



# PERFORMANCE MEASURES

## 2012 Quarter 1 (January 1 to March 31)

**Legend**

Performance Trend is Improving

Performance Trend Remains Similar

Performance Trend is Declining

Updated this Quarter (y/n)	Sheet No.	Sheet Name	Performance Measure(s)	Target	Comparative Reporting Period	Latest Reporting Period	Performance Trend	Target Met (if Applicable)
<b>HIGHWAY</b>								
<b>Safety</b>								
n	PM-01	Highway Fatalities	Rate of Annual Highway Fatalities per 100 million vehicle miles traveled (VMT), CTDOT	0	0.71 (CY-2009)	1.02 (CY2010)		
			Rate of Annual Highway Fatalities per 100,000 population	0	6.34 (CY-2009)	8.92 (CY2010)		
n	PM-02	Seat Belt Usage	Percent of Seat Belt Usage	90%	88% (CY-2010)	88% (CY2011)		
<b>Pavements</b>								
y	PM-03	Highway Ride Quality	Percent of NHS Roads with Good Ride Quality	Increase %	48.8% (CY2010)	48.7% (CY2011)		
			Percent of Entire Network with Good Ride Quality	Increase %	20.0% (CY2010)	20.5% (CY2011)		✓
<b>Bridges</b>								
n	PM-04	Highway Bridge Condition	Percent of CTDOT Roadway Bridges in a State of Good Repair	95%	n/a	92% (CY2010)	n/a	
y	PM-05	Highway Bridge Maintenance	Number of Bridge Work Items Completed	Maximize Completion of Work Items	177 (CY2011-Q4)	516 (CY2012-Q1)		
			Number of Backlogged Bridge Work Items	Zero Increase in Backlog	4,117 (CY2011-Q4)	4,151 (CY2012-Q1)		
<b>Multi-use Facilities</b>								
n	PM-06	Bicycle/ Pedestrian Access	Percent of Funds Expended for Bicycle/ Pedestrian Access	>/= 1.0%	1.1% (SFY2010)	2.80% (SFY2011)		✓
<b>RAIL</b>								
<b>Fleet</b>								
y	PM-07	Rail Fleet Reliability	Mean Distance Between Failures (Miles) - Locomotives	35,000	35,159 (CY2011-Q4)	54,169 (CY2012-Q1)		✓
			Mean Distance Between Failures (Miles) - Coaches	290,000	357,159 (CY2011-Q4)	337,405 (CY2012-Q1)		✓
			Mean Distance Between Failures (Miles) - EMU M2	80,000	66,742 (CY2011-Q4)	137,075 (CY2012-Q1)		✓
			Mean Distance Between Failures (Miles) - EMU M4	60000	52,380 (CY2011-Q4)	107,443 (CY2012-Q1)		✓
			Mean Distance Between Failures (Miles) - EMU M6	60000	36,442 (CY2011-Q4)	77,693 (CY2012-Q1)		✓
			Mean Distance Between Failures (Miles) - EMU M8	200000	140,679 (CY2011-Q4)	244,742 (CY2012-Q1)		✓
y	PM-08	Rail On-Time Performance	Percent of Rail On-Time Performance (NHL)	97.0%	96.7% (CY2011-Q4)	98.7% (CY2012-Q1)		✓
			Percent of Rail On-Time Performance (SLE)	95.0%	95.3% (CY2011-Q4)	96.3% (CY2012-Q1)		✓
<b>Passengers</b>								
y	PM-09	Rail Passenger Trips	Number of Rail Passengers (NHL)	8,854,620	10,056,534 (CY2011-Q4)	9,369,795 (CY2012-Q1)		✓
			Number of Rail Passengers (SLE)	138,863	157,517 (CY2011-Q4)	148,664 (CY2012-Q1)		✓
<b>BUS</b>								
<b>Fleet</b>								
y	PM-10	Miles Between Road Calls (Bus)	Average Miles Between Road Calls (Bus)	5,000 Miles	5,587 (SFY2012-Q2)	4,934 (SFY2012-Q3)		
n	PM-11	Age of Bus Fleet	Average Age of Bus Fleet (State)	6.0 Years	6.9 (CY2010)	6.3 (CY2011)		
			Average Age of Bus Fleet (Transit Districts)	6.0 Years	6.8 (CY2010)	8.5 (CY2011)		
<b>Passengers</b>								
y	PM-12	CTTransit Passenger Trips	Number of CTTransit Passenger Trips	25,000,000 yr (Approx. 6,250,000 qtr)	6,946,869 (CY2011-Q4)	6,879,027 (CY2012-Q1)		✓

Updated this Quarter (y/n)	Sheet No.	Sheet Name	Performance Measure(s)	Target	Comparative Reporting Period	Latest Reporting Period	Performance Trend	Target Met (if Applicable)
<b>ADMINISTRATION</b>								
<b>Agreements</b>								
Y	PM-13	Agreements Executed in Under 60 Days	Percent of Agreements Executed in Under 60 Days	Increase Percentage	51% (SFY2011-Q2)	30% (SFY2011-Q3)	↓	
<b>Contracts</b>								
Y	PM-14	Construction Contracts Awarded	Percent of Construction Contracts Awarded within 60 Days of Bid Opening	100%	92% (SFY2012-Q2)	76% (SFY2012-Q3)	↓	
Y	PM-15	Construction Contracts Completed On-Time & Within Budget	Percent of Construction Contracts Completed within Budget	Increase Percentage	64% (CY2011-Q4)	76% (CY2012-Q1)	↑	✓
			Percent of Construction Contracts Completed on Time	Increase Percentage	50% (CY2011-Q4)	62% (CY2012-Q1)	↑	✓
<b>Finance</b>								
Y	PM-16	Project Closeouts	Number of Project Closeouts	300 [SFY 2012]	73 (SFY2012-Q2) [164] [SFY2012]	76 (SFY2012-Q3) [240] [SFY2012]	↑	✓
<b>CT Recovery</b>								
Y	PM-17	CT RECOVERY Projects Completed On-Time	CT RECOVERY Percent of Stimulus Projects Completed On-Time	Maximize Percentage	80% (CY2011-Q4)	79% (CY2012-Q1)	↓	
Y	PM-18	CT RECOVERY Dollars Expended	CT RECOVERY Percent Dollars Expended	100 % (\$462 million)	84% (CY2011-Q4)	89.5% (CY2012-Q1)	↑	
Y	PM-19	CT RECOVERY Jobs Created / Sustained	CT RECOVERY Number of Jobs Created / Sustained	Increase Jobs Created/Sustained	50,407 (CY2011-Q4)	53,907 (CY2012-Q1)	↑	✓

### Highway Fatalities

Mode: Highway  
 Asset/Topic: Safety  
 Focus: Fatalities

**Strategic Objective (s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the fatality rate on Connecticut's roadways. By tracking fatality rates, the Department is able to gather information necessary to develop effective programs that ensure the safety and security of the traveling public.

**Data Statement:**

Fatality Analysis Reporting System (FARS) Annual Report File counts are published by NHTSA during the fall of each year for the previous calendar year. The FARS Final File is typically released eight months after the release of the Annual Report File. (For example, calendar year 2010 data are published initially in the fall of 2011, and finalized in mid-2012.) The 2010 data set used for this posting was obtained from the FARS 2010 Final File.

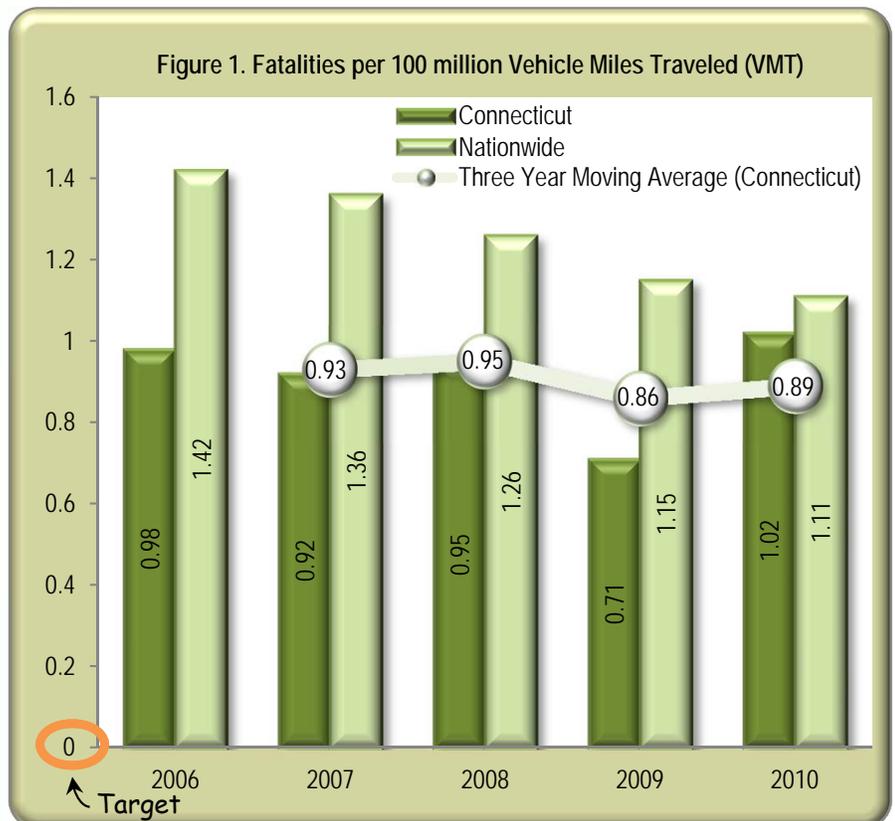
**Source:**

Bureau of Policy and Planning –  
 Ms. Maribeth Wojenski & Mr. Joseph Cristalli

Performance Measure(s)	Target Value:	Current Value: (CY 2010)
Fatalities per 100 million vehicle miles traveled (VMT)	0	1.02
Fatalities per 100,000 population	0	8.92

**Discussion of Trend:**

Highway fatality statistics for years 2006 through 2010, as reported by the National Highway Traffic Safety Administration (NHTSA), are presented in Figures 1 and 2\*. In 2010, Connecticut's reported fatality rate is 1.02 fatalities per 100 million vehicle miles traveled compared with the national figure of 1.11 fatalities (see Figure 1). This is an increase in the accident rate compared with each of the previous three years. This variability illustrates the limitation of using a 1 year accident rate. In order to smooth the data set, a three-year moving average rate is also plotted in Figure 1. (continued)



