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STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

FY 2008 ANNUAL REPORT FOR 2007 ASSEMBLY BILL 595 TO THE BOARD OF DIRECTORS



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INTRODUCTION

Assembly Bill 595 was passed in the 2007 Legislative Session. This bill provided the Department of Transportation additional bonding capacity for super and mega (major) projects identified by the Department as priority projects for the State of Nevada. The bill requires the Department to develop a plan for measuring its performance, which must include performance measures approved by the Board of Directors of the Department of Transportation (defined as 'Board' by NRS 408.033). The bill also included requirements for reporting to the Governor, Board, and Legislative Counsel Bureau.

Assembly Bill 595 included four main reporting requirements: three are for annual reports and one is for a quarterly report. The Department has combined all reporting requirements into one annual report that will be submitted to the recipients identified above following the fall meeting of the Board. Additionally, the quarterly report will satisfy a portion of this annual report, but will be submitted independently on the required quarterly basis. The specific requirements are as follows:

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

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

- Goals and objectives of the department and current status of meeting those goals
- Scheduling, 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

Submit the report to:

- The Board
- The Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee

As of June 30 of 2008, there were no directives from either the Board or Legislature and no recommendations to amend the performance measures plan.

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

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

This annual report must be made available to the Board and public when the agenda is posted for the meeting at which the report will be submitted to the Board for approval. This meeting will

occur in the fall timeframe along with the approval of the statewide Transportation System Project documents for yearly submittal to U.S. Department of Transportation.

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).

Submit report to:

- The Governor
- The Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee

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 the quarterly report to supplement annual reports required under Section 47.2 to:

- The Board
- The Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee.

The content of this annual report includes a discussion of Department goals followed by the presentation of the performance measures to meet these goals and the Department's Strategic Plan. The next topic is the project status report that is followed by the cost-benefit analysis of capacity projects. The annual expenditure report and project priority rationale complete the annual report...

DEPARTMENT GOALS

As stated earlier, the Department is to report on goals (Section 47.2), which are supported by mission and vision statements, and a list of core values. The purpose of Departmental goals is to help focus the attention and efforts of employees toward fulfilling the Department's **Mission**, which is:

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

Our employees are provided an image for the ideal condition of the Department with the following **Vision** statement:

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

The efforts of Department employees to attain the Department goals will be governed by the following Department's **Core Values**:

Integrity – Doing the right thing

Honesty – Being truthful in our actions and our words

Respect – Treating others with dignity

Commitment – Putting the needs of the Department first

Accountability – Being responsible for our actions

The fulfillment of the Mission of the Department is to be attained within the guidelines of the Department's seven **Strategic Plan Goals**. They are:

To optimize safety

To be in touch with and responsive to our customers

To innovate

To be the employer of choice

To deliver timely and beneficial projects and programs

To effectively preserve and manage our assets

To efficiently operate the transportation system

PERFORMANCE MEASURES

The Department has developed fifteen proposed performance measures among the four major divisions that were developed to achieve of the Department Goals (Section 47.2). These performance measures are intended to quantify progress in meeting those goals. The performance measures are listed below:

ADMINISTRATION DIVISION

1. Reduce Work-Place Accidents
Number of work-place injuries and illnesses per 100 employees and number of injuries and illnesses requiring medical attention per 100 employees
2. Provide Employee Training
Percentage of employees trained in accordance with prescribed training plans and legal requirements
3. Improve Employee Satisfaction
Numerical rating obtained from employees' satisfaction surveys.
4. Streamline Agreement Execution Process
Percentage of Agreements executed within 45 days from when division submits agreement to the date when it is fully executed
5. Improve Customer Outreach/Satisfaction
Numerical ratings obtained from public opinion and customer/user surveys

PLANNING DIVISION

6. Reduce Congestion on the State System
Percentage of daily vehicle miles traveled that occur at Level of Service E (unstable traffic flow) or worse on the state system

OPERATIONS DIVISION

7. Streamline Project Delivery – Schedule and Estimate from Bid Opening to Construction Completion
Percentage of projects within established range of cost estimate and schedule to completion
8. Maintain State Roadways
Percentage of state maintained pavements needing annual preservation in order to maintain the pavement International Roughness Index rating of fair or better condition
9. Maintain State Fleet
Percentage of fleet meeting (requiring) replacement criteria and percentage of fleet in compliance with condition criteria
10. Maintain State Facilities
Percentage of Department building facilities in compliance with regulatory building and safety codes

11. Provide Continuity of Business Operations
Percentage of seven Department Emergency Plans that have been completed

ENGINEERING DIVISION

12. Reduce Fatal Crashes
Number of fatalities on Nevada's streets and highways
13. Streamline Project Delivery – Schedule and Estimate from Project
Initiation to Bidding
Percentage of projects completed within range of established estimate and
schedule after the environmental process
14. Maintain State Bridges
Percentage of Department-owned bridges which are eligible for federal funding
and are categorized as structurally deficient or functionally obsolete
15. Streamline Permitting Process
Percentage of permits issued or rejected within 45 days of receipt

The actual Performance Measures Plan may be found in Appendix A. For convenience a summary of the progress with the performance measures follows on the next three pages.

Another significant effort for the performance measures has been the development of a draft transportation policy, TP 1-11-2, entitled Performance Measures Policy. This draft policy is included in Appendix B.

Annual Performance Measures Summary Status Report Ending 6-30-2008

Performance Measure Topic	Performance Measure	Target for Year	Current Status
1. Reduce Work Place Accidents	Injuries per 100 employees	10% reduction	Not on target
	Injuries needing medical attention per 100 employees	10% reduction	Not on target
Comments: The target values not met, at least in part due to a higher rate of overtime for construction and maintenance, and severe weather. Budget limitation will make it difficult to attain.			
2. Provide Employee Training	% employees trained	15%	On target, see comment
Comment: The training required by law has generally been met, however, until a new data base is developed, the training identified by prescribed training plans cannot be tracked.			
3. Improve Employee Satisfaction	Survey rating number	To be determined	Being developed
Comment: Annual Employee satisfaction survey to be drafted by May. Anticipated roll-out date is June 16, 2008, with completion date of July 15, 2008. Draft will be analyzed to determine the baseline and annual target in August of 2008.			
4. Streamline Agreement Process	% processed within 45 days	50%	On Target with 92%
Comment: During the fourth quarter of 2008, 131 agreements were submitted and 48 were executed, 44 within 45 days with a range of one day to 62 days. The Ultimate Target was nearly met. Thirty-six of the 48 agreements executed were amendments or task orders.			
5. Improve Customer Outreach	Survey rating number	To be determined	Being developed
Comment: Proposal for survey being written for consideration.			
6. Reduce Congestion on Highways	% daily Vehicle miles of travel at Level of Service E or worse	To be determined	Being developed
Comment: New measure - more time needed to develop. So far data reveals that 9% of traffic in CY 08 is subjected to congestion. Ultimate and annual targets will be established during the first quarter of FY 09.			

7. Streamline Project Delivery: Schedule And Estimate From Bid Opening To Construction Completion	% projects completed within schedule and estimate	25% improvement	Target Exceeded
Comment:			
8. Maintain State Highways	% state pavements fair/better	8% needed	Not on target for 8% will only meet 3%
Comment: For the Department of Transportation to keep current with present roadway conditions, approximately \$265 million is needed annually, which averages almost 8% of the total system. As of 2007, 987 center lane miles (19%) of the statewide 5318 center lane miles of NDOT maintained highway are in need of overlay or reconstruction, which totals approximately \$660 million. For next year, 24% of the state highway system will need preservation action.			
9, Maintain State Fleet	% fleet meeting (requiring) replacement condition criteria	1% decrease	Target met with 3.7% decrease
	% fleet in compliance with condition criteria	1% increase	Target met with 2.3% increase
Comment: Exceeded the targets.			
10. Maintain State Facilities	% buildings up to code	3% increase	Target not met
Major budget cuts have been made to the Architecture Section, but it is understood that life-safety and adherence to building codes will remain the top priority for Department facilities. Greater progress is expected to be made after current code-specific projects (FY'08) finish being designed and are constructed. A list of potential projects, with a focus on building codes and life-safety issues, is currently being developed. A prioritized project list for FY 2009, and the next Biennium is expected to be out by the end of May.			
11. Provide Continuity of Business Operations	% of emergency plans implemented	25% first year	Target met
In order to meet our goals for FY09, we will need equipment and supplies for our training exercises totaling approx. \$3800. We have evaluated our budget and are working to ensure that we will have adequate Budget Category 04 funding for these needs.			

12. Reduce Fatal Crashes	Fatalities on Nevada road system	Reduce by 100 fatalities	Does not appear target will be met
Comment: There were 372 fatalities in calendar year 2007; consequently, the 2008 target is 272. The first 6 months of 2008 is 164, which is estimated and the final number will be reported on September 1st. At the current rate there will be approximately 328 fatalities in 2008, an expected reduction of 44, but higher than the target.			
13. Streamline Project Delivery: Schedule And Estimate From Project Initiation To Bidding	% projects NEPA within budget and schedule	25% improvement	Target met
Comment:			
14. Maintain State Bridges	% reduction in obsolete bridges	1 bridge biennially	On target
Comment:			
15. Streamline Permitting Process	% action within 45 days	95%	Target Met
Comment: Formal Transportation Policy has been approved.			

SUMMARY	Quarter ending March 31, 2008	Quarter ending June 30, 2008
TOTAL DATA ITEMS =	17	17
Number meeting target =	6	9
Percent meeting target =	35	53
Number not meeting target =	5	5
Percent not meeting target =	29	29
Number being developed =	6	3
Percent being developed =	35	18

MAJOR PROJECT STATUS REPORT

There are project status reporting requirements in Assembly Bill 595, namely, any current or proposed highway projects (Sec 47.2), highway projects using NRS 244A.637 (Las Vegas Convention and Visitor Authority) funding (Sec 55.3), and highway projects identified by the recent Blue Ribbon Task Force and other super or mega (major) projects (Sec 55.5). The Department has combined all the reporting requirements into one annual report that will be submitted to the recipients as required by Assembly Bill 595 following the fall meeting of the Board. The fall meeting is when the Board approves the Transportation System Projects document for submittal to the U.S. Department of Transportation which is required prior to October 1st of each year. The quarterly report submission requirement will be satisfied by this section, and Appendix C, of this annual report, and will be submitted independently on the required quarterly basis, and placed on the Department's website.

The Department has converted its major project status system to a new format that will meet the reporting requirements of Assembly Bill 595 projects and those projects estimated to cost at least \$25 million. Below are the specific major highway projects that require a status report as per Assembly Bill 595.

Blue Ribbon Task Force Highway Projects

Southern Nevada

I-15 North Corridor – Spaghetti Bowl to Apex Interchange
US-95 Northwest Corridor – Washington to Kyle Canyon
Beltway Interchanges – US-95, I-15 & Summerlin Parkway
I-15 – Tropicana Avenue to Spaghetti Bowl
I-515 – Foothills Road to Spaghetti Bowl
I-15 South Corridor – Stateline to I-215 Beltway
Boulder City Bypass

Northern Nevada

I-80 – Robb Drive to Vista Boulevard
US-395 – Spaghetti Bowl to Stead Boulevard
Pyramid Highway – Nugget Avenue to Calle De La Plata Drive

Las Vegas Convention and Visitor Authority Projects

I-15 – Tropicana Avenue to Sahara Avenue
I-15 – Blue Diamond Road (SR-160) to Tropicana Avenue

Appendix C contains the status report of these and other important projects as of June 30, 2008.

As a part of the reporting requirements in Section 55.5 of Assembly Bill 595, the Department is to report the number of major projects for which construction was completed during each quarter. For each completed project, the Department is to report on the following:

1. Whether the project was completed early or on time.
2. Whether the project remained within its planned scope.

3. Whether the project was completed for less than or for the amount of its budgeted expenses.
4. Any specific measures of transportation improvement resulting from the project.

For the quarter ending on June 30, 2008, the Department did not complete any major projects.

COST- BENEFIT ANALYSIS OF CAPACITY PROJECTS

One of the provisions in Assembly Bill 595 in the 2007 Legislative Session was the requirement for the Department to conduct an analysis of costs and benefits for larger highway capacity projects (NRS 408.3195). 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. Consequently, 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 B/C ratio calculations are being done on the larger capacity projects that are expected to be funded for construction within 10 years and, thereby, appear in the Transportation System Projects document. The policy that governs the analysis of benefits and costs, TP 1-11-1, is included in Appendix D.

The B/C ratios for several projects have been determined in FY 2008 using a software package called STEAM (Surface Transportation Efficiency Analysis Model). This package is described in Appendix E including the data requirements, and limitations of the STEAM analysis in particular and B/C ratio calculations in general.

Table 1 reports the B/C ratio of a total of the five projects that are in the Transportation System Projects document. The table reports on two results of the analysis: net present value of B/C ratio at a 7 percent discount rate, and payback period in years at a 7 percent discount rate. Appendix F contains the written analysis for the only project expected to receive construction funding in FY 2009. It is I-15 South Corridor from Tropicana Avenue to Sloan Road. The other projects are programmed in later fiscal years.

Table 1. RESULTS OF THE COST-BENEFIT ANALYSES PERFORMED IN FY 2008

Blue Ribbon Task Force Projects	NPV B/C*	PP*
I-15 South Corridor – Tropicana Avenue to Sloan Road	4.11	8
US-95 Northwest Corridor – Rainbow Blvd to Kyle Canyon Road	3.63	8
I-15 North Corridor – Spaghetti Bowl to Apex	3.39	9
I-15 – NEON (Sahara Avenue to Spaghetti Bowl)	1.97	12
I-515 – Spaghetti Bowl to Foothills Road	1.94	12

*Notes:

NPV B/C – net present value of benefit/cost ratio at a 7 percent discount rate

PP – payback period in years at a 7 percent discount rate

A B/C ratio was developed for Boulder City Bypass Phase I project; however, it is under special study due to anticipated funding limitations that might substantially change the project scope. There are several other large capacity projects that are not contained within the Transportation

System Projects document or have not advanced enough to establish a project scope sufficient to conduct and report a B/C ratio. They include:

- Beltway Interchanges – US-95, I-15 & Summerlin Parkway
- Boulder City Bypass Phase II
- I-80 – Robb Drive to Vista Boulevard
- US-395 – Spaghetti Bowl to Stead Boulevard
- Pyramid Highway – Nugget Avenue to Calle De La Plata
- US 395 Corridor in Douglas County

The cost data analyzed include: accidents/crashes, fuel consumption, non-fuel vehicle operating, travel time, construction, and emissions. There are some costs that were not included, namely, transit costs (and benefits) and highway maintenance, which need consideration at times.

Other limitations to the B/C ratio that deserve consideration on many projects include 1) the cost of impacts on human communities, 2) the management of roadway assets, especially roadway preservation, 3) the impact of large capacity highway projects on system-wide congestion, and 4) the level of favorable public opinion toward a project. These limitations are discussed in detail in Appendix E.

In summary, when determining the priority of large capacity projects, the Department will work with and encourage the Regional Transportation Commissions and other Metropolitan Planning Organizations to consider community impact, roadway preservation, system congestion, and public acceptance in addition to the B/C Ratio.

ANNUAL REVENUE AND EXPENDITURE REPORT

Assembly Bill 595 in the 2007 Legislative Session included the requirement for the Department to report on the funding sources, amount and expenditures (Section 47.2). There is an annual report entitled “Highway Special Revenue Fund” for State Fiscal Year ending June 30, 2008 that is under development, but will not be finalized until November; consequently, financial data for FY 2007 is included herein. The following three tables provide the required information:

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

The first table reports that total revenues into the State Highway Fund were approximately \$1.130 billion while the second table contains the total actual expenditures, which were approximately \$1.097 billion.

The third table indicate that the Highway fund balance increased from approximately \$329 million to \$348 million during FY 2007. The total Department of Transportation actual expenditures for FY 2007 were approximately \$827 million, which is shown on the second table.

These three tables also include other detailed financial data about transportation-related revenues and expenditures.

