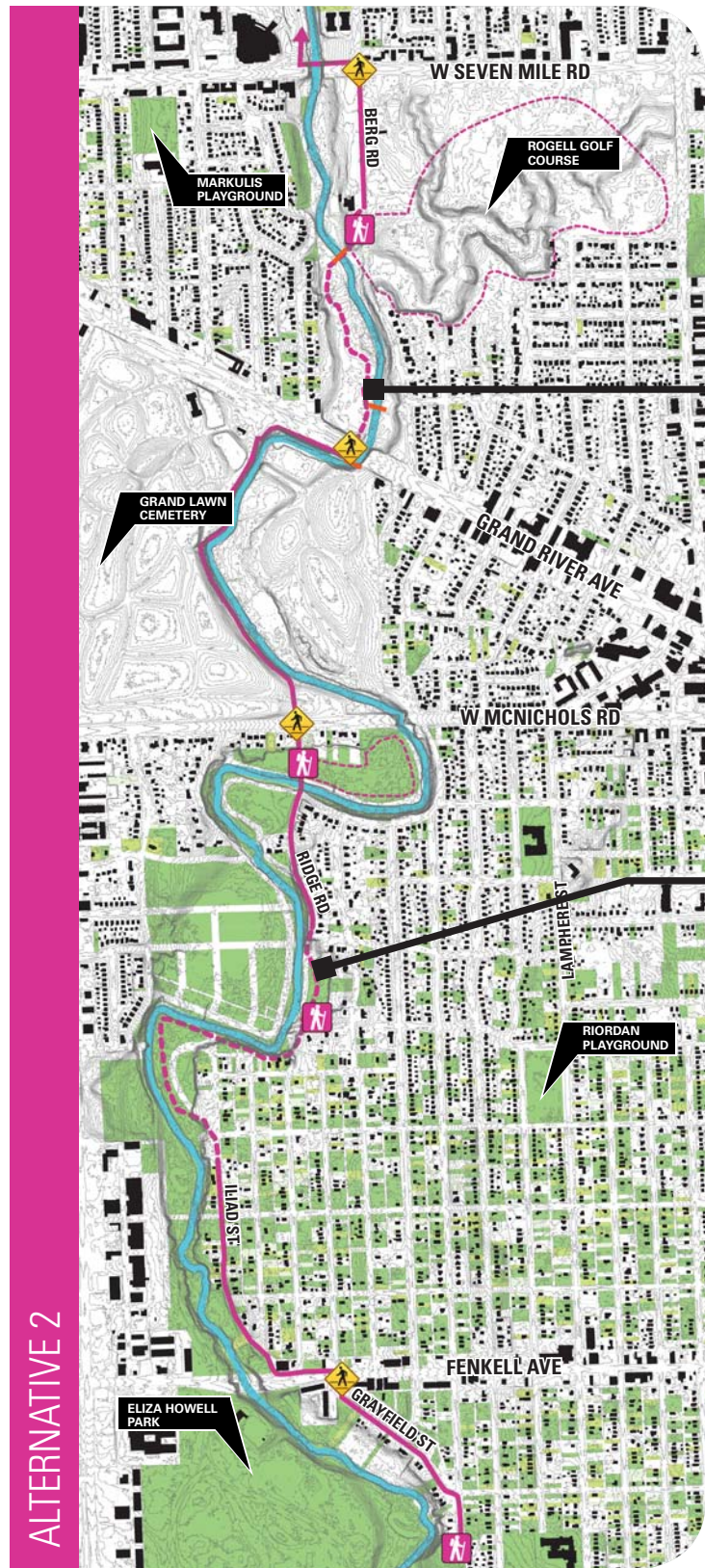


ROUGEWAY ALONG HAZELTON STREET



- PEDESTRIAN CROSSING IMPROVEMENTS
- ROUGEWAY ALONG EXISTING INFRASTRUCTURE
- NEIGHBORHOOD TRAILHEAD
- NEW ROUGEWAY INFRASTRUCTURE NEEDED

THE ROUGEWAY ROUTE OPTIONS



- 3.0** MILES OF OFF AND ON STREET FACILITIES
- 4** NEIGHBORHOOD TRAILHEAD CONNECTIONS

Alternative 2 integrates some existing infrastructure with a potential for **new multi-use trails** along the Rouge River. Additionally, Alternative 2 enters the **Grand Lawn Cemetery** running along the eastern side of the river, crossing McNichols at Ridge Road. Similar to Alternative 1, this option allows for the potential of utilizing some vacant parcels to create additional trail facilities, picnic areas, gardens and educational demonstrations.

