



**TEP Patriot Substation
Special Exception Land Use
Preliminary Development Plan Application**

ZE SELU Application

Time Stamp: _____



CITY OF TUCSON PLANNING & DEVELOPMENT SERVICES

**APPLICATION
ZONING EXAMINER SPECIAL EXCEPTION PROCEDURE (ZESE)**

SE- 21-06 **Name:** TEP Patriot Substation - Escalante **Date Accepted:** _____

PART 1 PROPERTY INFORMATION:

Legal Description (Attach a separate sheet for long legals.)

Lot(s) _____ Block(s) _____ Subdivision Name See Attached Legal Description below

Address (as assigned by Pima County Addressing): 6980 East Escalante Road Tucson, AZ 85730

Please provide the following information for each parcel in the ZESE special exception site. (Attach additional sheet if necessary.)

Current Zoning	Current Use	Area (sq. ft or acres)	Assessor Tax Code #
<u>SR</u>	<u>DMAFB AMARG Military Plane Storage</u>	<u>15.78 AC</u>	<u>136-27-0010</u>
_____	_____	_____	_____
_____	_____	_____	_____

- Note any applicable overlay zones: Hillside Scenic Corridor Major Streets and Routes
- Gateway Corridor Airport Environs Environmental Resource Historic District/Landmark
- Neighborhood Preservation

PART 2 PROPOSED USE

Proposed Use (Please be specific; attach additional sheet if necessary.)

Tucson Electric Power (TEP) is proposing a 138 kilovolt (kV) Substation at the SE corner of Escalante Road and Kolb Road.

Number of Structures NA Number of Stories NA Height of Structures 25'
Number of Residential Units NA Floor Area of Non-residential Projects NA

PART 3 APPLICANT INFORMATION

Applicant or Agent Brian Pugh, AICP

Company Name Tucson Electric Power

Address 3950 East Irvington Road

City Tucson State Arizona Zip 85714

Phone 520-460-6417 Fax NA Email bpugh@tep.com

Owner Real Estate Division - John Cahill, Real Estate Administrator

Company Name City of Tucson

Address 201 N. Stone Ave., 6th Floor

City Tucson State Arizona Zip 85726-7210

Phone 520 791-4181 Fax NA Email John.Cahill@tucsonaz.gov

Architect/Engineer/Other Kevin Hall

Company Name Cypress Civil

Address 2030 East Speedway Boulevard, Suite #110

City Tucson State Arizona Zip 85719

Phone 520-499-2456 Fax NA Email kmhall@cypresscivil.com

PART 4 PRE-APPLICATION CONFERENCE INFORMATION

Have you attended a pre-application conference with staff? Yes No

Date of pre-application conference: February 24, 2021

Provide the tracking number from your Pre-application Conference Verification Sheet: T 21PRE0036

If no, contact Rezoning Section staff at 520-791-5550 for more information.

PART 5 NEIGHBORHOOD MEETING

Have you offered to meet and discuss the proposed ZESE special exception on a specified date and time with all property owners within 300 feet and all neighborhood associations within one (1) mile of the ZESE special exception site? Yes No

Attach documentation and summary, and indicate date of contact. March 15, 2021
date of contact

Provide the tracking number from your neighborhood meeting mailing labels: T21PRE0038

PART 6 PLANNING INFORMATION

In accordance with the *Unified Development Code* (Section 3.2.3) ZESE special exception applications, together with any supporting documentation, including the preliminary development package (Administrative Manual 2-03.3 and.4), are reviewed for compliance with the City of Tucson *General Plan*, as implemented by specific plans, redevelopment plans, subregional plans, area plans, and neighborhood plans. This review shall occur within seven (7) business days of submittal. ZESE special exception requests that do not demonstrate compliance with the *General Plan* cannot be accepted.

List any specific plans, redevelopment plans, subregional plans, area plans, or neighborhood plans officially adopted by the City of Tucson, which apply to the special exception site. Yes No

Name of Plan(s) South Pantano Area Plan

Are there any billboards or signs located on the property? Yes No If yes, provide description below.

Briefly describe how the project will be designed to be compatible with adjoining development and any applicable plan policies. (Use additional sheets, if necessary.)

The South Pantano Area Plan Policies regarding development near DMAFB state:

- Ensure compatibility of new development with existing and future operations of DMAFB.
- Ensure compatibility of base operations with existing and potential adjacent development.

The Project design and site location are compatible with surrounding land uses and DMAFB operations while providing the necessary public infrastructure to promote continued development in the area.

PART 7 MATERIALS REQUIRED WITH APPLICATION

- A completed "City of Tucson Zoning Examiner Special Exception Procedure Application" signed by the owner and agent*.
- Seven (7) copies of the preliminary development package (PDP) (Admin. Manual 2-03.3 &.4).
- One (1) 11"x17" reduction of the PDP map (Admin. Manual 2-04.2.A &.B).
- Seven (7) copies of the Environmental Resource Report (Admin. Manual 2-03.5), as required.
- A statement addressing how the applicable use-specific standards have been addressed.
- Pre-application Conference Verification Sheet.
- Documentation of neighborhood meeting (at a minimum, a copy of the meeting invitation, mailing list, sign-in sheet and summary notes from the meeting).
- One (1) copy of the Pima County Assessor's map of the subject parcel(s) and printout showing the subject parcel(s) property tax code number(s) and legal description(s).
- Payment receipt for rezoning pre-application conference.
- Payment receipt for neighborhood meeting mailing labels.
- Appropriate fees payable to the City of Tucson.
- IMPORTANT NOTICES:
 - Do not staple materials. Paper clips or binder clips are acceptable.
 - Do not incorporate application or neighborhood meeting materials into required reports. Keep them separate.

PART 8 SIGNATURES

I (We), the undersigned, request consideration for the Zoning Examiner Special Exception request as described in this application and supporting materials. I (We) represent that the information in this application and the supporting materials are true and accurate to the best of my (our) knowledge.

See attached agent authorization letter (below)

Owner's signature*



date

April 2, 2021

Applicant/Agent signature (if not owner)

date

*An application not signed by the owner, must be accompanied by a separate, signed letter, from the owner, granting authority to the applicant/agent to act on his/her behalf.

Revised 01/10/13

Letter of Authorization

I hereby certify that I am an authorized representative of the City of Tucson, as the Real Estate Administrator, I represent the City of Tucson as the owner of record for the property referenced below. Tucson Electric Power, as potential buyer of this property, is hereby granted full access to said property to conduct any necessary due diligence and pursue all necessary permits from any government entity, such as a Special Exception Land Use Permit (SELUP) from the City of Tucson.

Said grantee, Tucson Electric Power, is to also coordinate any access with Davis Monthan Air Force Base which currently has a leasehold interest in said site.

Property Address: Parcel No. 136-27-0010 – The NE corner of Escalante Road and Kolb Road (See attached exhibit).

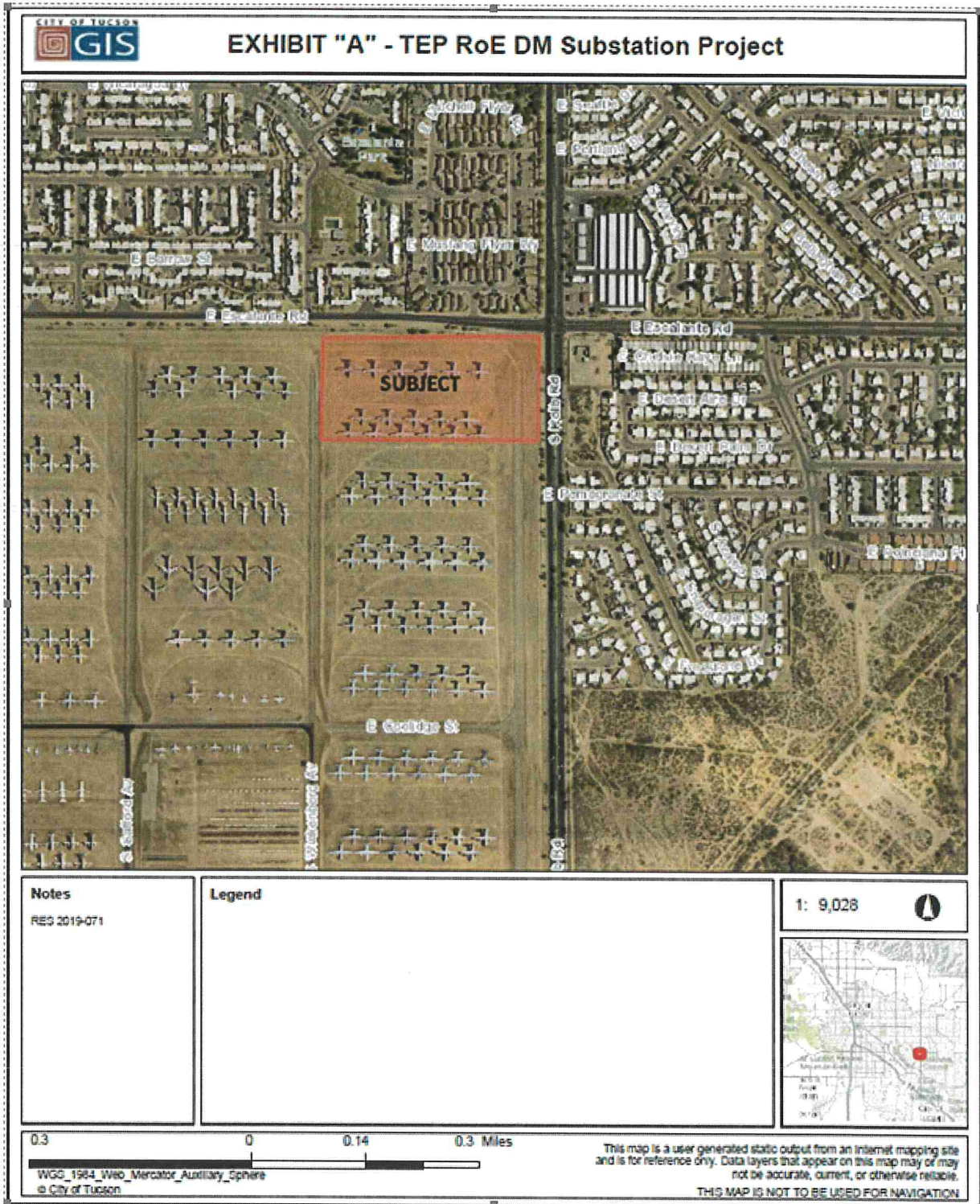
Authorized by:

By:  _____

John Cahill, ~~Real Estate Administrator~~
City of Tucson
Real Estate Administrator

Date: 2.12.2021

EXHIBIT "A"





PUTT LAND SURVEYING, INC.

PHONE: (520) 790 8373 • FAX: (520) 512 8373
4817 EAST 5TH STREET • TUCSON, ARIZONA 85711

EXHIBIT "A"
PROPOSED PARCEL LEGAL DESCRIPTION
(a portion of Davis-Monthan Air Force Base)

A portion of land lying within that certain parcel of land described in Deed Book 251 at Page 124 as recorded in the Office of the Recorder, Pima County, Arizona, being a portion of the Northeast Quarter of Section 31, Township 14 South, Range 15, East, Gila and Salt River Meridian, Pima County, Arizona, more particularly described as follows:

COMMENCING at the Northeast corner of said Section 31, as marked by a two and one-half inch Arizona Department of Transportation brass cap survey monument in casting, from which the North Quarter corner of said Section 31, as marked by a two inch brass cap survey monument in concrete, LS 4785, bears South 89° 31' 28" West (basis of bearings), a distance of 2,646.07 feet, and from which the Southeast corner of said Section 31, as marked by a two and one-half inch Arizona Department of Transportation brass cap survey monument in casting, bears South 00° 51' 40" East, a distance of 5,300.11 feet;

THENCE South 89° 31' 28" West, a distance of 75.00 feet along the North line of the Northeast Quarter of said Section 31;

THENCE South 00° 51' 40" East, a distance of 75.00 feet to a three and one-quarter inch United States Department of Interior brass cap survey monument, stamped "DMAFB AP 3" marking the intersection of the South right of way line of Escalante Road, as shown on Book 12, Page 61, Road Maps, and the West right of way line of Kolb Road, as shown on Book 13, Page 30, Road Maps, and the **POINT OF BEGINNING**;

THENCE continue South 00° 51' 40" East, a distance of 550.00 feet along the West right of way line of said Kolb Road;

THENCE South 89° 31' 28" West, a distance of 1,250.00 feet;

THENCE North 00° 51' 40" West, a distance of 550.00 feet to the South right of way line of said Escalante Road;

THENCE North 89° 31' 28" East, a distance of 1,250.00 feet along said South right of way line to the **POINT OF BEGINNING**.

The above described parcel contains **15.783 acres**, more or less.



