

## PLAN COMPONENTS | GREAT STREETS

The focus of Great Streets design is on elevating the needs of pedestrians and cyclists to a state of equality to other modes of transportation within the right-of-ways of residential and commercial streets. This will balance the current state of affairs of auto-dominant design. Walking and shopping opportunities increase, adding greatly to the livability and economic vitality of a place. All these elements combine to create a much higher trip quality for citizens and visitors. Visitors, workers and residents may arrive at various destinations within the corridors in wheeled vehicles, but at some point they eventually enter the realm of the pedestrian, who moves at no more than four miles per hour. And as pedestrians, they need to circulate safely and conveniently to wherever they chose to direct themselves.

Central Avenue will become an elegant new avenue. Proposed are a series of roundabouts which will replace signalized intersections. These are safer than signalized intersections, allow smoother movement thru the corridor [at calmer speeds], and provide a place for great public art. Thus, the sense of place will be greatly enhanced on this stretch of Central. A central alameda, or median, is proposed to allow for landscape and a walkway [and to accommodate a potential future light rail system]. The 6 lanes of traffic on Central will be reduced to 4 lanes in order to allow for on-street parking. It should be pointed out that Central will still carry the same amount of traffic in a much smoother, reduced-speed manner. It is essential to narrow Central to match its section through Nob Hill for safety and for commerce. All over America, excessively wide streets are killing pedestrians [see also "Motor Vehicle Accident Reconstruction and Cause Analysis" by Rudolph Limpert]. If we can slow down cars in our corridor to 30 mph or less, a car can react and come to complete stop well before hitting a pedestrian. Even if the person is hit at 20 mph, the person, although injured, will have a 90 percent chance of surviving [see appendix]. It is worth the effort to design our neighborhood streets to slow traffic, maintain traffic capacity, save lives, and increase business and social commerce .

Building placement will define Central Ave. as a corridor and public space. The most effective relationship of building enclosure is a building separation to height ratio of 1:1 [see photos this page upper right], but can be up to 3:1, and 4:1 for boulevards and plazas [see photo this page lower right]. Studies of building enclosure and car speed indicate that there is a reduction in average speeds with the enclosure ratios stated here.

There exist a number of street types in the area that form a grid system bisected by Central Avenue. The proposed design is geared toward walkable, mixed-use urbanism. The success of a walkable environment is largely based on the design of its public space - in this case, streets, which compose most of the public realm. There are several essential elements in this design:

1. Pedestrian crossing times - are kept to a minimum, 19 seconds max.. This is achieved at Central, for example, with four 12 foot wide lanes.
2. Vehicle speeds - 30 mph on main streets, 20 mph at side streets.
3. Pedestrian comfort - they should be protected from autos & the elements.
4. Street definition - buildings should define street edges.
5. Pedestrians, bicyclists - should be accommodated, along with handicapable.
6. Transit - should be included in thoroughfare planning, be it bus or light rail.
7. Parking - standards for parking should be reduced to reflect mixed use area.
8. Central Ave. - as the main artery, it need special attention.

Central Avenue's capacity to handle traffic will be maintained and enhanced, and near-by roads will not be affected adversely by the new design. This is particularly true for

Lead and Coal, whose one-way design and fast speeds represent a cohesion issue with neighborhoods to the south of the project area. Though not in our project scope, suggestions for slowing traffic speeds on those roads include approaches such as on-street parking, bulb-Outs at corners, and 2 way traffic.

Pedestrian crossing times and vehicle speeds will be controlled by width and layout of the streets. Existing streets in the area are too wide. Slow and yield streets are suggested. Vehicle speeds will be kept at the suggested rates mentioned above in item 2. by implementing these street designs. [Street Sections follow on the next pages.] A **slow street** allows free movement of autos, but encourages slower speeds because of parking allowed on both sides of the street in a 30 to 34' wide street. Parking is a combination of parallel and head-in diagonal. Bulb-outs and mid-block chokers would be included. Buildings along such streets would be mixed-use, retail and higher density residential uses. A **yield street** is narrower and has one auto yield to another as they pass. Parking is parallel on both sides of the street in a 26 to 28' wide street. These types are suitable for attached residential and mixed-use, and the 26' wide more suitable for single family homes generally.

Pedestrian comfort and safety is addressed through design as well. Street trees will occur on the Central Ave. alameda [median] and at side streets. The trees cool the surface of the pavement, help reduce the toxicity of vehicle emissions, help reduce storm water runoff, and by their vertical presence along roads, slow down drivers. Awnings, arcades, and other architectural elements should occur on facades at Central Ave. sidewalks in the absence of trees. Bicyclists and the handicapable should be accommodated by the streets and sidewalk designs. Because street speeds will be reduced by design, dedicated bicycle lanes are not needed. Bicyclist uncomfortable with Central Ave. can easily take Copper or Silver as well, which are much more residential in usage. Roundabouts at key intersections allow bike and car traffic to mix at safe speeds, as well as allowing easier crossing of Central by pedestrians. Bike racks should be included in the street furniture along Central Ave.. Sidewalks should be widened as shown, again for safety and to avoid collision with power poles [currently blocking safe passage]. Excessive curb heights [greater than 6"] should be lowered to allow proper handicap accessible ramps at sidewalk corners, and corner radii should be reduced. Pedestrian crossings should be greatly improved with the roundabouts on Central, and better markings at all other intersections. The improvements will increase safety and retail sales, and are relatively inexpensive to construct.

Transit is accommodated in the design by locating local bus stops at corners connected to the roundabouts. This will increase safety of cars navigating around stopped buses, and increase the ease and safety of pedestrians crossing Central Ave.. Future transit projects, such as Bus Rapid Transit and possible Light Rail have also been accommodated - there are stops for the Bus Rapid Transit at San Mateo and Carlisle intersections with Central at the ends of the project area. The Central Ave. Alameda could house the future Light Rail if the City chose to put that project on Central. [An alternative location for the Light Rail is also being considered by the City on Lomas Blvd.]

Parking is handled by a combination of on-street parking, side street parking areas, and parking courts to the rears of buildings. Parking count requirements must be reduced to reflect the historically-supported demand for mixed-use in traditional urbanism. For healthy commerce, retail stores needs parallel parking at the fronts of buildings, especially along Central Ave.. On-street parking protects pedestrians as well as encouraging retail. Read more in the "Park Once Section" of this document.



