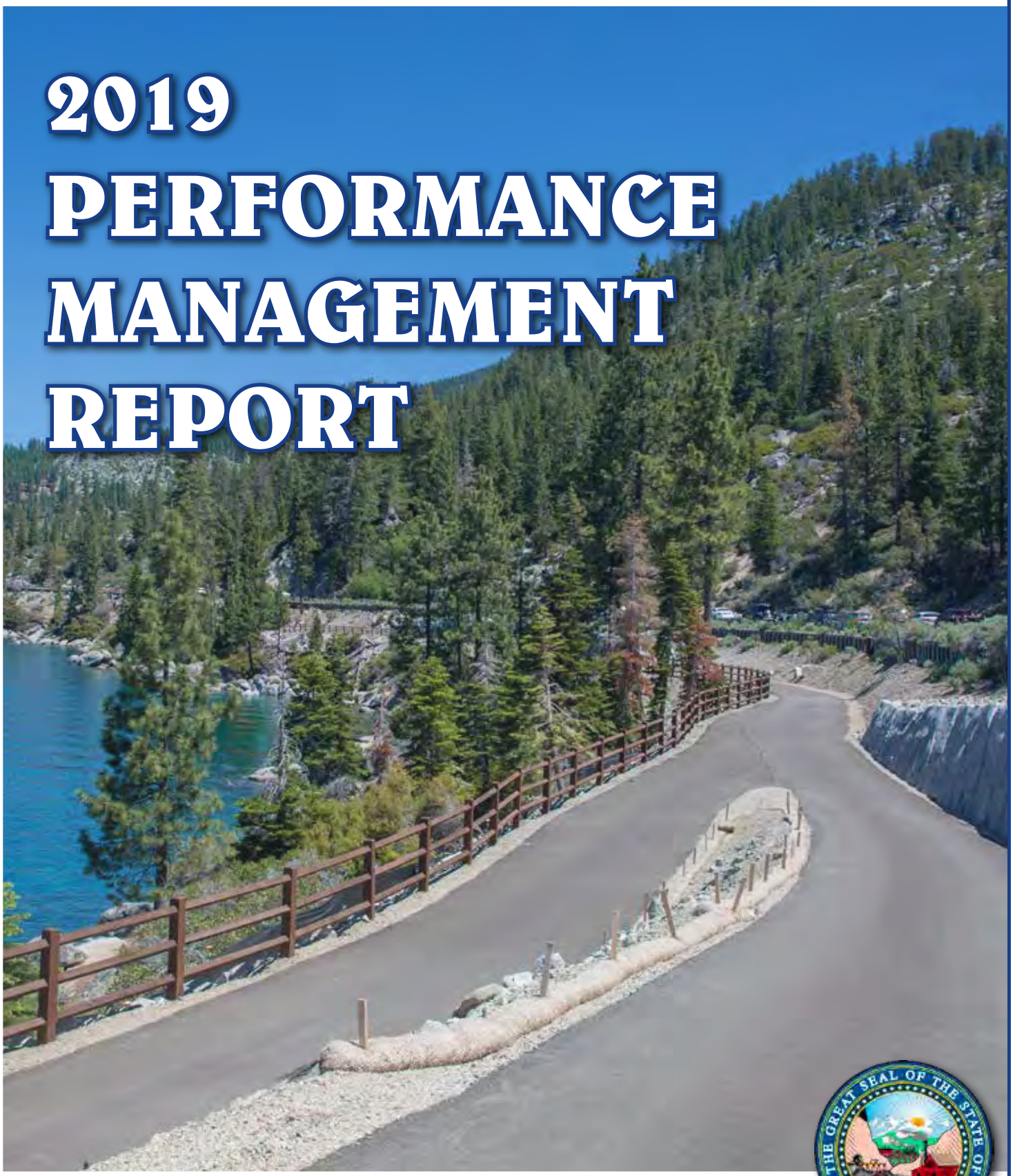
NEVADA DOT
SAFE AND CONNECTED

NEVADA DEPARTMENT OF TRANSPORTATION

2019 PERFORMANCE MANAGEMENT REPORT



December 2019

2019 PERFORMANCE MANAGEMENT REPORT

Kristina L. Swallow, P.E.
Director

Steve Sisolak
Governor

Performance Management Cycle

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State of Nevada Transportation Board Members

Steve Sisolak	Chairman/Governor
Kate Marshall	Vice Chairman/Lt. Governor
Catherine Byrne	State Controller
Virginia Valentine	Member - District 1
Vacant	Member – District 1
Len Savage	Member - District 2
Emil B.J. Almberg, Jr.	Member - District 3

NDOT Administration

Kristina Swallow	Director
Cole Mortensen	Deputy Director – Performance & Planning
Tracy Larkin-Thomason	Deputy Director – Operations & Maintenance
Clifford Lawson	Deputy Director – Project Delivery
Robert Nellis	Assistant Director – Administration
Sondra Rosenberg	Assistant Director - Planning
Mary Woods	Communications Director
Vacant	Assistant Director – Engineering
Vacant	Assistant Director – Operations

NDOT Staff Involved

Peter Aiyuk – Chief Performance Analysis Engineer
Nick Johnson – Chief of Project Management
Anita Bush – Chief Maintenance and Operations Engineer
Lynn Hoffman – Chief of Administrative Services
Fred Shakal – Chief Traffic Safety Engineer
Sharon Foerschler – Chief Construction Engineer
Allison Wall – Human Resources Manager
Barbara Stearns – Employee Development Manager
Oscar Fuentes – Safety Manager
Jessen Mortensen – Chief Bridge Engineer
Wayne Miller – Equipment Superintendent
Jessica Biggin – Chief Right-Of-Way Agent
Scott Hein – Chief of Roadway Design
Natalie Caffaratti – Assistant Chief of Roadway Design
Darin Tedford – Chief Materials Engineer

DEPARTMENT VISION, MISSION, AND GOALS

INTRODUCTION

NDOT's Performance Management is a collaborative process in which all major divisions of the department are involved in monitoring their quarterly, 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 Department-wide performance, 3) helps identify and implement efficient and cost-effective performance-based programs, 4) links projects to the goals of the department, 5) helps align performance targets with customer expectations, and 6) helps in delivering essential and 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 (NRS 408.133)**

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 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 Benefit-Cost Analysis for capacity projects that cost at least $25 million (NRS 408.3195).**

The annual report will include the criteria used in the benefit-cost 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). No projects were funded or planned to be funded with these funds during this time period.

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 quarterly, 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 Department-wide performance, 3) helps identify and implement efficient and cost-effective performance-based programs, 4) links projects to the goals of the department, 5) helps align performance targets with customer expectations, and 6) helps in delivering high quality projects.

NDOT has established 15 performance goals with performance measures to track, monitor, and report for 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 process by conducting quarterly performance 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 legislature.

In Fiscal Year 2019, NDOT continued to monitor its performance-based management process. The performance management dashboard, the performance measures overview, and the detailed data trends section of this report provide further information regarding NDOT's performance in Fiscal Year 2019.

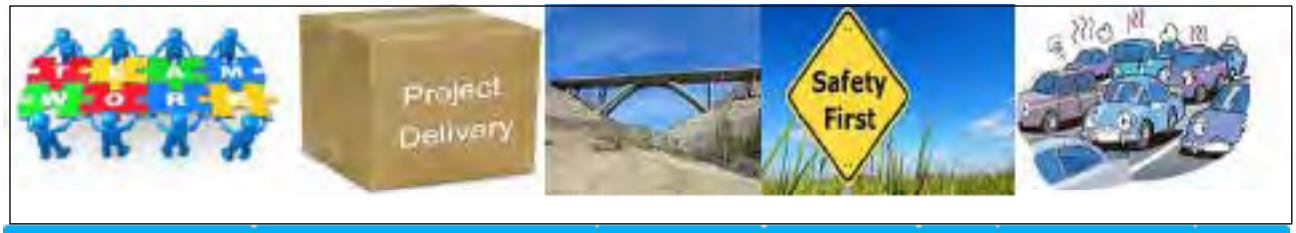
NDOT STRATEGIC PERFORMANCE MANAGEMENT PROCESS

NDOTs Strategic Performance Management process is guided by comprehensive input from 1) our customers in the form of surveys and direct two-way communication, 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 cycle that includes identifying realistic and specific performance measures, establishing measurable and attainable targets, developing comprehensive and effective strategies to help achieve the targets, collecting quarterly data 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 & Serious Injury Crashes
13. Project Delivery- Schedule and Estimate for Bid Advertisement
14. Maintain State Bridges
15. Streamline Permitting Process

Performance Measures Overview



Performance Measures Overview

Performance Measure		Target	Current (Status)	Target Met	Trend (6yrs or less)	Desired Trend
Employee						
Reduce Work Place Accidents (1)	Injuries/Illnesses per 100 employees	2% Annual Reduction	0.4% Decrease			
	Injuries/Illnesses requiring medical attention per 100 employees	2% Annual Reduction	0.1% Decrease			
Provide Employee Training (2)	Percentage Employees Trained According to Requirements	80% Compliance Annually	Average 87% Compliance			
Improve Employee Satisfaction (3)	Percentage Employees Satisfied with NDOT	75% Annually	66% Satisfied			
Project Delivery						
Streamline Agreement Process (4)	Percentage Agreements Processed within 30 days	90% Annually	97% Processed within 30 days			
Streamline Project Delivery – Bid Opening to Construction Completion (7)	Percentage Projects Completed on Schedule and Within Budget	80% Annually	98% within Budget			
			100% within Schedule			
			94% Change Order < 3% Cost Increase			
Streamline Project Delivery – Schedule and Estimate for Bid Advertisement (13)	Percentage of Scheduled Projects Advertised within the Reporting Year	80% Advertised within the Reporting Year	58% Performance			
	Percentage of Advertised & Awarded Projects within Established Construction Cost Estimate Range	80% Delivered within Established Cost Estimate Range	41% (Oct. vs Award)			
			56% (Eng. vs Award)			
Streamline Permitting Process (15)	Percentage Encroachment Permits Processed within 45 days	95% Annual	93.2% Processed within 45 Days			
Assets						
Maintain State Highway Pavement (8)	State Roadways Maintained at "Fair or Better" Condition (Road category definition in report)	Category 1: 95%	98.4%			
		Category 2: 95%	87.7%			
		Category 3: 95%	94.3%			
		Category 4: 95%	71.7%			
		Category 5: 95%	39.7%			
Maintain NDOT Fleet (9)	Percentage Mobile Equipment in Need of Replacement	1% Annual Decrease	3.45% decrease			
	Percentage Fleet in Compliance with Condition Criteria	1% Annual Increase	2.87% Decrease			
Maintain NDOT Facilities (10)	Percentage of Facilities Assessments & Condition	2% Annual Increase	0%			
Maintain State Bridges (14)	Annual Reduction in Structurally Deficient (SD) Bridges	Replace or Rehabilitate at least 1 SD Bridge Per Year	5 SD Bridge replaced			

Performance Measures Overview

Performance Measure		Target	Current (Status)	Target Met	Trend (5yrs or less)	Desired Trend
Safety						
Emergency Management, Security and Continuity of Operations (11)	Percentage of Emergency Management Plans Implemented	100% Annually	100% Compliance			
Reduce Fatal & Serious Injury Crashes (12)	Number of Traffic Fatalities	Decrease the upward trend by at least one compared to the projected # of 334 fatalities. (Baseline 2011 to 2015)	316.8			
	Number of Serious Traffic Injuries	Decrease the upward trend by at least 1 compared to the projected # of 1,305 serious injuries. (Baseline 2011 to 2015)	1,193.4			
	Number of Traffic Fatalities per 100M VMT	Decrease the upward trend by at least .01 compared to the projected rate of 1.26 fatalities per 100M VMT. (Baseline 2011 to 2015)	1.188			
	Number of Serious Traffic Injuries per 100M VMT	Decrease the projected 2011 - 2015 five year rolling avg. of serious injuries per 100M VMT by at least .05	4.477			
Our Partners						
Improve Customer and Public Outreach (5)	Customer Satisfaction & Public Outreach	75% Positive satisfaction Level (Annual customer satisfaction survey)	75%			
Reduce and Maintain Congestion Levels on the State Roadway System (6)	Percent of person-miles traveled on Nevada Interstate that are reliable	86.8% or higher	87.0%			
	Percent of person-miles traveled on Nevada non-interstate NHS that are reliable	65% or higher	86.3%			
	Annual hours of peak-hour excessive delay per capita (Urbanized Areas)	12hrs or less	11.6			
	Percent of non-single occupancy vehicle travel in Nevada urbanized areas	21.3% or higher	21.3%			

PERFORMANCE DASHBOARD

The following Performance Management Dashboard provides an executive summary of each of the 15 performance goals and their related performance measures, targets, and the status of each performance measure in relation to established targets for Fiscal Year 2019. Detailed information regarding each performance measure is provided in the "Performance Management Detailed Data Trends" section of this report.

1. Reduce Workplace Accidents

Executive Summary: Two performance measures have been established for this Performance goal with two performance metrics tracked; the rate of workplace injuries/illnesses and the severity of employee workplace injuries/illnesses. The workplace injury/illness five-year average from 2014 to 2018 compared to the previous five-year average from 2013 to 2017 declined by 0.5%. The severity rate declined by 0.1%. The average claim cost declined from the previous five-year average of $11,905 per claim to $10,917 in 2018. For detailed information about reducing workplace accidents refer to page 29.

Performance Measure

1) Injuries/Illnesses Per 100 Employees

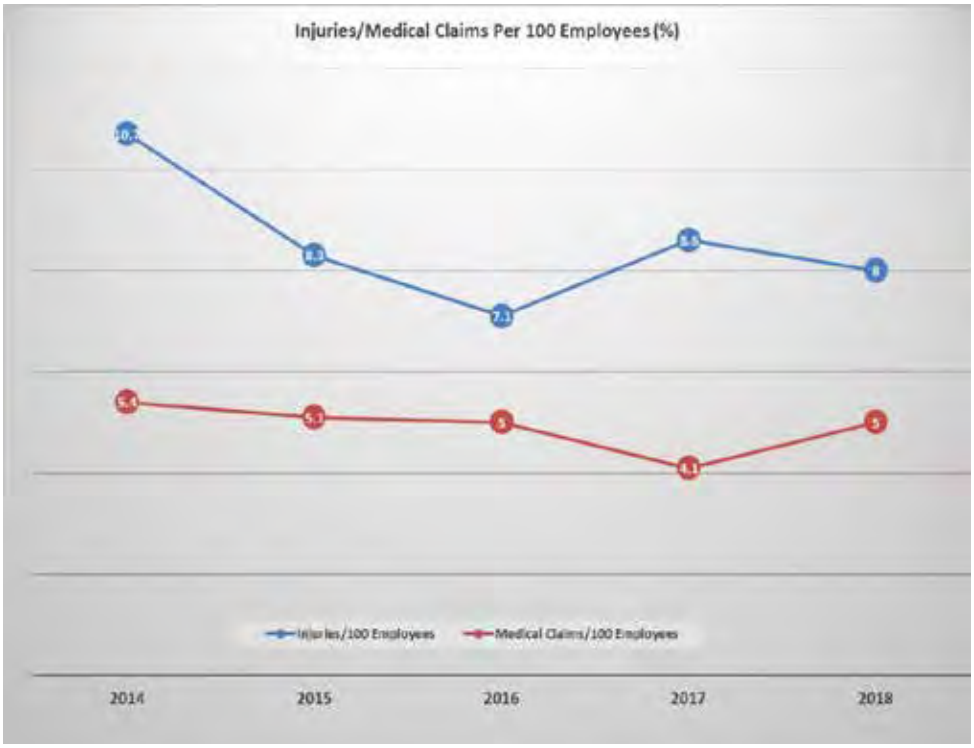
2) Injuries/Illnesses Requiring Medical Attention Per 100 Employees

Target

1) 2% Annual Reduction
2) 2% Annual Reduction

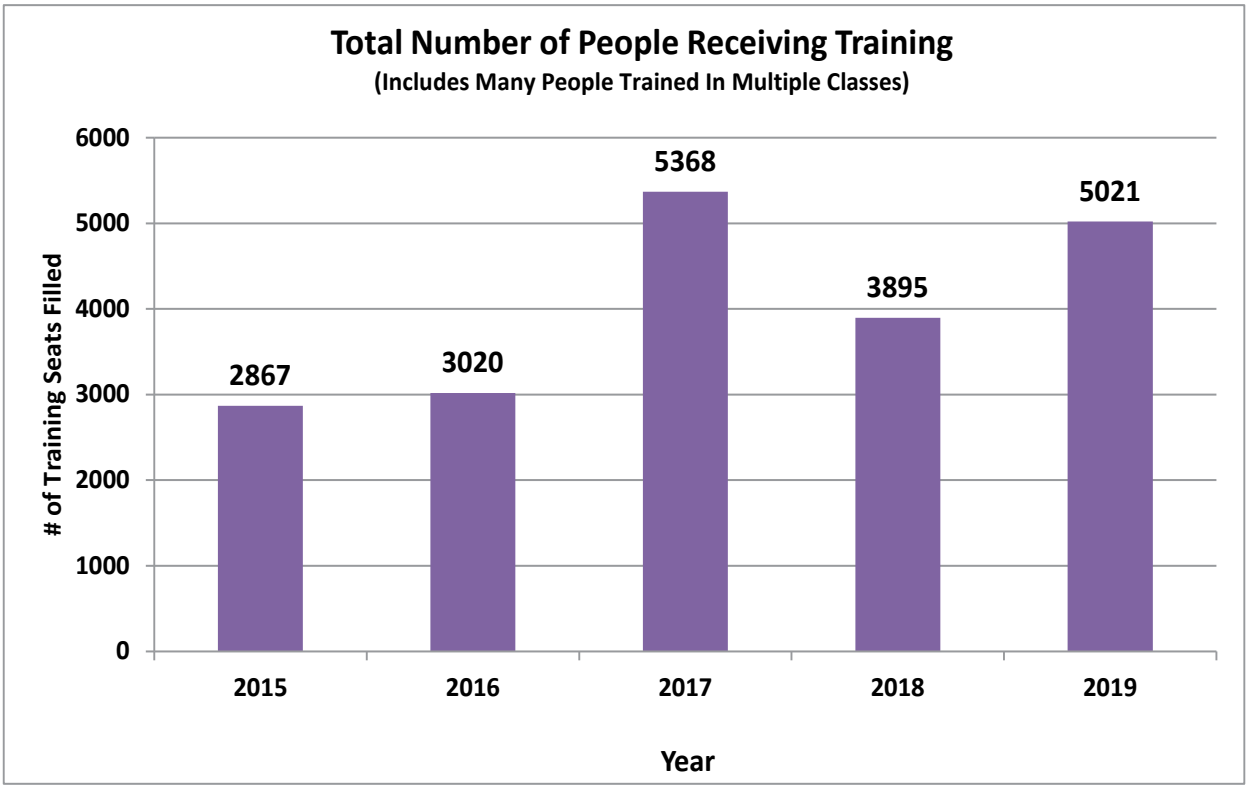
Current Status:

1) 0.4% Decrease
2) 0.1% Decrease



2. Provide Employee Training

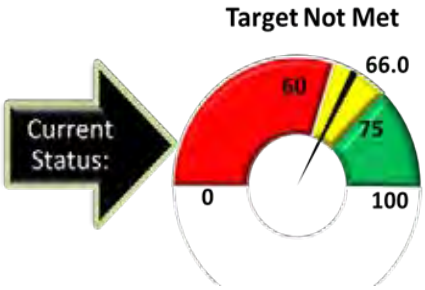
Executive Summary: The measure is the percentage of employees trained in accordance with prescribed training plans and NRS and NAC training requirements. The target for FY2019 was 80% for required training, and 87% compliance was achieved. Compliance is 7% above the established target and 6% above what was achieved in FY2018. The higher level of achievement demonstrates how the increased use of computer technology is an effective strategy to accomplish the goal. For detailed information about providing employee training refer to page 33.

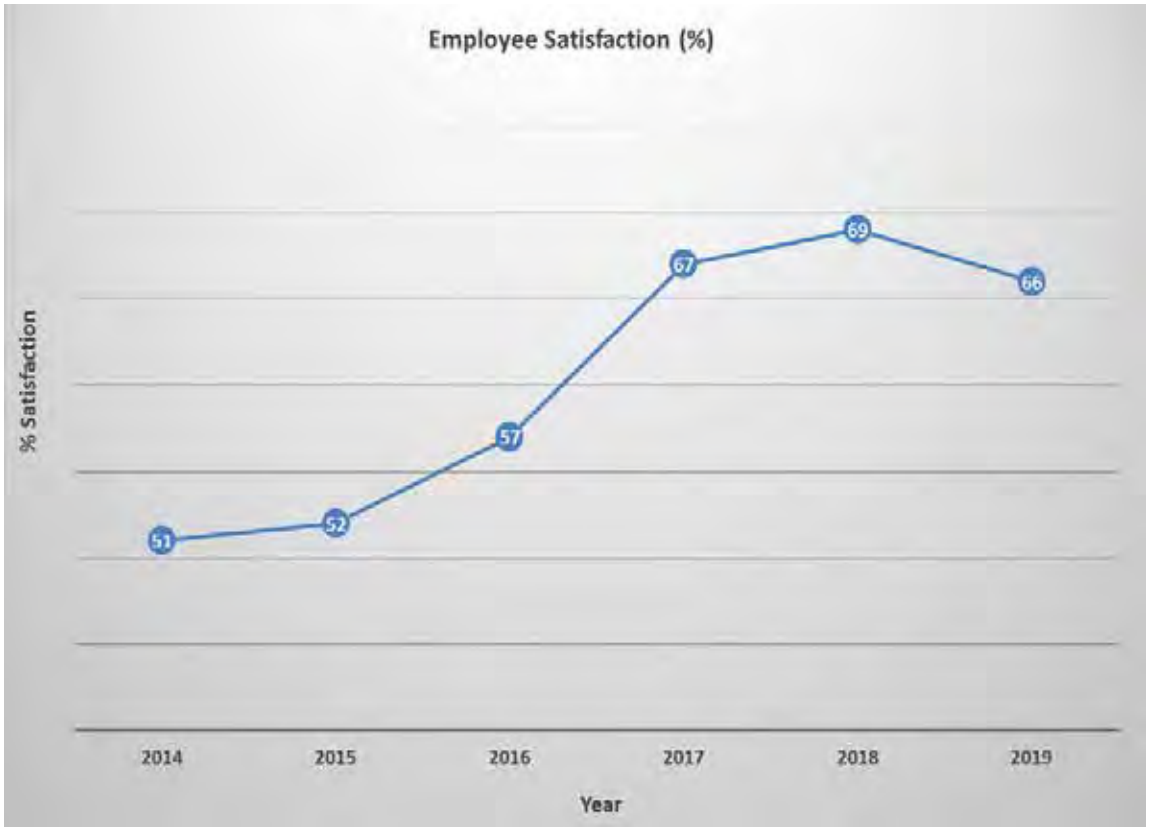


3. Improve Employee Satisfaction

Executive Summary: The performance measure for this goal is the percentage of employees who are satisfied with the NDOT work environment. The methodology for tracking this performance measure is through the yearly employee satisfaction survey.

The percentage of employees surveyed who are extremely or somewhat satisfied with the NDOT in FY2019 is 66%. The target for this measure is 75% satisfaction. FY2019 satisfaction declined from FY2018. For detailed information about improving employee satisfaction refer to page 38.

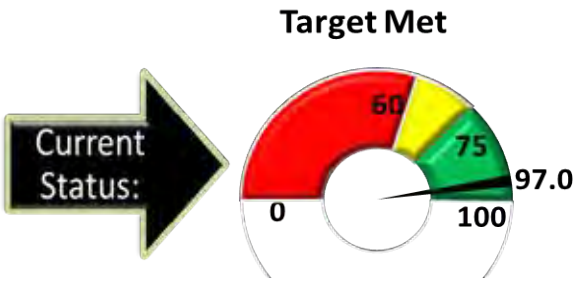


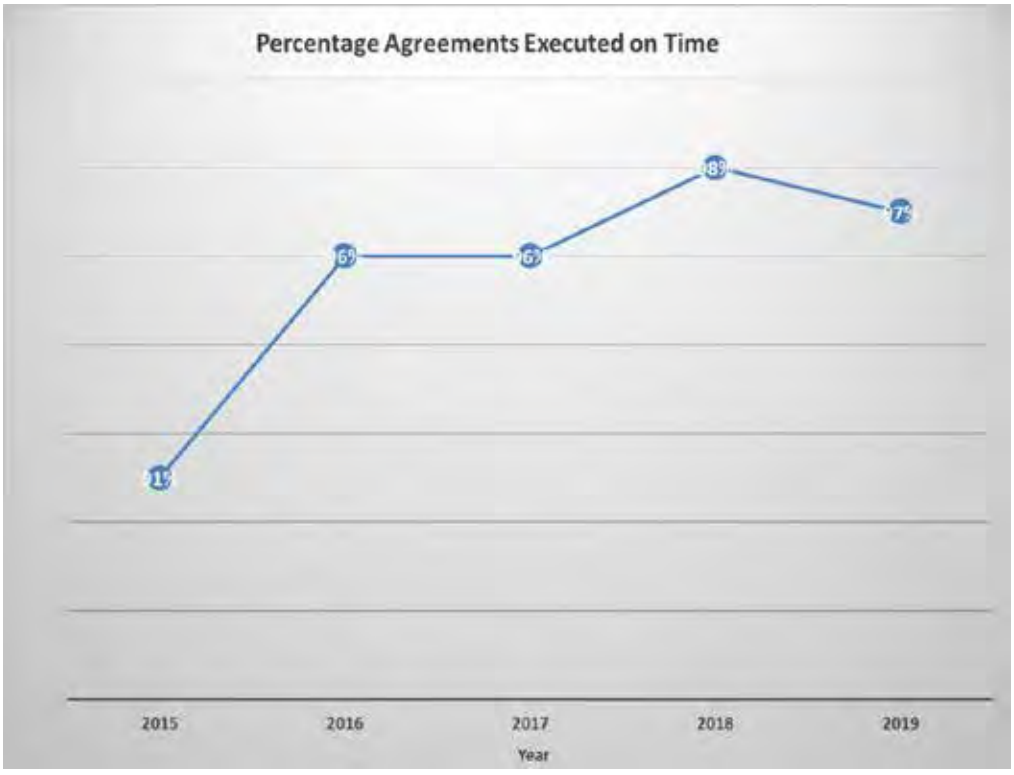


4. Streamline Agreement Process

Executive Summary: In state fiscal year (SFY) 2019, 97% of all agreements submitted to Agreement Services were executed within 30 days or less. This exceeds the performance target of 90%.

Also, in 2019 it took an average of 9 calendar days, excluding the time agreement is with second party or awaiting Transportation Board approval to execute the agreement. 2019 had a slightly lower performance in the average number of days it took to execute an agreement. However, the nine-day average was still significantly less than the maximum 30 days established for the target. For detailed information about this performance measure refer to page 42.





5. Improve Customer and Public Outreach

Executive Summary: This performance measure works toward meeting the NDOT Strategic Plan goal to be in touch with our customers. This performance measure is aligned with the goals and strategies set forth within the NDOT communications plan. The performance metrics that are tracked, measured and analyzed to determine how the department is doing are: Facebook likes, Twitter followers, Twitter retweets and You Tube views. Public Information staff are also improving all performance areas including making the NDOT website more user friendly, increasing internal and media communications, and improving public involvement.

In (SFY) 2019 a customer satisfaction level of 75% was achieved. This performance met the target of 75% that was set at the beginning of the year. The satisfaction level is determined from an Annual Customer Service Survey. For more information about this Performance Measure refer to page 46.

Social Media Goals

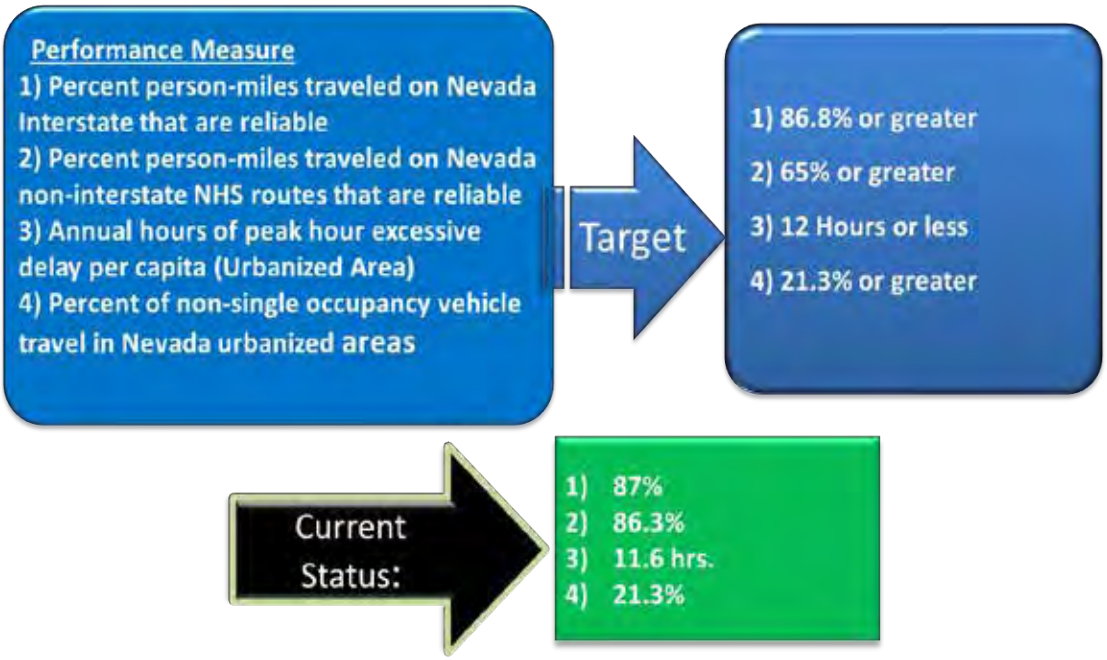
- Increase Facebook likes to 11,500 by the end of fiscal year 2019 – **Goal met.**
  Total Facebook likes as of June 30, 2019 = 12,959.
- Increase Twitter followers to 30,000 and maintain two quarters or more with an .4% engagement rate or greater by the end of fiscal year 2019 – **Goals not met.**
  Twitter followers reached 30,000 on July 14, 2019. The engagement rate for the year averaged just over .3% (an engagement rate between 0.09% and 0.33% is considered high nationally).
- Increase YouTube views by 10% by the end of fiscal year 2019 – **Goal not met.** Total YouTube video views decreased every quarter.
- Increase the number of Instagram followers to 1,500 by the end of fiscal year 2019 - **Goal met.** The total number of Instagram followers as of June 30, 2019 was approximately 1,874.

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

Executive Summary: There are four performance measures related to this performance goal area- percent of person-miles traveled on Nevada Interstate that are reliable, percent of person-miles traveled on Nevada non-interstate NHS routes that are reliable, annual hours of peak hour excessive delay per capita, and, percent of non-single occupancy vehicle travel in Nevada urbanized areas. Truck travel time reliability index on the Nevada interstate system has also been provided in the detail section for information purposes only since it is also reported the Federal Highways Administration.

The National Performance Measurement Research Data Set (NPMRDS) was used to analyze the performance of Nevada's Interstate and non-Interstate NHS roadway systems. Based on the analysis using calendar year (CY) 2018 data, 87% of person-miles traveled on Nevada interstate, and 86.3% of person-miles traveled on Nevada non-interstate NHS roadways were reliable. Targets for the annual hours of peak hour excessive delay per capita, and the percent of non-single occupancy vehicle travel were both achieved. For detailed information about this Performance Measure refer to page 49.

Definition of Travel Time Reliability – Travel Time Reliability is an indication of consistency or expectation by drivers that it will take an estimated amount of time to traverse a certain distance on a stretch of roadway.



7. Streamline Project Delivery – Bid Opening to Construction Completion

Executive Summary: This performance measure tracks the percentage of Design Bid Build and Construction Manager at Risk projects completed within the established ranges for cost estimate, change orders and schedule.

Performance is evaluated based on completed contracts and does not include projects in progress. In state fiscal year (SFY) 2019, an average of 98% of completed contracts were within budget, 100% were within schedule, and 94% had change orders of less than three percent cost increase. All three measures exceeded their set target of 80%. For detailed information about performance measure 7 refer to page 53.