### Highway Fatalities

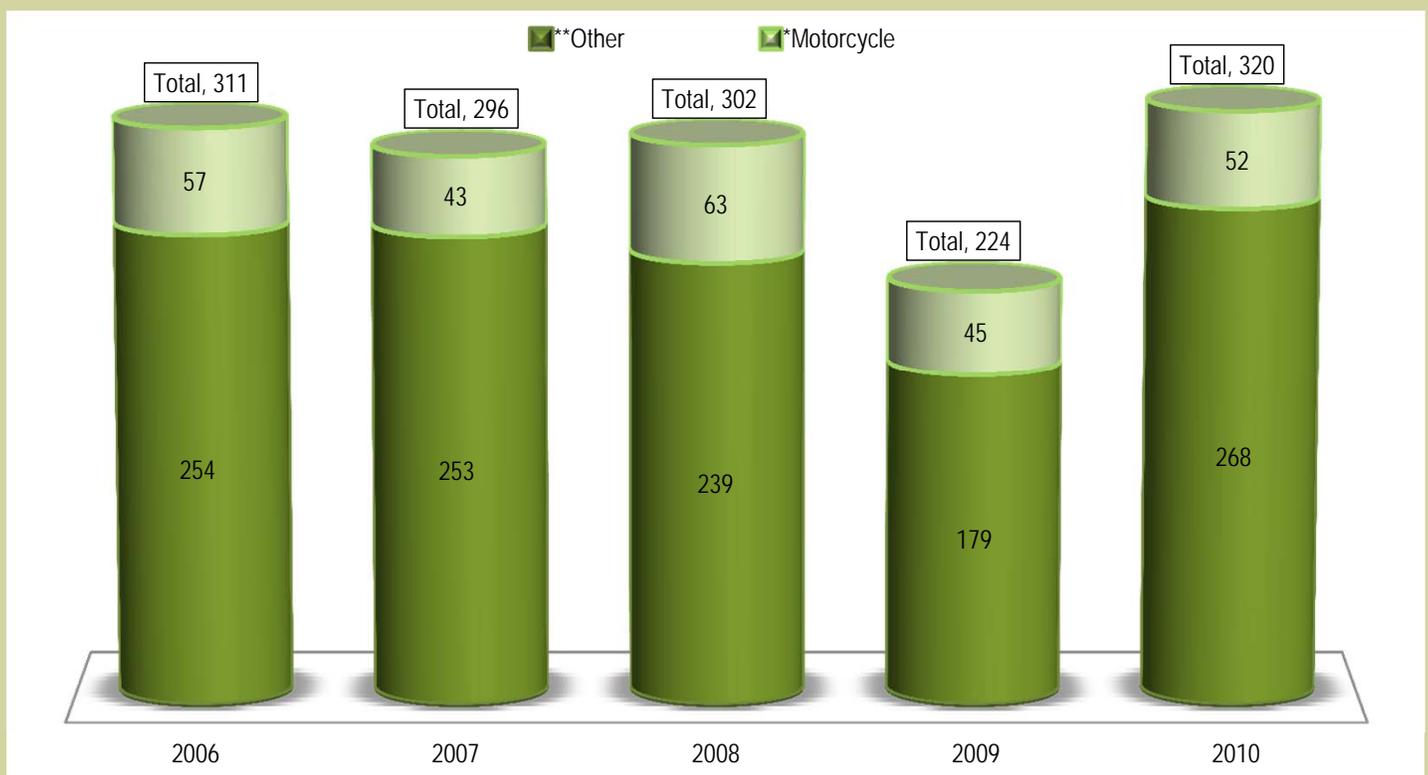
**Discussion of trend (continued):**

In 2010, there were 299 fatal motor vehicle crashes in which 320 persons were killed (see Figure 2). This number (320) includes drivers, passengers, pedestrians and cyclists.

In 2010, a total of 52 motorcycle drivers and passengers were killed on Connecticut roadways, representing 16 percent of the state's total traffic fatalities. Based on 93,860 registered motorcycles, the fatality rate per 10,000 registered motorcycles was 5.5.

Preliminary 2011 data indicates a significant reduction in fatalities in 2011 compared with 2010. In 2011, preliminary data indicates 215 fatal motor vehicle crashes in which 228 persons were killed. The 2011 totals are preliminary at this time and subject to change.

**Figure 2. Number of Annual Highway Fatalities**



\* Includes: Motorcycle Drivers and Passengers

\*\* Includes: Other Drivers and Passengers, Pedestrians and Cyclists

### Seat Belt Usage

Mode: Highway  
 Asset/Topic: Safety  
 Focus: Utilization

Performance Measure(s)	Target Value:	Current Value: (CY2011)
Percent of Seat Belt Use (Observed)	90%	88%

**Strategic Objective (s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks seat belt usage by Connecticut's motorists. Drivers, front seat passengers and all rear seat passengers aged 4 to 16 are required to wear seat belts. Connecticut's primary enforcement law carries a fine of \$92 for not wearing a seat belt. When worn correctly, seat belts reduce the risk of fatal injury to front seat occupants by 45 percent. In 2009, seat belts saved an estimated 12,713 lives in the United States (Traffic Safety Facts: 2009 Data, NHTSA).

**Data Statement:**

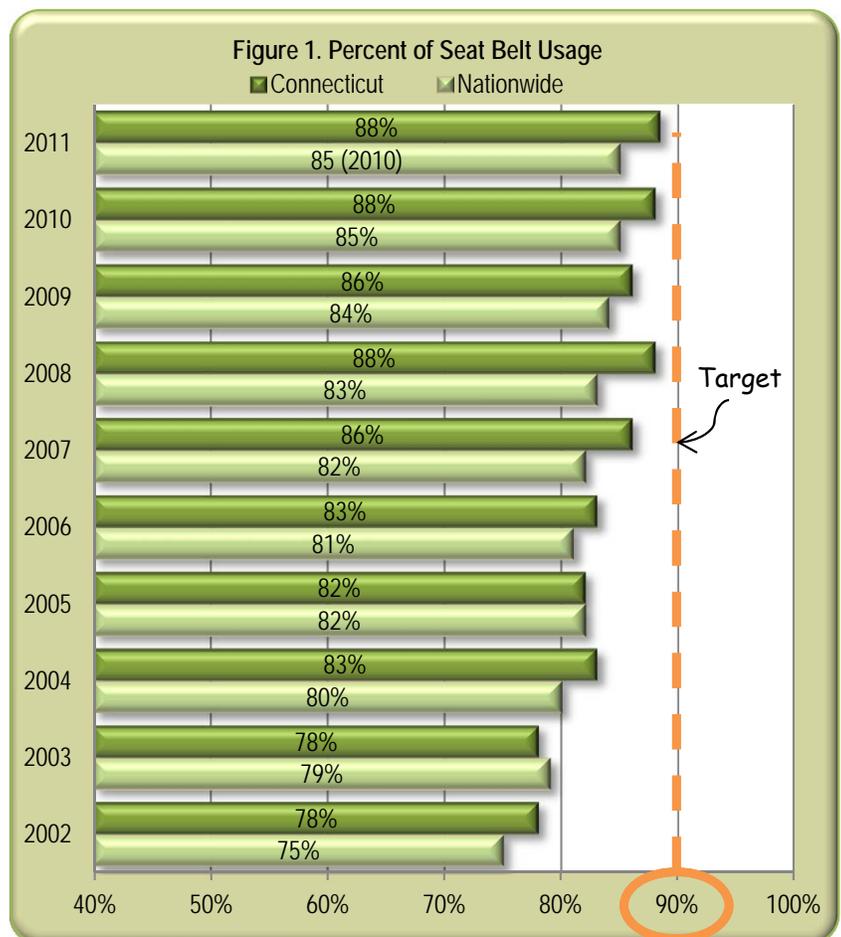
Data for this measure is based on an observational sampling, and becomes available for reporting annually when the sampling is completed for the current Calendar Year (CY). The latest data set used for this posting covers the time period from 1/1/2012 through 12/31/2012.

**Source:**

Bureau of Policy and Planning  
 Mr. Joseph Cristalli

**Discussion of Trend:**

The latest scientific survey of belt observations was conducted in June 2011. It provides the most accurate and reliable statewide estimate of seat belt use available in Connecticut that is comparable to the 1995 baseline estimate accredited by NHTSA in September of 1998 and the statewide survey conducted in 1998. Seat belt use was 88.4% in 2011, the highest level in the past ten years (along with 2008 and 2010). The first comparable safety belt use survey in Connecticut was done in 1995 and recorded a 59 percent belt use rate. The rate reached an all-time high of 88% in 2008, dropped slightly to 86 percent in 2009 only to go back to 88% in 2010 and 88.4% in 2011.



### Highway Ride Quality

Mode: Highway  
 Asset/Topic: Pavement  
 Focus: Condition

**Strategic Objective (s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the roughness (complement of smoothness) of pavements on Connecticut's state-maintained roads. The general public's perception of a good road is one that provides a smooth ride. Roughness is an important pavement characteristic because it affects not only ride quality but also vehicle delay costs, fuel consumption and both vehicle and roadway maintenance costs. The Department uses a worldwide standard for measuring pavement smoothness called the International Roughness Index, or IRI. This index provides a consistent and comparable measure of pavement in terms of the number of vertical bump inches per mile driven. IRI is reported as inches per mile. The lower the IRI number, the smoother the ride. The Federal Highway Administration (FHWA) requires that all states measure and submit IRI data annually for the National Highway System (NHS). The NHS in Connecticut includes approximately 963 miles of interstate and other routes identified as having strategic defense characteristics, as well as routes providing access to major ports, airports, public transportation and intermodal facilities.

**Data Statement:**

Data for this measure becomes available for reporting annually in June for the previous Calendar Year. The latest data set used for this posting is through 12/31/2011.

**Source:**

Bureau of Engineering and Construction  
 Mr. Edgardo Block, P.E.

Performance Measure(s)	Target Value:	Current Value: (CY 2011)
Percent of NHS Roads with Good Ride Quality	Increase Percent Good	48.7%
Percent of Entire Network with Good Ride Quality	Increase Percent Good	20.5%

Figure 1 shows that ride quality on Connecticut's NHS routes has gradually been improving. The percentage of NHS Routes rated good has increased from 44.5 percent in 2006 to 48.7 percent in 2011, while the percentage of roads rated poor has remained relatively stable over the same period. The goal is to continue to increase the percent of roads in good condition by implementing pavement preservation principles and fully utilizing CTDOT's Pavement Management System.

