

SOUTHERN NAVAJO COUNTY REGIONAL CORRIDOR



September 15, 2009

TIGER GRANT APPLICATION



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PROJECT SUMMARY

Project Type: Highway

Location: Navajo County, Show Low, Pinetop-Lakeside, Arizona; Congressional District 1, Rural Area

Total Project Cost: \$47.3 million

TIGER Grant Funds Requested: \$41.3 million

Application contains no confidential information.

PRIMARY POINT OF CONTACT

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FOUR PRIORITY PROJECTS

PRIORITY ONE – Complete Scott Ranch Road from SR 260 to Penrod Road with a bridge over Show Low Creek.

PRIORITY TWO – Construct a new four-lane bridge over Billy Creek, widen and build sidewalks and a pedestrian path along Porter Mountain Road from SR 260 to Blue Ridge Mid/Junior High School, and improve an existing roundabout at the school entrance.

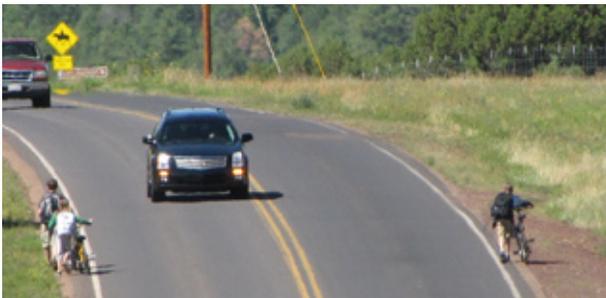
PRIORITY THREE – Construct a four-lane vehicle and pedestrian bridge over Porter Creek on Porter Mountain Road.

PRIORITY FOUR – Widen Penrod Road/Porter Mountain Road to a four-lane road from Blue Ridge Mid/Junior High School to US 60 in Show Low and provide an associated multiuse pathway for pedestrians and bicyclists.

PROJECT DESCRIPTION

Gateway to the White Mountains

Southern Navajo County is the gateway to Arizona's White Mountains. It is a major commercial corridor with a regional medical center, urban shopping and service amenities that serves a regional population exceeding 90,000. During peak summer and winter seasons, second homeowners add 40,000 consumers to local traffic corridors. Traffic on the corridor is expected to grow to more than 115,000 vehicles per day by 2030. Without capacity improvements, corridor traffic will be at a virtual standstill. A bottleneck in this corridor would stifle growth and investment in the economic bright spot of one of Arizona's most economically depressed counties. The application's scope of work and funding request encompasses the Southern Navajo County Regional Corridor.



Above: Schoolchildren share the road with motor vehicles along Porter Mountain Road,

Right: Penrod Road was critical during the evacuation for the Rodeo-Chediski Fire, the worst fire in Arizona's history. Before the fire was controlled, nearly 30,000 people were evacuated from the region.



TIGER grant funds will provide additional roadway capacity, construct a safe route to school, and improve mobility and accessibility to stimulate further growth and development—all while creating high-paying, near-term construction jobs.

Navajo County and project stakeholders have identified four priority projects, all of which can be implemented rapidly. These projects are ranked based on construction readiness and need. The first project will focus on providing enhanced regional mobility and access through new roadway network connections and capacity. TIGER grant funds will complete Scott Ranch Road and provide a new Show Low Creek bridge crossing. This will improve access to the regional medical center and provide a sorely needed, new connection between White Mountain Road (SR 260) and Penrod Road.

Currently if SR 260 is closed by a traffic or weather incident, there is no access to the hospital from Pinetop-Lakeside.

The second project will improve pedestrian safety and provide a safe route to school. Currently, students at Blue Ridge Mid/Junior High School have no pedestrian pathways for their walk to school. A roundabout at the school entrance remains unfinished without sidewalks. During winter, drifts from snowplows make walking at the edge of the road impossible. TIGER grant funds will replace a key bridge over Billy Creek—allowing for road widening and provision of sidewalks and paths for students—and will improve the school roundabout.

The third project is replacing the Porter Creek Bridge, and the fourth project is widening Penrod Road and Porter Mountain Road. Figure 1 shows the Southern Navajo County Regional Corridor. Figure 2 shows the proposed project locations.

CRITICAL NEED FOR TIGER FUNDS

Home construction and tourism are mainstays of the Southern Navajo County economy. Both industries have been hit hard by the recession. Construction activity has slowed dramatically. In 2008, Pinetop-Lakeside, a popular second home location, experienced a 90 percent decline in building permits issued (compared with 2005). Over the same 3-year period, Show Low building permits declined over 80 percent and unincorporated Navajo County building permits declined by 70 percent.

The decline in construction and tourism has meant fewer jobs and tighter municipal budgets. In Show Low, overall city revenue dipped 35 percent from 2008 to 2009. Sales tax revenue alone declined by 21 percent. At the White Mountain Apache Tribe's Hon-Dah Casino, located south of Pinetop-Lakeside, revenues have also declined. Statewide, tribes sent 9 percent less shared revenue to the state from January to March of 2009 compared with the same period in 2008.



Looking north on Penrod Road at Porter Mountain Road.

