

Metadata Documentation -- Draft VTrans Mid-Term Needs (Segments)

| Field Name | Field Alias/Description | Metadata |
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| OBJECTID | ID | |
| ST_NM | Full Street Name | |
| VDOT_RM | VDOT Route Name | |
| VDOT_COMMON_NM | VDOT Common Route Name | |
| From_measure | LRS From measure | |
| To_measure | LRS To measure | |
| CoSS | CoSS | <p>Background: 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 VTrans2035 plan, as adopted by the Commonwealth Transportation Board (via a resolution dated December 17, 2009), initially designated 11 CoSS; a 12th corridor was subsequently added (via a CTB resolution dated May 18, 2011). The designation and study of these multimodal corridors is a responsibility of the Commonwealth Transportation Board in accordance with the Code of Virginia §33.2-353. The official definition of a CoSS as defined in VTrans2035 is: “An integrated, multimodal network of transportation facilities that connect major centers of activity within and through the Commonwealth and promote the movement of people and goods essential to the economic prosperity of the state.”</p> |

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| | | <p>Description of Data:</p> <p>"Y" value for CoSS indicates a segment designated as either a primary facility or major facility of a CoSS.</p> <p>"N" value for CoSS indicates a non-CoSS segment.</p> |
| CoSS_NM | CoSS Name | <p>Background: 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 VTrans2035 plan, as adopted by the Commonwealth Transportation Board (via a resolution dated December 17, 2009), initially designated 11 CoSS; a 12th corridor was subsequently added (via a CTB resolution dated May 18, 2011). The designation and study of these multimodal corridors is a responsibility of the Commonwealth Transportation Board in accordance with the Code of Virginia §33.2-353. The official definition of a CoSS as defined in VTrans2035 is: "An integrated, multimodal network of transportation facilities that connect major centers of activity within and through the Commonwealth and promote the movement of people and goods essential to the economic prosperity of the state."</p> |

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| | | <p>Description of Data:</p> <p>Text value in CoSS_name field indicates the name(s) of Corridors for which the segment is associated.</p> <p>Blank values indicate segment is non-CoSS</p> |
| CoSS_congestion | Need for Congestion Mitigation (CoSS) | <p>Background:</p> <p>Virginia's Corridors of Statewide Significance (CoSS) network was analyzed using two Performance Measures for Congestion to establish CoSS Needs for Congestion Mitigation. 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.</p> <p>Two measures were used to identify Needs. The first measure, Percent of Person Miles Traveled in Excessively Congested Conditions (PECC), identifies segments where a percent of total vehicles travel at speeds significantly slower than the posted speed. This measure was applied to limited access facilities on the CoSS. The analysis year was 2018, and relied on INRIX data provided through the Regional Integrated Transportation Information System (RITIS). The period of analysis was 6am to 8pm on weekdays and weekends. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>The second measure, Travel Time Index (TTI), identifies segments by the intensity of congestion. This measure was</p> |

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| | | <p>applied to non-limited access facilities on the CoSS. The analysis year was 2018, and relied on INRIX data provided through the Regional Integrated Transportation Information System (RITIS). The period of analysis was 6am to 8pm on weekdays and weekends. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for CoSS_Congestion indicates a CoSS segment with a "Need for Congestion Mitigation"</p> <p>"N" value indicates no Need for CoSS_Congestion.</p> <p>Threshold for Need: All "Y" values indicate a CoSS segment with one or more of the following conditions: 1.) A minimum of 2% person miles traveled must be below 75% of posted speed limit for limited access facilities (PECC) OR 2.) Travel Time Index (TTI) greater than 1.3 for at least three hours for non-limited access facilities OR 3.) Travel Time Index (TTI) greater than 1.5 for at least one hour for non-limited access facilities "</p> |
| CoSS_reliability | Need for Improved Reliability (CoSS) | <p>Background: Virginia's Corridors of Statewide Significance (CoSS) network was analyzed using one Performance Measure for Reliability to establish CoSS Needs for Improved Travel Time Reliability. 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.</p> |

