2013 Capitals:

Des Moines, IA

Helena, MT

Baton Rouge, LA

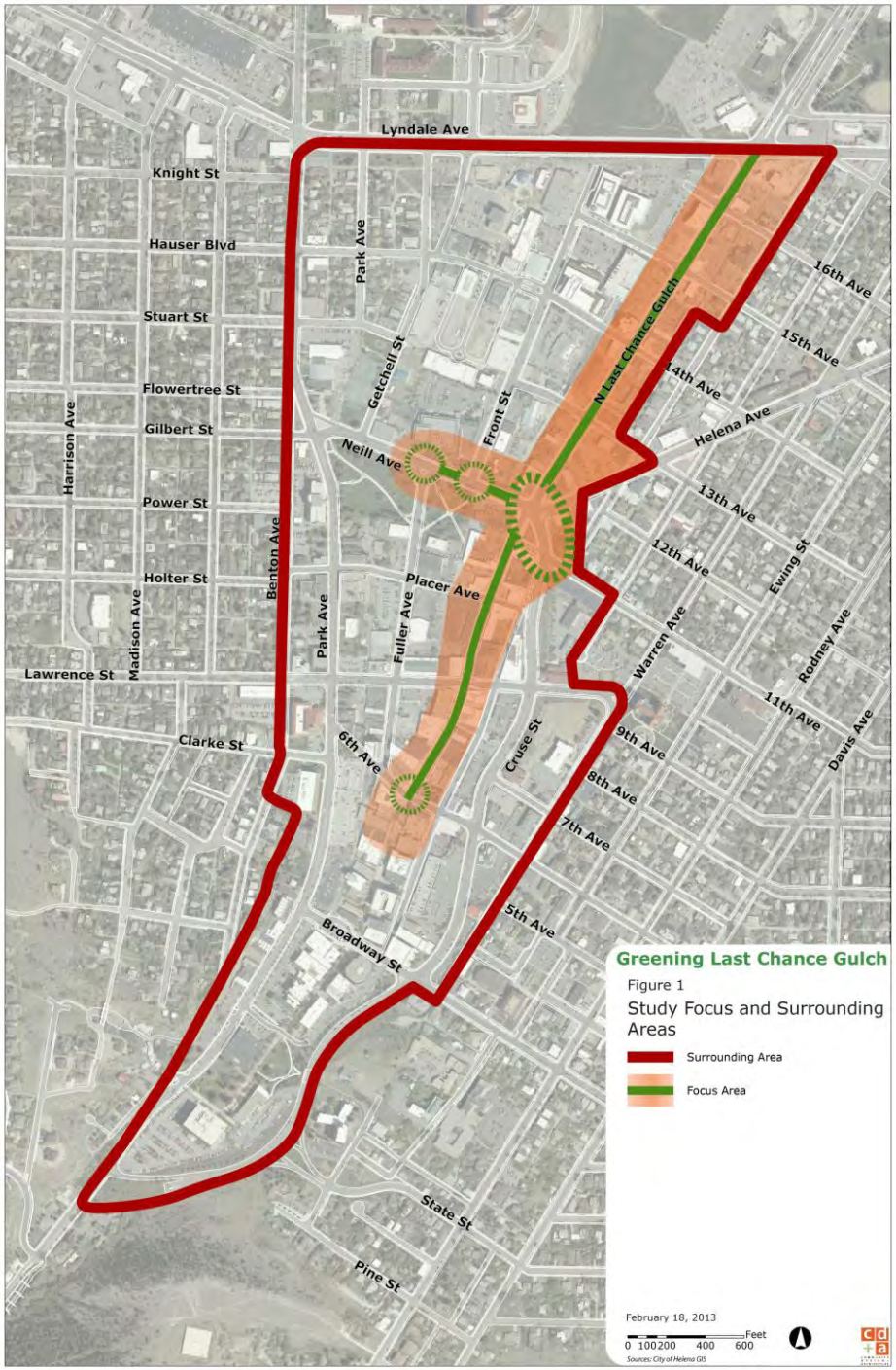
Indianapolis, IN

Frankfort, KY

Study Area

Why Study the Gulch?

- City applied for technical assistance to explore:
  - Streetscape improvements for Last Chance Gulch, the "5-Points" intersection, & intersection of LCG and 6th Avenue that:
    - Improve walking & biking and complement existing downtown character – create Green and Complete Streets
    - Support for ongoing and expanded economic development
    - Unify and connect historic downtown with new growth to the north
  - Examine implications of "two-waying" southern segment of LCG



Greening Last Chance Gulch

Introductions

- City staff
- Downtown Helena Business Improvement District
- Montana Dept. of Transportation
- EPA, FHWA, and HUD Regional staff
- Design Team:
  - Community Design + Architecture
  - Urban Rain | Design
  - Beth MacFawn Landscape Design
- Project Stakeholders – the Public

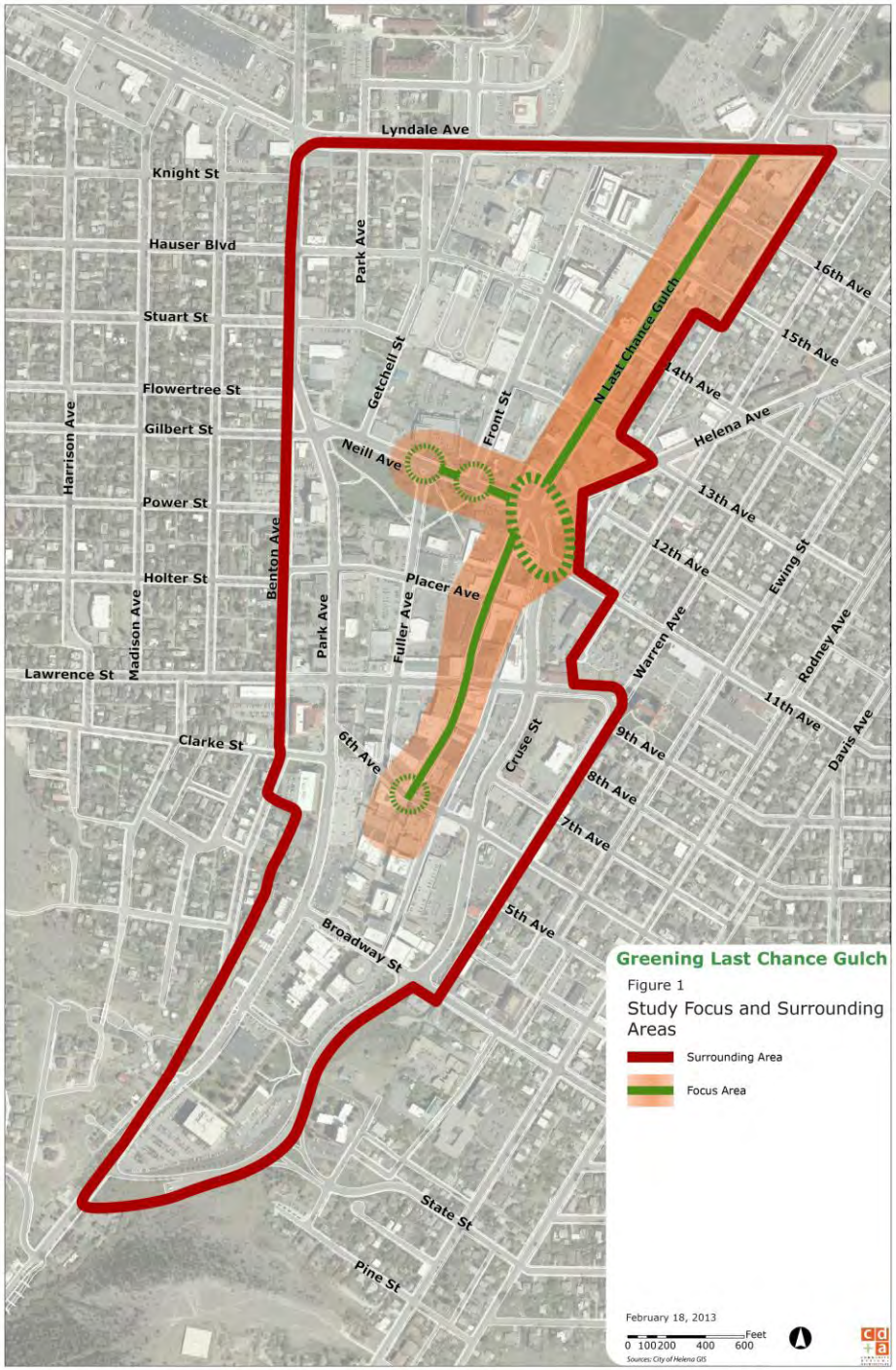
Schedule

February 25
Monday
February 26
Tuesday
February 27
Wednesday
8:00
9:00
10:00
11:00
12:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
Kick-off Session
Review Initial Street Design Schematics and Design Session
Break
Lunch
Review Materials for Public Meeting
Working Session and Setup for Public Meeting
Briefing Meeting with City Commissioners
Introductory Public Meeting/ Open House
Focus Group#1: Business and Economic Development
Concepts Brainstorming Session
Design Session
Focus Group #2: Green Infrastructure and Landscape
Break
Working Lunch
Design Session
Focus Group #3: Multimodal Transport--ation and Circulation
Focus Group #4: Social Services/ Public Health
Focus Group #5: Historic Preservation, Public Art & Culture
Status meeting with Staff and Key Stakeholders
CD+A Design Team Working Session
Design Session
Working Lunch
Focus Group #6: Implementation
Prepare for Final Presentation/ Open House
Setup for Final Presentation/ Open House
Final Presentation/ Open House
Dinner
Key:
Public Meeting
Focus Group Sessions (key topics and stakeholders)
Charrette Team Session with key stakeholders
Breaks and Focused Working Sessions

Site Evaluation

Defining Key Issues & Opportunities

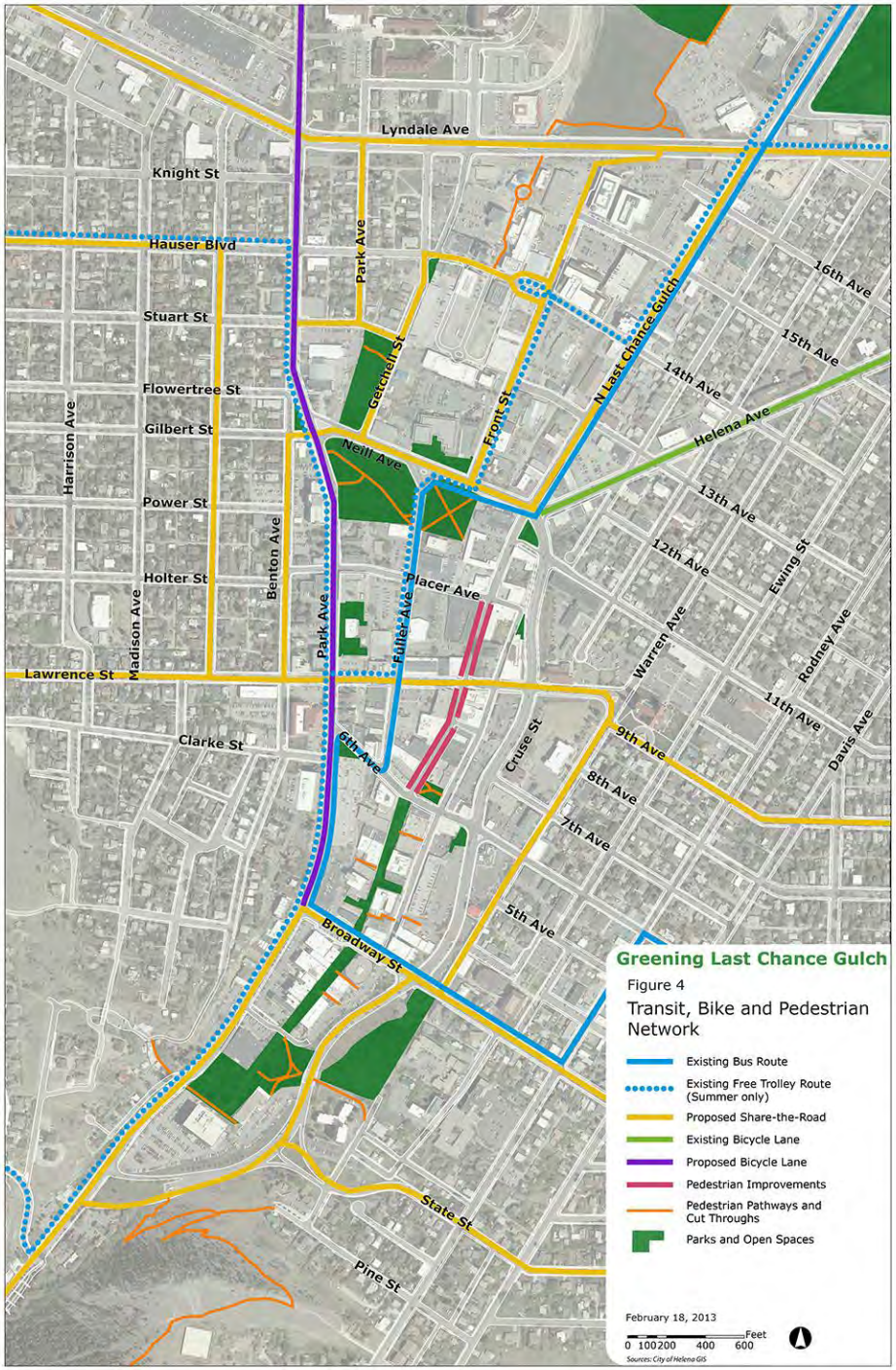
- Site Visit
- Review of existing policies and conditions
- Develop initial schematic design concepts



Transit, Bike & Pedestrian Network

Existing & Proposed

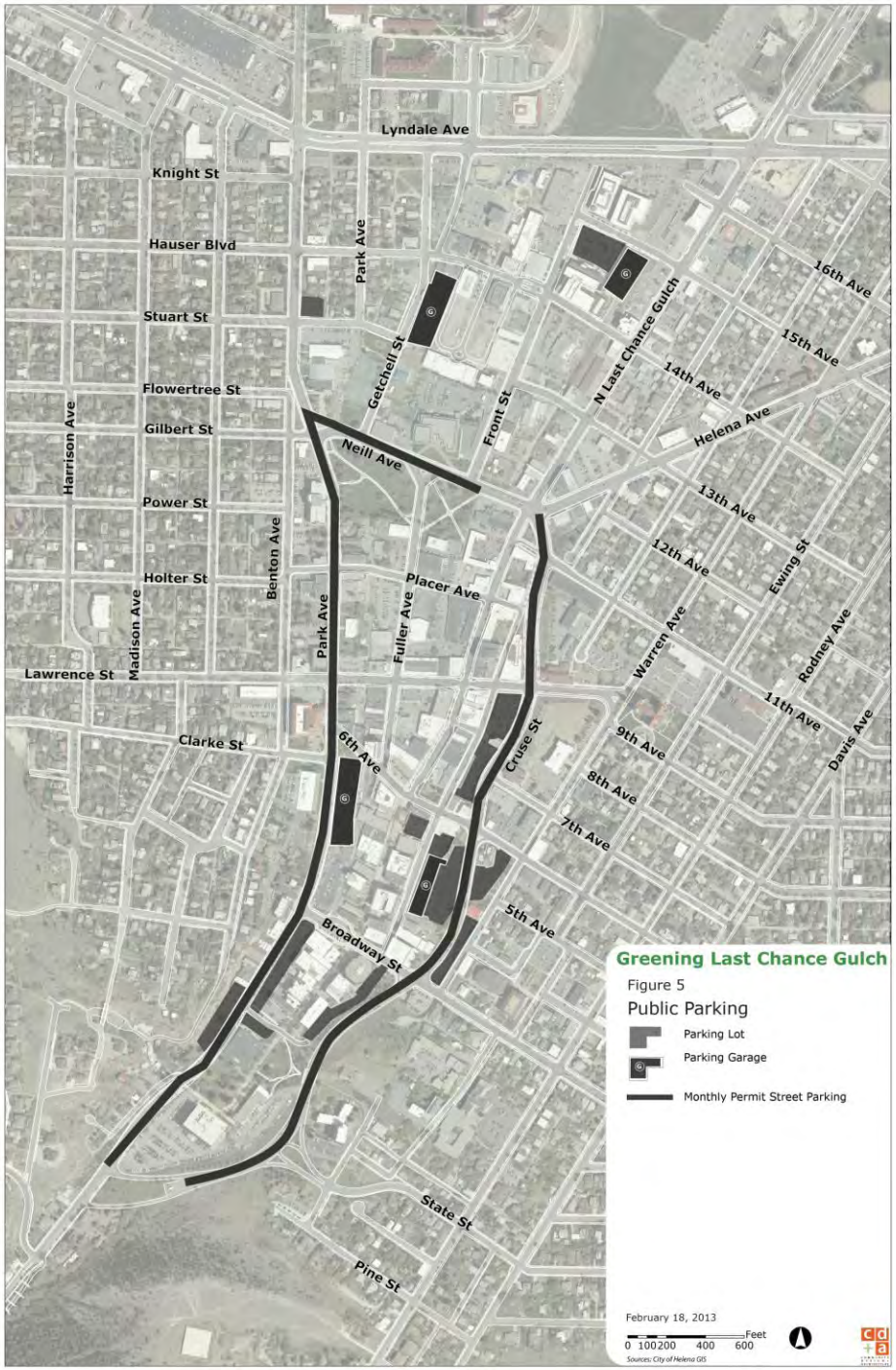
- Policy framework for further improvements for pedestrians and bicycles in the downtown
- Supported by Complete Streets policy
- Recent Improvements
  - Last Chance Gulch streetscape
  - Helena Avenue bike lanes



