



INSIDE NDOT 2010 - 2011



A Look at the Projects, Programs and People of the Nevada Department of Transportation



THE PEOPLE OF NDOT



NEVADA DEPARTMENT OF TRANSPORTATION 3



NDOT equipment employees' efforts to preserve and rebuild some of NDOT's 2,700-piece equipment fleet has saved over \$20 million in the past two years and led NDOT to be named one of the nation's 100 best fleets.



NDOT's highly-trained bridge inspectors elevate 900 feet above the Colorado River to inspect the new Hoover Dam Bypass Bridge.

Every year, numerous NDOT employees become certified as professional engineers, an exacting certification ensuring the highest level of engineering expertise and education for all of those designing and overseeing our state's infrastructure.



NDOT is studying a vehicle miles traveled fee as an alternative to continue to fund public roads amid changing energy resource issues and transportation funding deficit. NDOT planning experts discussed the study with the public in two public meetings.



Following 2009 legislation aimed at improving road safety, a lower speed limit was unveiled on State Route 159 through the Red Rock Canyon area west of Las Vegas.



Crack sealing is just one of the important tasks that NDOT maintenance staff perform to preserve the safety and ride quality of Nevada state roads.



NDOT plow operators snow blow a springtime path through one of Nevada's more rugged outdoor destinations, Lamoille Canyon.

NDOT environmental division's recent achievements include conducting extensive historical restoration and research and bringing the community together to preserve Carson City's historic Stewart Indian Cemetery.



NDOT builds the state road improvements that keep commerce and motorists moving. These road projects join with NDOT's road maintenance, preservation and partnering activities to provide a seamless, top-notch transportation system for Nevada's citizens, visitors and businesses.

These are examples of some larger current NDOT road projects that, when complete, will support commerce and mobility and help keep Nevada moving well into the future.

I-15 SOUTH DESIGN-BUILD PHASE 1A – LAS VEGAS

Silverado Ranch Road to Tropicana Avenue

Project Description

- First phase of I-15 south corridor improvements
- Widen I-15 to eight lanes from I-215 to Blue Diamond Road
- Add collector-distributor lanes from Blue Diamond Road to Tropicana Avenue
- Braid collector-distributor roads to eliminate weaving between I-215 and Tropicana Avenue
- Construct Sunset Road bridge and reconstruct Warm Springs bridge over I-15

Project Benefits

- Provide additional capacity and improve east-west access on I-15
- Reduce driving/safety conflicts between major streets in project area
- Decrease congestion and travel times
- Use design-build method to complete project more quickly
- Improve safety



U.S. 95 PHASE 1– LAS VEGAS

Rainbow Boulevard to Ann Road

Project Description

- First phase of U.S. 95 improvements in northwest Las Vegas
- Widen U.S. 95 in selected areas
- Construct loop ramp to accommodate heavy westbound Cheyenne Avenue to southbound U.S. 95 traffic
- Construct braided northbound exit ramp and southbound entrance ramp at Rancho/Ann Road interchange
- Construct loop ramp to accommodate heavy westbound Durango Drive to southbound U.S. 95 traffic
- Widen Gowan Road bridge

Project Benefits

- Provide additional capacity
- Improve access on U.S. 95 northwest corridor
- Improve safety

NORTHBOUND U.S. 395 IMPROVEMENT PROJECT - RENO

Moana Lane to I-80 Spaghetti Bowl Intersection

Project Description

- Add auxiliary merging/travel lanes to northbound U.S. 395
- Reconstruct northbound U.S. 395 ramps at Mill Street, Glendale Avenue and Villanova Drive
- Slightly modify location of northbound U.S. 395 to eastbound I-80 ramp for easier, safer merging
- Widen numerous U.S. 395 northbound bridges

Project Benefits

- Relieve heavy northbound U.S. 395 peak hour traffic, reducing travel time a projected 13 minutes between Moana Lane and I-80
- Reduce weaving/multiple lane changes in corridor
- Improve safety



CARSON CITY FREEWAY - PHASE 2B

Fairview Drive to South Carson Street (U.S. 50 Junction)

Project Description

- Project to be built as two separate packages
- Construct three miles of four-lane freeway to complete the Carson City Freeway around state capital
- Construct Snyder Avenue grade separation and South Carson Street interchange
- Construct flood control and soundwall improvements



Photo Simulation

Project Benefits

- Decrease traffic congestion and travel times through Carson City
- Provide flood control protection
- Improve opportunities for economic development along the corridor and downtown

