

Commonwealth of Virginia



Virginia Department of Transportation (VDOT)

Project Dashboard release 3.0 Business Rules and User's Information

Updated October 2015

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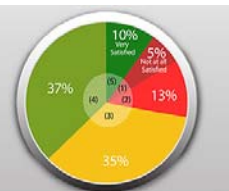

The information contained here reflects the most current information available. As data and business rules are modified, this document will be updated to reflect those changes at the time the changes become effective, or as close to that time as possible.

Dashboard release 3.0 – Business Rules and User's Information

Explanation of Gauges on the Opening Page of Dashboard v3.0

The first three gauges refer to measures of performance of the highway system. The remaining four reflect VDOT-specific performance.

<p>Performance</p>  <p>PERFORMANCE</p> <p>Congestion Free Travel on Interstates Daily Updates</p>	<p>This measure calculates the percentage of traffic that traveled in relatively un-congested conditions. This gauge on the opening page shows the conditions for the average of all Interstates in Virginia, for the most recent day's data (several days or weeks before the current date). On the day portrayed on the gauge, 95% of the traffic on Virginia's Interstate highways traveled in good conditions.</p> <p>Within the Dashboard, if you click on the gauge, you can view several other congestion related performance measures.</p>
<p>Safety</p>  <p>SAFETY</p> <p>Highway Deaths Since the Beginning of the Year</p>	<p>The Safety gauge displays the number of deaths due to highway crashes for the current year-to-date. The goal of the State of Virginia is to reduce the number of deaths due to crashes.</p> <p>There are other safety measures available by clicking on this gauge in the Dashboard: the number of crashes, the number of injuries, and work zone crashes.</p>
<p>Condition</p>  <p>CONDITION</p> <p>Quality of Road Surface</p>	<p>This gauge refers to the condition of the pavement on Virginia Interstate and Primary highways. For the time period being measured in this example, 79% of the lane miles of Interstate and Primary road pavement was in a non-deficient condition.</p> <p>There is also a tab here for seasonal paving activity.</p> <p>Other measures under this gauge are Bridge Condition and Ride Quality.</p>

<p>Finance</p>  <p>YTD Planned vs. Actual Expenditures (variance)</p>	<p>This gauge compares the actual spending by the Virginia Department of Transportation for the fiscal year to date (as of the most recent month of complete data) to the forecasted spending for the same time period. The number under the gauge shows the difference between planned and actual expenditures, as a percentage. A negative variance means VDOT has spent more than planned, a positive value - as here - means that actual spending is less than planned. The goal is to be within plus or minus 5%.</p> <p>More information on revenues, expenditures, and trends are available under this gauge on the Dashboard.</p>
<p>VDOT Management</p>  <p>Management Performance Areas</p>	<p>This gauge indicates that VDOT has met expectations on 4 of the 5 management performance areas which are summarized in the Virginia Performs web site (for the fiscal year period being reported). Several administrative measures are reported to the Governor's office, are then summarized, and become part of the "Virginia Performs" results for VDOT.</p> <p>There is a link to the <i>Virginia Performs</i> site, where more information about the measures is available.</p>
<p>Citizen Surveys</p>  <p>CITIZEN SURVEY RESULTS</p> <p>Interaction with the Public</p>	<p>Customer surveys are done in each VDOT Transportation District. The most recent results are compiled into an "Overall Satisfaction with VDOT" measure for the whole State, and shown on this gauge. People respond to the survey in categories from one through five, with one being "not at all satisfied" and five being "very satisfied".</p> <p>See how people think VDOT is doing in managing public funds, responding to incidents, or in several other areas, by clicking on this gauge in Dashboard.</p>
<p>Projects</p>  <p>PROJECTS</p> <p>On Time</p>	<p>There is a great deal of information about VDOT's performance under this gauge. The needle on the gauge, and the number underneath it, give the percent of construction and maintenance projects due in the current fiscal year, that have been completed on time, or that are on schedule to be on time. Within this Project Delivery measure, you can see on-time and on-budget performance, as well as environmental compliance.</p> <p>The default page when you open this measure is Project Delivery, but you may also select Project Development. The Development measure tracks the status of construction projects being planned and designed for advertisement for competitive bid. There is a link here to the Construction Quality Improvement Program (CQIP) results.</p>

Highway System Performance

Highway Performance

There is a "Choose Measure" drop-down list here, to allow the user to switch between the performance areas associated with this Highway System Performance measure. The default or opening view is an overview of the first three measures in the list. The measures are:

- Congestion at Key Interstate Locations
- Travel Speeds on HOV Facilities
- Travel Times on Key Commuter Routes
- Incident Duration
- Hours of Delay

Congestion at Various Interstate Locations

This measure shows the percent of traffic (vehicle miles traveled) that moved in good, fair, and poor categories, based on the density of traffic.

Data comes from electronic continuous count stations, on Interstate highways around the state. The locations of the actual count stations (detectors) for the District, Time Period, and Date Range selected are listed in a table under the "Details" tab.

Levels of Service (LOS) are calculated on the data using *Highway Capacity Manual* procedures. LOS A, B, and C translate to good/green, LOS D&E to moderate/yellow, and LOS F to poor/red.

The opening view is statewide, for the 24 hour time period, for the most recent day's data. There is an intensive data validation process that is followed, so this information is not intended to be in real time and the data will typically be several days old (possibly more following a long holiday weekend, etc.). You may also select a VDOT Transportation District, and/or the AM or PM peak travel period. The morning peak period is from 6:00 to 9:00 A.M.; the evening peak is 3:30 to 6:30 P.M.

Select a date range from the drop-down box. Also, you may choose to include the recent 30 day averages with the current view.

Travel Speeds on HOV Facilities

This measure shows the percent of peak period traffic volume, which moved at speeds greater than and less than 45 mph, through High Occupancy Vehicle (HOV) facilities. Use the "radio" buttons above the chart to switch views between greater than 45 and less than 45 mph.

The chart in the opening view is the composite for all HOV facilities represented (currently only Northern Virginia), and summarizes the morning and evening HOV restricted periods. This measure is based entirely on weekdays – no weekend days are included.

These are the HOV facilities that will be reported as valid data is available:

I-395 Northbound (AM)
I-395 Southbound (PM)
I-66 Eastbound inside the beltway (AM)
I-66 Eastbound outside the beltway (AM)
I-66 Westbound inside the beltway (PM)
I-66 Westbound outside the beltway (PM)
I-95 Northbound (AM)
I-95 Southbound (PM)

The color of the bar chart will change, based on the percent of traffic moving below 45 mph. If more than 10% of the volume of traffic (during the peak period) moved at speeds below 45 mph, the bar will be red; otherwise the bar will be green.

