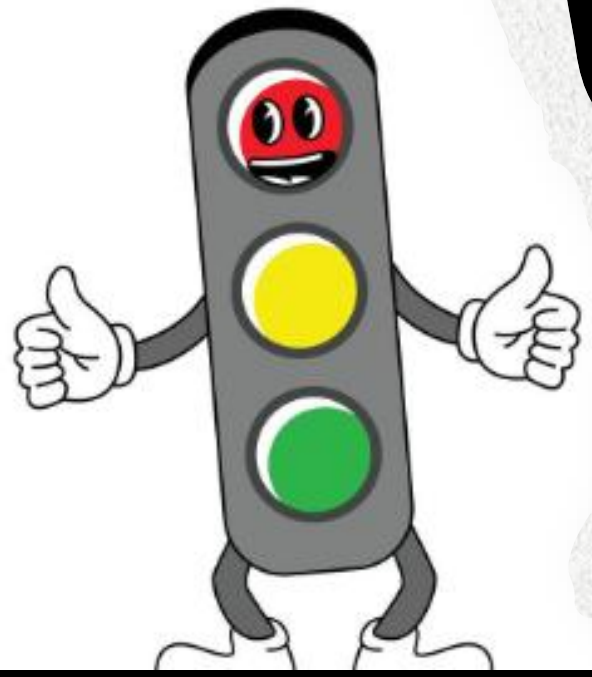
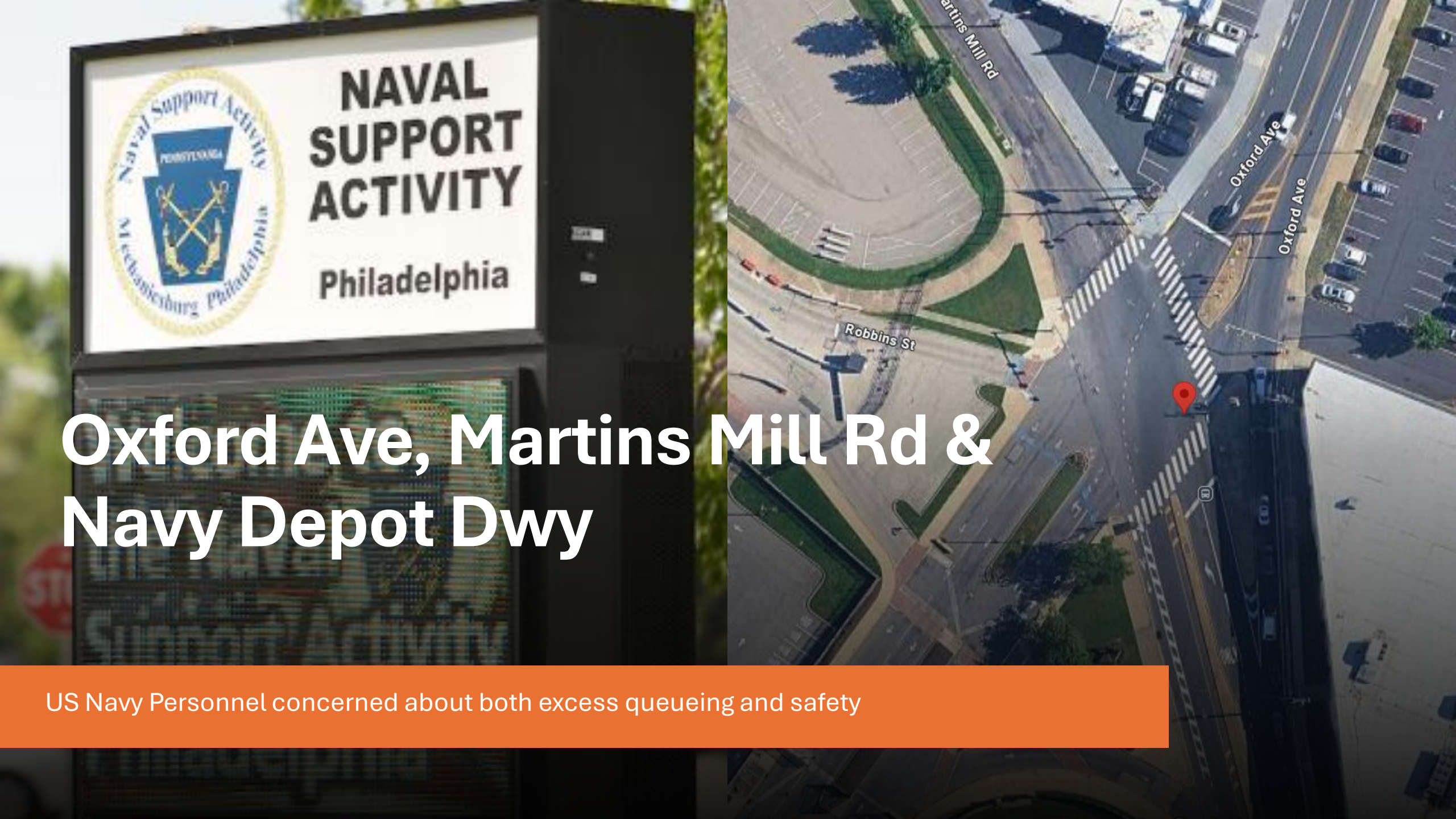


