Conditions Within the Corridor

As part of the determination of the market for BRT services within the I-95/I-395 corridor, several items were updated since the Transit/TDM study. First, land use conditions were updated to include new employment centers as a result of the Base Realignment and Closure Act (BRAC) as well as other initiatives. Second, transit trends, characteristics and coverage were identified as part of the development of operating scenarios. Finally, other regional initiatives to create a more regional BRT network in Northern Virginia were updated. The results of this research are included in this chapter of the report.

2.1 Corridor Land Use Conditions/Recent Changes

The I-95/I-395 corridor traverses Spotsylvania, Stafford, Prince William, Fairfax, and Arlington Counties, as well as the City of Alexandria. Throughout these jurisdictions, within 10 miles of the corridor, the estimated population in 2010 is 1 million persons with an estimated employment of 600,000 persons. Population density along the corridor increases greatly from south to north as land uses become more diverse, mixed, and more urban in character (see Exhibit 2-1).
As population densities increase, more transit modes and routes are available to persons living in the northern segment of the corridor, especially north of the Capital Beltway on I-395.

A significant contribution to travel demand in the corridor is the presence of large military employment centers. These installations located in the I-95/I-395 corridor include the Quantico U.S. Marine Corps Reservation near Triangle, Fort Belvoir and the Engineer Proving Ground in Fairfax County, and the Pentagon in Arlington County. Quantico, located in Prince William County, is home to 13,000 employees. Fort Belvoir, one of Fairfax County’s leading employers, is home to 25,000 employees and hosts 6,500 personnel living on the installation. Approximately 26,000 people are employed at the Pentagon, which also houses a major multi-modal transit center on site. The transit center is located above a Metrorail station and it is estimated that about 29,000 people a day use the Pentagon Transit Center, with approximately 1,570 bus arrivals and departures each weekday on 84 different bus routes using the center’s 24 bus bays. This makes the Pentagon Transit Center one of the busiest transit hubs in the entire region.

The southern jurisdictions in the study area feature lower overall population and the prevailing land use reflects a surplus of housing in relation to employment opportunities. As a result, a significant portion of the population along I-95 from the counties of Prince William, Stafford and Spotsylvania Counties comprises the in-bound flow of commuters into Northern Virginia and the District of Columbia. Census data indicates that residents from the southern jurisdictions in the study area have some of the longest commutes in Virginia, predominately in the northbound direction in the AM to job locations in northern sections of the corridor. (See Exhibit 2-2)

Travel demand is also heavily influenced by the jobs/housing balance, which represents the ratio of available jobs to available housing within a geographic area. The lower jobs/housing balance in the southern segment of the I-95/I-395 corridor indicates that many workers are unable to live close to where they work, which contributes to longer commutes. Review of future land use plans indicate that newer, more dense, mixed-use and potentially transit-supportive developments are envisioned throughout the corridor to bring more employment to locations that are predominantly retail and residential. For the operating scenarios developed in this study, particular emphasis was placed on integrating BRT stations and features within planned mixed-use and transit-oriented development projects in outlying areas, as recommended by Transit Operating Committee members.

As part of the update of operating conditions in the corridor, land use and regional plans were also reviewed to determine if there were any major changes since the Transit/TDM Study that needed to be incorporated into the market demand analysis. Several new developments were noted, most importantly changes due to BRAC.
As recommended by BRAC, by 2011 the U.S. Army will relocate approximately 19,000 jobs to various facilities within the vicinity of I-95/I-395. The jobs will be relocated to Fort Belvoir’s main post (4,200 jobs), the Engineering Proving Grounds site located west of I-95 at the interchange with the Fairfax County Parkway (8,500 jobs), and to the Mark Center in Alexandria at the Seminary Road interchange (6,200 jobs). Specific scenarios have been chosen to test BRT service to station locations at these sites, and additional coordination with the City of Alexandria for the Mark Center BRAC proposal is on-going.

Other major developments in the corridor include:

- **Jackson’s Gateway** — located south of Massaponax and exit 126 on I-95, is a project including residential development, offices, a major medical institution, and significant retail development. New infrastructure would include a new interstate interchange and a transit center as part of the development.