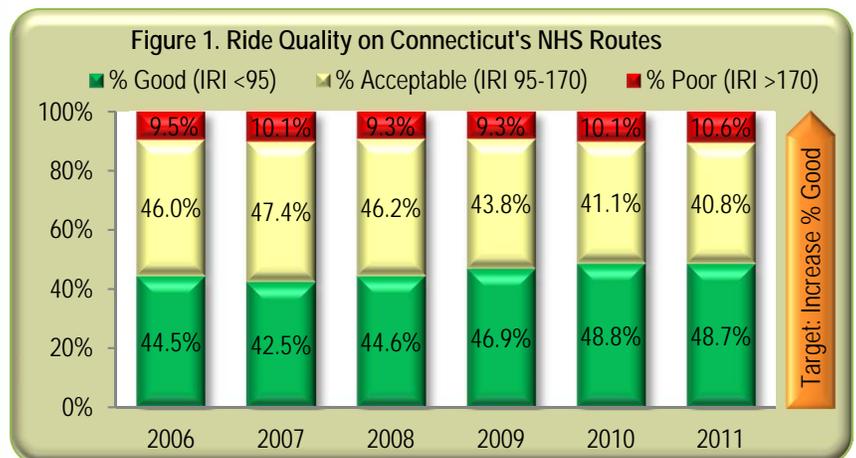
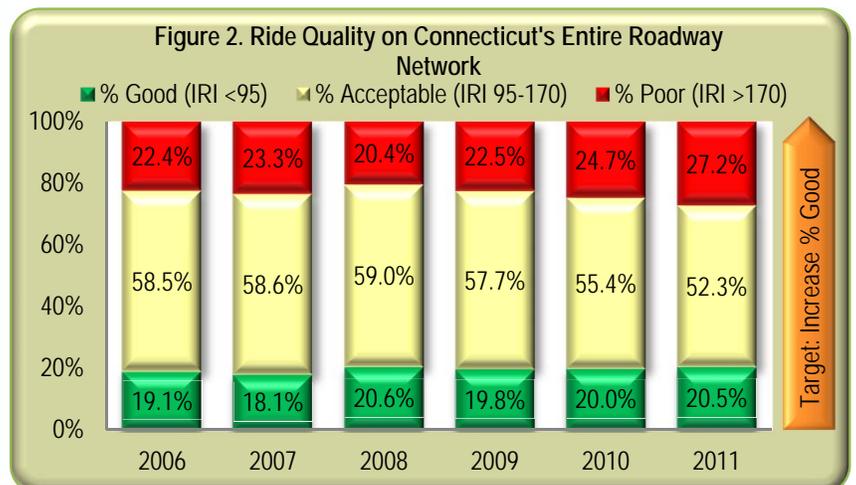


Figure 2 (Below) shows the ride quality of Connecticut's entire state maintained roadway network (approx. 3,744 miles) for calendar years 2006 through 2011. The entire roadway network includes both NHS and non-NHS roadways that are the maintenance responsibility of the Connecticut DOT. As shown in this graph, when the non-NHS roadways are factored in, the percent of the roads with good ride quality is reduced significantly



### Highway Bridge Condition

Mode: Highway  
 Asset/Topic: Bridge  
 Focus: Condition

**Strategic Objective (s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the condition of roadway bridges maintained by the Connecticut Department of Transportation (CTDOT). The Department is directly responsible for almost 4,000 bridges, including all Connecticut National Bridge Inventory (NBI), Connecticut Non-NBI, Adopted and Orphan bridges. The Department also inspects and maintains several special structures (i.e. Tunnel and Pedestrian Bridges) which are not included in this measure. Almost 1,300 additional bridges owned by Connecticut's Municipalities or the Connecticut Department of Environmental Protection or located on Private Property are inspected by CTDOT but are not considered in this measure since they are not maintained by CTDOT. The condition of all bridge decks, superstructures and substructures are rated on a scale from 0 (failed condition) to 9 (excellent condition). The lowest rating becomes the bridge's overall rating. The reporting method in 2012 has changed to be more consistent with federal legislation. The overall goal of the Department is to maintain all highway assets in a State of Good Repair (SGR). This would indicate that the condition rating for the major bridge components are 5 or better. Whenever the condition rating of a bridge falls below a 5, the Department further reviews its condition, assesses the inspection frequency, adds the structure to the Bridge Program List and initiates a project to address the needs.

**Data Statement:**

Data for this measure becomes available for reporting annually in July for the previous Calendar Year. The latest data set used for this posting covers the time period from 1/1/2011 through 12/31/2011.

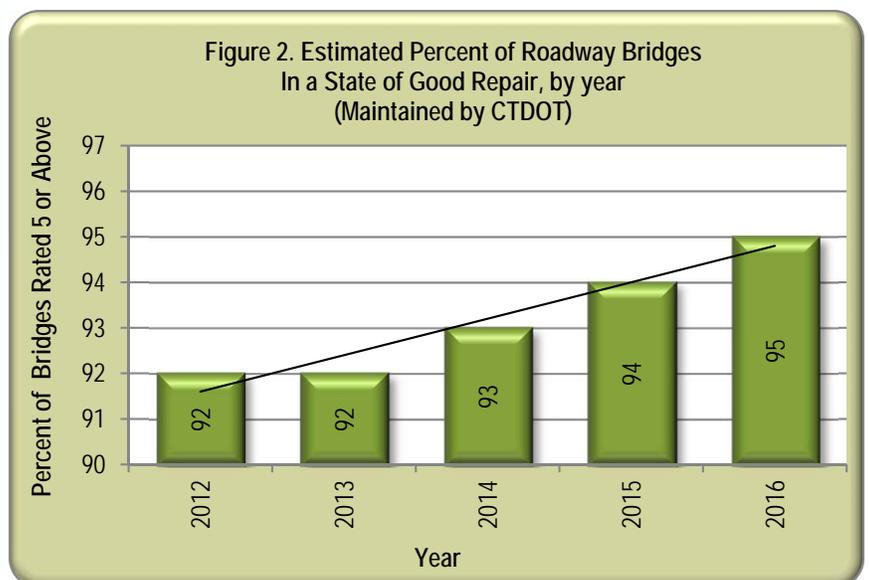
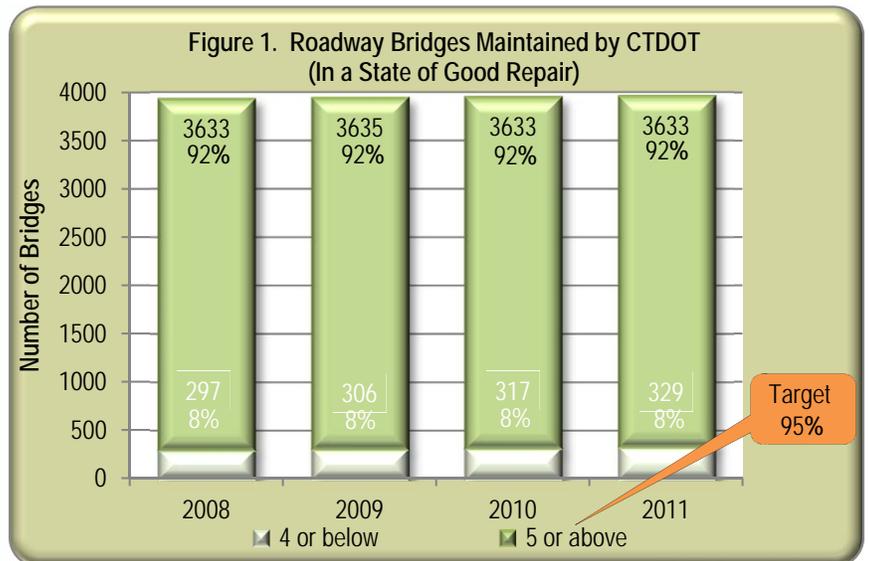
**Source:**

Bureau of Engineering & Construction  
 – Mr. Robert Zaffetti, P.E.

Performance Measure(s)	Target Value:	Current Value: (CY 2011)
Percent of CTDOT Roadway Bridges in a State of Good Repair	95%	92%

**Discussion of Trend:**

Figure 1 shows that the percent of bridges in a State of Good Repair (SGR) has remained constant since 2008. As indicated in figure 2, it is anticipated that the percent of bridges in a State of Good Repair will increase in the next few years. The Department has recently allocated additional resources into bridge maintenance projects to try to reverse CTDOT's trend and align the Department with national trends of yearly increases in the number of bridges that are identified as being in a SGR.



### Highway Bridge Maintenance

Mode: Highway  
 Asset/Topic: Bridge  
 Focus: Operations

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the progress of maintaining and improving the condition of bridges on Connecticut's highways. The Department seeks to preserve and extend the useful life of existing bridge structures. Upon completion of the bridge inspection process, a Bridge Maintenance Memorandum (BMM) is prepared that identifies deficiencies and areas of deterioration needing repair. Individual work items identified on each BMM vary in complexity from a small concrete spall to replacing bridge expansion bearings. Some items require specialized equipment and/or use of contractual services such as installing bridge deck joints. Other items such as bridge beam end painting are programmed into the federally funded Bridge Preventive Maintenance Program. The repair work is scheduled based on criticality. Due to the advanced age of Connecticut's infrastructure, both the number of bridge inspections and needed repairs continues to increase.

**Data Statement:**

Data for this measure becomes available quarterly. The latest data set used for this posting covers the first quarter of calendar year 2012 (01/1/2012 through 03/31/2012).

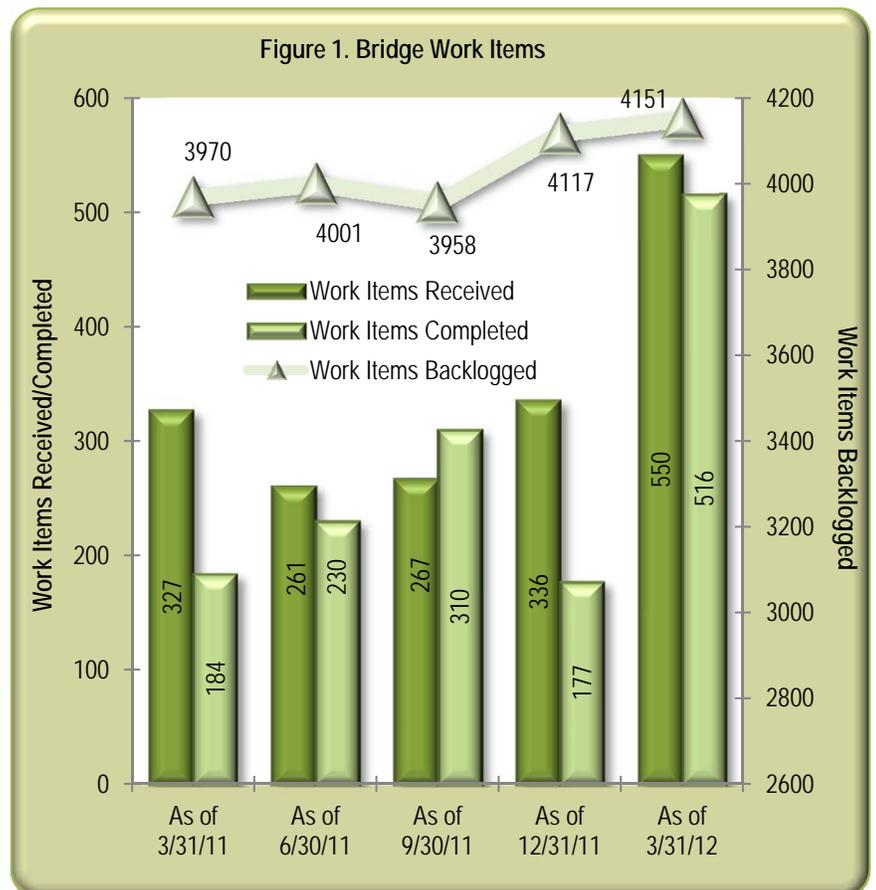
**Source:**

Bureau of Highway Operations  
 Mr. Richard Van Allen P.E.

