

# Washington Avenue Repaving & Transportation Safety Project

## Year 2 Project Evaluation Study Results

*Summary slides*



Office of  
Multimodal  
Planning



# Agenda

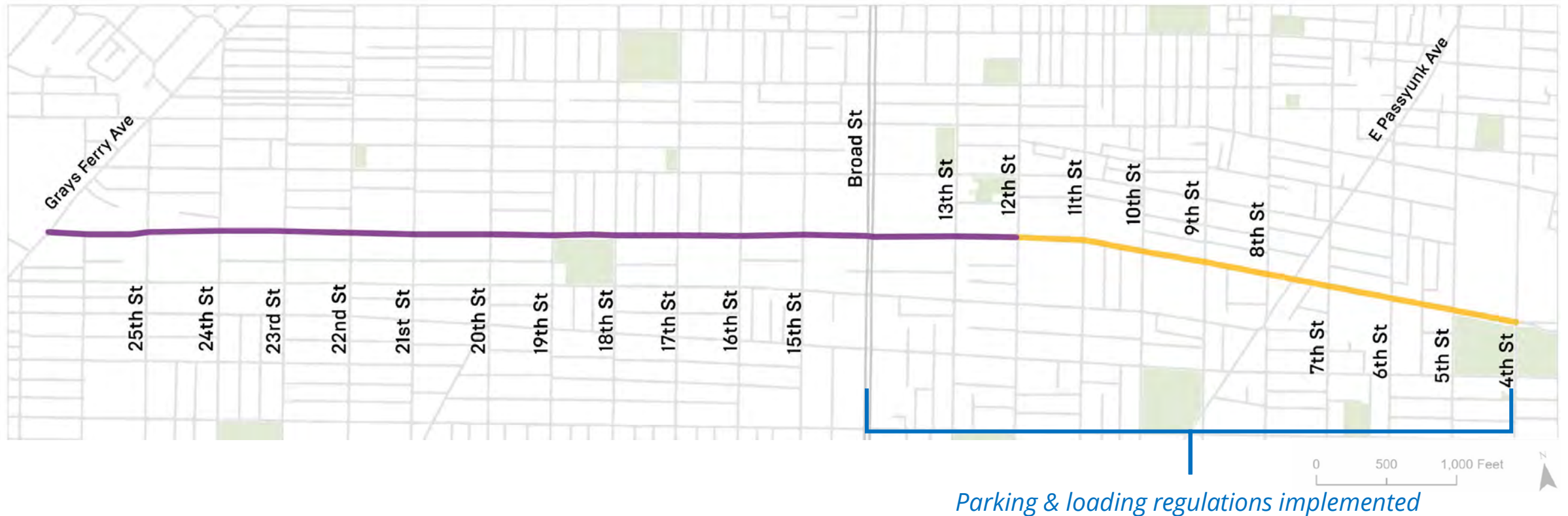
1. Project Overview
2. Key Findings
3. Recommendations & Next Steps

# 1. Project Overview

# Why did we complete a Year 2 study?

- **The Washington Avenue Repaving and Transportation Safety project was enabled by City Council legislation**, which requires the Office of Multimodal Planning to complete project evaluation studies at the 1-year and 2-year marks following implementation.\*
- **The City of Philadelphia is committed to data-driven evaluation.** This report will help us further understand how this project has impacted people walking, driving, taking transit, and riding bicycles on Washington Avenue.
- **The City of Philadelphia is committed to accountability.** This report will help us determine how well the project accomplished the goals and objectives discussed with residents and businesses during community engagement from 2019 to 2022. It will also provide updates on status of recommendations made in the Year 1 study.

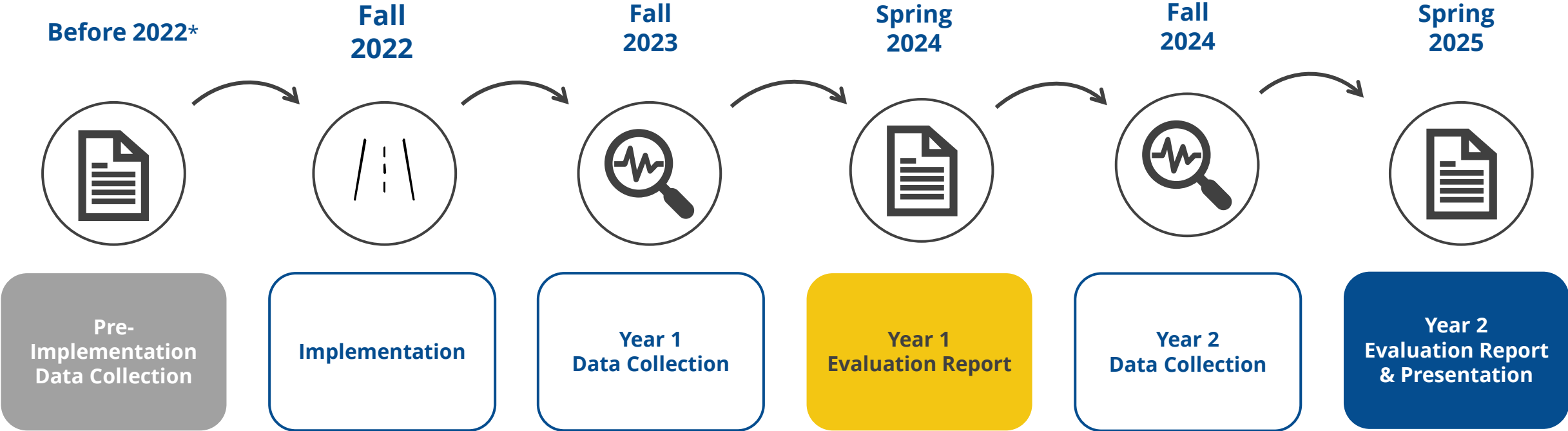
# Where were improvements made on Washington Avenue?



**Grays Ferry Ave to 12<sup>th</sup> Street** – Repaved and restriped, no significant design changes

**12<sup>th</sup> St to 4<sup>th</sup> Street** – Repaved and restriped, significant roadway reconfiguration

# When was data collected and evaluated on Washington Avenue?



*\*no 2020 data was used in post-implementation evaluation*

# What data did evaluate for the Year 2 study?



## Data

Vehicle Travel Times

- Grays Ferry Avenue to 4<sup>th</sup> Street
- Parallel Routes (*Ellsworth Street, Christian Street*)



Vehicular Volumes

- Grays Ferry Avenue to 4<sup>th</sup> Street
- Parallel Routes (*Christian & Grays Ferry Ave, Christian & Broad St, Christian & 11<sup>th</sup> St, Ellsworth & Broad St*)



Bicycle Volumes

- Grays Ferry Avenue to 4<sup>th</sup> Street



Pedestrian Volumes

- Various locations between Grays Ferry Avenue to 4<sup>th</sup> Street



Speed

- Various locations between Grays Ferry Avenue to 4<sup>th</sup> Street

*Note: Parking and loading data and analysis was included in the Year 1 evaluation report.*

# What about crash data?

We need sufficient crash data to perform a meaningful crash analysis for any project. The standard best practice is to use at least three years of data to avoid issues related to small data sets.









