

Compatibility Determination

Title

Compatibility Determination for Jefferson Davis Electric Cooperative (JDEC) Utility Right-of-Way on Sabine National Wildlife Refuge (NWR).

Refuge Use Category

Rights-of-way and Rights to Access

Refuge Use Type(s)

Rights-of-Way (Utility)

Refuge

Sabine National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

Sabine National Wildlife Refuge was established under Executive Order 7764, dated December 6, 1937, which stated the official purpose of the refuge as: "...as a refuge and breeding ground for migratory birds and other wildlife." A secondary purpose of the refuges is "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds..." (16 U.S.C. 715d (Migratory Bird Conservation Act)).

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

No

What is the use?

The proposed use is a utility right-of-way (ROW), which is defined as the right to use and possibly alter the landscape through construction, maintenance, and operation of water or fuel pipeline, power line, telecommunications line or tower, or other utility.

This use will involve allowing Jefferson Davis Electric Cooperative (JDEC) to use and possibly alter the landscape through the construction, maintenance, and operation of power lines, towers, and other utility equipment for rebuilding, upgrading, and maintaining its electrical transmission line infrastructure that was destroyed during Hurricane Laura in 2020. JDEC is seeking to replace and upgrade its pre-storm 69kV transmission infrastructure to higher 230kV lines with larger, more resilient poles and footings that will be more resilient against wind and storm damage and will be located approximately along the previous 69kV transmission center line. This use will require approximately 9.3 miles of the upgraded transmission line and associated equipment to be situated on Sabine NWR along and adjacent to the State Highway 27 corridor (Figure 1.).

Is the use a priority public use?

No

Where will the use be conducted?

The ROW permit will cover the use of land located on Sabine NWR approximately 65 feet east onto the refuge along Louisiana State Highway 27 and will run parallel to the road for the entirety of the proposed ROW area (Figure 1). The proposed ROW is located in Sections 15, 21, 22, & 28, T13S-R10W, Sections 28 ,31 ,32, & 33 T13S-R10W, Section 6, T14S-R10W, Sections 1, 2, 11 & 14 T14S-R11W, Sections 28 ,31 ,32, & 33 T13S-R10W, Section 6, T14S-R10W, Sections 1, 2, 11 & 14 T14S-R11W, Cameron Parish, Louisiana (LA). Exhibit A (attached) is a preliminary survey document developed on behalf of JDEC that shows the proposed ROW areas. The proposed ROW areas are described in Exhibit A as “easement areas.” The first 16 pages of Exhibit A show preliminary survey maps from north to south, while the remaining 5 pages show preliminary legal descriptions of the ROW through refuge tracts. The proposed ROW encompasses 72.05 acres and will be located in the pre-storm 69kV transmission line corridor.

When will the use be conducted?

The permit will grant JDEC access to operate and maintain the infrastructure for 50 years following the transmission line replacement and upgrade project anticipated completion in 2026. Occasional future maintenance may be required within the proposed ROW to access and repair lines or infrastructure that become damaged or degraded. The use will also include periodic mowing and/or clearing of trees, brush, and otherwise treatment of vegetation within the ROW that will impede access or threaten infrastructure. The use may also include tree or brush clearing for those that may fall during high wind or other weather-related events. Any maintenance on the ROW will be conducted during times that will minimize disturbance to wildlife and public access. Maintenance will be allowed from March 15 through October 15 within

the ROW during daylight hours of the refuge. In cases of emergency, access could be granted through coordination and approval from the Refuge Manager or their appointed staff on a case-by-case basis.

How will the use be conducted?

Initial construction will remove all remaining remnant 69 kV pre-storm infrastructure (i.e., poles, line, etc.). New footings and poles to support the new transmission lines through Sabine NWR will then be installed, followed by the lines themselves and any associated remaining infrastructure to facilitate final completion. This upgraded line project will result in the installation of taller, more resilient steel transmission line poles and conductors with an increased capacity of 230kV being constructed within the proposed ROW. This use includes mowing, clearing brush, and other means of vegetation control that will impede proper function and/or access to infrastructure located within the proposed ROW areas. In limited cases, ground disturbance from long-term maintenance activities may occur. Work will only occur after State Historic Preservation Office and Tribal consultation have concluded and concurrence is reached. The U.S. Fish and Wildlife Service's (Service) Regional Historic Preservation Officer/Archaeologist will be notified immediately with any Accidental Discovery of cultural material. If future construction is needed to repair or replace infrastructure, access will be through the proposed ROW with advance notice and coordination through the refuge. Access to the ROW from other refuge land will not be needed.

Best management practices will be employed to reduce the potential spread of invasive plant species onto the refuge during this work. JDEC will periodically, at least annually, maintain vegetation to prohibit the growth and colonization of invasive species or woody vegetation. Maintenance activities include mowing, herbicide applications consistent with label, or any activity designed to alter the current state of the vegetation and approved by the Refuge Manager and will utilize integrated vegetation management (IVM). IVM incorporates established principles of "integrated pest management" and is widely accepted in the public and private sectors. The proactive pest management approach includes a broad spectrum of integrated techniques for managing undesirable plant species. Standards for IVM plans outlined in the American National Standards Institute A300 Part 7 and best management practices for IVM compiled by the International Society of Arboriculture provide reliable, widely accepted guidance for protection and conservation of natural resources that balance benefits of control, cost, public health, environmental quality, and regulatory compliance.

Special Use Permits will be required and reviewed for infrastructure and vegetation maintenance activities. The permittee will set up a construction plan to ensure construction does not interfere with other refuge operations or trust resources. The construction plan will include, at a minimum, a project schedule (e.g., mobilization, vegetation removal, and excavation), project updates, reporting emergencies (e.g., construction issues and resource damage), and strategies to avoid conflicts with

recreational activities.

Why is this use being proposed or reevaluated?

Hurricane Laura destroyed the original 69kV transmission line system in 2020. After the storm, JDEC installed a temporary 69kV transmission line system on the western road shoulder of Louisiana State Highway 27 that is currently powered via Federal Emergency Management Agency-installed generators in the substations of Cameron Parish, Louisiana, to supply electricity throughout the parish. These generators and temporary 69kV lines were considered a temporary solution until JDEC and the Federal Emergency Management Agency completed the mitigated steel transmission system design that could withstand hurricane-force winds and provide 230kV of electricity. The 230kV system will be replacing the destroyed 69kV system within the original, pre-storm location, and the upgrade is necessary for JDEC to meet reliability standards imposed by federal regulations. The proposed transmission line is vital in providing additional power and ensuring reliable and cost-effective power to many South Louisiana communities. Residents in lower Cameron Parish, LA, only have the option of receiving power from JDEC, who gets its power from the north of two National Wildlife Refuges. The new 230kV transmission system is following the pre-storm 69kV route across Sabine NWR, and there is no way to avoid this area due to the refuge's large East to West footprint within Cameron Parish. This route will provide access to the project site for construction, maintenance, and repair activities from Louisiana State Highway 27.

To construct the new transmission lines, approximately 9.3 miles of the upgraded lines must pass through Sabine NWR along State Highway 27. JDEC is proposing and applying for a right of way permit for this project. The selected route that runs through the refuge was chosen because it utilizes the pre-storm 69kV transmission line corridor rather than creating a new route. Impacts to the refuge will be minimized by utilizing the pre-storm 69kV transmission line corridor for upgraded and new utility infrastructure. The ROW is being proposed to allow for larger overhead or aerial equipment, shift during high wind, and adequate access to these facilities for operation and maintenance.

Availability of Resources

Preparation of the CD, coordination with other offices, public involvement, and assembly of the ROW Permit package requires substantial refuge staff time. Document preparation for the ROW package to be submitted to the Division of Realty, and the coordination, review, and monitoring by various Service divisions will likely require 460 hours of refuge staff in addition to consultant time. Consultation with the Louisiana Ecological Services Field Office was completed with "Not Likely To Adversely Effect" determination for the federally listed species in the proposed action. Consultation regarding cultural and archaeological resources may be required. Some resources, such as staff time and transportation expenses, will be required for

monitoring the project during construction and throughout the life cycle of the 50-year right-of-way permit operation. Approximate refuge operating fund requirements relating to the ROW process are listed below. All costs associated with maintaining the ROW will be JDEC's responsibility.

Table 1. Costs to Administer and Manage Sabine NWR Jefferson Davis Electric Cooperative Rights-of-Way (Utility)

Category and Itemization	One-time Cost	Recurring Annual Expenses
Develop Plan/NEPA document/opening package	\$21,000	0
Staff time (LE, administration and management)	\$3,000	0
Monitoring	0	\$958.00
Total one-time expenses	\$24,000	0
Total recurring annual expenses	0	\$958.00
Total expenses	\$24,000	\$958.00

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The impacts covered in this CD, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the use. Resources that will not be more than negligibly impacted by the use have been dismissed from further analysis. The Refuge Manager may modify or eliminate the use at any time to address resource concerns, unacceptable impacts, and public safety needs or to adapt to changing conditions.

No significant beneficial or adverse short-term, long-term, or cumulative impacts are associated with the proposed use as outlined in this CD. In addition, because the proposed ROW will be in the same approximate location as the pre-storm 69kV transmission line corridor, the refuge does not expect additional impacts on the refuge's resources beyond the installation phase from those addressed in the original refuge Comprehensive Conservation Plan and Environmental Assessment (U.S. Fish and Wildlife Service 2007). Any impacts on Sabine National Wildlife Refuge will be minimal. The total impact area is approximately 72.05 acres and consists of previously disturbed lands where the previous, pre-storm 69Kv transmission line corridor and associated infrastructure was located. The Programmatic Environmental Assessment (PEA) and Finding of No Significant Impact (FONSI) prepared by FEMA for the Jefferson Davis Electric Cooperative (JDEC) are hereby incorporated by reference. These documents detail the environmental impacts and mitigation measures associated with the project, indicating that no significant environmental impacts are anticipated.

Short-term impacts

As referenced above, no significant beneficial or adverse short-term impacts are associated with utility ROW construction and maintenance on Sabine NWR. However, minor short-term impacts may occur, including impacts on wildlife, habitats, and vegetation, limited to the duration of construction.

Human presence alone can negatively affect wildlife by causing animals to alter behaviors necessary for survival. Species' ability to tolerate humans varies based on multiple factors, such as adaptation to urbanization and body mass. The adverse impacts from noise and disturbance associated with humans and heavy equipment depend upon the species impacted, time of year, and human activity (Samia et al. 2015).

Mammals exhibit avoidance behaviors in response to human activity (Hammitt and Cole 1998). For example, bats have been found to expend more energy when disturbed by humans (Speakman et al. 1991). Mammals likely to experience adverse impacts from human disturbance are those with limited available habitat; animals may be forced to remain in the disturbed habitat due to a lack of suitable alternatives, dispersal ability, and underlying landscape, and suffer the consequences of human disturbance. This area was previously used as the pre-storm 69kV transmission line corridor with associated infrastructure and maintenance activities, and the wildlife that inhabit it are accustomed to disturbance. There is sufficient habitat adjacent to this 72.05-acre right-of-way for wildlife to find refugia during maintenance work and should resume full use of the area or move to adjacent similar habitats within a relatively short period (Berger 2010).

Birds exhibit various behavioral and physiological responses to human disturbance and may avoid areas with high levels of human activity (Burger 1981). Behavioral responses include increased vigilance (Frid and Dill 2002), altered singing behavior

(Gutzwiller et al. 1994), and flushing (Ikuta and Blumstein 2003; Beale and Monaghan 2004a; Pease et al. 2005; Livezey et al. 2016). Physiological responses include the release of stress hormones, increased heart rate (Weimerskirch et al. 2002) and release of stress hormones (Müllner et al. 2004; Thiel et al. 2008). Human disturbance can also cause birds to discontinue or avoid foraging (Klein et al., 1995; Burger and Gochfield 1998; Thomas et al. 2003; Yasue 2005; Martín et al. 2015) and spend more time displaying avoidance behaviors. Further, McNeil et al. (1992) suggested that some waterfowl and shorebird species may forage at night instead of during the day to avoid humans.

Reptiles, amphibians, and invertebrates engage in avoidance behaviors when encountering human disturbance (Frid and Dill 2002; Huang et al. 2011; Selman et al. 2013). Snakes fled rapidly when humans stopped to watch snakes instead of walking past snake locations (Burger 2001). Anoles decreased their display rate following stimuli that included photography shutter noises; the magnitude of response to shutter noises was similar to predator calls (Huang et al. 2011). Anderson (2019) found overland distance to hiking trails, dirt and paved roads were some of the most powerful predictors of frog presence, indicating that human foot and vehicle traffic may be a significant detriment. Frequent disturbance from humans can shorten turtles basking duration, with stronger impacts to females (Selman 2013) or have turtles bask on perches further away from busy footpaths and limit movement because of human presence (Berberi et al. 2024). Fireflies can be impacted by degraded habitats through soil compaction. Direct impacts include trampling of adult female and juveniles as well as disrupting mating pairs that typically perch low on vegetation (Lewis et al. 2024).

The literature recommends several strategies to reduce the impacts of human disturbance on wildlife. The negative impacts of disturbance become more severe as distance between humans and animals decreases (Skagen et al. 2001; Beale and Monaghan 2005; Pease et al. 2005; Trulio and White 2017). If adverse impacts occur, the Service will create or increase the size of buffers around sensitive species, which can minimize the negative effects of human disturbance (Ikuta and Blumstein 2003). Impact severity can vary depending on the number of people present, with increasing numbers associated with greater disturbance (Burger and Gochfield 1998; Thomas et al. 2003, Beale and Monaghan 2004b; Yasue 2005; Pearce-Higgins et al. 2007). Thus, the Service may limit group sizes to protect wildlife. Finally, the Service may temporarily or permanently close areas if minimization measures are insufficient to protect wildlife or habitats.

Herbicide applied according to Environmental Protection Agency label requirements could impact non-target vegetative species. However, the benefit of reducing invasive species in these areas is not outweighed by the potential loss of some non-target vegetative species. Temporary soil disturbance could impact water clarity and sediment load or turbidity in neighboring road ditches, canals, or other waters.

All short-term impacts are expected to be minimal because of the proposed ROW's

size and its location along the pre-storm 69kV transmission line corridor. The area where the right-of-way will be located is not an explicit visitor use area. While there may need to be partial or temporary closures of some recreational area parking lots for use as staging areas for JDEC during construction, the scope of work does not take place near any walking trails, and it will not require the refuge to close any other visitor-use areas.

Noise and air pollution from construction activities, particularly from equipment emissions, may cause disturbance to visitors. If disturbed by these short-term impacts, visitors will be able to access other open areas of the refuge. Noise may cause temporary flushing of waterfowl out of Hunt Unit A during this period, but these impacts are expected to be temporary and minimal. No other impacts to priority public uses are expected during general operation or maintenance activities.

