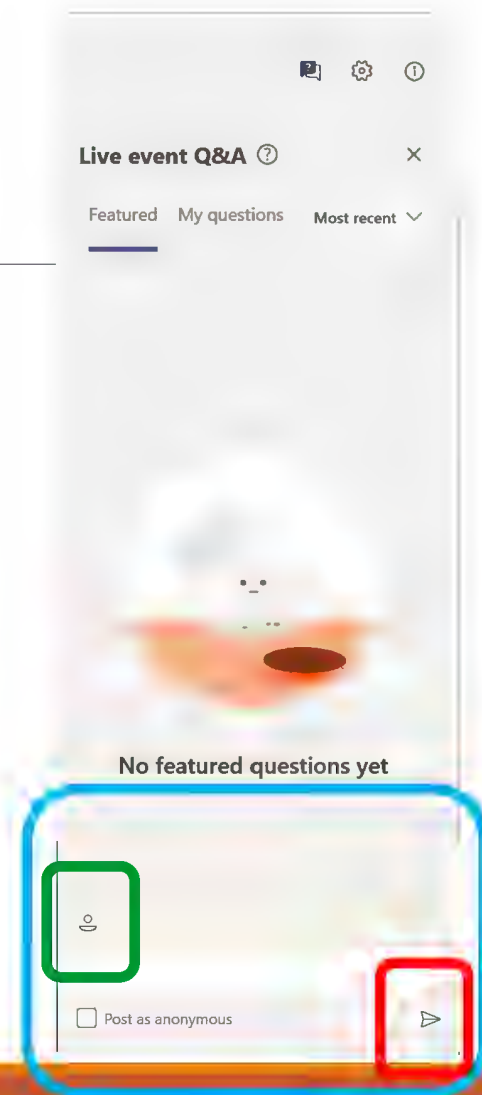




**Downtown – Uptown – Oakland – East End  
Bus Rapid Transit (BRT) Project  
Final Design Review Meeting  
Project Stakeholders**

# How does a Microsoft Teams Live Event Work?

- We cannot hear or see you; Q&A will occur via the Q&A box on the right of your screen →
- First, please click the purple “Ask a question” button
- Then, you will see a person and white box appear
  - Next to the person, please write your name and organization (unless you wish to remain anonymous)
  - Then, please write any questions in the white box below that and click the arrow in the bottom right corner to send us the question
- Please add your questions to the chat box as you think of them so that we can sort and prioritize them for our Q&A session following this presentation



# Tell us You're Here!

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- Please test out your ability to ask a question by retyping your name and organization to the Q&A box and sending it so that we have a record of who has joined us today
- If you have technical difficulties, email: [brt@portauthority.org](mailto:brt@portauthority.org)



☺ Jane Smith, Jane's Dry Cleaning

Jane Smith, Jane's Dry Cleaning

Post as anonymous

# Agenda

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## **Presentation**

- Project Partners
- Goals and Overview of BRT
- Transit Service Changes
- Station Design and Locations
- Bicycle Infrastructure
- Drop off / Loading / Parking

- Fare Collection
- Sustainability
- Project Costs
- Project Timeline

## **Question and Answer Session**



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# Project Partners



**Port Authority of  
Allegheny County**



**City of Pittsburgh**



**Allegheny County**



**Urban  
Redevelopment  
Authority**

# Project Goals

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## ACCESS

Improve accessibility for persons of all ages and abilities

## COMFORT AND EASE OF USE

Improve access to shelter and amenities for waiting passengers

## EFFICIENCY

Improve transit reliability and speed

## EQUITY

Ensure that communities of greatest need benefit from these investments via direct transit connections

## SAFETY

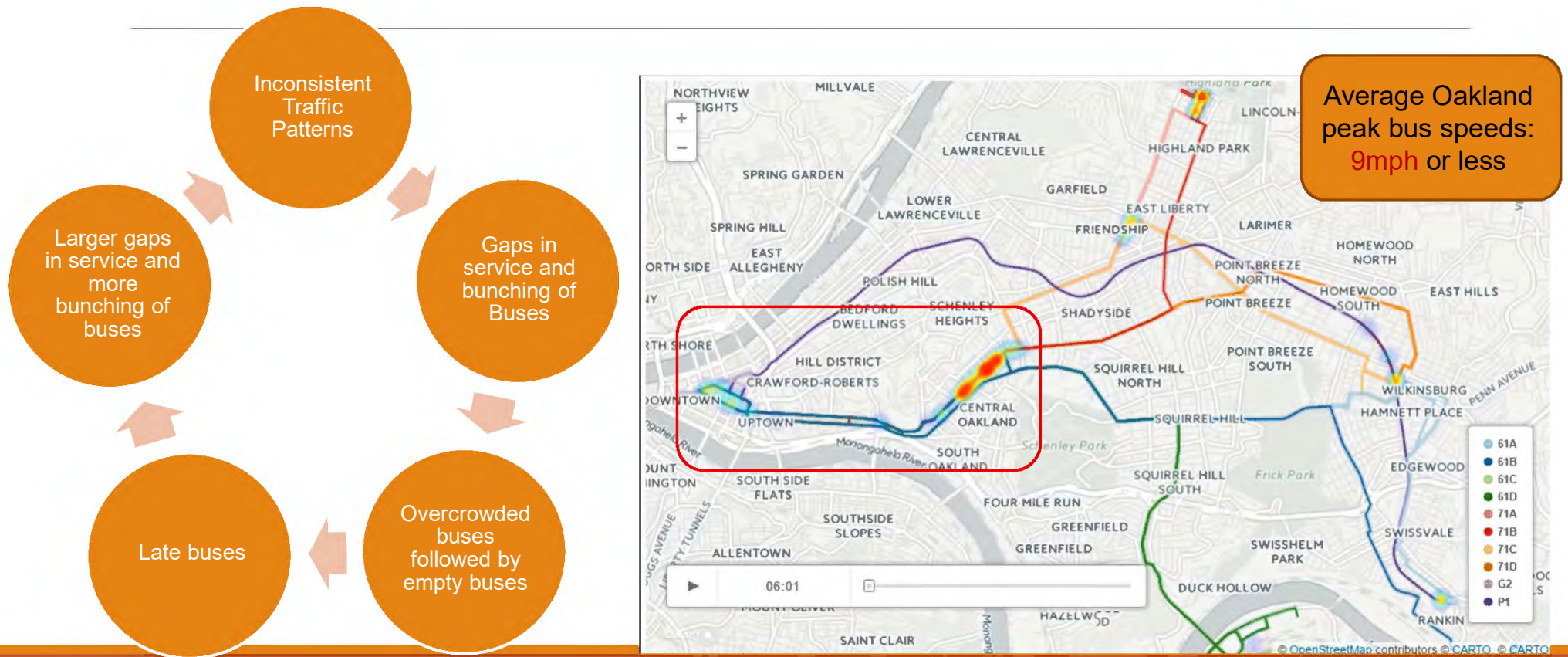
Improve conditions for pedestrians and riders, and develop a safe bicycle network