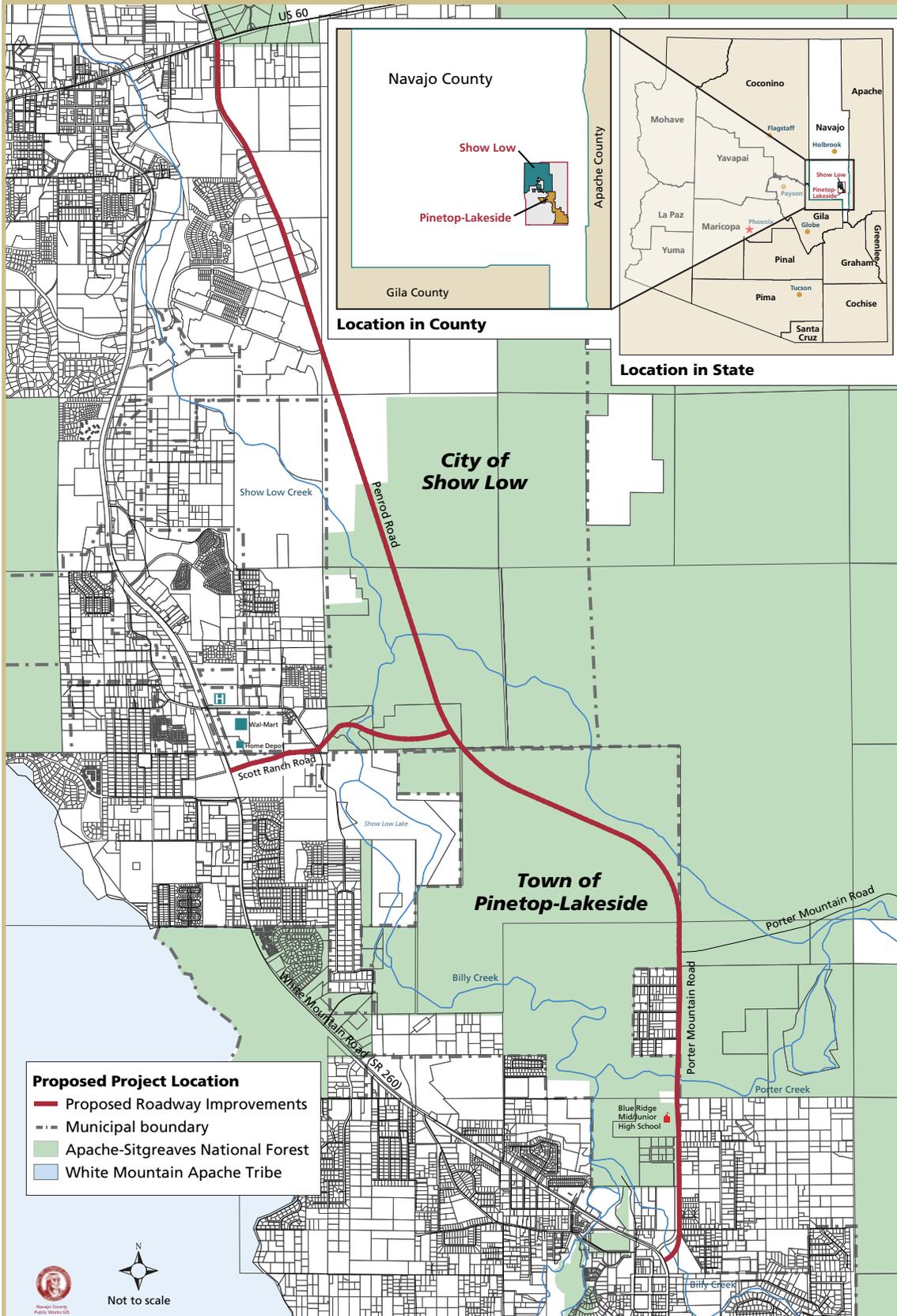


Unfinished roundabout at Blue Ridge Mid/Junior High School.



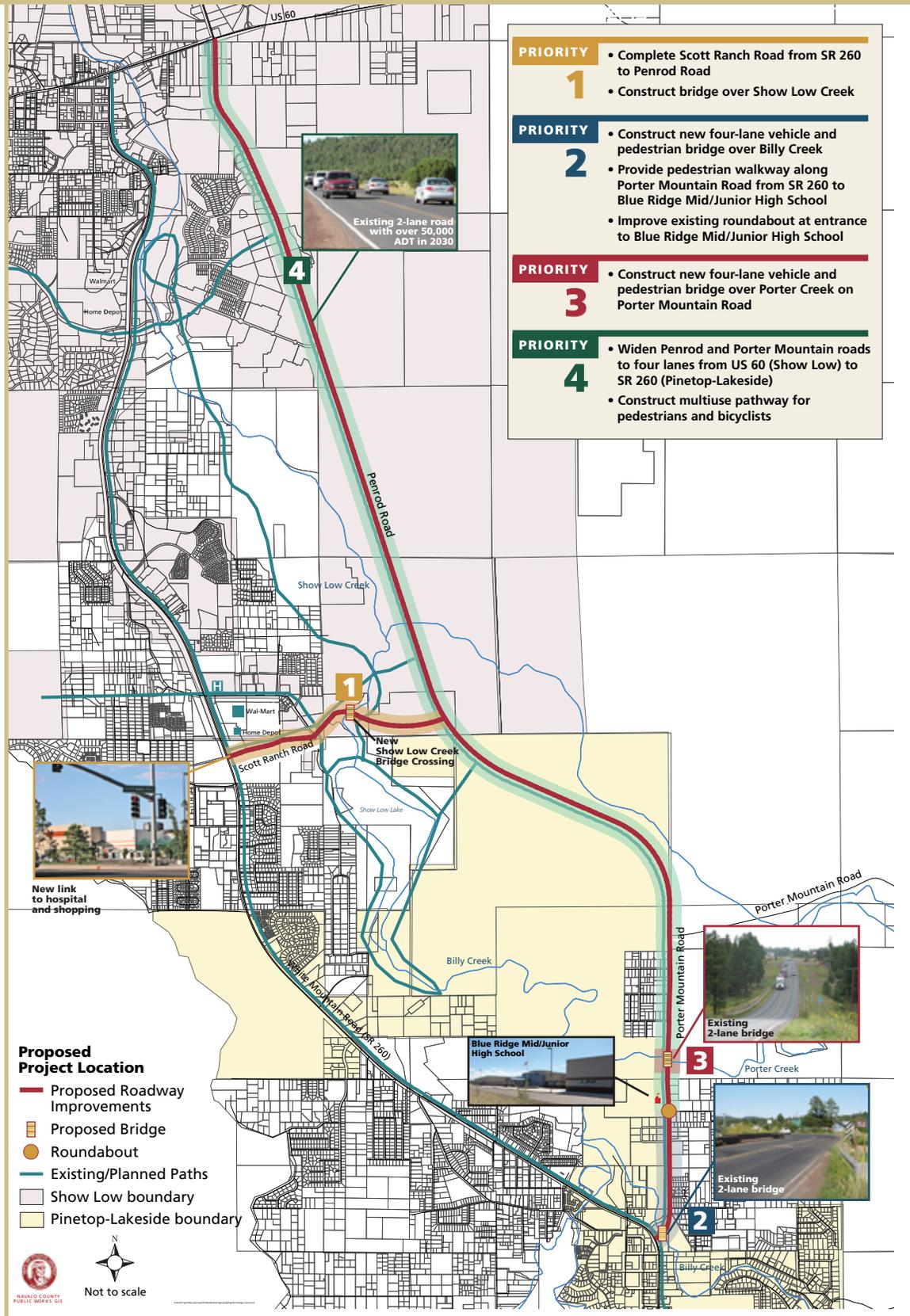
The Summit Healthcare Regional Medical Center serves more than 90,000 permanent and seasonal residents within a 3,000 square mile area.

SOUTHERN NAVAJO COUNTY REGIONAL CORRIDOR **FIGURE 1**



The Southern Navajo County Regional Corridor connects the White Mountain communities of Show Low and Pinetop-Lakeside. It is a major commercial corridor, with a regional medical center and shops.

FIGURE 2 PROPOSED PROJECT LOCATIONS



The proposed projects would enhance regional mobility and connectivity, improve pedestrian and bicycle facilities, and provide safer routes for schoolchildren at Blue Ridge Mid/Junior High School.

The loss of construction and tourism jobs has added insult to injury for one of the most economically depressed counties in Arizona. The economic prosperity measures table (at right) shows Navajo County is significantly below the state and the nation with regard to unemployment, families in poverty, and median household income.

The entire county is a designated an Arizona Enterprise Zone. This designation aims to stimulate economic growth to address high poverty and unemployment rates. In addition to providing important safety and mobility benefits, the TIGER grant funds will throw a lifeline of jobs to a county that is barely staying afloat. All four projects could be implemented quickly, providing a much-needed boost to the local economy.

ECONOMIC PROSPERITY MEASURES

Prosperity Measure	Navajo County	Arizona	United States
Percentage of unemployed workers (July 2009, seasonally unadjusted)	14.8	9.5	9.7
Percentage of families in poverty (2007)	18.8	10.3	9.8
Median household income (2007 dollars)	37,660	48,609	50,007

Sources: U.S. Bureau of Labor Statistics, U.S. Census Bureau

1 SCOTT RANCH ROAD AND BRIDGE PROJECT

- ECONOMIC DEVELOPMENT
- SUSTAINABILITY
- LIVABILITY
- SAFETY

With a new bridge crossing of Show Low Creek, Scott Ranch Road will provide a link between Penrod Road and the White Mountain Road (SR 260) commercial corridor. This improvement is classified as a High Priority Project; local, county, and federal funding is already in place. Summit Healthcare Regional Medical Center and major regional retailers including Wal-Mart,

Lowes, Home Depot and Walgreens are located within this corridor. The regional medical center serves more than 90,000 permanent and seasonal residents within a 3,000 square mile area. This project will provide new access to the regional medical center, improving emergency response times. Currently a 100-mile detour is required if an incident closes White Mountain Road. The new Show Low Creek bridge crossing will remedy this with new cross-access to Penrod Road. The Scott Ranch Road connection will also provide essential access required for continued commercial retail growth in the corridor. The value of land in the new corridor will increase by an estimated \$48 million (in 2009 dollars) by 2030 with the improvement. Commercial development in the corridor could provide space for over 6,000 office and retail jobs.