NORTH QUARTER CORNER
SECTION 31, FOUND 2" BRASS
CAP SURVEY MONUMENT IN
CONCRETE, LS 4785

POINT OF COMMENCEMENT
NORTHEAST CORNER SECTION 31, FOUND 2-1/2" ARIZONA DEPARTMENT
OF TRANSPORTATION BRASS CAP SURVEY MONUMENT IN CASTING

ESCALANTE ROAD (PUBLIC)

BOOK 12, PAGE 61, ROAD MAPS

S89°31'28"W BASIS OF BEARINGS 2646.07' (M)

75.00' (R & C)



NORTH
SCALE: 1" = 300'

N00°51'40"W
550.00'

N89°31'28"E 1250.00'

**PROPOSED
PARCEL**
±15.783 acres

S00°51'40"E
550.00'

S89°31'28"W 1250.00'

POINT OF BEGINNING
FOUND 3-1/4" UNITED STATES DEPARTMENT
OF INTERIOR BRASS CAP SURVEY MONUMENT
IN CONCRETE, "DMAFB AP3"

L1 S89°31'28"W 75.00'
L2 S00°51'40"E 75.00'

PARENT PARCEL

apn: 136-27-0010
owner: CITY OF TUCSON

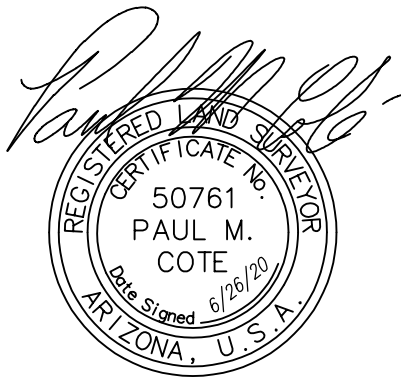
(PORTION OF DAVIS-MONTHAN AIR FORCE BASE)

S00°51'40"E 5300.11' (M)

KOLB ROAD (PUBLIC)
BOOK 13, PAGE 30, ROAD MAPS

75.00' (R & C)

SOUTHEAST CORNER SECTION 31, FOUND 2-1/2"
ARIZONA DEPARTMENT OF TRANSPORTATION BRASS
CAP SURVEY MONUMENT IN CASTING



PROPOSED PARCEL LEGAL DESCRIPTION SKETCH

DRAWN:	PMC
CHECKED:	DLP
DATE:	6/26/20
JOB No.:	20-140
PAGE	2 of 2

A PORTION OF THE NORTHEAST QUARTER
OF SECTION 31,
TOWNSHIP 14 SOUTH, RANGE 15 EAST,
GILA AND SALT RIVER MERIDIAN,
PIMA COUNTY, ARIZONA

PLS **PUTT LAND
SURVEYING, INC.**
4817 EAST FIFTH STREET, TUCSON, ARIZONA 85711
TELEPHONE: (520) 790-8373 FAX: (520) 512-8373



Special Exception Land Use Application Including Preliminary Development Plan

Patriot 138 Kilovolt Substation

6980 East Escalante Road
Tucson, Arizona 85730
Pima County Tax Assessor Parcel No. 136-27-0010

Submitted to:

City of Tucson
Planning and Development Services Department
201 North Stone Avenue
Tucson, Arizona 85701

Prepared by:

Tucson Electric Power
3950 East Irvington Road
Tucson, Arizona 85714
(520) 396-2986

With assistance from:

Cypress Civil
2030 East Speedway Boulevard, Suite #110
Tucson, Arizona 85719
(520) 499-2456

and

ARC Studios Inc.
3117 E Flower Street
Tucson, Arizona 85716
(520) 882-9655

Date April 2021

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Appendix A. Legal Description

Appendix B. Class I Report

Appendix C. Drainage Report

Appendix D. Phase 1 ESA

Appendix E. ERR

Appendix F. DMAFB Letter of Support

Acronyms

ADOT	Arizona Department of Transportation
AEZ	Airport Environs Zone
AGFD	Arizona Game and Fish Department
AHD	Airport Hazard District
AMARG	Aerospace Maintenance and Regeneration Group
BE	Biological Evaluation
cfs	cubic feet per second
C.I.P.	COT Capital Improvement Program
COT or City	City of Tucson
DMAFB	Davis Monthan Air Force Base
DOD	Department of Defense
ERR	Environmental Resource Report
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FIRM	Federal Insurance Rate Map
FWS	U.S. Fish and Wildlife Service
GIS	Geographic Information System
HDMS	Heritage Data Management System
kV	kilovolt
PDP	Preliminary Development Plan
PI	Plan Tucson's Public Infrastructure, Facilities, & Cost of Development
REC	Recognized Environmental Conditions
SCS	United States Soil Conservation Service
SELU	Special Exception Land Use
SR	Suburban Ranch Residential Zone
SPAP	South Pantano Area Plan
TAA	Tucson Airport Authority
TEP	Tucson Electric Power Company
TIA	Tucson International Airport
TROW	Tierra Right of Way Services
UDC	Unified Development Code
WASH	Watercourse, Amenities, Safety, and Habitat

Executive Summary

Tucson Electric Power Company (TEP) is requesting approval of an electric substation as a Special Exception Land Use in the Suburban Ranch (SR) zone within the City of Tucson. TEP is proposing the construction of the Patriot 138/13.8 kilovolt (kV) distribution substation (the Project), and transmission and distribution power lines on 15.78 acres on the Davis-Monthan Air Force Base (DMAFB). The Project will support the Department of Defense (DOD) mandate to enhance energy resilience and provide back-up support for other TEP substations in east Tucson. The Project will strengthen electric reliability for customers, meet future energy needs, and expand power capacity in the area to help drive economic development around DMAFB.

In the process of routine system analysis, TEP's Asset Management Group determined that the existing 46 kV transformer and switchgear at the Davis-Monthan Substation were nearing their practicable end of life. This determination coincided with a 2017 DOD directive for all military installations to enhance energy resilience. The DOD declaration requires energy assurance and instructs all installations to target and eliminate vulnerabilities that threaten potential energy disruptions. The Project will also allow TEP to strengthen and modernize the infrastructure that provides service to customers in the area, both on and outside the base. Additionally, the Project will support TEP's long-term goal of retiring several older 46 kV substations in the area.

TEP plans to build the Project on a 15.78-acre parcel purchased from the City of Tucson. The Project, located on the southwest corner of East Escalante and South Kolb roads, is currently used for the 309th Aerospace Maintenance and Regeneration Group (AMARG) military aircraft storage on DMAFB. The Project is located in Township 14 South, Range 15 East, Section 31, Gila and Salt River Baseline and Meridian, Pima County, Arizona. Selection of the Project site was established on the need to interconnect with the Irvington to East Loop 138 kV transmission line and coordination with DMAFB and AMARG to select a suitable site on DMAFB. The Irvington to East Loop 138 kV transmission line was approved by the Arizona Corporation Commission in April of 2020.

The Project includes two transformers, switchgear and other electrical equipment that converts 138 kV transmission voltages to distribution levels. This will provide electrical load support to multiple distribution circuits on Davis-Monthan, energy security for mission readiness, and help prevent outages at adjacent substations by providing additional capacity.

1. INTRODUCTION AND POLICY

This report is intended to demonstrate compliance with the general procedures and application submittal requirements necessary to process a Special Exception Land Use (SELU) pursuant to the COT Unified Development Code (UDC) Article 3 and Administrative Manual Section 2. This report is generally organized to follow the provisions outlined in Section 2-03.4 for Preliminary Development Package (PDP) Content Requirements.

The Project complies with the COT's General Plan and zoning regulations, and will comply with all relevant land use standards and regulations. The following sections are intended to demonstrate that the Project meets the intent of plan policies.

A. Subregional, Area, and/or Neighborhood Plans

Plan Tucson, the South Pantano Area Plan (SPAP) and the COT Unified Development Code provided land use and development guidance for the Project. Project compliance with each of these plans is described in the following paragraphs. Exhibit 2. Applicable Plans depicts the Project in relation to the SPAP.

B. Adopted Plan Policies

1. Plan Tucson

Plan Tucson, the City of Tucson's General & Sustainability Plan, identifies the Project as part of the Davis-Monthan Air Force Base and is excluded from the City's Future Growth Scenarios. The following list of policies and guidelines were used to ensure infrastructure and facility construction is sensitive in design and location, minimizing impacts to surrounding resources.

Land Use, Transportation & Urban Design

LT 28: Apply Guidelines for the Development Review to the appropriate Building Blocks in the Future Growth Scenario Map to evaluate and provide direction for annexations, plan amendments, rezoning requests and special exception applications, Board of Adjustment appeals and variance requests, and other development review applications that require plan compliance.

Applicable Guidelines for Development Review

- LT 28.1.1: Utilize solutions and strategies included in the Design Guidelines Manual to provide an improved level of community design,
- LT 28.1.3: Improve the appearance of above-ground utilities and structures and extend access to high-tech wireless communications facilities throughout the city.
- LT 28.1.11: Support the retention and expansion of existing business
- LT 28.1.12: Support conservation and efficient water use in an effort to minimize the need for new water sources.

- LT28.2.14: Protect established residential neighborhoods by supporting compatible development, which may include other residential, mixed-use infill and appropriate nonresidential uses.

Public Infrastructure, Facilities, & Cost of Development Policies (PI)

- PI1: Invest in highest priority needs to manage and maintain public infrastructure and facilities that are fundamental to economic development and to sustaining and enhancing living conditions in the community.
- PI2: Prioritize major public infrastructure investments in developed areas and for improvements of the existing infrastructure
- PI3: Expand the use of state-of-the-art, cost-effective technologies and services for public infrastructure and facilities.
- PI7: Coordinate with utility companies and other public service providers for the planning of infrastructure, facilities, and services, making sure infrastructure and facility construction is sensitive in design and location to environmental and historic resources.

The Project is compatible with surrounding residential and commercial land uses. Along Escalante Road, TEP will construct an earthen-tone 12-foot masonry security wall and a 35-foot wide earthen-adapted landscape border adjacent to the existing Aviation Greenway multi-use path. Along Kolb Road the Project will continue the earthen-tone 12-foot masonry security wall along with a 126-foot wide drainage border featuring desert-adapted landscaping. Adjacent to the landscape border, Proposition 407 is proposing a multi-use path along Kolb Road within the road right-of-way. The construction of this project will strengthen energy infrastructure in the area, increase service reliability for customers and improve the recreational experience of pedestrians and bicyclists in the area.

The Project complies with the adopted plan policies.

2. South Pantano Area Plan

Due to the large area included in the South Pantano Area Plan (SPAP), policies were separated into generalized policies applying to the Plan area as a whole and Subarea policies that would address specific situations within the Plan area. The Project site does not fall within a designated Subarea nor do the general policies provide specific land use guidance for utility-related improvements. SPAP Policies regarding development near DMAFB state:

- Ensure compatibility of new development with existing and future operations of DMAFB.
- Ensure compatibility of base operations with existing and potential adjacent development.

The Project design and site location are compatible with surrounding land uses and DMAFB operations while providing the necessary public infrastructure to promote continued development in the area. Exhibit 1. Applicable Plans depicts the Project in relation to this plan.

The Project complies with the South Pantano Area Plan.

3. Zoning Code

The COT UDC, Administrative Manual, and the Technical Standards Manual was adopted on January 2, 2013, replacing the Land Use Code, Development Standards, and the development review procedures in Chapter 23A of the Tucson Code.

The Project is zoned Suburban Ranch (SR). This zone provides for low density, large lot, single-family residential development and suburban ranch uses. Other uses allowed under the Special Exception Land Use process include Distribution System: Limited to Power Substation (Input Voltage of 115 Kilovolts or Greater) class within the Utilities Land Use Group. Section 4.9.11.A of the UDC outlines the use-specific standards applicable to the Project.

C. Conflicts with Adopted COT Ordinance or Policy

During the SELU process, the Zoning Examiner has the authority to apply conditions of approval to the SELU permit that minimize potentially injurious effects on adjacent properties, the character of the neighborhood or the health, safety or welfare of the community.¹ As described in subsection 3.B.7.c below, in order to provide appropriate and safe screening along the perimeter of the Project, the SELU application includes a proposal to increase the height of the wall to 12 feet. An increase of 2 feet above the height maximum described in Section 4.9.11.A.9 of the UDC.

¹ UDC § 3.4.6.A.