## SUSTAINABILITY

Encourage mode shift out of SOVs

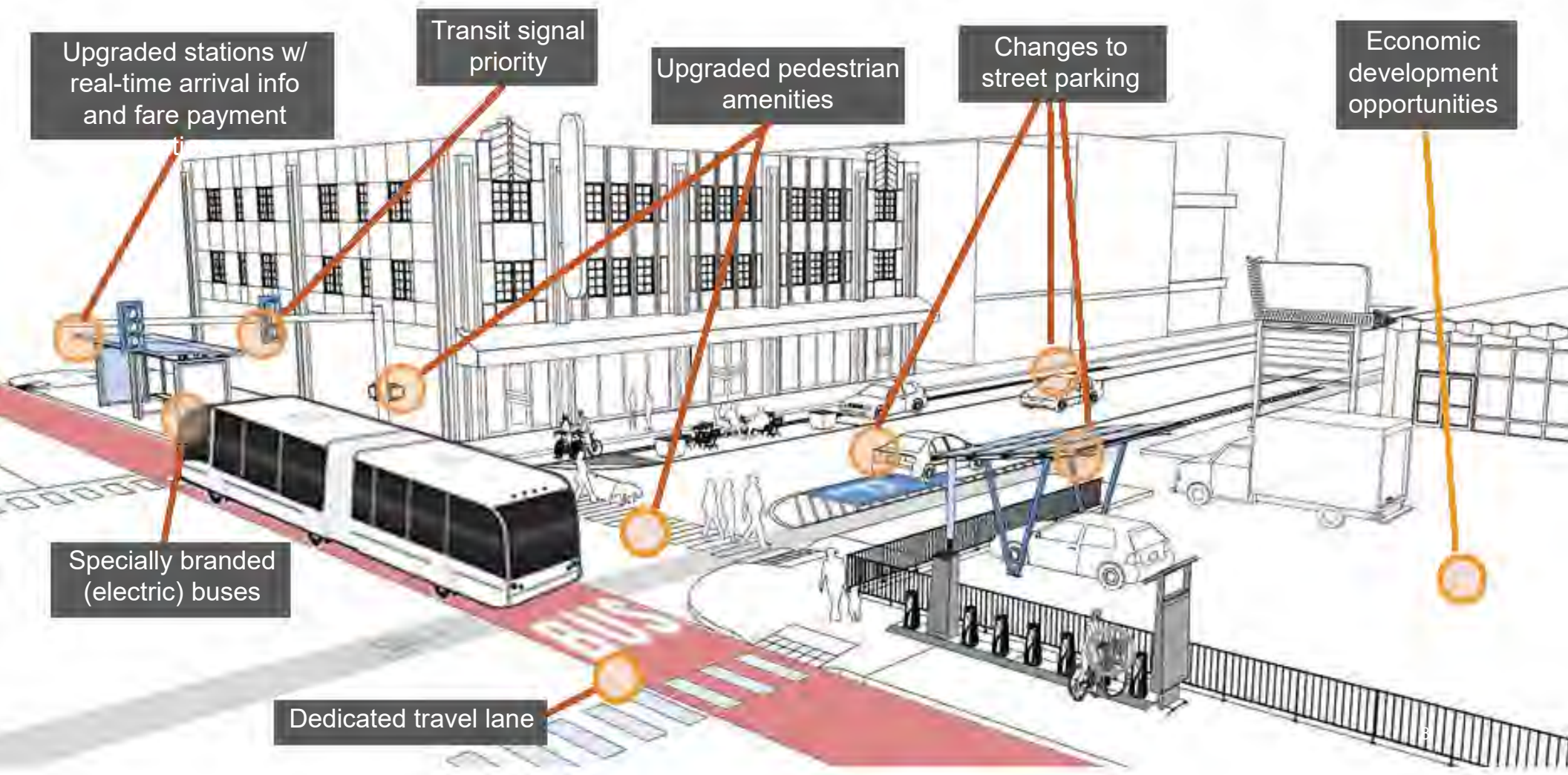
Improve air quality through BEBs

# Connecting the 2<sup>nd</sup> and 3<sup>rd</sup> largest employment centers in Pennsylvania





# What is Bus Rapid Transit (BRT)?





# Where will the BRT go?

Area with bus only lanes and protected bicycle facilities

Downtown Uptown Oakland

**Bus Routes becoming BRT:**  
P3, 61A, 61B, 61C, 71B  
**Local Routes Terminating in Oakland:** 61D, 71A, 71C, 71D

## Other Route Changes:

- P3 – shortened at outer end to Wilkinsburg
- 67, 69 – Use Blvd of Allies inbound through Uptown
- Downtown Minor Routing Changes – discussion in 2021
- Oakland Minor Routing Changes – discussion in 2021

