# Chapter 4: Multimodal System Plan

## Why Do We Need to Plan at the System Level?

Why do we make trips? Usually, we make trips to fulfill a daily need or activity, like reaching a job, going to school, buying groceries, and other daily errands. The trip is typically not the purpose; the purpose is reaching the intended activity, except for trips we make for exercise or purely for pleasure. Why does this matter? When we envision Norfolk's future transportation network, we need to think first about where people are going, not just how they are getting there.

The Multimodal Norfolk transportation master plan is Norfolk's first comprehensive look at where people are coming from and going to and how they get there across the entire city by different means. As mentioned in Chapter 2, the Multimodal Norfolk process was guided by three grounding values of **safety, freedom, and prosperity**.

In order to respect these values of giving everyone viable choices for getting around and accessing opportunities to work learn, play, and gather; giving everyone freedom to get where they need to go; and making sure everybody is safe on Norfolk's streets, we need to look at the City's transportation system as just that – a system of interconnected networks that provide safe and seamless ways of making a trip from beginning to end, for any purpose, and by any mode.

Multimodal Norfolk uses a *multimodal system planning approach* to take a comprehensive look at the entire city and identify complete networks for all modes that connect to key destinations and centers of activity. This multimodal system planning approach is important because it helps us understand what role each street needs to serve in the future system as a whole.

*Changes will happen incrementally. The multimodal system planning approach makes sure that each incremental change, such as a new bike lane on one street segment or a new crosswalk at one intersection, works toward achieving the broader future system.*

Without first developing a Multimodal System Plan, the design of any individual corridor or improvement project may lead to disconnected or underused facilities that fail to provide safe and convenient connections for all modes.


The multimodal system planning approach makes sure that each incremental change to the Norfolk's streets works toward achieving the broader future system.

The Multimodal System Plan envisions a fully connected network of facilities for all modes.

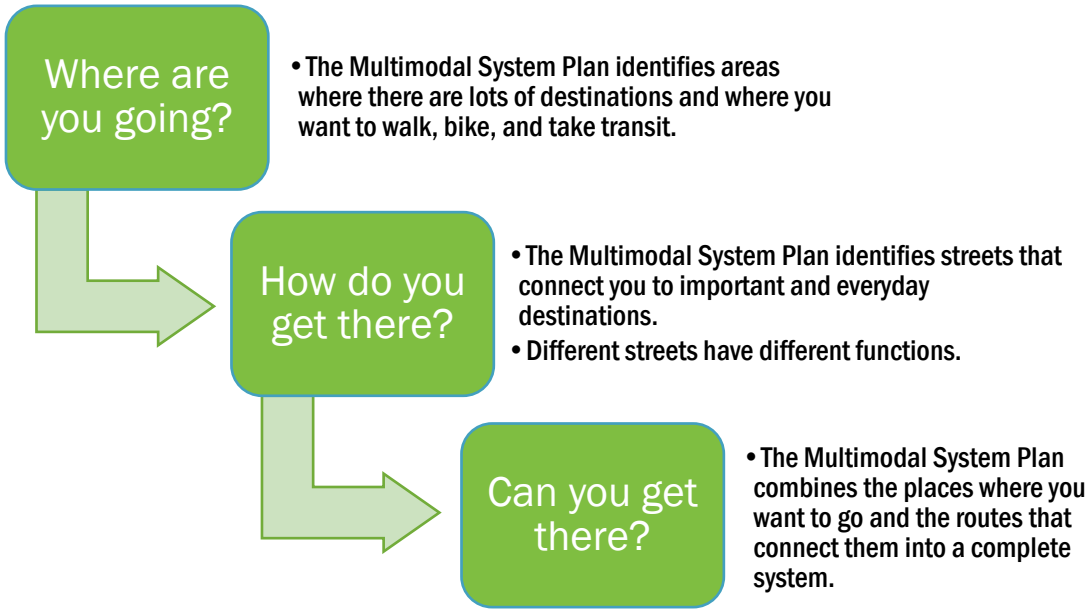
## What is a Multimodal System Plan?

*A Multimodal System Plan is a comprehensive look at the transportation system to ensure all modes have a safe and connected network to get where you need to go.*

A Multimodal System Plan is not a new concept. It has been practiced in several cities around the country and was described in statewide guidelines developed by the Virginia Department of Rail and Public Transportation (DRPT) in 2013.[i] It is essentially a process of creating maps of different travel networks to understand how land uses and transportation facilities and services work together.

A Multimodal System Plan shows the location of the City's *multimodal centers* and the *multimodal corridors* that connect them. These and other terms will be defined in later sections of this chapter.

The multimodal corridors are assigned a special emphasis so that complete networks are provided for every mode, including walking, bicycling, scootering, and transit. Autos are assumed to be accommodated on every street, but as described in later chapters, this does not mean they have priority. Freight movement is also considered, as explained in Appendix D.




A Multimodal System Plan makes sure the City's transportation system works for you, no matter how you choose to travel.

*The exercise of developing a Multimodal System Plan identifies gaps for each mode and proposes connections to close those gaps.*

The following sections in this chapter define key terms for the Multimodal System Plan and describe how the Multimodal System Plan for Norfolk was developed. This chapter contains a series of maps representing Norfolk's Multimodal System Plan. High resolution versions of the Multimodal System Plan maps zoomed in to different parts of the city are provided in Appendix A. Appendix B provides additional maps that were used during the development of the Multimodal System Plan.

As described in Chapter 3, Norfolk's Multimodal System Plan was developed through a robust process of public and stakeholder engagement, and the maps in this chapter represent a publicly vetted vision for connected transportation across the entire City.

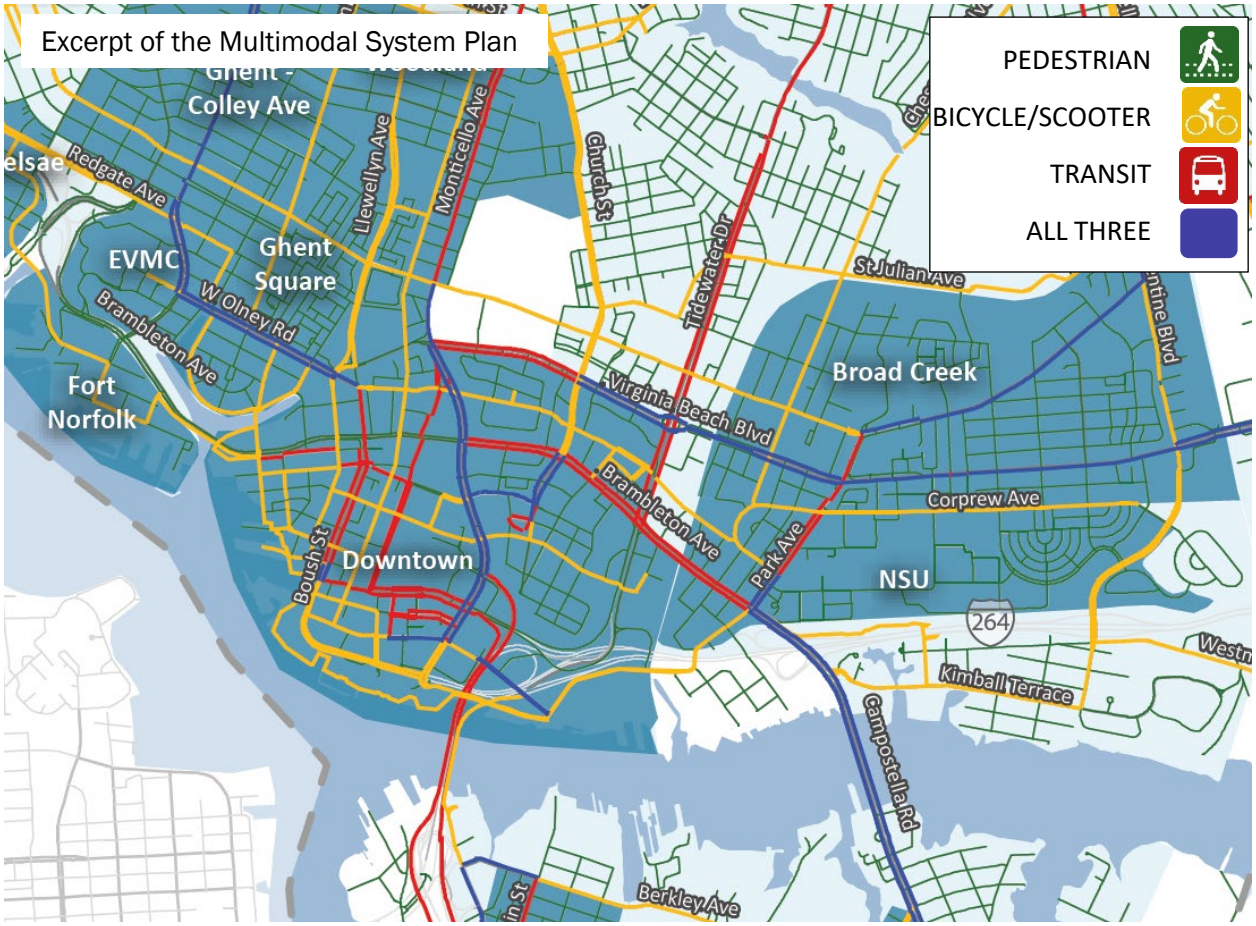
The process to develop the Multimodal System Plan for Norfolk generally followed the process outlined in DRPT's Multimodal System Design Guidelines. The Multimodal System Design Guidelines are a comprehensive