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INTERSTATE 580

South Reno to Washoe Valley

Project Description

- Construct 8.5 miles of new, six-lane controlled access freeway
- Complete interchange with Mt. Rose Highway (State Route 431)
- Construct new interchange at Bowers Mansion Road (State Route 429)
- Construct two grade separations and five bridges
- Construct Kelly Canyon Road (frontage road and Parker Ranch Road to maintain local access)



Galena Creek Bridge Photo Simulation

Project Benefits

- Will provide only all-weather route between Carson City and Reno/Sparks
- Decrease traffic congestion
- Projected to reduce the more than 2,570 accidents and 16 fatalities that occurred in a 10-year span on existing road near project area
- Construction will result in 27 miles of uninterrupted controlled-access road meeting interstate standards

OTHER ROAD PROJECT EXAMPLES

- I-15 West Mesquite Interchange Design-Build Project - Mesquite
- Meadowood/I-580 Interchange/Improvement Project - Reno
- U.S. 95 Phase 4 - U.S. 95 at Horse Drive, northwest Las Vegas



PLANNING FOR THE FUTURE

Proposed Projects



In conjunction with our local government and community partners, NDOT carefully plans the transportation systems and improvements of the future. By looking to the road ahead, NDOT collaboratively plans the most effective, socially-responsible road network for future years and future generations with the funding available.

In the Las Vegas area alone, a recent nationwide urban mobility report found that traffic congestion creates 29 million wasted hours and 20 million gallons of wasted fuel every year. These are examples of some larger NDOT projects and programs that are planned, funding dependent, to provide for future mobility and commerce needs.

PIONEER PROGRAM

www.pioneerprogram.com



Amid a statewide multibillion-dollar transportation funding deficit, NDOT's Pioneer Program will help develop innovative road funding, construction and management partnerships with private businesses. The goal: to complete needed road projects more quickly and provide less congested freeways and the greatest return on taxpayer-funded road improvements.

These public-private partnerships can take many forms, and they're all aimed at providing the following benefits to Nevada:

- Earlier delivery of transportation projects
- Better mobility
- Less congestion
- More efficient transportation
- Less public money spent
- Enhanced lifestyle for a growing Nevada

VEHICLE MILES TRAVELED STUDY

www.vmtfeenv.com

In future years, Nevada will be billions short in funding for needed public roads due in part to inflation, hybrid/electric vehicle use and new fuel efficiency standards expected to cut fuel consumption nearly in half by 2016. NDOT's Vehicle Miles Traveled Fee Study will review a vehicle miles traveled fee as an option to sustainably fund transportation by replacing the current fuel tax.

Vehicle Miles Traveled Fee

- In a VMT system, users are charged by the number of miles driven instead of gallons of fuel purchased.

Key Elements Being Studied

- Public Perception
- Usability
- Privacy
- Sustainability
- Equity
- Technology
- Accountability/Transparency



Hybrid Vehicle

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PROJECT NEON - DOWNTOWN LAS VEGAS

Project Description

- Widen I-15 from U.S. 95 spaghetti bowl intersection to south of Sahara Ave.
- Construct high-occupancy vehicle (carpool lane) direct connection from U.S. 95 to I-15
- Improve I-15 high-occupancy vehicle lanes, including collector/distributor roads
- Construct collector-distributor freeway frontage roads
- Reconstruct I-15/Charleston Blvd. Interchange
- Connect Martin Luther King Blvd. and Industrial Road over I-15
- Flood control and landscape and aesthetic improvements

Project Benefits

- Extend high-occupancy vehicle system to reduce congestion
- Provide new access to downtown redevelopment

Schedule: Planning/Environmental Clearance: 2003-2010 - Final Design/Construction: TBD



I-15 NORTH AND SOUTH CORRIDOR IMPROVEMENTS – SOUTHERN NEVADA

Nevada/California state line to Apex interchange

Project Description

- Multi-phase projects to enhance I-15 from Nevada/California state line to Silverado Ranch Boulevard (I-15 south projects) and from Craig Road to Apex interchange north of Las Vegas (I-15 north projects)

Project Benefits

- Improves travel, safety and transportation connectivity and reduces congestion on I-15 from California state line to northeast of Las Vegas
- When completed, estimated to annually eliminate:
 - 7 traffic deaths - 1,130 injury/property damage crashes - 58 million gallons of fuel
 - 540,000 tons of vehicle emissions - 61 million commuter hours

Schedule: Individual phases of projects to be built based upon funding availability and transportation need

