



Department of  
Commerce

National  
Telecommunications  
and Information  
Administration

July 30, 2025

# Environmental Assessment

## **Borders Lake (US-AL-5529) – Proposed 265- Foot-Tall Self-Supporting Lattice Telecommunications Structure – Middle Mile Grant Award # 08-40-MM228**

5842 Popes Chapel Road  
Ragland, St. Clair County, Alabama  
Latitude: N 33° 44' 31.6" Longitude: W 86° 13' 05.2"

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## 1.0 Executive Summary

The Towers, LLC, is utilizing Middle Mile Grant Program funding, provided by the National Telecommunications and Information Administration (NTIA), for the construction of a proposed 265-foot-tall overall height self-supporting lattice telecommunications structure within St. Clair County, Alabama. The Proposed Action is being completed as part of a larger initiative to improve communications infrastructure within the State of Alabama.

The proposed tower facility would support wireless antennas and associated equipment necessary to provide wireless voice and data communications. The Proposed Action is needed to provide service in-fill where current wireless coverage is weak, and without the Proposed Action, coverage is likely to get worse as demand in the areas of weak service is anticipated to increase. The Proposed Action would improve access to reliable and modern wireless communications capabilities for surrounding areas of St. Clair County, Alabama in the vicinity of the Proposed Action site and allow users to continue to have reliable service over the long term. Benefits to the population would include, but are not limited to, improved communications infrastructure, increased educational and economic opportunities, and better access to healthcare services, including telehealth services.

The Proposed Action includes a proposed 265-foot-tall self-supporting lattice telecommunications structure and associated ground-level equipment that would be constructed within a proposed 75-foot by 75-foot fenced compound which would be situated within a 100-foot by 100-foot proposed lease area. The tower will be lighted with medium-intensity dual red/white flashing lights. The proposed facility would include an approximately 48-foot long by 30-foot-wide access/utility easement. A new 80-foot long by 12-foot-wide gravel drive would be installed within the proposed easement and Popes Chapel Road right-of-way. Ground level equipment within the compound would include two utilities H-frames, an approximately 18-foot-long ice bridge, and a 50kW backup generator. The proposed generator would be placed on a concrete slab. Further, one, three-inch underground secondary power conduit would be installed at an approximate depth of 36 inches within the access/utility easement from the proposed compound to a new power pole within the Popes Chapel Road right-of-way just northwest of the access/utility easement. From the power pole, overhead power lines would extend to a proposed power pole to be located in an existing overhead power line corridor northwest of Popes Chapel Road to avoid additional ground disturbance within the right-of-way. Underground fiber would be installed in the access/utility easement within two two-inch conduits from the proposed compound to a new handhole located where the access/utility easement meets the Popes Chapel Road right-of-way.

In addition, to manage stormwater runoff, The Towers, LLC, proposes a silt fence barrier around the lease area and access and utility easement. For purposes of the Environmental Assessment documentation, the footprint of the Proposed Action includes the entire lease, easement and silt fence. In total, the Proposed Action area would total approximately 0.26 acres. Throughout the planning process, special care was taken to select site locations that were deemed to have a low likelihood to result in adverse impacts to the natural or human environment. Adverse impacts on all resources were determined to be less than significant.

The Proposed Action is subject to the National Environmental Policy Act (NEPA) codified at 42 U.S.C. 4321, et seq.; this Environmental Assessment is prepared in accordance with NTIA NEPA Guidance and NEPA law.

## 2.0 Purpose and Need

### Purpose

The purpose of the Proposed Action is to improve and enhance reliable wireless voice and data communications to surrounding areas of St. Clair County, Alabama. The enhanced capabilities and reliability of voice and data communications resulting from the proposed action would provide additional economic and educational opportunities and access to previously inaccessible telehealth services for the surrounding communities.

### Need

Rural areas are consistently underserved communities as it relates to access to fiber and broadband communications infrastructure, which at one time was considered a luxury, but is now a basic utility for households and businesses. While improvements to communications technologies continue to evolve and improve, rural communities are geographically isolated with low population density, resulting in a lack of the necessary investment in communications infrastructure. Further, the use of alternative means of such communication (such as satellite internet access) are prohibitively expensive for members of these communities. The lack of investment in such infrastructure results in disparities in education, economic opportunities, health, and overall quality of life for current and future members of these communities.

Current wireless coverage in areas surrounding the Proposed Action is weak, and without the Proposed Action, coverage is likely to get worse as demand in the areas of currently weak service is anticipated to increase. The Proposed Action would improve access to reliable and modern wireless communications capabilities for surrounding areas of St. Clair County, Alabama in the vicinity of the Proposed Action site and provide much improved coverage to users in the area over the long term. Benefits to the population would include, but are not limited to, improved communications infrastructure, increased educational and economic opportunities, and better access to healthcare services, including telehealth services.

The specific search ring used to identify a suitable site for a proposed communications facility to meet the needs discussed above is an approximately 0.5-mile radius as shown in Figure 2-1 below. Using radio frequency propagation tools and engineering methods, radio frequency engineers concluded that addressing coverage gaps in the surrounding areas would require a tower height of no less than 200 feet. The heat maps included in Figures 2-2 and 2-3 below show the existing coverage and anticipated coverage that would be provided by the proposed action. As shown in Figure 2-3, wireless coverage would be improved within areas where wireless coverage is currently weak.

Figure 2-1 Search Ring

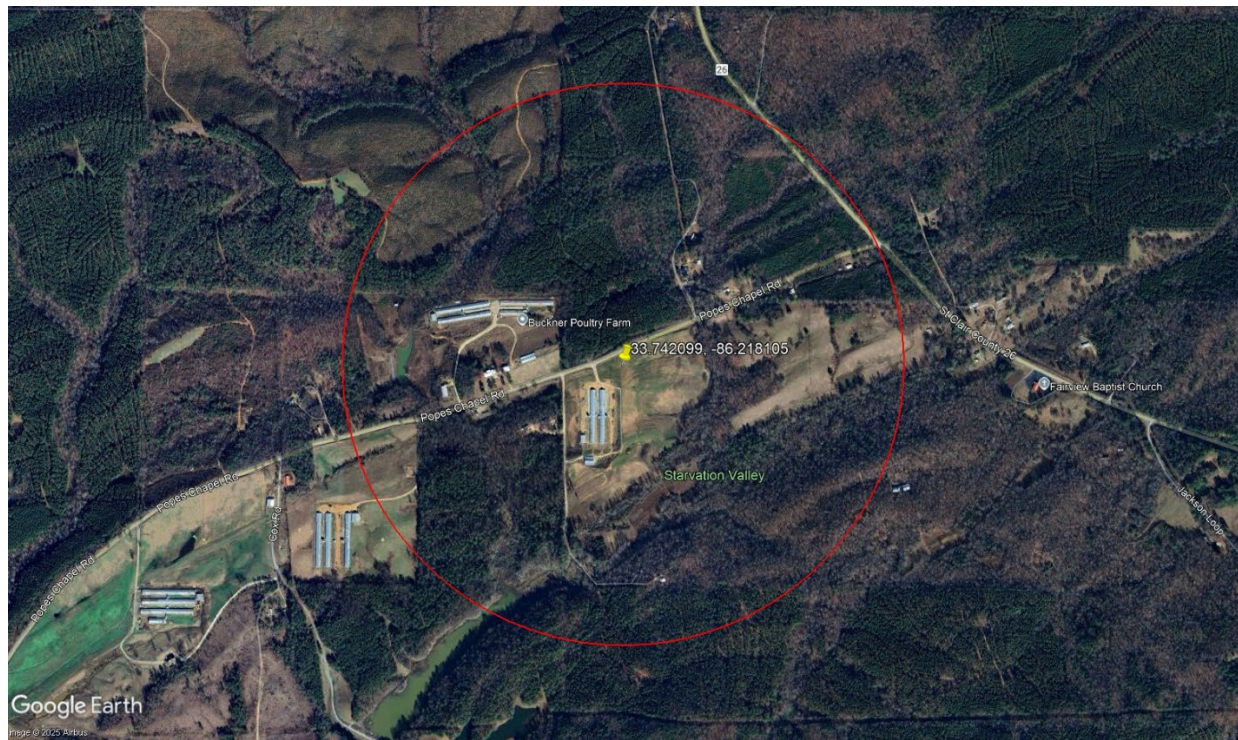
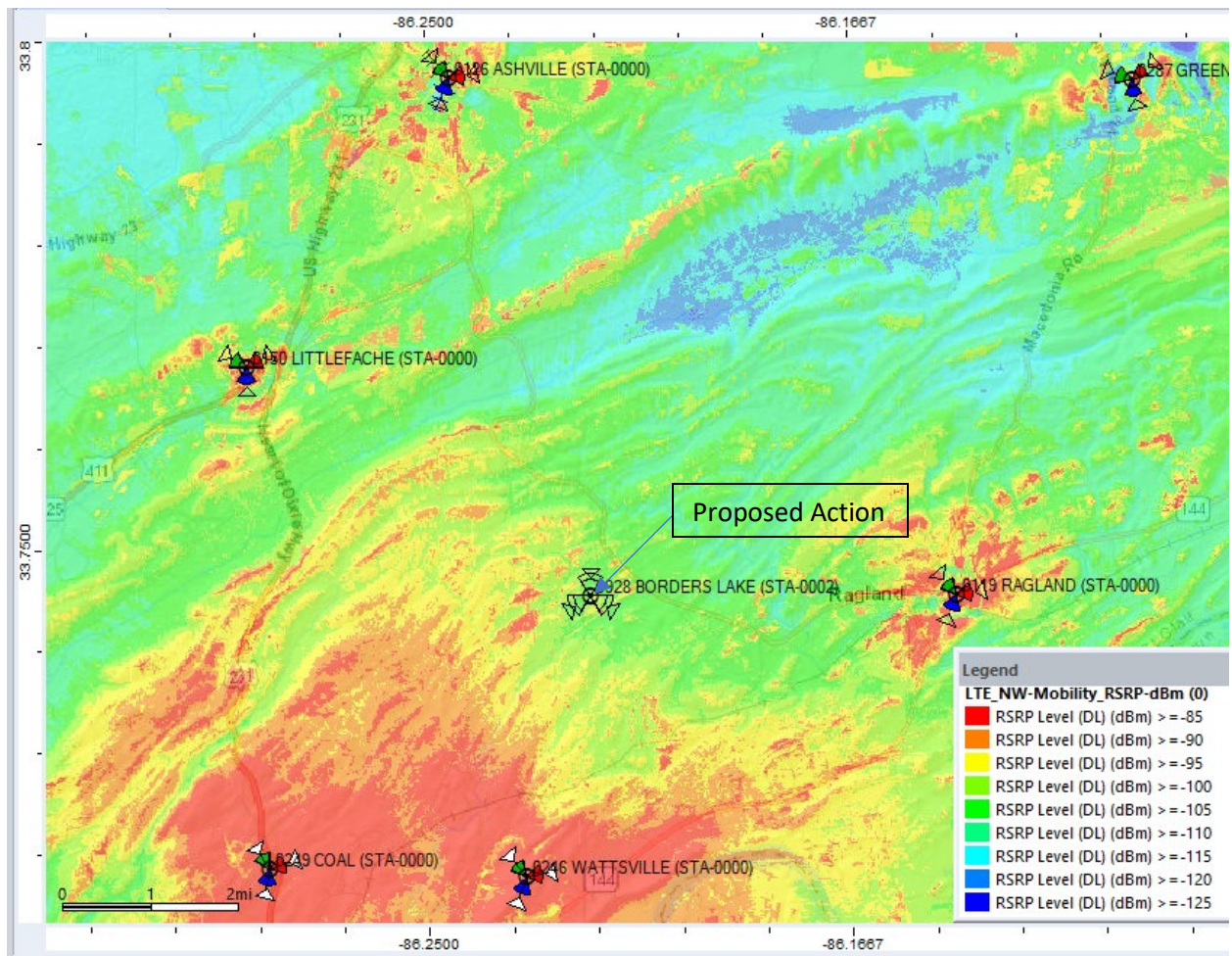


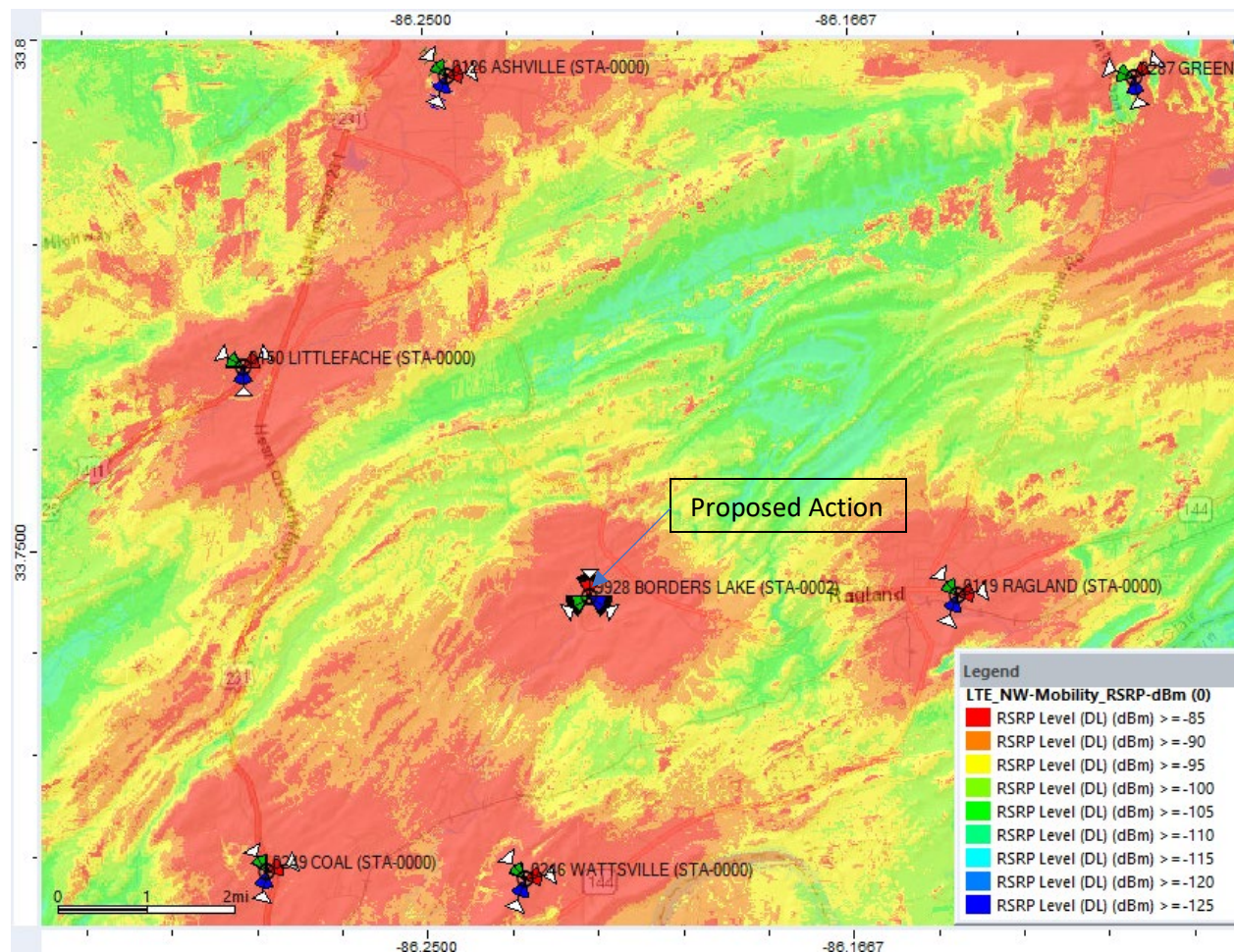


Figure 2-2 Existing Heat Coverage Map



RSRP – Reference Signal Received Power in which  $\geq -85$  dBm is considered excellent and -85 to -95 dBm is considered good.