Wide sidewalks enable many uses



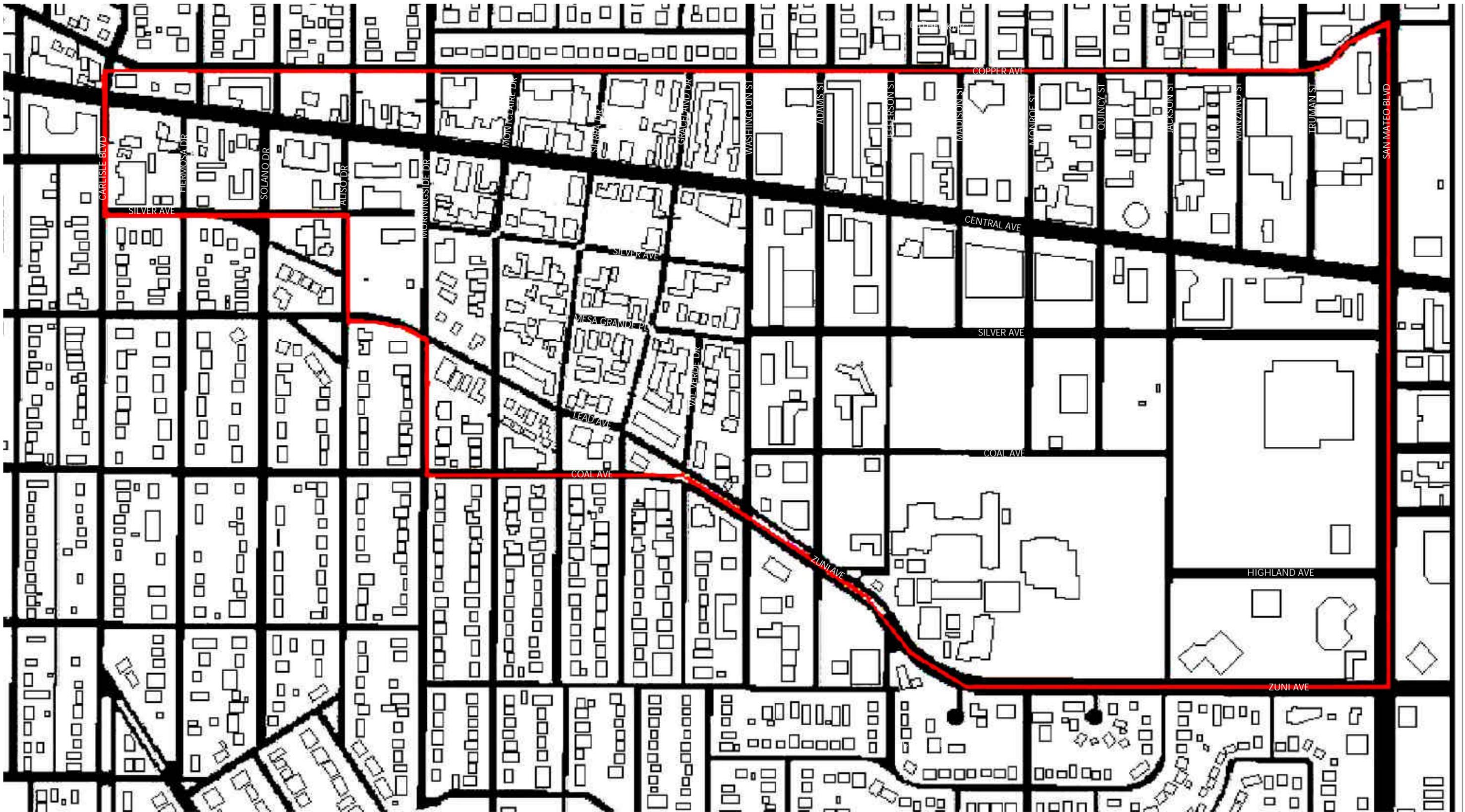
Well-defined street space with terminus



Building separation to height ratios of 1:1



Building to height ratio of 3:1, & uses continuing into evening for safety & vibrancy



Note: Building outlines shown are existing buildings.

Client: City of Albuquerque Planning Department  
 Albuquerque, New Mexico

Great Streets Plan



Moule & Polyzoides Architects and Urbanists  
 June, 2004

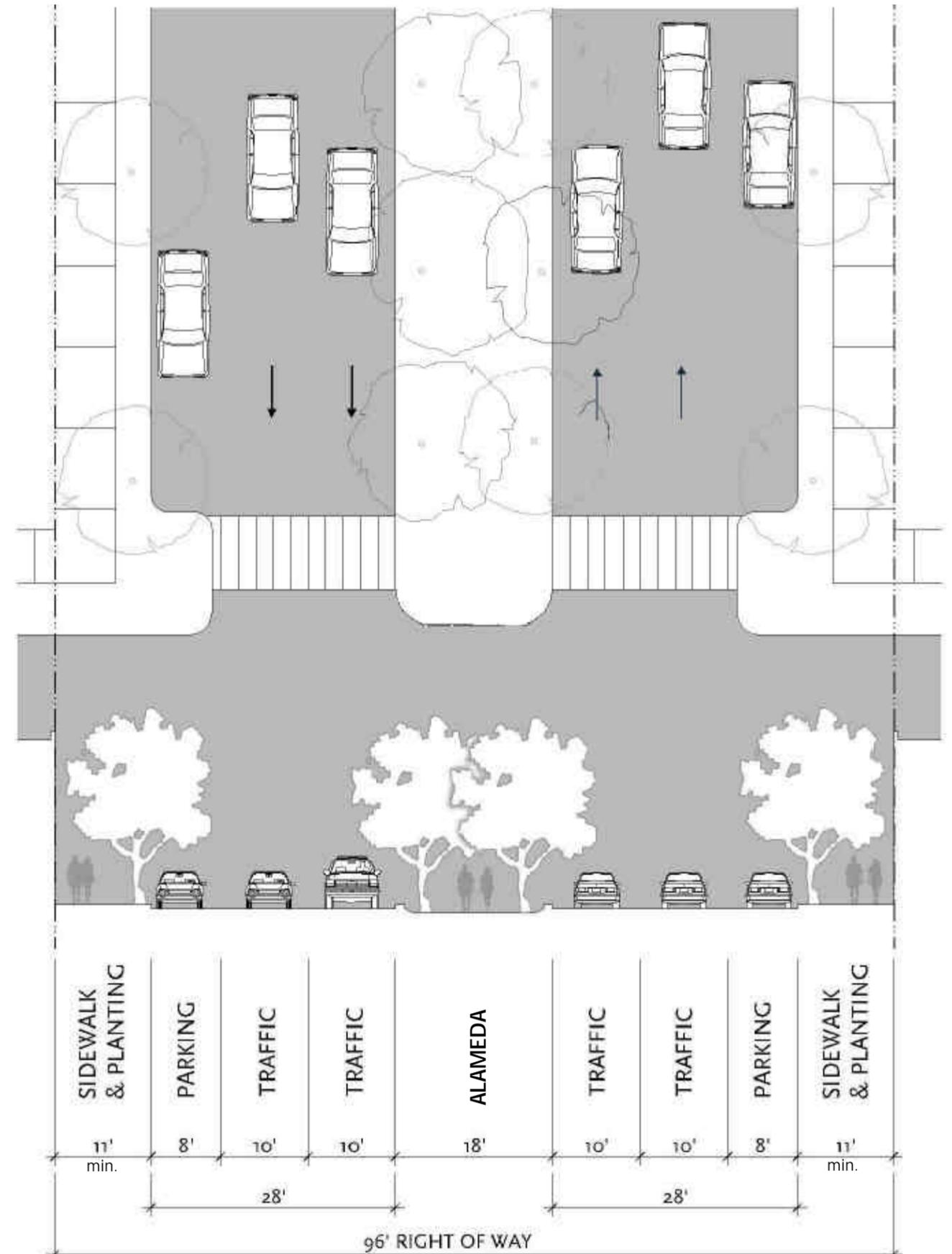


**PLAN COMPONENTS | GREAT STREETS**  
**CENTRAL AVENUE | OPTION A - ALAMEDA\***



- MOVEMENT / SPEED ..... Free / 30 mph
- CROSSING TIME ..... 19 seconds
- ROW WIDTH ..... varies, 96' min.
- TRAFFIC LANES ..... 4 at 10' each
- PARKING ..... Both sides
- CURB TYPE ..... vertical
- CURB RADIUS ..... 5' typical, with bulbouts
- SIDEWALK WIDTH ..... varies, 11' min.
- PLANTER WIDTH ..... varies
- PLANTER TYPE ..... tree grates
- PLANTING ..... varies

\* NOTE: Transit is mixed in traffic lanes.



