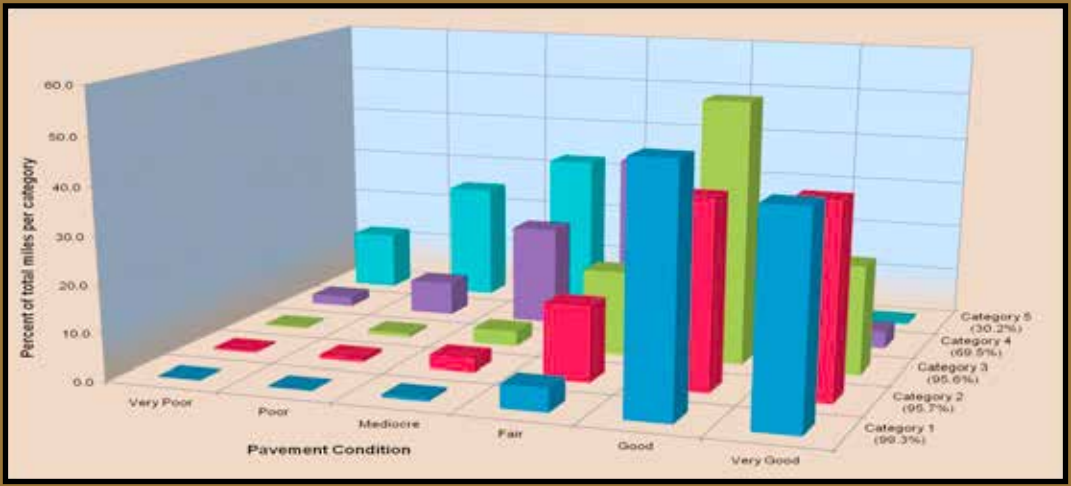
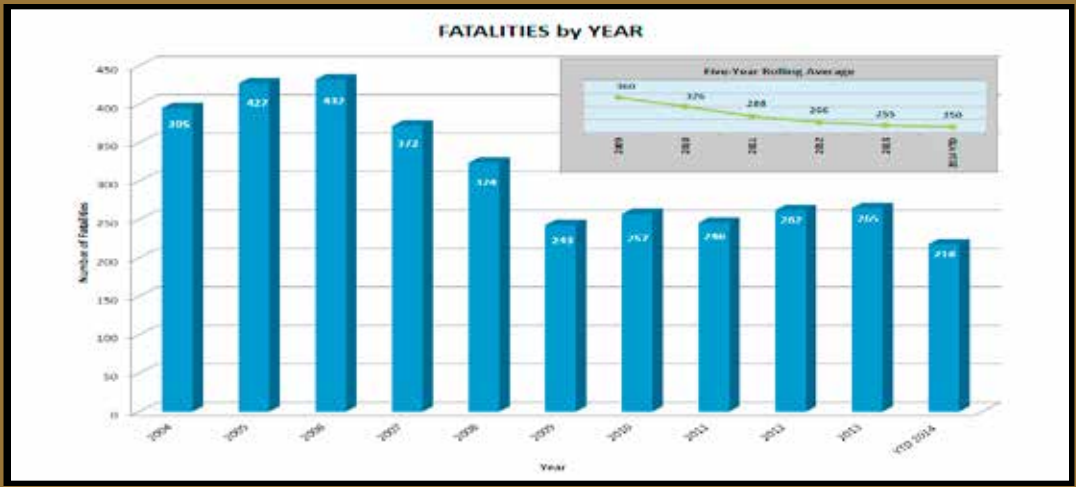
NEVADA DEPARTMENT OF TRANSPORTATION

2014 PERFORMANCE MANAGEMENT REPORT





December 2014

Rudy Malfabon, P.E.
Director

Brian Sandoval
Governor

2014 PERFORMANCE MANAGEMENT REPORT

Prepared by the
Performance Analysis Division
NEVADA DEPARTMENT OF TRANSPORTATION
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State of Nevada Transportation Board Members

Brian Sandoval	Chairman/Governor
Brian Krolicki	Vice Chairman/Lt. Governor
Kim Wallin	State Controller
Tom Skancke	Member - District 1
Frank Martin	Member - District 1
Len Savage	Member - District 2
Tom Fransway	Member - District 3

NDOT Administration

Rudy Malfabon	Director
Bill Hoffman	Deputy Director
Tracy Larkin-Thomason	Deputy Director Southern Nevada
John Terry	Assistant Director Engineering
Reid Kaiser	Assistant Director Operations
Sondra Rosenberg	Assistant Director Planning
Robert Nellis	Assistant Director Administration

NDOT Staff Involved

Peter Aiyuk – Chief Performance Analysis Engineer
Amir Soltani – Chief of Project Management
Anita Bush – Chief Maintenance and Operations Engineer
Jennifer Eyerly – Chief of Administrative Services
Ken Mammen – Chief Traffic-Safety Engineer
Jeff Shapiro – Chief Construction Engineer
Kimberley King –Human Resources Manager
Mark Evans – Training Manager
Oscar Fuentes – Safety Manager
Mark Elicegui – Chief Bridge Engineer
Kenneth Lee – Equipment Superintendent
Paul Saucedo – Chief of Right-Of-Way
Paul Frost – Chief Roadway Design
Natalie Caffaratti – Scoping Manager
Darin Tedford – Assistant Chief Materials Engineer
Sean Sever – Chief of the Communications Office

DEPARTMENT VISION, MISSION, AND GOALS

MISSION, VISION GOALS, and VALUES

MISSION

Providing a better transportation system for Nevada through our unified and dedicated efforts

VISION

The Department is the nation's leader in delivering transportation solutions, improving Nevada's quality of life.

STRATEGIC PLAN GOALS

Optimize safety

Be in touch with & responsive to customers

Innovate

Be the employer of choice

Deliver timely & beneficial projects & programs

Effectively preserve & manage our assets

Efficiently operate the transportation system

CORE VALUES

Integrity – Doing the right thing

Honesty – Being truthful in our actions and our words

Respect – Treating others with dignity

Commitment – Putting the needs of the Department first

Accountability – Being responsible for our actions

INTRODUCTION

NDOT's Performance Management is a collaborative process in which all major divisions of the department are involved in monitoring their annual and ultimate performance targets resulting in a customer-oriented, balanced, effective, efficient, transparent and performance-based decision making process. It is a dynamic process and improvements are incorporated into the performance management process as needed. NDOT's performance management plays a vital role in the performance-based decision making process. It: 1) ensures investment accountability and transparency, 2) tracks and monitors system performance, 3) helps identify and implement efficient and cost effective performance-based programs, 4) links projects to the vision, mission, and goals of the department, 5) helps align performance targets with customer expectations, and 6) helps in delivering high quality projects. The Nevada 2007 Legislative Assembly Bill 595 requires the Department to develop a performance management plan for measuring its performance, which must include performance measures approved by the Board of Directors of the Department. The specific requirements of the Assembly Bill 595 are as follows:

1. **Section 47.2 – Annual Report on Performance Measures and General Project Information**

Prior to December 31 of each year, the Director of the Department of Transportation shall prepare a report as follows:

- Goals and objectives of the department and current status of meeting those goals
- Schedule, scope, cost and progress of any current or proposed highway project
- Funding sources, amount and expenditures of the department
- The rationale used to establish priorities
- Transportation Board and Legislative Directives
- Recommended Plan Amendments

2. **Section 47.3 – Annual Report on Cost-Benefit Analysis for capacity projects that cost at least $25 million (NRS 408.3195).**

The annual report will include the criteria used in the cost-benefit analysis. The resulting benefit/cost ratios will be reported to the Board. Additionally, a written description of the analysis for any project must be submitted to the Board before the Board approves funds for project construction.

3. **Section 55.3 – Annual Report on projects funded through the Las Vegas Convention and Visitors Authority funding.**

The report will include funding, descriptions, status, timelines, and information on the completed projects, if any (NRS 244A.638).

4. **Section 55.5 – Quarterly Report on General Project information for the Blue Ribbon Task Force projects and any proposed super and mega (major) highway projects.**

The report will include funding, descriptions, status, timelines, and information on the completed projects, if any. Submit report to the Governor and the Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee.

PERFORMANCE MANAGEMENT DASHBOARD (EXECUTIVE SUMMARIES)

EXECUTIVE SUMMARY

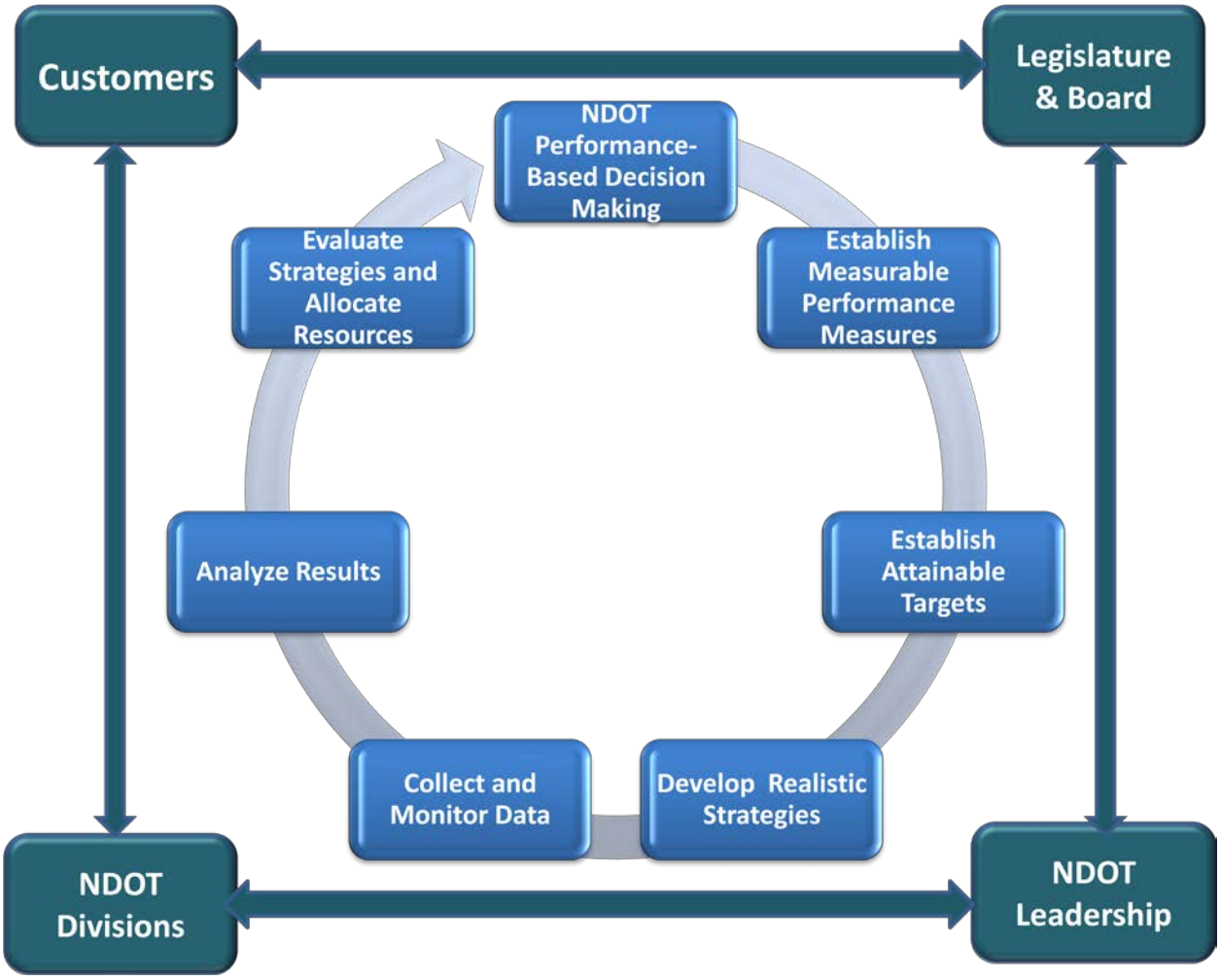
NDOT's Performance Management is a collaborative process in which all the major divisions of the department are involved in monitoring their annual and ultimate performance targets resulting in a customer-oriented, balanced, effective, efficient, transparent and performance-based decision making process. It is a dynamic process and improvements are incorporated into the performance management process as needed. NDOT's performance management plays a vital role in the performance-based decision making process. It 1) ensures investment accountability and transparency, 2) tracks and monitors system performance, 3) helps identify and implement efficient and cost effective performance-based programs, 4) links projects to the vision, mission, and goals and objectives of the department, 5) helps align performance targets with customer expectations, and 6) helps in delivering high quality projects.

NDOT has established 15 performance measures to track, monitor, and report performance of the major divisions and program areas. NDOT's performance management system focuses on the critical aspects of a cohesive, integrated, and performance-driven approach. NDOT's senior management is actively involved in the performance management process and supports the performance management process by conducting quarterly performance management updates to help guide the various program areas in meeting their targets. NDOT's performance management system empowers staff to take ownership of the program, holds staff responsible for their division's performance, helps diagnose and address problems faced by the divisions in meeting their targets, and effectively communicates its performance-based decision making process to the public and the legislature.

In Fiscal year 2014, NDOT continued to monitor its performance-based management process. The performance management dashboard, and the detailed data trends sections of this report provides further information regarding NDOT's performance in Fiscal Year 2014.

NDOT STRATEGIC PERFORMANCE MANAGEMENT PROCESS

NDOTs Strategic Performance Management process is guided by comprehensive input from 1) our customers in the form of surveys and direct two-way communications, 2) the State Legislature and decision makers, 3) leadership, commitment, and support from NDOT top management, and 4) collaborative team support from the major divisions and program areas of NDOT. The process is part of the performance-based decision making process that includes identifying realistic and specific performance measures, establishing measurable and attainable targets, developing comprehensive and effective strategies to help achieve the targets, quarterly data collection and monitoring, and evaluating strategies to help allocate our resources most effectively and efficiently. The following graph shows the performance management process,



PERFORMANCE MEASURES

1. Reduce Work Place Accidents
2. Provide Employee Training
3. Improve Employee Satisfaction
4. Streamline Agreement Process
5. Improve Customer and Public Outreach
6. Reduce and Maintain Traffic Congestion
7. Streamline Project Delivery- Bidding to Construction
8. Maintain State Highway Pavement
9. Maintain NDOT Fleet
10. Maintain NDOT Facilities
11. Emergency Management, Security and Continuity of Operations
12. Reduce Fatal Crashes
13. Project Delivery- Schedule and Estimate for Bid Advertisement
14. Maintain State Bridges
15. Streamline Permitting Process

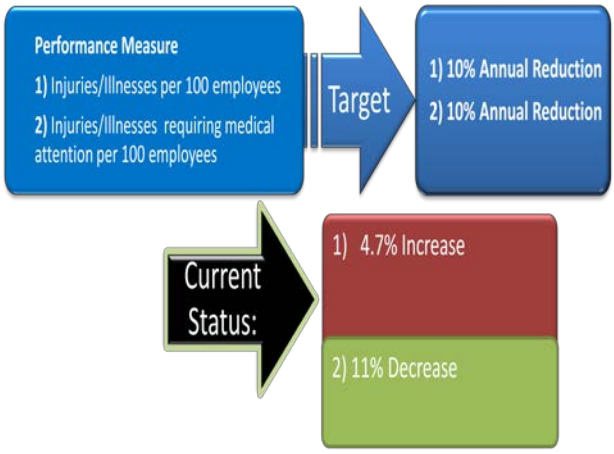
PERFORMANCE DASHBOARD

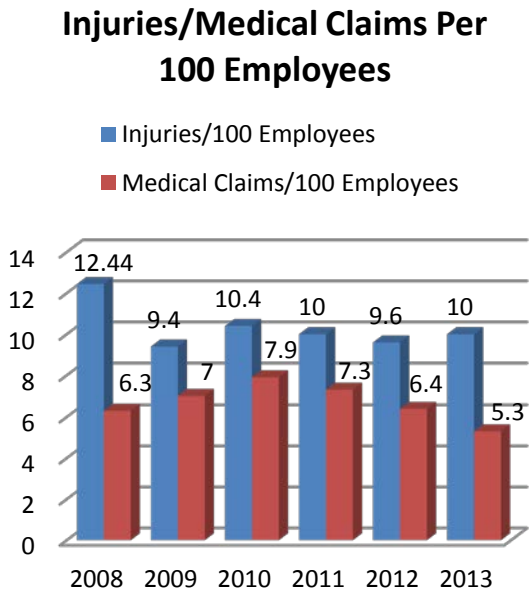
The following Performance Management Dashboard provides an executive summary of each of the 15 performance measures and shows the status of the performance measure in Fiscal Year 2014. Detailed information regarding each performance measure is provided in the "Performance Management Detailed Data Trends" section of this report.

1. Reduce Work Place Accidents

Executive Summary: This Performance Measure has two parts to measure both the rate of work place injuries/illnesses and the severity of employee workplace injuries/illnesses. Comparing Calendar Year 2013 to Calendar Year 2012, work place accidents increased by 4.7 % and medical claims decreased by 11%. The total number of work place injuries increased by 8, while the total number of medical claims decreased by 12. Target one was not met because we attained a 4.7% increase compared to the target of 10% annual decrease, while target 2 was met by achieving 11% decrease compared to the annual target of 10% decrease.

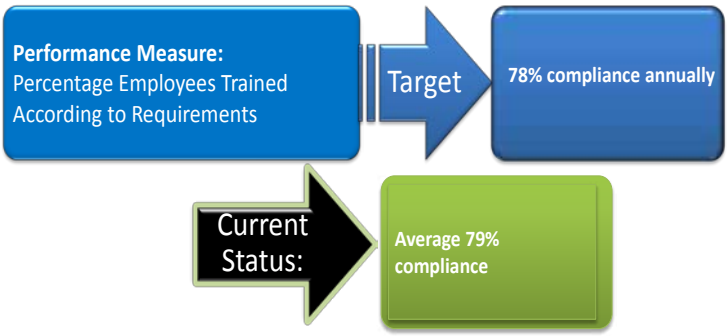
For detailed information about performance measure 1, please refer to page 19.





2. Provide Employee Training

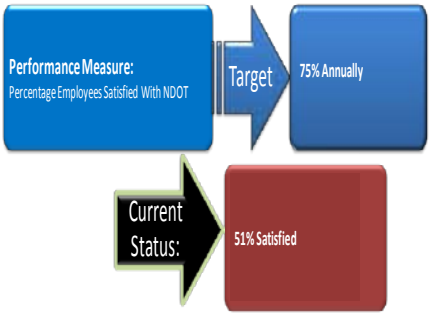
Executive Summary: During FY 2014, 3,527 employees attended required training sessions. The target is 100% compliance overall and the FY14 target was 78%. The average for the 11 required classes was 79% which shows an increase of 9.1% from last fiscal year's average of 69.9%. For detailed information about performance measure 2, please refer to page 24.

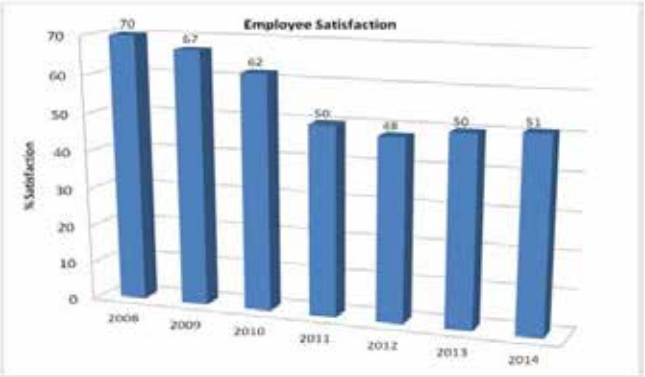


3. Improve Employee Satisfaction

Executive Summary: Percentage of Employees satisfied with the NDOT work environment. The percentage of employees surveyed who are extremely or somewhat satisfied with NDOT is currently 51%.

For detailed information about performance measure 3, please refer to page 29.



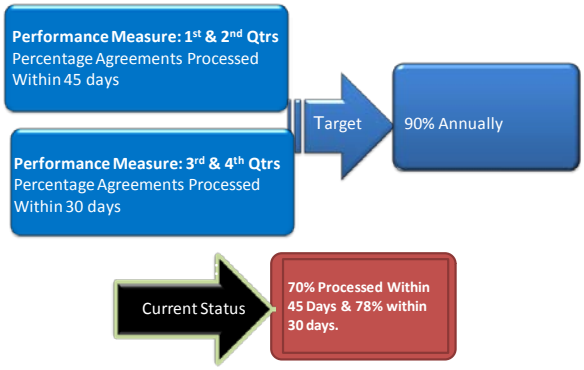


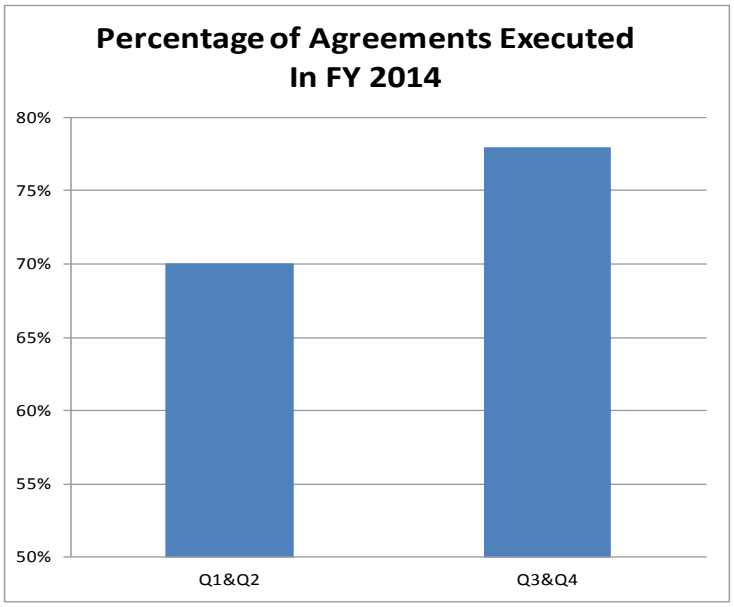
4. Streamline Agreement Process

Executive Summary: During FY 2014 in the 1st & 2nd quarters, NDOT processed 70% of all agreements within 45 days, and in the 3rd & 4th quarters 78% of all agreements were processed within 30 days.

In the 1st and 2nd quarters the average number of calendar days to process an agreement excluding Cooperative and LPA agreements was 27 days, with 84% of agreements executed within 45 days. In the 3rd & 4th quarters the average number of days to execute agreements was 19 days.

For detailed information about performance measure 4, please refer to page 33.





5. Improve Customer and Public Outreach

Executive Summary: In fiscal year 2014 a survey was conducted by the University of Nevada, Las Vegas, sponsored by the NDOT to determine customer satisfaction and rate certain services provided by the department. Survey questions and the responses have been grouped into four major categories which have been weighted. Overall, 71.4% of all citizens surveyed were satisfied with the services provided by the NDOT. For detailed information about this Performance Measure, please refer to page 37.

Customer Satisfaction		Satisfied	Dissatisfied
Congestion	Travel Time	70.52%	12.61%
	Minimize Congestion	57.56%	20.78%
	Congestion Acceptable	68.96%	31.04%
Construction Zones	Safety	64.58%	17.75%
	Notificaton	62.45%	16.55%
	Community	40.86%	20.12%
	Time	30.86%	46.61%
	Overall Completed Work	79.66%	8.77%
Commercial Truck	Rest area	65.17%	18.35%
	Weigh station	58.38%	9.61%
	Warning	71.25%	13.77%
Safety	Debris	77.76%	9.01%
	Striping	66.54%	18.75%
	Signs	77.46%	8.41%
	Lighting	64.28%	16.71%
	Drains	56.40%	17.67%
	Snow	56.50%	6.98%
	Overall Safety	86.53%	13.47%
Efforts to keep drivers aware of issues		68.04%	7.44%
Average		**64.41%**	**16.55%**

		Agree	Disagree
Funding	Fuel Tax	54.86%	18.84%
	Tolls	21.82%	58.17%
	Rush Hour	16.14%	67.07%
	VMT	47.56%	27.21%
	Average	**35.10%**	**42.82%**

	Positive Experience	Not Positive Exp
Contact NDOT	**79.55%**	**20.45%**

6. Reduce and Maintain Congestion Levels on the State Maintained Roadway System

Executive Summary: In the past including FY 2013 NDOT met its goals for system-wide Congestion Monitoring and Tracking System. The monitoring and tracking system was used in determining the congestion on the state maintained roadways in the core urban and rural areas.

At present, the Department is in the process of developing a more practical, simple and robust methodology for Congestion tracking and measurement that will also enable and identify locations within the State network system that experience higher than the threshold congestion levels. Performance Analysis Division is working with Traffic Operations and Traffic Information Divisions in formulating this new approach.

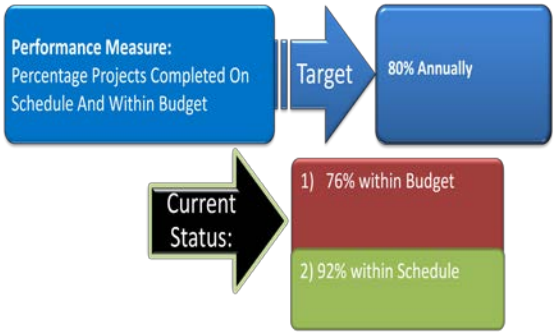
For detailed information about the last state-wide Congestion Monitoring and Tracking System performance measure, please refer to page 42.

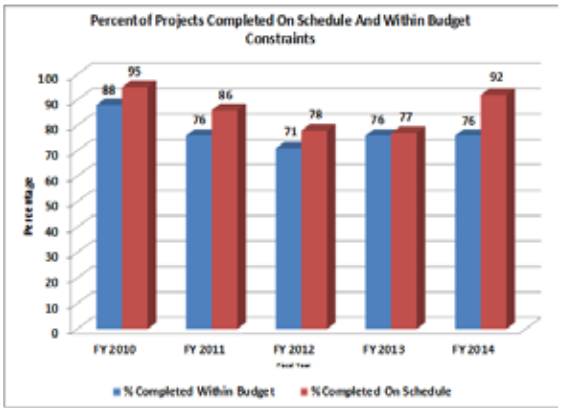
Definition of Level of Service D – Roadways operating at up to 8 miles per hour less than the Free Flow Speed or Posted Speed Limit, and the traffic carrying capacity of the roadway is less than 0.9.

.

7. Streamline Project Delivery – Bid Opening to Construction Completion

Executive Summary: During FY 2014, NDOT kept 92% of its projects on schedule and 76% of the projects within budget on average. For detailed information about performance measure 7, please refer to page 44.

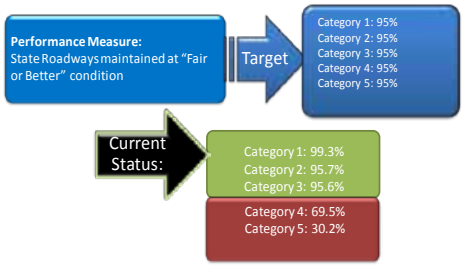


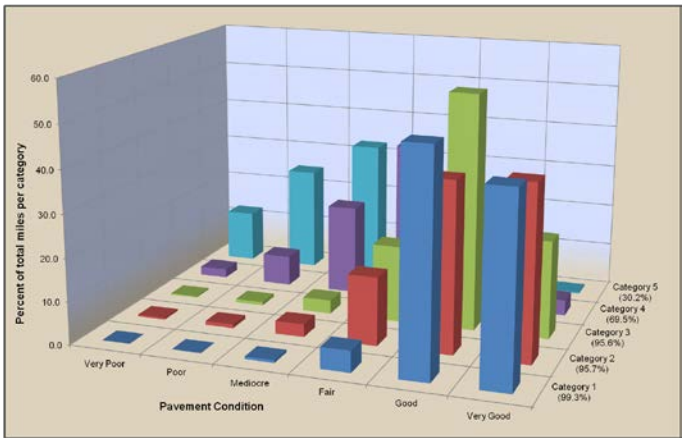


8. Maintain State Highway Pavement

Executive Summary: This Performance Measure is reported by calendar year. During Calendar Year 2013, NDOT was unable to address the needs of categories 4 and 5 roadways to bring them up to the minimum condition target of 95%. Categories 1, 2, and 3 all met their performance target.

For detailed information about performance measure 8, please refer to page 48.

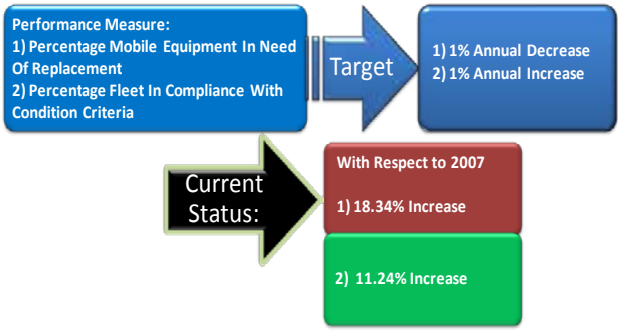


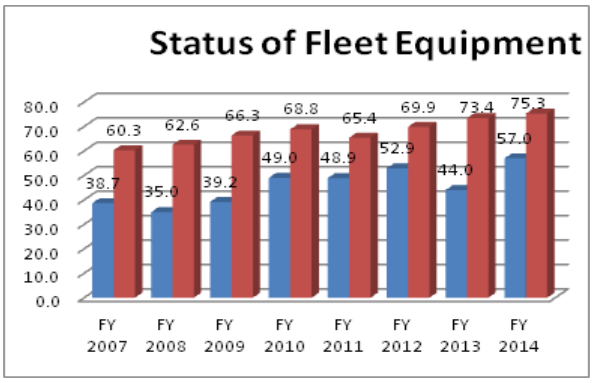


9. Maintain NDOT Fleet

Executive Summary: During FY 2014, the percentage of the NDOT mobile equipment fleet requiring replacement increased by 13% over the prior year. The percentage of the fleet in compliance with preventive maintenance requirements to ensure the expected life of our vehicles is not compromised increased by 1.9% over the prior year. Performance measure 1 was not met, while Performance Measure 2 was met.

For detailed information about performance measure 9, please refer page 56.

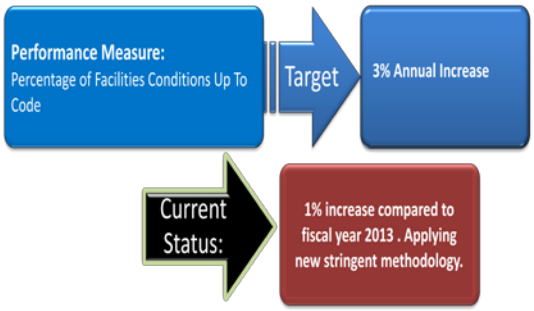


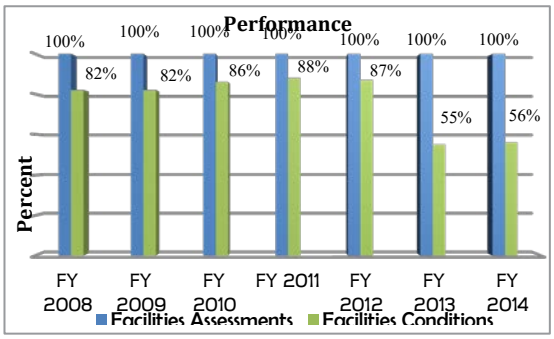


10. Maintain NDOT Facilities

Executive Summary: During FY 2013, NDOT incorporated a new method to measure the performance of the facility conditions that included finer details that did not exist before. This new methodology impacts comparative analysis of data if tracked prior to 2013. For fiscal year 2014, there was a 1% increase of percentage of facilities conditions up to code compared to fiscal year 2013. This fell short of the target of 3% annual increase.

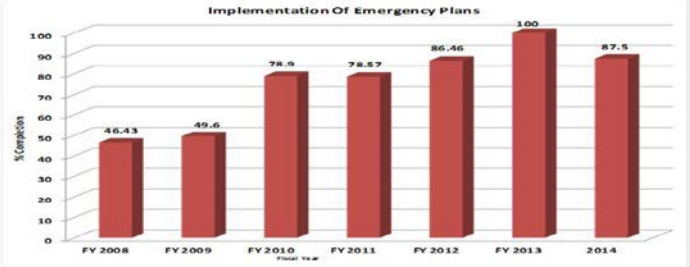
For detailed information about performance measure 10, please refer to page 59.





11. Emergency Management, Security, and Continuity of Operations

Executive Summary: Our performance measures require us to train, exercise and update our Emergency Operations and Security Plans on a two year cycle. We have combined several plans into two which has made it easier for Department personnel to locate, use and understand the plans. For fiscal year 2014 we achieved 87.5% compliance level, which did not meet our goal for the year of 100% compliance. For detailed information about performance measure 11, please refer to page 64.

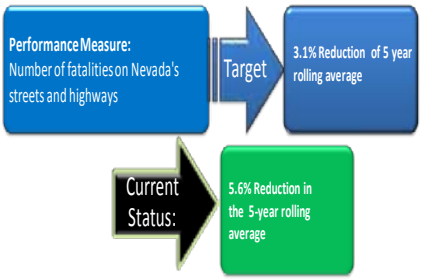


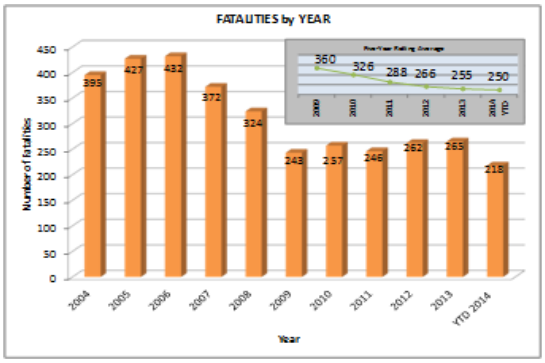
12. Reduce Fatal Accidents

Executive Summary: During FY 2014, NDOT continued to work with our partners to implement the strategies of the Strategic Highway Safety Plan. For fiscal year 2013, the five year rolling average of fatalities was 255 compared to the pre-set target five year rolling average of 270. This led to a 5.6 percent decrease in fatalities which is higher than the Performance Measure target of 3.1% reduction of five year rolling average.

Because of the lag in fatal data information, the data presented for this Performance Measure is a recalculation of 2013 data and YTD 2014 data. The complete FY 2014 data will be provided in the 2015 Performance Management Report.

For detailed information about performance measure 12, please refer to page 70.

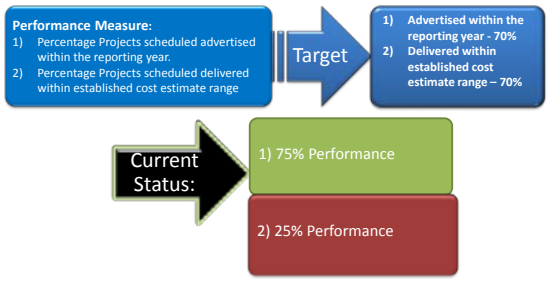


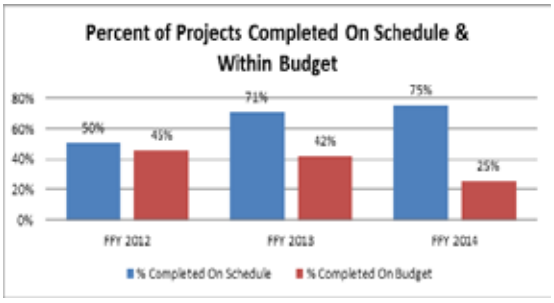


13. Streamline Project Delivery - Schedule and Estimate for Bid Advertisement

Executive Summary: This performance measure has been established as the percentage of scheduled projects advertised within the reporting year and the percentage of scheduled projects within the established construction cost estimate range.

For detailed information about performance measure 13, please refer to page 74.

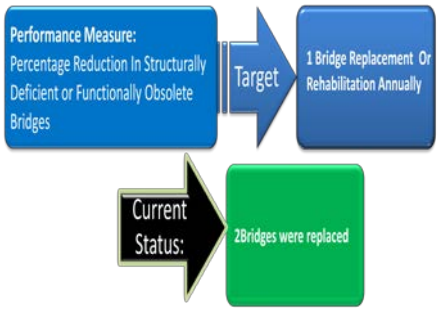


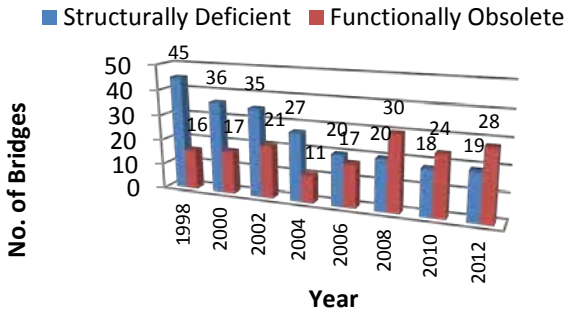


14. Maintain State Bridges

Executive Summary: During calendar year 2013, NDOT rehabilitated 2 bridges which were functionally obsolete.

For detailed information about performance measure 14, please refer to page 80.