Low Cost Signal Improvements

Pat Callahan, PE



Oxford Ave, Martins Mill Rd & Navy Depot Dwy

US Navy Personnel concerned about both excess queueing and safety

Oxford & Martins Mill

BEFORE View of southbound Oxford Ave approaching Navy Driveway and Martins Mill Rd

Oxford & Martins Mill

BEFORE view of northbound Oxford Ave approaching Navy Driveway and Martins Mill Rd

BEFORE view of the east crosswalk

The east crosswalk ran with both the Navy Depot Driveway and southbound Oxford…yielding to pedestrians occurred occasionally.

AFTER view of southbound Oxford Ave approaching Navy Driveway and Martins Mill Rd

Oxford & Martins Mill

AFTER view of northbound Oxford Ave approaching Navy Driveway and Martins Mill Rd

Oxford & Martins Mill

AFTER view of the east crosswalk

Pedestrians phase separated from southbound Oxford, subject to solar powered push button actuation

KITS ATMS

Utilizing cellular communication

Table 5 – Queue Length Summary for Martins Mills Road and Oxford Avenue

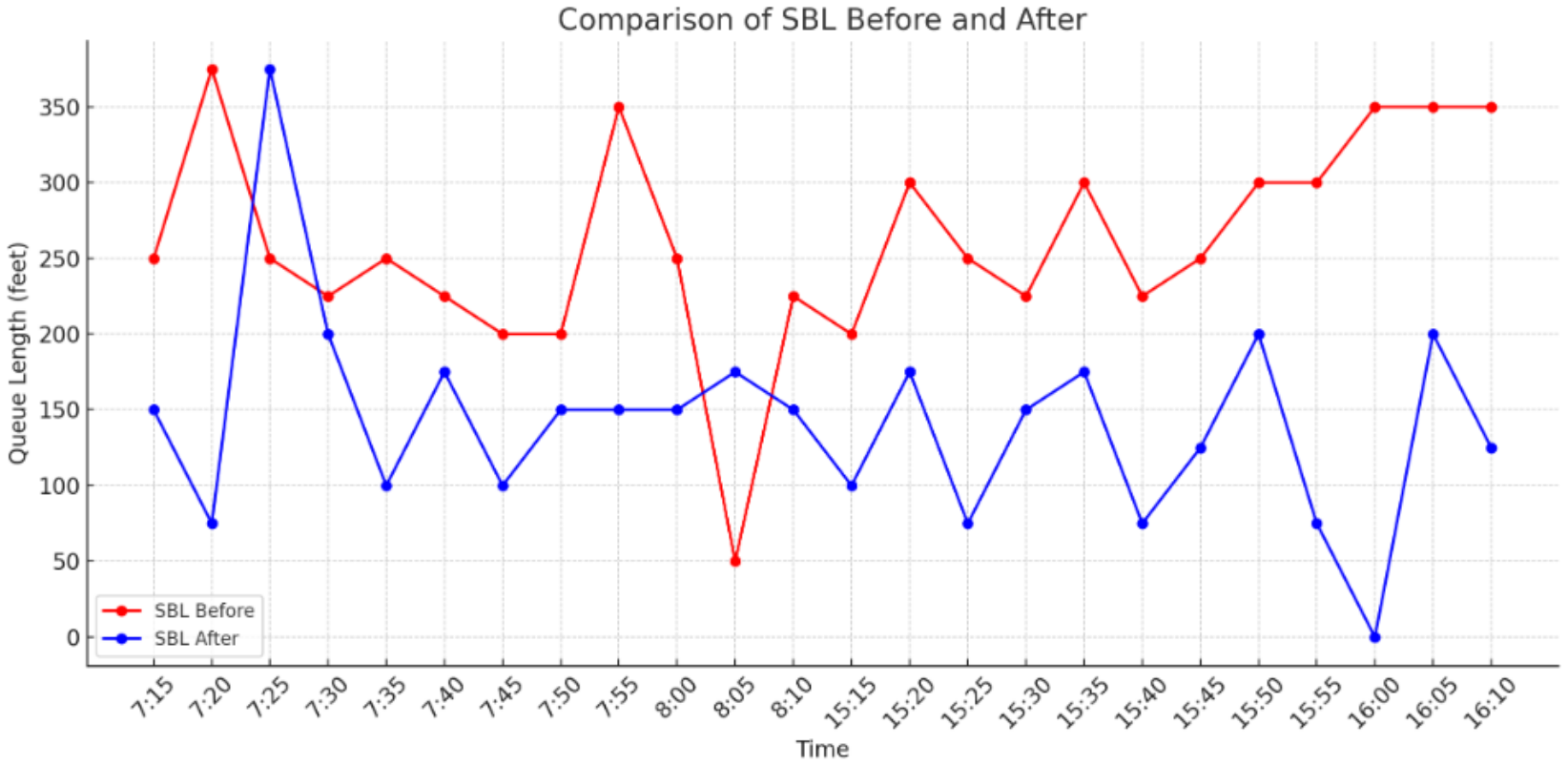
Start Time	End Time	Before Queue Length (feet) / After Queue Length (feet)							
		EBLTR	NBL	NBT	WBL*	WBT**	WBR	SBL	SBTR
7:15:00	7:19:59	850 / 675	25 / 0	25 / 50	80 / 80	325 / 275	125 / 50	250 / 150	250 / 375
7:20:00	7:24:59	850 / 1000	0 / 0	0 / 0	80 / 80	950 / 250	125 / 25	375 / 75	375 / 225
7:25:00	7:29:59	1000 / 1000	25 / 25	0 / 25	80 / 80	>1325 / 325	125 / 100	250 / 375	200 / 375
7:30:00	7:34:59	1000 / 800	25 / 25	25 / 50	80 / 80	>1325 / 825	125 / 75	225 / 250	250 / 225
7:35:00	7:39:59	900 / 500	25 / 25	0 / 50	80 / 80	>1325 / 875	125 / 75	250 / 100	225 / 200
7:40:00	7:44:59	900 / 550	0 / 50	0 / 0	80 / 80	>1325 / 825	125 / 50	225 / 175	150 / 175