Figure 2-3 Proposed Heat Coverage Map



RSRP – Reference Signal Received Power in which  $\geq 85$  dBm is considered excellent and -85 to -95 dBm is considered good.

### 3.0 Description of Proposed Action and Alternatives

#### 3.1 Introduction

NEPA requires that the NTIA evaluate both the Proposed Action as well as reasonable alternatives that would also accomplish the purpose and need of the Proposed Action. At minimum, a No Action Alternative must be considered as part of the Alternatives Analysis.

#### 3.2 Proposed Action

The Proposed Action is comprised of a single telecommunications facility located within eastern St. Clair County, Alabama. The Proposed Action is located on privately-owned land. The project area is located in a formerly wooded area that appears to have been cleared in 2006 in relation to a larger development and is currently occupied by an undeveloped grassed field (Figure 3-1). The Proposed Action includes a proposed 265-foot-tall self-supporting lattice telecommunications structure and associated ground-level equipment that would be constructed within a proposed 75-foot by 75-foot



fenced compound which would be situated within a 100-foot by 100-foot proposed lease area. The proposed facility would include an approximately 48-foot long by 30-foot-wide access/utility easement. A new 80-foot-long by 12-foot-wide gravel drive will be installed within the proposed easement and Popes Chapel Road right-of-way. Ground level equipment within the compound would include two utilities H-frames, an approximate 18-foot-long ice bridge, and a 50kW backup generator. The proposed generator would be placed on a concrete slab. Further, one, three-inch underground secondary power conduit would be installed at an approximate depth of 36 inches within the access/utility easement from the proposed compound to a new power pole within the Popes Chapel Road right-of-way just northwest of the access/utility easement. From the power pole, overhead power lines would extend to a proposed power pole located northwest of Popes Chapel Road to avoid additional ground disturbance within the right-of-way. Underground fiber would be installed in the access/utility easement within two, two-inch conduits from the proposed compound to a new handhole located where the access/utility easement meets the Popes Chapel Road right-of-way.

In addition, to manage stormwater runoff during construction, The Towers, LLC, proposes a temporary silt fence barrier around the lease area and access/utility easement. For purposes of the Environmental Assessment documentation, the footprint of the Proposed Action includes the entire lease area, access/utility easement, and silt fence location. In total, the Proposed Action area would total approximately 0.26 acres. No tree clearing or trimming is anticipated for the Project, though removal of minimal ruderal vegetation (grasses and weeds) within the previously cleared and graded site footprint would occur. Site Plans are provided in Figures 3-2, 3-3, and 3-4 below and in Appendix A.

Construction work for the Proposed Action would begin with the project areas being cleared and graded as necessary using a mini-excavator / skid steer and three 4-foot diameter caissons being drilled at the proposed tower legs to a depth of approximately 15 feet below ground surface. Proposed silt fencing would also be installed during this initial phase. Additional excavation activities would include preparation for tower grounding and fiber and power vaults and associated conduits. The standard workday for this project is expected to last from 7am to 7pm. The skid steer is expected to be required for three workdays, the excavator is expected to be required for three workdays, and the drill rig is expected to be required for five workdays.

Following initial civil work, concrete would be poured for the tower foundation and generator and equipment pads in the tower compound. Following curing, concrete inspection and strength testing would be completed.

Once concrete inspections and strength testing are completed, a crane would be utilized to assemble the proposed lattice tower. The crane would be staged within the proposed project area and would be required for two workdays. Crane height is anticipated to be approximately 270 feet. The ice bridge, antennas and cables, vaults and conduits, the generator, and the grounding systems would then be installed, followed by backfill and compaction activities. Following completion of equipment installation and power and fiber connection, power up and testing activities would be completed. Installation of gravel and landscaping (as necessary), barbed-wire fencing, security hardware, and site signage would mark the completion of construction for the Proposed Action site. In total, construction activities are anticipated to last approximately 60 days and are expected to begin in Fall 2025.



The site location and additional site-specific design details are depicted below. Site maps, plans, and photographs are also provided in Appendix A.

*Figure 3-1 Aerial Photograph*



Figure 3-2 Site Plan with Power Utilities

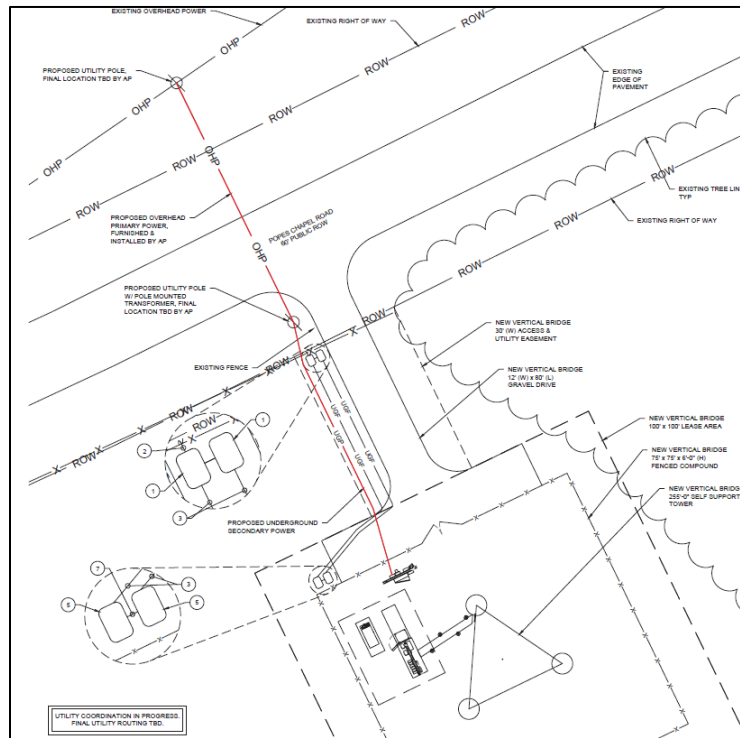


Figure 3-3 Site Plan with Fiber Utilities

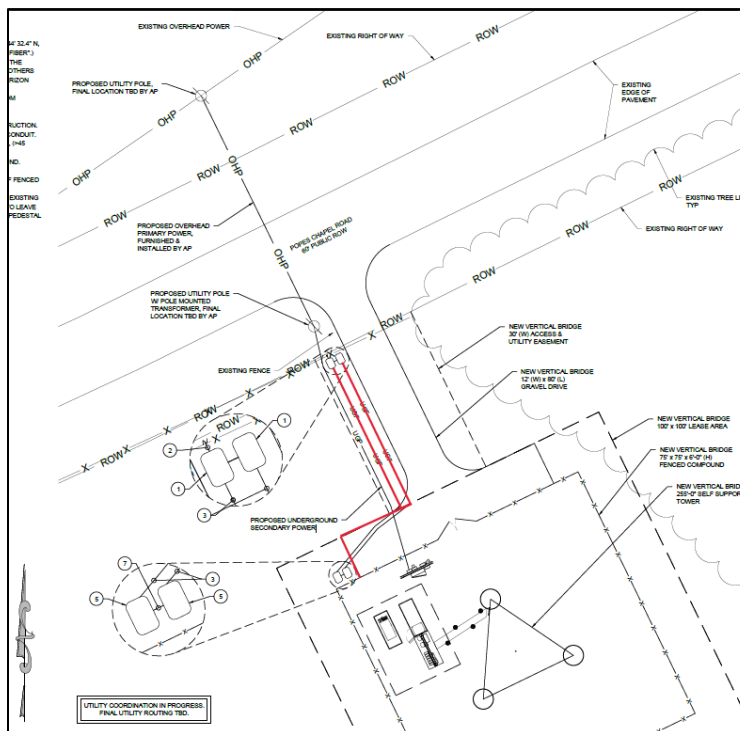
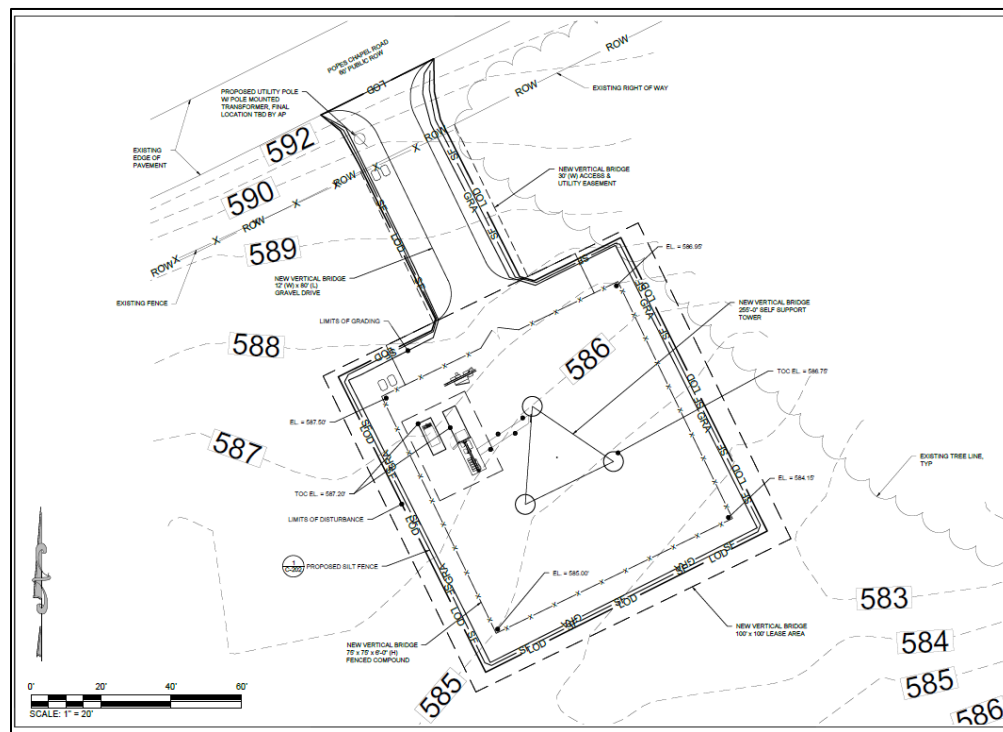


Figure 3-4 Site Plan with Stormwater and Sediment Controls



### 3.3 No Action Alternative

The “No Action” Alternative, which must be assessed in accordance with Federal NEPA law, assumes no Federal funding is provided by the Middle Mile Grant Program for the construction of the wireless telecommunications facility. The existing communications infrastructure in areas surrounding the Proposed Action would continue to operate in their current capacity with no changes to communications capabilities for the surrounding communities and would provide no relief to the unserved or underserved rural communities.

Benefits of the No Action Alternative would include avoiding any potential impacts to the Proposed Action area location as a result of construction activities for the new tower facility (such as the generation of emissions of particulate matter, noise, and solid waste or impacts to any cultural or biological resources) as well as any potential impacts to aesthetics in the area surrounding the Proposed Action area.

### 3.4 Alternatives

Based on the purpose and need of the Proposed Action, a total of three alternatives were considered during the EA Process:

1. Proposed Action Alternative: Construction, operation, and maintenance of the Proposed Action in order to best satisfy the carrier’s coverage objective within the search ring.
2. Other Tower Locations: One other site location within the search ring was considered. The alternative location considered was located at 33.738771°N, 86.219545°W, approximately 1,300 feet southwest of the Proposed Action location.

3. No Action Alternative: The Proposed Action would not be constructed, and residents in the surrounding area would remain underserved in regard to voice and data communications.

While all three alternatives were considered, only the Proposed Action Alternative and the No Action Alternative are being carried forward for analysis in this EA. The “Other Tower Locations” alternative is further discussed below in Section 3.5, Alternatives Considered but Eliminated from Further Discussion.

### 3.5 Alternatives Considered but Eliminated from Further Discussion

The Other Tower Location that was considered but eliminated from further discussion was a site located approximately 1,300 feet southwest of the Proposed Action location. The Other Tower Location alternative is located within an existing grassed field, very similar in character to the Proposed Action alternative, and is located on property owned by the same landowner as the Proposed Action alternative. A new tower facility would be required at this location and would require a significantly longer utility route along Hummingbird Lane to reach existing fiber along Popes Chapel Road. The Other Tower Location would provide no apparent benefits from an environmental impact or wireless coverage standpoint and would be more costly due to the longer utility route.

## 4.0 Description of the Affected Environment

### 4.1 Noise

Noise can be broken into two groups, ambient and anthropogenic. Ambient noise tends to originate from natural sources such as wind and wildlife. Ambient noise levels in and around the general Proposed Action are primarily low and limited due to the rural and residential nature of the project area. Anthropogenic noise levels around the Proposed Action originate from adjacent roadways and rural residential developments. Data from the Alabama Department of Transportation’s Traffic Data Application estimates an Annual Average Daily Traffic count of 260 vehicles along Popes Chapel Road in 2023 (ALDOT 2025). The typical sound level of road traffic from approximately 50 feet away is about 85 dBA (Center for Environmental Excellence 2025). The Proposed Action Area is zoned as Agricultural, Low Density Residential (St. Clair County Map Viewer 2025). According to the St. Clair County Ordinances, there is no applicable sound ordinance for this zoning category. Residential development in the immediate area surrounding the project is very low density, however, there is an increased number of residential developments further away from the Proposed Action area. Agricultural development (chicken houses) are located within approximately 250 feet southwest of the Proposed Action. Numerous residences which may be considered sensitive receptors are located within 0.5 miles of the Proposed Action. The nearest residence is approximately 1,180 feet northwest of the Proposed Action. This resource fronts Popes Chapel Road and would experience similar anthropogenic noise levels from typical roadway traffic. In addition, there are no passive parks, preserves or other sensitive receptors within 0.5 miles of the project site.

### 4.2 Air Quality

Under the Clean Air Act (CAA), the US Environmental Protection Agency (USEPA) establishes National Ambient Air Quality Standards (NAAQS) to protect public health and welfare (see 40 CFR 50). The CAA requires states to regulate air pollution emission sources to meet and maintain NAAQS, which establish maximum acceptable concentrations for criteria pollutants, including nitrogen dioxide

(NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), particulate matter with an aerodynamic diameter of 2.5 microns or less (PM<sub>2.5</sub>), ozone (O<sub>3</sub>), and lead. According to the Alabama Department of Environmental Management (ADEM) Air Quality Division, the state implementation plan strategy for NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, and lead meet the national ambient air quality standards (ADEM 2024). In addition, no applicable permits are required for stationary or operational equipment, including the proposed generator.