Performance Measure(s)	Target Value:	Current Value: (2012-Q1)
Number of Bridge Work Items Completed	Maximize completion of work items	516
Number of Backlogged Work Items	Zero growth in backlog	4151

**Discussion of Trend:**

During the most recent quarter (see Figure 1) the cumulative bridge work item backlog, was at 4151. The short term target is to maintain a zero gain in the backlog by increasing bridge maintenance activities and resources needed to accomplish this work. The goal for subsequent years will be to significantly decrease the backlog.



### Bicycle / Pedestrian Access

Mode: Highway  
 Asset/Topic: Multi-use Facilities  
 Focus: Operations

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the percent and total amount of dollars spent and/or programmed to be spent, on projects containing items that improve accessibility for pedestrians and bicyclists. Walking and bicycling promote good health, cost less than driving a motor vehicle, are good for the environment, provide freedom of travel and independence, and add to the sense of community in a town or city. In an effort to meet the public's demand for improved mobility and a better quality of life, CTDOT supports the use of bicycling and walking, and places emphasis on providing a safe and convenient environment for these transportation modes. Public Act 09-154, passed by the Connecticut General Assembly (CGA) in 2009, requires "a reasonable amount of any funds received by CTDOT or any municipality for construction, restoration, rehabilitation, or relocation of roads to be spent for facilities for all users, including at least, bikeways and sidewalks with curb cuts and ramps."

**Data Statement:**

Data for this measure becomes available for reporting annually in October for the previous State Fiscal Year (SFY). The data set used for this posting covers SFY 2011 (7/1/2010 through 6/30/2011), and includes state and municipal projects.

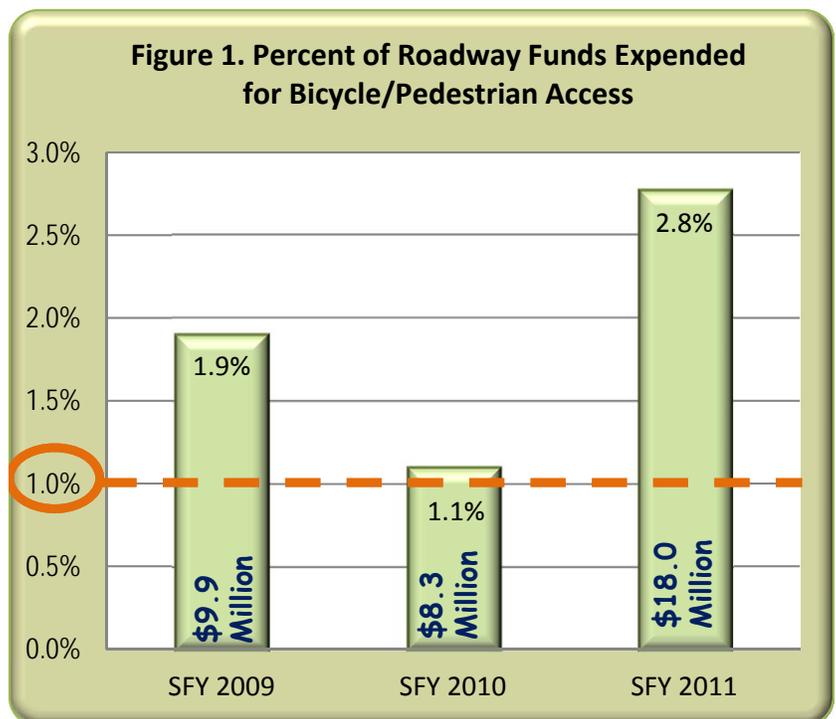
**Source:**

Bureau of Engineering and Construction  
 Mr. Thomas Harley, P.E.

Performance Measure(s)	Target Value:	Current Value: (SFY 2011)
Percent of Roadway Funds Expended for Bicycle/Pedestrian Access	>= 1.0 %	2.8 %

**Discussion of Trend:**

This year the Department again exceeded the 1 percent target set by the CGA (Figure 1). CTDOT identified 46 projects awarded in SFY2011 that include elements for pedestrians or bicyclists, such as sidewalks, audible pedestrian signals, push buttons, signs, pedestrian/bicycle trails, and ramps. Total dollars being expended for these items equals \$18 million, which was approximately 2.8 percent of total funds awarded for the construction, maintenance and repair of roads in the state. A portion of the funds spent this year were for projects that were funded through the federal American Recovery and Reinvestment Act.



### Rail Fleet Reliability

Mode: Rail  
 Asset/Topic: Fleet  
 Focus: Condition

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the reliability of MetroNorth train service on the New Haven Line. Mean Distance between Failures (MDBF) is an industry standard for measuring the reliability of a rail car fleet. It is calculated by dividing the total miles operated by the total number of confirmed primary failures, by car or locomotive fleet. A confirmed primary failure is defined as a failure of any duration for mechanical cause that occurs to a revenue train that is reported late at its final terminal by more than 5 minutes 59 seconds. Generally speaking, the greater the MDBF, the better the on-time performance of train service.

**Data Statement:**

Data for this measure becomes available for reporting Monthly. The data set used for this posting is through 03/31/2012, which is quarter 1 of calendar year 2012.

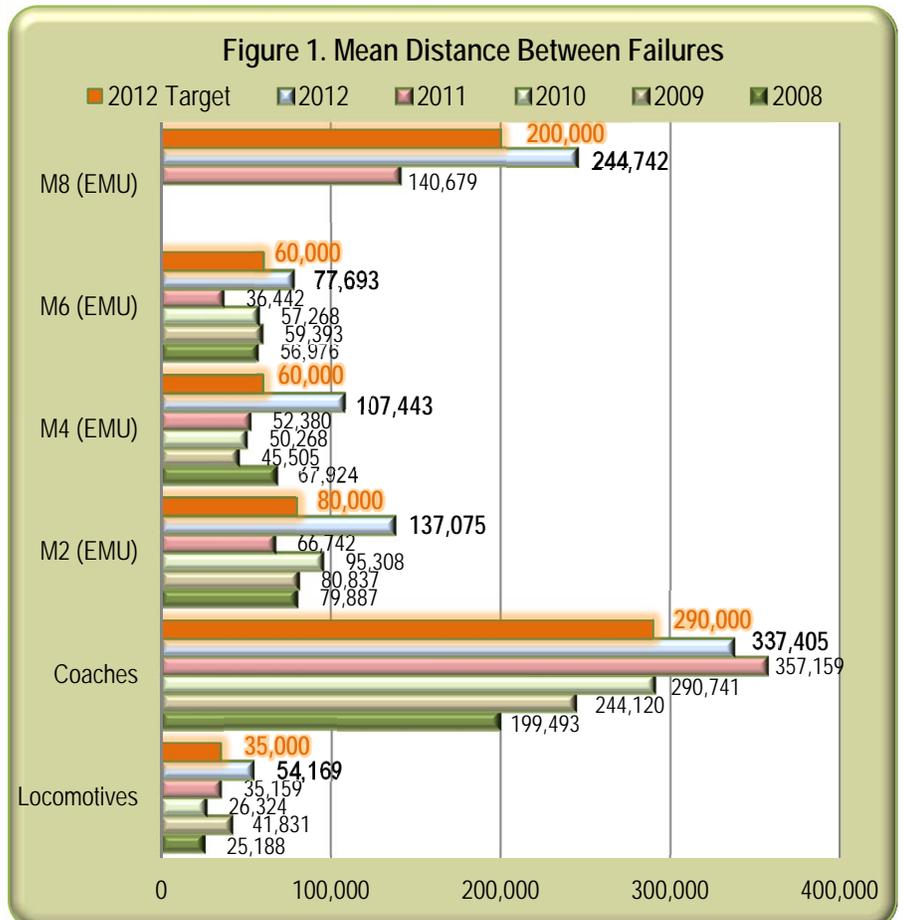
**Source:**

Bureau of Public Transportation - Mr. Eugene Colonese

Performance Measure(s)	Target Value:	Current Value: (Through 2012-Q1)
Mean Distance Between Failures – Locomotives	35,000 mi.	54,169 mi.
Mean Distance Between Failures – Coach	290,000 mi.	337,405 mi.
Mean Distance Between Failures – M2 EMU	80,000 mi.	137,075 mi.
Mean Distance Between Failures – M4 EMU	60,000 mi.	107,443 mi.
Mean Distance Between Failures – M6 EMU	60,000 mi.	77,693 mi.
Mean Distance Between Failures – M8 EMU	200,000 mi.	244,742 mi.

**Discussion of Trend:**

Figure 1 shows the MDBF for six types of rail vehicles for calendar years 2008 through the first quarter of 2012 along with their respective 2012 yearly target. Many of the new M-8 model EMUs are in service to replace and complement the current EMUs in the existing fleet. This quarter the whole measured fleet is surpassing their respective targets.





### Rail On-Time Performance

Mode: Rail  
 Asset/Topic: Fleet  
 Focus: Operations

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the On-Time Performance (OTP) of Connecticut's commuter rail service on the New Haven Line (NHL) and the Shore Line East (SLE). OTP is a key measure for service reliability to its customers and is the industry standard used to compare existing services with other similar competitors. A commuter train is considered "on-time" if it reaches its final destination within 5 minutes and 59 seconds of its scheduled arrival time.

**Data Statement:**

Data for this measure becomes available for reporting Monthly. The data set used for this posting is through 3/31/2012, which is quarter 1 of calendar year (CY) 2011.

