

RECOMMENDATIONS

The Safe Systems Approach is the Federal Highway Administration’s comprehensive framework for creating a safe transportation system with multiple safeguards. The approach focuses on safe vehicles, safe speeds, safe roads, post-crash care, and safe road users. This Safety Action Plan recommends three types of interventions to align with the Safe Systems Approach and achieve the goal of zero traffic fatalities and serious injuries in Cortez:

1. **Site-Specific:** Changes to the built environment at locations with identified safety risks. These interventions focus on building safer roads and promoting safer speeds.
2. **Systematic:** Changes that can be applied on a broader scale such as changes to City policy and practice into the future. These types of changes can create safer roads, safer speeds, and better post-crash care.
3. **Programmatic:** Events and programs that educate residents, create a culture of safety, and address dangerous behaviors. Programmatic efforts work to foster safe road users and responsible behaviors.

Figure 49: The Safe Systems Approach



SITE-SPECIFIC RECOMMENDATIONS

Site-specific recommendations were developed for the City of Cortez by identifying areas with safety issues and opportunities for street design improvements. Table X describes site-specific project types and recommended locations and the following section details recommended design countermeasures. A full list of site-specific project locations and countermeasures can be referenced in Appendix E. Magnitude of cost and timeframe estimates for each countermeasure type can be found in the Implementation section.

CITY OF CORTEZ SAFETY ACTION PLAN

PROJECT TYPE	PURPOSE	RECOMMENDED LOCATIONS
Access control	Sets clear guidelines and boundaries to manage the flow of vehicles and pedestrians	<ul style="list-style-type: none"> • Main St corridor
Intersection geometry changes	Alter intersection geometry to slow vehicle speeds and reduce pedestrian exposure	<ul style="list-style-type: none"> • Main St/Sligo • Main St/Hawkins • Main St/Dolores Rd • Main St/State St • Lebanon/Broadway
Bike Facilities	Provide separate spaces for bicycling, slow traffic speeds	<ul style="list-style-type: none"> • Empire St • Main St • Market St • Mildred Rd • Montezuma Ave • 7th St • Sligo St
Back-in angled parking	Improve safety for bicyclists, improve visibility for parked vehicles	<ul style="list-style-type: none"> • Market St • Montezuma Ave • Chestnut St • North St • Washington St • 1st St • Park St
Sidewalks/ADA compliant walkways	Give pedestrians separated space for walking, allow access for wheelchairs and mobility devices	<ul style="list-style-type: none"> • Broadway • Lakeside Dr • 7th St
Trails	Provide separate space for walking and biking, increase recreational opportunities	<ul style="list-style-type: none"> • Cortez Lateral • Hwy 145
Signalized Pedestrian Crossings	Improve safety for people crossing at locations with a traffic light	<ul style="list-style-type: none"> • Main St/Maple • Main St/Chestnut • Main St/Market • Main St/Ash • Main St/Harrison • Main St/Mildred • Main St/Sligo • Main St/Hawkins • Main St/State

CITY OF CORTEZ SAFETY ACTION PLAN

PROJECT TYPE	PURPOSE	RECOMMENDED LOCATIONS
Unsignalized Pedestrian Crossings	Improve safety for people crossing the street at locations without a traffic light	<ul style="list-style-type: none"> • Main St/Linden • Main St/Elm • Main St/Beech • Main St/Washington • Main St/Madison • Main St/Park • Main St midblock crossing between Roger Smith and Edith • Empire St/Roger Smith • Broadway/3rd St • Empire St/Mildred • Empire St/Park • 7th St midblock crossing near Valley Rd • 7th St midblock crossing near Mesa Elementary • Sligo/Cactus St • Sligo midblock crossing between Cactus and 1st • Dolores midblock crossing between State and Main
Speed Limit Compliance and Traffic calming	Slow vehicle speeds in areas with high pedestrian and bicycle activity	<ul style="list-style-type: none"> • Cactus St • Dolores Rd near Southwest Open High School • Streets surrounding Montezuma-Cortez Middle School
Median islands and community gateways	Slow speeds as vehicles enter Cortez, improve aesthetics, and communicate community identity	<ul style="list-style-type: none"> • Main St at eastern city boundary • Hwy 145 and northern city boundary • Broadway/McElmo • Broadway/Lebanon
New traffic signals or roundabouts	Provide safer and more efficient traffic flow at busy intersections	<ul style="list-style-type: none"> • Broadway/3rd • Hwy 145/Empire • Empire/Mildred

ACCESS CONTROL

Access control is fundamental for traffic safety because it sets clear guidelines and boundaries to manage the flow of vehicles and pedestrians. Access control enhances safety and streamlines traffic flow for all road users by minimizing conflict points between vehicles and pedestrians.

