

# memorandum

date April 2, 2019

to Abigail Fateman,- East Contra Costa County Habitat Conservancy

from Melissa Carter, PE, Environmental Science Associates

subject Knightsen Wetland Restoration and Flood Protection Project - Utilities Constraints

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This memorandum documents the existing utilities traversing the Knightsen Wetland Restoration and Flood Protection Project (project) site, and provides a summary of constraints that these utilities pose for restoration. The restoration project is intended to serve multiple objectives, including restoring a mosaic of wetland and upland habitats for HCP/NCCP covered species, providing water quality improvements and flood conveyance/attenuation for runoff from the adjacent community of Knightsen, and providing recreation and access to the Delta. The project site is a 645-acre parcel in East Contra Costa County, adjacent to existing slough channels along the western Sacramento/San Joaquin Delta. The project site is divided into three distinct parcels by Delta Road (North Parcel) and the existing utility lines & easements (East and Central Parcels) as shown in Figure 1, Sheets TS-2 and TS-3. The information in this memorandum is based on review of survey and easement documents provided by East Contra Costa Habitat Conservancy and communication with the utility operators (Western Area Power Administration and PG&E).

## **Western Area Power Administration**

The Western Area Power Administration (WAPA) operates and maintains two overhead electrical transmission lines, the Shasta-Tracy 230kV Tower Line, and the Tracy-Contra Costa 69kV Line, on behalf of the United States Department of Energy and the United States Bureau of Reclamation (referred to herein as USA). The minimum ground clearance required in rural settings for 230kV transmission lines is 30 feet and for 68kV transmission lines is 25 feet (State of California, 2015). Information on the line elevations above existing ground surface has been provided by WAPA to the project team, but is considered confidential and therefore cannot be disclosed in any public document.

The WAPA lines lie within two easements within the project area. The Shasta-Tracy easement is approximately 130-feet wide and runs in a north-south direction along the boundary between the Central and East Parcels and in a northwest-southeast direction across the eastern half of the North Parcel (shown in purple in Figure 1, Sheets TS-2 and TS-3). The Tracy-Contra Costa easement is approximately 60-feet wide and runs in a north-south direction just west of the Shasta-Tracy easement in the Central Parcel, angles to a northwest-southeast direction across the northern quarter of the Central Parcel, and continues across the western side of the North Parcel in the same northwest-southeast direction (shown in green in Figure 1, Sheets TS-2 and TS-3). The rights granted to WAPA within the easement are covered in two easement documents:

- Tracy-Contra Costa line - 1950 agreement referencing APN book 1663, page 564. Language from this easement was not available for review.

- Shasta-Tracy line - 1950 agreement between USA and multiple landowners referencing APN book 1668, page 494. This easement prohibits the land owner from the drilling of wells, building of any structure, or significant alteration of the existing topography without written consent from USA. The easement also grants ingress-egress along the southern border of the Central Parcel

## **PG&E**

PG&E operates and maintains two overhead electrical transmission lines, the Table Mountain-Tesla 500kV Tower Line and the Vaca-Dixon-Tesla 500 kV Tower Line, and one buried natural gas transmission line (Line 401) within its easement on the project site (shown in blue in Figure 1, Sheets TS-2 and TS-3). The minimum ground clearance required for 500kV transmission lines in rural settings is 30 feet (State of California, 2015). The minimum burial depth required for the natural gas pipeline is unknown. Information on existing tower and transmission line heights above ground and the depth below ground of the natural gas pipeline was not available from PG&E (pers. comm., J. Cederquist).

The PG&E easement is 350 feet wide and runs in a north-south direction along the boundary between the Central and East Parcels and in a northwest-southeast direction across the eastern half of the North Parcel. The rights granted to PG&E within the easement are covered in two easement documents:

- PG&E electrical easement - 1964 agreement between PG&E and Bettencourt referencing APN book 4751, page 636. This easement reserves the right for the land owner to use the land *“for purposes which will not interfere with PG&E’s full enjoyment of the rights granted”*, but prohibits the drilling of wells, building of any structure or significant alteration of the existing topography without written consent from PG&E.
- PG&E natural gas easement - 1995 order of condemnation between PG&E and Cerri. This easement gives PG&E *“the right to prohibit the erection or construction of any building or other structure, the drilling or operating of any well, or the construction of any reservoir or other obstruction within PARCEL 1, or diminish or substantially add to the ground cover over any pipelines installed therein.”*

