Chapter VII.

Transportation

“Hopewell has quality regional transportation access, with excellent access to two I-295 interstate interchanges, along with high capacity arterial corridors, Rt. 36 and Rt. 10.”
Chapter VII.
Transportation

1. Introduction

Hopewell’s transportation system is comprised of varying elements including an interstate highway, principal arterial roadways, a local road system, pedestrian facilities, bicycle facilities, public parking, and railroads. All facets of this system require constant maintenance, upgrades, replacement, and additions in order to serve the City’s current and future residents. The purpose of this Comprehensive Plan is to provide for the future development and redevelopment of Hopewell into a vibrant, healthy, prosperous city. To accomplish this goal, the ability of Hopewell residents and visitors to move around the city easily and safely for both vehicular passengers and pedestrians must be a priority.

Hopewell possesses an excellent network of major city streets, with ample traffic carrying capacity, minimal congestion, and two key entrances from a major interstate highway. However, many of the residential streets leave much to be desired. The key area of focus for Hopewell’s transportation future should be in upgrading the city’s streets to serve the kinds of diverse, vibrant, and economically successful growth that the Plan envisions. While Virginia’s suburbs have had their day, over the next 10 to 20 years cities will be the focus of economic growth. Hopewell should be planning now for the transportation features that future urban residents, business owners, and visitors will need and want. Already served by an urban grid of streets, the City can also make a positive impact by concentrating on non-automobile transportation, upgrading city streets to work not just for cars, but for pedestrians and bicycles as well.

2. The City Street Network

The Virginia Department of Transportation (VDOT) classifies streets into several categories according to the character of service they are intended to provide, some carrying through traffic at high volume and speed, and others providing low speed access to adjacent properties. Traffic volumes and trip type (local or regional) are used to establish classification, and thus establish proper design parameters for the facility.

The right of way necessary to accommodate the lanes of pavement for each road classification is established for new roads. For existing roads and streets, additional right of way width for each classification may be needed for utility relocations, environmental mitigation, grade changes, turn lanes, intersection improvements, transit, and bicycle and pedestrian facilities. Hopewell’s streets are divided into six functional classifications, identified as:

1. Interstate Highways
2. Principal Arterials
3. Minor Arterials
4. Major Collectors
5. Minor Collectors
6. Local Streets
The Regional Transportation System

Hopewell has quality regional transportation access, with excellent access to two I-295 interstate interchanges, along with high capacity arterial corridors, Rt. 36 and Rt. 10.
Hopewell's lone - but highly accessible - Interstate Highway is Interstate 295. Interstate Highways are intended for high speed travel to regional or interstate destinations, and are limited access roads, meaning that they do not allow direct access to adjacent properties. While the primary purpose of this route is to provide a bypass of Richmond's central business district, it also provides perimeter communities like Hopewell with fast and convenient access to the entire Richmond metropolitan area. As of 2005, I-295 carries approximately 17,000 cars per day in the east-bound direction and 17,000 cars per day in the west-bound direction, for a total of 34,000 average daily trips. Regional access to Hopewell is served by two interstate highway interchanges, Exit 15 linking I-295 to Route 10 in Chesterfield County, and exit 9 connecting to Route 36 within the city limits.

Both Route 10 and Route 36 qualify as Principal Arterials. In theory, their primary function is to provide movement into and out of the City. In practice, these routes perform diverse functions, providing for (a) long-distance routes across the region, (b) commuting routes to Richmond, Petersburg, (c) localized access to other nearby jurisdictions, and (d) for short trips for Hopewell residents and visitors. Route 36 (Oaklawn Boulevard) currently carries up to 44,000 vehicles per day in certain sections, while Route 10 (West Randolph Road) carries as many as 19,000 vehicles per day as it passes through Hopewell’s downtown business district. As Hopewell grows and changes, the two Principal Arterials will continue to serve both local and regional traffic, and should be protected to preserve their traffic carrying abilities.

Minor Arterials serve to distribute traffic between lower classification roads and Principal Arterials. These routes serve trips of moderate length, serve geographic areas that are smaller than their Principal Arterial counterparts and offer connectivity to the higher Arterial system. Minor Arterials within Hopewell include 21st Avenue, portions of Broadway Avenue, Courthouse Road, and Miles Avenue.

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. While Collectors are broken down into two categories: Major Collectors and Minor Collectors, the differences between the two are subtle. Currently designated Major Collectors include Cedar Level Road, River Road, portions of City Point Road, 6th Avenue, and 15th Avenue. Minor Collectors include Danville Street and Atwater Road.