At this time, HOV performance reporting relies on continuous count station data in the Northern Virginia Region. Data is validated using batch screening tests. Average operating speeds are weighted by traffic volume.

The user can choose a date range and an individual HOV facility using the drop-down selectors above the bar chart. There is additional information available on the "Details" and "Trends" tabs.

Travel time on key interstate commuter routes

This measure starts with a table of key commuter routes in Northern Virginia. Travel times for these selected routes, during peak commuter hours, are displayed along with the free flow travel times. The free flow times are the calculated travel times at the legal speed limits.

Average travel times for AM and PM peak periods are shown for the date range selected (from the drop-down box). Travel times are in minutes.

Speed information is obtained from the archive (ADMS) system and combined with segment length to compute travel time over the segment. The average travel times will be updated daily. Only peak period travel times will be computed. Peak periods will be considered 6-9 am and 3:30-6:30 pm.

The information shown is for weekdays only – no weekends.

If an individual route is selected, the Details page will show the travel times for the individual days or months that make up the calculated averages.

Data must pass validation checks (batch screening tests) to be included. If there is no valid data for one or more of the routes, it will not be displayed in the list. This could happen if detectors or wiring were damaged, etc.

If valid data is available, the list of key routes will include:

I-395 Northbound, from I-495 to the 14th St. Bridge
I-395 Southbound, from the 14th St. Bridge to I-495
I-66 Eastbound, from Rte 234 to Rte 50
I-66 Eastbound, from Rte 50 to I-495
I-66 Eastbound, from I-495 to the Theodore Roosevelt Bridge
I-66 Westbound, from the Theodore Roosevelt Bridge to I-495

I-66 Westbound, from I-495 to Rte 50
I-66 Westbound, from Rte 50 to Rte 234

Incident Duration

This is a measure of how long it takes to clear unplanned events, which affect traffic, from Virginia highways. This is not just a VDOT measure – all responders are included: State Police, Fire and Rescue, VDOT, etc. Only vehicle, tractor-trailer, and hazardous material (HAZMAT) events are included (not congestion or traffic slowdowns).

The opening view shows a pie chart depicting the percentage of incidents that were “Cleared” in the different time categories. There is an option to switch the chart to show the actual number of incidents, rather than the percentage. The percentages shown in the pie chart are averages for whatever selections were made using the data filters, so the results may not match an individual day or month shown on the “Trends” tab. There are data filters above the chart, so the user can see similar results for a specific VDOT District. The user can also choose to see the percentages or number of incidents for the different incident types and severity, using the data filters.

Time is measured from when an event is verified and logged into the *VaTraffic* system at the various Smart Traffic Centers, until responders have cleared (and the information is logged in). Incidents of less than 10 minutes are not included; all other incidents are reported as less than 30 minutes, 30 to 60 minutes, 60 to 90 minutes, and more than 90 minutes. These are log entries, so there may be occasional errors.

There is more information on the “Details” and “Trends” tabs at the bottom of the Incident Duration Dashboard page, below the pie chart.

Hours of Delay

This is a measure of how many hours of extra travel time are experienced by travelers during the year during peak periods of travel (6 to 9 a.m. and 4 to 7 p.m.).

The Texas Transportation Institute (TTI), part of the Texas A&M University System, has studied congestion trends since 1982 and their study results are published in the Urban Mobility Report. Several performance measures are used to examine the impact of congestion on travel time and on variation in travel time, and Annual Hours of Delay represents the cumulative effect. To determine Hours of Delay, TTI calculates the difference between travel times at free-flow speeds (60 mph on freeways and 35 mph on principal arterials) and actual travel times extrapolated from data collected to represent current roadway experiences.

Results reported for Washington DC (a proxy for Northern Virginia since TTI does not breakout Northern Virginia experience separately), Virginia Beach (including the Hampton Roads metro area) and the Richmond metro area are extracted from the TTI Urban Mobility Report and listed on the VDOT Dashboard. From time-to-time, TTI may update previously reported results which may bring about a related update within the VDOT Dashboard.

For more information on TTI reports and reporting methodology, please see the following resources:

TTI Urban Mobility website: <http://mobility.tamu.edu/>

TTI 2015 Urban Mobility Scorecard and Appendices:
<http://mobility.tamu.edu/ums/report/>

TTI Methodology Discussion:
<http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/mobility-scorecard-2015-appx-a.pdf>

The Dashboard view shows a grid with recent TTI-reported results including:

- Report Year: The year in which TTI could have first published results for the associated Data Year
- Data Year: The year to which the data pertains, in which the travel was made and the delays experienced by travelers
- Washington DC hours of delay (a proxy for Northern Virginia since TTI does not breakout Northern Virginia experience separately)
- Virginia Beach hours of delay (including the Hampton Roads metro area)
- Richmond metro area hours of delay

This view also provides a line graph tracking results for each region, and includes the years 1982 through 2014. On this chart, the vertical axis represents the number of annual hours of delay, while the horizontal axis represents a calendar year reported by TTI.

Safety Dashboard

There are four measures in the Safety section of the Dashboard; each is represented by a gauge:

- Number of Crashes in a rolling 12 month period
- Injuries from Crashes (rolling 12 months)
- Deaths from Crashes during the current calendar year, to date
- Work Zone Crashes (rolling 12 months)

The needle on the gauges point to the current value, while the red 'tic' marks show prior results. The range of the gauges will change, based on the selection of a District or locality.

Normally the user can expect a two to three month lag in the data being available. Currently VSP, DMV and VDOT are in the midst of a statewide project that is re-engineering the crash reporting processes statewide which has resulted in data not being available for a longer time frame. As new programs are completed and training is completed we will see our lag time reduced back to the norm.

There are data filters provided, so the user may select a VDOT District, a County or City/Town, a road system (temporarily out of service while the measure is worked on), or a specific focus area. The results of the filter selections are immediately viewed on the gauges.

A focus areas – or special areas of interest - may be selected. If none is selected, all crashes are included. The focus areas are:

- Intersections (temporarily out of service, while crash reporting is worked on)
- Bike/Pedestrian
- Roadway Departures (temporarily out of service, while crash reporting is worked on)

- Work Zones

There is a Details page provided, when a measure is selected by clicking on the title header for the measure. The details list the description and number of occurrence of the various crash types.

Number of Crashes

Data Source: VDOT crash reporting database (Roadway Network System - RNS), DMV

Records Selected: Rolling 12 months of recordable crashes due to roadway travel (injury or property damage valued at least \$1,000) for the most recent 12 months for which complete data is available. There may be a two or three month lag in the data.

Business Rules: The number of recordable crashes in the last 12 months is compared to the 12 month average for the last three years.

Injuries from Crashes

Data Source: VDOT crash reporting database (RNS), DMV

Records Selected: Rolling 12 months of the number of injuries due to recordable crashes (injury or property damage valued at least \$1,000) for the most recent 12 months for which complete data is available. There may be a two or three month lag in the data.