7:45:00	7:49:59	1000 / 350	0 / 0	25 / 25	80 / 80	>1325 / 850	125 / 50	200 / 100	200 / 150
7:50:00	7:54:59	1000 / 350	25 / 25	0 / 25	80 / 80	>1325 / 875	125 / 50	200 / 150	200 / 150
7:55:00	7:59:59	1000 / 400	25 / 25	25 / 25	80 / 80	>1325 / 525	125 / 125	350 / 150	300 / 150
8:00:00	8:04:59	1000 / 625	0 / 25	25 / 25	80 / 80	>1325 / 350	125 / 50	250 / 175	200 / 150
8:05:00	8:09:59	1000 / 600	25 / 25	25 / 75	80 / 80	>1325 / 250	125 / 50	50 / 175	200 / 150
8:10:00	8:14:59	1000 / 550	50 / 25	25 / 0	80 / 80	>1325 / 250	125 / 50	225 / 150	125 / 150
15:15:00	15:19:59	675 / 1000	50 / 75	150 / 75	80 / 50	925 / 350	125 / 50	225 / 100	75 / 50
15:20:00	15:24:59	700 / 1000	50 / 50	225 / 175	80 / 0	825 / 500	125 / 50	300 / 175	25 / 0
15:25:00	15:29:59	1000 / 1000	75 / 75	175 / 225	80 / 0	375 / 250	125 / 125	250 / 75	75 / 100
15:30:00	15:34:59	1000 / 1000	75 / 100	200 / 350	80 / 0	150 / 350	125 / 125	225 / 150	0 / 25
15:35:00	15:39:59	1000 / 1000	50 / 75	250 / 400	50 / 0	125 / 175	125 / 125	300 / 175	25 / 25
15:40:00	15:44:59	1000 / 950	175 / 75	250 / 400	25 / 0	150 / 225	125 / 125	225 / 75	0 / 0
15:45:00	15:49:59	700 / 825	75 / 100	250 / 400	25 / 50	75 / 175	125 / 125	250 / 125	25 / 25
15:50:00	15:54:59	850 / 800	100 / 75	200 / 125	80 / 0	800 / 200	125 / 125	300 / 200	25 / 0
15:55:00	15:59:59	1000 / 750	25 / 75	200 / 75	80 / 0	925 / 225	125 / 125	300 / 75	350 / 0
16:00:00	16:04:59	1000 / 950	25 / 100	225 / 125	80 / 25	925 / 275	125 / 125	350 / 200	150 / 25
16:05:00	16:09:59	1000 / 850	125 / 50	250 / 400	80 / 0	675 / 275	125 / 125	300 / 200	75 / 0
16:10:00	16:14:59	1000 / 1000	125 / 50	250 / 400	80 / 0	625 / 350	125 / 125	350 / 125	25 / 50