The Proposed Action site is located in an attainment area for the above listed criteria pollutants (EPA Nonattainment and Maintenance Area Dashboard, see Appendix B).

### 4.3 Geology and Soils

Geologically, the Proposed Action site is located within the Tennessee Physiographic Region of the Valley and Ridge Physiographic Province. This region is characterized by long, parallel ridges and valleys formed by differential erosion of folded Paleozoic sedimentary rocks. Historically, vegetation consisted of oak-hickory forests in valleys to shortleaf and Virginia pine on ridges. Today, the region has several uses, including agriculture, urban and industrial development, and recreational activities (National Park Service 2025).

The Proposed Action site is located within the Eastern Temperate Forest ecoregion, specifically within the Southern Sandstone Ridges subregion. This region is characterized primarily by long ridges with flat, mostly unbroken tops, and heavily dissected side-slopes. Appalachian oak forests or mixed oak forests were the dominant natural vegetation. Today, there is a mosaic of forest and cropland. (U.S. Environmental Protection Agency 2025). According to the USDA Web Soil Survey (Appendix C), soils located within the Proposed Action site consists of Townley-Nauvoo association, rolling (TNR). Townley-Nauvoo is classified as “Not prime farmland.” Additionally, the Proposed Action site was not identified on the Protected Agricultural Lands Database (see Appendix C).

A Geotechnical Investigation Report prepared for the Proposed Action by Environmental Corporation of America and dated May 5, 2025, noted drill refusal and weathered rock at 31 feet below ground surface (bgs), suggesting the presence of bedrock at this approximate depth (Appendix C). Soils lying above refusal depths consisted of very stiff to hard sandy clay at 13.5 feet bgs with weathered shale at 13.5 to 31 feet bgs.

### 4.4 Water Resources

#### Surface Water

According to the Natural Resources Site Evaluation prepared June 18, 2020, the Proposed Action site is not located within or near surface waters. The nearest mapped feature is a stream located approximately 695 feet to the east. Additionally, the U.S. Fish and Wildlife Service’s (USFWS) National Wetlands Inventory indicated no wetlands within or in the immediate vicinity of the footprint of the Proposed Action site (Appendix D).

#### Groundwater

According to the USEPA, the Proposed Action site is not located near a Sole Source Aquifer (USEPA Map of Sole Source Aquifer Locations, 2025). Based on a review of USGS’s National Water Information System data, depth to regional groundwater at the Proposed Action area is likely greater



than 90 feet. Historic regional groundwater depth measurement was recorded at a well located approximately 20 miles southwest of the Proposed Action area, with a groundwater depth of 96 feet. The Geotechnical Investigation Report referenced in Section 4.3 encountered local groundwater at 29 feet bgs.

#### Coastal Zone, Estuary and Inter-tidal Areas

The Proposed Action site is not located within or near coastal zones, estuaries, or inter-tidal areas (USFWS Coastal Barrier Resource System 2024, Alabama Coastal Area Management Program 2025).

#### Floodplains

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 01115C0280G dated August 17, 2016, the Proposed Action area would not be located within a Special Flood Hazard Area of the 100-year floodplain (Appendix D).

#### Wild and Scenic Rivers

According to the National Wild and Scenic Rivers System, the Proposed Action site is not located within or adjacent to a Wild and Scenic River corridor (National Wild and Scenic Rivers System 2025). The nearest Wild and Scenic River is Sipsey Fork, located approximately 75 miles from the Proposed Action site (Appendix D).

### 4.5 Biological Resources

#### Threatened and Endangered Species

The Endangered Species Act (ESA) requires that federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS), must ensure that projects they fund, authorize, or carry out are not likely jeopardize the continued existence of listed species nor result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a "taking" of any species listed under the ESA.

Alabama Natural Heritage Program (ALNHP) regulates state-listed threatened and endangered animal species. The capture, trap, take, or killing of state-listed threatened and endangered animal species is unlawful unless expressly authorized under a permit issued by the USFWS or ALNHP.

The proposed action area is occupied by grassed land. Vegetation is generally ruderal in nature and consists of successional weeds and grasses. Adjoining areas consist of agricultural development to the southwest, pine forest to the north, grassed land to the south and east, and hardwood forest further to the south and southeast. Based on the disturbed nature of the Proposed Action area, wildlife utilization is expected to be minimal but may consist of transient typical wildlife species of the area including songbirds, deer, racoons, opossums, racoons, squirrels, snakes, and lizards.

An Official Species List generated from the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was reviewed for federally listed and proposed threatened and endangered species that may be present at the Proposed Action site. Further, The ALNHP Rare Species Lists report was reviewed for state and federally listed species that have been documented by ALNHP as occurring in St. Clair County. A list of these species is provided in Table 4-1 below. Further discussion of specific habitat generally occupied by the identified species is included in Section 5.5

and within the Natural Resources Site Evaluation prepared for the Proposed Action site and included in Appendix E.

**Table 4-1: Federally and State Endangered or Threatened Species**

Common Name	Scientific Name	Federal Status (IPaC)	State Status
Gray bat	<i>Myotis grisescens</i>	Endangered	-
Indiana bat	<i>Myotis sodalis</i>	Endangered	-
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered	-
Tricolored bat	<i>Perimyotis subflavus</i>	Proposed Endangered	-
Whooping crane	<i>Grus americana</i>	Experimental Population, Non-Essential	-
Alligator snapping turtle	<i>Macrochelys temminckii</i>	Proposed Threatened	-
Ovate clubshell	<i>Pleurobema perovatum</i>	Endangered	-
Southern pigtoe	<i>Pleurobema georgianum</i>	Endangered	-
Monarch butterfly	<i>Danaus plexippus</i>	Proposed Threatened	-
Tennessee yellow-eyed grass	<i>Xyris tennesseensis</i>	Endangered	-
Alabama leather-flower*	<i>Clematis socialis</i>	Endangered	-
Trispot darter*	<i>Etheostoma trisella</i>	Proposed Threatened	State Protected
Tulotoma snail*	<i>Tulotoma magnifica</i>	Threatened	State Protected
Northern pinesnake	<i>Pituophis melanoleucus melanoleucus</i>	-	State Protected
Green salamander	<i>Aneides aeneus</i>	-	State Protected
Coal skink	<i>Plestiodon anthracinus</i>	-	State Protected

\*Federal status per ALDNR Rare, Threatened, and Endangered Species report; Not included on Federal IPaC Official Species list

#### Critical or Threatened / Endangered Habitat

The Proposed Action site is located within the Eastern Temperate Forest ecoregion. This region is characterized primarily by long ridges with flat, mostly unbroken tops, and heavily dissected side-slopes (see discussion in Section 4.3, USEPA 2025).

According to the USFWS Critical Habitat Mapper and the IPaC Official Species List reviewed, no designated or proposed critical habitat is located within the vicinity of the Proposed Action site. Additionally, no suitable habitat for endangered or threatened species exists within the footprint of the Proposed Action site (See Table 5-1).

#### Migratory Birds, Eagles, and Their Habitat

Executive Order 13186 requires Federal agencies to work with the USFWS to provide protection for migratory birds. These species are protected under the 1918 Migratory Bird Treaty Act (MBTA) (16 USC 703), which prohibits the taking of any migratory birds, their parts, nests, or eggs.

Eagles are protected by the MBTA and the Bald and Golden Eagle Protection Act (BGEPA). This law, originally passed in 1940, provides for the protection of the bald eagle and the golden eagle (as amended in 1962) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase

or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (16 U.S.C. 668c; 50 CFR 22.3).

A list of Migratory Birds identified by IPaC can be found Appendix E. The Proposed Action site is not located within a Principal Route of a North American Migratory Bird Flyway. Based on the cleared nature of the Proposed Action site, it is anticipated that the site would provide less than optimal habitat for migratory birds. Minimal vegetation is present that could provide opportunities for migratory bird nesting or foraging or the general presence of migratory birds.

Breeding territories for bald eagles in Eastern Alabama are located mostly along rivers and near reservoirs with large, tall (40 – 120 ft) trees for nesting and roosting. Nests are usually located within one mile of water, such as lakes, reservoirs, creeks, or rivers, and are often located in the ecotone between forest and water. The Proposed Action site is surrounded primarily by cleared and wooded land and agricultural and residential development. The nearest large body of water is over three miles to the southeast (Coosa River). Based on a review of data available through iNaturalist.org and ebird.org data, the nearest eagle observation is approximately 9 miles to the north of the Proposed Action area (iNaturalist.org 2025, eBird.org 2025).

#### Wetlands Habitat

The Proposed Action site does not include areas that would provide wetlands habitat for protected species or other wetland-dependent species.

## 4.6 Historic and Cultural Resources

### Archaeological and Architectural Resources

In July of 2020, the Advisory Council on Historic Preservation (ACHP) approved amendments to the *Program Comment to Avoid Duplicative Reviews for the Wireless Communications Facilities Construction and Modification*. This Program Comment allows select agencies, including NTIA, to rely on existing Federal Communications Commission (FCC) Section 106 procedures for those undertakings also subject to *Section 106 review under the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the FCC* (FCC Nationwide PA) and the *Nationwide Programmatic Agreement for the Collocation of Wireless Antennas*, as amended (FCC Collocation PA).

A Phase I Cultural Resources Survey was originally conducted in 2020 per the Alabama Historical Commission (AHC) state guidelines and the FCC Nationwide PA for the Proposed Action site for the purpose of identifying and addressing potential impacts to historic and cultural resources that may be located within the areas of potential effects (APEs) for the Proposed Action. Cultural records and databases were reviewed and identified no cultural resources and no surveys within the APE for direct effects. No Historic Properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP) were identified within the ¼-mile APE for visual effects. The Phase I survey did not uncover cultural resources within the APE for direct effects. The Proposed Action site is not occupied by historic structures.



### Native American Traditional, Cultural or Religious Resources

Sixteen federally recognized Tribes were identified that may attach religious and cultural significance to historic properties within the area of the Proposed Action site. Each interested Tribe received initial notification from the Tower Construction Notification System (TCNS) system on April 24, 2020. All Tribal responses and requests for information were met as shown in the Appendix F table “Tribal Summary Table.” Further discussion of Tribal consultation efforts is provided in Section 5.6.

### 4.7 Aesthetic and Visual Resources

The Proposed Action site is located within grassed land. The surrounding area is generally characterized by agricultural and residential development and wooded land. Utilizing the ¾-mile Area of Potential Effects for Historic Resources, there were no sensitive visual receptors identified.

A review of the Alabama Department of Archives and History HRID mapper, the National Map Viewer, the National Park Service Map Finder, the National Scenic and National Historic Trail Webmap, and Google Earth indicated no recreational areas, natural features, notable architectural features, designated wilderness or wilderness study areas, national scenic or historic trails, or national or state parks are located within the vicinity of the Proposed Action site (Appendix A).

### 4.8 Land Use

Based on site visits completed in 2020 and 2025 and a review of recent aerial photography (2020-2023) the Proposed Action site consists of an area that was previously wooded land and then cleared for agricultural uses on the parent tract. The Proposed Action site is zoned as Agricultural, Low Density Residential (St. Clair County Map Viewer 2025) and is not currently developed. Surrounding land use for the site is characterized by agricultural and residential development and wooded land.

### 4.9 Infrastructure

Infrastructure within close proximity to the Proposed Action site generally consists of a public road (Popes Chapel Road) from which access to the proposed facility would be provided along with chicken houses to the southwest. No additional infrastructure, such as power, water, or communications, are located within the footprint of the Proposed Action site, though the potential exists for buried utilities along the Popes Chapel Road right-of-way. Proposed underground power would connect the proposed telecommunications equipment to a new power pole within the Popes Chapel Road right-of-way just northwest of the access/utility easement. From the power pole, overhead power lines would extend to a proposed power pole located northwest of Popes Chapel Road to avoid additional ground disturbance within the right-of-way. Underground fiber would be installed in the access/utility easement within two, two-inch conduits from the proposed compound to a new handhole located where the access/utility easement meets the Popes Chapel Road right-of-way. Any existing buried utilities within the Popes Chapel Road right-of-way, would be identified prior to construction via the state 811 program as discussed below in Section 5.11.

### 4.10 Human Health and Safety

The Proposed Action site is currently grassed land adjacent to Popes Chapel Road. The current operations at the Proposed Action site present no concerns to human health and safety. No hazardous waste sites or registered USTs were identified within the immediate vicinity of the Proposed Action (EPA Enviromapper 2025, EPA UST Finder 2025, ADEM 2025, see Appendix B).

Utilities servicing the tower would be buried along easement and would be extended overhead across Popes Chapel Road. Buried utilities would be marked with tracer lines, warning tape, and contained within conduit. Federal regulatory requirements addressing worker safety, protection, and health are administered and enforced by the Occupational Safety and Health Administration (OSHA). OSHA establishes worker protection standards that must be followed to prevent and minimize potential safety and health risks. Alabama is not a state with an approved OSHA state plan, meaning federal OSHA regulations apply directly within the state. During construction, OSHA safety standards will be enforced for contractors and their employees. Following construction, there would be no threats to human health and safety from either the tower or the broadband equipment. The tower site will be fenced, secured with a lock, and posted with “NO TRESPASSING” signs to prevent unauthorized access to the tower. Climbing pegs will be removed from the tower below 10 ft. The installation of broadband infrastructure will have a positive impact on the health of residents in the community, since they will be able to access telehealth services. Electromagnetic energy emitted by antennas will be below the permissible limits under the FCC’s exposure limits, as required (See Section 5.10 below for additional information).

## 5.0 Analysis of Environmental Impacts

### 5.1 Noise

The Proposed Action would result in a negligible and temporary increase in anthropogenic noise levels during construction and installation activities. Anthropogenic noise sources have the highest potential to generate noise pollution and are further described below with the specified noise levels for such sources per the Federal Highway Administration Construction Noise Handbook ([FHWA] 2017).

Potential anthropogenic potential noise from the construction of the Proposed Action could include the following temporary noise:

- Mobile equipment (i.e., equipment that operates in a cyclic fashion in which a period of full power is followed by a period of reduced power), including earth moving equipment such as an excavator (85 a-weighted decibels [dBA]), a crane (85 dBA), a skid steer (80dBA) a trencher or other equipment greater than 5 horsepower (85 dBA), haul or dump trucks (84 dBA), a concrete mixer truck (85 dBA), and passenger vehicles such as pickup trucks (55 dBA).

Anthropogenic potential noise from the operations of the Proposed Action could include the following:

- Stationary equipment (i.e., equipment that generates noise from one general area), including a backup generator (65 dBA with Sound Attenuated Enclosure).
- Mobile equipment including passenger vehicles such as pickup trucks (55 dBA).

