



8.2 Evaluation of Gap Closure and Intersection Improvements

A review of the City's current bikeways and multi-use trail network revealed several locations with poor connectivity or a gap between existing facilities. Closure of the gaps is beyond standard practice and requires that engineering analysis be incorporated. As a result, 26 locations received further engineering evaluation and recommendations. One location of concern is the East Central Avenue area, which has been studied by the City, and recommendations from the *East Gateway Sector Development Plan* helped form the recommendations. Identified as a challenging area that lacks bicycle facilities is the Paseo del Norte/I-25 interchange area that is currently under study by the NMDOT and includes accommodations for bicycle facilities in its alternatives. A *Prototypical Multi-lane Arterial Intersection Improvements* recommendation was developed that incorporates traffic signal bicycle detection and a color enriched bike lane in motor vehicle/bicycle conflict areas.

8.2.1 East Central Avenue

The *East Gateway Sector Development Plan* recommends public improvements throughout the East Gateway area, but emphasizes policies, regulations and projects to improve area function and appearance along Central Avenue and Wyoming, Eubank and Juan Tabo boulevards. Plan area boundaries include Interstate Highway 40 on the north, properties abutting the west side of Wyoming Boulevard and municipal boundaries on the east and south.

The *East Gateway Sector Development Plan* recommends the creation of safe pedestrian crossings at all signalized street intersections and bicycle street crossings of Central Avenue. No other bicycle related improvements to Central Avenue are recommended.

8.2.1.1 Long-term Recommendations for Central Avenue

Long-range redesign and phased redevelopment of Central Avenue could provide space for on-street bicycle lanes, an improved walking environment and more efficient vehicle movement at major street intersections. It could establish the framework for private reinvestment in a more vibrant setting. Reducing the number of lanes on Central Avenue would be needed to accomplish the improvements presented for consideration.

8.2.1.2 Central Avenue Street Cross Section

Central Avenue's conversion from six-lanes to four-lanes would include a median, left turning lanes at major street intersections, bicycle lanes, improved street crossing design for pedestrians and flat sidewalks set back from the curb all within existing public rights-of-way. On-street parking could also be introduced between Tramway and Western Skies to serve businesses in the proposed Community Activity Center if desired.

Central Avenue is the focus of the City's proposed Bus Rapid Transit (BRT) plan. The plan calls for a BRT line in the median of Central Avenue. Therefore, any cross section improvements to Central Avenue will have to take this into account. Close coordination with the City Transit Department will be necessary when planning and designing bicycle improvements.

8.2.2 Paseo del Norte, North Diversion Channel to I-25.

I-25/Paseo del Norte Interchange Study has been recently conducted by the NMDOT. Two alternatives include recommendations for bicycle facilities in this corridor.

A goal of regional bicycle system planning is to improve the east-west connectivity with a bicycle crossing of I-25 in the vicinity of Paseo del Norte. The *MRCOG Long Range Bikeway System Map* proposes an east-west bike/pedestrian connection across I-25 in the vicinity of Paseo del Norte and the South Domingo Baca Arroyo. This would allow a continuation of the existing trail along Paseo del Norte west of the North Diversion Channel to the existing trail along the Domingo Baca Arroyo at San Pedro Drive. It would also link to the existing trail along the North Diversion Channel. Bike lanes are proposed on Jef-



ferson Street north of Paseo del Norte and Jefferson is designated as a Bikeway Corridor from Masthead to El Pueblo.

The long-range bikeway system plans are accommodated in each of the proposed build alternatives. The following describes how each of the alternatives provides for improved east-west bicycle and pedestrian connectivity through the study area:

8.2.2.1 Alternative 7

As part of the multimodal element of Alternative 7, a comprehensive system of bicycle and pedestrian facilities would be implemented. The bicycle and pedestrian facilities included with this alternative would facilitate north-south travel within the employment district west of I-25 and would provide safe east-west access across I-25. The principal bicycle and pedestrian elements included in Alternative 7 are:

- A grade-separated bridge across I-25 along the south side of Paseo del Norte. This facility would connect to the South Domingo Baca Arroyo Trail east of I-25. On the west side of I-25, this trail would connect to a new trail parallel to the Domingo Baca Arterial and to an on-street bicycle route and sidewalks along Headline Boulevard south of Paseo del Norte.
- A bicycle trail parallel to Domingo Baca Arterial from I-25 west to Channel Road. This trail would follow Channel Road south to connect with El Pueblo Road.
- On-street bicycle lanes and sidewalks would be constructed on the Domingo Baca Arterial, Jefferson Street (from El Pueblo Road to the Domingo Baca Arterial) and El Pueblo Road.