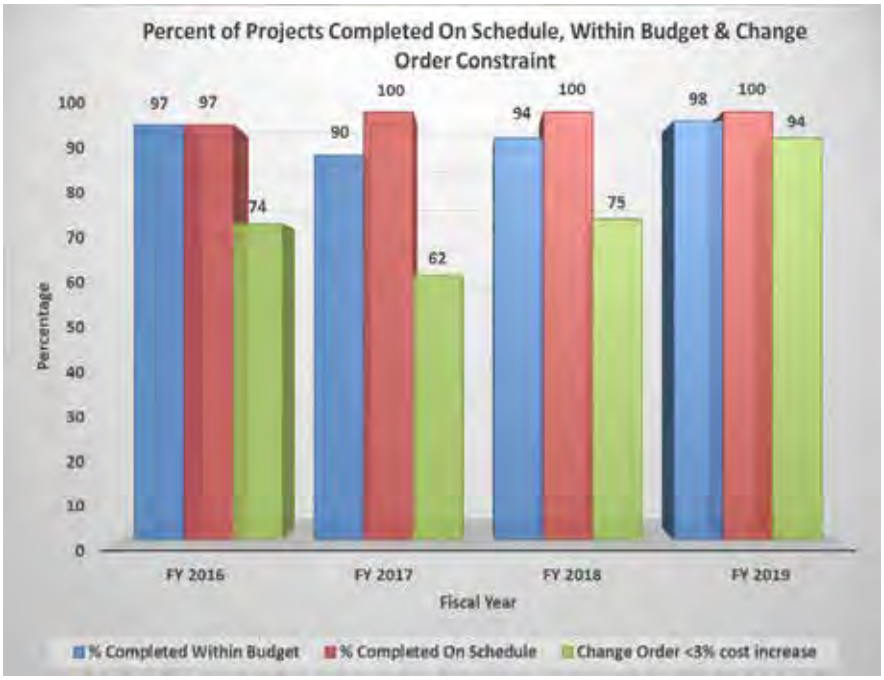
Performance Measure

1) Percent Projects Completed Within 10% Of Original Programmed Budget
2) Percent Projects Completed Within 10% Of Original Assigned Working Days
3) Percent Projects Completed With Cost Increase Of Less than 3% Change Orders

Target: 80% Annually

Current Status:

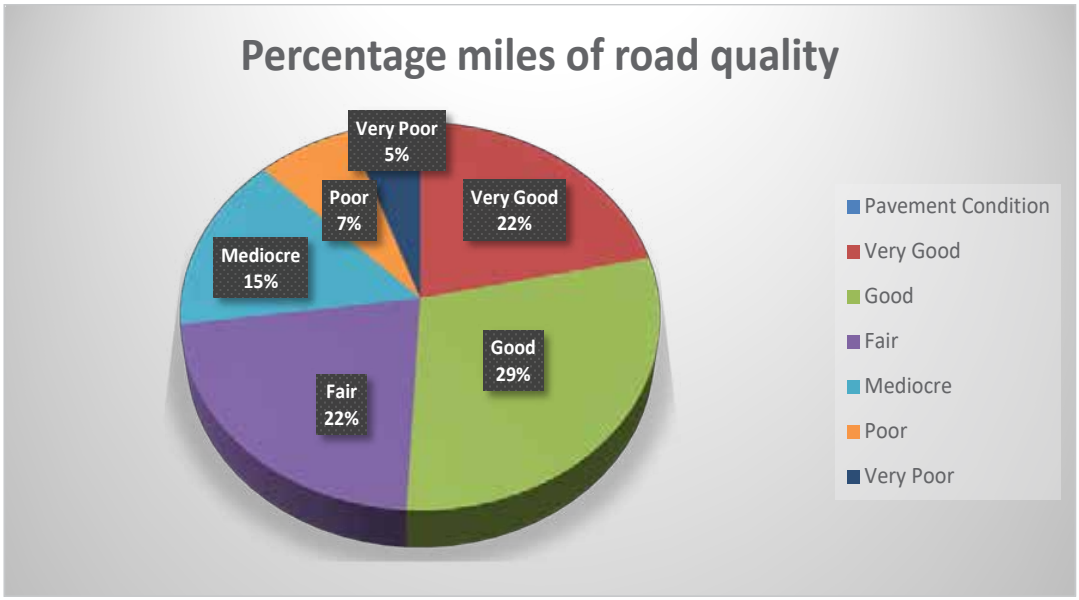
1) 98% Within Budget
2) 100% Within Schedule
3) 94% with Change Orders < 3 % Cost



8. Maintain State Highway Pavement

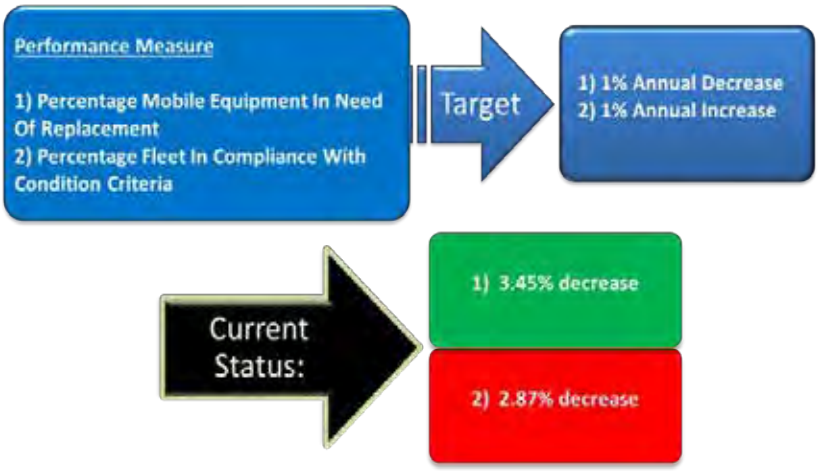
Executive Summary: In state fiscal year (SFY) 2019 NDOT was able to meet the performance target of 95% fair or better pavement condition for category 1 roadways but was unable to address the needs of categories 2, 3, 4 and 5 roadways to bring them up to the minimum target level.

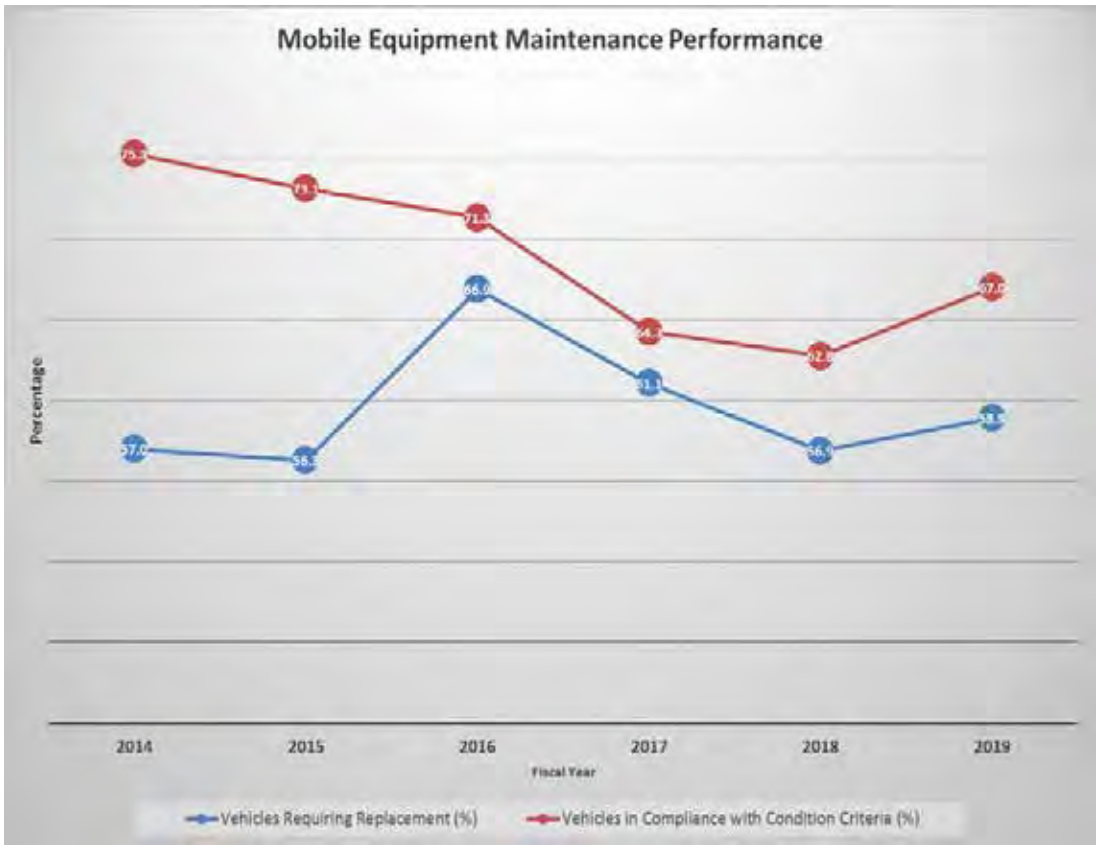
For the Department to maintain the roadway network in fair or better condition, rehabilitation work is performed on the roadways each year. To increase the percentage of pavements in "Fair" or better condition, rehabilitation work must be performed on all roads more than the rate of deterioration of the pavement. For detailed information about performance measure 8 refer to page 56.



9. Maintain NDOT Fleet

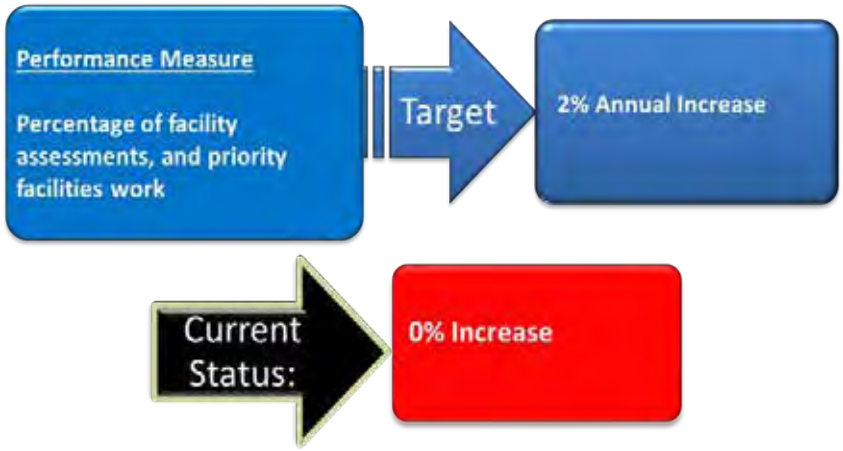
Executive Summary: In state fiscal year (SFY) 2019 the percentage of the NDOT mobile equipment fleet requiring replacement decreased by 3.45% compared to the previous year. The percentage of fleet in compliance with preventive maintenance requirement to ensure the expected life of Department vehicles is not compromised decreased by 2.87% compared to the previous year. This is the first year the simple method is utilized to improve clarity of the data. Performance target 1 is met while target was not achieved. For detailed information about performance measure 9 refer to page 63.

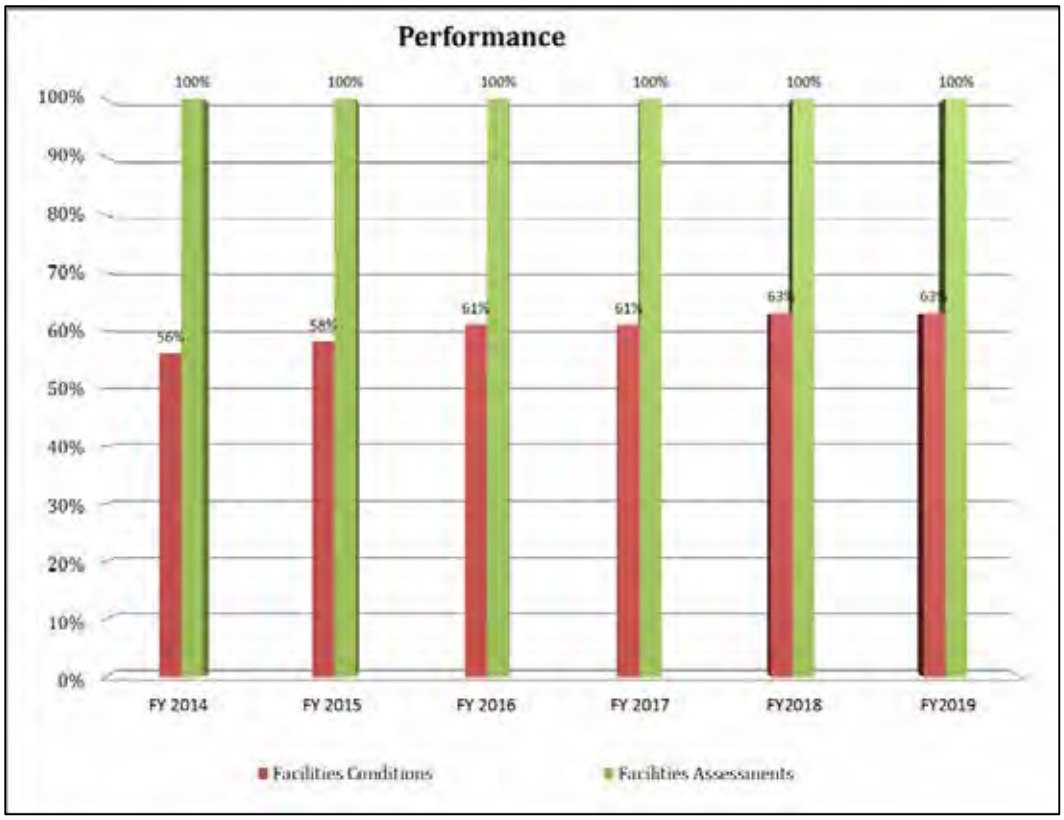




10. Maintain NDOT Facilities

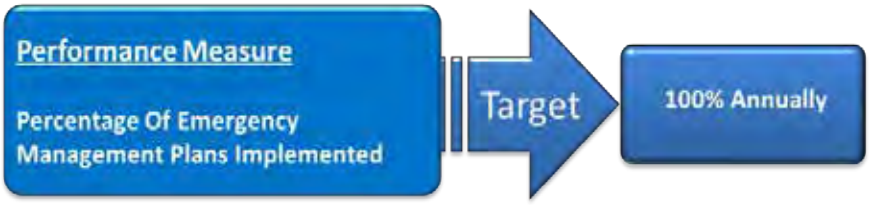
Executive Summary: State fiscal year (SFY) 2013 is considered the base year for this performance measure because that was when the NDOT adopted the new method to measure the performance of the "facilities condition" that includes finer details as compared to prior years. In SFY 2019 an overall performance of 63% facilities assessments and condition was achieved. This is the same performance as in 2018. A 2% annual increase is required in order to achieve the set goal. Because this was not achieved this performance measure did not meet its target. For detailed information about performance measure 10 refer to page 66.

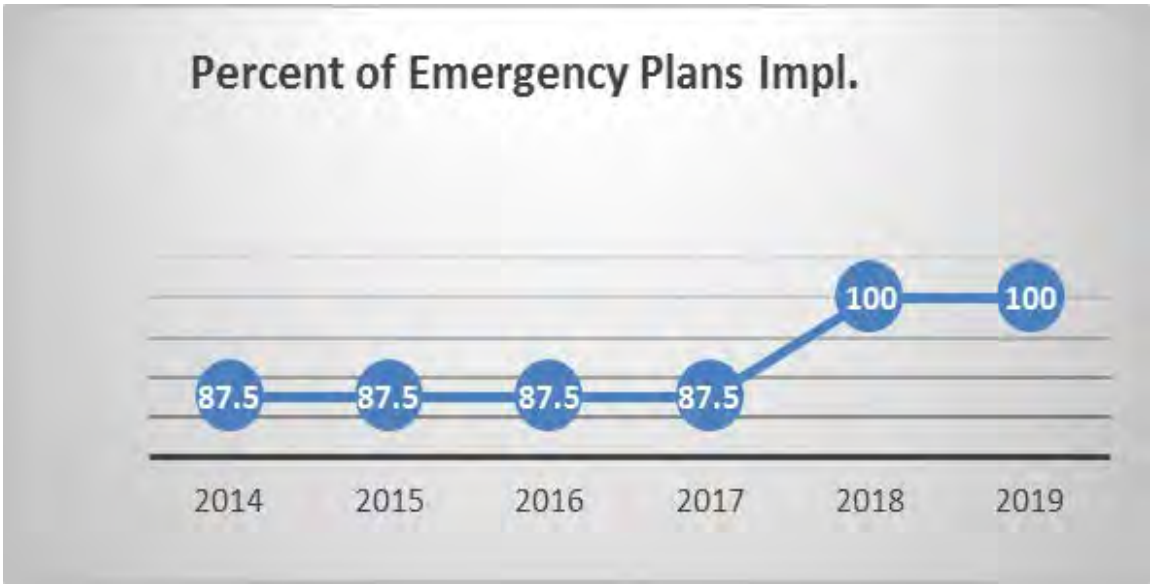




11. Emergency Management, Security, and Continuity of Operations

Executive Summary This performance measure involves tracking the percentage of emergency plans that have been completed, training and education provided to appropriate personnel, tested, exercised and updated. Training and updates are completed on a four-year cycle. In state fiscal year 2019, NDOT achieved a 100% compliance level which met the established target. The target is now attainable compared to prior years because the training and update cycle was changed to every four years as opposed to every two years. The four-year cycle provides sufficient time to deal with staffing and real emergency issues as well as attend to the emergency plans. For detailed information about performance measure 11refer to page 71.





12. Reduce Fatal & Serious Injury Crashes

Executive Summary: There are five performance measures under this performance goal. They have been adjusted to align with the reporting requirements by the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA).

Information provided in this section covers data from 2014 to 2018 and the analysis uses projections and a five-year average.

Performance targets for all five performance measures were met. For detailed information about performance measure 12 refer to page 75.

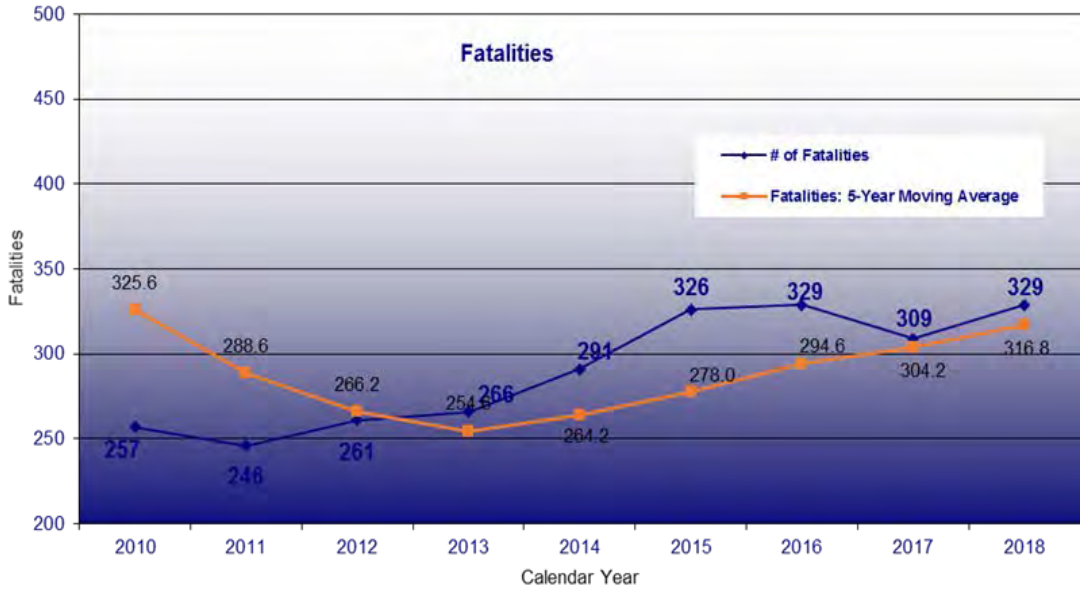
Performance Measure
1) Number Of Traffic Fatalities
2) Number Of Serious Traffic Injuries.
3) Number Of Fatalities Per 100M VMT
4) Number Of Serious Injuries Per 100M VMT.
5) Number of non-Motorized fatalities & serious injuries

Target

Five year rolling average
1) Decrease the projected 5-year rolling avg. of traffic fatalities by at least one
2) Decrease the projected 5-year rolling avg. of serious injuries by at least one
3) Decrease the projected 5-year rolling avg. of fatalities per 100M VMT by at least .01
4) Decrease the projected 5-year rolling avg. of serious injuries Per 100M VMT by at least .19
5) Decrease the projected 5-year rolling average by 1

Current Status:

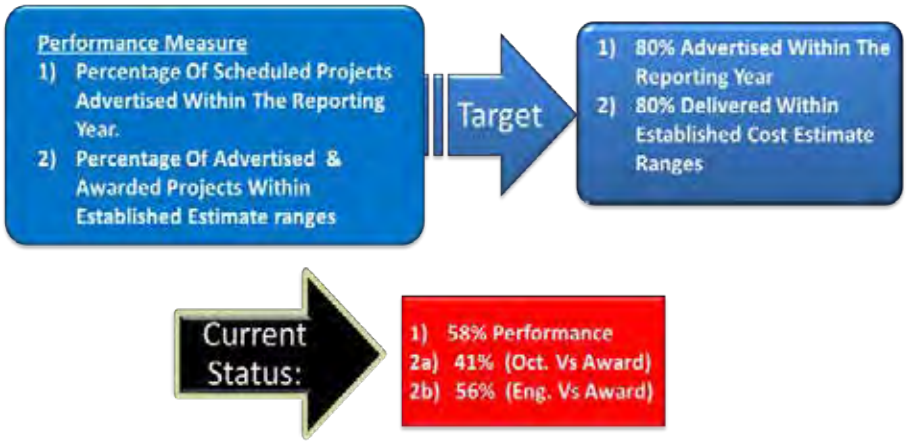
1) 334 to 316.8
2) 1,305 to 1,193.4
3) 1.26 to 1.188
4) 5.08 to 4.477
5) 301 to 288.8

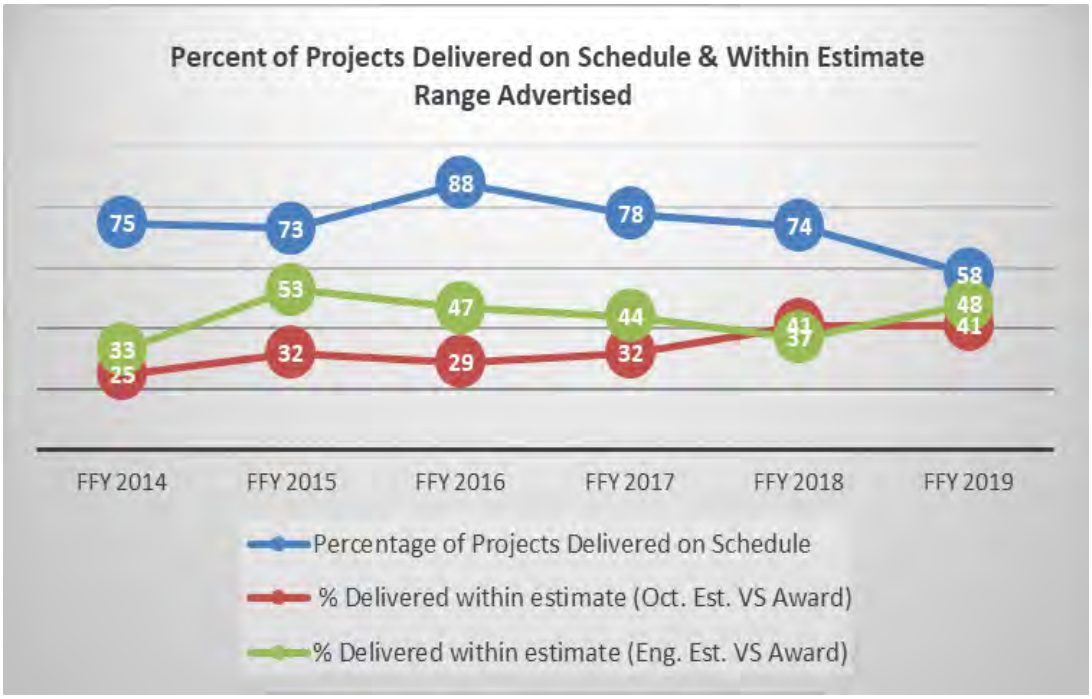


13. Streamline Project Delivery - Schedule and Estimate for Bid Advertisement

Executive Summary: This performance measure has been established as the percentage of scheduled projects advertised within the reporting year, and the percentage of 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 most projects advertised by the Department. Contracts managed 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. For detailed information about performance measure 13 refer to page 80.



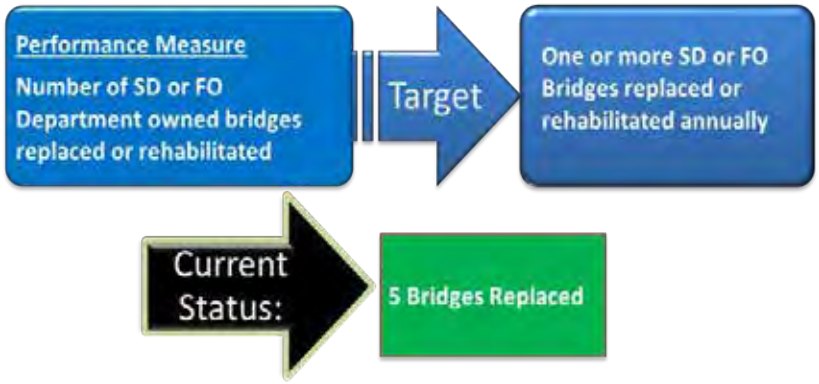


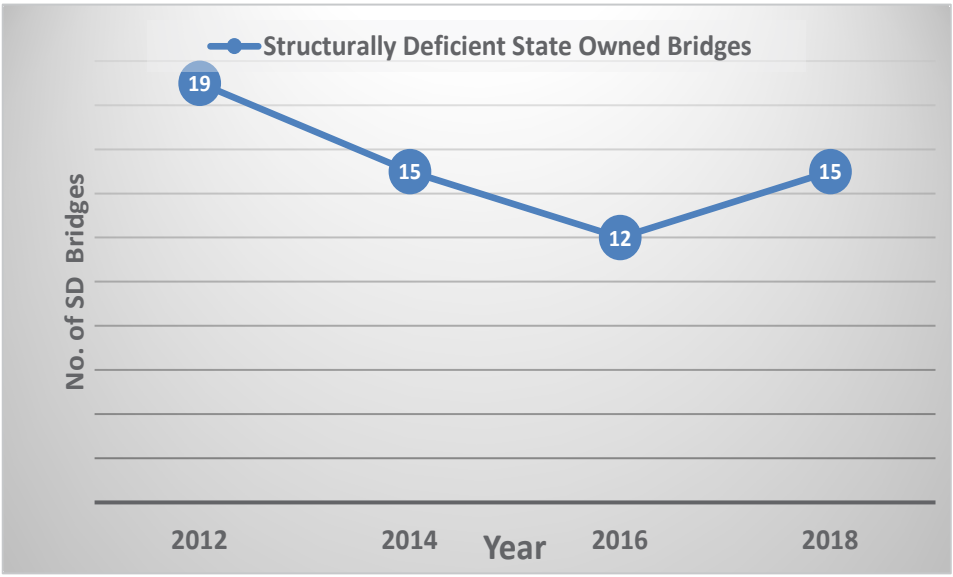
14. Maintain State Bridges

Executive Summary: For the 2018 calendar year, NDOT replaced five structurally deficient bridges, exceeding the annual performance target of replacing or rehabilitating at least one bridge per year.

New for this annual reporting cycle, bridge condition ratings will also be included, separated by the state-maintained assets on the National Highway System (NHS) and those not on the system (non-NHS). In alignment with the established national performance measures, this will include percentages of the inventory considered to be in "good" and "poor" condition. The Department's goal is to maintain an inventory with greater than 35% of bridges in good condition and less than 7% in poor condition.

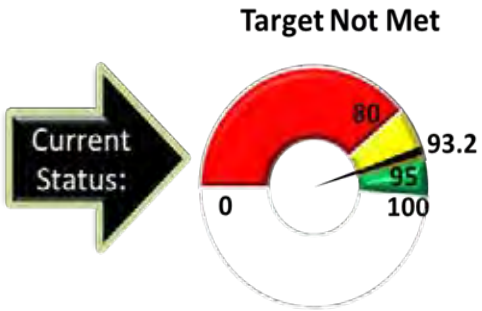
While NDOT has one of the best bridge condition ratings in the nation and is well below the Department's established limit for bridges in "poor" condition, trends in the overall bridge inventory indicate that the percentage of poor bridges will increase in future years. A large percentage of the inventory was added in the late 1960s and early 1970s with the construction of the interstate system. These bridges have exceeded their fifty-year design lives and are beginning to show significant age. Additional investment in the reconstruction of highway bridges will be necessary to maintain the current condition of the inventory. For detailed information about performance measure 14, refer to page 85.





15. Streamline Permitting Process

Executive Summary: During state fiscal year 2019, the NDOT Right-Of-Way Division accepted a total of 985 permits of which 876 were processed. 816 out of the 876 permits processed were done within 45 days. This translates to a 93.15% performance which is slightly below the performance target of 95%. 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 refer to page 91.



Summary of Status	Dist. 1	Dist. 2	Dist. 3	HQ	Total
Total permits accepted	666	275	44	0	985
Total permits processed in more than 45 days	15	42	3	0	60
Total permits processed within 45 days	591	188	36	1	816
Total permits processed	606	230	39	1	876
Total permits processed with re-reviews	139	70	4	1	214
Total permits processed through FHWA	56	25	3	0	84
Percent permits processed in more than 45 days	2.48%	18.26%	7.69%	0.00%	6.85%
Percent permits processed within 45 days	97.52%	81.74%	92.31%	100.00%	93.15%

Note: All calculations in this report have been handled in accordance with TP-1-10-3

DETAILED PERFORMANCE MANAGEMENT DATA

1. REDUCE WORKPLACE ACCIDENTS

Performance Measure:
Injury rate and claim rate of reported workplace injuries and illnesses per calendar year.

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

Ultimate Target: 0% Rate of Workplace Injuries and Illnesses

CY 2019 Target: 2% Reduction

Champion:
Safety and Loss Control Section Manager
Human Resources Manager

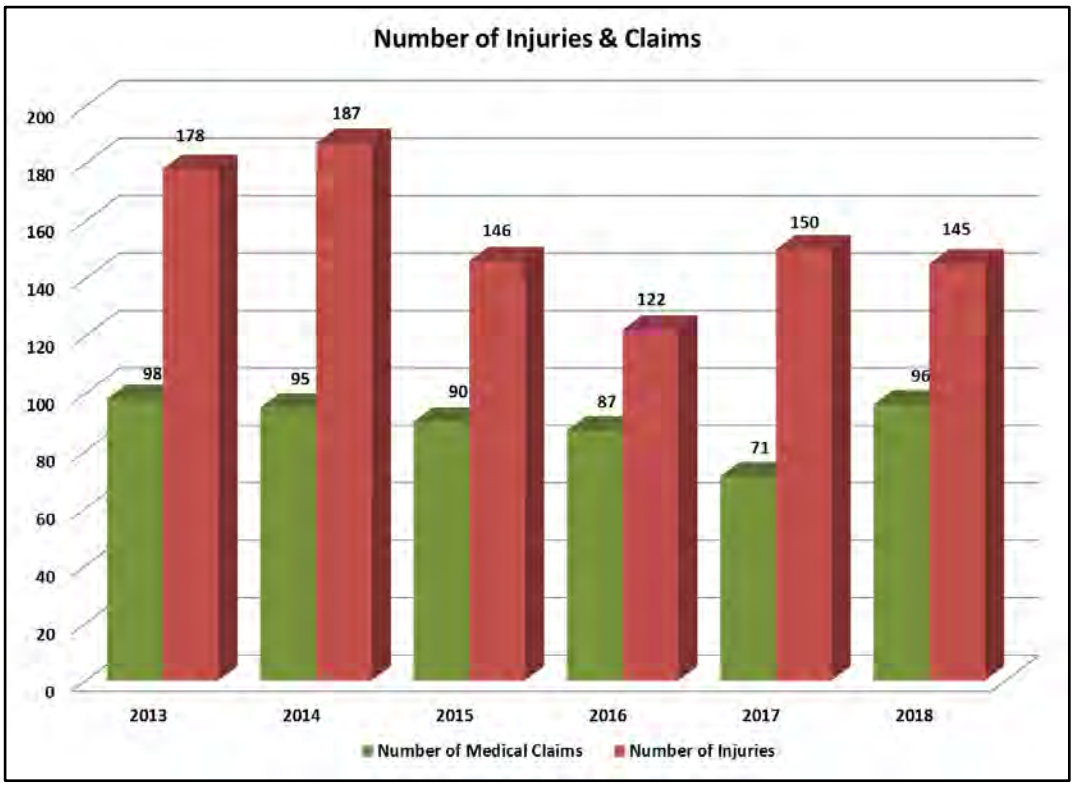
Support Divisions:
All

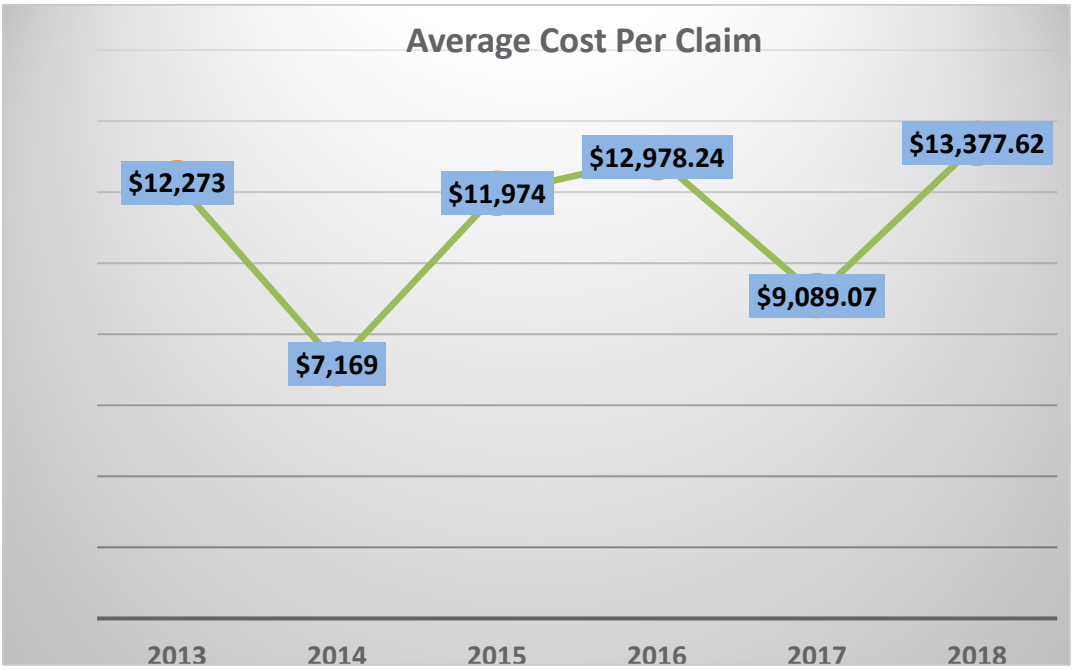
Strategy Plan Support:
Safety extends to all aspects of the Department from the roadways to the office. Identifying and reducing risk to the department, employees, and the traveling public is an ongoing endeavor. This performance measure works towards meeting the following Department of Transportation strategic plan goals (1) safety first and (2) enhance organizational and workforce development.