- **Route 3/Cowan Boulevard UDA** - extends to Interstate-95 to the west, Cowan Boulevard to the north, the RT 1 Bypass (Jefferson Davis Highway) to the east, and the south city limits, defined by Hazel Run, to the south. This area includes a significant portion of the RT 3 corridor as well as major commercial and residential developments north and south of this roadway. The development proposal includes two projects in this planning area, including the redevelopment of the Greenbrier Shopping Center and the commercial development off Cowan Boulevard, adjacent to I-95. This project could include 500,000+ square feet retail shopping, single family homes, townhouses and apartments and 78 acres mixed use office park and an additional 34 acres mixed use residential.

- **Celebrate, VA** - bounded on the north and west by the Rappahannock River and by River Road, Fall Hill Avenue, and I-95 on the south and east. This project could include a tourism campus with mostly commercial use: 497 acres; hotels, conference center, museum, retail and outdoor recreation; residential area including 188 townhouses; and 120 acres mixed use/office park. Two new interchanges are proposed south of the Rappahannock River to access site.

- **Southern Gateway at Route 17** - located adjacent to RT 17 between its interchange with I-95 and Berea Road. Possible development includes Carter’s Crossing, 35 acre, 200,000 sq ft retail, restaurant and service development.

- **Aquia Town Center** - located just off exit 143 at RT 610, near the intersection of Washington Drive and RT 1. Development plans include a town center redevelopment, featuring mixed use shopping mall and apartment complex.

- **Boswell’s Corner** - located along RT 1, adjacent to Marine Corps Base Quantico and I-95, and about 1 mile south of the new National Museum of the Marine Corps. Additional development could include 650,000 – 750,000 square feet of office space in the area by 2011.
• **Quantico Marine Corps Base** - Calls for several agencies to co-locate at the base due to BRAC, could result in as many as 2,658 additional personnel.

• **Prince William County Mixed Use Development** – potential for transit oriented development in vicinity of PRTC Transit Center/Dale Boulevard and I-95.

• **Fort Belvoir/EPG** - proposes construction of additional buildings including a hospital, barracks, office buildings and necessary roadway improvements. The new headquarters for the National Geospatial Agency (NGA) will be located on the Engineer Proving Grounds, located just west of I-95.

• **Landmark/VanDorn Area Redevelopment** - the City of Alexandria adopted a plan for over 15 million square feet of dense, mixed-use land use along Duke Street and Van Dorn Street. The plan relies on a new grid of streets, pedestrian improvements, a local transit circulator, dedicated bus lanes on Van Dorn with BRT service, and a transfer station for MetroBus lines, Fairfax Connector, and DASH.

• **Mark Center/Reservation 133** - proposal to introduce up to 6,400 new jobs in the Mark Center at Seminary Road, including new building, security provisions, transit center and shuttle services, and new parking facilities.

These new activity centers along the corridor were all considered as potential transit generators in the development of operating scenarios and BRT station concepts. Land use inputs were verified within the Transportation Planning Board regional demand model (TPB), version 2.3, which uses Round 7.1 land use forecasts and that was officially adopted in 2007 to ensure that these developments were included. The only adjustments required were at the BRAC Reservation 133 site at Seminary Road. Land use projections were also reviewed in the FAMPO portion of the study area, particularly at potential station locations in Stafford and Spotsylvania Counties, and were determined be reasonable for determining regional market demand. Even with the existing low densities, some market demand was documented for the BRT services. However, it is acknowledged that increased density in the southern portion of the corridor would further support BRT services extending tot his area.

### 2.2 Transit Operations in Corridor

Current mode share in the corridor is shown in **Exhibit 2-3**. The transit mode share increases in the corridor closer to Washington D.C., Tysons Corner, Arlington, and Alexandria. Low-occupancy vehicle (LOV) mode share (trips with one or two occupants) drops dramatically closer to this core, as the reliability and performance of the general purpose lanes of I-45/I-395 drops. At the northernmost segment of the corridor, transit and HOV trips account for 59 percent of in-bound trips, reflecting a very high level of support for these modes of travel (see **Exhibit 2-3**).

