



Washington Blvd Safety Audit

Department of Environmental Services
Transportation Engineering & Operations
N Vernon St to N Wayne St

Audit: July 2023



Safety Audit Background

- Safety audits are conducted on High-Injury Network corridors.
 - Arlington's [High-Injury Network](#) identifies streets that have a relatively high number of serious injury and fatal crashes.
 - The Vision Zero approach is focused on reducing our most severe crashes first and foremost, and the HIN allows us to focus analysis and resources on these corridors.
- The purpose of the safety audits is to review crash/operational data and visit each High Injury Network corridor to identify:
 - Quick action projects that we can implement in the short term to improve safety (signs, markings, bollards, small-scale construction, other maintenance, etc.),
 - Existing/upcoming projects occurring on the corridor and how they will help address safety, and
 - Other longer-term opportunities or needs to enhance safety for consideration for future capital projects or plans.
- [View the High-Injury Network Corridor Safety Audits page](#) for more information about the audit process and follow up.

HIN safety audits are not intended to fix *all* safety needs *immediately*.

The purpose is to identify (1) safety needs that we can address quickly and (2) safety needs that we can begin to plan for on a larger-scale.

Safety Audit Contents

- Study Area
- Traffic Volumes & Speed Limits
- Land Use/Facilities
- Vehicle Travel Lanes & Curb Space
- Transit Stops
- Bike Routes
- Crossing Infrastructure
- Crash History
- Community Input
- Recent & Upcoming Developments
- Field Findings & Next Steps

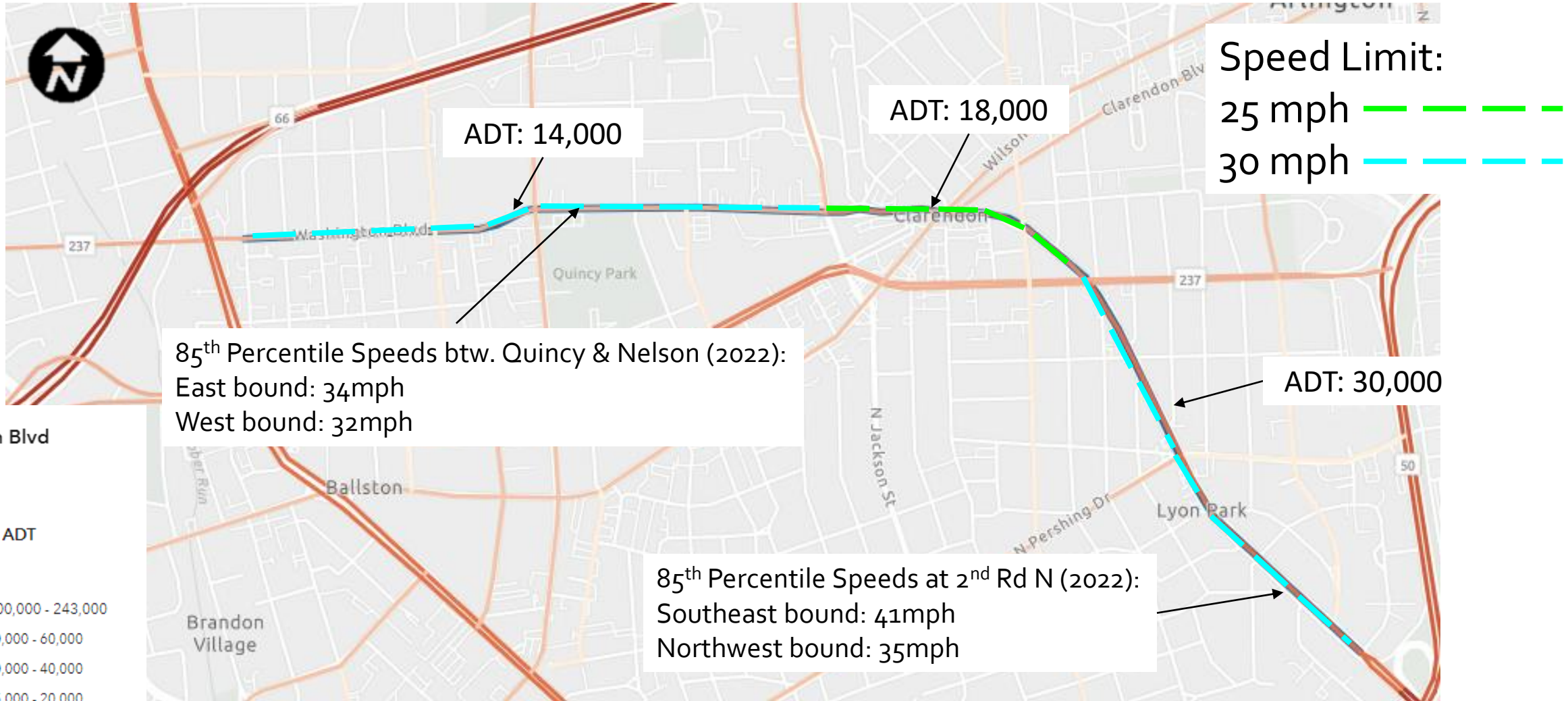


Safety Audit Study Area

**Study Limits: Washington Blvd;
from N Vernon St to N Wayne St**



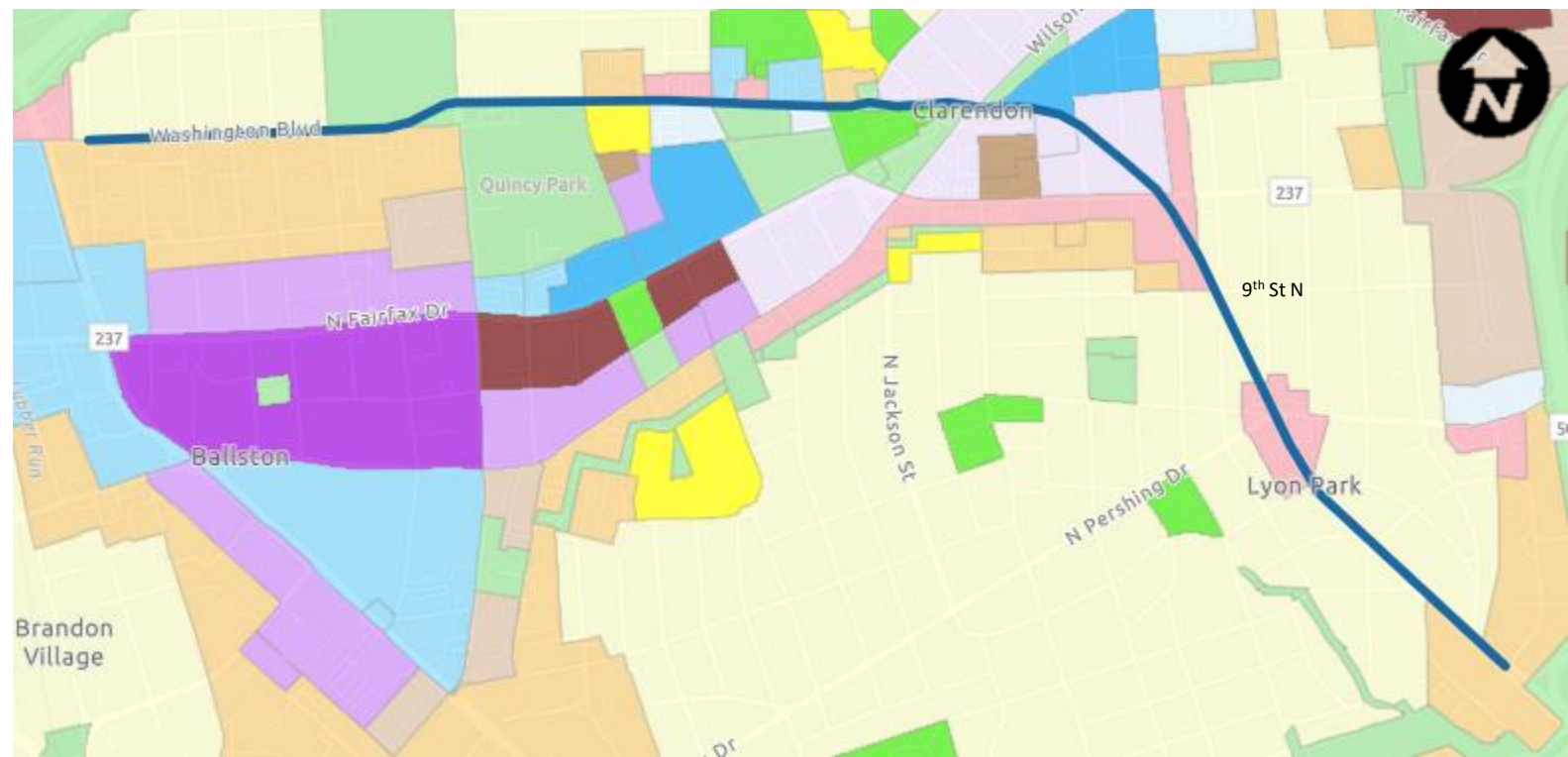
Average Daily Traffic Volume & Speed Limits



This data is from the VDOT website, we have requested counts along the corridors and at the intersections to help us further assess options for the corridor.

Land Use & Facilities

- West of Clarendon Circle:
 - Low-residential to low-medium residential use
 - Quincy Park (high-volume recreation)
 - Washington-Liberty High School
 - N Nelson St to Clarendon Circle is mostly mixed-use: residential, commercial, office, hotel, and public areas. Medium density.
- East of Clarendon Circle:
 - From Clarendon Circle to 9th St N there's mixed-use, service commercial, and high office-apartment-hotel land use
 - After 9th St N it's mostly residential (low- to low-medium residential)
 - 7th St N/N Pershing Dr is surrounded by restaurants, small grocery markets, gas stations, spas, and other commercial stores



Vehicle Travel Lanes & Curb Space (west of Clarendon Blvd)