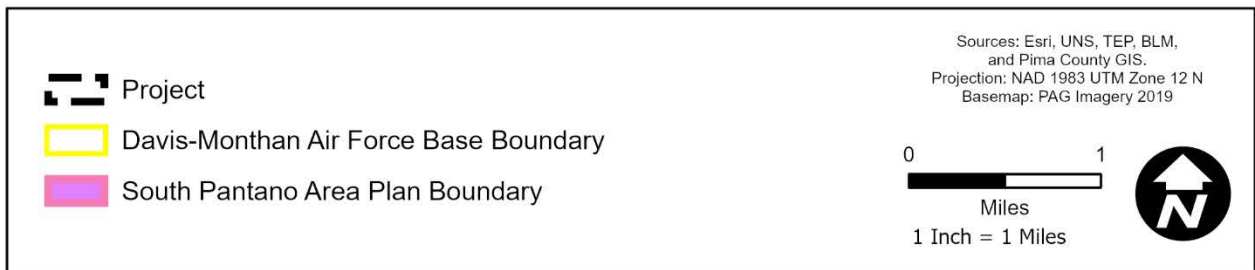
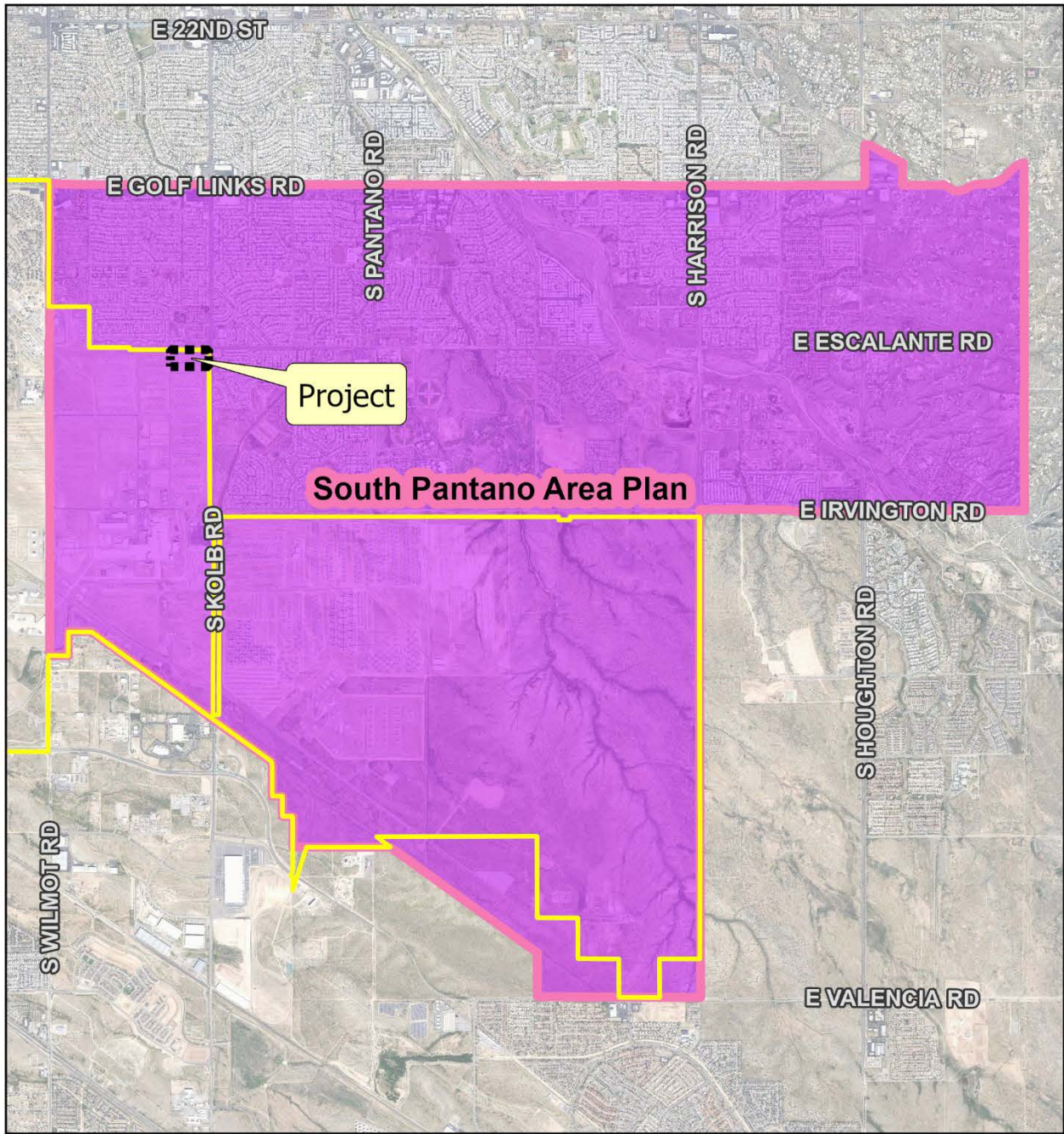


Exhibit 1. Applicable Plans

2. SITE ANALYSIS

A. General

1. Table of Contents

A table of contents is included at the beginning of this document.

2. Project Location Map

Please see Exhibit 2. Project Location Map showing the location of the Project. The Project is located at the southwest corner of Escalante Road and Kolb Road.

3. Generalized Land Use Map

Please see Exhibit 3. Generalized Land Use Map for a map showing the generalized land uses surrounding the Project Site. The Project is surrounded by residential land uses to the north and east and the AMARG military aircraft storage facility to the west and south.

4. Property Boundary Dimensions

The Project boundary dimensions 1,250 feet by 550 feet. The legal description is in Appendix A. Legal Description.

5. Existing Zoning

Existing zoning of the parcel and adjacent land is depicted on Exhibit 4. Existing Zoning. The Project is zoned Suburban Ranch Zone (SR). Adjacent zoning designations are as follows:

- North- Residence Zone 2 (R-2)
- Northeast- Commercial Zone 1 (C-1)
- East- Suburban Ranch Zone, Commercial Zone 1 and Residence Zone 2
- South- Suburban Ranch Zone

6. Location, Size, and Height of Adjacent Existing Buildings

There are no buildings within 100 feet of the Project. The nearest buildings are located in the Rincon Aviator subdivision on the north side of Escalante Road and have an approximate height of 20 feet.

7. Location, Size, and Height of Existing and Proposed Buildings On-site

The Project site has no existing buildings. The location of all substation equipment, including the control shelter, is depicted in Exhibit 9. Preliminary Development Plan – A (design version). See Section 3.A below for a description of the substation equipment.

8. Billboards

There are no existing billboards on the Project site.

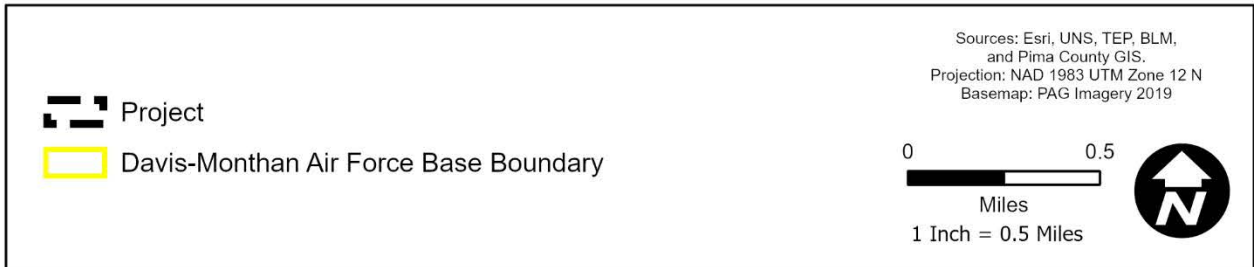
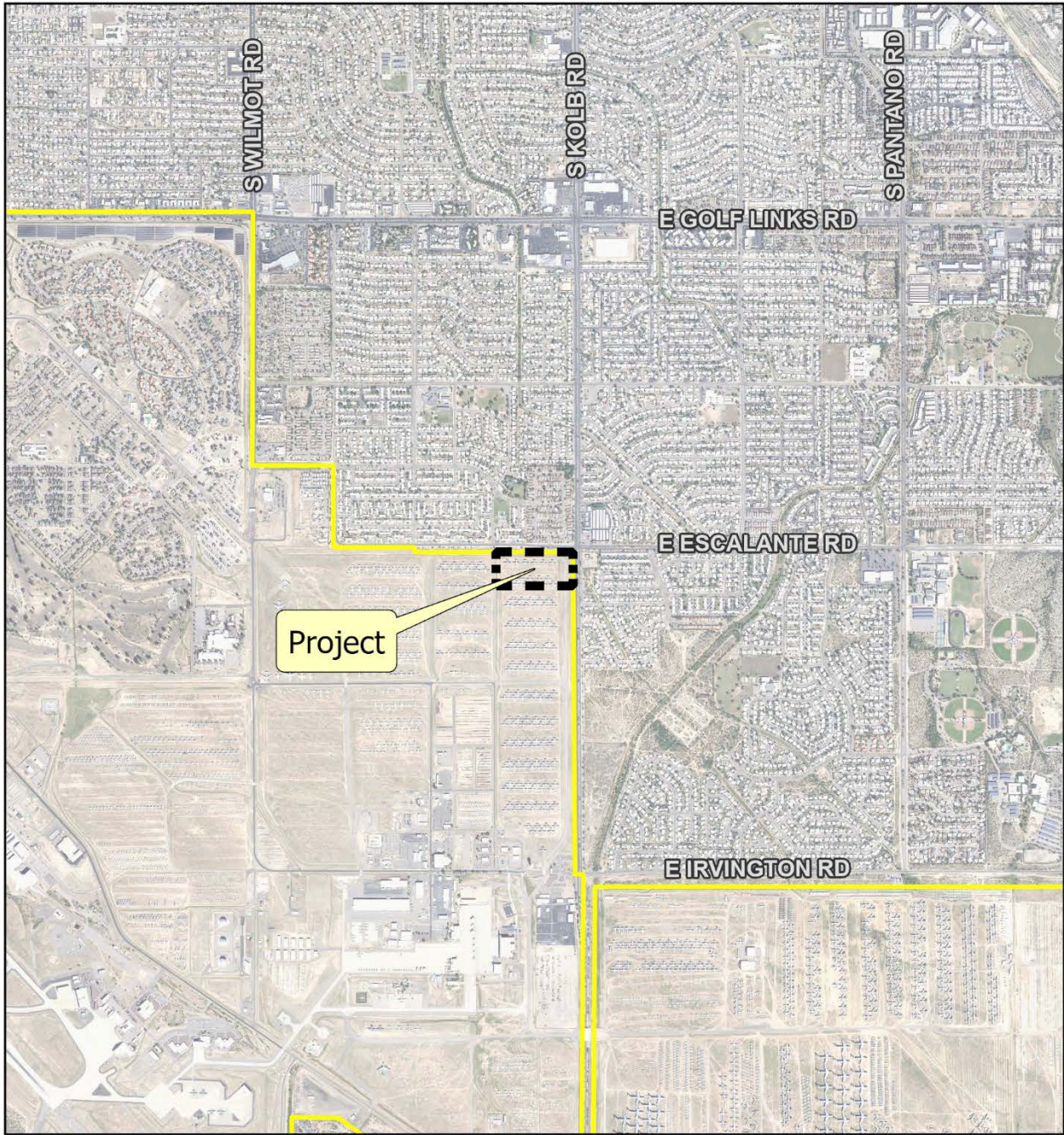


Exhibit 2. Project Location Map

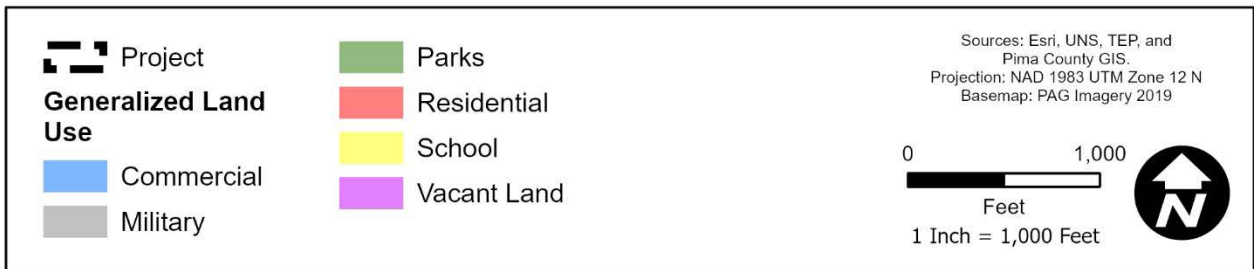
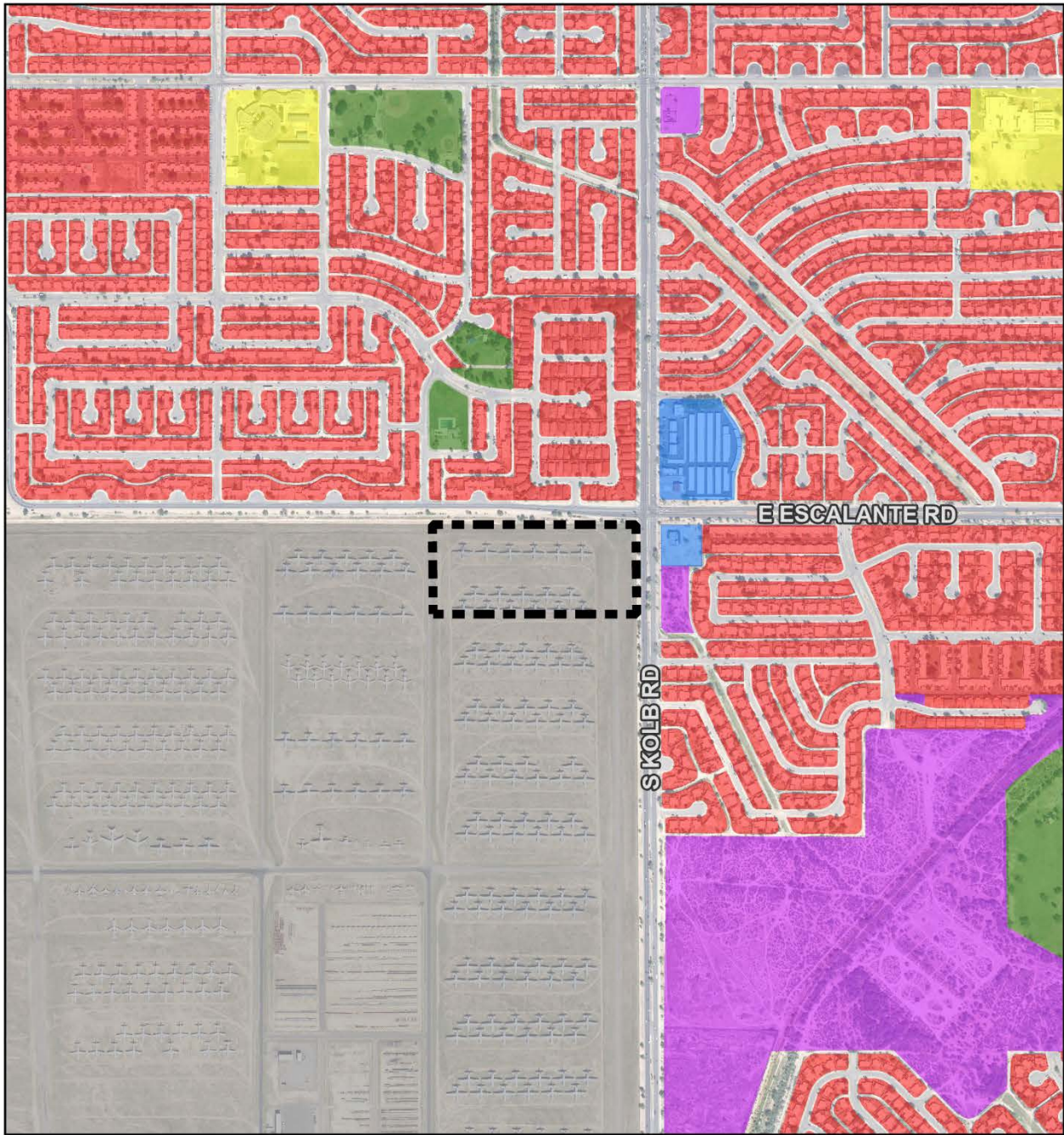