Developing an access control plan for Main Street—consolidating access points, improving alignments, and implementing infrastructure enhancements—could significantly improve safety along the corridor. Removing

access to Main Street from Piñon Drive at Linden Street would eliminate left-turn conflicts at Linden Street and Main Street. Traffic could be routed through the signal at Maple Street instead, which can be configured with flashing yellow arrows to allow for different left turn operations depending on the time of day. Additionally, implementing a median at the east approach of the intersection at Harrison and Main Streets can reduce the number of crashes related to driveway access at this location.

IMPROVE INTERSECTION GEOMETRY AND ALIGNMENT

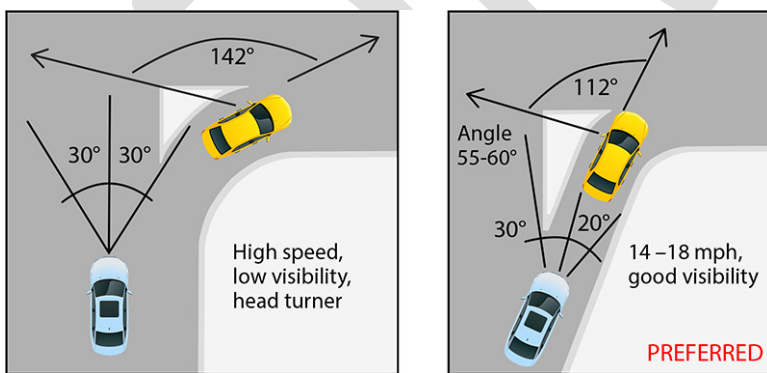
A channelized right turn, also known as a slip lane, is a dedicated right turn lane that allows vehicles to make a right turn without coming to a complete stop. Channelized right turns can be unsafe as they limit sight distance, prioritize vehicle speed over pedestrian safety, and encourage faster turns and erratic acceleration. Drivers are less likely to yield to people crossing in these locations, even when pedestrians are given a crosswalk and walk signal.

Some notable channelized right-turn lanes in Cortez are Lebanon Road at Broadway Street, Southbound Hawkins at Main Street, eastbound Main Street at Sligo Street, southbound Dolores Road at Main Street, and the north leg of State Street at Main Street. These channelized right turns can be eliminated and redesigned with tighter curb radii to slow down turning speeds. Additional safety countermeasures that can be applied at these intersections include high-visibility pavement markings, illumination, and advanced warning signs.

The wide intersection and large curb radii at Dolores Road and Main Street encourage high vehicle speeds and create an unnecessarily long and unsafe intersection for pedestrians to cross. This intersection would benefit from tightening the curb radii and reducing the width to encourage slower turning speeds, improve intersection sight distance, and shorten pedestrian crossing distances.

If eliminating channelized right turns is not appropriate due to traffic volumes, tighter curb radii in the channelized right turn can reduce turning speeds, decrease pedestrian crossing distances, and improve the motorists' line of sight. Figure 47 is an example of a preferred design if a channelized right-turn cannot be removed.

Figure 50: Preferred Right-turn Channelization Design



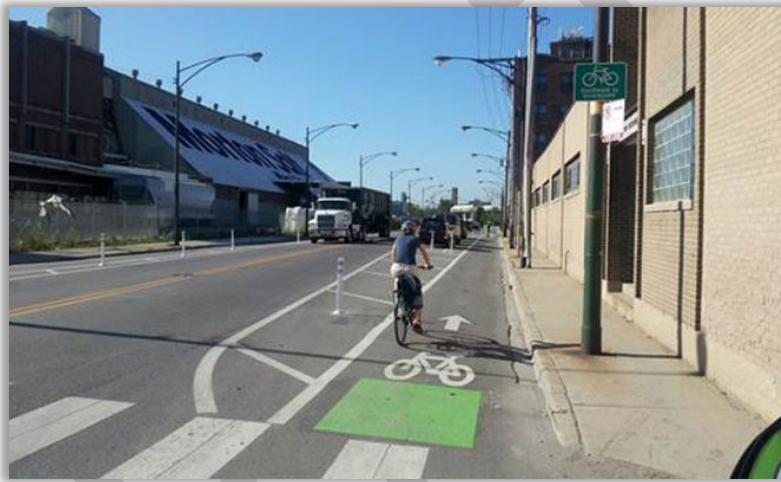
Source: FHWA

BICYCLE FACILITIES

Due to the speed and mass differences between motor vehicles and bicycles, crashes involving bicyclists are more likely to result in severe injuries and fatalities and often occur at non-intersection locations. A recent study of bicycle and road safety finds that implementing safe bicycle infrastructure, such as protected bicycle lanes,

