



CITY OF SAN ANTONIO

DEVELOPMENT SERVICES DEPARTMENT

VARIANCE REQUEST ANALYSIS

TPV 20-002

Project:	CPS Energy Shepherd Substation Transmission Line
Address:	Starting at 12707 Shepherd Road, Atascosa, Tx
A/P #/PPR #/Plat#:	A/P #2485351
VR Submittal Date:	October 7, 2019
VR Submitted by:	Ms. Christine Westerman and SWCA Environmental Consultants on behalf of Mr. Juan Sandoval with CPS Energy
Issue:	Below 80% significant tree and 100% heritage tree preservation within 100-year Floodplain (2010 Ordinance)
Code Sections:	Unified Development Code (UDC), Section 35-523 (h).
By:	Herminio Griego, Assistant City Arborist

The Development Services Department (DSD) reviewed the information presented in Mr. Juan Sandoval's revised letter submitted October 7, 2019.

The Unified Development Code (UDC) – Article V, Section 35-523 (h), 100-Year Floodplain(s) and Environmentally Sensitive Areas states that, “Significant trees shall be preserved at eighty (80) percent preservation within both the 100-year floodplains and environmentally sensitive areas. Heritage trees shall be preserved at one-hundred (100) percent preservation within the 100-year floodplains and environmentally sensitive areas. Mitigation shall be prohibited in floodplains and environmentally sensitive area except when a variance is granted by the Planning Commission.”

The applicant is requesting a Variance Request to mitigate for removal of tree stand within the Floodplain in excess of the 80% minimum tree stand preservation requirement and 100% minimum preservation requirement of heritage trees within the floodplain and Environmentally Sensitive Areas (ESA) in place under the 2010 Tree Preservation Ordinance for development of the CPS Energy Shepherd Transmission Line project (the Project). DSD staff does agree with the applicant's request to mitigate via enhanced revegetation and payment into the Tree Mitigation Fund for tree stand determined to be below 80% significant tree preservation and heritage tree preservation determined to be below 100% preservation in the floodplain and ESA for the following reasons:

1. *Existing site conditions* – The Shepherd Transmission Line is needed to connect the Shepherd Substation (currently under construction) to the existing CPS Energy Valley Road to Cagnon 138-kV transmission line. The transmission line easement is

approximately 29,000 feet long and encompasses 69.3 acres. The new Shepherd Substation and associated transmission line is needed for the following reasons: 1) to meet the expected 20-25% increased utility load in the service area, 2) maintain service reliability, 3) reduce the risk of overloaded circuits, and 4) reduced the risk of service outages. In addition, the new substation and transmission line will strengthen the primary distribution backbone and help prevent the loss of service during fault conditions.

CPS Energy evaluated the following potential impacts and criteria during the design process including impacts on: 1) ecological resources, 2) habitable structures, 3) land use, 4) cultural resources, and 5) tree canopy and heritage trees. They also incorporated the desires of current landowners into design considerations. The designs were also required to meet the state and federal requirements for minimum distances between the power lines and existing vegetation. CPS Energy evaluated 8 substation sites and 89 combinations of substation locations and transmission line alignments during the design process to accommodate all of the design requirements and minimize tree impacts. The final design results in the preservation of 68 percent of the tree canopy in the floodplain which is below the 80 percent preservation requirements. In addition, the final plan results in the removal of seven heritage trees (227 inches) in the flood plain and one heritage tree (39 inches) in the ESA.

2. *Tree mitigation* –The Project will meet the Floodplain/ESA preservation and heritage tree removal mitigation requirements as follows:

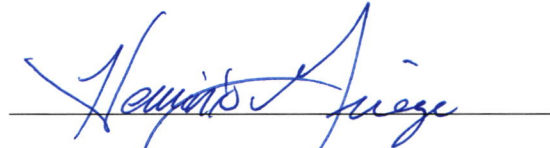
- a. Tree Stand tree mitigation:
 - i. CPS Energy will reseed 871,000 square feet of project area with native seed mix. Only 34,143 square feet within the floodplain would be required to be mitigated, which would be equivalent to = 651 Inches
- b. Heritage Trees Mitigation:
 - i. 1:1 ratio = 59 inches (2 trees)
 - ii. 3:1 ratio = 624 Inches (6 trees)
- c. Mitigation = 1,334 Inches = (651 + 59 + 624)
- d. Mitigation/Preservation Summary:
 - i. Preserving 96 percent of the tree canopy in the ESA, exceeding the 80% the minimum requirements;
 - ii. Preserving 56 percent of the tree canopy in the non-floodplain area, exceeding the 25 percent minimum requirements;
 - iii. Meeting and exceeding reclamation and mitigation requirements by reclaiming disturbed areas by drill seeding with a native seed mix and ensuring 85% establishment; and
 - iv. The need to address the current and future energy capacity demands and reliability;
 - v. Total Mitigation = 667 Inches
 - vi. Payment to the Tree Mitigation Fund will be \$133,400.00

DSD staff supports the applicant's request to fall below 80% Tree Stand preservation and 100%

Heritage Tree preservation requirements in the floodplain and ESA by providing mitigation through preservation, reseedling, payment into the Tree Mitigation Fund; and alternate planning and design to minimize tree impacts.

