CHAPTER 3
Multimodal Districts and Multimodal Centers

What are Multimodal Districts and Multimodal Centers?

As described in the previous chapter, **Multimodal Districts** are any portion of a city, town or county that has good multimodal characteristics such as:

- Moderate to high density development, quite often with mixed uses
- Good connectivity of roads and a compact, connected system of blocks
- Roads that have good transit, bike, and pedestrian networks or where such networks are planned

While Multimodal Districts can vary in size, even being as large as a whole town or section of a city, **Multimodal Centers** as used in these Guidelines are much more compact centers that are defined by a specific walkable travel-shed, generally with a one-mile diameter. Multimodal Centers have the following characteristics:

- Based on a comfortable walk-shed, generally defined as a one-mile diameter circle (modified as needed for barriers and natural or man-made features)
- Consist of localized centers of activity and density, whether population, employment or activities (retail, civic or other activity generating uses)
- Served by existing or future transit (although in low intensity centers this may not be possible)
- Have a well-connected (current or planned) network of walkable and bikable streets with low vehicular speeds and accommodations for bicycles, pedestrians, and buses.

One of the most important benefits of identifying potential Multimodal Centers within a region is that it gives a focus for prioritizing multimodal improvements to ensure that they serve the greatest number of people and leverage the most private investment and job growth. Identifying Multimodal Centers in a region helps to focus key locations for investing in multimodal improvements and helps ensure that these investments are located where they will create the most public benefit.

Multimodal Centers and Transit Oriented Development

It is important to distinguish Multimodal Centers from Transit Oriented Development (TOD). Many excellent studies have been done on planning for TOD within the context of a region or a corridor.[16] However, there are many places in Virginia with no or only limited transit that nevertheless still have good multimodal characteristics, such as density, walkability, and compact development patterns. Therefore the focus of Multimodal Centers in these Guidelines is much broader than just TOD and includes all centers with good multimodal characteristics as described above, not just those with transit-focused development. In the context of these Guidelines, TOD is an overlay on top of higher intensity Multimodal Centers. TODs and their connection with Multimodal Centers will be discussed in greater detail in the next chapter.

Figure 23 – Multimodal Centers with and without Transit Oriented Development. In higher intensity areas, Multimodal Centers may be focused on a premium transit station, like the Tide light rail in downtown Norfolk (photo on the left). However, Multimodal Centers also occur in lower intensity areas without TOD, such as in Staunton (photo on the right).

Multimodal Centers and TOD

Therefore the focus of Multimodal Centers in these Guidelines is much broader than just TOD and includes all centers with good multimodal characteristics as described above, not just those with high intensity transit-focused development.

[16] One of the most recent and comprehensive of these is the Center for Transit Oriented Development's "Planning for TOD at the Regional Scale," 2011.

The Range of Multimodal Centers in Virginia

Analyzing Potential Multimodal Centers for Virginia

Multimodal Centers can be found in a wide range of contexts in Virginia, from dense urban downtowns, like Richmond and Norfolk, to historic town and village centers such as Lexington and Staunton, to relatively new walkable suburban hubs, such as Reston Town Center or New Town in James City County. In order to define a typology of Multimodal Centers with a range of scale and character as diverse as these, the typology was based on a careful analysis of real places in Virginia.

In this analysis, one-mile wide circles representing potential Multimodal Centers were placed over a large number of rural, suburban, and urban centers throughout Virginia. The population and employment densities were analyzed in each potential Multimodal Center using 2010 Census data and compared among a set of over 300 such centers in the Commonwealth. A summary of results from this analysis is in Appendix E of these Guidelines. A standardized way of comparing these densities was adopted called "Activity Density." Activity Density is a measure of population and employment density and is expressed in terms of jobs plus population per acre.[17]

One characteristic that is present in many of these potential Multimodal Centers in Virginia is a marked gradation of density from high to low from the center to the edge of the one-mile circle. This gradation in density was systematized in the Multimodal Center typology by the use of density transects, and is described in the following sections.

Figure 24 – One-Mile Circles Identified as Potential Multimodal Centers throughout Virginia. This image shows some of the potential Multimodal Centers analyzed in the Richmond area. The colors indicate different levels of Activity Density.

Measuring Multimodal Centers in Virginia

One-mile wide circles were placed over a large number of rural, suburban, and urban centers throughout Virginia. The population and employment densities were analyzed in each potential Multimodal Center and compared among a set of over 300 such centers in the Commonwealth. A standardized way of comparing these densities was adopted called Activity Density. Activity Density is a measure of population and employment density and is expressed in terms of jobs plus population per acre.

[17] Although there are a variety of other factors that affect the intensity and trip-making characteristics of a region (e.g. tourism and hotel rooms), population and employment densities are a simple, consistent, and effective way of measuring the activity of an area at many different scales and in various regions throughout the Commonwealth. References to Activity Density throughout these Guidelines refer to gross activity density, the sum of population and employment divided by the gross acreage.

Using the Transect to Define Density

The Transect as used in the planning profession has been a relatively common way of describing density and intensity for more than a decade. It has been used as the basis for numerous zoning codes, for the Smart Code system of standardized development codes nationwide, and as the basis for ITE/CNU's Guidebook on designing walkable urban thoroughfares, also used as a primary source for these Guidelines. The Transect was first defined by the CNU to describe the range of natural and built environments from the countryside to the center of the city. The diagram for the Transect shows these as Transect ("T") zones: each T-Zone defines a consistent scale of density and intensity of development and the whole complement of streets, buildings, and open space that goes along with that level of intensity.

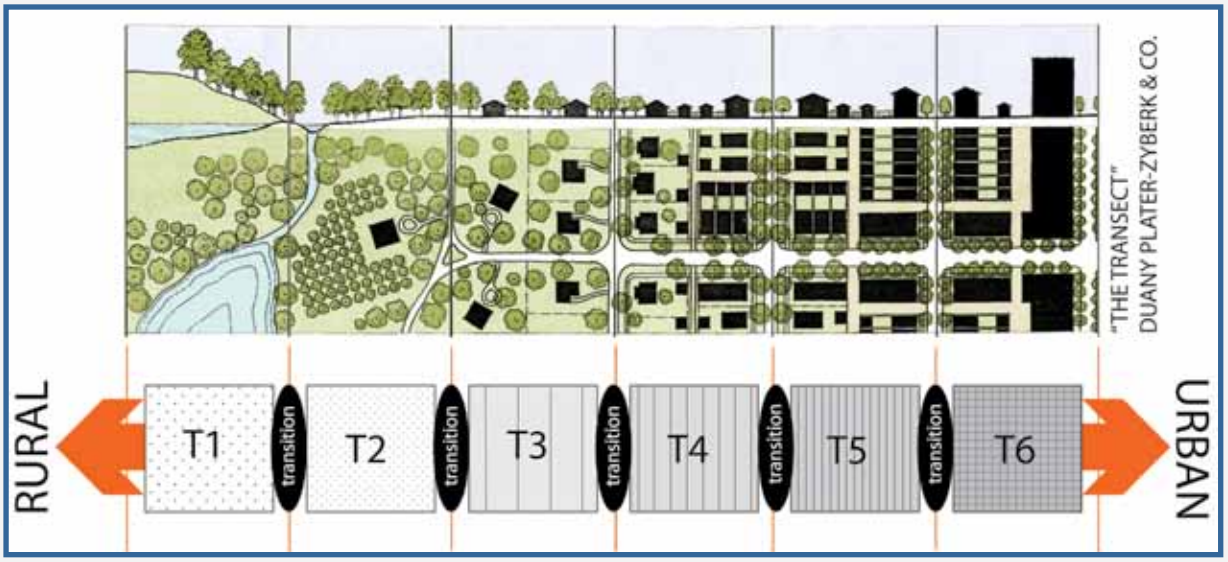


Figure 25 - The Transect Diagram. The Transect describes the range of natural and built environments across a spectrum of density. Places can be classified into one of the six different Transect Zones or "T-Zones" depending on the density or intensity of the land uses in an area.

As used in these Guidelines, T-Zones help to clearly identify a level of intensity of development, from a T-6, which is generally a dense urban core area, to a T-4 which is the type of smaller scale urban environment that might be found toward the edges of a large city or at the very core of a small town, to a T-1 which is a generally rural area. Thus, Transect Zones are the basic building blocks to define the intensity of development whether within a Multimodal Center or along a Multimodal Corridor. Transect Zones can also be applied in areas outside of Multimodal Districts and Centers.

Transect Zones have been used throughout these Guidelines, both to define density and intensity in Multimodal Centers, and to define levels of intensity along Multimodal Corridors. Within each Multimodal Center type, there is a spectrum of intensity levels described by T-Zones. The basic metrics for density and intensity for each of these T-Zones is described in Table 1, along with typical gross and net Floor Area Ratios (FARs) associated with each Transect Zone. The ranges of Activity Density for each T-Zone were derived through the analysis of over 300 potential Multimodal Centers in Virginia, as previously described, and the Activity Density ranges in Table 1 were based on this density spectrum across Virginia.