**PLAN COMPONENTS | GREAT STREETS**  
**CENTRAL AVENUE | OPTION B - TRANSIT\***

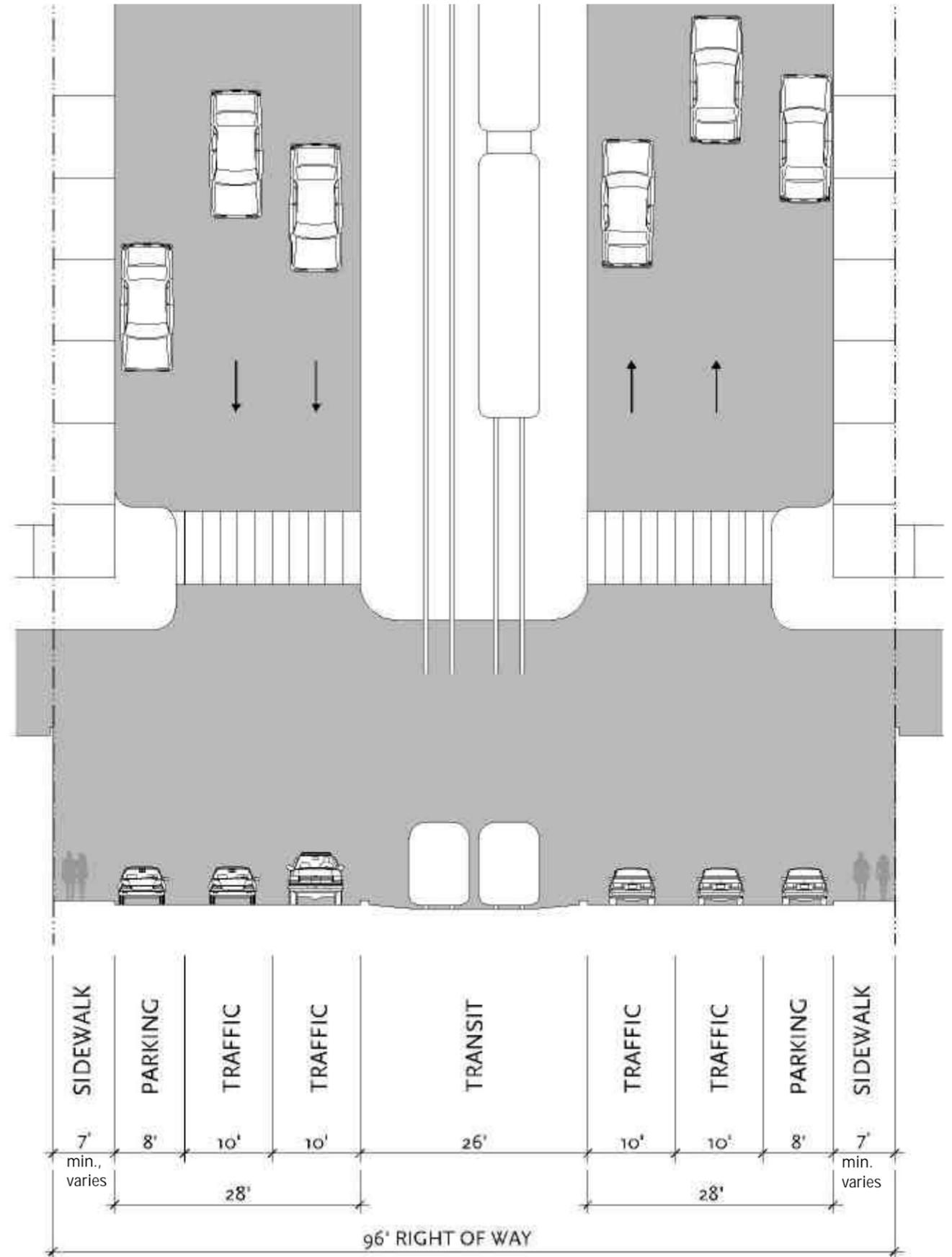


- MOVEMENT / SPEED ..... Free / 30 mph
- CROSSING TIME ..... 17 seconds
- ROW WIDTH ..... varies, 96' min.
- TRAFFIC LANES ..... 4 at 10' each
- PARKING ..... Both sides
- CURB TYPE ..... vertical
- CURB RADIUS ..... 5' typical, with bulbouts
- SIDEWALK WIDTH ..... varies, 11' min.
- PLANTER WIDTH ..... varies
- PLANTER TYPE ..... tree grates
- PLANTING ..... varies

\*NOTE: Transit is in dedicated R.O.W. in centrally located median.



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 Albuquerque, New Mexico

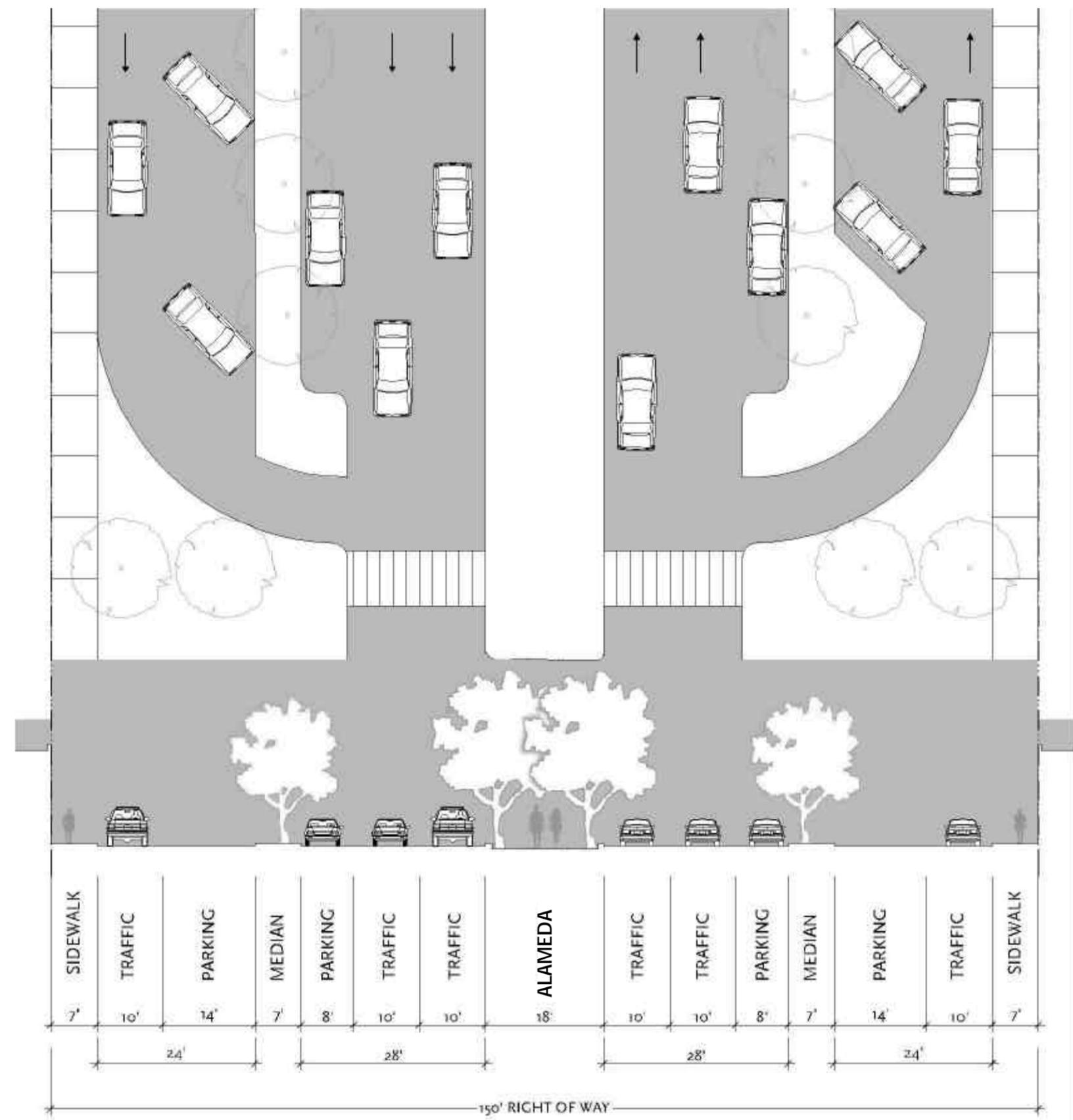


Moule & Polyzoides Architects and Urbanists  
 June, 2004

**PLAN COMPONENTS | GREAT STREETS**  
CENTRAL AVENUE AT HILAND - BOULEVARD



- MOVEMENT / SPEED ..... Free / 30 mph
- CROSSING TIME ..... 17 seconds
- ROW WIDTH ..... 150'
- TRAFFIC LANES ..... 6 at 10' each
- PARKING ..... Both sides
- CURB TYPE ..... vertical
- CURB RADIUS ..... 5' typical, with bulbouts
- SIDEWALK WIDTH ..... 7'
- PLANTER WIDTH ..... 7' medians
- PLANTER TYPE ..... tree grates
- PLANTING ..... varies