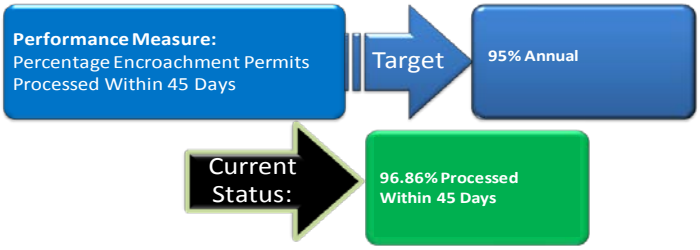


*Graph based on 2013 Preservation Report data

15. Streamline Permitting Process

Executive Summary: During FY 2014, NDOT Right-Of-Way Division processed 96.86% of encroachment permits within 45 days. Transportation Policy (TP) 10-1-3 ENCROACHMENT PROCESSING TIME SCHEDULE is to ensure timely and quality service for NDOT encroachment permit customers.

For detailed information about performance measure 15, please refer to page 87.



DETAILED PERFORMANCE MANAGEMENT DATA

1. REDUCE WORK PLACE ACCIDENTS

Performance Measure:

The rate of injuries is reported as the number of work place injuries and illnesses (i.e. number of C-1 forms filed) per 100 employees and number of injuries and illnesses requiring medical attention (i.e. number of C-3 forms filed) per 100 employees as documented through annual OSHA 300 Log Reporting data. Data is based on calendar year per federal reporting requirements.

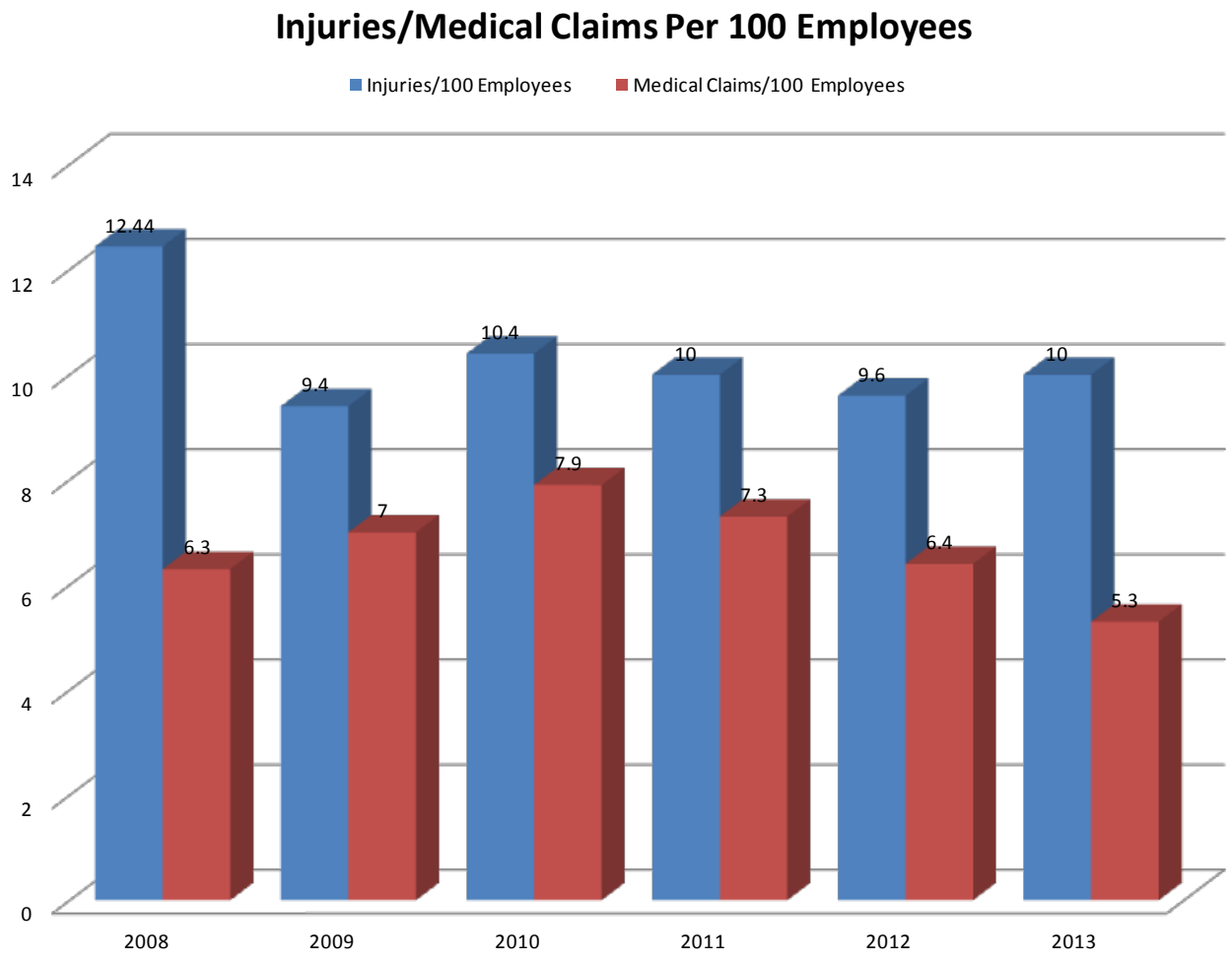
Annual Target: 10 % Reduction **Ultimate Target:** Zero

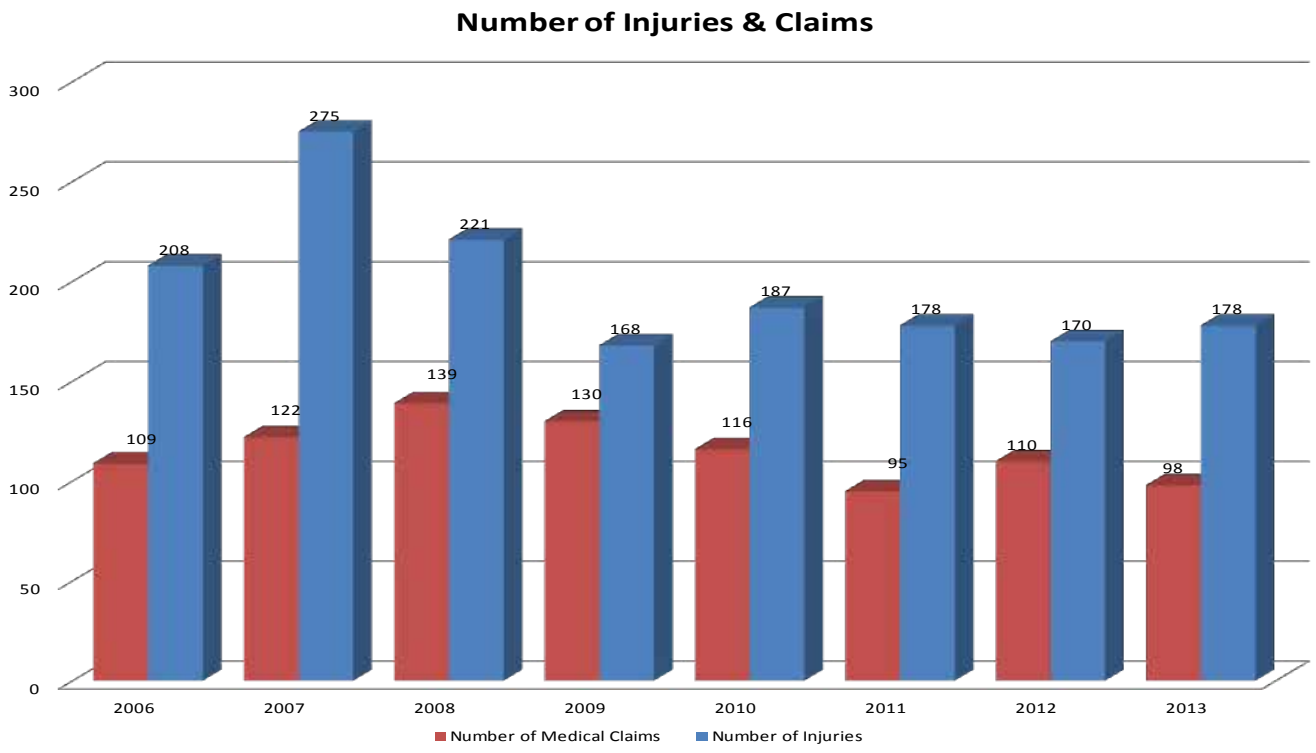
Strategy Plan Support:

Safety extends to all aspects of the Department from the roadways to the office. Identifying and reducing risk to the Department, our employees and the public is continuous. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize Safety and Be the Employer of Choice.

Measurement and Supporting Data:

Calendar Year	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
Total # of Injuries	221	168	187	178	170	178
# Injuries/All Employees	12.44%	9.4%	10.4%	10%	9.61%	10%
Total # Medical Claims	139	130	116	95	110	98
Medical/Employees	7.9%	7.3%	6.4%	5.3%	6.2%	5.51%
Average Claim Cost	$8,680	$8,984	$7,361	$10,051	$9,192	$12,273
Average # Employees	1768	1785	1798	1783	1769	1777


Injuries/Medical Claims Per 100 Employees
Injuries/100 Employees
Medical Claims/100 Employees
14
12
10
8
6
4
2
0
12.44
6.3
9.4
7
10.4
7.9
10
7.3
9.6
6.4
10
5.3
2008
2009
2010
2011
2012
2013


Number of Injuries & Claims
300
250
200
150
100
50
0
109
208
122
275
139
221
130
168
116
187
95
178
110
170
98
178
2006
2007
2008
2009
2010
2011
2012
2013
Number of Medical Claims
Number of Injuries

The annual Baseline is the average of 2008 through 2013. Data is reported on a calendar year pursuant to federal OSHA reporting and State total is the average number of employees during any given quarter or year. Claim costs include all medical expenses and any reserves. The number of injuries reported by the end of CY2013 indicates that the injury rate is 96%of CY2012. The target to reduce injuries by 10% was not met by the end of the year for total injuries, but injuries were reduced by 4%.

The majority of injuries sustained in CY2013 were due to lifting, struck by, and slip and falls which are three of the top four causes of injuries per Federal OSHA. The number of struck by claims (14) remained the same for CY2012 and CY 2013. The number of lifting claims went from (13) in CY 2012 down to (12) in CY 2013.

Strategies for Improvement in Calendar 2014

Short range to next reporting:

Continue outreach efforts and supporting the Training Section. Claim costs has been added to the data and the Safety and Loss Control Section has worked diligently with the agencies third-party administration overseen by the State of Nevada Risk Management Division to provide the best medical treatment for the agencies employees and methods to control costs. Strategies may include analysis to determine whether leading indicators such as the impact of safety training could be used rather than lagging indicators such as injury data.

Long range:

1) To continue identifying specific safety training that can be conducted by existing staff and take cooperative steps to insure courses are conducted, including Global Harmonization System refresher, CPR/First Aid, New Employee Safety Orientation, and OSHA mandated classes. 2) To take steps to update the worker compensation databases to insure accurate and consistent reporting. 3) As time and resources permit, to continue efforts to develop and distribute an Employee Safety Survey in order to assess the agency's culture or attitude as it pertains to safety; and to evaluate the responses to determine areas of need within the safety program. 4) Increase travel budget for an effective safety presence at construction worksites, maintenance shops, yards and rural locations. The Safety Trainer will conduct safety training classes to all Districts, Divisions, and Maintenance Departments.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Were the targets met? Yes

What 'Strategies for Improvement' were successful?

Increased communications by providing a safety calendar and bi-monthly safety e-mails have increased safety awareness and have prompted an overwhelming input from workers that are committed to improve the safety program. Since filling the vacant Safety/Loss Control Coordinator position in 2009 it increased the safety presence in the field and communications have been well received by all Districts, Divisions, and Maintenance Departments.

As indicated in the CY 2012 performance measures report (13) motor vehicle/heavy equipment accidents were reported. In CY2013 those types of accidents decreased to (3). A joint effort with all Districts was developed to reduce those accidents by conducting additional training and performing frequent pre-trip and post-trip inspections of all vehicles.

The Safety/Loss Control Coordinator conducted the majority of CPR/First Aid and AED training. This was completed and all of the Districts have safety staff certified to teach CPR/First Aid and AED. Additional AED units were purchased by District I and District II for construction crews.

A new vehicle database was created by the Safety and Loss Control Section and maintained by the Safety Manager. The database has worked effectively to reduce motor vehicle and heavy equipment accidents in all Districts.

Cooperative efforts between the Training Section and Safety and Loss Control to implement a learning management system to track all training were successful. Several mandatory safety courses were identified in the system, specifically targeting new hires or new supervisory staff.

What 'Strategies for Improvement' were not successful? Why?

The workers' compensation MicroNiche software was installed and operational, but due to the complexity of the software restrictions, another software program was selected to meet the needs of the agency. The JJ Kellar workers' compensation software program is fully operational.

Does this performance measure effectively measure what is desired?

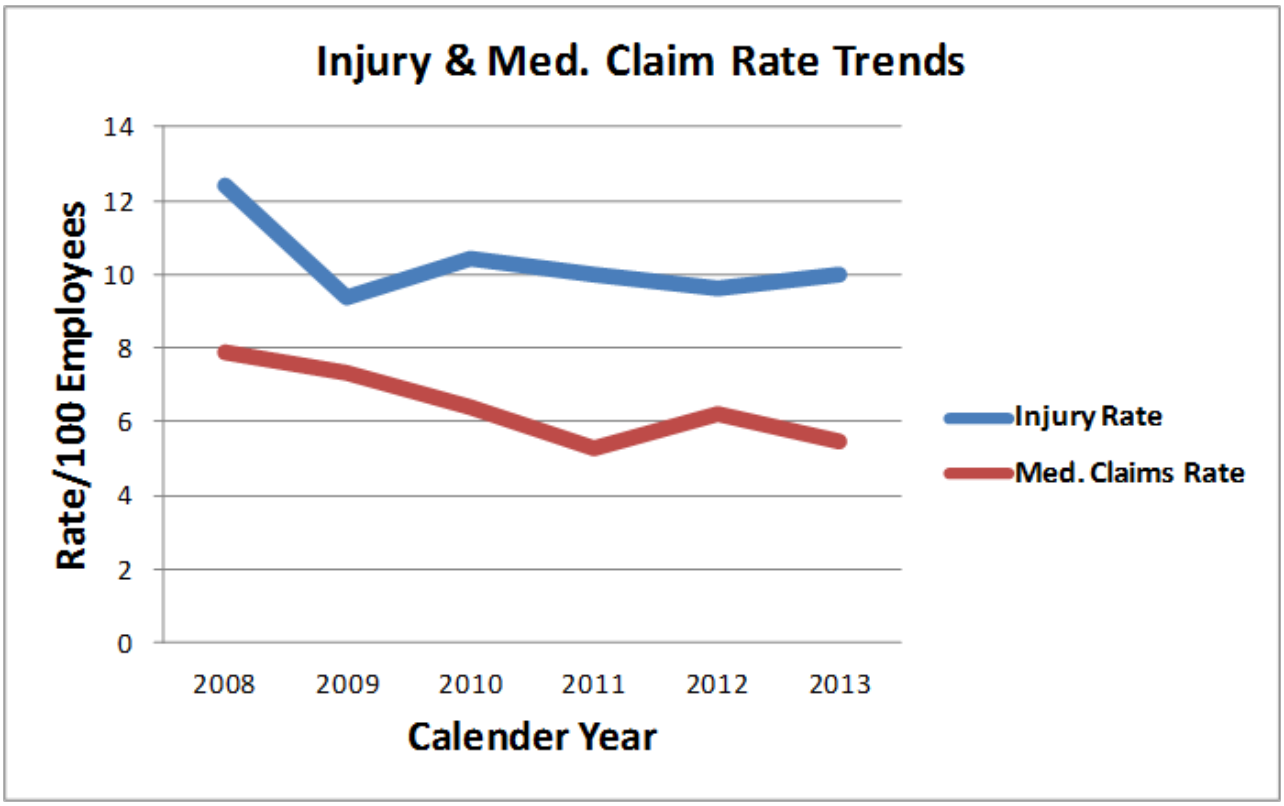
Yes.

Is there a better performance measure that should be considered?

Not at this time

Will meeting the next yearly target have a fiscal impact? If so, explain.

There will be an increased cost to the Safety/Loss Control travel budget due to additional training conducted by the Safety Trainer and increased safety inspections.


Injury & Med. Claim Rate Trends
Rate/100 Employees
14
12
10
8
6
4
2
0
2008
2009
2010
2011
2012
2013
Calender Year
Injury Rate
Med. Claims Rate

2. PROVIDE EMPLOYEE TRAINING

Performance Measure:

Percentage of employees trained in accordance with prescribed training plans and State statute training requirements.

Ultimate Target: 100% compliance for all required training

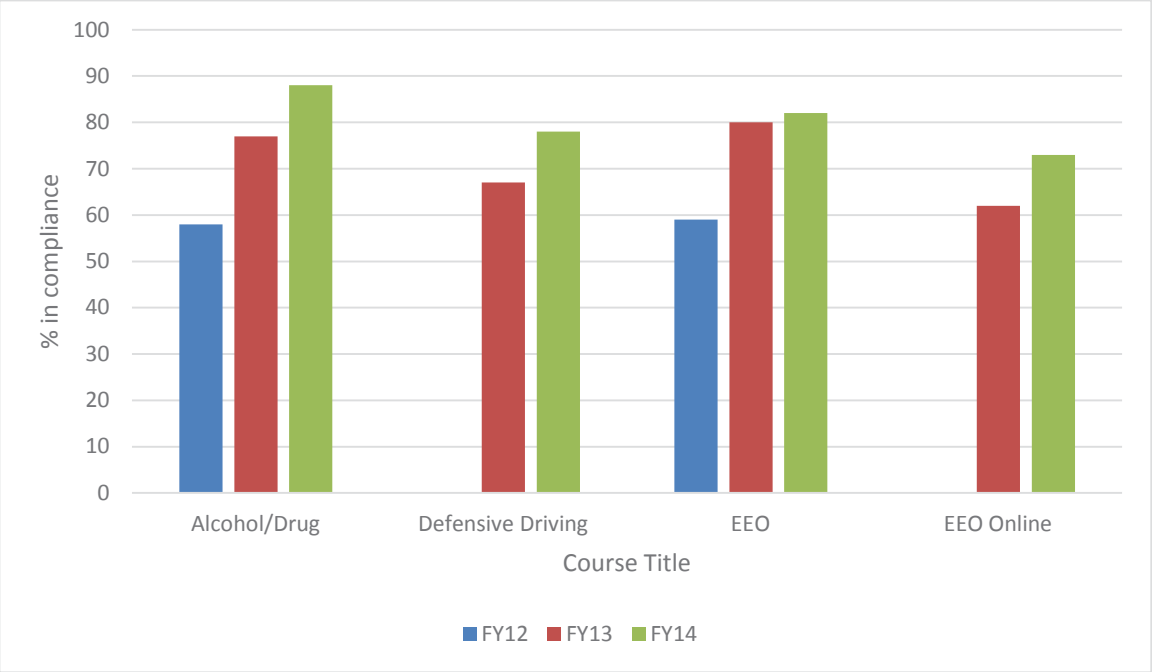
FY14 Target: 78% compliance for all required training

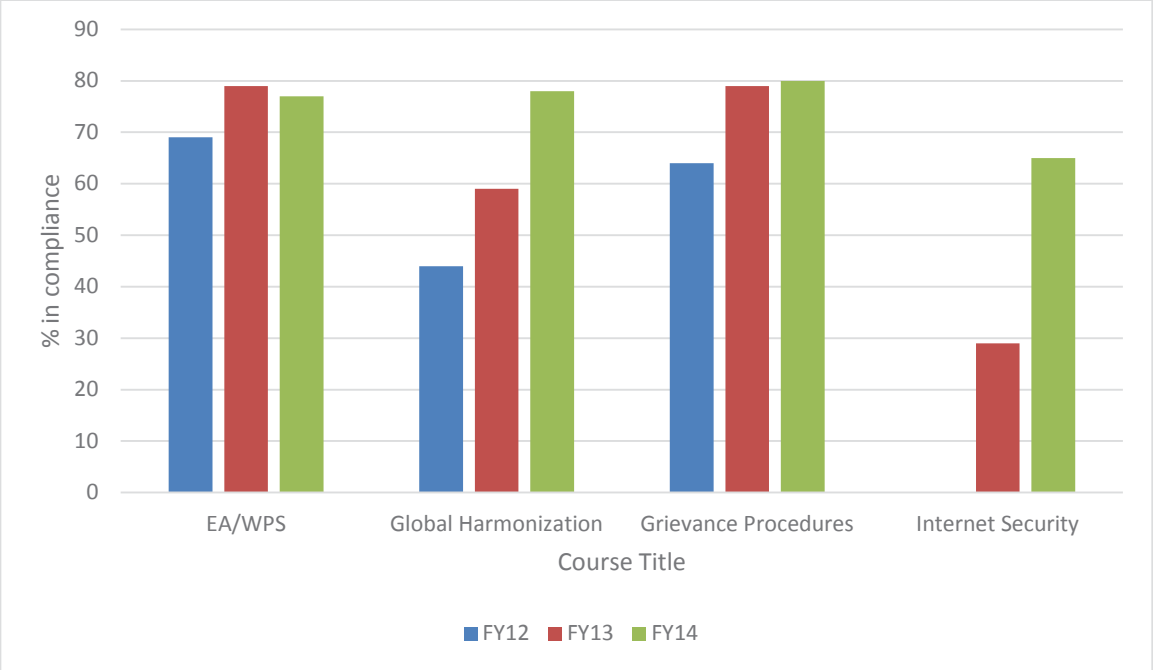
Measurement and Supporting Data:

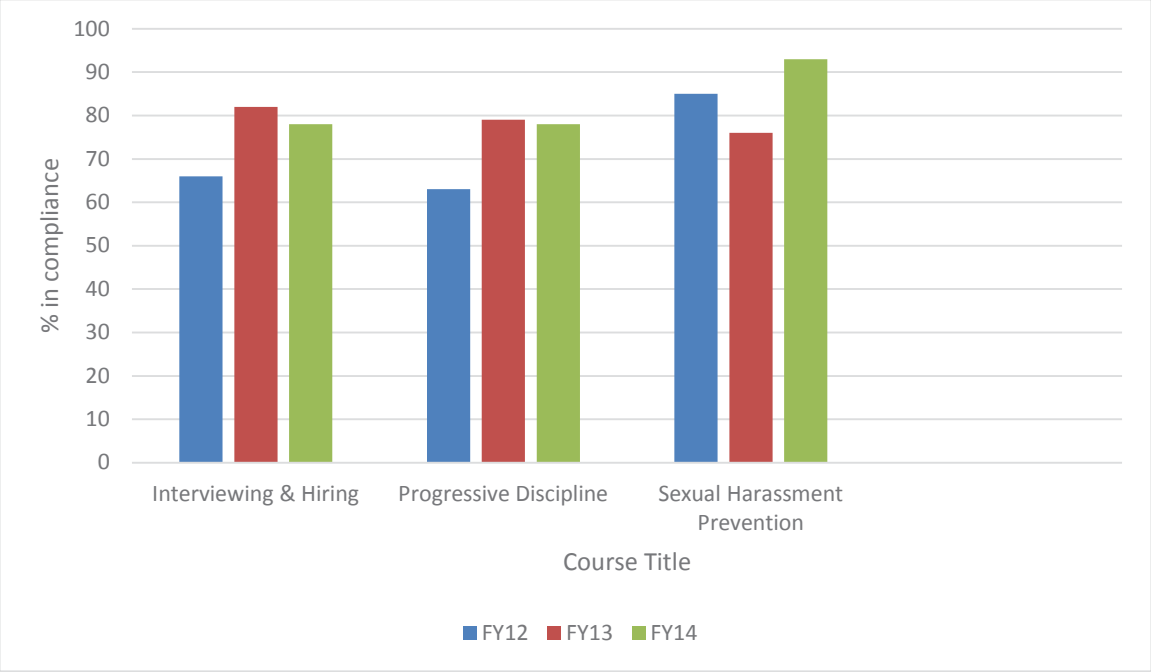
Requirement	Total Employees Requiring Training*	% in compliance** for FY			# Trained in FY
		2012	2013	2014	2014
Alcohol & Drug Program	485	58	77	88	165
Defensive Driving	1630	-	67	78	380
EEO	485	59	80	82	144
EEO -Online	485	-	62	73	118
Employee Appraisal/Work Performance Standards	485	69	79	77	149
Global Harmonized System of Hazard Communication	1630	44	59	78	376
Grievance Procedures	485	64	79	80	165
Internet Security Awareness	1630	-	29	65	647
Interviewing & Hiring	485	66	82	78	135
Progressive Discipline	485	63	79	78	138
Sexual Harassment Prevention	1630	85	76	93	1110

*Number of employees and supervisors on 6/30/14

**The frequency of required attendance ranges from one time only to once every two years.


100
90
80
70
60
50
40
30
20
10
0
% in compliance
Alcohol/Drug
Defensive Driving
EEO
EEO Online
Course Title
FY12
FY13
FY14


90
80
70
60
50
40
30
20
10
0
% in compliance
EA/WPS
Global Harmonization
Grievance Procedures
Internet Security
Course Title
FY12
FY13
FY14



Overview:

NDOT strategies for meeting this performance measure are working. Overall, the average number of people in compliance has increased over nine percentage points from FY2013, and the FY14 target was exceeded by one percentage point. A total of 3,527 seats were filled in the required training classes. Reporting on this performance measure could become even stronger if automated report generation became available, which would allow additional courses to be included in the report.

Were the targets met?

The target is 100% compliance overall and the FY14 target was 78%. The average for the 11 required classes was 79% which shows an increase of 9.1% from last fiscal year's average of 69.9%. Additionally, the increase in compliance was higher in FY14 than in FY13, with the percentage in compliance increasing by 9.1% in FY14 compared to 6.4% in FY13. Only three classes failed to meet the target of 78%: Employee Appraisal/Work Performance Standards at 77%, the EEO-Online class at 73%, and Internet Security Awareness at 65%. Two of three classes that failed to meet the target are classes that must be taken online and NDOT employees have traditionally preferred live instruction.

Which Strategies for Improvement were successful?

Planning course offerings based on an analysis of how many employees are anticipated to fall out of compliance has been a successful strategy. Reviewing this data each quarter has been helpful in adding new course offerings as needed.

Quarterly follow-up with divisional training coordinator as well as reminders to employees have been helpful strategies in boosting compliance.

Working with the divisions and districts and a significant level of support from the Human Resources Division staff have been helpful in improving the accuracy of supervisors and managers being identified as such in the HR Data Warehouse system.

Implementing an online option for the Global Harmonization course has been helpful in boosting completion of this class.

The "Supervisors Hall of Fame" and the "Employee Hall of Fame" have proven to be successful motivation tools.

During Fiscal Year 14, NDOT's Training Section began working with the agency's Information Technology division and training staffs from other agencies including the Department of Administration; Department of Corrections; Department of Employment, Training and Rehabilitation; Department of Motor Vehicles; Division of Welfare; and Office of the Controller to work on setting priorities for better reporting through NEATS on mandatory classes.

Which "Strategies for Improvement" were not successful?

The effectiveness of the other strategies for improvement was limited because of time constraints related to implementing them more fully. This included the strategies related to more involvement with Division Heads/District Engineers to promote high compliance numbers and providing additional options to employee with limited computer to access online classes.

What new "Strategies for Improvement" will be initiated in FY 2015?

Short range to next reporting:

- Division heads and District Engineers will be enlisted to promote higher compliance numbers.
- Develop additional options to provide the content of online courses, specifically Internet Security Awareness and Global Harmonization, to Maintenance Crews with limited computer access.
- Develop additional reporting and promotion of results to motivate employees to attend training.
- Work on additional options to make completing online classes such as Internet Security Awareness, EEO Online, and Global Harmonization more convenient for employees.
- Complete the successful transition from using the Learning Portal to NEATS for reporting.
- Find methods other than the Learning Portal to host online courses.

Long range:

- Continue to work with NDOT's Information Services Division, the State's Division of Enterprise IT Services, and other agencies to find improved automated reporting and reminders solutions.
- Add additional classes to the performance measures that are required by Federal and State regulations for specific positions.

Does this performance measure effectively measure what is desired?

Yes.

Is there a better performance measure that should be considered?

As the process and related information systems for reporting this information are improved, additional courses from specific areas should be included.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Required training requires travel money, and budget limitations could have an impact of the availability of training in all locations.

Target for Next Three Fiscal Years:

Assuming no additional classes are added over the years, projected targets are:

FY15: 86%

FY16: 94%

FY17: 98%

3. IMPROVE EMPLOYEE SATISFACTION

Performance Measure:

Percentage rating obtained from employees' satisfaction surveys.

Annual Target: Overall rating 75% **Ultimate Target:** Overall rating of 80%.

Strategy Plan Support:

Positive employee morale is critical to the success of the workplace. It is the backbone of a skilled and dedicated workforce and essential in attracting and retaining a quality staff. A satisfied workforce will excel at their duties. This benefits the Department and our customers. This performance measure works towards meeting the Nevada Department of Transportation's Strategic Plan goals to: optimize safety, be in touch with and responsive to our customers, innovate, be the employer of choice, deliver timely and beneficial projects and programs, effectively preserve and manage our assets, and efficiently operate the transportation system.

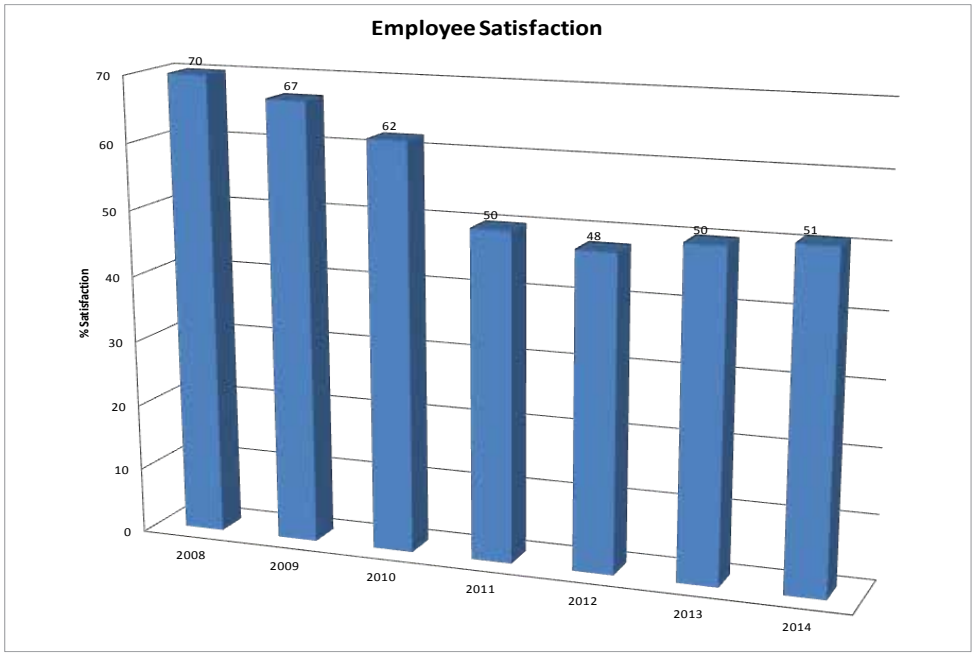
Measurement and Supporting Data:

Percentage of employees who are extremely or somewhat satisfied with NDOT	
FY 2008 (Base Number)	70%
FY 2009	67%
FY 20010	62%
FY 2011	50%
FY 2012	48%
FY 2013	50%
FY 2014	51%

Was the annual target met?

No.

Fifty one percent (51%) of employees are extremely or somewhat satisfied with the Nevada Department of Transportation as an employer as compared to seventy percent (70%) the base year. The percentage did increase from fifty percent (50%) last year.



The 2008 Performance Measure Survey was launched on July 14, 2008 and closed on August 15, 2008; 764 employees responded to the 2008 survey. The 2009 Performance Measure Survey was launched on July 13, 2009, and closed on August 2, 2009; 616 employees responded to the 2009 survey. The 2010 Performance Measure Survey was launched on May 18, 2010 and closed on June 25, 2010; 905 employees responded to the 2010 survey. The 2011 Performance Measure Survey was launched on June 23, 2011, and closed on July 15, 2011; 598 employees responded to the 2011 survey. The 2012 Performance Measure Survey was launched on May 29, 2012, and closed on July 1, 2012; 718 employees responded to the 2012 survey. The 2013 Performance Measure Survey was launched on June 13, 2013, and closed on July 19, 2013; 621 employees responded to the 2013 survey. The 2014 Performance Measure Survey was launched on June 10, 2014, and closed on July 29, 2014; 1,020 employees responded to the 2014 survey.

Employee participation in the survey increased significantly this fiscal year, and is by far the highest level of participation in the survey to date.

What 'Strategies for Improvement' were successful?

The percentage of employees who strongly or somewhat agree that the physical conditions in their work area are good has increased six percent (6%) this year with a four percent (4%) increase from the baseline year. The percentage of employees who strongly agree or somewhat agree that the amount of work that they have is reasonable has increased nine percent (9%) from last year with an overall increase of two percent (2%) from the base year. The percentage of employees who strongly or somewhat agree that there is adequate staffing in their department has increased six percent (6%) from last year with an overall increase of one percent (1%) from the base year. The percentage of employees who strongly or somewhat agree they have been provided appropriate training for their position has increased five percent (5%) from last year and five percent (5%) from the base year.

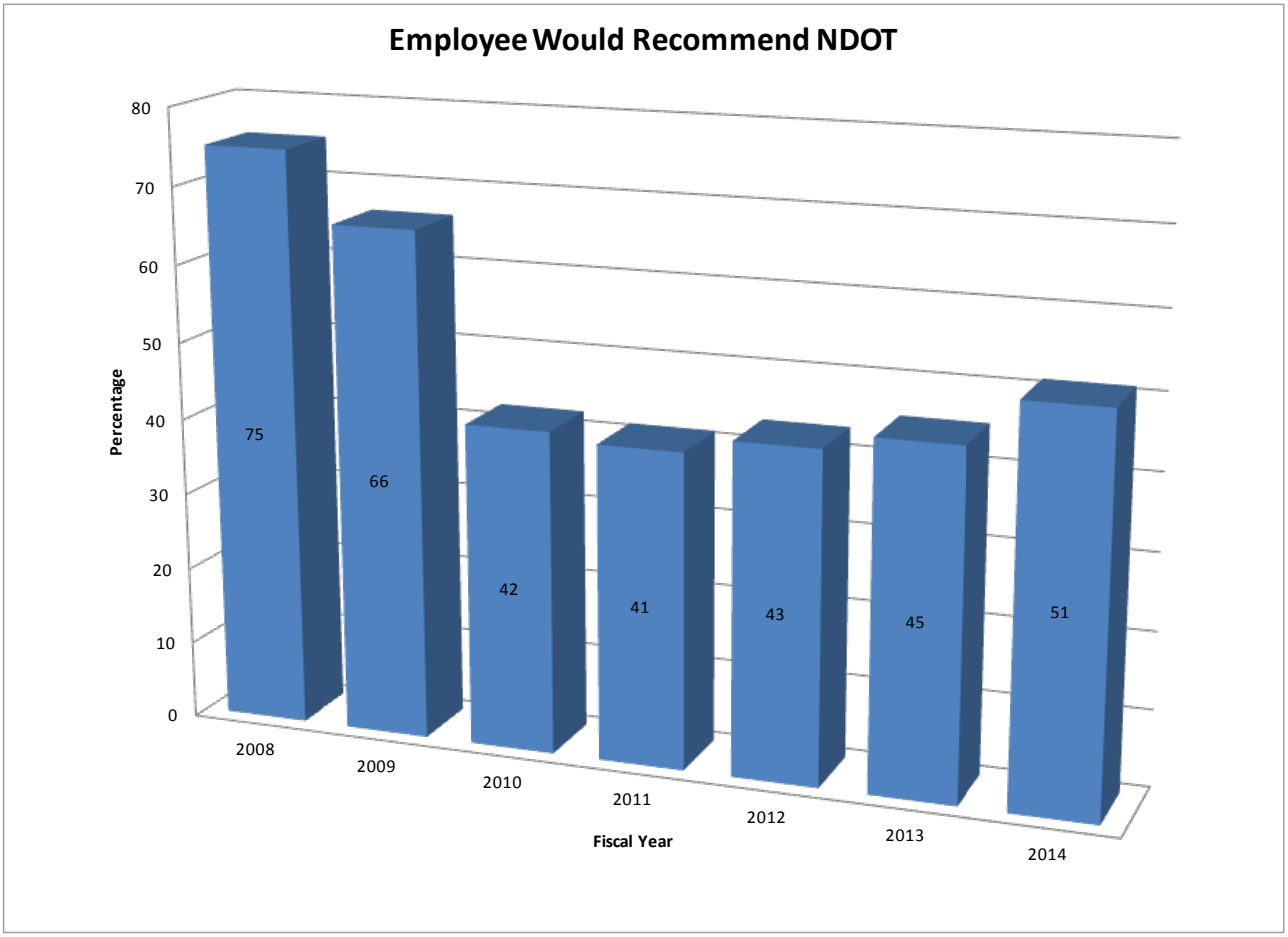
The percentage of employees who strongly or somewhat agree that they have the equipment to do their job well increased six percent (6%) this year with a one percent (1%) increase from the baseline year. This increase may be due to the money identified for critical needs vehicles in last year's strategies. However, there were still comments about unsafe and rundown vehicles.