Measurement and Supporting Data:

Calendar Year	2013	2014	2015	2016	2017	2018
Total # of injuries	178	187	146	122	150	145
Injury rate	10%	11%	8%	7%	9%	8%
Total # of medical claims	98	95	90	87	71	96
Percent of employees w/ claims	6%	5%	5%	5%	4%	5%
Average claim cost	$18,315	$7,168	$11.973	$12,978	$9,089	$13,377
# of Full Time Employees	1777	1751	1757	1717	1743	1762
Total calendar year cost	$1,794.872	$724.064	$1,149,496	$1,329,390	$1,430,173	$1,938,795

Calendar Year	2013 – 2017 Avg.	2018	2014 – 2018 Avg.
Total # of injuries	157	145	150
Injury rate	9%	8%	9%
Total # medical claims	88	96	88
Serious injury rate	5%	5%	5%
Claim cost	$11,905	$13,377	$10,917





The annual baseline is the prior five-year average (2013 through 2017). Data is reported on a calendar year basis pursuant to federal OSHA reporting requirement. State total is the average number of department employees during any given quarter or year, and it is used to calculate the injury and severity rates.

Claim costs include all medical expenses and any reserves. In CY 2018, the five-year average claim cost was lower by $987 per claim compared to the baseline. The injury rate in CY 2018 shows a reduction of 0.4% compared to the baseline. The target of reducing the injury rate by 2% annually compared to the baseline was not met. The serious injury rate, which is the rate of injuries/illnesses requiring medical attention per 100 employees did not meet the 2% reduction target. The rate of the five-year average ending CY 2018 was 4.9% compared to the baseline rate of 5%.

Most of the injuries sustained in CY 2018 were due to strains, sprains, fractures and lacerations. Body parts injured were low back, shoulder, head and hand. Cause of injuries were due to slip, trips, falls, lifting and improper tool use. The number of low back claims declined from 12 in CY 2017 down to 8 in CY 2018. Shoulder claims went from 3 in CY 2017 up to 11 in CY 2018.

Strategies for Improvement for CY 2019
Short range to next reporting:

- Provide one-on-one supplemental workers' compensation training.
- Collaborate with third-party administrator overseen by the State of Nevada Risk Management Division to provide better medical treatment for the agencies employees to control costs.
- Conduct safety and health inspections to eliminate workplace hazards and reduce workplace injuries.
- Teach OSHA safety and health classes to educate management, supervisors and employees.
- Conduct ergonomic evaluations for employees to reduce injuries.
- Equip NDOT Headquarters basement with new AEDs.
- Conduct additional Active Shooter Classes statewide.
- Report workers' compensation costs to managers to create cost awareness.
- Heighten worker safety and workers' compensation awareness through innovative communication initiatives.

Long range:

- Identify additional safety training courses that can be conducted by existing team members.
- Develop cooperative relationships with divisions and districts to improve compliance with mandatory safety classes including Global Harmonization System, First Aid/CPR/AED, New Employee Safety Orientation, and OSHA classes.
- Implement an employee safety survey to assess the agency's safety culture. Evaluate the responses to determine areas of need within the safety and workers' compensation programs.
- Develop and implement a safety and health open house to provide additional education to NDOT employees.
- Create a designated space for safety team members to conduct ergonomic evaluations and allow employees to test ergonomic office items. Improved ergonomics will reduce repetitive hand motion injuries, neck injuries, mid back injuries, low back injuries, shoulder injuries and elbow injuries
- Provide support for management to achieve compliance with workplace inspections, training, and motor vehicle accident investigations.
- Increase Safety and Loss Control Section involvement in NDOT projects to provide additional safety support, education, and guidance.

- Provide support to districts and divisions to increase effective pre-trip and post-trip inspections of vehicles and compliance with NDOT's seatbelt and no texting policies.

Evaluation of Performance Measure

Were the annual targets met?
No

Which "Strategies for Improvement" were successful?
Safety and Loss Control provided workers' compensation training, safety inspections and safety training which supported increased safety awareness.

Which "Strategies for Improvement" were not successful and why?
The vehicle database continues to be maintained by the Safety and Loss Control Section as required by the Federal Motor Carrier Safety Administration. The motor vehicle accident database in conjunction with the State of Nevada Risk Management Division database indicates that for the past three years vehicle and heavy equipment repair costs have increased in NDOT districts and divisions. The State of Nevada Risk Management Division plans to increase NDOT's motor pool vehicle accident deductible.

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.
No.

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

FY19 Target: 80% compliance for all required training

Champion
Employee Development Manager
Human Resources Manager

Support Divisions:
All

Overview and Plan Support:
The classes selected for inclusion in the performance measure apply to the entire department and are required by Nevada Administrative Code 284, the State Administrative Manual, or a specific NDOT Transportation Policy. All the included classes are either required for all employees or all supervisors.

In 2017, the Department of Human Resource Management, Equal Opportunity Division revised their EEO requirements for supervisors. In the past, both an online section as well as an instructor led section had been required. Now, supervisors are only required to do one or the other. As a result, we are now only tracking 11 classes.

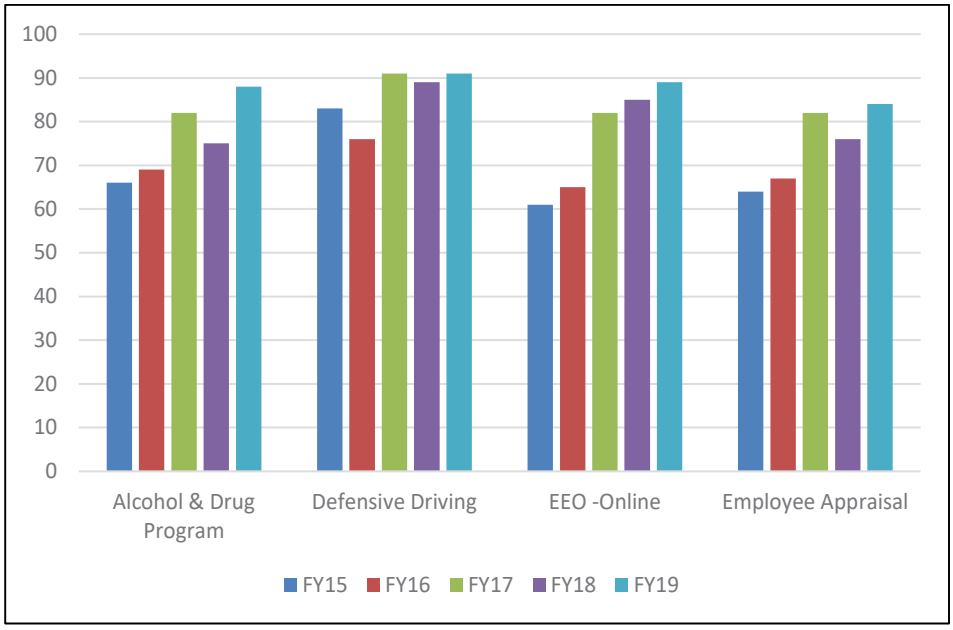
The compliance number calculated for each class reflects the percentage of employees who were required to take the class and have successfully completed it within the designated time period. The FY2019 compliance target was exceeded by 7% and was 6% higher than the previous year.

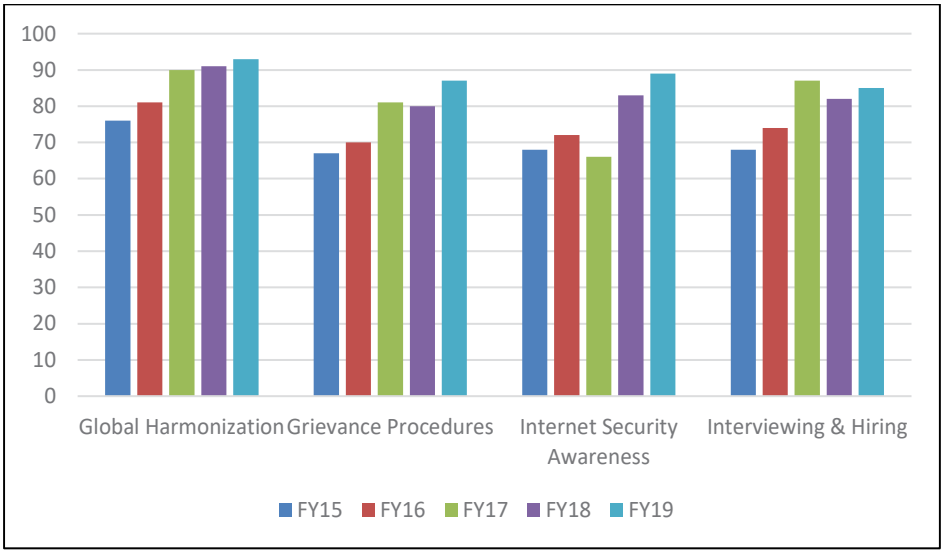
Measurement and Supporting Data:

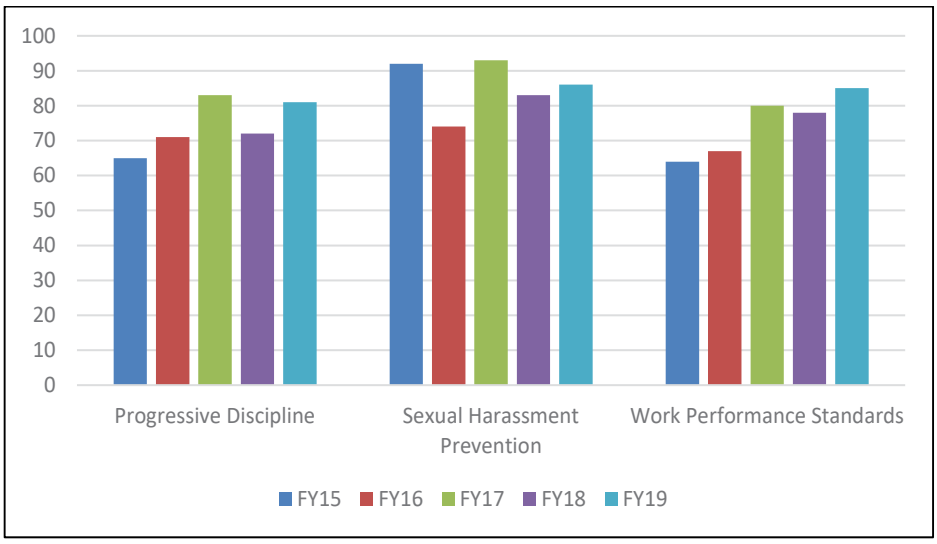
	Requiring Training	Rate of Training	% in compliance for FY				
Requirement			**2015**	**2016**	**2017**	**2018**	**2019**
Alcohol & Drug Program	Supervisors only*	Every 3 years	66	69	82	75	88
Defensive Driving	All Team members**	Every 4 years	83	76	91	89	91
EEO	0**		63	71	78	N/A	N/A
EEO -Online	Supervisors only	Every 3 years	61	65	82	85	89
Employee Appraisal	Supervisors only	Every 3 years	64	67	82	76	84
Global Harmonization	All Team members	Once	76	81	90	91	93
Grievance Procedures	Supervisors only	Every 3 years	67	70	81	80	87

Internet Security Awareness	All Team members	Annually	68	72	66	83	89
Interviewing & Hiring	Supervisors only	Every 3 years	68	74	87	82	85
Progressive Discipline	Supervisors only	Every 3 years	65	71	83	72	81
Sexual Harassment Prevention	All Team members	Every 2 years	92	74	93	83	86
Work Performance Standards	Supervisors only	Every 3 years	64	67	80	78	85
Averages			**70**	**71**	**83**	**81**	**87**

* Number of employees as of June 30, 2019 was 1656.
** Number of supervisors as of June 30, 2019 was 506.
*** State training requirements changed in FY 18 to drop this class as a requirement.







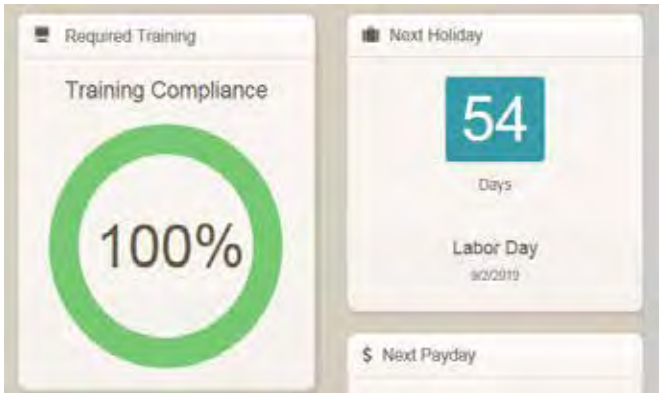
Evaluation of Performance Measure
The annual target for FY19 was 80% with the ultimate target of 100% compliance overall. The average for the 11 required classes was 87% which shows an increase of 6% from last fiscal year's average of 81% and exceeds the FY19 target by 7%. The percentage of compliance increased for every class.

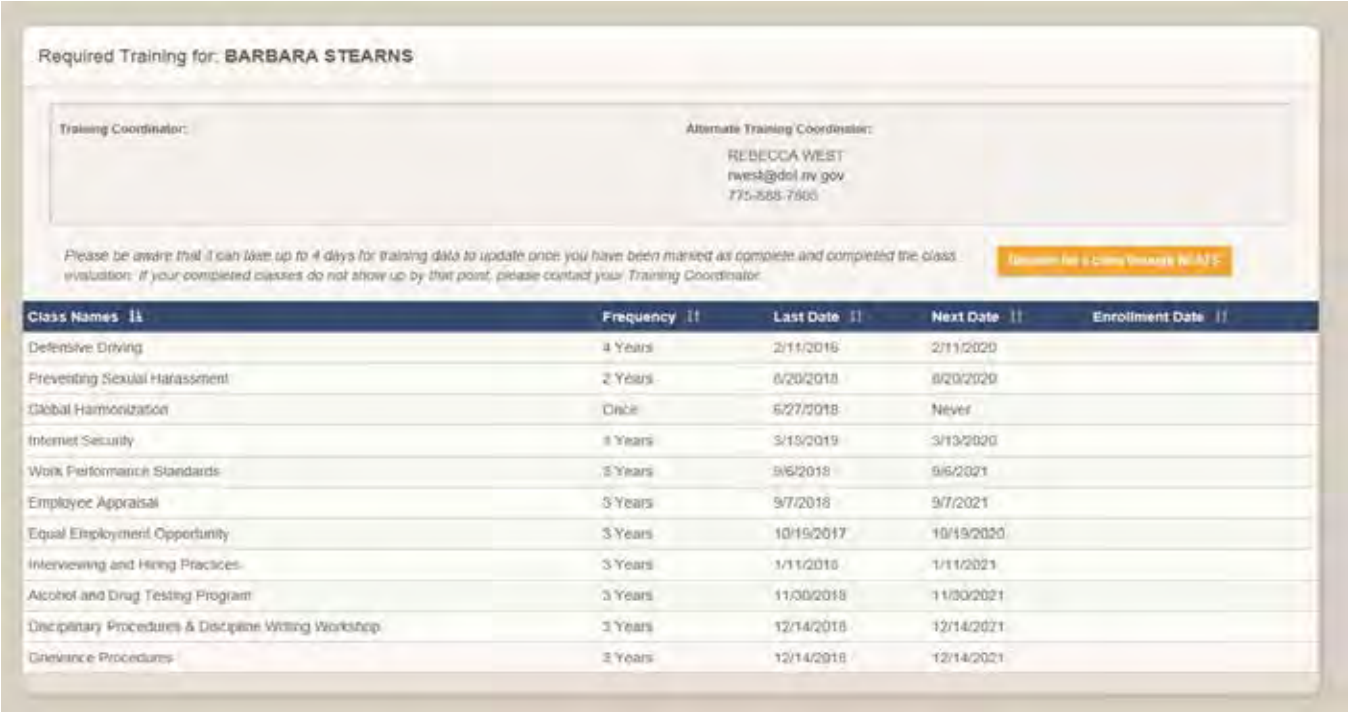
Our biggest improvements were seen with the "online only" classes. Alcohol and Drug Testing Program compliance increased by 13%. Progressive Discipline compliance increased by 9%. Internet Security Awareness compliance increased by 6%. EEO-online compliance increased by 4%. "Online-only" classes are especially difficult for the Districts, which is comprised of 51% of our total employees, because they share computers and spend very little time in the office.

Despite the computer availability challenge and fewer instructor-led classes in the rural areas, our District offices are leading in overall compliance. Winnemucca is currently at 96% overall compliance, Elko is at 94% overall compliance, Ely is at 91% overall compliance and Tonopah is at 94% overall compliance.

Was the annual target met?
Yes

Which "Strategies for Improvement" were successful?
The Enterprise HR (eHR) application continues to motivate employees to achieve and maintain compliance with their training requirements. eHR allows supervisors and managers to review their employees' compliance. eHR sends notifications to employees, supervisors and training coordinators instead of relying on the employees to search for their compliance status. eHR allows employees to see the following information:





Required Training for: **BARBARA STEARNS**

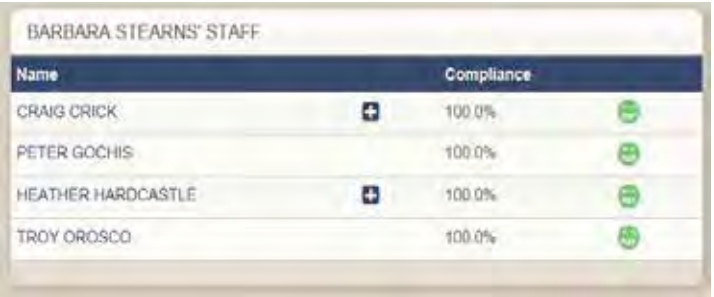
Training Coordinator:

Alternate Training Coordinator:
REBECCA WEST
rwest@dot.nv.gov
775-888-7805

Please be aware that it can take up to 4 days for training data to update once you have been marked as complete and completed the class evaluation. If your completed classes do not show up by that point, please contact your Training Coordinator.

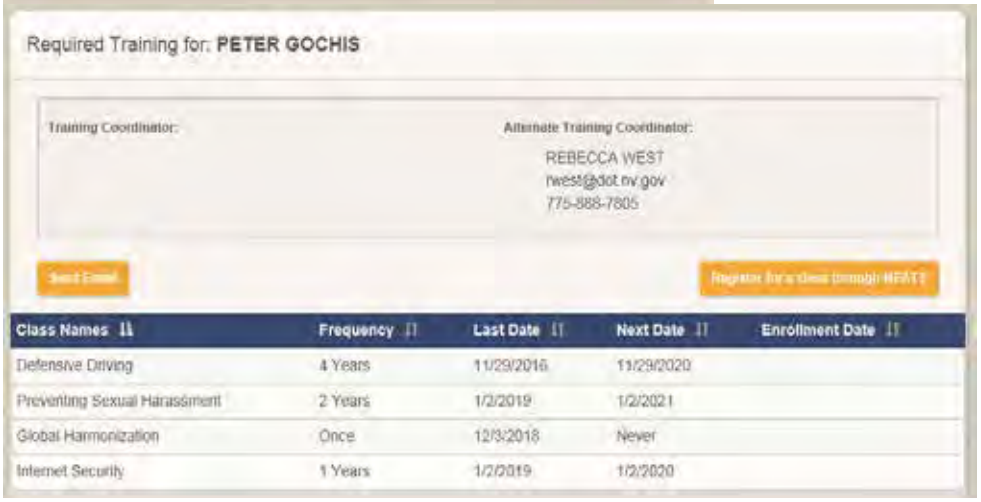
Class Names	Frequency	Last Date	Next Date	Enrollment Date
Defensive Driving	4 Years	2/11/2016	2/11/2020	
Preventing Sexual Harassment	2 Years	6/20/2018	6/20/2020	
Global Harmonization	Once	6/27/2018	Never	
Internet Security	1 Years	3/15/2019	3/13/2020	
Work Performance Standards	3 Years	9/6/2018	9/6/2021	
Employee Appraisal	3 Years	9/7/2018	9/7/2021	
Equal Employment Opportunity	3 Years	10/19/2017	10/19/2020	
Interviewing and Hiring Practices	3 Years	1/11/2018	1/11/2021	
Alcohol and Drug Testing Program	3 Years	11/30/2018	11/30/2021	
Disciplinary Procedures & Discipline Writing Workshop	3 Years	12/14/2018	12/14/2021	
Grievance Procedures	3 Years	12/14/2018	12/14/2021	

eHR allows supervisors/managers to see the following information:



BARBARA STEARNS' STAFF

Name	Compliance
CRAIG CRICK	100.0%
PETER GOCHIS	100.0%
HEATHER HARDCASTLE	100.0%
TROY OROSCO	100.0%



Required Training for: **PETER GOCHIS**

Training Coordinator:

Alternate Training Coordinator:
REBECCA WEST
rwest@dot.nv.gov
775-888-7805

Class Names	Frequency	Last Date	Next Date	Enrollment Date
Defensive Driving	4 Years	11/29/2016	11/29/2020	
Preventing Sexual Harassment	2 Years	1/2/2019	1/2/2021	
Global Harmonization	Once	12/3/2018	Never	
Internet Security	1 Years	1/2/2019	1/2/2020	

Which "Strategies for Improvement" were not successful?

The training section had one vacant instructor position for the first half of FY19. This took focus away from strategies that may have increased compliance including marketing our classes to build excitement for training instead of asking people to attend simply because the class is mandatory.

We had also planned to redesign our classes to use blended learning principles (part of the class is taken online, and another part is instructor-led) and make the best use of our face time with students and have not yet implemented that strategy.

Which new "Strategies for Improvement" will be initiated in FY 2020?
Short range to next reporting:

- Improve effectiveness of eHR email reminders:
  - Change initial email reminders to be sent one month prior to expiration.
  - Separate the Internet Security Awareness from the other classes so that reminders either come directly from KnowBe4 or come with a custom message.
  - Attach the table of which classes meet requirement to the reminder email.
  - Commit to keeping eHR data as current as possible so that employees trust the emails they receive.
- Market classes directly to the employees.
  - Focus our marketing efforts on headquarters' employees because they have a low compliance rate, are close to multiple training rooms and have the most flexibility in their schedule.
  - Highlight the benefits of the training instead of marketing solely on the fact that the class is mandatory.
  - Require instructors to change exercises and scenarios every other year so that employees don't get exact same training every year.
- Develop blended-learning training to maximize the effectiveness of the DHRM online classes. Provide instructor-led modules that utilize activities and case studies to address application of knowledge and highlight NDOT-specific policies and people.
- Cross-train instructors so we have options if an instructor is out of the office.
- Share successful strategies from Districts with Divisions.

Long range:

- Embed leadership principles in all required classes. These principles should reinforce the strategic plan.
- Learn and implement technology like videoconferencing, webinars, and Skype to keep classes when we have low enrollment, the state plane is cancelled, or there is a higher priority for the meeting room.
- Send trainers to the Employee Management Committee (EMC) Meetings for deeper/broader understanding of state policies. Dedicate time for reading EMC decisions.
- Work with SMART21 project to redesign class evaluations to include more appropriate questions, provide reporting options for programs as well as classes, and provide timely feedback to the instructor.

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.
No.

Target for Next Three Fiscal Years:
FY20 83%
FY21 86%
FY22 89%

3. IMPROVE EMPLOYEE SATISFACTION

Performance Measure:
Percentage rating obtained from employees' satisfaction surveys.

Ultimate Target: Overall rating of 80%

Annual Target: Overall rating 75%

Champion:
Human Resources Manager

Support Divisions:
All.

Overview and 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 quality team members. A satisfied workforce will excel at their duties and this benefits the Department and our customers. This performance measure works towards meeting the Nevada Department of Transportation's strategic plan goals to: promote a safety-first culture, efficiently operate and maintain the transportation system in Nevada, promote internal and external customer service, and enhance organizational and workforce development.

Measurement and Supporting Data:

2008 FY (Base Year)	70%
2009 FY	67%
2010 FY	62%
2011 FY	50%
2012 FY	48%
2013 FY	50%
2014 FY	51%
2015 FY	52%
2016 FY	57%
2017 FY	67%
2018 FY	69%
2019 FY	66%

Table 1. Historical Level of Employee Participation (Respondents)

Performance Survey			
Year of Survey	Survey Launch Date	Survey Closing Date	# of Employees Responding
2008	July 14	August 15	764
2009	July 13	August 2	616
2010	May 18	June 25	905
2011	June 23	July 15	598
2012	May 29	July 1	718
2013	June 13	July 19	621
2014	June 10	July 29	1020
2015	April 27	July 20	1081
2016	April 25	June 20	957
2017	June 28	August 30	929
2018	June 29	August 10	969
2019	April 15	June 21	872

Table 2. Employee Satisfaction Survey Results

Key Question Response Comparison From 2018 to 2019			
Survey Category	2018 Percentage	2019 Percentage	Percentage of Increase/Decrease
Satisfaction of workplace safety.	76.0%	77.0%	+1%
Satisfaction of workplace physical conditions.	69.0%	68.0%	-1%
Satisfaction with ability to express concerns to their immediate supervisor.	73.0%	78.0%	+5%
Satisfaction with ability to communicate effectively with their immediate supervisor.	71.0%	73.0%	+2%
Satisfaction with their immediate supervisor recognizing when they go above and beyond their normal duties.	68.0%	69.0%	+1%
Satisfaction with management applying policy decisions consistently.	51.0%	54.0%	+3%
Satisfaction with ability to express concerns to their management.	61.0%	61.0%	0.0%
Satisfaction with flexibility of employees work hours.	84.0%	86.1%	+2.1%
Percentage of employees who would recommend NDOT to a friend	60.0%	59.0%	-1.0%

Evaluation of Performance Measure

Was the annual target met?
No, sixty-six (66%) of employees are very or somewhat satisfied with the Nevada Department of Transportation as an employer as compared to seventy percent (70%) the base year. The percentage has continued to increase each year since FY2012 until this year FY2019.

Employee participation in fiscal year 2019 declined compared to 2018 but was still significantly higher than when the survey started in 2008.

Which "Strategies for Improvement" were successful?
Human Resources Safety Section implemented strategies over the past year to guide, educate, and train on safety. The employee satisfaction survey revealed about the work environment that respondents were mostly satisfied with things such as NDOT having all the necessary precautions to make the workplace safe increased by 1% with 76% in 2018 to 77% in 2019. Respondents satisfied with the physical conditions in the workplace remained consistent with 69% in 2018 and 68% in 2019.

Human Resources implemented strategies to encourage supervisory training that includes communication, management styles, and coaching. Responses to all items about immediate supervisors indicated overall satisfaction. For example, employees agree they can express concerns to their supervisors increased from 73% on 2018 to 78% in 2019; their supervisors communicate effectively increased from 71% in 2018 to 73% on 2019; and recognize when they go above and beyond their normal scope of work increased from 68% in 2018 to 69% in 2019.

Responses to items about management increased, with the statement that management applies policy decisions consistently increased from 51% in 2018 to 54% in 2019, and with the statement that they can express any concern to their management remained the same at 61% in 2018 and 2019.

Human Resources implemented strategies to create flexibility in the workplace, job security, training opportunities and a pleasant work environment for employees. The percentage of employees who strongly or somewhat agree that they are satisfied with the flexibility of their work hours increased from 84% in 2018 to 86.1% in 2019. The percentage of respondents who would recommend NDOT to a friend decreased from 60% in 2018 to 59%.

Which "Strategies for Improvement" were not successful and why?
The percentage of employees who are extremely or somewhat satisfied with the Nevada Department of Transportation as an employer decreased 3%. The satisfaction rate is now 4% below the 2008 baseline of 70%.

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. Respondents that were satisfied or very satisfied with their salary decreased from 35% in 2018 to 31% in 2019. Respondents satisfied with their benefits decreased from 40% in 2018 to 38% in 2019. However, adjusting salary and benefits are not within the authority of NDOT.

Which "Strategies for Improvement" will be initiated in FY2020?
Short range to next reporting:

- Continue communications from management to employees including "Donuts with the Director" and Division Head Team Member Meetings.

- Promote flexibility in the workplace, job security, training opportunities and a pleasant work environment for employees.
- Evaluate pay inequities through the accelerated salary process.
- Encourage and require supervisory training, in compliance with regulations, that includes communication, management styles, and coaching.
- Communicate to employees that the survey results have been reviewed and how leadership is using the results to improve NDOT.

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: promote a safety-first culture, efficiently operate and maintain the transportation system in Nevada, promote internal and external customer service, and enhance organizational and workforce development.

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 surveyed the Department is not likely to see significant improvement in the results of related parts of the annual employee satisfaction surveys.

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%

Champion:
Administrative Services Division Chief

Support Divisions:
All divisions that procure professional services over $2,500

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 have 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 the 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.

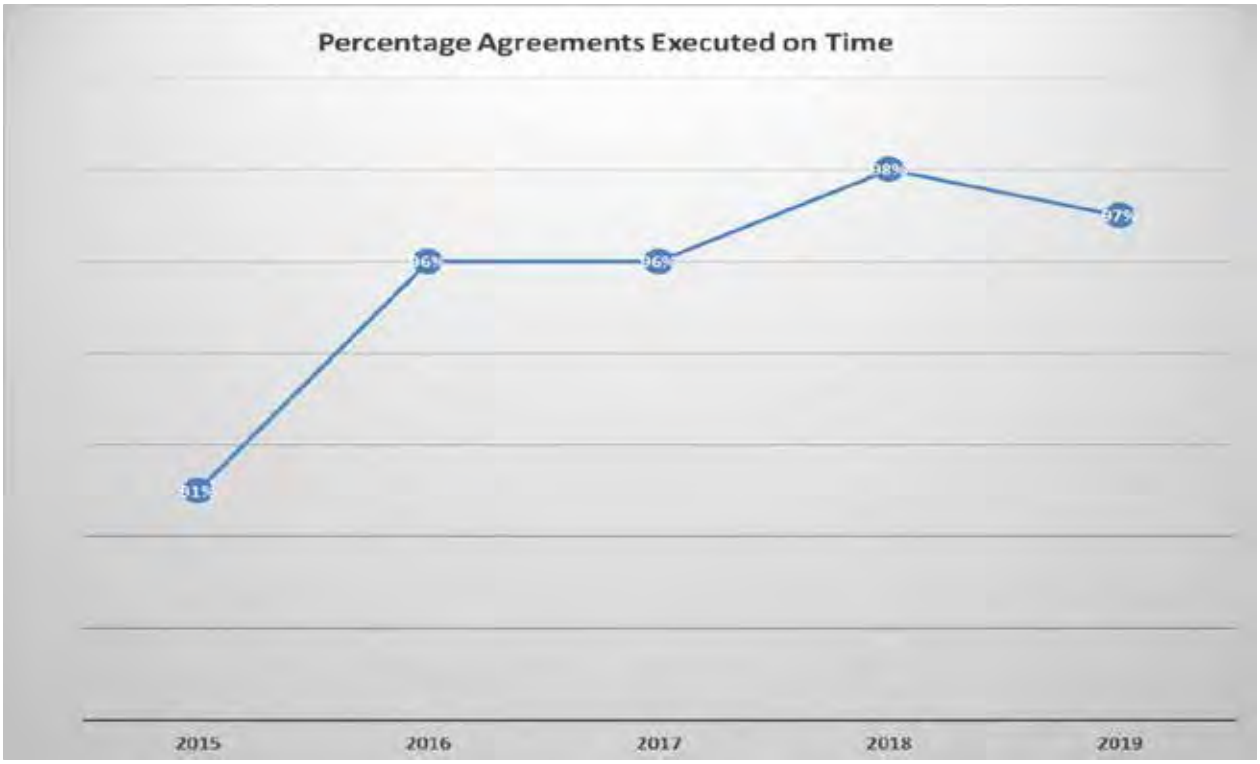
This performance measure helps meet the Department's mission to provide and preserve a transportation system that enhances safety, quality of life and economic development through innovation, environmental stewardship and a dedicated workforce by helping to accomplish the goals of: safety first culture, cultivate environmental stewardship, efficiently operate and maintain the transportation system of Nevada, promote internal and external customer service, and enhance organizational and workforce development.

