



— BUREAU OF —
RECLAMATION

Draft Environmental Assessment

**Central Arizona Project Canal Trail: Park Link Drive to Florence
Segment, Pinal County, Arizona
Interior Region 8: Lower Colorado Basin**



U.S. Department of the Interior
Bureau of Reclamation
Interior Region 8: Lower Colorado Basin
Phoenix Area Office
Glendale, Arizona

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Mission Statements

The Department of the Interior (DOI) protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Acronyms and Abbreviations

ACHP	ADVISORY COUNCIL ON HISTORIC PRESERVATION
ADEQ	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
AF	ACRE FEET
AGFD	ARIZONA GAME AND FISH DEPARTMENT
AMA	ACTIVE MANAGEMENT AREA
ARS	ARIZONA REVISED STATUTES
BIA	U.S. BUREAU OF INDIANS AFFAIRS
BLM	U.S. BUREAU OF LAND MANAGEMENT
BMPs	BEST MANAGEMENT PRACTICES
CAP	CENTRAL ARIZONA PROJECT
CAWCD	CENTRAL ARIZONA WATER CONSERVATION DISTRICT
CEQ	COUNCIL ON ENVIRONMENTAL QUALITY
CFR	CODE OF FEDERAL REGULATIONS
DOI	DEPARTMENT OF THE INTERIOR
EA	ENVIRONMENTAL ASSESSMENT
FT	FEET
MAG	MARICOPA ASSOCIATION OF GOVERNMENTS
MBTA	MIGRATORY BIRD TREATY ACT
MPH	MILES PER HOUR
NEPA	NATIONAL ENVIRONMENTAL POLICY ACT
NHPA	NATIONAL HISTORIC PRESERVATION ACT
NRHP	NATIONAL REGISTER OF HISTORIC PLACES
O&M	OPERATION AND MAINTENANCE
PM-10	PARTICULATE MATTER 10 MICRONS OR LESS IN DIAMETER
RECLAMATION	U.S. BUREAU OF RECLAMATION
TCP	TRADITIONAL CULTURAL PROPERTIES
THPO	TRIBAL HISTORIC PRESERVATION OFFICE
USACE	U.S. ARMY CORPS OF ENGINEERS
USFWS	U.S. FISH AND WILDLIFE SERVICE

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1.0. Introduction, Background, Purpose, and Need

1.1 Introduction

The Bureau of Reclamation (Reclamation) has prepared this Draft Environmental Assessment (EA) to analyze the potential effects for a proposal by Pinal County Open Space and Trails (the County) to develop, operate, and maintain an approximately 39.3-mile-long non-motorized, multi-use recreational trail and three trailheads (Figure 1). The trail and associated trailheads, herein referred to as the project, would use Reclamation's existing Central Arizona Project (CAP) canal corridor, Arizona State Lands Department (ASLD)-administered lands, and existing Pinal County rights-of-way (ROW) as shown in Figure 2. The project would be located in unincorporated Pinal County, Arizona and the City of Coolidge in Pinal County, Arizona. The EA considers the impacts of Reclamation's approval of the trail on Reclamation administered lands as well as impacts from potential connected actions on ASLD and existing Pinal County ROWs. The trail would be an expansion of the current CAP Trail within the County. This segment of the trail begins at the Park Link Drive and extends north, along either side of the CAP canal, and on ASLD and existing Pinal County ROW, for approximately 39.3 miles, ending west of Highway 79 near Florence, Arizona. Land management details are shown as a subset of inset maps for select segments of the trail in Figure 3, Figure 4, and Figure 5.

This EA was prepared to thoroughly examine the potential environmental impacts of the Proposed Action and alternatives in order to support informed decision-making. This Draft EA is consistent with the purpose and goals of National Environmental Policy Act (NEPA); the requirements of the Council on Environmental Quality's (CEQ) implementing NEPA regulations at 40 CFR Parts 1500-1508; longstanding Federal, judicial, and regulatory interpretations; the Department of the Interior's NEPA regulations (43 CFR Part 46); and Administration priorities and policies including Secretary's Order No. 3399 requiring bureaus and offices to use "the same application or level of NEPA that would have been applied to a Proposed Action before the 2020 Rule went into effect."

1.2 Background

As part of the original plan for the construction of the CAP canal, Reclamation anticipated the development of a recreational trail along the entire 336-mile length of the canal that would accommodate walking, bicycling, jogging, and equestrian use. A trail along the entire length of the CAP was first conceptually discussed in the Environmental Impact Statement for the Tucson Aqueduct Phase A (Reclamation 1983). If deemed feasible, it was envisioned that Reclamation would enter into recreational land use agreements for the development and operation of specific segments, and follow-on environmental compliance would be conducted for specific plans developed for those features. Since 1983, Reclamation has entered into recreational land use agreements with the City of Scottsdale (1982 and 1985), Pima County (1986), City of Phoenix (1986), and Pinal County (2016). Certain developed features of the recreation trail along the CAP were designated in 2003 as a National Recreation Trail by the U.S. Secretary of the Interior.

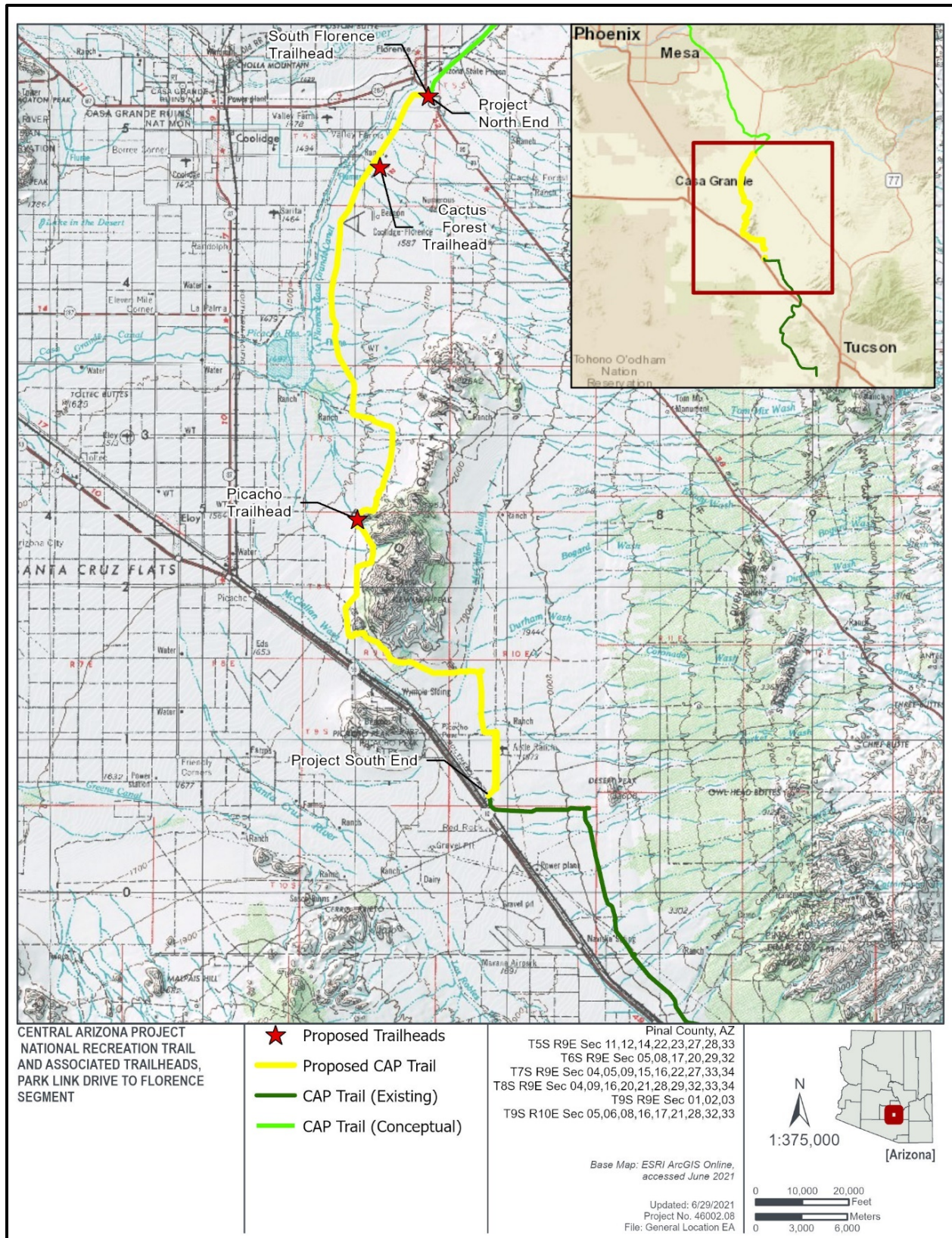


Figure 1. Project Location

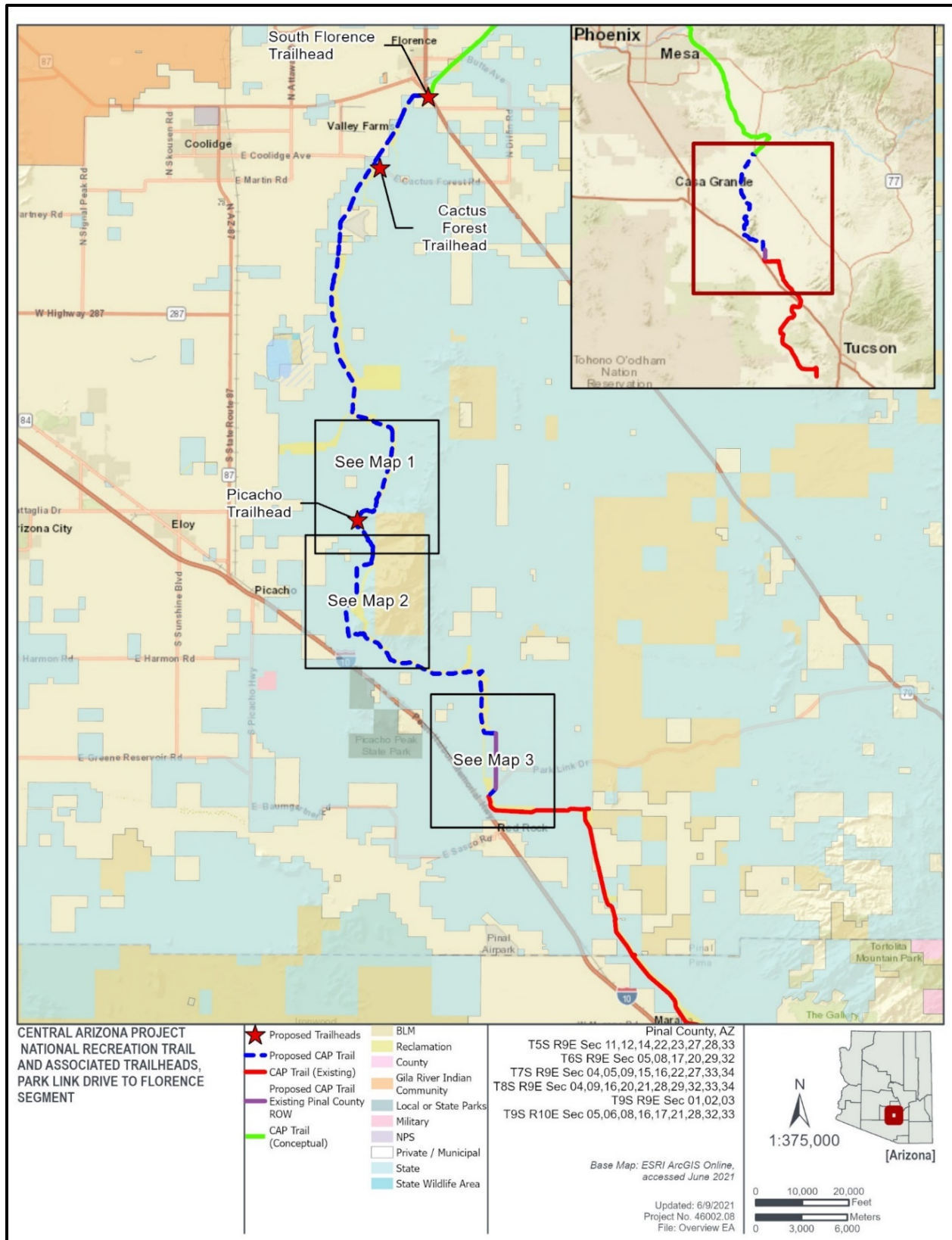


Figure 2. Project Overview

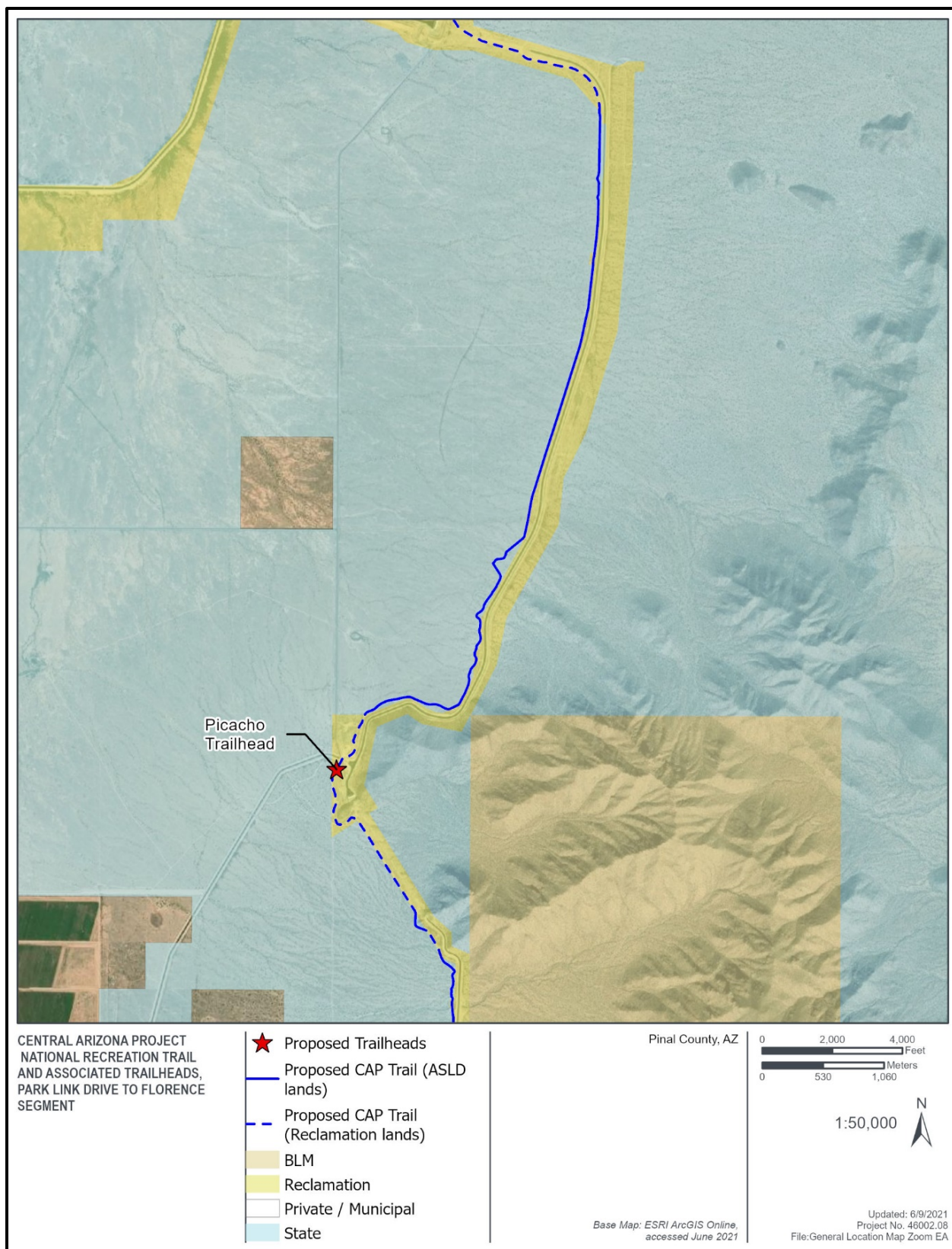


Figure 3. Project Overview (Inset 1 from Figure 2)

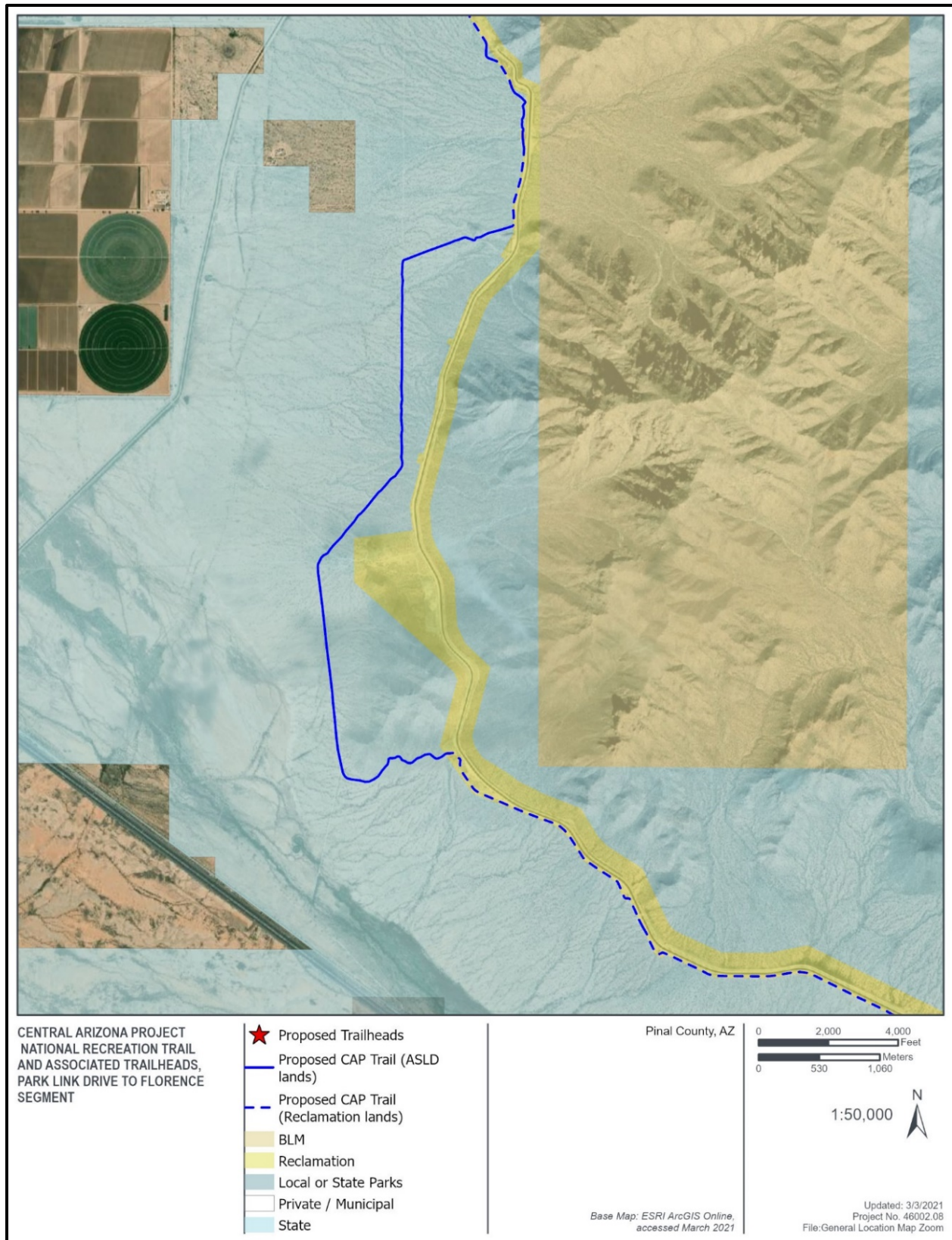


Figure 4. Project Overview (Inset 2 from Figure 2)

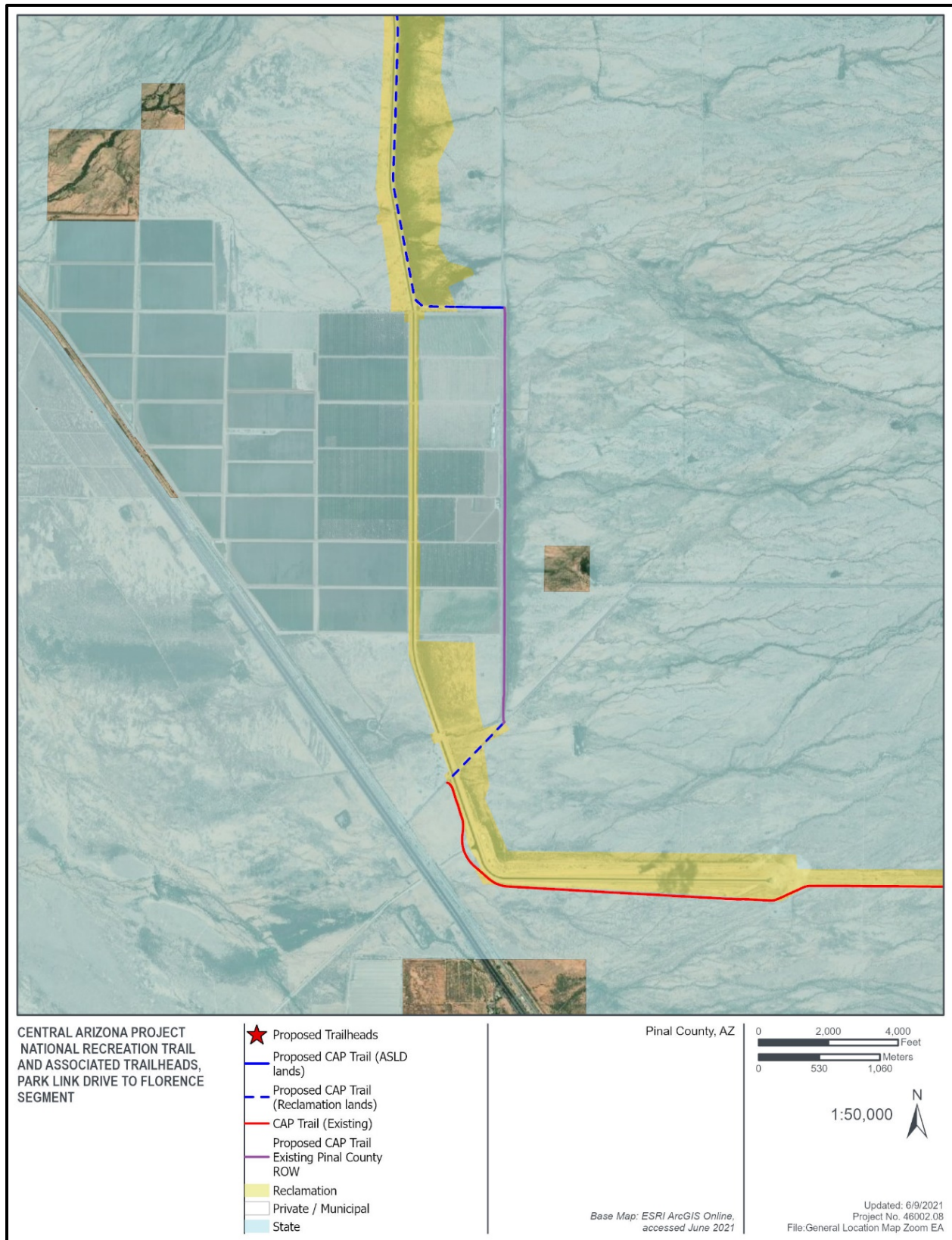


Figure 5. Project Overview (Inset 3 from Figure 2)

More than 100 miles of the CAP canal is located in Pinal County, Arizona, and the proposed trail alignment would run adjacent to a majority of the CAP canal. The proposed CAP canal trail (herein referred to as the CAP Trail) was first discussed in the Pinal County Trails Plan in 2005 and was later incorporated into the Pinal Open Space and Trails Master Plan in 2007 as one of three primary trail corridors in Pinal County. In 2008, Pima County prepared a CAP Trail Master Plan in partnership with Pinal County that included plans for the stretch of the CAP Trail that extends from the south Pinal County border to Picacho Peak. The CAP Trail was also identified in the Pinal County Comprehensive Plan in 2019, and in the Master Plan for the Pinal County Segment of the CAP National Recreation Trail in 2015.

The County entered into a Recreational Land Use Agreement (RLUA) with Reclamation in 2016 to develop, operate, and maintain the portion of the CAP Trail within Pinal County. In accordance with the RLUA, the County's use of Reclamation lands must not interfere with the non-recreational use for which these lands were reserved for under Reclamation law and projects constructed and operated thereunder, including project mitigation. The RLUA breaks the Pinal County portion of the CAP Trail into eleven segments, each of which will have a different set of partners that will work with Pinal County over the long-term to construct and/or operate the CAP Trail. These segments correspond with the County's CAP Trail Master Plan (2015). The proposed trail alignment discussed in this EA incorporates three of those segments: the North Picacho Segment, the Coolidge Segment, and the South Florence Segment. The remaining segments will undergo NEPA evaluation as site-specific project details are developed. The construction of the North Picacho, Coolidge and South Florence Segments would expand the currently developed CAP Trail within Pinal County. The Park Link Segment has already been developed.

The County's Master Plan for the Pinal County Segment of the CAP National Recreation Trail (2015) identifies the development standards and guidelines for the CAP Trail. These development standards and guidelines (Appendix A) will be adhered to for the project by the County whenever applicable.

The CAP canal is managed under the CAP Operations and Maintenance (O&M) Agreement (O&M Agreement) between Reclamation and the Central Arizona Water Conservation District (CAWCD), which includes environmental commitments that are summarized in Appendix B. One of the environmental commitments includes an Interim CAP ROW Land Use Policy (Land Use Policy; Appendix C). The Land Use Policy designates areas upslope of the CAP canal as a mitigation area, which was set aside due to impacts associated with the construction of the canal. Lands within 25 feet or more of the upstream toe of any upslope embankment are jointly managed for impoundment/embankment and mitigation.

This EA presents an evaluation of potential impacts to the human and natural environment based on current conditions for this segment of the CAP Trail.

1.3 Purpose and Need

The purpose of the project is to expand the recreational opportunity within the CAP corridor. The opening up of 39.3 miles of trail and constructing three trailheads would allow Reclamation to continue to meet its obligations under Title 1, Section 102, and Title III, Section 308, of the Colorado River Basin Project Act of 1968, Pub. Law 90-537, 43 U.S.C. Ch. 32, which authorizes the

Secretary of Interior, through Reclamation, to provide for or enhance recreation opportunities connected with the project works. The Proposed Action would be consistent with the Recreation Land Use Agreement between Reclamation and the County. In addition, it would implement a segment of Pinal County's Open Space and Trails Master Plan.

Pursuant to the Recreation Land Use Agreement, Reclamation would have to approve (1) updates to the CAP Trail Management Plan and Maintenance Manual for this portion of the trail, and (2) third-party agreements for the development, operation, and maintenance of the trail.

1.4 Public Involvement

Reclamation solicited input from the public about the proposed project to assist in identifying key issues and defining the scope of the project and environmental analysis. Reclamation conducted scoping via mail (to 115 potentially interested agencies organizations, tribes, and neighbors to the Proposed Action), newspaper notice, and internet publication. Scoping for this project began on March 11, 2021. Within the 30-day scoping period, Reclamation received 10 comments. Scoping comments are provided in Appendix D.

2.0 Proposed Action and Alternatives

2.1 Proposed Action Alternative

The proposed action is the County's proposed project, which includes the development, operation, and maintenance of 39.3 miles of trail and three trailheads (Proposed Action). Land ownership for the project area is primarily Reclamation and ASLD with a minor amount of Pinal County ROW. All project activities would be conducted within existing fee or ROWs through these lands (or ROWs to be obtained by the County during the course of the project). Table 1 summarizes the approximate acreages of project area, length of trail, and acreage of trail by land managing agency. Area and length estimates presented in Table 1 are based on an estimated 25-foot-wide corridor, a conservative trail width of 12 feet, and an approximate centerline of the proposed trail. ROW acquisition for the trail would be limited to ASLD lands. Design drawings for the trailheads are available (Appendix E) and would continue to be refined through final design. No design plans would be completed for the trail establishment because the trail would be established along existing roads, accomplished with hand tools, and dependent upon site-specific conditions to be determined during project implementation.

The project area would extend from the Park Link Drive and Nona Road intersection north until it ends west of Highway 79 near Florence, Arizona (Figure 2). Most of the trail (28.2 miles) within the project area would use an existing Reclamation maintenance road on top of the berm along the canal, but would be outside the security fencing, and would require minimal ground disturbance for trail construction and operation. The existing maintenance road is naturally surfaced with native soils and is approximately 12-foot wide. Approximately 8.68 miles of the proposed trail would be on ASLD administered lands and would follow an existing two track road that is approximately 8 to 12-foot wide

(Figure 2). The County would acquire the necessary ROW for trail segments on ASLD-administered lands. The remaining portion of the trail (2.45 miles) would occur within existing County ROW and would follow an existing dirt road. The establishment of the trail on ASLD and County lands would require minimal ground disturbance to construct, operate, and maintain because most of the trail would be collocated on existing roads. The project would be operated as a non-motorized¹, multi-use recreational trail that would accommodate pedestrians, bicyclists (potentially including electric bikes

[E-bikes]), and equestrians. Although this EA considers E-bikes as a potential use for the Proposed Action, it would not be implemented until it is authorized by Reclamation's Lower Colorado Basin Regional Director (RD), as per 43 CFR 420.5 (a)(7). If authorized by the RD, the Recreation Land Use Agreement between Reclamation and the County would also need to be modified. Other segments of the CAP Trail would not be open to E-bikes until further environmental reviews are complete.

Table 1. Proposed Action Land Management

Land Management	Length (Miles)	12-foot Trail Area (Acres)	25-foot Project Area (Acres)
Reclamation-administered lands	28.2	40.9	85.4
ASLD-administered lands	8.68	12.6	26.3
Existing Pinal County ROW	2.45	3.6	7.4
Total	39.32	57.1	119.1

1. Individual values may not sum to total value due to rounding.
2. Area and length estimates presented in Table 1 are based on an estimated 25-foot-wide corridor, a conservative trail width of 12 feet, and an approximate lineal centerline of the proposed trail.

The southern end of the trail would begin at the intersection of Park Link Drive and Nona Road, immediately east of I-10 (Figure 2) and would follow South Pecan Road north for 2.2 miles. The trail would proceed 0.5 miles west to the CAP canal maintenance road. The trail would then follow the CAP canal corridor for 7.3 miles north until it meets an unpaved, two-track road on the southwestern side of the Picacho Mountains. The trail would follow the unpaved, two-track road for 0.7 miles west onto lands managed by the ASLD until it intersects another unpaved, two-track road. The trail would follow this unpaved, two-track road 2.9 miles north, and then 0.6 miles east, until it rejoins the CAP canal corridor. The trail would then follow the CAP canal corridor for 21.6 miles, ending west of Highway 79 near Florence, Arizona (Figure 2). A conceptual drawing of a typical cross-sectional profile of the trail within the CAP corridor is provided in Figure 6.

¹ Reclamation recently revised 43 Code of Federal Regulations, Part 420 for off-road vehicle use. Under the revised rule, the definition for "off-road vehicle" was amended to include an additional exclusion category for electric bikes (e-bikes) that satisfy specific criteria. Upon certain approvals class I, II, and III e-bikes may be treated similarly to traditional, non-motorized bicycles on Reclamation Lands.

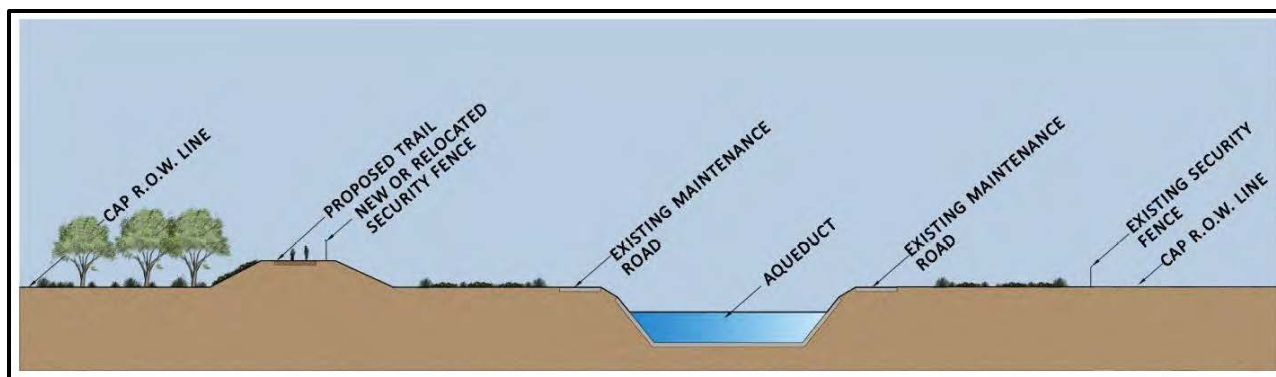


Figure 6. CAP Trail Conceptual Cross-Sectional Design

The trail would be 8 to 12-feet wide depending on existing road widths. For analysis purposes, a 25-foot-wide corridor was evaluated to account for minor shifts in the trail alignment that might be needed during design or construction. Since this trail would use existing compacted dirt roads, improvements or reroutes would occur within the 25-foot-wide project area only where new fencing or gates are installed for security and O&M purposes, or where site-specific conditions have deteriorated and can no longer serve as a viable trail (i.e., due to erosion). Should trail improvements be needed, they would be completed with hand tools to minimize impacts to wildlife habitat. Trail improvement and maintenance would be done with common trail building tools (e.g., McLeods, picks, shovels, hand compactors). No heavy equipment would be used for trail development. Trail development would start and progress linearly down the trail. Trail improvements, such as minor cut and fill activities, would use existing material on site, and follow standard methods for improving primitive, backcountry trails.

In most areas of the project, existing fencing is left in place; however, to ensure the safety and security of trail users while also maintaining the security of the CAP facilities, 8.08 miles of new CAP fencing along with 38 new security gates would be installed (Appendix E). No new areas would be developed for fencing as all new fencing would either directly replace existing infrastructure or be shifted slightly to increase effectiveness and efficiency. These site-specific areas within the CAP corridor would need to be removed, relocated, or replaced simultaneous to the trail development in order to maintain CAP security and/or for O&M purposes. No new fence or gates or removal of existing fence or gates would occur within the CAP mitigation area as defined by the O&M Agreement (Appendix B). No grazing-related/barbed-wire fencing would be constructed or removed. Fencing around all trailheads would be installed or modified as needed within the trailhead footprint. Fencing activities would be coordinated with CAWCD and Reclamation. Signage would be installed at trailheads and at various locations along the trail.

