

## Did You Know?

Webcams and photo galleries available on I-580 Website.

Did you know that you can view construction activity via webcams and regularly-updated photo galleries on the I-580 project website?

Four webcams are positioned at the Galena Creek Bridge construction site with live images taken every 15 to 30 minutes. These webcams provide opportunity to view construction of the landmark bridge from various vantage points. Additionally, the webcam page allows you to zoom in for a closer look at the project and provides the opportunity to search images based on date and time of day. Time lapse video is also available.

Photo galleries are updated on a monthly basis providing various views of construction activity throughout the length of the project. Many of these photos offer unique perspectives of project details only available on the website. Descriptive captions are also provided.



### Contact Information:

**Nevada Department of Transportation  
Public Information Office  
1263 S. Stewart Street  
Carson City, NV 89712  
775.888.7000**



Project webcams and photo galleries can be viewed at:

[www.freewayextension.com](http://www.freewayextension.com)

TB022008003SAC

## What's Inside

- ▶ Motorist Safety is Key Focus on I-580 Freeway Extension
- ▶ Galena Creek Bridge Continues to Take Shape
- ▶ Work Continues Throughout the Project
- ▶ Project Schedule
- ▶ Did You Know?
- ▶ Contact Information



# I-580 Freeway Extension Project

## Winter 2008–2009



## Motorist Safety is Key Focus on I-580 Extension

With all of the attention given to the sheer scale of the I-580 Freeway Extension Project, from its impressive bridges to the vast amounts of earthwork, it is easy to forget the extraordinary amount of planning that goes into a project of this magnitude to ensure that the end product results in a safe transportation corridor for the traveling public.

From the beginning, the safety of the traveling public has been the primary focus of everyone involved in the planning and design of the I-580 Freeway Extension Project. Many considerations went into the design to enhance safety for motorists using the facility and for those responsible for facility maintenance. While the purpose of some of these design features is obvious, some features may serve multiple roles that might not be apparent to highway users. Following are some safety features included in the design and construction of the I-580 Freeway Extension:

**Lighting:** Adequate lighting levels and lighting placement is a critical factor in enhancing safety along any roadway. This facility will be lit in all areas where drivers' decisions are made and at interchanges to ensure that on and off-ramps, signage, and vehicles entering the roadway are visible. Lighting will also be provided at undercrossings and snow-chain installation areas. For the mainline freeway, the roadway will not be continuously lit so that lighting levels match the surrounding rural area.

**Snow-chain installation areas:** Chain installation areas will be provided at both ends of the new freeway, at the State Route 431/Mt. Rose and Bowers Mansion interchanges. These areas provide ample space to pull off the roadway and install chains in the event they are required to safely travel during winter storms. To provide enhanced visibility and driver safety, additional lighting will be installed and activated when chain installation areas are in use.

**Snow fencing:** Snow fencing will be installed along various areas of the alignment to minimize the potential for snow-drifts building up on the roadway and reduce the impact of blowing snow during high winds.



Deer fencing will be installed.

**Deer fencing:** Special fencing designed to route migrating deer under the freeway at natural channels will be placed along the freeway alignment in areas with known mule deer populations. The fence will be high enough to prevent the deer from jumping over it.

**Anti-icing system:** A new feature being introduced to northern Nevada as part of this project is an automated bridge anti-icing system. Four of the higher and longer bridge decks will be equipped with an automated system that monitors the atmospheric and pavement conditions, then engages small sprinkling devices when icy/snowy conditions exist. These devices will spray an environmentally-safe solution onto the bridge deck to inhibit the formation of ice. These systems have been used in states such as Minnesota and Pennsylvania and have proven successful in minimizing dangerous icy road conditions during winter months.

**Dynamic Message Signs (DMS):** NDOT is planning to install Dynamic Message Signs (DMS) to provide drivers with advance warnings of unusual and/or potentially dangerous conditions. These signs are capable of displaying warnings such as inclement weather/high wind advisories, road and lane closures, and traffic incident advisories. The DMS can also display alternate route suggestions for drivers in the event of road closures or unusual events impeding freeway traffic. Currently, DMS are planned for the following locations:

- ▶ Southbound mainline prior to the SR 431/Mt. Rose interchange
- ▶ Eastbound and westbound SR 431/Mt. Rose Highway prior to the Mt. Rose interchange
- ▶ Southbound mainline prior to the Bowers Mansion interchange (approaching Washoe Valley)
- ▶ Northbound mainline prior to the Bowers Mansion interchange (leaving Washoe Valley)

Both the anti-icing systems and DMS will be connected to NDOT's District 2 Traffic Operations Center to facilitate 24-7 management and deployment of these safety devices.