* WBL labeled "At Cap." since vehicles turning left can't pass the queue to get to the WBL storage lane even if it isn't at capacity.

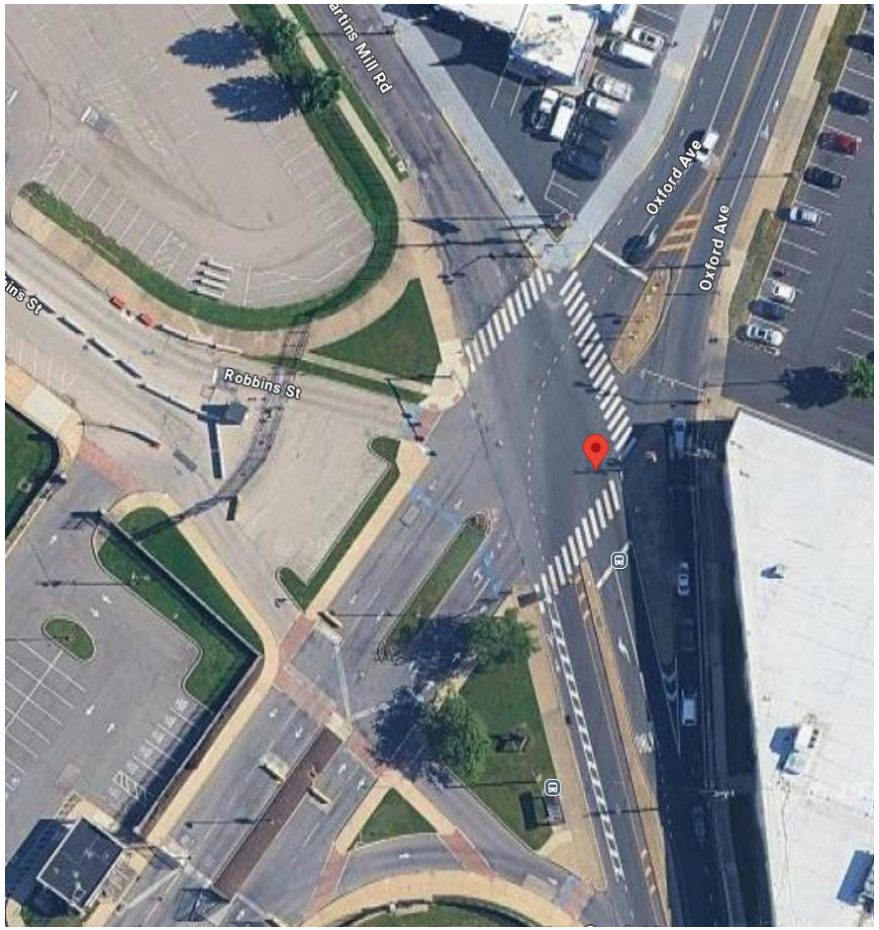
** >1325 queue length is due to queue extending past final camera's FOV

Oxford Ave SB Left

45% reduction in queue length



Martins Mills and Oxford: Total delay decreased by 41% in the AM peak and decreased by 12% in the PM peak. The largest AM decrease was on the westbound right movement (decreased by 75%) and largest AM increase was on the northbound through movement (increased by 261%). The largest PM decrease was on the westbound right movement (decreased by 79%) and the largest PM increase was on the northbound left movement (increased by 96%).