To Highland Park

East Liberty Shadyside

Wilkinsburg

Regent Square

Squirrel Hill

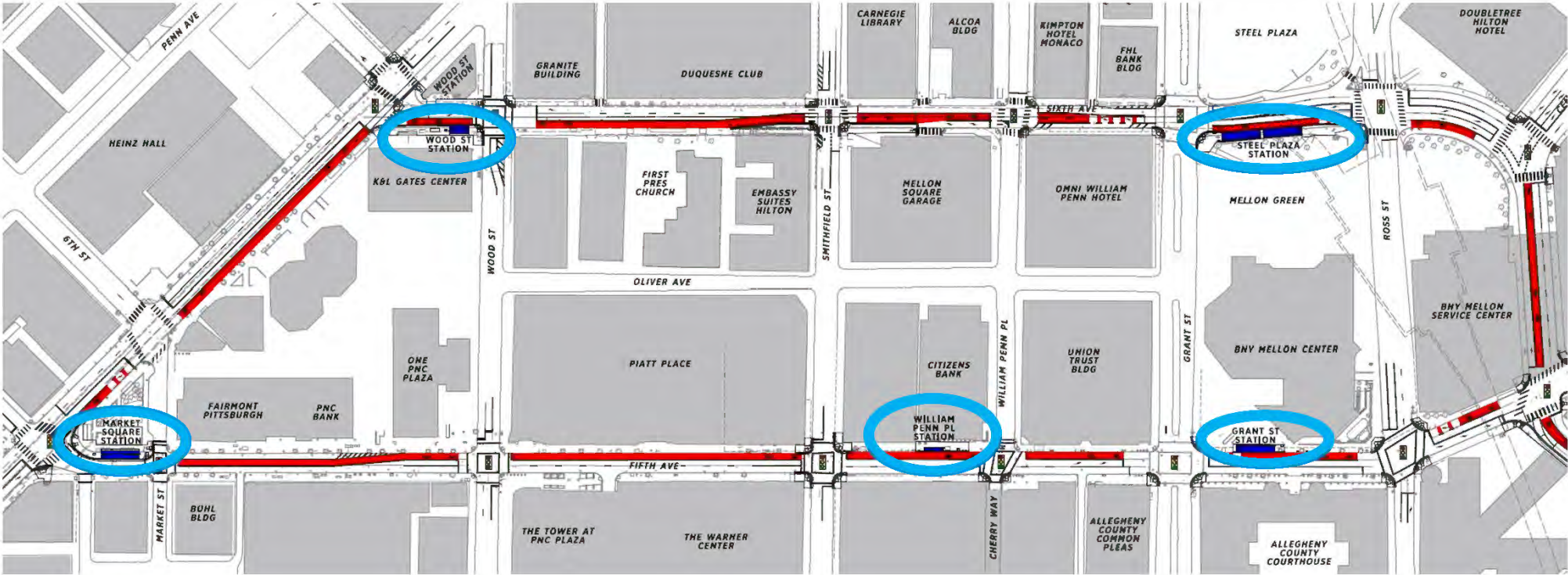
Greenfield

Edgewood

To Homestead, Duquesne, and McKeesport

To Braddock

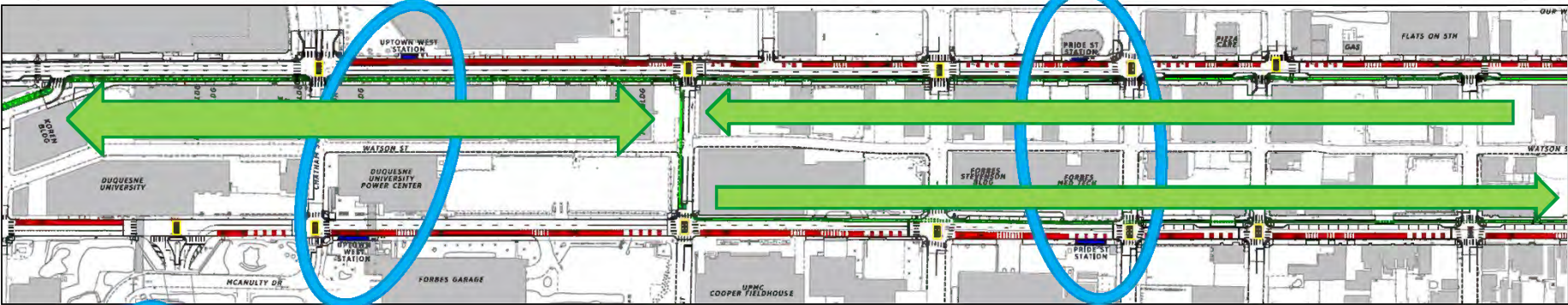
# Downtown Overview



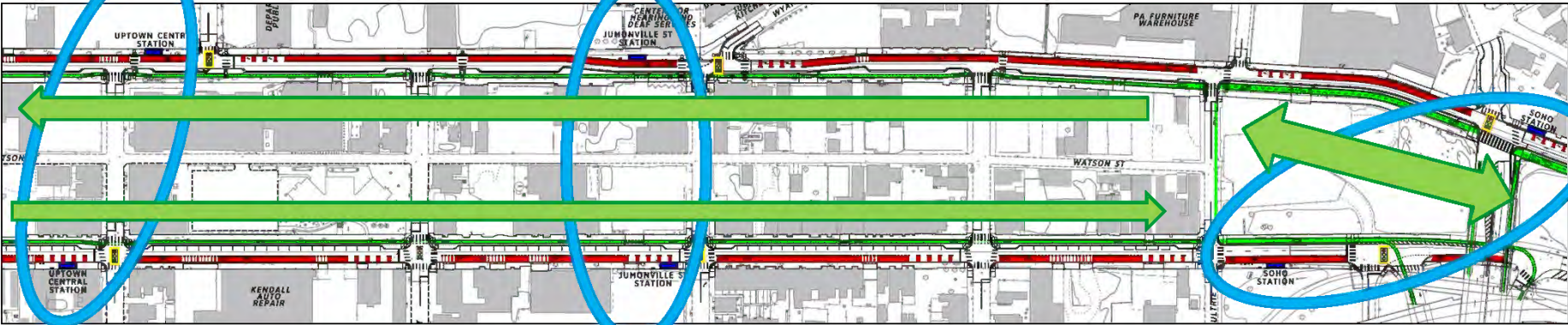


# Uptown Overview

WEST END

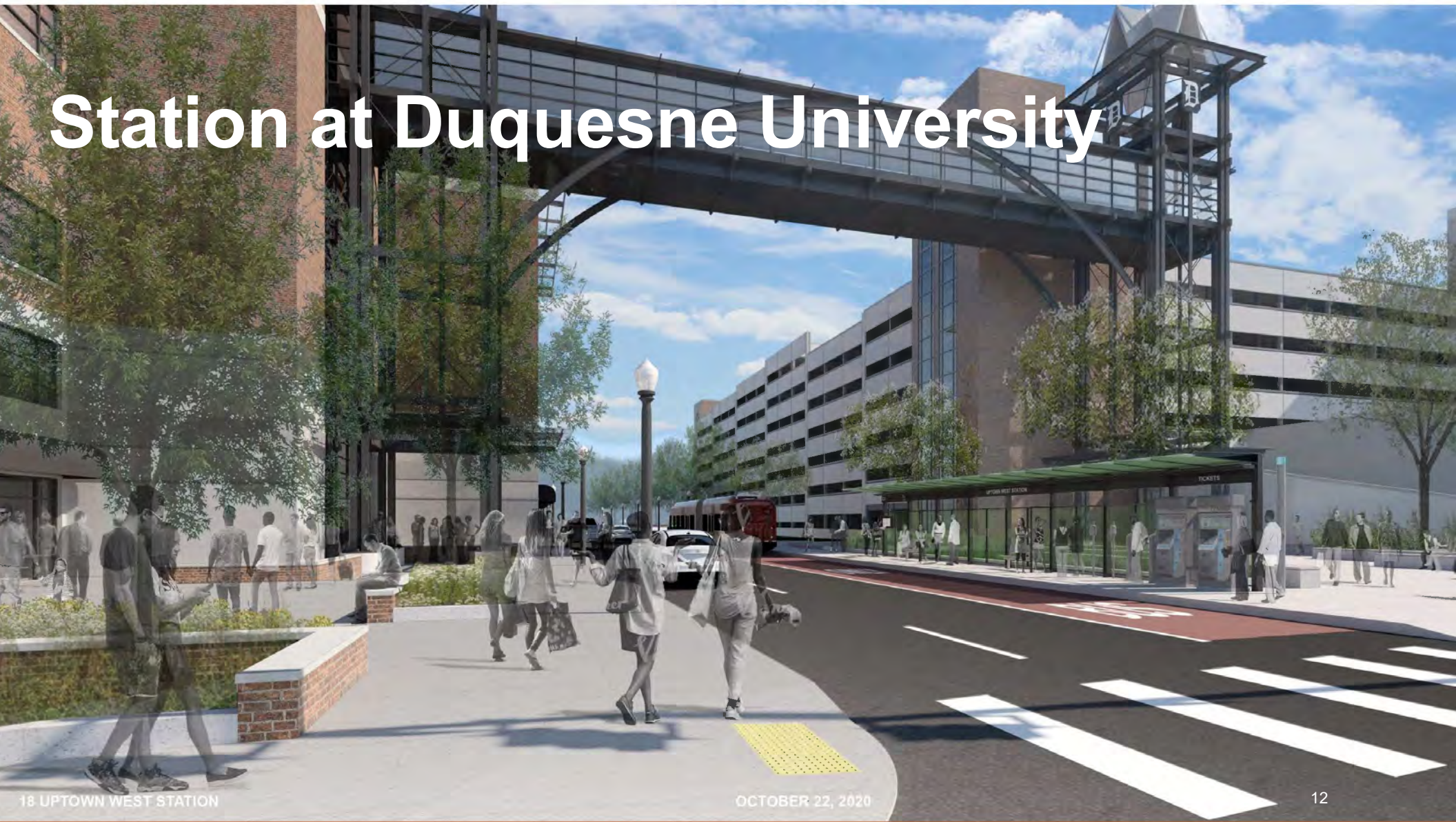


EAST END





# Station at Duquesne University

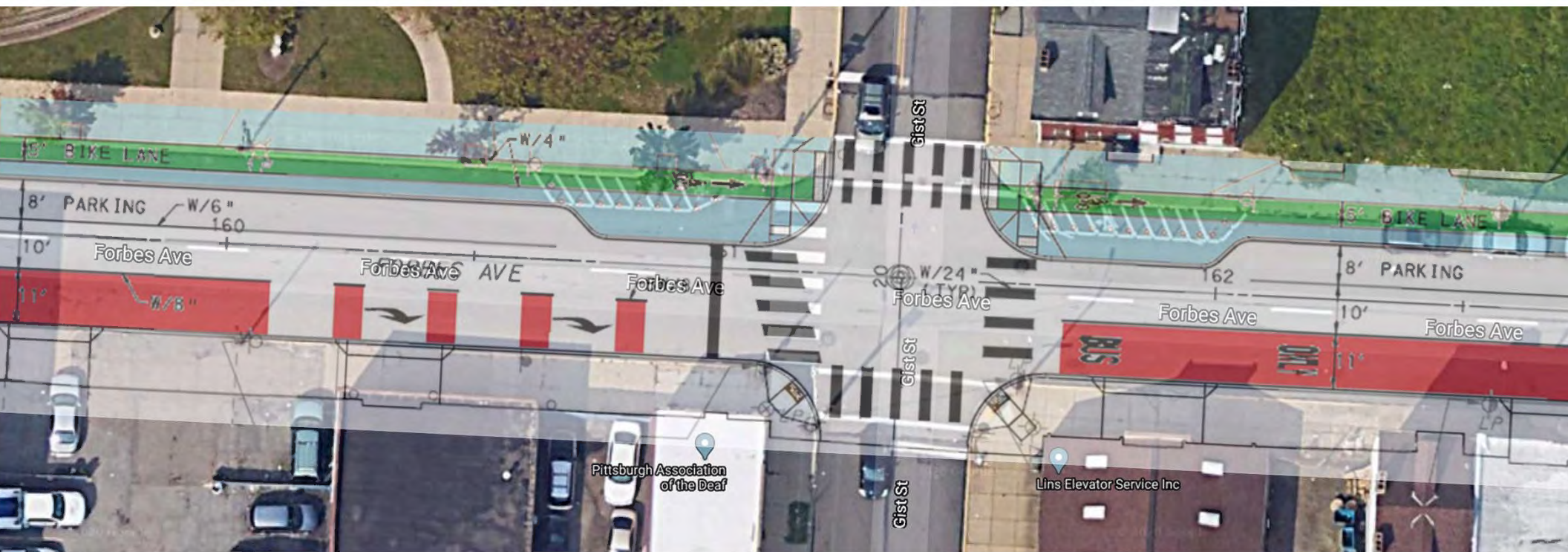


