



IMPROVING OUR COMMUNITIES with Natural Drainage Systems (NDS)

What are they & why do we need them?

When it rains in the Delridge and Westwood neighborhoods, pollution from our streets runs into Longfellow Creek untreated. This is not healthy for the creek or for people. **The good news is: there is something we can do.**

Natural Drainage Systems consist of shallow depressions in the public right-of-way, or “planter strip,” filled with deep-rooted plants and spongy soils that temporarily hold and clean polluted stormwater from streets and sidewalks. These features capture and clean pollutants before they can reach the creek.

Seattle Public Utilities (SPU) is planning to build natural drainage systems in your neighborhood in 2020-2021.



What is the NDS Partnering Program?

The **2016-2025 Natural Drainage Systems Partnering Program** is a Seattle Public Utilities multi-year capital improvement program focused on Longfellow, Piper’s, and Thornton Creek watersheds.

The program’s goal is to construct street-side natural drainage systems that filter and manage stormwater and improve neighborhoods with street trees, traffic calming, and, in some cases, a limited number of sidewalks.

We are partnering with **Seattle Department of Transportation (SDOT)**, **Office of Arts & Culture 1% for the arts**, and **King County Flood Control District**.

Community benefits

Natural Drainage Systems offer multiple benefits to local neighborhoods and ecosystems, including:

- Greener, more attractive neighborhoods
- Lower risk of flooding
- Creation of habitat along our streets
- Healthier creek ecosystems
- Calmer traffic patterns
- More street trees



LONGFELLOW CREEK

Watershed Boundary



Seattle
Public
Utilities



NOTES

- All blue-shaded areas flow into Longfellow Creek
- The dashed line of Longfellow Creek indicates where the creek is in a pipe



City of Seattle



JULY 2019
30% DESIGN PHASE

WHERE WE ARE NOW

...and where we're going

The Longfellow Creek Natural Drainage System (NDS) Project has completed preliminary planning and field investigations.



At the **30% Design Phase** we present potential street and drainage improvements to the community, answer questions, and gather community concerns as we work toward finalizing the project scope based on regulatory requirements and project funding.

30% INPUTS

- Neighborhood priorities
- Current drainage conditions
- Location of utilities
- Local topography + mature trees
- Rainfall runoff patterns along the street
- Soil testing + analysis
- Location of homes + paths
- Location of driveways
- On-street parking patterns
- City right-of-way impacts
- Zoning code
- Projected construction costs
- Maintenance of NDS
- Permitting
- Community concerns

60% INPUTS

- Neighborhood priorities
- Local ecosystem needs
- Detailed utility locations + impacts
- Planting palettes & new street trees
- NDS sizing adjustments
- Refinements to design dimensions + details
- City right-of-way impacts
- Balance of costs with budget
- Maintenance of NDS
- Permitting
- Community concerns

FINAL INPUTS

- Accessibility impacts
- Construction costs + impacts
- Ongoing maintenance costs + responsibility
- Permitting requirements
- Construction questions

A Healthier & Safer
Longfellow Creek!