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| | | <p>This measure, Level of Travel Time Reliability (LOTTR), identifies the number of hours of travel along a segment that occurs in highly unreliable conditions. This measure was applied to all CoSS roadways. The analysis year was 2018, and relied on INRIX data provided through the Regional Integrated Transportation Information System (RITIS). The period of analysis was 6am to 8pm on weekdays and weekends. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for CoSS_Reliability indicates a CoSS segment with a "Need for Improved Travel Time Reliability"</p> <p>"N" value indicates no Need for CoSS_Reliability</p> <p>Threshold for Need: All "Y" values indicate a CoSS segment where the Level of Travel Time Reliability (LOTTR) is greater than or equal to 1.5 for at least one hour.</p> |
| CoSS_capacity_preservation | Need for Capacity Preservation (CoSS) | <p>Background: Virginia's Corridors of Statewide Significance (CoSS) network was assessed against VDOT's Arterial Preservation Network to establish CoSS Needs for Capacity Preservation. 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.</p> |

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| | | <p>The assessment of Capacity Preservation Needs is based on VDOT's Arterial Preservation Network as of September 2019. The VDOT Arterial Preservation Network is a subset of the state-maintained portion of the National Highway System in Virginia, as well as some additional highways that facilitate connectivity. The CoSS Need for Capacity Preservation applies to the any CoSS segment included in the VDOT Arterial Preservation Network. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for CoSS_Capacity_Preservation indicates a CoSS segment with a "Need to preserve and enhance capacity by improving access management, reducing signals or signal phases, and implementing innovative intersection configurations." "N" value indicates no Need for CoSS_Capacity_Preservation</p> <p>Threshold for Need: "Y" values indicate a CoSS segment included in the VDOT Arterial Preservation Network.</p> |
| CoSS_LA_TDM | Need for Transportation Demand Management on CoSS Limited Access Facilities | <p>Background:</p> <p>Virginia's Corridors of Statewide Significance (CoSS) network was assessed by each segments facility type to establish CoSS Needs for Transportation Demand Management (TDM). The CoSS component facilities</p> |

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| | | <p>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.</p> <p>Designation of segments as Limited Access Facilities for VTrans requires one or more of the following conditions: 1.) VDOT Functional Classification of Interstate, Interstate Ramp, Other Freeway or Expressway, Other Freeway or Expressway Ramp. 2.) are included in the National Highway System (NHS), AND, are greater than 10 miles in length, OR, are at least 5 miles in length and connect to another limited access segment to total at least 10 miles in length, OR, are less than 5 miles in length but connect on each end to limited access facilities to total at least 10 miles in length.</p> <p>The assessment of Corridor of Statewide Significance Needs for Transportation Demand Management (TDM) on Limited Access Facilities is based on two factors: 1) roadway location (must be a CoSS segment) 2.) Facility type (must be a Limited Access Facility). The CoSS Need for TDM on Limited Access Facilities applies to all segments meeting these conditions. For more</p> |
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| | | <p>information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need:</p> <p>"Y" value for CoSS_LA_TDM indicates a CoSS segment with a "Need for new or expanded park and ride facilities, rail and public transportation services and facilities, and commuter assistance programs"</p> <p>"N" value indicates no Need for CoSS_LA_TDM</p> <p>Threshold for Need:</p> <p>"Y" values indicate a CoSS segment identified for VTrans as a Limited Access Facility</p> |
| CoSS_non_LA_TDM | Need for Transportation Demand Management on CoSS non-Limited Access Facilities | <p>Background:</p> <p>Virginia's Corridors of Statewide Significance (CoSS) network was assessed by each segment's facility type to establish CoSS Needs for Transportation Demand Management (TDM). 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.</p> <p>Designation of segments as non-Limited Access for VTrans requires that it NOT meet one or more of the following</p> |