The proposed Variance Request meets the intent and spirit of the Tree Ordinance therefore, staff recommends approval.

RECOMMENDATION: Approval of Variance Request



Herminio Griego
Assistant City Arborist
DSD – Land Development – Tree Preservation

10-15-19
Date



Kevin Collins
Development Services Engineer
DSD – Land Development - Engineering

10/15/19
Date

I have reviewed the Variance Request and concur with the recommendation.



Melissa Ramirez
Assistant Director
DSD – Land Development

10/15/19
Date

TPV# 20-002 (PPR#9728)



CITY OF SAN ANTONIO

DEVELOPMENT SERVICES DEPARTMENT

1901 S. Alamo, San Antonio, TX 78204

ADMINISTRATIVE EXCEPTION/VARIANCE REQUEST APPLICATION

Project Name:	Shepherd Substation Transmission Line
A/P # /PPR # /Plat #	A/P 2485351
Date:	9/30/19
Code Issue:	Tree ordinance
Code Sections:	35-523

Submitted By:	<input checked="" type="checkbox"/> Owner	<input type="checkbox"/> Owners Agent * (Requires notarized Letter of Agent)
Owners Name:	Juan Sandoval, P.G.	
Company:	CPS Energy	
Address:	145 Navarro, San Antonio, TX	Zip Code: 78205
Tel #: 210-353-6510 Fax#	E-Mail: JASandoval@cpsenergy.com	
Consultant:	Christine Westerman	
Company:	SWCA Environmental Consultants	
Address:	6200 UTSA Boulevard, Suite 102, San Antonio, TX	Zip Code: 78249
Tel #: 210-877-2847 Fax#	E-Mail: cwesterman@swca.com	
Signature:		

Additional Information – Subdivision Plat Variances & Time Extensions				
1.	<input type="checkbox"/> Time Extension	<input type="checkbox"/> Sidewalk	<input type="checkbox"/> Floodplain Permit	<input type="checkbox"/> Completeness Appeal
	<input checked="" type="checkbox"/> Other <u>Tree ordinance variance</u>			
2.	City Council District _____	Ferguson Map Grid _____	Zoning District _____	
3.	San Antonio City Limits	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
4.	Edwards Aquifer Recharge Zone?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
5.	Previous/existing landfill?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
6.	Parkland Greenbelts or open space? <u>Floodplain?</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

2019 OCT -4 PM 9:18

DEVELOPMENT SERVICES
RECEIVED

(85FP#5149)

200-08 #191



145 Navarro San Antonio, Texas 78205

October 7, 2019

Administrative Exception / Variance Request Review¹

City of San Antonio

Development Services Department

1901 S. Alamo

San Antonio, Texas 78204

Re: CPS Energy Shepherd Transmission Line

A/P # 2485351

UDC Section 35-523 – Tree Preservation (h) 100-year Floodplain(s) and Environmentally Sensitive Areas

- ☐ Administrative Exception
- ☒ Environmental Variance
- ☐ Subdivision Platting Variance – Time Extension

Dear Development Services:

CPS Energy is planning construction of a new transmission line in southwestern San Antonio, Bexar County, Texas known as the Shepherd Transmission Line (project). The new transmission line would connect the Shepherd Substation to the existing CPS Energy Valley Road to Cagnon 138-kV transmission line (Figure 1). The Shepherd Substation, currently under construction, is located at 12707 Shepherd Road, Atascosa, TX 78002, approximately 1 mile north of the intersection of Shepherd Road and Pearsall Road. Construction on the transmission line is anticipated to start in summer 2019 and to be completed by early 2020. The transmission line easement is approximately 29,000 linear feet long and comprises 69.3 acres.

CPS Energy needs to construct the Shepherd Substation and transmission line to meet expected utility load growth of 20-25% in the project vicinity, and to maintain reliability by reducing the risk of overloaded circuits. Specifically, the new facilities would improve CPS Energy's electric system with shorter circuits that reduce potential for customer outages. The new circuits would also strengthen the primary distribution backbone and insert sufficient field ties to adjacent substation circuits to prevent major loss of customer load under faulted conditions.