Summary:
For fiscal year 2019, nine calendar days was the average to execute agreements. This was measured from the time they were submitted to Agreement Services, until the time of agreement execution, but excluding the time the agreement was with the second party or awaiting Transportation Board approval. During fiscal year 2019, the Department executed 605 agreements, of which 585 were executed in 30 days or less. This translates to 97% of all agreements being executed within 30 days, exceeding the target of 90%.

It is significant to note that of the 20 agreements not executed within 30 days, over 50% of them (10 agreements) were with other public entities. These include Cooperative, Interlocal, and Grantee agreement types. These types of agreements often require extensive coordination with the other public entities, and items often must be formally discussed with a policy-making body, such as a Board of Directors, as well as other authorities within an entity/agency. This extensive coordination contributes to the length of time it takes to execute these types of agreements.

Measurement and Supporting Data:

	Number of Agreements Executed	Number Executed Within 30 Days	Percent Executed Within 30 Days	Average Number of Days to Execute
FY 2019	605	585	97%	9



Strategies for Improvement
Short range to next reporting:

In previous fiscal years, the measure of calculating the average number and percentage of agreements executed within 30-days, used "calendar days" to execute agreements. This was measured from the time they were submitted to Agreement Services, until the time of agreement execution but excluding the time the agreement was with the second party and awaiting Transportation Board approval. A more accurate measure would be to also exclude weekends and holidays. This measure would be the actual days the agreement is under the Department's control. Future reporting will be reported as the number of "work days"; excluding days with the second party, weekends, holidays, and waiting for the Transportation Board. This method of measuring days will accurately calculate percentage and average days NDOT took to execute an agreement. With new electronic processes in place, Agreement Services has consistently exceeded the 30-day agreement execution with a 96% or higher than the 90% target. We may be able to lower the performance measure of execution of agreements to 20 days and still meet the 90% execution target.

Several Local Public Agencies (LPAs) have expressed interest in using DocuSign to electronically sign agreements. The Administrative Services Division staff has worked with NDOT Legal, the NDOT LPA section, and the LPAs to finalize DocuSign routing that will work for all parties. Once testing has been

successfully processed, the Agreement Services Section will send future LPA agreements via DocuSign, which should decrease processing times for LPAs.

Long range:
The Administrative Services Division Chief has been exploring with other NDOT division chiefs, any potential vacant positions throughout the Department for reclassification to Agreement Managers. These positions would closely monitor procurement, agreement execution, and actively manage agreements throughout the life of projects being undertaken by their assigned division(s). This would help further expedite the procurement process and agreement management process. The viability of this option will be further explored in 2020.

Long-range strategies include continuing to assess the relevance of performance measure data and revising this measure, as necessary, to accurately reflect the time it takes to process an agreement. Additionally, mandating that all agreements be processed via DocuSign is critical to maintaining the success of this performance measure.

Were the targets met?
Yes

Which "strategies for improvement" were successful?
While no new positions were made available for agreement management, existing Agreement Services staff do an excellent job coordinating with Project Managers to ensure their agreements are processed in a timely manner.

Which "strategies for improvement" were not successful and why?
With three to five signatures required for the LPA's (which includes presentations to and possible approval by formal policy-making and governing bodies), routing for execution is cumbersome and time consuming. The Agreement Services staff has identified a potential solution using a DocuSign routing method that could expedite the execution of LPA agreements. Processing LPA agreements via DocuSign has not yet been put into practice, even though a DocuSign routing system has been developed, we have not had a chance to try it in FY2019. Testing this option in FY 2020 will determine whether this alternate routing method is a viable solution.

What new "strategies for improvement" will be initiated in FY2020?
Short range to next reporting:
The current targets are being exceeded, and the process is working well. The short-range strategy will be to continue ensuring all Agreement Services staff understand the performance measure, what is measured, and how each stage of processing an agreement affects the measure. The Deputy Division Chief and Section Manager will provide quarterly feedback to staff about the current processing time, and discuss strategies for improving execution of all agreements, including LPA agreements, if applicable.

Long range strategy:
The current targets are being exceeded, and the process is working well. The long-range strategy will be to continue regular assessment of the current performance measure, data collected, its relevance to reporting actual performance, and make revisions to process, measure and/or targets as necessary and appropriate.

Does this performance measure effectively measure what is desired?
No – explained in Strategies for Improvement - Short range to next reporting

Is there a better performance measure that should be considered?

Yes – explained in Strategies for Improvement - Short range to next reporting

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. Collectively, this will result in overall cost savings.

5. IMPROVE CUSTOMER & PUBLIC OUTREACH

Performance Measure:
Improve customer and public outreach.

Annual Target: Meet goals set forth in the NDOT communications plan.

Ultimate Target: Exceed goals set forth in NDOT communications plan.

Overview and Plan Support:
This performance measure works toward meeting the NDOT Strategic Plan goal to promote internal and external customer service. NDOT operates in a frequently changing environment where communication is extremely important. Projects, programs, and demographics are constantly evolving, along with the challenges that accompany them. NDOT has consistently overcome these challenges with a strong focus on proactively providing accurate and reliable information to all who may be affected. NDOT will continue to find new ways to approach communication to expand our reach across multiple communication channels to improve the agency's customer and public outreach.

Measurement and Supporting Data:
NDOT partnered with a University of Nevada, Reno, Reynolds School of Journalism class to develop a communications plan for the department that includes a positioning statement, key messages, a goal strategy, target audience and most importantly, branding and a tagline. The brand, "safe and connected," demonstrates how greatly NDOT cares for the safety of Nevada's drivers and pedestrians and keeps them mobile and connected every day. The plan, which was enhanced and further developed by the NDOT public information staff and interns, stresses the need to continue to focus on NDOT's mission of roadway safety and connectivity through a variety of communication channels.

This year we contracted Probolski Research to conduct a statewide customer service satisfaction study. A total of 1,000 residents were surveyed with a margin of error of +/- 3.2%, with a confidence level of 95%. Some highlights from the survey are:

- 84% feel safe on our highways and interstates
- 80% are satisfied with our rest areas
- 76% are satisfied with the landscape
- 73% are satisfied with our projects

Evaluation of Performance Measure:
NDOT public information is happy to report that most of the measurement goals for fiscal year 2019 have been met. Final results are listed in below.

Annual target status (Met/Did not meet)

Social Media

- Increase Facebook likes to 11,500 by the end of fiscal year 2019 – **Goal met.**
  Total Facebook likes as of June 30, 2019 = 12,959.
- Increase Twitter followers to 30,000 and maintain two quarters or more with an .4% engagement rate or greater by the end of fiscal year 2019 – **Goals not met.**

Twitter followers reached 30,000 on July 14, 2019. The engagement rate for the year averaged just over .3% (an engagement rate between 0.09% and 0.33% is considered high nationally).

- Increase YouTube views by 10% by the end of fiscal year 2019 – **Goal not met.** Total YouTube video views decreased every quarter.
- Increase the number of Instagram followers to 1,500 by the end of fiscal year 2019 - **Goal met.** The total number of Instagram followers as of June 30, 2019 was approximately 1,874.

Website

- Remind content editors to update/archive information quarterly with tips and suggestions to maintain the validity of information found on division pages. **Goal met –** quarterly reminder sent out.

Internal Communications

- Publish an online newsletter twice a month highlighting important upcoming events and project updates. **Goal met –** email newsletter distributed to more than 1,600 employees bi-weekly.

Media Relations

- Respond to all simple requests from reporters immediately. Provide answers to more complex questions within one business day. **Goal met –** Simple questions from reporters were answered immediately and more complex requests were followed up on within one business day.

Public Involvement/Public Hearing Procedures

- The Department, acting under the authority of NRS 408.245 providing for the acceptance of federal acts, accepts as a continuing obligation the compliance with the provisions of Title 23 USC, Section 109(h) Standards, Section 128, Public Hearings, and Title 23 CFR, Section 771.

Public Involvement/Public Hearing Procedures On National Environmental Policy Act (NEPA) Projects

- The Department, acting under the authority of NRS 408.245 providing for the acceptance of federal acts, accepts as a continuing obligation the compliance with the provisions of 23 USC 109 (h) and 128, 23 CFR 771, 23 CFR 774.5 (a), 23 U.S.C. 139(g)(2)(A), and 40 CFR 1500-1508.
- NDOT's goal is to be at 100% compliance with all requirements of the development and facilitation of each public meeting or hearing. **Goal Met** – In 2019, 12 public hearings were conducted and 100% compliance was achieved in all required activities to include: Transportation Notice (the public notice document); Suitable meeting location; News and media advertising; Mailing notification to affected property owners and tenants within the project area; Post public notice on department and State Gov. websites; Post meeting/hearing materials to the department website; Sign in table and meeting handout materials; Required meeting hours; Meeting display boards; Meeting presentation; Comments and verbal testimony during the meeting; Hired court reporter; How to submit public comment and comment period deadlines explained; Documentation for minorities for Title VI requirement documenting the minority demographics for meeting attendees; Provide Spanish interrupter for all public meetings; Provide Limited English Proficiency (LEP) access when needed; Maintain documentation of meeting materials, presentation, sign in sheets, Transportation Notice, news advertising, comments received at all meetings and transcripts for all department public meetings/hearings.

Customer Service

- Achieve 75% positive satisfaction level on NDOT satisfaction survey from all customer service survey participants by end of fiscal year 2019. **Goal met** - The survey results indicated that 75% of NDOT customers were extremely satisfied with how NDOT handled their requests.

Which "Strategies for improvement" were successful?

- Maximizing social media channels and the various ways to communicate with the public helped increase public outreach.
- Improved response time to customers help NDOT to meet the 75% customer satisfaction benchmark.

Which "Strategies for improvement" were not successful?
As social media rapidly evolves, goals must be adjusted to meet that evolution. Our goal to increase YouTube video views by 10% by the end of the fiscal year was not met. This is in large part because department videos are loaded and displayed as separate video files to our Facebook, Instagram and Twitter accounts. This optimizes viewership on those social media channels but does not drive views of our YouTube channel.

Our goal to remind web site content editors to update divisional pages on NDOT's public-facing nevadadot.com website addresses the critical need to provide accurate and updated information to the on-line public. It does not, though, address the need to optimize the web site user experience through streamlined and easy-to-find web site content.

What "Strategies for improvement" will be implemented in 2020?
Short Range
A customer service tracking program will be developed that will allow us to track our customer issues ensuring every customer inquiry is answered timely and we provide a consistent message across all channels. The goal is to create a customer centric culture here at NDOT by providing our customers more ways to communicate with us. One of the enhancements will be real time reporting of issues on our highways. The Division's former goal of increasing YouTube video views by 10% by the end of the fiscal year will be changed to a goal of "Establish and utilize a social media posting guide and calendaring system by the end of fiscal year."

The former goal of reminding web site content editors to update/archive information quarterly will be enhanced with a new, more targeted goal of "Proactively coordinate with content editors to update/archive and consolidate web site information to reduce the number of current web pages/images (658 pages/3,057 images) by three percent by the end of the fiscal year for a more concise and easy visitor experience." To ensure the most effective employee communications, we will also evaluate the bi-weekly employee newsletter distribution schedule.

Long Range
NDOT continually communicates valuable public service messaging to both internal and external stakeholders, from road construction traffic updates and potentially life-saving traffic safety messaging to collaborative statewide transportation goal establishment and planning. NDOT's goal is to further develop consistent department branding and messaging to ensure all vital department messaging further resonates with the public and stakeholders. To create a customer centric culture and experience through new enterprise information solutions and development of a comprehensive marketing plan.

Does this performance measure effectively measure what is desired?
For the most part yes, however, across the country, customers have become accustomed to the seamless and instant service they can receive from customer service experience leaders. To meet our customers' expectations and the performance measures set we need to focus on improving public relations, social media and customer service.

Is there a better performance measure that should be considered?
NDOT is in the process of pursuing assistance for enhanced outreach initiatives, with scope of services to include but not limited to further developing NDOT's brand including the department's mission, vision, values and goals, broadcasting a consistent brand and image throughout the department, developing metrics to enable the department to evaluate its public engagement performance and methods to improve the results and develop public outreach materials and other support services as needed.

Would meeting next year's target incur additional fiscal impact? If so, explain: No.

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

Performance Measure:

- Percent of person-miles traveled on the Nevada interstate system that are reliable
- Percent of person-miles traveled on Nevada non-interstate National Highway System (NHS) that are reliable
- Annual hours of peak-hour excessive delay per capita in Nevada urbanized areas
- Percent of non-single occupancy vehicle travel in Nevada urbanized areas
- Truck travel time reliability index on the Nevada interstate system (added for information only)

Annual Target:

- Percent of person-miles traveled on the Nevada interstate system: 86.8% or higher
- Percent of person-miles traveled on Nevada non-interstate NHS routes: 65% or higher
- Annual hours of peak-hour excessive delay per capita in Nevada urbanized areas: 12 hours or less
- Percent of non-single occupancy vehicle travel in urbanized areas: 21.3% or higher
- Truck travel time reliability index on the Nevada interstate system: 1.28 or less

Ultimate Target for System Performance:

- Percent of person-miles traveled on the Nevada interstate system: 90% or Greater
- Percent of person-miles traveled on Nevada non-interstate NHS routes: 70% or Greater
- Annual hours of peak-hour excessive delay per capita in Nevada urbanized areas: 10-Hours or Less
- Percent of non-single occupancy vehicle travel in Nevada urbanized areas: 25% or Greater
- Truck travel time reliability index on the Nevada interstate system: 1.25 or Less

Champion:
Chief Performance Analysis Engineer & Chief of Traffic Operations

Support Divisions:
All

This performance measure works toward meeting the NDOT strategic plan goal to efficiently operate and maintain the transportation system in Nevada.

Definition:
Percent of Person-Miles Traveled that are reliable on the Nevada Interstate System:
This performance measure is used to show the reliability that a driver might expect from a certain stretch of roadway on the interstate system during certain times of the day. It can also be defined as the consistency of travel over time. This measure helps to reliably track changes that might occur in a segment of roadway throughout applicable time periods of the day that would impact a driver's travel time. This is done by calculating the 80th percentile of travel time and dividing it by the 50th percentile of travel time. The 80th percentile number represents a travel time that is higher than the expected time, and the 50th percentile number represents the normal expected

travel time of the roadway segment. According to US DOT guidelines, a trip that takes more than one and half times the normal time is not considered reliable. The number of roadway segments that are reliable are then compared to the total number of analyzed roadway segments to give the percentage of roads that are reliable for the state or selected region.

Percent of Person-Miles Traveled that are reliable on Nevada Non-Interstate NHS Routes:
This performance measure is used to show the reliability that a driver might expect from a certain stretch of roadway on the non-interstate system during certain times of the day. It is calculated using the same methodology as the percent of person-miles traveled on the interstate system that are reliable, the only difference is the non-interstate roadway segments being analyzed.

Annual Hours of Peak-Hour Excessive Delay (PHED) Per Capita in Nevada Urbanized Areas:
This performance measure is used to show the annual hours of peak excessive delay per capita. Based on MAP-21 requirements, this metric is currently applicable to urbanized areas exceeding 1 million people, which at this time, only consists of the Las Vegas metropolitan area. However, on January 1, 2022, the population threshold will change to urbanized areas exceeding 200,000 people. Excessive delay means the extra amount of time spent in congested conditions defined by speed thresholds that are lower than a normal delay threshold. For the purposes of this rule, the speed threshold is 20 miles per hour (mph) or 60 percent of the posted speed limit for each segment, whichever is greater during 15-minute intervals. The total excessive delay metric is also weighted by vehicle volumes and occupancy. Peak traffic periods are defined as weekday mornings from 6 a.m. to 10 a.m. and either 3 p.m. to 7 p.m. or 4 p.m. to 8 p.m. for weekday afternoons providing flexibility to State DOTs and MPOs.

Percent of Non-Single Occupancy Vehicle Travel in Nevada Urbanized Areas:
This performance measure reflects the amount of people traveling to work by other means of transportation such as walking, biking, public transportation, carpool, commuter rail, and even telecommuting. Like PHED requirements for urbanized areas, this metric is only applicable to the Las Vegas metropolitan area currently. There are several different ways to capture this performance measure, and in Las Vegas, the American Community Survey (ACS) commuting (journey to work) data from the U.S. Census Bureau is the method utilized.

Truck travel time reliability index on the Nevada Interstate System:
This performance measure is used to assess the reliability of travel time for trucks on Nevada's interstate system. To determine the reliability of a segment, a Truck Travel Time Reliability (TTTR) measure is calculated as the ratio of the longer travel times (95th percentile) to a "normal" travel time (50th percentile). The TTTR's of interstate segments are then used to create the TTTR Index for the entire interstate system using a weighted aggregate calculation for the worst performing times of each segment. Furthermore, the threshold of the TTTR index should be less than 1.5. Anything above 1.5 would indicate that the segments were unreliable because US DOT guidelines say, a trip that takes more than one and half times the normal time is not considered reliable.

Strategy and Plan Support:
The importance of improving travel time reliability on Nevada's roadways is demonstrated by these performance measures and indicate how successful the department is fulfilling its core mission of providing, operating, and preserving a transportation system that enhances safety, quality of life and economic development through innovation, environmental stewardship and a dedicated workforce for Nevada.

The Department, in coordination with the Federal Highway Administration (FHWA) and the Metropolitan Planning Organizations (MPOs) selected these performance measures in order to align with the US DOT's Moving Ahead for Progress in the 21st Century (MAP-21) Act passed by Congress on July 6, 2012, and the Fixing America's Surface Transportation (FAST) Act passed by Congress on December 4, 2015. The performance

measures capture most aspects affecting the mobility of the transportation network, which is an indication of how well the system is performing.

To analyze the performance measures, the department leverages a software platform system called the Regional Integrated Transportation Information System (RITIS), which integrates several data sources such as the FHWA National Performance Management Research Data Set (NPMRDS), as well as INRIX probe data from mobile phones, vehicles, portable navigation devices, and embedded fleet systems. Use of this platform makes calculating the metric to determine target achievement or failure less cumbersome and more efficient.

By utilizing RITIS to analyze 2018 calendar year data and setting the travel time reliability index to 1.5, the results indicate that the percent of person-miles traveled that are reliable on Nevada's interstate system is 87.0%; and the percent of person-miles traveled that are reliable on Nevada's non-interstate system is 86.3%. Annual targets are currently set to 86.8% and 65% respectively. However, the non-interstate target of 65% will be re-evaluated in the upcoming years as a result of a data spike from 66% in 2016 to 86.8% in 2017. This is due to a new data set which was acknowledged in the 2018 Performance Management Report. We are still waiting for more data points to establish a new trendline and will continue to review this target.

RITIS was also used to calculate the PHED per capita in Las Vegas. By setting the analyzed peak traffic periods from 6 a.m. to 10 a.m. and 3 p.m. to 7 p.m. weekday afternoons, the results indicate that Las Vegas experienced 11.6 hours of peak-hour excessive delay per capita in 2018. This number meets the annual target of 12 hours or less of peak-hour excessive delay per capita in Las Vegas.

RITIS was not used to analyze the percent of Non-Single Occupancy Vehicle (Non-SOV) travel in Las Vegas. As referenced in the definition section, there are three methods to capture Non-SOV travel. The Regional Transportation Commission of Southern Nevada (RTC-SNV) in coordination with the department used method, the U.S. Census Bureau method, and the American Community Survey (ACS) method. However, Las Vegas and Henderson are in the same urbanized area, but they are in different census locations. To mitigate this dilemma, RTC-SNV used Clark County's ACS because most of the population resides in Las Vegas. RTC-SNV then used the ACS from Las Vegas-Henderson and Boulder City to obtain weighted Non-SOV percentages by population. Once the Non-SOV percentages where established from 2012 through 2017, RTC-SNV provided the data to the department in graphical format. The department then established a trendline to project the 2018 value, which yielded a 21.3% and is in-line with the annual target of 21.3%, or greater of Non-SOV travel in Las Vegas.

RITIS was also used to analyze the truck travel time reliability index on the Nevada interstate system. By analyzing 2018 calendar year data and setting the travel time reliability index to 1.5, the result indicates that the TTTR index on Nevada's interstate system is 1.27. This number meets the annual target of 1.28 or less on Nevada's interstate system.

The Department's congestion measuring system is an evolving process. Refinements will continue to be made as reliable data with extensive coverage of road segments across all geographic locations within the state becomes available. Currently, only the NHS has been included in the performance tracking and analyses. Furthermore, when the system becomes fully functional, it will utilize information from various sources including the Freeways and Arterials System of Transportation (FAST) Center, Washoe County's Virtual Traffic Management Center, and more.

Were the targets met?
Yes

Which "Strategies for improvement" were successful?
The Department has several programs which aim to improve system reliability by mitigating recurring and non-recurring congestion, improving traffic safety, and reducing secondary incidents, these programs are the: Reno and Las Vegas Freeway Service Patrol (FSP) Program; Statewide Hazmat Emergency Response Program; 511 Traveler Information System; Traffic Incident Management (TIM) Program; Waycare Predictive Analytics Program; and the Transportation System Management and Operations (TSMO) Program. These programs have played a critical role in maintaining and enhancing the reliability of the transportation system, in 2018 for example, the Reno and Las Vegas FSP Program mitigated more than 48,000 incidents combined and more than 75% of those incidents were cleared in 15 minutes or less. The Emergency Response Hazmat program expedited the cleanup of 27 hazmat incidents. The program is unique in that it expedites the cleanup of hazmat incidents which the Department does not have the necessary manpower nor expertise to perform, and the Department only pays when the spiller cannot be identified. The 511 Traveler Information System helps motorists better plan their trips and commutes by keeping them informed of relevant incident/road closure, construction, and inclement weather-related information. The TIM Program has 6 coalitions throughout Nevada and has trained 56.6% of all first responders. TIM efforts have also assisted with updating legislative bills which benefit first responders and the towing industry. The Waycare Predictive Analytics Program has improved interoperable communications amongst multiple jurisdictions and has proven to reduce incident response times by 12 minutes. And the TSMO Program proactively addresses transportation challenges (such as recurring and/or non-recurring congestion, safety, mobility, and reliability) via performance-driven strategies. These strategies focus on managing and operating the system more efficiently in order to optimize the existing infrastructure.

Which "Strategies for improvement" were not successful?
Since all targets were met, there were no strategies that were considered unsuccessful.

Do these performance measures effectively measure what is desired?
Yes, these performance measures work toward meeting the Department's strategic plan goal to efficiently operate and maintain the transportation system in Nevada.

Are there better Performance Measures that should be considered?
Not at this time, these performance measures were chosen to align with MAP-21 system performance requirements. They also capture most aspects affecting mobility which is an indication of how well the network is performing. However, the Department is exploring feasible options with the Vehicle Miles Traveled Per Capita performance metric.

Will meeting the next yearly target have a fiscal impact?
No.

7. STREAMLINE PROJECT DELIVERY: BID OPENING TO CONSTRUCTION COMPLETION

Performance Measure:
Percentage of Design Bid Build and Construction Manager at Risk projects completed within the established ranges for cost estimate, change orders and schedule.

Annual Target:

- Budget Measure: Projects completed within 10% of original programmed budget
- Change Order Measure: Projects completed with cost increase of less than 3% in Change Orders
- Schedule Measure: Projects completed within 10% of original assigned working days

Ultimate Target:
Overall Target: 80% of Projects completed within budget, schedule and change order measures

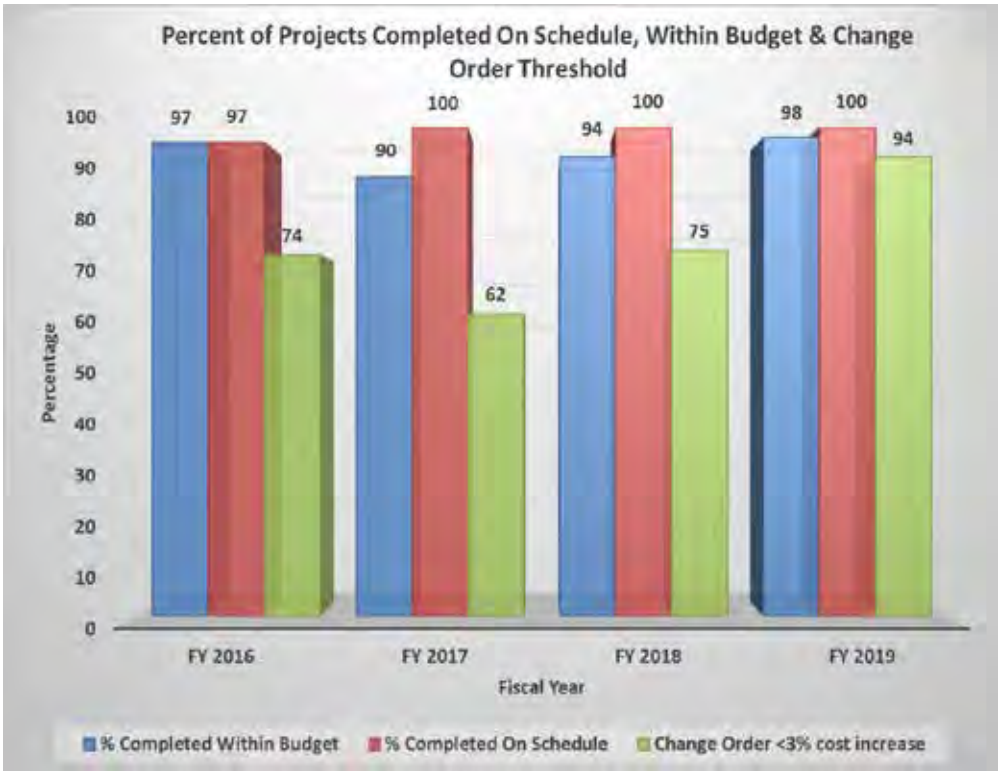
Champion:
Chief Construction Engineer

Support Divisions: All

Strategy Plan Support:
This Performance Measure works towards meeting the Department of Transportation Strategic Plan goals by delivering timely and beneficial construction projects. This measure helps to optimize safety for road users, cultivate environmental stewardship as well as efficiently maintaining and operating the transportation system.

Summary for Fiscal Year 2019

FY 2019	Number of Completed Contracts	Completed Contracts Within Budget	Completed Contracts Within Schedule	Completed Contracts with Change Orders Less than 3% cost increase
1st Quarter	4	100%	100%	100%
2nd Quarter	10	100%	100%	90%
3rd Quarter	3	100%	100%	100%
4th Quarter	22	91%	100%	86%
Yearly Average	39	98%	100%	94%



Evaluation of Performance Measure:

FY 2019 Budget Performance: Performance is based on contracts completed and closed out administratively and financially. The budget is the contract award amount plus contingencies as programmed by the Department. Contingencies are included in all contracts to account for potential quantity overruns and change orders. The budget performance is reported as the total amount paid compared to the budget.

FY 2019 Schedule Performance: Performance is based on the number of working days awarded to the contract in the original contract documents compared to the final number of working days assessed to the contract.

FY 2019 Change Order Performance: Performance is based on the comparison of change order values to the award amount not including contingencies. Contracts completed with change orders exceeding 3% of the award amount were reported.

Annual target status (Met/Did not meet)
The target Performance Measures for budget, schedule and change orders were met and/or exceeded. As stated above, the budget for all construction contracts includes contingencies. The contingencies are designed to account for variabilities in quantities and potential change orders encountered during construction. The contract quantities are estimated based on design calculations, however paid quantities are based on actual field installations. It is important to note that actual quantities paid can be higher or lower than estimated design quantities.

Per the "Nevada Department of Transportation Project Cost Estimation Guide", contingencies are set at 7% for contracts less than $3M, 5% for contracts between $3M and $25M and 3% for contracts greater than $25M. Therefore, contracts with change orders exceeding 3% will typically fall within budget while exceeding the Performance Measure for change orders.

Which "Strategies for improvement" were successful?
Performance for budget and change orders improved in the last fiscal year. Budget performance improved from 94% in FY 18 to 100% in FY 19 and change order performance improved from 75% in FY 18 to 94% in FY 19. The strategies for success, as identified in the FY 18 Annual Report include:

- Continued work with Design, Project Management and other Divisions to improve the quality of design plans and specifications with an increased emphasis on training and educating new NDOT employees on developing quality plans and specifications and calculating accurate quantities.
- Continued interactive role with the project development teams to identify potential conflicts or issues, and spending time in the field reviewing current conditions to minimize change orders during construction.
- Continued to serve as active participants in the Bid Review and Analysis Team to assist in evaluating contractor bids to identity potential plan, specification and quantity inconsistencies which may lead to change orders.

Which "Strategies for improvement" were not successful?
N/A

What "Strategies for improvement" will be implemented in 2020?
Short range and long-range strategies for the next reporting periods will not change from FY 18 and will consist of:

- Continued work with Design, Project Management and other Divisions to improve the quality of design plans and specifications with an increased emphasis on training and educating new NDOT employees on developing quality plans and specifications and calculating accurate quantities.
- Continued interactive role with the project development teams to identify potential conflicts or issues and spending time in the field reviewing current conditions to minimize change orders during construction.
- Continued to serve as active participants in the Bid Review and Analysis Team to assist in evaluating contractor bids to identity potential plan, specification and quantity inconsistencies which may lead to change orders.

Does this performance measure effectively measure what is desired?
Yes

Is there a better Performance Measure that should be considered?
No

Would meeting next year's target incur additional fiscal impact? If so, explain
No

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:

Road category 1:	95% Minimum fair or better condition
Road category 2:	95% Minimum fair or better condition
Road category 3:	95% Minimum fair or better condition
Road category 4:	95% Minimum fair or better condition
Road category 5:	95% Minimum fair or better condition

Strategy Plan Support:
This performance measure supports the Department's Strategic Plan to effectively preserve and maintain NDOT's pavement assets. For the Department to maintain the roadway network in fair or better condition, maintenance and rehabilitation work is performed on the roadways each year. To increase the percentage of pavements in fair or better condition, this work must be constructed on all roads beyond the rate of deterioration of the pavement.

The Department's Pavement Management System (PMS) is used to maintain and improve the condition of the entire state-maintained roadway network. This network consists of a 5,355 centerline-mile inventory that is classified into five separate road prioritization categories. Each road prioritization category consists of pavements that share similar rates of deterioration and require similar timing for maintenance and rehabilitation repair work. The pavement in each road prioritization category is objectively rated and quantified using the Present Serviceability Index (PSI) pavement condition rating system. This rating system is divided into six sections that correspond to pavement in very good, good, fair, mediocre, poor, and very poor or failed condition.

Various maintenance and rehabilitation repair strategies are constructed to improve pavement condition. Maintenance repair strategies include work such as chip seals, filling potholes, and patching. Rehabilitation repair strategies include work such as asphalt overlays and recycling methods. The cost and construction timing for the various repair strategies are significantly different and contingent on the pavement condition at the time of the repair. There is a significant cost savings when pavement is proactively rehabilitated in fair condition as compared to reactively reconstructed in very poor condition. Repair work costs as much as six times more for major reconstruction when pavement is in very poor or failed condition as compared to the less invasive rehabilitation techniques that can be used when pavement is in fair or better condition.

Measurement and Supporting Data:
Current Pavement Condition of the State-Maintained Road Network
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. However, when roads become rough, cracked, or rutted, more money must be spent to bring

them back to an 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 that have been established for the condition of the roads. For the 2018 data collection period, 5,171 miles of the total 5,355 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 Percentage (%) and Number of Miles					
		Road Category 1	Road Category 2	Road Category 3	Road Category 4	Road Category 5	Roadway Network Totals
Very Good	5.00 to 4.00	72.2% 381	41.0% 382	25.8% 309	6.4% 55	0.5% 8	**22.0%** **1,135**
Good	3.99 to 3.50	21.9% 116	32.7% 305	46.0% 552	29.8% 256	12.9% 213	**27.9%** **1,442**
Fair	3.49 to 3.00	4.3% 23	13.9% 129	22.4% 269	35.5% 305	26.3% 436	**22.5%** **1,161**
Mediocre	2.99 to 2.50	1.3% 7	6.7% 63	4.4% 53	20.4% 175	29.2% 483	**15.1%** **781**
Poor	2.49 to 2.00	0.2% 0.93	3.1% 29	0.8% 10	6.5% 56	16.6% 275	**7.2%** **371**
Very Poor	< 2.00	0.0% 0	2.5% 23	0.5% 6	1.4% 12	14.5% 239	**5.4%** **281**
Total Miles:		**527**	**931**	**1,199**	**858**	**1,655**	**5,171**
Condition Goal: ***Min. Percentage of Roads in Fair or Better Condition***		**95%**	**95%**	**95%**	**95%**	**95%**	**----**
Current Condition: ***Percentage of Roads in Fair or Better Condition***		**98.4%**	**87.7%**	**94.3%**	**71.7%**	**39.7%**	**----**
Does the current condition meet the condition goal?		**YES**	**NO**	**NO**	**NO**	**NO**	**----**

* 2018 PSI is calculated using 2018 IRI data on NHS routes, 2017 IRI data on STP routes and 2017 distress data

Pavement Preservation Repair Work for the State-Maintained Road Network

During fiscal year 2019, NDOT advertised approximately $202.1 million worth of contract maintenance and rehabilitation pavement repair work. These expenditures addressed the preservation needs for approximately 286 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 year 2019 along with the corresponding amount of mileage that was improved.