Business Rules: The number of injuries due to recordable crashes in the last 12 months is compared to the 12 month average for the last three years.

Deaths from Crashes

Data Source: The VDOT Daily Accident Report and the VDOT crash reporting database (RNS), DMV

Records Selected: Fatalities due to crashes, YTD for the current calendar year.

Business Rules: The number of deaths for the current calendar year to date is compared to the number of deaths for the same time period in the previous year.

Work Zone Crashes

Data Source: VDOT crash reporting database (RNS), DMV

Records Selected: Rolling 12 months of recordable work zone crashes (injury or property damage valued at least \$1,000) for the most recent 12 months for which complete data is available. There may be a two or three month lag in the data.

Business Rules: The number of recordable work zone crashes in the last 12 months is compared to the 12 month average for the last three years.

Highway System – Condition

There are three performance measures within this area, and all are related to the condition of some key assets. The areas are:

- Pavement Condition (portrayed by a gauge)
 - Includes a page for seasonal paving activity
- Bridge Condition (a set of traffic lights)
- Ride Quality (gauge)

The data filters above the three measures are for District, Counties/Residencies/Cities, and Road Systems. When a filter setting is changed, the change is immediately reflected on the gauges or lights below.

An individual performance area is opened up by clicking on the title header for the specific measure.

Pavement Condition

Data Source: Annual spreadsheets provided by VDOT's Maintenance Division. At the summary statewide level, this measure currently applies to the Interstate and Primary road systems only.

Business Rules: The gauge points to the percent of pavement in non-deficient condition, with a tick mark to show last year's results. All pavements on the Interstate and Primary road systems in Virginia are assessed each year and rated in one of the following categories: Excellent, Good, Fair, Poor, or Very Poor. These surveys are done each year from December through May. Segments of pavement classified as Poor and Very Poor are considered deficient, all others are non-deficient.

The default view for this measure (until some other data filter is applied) is for Primary and Interstate lane miles combined, statewide. The lower portion of the screen shows a bar chart with each VDOT District represented. The bars show the percentage of pavement in each District that is in Fair or better condition.

For the first time in 2013, the Secondary road system rating is reported and based on about 20% of the network for which data is collected.

If a District is selected (data filter above the gauges), then the bar chart shows each county in the District, and that county's percentage of non-deficient pavement.

VDOT's goal is to have a minimum of 82% of Primary and Interstate pavement in Excellent, Good, or Fair condition. 82% or better in these conditions is considered 'green' status, from 70% to 82% is yellow, and less than 70% is red status.

For the Secondary pavement, VDOT's goal is to meet interim targets of 61% for FY2014, 62% by FY2015, 63% by FY2016, 64% by FY2017, and 65% by FY2018.

Pavement Resurfacing: There is a tab within the Pavement Condition measure which allows the user to see planned and actual pavement resurfacing and repair information.

Data Sources for resurfacing information: Pavement Maintenance Schedule System (PMSS), Data Warehouse – Trns*port CAS and SiteManager

Contracts Selected: All contracts in SiteManager that are linked to PMSS paving schedules (by UPC). This might include Plant Mix, Slurry Seal, Surface Treat, Latex Mix, and so on. If there are contracts that did not get automatically linked, the District Contract Manager may request that those contracts be manually linked, so they get included in that season's paving information.

Planned Lane Miles – For each road segment in PMSS with associated Schedule ID and UPC, lane miles are computed as linear distance multiplied by the number of lanes. If the number of lanes is not specified, a 12 foot lane width is assumed. Paving schedules are developed in PMSS, and contracts for the current calendar year are subsequently developed from the paving schedules. Planned lane miles are those lane miles that are part of a paving schedule for the current calendar year and that were marked to "include" in PMSS (indicated with a numeral 1, rather than a numeral 0), or were included using the SiteManager utility tool. The estimated planned lane miles for contracts added using the utility in SiteManager – rather than from PMSS, are entered by District personnel into SiteManager. Descriptive information on planned lane miles, such as District, county, routes, and project description, are also from PMSS – but might be missing or incomplete for contracts included using the SiteManager utility.

Planned Contracts – Planned contracts for the current paving season are those contracts in SiteManager that were matched to a Schedule ID and UPC from PMSS. So for plan year 20XX in PMSS, the 'included' schedules have an associated UPC (speed type). The lane miles for the road segments for those contracts make up the planned lane miles (under contract) on Dashboard, for year 20XX. Some hybrid maintenance/construction contracts may have dates that would appear to put them in some other paving year (season), but the year they were planned and 'included' in PMSS is the determining factor. Added to the planned lane miles are those estimated and entered directly into SiteManager for those few contracts that did not link automatically (or others that the District wishes to be shown in the plan for that season).

Completed Lane Miles – Completed lane mile information is entered by District Contract Managers / Administrators in SiteManager, approximately at the time of the semi-final estimate (so, on Dashboard generally within 30 days of acceptance of the work from the contractor).

Completed Contracts – Paving contracts are considered complete when acceptance dates are entered into SiteManager.

There is a Financial Disclaimer which applies to paving contracts: The dollar costs shown in these measures represent most of the cost (and many times all) of completing the project. However, there may be incidental costs, such as fuel adjustments, incentive payments, material allowances, and final payments, which are not included. Also, the extent of any potential claims may not be known at the time a project is completed, and are not included.

Bridge Condition

Data source: PONTIS, Data Warehouse

Data queried: This includes all open highway structures for which VDOT has custodial responsibility. The list includes structures for which other entities, such as local governments, retain maintenance and repair/replacement responsibility and for which safety inspections are required by the federal government (bridges in the National Bridge Inventory). There are a few structures in Virginia that are not included – bridges on federal property, parkways, etc. Also,

most bridges that cross over a roadway but do not carry automotive traffic (railroads, for example) are not included. Bridges that are closed to traffic or not yet completed are not included. Culverts or combinations of culverts with less than 36 square feet of opening are not included.

Business rules: This is a bridge condition rating based on the most recent inspection for bridges and culverts in Virginia. Bridge inspections cover the following: superstructure, substructure, deck and culvert. A general condition rating (GCR) is assigned to each based on a scale from 0-9, with nine being the best condition and 0 the worst. The overall condition status of each bridge is based on the lowest rating received by the superstructure, substructure and deck (for bridges), and the culvert for culverts. Bridges and culverts are assigned one of three designation: 'Structurally Deficient', 'One or more General Condition Rating (GCR) equal to 5 but not Structurally Deficient', or 'Non-Deficient'. These designations reflect maintenance needs, and a red status does not mean a bridge is unsafe.

