



# **Cameron Station Blvd Complete Streets**

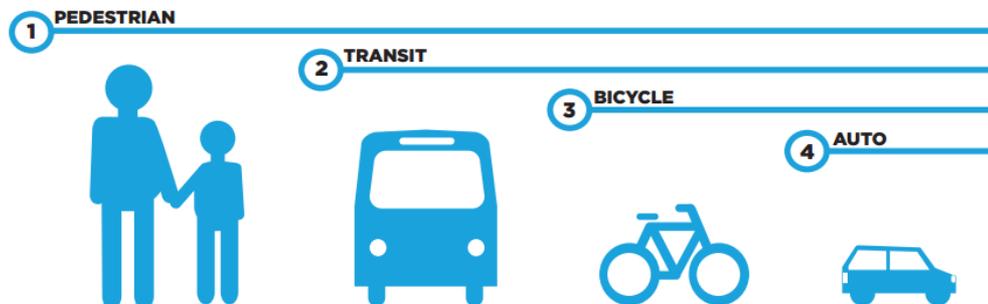
**Town Hall Meeting  
Cameron Station Community Association  
September 8, 2016**

# Purpose

- Discuss the proposed design options
- Answer questions and hear concerns
- Explain the process if the project moves forward
- No decisions will be made at this meeting

# Complete Streets Policy

- Complete Streets Policy adopted by City Council in 2011
- The City shall incorporate to the extent possible Complete Streets infrastructure sufficient to **enable reasonably safe travel along and across the right-of-way for each category of users**
- The City shall incorporate Complete Streets infrastructure into existing public streets to **improve the safety and convenience of users and construct and enhance the transportation network for all users**





# Complete Streets Work Program

- Resurfacing Program – opportunity for new design
- Pedestrian-Bicycle Master Plan
  - Priority pedestrian and bicycle recommendations
  - Pedestrian case study area recommendations
  - Education and outreach
- High crash locations
- Safe Routes to School
- Community requests
  - Traffic Calming/Speed Cushions
  - ADA improvements
  - Bike parking
  - Sidewalks and curb ramps
  - Pedestrian safety markings, signs and signals



# Goals for Cameron Station

- Be consistent with City's Transportation Master Plan and Complete Streets Policy
- Reduce vehicle speeds
- Improve pedestrian safety
- Improve bicycle safety and access
- Preserve existing parking and expand where opportunities arise
- Minimize any impacts on existing and future traffic patterns

# What We've Heard

- Speeding on Cameron Station Blvd
- Cut-through traffic during certain parts of the day
- Dangerous conditions for pedestrians at Circle, near daycare, and near Tucker Elementary



# Speed Data Collected



## Duke to Circle

Northbound: 24.6 mph  
Southbound: 23.2 mph

## Ferdinand Day to Circle

Northbound: 31.8 mph  
Southbound: 30.1 mph

**Note:** Speed references the 85<sup>th</sup> percentile speed.

**Note 2:** Traffic calming measures are prioritized for streets where 85<sup>th</sup> percentile speed exceeds posted speed limit by 5mph. For streets that do not meet this threshold, additional consideration is needed.