can lead to fewer fatal crashes and enhanced safety for all roadway users.² Per CDOT Roadway Design Guide, the minimum bicycle lane width is five feet, excluding the gutter pan. On many streets in Cortez, travel lanes can be narrowed to ten feet, creating space for one-foot to three-foot bicycle lane buffers to increase separation between motor vehicles and bicycles. Additionally, vertical features separating bicycle and motor vehicle facilities can deter motorists from using the bicycle lane as a parking facility or ad hoc passing lane and may also slow vehicle speeds.³ Bicycle lanes with vertical separation are one of the FHWA's Proven Safety Countermeasures. They can provide up to a 53% reduction in bicycle and motor vehicle crashes. Figure 48 shows an example of separated bicycle lanes with different vertical separators.

Figure 51: Bicycle lane separated with plastic bollards



Source: <https://ops.fhwa.dot.gov/publications/fhwahop16080/index.htm>

Wide lane striping (six to eight inches as opposed to four inches) can complement bicycle lanes by making the travel lane boundaries more visible. Wider lane striping can provide a safety benefit to all facility types in both urban and rural areas. It may also provide better guidance for autonomous vehicles and may increase the narrow appearance of a travel lane, slowing vehicle speeds. Wide striping is recommended between bicycle lanes (and bicycle lane buffers) and motor vehicle lanes.

Additionally, restriping standard angled parking to back-in angled parking can create a safer bicycling experience as it helps drivers see bicyclists before pulling out into the lane.

SIDEWALKS

In some areas, the city's sidewalks are discontinuous, inadequate, or absent. A lack of usable sidewalks may result in pedestrians using the road or hazardous surfaces or crossing at unsafe locations. Sidewalks are one of the FHWA's Proven Safety Countermeasures, providing a 65-89% reduction in crashes involving pedestrians walking along the roadways. Notable areas with inadequate or no sidewalks are Broadway Street and Seventh Street.

² Marshall, Wesley E., and Nicholas N. Ferenchak. "Why cities with high bicycling rates are safer for all road users." *Journal of Transport & Health* 13 (2019): 100539.

³ Hannah Younes, Clinton Andrews, Robert B. Noland, Jiahao Xia, Song Wen, Wenwen Zhang, Dimitri Metaxas, Leigh Ann Von Hagen, Jie Gong, "The Traffic Calming Effect of Delineated Bicycle Lanes"

TRAILS

Multi-use trails can provide facilities for both bicyclists and pedestrians, as well as other micromobility devices like scooters and skateboards. Along Broadway Street, there is an opportunity to provide a multiuse path or expand the shoulder with vertical separation and illumination. The asphalt multiuse path will help maintain the area's rural nature by avoiding traditional curb and gutter, but is still considered ADA-compliant.

There may also be an opportunity to provide a multi-use path adjacent to Highway 145, as there is space adjacent to the roadway and opportunities to narrow lanes on the highway. The lack of driveway and side street conflicts makes Highway 145 a feasible location for a path. The trail should be set back from the roadway with a buffer to create a more comfortable environment for trail users and provide separation from the roadway.

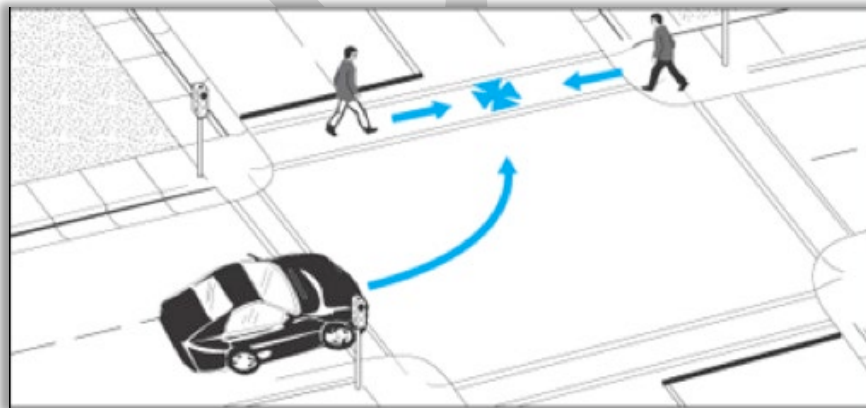
Another potential trail corridor could be aligned with the Cortez Lateral which runs from Parque de Vida to Alamosa Street. The trail would be separate from a roadway, improving comfort and safety over traveling adjacent to a roadway. The trail would require a crossing at Empire Street, which could include enhanced treatments such as high visibility crosswalks, advance warning signs, pedestrian refuge islands, and/or a Rectangular Rapid Flashing Beacon (RRFB). The trail could also include access points to the neighborhoods north of Empire Street.