I-15 INTELLIGENT TRANSPORTATION SYSTEM DESIGN-BUILD PROJECT

CA/NV state line to I-215 in Las Vegas

Project Description

- Multi-package project to install intelligent transportation system improvements, such as dynamic message signs, ramp meters and traffic flow detectors

Project Benefits

- Improve traffic flow, operations, emergency response and road information technology on I-15 from the California border to I-215 in Las Vegas
- Use design-build method to complete project more quickly
- Improve safety

I-80 DESIGN-BUILD PROJECT- RENO/SPARKS

Robb Drive to Vista Boulevard

Project Description

- Make operational and capacity improvements to improve travel, safety and transportation infrastructure
- Project consists of various independent construction elements, from repaving and widening to ramp improvements and intelligent transportation system/fiber optic improvements

Project Benefits

- Improve road capacity, operations and road information technology on I-80 through Reno/Sparks
- Replace deteriorating road surface
- Use design-build method to complete project more quickly
- Improve safety



OTHER PLANNED PROJECT EXAMPLES

- I-515/U.S. 93/U.S. 95 (multi-phase)- I-515 from I-15 to Horizon Drive (Las Vegas) and Foothill Drive to Hoover Dam Bypass (Boulder City)
- F Street Connection under I-15 – Las Vegas
- I-15/Cactus Avenue interchange – Las Vegas
- I-15/Starr Avenue interchange – Las Vegas
- Pyramid Way (State Route 445) improvements – Reno

CORRIDOR STUDIES

- I-15 Corridor Study (multi-state study)
- Apex to Mesquite and Moapa Valley Corridor Study

Boulder City Bypass Photo Simulation



State roads are the lifeline for Nevada commutes, travel and commerce. They are also one of the state’s largest public infrastructure investments. From snow removal and accident traffic control to repaving and repainting, NDOT maintenance forces perform nearly 100 different types of transportation-related tasks.

Through each of these tasks, these maintenance professionals protect and upkeep state roads with expertise, dedication and a recognition of the invaluable public investment of each roadway. Here is a sample of their vital work.



2010
SAMPLE MAINTENANCE TASKS **MAN HOURS**

Snow and ice removal	127,599
Debris removal	88,508
Road slope repair/enhancements.....	43,956
Pothole/crack filling and patching.....	26,536
Road brooming/sweeping	36,597
Road striping	20,818
Emergency response	10,780

2010 TOTAL NDOT MAINTENANCE MAN HOURS: 804,920
(INCLUDING ABOVE SAMPLE TASKS AND ALL OTHERS)



NDOT is dedicated to the mobility and safety of Nevada residents and visitors. Our dedication to the traveling public extends beyond the roads, pathways, rails and skies. It also extends to these vital public services.

511 NEVADA TRAVEL INFO

NDOT's 511 Nevada Travel Info system posts current Nevada road, construction, weather and accident reports to an easy-to-remember 511 phone number and www.nvroads.com website.

Motorists simply dial 511 toll-free, 24-hours-a-day from within the state for automated road conditions, weather forecasts, scheduled event road closures and construction updates. Out-of-state callers can dial 1-877-NV-ROADS to receive the same information.

The road condition updates are also now available by e-mail and cell phone text message alert through the "Clear Path" link on www.nvroads.com.



FREEWAY SERVICE PATROL



A traveler service contracted through NDOT, Freeway Service Patrol vans assist drivers on Las Vegas and Reno freeways. Freeway Service Patrol vans travel a continuous fixed route, stopping to provide free motorist assistance, from emergency medical service and vehicle repair to removal of roadway debris, accident scene response, vehicle fires, animals on the roadway and more. While assisting individual motorists, the service also keeps freeway capacity at a maximum by helping to move stalled vehicles and keep traffic flowing.

During a recent year, NDOT's Freeway Service Patrol provided assistance in more than 56,000 roadway incidents.

LITTER REMOVAL

NDOT's sponsor-a-highway and adopt-a-highway programs allow non-political groups and individuals to remove trash from certain state roadways, providing cleaner roadways at no additional cost to taxpayers.

While the program's environmental, civic and economic/tourism impact is more than can be expressed in monetary terms, it has enabled NDOT to avoid millions in annual litter removal costs over recent years, money that can be utilized for other vital maintenance and safety activities. Meanwhile, the program provides cleaner, safer roads for Nevada motorists.

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LANDSCAPE/AESTHETICS

Landscape and aesthetics are vital roadway components that can not only enhance and define corridors, cities, and tourism, but can also improve air quality and provide dust control.