8.2.2.2 Alternative 16

With the exception of the crossing over I-25, the bicycle and pedestrian facilities proposed with Alternative 16 are the same as described for Alternative 7. With Alternative 16, the grade-separated structure over I-25 would be located north of the I-25/Paseo del Norte interchange. This structure would connect the existing trail along the South Domingo Baca Arroyo with new facilities west of I-25. South of Paseo del Norte, an extension to the west would be constructed to provide a direct connection to Headline Boulevard.

Additional Opportunities for Bicycle and Pedestrian Facilities

Additional opportunities are provided in Alternatives 7 and 16 along the Domingo Baca Arroyo arterial. Approximately 170 feet of right-of-way exists in the Domingo Baca Arroyo corridor, which provides sufficient width for the roadway requirements along with pedestrian and bicycle facilities.

8.2.3 Bridge Boulevard (Coors to Broadway)

1. Widen Bridge Boulevard, from Coors Road to Tower Road, adding bike lanes.
2. Align bike to left side of westbound right turn lanes at Old Coors
3. Bike Box at Old Coors eastbound, Goff Boulevard, Atrisco Drive, Sunset Road, Isleta Boulevard and La Vega Drive

8.2.4 Paseo del Norte/Paradise Boulevard (Gap closure - new route)

1. Construct grade separated crossing of Coors Boulevard at the Canal Frontage Road/Coors Boulevard intersection.
2. Add multi-use trail from Coors Boulevard/ Canal Frontage Road intersection on west side of Coors Road. The multi-use trail will parallel Coors Boulevard towards the Paseo del Norte interchange staying south of the Paseo del Norte/Coors southbound ramp. Continue the multi-use trail along the south side of Paseo del Norte up to the Paseo del Norte /Golf Course Road intersection.
3. Pave multi-use trail along AMAFCA between Canal Frontage Road and the proposed Coors Trail.
4. Designate the proposed Coors Trail as a bike route between Canal Frontage Road and Coors Boulevard
5. Add bike lanes to Eagle Ranch Road from Coors Boulevard to Paseo del Norte.



8.2.5 Candelaria Road (12th St to University Boulevard)

1. Add share the road signs between 12th Street and 4th Street
2. Add bike lanes between 4th Street and 2nd Street
3. Revise the cross-section of Candelaria Road between Edith Boulevard and Pan American Frontage Road from three driving lanes in each direction to two driving lanes and a bike lane in each direction. The bike lanes can be striped 8-feet wide with a 4-foot wide buffer between the driving lane and bike lane.
4. At the Pan American Frontage Road South intersection, add guide signs directing cyclists to use the sidewalk on the north side of Candelaria Road between Pan American Frontage Road South and University Boulevard. Add similar guide signs at Pan American Frontage Road North, directing cyclists to use the sidewalk on the north side of Candelaria Road
5. Improve the pedestrian crossings at Candelaria Road and University Boulevard

8.2.6 Wyoming Boulevard/Utah Street area (Gap Closure - New Connections)

1. Convert the bike route connecting the Paseo del Montanos trail to the Utah Street/Southern Avenue intersection to a Bicycle Boulevard.
 - Constitution Ave: Louisiana Boulevard to San Pablo Street
 - San Pablo Street: Constitution Avenue to Mountain Road
 - Mountain Road: San Pablo Street to Texas Street (short segment on Dallas Street)
 - Texas Street: Mountain Road to Marble Avenue
 - Marble Avenue: Texas Street to Utah Street
 - Utah Street: Marble Avenue to Southern Avenue