Scott Ranch Road currently extends 630 feet east of White Mountain Road (SR 260) before it ends. Connection of Scott Ranch Road will provide new access to Summit Healthcare Regional Medical Center and the commercial area on SR 260.



2 BILLY CREEK BRIDGE, ROAD WIDENING, AND ROUNDABOUT

SAFETY	Widening and realigning the Billy Creek Bridge will accommodate pedestrian pathways and improve access to Blue Ridge Mid/Junior High School and Penrod Road. The new school campus (a \$20 million capital investment) is located on Porter Mountain Road; it is at capacity with 832 students enrolled. However, there are no sidewalks along the route to this school. Students and motorists compete for space along the narrow, two-lane Porter Mountain Road, including the bridge over Billy Creek. During frequent inclement weather, snow from winter plowing (Southern Navajo County’s annual snowfall is 40 inches) covers the road and bridge shoulders and places students at additional risk. Student safety is a significant concern on Porter Mountain Road; Arizona Department of Transportation (ADOT) crash history data show that the crash rate for the 1.9 mile segment of Porter Mountain Road between White Mountain Road and Penrod Road was 2.29 crashes per million vehicle miles of travel.
LIVABILITY	
ECONOMIC DEVELOPMENT	

Porter Mountain Road is also an important industrial location. Construction of the Navopache Electric Cooperative’s industrial campus and headquarters is scheduled to begin in fall 2009 within one block of the Blue Ridge Mid/Junior High School campus. Navopache Electric Cooperative provides service in a five-county region, including Catron, New Mexico. The cooperative’s new 70,000-square-foot headquarters on Porter Mountain Road will represent a \$10 million capital investment. The cooperative retains 115 high-wage skilled and professional positions in the region. The cooperative’s regional membership/consumer base is 39,500.



*Top: Schoolchildren from Blue Ridge Mid/Junior High School walking alongside vehicles on Porter Mountain Road.
Bottom: Billy Creek Bridge, a two-lane road with narrow shoulders where schoolchildren walk to and from school.*



Location of Pinetop-Lakeside Commerce Park.

The Town of Pinetop-Lakeside estimates that additional future development on Porter Mountain Road could result in over 816,000 square feet of new building space with up to 2,000 jobs.

Pinetop-Lakeside Commerce Park is situated next to Blue Ridge Mid/Junior High School. The commerce park consists of Pineview Medical Facility, Hospice Compassus, and light industrial manufacturing operations. The commerce park is currently at 50 percent capacity. In addition, Savanna Apartments, a planned 153-unit rental housing development, will front Porter Mountain Road.

The 2007 *Southern Navajo/Apache County Sub Regional Transportation Plan Final Report* recommends this route be widened to four lanes by 2030 to accommodate anticipated traffic growth. The opportunity to provide a safe route to the Blue Ridge Mid/Junior High School makes this project a high priority for TIGER funding.

3 PORTER MOUNTAIN ROAD BRIDGE CROSSING OF PORTER CREEK

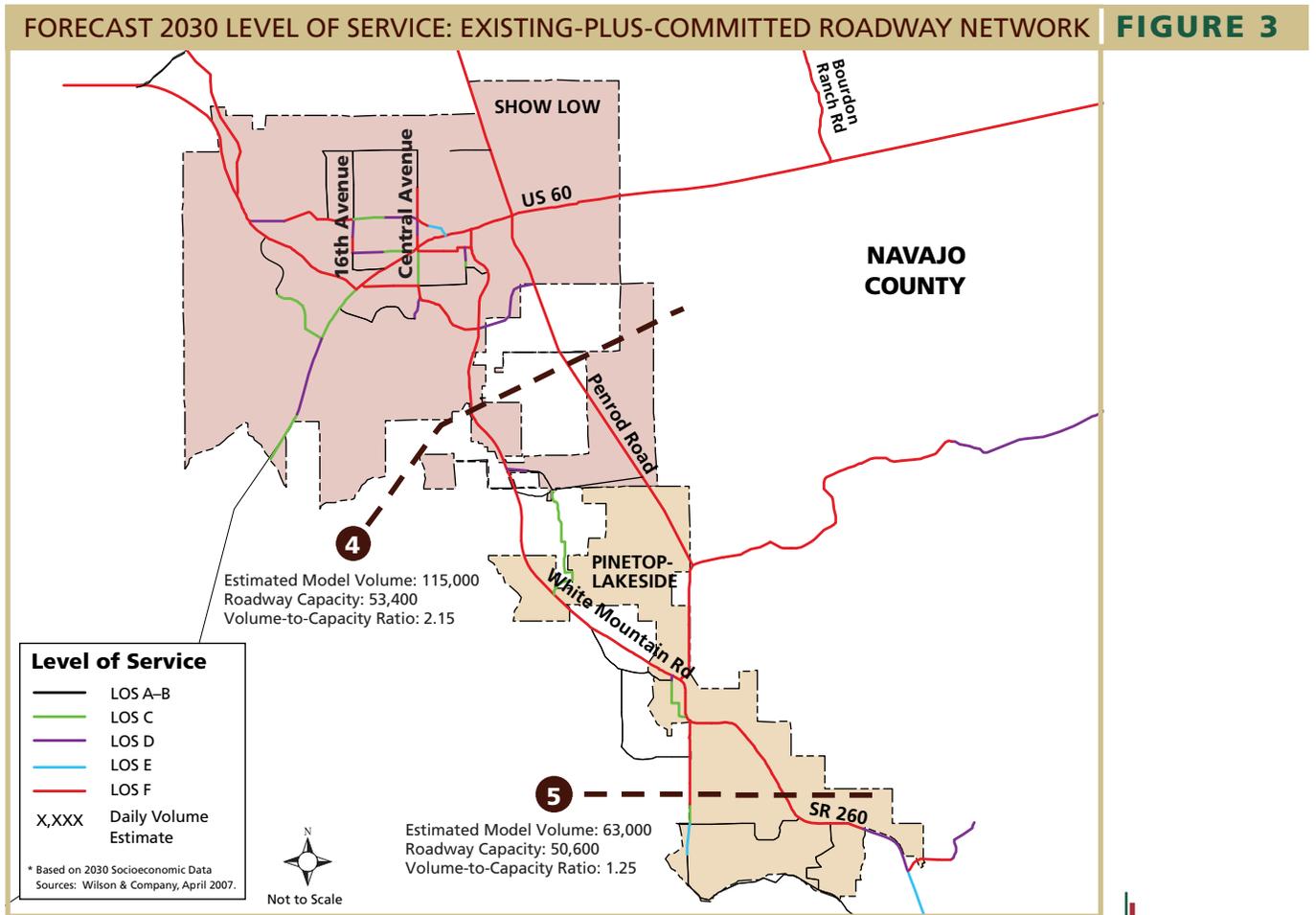
ECONOMIC DEVELOPMENT
SUSTAINABILITY

Providing a Porter Mountain Road bridge crossing of Porter Creek is the third improvement priority. Currently, Porter Mountain Road crosses Porter Creek on fill, with the creek passing through culverts. The new bridge will facilitate a four-lane connection between US 60 and White Mountain Road (SR 260). The new four-lane bridge will accommodate the overall corridor widening while improving conditions in the Porter Creek riparian areas. Rubberized ‘recycled’ asphalt will be used for paving. The widened bridge will have sidewalks to enhance safety for pedestrians, including children walking to and from Blue Ridge Mid/Junior High School. These improvements will also provide safer access to the Ice Cave Trailhead, a popular trail with abundant wildlife viewing opportunities.



