



COMMONWEALTH CORRIDOR FEASIBILITY STUDY: APPENDIX A

Virginia Department of Rail and Public Transportation

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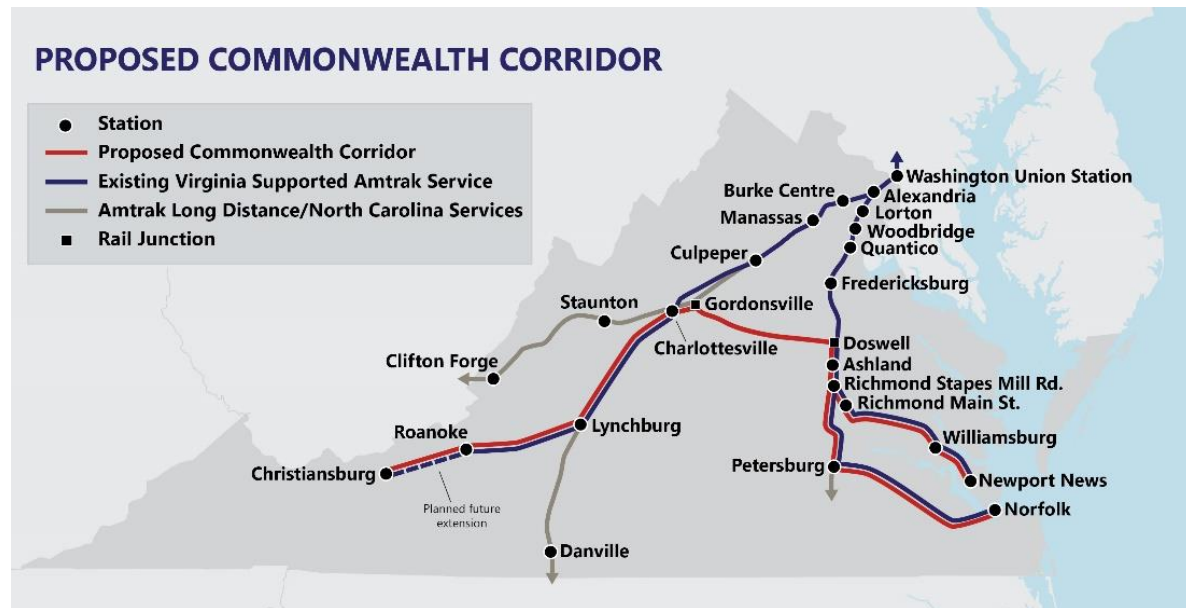
A. Appendix A: Existing Conditions

The following descriptions summarize existing conditions of different segments of existing railroad track in the Commonwealth of Virginia that could be used to support a cross-state, regularly scheduled intercity passenger rail service (the Commonwealth Corridor).

Information to prepare these descriptions came primarily from the Virginia State Rail Plan prepared by the Virginia Department of Rail and Public Transportation (DRPT), the Washington, D.C. to Richmond Southeast High Speed Rail (DC2RVA) Tier II Environmental Impact Statement prepared by DRPT, the Richmond to Hampton Roads Tier I Environmental Impact Statement prepared by DRPT, the Phase II Bristol, Roanoke, and Richmond Passenger Train Study commissioned by DRPT, the online FRA Grade Crossing Inventory, and information released by DRPT concerning the Transforming Rail in Virginia initiative and associated Western Rail Initiative.

Figure A.1 below shows the proposed route of the Commonwealth Corridor.

FIGURE A.1: COMMONWEALTH CORRIDOR



A.1. New River Valley to Lynchburg Segments

A.1.1. Merrimac (New River Valley) – Roanoke

This segment of the Commonwealth Corridor between Merrimac and Roanoke is approximately 35 miles long.

This segment of the corridor is currently owned by NS and operated as the Virginian Line (V-Line) between Merrimac and the Salem Crossovers in West Roanoke, a distance of approximately 29 miles, and operated by NS as the Norfolk & Western Line (N-Line) between the Salem Crossovers and the existing intercity passenger rail station in downtown Roanoke, a distance of approximately 6 miles.

The V-Line is a single-track main line that currently does not have intercity passenger rail service. The maximum authorized speed for freight trains operating on the V-Line is 40 mph. The V-Line provides an alternate route to NS's parallel, double-track N-Line for trains traveling between the Appalachian coal fields and the Roanoke Terminal.

The N-Line is a high-density, double track main line that does not have intercity passenger rail service. The N-Line is part of NS's Heartland Corridor, which links Norfolk and the Port of Virginia to markets in the U.S. Midwest. This line also carries coal from Appalachian coal fields to docks in Norfolk for export to overseas markets and to domestic customers in the eastern U.S. The portion of the N-Line between Roanoke and Walton, in the New River Valley also is part of NS's Crescent Corridor, a north-south freight transportation lane that links consumer markets and manufacturing regions between New Orleans, Memphis, Atlanta, and the Northeast.