Public Parking

Existing Supply

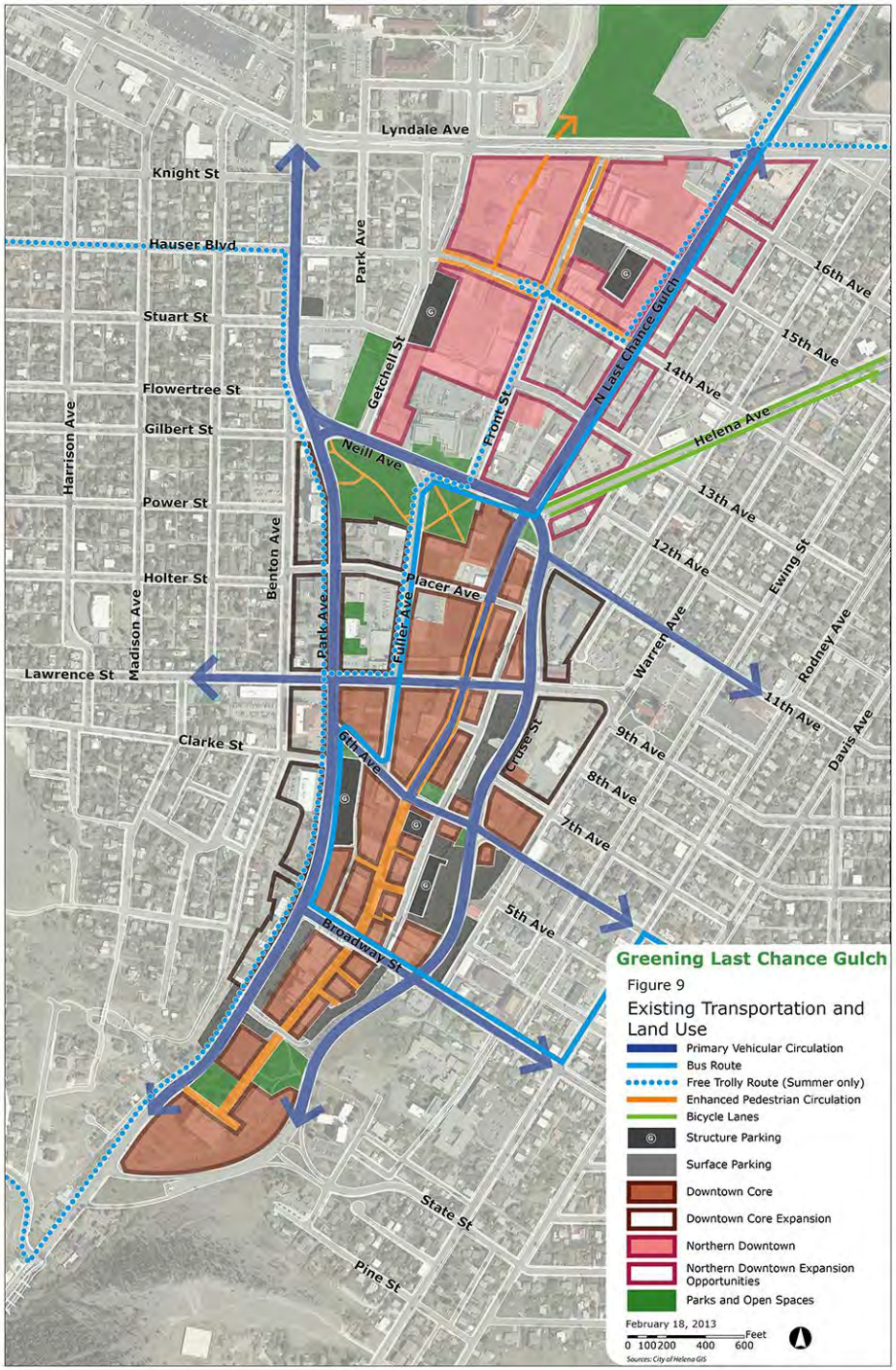
- Important asset for commercial uses
- Could be better signed
- Improvements to pedestrian environment could support better use of lots and garages



Transportation & Land Use Policy

Existing

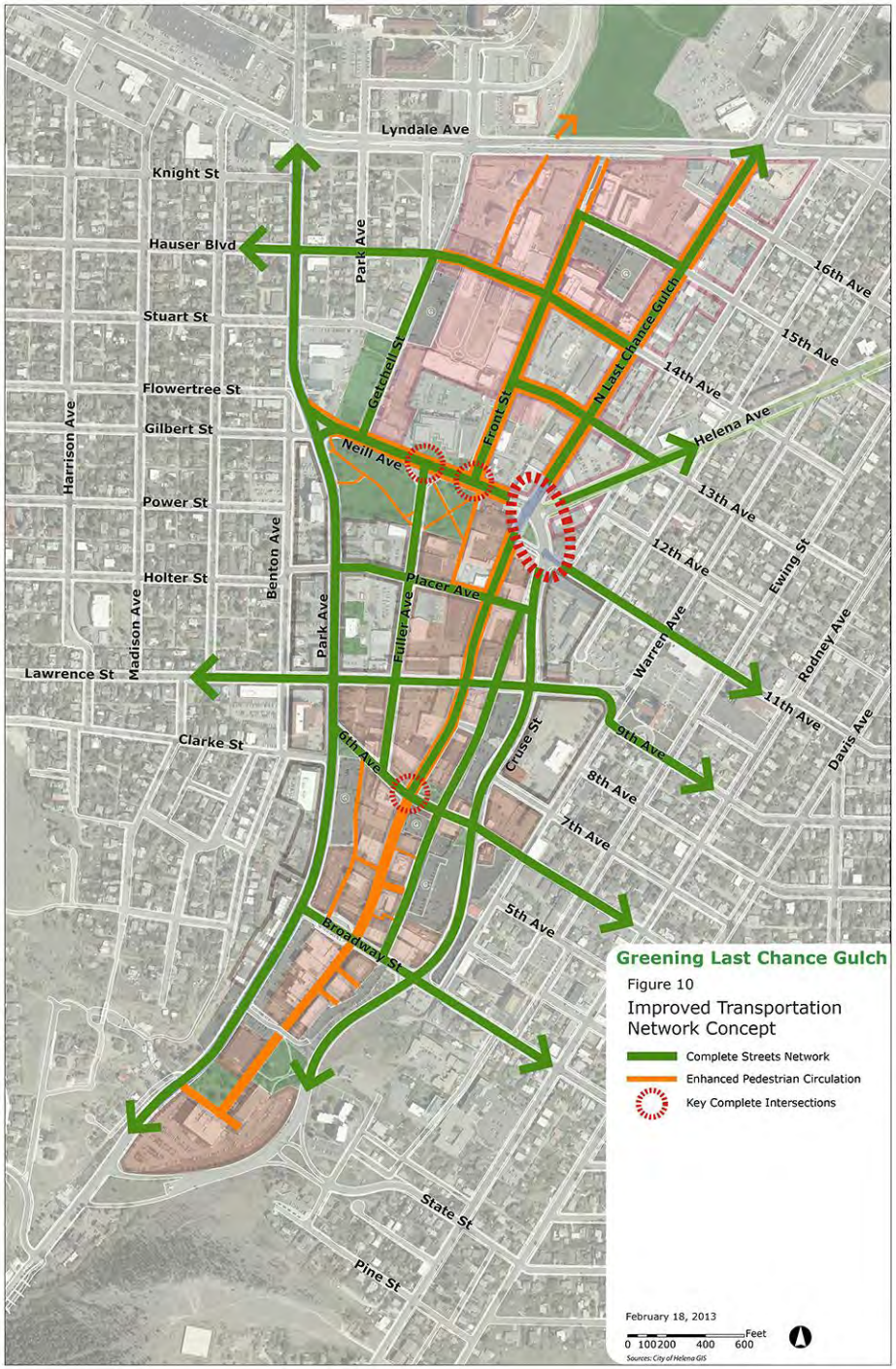
- Neill Avenue and 5 Point intersection divides Historic Core from New Downtown Growth
- Finer grained pedestrian network in Historic Core
- Parking
- Parks and open spaces
- Major employers
- Existing retail, restaurants, and services



Transportation

Potential Network Concept

- Potential for more walkable and bikeable complete streets and improved intersections
- New street landscape and open spaces
- A complete and green **Sustainable Streets Network**



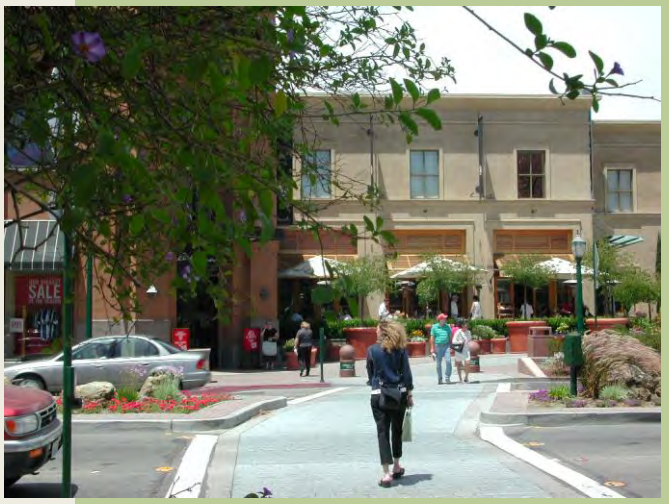
Sustainable Streets Network

- Combining two concepts for street design:
  - Complete + Green Streets = Sustainable Streets
- Network of streets:
  - For all users
  - Support economic vitality
  - Placemaking
  - Reduce carbon footprint
  - Public health
  - Green infrastructure

Sustainable Streets Network

For All Users

- Balancing Travel Needs and Purposes
  - Mobility
  - Access



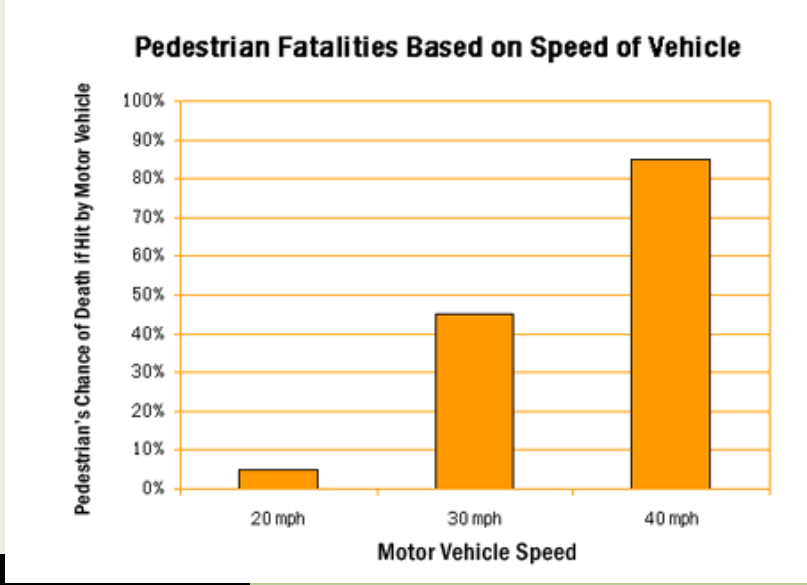
Source: Sfgate.com

Source: annarbor.com

Sustainable Streets Network

For All Users

- Balancing Travel Needs and Purposes
  - Mobility
  - Access
  - Safety



Source: http://www.walkinginfo.org

Source: http://mywheelsareturning.com

Sustainable Streets Network

For All Users

- Balancing Travel Needs and Purposes
  - Mobility
  - Access
  - Safety
  - Enjoyment

Sustainable Streets Network

Support Economic Vitality

- Street trees and walkable environments can have a positive impact on retail sales and rents
  - 3-15% increase in home values
  - Polling of shoppers indicates
    - 9-12% more spending
    - Spend more time in treed district

Source: joyandphil.blogspot.com

Source: www.ca-ilg.org.com

Sustainable Streets Network

Placemaking

- Design to fit with and enhance surroundings
- Support unique identify
- "Mark" gateways or special places

Source: casscountyonline.com

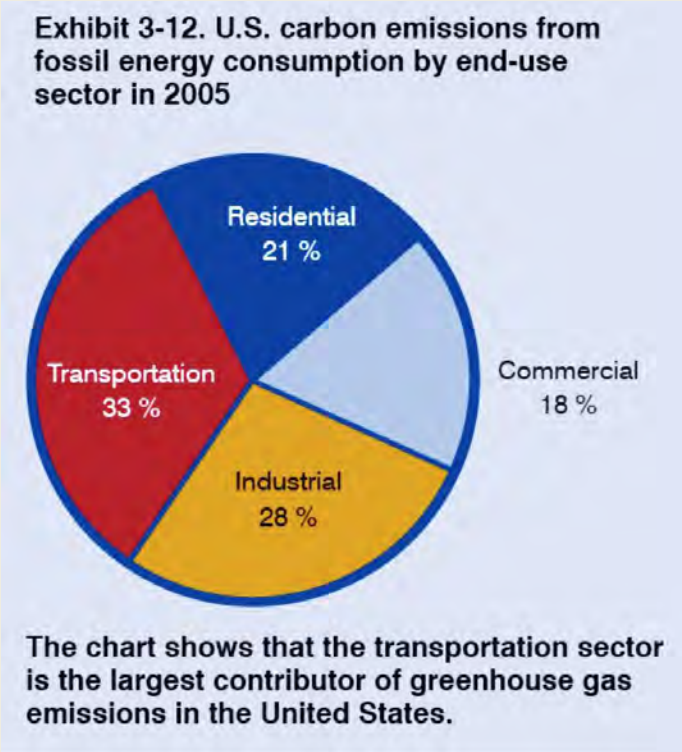
Source: Google

Source: my.autinenergy.com

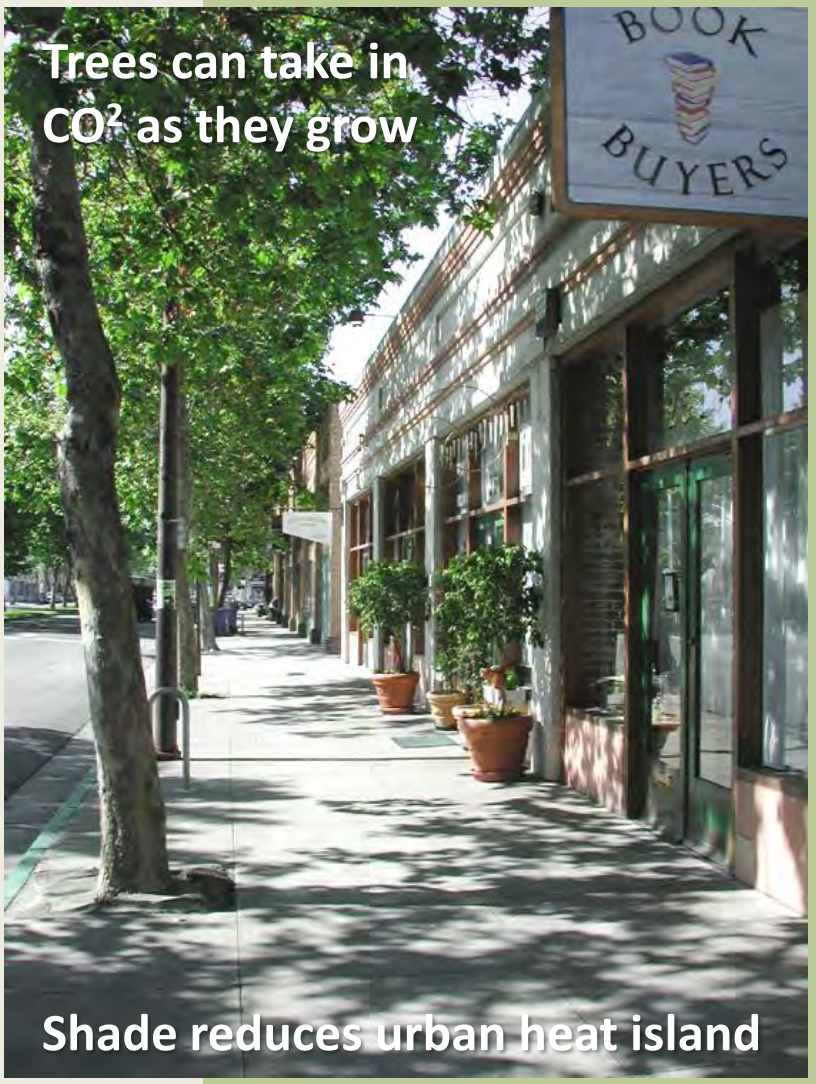
Sustainable Streets Network

Reduce Carbon Footprint

- Reduce need to drive as much
- Improve the urban forest



Source: Energy Information Administration



Sustainable Streets Network

Public Health

- "Active Transportation"
  health benefits of walking and biking

  An adult needs 150 min. of moderate activity per week to experience health benefits of physical activity
  "Physical Activity Guidelines for Americans" USHHS, 2008

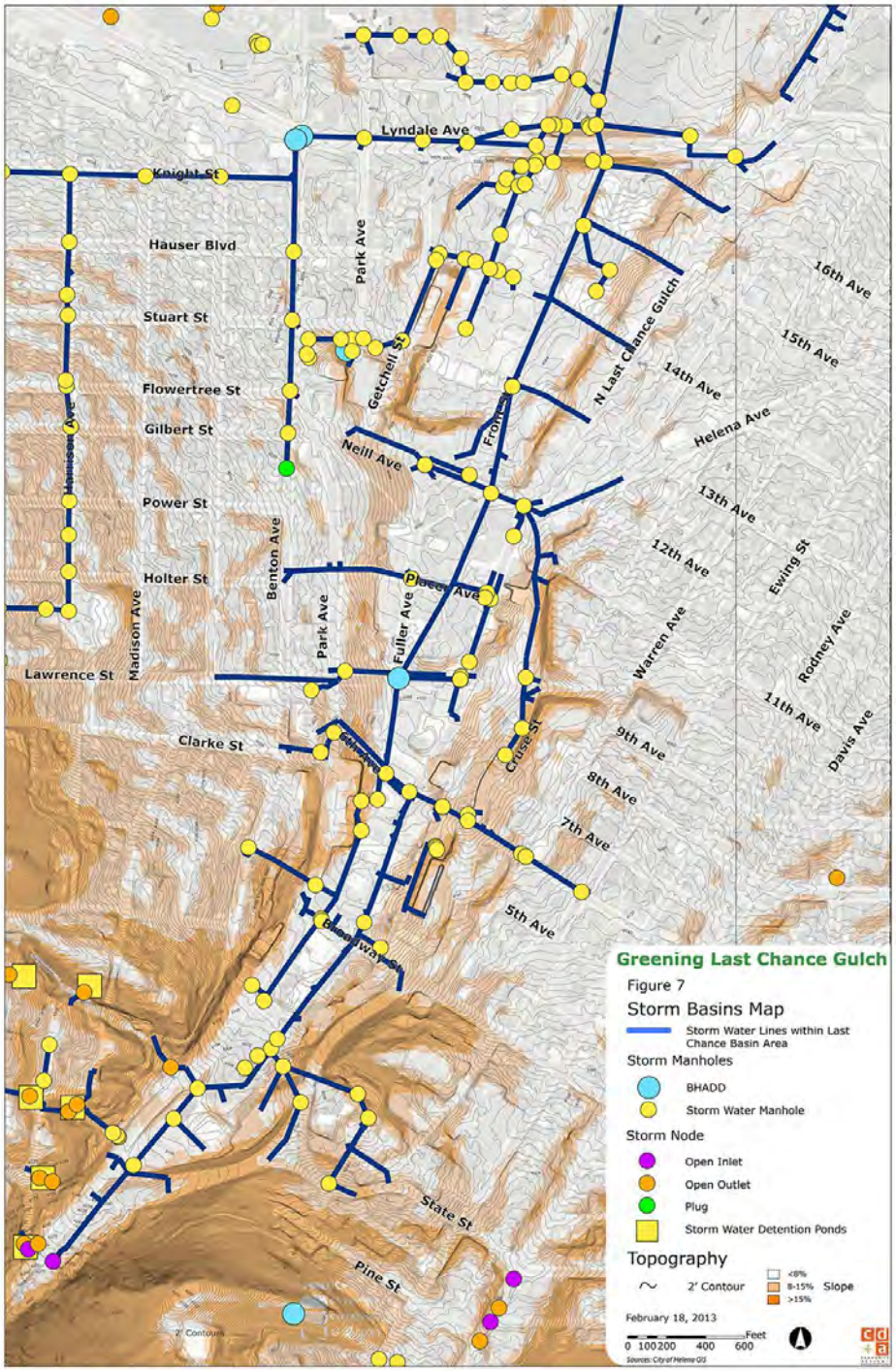
- Less than 10% of Americans achieve this level of activity