State of Nevada
Highway Special Revenue Fund
Schedule Of Revenues And Receipts - Budgetary Basis
For The Years Ended June 30, 2007 and 2006
(In thousands)

	2007	2006
State user taxes		
Gasoline taxes	\$ 200,174	\$ 197,706
Motor vehicle fees and taxes		
Vehicle registration & bicycle safety fees	104,717	99,838
Motor carrier fees	44,055	40,812
Drivers license fees	13,704	13,244
Special fuel taxes	96,968	96,642
Total motor vehicle fees and taxes	259,444	250,536
Total state revenue	459,618	448,242
Federal Aid reimbursement		
Bureau of Reclamation	-	466
Federal Aviation Administration	222	7
Federal Emergency Management Administration	-	285
Federal Highway Administration	307,870	220,850
Federal Rail Administration	-	67
Federal Transit Administration	6,103	1,482
US Forest Service	-	-
Total Federal Aid	314,195	223,157
Miscellaneous receipts		
Departments of Motor Vehicles & Public		
Safety authorized revenue	80,300	75,754
Appropriations from other funds	26	544
Proceeds from sale of bonds	198,965	199,315
Agreement income	31,521	30,741
Interest	20,119	15,043
Sale of surplus property	222	9,190
Other sales & reimbursements	25,203	12,884
Total miscellaneous receipts	356,356	343,471
Total revenue and receipts - budgetary basis	\$ 1,130,169	\$ 1,014,870

State of Nevada
Highway Special Revenue Fund

Comparative Schedule of Expenditures and Disbursements - Budgetary Basis

For the Fiscal Year Ending June 30, 2007 and 2006

(In Thousands)

	2007		2006	
	Budgeted	Actual Using Budgetary Basis	Variance Favorable (Unfavorable)	Actual Using Budgetary Basis
Department of Transportation				
Labor	\$ 120,586,813	\$ 115,370,857	\$ 5,215,956	\$112,503,101
Travel	1,945,883	1,672,179	273,704	1,709,438
Operating	61,996,946	56,858,125	5,138,821	53,142,608
Equipment	21,034,260	16,075,817	4,958,443	17,078,335
Capital improvements	495,124,501	455,470,146	39,654,355	449,230,028
Bond expenditures	318,051,456	167,406,913	150,644,543	98,836,261
Other programs	24,461,595	11,277,249	13,184,346	7,484,586
Total operations	<u>1,043,201,454</u>	<u>824,131,286</u>	<u>219,070,168</u>	<u>739,984,357</u>
Cost of fuel sold to other agencies	<u>3,424,768</u>	<u>2,944,652</u>	<u>480,116</u>	<u>2,749,921</u>
Total Department of Transportation	<u>1,046,626,222</u>	<u>827,075,939</u>	<u>219,550,283</u>	<u>742,734,278</u>
Department of Motor Vehicles	108,896,744	88,252,612	20,644,132	84,090,362
Department of Public Safety	<u>78,570,273</u>	<u>74,549,997</u>	<u>4,020,276</u>	<u>72,135,548</u>
	<u>187,467,017</u>	<u>162,802,609</u>	<u>24,664,408</u>	<u>156,225,910</u>
Appropriations to other funds				
Department of Administration	150,000.00	131,477.00	18,523	-
Transportation Services Authority	2,229,396	2,188,958	40,438	1,972,435
Public Works Board	234,101	234,101	1	8,885,272
Traffic Safety	213,662	175,925	37,737	157,060
Investigations	299,214	298,387	827	286,112
DMV Training Division	1,593,330	1,364,942	228,388	1,271,230
Risk Management	1,026	(1,500)	2,526	13,680
Legislative Counsel Bureau	13,406,915	12,547,324	859,591	1,467
Department of Information Technology	<u>14,471,249</u>	<u>13,994,632</u>	<u>476,617</u>	<u>956,811</u>
Total appropriations to other funds	<u>32,598,893</u>	<u>30,934,246</u>	<u>1,664,648</u>	<u>13,544,067</u>
Other disbursements				
Transfer to bond fund	<u>78,000,000</u>	<u>76,381,573</u>	<u>1,618,427</u>	<u>61,148,664</u>
Total other disbursements	<u>78,000,000</u>	<u>76,381,573</u>	<u>1,618,427</u>	<u>61,148,664</u>
Total expenditures & disbursements				
- Budgetary basis	<u>\$ 1,344,692,132</u>	<u>\$ 1,097,194,366</u>	<u>\$247,497,765</u>	<u>\$973,652,918</u>

DEPARTMENT OF TRANSPORTATION
HIGHWAY FUND BALANCE (BUDGETARY BASIS)
FISCAL YEARS 2005 - 2007

	ACTUAL FISCAL YEAR 2005	ACTUAL FISCAL YEAR 2006	ACTUAL FISCAL YEAR 2007
BEGINNING FUND BALANCE:			
GENERAL OBLIGATION BONDS	\$5,273,392	\$18,613,292	\$119,091,562
OTHER HIGHWAY FUND	<u>\$232,665,608</u>	<u>\$278,868,708</u>	<u>\$209,925,438</u>
TOTAL BEGINNING FUND BALANCE:	\$237,939,000	\$297,482,000	\$329,017,000
ADDITIONS:			
REVENUES	\$783,623,640	\$815,554,668	\$931,203,530
BOND PROCEEDS	<u>188,829,615</u>	<u>199,314,532</u>	<u>198,965,425</u>
TOTAL ADDITIONS:	\$972,453,255	\$1,014,869,200	\$1,130,168,955
DEDUCTIONS:			
EXPENDITURES AND APPROPRIATIONS			
NDOT NON-BOND EXPENDITURES	\$518,735,309	\$643,898,016	\$659,669,026
NDOT BOND EXPENDITURES	175,489,714	98,836,261	167,406,913
EXP. & APPROP TO OTHER AGENCIES	<u>216,399,471</u>	<u>230,918,640</u>	<u>270,106,488</u>
TOTAL DEDUCTIONS:	\$910,624,494	\$973,652,917	\$1,097,182,426
ADJUSTING ENTRIES:			
CAFR ADJUSTMENTS	<u>-\$2,285,761</u>	<u>-\$9,681,283</u>	<u>-\$13,744,529</u>
TOTAL ADJUSTING ENTRIES:	-\$2,285,761	-\$9,681,283	-\$13,744,529
ENDING FUND BALANCE:			
GENERAL OBLIGATION BONDS	\$18,613,292	\$119,091,562	\$150,650,074
OTHER HIGHWAY FUND	<u>278,868,708</u>	<u>209,925,438</u>	<u>197,608,926</u>
TOTAL ENDING FUND BALANCE:	<u>\$297,482,000</u>	<u>\$329,017,000</u>	<u>\$348,259,000</u>

PROJECT PRIORITY RATIONALE

Introduction

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

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

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

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

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

Capacity Projects Program

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

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

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

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

Bridge Program

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

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

Eligible expenses are funded at eighty percent federal funds with a twenty percent match by the bridge's owner. Sixty-five percent of the federal funds must be applied to bridges on the federal-aid system, fifteen percent to bridges off the federal-aid system, and twenty percent is optional. Bridges on federal and tribal lands are also eligible but are neither authorized nor administered by the Department.

There are approximately 1623 bridges open to the public in Nevada that are maintained mostly by the Department and local agencies. Additionally, several bridges are maintained by federal agencies and a few by private and other state agencies. Of these bridges, 1559 are eligible for federal funding. Eligibility and the priority of replacement projects are based on a bridge's sufficiency rating. The sufficiency rating is a numerical formula that uses a compilation of inventory data and condition assessment inspections. The importance of a bridge to the transportation system and rate of deterioration are also considered when selecting a replacement project.

State Highway Preservation Program

The Department maintains 5422 miles of highways. These highways carry 58 percent of Nevada's traffic and 87 percent of the heavy trucks. The Department is responsible for protecting highway assets and preserving existing highways. Highway assets are managed using two systems: a pavement management system and a bridge inventory system. Both systems provide

an inventory of existing assets, their condition, needed repairs, and repair priorities. The basic principle of pavement preservation is that timely lower-cost improvement will save money and better serve the public. For example, timely overlays will cost about 25 percent of the cost of waiting a few more years when reconstruction is necessary. At present, approximately \$266 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:

1. Continue to maintain Nevada's Interstate system and high-volume roads at a high level of serviceability by applying timely overlays and reconstructing inferior segments.
2. Continue to maintain Nevada's non-Interstate principal arterials, minor arterials, and other moderate-volume roads at a modest to high level of serviceability by applying timely overlays and reconstructing inferior segments.
3. To further develop economically sound methods to improve low-volume roads and maintain them at a limited, but acceptable, level of serviceability.
4. To continue coordinating and integrating routine pavement maintenance activities with planned overlay and reconstruction work.

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

Highway Safety Improvement Program

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

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

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

Department of Health/Bureau of Family Health Services
RTC of Washoe County
Department of Public Safety/Office of Traffic Safety

Department of Public Safety/Nevada Highway Patrol
Federal Motor Carrier Safety Administration
Department of Motor Vehicles
Federal Highway Administration
Nevada Sheriffs' and Chiefs' Association
RTC of Southern Nevada
Nevada Association of Counties

Transportation Enhancement Program

The Transportation Enhancement Program requires that ten percent of the Federal Surface Transportation Program (STP) monies apportioned to each state be set aside for the funding of enhancements to the transportation system. Transportation Enhancement Program funding includes activities such as:

- Pedestrians and bicycles facilities
- Safety and educational activities for pedestrians and bicyclists
- Acquisition of scenic easements and scenic or historic sites
- Landscaping and other scenic beautification
- Rehabilitation of historic transportation buildings, structures, or facilities
- Environmental mitigation of water pollution and habitat connectivity
- Establishment of transportation museums

Local governments, state agencies, and federal agencies may submit applications for project funding. Private groups may apply for project funding, but must apply through a public entity or agency. Projects must be for one of the categories specified by law and must be related to surface transportation.

Enhancement projects are prioritized for funding by the Statewide Transportation Technical Advisory Committee. Members of this committee represent a wide range of transportation interests, including several local, state, and federal agencies. Within the urbanized area, the Metropolitan Planning Organizations initially prioritizes projects in their jurisdictions. A subcommittee of the Statewide Transportation Technical Advisory Committee prioritizes projects from the non-urbanized areas of the state. The Statewide Transportation Technical Advisory Committee approves and recommends to the Director a final priority list of projects. Upon the Director's approval, the enhancement projects are included in the Statewide Transportation Improvement Program (STIP).

APPENDIX A
PERFORMANCE MEASURES PLAN

INTRODUCTION

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

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

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

ADMINISTRATION DIVISION

1. Reduce Work-Place Accidents
2. Provide Employee Training
3. Improve Employee Satisfaction
4. Streamline Agreement Execution Process
5. Improve Customer Outreach/Satisfaction

PLANNING DIVISION

6. Reduce Congestion on the State System

OPERATIONS DIVISION

7. Streamline Project Delivery: Schedule and Estimate from Bid Opening to Construction Completion
8. Maintain State Roadways
9. Maintain State Fleet
10. Maintain State Facilities
11. Provide Continuity of Business Operations

ENGINEERING DIVISION

12. Reduce Fatal Crashes
13. Streamline Project Delivery: Schedule And Estimate from Project Initiation To Bidding
14. Maintain State Bridges
15. Streamline Permitting Process

1. REDUCE WORK PLACE ACCIDENTS

Performance Measure:

Number of work place injuries and illnesses per 100 employees and number of injuries and illnesses requiring medical attention per 100 employees as documented through annual OSHA 300 Log Reporting data. Additionally the number of work place injuries and medical injuries compared to total number for employees are also reported.

Ultimate Target: Zero

Annual Target: 10 % Reduction

Champion:

Manager, Human Resources
Safety and Loss Control Manager

Support Divisions: All

Strategy Plan Support:

Safety extends to all aspects of the Department from the roadways to the office. Identifying and reducing risk to the Department, our employees and the public is continuous. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: ‘Optimize Safety’ regarding department employees by reduction on-the-job injuries. In addition, reducing injuries will help meet the goal of ‘Be the Employer of Choice’.

Measurement and Supporting Data:

	Baseline	CY 2008		
		1st Qtr	2nd Qtr	1st Half
Injuries/100 Employees	16.5	19.4	11.8	15.6
Medical/100 Employees	7.5	10.7	6.1	8.4

Baseline is the average of CY 2004 - CY2007

For the first half of calendar year 2008 the injury rate was 15.6 compared with the standard of 16.5 for a reduction of 5% is progress but will probably not meet the annual target. Likewise, the rate of injuries requiring medical attention of 8.4 will likely not meet the annual target of 10% less than 7.5 by the end of December. Most likely the increase was due to the level of overtime for construction and maintenance, and severe weather.

Strategies for Improvement:

Short range to next reporting: Increase safety related training for new employees and supervisors and to provide more frequent safety training related to specific job tasks such as

trenching & excavating, sand and gravel operations, respiratory protection and scaffolding. Work with Training Section and Division Heads to develop a database that will be accessible to managers to track required safety training.

Long range: Increase ratio of staff in the Safety and Loss Control Section to total number of NDOT employees, which has had three staff since 1969, in order to provide support and consultation services to the Divisions and Districts on a consistent and continued basis and to maintain agency compliance with State and federal safety regulations.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? No

What ‘Strategies for Improvement’ were successful?

Implementation of a Training database has been partially successful. Steps have been taken by the Training Section to move NDOT Training to NEATS. It is unclear at this time whether NEATS will be able to generate the reports and to track training expiration dates as requisite. Next step will be to get all the Training Coordinators and District safety staff to list all their training courses, excluding equipment training, on NEATS. Parameters for entering classes such as limiting to a specific location and insuring all class titles start with “NDOT” to facilitate identification need to be established.

What ‘Strategies for Improvement’ were not successful? Why?

At this time, the Safety and Loss Control Section has only 2 staff and one is dedicated entirely to the worker comp claim program. Efforts to upgrade the Safety Specialist position in order to hire a competent and professional level staff is in progress but slow due to work load demands on all parties involved and constraints on the Safety Specialist series which limits State agencies to lower level, and thus, less experienced staffing options. While the Districts are taking steps to procure safety staff on construction projects, this may increase safety compliance but will not improve the program oversight and implementation as a whole. In order to achieve effective program oversight and insure compliance, the number of staff in the Safety and Loss Control Section has to increase.

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Short range to next reporting:

1) While not necessarily a new strategy, the paperwork to upgrade the Safety Specialist position will be completed and submitted in FY09. 2) Safety questions were incorporated into the Employee Satisfaction Survey and will aid in evaluating the agency’s culture or attitude as it pertains to safety. 3) Efforts will continue to improve or build upon existing database training options in order to identify safety training needs.

Long range:

To take the information from the safety question portion of the Employee Satisfaction Survey and to evaluate it to determine areas of need within the safety program. Due to the lack of staff and increased workload, hiring a consultant to evaluate NDOT’s Safety Program, to identify

areas needing improvement and assisting with implementation of solutions would be a possibility, however, budget constraints may prevent moving forward with such an action.

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.

Fiscal impact would be to a minor degree. Consulting services are estimated to be less than \$70,000.00 for long term assistance. Hiring additional safety staff within the Safety and Loss Control Section would have a fiscal impact due to the increase in staffing. However, those costs should be recouped in the long term with the realization of decreased worker injuries and associated costs.

2. PROVIDE EMPLOYEE TRAINING

Performance Measure:

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

Ultimate Target: 100%

Annual Target: 15%

Champion:

Chief Human Resources
Employee Development Manager

Support Divisions: All

Strategy Plan Support:

Training of the workforce keeps them safe in the workplace. It also provides the skills and abilities to excel at their duties and to maintain staff expertise. This benefits the Department and our customers by having qualified staff. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety by providing adequate training for supervisors, Be in touch with and responsive to our customers, Innovate, Be the employer of choice, Deliver timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system. Both NAC and Matrix training will be required.

Measurement and Supporting Data:

Required Training

Sexual Harassment: Total number of full-time equivalent employees is 1754.

Number of employees receiving training	452	26% - met Annual Target
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Training for Supervisors and Managers:

NRS and NAC require that each supervisor receive 40 hours of supervisory training every three years which equals 13.3 hours each year.

		Percent of Ultimate Target
Total annual hours of required training for supervisors	8656	
Number of supervisors	428	
Hours of training per supervisor	20.2	150%

Each supervisor is required to take these classes every 9 years which averages 48 employees each year.

		Percent of Ultimate Target
Discipline Procedures & Discipline Writing	49	100%
Employee Appraisal	89	185%
Handling Grievance Procedures	83	173%
Interviewing and Hiring	100	208%
Alcohol and Drug Testing	29	60%
EEO	40	83%

For 5 of 8 training classes met or exceeded the Ultimate Target; however, it would be a benefit to reallocate some to the training class topics to provide more training opportunities for those topics that have not met the Ultimate Target. With reallocation of course resources, the Ultimate Target for all courses will likely be met within a year or two.

Strategies for Improvement:

Short range to next reporting:

- Work with Safety and Loss Control Manager and Division Heads to develop a database that will be accessible to managers to track required safety training.
- Update division training matrix biennially
- Provide mandated training to NDOT employees
- Provide training opportunities that will improve the skills of employees
- Coordinate training needs with universities and other organizations to avoid duplication
- Provide a means for NDOT employee to learn advanced skills by allowing them to work part-time on NDOT research projects.

Long range:

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? Yes on the average, but reallocation is needed

What ‘Strategies for Improvement’ were successful?

What ‘Strategies for Improvement’ were not successful? Why?

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Short range to next reporting:

Long range: (Initially there was no long range strategy.)

To gather information in such a way as to be able to identify by supervisor, who has the required training hours and who does not.

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

3. IMPROVE EMPLOYEE SATISFACTION

Performance Measure:

Numerical rating obtained from employees' satisfaction surveys.

Ultimate Target: Overall rating of 8 from a scale of 10. Annual Target: To be determined

Champion: Chief Human Resources

Support Divisions: All

Strategy Plan Support:

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

Measurement and Supporting Data:

2007 FY (Base Number)	N/A – This is a new Performance Measure	
2008 FY	Rating	
2009 FY	Rating	Change

Survey of employees is expected to be completed and analyzed by mid-August.

Strategies for Improvement:

Short range to next reporting:

Conduct and analyze annual employees' satisfaction survey to determine a baseline and annual target.

Long range:

Continue conducting and analyzing annual satisfaction surveys and make appropriate recommendations the Director's Office to improve employee satisfaction

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? Has not been determined yet.

What ‘Strategies for Improvement’ were successful?

What ‘Strategies for Improvement’ were not successful? Why?

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Short range to next reporting:

Long range:

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

4. STREAMLINE AGREEMENT EXECUTION PROCESS

Performance Measure:

Percentage of Agreements executed within 45 days from when division submits agreement to the date when it is fully executed.

Ultimate Target: 95%

Annual Target: 50%

Champion: Asst. Director Administrative Services

Support Divisions: All (*modify when the specific level of agreement is identified*)

Strategy Plan Support:

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

Measurement and Supporting Data: Use agreement log.

