

Open Spaces, Paths, Trails and Edge Treatments

The El Rio project corridor that is adjacent to, and part of, the Gila River, has the rare opportunity of showcasing several unique ecosystems of the Sonoran Desert riverine system while offering the public an opportunity to experience and educate themselves about this vitally important ecosystem. The El Rio project corridor associated with the Gila River includes a beautiful, diverse natural environment. There are natural and man-made challenges to be addressed, but this project offers the opportunity to showcase to the public, through a series of interconnected trails, overlooks and trailheads, the riparian habitats that were historically associated with the Gila River ecosystem.



Avondale





4.1 Natural and Active Open Space

The passage of time has brought many changes to the Gila River and to all rivers in the southwest. It is very different from the free-flowing rivers that traditionally provided the basis of life in the desert southwest. The growth and development of Avondale, Buckeye and Goodyear, and the unincorporated areas of Maricopa County, have also brought changes to the river. The river still serves the needs of the people, but the environment that defined the river has been destroyed or eliminated over the past 100 years. The most profound changes have been the placement of upstream dams to divert water for crop irrigation, control of cyclical flooding, and creation of a power source for the local inhabitants. These changes have severely limited the hydrology and the related natural wildlife community.

The current nature of the river has created a geographic and visual division and the El Rio project will start the process of repairing this division. This will be accomplished through a variety of means, including the preservation of natural open space that displays the characteristics and habitats common to a Sonoran Desert river system while maintaining flow conveyance. The potential to recreate natural ecosystems within the active river and along its banks is great. This can be accomplished through the selective and ongoing removal of invasive species and replacement, where appropriate, with cobble strands, saltbush flats, native mesquite, cottonwood and willow habitats. Surrounding development can then easily transition from this environment. There also exist great opportunities to identify active open space linkages and river access points that foster and create an interconnected series of nodes for public interaction and interface

with this unique and beneficial river environment and ecosystem. These and other aspects defined within this project, along with previous studies, will be the threads that help to initiate the process of repairing this vitally important ecosystem.

The natural river environment represented in the Gila River is a system that includes a succession of types of materials, from the more xeric Sonoran palo verde and mesquite bosque habitats, to wetland, as the transitional areas between terrestrial lands and the river aquatic systems. Wetlands support plant species adapted to wet conditions, and wetlands soils develop particular characteristics caused by floodings or saturations. Wetlands may also be supported by high groundwater levels rather than bordering on a water body which is common in the El Rio corridor. Common wetland types include marshes, swamps, bogs and wet meadows. Wetlands offer opportunities to explore nature, provide habitat for animals, improve water quality, and reduce flooding and erosion. The corridor is punctuated by sand and gravel operations that have left open bodies of water as a part of their excavation operations that, when left undisturbed, slowly show signs of reverting into wetland based habitats based on vegetative cover. This provides an excellent opportunity for partnering with active sand and gravel operations in the development of portions of the river as demonstration wetlands for educational purposes and habitat restoration.

The protection, where viable, and reintroduction, where feasible, of these distinct and unique Sonoran Desert ecosystems should all be interwoven into the El Rio project.

The development of the El Rio Trail system, with its series of proposed trailheads, overlooks, and linkages to other public and potential private facilities located along the corridor, will initiate this transformation.

A primary objective will be the promotion of passive recreation within and along this river environment through trails and educational areas (overlooks, trailheads,

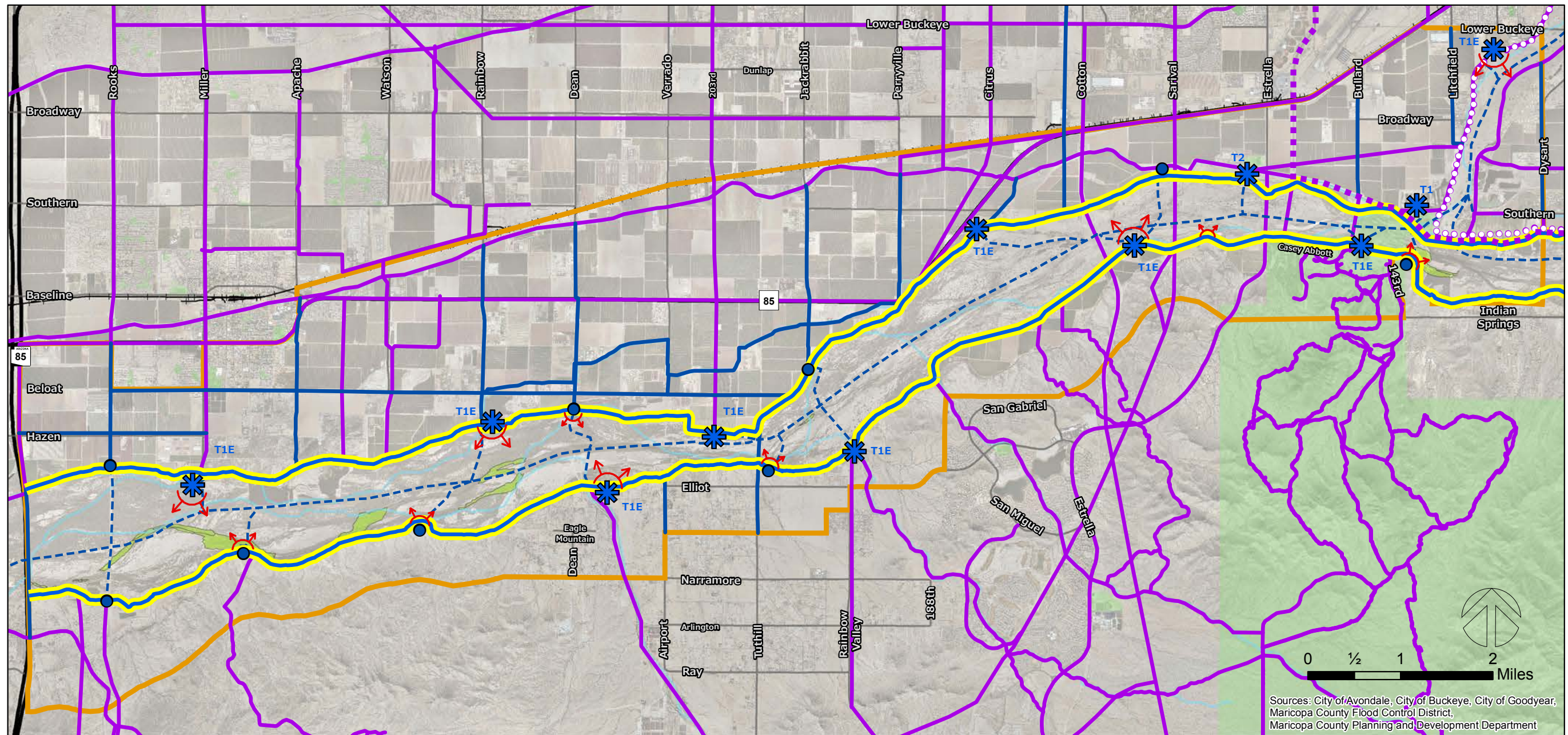
pilot projects) strategically located to avoid identified high quality and sensitive habitats. These facilities are programmed to be developed in sync with the surrounding communities' overall trail and river access plans and recreation plans.



4.2 Path, Trail, and Trailhead Design

Identifying opportunities for recreational uses along the Gila River and the El Rio corridor is one of the key objectives of the El Rio project. While other uses, including land use, zoning, and economic development are vitally important, it was envisioned that recreational uses, such as development of the El Rio Trail that links to existing and proposed parks and trails, would provide a valuable amenity to the residents of the West Valley. The trails and shared use pathways would connect communities to the river, and provide unique opportunities to showcase the corridor's cultural history and diversity of habitats. The El Rio Path and Trail System includes paths and trails that provide both regional (Maricopa Trail

and Sun Circle Trail) and local connections. Having a comprehensive network of paved paths and unpaved trails within the El Rio corridor accommodates the broadest section of users. The El Rio network of connected trails and pathways will help to encourage public use through ease of access, convenience and safety. To maximize access, all facilities are planned as non-motorized, shared-use/multi-use. Having both shared-use/multi-use paved paths and unpaved trails enables users to select the facility most appropriate to their abilities and desires. For instance, commuter bicyclists prefer paved surfaces, while equestrians and many joggers prefer unpaved surfaces.



Avondale
BUCKEYE, AZ

CITY OF GOODYEAR

MARICOPA COUNTY

Date: 8/10/2015

Matrix
DESIGN GROUP

Legend

El Rio Vista Overlook	Recommended El Rio Trail	Project Boundary	Railroad	Interstate Highway
El Rio Trail Head (T1, T1E, T2)	Recommended El Rio River Trail	Rivers and Major Streams	Arterial Streets	State Highway
El Rio River Access	Recommended Municipal Path or Trail	High Value Habitat	County Highway	Interchange
	Existing or Planned Municipal Path or Trail	Parks	Ramp	
	Maricopa Trail			
	Sun Circle Trail			

Exhibit 4-1

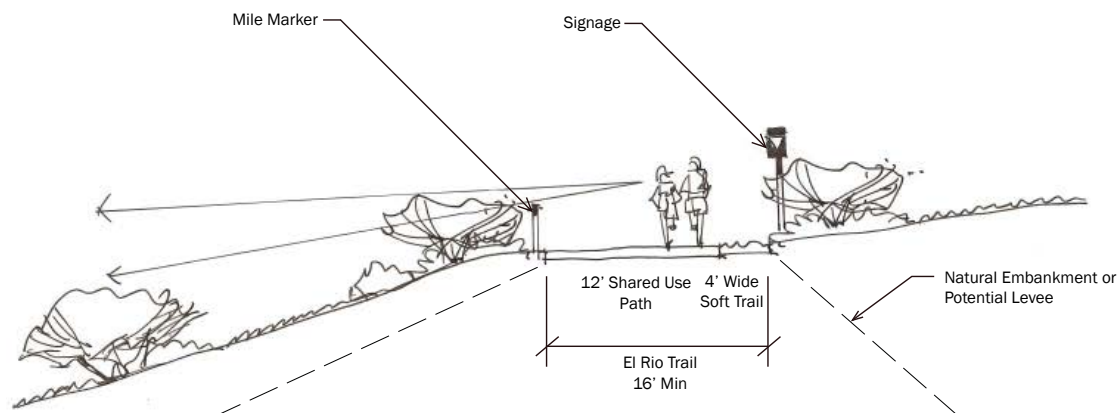
El Rio Watercourse Planning Standards - Trails, Trailheads and Overlooks Map



Trail Goals

There are a number of existing and planned recreational facilities that are in close proximity to the El Rio project corridor and the Gila River. These facilities range from community parks and golf courses to trails and equestrian areas. Several additional recreational amenities are included in the El Rio plan. Some of the goals for this plan are to:

1. Complement the flood control and other functions with multiple-use recreational features
2. Connect open space and recreational resources in and around the river
3. Create opportunities for activity while minimizing impacts to the corridor's unique landscape and habitat
4. Provide access to the river for residents, hikers, bikers, and equestrians
5. Identify ways that the El Rio recreational trail system could be used as a symbolic bridge to the surrounding communities celebrating the history and the future that this corridor and project area can bring to the Cities of Avondale, Buckeye, Goodyear and the unincorporated areas of Maricopa County.
6. Create landscape treatments that reinforce the diverse native river habitats which then transition to private development. Compliance with US Army Corps of Engineers levee landscape treatments must be considered where applicable. Landscape planting and vegetation management must provide aesthetic and environmental benefits without compromising the reliability of levees, floodwalls, embankment dams and any appurtenant structures.
7. Aggressively implement river access and trail development through linkages that support the recreation plans of the surrounding communities of Avondale, Buckeye Goodyear and the unincorporated areas of Maricopa County adjacent to the project area.
8. Include "Edge" treatments as guidelines for private development linkages that will contribute to the overall strength and connectivity of the corridor.
9. Trail routing that avoids high quality and sensitive habitats as identified by federal, state and local agencies.



TR1 The El Rio Trail



TR2 The El Rio River Trail

The El Rio Trail

The El Rio Trail provides many opportunities to showcase the river and adjacent landscape, allows for multiple recreational activities, and at the same time integrates these with valuable flood control management strategies. Recommendations for the recreational elements of the El Rio project include:

El Rio Trail

El Rio Trail (see illustration TR1) is programmed to be a continuous paved shared use path that maintains a 12'-0" width. The paved path would be an improved surface for bicyclists, walkers, joggers, and skaters. Immediately

adjacent to the primary El Rio Trail is a 4'-0" wide soft surface trail that could be used by equestrians, hikers or mountain bikers. The El Rio Trail is programmed to link into the surrounding jurisdictional trail networks of the Cities of Avondale, Buckeye, Goodyear and the unincorporated areas of Maricopa County.

El Rio River Trail

El Rio River Trail (see illustration TR2) would be in the actual river channel, programmed to be a natural earthen path with a minimum 4'-0" width and primarily for use by equestrians, mountain bikers, hikers and naturalists.

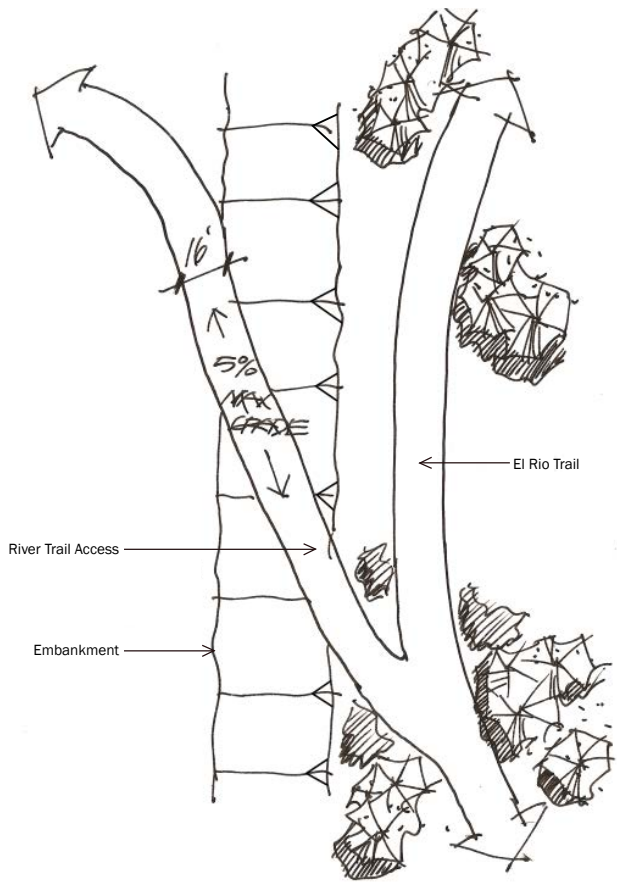
River Access and Trailheads

River access and trailhead nodes are proposed at several locations along the river corridor to link the local jurisdictions' planned trails and pathways and to serve as access points to the river.

