

# Los Alamos County

Public Works  
Traffic Engineering



# Pedestrian Transportation Plan

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# **Los Alamos County**

## **Pedestrian Transportation Plan**

**Prepared For The:**

**Los Alamos County Council  
And  
Transportation Board**

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## EXECUTIVE SUMMARY

The Institute of Transportation Engineers defines Transportation Engineering as “ the application of technology and scientific principles to the planing, functional design, operation and management of facilities for any mode of transportation in order to provide for the safe, rapid, comfortable, convenient, economical and environmentally compatible movement of people and goods.” In the past accommodation for motorized traffic has received a higher priority than other modes of traffic. It is noted that the definition above refers to the movement of people and goods, not cars and trucks. In the past, Los Alamos County has provided a safe community for pedestrians to travel. This Pedestrian Transportation Plan provides the needed guidance for Los Alamos County get back on track and provide a community were residents and visitors will choose walking as a mode of transportation.

Before choosing to walk, residents and visitors must feel confident that their trip will be safe and secure. The trip needs to be pleasant, convenient, without motorized traffic conflicts, and with minimal barriers and obstructions.

A key to pedestrian safety is visibility. Pedestrians can help by wearing bright colors and reflective clothing, but the County needs to provide good lighting for pedestrian facilities especially crossings.

Along with lighted pedestrian facilities, the pedestrian facilities need to promote walking by providing a comfortable safe walking environment. This can be accomplished in part by including sidewalks on both sides of roads. The sidewalks will be 6 feet wide along arterial and collector roads and 4 feet wide along residential roads. A 4 feet wide planter strip will be required between the curb and gutter and the sidewalk. This planter strip is intended to provide a buffer between the vehicle travel lane and the pedestrian facility. If parking or bike lanes are incorporated into the road section, the planter strip may be omitted. The Pedestrian facilities need to connect to an overall community pedestrian system. In the past facilities have been installed that do not connect to other pedestrian facilities and the pedestrian is left to walk in the vehicle travel lanes. Adequate engineering standards need to be adopted to insure that new projects and rehabilitation / maintenance projects have adequate pedestrian facilities.

Another part of providing a comfortable/safe environment is minimizing the interaction between motorized vehicles and pedestrians. When interaction between pedestrians and motorized vehicles must occur, the safest crossing should be provided. Traffic control devices such as traffic signals and marked crossing need to be used consistently and uniformly through the community. The consistent and uniform use of traffic control devices will help reduce motorist confusion. When motorists see a traffic control device, they will know what to expect. This plan includes warrants for marked crossing along with an inventory and recommendation for the existing marked crossings in Los Alamos County.

Pedestrian activity around schools is a special concern because children are involved. Los Alamos County has developed a Safe Route to School program for each school. The

program has involved evaluation of current conditions, meetings with school staff, police, school site councils, public meetings, adoption of plan, changes to traffic control devices, and education of students. Each year before school starts and periodically throughout the year the traffic control devices will be checked for visibility and vandalism. Every five years Los Alamos County staff should revisit each school and check to see if changes in conditions warrant a reworking of the Safe Route to School.

Los Alamos County should always be a safe and comfortable place to walk. Establishing standards for new and maintenance construction, evaluating the existing community pedestrian system and remove pedestrian barriers will maintain and improve the community pedestrian system. Through education of both staff and residents, Los Alamos County can always be a walkable community.

## Introduction

Los Alamos County currently enjoys a pleasant and safe environment for pedestrians to walk. Both drivers and pedestrians generally have a high level of respect for one another that is rarely found in other communities. Los Alamos has a small town atmosphere where residents feel comfortable taking twilight strolls around the neighborhood without fearing for their safety. During the past several years, Los Alamos has experienced some (or limited) growth, with several ongoing proposed developments having the potential to change the community's accustomed environment. This pedestrian plan is written in an effort to maintain a pedestrian friendly atmosphere and increase walkability throughout Los Alamos County.

Walking is the most basic form of transportation in the County. Many residents find that walking to work or shopping is more efficient and pleasant than using motorized transportation. During the summer, the numbers of pedestrians increase due to the following reasons: The summer climate is ideal for walking, public schools are no longer in session and Los Alamos National Laboratory hires many students and employees who do not have vehicles. For some, walking is the only available means of transportation during their brief stay in Los Alamos County. Many citizens walk as a means of reducing the stress in their lives while improving physical health. Still others use walking as their primary means of transportation because they are unable to obtain a driver's license, cannot afford to drive a vehicle, or choose not to drive.

The transportation implications of an aging population must also be considered. Many of today's adults will live longer, yet may have mobility restrictions in their later years, increasing the need to provide fully accessible pedestrian facilities. As the baby-boom generation ages, the largest increasing component of the population in the next 20 to 40 years will be senior citizens. Because they tend to have more leisure time, they will need safe and convenient places to walk. As evidenced by the recent construction of the Senior Center and the Senior Condominiums, the Senior Citizen population in Los Alamos has continued to increase. Many senior citizens have chosen to live in Los Alamos because the community provides easy access to shopping and cultural interests without the need to drive. Therefore, it is important to provide and maintain an effective pedestrian system.

While everyone is a pedestrian and walking is not dependent on technology or fashion, until recently walking has not been considered a worthy option for transportation in America. The post-war boom in construction of suburbs resulted in many streets built without sidewalks and crossing opportunities. Recently the health benefits of aerobic exercise has been recognized, and walking is often recommended as a gentle exercise for people of all ages, but the transportation role of walking remains largely under-utilized in most communities. In recent years many cities have begun reevaluating the role of pedestrians in the community and they are creating pedestrian-oriented zones that are becoming very popular. Los Alamos County recently completed the Streetscape project that was geared towards the betterment of the downtown area, with an emphasis on the pedestrian system along Central Avenue. The Construction of Bicycle / Pedestrian Bridges across Pueblo Canyon have connected historic walking trails and provided a

unique alternative to vehicular commuting in Los Alamos. Other pedestrian friendly projects planned for Los Alamos include: The Canyon Road Improvement Project, the Down Town Cultural Center Pedestrian Improvements, Canada Del Buey Trail Improvements in White Rock, and continuing efforts to expand the County Pedestrian Trail Network.

It is the vision of Los Alamos County to have the community become a place where people continue to choose to make walking a part of their everyday lives. Residents and visitors alike will be able to walk with confidence, safety and security in every area of the community. It is also our vision that pedestrians will have a pleasant, convenient trip without motorized traffic conflicts and with minimal pedestrian barriers or obstructions.

The County remains committed to establishing walking as a valid transportation option, to provide safe, accessible and convenient walking facilities, and to promote, support and encourage increased levels of walking within Los Alamos County. The County will provide pedestrians with the same care and attention as motorists because pedestrians are an important part of the transportation system in this community. It is also our objective to encourage a walkable community attitude among the residents, visitors and employees in Los Alamos.

## **Walkable Community**

Los Alamos County is a great place for walking; beautiful weather, stunning scenery, fascinating historic sights and appealing shops. When people walk in this community, the benefits are numerous. Community walking encourages interaction between community members, discourages crime, stimulates small businesses, reduces pollution, and improves transportation efficiency. Even with all of these benefits, walking has been overlooked and undervalued for many years. Pedestrians are the invisible road users and walking is often the forgotten transportation mode.

Many communities have experienced economic benefits by enhancing non-auto transportation. Businesses benefit from improved access and an environment more conducive to "window-shopping" and strolling. A great many people feel that comfortable walking in the community is a measure of the community life quality. Also the presence of pedestrians in a city is an indicator of a strong sense of community, people feel safe being outdoors and social interactions can occur openly. While walking won't replace all trips, it can be a practical option for many trips to work, school, shopping, friendly visits, office appointments or quick errands.

The Farmer's Market is a good example of an optional walking trip and the generated benefits from it. During the summer, the market is held outdoors every Thursday and Sunday mornings. Because it is centrally located, many people walk from their place of business during their morning break in order to purchase produce. Some of the benefits experienced by the people who participate in the Farmer's Market include a strong sense of community and social interactions. They often see friends or acquaintances and enjoy



short conversations. Surrounding businesses can benefit by people walking by, seeing something they like, and stopping in to purchase the item.

Although renewed interest in walking arises to a large extent, its transportation value, the recreational value of walking is also significant. Walkways designed primarily for transportation benefit people who walk for both recreation and exercise. The recreational benefits of providing transportation-oriented pedestrian facilities include:

- Cohesiveness of a community with the traditional walk-around the neighborhood.
- Recreational facilities that can be linked together to serve transportation purposes, especially where trails provide short cuts.

However, the benefits of walking as a means of transportation will never be fully realized by providing facilities for recreational use only.

At the national level, in a 1995 Harris Poll survey, 20% of Americans said they would commute by bicycle or on foot more regularly if better facilities were provided. Establishing a walkway system along roads is only part of what is needed to create a pedestrian friendly environment. There are many improvements that make a transportation system more accessible and hospitable to pedestrians. These include amending land use zoning laws, enforcing traffic laws that protect pedestrians and an overall commitment to create a more pedestrian-scale urban landscape. Zoning for high densities of employment, housing and mixed-use development places origin and destination points closer together, creating a more pedestrian friendly environment.

Walkable communities are the cornerstones to all forms of efficient ground transportation because every trip begins and ends with a walk. In order to have an effective walkable community, several areas must be addressed. Those areas are pedestrian safety, pedestrian promotion, and system accessibility. These will be addressed through the engineering, education, encouragement, and enforcement sections of this plan.

## **Safety**

A safe community is a "walkable" community. People will only walk if they feel they can make the trip safely. This feeling can arise from actual safety or perceived safety. Safety concerns are one of the leading reasons why more people do not walk for transportation purposes, falling just behind the lack of facilities.

Despite the significance of walking in our everyday lives, often little consideration is given to the safety of the pedestrian in automobile traffic. With the evolution of automobile centered business, recreation and housing developments over the past 45 years, communities have gradually transferred their primary transportation planning priorities from the pedestrian to the car. Rapid population growth and the increase in multi-car families have placed more vehicles on roadways. Increased vehicular traffic, coupled with recent limits on road construction and renovation funds, have frequently

resulted in roadway modifications with limited sidewalks or clearances for walking. Consequently, pedestrians find that they must maneuver through more complicated and hazardous walking environments.

Every year, almost 6,000 pedestrians are killed and 90,000 injured in the United States. In New Mexico there were 62 pedestrian fatalities in 1996 and 66 in 1997. Pedestrian crashes occurred most frequently during the late afternoon and early evening hours. These are the times when exposure is the highest and visibility is the lowest. Serious and fatal injuries to pedestrians were directly related to the speed of traffic and the number of lanes. The following are some additional statistics regarding pedestrian fatalities:

- 58% are working adults.
- 23% are elderly people over the age of 65.
- 19% are children under the age of 19.
- 30% involved intoxicated pedestrians.
- 13% involved intoxicated drivers.
- 66% occurred in an urban setting.
- 15% occurred on private property, primarily in parking lots.
- 60% of the road related crashes occurred on two lane roadways.
- 35% were judged to be solely the fault of the driver.
- 43% were judged to be solely the fault of the pedestrian.
- 77% were roadway crashes broken up as follows:
  - 9.8% were turn/merge related.
  - 17.3% were intersection related.
  - 26.5% were mid-block related.
  - 8.6% were waiting to cross or not in the road.
  - 7.9% were walking along the roadway.
  - 6.9% were backing vehicles.

Congress recently identified safety as a priority issue in the continued development of pedestrian facilities. The key factors resulting in reduced pedestrian safety include:

- A roadway system designed primarily for motor vehicles without considering the pedestrian
- Motorists who do not know the traffic laws or respect the rights of the pedestrian
- Pedestrians ignoring traffic laws and acting in an unsafe manner
- Failure to operate vehicles in a safe and courteous manner

Good visibility is a key element in pedestrian safety. It is important that the pedestrian "see and be seen." Motorists who have been involved in crashes with pedestrians commonly state: "I never saw them until it was too late to do anything." For this reason, it is crucial that pedestrians stand out against the traffic background and are clearly visible to the driver. The pedestrian can do this by wearing bright colors, carrying a flashlight or wearing a reflective vest or wristbands. The County can help to improve pedestrian visibility by providing good lighting, right-of-way maintenance and proper facility location so a driver has ample perception-reaction time in order to stop the vehicle in a safe manner.

In many pedestrian cases, deaths and injuries took place in communities that have lost touch with their pedestrians. Often the standard of living was reduced because the very design of the communities made it difficult or dangerous for those who wanted to walk. While this is the case throughout the nation and in New Mexico, Los Alamos has been blessed with reasonable pedestrian facilities, and a very low crime and crash rate among pedestrians. The majority of motorists in Los Alamos respects the rights of pedestrians and maintains a positive attitude toward them. Pedestrians in Los Alamos generally feel safe when walking through the community. However, even with all the positive aspects associated with walking in Los Alamos, improvement is needed. Safety should be considered at each of the four walk-able community criteria: engineering, education, encouragement, and enforcement.

## **Engineering**

Engineering standards should apply so that the facilities do more than just accommodate current walkers; the purpose should be to attract new users. Good transportation policies are based on the premise that the public right-of-way is to be shared by all travel modes because well-designed roads accommodate all users.

The safety of the pedestrians should be engineered into every level of community planning such as transportation, community development, recreation, transit, schools siting, etc. It should always be addressed during the design phase of any private or public project in Los Alamos County. Private projects will affect the existing or proposed pedestrian system and they should be evaluated for such. This could have either a direct or indirect effect on pedestrians. Developers will often improve property and then transfer part of the finished project to the County for maintenance. It is imperative that the County address pedestrian issues in the design stage to ensure the pedestrian system is operative and that the County does not inherit a pedestrian problem.

Pedestrian facilities should be re-evaluated during any maintenance or upgrade project that might occur throughout the year. Minor improvement projects should result from facility evaluation. Pedestrian crashes should be routinely evaluated to identify crash locations and target groups. Areas of high crash rates should be improved during facility maintenance and upgrade projects.

There should be an attitude among County personnel that pedestrian safety is a priority in this community. This attitude should begin with the Council and end with the employee who regularly maintains the pedestrian facility. Suggestions for pedestrian improvements and innovative ideas should be encouraged.

The Los Alamos County Public Works Department currently uses several engineering standards. The information found in this Pedestrian Transportation Plan is meant to complement the following standards. If there are differences in the Plan and the following items, the minimum standards should always be met. But if the Plan recommends standards that are higher than those listed in the following documents, the

higher plan should be used. These County standards are found in the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets, the New Mexico State Highway and Transportation Department (NMSHTD) Standard Specification for Highway and Bridge Construction and the Los Alamos County Code. These manuals, policies, standards and codes address minimum standards. However, wherever it is appropriate, higher standards should be incorporated. Good engineering judgement should always be practiced when using manual standards. The rigid standards might not be effective in Los Alamos County when actual sight conditions and situations are encountered. If something other than the standard is used, the reason for the difference must be well documented.

Several engineering action strategies should be taken:

- Develop master plans with the incorporation of pedestrian systems and facilities. These should be adopted and included in the transportation element of the comprehensive plan.
- Identify current and potential non-motorized destinations.
- Identify necessary improvements for existing roads and streets.
- Target major barriers for removal along pedestrian systems.
- Provide new or expanded separated pathways where needed.
- Provide links to public transportation.
- Set standard procedures for addressing ongoing pedestrian needs.
- Adopt pedestrian friendly roadway design standards.
- Eliminate small problems through a spot improvement program.
- Modify land use policies, planning and zoning to make short non-motorized trips more feasible and useful.
- Ensure that the Americans with Disabilities Act (ADA) requirements are met on all transportation projects.

Physical improvements to the pedestrian system are essential to the development of walkable communities. Without safe and convenient facilities, few people will walk. The potential to increase use is limited by the quality of the available facilities. The ADA requires that both the private and public sector must provide accessible routes for all individuals. Exterior accessible routes include parking access aisles, curb ramps, and walkways.

## **Facilities**

All roads should have parallel pedestrian facilities. In planning for local transportation, it should always be assumed that pedestrians would use every street and road, at least occasionally. Therefore, whenever a new road is built or an existing road reconstructed, consideration should be given to how pedestrians can best be accommodated. It is also important, and required by the Americans with Disability Act (ADA), that pedestrian facilities include accommodations for disabled persons.

In accordance with the recommendations of the Institute of Transportation Engineers (ITE), sidewalks should be provided on any street directly abutted by residential development, as well as on streets leading to schools and libraries. Sidewalks should also front streets and roads that give access to commercial destinations whenever adjacent destinations are expected to be separated by less than ¼ mile. However, for Los Alamos County, sidewalks should be installed on both sides of all streets and roads, wherever possible and practical.

Arterials and collector streets must have sidewalks installed on both sides of the street which run parallel to the road. The sidewalks should be a minimum of six feet in width, which is enough room for two pedestrians to pass each other comfortably. Local residential streets should also have sidewalks on both sides of the street. If this is not possible due to space limitations, then a four-foot minimum sidewalk on one side of the road is a minimum requirement. Sidewalks may be omitted on one side of new streets where the side without sidewalks clearly cannot be developed and where there are no existing or anticipated uses that would generate pedestrian trips on that side.

For rural roads not likely to serve development, a shoulder of at least 4' in width should be used for low volume roads and at least 10' in width for high-volume roads. These shoulders will be provided for pedestrian use and the surface material should provide a stable, mud-free walking surface along the shoulder. Where sidewalks are installed along rural roads, the sidewalk should be well removed from the traveled way.

Most people perceive sidewalks located directly adjacent to noisy high-speed travel lanes as being undesirable for walking. Greater roadway separation should be used with planting strips that are a minimum of four feet wide. These strips will provide a space for the installation of streetlights, signs, fire hydrants, street hardware and aesthetic vegetation. With the placement of these items in the strip, there will be fewer pedestrian obstacles. The planting strips will also serve as a pedestrian buffer from traffic, with trees and vegetation growing in the strips. Trees calm traffic because they create an illusion of confinement, which causes the driver to slow down. If parking is allowed along the road or if the road contains a designated bike lane, the planting strip may be omitted because these items will serve as the buffer. However, a planting strip is still preferable due to the aesthetic value.

A connected system of safe and accessible sidewalks is needed to encourage walking as an alternative to the single occupant motor vehicle. Providing continuity to the pedestrian system would encourage more pedestrian travel. Lack of sidewalks or gaps in the sidewalk system are significant pedestrian obstacles, especially to those with limited mobility. Every effort should be made to add sidewalks where they do not exist and to complete missing links.

Disconnected streets and cul-de-sacs create long travel distances, even though the actual distance from origin to destination may be fairly short, (making walking impractical). Disconnected streets should be improved by adding connecting paths. Wide multi-lane

roadways are difficult to cross on foot. Crossing opportunities can be provided with techniques such as raised medians, refuge islands and curb extensions.

Every driveway creates a conflict for the pedestrian. One component of access management deals with the number of driveways connecting to the road. Reducing the number of driveways and limiting access from one or more directions improves pedestrian safety and comfort. When new developments or changes to existing ones are proposed, driveways should be evaluated for necessity. If existing driveways are eliminated, properly closing them by removing the curb cut and extending the walkway through the driveway for system consistency.

Provided there are no barriers, pedestrians will typically walk less than a mile to destinations such as work, school, shopping, and other activity centers. Links to bus stops and transit centers are important to significantly increase pedestrian travel. With the County supporting the planned Park and Ride program, there could be an increase in pedestrian travel throughout the County. Transit systems are highly dependent on pedestrian access, yet some bus stops are located on streets without sidewalks. Other stops are located on the wrong side of the street, causing pedestrians to cross the street unnecessarily. Bus stops located in areas where the wait is unpleasant with inadequate protection from the weather reduce the transit use. Shelters, benches and lighting increase the comfort of the bus user. Therefore, all existing bus stops and future transit centers should be evaluated for proper location, and pedestrian system continuity, and pedestrian comfort.

Maintenance and upgrade of pedestrian facilities should be a high priority. A barrier-free network is necessary to provide adequate space for pedestrians and to reduce restrictions for optimum facility use. The County's Snow and Ice Control Plan should adequately address the removal of snow from the sidewalk and walkways in a reasonable time frame. Sidewalk maintenance should repair cracked and uneven portions of the walk. Right-of-way maintenance should trim all vegetation from obstructing the sidewalks. The sidewalks should have a vertical clearance height of seven feet from the concrete and a lateral clearance of one foot from the edge of the sidewalk. Vegetation, fencing and other obstructions such as cars should be kept from obstructing crossing locations. Adjacent property owners should be responsible for routine maintenance of neighborhood pedestrian facilities.

Buildings that are set back from the road with large parking lots in front are uninviting and difficult for pedestrians to access. Buildings close to, and oriented toward sidewalks, with parking in the rear or on the side, are more likely to encourage pedestrian use. However, it is imperative for the safety of pedestrians and motorists that adequate clear sight visibility be established at all intersections and driveways. The building and all vegetation should be set in such a manner that there is no obstruction of the 30-foot clear sight triangle.

## Crossings

While walkways provide pedestrian mobility adjacent to the roadway, there will be times that pedestrians must cross the street in order to continue their journey. A successful pedestrian network will provide safe and convenient crossing opportunities. Many of the pedestrian crashes that occur happen when a pedestrian crosses the road at a location other than at an intersection.

Human nature dictates that people will take the shortest route to their destinations. Therefore, when planning or designing a project, it is important to evaluate what will happen to the pedestrian, based on the final project outcome. Will the pedestrian be tempted to make a mid-block crossing or will they make an intersection crossing?

Marked mid-block crossings are dangerous because they are unexpected by the motorist and will often take the driver by surprise. It is better to design a roadway or facility that enables pedestrians to cross safely without surprising a driver. Marked mid-block crossings should be discouraged unless the engineer determines that there is strong justification in favor of such installations based on an engineering study and traffic investigation. In the past council had directed the removal of marked mid-blocked crossing with the exception of the crossings on Diamond Drive by the Golf Course. Particular concern should arise at the installation of a marked crosswalk that crosses a road with two or more traffic lanes in one direction as a pedestrian may be hidden from view by a vehicle yielding the right-of-way to a pedestrian.

A crosswalk is the portion of the traveled way designated for use by pedestrians crossing the street or road. A crosswalk is defined as the extension of a curb, sidewalk, or shoulder across an intersection, whether it is marked or unmarked. Crosswalks should be planned to maximize the safety of the crossing pedestrians. However possible, right-angle crossings of the street should be used to minimize exposure to vehicles.

Sometimes it is necessary or advantageous to delineate crosswalks specifically by pavement markings. The primary function of the pavement markings is to guide pedestrians in the proper path. Therefore, marked crosswalks would be installed in order to funnel pedestrians to a concentrated crossing area or to define an area where the pedestrians are to cross due to irregularly shaped intersections. Marked crosswalk priority should be given to locations having high pedestrian volumes, intersections with irregular geometry, high-accident areas and school crossings. However, marked crossings in school zones shall have priority over all other crossings in the area. These zones include a one-mile radius around an elementary school, one and one half-mile radius around a middle school, and a two-mile radius around a high school.

Marked crosswalks should generally be at least as wide as the contributory sidewalks and they should never be installed if there isn't a pedestrian system connecting both sides. They should always have adequate pedestrian and driver visibility in accordance with AASHTO decision stopping sight distance requirements. Parking should be prohibited on the approach-side and backside of the crosswalk. All marked crosswalks should have

curb cuts that are in-line with both sides of the crosswalk and they should have street lighting that adequately lights the crosswalk.

Marked crosswalks at stop, yield or signal controlled intersections should be marked in a horizontal rail style. These controlled crosswalks shall not include pedestrian crossing signs due to the existing regulatory control. For mid-block or non-controlled crosswalks, the markings should be in a vertical ladder pattern. All of these crosswalks should have pedestrian crossing signs located in both directions at the point of crossing. Advanced pedestrian signs are not mandatory but could be installed if they are needed.

In accordance with the MUTCD, marked crosswalks should not be used indiscriminately. Consistency and uniformity are required when installing any marked crosswalk for the safety of both pedestrian and motorist. Installation uniformity will simplify the task of pedestrian and driver because it aids in recognition and understanding by giving everyone the same interpretation of the device. Similar situations should be treated in the same manner within the County. Pedestrian education is needed to point out that pavement markings are no sure protection against being hit by a motor vehicle while in the crosswalk. Also, in accordance with the MUTCD, before any marked crosswalk is installed, an engineering study and investigation should be performed to determine the safety and necessity of the proposed location.

Pedestrians may develop a false sense of security when crossing a road in a marked crosswalk. This false security is due to the prominent appearance of the crosswalk as seen by the pedestrian, resulting in a lack of caution. However, the crosswalk markings may not be readily apparent (from a safe stopping distance) to the driver. This is evident when the crosswalk is installed in a poor location with inadequate visibility. In general, crosswalks should not be marked at intersections unless they are intended to channelize pedestrians. Emphasis should be placed on the use of marked crosswalks as a channelization device rather than as a safety device.

To increase pedestrian crossing opportunities and safety, it is important to design roads that allow crossings to occur by incorporating design features such as raised medians, mid-crossing refuge islands or signal timing that creates gaps in traffic. At highly concentrated pedestrian crossings, mid-block curb extensions, marked crosswalks or pedestrian activated signals could be installed.

The Los Alamos County Traffic Code states that pedestrians have the right of way when crossing the street at any marked or unmarked crosswalk. It also states that they shall not suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield.

The term "Jaywalking" is often misunderstood and people sometimes think that they are prohibited from crossing a street without a marked crosswalk. However, this is not true. Jaywalking refers to a pedestrian crossing a street in any prohibited manner such as one who crosses:



- Against a traffic signal
- Outside of a crosswalk without yielding to automobile traffic
- Outside of a crosswalk at an intersection (no diagonal crossing)
- Outside of a provided overpass or underpass, or
- In a manner that causes an immediate hazard to an approaching motor vehicle

It is the responsibility of every driver to exercise due care to avoid colliding with any pedestrian who is crossing the street. Also, drivers are to use proper precautions when observing any child, confused or incapacitated person on the street. The Los Alamos County Traffic Code also states that all drivers on half of the street where a pedestrian is crossing in a marked or unmarked crosswalk are required to yield the right of way to the pedestrian by slowing or stopping.

An inventory of the existing marked crosswalks in both Los Alamos and White Rock is included in Appendix F. Crosswalk warrants are listed in Appendix G along with an evaluation and recommendation for the existing marked crosswalks.