SIGNALIZED PEDESTRIAN CROSSINGS

Main Street has frequent, well-developed pedestrian crossing locations at traffic signals; this is not the case for many other crossings in the city. However, the signalized Main Street crossings may benefit from additional treatments to enhance pedestrian safety with Leading Pedestrian Intervals (LPI) and Turn Lane Pedestrian Indicators (TLPI). These treatments may improve pedestrian safety at all signalized intersections from Maple Street to State Street, as well the intersection of Broadway Street and Seventh Street.

LPI allows pedestrians to enter the crosswalk three to seven seconds before the traffic signal turns green for vehicles. Doing so enhances pedestrian visibility, increases the likelihood of motorists yielding to pedestrians, and minimizes pedestrian and vehicle conflicts. Additionally, LPIs increase safety for pedestrians who walk at a slower pace. LPIs are one of FHWA's Proven Safety Countermeasures and can provide a 13% reduction in pedestrian-vehicle crashes at intersections. When implementing LPIs, upgrading the pedestrian call buttons to Accessible Pedestrian Signals (APS) is required to ensure that visually impaired individuals can cross streets safely.

Figure 52: Leading Pedestrian Interval



Source: pedbikesafe.org

Turn Lane Pedestrian Indicators (TLPI) activate LED-illuminated R10-15 signs when pedestrians press the pedestrian call button to enhance driver awareness where drivers are focused on vehicular traffic and overlooking pedestrians in crosswalks.

Figure 53: R10-15 Sign



UNSIGNALIZED CROSSING LOCATIONS

Pedestrian safety could be improved at several existing crossings by applying enhancements like high visibility crosswalk markings, advanced warning signs, Advanced Yield Here to Pedestrians signs (R1-5), pedestrian refuge islands, Rectangular Rapid Flashing Beacons (RRFB), and Pedestrian Hybrid Beacons (PHB). These types of countermeasures can be applied on Main Street as well as at crossing locations throughout Cortez. Figure 51 depicts these safety countermeasures.

Figure 54: Marked Crossing with visibility enhancements



Source: FHWA

Advanced Warning Signs, Advanced Yield Markings, and R1-5 Signs

Fluorescent yellow-green Advanced Warning Signs should be used to alert motorists to upcoming pedestrian crossings that do not have traffic signals. Advanced Yield Markings and "Yield Here to Pedestrians" signs can help make these crossings more visible and remind drivers where to stop to keep pedestrians safe. Figure 52 through Figure 55 show advanced warning signs in fluorescent yellow-green, "Yield Here to Pedestrians" signs, and advanced yield markings. Appropriate, visible signage can reduce pedestrian crashes by up to 25%.⁴

⁴ Elvik, R. and Vaa, T., "Handbook of Road Safety Measures."

Figure 55: W11-2 sign with W16-7L left diagonal arrow



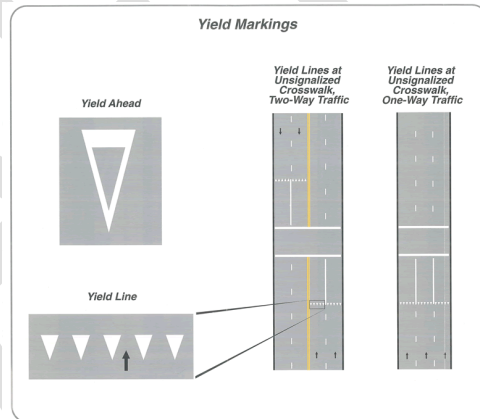
Figure 56: R1-5 Yield Here to Pedestrians Sign



Figure 57: School Advanced Warning Assembly - S1-1 w/ W16-9P



Figure 58: Advanced Yield Markings



Source: MUTCD

Pedestrian Gateways

Other crossing enhancements at locations without traffic signals include gateways created with in-street pedestrian signs and flexible delineator posts. The In-Street Pedestrian Crossing Signs are installed on the center and edge lines of the driving lanes, and the flexible delineator posts on the dashed white line. Research shows that using these methods together leads to more drivers stopping for pedestrians and driving at lower speeds.^{5,6} Figure 56 shows an in-street pedestrian sign, and Figure 57 shows an example of a pedestrian gateway installed at an uncontrolled crossing.

