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October 2, 2001

Los Alamos County NEPA Cerro Grande Fire

OCT 2001
RECEIVED

Mr. James P. Bearzi, Director
New Mexico Environmental Department
Surface Water Quality Bureau
Harold S. Runnels Building
1190 St. Francis Drive
Santa Fe, New Mexico 87502-0110

RE: Request for Project Review - Los Alamos/Reconstruction of North Road

Dear Mr. Bearzi:

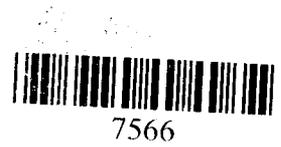
URS Group, Inc. (URS) has been retained by the Federal Emergency Management Agency (FEMA) through Los Alamos County (LAC) to prepare an Environmental Assessment (EA) for the reconstruction of North Road and the upper Pueblo Canyon watershed reclamation. An EA is being prepared to consider the potential for environmental effects of the proposed action.

On behalf of LAC, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have comments, concerns, or applicable data with regard to this proposed project, your input would be appreciated by October 28 so that it may be incorporated in the draft EA. A cultural resources survey would be conducted in support of the proposed undertaking. Additionally, issues such as visual resources, air quality, water resources, threatened and endangered species, and socioeconomic would be considered.

As part of the Cerro Grande Fire Assistance Act, LAC has applied for funding from FEMA to reconstruct North Road between Sycamore and Diamond Drive to include flood control measures. The Cerro Grande fire destroyed the vegetative cover of portions of the Pueblo Canyon watershed. Subsequently, the flood attenuation capabilities of the watershed have been severely diminished. The proposed project is being undertaken to reduce the potential for washout of North Road or Diamond Drive and to avoid the loss of important utilities currently in the North Road embankment.

A rainfall event on July 2, 2001 over-topped North Road in two locations in upper Pueblo Canyon. The surface flow down the foreslope destabilized, eroded, and weakened the roadway embankment. LAC was forced to close the road to traffic. In Pueblo Canyon, downstream from Diamond Drive, a portion of the sanitary sewer line was washed out and damaged. Repair and relocation of the sewer pipeline in Pueblo Canyon is designated as a separate project.

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Emergency work is currently underway to prevent further damage to existing utilities and repair roadways affected by storm water runoff in Pueblo Canyon. A majority of the proposed project would be conducted on LAC land. A map showing the area of the proposed North Road project is attached.

The proposed North Road project may include the following elements, which are described further as attached. The attachment includes a detailed description for the proposed project; however, specific information is subject to change as the project is currently in the design phase.

Major activities of the proposed repairs and replacements include the following:

- Temporary construction structures built during the emergency repair work would be demolished and removed
- North Road utility relocation and construction
- Construct Flood Water Retention Structure above North Road
- North Road reconstruction, including bridge and/or culvert construction
- Eventual demolition and removal of Flood Water Retention Structure above North Road

The construction schedule is expected to be expedited, beginning in March of 2002 with planned completion prior to the 2002 monsoon season. The Flood Water Retention Structure is designed as a temporary measure to remain until reforestation of the watershed above North Road is developed to a status where runoff rates are returned to pre-fire levels. This reforestation is estimated to take approximately seven years. The structure would then be removed and the site restored.

Please direct comments and information directly to me. If you have any questions, please do not hesitate to contact me at (505) 855-7517 or michael_ratte@urscorp.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Ratte'.

Michael Ratte
Project Manager/Meteorologist

Enclosures



Description of North Road Project

North Road Utility Relocation and Construction

Under current conditions, storm events pose the potential for loss of water and gas services that currently are aligned in North Road at Pueblo Canyon. Utility realignments and temporary removals are necessary in order to minimize future outages and disruptions in the area of North Road at Pueblo Canyon and to facilitate the proposed construction activities along North Road.

The following utilities have been identified and would need relocation and modification:

1. Waterline realignment would be completed from North Road, through Sycamore Drive to Diamond Drive. This 1,400 lineal foot, 16-inch diameter ductile iron pipeline relocation is considered temporary construction.
2. Gas line realignment (relocation) would be completed from the intersection of Quemazon Drive and North Road along North Road, through Sycamore Drive to Diamond Drive. This 2,500 lineal foot, SDR-11 HDPE, butt fused, 12-inch diameter gas line relocation is considered a permanent relocation and includes boring and casing of the line under Diamond Drive.
3. A permanent 16-inch diameter, 1,800 lineal foot ductile iron water line installation from the intersection of North Road and Sycamore Drive along North Road to the booster station located near the intersection of North Rd. and Diamond Drive.
4. A permanent replacement of 1,650 lineal feet of existing 10 inch diameter, C-900 water line from the intersection of North Road and Sycamore Drive along North Road to near the intersection of North Rd. and Diamond Drive.
5. Sanitary sewer force main installation along North Road. The 1,300 lineal foot, 2 foot diameter HDPE line would be installed along North Road between the intersections of Quemazon and North Roads and North Road and Diamond Drive.
6. Telephone service line modifications to be completed by QWEST would consist of a temporary above ground relocation during North Road construction activities. The service line (20 to 30 count fiber optic line) would be reinstalled below ground once construction activities are nearly complete.
7. Electrical power line modifications would not require any temporary above ground relocation during North Road construction activities. However, a primary underground 3-phase line would be reinstalled below ground once construction activities are nearly complete. Approximately 500 lineal feet of cabling and duct is to be installed along with necessary cable terminations.

Reconstructing North Road requires temporary removal or relocation of existing utilities within the project limits. Most of the utilities can then be relocated into the new roadway prism once the structural embankment and bridge is close to final grade.



Construct Flood Water Retention Structure above North Road

Construction of a flood water retention structure upstream in Pueblo Canyon above North Road is required. The structure is not permanent. The construction of a retention structure would allow reconstruction of North Road based on nearly pre-fire hydrologic conditions. The retention structure would remain until reforestation of the watershed above North Road is developed to the status where the runoff rates are returned to the pre-fire hydrology. The structure would then be removed and the site restored.

Construction work scope for the retention structure includes:

1. The size of the structure crest is estimated at 350 feet long and 10 feet wide. Upstream embankment slope is at 2:1 and downstream slope is 3:1.
2. 100,000 cubic yards of random fill material are estimated for placement in the embankment. In addition, approximately 3,000 cubic yards of 9-inch rip-rap would be placed on the upstream face of the embankment for slope protection.
3. Provide outlet works. Included are a 44 foot high reinforced concrete intake structure and 260 lineal feet of 72-inch diameter reinforced concrete pipe for the outlet works.
4. Provide an Emergency Spillway Structure at the Retention Structure.

The design, plans, and specifications for the floodwater retention structure would be approved by the New Mexico State Engineer's Office and by the U.S. Forest Service. The structure would be near Forest Service Land. A Section 404 permit may be required prior to construction.

North Road Reconstruction, including Bridge and/or Culvert Construction

Reconstruct North Road from Sycamore Street to Diamond Drive, a total length of approximately 2,200 feet. The reconstruction includes the following items:

1. North Road would be reconstructed as a collector road with a paved width of approximately 48 feet.
2. The construction would provide for two 12-foot driving lanes, shoulders, a 6-foot sidewalk, and bicycle lanes. The roadway cross-section would return the roadside ditches that existed prior to the storm event of July 02, 2001. The embankment side-slopes would be 2:1 (H:V). Steel beam railing would be installed as they were prior to the storm event.
3. The roadway construction would also include construction of a bridge or box culvert under North Road. The bridge or culvert would be located approximately 800 feet west of Diamond Drive on North Road.
4. The bridge would span approximately 140 feet and be 50 feet wide. Driven piles or drilled caissons would be necessary for the bridge foundation. The bridge would have prestressed concrete girders, a concrete deck, and concrete abutments. The bridge would accommodate two traffic lanes, shoulders, bicycle lanes, pedestrian facilities, and utilities that cross Pueblo Canyon along North Road.
5. A box culvert would also be installed under North Road approximately 360 feet SSW of the intersection of Sycamore Street and North Road. The 4-foot by 4-foot box culvert is estimated at 100 feet in length and would pass water from a northerly drainage area of Pueblo Canyon.



Demolition and Removal of Flood Water Retention Structure above North Road

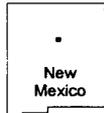
Demolition and removal of the flood water retention structure upstream in Pueblo Canyon above North Road is required. The demolition of the retention structure would be completed once storm water runoff rates are returned to the pre-fire hydrology. It has been estimated that the structure would be removed in approximately 7 years (calendar year 2008). The work scope for the demolition and removal includes the following:

- Removal of 100,000 cubic yards of random fill material and approximately 3,000 cubic yards of 9-inch rip-rap.
- Remove the outlet works including the estimated 44-foot high reinforced concrete intake structure plus 260 lineal feet of 72-inch diameter reinforced concrete pipe.
- Remove and restore the area located by the emergency spillway structure
- Regrade and reseed retention structure area as necessary



Explanation

Based on USGS 7.5-min base maps
Guaje Mountain and Frijoles, NM 1984



Quad Location

Scale, feet



North Road

Reconstruction Project

URS