resource for planning and designing multimodal streets and places throughout Virginia. Using Virginia's Multimodal System Design Guidelines as a baseline reference ensured that the Norfolk Multimodal System Plan is based on the latest best practices and the industry standard guidance.

Norfolk's Multimodal System Plan is also an expansion of and an update to the Downtown Norfolk Multimodal System Plan that was prepared in 2020 in conjunction with the Downtown Norfolk Master Plan. The new citywide Multimodal System Plan used the Downtown Norfolk Multimodal System Plan as a starting point and updated it to reflect the newly redesigned bus network and the results of continued discussions with stakeholders and the public.

The Multimodal System maps presented here represents a snapshot in time. It is based on the input and analysis conducted over the past two years, and yet, it is intended to be a living document as well.

The processes described in this and subsequent chapters for designating Multimodal Centers and Modal Emphasis networks and designing and evaluating multimodal projects is intended to be stable over time.




The Multimodal System Plan designates connected networks for each mode throughout the entire city, as shown in this excerpt from the Multimodal System Plan maps.

However, the maps of Multimodal Centers, Multimodal Districts, Transect Zones, and Modal Emphasis, as well as the general recommendations in this plan are intended to evolve overtime with more detailed design.

The next several sections explain the individual components of the Multimodal System Plan. The completed Multimodal System Plan for Norfolk is presented at the end of this chapter.

## Multimodal Districts and Multimodal Centers: Where are you going?

The first step in developing a Multimodal System Plan is to define the context and recognize that different areas of the city have different characteristics and different levels of potential for generating walking, bicycling, scootering, and transit trips. Three terms describe types of areas that are important in this step – *Multimodal Districts*, *Multimodal Centers*, and *Transect Zones.*

*A **Multimodal District** is any area of any size that is envisioned to have good multimodal connectivity and be safe for walking, riding a bicycle or scooter, or taking transit, either now or in the future.*

Multimodal connectivity in this definition means the ease of making trips without needing access to a car. The desirable street pattern in Multimodal Districts is a grid network with short block lengths. The density and mix of land uses in Multimodal Districts is not as important as in Multimodal Centers – any neighborhood, commercial area, or institutional campus can be considered to be a Multimodal District, even low-density single use areas. The key is determining which areas are desired to be walkable in the future, even if the current environment does not have these characteristics.

In Norfolk, almost all of the City's land areas are considered to be in a Multimodal District. All civic leagues are included in a Multimodal District. The only areas in Norfolk that are outside of Multimodal Districts are industrial areas, rail yards, marine terminals, and enclosed naval base areas.

*A **Multimodal Center** is an area within a Multimodal District that is envisioned to have a higher density of activity where a variety of destinations are close together, making walking, bicycling, scootering, and taking transit easy and convenient for many types of trips, either now or in the future.*

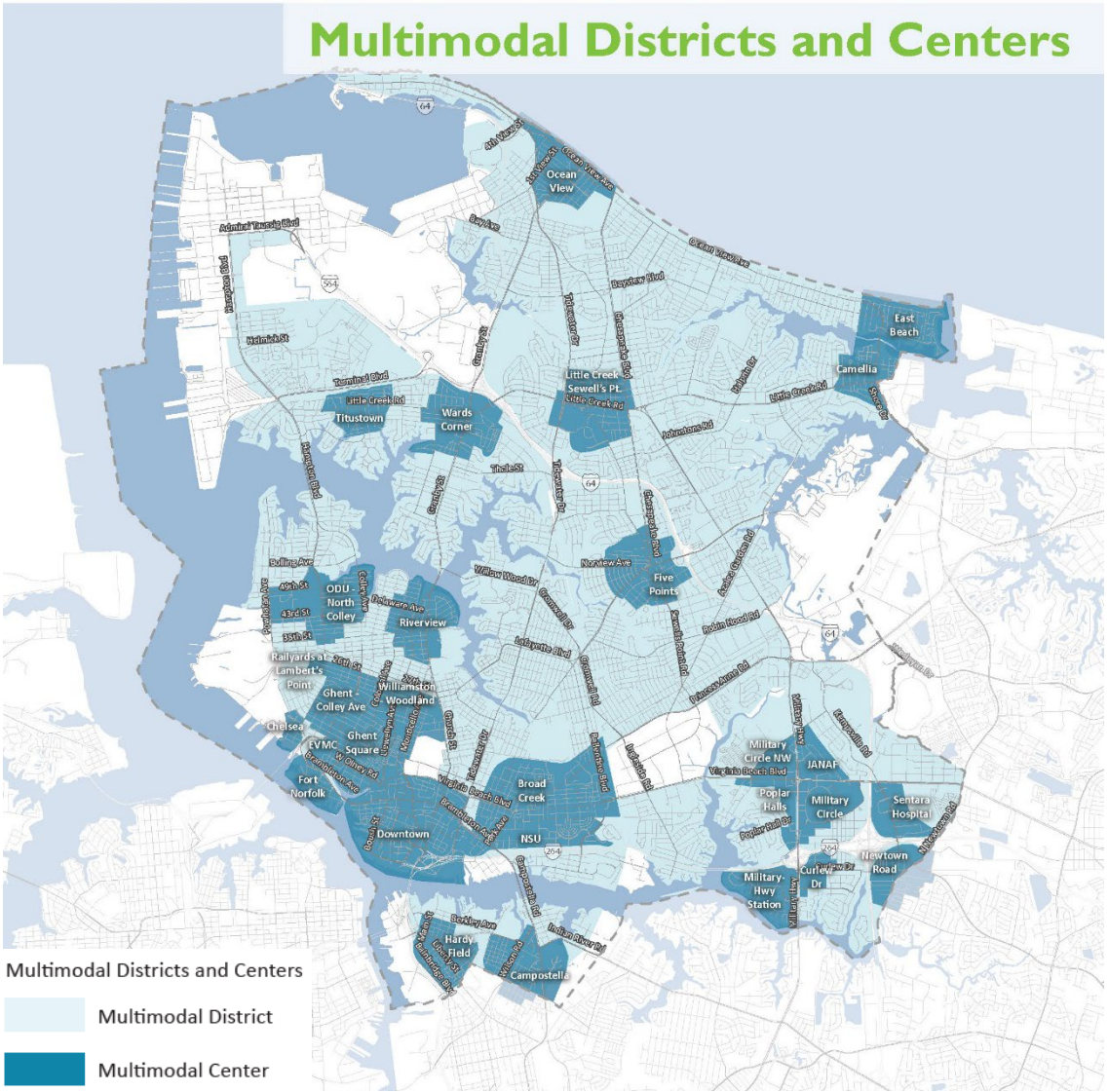
Multimodal Districts can have a wide variety of land use contexts and characteristics. They can be any area of any size that is envisioned to have good multimodal connectivity either now or in the future.

Multimodal Centers are areas that are envisioned to be places where walking, bicycling, scootering, and transit are easy and convenient.

Multimodal Centers typically have, or are envisioned to have in the future, distinctly higher densities of population and jobs than the surrounding Multimodal District. Multimodal Centers are places with the most vibrant street activity and usually have a robust mix of uses. The streets, buildings, and urban form within Multimodal Centers are, or are envisioned to be in the future, designed to promote this vibrant street activity and focused on people, not vehicles.