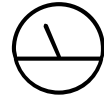

Construction on Washington Avenue was completed on March 1st, 2023. As of release of the report, PennDOT crash data is only available through December 31st, 2023.

**We plan to release 3- and 5-year crash analyses, comparing before and after data, when sufficient data is available to do so.**



## 2. Key Findings

# How did we do?

	Data	Analysis	Outcome
	Travel Times	No significant change in travel time along Washington Ave, except for Saturdays.	POSITIVE 
	Vehicular Volumes	No significant change in vehicle volumes along Washington Ave.	POSITIVE 
	Bicycle Volumes	Bicycle volumes increased corridor-wide during the AM and Saturday peak hours, especially east of Broad.	POSITIVE 
	Pedestrian Volumes	Pedestrian volumes at intersections along Washington Avenue increased during most peak hours.	POSITIVE 
	Speed	Speeds on Washington Avenue stayed at or below the posted speed limit, and off-peak speeding decreased.	POSITIVE 

# Key Findings | Travel Times

*(Weekday)*

## No Significant changes in travel time on Washington Avenue.

- Eastbound travel times slightly decreased from pre-Implementation to year 2.
- Westbound travel times generally increased by one to two minutes due to delays observed at the Broad Street intersection during the peak period.

Direction	Peak	East of Broad Street (13 <sup>th</sup> to 4 <sup>th</sup> Street)					West of Broad Street (Grays Ferry Avenue to 15 <sup>th</sup> Street)				
		Time Pre-Install (mins)	Time Post-Install Y1 (mins)	Time Post-Install Y2 (mins)	Change (Pre-Install - Y2)	Statistically Significant Change (Pre-Install - Y2)	Time Pre-Install (mins)	Time Post-Install Y1 (mins)	Time Post-Install Y2 (mins)	Change (Pre-Install - Y2)	Statistically Significant Change (Pre-Install - Y2)
Eastbound	AM	3.54	3.92	3.93	0.39	No	4.06	4.51	3.57	-0.49	No
	PM	5.00	5.30	4.73	-0.27	No	3.91	4.31	3.68	-0.23	No
	Sat.	5.50	5.18	8.23	2.73	Yes	4.56	3.93	3.43	-1.13	No
Westbound	AM	3.29	4.21	4.18	0.89	No	4.65	4.59	4.70	0.05	No
	PM	3.26	3.78	4.22	0.96	No	4.64	4.06	4.78	0.14	No
	Sat.	3.31	4.13	5.27	1.96	No	3.88	4.46	4.22	0.34	No

# Key Findings | Travel Times

*(Weekend)*

**Eastbound travel times on Washington Avenue increased significantly during Saturday peak.**

Left turns were initially banned on 9<sup>th</sup> street when the Washington Avenue project was implemented. Observational data suggests that eastbound Saturday congestion originates at 9<sup>th</sup> street where people are waiting to make left turns.

Direction	Peak	East of Broad Street (13 <sup>th</sup> to 4 <sup>th</sup> Street)					West of Broad Street (Grays Ferry Avenue to 15 <sup>th</sup> Street)				
		Time Pre-Install (mins)	Time Post-Install Y1 (mins)	Time Post-Install Y2 (mins)	Change (Pre-Install - Y2)	Statistically Significant Change (Pre-Install - Y2)	Time Pre-Install (mins)	Time Post-Install Y1 (mins)	Time Post-Install Y2 (mins)	Change (Pre-Install - Y2)	Statistically Significant Change (Pre-Install - Y2)
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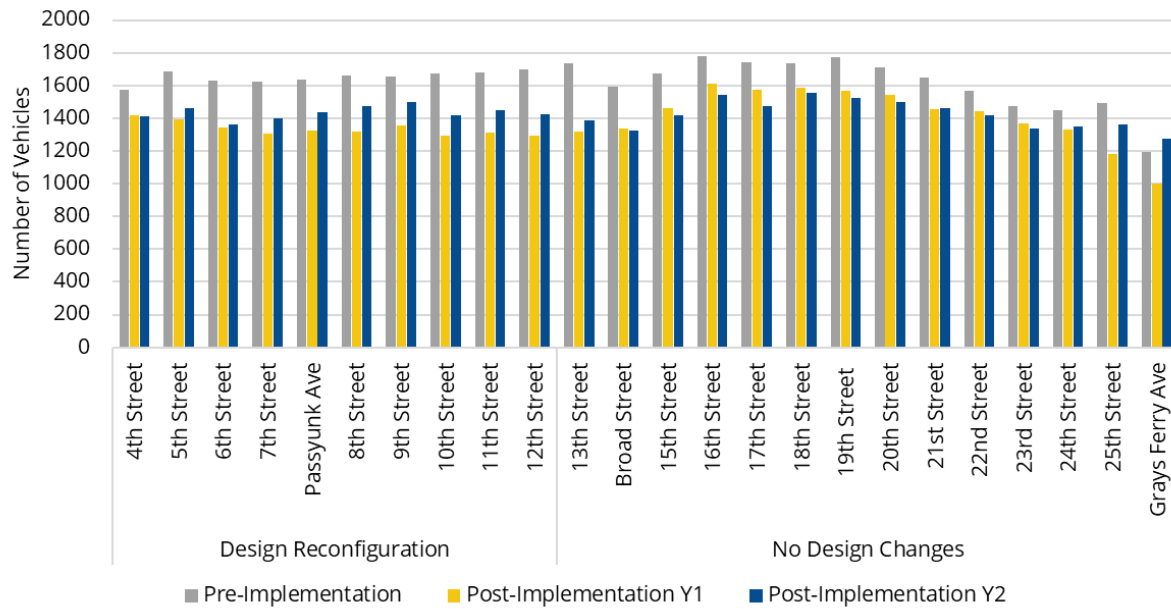
**Recommended Action(s):** The study recommends taking a closer look at operations of the 9<sup>th</sup> Street intersection.