Table 2. Proposed Gate and Fencing Improvements

New CAP Fencing (Miles)	Existing CAP Fencing to be Removed (Miles)	New CAP Trail Security Gates
8.08	0.134	38

Three trailheads (2.8 acres total) would be constructed as part of the Proposed Action (Figure 2). The trailheads would be located along the proposed trail and are briefly described below. A detailed set of trailhead plans can be found in Appendix E.

The Picacho Trailhead (1.7 acres) would be located northeast of the CAP maintenance road and South Brady Pump Road intersection and is located entirely on Reclamation-administered lands. This trailhead would be graded and surfaced with aggregate base and compacted decomposed granite. The trailhead facilities would include 20 vehicle parking spaces, up to 4 equestrian parking spaces, a trail information kiosk, vehicle access gates, and post and cable barriers around the trailhead (Appendix E). Potential future improvements for this trailhead would include a waterless restroom, a 25-foot by 15-foot ramada, and asphalt pavement.

The Cactus Forest Trailhead (0.3 acres) would be located on the southwest side of Cactus Forest Road, where the proposed trail intersects. It would be located entirely on Reclamation-administered lands. This trailhead would be graded and surfaced with aggregate base and compacted decomposed granite. The trailhead facilities would include seven vehicle parking spaces and a trail information kiosk (Appendix E). Asphalt pavement may be added as part of future improvements.

The South Florence Trailhead (0.8 acres) would be located northwest of the Highway 79 and Cemetery Street intersection. It would be located entirely on Reclamation-administered lands. This trailhead would be graded and surfaced with aggregate base and compacted decomposed granite with asphaltic concrete pavement for the parking lot. The trailhead facilities would include 20 vehicle parking spaces, a trail information kiosk, a single unisex waterless restroom, a 20 foot by 24-foot ramada, vehicle access gates, and post and cable barriers around the trailhead (Appendix E).

As part of their O&M Agreement, CAWCD would continue to perform routine maintenance activities along the existing maintenance road, which would also serve as the proposed trail. CAWCD's O&M activities include but are not limited to grading of the maintenance road and maintaining the CAP facilities and fencing.

The construction, operation, and maintenance of the trail and associated trailheads would be the responsibility of the County. Those portions of the trail that occur on Reclamation lands would be governed by the Recreational Land Use Agreement between the County and Reclamation. Where the Recreational Land Use Agreement applies, the County would be responsible for monitoring to identify trespass activity of trail users beyond the designated route (i.e., within the mitigation property). Since the first segment of the CAP Recreational Trail has been open as of August 2019, there have been no reported or observed instances of recreational trail users trespassing outside of the trail corridor out of the 7,138 trail users recorded from August 2019 to May 2021 (Pinal County 2021). Approximately 5.03 miles of the trail, including the Cactus Forest Trailhead, would be within the incorporated limits of the City of Coolidge. The operation and maintenance of these areas are anticipated to be carried out through a third-party agreement between the County and the City of Coolidge. The County and the City of Coolidge would enter into an Inter-Governmental Agreement (IGA) to define their responsibilities. The IGA would require Reclamation approval, in accordance with the Recreational Land Use Agreement between the County and Reclamation. Should the third-party agreement be approved, it is assumed that the City of Coolidge would conduct similar operation and maintenance activities as the County. Without an approved third-

party agreement, the County would retain full responsibility for operating and maintaining the entire trail and associated features.

Concurrent to the Proposed Action, CAWCD has submitted a ROW application to the ASLD for use of the existing two-track road between Brady and Picacho Pumping Plants. The ROW is being requested for CAP O&M purposes. The ROW being acquired by CAWCD would follow the same alignment for the proposed trail within this area. Both the CAWCD and the County would acquire a separate ROW from the ASLD; however, both parties have agreed in principal that easement acquisitions would not incumber upon each other should ASLD approve their ROW requests. Another concurrent action to the proposed construction of the trail includes Reclamation installing pipe rail fencing, designed to wildlife friendly specifications, at four select wildlife crossings in the area (Table 3). The pipe rail fencing is meant to discourage human use on these wildlife crossings.

Table 3. Locations for Pipe Rail Fencing

UTM Zone	Easting	Northing
12	462430	3615436
12	460564	3617316
12	460218	3619452
12	461841	3626692

2.2 No Action Alternative

Under the no action alternative, the proposed trail segment and associated trailheads would not be developed (No Action Alternative). Reclamation and CAWCD (and other authorized users) would continue to use the existing maintenance road for their own O&M purposes of the CAP canal.

Selection of the No Action Alternative would not meet the identified purpose and need for the project.

2.3 Alternatives Considered but Eliminated from Further Study

In the *Master Plan for the Pinal County Segment of the Central Arizona Project Trail* approved in 2015, the County conceptual plans included use of a wildlife bridge in the Picacho North segment of the Proposed Action. However, the use of the wildlife bridge is not considered a part of the Proposed Action or carried forward for detailed analysis as an Alternative because Reclamation determined that its use was incompatible with its original intent as a single-purpose wildlife crossing. Additional routes for the trail were considered besides the Proposed Action route to resolve the use of the wildlife bridge, including the construction of a pedestrian bridge to cross the CAP canal and another trail route along the eastern side of the CAP canal next to the Picacho Mountains. However, both alternatives were eliminated because they were cost prohibitive, and one of the routes would have resulted in greater environmental impacts than the Proposed Action.

The County also considered alternate locations for all three trailheads; however, the County determined that alternate locations were not practical and could not accommodate the facilities desired for the trailheads. For example, one alternate location for the South Florence Trailhead was inaccessible without impacting a cemetery or constructing an additional access road along the trail alignment (resulting in greater ground disturbance). Because no other practical alternatives for trailhead locations were identified, no alternate trailhead locations were considered for detailed analysis in this EA.

3.0 Affected Environment and Environmental Consequences

This chapter presents the existing conditions in the project area, as well as the environmental effects that would be reasonably expected from implementing the Proposed Action and the No Action Alternative.

Effects from ongoing actions in or near the project area are incorporated into the description of the project's existing conditions and the list below. This EA also identifies other reasonably foreseeable future actions to the extent possible. Reasonably foreseeable future projects are those that are, or could reasonably be, located within the vicinity of the project area and that have potential to impact resources in the project area. The geographic scope for this analysis includes other projects within the project area, as well as other projects near the project area if impacts from those other projects have potential to affect project area resources. The temporal scope includes projects within a range of approximately twenty years. Under these parameters, the following ongoing and reasonably foreseeable future actions were identified for the purpose of conducting the effects analysis:

- Bureau of Land Management (BLM), Pinal County, Town of Florence, and City of Coolidge land use planning (future)
- Grazing on ASLD and BLM lands east and west of the proposed trail (present)
- Ongoing maintenance activities along the roads that also double as the trail alignment (future)
- CAP Trail extensions and creation of complementary trail linkages to the CAP Trail (Future)
- Bighorn sheep releases in Picacho Mountain (future)

3.1 Resources Eliminated from Further Study

The following resources were considered but are not addressed further in this EA because it was determined that the resources are not present or that minimal or no impacts would result from the Proposed Action.

3.1.1 Environmental Justice

In accordance with EO 13990 and SO 3399, a thorough review of potential environmental justice impacts was completed. Local land use and demographic information was reviewed; the County's Comprehensive Plan does not specifically identify environmental justice in their plan, but does include direction for working with Tribal communities, and respects their sovereignty by omitting any specific land uses. The 2020 U.S. Census data and Environmental Protection Agency (EPA) data (EJSCREEN 2021) was reviewed to determine the presence of environmental justice communities; none were identified. Environmental justice issues were also not identified during scoping. Environmental Justice as a resource topic was eliminated from further analysis due to the nature of the project. The project would enhance recreation opportunities offered in the area, while only resulting in limited ground disturbance. Therefore, no disproportionately high and adverse human health or environmental effects on low-income or minority populations would occur as a result of the project.

3.1.2 Socioeconomics

The Proposed Action would not have an immediate socioeconomic impact on the local area or the County. However, future recreational use could provide a minimal beneficial effect on the County, City of Coolidge, or the Town of Florence's economy.

3.1.3 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in the physical assets held in trust by the United States for federally recognized Native American tribes or individual Native Americans. There are no ITAs in the project area, or adjacent to the project with potential to be adversely affected.

3.1.4 Water Resources

3.1.4.1 Surface Waters

In accordance with the Clean Water Act (CWA) and EO 11990 for Protection of Wetlands, a review was conducted to evaluate the surface water features in the project area to identify the presence of wetlands and other waters of the U.S. (WOTUS). The desktop review identified a series of surface water features, including the CAP canal, mapped within the project area by the Arizona Department of Environmental Quality (ADEQ), U.S. Geological Survey, and U.S. Fish and Wildlife Service (USFWS) (ADEQ 2021; EPA 2021; USFWS 2021a).

Under the now remanded and vacated (August 30, 2021) Navigable Waters Protection Rule (NWPR), WOTUS were defined as: (1) territorial seas and traditional navigable waters (TNWs); (2) perennial and intermittent tributaries that contribute surface water flow to Category 1 waters in a typical year; (3) certain lakes, ponds, and impoundments of jurisdictional waters; and (4) wetlands adjacent to other jurisdictional waters. The NWPR also excluded various other types of surface waters from being considered WOTUS and subject to Section 404 permitting regulations, including ephemeral drainages. With the NWPR now vacated, the definition of WOTUS has reverted back to the definition and agency guidance developed in response to the Supreme Court decision in *Rapanos v. United States* that was in place prior to the NWPR being implemented (i.e., the 2008 post-Rapanos guidance).

Based on observations from the field reconnaissance, the desktop review of available information, and in consideration of recent aerial imagery (SWCA 2021a), none of the surface water features

within the project area were likely to be WOTUS under the now-vacated NWPR due to the ephemeral flow regime of the natural drainages. The natural surface water features have the potential to be WOTUS under the pre-NWPR U.S. Army Corps of Engineers (USACE) guidance if they show indicators of Ordinary High Water Marks (OHWMs) and have a strong connection to a downstream USACE designated TNW (i.e., the Gila River at Powers Butte).

All but three of the surface water features identified in the project area lacked OHWM indicators and/or a bed and banks. Of the three that did exhibit OHWM indicators, a strong hydrologic connection to a downstream TNW could not be established. Surface waters in the project area (e.g., McClellan Wash) historically flowed indirectly to the Gila River. However, extensive agricultural development west of the project area has disrupted the natural land surface and flow of water across the land in the region. In addition, the nearest downstream TNW to the project area is approximately 90 river miles downstream of the project area. The climate, low-gradient topography, and soil characteristics of the project area promotes low volumes and low velocities of stormwater runoff across the project area and beyond. Additionally, the extensive agricultural development downstream of the project area significantly disrupts the natural flow of stormwaters and presents multiple barriers for downstream flows. The potential for a hydrological nexus and/or contribution of flows in a typical year to the nearest TNW, with numerous barriers and diversions, would be speculative. Any stormwater runoff crossing the project area that may reach the nearest receiving TNW would be at such low levels that it would have, at most, an insignificant effect on the biological, chemical, and physical integrity of the TNW.

None of the surface waters crossing the project area would likely be considered WOTUS or subject to Section 404 of the CWA under the pre-NWPR USACE guidance. In the event that any surface water features in the project area were determined to be WOTUS, the type of CAP Trail project activities within those surface water features would be minimal and would likely be covered under a CWA Section 404 Nationwide Permit that would not have a preconstruction notice.

3.1.4.2 Floodplains

In accordance with EO 11988 for Floodplain Management, the project area was reviewed for the presence of floodplains. The Federal Emergency Management Agency (FEMA) maps approximately 12.53 acres within the project area as special flood hazard areas (FEMA 2021). Special flood hazard areas are regulated by Pinal County, and certain development activities within these areas requires a Floodplain Use Permit (Pinal County 2019, 2021). Planned trail development or trail use would not require a Floodplain Use Permit unless a structure or facility associated with trail development activities was planned within a regulated area.

3.1.4.3 Groundwater

No groundwater intersects the surface within the project area, and depth to groundwater averages 268 feet below the surface, which is considerably below the maximum excavation depth for project activities.

Because there are no regulated surface waters in the project area, and no potential for groundwater interactions resulting from project activities, no detailed analysis is required.

3.2 Land Use

3.2.1 Affected Environment

The analysis area for land use resources evaluated in this EA includes the 25-foot-wide trail corridor and the locations for the three trailheads. From north to south, a large majority of the project area occurs within Reclamation fee lands for the CAP, which are managed in accordance with the Interim CAP ROW Land Use Policy (Appendix C). Within the CAP corridor, the proposed trail will be collocated on an existing maintenance road that is regularly maintained by CAWCD. Much of this road is on top of an elevated CAP canal berm. Portions of the proposed trail along the western foothills of the Picacho Mountains are on existing, unmaintained, two-track roadways managed by ASLD with some trail segments on Reclamation land. South of the Picacho Mountains the trail returns to Reclamation's two-track maintenance road on top of an elevated berm. A relatively small trail segment is located on existing, unmaintained, two-track road managed by the County near the southern project limits.

The land adjacent to the trail is primarily undeveloped native desert, with some agricultural lands found along South Pecan Road and north of Cactus Forest Road. Several residential structures are directly adjacent to the trail. At the northern terminus, there are a few residential structures on the south side of the CAP Canal where the trail parallels Cemetery Road, near its intersection with State Route 79. There are also several other residences in this area, but north of the CAP Canal and the trail alignment. The Town of Florence's Cemetery is also located 0.4 miles west of the intersection of Salazar Street and State Route 79. Along the trail alignment going south, the City of Coolidge maintains the Coolidge Municipal Airport approximately 2.0 miles south of Cactus Forest Road; the trail in this area is located on Reclamation land within the City of Coolidge, just off the western approach of the airport. There is a single residence approximately 0.3 miles east of the trail in the Valley Farms area, and a residence and several industrial agricultural structures just west of the trail as it follows Pecan Road at the southern end of the project limits. There are multiple land use planning documents in effect for various portions of the trail. Key planning documents are summarized below.

BLM, Phoenix Resource Management Plan. In 1989, the BLM approved the Phoenix Resource Management Plan (RMP). The RMP designates the Picacho Mountains as a Special Management Area (SMA) for the conservation of desert tortoise habitat (BLM 1989). The desert tortoise Resource Conservation Area (RCA) extends to the BLM boundary that abuts about 0.7 miles of Reclamation lands along the proposed trail. However, the public lands managed by BLM in this area are on the east side of the canal about 500 feet from the trail. Three grazing allotments, Balcom, Newman Peak, and Walker are adjacent the project area. BLM's RMP does not extend into the project area. BLM also has agreements in place to work with Arizona Game and Fish Department (AGFD) on desert tortoise, as well as bighorn sheep management, as they relate to planned development within the SMA.

Pinal County Comprehensive Plan. Pinal County's Comprehensive Plan (Pinal County 2019) recognizes portions of the trail within Pinal County as an integral part of the planned 336-mile-long CAP National Recreational Trail suitable for development of a multiuse, non-motorized trail for recreational use. The trail is identified as part of the Comprehensive Plan's Open Space designation and is consistent with the County's planning guidelines. Land use designations are primarily Very

Low Density Residential and Proposed Regional Park (Picacho Mountains), with small sections of Employment sectors, and Aviation-based Commerce.

Master Plan for the Pinal County Segment of the CAP National Recreational Trail. The Pinal County Board of Supervisors approved the Master Plan for the Pinal County segment of the trail (Pinal County 2015). This plan identifies the preferred trail route and alignment, road crossings, design characteristics and possible future trailhead locations.

Pinal County Open Space and Trails Master Plan. This plan identified the CAP Trail corridor and a needed recreational resource for Pinal County, estimated development costs, proposed funding sources, and discussed broad project benefits (Pinal County 2007).

Town of Florence 2020 General Plan. The Town's General Plan does not offer specific planning or land use guidelines related to the trail, but it does mention that the CAP canal offers the only continuous pedestrian and bicycle facilities in the area. The General Plan recognizes that the CAP Canal corridors are natural wildlife corridors and should be considered for land conservation purposes. The plan further proposes that the CAP Canal corridor should be considered for future development as a special use park (Town of Florence 2007).

City of Coolidge 2025 General Plan. The CAP Trail is outside the Coolidge city limits, and the City's General Plan (City of Coolidge 2014) does not address the CAP Trail directly. However, it does provide for trails, paths, and linear parks to the extent that development of the proposed trail would be consistent with guidance given in the General Plan as it relates to Open Spaces.

3.2.2 Environmental Consequences

3.2.2.1 No Action

Under the No Action Alternative, the O&M road and localities for the trailheads within the CAP corridor would not be available for recreational use. CAWCD maintenance crews would continue to use the existing road for O&M purposes, with public access restricted. There would be no anticipated change in land use to the ASLD and County roads. However, CAWCD would still pursue a ROW with ASLD to use the existing two-track road between Brady and Picacho Pumping Plants for CAP O&M purposes. No new ROWs over ASLD lands would be acquired by the County.

3.2.2.2 Proposed Action

Under the Proposed Action, Reclamation would approve public access within the CAP corridor. Subsequent actions following Reclamation's approval would include the County acquiring the proposed ROWs on ASLD lands and constructing the trail improvements and new trailheads. The Proposed Action would allow public access to approximately 28.25 miles of Reclamation land, 8.68 miles of trail on difficult to access ASLD land, and 2.45 miles of trail on the County ROW. Trail establishment/improvements would occur along existing roadways and would be require minimal ground disturbance (hand tools only). These improvements are not anticipated to impact existing land use. Construction of the three new trailheads would convert approximately 2.8 acres of undeveloped land into parking and public use areas, which could be considered a long-term impact to the land. The conversion of land use from vacant land to a developed trailhead would not impact adjacent land uses; except for a few residential areas located near Florence, adjacent lands are vacant and do not possess unique habitat or sensitives landscapes. In addition, the nearest development to

the proposed trailheads is located over 500 feet away from the proposed South Florence trailhead. The proposed trailheads are located in areas that already have been disturbed (either as a roadside pullout or disturbed from CAP-construction). Development of these trailheads could be considered a long-term beneficial impact to land use depending upon perspective. Planned conservation or mitigation measures intended to minimize or avoid impacts on existing land uses are provided in Appendix F.

The land use impacts from the Proposed Action are not anticipated to adversely affect existing or future grazing, as the trail would use existing roadways with negligible modification. Future foreseeable actions affecting land use in the vicinity of the project area include grazing on ASLD and BLM land, ongoing maintenance along Reclamation's CAP access road, and other planned CAP Trail extensions and new complementary trail linkages to the trail. Bighorn sheep releases by AGFD on Picacho Mountain are also anticipated. Land use in the area may be affected if construction and operation of connected trails by the County or others goes forward. The impact could displace or change some land uses; for instance, existing land uses, like grazing, open space, hunting, and off highway vehicle (OHV) use recreation opportunities, may be displaced to other locations. However, the majority of all future planned or conceptual, connected, multi-use recreational trails, are generally located along existing facilities (e.g., a dirt road or canal access road). Although trail establishment and maintenance would be done via hand tools, when considered with future and ongoing roadway maintenance in the project vicinity, it would progressively increase but would be a minor addition compared to other land use impacts. When considered with future development of other planned CAP Trail segments, and other complimentary trail linkages, the Proposed Action would collectively impact land use. The security fencing activities would not change land use in the area as it would remain in the footprint of the previously disturbed berm.

The CAP Trail is expected to serve as a long-distance, non-motorized, multi-use recreational trail corridor connecting to future planned trails, such as the Maricopa County Regional Trail System and the Pinal County Trail System, and facilitating a larger regionally connected trail system, per the Pinal County Open Space and Trails Master Plan (Pinal County 2007). In the future, the CAP Trail within Pinal County would extend north from Florence into Apache Junction. This portion of trail still needs to be reviewed under NEPA; once site-specific project details are known, the NEPA review for the project would proceed. Should this future segment of the trail be approved along with the currently proposed trail segment, there would be a continuous trail through the County that would lead into existing segments of the CAP Trail within Pima County (to the south) and future segments in Maricopa County. The project would have no impact on the operation and maintenance activities of the CAP canal.

3.3 Soils

3.3.1 Affected Environment

Within the 25-foot-wide trail corridor, the majority of the proposed trail would occur on top of existing, compacted dirt access roads generally located parallel to the CAP canal. The soil in the 8 to 12-foot-wide trail footprint has been previously disturbed during access road construction and maintenance, canal and berm/dike construction, and erosion control maintenance. The three trailheads would be constructed via grading and stabilizing the soils with aggregate base as previously described, totaling 2.8 acres of disturbances to soil.

Soils data from the Natural Resources Conservation Service (NRCS 2021) indicate that there are multiple different soil types along the route of the proposed trail. The soil and aggregate that comprises the berm, where the majority of the proposed trail would be located on, was sourced from the excavation of the canal. Soil types consist of Mohall sandy loam, 0 to 1 percent slopes, Dateland fine sandy loam, Mohall loam MLRA 40, Mohall clay loam, Continue clay loam, Marana silty clay loam, Denure sandy loam, 1 to 3 percent slopes, Vaiva-Rock outcrop complex, 15 to 50 percent slopes, Pinamt-Momoli complex, 1 to 8 percent slopes, Momoli-Carrizo complex, 1 to 8 percent slopes, Cellar-Rock outcrop complex, 5 to 70 percent slopes, and Denure-Momoli complex, 1 to 10 percent slopes. Most of these soils have high drainage and are found in floodplains and/or alluvial fans formed from mixed stream alluvium (NRCS 2021). None of the project area is currently used for agriculture or cultivation.

3.3.2 Environmental Consequences

3.3.2.1 No Action

Under the No Action alternative, the proposed land for the CAP Trail would remain in its current condition and no additional surface disturbance would take place. Thus, no adverse impact to soil resources would occur.

3.3.2.2 Proposed Action

Under the Proposed Action, the primary impact to soils would be from the development of the three trailheads as they utilize more undisturbed areas than the trail and would require heavy equipment (i.e., grader, backhoe, dump truck and power tools) for their development. The CAP Trail construction, while wholly upon previously disturbed soils, would require hand tools to smooth rough surfaces or reconstruct unsafe or impassible portions. Disturbance would be minimized to the extent necessary for safe trail establishment and operation. The proposed trail is considered a low-impact project as soil disturbance is limited to existing, developed roads or areas previously disturbed by the construction, O&M of the CAP, or already disturbed by motorized and non-motorized recreation (as is the case on ASLD lands). The Proposed Action would occur on a moderately compacted dirt road. Minor additional compaction would occur via non-motorized recreation use, primarily from the use of bicycles and equestrians. All security fencing activities would replace existing fencing. For relocated fenceposts, the soil would be disturbed but would be restricted to previously disturbed soils that comprise the berm. Certain segments of fence may be shifted but would remain in the footprint of the O&M area. A trailhead would be graded and stabilized with aggregate or asphalt base, which represents a negligible loss of open soil. The existing access roads would continue to support light vehicle use for CAP O&M purposes, trail maintenance and monitoring, and routine grading. The Proposed Action would not increase motorized vehicle use.

Because grazing would not occur within the CAP Trail footprint, there would be no incremental impact from grazing to soils in the project area. With the population expected to continue growing and further projects being developed in the area, there is likely to be an increase in traffic to the area in the near future. This could incrementally increase the impact to soils from recreational uses. Best management practices and the application of environmental protection measures would conserve soils and minimize the potential for erosion. Planned conservation measures intended to minimize or avoid impacts on existing soils are provided in Appendix F.

3.4 Biological Resources

3.4.1 Affected Environment

3.4.1.1 Vegetation

The analysis area for biological resources evaluated in this EA includes the 25-foot-wide trail corridor, which includes the proposed trail and the three trailhead locations. The Proposed Action area is mapped by Brown (1994) within the Lower Colorado subdivision and the Arizona Upland subdivision of Sonoran Desertscrub. While the majority of the project area is confined to previously disturbed areas that have no vegetation, i.e., the CAP access road and the ASLD access road, there is vegetation that occurs within the 25-foot corridor as well as the trailhead locations. Of the three major Sonoran Desertscrub vegetation communities described by Brown, most of this new disturbance within the project area would affect the Lower Colorado River Valley subdivision (50.5 acres) and Arizona Upland subdivision (6.7 acres). The elevation of the project area varies from approximately 1,700 to 1,900 feet above sea level in Pinal County, Arizona.

The project area is composed of multiple sections heading north-south along the CAP canal. The northern section runs parallel to the canal just south of Florence along the Picacho mountains; it is located in relatively undisturbed Sonoran Desert habitat with a multitude of washes and drainages running down from the Picacho Mountains. The middle passes through a relatively flat floodplain away from the Peaks but still within the drainage system with lots of arroyos. The southernmost section consists of flat desert scrub habitat adjacent to a powerline ROW, agricultural fields, and is located across the I-10 from Picacho Peak State Park. Some of the surrounding area has already been disturbed due to the infrastructure that is in place for the CAP canal, the powerline, and unauthorized OHV usage.

Site visits were conducted by the environmental consultants, SWCA, biologists on November 18, 2020 and March 4, 2021 to assess the physical and biological features present. A number of native plant species were observed within the vicinity of the Proposed Action and are typical of the Sonoran Desertscrub community (Turner and Brown 1994). They include, but may not be limited to, Engelmann's hedgehog cactus (*Echinocereus engelmannii*), fishhook barrel cactus (*Ferocactus wislizeni*), blue paloverde (*Parkinsonia florida*), yellow paloverde (*P. microphylla*), velvet mesquite (*Prosopis velutina*), desert ironwood (*Olneya tesota*), saguaro (*Carnegiea gigantea*), Engelmann's pricklypear (*Opuntia engelmannii*), ocotillo (*Fouquieria splendens*), buckhorn cholla (*Cylindropuntia acanthocarpa*), teddybear cholla (*C. bigelovii*), and staghorn cholla (*C. versicolor*). From the upstream toe of any slope of the CAP berm, runoff collects, thereby resulting in the densest concentration of vegetation. This area is referred to as the green-up or mitigation area for the CAP.

3.4.1.2 Wildlife

Terrestrial wildlife in the area is typical of those species associated with the Lower Colorado subdivision and the Arizona Upland subdivision of Sonoran Desertscrub. Resident and migrant birds that may be observed near the proposed trail include Gambel's quail (*Callipepla gambelii*), white-winged dove (*Zenaida asiatica*), Gila woodpecker (*Melanepes uropygialis*), and the mourning dove (*Zenaida macroura*) (AGFD, 2021). Mammal species that may occur within the Proposed Action area include antelope jackrabbit (*Lepus alleni*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and javelina (*Pecari tajacu*). Bighorn sheep utilize the wildlife corridor at the Picacho Mountains that intersects with the proposed trail, especially along the south and west-facing slopes above the CAP

canal, and at the proposed Picacho Trailhead. Common lizards in the Proposed Action area include the zebra-tailed lizard (*Callisaurus draconoides*), tiger whiptail (*Aspidoscelis tigris*), and side-blotched lizard (*Uta stansburiana*). The variety of small mammals provides an abundant prey source for several species of snakes, including the Mohave rattlesnake (*Crotalus scutulatus*), Tiger Rattlesnake (*Crotalus tigris*), coachwhip (*Masticophis flagellum picus*), and gophersnake (*Pituophis catenifer*). Amphibians with the potential to occur in the vicinity include the Sonoran Desert Toad (*Lncilius alvarius*), Woodhouse's toad (*Bufo woodhousii*), and red-spotted toad (*Bufo pimctatus*). Currently there are minimal collisions with small mammals or reptiles due to slow vehicle travel, sporadic O&M use, and wildlife barriers installed during CAP canal construction. While wildlife barriers are effective on larger animals, small mammals and reptiles can typically pass through uninhibited. Thus, the risk to small animals from collision or trampling would still persist. The same can be stated for the ASLD and the County ROW.

3.4.1.3 Special Status Species

There are no ESA listed Threatened or Endangered Species in the project area. There are two species that could potentially occur within the project area that are candidate species to be listed by the USFWS within Pinal County (USFWS, 2021b). The project area is within the know territory of the Sonoran Desert tortoise (*Gopherus morafkai*) and the Monarch butterfly (*Danaus plexippus*) and contains both vegetation and landscape features know to support these species. While both species have the potential to occur in the project area and the proposed project may impact individuals or their habitat, it is unlikely to contribute toward federal listing or the loss of viability for the species. Neither species has been confirmed to be currently inhabiting the project area, but a large tortoise population is found within the Picacho Mountains adjacent to the trail and a smaller number of individuals likely reside east of the CAP canal and along the proposed trail.

3.4.2 Environmental Consequences

3.4.2.1 No Action

Under the No Action Alternative, there would be no impact to vegetation since the O&M road and localities for the trailheads within the CAP corridor would not be available for recreational use. Any existing vegetation would remain undisturbed. There would be no immediate effect to terrestrial wildlife because no project would be implemented. There would be no new loss of or disturbance to mammals, reptiles, amphibians, or birds because the trail would not be opened. The incidence of lizard and small mammal collisions would not increase as traffic would stay the same.

3.4.2.2 Proposed Action

Vegetation

The Proposed Action would result in minimal disturbance of vegetation within the CAP corridor with the majority of the Proposed Action occurring on already disturbed land. Most of the trail is on an existing dirt road; therefore, little to no vegetation will be disturbed or removed for the trail. The establishment of the 39.3-mile trail would result in the minimal removal of vegetation, such as creosote and other small shrubs from the shoulders of the already disturbed roads, but large mature woody vegetation, like mesquite and ironwood, would be avoided. All security fencing activities would replace existing infrastructure, so no new disturbance is expected to vegetation. Certain segments of fence may be shifted but would remain in the footprint of previously disturbed area. Trail signage would be placed at the trailheads and along the trail to minimize the public from going

off the 8 to 12-foot trail footprint. Impacts from bad trail etiquette, such as trampling vegetation immediately adjacent to the project area due to unplanned visitation by trail users wandering off-trail, would be deterred and addressed by the County. The creation of unauthorized routes would be discouraged by signage posted at the trailheads and along the trail promoting proper trail etiquette. The County, as part of their O&M responsibilities would also monitor for potential unplanned, off-trail visits by recreational users and would recommend remedial measures to reduce opportunities for unauthorized routes. With Reclamation's approval, the County would implement those remedial measures.

The areas proposed for the three trailheads have been previously disturbed and would require minimal vegetation removal. All of the vegetation within the boundaries of the proposed trailheads would be removed as part of the Proposed Action. Potential impacts to vegetation and forage for the monarch butterfly and desert tortoise would not be avoided in these areas but would be minimal. No vegetation would be disturbed in the mitigation area as specified in the O&M Agreement.

The spread of non-native and noxious plants by the public could occur, but the successful germination and establishment of various species of unwanted plants varies and can be relatively low. Even if a species is able to establish, it is unlikely to become invasive along or within the trail. Unwanted seeds can be distributed along the trail by the shoes of joggers, treads of bike tires, and by horses defecating. Over time their establishment could increase and lead to impacts by spreading down into the CAP mitigation corridor. Planned conservation measures intended to minimize or avoid impacts to vegetation are provided in Appendix F.

The loss of vegetation in the area would be a progressive disturbance associated with nearby land development, agriculture, off-road vehicle use, cattle grazing, and other human influences. Since the use of the CAP Trail would increase overall pedestrian, cyclist (including E-bikes if authorized), and equestrian traffic through the area, the impacts to wildlife and vegetation from these proposed actions would slowly increase existing levels of recreation and disturbance to the surrounding area. While unlikely, trespass into the CAP mitigation corridor, buffered adjacent to the proposed trail, could lead to disturbance through the creation of unauthorized trails, littering of trash and other debris, damage to vegetation, and erosion of soils. This would reduce the quality of the habitat that was set aside for the mitigation associated with the construction of the CAP canal. The continual extension and linkage to the trail could, over time, increase foot-traffic resulting in further impacts to vegetation and wildlife.

Wildlife

Small mammal and reptile mortality may increase as a result of additional trail use by cyclists and equestrian riders along with additional vehicular patrols. A minor amount of habitat is expected to be lost through the minimal vegetation removal associated with the development of the CAP Trail. There would be minor expected impacts to birds and large mammals due to disturbance and displacement during construction and use. Bighorn sheep may be impacted from equestrian or other pack-animal use along the proposed trail. For instance, there is a potential for disease transmission, disruption to migration/movement, and impacts to cliff/rocky habitat from off-trail trespass. Increased activity during development in addition to recreational use may increase the occurrence of small mammal and reptile mortality that is already occurring from current road maintenance. Trail etiquette will be provided at the proposed trailhead locations to reduce the possibility of negatively impacting wildlife including desert tortoise and Monarch butterflies. All

fencing activities for the trail would replace existing fencing, but no new additional physical barriers to wildlife would result from the Proposed Action.

The Proposed Action is expected to increase activity along the trail, which has the potential to cause more issues for wildlife to cross through the Ironwood-Picacho wildlife corridor. There would likely be both short and long-term impacts to the usage of the wildlife corridor due to the development of the CAP Trail. Short-term impacts would result from the construction of the trailheads producing noise, habitat disturbance, and increased human presence. Long-term impacts will depend on the presence and utilization of the trail and creation of complementary trail linkages to the CAP Trail. Approximately 2 miles of the proposed Trail would occur within the Ironwood-Picacho wildlife corridor (Figure 7). Increased human presence along this 2-mile stretch has the potential to degrade the suitability for wildlife connectivity and the use of nearby single-purpose wildlife bridges as more recreation use (including non-motorized recreation like E-bikes and equestrian-based recreation) has a measurable impact on wildlife utilization of the corridor (Clevenger and Waltho 2005, Barrueto et al 2014, Papouchis and Singer 2001, Schoenecker and Krausman 2002, Stankowich 2008, and Ciuti et al. 2012).

A series of upgrades, such as a potable bathroom, ramada, and trash receptacles, are proposed as desirable amenities for the Picacho Trailhead. Their presence and utilization by recreationists have a likelihood of resulting in some level of disturbance to wildlife which is anticipated to increase over time. This would lead to their avoidance of the surrounding area and disruption to their daily and season use patterns (Clevenger and Waltho 2005, Barrueto et al. 2014, Papouchis and Singer 2001, Schoenecker and Krausman 2002, Stankowich 2008, and Ciuti et al. 2012). However, presently, the location for the Picacho Trailhead is more suitable for amenities than other possible locations because of continual human presence, disturbance, distance to designated single-purpose wildlife crossings, and its proximity to the Brady Pumping Plant.

Planned conservation measures intended to minimize or avoid impacts to wildlife are provided in Appendix F.

Although the use of the CAP Trail would increase overall pedestrian, cyclist, and equestrian traffic through the area, the impacts to wildlife and vegetation from ground disturbance and human activity would gradually increase from existing levels of recreation and disturbance to the surrounding area. The Proposed Action, along with projects in the foreseeable future, would have an adverse effect on wildlife connectivity overall even though its incremental contribution would be minor. The adverse impacts to wildlife resources would come from land development, agriculture, OHV use (an unauthorized use in the CAP corridor), and other existing human influences affecting the environment. Additional trail extensions and connections could increase the number of recreation users and the amount of potential edge impacts (decreases to habitat connectivity via fragmentation), from vegetation removal, surface sheet flow manipulation, barriers to wildlife, etc. The impacts to vegetation could further decrease habitat availability for many species in the area when combined with other ongoing projects in the region. This could then result in potential impacts to wildlife.

