Innovation lives here.

NATIONAL LANDING TRANSPORTATION SOLUTIONS
NOVA is Connected

The Virginia team has evaluated and confirmed the regional and site-specific infrastructure investments needed to support robust, multi-modal connectivity for Amazon’s headquarters at National Landing.

To perform this evaluation, we engaged the Virginia Department of Transportation (VDOT), Virginia Department of Rail and Public Transportation (DRPT), and local transportation and planning departments to establish a consensus view.
NOVA’s global scale means that Amazon’s new headquarters would represent manageable growth on an already extensive employment and population base. According to the latest available cooperative forecasts published by the Metropolitan Washington Council of Governments (MWCOG), the region is planning to accommodate more than 615,000 additional jobs through 2030 and a cumulative total of 1.1 million additional jobs through 2045 – roughly 100,000 new direct and indirect/induced jobs from HQ NOVA would equate to about 16% and 9%, respectively, of that forecasted growth in the region.

In that context, NOVA will be the largest recipient of transportation investment in the entire metro through 2030, including $15.0B in committed multi-modal transportation investments by 2023 and an additional $14B planned in the remaining years to 2030.

NOVA is investing in the maintenance and expansion of an extensive multi-modal transportation network, while focusing new growth and development around transit nodes and corridors. Connecting these places with the rest of the region via transit, commuter rail, and other transportation infrastructure, while shaping this growth in a way that establishes or enhances places with high-quality placemaking and amenities, will allow the region to more easily accommodate planned growth with limited impacts.

NOVA’s interstate highways will have a comprehensive 90+ mile network of Express Lanes by 2022 that guarantee a high-speed, reliable trip* to those who carpool, use transit, or choose to pay a toll. Today there are more than 40 miles of Express Lanes along I-495 and I-95, with new express lanes being added to I-66 (32 miles), I-395 (8 miles), and I-95 (10 miles). Furthermore, Virginia is leading the way to improve traffic signal infrastructure by deploying an Intelligent Transportation System to enhance the efficiency of existing transportation networks and multi-modal transportation options. An in-depth perspective on fully funded commitments through 2023 is provided on page three.

NOVA Regional Infrastructure Investments

*Based on P3 agreements; federal law requires a minimum average operating speed of 45 miles per hour 90% of the time over a consecutive 180-day period during certain peak hour periods.

Existing
- Roadways
- Metro Line
- Metro Station
- Commuter Rail (VRE & Amtrak)
- Commuter Rail (VRE) Station
- Commuter Rail (Amtrak) Station

Regional Investments through 2030
- Construct/Widen/Improve Roadway
- Improve Interchange
- New Interchange
- New Park and Ride
- Managed Lane Improvement (e.g., HOV, Express Lane)
- New Managed Lane Interchange
- Transit Improvements
- Transit Improvement
- New Station
- New Metro Station

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Near-term Regional Funding Commitments Total $15.0 Billion through 2023

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Description</th>
<th>Total Project Cost ($MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dulles airport</td>
<td>Increases capacity and access, and improves maintenance facility and runways</td>
<td>688</td>
</tr>
<tr>
<td>Metro Silver Line extension</td>
<td>Phase II</td>
<td>3,000</td>
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<tr>
<td>I-66 Express Lanes</td>
<td>Improves corridor travel times and reliability (inside and outside Beltway)</td>
<td>3,720</td>
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<td>I-95 Fred Ex</td>
<td>Extends Express Lanes to Fredericksburg and reconstructs Rappahannock River crossing</td>
<td>825</td>
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<tr>
<td>I-95S Express Lanes</td>
<td>Improves travel time and reliability from I-95S to I-495 at Tyler St. bridge at National Landing</td>
<td>440</td>
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<tr>
<td>Reagan airport</td>
<td>Increases terminal capacity and access, and improves maintenance facility and runways</td>
<td>1,150</td>
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<tr>
<td>Route 1/ Richmond Highway BRT*</td>
<td>Provides a new, 8.6-mile Bus Rapid Transit (BRT) system; includes direct connections to Metrorail, dedicated bus lanes, and new transit stations</td>
<td>546</td>
</tr>
<tr>
<td>Metro annual funding**</td>
<td>Increases capacity and improves service, safety, and reliability</td>
<td>2,490</td>
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<tr>
<td>Commuter rail (VRE)</td>
<td>Provides new rail cars, extended platforms, and other new facilities</td>
<td>340</td>
</tr>
<tr>
<td>Arterials and local roads</td>
<td>Reduces NOVA congestion delays via construction and widening</td>
<td>1,350</td>
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<tr>
<td>Interstate corridor</td>
<td>Provides improvements to I-95, I-495, and I-95S corridors using dedicated P3 funds</td>
<td>452</td>
</tr>
</tbody>
</table>

*Assumes award of Federal Transit Administration New Starts Grant
**Virginia’s committed investment to Metro is ~$500 million per year (FY19-FY23)

Total: $15.0 Billion
Significant Investments are Planned for National Landing to Support Amazon’s New Headquarters

With extensive community input, Arlington (2010, with updates in 2013) and Alexandria (2017) adopted high-density, transit-oriented growth plans that cover most of the land area comprising National Landing. These already-approved plans envision considerably more growth than what Amazon’s new headquarters would represent, and the project is consistent with the type of development already envisioned by the community. These plans were developed in a comprehensive and multi-disciplinary manner to ensure that development, transportation, public open space, and other features work in concert to achieve high-quality placemaking and functional urban places.