Local streets make up the vast majority of Hopewell’s street miles, and provide relatively slow speed direct access to adjacent properties. Hopewell benefits from an abundance of small local streets, arranged in a grid pattern that provides a variety of routing options. However, many of these local streets are under-built, having limited stormwater, pedestrian, or bicycle infrastructure. Other local streets may be over-built, with pavement widths in excess of what is necessary to safely and efficiently move the volumes of traffic that these streets see.

3. Existing Traffic Impacts: Average Daily Trips (ADT)

The Virginia Department of Transportation periodically measures traffic on certain designated routes, including those classified routes within the City of Hopewell. Traffic is typically measured via ADT, or Average Daily Trips, counting vehicles as they pass by a given point. These are one-way automobile journeys, meaning that a hypothetical trip from home to school and back would count as 2 trips along your given route. The map on the following page shows Hopewell ADT for major city streets, depicting volumes ranging from a few hundred trips per day to over 30,000 ADT for Interstate 295. In general, Hopewell is well served by major and minor city streets with little traffic congestion at this time.
4. **“Complete Streets”**

With an existing network of well-connected and relatively congestion-free vehicular streets, Hopewell should concentrate its transportation efforts on completing its transportation network for all users. The most important concept for Hopewell’s transportation future is known as “Complete Streets”.

Complete Streets are streets that benefit and work for everyone. They are designed to enable safe and efficient access for pedestrians, bicyclists, and motorists at the same time and within the same right of way. A complete street may include sidewalks, bike lanes (or wide paved shoulders), transit lanes, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

Underperforming streets – or “Incomplete Streets” in current vernacular – are those designed with only cars in mind. In an urban area, they limit transportation choices by making walking, bicycling, and taking public transportation inconvenient, unattractive, or dangerous. While some drivers might welcome the opportunity to walk or bicycle to avoid traffic, save on gas, or get some exercise, we must also remember that for some segments of Hopewell’s population, driving is not an option due to age, disability, or economic situation.

As Hopewell continues to grow, redevelop, and repair its streets, the goal should be to make every street segment into a Complete Street. Complete Streets are particularly prudent when more communities are tightening their budgets and looking to ensure long-term benefits from investments. An existing transportation budget can incorporate Complete Streets projects with little to no additional funding, accomplished through re-prioritizing projects and allocating funds to projects that improve overall mobility. Many of the ways to create more complete roadways are low cost, fast to implement, and have high impact.

The City recognizes the many benefits that can come from having a more complete transportation network, and from encouraging bicycle and pedestrian travel. Alternative modes of travel, like walking and bicycling, can have a number of positive effects on Hopewell, including:

- Reducing traffic
- Contributing to a cleaner environment
- Conserving energy
- Promoting physical health and fitness
- Granting mobility to those without cars

5. **Pedestrian Facilities**

The Public Works Department maintains all public sidewalks within the City limits, which for the most part are parallel to city streets and located within the street right-of-way. However, many city streets, particularly in older residential areas do not include sidewalks. While sidewalks may not be necessary on some quiet residential lanes with little through traffic, in most cases, city streets should include sidewalks on both sides of the street.
As Hopewell’s streets are periodically updated and rebuilt, sidewalks should be added, and should conform to the requirements of the Americans with Disabilities Act (ADA) with respect to curb ramps at crossings and acceptable grades. Without these improvements, some non-driver residents of Hopewell may find it dangerous or impossible to navigate the city. It should also be noted that the ramps, grades, and other features that are necessary for disabled residents are also a welcome addition for elderly residents, children, or parents pushing strollers.

6. Bicycle Facilities

Various types of bicycle facilities may be used to ensure the availability of bicycle transportation within the City, including on-road improvements and off-road trails. In many cases, Hopewell maintains streets that are much too wide for the vehicle traffic they carry, meaning that excess width could be given over to bicycle lanes with no reduction in traffic capacity.

**Bicycle Lanes** – Simply striping a 4 to 5 foot lane for bicyclists within the street can give riders a space of their own and contribute to added safety. For many Hopewell roads with excessive width, bike lanes could be added by simply painting a line. In certain circumstances where traffic is very heavy, a landscaped strip may be added between cars and bikes for even greater safety, creating a buffered bicycle lane or cycle track. In other cases, it may be desirable to remove unnecessary vehicle lanes, converting this space to bicycle lanes and/or landscape space in order to change the character of a street entirely; a process known as a road diet.