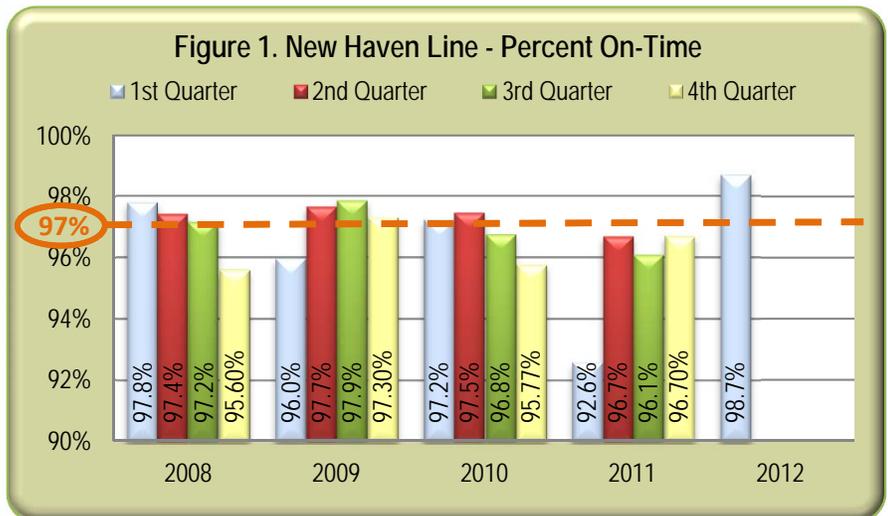
**Source:**

Bureau of Public Transportation - Mr. Eugene Colonese

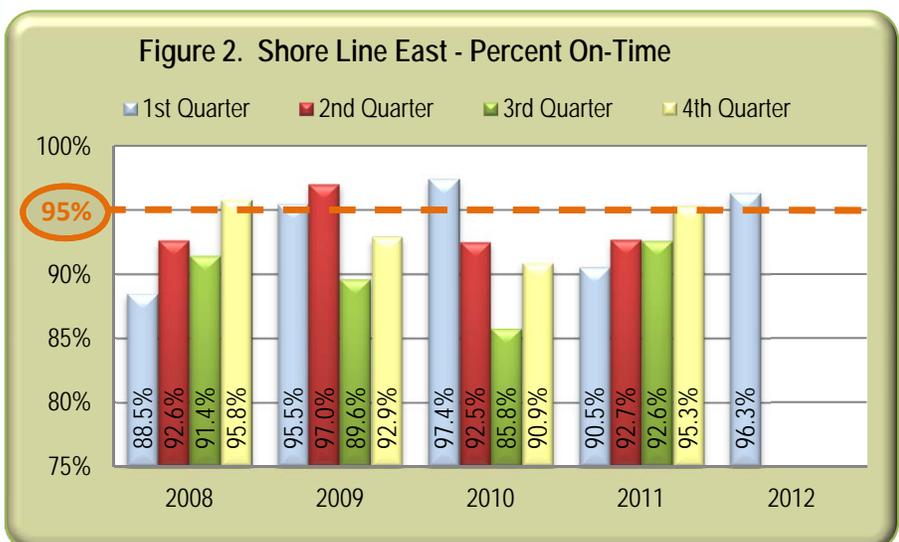
Performance Measure(s)	Target Value:	Current Value: (2012-Q1)
Percent of Rail On-Time Performance – New Haven Line (NHL)	97%	98.7%
Percent of Rail On-Time Performance – Shore Line East (SLE)	95%	96.3%

**Discussion of Trend:**

Figures 1 and 2 illustrate the quarterly on-time performance of NHL and SLE for calendar years 2008 through the first quarter of 2012. This quarter the NHL OTP surpassed the 97 percent target. The overall OTP record for the NHL makes this one of the most reliable heavy-rail commuter services in the U.S.



The SLE OTP target of 95 percent was met again this quarter. AMTRAK is the contracted operator for the SLE service. SLE OTP is dependent upon AMTRAK designated speeds during track and bridge maintenance and repairs.





### Rail Passenger Trips

Mode: Rail  
 Asset/Topic: Passengers  
 Focus: Utilization

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the usage of Connecticut's commuter rail passenger service on the New Haven Line (NHL) and the Shore Line East (SLE). CTDOT is committed to improving rail service through a significant investment in new equipment, new rail cars, new train stations, and improved repair facilities. The New Haven Line is one of the busiest commuter lines in North America, carrying over 38 million passengers in 2011. The NHL (operated by Metro North Railroad) serves stations along the shoreline from New Haven to Greenwich and on to Grand Central Terminal in New York City. Shore Line East trains are owned and operated by CTDOT under contract with AMTRAK, to provide daily rail operations from New London to New Haven, with select trains continuing to Bridgeport and Stamford. Additional information about NHL and SLE is available at: [ConnDOT Office of Rails](#)

**Data Statement:**

Data for this measure becomes available for reporting Monthly. The data set used for this posting is through 3/31/2012, which is quarter 1 of calendar year (CY) 2012.

**Source:**

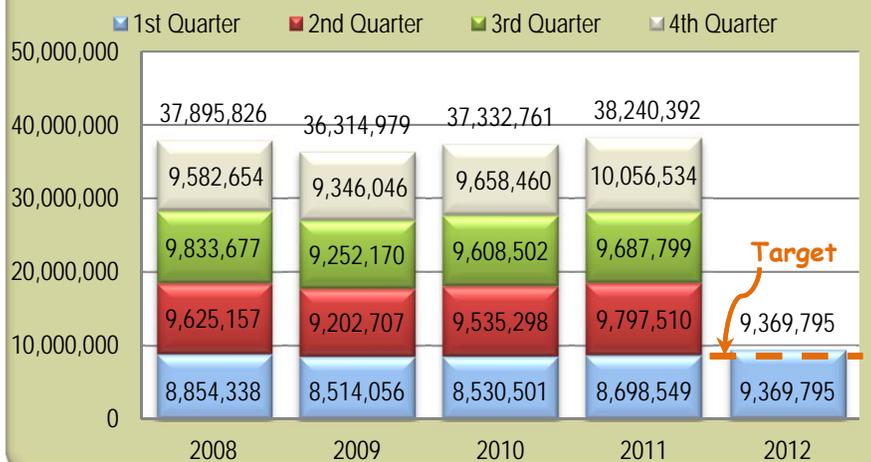
Bureau of Public Transportation – Mr. Eugene Colonese

Performance Measure(s)	Target Value:	Current Value: (2012-Q1)
Number of Rail Passengers – New Haven Line (NHL)	8,854,620	9,369,795
Number of Rail Passengers – Shore Line East (SLE)	138,863	148,664

**Discussion of Trend:**

Figures 1 and 2 provide calendar year (CY) quarterly comparisons for ridership from 2008 through the first quarter of 2012 for the NHL and SLE, respectively. This Quarter there was an increase in ridership of 7.7 percent on the NHL and 9.7 percent on the SLE compared to the same quarter last year. Both the NHL and SLE exceeded their respective targets this quarter

**Figure 1.- New Haven Line - Number of Rail Passengers**



**Figure 2. - Shore Line East - Number of Rail Passengers**





# Miles Between Road Calls (Bus)

Mode: Bus  
 Asset/Topic: Fleet  
 Focus: Condition

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the reliability of CTTransit bus service. Miles Between Road Calls (MBRC) is the industry standard performance metric used nationally by bus operators to measure availability and reliability of equipment. Road calls are traditionally counted when a bus misses one of its scheduled trips. In any given time period, the number of road calls can be affected by the age of the fleet, the occurrence of fleet-wide defects on a certain model or model year of buses, the weather, and other factors.

**Data Statement:**

Data for this measure is reported quarterly based on the Calendar Year (CY). The latest data set used for this posting is through March 31, 2012, which is quarter 1 of CY 2012.

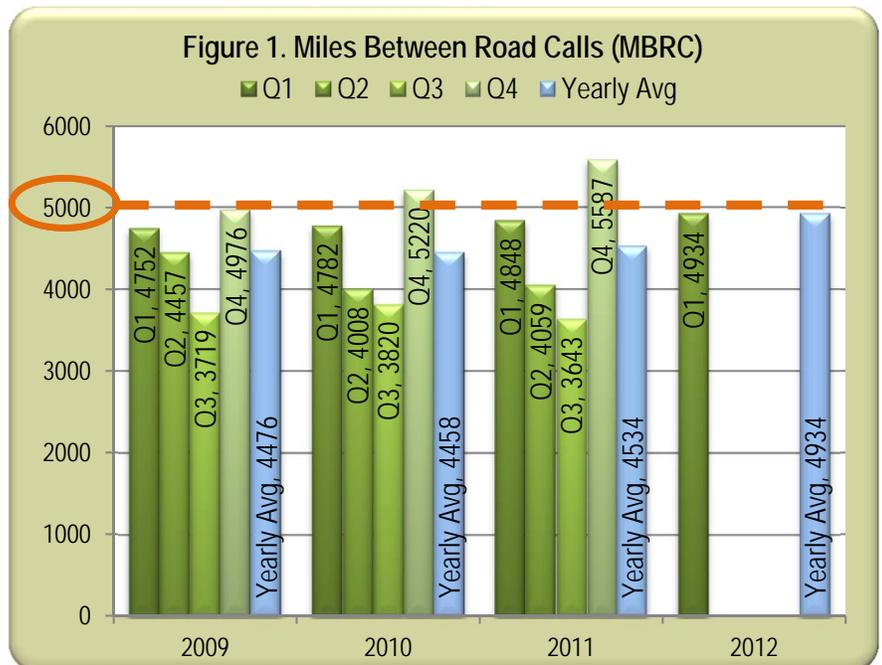
**Source:**

Bureau of Public Transportation – Mr. Michael Sanders

Performance Measure(s)	Target Value:	Current Value: (CY2012-Q1)
Average Miles Between Road Calls	5,000 Miles	4,934 Miles

**Discussion of Trend:**

Figure 1 shows the trend in MBRC for CTTransit buses in the Hartford, New Haven and Stamford Divisions (CTTransit's largest operating divisions), for each quarter of calendar years (CY) 2009 through quarter 1 of 2012. Also shown, is the average of each years combined 4 quarters. The Department has purchased a number of new busses to replace, and supplement, the aging fleet. This commitment should help the Department meet the target of at least 5,000 MBRC.



### Age of Bus Fleet

Mode: Bus  
 Asset/Topic: Fleet  
 Focus: Condition

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the average age of Connecticut's transit fleet of buses. The average age statistic is important, as older buses tend to require a higher level of maintenance to keep them operating efficiently and reliably. As the owner of the CTTransit bus system, the CTDOT purchases capital assets through the State procurement process for the majority of the local transit, Americans with Disabilities Act (ADA) paratransit and commuter express operations. The expected life of heavy-duty transit buses is 12 years. The Federal Transit Administration (FTA) uses a guideline that full-sized heavy-duty transit buses are eligible for replacement at 12 years of age. Under an ideal situation, one-twelfth of the bus fleet would be replaced every year, with an average fleet age of 6 years, which is the performance target value. Due to financial constraints, the Department typically initiates the procurement process for new equipment in year 12, with delivery completed by year 14. Due to variable procurements in the past, the fleet age is not uniformly distributed from new to old (0 to 12 years), but rather is concentrated in certain age ranges.