Green = Non-Deficient, GCR rating of 6-9

Yellow = One or more GCR equal to 5 but not Structurally Deficient

Red = Structurally Deficient, GCR rating of 0-4

During each regularly scheduled safety inspection the condition of different parts of a bridge or culvert are rated on a scale of 0 to 9, with a 9 being "excellent" and a 0 being "failed". A highway bridge or large culvert is classified as structurally deficient if the deck, superstructure, substructure or culvert receives a "poor" or worse condition rating (0 to 4 on the NBI rating scale). A bridge can also be classified as structurally deficient if its load-carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods. The fact that a structure is rated 'structurally deficient' does not imply that it is likely to collapse or that it is unsafe. It means that it must be monitored, inspected, and maintained.

As an example, if a bridge received a rating of 8 for the superstructure, 6 for the substructure, and 5 for the deck, the bridge condition status would be yellow, based on the rating of 5 for the deck.

The goal is to have no more than 8% of Virginia bridges and culverts to be rated as structurally deficient (so the combination of yellow and green lights should be 92% or greater).

Bridges are required to be inspected at least every two years, culverts every four years. There is an allowance of 90 days (for VDOT maintained structures) or 180 days (for structures maintained by others – local governments for example) to get the information entered into the various data systems.

There are several graphs and trend charts available in this section. One of them refers to the bridge "Health Index". The Health Index is a structural condition measure that is calculated in the bridge management system "Pontis". The value can range from 0%-100%, and reflects the condition distribution for the different elements of a structure. A health index of 100% indicates that all of the structural elements are in the best possible condition state. A health index of 0% indicates that all of the structural elements are in the worst possible condition state.

Ride Quality

Data Source: Annual spreadsheets provided by VDOT's Maintenance Division. This measure currently applies to the Interstate and Primary road systems only.

Business Rules: The gauge points to the percent of pavement (lane miles) with average ride quality in the Excellent, Good, or Fair categories (smooth ride). All road segments on the

Interstate and Primary road systems in Virginia are tested each year and rated in one of the following categories: Excellent, Good, Fair, Poor, or Very Poor. These tests are done each year from December through May. Segments of pavement classified as Poor and Very Poor are considered deficient (rough ride), all others are non-deficient (smooth ride).

The default view for this measure (until some other data filter is applied) is for Primary and Interstate lane miles combined, statewide. The lower portion of the screen shows a bar chart with each VDOT District represented. The bars show the percentage of pavement in each District that is in the Fair or better categories – one bar for Interstate, one for Primary.

If a District is selected (data filter above the gauges), then the bar chart shows each county in the District, and that counties percentage of smooth ride.

VDOT's goal is to have a minimum of 85% of the primary and interstate pavement network provide "fair" or better ride quality (Excellent, Good, or Fair classifications). This Ride Quality measure, and the associated testing, is based on the International Roughness Index. An index of less than 140 qualifies as a smooth ride. See the table below to convert the IRI value to smooth or rough ride:

Roughness Category	IRI Range (inches/mile)
Excellent	< 60
Good	60 ~ 100
Fair	100 ~140
Poor	140 ~ 200
Very Poor	> 200

Finance

Forecast vs. Actual Revenues

Data Source: Monthly Executive Financial Report

- Displays VDOT's planned and actual revenue, for the fiscal year to date. The default view is for the most recent month of verified data – other months may be selected from the drop-down list.
- Also displays the variance between the plan and actual revenue.
- Includes funding from federal, state, and local sources.
- Details about other financing sources (and uses of funds) are shown in a separate table below the chart.

Forecast vs. Actual Expenses

Data Source: Monthly Executive Financial Report

- Displays VDOT's planned and actual spending, for the fiscal year to date. The default view is for the most recent month of verified data – other months may be selected from the drop-down list.
- The variance between planned and actual spending is also displayed.
- In an additional table, VDOT's total expenditures are broken down into these major categories: Maintenance, Construction, Administration, Debt Service, and Other.

Purchase Power

Data Source: U.S. Department of Labor, Bureau of Labor Statistics; Virginia Department of Motor Vehicles; the Weldon Cooper Center.

To see the actual graph for this measure, click on the title block "Purchase Power" above the bar chart. This will cause a line graph to be displayed. The measures are shown from 1986 through 2007, which is the last full year of data. Additional years will be added as information is available. The line graph shows:

- The change in buying power of the dollar. This is based on the Consumer Price Index for All Urban Consumers.
- The change in population in Virginia.
- The change in the number of licensed drivers in Virginia.
- The change in the number of registered vehicles in Virginia.
- The change in the number of vehicle miles driven on Virginia Interstate, Primary, and Secondary road systems. This statistic does not include miles driven on the Urban road system.

VDOT Performance

VDOT Management

Agency Administrative Performance

VDOT is required to report on the effectiveness of agency management to the Governor's office. This report is made semi-annually, and covers thirteen individual measures in five critical categories. The categories are:

- Emergency Preparedness
- Financial Management
- Government Procurement
- Human Resources
- Information Technology

Each of the thirteen individual measures is rated as Meets Expectations (displayed as green), Progressing towards expectations (yellow), Below Expectations (red), or Results Unavailable (grey). The measures are then summarized into the five categories by the Governor's Office, and reported on the



Web site

A link is provided on this Dashboard page to the Administrative Measures portion of *Virginia Performs*.

Citizen Survey Results

This measure displays the results of periodic customer satisfaction surveys of the residents of Virginia. These are done by an independent consulting research company, The Southeast Institute of Research.

- Extensive surveys are done on a statistically representative sample of residents of each VDOT Construction and Maintenance District. The results of the questions are summarized into several main categories, for simplicity of reporting. The categories may change slightly from time to time, but generally include measures like:
- Overall satisfaction with VDOT
- Responsiveness to the needs and preferences of citizens
- The value of information provided by VDOT
- Maintenance of roads and highways
- Management of funds
- Overall quality of the ride

Each of the categories (or measures) in the survey are rated on a scale from one to five. One is 'Not at all Satisfied', and five is 'Very Satisfied'.

The results for each measure can be viewed as a pie chart, with the percent of each category of response shown. The two most positive categories of response (four and five) are combined together and color coded green, the more negative (bottom two) categories are combined and shown as red, and response 'three' is shown as yellow.

The user may select an individual District, to see the survey results specific for that District, or view 'Statewide'. The Statewide results are a composite, calculated by weighting each District according to population.

Each individual measure for the survey (chosen from the Date Range drop-down list) may be viewed. The measure is also selected from a drop-down list.

Next to the pie chart for the selected measure, there is an arrow. The arrow may be pointed up, down, or side to side. If there has been statistically significant change in a measure from one survey to the latest, it will be indicated by the arrow. Changes must be at the 95% confidence level or more, to be shown. If the results have improved, the arrow will point up, if there has been a decline, the arrow will point down. If there has not been a statistically significant change, or there was not an equivalent measure for comparison, the arrow will point side to side.