Porter Mountain Road currently crosses the Porter Creek Bridge on fill and the creek passes through culverts.

Traffic on Porter Mountain Road is expected to grow to more than 40,000 vehicles per day by 2030. As shown in Figure 3, the level of service (LOS) along key routes in the Southern Navajo County Regional Corridor without the proposed improvements is expected to receive poor grades of “E” and “F.”



Without additional roadway capacity improvement in the Southern Navajo County Regional Corridor, traffic forecasts show that White Mountain (SR 260) and Penrod roads are expected to operate at LOS “F” in 2030.

4 WIDEN PENROD ROAD/PORTER MOUNTAIN ROAD TO FOUR LANES



Traffic on Penrod Road is anticipated to grow to nearly 50,000 vehicles a day in 2030.

SAFETY
ECONOMIC DEVELOPMENT

Penrod Road and Porter Mountain Road form a two-lane connection between US 60 and SR 260 that serves as a key relief route for White Mountain Road (SR 260). Since this route opened, it has been a catalyst for new growth and development in the corridor. It was an instrumental route for the evacuation of Southern Navajo County residents during the 2002 Rodeo-Chediski Fire.

The 2007 *Southern Navajo/Apache County Sub Regional Transportation Plan Final Report* recommends this route be improved to four lanes to accommodate anticipated traffic growth in this heavily traveled corridor.

Show Low Bluff is a planned residential development that will have more than 3,500 homes, which will contribute to the increasing traffic volumes. When completed, this

single development represents a 50 percent increase of Show Low's current housing stock. The only current access to this site is from Penrod Road.



The City of Show Low is planning to develop a 1.4 million square-foot event center and entertainment hub within Show Low Bluff. This mixed-use center would include a hockey arena and event center, theater complex, office space, shops, restaurants, and multifamily homes. Upon completion, it could provide up to 700 full-time jobs. The City of Show Low anticipates that this development will generate over \$130 million in new revenues over 30 years. The improvements to Penrod Road and Porter Mountain Road will enhance regional access to the Show Low Bluff area, accommodating traffic generated by the planned residential and commercial development in this new urban activity center.



Show Low Bluff is planned for more than 3,500 homes and a 1.4 million square-foot event center and entertainment hub.

Navajo County and the project stakeholders will use design-build to deliver these projects by 2012.

**SOUTHERN NAVAJO COUNTY REGIONAL CORRIDOR OVERVIEW
US 60 TO WHITE MOUNTAIN ROAD (SR 260)**

PROJECT DESCRIPTION

- 1 Scott Ranch Road and Bridge
- 2 Billy Creek Bridge and Roundabout
- 3 Porter Creek Bridge
- 4 Penrod Road/Porter Mountain Road

PROJECT OBJECTIVE

Address regional traffic growth, stimulate economic development, reduce congestion, improve safety

SELECTION CRITERIA

This section summarizes the key primary and secondary selection criteria for all four projects. It provides an overview of the combined project costs and benefits—together with a discussion of cumulative long-term outcomes such as job creation and economic stimulus—of the four priority projects.

The table on page 10 shows a summary of selection criteria, potential benefits, outcomes, and costs.

SOUTHERN NAVAJO COUNTY REGIONAL CORRIDOR

Sources	Capital Costs	Percent Total
TIGER	\$41,305,000	88%
Navajo County	\$1,750,000	3%
Federal funds	\$1,750,000	3%
City of Show Low	\$1,520,000	3%
Town of Pinetop-Lakeside	\$750,000	2%
Developer contribution	\$265,000	1%
Total sources	\$47,340,000	100%
Uses		
Scott Ranch Road and Bridge	\$11,990,000	25%
Billy Creek Bridge and Roundabout	\$14,800,000	32%
Porter Creek Bridge	\$3,300,000	7%
Penrod Road/Porter Mountain Road	\$17,250,000	36%
Total uses	\$47,340,000	100%

State of Good Repair

- The 2007 *Southern Navajo/Apache County Sub Regional Transportation Plan Final Report* shows that traffic on the Southern Navajo County Regional Corridor is forecast to grow to more than 115,000 vehicles per day by 2030.
- Without new additional capacity and connectivity in the corridor, long-range transportation studies show travelers will experience significant delays. This traffic congestion will hinder growth in the corridor, reducing property values and dampening economic development.
- Without improvements, pedestrian safety—primarily the safety of the middle/junior high school students walking to school—will remain compromised. Pedestrian-related vehicle accidents are expected to increase as traffic volumes grow on the narrow two-lane Penrod Road/Porter Mountain Road corridor.

Economic Competitiveness

- The estimated cumulative regional travel time daily savings for all improvements, compared with a no-build scenario is \$293 million over 20 years.¹
- Jobs and tax revenues will be generated by new commercial and residential development in the corridor, which would be fostered by transportation improvements.
- Increased property values and land development over 20 years will result from enhanced mobility.

¹ Benefit based on comparison of daily vehicle hours of travel from 2010 to 2030 for both the build and no-build scenario using the 2009 Navajo County travel demand model. Analysis assumed 300 days of travel per year, 1.35 persons per vehicle, and a value of time of \$11.20 per hour in 2009 dollars.

SUMMARY OF SELECTION CRITERIA, BENEFITS, OUTCOMES, AND COSTS					
Selection Criteria		Scott Ranch Road and Bridge	Billy Creek Bridge and Roundabout	Porter Creek Bridge	Penrod Road/ Porter Mountain Road
State of Good Repair	Regional traffic growth	Additional roadway capacity is needed in the Southern Navajo County Regional Corridor to accommodate projected traffic growth.			
	Regional travel time savings	Added roadway capacity will reduce delay and contribute to significant travel time savings, estimated at \$293 million from 2010 to 2030.			
Economic Competitiveness	Increased employment, direct and indirect	334 jobs ^a	412 jobs ^a	92 jobs ^a	480 jobs ^a
	New jobs and tax revenues from corridor development	Improved mobility resulting from reduced travel times and better access will make the corridor more attractive for businesses seeking a new location.			
	Property value increase and land development	Improved mobility resulting from reduced travel times and better access will raise property values and encourage development.			
Livability and Sustainability	Bicycle and pedestrian connectivity	More sidewalks and trails will encourage bicycling and walking. Increased activity can benefit public health by reducing the incidence of diabetes and heart disease.			
	Potential for increased economic activity	Mobility improvements will facilitate access to industrial and commercial land in the corridor.			
	Travel time reduction	The Navajo County travel demand model shows a significant reduction in delays.			
	Reduced fuel consumption	Shorter delays will translate to less idling and reduced fuel consumption.			
	Reduced CO ₂ emissions	Lower fuel consumption will result in a reduced carbon footprint.			
	Recycled materials	Roads will be paved with rubberized recycled asphalt.			
Safety	Wetlands restoration	Not applicable	With bridge replacement, wetlands will be restored to natural flow patterns.	Not applicable	
	Safe route to school	Not applicable	New roadway and bridges will connect sidewalks and multiuse paths to the Blue Ridge Mid/Junior High School. Currently, students walk to school in the traffic lanes.		
	Emergency evacuation route	New "back door" access to regional medical center.	Will widen key north-to-south reliever route for SR 260.		
Better emergency response times	Improved travel times will result from reduced congestion.				
Estimated Project Costs	Construction and right-of-way acquisition	\$11.99 million	\$14.80 million	\$3.30 million	\$17.25 million
Estimated Project Benefits	Potential regional travel time savings	\$77 million ^b	\$293 million ^c		

^a The Federal Highway Administration reports that every \$1 billion in 2009 dollars invested in highways supports 27,823 jobs. This includes 9,537 on-site construction jobs, 4,324 supplier jobs, and 13,962 other jobs throughout the rest of the economy.