NDOT dedicates up to three percent of the cost of new construction and widening projects to landscaping and aesthetics, such as on U.S. 95 and I-15 in Las Vegas, as well as a Ruby Mountain-themed centerpiece designed by Elko-area students and now in place on the newly-constructed State Route 227 traffic roundabout. It's all to enhance economic

development, connect communities with their roadways, reflect their unique heritage and culture and provide socially responsible enhancements to our freeways.



BICYCLE/PEDESTRIAN

NDOT's bicycle, pedestrian and Safe Routes to School programs promote safe and healthy bicycling and walking across the state. The bicycle and pedestrian program encourages the development of bicycle and pedestrian networks in our communities, as well as inspects existing bicycle and pedestrian facilities and reviews design and construction of proposed facilities.

Overseen by NDOT, the Safe Routes to School program is a federal funding program encouraging more elementary and middle school children to walk and bicycle to school. In its first full year, the program awarded \$1.6 million in reimbursement for 11 different local programs across the state, from infrastructure improvements such as improved walking/bicycling paths to other measures such as enhancing secure bicycle parking and organizing crossing-guard programs.



NDOT also helped initiate a 2010 Nevada Moves Day event teaching healthy and safe bicycling and walking habits to nearly 8,000 schoolchildren in 34 schools across the state.

TRANSIT

Without personal transportation, how would you get to work, the doctor or even the grocery store? Nevada's many public transit programs provide transportation that connects many rural residents with the services they need.

NDOT's transit program supports these local transit providers by administering federal grants. Since the program began in 1975, more than 350 vehicles have been acquired through NDOT's disbursement of federal funding.

These transit services operate in 60 Nevada communities including most of the larger rural areas and the state's reservations and colonies and cumulatively provide over one million rides every year.

NDOT also put American Recovery and Reinvestment Act funding to work to support Nevada transit needs. NDOT distributed more than \$7 million in federal funds for new buses, as well as transit construction and operations improvements, including construction of approximately 25 new bus shelters and a bus fueling/storage facility.



RAIL/AVIATION

Railroads are an essential component of our interstate and intrastate transportation system. As the nation looks to alternative transportation and goods movement, NDOT's rail and freight program undertakes statewide goods movement studies to determine the most advantageous ways to administer and oversee federal funding for the railways that transport Nevada goods and visitors.

In the sky, NDOT's aviation section plans for the air transportation needs of the future by identifying funding to improve regional air service. Through annual safety inspections, airport pavement analysis and other improvement and education programs, NDOT's aviation team plays an important role in assisting the Nevada airports that provide medical emergency flight support, cargo operations, fire suppression and economic vitality.



Transportation safety is a foremost NDOT priority. Each and every day, the men and women of NDOT work to help ensure the safety of our roads. Their dedication to safety has been a key component of reducing the number of statewide traffic crashes from a high of 434 in 2006 to 256 in 2010.

STRATEGIC HIGHWAY SAFETY PLAN

Alongside our transportation and safety partners, NDOT established the Nevada Strategic Highway Safety Plan in 2006 to reduce traffic deaths through engineering, education, enforcement and emergency service enhancements. In the first two years of the safety plan alone, Nevada traffic fatalities decreased by nearly one quarter.

A 2010 update of the plan is the most recent step in providing targeted traffic safety enhancements as we move toward our ultimate goal of zero fatalities on Nevada roads.

Targeted engineering traffic safety measures already implemented include installation of centerline rumble strips on certain rural state roads, cable median barriers and more.

RUMBLE STRIPS

In Nevada, over 40% of all traffic fatalities are caused by run-off-the-road and head-on crashes. For many years, NDOT has utilized rumble strips on the roadway shoulder to help reduce interstate run-off-the-road crashes by 42%.

Consisting of grooves cut into a roadway, rumble strips generate sound and vibration when drivers veer out of their lane. By alerting and allowing motorists to correct their vehicles, head-on and sideswipe crashes can be reduced.

The Department continues to place centerline rumble strips in the center median of many rural state roadways. A relatively quick-to-install and cost-effective safety measure, rumble strips are saving lives and further increasing the safety of Nevada's transportation system.



CABLE BARRIERS



Over half of cross-median crashes in Nevada result in injury. To help prevent these crashes, NDOT has begun a program of installing cable barriers in the median of certain state roadways.

Heavy-duty cables strung along a row of posts between opposite lanes of traffic, cable barriers can catch misguided vehicles like a net, thus avoiding head-on collisions. The effectiveness and safety benefits of cable barriers have been proven to help prevent the most serious of injuries from cross-median crashes.



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