# Key Findings | Vehicular Volumes

*(Weekday)*

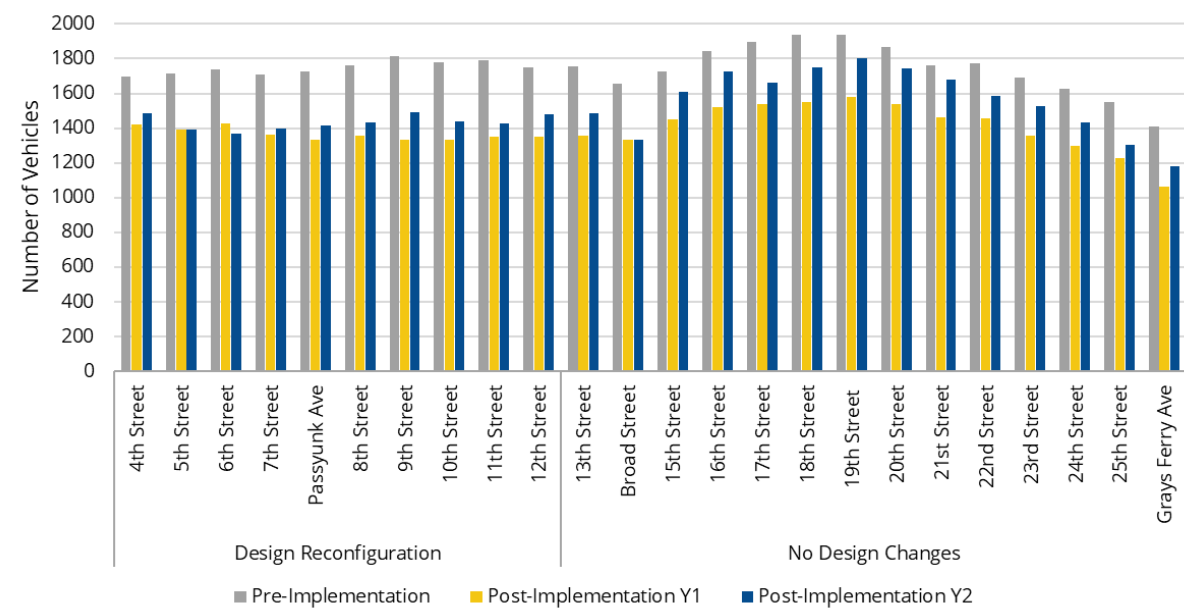
**Vehicular volumes on Washington Avenue on weekdays have remained steady between Year 1 and Year 2. Volumes have not returned to pre-COVID and pre-implementation levels.**

### Volumes Along Washington Ave (AM Peak Hour)



*No Significant Changes*

### Volumes Along Washington Ave (PM Peak Hour)



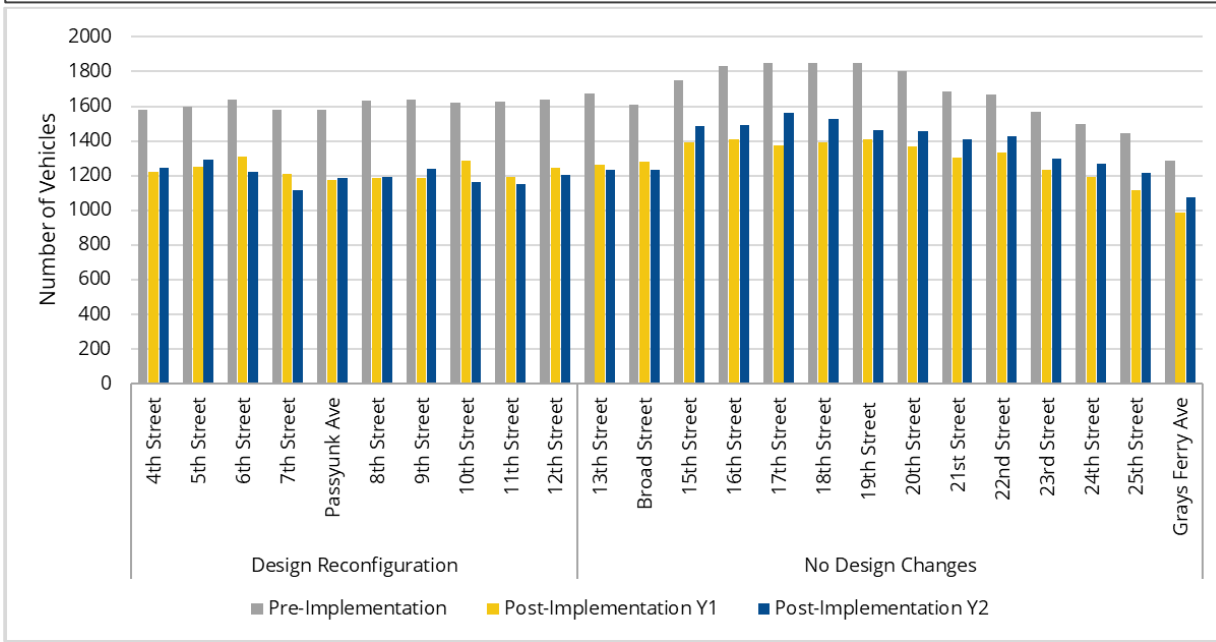
*Similar Volumes in 2023 and 2024 East of Broad, but an increase of about 11% on average west of Broad Street*

# Key Findings | Vehicular Volumes

*(Weekend)*

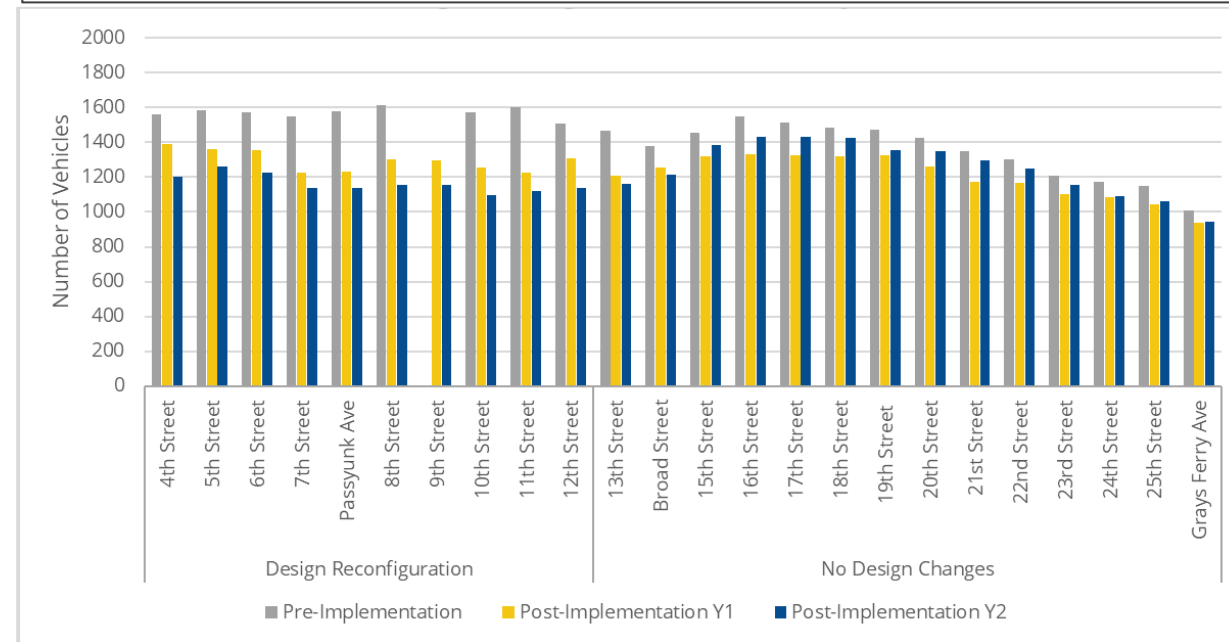
Vehicular volumes on Washington Avenue on weekends have remained steady between Year 1 and Year 2. Volumes have not returned to pre-COVID and pre-implementation levels.