Source: blog.al.com

Stormwater Infrastructure

Topography and Storm Drainage

- Last Chance Gulch is the low-point of the surrounding watershed
- Considerable amounts of runoff entering Last Chance Gulch



Sustainable Streets Network

Green Infrastructure Toolbox

- Significant Street Trees
- Stormwater Curb Extensions
- Stormwater Planters
- Conventional Landscaping
- Pervious Paving
- Rain Gardens
- Stormwater Swales
- Green Gutters

Sustainable Streets Network

Green Infrastructure Toolbox

- Significant Street Trees
  - Help capture rainfall before it hits the street surface
  - Roots absorb runoff within soil
  - Shades the ground surface during summer months
  - Enhances the appearance and walkability of the street

Sustainable Streets Network

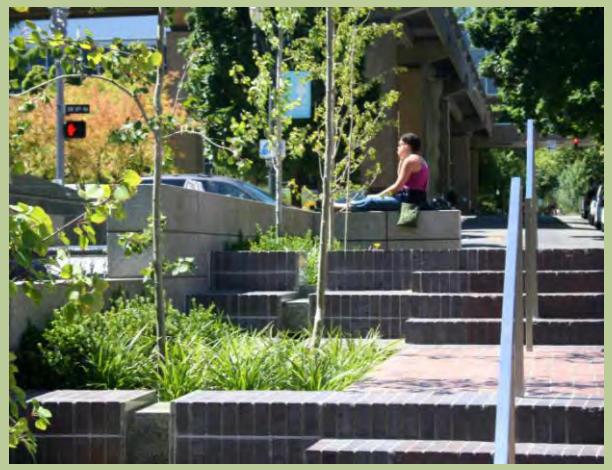
Green Infrastructure Toolbox

- Stormwater Curb Extensions
  - Landscape areas within a street's parking zone designed to capture and manage stormwater runoff
  - They come in all shapes and sizes
  - Help "green" the overall appearance of the street and provides space for street trees when sidewalk zones are too small
  - Reduces the distance of pedestrian crossings

Sustainable Streets Network

Green Infrastructure Toolbox

- Stormwater Planters
  - Contained and linear landscape areas designed to capture and manage stormwater runoff
  - They come in all shapes and sizes to help avoid utility conflicts
  - Can fit between the parking zone and sidewalk zone when there is adequate width
  - Can also support street trees when there is adequate width



Sustainable Streets Network

Green Infrastructure Toolbox

- Conventional Landscaping
  - Standard landscape areas that can reduce the overall impervious area, support street trees, and enhance the walkability of the street
  - Can also capture small amounts of runoff from adjancent impervious surfaces

Sustainable Streets Network

Green Infrastructure Toolbox

- Pervious Paving
  - Paving systems designed to capture runoff through pores within the pavement or through joints between individual hardscape paving
  - Can help demarcate different modes of travel through contrast in color.
  - Can help reduce the amount of stormwater catchment area needed for landscape areas to manage.

Sustainable Streets Network

Green Infrastructure Toolbox

- Rain Gardens
  - Large landscape areas designed to capture and manage significant amounts of stormwater runoff
  - They come in all shapes and sizes
  - Can be focal points of a street and can be designed as passive park areas

Sustainable Streets Network

Green Infrastructure Toolbox

- Stormwater Swales
  - Linear landscape areas designed capture and manage stormwater runoff
  - Usually designed without on-street parking and with long stretches of uninterrupted space
  - Can support street trees when there is adequate width
  - Can help provide a landscape separation between transportation modes and function as a stormwater facility

Sustainable Streets Network

Green Infrastructure Toolbox

- Green Gutters
  - Narrow and shallow landscape areas designed to capture and manage stormwater runoff
  - Designed to be very linear and 3' wide or less
  - Can help provide a landscape separation between transportation modes and function as a stormwater facility

Sustainable Streets Network

Green Streets + Complete Streets = Sustainable Streets

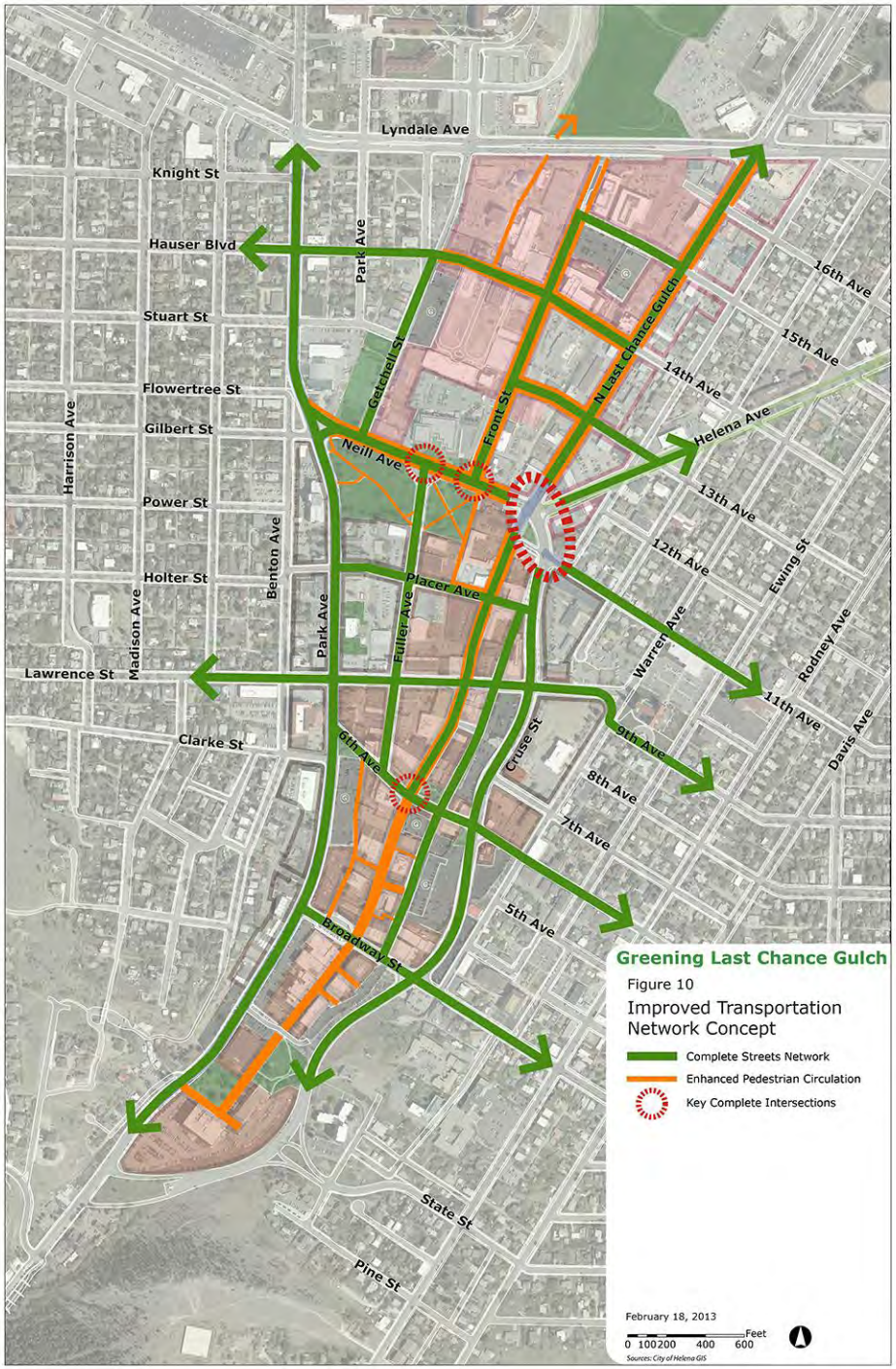
"The ideal green street is a linear park with a landscape system designed to capture, cleanse, and potentially infiltrate stormwater runoff while providing a direct emphasis on alternative transportation and placemaking"

-Kevin Robert Perry

Initial Schematic Concepts

Exploring Choices & Preferences

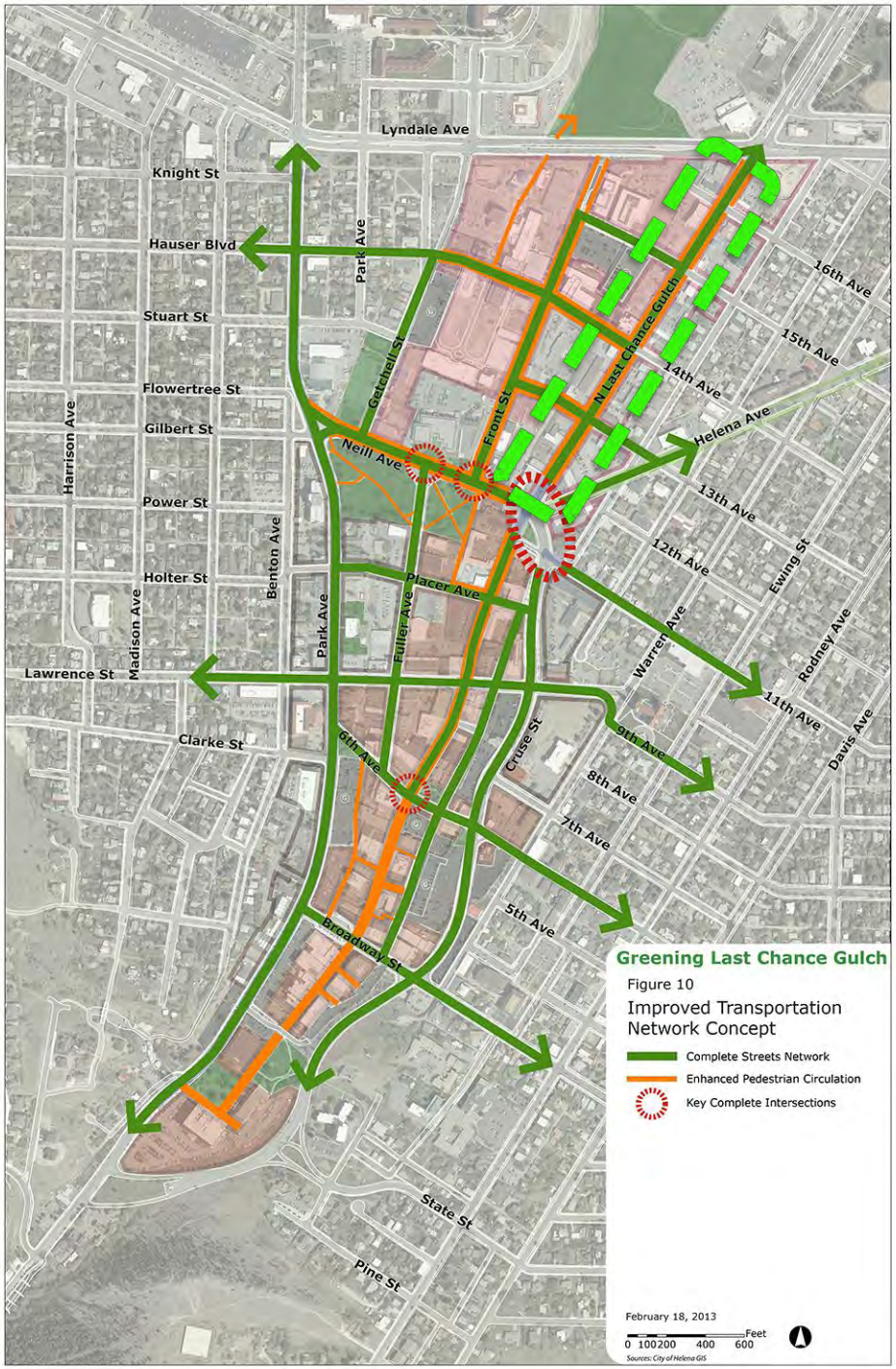
- What future do you see for downtown Helena?
- How can the design of streets serve this future vision?
  - What are priorities for allotting limited space within Downtown's streets?
    - Travel Lanes: number & direction
    - Type of bicycle improvements
    - Parking: amount & management
    - Pedestrian and open space: amount & use
  - What is appropriate amount of congestion?



Initial Schematic Concepts

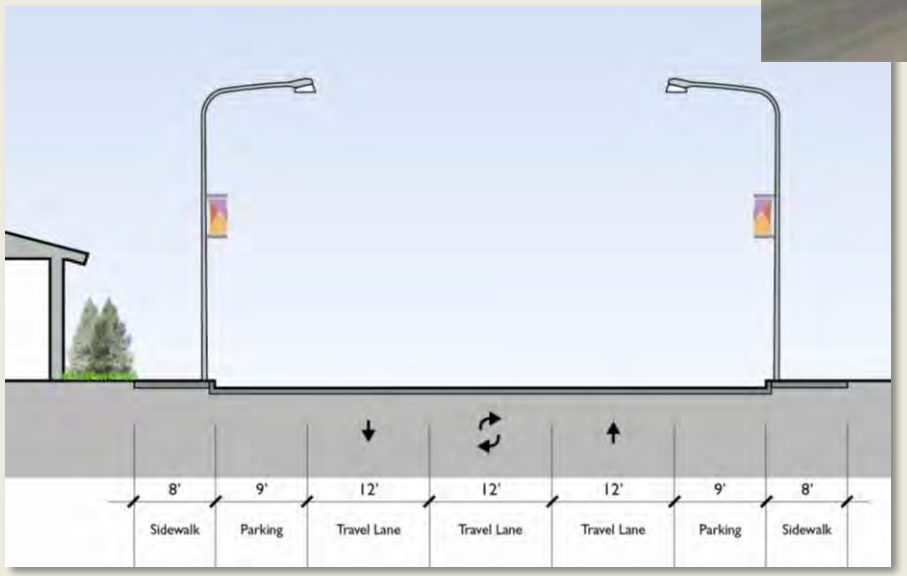
Last Chance Gulch - Neill to Lyndale Avenues

- Street front more dominated by parking lots
- Character is changing with some new development



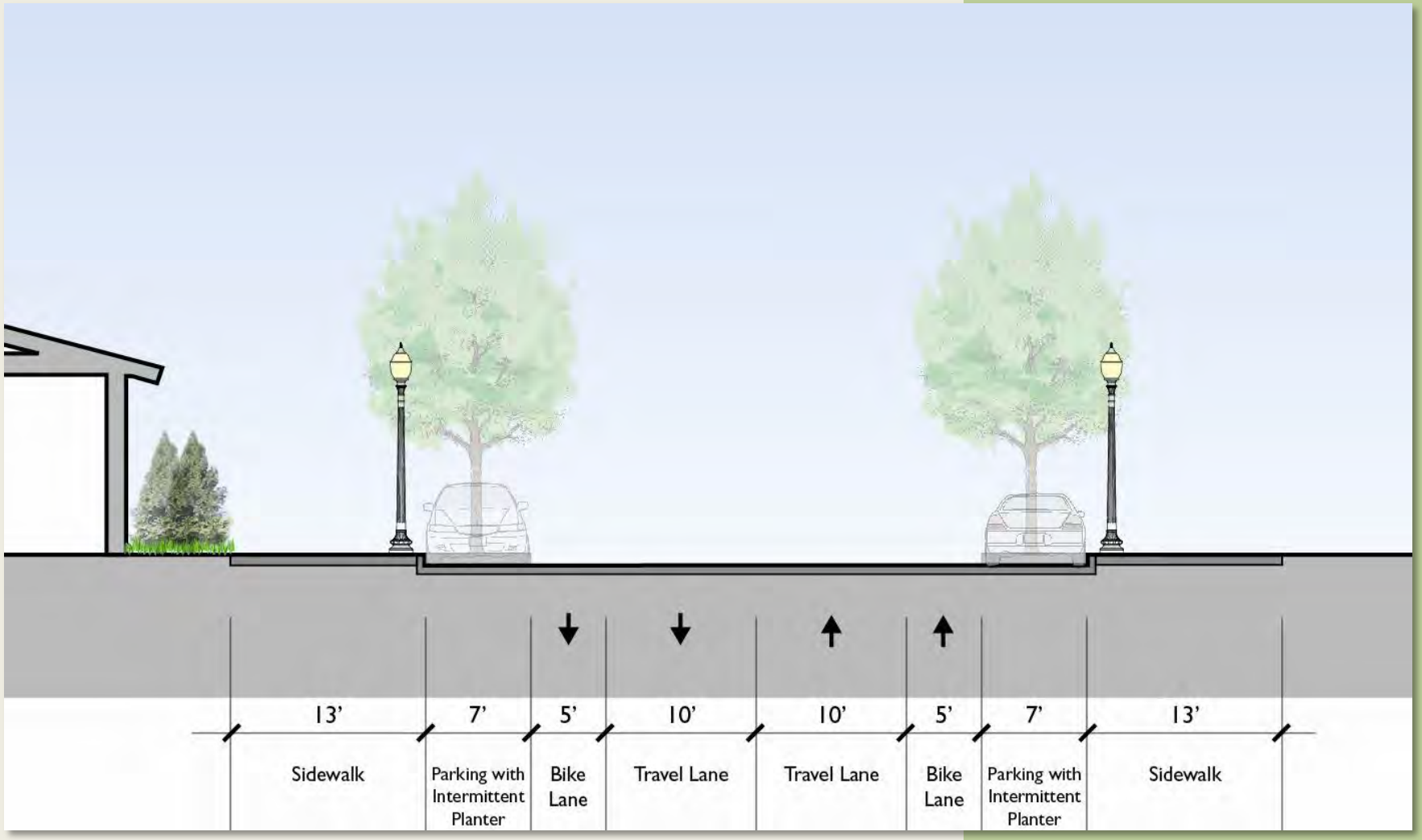
Last Chance Gulch from Neill to Lyndale Avenues