Multimodal Centers are often based on a half-mile radius area, which corresponds to a 10-minute walk from edge to center, and usually centered on a major destination or anchor point, such as the heart of a commercial district, a popular shopping, dining, or institutional destination, a high-density employment area, or a key transit station or transfer point.

Multimodal Centers in Norfolk were identified using a variety of criteria, including existing and future activity density, future land use, barriers to multimodal connectivity, future planning efforts, and input from the public about where they live, work, and regularly visit. Maps showing these criteria individually are provided in Appendix B.




Multimodal Centers and Multimodal Districts in Norfolk represent the base layer of the Multimodal System Plan. Multimodal Centers are areas envisioned to have the highest levels of activity and mix of uses in the future. Multimodal Districts are surrounding areas that have relatively lower levels of activity but are still envisioned to be safe for getting around without a car. Higher resolution and zoomed in versions of this map are available in Appendix A.

## Activity Density and Transect Zones: A Measure of Land Use Intensity

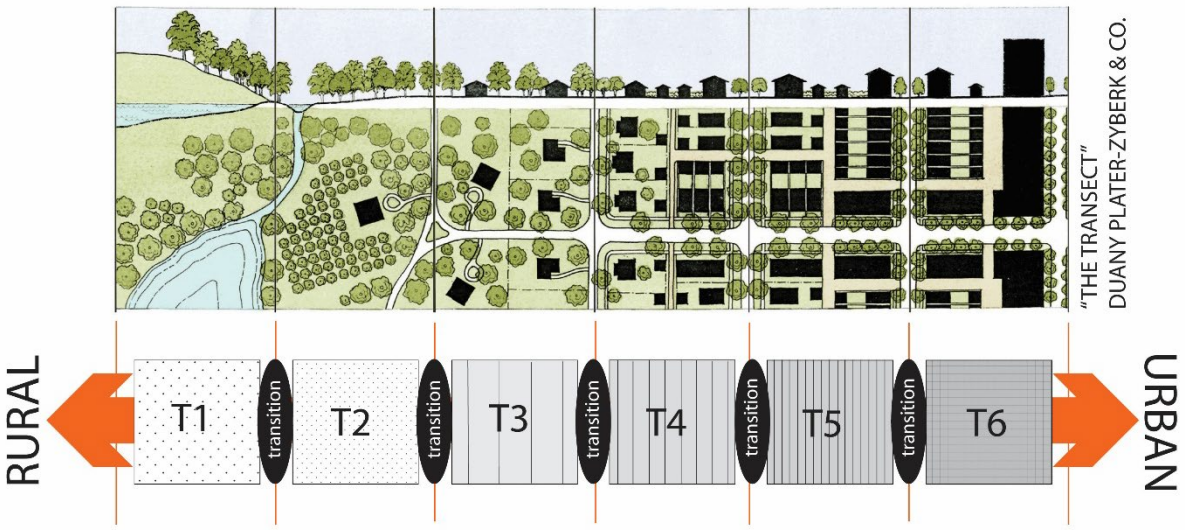
Norfolk is a city of neighborhoods with a wide variety of commercial areas, institutions, regional destinations, and employment centers. Its diversity of land uses makes Norfolk unique. The Multimodal System Plan recognizes the diversity of places within Norfolk and uses a measure of *activity density* to classify the relative intensity of places.

Activity density is a way of combining the density of existing and future population and jobs to classify different types of places in a consistent manner. Activity density is the sum of people and jobs in an area divided by the acreage. Maps of activity density in Norfolk are provided in Appendix B.

The *Transect* is a concept commonly used in the urban planning profession to illustrate the range of natural and built environments. The Transect is divided into six bands of density called *transect zones*.

*Transect Zones are categories of land use intensity. Places can be categorized into six transect zones according to the density of population and jobs.*

Each transect zone has a defined range of activity density and a whole complement of streets, buildings, and open space that go along with that level of density. DRPT's




The Transect Diagram illustrates the range of natural and built environments across a spectrum of density. Places are classified into six different transect zones depending on the density and intensity of land uses. The Transect is a concept commonly used in the urban planning profession and serves as the basis for categorizing Norfolk's diverse areas into a simple and consistent classification scheme.

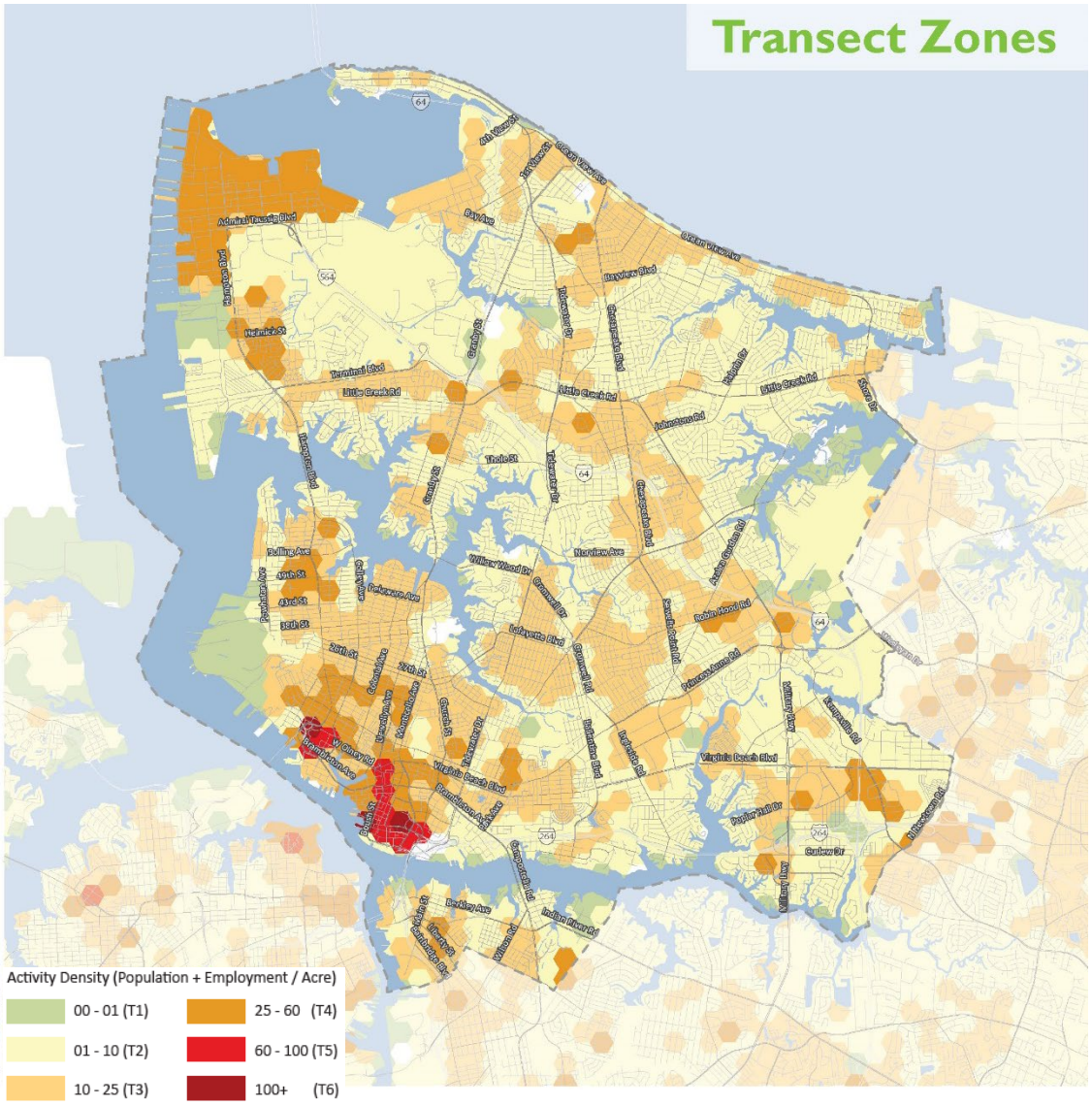
Multimodal System Design Guidelines define a range of activity density for the six transect zones that is calibrated to the spectrum of real places in Virginia.

The transect zones and activity densities define the context of the Multimodal Centers and the Multimodal Corridors in Norfolk.

| Transect Zone | Activity Density Range (Population + Employment per acre) |
|---|---|
| T1 | 0 to 1 |
| T2 | 1 to 10 |
| T3 | 10 to 25 |
| T4 | 25 to 60 |
| T5 | 60 to 100 |
| T6 | 100+ |

Areas in Norfolk span the full range of transect zone densities, which account for existing and future population and jobs. Most neighborhoods fall within the lower to mid-density T2 and T3 transect zones. Several areas including the naval base, Old Dominion University campus, Military Circle area, neighborhoods north of downtown, and other commercial areas fall into the T4 transect zone. Only the areas around downtown and Eastern Virginia Medical School fall into the more intense T5 or T6 transect zones.