Volumes Along Washington Ave (Saturday Peak Hour)



*Slight decrease in vehicle volumes east of Broad Street and increase in vehicles volumes west of Broad Street during Saturday peak hour from year 1 to year 2*

Volumes Along Washington Ave (Sunday Peak Hour)



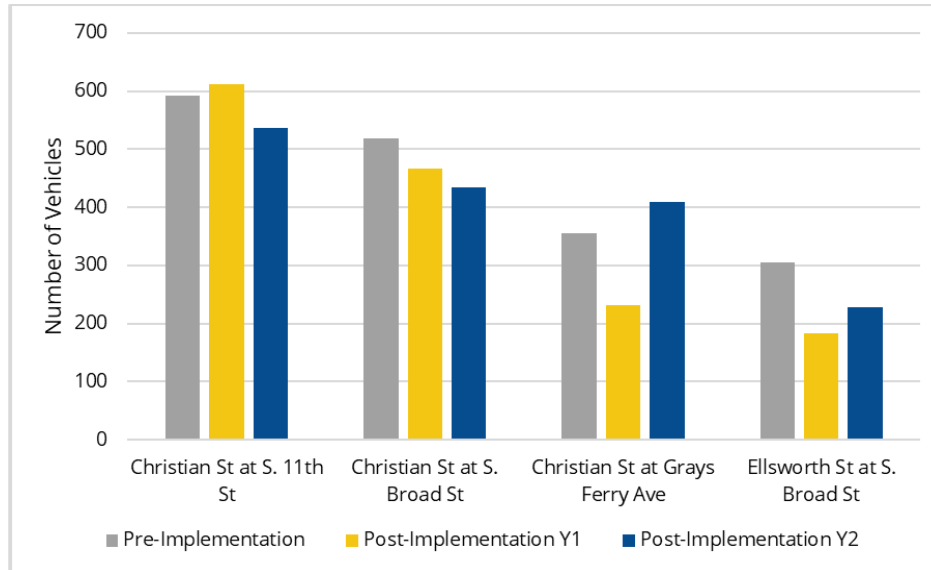
*Year 2 Sunday peak hour volumes east of Broad Street decreased by about 9.5% on average but were generally consistent or slightly elevated on the west side, when comparing year 1 to year 2*

# Key Findings | Vehicular Volumes

*(Parallel Routes)*

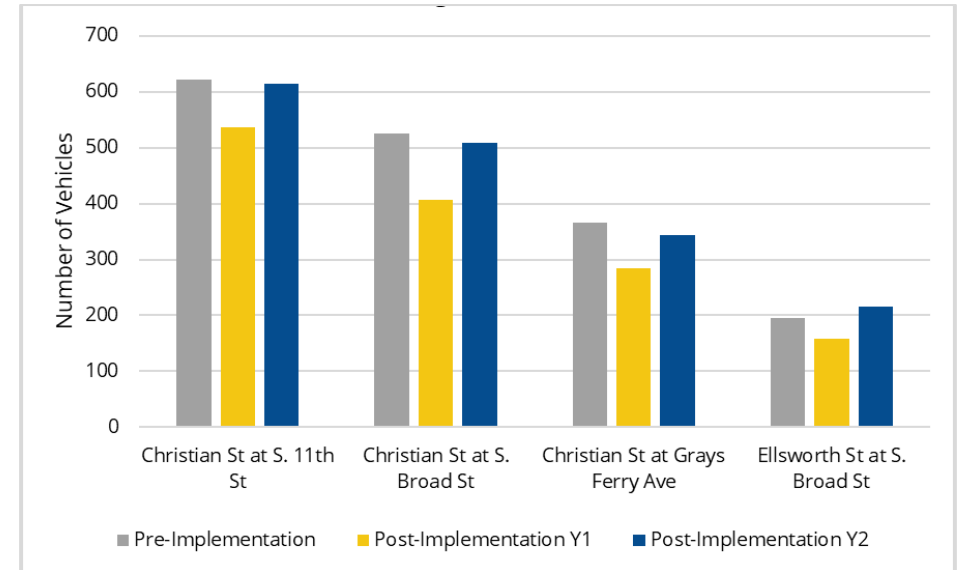
Vehicle volumes along parallel routes mostly decreased from pre-implementation to year 2 during peak hours except for Christian Street at Grays Ferry Ave during the weekday AM peak and Ellsworth St at S. Broad St during the weekday PM peak.

### Volumes Along Parallel Routes (AM Peak Hour)



*Although parallel route volumes increased west of Broad, volumes did not increase east of Broad where the road diet was implemented.*

### Volumes Along Parallel Routes (PM Peak Hour)



*Christian and Ellsworth Streets saw volume increases from Y1 to Y2, bringing Y2 volumes closer to pre-implementation levels.*

# Key Findings | Bicycle Volumes

*(Weekday)*

Annual Average Daily Bicycle (AADB) volumes on Washington Avenue increased throughout the corridor from pre-implementation to Year 2.

Section	Block	AADB Pre-Install (2021)	AADB Post-Install Y1 (2023)	AADB Post-Install Y2 (2024) <sup>(1)</sup>	Percent Change Pre-Install to Y1	Percent Change Y1 to Y2	Percent Change Pre-Install to Y2
East of Broad St	600	122 <sup>(2)</sup>	972	638	N/A	-34.36%	N/A
	1000/1100	591	962	870	62.78%	-9.56%	47.21%
West of Broad St	1500	299	489	655	63.55%	33.95%	119.06%
	1800/1900	230	462	526	100.87%	13.85%	128.70%

(1) Bicycle counts east of Broad Street were averaged from the TMC data and factored based on peak hour observations from the Miovision data west of Broad Street.

(2) Only westbound counts were collected for the 600 block of Washington Avenue in 2021.