2007 FY (Base Number)	5%
2008 FY – Third Quarter	30%
2008 FY – Fourth Quarter	50%
2009 FY – First Quarter	92%

During the fourth quarter of 2008 131 agreements were submitted and 48 were executed, 44 within 45 days with a range of one day to 62 days. The Ultimate Target was nearly met. Thirty-six of the 48 were amendments or task orders.

Strategies for Improvement:

Short range to next reporting:

Conduct Agreement training for Department staff, consultants, contractors, and local government agencies.

Long range:

Formally assess the agreement process every three years.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? The target is expected to be met

What ‘Strategies for Improvement’ were successful? It is too soon to evaluate the strategies

What ‘Strategies for Improvement’ were not successful? Why?

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Short range to next reporting:

Agreement Services will be implementing a new tracking mechanism using an existing Excel database. The tracking feature will allow us to set parameters for every department we send the agreements to and if the time frames are exceeded, we will receive a notification so we can follow up with the specific department for resolution. We believe this will help us keep a better eye on the processing time to avoid unnecessary delays in agreements getting stuck in one department.

Long range:

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

5. IMPROVE CUSTOMER SATISFACTION

Performance Measure:

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

Annual Target: **To be determined**

Ultimate Target:

Annual (or biennial, depending on how often the surveys are conducted) increases in public opinion and customer/user ratings. *(There will be different types of surveys pertaining to various functions of the Department: overall business; customer processes; education/knowledge of the department; and others to be determined.)*

Champion: Chief of the Communications Office

Support Divisions:

Districts, Public Information, Program Development, Intermodal Planning, Right of Way
Others to be determined

Strategy Plan Support:

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

Measurement and Supporting Data: *(This may be a once per year or 2-year cycle)*

2007 FY (Base Number)	N/A – this is a new measure
2008 FY – Third Quarter	Rating
2008 FY – Fourth Quarter	Rating Change

Strategies for Improvement:

Short range to next reporting:

Devise survey instruments to adequately address what types of feedback from the public and various users we are looking for; assess the results of the surveys to determine specific areas for improvement (such as more concerted or varied public outreach techniques, better and more user friendly customer processes in dealing with contractors/trucking industry/consultants, etc.).

Long range:

Constant improvement over the reporting periods (once per year or two-year periods, or how often we conduct the surveys).

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met?

The survey instruments are being formulated under contract with UNR as part of a maintenance survey.

What 'Strategies for Improvement' were successful?

The survey has not been conducted as of June 30, 2008.

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

The survey has not been conducted yet.

What new 'Strategies for Improvement' will be initiated in FY2009?

This will be determined once we see the results of the survey.

Short range to next reporting:

Continue work on formulating and executing the survey in conjunction with the maintenance division and UNR.

Long range:

Constant improvement over the survey reporting periods, depending on how often they are conducted.

Does this performance measure effectively measure what is desired?

Do not know as yet, but we believe it will.

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, at least not to the Communications Office. The maintenance and operations division is contracting with UNR to conduct the survey.

6. REDUCE CONGESTION ON STATE SYSTEM

Performance Measure:

Percentage of daily vehicle miles traveled that occur at Level of Service E (unstable traffic flow) or worse on the state system. This measure has been labeled as the ‘system congestion index.’

The establishment of targets is requiring further analysis.

Ultimate Target: **To be determined**

Yearly Target: **To be determined**

Champion: Assistant Director - Planning

Support Divisions:

Traffic Information, Roadway Systems, Location, Program Development, Design, Construction, Districts

Strategy Plan Support:

This performance measure addresses congestion on our state highway system. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: By reducing congestion, the probability of collisions is reduced that will help optimize safety, be in touch with and responsive to our customers by reducing the level of congestion, and efficiently operate the transportation system by reducing the level of congestion.

Measurement and Supporting Data:

2008 FY – Fourth Quarter (Base Number) 9%

The level of congestion, 9% of daily vehicle miles traveled occurring at Level of Service E (unstable traffic flow) or worse on the state system, has recently been determined. The values for the ultimate and annual targets will be determined during the first quarter of FY 09.

Strategies for Improvement:

Short range to next reporting:

The major challenge is to provide the needed level of funding to increase highway capacity. Explore innovative ideas to provide funding for highway improvements – Public Private Partnerships, leasing air rights above state highways, constructing quiet pavements in lieu of sound walls, and collect impact fees from major land developments.

Every capacity project will be evaluated to identify the improvement in the performance measure that was realized by completion of the project.

Be sure that any and all permits to access state highways will add sufficient capacity to accommodate the trips the permit applicant will add to the highway.

Encourage the development and expansion of transit systems that will reduce peak period traffic flows.

Study potential travel behavior trends that may be affected by e-commerce, home based employment, and high fuel prices.

Long range:

Work with other state agencies to demonstrate the concept of the Neighborhood Employment Center where state employees with significant commute distances can work at a local employment center with computer video communication with home office. The centers will enable some state workers to walk, bike or jog to work. At most, workers would have a short commute to a center.

Establish a demonstration program that would offer an opportunity for some NDOT employees to work at home part-time.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? Targets have not yet been determined.

What 'Strategies for Improvement' were successful?

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

What new 'Strategies for Improvement' will be initiated in FY2009?

Short range to next reporting:

Long range:

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

Even though targets have not been established, any target that reduces congestion will require an increase in the current revenue stream to the Department.

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

Performance Measure:

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

Yearly Target:

Reduce number of projects falling outside of estimated schedule range by 25% starting in fiscal year 2009.

Improve number of projects falling within the estimated budget range by 25% in FY 2009.

Ultimate Target: 100%

Champion:

Assistant Director – Operations
Assistant Director – Engineering
Chief Construction Engineer
District Engineers

Support Divisions: Districts, All Division

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Use Innovative Project Delivery Methods, Deliver of timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

Measurement and Supporting Data:

New measure and will need time to generate data for the measure.

	% completed Within budget	% completed within schedule
FY 2008 – End of Third Quarter (Base Number)	-	-
FY 2008 – End of Fourth Quarter	100	100

Contract 3335: US 395 IN DOUGLAS COUNTY, FROM 0.19 MILES NORTH OF MULLER LANE TO 0.15 MILES SOUTH OF JACK'S VALLEY ROAD. Project completed on 04/17/08, 14 days earlier than projected, and 15.68% under budget.

Contract 3337: SR 443, SUN VALLEY DRIVE AT FIRST STREET. Project completed on 04/10/08, 7 days earlier than projected and 14.00% under budget.

Strategies for Improvement:

Short range to next reporting:

- Improve the quality of design to reduce problems during construction.
- Schedule bidding to take advantage of market variations.
- Minimize change orders which extend the project duration.
- Provide better coordination with parties involved in concurrent work.
- Provide realistic project schedules
- Provide better predictions for weather and other delays

Long range:

- Continue and enhance training of personnel.

Additional Background:

Percentage of projects constructed within established budget.

This measurement is tracked the same way we were tracking change order percentages which was misleading because the number included dollars spent on quantity overruns, i.e., the contract paid to date.

The budget number is the contract award amount plus the contingency amount. In the past the contingency amount has been 3% or less. The proposal for the FY 09 work program is to change the programmed contingency to 7% for contracts up to \$3 million, 5% for \$3 to \$25 million and 3% for contracts over \$25 million which would be more realistic. Approximately 60% of the FY 07 contracts completed by 7-01-08 were within the budget. The FY 09 goal is suggested at 50% because of the impact of the escalation clauses, and change orders dealing with the asphalt shortage will have on the FY 08 numbers and the proposed changes of the contingency rate has not yet gone into effect.

Value added change orders count against this measurement. With dramatic price increases this type of change might become common. Asphalt and fuel escalation clauses in contracts reduce the probability of inflated bids because the contractor will not need to hedge their bids.

Percentage of projects completed by the scheduled completion date.

There was no similar tracking of this type of information before this performance measurement was developed. We are now tracking the contract schedules from bid date to the calendar date of the last working day charged.

The scheduled completion date is the bid date plus award period (30 days), plus Notice to proceed period (this varies from 30 to 90 days based on the projects complexity, location and size), plus the contract working days (working days are projected on the calendar allowing for planned suspensions, such as winter shut, weather days, holidays and special events). Working days added by change order count against this measurement.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? Yes, and Ultimate Target as well.

What ‘Strategies for Improvement’ were successful?

What ‘Strategies for Improvement’ were not successful? Why?

What new ‘Strategies for Improvement’ will be initiated in FY2009? New additions are recommended.

Short range to next reporting:

- Develop better methods for tracking Contract expenses
- Develop more realistic Contract estimated budget ranges

Long range:

- Effectively project Contract costs and schedules

Does this performance measure effectively measure what is desired? Yes

Is there a better performance measure that should be considered?

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

8. MAINTAIN STATE ROADWAYS

Performance Measure:

Percentage of state maintained pavements needing annual preservation in order to maintain the pavement International Roughness Index rating of fair or better condition.

Yearly target: Due to funding limitations, no progress will be made in 2008. Only 3 % of NDOT maintained system will receive the needed preservation actions. On the average, nearly 8 % of the highway system needs preservation action to keep the status quo.

Ultimate Target: 100%

Champion:

Assistant Director – Operations
Chief - Materials Division

Support Divisions:

Materials, Maintenance, Construction, Design, Project Management, Operations Analysis, and Districts

Strategy Plan Support:

Proactive pavement has a huge benefit is maximizing limited funds. Being proactive instead of reactive (maintaining a high percentage) 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 Strategic Plan goals to: optimize safety and be in touch with and responsive to our customers by providing smooth, quality pavements. The effectively preserve and manage our assets goal is supported by implementing the Department's pavement preservation program.

For the Department to keep current with present roadway conditions, approximately \$265 million is needed annually, which averages almost 8% of the total system. As of 2007, 987 center lane miles (19%) of the statewide 5318 center lane miles of NDOT maintained highway are in need of overlay or reconstruction, which totals approximately \$660 million.

Measurement and Supporting Data:

FY 2007 – 19% of NDOT system is in need of preservation
FY 2008 – Preservation action of 3% is expected, while the preservation needs are expected to increase to 24%.

Strategies for Improvement:

Short range to next reporting:

“1. Maintain our Interstate system at a high level of serviceability by applying timely overlays, where possible, and reconstructing inferior segments.

2. Maintain our non-Interstate principal arterials by applying maintenance treatments such as chip seals and flush seals.

3. To apply seal coats or other short-term treatments to all other routes.” [2007 Preservation Report.]

Long range:

“1. Continue to maintain our Interstate system and high-volume roads at a high level of serviceability by applying timely overlays and reconstructing inferior segments.

2. Continue to maintain our non-Interstate principal arterials, minor arterials, and other moderate volume roads at a modest to high level of serviceability by applying timely overlays and reconstructing inferior segments.

3. To further develop economically sound methods to improve our low-volume roads and maintain them at a limited, but acceptable, level of serviceability.

4. To continue coordinating and integrating our routine pavement maintenance activities with planned overlay and reconstruction work.” [2007 Preservation Report.]

5. Work with Legislature to earmark sufficient funding to reach the ultimate target.

Background Information

The Pavement Analysis Section collects pavement condition data and ride data only in the odd years. In addition, ride is collected in the even years for the National Highway System, only.

Roadway Categories

Category	Description
1 Concrete	Controlled Access PCCP
1 Asphalt	Controlled Access Asphalt
2	ESAL > 540 OR ADT > 10,000
3	540 >= ESAL >405 OR 1600 < ADT <= 10,000 + NHS
4	405 >= ESAL > 270 OR 400 < ADT <= 1600
5A	280 < ADT <=400
5B	120 < ADT <= 280
5C	ADT ≤ 120

PCCP – Portland cement concrete pavement

The ride quality shown in the graph, “Condition of the System Based on Ride Quality from 1980 to 2007” is based on the following criteria:

Condition	Slope Variance 1980 to 1992	International Roughness Index (IRI) thresholds from FHWA 1992 to 2007
Good	0 to 7	< 95
Fair	8 to 10	95 to 170
Poor	> 10	> 170

The IRI thresholds that have been used by NDOT where Roadway Category is considered included in the graph, “Performance of Roadway System per Year Based on IRI Data”:

Condition	Interstate	Non-IR NHS, and STP w/ ADT >805	Low Volume Roads
Good	< 71	< 100	< 95
Fair	71 to 105	100 to 130	95 to 170
Poor	> 105	> 130	> 170

Percent of the System receiving construction or maintenance betterment (preservation action)

Year	Centerlane Miles	% of System
2007	108.44	2
2006	261.31	5
2005	410.91	8
2004	240.32	5
2003	223.42	4
2002	314.17	6
2001	265.22	5
2000	388.09	7
1999	714.19	13
1998	322.88	6

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met?

Current funding levels do not allow for meeting the target.

What ‘Strategies for Improvement’ were successful?

The Pavement Analysis section of the Materials Division has added maintenance treatments to the Pavement Management System data base. There is a good coordination effort among the Districts, Maintenance and Operations, and the Materials divisions.

What ‘Strategies for Improvement’ were not successful? Why?

Reconstructing inferior segments of the Interstate system is very costly. Current funding levels do not allow for any reconstruction effort except in cases where concurrent capacity improvements occur. Approximately 16% of the Interstate system needs reconstruction.

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Short range to next reporting:

The District maintenance forces will see increased demand for both preventive and reactive maintenance treatments in able to keep up with maintenance needs on higher category roads that have been traditionally received overlays.

Long range:

Review of our system, incorporating state of the art practices and new technologies and materials.

Does this performance measure effectively measure what is desired?

Although pavement deterioration eventually shows up in the pavement smoothness measurements (IRI), the decline in pavement smoothness measurements lags behind of the pavement condition decline (damage may exist before can be seen in IRI). However, the condition of the pavements is monitored in the Pavement Management System.

The target is to maintain the current level of service and it includes the proactive treatments as established by the minimum operating condition of the road network as defined by the 3R program. Maintenance activities are not included but if not performed, the road network deteriorates faster or operated under unsafe conditions.

Is there a better performance measure that should be considered?

It is an important performance measure as it is meaningful to the public.

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

We would like to stay committed to the philosophy that "Good roads cost less." Proactively applying well-timed treatments and other technologies to pavements can actually extend its lifetime and reduce costly, time consuming rehabilitation and reconstruction projects with associated traffic disruptions. Proactive pavement treatments and maintenance will extend the lifetime of the roadway for a minimal investment. Such activities will cost far less than replacing pavements prematurely or postponing work until a more expensive rehabilitation is required. The cumulative effect of systematic, successive preservation treatments is to postpone costly rehabilitation and reconstruction. Additionally, performing a series of successive pavement preservation treatments during the life of a pavement is less disruptive to uniform traffic flow than the long closures normally associated with reconstruction projects. Also, soaring asphalt prices allocated funds are buying less.

9. MAINTAIN STATE FLEET

Performance Measures:

- (A) Percentage of fleet meeting (requiring) replacement criteria
- (B) Percentage of fleet in compliance with condition criteria

Annual Target:

- (A) Declining Rate of 1% per year
- (B) Increasing rate of 1% per year.

Ultimate Targets:

- (A) 10%
- (B) 95% rate of compliance for mileage/hourly requirements

Champion:

Chief of Equipment Division

Support Divisions:

Districts
Divisions

Strategy Plan Support:

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

Measurement and Supporting Data:	(A)	(B)	Change	
	Replacement Criteria Measured Annually	Condition Criteria Measured Quarterly	(A)	(B)
2007 FY (Base Number)	38.65%	60.30 %		
2008 FY – Third Quarter		57.93 %		-2.37 %
2008 FY – Fourth Quarter		65.30 %		+5.00 %
2008 FY – Final	34.96%	62.55 %	-3.69%	+2.25 %

The FY 09 budget will likely adversely affect the fleet replacement program.

Strategies for Improvement:

Short range to next reporting:

- (A) 1. Revise replacement criteria by increasing usage criteria in selected class codes

2. Removing age criteria in other specified class codes.
 3. Implement policy controls for equipment replacement.
- (B) 1. Analyze quarterly Preventive Maintenance (PM) due and accomplished on core fleet.
2. Develop enforceable policy for non-compliance of PM standards.

Long range:

- (A) 1. Reduce fleet size by usage assessments.
2. Minimize retention of replaced vehicles.
- (B) 1. Perform annual fleet condition audit.
2. Develop Predictive Maintenance Program.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? Yes.

What 'Strategies for Improvement' were successful?

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

What new 'Strategies for Improvement' will be initiated in FY2009?

Short range to next reporting:

Long range:

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

There is concern likely budget limitations will not allow measures to be attained.

10. MAINTAIN STATE FACILITIES

Performance Measure:

Percentage of building facilities that comply with regulatory building and safety codes.

Annual Target: Increase by 3%

Ultimate Target: 100%

Champion: Chief Maintenance Engineer

Support Divisions: Districts, Administrative Services

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Innovate, Be the employer of choice, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

Measurement and Supporting Data:

2007 FY (Base Number)	82 Percent
2008 FY – Third Quarter	82 Percent
2008 FY – Fourth Quarter	82 Percent

Strategies for Improvement:

Short range to next reporting:

Currently, 82 % of our facilities are compliant with regulatory building and safety codes. This means that 18% of our facilities violate a safety or building code in some manner. Our short-range strategies are to continue our efforts in prioritizing our condition assessment data and scheduling deferred maintenance work. We have begun assessing and prioritizing ADA deficiencies in Highway Rest Areas, as well as, other NDOT Facilities. Design work for these projects will commence in FY 09.

Long range:

Our current Long-Range Plan is to increase the total code compliant building facilities from 82% to 84% by the end of FY 2010. We will then focus on making yearly increases of 2 % per year over the next 8 years. This goal will then allow the Department to achieve the ultimate target of 100% fully compliant building facilities by FY 2018. Because of substantial budget reductions to the Architecture Program (67% reduction), we've had to extend the time of 100% facility compliance from FY 2013 to FY 2017.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? YES – The initial target, or plan, was to begin assessing facilities and prioritizing those needing upgrades first.