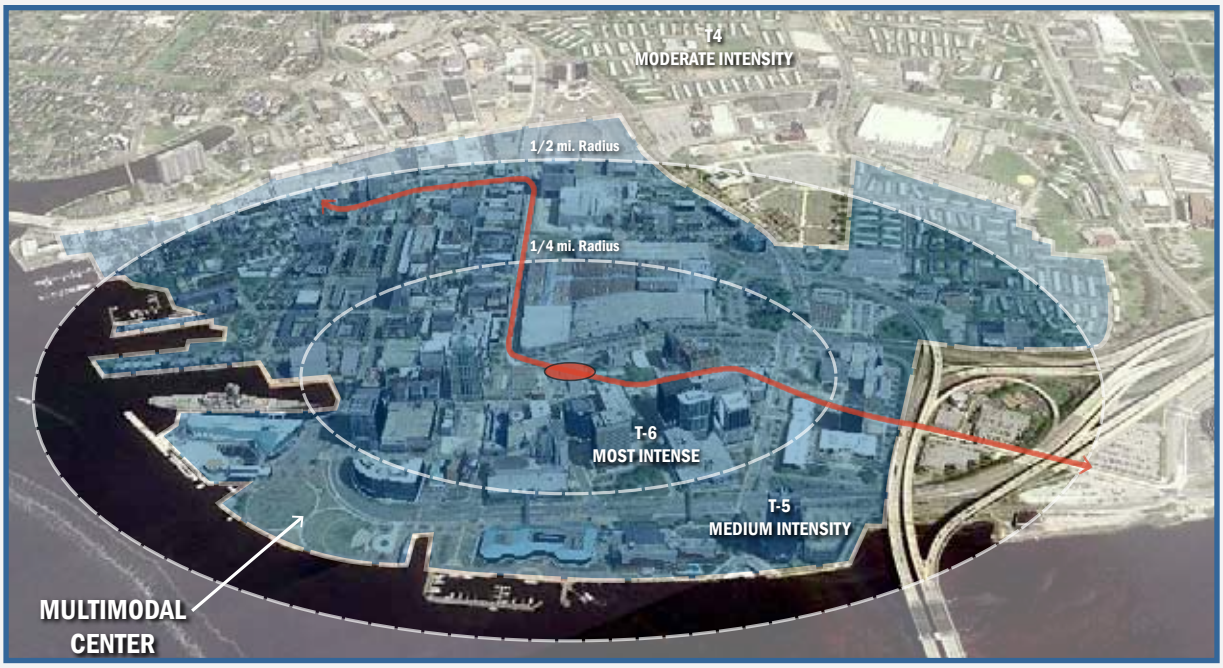


Figure 26 - T-Zones in a Multimodal Center in Downtown Norfolk. The red line is the alignment of the light rail line and the station in the center is MacArthur Square.

However, density does not occur in a uniform pattern in real places. When we average the density over an area of several city blocks, for example, it will usually include a range of densities and building heights, with some parcels having multi-story buildings adjacent to surface parking lots or vacant sites. The series of three-dimensional illustrations in Figure 26 show the built form of a typical block and give a more realistic picture of the density in each Transect Zone. These typical blocks show the variety and range of building heights and parking layouts commensurate with each T-Zone, and help to visualize the density of each T-Zone with some basic metrics of development scale. The supported transit technology indicated for each T-Zone describes the most advanced type of transit technology that these densities are able to support. The concept of supported transit technology and how they were determined is explained in greater detail in Chapter 4.

TRANSECT ZONE INTENSITY			
Transect Zone	Activity Density (Jobs + people/acre)	Gross Development FAR (residenial + non-residential)	Net Development FAR (residenial + non-residential)
T-1	1 or less	0.01 or less	0.02 or less
T-2	1 to 10	0.01 to 0.15	0.02 to 0.23
T-3	10 to 25	0.15 to 0.37	0.23 to 0.57
T-4	25 to 60	0.37 to 0.9	0.57 to 1.38
T-5	60 to 100	0.9 to 1.49	1.38 to 2.3
T-6	100 or more	1.49 or more	2.3 or more

Table 1 - Transect Zone Intensities. These metrics were calibrated based on analyzing the existing Activity Density in potential Multimodal Centers in Virginia.

Typical Blocks for each T-Zone

Density does not occur in a uniform pattern in real places. In order to give a more realistic picture of the density in each Transect Zone, a series of three-dimensional illustrations have been developed for these Guidelines that show the built form of a typical block for each Transect Zone.

T6

MIXED USE INTENSITY	High
ACTIVITY DENSITY (jobs + people/ac)	100+/ac
AVG. BLDG. HEIGHT	8+ Stories
TYPICAL MAX BLDG. HEIGHT	20+ Stories
TYPICAL NET FAR	2.30+
SUPPORTED TRANSIT TECHNOLOGY	LRT/Rail

T5

MIXED USE INTENSITY	High
ACTIVITY DENSITY (jobs + people/ac)	60-100/ac
AVG. BLDG. HEIGHT	6 Stories
TYPICAL MAX BLDG. HEIGHT	12 Stories
TYPICAL NET FAR	1.38-2.30
SUPPORTED TRANSIT TECHNOLOGY	BRT/LRT

T4

MIXED USE INTENSITY	Moderate
ACTIVITY DENSITY (jobs + people/ac)	25-60/ac
AVG. BLDG. HEIGHT	4 Stories
TYPICAL MAX BLDG. HEIGHT	8 Stories
TYPICAL NET FAR	0.57-1.38
SUPPORTED TRANSIT TECHNOLOGY	Express Bus

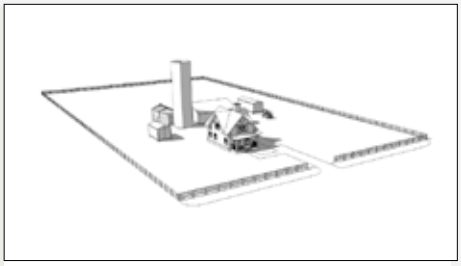
T3

MIXED USE INTENSITY	Moderate
ACTIVITY DENSITY (jobs + people/ac)	10-25/ac
AVG. BLDG. HEIGHT	3 Stories
TYPICAL MAX BLDG. HEIGHT	5 Stories
TYPICAL NET FAR	0.23-0.57
SUPPORTED TRANSIT TECHNOLOGY	Fixed Route Bus

T2

MIXED USE INTENSITY	Low
ACTIVITY DENSITY (jobs + people/ac)	1-10/ac
AVG. BLDG. HEIGHT	1.5 Stories
TYPICAL MAX BLDG. HEIGHT	3 Stories
TYPICAL NET FAR	0.02-0.23
SUPPORTED TRANSIT TECHNOLOGY	Demand Response

T1



MIXED USE INTENSITY	Very Low
ACTIVITY DENSITY (jobs + people/ac)	0-1/ac
AVG. BLDG. HEIGHT	1 Stories
TYPICAL MAX BLDG. HEIGHT	2 Stories
TYPICAL NET FAR	0-0.02
SUPPORTED TRANSIT TECHNOLOGY	Demand Response

Figure 27 - Illustrations of Typical Block Types by Transect Zone.

The Basic Typology of Multimodal Centers

As described previously, the one-mile diameter circles walk-sheds representing Multimodal Centers – although based on real places in Virginia – are somewhat idealized representations of a real place. They are represented as two concentric circle of uniform density – the first quarter-mile with higher density and the second quarter-mile with a step lower density. While not many places exhibit this exact kind of regular decrease in density in quarter-mile bands, it is nevertheless a general diagrammatic representation of the way that real Multimodal Centers are composed. The 10-minute walk-shed that is the basis for Multimodal Centers forms the nucleus for activities and destinations within easy walking distance. The one-mile diameter circles are used to approximate the locations of potential Multimodal Centers within each Multimodal District. However, these one-mile circles are typically morphed into more organic-looking shapes as they are modified by natural or man-made barriers, or by parcel-level designation on local governments' future land use maps and zoning codes. Despite these modifications, the organic-looking shapes of Multimodal Centers should roughly retain the general scale of the one-mile walk-shed. This translation is discussed in more detail in Chapter 7.

Figure 28 - Activity Densities in Downtown Lynchburg with a One-Mile Circle Superimposed.

Activity Density

Figure 28 shows the Activity Density of downtown Lynchburg, represented by a range of colors from T-1 (dark green) to T-6 (dark red). The data is at the census block level and shows the sum of jobs and population in each census block. Overlaid on the map is a one-mile circle representing the basis for a potential Multimodal Center. The pattern of densities in the map highlights the real world variability of densities on a block by block basis. In this case, however, Lynchburg's downtown generally corresponds to a T-4 inner ring and T-3 outer ring of densities, which would be classified as a "P-4 Large Town or Suburban Center" Multimodal Center type (discussed below) according to these Guidelines.

Based on the analysis of a wide variety of potential Multimodal Centers in Virginia according to these basic metrics of Activity Density, the following six Multimodal Center types and corresponding densities have been defined for these Guidelines to establish a basic palette of place types for planning purposes.

MULTIMODAL CENTER INTENSITY			
Center Type	**Activity Density (Jobs + people/acre)**	**Gross Development FAR (residenial + non-residential)**	**Net Development FAR (residenial + non-residential)**
P-6 Urban Core	70.0 or more	1.0 or more	1.6 or more
P-5 Urban Center	33.75 to 70.0	0.5 to 1.0	0.8 to 1.6
P-4 Large Town or Suburban Center	13.75 to 33.75	0.21 to 0.5	0.3 to 0.8
P-3 Medium Town or Suburban Center	6.63 to 13.75	0.10 to 0.21	0.15 to 0.3
P-2 Small Town or Suburban Center	2.13 to 6.63	0.03 to 0.10	0.05 to 0.15
P-1 Rural or Village Center	2.13 or less	0.03 or less	0.05 or less
SP Special Purpose Center	Varies	Varies	Varies

Table 2- Multimodal Center Types and Activity Density Ranges.