# Traffic Volume Collected



## Duke to Circle

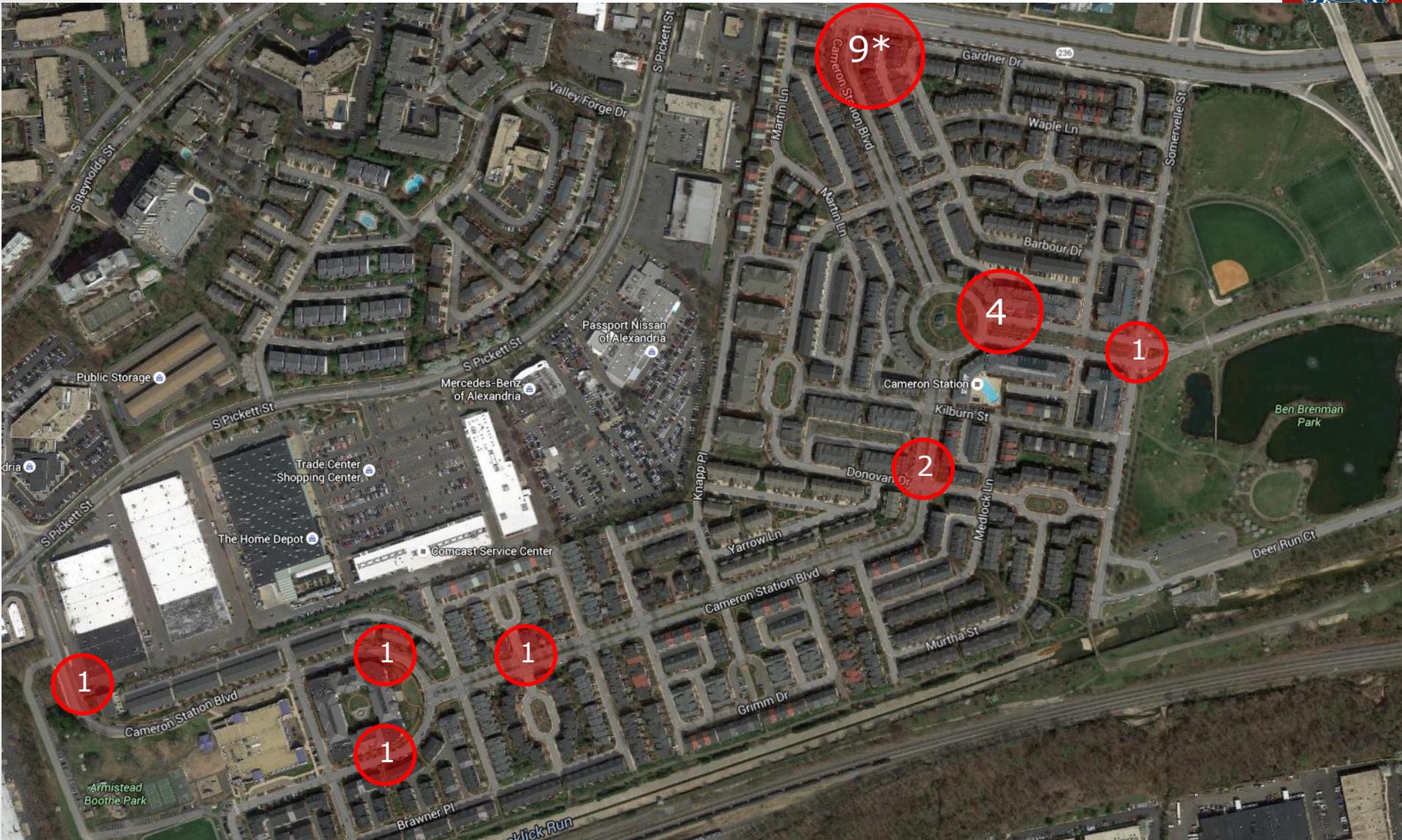
Vehicles per Peak Hour: 350  
Vehicles per Day: 3700

## Ferdinand Day to Circle

Vehicles per Peak Hour: 340  
Vehicles per Day: 3100



# Crash Data – 5 Year History



\* Indicates crash involved pedestrian

**Note:** Police consider reportable - injury and/or property damage above \$1,500.

No data available for the crashes handled by the parties without involving the police.

# Traffic Calming Toolkit

- **Engineering**

- **Roadway narrowing**

- Restriping narrower travel lanes
    - Add bike lanes
    - Removal of travel lanes where volumes are low and capacity not needed
    - Add “friction” – parking, streetscaping, and trees to visually narrow roadway

- **Vertical elements**

- Speed cushions or speed tables

- **Enforcement**

- APD has provided periodic enforcement and temporary radar trailers
  - Enforcement may be delayed and/or limited, due to police availability and other priorities