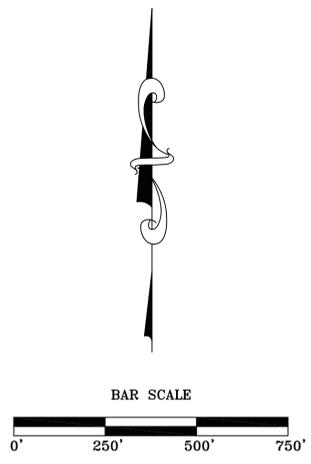
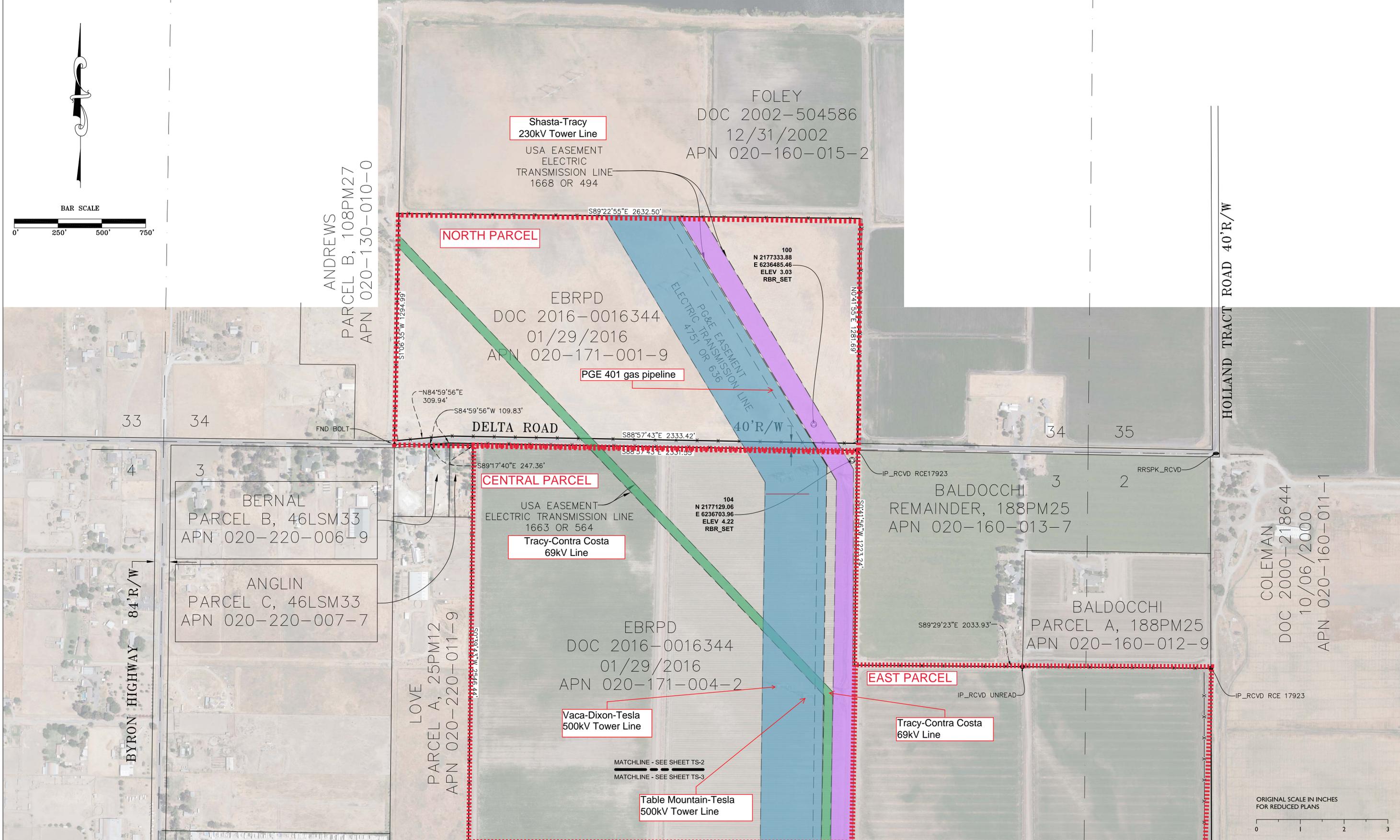
## **Utilities Constraints Summary**

Any modifications to the ground surface within the PG&E or WAPA utility corridor will require agreement from the utility owners and modification to the existing easement language. The biggest constraint to the development of alternatives for the project is the presence of the Line 401 natural gas transmission line, also referred to as a “backbone” line for the transmission of natural gas in California. PG&E is unlikely to allow any modifications, including the construction of levees or the excavation of channels, over the pipeline that would impact their ability to access and maintain the pipeline. Modifications under both the PG&E and WAPA electrical transmission lines may be possible as long minimum clearances to the ground surface are maintained and maintenance access is provided.

## **References**

Cederquist, Jason. Land Agent, PG&E. Email communication to Melissa Carter, ESA. November 2, 2018.

State of California. 2015. Rules for Overhead Electric Line Construction - General Order No. 95. Prescribed by the Public Utilities Commission. January 2015.