## **Traffic Control Devices**

Traffic Control Devices are signs, signals, markings or other implements, whether permanent or temporary, which are placed on, or adjacent to, the traveled way by the public authority having jurisdiction to regulate, warn or guide traffic. The purpose of such devices is to help ensure safety by providing for the orderly and predictable movement of all motorized and non-motorized traffic. Traffic control devices must be uniform and consistent for them to command the respect of the public and to provide safety to the users. In order for uniformity and consistency to occur, similar situations must be treated in a same manner. The use of a standard device where it is not appropriate is as objectionable as using a nonstandard device. In fact, it may be worse because such misuse will likely result in a general disrespect for devices used at locations where they are actually needed. In order to install standard devices, they must be warranted based on their need and used in accordance with the MUTCD. Existing devices should occasionally be reevaluated to ensure they are still warranted for use at their existing locations. Because of the safety hazards to the pedestrian and the motoring public, any traffic control device no longer warranted should be promptly removed in an appropriate manner.

The Federal Highway Administration is currently testing new traffic control devices geared towards increasing the safety of various pedestrian facilities. Once these devices have been tested, they will be approved for standard use throughout the United States. It is estimated that testing and standards will be available by the year 2000. Once the FHWA has completed its report, this document should be amended to incorporate some of the newly approved pedestrian safety devices.

Well-designed roads make it clear to users how to proceed and they require very little use of traffic control devices. Conversely, an over abundance of devices may indicate a failure to properly address specific problems. It is imperative that the attention of drivers

and pedestrians be focused on the road and surrounding users, not on signs or other devices along the road. Over usage of devices, especially signs, degrades the usefulness of all devices. It causes unnecessary distractions, creates a cluttered effect, increases user disrespect, produces ineffective communication, and wastes resources. Lack of obedience to devices and regulations could be an indication of improper installation, application, education, or enforcement.

Los Alamos County has many foreign travelers and often people are unable to understand the written English language. Also, it is more difficult for all drivers to read and comprehend a written message than it is to understand a picture or symbol. Therefore, the messages conveyed by traffic control devices should be easily understandable by all roadway users. Where possible, symbols (instead of text ) should be used.

## Signs

Signs are used to communicate to various traffic regulations, warnings and guidance to drivers. Care should be taken not to install too many signs. Conservative use of regulatory and warning signs is recommended, as these signs, if used to excess, tend to lose their effectiveness. Due to the number of signs that could be installed throughout the County, signs will have an installation priority. First priority will be given to all regulatory signs. Second priority will be given to warning signs, then to guide signs, and finally to information signs. There will be times that guide and information signs will not be installed in an area due to the number of necessary regulatory and warning signs.

All new installations shall be mounted on breakaway posts for adequate pedestrian and traffic safety and in accordance with the MUTCD. These posts are designed to break away from the vehicle when struck, yet still remain attached to the base post so as not to become an uncontrolled projectile. Breakaway post specification should meet or exceed the NMSHTD standards. The County is currently undergoing a program to install breakaway posts throughout the area. This will occur over several years until all of the posts are up to the new standards.

All signs post mounted adjacent to the road shall be a minimum height of seven feet from the bottom of the sign to the sidewalk. If a sidewalk does not exist in the area, then the measurement would be to the near edge of the pavement. If a secondary sign is mounted, this height may be reduced to six feet. The minimum lateral clearance should be at the backside of a sidewalk. If a sidewalk does not exist, the sign should be at least two feet from the face of the curb.

Pedestrian walkways generally require little or no signing because most regulatory and warning signs are directed at motor vehicle traffic and not at the pedestrians. With well-designed walkways, very little has to be done for pedestrian directional signing. It should be noted that there are no national or state standards developed for pedestrian directional signing. If signing were to be used for the pedestrian, it should be used in an area where a walkway is available but residents or pedestrians do not recognize it as the best foot route. In an effort to avoid adding clutter to existing street signs, it may be preferable to cluster signs together on one post and place them in strategic locations for pedestrians.

Distances should be given to the pedestrian in blocks, average walking time or other types of measurements. Signs should be unobtrusive, easy to read and aesthetically pleasing.

Most street signs designated for motoring traffic adequately serve pedestrians. Therefore, supplemental pedestrian signing is generally not required. There might be occasions when pedestrians could not read signs mounted for automobile drivers in which case supplemental signing might be required. An example of this is on a one-way street where the signing would face only one direction, but the foot traffic would be approaching from both.

Pedestrian Crossing signs are not required at every location that a pedestrian might cross the roadway. However, the signs should be installed in advance of, and at locations where a high number of crossings are not normally encountered. This type of unexpected crossing occurs at areas such as mid-block locations where the adjacent land use is likely to generate a high number of crossings. An example of numerous pedestrian crossings that are generated by adjacent land use occurs at the Los Alamos Golf Course. At this location, patrons are required to cross the street in order to continue to play golf.

## Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices, such as traffic signs or signals. In other instances, they are used alone and produce results that cannot be obtained by the use of any other device. In such cases, they serve as a very effective means of conveying certain regulations and warnings that could not otherwise be made clearly understandable.

Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, are not easily changeable, and may not be very durable when subjected to heavy traffic. In spite of these limitations (under favorable conditions), they have the advantage, of conveying warnings or information to the driver without diverting attention from the roadway.

Markings that are no longer applicable and which may create confusion in the mind of the motorists, shall be removed or obliterated as soon as practicable. Proper pavement marking obliteration leaves a minimum of pavement scars and completely removes old pavement paint. Painting over existing stripes does not meet the requirements of removal or obliteration.

Marked crosswalks should be at least as wide as the contributory sidewalks. Parking should be prohibited for a minimum of 40' on the approach side and at least 20' on the backside. These distances should be increased based on an actual field investigation of the site. Yellow curb markings should be used to indicate the no-parking zone. Supplemental signs could be used if there is a continual parking problem.

Marked crosswalks at stop, yield or signal controlled intersections should be 8-12 feet wide in a horizontal rail style. The horizontal rails should be at least 12' wide. These crosswalks shall not include pedestrian crossing signs due to the existing regulatory control. For mid-block or non-controlled crosswalks, the markings should be in a vertical ladder pattern. Each vertical line should be 8-12' long and 2' wide, with 2 foot spacing between each line.

The marked crosswalks should be retro-reflective white markings. Painted markings with glass beads are sufficient, but, if possible, marked crosswalks should be installed using retro-reflective preformed thermoplastic. The initial thermoplastic application takes longer to install than paint. But, a thermoplastic application lasts longer and reduces the amount of maintenance required to keep the markings visible.

The marked crosswalk line indicates the location that a vehicle should stop so if it doesn't block the route of the pedestrian. In locations where there is neglect by drivers to stop in advance of the crosswalk, a stop bar may be installed. The stop bar will be a solid white retro-reflective line extending across all approach lanes. This line should be 12 to 24 inches wide stop bars should be at least 4 feet in advance of and parallel to the nearest crosswalk line.

## Traffic Signals

A traffic signal is a type of traffic control device by which traffic is alternately directed to stop and permitted to proceed. The traffic signal features in which vehicle operators and pedestrians are interested include the location, design, indications, and legal significance of the signals. Uniformity in design features that affect traffic to be controlled is especially important for safe and efficient traffic operations.

Properly located and operated, traffic signals usually have one or more of the following advantages:

- They can provide for the orderly movement of traffic.
- They can increase the traffic-handling capacity of the intersection, where proper physical layouts and control measures are used.
- They can reduce the frequency of certain types of crashes, especially the right-angle type.
- They can be used to interrupt heavy traffic at intervals to permit other traffic, vehicular or pedestrian, to cross at the intersection. These gaps also allow them to cross down stream of the traffic signal.
- Many people believe that traffic signals provide the solution to all traffic problems at intersections. But, traffic signal installation, even though warranted by traffic and roadway conditions, can be poorly designed, ineffectively placed, improperly operated or poorly maintained. The following factors can result from improper or unwarranted signal installations:

- Excessive vehicle and pedestrian delay
- Disobedience of the signal indications
- Use of less adequate routes in an attempt to avoid signal
- Significantly increased crash frequency, especially rear-end types

Traffic signals are often the preferred pedestrian crossing points during heavy traffic. Traffic signals also benefit the pedestrian who does not use the signalized intersection but would like to cross the street downstream. The signal will create traffic platooning and provide the pedestrian with adequate gaps in traffic in order to cross the street safely. Pedestrian signals with push button actuation stations should be included at signalized intersections where two or more pedestrian systems continue through the intersection. The purpose of a pedestrian signal is to control pedestrian traffic in order to assist the pedestrian in crossing an intersection in a safe manner. The location, height and design of the pedestrian signals should be in accordance with the MUTCD and good engineering principles. Pedestrian signals assign right-of-way to pedestrians in the same way as vehicular signals do for vehicular traffic. However, there is no guarantee of pedestrian safety when using the signal, just as there is no guarantee of vehicular safety while using a traffic signal. It is imperative that pedestrians exercise sound judgement when crossing a roadway whether it is signalized or not.

The pedestrian signals should be timed to provide sufficient time for the average pedestrian to cross the roadway. Pedestrian walking speed is dependent upon the following factors:

- |                             |  |
|-----------------------------|--|
| • Pedestrian age            | • Oncoming vehicle speed               |
| • Pedestrian sex            | • Crossing area width                  |
| • Pedestrian volume         | • Sidewalk, walkway or crosswalk width |
| • Walkway grade             |  |
| • Oncoming vehicle distance |  |

The MUTCD uses a standard mobility speed of 4.0 ft/sec. for timing pedestrian signals. This speed will be used unless it is determined that there is a large population of older adults or physically challenged pedestrians using a particular pedestrian signal. In this case, a mobility speed of 3.5 ft/sec will be used to calculate the signal timing. Because the signal is timed to provide the pedestrian with adequate crossing time, it is important for each pedestrian to push the pedestrian button in order for the signal to provide the proper crossing time.

When the signal indication or symbol for WALK is displayed, this means that the pedestrian may enter the roadway with care and proceed in the direction of the indication. Anytime a pedestrian is crossing the roadway, there may be possible conflicts from turning traffic and it is imperative that the pedestrian continue to watch for traffic which may not see them crossing. The minimum time for the WALK indication will be four seconds with a maximum of seven seconds unless an engineering study determines that a longer time should be used.

When the flashing signal indication or symbols for DON'T WALK is displayed, this means that the pedestrian who is currently crossing the street should continue crossing at a normal pace. It also indicates that if the pedestrian has not yet left the curb, he/she should not leave the curb but should wait for the next pedestrian signal. The flashing DON'T WALK is calculated to provide the pedestrian who has left the curb with signalized protection from opposing vehicles while the crossing takes place.

When the steady signal or symbol for DON'T WALK is displayed, this means that the pedestrian cannot legally enter the street. It is also a warning to pedestrians that if they are currently crossing the street, they are to get out of the street immediately. This indication tells pedestrians that within seconds, the opposing traffic will be allowed to proceed in their direction.

All traffic signals that have pedestrian signals will have marked crosswalks in a track pattern. If sidewalks exist at the signalized intersection, aligned curb cuts will be provided for the pedestrian's safety and ease in crossing. These will be located in logical position in relationship to the crosswalk and pedestrian signals. The crosswalk bar that is located closest to the through traffic will be offset at least one foot from the lane. This offset is provided for additional pedestrian safety in an effort to guide pedestrians across the street without allowing them to walk into the path of through traffic.

## Construction Zones

Anytime that the normal function of a roadway or walkway is suspended, temporary traffic control planning must provide for continuity of the system. The movement of motorists and pedestrians must be adequately provided. Effective temporary traffic control enhances traffic safety and efficiency, regardless of whether street construction, maintenance, utility work, or roadway incidents are taking place. Effective temporary traffic control must provide for safety of the workers, road users and pedestrians.

In accordance with the MUTCD, each person whose actions affect temporary traffic control zone safety, from upper-level management personnel through field personnel, should receive training appropriate to the job decisions each is required to make. Only those who are trained in safe traffic control practices, and who have a basic understanding of the principles established by applicable standards and regulations, should supervise the selection, placement and maintenance of traffic control devices in work and incident management areas.

Three points should be considered in planning for pedestrian safety in temporary traffic control zones:

- Pedestrians should not be led into direct conflicts with work site vehicles, equipment, or operations.

- Pedestrians should not be led into direct conflicts with mainline traffic moving through or around the work site.
- Pedestrians should be provided with a safe, convenient travel path that replicates as nearly as possible the most desirable characteristics of sidewalks or footpaths.

## Education and Encouragement

Engineering alone cannot reduce the conflicts between pedestrians and motorists. Education is the key in reducing the number and severity of accidents. In addition to basic rules of the road, there is also (safe walking techniques), education. Pedestrians need to understand they are active participants in the transportation system; that carries certain responsibilities and expectations. Educating the public will change attitudes, improve skills and increase knowledge about pedestrian safety issues.

Instruction in lawful, responsible behavior among pedestrians and motorists should be provided. Walking "rules of the road" should be taught to children, first by their parents and then reinforced at school. Walking "rules of the road" should also be taught to adults and motorists. Pedestrian information should be included in driver education. Pedestrian and driver safety messages should be delivered through printed and electronic media. Messages should be designed to target different audiences such as, children, senior citizens, motorists and parents. Effective, consistent and ongoing delivery of these messages should be created. Motorists and pedestrians should be educated as to the importance of predictability and harmony within the transportation system.

Nationally, safety education programs have proven that they make a significant difference in reducing accidents and injuries among pedestrians. Safety education programs should be directed to both the pedestrian and driver. Pedestrians often complain about a lack of respect of some motorists for their right to public access.

People desire mobility options. The simplest way to encourage walking is not to discourage it. Increases in recycling and seat belt use have resulted from successful campaigns aimed at changing behavior. Similar efforts could be applied to encourage increased walking throughout the County. Successful campaigns portray a positive image of walkers, emphasize the benefits of walking and inform the public of drawbacks associated with over-reliance on the automobile. Walking should be encouraged as one of the easiest ways for people to improve their health and lower their health care costs. The benefits of walking as a form of exercise can be tremendous in terms of well being and reduced health care costs.

People who walk are often at a disadvantage, facing impediments such as roads designed primarily for motor vehicles, lack of protection from weather and inadequate connections to other modes. To encourage greater use, incentives and rewards can include:

- Facilities such as showers and changing rooms in work place
- Work schedules that allow commuters to walk in daylight hours in the winter

- Guaranteed ride home for emergencies when walking isn't practical
- Awards and other forms of recognition

Properly planned and sustained public education allows people to adopt intelligent practices for both walking and driving. A public information campaign should be developed with a media packet that contains information about:

- Pedestrian laws
- High-risk behaviors
- Accident statistics
- Dangerous intersections or areas in the County

A good time to kick off a pedestrian safety program is during times when school begins or ends because pedestrian issues are more likely to gain attention. Active or retired police officers can provide public information at scheduled programs in local schools and clubs.

Dispatching a brochure about pedestrian safety with all traffic citations and written warnings is another effective method of educating the public. Utilities, banks and other institutions and organizations can be encouraged to include pedestrian safety information in monthly billings and mailings. Senior citizen groups and youth groups can be used to assist with mailing tasks.

Encouraging and supporting a pedestrian advocacy operation is also useful. The Transportation Board should reinstate the Pedestrian Sub-committee that should be geared toward the safety and promotion of pedestrians in Los Alamos. Potential members include representatives from traffic engineering, street maintenance, law enforcement, school transportation, media, automobile clubs, youth, civic and senior citizen organizations, hospital or trauma center personnel. Pedestrian safety should be integrated with corporate health and traffic safety programs such as impaired driving, smoking cessation and weight control programs.

Younger children are at the highest risk of being involved in an accident because they have not yet developed a sense of danger. Parents should be an example because children learn by watching adults. Before allowing children to cross streets alone, it is important for parents to cross streets with them while verbally instructing them on the techniques of crossing safely. Children develop skills through repetition and positive reinforcement. Parents should supervise children at all times until they prove they are safe pedestrians even when distracted. Parents should also structure their child's play areas in locations away from any type of vehicular traffic.

Parents should practice the following safety skills with their children:

- Learn to read and understand traffic signals and signs
- Be alert to potential hazards
- Remember to Stop, Look and Listen



- Look left, right and left again before crossing roadways
- Stop at the curb or edge of the road before crossing the street
- Never run into a street
- Never run across a street
- Never step out into a street when a car is coming, even if there is a crosswalk
- Once a street is clear, it is usually safe to cross. However, keep looking for oncoming traffic until the street has been safely crossed.
- Stay on sidewalks and cross at intersections
- Never cross between parked cars
- Do not walk alone and wear bright clothes and reflective devices at night

Drivers should:

- Know and obey the speed limits
- Watch for pedestrians and slow down if pedestrians are present
- Yield to pedestrians in the roadway
- Remember that pedestrians have the right-of-way in marked or unmarked crosswalks at an intersection as long as they have used due care for their safety.
- Combine multiple motorized trips into a single trip with several destinations to reduce congestion.

Employers should increase incentives for walking to and from work and by adding non-motorized options to their motor pools. For instance, the County could include a walking program in the existing wellness program, with incentives and awards based on the number of miles walked. The County could also provide several bicycles to employees to use for short trips to different offices and meetings. Walking activities should be included in local recreation programs. Non-motorized transportation should be promoted through introductory special events. Offer target audiences detailed information on non-motorized travel. Develop and distribute positive messages through public-service announcements, special-events promotion, utility billing leaflets, and news releases.

## **Enforcement**

Pedestrians are particularly vulnerable to injury by unlawful motorists, since a protective compartment of steel does not enclose them. For each illegal driving incident which causes an accident, many more threaten other road users and generally disturb the peace of the community. Contrary to common sentiment, traffic violations are not simply benign misbehavior. They can and often do have serious consequences.

Predictability is the key to harmony on the roadway. Sometimes pedestrians will make a maneuver unexpected by a motorist and a conflict occurs. On the other hand, motorists sometimes feel pedestrians inhibit their mobility. Motorists and pedestrians have rules and responsibilities by which they must abide. The most effective enforcement technique is education but sometimes it is necessary to consider other active methods of law enforcement such as:

- Improving existing traffic laws and enforcement
- Review and modify laws that affect pedestrians, if necessary
- Enforce laws that impact pedestrian safety
- Identify locations of extreme non-compliance and conduct a spot enforcement program
- Reduce the incidence of serious crimes against non-motorized travelers
- Re-implement a bicycle patrol in appropriate areas such as in the Central Business District
- Continue to improve the community policing efforts in the County
- Hold biannual neighborhood watch meetings where pedestrian issues are discussed

Although pedestrian safety has been identified at the federal level as a serious problem, it may not be perceived as such at the local level. Many communities are unaware of pedestrian safety issues or are forced to overlook them because of budget constraints. Pedestrian Safety law enforcement activity has been limited because of a significant lack of technical information available to the law enforcement community.

Commitment by the law enforcement agency is essential to the success of a pedestrian law enforcement program. Involving the community and traffic engineers in the planning and implementation of such a program is equally important. The goals of a pedestrian safety enforcement program are to increase citizens' awareness and compliance with the pedestrian laws, and to have police officers enforce these laws.

It is only logical to have both the police and the community working together on a program aimed at citizen behavior. With current budget constraints, no single County department or organization has a great deal of time or resources to devote to pedestrian safety, however, by pooling resources, there can be a significant impact. The methods used to train officers placed on traffic assignments enhance the effectiveness of a pedestrian program. Shift commanders need to understand, explain and emphasize the reasons why pedestrian law enforcement is important. They need to sell their officers on enforcement by using educational efforts. Suggested training tools for educating police officers about pedestrian law enforcement include using the same safety messages communicated to the general public by television, radio, newspaper or brochures. Articles about pedestrian safety and enforcement could be placed in police memos and bulletins.

Since motorists are 35% solely at fault and pedestrians are 43% solely at fault in pedestrian crashes, both motorists and pedestrians should be issued citations for traffic violations. When issuing a citation for a pedestrian violation, the officer should provide a brochure that states the existing pedestrian laws. For traffic officers to enforce pedestrian laws and be dedicated to the program, police supervisors must communicate their support and provide positive reinforcement, and top management must trust its commitment.

Throughout the country, police agencies run into obstacles when trying to enforce pedestrian laws. These obstacles include a lack of interest or understanding, insufficient

training or funding, weak laws governing impaired pedestrians, and inadequate support from the judicial system, where many judges will support ticketing motorists but do not support efforts to ticket pedestrian safety violators. Some obstacles to pedestrian safety enforcement can be removed by learning from the successes of other jurisdictions. Police officers or commanders from other agencies could be invited to explain how pedestrian laws are enforced and how tickets are issued in their jurisdictions. Judges and prosecutors could be informed about the program and the statistics concerning pedestrian crashes. Members of the judicial system could be involved in planning the pedestrian law enforcement program.

Planning to enforce pedestrian laws where they have not been enforced before will only lead to resistance unless the public is educated beforehand. The pedestrian safety program is effective only when it successfully integrates enforcement, education and engineering. Once a community has been educated about pedestrian safety and understands the importance of following the laws, it is more likely to support a law enforcement program.

## **School**

Pedestrian safety depends very much upon the application of sound traffic engineering practices for efficient traffic control. This principle is never more important than in the control of pedestrians and vehicles in the vicinity of a school. Neither school children nor vehicle operators can be expected to move safely in school zones unless they understand both the need for traffic controls and the ways in which these controls function for their benefit.

While school crossing accidents are typically random events and their rate of occurrence is very low in Los Alamos County, the emotional nature associated with these incidents attempts to supersede the use of sound engineering criteria in the application of traffic safety practices in school areas. School crossing controls requested by parents, teachers and other citizens at school locations are often unsound and tend to lessen the respect for controls that are warranted. It is important that safe and effective traffic control be obtained through the uniform application of realistic policies, practices and standards developed through engineering studies. Uniform procedures and devices enhance public understanding of traffic control. A uniform approach to school area traffic controls is used to promote uniform behavior on the part of vehicle operators and pedestrians. This uniformity is best achieved through the application of similar controls for similar traffic situations.

The concept of developing and promoting proper school area traffic control is aimed at enhancing the safety of school-age children in their trips to and from school. The amount of school area traffic control will be dependent on the school level or age of the students the controls are meant to protect. The cognitive skills of children in kindergarten and lower elementary levels are typically not as developed as the cognitive skills of children

in the upper levels of school. As a result, greater control of school area situations is often provided to protect these younger students.

A primary task of the Public Works Department, Traffic Engineering Division, is to coordinate the establishment of a Safe Route to School plan for each school serving kindergarten and elementary aged school children. Once established, this plan should be re-evaluated once every five years to check for any significant changes to the route. However, spot investigations, inspections and maintenance should occur at each school on a routine basis. The main investigation, inspection and maintenance should take place during the month prior to the start of a new school year.

Guidelines for the development of a Safe Route to School plan include:

- Gathering children as quickly as possible because groups of children are easier to be seen by drivers.
- Minimize street crossings, especially at non-controlled areas. Children should cross as few streets as possible on their way to school. The number of locations where drivers need to watch for children crossing should be minimized.
- Whenever possible, children should cross streets at stop, yield or signalized intersections. This increases the safety of children because drivers must stop or slow down at the intersections.
- Do not allow children to cross collector streets if it can be avoided.
- Use sidewalks where available. If they are not available, have sidewalks installed or have children walk facing traffic.
- Avoid all mid-block crossings.
- Avoid high-speed (40 mph or greater), high-volume roadways.
- Adhere to uniform standards and safety provisions.
- Educate and train children and parents in pedestrian safety techniques.

Over the past year the Traffic Engineering Division has implemented a school trip safety program by developing a Safe Route to School plan for each elementary school. This program was developed because school children have the highest risk factor for being involved in a pedestrian accident. The purpose of this program is to provide increased safety for children who walk to school on a regular basis. Committees for each school were established which included representation from law enforcement, traffic engineering, school administration, school transportation, teachers, parents and local citizens. The committees developed and reviewed policies and plans, maintained public relations, recommended action, and oversaw operation of the safety program.

Initial contacts were made with each school principal, community-policing officer, Parent-Teacher Organization, Site Council, and engineering representative. These contacts included solicitation of information regarding characteristics of each school such as the number of walkers versus bus riders, the number of children who are driven to school, the existing safety programs, existing crossing guard programs, and any other areas of concern or confusion within the school radius.

After the initial contacts were made, information was sorted out and prioritized. Throughout the one-mile elementary school walking area, inventories of the roadway and pedestrian facilities were conducted. Traffic studies were conducted where needed to determine vehicular volume, speeds, gap adequacy, accident frequency, and vehicular pedestrian conflicts. Other studies were performed to determine pedestrian volume and characteristics such as age, size, mental capabilities, arrival times, reaction time and walking speed. Other information included sight distance, lighting, speed limits, roadway width, and traffic control devices in use.

Existing condition maps were created for each school showing areas of conflicts and safety issues (see Appendix B). Deficiencies in the routes were identified and discussed. The deficiencies taken into account included available gaps, sight distances, vehicular volumes and speeds, conditions after dark, adjacent land use, and existing traffic controls. Improvements were suggested and indicated on a map along with proposed changes.

The proposed routes with improvements were discussed with the committees. Changes to the plan were made based on the committee discussions. Public meetings were held with the committee prepared proposed route (see Appendix D for sample presentation). Additional information was solicited from those in attendance at the public meeting. If new information was presented or if there were concerns regarding the plan, the committee met again to discuss the ideas and concerns. Necessary changes would were made to the plan and another public meeting was held to present the final plan. Once the plan was adopted (see Appendix C for adopted Plans), changes were made to the pedestrian system surrounding the school. Successful implementation of this program depended on public acceptance, cooperative efforts of all parties, and adequate funding.

School children were properly informed of the program and its implementation. The school set a pedestrian training date and the community policing officer, school policing officer, and engineering representative performed the student training. Sometimes the training took place as a school assembly or with students being grouped by class grade or with individual classes. Training included:

- Enforcement and engineering presentations
- Student question and answer periods
- Field observations
- Field instructions

After a month of operating with the new changes and improvements, the school was contacted again to see how the plan was working. At this time, minor spot adjustments were made to clarify the route and plan. Annual maintenance and school contacts are made prior to the beginning of school year because of changes in facility conditions, policies, and personnel.

# School Traffic Control

Traffic control in school areas is a highly sensitive subject. If all the demands of all parents and others were met, the school zones would be extremely cluttered with devices, with confusion and misunderstandings occurring.

Traffic Control Devices are signs, signals, markings, or other implements, whether permanent or temporary, which are placed on, or adjacent to, the traveled way by the public authority having jurisdiction to regulate, warn or guide traffic. The purpose of such devices is to help ensure safety by providing for the orderly and predictable movement of all motorized and non-motorized traffic. Pedestrian safety depends in large measure upon public understanding of accepted methods for efficient traffic control. This principle is never more important than in the control of pedestrians and vehicles in the vicinity of schools. Neither school children nor vehicle operators can be expected to move safely in school zones unless they understand both the need for traffic controls and the ways in which these controls function for their benefit.