What 'Strategies for Improvement' were not successful? Why?

The overall target was to increase employee satisfaction to seventy-five percent (75%). The percentage of employees who would recommend the Nevada Department of Transportation to a friend as a good place to work was fifty-one percent (51%) in 2014, which is a decrease from seventy-five percent (75%) in 2008 but an increase from forty-five percent (45%) in 2013.

The current economic environment and overall decrease in State pay and benefits is continuing to have a direct impact on the satisfaction of the Nevada Department of Transportation employees. The percentage of employees who are somewhat dissatisfied or extremely dissatisfied with salaries is sixty-one percent (61%). The percentage of employees who are somewhat dissatisfied or extremely dissatisfied with benefits is fifty-two percent (52%). Employees continue to comment that they do not get paid enough.

Many employees mention that they love their job but were discouraged by things such as pay cuts, furloughs, and merit pay freezes. Regarding pay, one employee said, "My main dissatisfaction is regarding salary. NDOT is not competitive with other agencies throughout the state and of course not at all with the private sector. I believe this is one of the reasons the attrition rate is so high."



What 'Strategies for Improvement' will be initiated in FY2015?

Short range to next reporting:

1. The Department's Strategic Plan will be reevaluated and updated. The Mission and Goals of the Department will be reemphasized and communicated throughout the Department.
2. The Department will request suggestions from employees on ways of improving NDOT's communication with employees. Beginning immediately, these suggestions will be collected through the Communications Director. Additionally, next year's survey will request specific suggestions from employees regarding improving communication.
3. The Department will continue to evaluate pay inequities.
4. Five million dollars has been identified for critical needs light duty vehicles and heavy equipment. The districts and divisions will work with their Assistant/Deputy Directors to identify critical needs light duty vehicles and heavy equipment.
5. We will continue to encourage and require supervisory training, in compliance with regulations, that includes communication, management styles, and coaching. This strategy directly correlates with Performance Measure #2.
6. We will communicate to employees that the survey results have been reviewed. Throughout the year we will communicate with employees and tie those communications back to the survey results.

Long range:

Continue conducting and analyzing annual satisfaction surveys and making appropriate recommendations to the Director's Office for addressing employee satisfaction.

Does this performance measure effectively measure what is desired?

Yes, this performance measure works towards meeting the Nevada Department of Transportation's Strategic Plan goals to: optimize safety, be in touch with and responsive to our customers, innovate, be the employer of choice, deliver timely and beneficial projects and programs, effectively preserve and manage our assets, and efficiently operate the transportation system.

Is there a better performance measure that should be considered?

No; however, employee job satisfaction hinges in part on pay and benefits. Until pay and benefits are restored we are not likely to see improvement in the results of the survey.

Will meeting the next yearly target have a fiscal impact? If so, explain.

No.

4. STREAMLINE AGREEMENT EXECUTION PROCESS

Performance Measure:

Percentage of Agreements executed within 30 days from when division submits agreement to the date when it is fully executed, excluding time the agreement is with the second party for signature or awaiting Transportation Board approval.

Target: 90%

Strategy Plan Support:

An agreement is the instrument used to procure a variety of services for NDOT. The Agreement Services section ensures that NDOT procures these services in accordance with established laws, rules and regulations. Delays in executing agreements has a tremendous impact on the operations, delaying what can often be critical services, or services that impact the timely delivery of projects. Agreements for services over $300,000 require approval of the Transportation Board; agreements less than $300,000 and certain services exempt from Board approval (such as right of way acquisitions and interlocal agreements) can be executed with approval from the NDOT Director.

This performance measure helps meet the department's mission to provide a better transportation system for Nevada through our unified and dedicated efforts by helping to accomplish the goals of: delivering timely and beneficial projects and programs; being responsive to our customers; effectively preserving and managing our assets; and efficiently operating the transportation system.

Summary:

For the fiscal year 2014 there were two different performance measurement data sets. The method of measurement was updated on 1/1/2014 to exclude the number of days an agreement was with the second party for signature and the number of days it was waiting for Transportation Board approval. For quarters 1 and 2 the average number of calendar days for agreements (measured from the time they were submitted to Agreement Services until the time of agreement execution) was 40 days. 70% of all agreements were executed in 45 days or less. This exceeds the annual target of 50%, but falls short of the overall target of 90%.

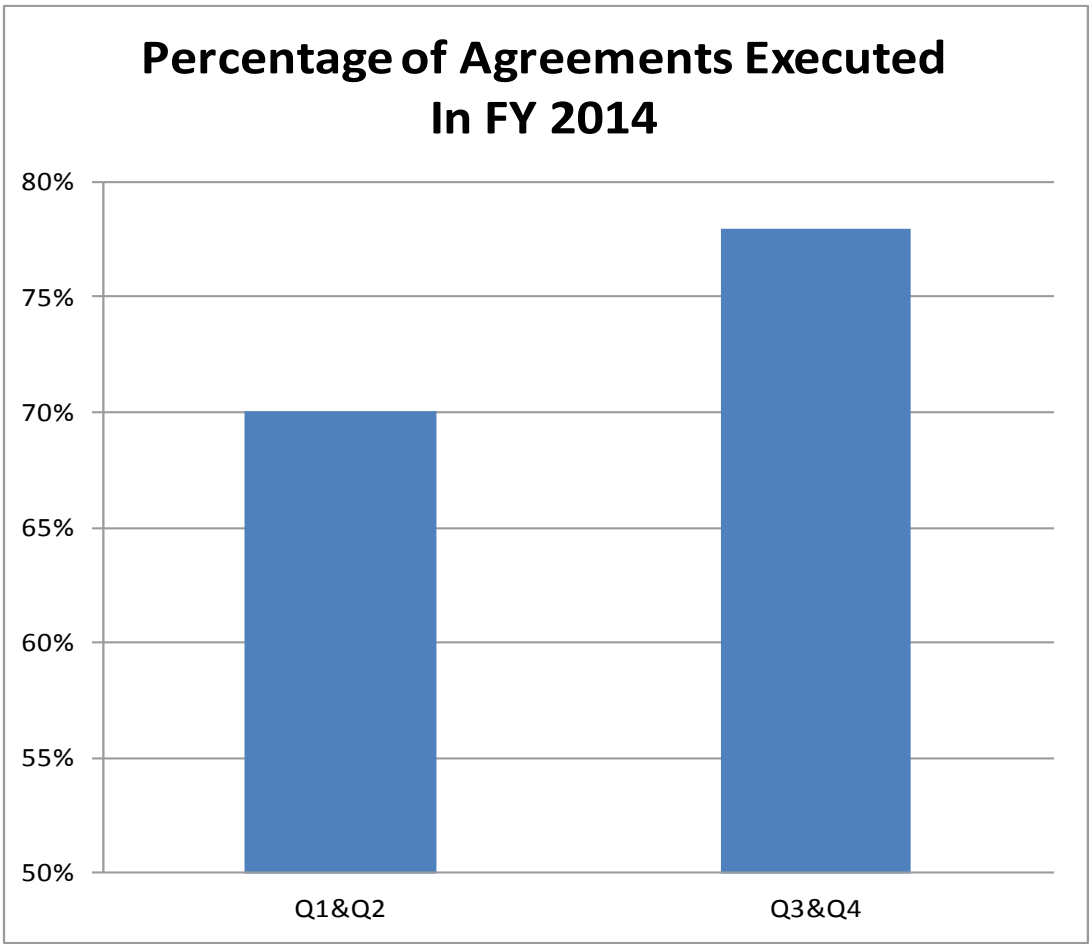
It is significant to note that Cooperative and Local Public Agency (LPA) agreements took an average of 84 days and 92 days respectively to execute, significantly skewing the overall numbers. The extended length of time to execute is largely due to the time it takes for the outside agency to sign the agreement. Removing the Cooperative and LPA agreements from the data for quarters 1 and 2 shows an average number of calendar days to execute agreements of 27 days, with 84% of agreements executed within 45 days.

For quarters 3 and 4 the average number of days to execute agreements (measured from the time they were submitted to Agreement Services until the time of agreement execution, excluding the

time they were out for second party signature) was 19 days. 78% of all agreements were executed in 30 days or less. This falls short of the target of 90%.

Measurement and Supporting Data:

	Number of agreements executed	Number executed within 45 calendar days	% executed within 45 calendar days	Number of Cooperative & LPA agreements executed	Number of Cooperative & LPA agreements executed within 45 days	% Cooperative & LPA agreements executed within 45 days
1st & 2nd Qtr FY 2014	222	155	70%	46	7	15%
	Number of agreements executed	Number executed within 30 days	Number executed within 30 days			
3rd & 4th Qtr 2014	249	195	78%	N/A	N/A	N/A



* This graph excludes LPA Agreements in Q1 & Q2, and in Q3 & Q4 LPA agreements are not applicable.

Strategies for Improvement: As applicable

Short range to next reporting:

Train Agreement Services staff on the performance measure process, the goal and purpose of the measure, and how their work impacts the measures. Update agreement manuals, templates and forms. Provide instructional PowerPoint presentations, checklists, and information about the procurement process on SharePoint, and encourage all Department employees who procure services to view the material. Conduct agreement training for Department staff as needed, especially for project managers who do not regularly procure services. Continue to monitor processing of agreements by tracking the progress on the agreement log.

Long range:

Thoroughly assess the current performance measure, data collected, it's relevance to reporting actual performance, and make revisions as applicable. Have all Agreement Services staff understand the performance measure, what is measured, and how each stage of processing an agreement affects the measure. Provide quarterly feedback to staff about the current processing time, and implement continuous improvements to decrease processing time without sacrificing accuracy and adherence to laws, rules & regulations.

Were the targets met?

No
YES

What 'Strategies for Improvement' were successful?

Tracking agreements using the tracking log was successful in identifying when an agreement had taken longer than it should have to process, allowing Agreement Services to follow up with the Project Manager. Keeping track of the many stages of processing an agreement helped identify where in the process the delay occurred. Training staff on the performance measures helped identify additional key information that would help us track our performance, such as the date the Project Manager sent the agreement to the second party. It also made staff motivated to meet the new target of 90% and to keep that in mind when performing their daily tasks.

What 'Strategies for Improvement' were not successful? Why?

N/A

What new 'Strategies for Improvement' will be initiated in FY2015?

Short range to next reporting:

An issue was identified in processing quote agreements, where Agreement Services staff weren't accepting electronic documents, requiring hard copies to be mailed back and forth several times between the Project Manager, Agreement Services, Legal, and the Director's Office. The Agreement Services Manager is working to have all staff accept electronic documents in order to more efficiently process quote agreements (other kinds of agreements are already accepted in electronic formats).

In addition, Agreement Services will implement DocuSign to electronically route agreements and possibly agreement-related backup documentation through the approval process using email and online signatures. This should shorten both the time the agreement is within NDOT and the time it takes to obtain second party signature.

Long range strategy:

Implement DocuSign to take full advantage of its efficiencies in getting agreements signed. Implement the Electronic Procurements and Tracking (ePats) system to facilitate agreement tracking. Continue to assess the relevance of performance measure data, revising the measure as necessary to accurately reflect the time it takes to process an agreement.

Does this performance measure effectively measure what is desired?

Yes

Is there a better performance measure that should be considered?

No

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes. Procuring services more expediently will make Department operations more efficient, resulting in faster delivery of projects, more timely maintenance of facilities, and an overall higher standard of service provided. This will result in overall cost savings.

5. IMPROVE CUSTOMER & PUBLIC OUTREACH

Performance Measure:

Numerical ratings obtained from public opinion and customer/user surveys.

Annual Target: Annual increases in public opinion and customer/user ratings.

Ultimate Target: Increases in public opinion and customer/user ratings.

Overview of performance measure:

Public opinion, users (customers) as well as elected officials surveys will assess public information, outreach activities, and how well the Department is performing in the eyes of our customers. It is important to know that we are doing the right things to be transparent, accountable, and efficient. This performance measure works toward meeting the Department of Transportation Strategic Plan goals and to be in touch with our customers.

Measurement and Supporting Data:

NDOT contracted with the University of Nevada, Reno (UNR) and University of Nevada, Las Vegas (UNLV) to collect public opinions on the satisfaction level of NDOT's performance. Two maintenance customer satisfaction surveys of Nevada residents were conducted by the Center for Research Design and Analysis at UNR in conjunction with Maintenance and Operations Division in 2009 and 2011. A comprehensive customer satisfaction survey was accomplished by UNLV in cooperation with the Performance Analysis Division in 2014.

The 2014 customer satisfaction survey was designed and used to gain insights about the public impressions of congestion, construction, maintenance, safety, and funding, as well as to determine differences between different regions in Nevada. The method chosen to collect data involved utilizing the Cannon Survey Center (CSC), operating within UNLV. CSC collected 2,636 responses using a combination of phone interviews, in-person interviews, and online distribution. In addition, 696 responses were collected from several smaller population groups independently from the CSC with the help of a small contractor (ADV Solutions) and the Transportation Research Center (TRC). In most cases, the residents were satisfied with the transportation system in Nevada.

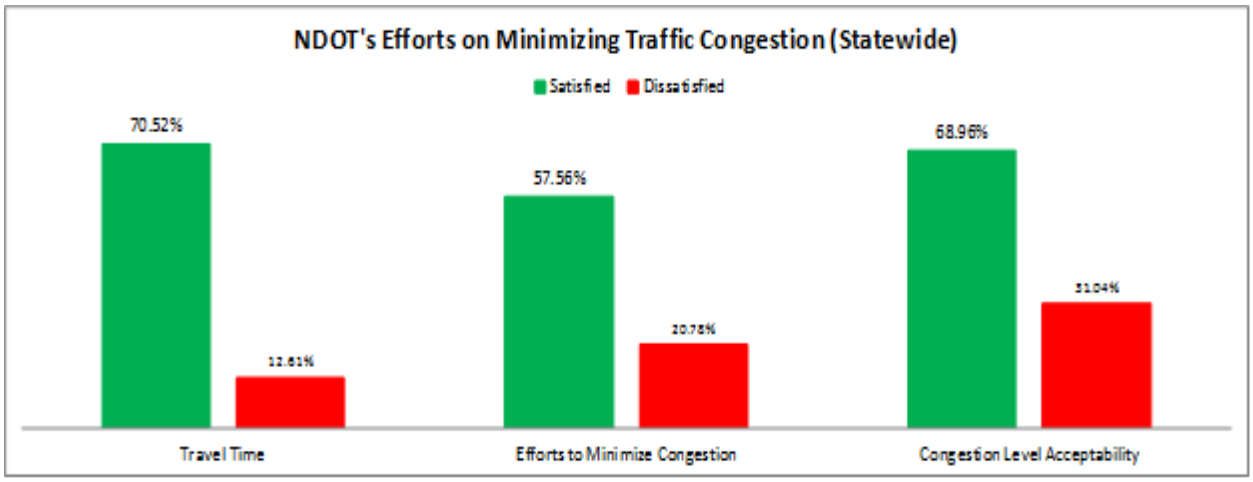
Summary of the survey results:

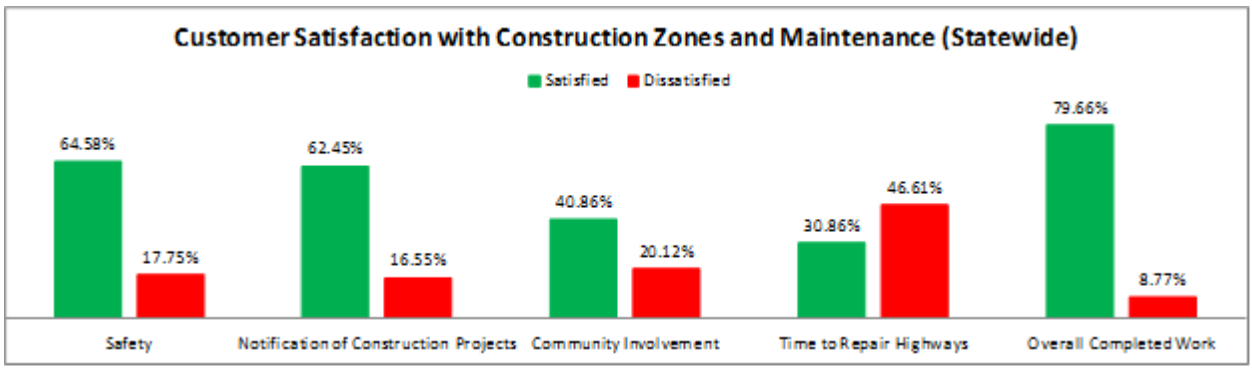
The following chart and graphs show the customer Level of Satisfaction on the overall NDOT's performance based on the 2014 Customer Satisfaction Survey.

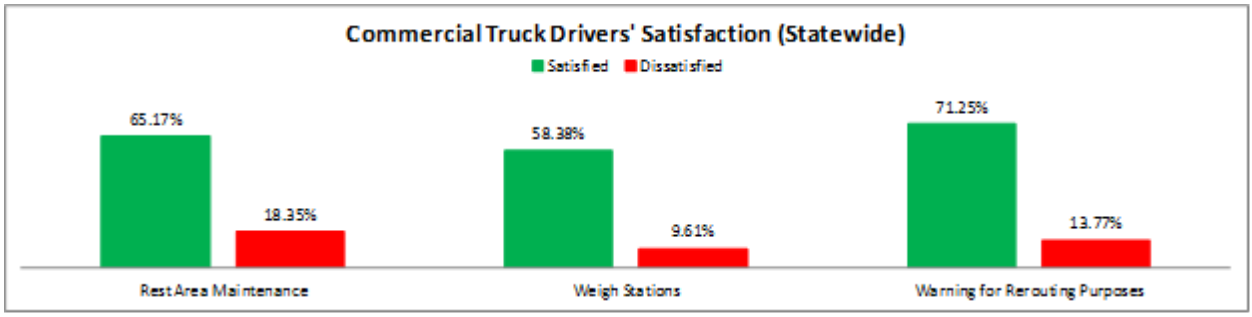
Customer Satisfaction		Satisfied	Dissatisfied
Congestion	Travel Time	70.52%	12.61%
	Minimize Congestion	57.56%	20.78%
	Congestion Acceptable	68.96%	31.04%
Construction Zones	Safety	64.58%	17.75%
	Notificaton	62.45%	16.55%
	Community	40.86%	20.12%
	Time	30.86%	46.61%
	Overall Completed Work	79.66%	8.77%
Commercial Truck	Rest area	65.17%	18.35%
	Weigh station	58.38%	9.61%
	Warning	71.25%	13.77%
Safety	Debris	77.76%	9.01%
	Striping	66.54%	18.75%
	Signs	77.46%	8.41%
	Lighting	64.28%	16.71%
	Drains	56.40%	17.67%
	Snow	56.50%	6.98%
	Overall Safety	86.53%	13.47%
Efforts to keep drivers aware of issues		68.04%	7.44%
Average		**64.41%**	**16.55%**

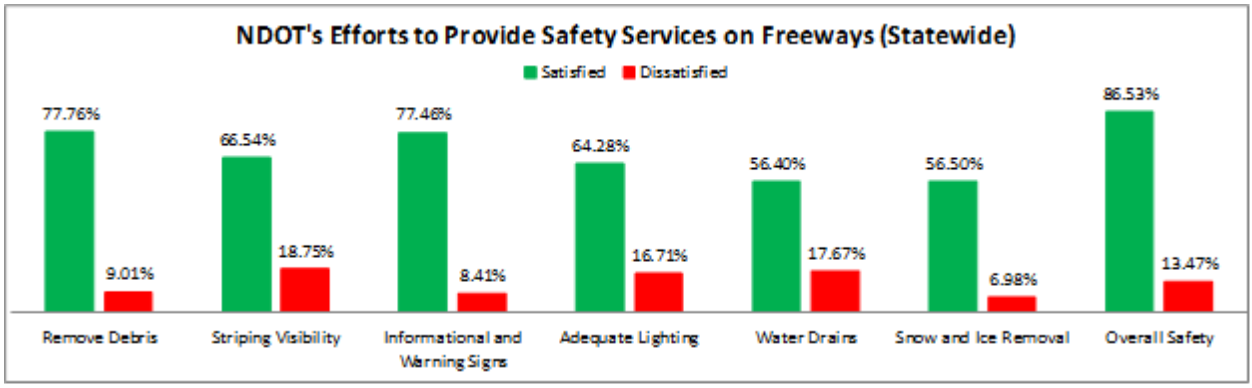
		Agree	Disagree
Funding	Fuel Tax	54.86%	18.84%
	Tolls	21.82%	58.17%
	Rush Hour	16.14%	67.07%
	VMT	47.56%	27.21%
	Average	**35.10%**	**42.82%**

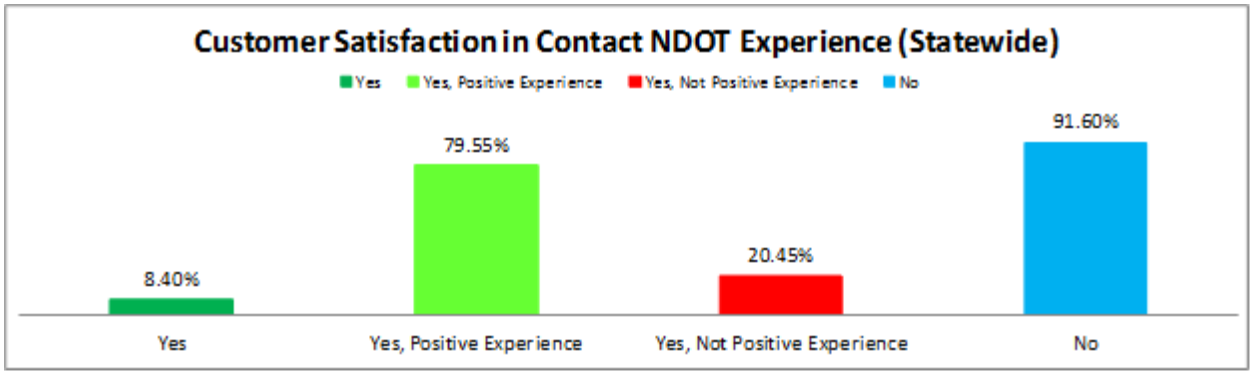
	Positive Experience	Not Positive Exp
Contact NDOT	**79.55%**	**20.45%**

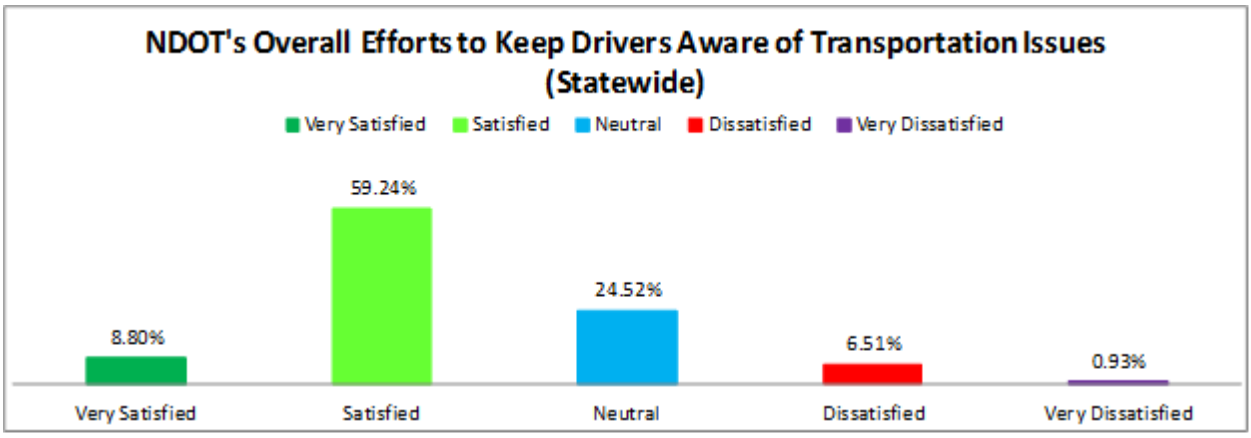


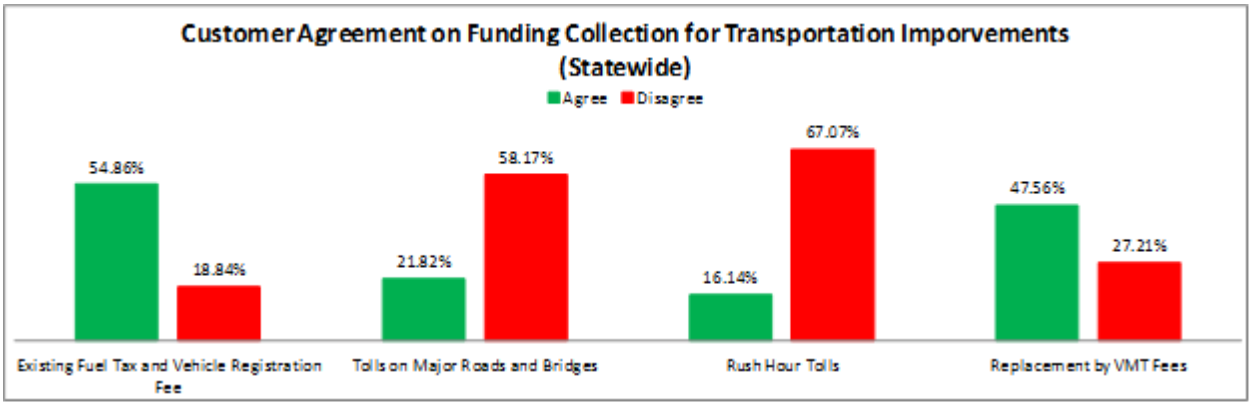

Customer Satisfaction with Construction Zones and Maintenance (Statewide)
Satisfied
Dissatisfied
64.58%
17.75%
62.45%
16.55%
40.86%
20.12%
30.86%
46.61%
79.66%
8.77%
Safety
Notification of Construction Projects
Community Involvement
Time to Repair Highways
Overall Completed Work

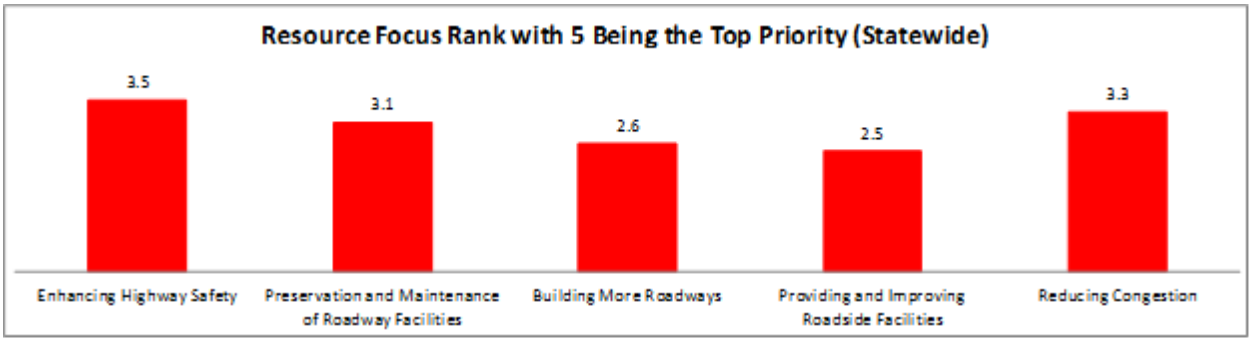

Commercial Truck Drivers' Satisfaction (Statewide)
Satisfied
Dissatisfied
65.17%
18.35%
58.38%
9.61%
71.25%
13.77%
Rest Area Maintenance
Weigh Stations
Warning for Rerouting Purposes


NDOT's Efforts to Provide Safety Services on Freeways (Statewide)
Satisfied
Dissatisfied
77.76%
9.01%
66.54%
18.75%
77.46%
8.41%
64.28%
16.71%
56.40%
17.67%
56.50%
6.98%
86.53%
13.47%
Remove Debris
Striping Visibility
Informational and Warning Signs
Adequate Lighting
Water Drains
Snow and Ice Removal
Overall Safety


Customer Satisfaction in Contact NDOT Experience (Statewide)
Yes
Yes, Positive Experience
Yes, Not Positive Experience
No
8.40%
79.55%
20.45%
91.60%
Yes
Yes, Positive Experience
Yes, Not Positive Experience
No







Strategies for Improvement:

Short Range to next reporting:

N/A

Long Range:

N/A

Annual Evaluation of Performance Measure

Was the annual target met?

Since a customer survey was not conducted last year, a comparative analysis could not be done to determine if the target was met.

What 'Strategies for Improvement' were successful?

N/A

What 'Strategies for Improvement' were not successful?

N/A

What new 'Strategies for Improvement' will be implemented in FY 2015?

Short range to next reporting:

Conduct customer surveys from now forward using the same format and survey questions so comparisons can be made between subsequent years.

Long Range:

Request for permission to conduct Customer Surveys at most every- other year, rather than yearly. This will allow the Department ample time to evaluate the results and make the necessary improvements before the next survey is undertaken. Also, besides cutting down on the cost of yearly surveys, it will not be a nuisance to customers to responding to survey questions.

Is there a better performance measure that should be considered?

No

Will meeting the next yearly target have a fiscal impact?

To conduct a well designed public survey is expensive. Analyzing the results takes time which has fiscal implications.

6. REDUCE AND MAINTAIN TRAFFIC CONGESTION ON STATE MAINTAINED ROADS

Performance Measure:

Urban roadways – Maintain congestion at Level of Service D for 85% of State urban roadways

Rural roadways – Maintain congestion at Level of Service D for 90% of State rural roadways

Definition of Level of Service D – Roadways operating at up to 8 miles per hour less than the Free Flow Speed or Posted Speed Limit, and the traffic carrying capacity of the roadway is less than 0.9.

Current Status:

N/A

Ultimate Target: Reduce congestion by 1% per year to reach the ultimate target of 90% of State urban roadways at Level of Service D, and 95% of State rural roadways at Level of Service D.

Strategy Plan Support:

This performance measure is one of the most important performance indicators of the NDOT maintained roadway system. It integrates the outcome of our overall investments into one measure that is a direct result of the collaborative efforts of the various divisions of NDOT. It will help reduce congestion and will help identify bottleneck locations on the NDOT maintained roadway system, which will be prioritized for improvements depending upon the funding and resources availability. It works towards meeting the Department of Transportation Strategic Plan to efficiently operate the transportation system by reducing the level of congestion and increasing safety.

This Congestion Monitoring System will be an evolving process and will be updated regularly as more data is integrated into it from the Southern Nevada RTC's Freeways and Arterials System of Transportation, and the Washoe County's future Traffic Management Center, Synchro models, and other sources as needed.

Summary:

During FY 2010, NDOT developed its first system-wide Level of Service Monitoring and Tracking system that is used in determining congestion on the state maintained roadways in urban and rural areas. This established the base conditions for the Level of Service monitoring system.

At present, the Department is in the process of developing a more practical, simple and robust methodology for Congestion tracking and measurement that will also enable and identify locations within the State network system that experience higher than the threshold congestion levels. Performance Analysis Division is working with Traffic Operations and Traffic Information Divisions in formulating this new approach.

Supporting Documentation:

Highway Capacity Manual, AASHTO, Daily Traffic Volume Data, Peak Hourly Volume Data, Truck Percentages, Service Flow tables, Commuter and Non-Commuter Traffic, Roadway Terrain and Grades, Directional Factors, Hourly Factors, Functional Class, Number of Lanes, Free Flow Speed data, Peak Hour Factors, and Peak Service Flow Rates.

Were the targets met?

N/A

Methodology is being modified for FY 2014

Does this performance measure effectively measure what is desired?

Yes.

Is there a better performance measure that should be considered?

In the modified methodology, other indicators such as vehicle delay and travel time will be evaluated if they could supplement this performance measure in the core urban areas.

Will meeting the next yearly target have a fiscal impact?

Yes. Improving congestion by 1% per year will require investments into the roadway system. The fiscal impact of such improvements will be determined accordingly.

7. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE FROM BID OPENING TO CONSTRUCTION COMPLETION

Performance Measure:

Percentage of projects within established range of cost estimate and schedule to completion

Annual Target: 80% **Ultimate Target:** 80%

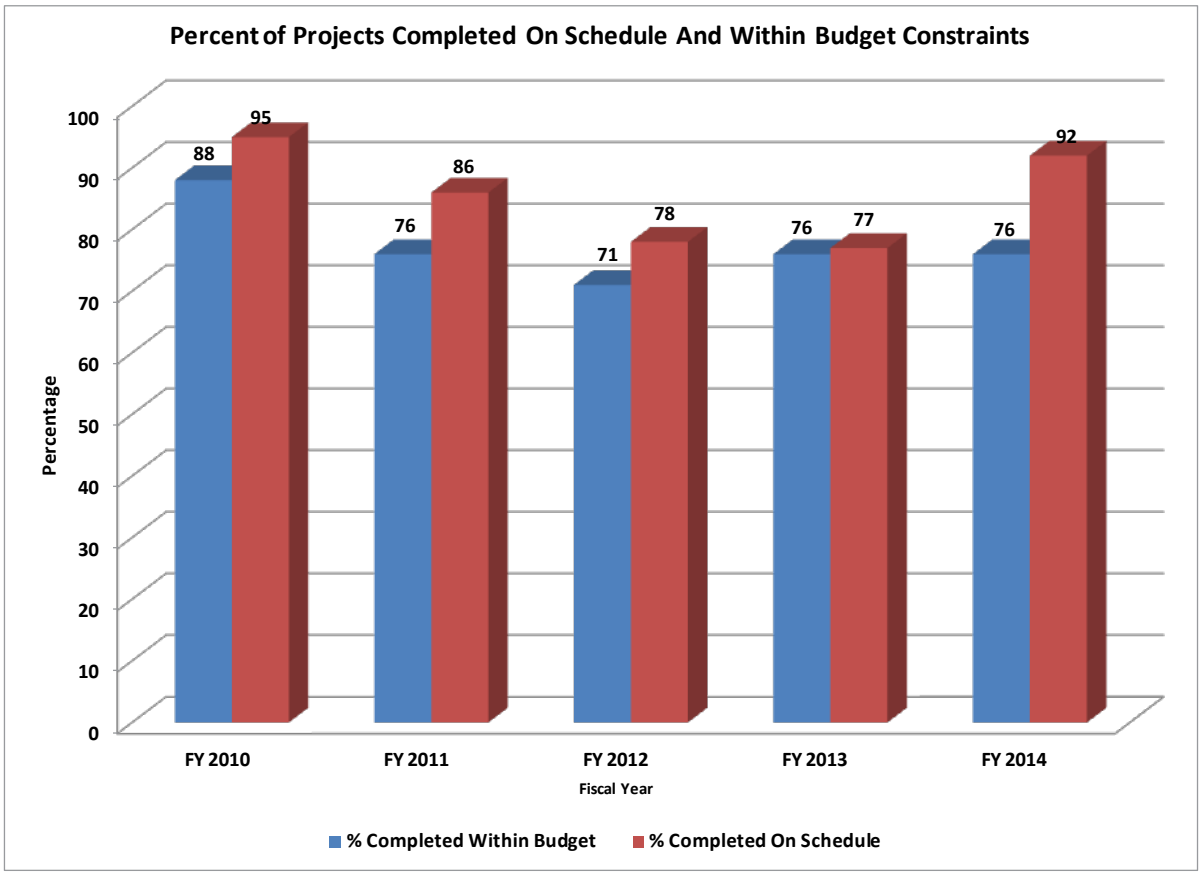
Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals by providing timely and beneficial construction projects. This measure helps to optimize safety for road users, be in touch with and responsive to our customers (road users), and efficiently operate the transportation system.

Measurement and Supporting Data:

FY 2014 ended with 76% projects reported complete within budget and 92% reported complete within schedule. Historical numbers are shown in the table below:

	% Completed Within Budget	% Completed On Schedule
FY 2010	96	84
FY 2011	76	86
FY 2012	71	78
FY 2013	76	77
FY 2014	76	92



FY 2014 Budget Performance: Performance is based on an average of quarterly reviews of all open construction contracts (64 – 69 depending on the time of year). This includes active projects where construction activities are ongoing and projects where construction is complete and the contract is being administratively closed out. For the fiscal year an average of 76% of open contracts performed within budget. Of the projects that exceeded budget targets, 68% had change orders in excess of 3% of the bid price. The other projects (32%) resulted from actual pay quantities exceeding estimated pay quantities.

FY 2014 Schedule performance: Performance is based on an average of quarterly reviews of all contracts (16 – 31) depending on the time of year actively under construction. For the fiscal year an average of 92% of active contracts performed within the original scheduled timeframe. Reasons for exceeding schedule targets included but are not limited to encountering utility conflicts, drilled shaft construction issues and increases in the planned quantities.

Strategies for Improvement:

Short range to next reporting:

- Continue working with Design to improve the quality of designs
- Minimize avoidable change orders
- Implementation of P6 professional construction scheduling training and specifications

- Continue working to improve management techniques
- Continue active participation of Bid Review and Analysis Team
- Implementation of new Partnering and DRT specifications, training and methods
- Continue with annual RE Academy Training / RE Conferences
- Continue with implementation of electronic documentation software and training

Long range:

- Once P6 and eDocumentaions software are fully implemented, refine methods for tracking budget and schedule performance utilizing the new systems
- Develop and standardize one set of performance measures for budget and schedule.
- Automate the process so that performance measures are reviewed and discussed at monthly contract briefing meetings

Were the targets met? Yes with exceptions. Efforts to determine the best parameters for analysis of budget and schedule performance of active, open, and closed contracts will continue. Through progressive review of processes and data sets the Department will promote accuracy and efficiency necessary to evaluate a goal of 80%; NDOT's goal of 80% for both is being studied and will be maintained for the time being.