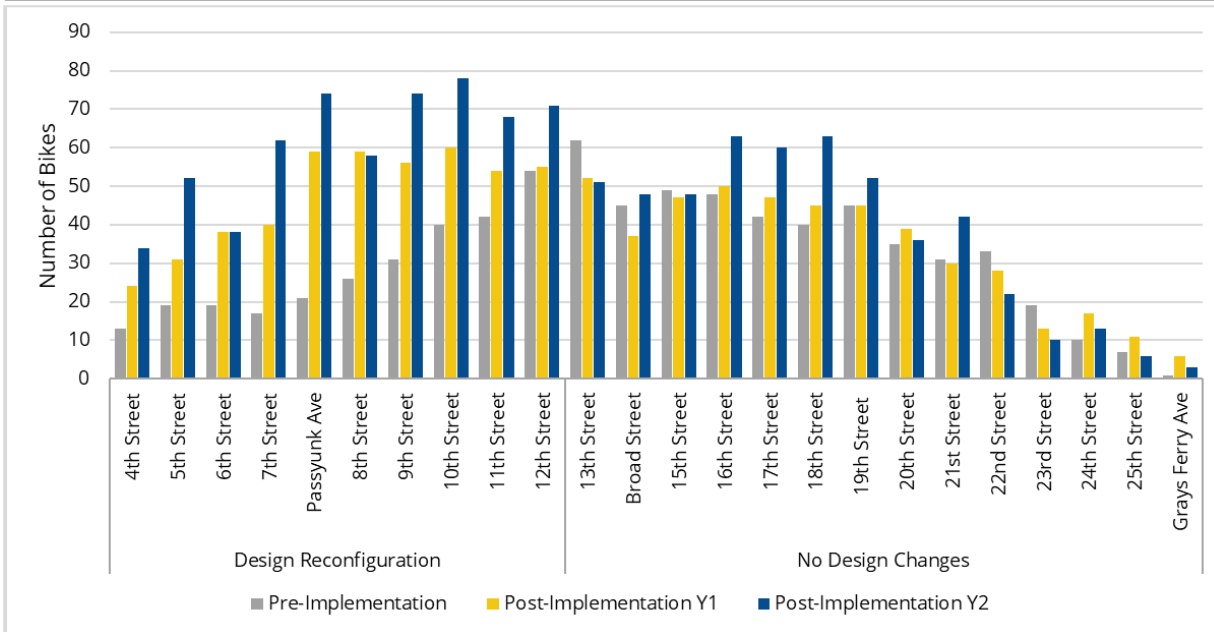


# Key Findings | Bicycle Volumes

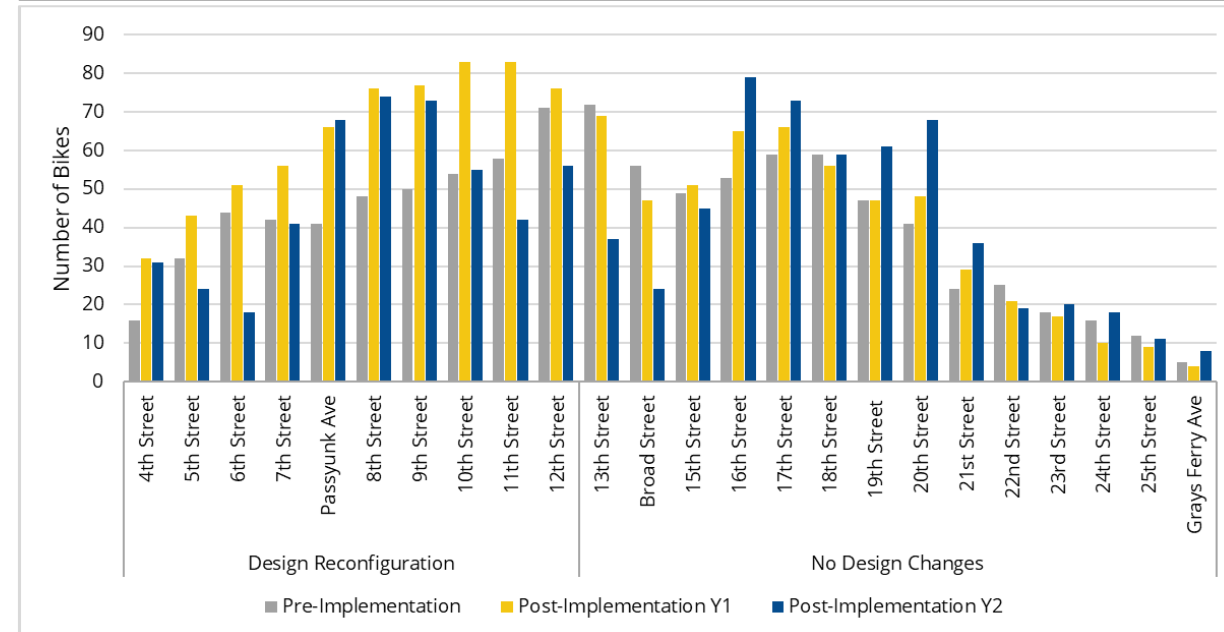
*(Weekday)*

**Bicycle volumes along Washington Avenue increased from pre-implementation to year 2 during the weekday AM and PM peaks.**