**30%
DESIGN**

We Are
Here



REFINE PROJECT SCOPE
AND DEVELOP DESIGN

**60%
DESIGN**

**OUTREACH FOR
60% DESIGN**

LATE 2019 / EARLY 2020

**OUTREACH FOR
30% DESIGN**

MID 2019

**SITING, FIELD INVESTIGATIONS
SURVEY + CONCEPT DEVELOPMENT**

2017 to 2018

**FINAL
DESIGN**



FINALIZE + OBTAIN PERMITS

**PRE-CONSTRUCTION
OUTREACH**

MID 2020

CONSTRUCTION



2019

2020

2021



City of Seattle



JULY 2019
30% DESIGN PHASE

...and how we're incorporating your ideas into the Longfellow Creek NDS Project



Typical existing street conditions

EAST
Right-of-Way

WEST
Right-of-Way

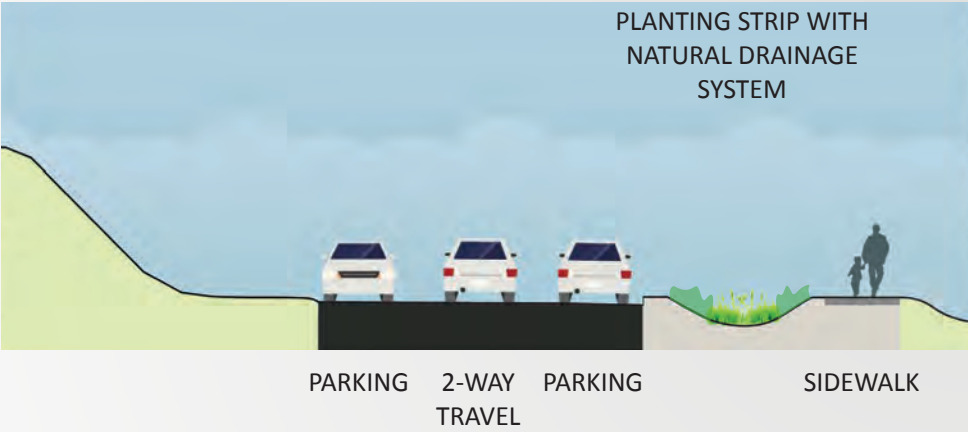


Typical proposed street conditions