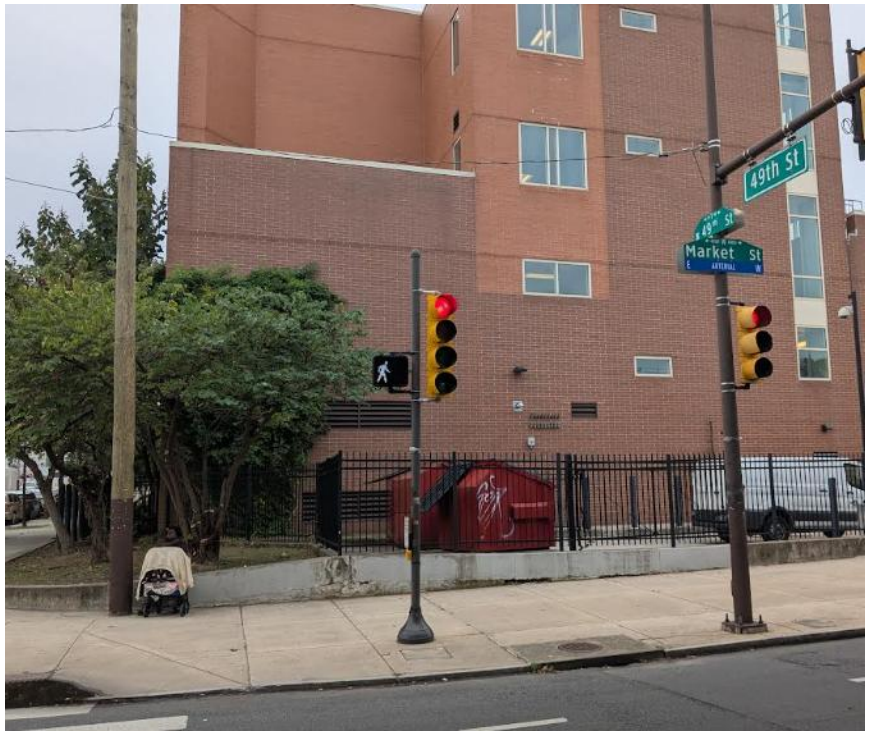


49th & Market

- BEFORE view of southbound 49th

49th & Market

- AFTER view of southbound 49th



49th & Market

Broad St, Passyunk Ave & McKean St

Problem: Residents go to Mayor concerned about ped safety x’ing Broad

Broad St, Passyunk Ave & McKean St

Problem: Residents go to Mayor concerned about ped safety x'ing Broad

Hi all,

I wanted to follow up on this now that my wife is pregnant with our second! I'm quickly realizing the South broad Street lights are just not long enough for a pregnant lady with a toddler in tow to safely cross the street.