The corridor design framework presented in Chapters 6 and 7 uses the transect zones to tailor the corridor design recommendations to different contexts.




Transect zones describe the spectrum of land use density and intensity in Norfolk. This map shows the existing and future activity density from US Census population and employment data combined with adopted forecasts from the Hampton Roads Planning District Commission. Data is consolidated into a hexagonal grid for consistent representation across the city. Higher resolution and zoomed in versions of this map are available in Appendix A. Appendix B contains additional maps used in this analysis.

## Multimodal Corridors: How do you get there?

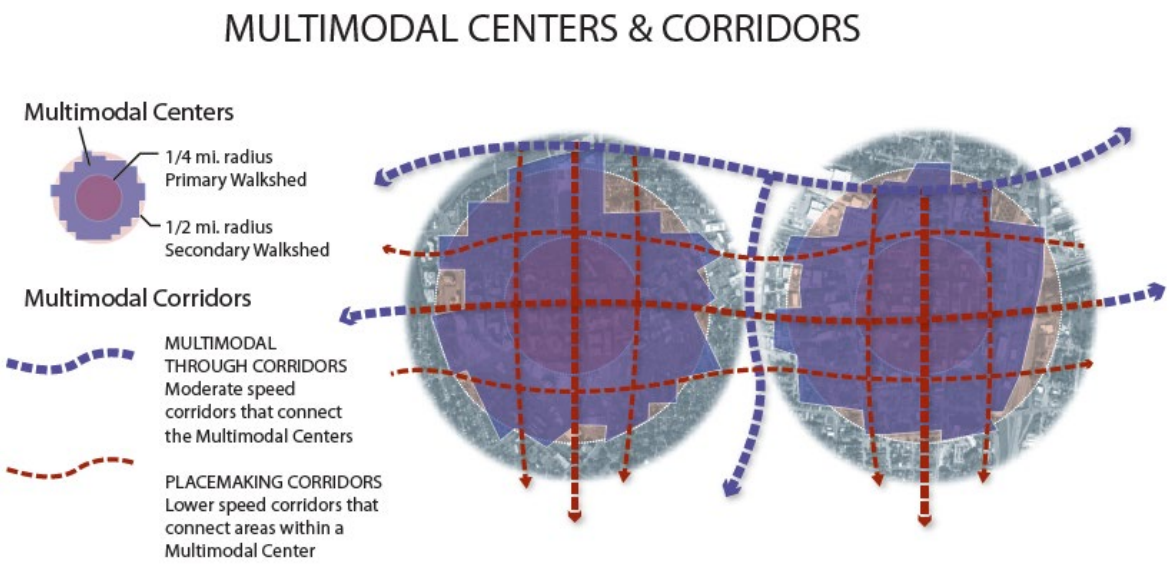
The ultimate goal of the Multimodal System Plan is to designate a connected transportation system for all modes across the entire city. *Multimodal Corridors* are the building blocks for this connected system.

*A **Multimodal Corridor** is any roadway that is envisioned to accommodate multiple modes of transportation, either now or in the future.*

Multimodal Corridors can span a wide range of road types, including vibrant streets with lots of walkable destinations and high pedestrian activity, major arterials that move high volumes of traffic, small neighborhood streets with very few cars, and everything in between.

Only limited-access highways like interstates and other roads that expressly prohibit pedestrians and other non-motorized users are not considered to be Multimodal Corridors.

A road can be designated as a Multimodal Corridor even if it is not considered to be safe or comfortable for all modes today. The Multimodal Corridor designation implies an intention to transform a street into a one that is safe for all modes as opportunities for improvements arise.




There are two general types of Multimodal Corridors – Multimodal Through Corridors and Placemaking Corridors. Multimodal Through Corridors transition to Placemaking Corridors within Multimodal Centers.

### Multimodal Corridor Types

There are two general types of Multimodal Corridors – *Multimodal Through Corridors* and *Placemaking Corridors.* Streets are designated as one or the other based on the envisioned future function.

*Multimodal Through Corridors are envisioned to move people smoothly and quickly from one area to another.*

Multimodal Through Corridors are relatively higher-speed roads that focus on moving lots of people efficiently.

*Placemaking Corridors are envisioned to have slower speeds.*

Placemaking Corridors are less focused on moving lots of people quickly and more focused on creating a sense of place where pedestrians and bicyclists of all ages and abilities feel safe and comfortable.

*Both Multimodal Through Corridors and Placemaking Corridors will be designed to safely accommodate all modes.*

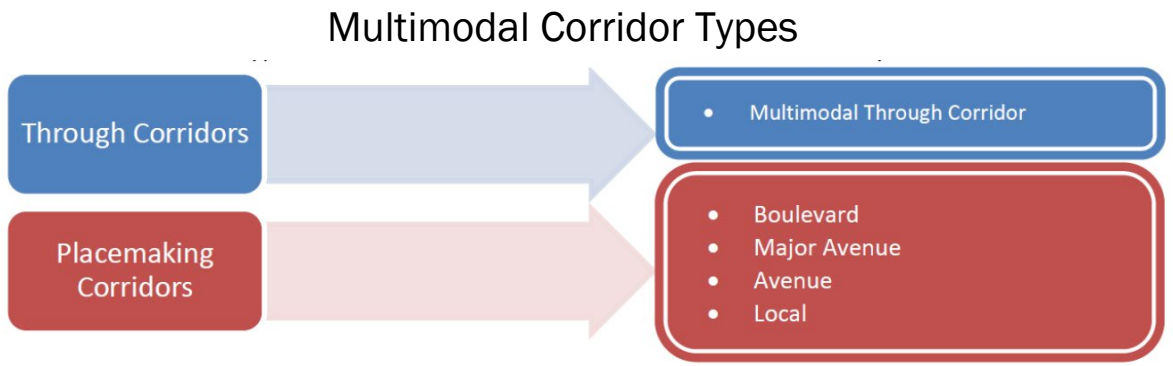
The primary difference between Multimodal Through Corridors and Placemaking Corridors is in the function of the corridor. Placemaking Corridors and Multimodal Through Corridors work together to move people quickly from one area of the city to another and ultimately to activities within a Multimodal District or Multimodal Center.

*The type of Multimodal Corridor does not specify or guarantee a specific treatment or type of facility will be provided.*

Rather, the Multimodal Corridor type, along with *Modal Emphasis*, which is explained later in this chapter, will influence future decisions regarding corridor design, as explained in Chapters 6 and 7.

Because of the envisioned vibrancy of Multimodal Centers, Multimodal Through Corridors transition to Placemaking Corridors within Multimodal Centers. Placemaking Corridors can be designated anywhere in the city – inside or outside of Multimodal Centers.

Placemaking Corridors are further categorized into four corridor types: *Boulevards*, *Major Avenues*, *Avenues*, and *Local Streets*. The following descriptions indicate the intended future function for each corridor type. Additional descriptions and illustrations for each corridor type can be found in DRPT's Multimodal System Design Guidelines.




Placemaking Corridors are further categorized into four corridor types, based on envisioned future function relative to access, mobility, and multimodal features.

*A **Boulevard** is the corridor type of highest multimodal capacity that accommodates multiple motorized and non-motorized modes.*

Boulevards allow for higher traffic volumes and greater efficiency of vehicular movements than Major Avenues, Avenues, and Local Streets, and typically have four to six lanes of traffic but may grow to eight in particularly dense centers. Boulevards provide safe and convenient pedestrian and bicycle access to adjacent land uses. Boulevards typically feature a median, landscaped amenity elements, street trees, and wider sidewalks. Design speeds for Boulevards typically range from 25 to 35 mph.

*Major Avenues contain the highest density of destinations, intensity of activity, and mix of modes.*

Because of the close proximity of destinations, pedestrians and street activity are common on Major Avenues. Major Avenues have wide sidewalks to accommodate high numbers of pedestrians and a variety of outdoor activities, including sidewalk cafes, kiosks, vendors, and other street activities. Major Avenues can be areas of high transit ridership for local bus routes. Traffic is low speed and localized. Due to the intensity of destinations, longer regional trips do not use Major Avenues; rather they would typically be on Boulevards or Multimodal Through Corridors. Autos and buses on Major Avenues travel at slow speeds because pedestrian crossings and

on-road bicyclists are frequent. Major Avenues typically have four or fewer lanes for motor vehicle travel while providing adequate facilities for bicycling and typically providing roadway space dedicated to on-street parking. Design speeds for Major Avenues typically range from 25 to 35 mph.