If warranted, standard devices should be installed based on their need, and in accordance with the Manual on Uniform Traffic Control Devices, and with the NMSHTD School Crossing Manual. Non-uniform procedures and devices cause confusion among pedestrians and vehicle operators, prompt wrong decisions and contribute to crashes. In order to achieve traffic control uniformity in school areas, comparable traffic situations must be treated in the same manner. The type of school area traffic control used, either warning or regulatory, must be related to the volume of traffic, speed of traffic, width of the street, and number of children crossing. For this reason, the traffic controls necessary in a school area located on a major highway would not be needed on a residential street away from heavy traffic. The important point to be made is that a uniform approach to school area traffic controls must be developed to assure the use of similar controls for similar situations.

The safety of students in route to or from school is the joint responsibility of parents, school administrators, other public officials, and the general public. It is a mistake to place excessive emphasis on the protective capabilities of a school-crossing zone. Passive physical devices can accomplish nothing unless they generate a response at the human level. It becomes extremely important that school crossings be established in compliance with the law and established engineering criteria to insure the proper response.

Traffic control criteria for school zones includes, but is not limited to, the following items:

- At no time shall a school crossing be used as a device to control vehicular speed.
- Mid-block school crossings shall not be installed. Non-signalized, mid-block crossing locations present the driver with an unexpected situation they are not prepared for.

- If a marked school crossing exists on a street abutting a school, all persons crossing the street must use the established crossing.
- School crossing signs and markings shall not be established at signalized intersections because the amount of information will confuse the motorist.
- If a school crossing intersects with a signalized intersection, the traffic signal shall have pedestrian actuated signals.
- School crossing signs and markings shall not be installed on approaches where traffic is controlled by a stop sign. A stop sign is the least violated of all regulatory traffic controls and the additional information could detract from the efficiency of the stop sign.
- School crossing signs and markings shall not be established within 600 feet of a signalized intersection, four-way stop intersection or another school crossing when located on the same street. Where two crossings are established closer than 600 feet, drivers routinely violate the second crossing in either direction. This is due to a feeling on the part of motorists that they are being unreasonably imposed upon. This same behavior has been evidenced at crossings located close to signalized or stop controlled intersections.
- If a flashing zone is necessary, each school should only have one flashing school zone with a speed reduction. This zone should be as short as possible and located on the street abutting the school directly in front of the school (see Appendix E for sample School Flasher Schedule).
- Under no circumstances shall a school crossing be established at locations with inadequate sight distance.
- School crossing signs and markings shall only be established at mid-schools if an engineering study and investigation indicates the need. Mid-school age pedestrians have sufficient judgement and maturity to choose adequate gaps in traffic for their crossings.
- School crossing signs and markings shall not be established at senior high schools. School crosswalks are reserved for major crossing areas serving youth below senior high school age. Motorists normally are willing to defer to small children, resulting in high voluntary compliance. Senior high school age pedestrians have sufficient judgement and maturity to choose adequate gaps in traffic for their crossings. In effect, they are capable of functioning as adults in traffic.
- At no time shall a passing zone be established in a flashing school zone at a marked school crossing.
- Crossing and advanced school crossing signs shall be installed at marked non-controlled school crosswalks.
- Crosswalks should not be used indiscriminately and should only be established based on good engineering research and apparent need. For instance, a high pedestrian volume and traffic stream gaps of less than one per minute might result in the establishment of a marked crossing.
- Bus stops shall be located in areas where there is adequate visibility. However, if this is not possible, a school bus stop ahead sign could be installed in advance of any stop that is not visible for at least a 500 feet. It is not intended that these signs be used everywhere a school bus stops to pick up or discharge students. The intention of the sign is for use only where terrain and roadway features limit the approach sight

distance and where there is no opportunity to relocate the stop to another location with adequate visibility.

- Bus stops should not be established with signs and markings because of the fluid nature of the student demographics. School bus stops are often changed or deleted throughout the school year based on the needs of the School's Transportation Department.
- Establish school bus drop-off zones that are separated from vehicle drop-off zones. These zones should be located in an area that does not require children to cross the street or walk through a parking lot.

## CONCLUSION

Los Alamos County should always be a safe and comfortable place to walk. The Establishment of standards for new and maintenance construction, evaluating the existing community pedestrian system, developing a community pedestrian system master plan that is part of the comprehensive plan, removal of pedestrian barriers, and education of pedestrians and motorists will maintain and improve the community pedestrian system. Through education of both staff and residents, Los Alamos County can maintain the quality of life of a walkable community.

**Note:** In this report the use of the term "they" will be used instead of the term "he/she". The "he/she" term is very cumbersome when referring to a single generic person. The reader will often find sentences that might read: "If *a* pedestrian is currently crossing the street, *they* are to continue to watch for oncoming traffic."



# Appendix A

## References

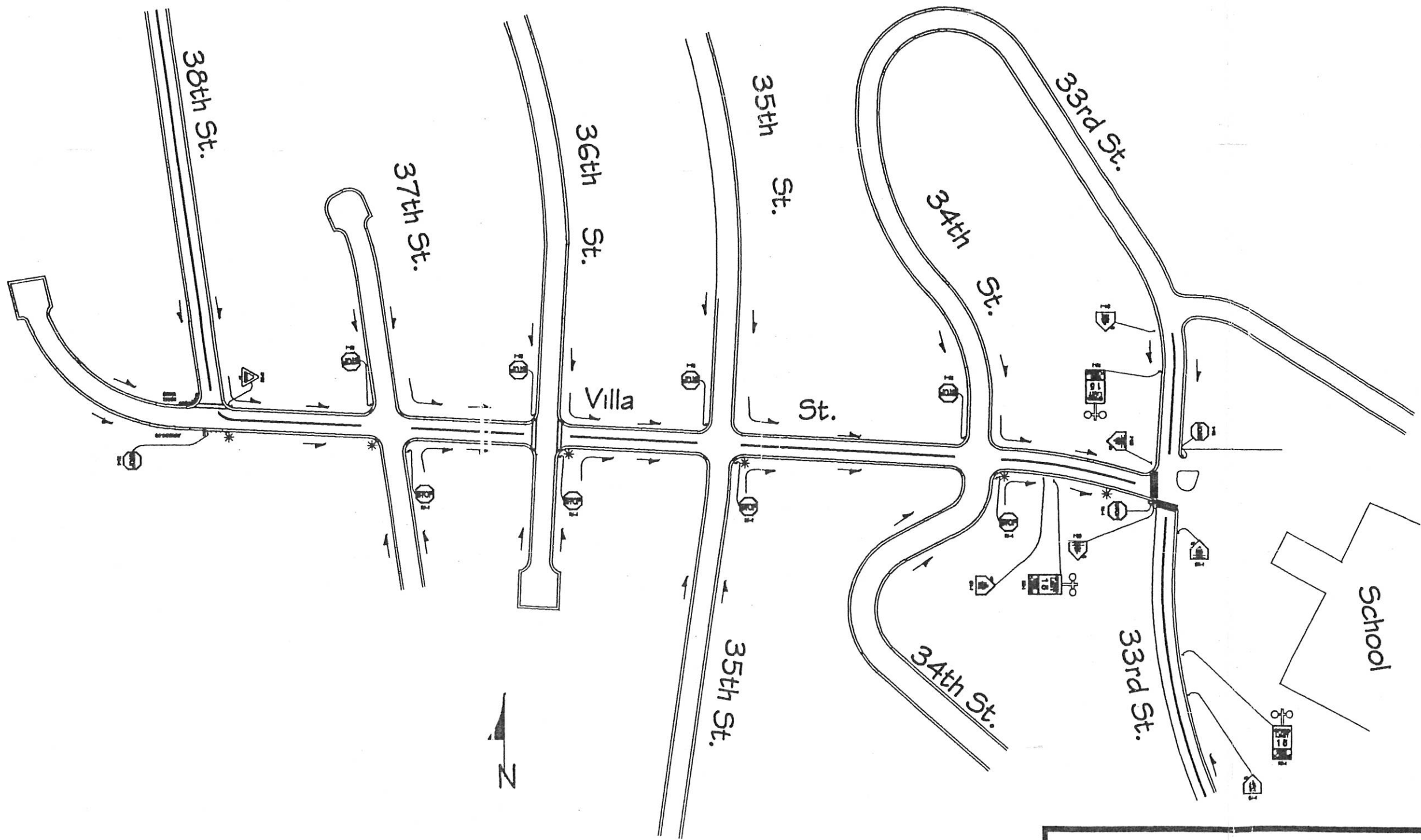
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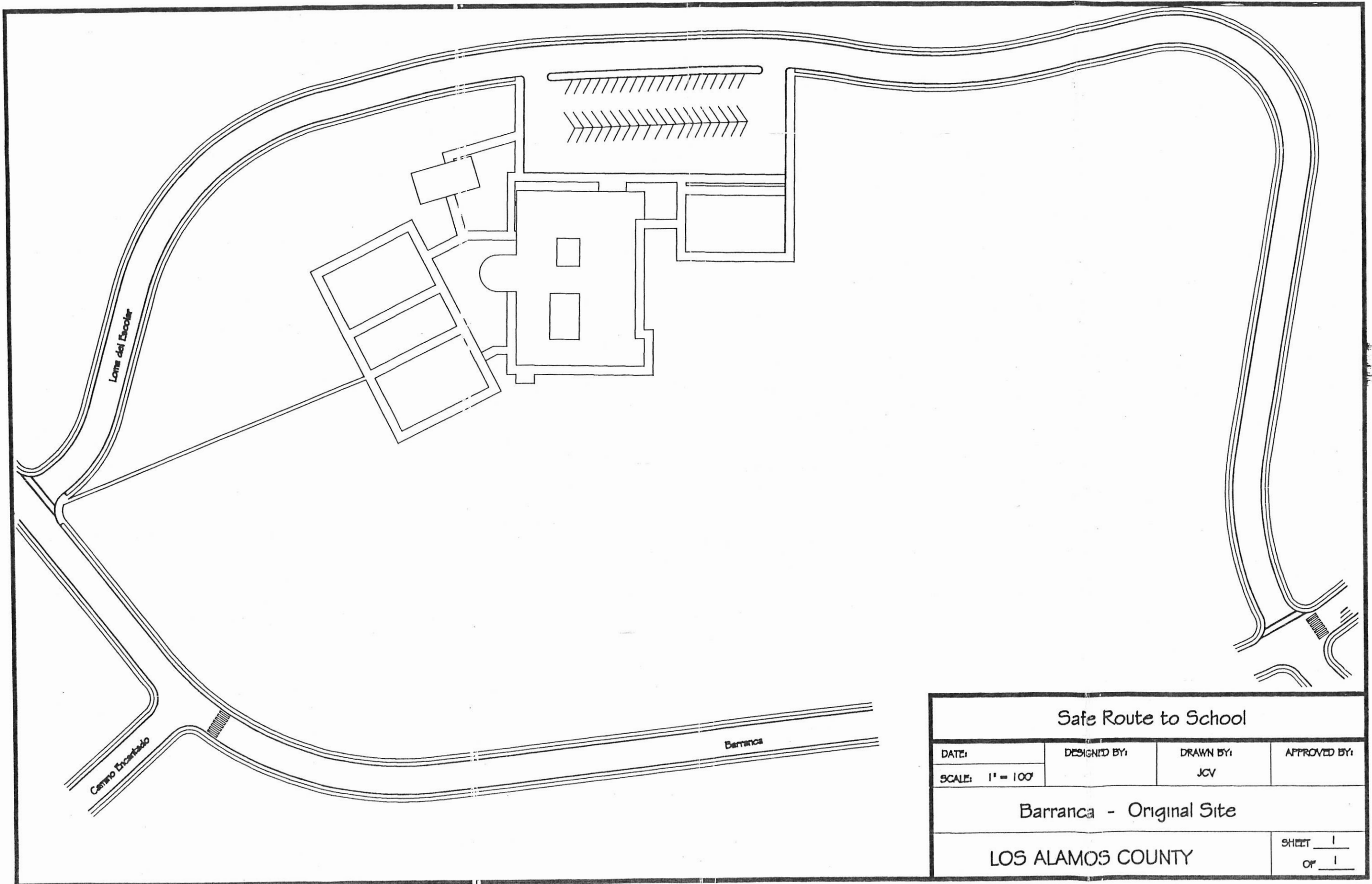
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# Appendix B

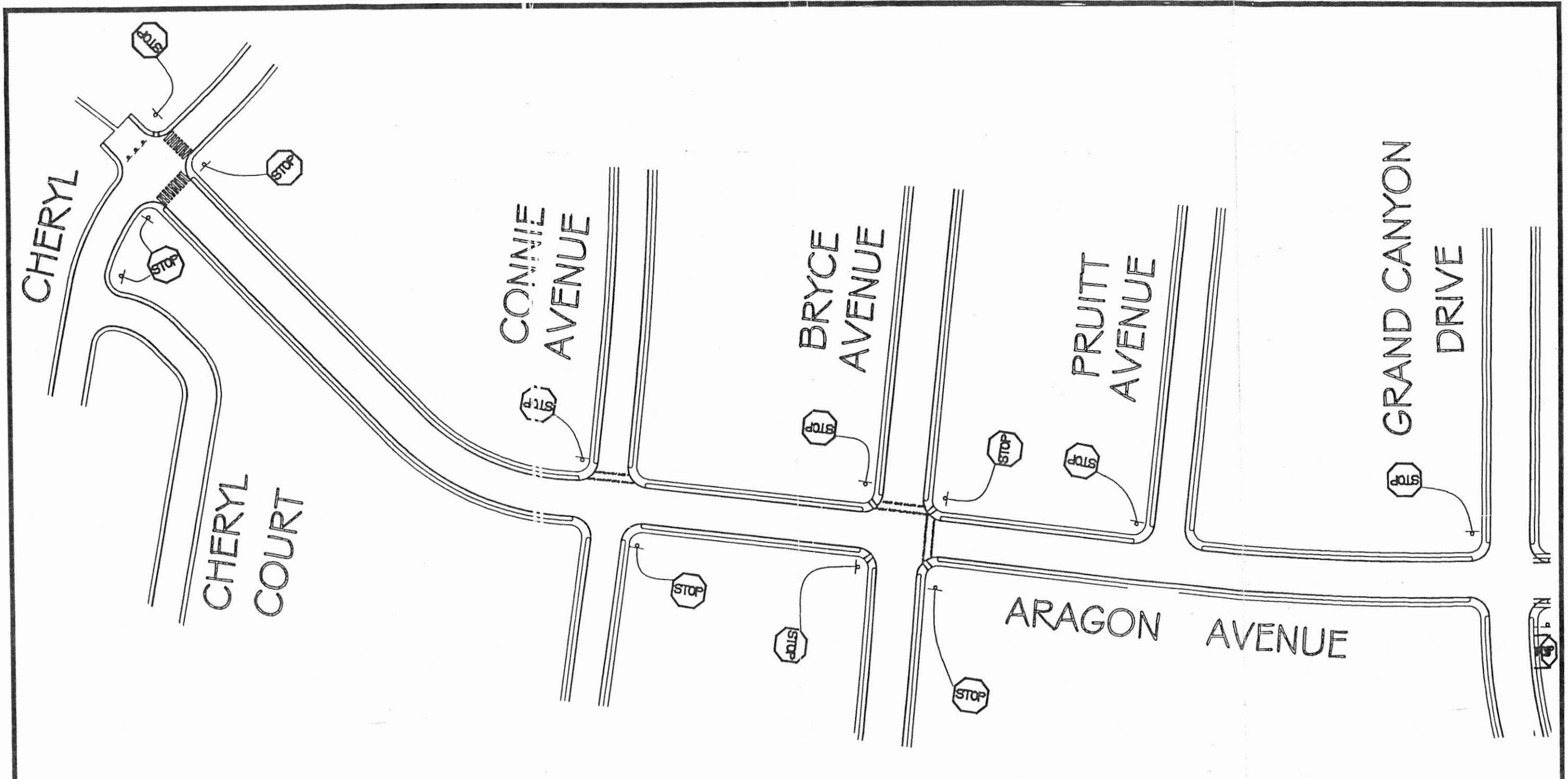
## Original Routes to School



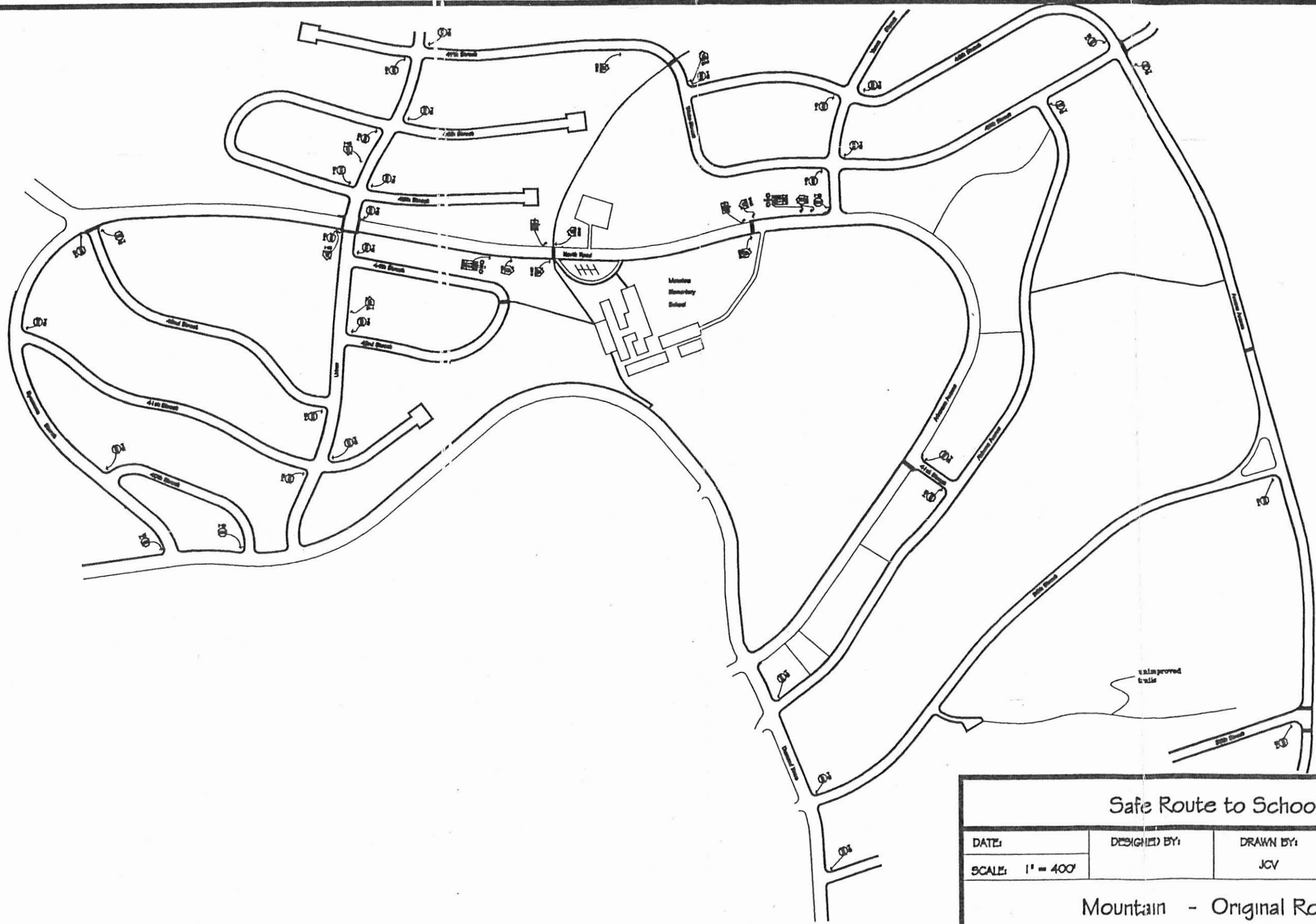
Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 200'		JCV	
Aspen - Original Route			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>



Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 100'		JCV	
Barranca - Original Site			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>

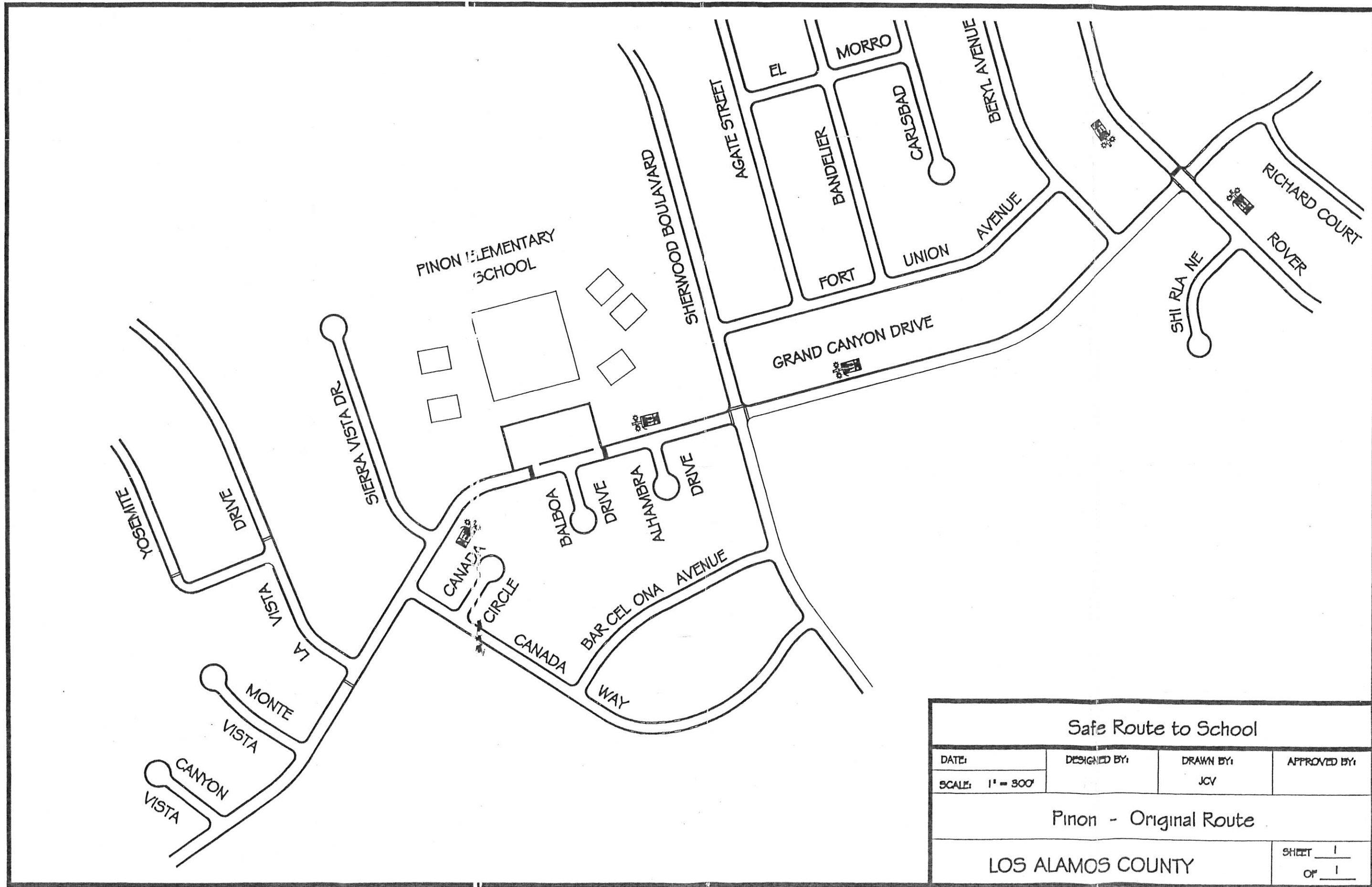


Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 100'		JCV	
Chamisa - Original Route (Aragon)			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>



Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 400'		JCV	
Mountain - Original Route			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>

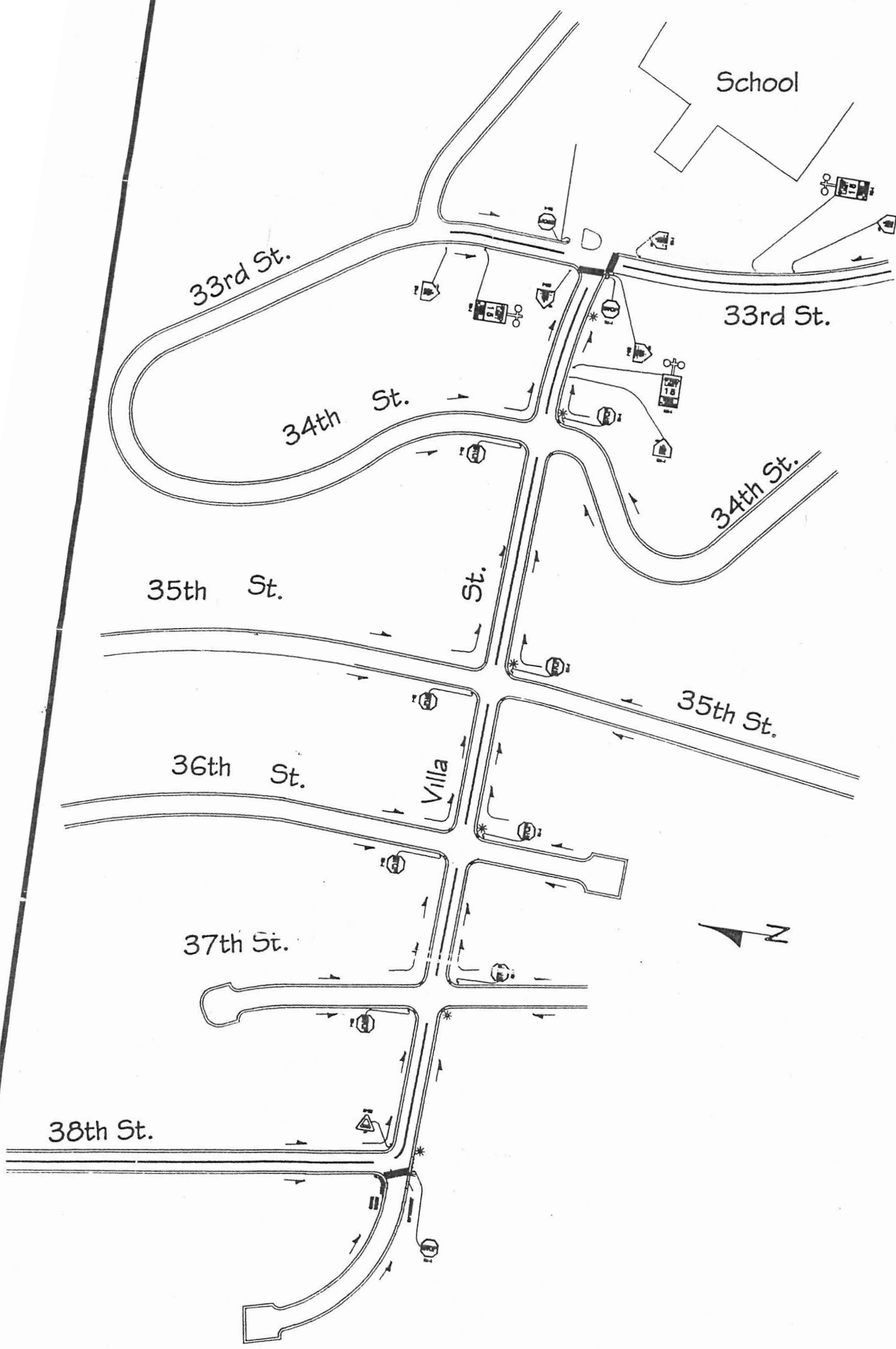




Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 300'		JCV	
Pinon - Original Route			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>