Figure 59: R1-6 In-street pedestrian sign

Figure 60: Example of R1-6 Pedestrian Gateway

⁵ Van Houten, Ron, Hochmuth, J, "Evaluation of R1-6 gateway treatment alternatives for pedestrian crossings : final report"
⁶ Hochmuth, J., Newton, E., & Van Houten, R., "Examining the Effects of Gateway Width on Motorist Yielding to Pedestrians"



Pedestrian Crossing Illumination and Placement

Inadequately illuminated pedestrian crossing locations are unsafe for pedestrians in dark conditions. Inadequate illumination may cast shadows on pedestrians, decreasing their chances of being seen while crossing the street. To ensure that pedestrians are visible from the perspective of oncoming drivers, lighting should be placed on all approaches to a crossing, on the right side of the road, and in front of the crossing. Properly illuminated intersections can reduce nighttime pedestrian injury crashes at intersections by 42%.

Rectangular Rapid Flashing Beacons (RRFB)

RRFBs increase pedestrian and cyclist visibility and driver awareness at crosswalks without a traffic signal. When a pedestrian or bicyclist pushes the crossing button on an RRFB, two LED lights begin flashing with an alternating high frequency. RRFBs can reduce pedestrian crashes by up to 47%⁷ and can result in up to 98% of drivers stopping for pedestrians.⁸ RRFBs should be installed with APS so they are accessible to all users. Figure 58 shows an example of a pedestrian refuge island enhanced with an RRFB.

Figure 61: Pedestrian crossing with RRFB and Refuge Island

⁷ NCHRP Research Report 841 Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments, (2017).

⁸ Fitzpatrick et al. "Will You Stop for Me? Roadway Design and Traffic Control Device Influences on Drivers Yielding to Pedestrians in a Crosswalk with a Rectangular Rapid-Flashing Beacon." Report No. TTI-CTS-0010. Texas A&M Transportation Institute, (2016).



Pedestrian Hybrid Beacons (PHB)

Pedestrian hybrid beacons (PHB) help pedestrians safely cross the street by stopping vehicles with a red light when activated. They offer a 55% reduction in pedestrian crashes, a 29% reduction in total crashes, and a 15% reduction in crashes resulting in an injury or fatality⁹. PHBs are best suited for roads with more than one lane per direction, speeds over 35 MPH, high pedestrian demand, and traffic volumes over 9,000 vehicles per day. PHBs should be installed with APS so they are accessible to all users. Figure 59 shows an example of a crossing with a PHB.

Figure 62: Pedestrian Hybrid Beacon (PHB)



⁹ M. Albee and P. Bobitz, "Making Our Roads Safer: One Countermeasure at a Time"

Pedestrian Refuge Islands

Pedestrian refuge islands offer a safe location in the middle of the roadway for pedestrians to wait. This feature allows pedestrians to cross a road in a two-step process, in which they only need to cross one direction of travel at a time. Pedestrians can begin crossing when the lane in front of them has a gap without waiting for a simultaneous gap in all lanes. Pedestrian refuge islands can reduce pedestrian crashes by up to 32%.¹⁰ Figure 60 shows an example of a pedestrian refuge island.

Figure 63: Pedestrian Refuge Island Example



Curb Extensions

Curb extensions are extensions to the sidewalk that narrow the road at intersections or mid-block crossings. By narrowing the roadway, they shorten the crossing distance for pedestrians, improve crossing visibility, and slow traffic speeds.

SPEED LIMIT COMPLIANCE AND TRAFFIC CALMING

Managing speed is critical to reducing crash severity. Kinetic energy increases exponentially as speed increases, creating much more dangerous conditions at higher travel speeds. The following countermeasures have been shown to reduce vehicle speeds.

Lane Narrowing

Lane width and motor vehicle speed are related. Narrower lanes tend to reduce vehicle speeds at a rate of three MPH for every foot reduction in driving lane width¹¹. Narrowing travel lanes to 10 - 11 feet may increase speed limit compliance on many corridors throughout Cortez. Eleven-foot lanes can be used in locations used by large vehicles such as trucks or school buses. These widths can be accomplished by adjusting bicycle lane and buffer dimensions, widening parking lanes, or adding buffers to medians.

¹⁰ Zegeer et al. Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments, FHWA, (2017).

¹¹ Fitzpatrick et al., "Design Factors That Affect Driver Speed on Suburban Arterials."