**Data Statement:**

Data for this measure becomes available for reporting annually in December for the current Calendar Year. The latest data set used for this posting is through 12/31/2011.

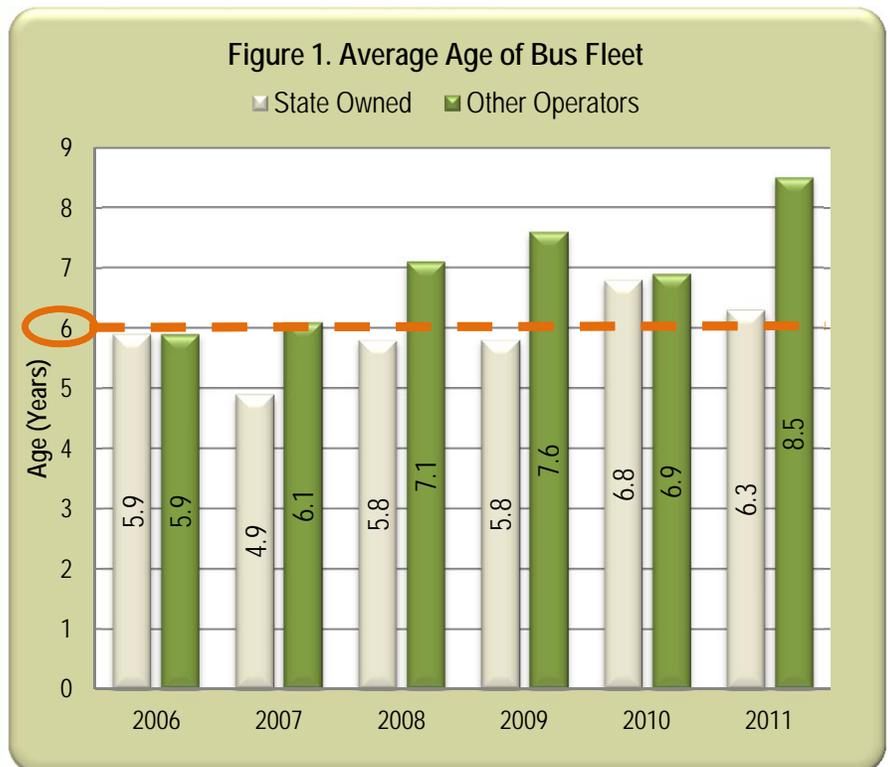
**Source:**

Bureau of Public Transportation – Mr. Michael Sanders

Performance Measure(s)	Target Value:	Current Value: (CY2011)
Average Age of Bus Fleet (State Owned Fleet)	6 Years	6.3 Years
Average Age of Bus Fleet (Transit District Owned Fleet)	6 Years	8.5 Years

**Discussion of Trend:**

Figure 1 shows the average age of buses for both State owned and Transit District operators, for calendar years 2006 through 2011. The target is to maintain an average fleet age as close to 6 years old as possible without going too far over or under that mark.





# CTTransit Passenger Trips

Mode: Bus  
 Asset/Topic: Passenger  
 Focus: Utilization

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks passenger ridership on the CTTransit fleet. Each person boarding a bus is counted as one passenger trip. CTTransit provides fixed-route bus service for Hartford, New Haven and Stamford. In the greater Hartford area, commuter express bus service from surrounding areas is also provided by CTTransit. CTDOT has consistently run advertising campaigns to market the bus systems, and has been increasing service options and coverage. Use of newer, cleaner, more energy efficient hybrid electric, low sulfur diesel, and hydrogen fuel cell buses also has made "taking the bus" a more attractive and 'greener' option. Additional information on transit can be found at <http://www.cttransit.com>.

**Data Statement:**

Data for this measure becomes available for reporting quarterly. Although the actual target for this measure a cumulative total for the entire calendar year (CY), it is divided by 4 to approximate a quarterly target. The latest data set used for this posting is through 3/31/2012. The data provided is for CTTransit's Hartford, Stamford and New Haven Divisions only.

**Source:**

Bureau of Public Transportation – Mr. Michael Sanders

Performance Measure(s)	Target Value:	Current Value: (CY2012-Q1)
Number of CTTransit Passenger Trips	25,000,000 / year (Approx. 6,250,000/qtr.)	6,879,027

**Discussion of Trend:**

Figure 1 shows the CTTransit quarterly ridership data for calendar years 2007 through the first quarter of 2012. Ridership this quarter surpassed the approximate quarterly target of 6,250,000 passenger trips and was higher than it has been in the same quarter of the previous 5 years. The yearly target of 25 million passenger trips has been met 4 out of the past 5 calendar years.



### Agreements Executed in Under 60 Days

Mode: Administration  
 Asset/Topic: Agreements  
 Focus: Operations

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description:**

This measure tracks the improvement in the processing and execution of various types of agreements that the Department enters into. CTDOT executes a large number of agreements annually including: consultant agreements for architectural, engineering, planning, surveying; force account; local bridge; municipal design and construction; maintenance encroachment; traffic signals and railroad grade crossings; rights of way; utilities; rail leases; public transportation operating; grants; ground transportation; air carriers; concession license, etc. The time it takes to execute an agreement is critical to project schedules, funding, project costs and convenience to the traveling public.

**Data Statement:**

Data for this measure becomes available for reporting quarterly based on State Fiscal Year (SFY). The latest data set used for this posting is through 3/31/2012.

**Source:**

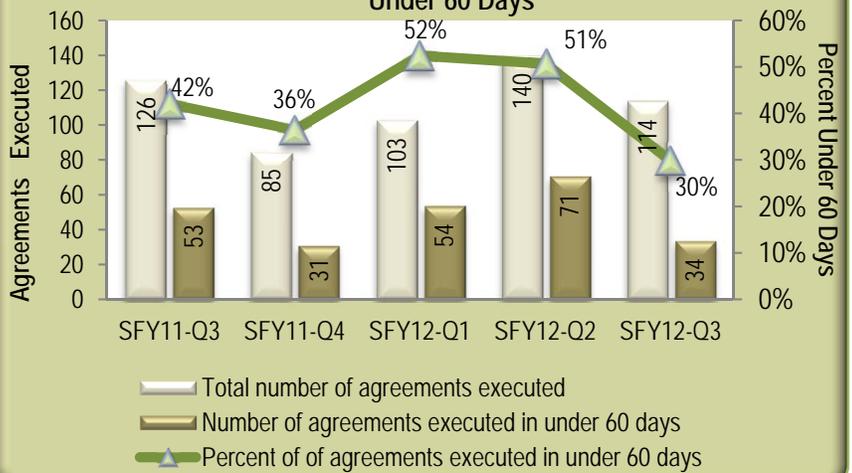
Bureau of Finance and Administration – Mr. Charles Roman

Performance Measure(s)	Target Value:	Current Value: (SFY2012-Q3)
Percent of Agreements Executed in Under 60 Days	Increase Percentage	30% (44.5% YTD)

**Discussion of Trend:**

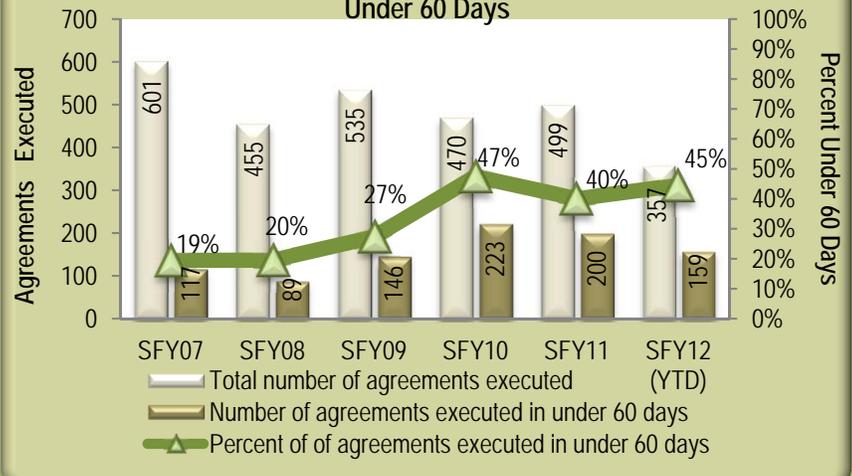
This quarter there were 114 total agreements executed. Of which 34, or 30 percent, were executed in under 60 days (Figure 1).

**Figure 1. Quarterly Total Number of Agreements Executed and Number and Average Percent Executed in Under 60 Days**



Through the first three quarters of SFY 2012, the Department executed 159 out of 357 total agreements or 45% percent in under 60 days (Figure 2).

**Figure 2. Yearly Total Number of Agreements Executed and Number and Average Percent Executed in Under 60 Days**



### Construction Contracts Awarded

Mode: Administration  
 Asset/Topic: Contracts  
 Focus: Project Delivery

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the progress of awarding construction contracts once the bids have been received. The Department of Transportation executes a significant number of construction contracts annually. These contracts involve the construction of roads, bridges, buildings, transportation-related public works projects, demolition, or other transportation-related matters. The timely execution of contracts is critical not only to ensure a safe and efficient infrastructure for the traveling public but also to disburse funds quickly and minimize overall project costs.

**Data Statement:**

Data for this measure becomes available for reporting quarterly based on the State Fiscal Year (SFY). The latest data set used for this posting is through March 31, 2012, which is quarter 3 of SFY12.