Figure 29 shows these seven Multimodal Center types graphically as a spectrum of place types from dense urban to low density rural centers:

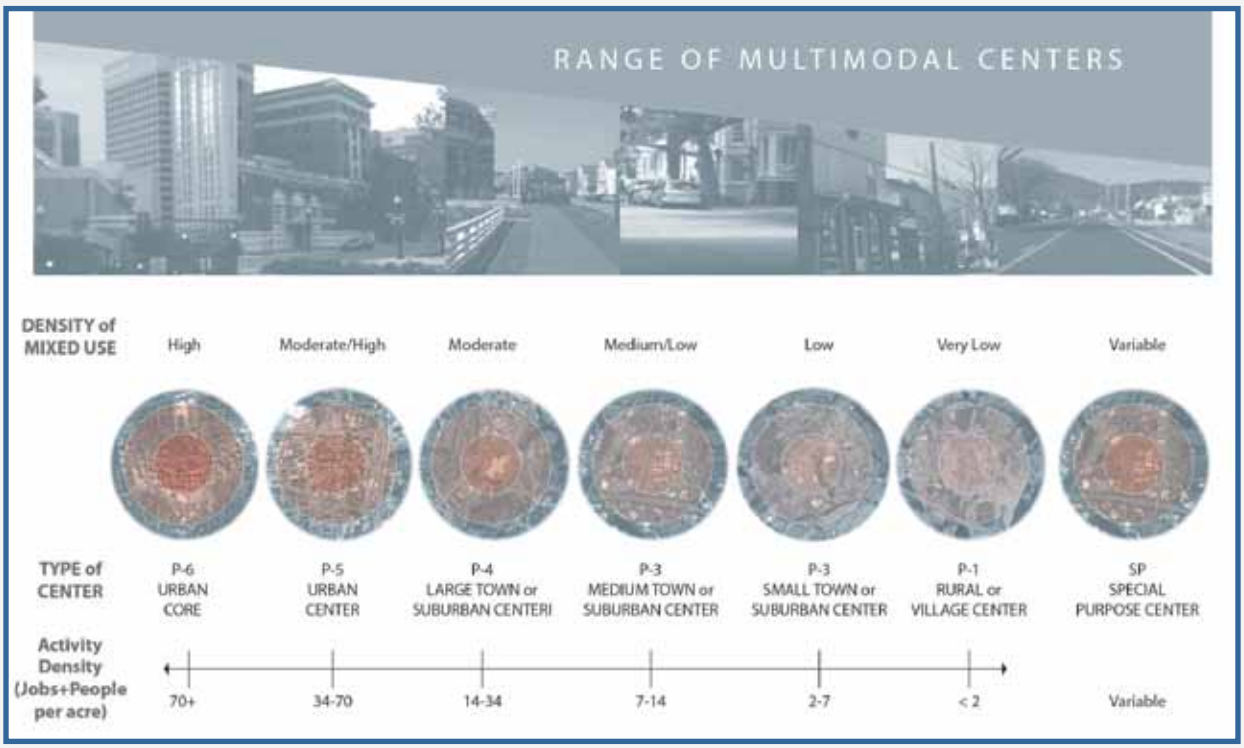


Figure 29 - Range of Multimodal Center Types. Urban to rural defined by Activity Density (number of jobs + people) in each Multimodal Center.

Land Use Mix

One of the primary characteristics of a Multimodal Center is a mixture of land uses. For the purposes of these Guidelines, all Multimodal Centers are assumed to have a mixture of uses and a general balance of housing and employment. However, as noted in the next section, a spreadsheet-based tool was developed to allow the creation of customized Multimodal Center types with alternate proportions of housing and employment.

Creating Special Purpose Multimodal Centers

Although there are six Multimodal Center types that are intended to give a comprehensive set of place types for planning purposes throughout Virginia, there may be a need to define a customized Special Purpose Multimodal Center. For example, an employment-rich center such as Innsbrook in Henrico County can be an important destination and regional activity center while not having a diverse mixture of uses or a pattern of density that matches a typical Multimodal Center. For this reason, the Guidelines include a spreadsheet tool for creating customized Special Purpose Multimodal Centers illustrated in Appendix C.

The Multimodal Centers Calculator tool allows a user to select various factors such as density and land use mix. A full list of the values that can be adjusted for Multimodal Centers is listed below:

Customizable Data for Multimodal Centers
Percent of Activity Units that are jobs
Percent of Activity Units that are population
Square feet per job
Square feet per dwelling unit
Persons per dwelling unit
Gross-to-Net Ratio (Ratio of gross site density to net site density)
Percent of inner quarter-mile residential density concentrated to 1/8 mile TOD node
Percent of inner quarter-mile residential density located outside of 1/8 mile TOD node
Percent of inner quarter-mile employment density concentrated to 1/8 mile TOD node
Percent of inner quarter-mile employment density located outside of 1/8 mile TOD node

Table 3 - Data for Special Purpose Multimodal Centers. Special Purpose Multimodal Centers can be customized using the Multimodal Centers Calculator Tool in Appendix C.

Special Purpose Multimodal Centers

Although there are six Multimodal Center types that are intended to give a comprehensive set of place types for planning purposes throughout Virginia, there may be a need to define a customized Special Purpose Multimodal Center. For this reason, the Guidelines include a spreadsheet tool for creating customized, Special Purpose Multimodal Centers, illustrated in Appendix C.

Comparing Multimodal Centers in Virginia

Using this basic typology of Multimodal Centers, the dataset of over 300 potential Multimodal Centers in Virginia was analyzed to compare their existing densities to each other and assess how they would fit into this basic typology by density and intensity. Table 4 summarizes a handful of the potential Multimodal Centers according to their existing Activity Density, based on 2010 Census data, and shows which Multimodal Center type they would fit into based on their current densities. A full summary of all potential Multimodal Centers that were analyzed is in Appendix E.

This analysis reflects only existing population and employment, and does not incorporate future growth. It is simply a snapshot of where these potential Multimodal Centers fall in relation to each other and to the Multimodal Center types today.

Potential Multimodal Center (1 mile diameter)	Employment (2008)	Population (2010)	Population/ Employment Ratio	Total Activity Units (Jobs + People)	Activity Units/Acre	Multimodal Center Type
Tysons Corner	50,491	419	0.01	50,910	101	P6 Urban Core
Ballston	27,902	14,202	0.51	42,104	84	
Rosslyn	24,385	16,688	0.68	41,073	82	
Crystal City	24,704	12,377	0.50	37,081	74	
Norfolk	30,917	4,582	0.15	35,499	71	
Alexandria	15,587	9,489	0.61	25,076	50	P5 Urban Center
Clarendon	13,231	10,598	0.80	23,829	47	
Richmond	14,513	8,989	0.62	23,502	47	
Charlottesville	12,496	4,046	0.32	16,542	33	P4 Large Town or Suburban Center
Roanoke	12,956	2,295	0.18	15,251	30	
Fairfax	10,088	4,488	0.44	14,576	29	
Blacksburg	10,360	3,709	0.36	14,069	28	
Winchester	4,581	4,933	1.08	9,514	19	
Reston	2,406	6,134	2.55	8,540	17	
Fredericksburg	4,918	3,143	0.64	8,061	16	
Manassas	2,371	3,965	1.67	6,336	13	P3 Medium Town or Suburban Center
Salem	2,910	3,205	1.10	6,115	12	
Petersburg	4,038	2,035	0.50	6,073	12	
Staunton	2,536	3,300	1.30	5,836	12	
Front Royal	2,525	3,211	1.27	5,736	11	
Newport News	3,555	2,027	0.57	5,582	11	
Bristol	4,033	1,245	0.31	5,278	11	
Virginia Beach	2,509	2,034	0.81	4,543	9	
Galax	2,581	1,326	0.51	3,907	8	
Dunn Loring	854	2,382	2.79	3,236	6	
South Boston	871	1,185	1.36	2,056	4	P2 Small Town or Suburban Center
Crozet	284	1,697	5.98	1,981	4	
Chester	704	883	1.25	1,587	3	
Lake Monticello	6	1,187	197.83	1,193	2	
Bluefield	388	768	2	1,156	2	
Timberlake	409	717	2	1,126	2	
Aquia Harbour	1	742	742	743	1	P1 Rural or Village Center
Forest	484	115	0	599	1	
Poquoson	6	577	96	583	1	
Great Falls	1	455	455	456	1	

Table 4 - Activity Densities of Potential Multimodal Centers throughout Virginia. These activity densities are based on existing data, and do not incorporate anticipated future growth. Several of these potential Multimodal Centers are anticipated to add enough population and employment to transition to more intense Multimodal Center types in the future.

From Table 4, it is clear that there is a very wide range of Activity Densities in Virginia places, as well as some interesting similarities among the densities of very different places. For example, the downtown areas of Norfolk and Richmond are similar in density to the urban Metrorail station areas along the Rosslyn-Ballston corridor. However, other stops on the same Metrorail line, such as Dunn Loring, have much lower Activity Densities that correspond to those of smaller towns such as Galax and Staunton. However, these densities reflect only the existing population and jobs, and do not reflect future growth. Some localities' comprehensive plans articulate a very different vision for some of these potential Multimodal Centers. Fairfax County's Comprehensive Plan, for example, anticipates Dunn Loring to add population and employment to move from a P-3 Medium Town or Suburban Center to a P-5 Urban Center in the next 25 years, some of which has already occurred since the 2010 Census.

Although this analysis used 2010 Census data, local and regional planners should incorporate long-range future land use and intensity projections into their population and employment calculations when designating Multimodal Districts and Multimodal Centers in the Multimodal System planning process, as described in Step 2 of Chapter 2

In Figure 30, the one-mile circles for the Richmond area are shown overlaid onto a color coded map of Activity Density. This map shows the variability of density in a large region and how potential Multimodal Center locations identified for analysis purposes were chosen as representative of the diverse densities of areas throughout the region. The selection of potential Multimodal Centers shown here is simply illustrative. Local and regional planners should use their comprehensive plans and other planning documents to select their Multimodal Districts and Multimodal Centers to best reflect the future visions articulated in their local and regional plans.

Many more observations can be made by comparing the Activity Densities among these potential Multimodal Centers in Virginia. However, the prime value of this analysis is to have a standard frame of comparison and common language to begin comparing the density of different Multimodal Centers throughout Virginia.