18 UPTOWN WEST STATION

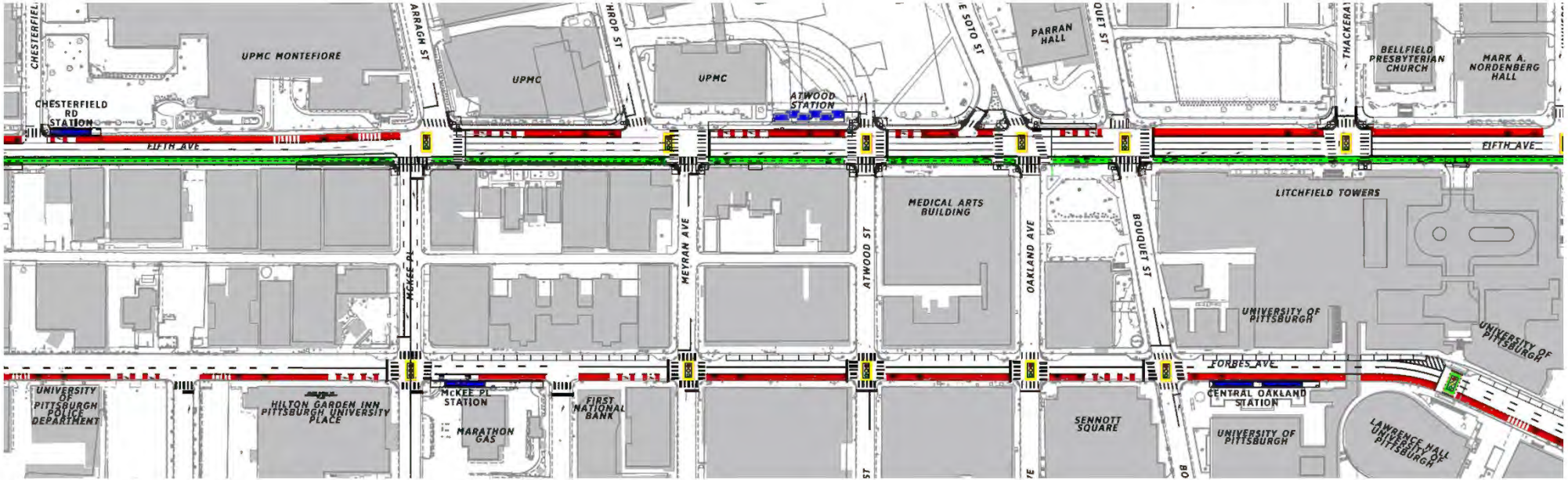
OCTOBER 22, 2020



# Uptown - Forbes Ave Typical Plan

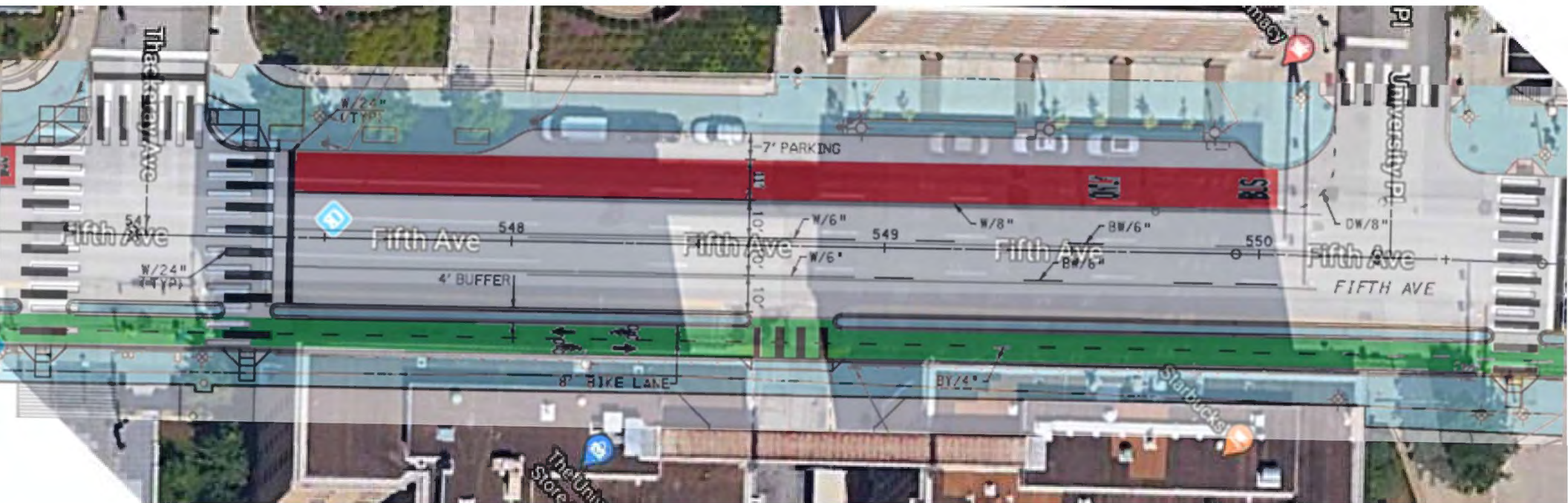


# Oakland Overview





# Oakland - Fifth Ave Typical Plan

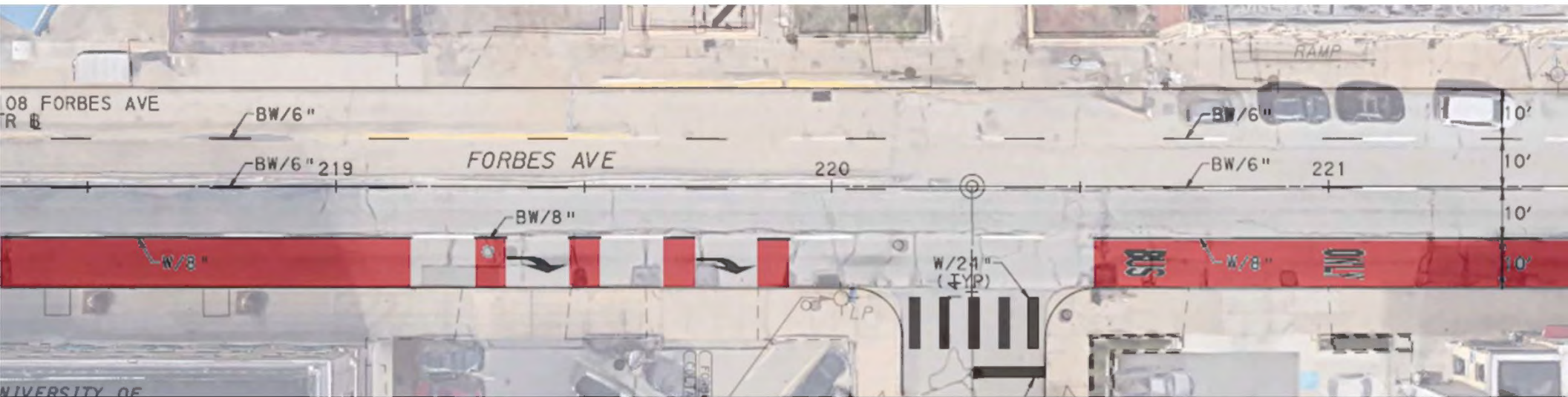






# Station at University of Pittsburgh

# Oakland - Forbes Ave Typical Plan Example

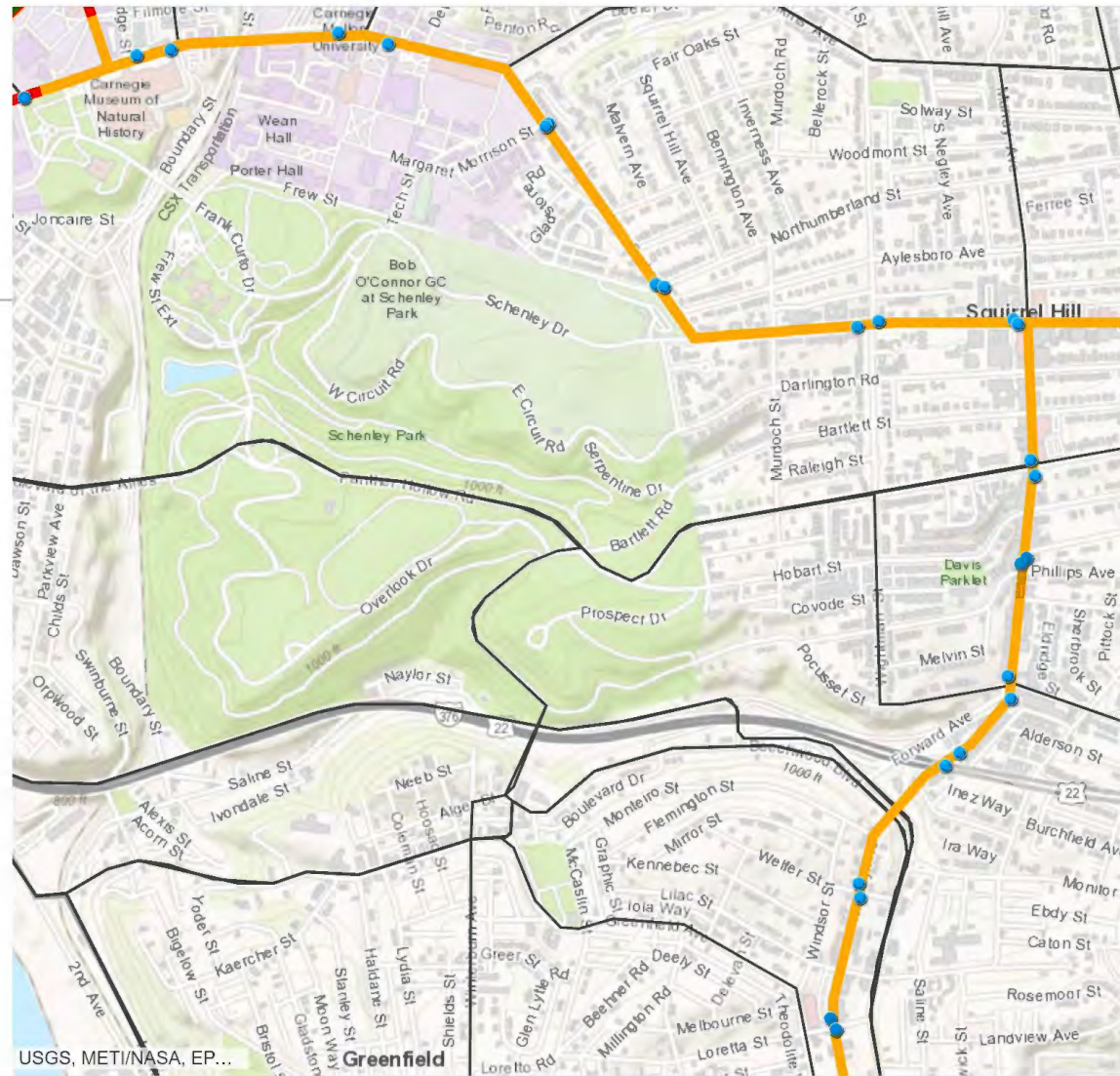




# Squirrel Hill Branch Overview

Starting at Craig Street in Oakland:

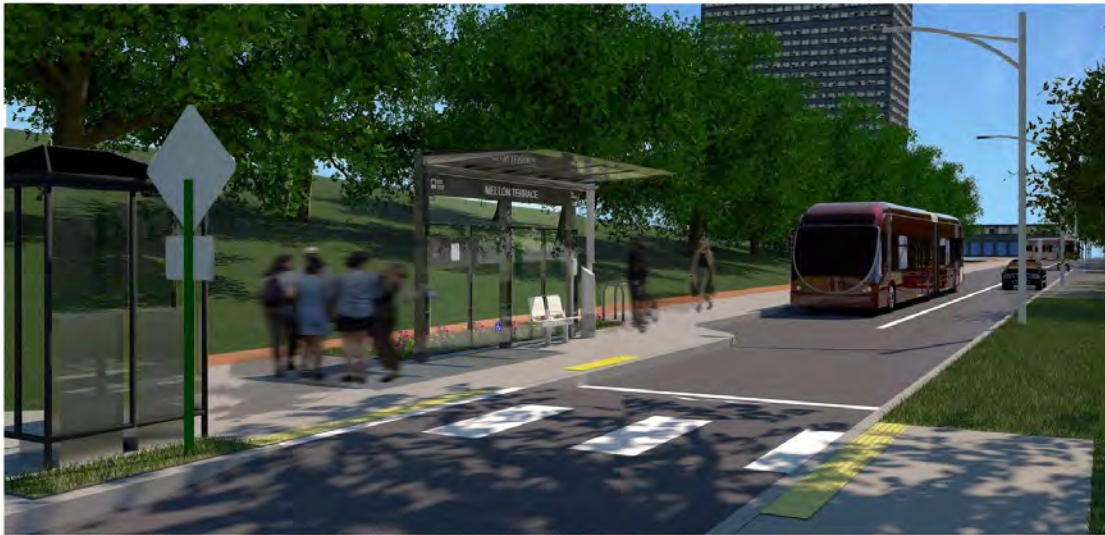