**Neighborhood Connectors** – On relatively quiet neighborhood streets with low traffic speed and volumes, a separate lane or space for cyclists may not be necessary at all. In these cases, cyclists may be able to comfortably share spaces with cars, but some improvements are still possible. Adding traffic calming, enhanced crossings of arterials, signage and pavement markings can help enhance the bicycle network.

**Expert Routes** – Some roads with high volumes of traffic or high speeds may not present opportunities to add bicycle lanes, but may nonetheless form important connections. These routes may still serve expert cyclists who can ride comfortably with vehicle traffic. These routes may be improved with signage or pavement markings known as sharrows reminding drivers to share the road. Such routes should be considered on a limited basis and supplemented with alternative routes for less experiences cyclists.

**Shared Use Paths** – Where land is available, the City may also develop paved shared use paths, open to both pedestrians and bicyclists, that exist outside of street rights of way. Such paths are completely separate from vehicle traffic, therefore offering a very safe and comfortable space for recreation or travel. Shared use paths might connect important destinations, or may exist as a kind of linear park for exercise and enjoyment. Paths should be paved to reduce future maintenance, and should be at least 8 feet in width.
Chapter VII: Transportation

Neighborhood connector with bike route signage.

Shared use path with painted markings for bikes and pedestrians.

Buffered bicycle lane with on-street parking.

“Sharrow” markings reminding drivers to share the road.
Chapter VII: Transportation
7. Truck Traffic

Hopewell’s most significant access to the Downtown for its residents, visitors, and the workforce is Route 10. Route 10 (West Randolph Dr.) is also a truck route that serves industrial uses both within and outside of the City. The street’s functionality and usefulness to both present and future citizens and patrons of the Downtown, the waterfront, and City Point is greatly compromised by the truck route. It creates a cumbersome and threatening barrier to pedestrians between the east and west Downtown sectors, thereby reducing foot traffic by and between uses that would otherwise be compatible. The graphic below depicts the Comprehensive Plan’s recommended alignment for an alternative truck route.

In addition, Route 10 has little attractiveness as a gateway to the City. While the problems are not insurmountable, incremental improvements are needed: Intersecting streets do not meet contemporary engineering standards, street landscaping is poorly executed, sidewalks and bikeways are deficient, and attractive way-finding signage and street lighting is virtually absent. The corridor should be included in the development of detailed Small Area Plans that would address the Downtown District, the Health Care District, the City Point District, and the River Gateway District.
8. Parking

Adequate and conveniently located parking is also an important component of the City’s transportation network, and can assist in enhancing not only the City’s transportation network, but also its revitalization, tourism, and economic development efforts. The Downtown Hopewell district has been a focus of revitalization, redevelopment, and economic development initiatives, and has begun to grow as a location for business and residential uses. The perceived difficulty of driving and parking downtown is a common reason given by those who frequent suburban shopping centers and destinations. By providing ample, convenient, and free parking, Hopewell’s downtown can also be a convenient place to shop, and can compete with suburban locations for commerce.

The City has completed streetscape enhancement projects along Appomattox, East Cawson, East Broadway, and Library Streets, including improved sidewalks, lampposts, landscaping, and other elements. As a part of these projects, street-side parallel parking has been preserved and improved with new curbing and quality materials. Street spaces should continue to be an important part of the downtown parking picture, providing spaces nearest downtown businesses and making quick errands convenient. These spaces should be maintained as free parking at all times.

It is also important that street spaces, especially those directly in front of businesses, turn over frequently. For this reason, downtown residential uses should be provided dedicated off-street parking, and merchants and employees should be encouraged to park elsewhere, leaving these spaces for customers and visitors. As the downtown grows it may become necessary to place time limits on street parking, for example, allowing parking for no more than 3 hours, to keep spaces from being dominated by long-term users.

While street parking should be a part of the downtown parking picture, public lot parking must also be provided. Currently, free public parking is available in the lot east of the library, bounded by Library, Hopewell, Cawson, and Appomattox Streets. While this lot is not heavily used at this time, as the downtown grows and prospers, this lot will be a key location for tourists and long-term visitors to the area. This lot should be preserved and improved as funding is available. In the long-term, development on this site may become attractive. However, it is recommended that this development take the form of one or more public parking garages that incorporate commercial uses as well.