![Exhibit 2-3. AM Mode Share of In-Bound Trips (I-395 South of Arlington County (Glebe Road))](Image)

*Source: NVTC Analysis of Peak Travel in Northern Virginia’s I-95 / I-395 Corridor*
Longer distance transit trips, from the southern segment of the I-95/I-395 corridor are accommodated by commuter bus and rail services as well as private commuter coaches. The average commute times for bus and rail passengers are 64 minutes and 83 minutes respectively, including both in-route and station access travel time. Commuter stations in the less dense southern segment typically have large catchment areas (the region from which passengers originate their trip to the station), and are predominately accessed by automobile. This has been especially evident from point of origin studies conducted for the VRE system (VRE Strategic Plan, 2004), at southern stations such as Fredericksburg, Leeland Road, and Quantico.

The transit commuter routes available from the south along the I-95/I-395 corridor are primarily designed to serve central destinations, such as Rosslyn, Crystal City, the Pentagon, Washington D.C. and the Navy Yard. Shorter distance commuter bus routes also access the I-95/I-395 HOV lanes as it progresses north into the core area of employment sites. However, the cumulative number of routes joining the corridor diminishes with travel north, due to the abundance of off-corridor travel choices, especially local connections provided by WMATA Metrobus and Metrorail, as well as local transit services on other arterials, especially north of the Capital Beltway. Additionally, there are a variety of other ride-sharing programs and TDM services that currently operate in the study corridor, including over 500 vanpools, 21 park and ride lots, 19 slug locations, and five Employer Outreach Programs to coordinate trips among employees.

Access to transit stops in the southern segment is almost entirely through automobile trip. Therefore, the provision of parking is a key component of the commuter patterns in the corridor. The previous Transit/TDM Study identified 38 lots utilized by commuters within the corridor. This included bus and commuter rail lots and lots for carpool and vanpool users. Parking lots vary from small surface parking of less than 100 spaces to expansive surface commuter lots and multi-level structured parking garages with thousands of spaces. Overall, during the Transit/TDM Study assessment in 2006, there were 21,000 existing parking spaces throughout the corridor with an average utilization of 86 percent. In looking to develop a BRT system, these lots serve as potential station locations and access points for BRT routes, to be tested in various scenarios.

### 2.3 Transit Providers in Corridor

Transit services within the I-95/I-395 corridor include a variety of modes of travel and numerous service providers. Exhibit 2-4 illustrates various service coverage areas, and the overlap that exists among operators within the northern segment of the corridor. For the market analysis, eleven (11) distinct agencies have been identified as providing regional and local service that would interact directly with any new services envisioned along the corridor. These operators are summarized in the next section and their combined routes account for almost 700 daily bus trips along a portion of I-95 or I-395. The summary of transit providers within the I-95/I-395 Corridor and modes offered include:

#### 2.3.1 Bus Services:

- **Lee Coaches**
  A private transit provider located in Fredericksburg, VA. Two routes are operated along the corridor, both serving the commuter park and ride lots at RT 208, RT 17, and RT 630. The first commuter route operates entirely on I-95 providing service to the Pentagon. The second commuter route operates along I-95/RT 1 and provides service to Fort Belvoir.

- **Martz/National Coach**
  A private transit provider located in Fredericksburg, VA and operator of 12 inbound and 12 outbound runs along I-95. Service originates at park and ride lots along RT 3, RT 17, RT 208, and RT 610. Routes serve the Pentagon, Army/Navy Drive, and points in Washington D.C.
• **Quick’s Commuter and Charter Service**
A private transit provider located in Falmouth, VA and operator of nine inbound and nine outbound runs along I-95. Routes originate at park and ride lots along RT 3, RT 17, RT 208 and RT 630 and various points in Fredericksburg. Service is provided to Washington D.C., the Pentagon, Crystal City, National Airport, Rosslyn, Army/Navy Drive and Baileys Crossroads.

• **Fredericksburg Regional Transit (FRED)**
FRED is located in the City of Fredericksburg and provides service in northern Spotsylvania County, Fredericksburg, and southern Stafford County. FRED is a public transit provider with local service and connections throughout Fredericksburg, especially as a feeder service to commuter rail (VRE). FRED has no routes that operate on I-95.