# Appendix C

## Safe Routes to School

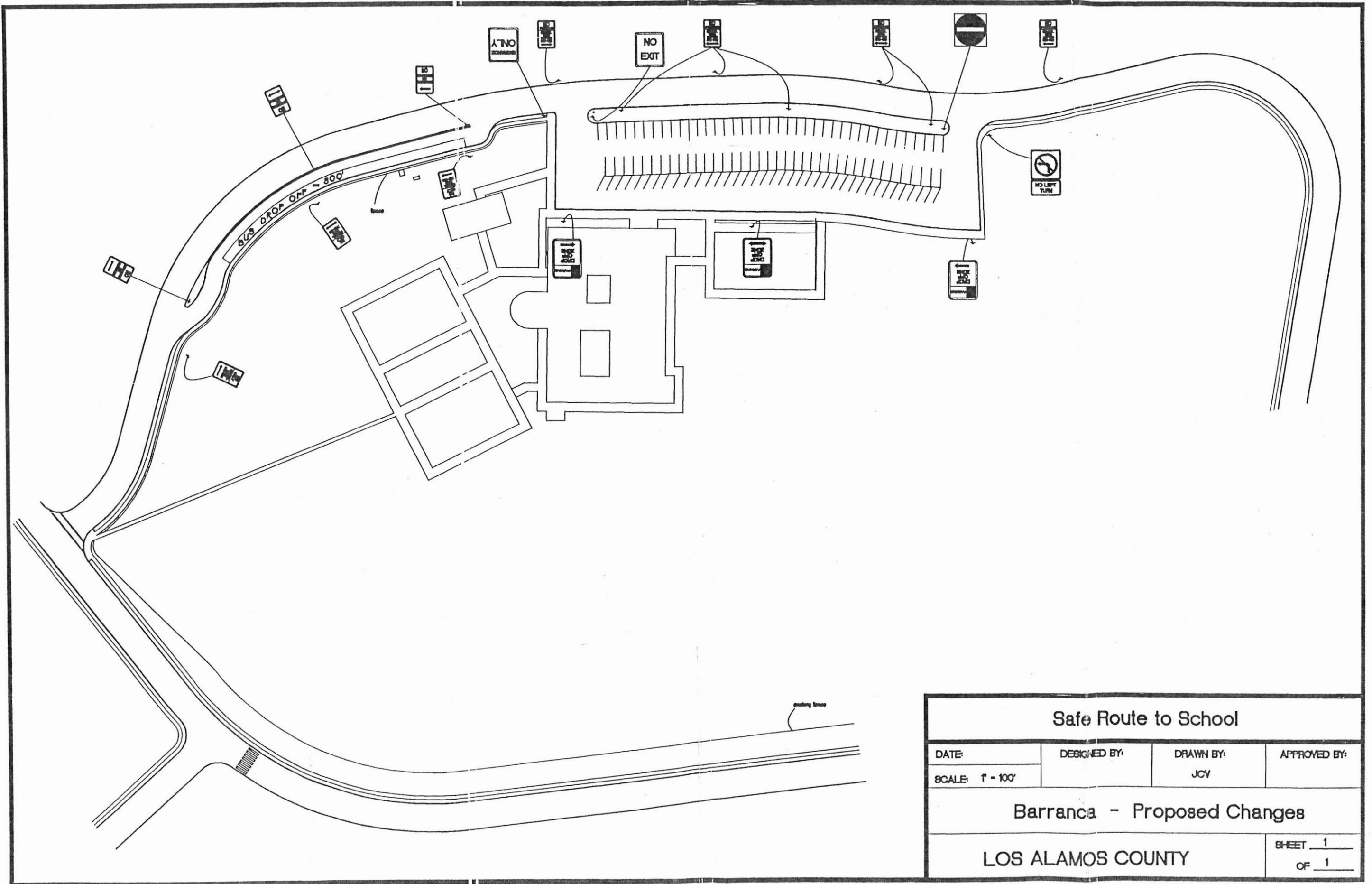


Safe Route to School

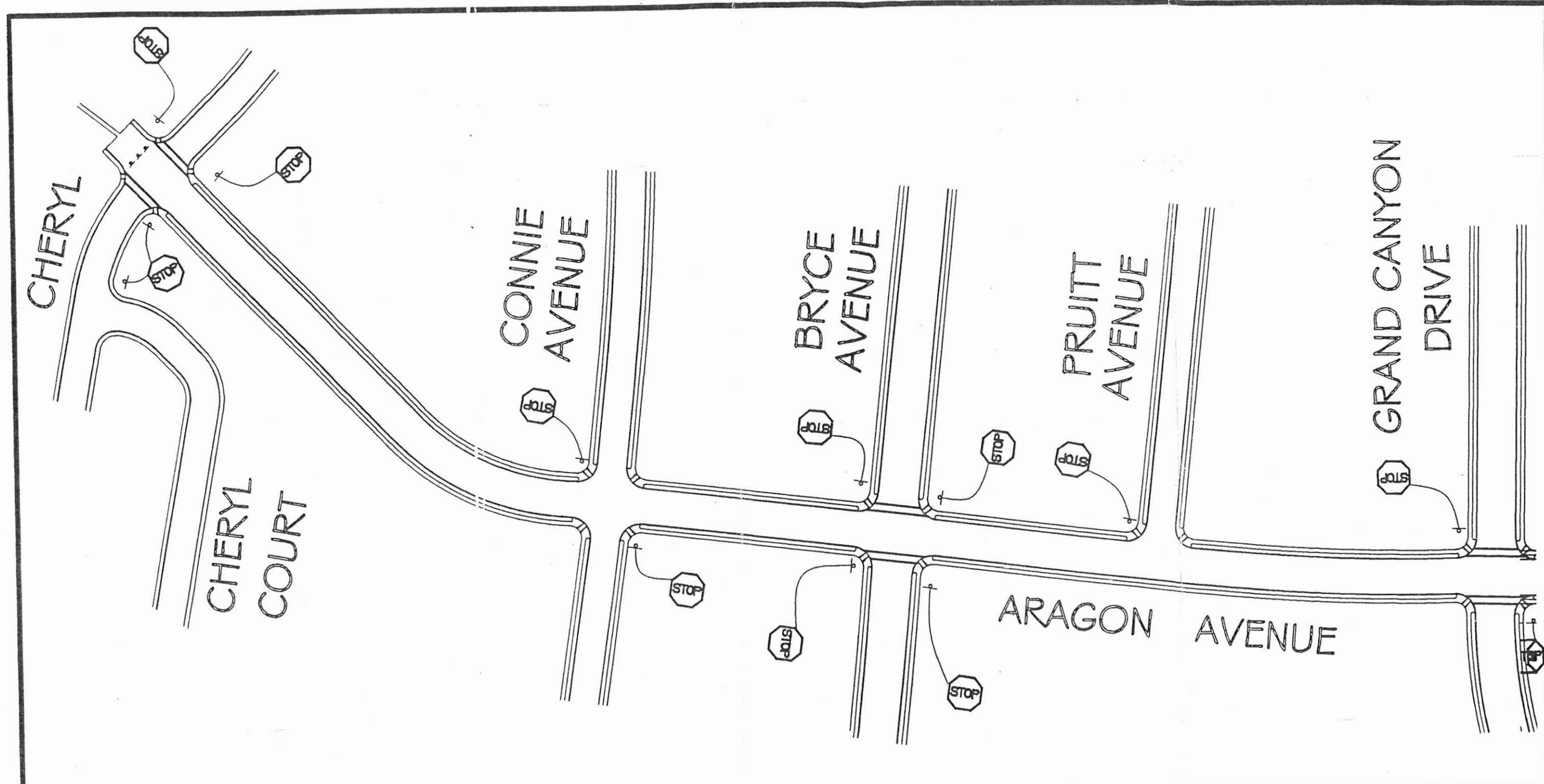
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 200'		JCV	

Aspen - Adopted Route

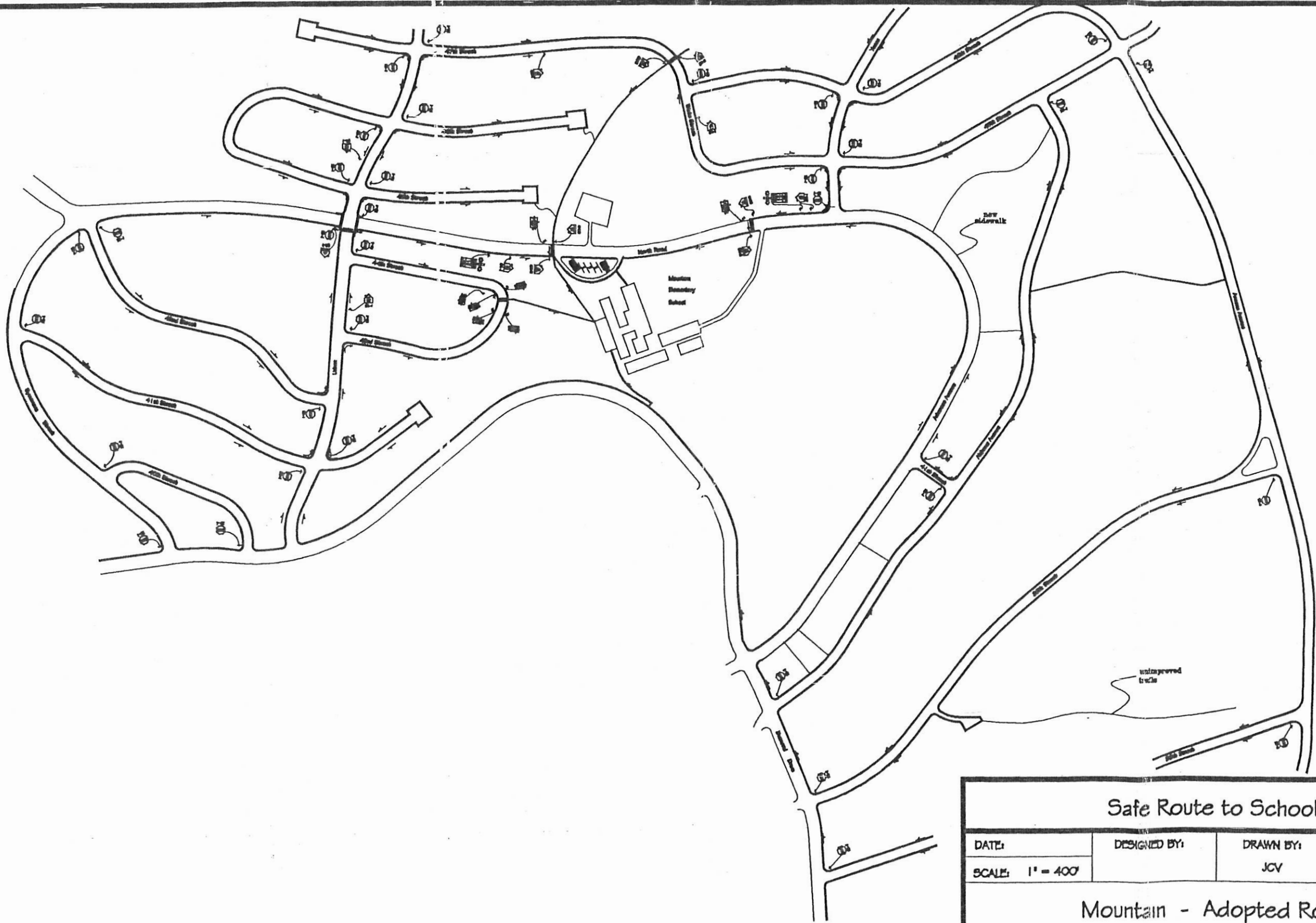
LOS ALAMOS COUNTY



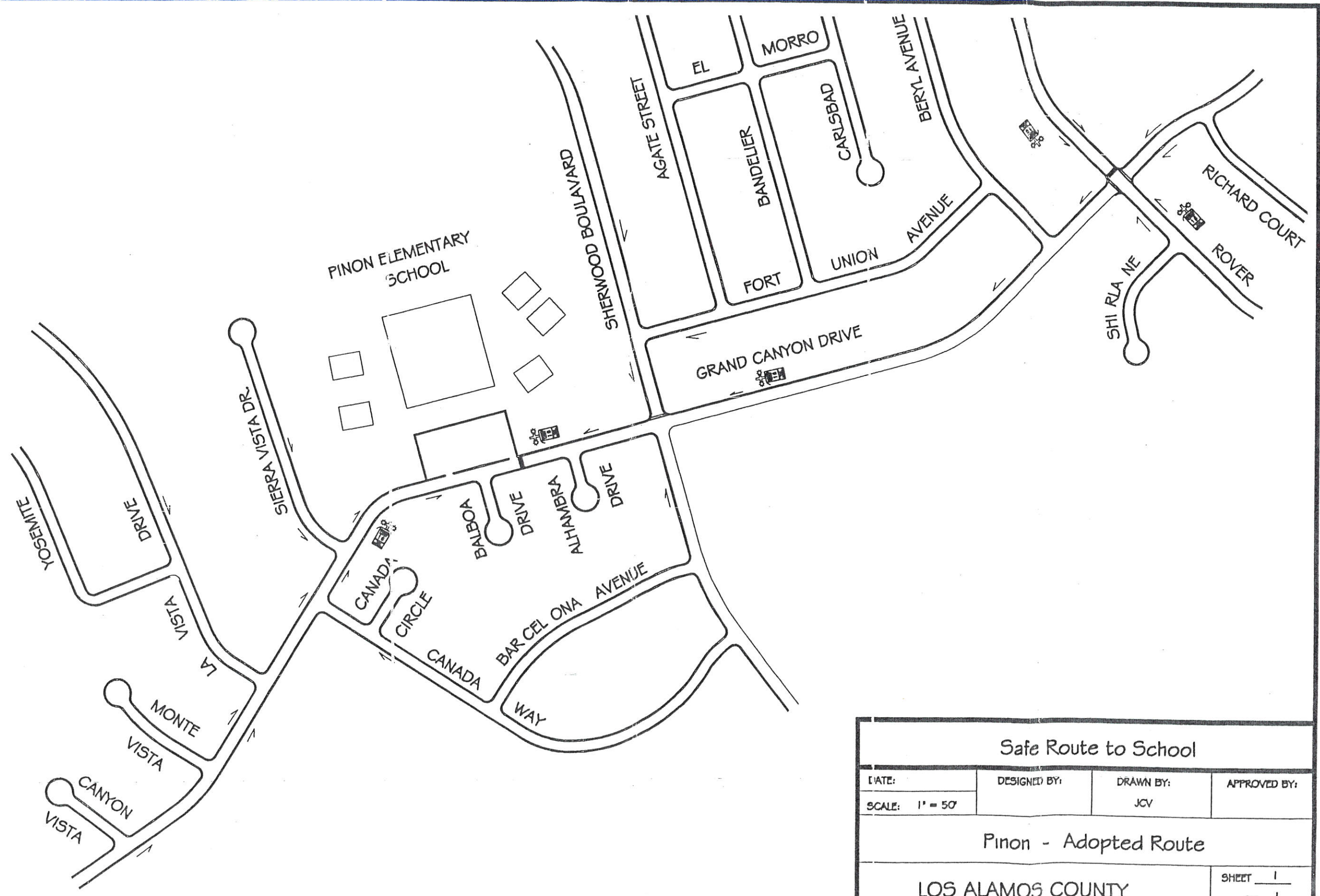
Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 100'		JCV	
Barranca - Proposed Changes			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>



Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 100'		JCV	
Chamisa - Adopted Route (Aragon)			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>



Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 400'		JCV	
Mountain - Adopted Route			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>



Safe Route to School			
DATE:	DESIGNED BY:	DRAWN BY:	APPROVED BY:
SCALE: 1" = 50'		JCV	
Pinon - Adopted Route			
LOS ALAMOS COUNTY			SHEET <u>1</u> OF <u>1</u>

# Appendix D

## Sample Safe Routes to School Presentation



# SAFE ROUTES TO SCHOOL

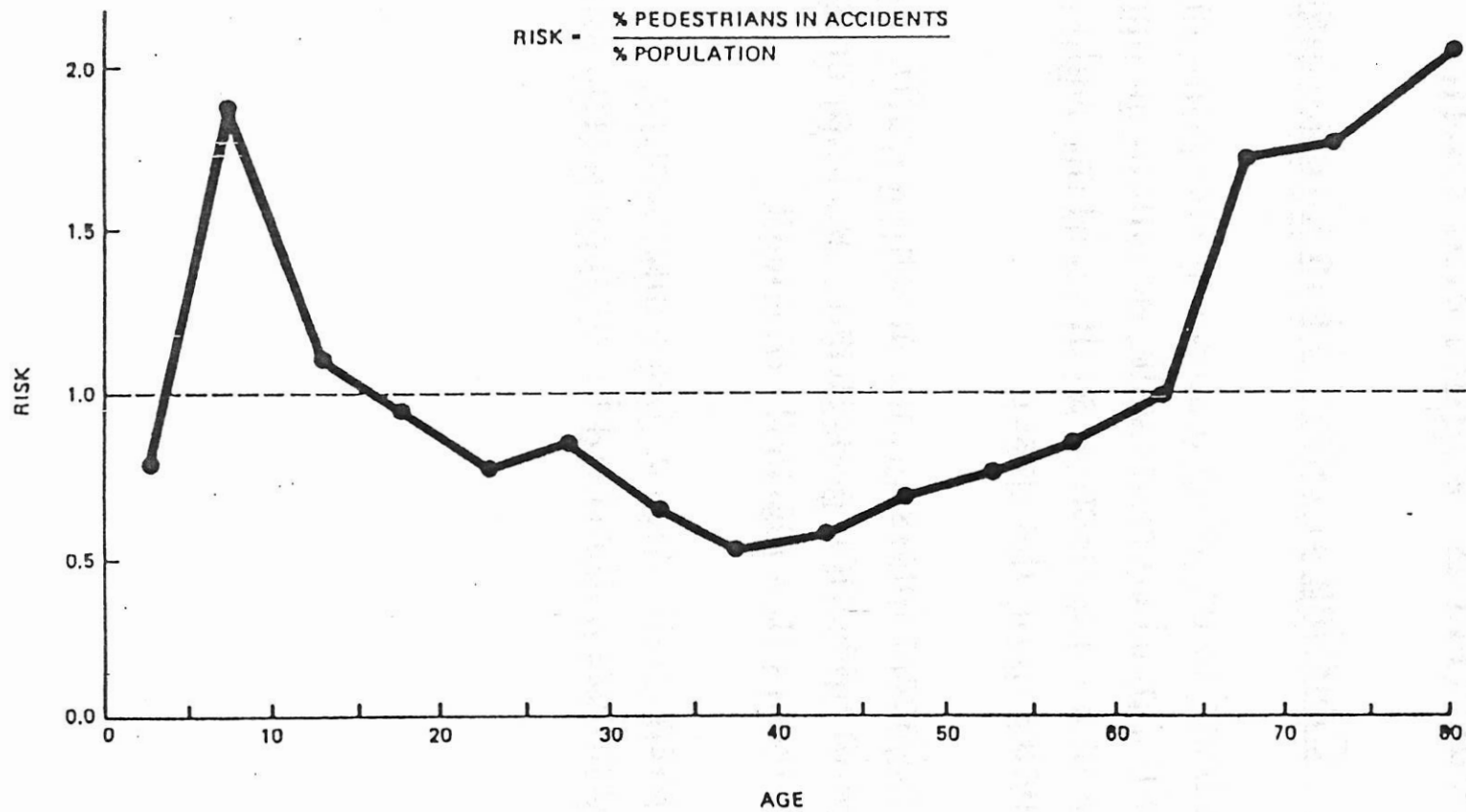
The safe routes to school program was developed because school children have the highest risk factor for being involved in a pedestrian accident. The purpose of this program is to provide increased safety for the children who walk to school on a regular basis.

## **Guidelines for Development of a Plan:**

- Have children gather as quickly as possible. Groups of children are more easily seen by drivers.
- Street crossings should be kept to a minimum especially non-controlled. Children should cross as few streets as possible on their way to school. The number of locations where drivers need to watch for children crossing should be minimized.
- When ever possible children should cross streets where drivers must stop or slow down at a yield sign. Do not allow children to cross collector-distributors when it can be avoided.
- Use sidewalks where available. If they are not available, have the children walk facing traffic.
- Avoid mid-block crossings.
- Avoid high-speed (greater than 40 mph), high-volume roadways.
- Adherence to uniform standards and safety provisions are critical contributing factors to improving the overall pedestrian accident problem.
- Education and training of children. Parents have the best opportunity to see and correct poor pedestrian practices of their children. Children learn by example.

# YOUNG PEDESTRIANS AT RISK

- National Safety Council statistics indicate that **30% of all pedestrian fatalities occur to school age children, ages 5 to 14**. This is more than twice the experience of any other age group.
- Pedestrian traffic accidents are generally severe.
- Boys consistently have more accidents than do girls.
- Young pedestrians are more vulnerable and more at risk than the mature pedestrians because:
  - Impulsive and tend to do things without thinking first.
  - Believe that if they can see a driver, the driver can see them.  
(60% of children involved in accidents did not see the vehicle.)
  - Believe cars can stop instantly.
  - Cannot judge speed of traffic or distances accurately.
  - Child's field of vision is one-third of an adult's.
  - Do not recognize or react to unsafe situations.
  - Small stature makes them less likely to be seen.
  - Difficulty in evaluating a traffic situations correctly.
  - Easily preoccupied or distracted.
  - Difficulty in discriminating right from left.
  - Difficulty in correctly perceiving the direction of sounds and speed of vehicles.
  - Many believe that the safest way to cross the street is to run.



**Figure 1-10.** Pedestrian intersection accident risk by age, based on exposure.  
 SOURCE: H.D. ROBERTSON AND E.C. CARTER, "The Safety, Operational, and Cost Impacts of Pedestrian Indications at Signalized Intersections," *Transportation Research Record*, 959 (1984), 4.

# COUNTY CODE

## Pedestrians' Rights and Duties

### 10.09.004 Crossing at Other Than Crosswalks.

- A. Every pedestrian crossing a street at any point other than within a marked crosswalk, or within an unmarked crosswalk at an intersection shall yield the right of way to all vehicles upon the street.
- B. Between adjacent intersections at which traffic control signals are in operation pedestrians shall not cross at any place except in a marked crosswalk.
- C. No pedestrian shall cross a street intersection diagonally unless authorized by official traffic control devices.

# COUNTY CODE

## Pedestrians' Rights and Duties

### 10.09.002 Pedestrians' right of way in crosswalks.

- A. When traffic control signals are not in place or not in operation the driver of a vehicle shall yield the right of way, slowing down or stopping if need be to so yield, to a pedestrian crossing the street within a crosswalk when the pedestrian is upon the half of the street upon which the vehicle is traveling, or when the pedestrian is approaching so closely from the opposite half of the street as to be in danger.
- B. No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield.
- C. Subsection A of this section shall not apply under the conditions stated in Section 10.09.004.
- D. Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the street, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.

# COUNTY CODE

## Pedestrians' Rights and Duties

### 10.05.015 School Crossings.

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- A. Crosswalks may be established over streets abutting a school or the grounds adjacent thereto, and all children crossing the streets shall be required to do so within the marked crosswalks. The traffic engineer shall establish and mark, or cause to be marked, these street crossings.
- B. School crossings are not required to be specifically posted when they are located:
1. At a signalized intersection
  2. At an intersection where traffic is controlled by a stop sign
  3. At a point where a pedestrian tunnel or overhead crossing is provided.

# DECISION SIGHT DISTANCE

## The Distance Required for a Driver to:

- **DETECT** an unexpected or otherwise difficult-to-perceive source or hazard in a roadway.  
(Is something there?)
- **RECOGNIZE** the source or hazard or its threat potential. (What is it and will it affect me?)
- **SELECT** an appropriate speed. (Should I slow down or speed up?)
- **SELECT** an appropriate path. (Can I stop in time or should I find another route?)
- **INITIATE** a required safety maneuver. (Move the foot from the accelerator to the brake and begin to press)
- **EXECUTE** the required safety maneuver. (Steer the vehicle in the proper direction)
- **COMPLETE** the required maneuver safely and efficiently. (Bring the vehicle to a stop in a reasonable manner)

TABLE 6-8  
Decision Sight Distances

Design Speed (mph)	Decision Sight Distance for Avoidance Maneuver (ft)				
	A	B	C	D	E
30	220	500	450	500	625
40	345	725	600	725	825
50	500	975	750	900	1,025
60	680	1,300	1,000	1,150	1,275
70	900	1,525	1,100	1,300	1,450

The following are typical avoidance maneuvers covered in the above table.

- Avoidance Maneuver A: Stop on rural road.
- Avoidance Maneuver B: Stop on urban road.
- Avoidance Maneuver C: Speed/path/direction change on rural road.
- Avoidance Maneuver D: Speed/path/direction change on suburban road.
- Avoidance Maneuver E: Speed/path/direction change on urban road.

SOURCE: *A Policy on Geometric Design of Highways and Streets* (Washington, DC: American Association of State Highway and Transportation Officials, 1990).