National Landing is a hub for Metrorail, VRE commuter rail, Metrobus, regional and local bus as well as bike share and car share services. In building-level studies of resident and office tenant travel in Arlington, buildings in Pentagon City and Crystal City had the highest transit-mode share and the lowest single-occupant-driver share in the greater Washington Metropolitan Region except for the most centrally located neighborhoods in the District of Columbia. The site can effectively absorb substantial proposed growth without a commensurate growth in vehicle travel or associated congestion.

Furthermore, the transportation systems serving the National Landing site (and immediately surrounding area) currently have substantial unused capacity to accommodate additional travelers, given recent declines in travelers to and through the area due to the effects of Base Realignment and Closure (BRAC) and budget sequestration. For example, the Metrorail and the Metro and ART bus systems could accommodate an additional 50,000 to 70,000 weekday trips in Arlington, with most of this capacity in the Metro corridors. Metrorail weekday ridership is down 44,000 trips (20%) from the prior peak. At the Crystal City and Pentagon City Metrorail stations, 2017 entries and exits are down from a 2010 peak by 8,800 and 8,700 (approximately 29%), respectively. Local and regional bus service also has unused capacity, with Metrobus weekday ridership down 10% in the last year and 20% off the prior peak, while ART bus weekday ridership is down 12.5% from the prior peak.

Finally, the Virginia team is making state (up to $295 million) and local ($570 million) financial commitments to a collection of projects tailored to Amazon’s growth at National Landing that will directly benefit employees with a focus on multi-modal transportation between office nodes and area amenities. An in-depth perspective on proposed investments to support Amazon’s new headquarters at National Landing is presented on pages five and six.
Proposed National Landing Infrastructure Projects - Alexandria

Potomac Yard Metrorail Station
South Entrance at Potomac Avenue
Constructs a new Metrorail station in North Potomac Yard

Complete Streets
Improves capital infrastructure to enable safe travel through communities adjacent to project area

Potomac Yard and Del Ray
SmartMobility
Deploys and upgrades fiber optic cable, broadband communications network, traffic cameras, and sensors

Route 1 at East Glebe
Improves intersection to acquire right-of-way, design and construct street improvements including an exclusive left-turn lane, through lane, and right-turn lane in the eastbound direction

Regional Trail
Connects the bike trail from Arlington Potomac Yard/Potomac Avenue to the Four Mile Run Trail

Projects with Impact on the Entirety of National Landing

Off-Vehicle Fare Collection
Deploys off-vehicle fare collection equipment for the CCPY Transitway and the Columbia Pike corridor

Transitway Extensions
Extends transitway from East Glebe to Evans Lane in Alexandria; extends dedicated lanes to connect Arlington and Alexandria’s portions of Potomac Yard across Four Mile Run; extends transit lanes through the north end of Crystal City to connect to the Pentagon City Metro via 12th Street

Projects Funded Primarily by Localities*

Projects Funded in Part with New State Support

New Pedestrian/Bike Trail
New Metro Station
Virginia Railway Express (VRE)
Metroway Bus Route
Pedestrian/Bike Trail

*Includes some already existing commitments of state and federal funds

**Partially funded, pending future grants
**Proposed National Landing Infrastructure Projects - Arlington**

### Existing Infrastructure
- Above Ground Metro
- Below Ground Metro
- Virginia Railway Express (VRE)
- Metrorail Bus Route
- Pedestrian/Bike Trail

### Proposed Investments to Support Amazon’s New HQ
- Projects Funded in Part with New State Support
- Projects Funded Primarily by Localities
- Roadway Improvements
- Route 1 Improvements
- New Metrorail Bus Route
- New Pedestrian/Bike Trail
- New Metro Station

### Projects with Impact Across the Arlington Portion of National Landing
- **Complete Streets**
  - Makes street improvements that transform Crystal City and Pentagon City into vibrant mixed-use districts that maximize opportunities for using transit, walking, and biking

### Projects with Impact on the Entirety of National Landing
- **Off-Vehicle Fare Collection**
  - Deploys off-vehicle fare collection equipment for the CCPY Transitway and the Columbia Pike corridor**
- **Transitway Extensions**
  - Extends transitway from East Glebe to Evans Lane in Alexandria; extends dedicated lanes to connect Arlington and Alexandria’s portions of Potomac Yard across Four Mile Run; extends transit lanes through the north end of Crystal City to connect to the Pentagon City Metro via 12th Street

**Partially funded, pending future grants**

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*Includes some already existing commitments of state and federal funds*