Virginia's Long-Range Multimodal Transportation Plan

Corridors of Statewide Significance: Southside Corridor

Prepared for:
Commonwealth Transportation Board

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Corridor Overview

1.1 Transportation Facilities

The Southside Corridor is primarily defined by U.S. Highway 58, a highway running east-to-west for over 500 miles, mostly in southern Virginia. The western terminus of the roadway is just east of the Cumberland Gap Tunnel, in the State of Tennessee, while the eastern terminus of the roadway is at U.S. Highway 60 in the City of Virginia Beach, Virginia near the coast. U.S. 58 serves as the main corridor along the southern part of the Commonwealth of Virginia, providing connections between numerous towns and small communities and provides the main east-west access to the Hampton Roads region.

There is no interstate access along southern Virginia, so U.S. 58 acts as the major corridor along this part of the state, though it connects and provides access to Interstate 81, U.S. Highway 29, Interstate 85, and Interstate 95. U.S. 58 is an important freight corridor in Virginia and accesses economic opportunities in a relatively undeveloped portion of the state. U.S. 58 is the longest roadway in the Commonwealth of Virginia and connects to Kentucky. It is an important evacuation route from the Hampton Roads area, especially as it provides access to the coast without crossing any major waterways in Hampton Roads. The corridor also provides access to numerous general aviation facilities across the southern part of the state, which allows for travel and shipping alternatives to businesses and residents. Figure 1 illustrates the entire corridor in Virginia and shows all modal facilities.

U.S. 58 alternates between two-lane and multi-lane sections over its 500-mile distance and travels through 14 counties west of the Hampton Roads area. U.S. 58 also travels through 14 towns, including the Towns of Abingdon, South Boston, and South Hill and passes through the Cities of Bristol, Galax, and Emporia and travels around the Cities of Martinsville and Danville. U.S. 58 goes through five Planning Districts and through three Metropolitan Planning Organizations (MPOs), including Bristol, Danville, and Hampton Roads.

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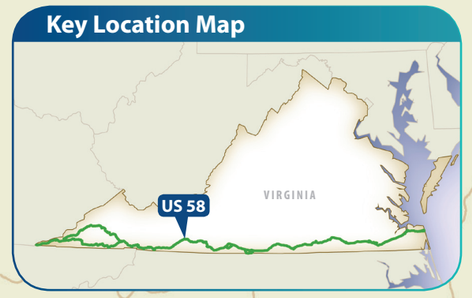


Legend

- US 58
- Airport
- Railroad
- Greyhound Terminal
- Amtrak Station
- Park and Ride
- Port
- County Line
- MPO Area
- Planning District

WEST VIRGINIA

MARYLAND

WASHINGTON D.C.

Chesapeake Bay

NORTH CAROLINA

Virginia Inland Port

Lee County

Lonesome Pine

Virginia Highlands

Twin County

Blue Ridge

Danville Regional

William M Tuck

Marks Municipal

Chase City Municipal

Mecklenburg-Brunswick Regional

Emporia-Greensville Regional

Franklin Municipal

Hampton Roads

Newport News Marine Terminal

Norfolk International Terminal

Portsmouth Marine Terminal

KINGSPORT URBAN AREA MPO

BRISTOL URBAN AREA MPO

BLACKSBURG MPO

ROANOKE VALLEY AREA MPO

LYNCBURG AREA MPO

DANVILLE MPO

HARRISONBURG ROCKINGHAM MPO

WINCHESTER MPO

CHARLOTTESVILLE ALBEMARLE MPO

FREDERICKSBURG AREA MPO

NORTHERN VIRGINIA PORTION OF THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

RICHMOND AREA MPO

TRI-CITIES AREA MPO

HAMPTON ROADS MPO

0 14 28 Miles

FIGURE 1
Southside Corridor Map

U.S. 58 runs concurrently with U.S. Highway 23 through most of Scott County and runs concurrently with U.S. Highway 421 in part of Lee County and all of Scott County, with the overlap continuing into Washington County to the east. In the Mount Rogers Planning District and the New River Valley Planning District, the areas are again primarily rural in nature, and U.S. 58 acts as the main corridor connecting the small communities along the roadway. The corridor meanders to the north and south to not only follow the terrain but to connect the communities. These sections of U.S. 58 alternate between two-lane and four-lane roadway sections west of Stuart, which is located in Patrick County. East of Stuart, U.S. 58 is primarily a four-lane facility.

Southside Corridor Jurisdictions

- Lee County
- Scott County
- Washington County
- City of Bristol
- Grayson County
- City of Galax
- Carroll County
- Floyd County
- Patrick County
- Henry County
- Pittsylvania County
- City of Danville
- Halifax County
- Mecklenburg County
- Brunswick County
- Greenville County
- City of Emporia
- Southampton County
- City of Suffolk
- City of Chesapeake
- City of Portsmouth
- City of Norfolk
- City of Virginia Beach

U.S. 58 runs along I-81 within Washington County and the City of Bristol as well as with U.S. 11 in Washington County. U.S. 58 accesses the I-81 corridor in Washington County and the I-77 corridor in Carroll County. An alternate U.S. 58, which is not part of the main Southside Corridor, signed as U.S. 58A and known as the "Trail of the Lonesome Pine" splits off in the unincorporated town of Jonesville, traveling to the north and then east and providing access to other small communities before meeting back up with the main corridor for U.S. 58 in Abingdon.

The West Piedmont Planning District is primarily rural in nature, though U.S. 58 accesses the City of Danville within Pittsylvania County, bypassing the main city to the south while staying within the City limits. Business U.S. 58 provides local access to the City of Danville. The eastern half of the bypass, known as the Danville Expressway, overlaps with U.S. Highway 29. At the western limit of the overlap, an interchange provides access to continue along U.S. 29 to the south into North Carolina. At the eastern end of the overlap, an interchange provides access for U.S. 58 to the east and Business U.S. 58 to the west into the City of Danville. North of this interchange, U.S. 29 provides access to Lynchburg and points north. East of this interchange, U.S. Highway 360 runs concurrently with U.S. 58 through the remainder of Pittsylvania County, and into Halifax County. In Patrick County, there is a brief stretch of overlap with Virginia Route 8. In addition, U.S. 58 bypasses the City of Martinsville to the south, running concurrently with U.S. 220 for a short stretch.

In the Southside Planning District, U.S. 58 is the main corridor connecting South Boston with Emporia and South Hill. It also provides access to I-85 and I- 95 through this portion of the state, which in turns provides access to Richmond, Petersburg, and other points north, as well as North Carolina to the south. U.S. 58 runs mostly south of South Boston, crossing U.S. 501. West of South Boston, U.S. 360 runs concurrently with U.S. 58 and the two roads diverge near the Town, with U.S. 360 traveling to the north, while U.S. 58 continues to the east toward Mecklenburg County. In western

Mecklenburg County, Virginia Route 49 overlaps with U.S. 58 for a short stretch, and west of South Hill, U.S. 58 overlaps with U.S. Highway 1. U.S. 1 diverges from U.S. 58 and travels directly through the Town of South Hill, while U.S. 58 travels south of the Town. East of South Hill, U.S. 58 accesses and crosses I-85 before traveling into the Town of Brodnax and Brunswick County.

Within the Hampton Roads region, U.S. 58 acts as one of the major local access corridors, with sections up to six lanes through the various cities. U.S. 58 also provides the main east-west access to the City of Virginia Beach and to the beaches, traveling more than ten miles through the City limits and ending at U.S. Highway 60, which acts as the main north-south corridor along the coast.

Within the City of Suffolk, U.S. 58 bypasses the main City to the north and links up with U.S. Highway 460. A U.S. 58 Business Route accesses the downtown area of the City of Suffolk, connecting to the main corridor on the east and west sides of the City. At the eastern connection to the Business Route, U.S. Highway 13 also begins a period of overlap with U.S. 58, which continues into the City of Chesapeake via the Military Highway. U.S. 58 travels through City of Chesapeake and through the City of Portsmouth. Within the eastern part of Chesapeake and most of Portsmouth, U.S. 460A (Alternate Route) follows the Southside Corridor. U.S. 58 then accesses the City of Norfolk via the Midtown Tunnel. Virginia Route 337 overlaps with U.S. 58 on either side of the tunnel, diverging quickly on either side. Within the Hampton Roads area, U.S. 58 operates primarily as a local access road.