Table 2. Advertised Pavement Repair Work for Fiscal Year 2019

Fiscal Year	Contract Maintenance Repair Work Expenditure and Mileage	Contract Rehabilitation Repair Work Expenditure and Mileage	Total Contract Maintenance and Rehabilitation Repair Work Expenditure and Mileage
2019	$17,395,293	$184,709,714	$202,105,007
	183 Miles	103 Miles	286 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 at least 95% of the roads are above the red line. The backlog is calculated by multiplying the percentage of miles beyond 5% that are below the red line by the estimated cost of rehabilitating those roads. The total backlog cost based on 2018 condition is shown in Table 3.

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

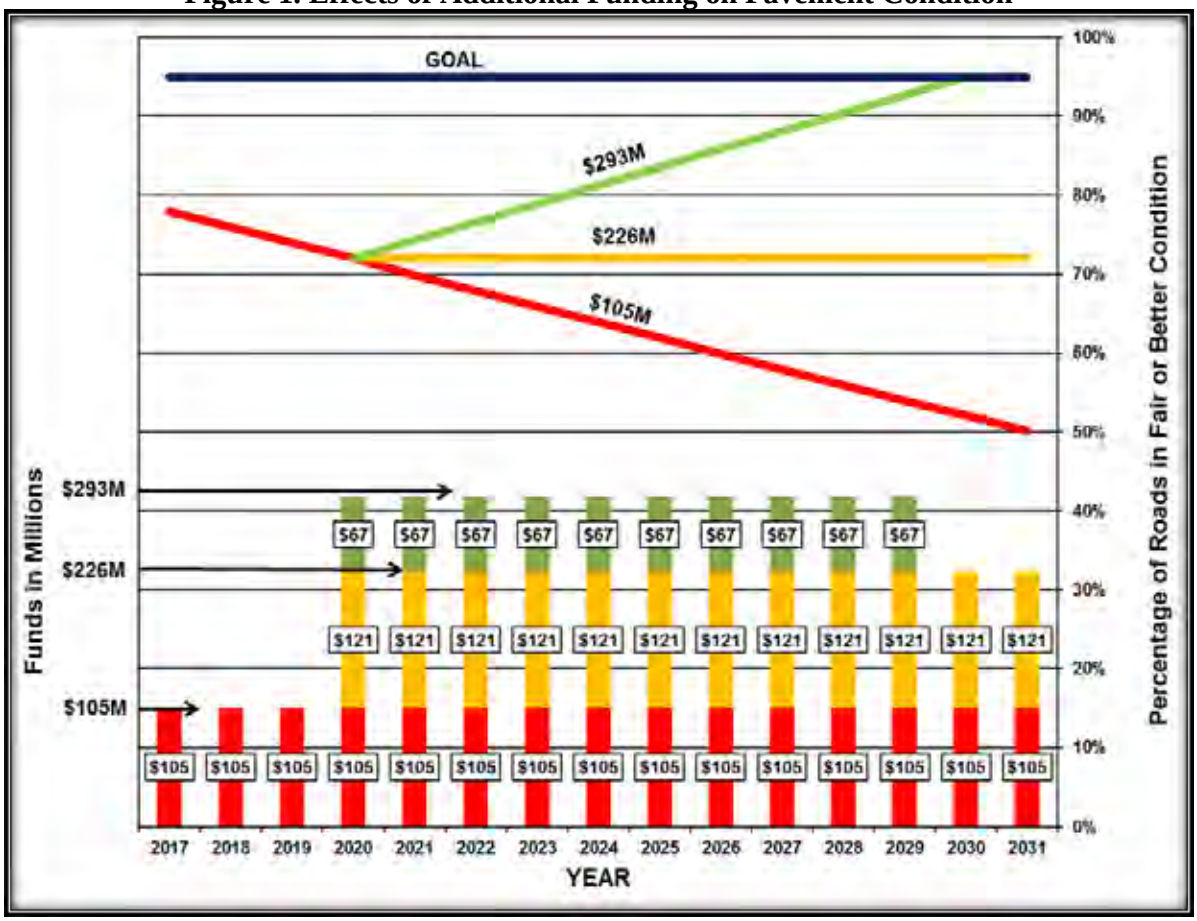
Road Prioritization Category	1	2	3	4	5
Deficient Pavement in Miles	0	68.0	8.4	199.9	915.2
Estimated Cost to Rehabilitate Pavement Per Mile	$2.1M	$1.3M	$0.7M	$0.6M	$0.5M
Total Cost to Rehabilitate Pavement Per Road Category	$0M	$88.4M	$5.88M	$119.94M	$457.6M
Total Backlog of Pavement Rehabilitation Work	**$671.82M**				

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, despite an average $105 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 72% of the state-owned roadway network is in fair or better condition. It has been estimated that an additional $121 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 $671 million, divided across ten years, would need to be spent to eliminate the backlog, for a total of $293 million as 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 $121 million and $67 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

The state-maintained roadway network consists of 5,355 centerline miles of roads. So that the network may be more easily managed, it is classified into five separate road prioritization categories. These road 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 similar timing for maintenance and rehabilitation repair 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 Category	[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	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.

NDOT uses a pavement condition rating system called the Present Serviceability Index (PSI) to objectively measure important roadway attributes such as travelers' responses to motion and appearance as demonstrated by a smooth riding surface that is without cracking, rutting, patching, or potholes.

The PSI pavement condition rating system uses a value that is 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. Pavement rated from four to five is interpreted as pavement in new or very good condition with a smooth surface that is without distress or irregularities. Pavement rated less than two is interpreted as pavement in very poor or failed condition with the roughest of surface conditions and no longer navigable at the posted speed limit. The PSI pavement condition rating system is used to quantify the pavement condition for each road 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. PSI Rating System and Corresponding Pavement Condition

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:

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

Long Range:

- Assist in the effort to distribute limited funding in the most appropriate manner, addressing the targets for all performance measures.
- 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.
- 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 category 1, but not for categories 2, 3, 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 category 1 meeting the targets for pavement condition. This is important due to the amount of traffic and the cost to rehabilitate those roads. More category 2, 3, 4, and 5 roads will 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 2020?
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 traveling 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 underfunding 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 – they also impact the traveling 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:
(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 lifespan 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

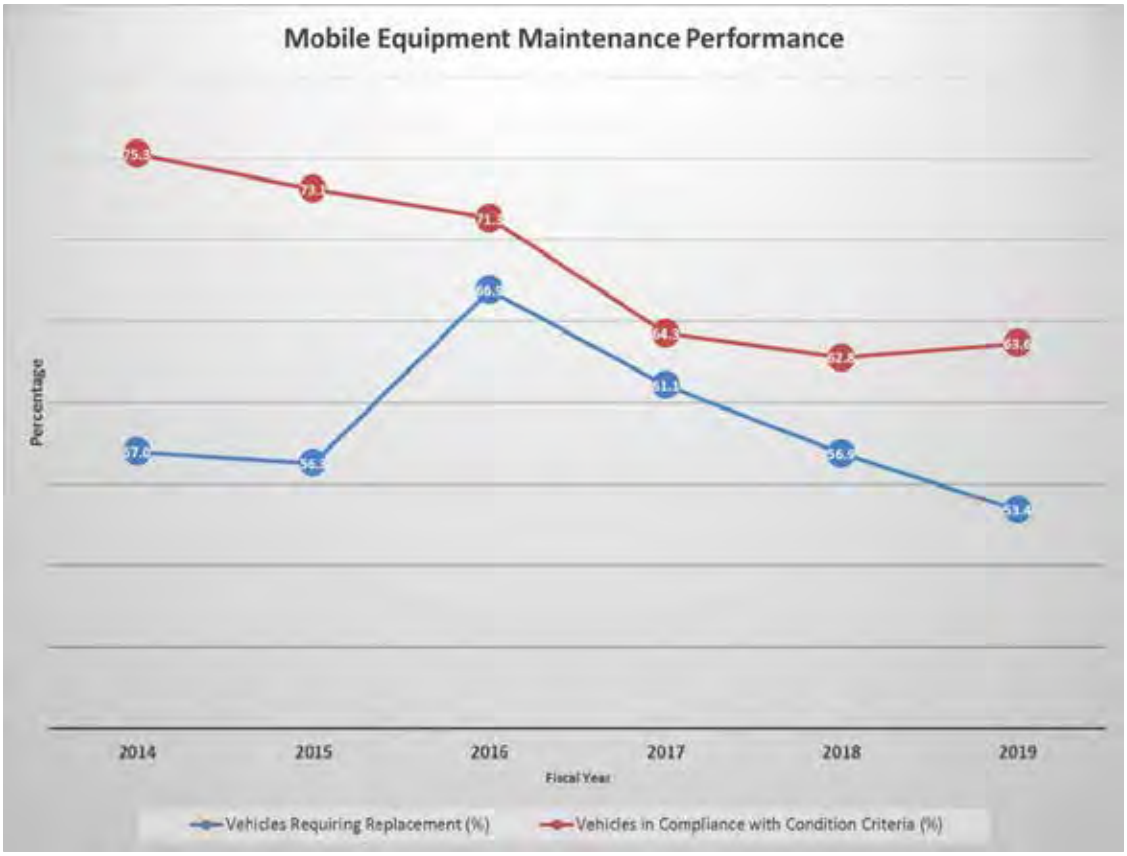
Ultimate Target:

1) 10%
2) 95% rate of compliance for mileage/hourly requirements

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 %	+8.54 %
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%	+14.98%
FY 2015	56.29%	73.11%	+17.64%	+12.81%
FY 2016	66.91%	71.31%	+28.26%	+11.01%
FY 2017	61.07%	64.26%	+22.42%	+3.96%
FY 2018	56.86%	66.50%	+18.21%	+6.2%
FY 2019*	53.41%	63.63%	-3.45%	-2.87%

Year	Vehicles Requiring Replacement (%)	Vehicles in Compliance with Condition Criteria (%)	Change from 2007		Annual % Change	
					1% decrease	1% increase
2013	44.0	73.4	44.00	73.41	-8.9	3.6
2014	57.0	75.3	56.99	75.28	13.0	1.9
2015	56.3	73.1	56.29	73.11	-0.7	-2.2
2016	66.9	71.3	66.91	71.31	10.6	-1.8
2017	61.1	64.3	61.07	64.26	-5.8	-7.1
2018	56.86	62.77	56.86	62.77	-4.2	-1.5
2019	53.41	63.63	53.41	63.63	-3.5	0.9



Strategy Plan Support

A simpler method was applied in FY 2019. This allows for a more accurate account of Replacement Criteria and Condition Criteria measures.

In Fiscal Year 2019 the Equipment Division returned to purchasing new replacement equipment because funds continue to be available. The Rebuild Program will be continued on a limited basis for specialty equipment.

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 Mission, Vision, Core Values, and Goals to: provide, operate, and preserve a transportation system that enhance safety, quality of life and economic development through innovation, environmental stewardship and a dedicated workforce. The goal is safety first, cultivate environmental stewardship, efficiently operate and maintain the transportation system in Nevada, promote internal and external customer service, and enhance organizational and workforce development.

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. The High Utilization Target Point was changed from 75% to 125% in the Equipment Division Policy & Procedure, 709 – Fleet on August 16, 2016. This allows for greater span of utilization between the low spectrum and high spectrum for all rolling stock.
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. Maintain fleet size by usage assessments.
   b. Minimize retention of replaced vehicles.
2) a. Perform annual fleet condition audit.

Evaluation of Performance Measure

Was the annual target met?

Yes for the replacement criterion, and no for the Compliance condition measure

Which "Strategies for improvement" were successful?

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

Which "Strategies for improvement" were not successful and why?

Develop enforceable policy for non-compliance of PM standards

What new "strategies for improvement" will be initiated in FY 2020?

Short range to next reporting:

Improve notification process for timely preventive maintenance by including ADE's and Maintenance Managers during the PM scheduling

Long range:

Maintain fleet size through utilization assessments

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 – Meeting the targets will help extend the life of the vehicles 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 completion of facility assessments, and priority facilities work.

Annual Target: Increase by 2%

Ultimate Target: 100%

Champion:
Chief Maintenance Engineer

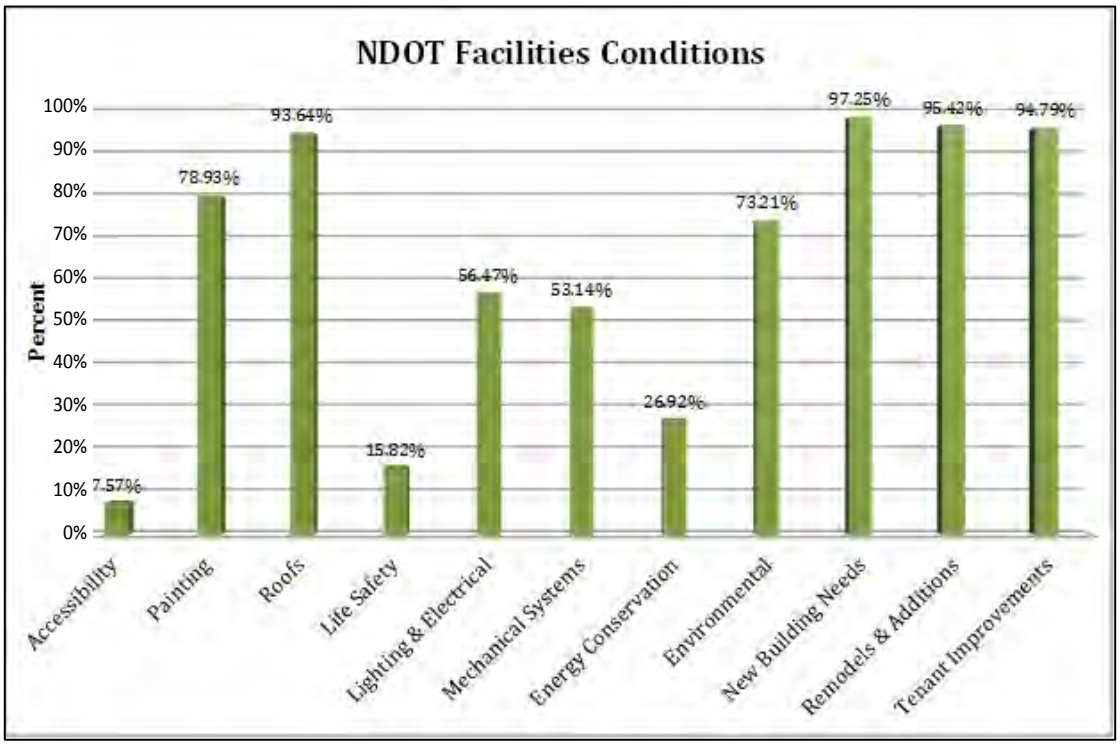
Support Divisions:
Districts, Administrative Services

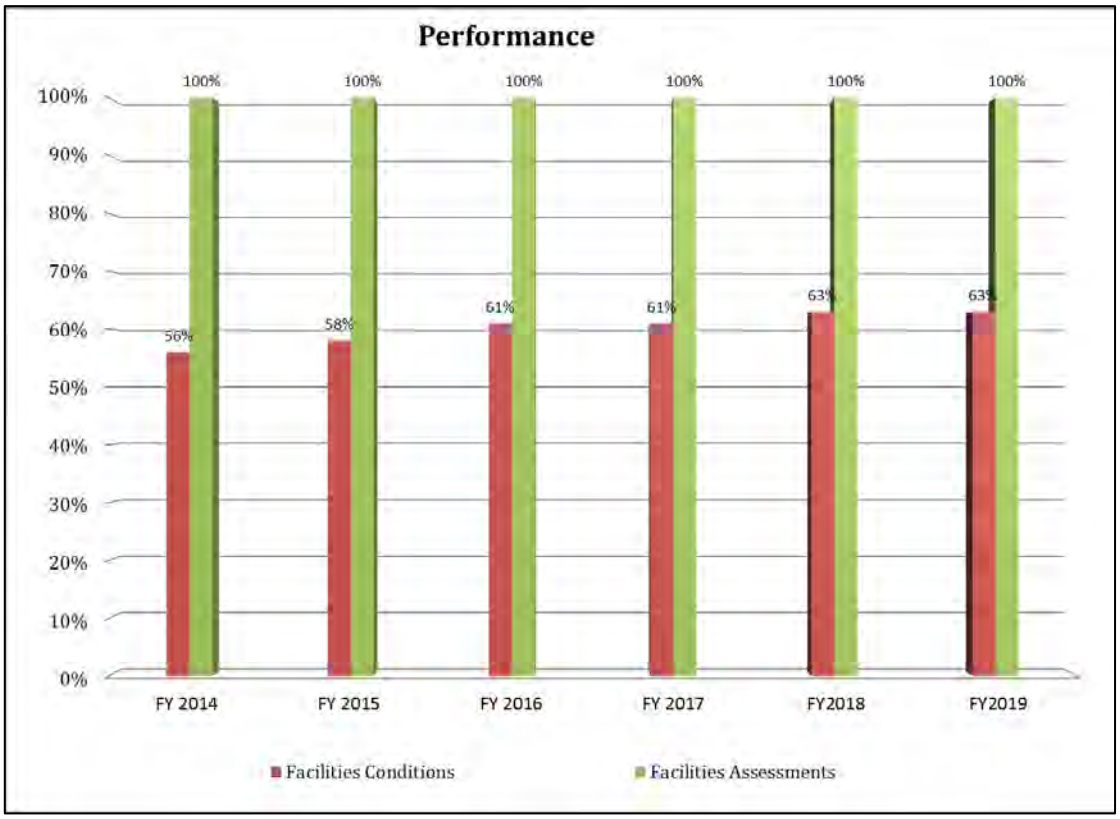
Strategy Plan Support:
Facility Condition Analysis (FCA) reports ensure NDOT buildings comply with building and safety codes and are safe and properly maintained. Each Department owned and maintained facility is evaluated on a seven-year cycle. Completion of the priority work items will return the facility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

This performance measure works towards meeting the Department of Transportation strategic plan goals to put safety first, cultivate environmental stewardship, efficiently operate and maintain the transportation system in Nevada, promote internal and external customer service, and enhance organizational and workplace development.

Measurement and Supporting Data:

SFY 2014	56%
SFY 2015	58%
SFY 2016	61%
SFY 2017	61%
SFY 2018	63%
SFY 2019	65%


NDOT Facilities Conditions
Percent
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
7.57%
78.93%
93.64%
15.82%
56.47%
53.14%
26.92%
73.21%
97.25%
95.42%
94.79%
Accessibility
Painting
Roofs
Life Safety
Lighting & Electrical
Mechanical Systems
Energy Conservation
Environmental
New Building Needs
Remodels & Additions
Tenant Improvements


Performance
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
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100%
100%
56%
58%
61%
61%
63%
63%
FY 2014
FY 2015
FY 2016
FY 2017
FY2018
FY2019
Facilities Conditions
Facilities Assessments

Strategies for Improvement:
Short range to next reporting:
Continue working on the FY2020-2021 Architectural Work Program approved by the Legislature. The Department's budget request includes the Architecture work program that lists individual projects and programs (i.e. statewide furniture and statewide painting) as line items that are requested for the biennium.

Incorporate the findings of the FY2020 Facility Condition Analysis Report into the Facility Condition Assessment Spreadsheet and develop new criteria for scoring. The Facility Condition Analysis report (FCA) to be completed in FY2020 is significantly expanded over the scope of previous FCA's. The expanded scope will provide a substantial amount of data that has not previously been reported, and, will also provide data in a much more useable format. This will assist with creation of more targeted work programs that will provide the improvements needed most by the various NDOT divisions.

Long range:
Develop a long-range work plan for existing building repairs, upgrades and replacements and new facilities based on the FY2020 Facility Condition Analysis Report and additional space and facility needs.

Develop a statewide roofing program. Roofs around the state are failing rapidly. Investment in the condition of these roofs is critical. The current goal is to have this program started and ready for funding request in the next two legislative sessions.

Revival of targeted statewide programs, as mentioned above, is important to the ability of Architecture to proactively plan for projects and be more responsive to NDOT needs. Presently, the work program is almost entirely reactive, rather than planned. Various program needs (i.e.deferred maintenance needs, stormwater improvement needs, electric vehicle service station, etc) will be prioritized and programmed. Creation of programs will include long-term prioritized projects, standard details and specifications, codified procedures and dedicated funding streams.

Architecture plans to establish compliance thresholds for the categories of accessibility, life safety, and energy conservation for the calculation of the score of this performance measure (PM10). Currently, these categories are binary, which can yield misleading compliance numbers. For example, a building which is substantially compliant with respect to accessibility but has only one or a few minor accessibility violations are recorded as not compliant in the spreadsheet. If NDOT were to instead add a compliance threshold, then it is believed the data from the accessibility category would represent accessibility compliance much more accurately.

Evaluation of Performance Measure

Was the annual target met?
Yes, the annual target was met in fiscal year 2019.

The following projects have been completed since the previous report:
1. Exterior improvements to Orovada and Quinn River residences
2. Reconfigure Roop Survey Services and Appraisal Review sections
3. Reconfigure 101, 101A, and 102
4. Renovate the old Flight Operations office in the East Annex Building for new hires
5. Connect an emergency generator to select circuits in the shop
6. Repair generator at the Las Vegas South Maintenance Station
7. C-cure system and gate repairs at various locations
8. Replace exterior lighting at Southern Nevada Visitors' Center

9. Elko fuel station replacement
10. Phase II of damaged Sprung repairs at Kingsbury and Comanche
11. Replacement of fuel stations at Alamo, Mina, Virginia City, and Winnemucca
12. Exterior envelope improvements to the residences at Orovada maintenance station
13. Remodel Carson City asphalt lab
14. Installation of A/V wall in room 109 (new training room) at Hot Springs
15. Installation of salt/sand Sprung structure at Alamo maintenance station
16. Installation of electric vehicle service station at Veterans' Memorial Park in Hawthorne
17. Reconfigure Lou Holland's work station
18. Installation of drain vault at Carson Headquarters near basement stockroom
19. Reconfigure Traffic Information in East Annex Building
20. Replace all locks on NMS campus
21. Upgrade electrical service at C920 field lab
22. Repair vehicle impact damage to well shack at Amargosa Valley rest area
23. Furniture reconfiguration in Carson Headquarters Room 113
24. Replace chiller at Las Vegas materials lab
25. Furniture for various Equipment Division offices
26. Reconfiguration in Hot Springs Maintenance and Asset Management division
27. Installation of trench drain at truck bays to prevent flooding in Hot Springs warehouse
28. Lighting for Sunnyside rest area
29. Draft CIR for long-range plan at Hot Springs
30. Complete Mt. Charleston electrical upgrade
31. Lighting upgrade at Schellbourne rest area

Which 'Strategies for Improvement' were successful?
A written annual work program that lists the active projects for each PM has been very helpful. This work program has directed the efforts of the project managers more as a team, rather than a collection of individuals. The annual work program has also been successful in holding project managers accountable for the projects on which they are expected to be working.

Collaboration with Financial Management and Accounting to pay permit fees without need for an interlocal agreement was successful.

Which 'Strategies for Improvement' were not successful?
The implementation of a new informal consultant selection process for consultant services that do not exceed $250,000 (NAC 341.11) has been unsuccessful. The current competitive consultant selection process increases consultant costs, limits competitiveness among consulting firms, and significantly slows project delivery for projects with an estimated cost for those services of under $250,000.

What new "strategies for improvement" will be initiated in FY 2019?

Short range to next reporting:
Incorporate data from the building assessments into the PM #10. Identify meaningful elements that can be tracked to show improvement or lack of improvement. See "Strategies for Improvement" section above.

Long range:
See "Strategies for Improvement" section above.

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.
No

11. EMERGENCY MANAGEMENT, SECURITY AND CONTINUITY OF OPERATIONS

Performance Measure:
This Performance Measure involves tracking the percentage of emergency plans that have been completed; training and education that has been provided to appropriate personnel; and emergency plans that have been tested, exercised and updated to accommodate changes in departmental processes; and policies and to reflect any changes to Federal and State guidelines.

Training and updates are to be completed within a 4-year period. The Performance Measure 11 plans include:

- Nevada Department of Transportation (NDOT) Emergency Operations Plan
- NDOT Physical Security Plan

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

Champion: Assistant Director Operations

Support Divisions: All

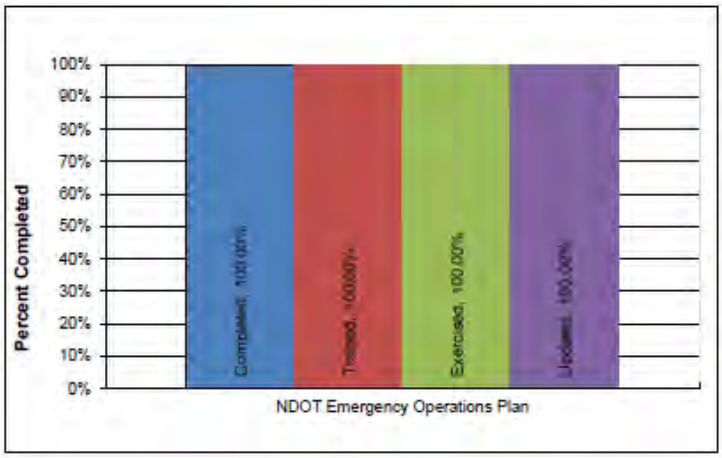
Strategy Plan Support:
NDOT's emergency plans provide clear guidance on how NDOT will continue to perform critical functions and operations in the event of an emergency or disaster. Being prepared and ready for an emergency is paramount to keeping systems operating during such times, as well as being in a position to respond to health and safety issues. Completing the Performance Measure 11 tasks helps NDOT meet our Strategic Plan goals to:

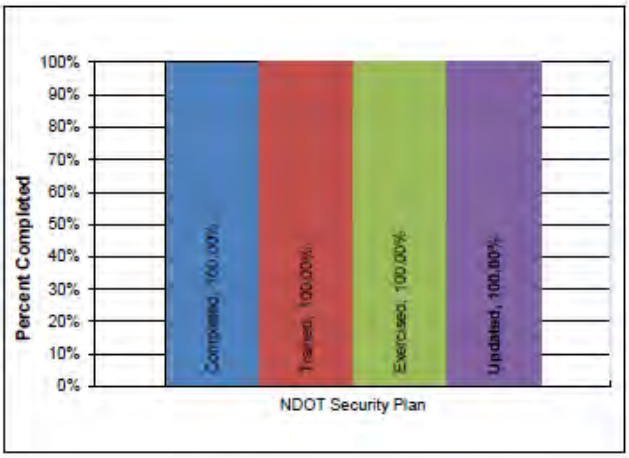
- Safety First
- Cultivate environmental stewardship
- Efficiently operate and maintain the transportation system in Nevada
- Promote internal and external customer service
- Enhance organizational and workforce development

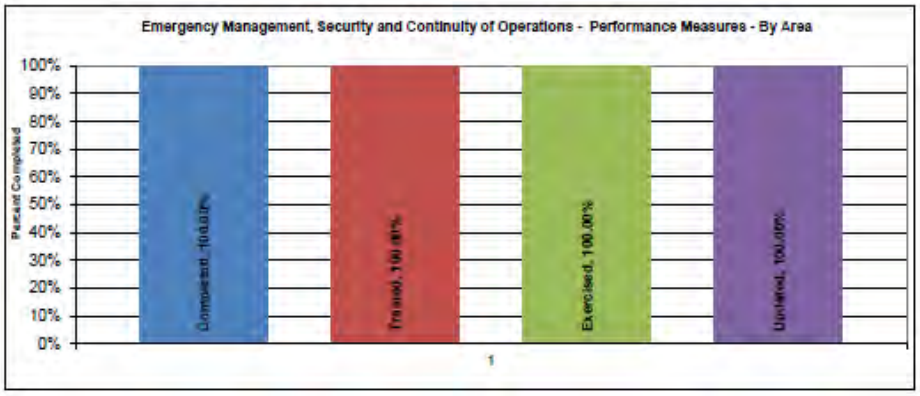
Measurement and Supporting Data:

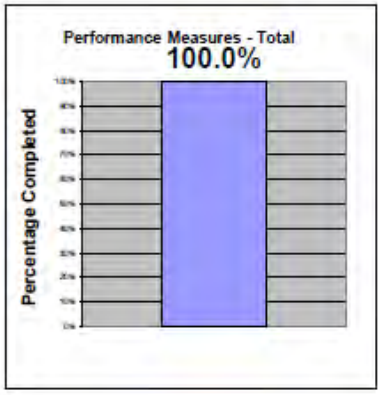
FY 2019
7/1/2018 through 6/30/2019

	Were PM requirements met by providing **Training** within last **4 Years**	Date of Last Training	Were PM requirements met by providing **Exercises** within last **4 Years**	Date of Last Exercise	Were PM requirements met by **Updating Plans** within last **4 Years**	Date of Last Update
NDOT Emergency Operations Plan (EOP)	Y	03/20/2019	Y	11/15/2016	Y	11/08/2016
NDOT Physical Security Plan (PSP)	Y	06/20/2018	Y	07/15/2015	Y	11/20/2016









Current FY Performance:
FY2019 – 100%

Evaluation of Performance Measure
Training:
During FY 2019, the NDOT Emergency Management section attended various training relating to the ability of NDOT staff to fulfill the duties assigned in the NDOT Emergency Operations Plan during emergencies.

Additionally, the Emergency Management Section began planning for quarterly emergency management training and exercises for NDOT District and Headquarters (HQ) personnel, which will begin in 2020.

Exercises:
During FY 2019, NDOT personnel attended various exercises where skills necessary for successfully fulfilling the tasks assigned in the NDOT Emergency Operations Plan were tested and improved.

A schedule of District and HQ tabletop exercises is being developed for FY 2020 to test the NDOT Emergency Operations Plan and the NDOT Physical Security Plan.

Plan Updates:
The following plans/procedures received updates during this fiscal year:

Updates to the NDOT's Department Operations Center (DOC) contact list is an important part of updating the NDOT Emergency Operations Plan. Updates have been incorporated into the NDOT Emergency Operations Plan on a continual basis as notifications have been received of changes in personnel. This fiscal year there have also been multiple updates to the essential functions and contact information for the COOP.

Guidance for documentation of emergency work will also be added to the NDOT Emergency Operations Plans.

Input from exercises over fiscal year 2020 will be used to format the NDOT Emergency Operations Plan such that the District maintenance crews and HQ personnel will find it a more useful tool in emergency management. The updated State Comprehensive Emergency Management Plan (SCEMP) has been issued and any changes to the SCEMP will be incorporated into the NDOT Emergency Operations Plan as well. The fully updated NDOT Emergency Operations Plan will be completed on schedule in 2020.

Annual target status (Met/Did not meet)
The annual target of 100% has been met.

Which "Strategies for improvement" were successful?
Conducting exercises successfully tests and trains NDOT personnel on disaster/security response activities. It also provides valuable feedback needed to update NDOT plans and procedures. Regular exercises will remain a fundamental part of this section's strategy. Training is also being supplied to the Districts at an accelerated pace based on their requests and feedback received from previous exercises.

Which "Strategies for improvement" were not successful?
None

What "Strategies for improvement" will be implemented in 2020?
Short range strategy:
The Emergency Management Section will continue preparatory work for the NDOT Emergency Operations Plan update. Preparatory work includes reviewing the SCEMP and hosting tabletop exercises with Division and HQ personnel. The Emergency Management Section will also continue working to streamline the updates to the emergency contact list in the NDOT Emergency Operations Plan. The chart below outlines the proposed schedule for maintaining compliance with this performance measure.

Emergency Operations Plan Compliance Projection for Fiscal Year 2020

	Training	Exercises	Updates
Q1 Jul 19 - Sep 19	Maint. Supervisors Training	None	Contact List Update
Q2 Oct 19 - Dec 19	District 2 Training	District 2 Tabletop Exercise	Contact List Update
Q3 Jan 20 - Mar 20	District 1 Training	District 1 Tabletop Exercise	Full Emergency Operations Plan Update
Q4 Apr 20 - Jun 20	District 3 Training	District 3 Tabletop Exercise	Contact List Update

The Emergency Management Section will continue preparatory work for updating the NDOT Physical Security Plan. The Emergency Management Section plans to work internally with management to establish a 2021 due date for the Physical Security Plan such that the NDOT Emergency Operations Plan update can be completed in 2020 and the NDOT Physical Security Plan update can be completed in 2021. The NDOT security audit will be completed next quarter. Pertinent security issues raised in the security audit report will be incorporated into the Physical Security Plan. The chart below outlines the proposed schedule for maintaining compliance with this performance measure.