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| | | <p>conditions: 1.) VDOT Functional Classification of Interstate, Interstate Ramp, Other Freeway or Expressway, Other Freeway or Expressway Ramp. 2.) are included in the National Highway System (NHS), AND, are greater than 10 miles in length, OR, are at least 5 miles in length and connect to another limited access segment to total at least 10 miles in length, OR, are less than 5 miles in length but connect on each end to limited access facilities to total at least 10 miles in length.</p> <p>The assessment of Corridor of Statewide Significance Needs for Transportation Demand Management (TDM) on non-Limited Access Facilities is based on two factors: 1) roadway location (must be a CoSS segment) 2.) Facility type (must NOT be a Limited Access Facility). The CoSS Need for TDM on non-Limited Access Facilities applies to all segments meeting these conditions. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need:</p> <p>"Y" value for CoSS_non_LA_TDM indicates a CoSS segment with a "Need for new or expanded park and ride facilities, rail and public transit services and facilities, bicycle and pedestrian facilities, and commuter assistance programs."</p> |
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| | | <p>"N" value indicates no Need for CoSS_non_LA_TDM</p> <p>Threshold for Need:</p> <p>"Y" values indicate a CoSS segment identified for VTrans as a non-Limited Access Facility</p> |
| RN | Included in Regional Network | <p>Background:</p> <p>Regional Networks refer to the major economic regions of the Commonwealth and are based on the designated Metropolitan Planning Organization (MPO) areas in Virginia. MPOs are regions greater than 50,000 in urban area population and are considered the primary centers of Virginia's regional economies. The Regional Networks include all 15 current and former MPO areas in the Commonwealth. The Regional Network area is defined as the MPO boundary, with the stipulation that if an MPO boundary includes only a portion of a county, the entire county is included in the Regional Network.</p> <p>Description of Data:</p> <p>"Y" value for RN indicates a segment located within a Regional Network area.</p> <p>"N" value indicates a segment not located within Regional Network area.</p> |
| RN_Name | Regional Network Name | <p>Background:</p> <p>Regional Networks refer to the major economic regions of the Commonwealth and are based on the designated</p> |

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| | | <p>Metropolitan Planning Organization (MPO) areas in Virginia. MPOs are regions greater than 50,000 in urban area population and are considered the primary centers of Virginia's regional economies. The Regional Networks include all 15 current and former MPO areas in the Commonwealth. The Regional Network area is defined as the MPO boundary, with the stipulation that if an MPO boundary includes only a portion of a county, the entire county is included in the Regional Network.</p> <p>Description of Data:</p> <p>Text value for RN_name field indicates the name(s) of Regional Network to which the segment is associated.</p> <p>Blank value indicates a segment not located within Regional Network area.</p> |
| RN_congestion | Need for Congestion Mitigation (RN) | <p>Background:</p> <p>VTrans Regional Network (RN) areas were analyzed using two Performance Measures for Congestion to establish RN Needs for Congestion Mitigation.</p> <p>The first measure, Percent of Person Miles Traveled in Excessively Congested Conditions (PECC), identifies segments where a percent of total vehicles travel at speeds significantly slower than the posted speed. This measure was applied to limited access facilities within the Regional Network areas. The analysis year was 2018, and relied on</p> |

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| | | <p>INRIX data provided through the Regional Integrated Transportation Information System (RITIS). The period of analysis was 6am to 8pm on weekdays and weekends. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>The second measure, Travel Time Index (TTI), identifies segments by the intensity of congestion. This measure was applied to non-limited access facilities within the Regional Network areas. The analysis year was 2018, and relied on INRIX data provided through the Regional Integrated Transportation Information System (RITIS). The period of analysis was 6am to 8pm on weekdays and weekends. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for RN_Congestion indicates a "Need for Congestion Mitigation" on segments within the Regional Network area.</p> <p>"N" value indicates no Need for RN_Congestion</p> <p>Threshold for Need: All "Y" values indicate a Regional Network segment with one or more of the following conditions: 1.) A minimum of 2% person miles traveled must be below 75% of posted speed limit for limited access facilities (PECC) OR 2.) Travel Time Index (TTI) greater than 1.3 for at least three hours for non-limited access facilities OR 3.) Travel Time Index (TTI)</p> |
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| | | greater than 1.5 for at least one hour for non-limited access facilities |
| RN_reliability | Need for Improved Reliability (RN) | <p>Background: VTrans Regional Network (RN) areas were analyzed using one Performance Measures for Reliability to establish RN Needs for Improved Travel Time Reliability.</p> <p>This measure, Level of Travel Time Reliability (LOTTR), identifies the number of hours of travel along a segment that occurs in highly unreliable conditions. This measure was applied to all Regional Network roadways for which data exists. The analysis year was 2018, and relied on INRIX data provided through the Regional Integrated Transportation Information System (RITIS). The period of analysis was 6am to 8pm on weekdays and weekends. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for RN_Reliability indicates a "Need for Improved Travel Time Reliability" on segments within the Regional Network area.</p> <p>"N" value indicates no Need for RN_Reliability</p> <p>Threshold for Need: All "Y" values indicate a Regional Network segment where the Level of Travel Time Reliability (LOTTR) is greater than or equal to 1.5 for at least one hour.</p> |
| RN_capacity_preservation | Need for Capacity Preservation (RN) | Background: |