Projects & Project Search



The Projects section includes projects being designed and developed (preliminary engineering or PE), as well as projects that have gone into construction. In PE, a project might be in the Studies category – not yet planned for construction – or it might be in Design and Advertisement.

The Project Search button will check all areas of the Projects section, if a user is unsure where to start looking for information on a particular project.

Projects – Project Development - Engineering

This section includes Studies, Design and Advertisement, and Project Cost Estimation.

Studies

Data sources: VDOT's internal version of the (Live) Six-Year Plan, Integrated Project Manager program (iPM), Project Pool

Projects Selected:

- Projects must be in the VDOT (internal version) Six-Year Plan for the selected fiscal year, and record type "Project" or "Budget" in Project Pool. No activity 80 (advertisement dates). Projects with planned advertisement dates are presumed to be in development for advertisement, and will not be in this section. "Studies" could include:
 - Corridor studies and Feasibility studies
 - Projects in any stage of development, but where no planned advertisement dates have been set yet
 - PPTA 'studies' (not yet planned for advertisement, at least not this portion of the project)
 - No State Forces projects, no Hired Equipment projects
 - No canceled projects (projects placed in storage – 'old' status 99), though projects in financial closure (old status 65) are displayed.
 - Certain data anomalies are removed (ex. Construction is complete, but there is no planned or actual ad date)

Business rules: - Rules are based on internal scheduled activities or milestones. Only certain key project activities are monitored, and are listed in the following table. Once an activity is completed, it is passed up, and status is then based on any remaining uncompleted activities. When all activities are completed, a project in the "Studies" category reverts to green status.

Activity Sequencing Table

(There could be many Activities in a project schedule; Dashboard currently tracks up to 31 of them, emulating a critical path) These could change from time to time, as requirements change.

ACTIVITY CODE	DESCRIPTION	ORDINAL*	PRIORITY*
12	AUTHORIZE PE	1010	1
17E	ENVIRONMENTAL REVIEW PROCESS (ERP)	1012	2
18	EARLY NOTIFICATION (SERP)	1015	3
16L	LOCATION STUDY SCOPING	1013	4
19L	LOCATION STUDY DEVELOPMENT	1017	5
25L	DRAFT ENVIRONMENTAL DOCUMENT	1045	6
26L	PREPARE AND HOLD LOCATION HEARING	1046	7
27L	ADOPT CORRIDOR/CTB STUDY	1047	8
14	SCOPE SEC PROJ (DO)	1021	9
16	SCOPE SEC PROJECT (CO)	1022	9
22	SCOPE PROJECT	1020	9
25	DRAFT ENV DOC OR CE	1040	10
31S	CONDUCT LOCATION SURVEY	1050	11
36	PLAN DESIGN/FIELD INSPECTION	1061	12
36F	PLAN DESIGN/PRE FIELD INSPECTION	1062	12

36P	PLAN DESIGN/PUBLIC HEARING	1063	12
44	FURN R/W&UT DATA HEARG	1080	13
43	FURN UTIL F I PLANS	1092	14
47	APPROVE WILLINGNESS	1091	14
49	LOC/DES ADOPTION	1090	14
51	FURNISH R/W&UT PLANS	1100	15
52	AUTHORIZE R/W&UT FUNDS	1101	15
60P	NOTICE TO PROCEED/RW ACQUIS	1110	16
67C	CLEAR UTIL AGREE-CEN	1132	17
67D	CLEAR UTIL AGREE-DIS	1131	17
67U	UTIL RELOC BY OWNERS-DIS	1130	17
69	ACQUIRE R/W	1120	18
69R	ACQUIRE R/W-RESIDENCY	1122	18
70	OBTAIN PERMITS	1141	19
71	APPR CONST PLANS	1150	20
80	ADV PROJ/BEGIN STF/HIRED EQUIP	1160	21

* Ordinal and Priority: Activities are listed on the Project Details Page of the Dashboard in order of priority. If more than one activity with the same priority is programmed and available for display for a given project, the one with the lowest ordinal number will be displayed and tracked on the Dashboard. For example, if a project has activities 43, 47, and 49 (all of which have the same priority) 49 will be selected, as it has the lowest ordinal number.

The status for each project in studies – if the project has activities - is computed by selecting the earliest scheduled activity with the worst status. For example, if activity 22 is YELLOW, 44 is RED, and 70 is GREEN – the project will be RED based on the status of activity 44.

- Green – No internal activities have a status of yellow or red.
- Yellow – An activity within the project is 7 to 14 days (or less than 25% of the time allowed for long lead-time activities) late to start or finish.
 - Once completed, an activity is no longer used to calculate status.
- Red – Critical information is missing, critical information shows data error, or an activity is more than 14 days (or 25% of time allowed) late to start or finish.
 - Critical information is information required to uniquely identify a project, or needed to calculate the status of a project.
 - Once completed, an activity is no longer used to calculate status.

Design & Advertisement

The sub-title header bar displays the percent of the projects in this group that have gone to advertisement by the baseline date, or that are still on schedule to advertise by the baseline date.

Data sources: VDOT's internal version of the (Live) Six-Year Plan, Integrated Project Manager program (iPM), Project Pool

Projects selected:

- Original target ad dates > 6/30/1999
- Projects that have Record Type "Project" or "Budget" in Project Pool

- Projects in the current (internal VDOT) SYIP that have an activity 80 with planned advertisement dates. Progress toward advertisement is monitored.
 - No State Forces projects, no Hired Equipment projects
 - No canceled projects (projects placed in storage – 'old' status 99); but status 65 (financial closure) are displayed.

Business rules:

For Projects advertised prior to July 2002, but are still in the SYIP:

Different business rules were used for these projects than for those in more recent years, and therefore project status between the two groups is not directly comparable. The Baseline Date for these projects is the same as the Current Ad Date immediately prior to advertisement. Data comes from the VDOT Data Warehouse.

For Projects scheduled for advertisement between July 2002 and June 2004:

The Baseline dates for these projects were defined by the Scheduling and Contract Division, and are recorded in the document called "24 Month Ad Schedule 7-01-02 thru 6-30-04 final-esp". These were set using the rolling 24-month rule (Dashboard v.1).

For Projects in subsequent Six-Year Plans:

The Baseline date for each project is set immediately when the project is within 24 months of its Current Ad Date and project scoping is complete. At that time, the Baseline Advertisement Date is set equal to the Current Advertisement Date, and can only be changed due to actions of the Commonwealth Transportation Board (or County Boards of Supervisors for Secondary projects). The Baseline Ad Date may be requested to be re-set if certain requirements are met. 1) The existing Baseline Date is no longer valid, because funding has been removed by action of the CTB or the County Board of Supervisors. And 2) The new Baseline being requested is outside the 24-month window. Prior to reaching the 24 month window, and before being scoped, these projects won't have a Baseline Ad Date, but will be sorted and located according to the Current Ad Date.