4 Thru Lanes;
No Curb Use

4 Thru Lanes;
(Left Turn Lane at N Quincy St)
Parking on the Northside Only

4 Thru Lanes;
Parking on
the
Southside
Only

4 Thru Lanes;
(Left Turn Lane
at N Quincy St);
No Curb Use

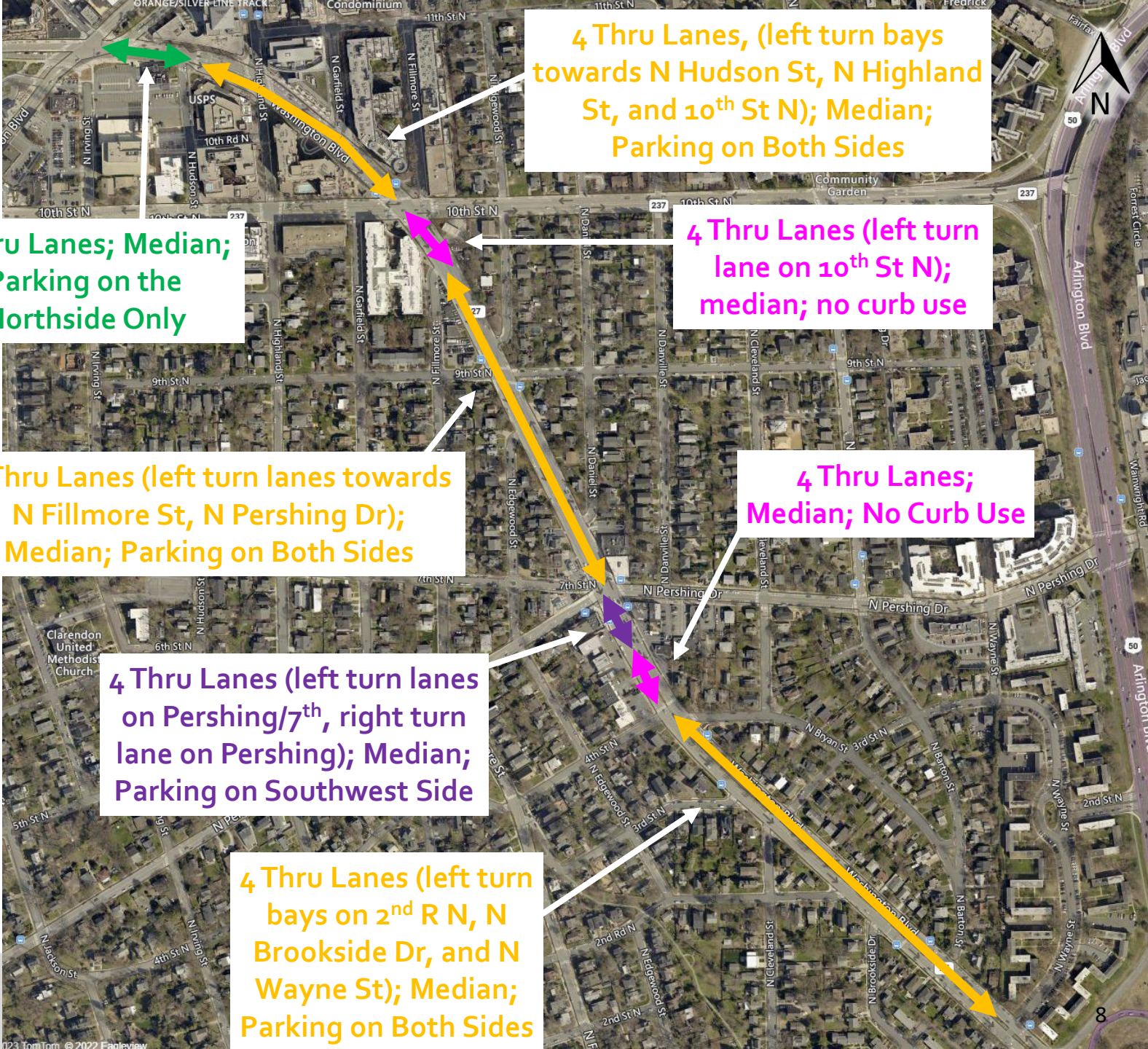
4 Thru Lanes;
No Curb Use

4 Thru Lanes;
Loading Zone/
Parking on the
Northside

Ongoing
construction

4 Thru Lanes
(Left Turn Lane at
Clarendon Blvd);
Median; No Curb Use

Vehicle Travel Lanes & Curb Space (east of Clarendon Blvd)



4 Thru Lanes, (left turn bays towards N Hudson St, N Highland St, and 10th St N); Median; Parking on Both Sides

4 Thru Lanes; Median; Parking on the Northside Only

4 Thru Lanes (left turn lane on 10th St N); median; no curb use

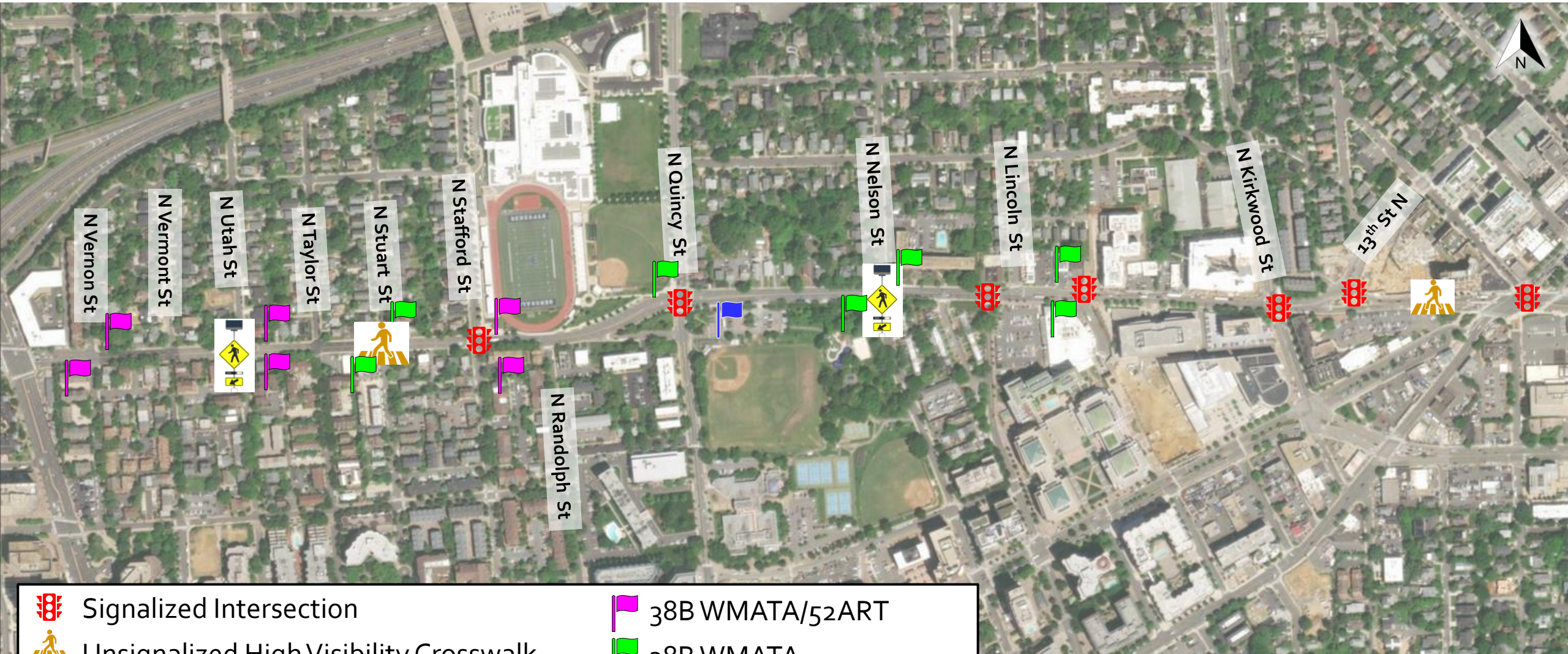
4 Thru Lanes (left turn lanes towards N Fillmore St, N Pershing Dr); Median; Parking on Both Sides







4 Thru Lanes; Median; No Curb Use

4 Thru Lanes (left turn lanes on Pershing/7th, right turn lane on Pershing); Median; Parking on Southwest Side






4 Thru Lanes (left turn bays on 2nd R N, N Brookside Dr, and N Wayne St); Median; Parking on Both Sides

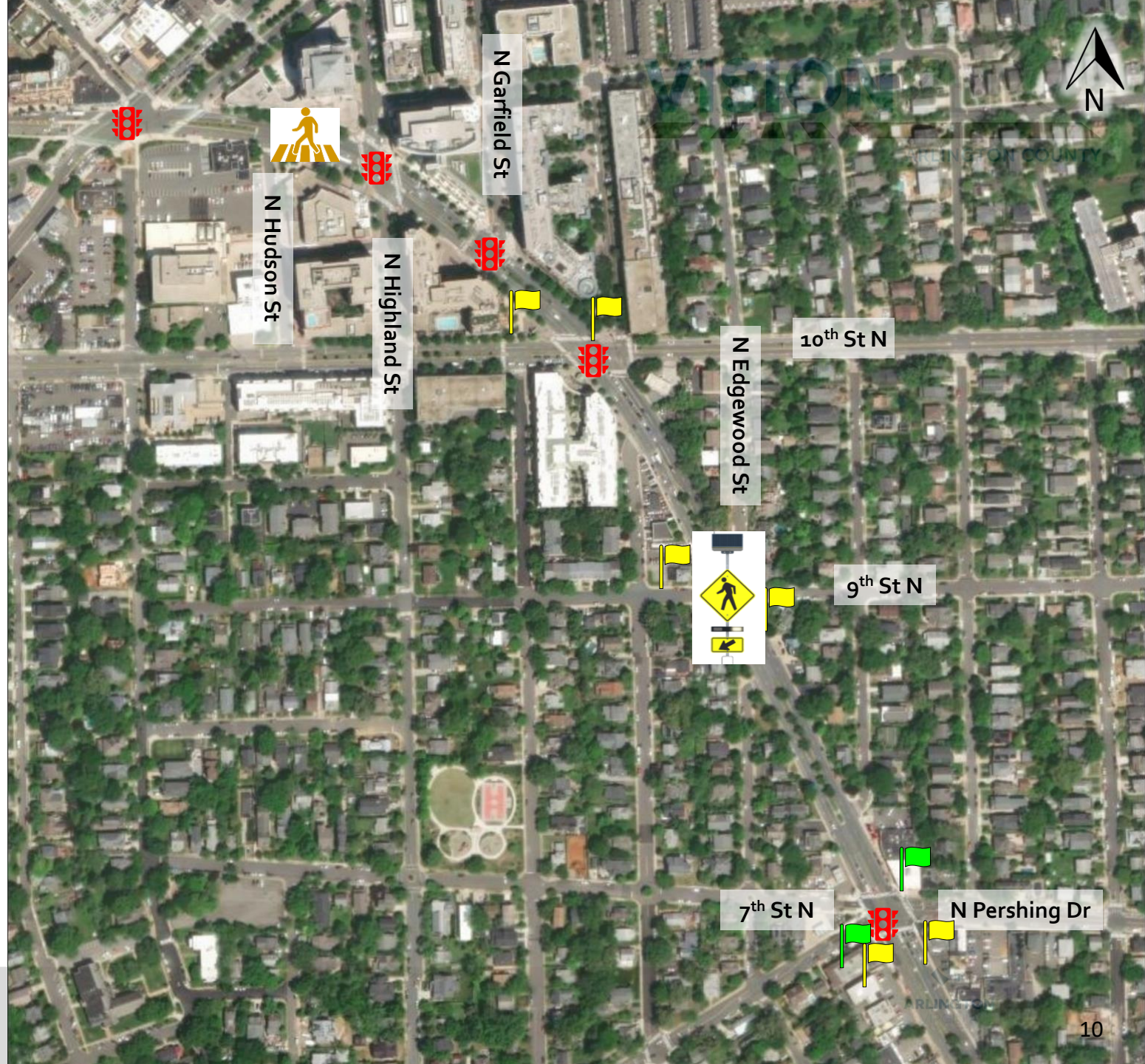
Transit (west of Clarendon Blvd)



-  Signalized Intersection
-  Unsignalized High Visibility Crosswalk
-  Rectangular Rapid-Flashing Beacon (RRFB)
-  38B WMATA/52ART
-  38B WMATA
-  38B WMATA/53B & 62ART