What 'Strategies for Improvement' were successful? It is difficult to identify a specific short term strategy that was "successful" because measuring budget and schedule performance on a construction project is a somewhat complex process involving many activities, personnel and other factors. Some factors are beyond the control of the NDOT and contractor personnel actively involved in the project (example: market fluctuations in material pricing). Department personnel are actively involved with improving the quality of design, minimizing avoidable change orders, enhancing scheduling techniques and partnering with stakeholders on a daily basis as part of our core mission. We are confident that the implementation of electronic documentation and P6 scheduling software's will have a direct impact on the success of these performance measures.

What 'Strategies for Improvement' were not successful? Why? See above.

What new 'Strategies for Improvement' will be initiated in FY 2015?

- Staff Accountability: Procedures for upper management reviews of projects with significant cost and schedule overruns will be fine tuned.
- Contract Closeouts: Efforts are continually ongoing to streamline contract closeouts. NDOT is putting a high priority on working internally and with contractor to closeout contracts in a timely manner.

- Electronic Documentation: Training and implementation of electronic documentation will occur during FY 2015increasing our process efficiencies and reduce overall project costs to the Department.

- P6 Professional Scheduling: Training and implementation of P6 professional scheduling software will increase the Departments knowledge of reviewing contractor schedules and ensuring contracts on staying on schedule.

Does this performance measure effectively measure what is desired?

This performance measure is not a direct measure of NDOT's performance on construction projects due to many factors beyond NDOT's control (increased / decreased competition, contractor bids, market forces, acts of god, contractor expertise, etc...). But time and money are important factors in any construction project and should be measured. We intend on monitoring similar performance measure research at a national level (AASHTO, FHWA, etc…) to refine NDOT's methods and improve performance.

Is there a better performance measure that should be considered? No

Will meeting the next yearly target have a fiscal impact? If so, explain.

Not monitoring schedule and budget performance can have fiscal impacts related to contractor payments, labor, equipment and material costs, administration costs, roadway maintenance costs, user delay costs, etc… Schedule and budget performance must be monitored to minimize those impacts and attempt to mitigate them.

8. MAINTAIN STATE HIGHWAY PAVEMENT

Performance Measure:

Percentage of state maintained roadways in fair or better condition.

Ultimate Target:

Perform annual rehabilitation as necessary to maintain the condition of the roadway network in conformance with the established goals and additional rehabilitation as necessary to eliminate the accumulated backlog.

Annual Target:

Category 1: 95% Minimum
Category 2: 95% Minimum
Category 3: 95% Minimum
Category 4: 95% Minimum
Category 5: 95% Minimum

Strategy Plan Support:

This performance measure supports the Department's Strategic Plan to effectively preserve and maintain NDOT's assets. In order for the Department to maintain the roadway network in fair or better condition, rehabilitation work is performed on the roadways each year. To increase the percentage of pavements in "Fair" or better condition, rehabilitation work must be constructed on all roads in excess of the rate of deterioration of the pavement.

The Department uses its Pavement Management System (PMS) in determining deterioration rates to predict the future condition of pavements and to monitor the condition of all of the state-maintained pavements in order to prioritize which pavements need rehabilitation. Proactive rehabilitation strategies are developed for pavements on a case-by-case basis to accommodate the particular needs of each project.

Proactive pavement rehabilitation is the most cost-effective way to use limited funds. Proactive pavement rehabilitation means working on roads in a timely and economical manner to maintain or improve the roadway network. Reactive pavement rehabilitation means waiting until the pavement has deteriorated below an acceptable level and then performing more expensive rehabilitation construction strategies. Being proactive instead of reactive is 4 to 6 times more cost effective when utilizing transportation funding. However, the use of proactive pavement rehabilitation practices on every road is not possible due to financial constraints.

Measurement and Supporting Data:

Current Pavement Condition of the State-Maintained Road Network

The state-maintained roadway network consists of 5,393 centerline miles of roads. The entire system of state-maintained roads is classified into five categories based on traffic levels and each category of roads is divided into six condition levels. An explanation of how these roads are divided into categories is included later in this report.
A pavement condition target of 95% minimum fair or better has been established for each category of road. This target represents a reasonable condition in which the road should be maintained. It also represents a balance between condition and expense. It is known that smoother roads in better condition are less expensive to maintain and rehabilitate. Inversely, when roads become rough and cracked or rutted, more money must be spent to bring them back to acceptable condition. Under current funding levels, an expectation of fair or better condition is a realistic balance between available funding and acceptable condition. A description of each of the condition categories listed below is also included later in this report.

TABLE 1 illustrates the current condition of the roadway network for which NDOT is responsible and includes the annual targets which have been established for the condition of the roads. For this particular data collection period, only 5,123 miles of the total 5,393 miles of the roadway network were surveyed and are reported on in this table.

TABLE 1. Pavement Condition versus Annual Target by Road Category

Condition	PSI Rating Scale	PSI Condition by Road Prioritization Category Percent (%) and Centerline Miles					
		Category 1 Roads	Category 2 Roads	Category 3 Roads	Category 4 Roads	Category 5 Roads	Roadway Network Totals
Very Good	5.00 to 4.00	43.5% 219	40.4% 374	22.8% 273	3.7% 32	0.4% 7	**17.7%** **905**
Good	3.99 to 3.50	50.8% 256	39.4% 365	54.8% 657	28.0% 240	7.1% 117	**31.9%** **1,635**
Fair	3.49 to 3.00	5.0% 25	15.9% 147	18.0% 216	37.7% 323	22.6% 371	**21.1%** **1,082**
Mediocre	2.99 to 2.50	0.6% 3	3.0% 28	3.2% 38	21.2% 182	32.7% 535	**15.3%** **786**
Poor	2.49 to 2.00	0.1% 0.55	0.9% 8	0.8% 10	7.2% 62	24.8% 406	**9.5%** **487**
Very Poor	< 2.00	0.0% 0	0.4% 4	0.3% 4	2.1% 18	12.3% 202	**4.5%** **228**
Total Centerline Miles		**504**	**926**	**1,198**	**857**	**1,638**	**5,123**
Condition Target (Min. % Fair or better)		**95%**	**95%**	**95%**	**95%**	**95%**	**----**
Current Condition (% Fair or better)		**99.3%**	**95.7%**	**95.6%**	**69.5%**	**30.2%**	**----**
Target Met per Category?		**YES**	**YES**	**YES**	**NO**	**NO**	**----**

Pavement Preservation Repair Work for the State-Maintained Road Network

During fiscal years 2013 and 2014, NDOT advertised approximately $241M worth of contract maintenance and rehabilitation pavement repair work. These expenditures addressed the preservation needs for approximately 392 miles of roads. TABLE 2 contains a financial summary of the advertised maintenance and rehabilitation pavement repair work that was accomplished on the state-maintained roadway network during fiscal years 2013 and 2014 along with the corresponding amount of mileage that was improved.

TABLE 2. Advertised Pavement Repair Work for Fiscal Years 2013 and 2014

Fiscal Year	Contracted Maintenance Repair Work Expenditures and Mileage	Contracted Rehabilitation Repair Work Expenditures and Mileage	Total Contracted Maintenance and Rehabilitation Repair Work Expenditures and Mileage
2013	$17,386,000	$123,657,522	$141,043,522
	64 Miles	64 Miles	128 Miles
2014	$19,496,131	$80,967,615	$100,463,746
	210 Miles	54 Miles	264 Miles
Biennium Total	$36,882,131	$204,625,137	$241,507,268
	274 Miles	118 Miles	392 Miles

Backlog of Pavement Preservation Repair Work

Due to funding constraints, a backlog of pavement preservation repair work has accumulated over the years. In TABLE 1, a red line is visible at the bottom of the fair condition level. The established goal of 95% fair or better requires that 95% of the roads are above the red line. The backlog is calculated by multiplying the percentage of miles in excess of 5% that are below the red line by the estimated cost of rehabilitating those roads. The total backlog cost is shown in TABLE 3.

TABLE 3. Backlog of Pavement Preservation Repair Work for Entire Network

	Category 1 Roads	Category 2 Roads	Category 3 Roads	Category 4 Roads	Category 5 Roads
Deficient Pavement (In Miles)	0	0	0	219	1061
Estimated Cost Per Mile to Rehabilitate Pavement	$2.1M	$1.3M	$0.7M	$0.6M	$0.5M
Total Cost to Rehabilitate Pavement Per Road Category	$0M	$0M	$0M	$131.4M	$530.5M
Total Backlog of Pavement Preservation Repair Work	$661.9M				

Effects of Future Funding on Backlog and Pavement Condition

The estimated total backlog of pavement preservation work is only a part of the funding gap that currently exists in the budget for maintenance and rehabilitation. As illustrated by the red line in Figure 1 below, in spite of an average $132 million dollars spent annually on the roads in the state-owned roadway network, the average condition of the roads continues to deteriorate.

Currently, on average, only 75% of the entire state-owned roadway network is in fair or better condition. It has been estimated that an additional $191 million dollars needs to be spent on our roads annually to simply maintain the current condition, represented by the yellow line. To improve the condition of the network to meet the established goals, an additional $662 million dollars, divided across a number of years, would need to be spent to eliminate the backlog, shown as the green line. The total amount of funding required maintaining the condition of the roads at a higher level, meeting the goal of 95%, would likely be less than the total of $132 million and $191 million due to the lower cost of maintaining roads in better condition. These estimates are based on current conditions, predicted future conditions, current material and construction costs and current deterioration models.

FIGURE 1. Effects of Additional Funding on Pavement Condition

Background Information

In order to effectively monitor the condition of all the state-maintained pavements and to prioritize which pavements need rehabilitation, NDOT has classified the 5,393 miles of roads on the state-maintained roadway network into five separate road prioritization categories. These categories are based on heavy truck equivalent single axle loads (ESALs), average daily traffic (ADT), and federal guidelines for highway classification descriptions. The roads within each category have similar in-place pavement thicknesses, similar rates of deterioration, and require similar timing for maintenance and rehabilitation work.

TABLE 4 lists the five separate road prioritization categories and corresponding descriptions. Also listed are several examples of easily recognized roads throughout the state to assist with understanding the significance of the descriptions.

TABLE 4. NDOT's Road Prioritization Categories

Road Prioritization Categories	[1]Description	Examples
1	Controlled Access Roads	IR015, Clark County IR580, Washoe County IR080, Elko County
2	ESAL > 540 or ADT > 10,000	SR146, St. Rose Parkway, Clark County US050, Lincoln Highway, Carson City SR227, Fifth Street, Elko County
3	540 ≥ ESAL > 405 or 1,600 < ADT ≤ 10,000 + NHS	SR157, Kyle Canyon Road, Clark County SR028, Lake Tahoe Area, Douglas County SR225, West Urban Limits of Elko, Elko County
4	405 ≥ ESAL > 270 or 400 < ADT ≤ 1,600	SR158, Deer Creek Road, Clark County SR206, Foothill Road/Genoa Lane, Douglas County SR228, Jiggs Road, Elko County
5	ADT ≤ 400	SR156, Lee Canyon Road, Clark County SR121, Dixie Valley Road, Churchill County SR229, Secret Pass Road, Elko County

[1]ESAL is an acronym for "Equivalent Single Axle Load." This engineering concept is the basis for the method used to quantify the standard loading of trucks and count the heavy trucks that travel on roads. ADT is an acronym for "Average Daily Traffic." The Pavement Management System includes the ADT data, as provided by NDOT's Traffic Division, for every road in the state-maintained roadway network. NHS is an acronym for the "National Highway System." The NHS consists of roads important to the nation's economy, defense, and mobility as defined by the United State's Department of Transportation.

The concept that pavements should provide a smooth, comfortable, and safe ride for travelers requires a pavement condition rating system that includes all the attributes important to travelers. These attributes include travelers' responses to motion and appearance as demonstrated by a smooth riding surface that is free from cracking, patching, and potholes. A pavement condition rating system has been developed that objectively measures all the attributes that are important to travelers. This rating system is called the Present Serviceability Index (PSI).

The PSI pavement condition rating system values are calculated using pavement roughness measurements and mathematical formulas that quantify pavement distresses such as cracking, raveling, rutting, and potholes. These measurements and formulas are combined and standardized into an objective rating scale numbered from zero to five. Pavements rated from four to five are interpreted as pavements in "new" or very good condition with very smooth surfaces that are completely free of distress or irregularities. Pavements rated less than two are interpreted as pavements in very poor or failed condition having the roughest of surfaces that are no longer navigable at the posted speed limit. The PSI pavement rating system is used to quantify the pavement condition for each route within the state-maintained roadway network.

TABLE 5 illustrates how the PSI rating scale is subdivided into six separate sections that correspond to pavements in very good, good, fair, mediocre, poor, and very poor or failed

condition. Descriptions of the various pavement conditions include the types of distresses that typically occur at each condition level.

TABLE 5. NDOT's Road Prioritization Categories

Pavement Conditions	PSI Rating Scale	Description of Pavement Conditions
Very Good	5.00 to 4.00	Pavements in "Very Good" condition have an excellent, very smooth ride quality and are completely free of pavement distress. Pavements are in "new" condition.
Good	3.99 to 3.50	Pavements in "Good" condition have a very smooth ride quality and begin to show minor distresses that are typically environmental rather than load related. Distresses include minor non-wheelpath longitudinal and transverse cracks as well as minor surface raveling.
Fair	3.49 to 3.00	Pavements in "Fair" condition have a good ride quality except noticeable environmental distress has developed. Non-wheelpath longitudinal and transverse cracks are frequent. There is light surface oxidation and weathering. Structural distress in the form of ruts and fatigue cracks begin to occur.
Mediocre	2.99 to 2.50	Pavements in "Mediocre" condition have a barely acceptable ride quality and have accumulated significant environmental and structural distresses. Pavements have non-wheelpath longitudinal cracking and transverse cracks so closely spaced that block cracks develop. Ruts and fatigue cracks are present.
Poor	2.49 to 2.00	Pavements in "Poor" condition have a poor ride quality and have accumulated large amounts of environmental and structural related distresses. The non-wheelpath longitudinal and transverse cracks are severe. The surface is weathered, rutted, and fatigue cracks are widespread.
Very Poor or Failed	< 2.00	Pavements in "Very Poor" condition have a very poor ride quality and have accumulated significant environmental and structural distresses. The surface is pitted and there are wide non-wheelpath longitudinal and transverse cracks. Networked, spalled fatigue cracks and deep ruts are prevalent. The deterioration is so advanced potholes are prevalent. The roads are no longer navigable at the posted speed limits.

Strategies for Improvement:

Short Range to next reporting:

1. Use pavement prediction models to anticipate future pavement condition levels. This will help to predict what amount of funding will be required in the future.
2. Collect pavement condition data as frequently as possible to provide the most accurate information regarding the state-maintained roadway network.

Long Range:

1. Assist in the effort to distribute limited funding in the most appropriate manner, addressing the targets for all performance measures.
2. Monitor the effects of rehabilitation and preservation strategies versus the actual needs of the system and make any necessary updates and adjustments to the rehabilitation program.
3. Take steps to create decision tree models that will document the decision making processes used when determining the timing of pavement rehabilitation work and the selection of the type of repair strategy used.

Annual Evaluation of Performance Measure

Was the annual target met?
The annual target was met for road Categories 1 through 3, but not for Categories 4 and 5. Current funding levels do not allow meeting the annual target in every Category.

What 'Strategies for Improvement' were successful?
Previous performance measure strategies for improvement such as focusing on high volume roads have resulted in road Categories 1 through 3 meeting the targets for pavement condition. This is important due to the amount of traffic and the cost to rehabilitate those roads. Categories 4 and 5 roads are allowed to deteriorate into less than fair conditions because of funding constraints. Without increased funding for pavement rehabilitation the condition of the roads will continue to decline.

What 'Strategies for Improvement' were not successful?

None

What new 'Strategies for Improvement' will be implemented in 2015?

Short range to next reporting:
The Department will concentrate on implementing the strategies listed above.

Long Range:
The Department will concentrate on implementing the strategies listed above.

Does this performance measure effectively measure what is desired?
Based on the deterioration rates of state-maintained roadways, the annual and ultimate targets represent what is realistic, cost effective and acceptable.

Is there a better performance measure that should be considered?
Other performance measures exist and have been investigated by the Department. This measure accurately portrays the experience of the travelling public and what condition is reasonable for the roadway network.

Will meeting the next yearly target have a fiscal impact? If so, explain.
Yes, the impact of under-funding the annual needs of the system will lead to an increased backlog and deterioration of the entire roadway network. Proactively applying rehabilitation and preservation strategies to the state-maintained roadway network can extend pavement service life and reduce costly reconstruction project costs by 4 to 6 times. Costly reconstruction projects not only impact the Department's budget, but impact the travelling public for longer periods of time due to longer construction projects.

9. MAINTAIN NDOT FLEET

Performance Measures:

There are two performance measures for the maintenance of the Department's fleet of mobile equipment:

(A) **Percentage of fleet requiring replacement** – this measure is the percentage of the fleet that have reached the age or mileage that requires replacement.

(B) **Percentage of fleet in compliance with condition criteria** – this measure is the percentage of the fleet that is maintained as per Department preventive maintenance requirements so that the expected life span of our vehicles is not compromised. As the fleet is maintained on the mileage and/or hourly requirements, compliance has been met.

Annual Target:

(A) Declining Rate of 1% per year

(B) Increasing Rate of 1% per year.

Ultimate Target:

(A) 10%

(B) 95% rate of compliance for mileage/hourly requirements

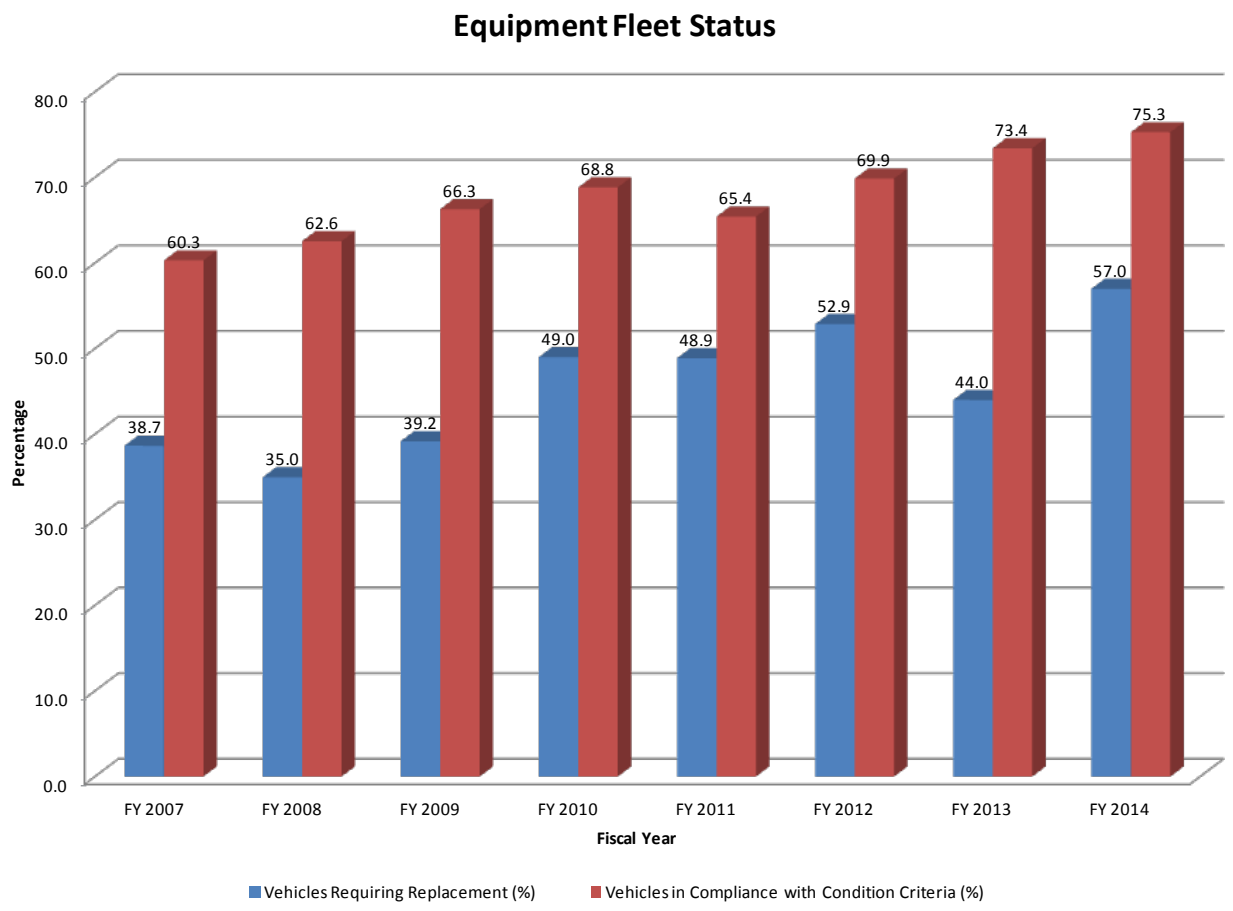
Measurement and Supporting Data:

	Replacement Criteria Measured Annually	Condition Criteria	Change	
FY 2007	38.65 %	60.30 %		
FY 2008	34.96%	62.55 %	-3.69%	+2.25 %
FY 2009	39.18 %	66.30 %	+.53 %	+6.00 %
FY 2010	49.01%	68.84 %	+10.36 %	+8.84 %
FY 2011	48.88%	65.42%	+10.23%	+5.12%
FY 2012	52.86 %	69.86 %	+14.21%	+9.56 %
FY 2013	44.00 %	73.41 %	+5.35 %	+13.11%
FY 2014	56.99%	75.28%	+18.34%	+11.24%

Strategy Plan Support

In Fiscal Year 2010 the Equipment Division initiated a Rebuild Program that extends the life of equipment for an additional life span. Equipment that has reached or exceeded replacement criteria is rebuilt to like-new condition for considerably less than the cost of purchasing new equipment. The Rebuild Program also assists in assuring that NDOT is adequately equipped for its work effort in maintaining public safety.

The vehicles in the fleet are important to deliver projects and maintain a safe highway system. Equipment in good condition ensures the ability to perform NDOT's business practices and provides a safe and secure tool for staff. These performance measures work towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Innovate, Be the employer of choice, Deliver timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system.



Strategies for Improvement:

Short range to next reporting:

1) a. Revise replacement criteria by increasing usage criteria in selected class codes

   b. Removing age criteria in other specified class codes.

   c. Implement policy controls for equipment replacement.

2) a. Analyze quarterly Preventive Maintenance (PM) due and accomplished on core fleet.

   b. Develop enforceable policy for non-compliance of PM standards.

Long range:

1) a. Reduce fleet size by usage assessments.

   b. Minimize retention of replaced vehicles.

2) a. Perform annual fleet condition audit.

   b. Develop Predictive Maintenance Program.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met?

No on 1. Yes on 2.

What 'Strategies for Improvement' were successful?

(A) We were successful in minimizing the number of vehicles retained.

(B) We were successful in performing a condition audit of the fleet which identified vehicles that needed further attention.

What 'Strategies for Improvement' were not successful? Why?

(A) Strategies to reduce replacement deficit were detrimentally effected from a loss of funds.

(B) Unable to develop a Predictive Maintenance Program due to lack of available personnel.

What new 'Strategies for Improvement' will be initiated in FY 2015?

Short range to next reporting:

(A) Attempt to rebuild more units.

(B) Improve notification process for timely preventive maintenance.

Long range:

(A) Reduce fleet size through utilization assessments.

(B) Develop Predictive Maintenance Program.

Does this performance measure effectively measure what is desired?

Yes.

Is there a better performance measure that should be considered?

No.

Will meeting the next yearly target have a fiscal impact? If so, explain.

(A) Yes – Meeting the target will require substantial use of funds.

(B) Yes – Meeting the target extends the life of the vehicle while ensuring the safety and reliability of the fleet, thus reducing the need to utilize funds for repairs and replacements.

10. MAINTAIN NDOT FACILITIES

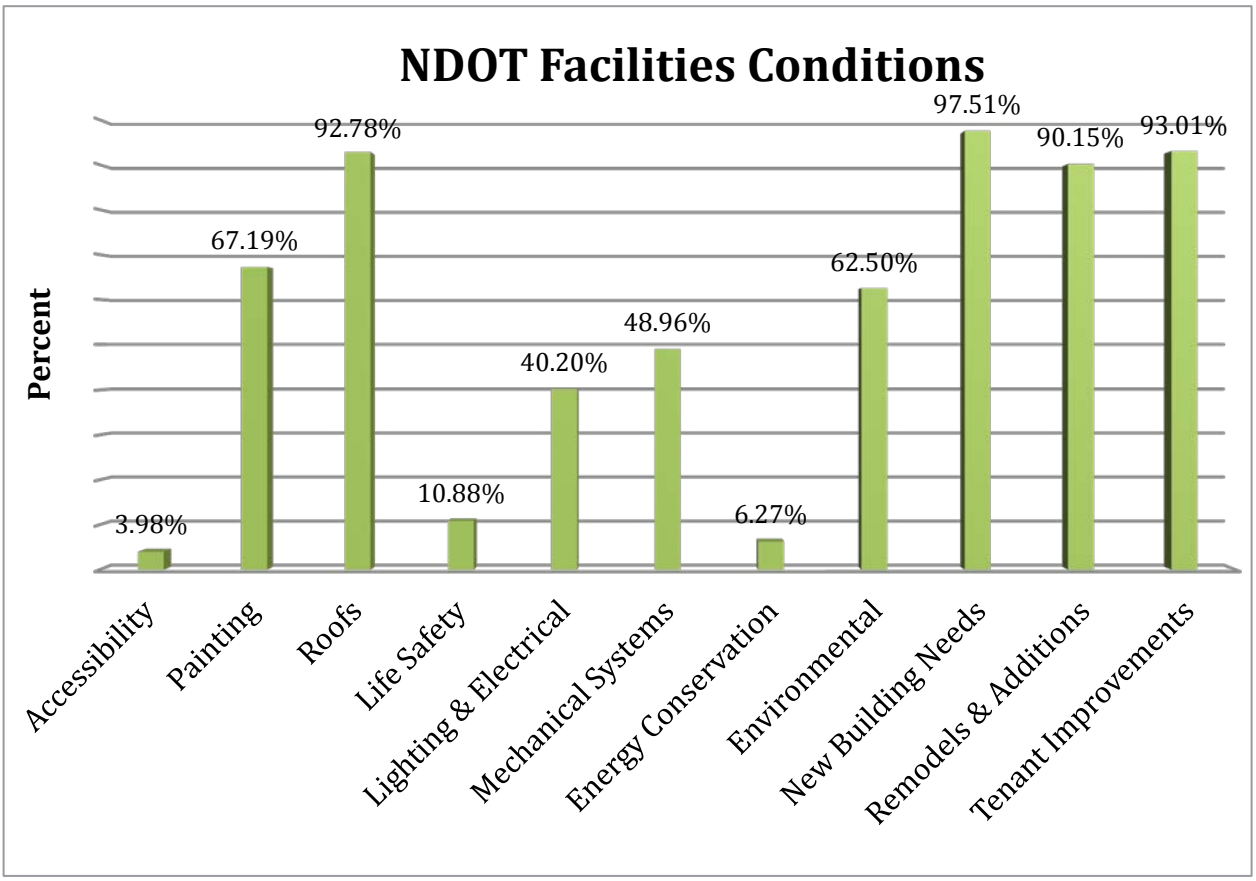
Performance Measure:

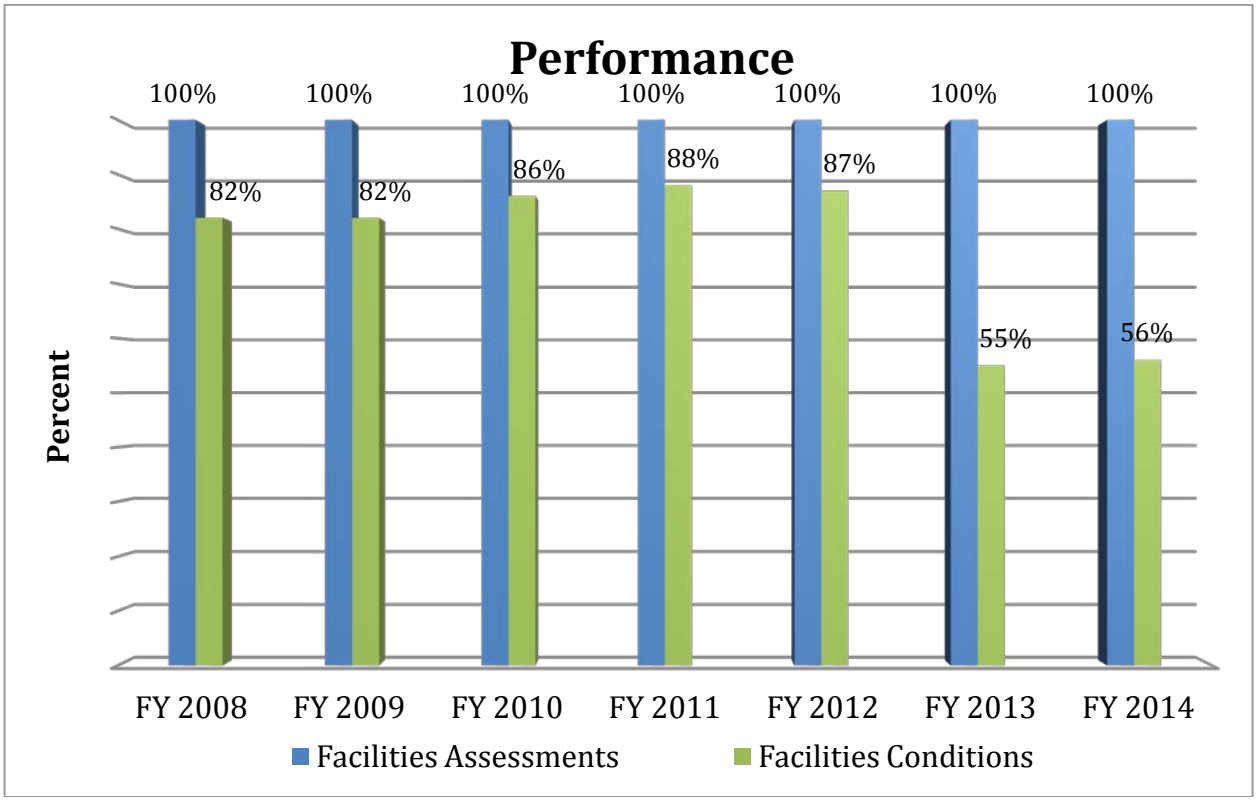
Percent of facilities assessments completed and percent of facilities conditions and priority needs.

Annual Target: Increase by 3% **Ultimate Target:** 100%

Measurement and Supporting Data:

FY 2011	87%
FY 2012	87%
FY 2013 (New Method – Base Number)	53%
FY 2013	55%
FY 2014	56%





NOTE: For FY 2008 through FY 2012, the Facilities Performance Measure were based on code-related work only.

For FY 2013, the new performance measure is based on facilities assessments, conditions and priority needs completed.

Initial results from changing to the New Method of measuring Performance Measure #10:

Percentages have dropped overall due to including finer details in previous categories and adding categories that didn't exist before. Added categories capture the entire Architecture workload. Data has been updated to include the results from the new 2012 Assessment Study by GML Architects. The report is a Statewide Summary of the buildings and other facilities in all 3 Districts. All the Department facilities are listed by District and District totals are available. Under the Accessibility category, the smallest ADA infraction was considered, therefore the % complete is very low. Under the Energy Conservation category, the % complete is very low because most buildings are very old and have many opportunities for energy conservation improvements.

Strategies for Improvement:

Short range to next reporting:

Work on improving the data in the following columns: Energy Conservation and Environmental as data become more complete.

Long range:

The expanded categories for calculating this performance measure will aid us to develop a defined work plan with prioritized projects, tied to Architecture's budget for successful accomplishment of goals and objectives.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met?

No. The percentage of performance was increased by 1% over the base number established last year. Facilities improvements for the Past 2014 fiscal year are listed below.

Life Safety Improvements included for this fiscal year:

- HQ Lab Building Fire Alarm Report - DONE
- HQ 2nd & 3rd floor sprinkler drawings – Bidding Oct. 2014
- Disconnect switch upgrades at fuel pumps – PARTIAL – Haw. & Yer.
- Fire sprinkler at the East Annex – CANCELED – Bldg. to be VACATED

Mechanical Improvements included:

- D3 Elko Progress Lab Ventilation and Controls Upgrade - DONE
- D2 HQ Boiler Upgrade at the Sparks Equipment Yard - DONE
- D1 LV HVAC Upgrades at Lab Building & Equipment Shop Building - DONE

Lighting Improvements included:

District 1

- Tonopah – Admin., Crew, Fuel - DONE

District 2

- Cold Springs- Site, Shop, Storage - DONE
- Fallon- Admin., Safety - DONE
- Fernley- Admin., Salt, Admin., Fuel - DONE
- Hawthorne- Maint. Sta., Vehicle Storage - DONE
- Lovelock- Maint. Sta. - DONE
- Wellington- Fuel, Maint. Sta., Vehicle Storage - DONE
- Yerington- Crew Office, Maint. Sta., Vehicle Storage - DONE

District 3

- Elko- Parts and Repair shop - DONE
- Ely- Shop, Admin, Maint.Sta., Cold Storage, Vehicle Stor., Crew office - DONE
- Winnemucca- Admin. - DONE

Painting Improvements to the facilities at the following locations:

- Alamo - DONE
- Glendale - DONE
- Goldfield – Building Bay Extension done – no painting needed
- Las Vegas South – carry over to 2015
- Panaca - DONE

One new building was constructed:

- Roop Street Annex Building – DONE

What 'Strategies for Improvement' were successful?

The development of a new method of calculating PM#10 which incorporates everything we do (the old method only included selected code elements such as the fire sprinklers and electrical items included in the 2005 Facility Assessment Report). The new method will utilize the 2012

Assessment Study that provides data on categories such as Accessibility, Painting, Roofs, Life Safety (Building Code related), Lighting and Electrical, Mechanical Systems, Energy Conservation, and Environmental (wash pads and storm water). Additional elements such as New Building Needs, Remodels or Additions, and Tenant Improvements are also included. This data will be used to measure the facilities needs and the progress towards maintaining our facilities in an effective manner.

What 'Strategies for Improvement' were not successful? Why?

The old method of calculating this performance measure was limited in scope and the items were difficult to track. There were many items of work that were not captured when measuring our performance. It did not provide meaningful and easily identifiable elements that could be tracked to show improvement or lack of improvement.

The new method is set up to be a "living document" allowing staff to input data and monitor the progress of improving our facilities. Items will be easier to track and the data gives a better picture of our program.

What new 'Strategies for Improvement' will be initiated in FY2015?

Short range to next reporting:

Track our 2015FY program and look at how we can make improvements.

Project Managers are learning how to use the PM#10 chart with their annual work load.

Long range:

Defining a work plan with prioritized projects and tying the work plan to Architecture's budget. This will be used as a roadmap for successful accomplishment of goals and objectives.

Facilities improvements that will complete in the New 2015 fiscal year are listed below:

Target % increase complete is estimated at 2% for the FY 2015

ADA, Accessibility:

- Ely Admin. Bldg. Entrance and other Ely ADA
- Valmy Rest Area
- Elko Admin Bldg. Entrance

Roofing:

- Mountain Springs

Contact

- Fallon M.S.
- Goldfield M.S.
- Battle Mountain

Life Safety Improvements included for this fiscal year:

- HQ 2nd & 3rd floor sprinkler drawings – Bidding Oct. 2014
- Carson HQ Bldg. emergency notification system
- Carson HQ Bldg. C-Cure swipes at interior doors
- New security cameras at HQ and all Districts

Mechanical Improvements included:

- D2 - CC Vehicle Storage Boiler, and remove Shop Boiler
- D2 – Reno, Equip Shop
- HQ Motor Pool Boiler
- CC HQ Lab, Replace Chiller

Lighting or Electrical Improvements included:

District 2

- Generators at 6 M.S. – Incline, Mt. Rose, Spooner, Galena, CC, and Comanche

District 3

- Elko-Yard and Interior Lights
- Cosgrave Rest Area
- Winnemucca Power Distribution Upgrade

Painting Improvements to the facilities at the following locations:

- Austin, Eureka, Ely
- Hawthorne, Cold Springs, Fallon
- Las Vegas South, Searchlight, Indian Springs

Environmental:

- Elko Wash Pad and Drainage
- Carson Yard Storm Drainage

Remodels and Additions:

- Fallon Bay Extension
- Fernley Bay Extension

Tenant Improvement Projects:

- Roop Street Bldg. – Move Construction Division to SW corner of Roop Bldg.
- HQ – Hydrology Move to 2nd Flr.
- District 2 Reno – Progress Lab T.I.

Does this performance measure effectively measure what is desired? Yes.