Main Street Road Diet

Safety on Main Street may benefit from a road diet. A road diet typically reduces the number of lanes on a roadway, often resulting in lower vehicle speeds due to narrower travel lanes and increased visual friction. Road diets can reduce **85th percentile speeds** between two to seven MPH, improving safety without significantly increasing congestion.¹² Road diets are a FHWA Proven Safety Countermeasure and may reduce crashes by 19% to 47%.¹³

Daylighting

Daylighting refers to removing visual obstructions such as parked cars, signs, or overgrown vegetation near intersections, crosswalks, and driveways to improve visibility. Daylighting treatments on local streets that intersect with collectors or arterials can act as a gateway treatment and communicate a transition between road environments, highlighting the slower speed limit of the local street, encouraging slower turning speeds with tighter curb radii, and discouraging cut-through traffic. Daylighting is accomplished using paint and post or curb extensions. Daylighting may aid with speed limit compliance and create a safer road environment on Second and Maple Streets near Montezuma-Cortez Middle School.

Speed Cushions

Speed cushions help slow down car traffic while still allowing emergency vehicles and buses to pass through smoothly. They work like speed humps, but have gaps so that larger vehicles and bicycles can pass through without going over the bumps. Figure 61 shows rubber speed cushions; speed cushions can also be constructed of asphalt.

FHWA studies suggest speed cushions can reduce the 85th percentile speed by up to nine MPH. Speed cushions are recommended on Cactus Street between Main and Sligo Streets to aid with speed compliance near Montezuma-Cortez High School and on Second/Pine Streets near Montezuma-Cortez Middle School.

Figure 64: Rubber Speed Cushions



¹² NACTO, “An Evaluation of “Road Diet” Projects on Five Lane and Larger Roadways”

¹³ FHWA, “Evaluation of Lane Reduction “Road Diet” Measures on Crashes”

Median Islands and Community Gateways

This countermeasure aims to calm traffic by creating a shift in the roadway. These splitter islands are also potential sites for installing a community gateway feature to enhance the aesthetics of the roadway and communicate the Cortez’s values and identity. The gateway feature adds a vertical element to the road, which can also slow vehicle speeds. More importantly, gateway features reinforce that the roadway environment changes with a corresponding slower speed limit. Figure 62 shows an example of a median island on a road with bicycle lanes, and Figure 63 shows a concept of a splitter island with a gateway feature.

Suggested locations for implementation include areas where highway traffic enter the city: the eastern city boundary and US 160, the northern city Boundary and Highway 145 (north of the fire station), Broadway Street and McElmo Street, and Broadway Street and Lebanon Street. The last two locations on Broadway Street are typical five-lane sections. A roundabout with a community gateway feature may be more appropriate than a median island.

Figure 65: Median Island on a two-lane road with bicycle lanes



Figure 66: Concept of a Median Island with Gateway feature



Intersection Traffic Control

A traffic signal may be warranted at an intersection based on traffic volumes, crash frequency, or to improve efficiency. A roundabout is a traffic control alternative to a traffic signal that enhances safety while improving efficiency and reducing delays. They improve traffic flow and reduce the likelihood of severe crashes by eliminating conflict points, reducing traffic speeds, and reducing crash angles.

Busy intersections throughout the city may benefit from traffic control via a roundabout or a traffic signal, such as Empire Street at Highway 145, Broadway Street at Third Street/Canyon Drive, and Empire Street at Mildred Road. These intersections should be evaluated with a signal warrant and safety study to aid decision-making regarding the type of traffic control and the context of the road, given the current and anticipated conditions. Unsignalized crossing improvements are recommended at the intersections of Broadway Street and Third Street/Canyon Drive and Empire Street at Mildred Road if a traffic signal or roundabout are not pursued.

SYSTEMATIC RECOMMENDATIONS

Systematic recommendations focus on **building and retrofitting for safe streets and roads into the future**. The City of Cortez can make the following changes to its policies and practices to ensure that future projects are focused on safety.