^b Analysis used 2009 Navajo County travel demand model for 2030 conditions to compare daily vehicle hours of travel for Scott Ranch Road improvements only with no-build scenario; assumes 300 days of travel per year, 1.35 persons per vehicle, with the value of time at \$11.20 per hour in 2009 dollars; 2010 to 2030.

^c Analysis used 2009 Navajo County travel demand model for 2030 conditions to compare daily vehicle hours of travel for Scott Ranch Road and Penrod/Porter Mountain Road improvements only with no-build scenario; assumes 300 days of travel per year, 1.35 persons per vehicle, with the value of time at \$11.20 per hour in 2009 dollars; 2010 to 2030.

Livability

- Projects are Northern Arizona Council of Governments (NACOG) High Priority Projects.
- Improvements will foster walkable neighborhoods supported by regional pedestrian and bicycle facilities such as sidewalks and multiuse paths. Scott Ranch Road, Porter Mountain Road, and Penrod Road will all include sidewalks or multiuse paths.
- Improved accessibility will be provided to the regional commercial core and the Summit Healthcare Regional Medical Center.
- A new connection between Penrod Road and White Mountain Road (SR 260) across Show Low Creek will overcome a historical geographical barrier. During major storms, the US 60 bridge over Show Low Creek becomes impassable, forcing long detours.
- An increased potential for employment, economic output, and income will be created.

PROJECT READINESS

TIGER ELIGIBILITY	1	2	3	4
Preliminary design	✓	✓		
Environmental approach	✓	✓		
Planned improvement	✓	✓	✓	✓
Legislative approval	✓	✓	✓	✓
Community endorsement	✓	✓	✓	✓

Sustainability

- Walkable communities will be connected to regional trails.
- Travel time reductions related to increased corridor capacity will reduce fuel consumption and CO₂ emissions.
- Recycled rubberized asphalt will be used for roadway paving.
- Wetlands restoration will accompany construction of a new bridge over Porter Creek.

Safety

- Lower accident rates will result from decreased traffic congestion.
- The emergency evacuation route will be able to carry more traffic.
- A safe route to school will be provided.

Estimated Project Costs and Benefits

- Construction jobs will be provided over the 2-year project life.
- An expected \$293 million benefit (from 2010 to 2030) in cumulative travel time savings will result.
- Benefits are expected to result from new commercial and residential development.
- Job creation will boost a severely economically depressed Enterprise Zone.

Job Creation and Economic Stimulus

- Over 1,300 direct and indirect jobs will be created during the 2-year project per FHWA guidance.
- Increased property values and potential residential and commercial development will result from improved mobility.

Project Endorsement and Government Approvals

- U.S. Representative Ann Kirkpatrick – Arizona 1st Congressional District
- Navajo County Board of Supervisors – Resolution No. 63-09
- Show Low City Council – Resolution R2009-38
- Pinetop-Lakeside Town Council – Resolution 09-1066
- White Mountain Regional Transportation Committee
- Navajo County Regional Development Council

- Northern Arizona Council of Governments
- Apache-Sitgreaves National Forest Lakeside Ranger District
- Blue Ridge Unified School District
- Pinetop-Lakeside Chamber of Commerce
- Summit Healthcare Regional Medical Center
- Show Low Chamber of Commerce

Financial Feasibility

Approximately 12 percent of the funding needed for the Southern Navajo County Regional Corridor improvements has been identified from local and federal funding sources. The TIGER grant is needed to fund the remaining 88 percent of the cost of the four projects.

Jurisdictional and Stakeholder Collaboration

ADOT, Navajo County, the City of Show Low, the Town of Pinetop-Lakeside have collaborated through the White Mountain Regional Transportation Committee (WMRTC) and NACOG to form a partnership to implement these important new regional connections. Through the WMRTC, these agencies have a long history of close collaboration on numerous projects, from long-range planning to implementation and construction.

PROJECT PARTIES

Agency	Role
Navajo County 	Navajo County is the lead applicant for these TIGER grant funds. Navajo County Public Works will serve as a common point of contact for all stakeholders. It will coordinate the environmental, design, and construction processes with ADOT and all involved communities.
City of Show Low 	The City of Show Low is a major project stakeholder. The Scott Ranch Road project and portions of the Penrod Road project are within its city limits.
Town of Pinetop-Lakeside 	The Town of Pinetop-Lakeside is a major project stakeholder. Portions of the Porter Mountain Road, Billy Creek Bridge, and Porter Creek Bridge projects are within the town limits.
White Mountain Regional Transportation Committee 	Chaired by Navajo County, this committee brings together communities in southern Navajo and Apache counties to collaborate on regional transportation project prioritization, funding, and implementation.
Northern Arizona Council of Governments 	NACOG coordinates transportation planning in northeastern Arizona. It serves a liaison between ADOT and local governments. NACOG works with local jurisdictions to prioritize projects for state and federal funding.
Apache-Sitgreaves National Forest Lakeside Ranger District 	The U.S. Department of Agriculture’s Apache-Sitgreaves National Forest is a significant property owner and partner. The Lakeside Ranger District has offered its environmental staff to assist with studies necessary to determine the class of action for the portions of the improvement project on national forest land.
Arizona Department of Transportation 	ADOT will administer the design, advertisement, award, and construction of the TIGER-funded projects for Navajo County.

SELECTION CRITERIA FOR FOUR PRIORITY PROJECTS

This section identifies the primary and secondary selection criteria for each of the four Southern Navajo County Regional Corridor projects.

1

SCOTT RANCH ROAD AND BRIDGE PROJECT

PROJECT DESCRIPTION

Complete Scott Ranch Road from SR 260 to Penrod Road and construct bridge over Show Low Creek

PROJECT JUSTIFICATION

Improve regional access, address regional traffic growth, foster economic growth, improve emergency access

PROJECT PARTIES

Federal Highway Administration, ADOT, Navajo County, City of Show Low

State of Good Repair

- Traffic on the Southern Navajo County Regional Corridor is forecast to grow to more than 115,000 vehicles per day. Without new additional capacity and connectivity in the corridor, travelers will experience significant delays. This traffic congestion will hinder growth in the corridor, reducing property values and dampening economic development.

Economic Competitiveness

- Estimated regional travel time savings for this project compared with a no-build scenario over 20 years is \$77 million.
- Jobs and tax revenues will be created by new commercial and residential development in the corridor, which will be fostered by transportation improvements.
- Property values in the Scott Ranch Road corridor are estimated to increase by \$48 million (in 2009 dollars) by 2030 as a result of the road improvements.²

Livability

- This is a NACOG High Priority Project.
- Enhanced pedestrian and bicycle connectivity will be provided by sidewalks and multiuse paths constructed as part of the improvement project.
- The new connection between Penrod Road and White Mountain Road (SR 260) across Show Low Creek will overcome a historical geographical barrier. During major storms, the US 60 bridge over Show Low Creek becomes impassable, forcing long detours.
- An increased potential for employment, economic output, and income will be created.