**PLAN COMPONENTS | GREAT STREETS**  
**CENTRAL-WASHINGTON ROUNDABOUT**

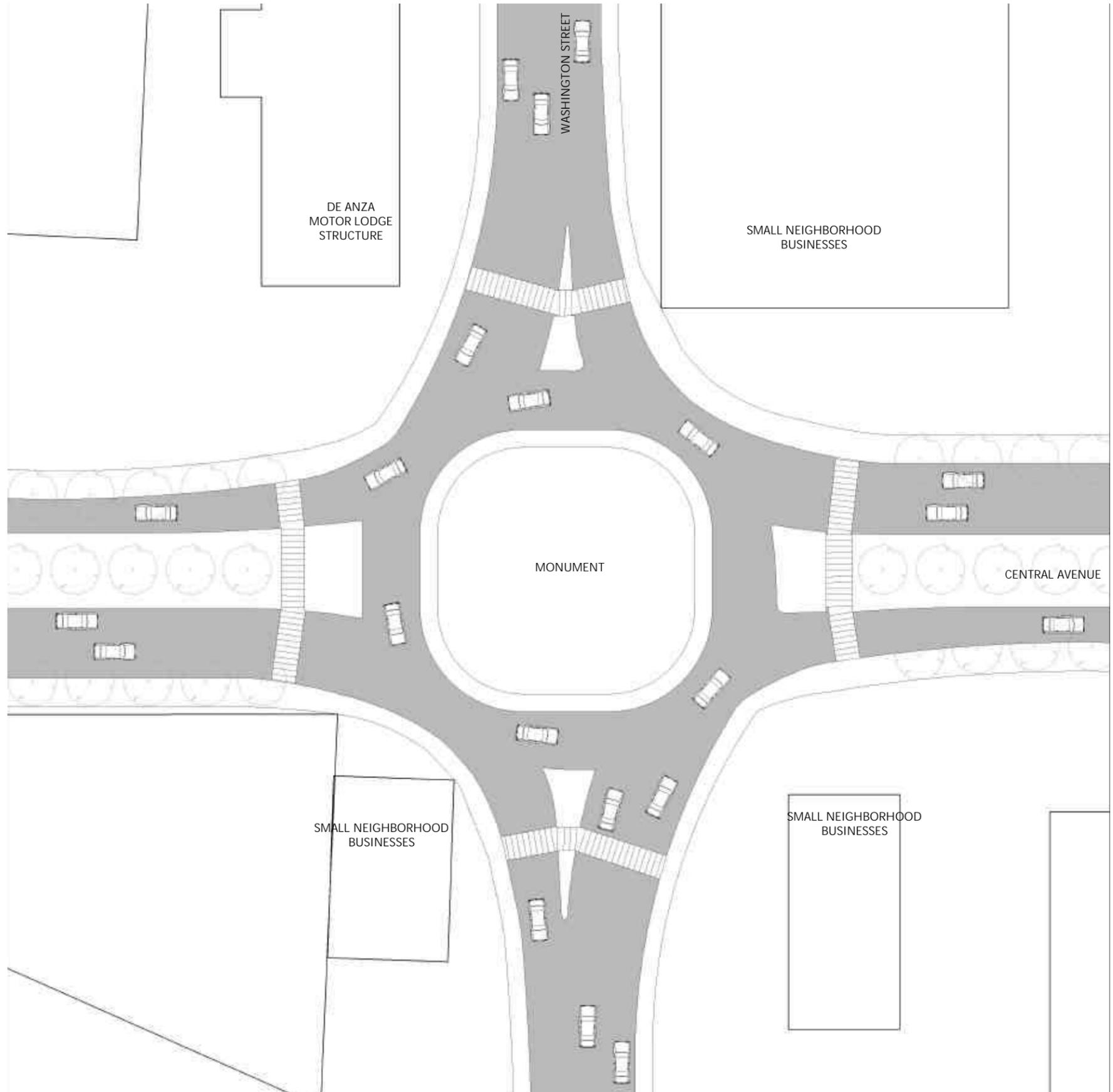


MOVEMENT / SPEED ..... Slow / 20 mph  
 CROSSING TIME ..... 21 seconds on Central, 16 seconds on Washington  
 ROW WIDTH ..... 98' @ Central, 70' @ Washington  
 TRAFFIC LANES ..... 12' each: 2 in approaching lanes, 1 elsewhere  
 PARKING ..... None  
 CURB TYPE ..... Roll-over at center, vertical option  
 CURB RADIUS ..... varies  
 SIDEWALK WIDTH ..... varies, 6' min.  
 PLANTER WIDTH ..... varies  
 PLANTER TYPE ..... tree grates  
 PLANTING ..... varies

Note: advantages of the roundabout include smoother traffic flow at intersections with no wait times, increased capacity to handle traffic, easier and safer pedestrian crossings, and increased aesthetic appeal.



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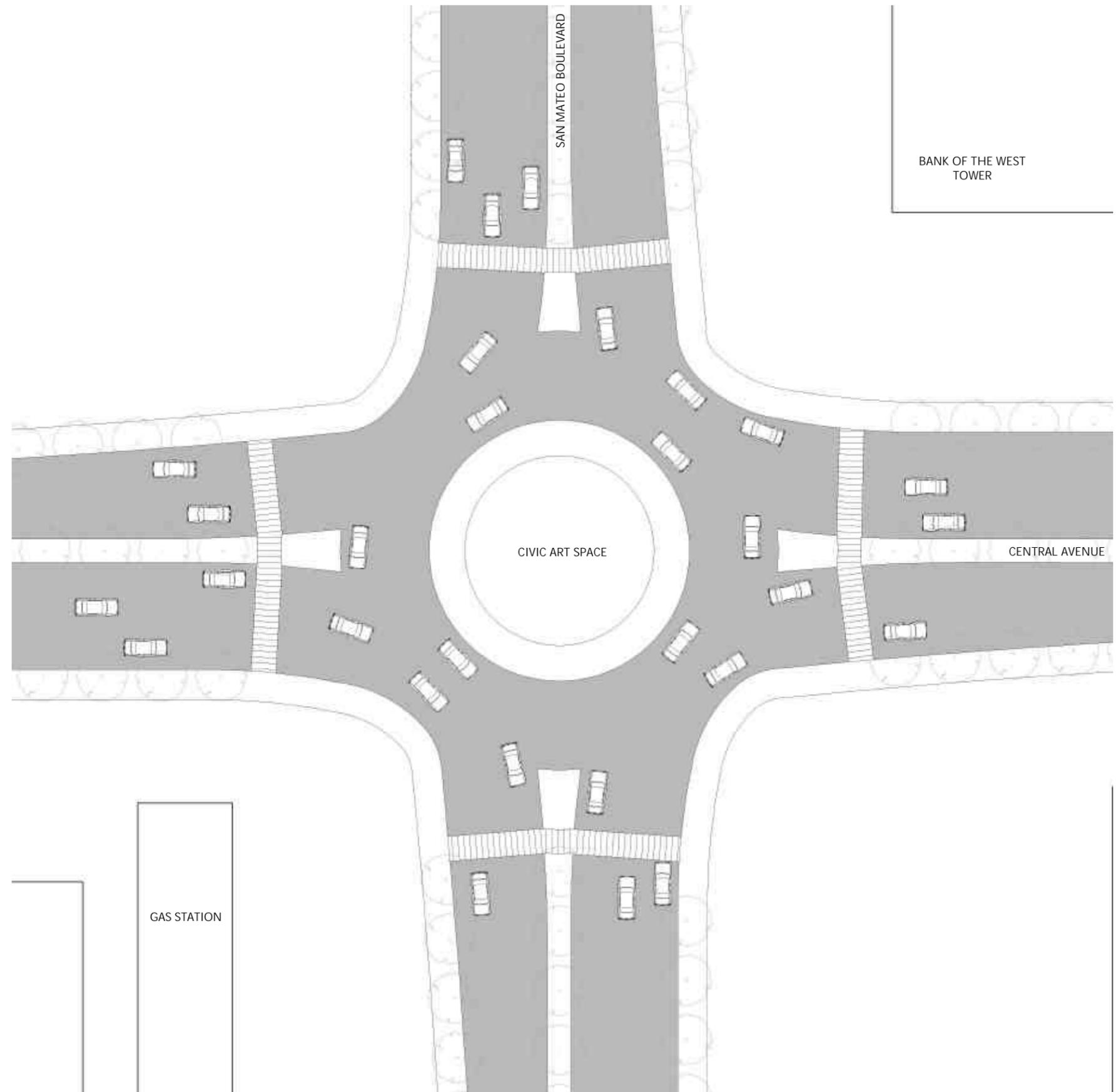


**PLAN COMPONENTS | GREAT STREETS**  
CENTRAL-SAN MATEO ROUNDABOUT



- MOVEMENT / SPEED ..... Slow / 20 mph
- CROSSING TIME ..... 22 seconds on Central & San Mateo
- ROW WIDTH ..... 100' @ Central, 140' @ San Mateo
- TRAFFIC LANES ..... 12' each: 3 in approaching lanes, 2 elsewhere
- PARKING ..... None
- CURB TYPE ..... Roll-over at center, vertical option
- CURB RADIUS ..... varies
- SIDEWALK WIDTH ..... varies
- PLANTER WIDTH ..... varies
- PLANTER TYPE ..... tree grates
- PLANTING ..... varies

Note: advantages of the roundabout include smoother traffic flow at intersections with no wait times, increased capacity to handle traffic, easier and safer pedestrian crossings, and increased aesthetic appeal.