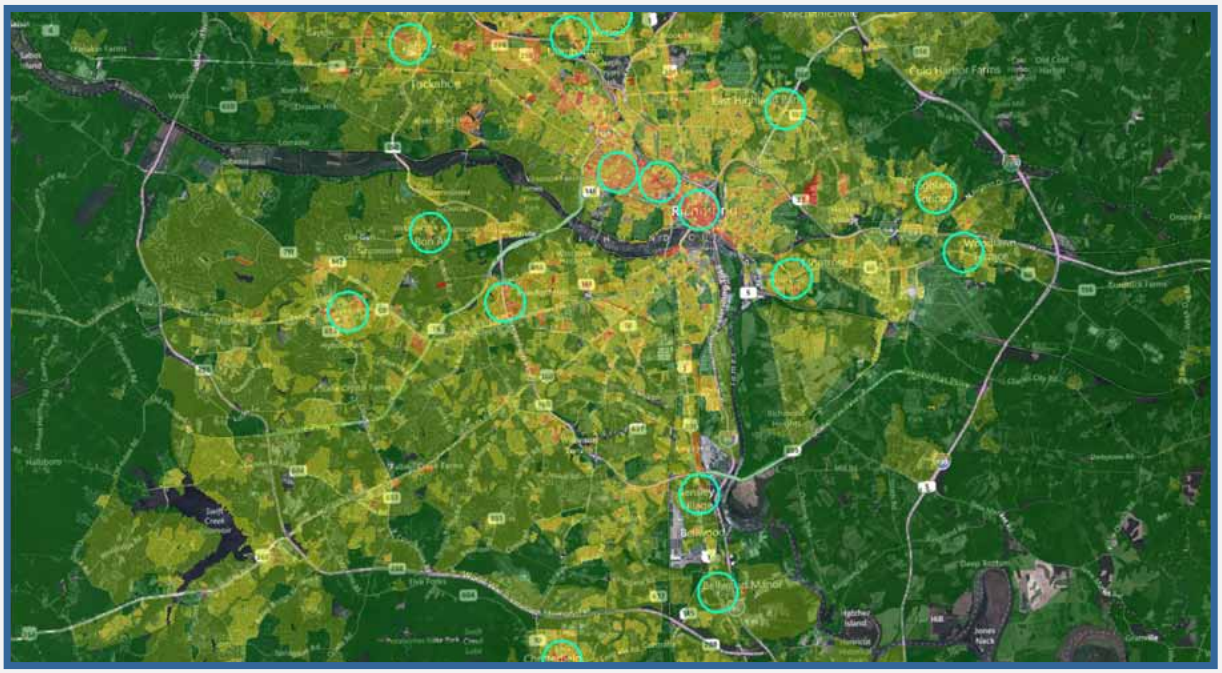


Figure 30 - Map of Activity Density in the Richmond Region. One-mile circles used for analysis purposes as potential Multimodal Centers for illustrative purposes only.

Detailed Descriptions of the Multimodal Center Types

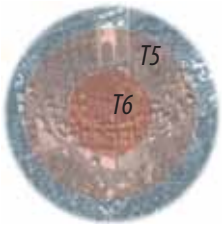
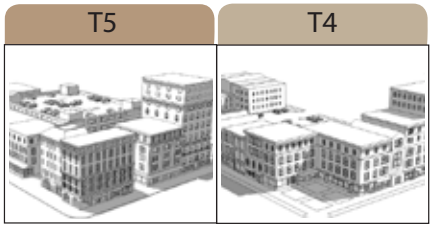
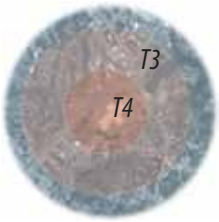
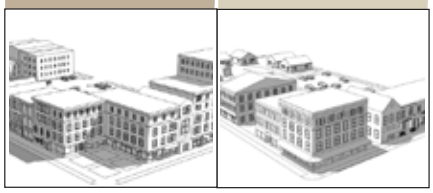
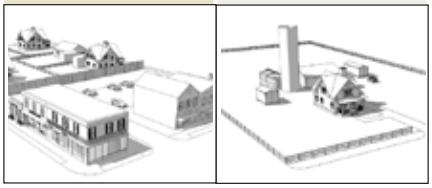
"The arrangement and spacing of corridors in these diagrams is based generally on rules for roadway spacing and hierarchy of road types. However, just as road networks in real places don't look like the diagrams in engineering manuals, it is not expected that real Multimodal Centers will look exactly like these diagrammatic representations."

As described in Chapter 2, Multimodal Centers are the primary destinations and hubs of activity within a region. The purpose of designating Multimodal Centers in a Multimodal System Plan is twofold – first, to be able to provide a focus of destinations with the highest levels of multimodal connectivity; and second, to be able to identify the types of Multimodal Corridors recommended for each Multimodal Center. This last point – that the type of Multimodal Center suggests the selection of a Multimodal Corridor – is an important point for these Guidelines. In other words, answering the question of the larger context of a corridor (in which Multimodal Center type is the corridor located?) will help us answer the question of which Multimodal Corridor type we should use for a particular roadway.

The following summary pages contain a series of diagrams and tables that describe each Multimodal Center type. Each summary page also has a diagram that shows the "prototypical" arrangement of Multimodal Corridors within the Multimodal Center. These are idealized diagrams and are not intended to represent any particular real example of a place. The purpose of these diagrams, instead, is to give a basic design framework for a prototypical arrangement of Multimodal Corridors for that Multimodal Center type. The arrangement and spacing of Multimodal Corridors in these diagrams is based generally on rules for roadway spacing and hierarchy of road types. However, just as road networks in real places don't look like the diagrams in engineering manuals, it is not expected that real Multimodal Centers will look exactly like these diagrammatic representations.

A summary page of all the Multimodal Center types is provided on the next page, followed by more detailed diagrams and metrics of each of the Multimodal Center types. The Summary Tables for each Multimodal Center type provide the typical characteristics (Activity Density, floor area ratio, supported transit technology, and building height) that would generally be found in the places that would fall into this type. Planners can use the Activity Density ranges in the Multimodal System Planning Process to determine which types of Multimodal Centers they have identified in their region. The floor area ratios and typical building heights are provided simply to suggest typical development patterns associated with each of the Multimodal Center types. The supported transit technology indicates the highest or most advanced type of transit service that might be supported given the land use intensities. The concept of supported transit technology is explained in greater detail in Chapter 4.

MULTIMODAL CENTERS

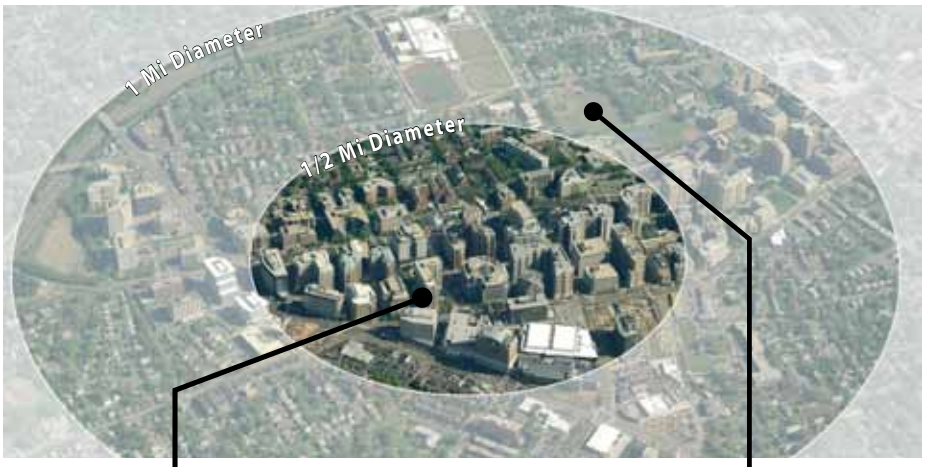
TYPE OF MULTIMODAL CENTER		ACTIVITY DENSITY*	TRANSECT ZONES	MULTIMODAL CORRIDOR TYPES BY TRANSECT
P6 Urban Core		HIGH 70+	T6 T5	T6 T5 TRANSIT BLVD. BOULEVARD MAJOR AVE. AVENUE LOCAL ST.
P5 Urban Center		MODERATE/ HIGH 34-70	T5 T4 	T5 T4 TRANSIT BLVD. BOULEVARD MAJOR AVE. AVENUE LOCAL ST.
P4 Large Town or Suburban Center		MODERATE 14-34	T4 T3 	T4 T3 TRANSIT BLVD. BOULEVARD MAJOR AVE. AVENUE LOCAL ST.
P3 Medium Town or Suburban Center		MEDIUM/ LOW 7-14	T3 T2	T3 T2 TRANSIT BLVD. BOULEVARD MAJOR AVE. AVENUE LOCAL ST.
P2 Small Town or Suburban Center		LOW 2-7	T2 T2	T2 T2 TRANSIT BLVD. BOULEVARD MAJOR AVE. AVENUE LOCAL ST.
P1 Rural or Village Center		VERY LOW <2	T2 T1 	T2 T1 TRANSIT BLVD. BOULEVARD MAJOR AVE. AVENUE LOCAL ST.

* sum of jobs + population per acre

Figure 31 – Multimodal Center Types Summary Page.

P6 URBAN CORE

Typical P6 Center (Ballston, Virginia)



Typical Street view (Ballston, Virginia)

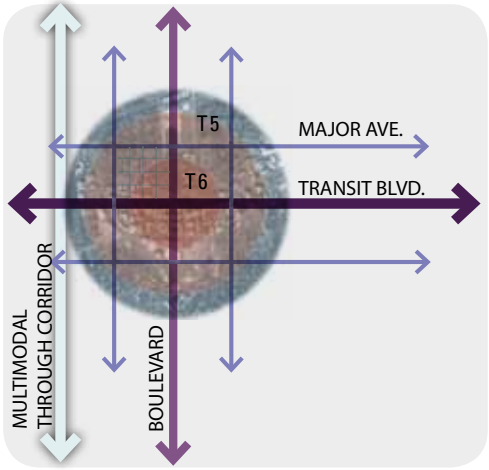
T6

MIXED USE INTENSITY	High
ACTIVITY DENSITY (jobs + people/ac)	100+/ac
AVG. BLDG. HEIGHT	8+ Stories
TYPICAL MAX BLDG. HEIGHT	20+ Stories
TYPICAL NET FAR	2.30+
SUPPORTED TRANSIT TECHNOLOGY	LRT/Rail

T5

MIXED USE INTENSITY	High
ACTIVITY DENSITY (jobs + people/ac)	60 - 100/ac
AVG. BLDG. HEIGHT	6 Stories
TYPICAL MAX BLDG. HEIGHT	12 Stories
TYPICAL NET FAR	1.38 - 2.30
SUPPORTED TRANSIT TECHNOLOGY	BRT/LRT

Prototypical Arrangement of Multimodal Corridors (P6 Urban Core)