Long-term impacts

Long-term periodic disturbance from vegetation management and maintenance/repair equipment could allow new invasive plants to be introduced or facilitated. ROW areas on the refuge could allow invasive species to colonize and expand coverage areas. Once present, invasive species can out-compete native plants and animals, thereby altering habitats (Marion et al. 2006; Anderson et al. 2015). However, because the proposed ROW will be located in the pre-storm 69kV transmission line corridor, the associated ROW maintenance activities that will be conducted will not significantly increase risk of invasive species spread. Long-term periodic disturbance can also have negative impacts on soil. Exposed soils are subject to compaction, leading to increased erosion and wetland sedimentation (Cooke and Xia 2020). The consequences of compacted soil include increased temperatures, reduced moisture (Marion et al. 2016), reduced soil biota (Liddle 1997), and resistance to seed germination and penetration by plant roots (Alessa and Earnhart 2000). The Service will minimize soil compaction by requiring workers to operate equipment and keep foot traffic within already disturbed areas.

No significant beneficial or adverse long-term or reasonably foreseeable effects are associated with utility ROW maintenance on Sabine NWR. However, disturbance activities can have minor long-term impacts on habitats, physical resources, and wildlife. Animals experience various long-term effects due to anthropogenic disturbance. For example, male birds alter their singing behavior and subsequently may suffer from lower reproductive fitness due to impaired territory defense and mate acquisition (Gutzwiller et al. 1994). Disrupted foraging behavior can cause decreased body mass, increasing a bird's susceptibility to disease (Gibson et al. 2018). Disturbance from visitors can cause an individual or group of shorebirds to alter their normal behavior, change habitat use, and may reduce productivity and survival rates (Mengak and Dayer 2020). These physiological and behavioral responses to human activity cause birds to expend energy that will otherwise be used for survival,

migration, and reproduction (Bélanger and Bédard 1990; Weimerskirch et al. 2002). Additionally, bird strikes with transmission lines are likely to continue (Manville 2005). Significant increases in the number and frequency are not expected since the new line will occur within the pre-storm 69kV transmission line corridor. Finally, appropriate minimization strategies and continuous monitoring can ensure that utility ROW maintenance can occur without causing more than minor long-term impacts on the refuge's resources. No known cultural or historic resources occur in the proposed project area, which has been disturbed in the past by the pre-storm 69kV transmission line corridor and associated infrastructure. Should ground disturbance occur and resources be revealed, activity will cease, and assessment and conservation actions initiated.

The proposed issuance of this right-of-way permit with associated maintenance activities is anticipated to result in minimal to no long-term impacts on wildlife, habitat, vegetation, water quality, or visitor experience. Long-term beneficial impacts to public services and health and safety are expected because of the Proposed Action through improved electrical service reliability and resiliency for residents. Increased resiliency and reliability could reduce risks of heat-related illness and death by providing more reliable electricity for cooling and attract businesses and jobs through quicker power restoration following outages from the upgraded lines. More reliable and newer construction will result in less traffic through refuge with repair vehicles to perform maintenance on infrastructure, which will reduce impacts to air and water quality, habitats, spread of invasive species, short term impacts to wildlife, and decrease soil compaction potential.

Public Review and Comment

The compatibility determination was made available for public review and comment for 14 calendar days; electronically on the refuge website (<https://www.fws.gov/refuge/sabine>) and on the Refuge Complex Facebook page (<https://www.facebook.com/SouthwestLouisianaComplex/>). The document was distributed by email to potentially interested stakeholders via refuge email list.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

1. The proposed action must comply with all state and federal environmental policies. The proposed action must also comply with other federal, state, and

local permitting requirements and regulations regarding environmental and cultural resource protection. The terms and conditions of the ROW permit will allow for modification to ensure compatibility.

2. All fees/requirements of the application process must be satisfied. The Service must be reimbursed for time spent processing the ROW permit and salary and other expenditures associated with any emergency response and any follow-up requirement, including monitoring, during and after the construction period. An agreement will be finalized prior to the ROW permit being issued.
3. A special use permit outlining parameters and stipulations will be required for all maintenance activities that may significantly alter the landscape and will include provisions that ensure disturbance to wildlife and public use and impacts to habitat and other resources is avoided or minimized.
4. JDEC will apply for and obtain written approval from the refuge before conducting any activity that will require temporary use outside of ROW boundaries (including any needed temporary staging areas).
5. JDEC will apply for and obtain a Pesticide Use Permit for any vegetative maintenance utilizing herbicides on the ROW before work is conducted. Use of herbicides, pesticides, or solvents will be prohibited unless otherwise approved by the refuge. No storage tanks will be used or stored on the ROW without prior approval by the refuge.
6. JDEC will install marker balls, bird diverters, and/or paint to reduce bird strikes (Ferrer et al. 2020).
7. JDEC will install transmission visibility markers/balls on the lines between each pole on the refuge to prevent risk of collision by low-flying aircraft and helicopters, given that the poles will be located in areas of frequent helicopter use for refuge management purposes.
8. JDEC will set up a construction plan to ensure construction does not interfere with other refuge operations or trust resources. The construction plan will include, at a minimum, a project schedule (e.g., mobilization, vegetation removal, and excavation), project updates, reporting emergencies (e.g., construction issues and resource damage), and strategies to avoid conflicts with recreational activities.
9. The project area (i.e., ROW width) will be surveyed and marked prior to any construction activities. Markings are required to stay in place until project completion to ensure no activities/impacts occur outside of the ROW area. All markers must be removed and properly disposed of upon construction activity completion.
10. Exposed soils must be redressed with “clean” soil and excavations must be refilled with adequate soil for settlement to restore the original landscape. Disturbed soil will be re-seeded using a seed mixture that must be reviewed and approved by the refuge. JDEC will be responsible for controlling annual and noxious weeds by mowing and/or spraying until the new seeding is established under plans and activities approved by the refuge.

11. JDEC will periodically, and where needed, maintain vegetation to prohibit the growth and colonization of invasive species or woody vegetation. Any maintenance on the ROW will be conducted during times that will minimize disturbance to wildlife and public access. Routine maintenance will be allowed from March 15 through October 15 within the ROW. Routine maintenance activities include mowing, herbicide applications, or any activity designed to alter the current state of the vegetation.
13. JDEC will apply for and obtain a refuge Special Use Permit for all construction, repair, staging, or maintenance activities conducted inside or outside of the ROW.

Justification

The issuance of a utility right-of-way to Jefferson Davis Electric Cooperative, as outlined, will not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best professional judgement, the Service has determined that the issuance of a ROW at Sabine NWR is compatible, in accordance with the stipulations provided here, and will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the refuge. The proposed JDEC ROW area is parallel to Louisiana State Highway 27, located within the pre-storm 69kV transmission line corridor, and does not significantly increase the amount of existing disturbed area. The temporary disturbances to the ROW area for routine operation and maintenance of the transmission line will have small, temporary negative effects on wildlife, with little or no long-term harm to wildlife.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2075

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Public Comments Received

One comment was received regarding mitigation and monitoring costs. No edits to the documents were made in response to the comment.

Figure(s)

Figure 1. Location of Jefferson Davis Electric Cooperative (JDEC) Utility Right-of-Way on Sabine National Wildlife Refuge.

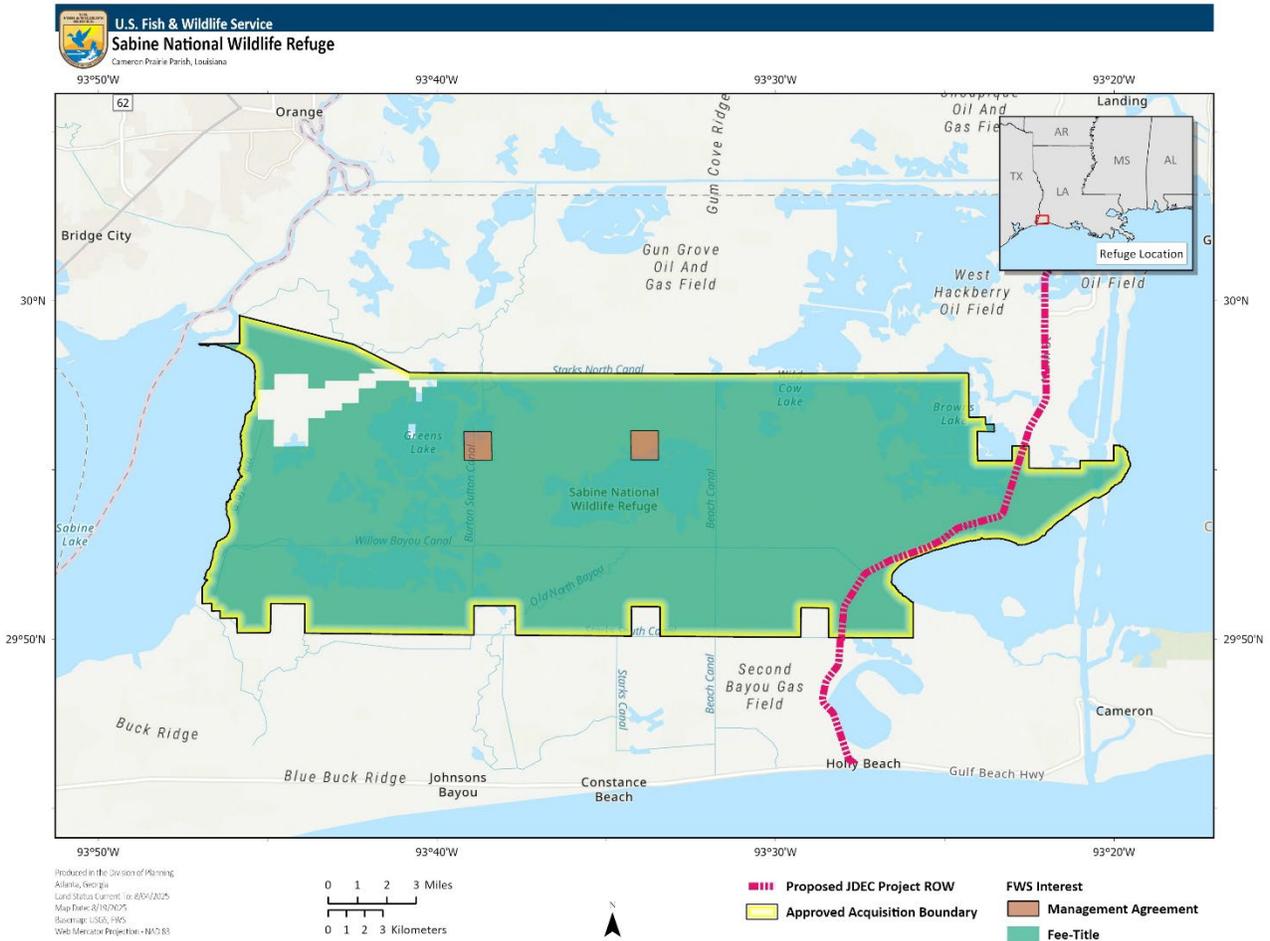
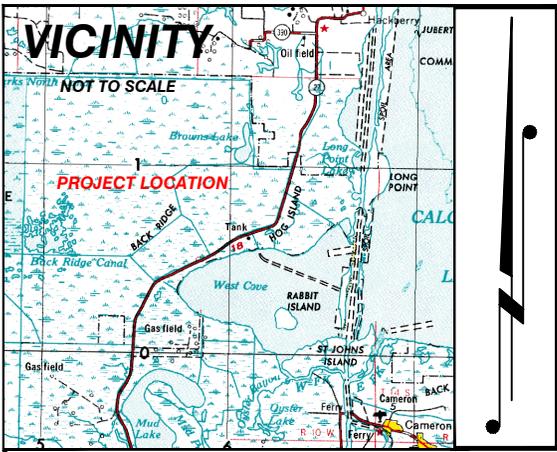


Exhibit A. Land Descriptions and Final Surveys

JULIA C. BYRNES

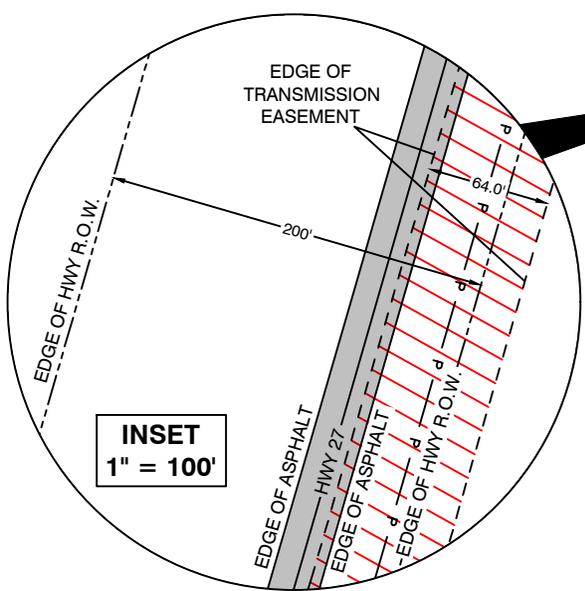


P.O.B.
C/L OF TRANSMISSION EASEMENT
@ PROPERTY LINE

X = 2,633,294.97" NAD 83 (2011)
Y = 525,228.32"
LAT = 29° 55' 42.21"
LONG = 93° 22' 39.73" NAD 83 (2011)

NE CORNER OF SW 1/4 OF SEC 15
BRASS CAP IN CONCRETE
NAD83 (2011) COORDINATES
Y: 525,214.27'
X: 2,634,081.53'

TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



T13S-R10W

SABINE NATIONAL
WILDLIFE REFUGE

- NOTES:**
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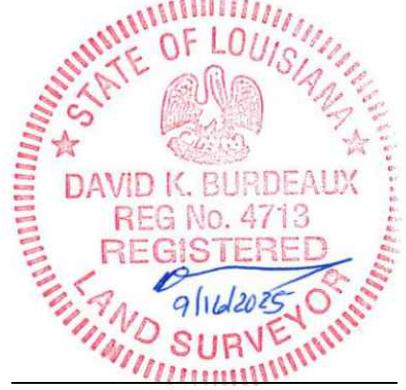
REFERENCE MAPS:
BOUNDARY SURVEY SABINE NATIONAL WILDLIFE REFUGE BY RONALD E. PRATHER, PLS,C&C TECHNOLOGIES, DATED 7/28/2007

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- FND = FOUND

LINETYPE LEGEND

- EDGE OF HIGHWAY RIGHT OF WAY
- C/L OF TRANSMISSION EASEMENT
- PROPERTY LINE
- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

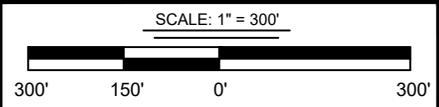


DAVID K. BURDEAUX, P.L.S.
PROFESSIONAL LAND SURVEYOR NO. 4713

DRAWN BY: RBT	APPROVED BY: JEF
DATE: 01/30/2024	JOB NO: 2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG	
SHEET NO: 1 OF 16	
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET	

EXHIBIT "A"

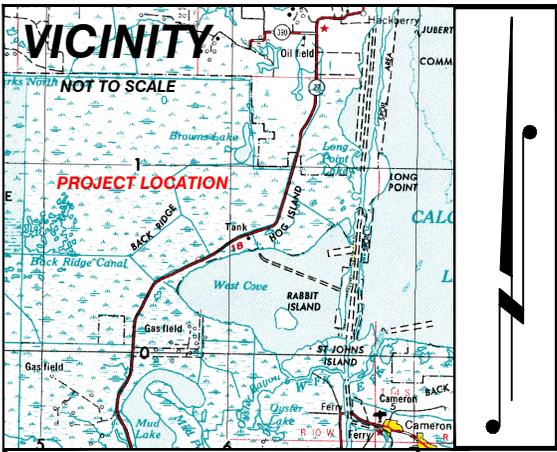
JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



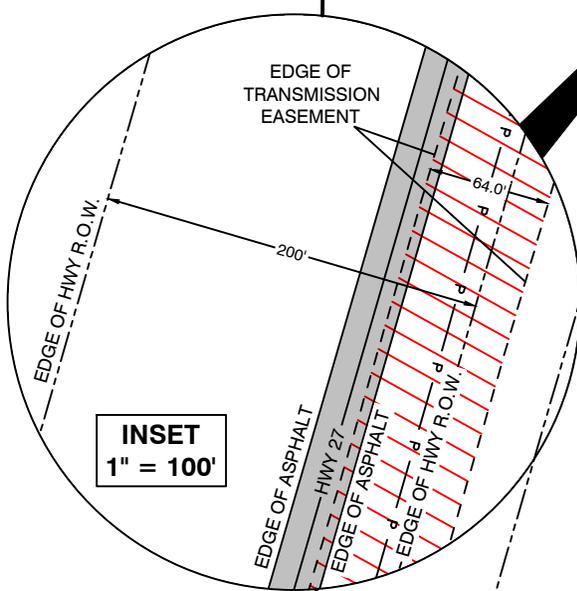
T. BAKER SMITH
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REV. NO: 05	REV. DATE: 09/15/2025	REV. BY: JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.		