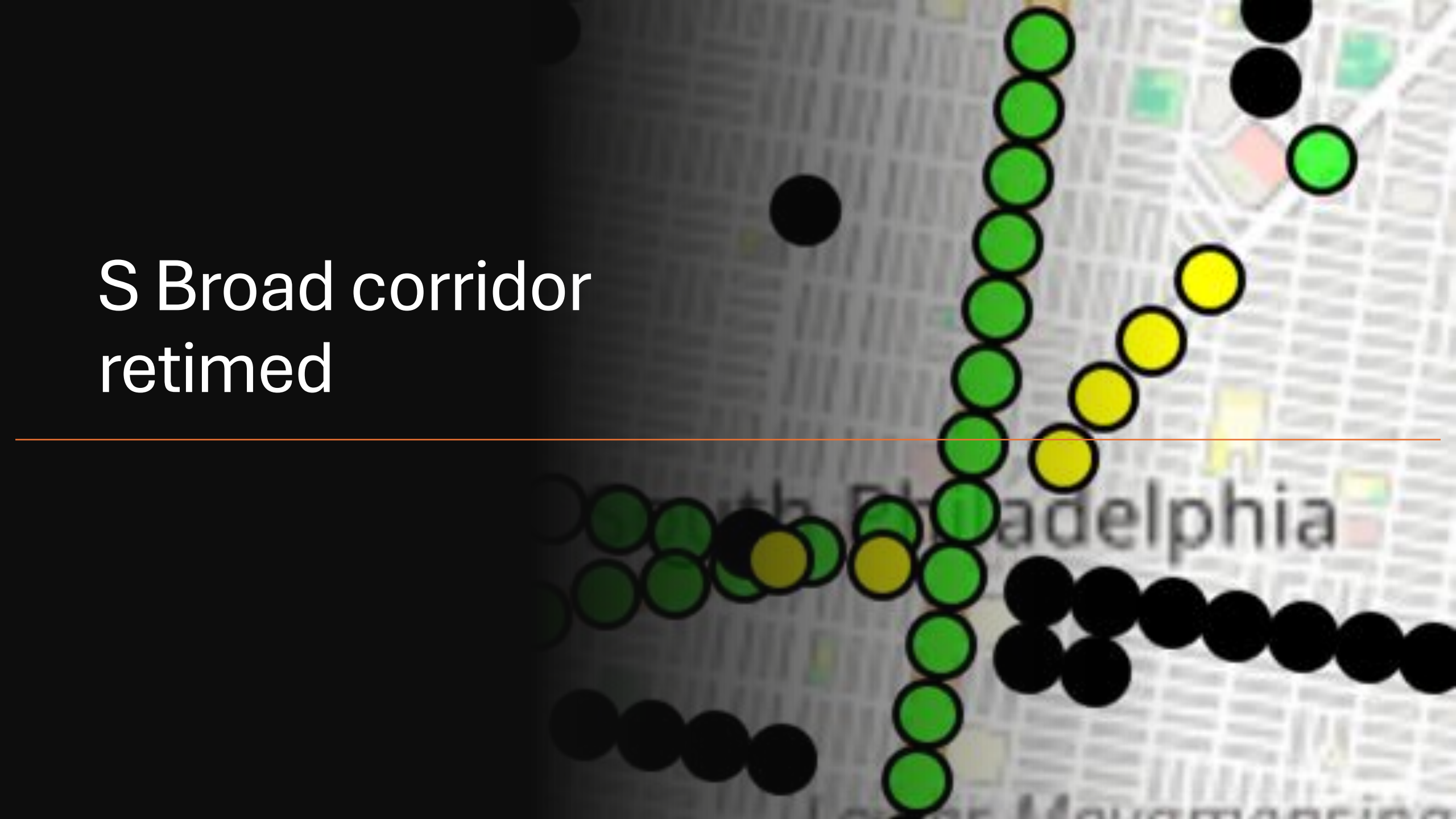
I feel like the simple solution is bump outs at the corners so there's less distance a pedestrian has to cross with the limited timing.

Any ideas on what advocacy I need to be a part of or what tree to shake to get some safety mitigation efforts on South broad? It really seems like a simple curb bump outs could be a great way to do this without affecting traffic flow.