*Avenues provide a balance between access to the businesses and residences that front upon them and the collection of vehicular and pedestrian traffic.*

While having fewer destinations than Major Avenues, pedestrian and bicycle activity is very common, as Avenues serve as critical links in the non-motorized network. Avenues are low speed roadways that facilitate shorter trips, but still contain a fair amount of destinations. Avenues typically have three travel lanes or fewer, and do not exceed four lanes. Avenues may have roadway space dedicated for on-street parking and provide adequate bicycle facilities. Design speeds for Avenues typically range from 25 to 30 mph.

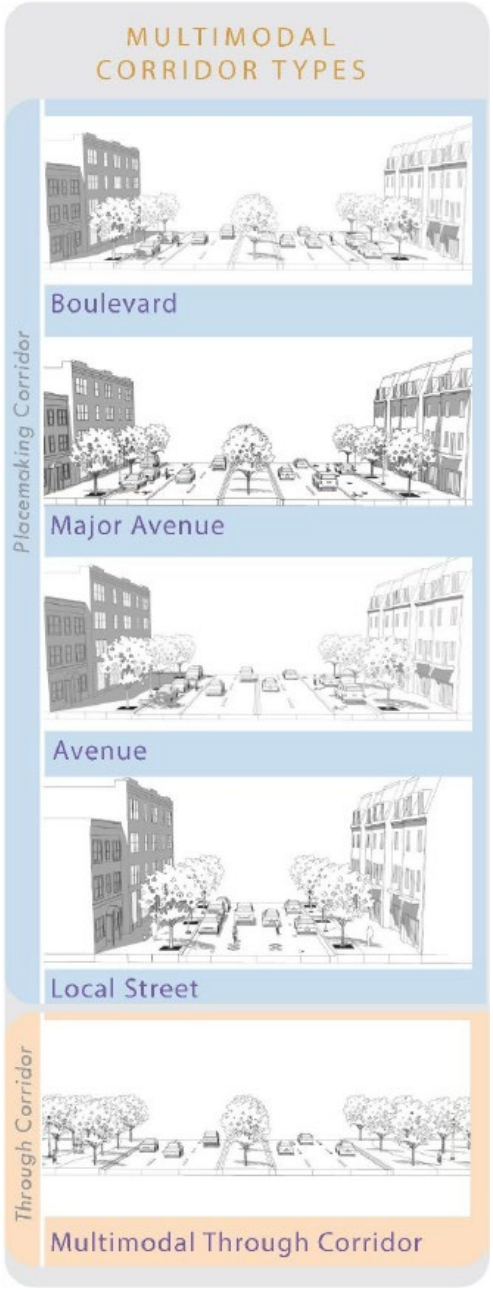
*Local Streets see a low amount of activity and have slow speeds and high access.*

Bicyclists typically can share the road with autos on Local Streets because speeds are slow and auto traffic is sparse, although Local Streets should typically have separate sidewalks and trails for pedestrian accommodation. Local Streets are primarily located in more residential areas and are intended to serve only trips that originate or end along them. They connect to Avenues, Boulevards or Major Avenues, funneling longer trips to these higher capacity corridor types. Local Streets are characterized by slow design speeds, wider setbacks; they may not have lane striping, and they emphasize on-street parking. Local Streets typically have a 25 mph design speed. Speed limits lower than 25 mph may be appropriate in certain conditions. For example, Granby Street between Main Street and Charlotte Street has a 15 mph posted speed limit.

## Multimodal Corridors in Norfolk

The map of Multimodal Corridors in Norfolk shows a connected system of streets that will safely accommodate all modes across the entire city.

There are several key Multimodal Through Corridors, like Military Highway and portions of Virginia Beach Boulevard, Princess Anne Road, Little Creek Road, and a few others. This designation means the primary function of these roads is to move people as quickly and efficiently as possible.




Prototypical cross-section illustrations of the five Multimodal Corridor types from DRPT's Multimodal System Design Guidelines.

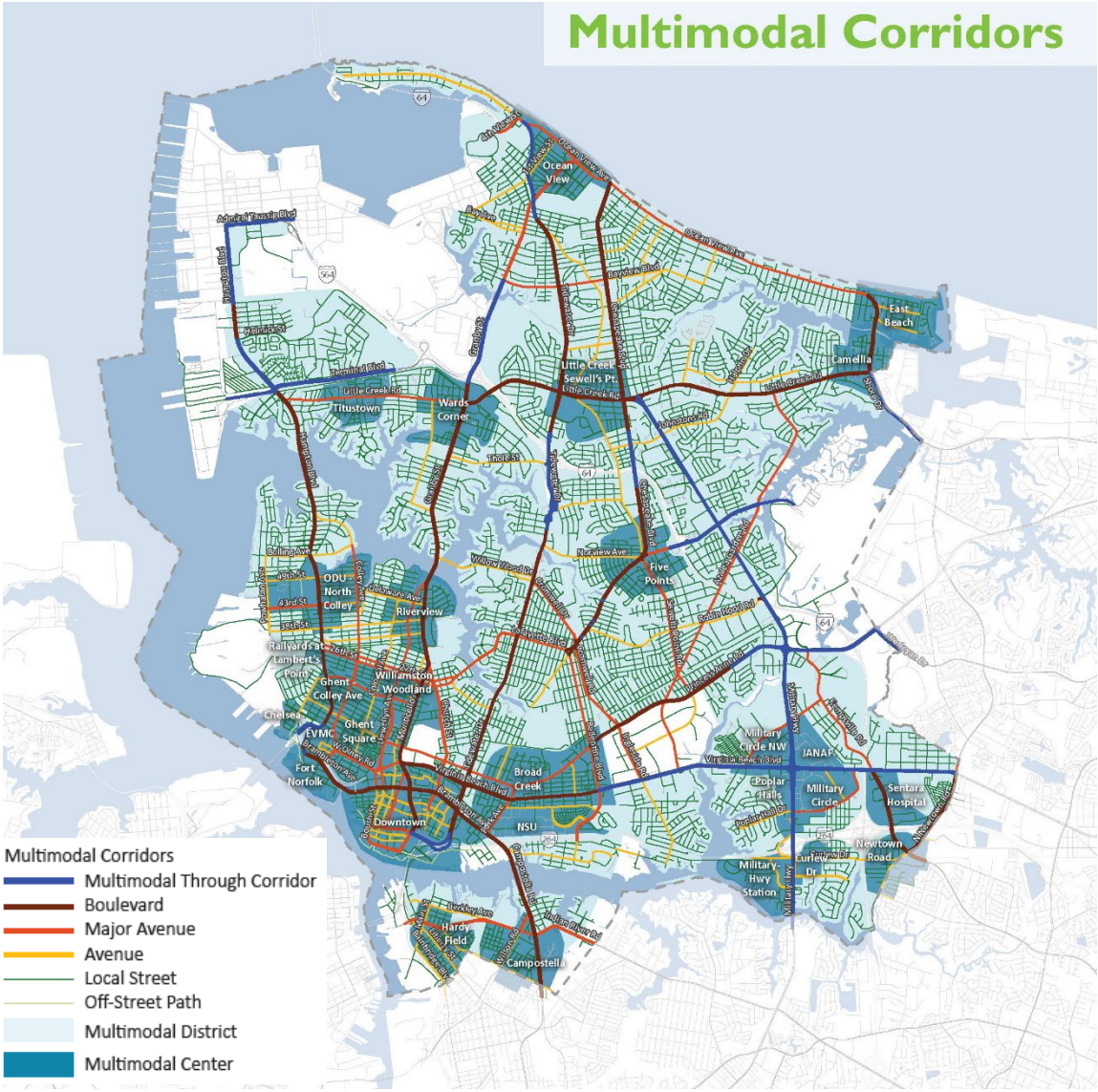
However, most roads within the City of Norfolk are designated as Placemaking Corridors. This means moving people as quickly and efficiently as possible is not the primary function.