9/16/2025 - PLY-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY\ROW PLATS\REV 5\21.1420_NWR_ROW_REV5.DWG



TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



T13S-R10W

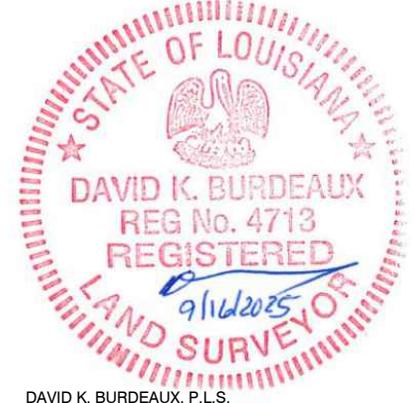
SABINE NATIONAL WILDLIFE REFUGE

TRANSMISSION EASEMENT 72.05 ACRES

NOTES:

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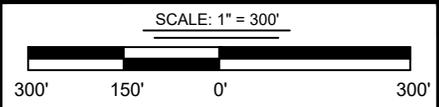
LINETYPE LEGEND

- EDGE OF HIGHWAY RIGHT OF WAY
- C/L OF TRANSMISSION EASEMENT
- PROPERTY LINE
- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	2	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

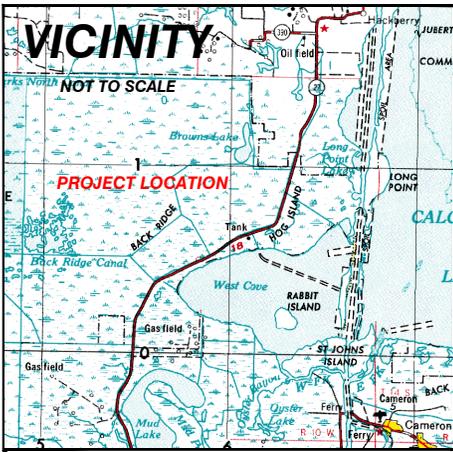
EXHIBIT "A"

JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA

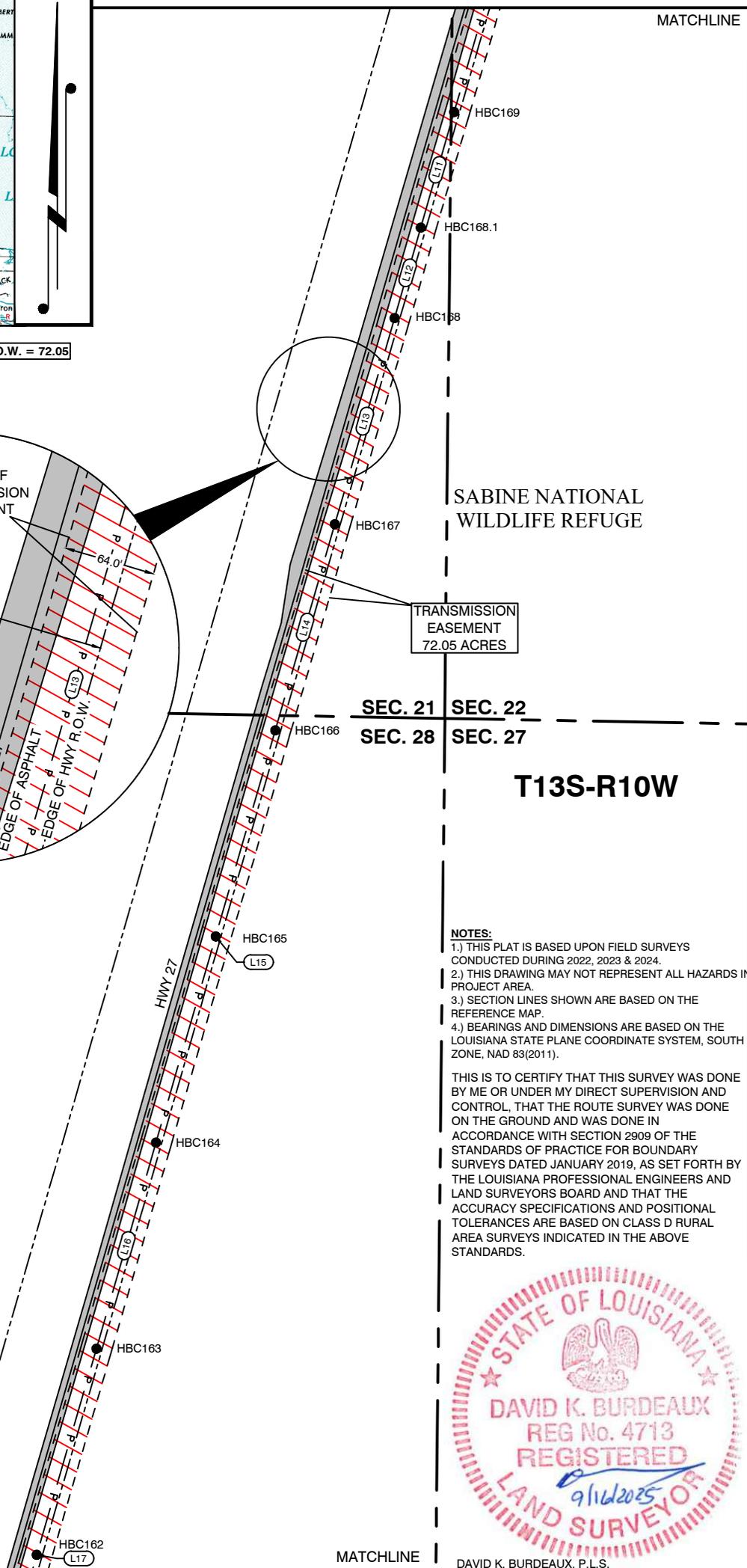
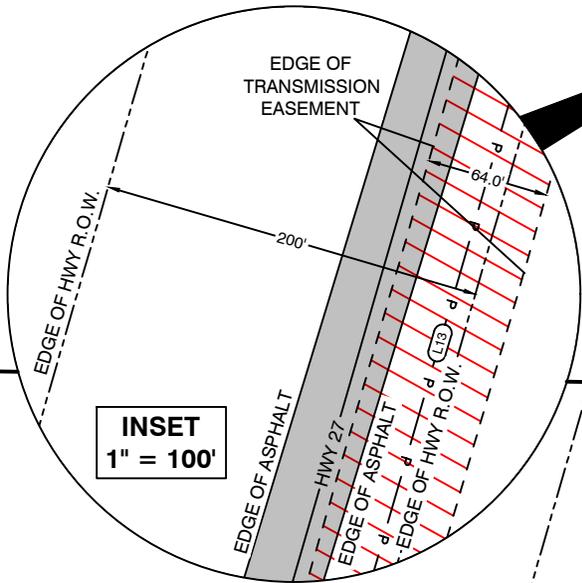


REV. NO.:	05	REV. DATE:	09/15/2025	REV. BY:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.					

9/16/2025 - PLY-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY\ROW PLATS\REV 5\21.1420_NWR_ROW_REV5.DWG

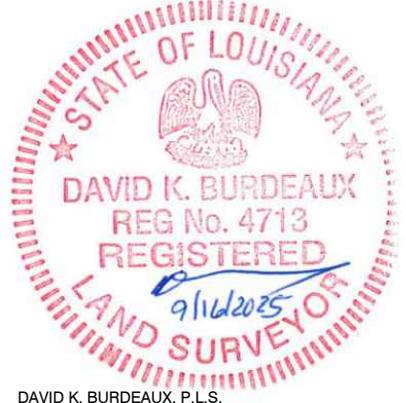


TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



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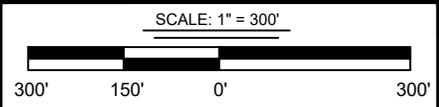
LINETYPE LEGEND

- EDGE OF HIGHWAY RIGHT OF WAY
- C/L OF TRANSMISSION EASEMENT
- PROPERTY LINE
- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	3	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

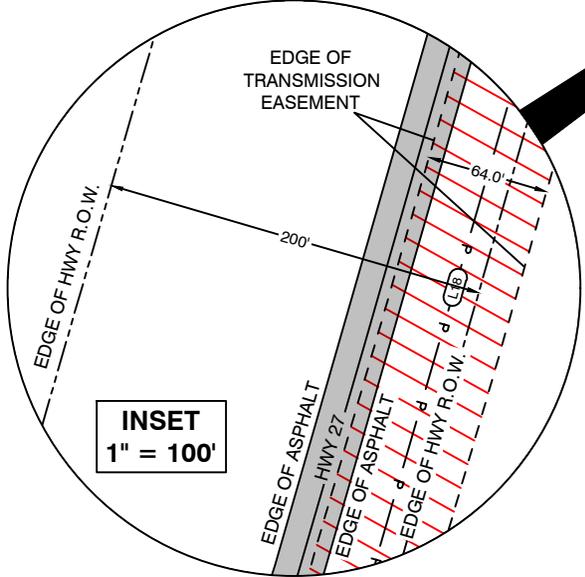
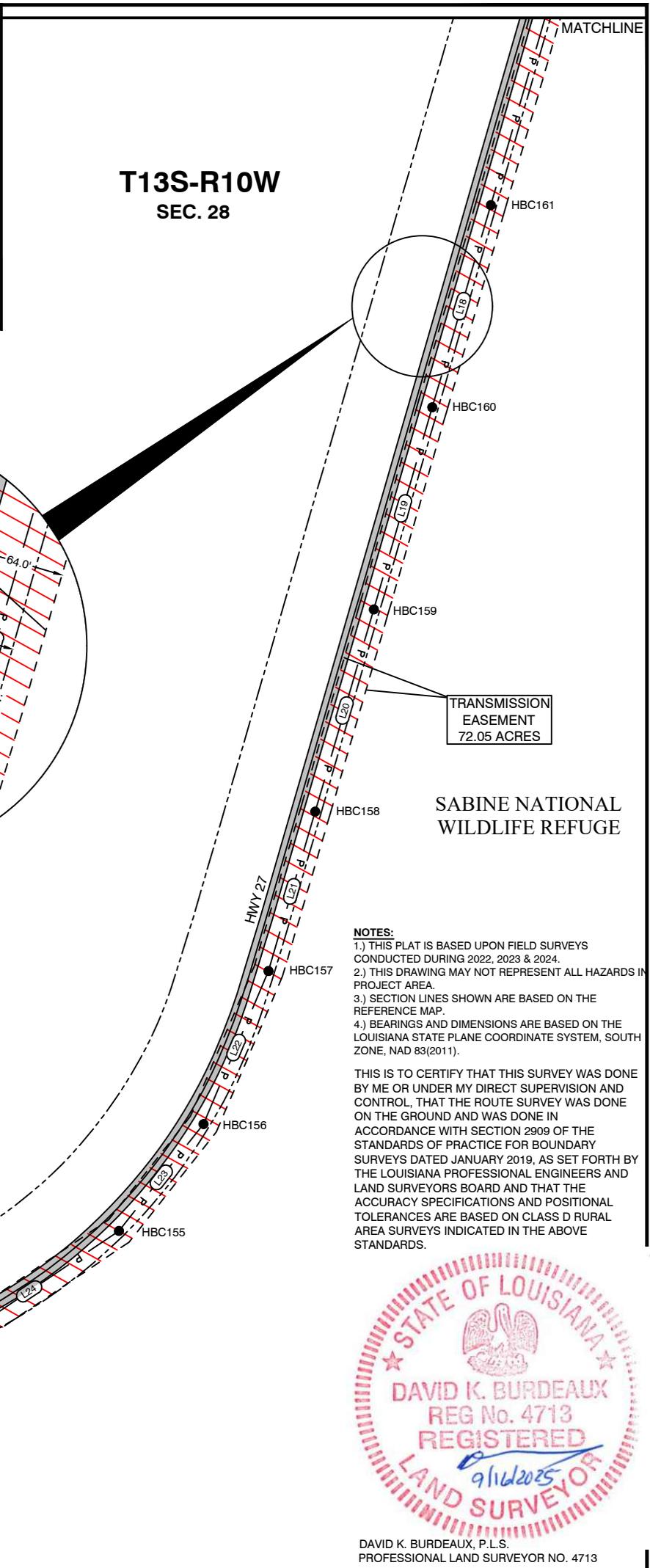
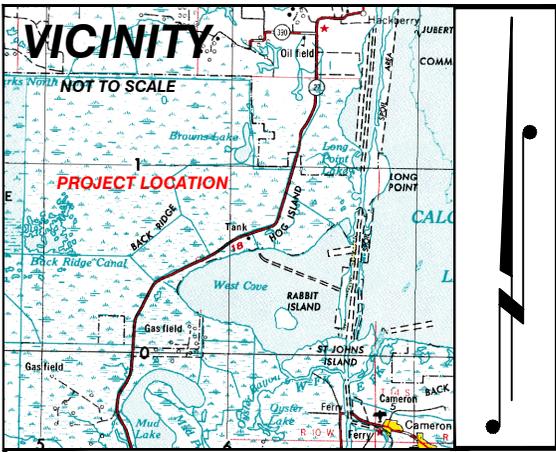
EXHIBIT "A"

JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



REV. NO.:	05	REV. DATE:	09/15/2025	REV. BY.:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W					

9/16/2025 - PLY-2021(2021.1420)DWG(ROW MAPS)SABINE NATIONAL WILDLIFE REFUGE(REVISED AREA EAST OF HWY17)R.O.W. MAPS(ROW REV5.DWG



TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05

REFERENCE MAPS:
BOUNDARY SURVEY SABINE NATIONAL WILDLIFE REFUGE BY RONALD E. PRATHER, PLS,C&C TECHNOLOGIES, DATED 7/28/2007

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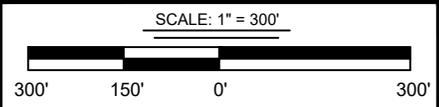


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PROFESSIONAL LAND SURVEYOR NO. 4713

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DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	4	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

EXHIBIT "A"

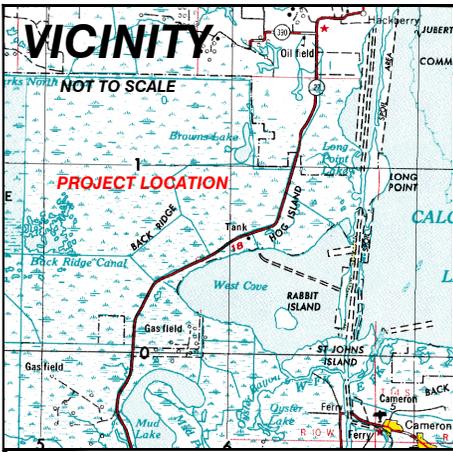
JEFF DAVIS ELECTRICAL COOPERATIVE, INC
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LOCATED IN CAMERON PARISH
LOUISIANA



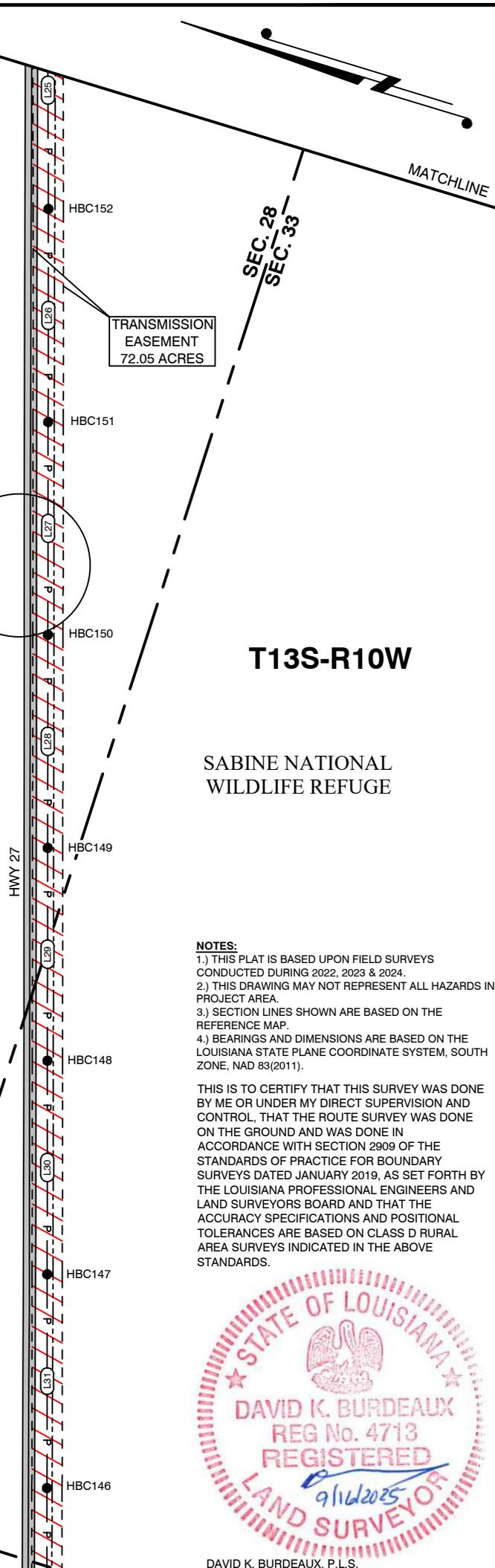
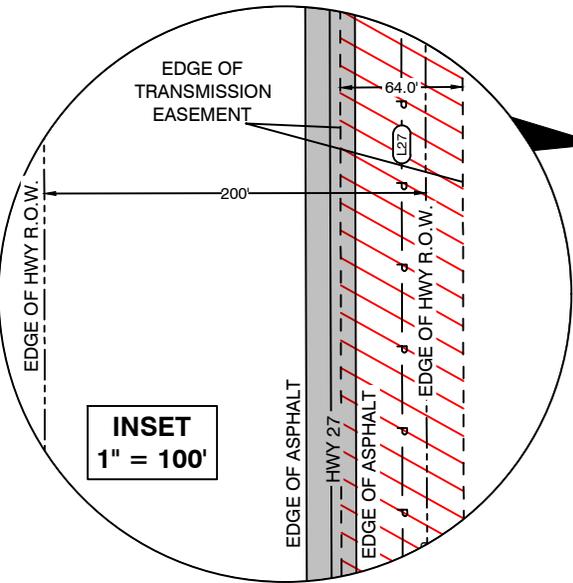
T. BAKER SMITH
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LA Eng Firm #: EF-0603368

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9/16/2025 - P:\X-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY\ROW PLAT\REV 5\21.1420_NWR_ROW_REV5.DWG



TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05

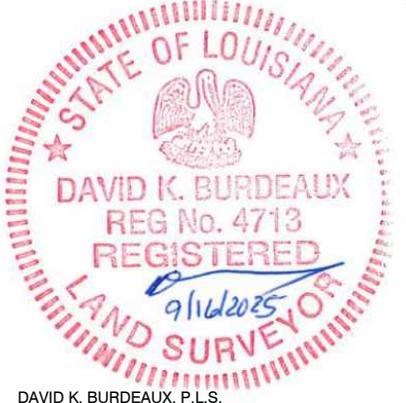


T13S-R10W

SABINE NATIONAL WILDLIFE REFUGE

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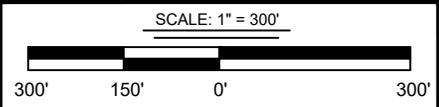
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DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	5	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

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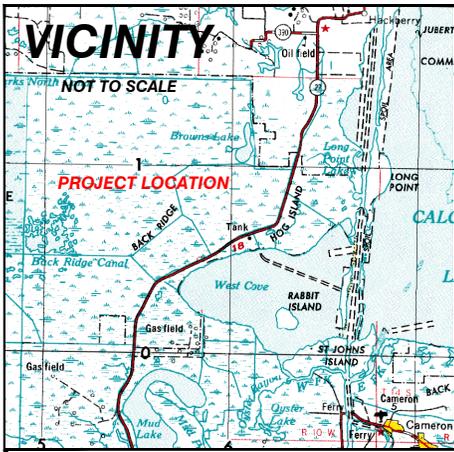
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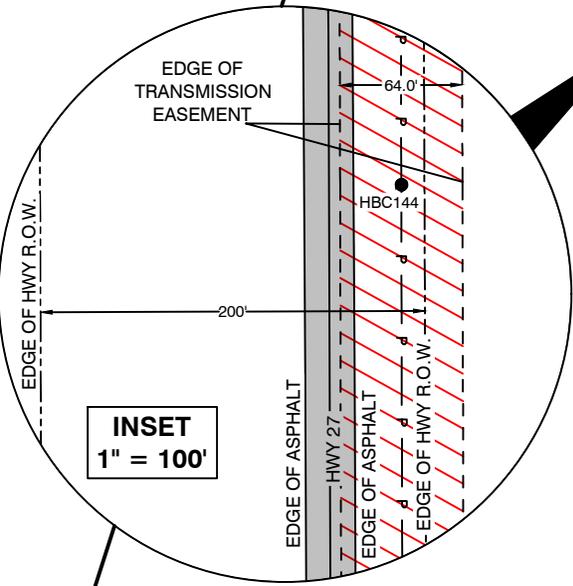
9/16/2025 - PLY-2021(2021.1420)DWG(ROW MAPS)SABINE NATIONAL WILDLIFE REFUGE(REVISED AREA EAST OF HWY)ROW PLATS(REV 5)21.1420_NWR_ROW_REV5.DWG



MATCHLINE

TRANSMISSION EASEMENT
72.05 ACRES

TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



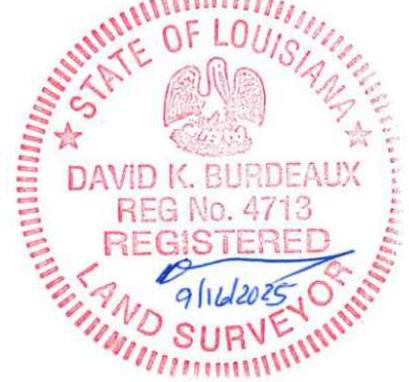
T13S-R10W
SEC. 32

SABINE NATIONAL
WILDLIFE REFUGE

NOTES:

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- 3.) SECTION LINES SHOWN ARE BASED ON THE REFERENCE MAP.
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DAVID K. BURDEAUX, P.L.S.
PROFESSIONAL LAND SURVEYOR NO. 4713

REFERENCE MAPS:
BOUNDARY SURVEY SABINE NATIONAL WILDLIFE REFUGE BY RONALD E. PRATHER, PLS,C&C TECHNOLOGIES, DATED 7/28/2007

ABBREVIATION LEGEND

- C/L = CENTERLINE
- P.O.B. = POINT OF BEGINNING
- P.O.C. = POINT OF COMMENCEMENT
- R.O.W. = RIGHT OF WAY
- X = EASTING
- Y = NORTHING
- MON. = MONUMENT
- FND = FOUND

LINETYPE LEGEND

- EDGE OF HIGHWAY RIGHT OF WAY
- C/L OF TRANSMISSION EASEMENT
- PROPERTY LINE
- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

MATCHLINE

HWY 27

HBC145

HBC144

HBC143

HBC142

HBC141

HBC140

HBC139

DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO:	6	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

EXHIBIT "A"

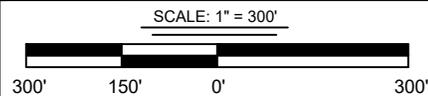
JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA

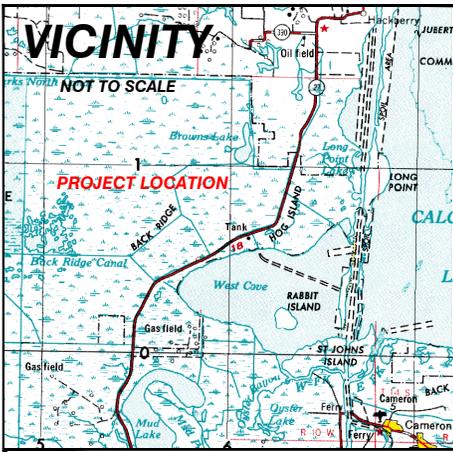
REV. NO: 05 REV. DATE: 09/15/2025 REV. BY: JEF

REVISION DESCRIPTION:
REVISED PER U.S.F.W.

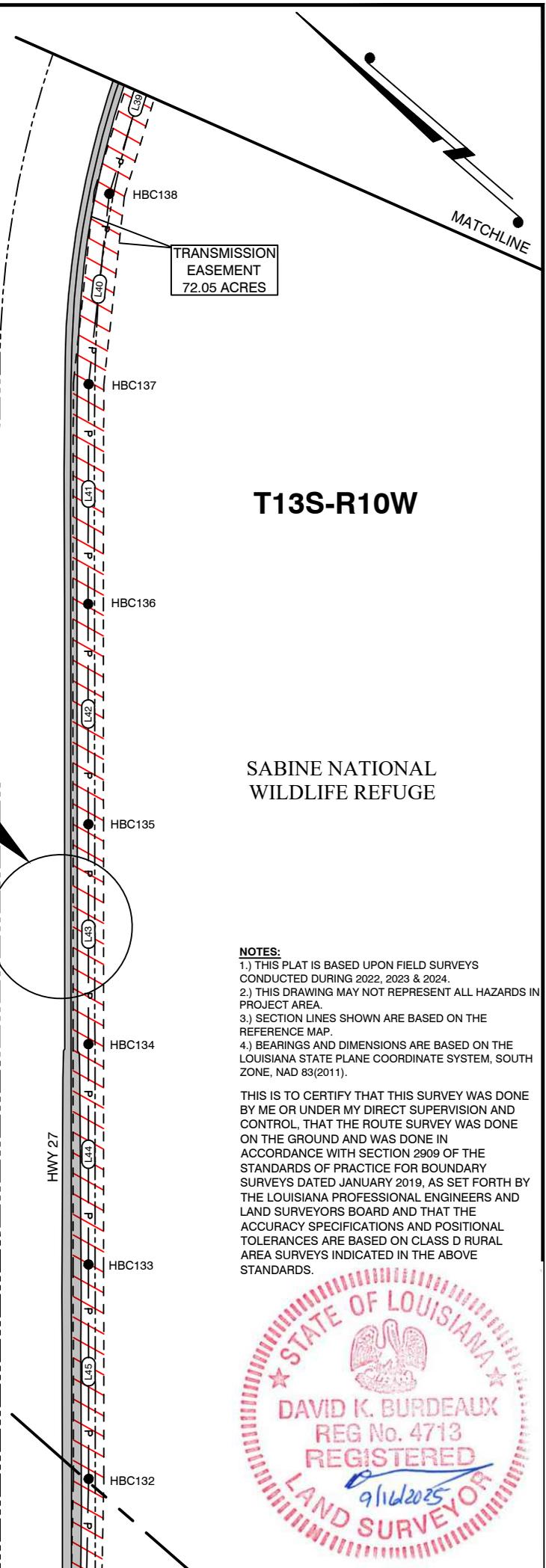
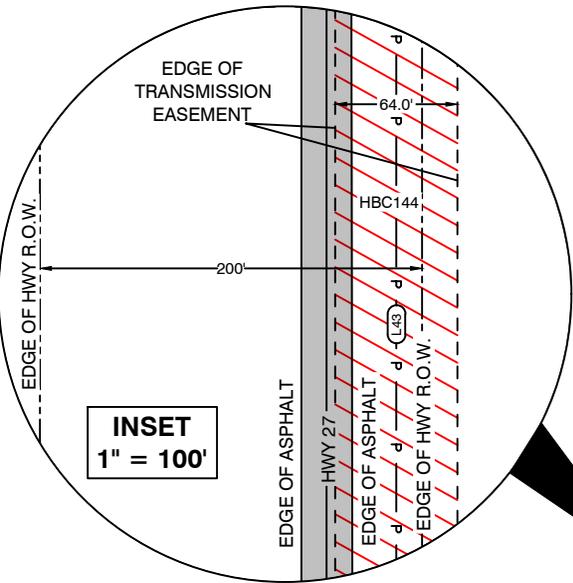