# Cameron Station Blvd. - Existing



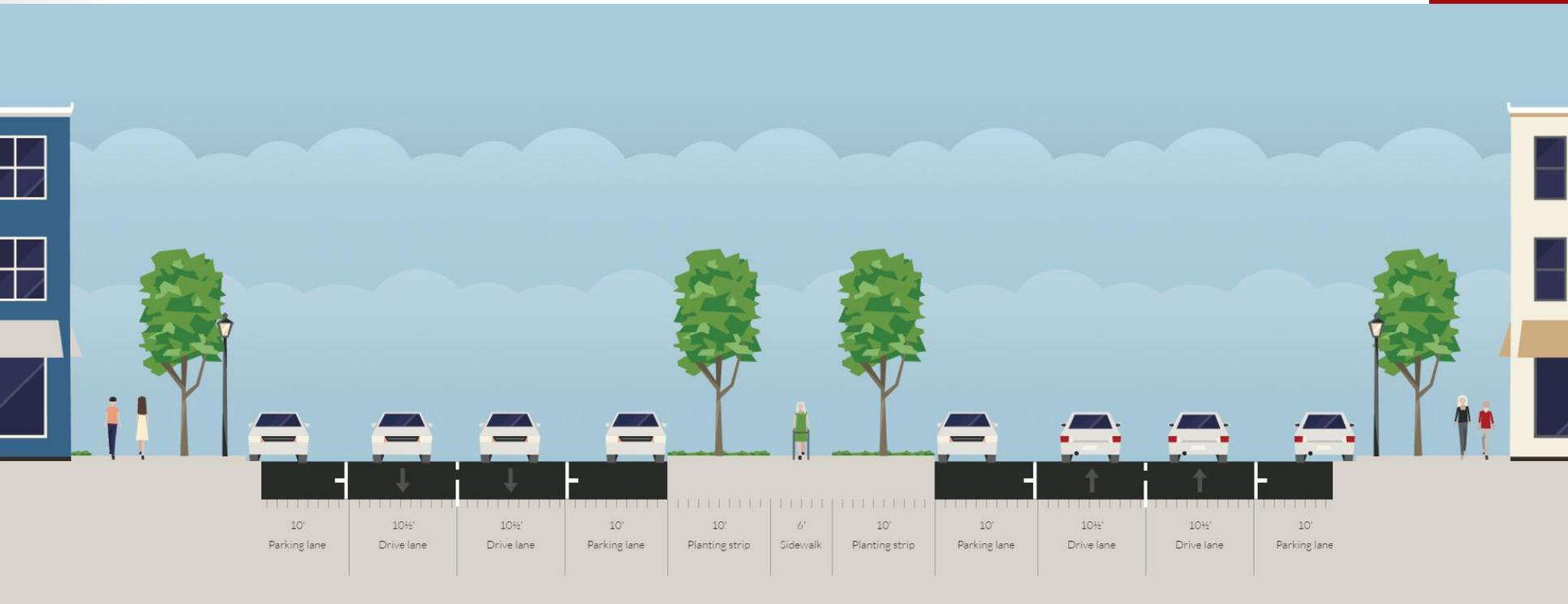
- Two lanes in either direction of travel
- Low traffic volumes
- Limited traffic control measures
  - Intersections do not meet warrants for traffic controls
- Well-utilized on-street parking



# Cameron Station Blvd. - Existing



# Brenman Park Drive - Existing



- Two lanes in either direction of travel
- Low traffic volumes
- Well-utilized on-street parking near retail
- Parallel parking on both sides of street