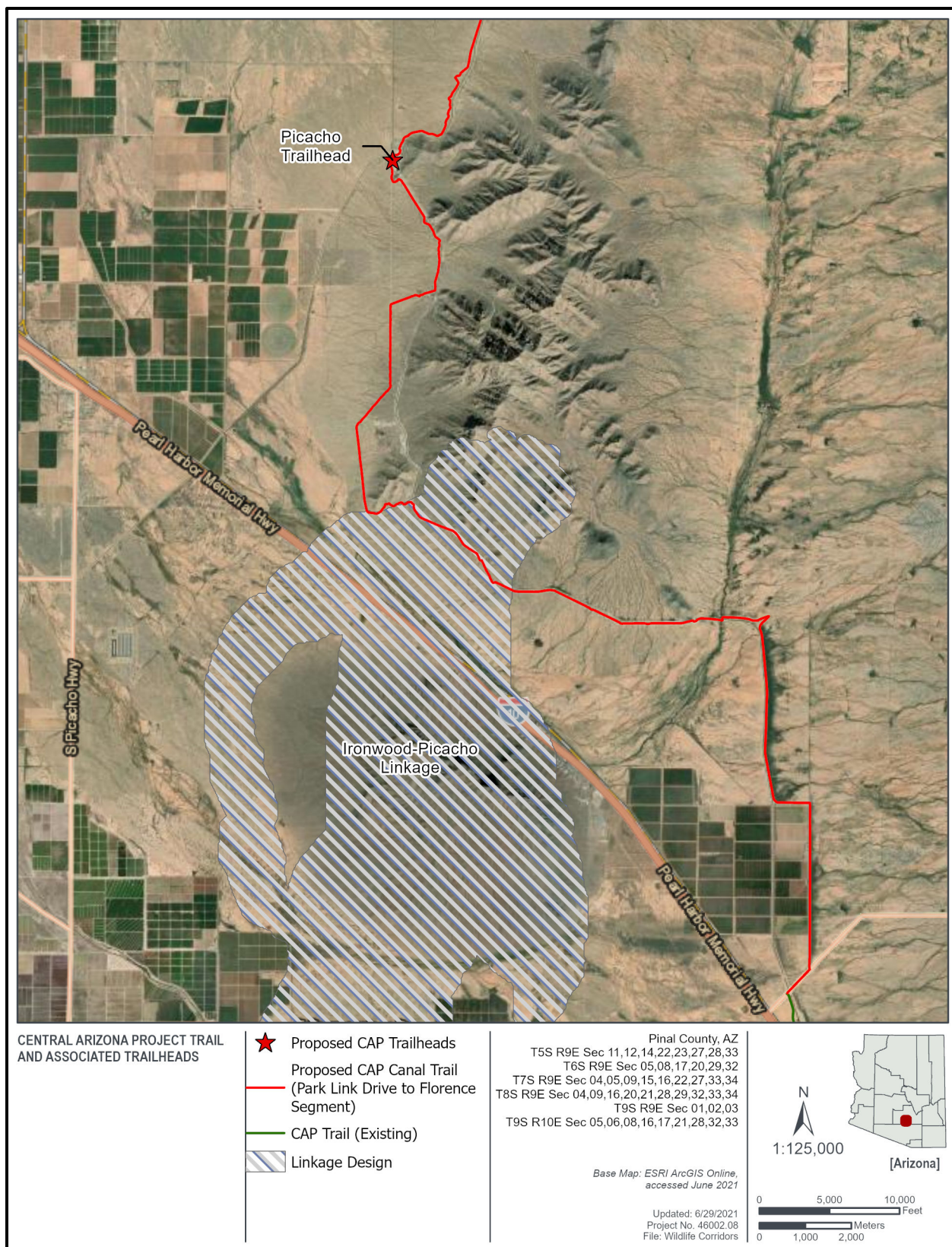


Figure 7. Wildlife Corridor Overview

The proposed project, in consideration with the reasonably foreseeable actions provided in Section 3.0 would have little to no effect on candidate and sensitive species and no effect on federally listed species within the area. Adverse effects to those species are associated with current and on-going activities, such as land use planning, grazing on public and private lands, and other human influence from O&M activities along the CAP corridor.

3.5 Cultural Resources

3.5.1 Affected Environment

The analysis area for cultural resources evaluated in this EA includes the 25-foot-wide resource survey area, which includes the proposed trail and the three trailhead locations. Evidence of 14 cultural resources were found within the project area or were identified as visible from the proposed trail during cultural resources surveys conducted along the CAP trail (Table 4). Eight resources are archaeological sites, one is an in-use site, and five are in-use historic-era structures, specifically a natural gas pipeline, a transmission line, a cemetery, and three roads. Six of the archaeological sites are eligible for listing in the National Register of Historic Places (NRHP); the cemetery has been left unevaluated under all of the Significance Criteria; the remaining two archaeological sites and six in-use historic structures are either ineligible for listing in the NRHP or, in the case of the natural gas pipeline, exempt from federal review pursuant to Section 106 of the National Historic Preservation Act. The NRHP-eligible archaeological sites have been determined Eligible under Significance Criterion D for their ability to provide important information about prehistory.

Table 4. Cultural Resources within the Project Area

Property Number/ Name	Property Type	Eligibility	Mitigation Measure*
AZ U:15:124(ASM)	Site–archaeological resource	Eligible	Avoid/minimize impacts through trailhead redesign.
AZ AA:3:63(ASM)	Site–archaeological resource	Ineligible	None.
AZ AA:7:27(ASM)	Site–archaeological resource	Eligible	Avoid/minimize impacts by installing trail markers/signs to define the trail within the site.
AZ AA:7:46(ASM)	Site–archaeological resource	Eligible	Avoid/minimize impacts by installing trail markers/signs to define the trail within the site.
AZ AA:7:57(ASM)	Site–archaeological resource	Eligible	Avoid/minimize impacts by installing trail markers/signs to define the trail within the site.
AZ AA:7:59(ASM)	Site–archaeological resource	Ineligible	None.

Property Number/ Name	Property Type	Eligibility	Mitigation Measure*
AZ AA:7:62(ASM)	Site–archaeological resource	Eligible	Avoid/minimize impacts by installing trail markers/signs to define the trail within the site.
AZ AA:7:47(ASM)	Site–archaeological resource	Eligible	Signage at trailhead.
El Paso Natural Gas Line No. 2023	Structure–natural gas pipeline	Exempt from Section 106 review	None.
Park Link Drive	Structure–road	Ineligible	None.
Coolidge-Oracle 115-kV Transmission Line	Structure–powerline	Ineligible	None.
Coolidge Airport Road	Structure–road	Ineligible	None.
Cactus Forest Road	Structure–road	Ineligible	None.
Pecan Road	Structure–road	Ineligible	None.
Florence Cemetery (NA 15644)	Site–cemetery	Unevaluated	None.

*The total linear miles of trail that would require an avoidance/mitigation measure is 2.1 miles.

3.5.2 Environmental Consequences

3.5.2.1 No Action

Under the No Action Alternative, there would be no impact to cultural resources since the CAP trail would not be opened for recreational use.

3.5.2.2 Proposed Action

The Proposed Action has the potential to result in impacts to cultural resources. A majority of the trail follows an existing dirt road, and new ground disturbing activities are not proposed on lands that have not already been disturbed. All ground disturbing activities (i.e., trail construction with hand tools) would occur in areas that have been previously disturbed from the CAP canal, berm, and access road construction. The results of the cultural resources survey indicated the trail would pass archaeological sites along an existing dirt road. The sites contain sparse archaeological materials in the vicinity of the proposed trail. This previously disturbed dirt access road has minimal archaeological material within the vicinity of the proposed trail. As a result, use of these roads for trail-related recreational purposes would not result in new impacts to this resource.

The construction of one trailhead, as originally designed, would have adversely affected an archaeological property. To avoid or minimize the potential impacts to this archaeological site, the

trailhead was redesigned. An archaeological monitor would be required during ground disturbing activities at the trailhead to avoid or minimize impacts to AZ U:15:124(ASM).

The Proposed Action would likely increase human activity within the project area and may result in impacts to cultural resources, particularly archaeological sites. While not anticipated, it is reasonable to assume that trail users may leave the trail, accessing portions of archaeological sites not previously disturbed. The impacts from such activity are expected to be inadvertent and minor and would not diminish the ability of the archaeological sites to provide information important to our understanding of prehistory. In order to reduce potential impacts to adjacent cultural sites, the Proposed Action includes the posting of signs along the trail to indicate the prohibition of off-trail use, posting of educational signage at the trailheads, and the implementation of a monitoring program for unauthorized visitation and/or disturbance to the archaeological sites in the immediate vicinity of the Proposed Action. Planned conservation measures intended to minimize or avoid cultural impacts are provided in Appendix F.

As new adjoining trails are developed and connected to the CAP Trail, increased traffic and awareness of the area could lead to increased impacts to archaeological resources, primarily resulting from unauthorized use of areas adjacent to the trail. As trail-use increases, the County may consider additional trail facilities, such as restrooms, ramadas, and expanded trailhead parking. These are activities that have the potential to impact archaeological resources. Consideration under the applicable laws would be completed in the design stage of these possible future projects to account for impacts to cultural resources.

3.6 Recreation

3.6.1 Affected Environment

The analysis area for recreation resources evaluated in this EA includes the 25-foot-wide resource survey area, which includes the proposed trail and the three trailhead locations. Within the project area, recreational opportunities are currently limited to state lands and some adjacent BLM lands. Recreation is permitted in the adjacent Picacho Mountains on ASLD and BLM lands, subject to laws and regulations with respect to motorized use and hunting.

ASLD lands are not public lands (i.e., managed for the benefit and use of the public); they are lands managed by ASLD for the benefit of their trust beneficiaries. ASLD's trust management responsibilities include requiring a lease or permit and charging a fee for use of trust land. Within the project area, recreational uses on ASLD lands are allowed by permit and are also open to hunting and fishing with a valid license. Recreation, such as hiking, equestrian use, camping, or motorized travel, may be allowed with a recreational permit. ASLD Recreational Permits allow the authorized permittee to enjoy non-consumptive recreational activities including geocaching, hiking, horseback riding, bicycling, picnics, photography, bird watching, sightseeing, camping (limited to 14 days per year), and limited OHV use (restricted to designated roads and trails) for non-commercial and non-competitive purposes. On ASLD lands, OHV use, hiking, hunting, equestrian/horseback riding, cycling, E-bikes, nature study, wildlife viewing/bird watching, and night sky/star gazing all occur in the analysis area.

The County, the City of Coolidge, and the Town of Florence all manage recreation on public lands. The County has proposed features and designations in its 2007 Open Space and Trails Master Plan,

including the CAP Trail. OHV trails, trail corridors, as well as planned or proposed open space designations are intended to provide recreation opportunity and connectivity throughout the County. Recreation and public access of the CAP Trail south of Park Link Drive ends north of Tangerine Road (in Pima County). North of Park Link Drive, due to the CAP corridor being closed to public access, public recreation is limited from Pecan Road all the way to the Brady Pump Station Road (a distance of nearly 15 miles). From Brady Pump Station Road all the way north to the proposed terminus at South Florence trailhead, recreation remains limited to the areas of the proposed trail located on ASLD lands. Picacho Reservoir, a popular hunting and fishing area, is located 1 mile west of the proposed trail; however, there is no access point leading from the CAP corridor. While trespass was raised as a concern, since Pinal County's first segment of the CAP Trail has been open, there have been approximately 7,138 trail users from August of 2019 to May of 2021 (Pinal County 2021). During this time, there have been no reported or observed instances of recreational trail users trespassing outside of the trail corridor.

There are no wilderness areas or special recreation management areas within the project area. Cross-country travel is not permitted. Hunting is also not permitted in the project area; it is subject to existing laws, such as ARS Title 17, Chapter 3, AGFD, Articles 17-301 and 17-309, which prohibit discharge of firearms within a quarter mile of occupied structures, as well as across, from, or upon roads. Hunting may occur on the adjacent public or State lands where permitted.

3.6.1.1 Electric Bikes (E-bikes)

E-bikes are a new and emerging technology that have gained wider adoption over the past several years. Beyond pedestrian and equestrian use, this EA evaluates the effects of cycling, which includes E-bikes, consistent with 43 CFR Part 420 (as amended in November 2020).

Secretarial Order 3376 set forth the policy of the Department of Interior that E-bikes should be allowed where other, non-motorized types of bicycles are allowed, and not allowed where other, non-motorized types of bicycles are prohibited. As a result, Reclamation recently revised 43 CFR Part 420 to include provisions for E-bikes. The revised rule excludes E-bikes (that satisfy specific criteria) from the regulatory definition of an off-road vehicle and defines the three permissible classes of E-bikes that are excluded from the definition of an off-road vehicle. Specifically, the revised rule defines E-bikes as having two or three wheels and fully operable pedals. The electric motor for an E-bike must not exceed 750 watts (one horsepower), and E-bikes must fall into one of the following three classes:

- (a) Class 1 means an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour (mph);
- (b) Class 2 means an electric bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 mph;
- (c) Class 3 means an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 mph.

The revised rule, in and of itself, does not change existing allowances for E-bike usage on Reclamation administered public lands. It neither allows E-bikes on roads and trails that are currently closed to off-road vehicles but open to mechanized, nonmotorized bicycle use, nor affects

the use of E-bikes and other motorized vehicles on roads and trails where off-road vehicle use is currently allowed. Reclamation's Lower Colorado Basin RD must determine, as part of a land use planning or implementation-level decision, that E-bikes should be treated the same as non-motorized bicycles.

E-bikes are not currently a specified use on County recreational trails, including the proposed segment of trail described in this EA. Additionally, E-bikes are not considered an allowable use on other segments of the CAP Trail, as impacts from their use have not yet been analyzed under NEPA. E-bike use on ASLD lands is governed by 2019 Arizona Revised Statutes (ARS) Title 28 – Transportation, Section 28-819: “Electric bicycles; electric standup scooters.” Under the law, Arizona applies the same provisions for an E-bike as a traditional bicycle, but subject to local authorities and stipulations, including but not limited to the following:

- Manufacturers and distributors of electric bicycles shall apply a label that is permanently affixed, in a prominent location, to each electric bicycle. The label shall contain the classification number, top assisted speed and motor wattage of the electric bicycle and shall be printed in at least nine-point type.
- A Class 1 electric bicycle, a Class 2 electric bicycle or an electric standup scooter may be used on bicycle and multiuse paths. A local authority or agency of this state having jurisdiction over a bicycle or multiuse path may prohibit the operation of a Class 1 electric bicycle, Class 2 electric bicycle or electric standup scooter on the path.
- A Class 3 electric bicycle may not be operated on a bicycle or multiuse path unless it is within or adjacent to a highway or roadway or unless the local authority or agency of this state having jurisdiction over the path allows the operation.
- An electric standup scooter must have a unique identification that consists of letters or numbers, or both, and that is visible from a distance of at least five feet.

3.6.2 Environmental Consequences

3.6.2.1 No Action

Recreation would continue to be closed to the public on all Reclamation lands and use of the existing CAP maintenance roads would remain for CAP Canal maintenance purposes only. The three trailheads would not be developed. Two-track roads on ASLD land and the County ROW would still be accessible for recreational uses; ASLD lands would require an ASLD recreation permit.

3.6.2.2 Proposed Action

Public recreation would open on approximately 31 miles of Reclamation lands currently not available to public recreation. Pedestrians, cyclists, and equestrians would have access to a new trail located on the berm adjacent to the CAP canal (or on the existing access road across ASLD lands) for recreational purposes. The Proposed Action would have the beneficial effect of adding recreational opportunities for local residents and the public, without effecting the function of the CAP canal. Non-motorized recreation uses that involve no mechanized use, like hiking or running, would be expected to have the least impact to the tread of the trail. Non-motorized, mechanized recreation, like cycling including E-bikes (see section below) and uses with more weight like horseback riding, would result in greater potential impacts to the trail surface. Tire treads and horse

hooves may damage the trail under excessive or ill-advised use and may become compounded if trail etiquette is not followed. Environmental protection measures, including providing the public with information on proper trail etiquette, such as discouraging public use during seasonally wet periods, would minimize the impact of recreation uses.

During O&M activities, there could be noise from workers using hand-tools but it would not disrupt visitor experience. Any closures or delays would be limited to the time it would take for O&M crews to move past the area, generally no more than a few hours.

A comment during scoping raised concern about unauthorized trails, where recreational users leave the designated trail and enter adjacent unparticipating lands. Trail widening, native vegetation trampling, and topsoil compaction could occur where users leave the proposed CAP Trail. The County would implement the following measures to deter and/or address unauthorized use: (1) install signage at the trailheads promoting proper trail etiquette, (2) maintain fencing at the trailheads to reduce off-road vehicle usage, (3) work with CAWCD and Reclamation where recreation may impact CAP fencing along the trail, (4) conduct monitoring patrols to identify unauthorized or unplanned visitation off-trail on adjacent lands, (5) recommend remedial measures to reduce opportunities for trespass, and (6) implement those remedial measures with Reclamation approval.

Another measure that may be implemented, should the RD authorize E-bikes on this segment of the trail, includes Reclamation's recreation staff gathering and maintaining information about the use of E-bikes on the trail and at trailheads, including impacts to public safety, resources, values, and visitor use patterns.

Should the County be issued a ROW over ASLD lands, the CAP Trail will be available for public use without a State land recreation permit from ASLD. All planned conservation measures intended to minimize or avoid impacts due to recreation are provided in Appendix F.

Electric Bikes (E-Bikes)

E-bikes allow a user to travel at higher rates of speed with less effort. This advantage to the cyclist may create disadvantages or conflicts of use for other recreation users. For instance, E-bikes may spook horses even if trail etiquette is followed and may elevate the risk for collisions with other recreationists like hikers, runners, or other cyclists. E-bikes may encourage off-trail use in areas susceptible to the following: sharp turns, open areas with views of adjacent scenic features like the Picacho Mountains, or high-traffic areas.

Although the class(es) of E-bikes allowed on the proposed trail have not yet been identified by Reclamation, for purposes of this analysis, all three categories of E-bikes, per Reclamation's regulations, are being considered and evaluated. Class III E-bikes can travel nearly 28 mph, faster than any other allowable non-motorized, multi-use recreation activity on the proposed trail. Horses may reach these speeds, but it is extremely unlikely (and very unsafe) for an equestrian user to even gallop on multi-use trails. Because of their weight and speed capabilities, Class III bikes may result in the greatest impact to other recreation users and the recreation setting; however, all three E-bike classes may impact other resources, including air quality, soils, biological resources, and cultural resources. Typically, multi-use trails do not have posted speed limits, and the design of the trail would accommodate the speeds reached by the various users, from Class III bikes of greater than 25 mph to the casual walker at 1-2 mph. Class III E-bikes, especially if used at their full capacity,

would impact other recreational experiences. While lower speeds of 20 mph of Class I and Class II E-bikes would not be expected to impact recreational experiences at the magnitude of Class III E-bikes, they may still create conflicts with other recreation users. Trail etiquette like knowing your right of way, yielding to other users (e.g., E-bikes yielding to equestrians), making yourself known, staying on the trail, not disturbing wildlife, being mindful of trail conditions, taking time to listen, and being aware of your surroundings, would decrease the likelihood for conflicts amongst different recreation users. As stated above, all types of recreation experiences and users can be subject to misuse and the creation of unauthorized trails that would result in resource damage.

The population of the surrounding region is expected to grow and correspondingly the demand for areas in which to recreate. Extensions and complementary trail linkages could increase the impacts to the recreation experience, setting, and opportunities on the proposed trail.

3.7 Air Quality, including Climate Change and Greenhouse Gas

3.7.1 Affected Environment

Air Quality as a resource topic is considered for detailed analysis because the project area occurs within ADEQ's designated West Pinal PM-10 Nonattainment Area (ADEQ 2021), as required by the Clean Air Act for National Air Ambient Quality Standards. The concentration of PM-10 in the air in West Pinal County is frequently above federal standards. The Maricopa Association of Governments leads planning efforts within West Pinal PM-10.

If greenhouse gas emissions or other sources of climate change were to occur in response to project development, they would be generated within the 25-foot-wide trail corridor and associated trailheads. Therefore, these areas constitute the analysis area for climate change and greenhouse gas emissions, hereafter referred to simply as climate change. To a lesser degree this document also considers project-related climate change as it relates to lands outside the project area, to the geographic extent that climate change could be measurably noticed in these areas.

3.7.2 Environmental Consequences

3.7.2.1 No Action

Under the No Action alternative, the trail and trailheads would not be constructed. Greenhouse gasses emitted from vehicles at the trailheads would also not occur. Greenhouse gas emissions would, however, still occur through other adjacent land uses such as local transportation, roadway and canal maintenance, local agricultural production, etc.

3.7.2.2 Proposed Action

Minimal ground disturbance would occur (2.8 acres for the development of the trailheads and minimal disturbance for trail improvement and maintenance) at short duration intervals during construction and maintenance. Because the project area is located within a nonattainment area, a general conformity analysis is required. The Proposed Action would not exceed the de minimis threshold for PM-10 emissions. An air permit would not be required because project activities would not contribute to increased particulate matter or other pollutants monitored by ADEQ. Prior to construction, a Fugitive Dust Permit would be obtained, and the County would apply its obligations for PM-10 activities under their existing General Construction Permit with ADEQ.

Use of the existing maintenance road as a recreational trail would not affect air quality within the surrounding area. Since the fencing changes would occur simultaneously to the trail establishment, the effect on air quality would be negligible. Construction of the three trailheads, which would consist of clearing, grading, and applying an aggregate base (or asphalt) to the trailhead areas, would be short-term in duration (3 to 4 days) and it is not expected to impact air quality. A water truck would be on site to provide dust control during construction activities.

The project does not include long-term operational or maintenance features that would adversely affect local or regional air quality. Therefore, no general conformity determination is required.

Should the Proposed Action be approved, the County would work with ASLD to acquire the proposed ROW on the State lands, establish the trail, and construct the three trailheads. Trail construction would be accomplished with hand tools, which would not contribute to greenhouse gas emissions. Greenhouse gas emissions would occur along the trail to the extent that routine and ongoing trail maintenance would occur by the County in addition to the O&M activities carried out by CAWCD; however, no internal combustion vehicles would otherwise be allowed on the trail. Permitted users may still utilize existing ASLD roads leading up to the proposed trail. Similarly, vehicles would still be permitted to utilize the County ROW co-located with the proposed trail. Combustion vehicles would be permitted at trailhead parking areas, where recreational users would park, idle, and maneuver their vehicles. This would be a new source for greenhouse gas emissions, but it would have a negligible effect on climate change. Trailhead construction would use standard earthmoving and construction equipment, which would burn fossil fuels and release greenhouse gases, that would negligibly affect climate change during the relatively short construction period. Planned conservation measures intended to minimize or avoid impacts on greenhouse gas emission and climate change are provided in Appendix F.

Future actions with potential to affect greenhouse gas emissions and climate change in the vicinity of the project area include ongoing maintenance along the CAP, other planned CAP Trail extensions, and new complementary trail linkages to the trail. Greenhouse gas emissions and climate change impacts from the Proposed Action would incrementally add to the similar adverse impacts resulting from these future actions.

4.0 Consultation and Coordination

4.1 Permits to be Acquired

The County, in coordination with Reclamation, would acquire all applicable permits (Section 401, 402, and 404) under the CWA prior to construction or maintenance, should it be required. All required permits and applications through the County, such as the Fugitive Dust, construction, and grading permits, would also be acquired by the County but in coordination with Reclamation.

The County would seek a ROW acquired from the ASLD for their connected actions for the CAP Trail.

4.2 List of Preparers

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Kimberly Proa, SWCA, Formatter

4.3 Agencies and Persons Consulted

4.3.1 Persons and Agencies Consulted

Adjacent Landowners

Arizona Trail Association

Arizona Department of Transportation
Arizona Department of Environmental Quality
Arizona State Land Department
Arizona Game and Fish Department
Arizona Wildlife Federation
Central Arizona Project
Central Arizona Water Conservation District
City of Coolidge
East Valley Back Country Horsemen
Maricopa Association of Governments
National Park Service
Pima County Natural Resources, Parks and Recreation
Pinal County Open Space and Trails
Sonoran Institute
State Historic Preservation Office
Town of Florence
U.S. Fish and Wildlife Service
Bureau of Land Management

4.3.2 Tribes Consulted

Gila River Indian Community
Salt River Pima-Maricopa Indian Community
Yavapai-Apache Nation
White Mountain Apache Tribe
Mescalero Apache Tribe
Tonto Apache Tribe
Ak-Chin Indian Community
Hopi Tribe
Tohono O'odham Nation
Pueblo of Zuni
Pascua Yaqui Tribe

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Appendix A. CAP Trail Master Plan: Pinal County Segment – Development Standards and Guidelines

CAP Trail Master Plan Pinal County Segment



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Section 11 Development Standards and Guidelines

11. Development Standards and Guidelines

Introduction:

As a multiple-use, non-motorized facility, the CAP Trail should be designed and constructed to accommodate the needs of anticipated users, to provide for user safety, and to minimize the requirements for on-going maintenance. The development standards and guidelines provided herein should be applied to all sections of the CAP Trail to accomplish these objectives.

The Trail:

- **General Requirements:** The trail is intended for use by pedestrians (hikers, joggers, etc.), bicyclists, and equestrians. In all instances, the alignment, surfacing, and features of the trail should accommodate these users.
- **Trail Surface:** In most instances, the trail should have a natural soil surface that is graded and compacted to provide a stable surface condition. A natural soil surface will be used in all rural areas. In urban areas, where the CAP Trail is made a part of an urban trail system, a stabilized aggregate and/or paved surface may be appropriate. Paving materials may include portland cement concrete, asphaltic concrete, or stabilized decomposed granite.

In locations where paving is used, a parallel and adjacent unpaved path should be retained for equestrians and other users who prefer a non-paved surface.

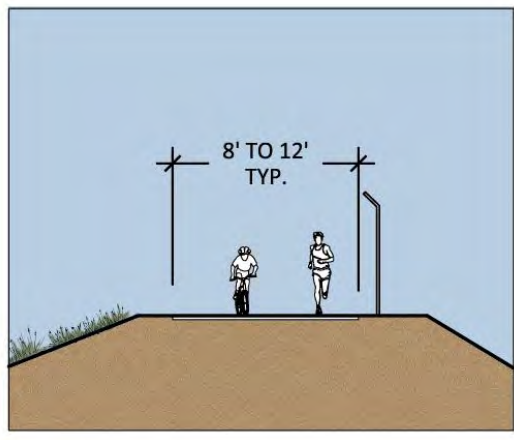


Figure 11-A: Trail on Top of Existing Levee

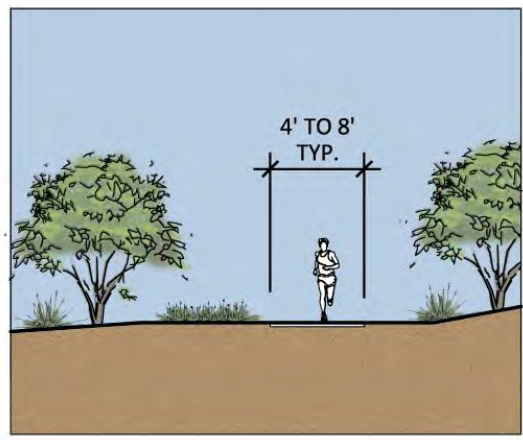


Figure 11-B: Trail in Single-Track Configuration

- **Trail Width:** The width of the trail will vary. In locations where the trail is on top of an existing levee or similar structure, the trail will vary from approximately 8' to 12' or greater. In these locations the trail width will be a function of the existing conditions.

In locations where the trail extends through the adjacent desert landscape, the configuration of the trail may change to a single-track type trail with an effective width of approximately 4'. Where narrower trail widths are used, it will be important to provide passing zones at regular intervals so that equestrians, bicyclists, and pedestrians can safely pass when traveling in opposite directions.

11. Development Standards and Guidelines

- **Gradient:** In most instances the gradient of the trail will follow the gradient of the aqueduct which is quite flat. In isolated areas, such as at drainage crossings, gradients will be steeper. While no maximum gradient is proposed, grades should safely accommodate the full range of anticipated users (not just the most skilled) and should create conditions that do not promote erosion.
- **Sight Distances:** A practical approach to sight-distances should be employed to avoid conditions where trail users traveling in opposite directions will unexpectedly encounter one another. An example of this would be a bicycle traveling at a relatively high speed suddenly encountering an equestrian. Trail alignment, topography, and vegetation should be considered in areas where sight distances could be an issue.
- **Drainage and Erosion Protection:** Storm water runoff must be considered during detailed design and trail construction. Features such as crib walls, molar, armoring, and knicks should be used to protect the trail and adjacent areas from erosion. These features will likely be needed only in steeper areas away from the flat top of the existing levee.

Fencing:

- **CAP Canal Security Fencing:** In all instances a security fence will be required to separate the trail from the CAP aqueduct and its adjacent maintenance road. The height, materials, and configuration of the fence shall be in accordance with the Central Arizona Water Conservation District's standard details and specifications.

In many instances, this security fence is existing and in a location that will allow for trail development and use. In certain locations, the existing fence will need to be relocated or a new fence installed. Decisions regarding relocation vs. new fence will need to be made on a case-by-case basis.

- **Boundary Delineation Fence:** A boundary delineation fence has been installed in many areas to define the limits of the existing CAP right-of-way. In some instances, it will be necessary to install this fence. An example of where this might be needed is an area where there is no existing right-of-way fence and the trail corridor is adjacent to private land.

In these locations a standard three-strand barbed wire fence or a modified three-wire game fence (per the Arizona Game and Fish Department guidelines) should typically be used.

- **Protected Resource Area Exclusion Fence:** In some locations along the trail corridor, it may be necessary to restrict access to protected natural resource areas or cultural resource sites. Typically these areas will be inconspicuously fenced using fence types and materials similar to those used for boundary delineation. More secure fencing may be used if required as part of a resource protection and mitigation plan.
- **Other Fence Types:** During the detailed design of individual trail segments, special conditions may be identified that warrant special fencing. The type, configuration, and materials used to construct these fences will be determined on a case-by-case basis.

Gates:

- **General Requirements:** All gates installed along the CAP Trail must comply with the standard details and specifications as published by the Central Arizona Water Conservation District.
- **Gates that Restrict Access by Off-Highway Vehicles:** The agreement between Pinal County and the United States Bureau of Reclamation that allows for the construction and use of the CAP Trail stipulates that the trail will be available for non-motorized uses only. As such, all gates must be design and maintained to restrict access to the trail by motorcycles, quads, and other types of off-highway recreational vehicles.
- **Gates that Control Livestock Movement:** Exclusive of gates in urban areas where livestock grazing on adjacent lands is prohibited, all gates must be designed to control the movement of livestock through the gate opening.

Trailheads:

- **General Requirements:** Trailheads and access points should be provided at regular intervals along the corridor to accommodate public access to the trail and to discourage trespass across private lands. In urban areas, trailheads should be provided at regular intervals as close as every few miles. In rural areas the spacing between trailheads can be greater.

Additionally, the size and scope of trailheads can and should vary. These can range from trailheads with paved parking and space for truck-equestrian trailer parking and maneuvering to small access nodes that may have no parking but rather allow users to access the trail on foot, on a bicycle, or on horseback.

- **Trailhead Sites:** This master plan suggests certain general locations where trailheads are appropriate, but the plan does not identify specific parcels of land for their development. This provides flexibility and will allow the County or the local jurisdiction to explore options and to work with various landowners and developers to select the best and most cost-effective sites for trailhead construction.

It should also be noted that improvements to roadways that cross the CAP canal are planned for multiple locations throughout the County. As these improvements are made, there will be a need to acquire additional right-of-way and an opportunity to create accessible trailheads at prominent locations.