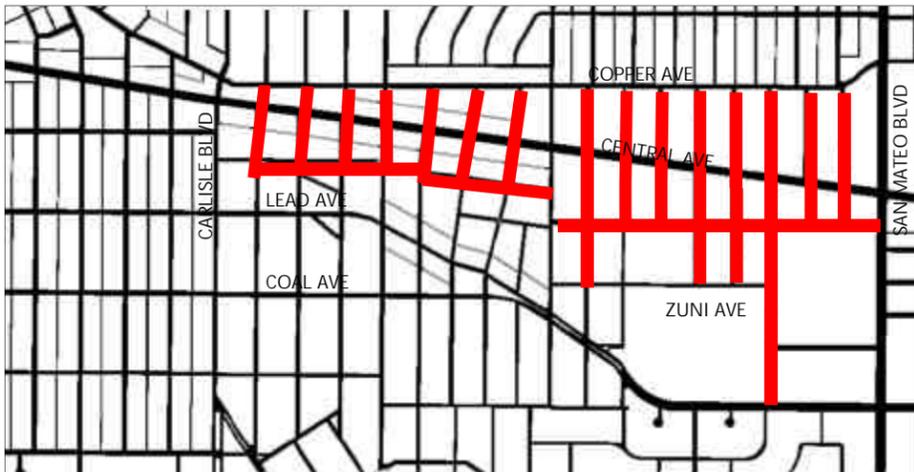


**PLAN COMPONENTS | GREAT STREETS**  
**SLOW STREETS - MIXED-USE**

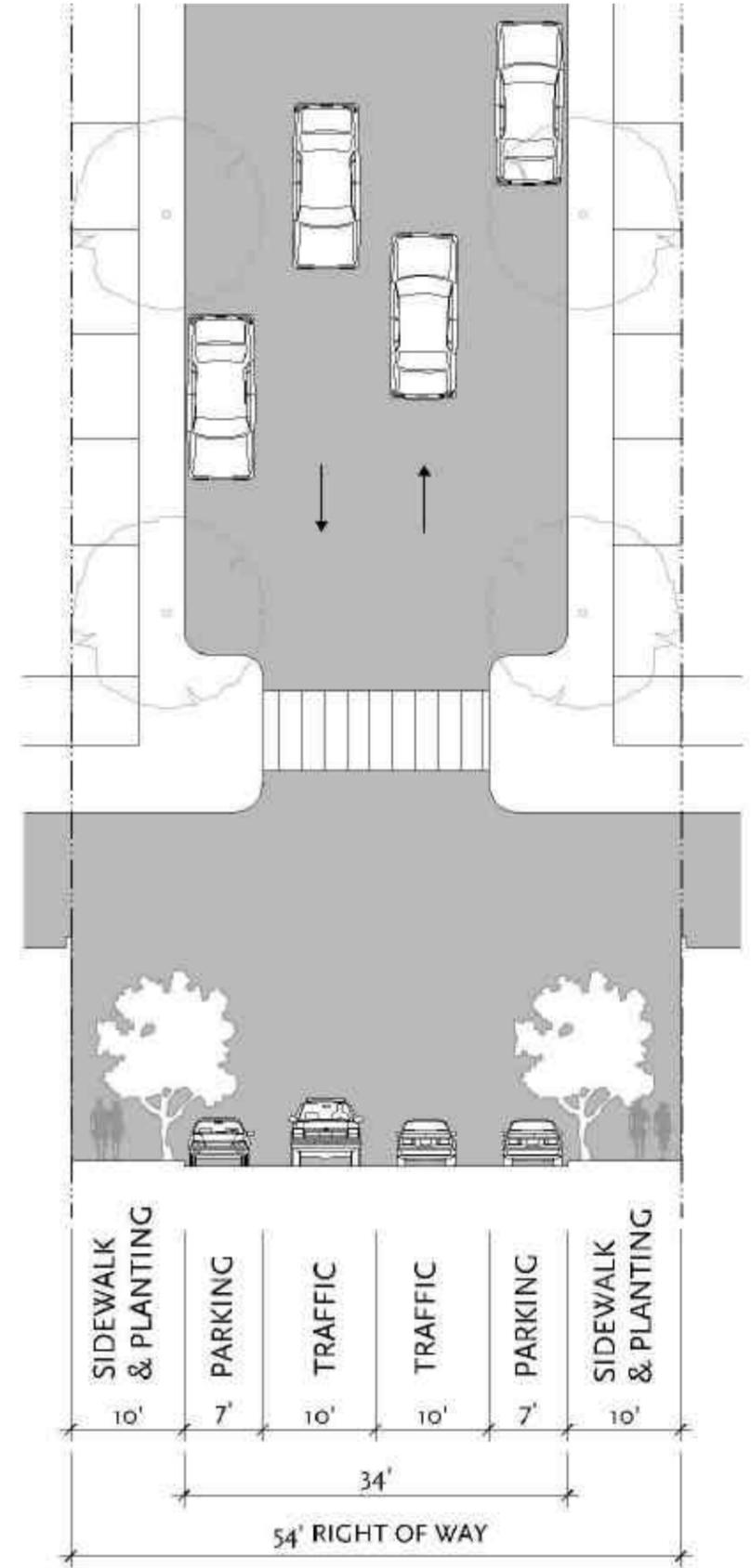
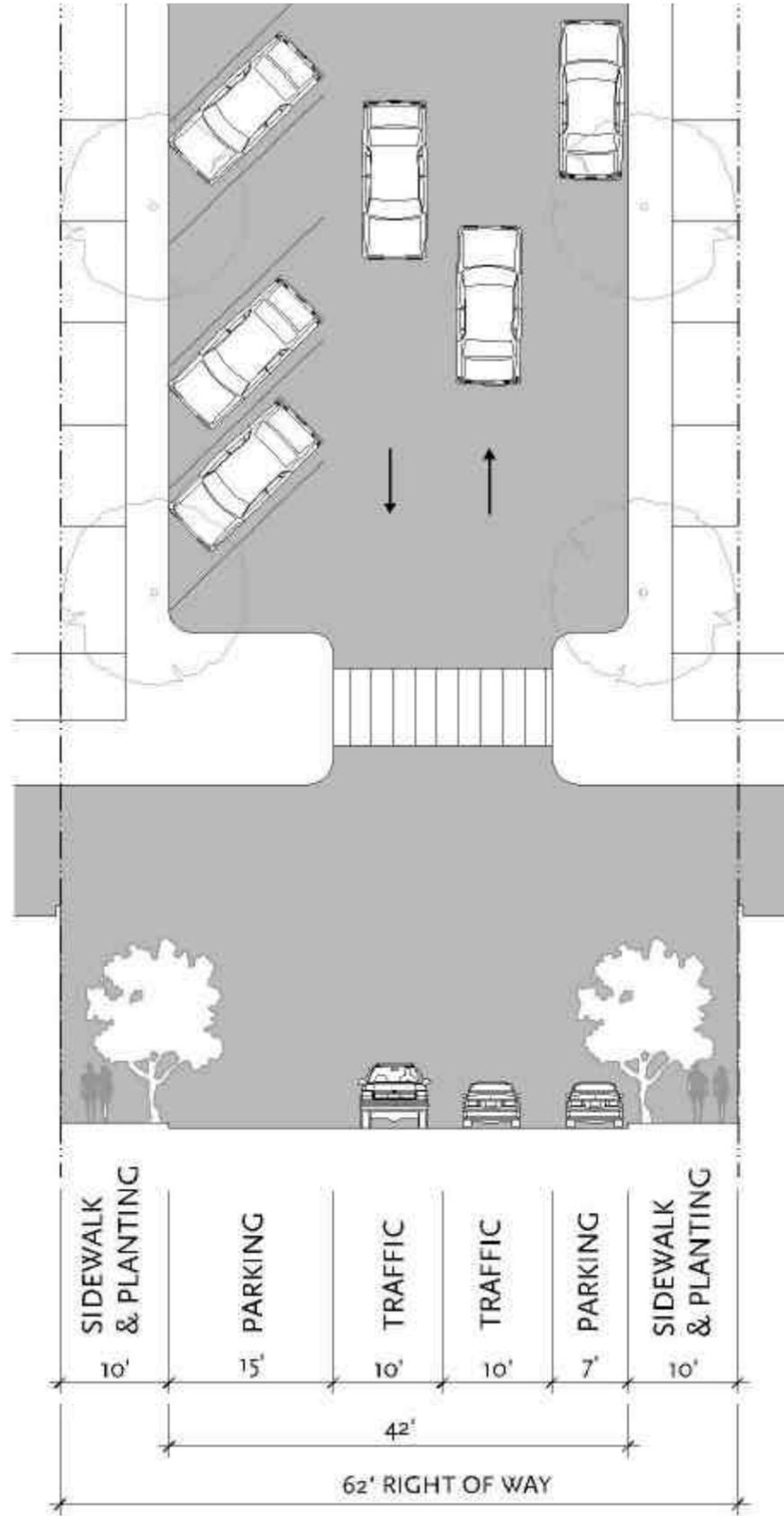