*Street conditions vary along 24th Ave SW Corridor

EAST
Right-of-Way

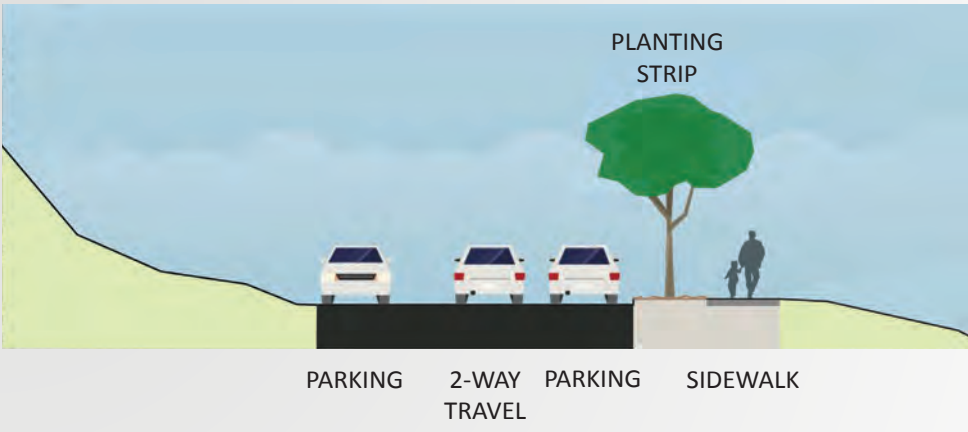
WEST
Right-of-Way



**New Sidewalk + Natural Drainage System
between SW Cloverdale St and SW Barton Pl**

EAST
Right-of-Way

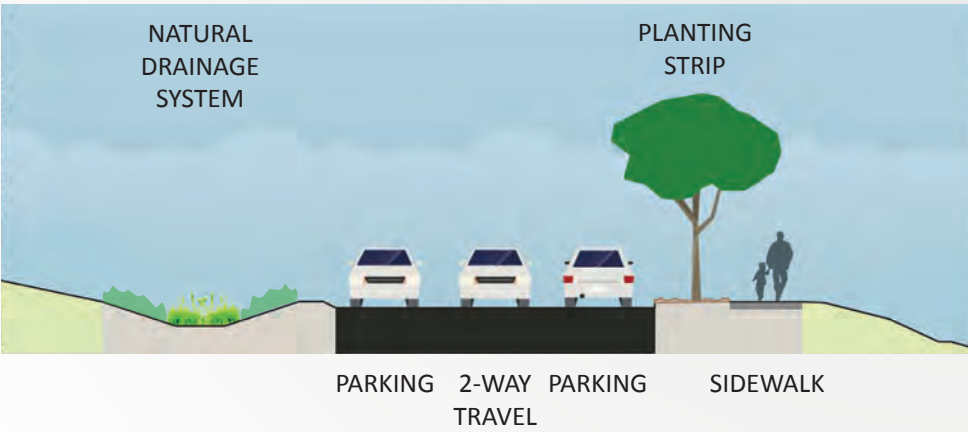
WEST
Right-of-Way



**New Sidewalk + Planting Strip
between SW Cloverdale St and SW Barton Pl**

EAST
Right-of-Way

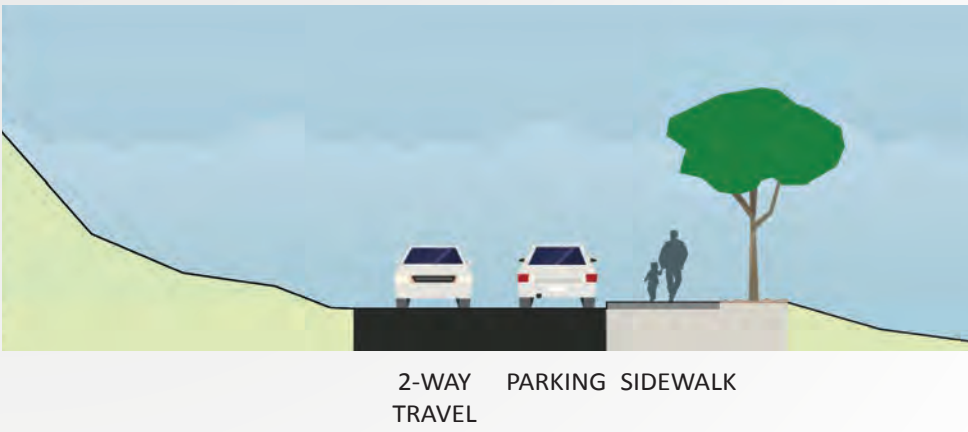
WEST
Right-of-Way



**Natural Drainage System Opposite New Sidewalk
between SW Cloverdale St and SW Barton Pl**

EAST
Right-of-Way

WEST
Right-of-Way



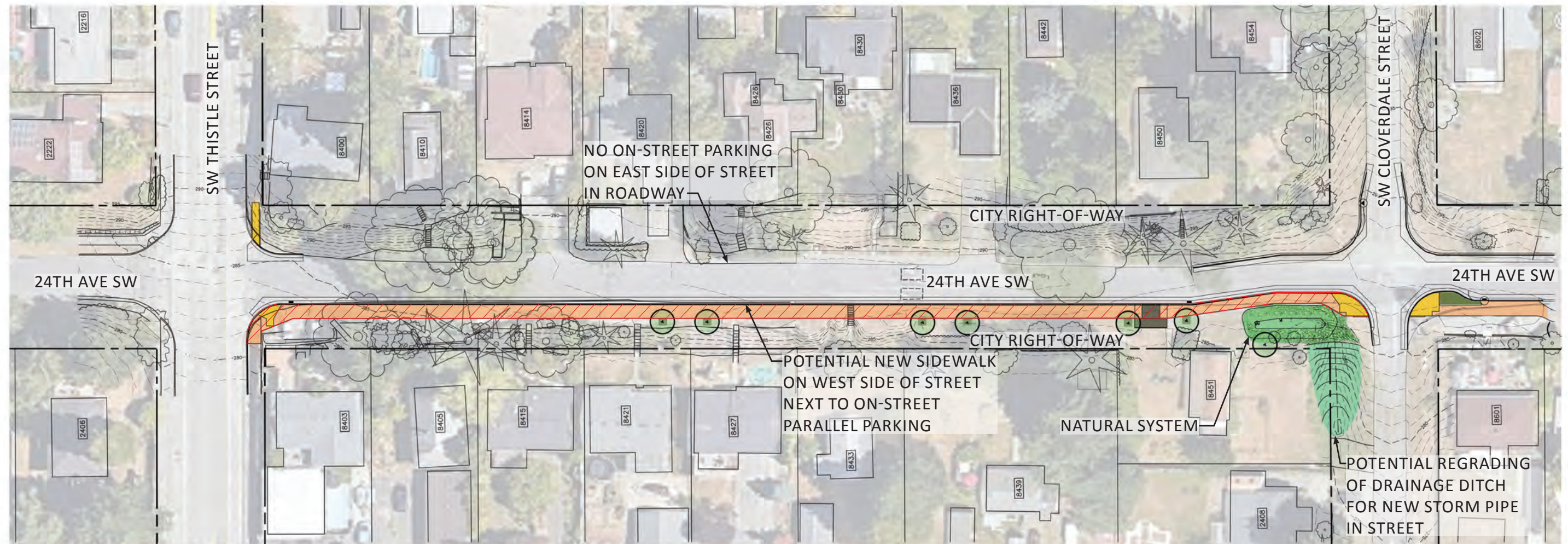
New Sidewalk between SW Thistle St and SW Cloverdale St*