Exhibit 3. Generalized Land Use Map

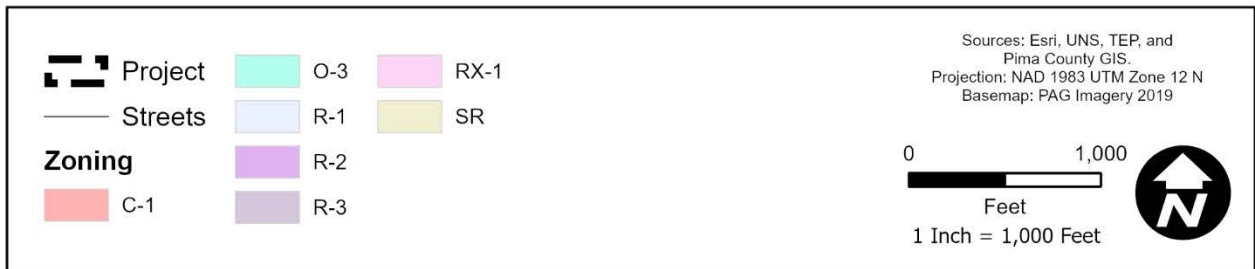
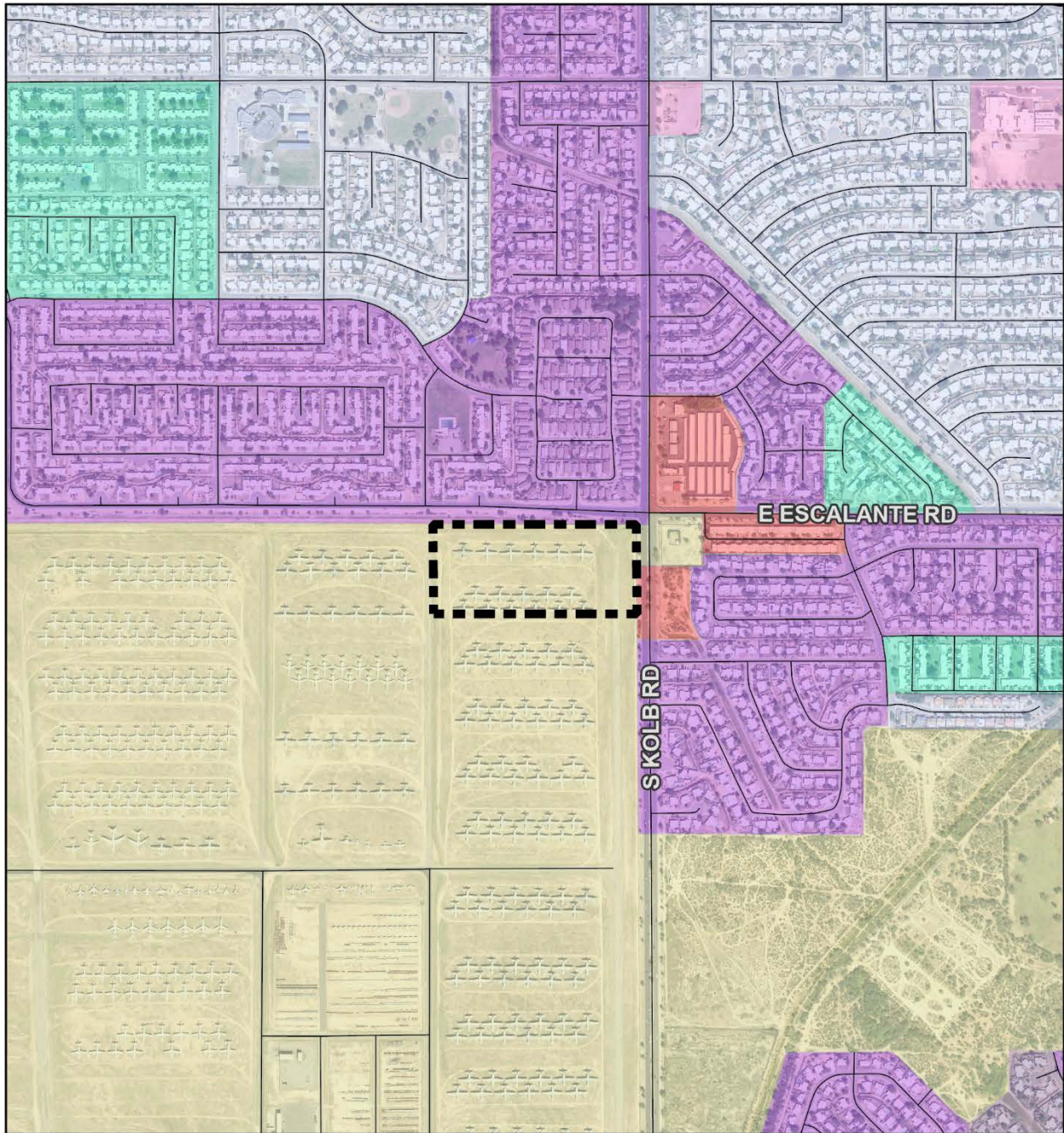


Exhibit 4. Existing Zoning

B. Circulation and Trips

1. Major and Local Streets

South Kolb Road is owned and maintained by the City of Tucson and is identified as a “Gateway Arterial” by the COT “Major Streets and Routes Plan” and map (MS&RP). Kolb Road is a paved asphalt street consisting of four lanes and a raised center median with curb cuts for center turn lanes in either direction. Existing right-of-way width is 150 feet and is built out to the extent described by the MS&RP. The Project Site is bounded by Kolb Road to the east. Project-associated transmission and distribution infrastructure will be located along this arterial.

East Escalante Road is owned and maintained by the City of Tucson and is designated as an Arterial Street by the MS&RP with a future right-of-way width of 150-feet. Escalante Road is a 2-lane paved asphalt street measuring approximately 40 feet and widens to include a turn lane at the intersection with South Kolb Road. The Project Site is bounded by Escalante Road to the north.

Major and local streets and street widths are depicted on Exhibit 9 Preliminary Development Plan – A (design version).

2. Existing and Proposed Curb Cuts and Access Drives

There are no existing curb cuts or access drives. The proposed access drives will be located on East Escalante Road and are depicted on Exhibit 9. Preliminary Development Plan – A (design version).

3. Deceleration and Turn Lanes

There are no existing deceleration or turn lanes in the area of the Subject Parcel. Based on current conditions along South Kolb Road and anticipated traffic to the Project Site, none are planned.

4. Existing and Proposed Curbs, Driveways, Sidewalks, and Bike Paths

Along the south side of Escalante Road there are no driveways or sidewalks. A section of curb measuring 150-feet in length leads up to the intersection with Kolb Road. The Aviation Parkway bike path exists on the south side of Escalante ending at the intersection with Kolb Road. Driveways into the Project Site are proposed as mapped on Exhibit 9. Preliminary Development Plan – A (design version).

Along the west side of Kolb Road there is a raised curb the extent of the Subject Parcel with no driveways or bike paths. An intermittent section of sidewalk exists for approximately 160-feet.

5. Traffic Signals within One Mile

There are five (5) traffic signals within one mile of the Subject Parcel.

- E Escalante and S Kolb Road
- E Escalante and S Pantano Road
- S Kolb Road and E Stella Road
- S Kolb Road and E Golf Links Road
- S Kolb Road and E Irvington Road

6. Nearest Existing and Proposed Public Transit Stops and Park-and-Rides

There are two nearby public transit stops for Sun Tran Route 450 Southeast Tucson/Rita Ranch North. The first is located on the south side of Escalante Road East of Kolb Road and the second is on the east side of Kolb north of Escalante Road. The nearest Park-and-Ride location is located at the southeast corner of South Kolb Road and East Golf Links Road. No public transit stops or Park-and-Rides are proposed as part of the Project.

7. Projected Date of Any Improvements in the COT Capital Improvement Program (C.I.P.)

No C.I.P projects are currently planned that are expected to affect the Project. Proposition 101 major street improvements are planned for Escalante Road and Kolb Road in the vicinity of the Project. Improvements for both roads consist of a fog seal treatment and is scheduled to begin in fiscal year 2022.

8. Existing Traffic Counts on Major Streets within One Mile

PAG Traffic Count Data (2019)		
Road	Section	AADT
Escalante	Calle Polar to Kolb Road	9,336
Escalante	Kolb Road to Pantano Road	7,894
Kolb Road	Stella Road to Escalante Road	32,276

9. Trip Generation Calculations

The Project will be an unmanned facility and will generate on average only two trips per month, except in the case of an emergency.

C. Cultural Resources

Tierra Right of Way Services (TRWS), Ltd was contracted to perform a Class I Records search of the Arizona State Museum’s online database, AZSITE, and the DMAFB records to identify archaeological surveys performed within a one mile buffer surrounding the project site. The Class I identified that HDR completed a Class III Survey in 2016 that included the Project location. TRWS recommends no further cultural resources work for the Project (see Appendix B: Class I Cultural Resource Search).

D. Hydrology & Drainage

Additional Hydrology and Drainage information is provided in Appendix C: Drainage Report (Cypress Civil 2021).

1. On-site and Off-site Drainageways

There is a single constructed drainageway on the Project that drains off-site into a catchbasin at the intersection of Escalante Road and Kolb Road eventually draining into the Alamo Wash. See Exhibit 6. Hydrology and Drainage.

2. 100-Year Floodplains

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) Map Panel No. 04019C2312L dated June 16, 2011 indicates that the Project Site and adjacent area is in Zone D, or an area

where flood hazards are undetermined, but possible. The Project is not within the COT regulatory 100-year flood limit (COT 2018).

The existing 100-year floodplain limits are delineated on Figure 2 of Appendix C: Drainage Report.

3. Environmental Resource Zone (ERZ) and Watercourse, Amenities, Safety, and Habitat (WASH) Drainageways

There are no designated ERZ ordinance watercourses, WASH ordinance watercourses or proposed ERZ or proposed WASH watercourses in the vicinity of the Project. See Exhibit 6. Hydrology and Drainage.

4. Erosion Hazard Setback (EHS) Areas

There are no EHS areas on the property as there are no watercourses.

5. Peak 100-Year Event Flow

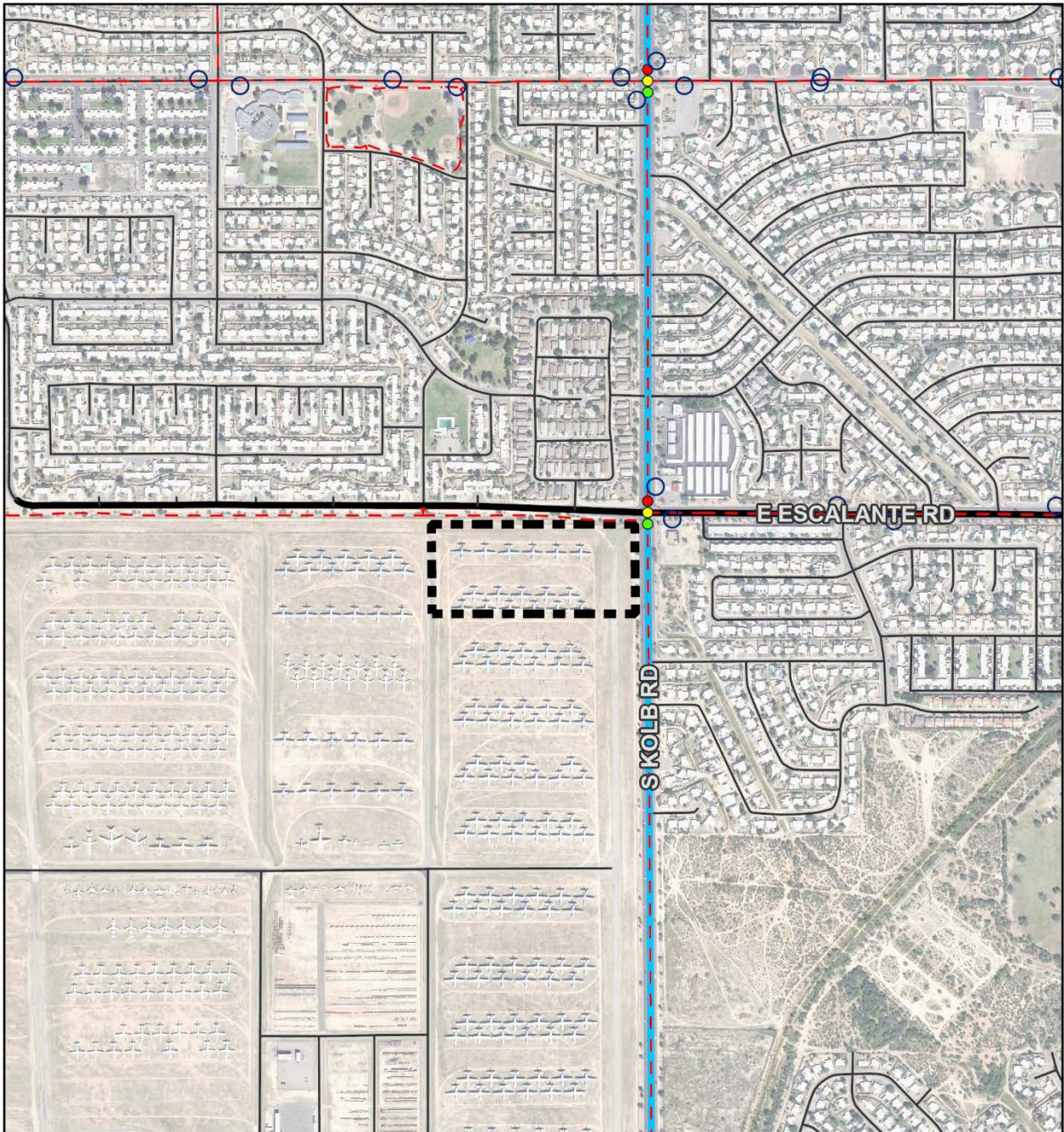
Peak flows enter the site along the southwest corner along Kolb Road and exit at the northeast corner of the Project and at the northwest corner. Along the Kolb Road drainageway, peak 100-year flow values enter the site at 75cfs and exit at the catchbasin at 40cfs. Peak 100-year flows leave the northwest corner of the site at 63cfs. Peak 100-year flow values and locations are depicted in Exhibit 6. Hydrology and Drainage.