What ‘Strategies for Improvement’ were successful? We are still gathering critical information and prioritizing our work plan. Use of in-house assessment databases, specifically developed for this performance measure, has already proven extremely valuable in the prioritization process.

What ‘Strategies for Improvement’ were not successful? Why? _N/A

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Short range to next reporting: None

Long range: Defined work plan with prioritized projects, tied to Architecture’s budget, will be used as a roadmap for successful accomplishment of goals and objectives.

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 – As previously mentioned, a 67% reduction has been made to the Architecture Program last year (FY 08), and our goal of achieving all NDOT Facilities being in 100% compliance has recently changed from 2013 to 2017. Continued cuts, and further compliance delays will directly affect the safety of the NDOT workforce and public who use our facilities.

11. PROVIDE CONTINUITY OF BUSINESS OPERATIONS

Performance Measure:

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

- Continuity of Operations Plan
- State Level Emergency Operations Plan
- District Level Emergency Operations Plan
- Southern Nevada Evacuation Plan
- Infrastructure Security Plan
- Mobile Fleet Security Plan
- Department Access Management Plan

Ultimate Target: 100%

Annual Target: 25% for 2008 FY

Champion: Assistant Director – Operations
Assistant Chief 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 in keeping systems operating during such times, as well as being in a position to respond to health and safety issues. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to:

Optimize safety by decreasing NDOT response and recovery times during a major disaster,

Be in touch with and responsive to our customers by ensuring we are prepared to quickly and effectively respond to major emergency issues which affect our customers,

Innovate to incorporate the most up-to-date methods of responding to and recovering from emergencies/disasters,

Deliver timely and beneficial projects and programs such as an emergency training and exercises program to ensure NDOT is as prepared as possible for emergencies/disasters,

Effectively preserve and manage our assets by ensuring NDOT is prepared to quickly respond to emergencies to prevent additional damage, and

Efficiently operate the transportation system by ensuring NDOT is prepared to restore transportation infrastructure as soon as possible following an emergency/disaster.

Measurement and Supporting Data:

2007 FY (Base Number)	N/A - this is a new performance measure
2008 FY	25% completion (Target meet)
2009 FY	50% completion
2010 FY	75% completion
2011 FY	100% completion

Strategies for Improvement:

Short range to next reporting:

25% completion of the education, training and exercising the first year was accomplished.

Within the next year we will complete the Continuity of Operations Plan, update the State Level Emergency Operations plan and the District Emergency operations Plan. Completion of this work, including the related training and exercising should enable us to meet our 50% goal for FY 2009.

One of the strategies is to capture lessons learned from actual events and emergencies and include them in our state and district emergency operations plans. Lessons learned from the Wells earthquake were documented in the After Action Report prepared by the Maintenance & Operations Division will be included in the next update of these plans.

In order to reach our goals as quickly as possible, we are planning on combining Department exercises and training with exercises planned by other entities and agencies.

Long range:

Continue combining Department exercises and training with exercises planned by other entities and agencies to enable us to meet the following goals:

50% completion second year

75% completion third year

100% is expected by the end of 4 years.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? Yes

What ‘Strategies for Improvement’ were successful?

We successfully combined training with the Nevada National Guard’s “Vigilant Guard 08” emergency exercise.

What ‘Strategies for Improvement’ were not successful? None. Why?

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Short range to next reporting:

We will continue to complete and/or update plans, as well as exercise and train appropriate personnel to reach the 50% goal.

Long range:

We will continue to complete and/or update plans, as well as exercise and train appropriate personnel to reach subsequent goals.

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.

Hosting emergency training and exercises which includes Headquarters personnel and each district has an associated cost in travel and supplies. These costs have been included in the Maintenance and Operations budget for FY 2009.

12. REDUCE FATAL CRASHES

Performance Measure:

Number of fatalities on Nevada's streets and highways.

Ultimate Target: Zero

Annual Target: Reduce fatalities by 100 lives

Champion: Chief Traffic/Safety Engineer

Support Divisions: All

Strategy Plan Support:

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

Measurement and Supporting Data:

2003 CY	362 fatalities
2004 CY	398 fatalities
2005 CY	421 fatalities
2006 CY	432 fatalities
2007 CY	372 fatalities
2008 CY	Est. 328 fatalities, based on 164 for 6 months.

Strategies for Improvement:

Short range to next reporting:

- Market and implement the State's Strategic Highway Safety Plan
- Implement cost effective improvements to keep vehicles in their lane
- Increase pedestrian safety by constructing crosswalk refuge islands and upgrading signals
- Follow the principles of access management
- Implement geometric intersection improvements
- Cooperate with and support the efforts of the Office of Traffic Safety's efforts with public education programs for TV/radio 'spots' to increase safer behavior by the public.
- Analyze crash data to locate site with a high number of run-off-road crashes and install shoulder rumble strips

Long range:

- Spend NDOT's safety funds on a wide variety of engineering strategies

- Team with and share funding with non-traditional partners to increase the effectiveness of NDOT's safety funds

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met?

Probably not

What 'Strategies for Improvement' were successful?

The evaluation period has not been long enough to determine what NDOT strategies have been effective. The current reduction is most likely a result of the coordinated work by all of our partners in implementing the strategies of the Strategic Highway Safety Plan.

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

Same answer as above.

What new 'Strategies for Improvement' will be initiated in FY2009?

Short range to next reporting:

Given the short duration for implementation of our strategies the Safety Division does not contemplate revising our short term strategies. We will continue to implement strategies identified in the Strategic Highway Safety Plan and working closely with our safety partners to continue to reduce fatal crashes.

Long range:

Review and update the Nevada Strategic Highway Safety plan.

Does this performance measure effectively measure what is desired?

No. This measure is an indicator of how the entire State is performing in regards to reducing traffic fatalities. The Department can not hope to achieve the goal without the cooperation and assistance of our partners in the areas of law enforcement, education, emergency medical response and other local agencies.

Is there a better performance measure that should be considered?

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

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

Yes. The Department will continue to spend funds for improving the safety of the State's transportation system. We will also continue working with our partners to take advantage of opportunities to reduce the severity and frequency of motor vehicle crashes throughout the State.

13. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE FROM PROJECT INITIATION TO BIDDING

Performance Measure:

Percentage of projects completed within range of established estimate and schedule after the environmental process.

Annual target:

Reduce number of projects falling outside of estimated schedule range by 25% starting in fiscal year 2009.

Improve number of projects falling within the estimated budget range by 25% in FY 2009.

Ultimate Target: 100% of projects completed in the scheduled fiscal year and falling within the estimated budget range.

Champion:

Assistant Director – Engineering
Project Management Chief

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: Optimize safety, Be in touch with and responsive to our customers, Innovate, Be the employer of choice, Deliver timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

Measurement and Supporting Data:

2008 FY – End of Third Quarter	100% (both projects on schedule and w/i budget.)
2008 FY – End of Fourth Quarter	No change

Strategies for Improvement:

Short range to next reporting:

- Implement new guidelines for developing project scope, cost & schedule by end of December 2008.
- Establish base numbers for all projects by end of Feb. 2008.
- Monitor/evaluate new procedures and implement corrective actions by end of December 2009.
- Define roles and responsibilities of project teams by end of December 2009.

- Improve project development process and linkage between planning and engineering divisions by end of December 2009.
- Work toward establishing a Project Management Office (refer to long range strategies).

Long Range:

Establish a Project Management Office responsible for:

- Program (Portfolio) Management:
 - Organizing, managing and prioritizing transportation projects based on resource availability
- Project management support functions to include:
 - Developing and implementing Department's Project Management process (development and application of guidelines, tools, standards, and techniques to project activities to meet project requirements)
 - Development and implementation of Risk management guidelines
 - Development and implementation of Cost Estimation Validation Process (CEVP).
 - Development of project scheduling tools and guidelines
 - Providing project management training
- Project Delivery Methods
 - Standardizing and upkeep of project delivery methods to include: Design-bid- build, Design-bid and Public Private Partnership methods.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met?

What 'Strategies for Improvement' were successful?

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

What new 'Strategies for Improvement' will be initiated in FY2009?

Short range to next reporting:

Long range:

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

14. MAINTAIN STATE BRIDGES

Performance Measure:

Percentage of Department owned bridges which are eligible for federal funding and are categorized as structurally deficient or functionally obsolete. Base figure is 37 of 1,704 bridges (*State Highway Preservation Report – 2007*).

Ultimate Target: Zero%

Yearly Target: Reduce the percentage of Department owned structurally deficient or functionally obsolete bridges by 2.7% (1 bridge) biennially.

Champion:

Chief Bridge Engineer

Support Divisions:

Design
Project Management
Districts

Strategy Plan Support:

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

Measurement and Supporting Data:

2007 FY – There are 37 State owned bridges in Nevada that are structurally deficient or functionally obsolete and are eligible for federal funding. Additionally, there are 34 bridges needing repair/replacement owned by local agencies that are also eligible for federal funding.

Strategies for Improvement:

Short range to next reporting:

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

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

Long range:

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

Seek additional funds to reduce the time frame of eliminating structurally deficient or functionally obsolete bridges, which is estimated to take at least 76 years with present funding level, based on the current number of deficient bridges. This time frame will increase as Nevada's bridges age and the number of bridges categorized as structurally deficient or functionally obsolete increases.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? The target is expected to be met.

What 'Strategies for Improvement' were successful? It is too soon to evaluate the strategies.

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

What new 'Strategies for Improvement' will be initiated in FY2009?

Short range to next reporting: While not a new strategy, the Bridge Division typically includes updated inventory data on newly constructed and other replaced bridges that are a part of major construction and are not a funded through the Highway Bridge Program.

Long range:

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

15. STREAMLINE PERMITTING PROCESS

Performance Measure:

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

Ultimate Target: 95%

Annual Target: 95%

Champion: Chief Right of Way

Support Divisions:

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

Strategy Plan Support:

Every encroachment to connect or work on state right of way requires a permit. This is a large area of our customer service. We must be assured the impact to the system is safe and will not negatively compromise the system, but we must meet the customer's needs for a timely response for their economic development. The majority of permits are relatively simple, however some are very complicated and require an extended technical review, thus the reason for the goal being less than 100%. Current estimates are that 90% of permits are issued or rejected within 60 days. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to Optimize safety, Be in touch with and responsive to our customers, Innovate, and Deliver timely and beneficial projects and programs.

Measurement and Supporting Data:

2007 FY (Base Number)	90%
2008 FY – Third Quarter	93%
2008 FY – Fourth Quarter	95%

Strategies for Improvement:

Short range to next reporting:

There is a new Transportation Policy has been finalized that sets fixed review times for the various sections who must review permits.

The Right-of-Way Division is working toward doing permit applications on line. This will shorten the process.

Implement access management recommendations contained in Corridor Studies.

Long range:

Achievement of the ultimate target is expected within the first year; consequently, a long range strategy is not needed

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? Yes

What ‘Strategies for Improvement’ were successful?

What ‘Strategies for Improvement’ were not successful? Why?

What new ‘Strategies for Improvement’ will be initiated in FY2009?

Several changes have now been implemented that should enable the Department to attain the ultimate target of 95%. The new Transportation Policy regarding the permit processing time schedule has been completed and has been in effect since July 1st. The new procedure has implemented simultaneous review by all affected Divisions with established dates for the completion of those reviews. The permits database has been modified to establish the exact number of days that a permit has been in process so that instantaneous reports can be developed for specified time frames to measure performance. The report will indicate by percentage rate how many permits are being completed within the specified time frame. The report will also list those that fall outside of the time frame so that permit processing personnel can review those individually to determine why they were not completed within the time frame and what might be done to again improve on performance.

Does this performance measure effectively measure what is desired?

Is there a better performance measure that should be considered?

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

APPENDIX B

DRAFT

TRANSPORTATION POLICY FOR PERFORMANCE MEASURES

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION

July 17, 2008

DRAFT

TP 1-11-2

Approved _____ PERFORMANCE MEASURES POLICY

1. PURPOSE

To establish a policy, process and procedures for developing and reporting performance measures that have been established for the purpose of monitoring progress toward achieving the goals of the Department of Transportation.

2. POLICY

It is Department of Transportation policy to develop performance measures for each Division of the Department and the Department as a whole, and to submit a report each year to September meeting to the State Transportation Board of Directors and, additionally, to the Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee.

3. SCOPE

This Transportation Policy shall apply to all Department of Transportation Districts and Divisions.

4. RESPONSIBILITY

- a. The Chief Operations Analysis Engineer is responsible for revising this Transportation Policy in accordance with TP-1-1. In addition, he/she is responsible for providing assistance and cooperation, as necessary, to other Division heads with regard to the presentation of individual performance measures in the final report each year. He/She is also responsible for developing the format and preparing the “draft” final annual report prior to August 1st of each year and submitting it to the Director for approval. Additionally, he/she will be responsible to compile a midyear status report for the Director by February 1st
- b. The Director will appoint a champion(s) for each performance measure. These champions, typically Division Heads and District Engineers, are responsible for collecting and compiling data relevant to calculating the performance measures, ensuring that data is accurate, and reporting the performance measure values to the Operations Analysis Division. The data submitted by these individuals must comply with the formats established by the Chief Operations Analysis Engineer and shall consist of a narrative that includes but is not limited to what was measured, how it was measured, when it was measured, how it supports strategic

Department goal(s), short and long range improvement strategies, annual and ultimate targets, and any other factors that may have influenced the outcome. This report must be submitted as requested by the Chief Operations Analysis Engineer and contain data for the preceding State fiscal or calendar year, whichever is appropriate.

- c. Assistant Directors in cooperation with their Division heads are responsible for developing performance measures for their areas of responsibility and ensuring they are developed and reported in accordance with this policy.
- d. The Assistant Director for Planning is responsible for submitting the performance measures report to the State Transportation Board of Directors at the September meeting and the Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee soon thereafter.

5. DEFINITIONS

- a. Performance Measure: A numerical representation of progress made toward a specific goal(s) based on quantifiable and verifiable data utilizing strategies established to meet one or more of the Departments stated goals.
- b. Performance Measure Report: A document that at a minimum includes the following:
 - (1) The goals and objectives of the Department, and the current status of the Department in relation to meeting those goal and objectives;
 - (2) Any applicable directives from the State Transportation Board of Directors or Legislature since the most recent report prepared pursuant to this policy;
 - (3) The scheduling, scope, cost and progress of any current or proposed highway projects;
 - (4) The sources, amount and expenditure of any funding received during the immediately preceding fiscal year;
 - (5) The rationale used to establish priorities for the completion of highway projects; and
 - (6) Any recommendations for changes to the performance criteria previously established for the Department by the State Transportation Board of Directors.

6. PROCEDURE

- a. Process for Developing Performance Measures:
 - (1) Each July, Division Heads and District Engineers review their progress toward attaining the goals associated with their performance measures. Additionally, they will evaluate the existing strategies and actions, and whether and how those strategies and actions are important in meeting the Department's goals. The evaluation shall consider new strategies and actions that might better attain Department goals. Furthermore, the evaluation will

determine if there are other performances measures that will better assess the attainment of Department goals.

- (2) Each July the Assistant Director will meeting with their assigned Division Heads and discuss their evaluations and determine necessary modifications to the performance measures, strategies and actions. In addition, the Assistant Directors will discuss how the individual strategies likely overlap with other Divisions and how to benefit from the overlaps.
 - (3) The two Deputy Directors will annually in July and jointly lead a discussion with the District Engineers on what modifications to the performance measures, strategies and actions will be beneficial. In addition, the discussion will include how the individual strategies likely overlap with other Divisions and how to benefit from the overlaps.
 - (4) The Deputy Directors and the Assistant Directors will meet each July with the Director to determine which performance measures will be recommended and forwarded to the State Transportation Board of Directors for approval.
- b. As part of the annual report to the State Transportation Board of Directors, the Director will include any recommended changes to the Performance Measures identified by this process.

7. REPORTS

a. Performance Measures Report:

The Chief Operations Analysis Engineer will distribute copies of the Performance Measures report to the Department of Transportation Deputy Directors, assistant Directors, District Engineers, and Division Heads. The Director will distribute the Performance Measures report to the State Transportation Board and the Director of the Legislative Counsel Bureau.

END

APPENDIX C

QUARTERLY STATUS REPORT FOR MAJOR PROJECTS

TYPICAL PROJECT DEVELOPMENT PROCESS

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

Project Planning Phase

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

Environmental Clearance Phase

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

Final Design Phase

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

Construction phase

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

PROJECT STATUS SHEET EXPLANATION

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

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

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

Project Risks: 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 effect project development. Appendix B, Dealing with Project Risk, provides more details.