**NOTE: SW Thistle St / SW Cloverdale St sidewalk is subject to funding availability.
See plan for detailed layouts.*








POTENTIAL NDS AND SIDEWALK IMPROVEMENTS

24TH AVE SW: THISTLE TO CLOVERDALE

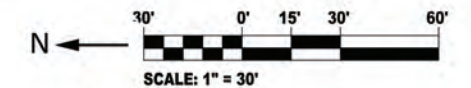
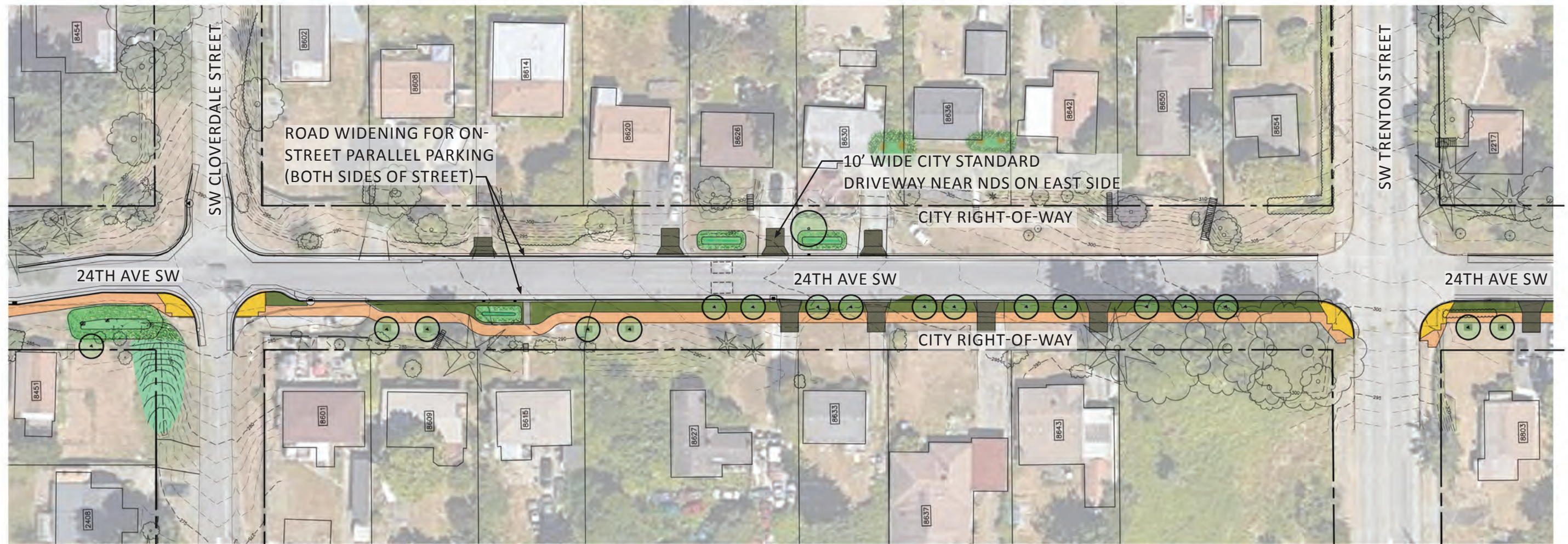
Note: Sidewalk improvements on this block are dependent on funding









