

**ENSC 22**

**MSM**

**Engineering**



**ENSC 22**

# **Bike-Pedestrian Mobility University District - CEL**

**FINAL PROJECT REPORT**

**Presented By: Michael Cosper, Sam Johnson, Max Nelson**

# Goals and Objectives

---

## Primary Goals

- Analyze and investigate current transportation system
- Develop projects and designs to improve safety and mobility

## Objectives

- Identify Transportation Gaps
- Candidate Project Descriptions
- Project Prioritization
- Designs
- Community Engagement

# Identification of Transportation Mobility Gaps

University District Tours

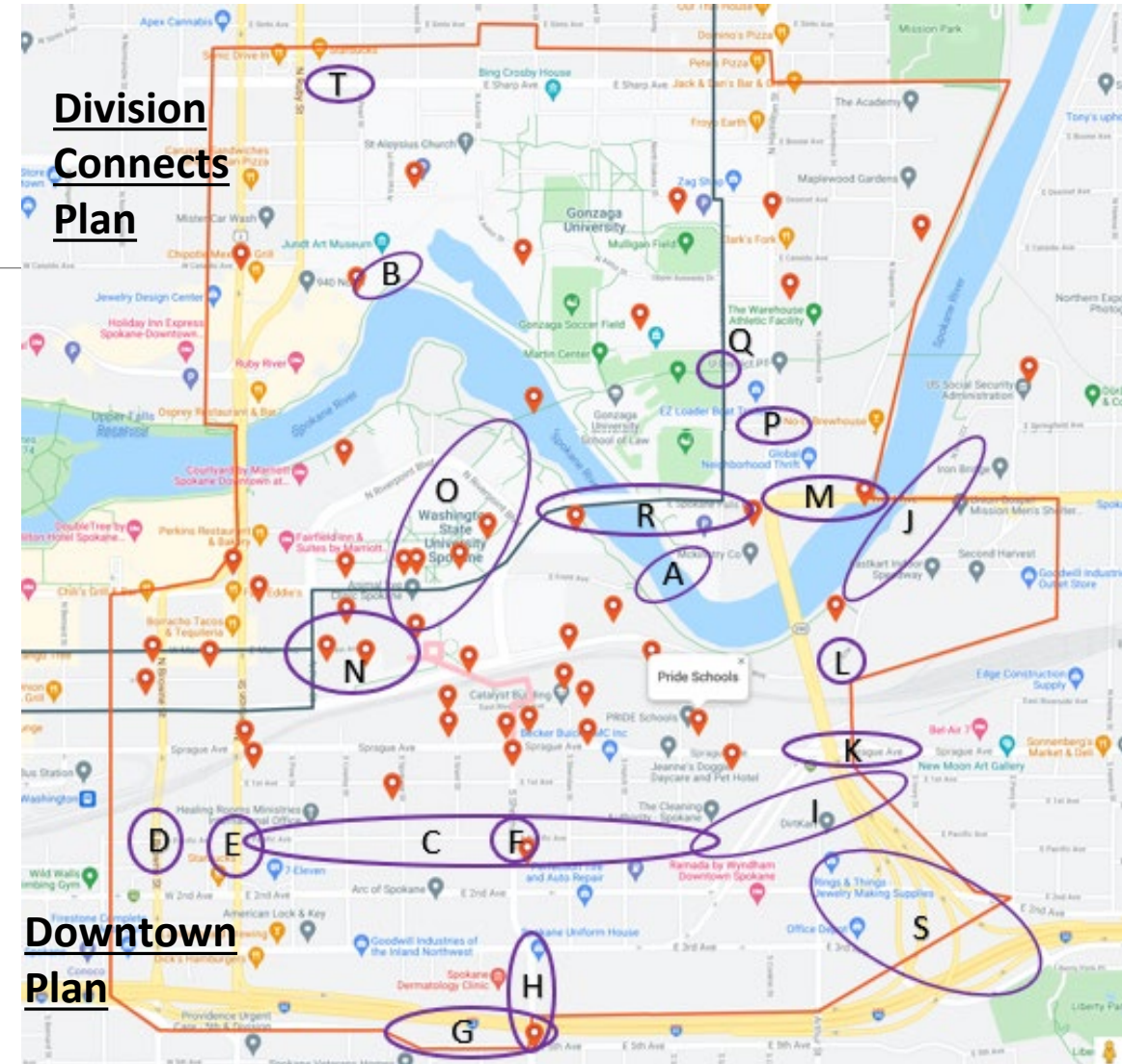
Literature Review (How many published reports and how many made it through)