# Appendix E

## Sample School Flasher Schedules-

LOS ALAMOS COUNTY TRAFFIC MANAGEMENT  
 SCHOOL FLASHER SCHEDULE 1996 - 1997

Aspen Elementary:

<u>M T</u>	<u>TH F</u>		<u>Wednesday</u>	
7:50	On		7:50	On
8:20	Off		8:20	Off
11:00	On		11:00	On
11:30	Off		11:30	Off
11:40	On		11:40	On
12:05	Off		12:05	Off
3:05	On		12:15	On
3:35	Off		12:45	Off
			1:25	On
			1:55	Off

Barranca Elementary:

<u>M T</u>	<u>TH F</u>		<u>Wednesday</u>	
7:50	On		7:50	On
8:20	Off		8:20	Off
10:45	On		10:45	On
11:15	Off		11:15	Off
11:30	On		12:10	On
12:00	Off		12:40	Off
3:05	On			
3:35	Off			

\*Solar flashers have same programming as electric.

Chamisa Elementary:

<u>M T</u>	<u>TH F</u>		<u>Wednesday</u>	
7:50	On		7:50	On
8:20	Off		8:20	Off
11:10	On		9:55	On
12:15	Off		10:35	Off
3:10	On		11:55	On
3:40	Off		12:25	Off

Los Alamos Middle School:

<u>M T W</u>	<u>TH F</u>	
7:35	On	
8:05	Off	
2:55	On	
3:25	Off	

LOS ALAMOS COUNTY TRAFFIC MANAGEMENT  
 SCHOOL FLASHER SCHEDULE 1996 - 1997  
 Page 2

Mountain Elementary:

M	T	TH	F
7:50			On
8:20			Off
10:45			On
11:15			Off
11:30			On
12:00			Off
3:05			On
3:35			Off

Wednesday	
7:50	On
8:20	Off
10:45	On
11:15	Off
12:20	On
12:50	Off

Pinon Elementary:

M	T	TH	F
7:50			On
8:20			Off
11:00			On
12:05			Off
3:05			On
3:35			Off

Wednesday	
7:50	On
8:20	Off
11:00	On
12:40	Off
1:25	On
1:55	Off

Pinon Elementary Solar on Rover:

M	T	TH	F
7:45			On
8:15			Off
11:05			On
12:00			Off
3:10			On
3:40			Off

Wednesday	
7:45	On
8:15	Off
11:05	On
12:45	Off
1:30	On
2:00	Off

# Appendix F

## Designated Community Crossings

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Aspen Elementary**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
33rd @ Villa	Flasher Controlled Intersection	NC	S=274' N=225'	Yes	Good	Good	Good	25 15 w/flashers
Villa @ 33rd	Stop Controlled Intersection	NC		Yes	Good	Flashers	Good	25 15 w/flashers
Villa @ 38th	Stop Controlled Intersection	18		No	Good		Good	25

NC = No Count Taken Due to Designated School Crossing

S = Southbound Approach  
 N = Northbound Approach  
 W = Westbound Approach  
 E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Barranca Elementary**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
Loma del Escolar W @ Barranca	Stop Controlled Intersection	NC		No			Good	25
Loma del Escolar E @ Barranca	Stop Controlled Intersection	122		No			Good	25
Barranca @ Loma del Escolar	Flasher Controlled Intersection	60	E=576' W=1286'	No	Good	Flashers	Good	30 15 w/flashers
Barranca @ Camino Encantado	Flasher Controlled Mid-Block	53	E=1104' W=320'	Yes		Flashers	Fair	30 15 w/flashers
Barranca @ Dos Brazos	Flasher Controlled Intersection	14	No: E=466' W=1250'	No		Flashers (2)	Good	30 15 w/flashers

NC = No Count Taken Due to Designated School Crossing

S = Southbound Approach  
N = Northbound Approach  
W = Westbound Approach  
E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Chamisa Elementary**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
Meadow Lane @ Joya Loop	Flasher Controlled Intersection	100	W=699' E=802'	2	Good	Good	Good	25 15 w/flashers
E. Cheryl @ Aragon	Stop Controlled Intersection	144		No			Good	25
Bryce @ Aragon	Stop Controlled Intersection	56		2			Good	25
Rover @ Meadow Lane	Non-Controlled Intersection	7	N=600' S=550'	No	Good	None	Fair	25

S = Southbound Approach  
 N = Northbound Approach  
 W = Westbound Approach  
 E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Los Alamos Middle School**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
San Ildefonso @ Camino Redondo	Non-Controlled Intersection	16	E=739' W=440'	No	Good	Good	Good	30
San Ildefonso @ Hawk Drive	Non-Controlled Intersection	NC	E=1029' W=552'	Yes	Good	Flashers	Good	35 15 w/flashers
North Mesa Rd. @ Loma Linda Dr.	Non-Controlled Intersection	13	E=510' W=166'	Yes	Good	Flashers	Poor	35 15 w/flashers

NC = No Count Taken Due to Designated School Crossing

S = Southbound Approach  
N = Northbound Approach  
W = Westbound Approach  
E = Eastbound Approach



**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Mountain Elementary**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
North Rd. (N) @ Mountain School	Mid-Block Flasher Controlled	NC	S=276' N=406'	Yes	Good	Flashers	Good	25 15 w/flashers
North Rd. (S) @ Mountain School	Mid-Block Flasher Controlled	NC	S=797' N=393'	Yes	Good	Flashers	Good	25 15 w/flashers
Urban @ North Rd.	Non-Controlled Intersection	NC	W=473' E=909'	Yes	Good	Good	Good	25
North Rd. (N) @ Urban	Stop Controlled Intersection	NC		Yes			Good	25
North Rd. (S) @ Urban	Stop Controlled Intersection	NC		Yes			Good	25
White @ 47th St. Trail	Mid-Block Non-Controlled	29	N=454' S=152'	No	Good	Good	Poor	25
44th @ 43rd	Mid-Block Non-Controlled	21	44th=75' 43rd=125'	No	Good	Good	Good	25

NC = No Count Taken Due to Designated School Crossing

S = Southbound Approach  
N = Northbound Approach  
W = Westbound Approach  
E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Pinon Elementary**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
Rover @ Grand Canyon	Intersection Flasher Controlled	NC	N=473' S=601'	Yes	Good	Good	Good	25 15 w/flashers
Grand Canyon @ Pinon School	Mid-Block Flasher Controlled	NC	W=471' E=1352'	Yes	Good	Good	Good	25 15 w/flashers
Grand Canyon E. @ Rover	Stop Controlled Intersection	NC		Yes			Good	25
Grand Canyon W. @ Rover	Stop Controlled Intersection	NC		Yes			Good	25
Sherwood @ Grand Canyon	Stop Controlled Intersection	NC		Yes			Good	25

NC = No Count Taken Due to Designated School Crossing

S = Southbound Approach

N = Northbound Approach

W = Westbound Approach

E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Signalized Intersections**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
Trinity / Knecht	Signal Controlled Intersection	136		4			Good	
Trinity / 15th	Signal Controlled Intersection	89		4			Good	
Trinity / Oppenheimer	Signal Controlled Intersection	84		4			Good	
Central / 15th	Signal Controlled Intersection	458		4			Good	
Diamond / West Rd.	Signal Controlled Intersection	289		2			Good	
Diamond / Trinity	Signal Controlled Intersection	168		3+			Good	
Diamond / Canyon	Signal Controlled Intersection	90					Good	
Diamond / Sandia-Orange	Signal Controlled Intersection	256		4			Good	
Diamond / Pueblo	Signal Controlled Intersection	16		2 Need 1			Good	
Diamond / Arkansas	Signal Controlled Intersection	64		4			Good	
SR4 / Rover	Signal Controlled Intersection	NC*		2			Good	

\* NC = No Count Available

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
Los Alamos Townsite**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
Central @ Post Office	Mid-Block Non-Controlled	1026	E=390' W=503'	Yes	Good	No	Good	25
Central @ CB Fox	Mid-Block Non-Controlled	108	E=574' W=~500'	Yes	Good	No	Good	25
Central @ Municipal Bldg.	Mid-Block Non-Controlled	68	E=428' W=452'	Yes	Good	No	Good	25
Central @ Oppenheimer	Non-Controlled Intersection	18	E=385' W=277'	Yes	Good	No	Good	25
Oppenheimer (S) @ Central	Stop Controlled Intersection	84		Yes			Good	25
Central @ 20th St.	Non-Controlled Intersection	108	E=498' W=724'	Yes	Good	No	Good	25
Central @ 6th	Non-Controlled Intersection	NC	E=1157' W=178'	Yes	Good	Good	Good	25
Canyon @ Central	Stop Controlled Intersection	NC		Yes			Good	35
Trinity @ 45th Path	Mid-Block Non-Controlled	10	E=315' W=589'	Yes	Good	No	Good	25
Trinity @ 41st Path	Non-Controlled Intersection	26	E=545' W=190'	Yes	Good	No	Good	25
Trinity @ 43rd	Non-Controlled Intersection	16	No:W=330' E=370'	No	No	No	Poor	25
Trinity @ 47th	Non-Controlled Intersection	4	No:W=375' E=356'	No	No	No	Poor	25
Tewa Loop @ East Dr.	Intersection Non-Controlled	31	N=262' S=40'	No	No	No	Poor	25
Golf Course Driveway	Mid-Block Non-Controlled	123	E=806' W=932'	No	Good	Good	Good	40
Golf Course (West)	Mid-Block Non-Controlled	85	E=850+ W=850+	Yes	Good	Good	Good	40

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Inventory  
White Rock**

Location	Crosswalk Type	Number of Pedestrians per 12 Hours	Sight Visibility	Curb Cuts	Pedestrian Crossing Signs	Advance Crossing Signs	Roadway Lighting	Posted Speed Limit (mph)
Meadow Lane @ Overlook Road	Non-Controlled Intersection	26	E=398 W=842	Yes	Yes	None	Good	25
Bryce @ Covenant Christian School	Mid-Block Non-Controlled Intersection	NC	E=554' W=433'	No	Yes	Yes	Good	25
Rover @ Glenview	Non-Controlled Intersection	5	E=205' W=364'	Yes	Yes	None	Good	25
Sherwood @ Smiths	Mid-Block Non-Controlled Intersection	10	N=320' S=550'	No	Yes	Yes	Good	25
Rover @ 321 Rover	Mid-Block Non-Controlled Intersection	2	W=331' E=500'	No	Yes	None	Good	25
Piedra Loop @ Sherwood	Non-Controlled Intersection	9	E=354' SW=402'	No	None	None	Good	30
Piedra Loop @ Piedra Drive	Non-Controlled Intersection	NC	E=234' NW=433'	No	Yes	1	Poor	30
La Senda Rd.	Mid-Block Non-Controlled Intersection	NC	E=385' W=313'	No	Yes	None	Poor	30

NC = No Count Available  
S = Southbound Approach  
N = Northbound Approach  
W = Westbound Approach  
E = Eastbound Approach

# Appendix G

## Crosswalk Warrant Evaluations

The following crosswalk warrants will be used to insure that marked crosswalk are installed in a uniform manner throughout Los Alamos County. This uniformity will improve pedestrian safety by increasing driver expectancy.

Seven different crosswalk warrant criteria shall be used as follows:

- **Crosswalk Type:**

Signalized intersections shall have marked crosswalks unless an engineering study determines differently.

If a marked crosswalk is installed, it should be installed at an intersection.

Marked crosswalks should not be installed at mid-block locations. If possible, move them to nearby intersections.

- **Number of Pedestrians per 12 hour period:**

The national standards for marked crosswalk installation based on pedestrian volume are 100 pedestrians per hour for signalized intersections and 40 per hour for unsignalized intersections.

In Los Alamos, we have dropped these numbers down to 100 pedestrians per 12 consecutive hours. This is equivalent to only 8.33 per hour.

- **Decision Stopping Sight Distance:**

This distance is required for a driver to detect an unexpected or difficult-to-perceive hazard in or near a marked crosswalk, recognize the hazard, select an appropriate speed or path, and initiate and complete the required safety maneuver.

The following decision sight distance chart will be used for crosswalk installation because it gives drivers an additional margin for error and sufficient length to maneuver their vehicles in a safe manner. Due to this, its values are greater than regular stopping sight distance.

85 <sup>th</sup> Percentile Speed Or Design Speed (mph)	Urban Areas: Decision Stopping Sight Distance (ft.)
15	200
20	275
25	380
30	500
35	610
40	725
45	850
50	975

- **Curb Cuts:**  
All marked crosswalks shall be accompanied by curb cut ramps in order to meet the American with Disabilities Act.
- **Pedestrian System:**  
A marked crosswalk must be part of a pedestrian system connected to sidewalks on both sides of the crosswalk. The crosswalk should not be installed at a location that forces pedestrians to walk in an awkward location.
- **Roadway Lighting:**  
A marked crosswalk shall be well lit because it will be used at night. Night visibility at a marked crosswalk is imperative to the pedestrian's safety.
- **Road Speed:**  
A marked crosswalk shall not be installed on a high-speed road unless it is located at a controlled intersection. In New Mexico, a high-speed road is classified as any road with a speed limit greater than 35 mph.

Attached are the Crosswalk Warrant Evaluation sheets for Los Alamos County and their recommendations.

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Aspen Elementary**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road (35 mph or Less)	Recommendation
33rd @ Villa	Yes: Flasher Controlled Intersection	Yes: School	NC	Yes: With School Flashers No: S=274' N=225'	Yes	Yes	Yes	Yes: 25 15 w/flashers	Retain for School Xing: Xing Guard Program Recommended to School
Villa @ 33rd	Yes: Stop Controlled Intersection	Yes: School	NC	N/A	Yes	Yes	Yes	Yes: 25 15 w/flashers	Retain for School Xing
Villa @ 38th	Yes: Stop Controlled Intersection	Yes: School	No: 18	N/A	No	Yes	Yes	Yes: 25	Retain for School Xing: Install Curb Cuts When Sidewalk Improved

NC = No Count Taken Due to Designated School Crossing  
 N/A = Not Applicable  
 DSSD = Decision Stopping Sight Distance  
 S = Southbound Approach  
 N = Northbound Approach  
 W = Westbound Approach  
 E = Eastbound Approach



**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Barranca Elementary**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road (35 mph or Less)	Recommendation
Loma del Escolar W @ Barranca	Yes: Stop Controlled Intersection	Yes: School	NC	N/A	No	Yes	Yes	Yes: 25	Retain for School Xing: Install Curb Cuts When Sidewalk Improved
Loma del Escolar E @ Barranca	Yes: Stop Controlled Intersection	Yes: School	Yes: 122	N/A	No	Yes	Yes	Yes: 25	Retain for School Xing: Install Curb Cuts When Sidewalk Improved
Barranca @ Loma del Escolar	Yes: Flasher Controlled Intersection	Yes: School	No: 60	Yes: E=576' W=1286'	No	Yes	Yes	Yes: 30 15 w/flashers	Retain for School Xing: Install Curb Cuts When Sidewalk Improved
Barranca @ Camino Encantado	No: Mid-Block Flasher Controlled	Yes: School	No: 53	Yes: With School Flashers No: E=1104' W=320'	Yes	Yes	Yes	Yes: 30 15 w/flashers	Retain for School Xing: Install Curb Cuts on Camino Encantado @ Barr. When Sidewalk Improved
Barranca @ Dos Brazos	Yes: Flasher Controlled Intersection	Yes: School	No: 14	Yes: With School Flashers No: E=466' W=1250'	No	Yes	Yes	Yes: 30 15 w/flashers	Retain for School Xing: Install Curb Cuts When Sidewalk Improved

NC = No Count Taken Due to Designated School Crossing

N/A = Not Applicable

DSSD = Decision Stopping Sight Distance

S = Southbound Approach

N = Northbound Approach

W = Westbound Approach

E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Chamisa Elementary**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road (35 mph or Less)	Recommendation
Meadow Lane @ Joya Loop	Yes: Flasher Controlled Intersection	Yes: School	Yes = 100	Yes W=699' E=802'	Yes	Yes	Yes	Yes: 25 15 w/flashers	Retain for School Xing
E. Cheryl @ Aragon	Yes: Stop Controlled Intersection	Yes: School	Yes = 144	N/A	No	Yes	Yes	Yes: 25	Reconfigure and Add Xwalk To Parallel Aragon; Install Curb Cuts When Sidewalk Improved
Bryce @ Aragon	Yes: Stop Controlled Intersection	Yes: School	Yes = 56	N/A	Yes	Yes	Yes	Yes: 25	Reconfigure and Add Xwalk That Parallel Aragon
Rover @ Meadow Lane	Yes: Intersection Non-Controlled	Yes: School	No: 7	Yes: N=600' S=550'	No	Yes	Yes	Yes: 25	Retain for School Xing: Install Curb Cuts When Sidewalk Improved

N/A = Not Applicable  
DSSD = Decision Stopping Sight Distance  
S = Southbound Approach  
N = Northbound Approach  
W = Westbound Approach  
E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Los Alamos Middle School**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road: 35 mph or Less	Recommendation
San Ildefonso @ Camino Redondo	No: Mid-Block Non-Controlled	No	No: 16	No: E=739' W=440'	No	No	No	Yes: 30	Remove
San Ildefonso @ Hawk Drive	Yes: Intersection Flasher Controlled	Yes: School	NC	Yes: With School Flashers No: E=1029' W=552'	Yes	Yes	Yes	Yes: 35 15 w/flashers	Retain for School Xing
North Mesa Rd. @ Loma Linda Dr.	No: Mid-Block Flasher Controlled	Yes: School	No: 13	Yes: With School Flashers No: E=510' W=166'	Yes	Yes	Yes	Yes: 35 15 w/flashers	Retain for School Xing but relocate for better visibility

NC = No Count Taken Due to Designated School Crossing

S = Southbound Approach  
N = Northbound Approach  
W = Westbound Approach  
E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Mountain Elementary**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Pedestrian Cuts System	Roadway Lighting	Not High Speed Road (35 mph or Less)	Recommendation
North Rd. (N) @ Mountain School	No:Mid-Block Flasher Controlled	Yes: School	NC	Yes: Wiin School Flashers No: S=276' N=406'	Yes	Yes	Yes	Yes: 25 15 w/flashers Retain for School Xing: Xing Guard Program Recommended to School
North Rd. (S) @ Mountain School	No:Mid-Block Flasher Controlled	Yes: School	NC	Yes: S=797' N=393'	Yes	Yes	Yes	Yes: 25 15 w/flashers Retain for School Xing: Xing Guard Program Recommended to School
Urban @ North Rd.	Yes:Intersection Non-Controlled	Yes: School	NC	Yes:W=473' E=909'	Yes	Yes	Yes	Yes: 25 Retain for School Xing: Xing Guard Program Recommended to School
North Rd. (N) @ Urban	Yes:Intersection Stop Controlled	Yes: School	NC	N/A	Yes	Yes	Yes	Yes: 25 Retain for School Xing
North Rd. (S) @ Urban	Yes: Intersection Stop Controlled	Yes: School	NC	N/A	Yes	Yes	Yes	Yes: 25 Retain for School Xing
White @ 47th St. Trail	No: Mid-Block Non-Controlled	Yes: School Path System	No: 29	No: N=454' S=152'	No	Yes	No	Yes: 25 Retain for School Xing: County Path System
44th @ 43rd	No: Mid-Block Non-Controlled	Yes: School	No: 21	No: 44th=75' 43rd=125'	No	Yes	Yes	Yes: 25 Retain for School Xing Per Council Direction

NC = No Count Taken Due to Designated School Crossing

N/A = Not Applicable

S = Southbound Approach

N = Northbound Approach

W = Westbound Approach

E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Pinon Elementary**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road: 35 mph or Less	Recommendation
Rover @ Grand Canyon	Yes: Intersection Flasher Controlled	Yes: School	NC	Yes: N=473' S=601'	Yes	Yes	Yes	Yes: 25 15 w/flashers	Retain for School Xing: Crossing Guards Used
Grand Canyon @ Pinon School	No: Mid-Block Flasher Controlled	Yes: School	NC	Yes: W=471' E=1352'	Yes	Yes	Yes	Yes: 25 15 w/flashers	Retain for School Xing: Crossing Guards Used
Grand Canyon E. @ Rover	Yes: Stop Controlled Intersection	Yes: School	NC	N/A	Yes	Yes	Yes	Yes: 25	Retain for School Xing
Grand Canyon W. @ Rover	Yes: Stop Controlled Intersection	Yes: School	NC	N/A	Yes	Yes	Yes	Yes: 25	Retain for School Xing
Sherwood @ Grand Canyon	Yes: Stop Controlled Intersection	Yes: School	NC	N/A	Yes	Yes	Yes	Yes: 25	Retain for School Xing

NC = No Count Taken Due to Designated School Crossing

N/A = Not Applicable

S = Southbound Approach

N = Northbound Approach

W = Westbound Approach

E = Eastbound Approach

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Signalized Intersections**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road: 35 mph or Less	Recommendation
Trinity / Knecht	Signal Controlled Intersection								Retain: Signalized
Trinity / 15th	Signal Controlled Intersection								Retain: Signalized
Trinity / Oppenheimer	Signal Controlled Intersection								Retain: Signalized
Central / 15th	Signal Controlled Intersection								Retain: Signalized
Diamond / West Rd.	Signal Controlled Intersection								Retain: Signalized
Diamond / Trinity	Signal Controlled Intersection								Retain: Signalized
Diamond / Canyon	Signal Controlled Intersection								Retain: Signalized
Diamond / Sandia-Orange	Signal Controlled Intersection								Retain: Signalized
Diamond / Pueblo	Signal Controlled Intersection								Retain: Signalized
Diamond / Arkansas	Signal Controlled Intersection								Retain: Signalized
SR4 / Rover	Signal Controlled Intersection								Retain: Signalized

**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
Los Alamos Townsite**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road: 35 mph or less	Recommendation
Central @ Post Office	No: Mid-Block Non-Controlled	No	Yes:1026	Yes:E=390' W=503'	Yes	Yes	Yes	Yes: 25	Retain
Central @ CB Fox	No: Mid-Block Non-Controlled	No	Yes:108	Yes:E=574' W=500'	Yes	Yes	Yes	Yes: 25	Retain
Central @ Municipal Bldg.	No: Mid-Block Non-Controlled	No	No:68	Yes:E=428' W=452'	Yes	Yes	Yes	Yes: 25	Remove
Central @ Oppenheimer	Yes:Intersection Non-Controlled	No	No:18	No:E=385' W=277'	Yes	Yes	Yes	Yes: 25	Remove
Oppenheimer (S) @ Central	Yes:Intersection Stop Controlled	No	No:84	N/A	Yes	Yes	Yes	Yes: 25	Remove: Stop Controlled
Central @ 20th St.	Yes:Intersection Non-Controlled	No	Yes:108	Yes:E=498' W=724'	Yes	Yes	Yes	Yes: 25	Retain
Central @ 6th	Yes:Intersection Non-Controlled	No	No:13	No:E=1157' W=178'	Yes	Yes	Yes	Yes: 25	Remove
Canyon @ Central	Yes:Intersection Stop Controlled	Yes: Irregular	NC	N/A	Yes	Yes	Yes	Yes: 35	Retain
Trinity @ 45th Path	No: Mid-Block Non-Controlled	Yes: Irregular Path	No:10	E=315' W=589'	Yes	Yes	Yes	Yes: 25	Retain: County Path System
Trinity @ 41st Path	Yes:Intersection Non-Controlled	Yes: Irregular Path	No:26	No:E=545' W=190'	Yes	Yes	Yes	Yes: 25	Retain: County Path System
Trinity @ 43rd	Yes:Intersection Non-Controlled	No	No:16	No:W=330' E=370'	No	Yes	No	Yes: 25	Remove
Trinity @ 47th	Yes:Intersection Non-Controlled	No	No:4	No:W=375' E=356'	No	Yes	No	Yes: 25	Remove
Tewa Loop @ East Dr.	Yes:Intersection Non-Controlled	No	No:31	No: N=262' S=40'	No	Yes	No	25	Remove
Golf Course Driveway	No: Mid-Block Non-Controlled	Yes: Irregular	Yes:123	No:E=806' W=932'	No	No	Yes	No: 45	Retain per Council Direction: But Relocate to Club Rd.
Golf Course (West)	No: Mid-Block Non-Controlled	Yes: Irregular	No:85	Yes:E=850+ W=850+	Yes	Yes	Yes	No: 45	Retain per Council Direction

DSSD = Decision Stopping Sight Distance

NC = No Count Available

N/A = Not Applicable

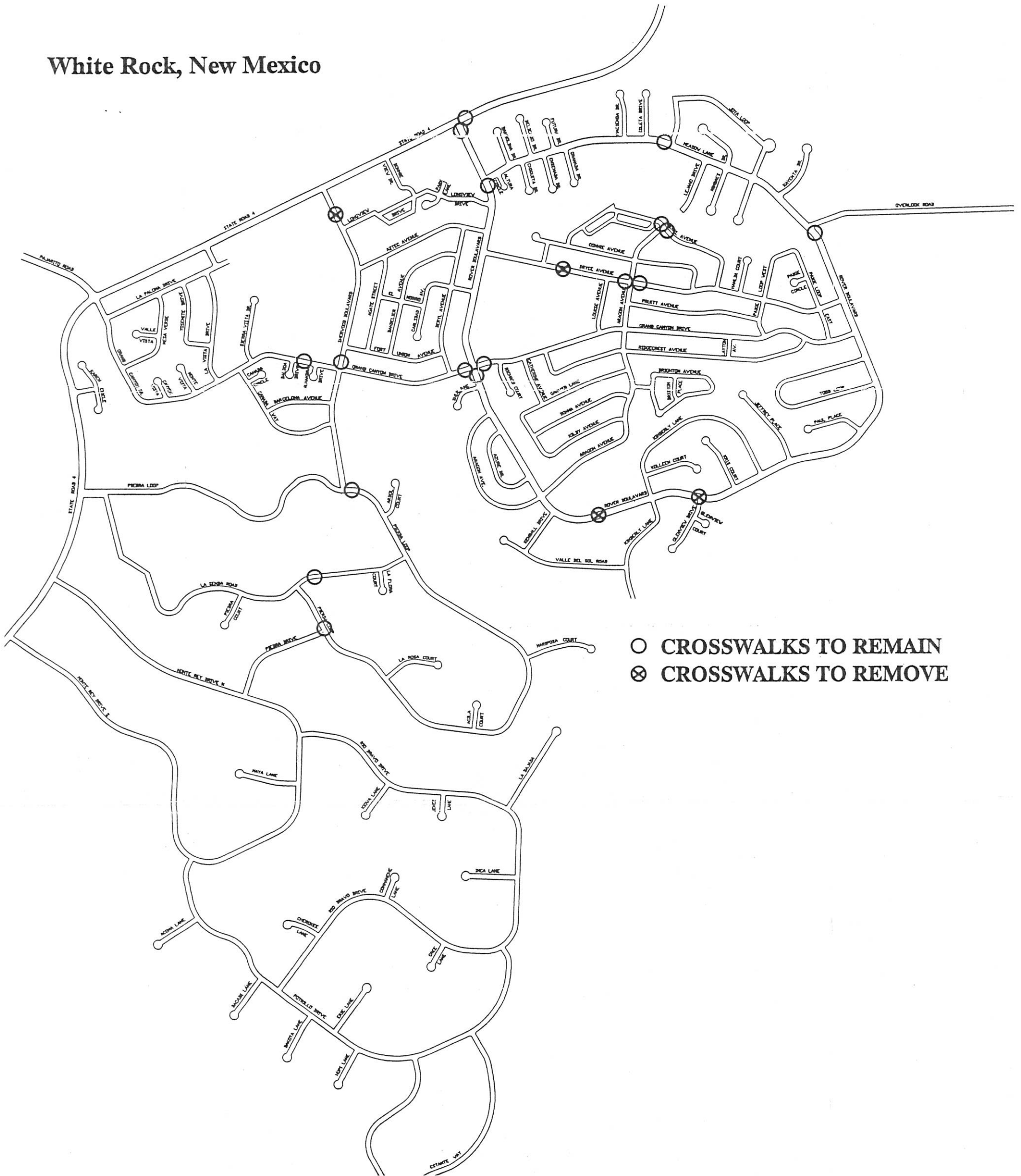
**Los Alamos County Public Works  
Traffic Engineering  
Crosswalk Warrant Evaluation  
White Rock**