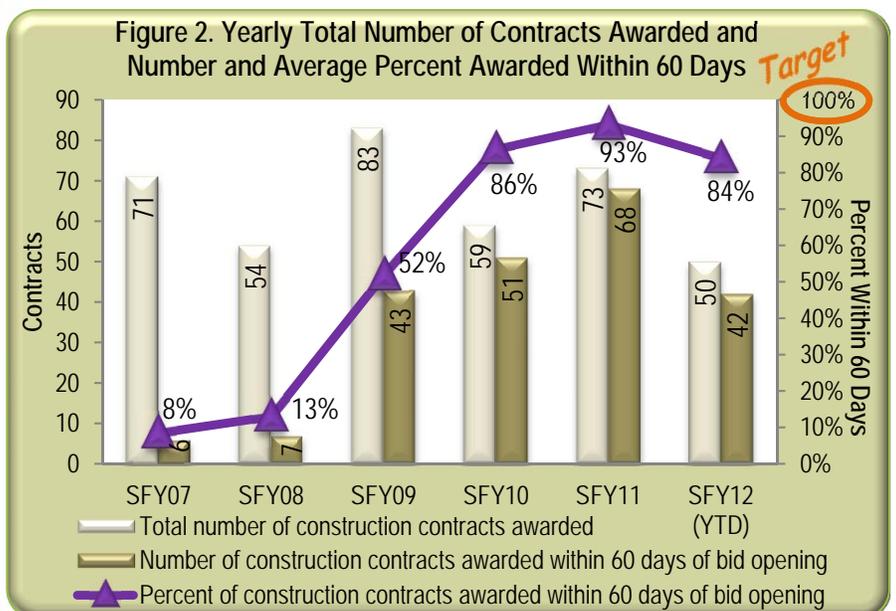
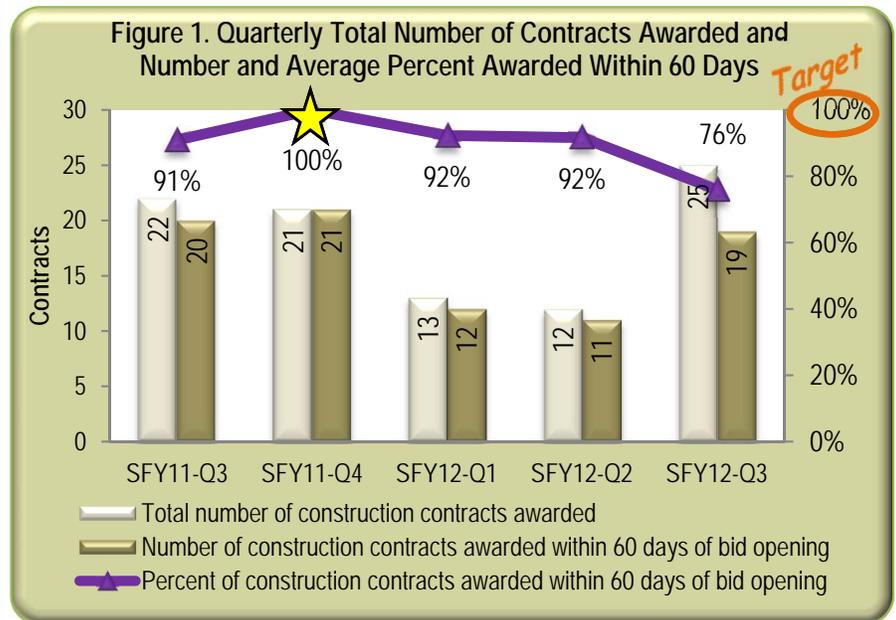
**Source:**

Bureau of Finance & Administration – Mr. Charles Roman

Performance Measure(s)	Target Value:	Current Value: (SFY2012-Q3)
Percent of Construction Contracts Awarded Within 60 Days of Bid Opening	100%	76%

**Discussion of Trend:**

This quarter 19 out of 25 (76 percent) construction contracts were awarded within 60 days of the bid opening. (Figure 1). To date this SFY there has been 50 contracts awarded, 42 of which (84 percent) were awarded within 60 days of the bid opening (Figure 2). The previous 3 years has shown a significant decrease in the time it takes to award a construction contract over earlier years.



### Construction Projects Completed On-Time & Within Budget

Mode: Administration  
 Asset/Topic: Contracts  
 Focus: Project Delivery

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure compares the cost of completed projects with the original contract budget. The original contract budget is defined as the awarded original contract value plus 10% contingency. Projects are accepted when all construction work has been satisfactorily completed, and all required documentation has been submitted and approved. This measure also tracks the percentage of CTDOT Construction contracts that were completed on time, which is defined as time within 100 percent of the original scheduled duration in calendar days, as specified in the contract. There were thirty-four (34) contracts completed during this quarter. These include contracts for Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and Federal Aviation Administration (FAA) construction projects

**Data Statement:**

Data for this measure becomes available for reporting quarterly based on calendar year. The latest data set used for this posting covers the time period from 1/1/2012 through 3/31/2012.

**Source:**

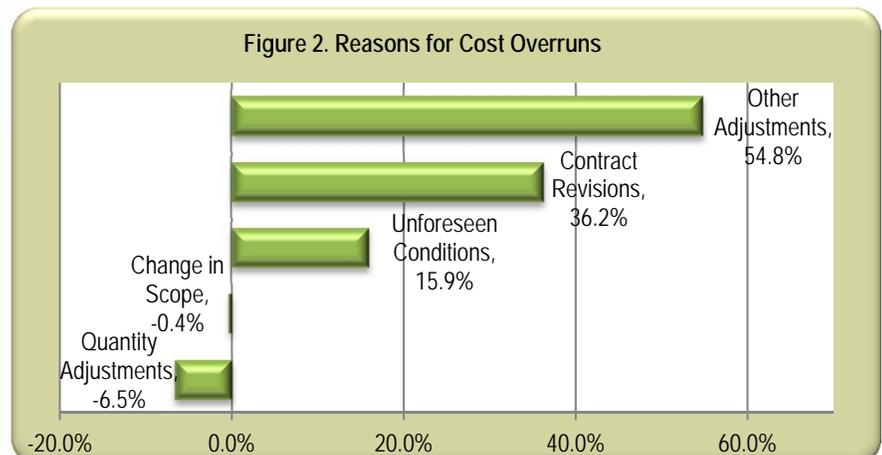
Bureau of Engineering & Construction – Mr. James P. Connery, P.E.

Performance Measure(s)	Target Value:	Current Value: (CY 2012 Q1)
Percent of Construction Contracts Completed Within Budget	Increase Percent	76%
Percent of Construction Contracts Completed On-time	Increase Percent	62%

As shown in Figure 1, of the thirty-four (34) contracts completed during the 1st Quarter of 2012, seventy-six percent (76%) were within budget and sixty-two percent (62%) were on time.



Figure 2 shows the trend analysis for the cost overruns and underruns. The Department efforts to minimize cost overruns on contracts, include being proactive in design phase reviews to address constructability issues, encourage contractor's innovative ideas and value engineering.



### Construction Projects Completed On-Time / Within Budget

**Change Order Reasons-Definitions:**

**Contract Revisions** – Changes in the original design initiated by design or construction which fall within the original scope of the project and do not alter the basic character of the project.

**Other Adjustments** – Revisions to the contract or plans to correct foreseeable changes which reasonably could have been expected, such as work shown on the plans for which no pay item was provided, contract revisions to comply with Environmental permits or Rights of Way agreements, and an elevation bust resulting in extra work to correct.

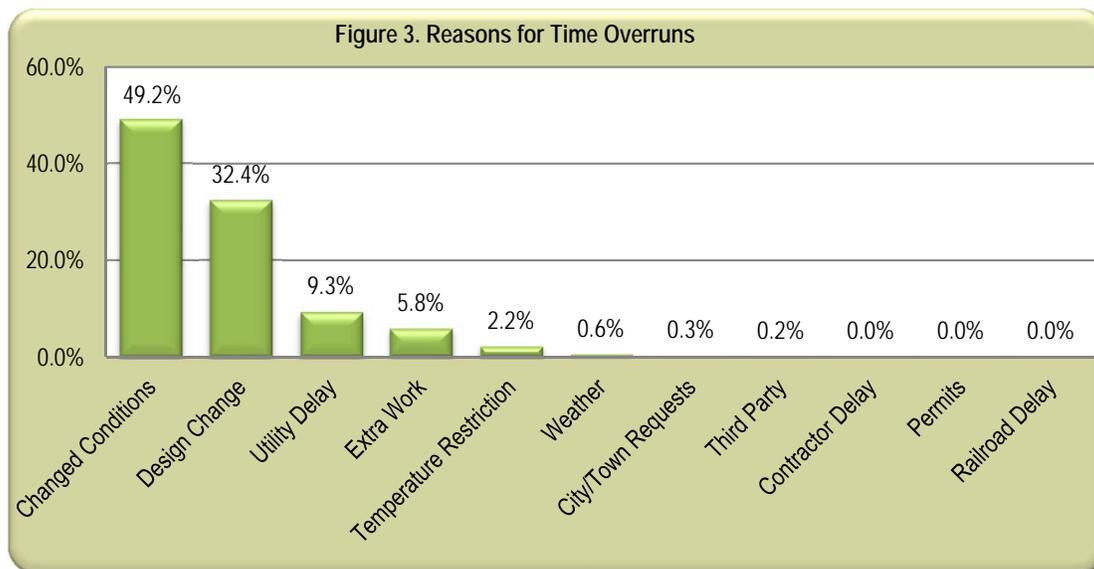
(Includes Incentives/Disincentives, Liquidated Damages, Material Adjustments, R.O.W., etc.)

**Quantity Adjustments** – Minor increases or decreases less than 10% of the original quantities, and the value is less than \$5000.00, which are not attributable to any of the above explanations.

**Unforeseen Conditions** – Additional work necessitated by encountering reasonably unforeseeable conditions which differ materially from those indicated in the contract, or unusual conditions differing from those normally encountered.

**Change in Scope** – Changes from the original intent or purpose of the project, extension of projects limits, elimination of contract work, and work not normally associated with the type of work originally bid.

Figure 3 shows an analysis of reasons for time overruns. CTDOT efforts to reduce time overruns on contracts include: improve coordination of contract activities; improve utility relocation efforts; improve communication with various stakeholders; closely monitor performance of construction activities and address issues in a timely manner.



**Time Extension Reasons-Definitions:**

**Changed Conditions**- Delays caused by subsurface or latent field conditions that could not have been known before construction, or unusual underground soil conditions.

**Utility Delay**- Construction delayed waiting for utility companies to move their facilities.

**Extra Work**- Additional work made necessary by Engineer’s changes of the Contract plans or specifications, which was not contemplated in the original contract work.

**Design Change**- Foreseeable work that was either the result of a defect in the original design or not included in the contract.

**Third Party**- Any delay caused by the actions of a third party not more specifically defined in any other category, such as an owner of adjacent property, manufacturers, suppliers.

**Weather**- Delays due to allowed work that cannot be completed due to period of unusual weather.

**Permits**- Construction delays due to time required to modify or issue a permit such as Army Corp., DEP, United States Coast Guard, local Conservation Commission, etc.

**Railroad Delay**- Delays caused by railroad companies.

**Temperature Restriction**- Delays due to restriction for temperature sensitive materials.

**Contractor Delay**- Delays caused solely by the Contractor and Liquidated Damages were assessed.

**City/Town Requests**- Requests made by a municipality during construction for work not included in the contract.

### Project Closeouts

Mode: Administration  
 Asset/Topic: Finance  
 Focus: Operations

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

*This measure tracks the progress made on the project closeout of Federal Highway Administration (FHWA) funded projects.* The Department seeks to closeout projects and release unused state and federal funds for obligation on new projects. When projects are requested for closeout by project managers, they are put on an assignment list for project closeout and final voucher. With the transition to the State's new financial management system (Core-CT) and the implementation of a new federal billing system, the Department was unable to closeout FHWA funded projects efficiently for several years. In October 2008 a project closeout team, with representatives from the Department's operational areas and FHWA, identified a number of projects that were candidates for closeout. The Department also initiates many new projects each year. The goal is, with experience and an appropriate amount of resources, the Department will begin to closeout more projects than are initiated in a year.