Division connects and downtown plan

Community Meetings

- Spokane Transit Authority
- City of Spokane
- Logan Neighborhood Council
- Campus Planners
- Bicycle Advisory Board

Candidate Project Map



Candidate Project Map

# Project Prioritization

Criteria	Possible Points	Scale
Promotes future development and/or investment	3	0 - 3
High use pedestrian area (citizens, employees, students)	3	0 - 3
Brings further connectivity to the UD	3	0 - 3
Improves safety in the area	3	0 - 3
Low car ownership in the area	3	0 - 3
Funding or grants are available for this project	3	0 - 3
Reconnecting areas previously impacted by infrastructure	3	0 - 3
Close proximity to transit stop (within 500 feet)	3	0 - 3
Reduces travel time	2	0 - 2
Serves residential areas	2	0 - 2
University District pedestrian priority road	2	y/n
Greenway	2	y/n
Provides access to food services (Spokane Neighborhood Action Partners)	1	y/n
Low income area	1	y/n
Bicycle network connection	1	y/n
Walking network connection	1	y/n
Total points given		

## Stakeholders

- Financial Viability
- Safety & Efficiency
- Priority Roads and Greenway

## Bicycle Advisory Board

- Social Impacts
- Accessibility

<b>Points</b>	<b>Project ID</b>	<b>Description</b>
<b>26</b>	D	Pacific Ave. Crossing of Brown for Pedestrians and Bicyclists
<b>24.5</b>	I	Pedestrian and Bicycle Connection from Pacific to 1 <sup>st</sup> Avenue (and potentially Arthur)
<b>24.5</b>	E	Pacific Ave. Crossing of Division for Pedestrians and Bicyclists
<b>22</b>	C	Pacific Ave. Greenway from Division to Scott
<b>22</b>	F	Pacific Ave. Crossing of Sherman for Pedestrians and Bicyclists
<b>21</b>	K	Sprague bike lane connection between Scott and Ivory
<b>21</b>	H	Sherman Ave. Bike lane improvements between Sprague and 5 <sup>th</sup> Ave
<b>19</b>	S	Liberty Park/East Central Neighborhood South of I-90 connection to the UD
<b>14.5</b>	A	Pedestrian and Bicycle Bridge from McKinstry to South Riverbank
<b>13.5</b>	L	Connection of Ben Burr to South river trail including Erie and MLK pedestrian signal timing
<b>14.5</b>	R	Spokane Falls Boulevard lane reduction and protected bicycle facilities
<b>14</b>	O	Connection of north landing of UD bridge to Centennial Trail through WSU campus
<b>15</b>	T	Sharp Ave. Ruby to Pearl St. Lane Reduction and crossing of Ruby/Division couplet
<b>13.5</b>	Q	Cincinnati and Centennial trail sight distance deficiency
<b>12.5</b>	N	Pedestrian and Bicycle connection from North landing of UD bridge to Pine (Jenson-Byrd property)
<b>12</b>	J	Trail connection along South river trail to Iron Bridge (under Trent Street Bridge)
<b>12</b>	B	North river trail to Gonzaga Campus at Jundt Art Museum
<b>11</b>	P	Hamilton traffic cut-through to Spokane Falls Blvd. using Springfield Cincinnati
<b>10.5</b>	M	Trent Ave lane reduction between Hamilton and new Trent bridge
<b>8.5</b>	G	Bike and Pedestrian Path on North side of 5th Ave