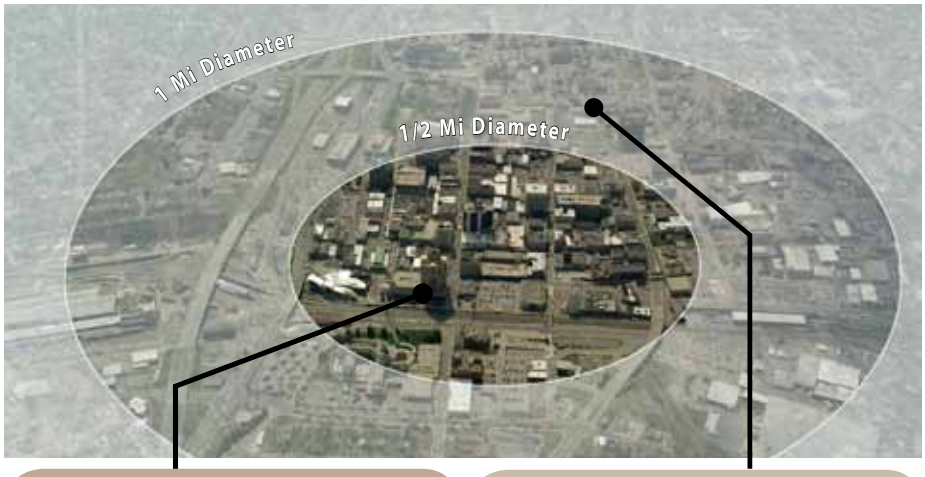


P6 URBAN CORE SUMMARY TABLE	
ACTIVITY DENSITY (jobs + people/acre)	70 or more
GROSS DEVELOPMENT FAR (residential + non-residential)	1.0 or more
NET DEVELOPMENT FAR (residential + non-residential)	1.6 or more
SUPPORTED TRANSIT TECHNOLOGY	LRT/Rail
Height of Buildings	7 story average 14 story typical maximum

Figure 32 – P-6 Urban Core Multimodal Center Diagrams & Metrics.

P5 URBAN CENTER

Typical P5 Center (Roanoke, Virginia)



Typical Street view (Roanoke, Virginia)

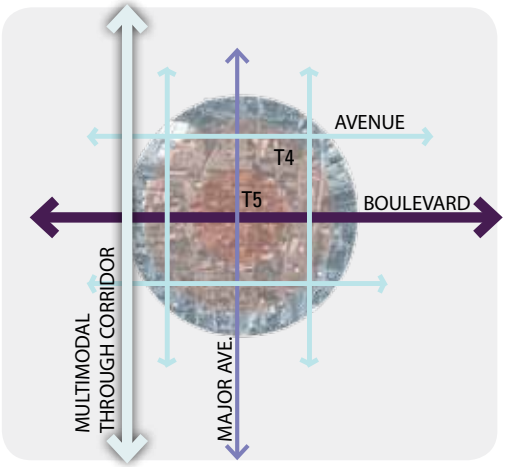
T5

MIXED USE INTENSITY	High
ACTIVITY DENSITY (jobs + people/ac)	60-100/ac
AVG. BLDG. HEIGHT	6 Stories
TYPICAL MAX BLDG. HEIGHT	12 Stories
TYPICAL NET FAR	1.38-2.30
SUPPORTED TRANSIT TECHNOLOGY	BRT/LRT

T4

MIXED USE INTENSITY	Moderate
ACTIVITY DENSITY (jobs + people/ac)	25-60/ac
AVG. BLDG. HEIGHT	4 Stories
TYPICAL MAX BLDG. HEIGHT	8 Stories
TYPICAL NET FAR	0.57-1.38
SUPPORTED TRANSIT TECHNOLOGY	Express Bus

Prototypical Arrangement of Multimodal Corridors (P5 Urban Center)

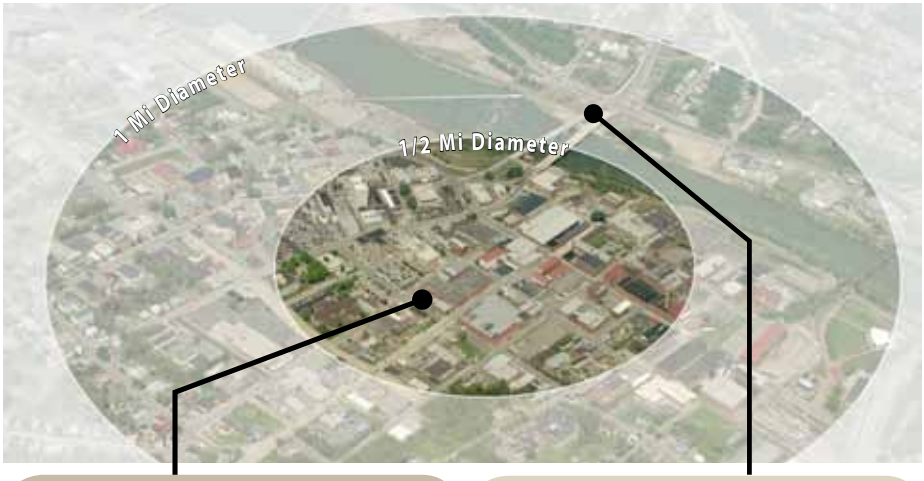


P5 URBAN CENTER SUMMARY TABLE	
ACTIVITY DENSITY (jobs + people/acre)	34 to 70
GROSS DEVELOPMENT FAR (residential + non-residential)	0.5 to 1.0
NET DEVELOPMENT FAR (residential + non-residential)	0.8 to 1.6
SUPPORTED TRANSIT TECHNOLOGY	BRT/LRT
Height of Buildings	5 story average 9 story typical maximum

Figure 33 - P-5 Urban Center Multimodal Center Diagrams & Metrics.

P4 LARGE TOWN/SUBURBAN CENTER

Typical P4 Center (Danville, Virginia)

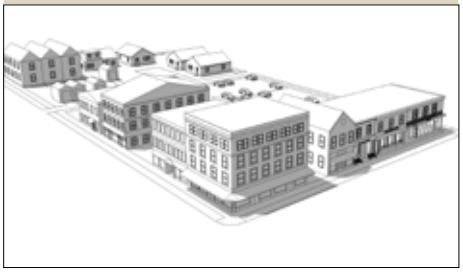


Typical Street view (Danville, Virginia)

T4

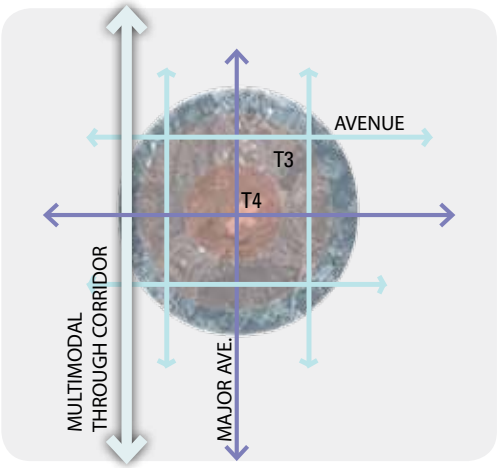
MIXED USE INTENSITY	Moderate
ACTIVITY DENSITY (jobs + people/ac)	25-60/ac
AVG. BLDG. HEIGHT	4 Stories
TYPICAL MAX BLDG. HEIGHT	8 Stories
TYPICAL NET FAR	0.57-1.38
SUPPORTED TRANSIT TECHNOLOGY	Express Bus

T3



MIXED USE INTENSITY	Moderate
ACTIVITY DENSITY (jobs + people/ac)	10-25/ac
AVG. BLDG. HEIGHT	3 Stories
TYPICAL MAX BLDG. HEIGHT	5 Stories
TYPICAL NET FAR	0.23-0.57
SUPPORTED TRANSIT TECHNOLOGY	Fixed Route Bus

Prototypical Arrangement of Multimodal Corridors (P4 Large Town/Suburban Center)

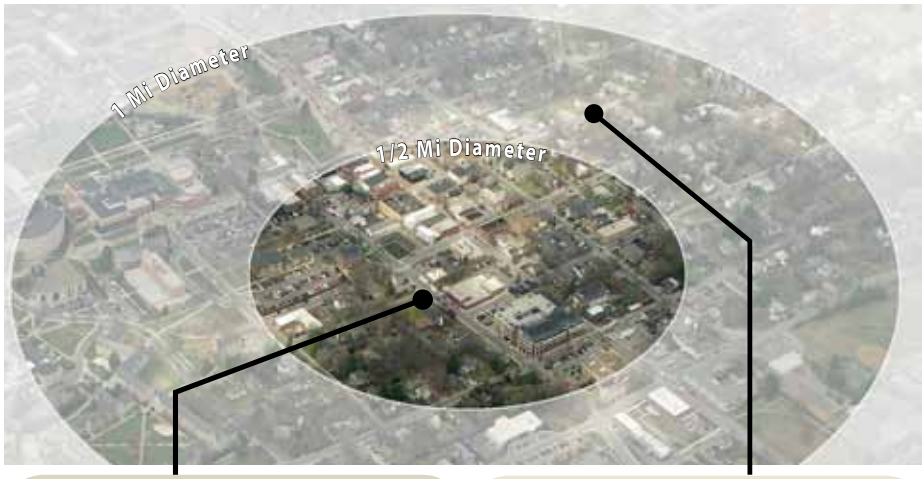


P4 LARGE TOWN/SUBURBAN CENTER SUMMARY TABLE	
ACTIVITY DENSITY (jobs + people/acre)	14 to 34
GROSS DEVELOPMENT FAR (residential + non-residential)	0.2 to 0.5
NET DEVELOPMENT FAR (residential + non-residential)	0.3 to 0.8
SUPPORTED TRANSIT TECHNOLOGY	Express Bus
Height of Buildings	3 story average 6 story typical maximum

Figure 34 - P-4 Large Town/Suburban Center Multimodal Center Diagrams & Metrics.

