

## Metadata Documentation – Draft VTrans Mid-Term Needs (Nodes)

Field	Field Description	Metadata
OBJECTID	ID	
Node_Name	Node Name	<b>Description of Data:</b> Includes names of Rail Station (per Virginia Department of Rail and Public Transportation source data), Roadway Intersection (based on LRS 19.1 RTE_ALL_INTERSECTION_DSC field), Industrial and Economic Development Area (IEDA) (per Virginia Economic Development Partnership source data), and Activity Centers (names and locations as defined through VTrans analysis and stakeholder engagement).
Node_Type	Node Type	<b>Description of Data:</b> Designated Node types include “Rail Station” (both VRE and Amtrak stations), “Roadway Intersection”, “Industrial and Economic Development Area (IEDA)”, “Activity Center (Local-serving)”, “Activity Center (Freight Dependent)”, and “Activity Center (Knowledge-based)”. See descriptions below for specifics on each Node and Need types.
CoSS_Rail_Performance	Need for Improved Intercity and Passenger Rail On-Time Performance	<p><b>Background:</b> Virginia's Corridors of Statewide Significance (CoSS) network includes critical corridors for the movement of people and goods in the Commonwealth. The CoSS component facilities include a primary facility (generally an Interstate or US Highway Route) and major facilities/services, typically within approximately five miles of the primary highway, that provide multiple modes and parallel routes connecting major centers of activity along the corridor. The CoSS Network includes freight and passenger rail lines, and passenger rail stations as major components.</p> <p>A measure for on-time performance was used to evaluate Needs for passenger and intercity rail. For Amtrak service, the average on-time (per the established schedule) arrival of passenger trains to stations was evaluated. For Virginia Railway Express (VRE), performance was evaluated at the line level with the average on-time (per the established schedule) arrivals for all service provided on each service line. Both</p>

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		<p>Amtrak and VRE analysis was based on 2018 data provided/reported by the operating agencies.</p> <p><b>Description of Data:</b>  "Y" value for CoSS_Rail_Performance indicates a rail station with a “Need for Intercity and Passenger Rail on-time performance improvement.”</p> <p>“N” value indicates no Need for CoSS_Rail_Performance</p> <p><b>Threshold for Need:</b>  "Y" values for Amtrak Stations indicate average station-level (Amtrak) on-time performance less than 80% on-time at the station.</p> <p>“Y” values for VRE Stations indicate Average line-level (VRE) on-time performance less than 80% along the line servicing that station. If station is served by multiple lines, the lower of the two on-time performance measures was used.</p>
RN_AC_transit_access	Need for Improved Competitiveness of Transit Access to Activity Centers for Workers	<p><b>Background:</b>  VTrans Activity Centers are locations of concentrated employment or other clusters of economic or social activity that are primary attractors of travel trips within Regional Networks. VTrans Activity Centers were originally identified as part of <a href="#">VTrans 2040</a> and have been modified for the VTrans Update to account for input received from stakeholders in each Regional Network. Generally, Activity Centers in each Regional Network include identified areas of concentrated employment, hospitals with greater than 100 beds, commercial service airports, and four-year colleges and universities.</p> <p>Once identified, the employee composition by industry types was assessed in order to designate each Activity Center as Local-Serving, Knowledge-Based or Freight-Dependent based on the predominant industry type. The definition of the three categories (local-serving, knowledge-based, freight-dependent) is based on the results of a survey of business location specialists (<a href="#">completed by OIPI in 2014</a>) which resulted</p>

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		<p>in a basis in research for understanding the correlation between economic activity and transportation. The results of this work included a <a href="#">correlation table</a> as a guide for understanding transportation needs of particular industry cluster types.</p> <p>For those VTrans Activity Centers identified as Local-Serving and Knowledge-Based, the competitiveness of transit access relative to highway access to activity centers for workers was assessed. The VDOT TransCAD model was applied to assess the number of workers that can access an Activity Center within 45 minutes by bus or rail transit compared to auto. The higher the difference between public transportation and auto, the greater the potential need for improved transit services to that Activity Center. See the VTrans Methodology Report for additional information <a href="#">(LINK TO FOLLOW)</a>.</p> <p><b>Description of Need:</b>          "Y" value for RN_AC_Transit_Access indicates a Regional Network Activity Center with a "Need for Transit Access Improvements"</p> <p>"N" value indicates no Need for RN_AC_Transit_Access</p> <p><b>Threshold for Need:</b>          "Y" values indicate a Regional Network Activity Center with a transit access Deficit greater than 0.</p>
Safety_intersections	Need for Safety Improvement	<p><b>Background:</b>          All roadways in Virginia were analyzed for Safety using a combination of the Potential for Safety Improvement (PSI) and Fatal/Injury Crash Frequency. The first step was to apply Potential for Safety Improvement (PSI) as a metric for identifying and prioritizing segments and intersections for safety improvements. The identified PSI locations have experienced more crashes in the past five years compared to average crashes on similar roadways and intersections within the same VDOT Construction District. The second step was to screen for locations with PSI values for 2+ years, and fatal/injury PSI values for 2+ years, and analyze the fatal/injury crash frequency at these priority</p>

## Metadata Documentation – Draft VTrans Mid-Term Needs (Nodes)

		<p>locations.</p> <p>For each Construction District, the VDOT Top 100 Potential for Safety Improvement (PSI) Intersections and Segments, and locations with PSI &gt; 0 for 2+ years and with at least 3+ Fatal or Injury crashes at the intersection or segment over the last five years are included as Draft VTrans Mid-Term Needs.</p> <p><b>Description of Need:</b>          "Y" value for Safety_intersections indicates a "Need for Safety Improvement"            "N" value indicates no Need for Safety_Intersections</p> <p><b>Threshold for Need:</b>          All "Y" values indicate a segment or intersection with one or more of the following conditions: 1.) Included in VDOT Top 100 Potential for Safety Improvement (PSI) Segments or Intersections OR 2.) Locations with PSI &gt; 0 for 2+ years in the past five years, and with at least 3+ Fatal or Injury crashes at the intersection or segment over the last five years.</p>
IEDA_accessibility	Need for Access to Industrial and Economic Development Areas	<p><b>Background:</b>          The Virginia Business Ready Site Program (VBRSP) is a discretionary program to promote development sites. Political subdivisions of the Commonwealth of Virginia, including counties, cities, towns, industrial/economic development authorities are eligible to submit sites into the program. For VTrans Mid-Term Needs, VEDP Business Ready Site Program readiness status of Tier 3 or above are considered for access Needs.</p> <p><b>Description of Need:</b>          For identified VEDP Business Ready Site Program sites with readiness of Tier 3 or above, there is a "Need to connect or improve access to and from the nearest CoSS for sites that have achieved readiness status of Tier 3 or higher in VEDP's Business Ready Site Program."</p>

## Metadata Documentation – Draft VTrans Mid-Term Needs (Nodes)

		<b>Threshold for Need:</b> VEDP Business Ready Site Program readiness status of Tier 3 or above.
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