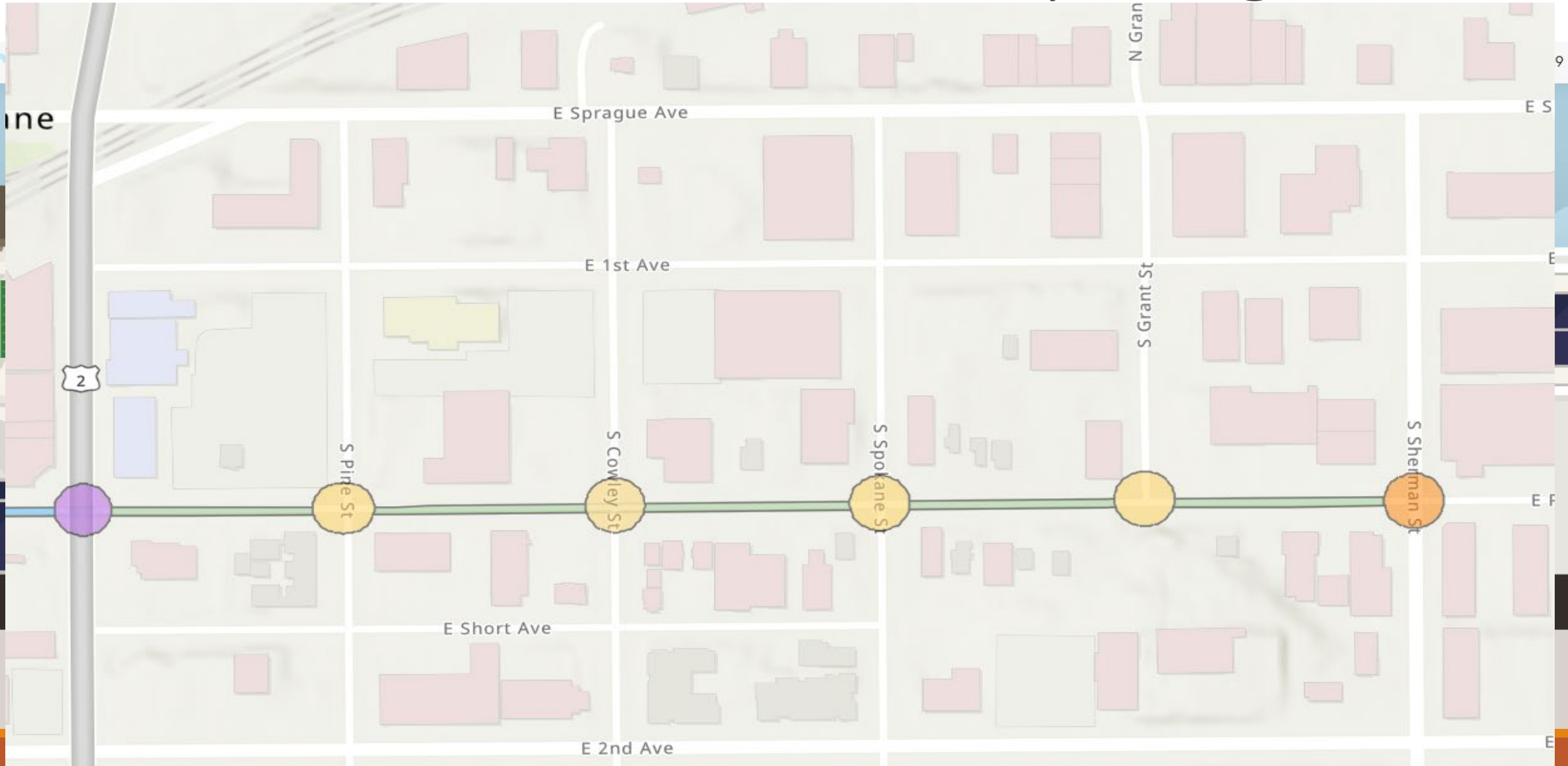
# Greenway Benefits

---

- Increased connection within the city, directly through the UD
- Increase pedestrian and cyclist safety
- Creates a more attractive space for future businesses and homeowners
- The greenway is intentionally designed to increase active transportation use which has positive environmental impacts