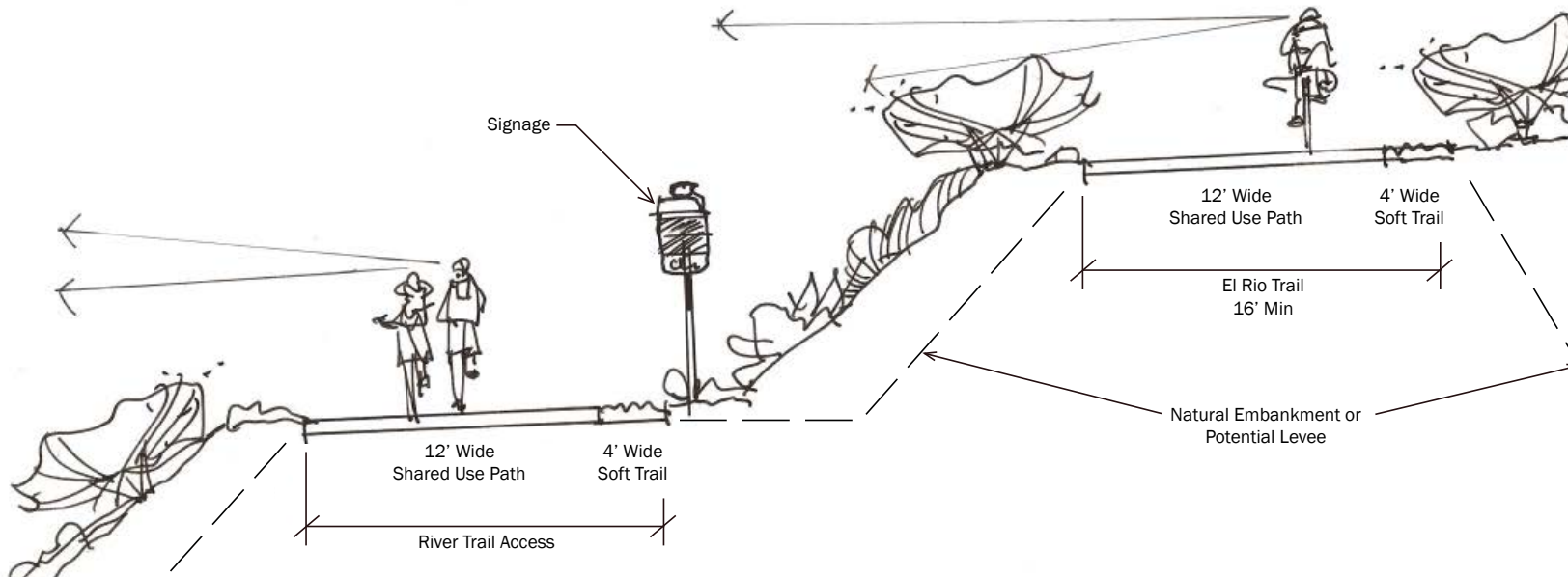
1. River access nodes are a series of access points from the upper bank El Rio Trail down to the river bed level El Rio Trail. These access nodes also serve as maintenance and emergency vehicle access for river operations (see Table 4-1).
2. Public trailhead designs shall provide, at a minimum, automobile and non-vehicular access to shared use biking and hiking paths and access to the river corridor. If designated, the trailhead may need to accommodate equine use including equestrian trailer access and parking (see Table 4-1).

Table 4-1 El Rio Trailhead and Access Points		
Trailhead (T1)	Approximately 10 Acres	60-100 parking spaces, benches, drinking water, lighting, shade structure, picnic ramada, bike racks, trash receptacles and wayfinding signage
Trailhead with Equestrian Amenities (T1E)	Approximately 15 Or More Acres	150-200 Standard parking spaces plus 10-15 equestrian spaces on natural surface material in addition to benches, drinking water, restroom, lighting, shade structure, picnic ramadas, bike racks, wayfinding and interpretive signage, ADA mounting ramp or platform, manure disposal area, one round pen, one wash rack and hitching rails.
Trailhead (T2)	Approximately 5 Acres	10-30 parking spaces, benches, drinking water, restroom, lighting, shade structure, picnic ramada, bike racks, trash receptacles and wayfinding signage
El Rio River Access Node	Approximately 1 Acre	Benches, drinking water, lighting, shade structure, bike racks and wayfinding signage
El Rio Overlook	Approximately 1-2 Acres	No parking. These are meant for foot or bicycle traffic access (unless associated with one of the trailhead locations), but should include benches, shade structure, and interpretive signage

Open Spaces, Paths, Trails and Edge Treatments



TR3 PLAN - Trail at Embankment / River Trail Access Ramp



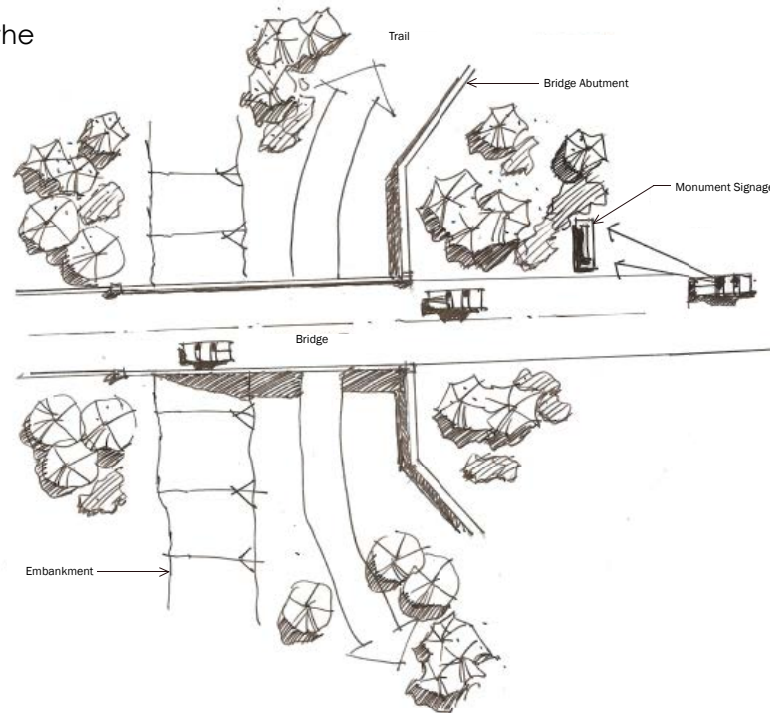
SECTION - Trail at Embankment / River Trail Access Ramp



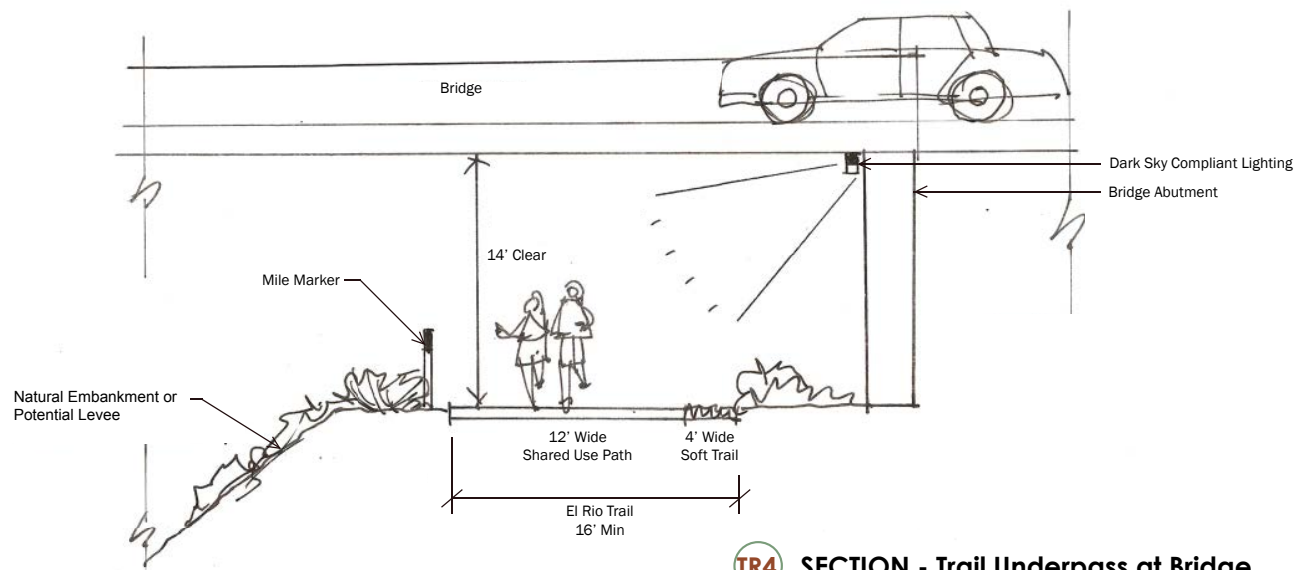
Network Underpasses

The interconnectivity of the El Rio Trail system will be one of its primary goals. This interconnectivity includes linkages to the surrounding communities' bike and trail systems as well as ensuring that the El Rio Trail is accommodated unimpeded under any bridge structures that may intersect the Gila River and the El Rio Trail.

The goal will be to Implement links to the network of multi-use trails and street network. This includes bike lanes and shared use pathways located along or intersecting the corridor, and those identified by the local jurisdictions. In addition, where any street crosses or intersects the El Rio corridor, the El Rio Trail should be accommodated in an underpass treatment to separate trail users from street traffic (see Illustration TR4). These underpasses should be lighted for safety and security measures. Any lighting should be designed to be the most energy efficient and in compliance with any dark sky ordinance guidelines (see Illustration TR4).



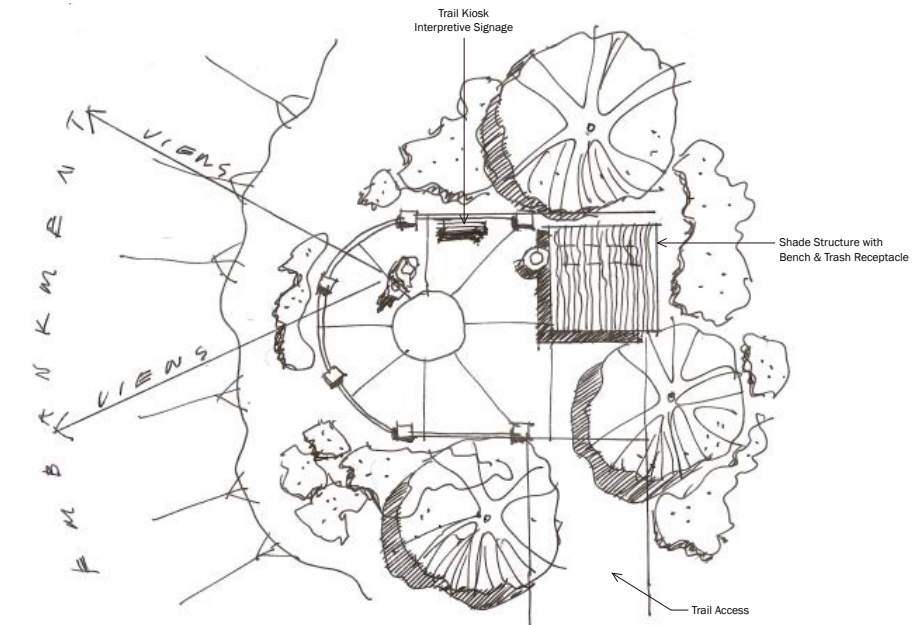
TR4 PLAN - Trail Underpass at Bridge



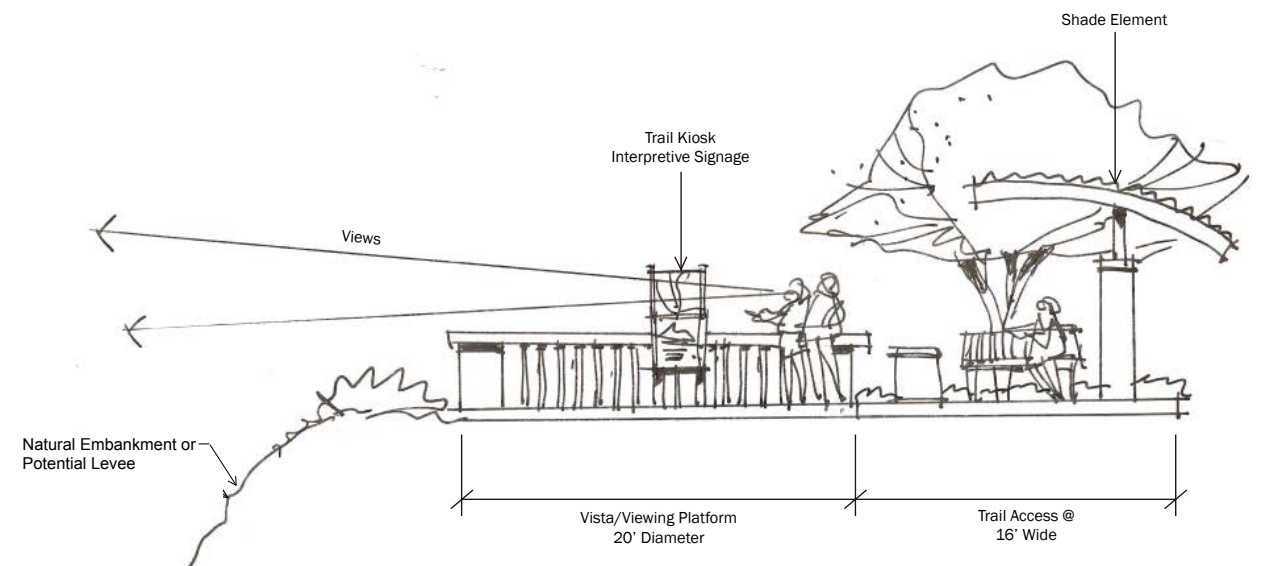
TR4 SECTION - Trail Underpass at Bridge

Overlooks

Recreational facilities shall serve as anchor points to link trails, and then serve a dual purpose as a park or an interpretive site with overlooks. Wonderful opportunities exist to link to Estrella Mountain Regional Park, Festival Fields Park, Tres Rios, and other planned and existing regional and local recreational areas and create hubs for the El Rio Trail (see Illustration TR5).