The Roanoke Terminal is one of the primary freight classification terminals and operational hubs on the NS freight network. The terminal is approximately seven long and contains a major freight classification yard, additional yards to support local freight train operations and also the inspection and operation of through trains carrying bulk commodities to the docks in Norfolk and other locations, and inspection and repair facilities for rolling stock. From the Roanoke Terminal, NS main lines extend north, south, east, and west. Some freight trains originate and terminate at the classification yard, while other freight trains operating through the terminal also stop for inspections and crew changes. According to FRA grade crossing inventory records, the maximum speed on the N-Line mainline tracks that bypass the primary yard areas on their northern side is 30 mph.

In May 2021, the Commonwealth of Virginia announced it had reached an agreement with Norfolk Southern to acquire from NS the 28.5-mile segment of the Virginian Line (V-Line) railroad right-of-way from the Salem Crossovers to Christiansburg along with its existing track and other infrastructure. Upon purchase of the V-Line, the Commonwealth will develop improvements between Salem and Christiansburg to accommodate passenger rail service. Foundational improvements include a new passenger station and platform near Christiansburg, for which the Commonwealth expects to partner with localities in the New River Valley on construction of a station building, parking, and access to the station. The \$257 million Western Rail Initiative program of track acquisition and improvements also include a new passenger train maintenance and storage facility, bypass tracks in the Roanoke Yard so passenger trains can operate through the terminal area with minimal delays to passenger or freight traffic, and track improvements between Salem and Christiansburg. NS will retain operating rights within the Virginia-owned right-of-way.

Summary characteristics of the Merrimac – Roanoke segment are depicted in Table A.1.

TABLE A.1: MERRIMAC - ROANOKE SUMMARY CHARACTERISTICS

Owner	NS* (VPRA will acquire the V-Line under the Western Rail Initiative)
Operator	NS
Subdivision Name	V-Line (Merrimac-Salem in West Roanoke, 29 miles); N-Line (Salem-Roanoke, 6 miles)
FRA Track Class	Class 3 (estimated for V-Line) ¹ Class 4 (estimated for N-Line) ¹
Track Configuration	1 main track (V-Line), 2 main tracks (N-Line)
Maximum Authorized Passenger Train Speed	N/A
Maximum Authorized Freight Train Speed	40 mph (V-Line) ¹
Method of Operation	Centralized Traffic Control with Wayside Signals
Average Number of Passenger Trains per Day	0
Average Number of Freight Trains per Day	V-Line: 6-18 ¹ N-Line: 30-40 ¹
Current Traffic Density (2015)	More than 50 million gross tons (combined N-Line and V-Line west of Roanoke)
Passenger Rail Stations in Segment	None

A.1.2. Roanoke – Lynchburg

The segment of the Commonwealth Corridor between Roanoke and Lynchburg is approximately 49 miles long.

This segment of the corridor is owned by NS and operated as the Blue Ridge District. It is a high-density main line used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and Roanoke. Freight traffic on this segment of the corridor consists of intermodal, general manifest, and bulk freight trains. This freight main line is part of NS’s Heartland Corridor, which links Norfolk and the Port of Virginia to markets in the U.S. Midwest. This line also carries coal from Appalachian coal fields to docks in Norfolk for export to overseas markets. This segment consists of alternating sections of single and double main track.

¹ According to the FRA Grade Crossing Inventory

DRPT funded several capacity improvement projects on this segment of the corridor, in cooperation with NS, to introduce Virginia-sponsored Northeast Regional service to Roanoke in 2017. A second passenger train round trip to Roanoke is planned to begin in 2022.

The western end of this segment is part of NS’s Roanoke Terminal, a critical operational hub and freight classification terminal. NS corridors from north, south, east, and west converge in Roanoke. The intercity passenger rail station in downtown Roanoke, completed in 2017 is served by a double-ended station track that diverges from the main line on its south side to serve a high-level platform. East of the station, NS’s main line from Winston-Salem, NC converges with the Blue Ridge Subdivision. Nonrevenue intercity passenger train movements use the Winston-Salem line to access a passenger train storage and layover facility located about 1 mile south of the junction.

Summary characteristics of the Roanoke – Lynchburg segment are depicted in Table A.2.