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| | | <p>VTrans Regional Network (RN) areas were assessed against VDOT's Arterial Preservation Network to establish Regional Network Needs for Capacity Preservation.</p> <p>The assessment of Capacity Preservation Needs is based on VDOT's Arterial Preservation Network as of September 2019. The VDOT Arterial Preservation Network is a subset of the state-maintained portion of the National Highway System in Virginia, as well as some additional highways that facilitate connectivity. The Regional Network Need for Capacity Preservation applies to Regional Network segment included in the VDOT Arterial Preservation Network. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for RN_Capacity_Preservation indicates a Regional Network segment with a "Need to preserve and enhance capacity by improving access management, reducing signals or signal phases, and implementing innovative intersection configurations".</p> <p>"N" value indicates no Need for RN_Capacity_Preservation</p> <p>Threshold for Need: "Y" values indicate a Regional Network segment included in the VDOT Arterial Preservation Network.</p> |
| RN_LA_TDM | Need for Transportation Demand Management on RN Limited Access Facilities | <p>Background: VTrans Regional Network (RN) areas were assessed by each segment's facility type to establish Regional Network Needs for Transportation Demand Management (TDM).</p> |

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| | | <p>Regional Network TDM Needs requires that a segment be a non-Limited Access Facility. Designation of segments as non-Limited Access for VTrans requires that it NOT meet one or more of the following conditions: 1.) VDOT Functional Classification of Interstate, Interstate Ramp, Other Freeway or Expressway, Other Freeway or Expressway Ramp. 2.) are included in the National Highway System (NHS), AND, are greater than 10 miles in length, OR, are at least 5 miles in length and connect to another limited access segment to total at least 10 miles in length, OR, are less than 5 miles in length but connect on each end to limited access facilities to total at least 10 miles in length.</p> <p>The assessment of Regional Network Needs for Limited Access Transportation Demand Management (TDM) is based on two factors: 1) roadway location (must be a Regional Network segment) 2.) Facility type (must be a Limited Access Facility). The RN Need for TDM applies to all segments meeting these conditions. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need:</p> <p>"Y" value for RN_LA_TDM indicates a Regional Network segment with a "Need for new or expanded park and ride facilities, rail and public transportation services and facilities, and commuter assistance programs".</p> <p>"N" value indicates no Need for RN_LA_TDM</p> <p>Threshold for Need:</p> |
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| | | "Y" values indicate a Regional Network segment identified for VTrans as a Limited Access Facility and is Functionally Classified based on VDOT's Functional Classification (LRS based) and VDOT's Functional Classification (Non-Prime Direction). |
| RN_non_LA_TDM | Need for Transportation Demand Management on RN non-Limited Access Facilities | <p>Background: VTrans Regional Network (RN) areas were assessed by each segment's facility type to establish Regional Network Needs for Transportation Demand Management (TDM).</p> <p>Regional Network TDM Needs requires that a segment be a non-Limited Access Facility. Designation of segments as non-Limited Access for VTrans requires that it NOT meet one or more of the following conditions: 1.) VDOT Functional Classification of Interstate, Interstate Ramp, Other Freeway or Expressway, Other Freeway or Expressway Ramp. 2.) are included in the National Highway System (NHS), AND, are greater than 10 miles in length, OR, are at least 5 miles in length and connect to another limited access segment to total at least 10 miles in length, OR, are less than 5 miles in length but connect on each end to limited access facilities to total at least 10 miles in length.</p> <p>The assessment of Regional Network Needs for non-Limited Access Transportation Demand Management (TDM) is based on two factors: 1) roadway location (must be a Regional Network segment) 2.) Facility type (must NOT be a Limited Access Facility). The RN Need for TDM applies to all</p> |