# Brenman Park Drive - Existing

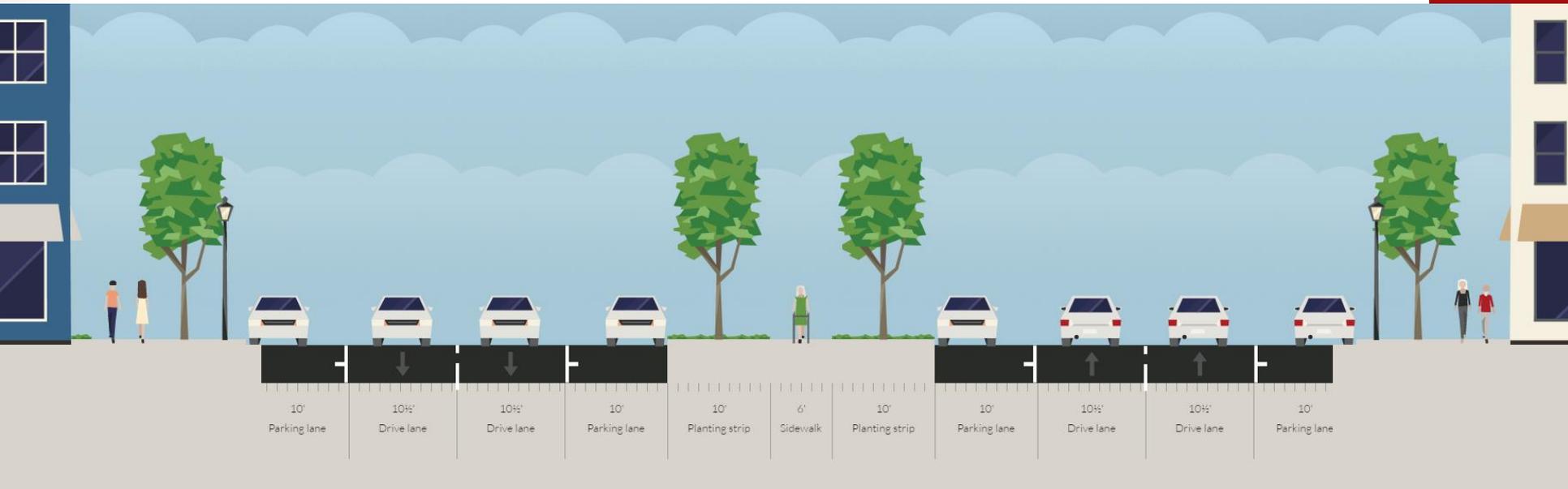


# Option 1 – Cameron Station Blvd



- Existing roadway configuration remains
- Add high visibility crosswalks across Cameron Station Blvd
- Raised crosswalks near Tucker Elementary in conjunction with future resurfacing
  - Requires approval from Fire and engineering design

# Option 1 - Brenman Park Drive



- Existing roadway configuration remains
- Add high visibility crosswalks across Brenman Park Drive

# Option 1 Pros and Cons

## Pros

- Improves visibility of uncontrolled pedestrian crossings
- Provides traffic calming improvements near school
- Option to increase parking in future

## Cons

- Does not calm traffic speeds
- No short-term increase in parking
- Does not discourage cut-through traffic
- Does not reduce pedestrian crossing distances
- Raised crossing would only be implemented with future resurfacing

# Option 2 - Cameron Station Blvd.



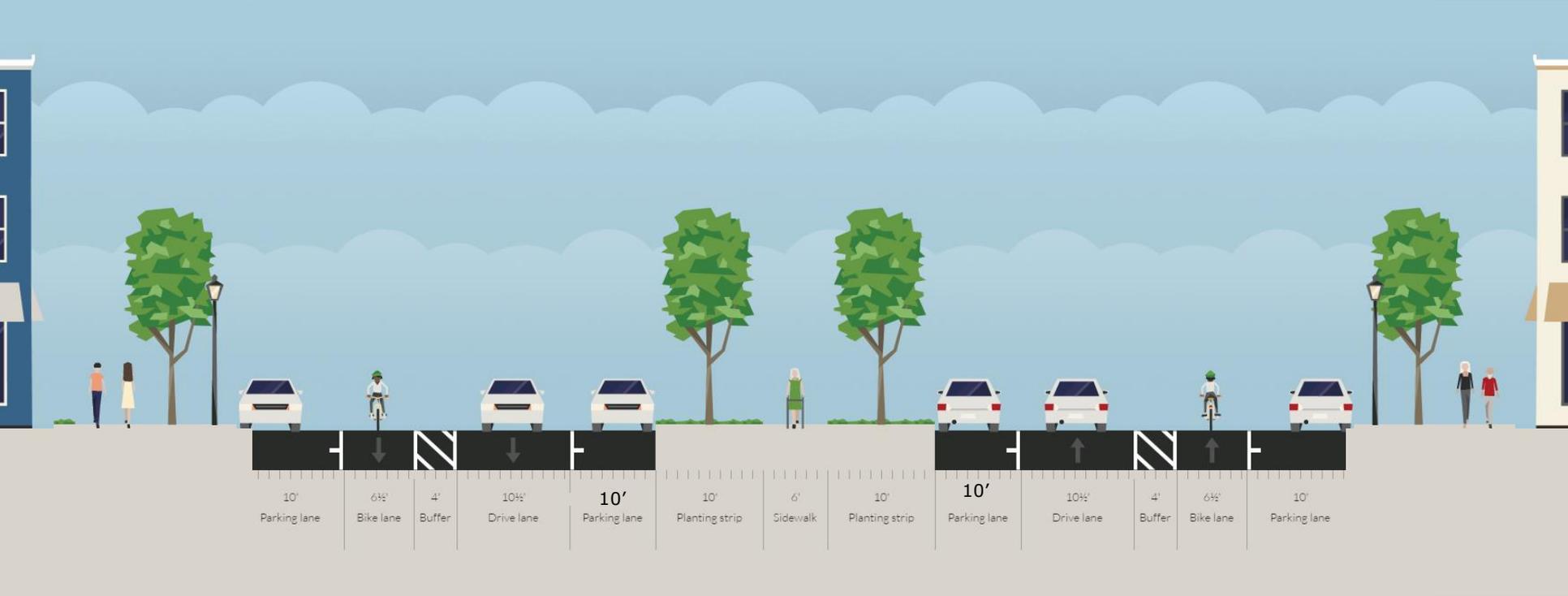
- Remove outside travel lane in either direction
- Replace with buffered bicycle lane
- Add high visibility crosswalks across CS Blvd
- Maintain existing parking edgeline
  - Eradicate parking space delineation with future resurfacing to gain ~10% more spaces