TABLE A.2: ROANOKE - LYNCHBURG SUMMARY CHARACTERISTICS

Owner	NS
Operator	NS
Subdivision Name	Blue Ridge District
FRA Track Class	Class 4 ²
Track Configuration	1-2 main tracks
Maximum Authorized Passenger Train Speed	70 mph ²
Maximum Authorized Freight Train Speed	40-60 mph ²
Method of Operation	Centralized Traffic Control and Positive Train Control with Wayside Signals
Average Number of Passenger Trains per Day	2
Average Number of Freight Trains per Day	14 ²
Current Traffic Density (2015)	10-50 million gross tons
Passenger Rail Stations in Segment	Roanoke

A.2. Lynchburg – Charlottesville Segment

This segment of the Commonwealth Corridor between Lynchburg and Charlottesville is approximately 62 miles long.

This segment of the corridor is owned by NS and operated as the Washington District. The Washington District is a high-density mainline with alternating sections of single main track and two main track that is used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and Roanoke and Amtrak long-distance trains operating between Washington, D.C. and New Orleans. Freight traffic on this segment consists of intermodal, general manifest, and bulk freight trains. This main line is

² According to the FRA Grade Crossing Inventory

part of NS's Crescent Corridor, a north-south freight transportation lane that links consumer markets and manufacturing regions between New Orleans, Memphis, Atlanta, and the Northeast.

This segment of the corridor contains Amtrak's Lynchburg Station. Only one of two main tracks passing the station is served by a station platform, requiring all intercity passenger trains stopping at Lynchburg to occupy only the easternmost main track adjacent to the platform. North of the station facility is an unused passenger train layover track, which had been used by the state-supported Northeast Regional round trip from Washington, D.C. for overnight storage and servicing until the train was extended from Lynchburg to Roanoke in 2017.

Approximately 2 miles south of the Lynchburg passenger rail station, a single Connecting Track exists between NS's Kinney Yard (on the NS line from Roanoke) and Montview Yard (on the Lynchburg-Charlottesville line) that enables passenger trains on the NS main line from Roanoke to diverge and access the north-south NS Washington District main line and operate north to Charlottesville. This Connecting Track is also heavily used by freight trains providing mainline, local freight, and yard switching operations.

At Charlottesville, a slow-speed connecting track exists to enable trains traveling northward on the NS Washington District to diverge and operate eastward on the Buckingham Branch Railroad's North Mountain Subdivision. This connecting track is currently used to interchange freight traffic between CSXT and BB.

Summary characteristics of the Lynchburg to Charlottesville segment are depicted in Table A.3.

TABLE A.3: LYNCHBURG - CHARLOTTESVILLE SUMMARY CHARACTERISTICS

Owner	NS
Operator	NS
Subdivision Name	Washington District
FRA Track Class	Class 4
Track Configuration	1-2 main tracks
Maximum Authorized Passenger Train Speed	79 mph
Maximum Authorized Freight Train Speed	45-60 mph
Method of Operation	Centralized Traffic Control and Positive Train Control with Wayside Signals
Average Number of Passenger Trains per Day	4
Average Number of Freight Trains per Day	20-30 ³
Current Traffic Density (2015)	10-50 million gross tons
Passenger Rail Stations in Segment	Lynchburg

A.3. Charlottesville to Richmond Segments

A.3.1. Charlottesville – Gordonsville

This segment of the Commonwealth Corridor between Charlottesville and Gordonsville and Doswell is approximately 23 miles long.

This segment of the corridor is owned by the Commonwealth of Virginia, purchased by the Virginia Passenger Rail Authority from CSXT under the Transforming Rail in Virginia agreement, and is operated under lease by the Buckingham Branch Railroad (BB) as its North Mountain Subdivision. The North Mountain Subdivision is a light density main line that is used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Amtrak’s Long Distance Cardinal, which operates three days per week in each direction. Under the current schedule, the eastbound and westbound Cardinal operate on the North Mountain Subdivision on Sunday, Wednesday, and Friday. Freight traffic consists of local freight trains operated by the BB and overhead freight trains operated by CSXT, which has trackage rights on the BB main line between Richmond and Clifton Forge.

At Charlottesville, BB has a freight yard where local freight trains serving the line originate. Although this segment contains wayside signaling and Centralized Traffic Control, the BB received an exemption from the FRA for the installation of Positive Train Control to support passenger operations, given the low passenger train volumes that currently use the line.

Although passing sidings exist to hold short local freight trains, there are no long passing sidings on the North Mountain Subdivision that could be used to efficiently pass intercity passenger trains and long

³ According to FRA Grade Crossing Inventory

CSXT overhead trains. This condition has caused delays to both passenger and freight operations on days when Amtrak’s Cardinal is scheduled to operate over the line.

The Cardinal makes a station stop on this segment of the North Mountain Subdivision in Charlottesville, at a facility located just east of the at-grade crossing of BB and the NS Washington District. Stations platforms are located along the BB tracks for use by the Cardinal and along the NS tracks for use by state-supported and long-distance passenger trains operating on the NS main line.