Broad St, Passyunk Ave & McKean St

A-B-A-C Phasing

S Broad corridor retimed



Broad St, Passyunk Ave & McKean St

A-B-C phasing

Torresdale Ave & Adams Ave

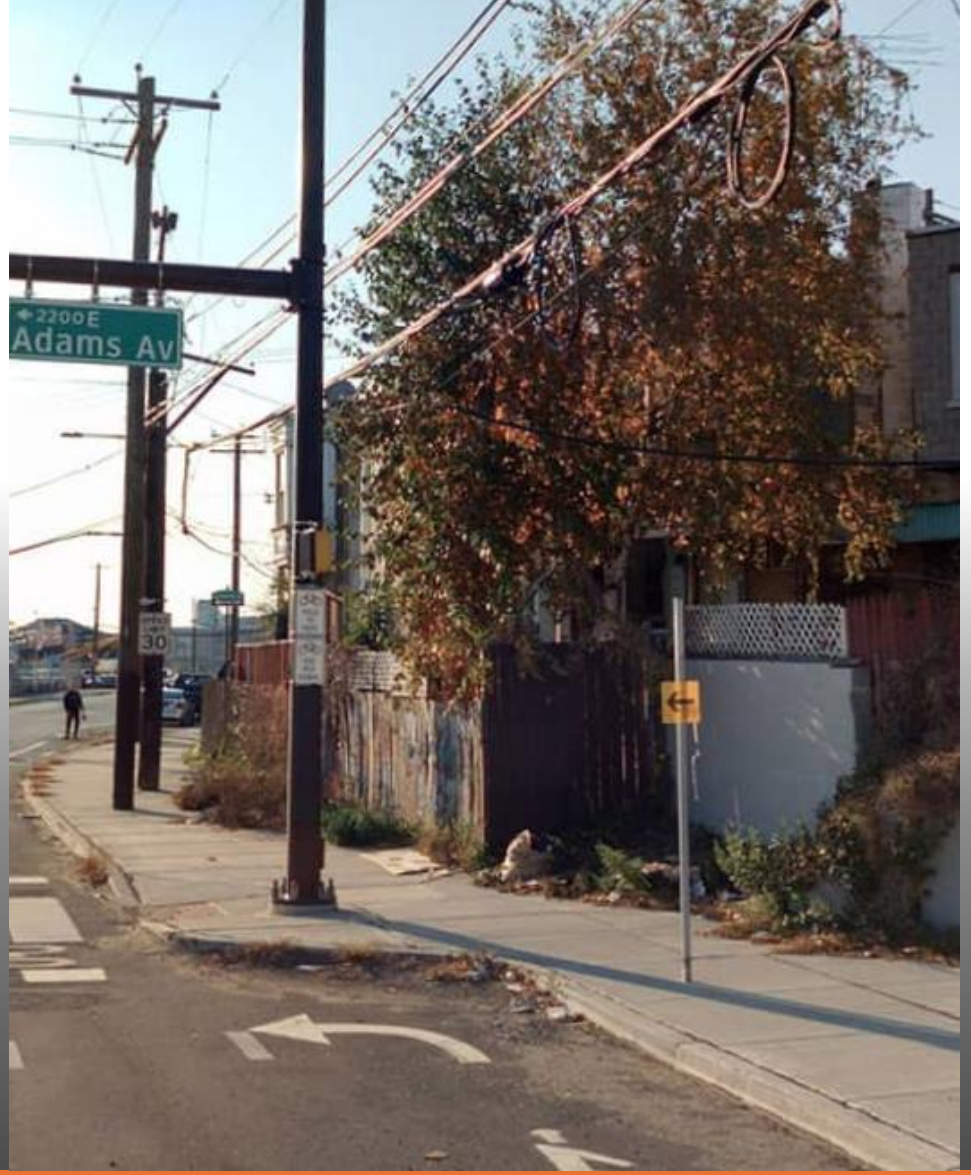
BEFORE

Heavy right turn at a T-intersection poses a problem: minimal yielding to peds/bikes

AFTER.


E 220th
Adams Av
E 220th
Adams Av
TO
95
NO
TURN
ON RED
VISITOR + EMPLOYEE PARKING
right this way

AFTER.