11. Development Standards and Guidelines

Concept Plan for Major Trailhead:

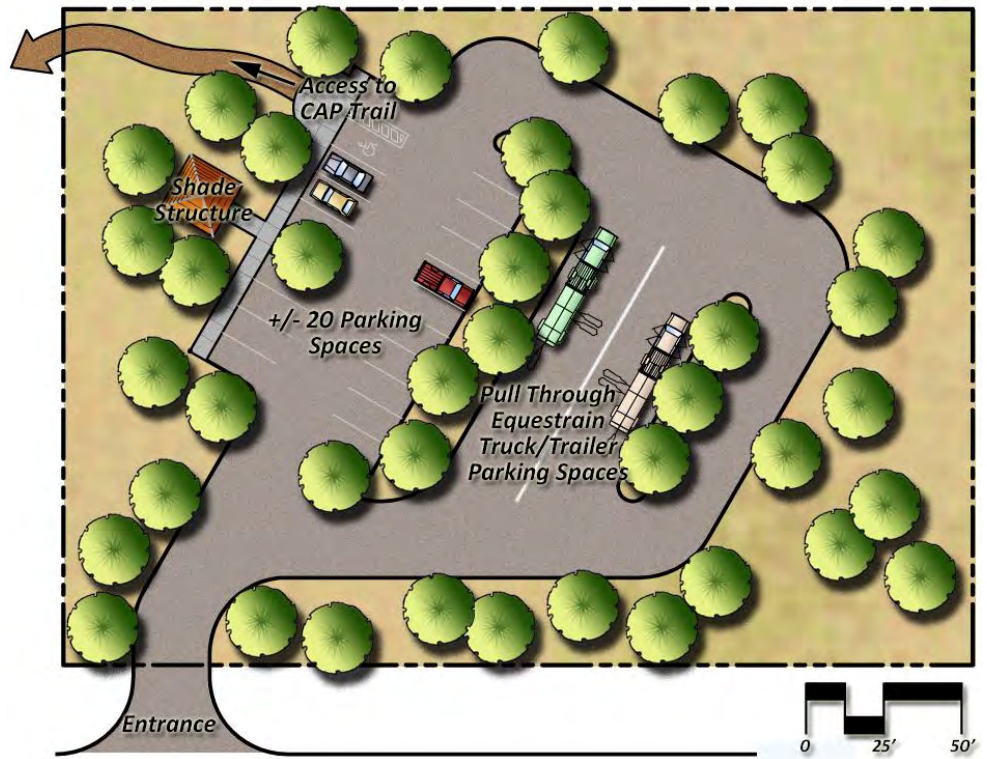


Figure 11-C: Concept Plan for Major Trailhead

Concept Plan for Minor Trailhead:

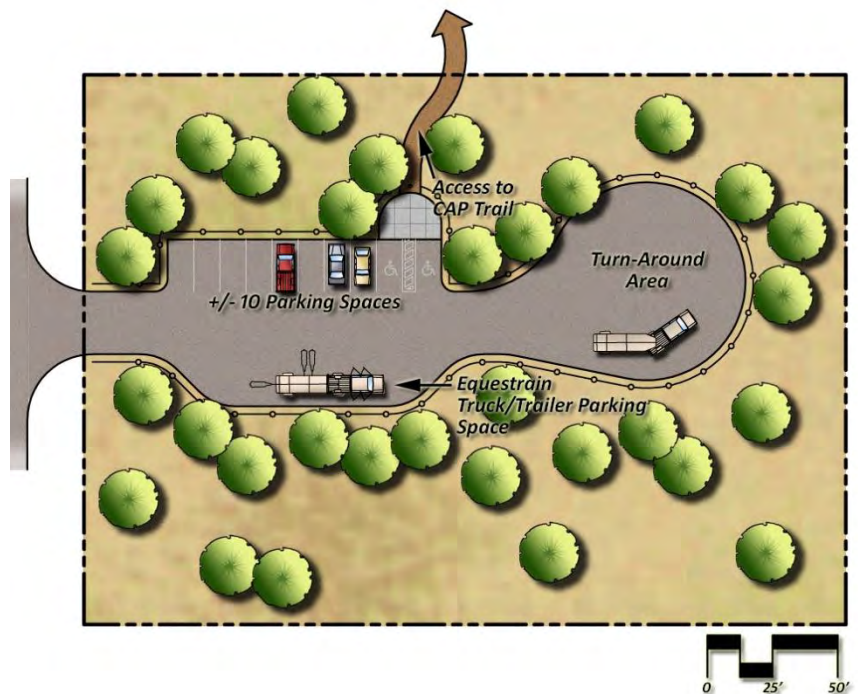


Figure 11-D: Concept Plan for Minor Trailhead

Concept Plan for Local Access Node:

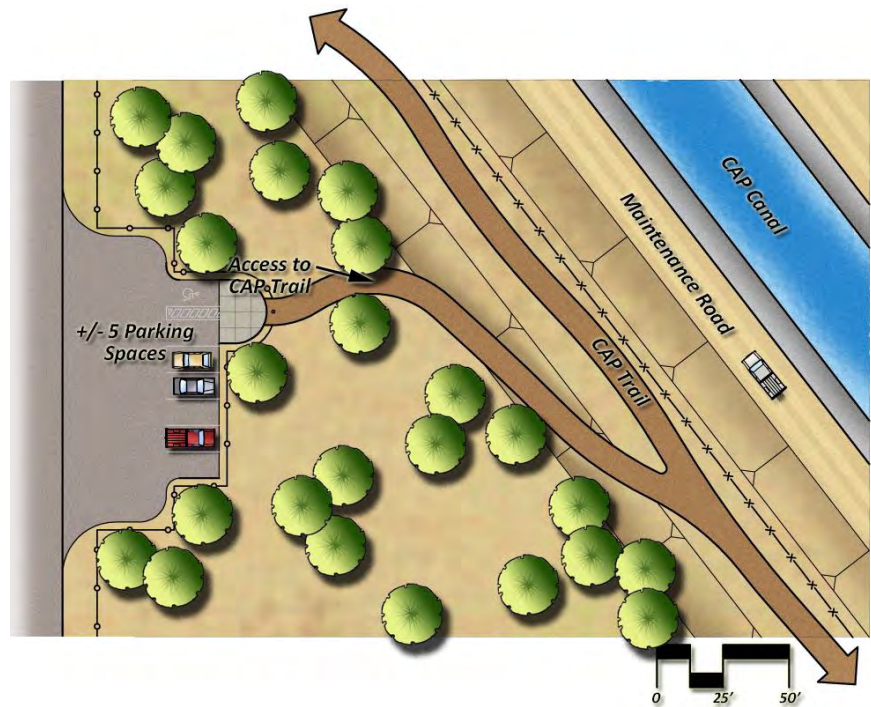


Figure 11-E: Concept Plan for Local Access Node

Graphics and Signage:

A logo for the CAP Trail has been developed and should be incorporated into all signs, printed material, and web-based material associated with the Pinal County segment of the CAP Trail. This logo can be used by itself or in combination with the logo and graphic standards of collaborating jurisdictions.

- **CAP Trail Identification Signs:** CAP Trail Identification signs should be installed at all trailheads and access points. These should be fabricated of durable material, should incorporate the trail logo, and should acknowledge the Pinal County Open Space and Trails Department and other collaborating agencies and jurisdictions including, but not limited to: The United State Bureau of Reclamation and the Central Arizona Water Conservation District.
- **Trail Use Rules and Etiquette Signs:** Trail use rules and etiquette signs should be installed at all trailheads, access nodes, and at other prominent locations along the trail corridor. These signs should clearly identify permitted uses, hours of operation (if applicable), prohibited uses and activities, and general guidelines for safe trail use. Statutes and ordinances that apply should be cited.

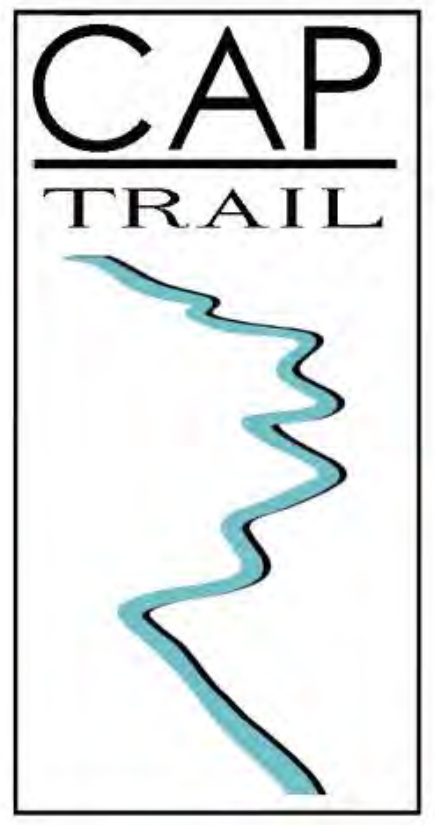


Figure 11-F: CAP Trail Logo

11. Development Standards and Guidelines

Where portions of the trail are a part of a local jurisdictions' trail system, additional standards and regulations pertaining to trail use may be included. Information regarding how to report violations of the trail use rules and / or vandalism to trail features should be provided.

- **Trail Maps:** A trail map that shows the CAP Trail through Pinal County, the current location of the sign viewer, connections to other trails, and points of interest in the vicinity should be installed at all trailheads, access nodes, and other appropriate locations.
- **Interpretive Signs:** The trail use experience can be enhanced if interpretive signs are provided to describe the history of the area or the biological, cultural, or visual resources present. These signs should be concise and should include graphic illustrations as well as text. A resource that can be used to help in the planning and design of interpretive signs is the United States Department of the Interior – National Park Service (2009) Publication Wayside Exhibits – A Guide to Developing Outdoor Interpretive Exhibits.
- **Trail Markers:** Low-cost, flexible trail markers (Carsonite or similar) identifying the CAP Trail should be installed at regular intervals along the trail corridor. Typically these markers should be installed at intervals not exceeding one mile, but greater spacing may be utilized in rural areas where the volume of trail users is low. Trail markers should indicate mileage from designated point of origin or to a designated destination.

Reference Standards and Specifications:

Standard details and specifications for trails and related facilities, as published by the following agencies, should be utilized in the development of the CAP Trail through Pinal County. Priority should be given to the standards of these agencies in the order listed below.

- United State Bureau of Reclamation
- Central Arizona Water Conservation District
- Pinal County Open Space and Trails Department
- Pinal County Public Works Department
- Municipal Parks and Public Works Departments

Appendix B. CAWCD – Environmental Appendix to the Operating Agreement

1
2
+
5 ENVIRONMENTAL APPENDIX TO OPERATING AGREEMENT
6 (CANAL SYSTEM ONLY)
7
8

9 The following O&M responsibilities will be carried out by the District. These
10 responsibilities have been summarized from specific environmental commitments made
11 by the Bureau of Reclamation in reports prepared in compliance with the National
12 Environmental Policy Act (NEPA). The specific documents referenced are the Final
13 Environmental Impact Statements (EIS's) for the Central Arizona Project (INT FES 72-
14 35), Havasu Intake Channel, Havasu Pumping Plant, and Buckskin Mountains Tunnel
15 (INT FES 73-2), Granite Reef Aqueduct (INT FES 74-5), Salt-Gila Aqueduct (INT FES
16 79-1), Tucson Aqueduct Phase A (INT FES 82-26), Tucson Aqueduct Phase B (INT FES
17 84-68), and the Environmental Assessment, Tucson Aqueduct Phase B Modifications
18 (May 1988). Also included are items not directly taken from the EIS's, but which reflect
19 current Reclamation policy guidance.

20 The District will:
21

22 B.1 Comply with all applicable Federal, State, and local environmental protection laws and
23 regulations.
24

25 B.2 Maintain wildlife fencing, including tortoise barrier fencing, on aqueduct right-of-way in
26 such a manner to prevent ungulates (deer, bighorn sheep, javelina) and tortoises from
27 entering the aqueduct right-of-way. Maintain stock fencing to prohibit the entry of cattle into
28 the detention basins and within the aqueduct right-of-way. The District will remove or make
29 arrangements to have cattle removed that are found within the aqueduct right-of-way. The
30 District will ensure that all gates along the aqueduct are kept closed.
31

32 B.3 Maintain fencing around Tucson B Tumamoca preserves, as well as those preserves
33 contiguous with the aqueduct right-of-way in T.13 S., R.11 E., sections 20 and 29. Areas
34 that have been washed out will be repaired. Damaged fence shall be replaced with fencing
35 that conforms to type and height of adjacent wildlife fencing. If javelina are observed within
36 the fenced areas, the District should notify Reclamation and Arizona Game and Fish
37 Department (AGFD) for assistance in removal.
38

39 B.4. Maintain wildlife canal crossings, and game/cattle canal crossings. These crossings are
40 identified on the Aqueduct System Location Maps (344-330- T-879 through T-885). The
41 District will ensure that soil on wildlife and game/cattle crossings is uniformly distributed
42 from one end to the other over each crossing, and ensure that wildlife and game/cattle
43 crossings are not fenced at either end. CAWCD will maintain the gunnited surface at the ends
44 of culverts under the canal at Milepost 305.856, 306.185, 307.004, and 307.363. With regard to
45 those wildlife crossings which have special provisions for desert tortoises (large rock for
46 shade cover), the District will ensure rock cover is along both sides of the crossing and that
47 movement across canal is not obstructed by the rock.
48
49
50
51

1 B.5 Maintain soil covering on box flume overshoots designated as wildlife crossings located
2 at Milepost 44.1, 49.1, 51.6, 52.6, 53.8, 55.6, 110.0, and 112.2. Soil covering should completely
cover the hydraulic energy dissipators for a minimum width of 8-10 feet.

4
5 B.6 Maintain redwood cleats on culverts adapted for wildlife use and replace damaged
6 cleats when necessary.

7
8 B.7 Notify AGFD if, at any time, wildlife are observed in the canal, such as ungulates and
9 tortoises, and, provide access to the canal and cooperate with animal rescues. If live or
10 dead wildlife are to be removed from the canal by District personnel, a collecting permit
11 must be obtained from the AGFD. Provide an annual report to Reclamation documenting
12 the number and species of wildlife lost in the canal.

13
14 B.8 Avoid impacts to areas within the aqueduct right-of-way that have been identified by
15 Reclamation as being sensitive to historic properties (including archaeological sites), and
16 biological resources (including endangered species). These sensitive areas are identified in
17 the Interim CAP Right-of Way Land Use Policy (Attachment 1). If avoidance of these areas
18 is not practicable, the District will advise the Project Manager of proposed activities
19 sufficiently in advance to allow Reclamation to complete any required environmental
20 clearances and consultations.

21
22
23 B.9 Notify Reclamation if significant cultural resources are discovered within the
24 aqueduct right-of-way. The applicable procedures specified in 36 CFR 800.11 shall be
followed.

26
27 B.10 Notify AGFD and the Project Manager sufficiently in advance of any complete
28 dewatering of any section of the canal and provide access to the canal and cooperate with fish
29 salvage activities.

30
31 B.11 Notify the Project Manager prior to proposing introduction of any new fish species into
32 the canal for controlling aquatic plant growth or any other purpose, for review and approval
33 by Reclamation.

34
35 B.12 Refrain from activities (such as constructing new fences, locating new field offices,
36 storage yards or new workyards) which might obstruct movement of wildlife through the
37 Tucson B Wildlife Mitigation Corridor.

38
39 B.13 Maintain wildlife water developments at Mileposts 232.5, 245.9 and 246.5 and at the
40 Black Mountain Operating Reservoir in good and efficient condition.

41
42

Appendix C. Interim CAP Right-of-Way Land Use Policy

Interim CAP Right-of-Way Land Use Policy

September 1993

The Environmental, Realty, and Water and Lands Divisions have created a policy to address the various use constraints that exist on lands acquired for the Central Arizona Project detention and retention basins. This policy outlines certain commitments or uses of the subject lands and provides appropriate guidance in implementing such uses. The policy also provides guidance to the Central Arizona Water Conservation District (District) regarding constraints on their O&M activities within the subject lands. By letter dated March 17, 1993, a draft of this policy was provided to the Arizona Game and Fish Department, Fish and Wildlife Service, Bureau of Land Management, and the District. Comments have not been received from the BLM or District. In the absence of those agencies comments, this interim policy is being put in place as part of the Interim Operating Principles provided to the District in October 1993.

P O L I C Y

This policy is for the lands administered by the Bureau of Reclamation (Reclamation) as a part of the Central Arizona Project (CAP) that lie upslope of the canal, including all areas within the detention/retention basins. The basins are defined as the lands from the upstream toe of any upslope embankment to the upstream right-of-way boundary line. These lands have the primary purpose of providing temporary storage of storm runoff. Sufficient interest was acquired in these lands to protect the United States from liability due to damages caused by water ponding behind the embankments. While the lands must remain under Federal control and be readily available for the primary purpose of flood control, other uses are permissible provided they are consistent with project O & M requirements, do not interfere with operation of the basin, and can accommodate intermittent flooding.

Reclamation has made a commitment to use the majority of these lands to mitigate the destruction and degradation of wildlife habitat resulting from the construction of the CAP aqueducts. Historic properties, (including archaeological sites which were avoided or not fully excavated during construction of the CAP) also occur within these lands. Therefore, it shall be the policy of the Arizona Projects Office to dedicate the lands within the detention/retention basins, as long as they remain under the control of the Federal government for the CAP, in the following manner:

- the lands between the downslope right-of-way fence and the upslope embankment are considered available for O&M purposes. Clearing of vegetation within this area shall be kept to the minimum necessary for operation and maintenance needs. However, these lands are not considered mitigation lands.

- the lands within 25 feet of the upstream toe of any upslope embankment, or more as may be locally required for flow conveyance needs and structural integrity, are, for operation and maintenance purposes, considered a part of the embankment. These lands will be used jointly for the embankment and mitigation. Since the lands closest to the embankments have the greatest potential for vegetative response and development of wildlife habitat, only the minimal amount of vegetation control to maintain the operational and structural integrity of the embankment, the associated flow paths, and the detention/retention basins will be undertaken. Lands that are subject to vegetation clearing every 5 years or less will not be classified as mitigation lands.

- all remaining lands within the detention/retention basins (a total land area equal to approximately 150 percent of the acreage within the aqueduct prism considered to be lost wildlife habitat [security /wildlife fence to security /wildlife fence or downstream security /wildlife fence to upstream to of the embankment, where present]) shall be dedicated for mitigation of the impacts to wildlife habitat from the construction of the aqueducts, and protection and maintenance of wildlife habitat values provided. **Except** those lands previously dedicated to other project resource management purposes (e.g., the Paradise Valley Flood Detention Basin, the Pima County Hiking and Equestrian Trail, the Tumamoca globeberry preserves, and the Tucson Aqueduct Mitigation Corridor) shall not be included. The mitigation lands can be used for low-impact purposes (nature trails, wildlife study plots, etc.,) provided those purposes do not cause wildlife disturbances or habitat alteration. The appropriate wildlife management agencies will be consulted prior to the development of any low-impact projects.

- Lands within the basins may be considered for various project resource management purposes under the application of the following hierarchy of uses: operations, mitigation, public purposes, and private purposes. Appropriate mitigation measures will be undertaken for impacts from uses other than operations and mitigation on lands within the basins. Full replacement or enhancement of existing habitat values will be required in these mitigation measures. These measures will be developed in consultation with the appropriate wildlife management agencies.

- where District operation and maintenance requirements will require land surface disturbance or vegetation clearing within the detention/retention basins (i.e. more than 25 feet from the upstream to of the upslope embankment), the District shall advise Reclamation of proposed activities sufficiently in advance to allow Reclamation to complete any required environmental clearances and consultations.

- All the lands covered by this policy will receive a field review at least every 5 years to evaluate the vegetative growth and the effectiveness of the mitigation effort. Representatives of the appropriate resource agencies will be invited to participate in the field reviews.

Appendix D. Scoping Letters

AK-CHIN INDIAN COMMUNITY

Community Government

42507 W. Peters & Nall Road • Maricopa, Arizona 85138 • Telephone: (520) 568-1000 • Fax: (520) 568-1001



March 26, 2021

Ms. Nicole Olsker
Environmental Protection Specialist
BUREAU OF RECLAMATION
Phoenix Area Office
6150 West Thunderbird Road
Glendale, Arizona 85306-4001

RE: Notice of Public Scoping for an Environmental Assessment (EA) on the Proposed Expansion of the Recreational Trail Along the Central Arizona Project Canal, Pinal County, Arizona

The Ak-Chin Indian Community did receive a letter regarding the Pinal County Open Space and Trails Department (Pinal County), proposing to develop, operate, and maintain a recreational trail along 39.75 miles of the Central Arizona Project (CAP) Canal from Park line Road north to Highway 79.

The Ak-Chin Indian Community has no comments or questions for the Public Scoping Environmental Assessment (EA), a proposed Expansion of the Recreation Trail along the Central Arizona Project Canal in Pinal, County.

However, the project will be deferred to the Gila River Indian Community Tribal Historic Preservation Officer in Sacaton, Arizona, and the Tohono O'odham Nation's Tribal Historic Preservation Officers in Sells, Arizona for their identification of any potential concerns.

Should you have questions, contact Ms. Elaine F. Peters at (520) 568-1350, or the Cultural Resources Management Program at (520) 568-1365.

Sincerely,

Lemuel Vincent, Vice-Chairman
Ak-Chin Indian Community

OFFICIAL FILE COPY		
PHOENIX AREA OFFICE		
ACTION BY:		
RECEIVED:		
MAR 30 '21		
DATE	SURNAME	ROUTE TO
CLASSIFICATION		
CONTROL NO.		
PROJECT		



April 6, 2021

Pinal County CAP Trail Project
Attn: SWCA Environmental Consultants
343 W Franklin Street
Tucson, AZ 85716

Electronically submitted to: cagner@swca.com

RE: Public Scoping for an Environmental Assessment on the Proposed Expansion of the Recreational Trail Along the Central Arizona Project Canal, Pinal County, Arizona

Dear Pinal County CAP Trail Project Team:

The Arizona Game and Fish Department (Department) appreciates the opportunity to provide scoping comments for preparation of an Environmental Assessment (EA) for the Proposed Expansion of the Recreational Trail Along the Central Arizona Project (CAP) Canal in Pinal County, Arizona. As described in the Notice of Public Scoping, Pinal County Open Space and Trails Department is proposing to develop, operate, and maintain a recreational trail along 39.75 miles of the CAP canal from Park Line Road north to Highway 79. The alignment would be located on land administered by the Bureau of Reclamation (Reclamation) and Arizona State Land Department (ASLD). The Proposed Action includes three CAP trail segments identified in Pinal County's 2015 *Master Plan for the Pinal County Segment of the Central Arizona Project CAP National Recreation Trail*: the North Picacho Segment, the Coolidge Segment, and the South Florence Segment. Trail use would be limited to non-motorized, multi-use recreation along the CAP canal accommodating pedestrians, bicyclists, and equestrians. Three trailheads would be developed as well.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission (Commission), has jurisdictional authority and public trust responsibilities to protect and conserve state fish and wildlife resources. In addition, the Department manages threatened and endangered species through authorities of Section 6 of the Endangered Species Act and the Department's 10(a)1(A) permit. It is the mission of the Department to conserve and protect Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations. For your consideration, the Department provides the following comments based on the agency's statutory authorities, public trust responsibilities, and special expertise related to wildlife resources and recreation.

azgfd.gov | 520.628.5376

TUCSON OFFICE: 555 N. GREASEWOOD ROAD, TUCSON AZ 85745

GOVERNOR: DOUGLAS A. DUCEY **COMMISSIONERS:** CHAIRMAN KURT R. DAVIS, PHOENIX | LELAND S. "BILL" BRAKE, ELGIN
JAMES E. GOUGHNOUR, PAYSON | TODD G. GEILER, PRESCOTT | CLAY HERNANDEZ, TUCSON **DIRECTOR:** TY E. GRAY **DEPUTY DIRECTOR:** TOM P. FINLEY

When the CAP canal was constructed, several crossings were built solely for use as wildlife crossings. Although wildlife crossings are often viewed by recreation planners and the public as opportunities for improved recreationist movement, biologists have documented diminished effectiveness of wildlife crossing structures and linkages when increased human presence is a component (Clevenger and Waltho 2005; Barrueto et al. 2014, USFWS 2020). Recently, a Reclamation biologist observed that “regular human presence at other CAP wildlife crossing structures has also resulted in decreased wildlife utilization” (Bureau of Reclamation 2018). Therefore, the Department recommends crossing structures designed for wildlife (single-use) should remain dedicated for wildlife, and not become multiple-use. Additionally, to ensure the CAP’s mitigation measures will not lose their effectiveness, the Department recommends when trail expansion requires crossing the canal, trail planners use existing multiple-use crossings. If a single-use wildlife crossing must be used, the Department recommends a new wildlife crossing be constructed elsewhere in order to maintain the previously-approved level of mitigation the CAP crossing provided. This new wildlife crossing should be situated in a location that will provide wildlife access without disturbance from recreational use.

The Department is particularly concerned about a small, but important population of desert bighorn sheep that occupy the Picacho Mountains, especially along the south- and west-facing slopes above the CAP canal. The potential for impacts to bighorn sheep exists with development of a recreational trail along the CAP canal in this area, especially if recreationists bring along domestic dogs (MacArthur et al. 1979; Pelletier 2006; Krausman et al. 1995). To discourage extended human/domestic animal (dogs, horses, pack animals) presence at trailheads, the Department recommends minimal trailhead amenities in the North Picacho Segment. Additionally, the Department recommends restricting any pack animals that could pose a disease transmission risk to bighorn sheep (e.g. goats, sheep), as the Coronado National Forest restricts such pack animals in the Pusch Ridge area to protect the bighorn sheep population in the Santa Catalina Mountains. There is also concern over development of wildcat trails to exposed cliff faces for recreational climbing, an activity which often focuses on the habitat used by bighorns during lambing. The Department recommends Reclamation, Pinal County, and the Department work closely as this project develops in order to avoid and/or minimize potential impacts to wildlife, especially bighorn sheep.

Thank you for the opportunity to provide input during scoping for the Proposed Expansion of the CAP Recreational Trail. The Department looks forward to working closely with Reclamation and Pinal County as this project develops. For further coordination, please contact me at kterpening@azgfd.gov or 520-388-4447.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristin Terpening", with a stylized flourish at the end.

Kristin Terpening
Habitat Evaluation and Lands Program Specialist

AGFD # M21-03180922

Citations

Bureau of Reclamation. 2018. Central Arizona Project Canal Trail: Pinal-Pima County Line to Park Link Drive (Park Link Segment), Final Environmental Assessment.

Clevenger, A.P., and N. Waltho. 2005. Performance indices to identify attributes of highway crossing structures facilitating movement of large mammals. *Biological Conservation*: (121) 453–464

Krausman, P.R., W.W. Shaw, R.C. Etchberger, and L.K. Harris. 1995. The Decline of Bighorn Sheep in the Santa Catalina Mountains, Arizona. Conference proceedings: Biodiversity and Management of the Madrean Archipelago, the Sky Islands of the Southwestern United States and Northeastern Mexico. USDA Forest Service RM-GTR-264.

MacArthur, R.A., R.H. Johnston, and V. Geist. 1979. Factors influencing heart rate in free-ranging bighorn sheep: a physiological approach to the study of wildlife harassment. *Canadian Journal of Zoology*. Vol. 57, No. 10.

Pelletier, F. 2006. Effects of Tourist Activities on Ungulate Behaviour in a Mountain Protected Area. *Journal of Mountain Ecology*. 8:15-19.

USFWS. 2020. Memorandum from Field Supervisor, Arizona Ecological Service Field Office to Deputy Area Manager, Phoenix Area Office, U.S. Bureau of Reclamation regarding Central Arizona Project Canal Wildlife Crossing - Picacho.

From: [Olsker, Nichole M](#)
To: [Colin Agner](#); [Ryan Rausch](#)
Cc: [Jelinek, Lauren E](#)
Subject: Scoping Comment from AZ Trail Association
Date: Wednesday, March 31, 2021 4:04:47 PM
Attachments: [Outlook-40uqiup0.png](#)

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Hi all! As an fyi, I received a call today from Matthew Nelson with Arizona Trail Association. He had indicated support and interest in the trail and stated that the trail would not impact the Arizona National Scenic Trail (spanning from Mexico to Utah). However, he did want to inquire to see if the Pascua Yaqui Tribe were including on our mailing list because of their known affiliation with the land. I confirmed that they were included in our outreach.



Nichole Olsker
Environmental Protection Specialist
Bureau of Reclamation
Phoenix Area Office
6150 W. Thunderbird Road
Glendale, AZ 85302
623-773-6258 (work)
480-216-9914 (cell)

From: [Stephen McClintock](#)
To: [Colin Agner](#)
Cc: nolsker@usbr.gov
Subject: PROPOSED EXPANSION OF RECREATIONAL TRAIL ALONG THE CENTRAL AZ PROJECT CANAL.
Date: Wednesday, March 24, 2021 10:14:33 AM

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

TO: Nicole Olsker

My name is Steve McClintock and I am the AZ National Board Member to the Back Country Horsemen of America. BCHA has 11,000 members in 32 states. Our primary mission is to “Keep Trails Open for All” and maintain access to the national trail system. We have another mission which is to “Keep Public Lands in Public Hands.”

I have a few comments:

1. We embrace the proposal that this will be a non-motorized trail. To us, this means hikers, mountain bikers, and horse riders. This definition excludes E-bikes which have to be considered motorized. Under no circumstances, should E-bikes be allowed on these trails.
2. There is a strict trail, safety etiquette that is well understood and has been in place for years: hikers and bikers yield to horses and bikers yield to hikers. Because of their speed and noise, E-bikes pose a particular risk to horse riders. If a horse is “spooked” and lurches off a berm, you are going to have a potential “train wreck” for many horses and riders. This is a huge, upfront, identifiable safety issue and exposes the sponsoring group to open-ended liability.
3. At present, many existing Trailheads are not large enough to accommodate the growing demand by the user community. We would hope the size of the Trailheads at South Florence and Picacho would be planned/expanded to cover future demand for the next 20 years. Small trailheads are a problem in many areas where horse riders need space for trucks and trailers.
4. It is mentioned that the existing maintenance road is naturally surfaced with native soils with some dirt portions. These surfaces are horse “friendly.” We would discourage any attempt to “harden” these roads which might make them less horse friendly.
5. For the horses, water is always an issue. Some provision for access to water at various locations along the trail would be very helpful. Small pumps and troughs, along many AZ trails, are now in use and powered by small solar panels.

Thank you for the opportunity to make comment on your project.

In the future, your contacts should include:

Biff Stransky, President, East Valley Back Country Horsemen, AJ

stransky.biff97@yahoo.com

Mreen Helm, VP, East Valley Back Country Horsemen, AJ
Mreenhelm@hotmail.com

Please delete Shirley Righi at srighi12@hotmail.com

Sincerely, Steve McClintock
480-729-4725

From: [Colin Agner](#)
To: [Mendoza, Francisco J](#)
Cc: [Olsker, Nichole M](#)
Subject: RE: Pinal County's CAP Canal Trail
Date: Tuesday, March 30, 2021 3:37:00 PM
Attachments: [CAP_Trail_CL_SHPs.zip](#)
[CAP_Trail_Trailheads_SHPs.zip](#)
[image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.jpg](#)

Hello Francisco-

Thank you for sending me your request. I have attached two zipped folders. One contains the trail centerline and the other contains the trailheads, both as shapefile format. I am also including Nichole Olsker on this email, who is an Environmental Protection Specialist at the Bureau of Reclamation and the main point of contact for this project.

Please let us both know if you have any further questions or requests.

Thank you,

-Colin Agner

Colin Agner
Environmental Planner
Scientist- SWCA Science Leadership Program

SWCA Environmental Consultants
343 West Franklin St.
Tucson, Arizona 85701
P 520.325.9194 | Direct 520.348.3334



From: Mendoza, Francisco J <fmendoza@blm.gov>
Sent: Monday, March 29, 2021 1:39 PM
To: Colin Agner <cagner@swca.com>
Subject: Pinal County's CAP Canal Trail

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Hello Colin, we received the Memo from BOR:

Subject: Notice of Public Scoping for an Environmental Assessment (EA) on the Proposed

Expansion of the Recreational Trail Along the Central Arizona Project Canal, Pinal County, Arizona (Action by 30 days from the date of this memorandum).

Would it be possible for you to send GIS data for the trailheads and trail route for our review? The maps in the memo reminded me of the 1970's copy of a copy of a copy maps.

Thanks!

francisco

Francisco J Mendoza, Outdoor Recreation Planner

United States Department of the Interior Region 8; Bureau of Land Management, Tucson Field Office, Arizona

3201 E. Universal Way, Tucson, AZ 85756; Phone (520) 258-7200

Explore BLM Arizona! <https://www.blm.gov/arizona>

From: [LEE SHOWALTER](#)
To: [Colin Agner](#); nolsker@usbr.gov
Subject: AZ project CAP national recreation trail
Date: Thursday, April 1, 2021 10:14:11 AM

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

to: SWCA Environmental Consultants
to: Nichole Olsker, US Bureau of Reclamation
Greetings,

County Line Riders of Catalina, Inc is a non-profit trails advocacy group focused on trails, equestrian trailheads and access to public lands/trails for non-mechanized trail users, and collaborate with like-minded organizations all over the state of AZ.

From the beginning, we have been excited with this CAP trail project. We are excited about the equestrian parking at the Picacho and S. Florence trailheads.

We are asking for the same at Cactus Forest trailhead.

Equestrians are self contained and do not want equestrian parking to be paved. If large dirt areas are cleared off for easy ingress and forward pull out egress, we are happy, as long as pedestrian/bike parking does not encroach on the horse rig parking.

Please keep us in the loop on the final plans.

Thank you for your consideration,

Sincerely,

Bev Showalter, President

County Line Riders of Catalina, Inc

PO Box 8881

Catalina, AZ 85738

bevshowalter@comcast.net

520-850-2196

From: [Colin Agner](#)
To: [Olsker, Nichole M](#)
Cc: [Ryan Rausch](#); [Patrick Blair](#)
Subject: FW: Pinal county CAP trail
Date: Monday, April 12, 2021 9:28:25 AM

Good Morning Nichole-

Please see the following comment we received for the CAP Trail from Joe and Rachel Coffey.

Thanks,

Colin Agner

-----Original Message-----

From: Rachel COFFEY <rachcof@msn.com>
Sent: Friday, April 9, 2021 9:47 AM
To: Colin Agner <cagner@swca.com>
Subject: Pinal county CAP trail

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

To whom it may concern,

We have enjoyed our quiet neighborhood where our 9 children can run and play without a lot of vehicle or foot traffic. It was one of them main reasons for buying the property, The location.

I'm a bit concerned about the foot traffic that will now directly behind out property due to the CAP trail. It may not seem like a big deal to those developing the trail but for us I feel like it will impact our family directly.

Joe and Rachel Coffey
And Kids.

From: [Olsker, Nichole M](#)
To: [Rachel COFFEY](#)
Subject: Re: [EXTERNAL] Trail location
Date: Monday, March 29, 2021 9:33:31 AM
Attachments: [Outlook-tbeusaly.png](#)

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Hi Rachel! Reclamation will not be conducting a public meeting during the scoping of this project. However, we are interested in your feedback on potential issues or concerns with the proposed trail and associated trailheads. We would ask that you submit your comments in writing (either in email or letter form). Your comments should be submitted to Pinal County CAP Trail Project, Attn: SWCA Environmental Consultants, 343 West Franklin Street, Tucson, Arizona 85716; fax to (520) 325-2033; or, via email to cagner@swca.com, no later than April 10. In case you need it, attached is the link to the scoping letter for the project: [CAP Scoping Memo \(usbr.gov\)](#)

We appreciate your interest in the project.

Best regards,



Nichole Olsker
Environmental Protection Specialist
Bureau of Reclamation
Phoenix Area Office
6150 W. Thunderbird Road
Glendale, AZ 85302
623-773-6258 (work)
480-216-9914 (cell)

From: Rachel COFFEY <rachcof@msn.com>
Sent: Friday, March 26, 2021 4:54 PM
To: Olsker, Nichole M <NOlsker@usbr.gov>
Subject: Re: [EXTERNAL] Trail location

Will there be a public meeting about this??
Is there someone specific we can contact about concerns and impact?
Thanks,
Rachel

On Mar 24, 2021, at 11:26 AM, Olsker, Nichole M <NOlsker@usbr.gov> wrote:

Hi Rachel! Thank for your inquiry today. Attached is a map of the general location for the South Florence Trailhead. The red pin is the location of the trailhead, while the gray area shows Reclamation's land within the project area. I hope this helps in determining if the trail/trailhead will be abutting your property.

A more detailed description of the proposed trail and trailheads will be included in the draft Environmental Assessment that we will be sending out after we have received comments from the public on the scoping document.

Should you have any further questions, please don't hesitate to reach out.

Best regards,

<Outlook-10neuswe.png>

Nichole Olsker
Environmental Protection Specialist
Bureau of Reclamation
Phoenix Area Office
6150 W. Thunderbird Road
Glendale, AZ 85302
623-773-6258 (work)
480-216-9914 (cell)

From: Rachel COFFEY <rachcof@msn.com>
Sent: Wednesday, March 24, 2021 8:58 AM
To: Olsker, Nichole M <NOlsker@usbr.gov>
Subject: [EXTERNAL] Trail location

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Thanks for taking the time to answer questions.
-Rachel Coffey
<General Location_South Florence Trailhead.pdf>

From: [Olsker, Nichole M](#)
To: [Rachel COFFEY](#)
Subject: Re: [EXTERNAL] Trail location
Date: Wednesday, March 24, 2021 11:26:22 AM
Attachments: [Outlook-10neuswe.png](#)
[General Location South Florence Trailhead.pdf](#)

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Hi Rachel! Thank for your inquiry today. Attached is a map of the general location for the South Florence Trailhead. The red pin is the location of the trailhead, while the gray area shows Reclamation's land within the project area. I hope this helps in determining if the trail/trailhead will be abutting your property.

A more detailed description of the proposed trail and trailheads will be included in the draft Environmental Assessment that we will be sending out after we have received comments from the public on the scoping document.

Should you have any further questions, please don't hesitate to reach out.