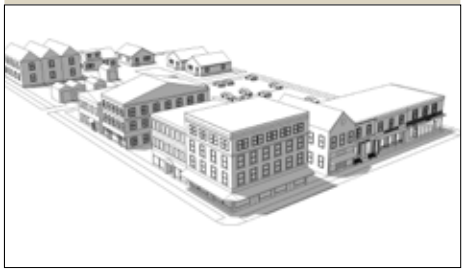
P3 MEDIUM TOWN/SUBURBAN CENTER

Typical P3 Center (Blacksburg, Virginia)



Typical Street view (Blacksburg, Virginia)

T3

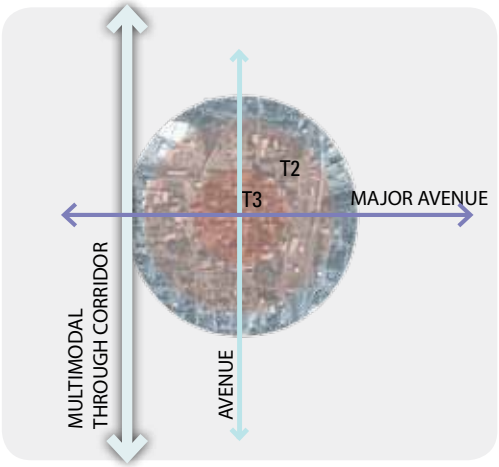


MIXED USE INTENSITY	Medium/Low
ACTIVITY DENSITY (jobs + people/ac)	10-25/ac
AVG. BLDG. HEIGHT	3 Stories
TYPICAL MAX BLDG. HEIGHT	5 Stories
TYPICAL NET FAR	0.23-0.57
SUPPORTED TRANSIT TECHNOLOGY	Fixed Route Bus

T2

MIXED USE INTENSITY	Medium/Low
ACTIVITY DENSITY (jobs + people/ac)	1-10/ac
AVG. BLDG. HEIGHT	1.5 Stories
TYPICAL MAX BLDG. HEIGHT	3 Stories
TYPICAL NET FAR	0.02-0.23
SUPPORTED TRANSIT TECHNOLOGY	Demand Response

Prototypical Arrangement of Multimodal Corridors (P3 Medium Town/Suburban Center)

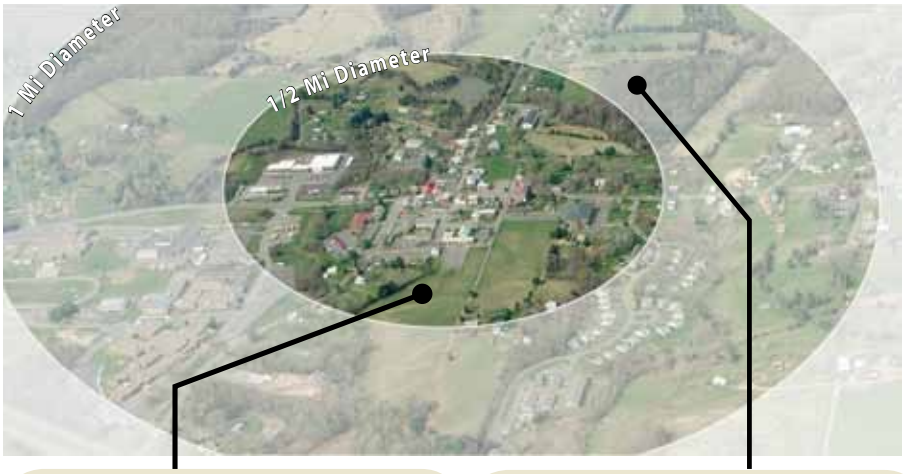


P3 MEDIUM TOWN/SUBURBAN CENTER SUMMARY TABLE	
ACTIVITY DENSITY (jobs + people/acre)	7 to 14
GROSS DEVELOPMENT FAR (residential + non-residential)	0.1 to 0.2
NET DEVELOPMENT FAR (residential + non-residential)	0.15 to 0.3
SUPPORTED TRANSIT TECHNOLOGY	Fixed Route Bus

Figure 35 - P-3 Medium Town/Suburban Center Multimodal Center Diagrams & Metrics.

P2 SMALL TOWN/SUBURBAN CENTER

Typical P2 Center (Stanardsville, Virginia)



Typical Street view (Stanardsville, Virginia)

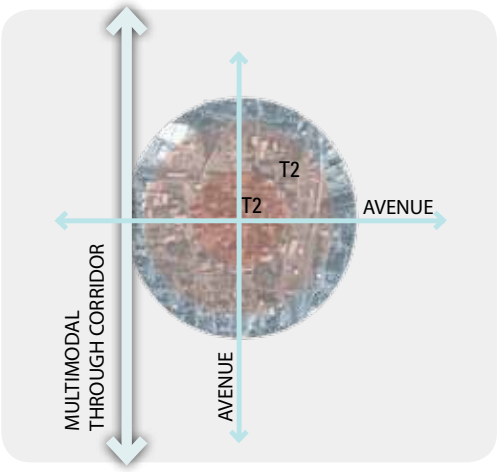
T2

MIXED USE INTENSITY	Low
ACTIVITY DENSITY (jobs + people/ac)	1-10/ac
AVG. BLDG. HEIGHT	1.5 Stories
TYPICAL MAX BLDG. HEIGHT	3 Stories
TYPICAL NET FAR	0.02-0.23
SUPPORTED TRANSIT TECHNOLOGY	Demand Response

T2

MIXED USE INTENSITY	Low
ACTIVITY DENSITY (jobs + people/ac)	1-10/ac
AVG. BLDG. HEIGHT	1.5 Stories
TYPICAL MAX BLDG. HEIGHT	3 Stories
TYPICAL NET FAR	0.02-0.23
SUPPORTED TRANSIT TECHNOLOGY	Demand Response

Prototypical Arrangement of Multimodal Corridors (P2 Small Town/Suburban Center)

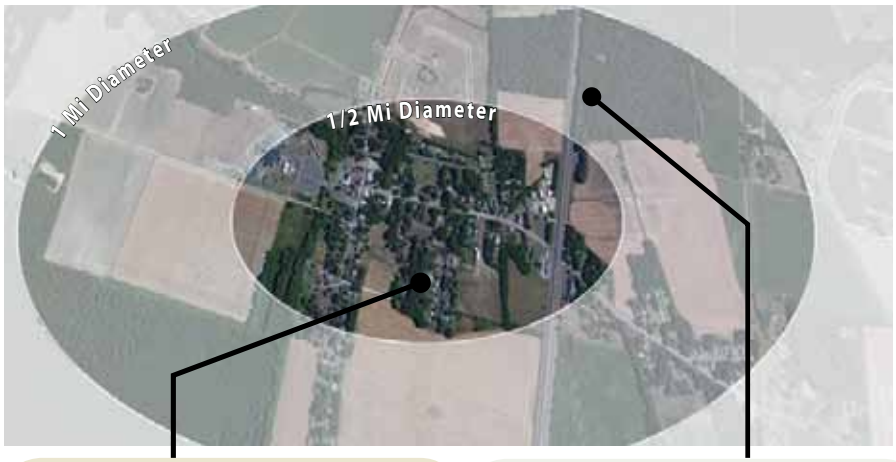


P2 SMALL TOWN/SUBURBAN CENTER SUMMARY TABLE	
ACTIVITY DENSITY (jobs + people/acre)	2 to 7
GROSS DEVELOPMENT FAR (residential + non-residential)	0.03-0.10
NET DEVELOPMENT FAR (residential + non-residential)	0.05-0.15
SUPPORTED TRANSIT TECHNOLOGY	Demand Response
Height of Buildings	1.5 story average 3 story typical maximum

Figure 36 – P-2 Small Town/Suburban Center Multimodal Center Diagrams & Metrics.

P1 RURAL/VILLAGE CENTER

Typical P1 Center (Eastville, Virginia)

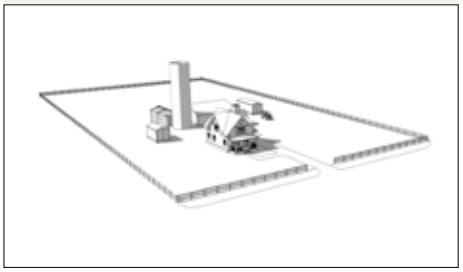


Typical Street view (Eastville, Virginia)

T2

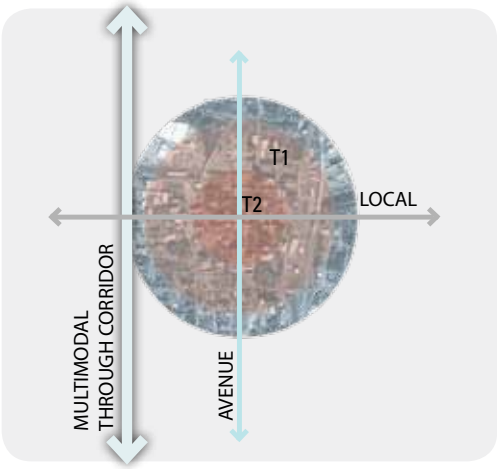
MIXED USE INTENSITY	Low
ACTIVITY DENSITY (jobs + people/ac)	1-10/ac
AVG. BLDG. HEIGHT	1.5 Stories
TYPICAL MAX BLDG. HEIGHT	3 Stories
TYPICAL NET FAR	0.02-0.23
SUPPORTED TRANSIT TECHNOLOGY	Demand Response

T1



MIXED USE INTENSITY	Very Low
ACTIVITY DENSITY (jobs + people/ac)	0-1/ac
AVG. BLDG. HEIGHT	1 Stories
TYPICAL MAX BLDG. HEIGHT	2 Stories
TYPICAL NET FAR	0-0.02
SUPPORTED TRANSIT TECHNOLOGY	Demand Response

Prototypical Arrangement of Multimodal Corridors (P1 Rural/Village Center)



P1 RURAL/VILLAGE CENTER SUMMARY TABLE

ACTIVITY DENSITY (jobs + people/acre)	0 to 2
GROSS DEVELOPMENT FAR (residential + non-residential)	0-0.03
NET DEVELOPMENT FAR (residential + non-residential)	0-0.05
SUPPORTED TRANSIT TECHNOLOGY	Demand Response
Height of Buildings	1 story average 2 story typical maximum

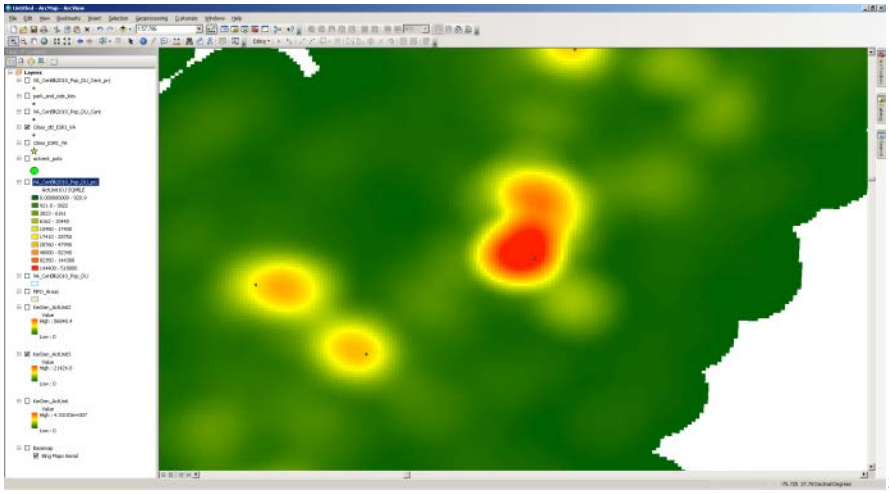
Figure 37 – P-1 Rural/Village Center Multimodal Center Diagrams & Metrics.