Transit (east of Clarendon Blvd) From Clarendon Circle to 7th St N/N Pershing Dr

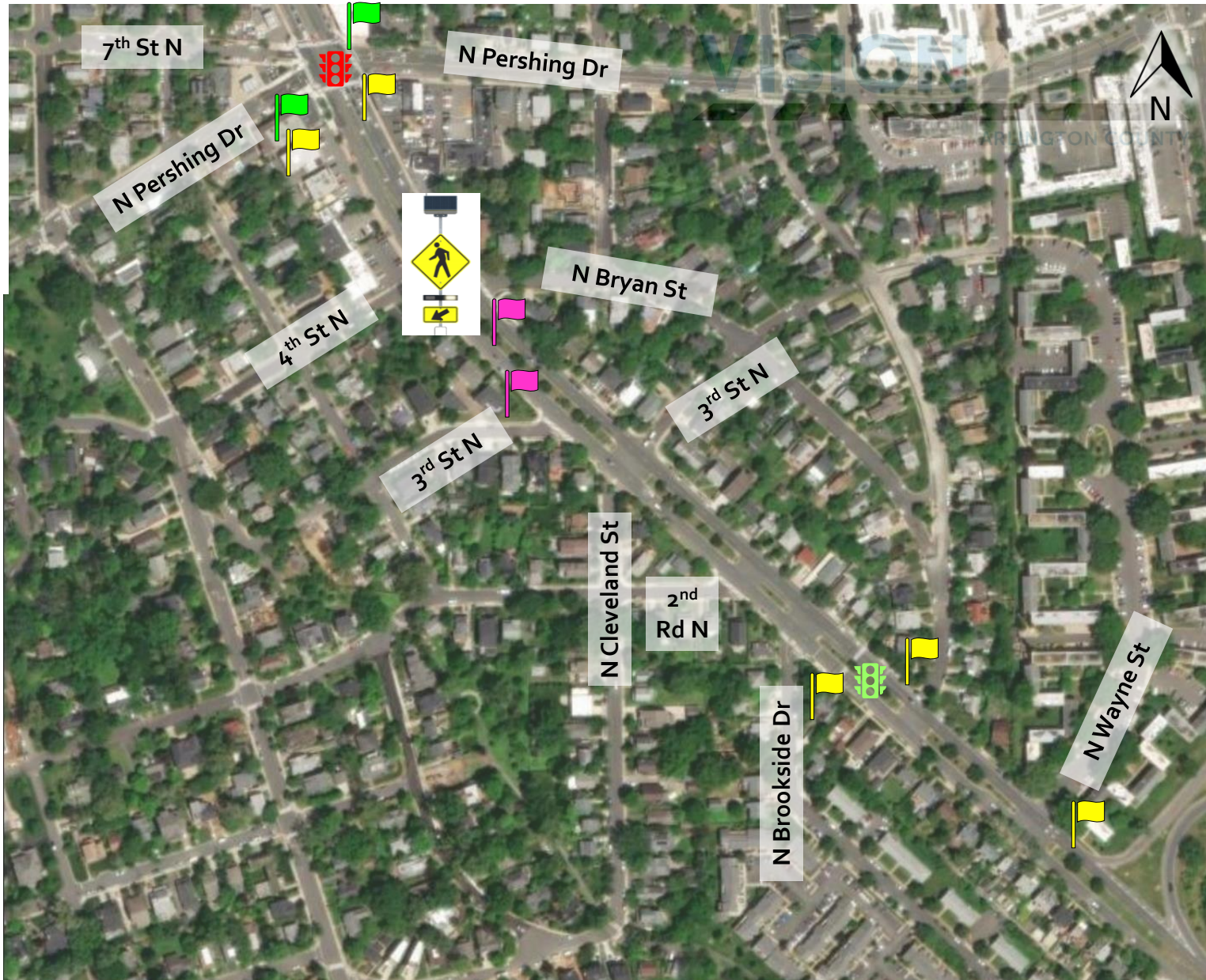
-  Signalized Intersection
-  Rectangular Rapid-Flashing Beacon (RRFB)
-  Unsignalized High Visibility Crosswalk
-  ART 42 & 77
-  WMATA 4B



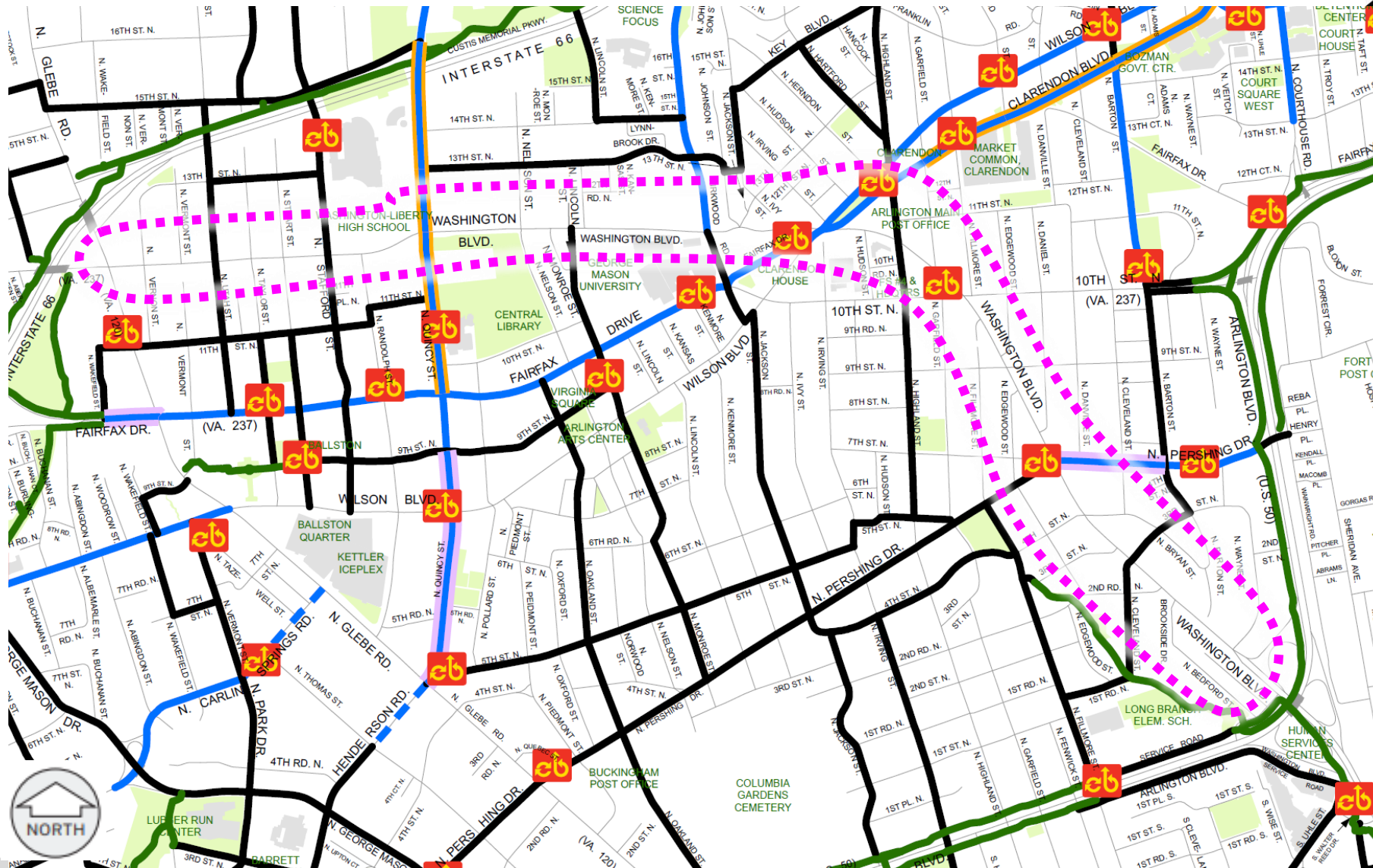
Transit (east of Clarendon Blvd)

From 7th St N/N Pershing Dr to N Wayne St










-  Signalized Intersection
-  Rectangular Rapid-Flashing Beacon (RRFB)
-  Signalized Pedestrian Crossing
-  ART 42 & 77
-  WMATA 4B
-  WMATA 16Y/ART 42, 45, 77