U.S. 58 Auxiliary and Concurrent Roadway Facilities

Auxiliary:

- U.S. 58A

Concurrent:

- U.S. 23 (Lenowisco)
- U.S. 421 (Lenowisco/ Mount Rogers)
- I-81 (Mount Rogers)
- U.S. 11 (Mount Rogers)
- Virginia Route 91 (Mount Rogers)
- Virginia Route 16 (Mount Rogers)
- U.S. 221 (Mount Rogers)
- Virginia Route 8 (West Piedmont)
- U.S. 220 (West Piedmont)
- U.S. 29 (West Piedmont)
- U.S. 360 (West Piedmont/ Southside)
- Virginia Route 49 (Southside)
- U.S. 1 (Southside)
- U.S. 258 (Hampton Roads)
- U.S. 13 (Hampton Roads)
- U.S. 460 (Hampton Roads)
- U.S. 460A (Hampton Roads)
- Virginia Route 189 (Hampton Roads)
- Virginia Route 337 (Hampton Roads)

There are no true parallel facilities to U.S. 58, though it accesses other major corridors and many other major routes run concurrently for stretches, as detailed above. U.S. 58 accesses I-81 (and runs concurrently for a small stretch), I-77, U.S. 29, U.S. 15, I- 85, and I-95 west of Hampton Roads. Within Hampton Roads, direct or indirect access to I-64 and its auxiliary roads, U.S. 460, U.S. 13, and U.S. 17 is available from U.S. 58.

There is no significant line-haul transit along the Southside Corridor. However, transit service is available in the Hampton Roads region. Hampton Roads Transit (HRT) provides a number of commuter routes, called the Metro Area Express (MAX). These bus routes travel portions of the U.S. 58 corridor as they provide connections between Newport News, Hampton, Norfolk, Virginia Beach, Chesapeake, and Portsmouth. Some routes provide service seven days a week, while others only provide Monday through Friday service. Travel times range from peak period only to all-day service.

The MAX routes provide connections to the larger HRT system, which provides local bus service to the above jurisdictions. There are numerous park and ride facilities along the Southside Corridor in Hampton Roads in Suffolk, Chesapeake, and Virginia Beach. There are also numerous park and ride facilities available in the western part of the state directly along the Southside Corridor, in Lee and Scott Counties, and along U.S. 58 Alternate in the western part of Virginia.

Southside Corridor Transit Facilities

- Hampton Roads Transit (HRT)
- Metro Area Express (MAX)
- Park-and-ride lots

There are four Greyhound Stations in the Hampton Roads area, with one each in Norfolk, Suffolk, Hampton, and Virginia Beach. In addition, there are Greyhound stations in Danville, South Boston, South Hill, and Emporia, all directly along the Southside Corridor.

The Southside Corridor does not directly access the Port of Virginia, but it provides indirect access to the three ports via U.S. 13. There are multiple rail lines along the Southside Corridor, though none run throughout the entire length of the corridor. CSX operates a spur of its National Gateway Corridor from Weldon, North Carolina, just south of the Virginia border to the Hampton Roads area to connect with the Port of Virginia. This corridor is CSX's primary freight corridor connecting the Port of Virginia with national markets. The Southside Corridor also crosses the main line of the National Gateway Corridor near Emporia.

Southside Corridor Rail and Port Facilities

Ports:
- Norfolk International Terminals
- Newport News Marine Terminal
- Portsmouth Marine Terminal

Freight Rail:
- CSX National Gateway Corridor (Spur)

Connections to:
- CSX Coal Corridor
- Norfolk Southern Heartland Corridor
- Norfolk Southern Coal Corridor
- Norfolk Southern Crescent Corridor
- Amtrak

Norfolk Southern provides rail lines along the Southside Corridor from Brunswick County east to Hampton Roads and the Port of Virginia. Other Norfolk Southern north-south running rail lines, including both lines of their Crescent Corridor as well as the Coal Corridor, can be accessed along the Southside Corridor. Passenger rail via Amtrak can be accessed in Danville. Norfolk Southern also operates rail lines within the Southside Corridor and near U.S. 58 Alternate in the western part of the state as part of its Heartland Corridor and Coal Corridor.

There are a total of 15 airports, including two reliever facilities with commercial service in the Hampton Roads area. Most of the other general aviation and local service facilities are located directly off the Southside Corridor. Table 1 lists the various air facilities as well as their locations and their designation by the Virginia Air Transportation System Plan. In addition, U.S. 58 provides indirect access to the two commercial service airports in the area, Norfolk International and Newport News Williamsburg Airport.

Table 1 Southside Corridor Airport Facilities

Airport	Type	Location
Norfolk International	Commercial Service	City of Norfolk
Newport News Williamsburg	Commercial Service	City of Newport News
Hampton Roads Executive	Reliever	City of Chesapeake
Chesapeake Regional	Reliever	City of Chesapeake
Lee County	General Aviation – Community	Lee County
Virginia Highland	General Aviation – Regional	Washington County
Lonesome Pine	General Aviation – Regional	Wise County
Twin County	General Aviation – Community	Carroll County
Blue Ridge	General Aviation – Regional	Henry County
Danville Regional	General Aviation – Regional	Pittsylvania County
William Tuck	General Aviation – Regional	Halifax County
Marks Municipal	General Aviation – Community	Mecklenburg County
Mecklenburg-Brunswick	General Aviation – Regional	Mecklenburg County
Chase City Municipal	Local Service	Mecklenburg County
Lawrenceville Brunswick County	Local Service	Brunswick County
Emporia-Greensville Regional	General Aviation – Community	Greensville County
Franklin Municipal	General Aviation – Community	Southampton County
Suffolk Municipal	General Aviation—Regional	City of Suffolk

2

Corridor Functions

2.1 Corridor Functions in Virginia

The Southside Corridor serves as the main local access for multiple cities, towns, and other small communities in Southside Virginia, operating as the main street through most of these towns. It also provides a link to Hampton Roads for both passengers and freight in southern Virginia and offers an alternative evacuation route from Hampton Roads.

Functions of U.S. 58

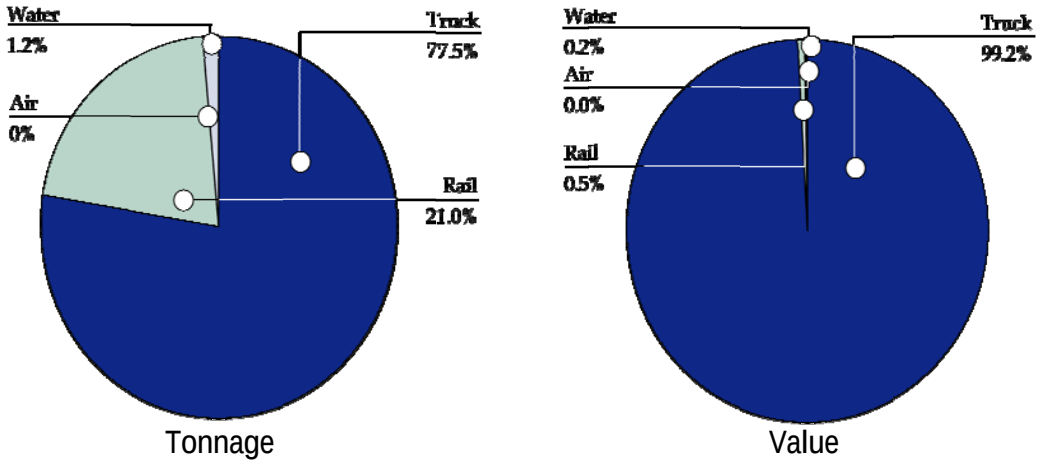
- Local access for Southern Virginia
- Link to Hampton Roads and evacuation route
- Economic Development
- Manufacturing, goods-to-market and warehousing

The Southside Corridor is an important manufacturing corridor as well as a goods-to-market freight corridor. It provides a direct link between the Port of Virginia in the Hampton Roads area and western and southern Virginia. There is potential for warehousing and distribution, along with agriculture, and the Southside Corridor is a heavy coal corridor in Virginia.