**Bicycle Volumes Along Washington Avenue (AM Peak Hour)**



**Bicycle Volumes Along Washington Avenue (PM Peak Hour)**

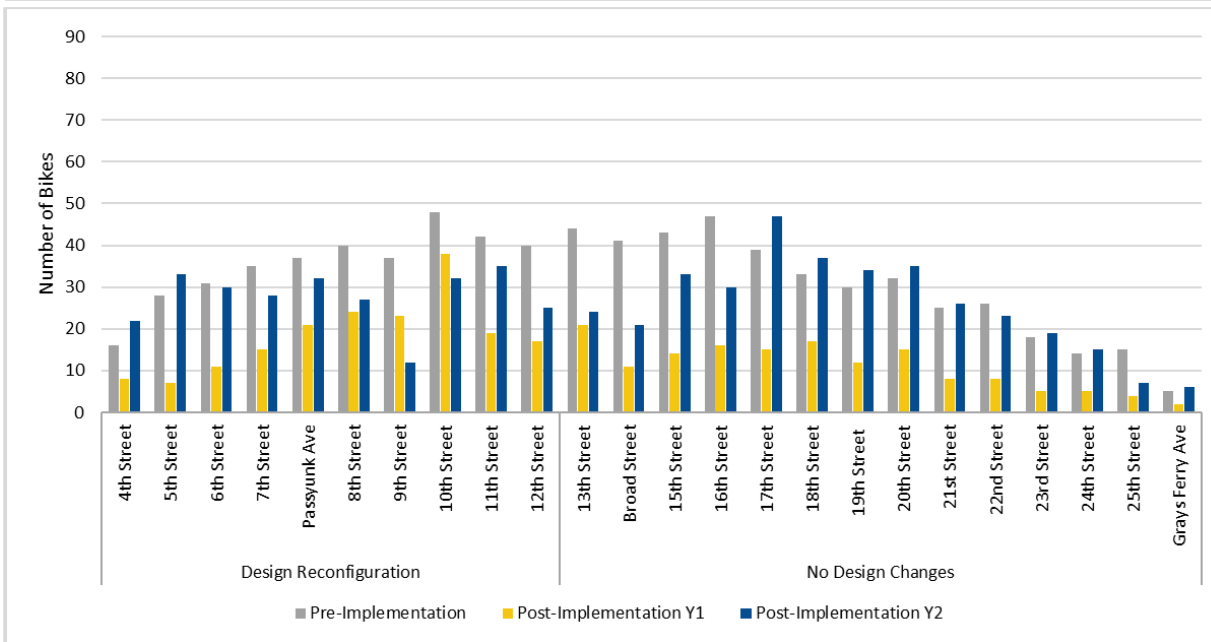


# Key Findings | Bicycle Volumes

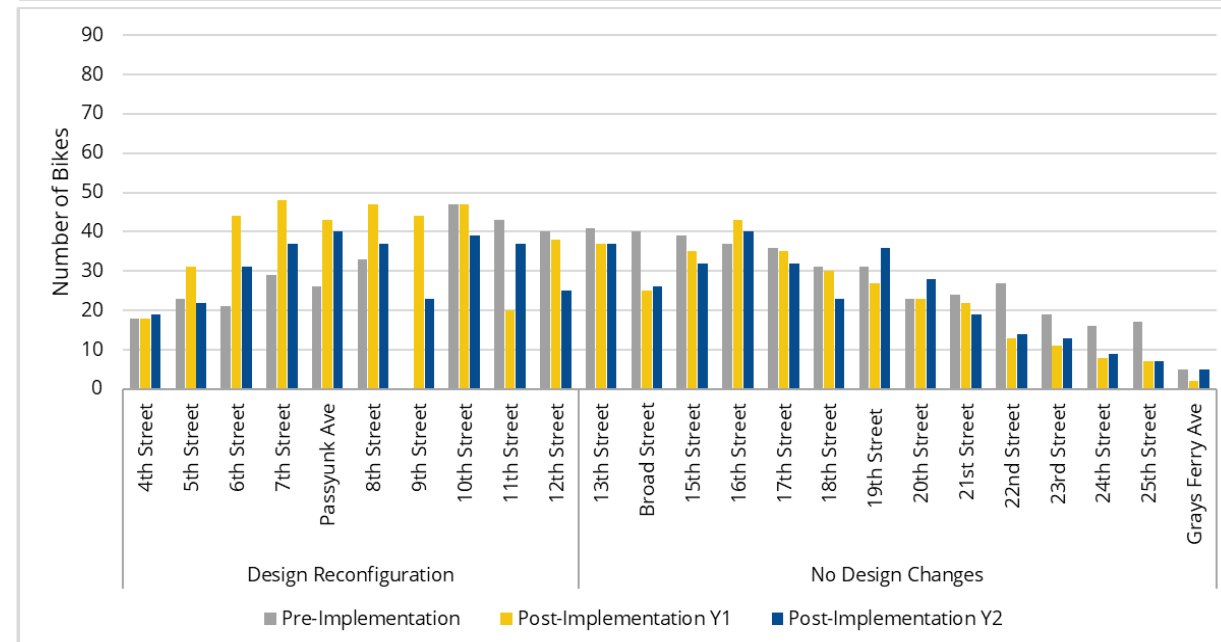
*(Weekend)*

Bicycle volumes Washington Avenue during weekend peak hours varied from pre-implementation to year 1 and year 2, increasing in some locations and decreasing in others.