Existing Bike Routes and Infrastructure

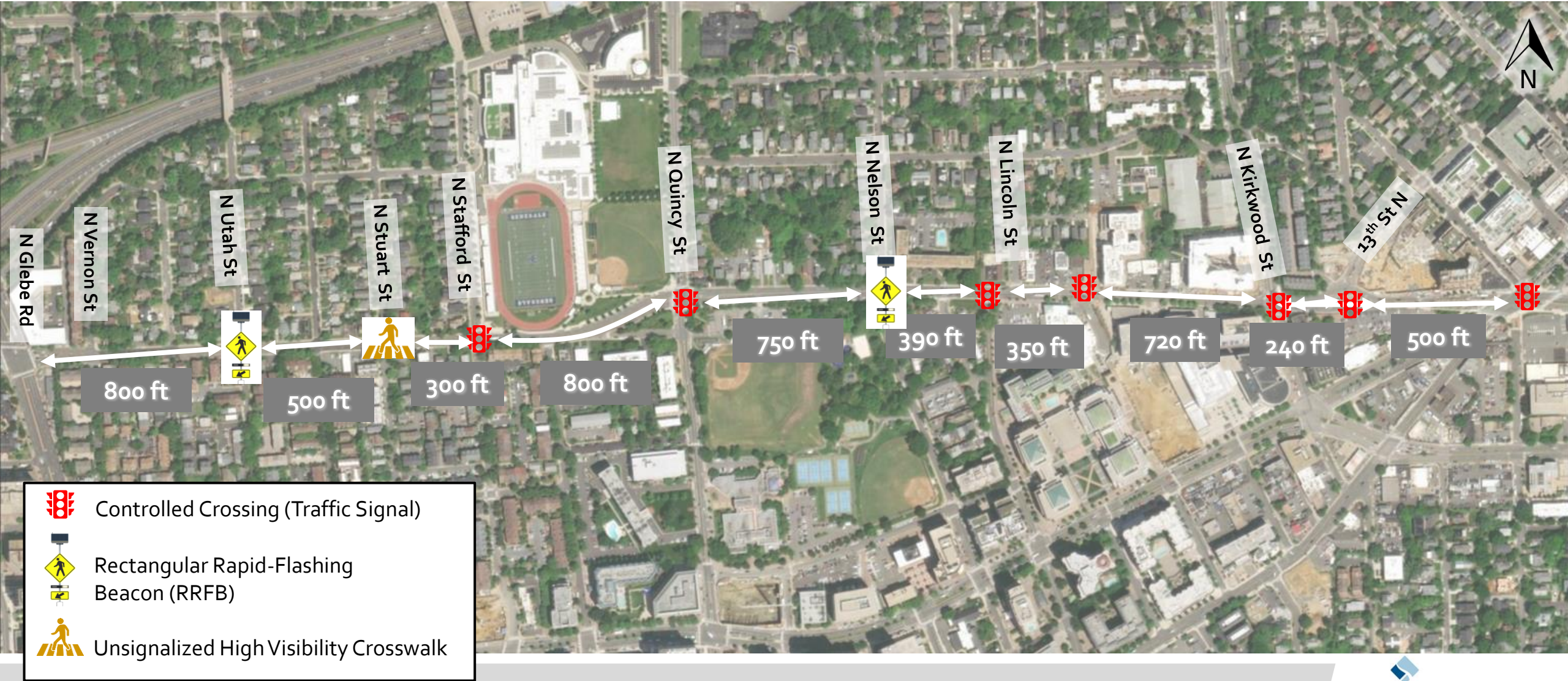


Legend

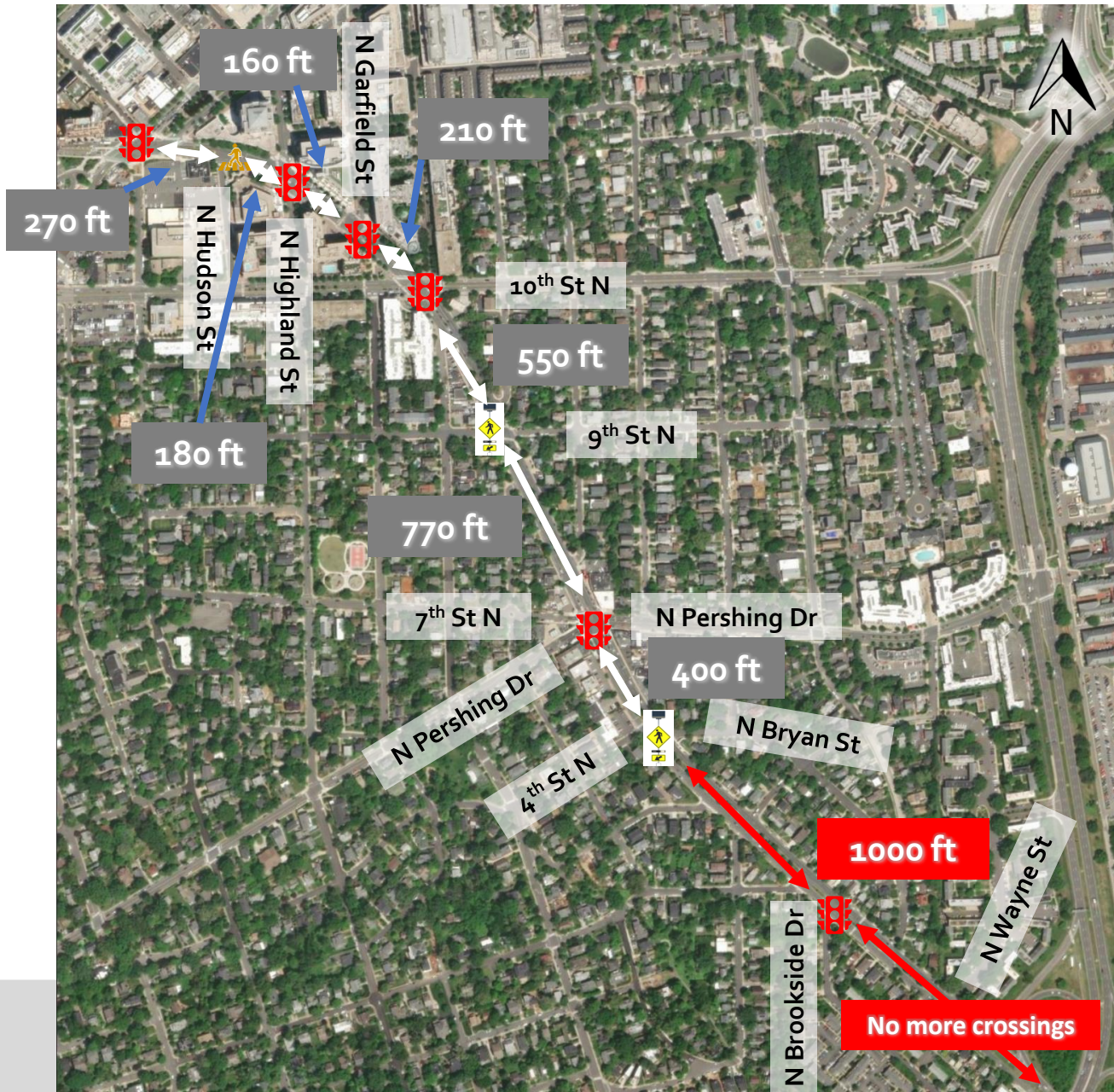
-  Capital Bikeshare Station
-  Bicycle Lane
-  Sharrow
-  Recommended Route
-  Off Street Trail
-  Protected Bike Lane
-  Buffered Bike Lane
-  Building
-  Public Park






Pedestrian/Bike Crossing Infrastructure (west of Clarendon Blvd)



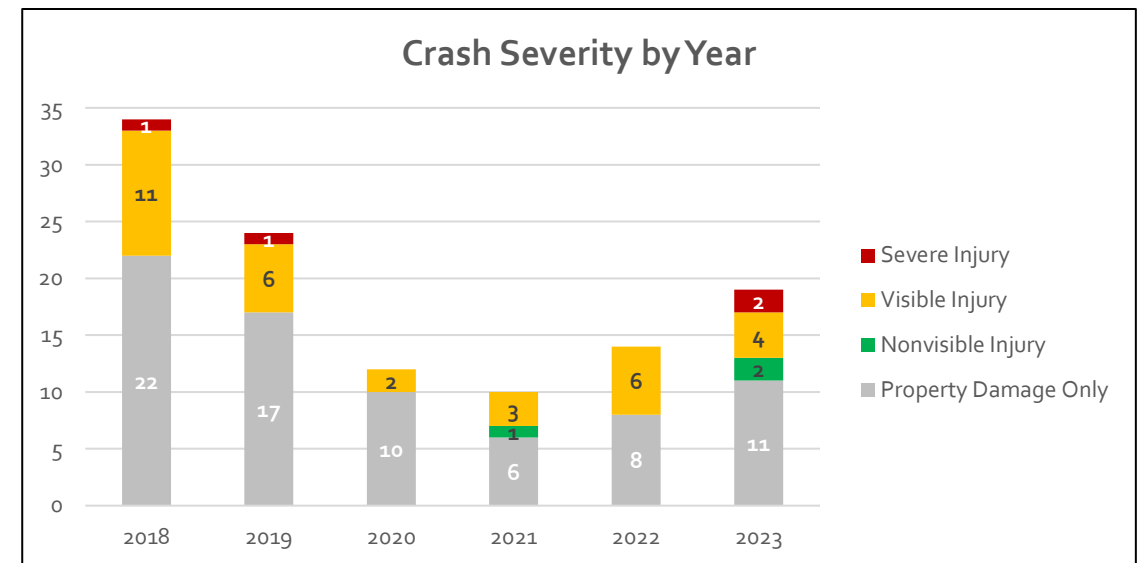
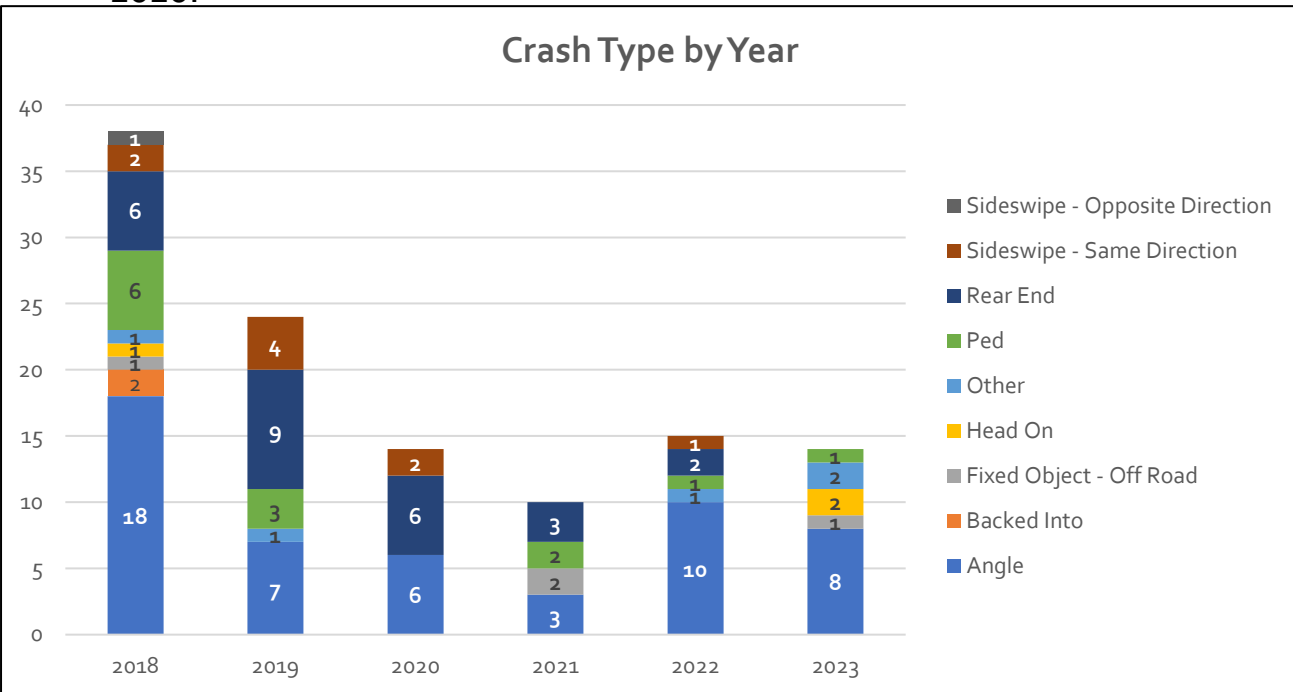
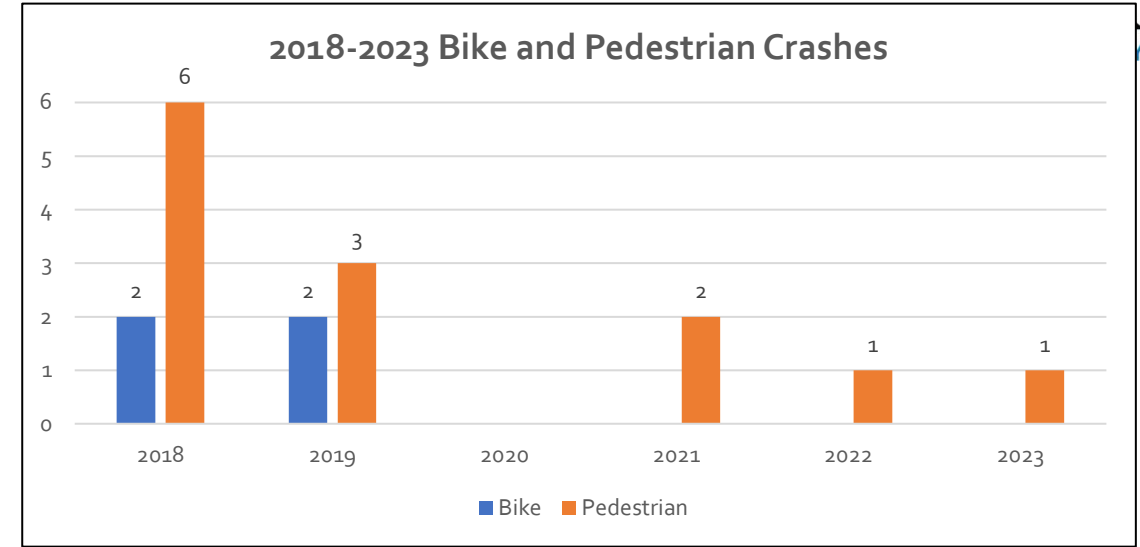
Pedestrian/Bike Crossing Infrastructure (east of Clarendon Blvd)



	Controlled Crossing (Traffic Signal)
	Rectangular Rapid-Flashing Beacon (RRFB)
	Unsignalized High Visibility Crosswalk