REVISIONS

DATE



**EAST BAY REGIONAL PARK DISTRICT**  
 2950 PERALTA OAKS COURT, OAKLAND, CA 94605 WWW.EBPARKS.ORG 888-327-2757

APPROVED  
 design:  
 operations:

SURVEY  
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 job no. : 1741141  
 dwg : 1741Master.dwg  
 ascii  
 field file :  
 field bk : 141.01

scale:  
 drawn:  
 checked:  
 date: 10/12/2017

**TOPOGRAPHIC SURVEY**  
**FENCE LOCATION, NUNN PROPERTY**  
 DELTA ACCESS  
 KNIGHTSEN, CA  
 PROJECT NO.

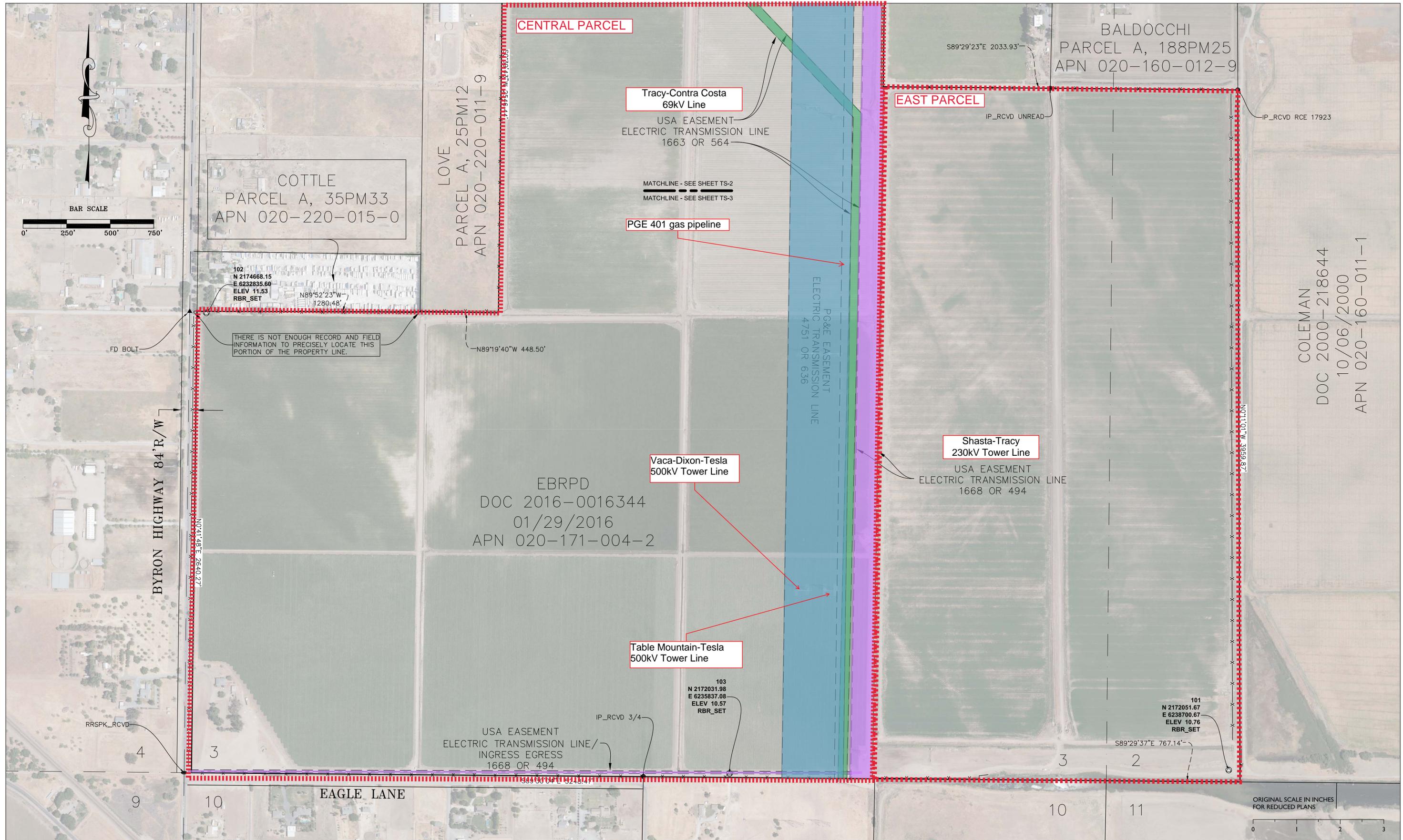
CONTRACT NO.

SHEET NO.  
**TS-2**  
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ORIGINAL SCALE IN INCHES  
 FOR REDUCED PLANS

REVISIONS	DATE
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SHEET NO.  
**TS-3**  
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