No impact equipment (i.e., equipment that generates impulsive noise) is expected.

Construction activities would occur five days per week only during daytime hours. Following construction, increases in anthropogenic noise levels would also be negligible and would result from occasional and temporary noise associated with the operation of the backup generator in the event of a power outage at the project location. A 50kW backup generator is proposed which runs a

monthly self-test lasting approximately 30 minutes. The test runs at a lower, quieter RPM (65dBA) to ensure the system is running properly while consuming less fuel. The generator is expected to produce 81 dBA during maximum operating load. Additionally, technicians would visit the site once per month on average for standard maintenance. In the case of emergencies or the need to service or replace equipment, more frequent visits would be required, although the increased frequency would be temporary and insignificant in nature. The decibel level of the generator at maximum operating load would be considered high if a sensitive receptor were in the immediate vicinity of the generator and were to experience prolonged exposure. The nearest sensitive receptor is a residence located approximately 1,180 feet west of the Proposed Action fronting Popes Chapel Road. Based on distance, noise associated with the project is not anticipated to be perceptible from this residence. Therefore, no appreciable level of sustained increased noise is anticipated to affect sensitive receptors either during construction or the operation and maintenance of the Proposed Action.

A No Action Alternative would not result in a change in noise levels at the Proposed Action site and would therefore have no adverse noise impacts.

## 5.2 Air Quality

The Proposed Action would result in a negligible and temporary increase in air emissions at and near the Proposed Action site during construction and installation activities as a result of equipment operation and ground disturbing activities. Both equipment operation and ground disturbing activities would be temporary and would occur during the 60 days of anticipated construction at the Proposed Action site. During construction, emissions from the excavator, skid steer, and crane would occur only for a few days and are anticipated to be minimal in the context of State of Alabama air quality standards, which are consistent with the Primary and Secondary National Ambient Air Quality Standards. During the operation phase, air emissions may occur only periodically in association with operation of the proposed back-up generator. Further, considering that the Proposed Action is located within an air quality attainment area, there are no specific non-attainment or maintenance area restrictions associated with air emissions at the Proposed Action location. Only generator engines meeting current EPA air quality standards would be utilized. No air quality permits are required for construction or operation of the Proposed Action, including the proposed back-up generator (Alabama Department of Environmental Management 2025). Once construction is complete, a minor source of air pollution will be the occasional use of the back-up generator for monthly 30-minute self-testing and during power outages.

In order to minimize the generation of airborne particulate (dust) emissions as a result of ground disturbance, best management practices (BMPs) (e.g. wetting and stabilizing exposed soils, minimizing exposed soils, and minimizing traffic across unpaved areas) would be implemented. Further, development activities would be subject to both state and local air quality regulations in accordance with the Ambient Air Quality Standards for Alabama.

A No Action Alternative would result in no construction or operations activities at the project location and therefore would have no impact to the air quality within the vicinity of the Proposed Action site.

## 5.3 Geology and Soils

The Proposed Action would result in ground disturbing activities measuring approximately 0.26-acres. There are no unusual geologic features, known occurrences of important minerals, or known

sensitive geologic features present within the Proposed Action area. No sinkholes, fissures, or other karst features were observed near the project area. No impacts on geologic resources are anticipated. According to a Geotechnical Investigation Report dated May 5, 2025, auger refusal was met at an approximate depth of 31 feet, likely indicating the top of bedrock. The potential for soil erosion would be addressed through the implementation of erosion and sediment control best management practices, including the installation of silt fencing around the Proposed Action area. No adverse impacts to soils are anticipated as a result of the Proposed Action. The Proposed Action area would not occur within soils designated as prime or unique farmlands or farmlands of statewide or local importance (See Appendix C).

A No Action Alternative would result in no construction or installation activities at the Proposed Action site and therefore no impact on geologic conditions or soils.

#### 5.4 Water Resources

The Proposed Action would not result in impacts to wetlands or surface waters and is not located within a sole source aquifer area or within a Special Flood Hazard Area of the 100-year floodplain. The anticipated regional groundwater levels at the Proposed Action site would be well beneath the extent of any excavation activities, no water withdrawals are proposed, and the passive use of the proposed communications tower is not anticipated to result in adverse effects to groundwater quality. Based on the small footprint and relatively flat terrain of the Proposed Action site, changes to existing stormwater runoff rates or impacts to water resources as a result of erosion and sediment runoff are expected to be non-existent or negligible. Where applicable, sediment and erosion control best management practices would be implemented, such as silt fencing or sediment traps, and erosion control mats. Additionally, best management practices would be implemented for handling hazardous materials on site during construction and operation of the site (See Section 5.10 for additional details). The proposed implementation of stormwater management measures are expected to minimize the effects on water resources. Therefore, no impacts to water resources are likely to result from the Proposed Action.

A No Action Alternative would result in no construction activities at the Proposed Action site and therefore would have no impact to water resources.

#### 5.5 Biological Resources

Based on a review of the information provided by IPaC, ALNHP, site inspections, and a Natural Resources Review and Natural Resources Review Update, the Proposed Action site would not provide suitable habitat for federally or state listed or proposed species (See Table 5-1).

A Natural Resources Site Evaluation was initially prepared for the Proposed Action and dated June 18, 2020. This initial evaluation was prepared for a 269-foot overall height self-supporting lattice tower structure within the currently proposed project footprint (100-foot by 100-foot lease area and a 47-foot by 30-foot access/utility easement). The evaluation found that no suitable habitat for federally listed species was present within the Proposed Action area and that the Proposed Action will not affect listed or proposed threatened or endangered species or critical habitats. The evaluation was provided to the USFWS Alabama Ecological Services Field Office who responded on July 8, 2020, stating that no federally listed species or critical habitats are known to occur in the project area.

An Addendum Letter Notification for Ownership Change and Project Refresh dated March 10, 2025, was provided to USFWS and referenced an updated IPaC species list and noted a finding of no effect based on completion of the Alabama USFWS Determination Key and Indiana Bat Determination Key. A Tricolored Bat and Northern Long-eared Bat Determination Key was also completed and returned a finding of “may affect” due to a confirmed inconsistency of the Determination Key when stating there would be drilling or blasting on the site. However, based on the lack of tree clearing proposed, the Addendum found that the project would have no effect on the tricolored bat and northern long-eared bat. USFWS responded on March 20, 2025, stating that no federally listed species/critical habitat are known to occur in the project area. A second addendum was sent to USFWS on May 1, 2025, notifying of a decrease in proposed overall tower height from 269 feet to 265 feet. This addendum was sent only for record keeping purposes and no response from was requested or received.

An initial consultation request was submitted to the Alabama Department of Conservation and Natural Resources (ADCNR) for the Proposed Action. The ADCNR responded on July 16, 2020, concluded that it does not appear that this project will adversely affect any state or federally protected species. However, the ADCNR recommended best management practices (BMPs) be implemented, maintained, and monitored (particularly measures to prevent, or at least, minimize negative impacts to water quality). An Addendum Letter Notification for Ownership Change and Project Refresh dated March 10, 2025, was provided to ADCNR with the same updated IPaC species list and Determination Keys as sent to USFWS and discussed above. A second addendum was sent to ADCNR on May 1, 2025, notifying of a decrease in proposed overall tower height from 269 feet to 265 feet. No responses to the addendum letters were received from ADCNR. Based on the amount of time elapsed since the initial addendum was provided, it is presumed that ADCNR has no additional comments. The Natural Resources Site Evaluation and documentation of USFWS and ADCNR coordination is provided in Appendix E. A current list of federally listed and proposed threatened or endangered species identified by USFWS and state protected species identified by ALNHP as potentially occurring at the Proposed Action site along with suitable habitat descriptions and a finding of effect for each is provided in Table 5-1 below.

**Table 5-1: Federally Endangered or Threatened Species Findings Summary**

Common Name	Scientific Name	Federal Status (IPaC)	State Status	Habitat (NatureServe)	Finding of Effect
Gray bat	<i>Myotis grisescens</i>	Endangered	-	Roost sites are almost exclusively in caves; Winter roosting sites in deep vertical caves; Can be found in storm sewer systems	No suitable habitat, No effect

Common Name	Scientific Name	Federal Status (IPaC)	State Status	Habitat (NatureServe)	Finding of Effect
Indiana bat	<i>Myotis sodalis</i>	Endangered	-	Hibernate in caves and cave-like structures (Winter); Roost sites under exfoliating bark or cavities/hollows of trees generally 5 inches dbh or greater (Summer)	No suitable habitat; No effect
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered	-	During summer, roosts singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees; Winters are spent hibernating in caves and mines	No suitable habitat; No effect
Tricolored bat	<i>Perimyotis subflavus</i>	Proposed Endangered	-	Site is located within hibernating range; During the spring, summer, and fall, primarily roost among living and dead leaf clusters of live or recently dead deciduous hardwood trees; during the winter, hibernate in caves and mines	No suitable habitat; No jeopardy
Whooping crane	<i>Grus americana</i>	Experimental Population, Non-Essential	-	Nesting occurs in dense emergent vegetation (sedge, bulrush) in shallow (often slightly alkaline) ponds, freshwater marshes, wet prairies, or along lake margins	No suitable habitat; No effect
Monarch butterfly	<i>Danaus plexippus</i>	Proposed Threatened	-	Overwintering habitats of the eastern North American population consist of high altitude Mexican conifer forests; Within eastern North America, breeding areas are virtually all patches of milkweed	No suitable habitat; No jeopardy

Common Name	Scientific Name	Federal Status (IPaC)	State Status	Habitat (NatureServe)	Finding of Effect
Tennessee yellow-eyed grass	<i>Xyris tennesseensis</i>	Endangered	-	Found in open or thin canopy woods in gravelly seep-slopes or gravelly bars and banks of small streams, springs and ditches, its associates are fen or basic soil plants	No suitable habitat;  No effect

*\*List includes only species identified within the Federal IPaC Official Species List; State listed species excluded based on initial ADCNR consultation*

### Migratory Birds and their Habitats

Per the USFWS *Recommended Best Management Practices for Communication Tower Design, Siting Construction, Operation, Maintenance, and Decommissioning* (USFWS 2021), “evidence suggests that night-migrating songbirds are either attracted to or disoriented by tower obstruction warning lighting systems, especially during overcast (i.e., low cloud ceiling), foggy, or otherwise low visibility conditions. Birds aggregate in larger numbers at towers with non-flashing lights compared to those with flashing lights, although birds aggregate at flashing lights during the “on” phase, they disperse during the “off” phase. Additionally, birds moving across the landscape at night (e.g. owl and seabirds) can collide with communications tower wires when they are placed in high movement areas.” Further, communication towers may cause direct and indirect bird mortality through collisions with towers or guy wires or from exhaustion from circling a tower; through construction, operation, and maintenance activities; and significant loss of fat reserves spent while circling towers, leading to reduced survival during long migrations.

The Grantee proposes to construct a 265-foot tall (overall height) self-supporting lattice telecommunications structure. Based on the specifications of the proposed tower structure, the Grantee has conformed to USFWS-recommended siting and construction measures for new towers including 1) avoiding the use of guy wires; 2) utilizing the preferred lighting scheme for tower structures (flashing white/red lights); 3) selecting already degraded areas for tower placement; 4) not siting the tower in or near known bird concentration areas, or in known migratory bird movement routes, daily movement flyways, areas of breeding concentration, in habitat of threatened or endangered species, key habitats for birds of conservation concern, or near breeding areas of prairie grouse; 5) avoiding ridgelines, coastal areas, wetlands, or other known bird concentration areas; and 6) designing tower and associated facilities so as to avoid or minimize habitat loss within and adjacent to the tower footprint. The presence of migratory birds engaged in migrating activities cannot be ruled out in the general vicinity of the Proposed Action site and the proposed tower structure may provide opportunities for nesting and/or perching, however, this is unlikely to result in an adverse effect on migratory bird species. Further, considering the habitat present on site which consists of grassed land, the Proposed Action site is not expected to provide quality migratory bird habitat, thus pre-construction nest clearance surveys are not deemed necessary. Considering the USFWS guidance and the specification of the Proposed Action, the Grantee has committed to mitigation measures that would decrease risks to migratory birds.



Considering the proposed measures, the project is not anticipated to adversely affect migratory birds.

#### Bald and Golden Eagles

The Grantee would comply with the Bald and Golden Eagle Protection Act, which prohibits the take of bald or golden eagles without authorization from the Secretary of Interior. Based on the data reviewed (iNaturalist.org, 2025) and the lack of suitable breeding/foraging habitat within at least three miles of the Proposed Action, no impacts to eagles are anticipated. Should bald eagle nesting occur within 660 feet of the proposed site in the future, guidance provided in the *National Bald Eagle Management Guidelines* would be followed to minimize the potential for impacts to nesting eagles.

A No Action Alternative would result in no construction activities at the Proposed Action site and therefore would have no impact on biological resources.

### 5.6 Historic and Cultural Resources

In July of 2020, the Advisory Council on Historic Preservation (ACHP) approved amendments to the *Program Comment to Avoid Duplicative Reviews for the Wireless Communications Facilities Construction and Modification*. This Program Comment allows select agencies, including NTIA, to rely on existing Federal Communications Commission (FCC) Section 106 procedures for those undertakings also subject to *Section 106 review under the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the FCC* (FCC Nationwide PA) and the *Nationwide Programmatic Agreement for the Collocation of Wireless Antennas*, as amended (FCC Collocation PA).

The Alabama Historical Commission (AHC) was provided with a Phase I Cultural Resources Survey for the Proposed Action in 2020. The AHC issued a “no cultural resources listed in or eligible for listing in the NRHP will be directly or visually affected” determination for above ground and archaeological resources for the Proposed Action. Subsequently, addendum letters were sent to the AHC on March 10 and May 1, 2025 addressing changes to the proposed design (decrease in tower height from 269 feet overall height to 265 feet overall height) and stating that the tower would now be constructed by The Towers, LLC instead of by Verizon Wireless. No response from AHC was received within the 30-day review period. Based on the lack of response from AHC and in accordance with the procedures set forth in the NPA, concurrence with their previous conclusion was assumed. Documentation of AHC consultation is included in Appendix F.

Sixteen federally recognized Tribes were identified that may attach religious and cultural significance to Historic Properties within the areas of each proposed undertaking. All Native American Tribes that have expressed interest within this area have either concurred with the project or expressed no further interest. An addendum was provided to the sixteen Tribes that had initially expressed interest in the Proposed Action on March 10, 2025 and May 1, 2025 refreshing the initial consultation and to document the reduction in proposed tower height, respectively. All Tribes have replied with no objection to the addendum letters or were unresponsive. Documentation of Tribal consultation is included in Appendix F.

It is noted that since the initial and amended AHC and Tribal consultation was conducted, utilities routing has been modified to include an overhead power line to two new poles which would be



placed on the southeast side of Popes Chapel Road just outside the access/utility easement and in an existing overhead utility corridor to the north of Popes Chapel Road as shown on Figure 3-2. Considering that the power line between the two poles would be overhead, the area is already disturbed, and that the proposed utility poles would be within 100 feet of previously assessed areas, no further coordination with AHC or Native American Tribes was determined necessary.