ROUGEWAY ALONG EAST SIDE OF ROGELL

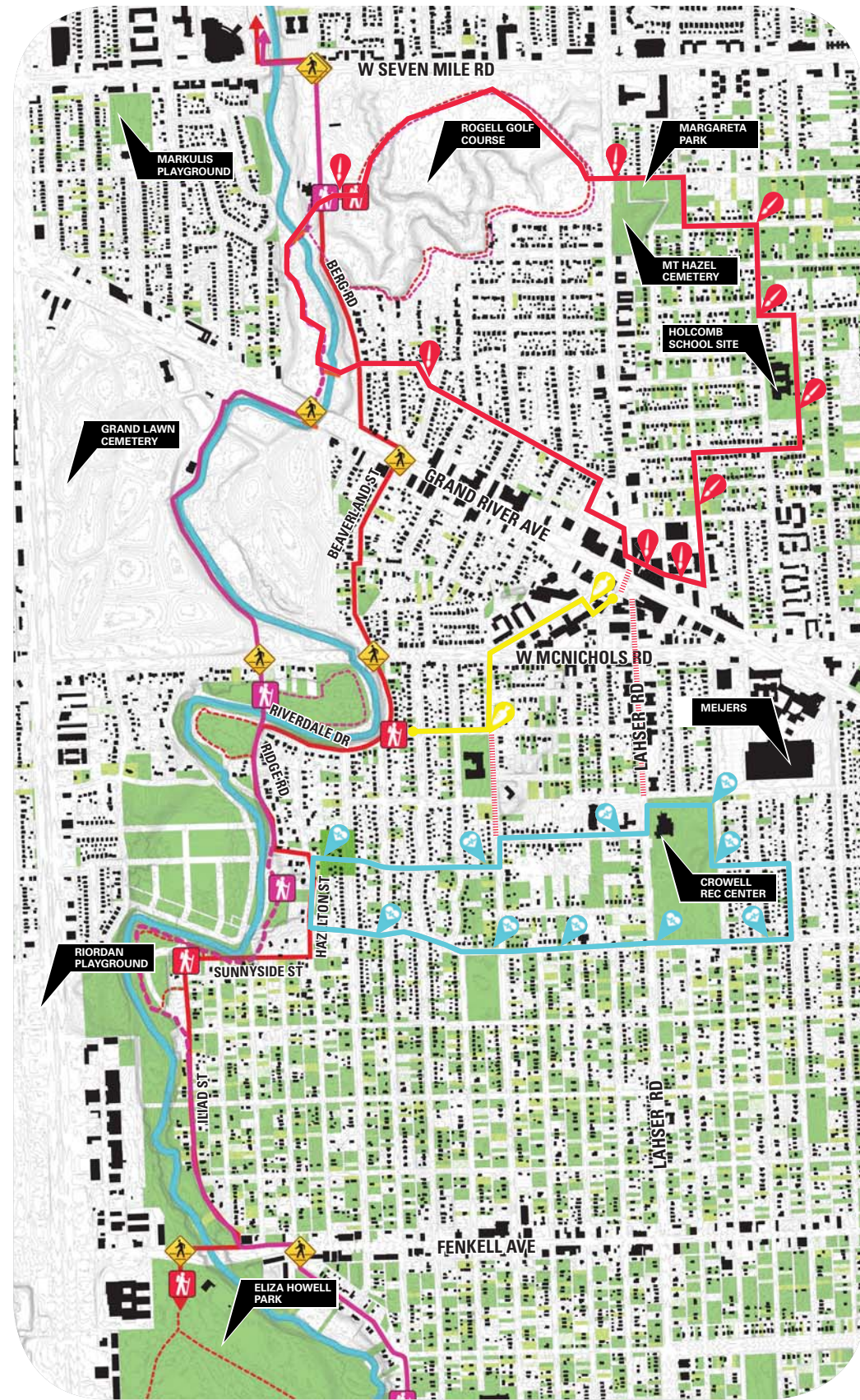


ROUGEWAY ALONG OPEN LAND



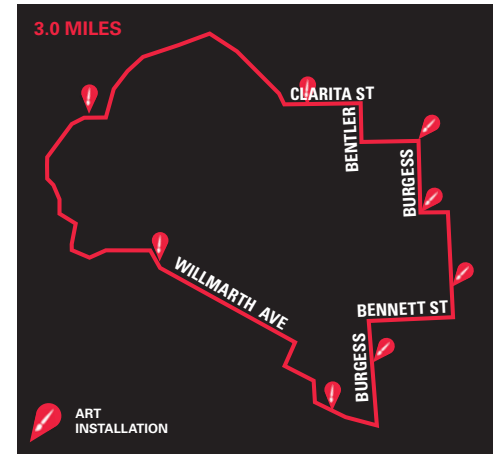
- PEDESTRIAN CROSSING IMPROVEMENTS
- ROUGEWAY ALONG EXISTING INFRASTRUCTURE
- NEIGHBORHOOD TRAILHEAD
- NEW ROUGEWAY INFRASTRUCTURE NEEDED

THE ROUGEWAY NEIGHBORHOOD CONNECTIONS



- ROUGEWAY ROUTE ALT 1
- ROUGEWAY ROUTE ALT 2
- TRAILHEAD ROUTE ALT 1
- TRAILHEAD ROUTE ALT 2

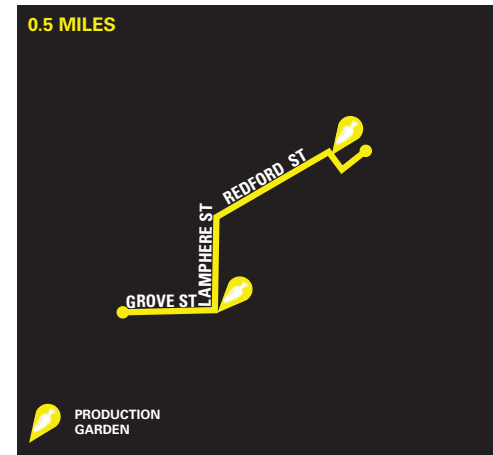
NORTH LOOP: THE ART TRAIL



CONCEPT ALONG WILLMARTH AVENUE



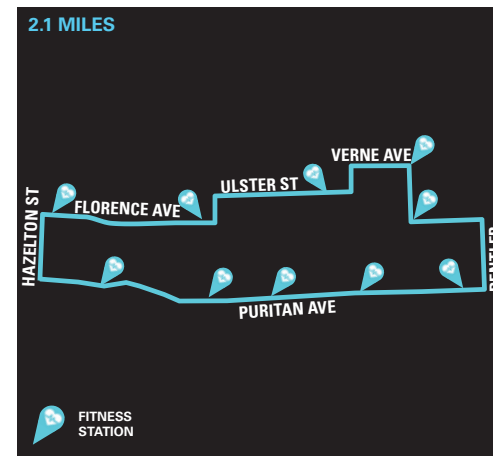
GRAND RIVER CONNECT: THE GARDEN TRAIL



CONCEPT ALONG GROVE STREET



SOUTH LOOP: THE FITNESS TRAIL



CONCEPT ALONG PURITAN AVE



WHAT IS GREEN STORMWATER INFRASTRUCTURE (GSI)?

Green infrastructure is an approach to managing stormwater that uses the natural processes of soils and plants to soak up stormwater where it falls before it can enter and overwhelm the sewer system. GSI solutions range in scales and include a variety of strategies including bioswales, pervious pavement, rain gardens, bioretention and tree planting.

SMALL SCALE INTERVENTIONS (LESS THAN 5 ACRES)

Rain Gardens and Bioswales



Bagby Street Reconstruction - Houston, Texas

Permeable Paving



GRDC Parking Lot - Detroit, Michigan

Green Roofs



Chicago City Hall - Chicago, Illinois

Tree Planting



DWSD Tree Planting - Northwest Detroit, MI

MID-SIZE INTERVENTIONS (5-25 ACRES)

Wetland Generation/Rehabilitation



Miliken State Park - Detroit, Michigan (12.5 ac)

- Filters an anticipated 100% of surface runoff totaling 4.5 million gallons annually.
- Removes anticipated 99% of sediment, 91% phosphorus, 74% nitrogen, 97% of lead, 91% copper and 87% of zinc from surface runoff from surrounding parcels.