Best regards,



Nichole Olsker
Environmental Protection Specialist
Bureau of Reclamation
Phoenix Area Office
6150 W. Thunderbird Road
Glendale, AZ 85302
623-773-6258 (work)
480-216-9914 (cell)

From: Rachel COFFEY <rachcof@msn.com>
Sent: Wednesday, March 24, 2021 8:58 AM
To: Olsker, Nichole M <NOlsker@usbr.gov>
Subject: [EXTERNAL] Trail location

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Thanks for taking the time to answer questions.

-Rachel Coffey

From: [Zoom](#)
To: [Colin Agner](#)
Subject: New Voicemail from +15204713458 to Main Auto Receptionist (Ext. 1100) on Wed Mar 17, 2021 11:26
Date: Wednesday, March 17, 2021 11:32:35 AM
Attachments: [msg_9a6a52f4-c327-4a07-ac2c-869fa4d65447.mp3](#)

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.



You have a new voicemail

Time: Wed Mar 17, 2021 11:26
From: +15204713458
To: Main Auto Receptionist (Ext. 1100) (Auto Receptionist)
Forward To: Colin Agner (Ext. 4929)
Duration: 01:20

Voicemail Transcription

"Hey, Carla Peters dear CALLING FROM TORONTO domination. We got a letter from Reclamation about notice a public scoping for EA for proposed expansion of a recreational trail on the central Arizona project. And you are listed as a contact person with SW CA. I just want to let you know, while it appears that most of this is going to be built in disturbed area. We still believe That a class one review should be done because, again, a lot of this ground was surveyed when they built the central Arizona project, and there were some sites out there. You know that were tested and mitigated. And there may be remnants of those sites out there. So I think at A minimum a class one review of the records. Should be looked at, to evaluate any sites, it might be located. Within potential construction areas, the letter and the letter from Reclamation indicated, and most of its going to be built on existing roads and berms and stuff, but there is some exceptions. So that's what we would

recommend and give me a call. Avi my office tomorrow. 520 for 713458 or my office number 520-383-3622 and probably best try and call me tomorrow, hear the question. Bye. "

To listen to this message, you can open the attachment or use any **Zoom Applications** to have instant access to all your messages.



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55 Almaden Boulevard, 6th Floor, San Jose, CA 95113
+1.888.799.9666

From: [Colin Agner](#)
To: [Olsker, Nichole M](#)
Cc: [Ryan Rausch](#)
Subject: FW: CAP Trails
Date: Friday, April 2, 2021 12:19:00 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.jpg](#)

Good Afternoon Nichole-

Please see the following comment we received from the Tucson Saddle Club.

Thank you,

-Colin Agner

Colin Agner
Environmental Planner
Scientist- SWCA Science Leadership Program

SWCA Environmental Consultants
343 West Franklin St.
Tucson, Arizona 85701
P 520.325.9194 | Direct 520.348.3334



From: Steve Pferdeort <pferde4@yahoo.com>
Sent: Thursday, April 1, 2021 8:25 PM
To: Colin Agner <cagner@swca.com>
Subject: CAP Trails

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

To: SWCA Environmental Consultants

From: Tucson Saddle Club

Response to the request for input regarding the expansion of CAP Trails in Pinal County

The Tucson Saddle Club supports the improvement or development of trails for non-motorized use. The Tangerine section of the CAP Trail is about to be completed and connects to a 10 mile trail in Pinal County.

The trails should be signed so all users are aware of the process of yielding to other users. This helps to avoid conflicts and is a safety issue. As the trails indicated are 8 to 12 feet wide, there should be plenty of room for all users to enjoy the trail. It may even be wide enough for the equestrians who have carts or carriages to use the trail.

The parking at the trailheads should provide for separated parking areas for passenger vehicles and equestrian trailers. A good example is the Sarasota Trailhead at 2737 South Sarasota Road in Tucson. The equestrian parking area should be natural surfaces, large enough for about 10 rigs, and room to turn around. Another suggestion would be a mounting block. A good example of this is a large flat rock like at the Saguaro National Park East Trailhead off of Broadway. If allowed, equestrian groups or clubs may be willing to furnish / install hitching rails or corrals at the trailheads. Those items can be a benefit for those traveling the length of the trail and staying the night before continuing on.

It appears from Figure 2 that the CAP Trail will continue east from Florence and junction with the Arizona Trail, another benefit to non-motorized users.

Steve Pferdeort
Tucson Saddle Club



White Mountain Apache Tribe

Office of Historic Preservation

PO Box 1032

Fort Apache, AZ 85926

Ph: (928) 338-3033 Fax: (928) 338-6055

To: Nichole Olsker, Bureau of Land Management

Date: March 17, 2021

Re: *EA for the proposed Expansion of the Recreational Trail Along the CAP*

.....

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the project dated; March 11, 2021. In regards to this, please attend to the following statement below.

Thank you for allowing the White Mountain Apache tribe the opportunity to review and respond to the proposed expansion of the Recreational Trail along the Central Arizona Project Canal, in Pinal County, Arizona.

Please be advised, we reviewed the consultation letter and the information provided, and stand with our initial determination that the proposed remediation efforts will ***“Not have an Adverse Effect”*** on the tribe’s cultural heritage resources and/or traditional cultural properties.

Thank you for your continued collaborations in protecting and preserving places of cultural and historical importance.

Sincerely,

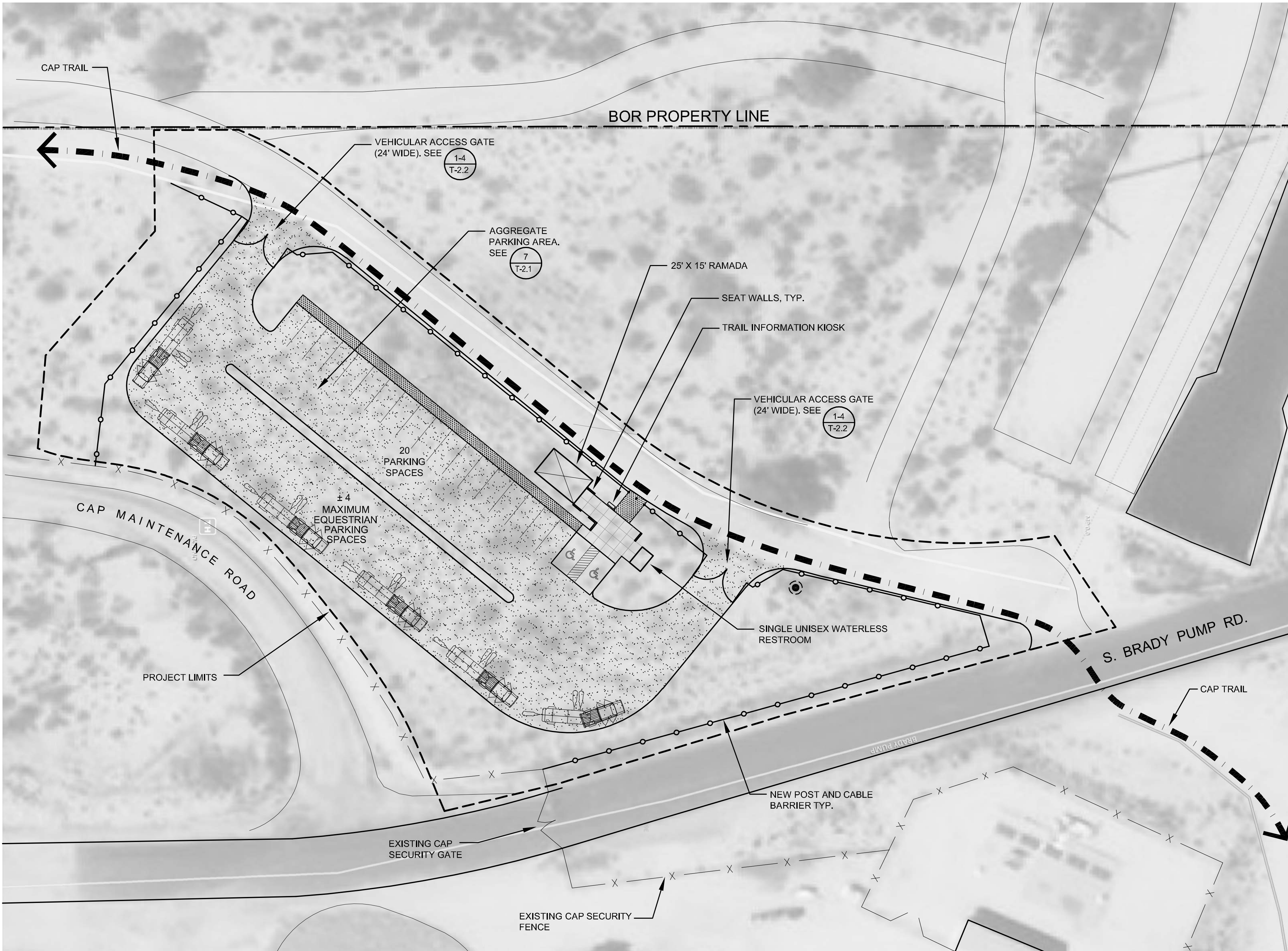
Mark T. Altaha

White Mountain Apache Tribe – THPO
Historic Preservation Office

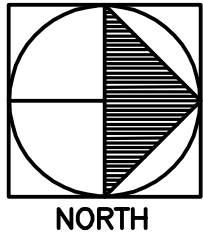
Appendix E. Conceptual Trailhead Designs, Typical Cross Sections, Security Fencing Designs and Details



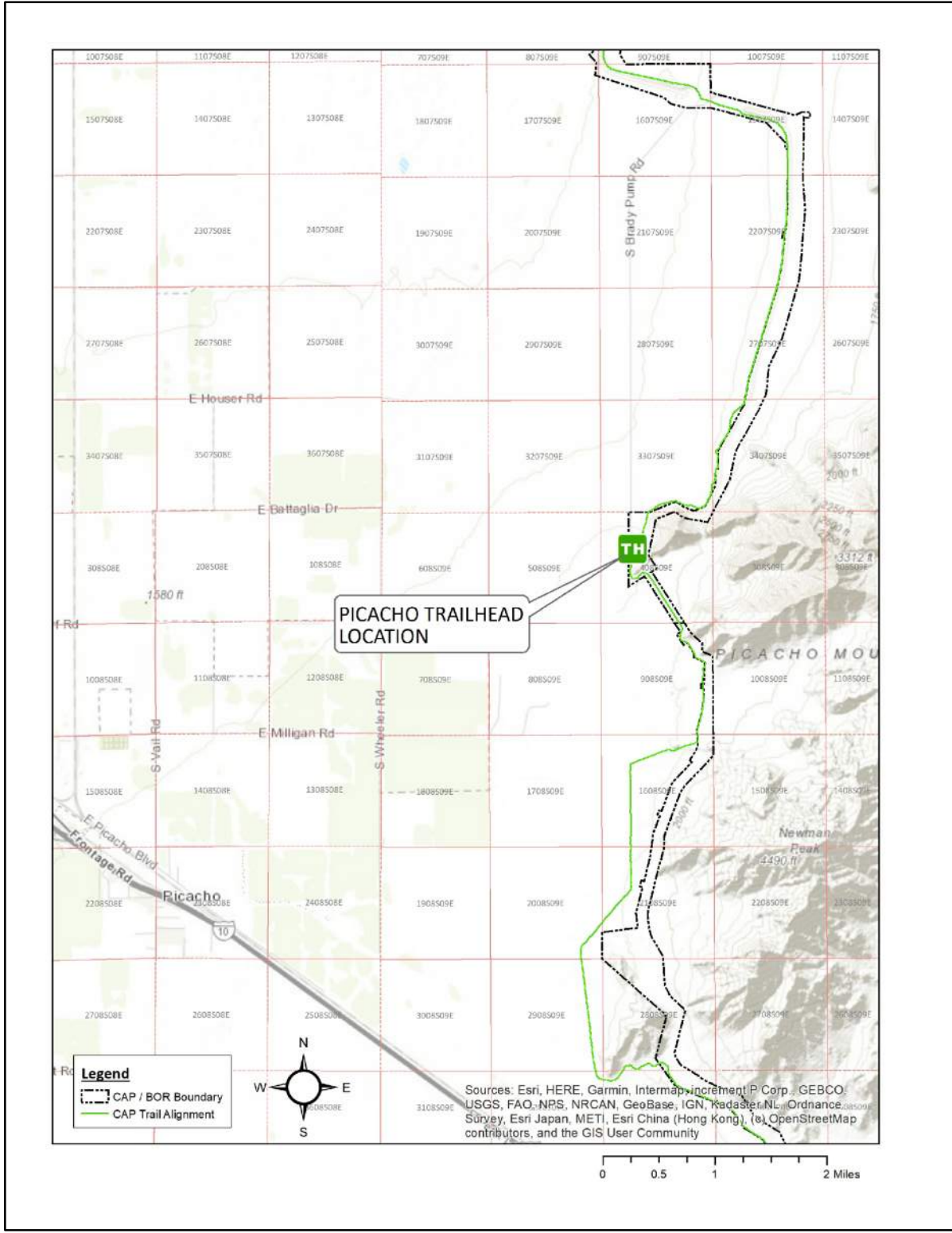
LOCATION MAP



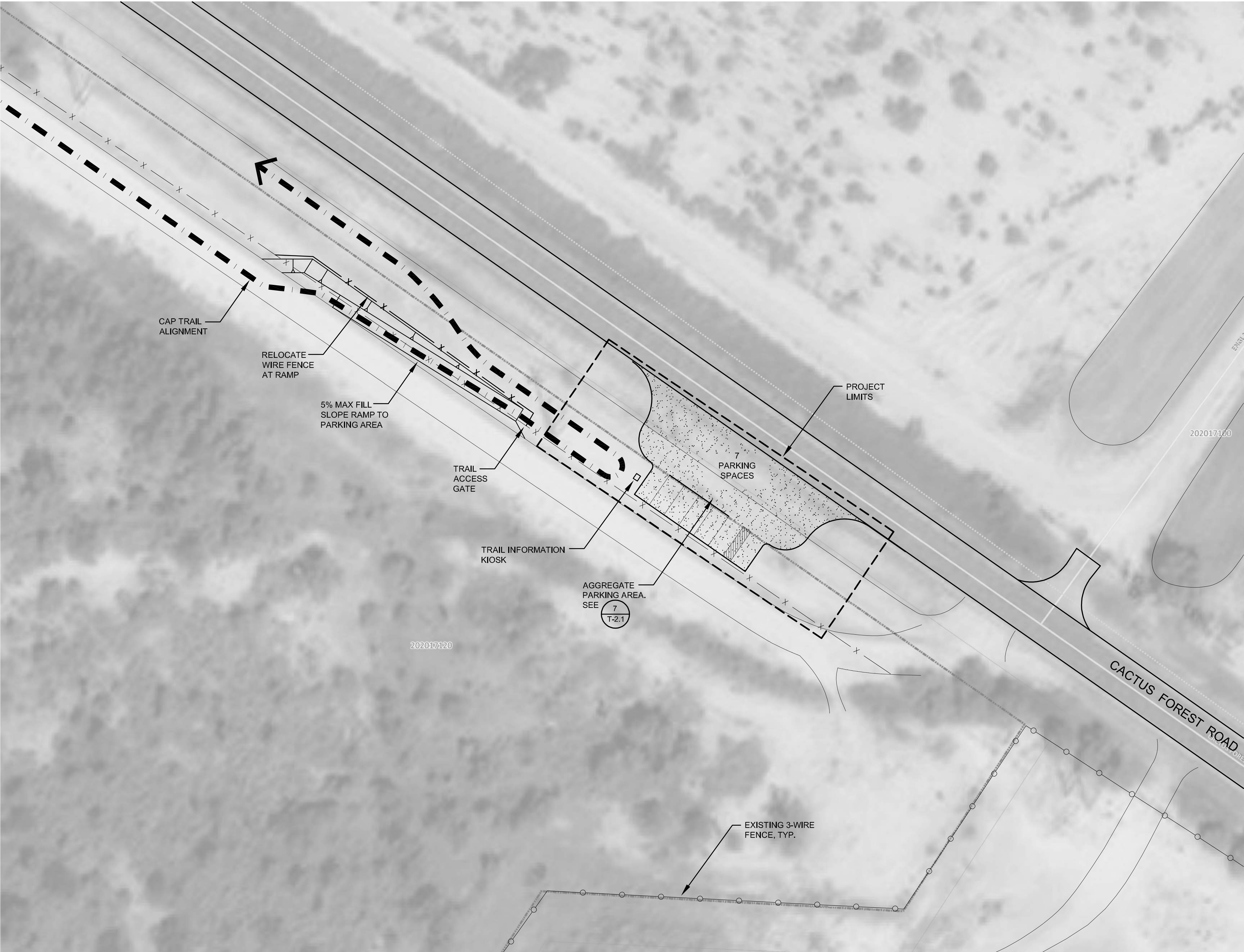
PICACHO TRAILHEAD SITE PLAN
SCALE: 1" = 30'-0"



LEGEND	
LINETYPES	
	EXISTING CAP FENCE
	EXISTING FENCE (3-WIRE)
	NEW / RELOCATED CAP FENCE
	NEW POST AND CABLE BARRIER
	CAP TRAIL
	PROJECT LIMITS
	BOR PROPERTY LINE
SURFACING	
	ASPHALT PAVING
	AGGREGATE BASE SURFACING
	COMPACTED DECOMPOSED GRANITE PATH
	CONCRETE SURFACING



LOCATION MAP



LEGEND

LINETYPES

X

X

EXISTING CAP FENCE

○

○

EXISTING FENCE (3-WIRE)

X

X

NEW / RELOCATED CAP FENCE

○

○

NEW POST AND CABLE BARRIER

CAP TRAIL

PROJECT LIMITS

BOR PROPERTY LINE

SURFACING

ASPHALT PAVING

AGGREGATE BASE SURFACING

COMPACTED DECOMPOSED GRANITE PATH

CONCRETE SURFACING

LOCATION MAP

CACTUS FOREST TRAILHEAD - PRELIMINARY CONCEPT PLAN

SCALE: 1" = 30'-0"

PRELIMINARY

McGann & Associates

Landscape Architects and Planners
8814 North Oracle Road, Suite 210
Tucson, Arizona 85704
Telephone: (520) 297-9540 Fax: (520) 297-9545

TOWN OF MARANA PARKS AND RECREATION DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
CACTUS FORREST TRAILHEAD
PRELIMINARY CONCEPT PLAN

DATE: 11/15/20
REVISIONS:

DRAWN BY: ML/PB
CHECKED BY: SKM

JOB NO: 20-1170
SHEET NO:

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3 OF 9

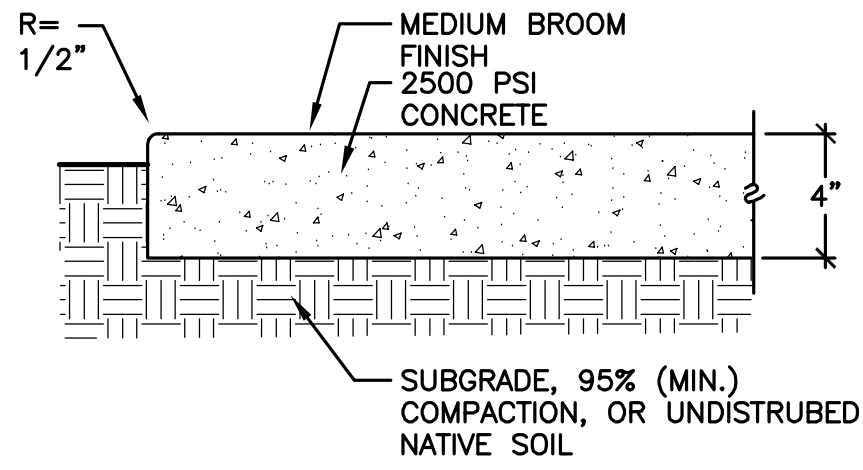
Call at least two full working days
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Dist. 2-1-1 or 1-800-STAKE-IT (726-6348)
In Maricopa County: (602) 263-1100

NOTES:

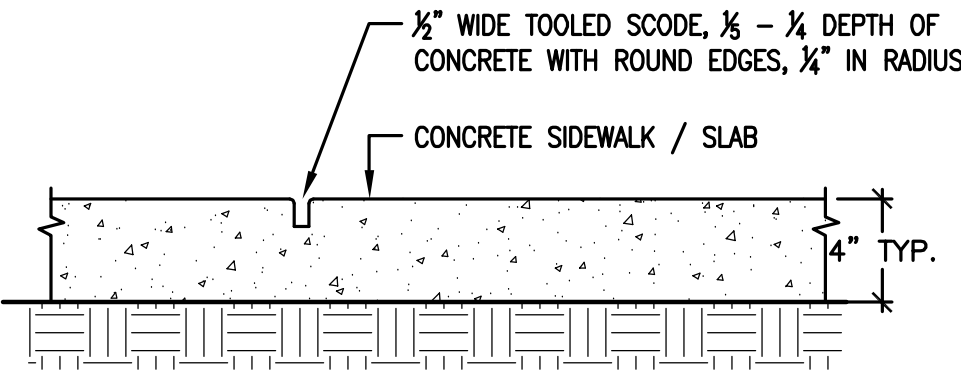
1. PROVIDE CONTRACTION JOINTS AT INTERVAL EQUAL TO SIDEWALK WIDTH.
2. PROVIDE EXPANSION JOINTS AS SHOWN ON PLAN, OR AT 60'-0" MAX.



1 CONCRETE SIDEWALK
SCALE: N.T.S. HS-3.1

NOTES:

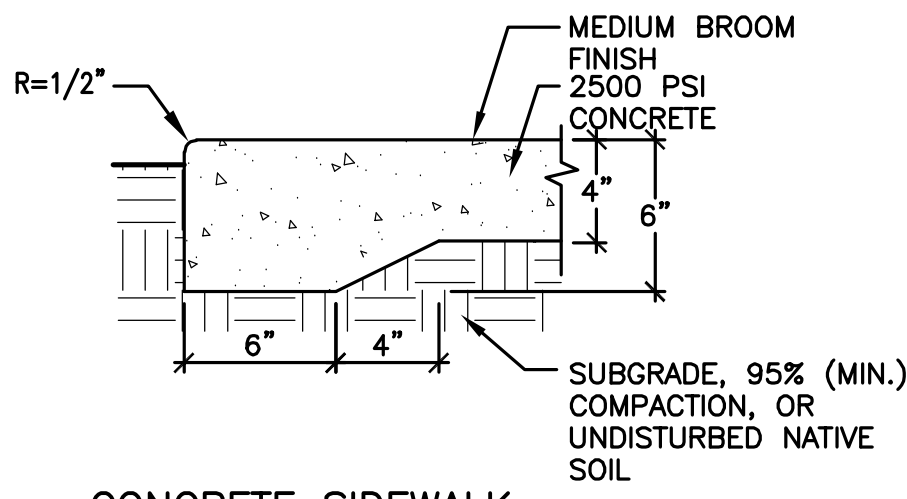
1. LAYOUT OF CONTROL JOINTS AS NOTED OR SHOWN ON PLAN, OR AT 10'-0" SPACING MAX.
2. CONTROL JOINTS TO BE AT RIGHT ANGLES TO EDGE OF PAVEMENT EXCEPT AS NOTED OR SHOWN ON PLAN.



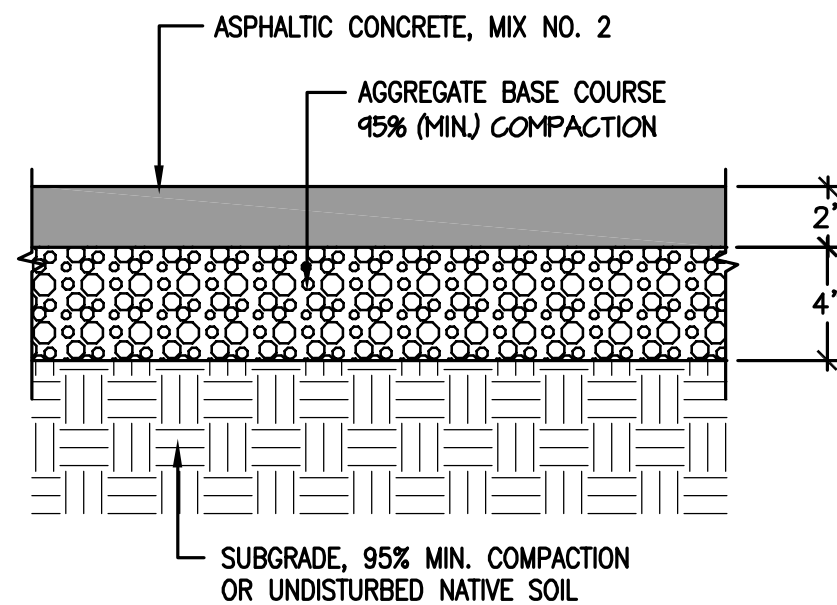
2 CONTROL JOINT (TOOLED)
SCALE: N.T.S. HS-3.12

NOTES:

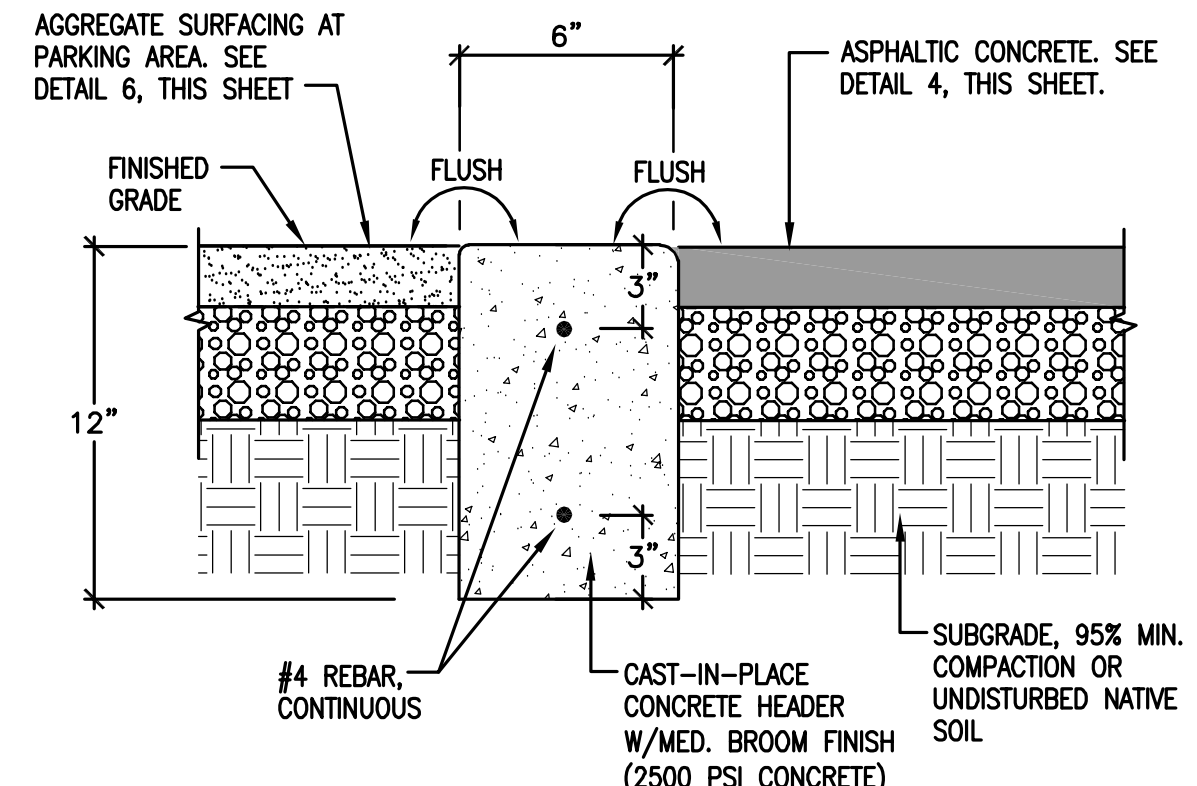
1. PROVIDE CONTRACTION JOINTS AT INTERVAL EQUAL TO SIDEWALK WIDTH.
2. PROVIDE EXPANSION JOINTS AS SHOWN ON PLAN, OR AT 60'-0" MAX.



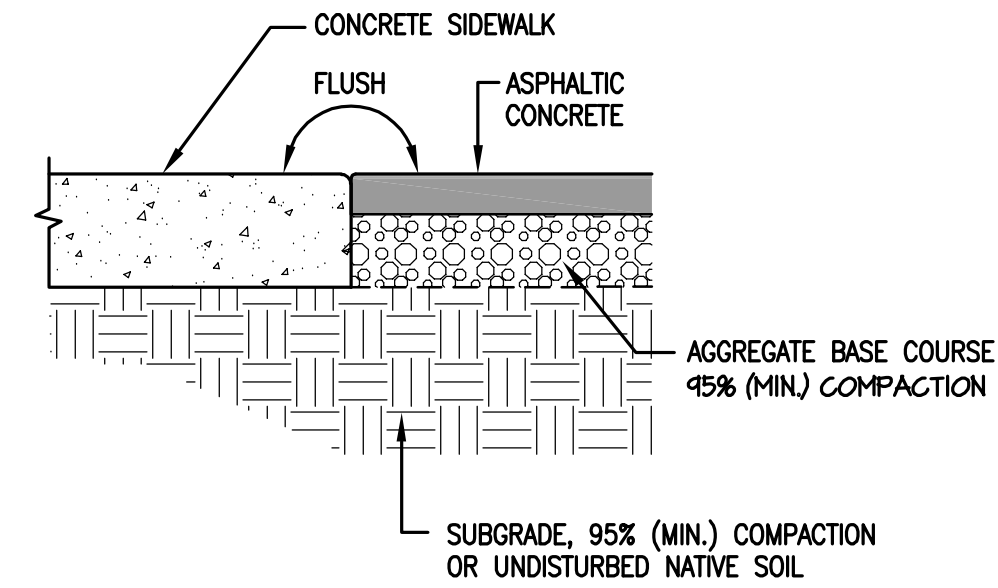
3 CONCRETE SIDEWALK WITH THICKENED EDGE
SCALE: N.T.S. HS-3.3



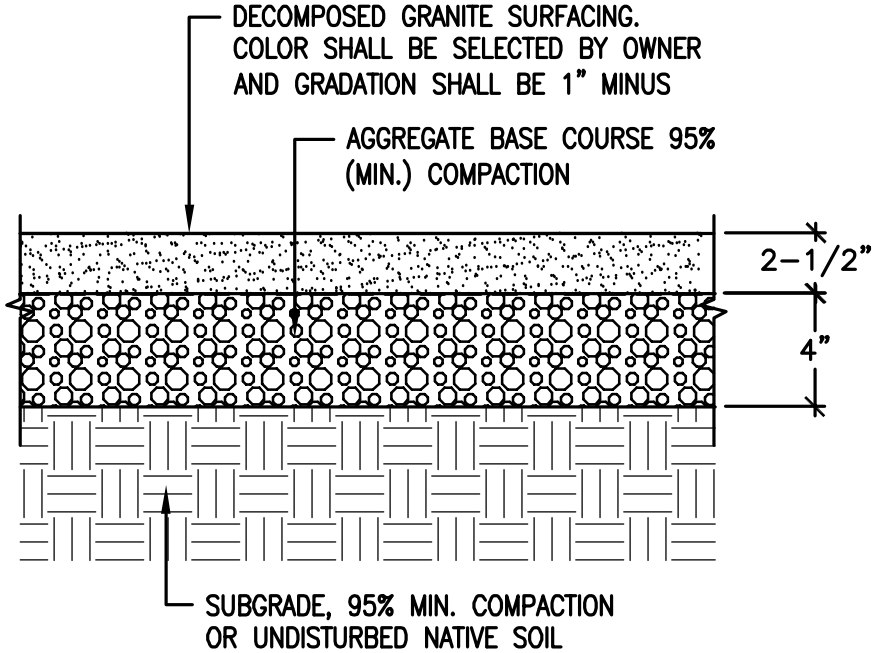
4 ASPHALTIC CONCRETE PAVING DETAIL
SCALE: N.T.S. HS-4.1



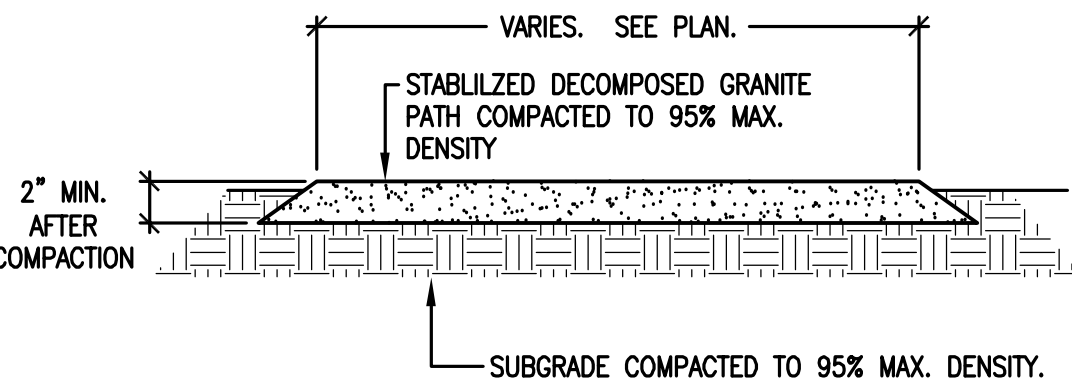
5 CONCRETE HEADER AT ASPHALTIC PAVING AND AGGREGATE PARKING SURFACE
SCALE: N.T.S. HS-3.28B