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| | | <p>segments meeting these conditions. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for RN_non_LA_TDM indicates a Regional Network segment with a "Need for new or expanded public transit services and facilities, rail and public transit services and facilities, bicycle and pedestrian facilities, commuter assistance programs, and emerging technologies such as travel apps and shared-mobility that help reduce Vehicle Miles Travel (VMT)."</p> <p>"N" value indicates no Need for RN_non_LA_TDM</p> <p>Threshold for Need: "Y" values indicate a Regional Network segment identified for VTrans as a non-Limited Access Facility and is Functionally Classified based on VDOT's Functional Classification (LRS based) and VDOT's Functional Classification (Non-Prime Direction).</p> |
| RN_transit_equity | Need for Transit access for Equity Emphasis Areas | <p>Background: VTrans Regional Network (RN) areas were assessed for demographic characteristics and transit access at the Census block group level to establish Regional Network Needs for Transit access for Equity Emphasis Areas.</p> <p>Within Regional Networks, Equity Emphasis Areas are identified as block groups with a score of 2 or higher on an index that considers the relative proportion of a block group's population's income, age, disability status, racial minority status, Hispanic or Latino origin, and limited-</p> |

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| | | <p>English proficiency compared to the Regional Network as a whole. Equity Emphasis Areas that are mostly outside of a ¼-mile radius of a transit stop are considered underserved by transit. Equity emphasis areas whose population density exceeds the lowest 10th percentile density of communities in the RN already served by fixed-route transit are considered viable for fixed-route transit. The analysis was applied to all Census block groups within Regional Network areas. The analysis year was 2017, and relied on data from the 2017 American Community Survey 5-year estimates from the U.S. Census Bureau. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for RN_transit_equity indicates a Regional Network segment within an Equity Emphasis area with a "Need for Accessibility Improvement within Equity Emphasis Areas"</p> <p>"N" value indicates no Need for RN_transit_equity</p> <p>Threshold for Need: "Y" values indicates a block group within a Regional Network that are Equity Emphasis Areas that are viable for transit, and are currently underserved by transit. Only applies to segments identified for VTrans as a non-Limited Access Facility that are Functionally Classified based on VDOT's Functional Classification (LRS based) and VDOT's Functional Classification (Non-Prime Direction).</p> |
| RN_ AC_bicycle_access | Need for Bicycle Access to Activity Centers for Workers (RN) | Background: |

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| | | <p>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 VTrans 2040 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 (completed by OIPI in 2014) which resulted in a basis in research for understanding the correlation between economic activity and transportation. The results of this work included a correlation table 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, fixed-guideway (rail, light rail) transit stations, and BRT lines the non-motorized (pedestrian and bicycle) access was assessed. All segments within a seven mile buffer of the Activity Centers (local-serving and knowledge-based), fixed-guideway (rail, light rail) transit</p> |
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| | | <p>stations, or BRT line were identified as Needs for Bicycle Access Improvements. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need:</p> <p>"Y" value for RN_AC_Bicycle_Access indicates a Regional Network segment within seven miles of Activity Centers (local-serving and knowledge-based), fixed-guideway (rail, light rail) transit stations, or BRT line with a "Need for Bicycle Access Improvements"</p> <p>"N" value indicates no Need for RN_Bicycle_Access</p> <p>Threshold for Need:</p> <p>"Y" values indicate a segment within seven miles of an Activity Center (local-serving and knowledge-based), fixed-guideway (rail, light rail) transit stations, or BRT line. Only applies to segments identified for VTrans as a non-Limited Access Facility that are Functionally Classified based on VDOT's Functional Classification (LRS based) and VDOT's Functional Classification (Non-Prime Direction).</p> |
| RN_AC_pedestrian_access | Need for Pedestrian Access to Activity Centers for Workers (RN) | <p>Background:</p> <p>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 VTrans 2040 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</p> |

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| | | <p>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 (completed by OIPI in 2014) which resulted in a basis in research for understanding the correlation between economic activity and transportation. The results of this work included a correlation table 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, fixed-guideway (rail, light rail) transit stations, and BRT lines the non-motorized (pedestrian and bicycle) access was assessed. All segments within a one mile buffer of the Activity Centers (local-serving and knowledge-based), fixed-guideway (rail, light rail) transit stations, or BRT line were identified as Needs for Pedestrian Access Improvements. For more information see the VTrans Methodology Report (LINK TO FOLLOW).</p> <p>Description of Need: "Y" value for RN_AC_Pedestrian_Access indicates a Regional Network segment within one mile of Activity Centers (local-serving and knowledge-based), fixed-guideway (rail, light</p> |
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| | | <p>rail) transit stations, or BRT line with a "Need for Pedestrian Access Improvements"</p> <p>"N" value indicates no Need for RN_AC_Pedestrian_Access</p> <p>Threshold for Need: "Y" values indicate a segment within one mile of an Activity Center (local-serving and knowledge-based), fixed-guideway (rail, light rail) transit stations, or BRT line. Only applies to segments identified for VTrans as a non-Limited Access Facility that are Functionally Classified based on VDOT's Functional Classification (LRS based) and VDOT's Functional Classification (Non-Prime Direction).</p> |
| UDA | Included in Urban Development Area | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>Description of Data: "Y" value for UDA indicates a segment located within an Urban Development Area.</p> |