TR5 PLAN - Vista Overlook



TR5 SECTION - Vista Overlook

4.3 Edge Treatment Design Considerations



The El Rio Design Guidelines and Planning Standards embraces an existing, connected series of open spaces based on the watercourses of the Gila River, its tributaries and canals. The land and watercourse interactions provide the opportunities for both the “land side” and “water course” to capitalize upon the inherent assets of each, while meeting the vision and goals of El Rio. This interactive relationship is defined by the phrase, the “Edge”. By defining and instituting the development standards these El Rio Design Guidelines and Planning Standards, both the quality of life and long term economic viability of the area will be enhanced. The implementation of the El Rio goals and vision establishes a positive and mutually beneficial relationship in the district and along this “Edge”.

The El Rio Vision:

Restore the river, retain heritage landscape

character, focusing on multiple use linked to the surrounding communities through public – private partnerships while enhancing public safety with flood control measures.

Goals:

1. Restore and maintain the natural function within the river corridor as riparian habitat
2. Focus on multi-use facilities and functions
3. Maintain and enhance flood control elements or mitigate any undesirable aspects
4. Focus on public – private partnerships
5. Link functional compatibility outside the habitat limits

The “Edge” treatment as part of these El Rio Design Guidelines and Planning Standards, sets forth guidelines for minimum

standards of percentage of open edge treatments, setbacks, public pedestrian/ bicycle/equestrian access, open views and adjacent uses. The following terms and definitions, tables and illustrations, establish performance guidelines, within the El Rio Design Guidelines and Planning Standards within and part of the Cities of Avondale, Buckeye and Goodyear, along with the unincorporated portions of Maricopa County identified earlier in this report. These standards are supplemental to the existing municipalities’ General Plans, Zoning Codes and Development Policies.

The “Edge”

The “Edge” is the development boundary condition of the open spaces along the El Rio watercourse that is defined by the floodway edge of the project and its natural embankment or, if applicable, any levee, or created and permitted flood containment structure that creates potential public “Edges” within the defined project corridor. The length of the “Edge”, for a parcel, is the length of the shared

Table 4-2:
Open Edge Treatment Performance Guidelines to Achieve 60% Functionally Open Edge

Minimum 30% (at the open edge)
Single loaded public street or single loaded private street with public access easement (non-gated)
Public park
Paseo
Municipal facilities such as fire and police stations, community center, or library are recommended to “front” onto the river with storage and parking placed away from the river edge.
Private undisturbed open space
Private improved open space

boundary between private property and the floodway edge as shown in Exhibit 4-2 on the following page. All property adjacent to the “Edge” should be subject to “Edge” treatment guidelines explained herein.

“Edge” Treatment Guidelines

The performance guidelines define both the quantity and quality of the “Edge”.

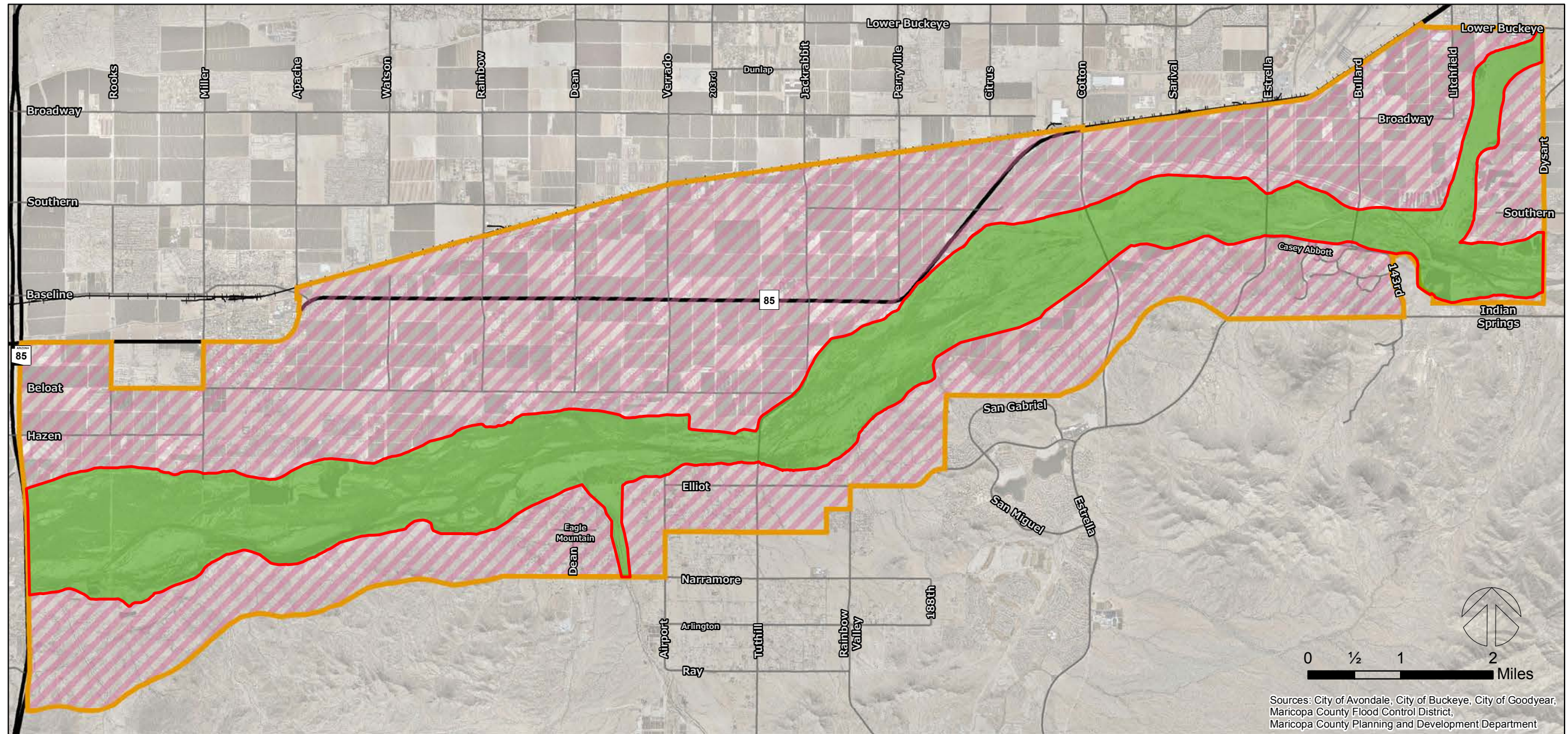
Open Edge Treatment

Where development occurs along the “Edge” there is a 60/40 ratio guideline, of 60% minimum functionally open to 40% non- open. To meet the 60% open “Edge” performance guidelines ,various treatments may be utilized per this document. Within the 60% open “Edge” there is a subset performance guideline with a 30/70 min/ max treatment performance ratio which defines the type of edge treatments that can be utilized (See Table 4-2).

Maximum 70% (at the open edge)
Public school
Shared parking as approved by the City
Public street T-intersection
Public street cul-de-sac
Retention or detention basin graded to blend
Creative option
Single loaded gated private street
Gated private street cul-de-sac
Gated private street T-intersection
Parkway

Open Spaces, Paths, Trails and Edge Treatments





Sources: City of Avondale, City of Buckeye, City of Goodyear, Maricopa County Flood Control District, Maricopa County Planning and Development Department

Date: 8/17/2015

- Legend**
- The "Edge"
 - El Rio Watercourse and Tributaries
 - Adjacent Development
 - Project Boundary
 - Railroad
 - Arterial Streets
 - Interstate Highway
 - State Highway
 - County Highway
 - Interchange
 - Ramp

Exhibit 4-2

El Rio Watercourse Planning Standards - "Edge" Treatment Areas Map

Minimum Edge Treatments

Non-Open Edge Treatment

A maximum of 40% of the "Edge" can be private development and is not subject to open edge treatment.

Minimum edge treatments include all areas at the "Edge" including the 40% non-open edge.

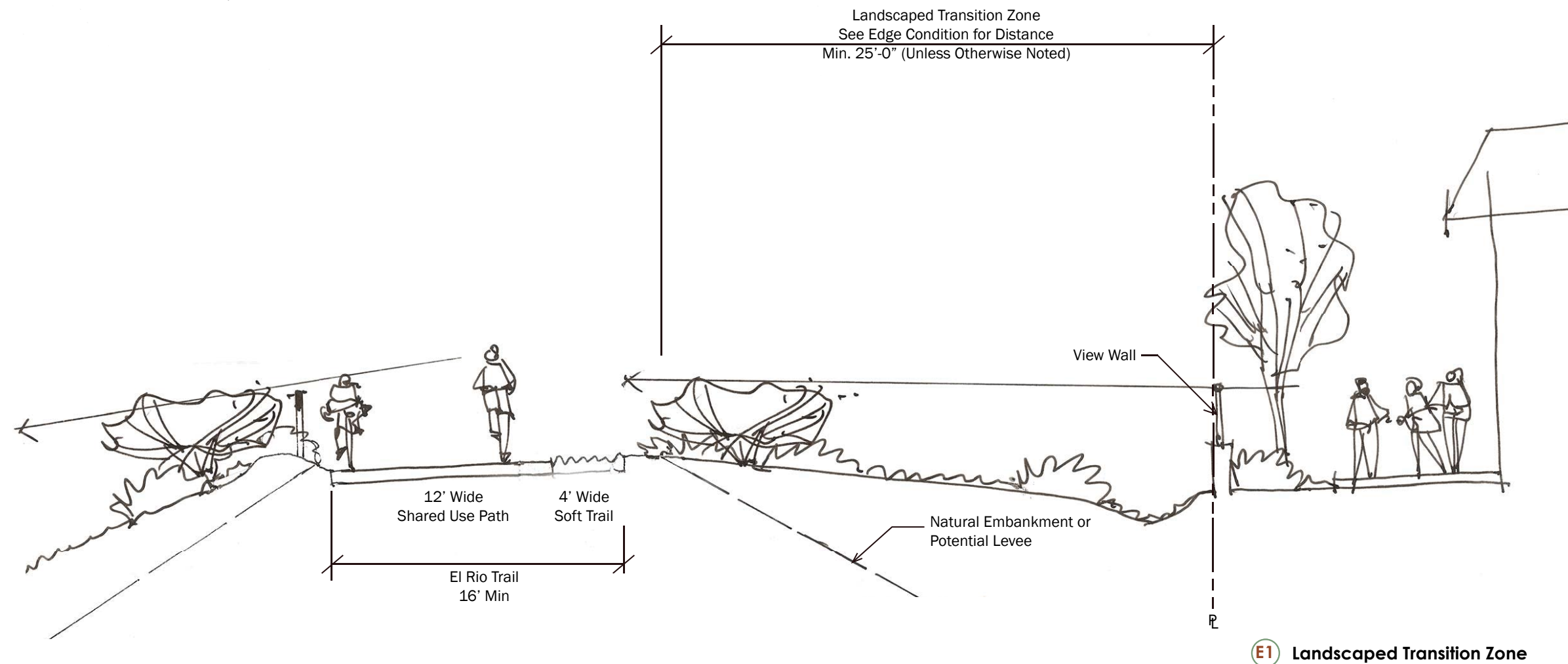
Landscaped Transition Zone

The building, landscape and/or levee setback zone which provides aesthetically pleasing landscaped areas will help to soften the adjacent development and transition the El Rio open space native landscape to the adjacent development landscape (see Illustration E1).

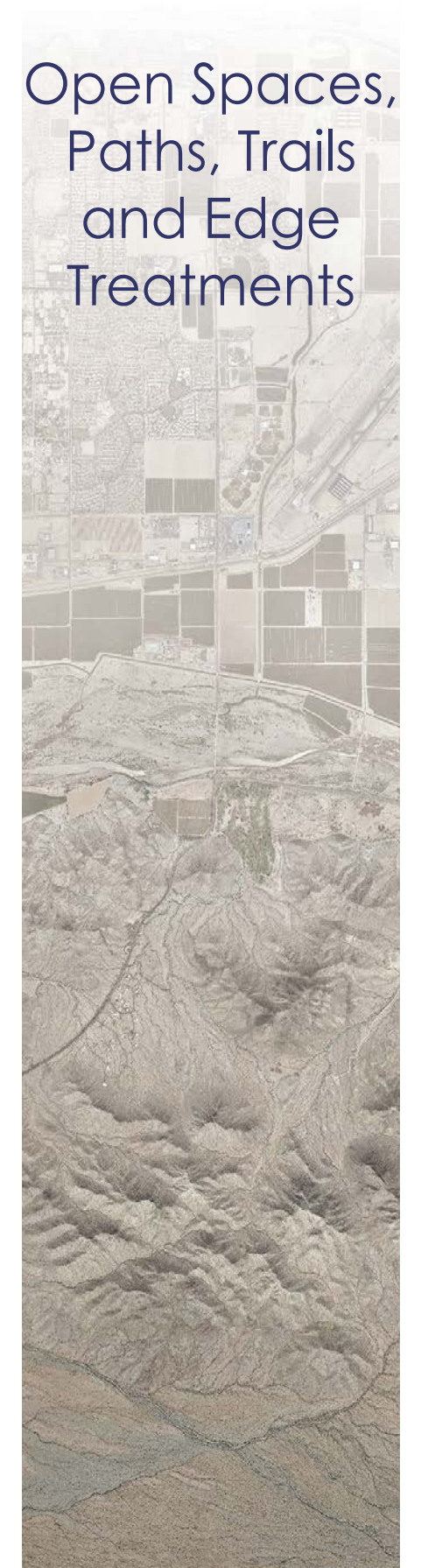
The recommendation of these guidelines

is the creation of a landscaped transition zone that is a minimum of 25'-0" in width from the El Rio Trail "Edge" to any proposed development with the exception to this width allowed at areas with less than one foot of grade differential or at a patio edge. This area allows the municipality to work hand in hand with the surrounding development to create an agreement on the landscape treatment and maintenance of this area. The 25'-0"

landscaped transition zone allows for a grade transition from development landscape to the more native and desert ecosystem planting design that is to be associated with the El Rio Trail system.