*The primary function of most of Norfolk's streets is to create a sense of place where pedestrians and bicyclists of all ages and abilities feel safe and comfortable.*

The Multimodal Corridor types were assigned in collaboration with City staff and refined to reflect feedback from stakeholders and the public. Considerations for designating the Multimodal Corridor types included:

- envisioned future corridor land use characteristics
- envisioned future function relative to access and mobility
- VDOT functional classification
- average daily traffic volumes
- striping
- network connectivity
- transit ridership potential

The Multimodal Corridor types, together with the Modal Emphasis designations, should influence future decisions regarding corridor design. Modal Emphasis is described in the following section. The framework for designing Multimodal Corridors is explained in Chapters 6 and 7.




The map of Multimodal Corridors in Norfolk shows a connected system of streets that will safely accommodate all modes across the entire city. Higher resolution and zoomed in versions of this map are available in Appendix A.

## Modal Emphasis: Can you get there?

The map of Multimodal Corridors on the previous page starts to define a system of streets envisioned to safely accommodate all travel modes. All Multimodal Corridors should be designed to safely accommodate all modes.

But some streets serve as more important connections for one or more modes than other streets, and there are varying degrees to which a travel mode can be safely accommodated. For example, some streets may be less important for buses but form a critical piece of a bike or pedestrian network. These considerations are addressed through Modal Emphasis.

*Modal Emphasis* is one of the most important concepts in the Multimodal System Plan.

***Modal Emphasis** is the designation of one or more travel modes that should be emphasized in the design of a Multimodal Corridor.*

Modal Emphasis is independent of the Multimodal Corridor type. Modal emphasis indicates that a street serves as a critical connection for a mode, and that mode should be emphasized, through enhanced design standards, when future design decisions are being made.

The Modal Emphasis of a street, together with the Multimodal Corridor type and the Transect Zone, serves as the basis for corridor design decisions.

There are three Modal Emphases in the Norfolk Multimodal System Plan:

- Pedestrian Modal Emphasis
- Bicycle/Scooter Modal Emphasis
- Transit Modal Emphasis

Each Modal Emphasis has its own features and policy approach, as described in the following sections.

Automobiles are assumed to be accommodated on every Multimodal Corridor, unless a street is currently or will in the future be designated as car-free, either temporarily for events or permanently.

Freight movement and deliveries and curb space uses like parking are other design considerations that are not the same kinds of travel modes and are not considered to be modal emphasis. Freight considerations are addressed in Appendix D, as a follow-on to Chapters 6 and 7. Chapter 9 describes the framework for determining curb use.

*The purpose of each Modal Emphasis map is to identify a network of streets and paths that are envisioned to fully connect within and between all Multimodal Centers and other major destinations across the entire city for each emphasized mode.*

The Modal Emphasis maps represent a future vision of a connected network. However, many of the streets included in the Modal Emphasis maps lack accommodations for one or more modes today, and it will take many years to achieve a full multimodal vision for the city due to funding needs and constraints.

The process to develop the Modal Emphasis maps included examining the current facilities for each mode, identifying gaps, and identifying needed connections to close those gaps, informed by public review and input.

The Modal Emphasis maps, therefore, represent a combination of streets with existing facilities and streets currently lacking facilities that are critical missing connections for the emphasized mode. Maps of existing facilities are provided in Appendix B.

The Modal Emphasis maps do not guarantee that a specific type of facility will be provided, however. The type of facility should be determined on a case-by-case basis through a more detailed corridor

design process as described in Chapters 6 and 7.

Improvements to build out the Modal Emphasis on each network will be implemented over time as opportunities and funding become available. The Multimodal Needs Assessment in Chapter 12 identifies the highest priority improvements for the near, mid, and long-term, based on funding that is anticipated to be available.

The Modal Emphasis maps shown in the following sections were developed using a variety of data and context considerations, in collaboration with city staff and informed by feedback from stakeholders and the public.

## Pedestrian Modal Emphasis

Pedestrians, including able-bodied persons and those who rely on wheelchairs or other mobility devices, are the most vulnerable road users. They are most likely to be fatally or seriously injured if hit by a moving vehicle. The City of Norfolk's Vision Zero policy to reduce traffic-related fatalities to zero gives particular focus to pedestrians.

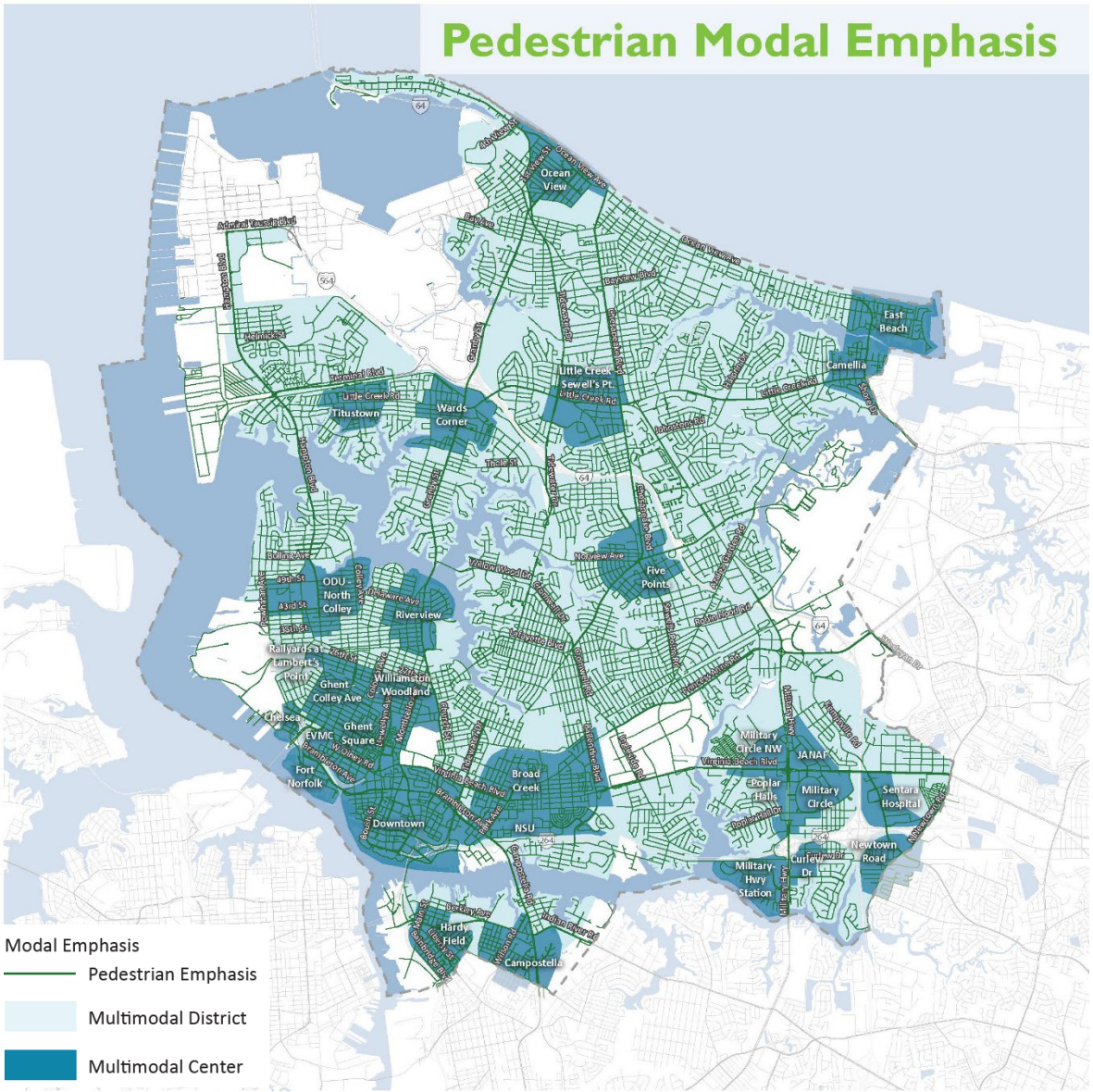
As a general policy, the needs and safety of pedestrians should be considered top priority when decisions about moving people are being made.

*Pedestrian safety is the top priority for all Multimodal Corridors.*

For this reason, all Multimodal Corridors, both Placemaking Corridors and Multimodal Through Corridors, were designated with Pedestrian Modal Emphasis. This means that future street improvements should consider pedestrian facilities to the greatest extent practicable based on right-of-way constraints and other feasibility factors.

Chapters 6 and 7 explain in more detail how Pedestrian Modal Emphasis influences the design of street improvements.