**Bicycle Volumes Along Washington Avenue (Saturday Peak Hour)**



**Bicycle Volumes Along Washington Avenue (Sunday Peak Hour)**

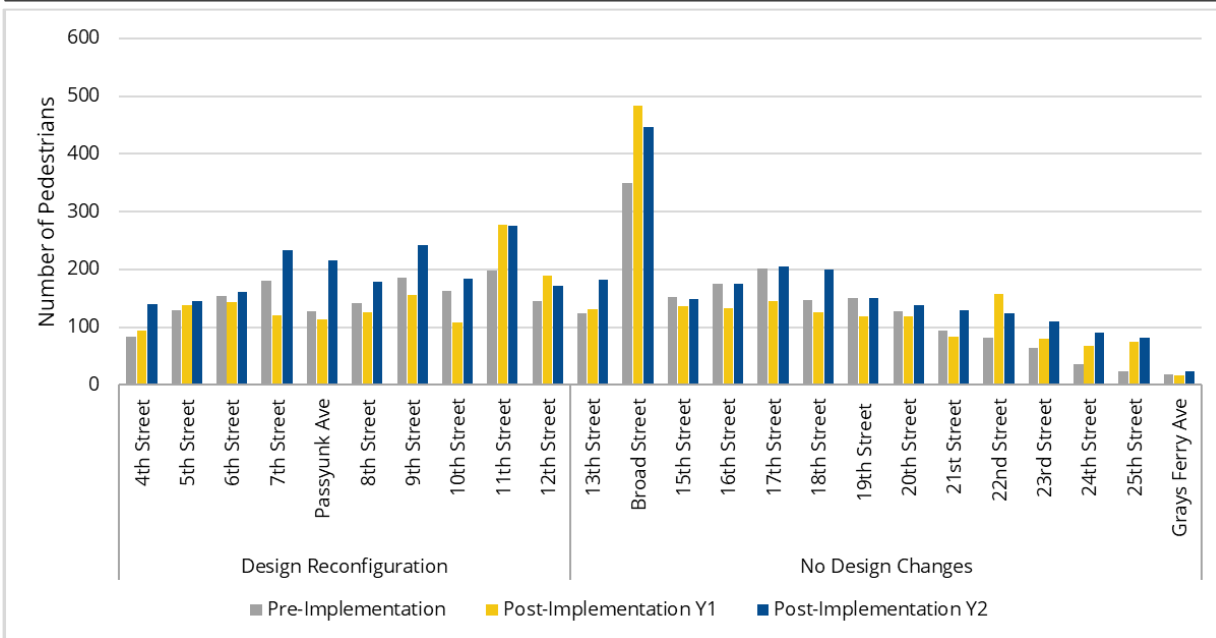


# Key Findings | Pedestrian Volumes

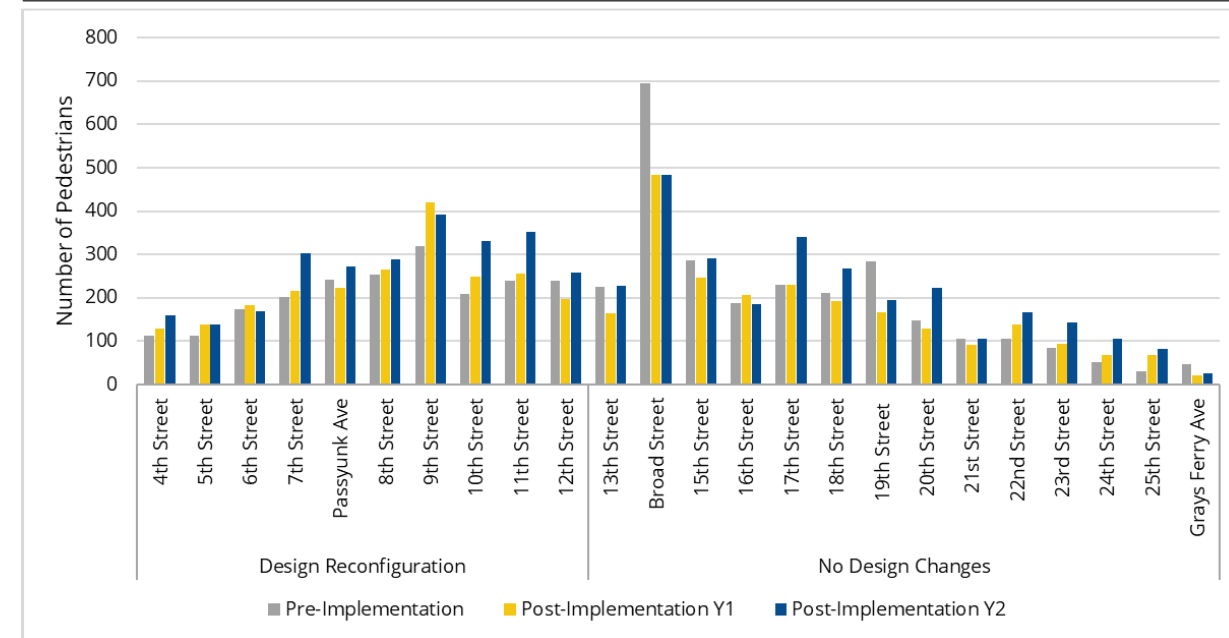
*(Weekday)*

**Pedestrian volumes at intersections along Washington Avenue increased from pre-implementation to year 2 during most peak hours.**

**Pedestrian Volumes at Intersections (AM Peak Hour)**



**Pedestrian Volumes at Intersections (PM Peak Hour)**

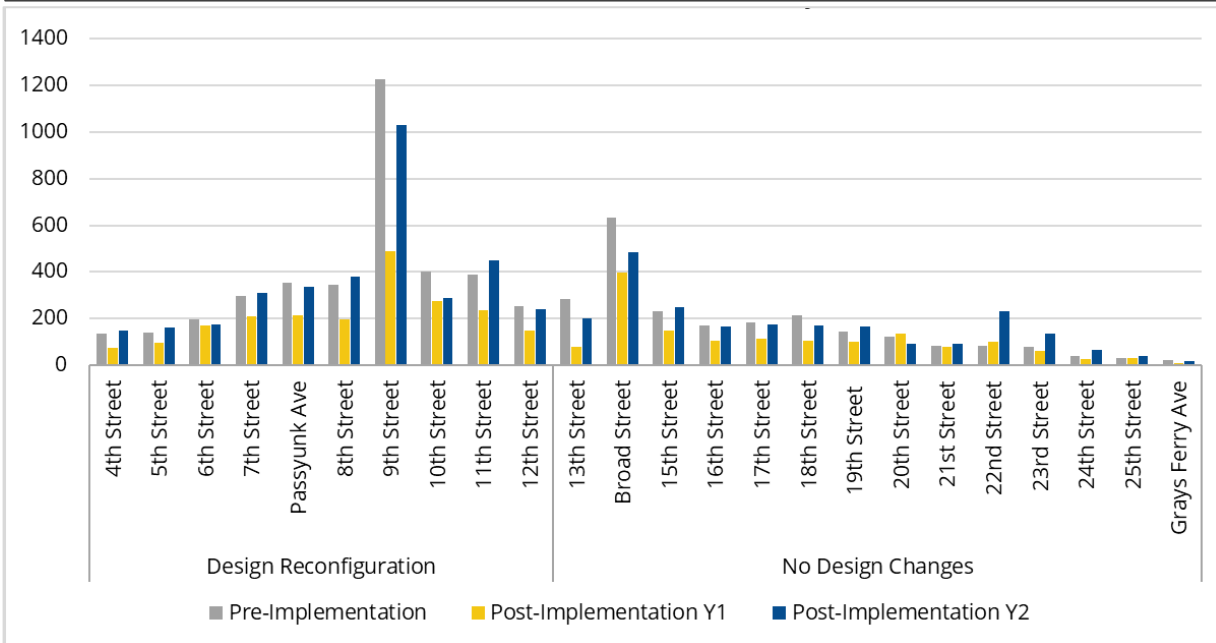


# Key Findings | Pedestrian Volumes

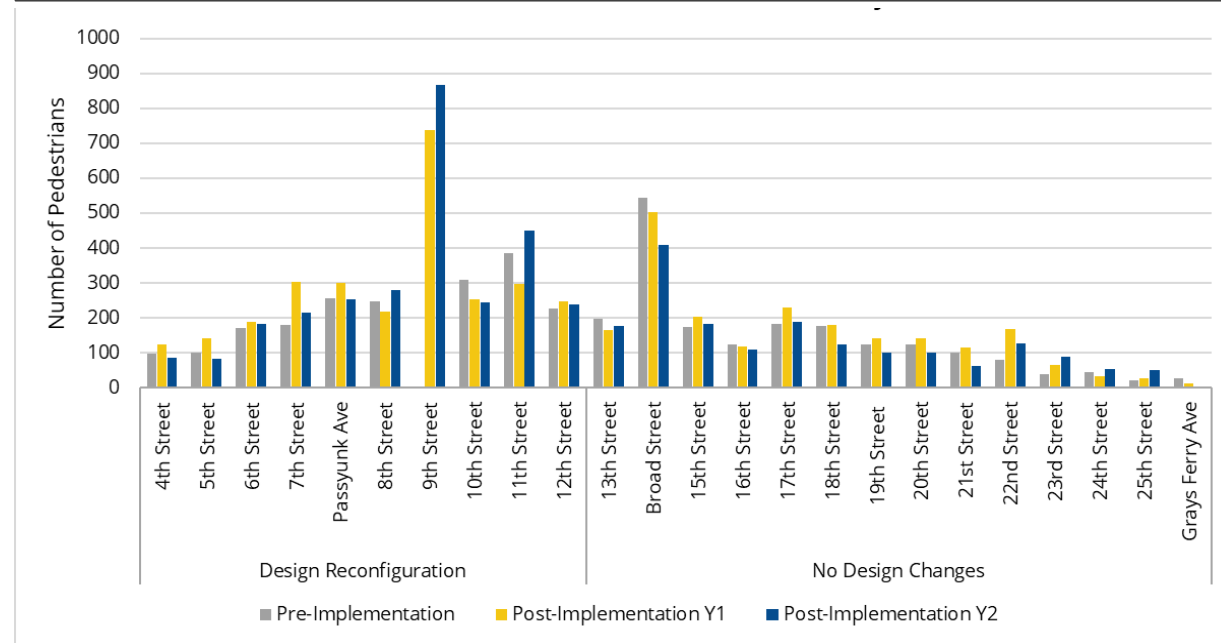
*(Weekend)*

Pedestrian volumes on Washington Avenue increased more on the east side of Broad Street versus the west side of Broad Street.