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

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

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

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

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

MAJOR PROJECTS LIST

I-15 Projects

I-15 North Phase 1 – I-15/US-95/I-515 Interchange to Craig Road	C5
I-15 North Phase 2 – Craig Road to Speedway Boulevard	C6
I-15 North Phase 3 – Speedway Boulevard to Apex Interchange	C7
I-15 North Phase 4 – I-15/CC-215 Northern Beltway Interchange	C8
I-15 NEON (Tropicana Avenue to Spaghetti Bowl)	C9
I-15 Urban Resort Corridor Study	C10
I-15 South – Sloan Road to Tropicana Avenue	C11
I-15 South – Stateline to Sloan Road	C12

I-515/US-95/US Projects

I-515 Freeway Improvements – I-15 to Horizon Drive	C13
I-515/US-95/US93: Boulder City Bypass Phase 1 – Foothill Drive to US-95	C14
I-515/US-95/US93: Boulder City Bypass Phase 2 – US-95 to Hoover Dam Bypass	C15
US-93 Hoover Dam Bypass	C16

US-95 Northwest Projects

US-95 Northwest Phase 1 – Rainbow Boulevard (SR 595) to Ann Road	C17
US-95 Northwest Phase 2 – Ann Road to Kyle Canyon Road (SR 157)	C18
US-95 Northwest Phase 3 – CC 215 Beltway Interchange	C19
US-95 Northwest Phase 4 – Horse Avenue Interchange	C20
US-95 Northwest Phase 5 – Kyle Canyon Road (SR 157) Interchange	C21

Other Southern Nevada Project

CC-215 Beltway – Summerlin Parkway Interchange	C22
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Northern Nevada Projects

I-80 – Robb to Vista	C23
I-580 Freeway Extension	C24
US-395 Carson City Freeway Phase 2B – South Carson Street to Fairview Drive	C25
US-395 Northbound – Moana Lane to I-80	C26
US-395 North – McCarran Blvd. to Stead Blvd.	C27
SR-445 – Pyramid Highway Improvements	C28

**I-15 North – Phase 1
I-15/US-95/I-515 Interchange to Craig Road**

Project Sponsor: NDOT
Project Manager: Jeff Hale, P.E.
(775) 888-7321



Project Description:

- This is the first phase of the I-15 north corridor improvements between US 95 and Apex interchange.
- Widen I-15 from six lanes to ten lanes from US-95 to Lake Mead Boulevard, including re-alignment of on and off ramps for the US-95, Washington and D Street Interchanges.
- Widening of I-15 to eight lanes from Lake Mead Boulevard to Craig Road.
- Reconfigure the Lake Mead Boulevard Interchange.
- A new connection road linking D Street and F Street between I-15 and Bonanza Road.

Schedule:

Planning: Complete

Environmental Clearance:
Complete

Final Design:
2007-2008

Construction:
2008-2010



Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030
- Decrease congestion
- Reduce travel times
- Improve access to areas planned for development in North Las Vegas
- Improve freeway operations with full freeway-to-freeway connectivity
- Improve safety

Project Cost Range (Construction Level Estimates):

Engineering:	\$5.1 million
Right-of-Way:	\$1.2 to \$5.1 million
Construction:	\$252 million
Total Project Cost:	\$258 - \$263 million

What's Changed Since Last Update?

- Scope – No change
- Schedule – 5 month acceleration in substantial completion date due to traffic control VECP.
- Cost – No change

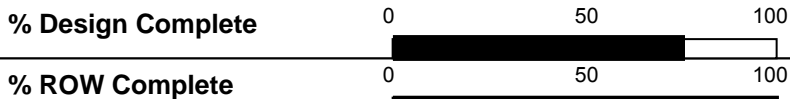
Financial Fine Points:

Total Expended: \$60 Million
Funding Source Breakdown

- \$114 Million State General Funds, \$72 Million State Funds
- \$6.5 Million STP
- \$22 Million Minimum Guarantee
- \$25 Million Federal Earmark
- \$17 Million NHS, \$7 Million Public Lands Highway Discretionary
- Inflation escalation (4%) is to 2009, approximate midpoint construction.

Project Risks:

- Project delivery by Design Build Method, unique to the Department
- Close coordination to incorporate City of North Las Vegas projects.
- July 14, 2008 lanes will be reduced from 3 to 2 each way between the Spaghetti Bowl and Lake Mead.



July, 2008



**I-15 North – Phase 2
Craig Road to Speedway Boulevard**

Project Sponsor: NDOT
Project Manager: Jeff Hale, P.E.
(775) 888-7321

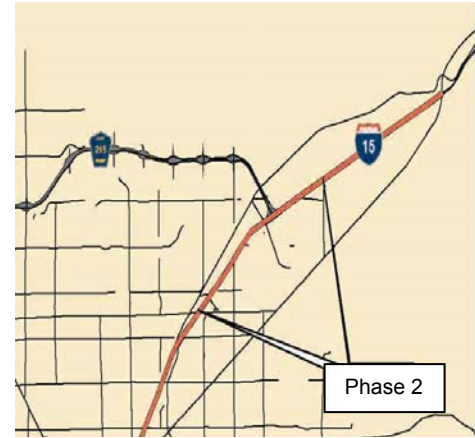


Project Description:

- Widen I-15 from 4 lanes to 6 lanes from Craig Road to Speedway Boulevard.
- Improvements will be constructed within the existing I-15 right-of-way
- This is the second of four phases of improvements to the I-15 North Corridor between US 95 and Apex Interchange.
- Project Length: 4.8 miles

Schedule:

- Planning:**
Complete
- Environmental Clearance:**
Complete
- Final Design:**
Start 2010 - 2014
- Construction:**
Start: 2013 - 2015



Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030
- Decrease congestion
- Reduce travel times
- Improve access to areas planned for development in North Las Vegas
- Improve freeway operations
- Improve safety

Project Cost Range (Environmental phase estimates):

- Engineering: \$5 – \$15 million
Right-of-Way: \$1 – \$2 million
Construction: \$99 - \$123 million
Total Project Cost: \$105 - \$140 million

What's Changed Since Last Update?

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

Project Risks:

- Uncertainty of future construction material and labor costs
- Funding uncertainty

Financial Fine Points:

- Total funding expended: \$875,000
- Inflation escalation (4%) is to 2014 approximate midpoint of construction.
- Funding source for this project has not yet been identified

% Design Complete



% ROW Complete



July 1, 2008



I-15 North – Phase 3
Speedway Boulevard to Apex Interchange

Project Sponsor: NDOT (I-15 Widening) and
 City of North Las Vegas (New Interchange)
 Project Manager: Jeff Hale, P.E.
 (775) 888-7321



Project Description:

- Widen I-15 from four lanes to six lanes from Speedway Boulevard to the Apex Interchange
- Construct a new interchange approximately 1.8 miles north of Speedway Boulevard
- This is the third phase of improvements to the I-15 North Corridor between US 95 and Apex Interchange.
- Project Length: 4.6 miles

Schedule:

- Planning:**
Complete
- Environmental Clearance:**
Complete
- Final Design:**
Start 2012 - 2015
- Construction:**
Start 2015 - 2017



Project Cost Range (Environmental phase estimates):

- Engineering: \$5 - \$15 million
 Right-of-Way: \$5 - \$10 million
 Construction: \$105 - \$115 million
 Total Project Cost: \$115 – \$140 million

Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030
- Decrease congestion
- Reduce travel times
- Improve access to areas planned for development in North Las Vegas
- Improve freeway
- Improve safety

What's Changed Since Last Update?

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

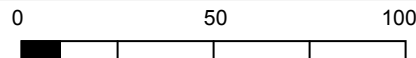
Project Risks:

- Uncertainty of future right-of-way and construction costs
- Need for new interchange depends on release of the surrounding lands from BLM jurisdiction
- Uncertainty of proposed Sheep Mountain Parkway terminus

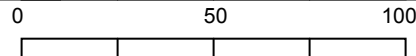
Financial Fine Points:

- Total funding expended: \$875,000
- Inflation escalation (4%) is to 2016 approximate midpoint of construction.
- Funding source for this project has not yet been identified

% Design Complete



% ROW Complete



July 1, 2008



I-15 North – Phase 4
I-15 / CC-215 Northern Beltway Interchange

Project Sponsor: Clark County
 Project Manager: Jeff Hale, P.E.
 (775) 888-7321



Project Description:

- Construct new ramps to complete a system-to-system interchange configuration at the I-15/CC-215 Las Vegas Beltway interchange
- Improvements will be constructed within the existing I-15 and CC-215 right-of-way
- This is the last of four phases of improvements to the I-15 North Corridor between US 95 and Apex Interchange (15 miles)

Schedule:

- Planning:**
Complete
- Environmental Clearance:**
Complete
- Final Design:**
Start 2013 - 2015
- Construction:**
Start: 2015 - 2017



Project Cost Range (Environmental phase estimates):

- Engineering: \$6 - \$15 million
 Right-of-Way: \$1 - \$5 million
 Construction: \$123 - \$140 million
 Total Project Cost: \$130 - \$160 million

Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030
- Decrease congestion
- Reduce travel times
- Improve access to areas planned for development in North Las Vegas
- Improve freeway operations with full freeway-to-freeway connectivity
- Improve safety

What's Changed Since Last Update?

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

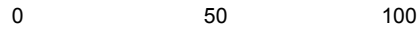
Project Risks:

- Project schedule will be determined by project sponsor (Clark County)
- Uncertainty of future construction and labor costs
- Potential funding shortfall

Financial Fine Points:

- Total funding expended: \$875,000
- Inflation escalation (4%) is to 2016 approximate midpoint of construction.
- Funding source for this project has not yet been identified.

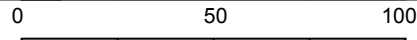
% Design Complete



July 1, 2008



% ROW Complete



I – 15 NEON

Project Sponsor: NDOT
 Senior Project Manager: Glenn Petrenko, P.E.
 (775) 888-7321



Project Description:

- HOV Direct Connector from US 95 to I-15 and I-15 widening improvements from Spaghetti Bowl to south of Sahara; Add/Drop lanes at Oakey/Wyoming
- Local Access Improvements to Las Vegas Downtown Redevelopment
- Connecting Industrial Road and Martin Luther King over I-15
- New access to Alta
- Collector distributor roads
- I-15/ Charleston Interchange Reconstruction
- Project Length: 4.83 miles
-

Schedule:

Planning:
2003-2009

Environmental Clearance:
2003-2009

Final Design:
TBD

Construction:
TBD



Project Benefits:

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

Project Cost Range (Environmental phase estimates):

Engineering: \$79 - \$157 Million
 Right-of-Way: \$490 - \$616 Million
 Construction: \$886 - \$1.025 Billion

Total Project Cost: \$1.455 - \$1.798 Billion

What's Changed Since Last Update?

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

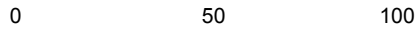
Project Risks:

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

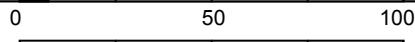
Financial Fine Points:

- Total funding Expended: \$11,961,752
- Inflation escalation (4%) is to 2020 approximate midpoint of construction.
- Additional Federal, State, Local and Regional Funding will be required.

% Design Complete



% ROW Complete



March 27,
2008



I-15 Urban Resort Corridor Study

Project Sponsor: Nevada Department of Transportation
Project Manager: Tony Letizia



Project Description:

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

Schedule:

Planning:
2008 - 2009

Environmental Clearance: TBD

Final Design: TBD

Construction: TBD



Project Benefits:

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

Project Cost Range:

Engineering: TBD
 Right-of-Way: TBD
 Construction: TBD

Total Project Cost: TBD

What's Changed Since Last Update?

- Scope – No change
- Schedule – No change
- Cost – Expended \$187,000 toward project development.

Project Risks:

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

Financial Fine Points:

- Total funding Expended: \$528,204.00



July, 2008



I-15 South Sloan Road to Tropicana Avenue

Project Sponsor: NDOT
Project Manager: John Terry, P.E.
(775) 888-7321



Project Description:

- I-15 from Sloan Road to Blue Diamond Road (12 miles) – Improve operational efficiency, capacity and safety.
- Construct new interchanges at Bermuda Road, Starr Ave., and Cactus Road. Design by RTC with NDOT oversight.
- Reconstruct interchange at Sloan Road.
- Construct Sunset Road bridge over I-15 and reconstruct Warm Springs Bridge over I-15
- Includes Phase I improvements from Blue Diamond to Tropicana with funding from AB 595. This project will be delivered by Design-Build method of delivery. Phase I construction will begin in 2009.

Schedule:

- Planning:**
Complete
- Environmental Clearance:**
2008 - 2009
- Final Design:**
TBD
- Construction:**
TBD



Project Cost Range (Planning phase estimates):

Engineering: \$30M - \$75M
Right-of-Way: \$10M - \$45M
Construction: \$616M - \$739M

Total Project Cost: \$656M - \$859M

Project Benefits:

- Provides additional lanes on I-15 to accommodate higher traffic volumes at acceptable operating speeds.
- Provides additional interchanges on I-15 to reduce traffic at congested interchanges.
- Reduces operational conflicts at ramps from Blue Diamond Road to Tropicana Ave.

What's Changed Since Last Update?

- Scope – Added Sunset Road bridge over I-15
- Schedule – No change
- Cost – Sunset Bridge funds to be transferred from Clark County.

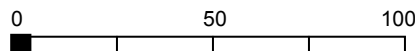
Project Risks:

- Delay in Environmental document approval will impact project schedule
- Difficult construction issues may affect project cost and/or schedule
- Project underfunded – delay in identifying additional funds will affect schedule and increase costs

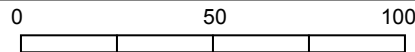
Financial Fine Points (Key Assumptions):

- Total funding Expended: \$3.1 million
- Inflation escalation (4%) is to 2016 approximate midpoint of construction of all phases.
- Funding not identified for all project phases

% Design Complete



% ROW Complete



June 30,
2008



**I-15, South
STATELINE TO SLOAN**

Project Sponsor: NDOT
Project Manager: John Terry, P.E.
(702) 671- 6601



Project Description:

- Improve operation efficiency, capacity and safety

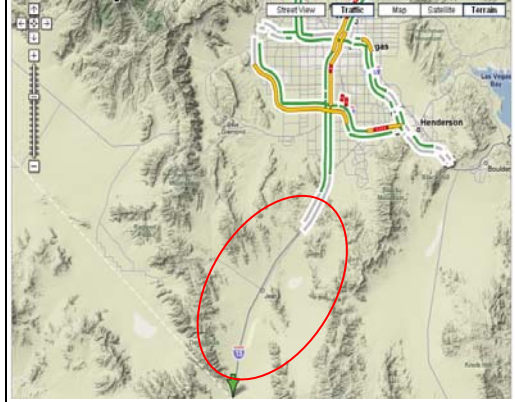
Schedule:

Planning:
2010-2012

Environmental Clearance:
TBD

Final Design:
TBD

Construction:
TBD



Project Cost Range (Planning phase estimates):

Engineering: \$ 10-12 M
Right-of-Way: \$ TBD
Construction: \$ 100 – 120 M

Total Project Cost: \$ 110-132 M

Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030
- Decrease congestion
- Reduce travel times
- Widening to 8 lanes will increase capacity
- Widen several bridges and a grade separation at UPRR
- Improve on/off ramps at Primm and Sloan Interchanges

What's Changed Since Last Update?

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

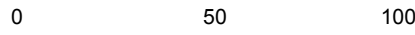
Project Risks:

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

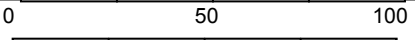
Financial Fine Points (Key Assumptions):

- Total funding Expended to Date: \$ 0
- No funding has been identified for this project
- Inflation escalation (4%) is to 20xx approximate midpoint of construction.

% Planning Complete



% Design Complete



April 15, 2008



I-515 Freeway Improvements I-15 to Horizon Drive

Project sponsor: NDOT
Project Manager: John Terry, P.E.
(775) 888-7321



Project Description:

- I-515 from I-15 to Horizon Drive – Improve operational efficiency, capacity and safety.
- Reconstruct the Downtown Las Vegas viaduct.
- Construct new interchanges at “F” Street, Pecos Road and Sahara Avenue.
- Construct Bonanza Road Overcrossing of Las Vegas Blvd.
- Realign Stewart Avenue and Sahara Avenue.
- Reconstruct and expand Pedestrian & Bicycle Facilities.

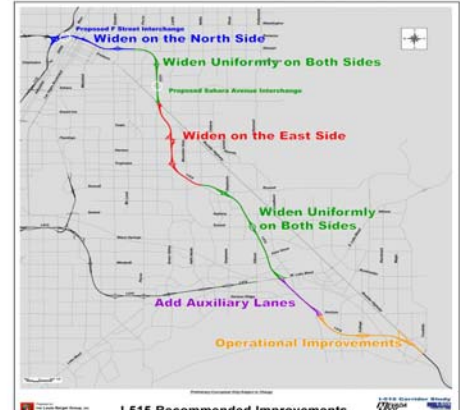
Schedule:

Planning:
2007-2008

Environmental Clearance:
2008-2009

Final Design
TBD

Construction
TBD



Project Cost Range (planning level estimate):

Engineering: \$79M - \$115M
Right-of-Way: \$356M - \$448M
Construction: \$1,046M - \$1,451M

Total Project Cost: \$1,481M - \$2,014M

Project Benefits:

- Increase traffic volumes at acceptable operating speeds.
- Provides additional interchanges on I-515 to reduce traffic at congested interchanges.
- Reduces operational conflicts at ramps
- Reduces collisions.
- Improves transportation system performance.

What's Changed Since Last Update?