T. BAKER SMITH
107 Global Circle, Suite 100, Lafayette, LA 70503
(337) 735-2800 - tbasmith.com
LA Eng Firm #: EF-0603366





TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



T13S-R10W

SABINE NATIONAL WILDLIFE REFUGE

- NOTES:**
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PROFESSIONAL LAND SURVEYOR NO. 4713

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- Y = NORTHING
- MON. = MONUMENT
- FND = FOUND

LINETYPE LEGEND

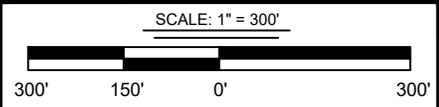
- EDGE OF HIGHWAY RIGHT OF WAY
- C/L OF TRANSMISSION EASEMENT
- PROPERTY LINE
- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

SEC. 32
SEC. 31

DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	7	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

EXHIBIT "A"

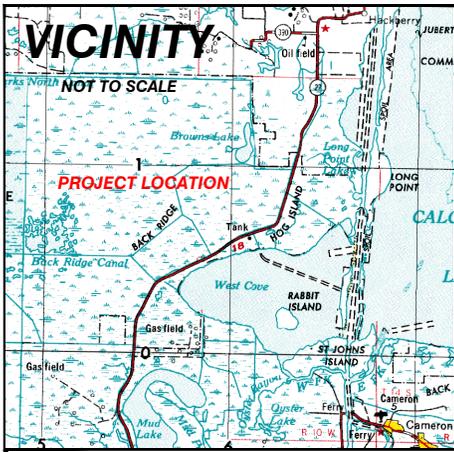
JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



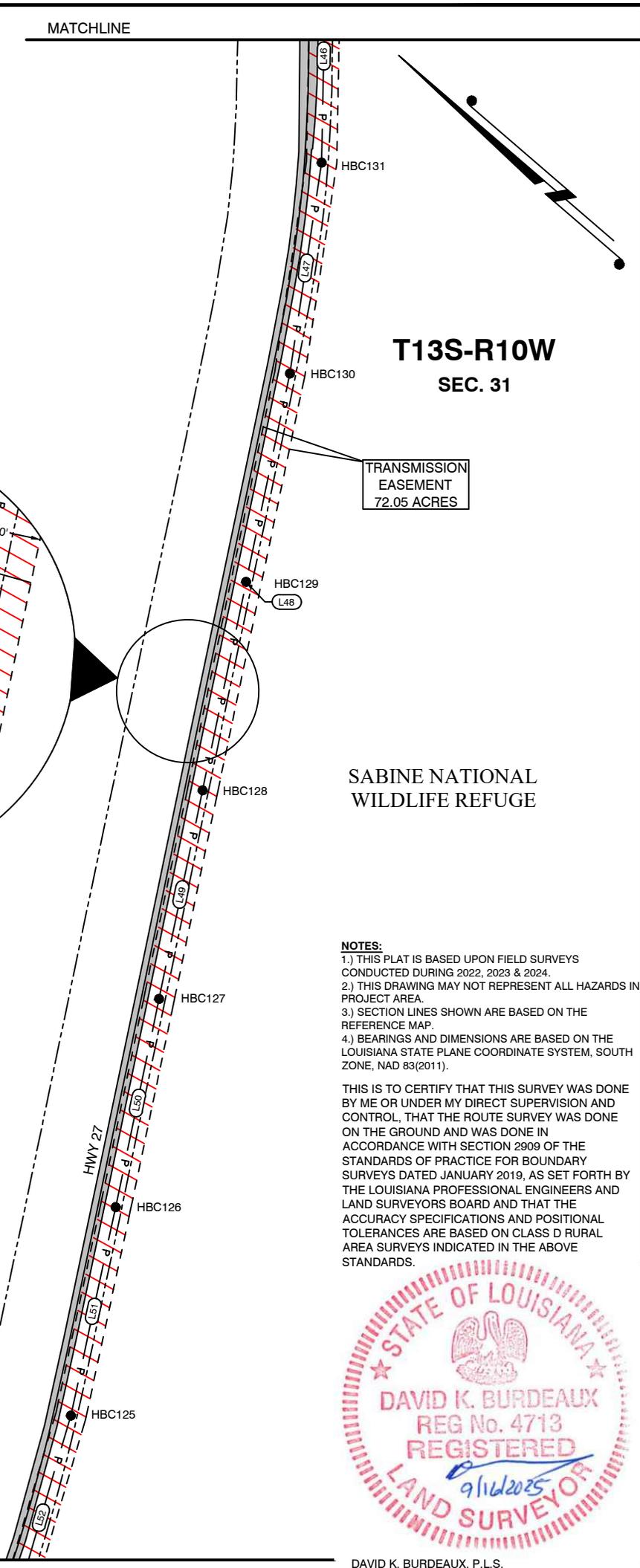
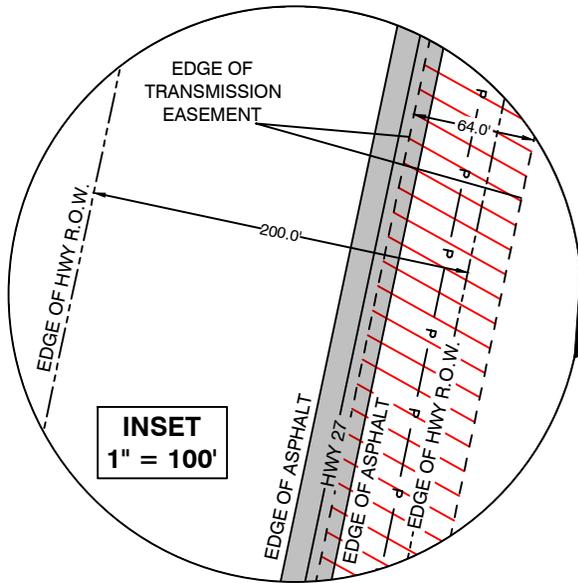
T. BAKER SMITH
107 Global Circle, Suite 100, Lafayette, LA 70503
(337) 735-2800 - tbsmith.com
LA Eng Firm #: EF-0663368

REV. NO.:	05	REV. DATE:	09/15/2025	REV. BY:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.					

9/16/2025 - PLY-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY\ROW PLATS\REV 5\21.1420_NWR_ROW_REV5.DWG



TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



REFERENCE MAPS:
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ABBREVIATION LEGEND

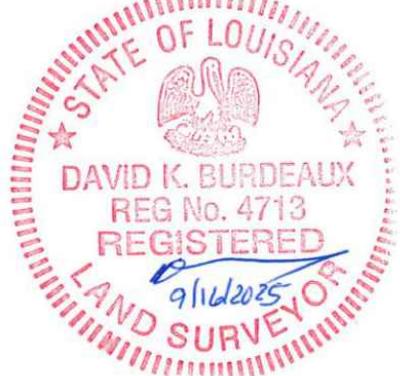
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LINETYPE LEGEND

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- C/L OF TRANSMISSION EASEMENT
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- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

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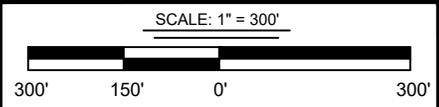


DAVID K. BURDEAUX, P.L.S.
PROFESSIONAL LAND SURVEYOR NO. 4713

DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	8	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

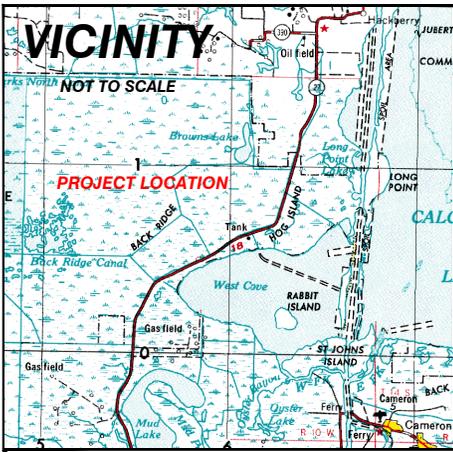
EXHIBIT "A"

JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



REV. NO.:	05	REV. DATE:	09/15/2025	REV. BY:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.					

9/16/2025 - PLY-2021(2021.1420)DWG(ROW MAPSABINE NATIONAL WILDLIFE REFUGE)REVISED AREA EAST OF HWY(ROW PLATS)REV 5(21.1420_NWR_ROW_REV5.DWG



MATCHLINE

TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05

T13S-R10W

T14S-R10W

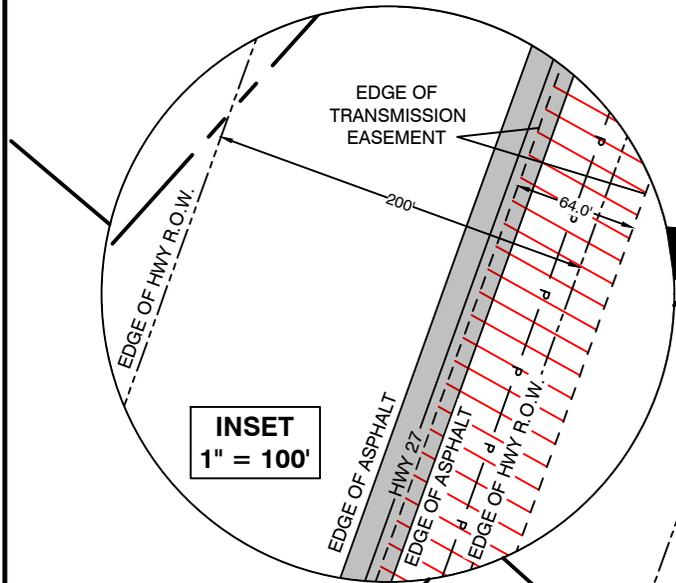
SABINE NATIONAL WILDLIFE REFUGE

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- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

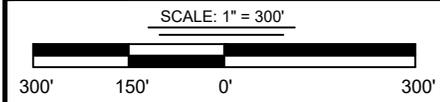
T14S-R11W

MATCHLINE

DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	9	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

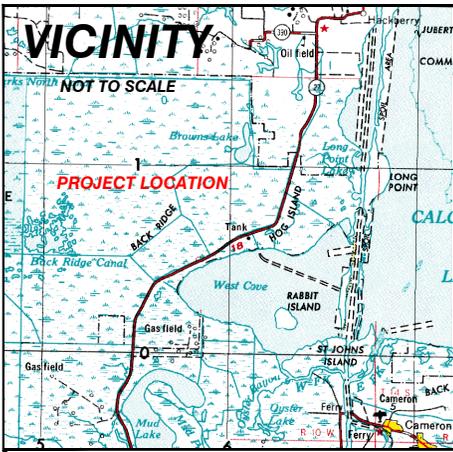
EXHIBIT "A"

JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



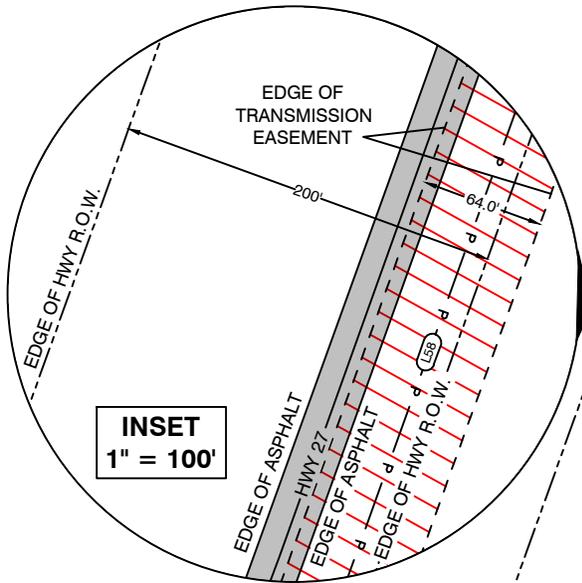
T. BAKER SMITH
107 Global Circle, Suite 100, Lafayette, LA 70503
(337) 735-2800 - tbsmith.com
LA Eng Firm #: EF-0603368

REV. NO.:	05	REV. DATE:	09/15/2025	REV. BY:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.					



MATCHLINE

TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



TRANSMISSION EASEMENT
72.05 ACRES

T14S-R11W
SEC. 1

SABINE NATIONAL
WILDLIFE REFUGE

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- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

MATCHLINE

DRAWN BY: RBT APPROVED BY: JEF

DATE: 01/30/2024 JOB NO: 2021.1420

DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG

SHEET NO: 10 OF 16

PROJECTION: LOUISIANA SOUTH
GEO. DATUM: NAD83 | VERT. DATUM: NAVD88
GRID UNITS: US SURVEY FEET

SCALE: 1" = 300'



T. BAKER SMITH
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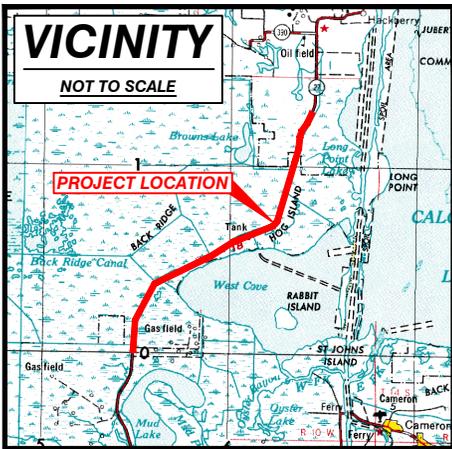
REV. NO: 05 REV. DATE: 09/15/2025 REV. BY: JEF

REVISION DESCRIPTION:
REVISED PER U.S.F.W.