**Data Statement:**

Data for this measure becomes available for reporting quarterly based on State Fiscal Year (SFY). Although the actual target for this measure a cumulative total for the entire SFY, it is divided by 4 to approximate a quarterly target. The latest data set used for this posting is through March 31, 2012 or quarter 3 of SFY12.

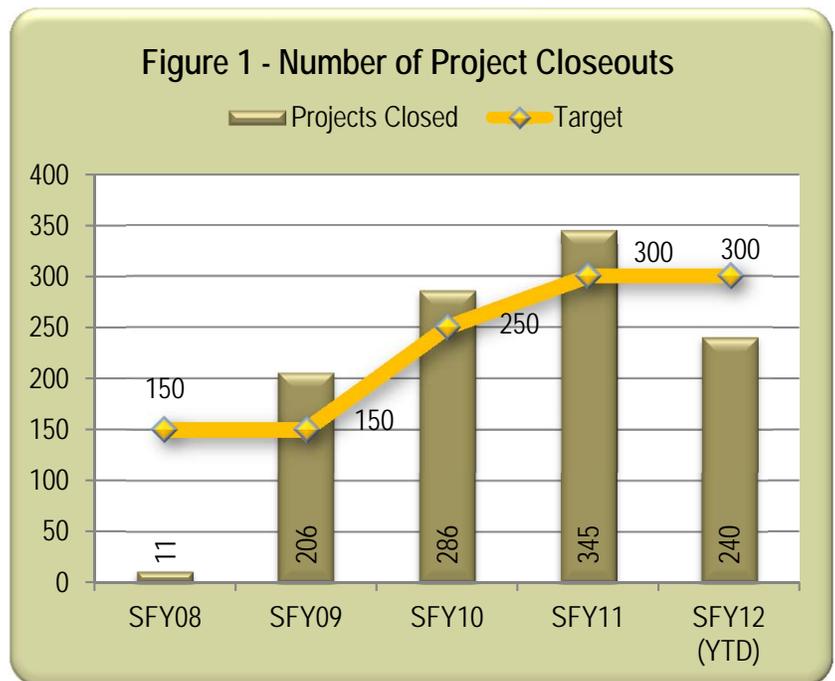
**Data Source:**

Bureau of Finance & Administration - Mr. Robert Card

Performance Measure(s)	Target Value:	Current Value: (Through SFY12-Q3)
Number of Project Closeouts	300 for SFY 2012 (Approx. 75/Qtr.)	240 (76 Q3)

**Discussion of Trend:**

The Department is moving forward and making significant progress with the Project Closeout and Final Voucher Initiative. In the third quarter of SFY 2012, 76 projects have been closed bringing the bringing the year to date total for SFY 2012 to 240. (Figure 1). For SFY 2012 the goal will remain at 300. The need for more Final Voucher adjustments is apparent, but business process improvements that were made should help minimize the impact of this increase. During Q3 of SFY 2012 the Department transitioned to using newly trained staff for preparing the Final Vouchers, after the retirement of the employee responsible. Also, additional staff have been brought into the process. Currently the number of projects that have expired federal authorization is approximately 968 and will become candidates for closeout in the future. Since the closeout initiative started in Oct 2008, 1,096 projects have been closed through March 31, 2012. There are 55 Final Vouchers prepared and proceeding through the closeout process and 315 assigned for Final Voucher preparation as of May 5, 2012.





# CT Recovery Projects Completed On-Time

Mode: Administration  
Asset/Topic: CT Recovery  
Focus: Project Delivery

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the percent of CTDOT American Recovery and Reinvestment Act (ARRA) 2009 projects that are completed before, or within 30 days beyond, the original scheduled contract completion date. There are a total of 173 projects that were allocated under ARRA. Excluding projects sub-allocated to regional planning agencies, there are 71 projects being tracked here. These include projects for highways, bridges, enhancements, transit and rail. Only projects funded from the original ARRA allocation are included here. Additional information on all CTDOT Recovery projects can be accessed on the website at [www.ct.gov/dot](http://www.ct.gov/dot)

**Data Statement:**

Data for this measure becomes available monthly. The latest data set used for this posting is through March 31, 2012.

**Source:**

Office of the Commissioner – Mr. Philip Scarozzo

<i>Performance Measure(s)</i>	<i>Target Value:</i>	<i>Current Value: (CY2012-Q1)</i>
CT Recovery – Percent of Stimulus Projects Completed On-Time	Maximize %	79%

**Discussion of Trend:**

On-time completion of projects indicates how well CTDOT adheres to project schedules. Some project delays are inevitable, as unexpected events or unforeseen work can be encountered once a project is started that are outside the control of CTDOT, or were impossible to predict in advance. Under these circumstances the anticipated scheduled completion dates are extended. The data presented in Table 1 is based on the actual completion date compared to the original scheduled completion date, plus a thirty day allowance. Reporting in this manner stresses the importance of making every effort to anticipate unforeseen issues during the design of a project. Fifty-two ARRA projects have been completed to date. Forty-one were completed within thirty days of the original scheduled end date and 14 came in ahead of schedule. Work has begun on all ARRA funded projects.

Total Number of Projects under ARRA	71
# of Projects Awarded to Date	71
# of Projects Completed to Date	52
# of Projects Completed On-Time	41
Percent of Projects Completed On-time	79% (41 of 52)
# of Projects Completed Ahead of Schedule	14



# CT Recovery Dollars Expended

Mode: Administration  
 Asset/Topic: CT Recovery  
 Focus: Economic Development

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description:**

This measure tracks the progress being made in spending American Recovery and Reinvestment Act (ARRA) 2009 project dollars. This measure includes ARRA dollars spent on highways, bridges, transit, rail, and enhancements on CTDOT and Regional Planning Agency projects. Additional information on CTDOT Recovery projects can be accessed on the website at [www.ct.gov/dot](http://www.ct.gov/dot) by clicking on the CTRecovery icon.

**Data Statement:**

Data for this measure becomes available monthly. The latest data set used for this posting is through March 31, 2012.

**Source:**

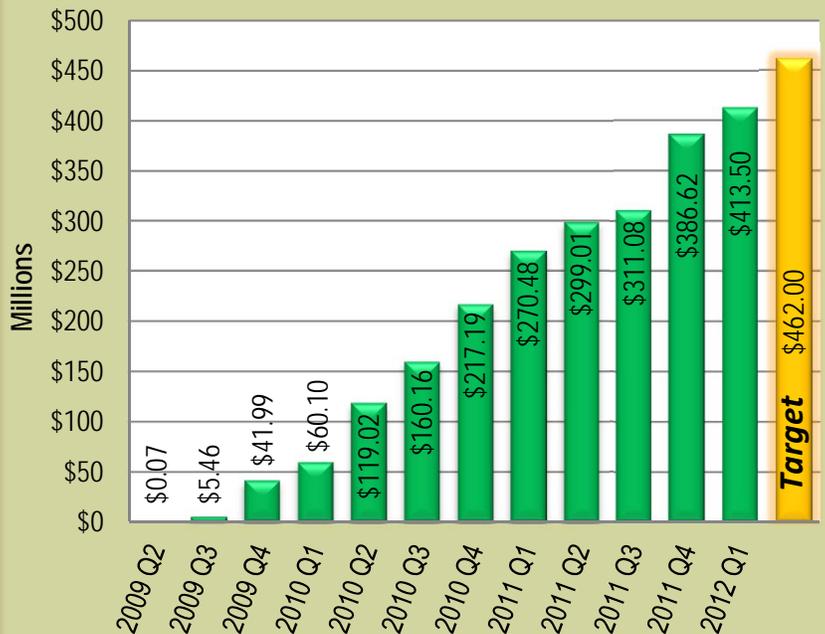
Office of the Commissioner – Mr. Philip Scarozzo

Performance Measure(s)	Target Value:	Current Value: (CY2012-Q1)
CT Recovery – Percent of Dollars Expended	100% (\$462 million)	89.5% (\$413,499,431)

**Discussion of Trend:**

As of December 31, 2011 more than \$386 million (84%) of Connecticut's stimulus funds have been expended on 173 projects that have been awarded. Construction has begun on all of the projects that are funded by ARRA. The full \$462 million allocated to Connecticut, are expected to be expended by early 2014.

Figure 1. Cumulative Dollars Outlaid (Spent) on Recovery Act Projects



### CT Recovery Jobs Created / Sustained

Mode: Administration  
 Asset/Topic: CT Recovery  
 Focus: Economic Development

**Strategic Objective(s):**

- Provide Safe & Secure Travel
- Reduce Congestion & Maximize Throughput
- Preserve & Maintain our Transportation Infrastructure
- Provide Mobility Choice, Connectivity & Accessibility
- Improve Efficiency & Reliability
- Preserve & Protect the Environment
- Support Economic Growth
- Strive for Organizational Excellence

**Purpose & Description :**

This measure tracks the number of jobs created and/or sustained in Connecticut on transportation projects as a direct result of the American Recovery and Reinvestment Act (ARRA) 2009. This measure includes jobs created/sustained with ARRA dollars spent on highways, bridges, transit, rail, and enhancements on CTDOT and Regional Planning Agency projects. This listing is for direct jobs only, and does not include indirect jobs created as a result of material manufacturing and delivery to projects, or jobs that may be created in the local economy as a result of ARRA project employed workers. The statistics for number of jobs created/sustained are supplied by the contractors who employ the workers on active projects. Additional information on CTDOT Recovery projects can be accessed on the website at [www.ct.gov/dot](http://www.ct.gov/dot)

**Data Statement:**

Data for this measure becomes available monthly. The latest data set used for this posting is through March 31, 2012.

**Source:**

Office of the Commissioner – Mr. Philip Scarozzo

Performance Measure(s)	Target Value:	Current Value: (Through 2012-Q1)
CT Recovery – Number of Jobs Created / Sustained	Increase Jobs	53,907

**Discussion of Trend:**

As of March 31, 2012, 53,907 jobs have been created or sustained in Connecticut on ARRA funded projects (Figure 1). This also represents 1,738,851 total job hours created or sustained at a payroll of \$72,347,214 for the job hours created/sustained with Recovery Act funds.

(Note: Jobs reported in Figure 1 are not converted to Full-Time Equivalent positions).