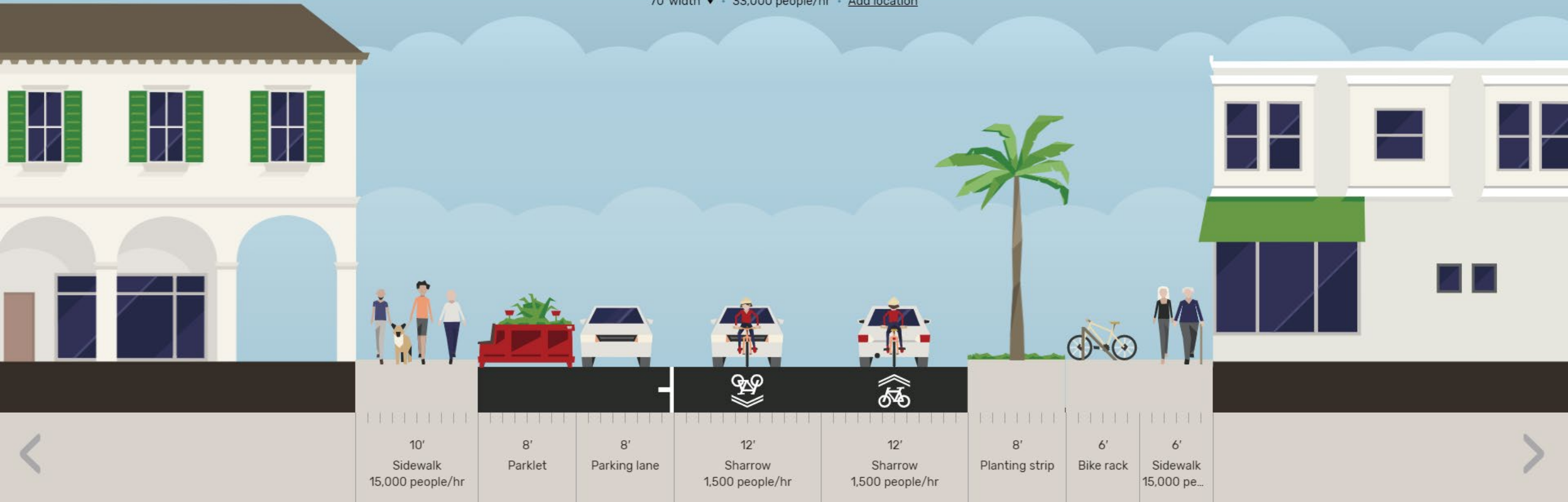
# Pacific Avenue Greenway Design



# Variations

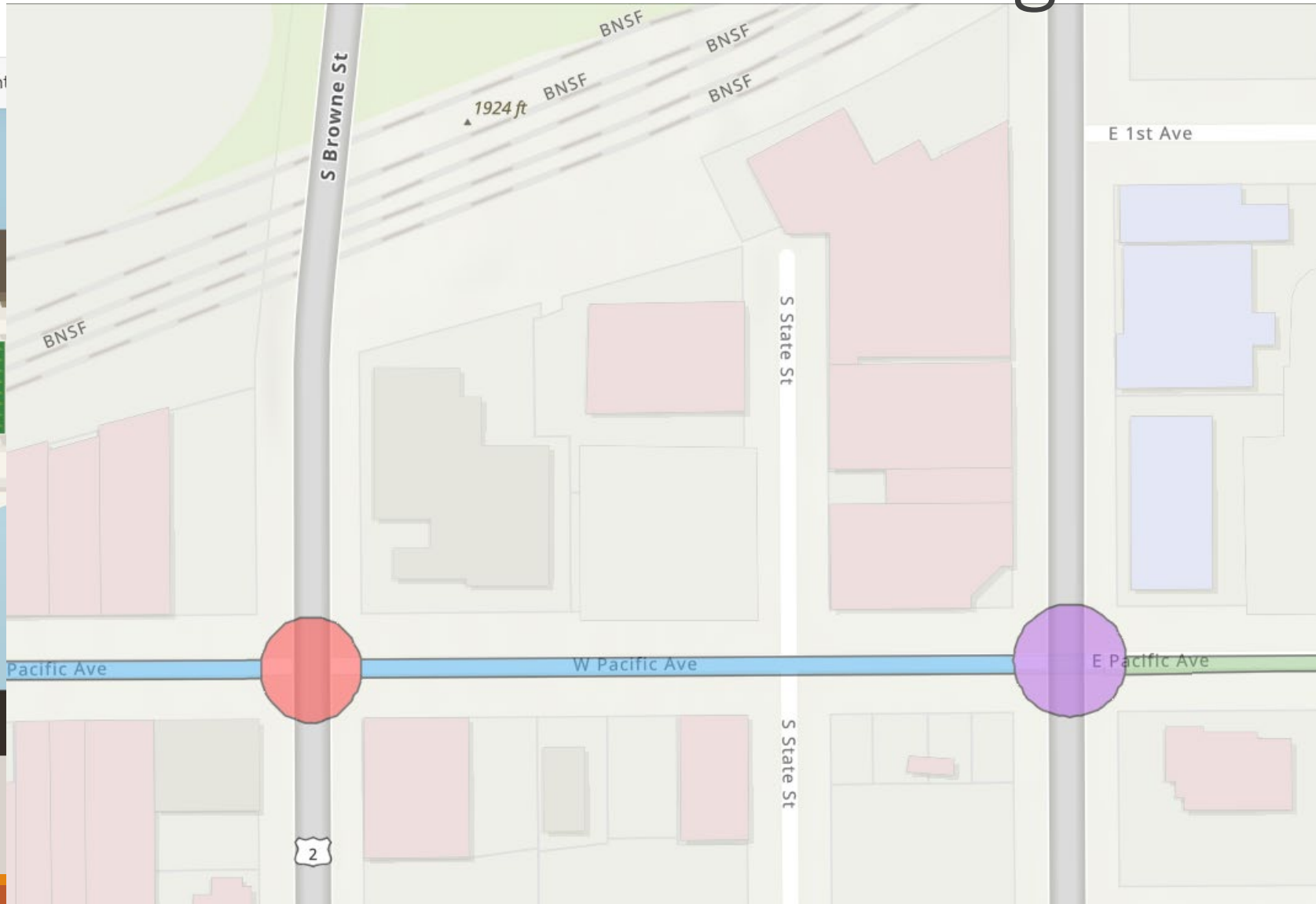
## Pacific Avenue Greenway Sherman to Division

70' width ▾ · 33,000 people/hr · [Add location](#)