Crash History 2018-2023 – Trends west of Clarendon Blvd

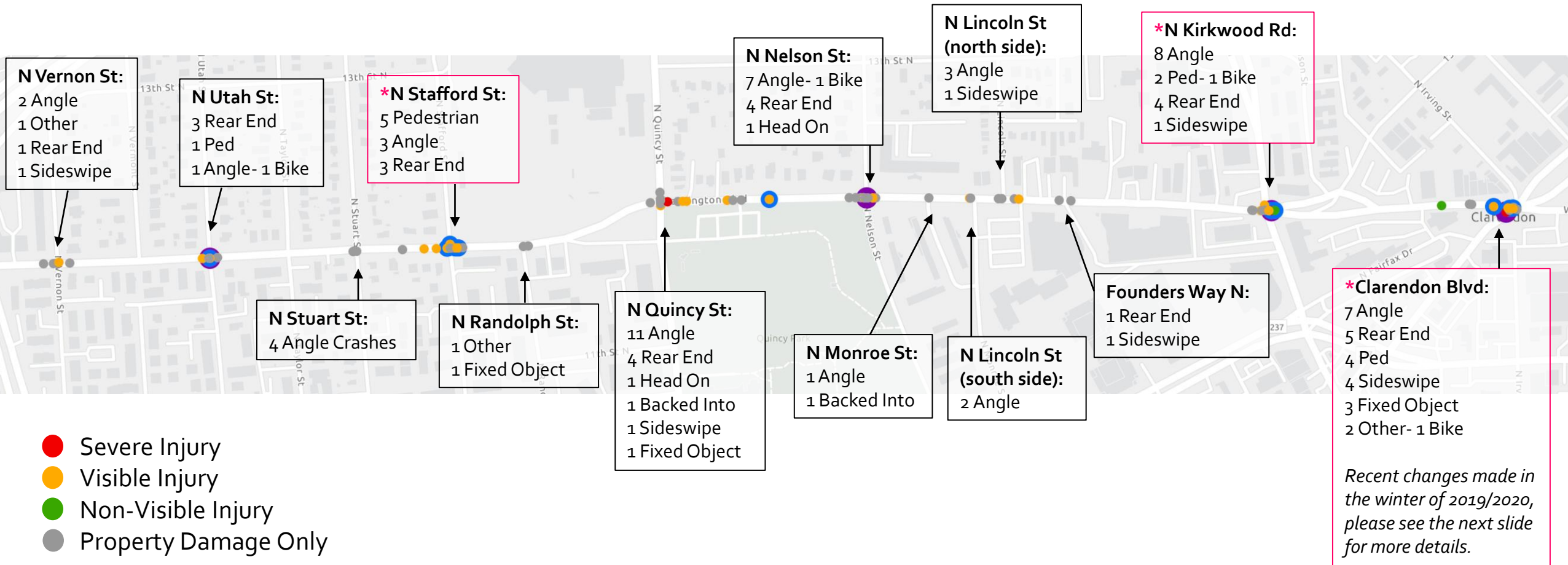
- The total number of crashes decreased in 2020, potentially affected by lower traffic volume due to COVID-19 pandemic.
- Bike and pedestrian crashes have decreased since 2018. There have been zero bike crashes since 2020.
- Angle crashes have decreased since 2018.
- There were fewer rear-end crashes from 2021-2023 compared to 2018-2020.



Note: January 2018 – June 2023 crash data is included in the study.

Crash History 2018-2023

Locations West of Clarendon Blvd



Any crash type patterns are called out in the text boxes where present

*Previously Identified Vision Zero [Crash Hot Spot](#)

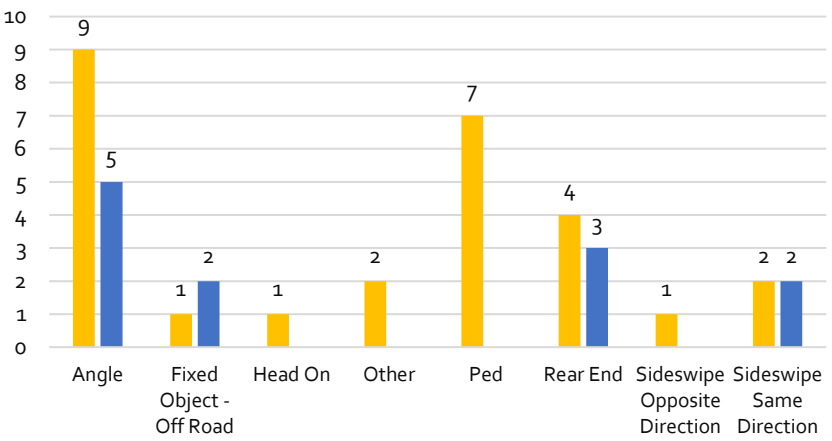
Recent changes made in the winter of 2019/2020, please see the next slide for more details.

Note: January 2018 – June 2023 crash data is included in the study.

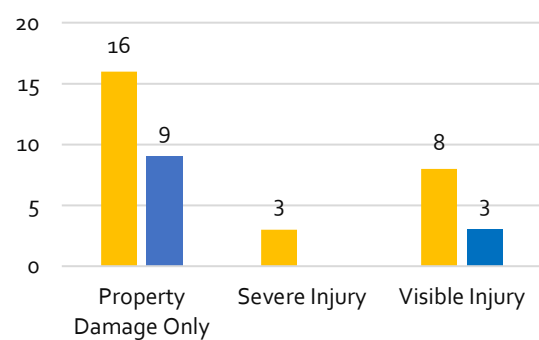
Collisions Before and After: Clarendon Circle

Intersection improvements at [Clarendon Circle](#) were completed in March 2020 as part of the [Clarendon Sector Plan](#) and the [Clarendon Multimodal Transportation Study](#). Improvements include road realignments to reduce intersection size and shorten pedestrian crossing distances, upgrading traffic signals and lighting, closing N Irving St, and adding new curb extensions and bike lanes. **The average number of collisions per year decreased from 4.5 in 2014-2020 (before the project) to 4 in 2020-2022 (after the project).**

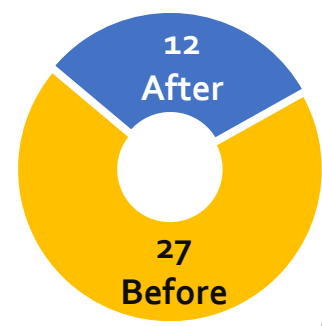
Collision Type



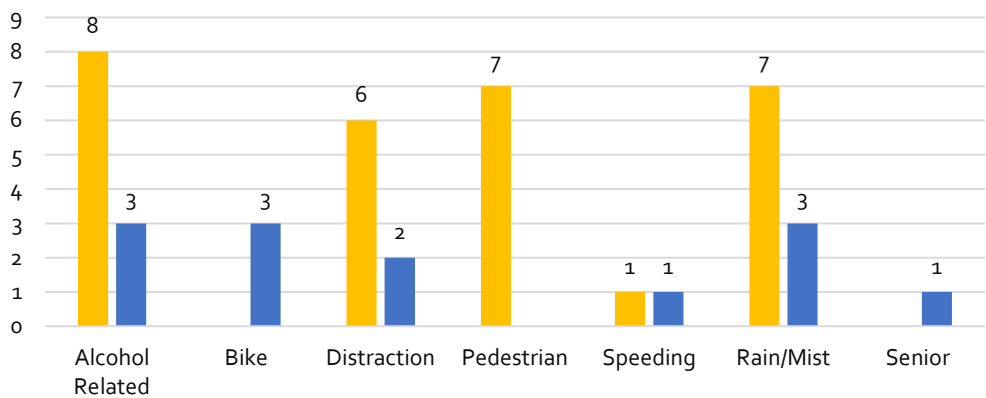
Collision Severity



Total Collisions



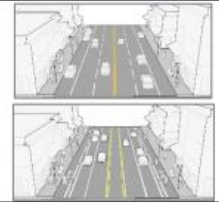
Collision Characteristics



■ Before (2014 - March 2020) ■ After (April 2020 - 2022)

Tools Implemented

Roadway Reconfigurations



Reduce the speed of traffic, crossing distances, and/or provide additional space for other uses of the roadway.

Traffic Signals



Controls pedestrian, bicyclist, and vehicle flow at intersections.

Conventional Bike Lanes



Provide dedicated, on-road space for bicycling.