8.2.7 San Pedro Drive, Zuni Road to Claremont Avenue (Gap closure)

1. Alvarado Drive, approximately 1/4 mile west of San Pedro Drive, provides existing bicycle facilities complete with a signalized intersection at Lomas and a grade separated crossing at I-40 at the Palomas Drive overpass.
 - Unsignalized crossings:
 - Constitution Avenue
 - Indian School Road
 - Menaul Boulevard.
2. San Pedro corridor modification to striping only: Turning the existing four lanes into three lanes with bike lanes (corridor volumes are between the 15,000 to 20,000 threshold):
 - Unbalanced section – two lanes in the heaviest direction; one lane in the opposite direction
 - Two-way left turn lane in the center
 - Reversible center lane.
3. A San Pedro corridor modification is needed to add bike lanes without reducing the number of lanes:
 - Zuni to Acoma: Width expansion possible outward from roadway center line; sidewalks will abut adjacent buildings; some impacts to overhead utilities
 - Acoma to Central: Width expansion possible; shift center line west; expansion through existing parking lot consumption; parking variances may be necessary
 - Central to Domingo: Width expansion possible; shift center line west; expansion through commercial lot fronts; parking variances may be necessary
 - Domingo to State Fair Grounds entrance: Width expansion possible; shift center line east
 - State Fair Grounds entrance to Lomas: Expansion not possible without re-configuring State Fair Grounds or commercial land acquisition; roadway section is four lanes; no median separation; existing lanes are narrow
 - Intersection of Lomas and San Pedro: Commercial land will need to be acquired to accommodate bike lanes
 - Lomas to Constitution: Width expansion possible; shift center line west; expansion through commercial lot fronts and parking; parking and landscaping variances may be necessary



- Constitution to I-40: Width expansion possible; maintain center line; expand outward; may need to relocate property walls and acquire right of way from residence
- I-40: Bridge widening will be necessary in order to add bike lanes
- I-40 to Indian School Road: Width expansion possible; shift center line west (box culvert prevents any easterly expansion); expansion through commercial lot fronts; landscaping variances may be necessary; overhead utilities will be impacted
- Indian School to Menaul: Width expansion possible; shift center line east; expansion through commercial lot fronts and parking lots; parking and landscaping variances may be necessary
- Menaul to Phoenix: Width expansion possible; shift center line west; expansion through commercial lot fronts; landscaping variances may be necessary.
- Phoenix to Claremont: Bike lanes exist.

8.2.8 San Mateo/Gibson Intersection connect to Ridgecrest

1. Wayfinding signs directing cyclists to use the existing short trail that connects the San Mateo/Gibson Intersection to Ridgecrest Drive and Ridgecrest to the San Mateo/Gibson intersection.

8.2.9 Montano Road/Montgomery Boulevard (Gap Closure)

1. Bike route from Renaissance Boulevard to Chappell Drive
2. Bike route on Culture Drive from Renaissance Boulevard to Mission Avenue
3. Bike route on Mission Avenue between Culture Drive and Chappell Drive, connecting to the existing multi-use trail that parallels Chappell Drive from the route connects to the North Diversion Channel Trail, Bear Arroyo Trail and the Paseo del Norte Recreational Trail.
4. Add bike lanes on Singer Boulevard from Chappell Road to Jefferson Street

8.2.10 Sequoia Road (Coors Boulevard to Ladera Drive)

1. Coors Boulevard to Atrisco Drive: Convert cross section to have a TWLT center lane between the intersections, adding bike lanes.
2. Atrisco Drive to Ladera Drive: Mark as shared lane bike route.

8.2.11 Girard Boulevard (Gap Closure)

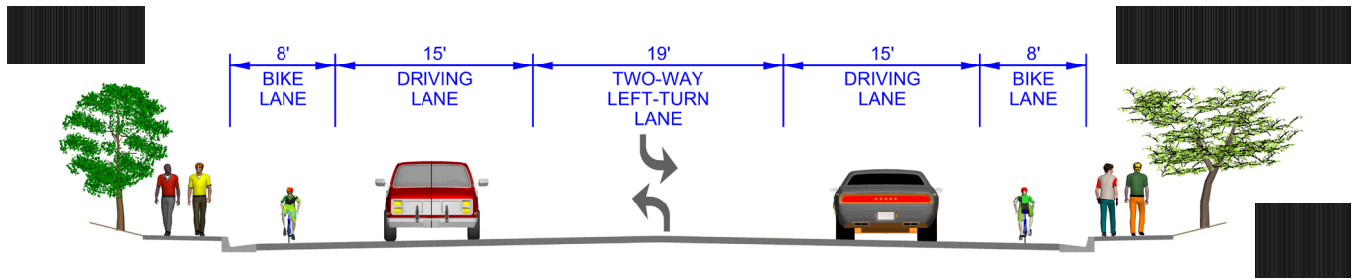
1. Convert Dartmouth Drive to a Bicycle Boulevard from Campus Boulevard to Silver Avenue