KEY

- | | | | |
|---|--|--|---|
|  NEW ACCESSIBLE CURB RAMPS |  SIDEWALK |  TENTATIVE SIDEWALK (DEPENDENT ON BUDGET) |  10' WIDE CITY STANDARD DRIVEWAY ACROSS SIDEWALK |
|  NATURAL DRAINAGE SYSTEM (NDS) |  PLANTING STRIP |  NEW STREET TREE | |

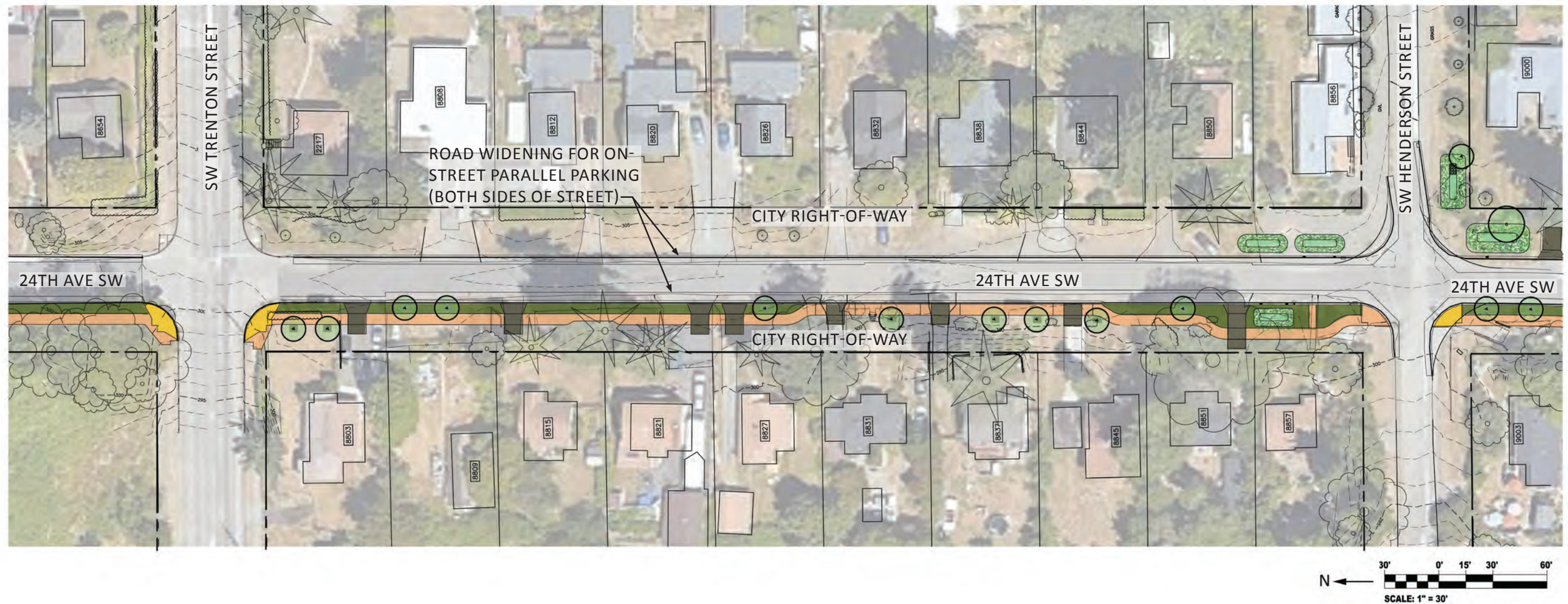
POTENTIAL NDS AND SIDEWALK IMPROVEMENTS 24TH AVE SW: CLOVERDALE TO TRENTON



KEY

- | | | |
|---|--|---|
|  NEW ACCESSIBLE CURB RAMPS |  SIDEWALK |  10' WIDE CITY STANDARD DRIVEWAY |
|  NATURAL DRAINAGE SYSTEM (NDS) |  PLANTING STRIP |  NEW STREET TREE |