Consistent with state and federal regulations (36 CFR 800.13[b]), should a concentration of artifacts or culturally modified soil deposits (including trash pits older than 50 years) be encountered at any time during ground disturbing activities, all work must stop until a qualified archaeologist views the finds and makes a preliminary evaluation. If warranted, further archaeological work in the discovery area should be performed. Further, should human remains be encountered, all work must stop in the immediate vicinity of the discovery until the County Coroner and a qualified archaeologist evaluate the remains. As necessary, all Tribes identified during the consultation process would be notified of pertinent discoveries made during ground disturbing activities.

The No Action Alternative would result in no construction activities at the Proposed Action site and therefore would have no impact on historic and cultural resources.

### 5.7 Aesthetic and Visual Resources

The Proposed Action would include the installation of a proposed 265-foot tall self-supporting lattice telecommunications tower. The proposed tower would be lighted with medium-intensity dual red/white flashing lights. Tower lights would be white during the day and red at night. Construction would occur only during daytime hours, thus there would be no construction-related lighting associated with the Proposed Action. No sensitive aesthetic or visual receptors are located within the viewshed of the Proposed Action, thus no adverse impacts to aesthetic and visual resources are anticipated.

A No Action Alternative would result in no construction activities or new additions to the landscape at the Proposed Action site and therefore would have no impact on aesthetic and visual resources.

### 5.8 Land Use

The Proposed Action would result minimal changes to the overall land use for the larger tract on which the Proposed Action would take place, and the Proposed Action would result in no changes to surrounding property land uses.

A No Action Alternative would result in no construction activities at the Proposed Action site and therefore would have no impact on land uses.

### 5.9 Infrastructure

The Proposed Action would require additional energy demands for the wireless facility, including a temporary increase during construction and installation activities; however, the overall increase in energy demand for the Proposed Action would be within the existing capabilities of local electrical distribution providers during construction and implementation as well as for continued operation of the wireless facility. No new public roadways would be required for the construction of the Proposed Action, and since the Proposed Action involves unmanned wireless facilities, no water and sewer infrastructure would be required. While minimal impacts to local traffic would potentially occur

during the staging and construction portions of the Proposed Action, there would be no long-term impacts to traffic as a result of the operation of Proposed Action.

A No Action Alternative would result in no construction activities at the Proposed Action site and therefore would have no impact on infrastructure.

### 5.10 Human Health and Safety

Impacts to human health and safety under the Proposed Action alternative are expected to be minor over the short term and beneficial over the long term with safety mitigation efforts included. During construction activities impacts on human health may occur. Impacts related to traffic management, utility line strikes, decreased air quality from dust and construction equipment, and accidental release of hazardous materials (i.e., fuels) could occur; however, mitigation efforts to manage traffic, identify buried utilities, dust management, and general protection of existing infrastructure, and careful management of hazardous materials will be in place under the Proposed Action alternative. Such measures would include performing utility locations prior to construction, discussing traffic management plans with State Department of Transportation agency officials, and dust suppression efforts. To reduce the potential for accidental releases of hazardous materials, fuels or other chemicals would be stored and maintained in designated staging areas. Additionally, an emergency spill kit containing absorption pads, a shovel, and other cleanup items would be readily available for cleanup of chemical or fuel releases. Construction activities would be completed in a relatively short period.

During the operations and maintenance period of the tower, mitigation measures such as fencing and controlled access would be implemented. Limiting access to potentially dangerous equipment would mean that the operation of the tower does not lead to any adverse impacts to human health and safety over the long-term. No hazardous waste sites or registered USTs were identified within the vicinity of the Proposed Action (EPA Enviromapper 2025, EPA UST Finder 2025, ADEM 2025, see Appendix B). Prior to conducting ground disturbing activities within the Proposed Action area, the Grantee would identify buried utilities through the use of 811 (call before you dig) and a private utility locator if necessary and would utilize permit-only workers qualified by training or experience to operate heavy machinery and equipment. During construction, Occupational Safety and Health Administration (OSHA) safety standards would be enforced for contractors and their employees. Following construction, the tower would be surrounded by chain-link fencing that would include gate access secured by a padlock to prevent and discourage public access to the site.

Electromagnetic emissions (EME) from the proposed antennas would be reviewed by the carrier to ensure that emission levels are below the FCC exposure limits outlined in 47CFR § 1.1307, § 1.1310. The Proposed Action would result in no adverse impacts to human health and safety. The enhanced capabilities and reliability of voice and data communications resulting from the Proposed Action would be beneficial to human health by providing additional economic and educational opportunities and improved access to telehealth services for St. Clair County residents.

A No Action Alternative would result in no construction activities at the Proposed Action site and therefore negatively impact St. Clair County and surrounding communities, which would continue to have diminished access to reliable connectivity and telehealth services.

## 6.0 Applicable Environmental Permits and Regulatory Requirements

**Table 7-1: Potential Applicable Statutory, Regulatory, and Other Requirements**

Potentially Applicable Requirement	Relevant Project Information
<b>All Resources</b>	
National Environmental Policy Act (NEPA) of 1969 42 U.S.C. § 4321 et seq.	NEPA requires all federal agencies to assess environmental effects of their proposed actions; this Environmental Assessment fulfills that requirement.
Federal Communications Commission Antenna Structure Registration 47 CFR § Part 17	Antenna Structure Registration 1315106 granted to Cellco Partnership (d/b/a Verizon Wireless) on 06/29/2020; Project owner and FAA Aeronautical Study No. to be updated within 5 days upon completion of construction
Federal Aviation Administration Filing 14 CFR § Part 77 Section 77.9	FAA Aeronautical Study No. 2025-ASO-4119-OE Issue Date: 04/23/2025; Operational use of the 5G C band frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. The structure must be painted and lighted with a medium-dual system, consisting of medium intensity white flashing lights during the day and medium intensity red flashing lights at night
<b>Vegetation, Wildlife, and Fish</b>	
Endangered Species Act of 1973 16 U.S.C. § 1531 et seq.	Sections 7(a)(1) and 7(a)(2) of the Endangered Species Act requires federal agencies to aid in the conservation of listed species and ensure activities are not likely to jeopardize the continued existence of federally listed or proposed species or destroy or adversely modify designated critical habitat. The Grantee has determined a finding of no effect/no jeopardy for federally listed/proposed species.

Waters, Wetlands, and Floodplain Protection	
Clean Water Act 33 U.S.C. § 1251 et seq.	The Clean Water Act prohibits the discharge of any pollutant from a point source into navigable waters; no surface waters have been identified within or near the Proposed Action site.  Executive Order 11988 requires federal activities to avoid adverse impacts to wetlands where practicable, and Executive Order 11990 requires federal activities to elevate structures located within floodplains above the base flood level where practicable; no wetlands or floodplains have been identified within or near the Proposed Action site.
Floodplain Management Executive Order 11988	
Protection of Wetlands Executive Order 11990	
Cultural and Historic Resources	
National Historic Preservation Act (NHPA), as amended, inclusive of Section 106 54 U.S.C. § 306108 et seq.	Section 106 NHPA requires federal agencies to identify and assess the effects its actions may have on historic properties; the Section 106 review process has revealed no effects on historic properties as a result of the Proposed Action.
Noise, Public Health, and Safety	
Federal Communications Commission (FCC)	47 CFR 1.1310 provides radiofrequency radiation exposure limits from FCC; the Proposed Action would comply with the criteria set forth in 47 CFR 1.1310.

## 7.0 Consultations

**Table 8-1: Agency Consultations**

Agency and Name	Consultation	Status
United States Fish and Wildlife Service	Endangered Species Act Consultation	Updated list pulled May 20, 2025. Addendum provided March 10 & May 1, 2025; No further concerns expressed
Alabama Division of Wildlife and Freshwater Fisheries, Department of Conservation and Natural Resources	Protected Species and Natural Resources Consultation	Complete: ADCNR response received 7/16/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Alabama Historical Commission – Lee Warner (334) 242-3184	Section 106 Historic Preservation Consultation	Complete: SHPO response received 7/17/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Alabama Coushatta Tribe Tribal Historic Preservation Office – Bryant J Celestine (936) 563-1100	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed

Agency and Name	Consultation	Status
Coushatta Indian Tribe Tribal Historic Preservation Office - Dakota John (337) 584-1401	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Eastern Band of Cherokee Indians Tribal Historic Preservation Office – Stephen Yerka (282) 359-6852	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Jena Band of Choctaw Indians Tribal Historic Preservation Office – Lille Williamson (318) 992-8258	Section 106 Historic Preservation Consultation	Complete: THPO response received 8/3/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Chickasaw Nation Tribal Historic Preservation Office – Monty Stick (580) 564-3060	Section 106 Historic Preservation Consultation	Complete: THPO response received 6/8/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Kialegee Tribal Town Tribal Historic Preservation Office – David Cook (405) 452-3262	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Seminole Nation of Oklahoma Tribal Historic Preservation Office – Brigita Leader (405) 234-5218	Section 106 Historic Preservation Consultation	Complete: No interest if no response within 30 days of 4/24/2020, cleared 5/24/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Cherokee Nation Tribal Historic Preservation Office – Gwen Terrapin (918) 772-4165	Section 106 Historic Preservation Consultation	Complete: THPO response received 7/23/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Muscogee (Creek) Nation Tribal Historic Preservation Office – Anne Edwards-Martel (918) 732-7639	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
United Keetoowah Band of Cherokee Indians in Oklahoma Tribal Historic Preservation Office – Whitney Warrior (918) 871-2838	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Eastern Shawnee Tribe of Oklahoma Tribal Historic Preservation Office – Kelly Nelson (918) 666-2435	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Alabama Quassarte Tribal Town Tribal Historic Preservation Office – Janice Lowe (405) 452-3881	Section 106 Historic Preservation Consultation	Complete: Cleared via NOO on 4/24/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed

Agency and Name	Consultation	Status
Thlopthlocco Tribal Town Tribal Historic Preservation Office – Ryan Morrow	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Shawnee Tribe Tribal Historic Preservation Office – Kim Jumper (918) 542-2441	Section 106 Historic Preservation Consultation	Complete: Final follow-up attempt = 6/17/2020 and cleared via Escalation on 8/14/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Poarch Band of Creek Indians Tribal Historic Preservation Office – Larry Haikey (251) 368-9136	Section 106 Historic Preservation Consultation	Complete: No interest if no response within 30 days of 4/24/2020, cleared 5/24/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed
Tunica-Biloxi Tribe of LA Tribal Historic Preservation Office – Earl J Barbry Jr (318) 240-6451	Section 106 Historic Preservation Consultation	Complete: No interest if no response within 30 days of 4/24/2020, cleared 5/24/2020; Addendum provided March 10 & May 1, 2025; No further concerns expressed

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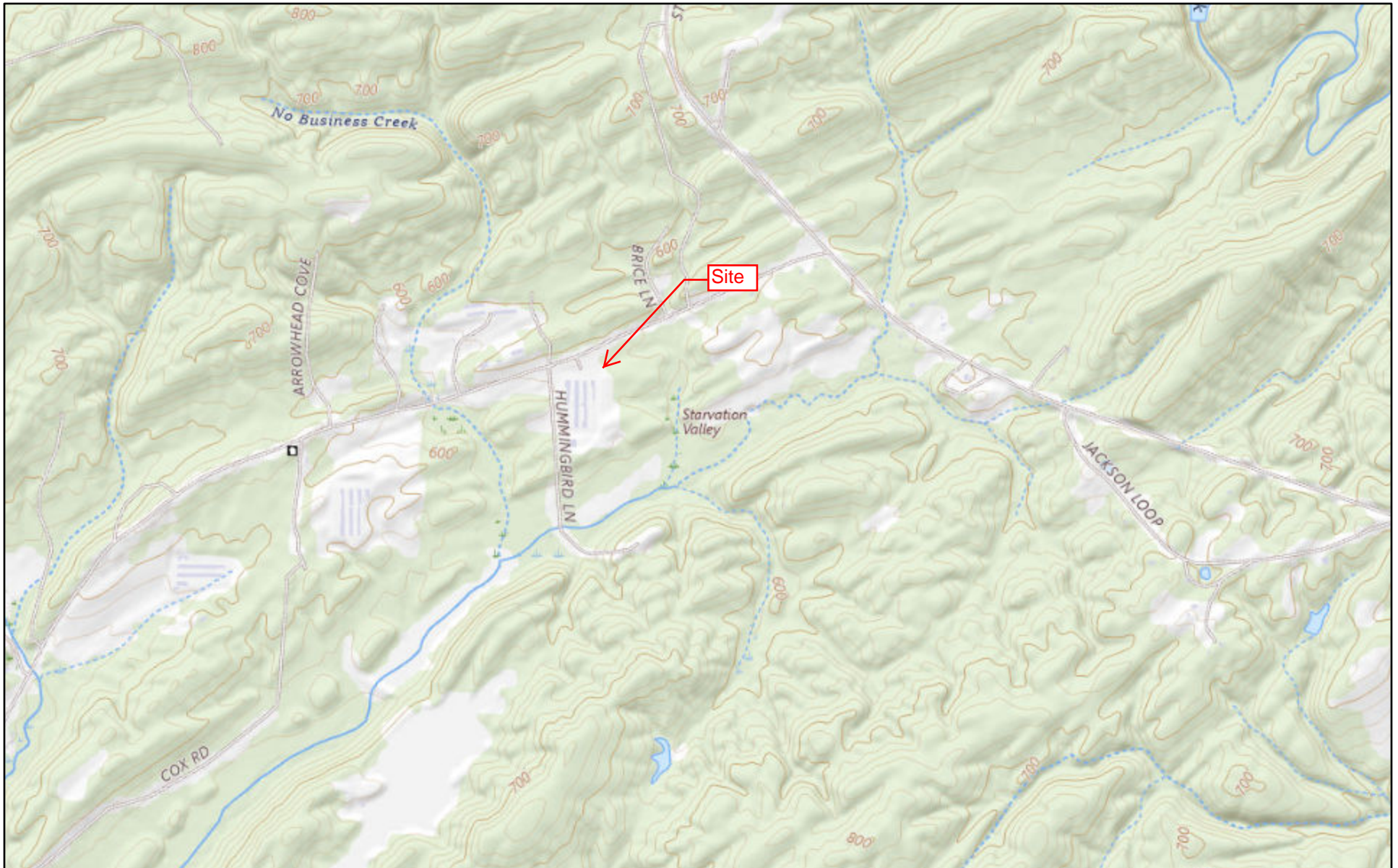
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**Appendix A**  
**Site Maps and Photographs**

# The National Map



7/30/2025

\*Governmental Boundaries (National Forest, National Park Service, USFWS, National Wilderness, National Grasslands, National Monument, National Cemetery, Bureau of Land Management)



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography





Source: Maxar

**Site Location Map**

**ECA ID: 25-001749**





National Scenic and Historic Trail Webmap  
(NPS 2025)



Site

Ragland

St Clair  
Calhoun

Talladega





Photo 1: View of the proposed tower location, facing southeast.