Many of Norfolk's streets lack accommodations for pedestrians today. The Multimodal Needs Assessment described in Chapter 12 identifies the most critical pedestrian needs, including sidewalk gaps, and needed crosswalks.




Pedestrian Modal Emphasis is designated on all Multimodal Corridors in Norfolk. Higher resolution and zoomed in versions of this map are available in Appendix A.

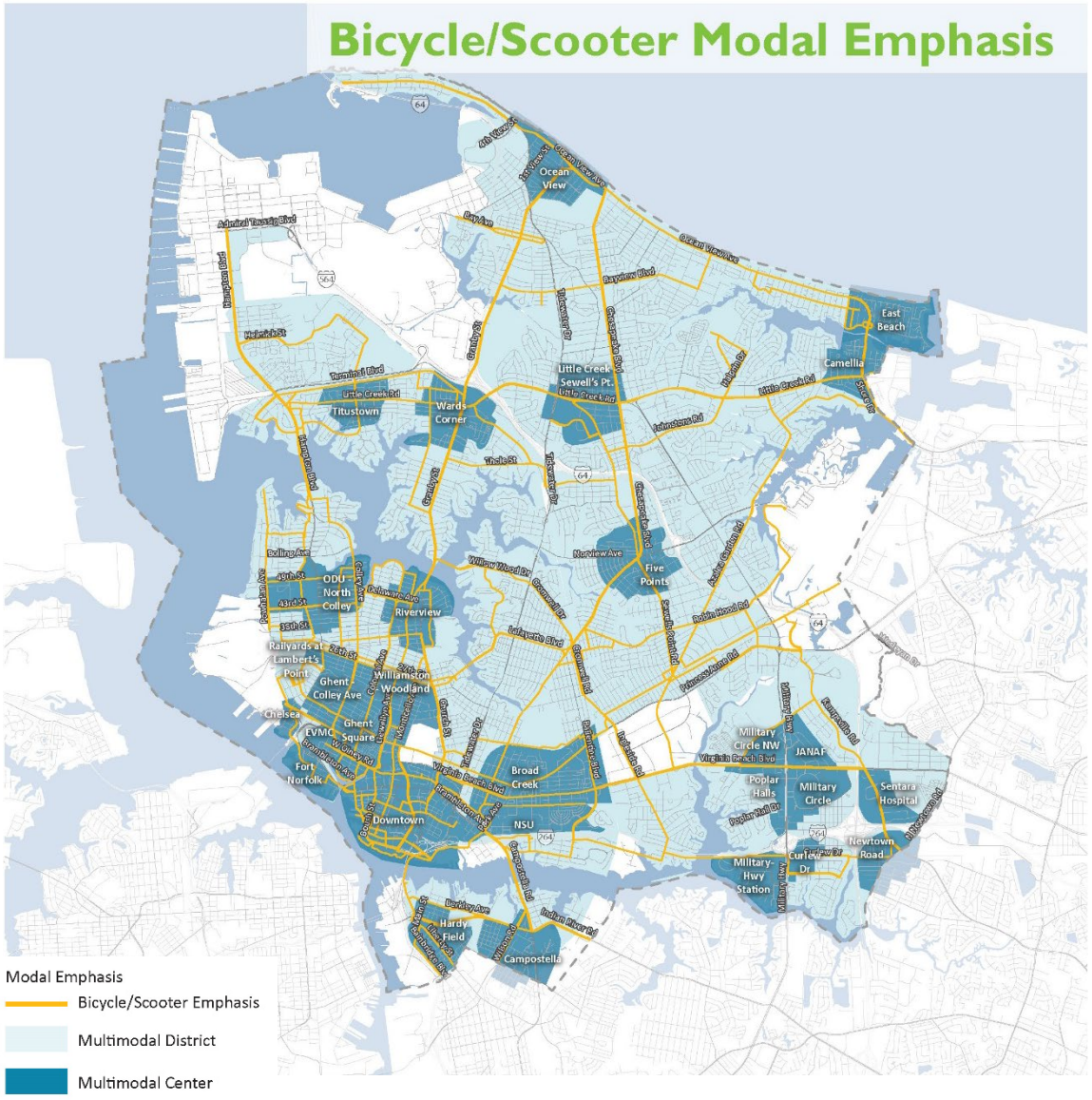
## Bicycle/Scooter Modal Emphasis

Bicyclists and scooter riders are also highly vulnerable road users, and the City's Vision Zero policy also focuses on reducing bicycle fatalities. As a general policy, the needs and safety of bicyclists and scooter riders should also be considered top priority when decisions about moving people are being made.

*The network of Bicycle/Scooter Modal Emphasis envisions a future connected network of streets and paths that bicyclists and scooter riders can use to travel safely and comfortably within and between all Multimodal Centers and other major destinations across the entire city.*

The Bicycle/Scooter Modal Emphasis network includes streets with existing bicycle facilities and streets currently lacking bicycle and scooter accommodations that are critical connections.

All streets with specific improvements identified in the City's Bicycle and Pedestrian Strategic Plan are included in the Bicycle/Scooter Modal Emphasis network. The Bicycle and Pedestrian Master Plan described in Chapter 5 further explains how the Multimodal Norfolk transportation master plan complements and builds on the Bicycle and Pedestrian Strategic Plan.




The Bicycle/Scooter Modal Emphasis network is a future vision of a fully connected network of streets and paths that bicyclists and scooter riders can use to travel safely and comfortably across the entire city. Higher resolution and zoomed in versions of this map are available in Appendix A.

It is important to note that, while this plan combines bicycles and scooters in the same modal emphasis, the two modes have slightly different operating characteristics and regulations.

Generally, bicycles and scooters should be ridden in bicycle lanes and shared-use paths, where provided, and in general vehicle lanes when bicycle lanes or shared-use paths are not available.

Motorized scooters are not allowed to be ridden on any sidewalks in any part of the city, particularly in downtown (unless required for mobility assistance).

Bicycles can be ridden on sidewalks in select areas:

- Sidewalks designated as part of the Elizabeth River Trail
- Sidewalks outside of downtown and outside of the pedestrian/commercial districts.

It is also important to note that the Bicycle/Scooter Modal Emphasis map does not guarantee or imply that a specific type of facility will be provided. The type of facility will be determined in more detailed design phases, as described in Chapters 6 and 7, and will depend on individual factors like posted speeds, traffic volumes, and right-of-way constraints.

In addition, as part of a detailed analysis during design development, it is possible that a street with Bicycle/Scooter Modal Emphasis may be re-designated to a parallel street that better serves bicycle safety and connectivity needs.