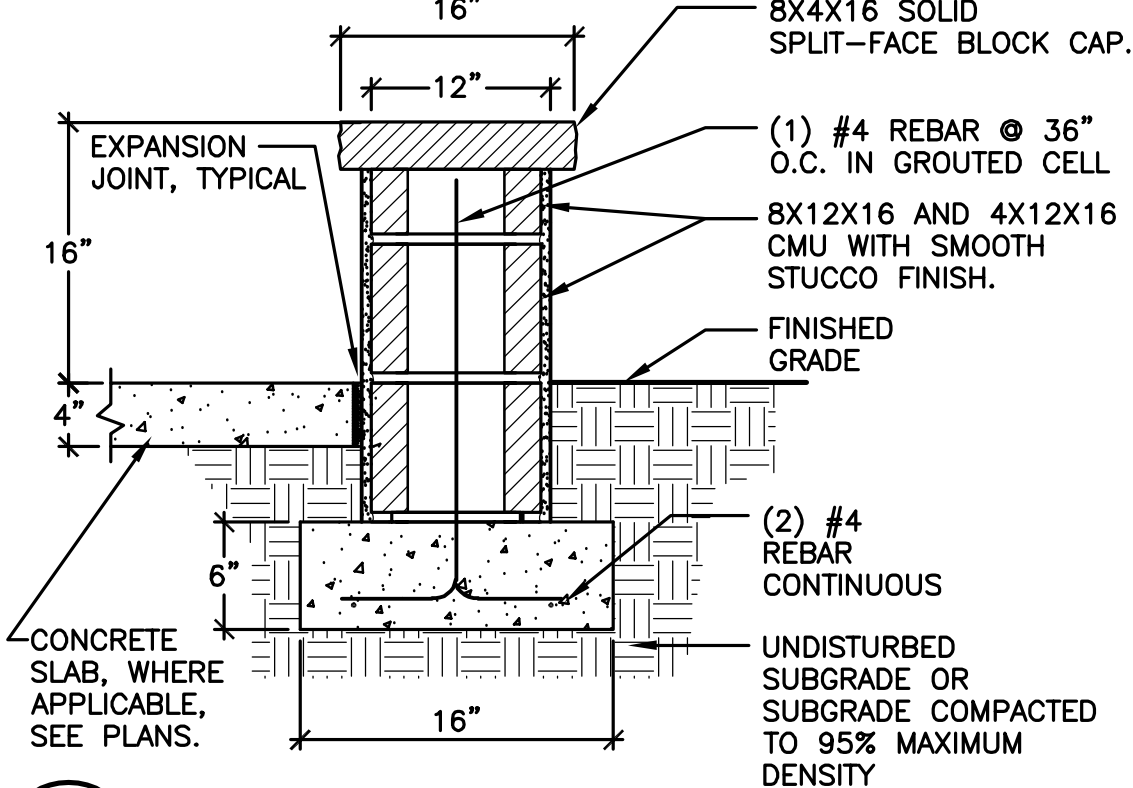
6 CONCRETE SIDEWALK AT H.C. PARKING SPACE
SCALE: N.T.S. HS-3.21



7 AGGREGATE SURFACING FOR PARKING AREAS
SCALE: N.T.S. HS-4.1



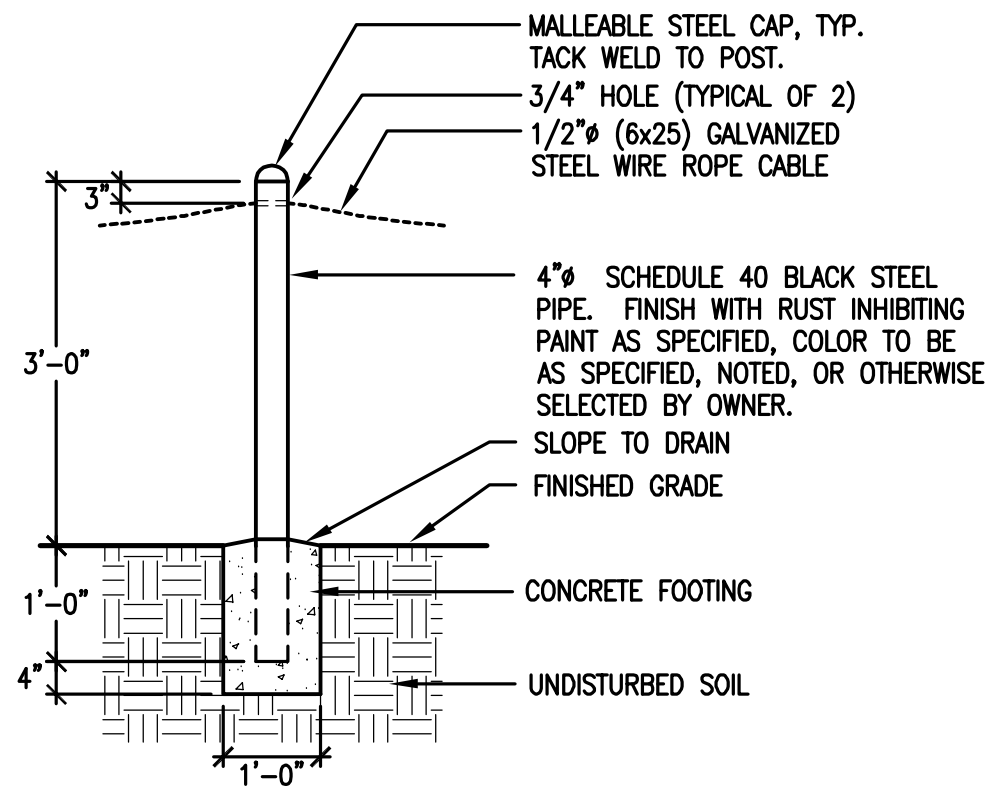
8 STABILIZED DECOMPOSED GRANITE PATH
SCALE: N.T.S. HS-7.11



9 SEAT WALL
SCALE: N.T.S. SW-02

NOTES:

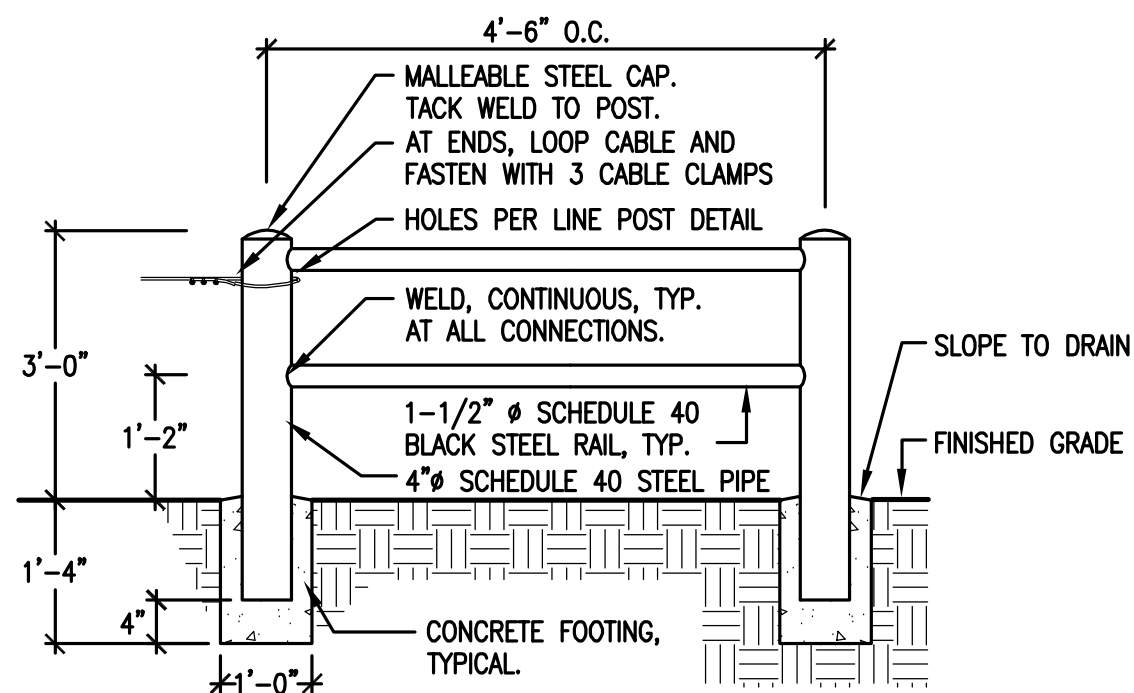
1. CABLE TO BE TERMINATED AT END/CORNER PANELS ONLY. SPLICING OF CABLE BETWEEN END/CORNER PANELS IS PROHIBITED.
2. DISTANCE BETWEEN POSTS SHALL BE 12'-0".



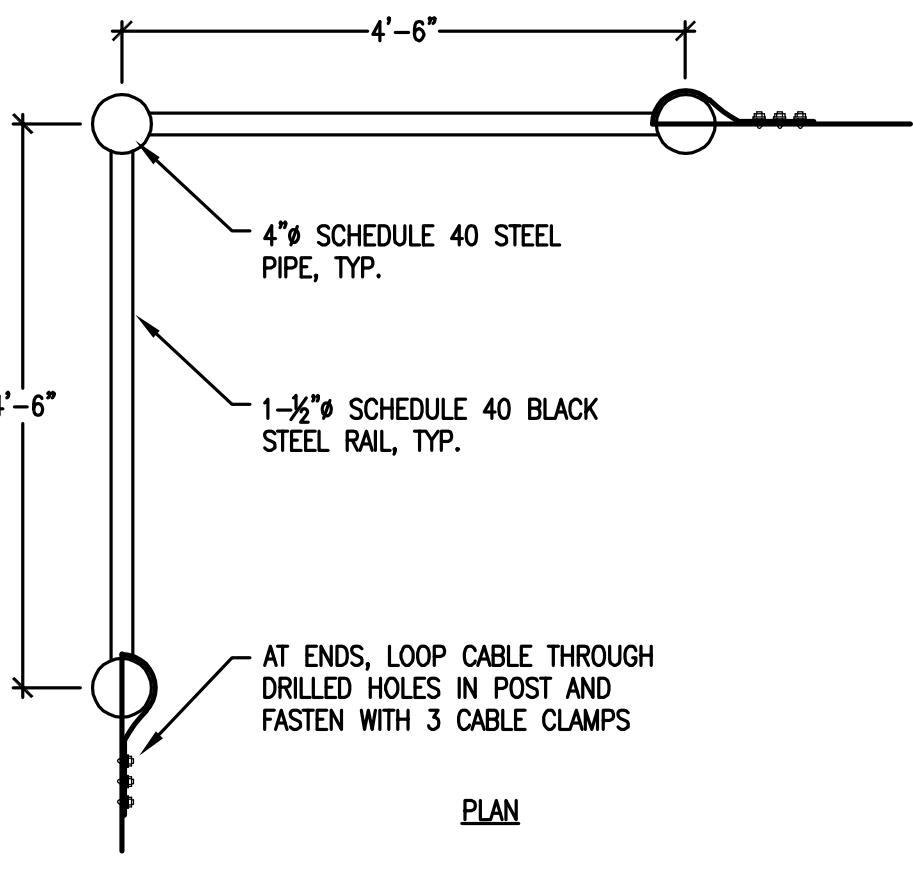
10 POST & CABLE BARRIER - ELEVATION
SCALE: N.T.S. BF-3.1

NOTES:

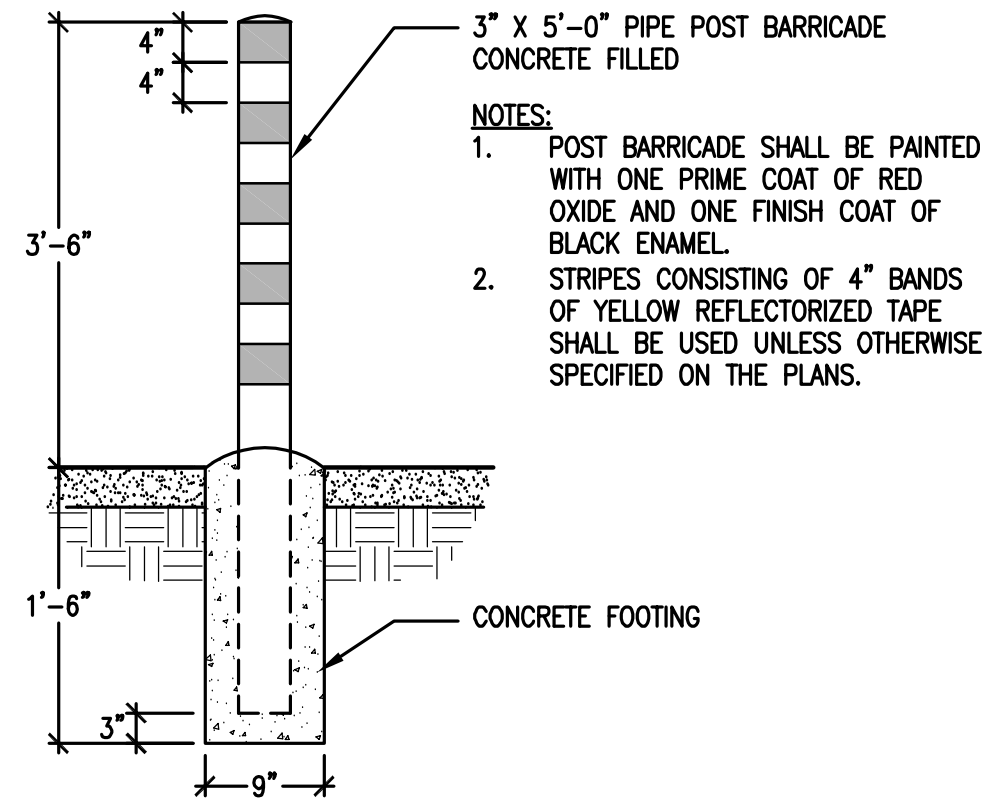
1. GRIND SMOOTH ALL WELDS. PAINT ALL POSTS AND RAILS WITH RUST INHIBITING PAINT AS SPECIFIED. COLOR TO BE AS SPECIFIED, NOTED, OR SELECTED BY OWNER.
2. AT CORNERS, PROVIDE SECOND "END CONDITION" PANEL AT RIGHT ANGLE TO FIRST.



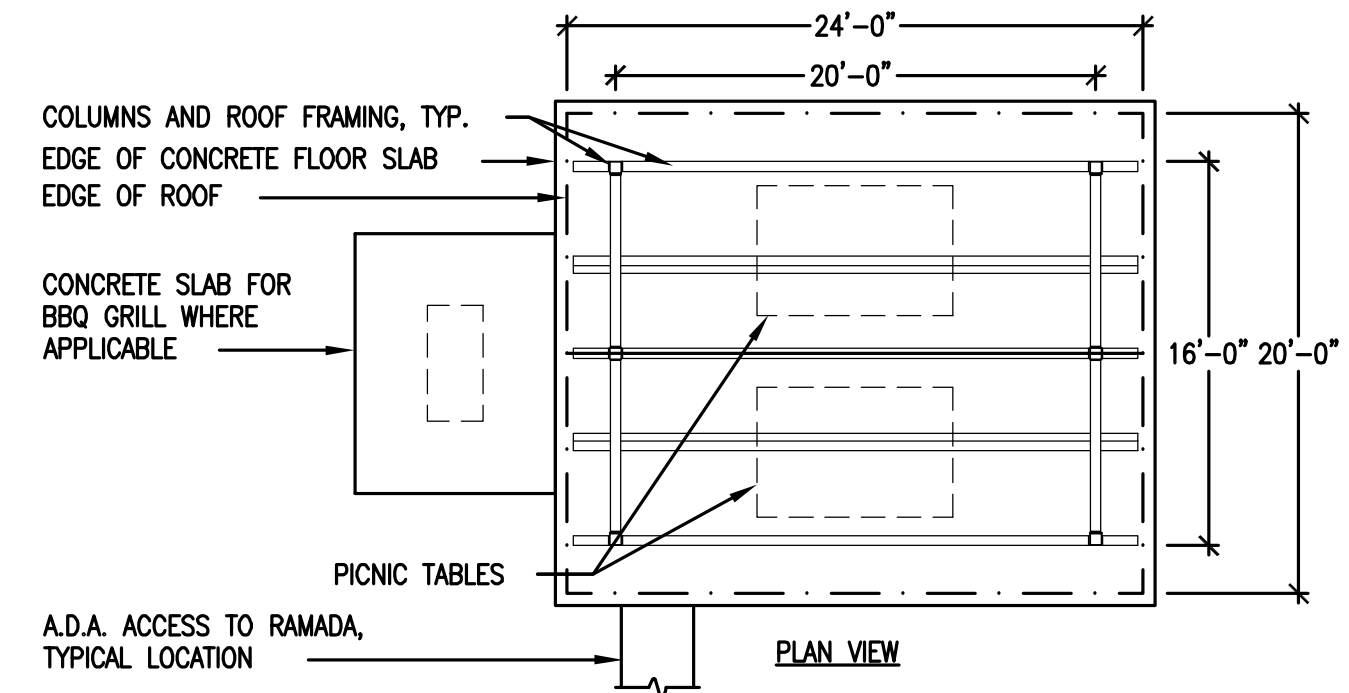
11 POST & CABLE BARRIER, END & CORNER PANEL - ELEVATION
SCALE: N.T.S. BF-3.2



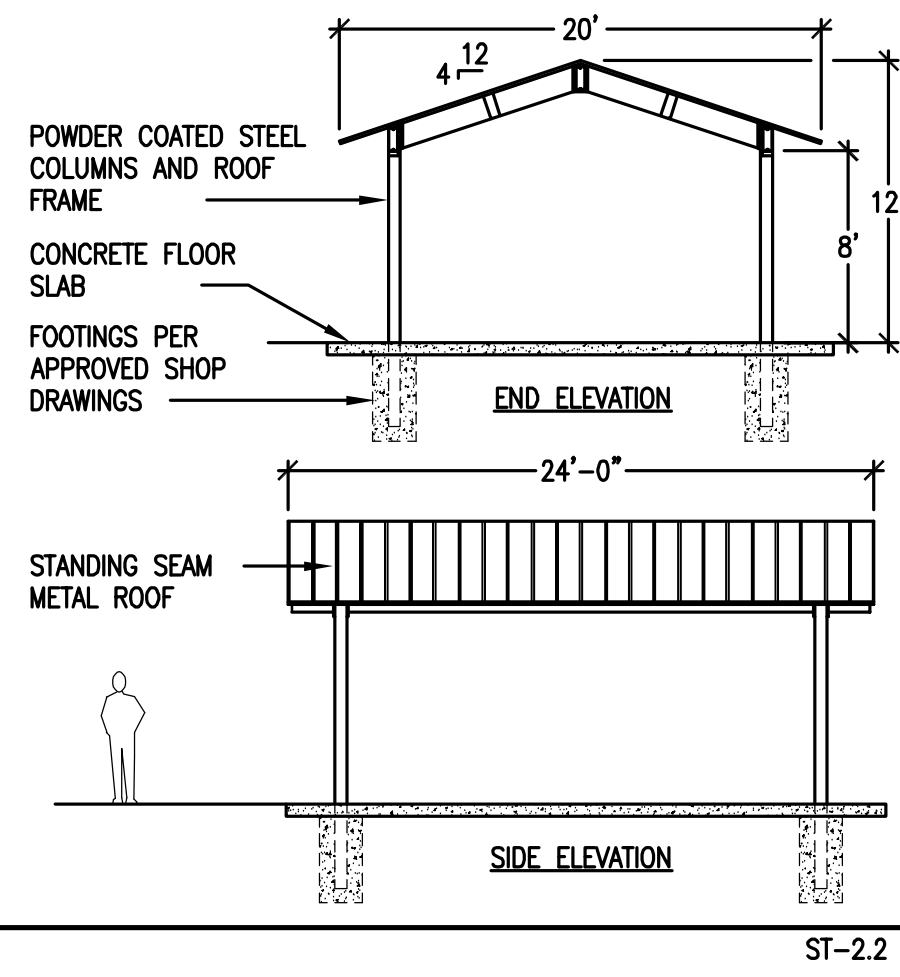
12 POST & CABLE BARRIER, END & CORNER POST - PLAN VIEW
SCALE: N.T.S. BF-3.3



13 POST BARRICADE TYPE A - (3" DIAMETER X 3'-6" HEIGHT)
SCALE: N.T.S. BF-4.1



14 20'X24' RAMADA
SCALE: N.T.S. ST-2.2



PRELIMINARY

McGann & Associates
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8814 North Oracle Road, Suite 210
Tucson, Arizona 85704
Telephone: (520) 297-9540 Fax: (520) 297-9545

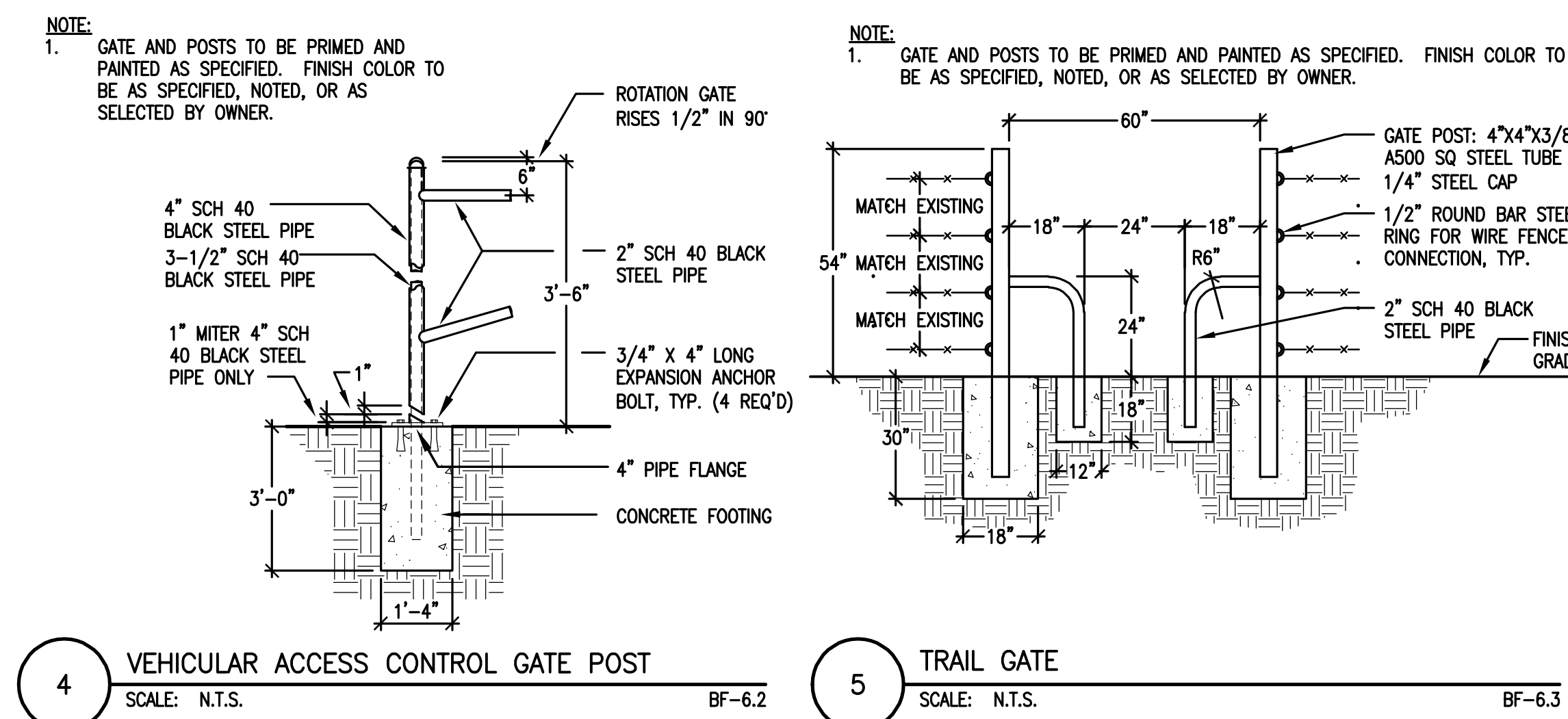
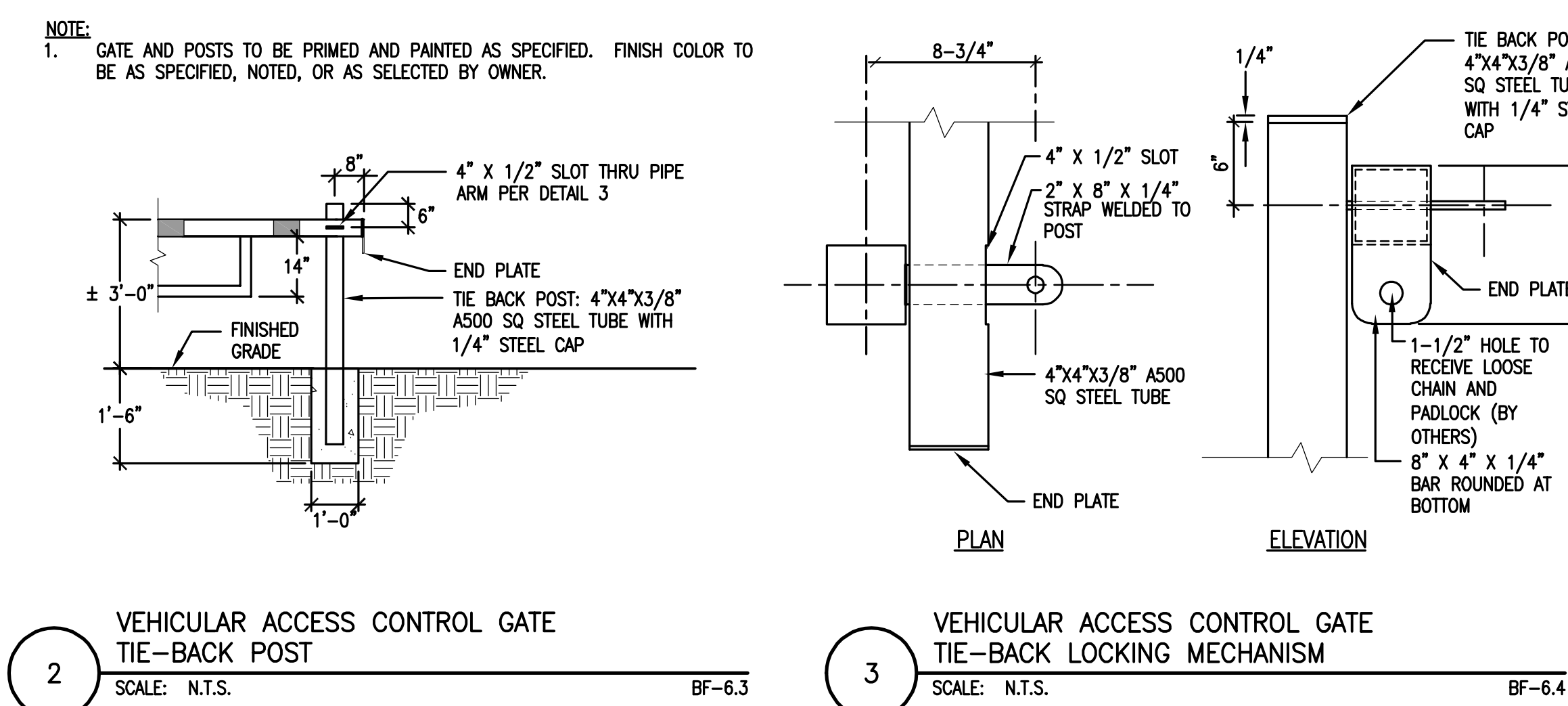
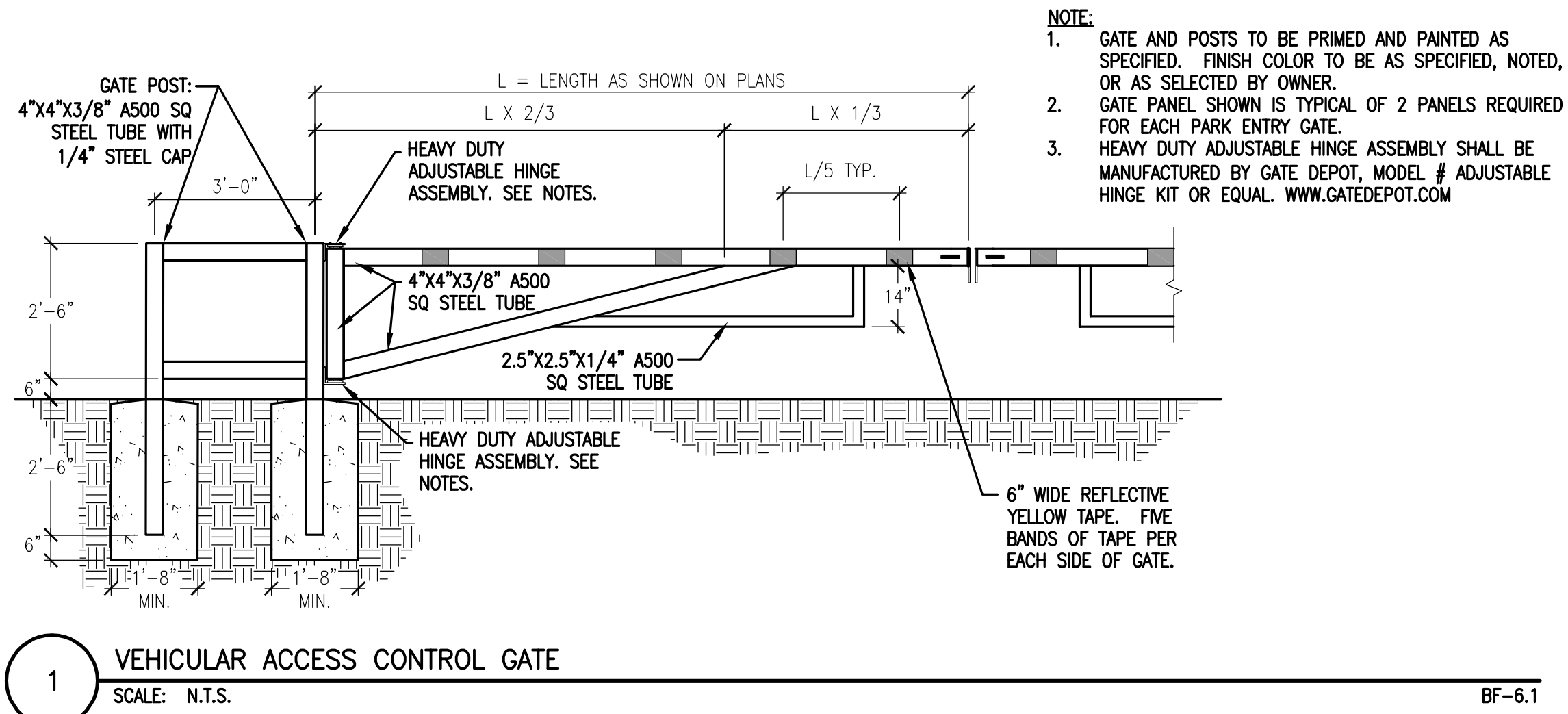
TOWN OF MARANA PARKS AND RECREATION DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
TRAILHEAD DETAILS
HARDSCAPE AND FENCING DETAILS

DATE: 11/15/20
REVISIONS:
DRAWN BY: ML/PB
CHECKED BY: SKM
JOB NO: 20-1170
SHEET NO:

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4 OF 9



TOWN OF MARANA PARKS AND RECREATION DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT

FENCING DETAILS

DATE: 11/15/20

REVISIONS:

DRAWN BY: _____

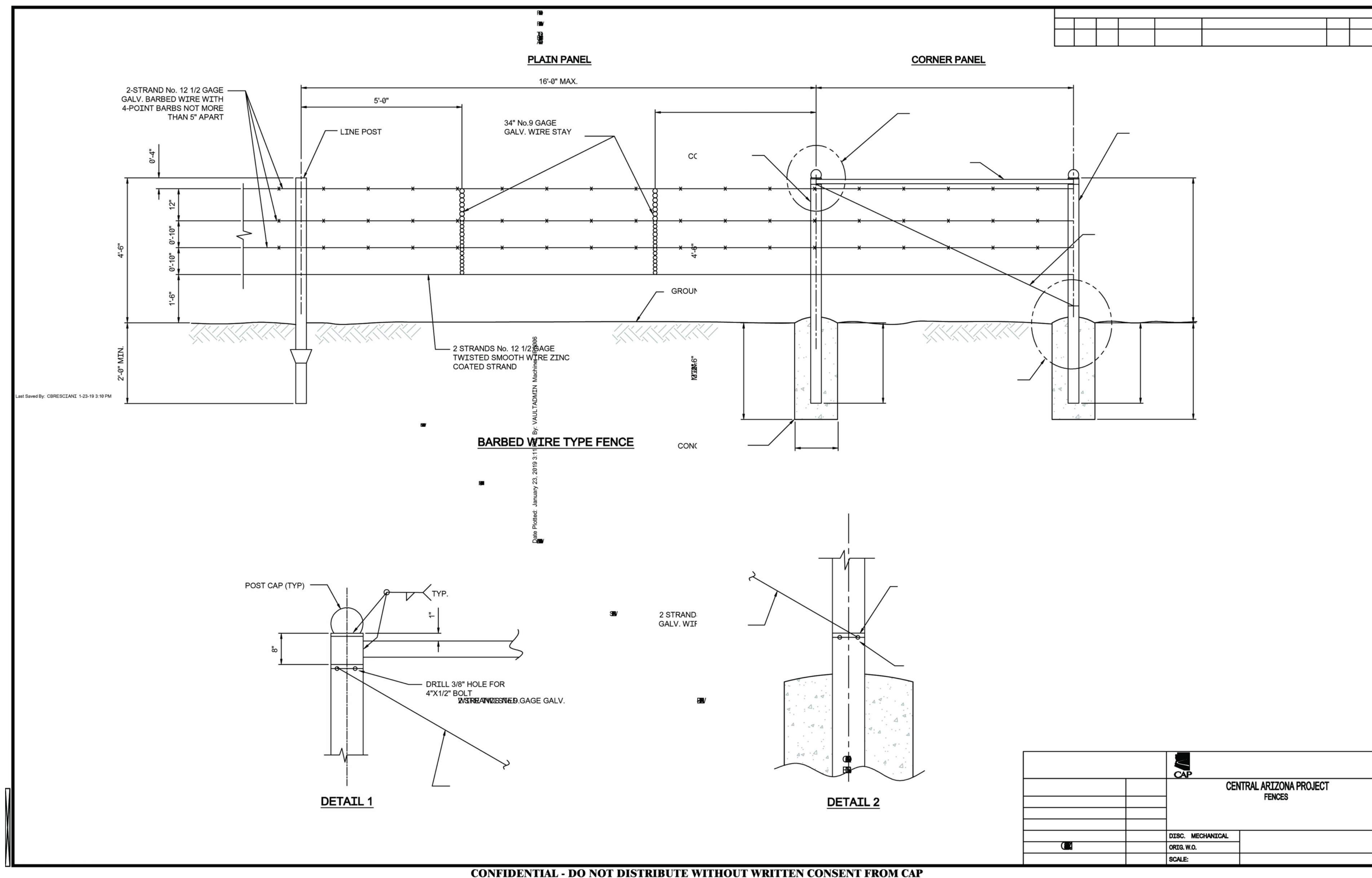
CHECKED BY: SKM

JOB NO: 20-1170

SHEET NO: _____

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7 OF 9



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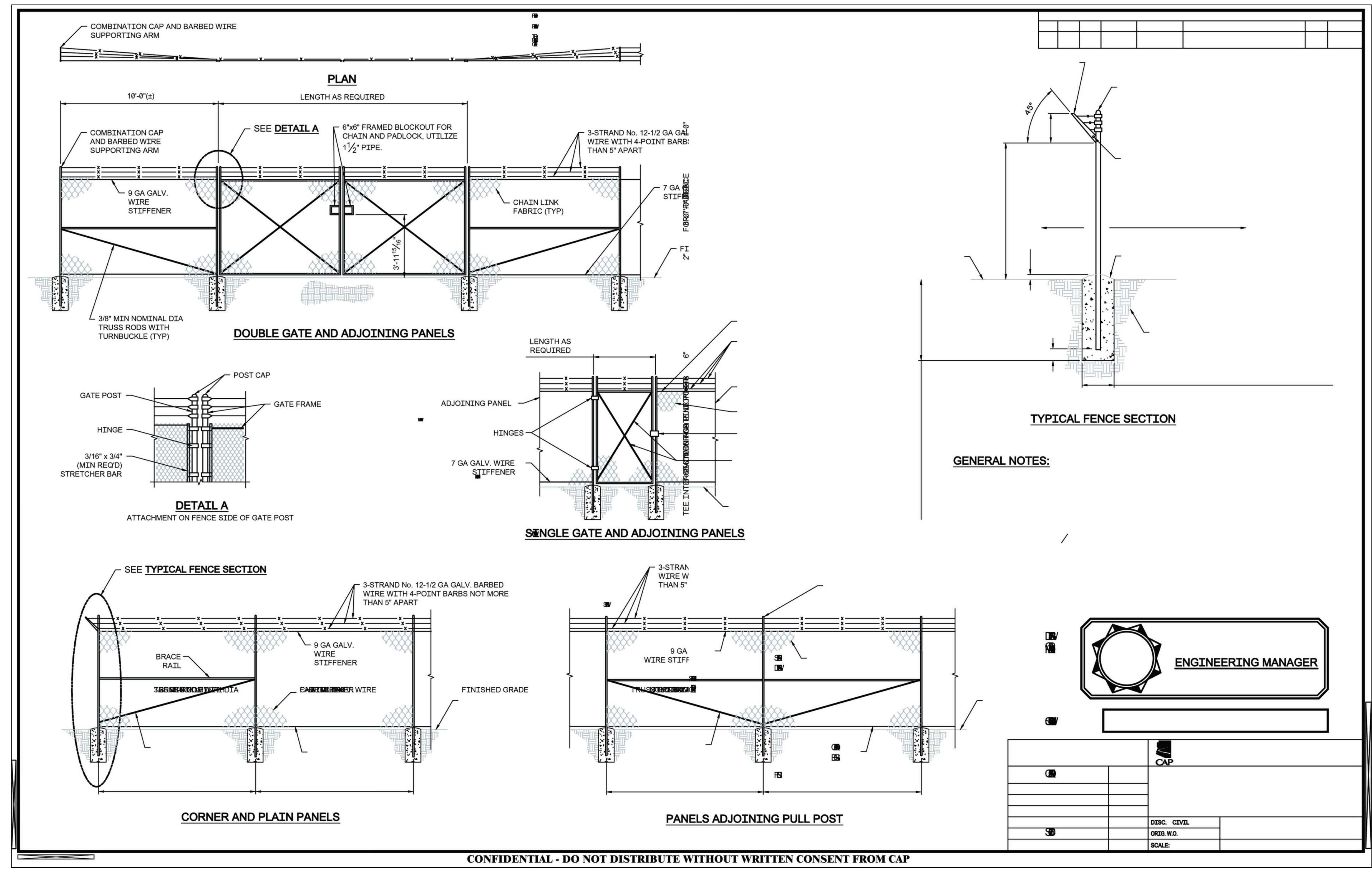
PRELIMINARY