Exhibit 2-4. Transit Service Coverage and Providers in Northern Virginia
• **Potomac Rappahannock Transportation Commission (PRTC)**
  PRTC is a regional transportation district that oversees a comprehensive network of commuter and local bus services in Prince William County. PRTC operates OmniRide commuter service from numerous park and ride locations, including from a transit center located at its headquarters, adjacent to I-95 in Dale City. Destinations served by seven corridor routes include the Pentagon, Crystal City, Rosslyn/Ballston, downtown Washington D.C., and the Washington Navy Yard.

• **Fairfax Connector**
  The Connector is a public transit provider with routes serving the corridor operating from a South County operations center in Lorton. One route utilizes I-95 for connecting service along the Richmond Highway, and two additional routes provide service to the Pentagon from George Mason University and the Springfield Area.

• **City of Alexandria (DASH)**
  DASH is a local bus service for the City of Alexandria, providing connections to regional transit throughout the city. Two routes serve the Southern Towers in the vicinity of the Mark Center at Seminary Road and I-395, however no DASH routes travel along I-395.

• **Arlington Transit (ART)**
  Public transit operator with numerous routes in the vicinity of the I-395 corridor providing local, connecting, and circulator services. ART does not directly operate any routes along I-395.

• **Washington Metropolitan Transportation Authority (WMATA)**
  WMATA is the major regional transit provider of bus service within the District of Columbia and its surroundings. Bus service, or Metrobus, operates eight routes on the I-395 corridor with service to the Pentagon. Service reflects collector and distributor operations, with both all-day and peak operations.

• **Department of Defense**
  Provides shuttle and circulation services from a base of operations at the Pentagon. A total of 14 routes serve a variety of military installations and local destinations. The service is for military personnel only, and the general public cannot ride on these routes.

### 2.3.2 Rail Service:

• **Virginia Railway Express (VRE)**
  The VRE operates commuter rail service along CSX track extending from Fredericksburg to Washington, D.C. The Fredericksburg line currently has 12 stations and operates 12 runs (6 inbound and 6 outbound). Service is provided from 5:15 AM to 8:04 PM. The VRE currently carries a daily average of close to 8,000 passenger round trips on the Fredericksburg line.

• **WMATA**
  WMATA operated the regional rapid transit, or Metrorail system. Connections to Metrorail stations from nearby population centers is the focus of much of the local bus service in the northern portion of the I-95/I-395 corridor. The Northern Virginia Transportation Commission identified in a recent commuter study that travel by Metrorail accounts for about 57% of total inbound AM peak period transit ridership that crosses into the northern most portion of the I-95/I-395 corridor.
Details on specific bus routes offered by these providers, which operate either for the whole or partial duration on I-95 or I-395 are detailed in Exhibit 2-6. This existing route analysis was used at later stages of the market study to determine capacity issues at various stations along the corridor that could result from the introduction of additional BRT services.

While WMATA Metrorail and Metrobus dominate the transit ridership in Northern Virginia, it is the PRTC OmniRide commuter buses that serve the majority of the market for bus trips from the southern segment of the corridor into the Washington D.C. core. In FY 2008, this service accounted for almost 7,500 weekday boardings. The VRE rail service accommodates roughly 14,600 boardings from southern jurisdictions and the adjacent catchment areas to the I-95/I-395 corridor. The ridership breakdown and trends for major commuter operators in the corridor from 2003-2008 are presented in Exhibit 2-5.

![FY 2003 - FY 2008 Daily Transit Ridership Select Northern Virginia Operators](image)

**Exhibit 2-5. Average Weekday Ridership for Select Transit Providers**

### 2.4 Changes Incorporated into the Market Assessment

As noted in the previous sections, the land use inputs and transit operations were reviewed as part of the development and testing of BRT scenarios. These new land uses and changes in the regional model would have an impact on potential ridership transit demand, performance and other aspects of this study. In summary, the following changes reflected in this analysis consist of:

- **Land Use changes** as noted in Section 2.1 and included in MWCOG Round 7.1 as well as updates from the Fredericksburg area.