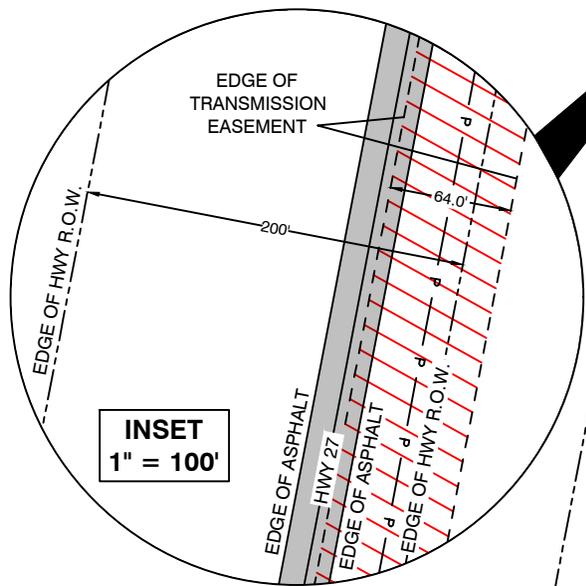
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RIGHT OF WAY EASEMENT
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ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA

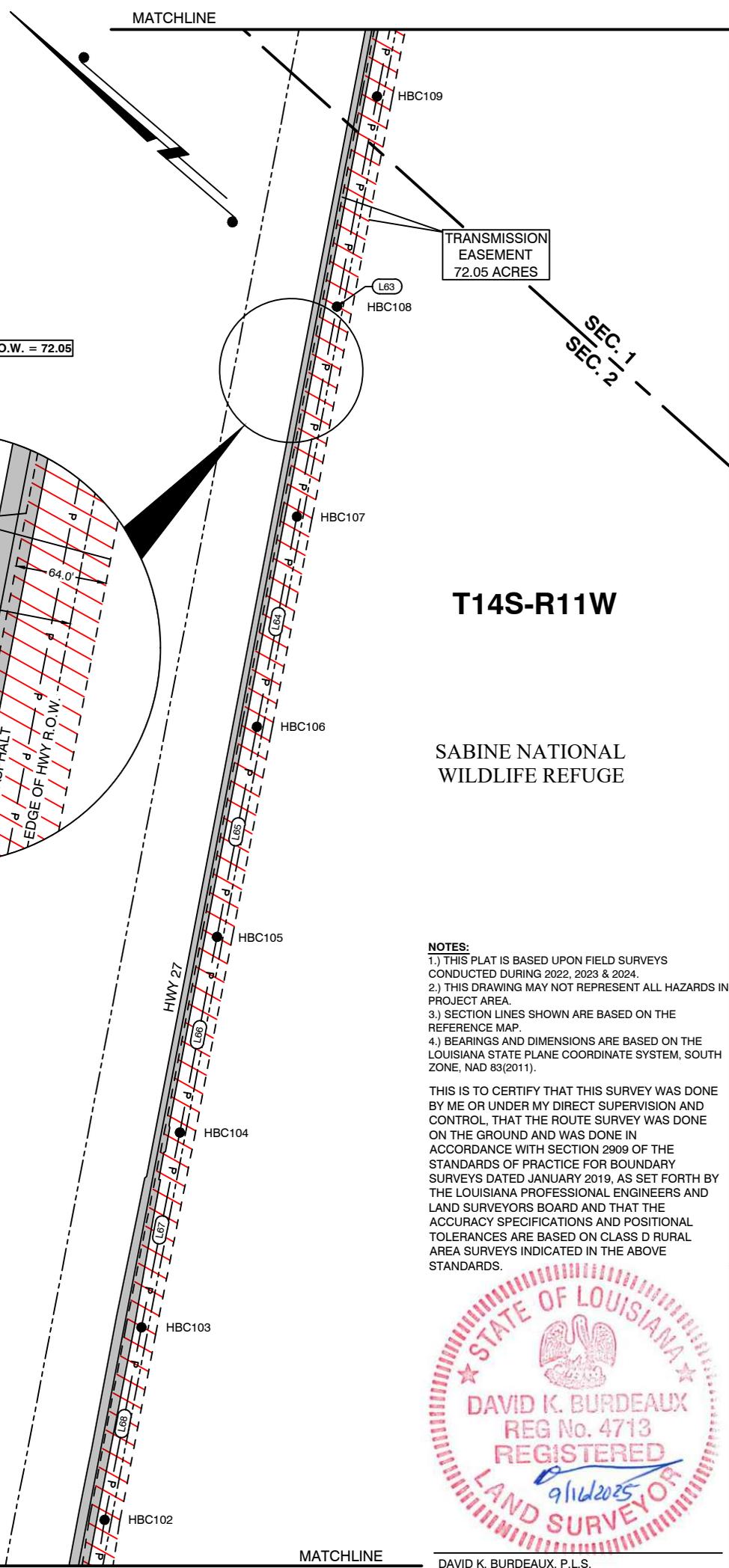
9/16/2025 - P:\Y-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY\ROW PLATS\REV 5/21.1420_NWR_ROW_REV5.DWG



TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



INSET
1" = 100'

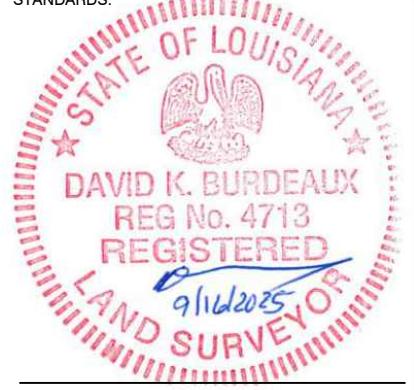


T14S-R11W

SABINE NATIONAL WILDLIFE REFUGE

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REFERENCE MAPS:
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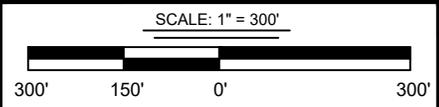
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- STRUCTURE LOCATION

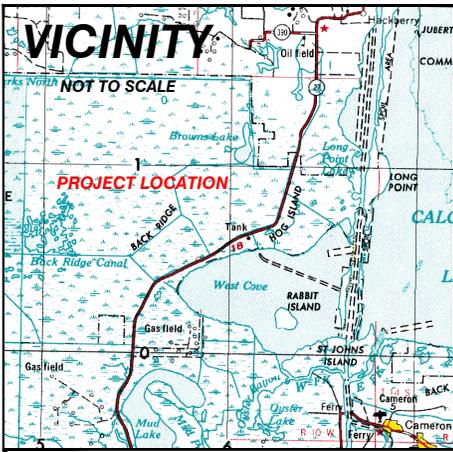
DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO:	11	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

EXHIBIT "A"

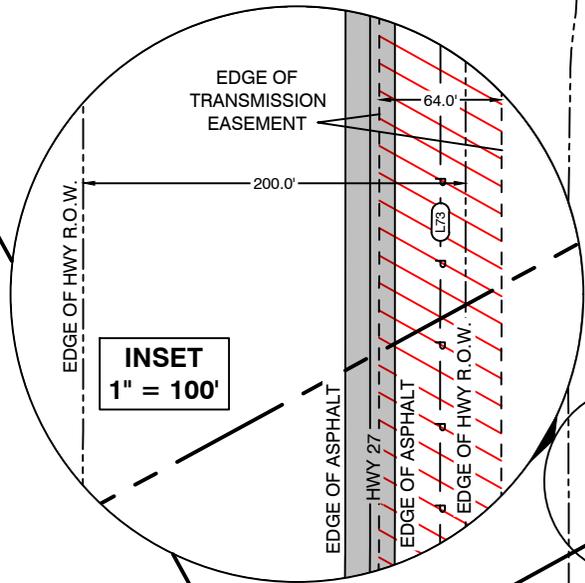
JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



REV. NO:	05	REV. DATE:	09/15/2025	REV. BY:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.					



TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



TRANSMISSION EASEMENT
72.05 ACRES

SABINE NATIONAL WILDLIFE REFUGE

T14S-R11W

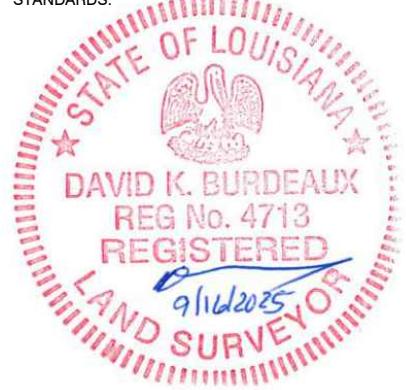
SEC. 2
SEC. 11

SEC. 3
SEC. 10

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PROFESSIONAL LAND SURVEYOR NO. 4713

REFERENCE MAPS:
BOUNDARY SURVEY SABINE NATIONAL WILDLIFE REFUGE BY RONALD E. PRATHER, PLS.C&C TECHNOLOGIES, DATED 7/28/2007

ABBREVIATION LEGEND

- C/L = CENTERLINE
- P.O.B. = POINT OF BEGINNING
- P.O.C. = POINT OF COMMENCEMENT
- R.O.W. = RIGHT OF WAY
- X = EASTING
- Y = NORTHING
- MON. = MONUMENT
- FND = FOUND

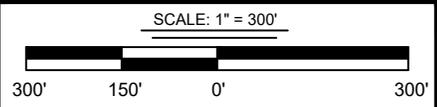
LINETYPE LEGEND

- EDGE OF HIGHWAY RIGHT OF WAY
- C/L OF TRANSMISSION EASEMENT
- PROPERTY LINE
- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

DRAWN BY:	RBT	APPROVED BY:	JEF
DATE:	01/30/2024	JOB NO.:	2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG			
SHEET NO.:	12	OF	16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			

EXHIBIT "A"

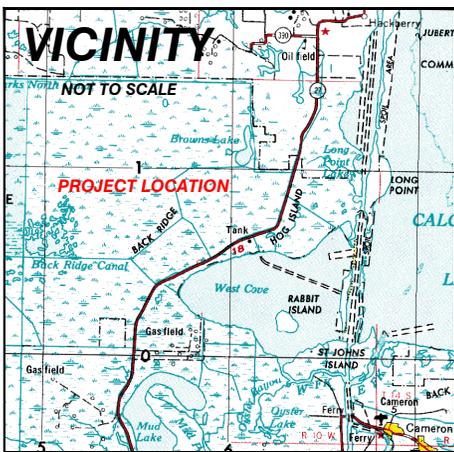
JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



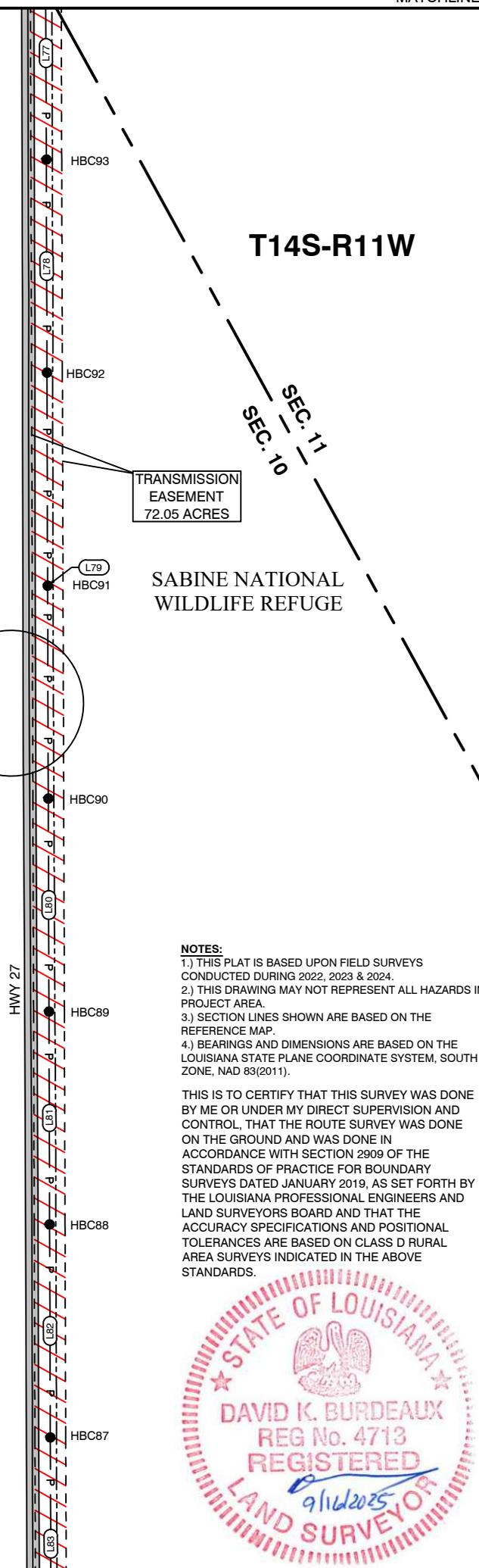
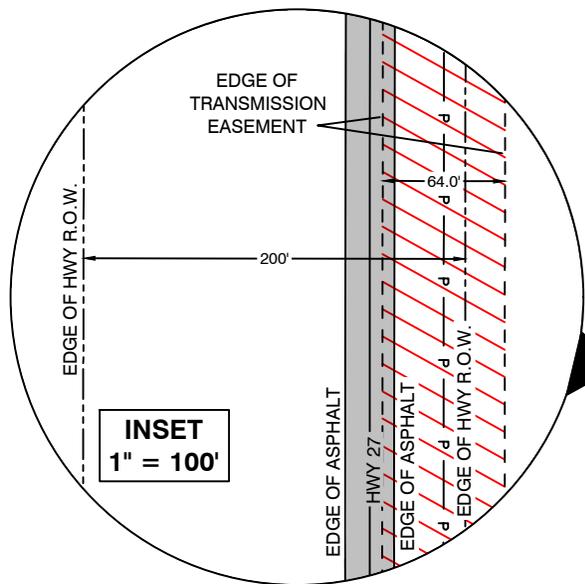
T. BAKER SMITH
107 Global Circle, Suite 100, Lafayette, LA 70503
(337) 735-2800 - tbsmith.com
LA Eng Firm #: EF-0663366

REV. NO.:	05	REV. DATE:	09/15/2025	REV. BY:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.					

9/16/2025 - P:\Y-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY ROW PLATS\REV 5\21.1420_NWR_ROW_REV5.DWG



TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



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 BOUNDARY SURVEY SABINE NATIONAL WILDLIFE REFUGE BY RONALD E. PRATHER, PLS.C&C TECHNOLOGIES, DATED 7/28/2007

ABBREVIATION LEGEND

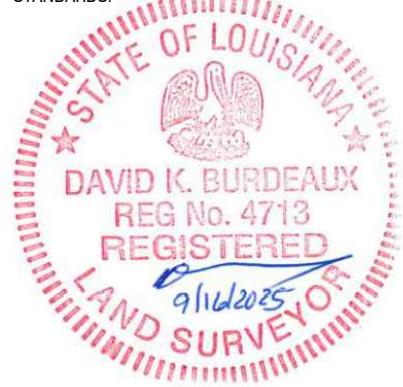
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LINETYPE LEGEND

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- C/L OF TRANSMISSION EASEMENT
- PROPERTY LINE
- EDGE OF TRANSMISSION LINE EASEMENT
- AREA OF TRANSMISSION EASEMENT OUTSIDE OF HWY R.O.W.
- STRUCTURE LOCATION

- NOTES:**
- 1.) THIS PLAT IS BASED UPON FIELD SURVEYS CONDUCTED DURING 2022, 2023 & 2024.
 - 2.) THIS DRAWING MAY NOT REPRESENT ALL HAZARDS IN PROJECT AREA.
 - 3.) SECTION LINES SHOWN ARE BASED ON THE REFERENCE MAP.
 - 4.) BEARINGS AND DIMENSIONS ARE BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83(2011).