A slow-speed connecting track exists to enable trains traveling north on the NS main line to diverge and operate eastbound on the BB North Mountain Subdivision. This connecting track is currently used to interchange freight traffic between NS and BB.

Summary characteristics of the Charlottesville – Gordonsville segment are depicted in Table A.4.

TABLE A.4: CHARLOTTESVILLE - GORDONSVILLE SUMMARY CHARACTERISTICS

Owner	CSXT* (VRPA will acquire under the Transforming Rail in Virginia initiative)
Operator	BB
Subdivision Name	North Mountain Subdivision
FRA Track Class	Class 3
Track Configuration	1 main track
Maximum Authorized Passenger Train Speed	60 mph
Maximum Authorized Freight Train Speed	40 mph
Method of Operation	Centralized Traffic Control with Wayside Signals
Average Number of Passenger Trains per Day	1
Average Number of Freight Trains per Day	6-10
Current Traffic Density (2015)	9 million gross tons
Passenger Rail Stations in Segment	Charlottesville

A.3.2. Gordonsville – Doswell

This segment of the Commonwealth Corridor between Gordonsville and Doswell is approximately 48 miles long.

This segment of the corridor is owned by the Commonwealth of Virginia, purchased by the Virginia Passenger Rail Authority from CSXT under the Transforming Rail in Virginia agreement, and is operated under lease by the Buckingham Branch Railroad (BB) as its Piedmont Subdivision. The Piedmont Subdivision is a light density main line currently used only by freight trains. Freight traffic consists of local freight trains operated by the BB and overhead freight trains operated by CSXT, which has trackage rights on the BB main line between Richmond and Clifton Forge.

Although passing sidings exist to hold short local freight trains, there are no long passing sidings on the Piedmont Subdivision that could be used to efficiently pass intercity passenger trains and long CSXT overhead trains.

At Doswell, BB has a freight yard located on the northwest side of an at-grade diamond crossing with the CSXT RF&P Subdivision. BB bases local freight trains at the Doswell yard to serve customers located along the Piedmont Subdivision and at a transload facility in the Doswell yard area. A slow-speed connecting track exists to enable trains traveling eastward on the BB to diverge and operate southbound on the CSXT RF&P Subdivision main line. This connecting track is currently used to interchange freight traffic between CSXT and BB.

Summary characteristics of the Gordonville – Doswell segment are depicted in Table A.5.

TABLE A.5: GORDONVILLE – DOSWELL SUMMARY CHARACTERISTICS

Owner	CSXT* (VRPA will acquire under the Transforming Rail in Virginia initiative)
Operator	BB
Subdivision Name	Piedmont Subdivision
FRA Track Class	Class 2
Track Configuration	1 main track
Maximum Authorized Passenger Train Speed	25 mph
Maximum Authorized Freight Train Speed	25 mph
Method of Operation	Track Warrant Control
Average Number of Passenger Trains per Day	0
Average Number of Freight Trains per Day	5-8
Current Traffic Density (2015)	9 million gross tons
Passenger Rail Stations in Segment	None

A.3.3. Doswell – Richmond (Greendale)

The segment of the Commonwealth Corridor between Doswell and the Greendale interlocking in Richmond is approximately 17 miles long.

The Greendale interlocking is located just north of the Richmond Staples Mill Road Station. This segment of the corridor is owned by CSXT and operated by the RF&P Subdivision. The RF&P Subdivision is a high-density main line with two main tracks used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and terminals in Richmond, Newport News, and Norfolk; the North Carolina-supported Amtrak Carolinian service operating between Washington, D.C. and Charlotte; Amtrak Long Distance trains operating between Washington, D.C. and terminals in Miami and Savannah; and Amtrak’s Auto Train operating between Lorton, VA and Sanford, FL. Freight traffic on this segment of the

corridor consists of intermodal, general manifest, and bulk freight trains. This freight main line is part of CSXT's I-95 corridor, which spans the entire Eastern U.S., linking cities, ports, and manufacturing regions along the eastern seaboard. The line is also part of CSXT's National Gateway route connecting the Port of Virginia and other mid-Atlantic ports with cities and markets in the U.S. Midwest.

At Doswell, a low-speed connection exists that would enable passenger trains to operate in a progressive move eastward from the Buckingham Branch trackage and southward onto the CSTX RF&P Subdivision to continue to Richmond.

Operational constraints exist in the town of Ashland where the right-of-way operates in an alignment approximately 1.3 miles in length located in the median of a city street through a historic downtown area. Track speed on a 2.2-mile segment of the RF&P Subdivision that includes the segment through downtown Ashland is limited to 35 mph during the daytime (from 7 a.m. to 7 p.m., or until 10 p.m. on Friday) and 45 mph at night. The DC2RVA Tier II EIS recommended maintaining the existing track alignment through Ashland without constructing additional mainline tracks in the city or bypass tracks around the city, owing to the significant environmental impacts that would be created.