GRANT FUNDS AND SOURCES AND USES OF PROJECT FUNDS

Sources	Capital Costs	Percent Total
TIGER	\$7,455,000	62%
Navajo County	\$1,000,000	8%
Federal funds	\$1,750,000	15%
City of Show Low	\$1,520,000	13%
Developer contribution	\$265,000	2%
Total sources	\$11,990,000	100%
Uses		
Right-of-way	\$265,000	2%
Road and bridge construction	\$11,725,000	98%
Total uses	\$11,990,000	100%



Scott Ranch Road will encourage development of land planned for commercial activity that currently does not have road access.

² In 2009 dollars, based on a sample of 2009 Navajo County Assessor commercial and residential land values in the SR 260 corridor. Analysis used three weighted scenarios; most likely, least likely, and partial build out. The most likely scenario estimated a 60 percent probability that the land in the corridor would develop per the General Plan; the least likely scenario estimated a 10 probability that the land in the corridor would build out with a higher percentage of lower value residential development; and the partial build out scenario estimated a 30 probability that half of build out would be achieved by 2030.

Sustainability

- The reduced travel time related to the increase in corridor capacity will reduce fuel consumption and CO₂ emissions.
- Walkable communities will be connected to regional trails.

Safety

- A new ‘back door’ access to the Summit Healthcare Regional Medical Center will help improve emergency response times.

Estimated Project Costs and Benefits

- Approximately 330 near-term direct and indirect jobs will be created.
- An expected \$77 million benefit in regional travel time savings³ will occur.
- Expected benefits from new commercial development will occur.
- Job creation will be fostered in a severely depressed Enterprise Zone.

PROJECT SCHEDULE

Task	2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Environmental Assessment	█							
Design			█					
Construction					█			

Environmental Approvals

In anticipation of preparing an environmental assessment for the Scott Ranch Road and Bridge Project, the following studies have been completed:

- Design Concept Report – 30 Percent Design
- Bridge Selection Report
- Cultural Resources Survey
- Drainage Report
- Section 404 Jurisdictional Delineation Report
- Traffic Analysis Report

Technical Feasibility

The *Design Concept Report Scott Ranch Road, SR-260 to Penrod Road* (July 2009) recommends a preferred alternative for the road and bridge alignment. The preferred alternative will have one travel lane in each direction and a continuous left-turn lane. Three separate roadway cross sections are proposed for the road. The two commercial cross sections feature sidewalks. The noncommercial cross section includes a 10-foot multiuse path.

A preliminary bridge selection report has also been developed for the Scott Ranch Road crossing of Show Low Creek. The recommended bridge structure is a three-span AASHTO Type V precast concrete girder. The proposed bridge width of 50 feet, 7 inches will accommodate two 12-foot travel lanes, two 8-foot shoulders, and an 8-foot sidewalk on the northern edge of the bridge. The precast girder alternative was the least costly of the alternatives studied and will minimize the construction time required within the limits of Show Low Creek. The girders will be fabricated off-site simultaneous with the construction

³ Benefit based on comparison of daily vehicle hours of travel from 2010 to 2030 for both the build and no-build scenarios using the 2009 Navajo County travel demand model. Analysis assumed 300 days of travel per year, 1.35 persons per vehicle, with the value of time at \$11.20 per hour in 2009 dollars.

of the substructure and will be erected quickly, thus reducing construction time. This is an advantage over the use of a concrete box girder superstructure that would require the construction of falsework in Show Low Creek.

Financial Feasibility

Approximately 38 percent of the funding needed for the Scott Ranch Road and Bridge Project has been identified from local and federal funding sources. The TIGER grant is needed to fund the remaining 62 percent of the project.

2 BILLY CREEK BRIDGE, ROAD WIDENING, AND ROUNDABOUT

PROJECT DESCRIPTION

Replace bridge, widen Porter Mountain Road to four lanes, add sidewalks and pedestrian pathway, improve roundabout

PROJECT JUSTIFICATION

Improve pedestrian safety, provide safe route to school, address regional traffic growth, foster economic development

PROJECT PARTIES

ADOT, Navajo County, Town of Pinetop-Lakeside

State of Good Repair

- Traffic on the Porter Mountain Road is forecast to grow to more than 24,000 vehicles per day by 2030. The Blue Ridge Mid/Junior High School has a current enrollment of 500 students with capacity for 800 students. This large school is located on this fast-growing regional route. Students walking to school do not have sidewalks or a pedestrian path. They share the road with vehicles. A safe route to school for these children on this regionally significant corridor makes this project a top priority for TIGER funding.
- Without improvement, pedestrian safety—primarily the safety of students walking to school—will remain compromised. Pedestrian-related vehicle accidents are expected to increase as traffic volumes grow on the narrow two-lane road.
- Without new additional capacity and connectivity in the corridor, long-range transportation studies show travelers will experience significant delays. This traffic congestion will hinder growth, reducing property values and dampening economic development.

Economic Competitiveness

- Regional travel time savings will result from providing additional travel lanes on Porter Mountain Road.
- Jobs and tax revenues will be created by new commercial and residential development in the corridor, which is fostered by transportation improvements.
- A potential increase in property values and land development may result.

GRANT FUNDS AND SOURCES AND USES OF PROJECT FUNDS

Sources	Capital Costs	Percent Total
TIGER	\$13,300,000	90%
Navajo County	\$7500,000	5%
Town of Pinetop-Lakeside	\$7500,000	5%
Total sources	\$14,800,000	100%
Uses		
Bridge construction	\$5,250,000	36%
Road construction and right-of-way acquisition	\$9,550,000	64%
Total uses	\$14,800,000	100%

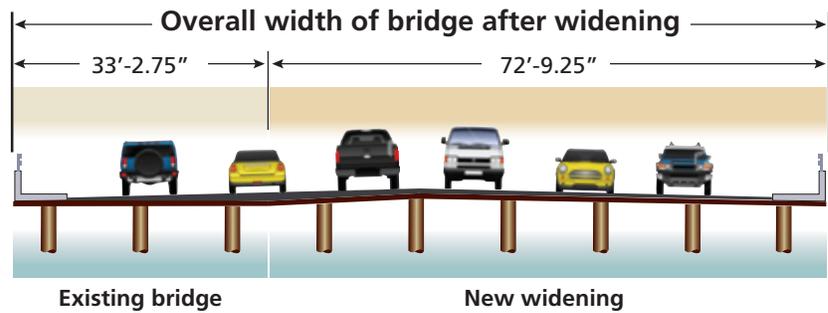


The widening of Porter Mountain Road will encourage development in the Pinetop-Lakeside Commerce Park.

Livability

- This is a NACOG High-Priority project.
- A safe route to school will protect students and promote walking.
- Enhanced pedestrian and bicycle connectivity will be provided through sidewalks and multiuse paths constructed as part of the improvement project.
- Additional capacity will be provided on a growing regional roadway.
- Increased potential for employment, economic output, and income will be created.

BILLY CREEK BRIDGE



Billy Creek Bridge Alternative 2 cross-section.

Sustainability

- The reduction of travel time related to the increase in corridor capacity will reduce fuel consumption and CO₂ emissions.
- Recycled rubberized asphalt will be used on the roadway.
- Wetlands will be preserved through the bridge widening project, and any impacts will be offset by wetland restoration at the Porter Creek Bridge site.