Definition of Dates:

Baseline Advertisement Date: Defined in the three paragraphs above.

Current Advertisement Date: This is the planned end date for the advertisement activity (act. 80, in iPM).

Actual Advertisement Date: The actual end date for the advertisement activity.

- Green – Projects with baseline ad dates in the selected time period that have already advertised on time (in the month of baseline), or are still forecast to advertise on time – based on current ad date.
- Yellow – Current ad date is later than (month of) the Baseline ad date, but the Baseline has not passed.
- Red – Projects that advertised late, and those that have not yet advertised, but the baseline ad date (month) has passed. Critical information is missing, or critical information shows data error.
 - Critical information is information required to uniquely identify a project, or needed to calculate the status of a project.

Project Cost Estimation

Data sources: VDOT's internal version of the (Live) Six-Year Plan, Integrated Project Manager program (iPM), Project Pool

Projects Selected:

- The same group of projects described and followed in the Design and Advertisement section
- Only those projects that have formally completed the scoping activity will be rated for changes to cost estimates
- Project cost estimates will be tracked from just after scoping to a final estimate just prior to advertisement
- To maintain historical perspective, no changes to estimates after advertisement will be shown

There are four cases to address:

- Projects with no VDOT Project Cost Estimating System (PCES) estimates
- Projects with PCES estimates for each of the designated milestones (so far)
- Projects with a mix of PCES and former system information (estimates). PCES estimates exist for some but not all of the designated milestones, and some estimates were pulled in from the former project scheduling system.
- Financial Plan projects

Projects with no PCES estimates

- These are still in the current SYIP, but may have been developed prior to PCES. Information will come from the Data Warehouse – from the earlier systems.
- Display only two points of information:
 - Initial estimate: the first estimate available after completion of activity 22, 16, or 14 (scoping). This will include the Utilities Construction Estimate, and ROW PE Estimate.
 - Final estimate: the sum of the last estimates from the older system (PPMS) just prior to advertisement, for PE, ROW, CN. This will also include the Utilities Construction Estimate, and ROW PE Estimate.
 - If either estimate is missing, the project is not rated

Projects with all PCES estimates

- All estimates, from Scoping onward, are recorded using PCES information from July 01, 2003 and later

Projects with a mix of PCES and earlier system information (estimates)

- These projects may have had early estimates recorded in another earlier scheduling system, with some later estimates developed using PCES.
- Display the early or “Scoping” estimate from PCES (information from July 01, 2003 and later). Get the first estimate after activity 22 (or 14 or 16) was complete (time stamp). This becomes the “Scoping Estimate”, and subsequent estimates become the “Current Estimate”

Financial Plan projects

- Display Financial Plan projects (as indicated in PCES) with estimates available after May 2005.

- Display and track “Financial Plan” estimates (total) only. The first one available becomes the Scoping Estimate; subsequent estimates become the Current Estimate. Financial Plan projects with no current estimates available are not rated for red, yellow, or green status.

Business Rules:

Status is based on the % change between the early **recommended** estimate (post-scoping), and the most current **recommended** estimate.

It must be noted that estimates developed prior to July 01, 2003 used an older – now obsolete – scheduling system (PPMS) and rules, and are not directly comparable to later estimates, which used VDOT's Project Cost Estimating System. Therefore, projects scoped and advertised prior to July 01, 2003 are not rated for red, yellow, or green status. In certain rare cases, with adequate documentation and procedures, the Project Management Office may approve a change to the scoping estimate as displayed on Dashboard.

- Green – The most recent estimate is within negative 10% to plus 30% of the post-scoping estimate.
- Yellow – The most recent estimate is between negative 10% and negative 20%, or between plus 30% and plus 40% of the post scoping estimate. Also, if an estimate is more than 12 months old (has not been updated), status is yellow.
- Red – The most recent estimate exceeds negative 20% or plus 40% of the post scoping estimate. If there is no estimate available after scoping (for new projects), status is red. Critical information is missing, critical information shows data error.
 - Critical information is information required to uniquely identify a project, or needed to calculate the status of a project.

Projects - Project Delivery – Construction

This section includes information on: On-schedule and on-time active and completed contracts; On-budget active and completed contracts; the Construction Quality Improvement Program, and Environmental Compliance

Financial Disclaimer: The dollar costs shown in the On-Budget sections represent most of the cost of the project. However, there may be incidental costs, such as fuel adjustments, incentive payments, material allowances, and final payments, which are not included. Also, the extent of any potential claims may not be known at the time a project is completed, and are not included in the calculations.

Data Sources: Trns*port – (CAS and SiteManager), integrated Project Manager (iPM), Construction Expenditure Report

Contracts Selected: Active Construction contracts – those contracts that have been executed, and that have an Original Scheduled Completion Date within the selected time period. The default time period is the current fiscal year – **select “All Dates” if you wish to see all active contracts.** (Some renewable and on-call contracts are not displayed; contracts in default and terminated contracts are not displayed).

Completed Contracts are those contracts for which the work has been accepted from the contractor as identified by the Acceptance Date displayed in Dashboard.

The default view shows VDOT managed contracts with local government and Public-Private Partnership (P3) contracts also selectable for display. Local government projects are those where VDOT has an agreement with a locality (local government) for the locality to manage the contract. Information on these contracts is voluntarily provided directly to the Dashboard by the locality. A locality may choose which, if any, projects to provide information on. Contracts under the Public-Private Partnership Transportation Act (PPTA) may be also viewed on the Dashboard in the P3 Projects section.

The VDOT Managed, Local Government and P3 areas will all have filters allowing for selection by VDOT District, Virginia Counties or VDOT Residencies or Virginia Cities, Road Systems and Fiscal years.

The VDOT Managed section will have several extra filters accessed by checking the box titled "Show More Filters". Three more filters, with drop-down selection lists are then seen: Funding, Contract Type, and Type of Work.

Under Funding, you can choose Construction and Maintenance, Maintenance, Construction, or ARRA funded contracts. Under Contract Types, you can select from one of the nine different types of VDOT-managed contracts. Under Type of Work you can select from the major types of work performed by VDOT contractors – for example Bridge Work, Road Work/Paving, Signals and Signs, and so on.

Business Rules for Calculating Project Status

Active Contracts, On Schedule:

- Based on Original Contract Completion Dates and Estimated Completion Dates
- If the original completion date has passed, **red** status
- If the projected completion date is earlier than today or is missing, **red** status.
- If the projected completion date is later than the original date, but the original date has not passed yet, **yellow** status.
- If the original completion date has not passed, and the projected completion date is earlier than the original date, **green** status.