Under the Transforming Rail in Virginia initiative announced in 2020, VPRA will purchase approximately half of the CSXT-owned railroad right-of-way between Washington, DC, and Petersburg, VA (RF&P). Track within the right-of-way purchased by Virginia also becomes Virginia property. With the acquisition, Virginia has committed to a series of infrastructure improvements to the RF&P right-of-way that will allow for doubling Amtrak state-supported and significantly increasing VRE service. Two of the four phases of infrastructure improvements, DC to Petersburg corridor Phases 1 and 2, are funded and will be built out in the next 10 years. As improvements are completed, the additional capacity will allow more passenger rail service to come online. Future phases will allow for further separation of passenger and freight rail services, resulting in improved reliability and capacity. One improvement under the Transforming Rail in Virginia agreement has been identified for this section of the corridor: construction of a 2.9-mile section of third track in Hanover, north of Ashland.

This segment of the corridor contains one intercity passenger rail station at Ashland.

Summary characteristics of the Doswell to Richmond (Greendale) segment are depicted in Table A.6

TABLE A.6: DOSWELL - RICHMOND (GREENDALE) SUMMARY CHARACTERISTICS

Owner	CSXT
Operator	CSXT
Subdivision Name	RF&P Subdivision
FRA Track Class	Class 4
Track Configuration	2 main tracks
Maximum Authorized Passenger Train Speed	70 mph
Maximum Authorized Freight Train Speed	40-60 mph
Method of Operation	Centralized Traffic Control and Positive Train control with Wayside Signals
Average Number of Passenger Trains per Day	20
Average Number of Freight Trains per Day	10-20
Current Traffic Density (2015)	116 million gross tons
Passenger Rail Stations in Segment	Ashland

A.3.4. Richmond (Greendale) – Richmond (South AY Interlocking)

The segment of the Commonwealth Corridor between the Greendale interlocking in Richmond and the AY interlocking in Richmond is approximately 4 miles long. The Greendale interlocking is located just north of the Richmond Staples Mill Road Station, at the north throat of the Acca Yard terminal, CSXT’s main Richmond-area freight classification terminal.

This segment of the corridor is owned by CSXT and operated as the Richmond Terminal Subdivision. The Richmond Terminal Subdivision is a high-density mainline through a railroad terminal that is used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and terminals in Richmond, Newport News, and Norfolk; the North Carolina-supported Amtrak Carolinian service operating between Washington, D.C. and Charlotte; Amtrak long distance trains operating between Washington, D.C. and terminals in Miami and Savannah; and Amtrak’s Auto Train operating between Lorton, VA and Sanford, FL.

Freight traffic on this segment consists of intermodal, general manifest, and bulk freight trains, as well as yard switching trains that work in the terminal area. Acca Yard is a crew change point for all CSXT freight trains. This freight main line is part of CSXT’s I-95 corridor, which spans the entire Eastern U.S., linking cities, ports, and manufacturing regions along the eastern seaboard. The line is also part of CSXT’s National Gateway route connecting the Port of Virginia and other mid-Atlantic ports with cities and markets in the U.S. Midwest.

This segment of the corridor contains Amtrak’s Richmond Staples Mill Road Station, which is a crew change point for intercity passenger trains, and also a full-service station where checked baggage is

handled and ticket agents are available to assist customers. Passenger trains have a longer dwell time at Staples Mill Road Station to accommodate the crew change and baggage handling activities. The Richmond Staples Mill Road Station is the busiest intercity passenger rail station in the Southeast, serving approximately 350,000 passengers a year. The station is located in a suburban area of Richmond, approximately 8 miles north of the Central Business District.

Trains operate through the Richmond Terminal area at a slower speed than on adjacent mainline track segments. Passenger trains and through freight trains will operate on a mainline bypass route along the west edge of the yard that minimizes interference with switching activities occurring in the yard. Through freight trains will halt on the mainline bypass for a crew change. The maximum operating speed for passenger trains on the mainline bypass tracks is 40 mph.