APPENDIX E.

ANALYSIS OF POTENTIAL MULTIMODAL CENTERS IN VIRGINIA

The following describes the methodology used for analyzing Potential Multimodal Centers in Virginia. This work was done as part of a contract with the Office of Intermodal Planning and Investment to study statewide accessibility in 2011. The results of that study were also used in the development of the Multimodal System Design Guidelines by classifying the activity density of each of the 319 centers in that study according to the Multimodal Center types (P-1 to P-6) used in the Multimodal System Design Guidelines.

A Potential Multimodal Center, as defined in this study, is a local concentration of population and/or employment. Potential Multimodal Centers throughout Virginia range from the downtowns of large cities to small town centers to concentrations of suburban employment or population. The geography used for testing in this study for Potential Multimodal Centers was a 1-mile wide (diameter) circle. Defining a statewide dataset of activity centers required a flexible methodology and multiple iterations of edits to refine what would become the final set of 319 one-mile diameter activity centers. Rather than only including the centers with the highest concentrations of population and jobs in the Commonwealth, it was decided to distribute the centers geographically and include all counties in the State, numerous villages, small towns and large cities, in order to span the full range of rural, suburban, and urban contexts in Virginia. What they share in common is a relative concentration of people and jobs, compared with their surrounding areas, suggesting their historic



significance relative to their surrounding area or surrounding region.

To define activity centers, the first thing that was needed was an understanding of the spatial distribution of activity in the Commonwealth. For the purpose of this study, the definition of activity was the sum of population and jobs in an area. This was analyzed in several ways.

- First, ArcGIS was used to calculate the kernel density of jobs and population across the state. This resulted in a continuous surface of job or population density, interpolated from Census block centroids. From this, high activity values can be shown by themselves, making these “hotspots” readily apparent (see the “heat map” of activity density below).

- A cross check on this method of analyzing activity density was to use the density of the Census blocks themselves, color-coded to represent the level of density in each block. An industry-standard way to describe the density of a built environment is by use of a "Transect," which categorizes the spectrum of density from very rural (T1) to very urban (T6).
- A final way to verify activity centers was through the use of aerial imagery. Aerial imagery was overlaid with the previously described activity 'heat maps' to verify and confirm the specific center of density in each activity center.

After using this methodology for identifying potential activity centers, the next step was to compare it to Census data on major cities and Census Designated Places (CDP - both of which were layers available from the US Census) as starting points for identifying activity centers. Centroids were created from the CDP layer, as it was originally a polygon layer describing the CDP boundaries. These layers included a total of 452 points, some of which were located in centers of activity density, although most were not. The locations of these points were manually adjusted so that they were brought in alignment with the clusters of activity density. There were several criteria used for relocating these points:

- Maximize activity density (place the centroid so that it captures the maximum amount of activity units)
- If possible, place the point on a major street or intersection
- Do not move the centroid out of its boundary (either CDP or municipal boundary)

This methodology provided an initial set of candidate activity centers. Centers were also located in activity rich areas, like major commercial districts, universities, and Metro Rail stations in northern Virginia. Basic metrics for this first set of candidate activity centers were calculated to aid in the selection process, which was necessary due to the overrepresentation of activity-poor areas. This was particularly evident among the CDPs, an analysis of which showed that just because they are designated as a "place" does not mean that they are a center of activity.

As noted above, there were many small towns initially considered as potential activity centers due to their designation as CDPs. However, CDPs accounted for about 89 percent of the centers tagged for deletion in this round. During the deletion process, the geographic representation of the activity centers was paramount. If a center was the only one in a county or large area, it was kept as part of the activity center set. Also during this stage, centers were thinned out where there was excessive overlap. This was especially the case along some Metro Rail transit corridors as shown in the two images below – the one on the left before the deletion process and the one on the right after the deletion process.

Other centers were added or moved based on further analysis of aerial imagery, especially to identify suburban activity centers, where identifying distinct central locations can be difficult.

Data Used

The following is a listing of primary data sources used in this analysis:

- **Population.** US Census Blocks [1], with SF1 Summary data for population.
- **Employmen**t. US Census LED On the Map Tool[2], obtained statewide employment at the Census Block level for 2010, downloaded in March 2012.

A Summary table of the activity density by Multimodal Center type is shown on the following pages.

1 U.S. Census Bureau 2010 TIGER/Line® Shapefiles. http://www.census.gov/cgi-bin/geo/shapefiles2010/main
2 U.S. Census Bureau. 2012. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. http://onthemap.ces.census.gov/

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Tysons West	55,013	109.7	P6
Richmond	54,640	108.9	P6
Richmond South of River	54,640	108.9	P6
Rosslyn	44,791	89.3	P6
Backlick & Edsall	42,426	84.6	P6
Ballston - MU	42,372	84.5	P6
Norfolk	37,772	82.3	P6
Pentagon City/Crystal City	37,475	74.7	P6
Alexandria	27,176	54.2	P5
Reston Parkway	26,412	52.6	P5
Reston South Lakes	26,412	52.6	P5
Reston Lake Anne	26,412	52.6	P5
Clarendon	20,012	39.9	P5
Bailey's Crossroads	19,673	39.2	P5
Alexandria West	19,045	38.0	P5
University of Virginia	17,763	35.4	P5
Hampton	14,787	33.9	P5
Lake Monticello	16,134	33.3	P4
Tysons East	16,692	33.3	P4
Merrifield	16,645	33.2	P4
Herndon-Monroe	16,434	32.8	P4
Chantilly	16,297	32.5	P4
Richmond West	16,291	32.5	P4
Charlottesville	16,134	32.2	P4
Roanoke	15,953	31.8	P4
Van Dorn Street	15,319	30.5	P4
Chesterfield Court House	15,311	30.5	P4
Fair Oaks East	15,147	30.2	P4
Fair Oaks South	15,147	30.2	P4
Fairfax	15,043	30.0	P4
George Mason University	15,043	30.0	P4
Idylwood	14,313	28.5	P4
Lincolnia	14,224	28.4	P4
Fan District	13,408	26.7	P4
King St/Eisenhower Ave	13,326	26.6	P4
Staples Mill Rd	13,095	26.1	P4
Lynnhaven	13,085	26.1	P4
Hybla Valley	12,728	25.4	P4
Falls Church	12,715	25.3	P4
Alexandria Old Town North	11,587	25.3	P4
istopher Newport University	12,589	25.1	P4

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Fair Oaks	12,578	25.1	P4
Chesapeake Great Bridge	12,559	25.0	P4
Columbia Pike	12,492	24.9	P4
Portsmouth Downtown	12,320	24.6	P4
Shirlington	12,145	24.2	P4
Lake Barcroft	11,727	23.4	P4
Alexandria North	11,587	23.1	P4
Manassas	11,542	23.0	P4
Bull Run	11,488	22.9	P4
Virginia Beach Town Center	11,322	22.6	P4
Seven Corners	10,719	21.4	P4
McLean	10,639	21.2	P4
Cox Rd & Nuckols Rd	10,616	21.2	P4
Wiehle Avenue	10,473	20.9	P4
Williamsburg	10,016	20.0	P4
Winchester	10,005	19.9	P4
Annandale	9,622	19.2	P4
Norfolk North Downtown	9,519	19.0	P4
Old Dominion University	9,519	19.0	P4
Chippenham	9,499	18.9	P4
Diamond Springs & Wesleyan	9,414	18.8	P4
Jefferson	9,204	18.3	P4
Harrisonburg	9,101	18.1	P4
James Madison University	9,101	18.1	P4
Vienna/Fairfax - GMU	9,072	18.1	P4
Centreville	9,019	18.0	P4
Newport News	8,983	17.9	P4
Route 28	8,641	17.2	P4
Chantilly East	8,615	17.2	P4
Virginia Beach Greenwich	8,607	17.1	P4
Thomas Corner	8,607	17.1	P4
Laurel	8,325	16.6	P4
Radford University	8,250	16.4	P4
Chesapeake Greenbriar	8,251	16.4	P4
Mount Vernon	7,993	15.9	P4
Farmville	7,873	15.7	P4
Warrenton	7,817	15.6	P4
Franconia	7,811	15.6	P4
Danville	7,767	15.5	P4
Burke	7,740	15.4	P4
Lynchburg	7,678	15.4	P4
Sherwood Forest	7,689	15.3	P4
Marumsco Woods	7,677	15.3	P4
Leesburg	7,671	15.3	P4