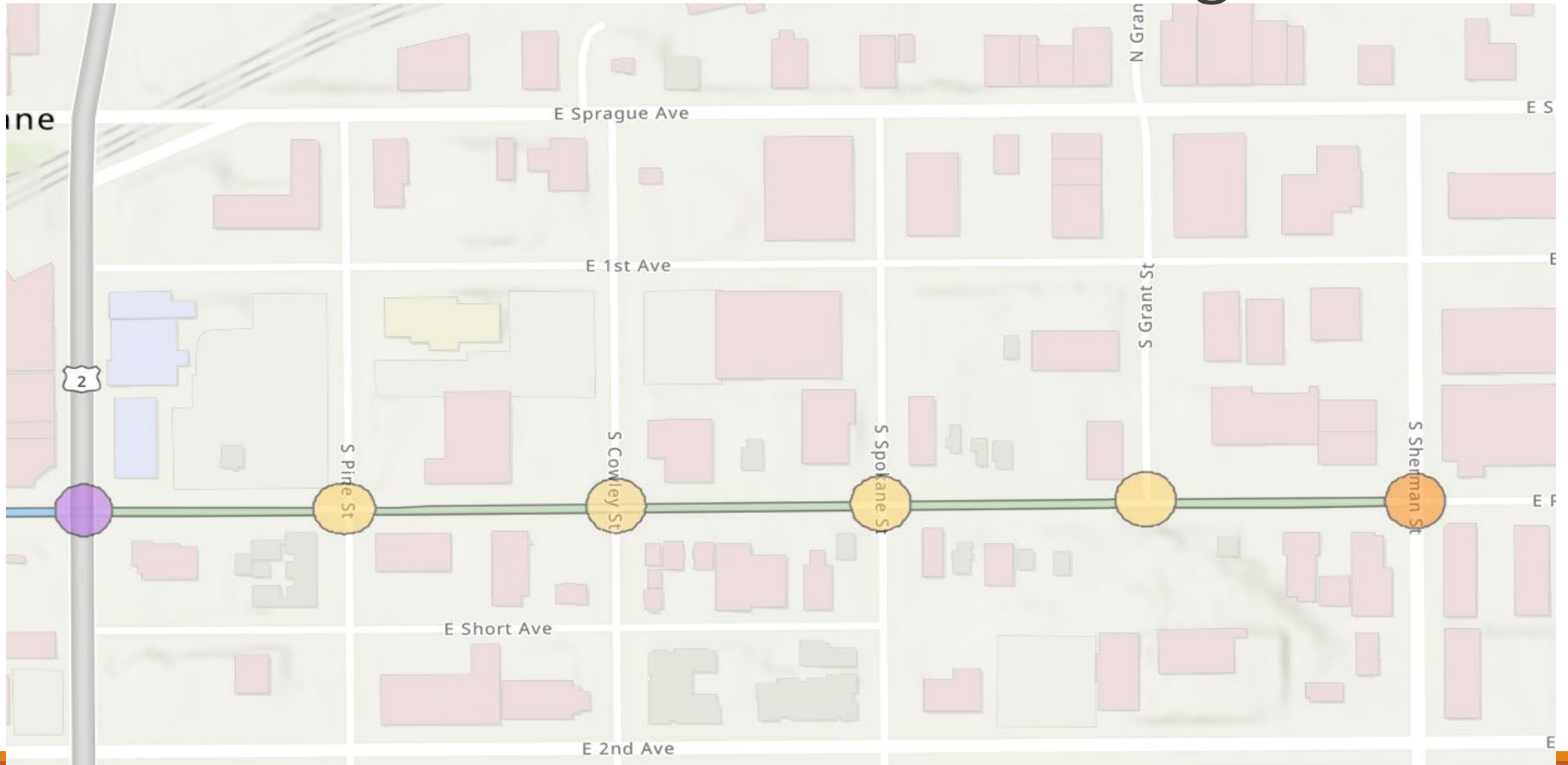




# Intersection Crossings

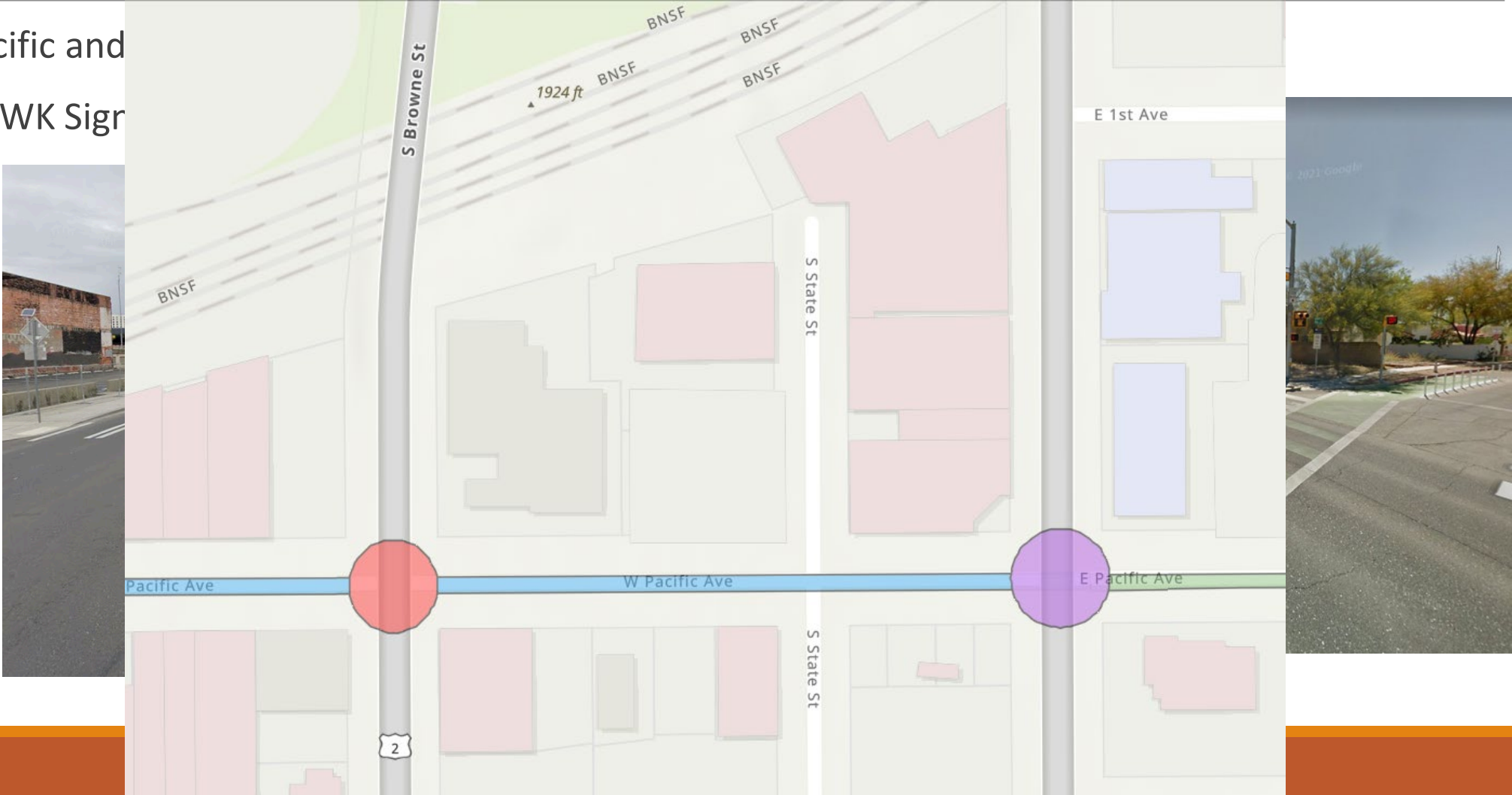


# AutoCAD Civil 3D Modeling



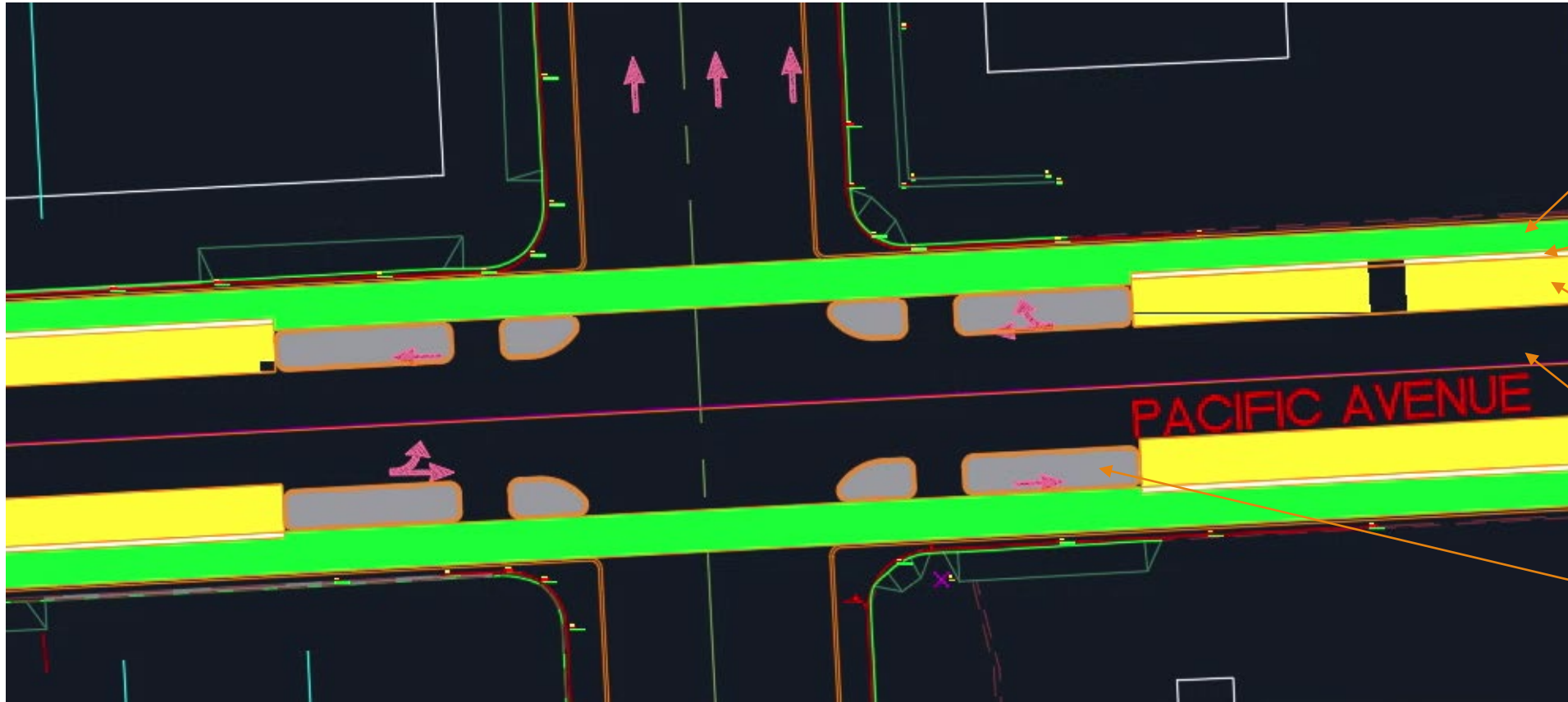
# Intersection Design

- Pacific and
- HAWK Sign



# Protected Intersection

---



Bike Lane

Buffer

Parking Lane

Driving Lane

Concrete Island

# Questions?

---

Sam Johnson

[sjohnson14@zagmail.Gonzaga.edu](mailto:sjohnson14@zagmail.Gonzaga.edu)

Michael Cosper

[mcosper@zagmail.Gonzaga.edu](mailto:mcosper@zagmail.Gonzaga.edu)

Max Nelson

[mnelson19@zagmail.Gonzaga.edu](mailto:mnelson19@zagmail.Gonzaga.edu)