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

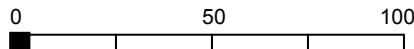
Project Risks:

- Environmental process under development – project scope, schedule and cost not fully defined.
- Complex right-of-way and utilities issues.
- Time delays in relocating public facilities and public housing.
- Funding uncertainty

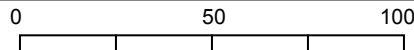
Financial Fine Points (Key Assumptions):

- Total funding Expended: \$7,320,000
- Inflation escalation (4%) is to 2012 in CLV and 2017 for remainder of project, approximate midpoint of construction.
- Funding for project not identified

% Design Complete



% ROW Complete



February 25,
2008



I 515 / US 93 / US 95 - Boulder City Bypass Phase 1 Foothill Drive to US 95

Project Sponsor: NDOT
Senior Project Manager: Glenn Petrenko, P.E.
(775) 888-7321



Project Description:

- Realignment of I 515 / US 93/ US 95 to create an access controlled facility from Foothill Drive to US 95
- One new diamond interchange and one new half interchange along with Frontage Roads will be constructed
- Direct Connector Ramps from the new facility to US 93 will be constructed
- Direct Connector Ramps from US 95 to the new facility will be constructed
- Existing access will be perpetuated
- Project Length: 3 miles

Schedule:

- Planning:**
Completed
- Environmental Clearance:**
Completed
- Final Design:**
2008 - 2010
- Construction:**
Start: 2010-2013



Project Cost Range (Final design phase estimates):

Engineering: \$4 - \$10 million
Right-of-Way: \$20 - 25 million
Construction: \$156 - \$195 million

Total Project Cost: \$180 - \$230 million

Project Benefits:

- Improves Safety by eliminating a signal at US 93 and Railroad Pass Casino
- Improves Operations for Trucks from US 95 to I-515
- Improves Operations for Peak trips from Boulder City to Las Vegas
- Improves local circulation
- Completes initial bypass phase

What's Changed Since Last Update?

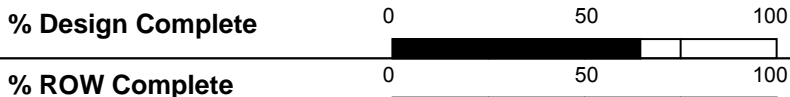
- Scope – No change
- Schedule – No change
- Cost – No change

Project Risks:

- Concurrent utility relocations may affect schedule
- Unit price and property escalation may affect project cost
- Full funding may not be available
- Resource conflict with other on-going projects

Financial Fine Points:

- Total funding Expended: \$2,693,649
- Total funding Expended for BC Bypass Environmental studies (all phases): \$4,895,181
- Inflation escalation (4%) is to 2012 approximate midpoint of construction.
- Additional Federal, State, Local and Regional Funding will be required.



April 15, 2008



**I 515 / US 93 / US 95 - Boulder City Bypass Phase 2
US 95 to Hoover Dam Bypass**

Project Sponsor: NDOT
Senior Project Manager: Glenn Petrenko, P.E.
(775) 888-7321



Project Description:

- Provide extension of Phase I from US 95 to tie into the Hoover Dam Bypass at Nevada Interchange
- Provide limited access bypass to the south of Boulder City for US 93 traffic.
- 4 lane divided highway facility.
- Require several bridge structures over existing access roads and to provide wildlife access
- Project Length: 12 miles

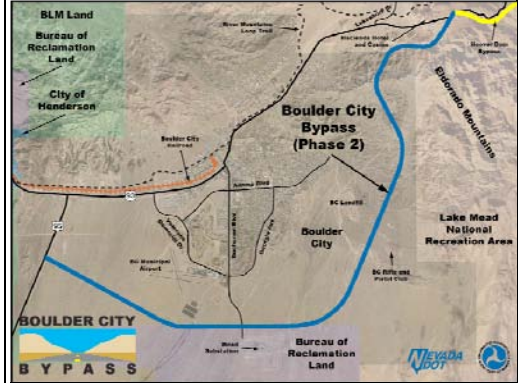
Schedule:

Planning:
Completed

Environmental Clearance:
Completed

Final Design:
Start: 2017-2025

Construction:
TBD



Project Cost Range (Planning phase estimates):

Engineering: \$15 – 30 million
Right-of-Way: \$2 - \$4 million
Construction: \$335 - \$820 million

Total Project Cost: \$352 - \$850 million

Project Benefits:

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

What's Changed Since Last Update?

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

Project Risks:

- Project unfunded – may delay schedule and increase costs
- Unit price escalation may affect project cost
- Difficult design & construction issues in a mountainous terrain may affect cost & schedule

Financial Fine Points:

- Total funding Expended: \$2,808,668
- Total funding Expended for BC Bypass Environmental studies (all phases): \$4,895,181
- Inflation escalation (4%) is to 2027 approximate midpoint of construction.
- Additional Federal, State, Local and Regional Funding will be required.



April 1, 2008



Hoover Dam

Project Sponsor: FHWA / CFLHD
 CFLHD Project Manager: F. Dave Zanetell, P.E.
 NDOT Senior Project Manager: Glenn Petrenko, P.E.
 (775) 888-7321

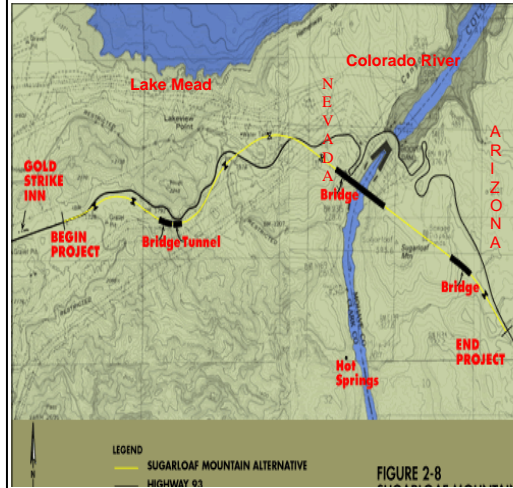


Project Description:

- Realignment of US 93 to create a highway bypass around Hoover Dam tying into existing US93
- One new diamond interchange at AZ end of project and one new diamond interchange at NV end will be constructed
- Long-span bridge crossing the Colorado River approximately 1500 feet south of Hoover Dam
- Pedestrian plaza and parking area constructed with access to the newly named Hoover Dam Access Road
- Project Length: 2.38 miles

Schedule:

- Planning:**
Complete
- Environmental Clearance:** Complete
- Final Design:**
5 of 6 phases complete
- Construction:**
4 of 6 phases complete
Late 2010-2011



Project Benefits:

- Improves Safety by removing trucks and through-traffic from Dam with tourists
- Improves Operations for Trucks on US 93, tourists on Hoover Dam
- Improves Operations for trips from Phoenix to Las Vegas
- Improves Hoover Dam facility, worker and visitor operations
- Protects waters of the Colorado River.

Project Cost Range (Final design phase estimates):

Engineering: \$23 - \$24 million
 Right-of-Way: No cost
 Construction: \$215 - \$216 million
 Total Project Cost: \$238 M - \$240 M

What's Changed Since Last Update?

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

Project Risks:

- Unit price escalation for final surfacing project (mitigated due to interim surfacing)
- Construction delays (cable stay portion of arch most difficult – extensive planning in place)

Financial Fine Points:

- Total funding Expended: \$191,000,000
- Inflation escalation (4%) is to 2009 approximate midpoint of construction.
- Nevada Funds - \$20 million



July 2008



**US 95 Northwest – Phase 1
Rainbow Boulevard (SR 595) to Ann Road**

Project Sponsor: NDOT
Senior Project Manager: Jenica K. Finnerty, P.E.
(775) 888-7321



Project Description:

- Alleviate congestion within the corridor by increasing capacity
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Project length: 6.02 miles

Schedule:

Planning:
Complete

Environmental Clearance:
Complete

Final Design:
2008-2009

Construction:
TBD



Project Cost Range (Cost estimates are appropriate for anticipated year of completing each phase):

Engineering: \$2 - \$3 million
Right-of-Way: \$0 - \$1 million
Construction: \$128 – \$159 million

Total Project Cost: \$130 – \$163 million

Project Benefits:

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

What's Changed Since Last Update?

- Scope – No change
- Schedule – NEPA completed May 7, 2008
- Cost – No change

Project Risks:

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

Financial Fine Points:

- Total funding Expended: \$70,000
- Total funding Expended for US 95 Northwest environmental studies (all phases): \$5 M
- Inflation escalation (4%) to midpoint of Construction in 2010
- Funding source:
 - AB 595 - full funding not available until 2011
 - \$14 million Federal (NHS/SAFETEA-LU High Priority)
 - \$116 - \$149 million unidentified



July 1, 2008



**US 95 Northwest – Phase 2
Ann Road to Kyle Canyon Road (SR 157)**

Project Sponsor: NDOT
Senior Project Manager: Jenica K. Finnerty, P.E.
(775) 888-7321

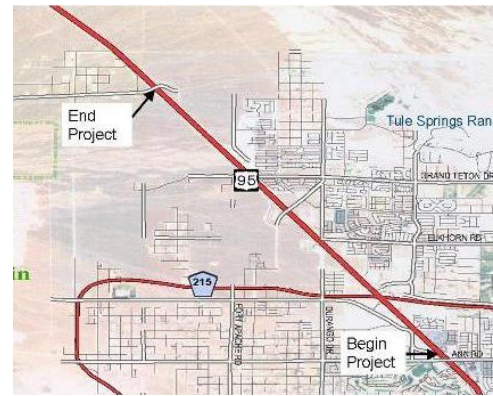


Project Description:

- This is the second phase of the US 95 Northwest Project that extends from Washington Ave to Kyle Canyon Road.
- Alleviate congestion within the corridor by increasing capacity
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Project length: 5.55 miles

Schedule:

- Planning:**
Complete
- Environmental Clearance:**
Complete
- Final Design:**
Start 2009 - 2011
- Construction:**
TBD



Project Cost Range (Cost estimates are appropriate for anticipated year of completing each phase):

Engineering: \$2 – \$3 million
Right-of-Way: \$2 – \$3 million
Construction: \$84 - \$105 million

Total Project Cost: \$88 – \$111 million

Project Benefits:

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

What's Changed Since Last Update?

- Scope – No change
- Schedule – NEPA complete May 7, 2008
- Cost – No change

Project Risks:

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

Financial Fine Points:

- Total funding Expended for Phase 2: \$0.0 (Design phase not started)
- Total funding Expended for US 95 Northwest environmental studies (all phases): \$5 M
- Inflation escalation (4%) to midpoint of Construction in 2012
- Funding source:
 - AB 595 - full funding not available until 2011
 - \$88 - \$111 million unidentified

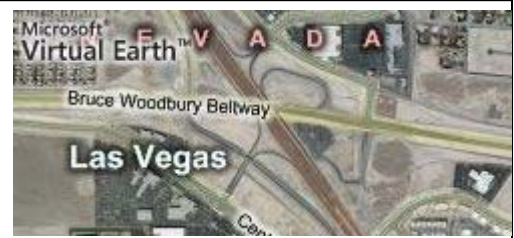


July 1, 2008



**US 95 Northwest – Phase 3
Clark County 215 Interchange**

Project Sponsor: NDOT and Clark County
Senior Project Manager: Jenica K. Finnerty, P.E.
(775) 888-7321



Project Description:

- Alleviate congestion within the corridor by increasing capacity
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Construct new interchange at CC 215

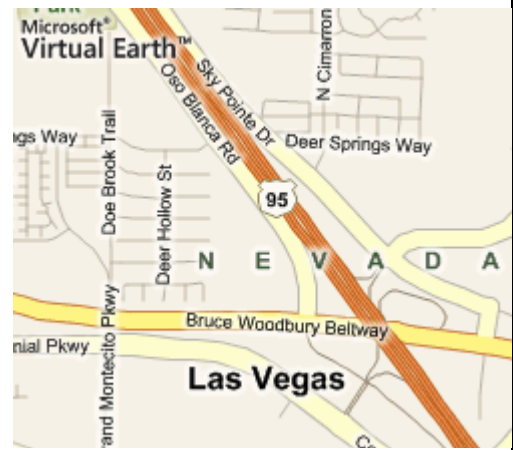
Schedule:

Planning:
Complete

Environmental Clearance:
Complete

Final Design:
2012 - 2014

Construction:
TBD



Project Cost Range (Cost estimates are appropriate for anticipated year of completing each phase):

Engineering: \$2 – \$3 million
Right-of-Way: No cost
Construction: \$101 - \$126 million

Total Project Cost: \$103 – \$129 million

Project Benefits:

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

What's Changed Since Last Update?

- Scope – No change
- Schedule – NEPA complete May 7, 2008
- Cost – No change

Project Risks:

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

Financial Fine Points:

- Total funding Expended for Phase 3: \$0.0 (Design phase not started)
- Total funding Expended for US 95 Northwest environmental studies (all phases): \$5 M
- Inflation escalation (4%) to midpoint of Construction in 2015
- Funding source:
 - \$44 million Local



July 1, 2008



**US 95 Northwest – Phase 4
Horse Interchange**

Project Sponsor: City of Las Vegas and NDOT
City Project Manager: Randy McConnell, P.E.
NDOT Project Manager: Bill Glaser, P.E.
(775) 888-7321



Project Description:

- This is the fourth phase of the US 95 Northwest Project that extends from Washington Ave to Kyle Canyon Road.
- Construct a new interchange on US 95 at Horse Drive to increase capacity and improve safety in response to recent and planned development

Schedule:

Planning:
2002-2007

Environmental Clearance:
Complete

Final Design: 2008

Construction:
2008-2010



Project Cost Range (Cost estimates are appropriate for anticipated year of completing each phase):

Engineering: \$1– \$2 million
Right-of-Way: \$10.8 million
Construction: \$60 - \$65 million

Total Project Cost: \$61 – \$73 million

Project Benefits:

- Increase capacity
- Improve safety
- Meet stakeholder/public expectations
- Reduce trip times
- Improve driver comfort
- Improve access

What's Changed Since Last Update?

- Scope – No change
- Schedule – NEPA complete May 7, 2008
- Cost – No change

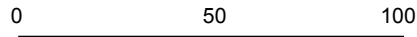
Project Risks:

- Complex construction in a dense urban residential area
-

Financial Fine Points (Key Assumptions):

- Total funding expended for phase 4: \$12.8 million
- Total funding Expended for US 95 Northwest environmental studies (all phases): \$5 M
- \$4.1M Federal SAFTEA-LU Funds
- \$21M RTC Clark County STP
- \$48M City of Las Vegas

% Design Complete



% ROW Complete



July 1, 2008



US 95 Northwest – Phase 5 Kyle Canyon Road Interchange

Project Sponsor: City of Las Vegas and NDOT
Senior Project Manager: Jenica K. Finnerty, P.E.
(775) 888-7321



Project Description:

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

Schedule:

- Planning:**
Complete
- Environmental Clearance:**
Complete
- Final Design:**
Start 2011 - 2013
- Construction:**
TBD



Project Cost Range (Cost estimates are appropriate for anticipated year of completing each phase):

Engineering: \$1 – \$2 million
Right-of-Way: No cost
Construction: \$20 - \$24 million

Total Project Cost: \$21 – \$26 million

Project Benefits:

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

What's Changed Since Last Update?

- Scope – No change
- Schedule – NEPA complete May 7, 2008
- Cost – No change

Project Risks:

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

Financial Fine Points:

- Total funding Expended for Phase 5: \$0.0 (Design phase not started)
- Total funding Expended for US 95 Northwest environmental studies (all phases): \$5 M
- Inflation escalation (4%) to midpoint of Construction in 2011
- Funding source:
 - \$6 million Local
 - \$10 million Private
 - \$24 million Federal



July 1, 2008



215 BELTWAY
Charleston Boulevard to Summerlin Parkway
Summerlin Parkway Interchange

Project Sponsor: Clark County Public Works
Project Manager: Roy Davis, P.E.
NDOT Project Manager: Eduardo Miranda



Project Description:

- Construct a portion of a system to system interchange at Summerlin Parkway.
- Construct approximately 1.4 miles of four lane access controlled freeway and widen 1.2 miles of freeway.
- Construct Interchange at Far Hills
- Construct bridge structures at Summerlin Parkway Interchange
- Construct drainage improvements including channel, box culverts and storm drain.
- Construct soundwalls in selected locations.

Schedule:
Complete

Planning:
Complete

Environmental Clearance:
Complete

Final Design:
Complete

Construction:
Begin - June 2008
Complete by spring 2010



Project Benefits:

- Provides through lane connections on the Beltway mainlines north and south of Summerlin Parkway Interchange.
- Reduces traffic congestion at the Beltway/Summerlin Parkway junction.
- Improves efficiency of traffic patterns for interchange movements.
- Improves on-system drainage by increasing efficiency of drainage system.
- Mitigates traffic noise levels in warranted locations.

Project Cost Range:

Engineering: \$7Million
 Right-of-Way: No cost
 Construction: \$57- \$63 Million

 Total Project Cost: \$64-\$70 Million

What's Changed Since Last Update?

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

Project Risks:

- Concurrent utility relocation may affect schedule and cost
- Maintaining stormwater during construction
- Maintaining traffic during multiple construction phases.

Financial Fine Points:

- Total Funding Expended: \$7,000,000 Million
- Bid Awarded April 15th, 2008: \$56,978,099.50
- Funding Source is Clark County

% Design Complete	0	50	100
% ROW Complete	0	50	100

Date



I-80 Robb to Vista

Project Sponsor: NDOT
 Project Manager: Dan McMartin
 (775) 888-7321



Project Description:

- Make operational and capacity improvements to I-80 from Robb Drive to Vista Blvd.
- Make operational and capacity improvements to the I-80/I-580 interchange (Spaghetti Bowl)
- Early Action and Phase I projects from the Washoe County Freeway Corridor Study currently being scoped
- Project Length: 10.4 Miles

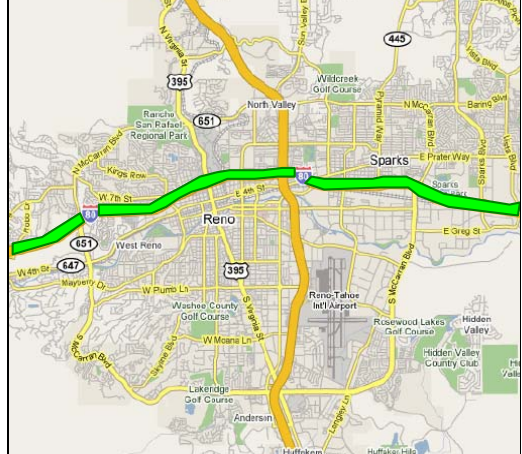
Schedule:

Planning:
2008-2010

Environmental Clearance:
TBD

Final Design:
TBD

Construction:
TBD



Project Cost Range (Planning phase estimates):

Engineering: \$85 Million to \$105 Million
 Right-of-Way: \$95 Million to \$125 Million
 Construction: \$900 Million - \$1.1 Billion

Total Project Cost: \$1.08 Billion - \$1.33 Billion

Project Benefits:

- Improve operations and capacity along I-80
- Improve safety
- Provide better connectivity between I-80 and I-580
- Accommodate Future Projected Traffic

What's Changed Since Last Update?