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8914 North Oracle Road, Suite 210
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TOWN OF MARANA PARKS AND RECREATION DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
FENCING DETAILS

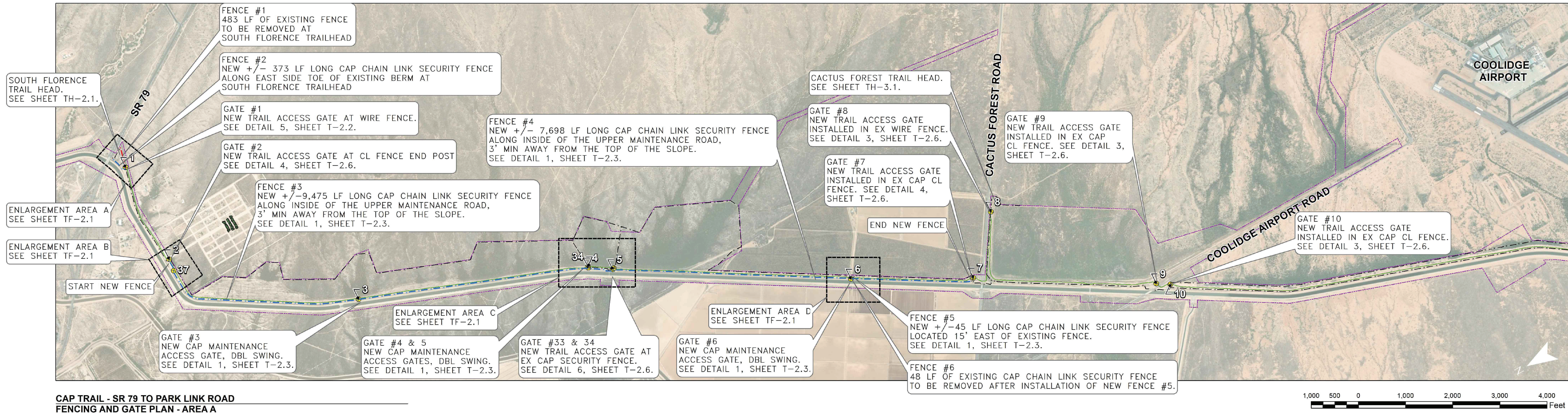
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CHECKED BY:	SKM
JOB NO:	20-1170
SHEET NO:	

T-2.4
8 OF 9

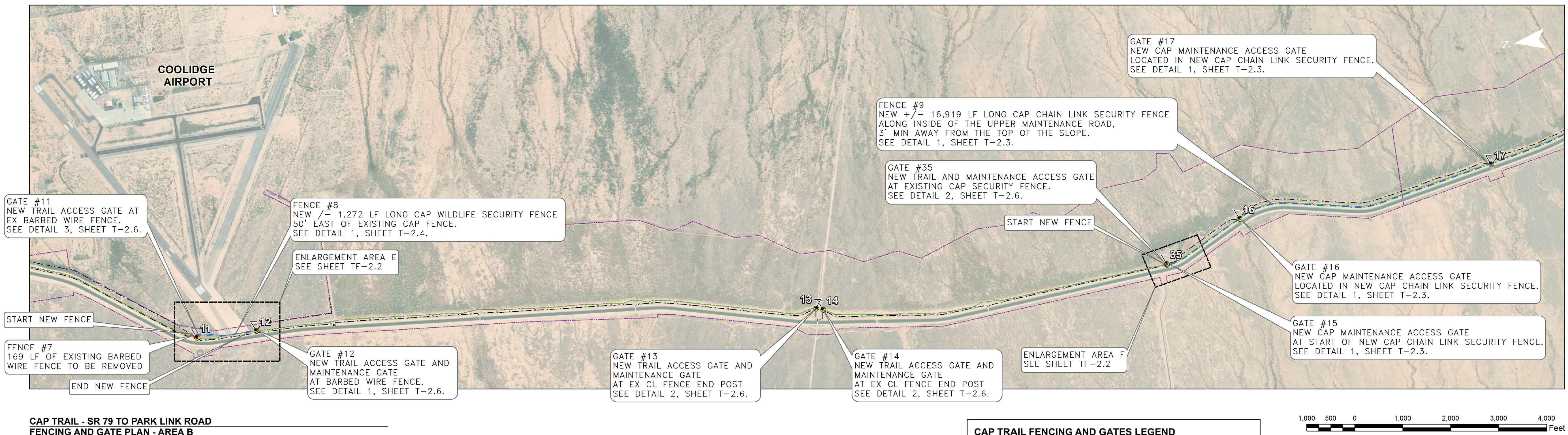


CONFIDENTIAL - DO NOT DISTRIBUTE WITHOUT WRITTEN CONSENT FROM CAP





CAP TRAIL - SR 79 TO PARK LINK ROAD
FENCING AND GATE PLAN - AREA A



CAP TRAIL - SR 79 TO PARK LINK ROAD
FENCING AND GATE PLAN - AREA B

CAP TRAIL FENCING AND GATES LEGEND	
CAP FENCING - EXISTING, NEW, AND REMOVALS	
	EXISTING FENCE TO REMAIN
	NEW FENCE TO MATCH EXISTING ADJACENT FENCE TYPE
	EXISTING FENCE TO BE REMOVED
	NEW ACCESS GATE
	CAP TRAIL ALIGNMENT
	CAP / BOR BOUNDARY



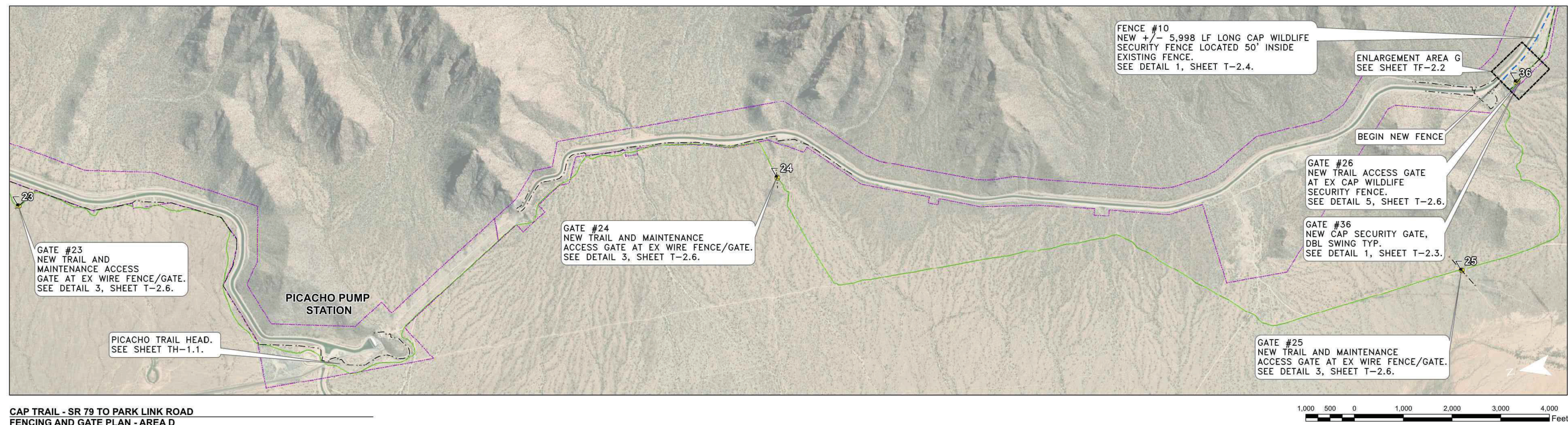
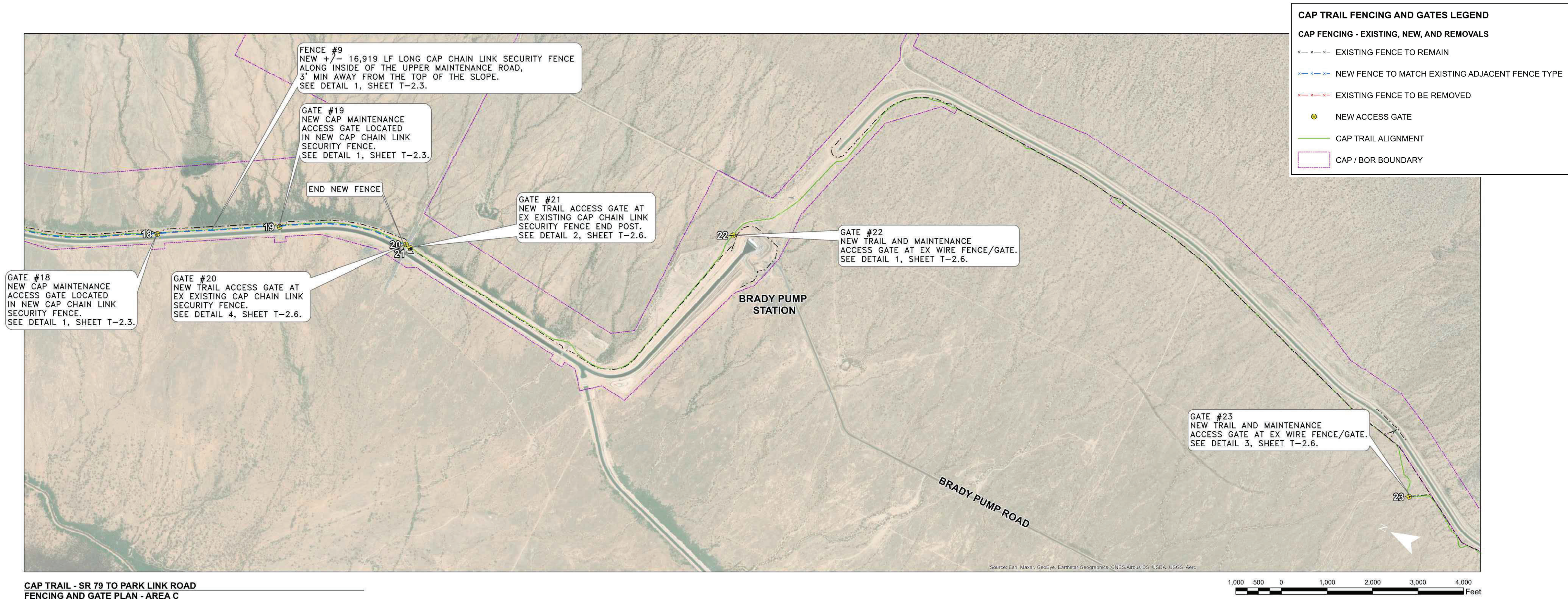
PRELIMINARY



PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
FENCING AND GATE PLAN - AREAS A AND B

DATE: 7/8/21
REVISIONS:
DRAWN BY: ML/PB
CHECKED BY: SRM
JOB NO: 20-1170
SHEET NO:

TF-1.1



PRELIMINARY

McGann & Associates
Landscape Architects and Planners
8914 North Oracle Road, Suite 210
Tucson, Arizona 85704
Telephone: (520) 297-6540 Fax: (520) 297-6545

PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
FENCING AND GATE PLANS - AREAS C AND D

DATE: 7/8/21
REVISIONS:
DRAWN BY: ML/PB
CHECKED BY: SRM
JOB NO: 20-1170
SHEET NO:

TF-1.2

3 OF 22

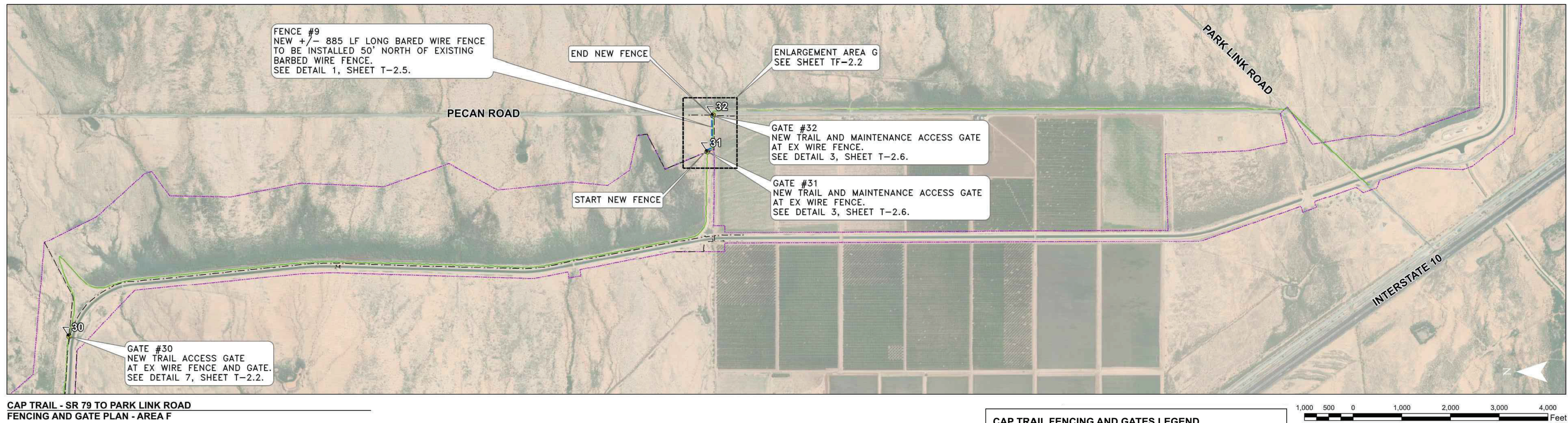
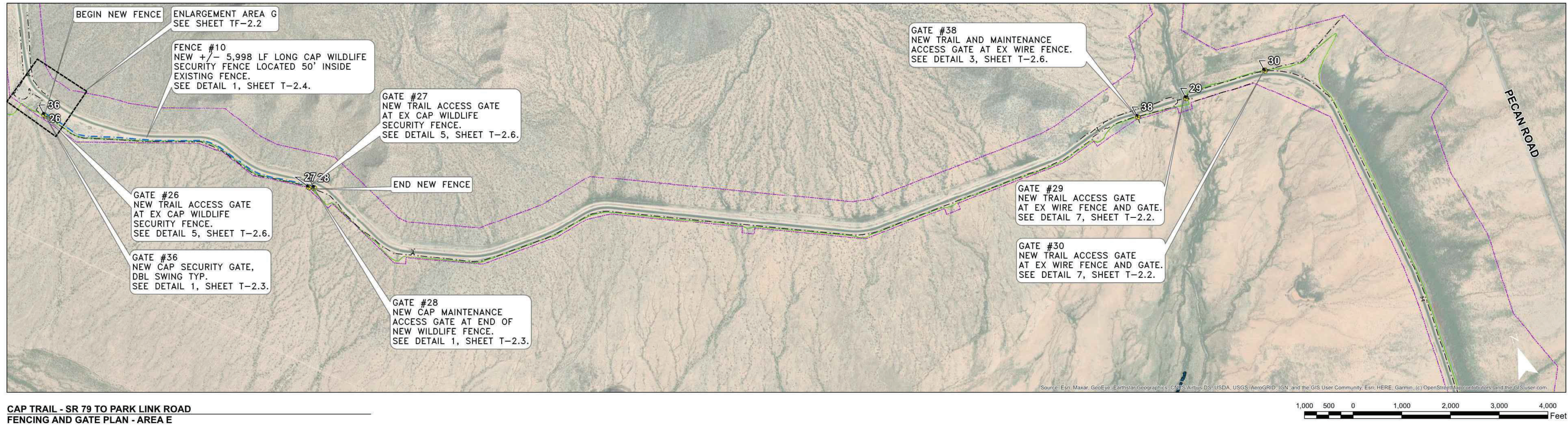
Call at least two full working days
before you begin excavation
ARIZONA811
Arizona Blue Stakes, Inc.
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PRELIMINARY

McGann & Associates
Landscape Architects and Planners
8914 North Oracle Road, Suite 210
Tucson, Arizona 85704
Telephone: (520) 297-9540 Fax: (520) 297-9545

PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
FENCING AND GATE PLANS - AREAS E AND F

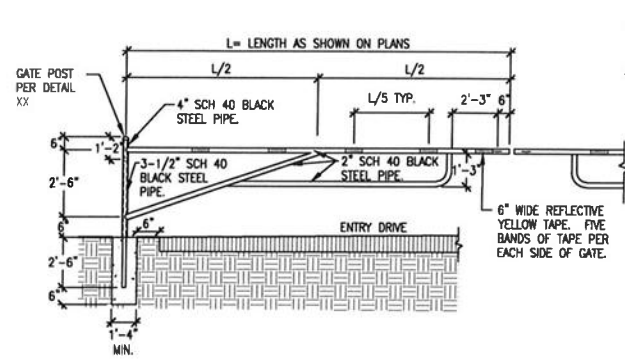
DATE: 7/8/21
REVISIONS:
DRAWN BY: ML/PB
CHECKED BY: SRM
JOB NO: 20-1170
SHEET NO:



CAP TRAIL FENCING AND GATES LEGEND

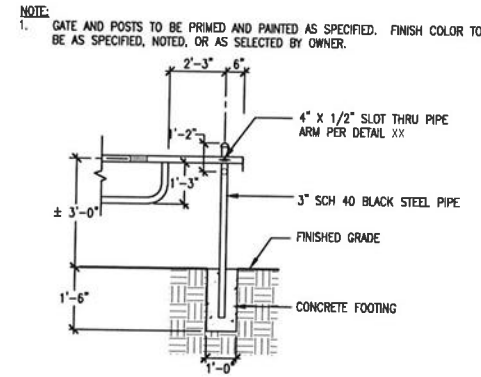
CAP FENCING - EXISTING, NEW, AND REMOVALS

- - - - - EXISTING FENCE TO REMAIN
- - - - - NEW FENCE TO MATCH EXISTING ADJACENT FENCE TYPE
- - - - - EXISTING FENCE TO BE REMOVED
- NEW ACCESS GATE
- CAP TRAIL ALIGNMENT
- CAP / BOR BOUNDARY



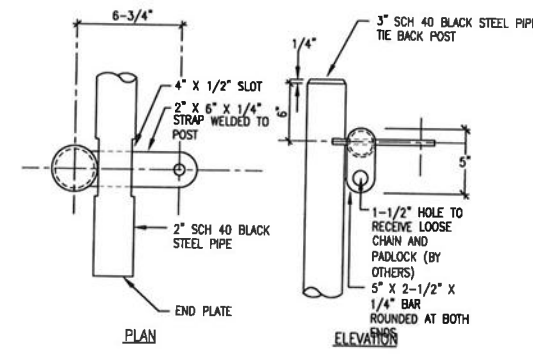
1 VEHICULAR ACCESS CONTROL GATE
SCALE: N.T.S. BF-6.1

NOTE:
1. GATE AND POSTS TO BE PRIMED AND PAINTED AS SPECIFIED. FINISH COLOR TO BE AS SPECIFIED, NOTED, OR AS SELECTED BY OWNER.
2. GATE PANEL SHOWN IS TYPICAL OF 2 PANELS REQUIRED FOR EACH PARK ENTRY GATE.

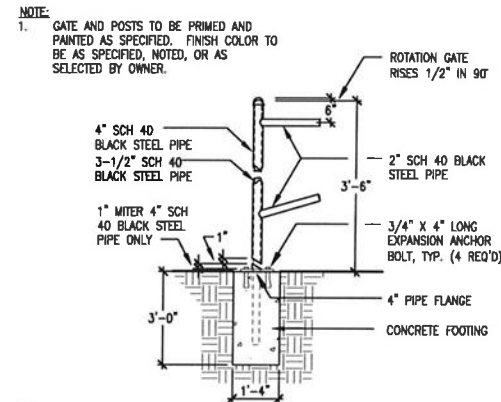


2 VEHICULAR ACCESS CONTROL GATE TIE-BACK POST
SCALE: N.T.S. BF-6.3

NOTE:
1. GATE AND POSTS TO BE PRIMED AND PAINTED AS SPECIFIED. FINISH COLOR TO BE AS SPECIFIED, NOTED, OR AS SELECTED BY OWNER.

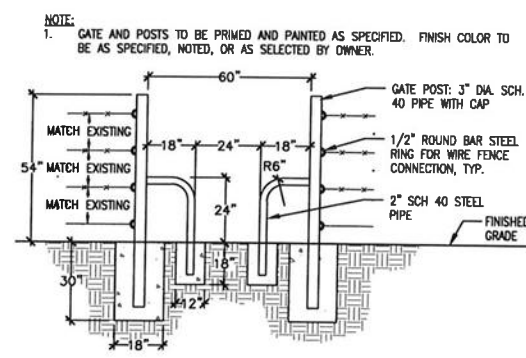


3 VEHICULAR ACCESS CONTROL GATE TIE-BACK LOCKING MECHANISM
SCALE: N.T.S. BF-6.4



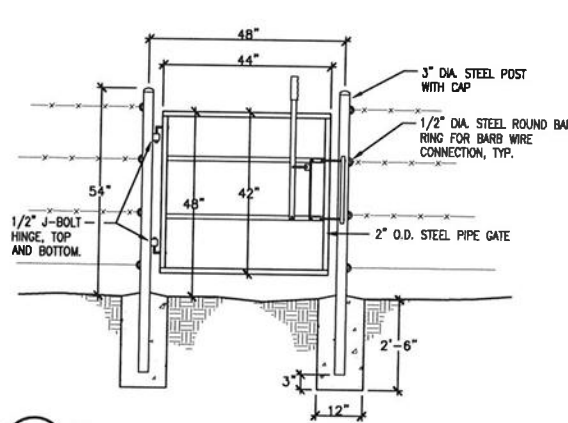
4 VEHICULAR ACCESS CONTROL GATE POST
SCALE: N.T.S. BF-6.2

NOTE:
1. GATE AND POSTS TO BE PRIMED AND PAINTED AS SPECIFIED. FINISH COLOR TO BE AS SPECIFIED, NOTED, OR AS SELECTED BY OWNER.



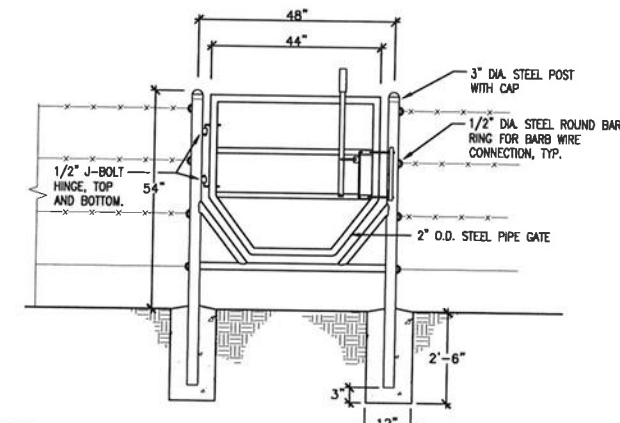
5 TRAIL ACCESS GATE
SCALE: N.T.S. BF-6.3

NOTE:
1. GATE AND POSTS TO BE PRIMED AND PAINTED AS SPECIFIED. FINISH COLOR TO BE AS SPECIFIED, NOTED, OR AS SELECTED BY OWNER.



6 TRAIL ACCESS SWING GATE
SCALE: N.T.S.

NOTE:
1. GATE AND POSTS TO BE PRIMED AND PAINTED AS SPECIFIED. FINISH COLOR TO BE AS SPECIFIED, NOTED, OR AS SELECTED BY OWNER.



7 TRAIL ACCESS GATE (GRAZING AREA)
SCALE: N.T.S.

NOTE:
1. GATE AND POSTS TO BE PRIMED AND PAINTED AS SPECIFIED. FINISH COLOR TO BE AS SPECIFIED, NOTED, OR AS SELECTED BY OWNER.

PRELIMINARY

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Telephone: (520) 297-8840 Fax: (520) 297-8845

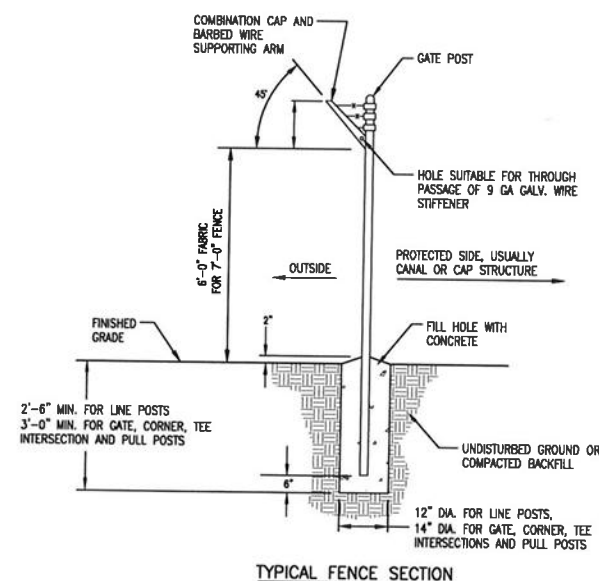
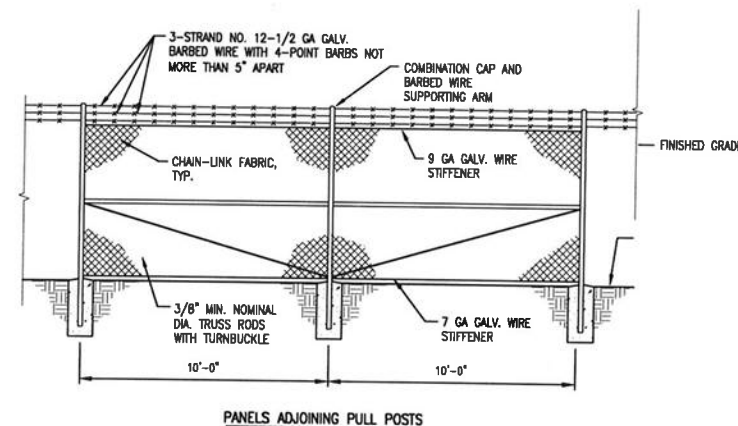
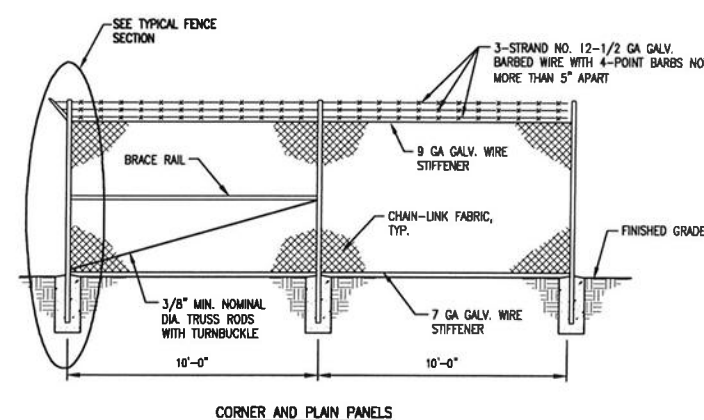
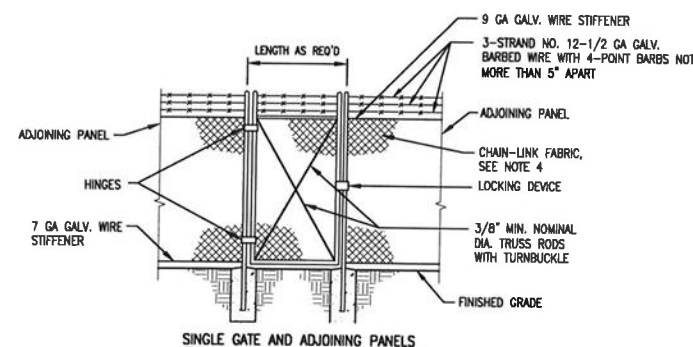
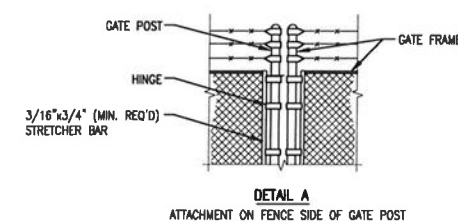
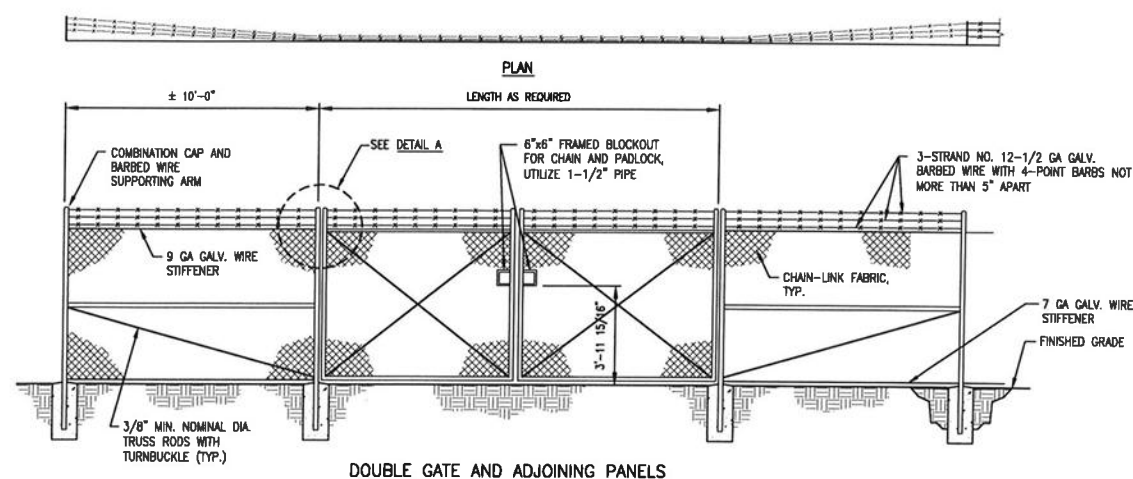
PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
FENCING DETAILS

DATE: 2/26/21
REVISIONS:
DRAWN BY: ML/PB
CHECKED BY: SRM
JOB NO: 20-1170
SHEET NO:

T-2.2

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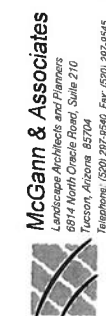
Call at least two full working days before you begin excavation.
ARIZONA 811
Tucson Blue Stakes, Inc.
Call 1-800-811-8111 or 1-800-811-8112 (in Maricopa County) (520) 263-1100



GENERAL NOTES:

- ENTIRE FENCE IS TO BE GROUNDED IN ACCORDANCE WITH C.A.P. DRAWING STD-C-06756.
- MAXIMUM INTERVAL BETWEEN PULL POSTS IS 500'.
- BARBED WIRE GUARD TO BE MOUNTED VERTICALLY ON ALL GATE POSTS.
- CHAIN-LINK FABRIC SHALL BE ATTACHED TO THE FENCE FRAMEWORK IN ACCORDANCE WITH THE MANUFACTURER'S STANDARDS INSTRUCTIONS.
- BARBED WIRE SUPPORTING ARMS SHALL CONFORM WITH MANUFACTURER'S STANDARDS OR SHALL BE FABRICATED FROM 1-1/2" PIPE. THEY SHALL BE WELDED IN PLACE OR OTHERWISE SECURED TO PREVENT ROTATION.
- MAXIMUM GAP BETWEEN THE BOTTOM OF THE FENCE FABRIC OR GATE AND FINISHED GRADE SHALL BE 2".
- SEE APPLICABLE CONSTRUCTION SPECIFICATIONS FOR ALL REQUIREMENTS.
- ANY PROPOSED CHANGES TO CAP STANDARD FENCE DETAILS SHALL BE SUBMITTED TO CAP ENGINEERING MANAGER FOR APPROVAL PRIOR TO CONSTRUCTION.