Physical Security Plan Compliance Projection for Fiscal Year 2020

	Training	Exercises	Updates
Q1 Jul 19 - Sep 19	None	None	None
Q2 Oct 19 - Dec 19	District 2 Training	District 2 Tabletop Exercise	None
Q3 Jan 20 - Mar 20	District 1 Training	District 1 Tabletop Exercise	Critical Infrastructure List Update
Q4 Apr 20 - Jun 20	District 3 Training	District 3 Tabletop Exercise	None

Long range strategy:
The Emergency Management Section plans to provide quarterly training each year and to continue working with District and HQ personnel to enhance the NDOT Emergency Operations Plan and the NDOT Physical Security Plan over time. Using input from the people who use the plans will improve the plans.

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

Is there a better performance measure that should be considered?
No, this section has performed this function for many years and the current measurement system is working.

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

12. REDUCE FATAL & SERIOUS INJURY CRASHES

Performance Measures:
Number of fatalities, fatality rate, number of serious injuries, serious injury rate, and the number of non-motorized fatalities and serious injuries on Nevada's streets and highways.

Annual Target - 2018:
The methodology used to calculate safety performance measures for 2018 reflected the upward trend on most of the safety performance measures. For each performance measure the trend for the last four or five years of data was evaluated, and the more statistically significant trend was used to project forward to the end of 2018. Recognizing that before we can start reducing the number of annual fatalities, that number will first hit an upward plateau. As such, we have set the 2018 target to be one less than the projected number for the five-year moving average projected for 2018. After this target is reached the downward trend will continue towards the goal of zero.

Ultimate Target: Zero

Measurement and Supporting Data:
These measurements are in line with the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (HTSA) reporting requirements. The evaluation of performance for 2018 includes preliminary crash data for 2018.

The State of Nevada has experienced an increase in fatalities on the state roadways since 2012. These yearly increases have impacted the five-year rolling average as well.

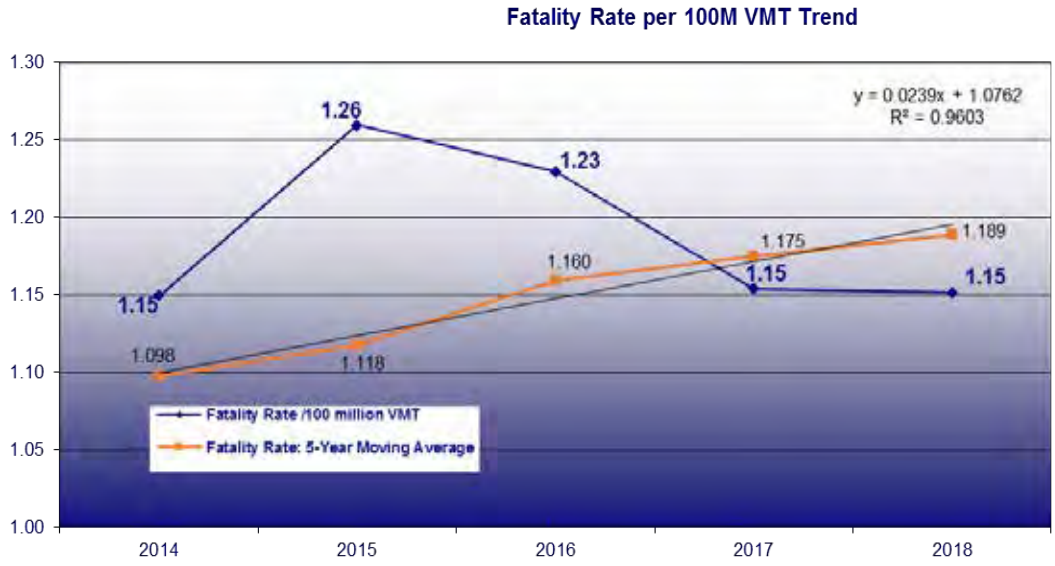
Measure 1: Number of traffic fatalities
As compared to the baseline 2011 to 2015 five-year moving average of 278 traffic fatalities, decrease the upward trend to a five-year moving average of **333**, which is less than the projected 334 fatalities by December 31, 2018.
Performance Met: 2014 to 2018 five-year moving average of **316.8** fatalities.

Measure 2: Number of serious traffic injuries
As compared to the baseline 2011-2015 five-year moving average of 1,211 serious injuries, decrease the upward trend to a five-year moving average of **1,304**, which is less than the projected 1,305 serious injuries by December 31, 2018.

Performance Met: 2014 to 2018 five-year moving average of **1,193.4** serious injuries.

Measure 3: Number of fatalities per 100M Vehicle Miles Traveled (VMT)
As compared to the baseline 2011-2015 five-year moving average of 1.12 fatalities per 100M VMT, decrease the upward trend to a five-year moving average of **1.25**, which is less than the projected 1.26 fatality rate by December 31, 2018.

Performance Met: 2014 to 2018 five-year moving average rate of **1.188** fatalities per 100M VMT.



Measure 4: Number of serious injuries per 100M Vehicle Miles Traveled (VMT)
Decrease the 2011-2015 five-year moving average of 5.08 serious injuries per 100M VMT to 4.890 by December 31, 2018.

Performance Met: 2014 to 2018 five-year moving average of 4.477 serious injuries per 100M VMT.

Measure 5: Number of Non-Motorized Fatalities and Serious Injuries
As compared to the baseline 2011-2015 five-year moving average of 261 non-motorized fatalities and serious injuries, decrease the upward trend to a five-year moving average of 300.0 non-motorized fatalities and serious injuries, which is less than the projected 301 fatalities by December 31, 2018.

Performance Met: 2014 to 2018 five-year moving average of 288.8 non-motorized fatalities and serious injuries.

Performance Measure Summary
All five performance measures for 2018 were met.

Strategies for Improvement
Short range to next reporting:

- Update the Nevada Strategic Highway Safety Plan (SHSP), a data-driven, multi-year comprehensive plan that identifies and analyzes highway safety problems and opportunities on all public roads in cooperation with public and private sector stakeholders.
- Continue to hold an annual Safety Summit, bringing together stakeholders and the public to discuss traffic safety goals, strategies, data, and messaging.
- Continue the Road Safety Assessment (RSA) program by completing the mitigations database, and tracking tool associated with the RSA program.
- Continue to invest Nevada's federal safety funds on strategies identified in the SHSP
  - Implement cost effective improvements to keep vehicles in their lane
  - Analyze crash data to locate high crash locations at intersections and along corridors
  - Expand the systemic safety program to include
    - Retro-reflective backplates on traffic signal heads, shoulder widening and slope flattening, truck climbing and passing lanes, turn pockets on state routes with posted speeds over 55MPH
  - Develop Safety Management Plans which are corridor safety studies that focus on the safety of all users. It incorporates access management techniques, public and stakeholder input, crash analysis, roadway engineering, as well as the applications of the Highway Safety Manual (HSM) methods to reduce crashes
  - Implement geometric intersection improvements
- Consider roundabouts, compact roundabouts, and redesign of sweeping free right-hand turn lanes when improving intersections.
- Continue cooperation and coordination with the Office of Traffic Safety in their efforts with public education programs, and the "Joining Forces" campaign with law enforcement to increase safety awareness of the public
- Continue the Safety Capacity Building initiative to grow the safety discipline throughout Nevada by
  - Developing stronger ties to the state's universities, and
  - Publicizing and encouraging the use of the Highway Safety Manual by transportation safety professionals throughout the state
- Continue to implement the states Railway-Highway Crossing program by:
  - Identifying existing asphalt, timber, and dirt crossing surfaces and prioritizing a list of projects
  - Identifying existing passive crossings for potential improvements to active crossings.
  - Analyzing the newly developed hazard index
  - Continuing to work with Cities, Counties, Railroad Companies, State and Federal Agencies to ensure all crossings have the correct signage and markings
- Continue to participate in the Traffic Incident Management Program.

Long Range:

- Introduce new safety mitigations to Nevada for assessment and adoption into policy
- Ensure vulnerable road users are considered in the identification and design of projects.

- Participate in the expansion of the Traffic Incident Management program to efficiently manage traffic crashes
- Develop quantitative measures to better identify and prioritize safety needs and projects that can be used in the long range planning process
- Develop a State Action Plan as required by the FAST Act

The NDOT Traffic Safety Engineering Division, in coordination with the Office of Traffic Safety of the Nevada Department of Public Safety, adopted a new methodology for setting targets and calculating the metrics for safety performance measures. The target for the five-year rolling period ending 2018 was set based on projection using trend analyses from baseline data.

Which "strategies for improvement" were successful?
NDOT has been targeting run-off-the-road crashes and found success in coordinating safety improvements with NDOT roadway projects by, (a) initiating a rural roadway curve enhancement program, (b) identifying slope flattening locations for future projects, and (c) identifying safety improvements in the planning process through NDOT's Road Safety Assessment program. 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 also underway in northern Nevada. Safety messages are now coordinated statewide through the SHSP Communications Liaison Safety partners. The state has a "messaging calendar" so each partner is speaking about the same issues at the same time thereby amplifying the message.

Which "strategies for improvement" were not successful and why?
While trying to address potential safety issues, not just historical ones, the Traffic Safety Engineering Division developed measures for prioritizing pedestrian safety improvements. These measures were overly complicated and difficult to understand, which led to confusion about how the NDOT chose certain locations over others. The NDOT is revisiting this process to simplify and use a combination of past crash data with information such as land use and predictive information on impact of treatment types.

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.
No

Performance Measures	CY 2019 Targets	CY 2020 Targets
1	319.2	330.6
2	1,186.4	1,088.6
3	1.209	1.214
4	4.97	4.06
5	299.1	294.7

*Achievement of these targets will be reported in the following year's Performance Management Report

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 the projects advertised by the Department. This includes all contracts administered through electronic bidding. Capital improvement projects completed by the Architecture Division were excluded from this performance measure as they are developed through a separate process from typical transportation projects.

The list of scheduled projects was established at the beginning of 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.

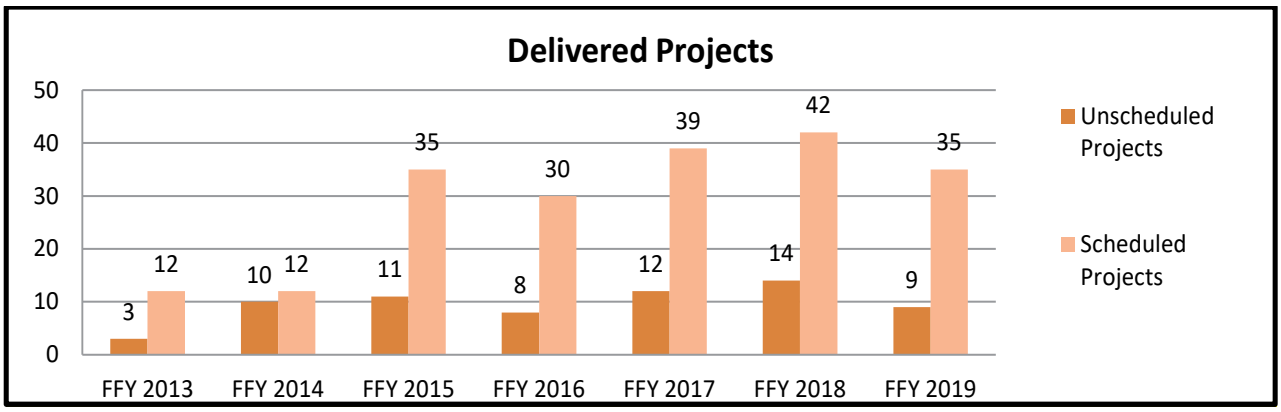
Annual Target: 80% **Ultimate Target:** 80%

Strategy Plan Support:
This performance measure works towards meeting the Department of Transportation Strategic Plan goals of putting safety first and efficiently operating and maintaining the transportation system in Nevada. The Department can better optimize project resources by providing timely project delivery and effectively planning project costs.

Project Delivery Data:
At the beginning of the reporting period, 60 projects were planned/scheduled for delivery, of which 35 were delivered.

Over the course of the reporting period a total of 44 (planned & not planned) projects were delivered.

- 35 were planned
- 9 were not planned



Project Estimate Data:
Over the course of the reporting period, 35 delivered projects out of the 60* planned projects were measured for performance within the established construction cost estimate range between the October estimate and the award costs, of which:

- 13 project award costs were within the +/- 15% range
- 19 project award costs were **not** within the +/- 15% range
- 3 projects award cost had not been determined at time of reporting

*The 9 non-planned projects were excluded from this delivery total because they did not have an October estimate to compare against.

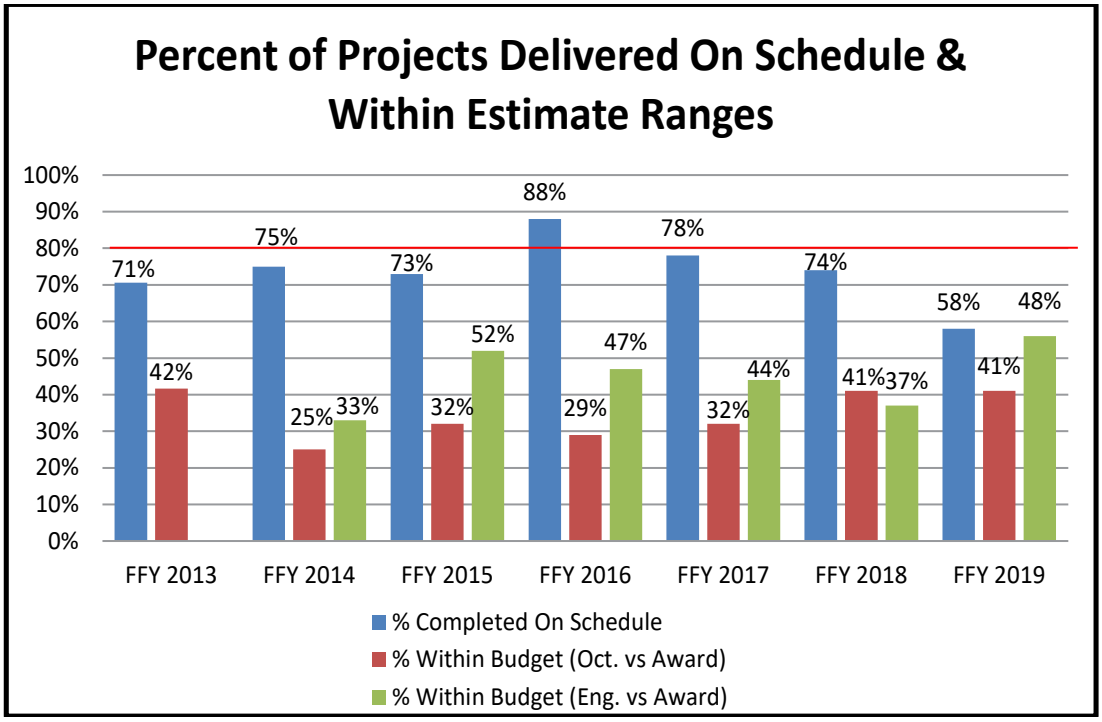
Over the course of the reporting period, 40 projects out of the 44 total projects delivered, were measured for performance within the established construction cost estimate range between engineer's estimate at the time of bid and the award costs, of which:

- 19 project award costs were within the +/- 10% range
- 21 project award costs were **not** within the +/- 10% range
- 4 project award costs had not been determined at time of reporting

Measurement and Supporting Data:
The established baseline list of scheduled projects included 60 projects. Of the 60 scheduled/planned projects, 35 (58%) were delivered/advertised within the reporting year.

Of the 35 projects that were scheduled and delivered for this reporting year, 32 have been awarded or had an apparent low bid at the time of reporting where 13 (41%) of the project's award costs fell within +/- 15% of the October baseline cost estimate and 18 (56%) of the project's award costs fell within +/- 10% of the engineer's estimate at time of bid.

Of the 40 total delivered projects, which includes the non-planned projects, then 19 (48%) 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 80% of scheduled projects was not met this year with a performance of 58%.

The awarded construction cost estimate target of 80% of delivered projects within +/- 15% of the October cost estimate was not met this year with a performance of 41%.

The awarded construction cost estimate target of 80% of delivered projects within +/- 10% of the engineer's estimate at bid was not met this year with a performance of 48%.

The projects that didn't reach the performance metric for delivery were delayed for multiple reasons such as scope changes/additions, unforeseen delays due to lengthy processes from outside agencies (R/W, Environmental, Railroad, Utilities), and Department resource priorities.

The construction cost estimates that didn't reach the performance metric did not show a consistent resulting trend with the awarded construction cost estimates coming in both above and below the engineer's estimate at bid. The average of these construction cost estimates (above and below) do fall within 10% of the awarded construction cost estimates, ultimately providing a reliable yearly estimate; however not the specific performance measure reported on.

What new "Strategies for Improvement" will be initiated in 2020?
In federal fiscal year (FFY) 2018 we successfully met our increased annual delivery goal of 75% and increased our goal to 80% to align with our ultimate target. Since we did not reach our target this year, we must look at new strategies to increase our % of planned projects delivered within the federal fiscal year and to successfully meet our goal of 80%.

Short range for next reporting period:

- Document reporting criteria and establish clear definitions for the criteria
    - Document if cost estimates are risk based
- At the October baseline list development, further document project scope elements, project unknowns and other risks that affect the cost estimate
- Coordinate with all impacted divisions to establish the list of projects to be measured early
- Working with impacted divisions on establishing the 5-year plan
    - Identify projects earlier
    - Prioritize projects for resource management
    - Prioritize projects to meet funding levels
- Monitor project progress through monthly status meetings to identify and address risks to schedule
- 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
- Revise preservation scoping process to include multi-discipline scoping to better define scope, cost & risk

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 earlier 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 delivery issues are, however. Project status documentation during the tracking of the performance data should assist with better identifying where there are issues in the process. The Department can then 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 for project delivery but there are some adjustments to the data tracking that can be made to add value to the performance measure. More detailed documentation on the cause for delivery delays such as unforeseen changes to projects, changes in priorities, mandates, funding impacts, and specific project development issues will help us better identify where improvements need to be made.

For a more even comparison between the October baseline and awarded estimate, last year we implemented a new tracking process where we report on the intermediate design submittal cost estimate for the October baseline projects rather than report on the project's estimate varying at design stages. This allows the department to make a more even comparison for cost estimates and further allows us to identify early cost estimating issues.

Adding the engineer's estimate at the time of bid as a comparison criterion has given us a more consistent measure of our cost estimating at the end of the project development process.

The FHWA Stewardship Performance indicators were introduced for FFY 2016. There are overlapping goals in relation to this performance measure. In future performance measure tracking and reporting for project delivery and estimates we would like to work towards making the goals align.

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

14. MAINTAIN STATE BRIDGES

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

New for this annual reporting cycle, bridge condition ratings will also be included, separated by those assets on the National Highway System (NHS) and those not on the system (non-NHS). In alignment with the established national performance measures, this will include percentages of the inventory considered to be in "good" and "poor" condition.

Summary:
Number of Department owned bridges which are categorized as Structurally Deficient (SD) or Functionally Obsolete (FO). The 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). Prior to MAP 21, eligibility and priority for funding projects under the HBP program 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.

Map 21 eliminated the Functionally Obsolete classification as a funding criterion; therefore, the information presented below only includes data related to Structurally Deficient bridges. Because the FO designation does not reflect bridge condition, maintenance or replacement needs, the Structures Division no longer considers it in the development of our work program. Specifically, this is a reference to the Structures Division budget, which is primarily utilized for replacing SD bridges, seismic retrofits, and scour mitigations projects. However, NDOT does often replace/widen/modify FO structures as part of our large capital projects to bring them up to current design standards.

Data in the NDOT bridge inventory is collected in accordance with the National Bridge Inspection Standards (NBIS) and is reported to the National Bridge Inventory (NBI). For each bridge, the condition rating is determined for three primary elements: deck, superstructure and substructure. Bridge-sized culverts have a single, independent rating. NBI general condition ratings are assessed on a scale that ranges from 0 (failed condition) to 9 (excellent condition). The lowest of the three ratings for bridges, or the single rating for culverts, is used to represent the overall condition of the structure. Ratings of 7 or better, represent a bridge that is in Good condition and ratings of 5 or 6 represent a bridge in fair condition. If any of the condition ratings are 4 or below, the bridge

is in Poor condition. Percentage of the overall inventory in each category is determined by square foot area of the bridge deck.

Bridge data referenced in the report is based on the annual federal reporting snapshot taken at the end of March every year. In years past, a snapshot of the inventory was taken at the time data was requested for the various reports the department produces (facts book, preservation report, performance management report). However, this created confusion because the inventory changes continuously throughout the year, so that each report included different data. The data in the performance management report reflects all changes to the inventory from the previous calendar year. The data provided in the report is for calendar year 2018.

Annual Target:
Replace or rehabilitate at least one Department owned SD bridge annually. The goal is evaluated based on the contracts awarded in each 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 activities (such as expansion joint replacement, repair of deck cracking, etc.) included in 3R or District Betterment projects.

Table 1 lists all projects that meet the Departments established performance measures. Table 2 includes additional structural work performed by the Department that does not meet the performance measures. These projects are often eligible for federal funding but do not satisfy the performance measure of reducing the number of structurally deficient bridges owned by the Department.

As shown in Table 2, these are primarily seismic retrofits or bridge replacements. The Department's on-going efforts to retrofit seismically deficient bridges are an important part of our annual work plan, but seismic deficiencies alone do not relate to a structurally deficient classification and do not meet the performance criteria. The table does also include the replacement of structurally deficient bridges that are owned by other agencies. While it is essential these bridges be replaced, they do not meet the performance criteria which only addresses Department owned structures.

Table 3 includes a historic listing of structurally deficient bridges.

As part of the NDOT Transportation Asset Management Plan (TAMP), The Department has established performance goals related to the overall condition of the State's bridge inventory. These performance targets include maintaining an inventory that has greater than 35% of bridges in good condition and less than 7% in poor condition. Maintaining an inventory with less than 10% of bridges classified as structurally deficient is a federally mandated performance requirement. NDOT has established these goals as part of the annual and long-term targets. Table 4 includes the condition ratings of all state-maintained bridges in the inventory. A small percentage of structures owned by other entities have been included in this data because they are part of the NHS. Data from 2016 was included as part of the Federal Highway Administration (FHWA) approved TAMP and has been included in this report as the base year. While the FHWA's emphasis is primarily on the NHS, the Department's long-term goal is to meet the established performance measures for both the NHS and non-NHS structures.

Ultimate Target:
The ultimate target is to eliminate structurally deficient bridges from the inventory, and to extend the service life of the Department's bridges.

As part of the TAMP, the Department has committed to the established performance goals for the next 10 years.

Table 1: Tracking of Projects That Meet Performance Measure Criteria

Calendar Year	Target Met Y-N/# of Bridges	Structure #'s	County	Contract #/Award Date	Description of Work/Comments
2014	Yes /2	B-395 G-324	EU	3557	Replace 2 SD bridges on FR EU02 at Dunphy
2015	Yes/1	B-100	CH	3608	Replace SD bridge on SR115
2016	No	-	-	-	-
2017	No	-	-	-	-
2018	Yes/1	B-474	DO	3707-2/12/18	Replace SD bridge on SR757
	Yes/1	B-1392E	PE	3725-7/11/18	Replace SD bridge on I-80
	Yes/1	I-1899	CL	3755-11/19/18	Replace SD bridge on SR582
	Yes/1	B-425	MI	3735-9/6/18	Replace SD bridge on SR361
	Yes/1	B-242	CH	3738-10/9/18	Replace SD bridge on Maine St, Fallon
2019	Yes/2	B-639	EL	-	Replace SD bridge on SR226
		B-478	EU	-	Replace SD bridge on SR278

Table 2: Additional Bridge Improvement Projects

Calendar Year	# of Bridges	Owner	Structure #'s	County	Contract #/Award Date	Description of Work/Comments
2014	2	NV	I-1773, I-1774	WA	3574	Seismic retrofit of 2 bridges on I-580
	1	Reno	B-178	WA	-	Replace 1 SD bridge
2015	4	NV	H-948, G-949, G-953, I-956	CL	3597	Seismic Retrofit of 4 bridges on I-15
	1	LY	B-1610	LY	3601	Replace 1 SD bridge on Nordyke road
	4	NV	B-1262 N/S, B-1263 N/S	DO	3595	Seismic retrofit and scour mitigation of 4 bridges
	3	NV	I-1261, I-812 N/S	WA	3598	Seismic retrofit of 3 bridges on I-580
2016	-	-	-	-	-	-

2017	-	-	-	-	-	-
2018	1	HU	B-1658	HU	3713-3/30/18	Replace 1 SD bridge
2019	1	LY	B-1615	LY	-	Replace 1 SD bridge

Table 3: Historic Listing of Structurally Deficient Bridges

Calendar Year	Total State-Owned Bridges	State SD Bridges	Comments
2006 Baseline	1045	20	2007 Report.
2008	1056	20	2009 Report.
2010	1064	18	2011 Report.
2012	1116	19	2013 Report.
2014	1154	15	2015 Report.
2016	1163	12	2017 Report.
2018	1208	15	2019 Report.

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

A description of Structurally Deficient bridges from the 2019 Nevada State Highway Preservation Report is included below for information.

A bridge is considered Structurally Deficient (SD) if significant load-carrying elements are found to be in poor or worse condition due to deterioration and/or damage, or the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing intolerable traffic interruptions.

Because the term “Structurally Deficient” causes undue concern, FHWA is considering changing the terminology. The term does not imply that the bridge is unsafe. Safety and maintenance concerns are identified during regularly scheduled inspections.

Table 4: Bridge Condition Ratings

	Good Condition		Poor Condition	
	NHS	Non-NHS	NHS	Non-NHS
2016	41.4%	50.0%	0.6%	1.3%
2017	43.3%	50.5%	0.5%	1.0%
2018	44.9%	49.2%	0.9%	0.9%

Overview and Plan Support:
These performance measures work towards meeting the Department of Transportation Strategic Plan goals of putting safety first and efficiently operating and maintaining the transportation system in Nevada. These goals can be met in the following ways: safety for the motoring public will be optimized by replacing structurally deficient 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 to efficiently preserve and manage Department assets.

Measurement and Supporting Data:
All supporting data is extracted from the Department's annual reporting to the National Bridge Inventory. Inspections are performed in accordance with established federal guidelines, and the Department is responsible for performing these inspections state-wide. While this data is constantly changing, as required inspections of our infrastructure occur, and new bridges are added to the inventory, an annual "snapshot" is taken every year in March and submitted to and approved by the FHWA.

Annual Evaluation of Performance Measure

Was the annual target met?
Yes, the Department did meet and exceed the established annual target of replacing one structurally deficient bridge.

The Department has also met the performance goals established in the Transportation Asset Management Plan.

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. As noted in the report, we did not meet the established goal in 2016 or 2017, but far exceeded the goal in 2018 and expect to exceed the goal in 2019. The inconsistencies are primarily attributed to unforeseen circumstances associated with the project schedules. Often, the replacement of older structures is complicated by environmental conditions, right-of-way access and utility relocations that can significantly affect established timeframes.

What 'Strategies for Improvement' were not successful? Why?
Not applicable, the Department met and exceeded the established annual target of replacing one structurally deficient bridge.

The Department has also met the performance goals established in the Transportation Asset Management Plan.

What strategies for improvement will be implemented in 2019?
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 to cooperate with and assist them.

Long range:
Perform bridge rehabilitation and replacement as allowed under the MAP 21 program and the FAST act. 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 extreme events.

Seek additional funds to reduce the time frame for eliminating structurally deficient bridges. Many of the Department's bridges entered the inventory with the construction of the interstate system in the 1960's, and as these bridges continue to age, the number categorized as structurally deficient will continue to increase. While the Department has reduced the overall number of deficient bridges in recent years, at current funding levels, it is anticipated that the number of SD bridges will increase more rapidly than they can be replaced.

Does this performance measure effectively measure what is desired?
Yes. The performance measure does allow us to track the overall condition of our bridge inventory and comply with current federal requirements.

Is there a better performance measure that should be considered?
In compliance with federal regulations, bridge conditions in the TAMP are based on the four primary component ratings. To aid in the preservation of our bridge assets, it may be valuable to evaluate the element condition rating of structural components that are critical to extending the service life of a structure and maintaining a state of good repair. An evaluation of components such as bridge decks could provide a more detailed look at where to focus future preservation efforts.

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, increasing the number of these structures in Nevada's inventory.

15. STREAMLINE PERMITTING PROCESS

Performance Measure:
Number of encroachment permits issued within 45 days from the acceptance of an application.

Champion: Right-of-Way Division

Annual Target: 95% **Actual:** 93.2%

Overview of Performance Measure:
The purpose of this Performance Measure is to evaluate timeliness and quality of service provided by the Department for issuing encroachment permits. TP-1-10-3 establishes the maximum allowable times and certain review processes within the Department for processing encroachment permits within 45 days of receiving them. The annual target is to achieve 95% of all permits accepted be processed within 45 days from the acceptance of an application.

Measurement and Supporting Data:
A total of 985 permit applications were accepted by the Department through the respective Districts. Of the 985 permit applications accepted, there are 109 that remain in progress. The 109 permit applications were received in fiscal year 2019 will be measured for performance in fiscal year 2020. A total of 876 permits were processed which included 816 permits processed within 45 days and 60 permits processed in more than 45 days. The percentage of permits processed within 45 days for this fiscal year is 93.2%.

Evaluation of Performance Measure:

Was the annual target met?
The target goal of 95% was not met for fiscal year 2019. The 95% annual target is reasonable and affectively aids us to evaluate the desired goal of issuing permits within 45 days. The measurement and supporting data effectively provide adequate information to show what improvements may be necessary to achieve the target goal. Delays in permit processing may have potential impacts to Department projects scheduling Statewide. Staff turnover and training new staff notably impacted meeting the 45-day processing period.

Which "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

What new "Strategies for Improvement" will be initiated 2020?
Short range to next reporting:
Implement regularly scheduled permit review status meetings and reestablishment and redefining goals to ensure consistency in processing permits Statewide.

Long range:
The implementation of new software for the Department is being considered that will include a permit processing workflow to enhance staff productivity among the various Department divisions that review and approve permits. Ongoing analysis of the current performance measure may develop a more attainable target percentage. Consideration of how the goals are being measured, and what evaluation periods are being used to ensure the Department maintains consistency in reporting the performance measures.

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.
There is no anticipated direct fiscal impact for next year.

Targets for Next Three Fiscal Years:
FY20: 95%
FY21: 95%
FY22: 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)**.**

The following three tables provide the required information:

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

The first table reports that total FY 2019 revenues into the State Highway Fund were approximately $1.15 billion while the second table contains the total FY 2019 actual expenditures of approximately $1.22 billion. These two tables also include other detailed financial data about transportation-related revenues and expenditures.

The third table indicates the Highway fund balance was $511,457,073 at 2018 fiscal year-end. This balance is approximately $17 million lower than the 2017 year-end balance of $528,473,009. Please note that the 2019 fiscal year-end balance will be available when the State of Nevada 2019 Comprehensive Annual Financial Report has been completed.