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

Project Risks:

- Limited Right of Way
- Project unfunded – delay in identifying needed funds will affect schedule and increase costs
- Environmental process not started – Project cost, scope and schedule may be impacted

Financial Fine Points:

- Total Funding Expended by NDOT: \$0.0 (Previous work by Washoe RTC)
- Funding through AB 595 – full funding not available
- Inflation escalation (4%) is to 2020 approximate midpoint of construction
- Additional Federal, State, and local funding will/may be

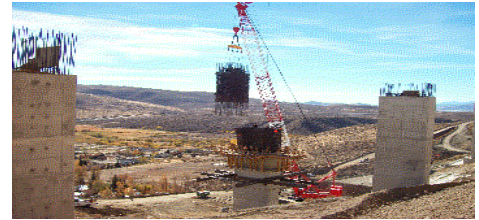


March 4,
2008



I 580 Freeway Extension

Project Sponsor: Nevada Department of Transportation
 Project Manager: Todd Montgomery, P.E.
 (775) 888-7321

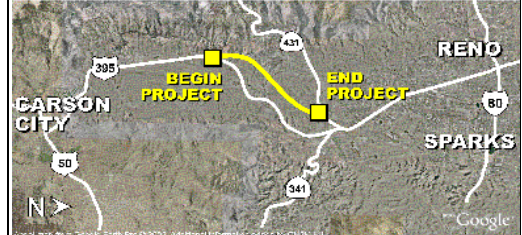


Project Description:

- 8.5 Miles of new 6-lane controlled access freeway
- Complete Mt. Rose Interchange (SR431) and construct a new interchange at Bowers Mansion Road (SR 429)
- Construct two grade separations and five bridges
- Construct Kelly Canyon Road (frontage road) and Parker Ranch Road to maintain local access at south end of project
- Ten water quality basins for treating storm water runoff

Schedule:

- Planning:** Completed
- Environmental Clearance:** Completed
- Final Design:** Completed
- Construction:** Estimated Completion 2011



Project Cost Range (Cost estimates are appropriate for anticipated year of completing each phase):

Engineering: \$31 M
 Right-of-Way: \$51 M
 Construction: \$500 M to \$575 M

Estimated Total Project Cost: \$582 M to \$657 M

Project Benefits:

- Construction will result in 27 miles of uninterrupted controlled access facility that meets interstate standards
- Will serve as the primary interstate highway for transportation linking Mexico with Canada and a major local arterial
- Will provide only all weather route connection between Carson City and Reno, Sparks & I 80
- Completion will alleviate congestion and explosive growth of over 61,700 vehicles per day predicted to travel in North Carson on I 580/US 395
- Projected to reduce the over 2,570 accidents and 16 fatalities that occurred in a 10 year span within similar limits

What's Changed Since Last Update?

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

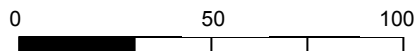
Project Risks:

- Complex construction in a rural mountainous freeway setting (High).
- Construction in geothermally altered earth (Medium).
- Delays due to weather/temperatures (Medium).
- ROW Conflict Delays to Contractor including utility relocations (Low).

Financial Fine Points (Key Assumptions):

- Total Funding Expended - **\$262,657,778**
 - Engineering - \$30,316,502
 - Right-of-Way - \$50,021,603
 - Construction - \$182,319,673
- Bond Funds
- Inflation escalation (4%) is to 2009 approximate midpoint of construction

% Construction Complete



May 31, 2008



US 395 Carson City Freeway Phase 2B
South Carson Street to Fairview Drive

Project Sponsor: NDOT
 Senior Project Manager: Jim Gallegos, P.E.
 (775) 888-7321



Project Description:

- Construct 3 miles of 4 lane access controlled Freeway which will complete the nine mile system around the state Capitol.
- Complete the interchange at Fairview Drive - providing full traffic movements.
- Construct the Koontz Lane, Clearview Drive & Snyder Avenue grade separated crossings.
- Construct the South Carson Street Interchange.
- Construct over four miles of sound walls to mitigate traffic noise.
- Construct flood control facilities including detention basins, channels, box culverts, and the freeway drainage system.
- Project Length: 3.37 Miles

Schedule:

- Planning:**
Complete
- Environmental Clearance:**
Complete
- Final Design:**
Start: 2013
- Construction:**
Start: 2014 - 2016
Depends on Funding



Project Cost Range (Final design phase estimates):

Engineering:	\$6 - \$8M
Right-of-Way:	\$27 - \$32M
Construction:	\$160 - \$180M
Total Project Cost:	\$193 - \$220

Project Benefits:

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

What's Changed Since Last Update?

- Scope – No change
- Schedule – Project postponed 4-5 years due to lack of funding
- Cost – Increased 30% due to project delay and projected inflation and risks.

Project Risks: Extended Delay

- Project completion date will depend on the availability of funds.
- Economic Development along the corridor could require design changes.
- Potential changes in design standards and utility relocation plans could affect schedule and budget.

Financial Fine Points (Key Assumptions):

- Total funding Expended: \$ 26M
- Inflation escalation (4%) is to 2016, approximate midpoint of construction.
- Construction funds has not been identified for this project

% Design Complete	0	50	100
% ROW Complete	0	50	100

July 1, 2008



**US 395 Northbound
Moana Lane to I-80**

Project Sponsor: NDOT
Senior Project Manager: Jim Gallegos, P.E.
(775) 888-7321



Project Description: Split Gore Alternative

- Widen NB US395 to improve traffic operations from the Moana Lane interchange to the I-80 interchange.
- Widen NB bridges at Vassar, Mill, Glendale, Truckee River, Kietzke, UPRR, and 4th St.
- Replace Overhead Sign Structures
- Perpetuate drainage features
- Reconstruct NB ramps at Mill, Glendale, Villanova & I-80.
- Project Length: 2.87 miles

Schedule:

Planning:
Completed

Environmental Clearance:
Spring 2009

Final Design:
2008-2010

Construction:
Start: 2010 - 2012



Project Benefits:

- Relieves heavy northbound peak hour congestion and reduces crashes associated with congestion.
- Reduces northbound travel time from 16 minutes to 3 minutes in peak hour from Moana to I-80
- Improves overall northbound traffic operations and reduces multiple weaves and lane changes at Spaghetti Bowl Interchange

Project Cost Range: (Environmental phase estimates):

Engineering: \$7-9 million
Right-of-Way: \$3-6 million
Construction: \$ 75 – 90 million

Total Project Cost: \$85 - \$105 million

What's Changed Since Last Update?

- Scope – No change
- Schedule – Postponed 1-Year due to limited funding availability.
- Cost – Increased by 4% (inflation) due to postponement.

Project Risks:

- Environmental requirements for working in the Truckee River.
- Complexity in widening the structure over the UPRR and maintaining railroad traffic
- Concurrent construction by the Glendale Wal-Mart and Grand Sierra Resort could affect project design and/or construction.
- Acceptance of Traffic Management Plan by affected project stakeholders.
- Availability of Funding

Financial Fine Points (Key Assumptions):

- Total funding Expended: \$3.5 Million
- Inflation escalation (4%) is to 2013, mid-point of construction
- Additional federal, state and local money needed to complete project



July 1, 2008



**US395 North
McCarran Blvd. To Stead Blvd.**

Project Sponsor: NDOT
Senior Project Manager: Jim Gallegos, P.E.
(775) 888-7321



Project Description:

- Widen US395 to increase capacity and improve traffic operations.
- Modify interchange ramps and cross streets as necessary to improve operations.
- Widen bridge structures at Stead, Lemmon Drive, Golden Valley, UPRR, Virginia St., Panther Valley, Parr Blvd. and Clear Acre Lane if necessary.
- Perpetuate drainage features
- Replace and install new signs

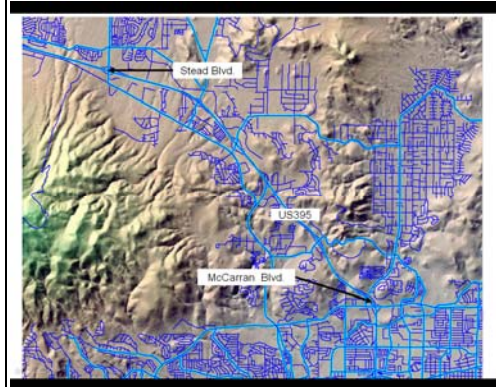
Schedule:

Planning:
2009 - 2010

Environmental Clearance:
Start:2010 -2011

Final Design:
TBD

Construction:
TBD



Project Cost Range (Planning phase estimates):

Engineering: \$7 - \$9 million
Right-of-Way: \$3 - \$6 million
Construction: \$ 70 – \$85 million

Project Benefits:

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

Total Project Cost: \$80 - \$100 million

What's Changed Since Last Update?

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

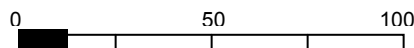
Project Risks:

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

Financial Fine Points:

- Total funding Expended: \$50,000
- Inflation escalation (4%) is to 2015, approximate mid-point of construction.
- No funding has been identified for this project.

% Planning Complete:



July 1, 2008



SR – 445 Pyramid Highway Improvements

Project Sponsors – Washoe County Regional Transportation Commission and Nevada Department of Transportation

**Project Manager – Todd Montgomery, P.E.
Phone: (775) 888-7321**



Project Description:

- Nugget Avenue to McCarran Boulevard – Widen to six lanes
- McCarran Boulevard to Lazy Five Parkway – Widen to eight lanes
- Lazy Five Parkway to Calle De La Plata Drive – Widen to six lanes
- Pyramid Way – McCarran Boulevard Intersection Improvements
- Pyramid Highway and US 395 / I 80 Interchange Connection
- Project length: Nearly 10 Miles

Schedule:

Planning: Completed

Environmental Clearance:
TBD

Final Design:
TBD

Construction:
TBD



Project Cost Range (Environmental phase estimates):

Engineering: \$40 M to \$60M
Right-of-Way: \$100 M to \$150 M
Construction: \$410 M to \$660 M

Total Project Cost: \$550 M to \$870 M

Project Benefits:

- Address congestion and safety along the Pyramid Highway Corridor
- Provide alternate access to freeway system
- Enhance operational characteristics of the Pyramid Way – McCarran Boulevard Intersection
- Improve safety

What's Changed Since Last Update?

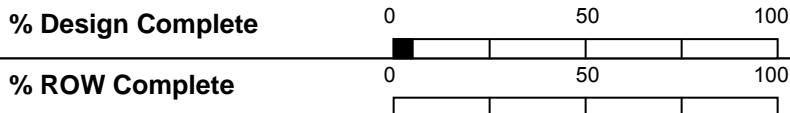
- Scope – No change.
- Schedule – No change.
- Cost – Added contingencies to Engineering and Right-of-way estimates to account for project risks.

Project Risks:

- Construction in a dense urban residential area
- Funding resources for all phases not identified

Financial Fine Points (Key Assumptions):

- Total Funding Expended: \$1,142,000
- Inflation escalation (4%) is to 2017 approximate midpoint of construction
- Funding through AB 595 – funding not available until 2009



May 31, 2008



APPENDIX D

FINAL DRAFT

BENEFIT/COST ANALYSIS POLICY

FINAL DRAFT

Approved _____ BENEFIT/COST ANALYSIS POLICY

1. PURPOSE

To establish a policy and procedures for applying Benefit/Cost Analysis during the development of highway projects. Benefit/Cost Analysis may be done for corridor studies and alternatives analysis. Additionally, analysis may be done for innovative intelligent transportation system and traffic operational improvements as well as more conventional construction and reconstruction improvements. The policy will assist the Board of Directors of the Department of Transportation (defined as 'Board' by NRS 408.033) in the selection of projects that will best serve the public.

2. POLICY

It is policy of the Department of Transportation to conduct Benefit/Cost Analysis for highway projects expected to increase the capacity of the State highway system and cost at least \$25 million. Additionally, other projects that might benefit will be considered for Benefit/Cost Analysis. The Benefit/Cost Analysis studies will be conducted using the requirements specified in NRS Chapter 408.

3. SCOPE

This Transportation Policy shall apply to all Department of Transportation districts and divisions in addition to any and all consultants performing Benefit/Cost Analysis for the Department of Transportation.

4. RESPONSIBILITY

a. The Chief Operations Analysis Engineer will be responsible for the following:

- (1) Revising this Transportation Policy in accordance with TP I-1-1.
- (2) Providing assistance and cooperation, as necessary, to project managers, consultants, and others to ensure successful application of Benefit/Cost Analysis.
- (3) Managing the Benefit/Cost Analysis Coordinator.

b. The Benefit/Cost Analysis Coordinator will be responsible for the following:

- (1) Recommending changes to the Benefit/Cost Analysis policy and procedures.

- (2) Developing and monitoring the Benefit/Cost Analysis Plan.
 - (3) Assuring adherence to Benefit/Cost Analysis Work Tasks.
 - (4) Assuring Benefit/Cost Analysis is conducted on highway projects expected to increase the capacity of the State highway system and cost at least \$25 million and other projects contained in the Benefit/Cost Analysis Plan.
 - (5) Informing project managers when a project has been selected for Benefit/Cost Analysis.
 - (6) Acquiring information with the cooperation of the Project Manager that will be needed for Benefit/Cost Analysis.
 - (7) Conducting or coordinating Benefit/Cost Analysis per each Benefit/Cost Analysis work tasks.
 - (8) Maintaining an on-call list of consulting Benefit/Cost Analysis specialists with the Administrative Services Division, and managing Benefit/Cost Analysis consultant agreements.
 - (9) Assisting the project managers in estimating the cost to have a consultant conduct Benefit/Cost Analysis studies.
- c. The Assistant Directors of Planning and Engineering will approve the Benefit/Cost Analysis Plan submitted by the Benefit/Cost Analysis Coordinator after approval of the Chief Operations Engineer.
- d. Division heads, district engineers, and consultants involved with project development will be responsible for ensuring employees under their authority are aware of this policy and that they cooperate with the Benefit/Cost Analysis Coordinator, project managers and consultant if applicable.
- e. The Project Manager will be responsible for the following:
- (1) Request the Benefit/Cost Analysis Coordinator to include the Highway Projects in the Benefit/Cost Analysis Plan if those projects increase capacity and the design estimate is at least \$25 million.
 - (2) Request the Benefit/Cost Analysis Coordinator to include other highway projects in the annual Benefit/Cost Analysis Plan which might benefit from a Benefit/Cost Analysis.

- (3) Assuring that project funds are programmed and budgeted to pay for the Benefit/Cost Analysis, including any consultants employed.

5. DEFINITIONS

- a. Benefit/Cost Analysis Work Tasks: An organized protocol for accomplishing a Benefit/Cost Analysis.
- b. Benefit/Cost Analysis Coordinator: A person trained in Benefit/Cost Analysis and located in the Operations Analysis Division.
- c. Project Manager: The person placed in responsible charge of a Highway Project.
- d. Benefit/Cost Analysis Plan: A list of Projects selected and prioritized annually by the Benefit/Cost Analysis Coordinator for Benefit/Cost Analysis, and approved by the Assistant Directors of Planning and Engineering.
- e. Highway Project: A project listed in the Benefit/Cost Analysis Plan.
- f. Benefit/Cost Analysis: A written analysis of Highway Project costs and benefits includes at a minimum the following:
 - (1) The limits of the project.
 - (2) The period of analysis.
 - (3) The discount rate used in the analysis.
 - (4) The initial costs of the Department for the project, including any costs for design, engineering, the acquisition of land and construction.
 - (5) The future costs of the Department to preserve and maintain the project, discounted to present value.

- (6) Other costs of the Department for any other construction or any mitigation associated with the project.
- (7) The cost to highway users for any loss of safety, delays in the time of travel and costs for the operation of vehicles.
- (8) The value of the benefits of the project including the value of any savings in time of travel, improvements to safety, and savings of the cost of operating vehicles.
- (9) A discussion of any additional increases in costs that would result from any delays in the performance of any routine maintenance scheduled under the maintenance program of the Department.
- (10) A format that allows for the comparison of proposed highway projects.

g. Benefit/Cost Analysis:

An analysis of the Highway Project costs and benefits may include:

- (1) The benefits or costs of the project for other persons and governmental agencies.
- (2) The value of any other social, economic or environmental benefits or costs of the project.
- (3) Any costs or benefits that might result from the use of alternative design, construction or financing practices.