Safety

- A safe route to school for schoolchildren will be provided.
- The accident rate (from 2004 to 2008 ADOT data) is 2.29 crashes per million vehicle miles of travel for the 1.9-mile segment of Porter Mountain Road from White Mountain Road (SR 260) to Penrod Road.
- Lower accident rates will result from an upgraded roadway with sidewalks and paths.
- A key emergency evacuation route will be enhanced.

Estimated Project Costs and Benefits

- 412 direct and indirect jobs will be created.
- Project will contribute to expected \$293 million in cumulative travel time savings by 2030.
- Expected benefits from new commercial development will occur.
- Job creation will boost a severely economically depressed Enterprise Zone.

PROJECT SCHEDULE

Task	2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Design Concept Report	█							
Environmental	█	█	█					
Final Design/Permitting				█				
Construction					█	█	█	█

Environmental Approvals

Navajo County completed a bridge feasibility report in November 2008 for the Porter Mountain Road Billy Creek crossing. Coordination will be required with Federal Highway

Administration, ADOT, U.S. Army Corps of Engineers, and the Apache-Sitgreaves National Forest to determine the appropriate class of action for the environmental document. U.S. Army Corps of Engineers permits will be required for the bridge project.

Technical Feasibility

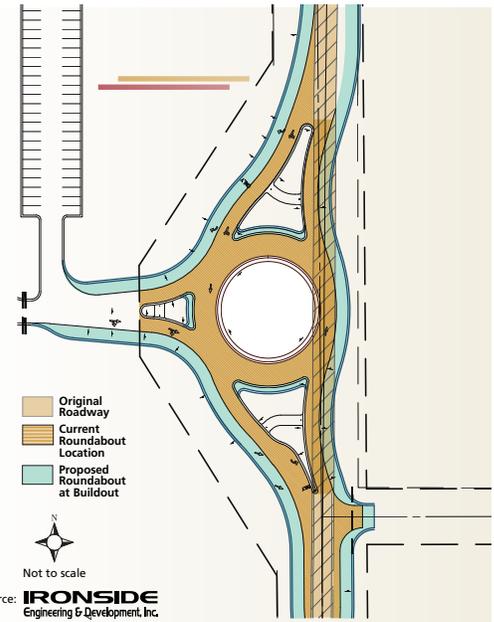
The Billy Creek Bridge widening will accommodate the roadway cross section recommended in the *Southern Navajo/ Apache County Sub Regional Transportation Plan Final Report*. The bridge will be widened to the east for a total width of 106 feet with two 12-foot travel lanes in each direction, a 28-foot median that will allow for the future widening of Porter Mountain Road to three lanes in each direction, and 6-foot sidewalks on each side of the bridge for pedestrians. Widening to the east side will avoid a water line attached to the west side of the existing bridge deck. Construction of the bridge and the approach roadways to the ultimate roadway width will affect existing features, requiring the relocation of a natural gas metering station and two sets of valves. This facility is a main distribution hub, and relocation will be challenging and expensive. The ultimate widening also requires additional right-of-way along the east side of Porter Mountain Road. The bridge widening could be reduced to a width of 82 feet by reducing the median to 4 feet. This could avoid impacts to the metering station.

A design concept report with preliminary design is needed for the project limits from White Mountain Road (SR 260) to the Blue Ridge Mid/Junior High School. This study will determine the alignment, cross-section, and right-of-way needed to widen the existing roadway to two travel lanes in each direction.

Financial Feasibility

Approximately 10 percent of the funding needed for the Billy Creek Bridge, Road Widening, and Roundabout has been identified from local sources. The TIGER grant is needed to fund the remaining 90 percent of the project.

PORTER MOUNTAIN ROAD ROUNDABOUT



Concept for proposed roundabout on Porter Mountain Road providing traffic control at Blue Ridge Mid/Junior High School.

3 PORTER MOUNTAIN ROAD BRIDGE CROSSING OF PORTER CREEK

PROJECT DESCRIPTION

Replace Porter Creek Bridge with new four-lane bridge to accommodate widening of Porter Mountain Road

PROJECT JUSTIFICATION

Improve pedestrian safety, accommodate regional traffic growth, foster economic development with sidewalks

PROJECT PARTIES

ADOT, Navajo County, Town of Pinetop-Lakeside

GRANT FUNDS AND SOURCES AND USES OF PROJECT FUNDS

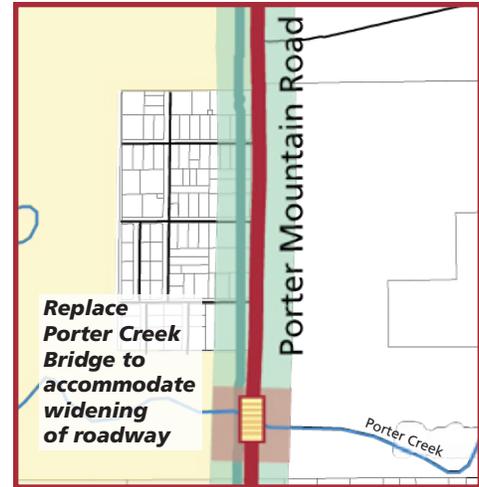
Sources	Capital Costs	Percent Total
TIGER	\$3,300,000	100%
Total sources	\$3,300,000	100%
Uses		
Bridge construction	\$3,300,000	100%
Total uses	\$3,300,000	100%

State of Good Repair

- Traffic on Porter Mountain Road is forecast to grow to more than 24,000 vehicles per day by 2030. The Blue Ridge Mid/Junior High School has an enrollment of 500 students with

capacity for 800 students, and it is located on this fast-growing regional corridor. Students walking to school do not have sidewalks or a pedestrian path. They share the road with vehicles. A safe route to school for these children and other pedestrians on this regionally significant corridor makes this improvement project a top priority for TIGER funding.

- Without improvements, pedestrian safety—primarily the safety of students walking to school—will remain compromised. Pedestrian-related vehicle accidents are expected to increase as traffic volumes grow on the narrow two-lane corridor.
- Without new additional capacity and connectivity in the corridor, long-range transportation studies show travelers will experience significant delays. This traffic congestion will hinder growth in the corridor, reducing property values and dampening economic development.



The replacement of the Porter Creek Bridge will accommodate roadway widening and improve pedestrian safety.

Economic Competitiveness

- Regional travel time savings will result from providing additional travel lanes on the Penrod Road/Porter Mountain Road corridor.
- Jobs and tax revenues will be created by new commercial and residential development, which is fostered by transportation improvements.
- A potential increase in property values and land development may result from implementation of this project.

Livability

- Enhanced pedestrian and bicycle connectivity will be provided through sidewalks and multiuse paths constructed as part of the improvement project.
- Additional capacity and connectivity will be provided on a growing regional roadway network.
- Increased potential for employment, economic output, and income will be created.

Sustainability

- The reduction of travel time related to the increase in corridor capacity will reduce fuel consumption and CO₂ emissions.
- Recycled rubberized asphalt will be used on the roadway.
- Wetlands impacts from the widened Billy Creek Bridge will be offset by wetland restoration at the Porter Creek Bridge site.

Safety

- A safe route to school will be provided for middle school children.
- The accident rate (from 2004 to 2008 ADOT data) is 2.29 crashes per million vehicle miles of travel for the 1.9-mile segment of Porter Mountain Road from White Mountain Road (SR 260) to Penrod Road.
- Lower accident rates will result by providing an upgraded roadway with sidewalks and pedestrian pathways.
- A key emergency evacuation route will be upgraded.