# Option 2A - Brenman Park Drive



- Remove right travel lane in either direction
- Replace parallel parking with back-in angle parking to gain 21 spaces (32%)
- Install shared lane markings in remaining travel lane
- Maintain existing parking edgeline on left side of street
  - Eradicate parking space delineation with future resurfacing to gain ~10% more spaces

# Option 2B - Brenman Park Dr



- Remove outside travel lane in either direction
- Replace with buffered bicycle lane
- Maintain existing parking edgeline
  - Eradicate parking space delineation with future resurfacing to gain ~10% more spaces

# Option 2 Pros and Cons

## Pros

- Visually narrows roadway
  - Expected speed reduction of 3-5 mph, which makes for a safer and better walking experience
- Reduces pedestrian crossing distances
- Highlights pedestrian crossings for drivers
- Option to increase parking near retail and along Cameron Station Blvd in the future
- Improves sight distances for drivers pulling onto Cameron Station Blvd from side streets
- Provides bicycle facilities recommended in City's Transportation Master Plan

## Cons

- Reduces roadway capacity



# Travel Lane Removal in Practice

- Reduction of the 85<sup>th</sup> percentile speed from **8 to 12 percent**
- Reduction in the top end speeders (those exceeding the speed limit by 10 mph or more) by more than **90 percent**
- Results in **30 percent overall crash reduction** factor
- Does not result in significant travel time delays nor spillover impacts
- Generally appropriate for roadways with less than 25,000 vehicles per day
  - Volumes, speeds, crashes, intersections, and signalization also considered
- Project would need to meet criteria for travel lane removal before recommendation to the Traffic & Parking Board

## Sources

- <https://www.fhwa.dot.gov/publications/publicroads/11septoct/05.cfm>
- [http://safety.fhwa.dot.gov/road\\_diets/case\\_studies/roaddiet\\_cs.pdf](http://safety.fhwa.dot.gov/road_diets/case_studies/roaddiet_cs.pdf)



# Next Steps

- Gather further community input
- Letter of support from the Board before proceeding with any further design
- Any removal of travel lanes would require traffic analysis before recommendation to the Traffic and Parking Board at a public hearing
- If proposal is approved, implementation could occur in Spring 2017