- 12 station pairs
- No bus lanes
- Select upgraded signals
- Small stations, many on bumpouts to extend sidewalk
- Last station pair at Greenfield Giant Eagle (Loretta St)
- 61C route continues on normal routing





# Highland Park Branch Overview

- 13 station pairs
- End of line bus rerouting, 71A and 71B BRT (Bryant → Negley → Mellon Terrace)



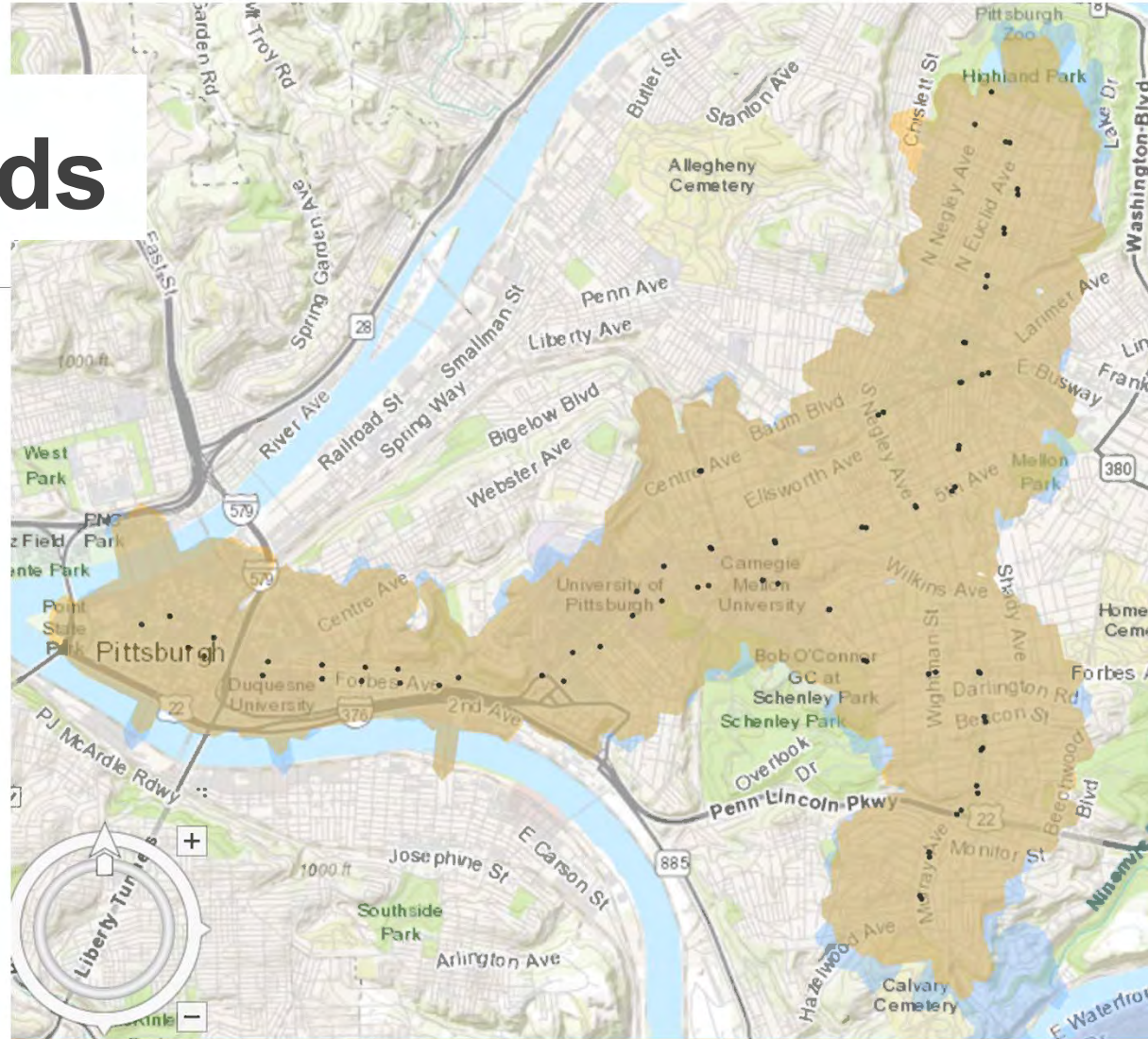
Mellon Terrace Bus Layover / End of Line Station, Highland Park