- **Model Enhancements and Demand Forecasting Enhancements** – the TPB regional demand model, version 2.3, was used in the study to take advantage of its enhanced transit forecasting capabilities. In addition, the highway and transit network descriptions are consistent with the Year 2007 Constrained Long-Range Plan, and include the I-95/I-395 HOV/Bus/HOT Lane Project. Transit assignments were completed as part of the testing of operating scenarios for the BRT system and new access points at Fort Belvoir and other locations were verified.

- **Station Coding Refinement** – The general placement of station nodes in the previous TDM analysis was replaced with more accurate station locations. In southern segment, station areas were relocated in accordance with local area planning. Revised stations were coded in the vicinity of the Prince William Parkway and PRTC transit center.
## Exhibit 2-6. Route Details for Transit Services within the I-95/I-395 Corridor

<table>
<thead>
<tr>
<th>Provider</th>
<th>Bus Route</th>
<th>Runs/Per Day</th>
<th>Scheduled Hours</th>
<th>Peak Buses/ Hour</th>
<th>Connections</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martz/National</td>
<td>Pentagon Express</td>
<td>2</td>
<td>4:55am/4:10pm</td>
<td>1</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>Martz/National</td>
<td>Fredericksburg-DCx</td>
<td>22</td>
<td>4:35am-6:25am/3:50pm-6:25pm</td>
<td>3</td>
<td>C,M</td>
<td>DC</td>
</tr>
<tr>
<td>Quicks</td>
<td>Various</td>
<td>18</td>
<td>4:55am-5:30am/3:32pm-4:33pm</td>
<td>3</td>
<td>C,K,L</td>
<td>Crystal City,DC</td>
</tr>
<tr>
<td>Lee Coaches</td>
<td>Pentagon</td>
<td>2</td>
<td>5:30am/4:40pm</td>
<td>1</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>Lee Coaches</td>
<td>Ft. Belvoir</td>
<td>2</td>
<td>4:50am/3:30pm</td>
<td>1</td>
<td>I</td>
<td>Ft. Belvoir</td>
</tr>
<tr>
<td>PRTC</td>
<td>PMD: Prince William</td>
<td>24</td>
<td>5:30am - 11pm</td>
<td>1</td>
<td>D</td>
<td>Franconia-Springfield Metro/VRE</td>
</tr>
<tr>
<td>PRTC</td>
<td>R1: Dale City</td>
<td>85</td>
<td>5am-9am/1pm-8:30pm</td>
<td>7</td>
<td>D,E,J,L,M</td>
<td>Pentagon/DC/Navy Yard</td>
</tr>
<tr>
<td>PRTC</td>
<td>R2: Lake Ridge</td>
<td>53</td>
<td>5:30am-11:30am/1pm-8:30pm</td>
<td>3</td>
<td>F,G,L,M</td>
<td>DC</td>
</tr>
<tr>
<td>PRTC</td>
<td>R4: Montclair</td>
<td>24</td>
<td>5:30am-8:30am/12:30pm-8pm</td>
<td>5</td>
<td>L</td>
<td>DC</td>
</tr>
<tr>
<td>PRTC</td>
<td>R5: Route1/South Rox</td>
<td>15</td>
<td>5:30am-8am/6pm-8:30pm</td>
<td>2</td>
<td>L,M</td>
<td>DC</td>
</tr>
<tr>
<td>PRTC</td>
<td>R6: Rosslyn/Ballston</td>
<td>8</td>
<td>5:30am-8-00am/4pm-7pm</td>
<td>1</td>
<td>E,L</td>
<td>Ballston</td>
</tr>
<tr>
<td>PRTC</td>
<td>R7: Tysons</td>
<td>8</td>
<td>6:10am-8:05am/4pm-6pm</td>
<td>2</td>
<td>G, N</td>
<td>Tysons Corner</td>
</tr>
<tr>
<td>Fairfax Connector</td>
<td>171 - Richmond High</td>
<td>83</td>
<td>3:30am - 1:30am</td>
<td>4</td>
<td>H,J</td>
<td>Franconia-Springfield VRE</td>
</tr>
<tr>
<td>Fairfax Connector</td>
<td>306 - GMU Line</td>
<td>12</td>
<td>9am - 4pm</td>
<td>2</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>Fairfax Connector</td>
<td>380 - Pentago Expre</td>
<td>48</td>
<td>6am-9am/4pm-8pm</td>
<td>7</td>
<td>J,L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>7 Lincolnia-N. Fairling</td>
<td>205</td>
<td>5am - 12am</td>
<td>11</td>
<td>K,L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>8 Foxchase-Seminary</td>
<td>68</td>
<td>6am-9am/4pm-9pm</td>
<td>9</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>17 Kings Park</td>
<td>110</td>
<td>5:30am - 10:30pm</td>
<td>6</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>18 Springfield/Orange</td>
<td>65</td>
<td>6am-9am/4pm-9pm</td>
<td>8</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>21 Landmark-Pentago</td>
<td>46</td>
<td>6am-9am/4pm-7:30pm</td>
<td>7</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>22 Barcroft-S. Fairling</td>
<td>73</td>
<td>5:30am - 10:30pm</td>
<td>4</td>
<td>L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>25 Ballston/Landmark</td>
<td>45</td>
<td>6am - 10pm</td>
<td>3</td>
<td>K,L</td>
<td>Pentagon</td>
</tr>
<tr>
<td>MetroBus</td>
<td>29 Annandale</td>
<td>75</td>
<td>6am-9:30am/3p-10pm</td>
<td>7</td>
<td>L</td>
<td>Pentagon</td>
</tr>
</tbody>
</table>