# More Info

## **Complete Streets Program**

- <https://www.alexandriava.gov/CompleteStreets>

## **Contact Info:**

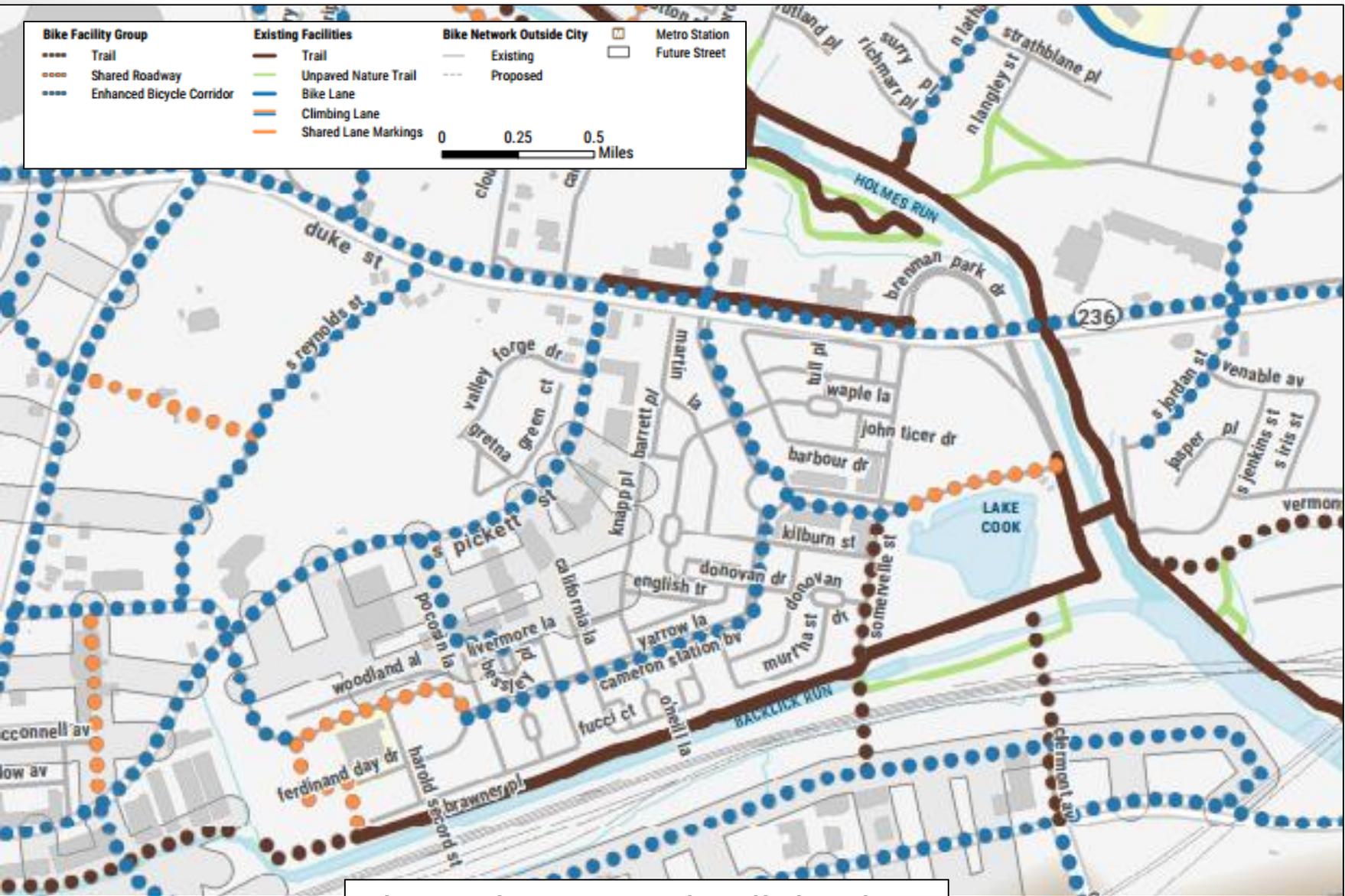
- Hillary Orr, Complete Streets Program Manager
  - [Hillary.orr@alexandriava.gov](mailto:Hillary.orr@alexandriava.gov)
- Ray Hayhurst, Complete Streets Coordinator
  - [Raymond.hayhurst@alexandriava.gov](mailto:Raymond.hayhurst@alexandriava.gov)

# Resource Slides

# Proposed Bicycle Network

Bike Facility Group	Existing Facilities	Bike Network Outside City	Metro Station
Trail	Trail	Existing	Future Street
Shared Roadway	Unpaved Nature Trail	Proposed	
Enhanced Bicycle Corridor	Bike Lane		
	Climbing Lane		
	Shared Lane Markings		

0 0.25 0.5 Miles



[alexandriava.gov/pedbikeplan](http://alexandriava.gov/pedbikeplan)



# Travel Lane Removal in Alexandria

Street	Vehicles in the peak hour	Implementation
Stevenson Ave. at Yoakum Parkway	300	Summer 2015
North Van Dorn St., between Menokin and Braddock	600	Summer 2016
King Street, between Kenwood and Janney's	750	Summer 2016

**Note:** For comparison, Cameron Station Boulevard has an AM peak hour volume of 350 VPH and a PM peak hour volume of 314 VPH.

An evaluation of North Van Dorn Street and King Street will occur once construction is completed.