Is there a better performance measure that should be considered? No.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes. Since this is a new performance measure, we will evaluate and monitor the fiscal impacts and the performance levels before establishing any changes to our yearly target.

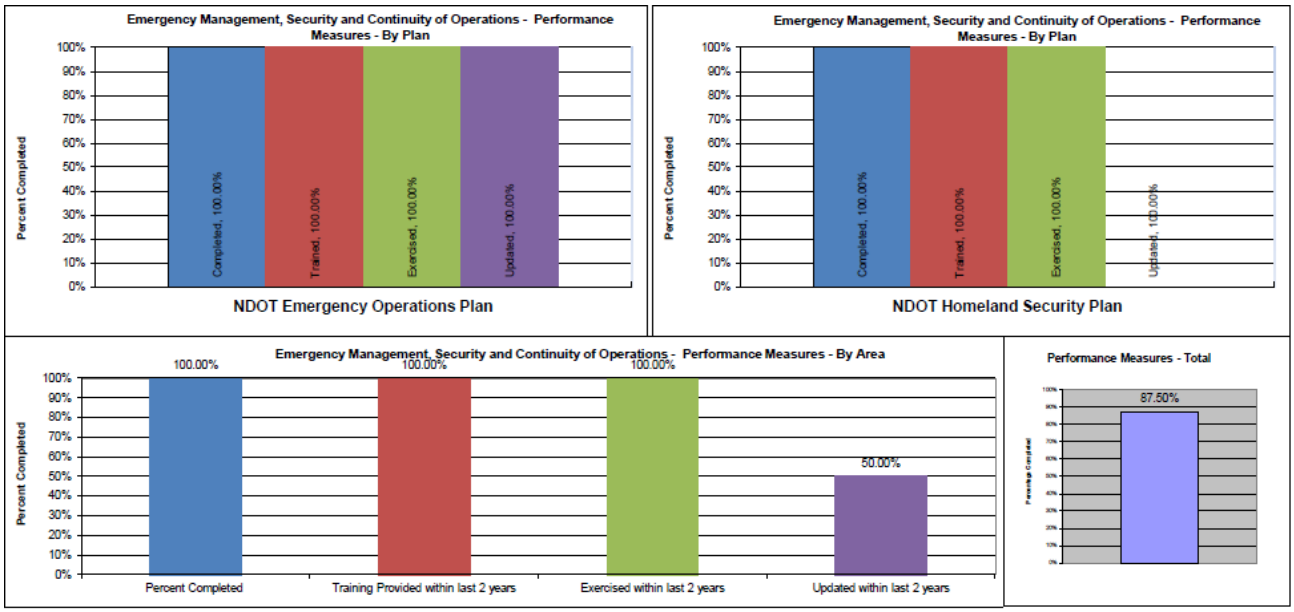
11. EMERGENCY MANAGEMENT, SECURITY AND CONTINUITY OF OPERATIONS

Performance Measure:
Percent of emergency plans that have been completed, training and education have been provided to appropriate personnel, the plans have been tested and exercised and the plan has been updated to accommodate changes in departmental processes, federal guidelines, etc. Training and updates should be completed on a biennial basis. Plans include:

- NDOT Homeland Security Plan
- NDOT Emergency Operations Plan

Ultimate Target: 100%

Annual Target: 100%



Strategy Plan Support:
NDOT's emergency plans provide clear guidance on how NDOT will continue to perform critical functions and operations in the event of an emergency or disaster. Being prepared and ready for an emergency is paramount for keeping systems operating during such times, as well as being in a position to respond to health and safety issues. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to:

- Optimize Safety
- Be in touch with and responsive to our customers
- Innovate,

• Deliver timely and beneficial projects and programs,

• Effectively preserve and manage our assets

• Efficiently operate the transportation system.

Summary: July 2013 – June 2014:

The NDOT Emergency Management/Homeland Security section is working to update the NDOT Homeland Security Plan. This update will include a complete re-structure of the Plan, to include department wide security measures and to coordinate security efforts currently taking place within the Department. This effort will include a survey of the NDOT divisions and districts, research regarding other state DOT's security plans, federal guidelines and current practices. The NDOT Emergency Management/Homeland Security section will also conduct an exercise upon completion of a draft plan to test the efficacy of the plan prior to finalizing the document. The new Security Plan is scheduled to be completed before the end of the calendar year.

The NDOT Emergency Management/Homeland Security section is continuing to work with the NDOT Traffic Operations Division, IT Division, and the Locations Division (GIS) on developing an Emergency Operations Center (EOC) mapping program for use in the NDOT DEOC. NDOT GIS is in the process of hiring a contractor to assist with developing a web application that will allow NDOT personnel to track road status during emergencies, and share that information with other agencies via the internet. The software for this application is still in development, and a date for completion has not been set yet.

The "Operation Burst" exercise series was completed in the fourth quarter after the NDOT Homeland Security/Emergency Management section hosted a functional exercise in District III to test the District Annex to the NDOT Emergency Operations Plan. The exercise, named "Operations Eastern Burst", used an extreme weather scenario to simulate emergency operations in the District, and focused on the roles and responsibilities of the Road Operations Center during a disaster. An After Action Report/Improvement Plan (AAR/IP) will be drafted and disseminated for review during the next quarter.

The NDOT Emergency Management/Homeland Security section continues to work with the NDOT Traffic Operations Division on a communications annex to the NDOT Emergency Operations Plan. The annex will develop procedures for prioritizing and maintaining communications within the NDOT DEOC when activated.

The NDOT Emergency Management/Homeland Security section, in collaboration with the NDOT Safety section of the Human Resources Division, HQ Buildings and Grounds, and the NDOT Architecture section, has completed the Department Lockdown and Evacuations procedures. Pilot training classes have been held for the HQ Hall, Room and Floor Monitors. Training is being scheduled for all NDOT Headquarters personnel. Work on District Lockdown and Evacuation procedures will take place in the near future.

A Security Task Force has been established to provide direction and guidance as security measures are developed and implemented for the Department. Personnel from the Maintenance and Asset Management Division, Human Resources Division and Building and Grounds have been included in this Task Force. District representatives are also being sought to participate in the Task Force.

The NDOT Homeland Security/Emergency Management section began working with the Nevada Division of Emergency Management (NDEM) in the acquisition and storage of sand bags for use when needed during emergencies. NDEM is purchasing the sandbags, and NDOT is transporting and storing the sandbags at our Hotsprings facility. The acquisition of the sandbags will be completed in the first quarter of next year.

The regular quarterly update of the NDOT Emergency Operations Center Contact List was updated on time in the fourth quarter.

Training:
During this fiscal year, the following training was provided or attended by NDOT personnel:

August 19-23, 2013 - Jim Walker and Chris Joncas attended a Peer Exchange of emergency management personnel from the DOT's nationwide. This peer exchange included an exercise to compare practices by DOT's from across the nation and classes on current emergency management practices.

September 17-18, 2013 - Chris Joncas provided a training session to the Maintenance Supervisors throughout NDOT on the responsibilities of NDOT and NDEM during emergencies.

September 11-12, 2013 - Chris Joncas attended a Terrorism Liaison Class with the Nevada Terrorism Analysis Center.

September 27, 2013 - Vicky Thompson and Anita Bush attended training conducted by the Division of Emergency Management regarding public assistance during emergencies.

October 8, 2013 – Training was held regarding how the Lockdown and Evacuation procedures are going to be presented to the NDOT Headquarters personnel. Modifications were made to the training materials following this training to improve the presentation.

November 19-21, 2013 - Chris Joncas and Vicky Thompson attended the ICS-300 class hosted by the Nevada Division of Emergency Management. This class focuses on the necessary skills to manage an Emergency Operations Center during a disaster.

December 5, 2013 – Training was conducted for the Chief of the Logistics unit within the NDOT EOC. There have been significant changes in the personnel assigned to these positions, and training was necessary to acquaint people with their roles and responsibilities during disasters.

January 23 2014 – Training was conducted for Hall, Room and Floor Monitors of the NDOT HQ building on security lockdown and evacuation procedures. Three training sessions were conducted this day.

January 27, 2014 - Training was conducted for Hall, Room and Floor Monitors of the NDOT HQ building on security lockdown and evacuation procedures.

February 4, 2014 – Jim Walker participated in a Joint Critical Infrastructure Partnership Workshop Webinar held by the National Infrastructure Protection Program.

February 4, 2014 – Vicky Thompson participated in a separate session of the Joint Critical Infrastructure Partnership Workshop Webinar held by the National Infrastructure Protection Program.

April 21 2014 – Training from the Nevada Mental Health Division (Emergency Support Function 8-1) was attended by NDOT personnel to learn their capabilities to better support emergency operations and provide better coordination in the State Emergency Operations Center.

April 22, 2014 – An 8 hour training session was attended by NDOT staff regarding response and planning considerations in Active Shooter situations.

May 13, 2014 – The Inter-Tribal Emergency Response Commission (ITERC) provided training regarding working with the Nevada tribes during emergencies.

Exercises:
During this fiscal year, the following exercises were provided or attended by NDOT personnel:

July 9, 2013 - Operation Lock 'N' Roll, a tabletop exercise, was held to test the new Lockdown Procedures and Evacuation Procedures being developed for inclusion in the NDOT Homeland Security Plan. This exercise was attended by the Directors Office, as well as key personnel from throughout the Department. Following the exercise, an After Action Report/Improvement Plan (AAR/IP) was created and used to update the Lockdown Procedures and Evacuation Procedures
During this quarter, the following exercises were provided or attended by NDOT personnel:

October 24, 2013 - Operation Northern Burst, a functional exercise, was held in District 2 to test the District 2 annex to the NDOT Emergency Operations Plan. This was the first functional exercise conducted by NDOT at the District level. Further exercises are planned for District 1 and District 3.

November 12, 2013 – Arkstorm, a regional flood exercise, was held by the Nevada Division of Emergency Management. NDOT participated in this exercise by staffing the Emergency Support Function 01 position at the State Emergency Operations Center as required by the NDOT Emergency Operations Plan.

December 5, 2013 – A follow-up exercise to the main Arkstorm exercise was conducted by Washoe County Emergency Management. NDOT participated to provide information to Washoe County on how coordination with the county during an emergency would take place according to the NDOT Emergency Operations Plan.

February 19, 2014 - Operation Southern Burst, a tabletop exercise, was conducted in District 1 using an inclement weather scenario to test the interaction between the District EOC and the District 1 Road Operations Center.

March 14, 2014 – Arkstorm, a regional flood scenario tabletop exercise, was conducted by the Nevada Division of Emergency Management at the Washoe County Regional EOC. NDOT District 2 personnel participated.

May 14, 2014 – Caltrans held a Functional Exercise to test their Alternate Emergency Operations Center using an earthquake and tsunami scenario. NDOT personnel assisted with the exercise as evaluators.

June 10, 2014 – The NDOT Emergency Management/Homeland Security section conducted a Functional Exercise for District III management to test the District Annex to the NDOT EOP, especially regarding the use of the District III Road Operations Center.

June 25, 2014 – NDOT personnel from the Maintenance and Asset Management Division and from District I participated in a Tabletop exercise hosted by Nevada Division of Emergency Management using an earthquake scenario in Lake Tahoe

Updates:
The following plans/procedures received updates during this quarter:
No updates were completed during this quarter.

Strategies for Improvement: As applicable

Short range:

A functional exercise was conducted in District 3, and an After Action Report/Improvement Plan (AAR/IP) is being prepared. The AAR/IP will provide guidance for updating NDOT's emergency plans and procedures, and will be used to ensure the plan updates are relevant to NDOT's needs.

Training is currently being planned for all NDOT Headquarters personnel regarding the recently completed Headquarters Lockdown and Evacuation procedures. Following this training, efforts will begin to create Lockdown and Evacuation procedures for the Districts and Annex buildings.
A significant update to the NDOT Homeland Security Plan is in progress. This update will document the security efforts currently in place within the Department, and attempt to establish a coordinated method of improving and implementing additional security measures.

Long range:
Exercises will continue to be held at least twice each year, with the After Action Reports being used to update our Emergency Operations and Security plans. Training will be held in preparation for these exercises, as well as after the exercises to mitigate areas of improvement indentified in the exercises.

Were the targets met?
Yes

What 'Strategies for Improvement' were successful?
Conducting exercises successfully tests and provides training for NDOT personnel on disaster response activities. It also provides valuable feedback needed to update our plans and procedures. Regular exercises will remain a fundamental part of our strategy. Training is also being supplied to the Districts at an accelerated pace based on their requests and feedback received from the exercises Consolidation of the Emergency Operation Plans (State Level Emergency Operations Plan, District Emergency Operations Plan, Continuity of Operations Plan, and Southern Nevada Evacuation Plan) into one plan with multiple annexes has proven to be successful. All feedback from the personnel involved in emergency operation has been positive, indicating it is more efficient and easier to respond when there is only one plan to reference.

What 'Strategies for Improvement' were not successful? Why?

We were not able to complete the update of the NDOT Homeland Security Plan in FY 2013 as planned due to additional requirements being added. The inclusion of Lockdown and Evacuation procedures for the HQ complex have added complexity to the planning process, and caused a delay in completing the update of the plan. The NDOT Homeland Security Plan update is now projected to be completed by the end of calendar year 2014.

What new 'Strategies for Improvement' will be initiated in FY2015?
Short range:
The strategies implemented to date have been successful in achieving our performance measures. We will continue to combine Emergency Operations and Security plans as much as possible to reduce the number of plans to be exercised and updated.

Long range strategy:
Emergency Management and Homeland Security Plans have been consolidated in the latest update to simplify the planning process, and make it easier for NDOT staff to find information during actual events. Since achieving 100% compliance with our performance measures, efforts will now focus on improving the security stance of the department and completing the necessary tasks to remain compliant with our performance measures.

Does this performance measure effectively measure what is desired?
Yes

Is there a better performance measure that should be considered?
This Performance Measure has been revised to reflect the merging of separate plans. The Mobile Fleet Security Plan has already been incorporated into the NDOT Homeland Security Plan. The Continuity of Operations Plan, District Level Emergency Operations Plan and the Southern Nevada Evacuation Plan have been included into the NDOT Emergency Operations Plan. Performance Measure 11 has been modified to reflect these changes

Will meeting the next yearly target have a fiscal impact? If so, explain.
No fiscal impact is anticipated.

12. REDUCE FATAL CRASHES

Performance Measure:

Number of fatalities on Nevada's streets and highways.

Annual Target: Average annual decrease of the five-year rolling average by 3.1% resulting in halving traffic fatalities and serious injuries by 2030.

Ultimate Target: Zero

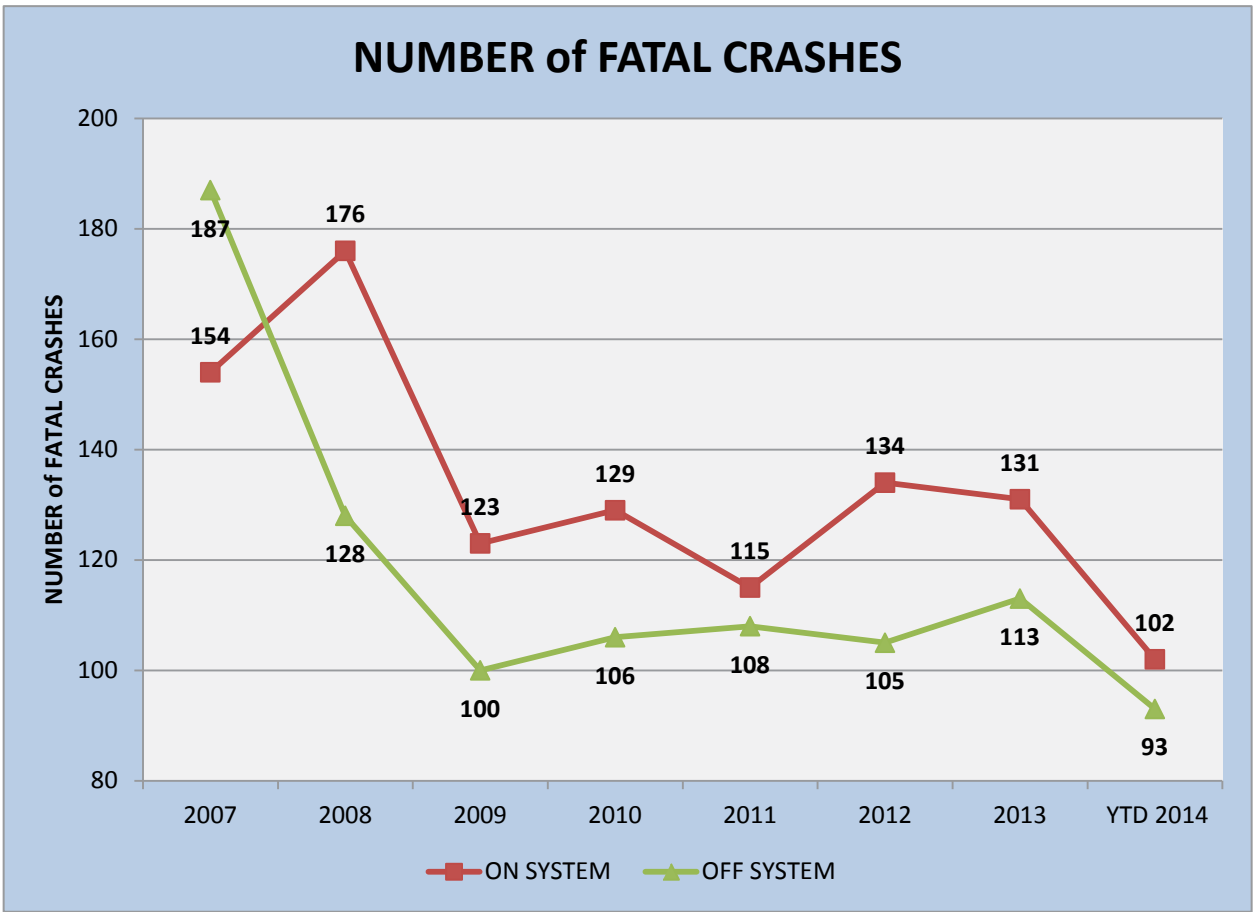
The "pre-set" target was set from the 2011 data and the newly added adjusted target is the actual five year rolling average adjusted down 3.1%. This provides us a range instead of a single number as a goal and provides reporting consistency with the Office Of Traffic Safety.

Fiscal year 2014Target:

Decrease motor vehicle fatalities from the 2008-2012 five year average of 266 by three percent, to the projected 2010-2014 number of 258, by December of 2015.

Measurement and Supporting Data:

Year	Number of Fatalities	Benefits Of Lives Saved Over The Prior Year (Millions of Dollars)	Five-Year Rolling Average Number of Fatalities	Pre-Set Target Five-Year Rolling Average	Target Adjusted From Five Year Rolling Average
2005	427	-$198.4			
2006	432	-$31.0			
2007	372	$372.0	397		
2008	324	$297.6	390		
2009	243	$502.2	360		
2010	257	-$86.8	326		
2011	246	$68.2	288	288	
2012	262	-$99.2	266	279	
2013	**265**	**-$18.6**	**255**	**270**	
2014 YTD	218	$291.4	250	262	
2015				254	258
2016				246	TBD



Strategies for Improvement:

Short range to next reporting:

Continue the State's five-year Strategic Highway Safety Plan (SHSP) implementation. 5

- ❖ Promote Zero Fatalities to the public (the fifth E of safety, everyone)
  - www.zerofatalitiesnv.com website
  - Media
  - Grassroots Marketing
- ❖ Safety Summit to be held in Reno in March 2015 (The SHSP will be updated after the Safety Summit)
- ❖ Expand the Road Safety Audit (RSA) program by completing the mitigations database and tracking tools associated with the RSA program. We will also be including "work zone" RSA's in major projects as a standard item.
- ❖ Continue to invest NDOT's safety funds on strategies identified in the SHSP
  - Implement cost effective improvements to keep vehicles in their lane
  - Analyze crash data to locate sites with a high number of run-off-road crashes and install shoulder and centerline rumble strips
  - Expand the systemic safety program beyond centerline rumble strips

- ✓ Flashing Yellow Arrows, Roundabouts, median cable rail projects, shoulder widening and slope flattening, turn pockets on state routes with posted speeds over 55MPH.
- Perform pedestrian corridor studies to identify engineering improvements for inclusion in future projects.
- Follow the principles of access management
- Implement geometric intersection improvements

❖ Continued cooperation and close coordination with and support the Office of Traffic Safety's efforts with public education programs for TV/radio 'spots' to increase safer behavior by the public and their "Joining Forces" campaign with Law Enforcement.

❖ Continuing the safety capacity building initiative to grow the safety discipline throughout Nevada by (a) developing stronger ties to our universities and (b) rolling out the Highway Safety Manual to transportation safety professionals throughout the state

Long range:

❖ Introduce new safety mitigations to Nevada for assessment and adoption into policy.
❖ Participate in the development and expansion of the Traffic Incident Management program in order to efficiently manage traffic crashes.
❖ Bring safety to the planning process as a quantitative measure.
❖ Keep Nevada at the forefront of the Safety initiatives at the national level.

Was the annual target met? Yes.

What 'Strategies for Improvement' were successful?

NDOT has been targeting run-off-the-road crashes and has found success by coordinating safety improvements with NDOT roadway projects by (a) incorporating median cable barrier into NDOT projects currently under design (b) identifying safety improvements in the planning process through NDOT's Road Safety Audit program and (c) identifying slope flattening locations for future projects (d) the Department adopting the use of the "safety edge" as a standard practice. The Department has established a Traffic Incident Management (TIM) program in cooperation with Southern Nevada RTC, Nevada Highway Patrol and emergency responders to efficiently manage traffic crashes in the Las Vegas area. The TIM program is now underway in northern Nevada. Safety messages are now being coordinated statewide through the SHSP Strategic Communications Alliance (SCA). Safety partners throughout the state now have a messaging calendar so each partner will be speaking about the same issue at the same time, thereby amplifying the message.

What 'Strategies for Improvement' were not successful? Why?

In general, strategies implemented by NDOT and our safety partners appear to be effective in reducing the number of fatalities. Two strategies, primary seatbelts and automated enforcement were not approved by the legislature in 2011 and were not even considered in the 2013 legislature, therefore cannot be implemented as identified in the SHSP. The primary seat belt law may come back up in the next legislative cycle. Staffing resources at all agencies are always a challenge, with

more staffing resources available, strategies for improvement would be more quickly, comprehensively, and effectively implemented.

What new 'Strategies for Improvement' will be initiated in FY2015?

Short range to next reporting:

Given the relatively short duration for implementation of our low cost engineering strategies, the Safety Division does not anticipate revising our short term strategies. We will continue to implement strategies identified in the Strategic Highway Safety Plan and work closely with our safety partners to continue to reduce the frequency of fatal crashes.

Long range:

Implement the updated Nevada Strategic Highway Safety plan's strategies, many of which may be short term for specific locations, but long term for their aggregate effect of implementing them in enough locations to drive down the fatal and injury numbers. Those improvements as noted above that are provided to NDOT Planning and those for our five-year project list (such as slope flattening) will take a longer timeframe for realization. The States Zero Fatalities campaign has gained momentum and has reached 60% of the States residence in one form or another in the three years it has been active. We will be seeking a goal of 75% in market reach in the next 4 years. Safety Engineering is also planning on conducting up to three Corridor "Safety Management Plans" each year statewide for the next four years.

Does this performance measure effectively measure what is desired?

No. This measure is an indicator of how the entire State is performing in regards to reducing traffic fatalities. Approximately half of traffic fatalities do not occur on NDOT maintained roadways. The Department cannot achieve the goal without the cooperation and assistance of our partners in the areas of law enforcement, education, emergency medical response and all of the Local Public agencies. The DOT is constantly improving the working relations with the Local entities to help achieve this goal. See Chart "on system/off system" on page 2.

Is there a better performance measure that should be considered?

Yes. If the desire is to measure the NDOT performance then a measure more closely aligned to our program and that can be directly influenced by this Department should be considered.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes. The Department will continue to spend funds for improving the safety of the State and the Local transportation systems. We will also continue working with our partners to take advantage of opportunities to reduce the severity and frequency of motor vehicle crashes throughout the State. Every life saved and serious injury avoided lessens or eliminates the cost to the families whose lives would have been affected as well as reduces the need for response by law enforcement, emergency medical services, and trauma centers.

13. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE FOR BID ADVERTISEMENT

Performance Measure:

This performance measure has been established as the percentage of scheduled projects advertised within the reporting year and the percentage of advertised and awarded projects within the established construction cost estimate ranges. The construction cost estimate ranges are +/-15% of the October estimate of construction costs and +/-10% of the engineer's estimate of construction costs at time of bid.

The performance measure incorporates majority of projects advertised by the Department. Contracts handled through the districts and maintenance sections were not included as they are developed through a separate process than the typical transportation project. Capital improvement projects completed by the Architecture Division were also excluded from this performance measure.

The list of scheduled projects was established early during the yearly reporting period of October 1 – September 30. This reporting period for the performance measure was established to match the federal fiscal year. A large percentage of the Department's program is delivered using federal funds. The Department strives to use all available federal funds every year. Being able to meet the federal obligation authority limits every year is a goal of the Department. Doing so, enables the Department to request and in most cases receive additional obligation authority, allowing us to spend more federal funds and therefore produce more projects for the state.

Annual Target: 70% **Ultimate Target:** 80%

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals by providing timely and beneficial construction projects. This measure helps to optimize safety for road users, be in touch with and responsive to our customers, and efficiently operate the transportation system.

Project Delivery Data:

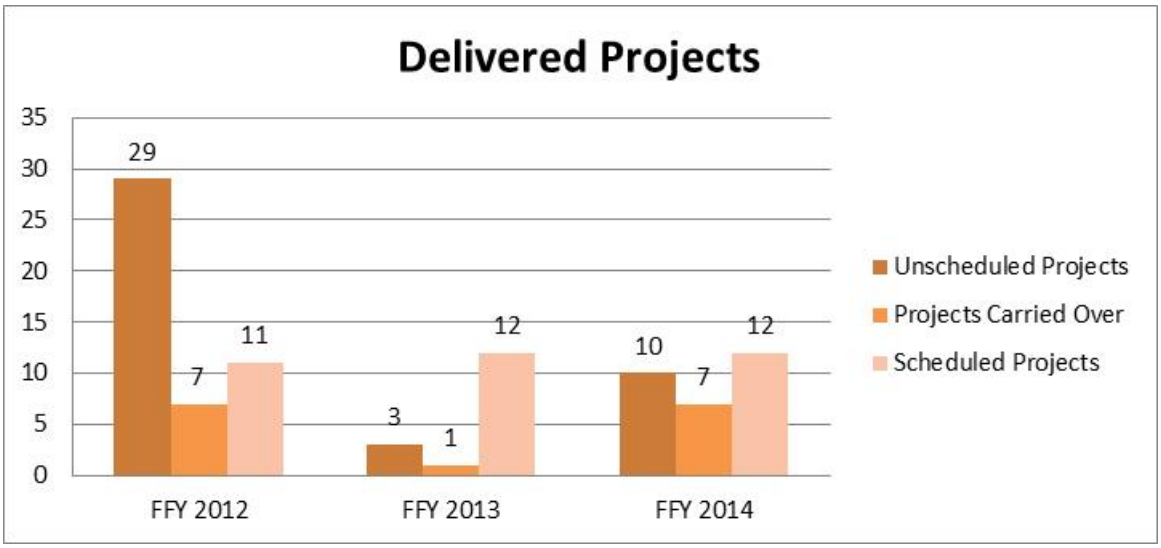
At the beginning of the reporting period, 16 projects were planned/scheduled for delivery, of which 12 were delivered.

Over the course of the reporting period a total of 19 projects were delivered.

- 12 were planned for delivery at the beginning of the reporting period
- 7 were not planned
    - 1 was a contingency project that was delivered once funding was identified
    - 2 were emergency projects to repair a damaged road and to address a safety issue

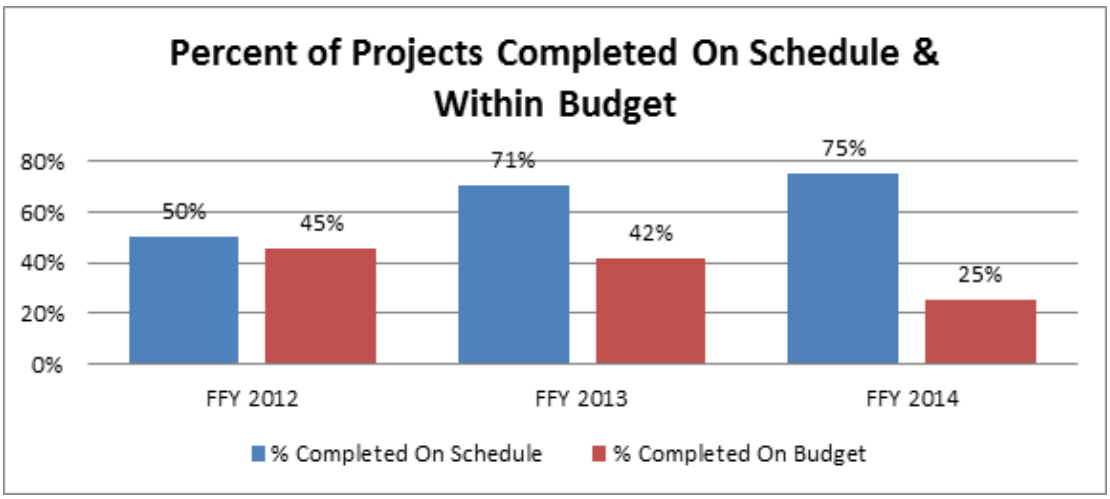
Over the course of the reporting period, 12 planned and delivered projects were measured for performance within the established construction cost estimate range, of which;

- 3 project award costs were within the +/- 15% range of the October estimate of construction costs.
- 9 project award costs were not within the +/- 15% range of the October estimate of construction costs.
- 4 project award costs were within the +/- 10% range of the engineer's estimate of construction costs at time of bid.
- 8 project award costs were not within the range of +/- 10% of the engineer's estimate of construction costs at time of bid.



Measurement and Supporting Data:

The established list of scheduled projects included 16 projects. Of the 16 projects, 12 (75%) projects were advertised within the reporting year. Of the 12 projects that were scheduled and delivered for this reporting year, 3 (25%) of the project's award costs fell within +/- 15% of the October cost estimate and 4 (33%) of the project's award costs fell within +/- 10% of the engineer's estimate at time of bid.



Were the annual targets met?

The delivery target of 70% of scheduled projects was met this year with a performance of 75%.

The awarded construction cost estimate target of 70% of delivered projects within +/- 15% of the October cost estimate was not met this year with a performance of 25%.

The awarded construction cost estimate target of 70% of delivered projects within +/- 10% of the engineer's estimate at bid was not met this year with a performance of 33%.

Although we met our performance for project delivery, the projects that did fail were delayed due to scope change, lack of local agency agreement or environmental impacts.

Although we did not meet our performance for construction cost estimates, almost all of the failed estimates were due to the awarded construction cost estimates coming in below the engineer's estimate at bid.

What new "Strategies for Improvement" will be initiated?

Short range for next reporting period:

- Continue to document reporting criteria and establish clear definitions for the criteria
  - Document if cost estimates are risk based
- Establish consistent construction project cost estimate elements for cost comparison
- Establish standard cost estimate milestones for alternative delivery (i.e., CMAR & DB)
- Incorporate Betterment projects into the performance measurement since they are being developed in Design and administered as a 4 digit contract.
- Continue to coordinate with all impacted divisions to establish the list of projects to be measured early
- Continue working with impacted divisions on establishing the 5 year plan
  - Identify projects earlier
  - Prioritize projects for resource management

    - Prioritize projects to meet funding levels
- Continue to monitor project progress through monthly status meetings to identify and address risks to schedule
- Continue to coordinate with all impacted divisions to verify project cost estimates early
- Continue to coordinate with all impacted divisions to have PSAMS data updated
- Evaluate the performance measure target levels for both the construction cost estimate and project delivery schedule performance

Long range:

- Review contingency and risk factors and evaluate impacts to project schedule and cost estimates
- Standardize contingency and risk factors
- Establish process for early price checks of project cost estimates
- Use Scoping effort to improve scope of work, estimate and schedule of projects
- Incorporate planning and environmental efforts into project development
- Use the 5 year plan to
    - Identify projects earlier
    - Prioritize projects for resource management
    - Prioritize projects to meet funding levels

Does this performance measure effectively measure what is desired?

The performance measure provides a measure of how well we are doing at producing projects within the year. It does not identify where the issues are. However, the documentation done during the tracking of the performance measure should help identify where there are issues in the process.

From there, the Department can develop and/or modify processes or procedures to improve those areas. The performance measure can then be used to evaluate the effectiveness of the changes.

Is there a better performance measure that should be considered?

There does not appear to be a better performance measure at this time but we feel there are some adjustments to the tracking data that can be made to add value to the performance measure.

The initial construction cost estimates established at the beginning of the reporting period are at various levels (i.e., planning, 30%, 60%, 90% and final engineers estimate) and therefore it is difficult to make an "apples to apples" comparison with the award estimate and determine the true performance issues. We have introduced the construction cost estimate (engineer's estimate) at time of bid as a second performance measurement criterion. This second data point gives us a consistent comparison to the award price and a measurement of our cost estimate development performance during the design of a project. Originally we had established measurement criteria of

+/-25% within the October cost estimate and +/-15% within the engineer's estimate at bid. We have since adjusted the ranges to better align with the past year's measurement range so we could maintain an "apples to apples" performance history. For the new measurement range for the engineer's cost estimate at time of bid we decided to adjust it to +/-10% so it aligns with the performance indicator established by the Department and the FHWA.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes. Meeting the yearly targets will allow the Department to optimize project funding and potentially deliver more projects.

Were the annual targets met?

The delivery target of 70% of scheduled projects was met this year with a performance of 75%.

The awarded construction cost estimate target of 70% of delivered projects within +/- 15% of the October cost estimate was not met this year with a performance of 25%.

The awarded construction cost estimate target of 70% of delivered projects within +/- 10% of the engineer's estimate at bid was not met this year with a performance of 33%.

Although we met our performance for project delivery, the projects that did fail were delayed due to scope change, lack of local agency agreement or environmental impacts.

Although we did not meet our performance for construction cost estimates, almost all of the failed estimates were due to the awarded construction cost estimates coming in below the engineer's estimate at bid.

What new "Strategies for Improvement" will be initiated in FY 2015?

Short range for next reporting period:

- Continue to document reporting criteria and establish clear definitions for the criteria
  - Document if cost estimates are risk based
- Establish consistent construction project cost estimate elements for cost comparison
- Establish standard cost estimate milestones for alternative delivery (i.e., CMAR & DB)
- Incorporate Betterment projects into the performance measurement since they are being developed in Design and administered as a 4 digit contract.
- Continue to coordinate with all impacted divisions to establish the list of projects to be measured early
- Continue working with impacted divisions on establishing the 5 year plan
  - Identify projects earlier
  - Prioritize projects for resource management
  - Prioritize projects to meet funding levels
- Continue to monitor project progress through monthly status meetings to identify and address risks to schedule
- Continue to coordinate with all impacted divisions to verify project cost estimates early
- Continue to coordinate with all impacted divisions to have PSAMS data updated
- Evaluate the performance measure target levels for both the construction cost estimate and project delivery schedule performance

Long range:

- Review contingency and risk factors and evaluate impacts to project schedule and cost estimates
- Standardize contingency and risk factors
- Establish process for early price checks of project cost estimates
- Use Scoping effort to improve scope of work, estimate and schedule of projects
- Incorporate planning and environmental efforts into project development
- Use the 5 year plan to
    - Identify projects earlier
    - Prioritize projects for resource management
    - Prioritize projects to meet funding levels

Does this performance measure effectively measure what is desired?

The performance measure provides a measure of how well we are doing at producing projects within the year. It does not identify where the issues are. However, the documentation done during the tracking of the performance measure should help identify where there are issues in the process.

From there, the Department can develop and/or modify processes or procedures to improve those areas. The performance measure can then be used to evaluate the effectiveness of the changes.

Is there a better performance measure that should be considered?

There does not appear to be a better performance measure at this time but we feel there are some adjustments to the tracking data that can be made to add value to the performance measure.
The initial construction cost estimates established at the beginning of the reporting period are at various levels (i.e., planning, 30%, 60%, 90% and final engineers estimate) and therefore it is difficult to make an "apples to apples" comparison with the award estimate and determine the true performance issues. We have introduced the construction cost estimate (engineer's estimate) at time of bid as a second performance measurement criterion. This second data point gives us a consistent comparison to the award price and a measurement of our cost estimate development performance during the design of a project. Originally we had established measurement criteria of +/-25% within the October cost estimate and +/-15% within the engineer's estimate at bid. We have since adjusted the ranges to better align with the past year's measurement range so we could maintain an "apples to apples" performance history. For the new measurement range for the engineer's cost estimate at time of bid we decided to adjust it to +/-10% so it aligns with the performance indicator established by the Department and the FHWA.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes. Meeting the yearly targets will allow the Department to optimize project funding and potentially deliver more projects.

14. MAINTAIN STATE BRIDGES

Performance Measure:

Number of Department owned bridges which are categorized as Structurally Deficient (SD) or Functionally Obsolete (FO).