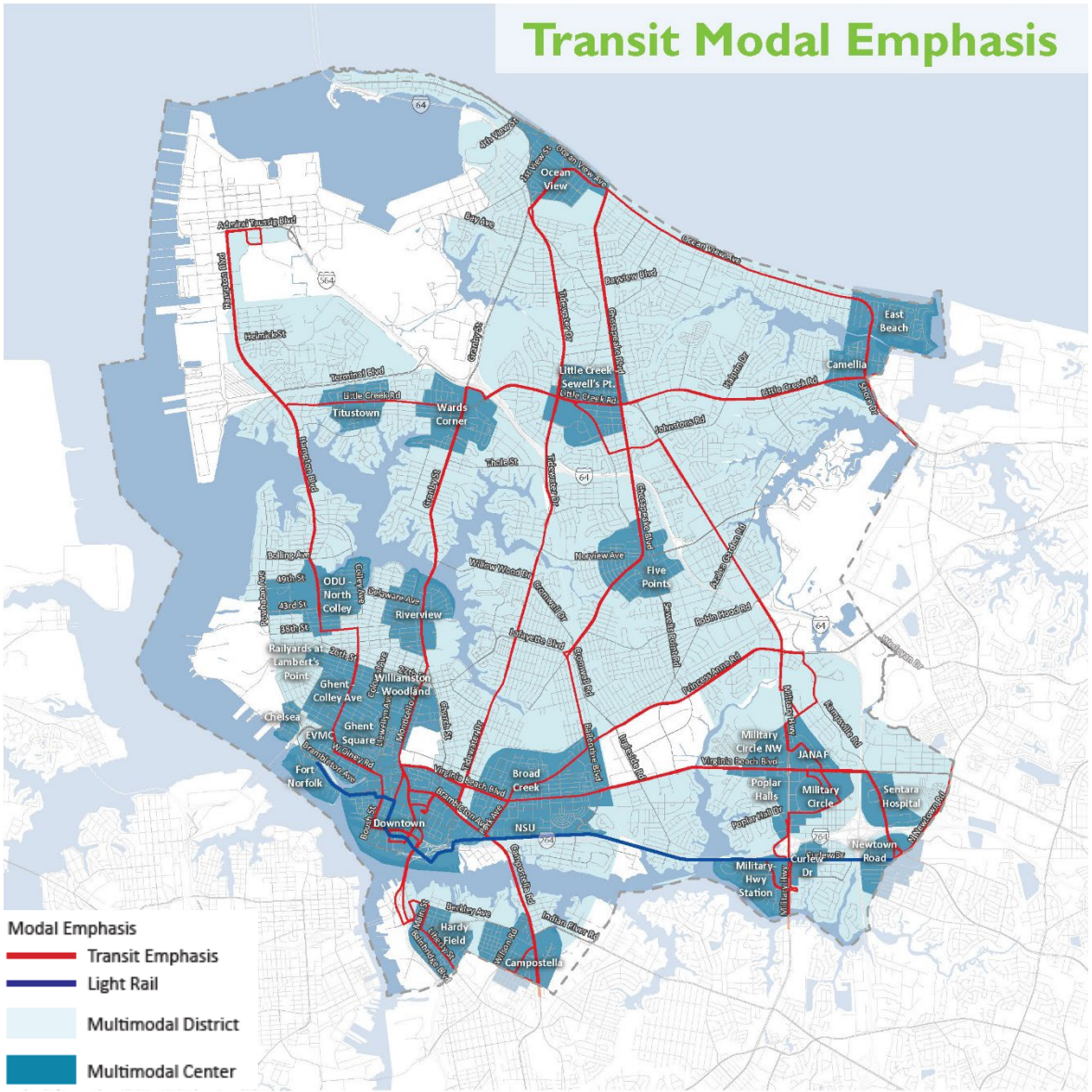
## Transit Modal Emphasis

*The Transit Modal Emphasis map shows a network of streets that have the highest potential for generating transit trips and connect between all Multimodal Centers and other major destinations across the city.*

Although this map looks similar to the new transit network map from the transit system redesign that is anticipated to be implemented in 2023, the Transit Modal Emphasis map serves a different purpose.

The purpose of the Transit Modal Emphasis map is to identify a network of critical transit connections across the city, independent of transit service frequency. It is used to inform the design of corridor improvements. As explained in more detail in Chapter 6, the design of improvements on corridors with Transit Modal Emphasis will involve emphasizing the needs of transit vehicles.

The Transit Modal Emphasis map is also distinct from the Naval Station Norfolk Transit Corridor Project (NSNTCP), currently underway, in which HRT is evaluating various alignments for potential light rail or bus rapid transit service on Norfolk's east side. The Multimodal Norfolk project team coordinated with the NSNTCP team throughout the development of the Multimodal Norfolk transportation master plan. However, the NSNTCP had not yet identified a preferred alternative for light rail or bus rapid transit at the time of the




Transit Modal Emphasis shows a network of streets that have the highest potential for generating transit trips and connect between all Multimodal Centers and other major destinations across the city. Higher resolution and zoomed in versions of this map are available in Appendix A.

development of the Transit Modal Emphasis map. Once the NSNTCP preferred alternative is identified, it is anticipated that the Transit Modal Emphasis map will be updated.

## Putting It All Together: Norfolk's Multimodal System Plan

The components introduced and defined throughout this chapter - Multimodal Centers, Multimodal Districts, Transect Zones, Multimodal Corridor types, and the three Modal Emphasis networks - together comprise the Multimodal System Plan for the City of Norfolk.

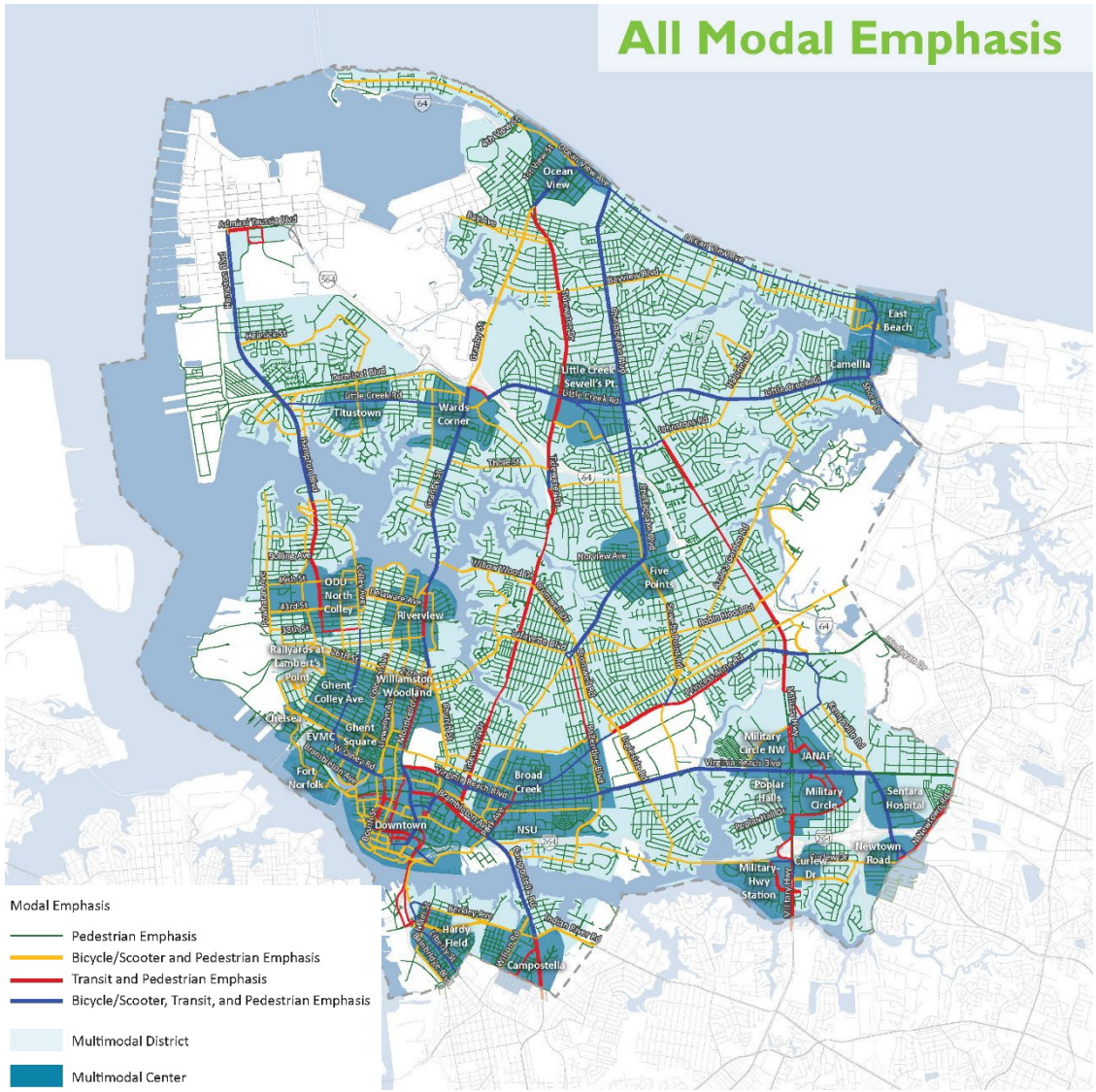
The map on the right shows the three Modal Emphasis networks overlaid on the Multimodal Centers and Multimodal Districts.

*This map depicts a future vision of a comprehensive connected transportation system for all modes across the entire city. It includes potential future connections to close existing gaps.*

This is ultimately a long-term vision and will be implemented incrementally as funding is available and opportunities arise.

All of the Multimodal System Plan components are factors that influence the design of street improvement projects to ensure that each individual project works toward achieving this connected future system.

The next chapter goes into more depth on the Bicycle and Pedestrian Master Plan, and the following chapter describes how to use the Multimodal System Plan in the design phase.




The three Modal Emphasis networks, Multimodal Centers, and Multimodal Districts shown here, together with the Transect Zones and Multimodal Corridor types comprise the Multimodal System Plan for the City of Norfolk. Higher resolution and zoomed in versions of this map are available in Appendix A.

[i] The Multimodal System Design Guidelines are currently available on the Virginia Department of Rail and Public Transportation's website at: http://www.drpt.virginia.gov/transit/planning/multimodal-guidelines.