Open Spaces, Paths, Trails and Edge Treatments



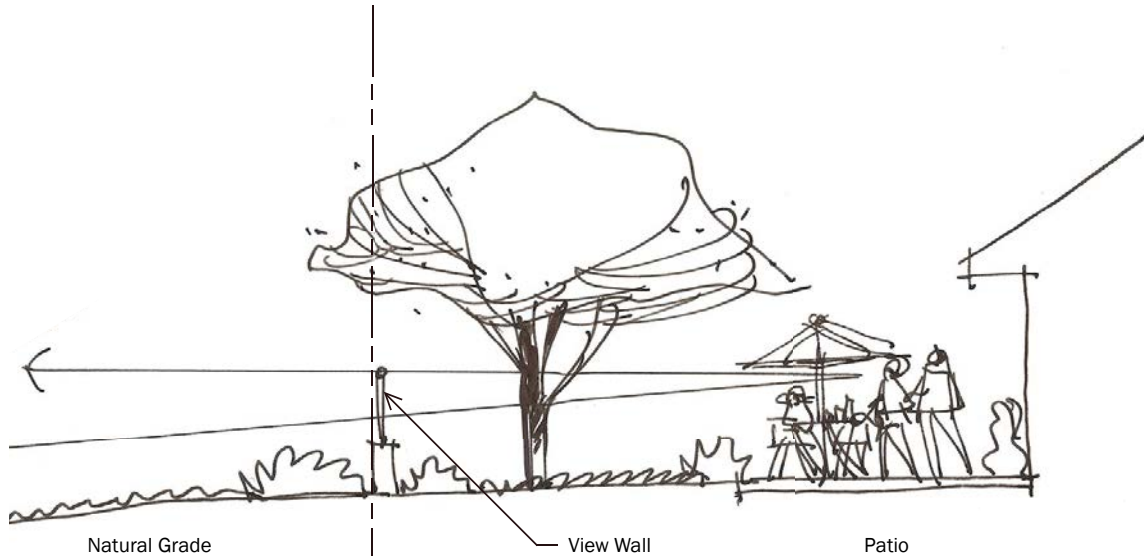


View Walls

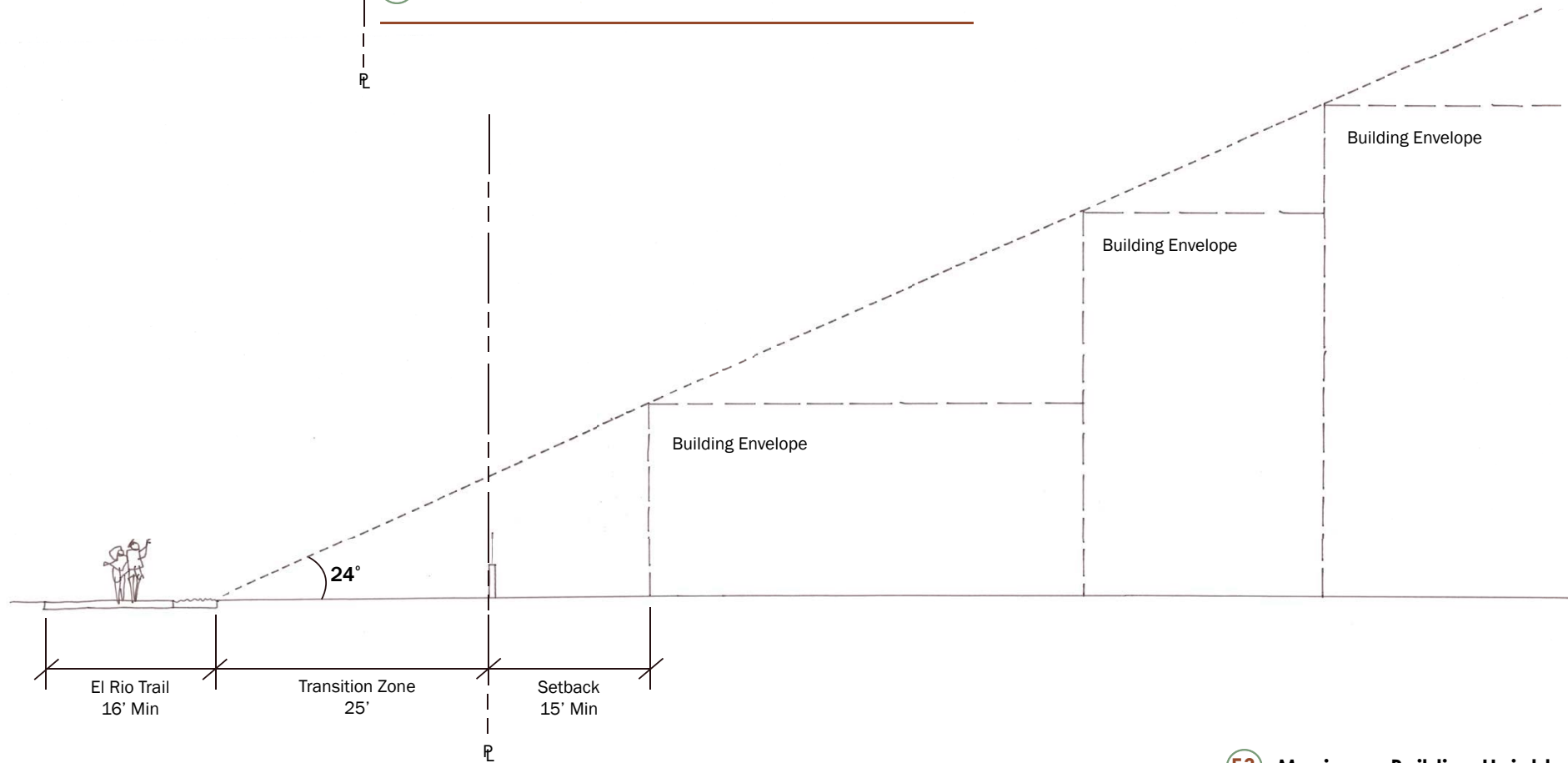
Open fencing at residential and commercial uses will create a spacious feeling, encourage surveillance, and discourage graffiti and vandalism to the wall and adjacent property. Such structures should be view type fences with a minimum 2'-0" CMU base and a 2'-0" picket style open view fence on top. Recommended minimums; Residential Low: 2'/2', Residential High: 3'/3', Commercial: 2'/2', Parking: 2'/2'. Solid walls are not allowed, for though they visually screen loading and storage areas, the creation of such areas is to be avoided in development adjacent to the El Rio corridor. Adjacent development should not place these incompatible uses adjacent to the "Edge" (see Illustration E2). The style and architectural feel of any view wall should be in accordance with local jurisdictional guidelines. View wall locations will be dependent upon the transition zones, but should never be closer than twenty-five feet (25'-0") from the edge of the El Rio Trail, with the exception to this width allowed at areas with less than one foot of grade differential or at a patio edge.

Maximum Building Height

The maximum allowed building height adjacent to the "Edge" shall be at the discretion of the jurisdiction, however the recommended heights should be as shown in Illustration E3.



E2 View Walls



E3 Maximum Building Height

Open Edge Treatment Options

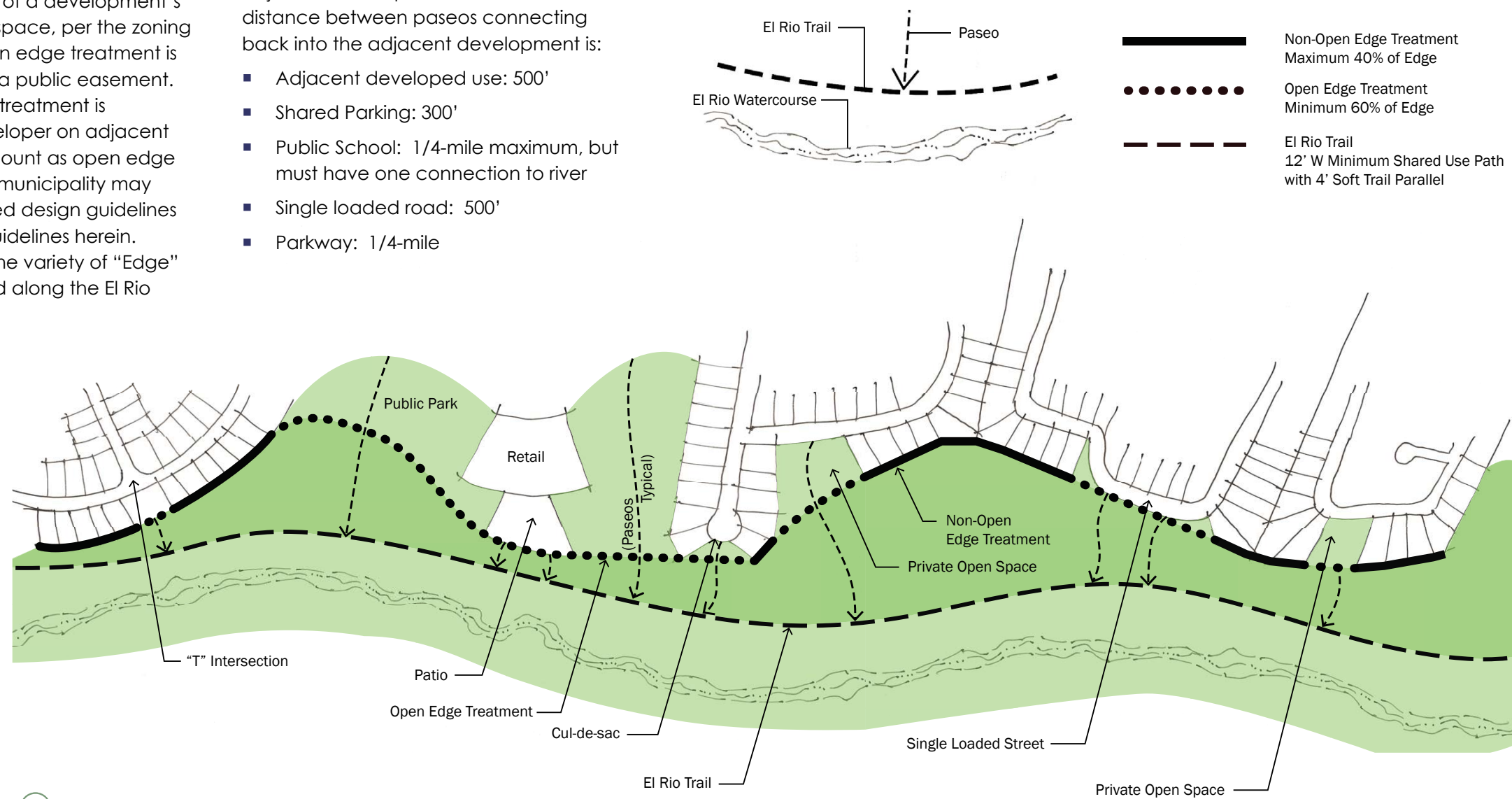
The following treatments, uses and streets are acceptable and part of the 60% guideline for open edge treatments. Approved open edge treatments which are open spaces such as public/private open space, parks, patios, retention, etc., should count both as open edge treatment and as part of a development's recommended open space, per the zoning district, where the open edge treatment is on private land within a public easement. Where an open edge treatment is constructed by a developer on adjacent public land, it should count as open edge treatment only. Each municipality may consider more restricted design guidelines but no less than the guidelines herein. Illustration E4 depicts the variety of "Edge" treatments anticipated along the El Rio

corridor.

Paseo

A paseo is a public access way (shared use path or sidewalk) which shall be placed along or perpendicular to the El Rio open space to provide connectivity and public access between the open space and adjacent development. The maximum distance between paseos connecting back into the adjacent development is:

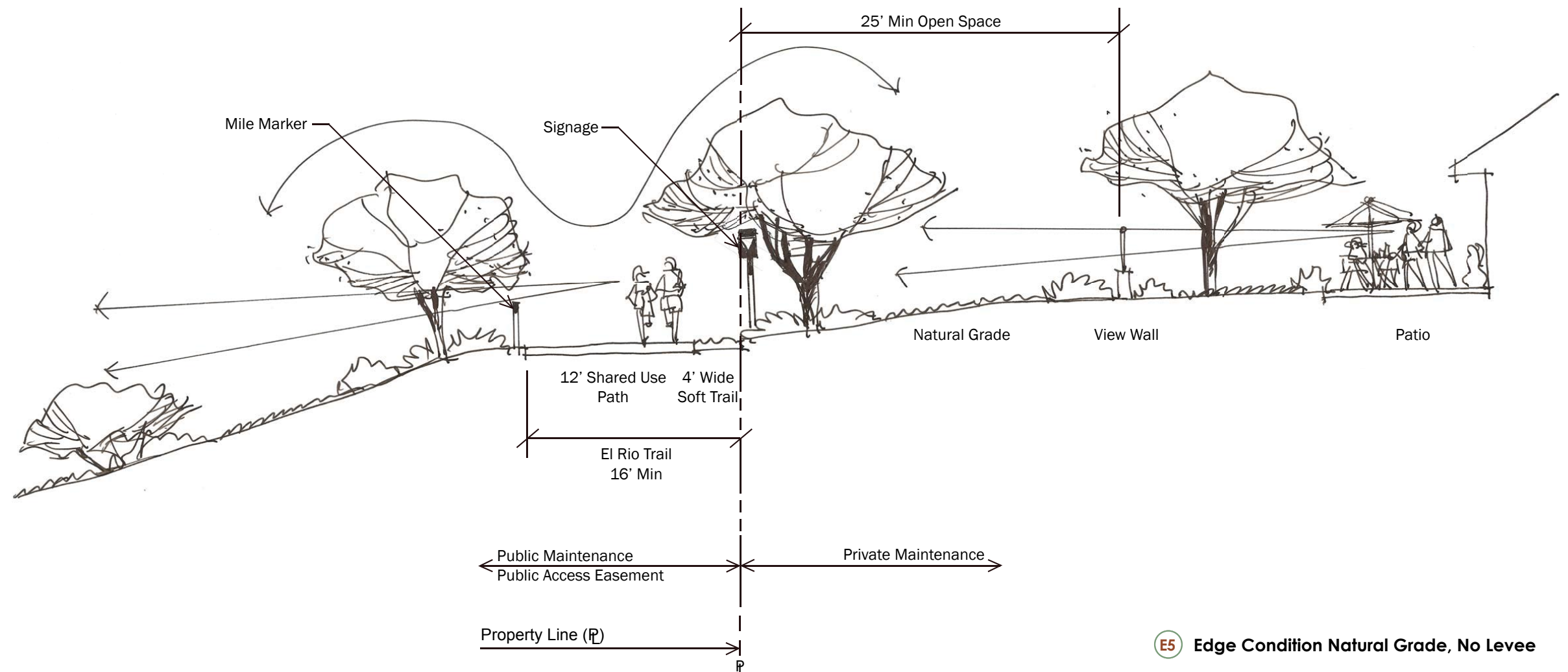
- Adjacent developed use: 500'
- Shared Parking: 300'
- Public School: 1/4-mile maximum, but must have one connection to river
- Single loaded road: 500'
- Parkway: 1/4-mile