Summary:

Number of Department owned bridges which are categorized as Structurally Deficient (SD) or Functionally Obsolete (FO). Base figure is 37 of 1045 bridges (*State Highway Preservation Report – 2007*. This base figure was established based on the federal eligibility requirements of the Highway Bridge Program (HBP) in effect at the time.

Prior to MAP 21, eligibility and priority for funding projects under the HBP was based on a bridge's Sufficiency Rating and other factors. The Sufficiency Rating is a numerical assessment of a bridge's serviceability and is based on condition assessment inspection and inventory data. Its value varies from 0 to 100, with 100 representing no deficiencies. Previously, under the HBP, a bridge was eligible for replacement when its Sufficiency Rating was less than 50 and was eligible for rehabilitation when its Sufficiency Rating was less than or equal to 80. In addition to meeting the Sufficiency Rating requirement, a bridge also had to be classified as either Structurally Deficient or Functionally Obsolete. (A bridge is considered Structurally Deficient when key elements reach an established level of deterioration. A bridge is considered Functionally Obsolete when it no longer adequately serves either the road it carries or the undercrossing route.) Additionally, seismic retrofit and scour mitigation activities were eligible activities under the HBP program. MAP 21 combined the HBP program with other funding categories; however, the criteria previously used in the HBP program are still relevant factors to consider when prioritizing potential bridge projects.

Annual Target:

Replace or rehabilitate at least one Department owned SD or FO bridge annually. The goal is evaluated based on the contracts awarded in a given calendar year. Tables have been included to allow for ease of tracking. The tables do not include structures that are subject to routine preservation and maintenance (such as expansion joint replacement, repair of deck cracking, etc.) activities included in 3R or District Betterment projects

Ultimate Target: Zero.

TRACKING OF PROJECTS THAT MEET PERFORMANCE MEASURE CRITERIA:

Year	**Target Met Y-N/# of Bridges**	**Structure #'s**	**County**	**Contract #**	**Description of Work/Comments**
2008	Yes/1	B-89	CL	3360	Replacement of Bunkerville Br.
2009	Yes/1	H-788	CL	3366BD	Replacement of Wm Springs Br. (FO)
2010	No	-	-	-	-
2011	No	-	-	-	3476 bid rejected
2012	Yes/4	G-884 E/W G-885 E/W	EU	3525	Rehab & Seismic retrofit
2013	Yes /2	B-1066 E/W	EL	3540	Carlin Retrofit- remove from FO list.
2014	Yes/2	B-395 G-324	EU	3557	Replace bridges on FREU 02 @ Dunphy. Contract awarded 3/14.
2015	Expected to/2	G-29*	PE	-	Removal of off-system SD bridge (No Replacement) Project delayed from 2014. Current Doc 11/14
		B-100	CH	-	Replace SD bridge on SR 115. Scheduled Doc 5/15.

*Removal of SD bridge included in Performance Measure Tracking

TRACKING OF PROJECTS THAT DO NOT MEET PERFORMANCE MEASURE CRITERIA:

Year	# of Bridges	Owner	Structure #'s	County	Contract #	Description of Work/Comments
2008	-		-	-	-	-
2009	-		-	-	-	-
2010	-		-	-	-	-
2011	2	NV	I-843 E/W	WA	3443	I-80 Seismic retrofit
	1	NV	I-1452	CL	3445	I-515 Seismic retrofit
	1	EL	B-1942	EL	3459	Replace S. Fork Owyhee River Br
	2	NV	I-975N/S	CL	3447DB	Replace I-15 Bridges (Not SD or FO)
2012	1	CH	B-1592	CH	3515	Replace Alcorn Rd Br
	16	NV	Various	HU	3524	Rehab structures and seismic retrofit (some) of I-80 structures in Winnemucca.
	2	NV	G-927 E/W	EL	3461	Rehab & Seismic retrofit. I-80 Bridges. Not SD.
2013	1	EL	B-1662	EL	3538R	Replace Mary's River Br. Contract completed 11/13.
	6	NV	B-1111, 1112, 1113 E/W	EL	3540	Seismic Retrofit/Rehab of I-80 bridges @ Carlin Tunnel. Contract awarded 5/13.
2014	2	NV	I-1773, I-1774	WA	3574	Seismic retrofit of I-580 Airport Ramps. (I-1774 is FO) Bids Open 6/14.
	1	Reno	B-178	WA	-	Virginia St. Br replacement. Scheduled Doc 8/14.
2015	4	NV	H-948, G-949, G-953, I-956	CL	-	Seismic Retrofit of I-15 structures. Scheduled Doc 11/14.
	1	LY	B-1610	LY	-	Replace SD off-system Nordyke Rd Bridge. Scheduled Doc 11/14.
	4	NV	B-1262 N/S, B-1263 N/S	DO	-	Seismic retrofit, scour and rehab of multiple structures on US 395. Scheduled Doc 11/14
	3	NV	I-1261, I-812	WA	-	Seismic retrofit, scour

			N/S			and rehab of multiple structures on US 395. Scheduled Doc 11/14.
2016	4	NV	B-764 E/W, G-772 E/W	WA	-	Scour mitigation at I-80 bridges at Truckee river. Delayed from 2015. Scheduled Doc 11/15.
	1	HU	B-1658	HU	-	Replace Eden Valley Rd. Br @ Humboldt River. Delayed from 2015. Scheduled Doc 3/16
2017	1	NV	B-1351	WA		Scour mitigation of G-1351 at Truckee River on SR 447 near Nixon. Delayed from 2015. Scheduled Doc 3/17

A table has been included in order to provide historical reporting of SD and FO bridges.

	TOTAL STATE OWNED BRIDGES	**STATE SD BRIDGES**	**STATE FO BRIDGES**	**COMMENTS**
2006 BASELINE	1045	20	17	2007 Data.
2008	1056	20	30	2009 Data. The increase in the number of FO bridges was due to refined inspection methods for measuring lateral underclearance.
2010	1064	18	24	2011 Data.
2012	1116	19	28	2013 Data.

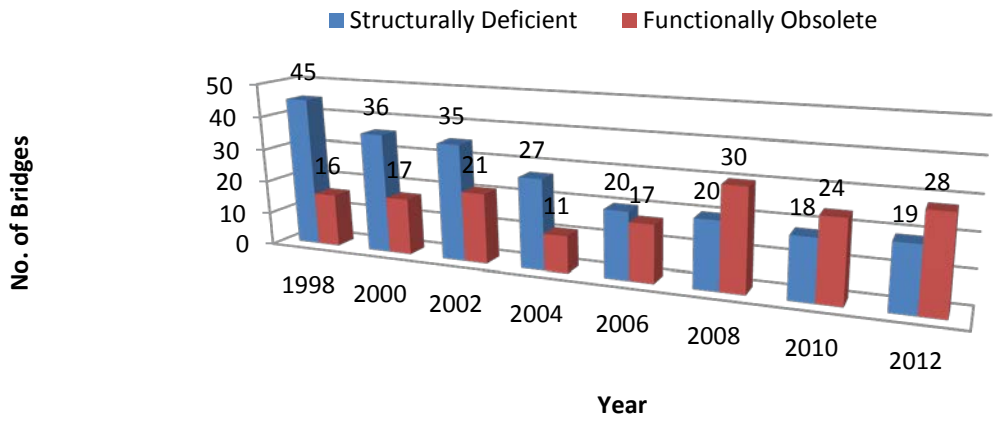
NOTES: Bridge counts shown are based on the number of SD and FO bridges as reported in the NDOT State Highway Preservation Report. This report is published every 2 years.

Descriptions of Structurally Deficient and Functionally Obsolete bridges from the 2013 Nevada State Highway Preservation Report are included below for information.

A bridge is considered Structurally Deficient (SD) when significant load-carrying elements are found to be in poor condition, has insufficient load carrying capacity and may have weight limits posted to remain in service, or may be more susceptible to flooding with significant traffic impacts.

A bridge is considered Functionally Obsolete (FO) when the original design geometrics such as shoulder width, land width, lateral clearance and vertical clearance do not meet current standards. FO bridges may be more susceptible to congestion, collisions, or flooding because of the restrictive clearances and geometrics.

Due to the fact that these terms cause undue concern, FHWA is considering changing the terminology. These terms do not imply that the bridge is unsafe. Safety and maintenance concerns are identified during regularly scheduled inspections.



*Graph based on 2013 Preservation Report data

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Innovate, Deliver timely and beneficial projects and programs, and effectively preserve and manage our assets. These goals can be met in the following ways: Safety for the motoring public will be optimized by replacing structurally deficient and rehabilitating functionally obsolete bridges. The Bridge Division will seek and implement innovative solutions to the challenges faced by the Bridge Program. The Division will deliver timely and beneficial bridge projects and programs. Meeting this performance measure will help effectively preserve and manage Department assets.

Measurement and Supporting Data:

In FY 2007 – There were 37 State owned bridges in Nevada that were Structurally Deficient or Functionally Obsolete and were eligible for federal funding. Additionally, there were 34 bridges needing repair/replacement owned by local agencies that were also eligible for federal funding. Please refer to the table above for additional data.

Strategies for Improvement:

Short range to next reporting:

Evaluate programmed projects for possible preservation actions, corrective maintenance and risk reduction activities and include these activities into project scope as appropriate.

NDOT Bridge Division provides information regarding state bridge policies and practices to local agencies in order to cooperate with and assist them.

Long range:

Perform bridge rehabilitation and replacement as allowed under the MAP 21 program. Continue to consider previous criteria used to establish eligibility under the previous HBP program, and utilize preservation strategies to extend performance and serviceability of elements commonly causing deterioration of structures. These include repairs such as deck repair/replacement, deck overlays, replacement of bridge joints, fatigue crack repair and repainting of steel structures. Maintain seismic retrofit program and scour mitigation program to minimize risks from these extreme events.

Seek additional funds to reduce the time frame of eliminating structurally deficient or functionally obsolete bridges, which is estimated to take at least 37 years with present funding level, based on the current number of Deficient bridges. At current funding levels, this time frame will increase as Nevada's bridges age and the number of bridges categorized as structurally deficient or functionally obsolete increases.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met?

The target is expected to be met.

What 'Strategies for Improvement' were successful?

The current strategies have had mixed success when considering the annual goal established in October 2010. Originally, the goal of replacing/rehabilitating 1 bridge biennially was successful.

What 'Strategies for Improvement' were not successful? Why?

N/A

What new 'Strategies for Improvement' will be initiated in FY2015?

Short range to next reporting:

Additional short range strategies beyond those stated have not been identified.

Long range:

Additional long range strategies beyond those stated have not been identified.

Does this performance measure effectively measure what is desired?

Yes. The performance measure does allow tracking of the state owned SD/ FO bridges.

Is there a better performance measure that should be considered?

No. Use of a percentage based measurement (as some states use) was considered. A percentage based measure could show a decrease in SD/FO bridges (thus an improvement), as new structures are added to the inventory. This could occur with no decrease in the actual number of SD/FO bridges; therefore, the numerical based measure is viewed as superior.

Will meeting the next yearly target have a fiscal impact?

Not at this time. The performance measure was established based on the current revenue. As the bridges age and deteriorate and the infrastructure grows, additional structures will become SD and/or FO, increasing the number of these structures in Nevada's inventory.

15. STREAMLINE PERMITTING PROCESS

Performance Measure:

Percentage of permits issued or rejected within 45 days of receipt.

Ultimate Target: 95% **Annual Target:** 95%

Measurement and Supporting Data:

We exceeded the targeted performance measure for this year of 95%, for this fiscal year by processing 96.86% of all permits statewide.

Overview of Performance Measure:

The Performance Measure identified for the R/W Division was to process 95% of encroachment permits within 45 days. The development of Transportation Policy (TP) 10-1-3 ENCROACHMENT PERMIT PROCESSING TIME SCHEDULE set a 45 working day process for all accepted encroachment permit applications.

Were the targets met?

Yes. As stated above, 96.86% of all permits processed were done within 45 days or less. The year-end performance measure for each district is as follows: District 1 achieved 95.51%, processing 356 permits, District 2 achieved 98.92% while processing 186 permits, and District 3 achieved 98.41% while processing 63 permits. District 1 accepted 457 permits, District 2 accepted 311 permits, and District 3 accepted 132 permits.

What 'Strategies for Improvement' were successful?

The development of the Encroachment Permit TP and its 45 working-day requirement allowed the Department to address several issues that have resulted in significant improvement to the time necessary to process encroachment permits. The pre-audit of all permits has been successful in resolving issues prior to submittal. This allows us to resolve issues outside of the processing of permits that could have caused us to reject permits in the past. The simultaneous review of permits by all affected divisions continues to improve the processing time.

The Encroachment Permit Process is a key component of IRWIN. The complete implementation of the IRWIN system as of October 1, 2011, has improved flow through the review process and will provide up to date and accurate reporting. It is critical that all Districts continue to use IRWIN and keep the information as up to date as possible. There is no anticipated direct fiscal impact for next year.

Does this performance measure effectively measure what is desired?

Yes. The goal was to have 95% of all accepted applications processed within 45 working days.

Is there a better performance measure that should be considered?

No, this performance measure is the most applicable and is effective.

Will meeting the next yearly target have a fiscal impact? If so, explain.

There is no anticipated direct fiscal impact for next year.

Was the annual target met?

Yes.

Targets for Next Three Fiscal Years:

FY15: 95%

FY16: 95%

FY17: 95%

STATE HIGHWAY FUND ANNUAL REVENUE AND EXPENDITURES

STATE HIGHWAY FUND ANNUAL REVENUE AND EXPENDITURES

Assembly Bill 595 in the 2007 Legislative Session included the requirement for the Department to report on the funding sources, amount and expenditures (Section 47.2). There is an annual report entitled "Highway Special Revenue Fund" Financial Schedules for State Fiscal Year ending June 30, 2014. The following three tables provide the required information:

1) Schedule of Revenues and Receipts – Budgetary Basis
2) Comparative Schedule of Expenditures and Disbursements – Budgetary Basic
3) Highway Fund Balance – Budgetary Basis

The first table reports that total FY 2014 revenues into the State Highway Fund were approximately $984 million while the second table contains the total FY 2014 actual expenditures, which were approximately $778 million. These two tables also include other detailed financial data about transportation-related revenues and expenditures.

The third table indicates that the Highway fund balance decreased slightly from approximately $134 million in FY 2012 to under $132.0 million FY 2013.

State of Nevada
Highway Special Revenue Fund
Schedule Of Revenues And Receipts - Budgetary Basis
For The Years Ended June 30, 2014 and 2013
(In thousands)

	2014	2013
State user taxes		
Gasoline taxes	$ 187,785	$ 185,651
Motor vehicle fees and taxes		
Vehicle registration & bicycle safety fees	104,724	102,119
Motor carrier fees	39,046	36,729
Drivers license fees	23,132	18,696
Special fuel taxes	79,094	80,913
Total motor vehicle fees and taxes	245,996	238,457
Total state revenue	433,781	424,108
Federal Aid reimbursement		
Department of Interior	-	(40)
Federal Aviation Administration	293	253
Federal Emergency Management Administration	119	-
Federal Highway Administration	324,761	342,743
Federal Rail Administration	-	-
Federal Transit Administration	5,642	7,817
Total Federal Aid	330,815	350,773
Miscellaneous receipts		
Departments of Motor Vehicles & Public Safety authorized revenue	72,205	48,852
Appropriations from other funds	296	242
Proceeds from sale of bonds	100,019	-
Agreement income	9,287	36,093
Interest	571	324
Sale of surplus property	356	17
AB595 property tax	19,011	19,481
AB595 bond revenue	-	10,605
Other sales & reimbursements	18,148	18,506
Total miscellaneous receipts	219,893	134,120
Total revenue and receipts - budgetary basis	$ 984,489	$ 909,001

State of Nevada
Highway Special Revenue Fund
Comparative Schedule of Expenditures and Disbursements - Budgetary Basis
For the Fiscal Year Ending June 30, 2014 and 2013
(In thousands)

	2014			2013
	Budgeted	Actual Using Budgetary Basis	Variance Favorable (Unfavorable)	Actual Using Budgetary Basis
Department of Transportation				
Labor	$ 128,223	$ 123,258	$ 4,965	$ 123,775
Travel	2,214	1,934	280	1,884
Operating	65,346	61,012	4,334	60,751
Equipment	9,565	4,567	4,998	4,891
Capital improvements	466,811	324,458	142,353	455,852
Bond expenditures	100,026	5,928	94,098	-
Other programs	14,242	8,605	5,637	10,236
Total operations	786,427	529,762	256,665	657,389
Cost of fuel sold to other agencies	3,821	3,501	320	3,568
Total Department of Transportation	790,248	533,263	256,985	660,957
Department of Motor Vehicles (see Note 2)	116,927	90,912	26,015	85,520
Department of Public Safety (see Note 2)	87,811	78,739	9,072	76,452
	204,738	169,651	35,087	161,972
Appropriations to other funds				
Board of Examiners	-	-	-	-
Transportation Services Authority	2,410	2,410	-	2,328
Public Works Board	1,510	1,066	444	552
Traffic Safety	186	182	4	177
Investigations	344	344	-	363
DMV Training Division	833	797	36	791
Fleet Services Capital Purchase	627	554	73	-
Legislative Counsel Bureau	5	-	5	-
Dept of Information Technology	-	-	-	-
Total appropriations to other funds	5,915	5,353	562	4,211
Other disbursements				
Transfer to bond fund	84,000	70,101	13,899	79,788
Total other disbursements	84,000	70,101	13,899	79,788
Total expenditures & disbursements - Budgetary basis	$ 1,084,901	$ 778,368	$ 306,533	$ 906,928

	HIGHWAY FUND BALANCE (BUDGETARY BASIS)			
	STATE FISCAL YEARS 2011 -2013			
BEGINNING FUND BALANCE:		Actual Fiscal year 2011	Actual Fiscal Year 2012	Actual Fiscal Year 2013
	GENERAL OBLIGATION BONDS	$0	$0	$0
	RESTRICTED FUNDS	42,701,568	37,521,938	14,748,883
	OTHER HIGHWAY FUND	215,694,432	238,099,062	119,249,117
TOTAL BEGINNING FUND BALANCE:		**$258,396,000**	**$275,621,000**	**$133,998,000**
ADD:				
	REVENUES	$1,084,340,578	$1,039,119,285	$909,000,826
	BOND PROCEEDS	0	0	0
TOTAL ADDITIONS:		**$1,084,340,578**	**$1,039,119,285**	**$909,000,826**
DEDUCT:				
	DEPT OF TRANS. NON-BOND EXPENDITURES	$806,965,179	$924,297,994	$660,630,189
	DEPT OF TRANS. BOND EXPENDITURES	0	0	0
	EXP. & APPROP TO OTHER AGENCIES	256,117,259	251,112,645	246,298,958
TOTAL DEDUCTIONS:		**$1,063,082,438**	**$1,175,410,639**	**$906,929,147**
ADJUSTING ENTRIES:				
	CONTROLLERS OFFICE CAFR ADJUSTMENTS	($4,033,140)	($5,331,646)	($4,405,680)
	ESTIMATED REVERSION TO FUND	0	0	0
TOTAL ADJUSTING ENTRIES:		($4,033,140)	($5,331,646)	($4,405,680)
ENDING FUND BALANCE:				
	GENERAL OBLIGATION BONDS	$0	$0	$0
	RESTRICTED FUNDS	37,521,938	14,748,883	26,510,031
	OTHER HIGHWAY FUND	238,099,062	119,249,117	105,153,969
TOTAL ENDING FUND BALANCE :		**$275,621,000**	**$133,998,000**	**$131,664,000**

MAJOR PROJECTS ANNUAL STATUS REPORT

TYPICAL PROJECT DEVELOPMENT PROCESS

The Department's project development process typically consists of four major phases: planning, environmental clearance, final design, and construction. These phases are described in more detail below. The development process is based on federal and state laws and regulations, engineering requirements, and a departmental review and approval process. This appendix provides an overview of the four phase process, identifies major milestones within the phases, and describes the information developed during each phase.

Project Planning Phase

In this phase the project needs are analyzed and conceptual solutions are developed. Project descriptions, costs, and schedules are broadly defined. The planning phase typically addresses such issues as number of lanes, location and length of project, and general interchange and intersection spacing. The intent of this phase is to develop the most viable design alternatives, and to identify the best means to address risks and uncertainties in cost, scope and schedule.

Environmental Clearance Phase

For the environment clearance phase, major projects are subject to the National Environmental Policy Act (NEPA) to address potential social, environmental, economic and political issues. During this phase studies are conducted to define existing conditions, and identify likely impacts and mitigations so the preferred design alternative is selected from among the various alternatives. In this phase the project scope is more fully defined, right-of-way issues are generally identified, project costs and benefits are estimated, and risks are broadly defined. Finally, a preliminary project schedule is determined. At the conclusion of this phase, major projects are divided into smaller construction segments to address project's social, environmental, economic and political issues as well as funding availability and constructability.

Final Design Phase

During this phase, the design of the selected alternative identified during the environmental clearance phase is finalized. In this phase the project scope is finalized, a detailed project design schedule and estimate is developed, and project benefits are fully determined. The right-of-way requirements are also determined and acquisition is initiated. Additionally, utilities relocation is initiated toward the end of the final design phase. At the end of this phase the project design and cost estimate are complete and the project is advertised for construction.

Construction phase

During this phase projects are constructed based on the final design plans. Depending on the nature of the project, utilities relocation might occur during early stages of this phase. Due to the complexity of major projects, a detailed construction schedule, traffic control plans, and environmental mitigation strategies are developed in consultation with the selected contractor.

PROJECT STATUS SHEET EXPLANATION

The information contained on the project status sheet is centered on the Department's project development process. This process typically consists of the four major phases: planning, environmental clearance, final design and construction. Additional details of these phases are contained in Appendix A, which details the project development process utilized by the Department of Transportation. The project status sheets contain several items of information as follows:

Project Description: Contains the preliminary project scope, which generally identifies features of the project i.e. length, structures, widening, and interchanges, and directs the project development process.

Project Benefits: Summarizes the primary favorable outcomes expected by delivering the project.

Project Risks: Indentifies the major risks that might impact project scope, cost, and schedule. Unforeseen environmental mitigation, right-of-way litigation, and inflation of construction materials or land values are only a few items that can adversely affect project development. Appendix B, Dealing with Project Risk, provides more details.

Schedule: Provides the time ranges for the four primary phases of project development: planning, environmental clearance, final design, and construction. Generally the schedule, by state fiscal years, reveals the time range for starting or completing a phase. It indicates the starting range early in the development process and completion range latter in the process. Appendix B, Dealing with Project Risks, provides more details concerning the time ranges.

Project Costs: Project cost ranges are provided by activity: 1) engineering activities that includes planning, environmental clearance and final design costs, 2) right-of-way acquisition, and 3) construction. Costs are adjusted for inflation to the anticipated mid-point of completing a phase. Appendix B, Dealing with Project Risks, provides more detail on the range of project cost estimates.

What's changed since last update? Contains summaries of the project scope, cost, and schedule changes, if any.

Financial Fine Points: Includes the total expended project costs and brief summary of financial issues.

Status Bars at the Bottom of the Form: Shows the percentage completion for the primary project development activities that are in progress: planning, environmental clearance, final design, right-of- way acquisition, and construction.

MAJOR PROJECTS SUMMARY SHEETS

MAJOR PROJECTS

I-15 Projects

I-15 North Phase 2 Pkg A, C and D– Craig Road to Speedway Boulevard 1
I-15 North Phase 2 Pkg E – Craig Road to Speedway Boulevard 2
I-15 North Phase 3 – Speedway Boulevard to Apex Interchange 3
I-15 North Phase 4 – I-15/CC-215 Northern Beltway Interchange 4
I-15 NEON - Desert Inn Road 5
I-15 Urban Resort Corridor Study 6
I-15 South Bermuda Road Interchange 7
I-15 South Pebble Road Overpass 8
I-15 South Starr Avenue Interchange 9
I-15 South Cactus Avenue Interchange 10
I-15 South Las Vegas Boulevard from St. Rose Parkway to Sunset Road 11
I-15 South Phase 2 Sloan Road to Blue Diamond (SR 160) 12
I-15 South Sloan Road Interchange 13
I-15 South – Stateline to Sloan Road 14

I-515/US-95/US Projects

I-515 Freeway Improvements Study – Rancho Drive to Wyoming Grade Separation. 15
I-515/US-95/US93: Boulder City Bypass Phase 1 Pkg 2B 16
I-515/US-95/US93: Boulder City Bypass Phase 1 Pkg 3 17
I-515/US-95/US93: Boulder City Bypass Phase 2- US-95 to Hoover Dam Bypass 18

US-95 Northwest Projects

US-95 Northwest Phase 2A – Ann Road to Durango Drive (SR 157) 19
US-95 Northwest Phase 2B – Durango Drive to Kyle Canyon Road (SR 157) 20
US-95 Northwest Phase 3A – CC 215 Beltway Interchange 21
US-95 Northwest Phase 3B – CC 215 Beltway Interchange 22
US-95 Northwest Phase 3C – CC 215 Beltway Interchange 23
US-95 Northwest Phase 3D – CC 215 Beltway Interchange 24
US-95 Northwest Phase 3E – CC 215 Beltway Interchange 25
US-95 Northwest Phase 5 – Kyle Canyon Road (SR 157) Interchange 26

Northern Nevada Projects

I-80 – Robb to Vista 27
US-395 North – McCarran Blvd. to Stead Blvd. 28
Pyramid Highway - US 395 Connection 29
US-395 Carson City Freeway Phase 2B – S. Carson St. to Fairview Dr. 30

I 15 North - Part 2 Packages A, C & D

Craig Road (SR 573) to Speedway Boulevard

Project Sponsor: NDOT

Project Manager: Dwayne Wilkinson, P.E.

(702) 671-8879

Project Description:

- Packages A, C and D are three of five construction packages that make-up the I 15 North Part 2 project.
- This project consists of corridor improvements from Craig Road to Speedway Blvd which includes:
- Capacity Improvements - widening from Craig Rd to Speedway Blvd from 4 to 6 lanes
- Remove & replace PCCP with ACP (Craig to Lamb)
- Drainage Improvements
- Seismic retrofit of Craig Rd. Interchange Structure (I-956)
- Widen & seismic retrofit of 4 structures (G 958 N, G 958 S, G 961 N & G 961 S) over 2 UPRR crossings
- and ROW fence replacement.
- Improvements will be constructed within the existing 1-15 Right-of-Way.
- Project length: 4.8 miles.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

2014 - 2015

Construction:

2016 - 2018

Project Cost Range:

Engineering:

$ 3.4 - $ 3.8 M

Right of Way:

$0

Construction:

$ 42 - $ 48 M

Total Project Cost:

$ 45.4 - $ 51.8 M

Project Benefits:

- Improve Safety
- Reduce Travel Times
- Decrease Congestion
- Improve Freeway Operations
- Increase life of pavement
- Increase I-15 N capacity to accomodate projected traffic

What's Changed Since Last Update?

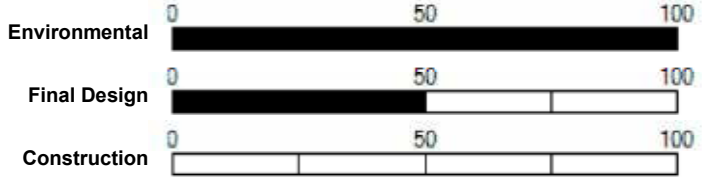
- Scope: Packages A, C & D are being combined for construction
- Schedule: Design 2014 - 2015
- Cost: Combining the packages results in savings - total value TBD

Project risks:

- Uncertainty of Future Construction Materials and Labor Costs
- Funding uncertainty for Construction

Financial Fine Points(Key Assumptions):

- Total funding expended for Packages A, C & D Construction: $0
- Total funding expened for Design of all packages: $ 1,382,000
- Total funding expended for the Environmental Phase for all packages: $875,000
- Construction inflation escalation (2.7%) is to midpoint of construction



July 2014

2

I 15 North - Phase 2 Package E

Speedway Boulevard to Apex Interchange

Project Sponsor: NDOT

Proejct Manager: Dwayne Wilkinson, PE

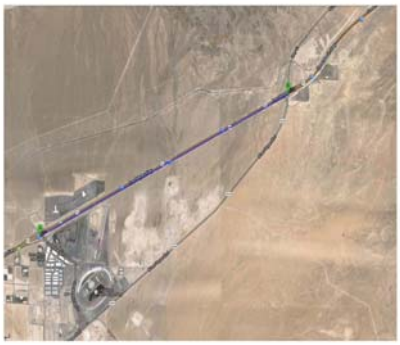
(702)-671-8879

Project Description:

- Part 2 Package E is one of five construction packages of the I 15 North Phase 2 Project
- Construct the remaining ITS elements between Speedway to Apex
- Improvements will be constructed within existing I 15 N Right-of-Way
- Project Length: 4.6 Miles
- This package is to be included in FAST Package H1

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
Complete
Construction:
2015



Project Cost Range:

Engineering:
$ 0.1 M
Right of Way:
$ 0.0 M
Construction:
$ 2.0 - 2.1 M
Total Project Costs:
$ 2.1 - 2.2 M

Project Benefits:

- Improve Freeway Operations
- Improve Safety

What's Changed Since Last Update?

- Scope - FAST Pkg H has been split into 3 Pkgs. This project is included in FAST Pkg H1
- Schedule - No change
- Cost - No Change

Project risks:

- Uncertainity of Construction Funding

Financial Fine Points(Key Assumptions):

- Will be advertised as part of FAST Package H1

Final Design 0 50 100

Construction 0 50 100

July 2014

NEVADA DOT

I 15 North - Phase 3

Speedway Boulevard to Apex Interchange

Project Sponsors: NDOT

Project Manager: Dwayne Wilkinson, P. E.

(702) 671-8879

Project Description:

- This is the third phase of improvements to the I-15 North Corridor between US 95 and Apex Interchange.
- Widen I-15 from four lanes to six lanes from Speedway Boulevard to the Apex Interchange.
- Project length: 4.6 miles

Schedule:

Planning:

Complete

Environmental Phase:

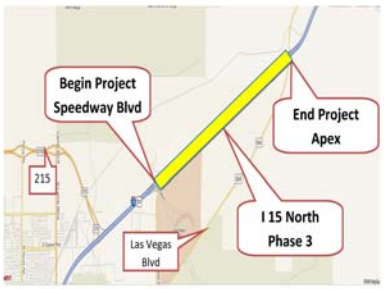
Complete

Final Design:

2018

Construction:

TBD



Project Cost Range:

Engineering:

$10 - $12 million

Right-of-Way:

$3 - $3.6 million

Construction:

$75 - $85 million

Total Project Cost:

$88 - $101 million

Project Benefits:

- Increase capacity
- Reduce trip times
- Improve access to areas planned for development in North Las Vegas
- Improve operations
- Improve safety

What's Changed Since Last Update?

- Scope - No Change
- Schedule - Updated Final Design to 2018
- Cost - No Change

Project risks:

- Project completion will depend on the availability of funding.
- Uncertainty of proposed Sheep Mountain Parkway terminus.

Financial Fine Points(Key Assumptions):

- Total funding expended for phase 3: $0 (design phase not started)
- Total funding expended for I 15 North Environmental phase: $875,000
- Inflation excalation (2.7%) is to approximate midpoint of construction
- Funding source for this project has not yet been identified.

Environmental complete 0 50 100

Design Complete 0 50 100

July 2014

4

I 15 North - Phase 4

I 15 / CC 215 Northern Beltway Interchange

Project Sponsor: NDOT

Project Manager: Dwayne Wilkinson, P. E.

(702) 671-8879

Project Description:

- This is the last of four phases of improvements to the I-15 North Corridor between US 95 and Apex Interchange (15 miles).
- Construct new ramps to complete a system-to-system interchange configuration at the I-15 / CC-215 Las Vegas Beltway interchange.
- Improvements will be constructed within the existing I-15 and CC-215 Right-of-Way.
- Funding availability will require that this project be delivered it multiple Phases. Phasing will be determined during FY2015.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Start 2014 - 2018

Construction:

2018 - 2022

Project Cost Range:

Engineering:

$11.8 - $15.5million

Right-of-Way:

$2.6 - $3.2million

Construction:

$142.0 - $191.8 million

Total Project Cost:

$156.4 - $210.5 million

Project Benefits:

- Increase capacity.
- Reduce trip times.
- Improve access to areas planned for development in North Las Vegas.
- Improve operations with full freeway-to-freeway connectivity.
- Improve safety.

What's Changed Since Last Update?

- Scope - Working to break project into affordable construction packages to accommodate funding limitations.
- Schedule - No Change
- Cost - Updated Cost Estimate using Cost Risk Assessment

Project risks:

- Cost and Schedule Impact of Stucture Design
- Cost and Schedule Impact of Utility Relocations
- Timely start and completion of Preliminary Engineering
- Railroad Involvement - UPRR Permits & Agreement Amendment
- Availability of Construction Funds

Financial Fine Points(Key Assumptions):

- Total funding expended: $156,600
- Total funding expended for I-15 North Environmental phase: $875,000
- Escalation is to 2018 approximate midpoint of construction.
- Construction funding for this project has not yet been identified.

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2014

NEVADA DOT

Project NEON

I-15 Desert Inn Road

Project Sponsor: NDOT

Project Manager: Cole Mortensen, P.E.

(775) 888-7742

Project Description:

- HOV Direct Connector from US 95 to I 15 and I-15 widening improvements from Spaghetti Bowl to south of Sahara; Add/Drop lanes at Oakey/Wyoming
- Local Access Improvements to Las Vegas Downtown Redevelopment
- New access to Alta
- I-15/Charleston Interchange Reconstruction
- Project Length: 4.83 miles
- *This project now includes what was previously Phases 1-4 in a Public Private Partnership delivery.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Complete in 2013

Construction:

TBD

Project Cost Range:

Engineering:

$34 - $36 Million

Right-of-Way and Utilities:

$285 - $295 Million

Construction:

$TBD

Total Project Cost:

$TBD

Project Benefits:

- Will accommodate anticipated traffic increases
- New access to Downtown Redevelopment
- Reduce congestion along local streets and I-15
- Extends HOV System

What's Changed Since Last Update?

- Scope - NEPA Re-evaluation approved
- Schedule - The anticipated delivery of Phase 1 has been delayed due to the analysis and development of the P3 RFP
- Cost - No change

Project risks:

- Complex construction in a high volume dense urban area
- Complexity in maintaining traffic, staging, relocating utilities and reducing impacts
- Complex right-of-way issues may impact schedule and cost
- Funding uncertainty

Financial Fine Points(Key Assumptions):

- Total Funding Expended: $88,700,000
- Inflation escalation (4%) to 2020 approximate midpoint of construction
- Additional Federal, State, Local and Regional Funding will be required
- As a result of the developing P3 project, anticipated costs will be developed.

% Environmental Complete 0 50 100

Design Complete 0 50 100

July 2014

NEVADA DOT

6

I 15 Urban Resort Corridor Study

Project Sponsor: NDOT

Senior Project Manager: Jeff Lerud

(775) 888-7589

Project Description:

- The I-15 Urban Resort Corridor Study along I-15 from I-215 (Bruce Woodbury Beltway) to the south, to US 95 (Spaghetti Bowl) to the north.
- Enhance access and mobility within the resort corridor; develop a phased implementation stragegy for future improvements to I-15 in the resort corridor area in addition to currently planned improvements.
- Prepare an early action plan for near-term improvements to enhance mobility and operations.

Schedule:

Planning:

Completed

Environmental:

TBD

Final Design:

TBD

Construction:

TBD

Project Cost Range:

Engineering:

TBD

Right-of-Way:

TBD

Construction:

TBD

Total Project Cost:

TBD

Project Benefits:

- Improve capacity, operations, safety, access and mobility.
- Meet stakeholders/public expectations.
- Improve quality of life.
- Support economic development.
- Reduce trip times.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change
- Planning Phase Completed

Project risks:

- Consensus building among the resort owners.
- Funding uncertainty.
- Economic development along the corridor could require design changes affecting scope, schedule and budget.

Financial Fine Points(Key Assumptions):

- Total funding expended: $786,738

Planning complete 0 50 100

July 2014

I 15 South - Bermuda Road Interchange

Project Sponsor: City of Henderson

Assistant Chief Project Manager: Lynnette Russell, P.E.

(702) 671-6601

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- This is one element of the I-15 South project.
- Construct new interchange at Bermuda Road.

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
2026 - 2027
Construction:
TBD

Project Cost Range:

(Environmental Phase Estimates)
Engineering:
$16 - $17.5 M
Right-of-Way:
$3.5 - $4 M
Construction:
$128.5 - $134.5 M
Total Project Cost:
$148 - $156 M

Project Benefits:

- Interchanges on I-15 reduce congested traffic on the main line and associated regional facilities.
- Connect Regional traffic.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Schedule. Unfunded on 2035 RTP.
- Cost - No Change

Project risks:

- Unit price and property escalation may affect project cost.
- Funding uncertainty

Financial Fine Points(Key Assumptions):

- Funding not available until 2026-2030 per current Financial Plan.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2029 approximate midpoint of construction.
- Funding Source (Financial Plan 2009): Q10 Extended ($57.1M) and STP Clark County ($60M).

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2014

NEVADA DOT

8

I 15 South - Pebble Road Overpass

Project Sponsor: Clark County

Assistant Chief Project Manager: Lynnette Russell, P.E.