**TOTAL**          | **1093**        | **99**       |                          |                  |             |                     |

**NOTES:**
1. Currently detoured due to ongoing construction at Franconia/Springfield Metro Station parking garage. Serves the Backlick PNR at the Franconia-Springfield I-95 interchange with I-95.
at the request of Prince William County as well. Station locations were developed iteratively and moved from primarily an in-line station location to an off-line or potential direct access location as this study progressed, based on input and coordination with VDOT and the GEC.

- **FAMPO Requested Changes—CLRP/TIP Information, Park and Ride Analysis** — Coordination with FAMPO on station locations led to the identification and relocation of stations. The proposed Celebrate station is located to the west side of I-95 south of the Rappahannock River. The southernmost station, at Massaponax is relocated further south at a newly proposed interchange. In addition, the proposed station near the interchange of RT 610 was relocated from an existing park and ride lot into a location where it could be integrated into a transit-oriented development more easily.

- **BRT Service Definitions** — as part of the assessment of the market, services were analyzed for the various operating scenarios. For the development of the final Priority Bus/BRT scenario which is recommended in this report, new service routes were developed and new station locations and markets assessed.

## 2.5 Regional BRT Context

The components of BRT systems are envisioned to be integrated into primary travel corridors in Northern Virginia and will facilitate improved or prioritized operating conditions for local and regional bus operations. The level of investment, and changes to operations is not anticipated during this study time-frame to replicate rail-like, high capacity and frequent service often associated with BRT systems. In the Washington, D.C., Metropolitan Area, the term “BRT” has remained reserved for future application only to such rail-like bus services and is therefore currently not applied to any operating service since no such service currently exists in the region. Indeed, WMATA has avoided using the word “rapid” in its branding of skip-stop bus services, instead using “Metro Extra” and now “Metrobus Express,” to preserve the potential future branding power of the word when applied to a future BRT service.” The term “Priority Bus” has been adopted regionally to describe a collection of services and infrastructure that support enhanced bus services with reduced travel time and user-friendly features, but which might not have all of the service attributes of BRT. This is the type of service that was modeled for this study in order to test market demand.

A robust variety of transit modes are currently available throughout the region. Each mode has distinct features, characteristics, and a travel market.  *(see Exhibit 2-8)*

For this study, BRT represents a new transportation mode which combines characteristics of Express Bus and Commuter Bus operations, and represents the flexible or priority nature to provide higher performance bus service.

Across natural and world-wide applications, it is challenging to find one definitive description of what constitutes a BRT system. The following elements, however are recognized by the transit industry to almost universally apply, namely:

- **Superior performance**, through technology and/or managed lanes, BRT can offer travel time savings compared to other transit modes and is designed to be competitive with the private automobile.