E4 Open Edge Treatment

Open Spaces, Paths, Trails and Edge Treatments





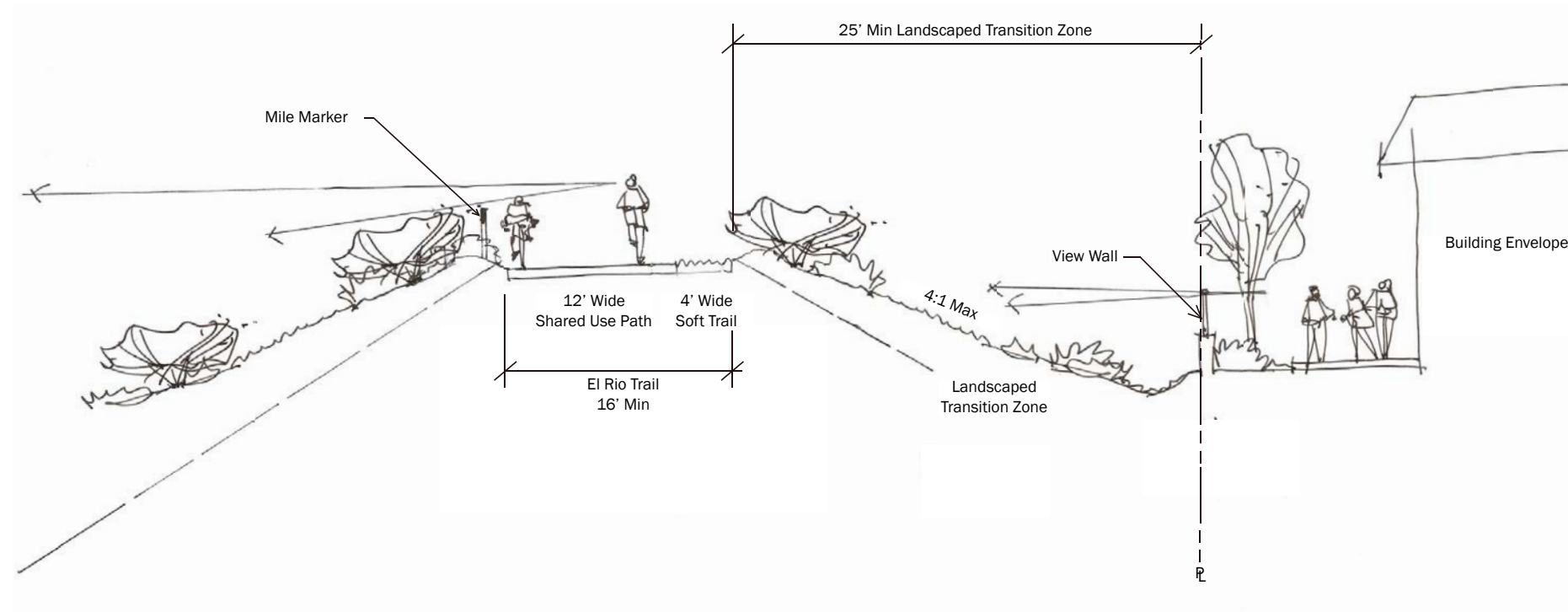
E5 Edge Condition Natural Grade, No Levee

Edge Condition Natural Grade

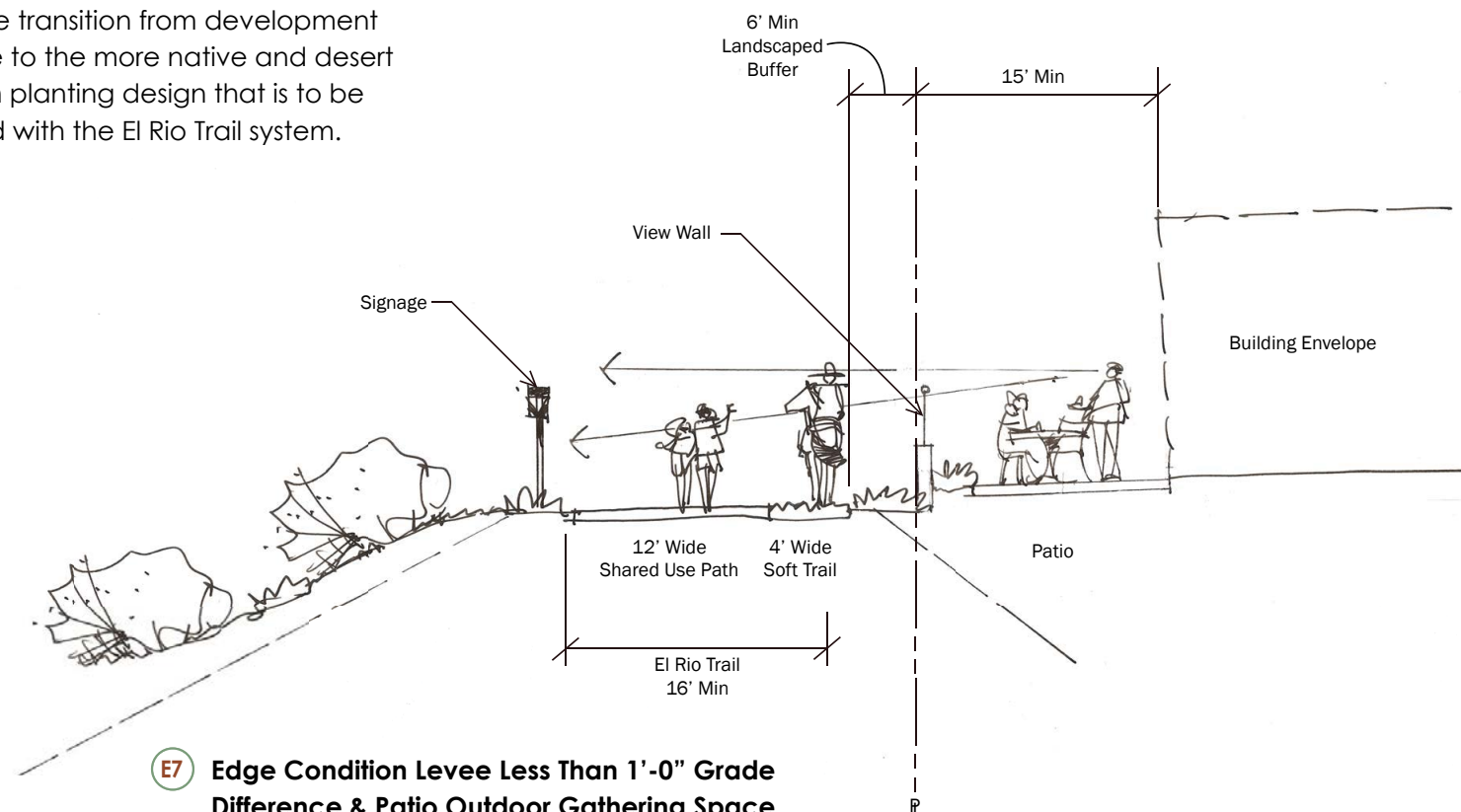
In instances where the "Edge" occurs adjacent to any natural grade of the river's defined edge or embankment (non structural edge/floodway) the El Rio Trail is programmed to be along this edge as shown in Illustration E5. This location may allow the El Rio Trail to be inundated during high flows if the natural edge of the river is not sufficient to contain the flows and/or event. The recommendation of these guidelines is that there should be a 25'-0" minimum landscaped transition zone from the El Rio Trail edge to any proposed development. This area allows the municipality to work hand in hand with the surrounding development to create an agreement on the landscape treatment and maintenance of this area. The 25'-0" landscaped transition zone allows for a transition from development landscape to the more native and desert ecosystem planting design that is to be associated with the El Rio Trail system.

Edge Condition Levee with Greater Than 1'-0" Grade Difference

In instances where the "Edge" occurs adjacent to a structural levee, the El Rio Trail is programmed to be along this "Edge" as shown in Illustration E6. This treatment applies only when the grade differential between the El Rio Trail elevation is greater (higher) than the surrounding development by more than one foot (1'-0"). The recommendation of these guidelines is that there should be a 25'-0" minimum landscaped transition zone from the El Rio Trail edge to any proposed development. This area allows the municipality to work hand in hand with the surrounding development to create an agreement on the landscape treatment and maintenance of this area. The 25'-0" minimum landscaped transition zone allows for a grade transition from development landscape to the more native and desert ecosystem planting design that is to be associated with the El Rio Trail system.



E6 Edge Condition Levee Greater Than 1'-0" Grade Difference

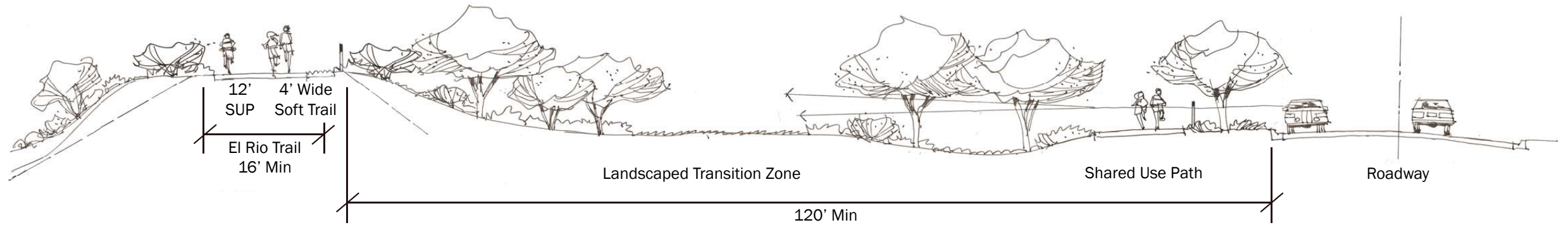


E7 Edge Condition Levee Less Than 1'-0" Grade Difference & Patio Outdoor Gathering Space

Edge Condition Levee with Less Than 1'-0" Grade Difference

In instances where the "Edge" occurs adjacent to a structural levee, the El Rio Trail is programmed to be along this edge as shown in Illustration E7. This treatment applies only when the grade differential between the El Rio Trail elevation is within 1'-0" of the surrounding development. The recommendation of these guidelines is that there should be a minimum of 6'-0" landscape buffer zone from the El Rio Trail edge to any proposed development. This area allows the municipality to work hand in hand with the surrounding development to create an agreement on the landscape treatment and maintenance of this area. The 6'-0" landscape zone allows for a grade transition from development landscape to the more native and desert ecosystem planting design that is to be associated with the El Rio Trail system.

Open Spaces,
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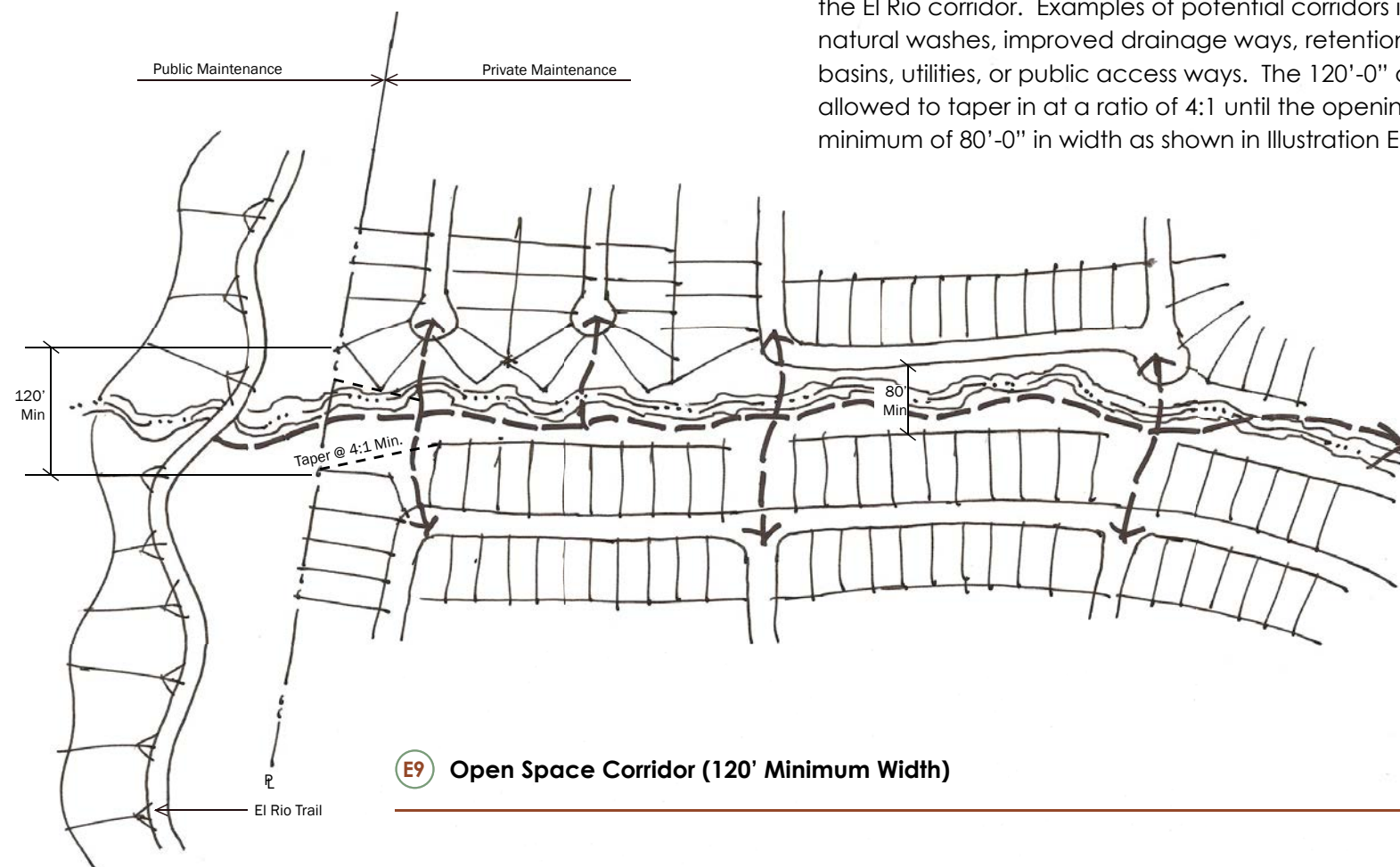
E8 Edge Condition Along a Parkway

Edge Condition Along a Parkway

In instances where the “Edge” occurs adjacent or parallel to a roadway corridor with a shared use path corridor the El Rio Trail is programmed to be along this edge as shown in Illustration E8. This treatment applies only when the El Rio Trail is parallel to or adjacent to a roadway corridor. The recommendation of these guidelines is that there should be a minimum of 120'-0" landscape setback from the El Rio Trail edge to any proposed back of curb location. This area allows the municipality to work hand in hand with the surrounding development to create an agreement on the landscape treatment and maintenance of this area. The 120'-0" landscape zone allows for a wide variety of landscape treatments including the incorporation of several Low Impact Development (LID) techniques and to serve as the transition from streetscape to the more native and desert ecosystem planting design that is to be associated with the El Rio Trail system.