- MOVEMENT / SPEED ..... Slow / 20 mph
- CROSSING TIME ..... 6 seconds
- ROW WIDTH ..... 54'-62'
- TRAFFIC LANES ..... 2 at 10' each
- PARKING ..... Both sides
- CURB TYPE ..... vertical
- CURB RADIUS ..... 5' typical, with bulbouts
- SIDEWALK WIDTH ..... 10' with planter
- PLANTER WIDTH ..... 10' with sidewalk
- PLANTER TYPE ..... tree grates
- PLANTING ..... varies

NOTE: On-street parking can be parallel, diagonal, head-on styles in a variety of arrangements. For example, Monroe Street from Copper to Silver avenues has diagonal parking on the west side and parallel parking on the east side.



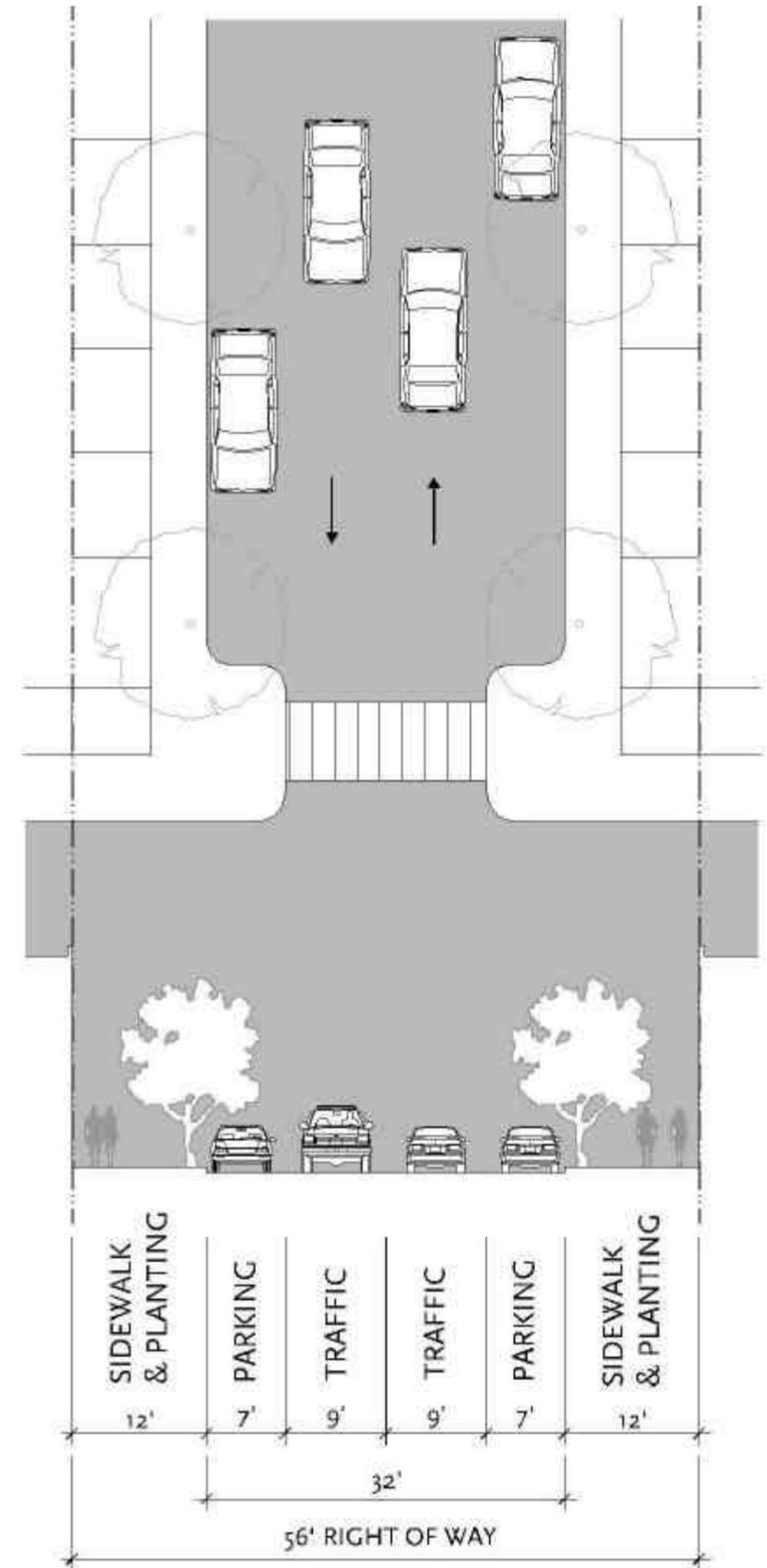
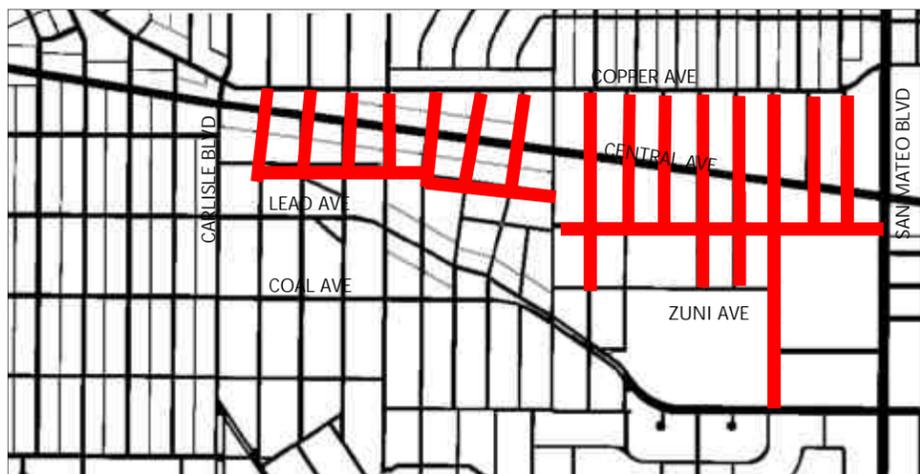
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 Albuquerque, New Mexico



**PLAN COMPONENTS | GREAT STREETS**  
**SLOW STREETS - MIXED-USE**



- MOVEMENT / SPEED ..... Slow / 20 mph
- CROSSING TIME ..... 5 seconds
- ROW WIDTH ..... 56'
- TRAFFIC LANES ..... 2 at 9' each
- PARKING ..... Both sides
- CURB TYPE ..... vertical
- CURB RADIUS ..... 5' typical, with bulbouts
- SIDEWALK WIDTH ..... 12' with planter
- PLANTER WIDTH ..... 12' with sidewalk
- PLANTER TYPE ..... tree grates
- PLANTING ..... varies