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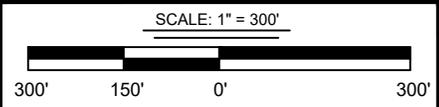


DAVID K. BURDEAUX, P.L.S.
 PROFESSIONAL LAND SURVEYOR NO. 4713

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DATE: 01/30/2024	JOB NO: 2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG	
SHEET NO: 13	OF 16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET	

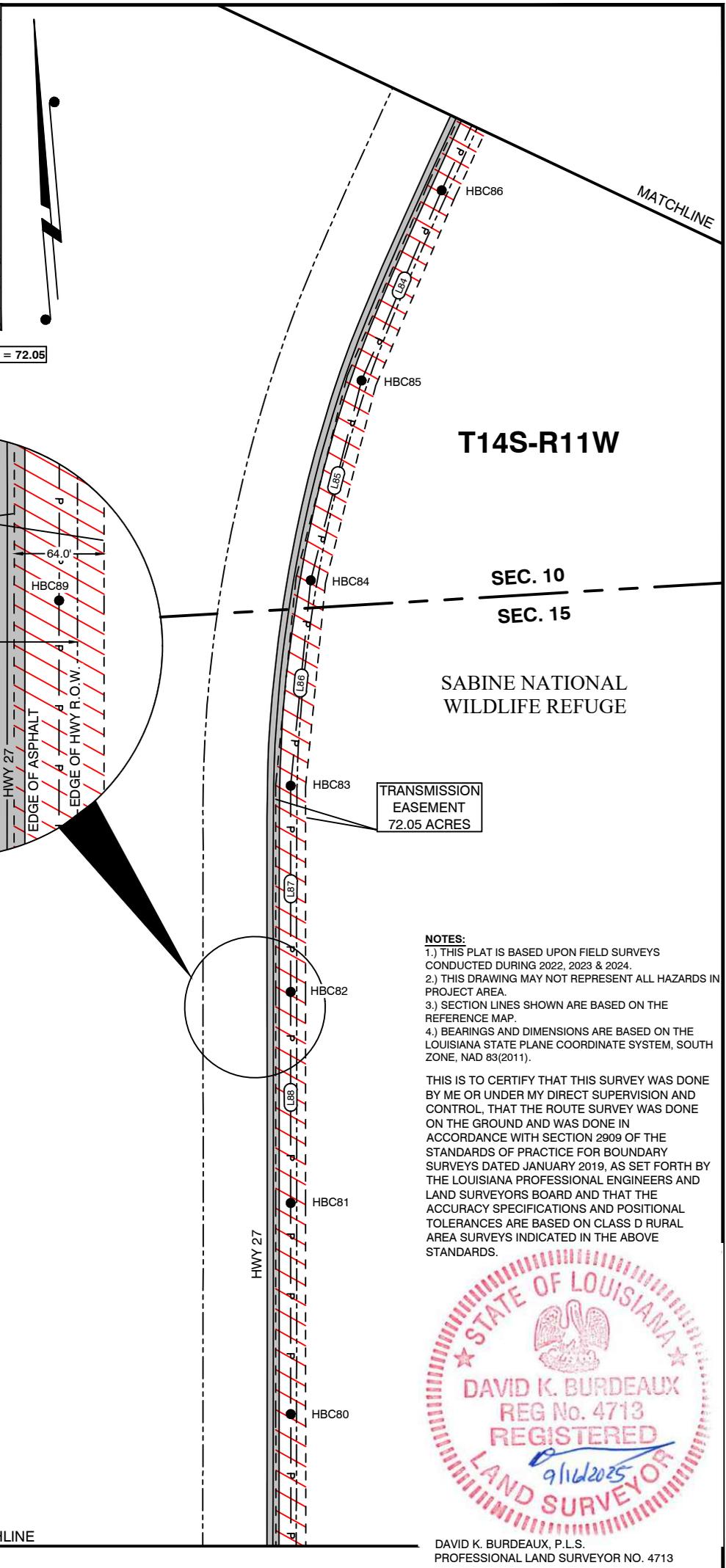
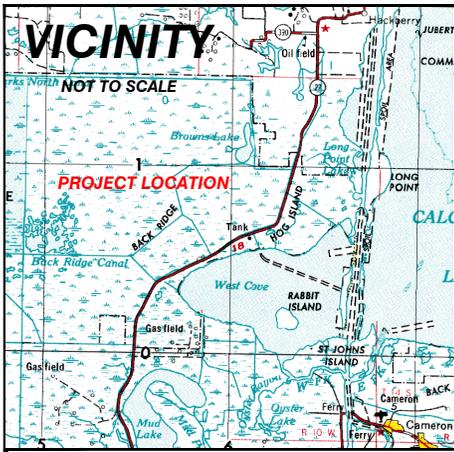
EXHIBIT "A"

JEFF DAVIS ELECTRICAL COOPERATIVE, INC
 RIGHT OF WAY EASEMENT
 FOR THE PROPOSED TRANSMISSION LINE
 ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
 LOCATED IN CAMERON PARISH
 LOUISIANA

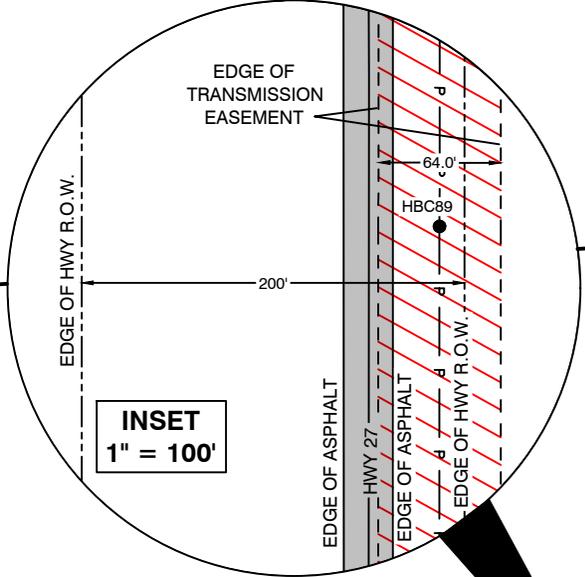


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 LA Eng Firm #: EF-0603366

REV. NO: 05	REV. DATE: 09/15/2025	REV. BY: JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.		



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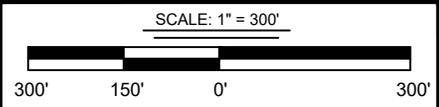


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DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG	
SHEET NO: 14	OF 16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET	

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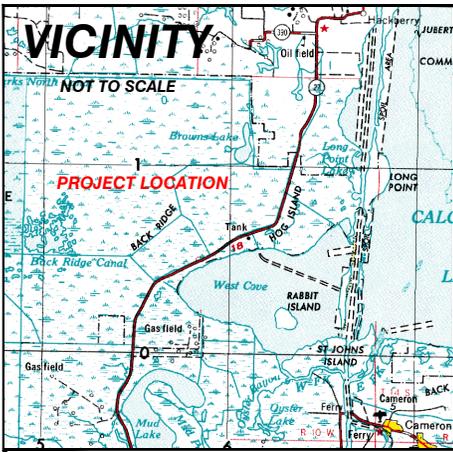
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ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
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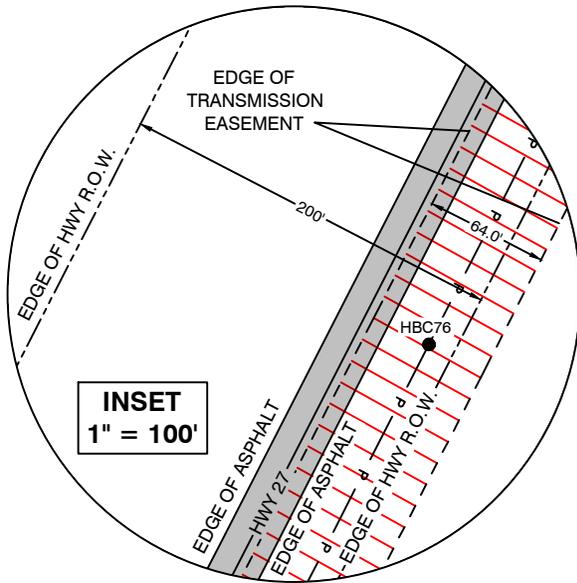
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9/16/2025 - P:\X-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY\ROW PLATS\REV 5\21.1420_NWR_ROW_REV5.DWG



**T14S-R11W
SEC. 15**

TOTAL ACRES OF TRANSMISSION EASEMENT R.O.W. = 72.05



**SABINE NATIONAL
WILDLIFE REFUGE**

**TRANSMISSION
EASEMENT
72.05 ACRES**

REFERENCE MAPS:
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REFUGE BY RONALD E. PRATHER, PLS,C&C
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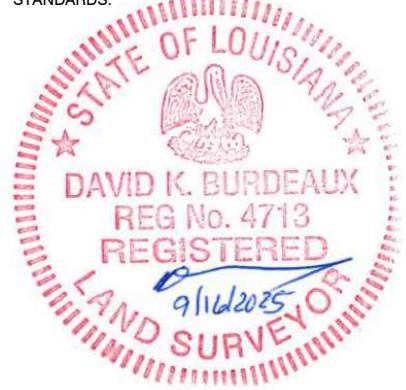
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**P.O.T.
C/L OF TRANSMISSION EASEMENT
@ PROPERTY LINE**

X = 2,604,218.39'	NAD 83 (2011)
Y = 491,492.61'	NAD 83 (2011)
LAT = 29° 50' 3.06"	NAD 83 (2011)
LONG = 93° 28' 2.99"	NAD 83 (2011)

SW CORNER OF SEC. 15
BRASS CAP
NAD83 (2011) COORDINATES
Y: 491,544.97'
X: 2,602,200.55'

SE CORNER OF SEC. 13
3" BRASS CAP
NAD83 (2011) COORDINATES
Y: 491,203.45'
X: 2,615,361.22'

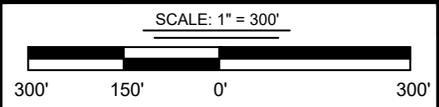


DAVID K. BURDEAUX, P.L.S.
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DATE: 01/30/2024	JOB NO: 2021.1420
DRAWING NAME: 21.1420_NWR_ROW_REV5.DWG	
SHEET NO: 15	OF 16
PROJECTION: LOUISIANA SOUTH GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET	

EXHIBIT "A"

JEFF DAVIS ELECTRICAL COOPERATIVE, INC
RIGHT OF WAY EASEMENT
FOR THE PROPOSED TRANSMISSION LINE
ACROSS THE LANDS OF SABINE NATIONAL WILDLIFE REFUGE
LOCATED IN CAMERON PARISH
LOUISIANA



REV. NO: 05	REV. DATE: 09/15/2025	REV. BY: JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.		

9/16/2025 - P:\Y-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY ROW PLATS\REV 5\21.1420_NWR_ROW_REV5.DWG

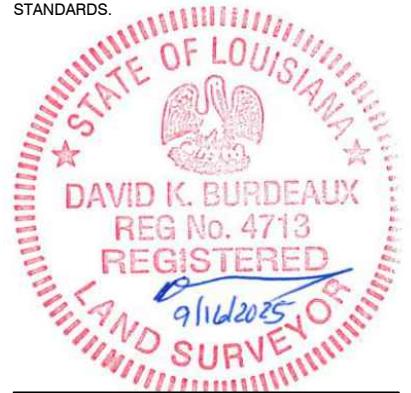
9/16/2025 - P:\1-2021\2021.1420\DWG\ROW MAP\SABINE NATIONAL WILDLIFE REFUGE\REVISED AREA EAST OF HWY\ROW PLATS\REV 5/21.1420_NWR_ROW_REV5.DWG

C/LOF TRANSMISSION EASEMENT					
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S16°12'57" W	183.74'	L48	S61°15'19" W	895.26'
L2	S16°13'02" W	447.47'	L49	S61°13'33" W	448.09'
L3	S16°12'57" W	894.94'	L50	S61°13'26" W	447.54'
L4	S16°13'02" W	447.47'	L51	S61°33'23" W	448.30'
L5	S16°12'57" W	894.94'	L52	S65°50'29" W	447.76'
L6	S16°13'02" W	447.47'	L53	S69°09'29" W	448.10'
L7	S16°12'57" W	894.94'	L54	S69°14'07" W	896.96'
L8	S16°13'02" W	447.47'	L55	S69°14'03" W	448.48'
L9	S16°12'59" W	447.46'	L56	S69°14'06" W	448.47'
L10	S16°12'58" W	1793.31'	L57	S69°14'07" W	2242.18'
L11	S16°13'03" W	251.47'	L58	S69°14'04" W	433.01'
L12	S16°12'52" W	196.86'	L59	S69°13'14" W	446.65'
L13	S16°12'59" W	448.32'	L60	S68°14'28" W	446.77'
L14	S16°13'02" W	448.33'	L61	S62°05'23" W	446.71'
L15	S16°12'58" W	896.65'	L62	S60°17'48" W	446.77'
L16	S16°12'59" W	448.32'	L63	S60°13'06" W	893.50'
L17	S16°12'58" W	896.65'	L64	S60°13'04" W	446.75'
L18	S16°12'59" W	448.32'	L65	S60°13'07" W	446.75'
L19	S16°12'58" W	448.33'	L66	S60°08'44" W	416.05'
L20	S16°13'00" W	448.31'	L67	S60°36'15" W	414.55'
L21	S16°25'20" W	353.96'	L68	S60°15'22" W	409.75'
L22	S23°08'02" W	354.05'	L69	S58°09'26" W	406.89'
L23	S38°30'38" W	290.93'	L70	S48°46'48" W	350.30'
L24	S56°12'02" W	462.39'	L71	S38°09'49" W	350.31'
L25	S72°55'29" W	499.75'	L72	S30°32'50" W	359.21'
L26	S73°12'09" W	447.63'	L73	S29°55'15" W	438.99'
L27	S73°12'05" W	447.63'	L74	S29°55'19" W	438.86'
L28	S73°12'03" W	447.62'	L75	S29°55'18" W	439.04'
L29	S73°12'06" W	447.64'	L76	S29°55'14" W	439.04'
L30	S73°11'11" W	449.21'	L77	S29°55'18" W	439.04'
L31	S73°11'04" W	449.24'	L78	S29°55'15" W	439.37'
L32	S73°11'09" W	449.24'	L79	S29°55'17" W	878.43'
L33	S73°11'08" W	449.23'	L80	S29°55'15" W	439.07'
L34	S73°11'09" W	459.09'	L81	S29°55'17" W	439.30'
L35	S73°13'11" W	458.74'	L82	S29°55'18" W	439.04'
L36	S73°13'14" W	460.46'	L83	S29°52'11" W	439.01'
L37	S73°10'47" W	460.45'	L84	S27°49'15" W	439.55'
L38	S72°54'24" W	460.11'	L85	S19°12'58" W	439.13'
L39	S66°25'52" W	399.92'	L86	S10°29'13" W	439.15'
L40	S55°37'56" W	399.96'	L87	S04°56'43" W	439.32'
L41	S49°31'15" W	459.51'	L88	S04°52'08" W	449.35'
L42	S49°20'19" W	459.97'	L89	S04°52'09" W	1,796.65'
L43	S49°20'23" W	459.75'	L90	S04°52'08" W	449.12'
L44	S49°23'21" W	460.13'	L91	S04°52'07" W	449.28'
L45	S49°21'17" W	448.39'	L92	S04°49'32" W	448.64'
L46	S50°31'02" W	448.57'	L93	S04°49'37" W	451.84'
L47	S58°00'54" W	448.56'	L94	S04°49'31" W	419.93'

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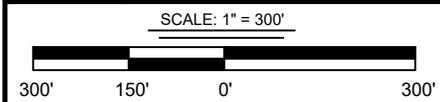


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SHEET NO:	16	OF	16
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REV. NO:	05	REV. DATE:	09/15/2025	REV. BY:	JEF
REVISION DESCRIPTION: REVISED PER U.S.F.W.					