2.2 Linkage for Southern Virginia, Warehousing & Distribution, and Economic Development Potential

The Southside Corridor is an important freight corridor, with most freight movement via trucking along the highway, though other options exist, including rail and air. Trucking accounts for 77 percent of the freight movement, and freight rail accounts for 21 percent of the total freight movement, which is mostly along a spur of CSX's National Gateway Corridor. The National Gateway Corridor runs along the east coast, and the spur along U.S. 58 provides access to and from the Port of Virginia. In addition, there are connections to other rail lines along the corridor, including Norfolk Southern's Crescent, Coal, and Heartland Corridors and CSX's Coal Corridor. Figure 2 shows tonnage by mode as well as the freight value by mode.

Figure 2 Total Freight Tonnage and Value by Mode



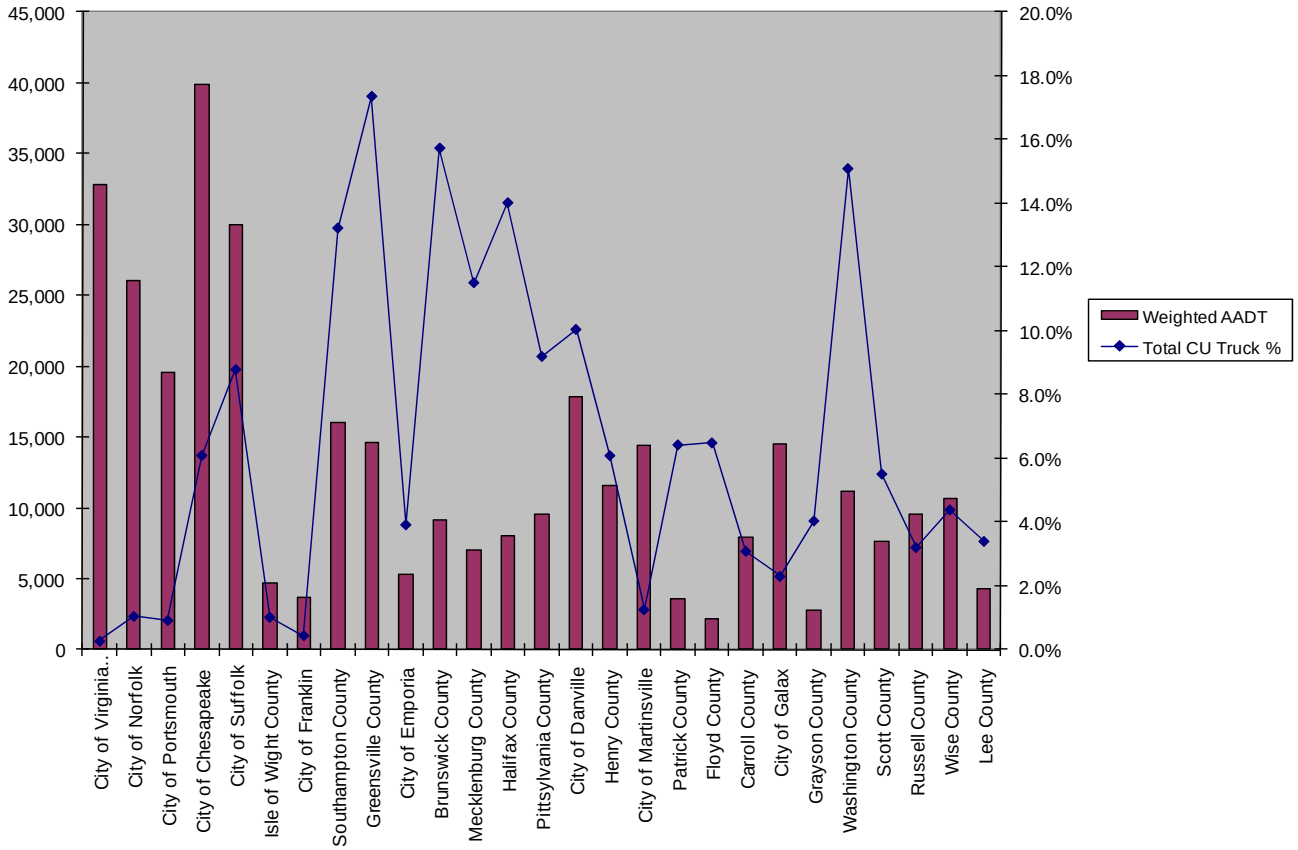
(Source: Statewide Freight Study)

As seen in Figure 2, most freight is handled by truck despite the presence of rail lines between the I-95 corridor and Hampton Roads. While almost three-quarters of the total tonnage is handled by truck, over 99 percent of the total value is handled by truck.

Figure 3 shows that trucks account for anywhere between less than 1 percent and almost 18 percent of the total traffic along U.S. 58. This illustrates the importance of U.S. 58 as a freight corridor and that a large amount of freight is moved by truck using the highway facilities.

Traffic is heaviest in the Hampton Roads region, with truck percentages and total trucks the highest through the City of Suffolk and the City of Chesapeake. Traffic drops off dramatically traveling west, though increases somewhat through Southampton County, Greenville County, and Brunswick County, where truck traffic is also very high. Truck percentages stay fairly high through Danville, then decline in the Martinsville and remain fairly low comparatively through the remainder of Virginia, except through Washington County. Within Washington County, U.S. 58 runs concurrently with I-81, a heavy trucking corridor, so the high truck percentage is likely traveling along I-81 from north-to-south and not U.S. 58 from east-to-west.

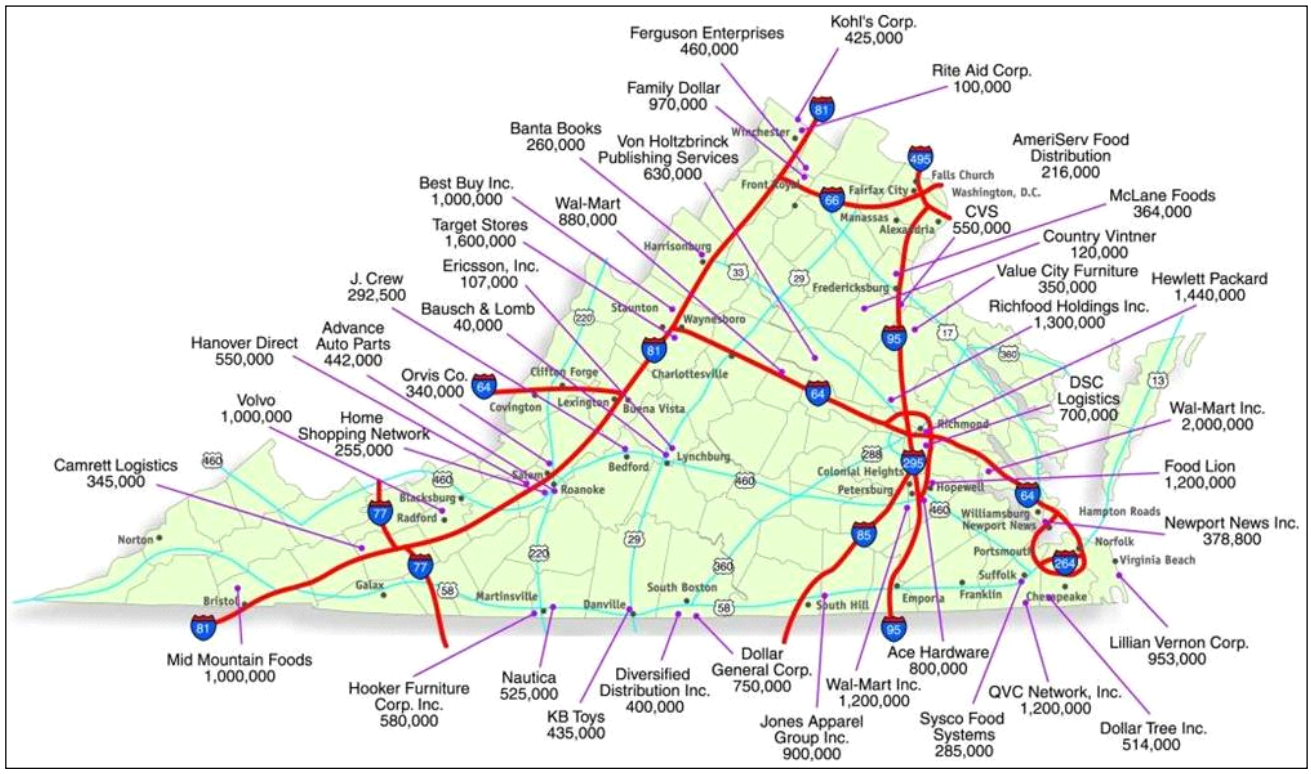
Figure 3 U.S. 58 Average Annual Daily Traffic (AADT) and Commercial Unit (CU) Truck Percentages