**PLAN COMPONENTS | GREAT STREETS**  
**SLOW & YIELD STREETS - RESIDENTIAL**



Slow Street

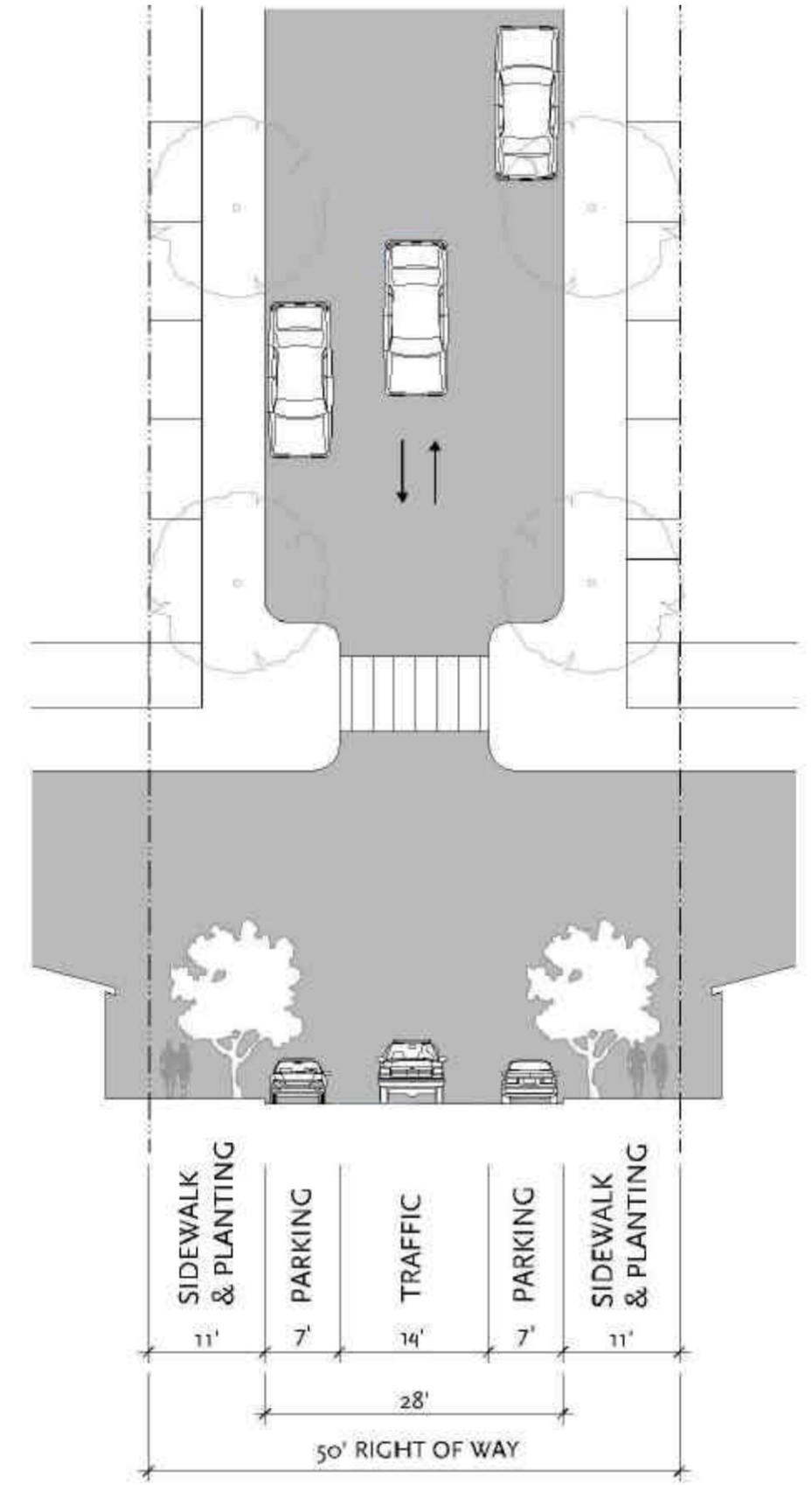
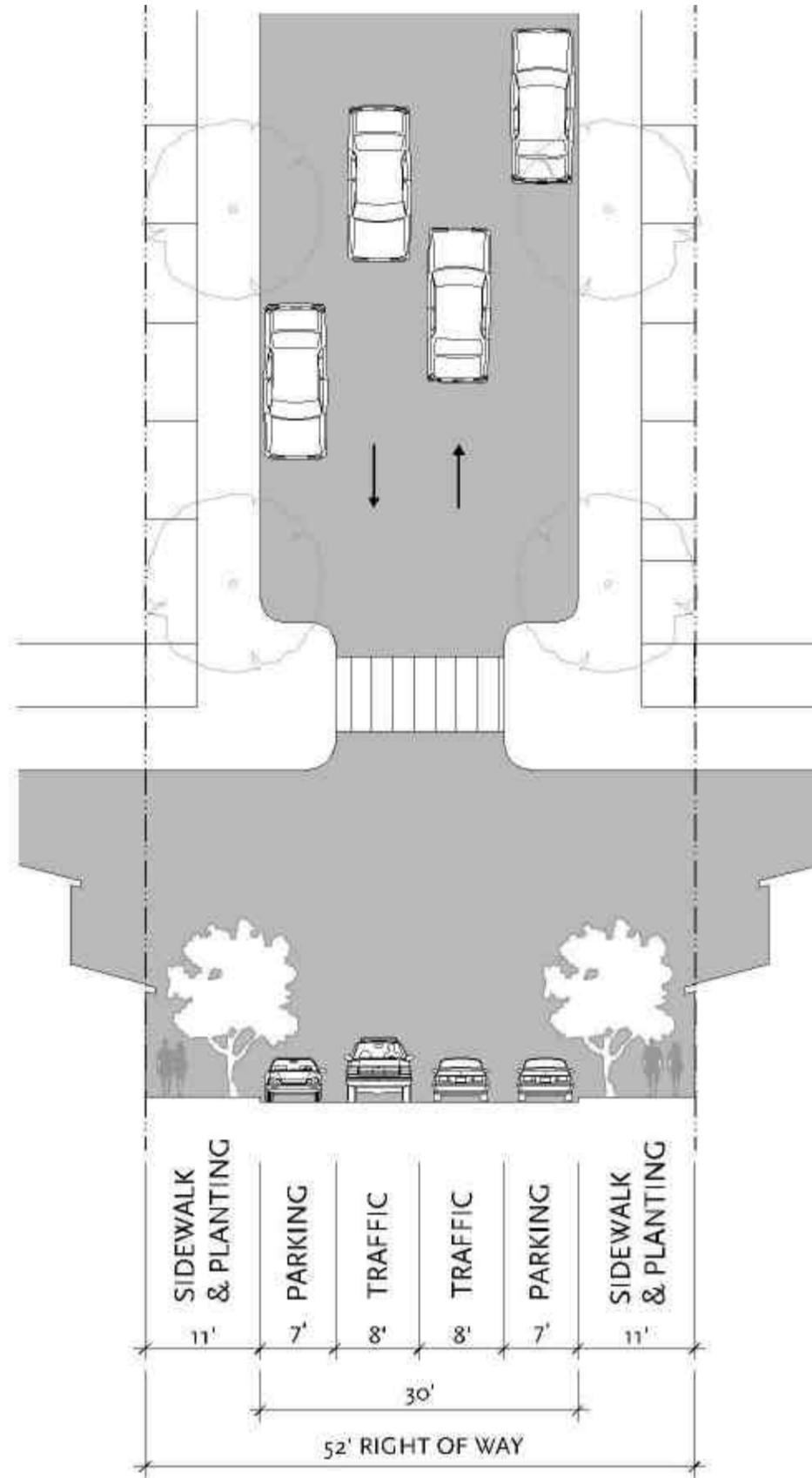


Yield Street

- MOVEMENT / SPEED ..... Slow & Yield/ 20 mph
- CROSSING TIME ..... 4 seconds
- ROW WIDTH ..... 52' slow, 48-50' yield
- TRAFFIC LANES ..... 2 at 8' each slow, 1 at 12-14' yield
- PARKING ..... Both sides
- CURB TYPE ..... vertical
- CURB RADIUS ..... 5' typical, with bulbouts
- SIDEWALK WIDTH ..... 11' with planter
- PLANTER WIDTH ..... 11' with sidewalk
- PLANTER TYPE ..... tree grates
- PLANTING ..... varies