Estimated Project Costs and Benefits

- 92 near-term direct and indirect jobs will be created.
- Project will contribute to expected \$293 million in cumulative travel time savings by 2030.⁴
- Expected benefits will result from new commercial development.
- Job creation will occur in severely depressed Enterprise Zone.

PROJECT SCHEDULE

Task	2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Design Concept Report	■							
Environmental	■	■	■					
Final Design/Permitting				■				
Construction					■	■	■	■

Environmental Approvals

Coordination will be required with the Federal Highway Administration, ADOT, U.S. Army Corps of Engineers, and the Apache-Sitgreaves National Forest to determine the appropriate class of action for the Porter Creek Bridge environmental document. U.S. Army Corps of Engineers permits will be required for the bridge project.

Technical Feasibility

A new bridge over Porter Creek will be constructed to provide four travel lanes and a sidewalk on each side to maintain the continuity of pedestrian pathways along Penrod Road. The bridge design will be based on the required bridge opening needed to accommodate the design storm for Porter Creek. The bridge structure type will be determined by roadway profile requirements, cost, and constructibility. Engineering studies are needed for the roadway and bridge design.

Financial Feasibility

No local funding is available for this project. The TIGER grant is needed to fund 100 percent of the project.

4 WIDEN PENROD ROAD/PORTER MOUNTAIN ROAD TO FOUR LANES

PROJECT DESCRIPTION

Widen existing corridor to four lanes between Blue Ridge Mid/Junior High School and US 60

PROJECT OBJECTIVE

Address regional traffic growth, stimulate economic development, minimize traffic congestion

PROJECT PARTIES

ADOT, Navajo County, Town of Pinetop-Lakeside, City of Show Low

GRANT FUNDS AND SOURCES AND USES OF PROJECT FUNDS

Sources	Capital Costs	Percent Total
TIGER	\$17,250,000	100%
Total sources	\$17,250,000	100%
Uses		
Bridge construction	\$17,250,000	100%
Total uses	\$17,250,000	100%

⁴ Benefit based on comparison of daily vehicle hours of travel from 2010 to 2030 for both the build and no-build scenarios using the 2009 Navajo County travel demand model. Analysis assumed 300 days of travel per year, 1.35 persons per vehicle, with the value of time at \$11.20 per hour in 2009 dollars.

State of Good Repair

- Traffic on Penrod Road is forecast to grow to more than 22,000 vehicles per day by 2030.
- Together, Penrod Road and Porter Mountain Road provide a secondary relief route for the heavily traveled SR 260 corridor. Without new additional capacity and connectivity in the corridor, long-range transportation studies show travelers will experience significant delays. This traffic congestion will hinder growth in the corridor, reducing property values and dampening economic development.

Economic Competitiveness

- Estimated corridor daily travel time savings compared with a no-build scenario over 20 years will be \$293 million, based on the regional travel demand model.
- Jobs and tax revenues will be created by new commercial and residential development in the corridor.
- A potential increase in property values and land development over 20 years may result.

Livability

- Enhanced pedestrian and bicycle connectivity will be provided through sidewalks and multiuse paths constructed as part of the improvement project.
- Additional capacity will be provided in a growing regional corridor.
- An increased potential for employment, economic output, and income will occur.
- The City of Show Low Four Seasons Connection Public Transit System is planning new service on Penrod Road with the widening.

Sustainability

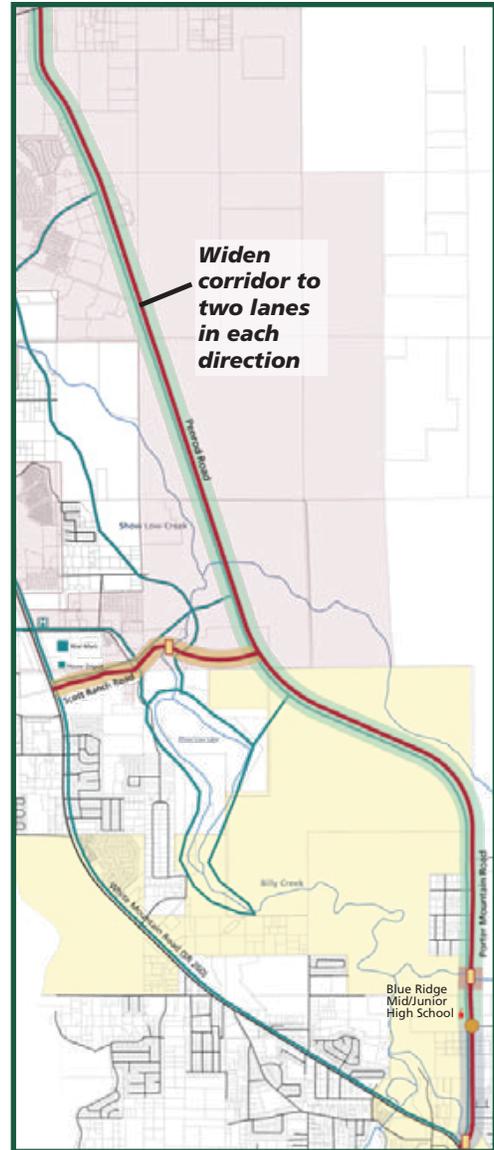
- The reduction of travel time will reduce fuel consumption and CO₂ emissions.
- Recycled rubberized asphalt will be used on roadway.

Safety

- A key emergency evacuation route will be upgraded.
- Improved access to Summit Healthcare Regional Medical Center will be provided.
- The accident rate (from 2004 to 2008 ADOT data) is 0.87 crashes per million vehicle miles of travel for the 6.2-mile segment of Penrod Road from US 60 to Porter Mountain Road.

Estimated Project Costs and Benefits

- 480 direct and indirect jobs will be created.
- Expected benefits will result from new residential and commercial development.
- Job creation will boost a severely economically depressed Enterprise Zone.



The widening of Penrod Road will improve access to the regional hospital and benefit the Show Low Bluff development.

PROJECT SCHEDULE

Task	2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Design Concept Report	█							
Environmental		█	█					
Final Design/Permitting				█				
Construction					█	█	█	█

Environmental Approvals

The Apache-Sitgreaves National Forest issued an Environmental Assessment with a Finding of No Significant Impact in 1994 for a two-lane Penrod Road. The road was constructed on 100 feet of right-of-way. New engineering and drainage studies are required to determine whether providing an additional travel lane in each direction can be accomplished within existing right-of-way. Depending on the outcome of these initial studies, the Federal Highway Administration, ADOT, and the Apache-Sitgreaves National Forest will determine the appropriate class of action for the Penrod Road-Porter Mountain Road Widening Project environmental study.

Technical Feasibility

Engineering and drainage studies are required to determine whether the additional travel lanes can be added within existing right-of-way.

Financial Feasibility

No local funding is available for this project. The TIGER grant is needed to fund 100 percent of the project.

Federal Wage Rate Requirement

Navajo County certifies that it will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements), as required by the Recovery Act.

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- U.S. Census Bureau, 2005–2007 American Community Survey 3-Year Estimates. <http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=ACS&_submenuId=&_lang=en&_ts=> (accessed September 2009).
- U.S. Bureau of Labor Statistics, State and Local Unemployment Rates. <http://www.google.com/publicdata?ds=usunemployment&met=unemployment_rate&idim=state:ST040000&idim=county:PA040550&tdim=true> (accessed September 2009).