Photo 2: View of the Pope Chapel Road, facing east.





Photo 3: View of Pope Chapel Road, facing west.



Photo 4: View of the proposed tower location, facing south.





Photo 5: View of the proposed tower location, facing east.



Photo 6: View of a wooded area across from property, facing northwest.





Photo 7: View of the proposed tower location, facing east.



Photo 8: View of Pope Chapel Road and wooded area across from property, facing north.





(HEREINAFTER REFERRED TO AS "NEW VERTICAL BRIDGE")

US-AL-5529  
BORDERS LAKE  
5842 POPES CHAPEL ROAD  
RAGLAND, AL 35131



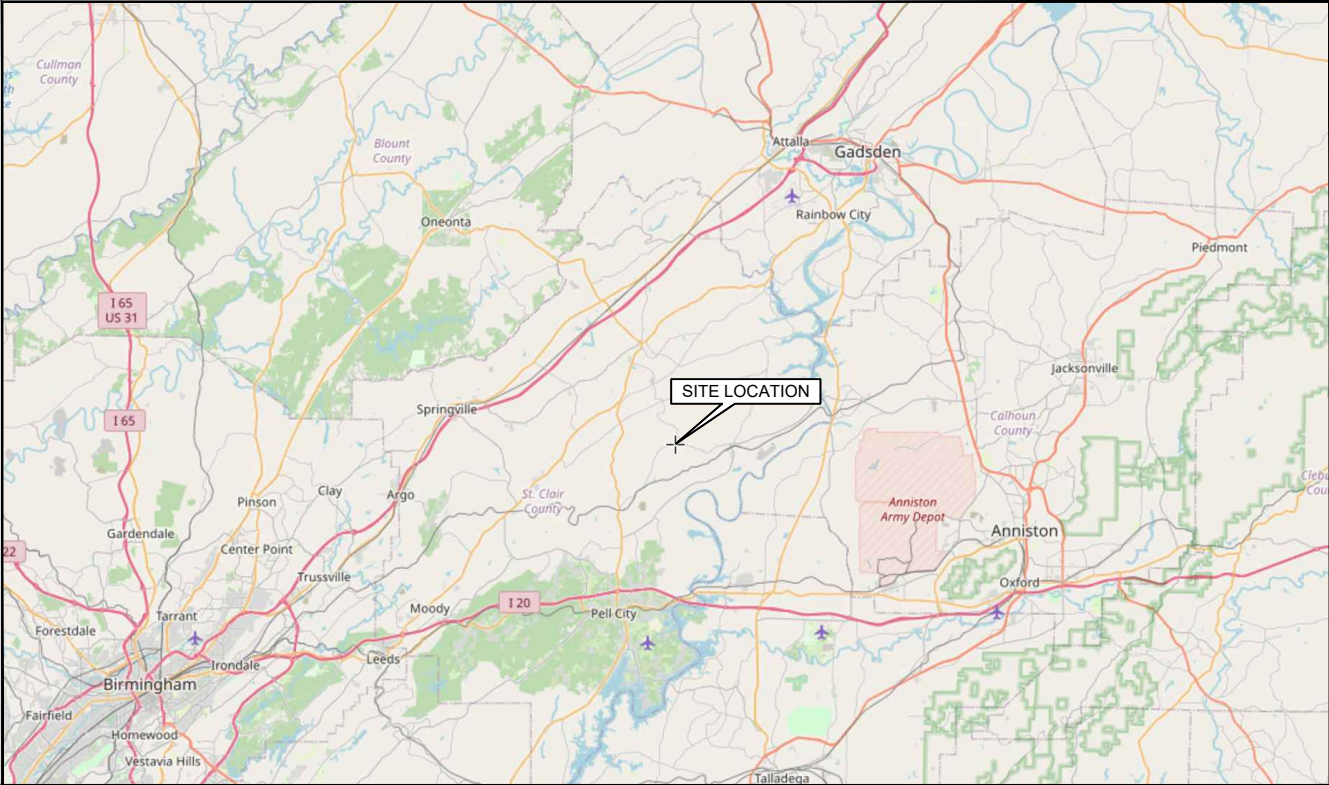
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DRAWN BY	BNS
CHECKED BY	BNS

PROJECT SUMMARY

SITE NAME:	BORDERS LAKE
SITE NUMBER:	US-AL-5529
SITE ADDRESS: (E911 ADDRESS VERIFIED)	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
COUNTY:	ST. CLAIR COUNTY
JURISDICTION:	ST. CLAIR COUNTY
ZONING:	N/A
PROPERTY OWNER:	JOHN L AND NORMA BUCKNER 5661 POPES CHAPEL ROAD RAGLAND, AL 35131
CONTACT: PHONE:	JOHN BUCKNER (205) 338-2821
STRUCTURE OWNER:	THE TOWERS, LLC 750 PARK OF COMMERCE DR., SUITE 200 BOCA RATON, FL 33487
CONTACT: PHONE:	RAUL GARCIA (786) 518-8374
VERIZON:	VERIZON WIRELESS SOUTHERN TERRITORIES 10300 OLD ALABAMA ROAD CONNECTOR ALPHARETTA, GA 30022
VERIZON SITE NAME: VERIZON SITE #:	BORDERS LAKE TBD
1A SITE COORDINATES: LATITUDE: LONGITUDE: ELEVATION:	33° 44' 31.555" N (NAD83) 86° 13' 05.177" W (NAD83) 585.4' AMSL (NAVD88)
OCCUPANCY:	UNMANNED
SITE TYPE:	RAWLAND
POWER COMPANY: CONTACT: PHONE:	ALABAMA POWER EDDIE HERIBERTO (205) 814-2024
FIBER: CONTACT: PHONE:	TBD TBD TBD
POLICE DEPARTMENT: PHONE:	RAGLAND POLICE DEPARTMENT (205) 472-2151
FIRE DEPARTMENT: PHONE:	RAGLAND FIRE DEPARTMENT (205) 472-2200

VICINITY MAP



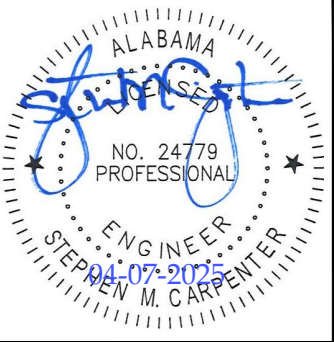
NOT TO SCALE

SHEET INDEX

C-001	TITLE SHEET
C-002	GENERAL NOTES
LS-001 THRU LS-002	LAND SURVEY
C-101	OVERALL SITE LAYOUT PLAN
C-102	SITE LAYOUT PLAN
C-103	EQUIPMENT LAYOUT PLAN
C-200	EROSION NOTES
C-201	SITE GRADING PLAN
C-202	SITE GRADING DETAILS
C-301 THRU C-306	SITE DETAILS
E-001 THRU E-002	ELECTRICAL NOTES
E-101	OVERALL ELECTRICAL SITE PLAN
E-102	ELECTRICAL SITE PLAN
E-201	COMPOUND GROUNDING PLAN
E-202	EQUIPMENT GROUNDING PLAN
E-203 THRU E-206	GROUNDING DETAILS
E-301 THRU E-306	ELECTRICAL DETAILS

REVISIONS

0	04/07/25	BNS	FINAL ISSUE
A	04/03/25	BNS	PRELIMINARY ISSUE
#	DATE	BY	DESCRIPTION



SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
--------------	---

SITE TYPE	RAWLAND
-----------	---------

SHEET TITLE	TITLE SHEET
-------------	-------------

SHEET NUMBER	REVISION
C-001	0

SCOPE OF WORK

NEW BUILD - RAWLAND

INSTALLATION OF A 255'-0" SELF SUPPORT TOWER W/ GROUNDING, UTILITIES, FENCED COMPOUND, AND OTHER SUPPORT STRUCTURES AND COMPONENTS.

INSTALLATION OF ANTENNAS AND ANCILLARY EQUIPMENT FOR WIRELESS COMMUNICATIONS.

APPLICABLE CODES

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2021 IBC
PLUMBING	2021 IPC
MECHANICAL	2021 IMC
FIRE	2021 IFC
FUEL GAS	2021 IFGC
ELECTRICAL	2020 NFPA 70 / NEC
ACCESSIBLE BUILDINGS	2010 ICC/ANSI A117.1

STRUCTURAL REVIEW

CONTRACTOR SHALL ATTAIN AND VERIFY STRUCTURAL EVALUATION REPORT OF EXISTING TOWER FOR EXACT PLACEMENT OF ANTENNAS AND COAX CABLES. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STRUCTURAL EVALUATION REPORT AND NOTIFY VERIZON'S CONSTRUCTION MANAGER IN THE CASE OF ANY DISCREPANCIES. ANY STRUCTURAL MODIFICATION, IF REQUIRED, SHALL BE DONE PRIOR TO THE INSTALLATION OF ANTENNAS.



CALL ALABAMA ONE CALL  
(800) 482-8998  
CALL 3 WORKING DAYS  
BEFORE YOU DIG!






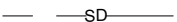


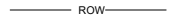





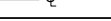




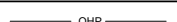







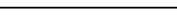





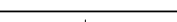

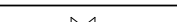

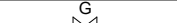

GENERAL NOTES

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL APPLICABLE PERMITTING AUTHORITIES.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND THE CODES, REGULATIONS, AND STANDARDS OF ALL APPLICABLE GOVERNING AUTHORITIES.
3. THE GENERAL CONTRACTOR SHALL VERIFY THAT ALL EXISTING TOPOGRAPHY AND HORIZONTAL GEOMETRY IS AS INDICATED ON THESE DRAWINGS. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE OR REPAIR TO THESE FACILITIES CAUSED BY THE CONTRACTOR'S WORK FORCE. IMMEDIATELY NOTIFY THE OWNER REPRESENTATIVE OF ANY DISCREPANCIES OR INTERFERENCE WHICH AFFECT THE WORK OF THIS CONTRACT.
4. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES. DO NOT ALLOW WATER TO STAND OR POND. ANY DAMAGE TO STRUCTURES OR WORK ON THE SITE CAUSED BY INADEQUATE MAINTENANCE OF DRAINAGE PROVISIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ANY COST ASSOCIATED WITH REPAIRS FOR SUCH DAMAGE WILL BE AT THE CONTRACTOR'S EXPENSE.
5. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY THE OWNER REPRESENTATIVE AND IN ACCORDANCE WITH JURISDICTIONAL AUTHORITIES.
6. ANY PROPERTY DAMAGE CAUSED BY THE CONTRACTOR OR HIS OPERATIONS SHALL BE CORRECTED AND/OR RESTORED TO THE SATISFACTION OF THE PROPERTY LESSOR(S) AND THE OWNER'S CONSTRUCTION MANAGER AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL MAINTAIN 20' HORIZONTAL CLEARANCE FROM CENTERLINE OF EXISTING POWER LINES OR AS REQUESTED BY THE POWER COMPANY.
8. NOTIFY THE OWNER REPRESENTATIVE TWENTY-FOUR HOURS PRIOR TO CONSTRUCTION TO ALLOW THE OWNER REPRESENTATIVE TO REVIEW THE SITE PRIOR TO EXCAVATION.
9. THE CONTRACTOR SHALL INCLUDE ALL WORK REQUIRED TO CO-LOCATE ON THE EXISTING TOWER INCLUDING ALL NECESSARY SITE IMPROVEMENTS, FOUNDATIONS, ELECTRICAL IMPROVEMENTS, SNAP-INS, H-FRAME, AND OTHER ACCESSORIES FOR COMPLETE INSTALLATION.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF THE FOLLOWING EQUIPMENT SUPPLIED BY THE OWNER: ANTENNAS, COAX CABLES, ICE BRIDGE, WAVEGUIDE LADDER, METER, AND EQUIPMENT CABINETS/SHELTER. THE EQUIPMENT CABINETS/SHELTER SHALL BE TRANSPORTED TO THE SITE BY THE CONTRACTOR.
11. CONTRACTOR TO NOTIFY THE OWNER REPRESENTATIVE FORTY-EIGHT HOURS PRIOR TO CONCRETE POURS.
12. CONTRACTOR TO PROVIDE RED LINE CONSTRUCTION DRAWINGS TO OWNER AND VERIZON AT COMPLETION OF JOB.

ABBREVIATIONS

AGL	ABOVE GROUND LEVEL	AMSL	ABOVE MEAN SEA LEVEL
CL	CENTERLINE	CONC	CONCRETE
DIA	DIAMETER	DIM	DIMENSION
EXISTIN G	EXISTING	EA	EACH
ELEV	ELEVATION	EQ	EQUAL
FTG	FOOTING	FDN	FOUNDATION
LLH	LONG LEG HORIZONTAL	HSS	HOLLOW STRUCTURE SHAPE
MAX	MAXIMUM	LLV	LONG LEG VERTICAL
NTS	NOT TO SCALE	MIN	MINIMUM
PL	PLATE	OC	ON CENTER
TOS	TOP OF STEEL	RGS	RIGID GALVANIZED STEEL
UNO	UNLESS NOTED OTHERWISE	TYP.	TYPICAL
W/	WITH	TBR	TO BE REMOVED

LEGEND

SYMBOLS OF EXISTING FEATURES	DESCRIPTION	SYMBOLS OF PROPOSED FEATURES
X 100.5	SPOT ELEVATION	 712.9
 95	CONTOUR LINE	 98
 SD	STORM DRAIN	 SD
	CATCH BASIN	
 ROW	RIGHT OF WAY	
	IRON PIN	
	BENCHMARK	
	CONCRETE MONUMENT	
 CL	CENTERLINE	
 OHT	OVERHEAD TELEPHONE	 OHT
 UGT	UNDERGROUND TELEPHONE	 UGT
 OHP	OVERHEAD POWER	 OHP
 UGP	UNDERGROUND POWER	 UGP
 UGF	UNDERGROUND FIBER	 UGF
 X X X	FENCE LINE	 X X X
 SF SF	SILT FENCE	 SF SF
 LOD	LIMITS OF DISURBANCE	 LOD
	UTILITY POLE	
	LIGHT POLE	
 W	WATER LINE	
	WATER VALVE	
 UGG	NATURAL GAS LINE	
	GAS VALVE	
 ST	SANITARY SEWER	
	MANHOLE	
NOTE: THIS IS A GENERAL LEGEND. ALL FEATURES MAY NOT BE LOCATED IN THIS SITE.		