Sample DMS

**I-580 Project  
CH2M HILL  
50 West Liberty Street, Suite 205  
Reno, NV 89501**



**Emergency turnarounds:** There are two emergency turnarounds located along the new freeway, spaced equally from the two interchanges to provide enhanced emergency vehicle response times. These locations also provide a safe place for Highway Patrol Officers and NDOT Maintenance crews to turn around between interchanges during patrol and maintenance activities.

**42-inch barrier rail:** A taller, 42-inch barrier rail will be installed along the entire length of the I-580 Freeway Extension corridor as opposed to the standard 32-inch barrier rail typically used. This taller barrier rail will provide an additional level of safety for higher profile passenger and commercial vehicles traveling along the new freeway as well as provide a measure of wind protection on the bridges. This taller barrier rail will also aid in mitigating tire noise projecting from the pavement into the surrounding valleys.

**Full-width shoulders:** Full-width shoulders provide an area where drivers can pull off the main roadway and out of traffic in the event of an emergency or if they experience vehicle trouble. Shoulders are provided on both the inside and outside in each direction so that drivers will only have to cross over a maximum of one lane to reach the safety of the shoulder. Full-width shoulders are also useful for emergency vehicle access and snow storage during severe winter storms.

**Drainage ditches:** Drainage ditches not only serve the purpose of collecting water and directing it away from the roadway, they also aid in providing rock-fall protection along the highway as it traverses the mountainous terrain. Rock fall computer models were used to simulate the length and contours of the slopes above the freeway to help determine the size of ditch required to catch falling rock without it bouncing onto the freeway.

## Galena Creek Bridge Continues to Take Shape

Bridge contractor CC Myers has erected the falsework to support construction of the Galena Creek Bridge. The massive steel and wood structure to support the construction of the bridge arches and deck can be seen by Pleasant Valley residents and passing motorists on U.S. 395. The falsework construction created a lot of buzz in the local media and has attracted a lot of attention from locals and visitors alike. Concrete placement for the southbound arch has been completed.

Once complete, the landmark Galena Creek Bridge will consist of two (2) arches, each supporting the southbound and northbound bridge decks respectively. The bridge will measure 1,700 feet in length with an arch span of 690 feet. The bridge deck will stand 295 feet above the base of the creek. The earthen fill, serving as the base upon which the bridge falsework is being constructed, measures 390 feet wide at its base, tapers to 200 feet wide at the top, and is approximately 120 feet high. During the construction of the fill, 380,000 cubic yards of material was moved. A 44-foot diameter culvert, or pipe, runs through the base to preserve the natural course of Galena Creek and to provide additional capacity in the event of increased flows during major storm events. This earthen fill will be removed and the vegetation on the affected hillsides restored upon completion of the I-580 Freeway Extension Project.

NDOT would like to take the opportunity to remind you if you're passing through the area to remain alert and aware of your surroundings. NDOT also requests any visitors venturing into surrounding neighborhoods to get a closer look to please be extra thoughtful of the residents in the area and avoid the temptation to enter construction zones. Safety is of primary concern both within construction areas and the surrounding neighborhoods. Please help us in our efforts toward being good neighbors!



Galena Creek Bridge southbound arch falsework construction.

## Work Continues Throughout the Project



Convoy of concrete trucks traveling through the project site.

Though not as apparent as the recent activity at the Galena Creek Bridge, there has been a flurry of activity during the past few months in many areas along the I-580 Freeway Extension Project. So much so, that NDOT found it prudent to restrict the highly popular project tours in the interest of public safety and the safety of work crews.

"As the project moves into the next phases of construction, increased activity on the site will make it difficult to ensure that tour participants have a safe and enjoyable experience," says NDOT Project Manager Todd Montgomery, P.E. "Also, in light of our State's current budget concerns, we feel that cutting costs in this non-essential area is a fiscally responsible and appropriate course of action."