8.2.12 Central Avenue, Yale Boulevard (Intersection Improvements)

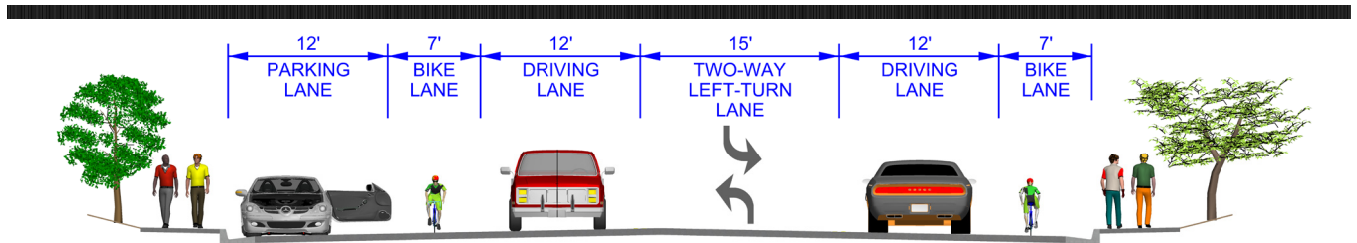
1. Central Avenue does not and will not have any bicycle facilities.
2. Yale Boulevard is a bicycle route. Movement north or south through the intersection with Central Ave should proceed with the through movement of vehicular traffic. Adding bike lanes would confuse the movements north of Central Avenue and may potentially be a life safety issue.
3. Engineering judgment – do not change the intersection.

8.2.13 Indian School Road, Rio Grande Boulevard to 12th Street (Gap Closure)

1. Existing Indian School Rd is approximately 65 feet in width, which supports two driving lanes in each direction and a central two-way left turn lane with intermittent single side on-street parallel parking. Existing traffic volumes for 2009 were in the 10,000 to 12,000 AADT.
2. Adding bike lanes is possible without widening by instead reducing the number of vehicle lanes.
 - Remove one lane in each direction
 - Have two 7-foot to 8-foot bike lanes, two 15-foot driving lanes and a 19-foot wide two-way left turn lane (where on-street parking is not warranted).



- Have two 7-foot bike lanes, two 12-foot driving lanes, a 15-foot wide two-way left turn lane and a 12-foot wide parallel parking lane.



8.2.14 Cutler Avenue, Washington Street to San Mateo Boulevard (Gap Closure)

1. The existing corridor is already a designated as a route. No change necessary.
2. Prospect Avenue to the north of Cutler Avenue is a bike route with a signalized crossing of San Mateo Boulevard.

8.2.15 Claremont Avenue as a Bicycle Boulevard (Richmond Drive to Moon Street)

1. Designate Richmond Drive as a bike route/shared route from Candelaria Road to Claremont Avenue.
2. Sign and mark approaches to signalized intersection at Carlisle Boulevard with R4-11 and shared route marking.
3. Convert two-way left-turn along San Mateo to a raised median with left turn bays at Claremont Avenue
4. Louisiana Boulevard and Wyoming Boulevard have raised medians. No change necessary.



8.2.16 Lomas Boulevard/Easterday Drive (Gap Closure)

Lomas Blvd. does not have existing or proposed bicycle facilities. Easterday Drive is a low-volume, low-speed street with speed humps that is near Lomas Boulevard South of Lomas Boulevard, Easterday Drive dead ends at a pedestrian bridge over I-40. Only service vehicles utilize this portion of Easterday Drive.

Recommendation: Add route signs or bicycle warning signs to increase the awareness of bicycle presence.

8.2.17 Lomas Boulevard/San Pedro Dr (Gap closure)

Lomas Boulevard does not have existing or proposed bicycle facilities; therefore, there is no gap. No change necessary. See San Pedro Dr recommendations for north/south accommodations.