(Source: Statewide Freight Study)

Figure 4 shows the major distribution centers in Virginia. As seen in the figure, a number are located directly along the Southside Corridor. This allows for easy access from the corridor to the distribution centers. In addition, the Southside Corridor provides an excellent area for development, which could include more distribution centers, considering its indirect access to the Port of Virginia and to rail corridors.

Figure 4 Major Virginia Distribution Centers



(Source: Statewide Freight Study)

Table 2 lists the distribution centers located along the Southside Corridor. As seen in the table, there are a number of these facilities, mostly located in and around some of the larger cities, such as Martinsville, Bristol, Danville, South Boston, and the Hampton Roads region.

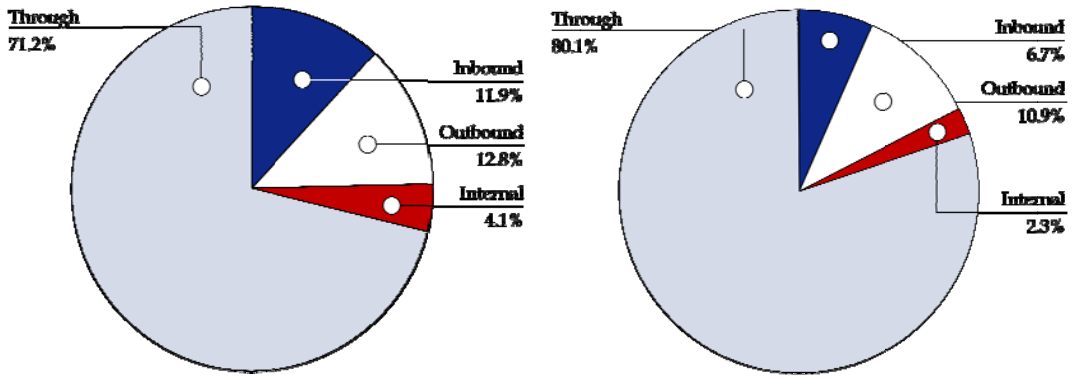
Table 2 U.S. 58 Warehouse and Distribution Facilities

Store	Location	Area (Square Feet)
Mid Mountain Foods	Bristol	1,000,000
Hooker Furniture Corp Inc.	Martinsville	580,000
Nautica	Martinsville	525,000
KB Toys	Danville	435,000
Diversified Distribution	South Boston	400,000
Dollar General	South Boston	750,000
Jones Apparel Group Inc.	South Hill	900,000
Sysco Food Systems	Suffolk	285,000
QVC Network	Suffolk	1,200,000
Dollar Tree Inc.	Chesapeake	514,000

(Source: Statewide Freight Study)

Figure 5 shows the freight tonnage and value by direction. As seen in this figure, approximately three-quarters of the freight moved along the Southside Corridor is through freight, likely between the Port of Virginia and markets to the west of Virginia. There is some inbound and some outbound freight and a small percentage of internal movement within Virginia.

Figure 5 Freight Tonnage and Value by Direction



Tonnage Value

(Source: Statewide Freight Study)

According to the Statewide Freight Study, freight volumes along the Southside Corridor will continue to grow and will be influenced by a number of factors leading to increased transportation demand. Population growth along the corridor, while less than the overall population growth in Virginia, will play a major role. In addition, changes in national and global logistics patterns and the corridor's evolving industry structure will lead to increased demand for freight along this already heavy freight corridor.

There are projects that will expand capacity at the Port of Virginia, including the Norfolk Internal Terminals Central Rail Yard Expansion, the Craney Island expansion and rail connection, and the Norfolk/Portsmouth Beltline Railroad which will increase capacity into and out of the Port. These projects will likely lead to more freight being transferred to rail from truck, but with the total amount of freight through the Port expected to increase substantially, truck transport along U.S. 58 will still be very prevalent, as will rail transport along CSX's National Gateway Corridor. With increases in freight demand, it is important that capacity to carry the expected volumes of freight will exist in the future, not only along the highway facilities but along the rail facilities as well.

In addition, there is significant potential for economic development along the Southside Corridor, as it is currently a rural highway through mostly undeveloped areas surrounding Martinsville, Danville, Emporia, and Bristol. Multiple

jurisdictions have identified the potential for more commercial and industrial development, including more warehousing and distribution centers. The Regional Planning Forum also identified the concept of warehousing and distribution development as an opportunity for the Southside Corridor. While freight movement is currently an important function of the corridor, there is potential for it to become more important if additional economic development is realized along the corridor.

2.3 Local Access to Southern Virginia Cities and Link to Hampton Roads

U.S. 58 serves as the main street through Southside Virginia, connecting Hampton Roads with the southwestern part of the state while traveling through numerous counties, cities, towns, and other small communities along the way. Southern Virginia is not served by an interstate, so U.S. 58 serves as the main access linking areas such as Emporia, South Boston, Danville, and Bristol. In addition, U.S. 58 is the main street through the many towns and cities it accesses, though there are a few bypasses around larger cities, such as in Danville and Martinsville. West of the Hampton Roads region, the areas that U.S. 58 accesses are mostly rural in nature, though development potential exists at many points. U.S. 58 is primarily a four-lane facility, though west of Stuart in Patrick County, there are many two-lane sections.

The Southside Corridor can also serve as an evacuation route out of the Hampton Roads region in case of hurricanes or other events that require evacuation. While most traffic would be expected to leave via I- 64, U.S. 58 offers an option that does not cross over water as I-64 and I-664 do and that accesses both I-95 and I-85 to the west. U.S. 58 also connects to U.S. 29 in Danville and to I-81 (where it runs concurrently with the interstate for a short stretch) near Bristol. These connections offer residents of Southside Virginia access to the rest of the state as well as to North Carolina to the south.

2.3.1 Population Projections

The Virginia Transportation Research Council (VTRC) completed a report as part of VTrans2035, detailing population and employment trends and projections to 2035. Increases in population will impact the amount of traffic on the roadway, impacting both local traffic and through traffic in Southside Virginia, and it will impact both passenger and freight traffic along the highway.

Table 3 details the population projections for 2010 and 2035 based on two different sources, one a private vendor (NPA Data Associates) and one a public source (Virginia Employment Commission - VEC). Projections by both sources only extended to 2030, so linear regression was used by VTRC to project to 2035. The data was organized by Planning District. Figure 6 illustrates the population density projections for the year 2010 at the Planning District level along the Southside Corridor, and Figure 7 illustrates the density projections for the year 2035 and the increase in population density from 2010 to 2035.