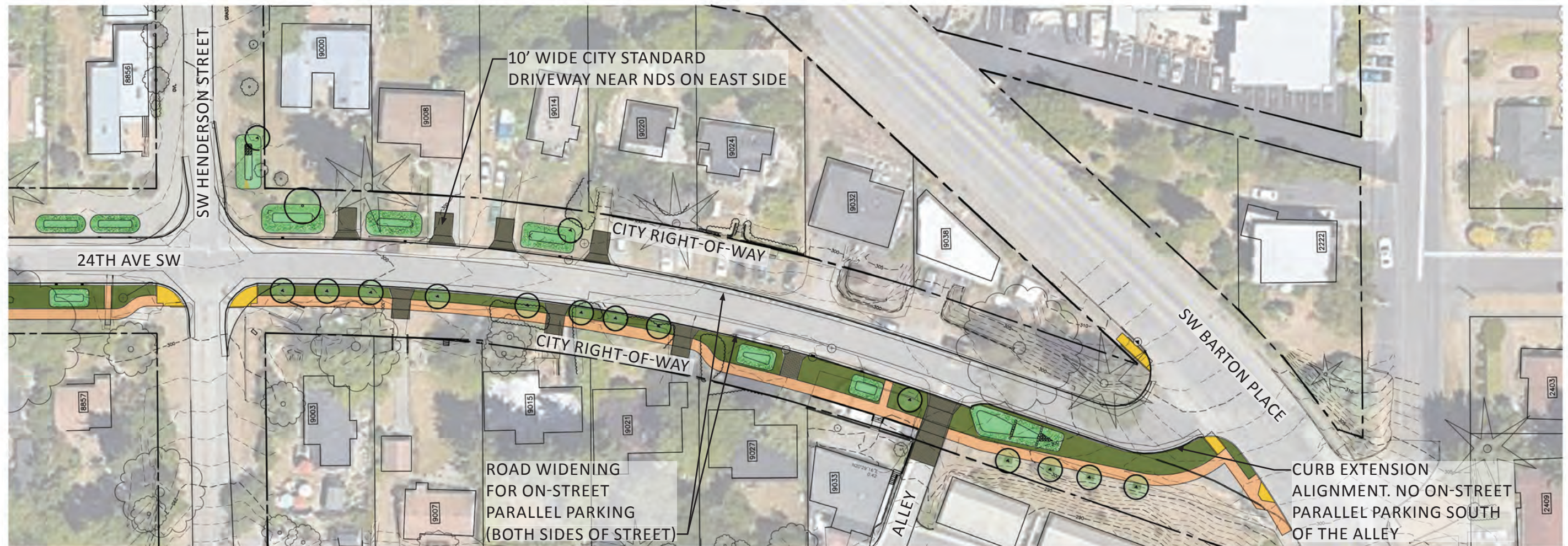
POTENTIAL NDS AND SIDEWALK IMPROVEMENTS 24TH AVE SW: TRENTON TO HENDERSON









KEY

- NEW ACCESSIBLE CURB RAMPS
- SIDEWALK
- 10' WIDE CITY STANDARD DRIVEWAY ACROSS SIDEWALK ON WEST SIDE OF STREET
- NATURAL DRAINAGE SYSTEM (NDS)
- PLANTING STRIP
- NEW STREET TREE

POTENTIAL NDS AND SIDEWALK IMPROVEMENTS 24TH AVE SW: HENDERSON TO BARTON



KEY

- | | | |
|---|--|---|
|  NEW ACCESSIBLE CURB RAMPS |  SIDEWALK |  10' WIDE CITY STANDARD DRIVEWAY ACROSS SIDEWALK |
|  NATURAL DRAINAGE SYSTEM (NDS) |  PLANTING STRIP |  NEW STREET TREE |