PRELIMINARY



PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
FENCING DETAILS

DATE: 2/25/21
REVISIONS:

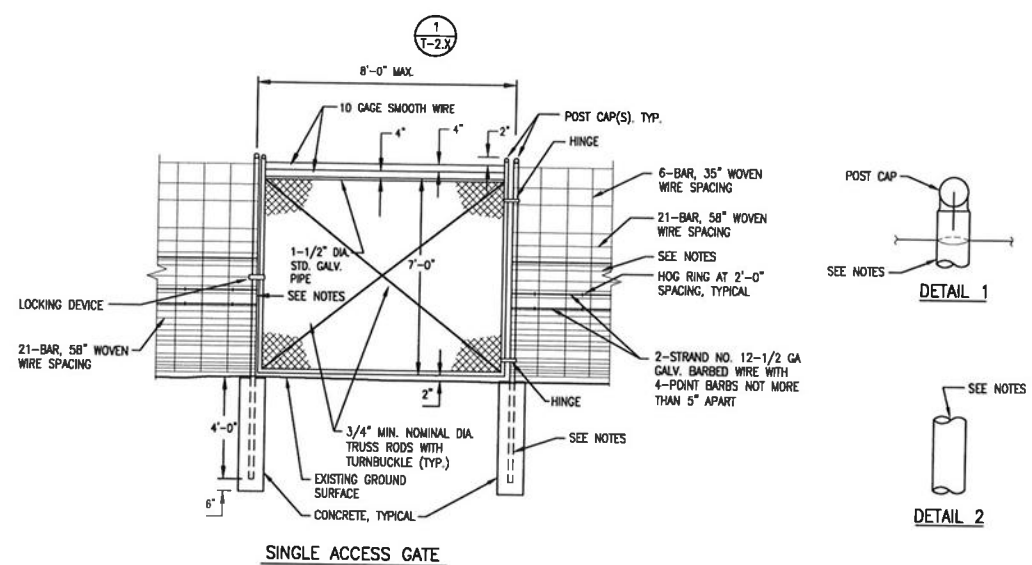
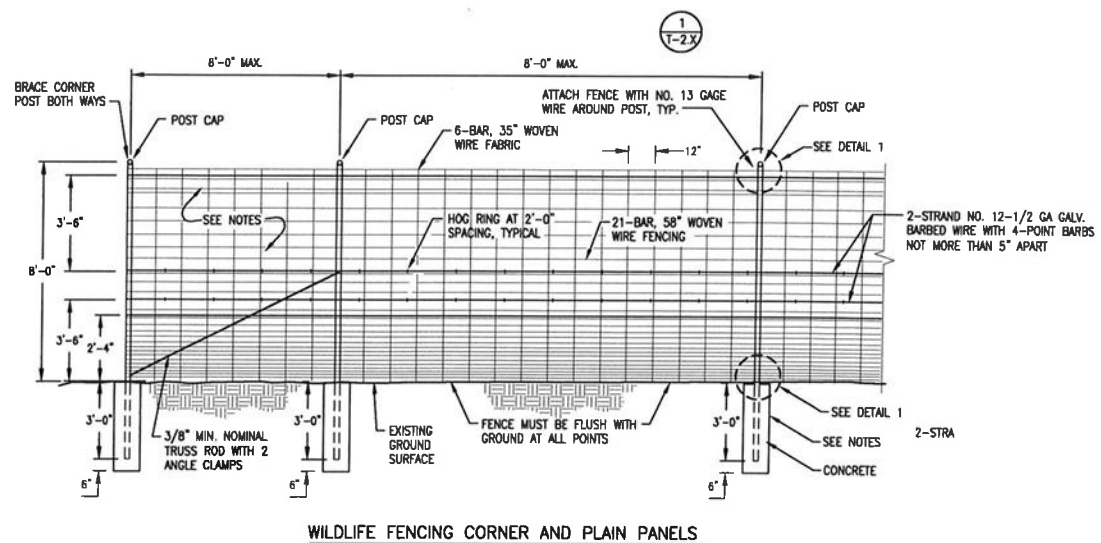
DRAWN BY: ML/PB
CHECKED BY: SRM

JOB NO: 20-1170
SHEET NO:

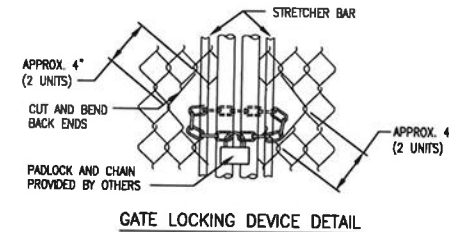
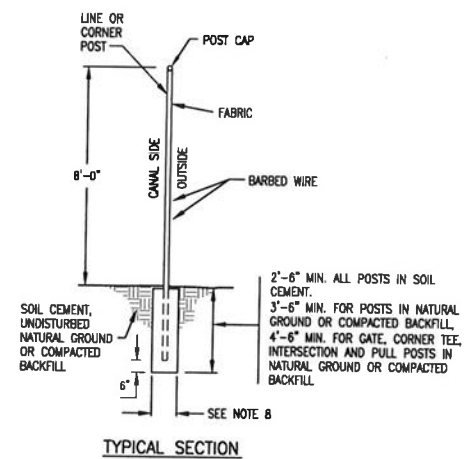
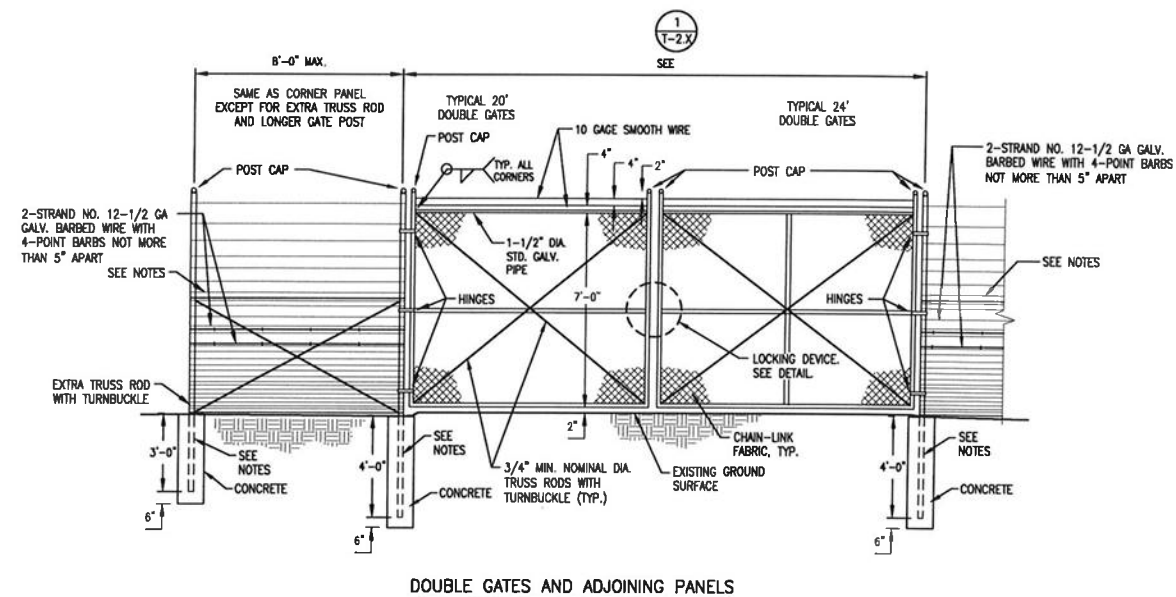
T-2.3

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- NOTES:**
- 21-BAR, 58" WOVEN WIRE FENCING SHALL HAVE NO. 11 GAGE TOP AND BOTTOM WIRES AND NO. 13 GAGE INTERMEDIATE AND STAY.
 - 6-BAR, 35" WOVEN WIRE FENCING SHALL HAVE NO. 10 GAGE TOP AND BOTTOM WIRES AND NO. 12 GAGE INTERMEDIATE AND STAY WIRES.
 - MAXIMUM LENGTH OF FENCE WITHOUT CORNER, END, GATE OR PULL POST SHALL BE FIVE HUNDRED FEET (500).
 - ADDITIONAL PULL POSTS SHALL BE PLACED AS DIRECTED. PANELS ADJOINING PULL POSTS SHALL BE IDENTICAL TO PANELS ADJOINING CORNER POSTS, EXCEPT IN FENCE LINE.
 - CHAIN-LINK FABRIC SHALL BE ATTACHED TO GATE FRAMEWORK WITH STRETCHER BARS AND CLAMPS. WOVEN WIRE SHALL TERMINATE AT EACH CORNER OR PULL POST.
 - FENCE TO BE PLACED ON CHORDS AROUND CURVES WITH CORNER PANELS AT THE ENDS OF EACH CHORD. MAXIMUM CHORD LENGTH SHALL BE 200 FEET.
 - BARBED WIRE SHALL BE 2-STRAND NO. 12 1/2 GAGE GALV. BARBED WIRE WITH NO. 14 GAGE 4-POINT BARBS NOT LESS THAN 3/4" AND NOT MORE THAN 5" APART. THE BARBED WIRE SHALL BE PLACED ON THE OUTSIDE OF THE FENCE FABRIC.
 - REFER TO SPECIFICATIONS FOR POST SIZE.
 - IN SOIL CEMENT, MINIMUM POST HOLE DIA. EQUALS LARGEST OUTSIDE DIMENSION OF POST PLUS 4 INCHES. MAXIMUM POST HOLE DIA. EQUALS LARGEST OUTSIDE DIMENSION OF THE POST PLUS 6 INCHES. 1"-2" DIA. FOR LINE POSTS IN NATURAL GROUND OR COMPACTED BACKFILL. 1"-2" DIA. FOR GATE, CORNER, TEE, INTERSECTION AND PULL POST UNLESS OTHERWISE INDICATED IN NATURAL GROUND OR COMPACTED BACKFILL.
 - ANY PROPOSED CHANGES TO CAP STANDARD FENCE DETAILS SHALL BE SUBMITTED TO CAP ENGINEERING MANAGER FOR APPROVAL PRIOR TO CONSTRUCTION.



1 CENTRAL ARIZONA PROJECT SECURITY FENCE DETAILS – WILDLIFE FENCE AND GATE DETAILS

PRELIMINARY

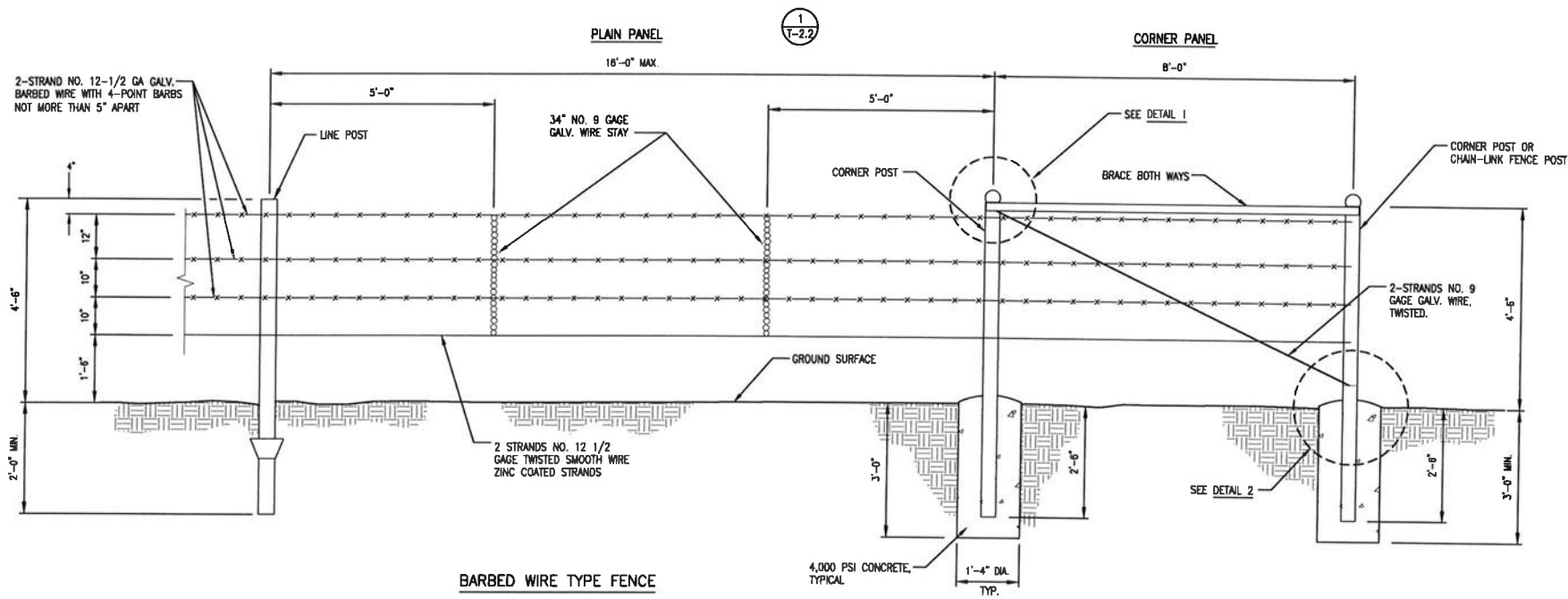
McGann & Associates
Landscape Architects and Planners
6814 North Oracle Road, Suite 210
Tucson, Arizona 85704
Telephone: (520) 287-0540 Fax: (520) 287-0545

PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
FENCING DETAILS

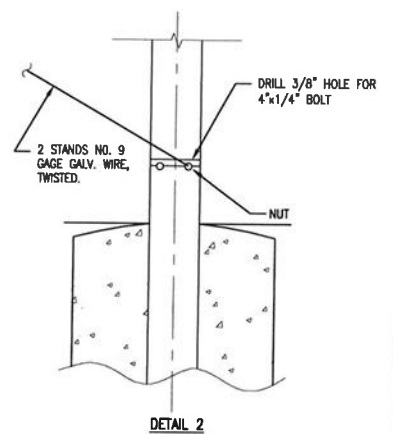
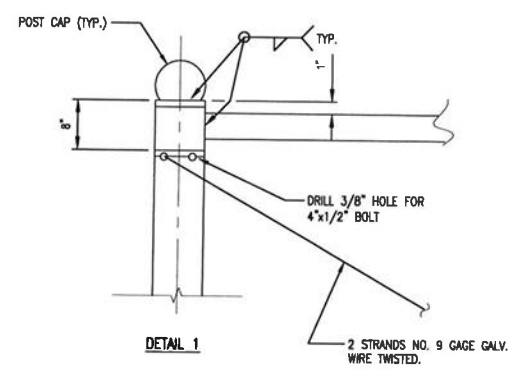
DATE: 2/26/21
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CHECKED BY: SRM
JOB NO: 20-1170
SHEET NO:



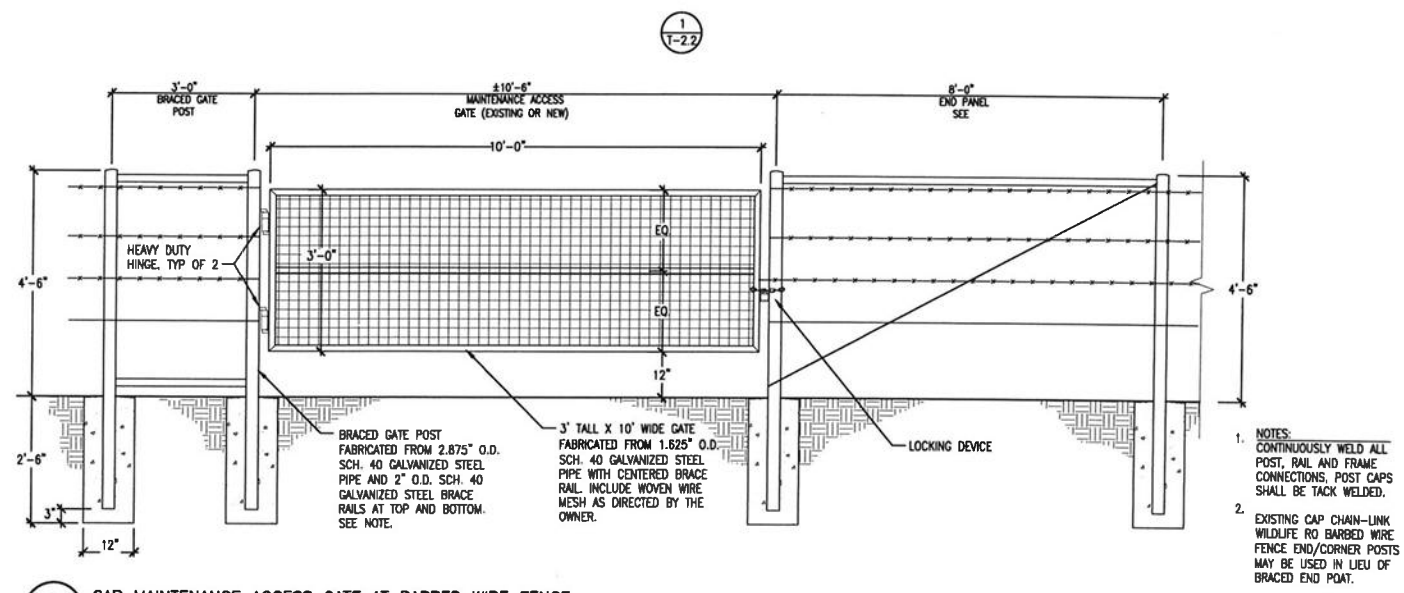
T-2.4
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- NOTES:**
1. BARBED WIRE FENCE TO BE SECURED TO CHAIN-LINK FENCE POSTS IN THE SAME MANNER AS A CORNER POST AT LOCATIONS SHOWN ON PLANS.
 2. PROVIDE CORNER POSTS AND BRACE EACH SIDE OF GATE OPENING. GATES LOCATED AS SHOWN ON PLANS.
 3. CORNER AND LINE POSTS AND BRACES SHALL CONFORM TO ASTM A702. ALL PARTS SHALL BE GALVANIZED. ALL GROUNDING SHALL BE AS CLOSE AS POSSIBLE TO A FENCE POST.
 4. FOR GROUNDING DETAILS, SEE CAP-M-C04906
 5. ANY PROPOSED CHANGES TO CAP STANDARD FENCE DETAILS SHALL BE SUBMITTED TO CAP ENGINEERING MANAGER FOR APPROVAL PRIOR TO CONSTRUCTION.



1 CENTRAL ARIZONA PROJECT SECURITY FENCE DETAILS - BARBED WIRE TYPE
SCALE: N.T.S.



2 CAP MAINTENANCE ACCESS GATE AT BARBED WIRE FENCE
SCALE: N.T.S.

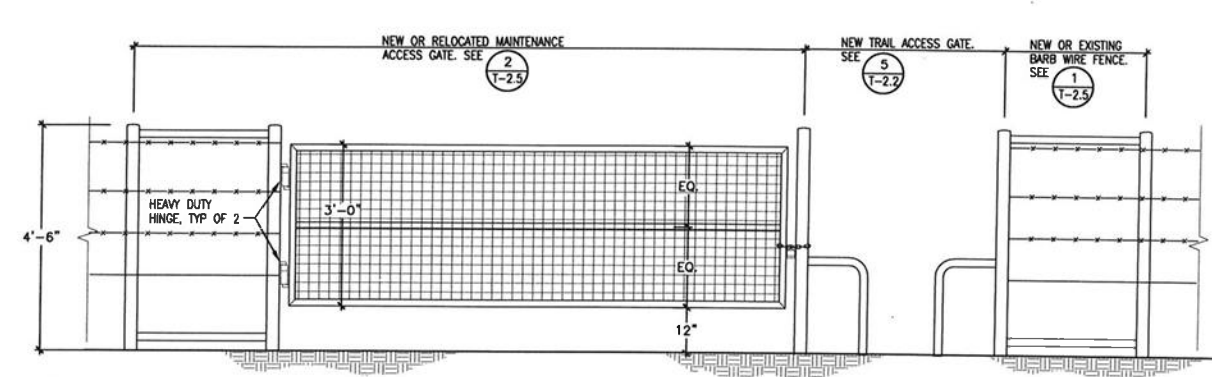
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Telephone: (520) 297-8540 Fax: (520) 297-8545

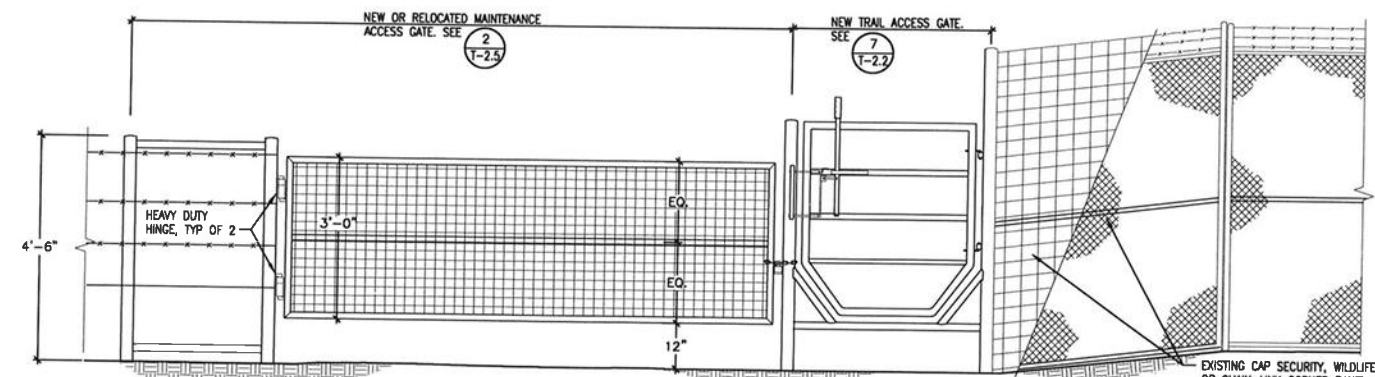
PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
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DATE: 2/26/21
REVISIONS:
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CHECKED BY: SRM
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SHEET NO:

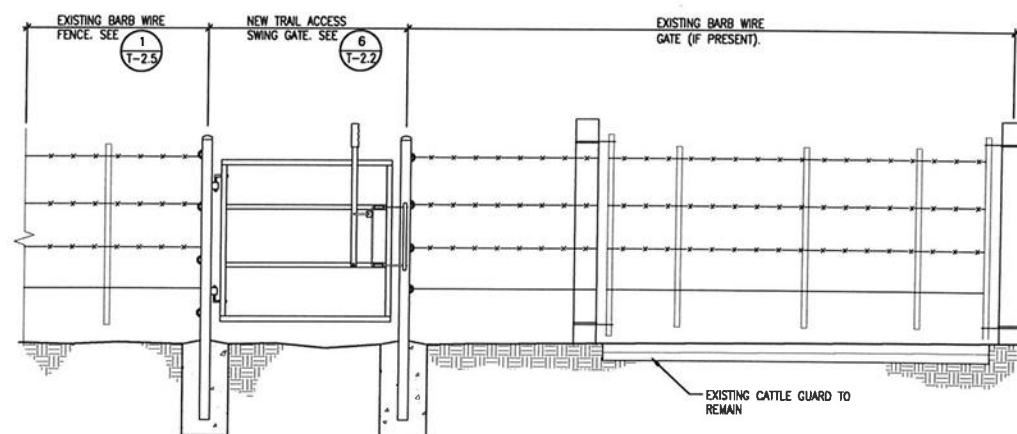




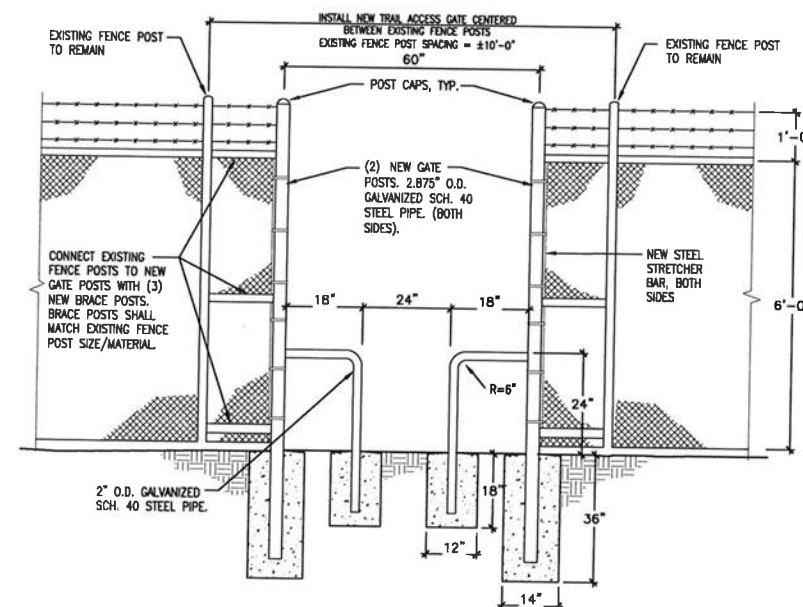
1 TRAIL ACCESS GATE AT CAP MAINTENANCE GATE AND BARBED WIRE FENCE
SCALE: N.T.S.



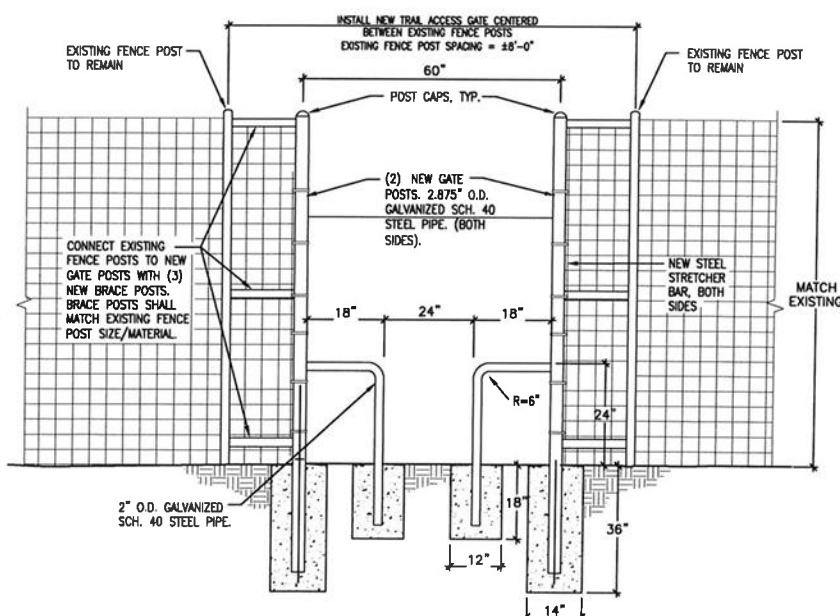
2 TRAIL ACCESS GATE AT CAP SECURITY FENCE AND MAINTENANCE ACCESS GATE



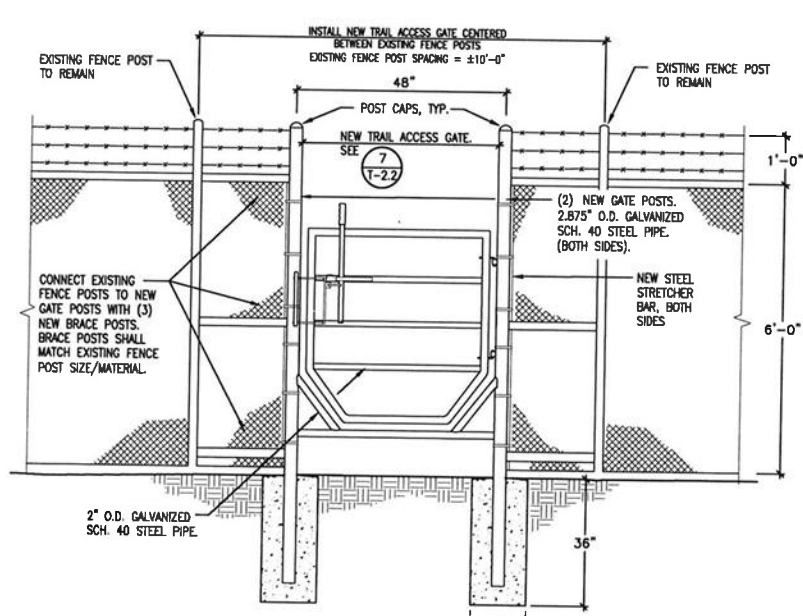
3 TRAIL ACCESS GATE AT EXISTING BARB WIRE FENCE OR GATE
SCALE: N.T.S.



4 TRAIL ACCESS GATE AT EXISTING CAP CHAIN-LINK SECURITY FENCE
SCALE: N.T.S.



5 TRAIL ACCESS GATE AT EXISTING WILDLIFE SECURITY FENCE
SCALE: N.T.S.



6 TRAIL ACCESS GATE (GRAZING AREA) AT EXISTING CAP CHAIN-LINK SECURITY FENCE
SCALE: N.T.S.

- GENERAL NOTES:**
- ENTIRE FENCE IS TO BE GROUNDED IN ACCORDANCE WITH C.A.P. DRAWING STD-C-06756.
 - SEE APPLICABLE CONSTRUCTION SPECIFICATIONS FOR ALL REQUIREMENTS.
 - ANY PROPOSED CHANGES TO CAP STANDARD FENCE DETAILS SHALL BE SUBMITTED TO CAP ENGINEERING MANAGER FOR APPROVAL PRIOR TO CONSTRUCTION.



PRELIMINARY

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PIMA COUNTY OPEN SPACE AND TRAILS DEPARTMENT
CAP TRAILHEAD IMPROVEMENT PROJECT
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DATE: 2/26/21
REVISIONS:
DRAWN BY: MJPB
CHECKED BY: SRM
JOB NO: 20-1170
SHEET NO:

T-2.6

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Appendix F. Conservation and Mitigation Measures

Land Use

The County's O&M plan will incorporate the following mitigation and management measures:

- Installing and maintaining signage at the trailheads or other trail access points to discourage unauthorized off-trail use and promote proper trail etiquette.
- Removing trash and waste along the trail and at the trailheads.
- Maintaining the post and cable fencing at the trailheads in order to minimize vehicles from traveling off-road.
- Conduct monitoring patrols to identify trail-related unauthorized or unplanned visitation off-trail on adjacent lands.
- Recommending remedial measures to reduce opportunities for trespass.
- Implementing remedial measures approved by Reclamation to reduce opportunities for trespass.

Soils

- Employing best management practices during construction to control dust.
- Using existing roads to reduce soil disturbance.
- Limiting trail improvement actions to hand tools.
- Installing temporary erosion control measures at the trailheads before construction starts and removing once construction is complete.

Biological Resources

- The project proponent will employ a qualified biologist to ensure compliance with the MBTA when developing trailheads. Every attempt will be made to complete land-clearing activities between September 1 and February 28 to avoid the breeding season of migratory birds. Between the dates of March 1 and August 31, all vegetation within the three trailheads or where ground disturbance will occur along the trail will be surveyed for active bird nest(s) immediately prior (within 48 hours) to being disturbed. If an active nest is discovered, vegetation clearing activities will not be allowed to proceed in the vicinity of the nest(s). No activities will occur within an appropriate buffered distance from active nests until after the young birds have fledged from the nest.
- If an active nest is discovered, Reclamation would determine the appropriate buffered distance.
- A biologist who possesses a burrowing owl survey protocol training certificate issued by the AGFD will conduct burrowing owl surveys 4 days or 96 hours before construction at all locations where ground disturbance will occur. If surveys are conducted in the fall or winter and occupied burrows or owls are found, the biologist, in coordination with Reclamation,

would implement the conservation measures identified in the burrowing owl clearance protocol (AGFD 2009) and would then resurvey the area prior to the ground disturbing activities. The same protocol would need to occur if surveys are conducted in the spring or summer and unoccupied burrows are discovered. However, if surveys are conducted in the spring or summer and occupied burrows or owls are found, a 35-meter (100-ft) radius buffer that excludes all heavy machinery and foot traffic would be set up around the active burrow entrances until the appropriate conservation action can be determined. Upon completion of burrowing owl surveys, the project proponent will contact Reclamation and CAWCD to provide survey results and any conservation measures employed.

- Avoidance of impacts is a recognized form of mitigation. Several features of the project have been designed or located to avoid impacts to existing vegetation.
- All work in the immediate area would cease if any federally listed species are observed in the construction area. Reclamation and USFWS personnel would be notified immediately.
- Construction personnel would be instructed not to collect, disturb, or molest wildlife species.
- The County would be instructed to exercise care to preserve the natural landscape and conduct operations so as to prevent unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work.
- To prevent the spread of invasive plant species, all construction equipment will be washed at the construction personnel's storage facility prior to entering the construction site. In addition, the construction personnel will inspect construction equipment and remove all attached plant debris prior to leaving the construction site to prevent the spread of invasive plant species to off-site locations.
- The County will conduct a desert tortoise awareness briefing with the contractor and its employees at the onset of construction (i.e. prior to ground disturbing activities). If Sonoran desert tortoises are encountered during construction, the contractor will follow the "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" (AGFD 2015). Any desert tortoise encounters that require handling must be reported to Reclamation's biologist within 24 hours after handling.
- Trailway finding signage will be utilized that encourages recreationists to remain on the trail. An additional educational sign will be developed with a Reclamation biologist and placed at trailhead locations. In accordance with Reclamation's commitments under the Candidate Conservation Agreement for the Sonoran desert tortoise (2015), signage at other strategic locations along the trail within the wildlife corridor, as determined needed by Reclamation and in coordination with the County, will be utilized to discourage trail users from harassing and/or collecting desert tortoises.

Cultural Resources

- Ground-disturbing activities have the potential to negatively impact archaeological sites. Should ground-disturbing activities be necessary for trail stabilization, Reclamation would consider the nature and location of the proposed disturbances in relation to known archaeological sites and may implement a plan for archaeological mitigation via monitoring or controlled excavation as situationally appropriate.

- In the event that previously unknown cultural resources are found during construction, work will stop in the immediate vicinity of the discovery, and Reclamation will be notified of the discovery. Work will not resume at the location of the discovery until Reclamation has evaluated its eligibility for listing in the NRHP and developed a plan to mitigate adverse effects to the resource, as appropriate.
- Should borrow material be needed for future maintenance activities, the borrow must come from an approved source (i.e., a source that has been previously cleared under the National Historic Preservation Act) before purchasing and/or removing the borrow material.
- Archaeological site assessments would be periodically conducted by Reclamation to determine if cultural resources are being impacted by the recreational trail users. If archaeological resources are being impacted, Reclamation would coordinate with CAWCD, the County, and any third-party agreement entity.
- An archaeological monitor in coordination with Reclamation's archaeologist will be present during ground disturbing activities (i.e., grading, earthwork, digging, etc.) at the one trailhead to avoid or minimize impacts to AZ U:15:124(ASM).

Recreation

The County's O&M plan will incorporate the following mitigation and management measures:

- Posting and maintaining public information signs at the trailheads and trail access points.
- Provide signage (trail location/markers) along the trail every 1 mile or at turns/bends as necessary. Provide signage (trail location/markers) every quarter mile in locations determined by Reclamation to encourage users to stay on the trail.
- Removing trash and waste along the trail and at the trailhead.
- Installing and maintaining the post and cable fencing at the trailheads in order to minimize vehicles from traveling off-road.
- Conducting monitoring patrols to identify trail-related unauthorized or unplanned visitation off-trail on adjacent lands.
- Recommending remedial measures to reduce opportunities for trespass.
- Implementing remedial measures approved by Reclamation to reduce opportunities for trespass.

Air Quality, Climate Change, and Greenhouse Gas

- Fugitive Dust permit would be obtained and followed.
- County would apply its obligations for PM-10 activities under their existing General Construction Permit with ADEQ.
- A water truck would be on site during construction of the trailheads per Pinal County dust control requirements.