Table 3 Population Projections to 2035

	2010 Value		Midpoint 2035 Forecast		Percentage Increase		Annual Effective Growth Rate	
PDC	VEC	NPA	VEC	NPA	VEC	NPA	VEC	NPA
Lenowisco	91,506	91,910	91,979	96,803	0.5%	5.3%	0.0%	0.2%
Mount Rogers	189,461	190,050	196,549	204,663	3.7%	7.7%	0.1%	0.3%
New River Valley	175,336	170,200	196,909	199,490	12.3%	17.2%	0.5%	0.6%
West Piedmont	248,072	245,930	260,317	258,456	4.9%	5.1%	0.2%	0.2%
Southside	85,538	85,960	84,464	94,832	-1.3%	10.3%	-0.1%	0.4%
Hampton Roads	1,662,480	1,652,080	1,977,027	2,060,607	18.9%	24.7%	0.7%	0.9%
Statewide Totals	8,010,340	8,057,350	10,278,943	10,926,181	28.3%	35.6%	1.0%	1.2%

Source: Virginia Transportation Research Council

As seen in this table and in the graphics, the increases in population between 2010 and 2035 along the Southside Corridor will be small except in the Hampton Roads region. The largest increase outside of Hampton Roads happens in the New River Valley PDC, where U.S. 58 only briefly travels through Pulaski County. Overall, the population increases west of Hampton Roads are expected to be small.

According to the VTRC Trends Report, between 76 and 81 percent of the total population increase in Virginia will take place in four Planning Districts (Northern Virginia, Richmond Regional, Hampton Roads, and George Washington). Of these four regions, the Southside Corridor only passes through Hampton Roads. With the small increases in population throughout the remainder of the corridor, the transportation infrastructure should be able to handle any increases in traffic, assuming the Southside Corridor Development Program, which is expanding two-lane sections of U.S. 58 to four lanes is continued throughout the corridor.

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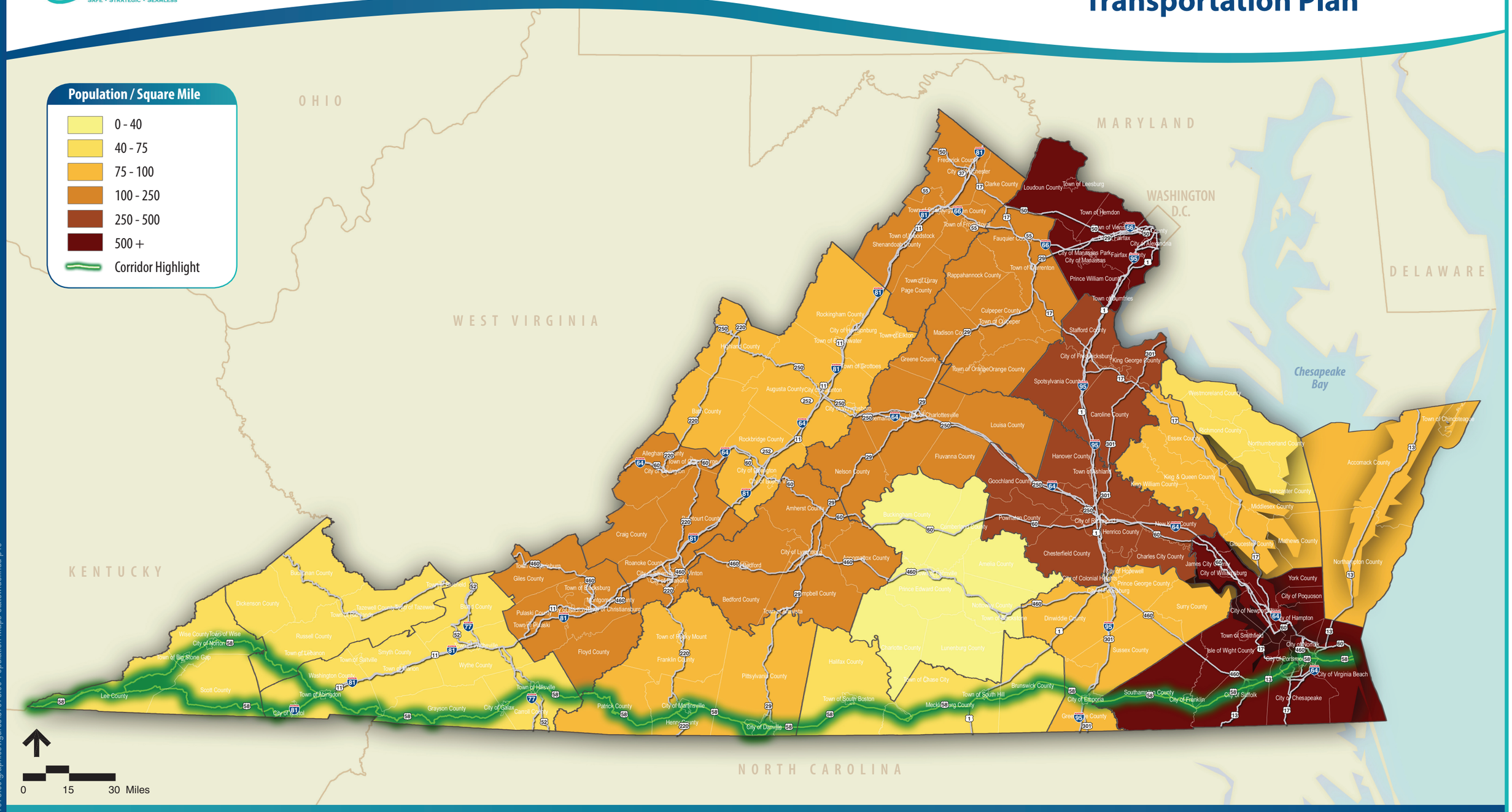

FIGURE 6
Population Density 2010 Projections - Southside Corridor

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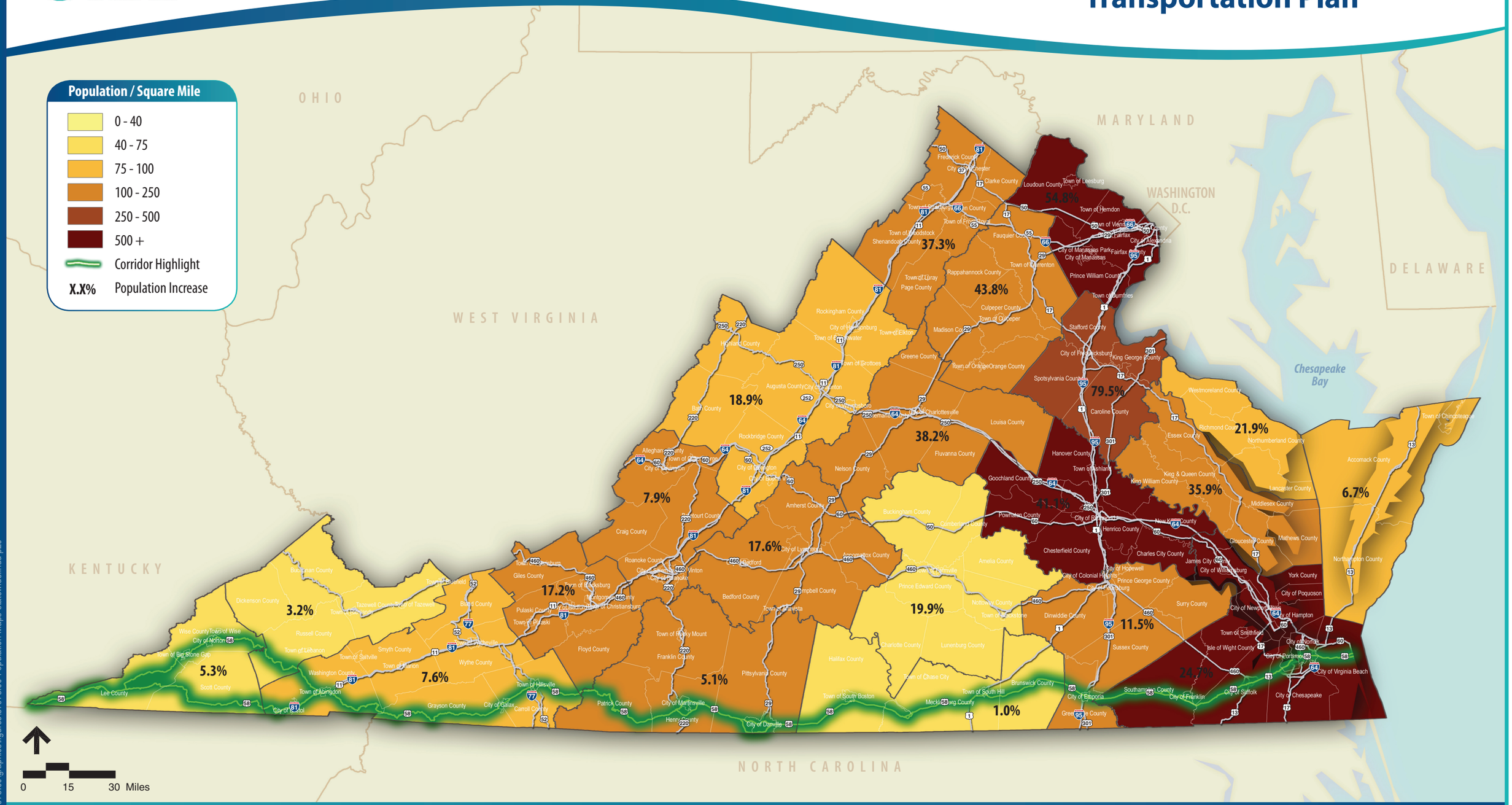