# Station Walksheds

- Stations are farther apart than existing bus stops
- Almost no one is more than a 5 minute walk from a station who's within a 5 minute walk of the 61s, 71s bus stops today (purple areas at edges of orange)
- Station spacing average:  $\frac{1}{4}$  mile
  - Rapid guideline:  $\frac{1}{2}$  mile
  - Local guideline:  $\frac{1}{6}$  mile





# Station Design & Amenities

Stations will be in 15, 30 or 60-foot-long sections depending on location (60 ft shown here)

 Shelter

 Seating

 Real-Time Signs

 Ticket Vending\* & Validators

 Emergency Call Buttons\*

\*Select locations. TVMs will be at least at every other station in low volume areas.

# Proposed Fare Payment and Structure\*

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## FARE PAYMENT PROPOSAL

Fares within the infrastructure improvement area (areas with new stations) are proposed to be paid **OFF BOARD** with validators and/or ticket vending machines which will be installed inside stations

- Passengers will be able to board or alight at any door within this area
- Fare receipts or validated cards need to be held by passengers while riding
- Staff will assist passengers with fare payment

## FARE STRUCTURE

- The fare for BRT is expected to be the same as existing Port Authority fares
  - Note that PAAC is undergoing a separate fare study in 2020-2021; recommendations from this study may be put in place in the future

*\*All changes to Port Authority's fare structures or payment methods must be reviewed and voted upon by the Authority's Board*



# Bicycle Infrastructure & ADA

## Uptown

Mainly a single direction, sidewalk-level bicycle path (outbound Forbes, inbound Fifth)

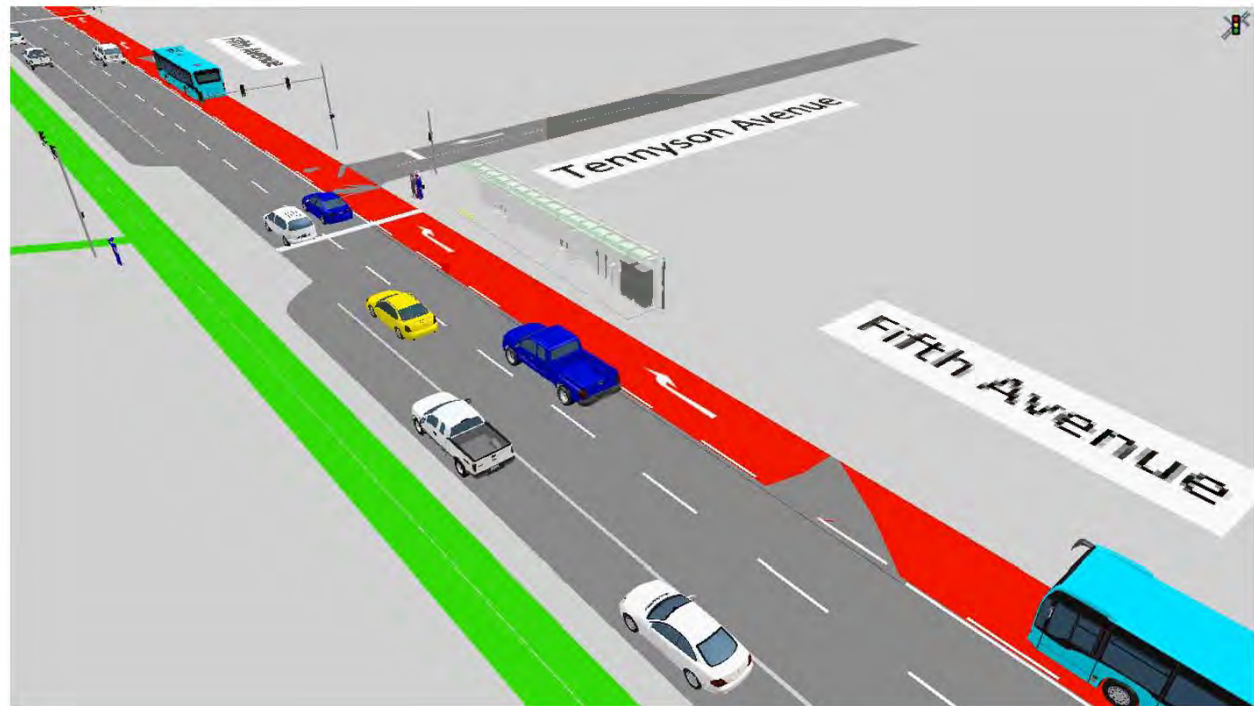
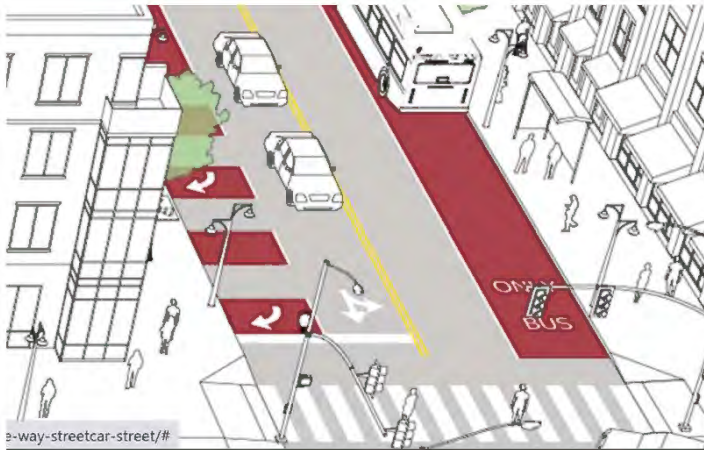
## Birmingham Bridge (Uptown) to Bellefield (Oakland)

Contraflow bus lane on Fifth becomes a 14-foot shared use path (bikes + pedestrians) at sidewalk level



# Right Turns Across BRT Lanes

*Where right turns are allowed, the bus lane will be shown as striped or hashed red pavement/signs*