Open Space Corridor

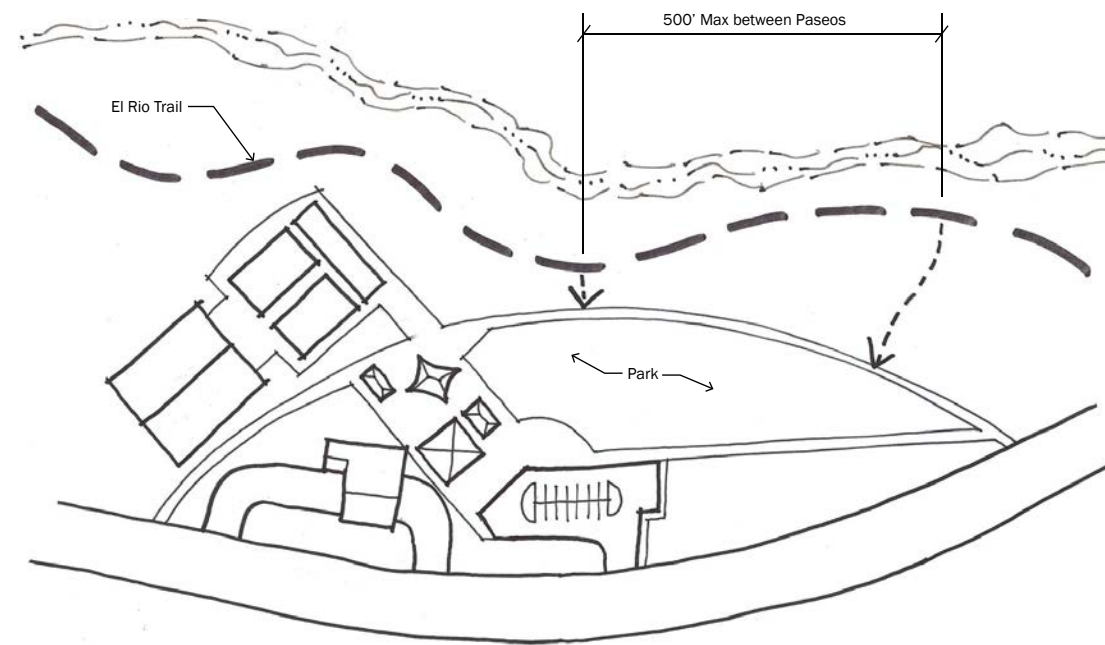
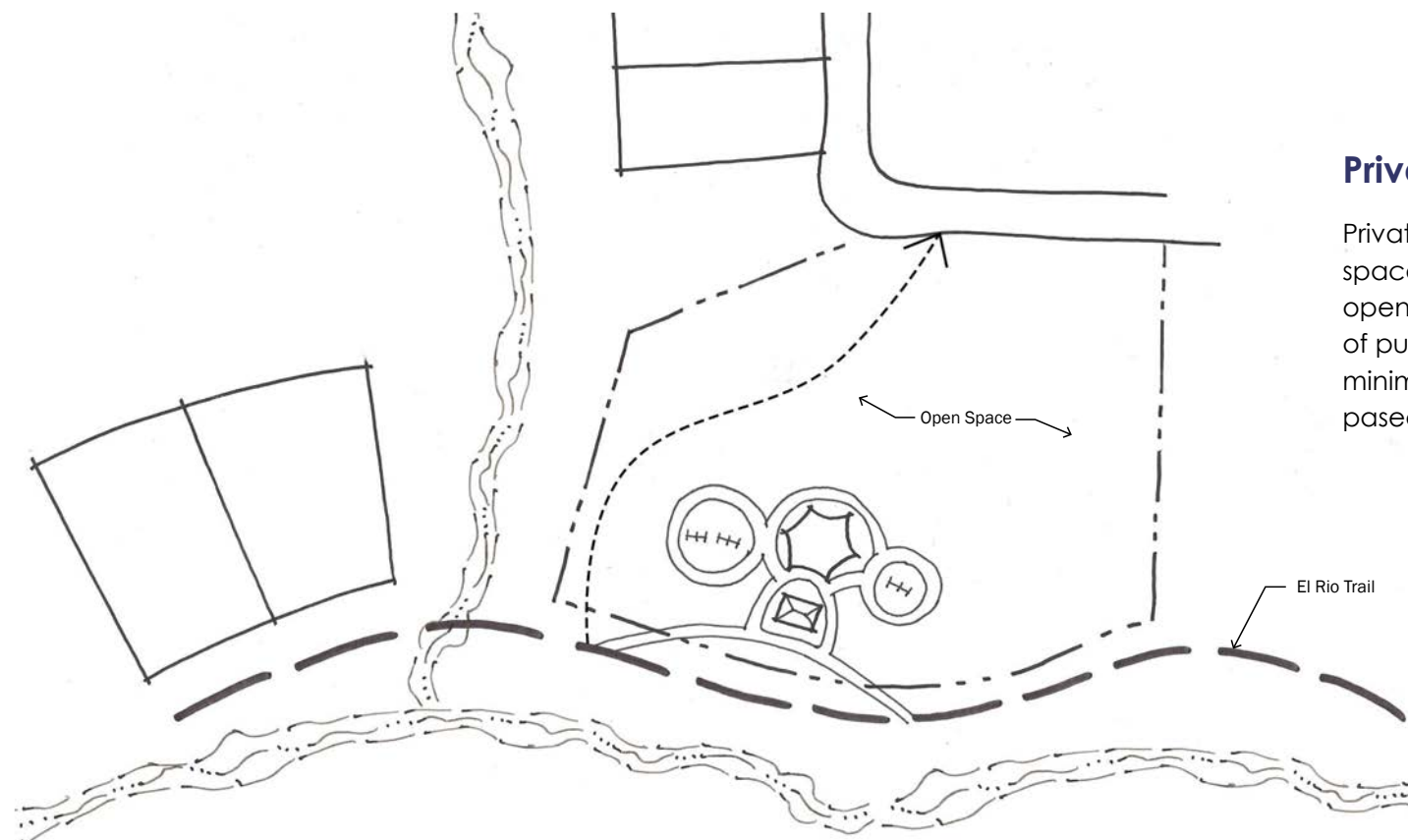
A public access way connection should be a minimum of 120' wide at the El Rio corridor. Examples of potential corridors include open space, natural washes, improved drainage ways, retention or detention basins, utilities, or public access ways. The 120'-0" opening will be allowed to taper in at a ratio of 4:1 until the opening area maintains a minimum of 80'-0" in width as shown in Illustration E14.



E9 Open Space Corridor (120' Minimum Width)

Public Park

A public park, whether natural or improved, which provides physical and visual access to the El Rio Open Space for the public shall maintain at a minimum one paseo connection to the El Rio open space and a maximum spacing of 500'-0" between linkages as shown in Illustration E10.

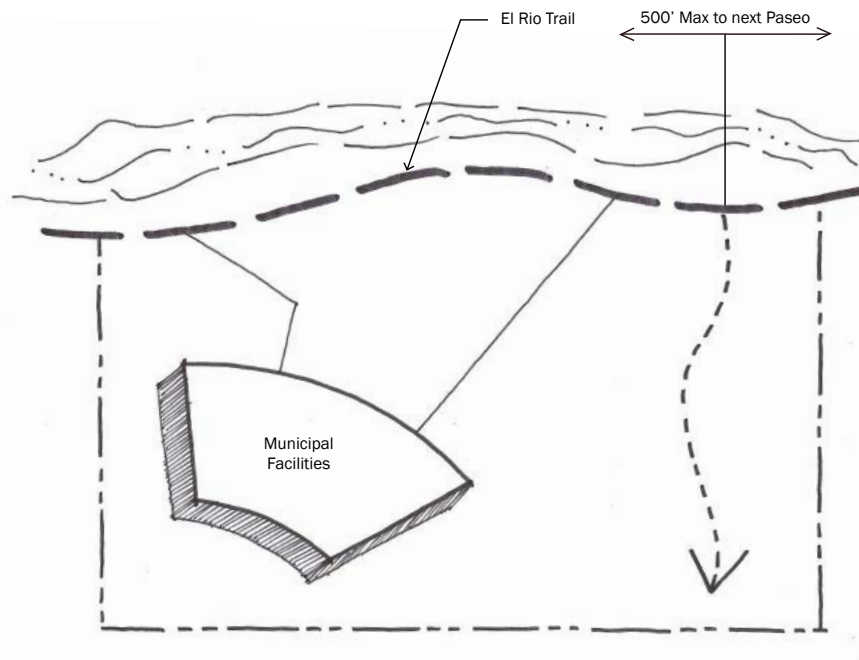
**E10 Public Park****E11 Private Improved Open Space with Public Access****Private Improved Open Space/Park**

Private improved open space located between the El Rio open space and an adjacent street should provide linkages to the El Rio open space. The private improved open space may serve a variety of purposes, such as parks and retention, but should maintain at a minimum one physical paseo connection and a maximum spacing of paseos at 500'-0" between linkages as shown in Illustration E11.

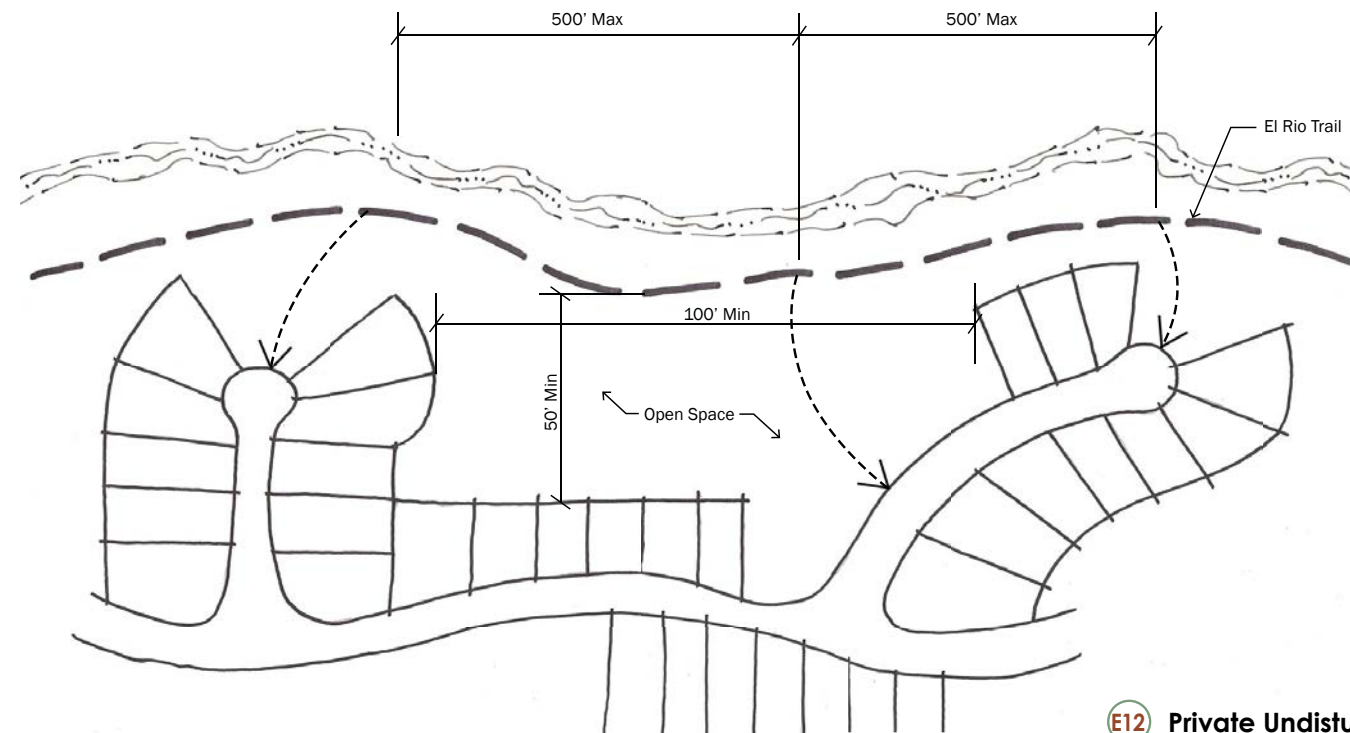


Municipal Facilities

Municipal facilities, such as fire stations, police stations, community centers or libraries shall be designed to provide physical and visual access to the El Rio open space for the public. At police and fire stations, the goal will be to make those facilities front to the river to facilitate the open public frontage while the recommended secure lots and associated walled facilities can be placed opposite of the public frontage as shown in Illustration E13.