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FIGURE 7
Population Density 2035 Projections -Southside Corridor

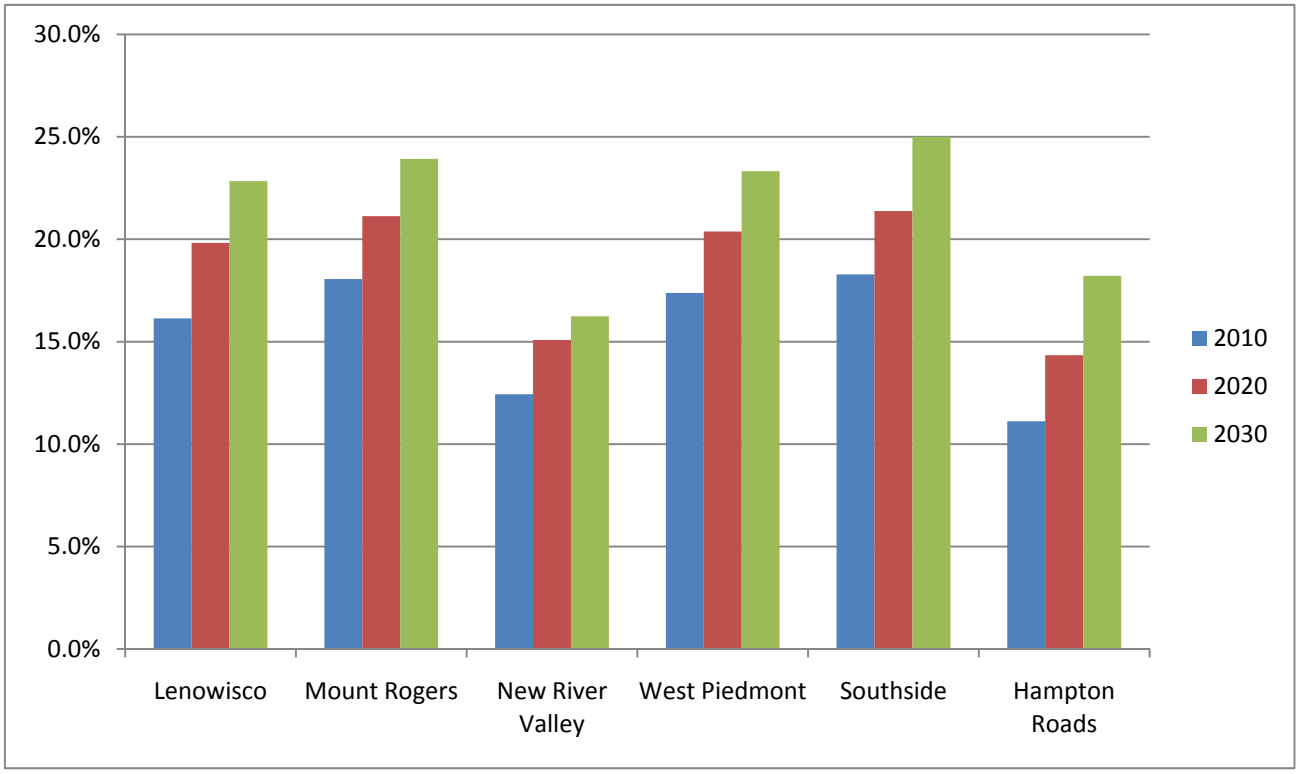
2.3.2 Corridor Mobility for Aging Population

In addition to general population projections, VTRC projected the ages of the population, broken down into five-year increments for a total of 18 categories. Figure 8 shows percentage of population over age 65 for the years 2010, 2020, and 2030. The percentages were calculated for each Planning District along the Southside Corridor.

As seen in this figure, the percentage of the population over the age of 65 is expected to increase in all Planning Districts along the Southside Corridor. The percentage of residents over age 65 is expected to be well over 20 percent in the four most rural sections of the corridor (Lenowisco, Mount Rogers, West Piedmont, and Southside).

As the older population increases, it is likely that the population that does not have access to a vehicle will increase as well, leading to a need for other modes of transportation, especially transit. While transit is available in Hampton Roads, there are few if any transit options in the rural areas with a high percentage of the population over age 65. As the population ages, increased demand response transit for the elderly and disabled should be investigated and likely implemented.

Figure 8 Percentage of Population over 65 (Projections)



2.3.3 Levels of Service

Figure 9 shows the existing levels of service (LOS) along the Southside Corridor, with red areas indicating undesirable levels of service (i.e., LOS 'E' or LOS 'F'). All areas not marked in red are where acceptable levels of service (i.e., LOS 'A' through LOS 'D') currently exist. As seen in Figure 9, the only area of deficiency along U.S. 58 under existing conditions is in the Hampton Roads region, where U.S. 58 overlaps with U.S. 460 and U.S. 13 along the Military Highway.

Figure 10 shows the future levels of service along the Southside Corridor, with the same color coding. As seen in the figures, levels of service are expected to degrade somewhat in various locations. There will be longer stretches of deficiency in the Hampton Roads region, including to the east toward Virginia Beach, which could be an issue in the event of an evacuation from this region. In addition, there are very short areas where undesirable levels of service are projected near more populated areas, such as Emporia and Martinsville. Also, the area of concurrence with I-81 is expected to degrade to undesirable levels of service near Bristol and the Tennessee border.

The future levels of service take into account projects along the roadway that are planned by the Virginia Department of Transportation. Even with planned expansions of the roadway and other programmed improvements, the highway facilities of the corridor are expected to degrade somewhat in the urban areas and in the areas where the corridor runs concurrently with other corridors. To combat this, localities, PDCs, and MPOs should identify the worst areas and plan for improvements to these areas.

2.3.4 High-Crash Rate Areas

Figure 11 illustrates areas along U.S. 58 that have been identified as high-crash rate areas, according to the Virginia Department of Transportation. As seen in the figure, there are no high-crash rate areas in the Hampton Roads region, though there are some areas that have been identified as having high-crash rates to the west. There is a concentration of a few of these areas near Emporia and the junction with I-95, and there a few high-crash rate areas near Danville and along the overlap with I-81 near Bristol. There are other high-crash rate areas spread out between Emporia and the western limit of U.S. 58 in Virginia. U.S. 58 is mostly a four-lane facility, though west of Stuart in Patrick County, there are multiple two-lane sections. This section of roadway typically follows the mountainous terrain, leading to a curvaceous roadway in sections. In addition, multiple jurisdictions have identified access management issues, such as multiple driveways and entrances, multiple crossovers, and the lack of turn lanes, as being a safety concern along both the two-lane and four-lane sections, which may lead to some of these high-crash rate areas. These areas should be further identified, and measures should be taken to alleviate safety concerns.