Lighting

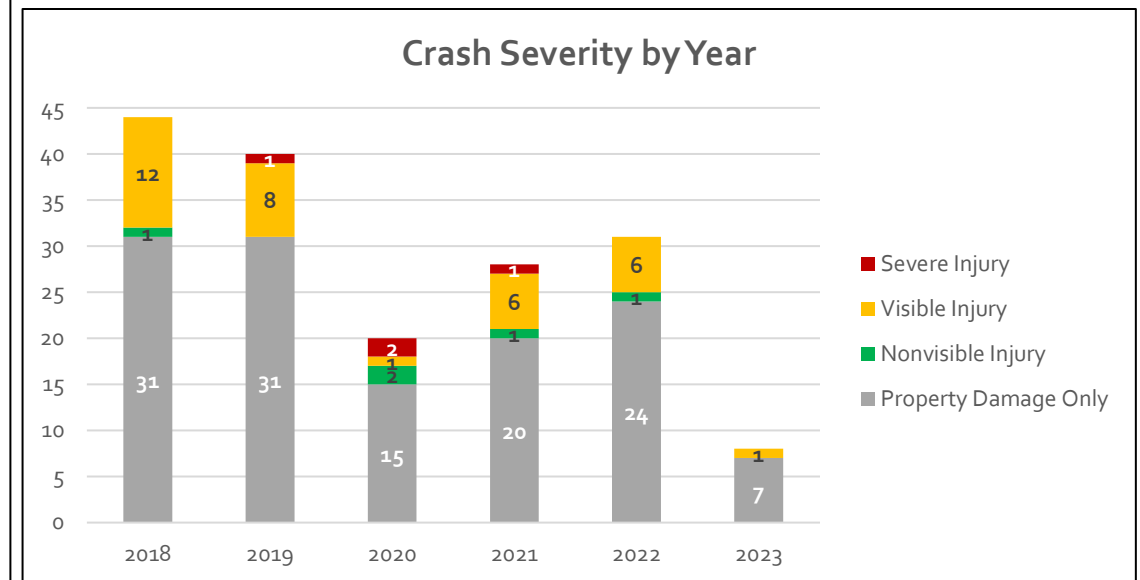
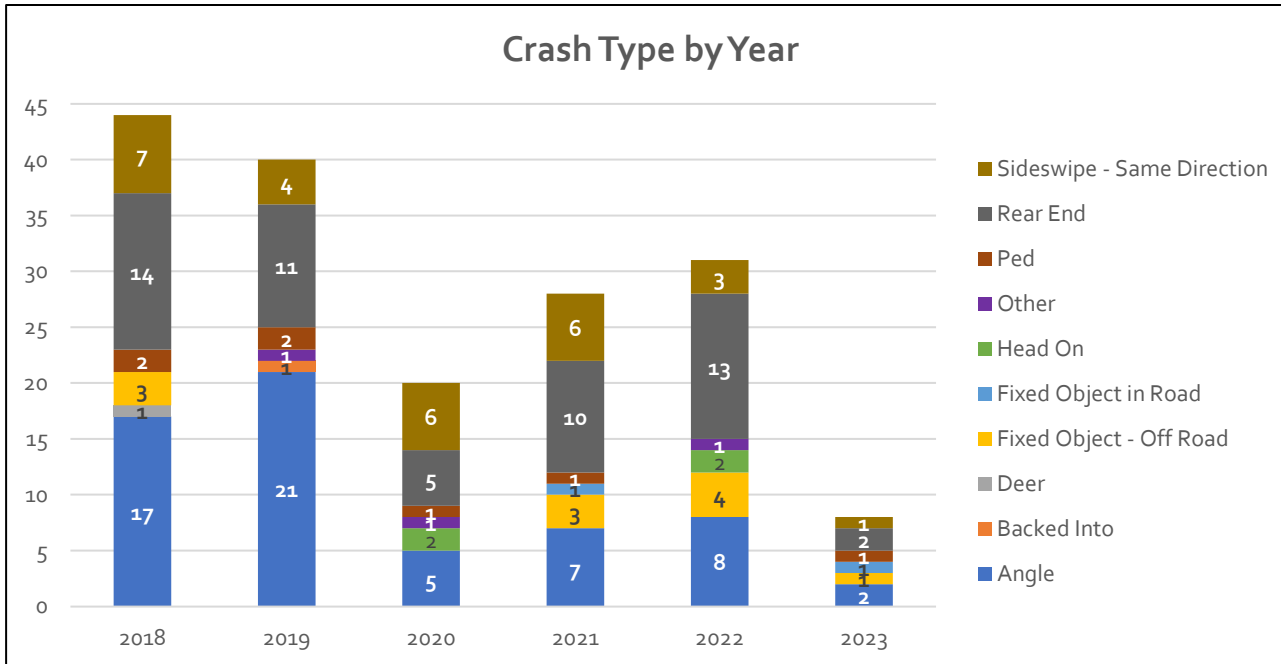
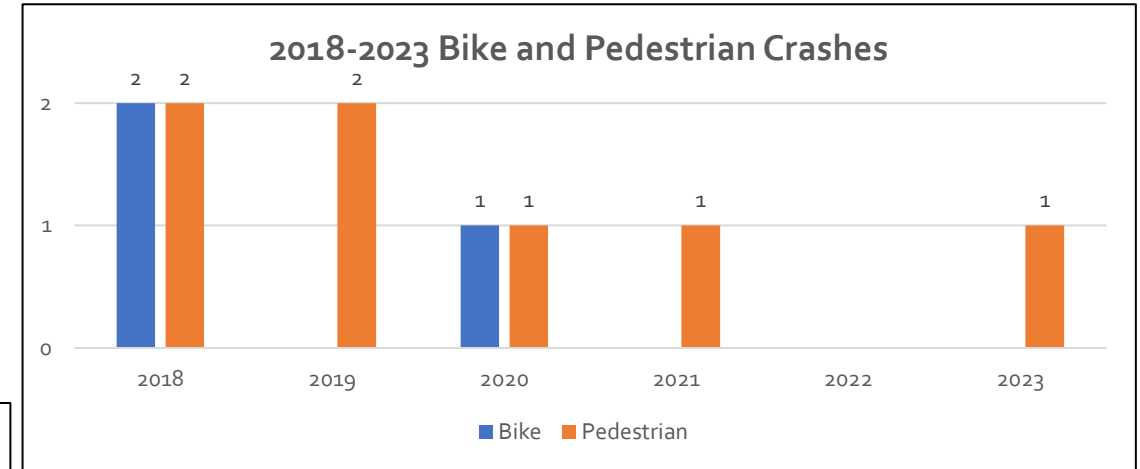


Increase visibility for all road users, especially at crossings.



Crash History 2018-2023 – Trends east of Clarendon Blvd

- Crashes decreased in 2020, probably due to the COVID-19 pandemic, and have slightly increased again in 2021 and 2022. However, they are still lower than pre-pandemic crash levels.
- Rear End crashes and Angle crashes consistently had the highest number of crashes throughout the years.
- There were zero bike and pedestrian crashes in 2022 along the east side of the Washington Blvd HIN.
- The bike crash that occurred in 2020 was a severe injury crash.



Note: January 2018 – June 2023 crash data is included in the study.

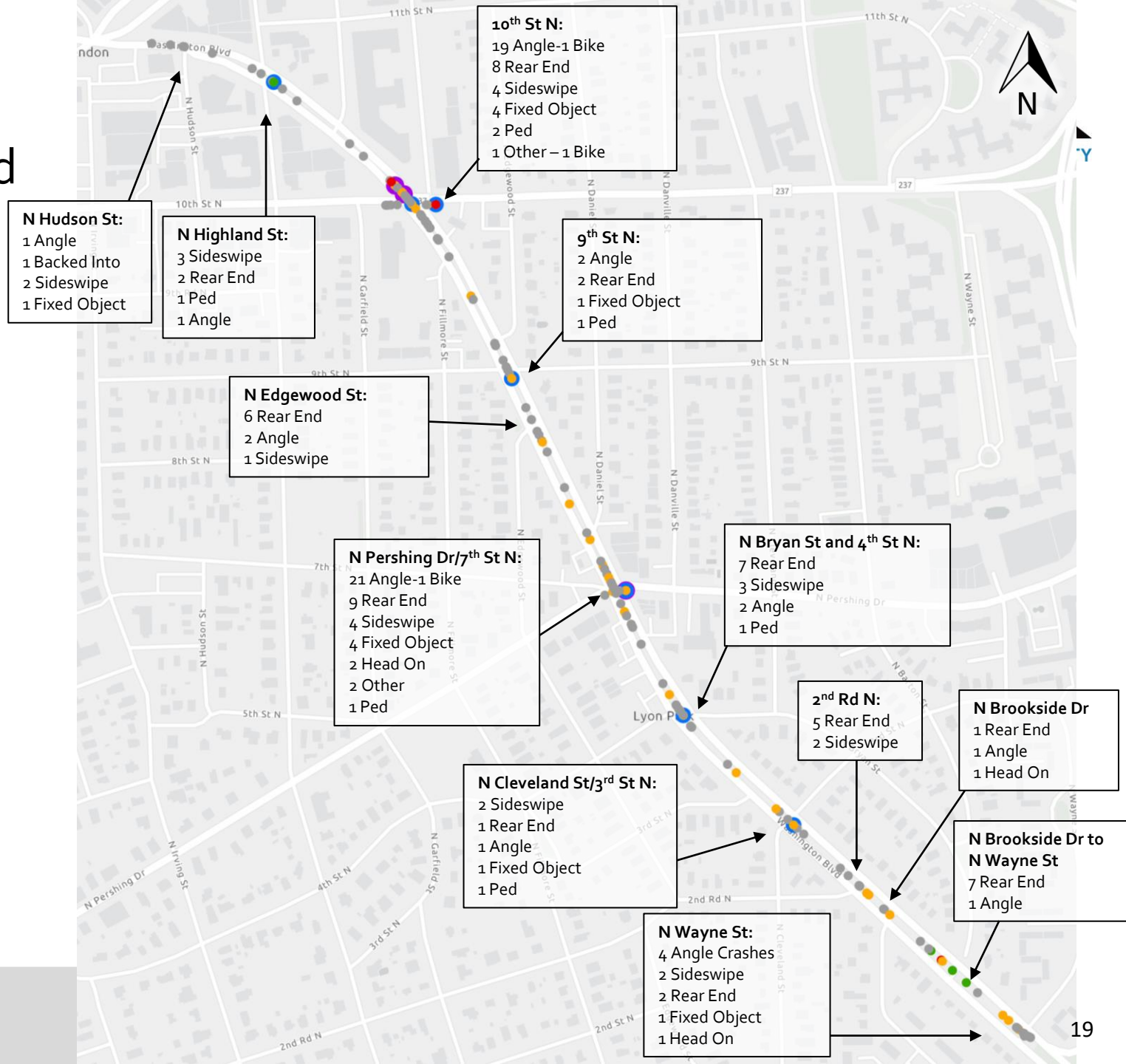
Crash History 2018-2023

Locations east of Clarendon Blvd

- Severe Injury
- Visible Injury
- Non-Visible Injury
- Property Damage Only

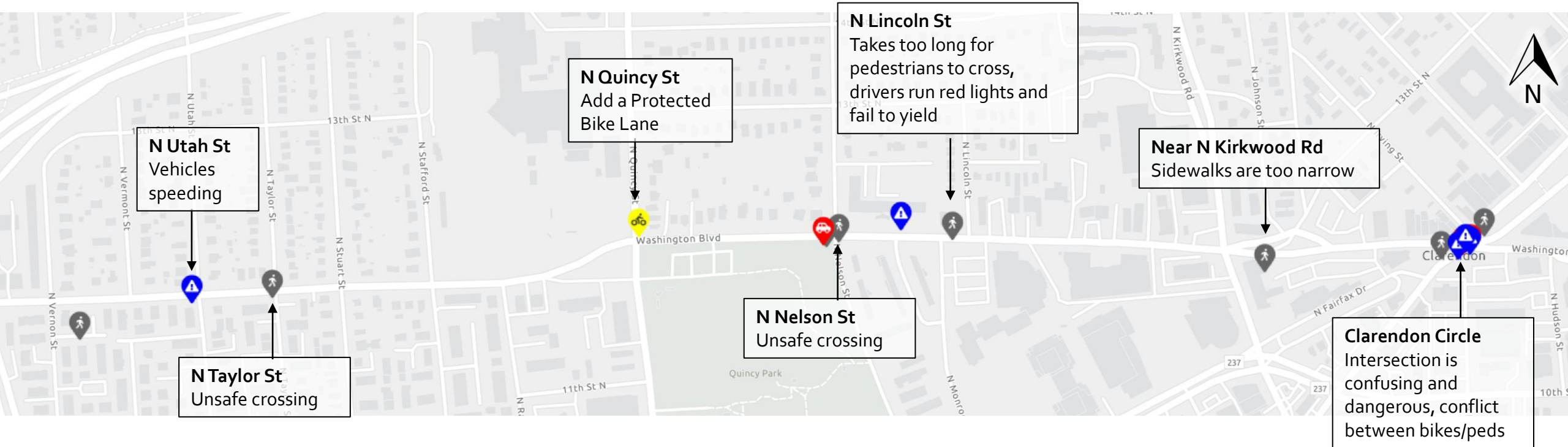
- Bike (halo)
- Pedestrian (halo)

Any crash type patterns are called out in the text boxes where present



Note: January 2018 – June 2023 crash data is included in the study.