- 1) Develop and adopt a Complete Streets Policy or Resolution**
 - a) This would reinforce and formalize the City's commitment to the design, retrofit, and construction of streets to accommodate safe travel by all users and can better position the City for the pursuit of certain grants (e.g. CDOT Revitalizing Main Street, etc.)
- 2) Develop and adopt a Bicycle/Pedestrian Master Plan**
 - a) This would provide the City with a list of prioritized, phased recommendations based on needs, connectivity, community concerns, and crash hot spots leveraging the analysis included in this safety action plan.
- 3) Establish a Neighborhood Traffic Calming Program.**
 - a) Establish a program where residents can submit requests for installation of traffic calming measures on their streets. Generally, these requests are for local streets with low speed limits. The process can include an application submittal with a certain number of neighbor signatures, a screening conducted by the city followed by a speed study, and project design and implementation.
- 4) Update pedestrian facilities throughout the city to comply with ADA and PROWAG guidelines and develop a local ADA transition plan.**
 - a) Providing ADA-compliant pedestrian facilities is also included in the State Highway Safety Plan (SHSP) as a strategy to improve pedestrian safety.
- 5) Consider the completion of a sidewalk inventory and gap analysis.**
 - a) A sidewalk inventory and gap analysis would support better planning for sidewalk maintenance/asset management, identify opportunities for sidewalk network improvements, and identify critical missing links (gaps) in the network that may be contributing to pedestrian involved crashes in the community.
- 6) Develop a plan for striping maintenance and regular resurfacing projects.**
 - a) Developing and adhering to a maintenance plan will ensure that pavement markings and signs are visible and retroreflective and that pavement stays in good condition. Some streets in Cortez are lacking striping, and striping in some other locations is faded. The following locations were identified as areas

with striping needs, but the City should also develop a comprehensive plan for regular restriping and/or paving maintenance.

- i) Seventh Street and Cedar Street crosswalk
- ii) Seventh Street crosswalk in front of Mesa Elementary School
- iii) Crosswalk markings on the south leg of Broadway Street and Seventh Street
- iv) Crosswalk markings on the north leg of Broadway Street and Third Street/Canyon Drive

7) Install speed feedback signs.

- a) This countermeasure aims to increase awareness of the posted speed limit and compliance by installing Dynamic Speed Feedback Signs (DSFS). The City can establish speed feedback signs strategically in corridors with higher than desired motor vehicle speeds.
- b) The City can install fixed or temporary equipment, conduct pilot, study pilot results, and consider moving forward with permanent installation or expansion based on results of the pilot.

Figure 67: Dynamic Speed Feedback Sign



Image Source: [trafficalm.com](https://www.trafficalm.com)

8) Develop a road safety audit (RSA) program and engage with relevant agencies to understand implementation.

- a) Road Safety Audits can be conducted prior to implementing a site-specific project or to identify problematic areas. The City should partner with community groups to conduct audits.

9) Prioritize improvement projects in regional and local budgets.

- a) Prioritize roadway segment and intersection upgrades into regional and local budgets, Capital Improvements Program (CIP), Transportation Improvement Program (TIP), and Regional Transportation Plan (RTP) for funding.

10) Conduct a transit feasibility study to examine whether fixed-route transit could be operated in Cortez, potentially with connections to nearby communities.

- a) Identify priority routes and stop locations, focusing on safe transit stop placement near crosswalks and pedestrian facilities.
- b) Conduct outreach to determine preferred bus frequency and time tables.
- c) Identify funding sources both for capital purchases (buses and transit stops) as well as ongoing operational needs (drivers, maintenance, staffing).

11) Lower all residential speed limits to 20 mph.

- a) Studies show that lowering the speed limit to 20 MPH can reduce crashes and injuries.¹⁴ Many cities in the U.S. have lowered residential speed limits as part of their Vision Zero programs, including Eugene, OR; Golden, CO; Denver, CO; and Madison, WI.

¹⁴ van Erpecum, Carel-Peter L., Anna Bornioli, Claire Cleland, Sarah Jones, Adrian Davis, Nicolette R. den Braver, and Paul Pilkington. "20 mph speed limits: A meta-narrative evidence synthesis of the public health evidence." In *Advances in Transport Policy and Planning*. Elsevier BV, 2024.

PROGRAMMATIC RECOMMENDATIONS

Programmatic recommendations educate residents on the importance of safety, address behavioral causes of safety issues, and support community efforts to improve safety. When paired with site-specific and systematic changes, safety programming promotes responsible road user behavior.

PROTECT AND EDUCATE VULNERABLE ROAD USERS

Recommendations included within this section aim to protect and educate people walking, biking, rolling, and motorists in the community.