- **The ability to shape land-use policy**, as BRT stations tend to be oriented toward walkable destinations and activity centers which provide demand to board and exit the vehicle and support transit-oriented development.

- **A strong identity**, through both stations and vehicles, BRT branding means it is perceived as being distinct from a local bus system, uniquely identifying it as a superior system and service.
Envisioned Fit for BRT

The BRT system envisioned and tested for market attraction in these corridors is an integral component of the regional vision currently being developed. BRT service will also maintain operating flexibility for the running way and stations to be used by other vehicle specifications, and other passenger amenities which target the passenger experience of using BRT. This stations and amenities. The BRT system will be distinguished through the adoption of station design guidelines, similar schedules, routes and accessing the same infrastructure, branding will establish a hierarchy of service, BRT facilities will also benefit existing bus operations, thereby leveraging infrastructure improvements for a variety of public transit uses and enhancing the overall bus market and experience for riders. With other operators having similar schedules, routes and accessing the same infrastructure, branding will establish a hierarchy of service, stations and amenities. The BRT system will be distinguished through the adoption of station design guidelines, vehicle specifications, and other passenger amenities which target the passenger experience of using BRT. This will create a recognizable BRT service with a different set of service expectations that will operate along with other services. BRT service will also maintain operating flexibility for the running way and stations to be used by other services. The BRT system envisioned and tested for market attraction in these corridors is an integral component of the regional vision currently being developed.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Rail</td>
<td>High-speed, passenger cars on fixed rails in separate rights-of-way from which all other vehicular and foot traffic are excluded.</td>
<td>• Metrorail (WMATA)</td>
</tr>
<tr>
<td>Commuter Rail</td>
<td>Long-haul rail passenger service operating between metropolitan and suburban areas, usually characterized by reduced fares for multiple rides. Typically peak hours and weekday only operations.</td>
<td>• Virginia Railway Express  • MARC (Maryland MTA)</td>
</tr>
<tr>
<td>Light Rail/Streetcar</td>
<td>Lightweight passenger rail cars operating singly (or in short, usually two-car, trains) on fixed rails in right-of-way that is not separated from other traffic for much of the way.</td>
<td>• New Carrollton to Silver Spring Purple Line (Maryland MTA)  • Anacostia and H Street Streetcar (DC DOT)</td>
</tr>
<tr>
<td>Express Bus</td>
<td>Buses operating on a faster schedule by not making as many stops as local bus services and often taking quicker routes, that other buses usually do not, such as along freeways.</td>
<td>• Richmond Highway Express (WMATA)  • Franconia-Springfield/Pentagon Express –RT 380 (Fairfax Connector)</td>
</tr>
<tr>
<td>Commuter Bus</td>
<td>Motor coach featuring comfortable all seated interior with inter-urban or suburban service to major employment centers. Typically peak hours and weekday only operations.</td>
<td>• Loudoun Transit  • OmniRide (PRTC)</td>
</tr>
<tr>
<td>Local Bus</td>
<td>Bus serving an area confined to a specific locale, such as a downtown area or suburban neighborhood with connections to major activity centers or traffic corridors.</td>
<td>• Arlington Transit  • DASH  • Fairfax Connector  • PRTC  • WMATA  • Private Shuttles</td>
</tr>
</tbody>
</table>

Exhibit 2-8. Public Transit Modes in Northern Virginia

BRT in Northern Virginia also has some unique, and at times, corridor-specific properties which may impact the ability to distinguish services. For example, there exists only one direction of service in some major corridors, due to the availability of peak-commuter-direction congestion-managed HOV/HOT running ways.

A regional BRT system for the Northern Virginia area will provide additional connections to and from major activity centers along each corridor, and would complement existing transit services. Through coordinating efforts with the Virginia Department of Rail and Public Transportation, a regional vision for BRT corridors in the I-95/I-395, I-66 and RT 28 corridors emerged. Exhibit 2-9 depicts proposed regional corridors for Northern Virginia. The studies being conducted for these corridors will reflect an integrated approach, with the potential for common amenities and features to be shared and facilitate branding of the service.
Regional BRT Corridors Proposed for Northern Virginia

Exhibit 2-9. Potential BRT Corridors in Northern Virginia