As infill, redevelopment and new development absorb properties on East Broadway and throughout Downtown Hopewell, parking supply will become a major issue. While not currently a pressing matter, a lack of action by the City to plan for sufficient parking to serve the marketplace will otherwise impair efforts to complete the Downtown revitalization goals. In a survey previously conducted by VCU for an update of the downtown master plan (see discussion in Chapter VI) it was found that:

"Over three-quarters of local merchants surveyed responded as being unsatisfied with parking conditions in the downtown area. Complaints focused on the poor location, quantity, safety, and quality of parking in Downtown. Merchants documented that they lost customers due to the lack of parking, that customers feel unsafe in regards to the overall appearance of parking opportunities, and the distance from the parking lots to the stores. The concern of parking was made apparent in studies conducted for the Downtown Vision which projected that if the district were fully developed, peak demand for parking would be 4,500 spaces. In 2003, there were 1,927 parking spaces and is roughly the same today."
The City should initiate a comprehensive parking plan and establish a multi-year capital improvements plan to ensure capacity that safe, accessible, and convenient parking will be available to future downtown visitors. This plan will require additional interaction and coordination with HDP, City officials, City planners and engineers, property owners, current merchants, and tourists. Thus, as a part of the recommended Small Area Plan for the downtown, a master parking plan should be incorporated that addresses the following:

(a) **establishes future parking needs based on the demands that would be generated by the build-out potential of the area as recognized by the Future Land Use Plan,**
(b) **assesses and develops a plan that maximizes on-street parking opportunities,**
(c) **identifies candidate properties where off-street parking should be developed to most effectively serve the interests of existing and future downtown merchants, shoppers, and tourists,**
(d) **revises the zoning ordinance parking requirements to include shared parking strategies,**
(e) **examines the feasibility of an expanded downtown parking district,** and
(f) **defines and budgets for the public sector responsibilities in the capital improvements planning process.**

9. **Railroads**

Hopewell is well served by railroads, due in large part to the City’s industrial sector and the needs of these industries to move materials and freight by rail. The City is actually served by two different railroad companies, Norfolk Southern and CSX. A Norfolk Southern line runs east and west through the City, roughly parallel to Route 36, and reaching as far as City Point, and connecting west to Petersburg, Colonial Heights, and other points west. A CSX line runs north and south through Hopewell, crossing the Appomattox on its own trestle between Interstate 295 and Route 10, and offering connections to the greater Richmond area to the north. Both of these rail lines act as spurs, reaching out to Hopewell from a larger network, but ending in Hopewell and not passing through to other destinations. Hopewell is not served by passenger rail at this time, with the nearest passenger station being the Amtrak station in Petersburg.

Several at-grade crossings interrupt the ability of neighborhoods to reach shopping destinations along Route 36. In the future, it would be preferable to add an additional grade separated crossing that cannot be interrupted by rail traffic, although it must be acknowledged that this would be a difficult and costly effort. For now, the City should continue to focus on street projects that improve safety at railroad crossings, limiting interference and striving to maintain both road and rail networks that function efficiently.

10. **Comprehensive Plan Transportation Concepts**

Several major transportation improvements have been recommended to catalyze traffic access and flow in and around key Priority Planning Areas. As an illustration, the graphics on the following pages present viable ideas advanced for the Priority Planning Areas 5 and 6. The reader is encouraged to review the respective chapters for further details that examine the development opportunities that will be enhanced by virtue of implementation of these and other transportation improvements. Small Area Plans should be prepared to address the feasibility of these projects.
Chapter VII: Transportation
11. Transportation Funding

In the Commonwealth of Virginia, any town or city with a population of 3,500 or greater is responsible for maintaining their own transportation facilities. Through VDOT, the City is eligible to receive funding from two sources: Highway Maintenance Account Funds and Urban Construction Funds. The former can only be used for eligible maintenance activities on existing facilities while the Urban Construction Fund is earmarked for new construction projects and allocated to projects in the Commonwealth’s Six Year Improvement Program.

Funding that localities receive for both maintenance and construction are ultimately determined by the General Assembly through the biennial budget process and then appropriated funding is prioritized and allocated by gubernatorial appointed members of the Commonwealth Transportation Board. Cities and towns receive funding on an annual basis.

The City competes for construction funding with other localities in the Richmond District, which includes the Counties of Amelia, Brunswick, Charles City, Chesterfield, Dinwiddie, Goochland, Hanover, Lunenburg, Mecklenburg, New Kent, Nottoway, Powhatan and Prince George, as well as the Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, along with various incorporated towns. Maintenance funds are determined based on the number of lane miles in a community.