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| | | "N" value for UDA indicates a segment not located within an Urban Development Area |
| UDA_name | Urban Development Area Name | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>Description of Data: Value in UDA_name field indicates the name(s) of the Urban Development Area to which the segment is associated.</p> <p>Blank in UDA_Name field indicates segment is not associated with an Urban Development Area</p> |
| UDA_road_capacity | Need for Roadway capacity/infrastructure improvements (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local</p> |

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| | | <p>streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_road_capacity indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for roadway capacity and infrastructure improvements (additional lanes)".</p> <p>"N" value indicates no Need for UDA_road_capacity</p> <p>Threshold for Need: "Y" value for UDA_road_capacity indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Roadway capacity/infrastructure improvements to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_road_ops | Need for Roadway operations (UDA) | Background: |

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| | | <p>Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_road_ops indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for roadway operations (intelligent transportation systems, including traffic signals)".</p> <p>"N" value indicates no Need for UDA_road_ops</p> <p>Threshold for Need:</p> |
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| | | <p>"Y"" value for UDA_road_ops indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Roadway operations to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_transit_freq | Need for Transit frequency (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y"" value for UDA_transit_freq indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or</p> |

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| | | <p>within a ¼ mile buffer of the UDA (in proximity to UDA) with a “Need for transit frequency (reduce headways)”.</p> <p>“N” value indicates no Need for UDA_transit_freq</p> <p>Threshold for Need: “Y” value for UDA_transit_freq indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Transit frequency to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_transit_ops | Need for Transit operations (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA’s transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and</p> |

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| | | <p>pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_transit_ops indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for transit operations (including real time information, transit-only lane, transit signal priority).</p> <p>"N" value indicates no Need for UDA_transit_ops</p> <p>Threshold for Need: "Y" value for UDA_transit_ops indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Transit operations to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_transit_capacity | Need for Transit capacity and access (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local</p> |

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| | | <p>streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_transit_capacity indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for transit capacity and access (more/larger transit vehicles, more routes, transit stops)".</p> <p>"N" value indicates no Need for UDA_transit_capacity</p> <p>Threshold for Need: "Y" value for UDA_transit_capacity indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Transit capacity and access to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_transit_facilities | Need for Transit facilities and amenities (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local</p> |

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| | | <p>comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_transit_facilities indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for transit facilities and amenities (improved transit stops/shelters, lighting, transit storage or maintenance facilities)".</p> <p>"N" value indicates no Need for UDA_transit_facilities</p> <p>Threshold for Need: "Y" value for UDA_transit_facilities indicates a segment located within the boundaries of a code-referenced Urban</p> |
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| | | Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Transit facilities and amenities to be high, moderate, or low Need for promoting development of the UDA. |
| UDA_street_grid | Need for Street Grid (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA’s transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_street_grid indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a “Need for street grid (better street connectivity, new</p> |

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| | | <p>streets to break up long blocks, connectors between streets)".</p> <p>"N" value indicates no Need for UDA_street_grid</p> <p>Threshold for Need: "Y" value for UDA_street_grid indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Street Grid to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_bike_infrast | Need for Bicycle Infrastructure (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and</p> |

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| | | <p>pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_bike_infrast indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a “Need for bicycle infrastructure (bicycle lanes, crossing, paths, parking, bike-specific traffic signals)”.</p> <p>“N” value indicates no Need for UDA_bike_infrast</p> <p>Threshold for Need: "Y" value for UDA_bike_infrast indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Bicycle Infrastructure to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_ped_infrast | Need for Pedestrian Infrastructure (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local</p> |