**Pedestrian Volumes at Intersections (Saturday Peak Hour)**



**Pedestrian Volumes at Intersections (Sunday Peak Hour)**

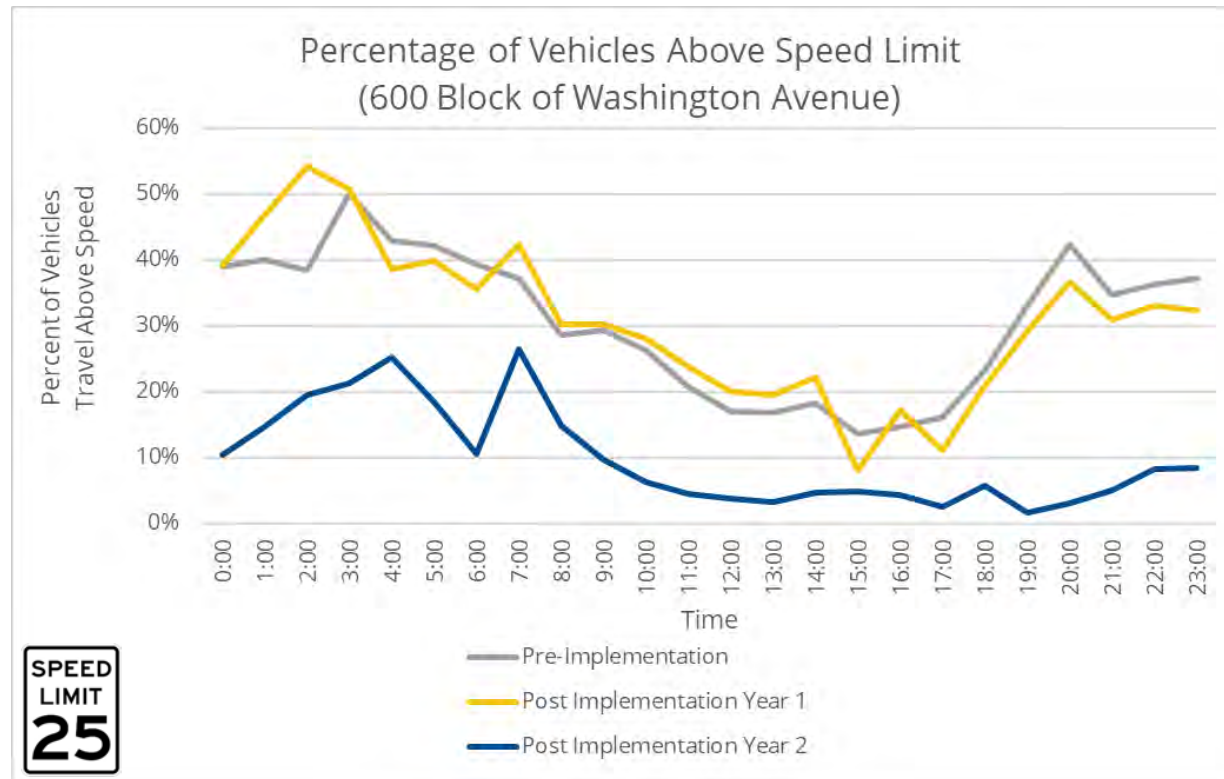


# Key Findings | Speed Analysis

*(600 Block)*

The percentage of vehicles speeding on Washington Avenue east of Broad Street decreased between pre-implementation, year 1, and year 2. Year 1 data showed mixed off-peak results east of Broad. The City responded by adjusting traffic signal cycles from 13th to Front Street to prevent off-peak speeding.

600 block of Washington Ave, where design changes were implemented



# 3. Recommendations & Next Steps

# Recommendations

- In the Year 1 report, recommendations were made to further improve parking and loading operations and traffic safety.
- The Year 2 report provides updates for these recommendations and provides a few new traffic safety recommendations.
- The following slides provide highlighted status updates; for a complete list of recommendations and status, please see the full Year 2 report.

# Year 1 Recommendations (Highlighted Actions)

Year 1 Evaluation Recommendations	Status
<p>Coordinate with the Philadelphia Parking Authority (PPA) to provide additional enforcement of parking and loading regulations along Washington Ave, with a focus on promoting adequate turnover in loading zones and discouraging sidewalk parking.</p>	<p>PPA's bike unit actively enforces this corridor.</p>
<p>Adjust signal timing on Washington Ave between 5th St and Front St, evaluate the impacts, and further adjust as needed. If signal timing changes do not adequately address the issue, consider installing additional speed slots east of 9th St.</p>	<p>Signal changes were implemented following year 1 findings of off-peak (midday and overnight) speeding. Adjustments from 13th St to Front St help deter off-peak speeding while maintaining traffic flow during daytime congestion on Washington Ave.</p>
<p>There are several locations where flexible delineator posts (flex posts) have been removed or were not initially installed by the contractor. The Streets Department and OTIS should coordinate to install/reinstall them.</p>	<p>The City reinstalled flex posts at locations recommended in the year 1 study. The City has a program to monitor and replace flex posts as needed. Any contracting work that impacts flex posts must replace and return to prior condition.</p>



# Year 2 Recommended Actions

Year 2 Evaluation Observation	Recommendations	Planned Action
Assess traffic safety data in 2026	Evaluate crash data to compare the safety of Washington Avenue.	The City plans to release 3-year and 5-year before-and-after crash analyses once sufficient data becomes available.
Congestion and increased activity observed around 9th street	Conduct further study of the 9 <sup>th</sup> Street intersection to determine how to alleviate congestion.	The City may conduct further observations to identify the cause of the congestion.
Track Progress of year 1 report recommendations	Track progress of previous recommendations from the year 1 report	Since the completion of the Y1 report, the City has been reviewing and taking necessary actions to track progress along the corridor. A full summary can be found in the “recommendations” section of the year 2 report.

# What comes next for Washington Avenue?

- Bus boarding islands will be installed on Washington Ave east of Broad Street. Construction is anticipated to begin in 2026.
- The [Washington Avenue Connector](#) project will begin construction spring/summer 2025. This project will provide safe bicycle and pedestrian access from 4<sup>th</sup> Street to the Delaware River Trail across Columbus Boulevard.
- The City will continue monitoring the operations and safety of Washington Avenue and will conduct 3-year and 5-year before-and-after crash analyses once sufficient data becomes available.

# Washington Avenue Repaving & Transportation Safety Project

## Year 2 Project Evaluation Study Results

*Summary slides*



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