6. Existing Condition and Locations of Proposed Retention/Detention Areas

The existing condition at the Project is sheet flow with a channel occurring roughly within a gravel road at the eastern portion of the Project Site conveying flow northward to a culvert at the intersection of Escalante Road and Kolb Road. A future detention basin will be located south of the catchbasin to manage stormwater flows leaving the Project.

7. Applicable Floodplain and Wash Ordinances and Codes

The Project is not subject to the City Floodplain Ordinance.



○	Transit Stops	—	Gateway Arterial	▬	Project	Sources: Esri, UNS, TEP, and Pima County GIS. Projection: NAD 1983 UTM Zone 12 N Basemap: PAG Imagery 2019
●●●	Traffic Signals	—	Arterial Street			
- - -	Bicycle Routes	—	Street			

0 1,000

Feet

1 Inch = 1,000 Feet

Exhibit 5. Circulation

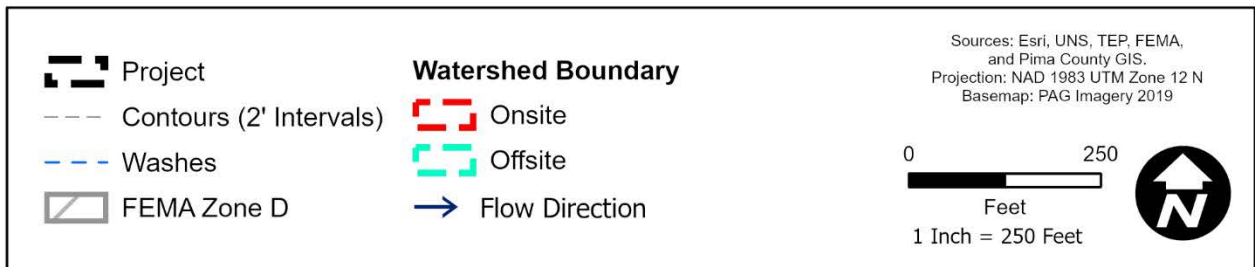


Exhibit 6. Hydrology and Drainage

E. Schools, Recreational, and Cultural Facilities

1. Locations of Schools, Parks, Libraries, and Public Land

Ericson Elementary School and Sonoran Science Academy East are located over 2,000 feet from the Project. Escalante Park and Aquatic Center is located a quarter-mile north of the Project. There are no cultural facilities located within a mile of the Project.

2. Pedestrian and Bike Routes

The Aviation Greenway multi-use path is adjacent to the Project to the north along Escalante Road. Proposition 407 is proposing a multi-use path along Kolb Road

3. Trail and Trail Access Points

There are no public trails or trail access points on or adjacent to the Project.

F. Soils

The United States Soil Conservation Service (SCS) has designated the soils as 100% hydrologic soil Group C. Group C soils are identified as having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of fine or moderately fine texture. These soils have a slow rate of water transmission.

1. Heavily Disturbed Area

The Project has historically been an aircraft storage area for the AMARG facility. Grading and vegetation removal was completed approximately 70 years ago. Regular mechanical maintenance has maintained the surface.

2. Hazardous Materials On-site

A Phase I Environmental Site Assessment (ESA) was completed for the Project Site Western Technologies, Inc. (Appendix D). There are no hazardous materials on the Project Site (placed on the property or naturally occurring), such as landfills, "wildcat" dumps, dross, or radon gas. The Phase I ESA concluded there were no recognized environmental conditions (REC) associated with the Project Site. RECs are defined as: "the presence or likely presence of any hazardous substances or petroleum products on, in, or at the Property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

3. Landfill Sites or Hazardous Materials within 1 Mile

Based on MapTucson (COT 2018) there are no landfill sites or hazardous materials storage within one mile of the Project. Additionally, the Phase I ESA researched federal, state and local governmental environmental records for potential sources of environmental impact located between 0.125-mile and 1-mile from the Project (distance searched depending on the nature of the record). There were no records identified in any of the searched government databases for the Project or surrounding properties.

4. Other Existing Facilities/Operations within 1 Mile

The Project is located on the grounds of the Davis Monthan Air Force Base; however, it is located outside of the Airport Environs Overlay Zone and more than one mile from the runway. The Tucson Water Kolb Reservoir C-D Booster and a Tucson Water production well are located within one mile of the Project. There are no other existing facilities/operations, such as power plants, airports, sewage treatment plants, etc., within one mile that may impact the Project.

G. Topography

1. Topographic Contours or Spot Elevations

Topography ranges from 2,728 to 2,720 feet above mean sea level. Surface gradient slopes northeast. Existing topographic contours and are shown in Exhibit 8. Topography and Soils.

2. Hillside Development Zone

The Project is not located within the Hillside Development Zone.

H. Utilities

There are existing 13.8 kV distribution lines located within the Kolb Road and Escalante Road right-of-way, east and north of the Project, respectively.

I. Vegetation

1. Existing On-site Vegetation

The Project is clear of native vegetation due to the AMARG military aircraft storage land use.

A native plant inventory was completed for the Project. The Environmental Resource Report was prepared by ARC Studios and is included in Appendix E.

2. Existing Landscaping and Screening

There is no existing landscaping or screening along the Project boundaries.

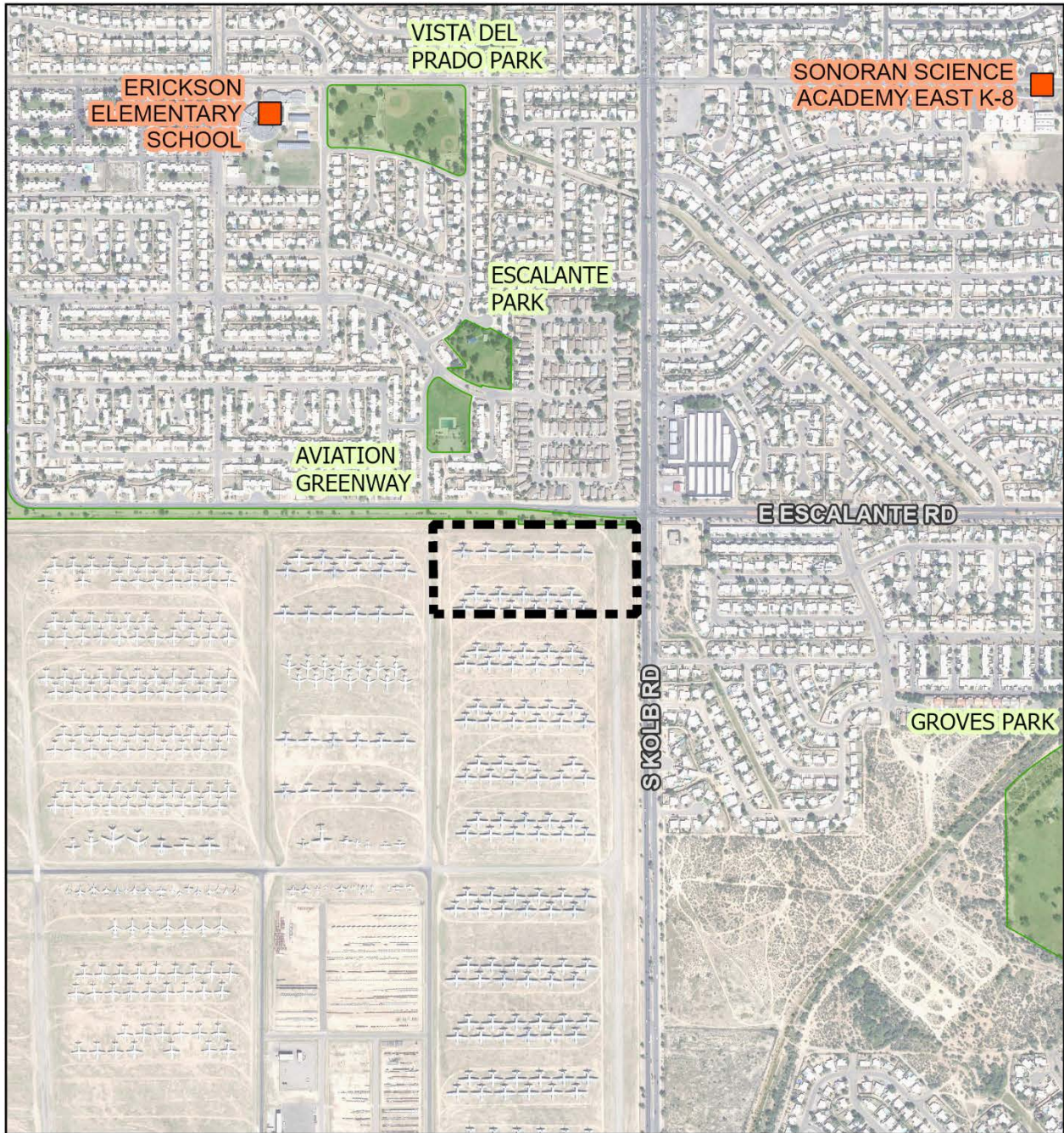
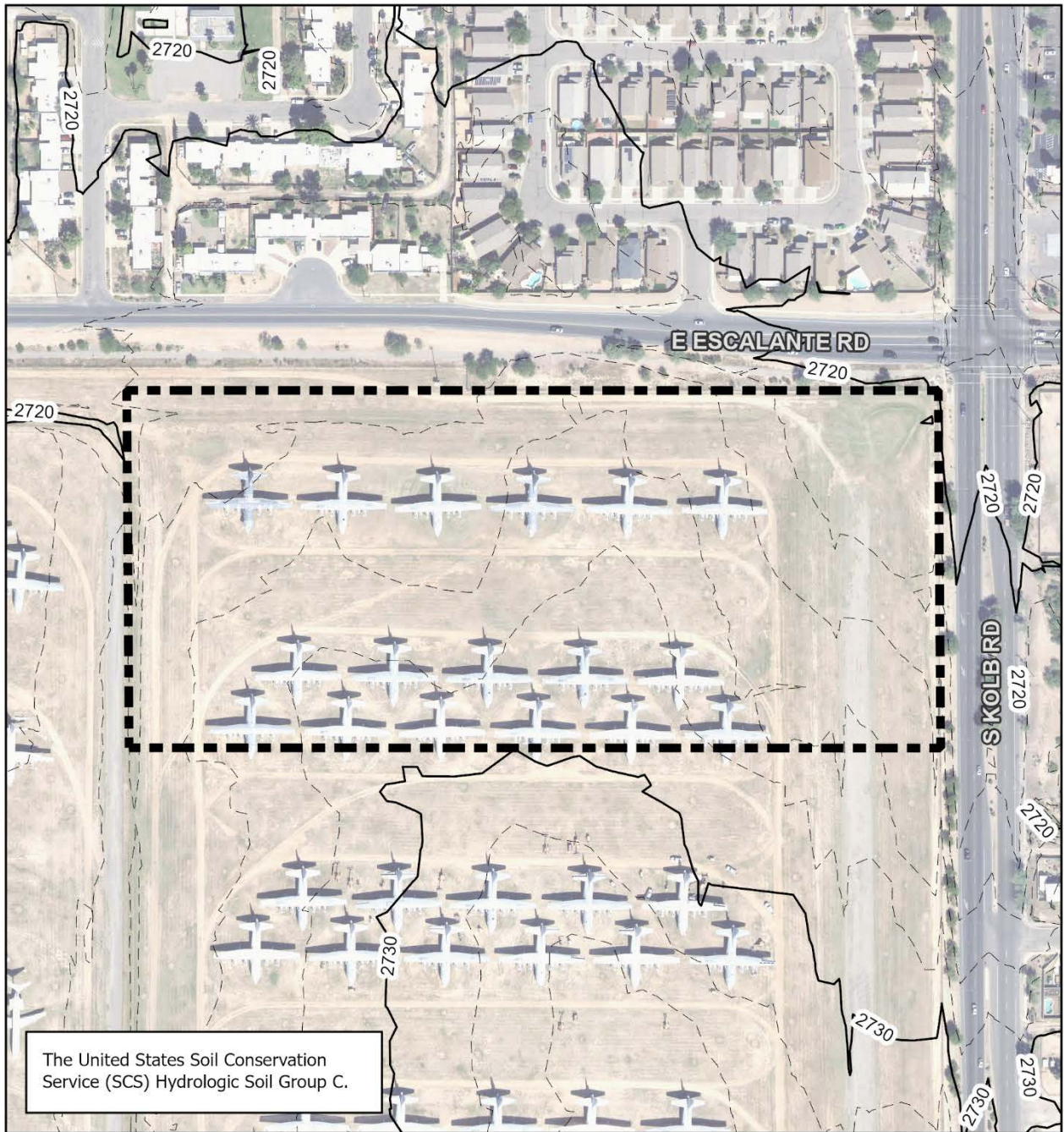


Exhibit 7. Schools, Recreation and Cultural Facilities







<ul style="list-style-type: none">  Project  Contours (2' Intervals)  Contours (10' Intervals) 	<p>Sources: Esri, UNS, TEP, WSS, TNC, and Pima County GIS. Projection: NAD 1983 UTM Zone 12 N Basemap: PAG Imagery 2019</p> <p>0 250</p> <p style="text-align: center;">Feet</p> <p>1 Inch = 250 Feet</p> 
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Exhibit 8. Topography and Soils

J. Views

1. Description of Views of the Site and of Surrounding Area from the Site

Views towards the property are dominated by the AMARG military aircraft storage to the south and west. The property is visible along Escalante Road and Kolb Road and is currently screened with a barbed wire chain link fence which allows full visibility of the existing use.