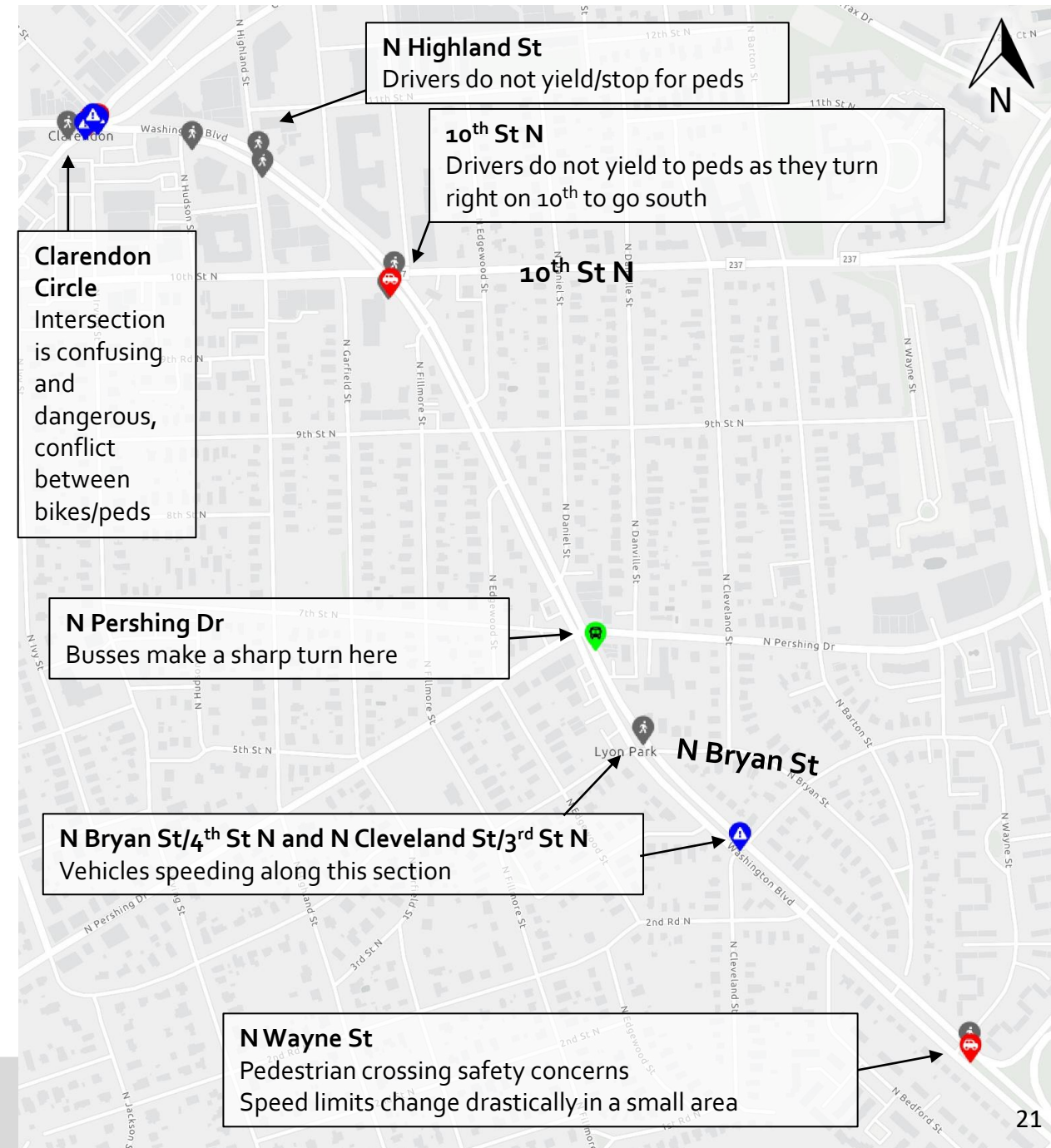
Community Input on Corridor (west of Clarendon Blvd)



- Location-specific community feedback was collected in spring 2023 using an online clickable map
- The common recurring comments on the corridor pertained to:
 - Unsafe crossing for pedestrians

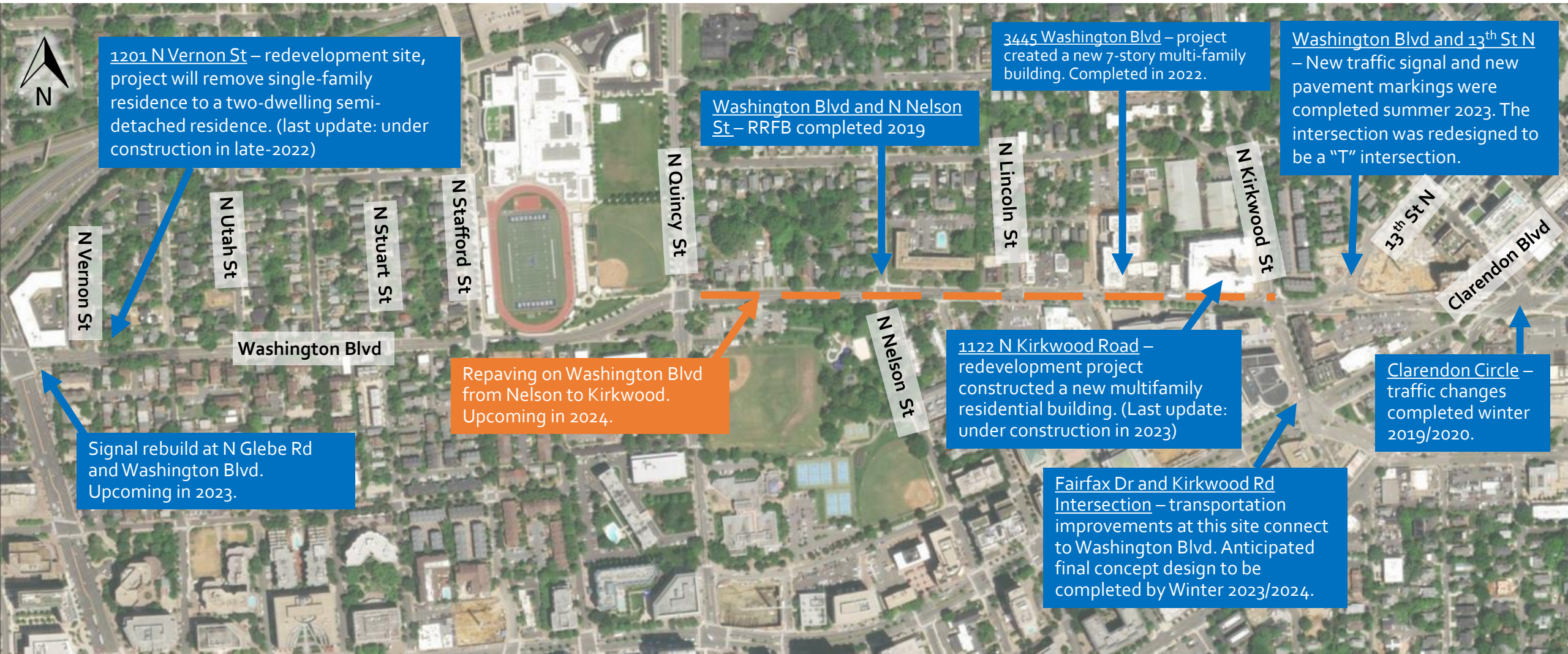
Community Input on Corridor (east of Clarendon Circle)

- Location-specific community feedback was collected in spring 2023 using an online clickable map
- The common recurring comments on the corridor pertained to:
 - Vehicles do not stop/yield to pedestrians
 - Speeding along Washington Blvd



Washington Blvd (west of Clarendon Blvd)

Recent and Upcoming Projects or Developments



1201 N Vernon St – redevelopment site, project will remove single-family residence to a two-dwelling semi-detached residence. (last update: under construction in late-2022)

Washington Blvd and N Nelson St – RRFB completed 2019

3445 Washington Blvd – project created a new 7-story multi-family building. Completed in 2022.

Washington Blvd and 13th St N – New traffic signal and new pavement markings were completed summer 2023. The intersection was redesigned to be a “T” intersection.

N Vernon St

N Utah St

N Stuart St

N Stafford St

N Quincy St

N Lincoln St

N Kirkwood St

13th St N

Clarendon Blvd

Washington Blvd

Repaving on Washington Blvd from Nelson to Kirkwood. Upcoming in 2024.

N Nelson St

1122 N Kirkwood Road – redevelopment project constructed a new multifamily residential building. (Last update: under construction in 2023)

Clarendon Circle – traffic changes completed winter 2019/2020.

Signal rebuild at N Glebe Rd and Washington Blvd. Upcoming in 2023.

Fairfax Dr and Kirkwood Rd Intersection – transportation improvements at this site connect to Washington Blvd. Anticipated final concept design to be completed by Winter 2023/2024.

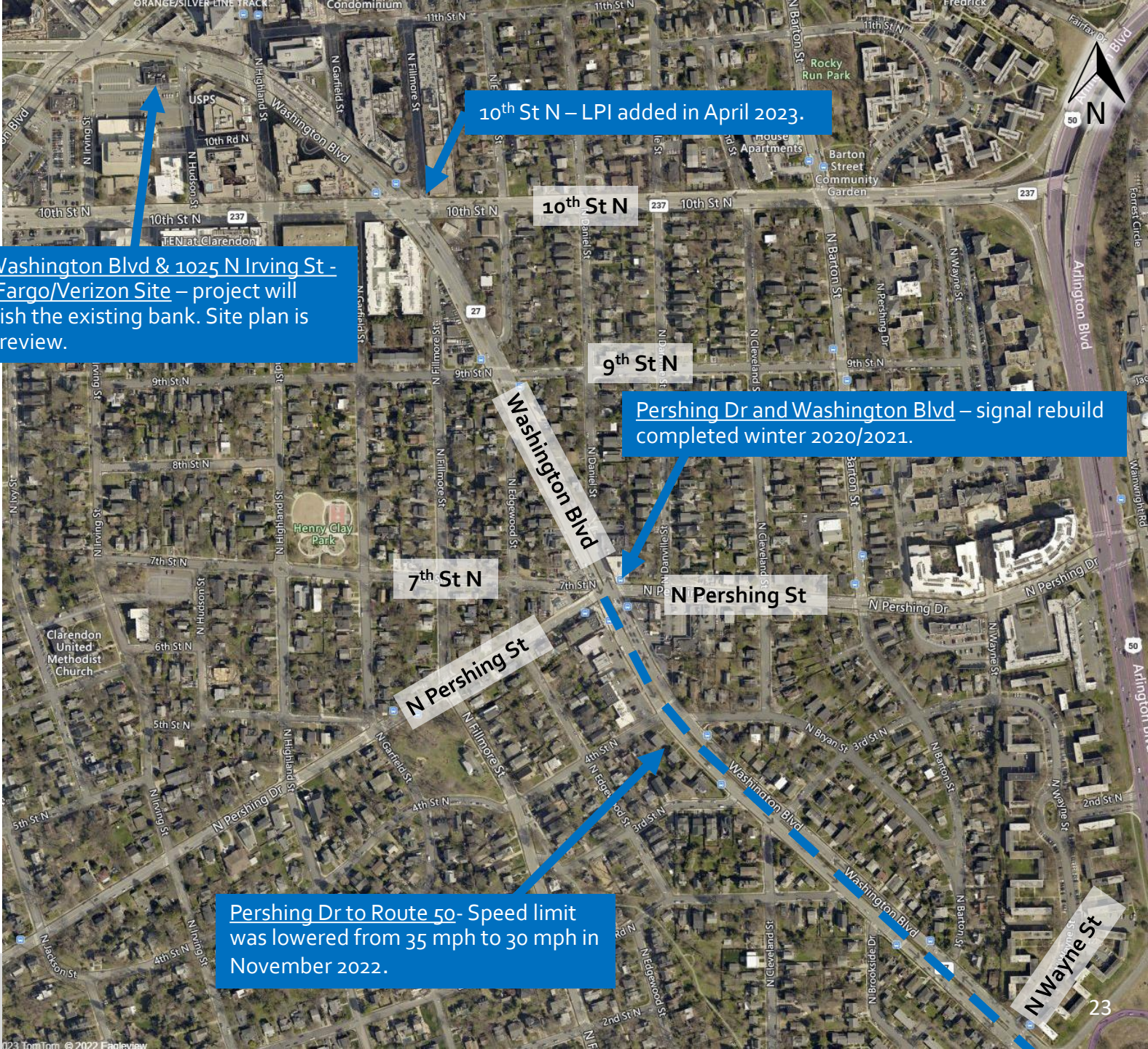
Washington Blvd (east of Clarendon Blvd) Recent & Upcoming Projects or Developments

3140 Washington Blvd & 1025 N Irving St - Wells Fargo/Verizon Site – project will demolish the existing bank. Site plan is under review.