Passenger trains to/from Newport News must cross the south throat of the yard at AY interlocking to move between the Richmond Terminal Subdivision main tracks and diverging tracks that lead to the Bellwood Subdivision toward downtown Richmond and Main Street Station. When a passenger train crosses the throat of the yard at AY interlocking, switching activities and freight train arrivals and departures at the south end of the yard are suspended to ensure a clear path for the passenger train. Under the Transforming Rail in Virginia initiative announced in 2020, VPRA will purchase approximately half of the CSXT-owned railroad right-of-way between Washington, DC, and Petersburg, VA (RF&P). Track within the right-of-way purchased by Virginia also becomes Virginia property. With the acquisition, Virginia has committed to a series of infrastructure improvements to the RF&P right-of-way that will allow for doubling Amtrak state-supported and significantly increasing VRE service. Two of the four phases of infrastructure improvements, DC to Petersburg corridor Phases 1 and 2, are funded and will be built out in the next 10 years. As improvements are completed, the additional capacity will allow more passenger rail service to come online. Future phases will allow for further separation of passenger and freight rail services, resulting in improved reliability and capacity.

As part of a long-term plan to improve passenger train operations in the Richmond area developed for the DC2RVA Tier II EIS, DRPT plans to construct two new passenger train bypass tracks on the east side of the yard between the Greendale interlocking and South AY interlocking, which will provide a higher-speed route around the Acca Yard terminal area for passenger trains and a direct connection to CSXT's Bellwood Subdivision and the route to Main Street Station without crossing yard tracks. As part of the Acca East Bypass project, new high-level station platforms for the Staples Mill Road Station will be constructed to serve the east side bypass tracks.

Summary characteristics of the Richmond (Greendale) – Richmond (South AY Interlocking) segment are depicted in Table A.7.

TABLE A.7: RICHMOND (GREENDALE) - RICHMOND (SOUTH AY INTERLOCKING) SUMMARY CHARACTERISTICS

Owner	CSXT
Operator	CSXT
Subdivision Name	Richmond Terminal
FRA Track Class	Class 1/2
Track Configuration	1-4 main tracks
Maximum Authorized Passenger Train Speed	40 mph
Maximum Authorized Freight Train Speed	25 mph
Method of Operation	Centralized Traffic Control and Positive Train control with Wayside Signals
Average Number of Passenger Trains per Day	20
Average Number of Freight Trains per Day	13
Current Traffic Density (2015)	N/A
Passenger Rail Stations in Segment	Richmond Staples Mill Road

A.3.5. Richmond (South AY Interlocking) – Richmond (AM Junction)

The segment of the Commonwealth Corridor between AY interlocking in Richmond and AM Junction in Richmond is approximately 3.5 miles long.

This segment of the corridor is owned by CSXT and operated as the Bellwood Subdivision. This segment of the corridor is a main line used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and Newport News. Freight traffic on this segment consists of intermodal, general manifest, and bulk freight trains.

This segment of the corridor links the Richmond terminal area of Acca Yard with railroad junctions in downtown Richmond that connect to lines serving Main Street Station, Newport News, the Buckingham Branch Railroad, and industrial areas south of the James River. Track speeds on this portion of the Bellwood Subdivision are lower than on other main line lines in Virginia as a result of the curves and grades of the alignment, which descends south into the James River Valley following a creek. Current operations are also constrained by the limited number of crossovers available between main tracks to direct trains through the rail junctions in downtown Richmond.

As part of a long-term plan to improve passenger train operations in the Richmond area developed for the DC2RVA Tier II EIS, DRPT plans to construct additional mainline tracks and crossovers in this segment of the corridor to provide for a more optimal use of tracks among freight and passenger operations, and accommodate additional passenger train volumes. The additional track capacity planned would permit existing and proposed passenger trains to/from Norfolk and the Southeast that currently bypass Main Street Station on a higher-speed freight alignment that avoids downtown Richmond to be diverted onto the Bellwood Subdivision and serve Main Street Station.

Summary characteristics of the Richmond (South AY Interlocking) – Richmond (AM Junction) segment are depicted in Table A.8.

TABLE A.8: RICHMOND (SOUTH AY INTERLOCKING) - RICHMOND (AM JUNCTION) SUMMARY CHARACTERISTICS

Owner	CSXT
Operator	CSXT
Subdivision Name	Bellwood Subdivision
FRA Track Class	Class 2
Track Configuration	1-2 main tracks
Maximum Authorized Passenger Train Speed	30 mph
Maximum Authorized Freight Train Speed	20-25 mph
Method of Operation	Centralized Traffic Control and Positive Train control with Wayside Signals
Average Number of Passenger Trains per Day	4
Average Number of Freight Trains per Day	4
Current Traffic Density (2015)	12 million gross tons
Passenger Rail Stations in Segment	None

A.4. Richmond to Newport News Track Segment

The segment of the Commonwealth Corridor between AM Junction in Richmond and Newport News is approximately 70.5 miles long.

This segment of the corridor is owned by CSXT and operated as the Peninsula Subdivision. This segment of the corridor is a main line used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and Newport News. Freight traffic on this segment consists of intermodal, general manifest, and bulk freight trains. The line consists of alternating sections of single main track and two main track. This main line is part of CSXT’s network of lines that funnel U.S. coal and agricultural products to docks in Newport News for export to overseas markets.