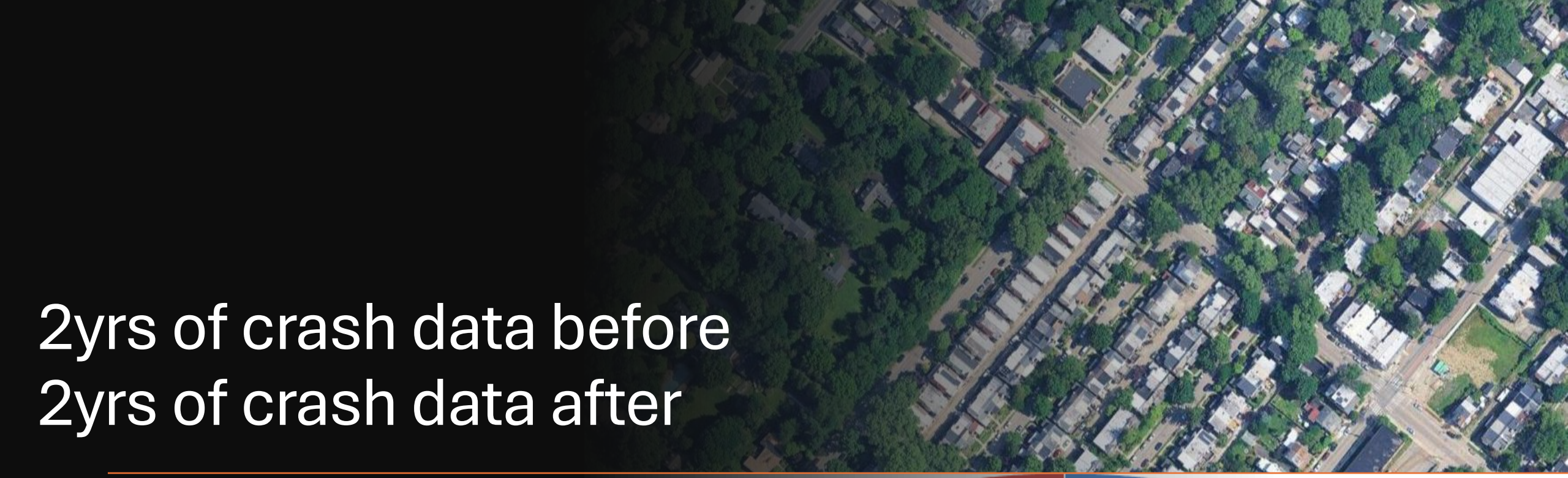

2200E
Adams Av
30


2200E
Adams Av
30

Emlen St & Mt Pleasant Ave

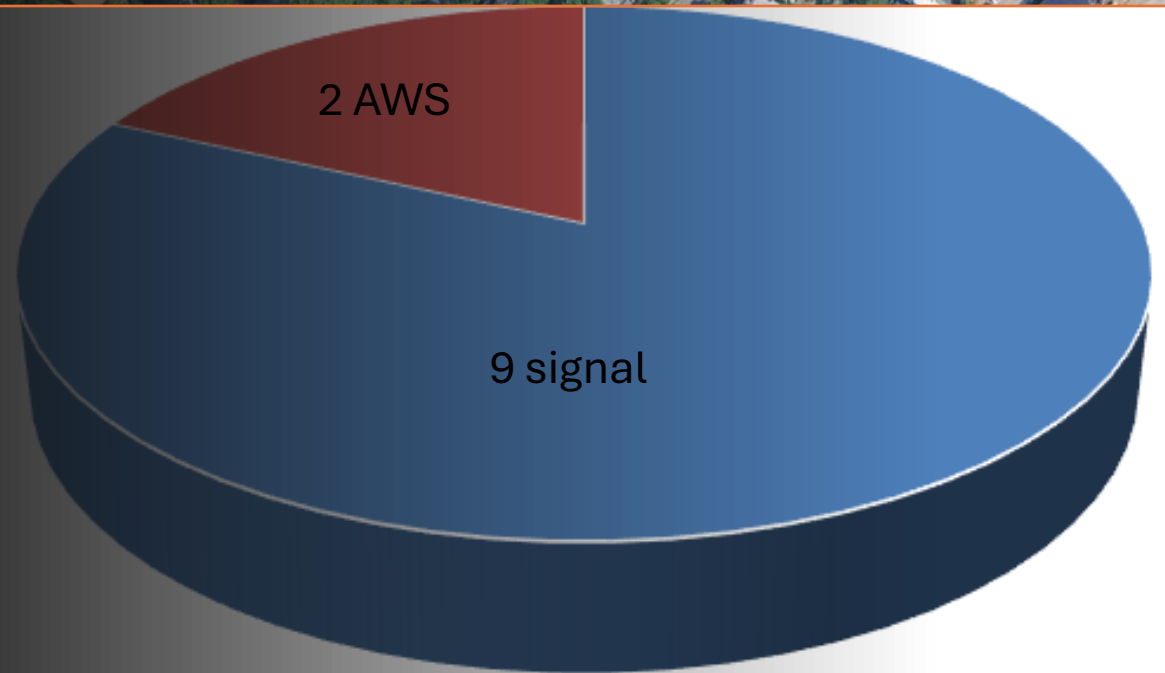
Unwarranted traffic signal.

Removed the signal and replaced with all-way stop.



2yrs of crash data before
2yrs of crash data after

August 2023 implementation



Lead Pedestrian Intervals

220 intersections citywide operate with an LPI

Summary

- Separate high volume high speed turn phases from the conflicting crosswalk
- Modify phasing to reduce ped delay
- Convert unwarranted and isolated signals to AWS
- Lead pedestrian intervals

Coming soon

- Frankford & Delaware
- Broad & Callowhill
- Girard & Belmont
- Germantown & Phil Ellena
- 75th & Lansdowne
- Christopher Columbus & Reed
- State & Magee
- 84th & Crane
- 54th & Upland
- 54th & Oxford
- 46th Baltimore & Cedar
- Frankford & Tolbut
- Broad – Chestnut to Spruce
- Martins Mill & Oakley
- Grays Ferry & Paschall
- Darien & Pattison
- 23rd & Walnut