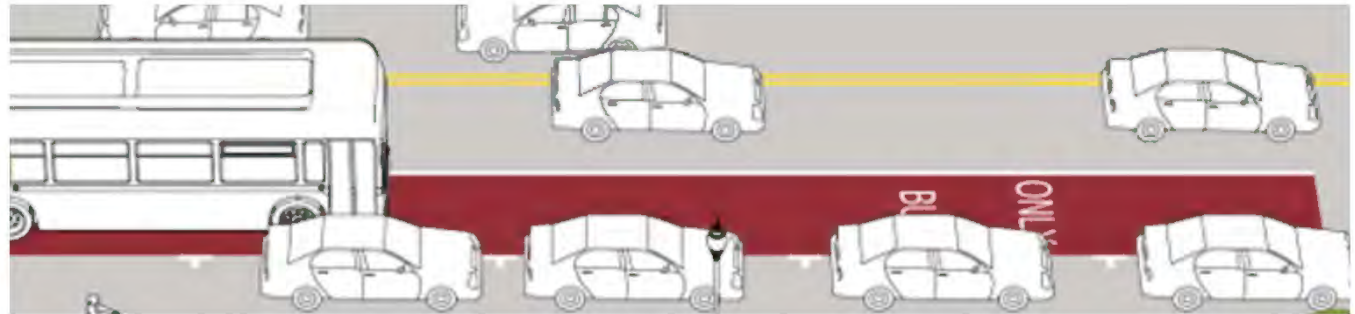




# Parking and Curb Use Changes

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- Uptown – on-street parking on the right side of each street in the direction of travel will be eliminated
- Oakland – Forbes Ave parking is unchanged; Fifth Avenue gains some parking between Bigelow and Bellefield on the south side (left side in direction of travel) of the street
- In some cases, parking on Fifth Avenue will take place **across** the BRT lane; in these instances, vehicles are allowed to enter the BRT lane to parallel park



# Bigelow Blvd Station Area Operation - Fifth Ave Inbound





# Pickup / Dropoff / Loading

## General pickup, drop-off, and loading activities

- General traffic will not be allowed to conduct pickup/drop-off activity in the BRT lanes
- City will update signage to allow for pickup/drop-off/loading activity

## ***Paratransit pickup / drop-off***

*ACCESS paratransit will be allowed to pick up or drop off in the BRT lanes when an alternative location is unavailable (3% expected); buses will go around parked ACCESS vehicles if needed*



# Sustainability

## Battery-Electric Buses

- Planned: 15 articulated (60 foot) battery-electric buses to be run on the P3 or other East Liberty Bus Garage based BRT routes

## Trees

- Tree replacement where necessary – limited except example to the right

## Stormwater

- PWSA designed 20 GI systems, mainly in Uptown, in conjunction with the BRT project
- These projects will manage approximately 6 acres of stormwater runoff and reduce overflows by 2 million gallons annually

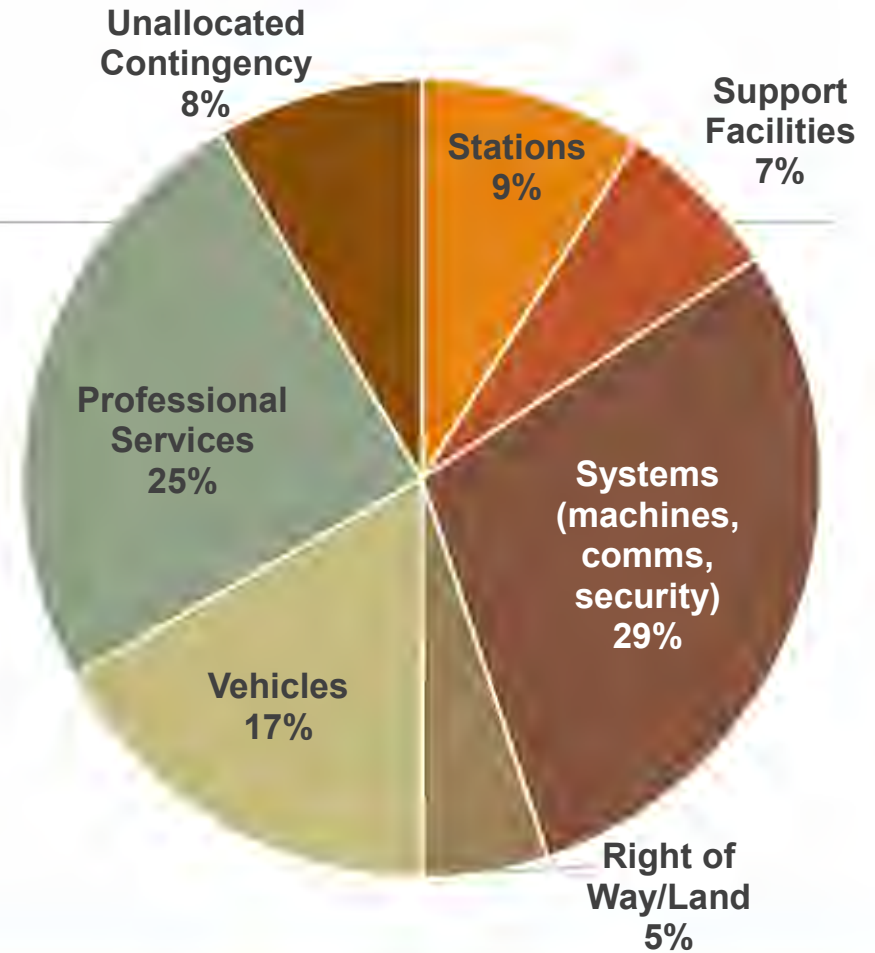


Section	Removed		Added	
	Quantity	Caliper Size (inch)	Quantity	Caliper Size (inch)
Downtown	8	36	0	0
Uptown	93	420	283	849
Oakland	6	44	39	117
SH Branch	3	53	9	27
HP Branch	8	77	19	57
<b>Total</b>	<b>118</b>	<b>630</b>	<b>350</b>	<b>1050</b>
<b>Difference</b>			<b>+232 trees</b>	<b>+420 inches</b>