In Richmond, the Peninsula Subdivision operates for several miles through the downtown area on an elevated viaduct that passes Main Street Subdivision and converges at Rivanna Junction with a CSXT main line from Clifton Forge. Beyond the east end of the viaduct is CSXT’s Fulton Yard, a secondary freight yard serving the Richmond area. Intercity passenger rail stations on this segment of the corridor exist at Richmond Main Street Station, Williamsburg, and Newport News.

Construction is currently underway on a new multimodal intercity passenger rail station and nearby passenger train layover facility in Newport News, projected to be completed in 2022. The new multimodal transit center will serve passenger trains, buses, taxis, and airport shuttles, and will replace services at the existing Amtrak Newport News station approximately 9 miles farther east.

Summary characteristics of the Richmond – Newport News segment are depicted in Table A.9.

TABLE A.9: RICHMOND - NEWPORT NEWS SUMMARY CHARACTERISTICS

Owner	CSXT
Operator	CSXT
Subdivision Name	Peninsula Subdivision
FRA Track Class	Class 4
Track Configuration	1-2 main tracks
Maximum Authorized Passenger Train Speed	79 mph
Maximum Authorized Freight Train Speed	50 mph
Method of Operation	Centralized Traffic Control and Positive Train control with Wayside Signals
Average Number of Passenger Trains per Day	4
Average Number of Freight Trains per Day	9
Current Traffic Density (2015)	37 million gross tons
Passenger Rail Stations in Segment	Richmond Main Street Station, Williamsburg, Newport News

A.5. Richmond to Norfolk Track Segments

A.5.1. Richmond (AM Junction) – Centralia

The segment of the Commonwealth Corridor between AM Junction in Richmond and Centralia is approximately 11.5 miles long.

This segment of the corridor is owned by CSXT and operated as the Bellwood Subdivision. It is currently a freight-only secondary line that links rail junctions in downtown Richmond with industrial areas south of the James River, and ultimately connects with CSXT’s I-95 corridor main line (the North End Subdivision) at Centralia. Freight traffic consists of intermodal, general manifest, and bulk freight trains.

Through downtown Richmond the Bellwood Subdivision is located on an elevated viaduct that passes the west side of Main Street Station, which currently does not have a station platform, then passes through the height-restricted middle level of a three-level grade-separated intersection of railroad lines in downtown Richmond, before crossing over the James River on a single-track, low-speed bridge.

The DC2RVA Tier II EIS has proposed upgrading the Bellwood Subdivision to passenger train speeds to permit intercity passenger trains from Norfolk, North Carolina, and the Southeast to operate through downtown Richmond and serve Main Street Station. (These passenger trains currently bypass downtown Richmond and use CSXT’s high-density North End Subdivision main line.)

Summary characteristics of the Richmond (AM Junction) – Centralia segment are depicted in Table A.10.

TABLE A.10: RICHMOND (AM JUNCTION) - CENTRALIA SUMMARY CHARACTERISTICS

Owner	CSXT
Operator	CSXT
Subdivision Name	Bellwood Subdivision
FRA Track Class	Class 2
Track Configuration	1-2 main tracks
Maximum Authorized Passenger Train Speed	25 mph
Maximum Authorized Freight Train Speed	25 mph
Method of Operation	Centralized Traffic Control and Positive Train control with Wayside Signals
Average Number of Passenger Trains per Day	0
Average Number of Freight Trains per Day	4
Current Traffic Density (2015)	12 million gross tons
Passenger Rail Stations in Segment	None

A.5.2. Centralia – Petersburg (Collier Connection)

The segment of the Commonwealth Corridor between Centralia and Collier is approximately 15 miles long.

This segment of the corridor is owned by CSXT and operated as the North End Subdivision. It is a high-density main line used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and Norfolk; the North Carolina-supported Amtrak Carolinian service operating between Washington, D.C. and Charlotte; Amtrak Long Distance trains operating between Washington, D.C. and terminals in Miami and Savannah; and Amtrak’s Auto Train operating between Lorton, VA and Sanford, FL. Freight traffic on this segment of the corridor consists of intermodal, general manifest, and bulk freight trains. This freight main line is part of CSXT’s I-95 corridor, which spans the entire Eastern U.S., linking cities, ports, and manufacturing regions along the eastern seaboard. The line is also part of CSXT’s National Gateway route connecting the Port of Virginia and other mid-Atlantic ports with cities and markets in the U.S. Midwest.

The North End Subdivision actually starts at the south end of Acca Yard in Richmond, and is the primary route for intercity passenger and through freight trains between Richmond and points south. The alignment circumvents downtown Richmond on a belt line around the west side of the city. At Centralia, the Bellwood Subdivision ends at a junction with the North End Subdivision.