Existing Conditions



Last Chance Gulch from Neill to Lyndale Avenues: Concept A

Two Travel Lanes with Bike Lanes



Last Chance Gulch from Neill to Lyndale Avenues: Concept A

Two Travel Lanes with Bike Lanes

Significant Street Tree Canopy

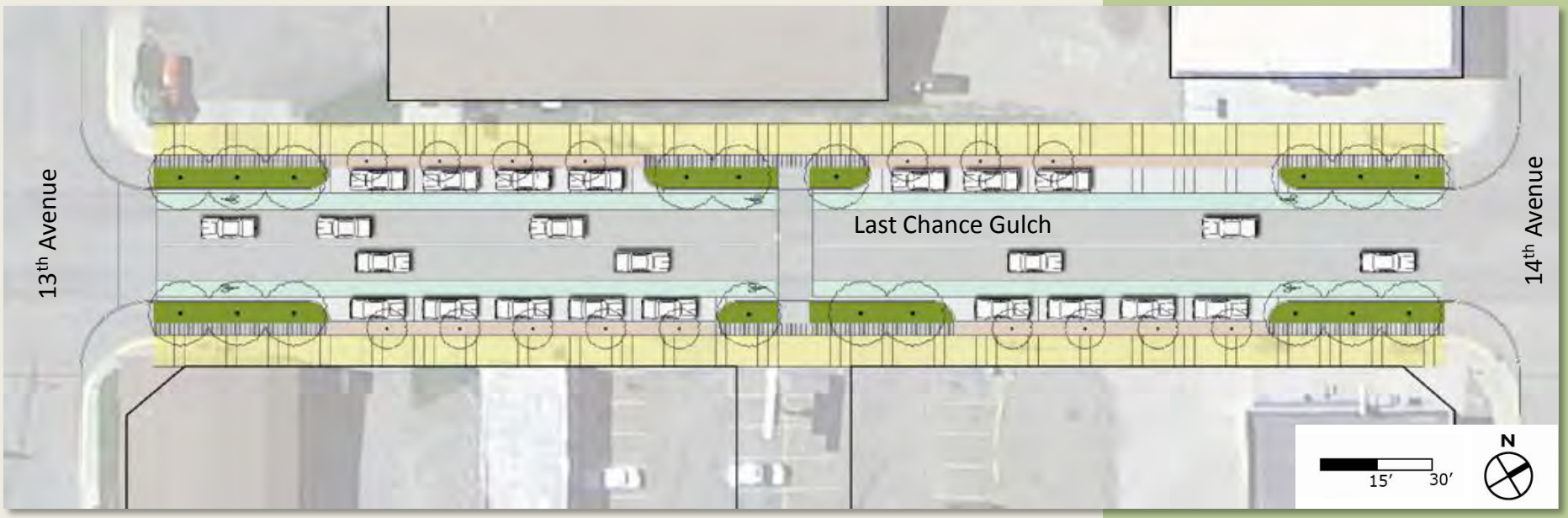
Stormwater Curb Extensions

Stormwater Planters

Wider Sidewalk Zones

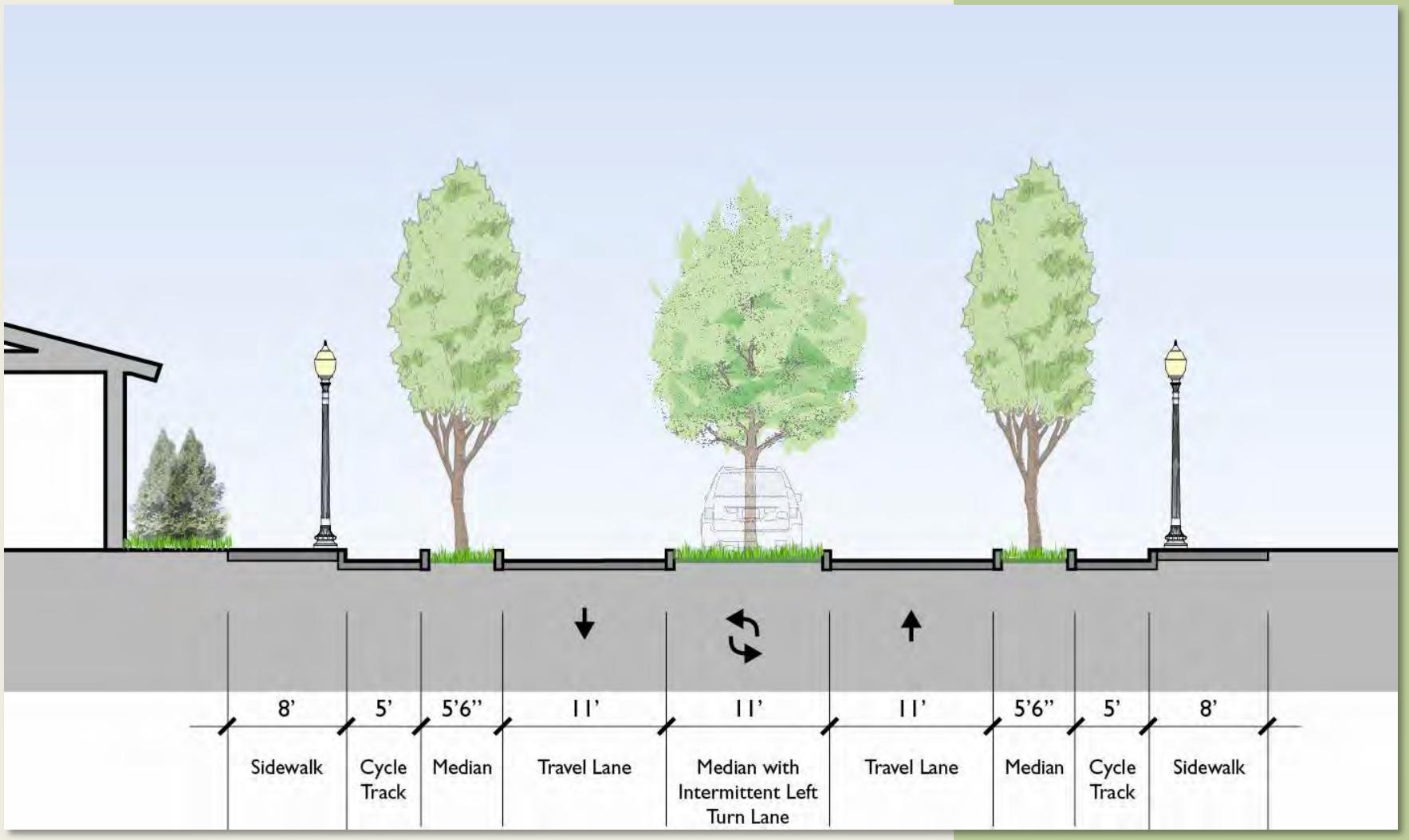
Pervious Paving Bands

Marked Bike Lanes



Last Chance Gulch from Neill to Lyndale Avenues: Concept B

Two Travel Lanes with Median and Cycletrack



Last Chance Gulch from Neill to Lyndale Avenues: Concept B

Two Travel Lanes with Median and Cycletrack

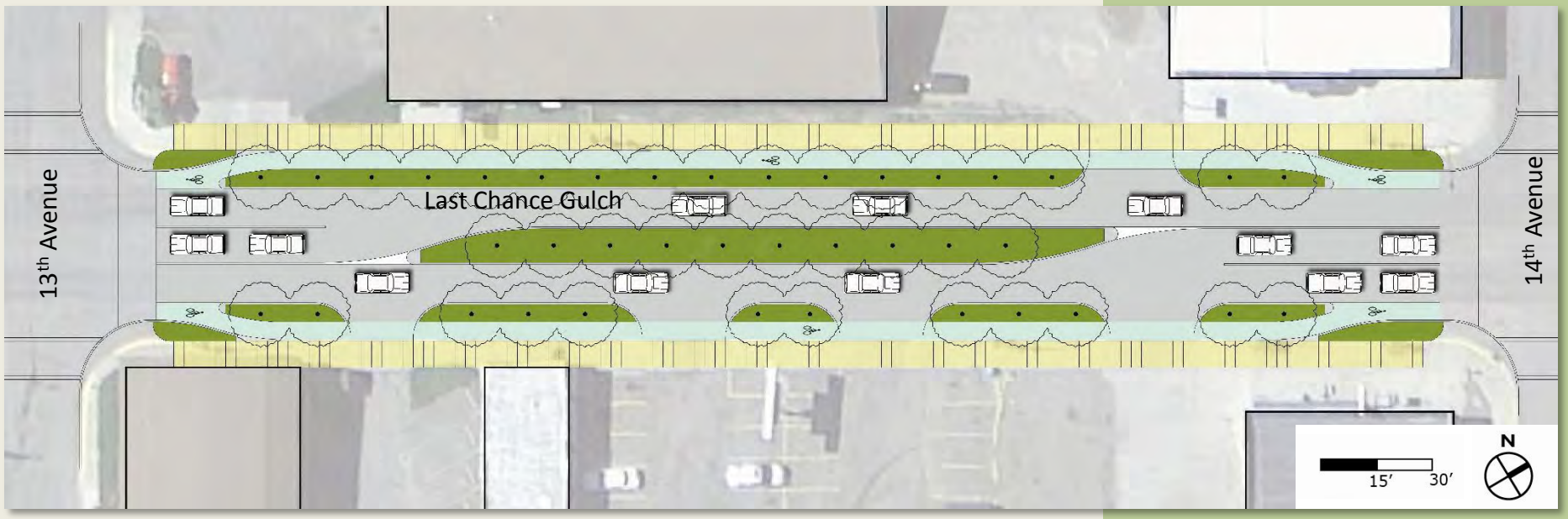
Significant Street Tree Canopy

Stormwater Curb Extensions

Stormwater Planters

Landscaped Median

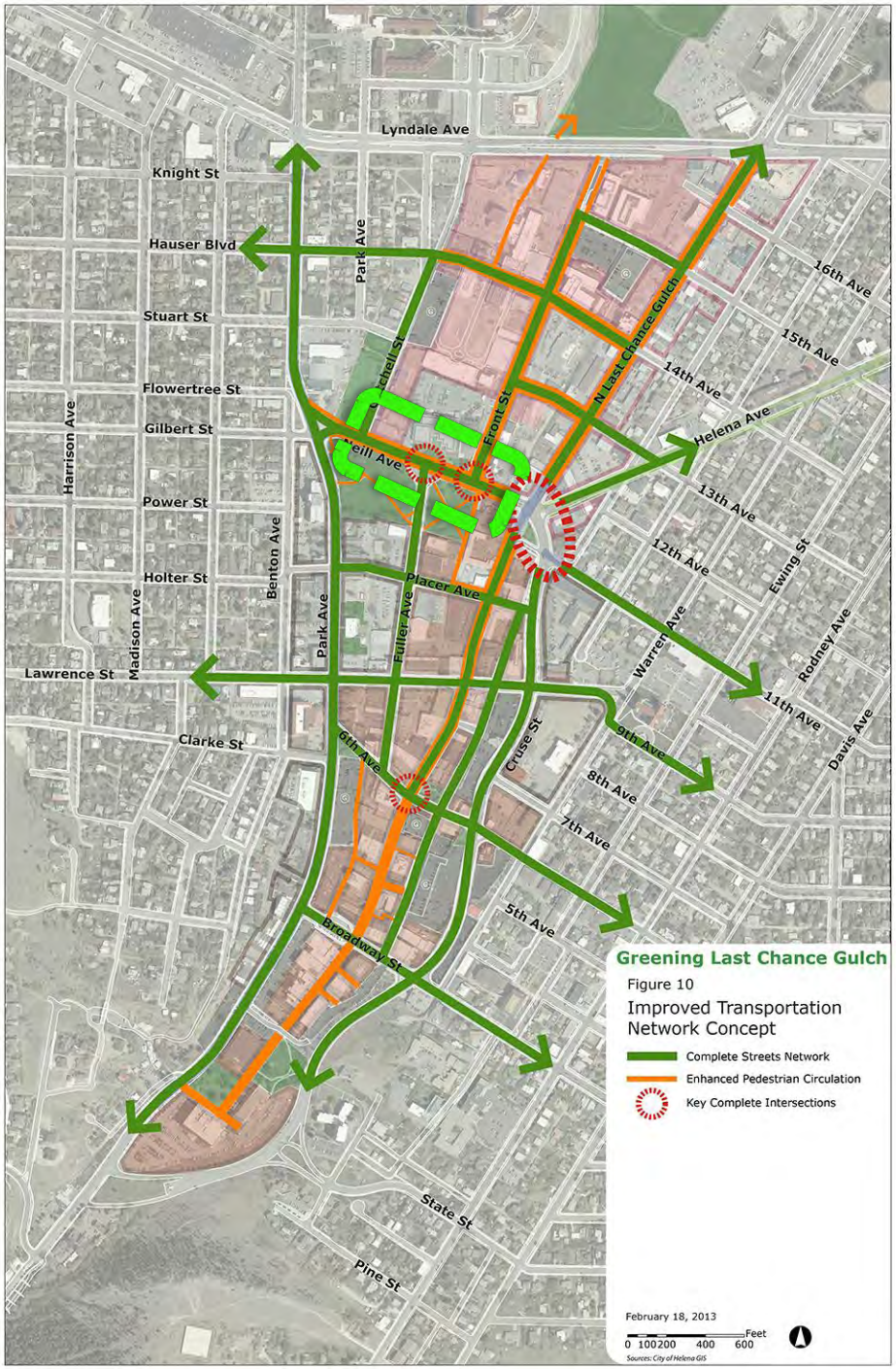
Dual-lane Cycletrack



Initial Schematic Concepts

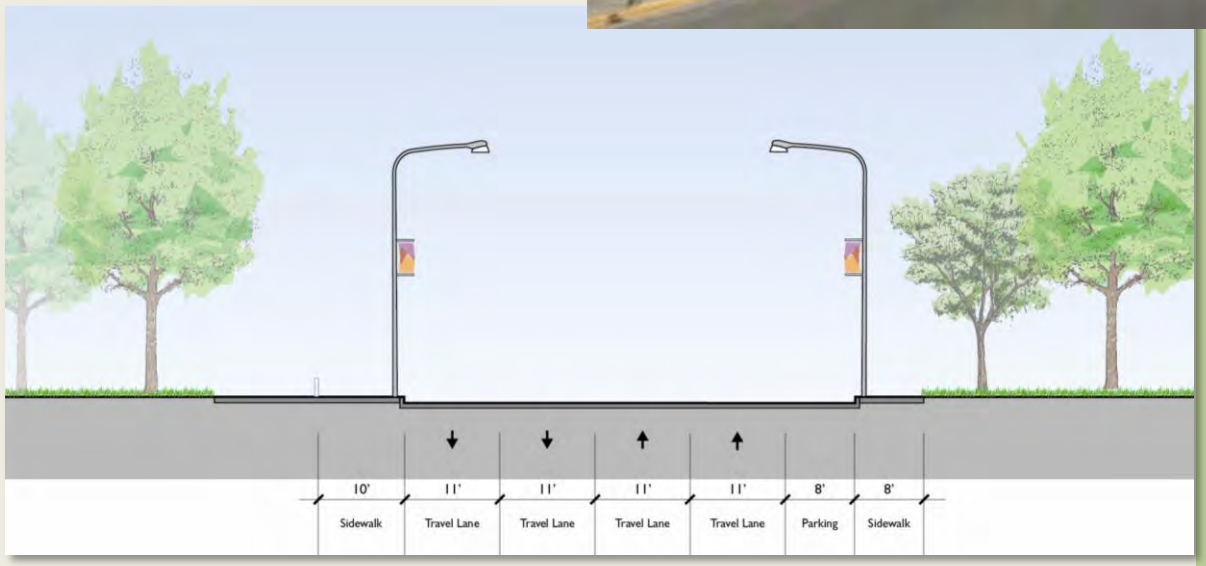
Neill Avenue from Kessler to Front Streets

- Street frontage dominated by landscape some parking lots
- Visually wide, accentuated by slope up to Park



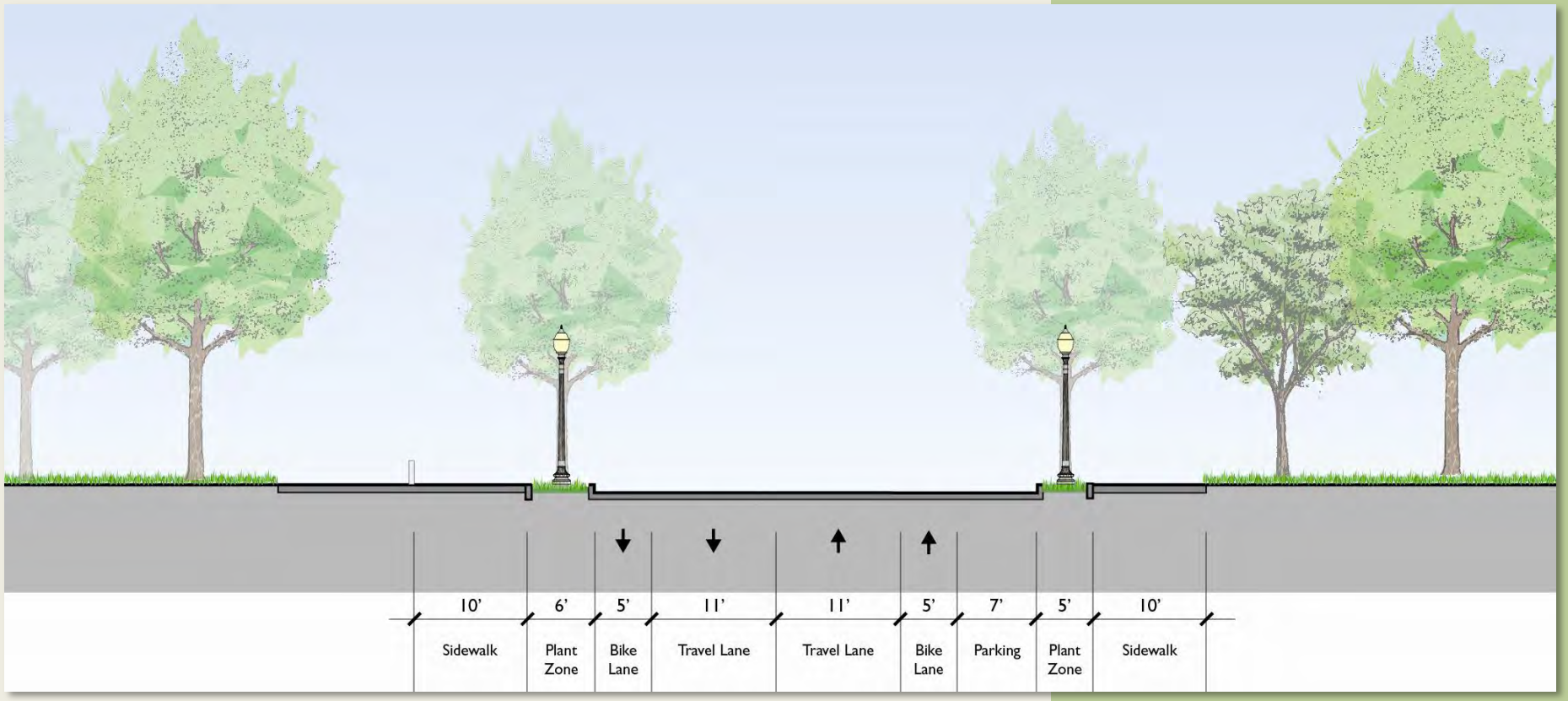
Neill Avenue from Kessler to Front Streets