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REVISIONS

0	04/07/25	BNS	FINAL ISSUE
A	04/03/25	BNS	PRELIMINARY ISSUE
#	DATE	BY	DESCRIPTION



SITE NAME  
BORDERS LAKE

SITE NUMBER  
TBD



SITE NAME  
BORDERS LAKE

SITE NUMBER  
US-AL-5529

SITE ADDRESS  
5842 POPES CHAPEL ROAD  
RAGLAND, AL 35131

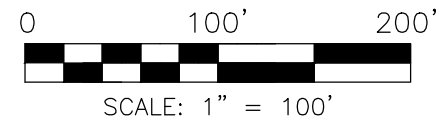
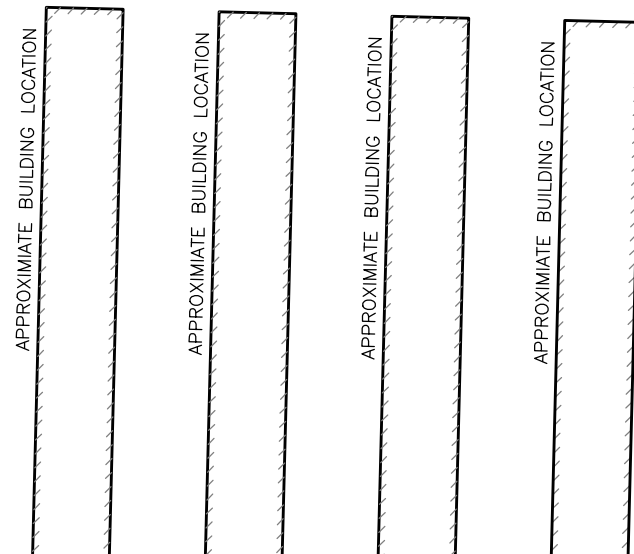
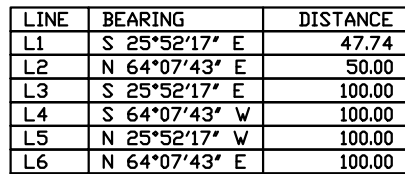
SITE TYPE  
RAWLAND

SHEET TITLE  
GENERAL NOTES

SHEET NUMBER  
C-002

REVISION  
0

NOT TO SCALE



TOWER INFO		BY	
LATITUDE: 33°44'31.555" NORTH LONGITUDE: 86°13'05.177" WEST (NAD 83) GROUND ELEVATION: 585.4' ABOVE MEAN SEA LEVEL (NAVD88)		DATE	MC
ADDRESS: (PER TAX ASSESSOR) POPES CHAPEL RD RAGLAND, AL 35131		REVISION	COMMITMENT
1/21/20		ADDED TITLE	1
VICINITY MAP		PROJECT NO.	19-2162
		DRAWN BY: MGC	SHEET 1 OF 2
ALABAMA EAST GRID NORTH		CHECKED BY: TS	FIELD CREW: SP/KW
GRID TO TRUE NORTH CONVERGENCE -0°12'		APPROVED BY: MKD	DATE: 1/3/20
TRUE NORTH TO MAGNETIC DECLINATION 3°58' W		SCALE: 1" = 100'	
COMBINED SCALE FACTOR 0.999975663		SHEET 1 OF 2	
LEGEND		RAWLAND TOWER SURVEY	
○ = 5/8" REBAR SET ● = FOUND PROPERTY MARKER POB = POINT OF BEGINNING POC = POINT OF COMMENCEMENT POE = POINT OF ENDING ◆ = OLD LEASE CORNER ▲ = CALCULATED POINT (R) = REFERENCED INFORMATION (M) = MEASURED ☒ = POWER POLE □ = TELEPHONE PEDESTAL		FOR:	
FLOOD NOTE By graphic plotting only, the subject property appears to lie in Zone 'X' of the Flood Insurance Rate Map Community Panel No. 01115C0280G, which bears an effective date of August 17, 2016 and IS NOT in a special flood hazard area. Zone 'X': Areas determined to be outside the 0.2% annual chance floodplain.		SMW Engineering Group, Inc. 158 Business Center Drive Birmingham, Alabama 35244 Ph: 205-252-6985 www.smweng.com CA 627 LS, Expires January 31, 2020	
BORDERS LAKE			

PARENT TRACT (FROM TITLE)

Property located in St. Clair County, Alabama  
The following described real estate situated in St. Clair County, Alabama, to-wit:

That part of the Southwest quarter of the Southwest quarter (SW 1/4 of SW 1/4) lying on the Northeast side of the East and West Railroad right of way; and that part of the Northwest quarter of the Southwest quarter (NW 1/4 of SW 1/4) lying South of Pope's Chapel Road in Section 10, Township 15 South, Range 4 East, St. Clair County, Alabama.

AND BEING the same property conveyed to John L. Buckner and Norma Buckner from Andrew Lee and Stacy H. Lee Williams by Warranty Deed dated January 29, 2013 and recorded February 4, 2013 in Deed Book 2013, Page 1192.

Tax Parcel No. 18-02-10-0-000-010.002

100' x 100' LESSEE PREMISES (AS-SURVEYED)

A portion of the Buckner tract described in Book 2013, Page 1192 as recorded in the Office of the Judge of Probate for St. Clair, Alabama, being in the SW 1/4 of the SW 1/4 of Section 10, Township 15 South, Range 4 East, St. Clair, Alabama, and being more particularly described as follows;

Commence at a half inch capped rebar found at the intersection formed by the southerly right-of-way of Popes Chapel Road (having a 60 foot public right-of-way) and the westerly line of the NW 1/4 of the SW 1/4 of Section 10; thence, leaving said section line and running along a tie-line North 69°45'46" East, 566.28 feet to a point on the southerly right-of-way of Popes Chapel Road; thence, leaving said right-of-way and running South 25°52'17" East, 47.74 feet to a point; thence, North 64°07'43" East, 50.00 feet to a point and the true Point of Beginning; thence, South 25°52'17' East, 100.00 feet to a point; thence, South 64°07'43" West, 100.00 feet to a point; thence, North 25°52'17" West, 100.00 feet to a point; thence, North 64°07'43' East, 100.00 feet to the POINT OF BEGINNING. Said Lease area contains 0.23 acres.

LESSEE 30' INGRESS/EGRESS & UTILITY/FIBER EASEMENT (AS-SURVEYED)

A portion of the Buckner tract described in Book 2013, Page 1192 as recorded in the Office of the Judge of Probate for St. Clair, Alabama, being in the SW 1/4 of the SW 1/4 of Section 10, Township 15 South, Range 4 East, St. Clair, Alabama, and being more particularly described as follows;

Commence at a half inch capped rebar found at the intersection formed by the southerly right-of-way of Popes Chapel Road (having a 60 foot public right-of-way) and the westerly line of the NW 1/4 of the SW 1/4 of Section 10; thence, leaving said section line and running along a tie-line North 69°45'46" East, 566.28 feet to a point on the southerly right-of-way of Popes Chapel Road and the Point of Beginning of a 30' wide Ingress/Egress & Utility/Fiber Easement situated 15' on each side of the following described centerline; thence, leaving said right-of-way and running South 25°52'17" East, 47.74 feet to the ENDING. Said easement contains (1432.2 sq. ft.) 0.033 acres, more or less.

PLOTTABLE EXCEPTIONS
Fidelity National Title Insurance Company
Commitment for Title Insurance Commitment No. 30539742
Date December 24, 2019
Schedule B, Section II

Exception No.	Instrument	Comment
1-2		Standard exceptions. Contain no survey matters.
3	Deed Book 2005, Page 13990	Does not affect the subject Lease area or easement as shown hereon.
4	Deed Book 2006, Page 12344	Does affect the subject Lease area and easement, is blanket in nature and is not shown hereon.
5	Deed Book 2009, Page 4886	Prior Lease Sale Contract of current Parent tract.
6	Deed Book 2018, Page 6804	Mortgage Agreement, not a survey matter.
7	Deed Book 2018, Page 6816	Mortgage Agreement, not a survey matter.
8	Deed Book 2018, Page 6828	Mortgage Agreement, not a survey matter.

SURVEYOR'S NOTES

1. This is a Raw Land Tower Survey, made on the ground under the supervision of a Alabama Registered Land Surveyor. Date of field survey is December 12, 2019.
2. The following surveying instruments were used at time of field visit: Topcon DM55 Total Station, Reflectorless and Hiper SR RTK Network Rover with static capability.
3. Bearings are based on Alabama East State Plane Coordinates NAD 83 by GPS observation.
4. No underground utilities, underground encroachments or building foundations were measured or located as a part of this survey, unless otherwise shown. Trees and shrubs not located, unless otherwise shown.
5. Benchmark used is a GPS Continuously Operating Reference Station, PID DM3977. Onsite benchmark is as shown hereon. Elevations shown are in feet and refer to NAVD 88.
6. This survey was conducted for the purpose of a Raw Land Tower Survey only, and is not intended to delineate the regulatory jurisdiction of any federal, state, regional or local agency, board, commission or other similar entity.
7. Attention is directed to the fact that this survey may have been reduced or enlarged in size due to reproduction. This should be taken into consideration when obtaining scaled data.
8. This Survey was conducted with the benefit of an Abstract Title search.
9. Surveyor hereby states the Geodetic Coordinates and the elevation shown for the proposed centerline of the tower are accurate to within +/- 20 feet horizontally and to within +/- 3 feet vertically (FAA Accuracy Code 1A).
10. Survey shown hereon conforms to the Minimum Requirements as set forth by the State Board for a Class "A" Survey.
11. Field data upon which this map or plat is based has a closure precision of not less than one-foot in 15,000 feet (1':15,000') and an angular error that does not exceed 10 seconds times the square root of the number of angles turned. Field traverse was not adjusted.
12. This survey is not valid without the original signature and the original seal of a state licensed surveyor.
13. This survey does not constitute a boundary survey of the Parent Tract. Any parent tract property lines shown hereon are from supplied information and may not be field verified.
14. Per supplied information the site falls within the Zoning Jurisdiction of St. Clair County and is not subject to Zoning regulations.

SURVEYOR'S CERTIFICATION

I certify that all parts of this survey and drawing have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Alabama to the best of my knowledge, information, and belief.

PRELIMINARY UNTIL FINALIZED WITH SIGNATURE AND SEAL

Michael K. Davis  
Alabama License No. 31571

BORDERS LAKE
SW 1/4, SEC. 10, T-15-S, R-4-E
ST. CLAIR COUNTY, ALABAMA

SMW ENGINEERING GROUP, INC.

158 Business Center Drive  
Birmingham, Alabama 35244  
Ph: 205-252-6985  
www.smweng.com

CA 627 LS, Expires January 31, 2020

FOR:

RAWLAND TOWER SURVEY

TELECAD  
1961 NORTHPOINT BLVD, SUITE 130  
HIXSON, TN 37343

DRAWN BY: MGC  
CHECKED BY: TS  
FIELD CREW: SP/KW  
APPROVED BY: MKD  
DATE: 1/3/20  
SCALE: N/A

SHEET 2 OF 2

NO.

1

REVISION

ADDED TITLE COMMITMENT

DATE

1/21/20

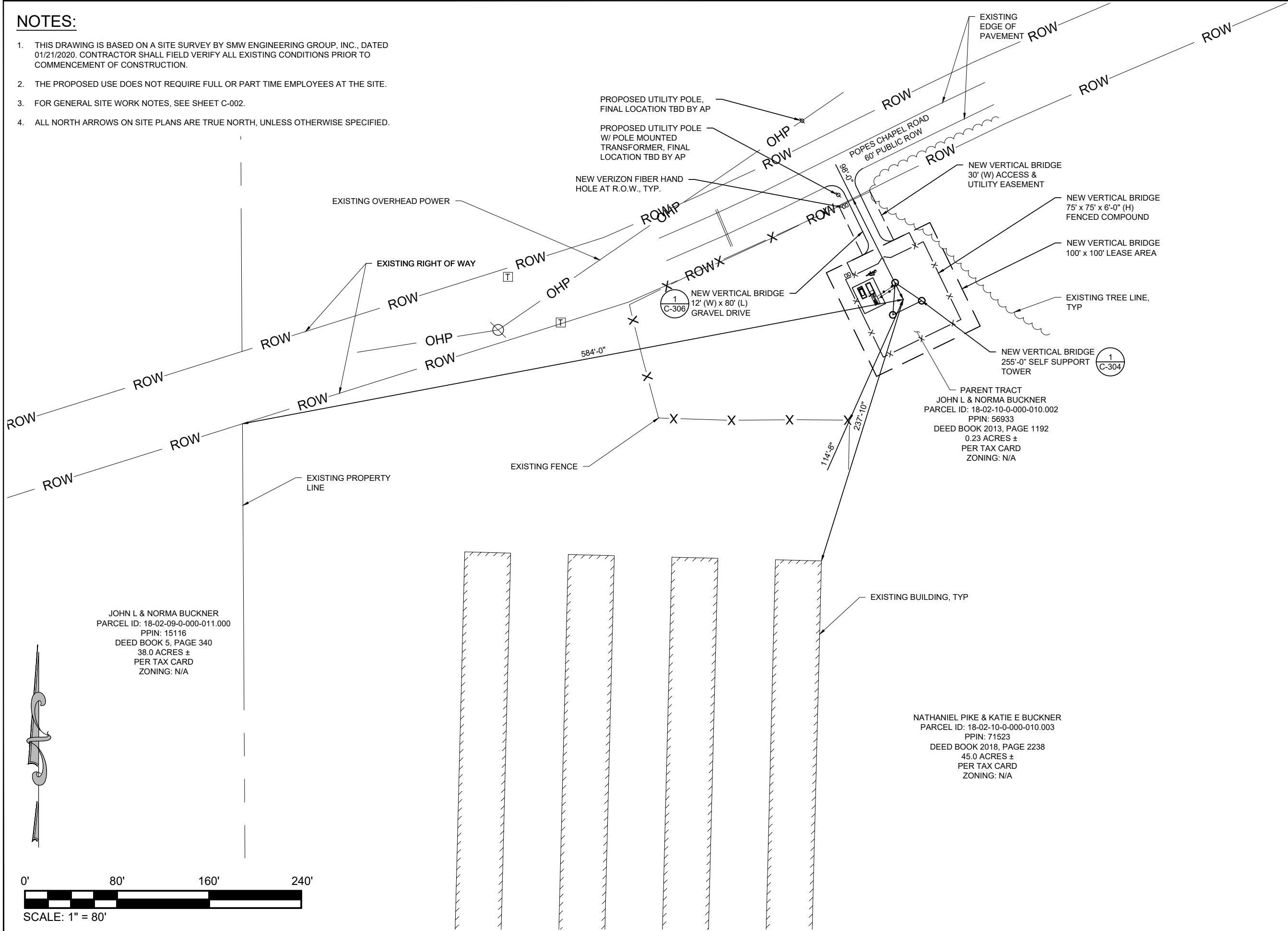
BY

MC



NOTES:

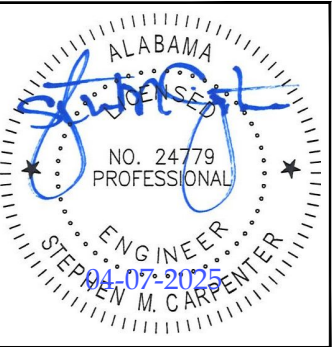
1. THIS DRAWING IS BASED ON A SITE SURVEY BY SMW ENGINEERING GROUP, INC., DATED 01/21/2020. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET C-002.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.



THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT IS STRICTLY PROHIBITED.