Views to the north in the foreground are of the Rincon Aviador and Escalante Heights subdivisions. In the distance, views of the Santa Catalina Mountains are present. To the northeast towards the intersection of Escalante Road and Kolb Road the views of the Santa Catalina Mountains become more prominent. To the East, views in the foreground consist of the Tucson Water well site and vacant undeveloped property. In the background the Rincon Mountains are visible in the distance.

Views of the Property

The following photographs of the Subject Property were taken from offsite locations.



View of the property looking southeast at the approximate northwest corner of the property on north side of Escalante Road.



View of the property looking south from the intersection of Lightening Flyer Dr. and Escalante Road.



View of the property looking southwest from the north side of Escalante Road at the intersection with Kolb



View of the property looking east from the east side of Kolb Road south of the intersection with Escalante Road.



View of the property looking west at the approximate midpoint of the eastern boundary on Kolb Road.



View of the property looking northwest on Kolb Road near the intersection with Pomegranate Street.

Views Surrounding the Property

The following photographs were taken from offsite locations.



View from the property looking northwest towards the Escalante Heights Subdivision.



View from the property looking northeast towards the Rincon Aviator subdivision.



View from the property looking northeast at the Aviation Greenway south of Escalante Road.



View from the property looking northeast at the intersection of Escalante Road and Kolb Road.



View from the property looking east at the Tucson Water well site at the intersection of Escalante Road and Kolb Road.



View from the property looking east across Kolb Rd. at Tucson Water well site and vacant undeveloped commercial property.

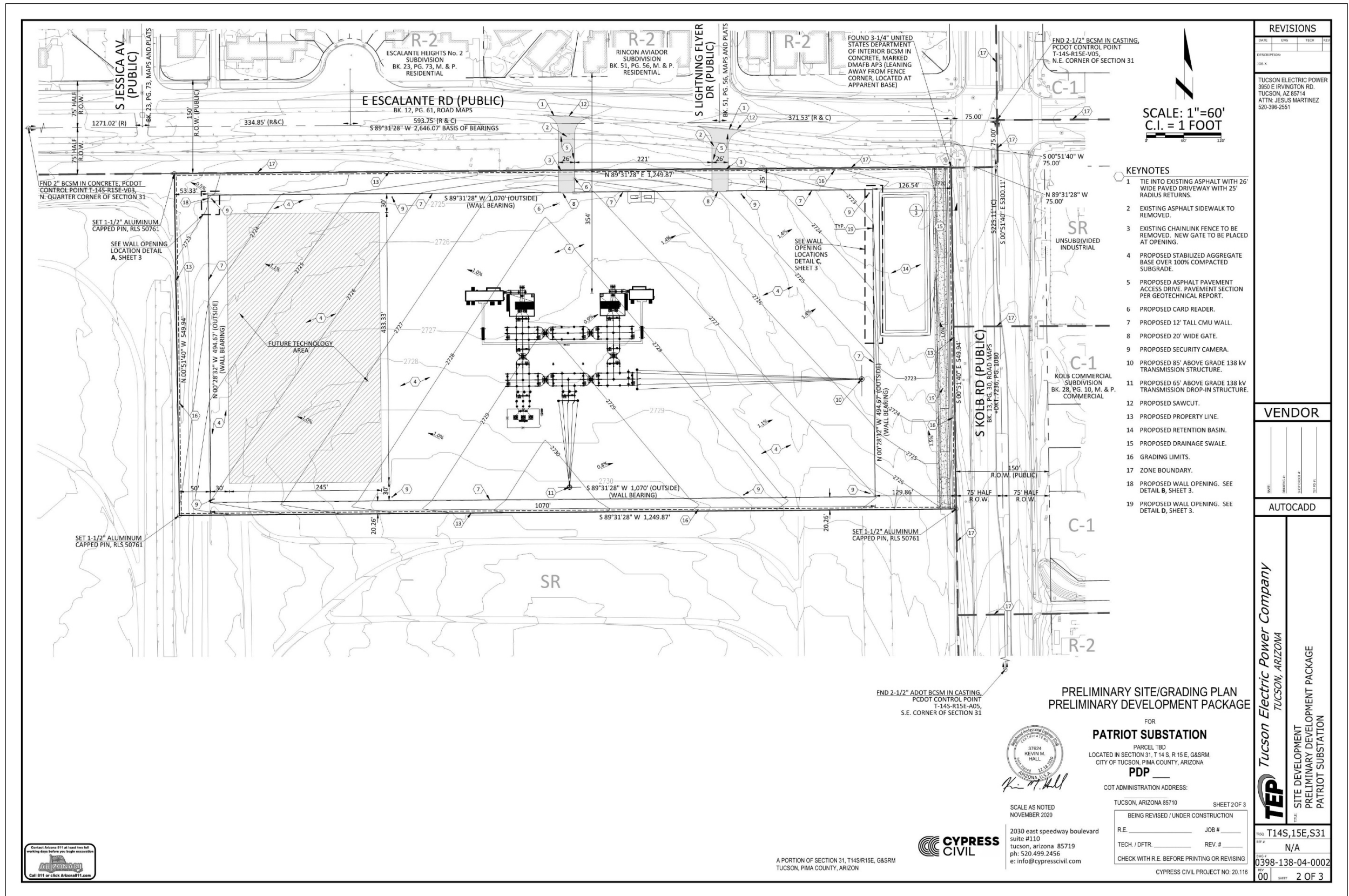
3. PLAN PROPOSAL

TEP substation planners, engineers, and their consultants (the “design team”) have prepared a Preliminary Development Plan (PDP) that shows the proposed configuration of the Project. The design team carefully considered site hydrology, required property setbacks, the location of existing infrastructure, the configuration of transformers and switching equipment, and other technical constraints to identify the optimal location and layout of the substation facility. A PDP has been included as Exhibit 9. Preliminary Development Plan – A (design version) and Exhibit 10. Preliminary Development Plan – B (graphic version).

A. Building Layout

There are no buildings proposed at the Patriot Substation. The substation configuration is shown in Exhibit 9. Preliminary Development Plan – A (design version) and Exhibit 10. Preliminary Development Plan – B (graphic version) and will be enclosed by a 12-foot masonry security wall. The electric transformer equipment will be 25 feet high; bus work is 25 feet high; and the dead-end structures will be 60 feet high. In addition, five 70 foot high lightning protection masts will also be located within the substation enclosure.

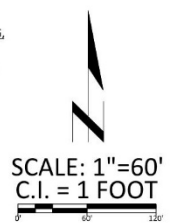
Transmission poles will be installed to support the transmission lines entering and exiting the substation. The height of the transmission structures will be 85 feet. The proposed location of these poles is shown in Exhibits 11-12: Photo Simulations.



REVISIONS

DATE	BY	DESCRIPTION

TUCSON ELECTRIC POWER
 3650 E IRVINGTON RD.
 TUCSON, AZ 85714
 ATTN: JESUS MARTINEZ
 520-396-2551



KEYNOTES

- 1 TIE INTO EXISTING ASPHALT WITH 26' WIDE PAVED DRIVEWAY WITH 25' RADIUS RETURNS.
- 2 EXISTING ASPHALT SIDEWALK TO BE REMOVED.
- 3 EXISTING CHAINLINK FENCE TO BE REMOVED. NEW GATE TO BE PLACED AT OPENING.
- 4 PROPOSED STABILIZED AGGREGATE BASE OVER 100% COMPACTED SUBGRADE.
- 5 PROPOSED ASPHALT PAVEMENT ACCESS DRIVE. PAVEMENT SECTION PER GEOTECHNICAL REPORT.
- 6 PROPOSED CARD READER.
- 7 PROPOSED 12' TALL CMU WALL.
- 8 PROPOSED 20' WIDE GATE.
- 9 PROPOSED SECURITY CAMERA.
- 10 PROPOSED 85' ABOVE GRADE 138 KV TRANSMISSION STRUCTURE.
- 11 PROPOSED 65' ABOVE GRADE 138 KV TRANSMISSION DROP-IN STRUCTURE.
- 12 PROPOSED SAWCUT.
- 13 PROPOSED PROPERTY LINE.
- 14 PROPOSED RETENTION BASIN.
- 15 PROPOSED DRAINAGE SWALE.
- 16 GRADING LIMITS.
- 17 ZONE BOUNDARY.
- 18 PROPOSED WALL OPENING. SEE DETAIL B, SHEET 3.
- 19 PROPOSED WALL OPENING. SEE DETAIL D, SHEET 3.

VENDOR

NAME	ADDRESS	PHONE	EMAIL

AUTOCADD

Tucson Electric Power Company
 TUCSON, ARIZONA

TEP

SITE DEVELOPMENT
 PRELIMINARY DEVELOPMENT PACKAGE
 PATRIOT SUBSTATION

PROJECT: T14S,15E,S31
 SHEET: 2 OF 3

**PRELIMINARY SITE/GRADING PLAN
 PRELIMINARY DEVELOPMENT PACKAGE**

FOR
PATRIOT SUBSTATION

PARCEL TBD
 LOCATED IN SECTION 31, T 14 S, R 15 E, G&SRM,
 CITY OF TUCSON, PIMA COUNTY, ARIZONA

PDP

COT ADMINISTRATION ADDRESS:

TUCSON, ARIZONA 85710

BEING REVISED / UNDER CONSTRUCTION

R.E. _____ JOB # _____

TECH / DFTR. _____ REV. # _____

CHECK WITH R.E. BEFORE PRINTING OR REVISIONS

CYPRESS CIVIL PROJECT NO. 20.116



Kevin M. Hall

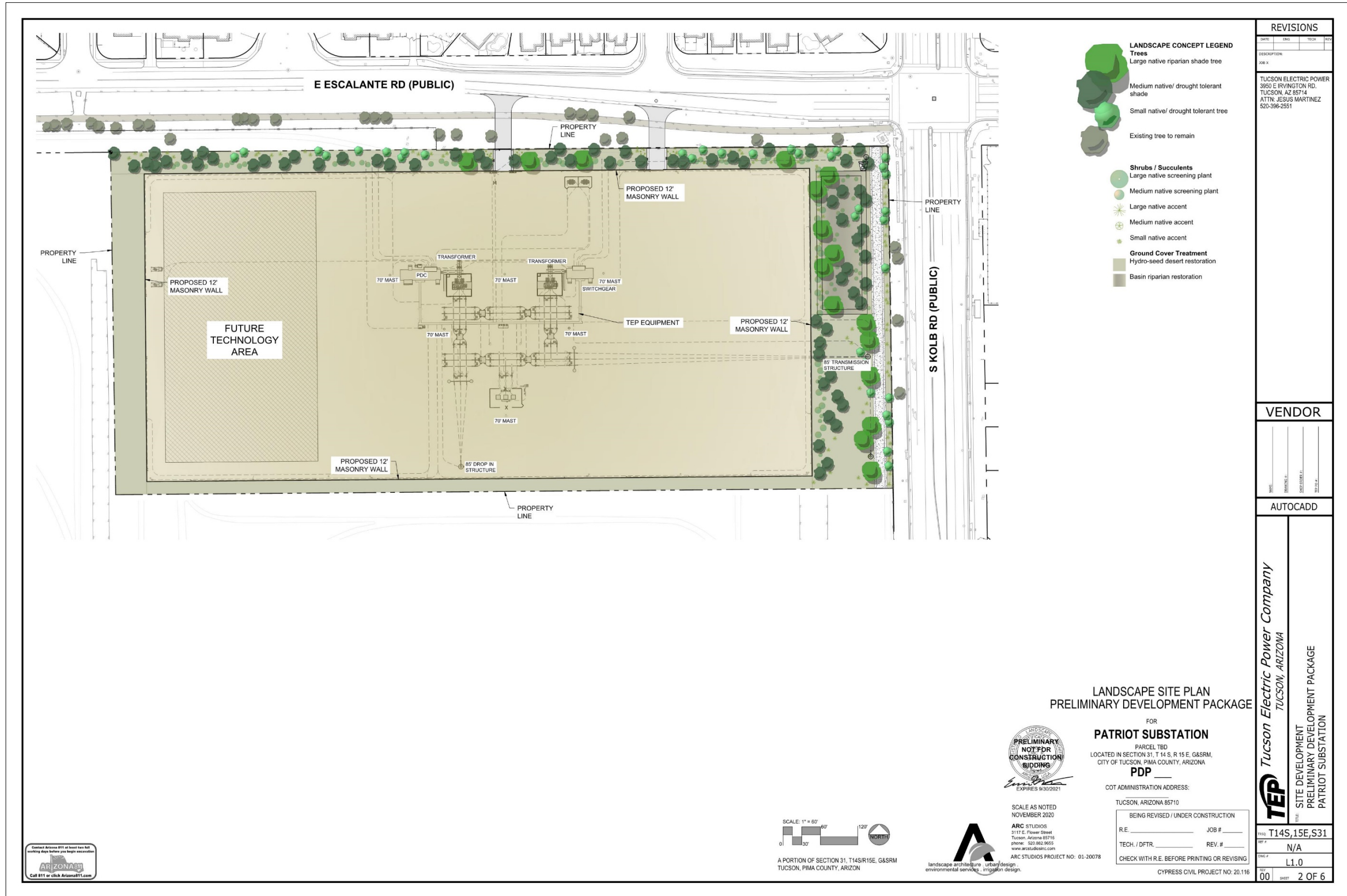
SCALE AS NOTED
 NOVEMBER 2020



2030 east speedway boulevard
 suite #110
 tucson, arizona 85719
 ph: 520.499.2456
 e: info@cypresscivil.com