Existing Condition



Neill from Kessler to Front: Concept A

Two Travel Lanes with Bike Lanes



Neill Between Front and Fuller: Concept A

Two Travel Lanes with Bike Lanes

Significant Street Tree Canopy

Stormwater Curb Extensions

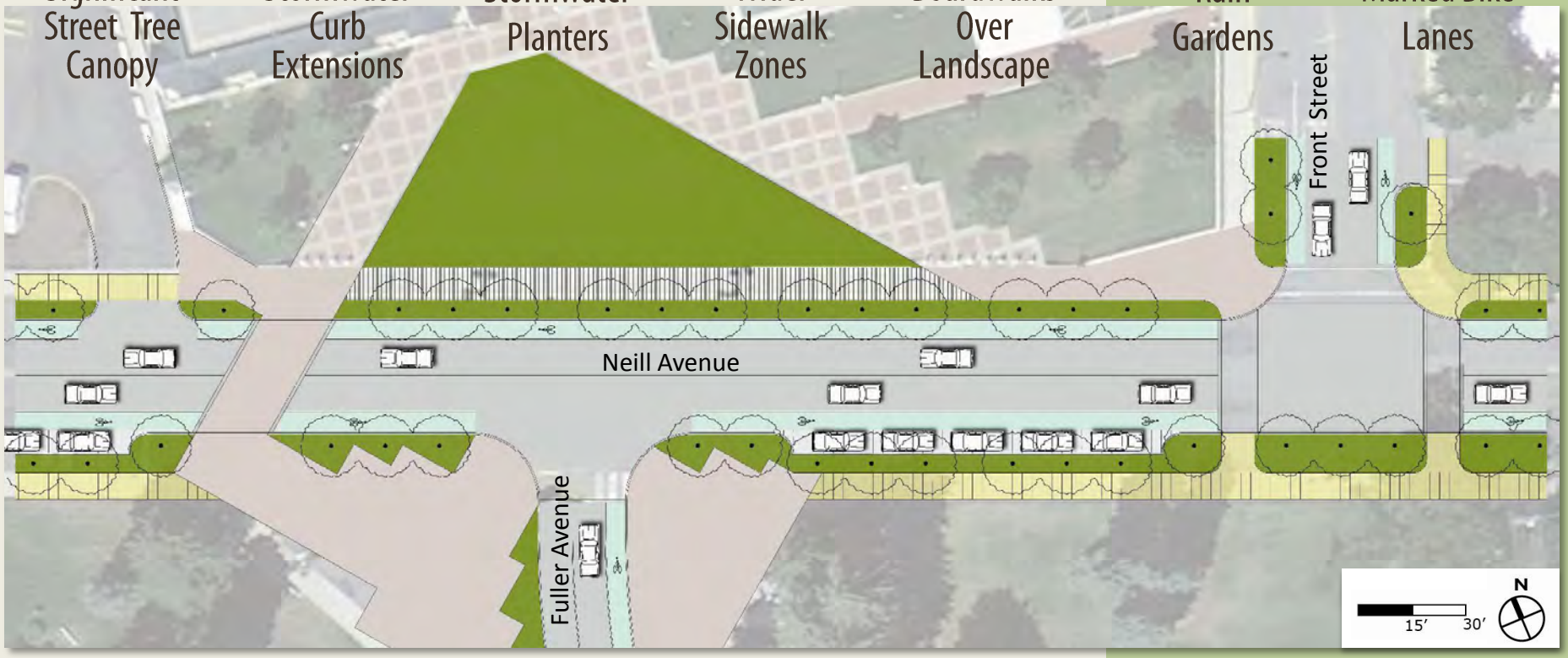
Stormwater Planters

Wider Sidewalk Zones

Boardwalks Over Landscape

Rain Gardens

Marked Bike Lanes



Neill Between Front and Fuller: Concept B

Two Travel Lanes with Cycletrack

Neill Between Front and Fuller: Concept B

Two Travel Lanes with Cycletrack

Significant Street Tree Canopy

Stormwater Planters

Wider Sidewalk Zones

Boardwalks Over Landscape

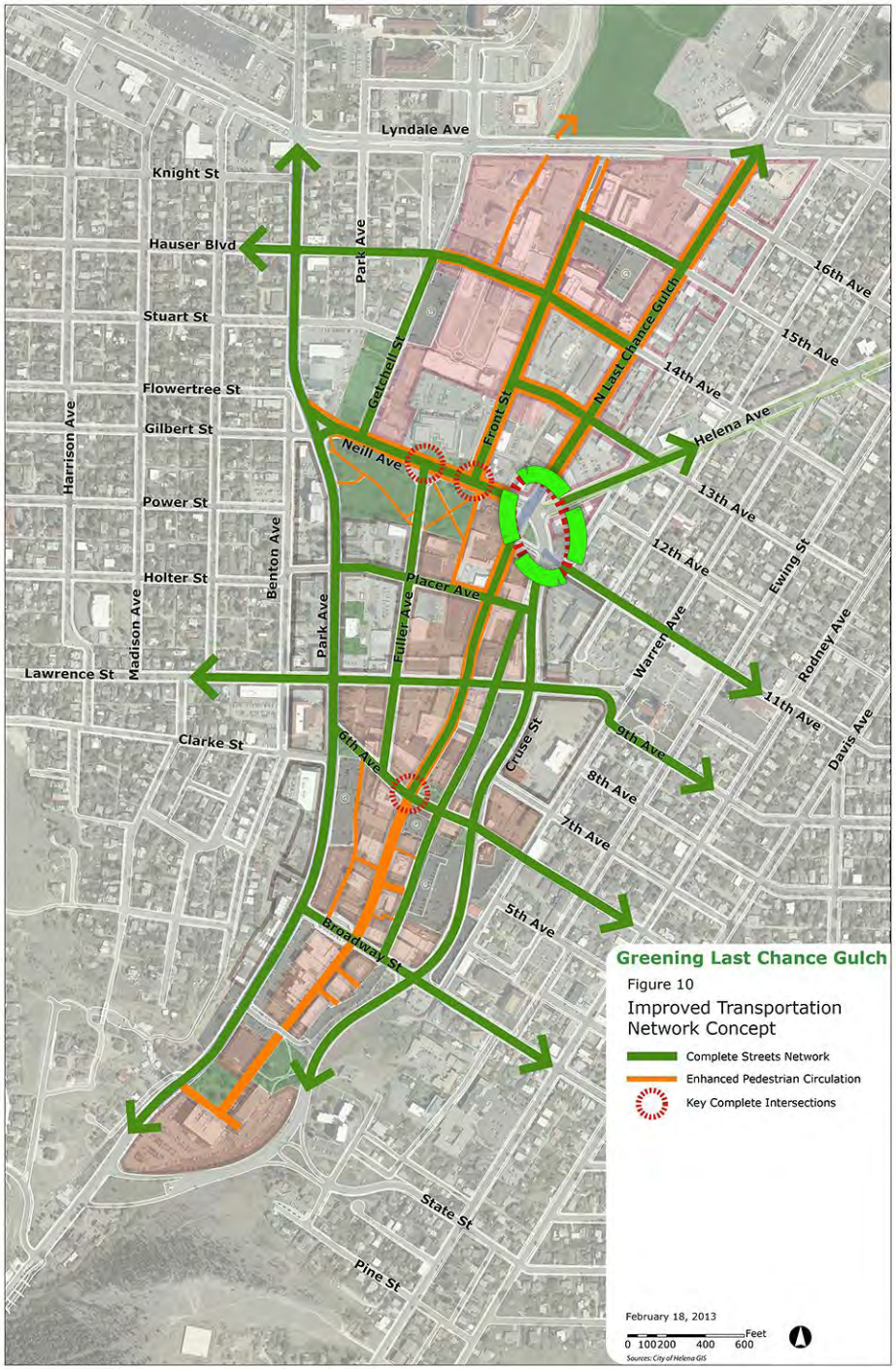
Rain Gardens

Two-way Cycletrack

Initial Schematic Concepts

5-Point Intersection

- Poor pedestrian and bicycle access
- Inefficient signal operations
- Visually bleak gateway



5-Point Intersection

Existing Conditions

5-Point Intersection

Signalized Intersections

Additional Landscape

Green Infrastructure

Bike Boxes

Bike Turning Boxes

Widen Sidewalks

Crosswalk Median Noses

5-Point Intersection

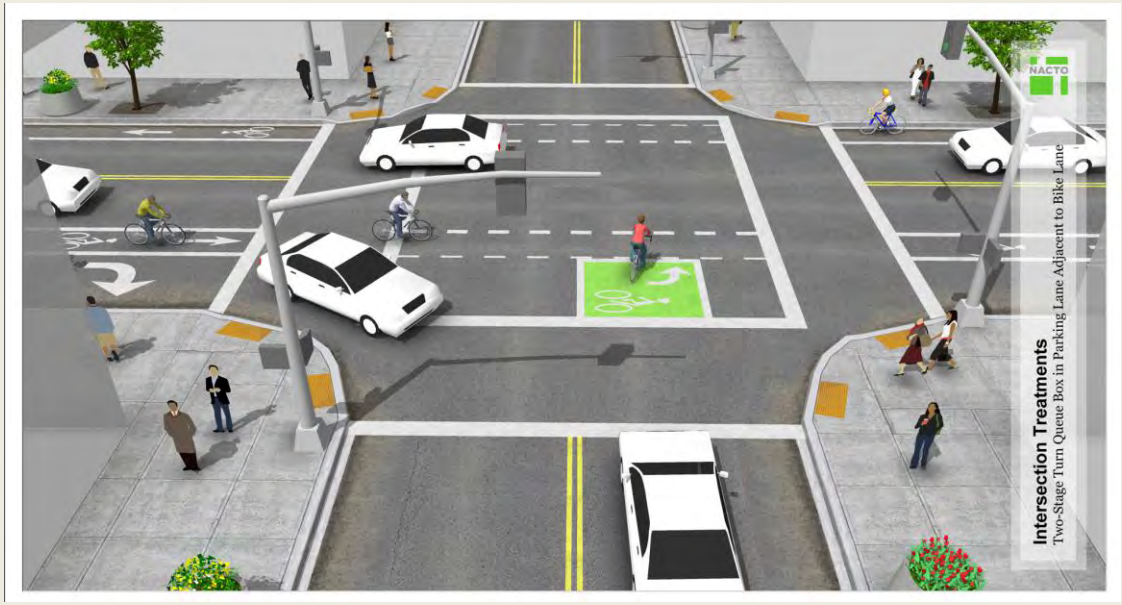
Bike Boxes

- Bike Box

5-Point Intersection

Bike Boxes

- Bike Box
- 2-stage Intersection Turn Box



Parking Lane Configuration

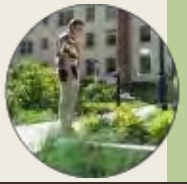
Crosswalk Setback Configuration
Wider corner radii, set back pedestrian crossing, and/or narrowed bikeway space, provides opportunity for queue box.

T-Intersection "Jughandle" Sidewalk Configuration

5-Point Intersection

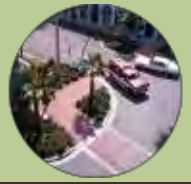
Roundabout

Additional Landscape



Green Infrastructure

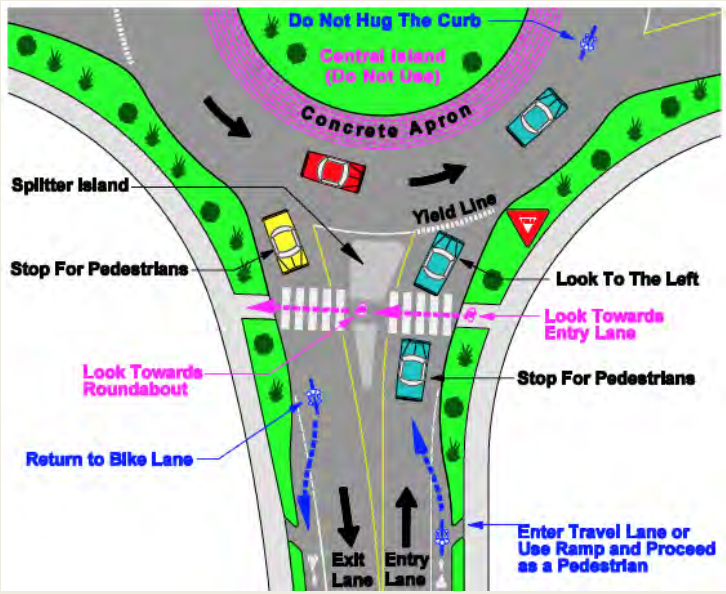
Widen Sidewalks



Enhanced crosswalks

5-Point Intersection

Roundabout



Source: How to Drive a Roundabout, ODOT

Source: 5 Corners Roundabout, http://myedmondsnews.com

Source: Google

5-Point Intersection

"Green-about"

Additional Landscape

Expand Park

Green Infrastructure

Bike Boxes

Bike Turning Boxes

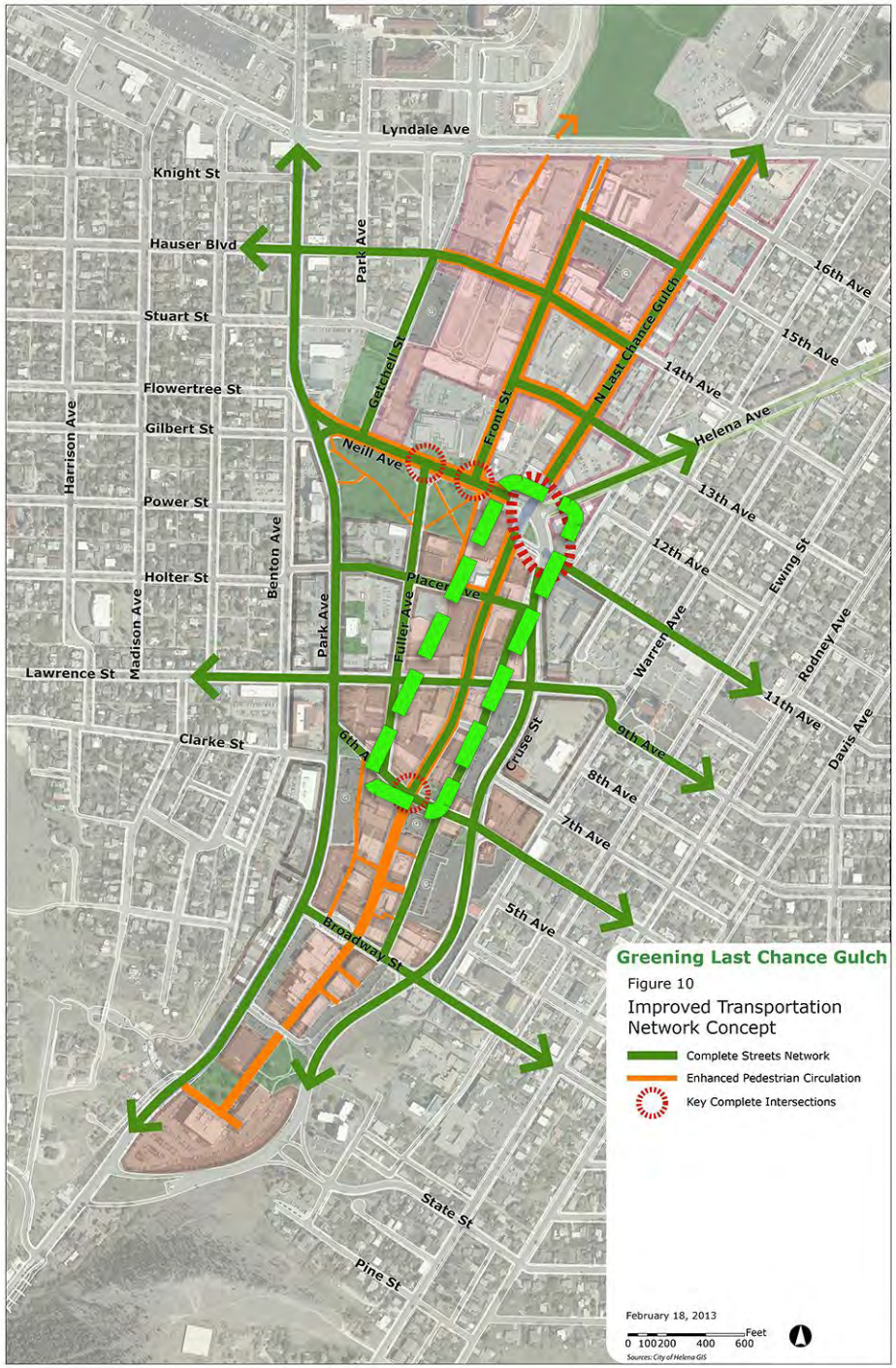
Widen Sidewalks

Crosswalk Median Noses

Initial Schematic Concepts

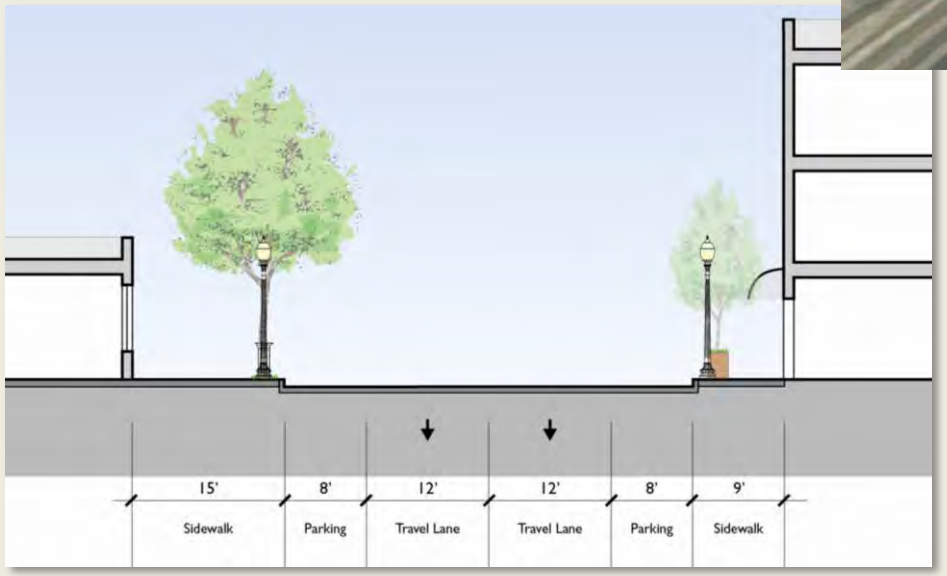
LCG from 6th to Neill Avenues

- Street fronting facades
- Some recent improvements
- Desire for more improvement