Location	Crosswalk Type: Intersection	Crosswalk Designation: School or Irregular	100 Peds or Greater per 12 Hours	Meets DSSD for Non Controlled	Curb Cuts	Pedestrian System	Roadway Lighting	Not High Speed Road: 35 mph or Less	Recommendation
Meadow Lane @ Overlook Road	Yes: Non-Controlled Intersection	No	No: 26	Yes: E=398 W=842	Yes	Yes	Yes	Yes: 25	Retain for Park Events
Bryce @ Covenant Christian School	No: Mid-Block Non-Controlled	No: Was installed for school. FY99 School Closed.	NC	Yes: E=554' W=433'	No	No	Yes	Yes: 25	Remove: School no longer exists
Rover @ Glenview	Yes: Intersection Non-Controlled	No	No: 5	No: E=205' W=364'	No		Yes	Yes: 25	Remove
Sherwood @ Smiths	No: Mid-Block Non-Controlled	No	No: 10	No: N=320' S=550'	No	No	Yes	Yes: 25	Remove
Rover @ 321 Rover	No: Mid-Block Non-Controlled	No	No: 2	No: W=331' E=500'	No	No	Yes	Yes: 25	Remove
Piedra Loop @ Sherwood	Yes: Intersection Non-Controlled	Yes: Path	No: 9	No: E=354' SW=402'	No	Yes	Yes	Yes: 25	Retain: County Path System
Piedra Loop @ Piedra Drive	Yes: Intersection Non-Controlled	Yes: Path	NC	No: E=234' NW=433'	No	Yes	No	Yes: 25	Retain: County Path System
La Senda Rd.	No: Mid-Block Non-Controlled	Yes: Path	NC	No: E=385' W=313'	No	Yes	No	Yes: 25	Retain: County Path System

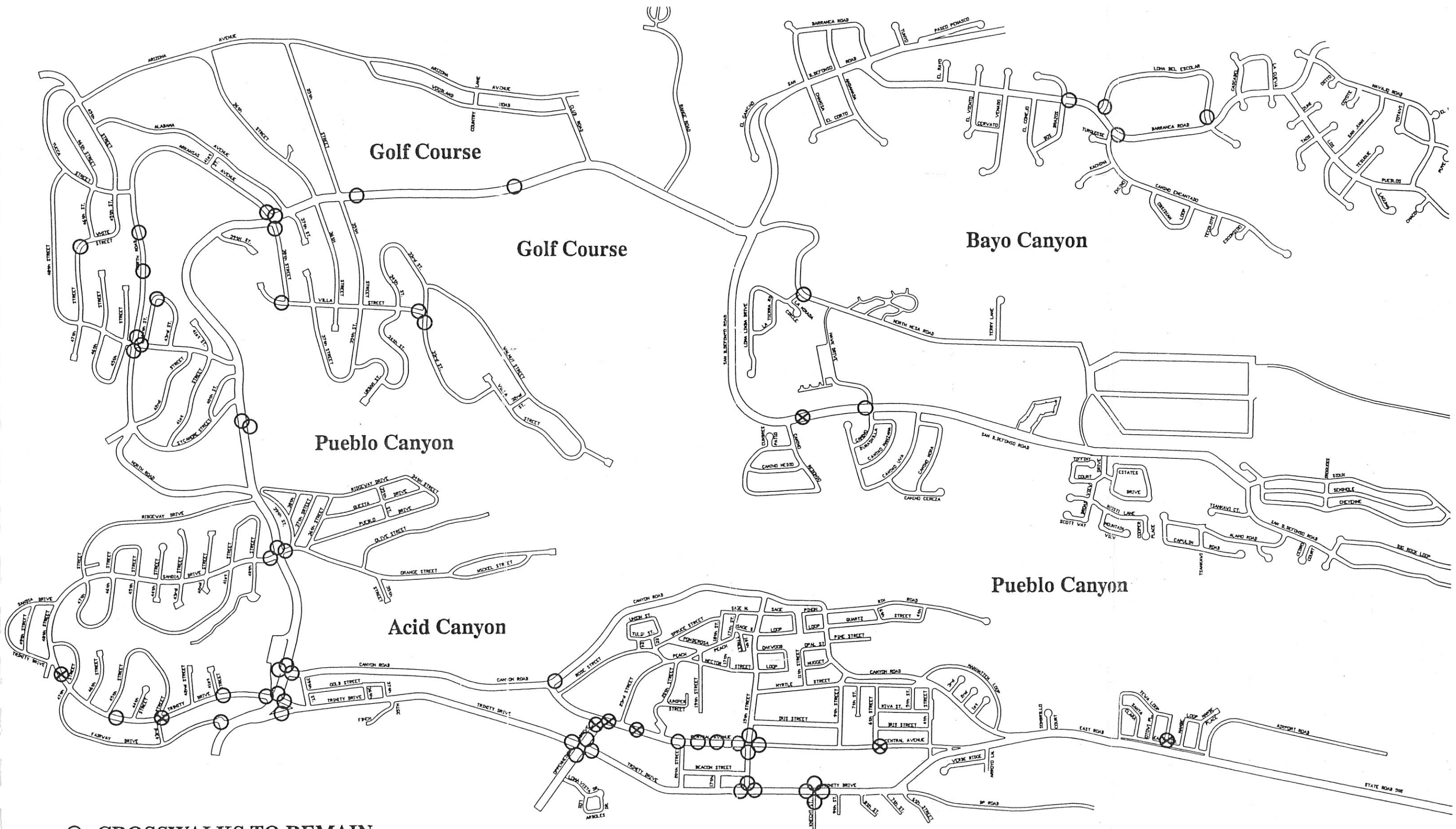
NC = No Count Available  
S = Southbound Approach  
N = Northbound Approach  
W = Westbound Approach  
E = Eastbound Approach



# White Rock, New Mexico



- CROSSWALKS TO REMAIN
- ⊗ CROSSWALKS TO REMOVE



- CROSSWALKS TO REMAIN
- ⊗ CROSSWALKS TO REMOVE
- Ⓟ CROSSWALKS TO RELOCATE

## Los Alamos, New Mexico

# Appendix H

## Sample Studies

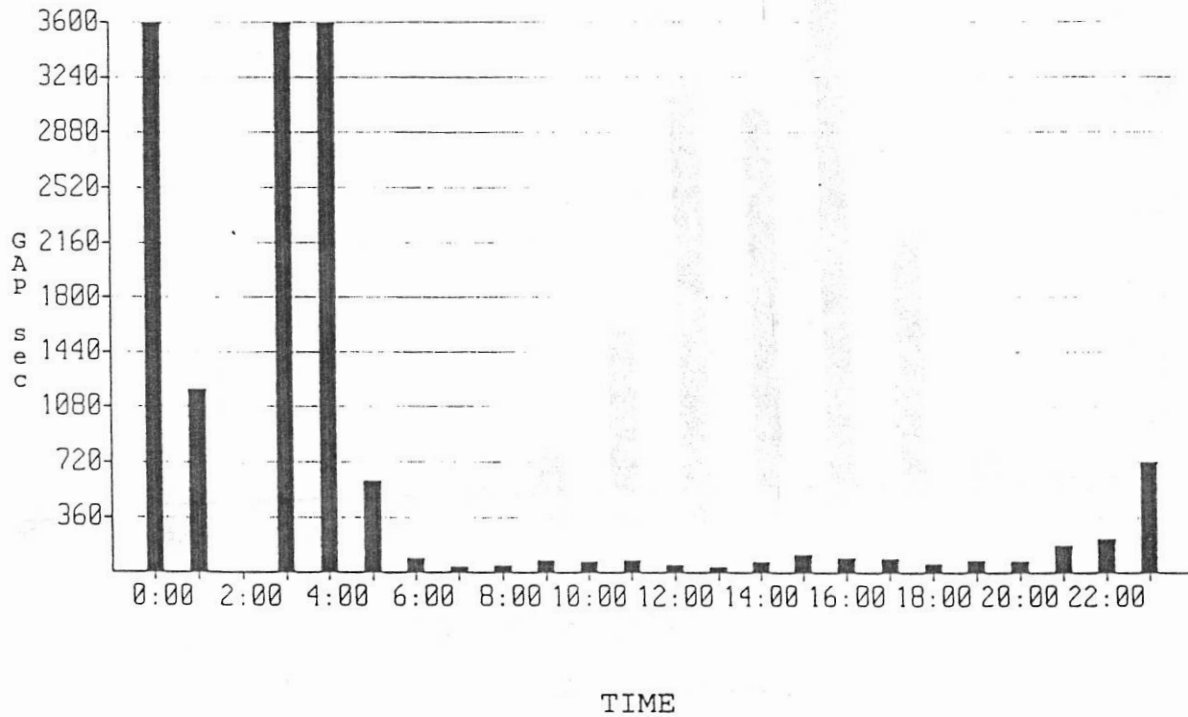
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=====
HISTAR ID: 6610      Begin: 07/15/97  0:00      End: 07/16/97  0:00
Route: Urban Street  Lane: E.B.      Hours: 24.0
Loc/Sta: 50' E of North R Oper: Jcv      Period: 15 min
City: Los Alamos    Posted: 25 MPH      Raw Count: 823
County: Los Alamos  AADT Factor: 0.00   AADT Count: 0
=====

```

--- GAP/TIME Graph ---

Each Bar Represents 4 Time Period(s).



GAP Calculations