Throughout the process of siting and designing the substation and transmission line, CPS Energy has made every effort to avoid removal of tree canopy and heritage trees. As part of the project's environmental assessment process, CPS Energy evaluated eight potential substation sites and 89 combinations of substation sites and transmission line alignments. Potential alignments were evaluated for impacts to ecological resources, habitable structures, land use, and cultural resources, and the preferred transmission alignment was selected to minimize impacts. However, in some instances, removal of a small number of heritage trees is necessary to enable construction of transmission towers and to provide for safe distances between the transmission line and existing vegetation in accordance with state and federal requirements. In addition, the project design has accommodated requests from affected landowners to preserve trees and minimize canopy impacts where feasible. For these reasons, CPS Energy requests consideration for an Environmental Variance to the City of San Antonio UDC Section 35-523 – Tree Preservation (h) 100-year Floodplain(s) and Environmentally Sensitive Areas.

Because of the transmission line's location and generally north-south orientation, it crosses floodplains associated with the Medina River, Lucas Creek, and Polecat Creek. In these areas, it will likely be required to remove seven heritage trees located within the 100-year floodplain and one heritage tree within the floodplain buffer. Tree species affected are hackberry, pecan, cedar elm, and live oak. The project will also result in less than 80% significant tree preservation in the floodplain (at least 68% total canopy preservation, including understory, is anticipated). CPS Energy is making every effort to limit tree removal in the floodplain to the minimum necessary for safe and effective construction and operation of this facility.

Following construction, CPS Energy will revegetate disturbed areas with a native seed mixture using drill seed technique, except in areas that are too steep or that are unsafe for drill seeding. These areas will be hydromulched using the native seed mix.

CPS Energy is requesting to provide mitigation above and beyond the minimum required in the UDC. The Project will meet the Floodplain and ESA Tree Stand Delineation and heritage tree removal mitigation requirements as follows:

- a. Tree Stand tree mitigation:
 - i. CPS Energy will reseed 871,000 square feet of project area. Only 34,143 square feet requires a variance = 651 Inches
- b. Heritage Trees Mitigation:
 - i. 1:1 ratio = 59 inches (2 trees)
 - ii. 3:1 ration = 624 Inches (6 trees)
- c. Mitigation = 1,334 Inches = (651 + 59 + 624)
- d. Mitigation/Preservation Summary:
 - i. Preserving 96 percent of the tree canopy in the ESA, exceeding the 80% the minimum requirements;
 - ii. Preserving 56 percent of the tree canopy in the non-floodplain area, exceeding the 25 percent minimum requirements;
 - iii. Meeting and exceeding reclamation and mitigation requirements by reclaiming disturbed areas by drill seeding with a native seed mix and ensuring 85% establishment; and
 - iv. The need to address the current and future energy capacity demands and reliability;
- e. Total Mitigation -= 667 Inches

Payment to the Tree Mitigation Fund will be \$133,400.00.

The following information is attached for your review and to provide further reference/justification for this variance request:

1. Project engineering plans/profiles.
2. Project Tree Canopy and Heritage Tree Preservation exhibits and proposed mitigation details for project tree impacts. Heritage tree removals shall be mitigated through contribution of fees to the City of San Antonio tree mitigation fund.

The construction of the Shepherd Transmission Line project is required for the safety and wellbeing of the public and granting of the environmental variance will not be contrary to the spirit and intent of the UDC/City of San Antonio Section 35-523 – Tree Preservation (h) 100-year Floodplain(s) and Environmentally Sensitive Areas. CPS Energy has taken all practicable measures to minimize any adverse impacts on the public health, safety and public welfare during the design, and as a result, of this project. Under the circumstances, CPS

Energy believes the City will agree that the public interest underlying the proposed exception to the Tree Ordinance requirements regarding tree preservation outweighs the public interest for which the environmental variance is granted.

In addition, as required by the UDC Section 35-511(e), please note:

- If the applicant complies strictly with the provisions of these regulations, CPS Energy cannot perform construction of the proposed facilities in accordance with federal and state regulations and public safety will be impacted;
- The hardship relates to the applicant's land (utility easement), rather than personal circumstances;
- The hardship is unique rather than one shared by many surrounding properties; and
- The hardship is not the result of the applicant's own actions; and
- The granting of the exception/variance will not be injurious to other property and will not prevent the orderly subdivision of other property in the area in accordance with these regulations.

In my professional opinion, the proposed environmental variance remains in harmony with the spirit and intent of the UDC as it will not adversely affect the health, safety, or welfare of the public and will in fact, benefit the health, safety and welfare of the public by meeting projected utility load growth of 20-25% in the project vicinity, and reducing the potential for customer outages.