[1] Data from Nevada Department of Transportation *Highway Special Revenue Fund*
[2] Highway Fund balance from the State of Nevada *2018 Comprehensive Annual Financial Report (CAFR)*

Revenue

State of Nevada
Highway Special Revenue Fund
Schedule Of Revenues And Receipts - Budgetary Basis
For The Years Ended June 30, 2019 and 2018
(In thousands)

	2019	2018
State user taxes		
Gasoline taxes	$ 220,450	$ 214,476
Motor vehicle fees and taxes		
Vehicle registration & bicycle safety fees	125,969	120,532
Basic Government Service Tax	64,467	60,757
Motor carrier fees	46,773	43,013
Drivers license fees	22,526	24,541
Special fuel taxes	100,059	96,167
Total motor vehicle fees and taxes	359,794	345,010
Total state revenue	580,244	559,486
Federal Aid reimbursement		
Department of Interior	-	-
Federal Aviation Administration	124	118
Federal Emergency Management Administration	-	220
Federal Highway Administration	357,799	373,072
Federal Rail Administration	-	-
Federal Transit Administration	3,568	7,357
Total Federal Aid	361,491	380,767
Miscellaneous receipts		
Departments of Motor Vehicles & Public Safety authorized revenue	112,907	106,535
Appropriations from other funds	5,293	149
Proceeds from sale of bonds	-	135,005
Agreement income	27,368	31,092
Interest	12,409	7,846
Sale of surplus property	705	-
AB595 property tax	23,987	22,569
AB595 bond revenue	-	192
Other sales & reimbursements	21,772	27,582
Total miscellaneous receipts	204,441	330,970
Total revenue and receipts - budgetary basis	**$ 1,146,176**	**$ 1,271,223**

State of Nevada
Highway Special Revenue Fund
Comparative Schedule of Expenditures and Disbursements - Budgetary Basis
For the Fiscal Year Ending June 30, 2019 and 2018
(In thousands)

	2019			2018
	Budgeted	Actual Using Budgetary Basis	Variance Favorable (Unfavorable)	Actual Using Budgetary Basis
Department of Transportation				
Labor	$ 151,445	$ 146,530	$ 4,915	$ 139,081
Travel	2,650	2,212	438	2,572
Operating	74,059	70,437	3,622	75,785
Equipment	32,784	14,898	17,886	11,455
Capital improvements	655,625	570,703	84,922	534,483
Bond expenditures	112,666	112,464	202	220,996
Other programs	13,947	9,470	4,477	10,539
Total operations	1,043,176	926,714	116,462	994,911
Cost of fuel sold to other agencies	2,538	2,477	61	2,270
Total Department of Transportation	1,045,714	929,191	116,523	997,181
Department of Motor Vehicles (see Note 2)	184,651	119,160	65,491	116,514
Department of Public Safety (see Note 2)	113,321	81,709	31,612	82,728
	297,972	200,869	97,103	199,242
Appropriations to other funds				
Board of Examiners	-	-	-	-
Department of Administration	-	-	-	-
Transportation Services Authority	2,465	2,309	156	2,435
Public Works Board	1,798	1,798	-	621
Traffic Safety	-	-	-	233
Investigations	376	360	16	403
DMV Training Division	1,463	1,410	53	998
Transfer to Treasurer	2,475	2,475	-	1,660
Govs Officeof Finance IT Proj	7,734	7,734	-	114
Fleet Services Capital Purchase	-	-	-	-
Legislative Counsel Bureau	5	-	5	2,736
Dept of Information Technology	-	-	-	-
Total appropriations to other funds	16,315	16,086	230	9,200
Other disbursements				
Transfer to bond fund	84,000	74,884	9,116	74,524
Total other disbursements	84,000	74,884	9,116	74,524
Total expenditures & disbursements - Budgetary basis	**$ 1,444,002**	**$ 1,221,030**	**$ 222,972**	**$ 1,280,147**

STATE HIGHWAY FUND BALANCE (BUDGETARY BASIS)

STATE FISCAL YEARS 2016 - 2018

	ACTUAL FY 2016	ACTUAL FY 2017	ACTUAL FY 2018
BEGINNING FUND BALANCE:			
GENERAL OBLIGATION BONDS	$54,189,233	$189,188,225	$195,172,512
RESTRICTED FUNDS	$17,967,597	$34,949,101	$67,612,447
OTHER HIGHWAY FUND	$245,204,718	$294,481,446	$265,688,049
TOTAL BEGINNING FUND BALANCE:	**$317,361,548**	**$518,618,773**	**$528,473,009**
ADD:			
REVENUES	$1,091,421,933	$1,072,487,605	$1,134,382,823
BOND PROCEEDS	$200,007,547	$185,750,314	$136,839,036
TOTAL ADDITIONS:	**$1,291,429,480**	**$1,258,237,919**	**$1,271,221,859**
DEDUCT:			
DEPT OF TRANS. NON-BOND EXPENDITURES	$733,843,798	$775,446,692	$775,583,924
DEPT OF TRANS. BOND EXPENDITURES	$65,008,555	$179,766,027	$220,995,637
EXP. & APPROP TO OTHER AGENCIES	$271,517,511	$298,740,675	$283,574,981
TOTAL DEDUCTIONS:	**$1,070,369,864**	**$1,253,953,394**	**$1,280,154,542**
ADJUSTING ENTRIES:			
CONTROLLERS OFFICE CAFR ADJUSTMENTS	-$19,802,391	$5,569,711	-$8,083,253
TOTAL ADJUSTING ENTRIES:	**-$19,802,391**	**$5,569,711**	**-$8,083,253**
ENDING FUND BALANCE:			
GENERAL OBLIGATION BONDS	$189,188,225	$195,172,512	$111,015,911
RESTRICTED FUNDS	$34,949,101	$67,612,447	$41,897,438
OTHER HIGHWAY FUND	$294,481,446	$265,688,049	$358,543,723
TOTAL ENDING FUND BALANCE:	**$518,618,773**	**$528,473,009**	**$511,457,073**

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 can be selected from among 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. After this phase, major projects are divided into smaller construction segments to address the 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, utility relocations are 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: Identifies 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 later 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 include 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 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

Southern Nevada Projects

I-15 Projects

I-15 North Phase 3 – Speedway Boulevard to Garnet Interchange
I-15 North Phase 4 – I-15/CC-215 Northern Beltway Interchange
I-15 NEON Design-Build
I-15 Central Corridor
I-15 Tropicana Interchange Reconstruction
I-15 South Bermuda Road Interchange
I-15 South Pebble Road Overpass
I-15 South Starr Avenue Interchange
I-15 South Phase 2A/2B
I-15 South Sloan Road Interchange

I-515 Projects

Downtown Access Project

US-95 Northwest Projects

US-95 Northwest Phase 2B/5 – Durango Drive to Kyle Canyon Road
US-95 Northwest Phase 3C – CC 215 Interchange
US-95 Northwest Phase 3D – CC 215 Interchange

Northern Nevada Projects

Reno Spaghetti Bowl – I-80/I-580/US-395 System Interchange
Pyramid Highway/US-395 Connection
US-395 Carson City Freeway Phase 2B – S. Carson St. to Fairview Dr.

I 15 North - Phase 3

Speedway Boulevard to Garnet Interchange

Project Sponsor: NDOT

Project Manager: Dwayne Wilkinson, P.E.

(702) 671-8879

Project Description:

- This will be the last phase of improvements associated with the I-15 North Corridor Environmental Assessment. Original project limits were from Speedway Boulevard to Apex Interchange (May 2007 Environmental Assessment). Project limits were extended 6.1 miles to the north from the Apex Interchange to the Garnet Interchange (US 93).
- Widen I-15 from four to six lanes from Speedway Boulevard Interchange to the Garnet Interchange, approximately 10.7 miles
- Project also includes: weigh station & enforcement improvements, truck parking, and a new interchange between Speedway & Apex. Landscape and aesthetic enhancements will be provided in accordance with the I-15 Landscape & Aesthetics Corridor Plan
- The first construction package will include roadway widening, bridge rehabilitation & widening, truck parking, enforcement elements (excluding the new weigh station south bound), drainage improvements, and landscape & aesthetic enhancements
- The second construction package will include the new weigh station south bound & remaining enforcement elements
- A proposed new interchange between Speedway & Apex is currently not included in any construction package. The interchange is being included in the environmental process so it may be constructed in the future if desired

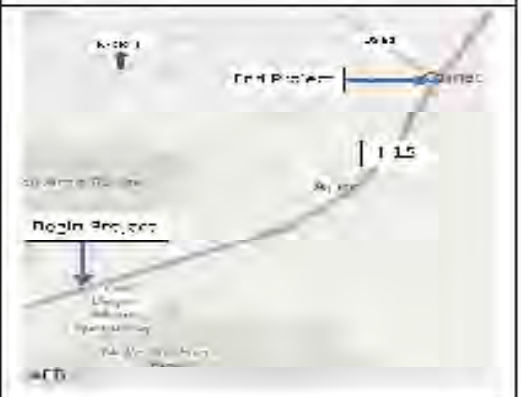
Schedule:

Planning
Complete

Environmental Phase
2019 -2020

Final Design
2020- 2021 (First Construction Package)

Construction
See Financial Fine Points Below



Project Cost Range:

Engineering: $6.5 - $8.0 million
Right-of-Way: $0.1 - $3.6 million
Construction: $70.1 - $83.2 million
Total Project Cost: $76.7 - $94.8 million

Project Benefits:

- Improve safety
- Improve travel time reliability
- Improve access to areas planned for development in North Las Vegas
- Improve operations

What's Changed Since Last Update?

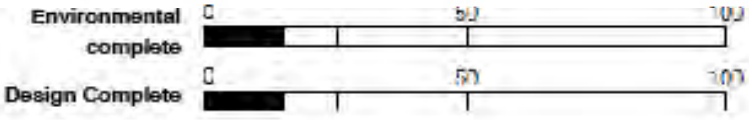
- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Timely completion of environmental
- Timely completion of design
- Availability of construction funds

Financial Fine Points(Key Assumptions):

- Total funding expended for phase 3: $ 329,000 (design and environmental)
- Total funding expended for original Environmental phase: $214,000
- As per the Regional Transportation Plan, this project will be funded for construction between FY2021 and FY2025. It is not anticipated that construction funding will be available before FY 2022



Updated:
September , 2019

NEVADA DOT SAFE AND CONNECTED

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 one of four phases of improvements to the I-15 North Corridor between US 95 and Apex Interchange (15 miles)
- Construct new direct connect ramps to upgrade the I-15 & CC 215 (Las Vegas Beltway) Interchange
- Construct I-15 SB ramps & reconstruct I-15 NB ramps for the I-15 & Tropical Parkway Interchange
- Reconstruct local streets to match interchange re-configurations
- Provide landscape & aesthetic enhancements in accordance with the I-15 Landscape & Aesthetics Corridor Plan
- Improvements will be constructed within the existing I-15 and CC-215 rights-of-way to the extent possible, however, a total of approximately 3.8 acres may need to be acquired for these improvements

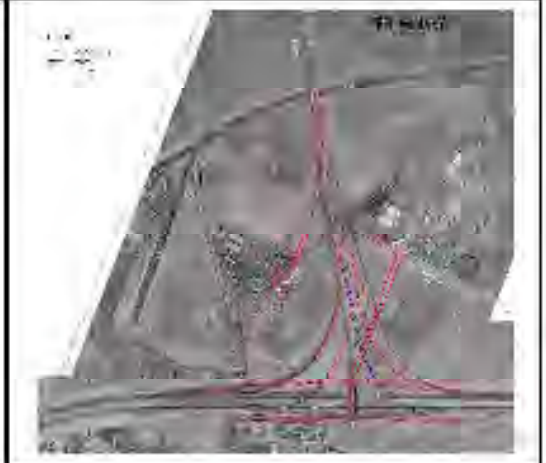
Schedule:

Planning
Complete

Environmental
Complete

Final Design
Complete

Construction
2019 - 2022



Project Cost Range:

Engineering: $10 - $11 million
Right-of-Way: $7.0 - $7.5 million
Construction: $106 - $126 million
Total Project Cost: $123 - $144.5 million

Project Benefits:

- Improve safety
- Improve travel time reliability
- Improve access to areas planned for development in North Las Vegas
- Improve operations with full freeway-to-freeway connectivity

What's Changed Since Last Update?

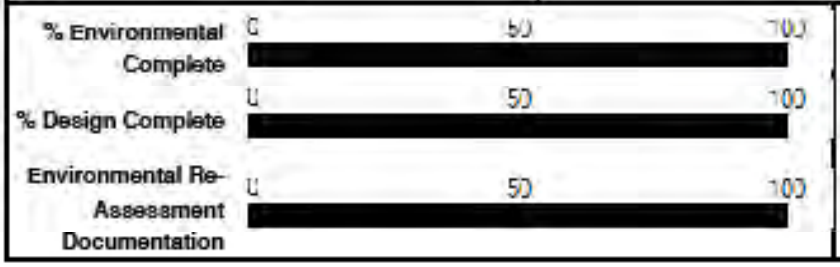
- Scope - No Change
- Schedule - No Change
- Cost - Updated

Project risks:

- Timely completion of utility relocations
- Timely completion of UPRR permits & agreements
- Acquisition of approximately 3.8 acres to construct the project

Financial Fine Points(Key Assumptions):

- Total funding expended for preliminary engineering: $9,978,000
- Total funding exoended for right of way: $1,546,000
- Total funding expended for I-15 North environmental phase: $875,000
- NDOT Average Escalation Rates applied



Updated:
September , 2019

NEVADA DOT
SAFE AND CONNECTED

Project NEON Design-Build

I-15 Sahara to Spaghetti Bowl

Project Sponsor: NDOT

Project Manager: Nick Johnson, P.E.

(775) 888-7318

Project Description:

- HOV direct connect flyover between US 95 and I-15; I-15 widening improvements from Spaghetti Bowl to south of Sahara; construction of collector-distributor from southbound US 95 to southbound I-15; HOV direct access ramp to and from Neon Gateway; ramp access between Charleston and grade separated MLK Boulevard; and landscape and aesthetic enhancements
- Local access improvements to Las Vegas Downtown Redevelopment
- New northbound direct access ramp to Alta/Bonnaville; new southbound I-15 on ramp from MLK Boulevard at Pinto Lane
- Reconstruct the I-15/Charleston Interchange to provide improved operations and accessibility
- Project Length: 4.83 miles

Schedule:

Planning
Complete

Environmental
Complete

Begin Construction
November 2016

Substantial Completion
May 2019

Project Cost Range:

Engineering: $50 - $60 Million
Right-of-Way and Utilities: $225 - $250 Million
Construction: $550 - $610 Million
Construction Engineering: $40 - $50 Million
Total Project Cost: $865 - $970 Million

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?

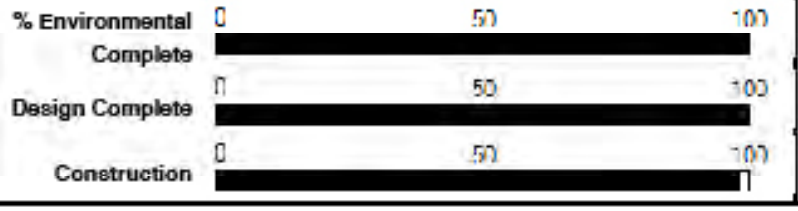
- The project reached substanial completion in May 2019

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

Financial Fine Points(Key Assumptions):

- Total Funding Expended: $986,374,000
- Transportation Board approved the authority to bond for the Project.



Updated:
September , 2019

I 15 Central Corridor

Project Sponsor: NDOT

Project Manager: Jeff Lerud, PE

(702) 671-8865

Project Description:

- Feasibility study along I-15 from Flamingo Road to Sahara Avenue.
- Enhance access and mobility within the I-15 corridor; develop a feasibility study that addresses a phased implementation stragegy for future improvements to I-15 within the resort corridor area.

Schedule:

Feasibility Study
2019 - 2020
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 operations, safety, access and mobility.
- Support economic development.
- Improve travel time reliability.

What's Changed Since Last Update?

- Planning Phase (Feasibility Study) - Began February, 2019
- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

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

Financial Fine Points(Key Assumptions):

- Total funding: TBD

Planning (Feasibility Study)

Updated:
September , 2019

I 15 Tropicana Interchange Reconstruction

Project Sponsor: NDOT

Project Manager: Jeff Lerud, PE

(702) 671-8865

Project Description:

- Demolish and reconstruct the Tropicana Avenue interchange at I-15
- Grade separate the intersection of Tropicana Avenue and Dean Martin Drive
- Construct HOV ramps at Harmon Avenue

Schedule:

Environmental

October 2017 to December 2019

Design and Right of Way

2020 to 2022

Construction

2021 to 2024

Project Cost Range:

Engineering: $8,000,000.00
Right of Way: $26,000,000.00
Construction: $181,000,000.00

Project Benefits:

- Improve operations, safety, and mobility
- Provide for future expansion of I-15
- Improve travel time reliability.

What's Changed Since Last Update?

- Scope - No changes
- Schedule - No changes
- Budget - No changes

Project risks:

- Timing of funding
- Stakeholder buy-in
- Right of Way

Financial Fine Points(Key Assumptions):

- N/A

Environmental (NEPA Phase)

Design Build Procurement To begin January 2020

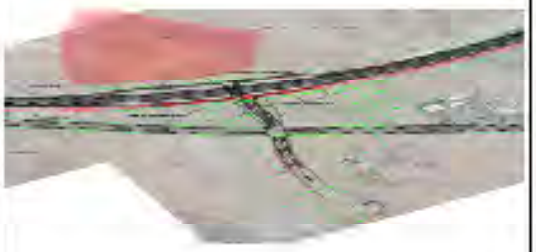
Updated: September , 2019

I 15 South - Bermuda Road Interchange

Project Sponsor: City of Henderson

Project Manager: David Bowers, P.E.

(702) 671-6672



Project Description:

- I-15 South Corridor Environmental Assessment from Sloan to Tropicana has been broken into nine (9) project elements to address funding and constructability opportunities.
- This is one project element of the original I-15 South Corridor Environmental Assessment completed in 2008.
- Construct new interchange at Bermuda Road (recent name change to Via Nobila)

Schedule:

Planning

Complete

Environmental

Re-evaluation of 2008 EA to be completed May 2020

Final Design

TBD

Construction

TBD

Project Cost Range:

(Estimates per January 2019 CRA)
Engineering: $8.0 M - $10.9 M
Right-of-Way: $7.7 M - $10.4 M
Construction: $81.6 M - $112.4 M
Total Project Cost: $106 M - $145 M

Project Benefits:

- Improves access to local community
- Improves origin-destination travel time
- Improves safety

What's Changed Since Last Update?

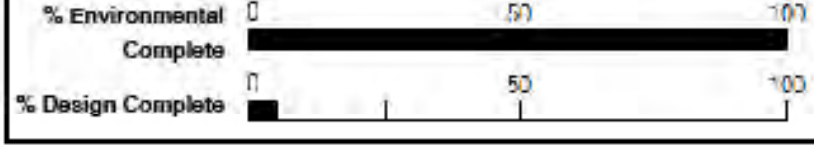
- Scope - No Change
- Schedule - Funded in 2040 per CRA
- Cost - adjusted per 2019 CRA

Project risks:

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

Financial Fine Points(Key Assumptions):

- Escalation due to project funding not being available until 2040 per CRA.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million



Updated:
September , 2019

NEVADA DOT
SAFE AND CONNECTED

I 15 South - Pebble Road Overpass

Project Sponsor: Clark County

Project Manager: David Bowers, P.E.

(702) 671-6672

Project Description:

- The I-15 South Corridor Environmental Assessment from Sloan to Tropicana has been broken into nine (9) project elements to address funding and constructability opportunities.
- This is one project element of the original I-15 South Corridor Environmental Assessment completed in 2008
- Construct overpass at Pebble Road and I-15.

Schedule:

Planning
Complete

Environmental
Complete

Final Design
TBD

Construction
TBD

Project Cost Range:

(Estimates per 2019 EA Update)
Engineering: $1.3 M - $1.9 M
Right-of-Way: $0
Construction: $13.7 M - $19.7 M
Total Project Cost: $16.3 M - $23.5 M

Project Benefits:

- Improves access to local community
- No connections to I-15, so interstate traffic will not be negatively impacted

What's Changed Since Last Update?

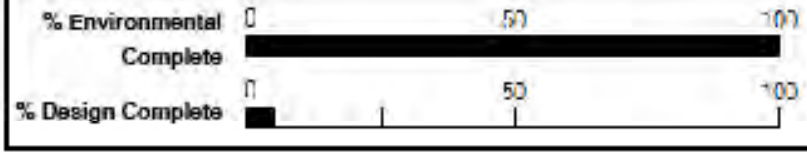
- Scope - No Change
- Clark County has indicated that they plan to construct this with their FRI allocation.
- Schedule - This project was removed from 2030 RTP.

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
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Funding Source (2019 EA Update): Clark County Fuel Revenue Index Funding



Updated:
September , 2019

NEVADA DOT SAFE AND CONNECTED

I 15 South - Starr Avenue Interchange

Project Sponsor: City of Henderson

Senior Project Manager: Ryan Wheeler

(702) 671-8876

Project Description:

- The I-15 South Corridor Environmental Assessment from Sloan Road to Tropicana Ave. has been broken into nine project elements to address funding and constructability opportunities
- This is one project element of the original I-15 South Corridor Environmental Assessment completed in 2008
- Construct a new interchange at Starr Avenue
- Connect Starr Avenue to Las Vegas Blvd east of I-15 and to Dean Martin Drive west of I-15

Schedule:

Planning
Complete
Environmental
Complete
Final Design
2016-2017
Construction
Complete

Project Cost Range:

(Environmental Phase Estimates)
Preliminary Engineering: $10 - $11 M
Right-of-Way: $8 - $14 M
Construction: $33 - $37 M
Total Project Cost: $51 - $62 M

Project Benefits:

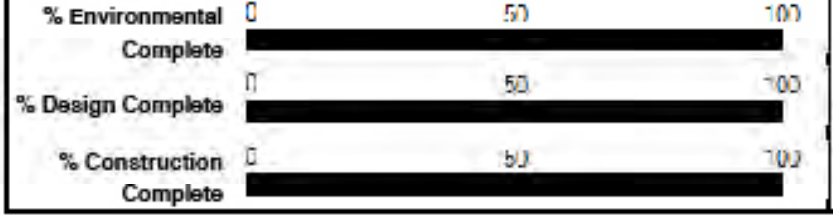
- Improve access to I-15 with new interchange
- Connect east-west regional traffic from Las Vegas Blvd to/from Dean Martin Drive
- Improve travel time reliability

What's Changed Since Last Update?

- Project opened on Sept 18th. Punch-list items over the next 30 days.

Financial Fine Points(Key Assumptions):

- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Construction Funding secured with $35.2M from FRI-1 by City of Henderson, remaining funding by federal and state funds



Updated:
September , 2019

NEVADA DOT
SAFE AND CONNECTED

I 15 South - Phase 2A/2B

Sloan Road to Blue Diamond (SR-160)

Project Sponsor: NDOT

Project Manager: David Bowers, P.E.

(702) 671-6672

Project Description:

- The I-15 South Corridor Environmental Assessment from Sloan to Tropicana has been broken into nine (9) project elements to address funding and constructability opportunities.
- This is one project element of the original I-15 South Corridor Environmental Assessment completed in 2008
- Widen I-15 between Sloan Road and 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 median from Sloan to Blue Diamond (SR160) 6 to 8 lanes
- Phase 2B: Widen I-15 outer lanes from Sloan to Blue Diamond (SR160) 8 to 10 lanes, restripe collector-distributor ramps from Blue Diamond (SR160) to Tropicana Ave.

Schedule:

Planning
Complete
Environmental
Complete
Final Design
TBD
Construction
TBD

Project Cost Range:

(Estimates per January 2019 CRA)
Engineering: $30 M - $40 M
Right-of-Way: $0
Construction: $150 M - $200 M
Total Project Cost: $260 M - $300 M

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Improves origin-destination travel time

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - adjusted per January 2019 CRA

Project risks:

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

Financial Fine Points(Key Assumptions):

- Funding not available until 2045.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million

Updated:
September , 2019

I 15 South - Sloan Road Interchange

Project Sponsor: City of Henderson

Project Manager: David Bowers, P.E.

(702) 671-6672

Project Description:

- The I-15 South Corridor Environmental Assessment from Sloan to Tropicana has been broken into nine (9) project elements to address funding and constructability opportunities
- This is one project element of the original I-15 South Corridor Environmental Assessment completed in 2008
- Reconstruct interchange at Sloan Road (recent name change to Via Inspirada)

Schedule:

Planning
Complete

Environmental
Complete

Final Design
TBD

Construction
TBD

Project Cost Range:

(Estimates per January 2019 CRA)
Engineering: $3.8 M - $5.2 M
Right-of-Way: $13.1 M - $15.9 M
Construction: $39 M to $53 M
Total Project Cost: $59 M - $79 M

Project Benefits:

- Improves access to local community
- Improves origin-destination travel time
- Improves safety

What's Changed Since Last Update?

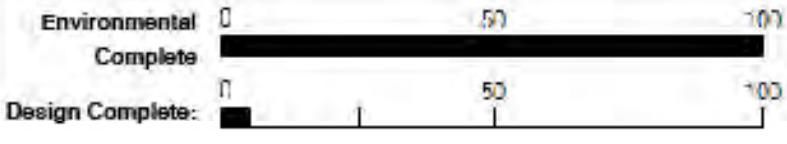
- Scope - No Change
- Schedule - No Change
- Cost - adjusted per January 2019 CRA.

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 2022 per current Financial Plan.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million



Updated:
September , 2019

NEVADA DOT SAFE AND CONNECTED

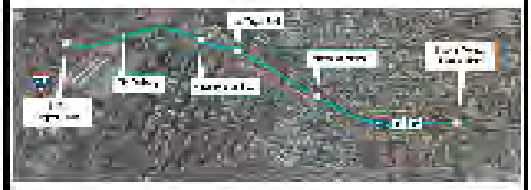
Downtown Access Project

I-515/US-95 from Rancho Blvd Interchange to 28th Street

Project Sponsor: NDOT

Project Manager: Ryan Wheeler, P.E.

(702) 278-3391



Project Description:

- This project proposes to improve freeway capacity by adding more lanes and fixing ramp spacing by braiding ramps connecting I-15 and I-515. The project will also add additional access to downtown with two new HOV interchanges at City Parkway and Maryland Parkway.
- This current scope of work on the project is to implement the necessary studies, documentation, and outreach to meet NEPA requirements; and to develop up to fifteen percent (15%) level designs for each of three alternatives under consideration.
- The construction alternatives being considered include replacing the existing viaduct with a similar structure OR recessing the highway into a trench below grade.
- Each construction alternative will include similar proposed improvements; remove or replace the 1.6 mile viaduct; add freeway capacity; fix ramp spacing by adding ramp braiding to/from I-15 and I-515; add HOV lanes on I-515/US-95; and new HOV interchanges at City Parkway and Maryland Parkway.
- *** This project was originally the I-515 alternatives development study with project limits from the Wyoming grade separation to the MLK interchange. The alternatives development study had 5 separate task orders to perform general environmental work, develop lists of potential projects and pursue project development. Task Orders 1-4 have been completed. Task order 5 is the pursuit of the Downtown Access Project.

Schedule:

The project is currently estimated to be 10-13 years in total

Environmental (3-4 years)

In progress

Final Design (3-4 years)

TBD

Right-of-way (concurrent with final design, 3-4 years)

TBD

Construction (4-5 years)

TBD

Project Cost Range:

Environmental: $8.0 million
Engineering: TBD
Right-of-Way: TBD
Construction: TBD
Total Project Costs: TBD

Project Benefits:

- Improved safety, operations, and air quality through the I-515/US-95 corridor
- Remedy aging infrastructure by replacing or removing the 1.6 mile viaduct
- Improve operations by adding freeway capacity and braiding ramps to/from I-15 and I-515
- Extend HOV network to downtown along I-515/US-95 freeway, including new HOV interchanges at Maryland Parkway and City Parkway
- Improved landscaping and aesthetics

What's Changed Since Last Update?

- This project page has been modified to represent the Downtown Access Project which was developed and pursued from the I-515 alternatives development study.

Project risks:

- Funding availability to move project forward into design and construction
- Utility relocation, groundwater, right-of-way acquisitions, crossing the UPRR, and maintenance of traffic through the construction phase
- The project team will manage risks through project development.

Financial Fine Points(Key Assumptions):

- $9.9 million programmed for planning/environmental effort ($4.0 million is from the previous task orders 1-4)

Updated:
September , 2019

NEVADA DOT
SAFE AND CONNECTED

US 95 Northwest - Phase 2B/5

Durango Drive to Kyle Canyon Road and at Kyle Canyon Road

Project Sponsor: NDOT

Project Manager: Jenica Keller , P.E.

(775) 888-7592

Project Description:

- This is the second and fifth phase of the US 95 Northwest Project that extends from Washington Avenue to Kyle Canyon Road
- Widen Durango Drive to Kyle Canyon Road to 6 lanes
- Construct High Occupancy Vehicle Direct Access Ramps at Elkhorn
- Construct a regional flood control facility from Centennial to Grand Teton
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Construct new interchange at Kyle Canyon Road
- Project length: 2.45 miles

Schedule:

Planning
Complete

Environmental
Complete

Final Design
Complete

Advertise
Complete

Construction
Complete

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Improve travel time reliability

Project Cost Range:

(Construction Phase Estimates):
Engineering (All Phases): $6 - $7 million
Right of Way (All Phases): $0, No acquisitions required
Construction (All Phases): $103 - $116 million
Construction (2B/5): $65 - $78 million
Total Project Cost (All Phases) : $109 - $123 million

What's Changed Since Last Update?

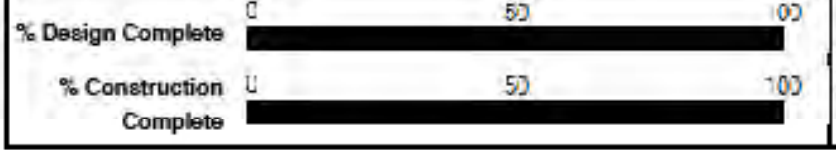
- Scope - No change
- Schedule - Construction Complete
- Cost - No change

Project risks:

- Unit price escalation may affect project cost
- Complex design issues may impact schedule and scope
- Complex utility issues may impact schedule and cost

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 2: $114.02 million
- Total funding expended for US 95 Northwest Environmental Studies (all phases) : $5 million
- Inflation escalation (2.27%) to midpoint of construction in 2018.
- Funding source for Phase 2B/5:
- - Federal: $42.4 million
- - State: $2.2 million
- - Local: $33.4 million



Updated:
September , 2019

NEVADA DOT
SAFE AND CONNECTED

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) 888-7592

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 third phase is anticipated to be constructed in 3 subparts (A, C and D)
- Phase 3C: Ramps providing north to west, south to east and south to west movements

Schedule:

Planning
Complete
Environmental
Complete
Final Design
Complete
Advertise
Complete
Construction
Start January 2019
Construction
End 2nd Quarter SY 2021

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Improve travel time reliability

Project Cost Range:

(Final Design Phase Estimates):
Engineering (All Phases): $14 - $15 million
Right of Way (All Phases): $0 - $1 million
Construction (All Phases): $204 - $268 million
Construction (3C): $61 - $73 million
Total Project Cost (All Phases): $218 - $284 million

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 cost

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 3: $94.60 million
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- 3C: inflation escalation (2.30%) to midpoint of construction 2019
- Funding source:
- - Federal: $19 million
- - State: $54 million

Updated:
September , 2019

NEVADA DOT SAFE AND CONNECTED

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) 888-7592

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 third phase is anticipated to be constructed in 3 subparts (A, C and D)
- Phase 3D: Ramps providing west to north, south to west and east to north movements; local interchange; upgrade CC215; and construct Multi-Use Path

Schedule:

Planning
Complete
Environmental
Complete
Final Design
Complete 2020
Advertise
2020

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Improve travel time reliability

Project Cost Range:

(Design Phase Estimates):
Engineering (All Phases): $14 - $15 million
Right of Way (All Phases): $0 - $1 million
Construction (All Phases): $204 - $268 million
Construction (3D): $134 - $185 million
Total Project Cost (All Phases): $218 - $284 million

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - Increased based on Cost Risk Assessment

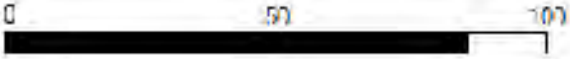
Project risks:

- 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: $94.60 million
- Total funding expended for US 95 Northwest Environmental Studies (all phases): $5 million
- 3D: inflation escalation (2.27%) to midpoint of construction 2021
- Funding source: TBD

% Design Complete



% ROW Complete

Updated:
September , 2019

NEVADA DOT SAFE AND CONNECTED

The Reno Spaghetti Bowl

180/ I580/ US 395 System Interchange

Project Sponsor: NDOT

Project Manager: Jenica Keller, PE

775-888-7592

Project Description:

- Freeway capacity, safety, and operational improvements to and surrounding the Spaghetti Bowl Interchange
- Freeway access management improvements
- Modify service interchanges
- I-80 limits: Virginia/Sierra/Center Street Interchange to Pyramid Highway Interchange
- I-580/US 395 limits: McCarran/Clear Acre Interchange to Virginia/Kietzke Interchange

Schedule:

Environmental

Complete

SBX Phase 1 Design and Construction

2019 - 2023

Future Construction Phases

2025 and Later

Project Benefits:

- Improve freeway safety and operations
- Reduce existing non-recurrent congestion
- Accommodate current and future travel demands
- Improved freeway maintenance

Project Cost Range:

Engineering: $107 - $153 million
Right of Way: $342 - $495 million
Construction: $1.5 - $2.2 billion
Total Project Cost (All Phases): $1.9 - 2.8 billion

What's Changed Since Last Update?

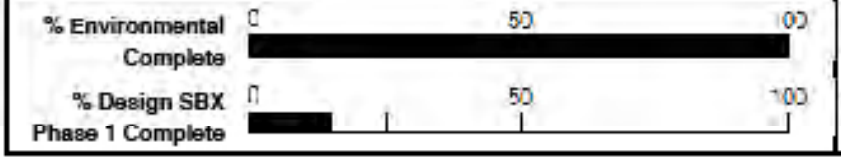
- Scope - No changes
- Schedule - Environmental Phase Complete
- Budget - Updated based on Cost Risk Assessment

Project risks:

- Complex access management strategies
- Railroad
- Truckee River
- Socio-economic environment
- Fragmented Local Network
- Right of Way
- Historical and cultural impacts
- 4f and 6f impacts

Financial Fine Points(Key Assumptions):

- Total funding expended for Environmental Phase: $11.6 Million
- Total funding expended for Phase 1 SBX: $13.5 Million



Updated:
September , 2019

Pyramid Highway/US 395 Connection

Project Sponsor: Washoe County RTC and NDOT

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

NDOT Project Manager: Sajid Sulahria, P.E.

www.pyramidus395connection.com

Phone: (775) 888-7742

Project Description:

- Calle de la Plata to La Posada- Transition from 4 Lane Arterial to 6 lane freeway
- La Posada to Sparks Blvd. - Develop Pyramid alignment into 6 lane freeway with frontage roads.
- Continue 6 lane freeway from Sparks Blvd. to Disc 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.
- NEPA completed by Washoe RTC.
- This project will be delivered in 6 phases.
- Phase 1 from Queen Way to Golden View Drive is currently in the design process.