A PORTION OF SECTION 31, T14S/R15E, G&SRM
 TUCSON, PIMA COUNTY, ARIZON

Exhibit 9. Preliminary Development Plan – A (design version)



- LANDSCAPE CONCEPT LEGEND**
- Trees**
- Large native riparian shade tree
 - Medium native/ drought tolerant shade
 - Small native/ drought tolerant tree
 - Existing tree to remain
- Shrubs / Succulents**
- Large native screening plant
 - Medium native screening plant
 - Large native accent
 - Medium native accent
 - Small native accent
- Ground Cover Treatment**
- Hydro-seed desert restoration
 - Basin riparian restoration

REVISIONS

DATE	BY	REASON

TUCSON ELECTRIC POWER
3950 E IRVINGTON RD.
TUCSON, AZ 85714
ATTN: JESUS MARTINEZ
520-386-2551

VENDOR

NAME	ADDRESS	PHONE	EMAIL

AUTOCADD

Tucson Electric Power Company
TUCSON, ARIZONA

TEP

SITE DEVELOPMENT
PRELIMINARY DEVELOPMENT PACKAGE
PATRIOT SUBSTATION

THIS: T14S,15E,S31
REV # N/A
DATE: L1.0
CYPRESS CIVIL PROJECT NO. 20,116

**LANDSCAPE SITE PLAN
PRELIMINARY DEVELOPMENT PACKAGE**

**FOR
PATRIOT SUBSTATION**

PARCEL TED
LOCATED IN SECTION 31, T 14 S, R 15 E, G&SRM,
CITY OF TUCSON, PIMA COUNTY, ARIZONA

PDP

COT ADMINISTRATION ADDRESS:
TUCSON, ARIZONA 85710

BEING REVISED / UNDER CONSTRUCTION

R.E. _____ JOB # _____

TECH. / DFTR. _____ REV. # _____

CHECK WITH R.E. BEFORE PRINTING OR REVISIONS

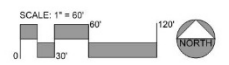
CYPRESS CIVIL PROJECT NO. 20,116



SCALE AS NOTED
NOVEMBER 2020

ARC STUDIOS
3117 E. Flower Street
Tucson, Arizona 85714
phone: 520.882.9655
www.arcstudios.com

ARC STUDIOS PROJECT NO. 01-20078



A PORTION OF SECTION 31, T14S/R15E, G&SRM
TUCSON, PIMA COUNTY, ARIZON



Exhibit 10. Preliminary Development Plan – B (graphic version)

B. Design Compatibility

1. Privacy for Adjacent Residences

The nearest adjacent residences are located greater than 170 feet to the north across East Escalante and over 250 feet to the southeast across Kolb Road from the Project boundary.

The Project will have a 12-foot masonry security wall surrounding it and will be setback from the property boundary by 35 feet on the north and approximately 130 feet on the east.

2. Compatibility with Climate and Surrounding Area

There are no buildings onsite. The substation will be surrounded by a 12-foot masonry security wall in an earthen tone that blends with the surroundings.

3. Energy Conservation

All new substation designs by TEP include next-generation transformers and equipment manufacturers. These manufacturers have adopted conservation practices that increase substation grid efficiency and also reduce the transmission and distribution power losses of the system.

4. Building Setbacks

The following Use Specific Standards apply to the Distribution System use under the SR Zone.

UDC § 4.9.11.A.1: The setback of the facility, including walls or equipment, shall be 20 feet from any adjacent residential zone.

The property is adjacent to residential zoning on four sides. The substation conforms to the applicable use-specific standard and provides setbacks in excess of the minimum 20 feet required. The following setbacks are provided:

- North: 35 feet
- East: 130 feet
- South: 20 feet
- West: 57 feet

5. Transition of Building Height and Number of Stories

The following UDC Use Specific Standards apply to the Distribution System use under the SR Zone.

- a) *UDC § 4.9.11.A.2: Where a facility is not enclosed within a building, the surrounding screen shall be used as the building wall for the purposes of setbacks.*

A 12-foot masonry security wall will surround the entire facility and will constitute the building wall for purposes of setbacks.

6. Transition of Density

There is no transition of densities for the proposed substation.

7. Landscaping and Screening Mitigation for Noise and Visibility

The following Use Specific Standards apply to the Distribution System use under the SR Zone and are in addition to the preliminary development package content requirements.

- a) *UDC § 4.9.11.A.5: The use shall not have any service or storage yards.*

No service or storage yards are proposed with this Project.

- b) *UDC § 4.9.11.A.8: Any building housing such facility shall be in keeping with the character of the zone in which it is located. The Design Review Board (DRB) shall review all applications and make recommendations to the Zoning Examiner. The DRB shall review architectural style, building elevations, materials on exterior facades, color schemes, new mechanical equipment locations, lighting of outdoor areas, window locations and types, screening, landscaping, vehicular use areas, and other contributing design features.*

Along Escalante Road the Project proposes an earthen-tone 12-foot masonry security wall and a 35-foot wide desert adapted landscape border adjacent to the existing Aviation Greenway multi-use path. Along Kolb Road the Project will continue the earthen-tone 12-foot masonry security wall along with a 126-foot wide drainage and desert adapted landscape border. Adjacent to the landscape border, Proposition 407 is proposing a multi-use path along Kolb Road.

The Project proposes no landscape border along the west and south borders with AMARG military aircraft storage. This provides TEP security surveillance equipment and DMAFB security personnel to visually monitor the Project. To support efficient surveillance of the Project, TEP is in discussions with DMAFB to waive landscape border requirements (see Appendix F. DMAFB Support Letter).

- c) *UDC § 4.9.11.A.9: The use shall be located wholly within an enclosed building or within an area enclosed on all sides with a masonry wall or compact evergreen hedge, not less than six feet, nor more than ten feet, in height.*

Applicable use specific standards for Distribution Systems specify that the height of the perimeter wall must be 10 feet in height where contiguous to a residential zone². In accordance with federal critical infrastructure protection (“CIP”) standards³, TEP must ensure the protection of its electric infrastructure. TEP has conducted an in-depth review of these CIP standards, specifically related

² UDC § 4.9.11.9 & 10.

³ Federal Energy Regulatory commission (“FERC”) has tasked the North American Reliability Corporation (“NERC”) with the obligation to create mandatory electric reliability standards governing the protection of critical electric infrastructure in the United States. These Critical Infrastructure Protection (“CIP”) standards are applied to all built electric system facilities, including TEP’s existing and future 138kV, 345kV and 500kV substations within the City.

to the prevention of physical breaches of their substation facilities. TEP has developed security standards that include the use of minimum 12-foot masonry security walls around its electric power substations.

The Zoning Examiner has the discretion to modify standards for screening with a condition on the SELU permit⁴. TEP requests a perimeter wall height of 12 feet to meet the CIP standard. As described in subsection 1.C above, in order to provide appropriate and safe screening along the perimeter of the Project, the SELU application includes a proposal to increase the height of the wall to 12 feet.

- d) *UDC § 4.9.11.A.11: The use shall be limited to water pumping and storage facilities, telephone exchanges, and power substations with an input voltage of no greater than 138 kilovolts.*

The Project input voltage is 138 kV.

8. Street Improvements

The Project proposes two access driveways on Escalante Road. The first is aligned with Lightning Flyer Drive to the north. The second is located 221 feet to the west. Each driveway will be paved asphalt and have a 25 foot-radius curb return and access ramps to the Aviation Parkway trail.

9. Defensible Space Techniques

The Project will be surrounded by a 12-foot high masonry security wall with security gates that can only be entered via a card reader. The substation will have an electronic security system including cameras that monitor activity.

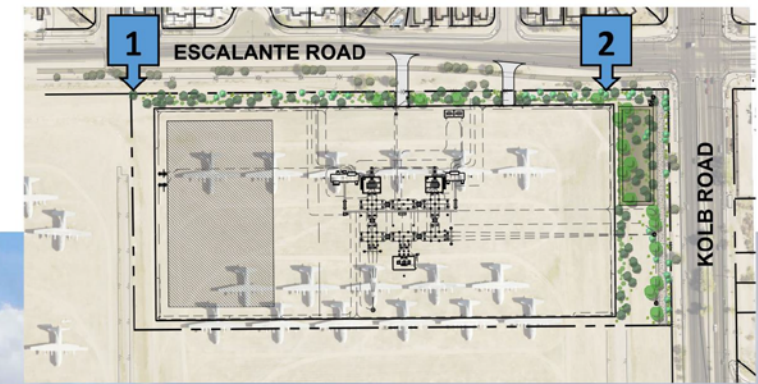
⁴ UDC § 3.4.6.A.1.

**PROPOSED TEP PATRIOT SUBSTATION
PHOTO SIMULATION #1 & #2
LOOKING SOUTH**

View #1



View #2



LANDSCAPE TREATMENT IS REPRESENTATIVE ONLY AND REFLECTS THE ANTICIPATED TYPE AND MATURITY OF LANDSCAPE PLANTING IN THIS PROPOSED DEVELOPMENT

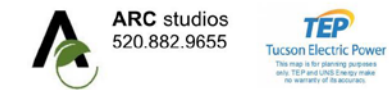
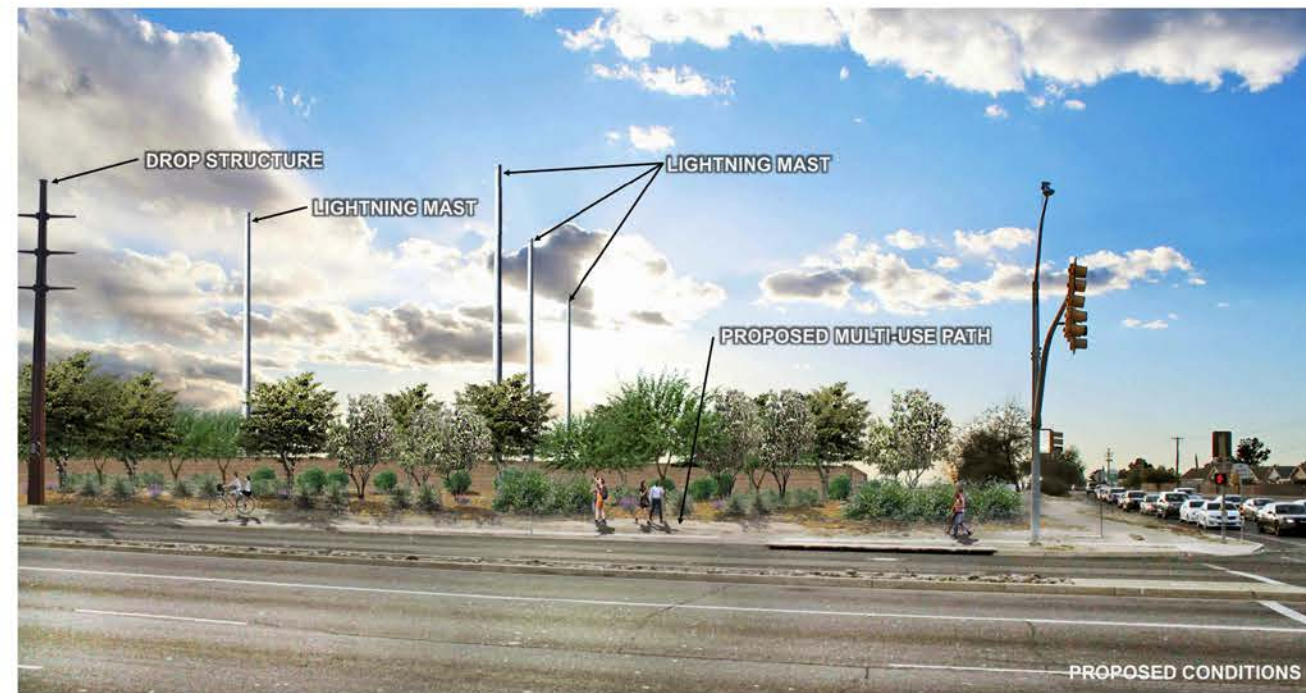


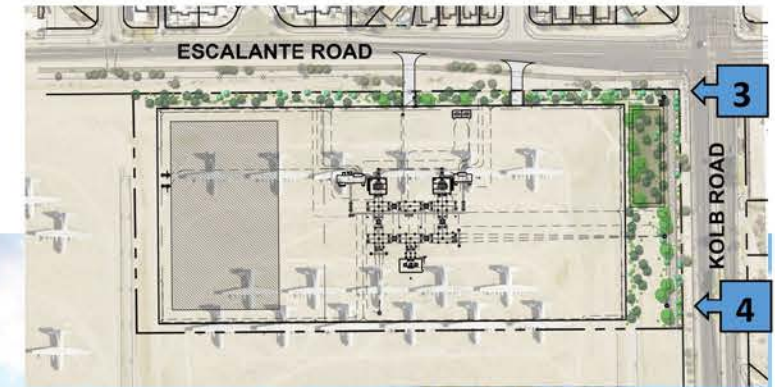
Exhibit 11. Photo Simulation View #1 and #2 Looking South

**PROPOSED TEP PATRIOT SUBSTATION
PHOTO SIMULATION #3 & #4
LOOKING WEST**

View #3



View #4



LANDSCAPE TREATMENT IS REPRESENTATIVE ONLY AND REFLECTS THE ANTICIPATED TYPE AND MATURITY OF LANDSCAPE PLANTING IN THIS PROPOSED DEVELOPMENT

Exhibit 12. Photo Simulation View #3 and #4 Looking West

10. View Corridors

The Project will not negatively impact the current view corridors along Escalante Road and Kolb Road. The AMARG storage facility will be screened by the 12-foot masonry security wall in the vicinity of the Project. Descriptions of the view corridors from the photo simulation's four views are below:

Photo Simulation #1, Looking South (Exhibit 12)

This view is looking south toward the Project from the northwest corner of the parcel along East Escalante Road. The desert plant landscape streetscape is behind the existing multi-use path. The 12-foot masonry security wall's earthen color will be seen through the landscape streetscape. Two of the lightning masts are visible in the horizon.