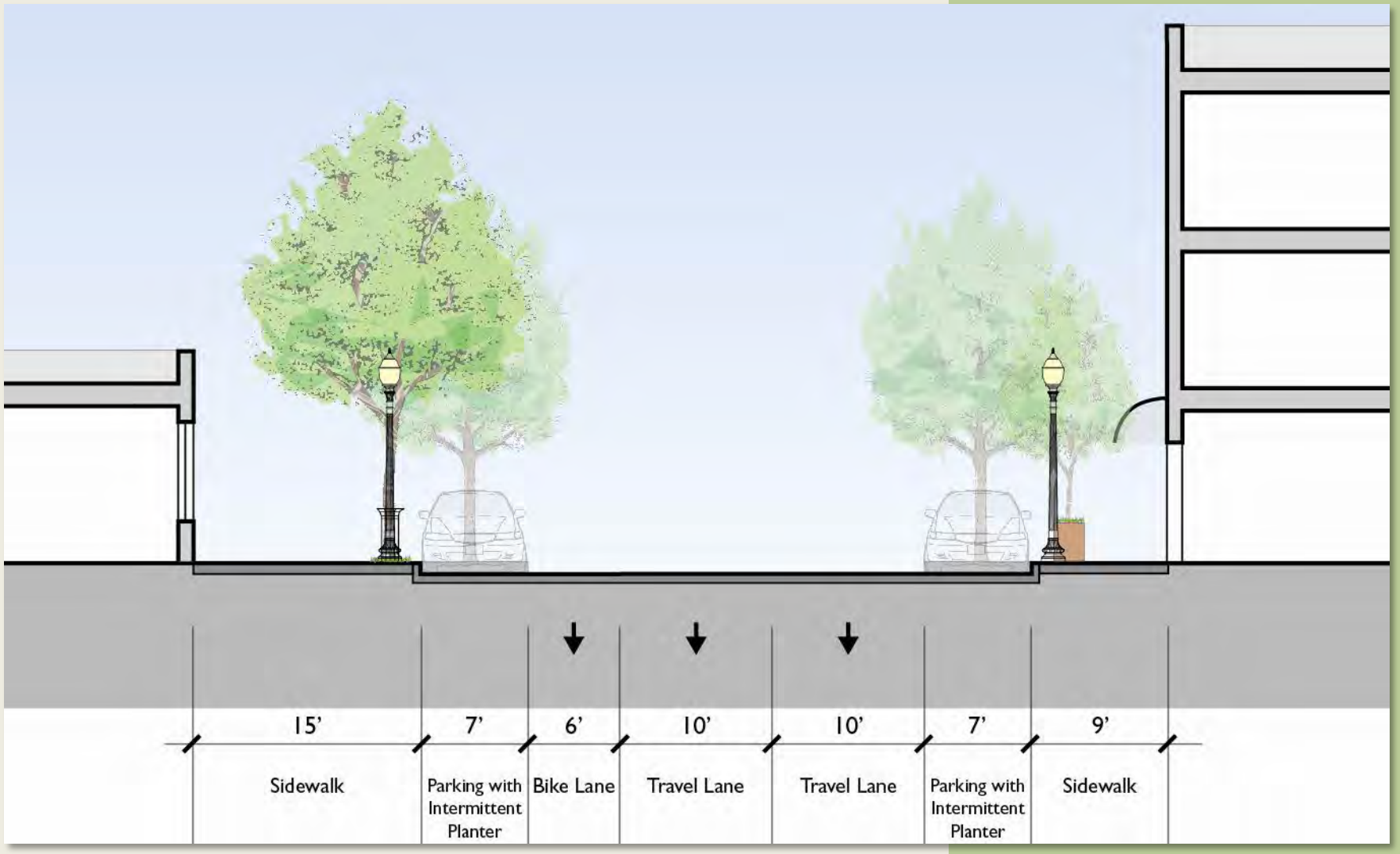
Last Chance Gulch from 6th to Neill Avenues

Existing Conditions



Last Chance Gulch from 6th to Neill Avenues: Concept A

One-way Traffic with One-way Bike Lane (Couplet with Fuller)



Last Chance Gulch from 6th to Neill Avenues: Concept A

One-way Traffic with One-way Bike Lane (Couplet with Fuller)

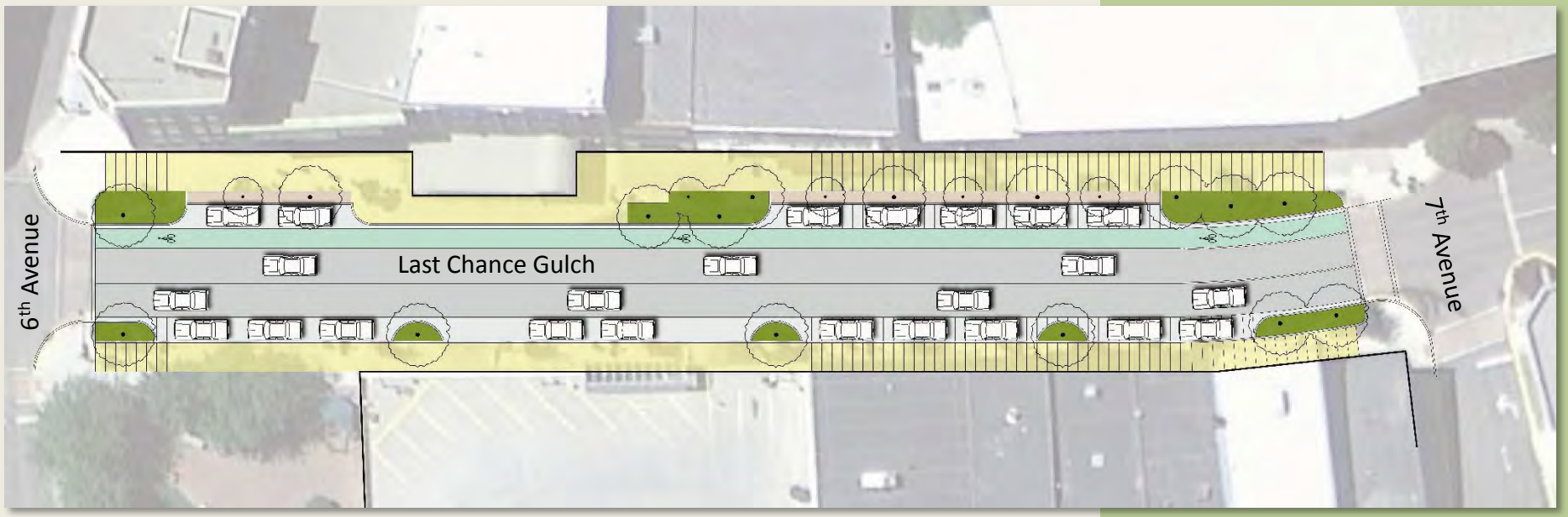
Significant Street Tree Canopy

Stormwater Curb Extensions

Wider Sidewalk Zones

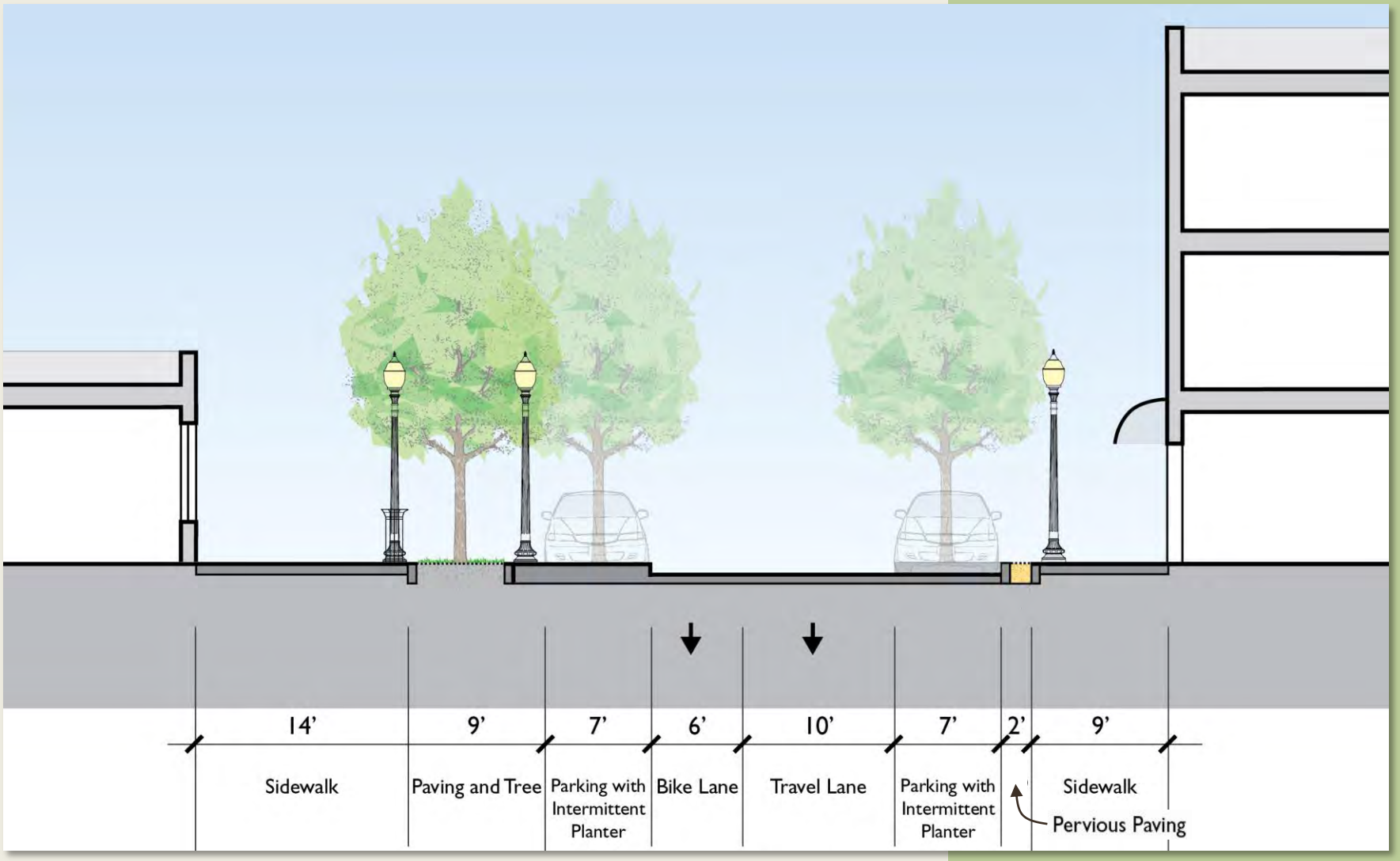
Pervious Paving Bands

Marked Bike Lanes



Last Chance Gulch from 6th to Neill Avenues: Concept B

One-way Traffic (Single Lane) with One-way Bike (Couplet with Fuller)



Last Chance Gulch from 6th to Neill Avenues: Concept B

One-way Traffic (Single Lane) with One-way Bike (Couplet with Fuller)

Significant Street Tree Canopy

Stormwater Curb Extensions

Stormwater Planters

Boardwalks Over Landscape

Wider Sidewalk Zones

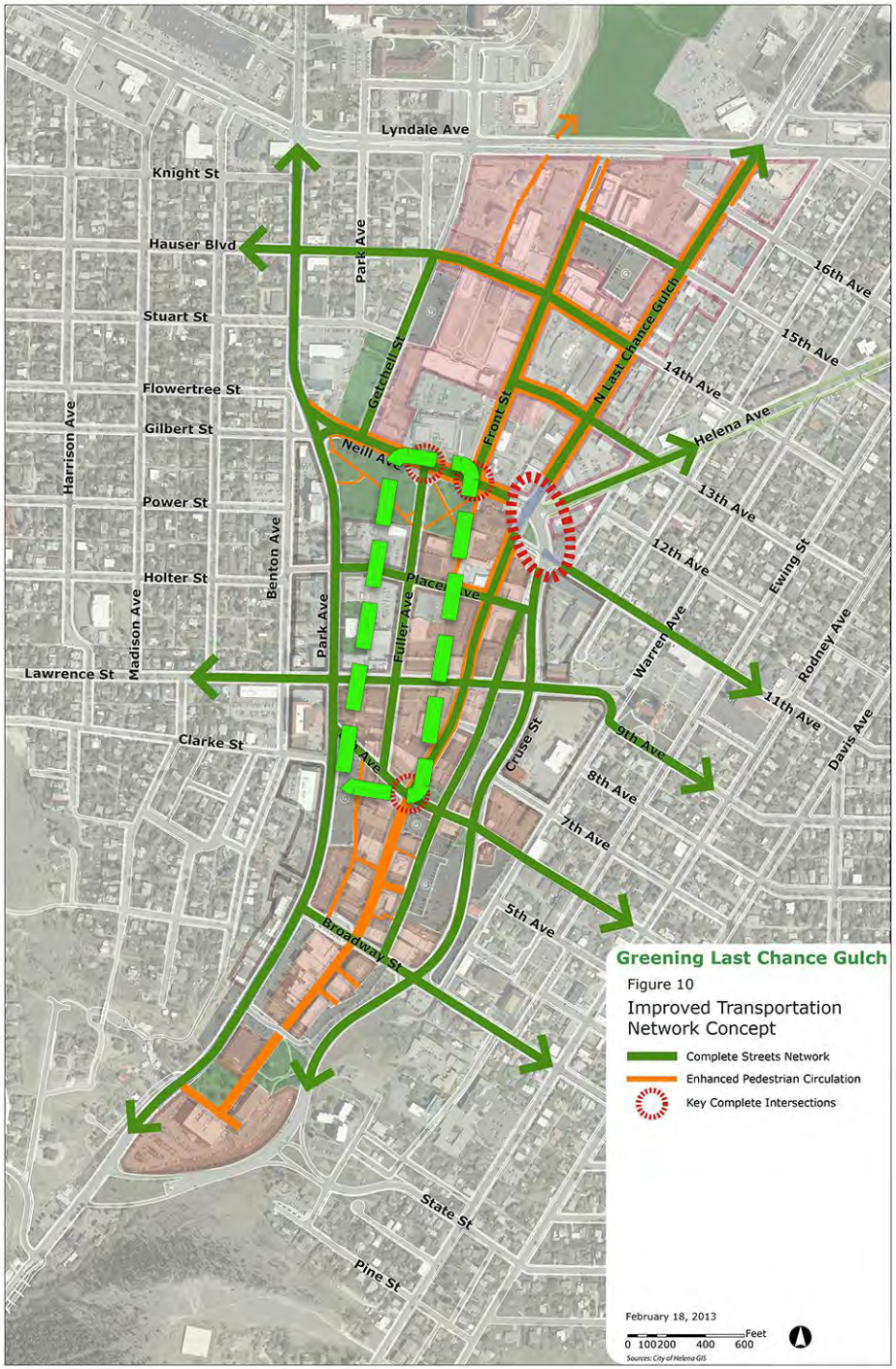
Pervious Paving Bands

Marked Bike Lanes

Initial Schematic Concepts

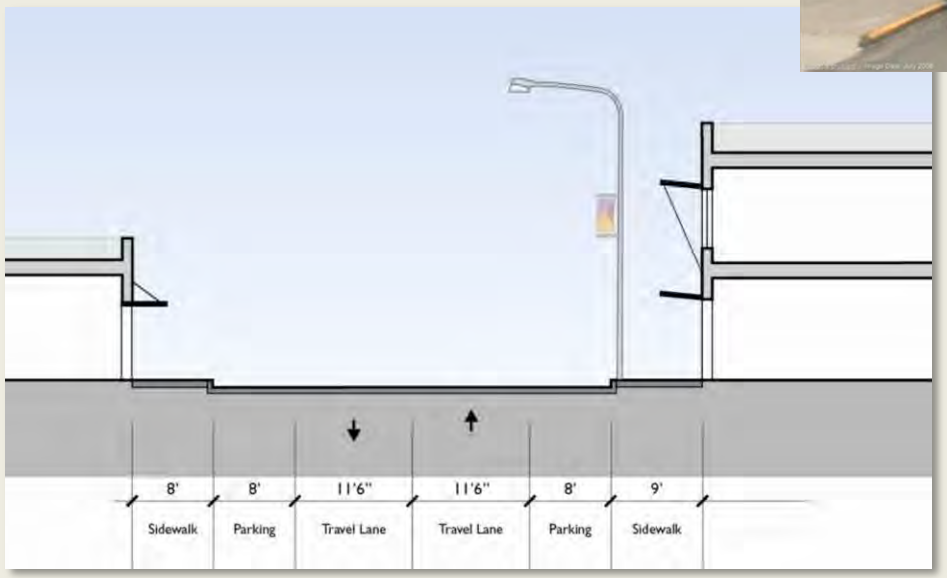
Fuller Avenue from 6th to Neill Avenues

- Some street fronting facades
- Some street fronting parking lots
- Potential to complement improvements to Last Chance Gulch



