**COLUMBIA PIKE**

**TRAFFIC**

Major Arterial with 25,000 daily vehicles between the County line and Washington Boulevard

Overall traffic operations do not show high levels of delay or congestion during peak travel periods

Intersections with the greatest delay for vehicles and buses are:

- George Mason Drive
- S. Glebe Road
- Walter Reed Drive
- Joyce Street

Where are people coming from?

- Fairfax County
- North Arlington
- Shirlington
- Virginia Square

Where do people want to go?

- Courthouse
- Virginia Square
- Clarendon
- Rosslyn
- Ballston
- Shirlington
- Crystal City
- Fairfax County
- Washington, D.C.
- Pentagon*
- Pentagon City*

*Pentagon and Pentagon are major destinations for Arlington County commuters and also major transfer points for Columbia Pike commuters.

**AM PEAK**

Level of Service (LOS)

- A (< 10s delay)
- B (10-15s delay)
- C (15-25s delay)
- D (25-35s delay)
- E (35-50s delay)
- F (> 50s delay)

**PM PEAK**

Level of Service (LOS)

- A (< 10s delay)
- B (10-15s delay)
- C (15-25s delay)
- D (25-35s delay)
- E (35-50s delay)
- F (> 50s delay)

**ORIGINS AND DESTINATIONS**

Arlington TDP

Level of Service (LOS)

- A (< 10s delay)
- B (10-15s delay)
- C (15-25s delay)
- D (25-35s delay)
- E (35-50s delay)
- F (> 50s delay)

- Pentagon and Pentagon are major destinations for Arlington County commuters and also major transfer points for Columbia Pike commuters.
COLUMBIA PIKE

BUS SERVICE

Highest amount of bus service in the County
- **23%** of hours of service
- Bus every **2-3** minutes during the weekday peak period

Metrobus 16 Line (A, B, E, J, G, H, K, X, & Y) and ART 41, 42, 45, and 74
- **39%** of daily trips go to the Pentagon
- **25%** of daily trips go to Pentagon City
- **12%** of daily trips go to Washington, D.C.
- **24%** of daily trips connect to the Rosslyn/Ballston corridor

Bus Service Along Columbia Pike Today

Highest ridership corridor in the County and Virginia with **17,000** weekday riders

Many of the routes perform above system averages
- Two Metrobus routes
  - 16A,B,E,J,P – Columbia Pike Line: **39** pass/rev hr
  - 16G,H,K – Columbia Heights West Line: **40** pass/rev hr
- Two ART routes
  - 41 – Columbia Pike-Ballston-Courthouse: **41** pass/rev hr
  - 42 – Ballston-Pentagon: **28** pass/rev hr

Sources: Esri, HERE, DeLorme, TomTom, Intermap, Increment PCorp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Average Passenger per Revenue Hour

- **ART System Average** 24.1
- **Metrobus System Average** 28.4
**High Activity Stops**
- Pentagon
- Barton Street
- Walter Reed Drive
- George Mason Drive
- Glebe Road
- Courthouse Road
- Four Mile Run Drive

**Highest passenger loads observed at the eastern end of the corridor**
- 10% of weekday trips had a load greater than 85% of the seated capacity
- 16 trips were at, or above, 100% of the seated capacity
- Majority occur during the AM and PM peak period
- Most of the crowded trips are on
  - 16Y (Farragut Square/D.C., 64%)
  - 16A (Pentagon, 16%)
  - 16X (Pentagon/D.C., 14%)
  - 16B/J (Pentagon, 7%)
COLUMBIA PIKE

OTHER CAUSES OF BUS DELAY

Stop Design
- 21 of the 76 total stops have stop areas 90 feet or shorter
- 70-90 feet is the standard to accommodate one Standard bus
- The amount of service along Columbia Pike results in times where at least 2 buses need to occupy a single stop, resulting in delays

Stop Spacing
- 38 bus stops along Columbia Pike (each direction)
- Average spacing is 0.16 miles (850 feet)
- County standard
  > 0.11 to 0.25 miles in a Central Business District
  > 0.20 to 0.38 miles in a Suburban District

Fare Payments
- Approximately 5% of riders pay a cash fare
- Increased time to board
  > 6 seconds per boarding for cash payment compared to 2.5 seconds for SmarTrip
  > Average rider spends 20 seconds adding cash value to a SmarTrip card on the bus
- +/- 490 minutes (8 hours) a day used to handle cash on a stopped bus

BUS BUNCHING AT STOPS

OFF-BOARD FARE COLLECTION TIME SAVINGS

Time (minutes)

<table>
<thead>
<tr>
<th>Bus Stop</th>
<th>Time Associated with Boarding and SmarTrip Tap</th>
<th>Additional Time for Cash Handling (on Bus)</th>
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<tbody>
<tr>
<td>16A</td>
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<td>ART 41</td>
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OVERALL

- 60% Time Associated with Boarding and SmarTrip Tap
- 40% Additional Time for Cash Handling (on Bus)
COLUMBIA PIKE VISION

- **Revitalize** Town Centers and Neighborhood Centers
- **Create** a pedestrian friendly Main Street served by high quality transit
- **Preserve** the Pike’s character, diversity and affordability
- **Invest** in infrastructure for a more vibrant, sustainable community
- **Manage** growth

Transform Pike into a vibrant, walkable "Main Street"
- Neighborhoods linked by enhanced transit and a street that balances all modes of travel
- Underground utilities and wider sidewalks
- Four lane roadway with median and turn lanes at intersections
- Transit Stations at major bus stops

FUTURE GROWTH

Significant population and employment growth for Columbia Pike
- Higher rate of population growth projected over next 10 years compared to County
  - Columbia Pike: 21% growth
  - County-wide: 11% growth
- Employment growth will occur over longer time period
  - More growth observed between 2025 and 2030
- Growth will result in additional transit riders

PROJECTED POPULATION CHANGE (2015-2025)
STRATEGIES TO IMPROVE PIKE BUS SERVICE

PROVIDING ADDITIONAL CAPACITY TO RESPOND TO BUS CROWDING AND GROWTH

- Vehicle Size
- Frequency

RESPONDING TO TRAVEL PATTERNS AND DESIRES FOR EXPANDED CONNECTIVITY

- Route Changes
- Improved Transfer Opportunities

ADDRESSING BUS DELAYS AND IMPROVING TRAVEL TIMES

- Off-board Fare Collection
- Transit Signal Priority (TSP)
- Stop Spacing/Design
- New ART Routes/Services