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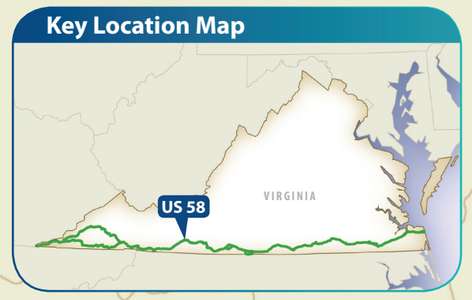
Virginia Statewide Multimodal Transportation Plan



Legend
- Over Capacity
- County Line
- MPO Area
- Planning District

WEST VIRGINIA
MARYLAND
KENTUCKY
NORTH CAROLINA
WASHINGTON D.C.
Chesapeake Bay

WINCHESTER MPO
NORTHERN VIRGINIA PORTION OF THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
HARRISONBURG-ROCKINGHAM MPO
FREDERICKSBURG AREA MPO
CHARLOTTESVILLE-ALBEMARLE MPO
RICHMOND AREA MPO
LYNCBURG AREA MPO
ROANOKE VALLEY AREA MPO
TRI-CITIES AREA MPO
BLACKSBURG MPO
HAMPTON ROADS MPO
DANVILLE MPO
KINGSPORT URBAN AREA MPO
BRISTOL URBAN AREA MPO

0 14 28 Miles

FIGURE 9
Southside Corridor Existing Conditions

Virginia Statewide Multimodal Transportation Plan

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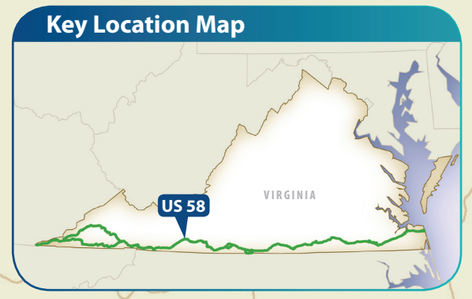

Legend
- Over Capacity
- County Line
- MPO Area
- Planning District

WEST VIRGINIA
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BLACKSBURG MPO
DANVILLE MPO
KINGSPORT URBAN AREA MPO
BRISTOL URBAN AREA MPO

0 14 28 Miles

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FIGURE 10
Southside Corridor Future Conditions

Virginia Statewide Multimodal Transportation Plan

2035 VTrans
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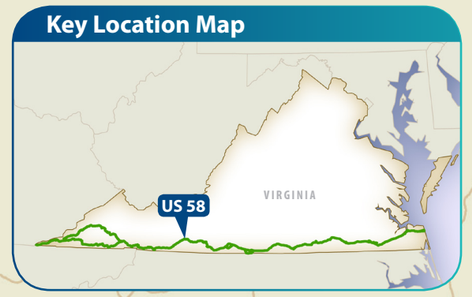

FIGURE 11
Southside Corridor High-Crash Rate Locations Map

3

Corridor Strategies

This section discusses the general corridor strategies for the Southside Corridor, which have been formulated to improve safety, mobility, and capacity along the corridor. The functions of the Southside Corridor are listed below, and Figure 12 presents a matrix that shows how the strategies relate to each function.

Functions of Southside Corridor

- *Local access for Southern Virginia Cities*
- *Link to Hampton Roads for freight and passengers; Evacuation Route*
- *Economic development*
- *Manufacturing, goods-to-market, warehousing and distribution*

Strategies were formulated based on trends, system performance, issues/challenges, elements of the VDOT Six-Year Program, the Constrained Long-Range Plans for each Metropolitan Planning Organization, visions and plans for the various Planning Districts, and any available Comprehensive Plan visions and strategies for each county and jurisdiction within each corridor. A Regional Planning Forum was held in the spring of 2009 with transportation representatives from across Virginia, including VDOT, Planning Districts and MPOs, transit agencies, the Virginia Airport Authority, the Port of Virginia, and other stakeholders in the Virginia transportation system. Public meetings were held in four locations in June and July of 2009 (Northern Virginia, Richmond, Hampton Roads, and Roanoke). Corridor deficiencies and what could be done to alleviate these deficiencies were discussed, with this information playing a major role in the formulation of these strategies. These strategies are part of a continuing planning process and are designed to be used as a guide for future transportation plans along the corridor within Virginia. They are not the explicit policy of the Commonwealth Transportation Board (CTB), though they are designed to assist the CTB, state and local transportation agencies, and local planning organizations in their planning efforts along the corridor. Specific corridor strategies and improvement recommendations will ultimately be developed as part of subsequent planning analyses at the State and local level.

Figure 12 - Southside Corridor Strategies vs. Functions Matrix

	Functions			
Strategies	**Local Access to Southern Virginia Communities**	**Link to Hampton Roads for Freight and Passengers/ Evacuation**	**Economic Development Potential**	**Manufacturing/ Warehousing/ Distribution**
Improve capacity through traffic management, access management, development of parallel routes and grid streets to separate local and through traffic, and possible use of ITS technologies.	●		●	●
Encourage commercial and industrial development along Southside Corridor and encourage concentrated centers to avoid strip development.	●	⊙	●	●
Continue Route 58 Corridor Development Program to ensure that all sections of the Southside Corridor in Virginia are at least 4 lanes to improve safety, capacity, and freight movement and to encourage economic development.	●	●	●	○
Increase freight rail capacity from the Port of Virginia and ensure multimodal freight movement coordination with the proposed Craney Island expansion.	⊙	●	○	○
Increase safety along the Southside Corridor by addressing high crash areas and making necessary improvements.	●	●	⊙	⊙
Improve transit along the Southside Corridor, especially in rural areas, by offering increased demand response services and services for the elderly and disabled.	○	⊙		
Improve ground access to airport facilities along the Southside Corridor where necessary.	⊙	○	⊙	⊙
Increase evacuation route capacity of Southside Corridor where necessary.	⊙	●		

● Strong Correlation ○ Medium Correlation ⊙ Some Correlation

3.1 Strategies for the Southside Corridor

Strategy: Improve capacity through traffic management, access management, development of parallel routes and grid streets to separate local and through traffic, and possible use of Intelligent Transprtation Systems (ITS) technologies

It is recommended that, where feasible, as U.S. 58 expands to a four-lane facility throughout, it become a limited-access highway, with access points at interchanges. Bypasses around denser areas may need to be constructed to achieve this. However, where this is not feasible, it is recommended that the only access points along the corridor be at major secondary facilities, and that parallel routes to U.S. 58 and systems of grid streets be constructed or improved to carry more local traffic. In addition, any land use decisions should be coordinated with highway access management. ITS technologies could be employed to assist in traffic management along the highway facilities of the corridor.

Strategy: Encourage commercial and industrial development along the Southside Corridor and encourage concentrated centers to avoid strip development; and coordinate land use development and transportation infrastructure planning.

The Regional Planning Forum, as well as many of the localities throughout this region, identified the Southside Corridor as a prime location for economic development. Many of the localities desire more commercial development along the corridor as well as some industrial and residential development. The Regional Planning Forum identified this corridor's potential for industrial park development. Investment in the transportation infrastructure in these developing areas can influence land use decisions and spur development. In turn, any land use decisions made along the Southside Corridor should be made in tandem with transportation decisions, to ensure the greatest amount of capacity and safety along U.S. 58.

The development that is desired by many localities along the Southside Corridor is typically commercial development, though many localities also desire some industrial development and increased single-family residential development. In addition, U.S. 58 has been identified as a prime location for distribution centers, as it is very accessible to the Port of Virginia and to the major north-south corridors (i.e. I-95, I-85, and I-81) in Virginia.

One consistency throughout the localities' plans is that all development, especially commercial development, should be clustered and that strip development along the Southside Corridor should be avoided altogether. Not only is it unsightly, it causes access management, traffic management, and safety issues along U.S. 58.

Strategy: Continue the Southside Corridor Development Program to ensure that all sections of the Southside Corridor in Virginia are at least 4 lanes to improve safety, capacity, and freight movement; and to encourage economic development.

The Southside Corridor Development Program has been responsible for the expansion of much of the corridor to four lanes. However, there are still sections west of Stuart that are two lanes. Many of these areas are designated in the VDOT

Six-Year Plan to be widened. The entire corridor should be at least four lanes, as this will encourage more economic development along the corridor and improve safety and capacity. This will ensure better freight movement to and from the Port of Virginia and improve local access through southern Virginia.