```

=====
Time at Smallest Gap - 07/15/97 Tue  7:15
GAP (sec) - 25.7

Time at Largest Gap - 07/15/97 Tue  0:45
GAP (sec) - 900.0

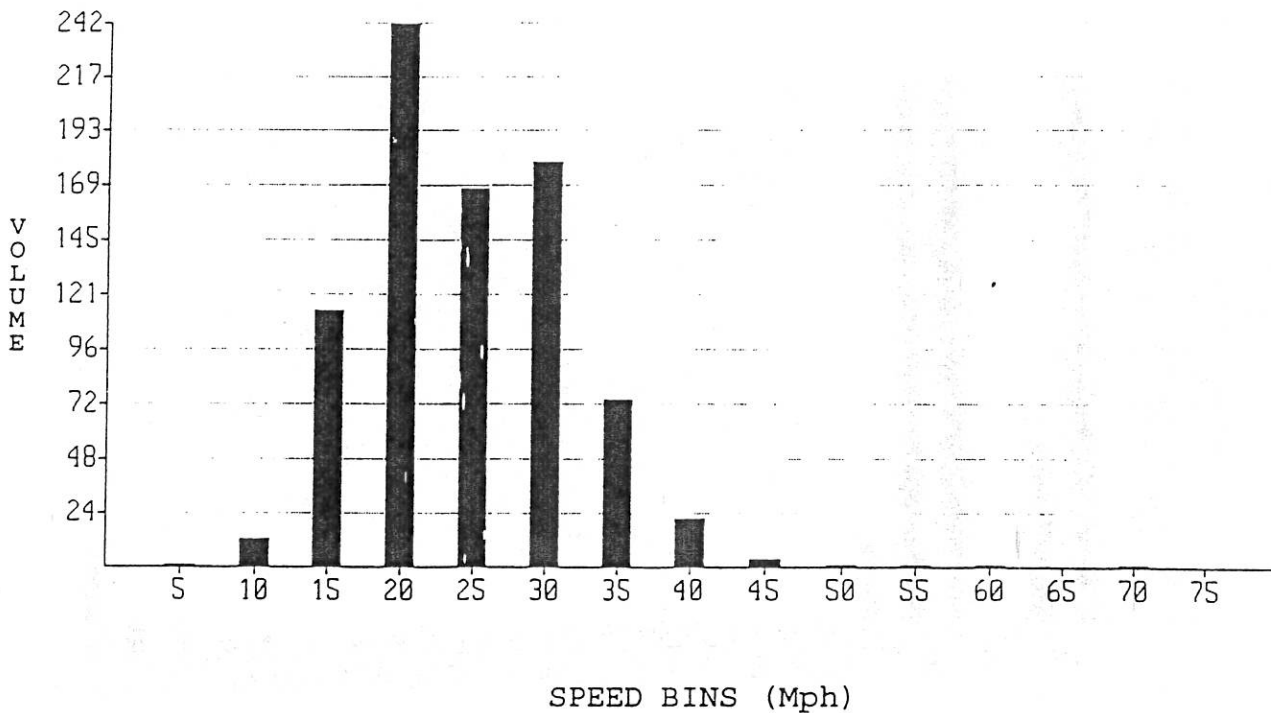
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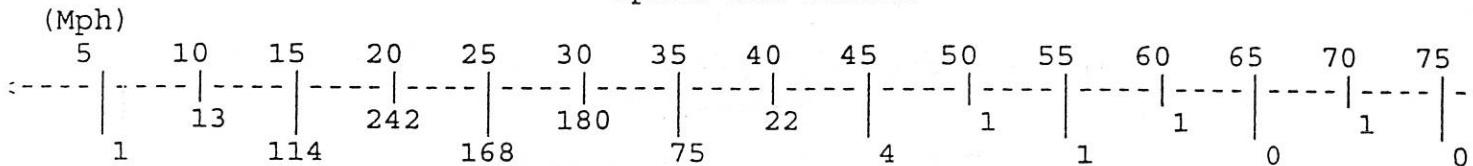
=====
HISTAR ID: 6610          Begin: 07/15/97  0:00      End: 07/16/97  0:00
Route: Urban Street    Lane: (E.B)      Hours: 24.0
Loc/Sta: 50' E of North R Oper: jcv      Period: 15 min
City: Los Alamos        Posted: 25 MPH    Raw Count: 823
County: Los Alamos      AADT Factor: 0.00 AADT Count: 0
=====

```

-- SPEED/VOLUME Graph --



--- Speed Bin Totals ---



24.6 mph  
 21.7 mph  
 30.0 mph  
 285  
 34.6 %  
 2  
 0.2 %

Average (Spot) Speed  
 Mode Speed  
 85th Percentile Speed  
 Vehicles Exceeding Posted Speed, 25 mph  
 Percentage Exceeding Posted Speed, 25 mph  
 Vehicles Exceeding 55 mph  
 Percentage Exceeding 55 mph

LOS ALAMOS COUNTY-TRAFFIC MANAGEMENT DIVISION  
1996 ACCIDENT REPORT FORM

DAMAGE: PROPERTY TIME: 11:30 DAY OF WEEK: SATURDAY DATE: 07/06/96  
LKEY: URBA L#: 800

LOCATION: URBAN STREET IKEY: NORR I#: 775

INTERSECTION: NORTH ROAD DISTANCE: INTERSECTION

DIRECTION VEH1: EASTBOUND

VEH1: CAR VEH2: CAR VEH3: VEH4:

OWNER1: PRIVATE OWNER2: PRIVATE OWNER3: OWNER4:

LIGHTING: DAYLIGHT WEATHER: CLEAR CONDITION: DRY SURFACE: PAVED

CONTROL: STOP SIGN DWI: N

TYPE: LEFT TURN POLICE FACTORS: FAILURE TO YIELD

COMMENTS: SB VEH2 ON NORTH ROAD AT URBAN INTERSECTION, STOPPED AT STOP SIGN. VEH2 MADE LEFT TURN AND PROCEEDED THROUGH INTERSECTION SB WITHOUT YEILDING TO EB VEH1 ON URBAN. VEH2 STRUCK VEH1.

LA POLICE COLLISION #: 96000949

1996WRKS.DTF Retrieved form 1 of -- Total Forms: 300 Page 1 of

Esc-Exit F1-Help Alt+F6-Table F7-Search F8-Calc F10-Contin

YEARLY ACCIDENTS

	URBAN @ NORTH RD.	ARIZONA @ WOODLAND
'96	1 - Left Tr	0
95	0	0
94	0	0
93	0	0
92	0	0
91	0	0
90	0	0
89	0	0

10 cross Arizona

$W = 30'$

$N = 1$  (5 or less) Rows

Width

Rows

Smallest gap 69 sec  
Thur @ 4:00 pm

Adequate Gap must be 12 sec or greater

10 cross Urban

$W = 35'$

$N = 1$

Smallest gap 25.7 sec  
Tues 7:15 am

Adequate gap must be 13 sec or greater

Adequate gap includes both

Perception / Reaction Time

Time needed to cross street

w/o coming into conflict w/ passing vehicles.

ADEQUATE PED  
GAP

## TRANSPORTATION DIVISION

**Project:** County Wide Crosswalk Investigations & Surveys  
**Project Manager:** Nancy Talley, Assistant Traffic Engineer  
**Date:** January 13, 1997  
**Subject:** Necessary Data Collection for Each Location

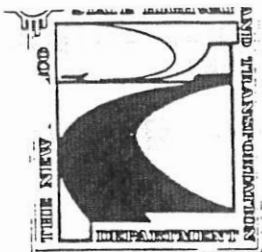
The following is a list of necessary information for each crosswalk location. All of the listed items might not pertain to some of the locations and should be skipped. The information will be organized in a manual as permanent documentation of the existing crosswalk conditions and locations. Any changes made in the field will be noted and logged in the manual in order to keep the manual current. All information gathered should include the street locations and the date that the data was taken.

- Photo of crosswalk (mark date & location on photo with a permanent marker)
- Photo of signs both advanced & at crosswalk (mark as noted above)
- Photo of anything else that might have pertinent information (mark as noted above)
- Location map showing the crosswalk location in relation to a school (if needed)
  - Elementary School 1 mile radius
  - Junior High School 1.5 mile radius
  - High School 2 mile radius
- Speed study & determination of 85 percentile speed
- Intersection delay study
- Bus stop volume count
- Pedestrian crossing volume count (12 hour)
- Traffic volume count (ADT Tues-Thurs)
- Accident analysis (three year)
- Turning movement count (12 hour, Tues-Thurs)
- Condition map of area (usually measured 200 feet from intersection) which includes the following:
  - Name of each street
  - Street width
  - Projected curb alignment: In line or offset, position & width of offset
  - Grade if more than 5%
  - Intersection corner radius
  - Sidewalks: width & location
  - Curb & gutter
  - Handicapped ramp: dimensions & location



**County Wide Crosswalk Investigations and Surveys**  
**Data Collection**  
**-continued-**

- Condition Map Continued:
  - Streetlighting: location & type
  - Driveways: width & location
  - Property frontage type & location (residential, play ground, business, school, etc.)
  - Pavement striping: no passing, passing, none, etc. (double yellow in flashing school zone)
  - Pavement markings: stop bars, arrows, ped xing
  - Crosswalk markings: length, width, configuration & spacing of lines, paint or thermoplastic.
  - No parking zones: length of yellow curb & location, no parking signs with legend, MUTCD code, location & vertical/horizontal clearance, break away posts.
  - Fire zones: length of red curb (if any), location of hydrant
  - Crosswalk signs: legend or symbol, MUTCD code, vertical/horizontal clearance, break away posts, exact location from the crosswalk.
  - Advanced crossing signs: (if any) legend or symbol, MUTCD code, vertical/horizontal clearance, break away posts, exact location from the crosswalk.
  - Miscellaneous regulatory (stop, yield, etc.) or warning signs: (if any) legend or symbol, MUTCD code, vertical/horizontal clearance, break away posts & location.
  - Regulatory speed limit through area
  - School flashers & school speed limit
  - Vegetation: (trees or bushes over 18" diameter) location, height, diameter, view obstruction
  - Sight triangle at corner
  - Critical stopping sight distance: actual & required



**NEW MEXICO STATE HIGHWAY  
AND TRANSPORTATION DEPARTMENT**  
AN EQUAL OPPORTUNITY EMPLOYER

Transportation Programs Division  
Traffic Safety Bureau  
P.O. Box 1149  
Santa Fe, New Mexico 87504-1149  
(505) 827-0427

**GARY E. JOHNSON**  
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P.O. Box 91750  
Albuquerque, NM  
87199-1750  
505-841-2700
- District Four Office  
P.O. Box 30  
Las Vegas, NM  
87701-0030  
505-454-3600
- District Five Office  
P.O. Box 4127  
Coronado Station  
Santa Fe, NM  
87502-4127  
505-827-9500
- District Six Office  
P.O. Box 2159  
Milan, NM  
87021  
505-285-3200

New Mexico  
Traffic Fatalities

January - December 1997

Preliminary  
As of 3/5/98

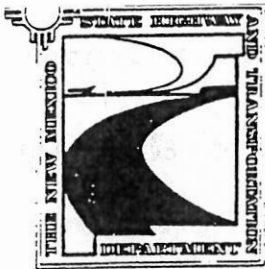
Month	Total	Alcohol Involved	No Alcohol	Alcohol Unknown
January	28	12	16	0
February	37	22	15	0
March	39	21	18	0
April	28	9	19	0
May	50	16	33	1
June	45	13	30	2
July	45	18	26	1
August	56	21	32	3
September	40	15	24	1
October	45	27	18	0
November	31	14	15	2
December	41	23	17	1
<b>Total</b>	<b>485</b>	<b>211</b>	<b>263</b>	<b>11</b>

Total - Unknown = (485-11) = 474  
 Alcohol involved = 211/474 = 45%  
 Not alcohol involved = 263/474 = 55%

Month	Total	MV	MC	ATV	Ped	PC	Children by Age
January	28	20	1	0	6	1	0, 1- 4 (2nsb, 2ysb)
February	37	31	1	0	5	0	2- 3 (1nsb, 2ysb)
March	39	30	5	0	3	1	3- 6 (4nsb, 2ysb)
April	28	22	1	0	5	0	4- 3 (2ysb, 1?sb)
May	50	40	3	0	7	0	5- 1 (1?sb)
June	45	35	2	0	8	0	6- 2 (2nsb)
July	45	42	0	0	2	1	7- 1 (1nsb)
August	56	45	5	0	6	0	8- 2 (1nsb, 1ysb)
September	40	33	1	0	5	1	9- 3 (2nsb, 1pd)
October	45	32	4	0	9	0	10- 2 (1nsb, 1ysb)
November	31	23	2	0	6	0	11- 1 (1nsb)
December	41	35	1	0	4	1	12- 2 (1nsb, 1ysb)
<b>Total</b>	<b>485</b>	<b>388</b>	<b>26</b>	<b>0</b>	<b>66</b>	<b>5</b>	<b>30 (6%)</b>

Motorcyclists / ATVers	Safety Belts	Teenagers
Helmet used 3 (11%)	Restraint used 125 (32%)	13- 4 17- 16
No helmet 22 (85%)	No restraint 256 (66%)	14- 1 18- 8
Unknown 1 (4%)	Unknown 7 (2%)	15- 10 19- 14
		16- 8
<b>Total</b>	<b>26</b>	<b>Total 61 (13%)</b>

Residence	Location	Seniors (55 & older)
New Mexico 349 (72%)	Urban 103 (21%)	Motor vehicle 74 (78%)
Elsewhere 136 (28%)	Rural 382 (79%)	Motorcyclist ( %)
		ATVer ( %)
		Pedestrian 19 (20%)
		Pedalcyclist 1 (1%)
<b>Total</b>	<b>485</b>	<b>Total 94 (19%)</b>



**NEW MEXICO STATE HIGHWAY  
AND TRANSPORTATION DEPARTMENT**  
AN EQUAL OPPORTUNITY EMPLOYER

Transportation Programs Division  
Traffic Safety Bureau  
P.O. Box 1149  
Santa Fe, New Mexico 87504-1149  
(505) 827-0427

**GARY E. JOHNSON**  
GOVERNOR

**COMMISSION**

Holm Bursum, III  
Chairman, Socorro

Edward T. Begay  
Vice-Chairman, Gallup

Peter T. Mocho, Sr.  
Secretary, Albuquerque

Sherry Galloway  
Member, Farmington

Albert N. Sanchez  
Member, Santa Rosa

Sidney G. Strebeck  
Member, Portales

**DEPARTMENT**

Secretary  
Pete K. Rahn

General Office  
P.O. Box 1149  
Santa Fe, NM  
87504-1149  
505-827-5100

District One Office  
P.O. Box 231  
Deming, NM  
88031-0231  
505-546-2603

District Two Office  
P.O. Box 1457  
Roswell, NM  
88202-1457  
505-624-3300

District Three Office  
P.O. Box 91750  
Albuquerque, NM  
87199-1750  
505-841-2700

District Four Office  
P.O. Box 30  
Las Vegas, NM  
87701-0030  
505-454-3600

District Five Office  
P.O. Box 4127  
Coronado Station  
Santa Fe, NM  
87502-4127  
505-827-9500

District Six Office  
P.O. Box 2159  
Milan, NM  
87021  
505-285-3200

New Mexico  
Traffic Fatalities

January - December 1996

Preliminary  
As of 3/5/98

Month	Total	Alcohol Involved	No Alcohol	Alcohol Unknown
January	34	21	13	0
February	32	21	10	1
March	36	18	17	1
April	28	13	11	4
May	39	21	17	1
June	57	23	33	1
July	36	19	17	0
August	47	24	22	1
September	50	29	20	1
October	38	12	22	4
November	35	14	21	0
December	49	20	27	2
<b>Total</b>	<b>481</b>	<b>235</b>	<b>230</b>	<b>16</b>

Total - Unknown = (481-16) = 465  
 Alcohol involved = 235/465 = 51%  
 Not alcohol involved = 230/465 = 49%

Month	Total	MV	MC	ATV	Ped	PC	Children by Age
January	34	26	2	0	6	0	0, 1- 4 (3nsb, 1pd)
February	32	27	3	0	2	0	2- 1 (1nsb)
March	36	27	0	0	9	0	3- 4 (4nsb)
April	28	21	1	0	6	0	4- 3 (1ysb, 1nsb, 1pd)
May	39	31	6	0	2	0	5- 1 (1nsb)
June	57	49	2	0	6	0	6- 3 (2nsb, 1ysb)
July	36	32	2	0	2	0	7- 3 (3nsb)
August	47	37	5	0	5	0	8- 1 (1nsb)
September	50	37	3	0	10	0	9- 1 (1ysb)
October	38	31	1	0	6	0	10- 1 (1nsb)
November	35	30	1	1	3	0	11- 1 (1ysb)
December	49	42	0	0	5	2	12- 2 (1ysb, 1nsb)
<b>Total</b>	<b>481</b>	<b>390</b>	<b>26</b>	<b>1</b>	<b>62</b>	<b>2</b>	<b>25 (5%)</b>

Motorcyclists / ATVers	Safety Belts	Teenagers
Helmet used 2 ( 7%)	Restraint used 108 (28%)	13- 2 17- 12
No helmet 25 (93%)	No restraint 277 (71%)	14- 5 18- 17
Unknown 0 ( %)	Unknown 5 ( 1%)	15- 6 19- 22
		16- 16
<b>Total 27</b>	<b>Total 390</b>	<b>Total 80 (17%)</b>

Residence	Location	Seniors (55 & older)
New Mexico 371 (77%)	Urban 130 (27%)	Motor vehicle 73 (76%)
Elsewhere 110 (23%)	Rural 351 (73%)	Motorcyclist 3 ( 3%)
		ATVer 1 ( 1%)
		Pedestrian 19 (20%)
		Pedalcyclist ( %)
<b>Total 481</b>	<b>Total 481</b>	<b>Total 96 (20%)</b>

PRELIMINARY NEW MEXICO MOTOR VEHICLE FA  
 FOR DECEMBER, 1997 AND PRIOR YE.

COUNTS

15:57 Thursday, March 5, 1998 1

(ALCOHOL PERCENTAGE CALCULATIONS EXCLUDE UNKNOWN INVOLVEMENTS)

PRODUCED BY THE NEW MEXICO TRAFFIC SAFETY BUREAU

COUNTY	YEAR	TOTAL DEATHS	TOTAL ALCOHOL	PERCENT ALCOHOL	TOTAL WITHOUT BELTS	PERCENT WITHOUT BELTS	PED. DEATHS	TOTAL TEENS	TEEN ALCOHOL	PERCENT TEEN ALCOHOL	KIDS 0-12
BERNALILLO	1997	86	44	53.0	32	56.1	21	9	5	55.6	7
	1996	90	43	50.6	37	51.7	18	13	4	33.3	1
CATRON	1997	2	1	100.0	1	100.0	0	0	0	0.0	1
	1996	3	2	66.7	3	100.0	0	0	0	0.0	0
CHAVES	1997	18	3	16.7	7	38.9	0	4	0	0.0	2
	1996	8	2	28.6	2	33.3	1	1	1	100.0	2
CIBOLA	1997	17	7	46.7	11	84.6	4	1	1	100.0	1
	1996	21	10	47.6	16	84.2	2	6	4	66.7	0
COLFAX	1997	5	1	20.0	4	80.0	0	0	0	0.0	2
	1996	7	0	0.0	4	66.7	0	3	0	0.0	0
CURRY	1997	2	2	100.0	2	100.0	0	1	1	100.0	0
	1996	4	0	0.0	1	25.0	0	0	0	0.0	0
DE BACA	1997	4	0	0.0	3	75.0	0	2	0	0.0	9
	1996	1	0	0.0	1	100.0	0	0	0	0.0	0
DONA ANA	1997	42	20	48.8	25	69.4	5	7	4	57.1	2
	1996	23	13	59.1	13	68.4	3	2	1	50.0	0
EDDY	1997	5	3	60.0	3	75.0	1	1	0	0.0	0
	1996	9	4	44.4	6	85.7	1	2	1	50.0	0
GRANT	1997	10	1	10.0	4	50.0	0	4	0	0.0	0
	1996	10	7	70.0	5	55.6	0	1	1	100.0	1
GUADALUPE	1997	23	3	13.0	11	52.4	2	2	0	0.0	1
	1996	14	0	0.0	10	71.4	0	3	0	0.0	0
HARDING	1997	1	0	0.0	0	0.0	1	0	0	0.0	0
	1996	1	0	0.0	1	100.0	0	0	0	0.0	0
HIDALGO	1997	7	1	14.3	6	85.7	0	1	0	0.0	2
	1996	2	0	0.0	2	100.0	0	1	0	0.0	0
LEA	1997	4	3	75.0	2	100.0	1	0	0	0.0	0
	1996	10	5	55.6	6	75.0	2	4	4	100.0	3
LINCOLN	1997	11	2	18.2	7	70.0	0	1	0	0.0	0
	1996	4	2	50.0	2	66.7	0	0	0	0.0	0
LOS ALAMOS	1997	1	0	0.0	0	0.0	0	0	0	0.0	0
	1996	2	1	50.0	1	100.0	0	1	0	0.0	0
LUNA	1997	20	9	45.0	14	77.8	1	4	1	25.0	1
	1996	10	2	20.0	4	50.0	2	1	0	0.0	2
MCKINLEY	1997	33	17	54.8	14	56.0	8	3	1	33.3	3
	1996	38	31	86.1	22	78.6	10	6	4	80.0	1
MORA	1997	2	2	100.0	2	100.0	0	0	0	0.0	0
	1996	3	0	0.0	2	66.7	0	2	0	0.0	0
OTERO	1997	14	5	35.7	4	40.0	3	2	1	50.0	0
	1996	12	2	18.2	4	44.4	1	1	1	100.0	0
QUAY	1997	14	2	15.4	9	69.2	1	1	0	0.0	1
	1996	16	3	20.0	12	80.0	1	3	0	0.0	0
RIO ARRIBA	1997	27	22	81.5	15	60.0	0	4	4	100.0	1
	1996	24	17	70.8	15	78.9	3	3	3	100.0	1
ROOSEVELT	1997	5	1	20.0	2	50.0	0	1	1	100.0	1
	1996	3	3	100.0	2	100.0	0	0	0	0.0	0
SANDOVAL	1997	15	5	33.3	7	53.8	1	4	1	25.0	1
	1996	24	12	50.0	17	77.3	2	1	1	100.0	1
SAN JUAN	1997	29	20	71.4	12	80.0	10	1	1	100.0	1

New Mexico State Highway and Transportation Department  
1997  
New Mexico  
Fatal Traffic Crashes/Deaths

COUNTY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
01 SANTA FE		1/1	1/2	1/1	3/3	2/3	2/2	5/6	1/1	1/1	3/3	2/2	22/25
02 BERNALILLO	8/8	5/6	4/5	7/9	8/12	5/5	3/6	11/15	4/4	8/8	1/1	7/7	71/86
03 EDDY									1/1	2/2		2/2	5/5
04 CHAVES	1/1	2/2			3/4	3/4	1/1	1/2	2/3			1/1	14/18
05 CURRY						1/1			1/1				2/2
06 LEA									1/1		2/2	1/1	4/4
07 DOÑA ANA	5/5	4/4	2/2	2/3	5/5	2/2	4/6	5/6	2/2	2/3	2/2	2/2	37/42
08 GRANT			1/1		1/2			2/4	2/2			1/1	7/10
09 COLFAX				1/2			1/1	2/2					4/5
10 QUAY	2/2			1/1	1/3		1/1	1/2	3/3		1/1	1/1	11/14
11 ROOSEVELT		1/2					1/1			1/1		1/1	4/5
12 SAN MIGUEL		1/1	1/1			1/1	1/1			4/5			8/9
13 MCKINLEY	2/3	4/4	1/1		3/3	2/2	2/2	3/3	3/3	3/3	1/1	4/8	28/33
14 VALENCIA	1/1	1/1	3/7	2/2		2/5			1/1	2/2	1/1		13/20
15 OTERO	1/1	1/1	1/1	1/1	1/1	2/2	2/2			3/3		2/2	14/14
16 SAN JUAN	1/1	3/3	4/4		1/1	4/4		2/3	3/3	4/5	3/5		25/29
17 RIO ARRIBA			2/2	1/1	1/3	1/1	5/5	2/2		5/6	1/1	2/6	20/27
18 UNION			1/1				1/1		1/1				3/3
19 LUNA	2/2	1/1	1/1		2/2	1/2	2/2	1/2	2/3	1/1	2/2	2/3	17/21
20 TAOS			2/2		1/1				2/4		1/1		6/8
21 SIERRA		2/2	1/1	1/1		1/1					1/1		6/6
22 TORRANCE			1/1		2/2	1/1				1/1	1/1		6/6
23 HIDALGO				1/2	2/3			1/1					4/6
24 GUADALUPE	1/1		1/1	2/2	1/1	2/2	3/6	3/4	2/2	2/3	1/1		18/23
25 SOCORRO	1/2	1/1	1/4	1/1		1/1	1/1				1/1		7/11
26 LINCOLN	1/1	1/2			1/2	3/3				1/1		2/2	9/11
27 DE BACA					1/1			1/2			1/1		3/4
28 CATRON			1/1					1/1					2/2
29 SANDOVAL		3/4				2/2	2/2		2/2		3/4	2/2	14/16
30 MORA			1/1				1/1						2/2
31 HARDING						1/1							1/1
32 LOS ALAMOS						1/1							1/1
33 CIBOLA		1/2		2/2	1/1	1/1	3/4	1/1	2/3		2/2		13/16
1997 TOTAL	26/28	32/37	30/39	23/28	38/50	39/45	36/45	42/56	35/40	40/45	28/31	32/41	401/485
1996 TOTAL	28/34	29/32	31/36	26/28	35/39	49/57	29/36	42/47	38/50	35/38	30/35	40/49	412/481

# Appendix I

## Sample Publicity

### Crushed Car



Officer Ken Emmele stands by what's left of a 1983 Honda after a two-vehicle accident Wednesday on Diamond Drive in front of the Golf Course. Police said Michaela Stepanovich, 16, of Santa Fe, who was headed south, stopped for a pedestrian and was struck from behind by a pickup truck driven by Emma Maararen, 17, of Los Alamos. Stepanovich was taken to Los Alamos Medical Center, where she was treated and released. Damage to the vehicles was estimated at more than \$500 each.

AL CABRAL/Monitor

101 LE

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of Los Alamos  
Any excess f  
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the purchi  
Otherwise, tem  
be cash or cert

/s/Jonathan Mo  
Special Master  
P.O. Box 8387  
Santa Fe, NM  
505-982-3305

#### CERTIFICATE

I certify that I  
Amended Notic  
mailed on the  
May, 1994 to  
Cruse, 555 O  
Drive, Suite 101  
NM 87544; Ron  
Catron Street, S  
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Alamos Nationa  
Box 60, Los /  
87544.

/s/Jonathan Mor  
Jonathan Morse

Publication Dat  
19, 26, and June

103 PERSI

PLUS 5 REI

INTERESTED IN  
their retirement  
criteria

## Police Beat

### Wednesday

6:23 a.m. - Someone spray-painted graffiti on a wall at Los Alamos High School, police said. Damage was estimated at \$25. Police are investigating.

12:06 p.m. - A 1992 Oldsmobile four-door driven by Anthony Sanchez, 38, Alcalde, rear-ended a 1985 Subaru four-door driven by Robert Robertson (age unavailable) of Santa Fe, police said. Police said Sanchez was heading north on Diamond near Eniwetok when he struck the back

the vehicles was estimated at more than \$500 each. Stepanovich and a passenger complained of injuries and were taken to Los Alamos Medical Center, police said. Citations are pending.

3:54 p.m. - A Los Alamos family's chow dog bit their 3-year-old daughter in the face, police said. The girl received four puncture wounds on her cheek and was treated at LAMC, police said.

6:26 p.m. - Aaron Umbarger, 15, 2896 Orange St.,

Street for having a broken headlight. Hewitt was being held this morning in lieu of bond.

### Arrest

Two Los Alamos teen-age boys were arrested Wednesday on charges related to molesting a 14-year-old Los Alamos girl.

Paul Maestas, 15, 4141-B Ridgeway Drive, was charged with criminal sexual contact with a minor. Rustin

Thursday

Council Area Office  
Council to come to  
Thursday to answer  
Waste Isolation Pilot

at the meeting. The

de Serna

has endorsed Eric  
Commission, as the  
who is now going  
United States repre-

of the union, said. "It  
in his current posi-  
certainly continue to  
New Mexico."

regents  
for terms

been appointed to six-  
community College Board

regents John Bird and

and administration  
New Mexico Com-  
munez, a Democrat, is  
National Institute, and  
University of New

skills  
CC

Adult Basic Educa-  
tion for General  
and Language (ESL),  
please said.  
contact Glenn Gomez.

# Central Safety



Downtown on Central Avenue, Los Alamos County employee David Rodriguez applies heat to thermo-plastic strips that will

emphasize the crosswalk across the recently refurbished pavement.

AL CABRAL/Monitor

*Al Monitor  
2-11-97*





JOHN McHALE/Monitor

Cpl. John Moore watches as David Rodriguez paints new crosswalk stripes in front of Piñon Elementary School. (Phillip Rivera is in the background). Moore said the crosswalk was moved from west of Piñon on Grand Canyon to near the entrance of the school to give drivers an earlier view and more time to

react and stop for children. Moore said he and Nancy Talley of Traffic Engineering in the Los Alamos County Public Works Department began discussing moving the crosswalks after Piñon Principal Carolyn Brownrigg voiced some concerns.

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**PO**

7:18 :  
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# Aspen Leaves

May 1997

## Dates to Remember

- May 3 8th Annual Parenting Seminar, UNM-LA, 8:30 - 1:00
- May 3 Annual Student Art Show, Grades K-6, Fuller Lodge, 9:00 AM - 4:00 PM
- May 5 6th Grade Performance, **Cinco de Mayo**, 7:00 PM, Aspen Gym
- May 8 Aspen PTO Meeting, " Looking Toward Middle School," 7:00 PM, Aspen Library
- May 9 - 15 Aspen Book Fair
- May 14 Aspen Volunteer Appreciation Breakfast, 7:20 AM, school lobby
- May 15 Band and Orchestra Concert, 8:30 AM, Aspen Gym
- May 17 Spring Fling, 11:00AM - 2:00PM
- May 21 Elementary School Track Meet (grades 5 and 6), Sullivan Field
- May 26 Memorial Day Holiday **No School**
- May 27 Regular Dismissal at 3:10
- May 28 Regular Dismissal at 12:20
- May 29 Early Dismissal 11:30
- May 30 **LAST DAY OF SCHOOL**, 11:30 dismissal

## Safe Routes to School

On Wednesday, April 23rd, representatives from the Los Alamos Police Department and the County Traffic Control Division presented the Aspen students with the safe route to school! for the students who live within walking distance of Aspen. The police have been directing the students to cross the streets at the designated points since Wednesday, and they will continue to direct them for the next few weeks.

## Congratulations !

Aspen's **Geography Bee** was held on December 10, 1996. **Alex Gray** won and **Kiyana Allen** was the runner-up. Alex qualified for the State Geography competition after performing well on a written test. Unfortunately, he was unable to participate in the State Geography Bee because it took place during Spring Break and Alex and his family were out of town.

**Lauren Klose** and **Jocelyn Henjum** represented Aspen School in two speech competitions, recently. Jocelyn placed 4th in the Los Alamos Middle School's Mad Cow Invitational Speech Contest. She competed against 20 other people in the Humorous Division. Lauren placed second in the Serious Division of the County Speech Contest. Great job, ladies!

**Congratulations** to our very own **Nancy Baiardo, Jeanne Ferrell, Sherry McGregor, Shelby Redondo, Carole Jacobson and Nancy Coombs!** Nancy Baiardo and Jeanne have been nominated for the Los Alamos School District's Teacher of the Year and Shelby, Sherry, Carole and Nancy were nominated for KOAT TV's Top Teacher Award.





# Just a Reminder...

The Aspen PTO is meeting  
Thursday, February 13th  
at 6:30 pm  
in the Aspen Library

A representative from the County Traffic Division will address concerns regarding crosswalks, traffic lights and general traffic safety around the Aspen Community.

The color black, which many people consider "smart," is in fact dull, ordinary, boring and dated. Black reflects the triumph of conformity and the death of individuality. It is one more example of the dumbing down of a society that once

dozen roses.

Dear Ann: Please tell your readers not to dump their mothers, fathers or other loved ones into just any old nursing home and assume they will be well cared for. Urge them to select a home that has been looked into carefully, one where

welcome.

I am an activity aide in a nursing home, and I do all these things. I also play music and arrange classes, games, crafts, cooking and spiritual programs. I'm a shoulder to cry on and a willing listener. There are only two of us here and over 100 resi-

and it made quite an impression. I don't know who wrote it, but I'm sure your readers will get a kick out of it. I certainly did. — Charlotte in Hillman, Mich.

Dear Charlotte: That poem was widely circulated. I received several copies. I laughed when I

## School calendar

*La Mon. tor*  
2-9-97 Sun

Aspen Elementary School – A PTO meeting is scheduled for 7 p.m. Thursday in the school library. Nan Talley from the County Traffic Division will discuss general traffic safety in the Aspen School area.

Barranca Mesa Elementary School – A Family Literature Night is planned for Thursday from 6:30 to 7:30 p.m.

Districtwide – A School Board meeting will be held on Tuesday at

7 p.m. in the Board Room of the Service Center.

The District Parent Council will meet on Wednesday at 7 p.m. in the Board Room at the Service Center.

The annual County Spelling Bee

is scheduled for 4 p.m. Thursday in the Chamisa Elementary School gym.

There will be no school for students and staff on Monday, President's Day.

# Window Coverings Sale

DEL MAR  
Enchante  
Cellular  
Shades

FREE  
Continuous  
Cord Loop

Ask a  
satellite TV dealer  
what it takes  
to get your  
local stations.

Go ahead.

Five Plus  
Will Win  
\$2,000.00

# CAT

THE ONLY

# Win Va

# AND

the far side of the room that now has a lock on it and will be inaccessible to the Senior Center.

In untenable restroom situation, the limited space left to the Senior Center simply cannot accommodate the equipment that is being used in that larger room and still have room for other activities. Besides that, asking seniors to move large equipment on a vanishingly short notice, when the room is suddenly needed by one or two seniors might be able to help has caused a great deal of difficulty many already active and planned senior activities. We and I are requesting that the County Council as a matter of first use of the senior van sometime soon, when it is not in use at the White Rock Senior Center premises, program and parking be handled in its first hand.

We appreciate those of the Townsite Los Alamos Senior Center who met at the White Rock Senior Center and listened to the concerns and comments of those many senior citizens who were present. One question voiced that I think was on the mind of many was, is this slow curtailing of space to the White Rock Senior Center the beginning of a process of what has come to be known as "the slow process, not permission?" We ask, is the White Rock Senior Center to be closed, just as the new Senior Center at the White Rock? This is a question we ask now, to be clearly and publicly stated.

Do we understand correctly that at present, there are no seniors at the White Rock? If so, then it would be doubly appropriate to come see for themselves what senior citizens, on a regular basis, do at the White Rock Senior Center.

Several miles more or less is quite a distance to travel to the White Rock, except on rare, special occasions. Certainly, the need to transport on a regular basis more than a tiny number of seniors, the 60 living in White Rock. It appears from comments that many retirees, after 30 years or so of commuting, no longer have the time or money to make such trips on a regular basis. The loss of time and money that such trips represent is a significant one. Why did the White Rock support the new Senior Center being built at the White Rock? It is equitable then to curtail even the covered space in White Rock that, clearly, has been put to such use for the benefit of the White Rock seniors?

When we congregate meals at the new Townsite Senior Center, wouldn't it be a great deal more economical if everyone over 60 is invited to partake, the van requested number of precontainered meals to the White Rock and allow those who would not ordinarily make such a trip to have an opportunity to participate with their friends? How are taxes helping to pay for?

When we start looking at circumstances more fully, taking into account the economy to government of having everything done in-house. We need to start looking at the full costs to taxpayers in partaking of services at distant locations. We see with the health care controversy that the costs that may appear to be accruing for some are often hidden in the effort and cost of calling, calling, calling; resubmitting; waiting, waiting, and waiting to be reimbursed or never getting reimbursed at all.

We are looking at the true and complete costs of things to society. We are looking at the true and complete costs of things to society. We are looking at the true and complete costs of things to society. We are looking at the true and complete costs of things to society.

Mary Ann and Jerry Buchholz  
316 Potrillo  
White Rock

# Decision to hold another meeting was costly and annoying

Editor and Members of the Los Alamos County Council:

There was indeed consensus about the removal of the crosswalks at Villa and 36th streets during the March 19 safe-route-to-school crosswalk discussion at Aspen Elementary School.

The safe-route plan specified two enhanced crosswalks (a raised ladder pattern) in the immediate vicinity of Aspen school along with extended painted curbs and the addition of a new painted area designated as no stopping/parking where traditionally parked cars have obscured the visibility of children. The plan also SPECIFIED the REMOVAL of the crosswalks at 36h and Villa and one that crossed 38th. The plan ALSO encouraged children to stay on the side of the road that their home is on and to cross at the crosswalks near Aspen where visibility is at a premium in this hilly terrain.

This is what the public voted on and the consensus (20 to 8, with 7 others in the middle or leaning in favor) was to go with this plan.

This plan was drafted by the traffic engineering department, incorporating the suggestions of Aspen's principal, as well as that of the school's site council, made up of a board of administrators, teachers and parent volunteers. And now a meeting-at-large has approved of the plan, for a second time.

The word "crosswalk" is a rallying cry. It is a word that people will quickly put their name down under. Every pedestrian wants his rights and life protected. Unfortunately, there is a misconception that if it's called a crosswalk, it is safe.

The two parallel crosswalks bisecting Villa at 36th were located several feet beyond the crest of a steep incline. They could not be seen until one crested the hill. As a pedestrian, I have had to tip-toe to see over the edge of the hill to look for cars. The view was inadequate and made it difficult for me to judge the speed of a vehicle. It is a scary intersection.

I feel that if the county would have left the crosswalks there, or if it decides to replace them (thus encouraging the use of that intersection as a pedestrian pathway), that it would be putting children in harm's way.

There was also a lot of talk about speeding in the area. Some people disagreed that it was a problem. Others felt that putting in more crosswalks would be a good way of controlling speed. Personally, I don't understand how crosswalks that can't be seen will control speed, and I'm uncomfortable with the idea of using pedestrians as speed barriers. In the same vein, the existence of the old crosswalks apparently did little to control speeding, if it exists.

Lastly, I am perturbed that a second meeting delayed implementing the education of the children about the safe-route to school. I attended the first meeting and felt it was well announced, well-attended, well-voiced and well-heard. I am also aware that this second meeting and delay probably cost us taxpayers a great deal of money.

On one hand, it's great to live in a community where one voice can go before the government and be heard. Yet, I am annoyed with that government, which acted only on the merits of that one voice (that said it spoke for the residents when it did not). I am annoyed with this government that countermanded the task it had given to the traffic engineering department in the first place.

Diana Martinez  
2181-B 35th St.  
Los Alamos

Editor's Note: "Consensus," by dictionary definition, means "unanimity" — 100 percent agreement. In this case, there was a majority view, as you note. But the agreement wasn't total.

Dear Ms. Talley,

On behalf of The Aspen PTO, I want to thank you for your presentation at our February meeting. The Public Works department has obviously put a lot of thought and hard work into the crosswalks issues spanning Villa. As a mother of two "walkers" (2<sup>nd</sup> & 5<sup>th</sup> grades), I have total confidence in the new crosswalk setup and was happy to see the new walks added so quickly. And as for the old crosswalks, after years of driving in this area, I had never noticed them until the publicity began. Thank you & your dept. for helping to make this area safe!

Sincerely, Coleen Meyer 662-2587  
Aspen PTO 665-0721  
president

## PTO NEWS

The next general meeting of Barranca Mesa PTO will be Monday, Jan. 5 at 5:30 p.m. All parents and teachers are encouraged to attend. Babysitting will be provided at no charge. This will be a joint meeting with the Site-Based Management Committee. The focus of this meeting will be identifying and developing possible solutions to problems such as the traffic flow, parking, and snow removal around the school. This meeting is an initial assessment of the situation at Barranca, but if you are concerned about these issues, please attend the meeting, or call Jane Clements at 661-6570 if you would like a particular item discussed at this meeting. We hope that Nancy Talley, the county traffic engineer who will be working with us on Barranca's transportation-related safety issues, will be at the meeting.