Grading activity to support the roadway bed has been ongoing along the entire length of the project and work has continued on several of the large retaining walls, some of which are visible to motorists from various vantage points along U.S. 395. Work has also continued

on the Galena Forest, Steamboat Hills, and Pleasant Valley bridges. In addition, the installation of drainage pipes and culverts has continued in the areas of Bowers Mansion, Parker Ranch Road, Browns Creek, Steamboat Creek, and the SR 431/Mt. Rose interchange.

Work is also in full swing at the south end of the project near the intersection of Bowers Mansion Road and U.S. 395, where crews have removed some trees and have begun the removal and stockpiling of topsoil. The removal of noxious weeds is in progress and crews have started the construction of drainage pipes and culverts in the area. Much of this activity is visible from U.S. 395. Work crews continue with construction of the Bowers Mansion interchange. Concrete bridge columns have been constructed along with interchange fills.

With the increased construction activity comes an increase in construction traffic near the project access points located at the Mt. Rose interchange, Parker Ranch Road, and Bowers Mansion Road. As safety is always NDOT's primary concern, motorists are strongly encouraged to be aware of the increased construction traffic within these areas and to watch for and abide by any traffic control measures and/or lane closures that might be in effect around these access points.



Concrete pour at Steamboat Hills Bridge.



Pleasant Valley Bridge looking west from surrounding neighborhood.

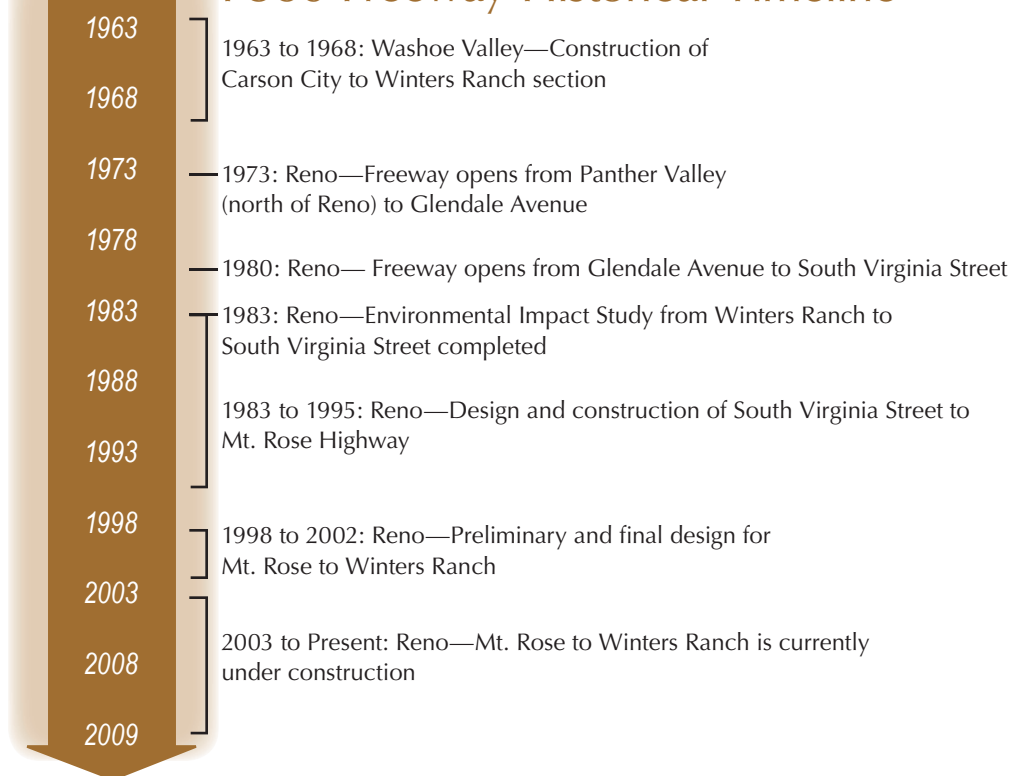


Construction activity at Bowers Mansion interchange.



Concrete culvert forms at Mt. Rose interchange.

## I-580 Freeway Historical Timeline



## Project Schedule