Brownfield Redevelopment



Sarah E. Goode STEM Academy - Chicago, Illinois (17 ac)

- Reduces stormwater runoff by 38.9% or 311,683 gallons for a 2-year, 24-hour storm event.
- Captures and treats 100% of stormwater runoff from average annual rainfall, removing an estimated 80% of total suspended solids (TSS).

LARGE-SCALE INTERVENTIONS (LARGER THAN 25 ACRES)

Open Space and River Restoration



Blue Hole Regional Park - Wimberley, Texas (126 ac)

- Maintains or reduces stormwater runoff flow rates site-wide, despite the addition of 320,000 sf of new park development.
- Saves an estimated 600,000 gallons of potable water per month by using drought tolerant turf and on-site well water for recreation field irrigation. This resulted in an annual cost savings of \$25,500.

Residential Community Regional System



Daybreak Community - South Jordan, Utah (4,127 ac)

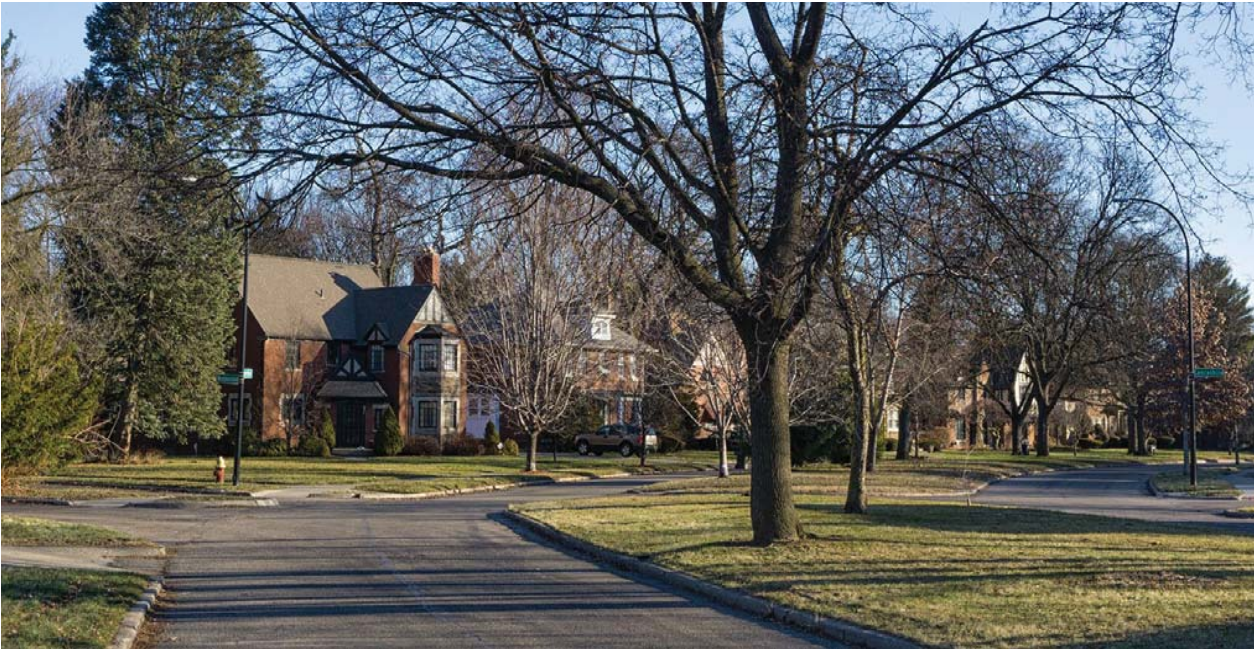
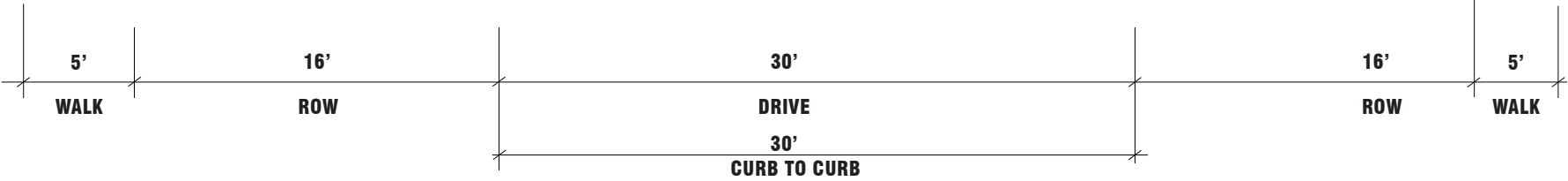
- Retains 100% of stormwater that falls on the site for up to a 100-year storm with no impacts on or connections to the municipal storm sewer system.
- Saves approximately 1.5 million gallons of potable water each year by using an innovative drip irrigation design. Projected annual savings at build-out are 18.7 million gallons, saving approximately \$54,000 annually.