At December's meeting, Kay Bolivar presented an informational program on the 'Communicable Disease Curriculum' for elementary-age children. Ms. Bolivar explained the techniques that are taught at each grade level to help prevent the spread of communicable diseases. She also had a timely handout on how to take care of yourself (or your children) if you are unfortunate enough to contract the flu.

Sue Henninger also shared with us the novel and fun way that the fourth grade teachers use to generate enthusiasm for studying social studies. Ms. Henninger had videotaped her classroom students as they presented their independent study projects on individual states in the Northeast. The students obviously enjoyed preparing and presenting their projects to their classmates, and had learned a great deal about not only the states that they had studied, but also how to cooperate with each other, delegate responsibilities, and share information with each other while working in a group situation.

Thank you Ms. Bolivar and Ms. Henninger for sharing your teaching techniques and knowledge with us!

Other items discussed at the meeting were:

1) We need to reassess the type of playground equipment that we are going to purchase for the upper grades. Ms. Bolivar pointed out that Barranca has the lowest injury rate of any of the elementary schools in town, and that most of the elementary schools have removed their tether ball set-ups because they have caused too many injuries. The types of playground equipment (within our budget limits) will be re-evaluated, and we hope to have some new equipment picked out and ready to install this spring.

2) The 'Bobcat Bills' program, begun in November, is looking like it will be a successful and easy way to generate income for the schools. Carolyn Spolidoro submitted an interim report to the PTO on the project. The project has raised over \$300 in the first month, and this was accomplished with relatively few families participating. IF YOU SHOP AT FURR'S, please consider using these gift certificate-style 'Bills' to purchase your groceries. You pay no extra charges, there are no fees, and Furr's automatically donates 5% of the face value of the 'Bill' to the school. Unfortunately, due to time constraints, Ms. Spolidoro needs to resign her position as chair of this fund-raiser. **THANK YOU SO MUCH, Carolyn** (and all of the volunteers that have enthusiastically appeared at school to sell these bills) for all of the time and effort you have contributed to starting up this program and working towards its success. In addition, anyone willing to step forward and take over this program will be enthusiastically welcomed! Please call Jane Clements at 661-6570 if you think you may want to chair or co-chair this program. Most of the set-up and organizational work has already been done; we now need someone to oversee the month-to-month working of the program.

...y in the air Saturday, experiencing what's probably the best Mother's Day present of all.

# ch tied

# Digest

LA Monitor  
Sunday 5-11-97

...quitable Center in Manhattan. ...y exciting game and probably ...he match," Kasparov said. ...there are many discoveries, ...what sometimes the computer ...moves. We have to praise the ...standing positional factors

...statement by Miquel Illescas ...if he is afraid, Kasparov said: ...mit I am afraid, and I'm not ...n afraid. It goes beyond any ...he world."

...ort of Saturday's contest, he ...more for the outside world ...if he would be particularly ...the victory, Kasparov added: ...the best moves."

# nd district

...tacks Redmond as a "radical ...ing preacher," an extremist ...views are out of sync with the

...ocrats have made hay out of ...ond's opposition to federal ...for a variety of programs — ...g law enforcement — and his ...ion to gun laws. They portray ...a friend of the rich and an ...of working families.

...mond, meanwhile, is urging ...to "send an honest man to ...ess," an apparent swipe at

...conservative cause needs

## Redmond Rally to be held

Third Congressional District Republican candidate Bill Redmond is scheduled to attend an election eve rally at Ashley Pond beginning at 5:15 p.m. Monday, a news release said.

The rally will be at the end of a day-long campaign at several New Mexico cities.

## Canyon Walk meeting Tuesday

The Los Alamos County Public Works Department will hold a public meeting to discuss the proposed rescoping of the Canyon Walk Project, a news release said.

Possible improvements to trails, pathways, and bicycle facilities in Los Alamos and White Rock will be discussed. Comments and questions are encouraged, and may be presented in person at the meeting, in writing, or by calling the Public Works Department at 662-8150.

The meeting will be held Tuesday, from 5 p.m. to 6:30 p.m. in the Mesa Public Library Meeting Room.

## Pedestrian safety meeting set

There will be a public meeting at 7 p.m. Wednesday on a traffic and pedestrian safety plan for Mountain Elementary School.

The meeting, which will take place in the Mountain gymnasium, is open to student parents, neighborhood residents, or concerned citizens, a news release said.

Public Works Department personnel will present various safe walking routes for kids going to and from school, address several traffic problems in the area, and emphasize driver and pedestrian awareness on North Road. For more information, call Nancy Talley in the Transportation Division, 662-8152.

# 7.1 earthquake kills thousands in Iran



date may not be allowed to go with their classes on field trips. I would appreciate your talking with your children and reminding them of our expectations of them here at school.

-Dr. Mary Gervase



## Safe Route To School

Nancy Talley from the Los Alamos County Engineering Division, will be attending the May 8th PTO meeting at 6:30 PM. The topic of discussion will be the proposed "safe route to school" for the Mountain School area including the crosswalk locations, "no parking" zones versus "no stopping or standing" zones, and school flashing lights. The purpose of this discussion is to receive input from anyone interested in this issue, in order to improve overall pedestrian safety within our school area.

On May 14, a public meeting will be held in the school gym at 7:00 PM. The topic of discussion will also

be the proposed "safe route to school" for the Mountain School area including the crosswalk locations, "no parking" zones versus "no stopping or standing" zones, and school flashing lights. This proposal will be one that has incorporated the ideas discussed at the previous PTO meeting. It has also taken into account the information provided by the Police Department and the School Administration. The purpose of this meeting will be to obtain public input on how to best ensure the safety of pedestrians and school children in the Mountain school area. Therefore, after the "safe route to school" proposal is presented, a discussion period will be held for the purpose of gathering any additional information regarding the overall pedestrian safety within our school area.

-Nancy Talley  
Assistant Traffic Engineer  
662-8152





County of Los Alamos, P.O. Box 30, Los Alamos, NM 87544

## PRESS RELEASE

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TO: MEDIA

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FROM: Public Works Department      DATE: July 23, 1997

SUBJECT: SECOND PUBLIC MEETING "SAFE ROUTE TO SCHOOL"

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TEXT:

The Los Alamos County Public Works Department will hold a second public meeting to discuss pedestrian safety and the proposed "Safe Route to School" for the Mountain School community. Any interested parents, neighborhood residents or concerned citizens are asked to attend the meeting which will be held in conjunction with the August 5<sup>th</sup> Transportation Board meeting at 6:30 p.m. in the Council Chambers of the County Municipal Building. The presentation will address various safe walking routes for children to get to school, crosswalk removal and relocation, and changes in traffic control devices. One emphasis will be on driver and pedestrian awareness particularly along North Road. For additional information please contact Kyle Zimmerman at 662-8150.

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CONTACT PERSON: Nancy Talley Phone: 662-8152

SUGGESTED RELEASE DATE(S) : Sunday, July 27 & Sunday August 3, 1997

APPROVAL NAME/DATE:

David J. Riker  
David J. Riker, Public Works Director 7/23/97

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# IT effort

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re the Dual-Axis Radi-  
hydrodynamic Test facili-  
s. amos Neutron Science  
n the National Ignition  
to make sure simulations  
e computers are accurate.  
h final analysis, the safe-  
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how competent people  
a are, Rosen said. That  
v be based on how well  
laboratory scientists mea-  
g against their peers in the  
i ce and technology.  
u ty, it's essential that  
l labs have broad science  
l y programs, he said.  
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see ROSEN, Page 8)

# y rent

ie school district's cut in  
l JNM-LA's need for  
s ce," Anderson said.  
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noted, was only advice  
: official opinion of the  
al.  
: statute says that school  
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ut the additional space  
a under the original  
1 .A has been renting  
s buildings from Los  
lic Schools since 1981.  
is using the addition-  
our more classrooms,  
er labs, and nine offices.

already necessary in court -- to  
declare the material "ruins, rubbish,  
wreckage, and debris" and have it  
carted away.

But Council Chairwoman  
Denise Smith said the discussion  
Monday was only about process.  
The council wasn't there, she said,  
to discuss further the definition of

step toward setting a price on the  
cleanup, which will also be carried  
out by Permafix.

After extensive discussion, the  
council approved the inventory on a  
5-2 vote.

Most of the council discussion  
involved the cost of the cleanup and  
(Please see GROTHUS, Page 8)

## Digest

AA Monitor  
9-9-97 Tues

### Barranca road plans postponed

#### Monitor Staff Report

The many major street maintenance projects that were planned for Barranca Mesa in fiscal year 1998 will be delayed for at least another year.

County Engineer Kyle Zimmerman came to the County Council Monday to report that the only bid received — from J.R. Hale Construction — was for \$913,624. That figure was \$222,243 — or 31.1 percent — more than the county had projected, he said.

As a result, he said, "County staff does not feel it is in the best interests of the county to award the bid at this time." The Hale bid will be rejected, and the projects will be rebid in the spring of 1998.

### Council delays crosswalk action

#### Monitor Staff Report

The County Council put off action Monday on possible removal of a crosswalk near Mountain Elementary School at the junction of 43rd and 44th streets.

Six people had signed a petition asking that the Public Works Department plan to remove the crosswalk be placed on the council's Sept. 8 agenda for discussion.

But one of those people, Jeff Brown, 2168 44th St., asked that the discussion be delayed until Oct. 6 to allow more time to marshal support for those concerned about removal of the crosswalk.

County Engineer Kyle Zimmerman expressed concern about the delay. He said the crosswalk is on a sharp curve, and the sight distance isn't long enough to allow a car to stop even at 15 mph. Now that the county knows this, he said, it might be held liable should there be an accident. He also noted that safety education of Mountain students is on hold until the issue is resolved. He urged prompt removal.

Asked if there has ever been an accident at the crosswalk, Zimmerman said county records show none — at least in the last nine years.

Several of the councilors expressed concern about letting the county go ahead with removal of the crosswalk before people from the neighborhood had a chance to express their views. The councilors finally compromised and set the discussion for Sept. 15.

# PUBLIC MEETING

## "Safe Route to School" and Pedestrian Safety Discussion

To: All Interested Citizens  
From: Los Alamos County, Public Works Dept  
When: 7:00 p.m., Wednesday, May 14, 1997  
Where: Mountain School Gymnasium

A public meeting will be held regarding the proposed "Route to School" plan for the Mountain School neighborhood and the removal of painted crosswalks. The purpose of this meeting is to review the plan presented at the May 8, 1997 PTO meeting, and to obtain additional public input on how best to ensure the safety of pedestrians and school children in the Mountain School area.

All citizens are encouraged to attend this meeting to ensure their views are represented.

If you have any questions, please contact  
Zimmerman, County Engineer, at 662-8150.

Los Alamos County  
Public Works Department  
P.O. Box 30  
Los Alamos, New Mexico 87544

ALABAMA  
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UNITED STATES

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EVERIHART JASON J  
3895 ALABAMA AVE  
LOS ALAMOS, NM 87544

*K. V. ...*



# LOS ALAMOS COUNTY

## PUBLIC WORKS DEPARTMENT

P.O. Box 30 Los Alamos, New Mexico 87544 (505) 662-8150 FAX 662-8109

COUNTY COUNCIL  
Council Chair  
Denise Smith  
Council Vice-Chairman  
Lawry Mann  
Councilors  
Christine Chandler  
Robert Gibson  
Lewis Muir  
Morris B. Pongratz  
James Riceman

COUNTY ADMINISTRATOR  
Alex Georgieff

May 12, 1997

Dear Resident:

The Los Alamos County Public Works Department will be holding a public meeting on Wednesday, May 14<sup>th</sup> at 7:00 p.m. at the Mountain Elementary School gymnasium. The purpose of this meeting is to discuss the proposed safe route to school. Part of the proposed plan is to install a sidewalk along the northwest side of Arkansas and North Road from the intersection of 41<sup>st</sup> Street to Yucca.

This sidewalk would be installed on county right of way but could potentially impact you as a property owner. Therefore, we would like to extend a special invitation to you for your attendance at the public meeting where the plan will be presented in full.

If you have any questions prior to the meeting, please contact me at 662-8150 or Nancy Talley, Assistant Traffic Engineer at 662-8152.

Sincerely,

Kyle Zimmerman  
County Engineer

# Crosswalk Discussion



TO: All Interested Citizens  
FROM: Los Alamos County, Public Works Department  
WHEN: Monday, April 27, 1998      TIME: 7:00 p.m.  
WHERE: Chamisa School Gymnasium

A public meeting will be held regarding the proposed "Safe Routes to School" plan for the Chamisa School neighborhood. The purpose of this meeting is to review the plan presented at the March 2, 1998 PTO - Site Council meeting, and to obtain additional public input on how to ensure the safety of pedestrians and school children in the Chamisa School area.

All citizens are encouraged to attend this meeting to ensure their views are represented.

If you have any questions please contact Jeff Vigil, Assistant Traffic Engineer, at 662-8396.

**PUBLIC MEETING AT CHAMISA SCHOOL GYMNASIUM**

FRIDAY  
MAY 11 1997 5-16-97

Thought for Today: "Nothing is done. Everything in the world remains to be done or done over." — Lincoln Steffens, American investigative reporter (1866-1936).

# Bicyclist must yield on crosswalks

By the Bicycle Subcommittee

In our "Ten Commandments" for safe bicycling last fall, the Bicycle Subcommittee of the Transportation Board said that the cyclist using a crosswalk must yield to both car and pedestrian traffic.

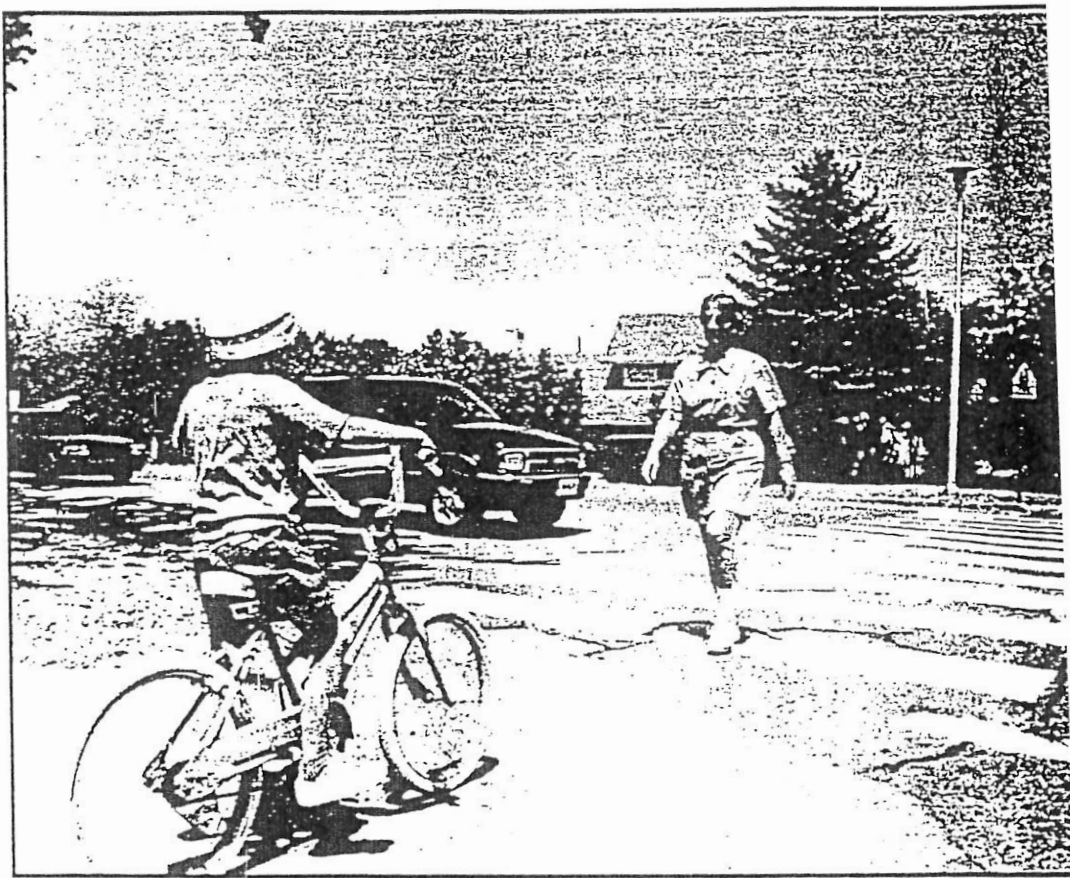
This requirement is in the County Traffic code but probably is not widely appreciated.

It's important for all sidewalk and road users to understand that cyclists can't just zip across crosswalks and expect motor vehicles to stop.

Since it is difficult for small children to understand that when on a bike, they don't have the right-of-way in crosswalks, it's probably easier and safer to tell them to dismount and walk across. Once they are old enough to ride in the street, then they must follow road traffic rules.

A particularly hazardous trick — but you'll see it — is to ride in the road (sometimes the wrong way!) and then ride into the crosswalks at intersections, thinking that cars will yield.

Although it's understandable that youngsters can be confused about cyclist vs. pedestrian rights, such tolerance should not be necessary for adult riders. Remember: If you use a crosswalk to bike across an intersection, you must yield to street traffic.



AL CABRAL/Mo

Who has the right of way? In this situation, the cyclist must yield to both car and pedestrian

## Letters

### He's offended when they say one party is holier than another

Editor:

I refrained from writing this letter until the congressional election was over and the deluge of partisan letters had ceased. I did not write because, to my mind

everyone will join with Rotary, the Beenes, and other contributors in continue to foster. As everyone who attended the final Beene competition can attest, rewards are more than worth the effort

Ed Van Eeck  
Chairman  
Deborah Beene Music Scholarship Committee  
Rotary Club of Los Alamos  
100 West  
Los Alamos

## March for Parks

# Appendix J

## Sample Guidelines





LOS  
ALAMOS PUBLIC SCHOOLS

January 9, 1997

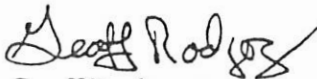
Nancy Talley  
Los Alamos County  
Traffic Engineering  
PO Box 30  
Los Alamos, NM 87544

Nancy:

This is a follow up letter to our telephone conversation on January 7, 1997. I do not see any advantage in establishing cross walks at every bus stop and recommend against it. The fluid nature of student demographics dictates that we add and delete bus stops throughout the year. Your department would not be able to keep up with the changing stops and I'm afraid that our department would lose the flexibility to change routes to meet the changing needs of our community.

As we establish stops we give consideration to reducing the number of students required to cross the street in order to load. Drivers also receive formal training on the proper methods to cross students when it is necessary. The safety equipment on the bus and the drivers' training provide a safe environment for students needing to cross the street.

Cordially,



Geoff Rodgers  
Transportation Supervisor

The sign shall be provided only after an engineering field review has shown these conditions to exist. A typical application of this sign is provided in Chapter 4.

#### B.2.4. School Speed Limit Signs

A school speed zone designated by School Speed Limit signs (S4 series, S5 series) should be considered when the following criteria are satisfied:

1. A school crossing exists which is utilized daily by school-aged pedestrians, and at least one of the following conditions exists:
  - a. The school crossing serves a school which is adjacent to the roadway on which the crossing is located; or
  - b. The school crossing is not adjacent to a school, but the posted speed limit on the roadway on which the crossing is located is greater than or equal to 35 mph.

A school speed limit sign shall be provided only after an engineering field review has shown these conditions to exist and a reduced school speed limit is specified.

Additional guidelines for the application of school speed limits include;

- o When possible, provide school speed limit signs that are in effect only certain time periods of the day, e.g. flashing signs or variable speed limit signs.
- o When the difference between the posted speed limit and the school speed limit is 20 mph or more (particularly when the posted speed limit is 40 mph or greater), provide additional signing to warn of the school speed zone ahead.
- o When the 85th-percentile speed is greater than or equal to 45 mph, provide adequate school advance warning signs well in advance of the school zone.



#### 2B-5 Warrants for Stop Sign

Because the STOP sign causes a substantial inconvenience to motorists, it should be used only where warranted. A STOP sign may be warranted at an intersection where one or more of the following conditions exist:

1. Intersection of a less important road with a main road where application of the normal right-of-way rule is unduly hazardous.
2. Street entering a through highway or street.
3. Unsignalized intersection in a signalized area.
4. Other intersections where a combination of high speed, restricted view, and serious accident record indicates a need for control by the STOP sign.

Prior to the application of these warrants, consideration should be given to less restrictive measures, such as the YIELD sign (2B-7) where a full

#### 2B-6 Multiway Stop Signs

The "Multiway Stop" installation is useful as a safety measure at some locations. It should ordinarily be used only where the volume of traffic on the intersecting roads is approximately equal. A traffic control signal is more satisfactory for an intersection with a heavy volume of traffic.

Any of the following conditions may warrant a multiway STOP sign installation (sec. 2B-4):

1. Where traffic signals are warranted and urgently needed, the multiway stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.
2. An accident problem, as indicated by five or more reported accidents of a type susceptible of correction by a multiway stop installation in a 12-month period. Such accidents include right- and left-turn collisions as well as right-angle collisions.
3. Minimum traffic volumes:
  - (a) The total vehicular volume entering the intersection from all approaches must average at least 500 vehicles per hour for any 8 hours of an average day, and
  - (b) The combined vehicular and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same 8 hours, with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour, but
  - (c) When the 85-percentile approach speed of the major street traffic exceeds 40 miles per hour, the minimum vehicular volume warrant is 70 percent of the above requirements.

SCHOOL TRANSPORTATION DIVISION  
EDUCATION BUILDING  
300 DON GASPAR AVENUE  
SANTA FE, NEW MEXICO 87501-2786

SBE Regulation No. 93-22  
(Superseding Regulation)

Adopted by the  
State Board of Education  
October 14, 1993

GENERAL STANDARDS  
FOR DETERMINING  
HAZARDOUS WALKING CONDITIONS

- I. AUTHORITY: This regulation is promulgated pursuant to Sections 22-16-2 and 22-16-4 NMSA 1978. The regulation supersedes SBE regulation 84-5, adopted by the State Board of Education on June 18, 1984.
- II. PURPOSE: The purpose of this regulation is to provide general standards pursuant to statute to allow for exceptions to 22-16-4.B., supra, which establishes the distance from the attendance center that a school bus route may be approved or maintained.
- III. REQUIREMENTS:
- A. Statute 22-16-4.C., supra, states, "In school districts having hazardous walking conditions, as determined by the local school board and confirmed by the state transportation director, students of any grade may be transported a lesser distance than that provided in Subsection B of this section. General standards for determining hazardous walking conditions shall be established by the State Transportation Division with the approval of the State Board."
- B. The local board of education and the state transportation director must approve any costs incurred for implementing the hazardous walking standards under section IV of this regulation prior to implementation, and those costs must be within the

available resources of the categorical transportation appropriation.

IV.

STANDARDS FOR HAZARDOUS WALKING CONDITIONS:

A. Transportation may be provided for students in grades K through 12 who do not reside within the legal walking distance from their attendance center pursuant to Section 22-16-4, supra, or State Board of Education Regulation No. 73-3 if any of the following criteria are met:

1. Walking parallel to (along side of) roadway

a. If the total traffic volume on other than mountainous roads exceeds a rate of 120 vehicles per hour during the times when children are en route to and from school and at least one of the following exists:

(1) Less than four (4) feet of walking space outside of a "curbed" roadway for a continuous distance of 75 feet or more on at least one side of the roadway.

(2) Less than five (5) feet of walking space outside of the traveled portion of an "uncurbed" roadway for a continuous distance of 75 feet or more on at least one side of the roadway.

(3) A physical or visual obstruction in the walking space that obstructs for a distance of 75 feet or more.

b. If on mountainous roads when little or no off-road walking space is available (shoulder or path) and the traffic volume exceeds sixty (60) vehicles per hour during the times when children are en route to and from school.

2. Walking across roadway and/or intersection

a. If the traffic volume of the street or

roadway being crossed exceeds a rate of 180 vehicles per hour through an "unregulated" crossing side which exceeds forty (40) feet in width during the times when children are enroute to and from school.

"Unregulated" is defined as a crossing site where, for the street or roadway being crossed, no crossing guard, traffic enforcement officer, stop sign, or traffic control signal is present, or the crossing site is not designated or marked as a reduced speed school crossing zone.

- b. If the total traffic volume of the intersection in all directions exceeds the following vehicle rates as applicable:

Secondary school children -- a rate of 70 vehicles per minute

Elementary school children -- a rate of 55 vehicles per minute through a "regulated" intersection during the times when children are en route to and from school, unless crossing guards or other traffic enforcement officers are present.

"Regulated" is defined as a crossing site where, for the street or roadway being crossed, a crossing guard, traffic enforcement officer, stop sign, or traffic control signal is present, or the crossing site is designated and marked as a reduced speed school crossing zone.

- c. If roadways that students must cross are major traffic arteries for high volume movement of traffic with five lanes or greater, high speed and high accident frequency, during the times when children are en route to and from school, and where it is determined that traffic lights and traffic guards are not adequate.

NOTE: Traffic volume shall be determined by the most current traffic engineering

study conducted by a state or local government agency. If a turn lane is present at a traffic control signal, it is not considered a lane. High speed is 40 m.p.h. or higher or in excess of the posted speed limit.

### 3. Railroad Crossings

Hazardous walking conditions shall also apply to students required to walk across a main lane, at grade, railroad crossing. (This would not include industrial, spur or exempt railroad crossings.)

- B. The school district shall justify that an attempt has been made to improve or eliminate hazardous walking conditions as identified in paragraph III. A. 1., 2., and 3. above and/or establish properly signed and supervised school crossings in those cases where such crossings would eliminate hazardous walking conditions and the need for transportation.
- C. The district must also show effort to utilize the existence of available "pedestrian crossings" at controlled intersections within the statutory walking distances to the specific attendance center, which may require students to walk an increased distance before crossing a street.

### V. TEMPORARY HAZARDOUS WALKING CONDITIONS

Temporary transportation service may be provided in cases involving conditions such as construction, dams, drainage ditches, etc., which have been determined to be hazardous by the local board of education.

The superintendent of the local district must provide justification to the state transportation director to show that efforts have been made with local government entities to eliminate the hazardous conditions or show that efforts are underway to eliminate the conditions.

### VI. APPLICATION FOR TRANSPORTATION DUE TO HAZARDOUS WALKING CONDITIONS

- A. The determination of hazardous walking conditions shall be made on a case by case basis by a local

board of education and approved by the state transportation director in accordance with the application format and methodology for evaluating hazardous intersections or travel paths as established by the state transportation director.

- B. Where additional transportation services are requested by official action of the local board of education due to the determination of hazardous walking conditions, the request shall have the recommendation of the police agency having jurisdiction and shall have the necessary back-up data, cost impact and method for implementation submitted by the administration of the local public school prior to approval.

VII. DISCONTINUANCE OF TRANSPORTATION

In the event that transportation is approved under any of the foregoing exceptions, such transportation will be discontinued immediately upon the improvement of the conditions for which the transportation has been provided. It shall be the responsibility of the local school district administration to notify the state transportation director and all affected parties as soon as walking conditions are improved and temporary transportation is terminated.

III. APPEAL

If a local board of education does not agree with the final determination of the state transportation director, the board may appeal to the State Board of Education according to Section 22-16-5, NMSA 1978.

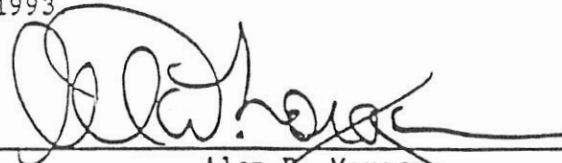
IX. FLEXIBLE APPLICATION OF THIS REGULATION

According to Section 22-16-4C., supra, the standards for hazardous walking conditions "shall be flexibly and not rigidly applied by the local school board and the state transportation director to prevent accidents and help ensure student safety." Local boards of education therefore, may choose to adopt hazardous walking standards that exceed those outlined under Section IV of this regulation. The requirements for the application of the hazardous walking standards that exceed section IV of this regulation are:



- ... The local board of education shall adopt a written policy which includes the standards for hazardous walking within the local district that exceed those outlined in section IV of this regulation, and;
- B. Any additional costs incurred due to the local school district's policy which exceed the standards established in section IV of this regulation shall be the responsibility of the local district unless a legislative appropriation has been approved for this purpose.

I certify that this regulation was approved by the State Board of Education on October 14, 1993



Alan B. Morgan  
State Superintendent of Public Instruction