(702) 671-6601

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- This is one element of the I-15 South Project.
- Construct overpass at Pebble Road and I-15

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
TBD
Construction:
TBD

Project Cost Range:

(Environmental Phase Estimates/Removal from RTP)

Engineering:
$6.5 - $7 M
Right-of-Way:
$8 - $10 M
Construction:
$51.5 - $53 M
Total Project Cost:
$66 - $70 M

Project Benefits:

- Interchanges on I-15 reduce congested traffic on the main line and associated regional facilities.
- Connect regional traffic.
- Improve origin destination time of travel.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - This project was removed from 2030 RTP.
- Cost - No Change

Project risks:

- Unit price and property escalation may affect project cost.
- Lack of funding may push this project well into the future

Financial Fine Points(Key Assumptions):

- Funding not available until 2040. Project was removed from current Financial Plan. Project costs will be impacted due to inflation.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Funding Source (Financial Plan 2009): Private Developers ($30M)

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2014

NEVADA DOT

I 15 South - Starr Avenue Interchange

Project Sponsor: City of Henderson

Assistant Chief Project Manager: Lynnette Russell, P.E.

(702) 671-6601

Project Description:

- I-15 South, from Sloan Road to Tropicana Ave. has been broken into nine packages to address funding and constructability opportunities.
- Construct a new interchange at Starr Avenue with on & off-ramps
- Connect to Las Vegas Blvd (east side) and Dean Martin Drive (west side)
- I-15 over Starr Avenue and shifted 50 ft. to the east of the existing I-15.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

2010-2016

Construction:

2016-2020

Project Cost Range:

(Environmental Phase Estimates)

Preliminary Engineering:

$10 - $11 M

Right-of-Way:

$15 - $24 M

Construction:

$47 - $66 M

Total Project Cost:

$72 - $101 M

Project Benefits:

- Improve access to I-15 with new interchange
- Connect east-west regional traffic from Las Vegas Blvd to/from Dean Martin Drive
- Improve I-15 mainline capacity

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Uncertain Right of Way costs
- Material and labor cost escalation
- Availability of funding
- Utility & bill board relocation
- Cell phone tower, re-location potential or avoidance

Financial Fine Points(Key Assumptions):

- Total funding expended for Starr Interchange: $122,500
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% for year 2018 approximate midpoint of construction.
- Funding Source (RTP 2035): Interstate Maintenance Discretionary ($3.44M), SAFETEA-LU Priority Project ($7.20M), Local Funds ($12.98 M), STP Clark County ($52.80 M) and Public Lands Highways ($1.19 M).

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2014

NEVADA DOT

10

I 15 South - Cactus Avenue Interchange

Project Sponsor: NDOT

Assistant Chief Project Manager: Lynnette Russell, P.E.

(702) 671-6601

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- Construct new interchange at Cactus Avenue.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Complete

Advertise:

Complete

Construction:

October 2014

Project Cost Range:

(Environmental Phase Estimates)

Engineering:

$5.5 - $6.5 M

Right-of-Way:

$8 - $15 M

Construction:

$43 M

Total Project Cost:

$56.5 - $64.5 M

Project Benefits:

- Reduce congested traffic on I-15.
- Connect regional traffic.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No change

Project risks:

- Unit price and property escalation may affect project cost.

Financial Fine Points(Key Assumptions):

- Funding expended for Cactus Interchange: $46.3 Million
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2014 approximate midpoint of construction
- Funding Source: Interstate Maintenance Discretionary ($4.9M), SAFETEA-LU High Priority Projects ($9.3M), STP Clark County ($30.6M), National Highway System ($16.9M), Old Ear Mark Remnant (0.14M), Section 115 Transfer Project (0.9M) and Utility Agencies (0.5M).

% Environmental Complete 0 50 100

% Design Complete 0 50 100

% Construction 0 50 100

July 2014

NEVADA DOT

I 15 South - Las Vegas Boulevard

St. Rose Parkway to Sunset Road

Project Sponsor: Clark County

Project Manager: Jason S. Tyrrell, P.E.

(702) 671-8852

Project Description:

- I-15 South from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- This is one element of the I-15 South Project.
- Widening of Las Vegas Boulevard (parallel to I-15) from St. rose Parkway (SR 146) to Sunset Road from 2 to 3 lanes in each direction.
- Project Length: 7.2 miles
- This project will be constructed in two packages:
- Package 1: Las Vegas Boulevard from Silverado to Sunset - *Completed as of July 2011
- Package 2: Las Vegas Boulevard from St. Rose to Silverado Ranch

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Package 1- Complete ,

Package 2- 70%

Construction:

Package 1 -Complete,

Package 2 TBD

Project Cost Range:

(Environmental phase estimates):

Engineering:

$4 - $4.5 M

Right-of-Way:

$0

Construction:

$31.5 - $33 M

Total Project Cost:

$35.5 - $37.5 M

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Complexity in maintaining traffic staging, relocating utilities and reducing impacts to traveling public.

Financial Fine Points(Key Assumptions):

- Total NDOT Funding Expended for LV Blvd.: $4.3 M
- Total funding expended for I-15 South Environmental studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2011 approximate midpoint of construction.
- Funding Source: STP Clark County ($8.3M)

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2014

NEVADA DOT

12

I 15 South - Phase 2A/2B

Sloan Road to Blue Diamond (SR-160)

Project Sponsor: NDOT

Assistant Chief Project Manager: Lynnette Russell, P.E.

(702) 671-6601

Project Description:

- I-15 South project from Sloan to Tropicana has been broken into nine (9) project phases to address funding and constructability opportunities.
- This is one element of I-15 South Project.
- Widen I-15 from Sloan Road to Blue Diamond Road from 6 to 10 lanes.
- Project Length: 8.2 miles
- This project has been divided in two phases:
- Phase 2A: Widening I-15 from Sloan to Blue Diamond (SR160) 6 to 8 lanes
- Phase 2B: Widen from Sloan to Blue Diamond (SR160) 8 to 10 lanes, restripe collector-distributor ramps from Blue Diamond (SR160) to Tropicana Ave, replace concrete section between I-215 & Tropicana Ave and replace Tropicana Interchange.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Environmental Phase Estimates)

Engineering:

$47.5 - $51 M

Right-of-Way:

$0

Construction:

$371 - $392.5 M

Total Project Cost:

$418.5 - $443.5 M

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Complexity in maintaining traffic staging, relocating utilities and reducing impacts to traveling public.
- Sloan Interchange improvements to be constructed prior to widening to accommodate additional lanes

Financial Fine Points(Key Assumptions):

- Funding not available until 2016-2020 per current Financial Plan.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to approximate midpoint of construction.

Environmental Complete 0 50 100

Design Complete 0 50 100

July 2014

NEVADA DOT

I 15 South - Sloan Road Interchange

Project Sponsor: City of Henderson

Assistant Chief Project Manager: Lynnette Russell, P.E.

(702) 671-6601

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) project elements to address funding and constructability opportunities.
- This is one element of the I-15 South Project.
- Reconstruct interchange at Sloan Road.

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
TBD
Construction:
TBD

Project Cost Range:

(Environmental Phase Estimates)
Engineering:
$19.5 - $21 M
Right-of-Way:
$35 - $40 M
Construction:
$156.5 - $162.5 M
Total Project Cost:
$211 - $223.5 M

Project Benefits:

- Interchanges on I-15 reduce congested traffic on the main line and associated regional facilities.
- Connect Regional traffic.
- Improve origin destination time of travel.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Unit price and property escalation may affect project cost.
- Sloan Interchange to be constructed prior to widening to accommodate additional lanes

Financial Fine Points(Key Assumptions):

- Funding not available until 2026-2030 per current Financial Plan.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2029 approximate midpoint of construction
- Funding source (RTP 2035): STP Clark County ($65M)

Environmental Complete 0 50 100

Design Complete: 0 50 100

July 2014

NEVADA DOT

14

I 15 South - Stateline to Sloan

Project Sponsor: NDOT

Assistant Chief Project Manager: Lynnette Russell, P. E.

(702) 671-6601

Project Description:

- Reconstruct interchange ramps at Primm, Jean and Sloan Interchanges to address safety issues.
- Signing improvements with DMS signs on I-15.
- Shoulder improvements.

Schedule:

Planning:
2013 - 2015
Environmental:
TBD
Final Design:
TBD
Construction:
TBD

Project Cost Range:

Engineering:
$3 - $4 M
Right-of-Way:
TBD
Construction:
$35 - $50 M
Total Project Cost:
$38 - $54 M

Project Benefits:

- Update ramp geometrics to current standards.
- Decrease congestion.
- Improve communications and driver awareness with message signs.
- Improve on/off ramps at Primm, Jean and Sloan Interchanges.

What's Changed Since Last Update?

- Scope -Scope modified to Safety project
- Schedule - No Change
- Cost - No Change.

Project risks:

- Uncertainty of future construction materials and labor costs.
- Complex construction in a high volume rural area may affect schedule and costs.
- Funding uncertainty.

Financial Fine Points(Key Assumptions):

- Total funding expended: $0
- Funding: Government Services Tax $52 Million
- Inflation Index of 3% is to approximate midpoint of construction.

Planning Scoping 0 50 100

July 2014

NEVADA DOT

I 515 Freeway Improvements

Feasibility Study and Final Design for one construction package

Rancho Drive at 95 to Wyoming Grade Separation on I-515 on the US 95 / I-515

Project Sponsor: NDOT

Senior Project Manager: Dwayne Wilkinson

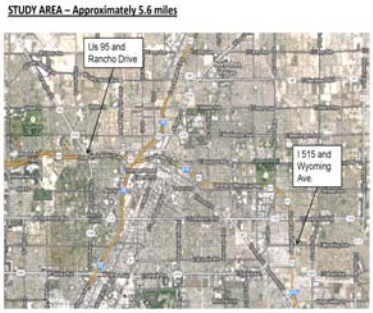
(702) 671-8879

Project Description:

- Feasibility study will analyze traffic operations and safety from Rancho to Wyoming Grade Separation and identify improvement phasing to address corridor needs.
- One construction package is presently planned to advertise in FY 2017

Schedule:

Planning:
Complete
Feasibility Study:
Begin Fall of 2014
Environmental:
2014-2015
Final Design:
2016
Construction:
2017



Project Cost Range:

Engineering:
TBD
Right-of-Way:
TBD
Construction:
TBD
Total Project Costs:
TBD

Project Benefits:

- Identify and implement operational and safety improvements to be constructed based on funding availability.

What's Changed Since Last Update?

- Scope - Analyze safety and operational improvements from Rancho to Wyoming Grade Separation
- Schedule - RFP anticipated to go out August 2014
- Cost - Overall construction costs TBD

Project risks:

- Individual phases and funding obligations are unknown at this time.

Financial Fine Points(Key Assumptions):

- Funding for first construction package is yet to be identified, but the goal is to begin construction in FY 2017

% Environmental Complete 0 — 50 — 100

July 2014

NEVADA DOT

16

US 93 / US 95 Boulder City Bypass - Phase 1 Package 2B

Foothills Drive Grade Sep to Railroad Pass Interchange

Project Sponsor: NDOT

Senior Project Manager : Tony Lorenzi, P.E.

(775) 888-7317

Project Description:

- Construct West Frontage Road to Subgrade
- Construct Retaining Wall
- Construct Drainage Features
- Relocate Henderson Utilities (sewer and water)

Schedule:

Planning:

Completed

Environmental:

Completed

Final Design:

Completed

Construction:

Begin early 2015

Project Cost Range:

(Final Design Phase Estimates)

Engineering:

$350 - $500 k

Construction:

$11 - $13 million

Major Utility Relocation:

$11 - $13 million

Total Project Cost:

$11 - $14 million

Project Benefits:

- Improves operations for Trucks from US 93 to US 95
- Improves local circulation
- Provides complete utility corridor for all underground utilities
- Improves Truck access to Industrial area

What's Changed Since Last Update?

- Scope: No change
- Schedule: Construction moved to early 2015
- Cost: Cost range changed based on updated engineering estimates
- Package 2B was cancelled due to NOA and will be delivered as a part of Package 3 in Fall 2014
- Limits of Frontage Road revised on the south end

Project risks:

- Concurrent utility relocations may affect schedule
- Utility agreements are a major risk
- Hazardous materials found during construction
- A study was published announcing the presence of Naturally Occurring Asbestos in the project vicinity. Further studies are necessary to quantify the amount of asbestos.

Financial Fine Points(Key Assumptions):

- Inflation escalation (4%) is to 2015 approximate midpoint of construction.
- Additional Federal, State, Local, and Regional Funding will be required.

Final Design completed 0 50 100

Construction completed 0 50 100

July 2014

NEVADA DOT

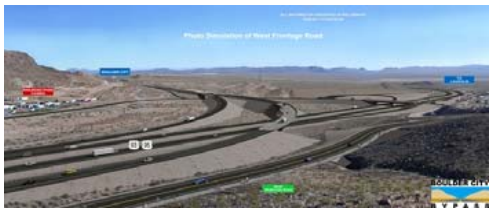
US 93 / US 95 Boulder City Bypass - Phase 1 Package 3

Foothills Drive Grade Sep to Silverline Road north of US 95

Project Sponsor: NDOT

Senior Project Manager : Tony Lorenzi, P.E.

(775) 888-7317



Project Description:

- Realignment of US 93 / US 95 to create an access controlled facility from Foothill Drive to US 95.
- One new diamond interchange along with one Frontage Road will be constructed.
- Direct Connector Ramps from the new facility to and from US 93 will be constructed.
- Direct Connector Ramps from US 95 to the new facility will be constructed.
- Existing access will be perpetuated.
- Project length: 2 miles

Schedule:

Planning:

Completed

Environmental:

Completed

Final Design:

Package 3 Advertise Fall 2014

Construction:

Early 2015

Project Cost Range:

(Final Design Phase Estimates)

Engineering:

$1 - $1.5 million

Right-of-Way:

Incidental

Construction:

$65 - $80 million

Total Project Cost:

$66 - $82 million

Project Benefits:

- Improves safety by eliminating a signal at US 93 and Railroad Pass Casino.
- Improves operations for Trucks from US 95 to US 93.
- Improves operations for peak trips from Boulder City to Las Vegas.
- Improves local circulation.
- Completes initial bypass phase.

What's Changed Since Last Update?

- Scope: Package 4 was split into two segments. Northern half will be incorporated into Package 3 and the southern half will be incorporated into the RTC's Design-Build contract for Phase 2.
- Schedule: Package 3 delivery moved to Federal FY2014 to meet the RTC's schedule
- Cost: Cost range changed based on new engineering estimate and the packages being combined into Package 3
- Package 2B, utility relocations and Package 5 added to Package 3 for delivery as single contract

Project risks:

- Unit price and property escalation may affect project
- Resource conflict with other on-going projects
- Field Changes
- Increased Roadway Excavation unit prices due to additional blasting
- Multiple utility relocations need to be done concurrently
- Hazardous materials found during construction
- A study was published announcing the presence of Naturally Occurring Asbestos in the project vicinity. Further studies are necessary to quantify the amount of asbestos.

Financial Fine Points(Key Assumptions):

- Total funding expended for BC Bypass Environmental studies (all phases): $5,199,679
- Inflation escalation (4%) is to approximate midpoint of construction.
- Project is completely funded for FY2014

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2014

NEVADA DOT

18

US 93 / US 95 Boulder City Bypass - Phase 2

Silverline Road north of US 95 to the Nevada Interchange

Project Sponsor: NDOT

Senior Project Manager: Tony Lorenzi, P.E.

(775) 888-7317

Project Description:

- Provide connection between Phase I from north of the US 95 to tie into the Hoover Dam Bypass at Nevada Interchange
- Provide limited access bypass to the south of Boulder City for US 93 traffic
- 4 lane divided highway facility
- Require several bridge structures over existing access roads and to provide wildlife access
- NDOT working with RTC to administer Design-Build Procurement for Phase 2
- Project length: 12.5 miles
- Project was approved to be administered using Design-Build delivery method by the RTC Board of Commissioners following the passage of AB413 for fuel tax index Bill

Schedule:

Planning:

Complete

Environmental:

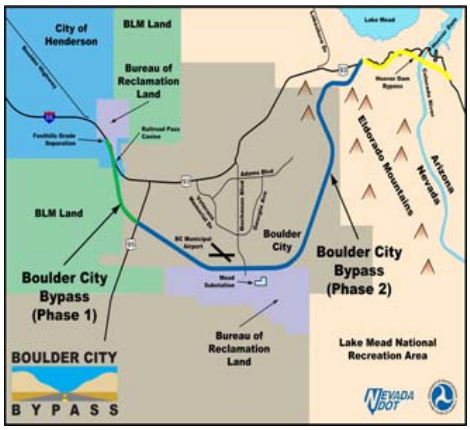
Complete

Final Design:

2014-2015

Construction:

2015-2018



Project Cost Range:

(Planning phase estimates)

Engineering:

$15 - $25 million

Right-of-Way:

$2 - $4 million

Construction:

$250 - $350 million

Total Project Cost:

$270 - $380 million

Project Benefits:

- Reduce congestion of US 93 through Boulder City
- Provide additional safety to existing US 93 within Boulder City
- Decrease travel time from Las Vegas to Nevada/Arizona border

What's Changed Since Last Update?

- Scope - Package 4 of Phase 1 was eliminated by splitting into two segments. The southern half was incorporated into Phase 2 project limits
- Schedule - RTC of Southern NV to proceed with Design/Build: RFP issued 4/14/14 with an anticipated NTP in Dec 2014
- Cost - Currently the RTC has a construction cost estimate of approximately $275 million

Project risks:

- Aggressive procurement schedule - need to start construction Fall 2014
- Unit price escalation may affect project cost.
- Difficult design & construction issues in a mountainous terrain may affect cost & schedule.
- A study was published announcing the presence of Naturally Occurring Asbestos in the project vicinity. Further studies are necessary to quantify the amount of asbestos.

Financial Fine Points(Key Assumptions):

- Total funding Expended (Engineering & Right-of-Way): $3,198,701
- Total funding Expended for BC Bypass environmental studies (all phases): $5,199,679
- Inflation escalation (4%) is to 2016 approximate midpoint of construction.
- RTC Southern Nevada to fund majority of work using AB413 fuel tax indexing revenues

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2014

NEVADA DOT

US 95 Northwest - Phase 2A

Ann Road to Durango Drive

Project Sponsor: NDOT

Project Manager: Jenica Keller, P.E.

(775) 888-7321

Project Description:

- This is the second phase of the US 95 Northwest Project that extends from Washington Avenue to Kyle Canyon Road
- Alleviate congestion within the corridor by increasing capacity
- Project length: 3.04 miles
- This project is the first of 2 phases
- Phase 2A : Ann Road to Durango Drive
- Phase 2B: Durango Drive to Kyle Canyon Road

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Complete

Advertise Project:

Complete

Construction:

Start April 2014 - Complete

1st Quarter 2016

Project Cost Range:

(Construction Phase Estimates):

Engineering:

$2 - $3 million

Right-of-Way:

$0, No acquisitions required

Construction:

$40 - $44 million

Total Project Cost:

$42 - $47 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Change in site conditions
- Contractor delays

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 2: $1.32 million
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- Funding source:
- Federal: $36.2 million
- State: $1.9 million
- Local: $1.5 million

% Design Complete 0 50 100

% Construction Complete 0 50 100

July 2014

US 95 Northwest - Phase 2B

Durango Drive to Kyle Canyon Road

Project Sponsor: NDOT

Project Manager: Jenica Keller , P.E.

(775) 888-7321

Project Description:

- This is the second phase of the US 95 Northwest Project that extends from Washington Avenue to Kyle Canyon Road
- Alleviate congestion within the corridor by increasing capacity
- Project length: 2.45 miles
- This is the second of 2 phases
- Phase 2A: Ann Road to Durango Drive
- Phase 2B: Durango Drive to Kyle Canyon Road

Schedule:

Planning :

Complete

Environmental :

Complete

Final Design:

Complete in 2018

Advertise:

2018

Project Cost Range:

(Environmental Phase Estimates):

Engineering:

$2 -$3 million

Right of Way:

$0, No acquisitions required

Construction:

$37 - 41 million

Total Project Cost :

$39 - $44 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify the corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Unit price escalation may affect project cost
- Complex design issues may impact schedule and scope
- Complex right of way and utilities issues may impact schedule and cost

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 2: $1.3 million
- Total funding expended for US 95 Northwest Environmental Studies (all phases) : $5 million
- Inflation escalation (2.7%) to midpoint of construction in 2017.
- Funding source : TBD

% Design complete 0 50 100

July 2014

NEVADA DOT

US 95 Northwest - Phase 3A

Clark County 215 Interchange

Project Sponsor: NDOT, City Las Vegas and Clark County

Senior Project Manager: Jenica Keller, P. E.

(775) 888-7321

Project Description:

- This is the third phase of the US 95 Northwest project that extends from Washington Avenue to Kyle Canyon Road
- Construct new system to system interchange at CC 215
- This project is anticipated to be constructed in 5 phases
- Phase 3A: Ramps providing north to east, west to south and east to south movements (2015)
- Phase 3B: Major utility relocations (2018)
- Phase 3C: Widen CC215 interchange at Sky Pointe, provide local access to Sky Pointe and Centennial (2021)
- Phase 3D: Widen CC215 interchange at John Hebert and provide local access to Oso Blanca (2024)
- Phase 3E: Final interchange ramps (2027)

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design (All Phases):

Ongoing

Final Design (3A):

Complete in 2015

Advertise (3A):

2015

Project Cost Range:

(Final Design Phase Estimates):

Engineering (All Phases):

$13.6 - $14.3 million

Right-of-Way (All Phases):

$0 - $0.4 million

Construction (All Phases):

$219 - $276 million

Construction (3A):

$25 - 30 million

Total Project Cost (All Phases):

$233 - $290 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Unit price escalation may affect project cost
- Complex right of way and utility issues may impact schedule and costs.

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 3: $2,800,000
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- 3a: Inflation escalation (4%) to midpoint of construction 2018
- Funding source: TBD

% Design Complete (All Phases) 0 50 100

% Design Complete (3A) 0 50 100

% ROW Complete (All Phases) 0 50 100

July 2014

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US 95 Northwest - Phase 3B

Clark County 215 Interchange

Project Sponsor: NDOT, City Las Vegas and Clark County

Senior Project Manager: Jenica Keller, P.E.

(775) 888-7321

Project Description:

- This is the third phase of the US 95 Northwest project that extends from Washington Avenue to Kyle Canyon Road
- Construct new system to system interchange at CC 215
- This project is anticipated to be constructed in 5 phases
- Phase 3A: ramps providing north to east, west to south and east to south movements (2015)
- Phase 3B: major utility relocations (2018)
- Phase 3C: widen CC 215 interchange at Sky Pointe, provide local access to Sky Pointe and Centennial (2021)
- Phase 3D: widen CC 215 interchange at John Herbert and provide local access to Oso Blanca (2024)
- Phase 3E: final interchange ramps (2027)

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Ongoing

Project Cost Range:

(Final Design Phase Estimates):

Engineering:

$

Right of Way:

$

Construction:

$

Total Project Cost:

$

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - Project divided into 5 phases
- Schedule - Updated for each phase
- Cost - Updated for each phase

Project risks:

- Unit price escalation may affect project cost
- Complex right of way and utility issues may impact schedule and cost

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 3: $2,800,000
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- 3B: inflation escalation (4%) to midpoint of construction 2019
- Funding source: TBD

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2014

NEVADA DOT

US 95 Northwest - Phase 3C

Clark County 215 Interchange

Project Sponsor: NDOT, City of Las Vegas and Clark County

Senior Project Manager: Jenica Keller, P.E.

(775) 888-7321

Project Description:

- This is the third phase of the US 95 Northwest project that extends from Washington Avenue to Kyle Canyon Road
- Construct new system to system interchange at CC 215
- This project is anticipated to be constructed in 5 phases
- Phase 3A: ramps providing north to east, west to south and east to south movements (2015)
- Phase 3B: major utility relocations (2018)
- Phase 3C: widen CC 215 interchange at Sky Pointe, provide local access to Sky Pointe and Centennial (2021)
- Phase 3D: widen CC 215 interchange at John Herbert and provide local access to Oso Blanca (2024)
- Phase 3E: final interchange ramps (2027)

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Ongoing

Project Cost Range:

(Final Design Phase Estimates):

Engineering:

$

Right of Way:

$

Construction:

$

Total Project Cost:

$

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - Project divided into 5 phases
- Schedule - Updated for each phase
- Cost - Updated for each phase

Project risks:

- Unit price escalation may affect project cost
- Complex right of way and utility issues may impact schedule and cost

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 3: $2,800,000
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- 3C: inflation escalation (4%) to midpoint of construction 2025
- Funding source: TBD

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2014

US 95 Northwest - Phase 3D

Clark County 215 Interchange

Project Sponsor: NDOT, City Las Vegas and Clark County

Senior Project Manager: Jenica Keller, P.E.

(775) 888-7321

Project Description:

- This is the thris phase of the US 95 Northwest project that extends from Washington Avenue to Kyle Canyon Road
- Construct new system to system interchange at CC 215
- This project is anticipated to be constructed in 5 phases
- Phase 3A: ramps providing north to east, west to south and east to south movements (2015)
- Phase 3B: major utility relocations (2018)
- Phase 3C: widen CC 215 interchange at Sky Pointe, provide local access to Sky Pointe and Centennial (2021)
- Phase 3D: widen CC 215 interchange at John Herbert and provide local access to Oso Blanca (2024)
- Phase 3E: final interchange ramps (2027)

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

Ongoing

Project Cost Range:

(Final Design Phase Estimates):

Engineering:

$

Right of Way:

$

Construction:

$

Total Project Cost:

$

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - Project divided into 5 phases
- Schedule - Updated for each phase
- Cost - Updated for each phase

Project risks:

- Unit price escalation may affect project cost
- Complex right of way and utility issues may impact schedule and cost

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 3: $2,800,000
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- 3D: inflation escalation (4%) to midpoint of construction 2025
- Funding source: TBD

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2014

US 95 Northwest - Phase 3E

Clark County 215 Interchange

Project Sponsor: NDOT, City Las Vegas and Clark County

Senior Project Manager: Jenica Keller, P.E.

(775) 888-7321

Project Description:

- This is the third phase of the US 95 Northwest project that extends from Washington Avenue to Kyle Canyon Road
- Construct new system to system interchange
- This project is anticipated to be constructed in 5 phases
- Phase 3A: ramps providing north to east, west to south and east to south movements (2015)
- Phase 3B: major utility relocations (2018)
- Phase 3C: widen CC 215 interchange at Sky Pointe, provide local access to Sky Pointe and Centennial (2021)
- Phase 3D: widen CC 215 interchange at John Herbert and provide local access to Oso Blanca (2024)
- Phase 3E: final interchange ramps (2027)

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
Ongoing

Project Cost Range:
(Final Design Phase Estimates):

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - Project divided into 5 phases
- Schedue - Updated for each phase
- Cost - Updated for each phase

Project risks:

- Unit price escalation may affect project cost
- Complex right of way and utility issues may impact schedule and cost

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 3: $2,800,000
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- 3E: Inflation escalation (4%) to midpoint of construction 2028
- Funding source: TBD

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2014

26

US 95 Northwest - Phase 5 Kyle Canyon Road Interchange

Project Sponsor: City of Las Vegas and NDOT

Senior Project Manager: Jenica Keller, P.E.

(775) 888-7321

Project Description:

- This is the fifth phase of the US 95 Northwest Project that extends from Washington Ave to Kyle Canyon Road
- Alleviate congestion within the corridor by increasing capacity
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Construct new interchange at Kyle Canyon Road

Schedule:

Planning:

Complete

Environmental:

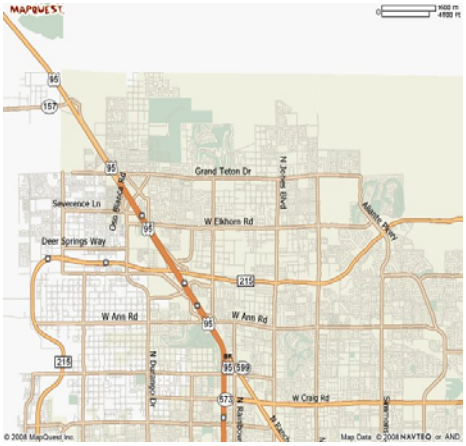
Complete

Final Design:

TBD

Construction:

TBD



Project Cost Range:

Engineering:

$2.5 - $3 million

Right-of-Way:

$1 - $1.5 million

Construction:

$32 - $36.5 million

Total Project Cost:

$35.5 - $41 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Unit price escalation may affect project cost
- Complex design issues may impact schedule and scope
- Complex right of way and utility issues may impact schedule and costs.

Financial Fine Points(Key Assumptions):

- Total Expended for Final Design: $0 (Design phase not started)
- Total Expended for Environmental Studies (all US 95 Northwest phases): $5 million
- Inflation escalation (4%) to midpoint of Construction in 2027
- Funding source: TBD

Design complete 0 50 100

July 2014

NEVADA DOT

I 80 Robb to Vista

Project Sponsor: NDOT

Senior Project Manager: Jeff Lerud

(775) 888-7589

Robb to Vista I-80 Keeping Reno/Sparks Moving

Project Description:

- Make operational and capacity improvements to I-80 from Robb Drive to Vista Blvd.
- Make operational and capacity improvements to the I-80/I-580 interchange (Spaghetti Bowl)
- Early Action and Phase 1 (I-80 Robb to Vista Design-Build) projects from Washoe County Freeway Corridor Study scoping report completed.
- Phase II scoping will commence after completion of the I-80 Robb to Vista design/build project.
- Project Length: 10.4 miles

Schedule:

Planning:

2008 - 2014

Environmental:

TBD

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Planning Phase Estimates)

Engineering:

$85 - $105 million

Right-of-Way:

$95 - $125 million

Construction:

$900 - $1.1 billion

Total Project Cost:

$1.08 billion - $1.33 billion

Project Benefits:

- Improve operations and capacity along I-80.
- Improve safety
- Provide better connectivity between I-80 and I-580/US 395.
- Accommodate future projected traffic.

What's Changed Since Last Update?

- Scope - No change
- Schedule - Planning extended
- Cost - No change

Project risks:

- Limited Right-of-Way
- Phase II and beyond unfunded- delay in identifying needed funds will affect schedule and increase costs.
- Environmental process not started - Project cost, scope and schedule may be impacted.
- Resources may need to be reallocated to higher priority projects - project cost, scope and schedule may be impacted.

Financial Fine Points(Key Assumptions):

- Total Funding Expended by NDOT: $140, 000
- Inflation escalation (4%) is to 2020 approximate midpoint of construction
- Additional Federal, State, and local funding will/may be required

Planning Complete 0 50 100

July 2014

NEVADA DOT

28

US 395 North - McCarran Blvd to Stead Blvd

Project Sponsor: NDOT

Senior Project Manager: Jeff Lerud, P.E.

(775) 888-7589

Project Description:

- Widen US 395 to increase capacity and improve traffic operations.
- Modify interchange ramps and cross streets as necessary to improve operations.
- Widen bridge structures at Stead, Lemmon Drive, Golden Valley, UPRR, Virginia Street, Panther Valley, Parr Blvd and Clear Acre Lane if necessary.
- Perpetuate drainage features.
- Replace and install new signs.

Schedule:

Planning:

TBD

Environmental:

TBD

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Planning Phase Estimates)

Engineering:

$7 - $9 million

Right-of-Way:

$3 - $6 million

Construction:

$70 - $85 million

Total Project Cost:

$80 - $100 million

Project Benefits:

- Relieve heavy peak hour congestion and reduces crashes associated with congestion.
- Reduces travel time.
- Improves overall traffic operations.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - The project has been put on hold subject to funding availability.
- Cost - No Change

Project risks:

- Environmental requirements.
- UPRR Clearance and requirements.
- Unknown Right-of-Way and utility impacts.
- Impact of new development in the region.
- Concurrent planning associated with the Pyramid Connector.

Financial Fine Points(Key Assumptions):

- Total funding expended: $50,000
- Inflation escalation (4%) is to approximate mid-point of construction
- No funding has been identified for this project

Planning Complete: 0 — 50 — 100

July 2014

NEVADA DOT

Pyramid Highway/US 395 Connection

Project Sponsor: Washoe County RTC and NDOT

Washoe RTC Project Manager: Doug Maloy, P.E.

NDOT Project Manager: Dale Keller, P.E.

www.pyramidus395connection.com

Phone: (775) 888-7603

Project Description:

- Calle de la Plato to La Pasada- Transition from 4 Lane Arterial to 6 lane freeway
- La Pasada to Sparks Blvd. - Develop Pyramid alignment into 6 lane freeway with frontage roads.
- Continue 6 lane freeway from Sparks Blvd. to Dics Dr. either on the Pyramid alignment with frontage roads or on a separate alignment to the west.
- Extend 6 lane freeway through Sun Valley to US-395
- Widen and improve Pyramid highway from Disc Dr. to Queen Way
- Widen and extend Disc Dr. to Vista Blvd.

Schedule:

Planning:

Complete

Environmental:

2010 - 2015

Final Environmental Impact Statement (FEIS):

Winter 2014

Record of Decision (ROD):

Spring 2015

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Planning phase estimates)

Engineering:

$40M - $60M

Right-of-Way:

$100M - $150M

Construction:

$410M - $660M

Total Project Costs:

$550M - $870M

Project Benefits:

- Address congestion and safety along the Pyramid Highway and McCarran Blvd. Corridors
- Provide alternative access to freeway system
- Improve safety

What's Changed Since Last Update?

- Scope - No change.
- Schedule - No change
- Cost - No change.

Project risks:

- Construction in a dense urban residential area
- Funding sources for all phases not identified
- Complex right of way and utility issues may impact schedule and costs.

Financial Fine Points(Key Assumptions):

- Total RTC Funding Expended - $7,300,000
- Inflation escalation (2.7%) to midpoint of construction in 2020

% Environmental Complete 0 50 100

July 2014

US 395 Carson City Freeway - Phase 2B

South Carson Street to Fairview Drive

Project Sponsor: NDOT

Project Manager: Jeff Lerud, P. E.

(775) 888-7589

Project Description:

- This project will be delivered in four packages. Construction is complete for Phase 2B Packages 1 & 2.
- Phase 2B Package 3 & 4 will complete the remainder of the project
- Construct 3 miles of 4 lane access controlled Freeway which will complete the nine mile system around the state Capitol.
- Complete the interchange at Fairview Drive - providing full traffic movements.
- Construct the South Carson Street Interchange.
- Construct over four miles of sound walls to mitigate traffic noise.
- Construct flood control facilities including detention basins, channels, box culverts, and the Freeway drainage system.
- Project length: 3.37 miles.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Final design phase estimates):

Engineering:

$11 - $13 million

Right-of-Way:

$30 - $32 million

Construction:

$100 - $150 million

Total Project Cost:

$137 - $190 million

Project Benefits:

- Relieve traffic congestion on Carson Street through Carson City and local streets along the freeway corridor.
- Reduce travel times through the region.
- Provide flood control protection.
- Improve opportunities for economic development along the corridor and downtown.

What's Changed Since Last Update?

- Scope - Package 3 & 4 will complete the remainder of the Freeway
- Schedule - TBD
- Cost - No change

Project risks:

- Project completion date will depend on the availability of funds.
- Concurrent utility relocation will be required.
- Changes in design standards could affect schedule and budget.
- New development along the corridor.

Financial Fine Points(Key Assumptions):

- Total funding expended: $54 million
- Inflation escalation (2.7%) to midpoint of construction in 2017.
- Construction funding source: TBD

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2014

NEVADA DOT

APPENDICES

APPENDIX A

BENEFIT-COST ANALYSIS OF CAPACITY PROJECTS

The Department is required under NRS 408.3195 to conduct benefit cost analysis for larger highway capacity projects. Specifically, prior to submitting a project to the Board for approval, the Department will prepare such a written analysis for highway projects that will increase capacity on the State Highway System and cost at least $25 million. Subsequently, this analysis was done and is being reported on active projects before the Department requests the Board to approve funding for construction, including right-of-way acquisition and utility work. The Benefit-Cost (B/C) ratio calculations are being done on the larger capacity projects that are expected to be funded for construction within 10 years and, thereby, appear in the Transportation System Projects document. The policy that governs the analysis of benefits and costs, TP 1-11-1, is included at the end of the section entitled Discussion of the Calculations of Costs and Benefits. Furthermore, B/C analysis has been done for some projects that do not meet the minimum dollar threshold but the information will beneficial to management for decision making purposes.

The B/C ratios for several projects have been determined in FY 2008, 2009, 2010, 2011, 2012, 2013 and 2014. The following table reports the B/C ratio results of a total of 37 projects.