6. PROCEDURE

- a. Initiating the Benefit/Cost Analysis Process:
 - (1) The Benefit/Cost Analysis Coordinator will review the annual Statewide Transportation Improvement Program and Long Range Element for projects that will need Benefit/Cost Analysis as required or desired under this policy. The projects should be selected prior to January 1 of each year. This will be the primary method of initiating Benefit/Cost Analysis on projects.
 - (2) To assure adherence to this policy when projects are in the design stage, the Project Manager shall notify the Benefit/Cost Analysis Coordinator of any highway projects that are expected to increase the capacity of the State highway system and cost at least \$25 million. The Project Manager may request other highway projects be included in the Benefit/Cost Analysis Plan that could benefit from a Benefit/Cost Analysis. If a significant change in the project scope or budget occurs, the Project Manager may request that the project be included in the Benefit/Cost Analysis Plan, even though a Benefit/Cost Analysis was already conducted.
 - (3) Division heads, district engineers, and the Office of the Director may submit a written request to the Benefit/Cost Analysis Coordinator for a project to be included in the Benefit/Cost Analysis Plan.
- b. The Benefit/Cost Analysis Coordinator will prioritize and schedule the projects for Benefit/Cost Analysis and prepare the Benefit/Cost Analysis Plan, and then submit it to the Assistant Directors of Planning and Engineering for approval.
- c. A revision to the annual Benefit/Cost Analysis Plan can be initiated by any district, division head or project manager with a written request and justification to the Benefit/Cost Analysis Coordinator. The Benefit/Cost Analysis Coordinator will forward the written request and justification to the Assistant Directors of Planning and Engineering who will consider approving a revision if the analysis cannot wait for the next cycle.
- d. For each project identified in the Benefit/Cost Analysis Plan the Benefit/Cost Analysis Coordinator will notify the responsible project managers and cooperatively identify the Benefit/Cost Analysis Work Tasks.
- e. The Benefit/Cost Analysis Coordinator will manage the consultant, if a consultant is employed, throughout the execution of the work tasks. The consultant will submit a report describing the Benefit/Cost Analysis, showing all data utilized, documenting assumptions and summarizing the results.
- f. The Benefit/Cost Analysis Coordinator with the assistance of the Project Manager will review and critique the consultant's report, and identify any limitations. The limitations will include significant parameters that could not be reasonably converted to monetary values.

- g. The Benefit/Cost Analysis Coordinator will submit a memorandum to the Assistant Directors of Planning and Engineering that summarizes the review of Benefit/Cost Analysis and specifies any significant concerns. Additionally, the memorandum will recommend resolution of the concerns.
- h. The Benefit/Cost Analysis Coordinator will prepare an annual report of any finding for the Director and the Board, and arrange for its posting on the Department of Transportation Website.

END

APPENDIX E

**DISCUSSION OF THE CALCULATIONS OF
COSTS AND BENEFITS**

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 structural 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 been helpful to help assess the cost effectiveness of public projects. For the private sector normally economic efficiency is the primary objective, but the public sector needs to consider economic equity as well. As the social and environmental factor became important, the economic analysis of projects came more complex and, therefore, more difficult.

The application of the B/C ratio calculations for this Annual Report compares each proposed project with the conditions without the project. This appendix discusses the input data needed to conduct a B/C ratio calculation, which includes; travel time benefits, crash benefits, motor vehicle emissions and cost benefits, vehicle operating cost benefits, capital cost. In addition, the results of the analyses are presented as well as limitation with the B/C analysis.

Input

Travel Time Benefits

Highway speeds and volumes came from the Regional Transportation Commissions and Metropolitan Planning Organizations regional travel demand models. For the value of travel time, the personal travel was 50% of local median wage while business travel by truck/bus drivers was 100% of the mean wage for these occupations plus fringe. The wage value in Clark County came from the Nevada Department of Employment, Training, and Rehabilitation, which was \$16.60 in 2005. The state reported a wage of \$18.61 for heavy equipment and large truck operators. A 50% fringe was used because it was an average several labor groups. The same data were obtained for Carson City/Douglass County and Washoe County, and the identical calculations were performed. Vehicle occupancy was based in household surveys, census data and travel demand output.

Table E-1 Travel Cost and Vehicle Occupancy

Location	Personal Travel	Business Travel	Vehicle Occupancy
Clark County	\$8.30	\$27.92	1.45
Carson City/Douglass County	\$7.55	\$24.78	1.43
Washoe County	\$8.83	\$29.25	1.28

Crash Benefits

The freeway and expressway, with controlled access, accident rates are normally lower than local streets and roads that had little or no access control. Consequently, by increasing freeway

capacity more travelers will benefit from lower accident rates. The rates are illustrated in Table E-2 which contained 2002 data from the Department.

Table E-2 Nevada Crash Rates by Highway Functional Classification (2002)

Functional Class	PDO^{1,2}	Injury²	Fatal²
Interstate unban	220	85.5	0.66
Other urban freeways/expressways	160	63.0	0.62
Urban principal arterials	420	225	2.18
Urban minor arterials	354	201	2.27
Urban collector streets	229	124	1.16
Urban local streets	262	93.4	0.83

¹ Property Damage Only

² Number of crashes in 100 million vehicle miles of travel

The total cost of accidents is contained in Table E-3. These costs were derived from National Safety Council data and a study by the Urban Institute and FHWA, adjusted to 2005 dollars.

Table E-3 Accident Cost Assumptions (2005 dollars)

Accident Type	Cost
Fatality	\$4,251,000
Injury	\$95,800
Property Damage Only	\$7,950

Motor Vehicle Emissions and Cost

The rate of motor vehicle emissions and associated health cost is based on data from California and are contained in Table E-4.

Table E-4 Vehicle Emission Health Cost Assumptions (Dollars/Ton)

Emission Type	Cost
Carbon monoxide	\$127
Fine Participates	\$423,000
Nitrogen oxides	\$51,600
Hydrocarbons	\$7,410

Vehicle Operating Costs

The consumption of fuel is determined by the average speed and the zone to zone distances. The fuel consumption rates are based on data from 2000 California Air Resources Board and expressed as gallons per mile and is a function of speed. For the gasoline costs, 2006 data was

used. In Clark County, \$2.53 per gallon was used, while \$2.81 was used in Carson City/Douglas County and Washoe County. The vehicle maintenance and tire expenses were based on 2004 US Department of Energy cost data. For passenger cars, \$0.061 per mile was used while \$0.121 was used for trucks.

Capital Cost

The capital cost includes all implementation costs, but not any maintenance and repair costs. Transit service costs were not included as well.

Results

The results of the analysis of benefits and cost are shown below in Table E-5. The discount rate of 7% is used because of OMB (Office of Management and Budget) Circular A-94. The 7% rate “approximates the marginal pretax rate of return on an average investment in the private sector in recent years.”

Table E-5 RESULTS OF THE COST-BENEFIT ANALYSES PERFORMED IN FY 2008

Blue Ribbon Task Force Projects	NPV B/C*	PP*
I-15 South Corridor – Tropicana Avenue to Sloan Road	4.11	8
US-95 Northwest Corridor – Rainbow Blvd to Kyle Canyon Road	3.63	8
I-15 North Corridor – Spaghetti Bowl to Apex	3.39	9
I-15 – NEON (Sahara Avenue to Spaghetti Bowl)	1.97	12
I-515 – Spaghetti Bowl to Foothills Road	1.94	12

*Notes:

NPV B/C – net present value of benefits and costs that determine the B/C ratio at 7% discount rate

PP – payback period in years at 7% discount rate

Limitations

As stated earlier, there are some costs that were not included, namely, transit and highway maintenance, which will need consideration at times. Future B/C ratios calculations by the Department will include these items when appropriate. However, there are also other limitations to the B/C ratio that deserve consideration on many projects. In general, it is difficult to convert all diverse cost 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 human environmental impact costs; therefore, a factor will be needed to address the ‘community impact’ caused by projects. Another limitation is the

management of roadway assets, which includes but also transcends the maintenance activities. This factor may be called 'roadway preservation' in which the financial impact construction has on roadway preservation is determined.

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

The final limitation is the level of favorable public opinion toward a project. If there is a negative public perception toward a particular project, even if the perception is not justified, a high priority score may 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.

APPENDIX F

I-15 SOUTH CORRIDOR B/C RATIO ANALYSIS

(Tropicana Avenue to Sloan Road)

I-15 South Corridor Study STEAM Analysis

OVERVIEW

The I-15 South Corridor extends from Tropicana Avenue to Sloan Road in Clark County, Nevada. While the corridor is focused on I-15 from Tropicana Avenue to Sloan Road, the needs assessment takes into consideration land development and traffic flows throughout Las Vegas Valley. Growth in interregional traffic between California and Nevada is also addressed by this study, as are the traffic impacts of a proposed international airport located south of the study area in Ivanpah Valley, between Jean and Primm, Nevada.

The study limits on I-15 cover a distance of approximately 12 miles. The study area also includes signalized intersections east and west of the freeway interchanges up to Las Vegas Boulevard to the east and Dean Martin Drive to the west. The study corridor includes six interchanges. Five are service interchanges at Tropicana Avenue, Russell Road, Blue Diamond Road, St. Rose Parkway and Sloan Road. The sixth is the system interchange with I-215. Within the study limits, I-15 currently has three general purpose lanes in each direction and auxiliary lanes for each direction between Blue Diamond Road and Tropicana Avenue.

The traffic forecasts assume that I-15 will be widened to ten lanes between Sloan Road and Blue Diamond Road, and to 14 lanes (10 + 4 auxiliary lanes) north of Blue Diamond Road to the Tropicana Avenue interchange. North of the I-215 interchange, a 16-lane cross section is required to operationally accommodate peak period traffic volumes. This includes five mainline traffic lanes in each direction and three lane collector-distributor roads between I-215 and Tropicana Avenue (10 + 6 auxiliary lanes).

Total I-15 South improvement costs, including freeway mainline widening, new interchanges, and arterial street improvements are estimated at \$664 million, expressed in 2005 dollars. This investment will produce net savings in travel time, emissions and vehicle operating expense. Collectively, these will amount to \$447 million annually based on Year 2030 traffic volumes.

Benefits and costs for the Build Alternative versus the No-Build Alternative are as follows:

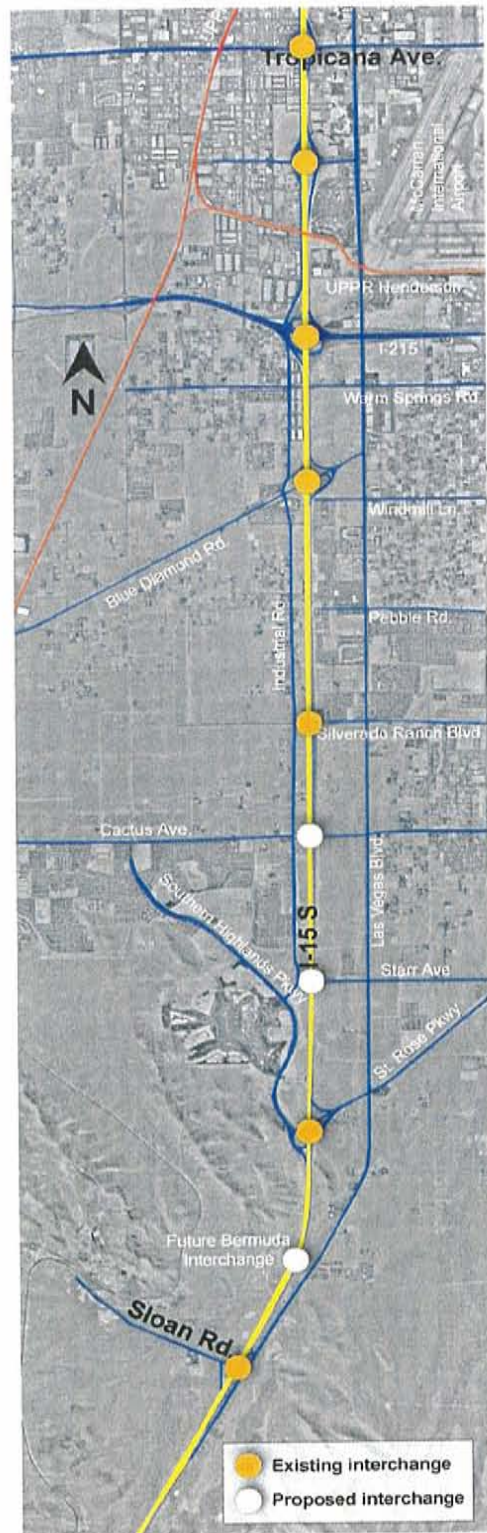
- Total benefits will exceed total costs by \$4.281 billion (Year 2005 dollars).
- The net present value of these benefits, assuming a discount rate of seven percent, will be \$1.479 billion. The net present value of implementation costs, excluding maintenance and repair, is \$360 million. This B/C ratio is 4.11.

The payback period, at a discount rate of seven percent, is 8 years.

I-15 South Corridor Study STEAM Analysis

I-15 South Corridor Existing/Proposed Interchanges

I-15 South Corridor Study Area



I-15 South Corridor Study STEAM Analysis

Table 1. I-15 South Corridor Measures of Effectiveness

	November 2006		
	No-Build	Build	Change
Travel Demand			
VMT (million VMT/year)	20,840.7	20,848.5	7.7
Travel time (million person hours/year)	991.6	955.7	-35.9
Tons of Emissions (tons/year)			
VMT Related Emissions			
HC	14,678.1	14,376.6	-301.6
CO	46,060.0	44,813.1	-1,246.9
NO _x	6,943.9	6,952.3	8.4
PM ₁₀	564.8	564.9	0.1
Cold start emissions	No change		
Greenhouse Gas Emissions			
Btu energy consumption (100 billion Btu/year)	1,218.3	1,178.4	-39.9
CO ₂ emissions (1,000 tons/year)	9,503.0	9,191.4	-311.6
Accidents			
Fatalities	306.3	301.3	-5.0
Injuries	31,247.8	30,820.9	-426.9
Property damage only	62,261.2	61,718.9	-542.3
Fuel Consumption			
Gallons (1,000 gallons/year)	969,377.0	937,361.6	-32,015.3
<i>Source: Parsons (using STEAM 2.0)</i>			

I-15 South Corridor Study STEAM Analysis

Table 2. Summary of I-15 South Build Alternative Benefits

Benefit Type	\$/Year In Year 2030
	November 2006
User Benefits	
In-vehicle travel time	\$307,778,300
Fuel costs	\$ 64,089,500
Non-fuel operating costs	(\$ 461,400)
Internal accident costs	\$ 80,130,700
Revenue Transfers	(\$ 16,667,200)
Reduction in External Costs	
Emissions	\$ 1,907,700
Global warming	\$ 1,109,300
Noise	\$ 44,300
Accident	\$ 9,974,500
Other mileage based	(\$ 472,200)
Total Benefits	\$447,433,400

Table 3. I-15 South Life-Cycle Benefits and Costs

Year	Total Benefits	Total Costs	Net Present Value	Net Present Value Benefits	Net Present Value Costs
2006	—	—	1.000	—	—
2007	—	\$ 4,400,000	0.935	—	\$ 4,111,800
2008	—	13,200,000	0.873	—	11,528,880
2009	—	30,860,000	0.816	—	25,187,932
2010	—	48,520,000	0.763	—	37,011,056
2011	—	48,720,000	0.713	—	34,732,488
2012	\$ 23,549,100	22,600,000	0.666	\$ 15,690,765	15,058,380
2013	47,098,300	39,180,000	0.623	29,328,111	24,397,386
2014	70,647,400	51,360,000	0.582	41,116,787	29,891,520
2015	94,196,500	52,810,000	0.544	51,233,476	28,723,359
2016	117,745,600	37,970,000	0.508	59,850,088	19,300,151
2017	141,294,800	49,640,000	0.475	67,115,030	23,579,000
2018	164,843,900	58,000,000	0.444	73,190,692	25,752,000
2019	188,393,000	76,740,000	0.415	78,164,256	31,839,426
2020	211,942,100	65,000,000	0.388	82,191,146	25,207,000
2021	235,491,200	65,000,000	0.362	85,342,011	23,556,000
2022	259,040,300	—	0.339	87,736,950	—
2023	282,589,400	—	0.317	89,439,545	—
2024	306,138,600	—	0.296	90,555,798	—
2025	329,687,700	—	0.277	91,158,649	—
2026	353,236,800	—	0.258	91,276,389	—
2027	376,785,900	—	0.242	90,993,795	—
2028	400,335,000	—	0.226	90,355,610	—
2029	423,884,200	—	0.211	89,397,178	—
2030	447,433,400	—	0.197	88,189,123	—
2031	470,982,400	—	0.184	86,754,958	—
	\$4,945,315,600	\$664,000,000		\$1,479,080,357	\$359,876,378

I-15 South Corridor Study STEAM Analysis

Source: Parsons

Table 4. I-15 South Project Phasing Assumptions

Phase	Timeframe and Cost	Project Elements
1	2007-2011 \$141.1M	<ul style="list-style-type: none"> • I-15 widening- Silverado Ranch Blvd. to Tropicana Ave. • Blue Diamond Road Interchange • Pebble Road extension and over-crossing • Las Vegas Boulevard South improvements
2	2011-2015 \$160.1M	<ul style="list-style-type: none"> • I-15 widening – St. Rose Parkway to Silverado Ranch Blvd. • Cactus Avenue interchange • Starr Road interchange • Las Vegas Boulevard South improvements
3	2015 – 2019 \$200.3M	<ul style="list-style-type: none"> • I-15 widening – Sloan Road to St. Rose Parkway • I-15 C-D road design and ROW acquisition – Blue Diamond Road to Tropicana Avenue • Sloan Road interchange reconstruction • Bermuda Road interchange
4	2019 – 2021	<ul style="list-style-type: none"> • I-15 C-D road construction – Blue Diamond Rd. to Tropicana Ave.

Table 5. Summary of I-15 South Benefit-Cost Analysis Results

Life Cycle Benefits/Total Costs Ratio (Excludes Transit and O&M)

\$4,945M/\$664M = 7.45

Net Present Value of Benefits Costs at 7% Discount Rate (Excludes Transit and O&M)

\$1,479M/\$360M = 4.11

Payback Period at 7% Discount Rate

8 years

Source: Parsons