The intercity passenger rail station serving Petersburg is located along the North End Subdivision in Ettrick. Operations are constrained south of the passenger rail station where the two-track main line is reduced to a single main track for approximately one-third of a mile to cross the Appomattox River. Approximately 2 miles south of the Appomattox River bridge, Northeast Regional intercity passenger trains to Norfolk diverge from the North End Subdivision onto the Collier Connection, a single-track

connector between CSXT and NS main lines completed in 2012 for the launch of Virginia-supported passenger train service from Richmond to Norfolk, VA.

Under the Transforming Rail in Virginia initiative announced in 2020, VPRA will purchase approximately half of the CSXT-owned railroad right-of-way between Washington, DC, and Petersburg, VA (RF&P). Track within the right-of-way purchased by Virginia also becomes Virginia property. With the acquisition, Virginia has committed to a series of infrastructure improvements to the RF&P right-of-way that will allow for doubling Amtrak state-supported and significantly increasing VRE service. Two of the four phases of infrastructure improvements, DC to Petersburg corridor Phases 1 and 2, are funded and will be built out in the next 10 years. As improvements are completed, the additional capacity will allow more passenger rail service to come online. Future phases will allow for further separation of passenger and freight rail services, resulting in improved reliability and capacity.

Summary characteristics of the Centralia to Petersburg (Collier Connection) segment are depicted in Table A.11.

TABLE A.11: CENTRALIA - PETERSBURG (COLLIER CONNECTION) SUMMARY CHARACTERISTICS

Owner	CSXT
Operator	CSXT
Subdivision Name	North End Subdivision
FRA Track Class	Class 4
Track Configuration	1-2 main tracks
Maximum Authorized Passenger Train Speed	79 mph
Maximum Authorized Freight Train Speed	40-60 mph
Method of Operation	Centralized Traffic Control and Positive Train control with Wayside Signals
Average Number of Passenger Trains per Day	14
Average Number of Freight Trains per Day	16
Current Traffic Density (2015)	76 million gross tons
Passenger Rail Stations in Segment	Petersburg

A.5.3. Petersburg (Collier Connection) – Norfolk

The segment of the Commonwealth Corridor between Collier and Norfolk is approximately 81 miles long.

This segment of the corridor is owned by NS and operated as the Norfolk District. It is a high-density main line used by intercity passenger trains and freight trains. Passenger traffic on this segment consists of Virginia state-supported Amtrak Northeast Regional trains operating between Washington, D.C. and Norfolk. Freight traffic on this segment of the corridor consists of intermodal, general manifest, and bulk freight trains. This freight main line is part of NS’s Heartland Corridor, which links Norfolk and the Port of

Virginia to markets in the U.S. Midwest. This line also carries coal from Appalachian coal fields to docks in Norfolk for export to overseas markets.

DRPT funded several capacity improvement projects on this segment of the corridor, in cooperation with NS, to introduce Virginia-sponsored Northeast Regional service to Norfolk in 2012, including track, signaling, and grade crossing upgrades to allow passenger train operations at a maximum speed of 79 mph. The improvements funded by DRPT under its agreement with NS provide slots for three round-trip passenger trains per day between Norfolk and the Collier Connection; DRPT currently supports two passenger train round-trips per day, and plans to add a third round-trip in 2022. This segment of the corridor includes a 51-mile-long section of straight double track.

The Norfolk intercity passenger rail station is located in downtown Norfolk adjacent to the Harbor Park baseball stadium. Connections can be made at the station to the Norfolk light rail line (The Tide) linking the Central Business District with the Easton Forest neighborhood east of downtown near where I-64 and I-264 intersect. The Commonwealth of Virginia has a passenger train layover facility in the St. Julian neighborhood of Norfolk, approximately 1.5 miles east of the Norfolk train station.

Summary characteristics of the Petersburg (Collier Connection) – Norfolk segment are depicted in Table A.12.

TABLE A.12: PETERSBURG (COLLIER CONNECTION) - NORFOLK SUMMARY CHARACTERISTICS

Owner	NS
Operator	NS
Subdivision Name	Norfolk District
FRA Track Class	Class 4
Track Configuration	2 main tracks
Maximum Authorized Passenger Train Speed	79 mph
Maximum Authorized Freight Train Speed	60 mph
Method of Operation	Centralized Traffic Control and Positive Train control with Wayside Signals
Average Number of Passenger Trains per Day	4
Average Number of Freight Trains per Day	20-30 ⁴
Current Traffic Density (2015)	10-50 million gross tons
Passenger Rail Stations in Segment	Norfolk

⁴ According to FRA Grade Crossing Inventory