Completed Contracts, On Time:

- Based on Original Completion Date, and Accept Date
- Accept after Original Completion Date, **red** status.
- Accept on or before Original Date, **green** status.

Active Contracts, On Budget:

- Compare the Original Contract Award Amount to the
 - Current Contract Amount
 - Cost of Work to Date
- If either exceeds the award amount by more than 10%, **red** status.¹

¹ Paving Schedules (plant mix, slurry seal, surface treatment, etc.), displayed on the Dashboard on or after 7/01/08, have an allowance of 25% instead of 10%. This is due to the way these contracts are managed and work is added, to take advantage of favorable weather, and so forth.

- If either exceeds the award amount by 3+% - 10%, **yellow** status.
- If both exceed award by no more than 3%, **green** status.

Completed Contracts, On Budget:

- The Cost of Work to Date becomes the un-audited final cost 35 days after acceptance of the work from the contractor. This allows time for the semi-final estimate to be determined.
- After Acceptance of the work from the Contractor, but before the 35 day period is complete (unaudited final cost is not yet known), if either the Cost of work to Date, or the Current Contract Amount exceeds 110% of the Original Award Amount, **red** status. Note that the status could revert to green, if the final cost of work after 35 days is within 110% of the original award amount.¹
- If the Cost of work to Date, or the Current Contract Amount exceeds the original award amount by 3% to 10% and the un-audited final cost is not yet known, **yellow** status.
- If the un-audited final cost is within 110% of the award amount, **green** status.¹
- If the un-audited final cost exceeds 110% of the award amount, **red** status.

The 25% rule explained in footnote 1 applies only to certain contracts, as follows:

Any Schedule SAAP or Schedule RAAP contract is automatically included if the State Project number starts with PM, SS, LM, or ST.

Other types of contracts will also be included if the Type of Work (from the contract via SiteManager and Data Warehouse) is one of these:

- Paving / Asphalt
- Paving / Concrete
- Pavement Marking / Markers
- Pavement Repair
- Surface (Overlay & Treatment)

These other types of contracts must also include at least one of these key words in the description:

- Asphalt
- Asp. Pave
- Paving
- Pave
- Overlay
- Slurry Seal
- Surface Treat
- Pavement Marking
- Line Marking
- Line Painting
- Resurfacing
- Latex
- Plant Mix
- S.T. Schedule
- P.M. Schedule

Environmental Compliance

Data Source: Environmental Compliance Reporting System (ECR)

Projects Selected: Construction and maintenance projects that have been inspected by environmental monitors and determined to be in compliance with all state and federal environmental regulations. This information is updated daily.

VDOT projects must meet federal, state, and local laws and regulations, contract specifications, VDOT standards and specifications, and project specific commitments. Environmental compliance measures how well a project adheres to these items. Projects are periodically reviewed based on the site conditions. During the visit observations are recorded on a standard Environmental Compliance Report. This provides an accurate and timely record of the condition of the project at the time of the review.

Data from all Environmental Compliance Reports are recorded in a system which provides the two reports displayed on the Dashboard - Statewide Compliance & District-wide Compliance.

The default view – the gauge on the Project Delivery page – shows the cumulative statewide average compliance score for the current rolling 12-month period. This view does not change with different selections for District, Jurisdiction, Road System, etc. Rather, the measure must be opened individually to see District results, or to use the Date Range selection tool. Click in the title header “Environmental Compliance” to open the measure.

Business Rules: The Statewide Compliance report displays the cumulative percentages of compliance for the reports entered in the system each month. Each month's reports combine data entered on projects across the state. The District-wide Compliance report displays the percentage of compliance for data entered on projects in each VDOT district for a rolling (or continuous) 365 day period.

Compliant Reports: the project reviewed is consistent with federal, state, and local laws and regulations, contract specifications, VDOT standards and specifications, and project specific commitments.

Non-Compliant Reports: the project reviewed had one or more items that were inconsistent with federal, state, and local laws and regulations, contract specifications, VDOT standards and specifications, or project specific commitments.

The goal for environmental compliance is 100%. The bars in the bar chart will be green when the average compliance for the time period or District displayed is 100%.

Date Range: There is a “Compliance Date” selection available. Click on the calendar icon below the bar chart, and select a date. This is the “as of” date, and Dashboard displays the 365 day rolling averages prior to the selected date.

Construction Quality Improvement Program (CQIP)

This is viewed by using the CQIP button (link) in the header area, when “Projects” are selected.

Data Source: CQIP3 database

Projects Selected: Construction and Maintenance projects from all over the Commonwealth are selected for special review. The results of completed reviews are compiled and displayed on the Dashboard.

CQIP evaluates compliance with contract and plan specification requirements of administrative and field operations work, on active projects. There are over 1100 individual items in the checklist; only those that apply at the time of the review are evaluated and included in the results.

Business Rules: Each of the applicable items in the checklist is rated as 'compliant' or 'non-compliant'. The percent of compliant items is then calculated for each checklist section and for overall compliance. The target is to meet or exceed 91% overall compliance. The calculation of 'percent compliance' is made by dividing the number of individual compliant items by the total number of items evaluated.

The results are grouped into the following sections:

- Bridges and Structures (Formerly titled "Structures")
- General Provisions
- Incidental Construction
- Roadside Development
- Roadway Construction (Formerly titled "Earthworks")
- Traffic Control Devices

Individual Districts may be selected, as well as some earlier years, from the drop-down filters. The tab labeled "Trends" shows the summary results for earlier years.

Troubleshooting Tips – Construction and Maintenance funded Construction contracts on Dashboard3.0

Some common problems / possible solutions:

I don't see the project or contract I want.

The default view on Construction Dashboard is specifically for projects with an Original Specified Completion Date in the current fiscal year. It may be that the contract you want is scheduled for completion in some other fiscal year (either earlier or later). Use the Date Range drop-down box to select All Dates. Then use additional filters to narrow the search by selecting one District, Residency, or County and so on.

I have made changes or corrections to the data, but it hasn't shown up on Dashboard.

Data is updated every night, but sometimes it takes an additional day or two for the changes to make it from the underlying system to the Data Warehouse, then 24 hours for the Dashboard to read the changes in the Data Warehouse.

I can't find contracts associated with major projects such as the Woodrow Wilson Bridge.

Unfortunately Dashboard can currently only search for key words in the Description data field for the project. If the description did not include a reference to the name of the major project at the time the contract was initialized in Trns*port, it cannot be added later and we cannot find it with a key word search. You will have to use route numbers or zip codes in the search boxes, or County, Residency, etc. in the filter selections.

Work Completed or Critical Work Completed exceeds 100%.