E13 Municipal Facilities



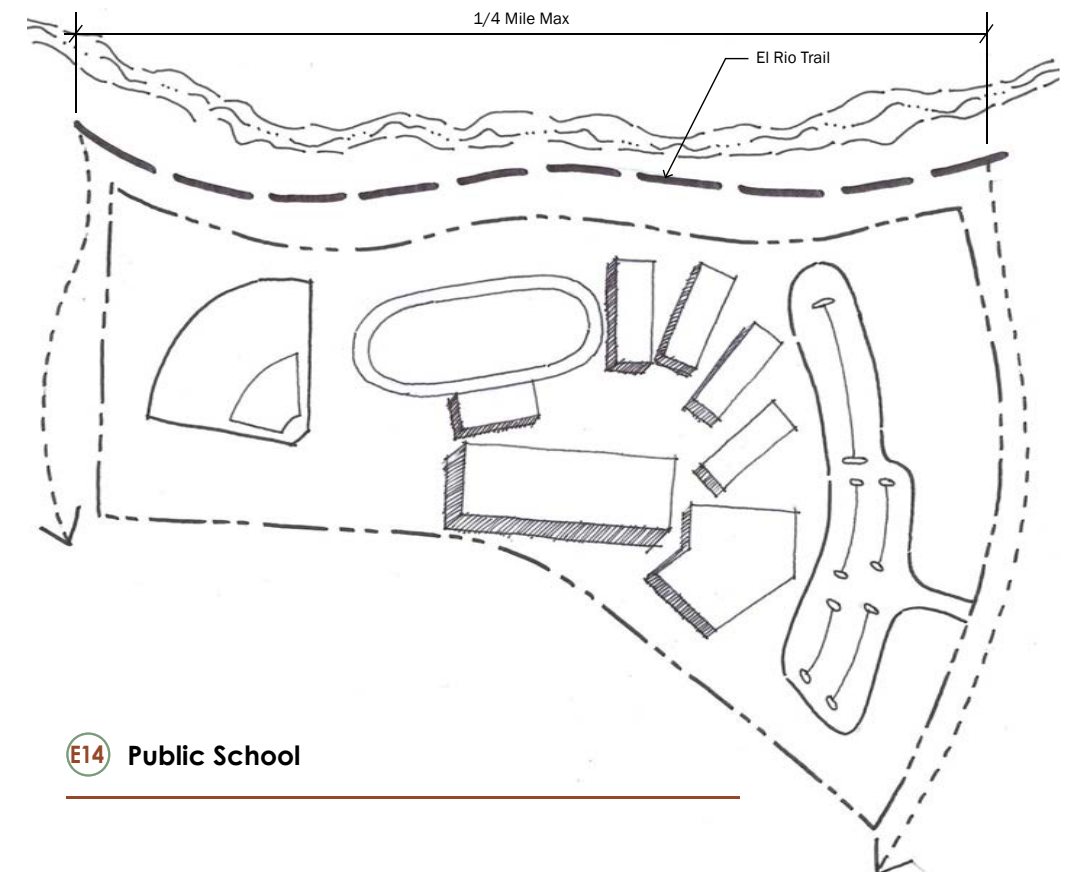
E12 Private Undisturbed Open Space with Public Access

Private Undisturbed Open Space

Private undisturbed open space located between the El Rio open space and an adjacent street should provide linkages to El Rio open space. Private undisturbed open spaces should provide a connection to the El Rio public open space as shown in Illustration E12.

Public Schools

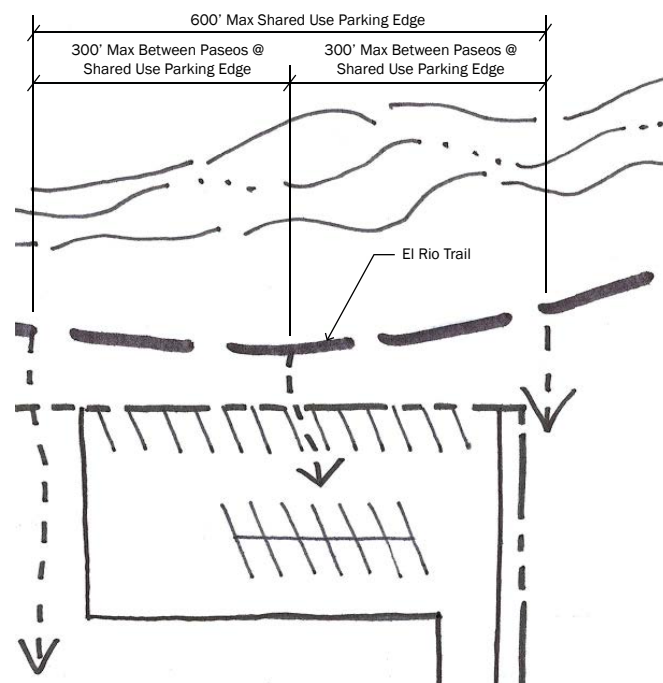
Public schools shall provide visual access to the El Rio open space for the public, and shall be designed to also provide physical access to the open space for the public at their campus edges but never less than 1/4-mile in distance apart as shown in Illustration E14.



E14 Public School

Shared Parking

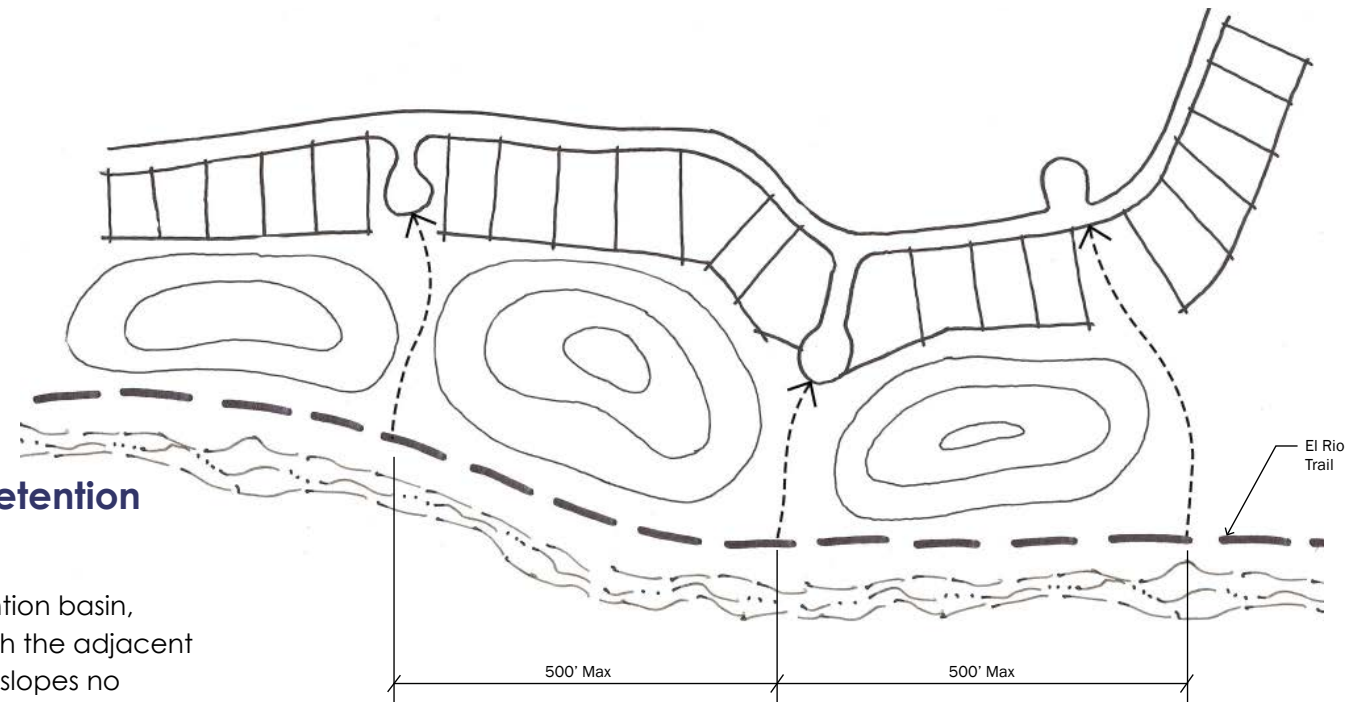
Shared parking, as approved by the city, may count towards an open edge treatment if it is shared public parking. Shared public parking provides a public benefit, but is subject to a joint use agreement developed with the city. The maximum allowed "Edge" distance that would be counted as open edge is 600'. This maximum is to assist in creating a varied edge condition. Pedestrian access at a shared parking lot should have access to the El Rio Trail at 300' maximum to encourage public use and connectivity as shown in Illustration E15.



E15 Shared Parking as Approved by the city (600' Max. Edge, 300' Max. Distance Between Access Ways)

Retention or Detention Basin

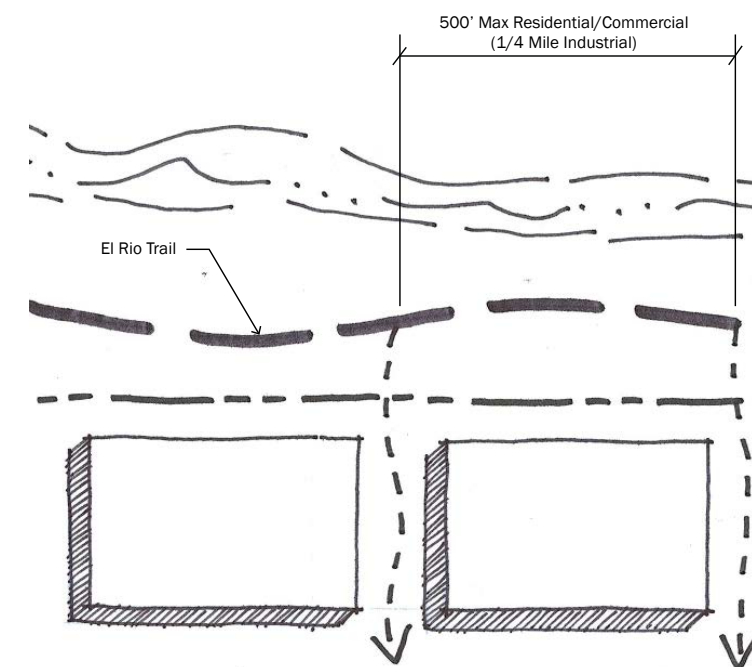
A retention or detention basin, graded to blend with the adjacent terrain, with varying slopes no greater than 4:1, should be designed to provide a physical and visual opening to the El Rio open space, as well as serving drainage functions. The basin landscape treatments should allow for a landscape transition from development landscape to the more native and desert ecosystem planting design that is to be associated with the El Rio Trail system. The proposed connections associated with any retention detention landuse is shown on Illustration E16.



E16 Retention or Detention Basin Graded to Blend with Public Access Every 500' Maximum

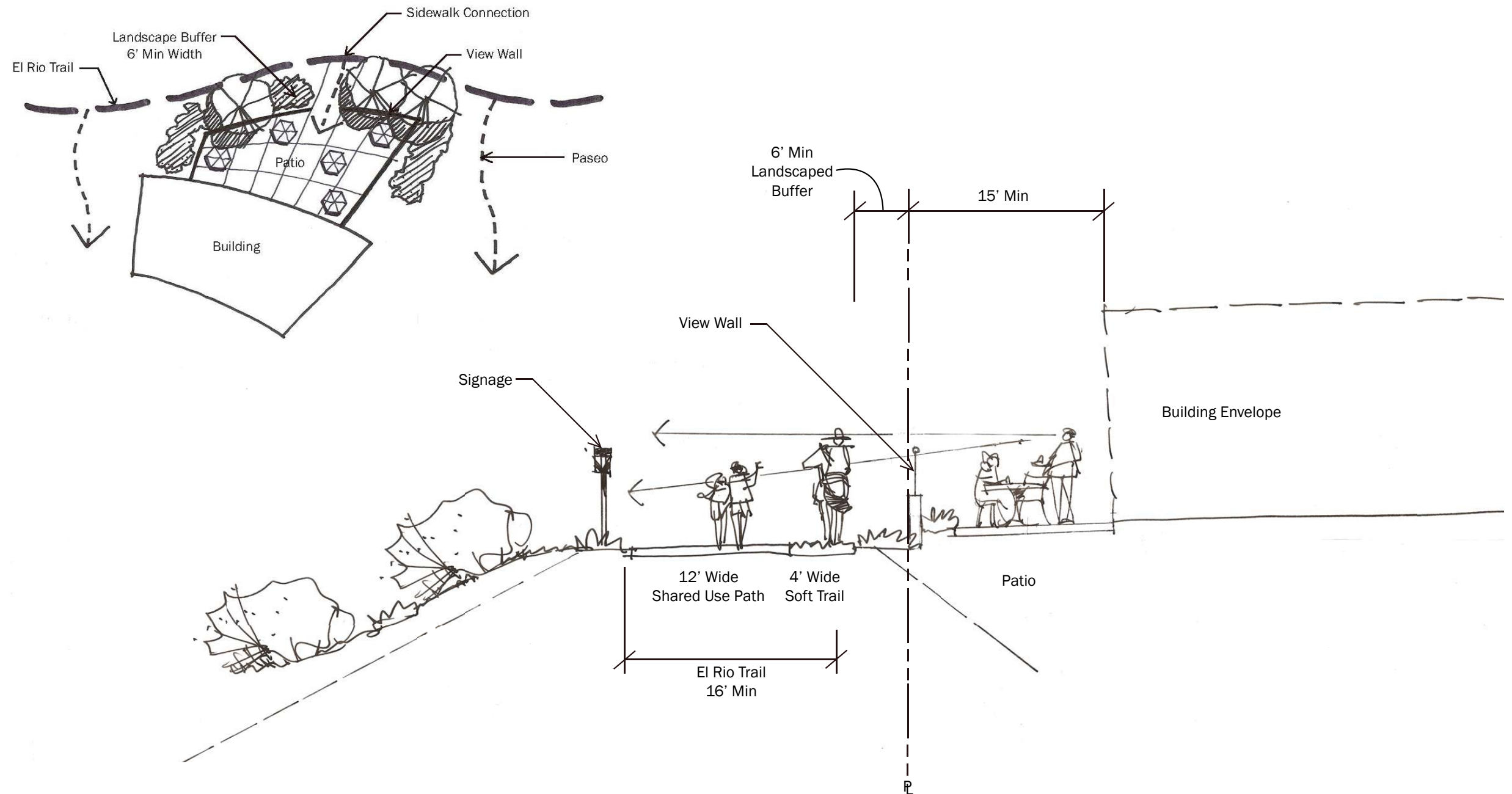
Public Building Frontage

The face of a building fronting the El Rio open space "Edge" which has 60% windows and public access doorways will count towards a portion of the open space guidelines. This category would also include any open building shade structure fronting the El Rio open space "Edge" that is located over the main front doorways of the adjacent business which is open to the public. Paseos to the El Rio corridor associated with these public building frontages located in and associated with industrial areas shall not exceed 1/4-mile while all other developments should not exceed 500'-0" as shown in Illustration E17.