Strategy: Increase freight rail capacity from the Port of Virginia and ensure multimodal freight movement coordination with the proposed Craney Island expansion.

According to the Virginia Statewide Rail Plan, the Central Rail Yard Expansion project at Norfolk International Terminals at the Port of Virginia will allow more freight coming into the Port of Virginia to travel by rail instead of by truck. In addition, with the expansion of Craney Island, it is expected that 50 percent of the total freight from this major new facility is expected to be moved by rail from the Port of Virginia. With expansion of the Port of Virginia through the Craney Island project, more rail capacity and more freight movement via rail is essential for capacity and safety along U.S. 58's highway facilities. There are Norfolk Southern rail facilities along the Southside Corridor, carrying all types of freight to and from the Port of Virginia and carrying coal from the Virginia and West Virginia coalfields to the Port. It is important to ensure that more freight moves by rail to alleviate some safety concerns and to avoid truck conflicts with local traffic.

Strategy: Increase safety along the Southside Corridor by addressing high crash areas and making necessary improvements.

County Comprehensive Plans and the Regional Planning Forum identified the Southside Corridor as having safety deficiencies in spot locations, especially along the two-lane sections and sections through more developed areas where access management may be an issue. These areas should be specifically identified along the Southside Corridor by localities, and roadway safety audits should be completed for these areas. Improvements should be recommended and implemented to ensure better safety. Improved safety will enhance travel for both passengers and freight and especially for local traffic, and all functions of U.S. 58 will benefit.

Strategy: Improve transit along the Southside Corridor, especially in rural areas, by offering increased demand response services and services for the elderly and disabled.

Most areas of the Southside Corridor outside of the Hampton Roads region are not served by local transit or are served in a very limited capacity. Many County, City, and Town Comprehensive Plans call for the need for more modal options and less use of single-occupant vehicles, and they discuss the need for demand response service to more rural areas for those without vehicles. With the elderly population in Virginia expected to increase in the future, the need for these services will increase. The elderly and disabled will require services to shuttle them to medical facilities along the Southside Corridor as well as to urban centers. While fixed route services are likely not feasible in most of these areas, increased demand response services should be able to fill this need.

Strategy: Improve ground access to airport facilities along Southside Corridor where necessary.

There are eighteen airport facilities along the Southside Corridor, including commercial, general aviation and local service facilities. In addition, U.S. 58 provides access to Chesapeake Regional Airport and Hampton Roads Executive Airport. Ground access to these various airport facilities should be improved to ensure maximum usage of these airports. Ground access to airports has been identified as a weakness across the Commonwealth of Virginia. In addition, the long distance from certain areas of Virginia to airports with commercial service has been identified as a major issue. Increases in capacity to the highway facilities and offering other modal options along each corridor could potentially assist in alleviating this problem.

Strategy: Increase evacuation route capacity along Southside Corridor where necessary.

Modeling, simulation, and estimates show that based upon recent updates to the Army Corps of Engineers' Hurricane Evacuation Study, clearance times for those at risk in the Hampton Roads area have increased significantly. In particular, the congestion at the confluence of the Southside Corridor, Routes I-664, and I-64 has been identified as adding between 16 and 23 hours to the overall clearance time. VDOT has developed a conceptual lane reversal plan which will mitigate the delays incurred at this choke-point during an evacuation. Investments in and implementing the lane reversal option is critical to alleviating this choke-point.

3.2 Strategies vs. VTrans2035 Goals

These strategies relate to the goals of VTrans2035, and Figure 13 illustrates a matrix showing this relationship. A discussion of each of the goals is below.

- **Goal 1: Safety and Security—Provide a safe and secure transportation system.** Many of the strategies relate to the safety and security of the roadway, especially the strategy that deals directly with improving safety throughout the corridor. Further note the strategy that deals with encouraging concentrated development, as better access management directly leads to safer roadways, especially for turning vehicles. In addition, any increase in capacity will positively affect safety, as there will be fewer vehicles along the roadway and less congestion. Increasing rail capacity will lessen the truck load along the Southside Corridor, which will greatly improve safety. More demand response transit service for the elderly and disabled will improve their safety and security.
- **Goal 2: System Maintenance and Preservation—Preserve and maintain the condition of the existing transportation system.** All of the strategies help to achieve this goal, as the existing transportation system is maintained and preserved, and in many cases, improved. While capacity may be increased along the rail lines or highway facilities, or safety improved, the existing transportation facilities are maintained and preserved along the Southside Corridor.

- **Goal 3: Mobility, Connectivity, and Accessibility—Facilitate the easy movement of people and goods, improve interconnectivity of regions and activity centers, and provide access to different modes of transportation.** All of the strategies promote increased mobility, connectivity, and accessibility. Any increase in capacity along the roadway, whether along the highway facilities, the rail facilities, or an increase in transit capacity assists in achieving this goal. Multimodal coordination at Craney Island and at the Port of Virginia also helps to achieve this goal for freight movement from the Port of Virginia to all markets it serves.
- **Goal 4: Environmental Stewardship—Protect the environment and improve the quality of life for Virginians.** Increases in rail capacity, including at Craney Island, which will remove large trucks from the roadway, as well as any increase in transit capacity help to achieve the goal of environmental stewardship. In addition, any increase in roadway capacity that minimizes the amount of time vehicles are on the roadway, leading to fewer emissions, assists in achieving this goal.
- **Goal 5: Economic Vitality—Provide a transportation system that supports economic prosperity.** The Port of Virginia is one of the major economic engines in Virginia, and the expansion of the Port through the Craney Island project will increase the amount of freight that is shipped through the Commonwealth. Additional freight rail shipment and development could also potentially lead to an increase in freight movement and an increase in distribution centers and warehouses. In addition, there is the potential for further economic development along the Southside Corridor, and an increase in rail service as well as increases in rural transit could potentially spur development along the rural areas of the corridor. Finally, encouraging clustered development and practicing better access management will foster economic growth in these developing areas.
- **Goal 6: Coordination of Transportation and Land Use—Facilitate the effective coordination of transportation and land use to promote livable communities.** One strategy deals directly with this goal, as it calls for more coordination between lane use planning and transportation infrastructure investments. Another calls for better development practices, including less strip development and more clustered development, and better access management along U.S. 58. Any projects that increase capacity along the highway facilities should be accomplished in coordination with land use decisions in the areas they are constructed. Any increase in transit, including demand response services, should also be coordinated with land use. In addition, local planning efforts should protect airspace and ensure that airports are not compromised by encroachment of incompatible land uses.

Figure 13 - Southside Corridor Strategies vs. Goals Matrix

	Goals					
Strategies	**Safety and Security**	**System Maintenance and Preservation**	**Mobility, Connectivity, and Accessibility**	**Environmental Stewardship**	**Economic Vitality**	**Coordination of Transportation and Land Use**
Improve capacity through traffic management, access management, development of parallel routes and grid streets to separate local and through traffic, and possible use of ITS technologies.	⊙	●	○	⊙	●	●
Encourage commercial and industrial development along Southside Corridor and encourage concentrated centers to avoid strip development.	○	○	○		●	●
Continue Route 58 Corridor Development Program to ensure that all sections of the Southside Corridor in Virginia are at least 4 lanes to improve safety, capacity, and freight movement and to encourage economic development.	●	●	●	⊙	○	○
Increase freight rail capacity from the Port of Virginia and ensure multimodal freight movement coordination with the proposed Craney Island expansion.	○	●	●	●	●	○
Increase safety along the Southside Corridor by addressing high crash areas and making necessary improvements.	●	●	○			
Improve transit along the Southside Corridor, especially in rural areas, by offering increased demand response services and services for the elderly and disabled.	○	○	●	●	⊙	⊙
Improve ground access to airport facilities along the Southside Corridor where necessary.	⊙	○	●	⊙	⊙	
Increase evacuation route capacity of Southside Corridor where necessary.	●	●	●			

● Strong Correlation ○ Medium Correlation ⊙ Some Correlation