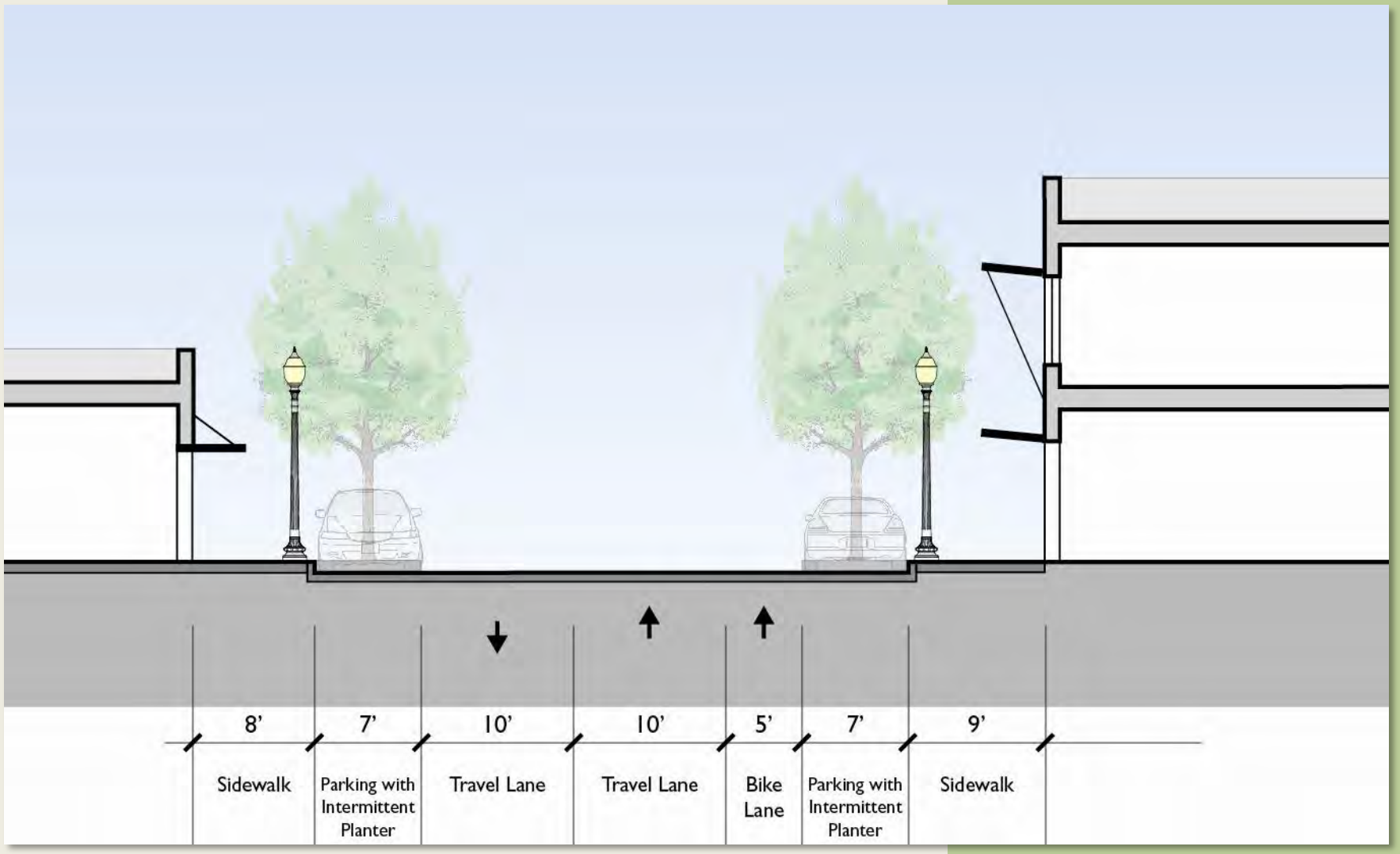
Fuller Avenue from 6th to Neill Avenues

Existing Conditions



Fuller Avenue from 6th to Neill Avenues

Two-way Traffic with One-way Bike (Couplet with Last Chance Gulch)



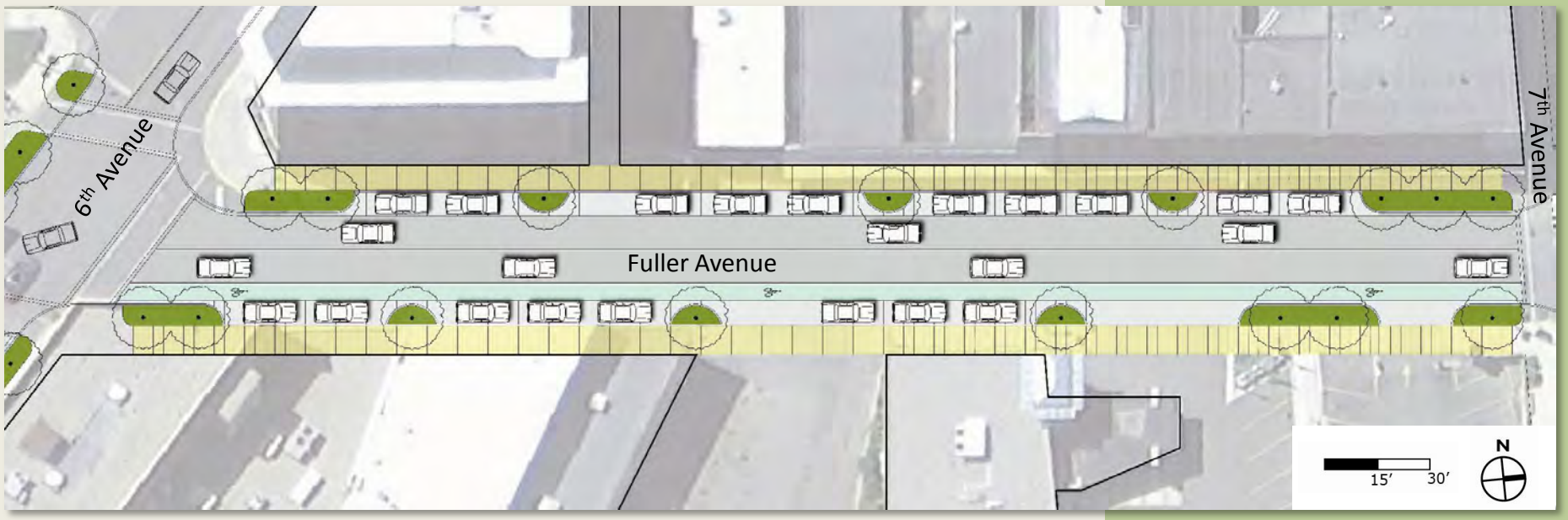
Fuller Avenue from 6th to Neill Avenues

Two-way Traffic with One-way Bike (Couplet with Last Chance Gulch)