E17 Public Building Frontage

Open Spaces,
Paths, Trails
and Edge
Treatments



E18 Patio / Outdoor Gathering Space

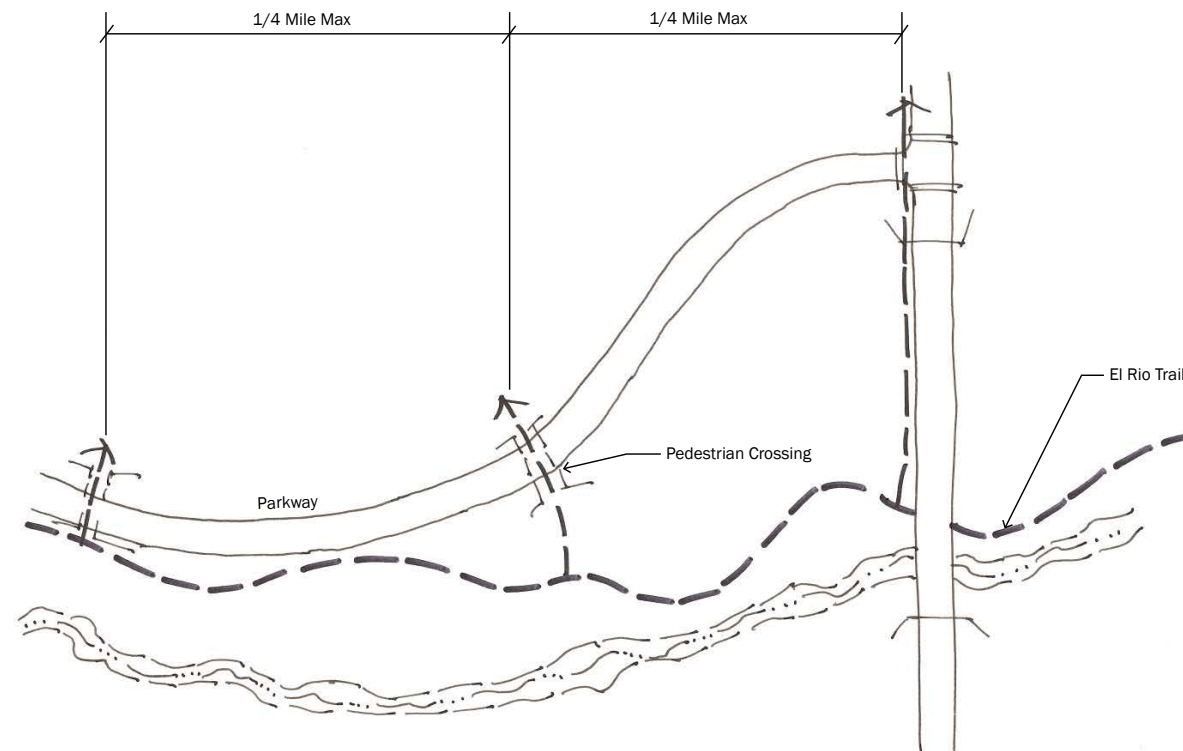
Patio Outdoor Gathering Space

Outdoor spaces such as restaurant or bar outdoor dining areas, shopping area public plazas, etc. which have public physical and visual access to the El Rio open space "Edge" are highly encouraged and would count towards the recommended open space. The landscape buffer and public use areas associated with these uses should be maintained at a minimum of 6'-0" from the property line. Building setbacks should be a minimum of 15'-0" from any established property line as shown in Illustration E18.

Public Streets as Open Edge Treatment Options

Parkway

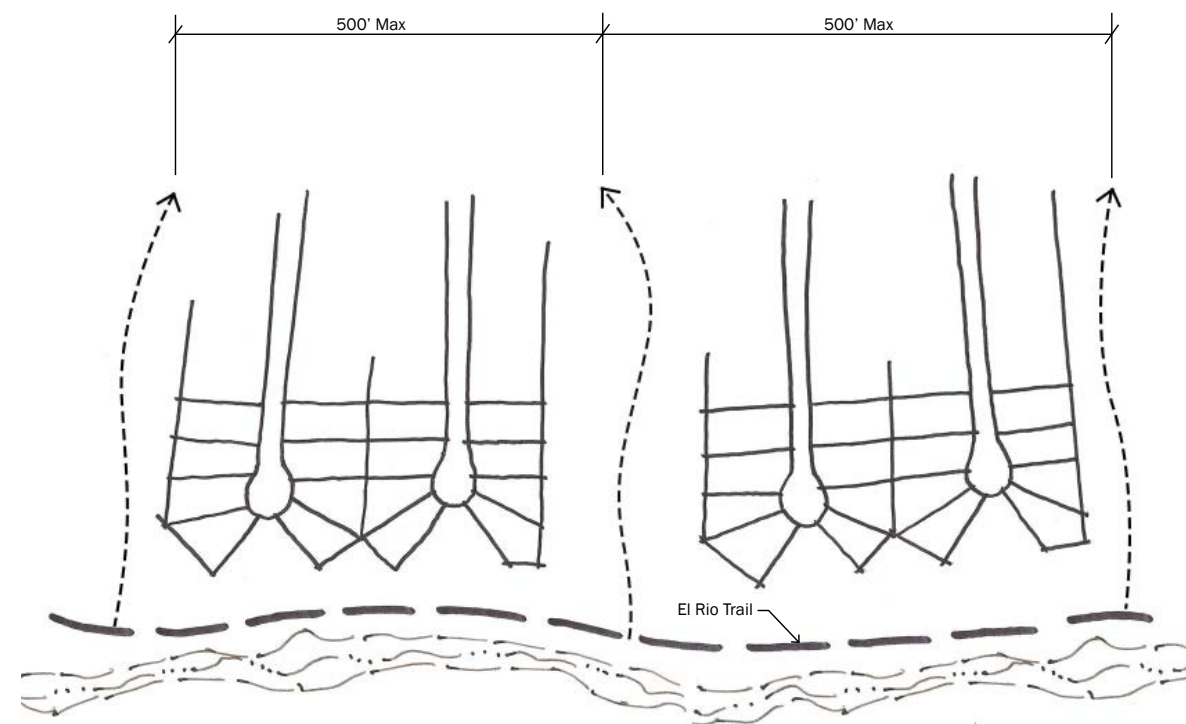
Any single loaded regional (major collector, arterial, and highway) public roadway which is parallel to the "Edge" and allows public physical and visual access to the El Rio Open Space shall count as part of the Open Edge treatment. Physical connections of these public roadways shall be separated from the travel way through the use of an underpass and or overpass as shown in Illustration E19.



E19 Parkway (Public Access Way)

Gated Private Streets

When there are gated private developments adjacent to the El Rio corridor paseos should be provided at a maximum spacing of 500'-0" as shown in Illustration E20.



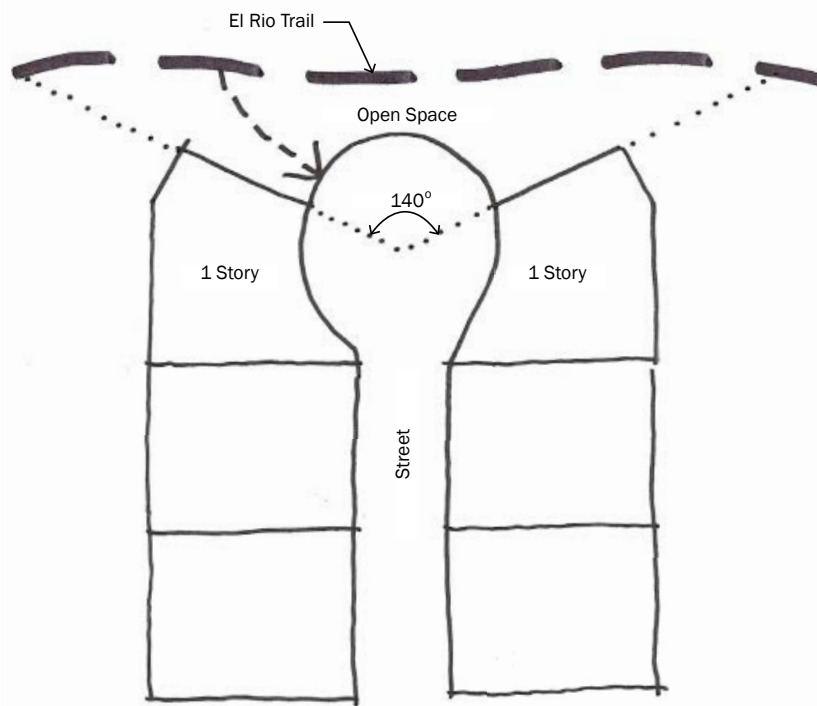
E20 Gated Private Streets (500' Max. Edge, 500' Max. Distance Between Public Access Ways)

Open Spaces,
Paths, Trails
and Edge
Treatments



Cul-de-Sac

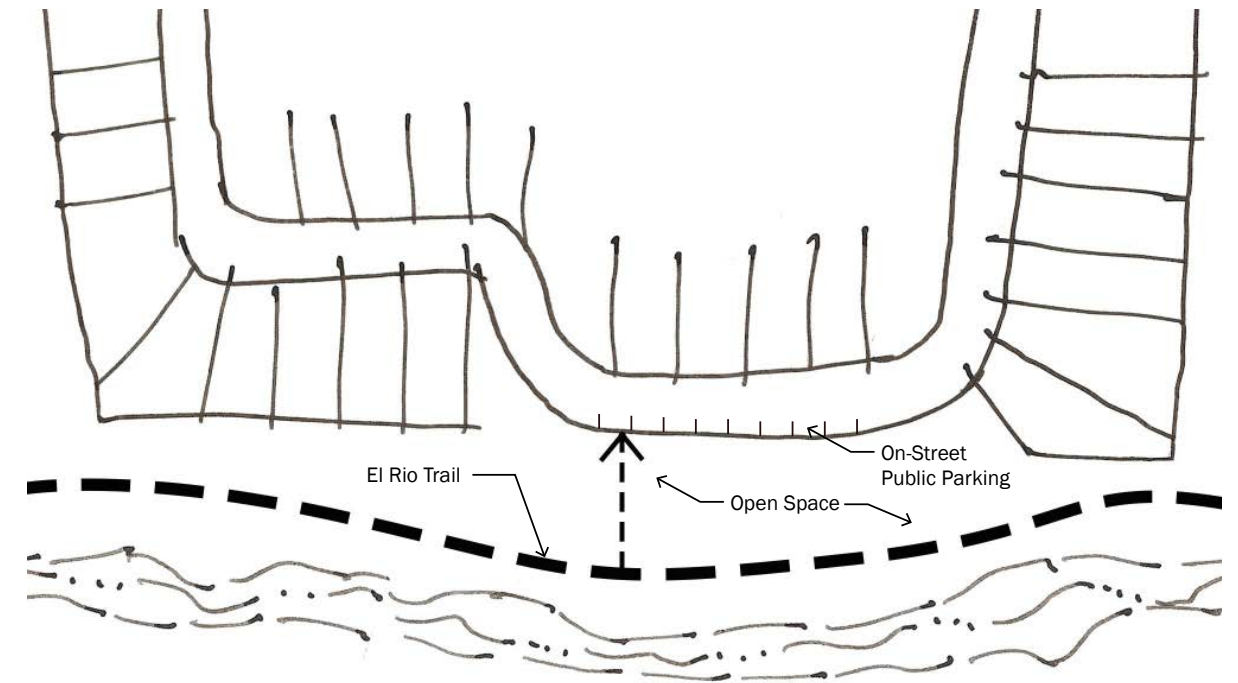
When a cul-de-sac, within adjacent development, abuts the El Rio "Edge", the design should provide a public visual and physical open access to the El Rio open space. The minimum width of the cul-de-sac connecting open area, should be defined, by a line running along the public or private open space edge intersecting the two rays of a one hundred forty degree angle measured from the center of the cul-de-sac, as shown in Illustration E21.



E21 Private & Public Street Cul-De-Sac

Single Loaded Street

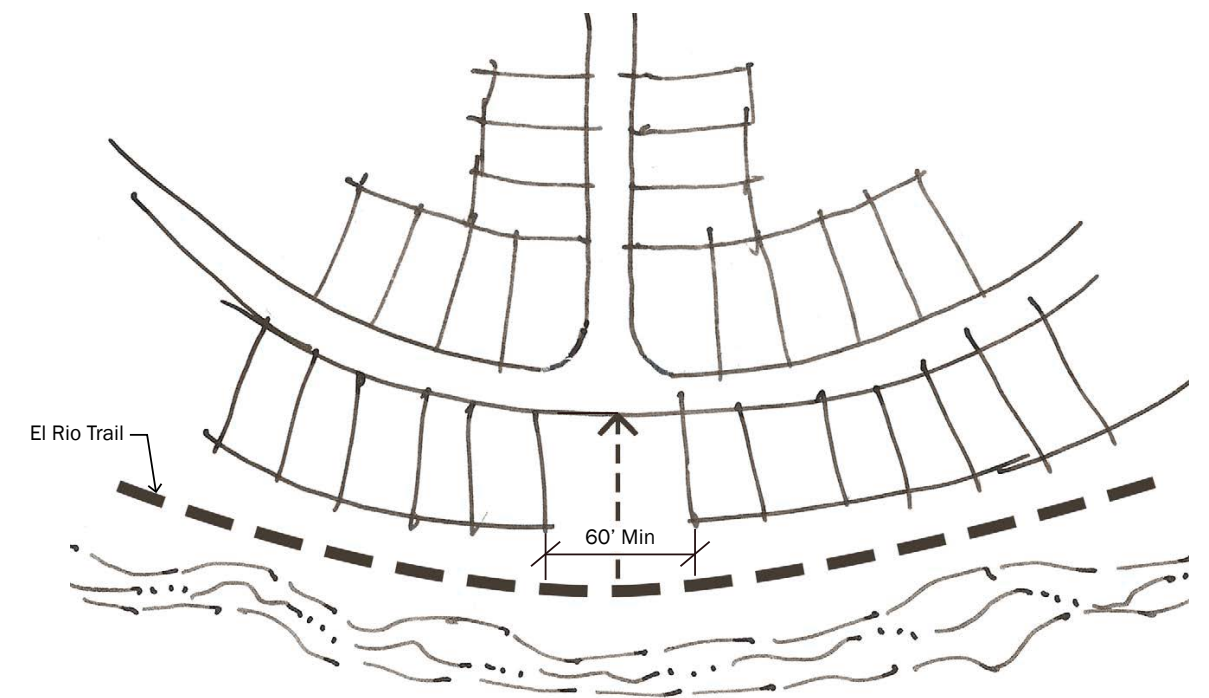
Single-loaded streets that run parallel to the El Rio corridor shall allow public physical and visual access to the El Rio open space as shown in Illustration E22.



E22 Single-Loaded Public Street Or Single-Loaded Private Street with Public Access Easement (Non-Gated)

Street at "T" Intersections

Where a street enters a "T" intersection such that an open area aligning with the perpendicular street is maintained as undisturbed open space between the cross street and the El Rio open space, that area shall be considered open edge treatment, with a sixty feet minimum width open area provided. A "T" intersection provides physical and visual access for the public to the open space from the developed side of the "Edge" as shown in Illustration E23.



E23 Public and Private Street "T" Intersection