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| | | <p>streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_ped_infrast indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for pedestrian infrastructure (cross walks, pedestrian signals, pedestrian islands or bumpouts)".</p> <p>"N" value indicates no Need for UDA_ped_infrast</p> <p>Threshold for Need: "Y" value for UDA_ped_infrast indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Pedestrian Infrastructure to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_comp_street | Need for Complete streets improvements beyond bike/pedestrian facilities (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local</p> |

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| | | <p>comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_comp_street indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Complete streets improvements beyond bike/pedestrian facilities".</p> <p>"N" value indicates no Need for UDA_comp_street</p> <p>Threshold for Need: "Y" value for UDA_comp_street indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile</p> |
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| | | buffer of the UDA (survey question #16) that local authority/survey respondent indicated Complete streets improvements beyond bike/pedestrian facilities to be high, moderate, or low Need for promoting development of the UDA. |
| UDA_safety_feat | Need for Safety features (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA’s transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_safety_feat indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a “Need for safety features”.</p> |

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| | | <p>"N" value indicates no Need for UDA_safety_feat</p> <p>Threshold for Need: "Y" value for UDA_safety_feat indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Safety features to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_onstreet_park | Need for On-street parking capacity (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> |

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| | | <p>Description of Need: "Y" value for UDA_onstreet_park indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for on-street parking capacity".</p> <p>"N" value indicates no Need for UDA_onstreet_park</p> <p>Threshold for Need: "Y" value for UDA_onstreet_park indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated On-street parking capacity to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_offstreet_park | Need for Off-street parking capacity (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> |

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| | | <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_offstreet_park indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for off-street parking capacity".</p> <p>"N" value indicates no Need for UDA_offstreet_park</p> <p>Threshold for Need: "Y" value for UDA_offstreet_park indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Off-street parking capacity to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_intersection_des | Need for Intersection design or other improvements (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional</p> |

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| | | <p>neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_intersection_des indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for intersection design or other improvements (roundabouts, improved geometry, add turning lanes)."</p> <p>"N" value indicates no Need for UDA_intersection_des</p> <p>Threshold for Need: "Y" value for UDA_intersection_des indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Intersection design</p> |
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| | | or other improvements to be high, moderate, or low Need for promoting development of the UDA. |
| UDA_signage | Need for Signage/wayfinding(UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA’s transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y"" value for UDA_signage indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a “Need for signage/wayfinding”</p> <p>“N” value indicates no Need for UDA_signage</p> <p>Threshold for Need:</p> |

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| | | <p>"Y" value for UDA_signage indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Signage/wayfinding to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_traffic_calm | Need for Traffic calming features (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_traffic_calm indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or</p> |

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| | | <p>within a ¼ mile buffer of the UDA (in proximity to UDA) with a “Need for traffic calming features”.</p> <p>“N” value indicates no Need for UDA_traffic_calm</p> <p>Threshold for Need:</p> <p>"Y"" value for UDA_traffic_calm indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Traffic calming features to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_landscape | Need for Improvements to the natural environment, stormwater mgmt., site design, or landscaping (UDA) | <p>Background:</p> <p>Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA’s transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> |

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| | | <p>Description of Need: "Y"" value for UDA_landscape indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a “Need for improvements to the natural environment, stormwater management, site design, or landscaping”.</p> <p>“N” value indicates no Need for UDA_landscape</p> <p>Threshold for Need: "Y"" value for UDA_landscape indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Improvements to the natural environment, stormwater mgmt., site design, or landscaping to be high, moderate, or low Need for promoting development of the UDA.</p> |
| UDA_sidewalk | Need for Sidewalks (UDA) | <p>Background: Urban Development Areas (UDAs) are locally-designated focus areas of development, identified in local comprehensive plans, that are consistent with and referenced to Code of Virginia § 33.2-353 and § 15.2-2223.1. Per the Code of Virginia, Urban development areas, if designated, shall incorporate principles of traditional neighborhood design, which may include transportation elements such as pedestrian-friendly road design, interconnection of new local streets with existing local</p> |