Photo Simulation #2, Looking South (Exhibit 12)

This view is looking south toward the Project near the northeast corner of the parcel. The desert plant landscape streetscape is behind the existing multi-use path and existing vegetation. The 12-foot masonry security wall's earthen color will be seen through the landscape streetscape. Two of the lightning masts and the Kolb Road transmission drop in structure are visible in the horizon.

Photo Simulation #3, Looking West (Exhibit13)

This view is looking west toward the Project at the southeast corner of Kolb Road and Escalante Road. The desert plant landscape streetscape is behind the proposed multi-use path. The 12-foot masonry security wall's earthen color will be seen through the landscape streetscape. Three of the lightning masts and the Kolb Road transmission drop in structure are visible in the horizon.

Photo Simulation #4, Looking West (Exhibit13)

This view is looking west toward the Project at the southeast corner of the Project from Kolb Road. The desert plant landscape streetscape is behind the proposed multi-use path. The 12-foot masonry security wall's earthen color will be seen through the landscape streetscape. Two of the lightning masts and the Kolb Road transmission drop in structure are visible in the horizon.

11. Changes in Elevation

Changes in elevation are discussed in Section 3.H and depicted in Exhibit 13.

C. Hydrology & Drainage

1. Proposed Drainage Solution

Approximately the west half of the site is located within the Julian Wash balanced basin. The east half of the site is located in an undesignated basin contributing to the Alamo watershed. Developed runoff will be required to be detained with the outflow less than existing conditions runoff. This will be accomplished through grading and a detention basin at the northeast corner of the site.

2. Post-development Water Discharge On-site and Off-site

The eastern watershed, D2 will be expanded westward by grading to direct a larger area to the east where stormwater runoff can be managed with a detention basin. Developed runoff into the basin is 53.1cfs, which includes D2 and D2.1. Outflow from the basin is 26.1cfs and combined with D2.2, a total developed runoff of 29.5cfs for a 100-year return interval which is less than existing conditions of 40cfs flowing to the catch basin at Kolb and Escalante Roads.

Since the proposed grading will reduce the size of the western watershed, D1, developed runoff of 53.2cfs is less than existing conditions runoff of 62cfs for a 100-year event. Post-development hydrology and drainage conditions are illustrated in Exhibit 13. Proposed Hydrology.

The basin will be located outside of the walled yard. Inflow of 43.1cfs from twelve 6' wall opening(s) will flow directly into the basin. Runoff of 10cfs from sub-watershed D2.1 will flow from the south as shallow sheet flow and be directed into the basin along the detention basins southern bank. The pond will be 2.1 feet deep at peak with 1.3' remaining after peak. Outflow from the basin will be through a 15' opening at grade that will allow stormwater to spread as wide sheet flow prior to reaching the existing catchbasin. A 12" pipe with a 6" orifice plate will be required in the basin to assure positive drainage within 12 hours. The 12" pipe will transition to 18" RCP upon exiting the site boundary as it connects to the existing catchbasin outside the northeast corner of the site (see Exhibit 13. Proposed Hydrology).

D. Landscaping and Screening

Per the UDC, landscape borders are required based on adjacent uses. The following is a list of the existing uses adjacent to the Project boundaries.

- North: Escalante Road. A 35' desert adapted landscape border.
- East: Kolb Road. A 126' drainage and desert adapted landscape border.
- South: Along the AMARG storage, no landscaping or screening is proposed. This allows TEP security surveillance equipment and DMAFB security personnel to visually secure the Project.
- West: Along the AMARG storage, no landscaping or screening is proposed. This allows TEP security surveillance equipment and DMAFB security personnel to visually secure the Project.

Through the SELU process, the Zoning Examiner may modify structural and vegetative screening requirements. As indicated in Subsection 3.B.7.b, TEP requests relief from the landscape border requirements along the west and south boundaries to provide visual security surveillance for the Project and the AMARG military plane storage.

E. Lighting

The Project will have lighting installed around electrical equipment for emergency and maintenance work. There will be no dusk-to-dawn lighting.

F. Pedestrian Access

The Project will not have pedestrian access.

G. Signs

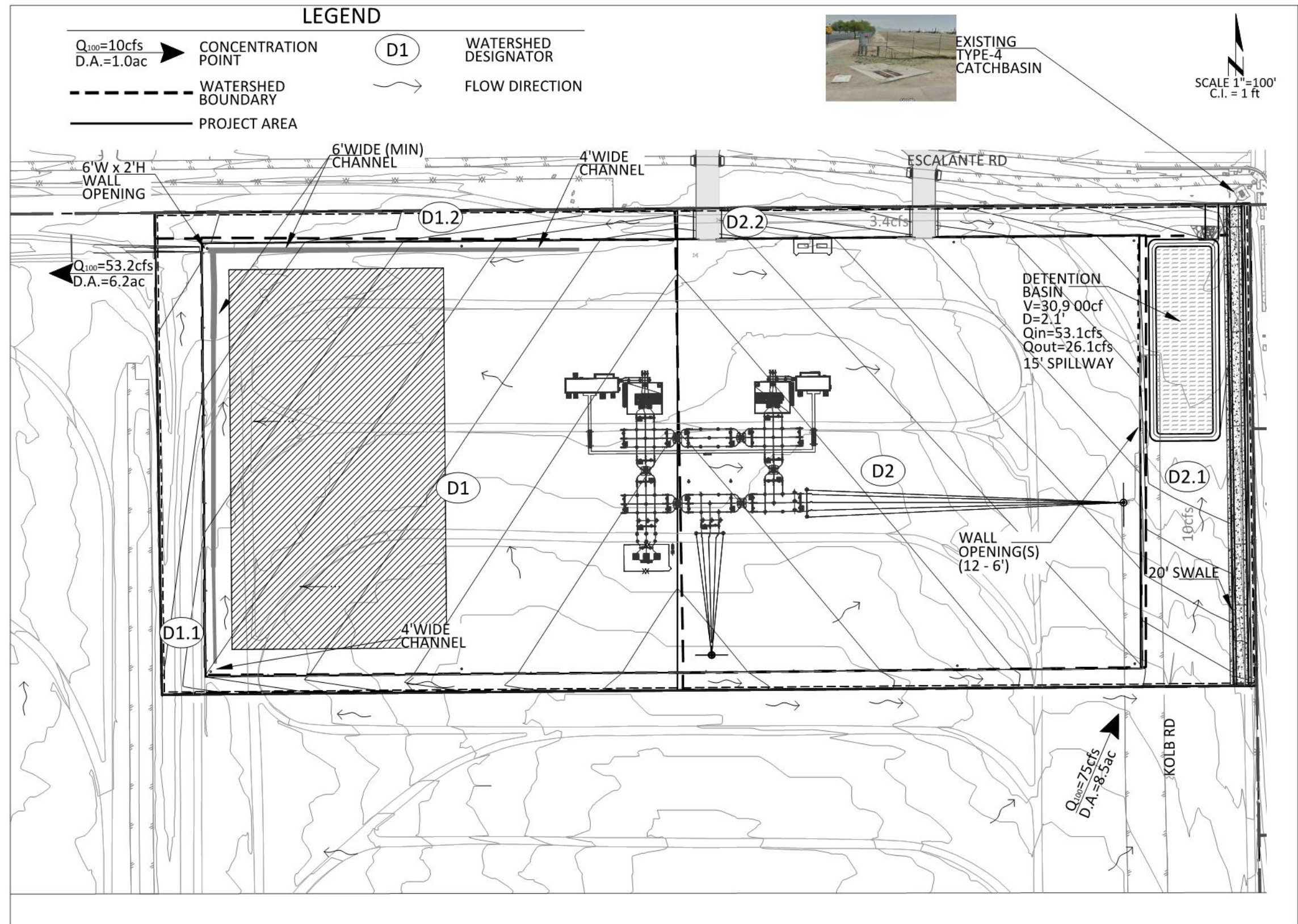
Signage will be limited to a TEP substation identification signs and safety signs mounted on the masonry security wall at regulated intervals (Photo 1 below). The Project will have a sign identifying the location as the future TEP Patriot Substation following approval of the SELU (Photo 2. Example Notice Sign).

H. Topography

The grading for the substation pad is necessary to direct stormwater flows. Grading will generally conform to the natural slope of the site with a grade break at the approximate center of the substation directing flows generated onsite to the northeast corner of the site to the proposed drainage basin and to the northwest. The post-development flows leaving the site are identified in Exhibit 13. Proposed Hydrology.

I. Traffic & Trip Generation

The Project will be an unmanned electrical substation. Trips would be limited to one or two visits per month, except in the case of emergency.



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CYPRESS CIVIL

Exhibit 13. Proposed Hydrology



Photo 1. Example Substation Signage



Tucson Electric Power

PUBLIC NOTICE

Future Site of a 138/46/13.8 kV Substation

Harrison Substation Project
Anticipated Start Date: April 2019
Anticipated Completion Date: May 2020

For more information on the project, including schedule updates, visit the Project webpage at tep.com/sonoran-to-wilmot/ or call (520) 884-3642.

Photo 2. Example Notice Sign

J. Undisturbed Areas

The Project site has been maintained clear of vegetation by DMAFB for over 70 years. There are no undisturbed areas.

K. Utilities

1. Proposed Changes to Utilities and Easements and New Utilities and Easements

The Project proposes no changes to existing utilities and easements.

2. Additional Utility Information

- a) Estimated Number of Residents that will live on-site
Not applicable. No residential use is being proposed.
- b) Water Service Provider
Tucson Water will provide water service for landscape irrigation outside of the Project's 12-foot masonry security wall.
- c) Existing Infrastructure
The Project will not connect to existing infrastructure with the exception of the proposed driveways connecting to Escalante Road as shown on Exhibit 10. Preliminary Development Plan – A (design version).
- d) Public Sewer Connection
The Project will not connect to the public sewer or have on-site sewage disposal.

L. Vehicular Use Area

No designated vehicular use areas are required. TEP vehicles will access the Project via Escalante Road and will park within the substation enclosure area as needed for substation maintenance.

REFERENCES

ARC Studios

2021 *Environmental Resource Report* for the Patriot Substation. ARC Studios Project No. 01.20078. Prepared March 12, 2021.

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2013 *Plan Tucson City of Tucson General & Sustainability Plan 2013*. Resolution Number 22067. Adopted by Major and Council 7-9-2013.

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2020 Geographic Information Systems (GIS). MapTucson. Map Resources: *Transportation Related Stormwater Map - Hydrologic and Wash Data Layers and Environmental Concerns*. Available at: <https://www.tucsonaz.gov/gis/map-resources>. Accessed August 2020.

Cypress Civil

2021 Drainage Report. *Tucson Electric Power Patriot Substation – NE1/4 of NE1/4 of NE1/4 Sec 31, T14S,R15E, Parcel #136-27-0010, City of Tucson, Arizona*. Cypress Project No. 20.116. Cypress Civil, Tucson, Arizona. Prepared February 25, 2021.

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2021 *Patriot Substation (D19PS03) Class I Records Search*. Tierra Archaeological Report No. 2021-042. Tierra Right of Way Services, Ltd., Tucson. Prepared March 9, 2021.

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2019 *Phase I Environmental Site Assessment – 15.78 Acres of Land SW: South Kolb and East Escalante Roads, Tucson, Arizona*. WT Job No. 2989JC113 - Revised August 5, 2019.



Appendix A. Legal Description

(See 1-Attachment 10_Appendix A. Legal Description)



Appendix B. Class I Cultural Resource Search

(See 1-Attachment 11_ Appendix B. Class I Cultural Resource Search)



Appendix C. Drainage Report

(See 1-Attachment 12_ Appendix C. Drainage Report)



Appendix D. Phase I Environmental Site Assessment

(See 1-Attachment 13_ Appendix D. Phase I Environmental Site Assessment)



Appendix E. Environmental Resource Report

(See 1-Attachment 14_ Appendix E. Environmental Resource Report)



Appendix F. DMAFB Letter of Support

(See 1-Attachment 15_ Appendix F. DMAFB Letter of Support)