Schedule:

Planning
Complete

Environmental
2010 - 2018

Final Environmental Impact Statement (FEIS)
Winter 2014-2017

Record of Decision (ROD)
2018

Final Design
Phase 1 - currently in design

Final Design
Phase 1 - currently in design

Construction
Phases 1 through 6 - TBD

Project Benefits:

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

Project Cost Range:

(Planning phase estimates)
Engineering: $40M - $60M
Right-of-Way: $100M - $150M
Construction: $410M - $660M
Total Project Costs: $550M - $870M

What's Changed Since Last Update?

- The Record of Decision has been received.
- Phase 1 - Queen Way to Golden View Drive is currently in the design process.

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
- Construction funding for all phases: TBD

% Environmental Complete: 0 — 100

% Design Complete Phase 1: 0 — 100

Updated:
September , 2019

NEVADA DOT SAFE AND CONNECTED

US 395 Carson City Freeway - Phase 2B

South Carson Street to Fairview Drive

Project Sponsor: NDOT

Senior Project Manager: Sajid Sulahria, P.E.

(775) 888-7742

Project Description:

- This project will be delivered in four packages. Construction is complete for Phase 2B Packages 1, 2 & 3.
- Phase 2B Package 4 will construct the South Carson interchange and complete the remainder of the project.

Schedule:

Planning
Complete
Environmental
Complete
Final Design
Phase 2B Packages 1, 2 & 3 are Complete - Package 4 - TBD
Construction
Phase 2B Packages 1, 2 & 3 are Complete - Package 4 - TBD

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.

Project Cost Range:

(Final design phase estimates):
Engineering: $11 - $13 million
Right-of-Way: $30 - $32 million
Construction: $100 - $160 million
Total Project Cost: $150 - $200 million not including Package 4.

What's Changed Since Last Update?

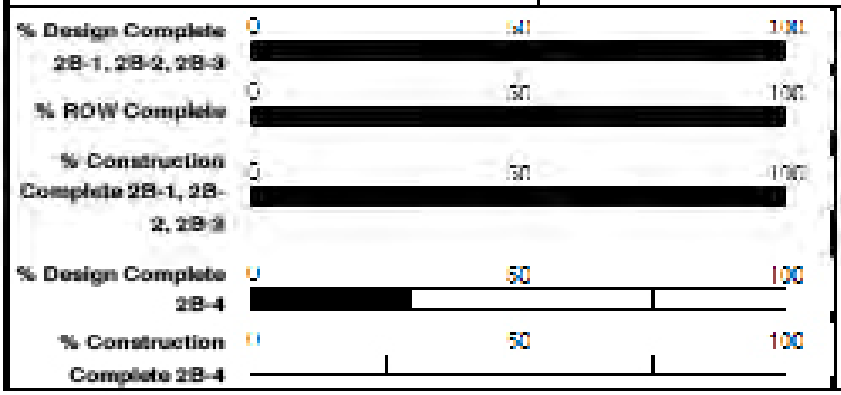
- Scope - Package 4 will complete the remainder of the Freeway.
- Schedule - TBD
- Cost - No change

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: $200 million
- Construction funding source for Phase 2B-4: TBD



Updated:
September , 2019

NEVADA DOT
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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. Furthermore, B/C analysis has been done for some projects that do not meet the minimum dollar-threshold but the information will be beneficial to management for decision making purposes. The department has policy (TP 1-11-1) that guides the B/C analysis Program.

The B/C ratios for several projects have been determined for FY 2013 to present. The following table reports the B/C ratio results of a total of 24 projects. Attempt has been made to include B/C ratios for entire projects and not the ratios of individual phases except in cases that are appropriate.

Major Projects	B/C Ratio	Fiscal Year
USA Parkway	17.3	2013
I-15 NEON (All Phases)	2.3	2014
Boulder City Bypass: Phases I and II Foothills Drive to West of the Hoover Dam Bypass	0.94	2014
I-15 Pavement Rehabilitation: Dry Lake Rest Area to Logandale/Overton Interchange	1.7	2014
Carson City Freeway (All Phases)	2.14	2014
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	2014
I-15 North-Part 2 Package D (Capacity Improvements): Craig Rd. to Speedway Blvd	7.1	2014
US 95 North-Phase 2A (Ann Road to Durango Drive)	4.2	2014
I-15 North Phase 4 – I-15/CC-215 Interchange – Alternative 1	1.37	2015
I-15 North Phase 4 – I-15/CC-215 Interchange – Alternative 2	1.66	2015
I 215 from I 15 to Windmill Lane (Airport Connector)	2.6	2015
US 95 NW Phase 3A; CC 215 from US 95 to Tenaya Way MP CL 0.88 - N/E & W/S Ramps and S/B collector road	1.2	2015

Major Projects	B/C Ratio	Fiscal Year
SR 593, Tropicana Ave. at SR 604 Las Vegas Blvd. (Replace Escalators)	1.2	2015
US95/CC215 Interchange and Associated Improvements	3.36	2017
I-15/US 93 Interchange (Garnet Interchange) Reconstruction and US 93 Capacity Improvements	2.64	2017
I-515 Alternatives Development Study_Project 1	2.9	2017
I-515 Alternatives Development Study_Project 2	0.4	2017
I-515 Alternatives Development Study_Project 3	2.8	2017
I-515 Alternatives Development Study_Project 4	6.8	2017
I-515 Alternatives Development Study_Project 5	0.3	2017
I-515 Alternatives Development Study_Project 6	1.2	2017
Reno Spaghetti Bowl Express Project	9.5	2018
I-15 North Corridor Improvement Phase 3 Project from Speedway Boulevard to Garnet Interchange	3.8	2019
I-15 Tropicana EA project	10.31	2019

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 public 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 became 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 cost benefits, motor vehicle emission cost benefits, vehicle operating cost benefits, and capital cost. In addition, the limitation of the B/C analysis is presented.

Benefit-Cost Analysis Assumptions and Parameters

The typical project life was assumed to be 20 years, i.e., benefits and costs accrued during a period of 20 years after the opening of the project are accounted for in the benefit/cost analysis. However, when the cost of the structural components of a project was a significant portion (greater than 25 percent) of the total project costs, a 40-year project life was assumed.

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 mean wage while business travel by truck/bus drivers was 100% of local mean wage plus fringe benefits. The wage values came from the occupational employment statistics survey for Nevada conducted by the Research and Analysis Bureau of Department of Employment, Training, and Rehabilitation in 2018. A 50% fringe was used because it was an average of several labor groups. Table E-1 lists the travel costs at different areas including Metropolitan Statistical Areas (MSA).

Table E-1 Travel Costs (2018 USD)

Statistical Area	Mean Wage ($/hour)	Personal Travel ($/hour)	Business Travel ($/hour)
Nevada	$22.18	$11.09	$33.27
Las Vegas – Paradise MSA	$21.89	$10.95	$32.84
Reno – Sparks MSA	$22.82	$11.41	$34.24
Carson City MSA	$23.99	$12.00	$35.99
West Central Counties	$21.81	$10.91	$32.72

Source: Occupational employment statistics survey for Nevada conducted by the Research and Analysis Bureau of Department of Employment, Training, and Rehabilitation in 2018, http://nevadaworkforce.com/OES#last.

Average vehicle occupancy factors and rates are shown in Table E-2.

Table E-2 Average Vehicle Occupancy Factors and Rates

Statistical Area	Average Vehicle Occupancy Factors*			Vehicle Occupancy Rate**
	Cars	Trucks	Buses	
Las Vegas – Paradise MSA	1.7	1.0	14.5	1.51
Reno – Sparks MSA	1.7	1.0	10.7	1.45
Other Areas	1.7	1.0	10.7	

* Source: Average Vehicle Occupancy Factors for Computing Travel Time Reliability Measures and Total Peak Hour Excessive Delay metrics (April 2018), FHWA.

** Vehicle occupancy rates are provided by RTC Washoe and RTCSNV.

Crash Benefits:

Freeways and Expressways with controlled access normally have lower crash rates than local streets and roads with little or no access control. The rates are illustrated in Tables E-3 and E-4.

Table E-3 Nevada Crash Severity Numbers of the Larger Counties

Location	Traffic Crashes Percentage	Number of Crashes	PDO[1]	INJURY	FATAL	Crash Rates[2]
Clark County	75.26%	41611	22690	18740	181	218.25
Washoe County	14.55%	8046	5129	2884	33	216.02
Carson City / Douglas County	3.06%	1693	1254	285	5	159.17

Notes: 1. Property Damage Only. 2. Crash rates expressed in crashes per 100,000,000 vehicles miles traveled.
Source: NDOT Traffic Safety Division.

Table E-4 FY 2018 Crash Totals by County, Rates, Annual Vehicle Miles Traveled, and Population

COUNTY	TOTAL CRASHES	% OF TOTAL CRASHES	TOTAL AVM	% OF TOTAL AVM	POPULATION	CRASH RATE
CARSON	979	1.77%	422,988,331	1.54%	56,823	231.45
CHURCHILL	465	0.84%	347,029,146	1.26%	26,345	133.99
CLARK	41611	75.26%	18,774,297,097	68.24%	2,145,354	221.64
DOUGLAS	714	1.29%	479,422,124	1.74%	48,190	148.93
ELKO	929	1.68%	826,171,831	3.00%	55,922	112.45
ESMERALDA	64	0.12%	117,013,302	0.43%	1,069	54.69
EUREKA	94	0.17%	148,975,418	0.54%	1,950	63.10
HUMBOLDT	350	0.63%	372,367,932	1.35%	18,350	93.99
LANDER	114	0.21%	146,258,974	0.53%	6,748	77.94
LINCOLN	187	0.34%	139,235,375	0.51%	5,115	134.30
LYON	579	1.05%	527,314,152	1.92%	56,768	109.80
MINERAL	94	0.17%	147,393,210	0.54%	4,345	63.77
NYE	633	1.14%	590,403,475	2.15%	46,225	107.21
PERSHING	93	0.17%	280,627,054	1.02%	6,853	33.14

COUNTY	TOTAL CRASHES	% OF TOTAL CRASHES	TOTAL AVM	% OF TOTAL AVM	POPULATION	CRASH RATE
STOREY	218	0.39%	86,521,360	0.31%	4,033	251.96
WASHOE	8046	14.55%	3,910,520,087	14.21%	467,417	205.75
WHITE PINE	121	0.22%	193,712,724	0.70%	10,235	62.46
TOTAL	**55291**	**100.00%**	**27,510,251,592**	**100.00%**	**2,961,742**	**200.98**

1. Source: NDOT Traffic Safety Division updated on October 1, 2019.
2. Crash rates expressed in crashes per 100,000,000 vehicles miles traveled.
3. NV St Demographer Pop. Projections 2015-2019.
4. July 1, 2017 - June 30, 2018.
5. Rounding error 27,510,251,594.

The crash costs per event (i.e., cost per fatality, cost per serious injury A, and others) were derived using Highway Safety Manual's Crash Cost Estimates. Consumer Price Index (CPI) and Employment Cost Index (ECI) were obtained from the Bureau of Labor Statistics (BLS). The crash costs per event then were converted and rounded into 2018 dollars using BLS CPI data. The crash costs per event were converted to costs per crash to correspond with the data on crash reduction. Costs per crash are higher than costs per event because a crash may be composed of multiple events (i.e. multiple injuries plus property damage). Table E-5 shows the crash cost assumptions.

Table E-5 Crash Cost Assumptions (2018 USD)

Crash Severity	Crash Cost per Event	Crash Cost per Crash
Fatal (K)	$6,100,000	$9,400,000
Suspected Serious (A)	$324,700	$206,500*
Suspected Minor (B)	$118,600	
Possibly/Claimed (C)	$66,700	
Property Damage Only (PDO)	$10,800	$32,800

1. *Represents cost per injury crash.
2. Source: Highway Safety Manual's Crash Cost Estimates converted into 2018 dollars using BLS CPI data.

Table E-6 lists crash costs by the Abbreviated Injury Scale (AIS) levels from the Benefit-Cost Analyses Guidance for transportation investment grant applicants.

Table E-6 Crash Cost Assumptions (2018 USD)

MAIS Level	Severity	Unit value
MAIS 1	Minor	$28,800
MAIS 2	Moderate	$451,200
MAIS 3	Serious	$1,008,000
MAIS 4	Severe	$2,553,600
MAIS 5	Critical	$5,692,800
MAIS 6	Not-survivable	$9,600,000

1. Source: Benefit-Cost Analysis Guidance for Discretionary Grant Programs, USDOT, December 2018.
2. Use Table E-6 for TIGER, BUILD, FASTLANE, or INFRA grant applications.

Motor Vehicle Emissions and Costs:

The most common local air pollutants generated by transportation activities are Sulfur Dioxide (SO_2), Nitrogen Oxides (NO_X), Fine Particulate Matter (PM), and Volatile Organic Compounds (VOC). The recommended economic values for reducing emissions of various pollutants are shown in Table E-7.

USDOT does not currently have recommended unit values for reductions in other greenhouse gases. Any such estimates provided in a BCA, however, should be discounted at the same rate as costs and other benefits quantified in the BCA, and should be based on the domestic damages of such emissions, rather than using global values.

Table E-7 Damage Costs for Pollutant Emissions (2018 USD)

Emission Type	$ / short ton*
Carbon Dioxide (CO_2)	$0.93**
Fine Particulate Matter (PM)	$387,000
Nitrogen Oxides (NO_X)	$8,500
Sulfur Dioxide (SO_2)	$50,100
Volatile Organic Compounds (VOC)	$2,050

1. Source: Benefit-Cost Analysis Guidance for Discretionary Grant Programs, USDOT, December 2018.
2. * A metric ton is equal to 1.1015 short tons.
3. **Cost of CO_2 is assumed to grow by 2.1 percent annually.

Vehicle Operating Costs Parameters:

Local data is encouraged to use on vehicle operating costs where available, appropriately documenting sources and assumptions. For analyses where such data is not available, the non-fuel costs for light duty vehicles can be estimated by the American Automobile Association (AAA)'s "Your Driving Costs" based on the average of three sedan categories (small, medium, and large). The non-fuel costs for trucks can be estimated by values from the American Transportation Research Institute (ATRI), the research arm of the American Trucking Associations Federation. ATRI has conducted several analyses of the operational costs of trucking. These studies use costs derived directly from the trucking industry motor vehicle fleet operations. The operating costs reported include a number of categories associated with travel time and fuel operating costs in addition to non-fuel operating costs. These values include operating costs that vary with vehicle miles traveled such as fuel, maintenance and repair, tires, depreciation, and additionally, in the case of trucks, truck/trailer lease or purchase payments, insurance premiums, and permits and licenses. The values exclude other ownership costs that are generally fixed or that would be considered transfer payments, such as tolls, taxes, annual insurance, license, financing charges, and registration fees. For commercial trucks, the values also exclude driver wages and benefits which are already included in the value of travel time savings. Vehicle non-fuel operating cost assumptions are summarized in Table E-8.

Table E-8 Vehicle Non-Fuel Operating Costs (2018 USD)

Vehicle Non-Fuel Operating Costs	Cost Per Mile ($)
Light Duty Vehicle[1]	0.30
Commercial Truck[2]	0.58

1. Source: American Automobile Association, Your Driving Costs – 2018 Edition.
2. Source: American Transportation Research Institute, An Analysis of the Operational Costs of Trucking: 2018 Update.

Fuel consumption rates are suggested to be estimated from the California Air Resources Board Emission Factors

2014 (EMFAC2014) model. On December 30, 2014, the California Air Resources Board updated EMFAC from the previous version, EMFAC2011. EMFAC2014 also improves upon EMFAC2011's modeling structure.

Fuel costs used in the BCA model represent the out-of-pocket fuel costs paid by consumers. The American Automobile Association (AAA) Daily Fuel Gauge Report can be used as the source for fuel data (http://gasprices.aaa.com/?state=NV). It is suggested the price of mid-grade fuel for automobile fuel costs and the price of diesel fuel for truck fuel costs. The fuel cost calculation excludes federal, state, and local taxes. These taxes are transfer payments and user fees for funding transportation improvements. Fuel taxes can be broken into three components: Federal fuel excise taxes, State fuel excise taxes, and State and local sales taxes. Federal and state motor fuel taxes can be found from the U.S. Energy Information Administration (https://www.eia.gov/petroleum/). Nevada state local taxes can be found from the Facts & Figures book published annually by NDOT.

Capital Expenditures:
The capital cost of a project is the sum of the monetary resources needed to build the project (or program of projects). Capital costs generally include the cost of land, labor, material and equipment rentals used in the project's construction. In addition to direct construction costs, capital costs may include costs for project planning and design, environmental reviews, land acquisition, utility relocation, or transaction costs for securing financing. Costs should be recorded in the year in which they are expected to be incurred, regardless of when payment is made for those expenses.

Operating and Maintenance Expenditures:
Operating and maintenance (O&M) costs cover a wide array of costs required on a continuing basis to support core transportation functions. The ongoing O&M costs of the project throughout the entire analysis period should be included in the BCA and should be directly related to the proposed service plans for the project. O&M costs should be projected for both the no-build baseline and with proposed improvement project. For projects involving the construction of new infrastructure, total O&M costs will generally be positive, reflecting the ongoing expenditures needed to maintain the new asset over its lifecycle. For projects intended to replace, reconstruct, or rehabilitate existing infrastructure, however, the net change in O&M costs under the proposed project will often be negative, as newer infrastructure requires less frequent and less costly maintenance to keep it in service than would an aging, deteriorating asset. Note also that more frequent maintenance under the baseline could also involve work zone impacts that could be reflected in projected user cost savings associated with the project.

Residual Value and Remaining Service Life:
The analysis period used in the BCA should be tied to the expected useful life of the infrastructure asset constructed or improved by the project. Where some or all project assets have several years of useful service life remaining at the end of the analysis period, a "residual value" may be calculated for the project at that point in time. This could apply to both assets with expected service lives longer than the analysis period, and shorter-lived assets that might be assumed to have been replaced within the analysis period. A simple approach to estimating the residual value of an asset is to assume that its original value depreciates in a linear manner over its service life. Those residual values would then be discounted to their present value using the discount rate applied elsewhere in the analysis. The projected residual value of a project should be added to the numerator when calculating a benefit-cost ratio for a project.

Discussions and 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 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.

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. The baseline 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. A three percent discount rate is recommended for performing sensitivity analyses to determine the impact of changes in the discount rate on the B/C ratio. All monetized values used in a BCA should be expressed in a common base year, with the effects of inflation netted out. OMB Circular A-94 and OMB Circular A-4 recommend using the Gross Domestic Product (GDP) Deflator as a general method of converting nominal dollars into real dollars. The GDP Deflator captures the changes in the value of a dollar over time by considering changes in the prices of all goods and services in the U.S. economy. If the method of Consumer Price Index is used as the deflator, it should be explicitly indicated and the index values used to make the adjustments should be provided in the BCA.

The final limitation is the level of favorable public opinion toward a project. If there is a negative public perception toward a 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 Transportation Board, provides oversight on the project selection process. The Board approves the Annual Work Program, and Short and Long-Range Elements. This board also accepts, as approved by the Federal Highway Administration, the Statewide Transportation Improvement Program.

The Department's future transportation project priority rationale will be guided by the *One Nevada Transportation Plan* which is NDOT's Long-Range Transportation Plan. The One Nevada Plan is NDOT's performance-based long-range plan, which will provide a frame work for establishing project prioritization practices throughout NDOT. The plan identifies future transportation needs and helps guide future decision-making. The One Nevada Plan includes an overarching vision and is the foundation for the continuous transportation planning process.

The above graphic represents how the One Nevada Plan will be used to guide NDOT's transportation investments. This transparent process will help validate transportation investment decisions by demonstrating how specific projects support the goals for the state's transportation network as established within the One Nevada Plan.

The following subsections describes some of the federal funding programs available to the Department and partner agencies. The programs include: Bridge, State Highway Preservation, Highway Safety Improvement, and Transportation Alternatives Program (TAP).

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 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.

There are 2124 bridges in the Nevada DOT bridge inventory. Of these, 1229 are owned and maintained by the department, 825 bridges are maintained by Nevada Counties and Cities, 53 are maintained by other local agencies. There are 17 private bridges listed in the bridge inventory including Railroad.

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 number of vehicles using a bridge, the availability of alternative routes, and rate of deterioration are also considered when selecting replacement and rehabilitation projects.

STATE HIGHWAY PRESERVATION PROGRAM

The Department maintains 5,355 centerline 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 51 percent of Nevada's traffic and 74 percent of the heavy trucks. The Department is responsible for protecting highway assets and preserving existing highways. The Pavement Management System provides an inventory of existing assets, their condition, needed repairs, and repair priorities. The basic principle of pavement preservation is that timely lower-cost improvements 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 $226 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:

- Apply timely overlays on Interstate and other Principal Arterials, Minor Arterials, and other moderate to high volume roads.
- Further develop economical repair strategies for our low-volume roads.
- 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.
2) Analyzing data files to determine high crash sites
3) Conducting Safety engineering studies 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 Public Safety/Office of Traffic Safety
- Department of Motor Vehicles
- Federal Highway Administration
- Federal Motor Carrier Safety Administration
- Nevada Sheriffs' and Chiefs' Association
- Nevada Association of Counties
- RTC of Southern Nevada
- RTC of Washoe County
- Department of Health/Bureau of Family Health Services

This cooperation is essential to accomplish "the 5 E's of Traffic Safety" – Engineering, Enforcement, Emergency Response, Education, and Everyone. Programs and projects are developed and prioritized based on data collected

on crashes as well as proven countermeasures and expected effectiveness in six emphasis areas: Intersections, Pedestrians, Lane Departure, Impaired Driving, Motorcycle, Occupant Protection, and Young Drivers.

TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

The TAP is a competitive, 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.

Federal funding covers up to 95% of project costs with 5% of costs provided by local proponents.

To be eligible, activities must fall within two broad categories: 1) Transportation infrastructure (constructed improvements); and, 2) Non-infrastructure projects (efforts related to education, Encouragement, and Enforcement for students' grades K-8).

Eligible project sponsors include entities such as: Tribal Governments, School Districts, Private and Tribal Schools, and local government agencies. Other organizations, such as non-profits, may apply when partnered with an eligible sponsor.

Proposed TAP projects are solicited through a competitive process facilitated by the NDOT and are ranked by a TAP Evaluation Committee. Members of this committee represent a wide range of interests, including active transportation, regional tourism, economic development, health, and state and local agencies. TAP funding is also made available through regional competitive solicitations conducted by Regional Transportation Commission of Washoe County (Washoe RTC), the Regional Transportation Commission of Southern Nevada (RTCSN), and the Tahoe Regional Planning Organization (TRPA).

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 for the four major divisions to facilitate the accomplishment of the Department's mission and achieve its strategic plan goals. These goals are as follows:

1) Safety first
2) Cultivate environmental stewardship
3) Efficiently operate and maintain the transportation system in Nevada
4) Promote internal and external customer service
5) Enhance organizational and workforce development

These performance measures are designed to quantify progress in achieving those goals, as well as assist divisions improve on their business processes. The fifteen performance areas are listed below. The following performance measures plan includes the actual performance measures, annual and ultimate targets, the performance measure champions, a brief discussion of strategy and 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 (PM 1)
Provide Employee Training (PM 2)
Improve Employee Satisfaction (PM 3)
Streamline Agreement Execution Process (PM 4)
Improve Customer and Public Outreach (PM 5)

OPERATIONS DIVISION

Reduce and Maintain Traffic Congestion (PM 6)
Streamline Project Delivery: Bid Opening to Construction Completion (PM 7)
Maintain State Highway Pavement (PM 8)
Maintain NDOT Fleet (PM 9)
Maintain NDOT Facilities (PM 10)
Emergency Management, Security, and Continuity of Operations (PM 11)

PLANNING DIVISION

Reduce Fatal & Serious Injury Crashes (PM 12)

ENGINEERING DIVISION

Streamline Project Delivery: Schedule and Estimate for Bid Advertisement (PM 13)
Maintain State Bridges (PM 14)
Streamline Permitting Process (PM 15)

1. REDUCE WORK PLACE ACCIDENTS

Performance Measure:

1) Reduce the rate of work place injuries/illnesses per 100 employees by at least 2% per year.
2) Reduce the rate of medical claims per 100 employees by at least 2% per year.

The rate of injuries is reported as the number of work place injuries and illnesses per 100 employees. The severity rate of illnesses/injures which is the level at which a medical claim is filed is the 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: 2% Reduction **Ultimate Target:** 100% Reduction

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, employees, and the public is a continuous process. This performance measure works towards meeting the Department of Transportation's Strategic Plan goals: safety first, and, efficiently operate and maintain the transportation system in Nevada.

2. PROVIDE EMPLOYEE TRAINING

Performance Measure:
Percentage of employees trained in accordance with prescribed training plans and State statute requirements

Annual Target: 80% **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 knowledge to enable employees to achieve higher job performance. This benefits the Department and the citizens of Nevada by providing a high-quality and safe transportation system. This performance measure aligns with Department of Transportation's Strategic Plan goals, especially safety first, efficiently operate and maintain the transportation system in Nevada, promote internal and external customer service, and enhance organizational and workforce development. Both the Nevada

Administrative Code (NAC), and the Division Matrix training are addressed by the training section's 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 quality staff. A satisfied workforce will excel at their duties. This benefits the Department and the public. This performance measure works towards meeting the Department of Transportation's Strategic Plan goals: safety first, cultivate environmental stewardship, efficiently operate and maintain the transportation system in Nevada, promote internal and external customer service, and, enhance organizational and workforce development.

4. STREAMLINE THE AGREEMENT EXECUTION PROCESS

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

Annual Target: 90% **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 at the core of the Department's business practices and must be completed prior to any action being taken. Delays have a significant impact on 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 operate and maintain the transportation system in Nevada efficiently, and promote internal and external customer service.

5. IMPROVE CUSTOMER SATISFACTION

Performance Measure:
Improve Customer and Public Outreach.

Annual Target:
Meet goals set forth in NDOT's communications plan

Ultimate Target:
Exceed goals set forth in NDOT communications plan

Division(s) Responsible:
Communications Office - Communications Director

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 because it signals that the department is doing the right things to be transparent, accountable, and efficient. This performance measure works toward meeting the Department of Transportation Strategic Plan goals to promote internal and external customer service.

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

Performance Measure:

1) Percent of person-miles traveled on Nevada Interstate that are reliable
2) Percent of person-miles traveled on Nevada non-interstate NHS routes that are reliable
3) Annual hours of peak hour excessive delay per capita
4) Percent of non-single occupancy vehicle travel in Nevada urbanized areas
5) Truck travel time reliability index on the Nevada interstate system

Ultimate Target: The ultimate target is determined with the goal of allocating available resources to maintain the roadway network at an acceptable level that is reflective of the Department's mission, vision and goals.

Division(s) Responsible:
Traffic Operations- Chief Traffic Operations Engineer
Performance Analysis - Chief Performance Analysis Engineer

Support Divisions:
Roadway Systems, Traffic Information

Strategy Plan Support:
This performance measure is one of the most significant indicators of how well the NDOT is operating the state highway system based on the available resources. 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. Applying operation strategies and tracking the related metrics will help reduce congestion on the NDOT maintained roadway system. This performance measure works towards meeting the Department of Transportation's Strategic Plan goals to

efficiently operate and maintain the transportation system in Nevada by reducing the level of congestion and increasing safety.

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

Performance Measure:
Percentage of projects completed within established cost estimate, schedule, and change order cost range

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

Division(s) Responsible:
Construction- Chief Construction Engineer

Support Divisions:
All

Strategy Plan Support:
Effort is made to ensure that at least 80% of completed projects are within 10% of the original programmed budget, are within 10% of the original schedule (assigned working days), and change orders are less than 3% cost.

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to efficiently operate and maintain the transportation system, and, promote internal and external customer service. It is critical as to how effective and efficient the department is in implementing highway projects.

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 approach in pavement preservation 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: put safety first, efficiently operate and maintain the transportation system. To effectively preserve and manage our assets is the corner stone to the Department's pavement preservation program.

9. MAINTAIN NDOT FLEET

Performance Measures:

1) Reduce the yearly percentage of fleet requiring replacement by at least 1% – this measure is the percentage of the fleet that have reached the age or mileage that requires replacement.
2) Increase the yearly percentage of fleet in compliance with condition criteria by at least 1% – this measure is the percentage of the fleet that is maintained as per Department preventive maintenance requirements so that the expected life span of Department vehicles is not compromised.

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 for NDOT personnel to perform the department's business and provide a safety to the public and staff. These performance measures work towards meeting the Department of Transportation Strategic Plan goals to: put safety first, efficiently operate and maintain the transportation system, promote internal and external customer service, and, cultivate environmental stewardship.

10. MAINTAIN NDOT FACILITIES

Performance Measure:
Increase percent of yearly facilities assessments completed and percent of facilities conditions and priority needs by 2%.

Annual Target: Increase by 2%

Ultimate Target: 100%

Division(s) Responsible:
Maintenance and Operations - Chief Maintenance and Operations Engineer

Support Divisions:
Districts, Administrative Services

Strategy Plan Support:
Facility Condition Analysis (FCA) reports will ensure Department buildings comply with building and safety codes and 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's Strategic Plan goals to put safety first, promote internal and external customer service, and efficiently operate and maintain 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, plans have been tested, exercised, and updated to accommodate changes in departmental processes and federal guidelines. Training and updates should be completed on a four-year 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 able to respond to health and safety issues. This performance measure works towards meeting the Department of Transportation's Strategic Plan goals - safety first, cultivate environmental stewardship, efficiently operate and maintain the transportation system in Nevada, promote internal and external customer service, and enhance organizational and workforce development.

12. REDUCE FATAL CRASHES

Performance Measure:
Measure 1: Number of traffic fatalities
Target - Decrease the projected 2014-2018 five-year rolling average of 334 traffic fatalities by at least one.

Measure 2: Number of serious traffic injuries
Target - Decrease the projected 2014-2018 five-year rolling average of 1,304 serious injuries by at least one.

Measure 3: Number of fatalities per 100M Vehicle Miles Traveled (VMT)
Target - Decrease the projected 2014-2018 five-year rolling average of 1.26 fatalities per 100M VMT by at least .01

Measure 4: Number of serious Injuries per 100M Vehicle Miles Traveled (VMT)
Target - Decrease the projected 2014-2018 five-year rolling average from 4.890 serious injuries per 100 Million VMT by at least 0.19.

Measure 5: Number of Non-Motorized Fatalities (And Non-Motorized Serious Injuries)
Target - Decrease the projected 2014-2018 five-year rolling average of 301 fatalities by at least 1.

Annual Target: Decrease the projected five-year rolling average of the number of traffic fatalities, serious injuries and non-motorized fatalities.

Ultimate Target: Zero

Division(s) Responsible:
Safety Division- Chief Traffic/Safety Engineer

Support Divisions:
All

Strategy Plan Support:
All drivers and highway system users expect a safe highway system. Through efforts of engineering, enforcement, education, emergency response and the will of the highway users, fatal crashes can be reduced and even eliminated. The strategies for this performance measure is be based on the Nevada Strategic Highway Safety Plan. This performance measure aligns with the Department of Transportation's Strategic Plan goals to: put safety first, and efficiently operate and maintain 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: 80%

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: Promote internal and external customer service, put safety first, cultivate environmental stewardship, and efficiently operate and maintain the transportation system. 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 the environment, 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. NBI general condition ratings are assessed on a scale that ranges from 0 (failed condition) to 9 (excellent condition). The lowest of the three ratings for bridges, or the single rating for culverts, is used to represent the overall condition of the structure. Ratings of 7 or better, represent a bridge that is in Good condition and ratings of 5 or 6 represent a bridge in fair condition. If any of the condition ratings are 4 or below, the bridge is in Poor condition. Percentage of the overall inventory in each category is determined by square foot area of the bridge deck.

MAP-21 eliminated the Functionally Obsolete classification as a funding criterion; therefore, the information presented below only includes data related to Structurally Deficient bridges. Because the FO designation does not reflect bridge condition, maintenance or replacement needs, the Structures Division no longer considers it in the development of the work program.

Annual Target: Replace or Rehabilitate at least one Department owned structurally deficient bridge annually. The goal is evaluated based on the contracts awarded in each 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: Safety first, cultivate environmental stewardship, and efficiently operate and maintain the transportation system. These goals can be met in the following ways: safety for the motoring public is put first by replacing structurally deficient bridges. The Structures Division will seek and implement innovative solutions to the challenges faced by the Bridge Program. The Division will deliver and maintain bridges as well as bridge projects and programs efficiently. Meeting this performance measure will help preserve and maintain 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 does not compromise safety and does not negatively affect the system. However, we must meet the customer's needs for a timely response for their economic development. Most permits are relatively simple, but some are very complicated and require extended technical reviews, thus the reason for the target being less than 100%. This performance measure works towards meeting the Department of Transportation's Strategic Plan goals to put safety first, promote internal and external customer service, and efficiently operate and maintain the transportation system.

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