NORTHWEST DETROIT

GRAND RIVER CORRIDOR + GREEN STORMWATER INFRASTRUCTURE MASTER PLAN

RESIDENTIAL GREEN STORMWATER INFRASTRUCTURE ALTERNATIVES

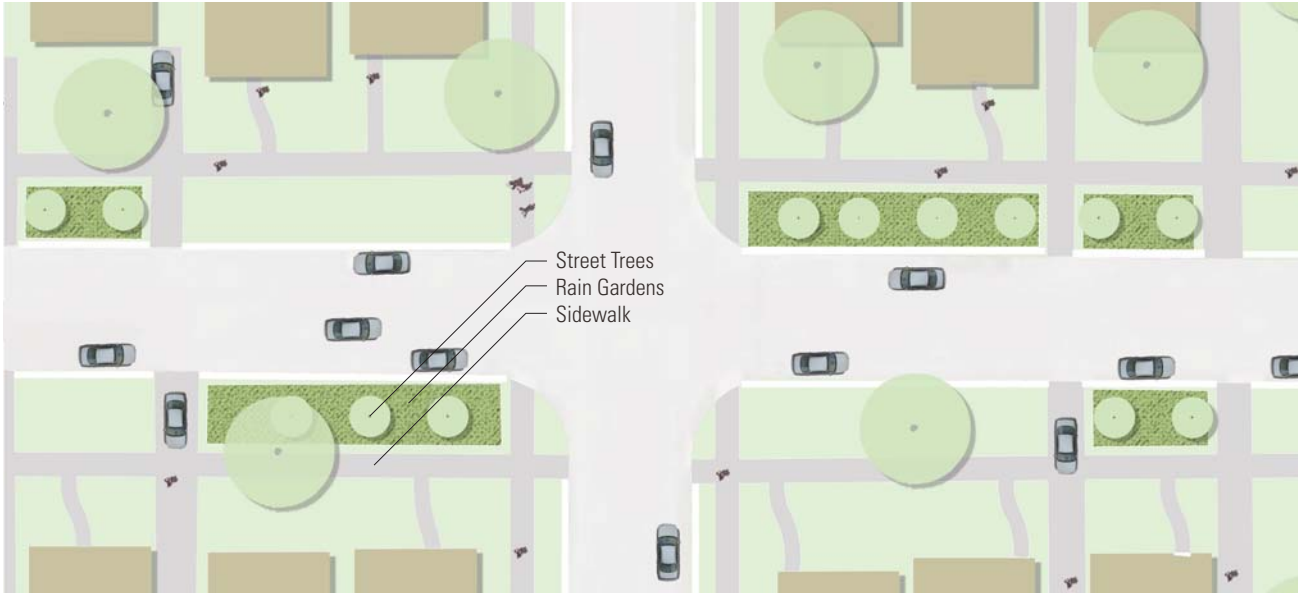
RESIDENTIAL AREA: TYPICAL EXISTING CONDITIONS



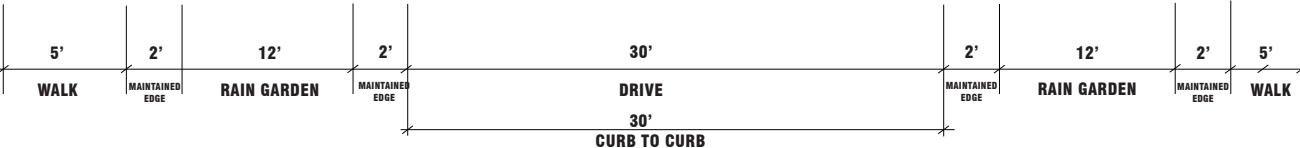
RESIDENTIAL GREEN STORMWATER INFRASTRUCTURE ALTERNATIVES

RESIDENTIAL: STREET TYPE 1

PLAN VIEW



PERSPECTIVE VIEW



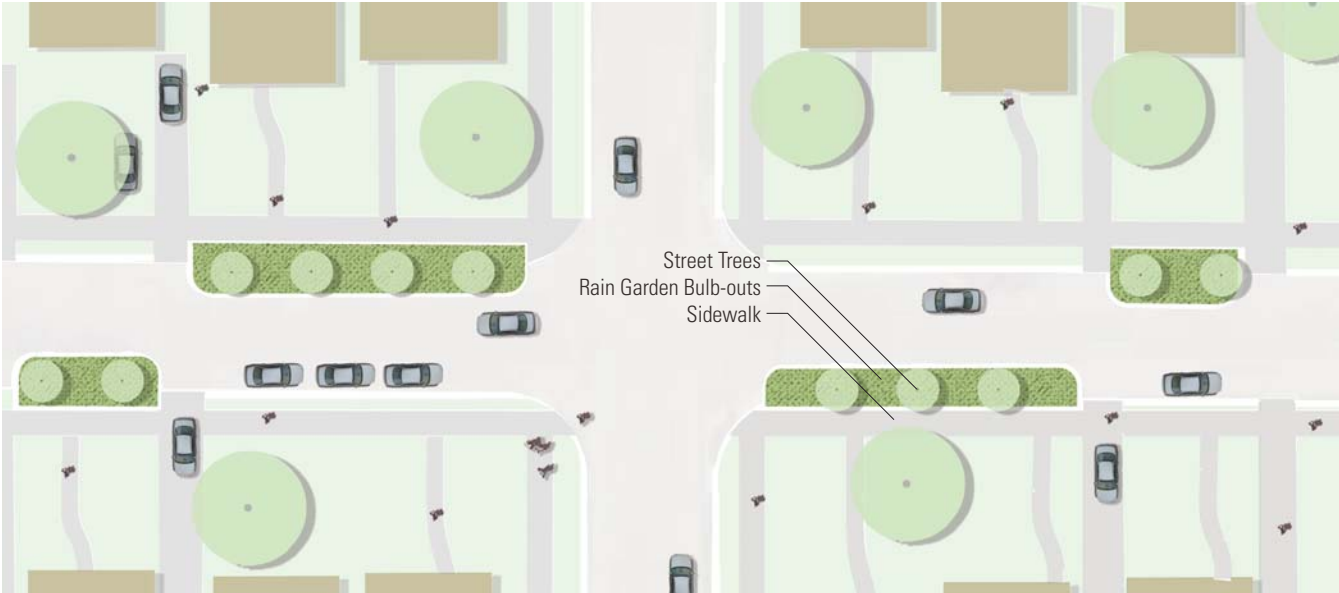
Rain gardens are integrated into wide green spaces between the road and sidewalk to help alleviate stormwater challenges in NW Detroit.

NORTHWEST DETROIT

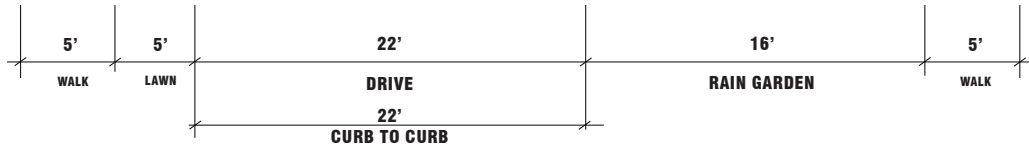
GRAND RIVER CORRIDOR + GREEN STORMWATER INFRASTRUCTURE MASTER PLAN

RESIDENTIAL: STREET TYPE 2

PLAN VIEW



PERSPECTIVE VIEW



Rain gardens are integrated into narrow green spaces between the road and sidewalk as well as in bulb-outs in the street to help alleviate the stormwater challenges in NW Detroit.