Significant Street Tree Canopy

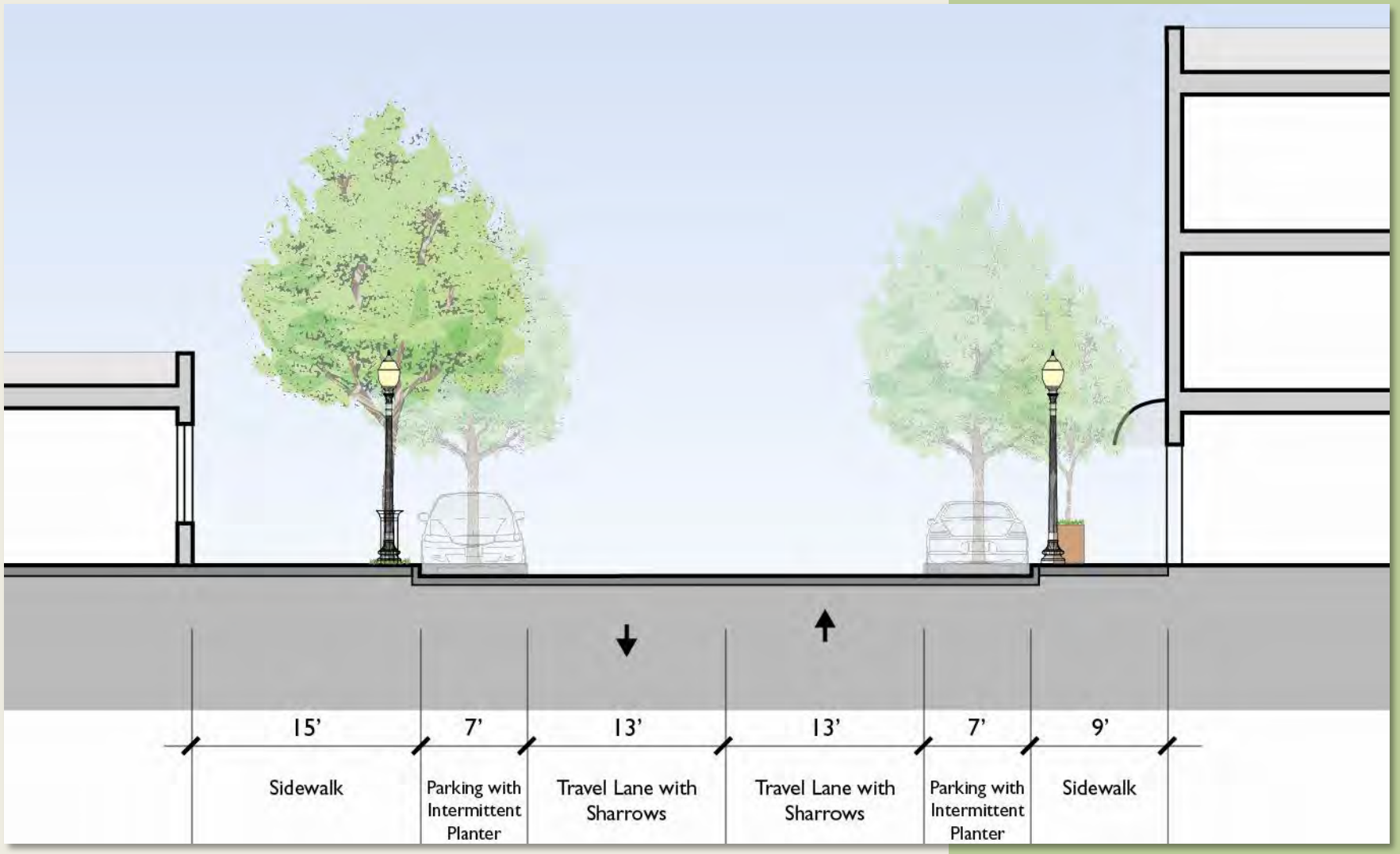
Stormwater Curb Extensions

Marked Bike Lane



Last Chance Gulch from 6th to Neill Avenues: Concept C

Two-way Traffic with Sharrows



Last Chance Gulch from 6th to Neill Avenues: Concept C

Two-way Traffic with Sharrows

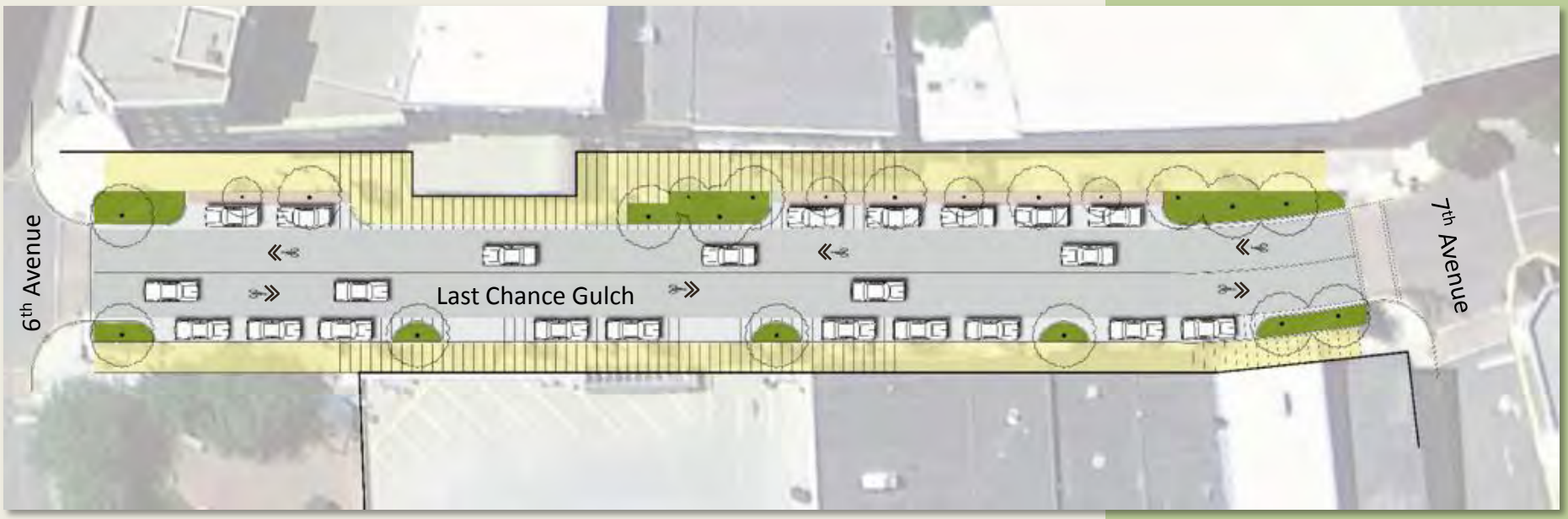
Significant Street Tree Canopy

Stormwater Curb Extensions

Wider Sidewalk Zones

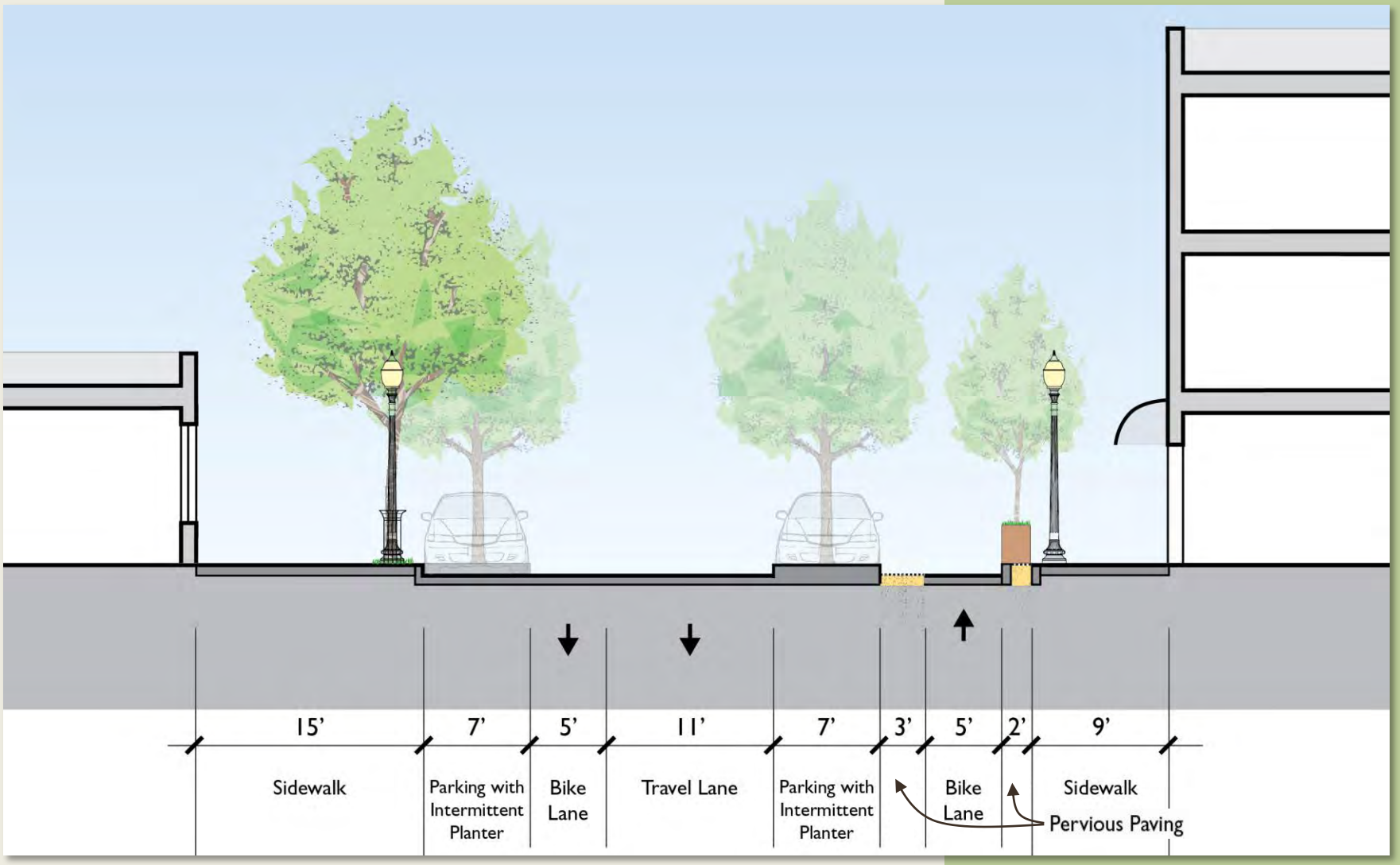
Pervious Paving Bands

Bike Sharrow



Last Chance Gulch from 6th to Neill Avenues: Concept D

One-way Traffic with Two-way Bike Lanes



Last Chance Gulch from 6th to Neill Avenues: Concept D

One-way Traffic with Two-way Bike Lanes

Significant Street Tree Canopy

Stormwater Curb Extensions

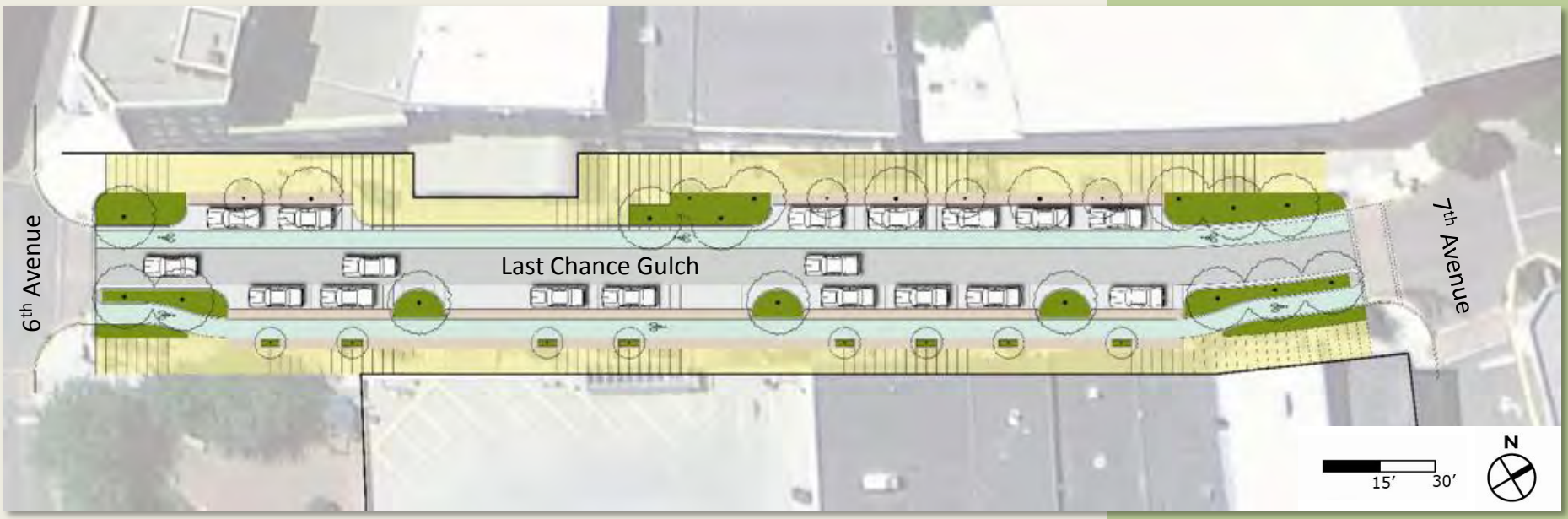
Stormwater Planters

Wider Sidewalk Zones

Pervious Paving Bands

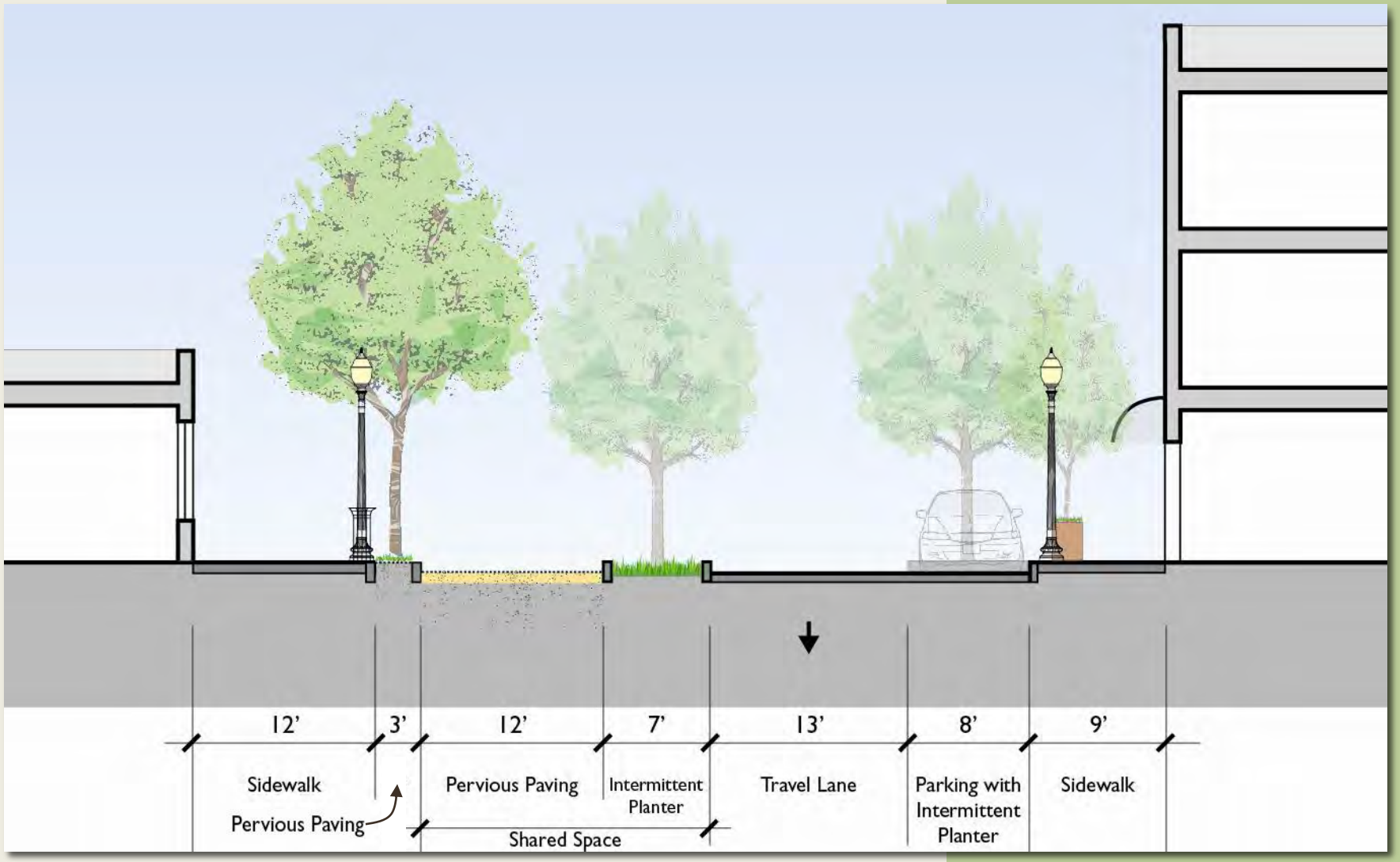
Contra-flow Cycletrack

Marked Bike Lanes



Last Chance Gulch from 6th to Neill Avenues: Concept E

One-way Traffic with Shared Space



Last Chance Gulch from 6th to Neill Avenues: Concept E

One-way Traffic with Shared Space (in Bike Configuration)

Significant Street Tree Canopy

Stormwater Curb Extensions

Stormwater Planters

Wider Sidewalk Zones

Pervious Paving Bands

Trees in Parking Zone

Two-way Cycletrack

Last Chance Gulch from 6th to Neill Avenues: Concept E

One-way Traffic with Shared Space (in Diagonal Parking Configuration)

Significant Street Tree Canopy

Stormwater Curb Extensions

Stormwater Planters

Wider Sidewalk Zones

Pervious Paving Bands

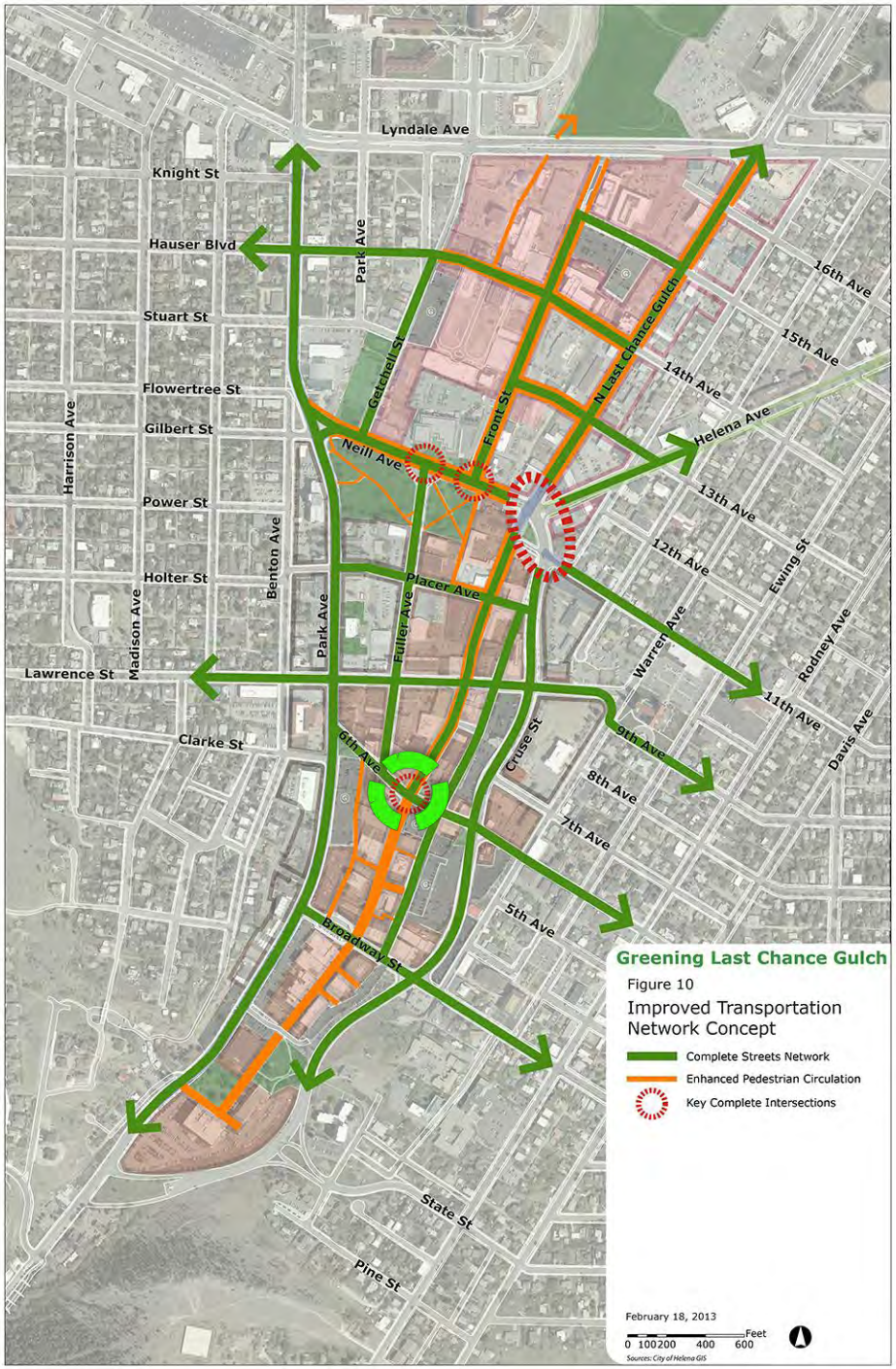
Trees in Parking Zone

Contra-flow Cycletrack

Initial Schematic Concepts

Last Chance Gulch at 6th Avenue Intersection

- Abrupt transition from street to pedestrian mall
- Auto entry to garage dominates



Last Chance Gulch at 6th Avenue Intersection

Concept A

Street Tree Canopy

Stormwater Curb Extensions

Plaza Pervious Paving

Stormwater Planters

Enhanced Crosswalks

Last Chance Gulch at 6th Avenue Intersection

Concept B

Street Tree Canopy

Stormwater Curb Extensions

Plaza Pervious Paving

Stormwater Planters

Boardwalks

Shared Space

Last Chance Gulch at 6th Avenue Intersection

Concept B – Shared Space

source: http://freddie.veuo.com

source: http://www.akp-redaktion.de

Last Chance Gulch at 6th Avenue Intersection

Concept B – Shared Space

Asheville, NC, source: bethmeckley.com

Last Chance Gulch at 6th Avenue Intersection

Concept B – Shared Space

Eugene, OR, source: flickr usr afenster

Last Chance Gulch at 6th Avenue Intersection

Concept B – Shared Space

Portland, OR, source: Google Streetview

Last Chance Gulch at 6th Avenue Intersection

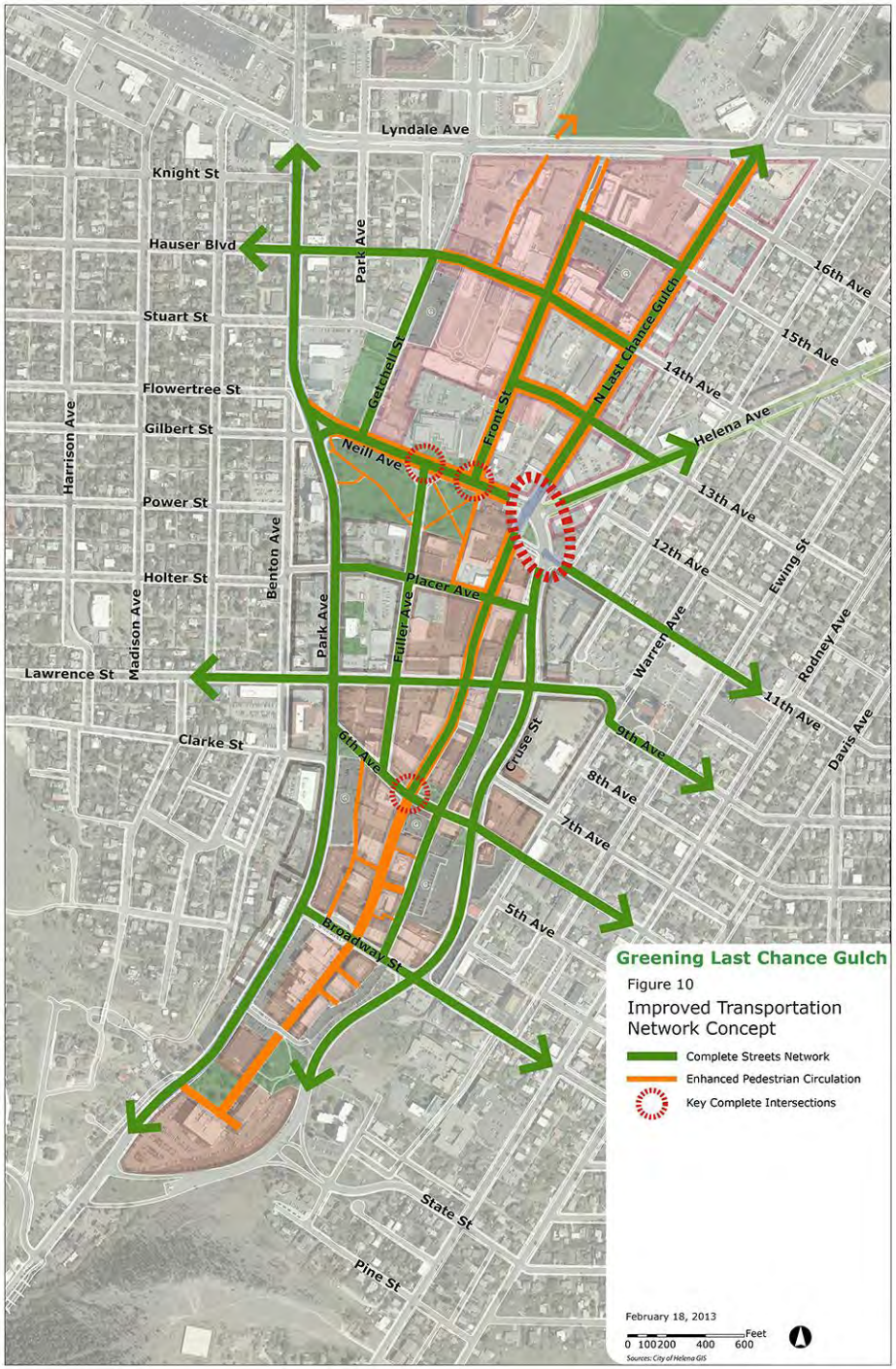
Concept B – Shared Space

Portland, OR, source: Google Streetview

Initial Schematic Concepts

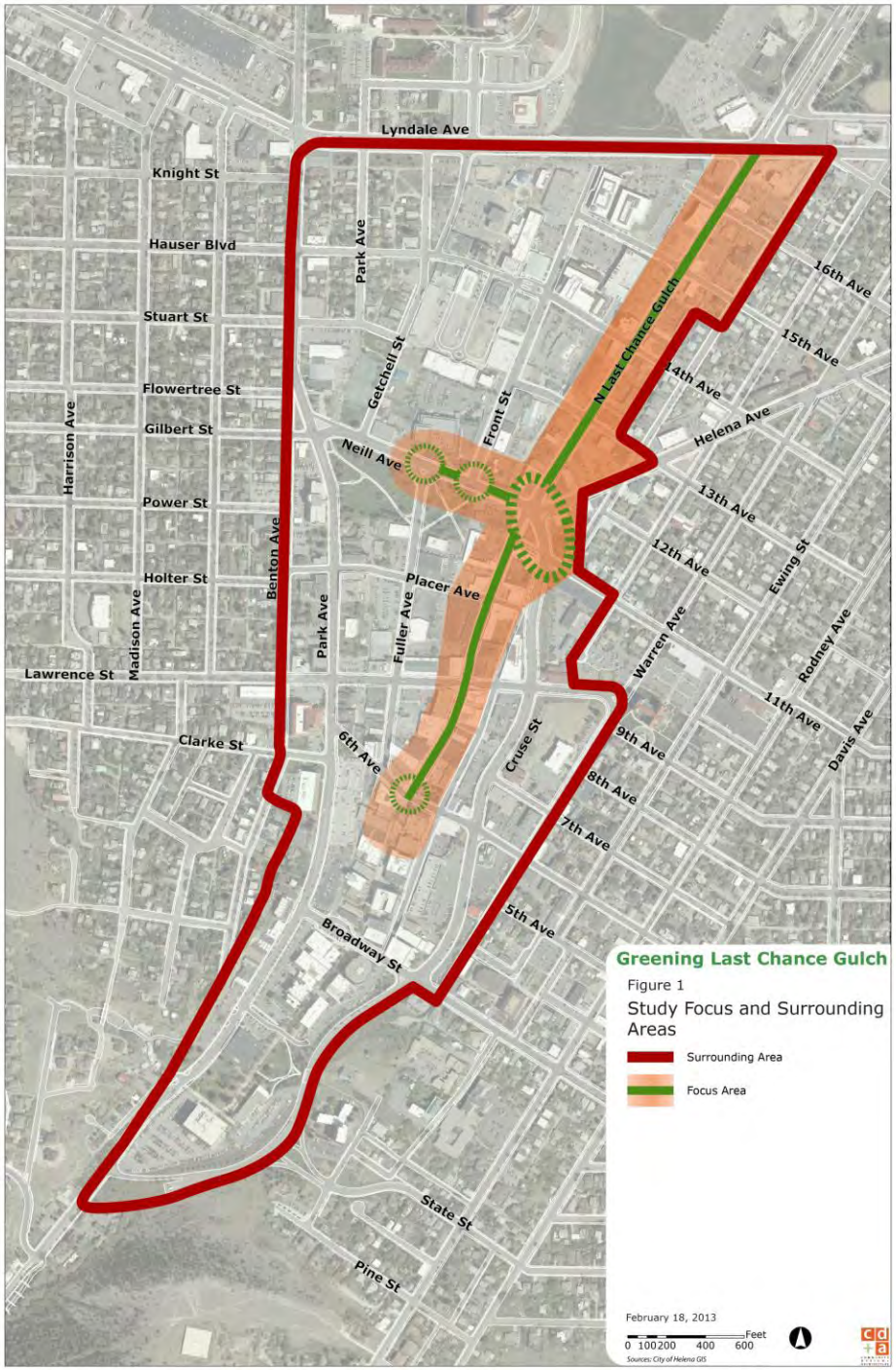
Exploring Choices & Preferences

- What future do you see for downtown Helena?
- How can the design of streets serve this future vision?
  - What are priorities for allotting limited space within Downtown's streets?
    - Travel Lanes: number & direction
    - Type of bicycle improvements
    - Parking: amount & management
    - Pedestrian and open space: amount & use
  - What is appropriate amount of congestion?



This Week's Charrette

Open House

- We look forward to seeing you again on Wednesday
  - Here at 5:30 pm

- Thank you!