8.2.18 Cutler Avenue, Washington Street to San Mateo Boulevard (Gap Closure)

1. The existing corridor is already designated as a route. No change necessary.



8.2.19 Alexander Boulevard, Comanche Road to Mission Avenue (Gap Closure)

1. Widen Alexander Blvd. from Comanche Rd. to Carmony Road to add bike lanes by consuming the spur rail line to American Furniture. If the spur line is removed, remove crossing, as well, as it is a safety hazard for bicycles. If the spur line is not removed, install skewed crossing (W10-12-36) signs at the approach to the rail crossing.
2. Carmony Rd. to Mission Ave.: Initiate a road diet on the existing four-lane section by removing one vehicle lane in each direction, widening center driving lanes, adding bike lanes and converting median to a wide two-way left turn lane (or paint a buffer two feet from the raised medians). Keep median and metal barrier at Montano Rd. underpass.

8.2.20 Montano Road, 4th Street to 2nd Street (Gap Closure)

1. The existing Montano Road is approximately 65 feet in width, which supports two driving lanes in each direction and a central median.
2. Adding bike lanes is possible by the expansion of the facility to the south. Several private lots have extra frontage, which could be narrowed or eliminated.
3. Existing eastbound lanes at 4th Street are approximately 10 feet wide, but expansion to the north by 8 feet may be possible.
4. Relocate westbound bike lane on the 2nd Street approach to be between the through and right-turn lane. Paint or delineate the full width of the bike lane in high-conflict areas.

8.2.21 Irving Boulevard, Universe Boulevard to La Paz Drive (Gap Closure)

1. The existing Irving Boulevard has two vehicle lanes in each direction with a center raised median and a westbound bike lane. Traffic is restricted to the eastbound lanes with one lane in each direction until the developer on the northeast corner of Universe Boulevard and Irving Boulevard builds the rest of the intersection (City of Albuquerque impact fees evolution).
2. The existing eastbound direction is approximately 24 feet in width.
3. Narrowing the median is possible in order to obtain the additional 6 feet necessary for eastbound bike lanes.

8.2.22 Washington Street, Lomas Boulevard to Zuni Road (Intersection Improvements)

1. Washington Street south of Central Avenue is a bike route and has bike lanes north of Central Avenue. No change necessary.
2. Washington Street south of Lomas Boulevard is a low-volume road with through-right combinations. Providing a bicycle lane at the intersection would force bicycles to be right of potential right turns and is contradictory to standard practice. No change necessary.

8.2.23 Carlisle Boulevard, Garfield Avenue to Silver Avenue (Gap Closure)

1. Hermosa Drive, approximately 1/10 mile east of Carlisle Blvd., provides existing bicycles facilities.
 - Unsignalized crossings:
 - Lead Avenue
 - Coal Avenue
2. Remove two-way left-turn lane and add bike lanes (i.e., convert the three-lane section into a two-lane section with bike lanes).
3. Acquire residential right-of-way strips along the corridor – enough to add bike lanes and reduce width of two-way left-turn lane. Existing sidewalks are narrow and driveways are short.