AREA 1 EXHIBIT

LEGAL DESCRIPTION OF RIGHT OF WAY

TO SERVE AREA OF TRANSMISSION EASEMENT LOCATED IN SECTIONS 15 ,21 ,22, 28, 31, 32, 33 T13S-R10W, SECTION 6 T14S-R10W, SECTIONS 1, 2, 10, 11, & 15, T14S-R11W CAMERON PARISH, LOUISIANA

A SIXTY-FOUR FOOT EASEMENT PARTIALLY WITHIN THE EASTERLY SECTION OF RIGHT OF WAY OF HIGHWAY 27, LOCATED IN SECTIONS 15 ,21 ,22, 28, 31, 32, 33 T13S-R10W, SECTION 6 T14S-R10W, SECTIONS 1, 2, 10, 11, & 15, T14S-R11W, CAMERON PARISH, LOUISIANA, CENTERLINE OF SAID EASEMENT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING FROM THE NORTHEAST CORNER OF SW ¼ OF SECTION 15, T13S-R10E, HAVING NAD83 (2011) COORDINATES OF N= 525,214.27' & E= 2,634,081.53'; FROM WHICH A BRASS CAP IN CONCRETE IS FOUND.

THENCE, N 88°58'36" W ALONG THE NORTHERN BOUNDARY LINE OF PROPERTY BELONGING TO SABINE NATIONAL WILDLIFE REFUGE, A DISTANCE OF 786.68 FEET TO A POINT ON THE CENTERLINE OF THE SIXTY-FOUR FOOT EASEMENT, SAID POINT BEING 10.78 FEET WEST OF THE EASTERN RIGHT OF WAY OF LOUISIANA HIGHWAY 27; SAID POINT HAVING COORDINATES OF N: 525,228.32' AND E: 2,633,294.97, SAID POINT ALSO BEING THE POINT OF BEGINNING.

THENCE, ALONG SAID CENTERLINE OF TRANSMISSION EASEMENT, S 16°12'57" W A DISTANCE OF 183.74 FEET TO A POINT;

THENCE, S 16°13'02" W A DISTANCE OF 447.47 FEET TO A POINT;

THENCE, S 16°12'57" W A DISTANCE OF 894.94 FEET TO A POINT;

THENCE, S 16°13'02" W A DISTANCE OF 447.47 FEET TO A POINT;

THENCE, S 16°12'57" W A DISTANCE OF 894.94 FEET CROSSING SECTION LINE COMMON TO SECTIONS 15 AND 22, TO A POINT;

THENCE, S 16°13'02" W A DISTANCE OF 447.47 FEET TO A POINT;

THENCE, S 16°12'57" W A DISTANCE OF 894.94 FEET TO A POINT;

THENCE, S 16°13'02" W A DISTANCE OF 447.47 FEET TO A POINT;

THENCE, S 16°12'59" W A DISTANCE OF 447.46 FEET TO A POINT;

THENCE, S 16°12'58" W A DISTANCE OF 1793.31 FEET TO A POINT;

THENCE, S 16°13'03" W A DISTANCE OF 251.47 FEET CROSSING SECTION LINE COMMON TO SECTIONS 22 AND 21, TO A POINT;

THENCE, S 16°12'52" W A DISTANCE OF 196.86 FEET TO A POINT;

THENCE, S 16°12'59" W A DISTANCE OF 448.32 FEET TO A POINT;

THENCE, S 16°13'02" W A DISTANCE OF 448.33 FEET CROSSING SECTION LINE COMMON TO SECTIONS 21 AND 28, TO A POINT;

THENCE, S 16°12'58" W A DISTANCE OF 896.65 FEET TO A POINT;

THENCE, S 16°12'59" W A DISTANCE OF 448.32 FEET TO A POINT;

THENCE, S 16°12'58" W A DISTANCE OF 896.65 FEET TO A POINT;

THENCE, S 16°12'59" W A DISTANCE OF 448.32 FEET TO A POINT;

THENCE, S 16°12'58" W A DISTANCE OF 448.33 FEET TO A POINT;

THENCE, S 16°13'00" W A DISTANCE OF 448.31 FEET TO A POINT;

THENCE, S 16°25'20" W A DISTANCE OF 353.96 FEET TO A POINT;

THENCE, S 23°08'02" W A DISTANCE OF 354.05 FEET TO A POINT;

THENCE, S 38°30'38" W A DISTANCE OF 290.93 FEET TO A POINT;

THENCE, S 56°12'02" W A DISTANCE OF 462.39 FEET TO A POINT;

THENCE, S 72°55'29" W A DISTANCE OF 499.75 FEET TO A POINT;

THENCE, S 73°12'09" W A DISTANCE OF 447.63 FEET TO A POINT;

THENCE, S 73°12'05" W A DISTANCE OF 447.63 FEET TO A POINT;

THENCE, S 73°12'03" W A DISTANCE OF 447.62 FEET TO A POINT;

THENCE, S 73°12'06" W A DISTANCE OF 447.64 FEET CROSSING SECTION LINE COMMON TO SECTIONS 28 AND 33, TO A POINT;

THENCE, S 73°11'11" W A DISTANCE OF 449.21 FEET TO A POINT;

THENCE, S 73°11'04" W A DISTANCE OF 449.24 FEET TO A POINT;

THENCE, S 73°11'09" W A DISTANCE OF 449.24 FEET CROSSING SECTION LINE COMMON TO SECTIONS 33 AND 32, TO A POINT;

THENCE, S 73°11'08" W A DISTANCE OF 449.23 FEET TO A POINT;

THENCE, S 73°11'09" W A DISTANCE OF 459.09 FEET TO A POINT;

THENCE, S 73°13'11" W A DISTANCE OF 458.74 FEET TO A POINT;

THENCE, S 73°13'14" W A DISTANCE OF 460.46 FEET TO A POINT;

THENCE, S 73°10'47" W A DISTANCE OF 460.45 FEET TO A POINT;

THENCE, S 72°54'24" W A DISTANCE OF 460.11 FEET TO A POINT;

THENCE, S 66°25'52" W A DISTANCE OF 399.92 FEET TO A POINT;

THENCE, S 55°37'56" W A DISTANCE OF 399.96 FEET TO A POINT;

THENCE, S 49°31'15" W A DISTANCE OF 459.51 FEET TO A POINT;

THENCE, S 49°20'19" W A DISTANCE OF 459.97 FEET TO A POINT;

THENCE, S 49°20'23" W A DISTANCE OF 459.75 FEET TO A POINT;

THENCE, S 49°23'21" W A DISTANCE OF 460.13 FEET TO A POINT;

THENCE, S 49°21'17" W A DISTANCE OF 448.39 FEET CROSSING SECTION LINE COMMON TO SECTIONS 32 AND 31, TO A POINT;

THENCE, S 50°31'02" W A DISTANCE OF 448.57 FEET TO A POINT;

THENCE, S 58°00'54" W A DISTANCE OF 448.56 FEET TO A POINT;

THENCE, S 61°15'19" W A DISTANCE OF 895.26 FEET TO A POINT;

THENCE, S 61°13'33" W A DISTANCE OF 448.09 FEET TO A POINT;

THENCE, S 61°13'26" W A DISTANCE OF 447.54 FEET TO A POINT;

THENCE, S 61°33'23" W A DISTANCE OF 448.30 FEET TO A POINT;

THENCE, S 65°50'29" W A DISTANCE OF 447.76 FEET TO A POINT;

THENCE, S 69°09'29" W A DISTANCE OF 448.10 FEET TO A POINT;

THENCE, S 69°14'07" W A DISTANCE OF 896.96 FEET CROSSING SECTION LINE COMMON TO SECTIONS 31, T13S-R10W, AND 6, T14S-R10W, TO A POINT;

THENCE, S 69°14'03" W A DISTANCE OF 448.48 FEET TO A POINT;

THENCE, S 69°14'06" W A DISTANCE OF 448.47 FEET TO A POINT;

THENCE, S 69°14'07" W A DISTANCE OF 2242.18 FEET CROSSING SECTION LINE COMMON TO SECTION 6, T14S-R10W, AND SECTION 1, T14S-R11W, TO A POINT;

THENCE, S 69°14'04" W A DISTANCE OF 433.01 FEET TO A POINT;

THENCE, S 69°13'14" W A DISTANCE OF 446.65 FEET TO A POINT;

THENCE, S 68°14'28" W A DISTANCE OF 446.77 FEET TO A POINT;

THENCE, S 62°05'23" W A DISTANCE OF 446.71 FEET TO A POINT;

THENCE, S 60°17'48" W A DISTANCE OF 446.77 FEET TO A POINT;

THENCE, S 60°13'06" W A DISTANCE OF 893.50 FEET TO A POINT;

THENCE, S 60°13'04" W A DISTANCE OF 446.75 FEET TO A POINT;

THENCE, S 60°13'07" W A DISTANCE OF 446.75 FEET CROSSING SECTION LINE COMMON TO SECTIONS 1 AND 2, TO A POINT;

THENCE, S 60°08'44" W A DISTANCE OF 416.05 FEET TO A POINT;

THENCE, S 60°36'15" W A DISTANCE OF 414.55 FEET TO A POINT;

THENCE, S 60°15'22" W A DISTANCE OF 409.75 FEET TO A POINT;

THENCE, S 58°09'26" W A DISTANCE OF 406.89 FEET TO A POINT;

THENCE, S 48°46'48" W A DISTANCE OF 350.30 FEET TO A POINT;

THENCE, S 38°09'49" W A DISTANCE OF 350.31 FEET TO A POINT;

THENCE, S 30°32'50" W A DISTANCE OF 359.21 FEET TO A POINT;

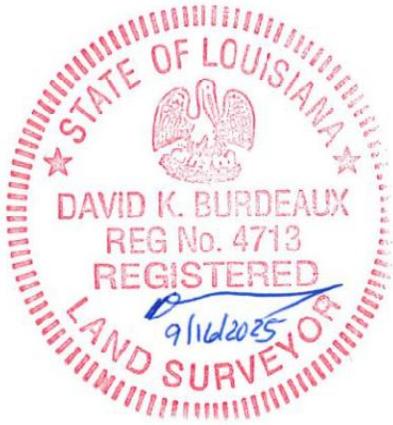
THENCE, S 29°55'15" W A DISTANCE OF 438.99 FEET CROSSING SECTION LINE COMMON TO SECTIONS 2 AND 11, TO A POINT;

THENCE, S 29°55'19" W A DISTANCE OF 438.86 FEET TO A POINT;

THENCE, S 29°55'18" W A DISTANCE OF 439.04 FEET TO A POINT;
THENCE, S 29°55'14" W A DISTANCE OF 439.04 FEET TO A POINT;
THENCE, S 29°55'18" W A DISTANCE OF 439.04 FEET CROSSING SECTION LINE COMMON TO SECTIONS
11 AND 10, TO A POINT;
THENCE, S 29°55'15" W A DISTANCE OF 439.37 FEET TO A POINT;
THENCE, S 29°55'17" W A DISTANCE OF 878.43 FEET TO A POINT;
THENCE, S 29°55'15" W A DISTANCE OF 439.07 FEET TO A POINT;
THENCE, S 29°55'17" W A DISTANCE OF 439.30 FEET TO A POINT;
THENCE, S 29°55'18" W A DISTANCE OF 439.04 FEET TO A POINT;
THENCE, S 29°52'11" W A DISTANCE OF 439.01 FEET TO A POINT;
THENCE, S 27°49'15" W A DISTANCE OF 439.55 FEET TO A POINT;
THENCE, S 19°12'58" W A DISTANCE OF 439.13 FEET TO A POINT;
THENCE, S 10°29'13" W A DISTANCE OF 439.15 FEET CROSSING SECTION LINE COMMON TO SECTIONS
10 AND 15, TO A POINT;
THENCE, S 04°56'43" W A DISTANCE OF 439.32 FEET TO A POINT;
THENCE, S 04°52'08" W A DISTANCE OF 449.35 FEET TO A POINT;
THENCE, S 04°52'09" W A DISTANCE OF 1796.65 FEET TO A POINT;
THENCE, S 04°52'08" W A DISTANCE OF 449.12 FEET TO A POINT;
THENCE, S 04°52'07" W A DISTANCE OF 449.28 FEET TO A POINT;
THENCE, S 04°49'32" W A DISTANCE OF 448.64 FEET TO A POINT;
THENCE, S 04°49'37" W A DISTANCE OF 451.84 FEET TO A POINT;

THENCE, S 04°49'31" W A DISTANCE OF 419.93 FEET TO THE POINT OF TERMINATION ON THE SOUTHERN
BOUNDARY LINE OF PROPERTY BELONGING TO SABINE NATIONAL WILDLIFE REFUGE LOCATED ON THE
APPROXIMATE SOUTH LINE OF SECTION 15, T14S-R11E, HAVING COORDINATES OF Y: 491,492.61' AND X:
2,604,218.39'. POINT OF TERMINATION IS S 88° 30' 49" E A DISTANCE OF 2,018.52 FEET, FROM THE SW
CORNER OF SECTION 15 WITH COORDINATES OF Y: 491,544.97' AND X: 2,602,200.55', FROM WHICH A
FOUND BRASS CAP LIES.

ALL AS SHOWN ON A PLAT PREPARED BY T. BAKER SMITH, LLC, ENTITLED "EXHIBIT A" PLAT SHOWING
AREA OF TRANSMISSION LINE EASEMENT ON PROPERTY BELONGING TO SABINE NATIONAL WILDLIFE
REFUGE LOCATED IN SECTIONS 15 ,21 ,22, 28, 31, 32, 33 T13S-R10W, SECTION 6, T14S-R10W, SECTIONS
1, 2, 10, 11, & 15, T14S-R11W, CAMERON PARISH, LOUISIANA" REVISED AND DATED SEPTEMBER 16, 2025,
ALL BEARINGS, DISTANCES AND COORDINATES ARE BASED ON LOUISIANA COORDINATE SYSTEM SOUTH
ZONE (NAD 83).



DAVID K. BURDEAUX, P.L.S., LA 4713

09/16/2025
DATE