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Leesburg Fort Evans	7,671	15.3	P4
Loch Lomond	7,441	14.8	P4
Portsmouth West	7,412	14.8	P4
Broad Street & Pemberton	7,366	14.7	P4
Fredericksburg	7,362	14.7	P4
Springfield	7,361	14.7	P4
S Sterling Blvd	7,350	14.7	P4
Acredale	7,300	14.5	P4
Blacksburg	7,252	14.5	P4
West Gate	7,242	14.4	P4
Newington	7,177	14.3	P4
Manassas Park	7,152	14.3	P4
Suffolk	7,087	14.1	P4
Peninsula Town Center	7,077	14.1	P4
Port of Newport News	6,917	14.0	P4
Bristol	6,961	13.9	P4
Newport News Shipyard	6,917	13.8	P4
Level Green	6,903	13.8	P4
Sudley	6,846	13.6	P3
Staunton	6,713	13.4	P3
Occoquan	6,659	13.3	P3
Vienna	6,609	13.2	P3
Groveton	6,551	13.1	P3
Ashburn	6,461	12.9	P3
Midlothian	6,430	12.8	P3
Hodges Manor	6,299	12.5	P3
Salem	6,251	12.5	P3
Lexington	6,236	12.4	P3
Tuckahoe	6,190	12.3	P3
Christiansburg	6,161	12.3	P3
Woodbridge	6,120	12.2	P3
Virginia Beach	6,038	12.0	P3
Quantico Station	5,517	12.0	P3
West Springfield	6,009	12.0	P3
Cascades	5,944	11.8	P3
Dulles Town Center	5,944	11.8	P3
Lake Ridge	5,697	11.4	P3
Gayton Centre	5,683	11.3	P3
Ashburn Farm & Claiborne	5,643	11.2	P3
Broad Street & 64	5,594	11.2	P3
University of Richmond	5,594	11.2	P3
Dumbarton	5,594	11.2	P3
Dumfries	5,517	11.0	P3
North Springfield	5,406	10.8	P3

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Bloxoms Corner	5,407	10.8	P3
Front Royal	5,358	10.7	P3
Woodfield & Laurelwood	5,298	10.6	P3
Petersburg	5,272	10.5	P3
Fort Belvoir	5,244	10.5	P3
Lorton	5,244	10.5	P3
Hopewell	4,946	10.4	P3
and Rd & Independence Blvd	5,187	10.3	P3
Bedford	5,175	10.3	P3
Herndon	5,133	10.2	P3
Waynesboro	5,074	10.1	P3
Cave Spring	5,068	10.1	P3
Marion	5,060	10.1	P3
East Falls Church	5,019	10.0	P3
Dale City	4,999	10.0	P3
Spring Knoll Plaza	4,981	9.9	P3
Radford	4,859	9.7	P3
Ettrick	4,828	9.6	P3
Ashland	4,812	9.6	P3
Yorkshire	4,665	9.3	P3
Haymarket	4,613	9.2	P3
Vinton	4,583	9.1	P3
Five Mile Fork	4,574	9.1	P3
Culpeper	4,559	9.1	P3
Belle Haven	4,558	9.1	P3
Montrose	4,402	8.8	P3
Loxley Gardens	4,398	8.8	P3
Industrial Complex	4,393	8.8	P3
Galax	4,316	8.6	P3
Oakton	4,268	8.5	P3
Wise	4,196	8.4	P3
Colonial Heights	4,132	8.2	P3
Purcellville	4,125	8.2	P3
Round Hill	4,125	8.2	P3
Smithfield	3,720	8.2	P3
Martinsville	4,074	8.1	P3
Aquia Harbour	4,070	8.1	P3
Mechanicsville	4,065	8.1	P3
Grundy	3,995	8.0	P3
Berryville	3,956	7.9	P3
Highland Springs	3,952	7.9	P3
Emporia	3,954	7.9	P3
Linton Hall	3,926	7.8	P3

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Pulaski	3,880	7.7	P3
Dunn Loring	3,825	7.6	P3
Rose Hill Dr	3,824	7.6	P3
Richlands	3,825	7.6	P3
Woodstock	3,776	7.5	P3
Lakeside	3,768	7.5	P3
Norton	3,741	7.5	P3
Short Pump	3,679	7.3	P3
Elkton	3,515	7.0	P3
Stephens City	3,510	7.0	P3
Hollymead	3,427	6.8	P3
Albemarle Square	3,427	6.8	P3
Clintwood	3,362	6.7	P3
Abingdon	3,356	6.7	P3
East Highland Park	3,345	6.7	P3
Covington	3,331	6.6	P3
Gloucester Courthouse	3,203	6.4	P2
Glen Allen	3,126	6.2	P2
Fort Hunt	3,121	6.2	P2
Route 772	3,043	6.1	P2
Wytheville	2,996	6.0	P2
West Falls Church -VT/UVA	2,968	5.9	P2
Jonesville	2,947	5.9	P2
Timberville	2,920	5.8	P2
Bridgewater	2,859	5.7	P2
Franklin	2,859	5.7	P2
Bensley	2,841	5.7	P2
Wyndham	2,824	5.6	P2
Broadway	2,705	5.4	P2
Bon Air	2,671	5.3	P2
Hillsville	2,643	5.3	P2
Buena Vista	2,589	5.2	P2
Montclair	2,417	5.0	P2
Bealeton	2,457	4.9	P2
Gate City	2,433	4.8	P2
Orange	2,428	4.8	P2
Appomattox	2,421	4.8	P2
Roanoke Mall	2,389	4.8	P2
Hollins	2,389	4.8	P2
Fort Lee	2,370	4.7	P2
Luray	2,362	4.7	P2
Sandston	2,342	4.7	P2
Monticello Marketplace	2,300	4.6	P2
Clifton Forge	2,238	4.5	P2

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Lebanon	2,219	4.4	P2
Halifax	2,217	4.4	P2
Lawrenceville	2,183	4.3	P2
Strasburg	2,176	4.3	P2
South Hill	2,159	4.3	P2
Stuart	2,120	4.2	P2
Verona	2,100	4.2	P2
Bluefield	2,069	4.1	P2
Grafton Village	2,063	4.1	P2
Falmouth	2,063	4.1	P2
South Boston	2,057	4.1	P2
Shenandoah	1,973	3.9	P2
Grottoes	1,956	3.9	P2
Mantua	1,948	3.9	P2
Fishersville	1,947	3.9	P2
Timberlake	1,942	3.9	P2
Gloucester Point	1,896	3.9	P2
Accomac	1,914	3.8	P2
Colonial Beach	1,827	3.8	P2
Tappahannock	1,522	3.7	P2
Dublin	1,803	3.6	P2
Chase City	1,797	3.6	P2
Chamberlayne	1,752	3.5	P2
Big Stone Gap	1,726	3.4	P2
Gordonsville	1,701	3.4	P2
Bowling Green	1,698	3.4	P2
Glasgow	1,688	3.4	P2
Waverly	1,679	3.3	P2
Blackstone	1,673	3.3	P2
Madison Heights	1,671	3.3	P2
Lovettsville	1,662	3.3	P2
Chester	1,652	3.3	P2
Coeburn	1,607	3.2	P2
Crewe	1,572	3.1	P2
Cloverdale	1,570	3.1	P2
Mount Crawford	1,553	3.1	P2
Marshall	1,505	3.0	P2
Altavista	1,491	3.0	P2
Floyd	1,474	2.9	P2
West Point	1,215	2.9	P2
Kilmarnock	1,452	2.9	P2
Amherst	1,397	2.8	P2
Tazewell	1,382	2.8	P2
Chatham	1,376	2.7	P2

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Pearisburg	1,320	2.6	P2
Narrows	1,320	2.6	P2
Gretna	1,318	2.6	P2
Dahlgren	1,148	2.5	P2
Exmore	1,265	2.5	P2
Chincoteague	1,240	2.5	P2
Collinsville	1,235	2.5	P2
Pennington Gap	1,233	2.5	P2
Goochland	1,193	2.4	P2
Woodlawn	1,166	2.3	P2
Louisa	1,164	2.3	P2
Clarksville	991	2.3	P2
Brookwoods Golf Club	1,122	2.2	P2
Victoria	1,112	2.2	P2
New Castle	1,111	2.2	P2
Elliston-Lafayette	1,088	2.2	P2
Cape Charles	948	2.1	P2
Spotsylvania Courthouse	1,036	2.1	P2
Poquoson	1,000	2.0	P1
Madison	980	2.0	P1
Kenbridge	959	1.9	P1
Warsaw	952	1.9	P1
Fincastle	947	1.9	P1
Independence	945	1.9	P1
Powhatan	934	1.9	P1
Boykins	910	1.8	P1
Stanardsville	905	1.8	P1
Crozet	903	1.8	P1
Ferrum College	885	1.8	P1
Rocky Mount	885	1.8	P1
Courtland	881	1.8	P1
Amelia Court House	792	1.6	P1
Urbanna	654	1.5	P1
Yorktown	621	1.4	P1
Keysville	623	1.2	P1
Rustburg	579	1.2	P1
Jarratt	562	1.1	P1
Washington	512	1.0	P1
Scottsville	486	1.0	P1
Surry	475	0.9	P1
McKenney	474	0.9	P1
Mineral	468	0.9	P1
Buchanan	464	0.9	P1
Rose Hill	455	0.9	P1

NAME	Activity Units (People + Jobs)	Activity Units/Acre	Multimodal Center Type
Lovingston	452	0.9	P1
Dryden	447	0.9	P1
Ivor	436	0.9	P1
Bland	382	0.8	P1
Forest	369	0.7	P1
Reedville	328	0.7	P1
Port Royal	273	0.7	P1
Monterey	241	0.5	P1
Mathews	236	0.5	P1
Dillwyn	233	0.5	P1
Dendron	193	0.4	P1
Warm Springs	99	0.2	P1
Cumberland	97	0.2	P1
Charles City	63	0.1	P1
King and Queen Courthouse	3	0.0	P1

MULTIMODAL CENTER INTENSITY			
Center Type	**Activity Density (Jobs + people/acre)**	**Gross Development FAR (residenial + non-residential)**	**Net Development FAR (residenial + non-residential)**
P1 Rural or Village Center	2.13 or less	0.03 or less	0.05 or less
P2 Small Town or Suburban Center	2.13 to 6.63	0.03 to 0.10	0.05 to 0.15
P3 Medium Town or Suburban Cente	6.63 to 13.75	0.10 to 0.21	0.15 to 0.3
P4 Large Town or Suburban Center	13.75 to 33.75	0.21 to 0.5	0.3 to 0.8
P5 Urban Center	33.75 to 70.0	0.5 to 1.0	0.8 to 1.6
P6 Urban Core	70.0 or more	1.0 or more	1.6 or more