This could be caused by overruns in general, or by overruns in critical items, and can only be corrected in SiteManager, depending on which system is being used to manage the contract.

Work Completed or Critical Work Completed is less than 100%, but the project is complete.

This could be caused by Underruns in critical items, or by other problems with a Progress or Earnings Schedule. This can only be corrected in SiteManager.

The % Work Planned and/or the % Work Complete are blank or zero.

This could be correct early in the life of the contract, depending on the construction schedule. Later in the project, this could indicate problems with the Earnings or Progress Schedule.

Information in one of the fields is wrong, and I want to fix it. Or, I don't agree with some of the data, and I want to see where it came from.

Look at the cross-reference tables (part of this document) to determine the source of the information.

Specifically, the contact information is wrong. Where do I correct it?

	Source System	Source Page	Source Field
Engineering project Dashboard Contact	iSYP: Project pool	"General" tab	Revise project
Engineering project Project Manager	iSYP: Project pool	"General" tab	Revise project
Construction or Maintenance or Paving Contact	Construction Expenditures Report	Construction Activity	Resident Engineer or Contact person (if assigned)

This is an "on-call" type contract, and does not follow a pre-determined schedule, and so should not be on Dashboard.

The District may designate the contract as "on-call" using the Construction Expenditures Report (sometimes called the Construction Activity Report). This will remove the contract from the Dashboard.

This contract will be renewed, and will not be accurately represented in the "Budget" sections of the Dashboard, and so should not be on Dashboard.

The District may use the CERS report to designate a contract as renewable. The contract will drop off the Dashboard (the next day).

Data Cross Reference Table, Construction Contracts – for VDOT Business Users

<u>Dashboard Name</u>	<u>Source</u>	<u>Folder</u>	<u>Object</u>	<u>ODS TABLE.COLUMN Source for CDMART</u>	<u>System of Origin</u>	<u>Source Table for DW</u>	<u>Source Column for DW</u>
UPC	DW	CDMART.CONTRACT_PR OJECT_DIM	CP_UPC	CONTPROJ.UPC	SM	t_cont_proj	cpsst4
Contract ID	DW	CDMART.CONTRACT_DI M	CONTRACT_ID	CONTRACT.CONTID	SM	t_cont	rmrks_id
Description	DW	CDMART.CONTRACT_DI M	CN_DESCRIPTION	CONTRACT.DESCR	SM	t_cont	desc1
District	DW	CDMART.CONTRACT_DI M	CN_DISTRICT	CONTRACT.DISTRICT_ CODE (or _NAME)	SM	t_cont	lev2_office_nbr
Residency							
County							
Town							
Road System	DW	CDMART.CONTRACT_DI M	CN_ROAD_SYSTEM	CONTRACT.CNRDSYS	SM	t_cont	road_sys_t
Route							
Contract Type	DW	CDMART.CONTRACT_DI M	CN_CONTRACT_TYPE		SM		
Comments	CERS	CONSTRUCTION	Dashboard Comment				
VDOT Contact	CERS	CONSTRUCTION	Resident Engineer				
Construction Company	DW	CDMART.CONST_CONTR _VENDOR_DIM	V_VENDOR_NAME		SM		
Award	DW	CDMART.CONTRACT_PR OJECT_FACT	CN_AWARD_CONTRAC T_AMOUNT	CONTRACT.CNAWDAM T	SM	t_cont	tot_bid_amt
Inspector's Estimated Amount to Complete	CERS	CONSTRUCTION	Projected Contractor Payments				
Cost of Work to Date	DW	CDMART.CONTRACT_PR OJECT_FACT	CN_COST_OF_WORK_ TO_DT		SM	t_cont_est	calc#001
Unaudited Final Cost (Cost of Work to Date at 35 days after acceptance)	DW						
Current Contract Amount	DW	CDMART.CONTRACT_PR OJECT_FACT	CN_CRNT_CONTRACT_ AMT	CONTRACT.CNCURAM T	SM	t_cont	fnl_cont_amt

Start Date (Time Charges Start Date) used in some calculations	DW						
Execution Date							
Original Specified Completion Date	DW	CDMART.CONTRACT_DIM	CS_ORGI_SPCFD_CMLTN_DT	CONTSITE.PSDTORIG	SM	t_cont_mlstn	orig_spc_cmpl_dt
Current Specified Completion Date	DW	CDMART.CONTRACT_DIM	CS_CUR_SPCFD_CMLTN_DT	CONTSITE.PSDTCURR	SM	t_cont_mlstn	cur_spc_cmpl_dt
Estimated Completion Date	DW	CDMART.CONTRACT_DIM	CN_ESTIMATED_CMLTN_DT		SM		
Acceptance Date	DW	CDMART.CONTRACT_DIM	CN_DATE_ACCEPTED	CONTRACT.CNDTACCP	SM		
Days Charged to Date	DW	Calculated by Dashboard: (Accept Date-Time Charges Start Date)+1	Intentionally Blank	Intentionally Blank		Intentionally Blank	Intentionally Blank
Original Number of Days	DW	Calculated by Dashboard: (Original Specified Completion Date-Time Charges Start Date)+1	Intentionally Blank	Intentionally Blank		Intentionally Blank	Intentionally Blank
% Work Complete (for Earnings Schedule)	Dashboard	Calculated by Dashboard: Cost of critical work to date / (earnings schedule amount - underruns + overruns of critical items)	Intentionally Blank		SM	Intentionally Blank	Intentionally Blank
Cost of Critical Work to Date	DW	CDMART.CONTRACT_PROJECT_FACT	CN_COST_OF_WORK_TO_DT		SM	t_cont_est	calc#001
Earnings Schedule Amount	DW			ODS.CONTSCHD.CSRE MARK where CSACTION = "EARN" and CSSEQ = ([MAXIMUM CSSEQ])	SM		
Underruns/overruns	DW			SUM(ODS.PROJITEM.PI CQTY) * 100 where PIITEM = 'CRUNDEROVER'	SM		
% Work Complete (for Progress Schedule)				CONTRACT.CNPCTCMP	SM		

% Work Complete (for Straight Line Schedule)	Dashboard	Intentionally Blank	Intentionally Blank		SM	Calculated by Dashboard: 100* (Cost of Work to Date / Current Contract Amount)	See sources for Cost of Work to Date, and Current Contract Amount elsewhere in this Table.
% Work Planned (Earnings Schedule)	DW			CONTRACT.CNPCTSCH	SM		
% Work Planned (Progress Schedule)	DW			CONTRACT.CNPCTSCH	SM		
% Time Spent (Straight Line Schedule)	DW	CDMART.CONTRACT_PR OJECT_FACT	CS_PCT_OF_TIME_USE D		SM		
Schedule Type							
Schedule Source							