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 Albuquerque, New Mexico



## PLAN COMPONENTS | PARK ONCE & WALK

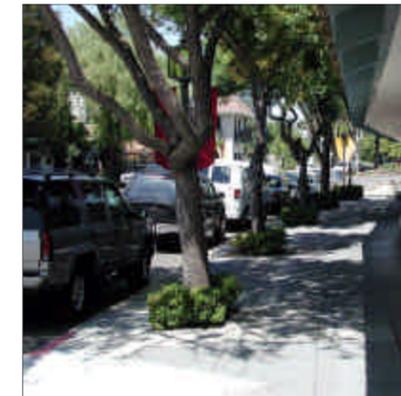
Fundamental to the successful revitalization of Central-Highland-Upper Nob Hill is the concept of Park Once & Walk. The typical suburban, sequential pattern of "shop and park" requires two movements and a parking space to be dedicated for each visit to a shop, office, or civic institution, requiring six movements and three parking spaces for three tasks. By contrast, the compactness and mixed-use nature of Main Streets lends itself to moving twice, parking just once, and completing multiple daily tasks on foot.

The savings in daily trips and parking spaces required in a Park Once setting are very significant. Studies indicate that the requirement for parking in such a mature mixed-use district at 2.5 cars per 1000 square feet of average use is almost half that of suburban multi-park development. Daily trips can be reduced by as much as a third. But most importantly, the transformation of drivers into walkers is the immediate generator of pedestrian life: crowds of people that animate public life in the streets and generate the patrons of street friendly retail businesses. It is this "scene" created by pedestrians in appropriate numbers that provides the energy and attraction to sustain a thriving Main Street environment.

This is a fact of crucial importance to the project area because the surrounding neighborhoods have a large enough population to generate a vital, pedestrian, mixed-use Main Street. Providing too much parking generates retail boxes surrounded by cars, and sets up the "shop and park" pattern typical of suburban sprawl. This would be a mistake in Central-Highland-Upper Nob Hill. Providing average needs for parking in central locations generates more pedestrian traffic accompanied by less vehicular congestion.

Parking will be provided through a combination of on-street, side street parking courts, and rear lot parking courts which could become 2 story parking structures if the development becomes dense enough. If the structures are built, they shall be wrapped with shops and lofts or apartments. On-street parking is of primary importance for ground-level retail to succeed. As short-term parking that is strictly regulated, on-street parking creates rapid turnover and gives the motorist a reason to stop on a whim, adding to the retailers' profits. This "teaser" parking is located on Central Ave. as well both sides of nearly every street in the Master Plan. These areas offer significant parking before cars enter the neighborhoods. Private parking for housing is accommodated in parking courts in the case of townhouses, and in parking courts and garages for courtyard housing & lofts above flex type housing. The live/work units would likely have small surface lots in the interior of the blocks, with on-street parking for residents and guests.

Parking [commercial] should be managed as a district by the businesses in the area. This provides economic advantages in shared parking strategies and partnerships for building parking courts and/or garages. Individual business owners benefit from these partnerships, and benefit as well from allowing on-street parking to count towards their parking requirements. Other cities create parking districts through such methods as Business Improvement Districts [BID] or a business association that handles other management issues in the area. The diagram on the next page indicates possible locations for shared-use courts or structures.





**Parking Ratios:**

Residential or live/work unit with 1 bathroom:	1.5 parking space
Residential or live/work unit with 2-3 bathrooms:	2 parking spaces
Commercial or retail per 1000 s.f.:	2.5 parking spaces
Restaurants, per each 4 seats:	1 parking space
Hotels, per each room:	1 parking space

**Parking Counts:**

Parking need - proposed development:	11,908 parking spaces
Less 35% discount per note below*:	[- 4,167]
Less on-street parking available along streets:	[- 4,896]

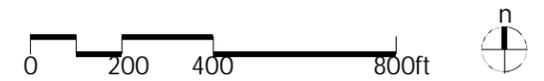
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Total On-site Parking required: 2,845 parking spaces

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\* based on current City standards less 25% discount for mixed-use corridor, and less 10% discount for high capacity transit corridor. On street parking counts toward overall district parking needs.

*Park Once Plan - potential parking courts [which could grow to structures in the future] shown as shaded & numbered blocks with 500' walking radii - the distance patrons are willing to walk [approx. 2.5 minutes].*



## PLAN COMPONENTS | LANDSCAPE

The character of the landscape design for the project is unique in that it encompasses a very urban core and feathers out to small neighborhood parks. The Central Ave. corridor becomes the main public space inhabited by folks on foot, bike, and car. The roads, centrally located alameda, and sidewalks are designed as a connected entity to create a sense of place. Parking courts are semi-public areas which could be designed for double-duty. Open play fields and parks are located off the corridor in the more residential areas. Water-conserving features are considered in all areas.

### Streetscape & Parking Courts:

The Central Avenue corridor is envisioned as an Alameda using the medians as a linear park. Warm-tone crushed stone, bollards, and xeric trees will create a pedestrian walkway and urban place in the median. The shade and street furniture there will also invite occasional fairs or exhibitions to take place there. Along the streets, sidewalk areas will be wide (minimum 7 to 11 feet) and shade will be provided using building portals, canopies, and awnings. Sidewalk plantings will be kept simple to minimize maintenance and will be located near building entry courtyards only to utilize water harvested from adjacent rooftops. There will be no trees along much of the sidewalk to increase retail visibility. In all, the character of the landscape will speak of the sense of culture and climate specific to Albuquerque.

Roundabouts will be built at 4 locations along Central Avenue. Sculptural elements such as artistic sculptures, and rock features, etc. will be placed in the roundabouts. These punctuation points announce the 4 different characters of the district as you travel through it, and they give a focus for terminated vistas. A textured area of brick, stamped or colored concrete, or other material will be constructed at the perimeter of each roundabout. All crosswalks in the Central Avenue corridor will be textured using stamped concrete, brick, or concrete pavers or simply striped.

Parking courts are located to the rears of the buildings. These areas can be treated as landscaped courts that one parks on, or uses for other purposes when not being utilized. Trees planted in the courts form shaded canopies which create a more intimate orchard-like setting. Water harvested from rooftops will be used to supplement irrigation to the trees. In the outlying residential neighborhoods, we suggest implementing a street tree program with design guidelines which can be instituted by homeowners.

### Other Open Spaces:

In addition to the now pedestrian-friendly streets, neighborhood parks have been created off of the Central Ave. corridor. North of Central, the property around the Senior Citizen's Center has been turned into a large park, and parking for cars is moved to head-in parking on the streets surrounding the property. South of Central, the existing miniature golf property has also been converted into a large field. Existing soccer and baseball fields at Highland High have been turned into shared-use playing fields. Housing surrounding the existing sunken soccer field provide "eyes on the street" creating a secure play area. The existing Morningside Park is maintained as is, but as with the soccer park, the addition of townhomes overlooking the park increases security in a substantial way.





**Water Conservation Concepts:**

Water harvesting from rooftops is an excellent way to supplement irrigation to parkway trees and building courtyard plantings. Collection of rainwater from rooftops should be routed to trees and plantings to supplement irrigation and reduce the consumption of groundwater. Collection of water from streets can be routed to medians through slotted curbs and culverts to supplement irrigation to trees and plantings. This system can also be employed in roundabouts through the use of slotted curbs.

Structural soils are employed under sidewalks to prevent compaction, provide stability, and allow for root growth. Organic material is a part of these soils to allow for nutrient release and water filtration to assist plant growth. Local gravel pits carry appropriate mixes of gravels for this.

Permeable pavements such as brick or pavers can be used to allow for water infiltration that provides irrigation to plant roots, recharges underground aquifers, and prevents useable water from being directed off-site.

Other concepts include using adapted and native plants to conserve water and ensure better plant adaptability to the arid region, & using local materials to reduce transportation costs and related environmental damage and to complement the native landscape.

**Client: City of Albuquerque Planning Department**  
Albuquerque, New Mexico

