



*Bicycles parked at Jemez Day School. Source: Pueblo of Jemez Planning Development and Transportation Department.*

# Pueblo of Jemez Creates Community-Informed Traffic Calming Solutions

**T**he Pueblo of Jemez is a Federally recognized tribe with over 89,000 acres of land located 50 miles from Albuquerque, New Mexico. It serves as home to over 3,900 Tribal members. Earthen, unpaved roads, like those on Day School Road near Jemez Day School, are an integral part of supporting the Pueblo's long-standing heritage of running. When the Pueblo of Jemez Planning Development and Transportation Department (PDTD) and Jemez Department of Transportation (JDOT) collaborated with the Emergency Management, Education, Police, and

Public Health departments to pilot test improvements to walking and biking conditions around the school, they faced unique challenges. Recognizing that typical quick-build materials like paint would not be suitable for earthen roads, the team sought innovative solutions that honored both the natural landscape and the cultural legacy. The Pueblo of Jemez received support from the National Center for Safe Routes to School quick-build minigrant, made possible by General Motors, to improve youth pedestrian and bicyclist safety near Jemez Day School.



Aerial view of existing conditions and locations for planned changes.  
 Source: Pueblo of Jemez Planning Development and Transportation Department.



Students painting concrete barriers.  
 Source: Pueblo of Jemez Planning Development and Transportation Department.

The school, which serves 132 students in kindergarten through sixth grade, is situated along Day School Road, where concerns have been raised about speeding and lack of pedestrian facilities. Moreover, students use two existing bike trails that exit onto Day School Road, amplifying the need for safer walking and biking conditions. The Pueblo of Jemez, which has historically experienced limited investment in infrastructure, has prioritized pedestrian safety improvements in the Pueblo's Long-Range Transportation Plan, Transportation Safety Plan, and Trails and Bikeways Master Plan.

The project aimed to test temporary changes to slow traffic, create separation between motor vehicles and pedestrians, bicyclists, and bus riders, and designate a walking and cycling path for students once they arrived on campus. With limited guidance on quick-build solutions for unpaved roads, the project team needed to think creatively about suitable materials. The Pueblo met with local traffic engineers for input on design and selected materials including cinder blocks, reflective delineators, tires, planter pots, concrete barriers, paint, and traffic cones. The team also coordinated with the principal of the Jemez Day School to understand the school's concerns and explore opportunities to involve students in the project.

The planned installation included:

- Chicanes made of tires, traffic cones, and planter pots placed at the entrance points of two bike paths where they meet Day School Road. This configuration reduced the width of the road at these points with the intent to calm traffic. These protected areas also gave students spaces at the end of the trails to pause and look for traffic before crossing the roadway.
- A walkway formed of cinder blocks, planter pots, and reflective delineators to create a separate route for students walking to and from the school campus.
- A stop sign and dirt berm at the intersection of Day School Road and a nearby residential road, designed to tighten the turning radius and encourage drivers to slow down.
- Concrete barriers to form a protected area around the existing bus stop, providing space for students to load and unload from school buses.

To prepare the road, the JDOT crew members cleared debris, vegetation, and sand from the road and then graded the surface. After receiving materials, JDOT completed a mock set up of the traffic calming measures and pedestrian walkway to ensure a smooth installation process. Students were invited to participate by painting the jersey barriers, cinder blocks, and tires that would form the separated



Banner promoting the project. Source: Alessandro Figueroa.



Walkway along Day School Road. Source: Alessandro Figueroa.

walkway, chicanes at the entrance of the two bike paths onto Day School Road, and the bus stop protection area. Meanwhile, the team planned a community event for National Bike & Roll to School Day in May 2024 to celebrate the official installation.

The event showcased the new safety measures, inviting students to experience the project and learn about pedestrian and bicycle safety. It also brought community members together with staff from JDOT, first responders, and Jemez Public Health. Students also had the opportunity to explore heavy equipment and transportation vehicles operated by JDOT and the other project partners, adding an interactive element to the event.

## Signs of promising changes

To prepare for the project installation, JDOT collected baseline motorist speeds and pedestrian and bicyclist counts over 18 randomly selected days between March 19 and April 29, 2024. After the installation, PDTD collected speed and pedestrian and bicyclist count data on 11 randomly selected days between May 7 and May 30. The speed limit within the school zone is 10 mph, and speed data was collected in the school zone along Day School Road at the south end of the project location during student arrival and dismissal times.

The data revealed a slight decrease in speeds. There was no change in average passenger vehicle speeds southbound (remaining at 12 mph), while northbound speeds decreased by one mph (from 14 mph to 13 mph). Trucks and buses had bigger reductions, with average speeds dropping by 4 mph southbound (from 13 mph to 9 mph) and by 3 mph northbound (from 13 mph to 10 mph). Pedestrian counts increased slightly after the project, from an average of 15 to 18 walkers, while bicyclist counts rose quite a bit, from 2 to 11 bicyclists.

To capture community insights on the project, JDOT staff collected feedback from students (n=64) during the event and adult community members (n=61) via an online survey. Feedback from adult community members was mixed. Approximately 50 percent thought that the project improved safety for students, and the same percentage felt it

helped slow speeds through the school zone. Most of the respondents, around 60 percent, expressed support for making the changes permanent. Written comments highlighted positive feedback as well as concerns about the project's location due to the cultural significance of Day School Road and its connection to running.

Students had many things to say about the project and their feelings about safety. Several mentioned that unleashed dogs prevented them from walking or biking as their families felt it was unsafe. Regarding the project, one student noted, "people drive slower so they are careful with our paintings." Another student wrote, "I like that cars are driving slow now."

## Changes in motion

Moving forward, the Pueblo of Jemez plans to build on the foundation established by this project to implement permanent pedestrian and bicycle safety improvements along Day School Road. To do so, the

PDTD intends to use the project's findings to apply for Tribal Transportation Program Safety Funds or other funding sources to support permanent infrastructure changes at the site. Additionally, the Pueblo leveraged this project to secure funding for two solar-powered speed radar and feedback displays that will be installed within the school zone along Day School Road.

The project to slow speeds and create more space for walking and biking to Jemez Day School not only initiated important community dialogue and identified opportunities for improvements, it also serves as an important innovation for potential safety measures on earthen roads in other communities.

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