10th St N – LPI added in April 2023.

Pershing Dr and Washington Blvd – signal rebuild completed winter 2020/2021.

Pershing Dr to Route 50 - Speed limit was lowered from 35 mph to 30 mph in November 2022.



Field Findings

The following slides include maps starting from the west end of the corridor working east. The maps identify key findings and next steps from the safety audit.



Each pinpoint lists the key safety need that was identified during the safety audit and the next step for action with a general timeline.



Outdated ramps are pinpointed as a reference for future opportunities to update sidewalk infrastructure (e.g. repaving/maintenance/etc.).



In 2023, Virginia adopted a new law where drivers must stop (not just yield) for pedestrians in a crosswalk. Outdated signs are pinpointed to ensure that updates will reflect the new law.

Each “next step” takes into consideration the background information shown in previous slides (crash history, corridor characteristics, and community input). Next steps are summarized at the end of this document.

Field Observations: Key Findings & Next Steps From N Vernon St to N Quincy St



Finding: Bus stops are not ADA compliant.
Next Step: Consider upgrades to improve accessibility; this corridor is assessed in the [Bus Stop Accessibility Improvements program](#). (Mid-Long term).

Finding: Sidewalk damage caused by tree roots.
Next Step: Address tree root pavement issues. (Short term)

Finding: Based on Arlington's new [School Zone Guidelines](#), this segment qualifies as a school zone but is not marked.
Next Step: Identify beacon locations and install school zone signage. (Short term)

Finding: Missing high visibility crosswalk markings over side streets.
Next Step: Install high visibility markings. (Short term)

Ongoing: Evaluate speed limit as part of ongoing investigation of all roads 30mph or higher on Arlington (Short term).

Finding: Uncontrolled, multi-lane, marked crosswalks at N Stuart St.
Next Step: Assess for [Rectangular Rapid Flashing Beacons \(RRFBs\)](#) or other upgrades as part of a systemwide crossing improvement analysis (Mid-term).

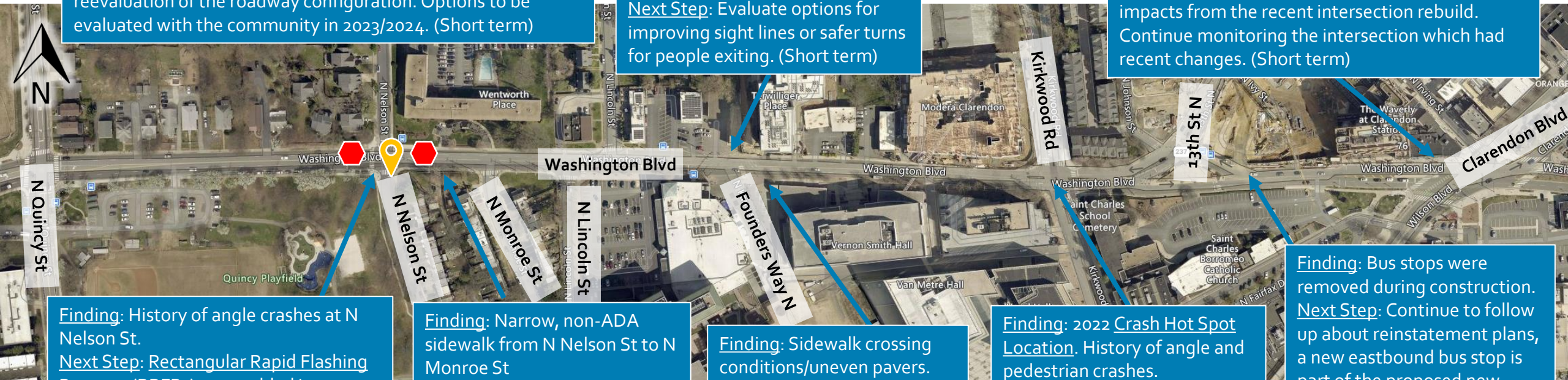
Finding: 2022 [Crash Hot Spot Location](#). History of pedestrian crashes.
Next Step: [Leading Pedestrian Interval \(LPI\)](#) was installed in 2019. Reassess data to identify other potential safety improvements. (Short term).

Finding: History of angle crashes at N Quincy St.
Next Step: Conduct crash investigation to identify next steps. (Short term).

-  **Potential Safety Issue**
-  **Outdated Ramps**
-  **Stop for Peds Signage Upgrade**

Field Observations: Key Findings & Next Steps

From N Quincy St to Clarendon Circle



Ongoing: Washington Blvd from N Nelson St and Kirkwood Rd will be repaved in 2024, providing an opportunity for reevaluation of the roadway configuration. Options to be evaluated with the community in 2023/2024. (Short term)

Finding: Limited sight lines turning right at 3445 Washington Blvd.
Next Step: Evaluate options for improving sight lines or safer turns for people exiting. (Short term)

Finding: 2022 Crash Hot Spot Location. History of angle and pedestrian crashes. Community comments noted confusion/concerns navigating.
Next Step: Before/after data indicate positive impacts from the recent intersection rebuild. Continue monitoring the intersection which had recent changes. (Short term)

Finding: History of angle crashes at N Nelson St.
Next Step: Rectangular Rapid Flashing Beacons (RRFBs) were added in 2019 improving pedestrian safety. Significant decrease in angle crashes since 2021. Monitor crashes and conditions at intersection (Short term)

Finding: Narrow, non-ADA sidewalk from N Nelson St to N Monroe St
Next Step: Program funding for long-term sidewalk improvements. (Long term)

Finding: Sidewalk crossing conditions/uneven pavers.
Next Step: Evaluate and program sidewalk improvements through future projects/development. (Long term)

Finding: 2022 Crash Hot Spot Location. History of angle and pedestrian crashes.
Next Step: Signal was rebuilt in 2023 with improvements. Monitor crashes and conditions at intersection. (Short term)

Finding: Bus stops were removed during construction.
Next Step: Continue to follow up about reinstatement plans, a new eastbound bus stop is part of the proposed new development. (Short to Mid-Term)

Finding (corridor-wide): Along the corridor, vehicles stop/load in the right travel lane causing other cars to maneuver around them.
Next Step: Assess ways to encourage delivery vehicles to utilize side streets for loading purposes. (Short/mid term)

- Potential Safety Issue**
- Outdated Ramps**
- Stop for Peds Signage Upgrade**

Field Observations: Key Findings & Next Steps From Clarendon Circle to N Wayne St



Finding: Fading markings on N Highland St.
Next Step: Refresh markings at this location. (Short term)

Finding: Some sidewalk bricks are in poor condition.
Next Step: Assess options for short short term repair. (Short term)

Finding: History of angle and rear-end crashes at 10th St N.
Next Step: LPI was recently added in April 2023, and signage, marking and signal have been improved. Continue to monitor the location and investigate additional options. (Short term)

Finding: Missing high visibility crosswalk.
Next Step: Add new markings. (Short term)

Finding: Missing high visibility crosswalk.
Next Step: Add new markings. (Short term)

Finding: Missing high visibility crosswalk on side street. Curbs and median are in poor condition at RRFB crossing.
Next Step: Add new markings (Short term). Consider improvements for a potential quick build project. (Mid term)

Finding: History of angle crashes at 7th St N/Pershing.
Next Step: Signal was rebuilt in 2021. Continue to monitor the location and assess options for improving safety for pedestrians crossing. (Short term)

Finding: Missing high visibility crosswalk.
Next Step: Add new markings. (Short term)

Finding: Uncontrolled, multi-lane crossings at both 3rd St N/N Cleveland St and N Wayne St. Missing high visibility markings on side streets.
Next Step: Assess for Rectangular Rapid Flashing Beacons (RRFBs) or other upgrades as part of a systemwide crossing improvement analysis. Add high visibility markings. (Short term)

Finding: Recorded (data) and observed (community comments) vehicle speeds near 2nd Rd N.
Next Step: Conduct an after speed study to determine the impact of speed limit changes (short term)

- Potential Safety Issue
- Outdated Ramps
- Stop for Peds Signage Upgrade

Summary of Next Steps

Short Term (within 1 year)

- Evaluate the speed limit along Washington Blvd as part of an ongoing investigation of all roads 30mph or higher.
- Install high visibility markings at N Vernon St, N Vermont St, N Utah St, N Taylor St, N Edgewood St, 4th St N, 3rd St N, and N Wayne St.
- Address tree root sidewalk issues near N Taylor St, and N Randolph St.
- A segment of Washington Blvd by the Washington-Liberty High School qualifies as a school zone, and we will identify beacon locations and install school zone signage.
- N Stafford St was a 2022 Crash Hot Spot Location, and we will reassess data to identify other potential safety improvements.
- N Quincy St has a history of angle crashes, and we will conduct a crash investigation to identify next steps.
- Bus stops were removed at 13th St N due to construction. There are plans to reinstate the bus stops as part of the proposed new development (short to mid-term timeline).

Short Term (within 1 year)

- An RRFB was installed in 2019 at N Nelson St. We will monitor crashes and conditions at intersection post-RRFB installation.
- Washington Blvd from N Nelson St to Kirkwood Rd will be repaved in 2024, options will be evaluated with the community.
- Kirkwood Rd was a 2022 Crash Hot Spot Location. The signal was rebuilt in 2023 and the intersection will be monitored for crashes post-signal rebuild.
- Evaluate options for improving sight lines or safer turns for people exiting from Terwilliger Place.
- Corridor-wide: along the corridor, vehicles stop/load in the right travel lane so we will assess ways to encourage delivery vehicles to use side streets.
- Clarendon Circle was a 2022 Crash Hot Spot Location, the intersection was recently rebuilt and we will continue to monitor the intersection.

Short Term (within 1 year)

- Fading markings on N Highland St and a request will be made to repaint the markings.
- The sidewalk bricks are popping out at N Fillmore St and we will assess options for short term repair.
- 10th St N has a history of angle crashes and an LPI was added in 2023, the intersection will be monitored, and we will investigate additional options.
- History of angle crashes at 7th St N/Pershing and the signal was rebuilt in 2021, the intersection will be monitored, and we will assess options for improving safety for pedestrians crossing.
- Assess for Rectangular Rapid Flashing Beacons (RRFBs) or other upgrades as part of a systemwide crossing improvement analysis at 3rd St N and N Wayne St.
- Conduct an after speed study to determine the impact of speed limit changes near 2nd Rd N.

Summary of Next Steps

Mid Term (1 - 3 years)

- Consider improvements for a potential quick-build project at 4th St N.
- Assess for Rectangular Rapid Flashing Beacons (RRFBs) or other upgrades as part of a systemwide crossing improvement analysis at N Stuart St.
- Consider upgrades to improve accessibility; this corridor is assessed in the Bus Stop Accessibility Improvements program. (Mid-Long term).

Long Term (3+ years)

- Program funding for long-term sidewalk improvements near N Nelson St.
- Evaluate and program sidewalk improvements through future projects/development near Founders Way N.