Blue Ribbon Task Force Projects (FY 2008)	NPV B/C
I-15 South Corridor – Tropicana Avenue to Sloan Road	4.11
US 95 Northwest Corridor – Rainbow Blvd to Kyle Canyon Road	3.63
I-15 North Corridor – Spaghetti Bowl to Apex	3.39
I-15 – NEON (Sahara Avenue to Spaghetti Bowl)	1.97
I-515 – Spaghetti Bowl to Foothills Road	1.94
Other Major Projects (FY 2009)	NPV B/C
US 395 – Moanna to I-80 Northbound Add Lane	2.34
US 395 – Carson City Freeway (1996 updated in 2009)	4.44
Other Major Projects (FY 2010)	NPV B/C
I-80 – Design-Build	3.57
Other Major Projects (FY 2011)	NPV B/C
I-580/Meadowood Complex Improvements	2.70
I-215/ Airport Connector Interchange	3.08
Other Major Projects (FY 2012)	NPV B/C
SR 160 (Blue Diamond) from SR 159 to Mountain Springs	2.10
S. McCarron Phase 1, Mira Loma Dr. to Greg St.	3.57
S. McCarron Phase 2, Mira Loma Dr. to Greg St.	2.47

Other Major Projects (FY 2013)	NPV B/C
I-15 Interchange at Milepost 118 in Mesquite, Nevada	5.0
Boulder City Bypass Phase I: Foothills Drive to US-93/US-95 Interchange	0.9
I-15 Pavement Rehabilitation: Dry Lake Rest Area to Logandale/Overton Interchange	1.7
I-80 Pavement Rehabilitation Dunphy Interchange to Emigrant Pass Interchange	1.2
North 5th Street Super Arterial Phases 1C & 1D: Carey to Cheyenne	12.6
SR 160 Widening: SR 159 to Mountain Springs	2.1
US 93 Pavement Rehabilitation & Truck Climbing Lanes	8.3
South McCarran Boulevard – Phase I Virginia Street to Mira Loma Drive	3.57
South McCarran Boulevard – Phase II Mira Loma Drive to Greg Street	2.47
US 395 Southern Corridor E Clearview Drive SR 88	2.13
US-50 Widening Project Chaves Road to Roy's Road	1.9
I-80 West of Emigrant Pass Interchange Pavement Rehabilitation	1.1
F Street Connection Washington Ave. to Bonanza Road	1.15
Wadsworth Bypass Road (PLIR 35) Pyramid Lake Indian Reservation Washoe County, Nevada	1.6
I-580 From Mt. Rose Highway to Washoe Valley	0.24

Other Major Projects (FY 2014)	
Project Neon-Phase III: Charleston Boulevard Interchange Improvements	2
Boulder City Bypass Phase II: Proposed US-93/US-95 Interchange to West of the Hoover Dam Bypass	0.95
Project Neon-Phase V: I-15 Reconstruction south of Oakey Boulevard and the Northbound Direct Connect Ramp	2.2
Project Neon Phase II: Oakey Blvd / Wyoming Ave. Railroad grade separation, and Martin Luther King/ Industrial Connection	0.1
Project Neon-Phase IV: Southbound Direct Connect Ramp	2.9
US 95 North-Phase 2A (Ann Road to Durango Drive)	4.2
I-15 Pavement Rehabilitation: Dry Lake Rest Area to Logandale/Overton Interchange	1.7
Carson City Freeway I-580/US 395 Phase 2B-3, Fairview Drive to Snyder Avenue	2.73
SR 593 Tropicana Avenue: Dean Martin Drive to Boulder Highway (The project starts at Dean Martin Drive and ends at SR 582 Boulder Highway (SR 593 CL-3.50 to -10.85))	2.5

DISCUSSION OF THE CALCULATIONS OF COSTS AND BENEFITS

Introduction

The determination of the benefit and costs has received considerable use for many decades. The process was first proposed by a French engineer by the name of Dupuit in 1844. The method provides an analysis framework whereby many benefits and costs are quantified. It has become a widely used tool and enables the decision-making process of ranking projects to become more transparent. For the private sector it is a tool to guide private investment and has been certainly helpful to assist assessing the cost effectiveness of public projects. For the private sector, normally economic efficiency is the primary objective, but the public sector needs to consider economic equity as well. As the social and environmental factor became important, the economic analysis of projects came more complex and, therefore, more difficult.

The application of the B/C ratio calculations for this Annual Report compares each proposed project with a set of factors that are converted to monetary values. This appendix discusses the input data needed to conduct a B/C ratio calculation, which includes: travel time benefits, crash benefits, motor vehicle emissions and cost benefits, vehicle operating cost benefits, and capital cost. In addition, the limitation of the B/C analysis is presented.

Input

Travel Time Benefits:

Highway speeds and volumes came from the Regional Transportation Commissions and Metropolitan Planning Organizations regional travel demand models. For the value of travel time, the personal travel was 50% of local median wage while business travel by truck/bus drivers was 100% of the mean wage for these occupations plus fringe benefits. The wage value in Clark County came from the Nevada Department of Employment, Training, and Rehabilitation. A 50% fringe was used because it was an average of several labor groups. The same data were obtained for Carson City/Douglass County and Washoe County, and identical calculations were performed. Vehicle occupancy was based in household surveys, census data and travel demand output.

Table E-1 Travel Cost and Vehicle Occupancy

Location	Personal Travel	Business Travel	Vehicle Occupancy
Clark County	$11.04	$34.33	1.45
Carson City/Douglass County	$10.48	$33.77	1.43
Washoe County	$11.26	$34.54	1.28

Crash Benefits:

The freeway and expressway, with controlled access, crash rates are normally lower than local streets and roads that had little or no access control. Consequently, by increasing freeway capacity more travelers will benefit from lower accident rates. The rates are illustrated in Table E-2.

Table E-2 Nevada Crash Severity numbers of the larger Counties

Location	Traffic Crashes Percentage[2]	Number of Crashes[2]	PDO[1,2]	INJURY[2]	FATAL[2]	Crash rates
Clark County	80.91	34549	19164	15231	154	218.12
Washoe County	11.62	4960	2483	1755	25	146.92
Carson City/Douglas County	2.63	1122	794	321	7	145.02

Note: [1] Property Damage Only [2] Number of crashes in 100 million vehicle miles of travel

Table E-3 Nevada Crash Rates & VMT by County

FY 2014
ANNUAL VEHICLE MILES TRAVELED, AND CRASH STATISTICS

COUNTY	TOTAL CRASHES	% OF TOTAL CRASHES	TOTAL AVM	% OF TOTAL AVM	CRASH RATE
CARSON	666	1.56%	365,199,263	1.55%	182.37
CHURCHILL	351	0.82%	297,001,340	1.26%	118.18
CLARK	34549	80.91%	15,839,721,817	67.19%	218.12
DOUGLAS	456	1.07%	408,469,675	1.73%	111.64
ELKO	495	1.16%	720,945,449	3.06%	68.66
ESMERALDA	20	0.05%	97,192,656	0.41%	20.58
EUREKA	67	0.16%	141,668,045	0.60%	47.29
HUMBOLDT	148	0.35%	368,206,693	1.56%	40.19
LANDER	67	0.16%	125,416,851	0.53%	53.42
LINCOLN	130	0.30%	126,302,439	0.54%	102.93
LYON	278	0.65%	425,263,834	1.80%	65.37
MINERAL	37	0.09%	122,581,600	0.52%	30.18
NYE	297	0.70%	696,445,287	2.95%	42.65
PERSHING	60	0.14%	253,836,538	1.08%	23.64
STOREY	44	0.10%	38,355,233	0.16%	114.72
WASHOE	4960	11.62%	3,376,014,706	14.32%	146.92
WHITE PINE	75	0.18%	172,061,279	0.73%	43.59
TOTAL	42700	100.00%	23,574,682,705	100.00%	181.13

Crash Rates Expressed In Crashes Per 100,000,000 Vehicles Miles Traveled.

Nevada State Demographer 10/1/2010

The total cost of accident types is contained in Table E-4. These costs were derived Highway Safety Manual adjusted to 2013 dollars.

Table E-4 Accident Cost Assumptions (2013 dollars)

Accident Type	Cost
Fatality	$5,339,711
Injury (Avg. A, B & C)	$149,563
Property Damage Only	$9,638

Motor Vehicle Emissions and Cost:

The rate of motor vehicle emissions and associated health cost was based on data from California and are contained in Table E-5.

Table E-5 Vehicle Emission Health Cost Assumptions (Dollars/Ton)

Emission Type	Cost
Carbon monoxide	$135
Fine Participates	$448,761
Nitrogen oxides	$54,743
Hydrocarbons	$7,861

Vehicle Operating Costs:

- The consumption of fuel was determined by the average speed and the zone to zone distances. The fuel consumption rates were based on data from 2000 California Air Resources Board and expressed as gallons per mile and is a function of speed
- Auto/Bus-$10.40: (50 percent of $14.32 times occupancy rate); Mean hourly wage, all occupations, Washoe County. 2011Nevada Occupational Employment & Wages (OES); http://www.nevadaworkforce.com/?PAGEID=67&SUBID=117. Accessed on November 2014.

  Trucks-$25.50 ($21.25 times 20.0 percent for benefits); Mean hourly wage, truck drivers, heavy and tractor-trailers, Washoe County. 2011 Nevada Occupational Employment & Wages (OES); http://www.nevadaworkforce.com/?PAGEID=67&SUBID=117. Accessed on November 2014.

Cost per Gallon of Fuel:

- Mid-Grade Fuel: $3.539/gallon. Source: AAA Daily Fuel Gauge Report, Nevada Average, November 4, 2014. http://fuelgaugereport.opisnet.com/NVmetro.asp
- Diesel fuel: $3.873/gallon. Source: AAA Daily Fuel Gauge Report, Nevada Average, November 4, 2014. http://fuelgaugereport.opisnet.com/NVmetro.asp

Non-fuel Operating Costs	Car ($/mile)	Truck ($/mile)
Tires	$0.0101	$0.0244
Depreciation	$0.2636	$0.3402
Maintenance	$0.0471	$0.1093
Insurance	$0.0684	$0.0679
License, Registration, Taxes	$0.0421	$0.0223
Finance Charge	$0.0582	$0.1697

Capital Cost:

The capital cost included all implementation costs, but not any maintenance and repair costs. Likewise transit service costs were not included.

Limitations

In general, it is difficult to convert all diverse costs and benefits into monetary values. At times funding limitations might require the selection of an alternative that does not have the highest B/C ratio, simply because there is not sufficient funding. While the B/C ratio calculation reported herein is an excellent parameter to help select projects or alternatives, it does have limitations.

One limitation deals with the project cost impact on humans; therefore, a factor, i.e. community impact, will need to be addressed.

Another limitation deals with the system impact of large highway capacity projects. Correcting a significant urban freeway congestion problem at a particular site moves the primary 'bottleneck' (site of congestion) to another location. Such a project will probably have considerable benefit within the project limits, but might not provide much, if any, overall system improvement. Consequently, at least one area wide factor is needed to address the system wide impacts. One of the Department's new performance measures is: percent of daily vehicle miles of travel at Level of Service E or worse. This measure is called the 'system congestion index'.

Another limitation with a benefit-cost analysis is that many times a project will have an economic development benefit component. This economic development component is very difficult to quantify monetarily. Different items that can be considered when trying to estimate the economic development component include the number of marginal jobs that a project will enable to be created, the increase in property values along a project, the amount of new tax revenues generated for all levels of government because of the project, and the marginal increase in total Nevada gross product. Each of these items is problematic to estimate by themselves, then to try to estimate the change in these items induced because of transportation projects becomes extremely difficult. For these reasons, the economic development component is not normally considered in a typical NDOT benefit-cost analysis.

Nationally, discount rates vary from zero to 7% and sometimes higher. Modeled national inflation rates fluctuate considerably as well; however, NDOT staff believes that the spread between inflation and the discount rate is the important factor. NDOT staff has modeled the discount rate from 0% to 4% higher than inflation and performed sensitivity analyses on a wider range. In most cases, the discount rate and the inflation rate have very little impact on the results of the

benefit/cost analysis. The discount rate of 7% is used because of OMB (Office of Management and Budget) Circular A-94 and is applied to all benefit/cost analyses.

The final limitation is the level of favorable public opinion toward a project. If there is a negative public perception toward a particular project, even if the perception is not justified, a high priority score might not suffice for a project to proceed toward implementation. In summary, even a good project needs public support; consequently, the level of public acceptance will be documented, most likely during the NEPA process.

Once the projects have been prioritized, they must be distributed among the various funding categories, meaning that a lower priority project might be funded before a higher priority because it is in a category with much more funding. Additionally, a lower priority project might be simple and easy to design and build compared with a large scale project might have major mitigation issues. In this case, the lower priority would likely be constructed first.

APPENDIX B

PROJECT PRIORITY RATIONALE

INTRODUCTION

Every year, the Department is responsible for the programming of federal and state funding for a wide range of transportation improvement projects across the state. Allocating these significant resources in an equitable, efficient, and effective manner requires a multifaceted approach. The Department has adopted flexible, yet accountable procedures to meet the needs of the traveling public, advance the Department's goals and priorities, and address the needs of a myriad of constituencies across the state.

The Board, comprised primarily of elected officials, provides oversight on the project selection process. The Board annually approves the Transportation System Projects, which contains the Statewide Transportation Improvement Program (STIP), Annual Work Program, and Short and Long-Range Elements. Upon its approval in the fall of every year, the Transportation System Projects document is forwarded to the U.S. Department of Transportation for final approval.

Project priority rationale should be guided by our "Statewide Long-Range Transportation Plan" containing 'Guiding Principles' that provide policy guidance for the development and operation of the Nevada Transportation System. These guiding principles include the following topics: 1) Safety, 2) Mobility and Accessibility, 3) Environmental Stewardship, 4) Fiscal Responsibility, 5) Freight Movement, 6) Asset Management, and 7) Customer Service. For the purpose of this discussion, these principles that directly affect the transportation system are characterized as follows:

1) Safety – To improve the safety of all modes of travel
2) Mobility – To provide a multimodal, interconnected and efficient system
3) Environmental – To ensure the system is considerate to the human and natural
4) environment
5) Fiscal Responsibility – To maximize the transportation funding and invest it wisely
6) Freight Movement – To improve the safety and efficiency of motor carriers
7) Asset Management – To protect the transportation system assets

The following subsections describe the more significant funding programs used by the Department to follow the guiding principles of the Statewide Long-Range Transportation Plan. The programs include: Capacity Projects, Bridge, State Highway Preservation, Highway Safety Improvement, and Transportation Enhancement.

CAPACITY PROJECTS PROGRAM

The Department cooperates in the development and ensures adoption of Regional Transportation Plans and Regional Transportation Improvement Programs in Nevada. Projects within the jurisdiction of the four Metropolitan Planning Organizations must be included within the Transportation System Projects document without change from regional planning documents approved by the Metropolitan Planning Organizations.

The Department evaluates the capacity project budget by focusing on that portion of the Department budget that is both available to apply towards capacity projects and under the direct control of the Department. This "Potential Capacity Budget" is calculated by adding federal and state components

that meet the above criteria. With the approval of the 2007 AB 595, the Department now requires a benefit/cost analysis on capacity improvement projects that cost at least $25 million. In addition, the Department requires that major projects included in the Transportation System Projects document be evaluated by standard criteria including project feasibility.

As of 2005, entities not within Metropolitan Planning Organizations' jurisdictions are requested to submit a Project Submittal Application for proposed transportation improvement projects. Applications are due to the Program Development Division by January 1. Those projects submitted for consideration are evaluated by a project evaluation team utilizing criteria based on current conditions, project impact, and project complexity. Using these criteria, proposed transportation improvement projects are ranked and submitted to the Director for consideration. The Director recommends the selection of projects advancing into the Annual Work Program of the Transportation System Projects document.

BRIDGE PROGRAM

Highway assets are managed using two systems: A pavement management system and a bridge management system. Both systems provide an inventory of existing assets, their condition, needed repairs, and repair priorities. The bridge management system aids in identifying bridges in need of replacement and rehabilitation. Federal Highway Bridge Program funds are available to replace and rehabilitate substandard publicly owned highway bridges. While the primary focus of this program is to replace or rehabilitate bridges, these funds can also be used for:

- Conducting federally mandated inspection on all existing bridges
- Compiling federally mandated inventory information
- Upgrading bridges to resist seismic activity
- Mitigating potential scouring of bridge supports due to flooding

Eligible expenses are funded at ninety-five percent federal funds with a five percent match by the bridge's owner. A minimum of fifteen percent of the federal funds must be applied to bridges off the federal-aid system. The remaining balance of federal funds may be applied to bridges on the federal-aid system. Bridges on federal and tribal lands are also eligible but are neither authorized nor administered by the Department.

There are approximately 1952 bridges open to the public in Nevada that are owned and maintained by the Department and local agencies. Additionally, several bridges are owned and maintained by federal agencies and a few by private entities. Priority of replacement and rehabilitation projects are based on a bridge's Sufficiency Rating. The Sufficiency Rating is a numerical assessment of a bridge's serviceability, and is calculated based on a compilation of select inventory data and condition assessment data. The importance of a bridge to the transportation system and rate of deterioration are also considered when selecting replacement and rehabilitation projects.

STATE HIGHWAY PRESERVATION PROGRAM

The Department maintains 5,393 miles of highways. The total number of miles fluctuates annually as new highways are constructed and others are eliminated due to Relinquishment and Road Transfer activities to counties and cities, prompted by the 1999 Assembly Concurrent Resolution

(ACR) 3. These highways carry 50 percent of Nevada's traffic and 72 percent of the heavy trucks. The Department is responsible for protecting highway assets and preserving existing highways. Highway assets are managed using two systems: a pavement management system and a bridge inventory system. Both systems provide an inventory of existing assets, their condition, needed repairs, and repair priorities. The basic principle of pavement preservation is that timely lower-cost improvement will save money and better serve the public. For example, timely overlays will cost about 25 percent of the cost of waiting a few more years when reconstruction is necessary. At present, approximately $323 million is needed annually for pavement preservation projects to maintain the present quality of highway pavements. To preserve the state highway system at low cost, action plans are used that optimize the use of available funds. The Department's action plan in priority order is as follows:

To apply timely overlays on Interstate and other Principal Arterials, Minor Arterials, and other moderate to high volume roads.

To further develop economical repair strategies for our low-volume roads.

To continue coordinating and integrating routine pavement maintenance activities with planned overlay and reconstruction work.

Within this action plan, individual projects are prioritized based on pavement age, traffic volume, axle loads, and condition. From this analysis, an action list is formulated based on the financial consequences of not doing the project. Further assessment data is collected from field surveys in conjunction with district-engineer offices. Collaboratively, repair strategies are formulated along with an appropriate funding level to accomplish the Department's preservation and other goals.

HIGHWAY SAFETY IMPROVEMENT PROGRAM

The overall objective of the Highway Safety Improvement Program is to implement effective safety measures that reduce the number and severity of crashes on Nevada highways. The Highway Safety Improvement Program consists of several components, namely:

1) Collecting and maintaining data files for crashes, traffic volumes, and highway features.
2) Analyzing data files to determine high crash sites
3) Conducting Safety engineering studies in order to develop highway safety improvements.
4) Establishing priorities for implementing safety improvements.
5) Programming and implementing highway safety improvement projects.
6) Evaluating crashes before and after the implementation of safety improvements.
7) Determining the overall effectiveness of the prescribed safety improvements.

The Department also cooperates with the agencies listed below to implement the Nevada Strategic Highway Safety Plan.

- Department of Health/Bureau of Family Health Services
- RTC of Washoe County
- Department of Public Safety/Office of Traffic Safety Department of Public Safety/Nevada Highway Patrol
- Federal Motor Carrier Safety Administration
- Department of Motor Vehicles

- Federal Highway Administration
- Nevada Sheriffs' and Chiefs' Association
- RTC of Southern Nevada
- Nevada Association of Counties

TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

The TAP is a cost reimbursement program that provides federal transportation funding for eligible projects that improve non-motorized mobility, scenic accessibility, environmental management, historic preservation and safe route to school programs.

Project sponsors are required to provide a minimum funds match of 5% and the rest is covered by federal funds.

To be eligible, activities must fall within two broad categories: 1) Transportation infrastructure (constructed improvements); 2) Non infrastructure projects (efforts related to education, Encouragement, Enforcement and Education).

The State's allocation is divided up between urban areas over 200,000 in population; areas under 5,000 in population; areas between 5,000 and 200,000 in populations and a statewide allocation that can be spent in any area. The largest urbanized areas of the state under the jurisdiction of the RTC of Southern Nevada and Washoe RTC prioritize TAP projects following their respective TAP guidelines.

Eligible project sponsors include, but are not limited to: Tribal Governments, Schools, School Districts, Private Schools, and Government Agencies/Entities. Other organizations may only apply when partnered with an eligible sponsor.

Nevada's TAP projects are prioritized for funding by the TAP Scoring Committee. Members of this committee represent a wide range of transportation interests, including Bicycle/Pedestrian Advocate, Tourism/Economic Development, Engineers and Planners. Once the Committee completes its ranking, the list is forwarded to the NDOT Director for approval. Upon the Director's approval, the TAP projects are included in the Statewide Transportation Improvement Program (STIP).

More information about Nevada's TAP program can be found by going to WWW.nevadadot.com/tap.

APPENDIX C

PERFORMANCE MANAGEMENT PLAN

INTRODUCTION

The Department has developed performance measures among the four major divisions that were developed to support the achievement of the seven Department Strategic Plan Goals, which are to:

1) Optimize safety
2) Be in touch with and responsive to our customers
3) Innovate
4) Be the employer of choice
5) Deliver timely and beneficial projects and programs
6) Effectively preserve and manage our assets
7) Efficiently operate the transportation system

These performance measures are designed to quantify progress in meeting those goals. The fifteen performance measure topics are listed below. The following performance measures plan includes the actual performance measures, annual and ultimate targets, the performance measure champions, brief discussion of the strategy plan support, measurement and supporting data, and short and long range strategies. Additionally, an annual evaluation of the performance measures is included.

ADMINISTRATION DIVISION

Reduce Work-Place Accidents
Provide Employee Training
Improve Employee Satisfaction
Streamline Agreement Execution Process
Improve Customer and Public Outreach

PLANNING DIVISION

Reduce and Maintain Traffic Congestion
Reduce Fatal Crashes

OPERATIONS DIVISION

Streamline Project Delivery: Bid Opening to Construction Completion
Maintain State Highway Pavement
Maintain NDOT Fleet
Maintain NDOT Facilities
Emergency Management, Security, and Continuity of Operations

ENGINEERING DIVISION

Streamline Project Delivery: Schedule and Estimate for Bid Advertisement
Maintain State Bridges
Streamline Permitting Process

1. REDUCE WORK PLACE ACCIDENTS

Performance Measure:

1) The rate of work place injuries/illnesses per 100 employees.
2) The rate of medical claims per 100 employees for work place injuries/illnesses requiring medical attention.

The rate of injuries is reported as the number of work place injuries and illnesses per 100 employees and number of injuries and illnesses requiring medical attention per 100 employees as documented through annual OSHA 300 Log Reporting data. Data is based on calendar year per federal reporting requirements.

Annual Target: 10 % Reduction **Ultimate Target:** Zero

Division(s) Responsible:

Administrative Services- Safety and Loss Control Manager

Administrative Services- Human Resources Manager

Support Divisions:

All

Strategy Plan Support:

Safety extends to all aspects of the Department from the roadways to the office. Identifying and reducing risk to the Department, our employees and the public is continuous. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize Safety and Be the Employer of Choice.

2. PROVIDE EMPLOYEE TRAINING

Performance Measure:

Percentage of employees trained in accordance with prescribed training plans and State statute requirements.

Annual Target: 75 % **Ultimate Target:** 100%

Division(s) Responsible:

Administrative Services- Employee Development Manager

Administrative Services- Human Resources Manager

Support Divisions:

All

Strategy Plan Support:

Competency Training of the workforce keeps employees safe and helps to reduce injuries, lost time, and litigation. Competency Training also provides the skills and abilities to enable employees to achieve higher job performance. This benefits the Department and Nevada's citizens by providing a high-quality and safe transportation infrastructure. This performance measure has a positive impact on all of the Department of Transportation's Strategic Plan goals, especially: Optimize safety, be the employer of choice, deliver timely and beneficial projects and programs, effectively preserve and manage our assets, and efficiently operate the transportation system. Both NAC and Division Matrix training are addressed by Training Section competency Training programs.

3. IMPROVE EMPLOYEE SATISFACTION

Performance Measure:

Percentage rating obtained from employees' satisfaction surveys.

Annual Target: Overall rating 75% **Ultimate Target:** Overall rating of 80%.

Division(s) Responsible:

Administrative Services- Human Resources Manager

Support Divisions:

All

Strategy Plan Support:

Positive employee morale is critical to the success of the workplace. It is the backbone of a skilled and dedicated workforce and essential in attracting and retaining a quality staff. A satisfied workforce will excel at their duties. This benefits the Department and our customers. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: optimize safety, be in touch with and responsive to our customers, innovate, be the employer of choice, deliver timely and beneficial projects and programs, effectively preserve and manage our assets, and efficiently operate the transportation system.

4. STREAMLINE AGREEMENT EXECUTION PROCESS

Performance Measure:

Percentage of Agreements executed within 30 days from when division submits agreement to the date when it is fully executed, excluding time the agreement is with the second party for signature or awaiting Transportation Board approval.

Annual Target: 50% **Ultimate Target:** 90%.

Division(s) Responsible:

Administrative Services- Asst. Director Administrative Services

Administrative Services- Chief of Administrative Services

Support Divisions:

All (unless specific agreement types are looked at)

Strategy Plan Support:

Agreements are the core of all of our business practices, and must be completed prior to any action being taken. A delay has a tremendous impact in the operations of the Department. This performance measure works toward meeting the Department of Transportation Strategic Plan goals as follows: Speeding up the agreement process will help deliver timely and beneficial projects and programs. It also assists with being responsive to our customers.

5. IMPROVE CUSTOMER SATISFACTION

Performance Measure:

Numerical ratings obtained from public opinion and customer/user surveys.

Annual Target: Annual increases in public opinion and customer/user ratings.

Ultimate Target: Increases in public opinion and customer/user ratings.

Division(s) Responsible:

Communications Office- Chief of the Communications Office

Strategy Plan Support:

Public opinion and user (customer) surveys will assess public information and outreach activities, customer processes, and how well the Department is performing in the eyes of our customers. This is important so we know that we are doing the right things to be transparent, accountable, and efficient. This performance measure works toward meeting the Department of Transportation Strategic Plan goals to be in touch with and responsive to our customers.

6. REDUCE AND MAINTAIN CONGESTION LEVELS ON THE STATE MAINTAINED ROADWAY SYSTEM

Performance Measure:

Urban roadways – Maintain congestion at Level Service of D for 85% of State urban roadways

Rural roadways – Maintain congestion at Level of Service D for 90% of State rural roadways

Definition of Level of Service D – Roadways operating at up to 8 miles per hour less than the Free Flow Speed or Posted Speed Limit, and the traffic carrying capacity of the roadway is less than 0.9.

Ultimate Target: Reduce congestion by 1% per year to reach the ultimate target of 90% of State urban roadways at Level of Service D, and 95% of State rural roadways at Level of Service D

Division(s) Responsible:

Traffic Information System – Chief Traffic Information System

Performance Analysis – Chief Performance Analysis Engineer

Traffic Operations – Chief Traffic Operations Engineer

Support Divisions:

Roadway Systems, Location, Maintenance and Asset Management

Strategy Plan Support:

This performance measure is one of the most important performance indicators of the NDOT maintained roadway system. It integrates the outcome of our overall investments into one measure that is a direct result of the collaborative efforts of the various divisions of NDOT. It will help reduce congestion and will help identify bottleneck locations on the NDOT maintained roadway system, which will be prioritized for improvements depending upon the funding and resources availability. It works towards meeting the Department of Transportation Strategic Plan to efficiently operate the transportation system by reducing the level of congestion and increasing safety.

This Congestion Monitoring System will be an evolving process and will be updated regularly as more data is integrated into it from the RTC's Freeways and Arterials System of Transportation, and the Washoe County's future Traffic Management Center, Synchro models, and other sources as needed.

7. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE FROM BID OPENING TO CONSTRUCTION COMPLETION

Performance Measure:

Percentage of projects within established range of cost estimate and schedule to completion

Annual Target: 80% **Ultimate Target:** 80%

Division(s) Responsible:

Construction- Chief Construction Engineer

Support Divisions:

All

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals by providing timely, beneficial construction projects. This measure helps to optimize safety for road users, be in touch with and responsive to our customers (road users), and efficiently operate the transportation system.

8. MAINTAIN STATE HIGHWAY PAVEMENT

Performance Measure:

Percentage of state maintained roadways in fair or better condition.

Annual Target: 95%

Ultimate Target: 100%

Division(s) Responsible:

Materials Division- Chief Materials Engineer

Support Divisions:

Materials, Maintenance & Asset Management, Construction, Design, Project Management, Performance Analysis and the Districts.

Strategy Plan Support:

Proactive pavement has a huge benefit in maximizing limited funds. Being proactive instead of reactive is more cost effective (4:1) in utilizing transportation project dollars. Pavement condition is also directly related to user vehicle maintenance and safety, and highway capacity. This performance measure works towards meeting the Department of Transportation's Strategic Plan goals to: optimize safety and be in touch with and responsive to our customers by providing smooth, quality pavements. To effectively preserve and manage our assets is a goal supported by implementing the Department's pavement preservation program.

9. MAINTAIN NDOT FLEET

Performance Measures:

1) Percentage of fleet requiring replacement – this measure is the percentage of the fleet that have reached the age or mileage that requires replacement.
2) Percentage of fleet in compliance with condition criteria – this measure is the percentage of the fleet that is maintained as per Department preventive maintenance requirements so that the expected life span of our vehicles is not compromised. As the fleet is maintained on the mileage and/or hourly requirements, compliance has been met.

Annual Target:

1) Declining Rate of 1% per year

2) Increasing rate of 1% per year.

Ultimate Target:

1) 10%

2) 95% rate of compliance for mileage/hourly requirements

Division(s) Responsible:

Equipment Division- Equipment Superintendent

Support Divisions:

Districts, Divisions

Strategy Plan Support:

The vehicles in the fleet are important to deliver projects and maintain a safe highway system. Equipment in good condition ensures the ability to perform NDOT's business practices and provides a safe and secure tool for staff. These performance measures work towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Innovate, Be the employer of choice, Deliver timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

10. MAINTAIN NDOT FACILITIES

Performance Measure:

Percent of facilities assessments completed and percent of facilities conditions and priority needs.

Annual Target: Increase by 3% **Ultimate Target:** 100%

Division(s) Responsible:

Maintenance and Operations- Chief Maintenance Operations Engineer

Support Divisions:

Districts, Administrative Services

Strategy Plan Support:

Facility Condition Analysis (FCA) reports will ensure our buildings comply with building and safety codes, are safe and properly maintained. Each Department owned and maintained facility will be evaluated on a seven year cycle. Completion of the priority work items will return the facility to normal operation, defer deterioration, correct fire/life safety hazard, or correct ADA requirements.

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to *optimize safety, be in touch with and responsive to our customers, innovate, be the employer of choice, effectively preserve and manage our assets, and efficiently operate the transportation system*.

11. EMERGENCY MANAGEMENT, SECURITY AND CONTINUITY OF OPERATIONS

Performance Measure:

Percent of emergency plans that have been completed, training and education have been provided to appropriate personnel, the plans have been tested and exercised and the plan has been updated to accommodate changes in departmental processes, federal guidelines, etc. Training and updates should be completed on a biennial basis. Plans include:

NDOT Homeland Security Plan

NDOT Emergency Operations Plan

Annual Target: 100% **Ultimate Target:** 100%

Division(s) Responsible:

Maintenance and Operations- Chief Maintenance Operations Engineer

Support Divisions:

All

Strategy Plan Support:

NDOT's emergency plans provide clear guidance on how NDOT will continue to perform critical functions and operations in the event of an emergency or disaster. Being prepared and ready for an emergency is paramount for keeping systems operating during such times, as well as being in a position to respond to health and safety issues. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to:

- Optimize Safety
- Be in touch with and responsive to our customers
- Innovate,
- Deliver timely and beneficial projects and programs,
- Effectively preserve and manage our assets
- Efficiently operate the transportation system

12. REDUCE FATAL CRASHES

Performance Measure:

Number of fatalities on Nevada's streets and highways.

Annual Target: An average annual decrease of the five-year rolling average by 3.1% resulting in halving traffic fatalities and serious injuries by 2030.

Ultimate Target: Zero

Division(s) Responsible:

Safety Division- Chief Traffic/Safety Engineer

Support Divisions:

All

Strategy Plan Support:

All drivers and highway system users should expect a safe highway system. Through efforts of engineering, enforcement, education, emergency response and the will of the highway users, fatal crashes can be eliminated. The strategies for this performance measure will be based on the Nevada Strategic Highway Safety Plan. This performance measure also works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Innovate, Deliver timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

13. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE FOR BID ADVERTISEMENT

Performance Measure:

Percentage of scheduled projects advertised within the reporting year and within the established construction cost estimate range.

Annual target: 70%

Ultimate Target: 80%

Division(s) Responsible:

Project Management Division- Chief of Project Management

Roadway Design Division- Chief Roadway Design Engineer

Support Divisions:

All units within the Department that are involved with project development.

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Be in touch with and responsive to our customers, Deliver timely and beneficial projects and programs, Optimize safety and effectively preserve and manage our assets. Goals are met by:

- Keeping NDOT customers appraised of project risks, opportunities, costs, scope and scheduling issues;
- Implementing standards to improve communication, coordination, and decision making resulting in efficient delivery of projects;

- Focusing and managing available resources towards implementing projects that preserves NDOT's assets, improves safety and relieves congestion.

14. MAINTAIN STATE BRIDGES

Performance Measure:

Number of Department owned bridges which are categorized as Structurally Deficient (SD) or Functionally Obsolete (FO). Base figure is 37 of 1045 bridges (*State Highway Preservation Report – 2007*. This base figure was established based on the federal eligibility requirements of the Highway Bridge Program (HBP) in effect at the time)

Prior to MAP 21, eligibility and priority for funding projects under the HBP was based on a bridge's Sufficiency Rating and other factors. The Sufficiency Rating is a numerical assessment of a bridge's serviceability and is based on condition assessment inspection and inventory data. Its value varies from 0 to 100, with 100 representing no deficiencies. A bridge is eligible for replacement when its Sufficiency Rating is less than 50 and is eligible for rehabilitation when its Sufficiency Rating is less than 80. In addition to meeting the Sufficiency Rating requirement, a bridge must also be classified as either Structurally Deficient or Functionally Obsolete. A bridge is considered Structurally Deficient when key elements reach an established level of deterioration. A bridge is considered Functionally Obsolete when it no longer adequately serves the road it carries.

Annual Target: Replace or Rehabilitate at least one Department owned structurally deficient or functionally obsolete bridge. The goal is evaluated based on the contracts awarded in a given year.

Ultimate Target: Zero

Division(s) Responsible:

Structures Division- Chief Structures Engineer

Support Divisions:

Design, Project Management, and Districts

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Innovate, Deliver timely and beneficial projects and programs, and effectively preserve and manage our assets. These goals can be met in the following ways: Safety for the motoring public will be optimized by replacing structurally deficient and rehabilitating functionally obsolete bridges. The Structures Division will seek and implement innovative solutions to the challenges faced by the Bridge Program. The Division will deliver timely and beneficial bridge projects and programs. Meeting this performance measure will help effectively preserve and manage Department assets.

15. STREAMLINE PERMITTING PROCESS

Performance Measure:

Percentage of permits issued or rejected within 45 days of receipt.

Annual Target: 95% **Ultimate Target:** 95%

Division(s) Responsible:

Right of Way Division- Chief of Right of Way

Support Divisions:

Districts, Project Management, Design, Traffic/Safety and Others as needed

Strategy Plan Support:

Every encroachment to connect or work on state right of way requires a permit. This is a large area of our customer service. We must be assured the impact to the system is safe and will not negatively compromise the system, but we must meet the customer's needs for a timely response for their economic development. The majority of permits are relatively simple; however some are very complicated and require an extended technical review, thus the reason for the goal being less than 100. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to optimize safety, be in touch with and responsive to our customers, innovate, and deliver timely and beneficial projects and programs.

APPENDIX D

LAS VEGAS CONVENTION AND VISITORS AUTHORITY FUNDED PROJECTS

NEVADA DEPARTMENT OF TRANSPORTATION

LAS VEGAS CONVENTION AND VISITORS AUTHORITY FUNDED PROJECTS

Information as of August 19, 2014

Summary of AB595 bonding revenues programmed or scheduled to date:

Budget Account 4665 Rev Code 4118 - AB595 LVCVA Bond Reimb. Received to Date: $278,785,223

* *Projects Programmed (P); Scheduled (S); Contract Price (C):*

	PCEMS #	EA #	Location	Description	Amount
(A)	1-03323	73389	I 15 from I 215 to Sahara Interchange. "Gap Project"	Construct Express Lanes (Widen from 8 to 10 Lanes).	$21,002,679
(C)	1-03344	60405	I 15 From Blue Diamond Road (SR 160) to Tropicana Avenue (SR 593). Design-Build South	Capacity Improvements, New Ramps and Collector-Distributor Roads.	$246,820,948
(P)	1-03344	73423	I 15 From Blue Diamond Road (SR 160) to Tropicana Avenue (SR 593). Design-Build South	Capacity Improvements, New Ramps and Collector-Distributor Roads.	$10,961,595
(S)	7-03007	73824	SR 593, Tropicana Avenue, from CL 0.49 to CL 0.65; SR 604, Las Vegas Blvd, CL 37.99 to CL 38.11	Tropicana pedestrian bridge escalators replacement: Remove and replace sixteen escalators	$17,727,550
			Total	$298,512,773	

Note: Bond Revenue to be reimbursed upon NDOT expenditure & billing.

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