8.2.24 Second Street, Stover to Marquette (Gap Closure)

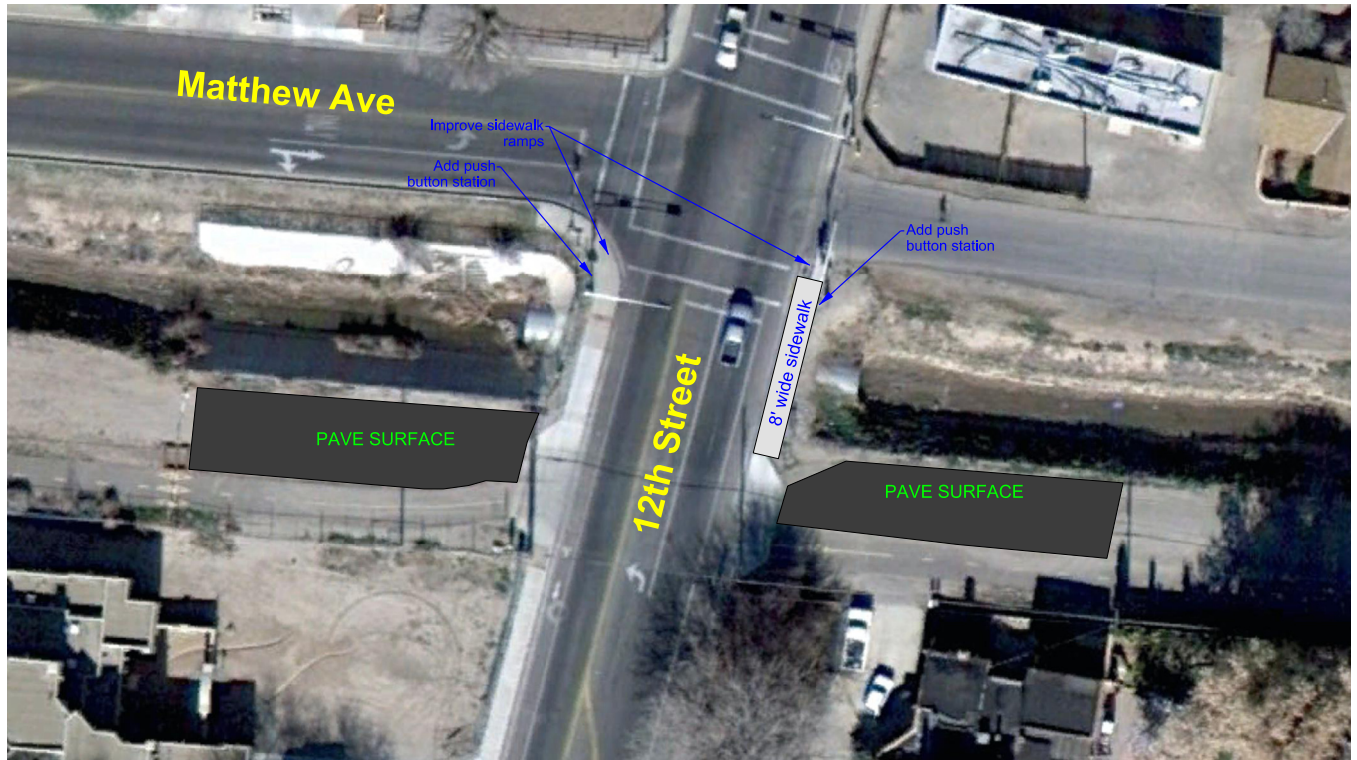
1. Need description.
2. Designate First Street as a bike route between Hazeldine Avenue and Gold Avenue/Alvarado Transportation Center.



8.2.25 Rio Grande Boulevard (Gap Closure)

1. Bike route Mountain Road to Alhambra Avenue
 - 19th Street: Mountain Road to Old Town Road
 - Old Town Road: 19th Street to San Pasquale Avenue
 - Cross Central Ave at San Pasquale Avenue using pedestrian crossings, improvements to accommodate bicycles should be part of the redesign of the Central Avenue/ San Pasquale Avenue intersection.
 - Continue on San Pasquale Avenue to Alhambra Avenue

8.2.26 Alameda Drain at 12th Street (Intersection Improvement)



1. Widen the sidewalk on east side of 12th Street to 8 feet wide between the Matthew Avenue and the Alameda Drain multi-use trail.
 - Improve the sidewalk ramps on the southeast and southwest corners of 12th Street and Matthew Avenue to make it easier for cyclists to make turns.
2. Pave the dirt surface between the multi-use trail and the edge of the drain from the sidewalk back 100 feet. This will help eliminate loose soil from accumulating at the multi-use trail/sidewalk interface.
3. Relocate or add pedestrian pushbuttons so that they are easily accessible to cyclists using the crosswalk.

8.2.27 Prototypical Multi-lane Arterial Intersection Improvements

The following diagram shows potential treatments to accommodate bicycle lanes on multi-lane arterial streets. Four different intersection approaches are shown:

- Dedicated right-turn bay (1)
- Right-turn slip lane with yield (3) condition (2)
- Shared bike/right-turn lane
- Combination right-turn/through lane with bike lane on the right side (4)

Traffic signal bicycle detection is a part of each treatment, as is color enriched bike lanes in locations where motor vehicle traffic crosses over the bike lane.