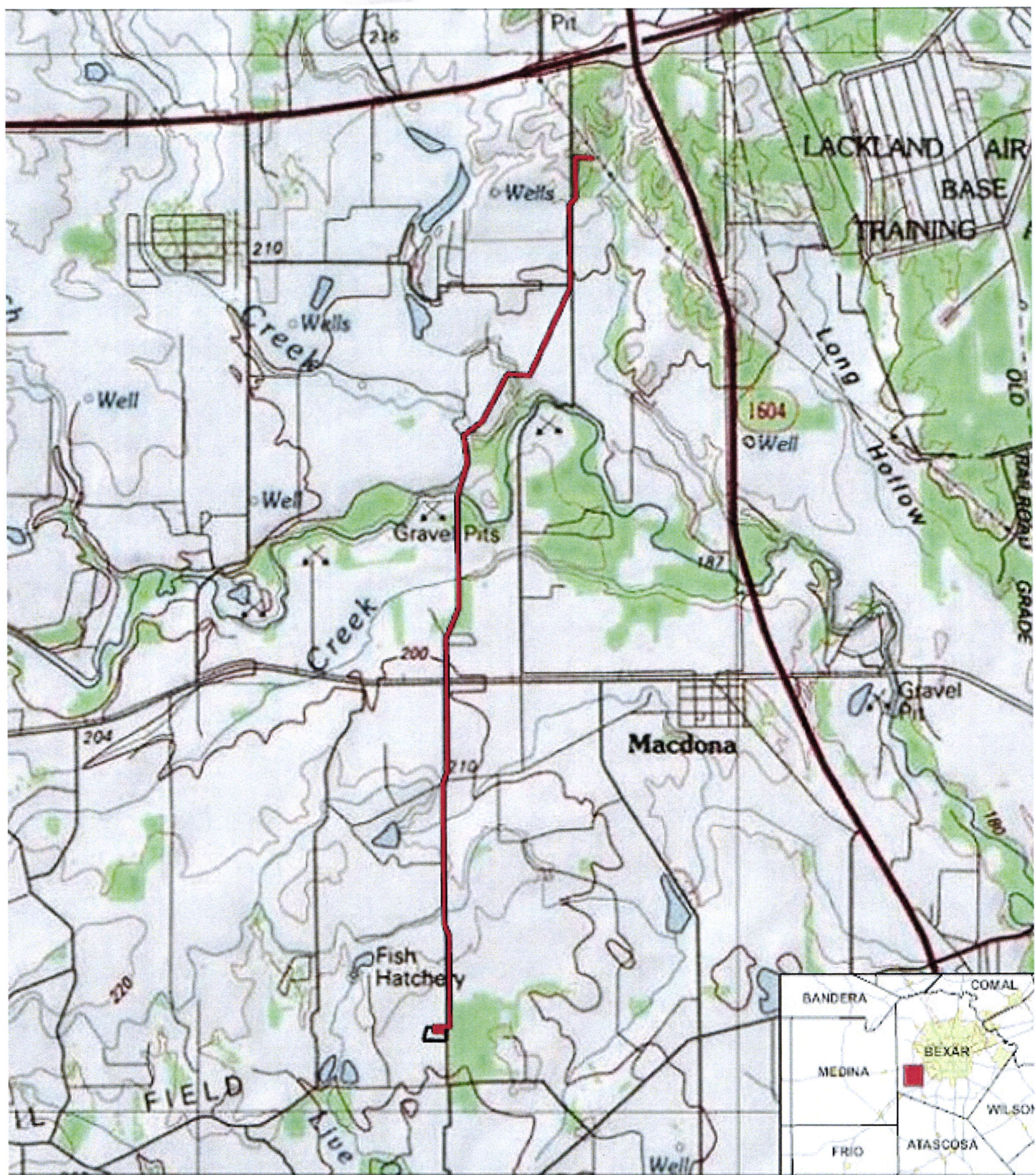
Sincerely,



Juan Sandoval P.G.
CPS Energy

Attachment(s)

For Office Use Only: AEVR #: _____		Date Received: _____
<u>DSD – Director Official Action:</u>		
<input type="checkbox"/> APPROVED	<input type="checkbox"/> APPROVED W/ COMMENTS	<input type="checkbox"/> DENIED
Signature: _____		Date: _____
Printed Name: _____		Title: _____
Comments: _____		



SWCA
ENVIRONMENTAL CONSULTANTS

**CPS ENERGY
SHEPHERD
TRANSMISSION LINE**

PROJECT LOCATION
MAP
BEXAR COUNTY, TEXAS

- Transmission Line
- Survey Area
- Substation

1:60,000

Created By: J. Kerner
Project Number: 37566
Date: 2/12/2015
NAD 1983 UTM Zone 14N