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| | | <p>streets and roads, and connectivity of road and pedestrian networks.</p> <p>In Summer 2019, local authorities completed a survey to identify each UDA's transportation issues and needs. Locally-determined transportation needs for Urban Development Areas include categories for bicycle and pedestrians, circulation and access, safety, transit enhancements and external access to the UDA.</p> <p>Description of Need: "Y" value for UDA_sidewalk indicates a non-limited access roadway segment located within the boundaries of a code-referenced Urban Development Area (within UDA) or within a ¼ mile buffer of the UDA (in proximity to UDA) with a "Need for sidewalks."</p> <p>"N" value indicates no Need for UDA_sidewalk</p> <p>Threshold for Need: "Y" value for UDA_sidewalk indicates a segment located within the boundaries of a code-referenced Urban Development Area (survey question #15) or within a ¼ mile buffer of the UDA (survey question #16) that local authority/survey respondent indicated Sidewalks to be high, moderate, or low Need for promoting development of the UDA.</p> |
| Safety_segments | Need for Safety Improvement | <p>Background: 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</p> |

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| | | <p>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 locations.</p> <p>For each Construction District, the VDOT Top 100 Potential for Safety Improvement (PSI) Intersections and Segments, and locations with PSI > 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>Description of Need: "Y" value for Safety_segments indicates a "Need for Safety Improvement" "N" value indicates no Need for Safety_segments</p> <p>Threshold for Need: 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 > 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> |
| Safety_Pedestrian | Need for Pedestrian Safety Improvement | Background: |

Metadata Documentation -- Draft VTrans Mid-Term Needs (Segments)

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| | | <p>VDOTs Pedestrian Safety Action Plan conducted a predictive systemic analysis to consider corridors that do not have a strong crash history but should be prioritized for proactive pedestrian crash countermeasure improvements based on pedestrian safety factors. VDOT compiled GIS data to complete this analysis, considering the roadway conditions and other measures of pedestrian exposure to crash injury or fatality. Most priority corridors were in developed areas, along multi-lane roadways near destinations where pedestrians may frequent.</p> <p>Description of Need: "Y" value for Safety_Pedestrian indicates a segment with a "Need for Pedestrian Safety Improvement".</p> <p>"N" value indicates no Need for Safety_Pedestrian</p> <p>Threshold for Need: "Y" values indicate a segment included as a Priority Corridors identified in VDOT's Pedestrian Safety Action Plan (2018).</p> |
| All_Limited_Access | All limited-access facilities | <p>Designation of ALL Limited Access Facilities for VTrans includes segments with VDOT Functional Classification of Interstate, Interstate Ramp, Other Freeway or Expressway, Other Freeway or Expressway Ramp, or segments identified as SELECT Limited Access Facilities by the Office of Intermodal Planning and Investment.</p> |

Metadata Documentation -- Draft VTrans Mid-Term Needs (Segments)

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| Select_Limited_Access | Select limited-access facilities | Designation of segments as SELECT Limited Access Facilities was completed by the Office of Intermodal Planning and Investment by applying the following criteria: 1) are part of the National Highway System (NHS), AND, 2) are greater than 10 miles in length, OR, are at least 5 miles in length and connect to another limited access segment to total at least 10 miles in length, OR, is less than 5 miles in length but connects on each end to limited access facilities to total at least 10 miles in length. |
| VDOT_FC | Functional Classification | Functional classification is the system by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. The Virginia Department of Transportation's (VDOT) Transportation and Mobility Planning Division (TMPD) is responsible for maintaining the commonwealth's official federal functional classification system. The data represented here is based on a combination of VDOT's Functional Classification (LRS Based) and VDOT's Functional Classification (Non-Prime Direction). For more information, visit: https://www.virginiadot.org/projects/fxn_class/home.asp |
| VDOT_SPD | Posted Speed Limit | Speed regulations and speed limits are intended to convey the maximum speed motorists should (and can legally) drive under typical weather, road and traffic conditions. The Virginia Department of Transportation (VDOT) maintains records indicating the posted speed limits on state-maintained highways. |
| VDOT_LC | Number of Lanes | The Virginia Department of Transportation (VDOT) maintains records indicating the number of lanes on state-maintained highways. |

Metadata Documentation -- Draft VTrans Mid-Term Needs (Segments)

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| VDOT_AADT | Annual Average Daily Traffic | The Virginia Department of Transportation (VDOT) conducts a program where traffic data are gathered from sensors in or along streets and highways and other sources. From this data, estimates of the average number of vehicles that traveled each segment of road and daily vehicle miles traveled for specific groups of facilities and vehicle types are calculated. All of the traffic data publications that VDOT currently produces are available to the public on this web site: https://www.viriniadot.org/info/ct-TrafficCounts.asp |
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