- 1) Host a Cycle Safety Summit.**
 - a) Work with community partners to organize and promote a cycle safety event for new and experienced bicyclists and motorcyclists.
- 2) Implement targeted education campaigns for drivers, pedestrians, and bicyclists.**
 - a) Study various safety messaging and approaches that work in the City. Develop and implement education campaigns throughout the police department, city hall, and/or the school district.
 - b) For drivers to learn about vulnerable road user awareness
 - c) For pedestrians/bicyclists to learn about basic riding skills, safety practices, and road rules.
 - d) Collect input on campaigns, refine approach, and ensure efforts are ongoing.
- 3) Coordinate with the school district to host a children's/youth/adult bicycling workshop** to educate the cyclists in the community on how to safely navigate the local roadway network.
- 4) Prioritize vulnerable road user improvements on the High-Risk Network** segments and at identified intersections and hot spot locations outlined in this plan.
 - a) Prioritize sidewalk infill, inspection, and maintenance – continue to implement sidewalk upgrades into capital improvement projects and prioritize completing sidewalk gap projects.
 - b) Upgrade or install mid-block crossings – consider identified intersections and hot spot locations in coordination with the HRN.
 - c) Identify locations of right-turn slip-lane design that are on the HRN and evaluate for pedestrian improvements.
- 5) Build upon Safe Routes to School (SRTS) efforts.**
 - a) Consider updating and elevating SRTS walking and bicycling audits and develop improvement plans for infrastructure and non-infrastructure projects – consider connections to the HRN and prioritize infrastructure improvements that coincide with SRTS identified needs.

ADDRESS DANGEROUS BEHAVIORS

Recommendations included within this section focus on influencing the behavior and attitudes of people travelling throughout Mesa County. These actions address driving under the influence and speeding.

- 1) Pilot automated enforcement, such as red-light cameras and speed cameras.**
 - a) Consider coordinating the location of automated enforcement with the location of public comments regarding speeding on the interactive map utilized for this plan, or high-crash locations where speed was a factor.
 - b) Begin legal and administrative modifications to support pilot testing, install equipment, conduct pilot, and study the results. Consider moving forward with permanent installation of adjustments to the pilot program based on outcomes of testing.
- 2) Continue the MioVision program to install and enhance video monitoring systems.**

- a) Install and enhance MioVision program at 1-2 locations on CDOT roadways within the community to monitor near-miss conflicts and use safety data to inform engineering solutions. Recently completed MioVision safety studies can be found in Appendix F.
- 3) Host targeted events and educational Vision Zero campaigns for the general public that promote safe behaviors and increase awareness of traffic laws.**
 - a) Consider implementing or continuing saturation patrols.
 - b) Implement targeted education campaigns to drivers for dangerous behaviors (speeding, tailgating, distracted driving, seatbelt use, etc.)
- 4) Implement targeted education campaigns for driving under the influence.**
- 5) Implement targeted education campaigns for teens and young adults.**
- 6) Create changes in striping and raised medians to provide visual cues to drivers regarding desired travel speeds benefiting the surrounding development intensity.**
- 7) Create gradual step-downs in posted speed limits.**
- 8) Enforce Colorado's new ban on phone use while driving.**
- 9) Enforce no parking in bike lanes, especially adjacent to schools.**

CREATE A CULTURE OF SAFETY

Recommendations within this section focus on creating a community-wide commitment to the Cortez Safety Action Plan.

- 1) Identify and/or create a safety action plan coordinator position**
 - a) Determine position need, role, and responsibilities. Create, identify, or seek funding for a full-or part-time position.
- 2) Create a multi-agency Transportation Safety Task Force**
 - a) Elevate partnerships within the community, identify additional stakeholders, develop a charter, continually review crash data and re-prioritize efforts, and monitor and evaluate task force progress. The task force can be made up of representatives from the City, police department, county, schools, and EMS, as well as interested residents.
- 3) Prioritize collaboration with CDOT**
 - a) Create and/or elevate a working partnership with CDOT, Montezuma County, and local agencies, and meet regularly for programmatic, systemic, location specific safety improvements based on the HRN, and included crash analysis.
- 4) Support a continued transparent and data driven safety crash analysis**
 - a) Continue monitoring and utilizing the crash analysis included in this safety action plan, update data annually, and ensure the data is accessible to safety partners.
 - b) Create public-facing annual reports about the Cortez Safety Action Plan - Define performance indicators based on the analysis included in this plan, continue to collect and analyze data, develop a clear narrative for the public, and develop and distribute the report.
 - c) Improve accuracy of crash data by ensuring that crash factors and correct locations are included in police reports and crash databases. Provide training to patrol officers on crash reporting best practices.
 - d) Promote collaboration between the Cortez Police Department and Public Works Department to enforce appropriate travel behavior at unsafe locations or locations with new traffic patterns or design treatments.

- 5) **Promote transparency by keeping the public informed on the status of the plan, project implementation, and safety trends.**
 - a) Utilize the Cortez Police Department’s outreach tools to disseminate information on plan progress and new projects.
- 6) **Continue to build relationships with the Hispanic/Latino community and distribute Spanish-language outreach materials.**