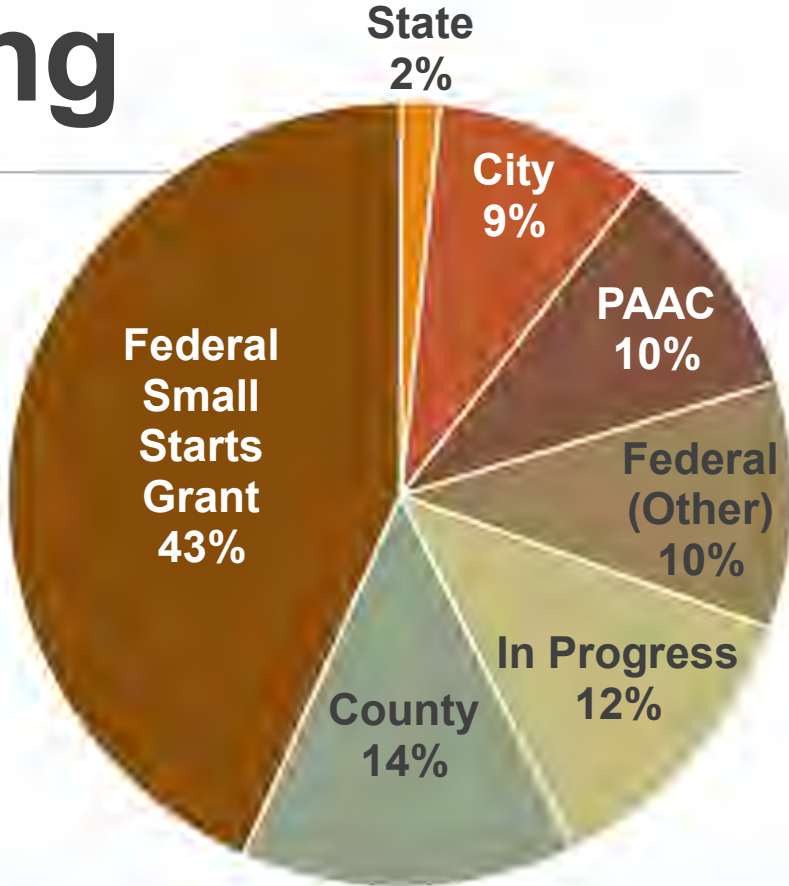
# Project Costs

**Total Budget:  
\$230 million**



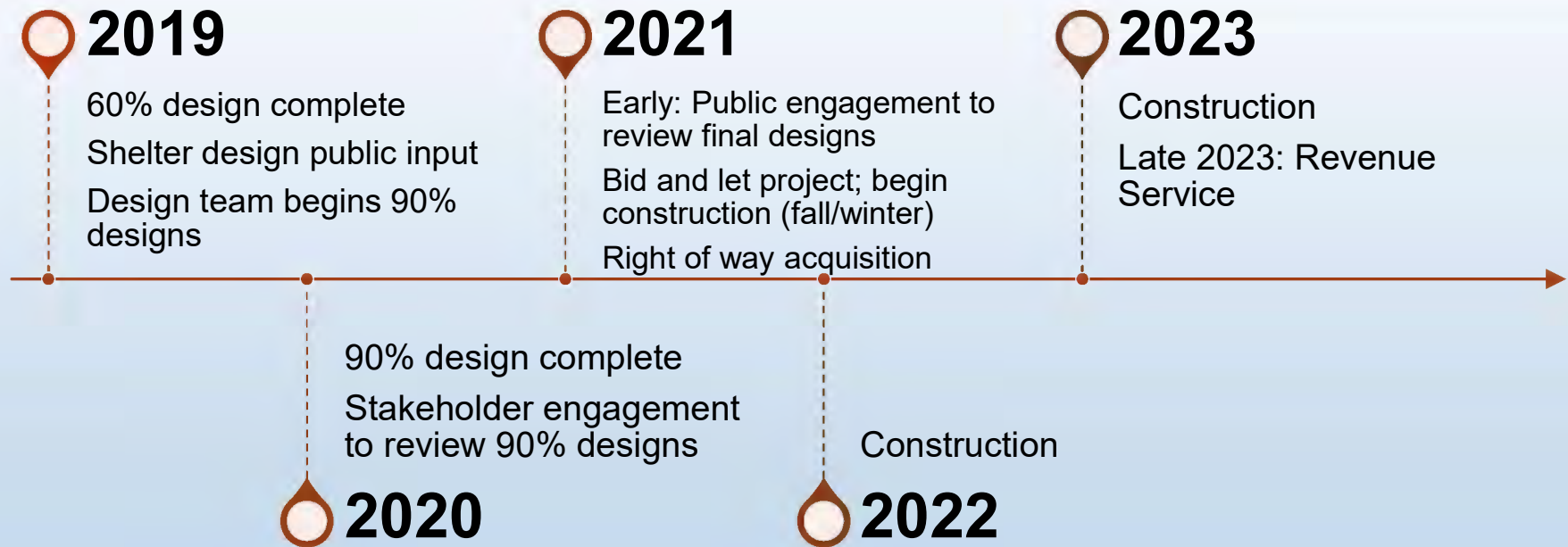
# Sources of Funding

**Total Budget:  
\$230 million**





# Project Timeline



# Questions and Discussion

IF YOU DO NOT WISH TO ASK YOUR QUESTION NOW, OR WE RUN SHORT ON TIME, PLEASE EMAIL YOUR QUESTION/CONCERN TO [BRT@PORTAUTHORITY.ORG](mailto:BRT@PORTAUTHORITY.ORG).

FOR MORE PROJECT INFORMATION, INCLUDING THE INTERACTIVE MAP, ROLL PLOT SHEETS, AND DESIGN DOCUMENTS, GO TO [WWW.PORTAUTHORITY.ORG/BRT](http://WWW.PORTAUTHORITY.ORG/BRT).



# Design Characteristics by Section

<b>Downtown</b>	<ul style="list-style-type: none"><li>• Reversal of bus loop (inbound/westbound Fifth, northeast bound Liberty, outbound/eastbound Sixth), red BRT lanes</li><li>• Traffic Signals, Bump Outs, Stations and Lane Markings</li></ul>
<b>Uptown</b>	<ul style="list-style-type: none"><li>• Mill &amp; Overlay Street Reconstruction, red BRT lanes, Bump Outs, New sidewalks, Bike Lanes on Sidewalks, Traffic Signals</li></ul>
<b>Oakland</b>	<ul style="list-style-type: none"><li>• Traffic Signals, Stations, Bump Outs and Lane Markings, red BRT lanes (inbound Fifth, outbound Forbes), all bus traffic outbound moves to Forbes</li><li>• Fifth Ave contra-flow Bus Lane becomes 2-way Cycle Track</li><li>• West Oakland Bus Layover</li></ul>
<b>Branches (Squirrel Hill, Highland Park)</b>	<ul style="list-style-type: none"><li>• Isolated Traffic Signals, Stations and Bump Outs, no BRT lanes</li><li>• Mellon Terrace Bus Layover (HP)</li></ul>
<b>Wilkinsburg</b>	<ul style="list-style-type: none"><li>• Electrical Bus Charging Systems adjacent to station</li></ul>
<b>Further East and South - Mon Valley (Routes 61ABC)</b>	<ul style="list-style-type: none"><li>• No infrastructure improvements as part of this project (future projects as aligned with long-range planning)</li><li>• Branded BRT buses</li></ul>

# Squirrel Hill Branch – Specific Updates from 60% to 90% Design

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## General

- Reduction in number of ticket vending machines

## Specific to Branch

- Reduced bike lane-bus conflict points near CMU
- Forbes-Morewood Stations have through traffic lanes in each direction
- Bumpouts reduced mainly to station areas and in some cases entirely
- Forward Ave Inbound Station moved farside in front of Starbucks parking lot



# Highland Park Branch – Specific Updates from 60% to 90% Design

---

## General

- Reduction in number of ticket vending machines

## Specific to Branch

- Bumpouts mostly removed from branch intersections
- Terminus area changes, including:
  - Rerouting of both BRT (71B) and 71A routes
    - BRT (71B) ? Highland ? L Bryant ? R Negley ? R Mellon Terr ? L Mellon St ? L Mellon Terr to Layover Station
    - 71A ? Negley ? R Mellon Terr ? L Mellon St ? L Mellon Terr to Layover Station
  - Layover both routes on Mellon Terrace (current layover) – slight widening to accommodate
  - New shared used (bike + ped) path along this length of Mellon Terrace
  - Operator restroom placed near old PWSA pumphouse off NW corner of Mellon Terrace

# Downtown Pittsburgh – Summary of Changes from 60% - 90% Design

- **General**

- Reduction in number of ticket vending machines

- **Specific to Area**

- Smithfield Station moved back to far side of William Penn Place
- Grant Street Station moved to Ross St near side due to existing underground structures
- Half block of bus only running westbound between Washington Place and Sixth Ave on Fifth Ave removed



# Uptown and Soho Area – Summary of Changes from 60% - 90% Design

- **General**

- Reduction in number of ticket vending machines

- **Specific to Area**

- Uptown West Station moved to in front of PPG Paints Arena.
- Shared use path narrowed from 17 feet to 12 feet wide.
- Right side parking on Forbes Ave near Van Braam and Miltenberger far side have been moved to left side parking.
- Bike lane on Forbes Ave from Stevenson to Pride (1 block) is now at street level.
- Kirkpatrick Street realigned at intersection with Birmingham Bridge; off street parking for Fifth Ave residents here added.
- Mill and Overlay road surface in lieu of full depth reconstruction. Sidewalk is still reconstruction.
- Bus only lane removed from Birmingham Bridge around the bend east into Oakland; no longer an additional traffic light at merge point

# Oakland and Transition to Uptown – Summary of Changes from 60-90%

- **General**

- Reduction in number of ticket vending machines

- **Specific to Area**

- Forbes-Craig St Inbound station – bike lane moved to front of station, sidewalk level
- Forbes-Craig St Outbound station – bike lane moved to front of station, sidewalk level, station is to remain where it is today near side of the intersection
- Margaret Morrison outbound station – bike lane will be at street level
- Stopped buses serving both stations at Forbes & Morewood will not block travel lane
- Local bus stop added immediately behind the BRT station at Craft Ave farside on Forbes (West Oakland Outbound Station)
- W. Oakland inbound station moved from island at Robinson St to Craft Ave farside; current design of turnaround area will remain open for emergency access
- Bus only lane removed from Birmingham Bridge around the bend east into Oakland; no longer an additional traffic light at merge point
- Bus only lane on Forbes Ave picks up after Craft Ave now (was immediately before at 60% design)
- Middle proposed bus only lane on Bellefield goes away; northern half of blocks is two lanes only
- Lose eastbound (outbound) bus only lane on Fifth Ave between Bellefield and Craig
- Parking area immediately behind Bigelow Blvd Inbound station will become local bus stop pullout (in front of Soldiers and Sailors)
- Elimination of bike lane on Fifth Ave from Bellefield to Dithridge.
- Removed milling and overlay along Neville St.