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REVISIONS				
0	04/07/25	BNS		FINAL ISSUE
A	04/03/25	BNS		PRELIMINARY ISSUE
#	DATE	BY	DESCRIPTION	



**verizon**

SITE NAME: BORDERS LAKE

SITE NUMBER: TBD

**verticalbridge**

SITE NAME: BORDERS LAKE

SITE NUMBER: US-AL-5529

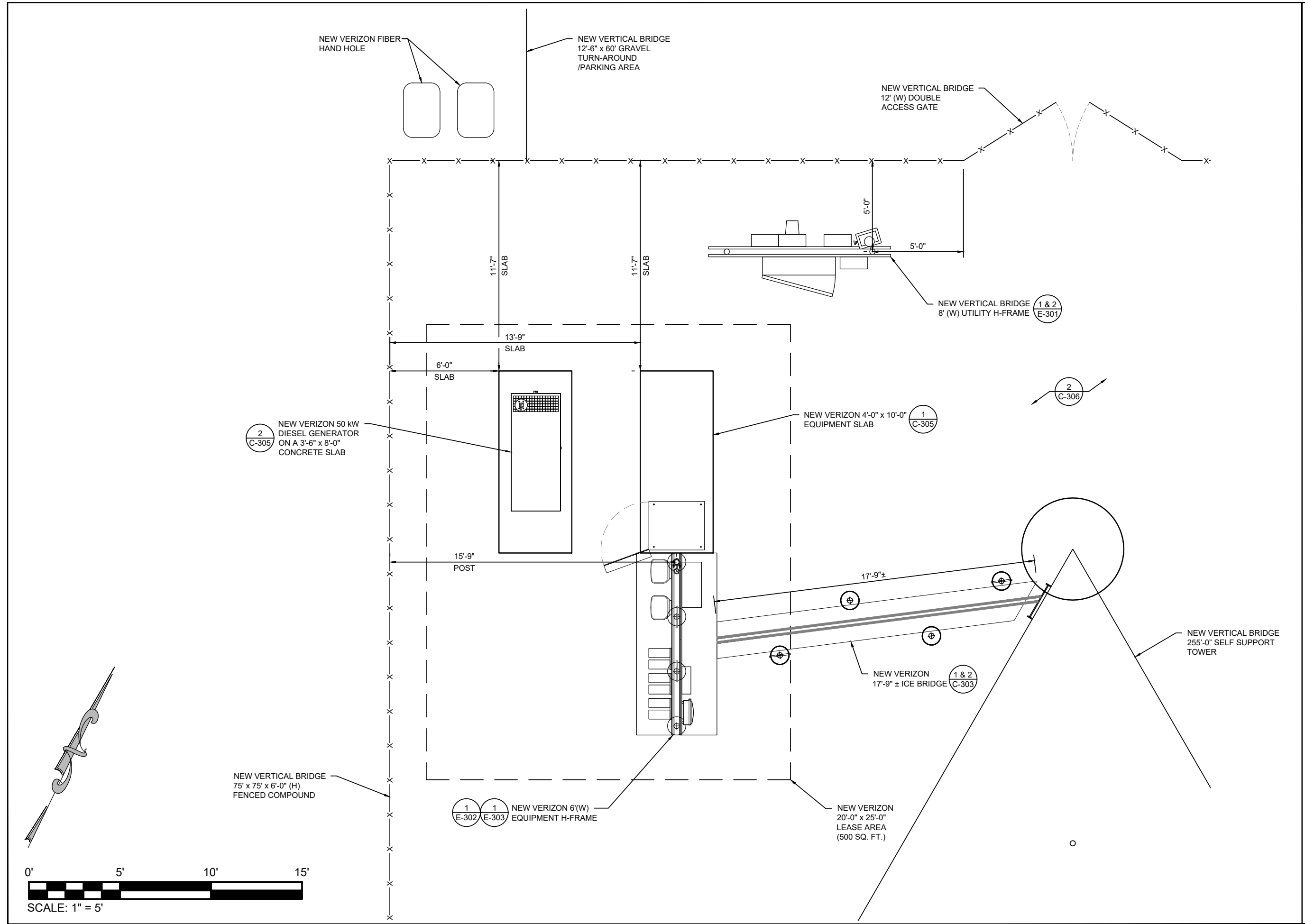
SITE ADDRESS: 5842 POPES CHAPEL ROAD, RAGLAND, AL 35131


SITE TYPE: RAWLAND

SHEET TITLE: OVERALL SITE LAYOUT PLAN

SHEET NUMBER: C-101	REVISION: 0
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REVISIONS			
#	DATE	BY	DESCRIPTION
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A	04/03/25	BNS	PRELIMINARY ISSUE





SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529
SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	
EQUIPMENT LAYOUT PLAN	
SHEET NUMBER	REVISION
C-103	0

EROSION NOTES:

1. CLEARING AND GRUBBING SHALL NOT BE INITIATED MORE THAN 10 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS TEMPORARILY SEEDED.
1. ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE.
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED CONCURRENT WITH CLEARING OPERATIONS. AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS.
3. CONSTRUCTION SHALL BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED SOIL AREAS AND SHALL BE PHASED FOR PROJECTS THAT HAVE OVER 50 ACRES OF SOIL DISTURBANCE. HOWEVER, PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EROSION CONTROL MEASURES OVER TEMPORARY EROSION CONTROL MEASURES ON ALL PROJECTS.
4. SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE / U.S. EROSION AND SEDIMENTATION CONTROL MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. SILT FENCE MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS. ON THE DOWNHILL SIDE OF STOCKPILED SOIL. AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION IN TO STREAMS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
5. CHECK DAMS SHALL BE UTILIZED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, SANDBAG, OR CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO DETAIN RUNOFF AND TRAP SEDIMENT. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, THAT CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS.
6. TEMPORARY OR PERMANENT SOIL STABILIZATION SHALL BE ACCOMPLISHED WITHIN 15 DAYS AFTER FINAL GRADING OR OTHER EARTHWORK. PERMANENT SOIL STABILIZATION SHALL REPLACE TEMPORARY STABILIZATION AS SOON AS PRACTICABLE.
7. THE CONTRACTOR SHALL INSTALL A RAIN GAUGE ON-SITE AND MAINTAIN IT IN GOOD WORKING CONDITION. THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION ON THE PROJECT AND PROVIDE THIS INFORMATION TO THE ENGINEER ON A MONTHLY BASIS.
8. INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DONE BEFORE ANTICIPATED STORM EVENTS (OR SERIES OF STORM EVENTS SUCH AS INTERMITTENT SHOWERS OVER ONE OR MORE DAYS) AND WITHIN 24 HOURS AFTER THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER, AND AT LEAST TWALK-IN-CABINETE PER WEEK, 72 HOURS APART. THE RECORD OF INSPECTIONS MUST BE RETAINED ON SITE DURING THE DURATION OF THE PROJECT.
9. OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO SURROUNDING WATERS. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
10. UPON CONCLUSION OF THE INSPECTIONS, EROSION AND SEDIMENT CONTROL MEASURE FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN SEVEN DAYS AFTER THE CONDITION IS IDENTIFIED.
11. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN ON-SITE (OR AT A NEARBY OFFICE).
12. THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE / U.S., INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR AS SO SPECIFIED IN THE ARAP AND/OR SECTION 404 PERMIT (S). ANY ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN.
13. EXCAVATION AND FILL ACTIVITIES SHALL BE SEPARATED FROM FLOWING WATERS. ALL SURFACE WATER FLOWING TOWARD THE EXCAVATION OR FILL WORK SHALL BE DIVERTED THROUGH UTILIZATION OF COFFERDAMS, BERMS, OR TEMPORARY CHANNELS. TEMPORARY DIVERSION CHANNELS MUST BE PROTECTED BY NON-ERODIBLE MATERIAL AND LINED TO THE EXPECTED HIGH WATER LEVEL. COFFERDAMS MUST BE CONSTRUCTED OF SANDBAGS, CLEAN ROCK, STEEL SHEETING OR OTHER NON-ERODIBLE MATERIAL. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, THAT CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS.
14. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS FROM ENTERING WATERS OF STATE / U.S.
15. THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS STATE / U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES: INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURE FOR THESE AREAS SHALL BE UTILIZED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURE SHALL BE TAKES IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.
16. BORROW AND WASTE DISPOSAL AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE / U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPOES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.
17. WETLAND AREAS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.
18. ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED AND THE PERMIT OR PERMITS ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE ENGINEER SHALL DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
19. THE EROSION AND SEDIMENT CONTROL MEASURE AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.

20. FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN (7) DAYS AFTER TRENCHING. ANY TEMPORARY SPOIL PILE OF EXCAVATED EARTH SHALL BE LOCATED WITHIN THE PROJECT EROSION CONTROL MEASURES ARE NOT BACKFILLED OVERNIGHT. APPROPRIATE EROSION CONTROL AND SAFETY MEASURE WILL BE INSTALLED UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
21. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO AND/OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES AS DETAILED IN THESE PLANS.
22. THE EROSION, SEDIMENT CONTROL MEASURES, AND PLAN SHALL BE MODIFIED AS NECESSARY AS TO BE EFFECTIVE AND CURRENT AT ALL PHASES OF PROJECT.
23. CONTROLS TO PREVENT ON-SITE EROSION AND TRANSPORT OF SEDIMENT OFF-SITE SHALL AT A MINIMUM CONFORM TO THE LATEST EDITION OF THE STATE EROSION AND SEDIMENT CONTROL HANDBOOK AND ALL APPLICABLE LOCAL CODES.
24. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL RESULT IN ALL WORK ON THE SITE IMMEDIATELY BEING BROUGHT TO A HALT UNTIL THE MEASURES CAN BE BROUGHT INTO COMPLIANCE WITH THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK AND ALL APPLICABLE LOCAL CODES.
25. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED CONCURRENT WITH CLEARING OPERATIONS AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS. THE LOCATION OF SOME CONTROL MEASURES MAY HAVE TO BE ALTERED SLIGHTLY FROM WHAT IS SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE SIGNIFICANTLY DIFFERENT FROM FINAL DRAINAGE PATTERNS, OR AS ACTUAL SITE TOPOGRAPHY REQUIRES.
26. SITE CONSTRUCTION MAY COMMENCE WHEN EROSION AND SEDIMENT CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION HAVE BEEN INSTALLED. SEDIMENT AND EROSION CONTROLS SHALL REMAIN UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED AND FINAL PAVING AND SURFACING IS COMPLETE.
27. CONSTRUCTION EXITS SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY OR EXIT FROM THE SITE AND SHALL PREVENT THE TRACK-OUT OF SEDIMENT OR OTHER MATERIAL FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY. ANY MATERIAL APPEARING ON THE PUBLIC RIGHT-OF-WAY SHOULD BE REMOVED IMMEDIATELY. THE CONSTRUCTION EXIT SHALL BE MAINTAINED SO ITS PERFORMANCE DOES NOT DETERIORATE OVER THE SPAN OF THE PROJECT.
28. PERIMETER CONTROLS SHALL BE INSTALLED AFTER THE INSTALLATION OF CONSTRUCTION EXITS.
29. ALL SILT BARRIERS SHALL BE INSTALLED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL TUBES & WATTLES AND/OR SILT FENCES ARE INSTALLED AS SHOWN ON THE PLANS.
30. DISTURBED AREAS LEFT EXPOSED AND UNWORKED FOR PERIODS OF GREATER THAN 7 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY VEGETATION.
31. DISTURBED AREAS LEFT EXPOSED AND UNWORKED FOR PERIODS OF GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH AND PERMANENT VEGETATION.
32. DUST CONTROL SHALL BE UTILIZED AS NEEDED AND MUST BE IN COMPLIANCE WITH ALL APPLICABLE LOCAL CODES.
33. AMENDMENTS AND/OR REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE ENGINEER.
34. THE CONTRACTOR SHALL REMOVE SILT FROM THE SILT FENCE OR TUBES & WATTLES WHEN THE ACCUMULATED DEPTH IS ONE-HALF (1/2) OF THE HEIGHT OF THE CONTROL.
35. ALL UTILITY LOCATIONS ARE APPROXIMATE, AND IT IS POSSIBLE SOME EXISTING UTILITIES ARE NOT SHOWN ON THE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE LOCATIONS OF ALL UNDERGROUND UTILITIES VERIFIED AND MARKED PRIOR TO CONSTRUCTION.

GRADING NOTES :

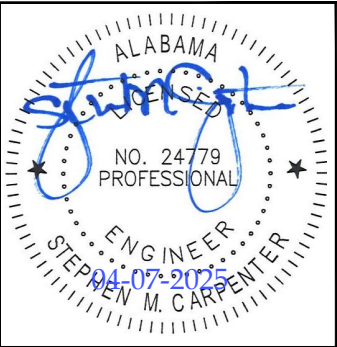
1. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE SHOWN AT TOP OF CRUSHED STONE, TOP OF FOUNDATION, OR TOP OF TOPSOIL. SEE DETAILS FOR THICKNESS OF CRUSHED STONE. MASS GRADED AREAS AND CRUSHED STONE SHALL BE FINISHED WITHIN 4" OF GRADES SHOWN. FOUNDATIONS SHALL BE FINISHED WITHIN 0.5" OF GRADES SHOWN.
2. ALL TREES, ROOTS, BRUSH, AND ORGANIC MATTER (TOPSOIL) SHALL BE REMOVED BEFORE BEGINNING FILL. FILL MATERIAL SHALL BE CLEAR SOIL CONTAINING NO ROCKS LARGER THAN 6 INCHES.
3. FILLS SHALL BE FORMED OF SATISFACTORY MATERIAL PLACED IN SUCCESSIVE HORIZONTAL LAYERS OF NOT MORE THAN 6 INCHES IN LOOSE DEPTH FOR THE FULL WIDTH OF EACH STRIP. FILL SOIL SHALL BE PLACED AT A MOISTURE CONTENT THAT IS WITHIN MINUS 1% OR PLUS 3% A OF THE OPTIMUM MOISTURE CONTENT AND TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM 698 (STANDARD PROCTOR). THE UPPER 12 INCHES OF FILL SHALL BE COMPACTED TO 98%.
4. STANDARD PROCTOR TESTS (ASTM 698) SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY EMPLOYED BY THE CONTRACTOR. IN-PLACE DENSITY TESTS SHALL BE PERFORMED ON EACH LIFT TO ENSURE PROPER PLACEMENT OF FILL MATERIAL.
5. ALL DISTURBED AREAS SHALL RECEIVE GROUND COVER. ALL AREAS TO RECEIVE GROUND COVER SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL. ALL FOREIGN DEBRIS SHALL BE REMOVED BEFORE PLACING TOPSOIL. AREAS WITH LESS THAN 4:1 SLOPE SHALL BE SEEDED WITH FOUR POUNDS OF KENTUCKY 31 FESCUE AND ONE POUND OF ANNUAL RYE PER 1,000 SQFT. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED WITH A MIXTURE OF 1/4 POUND SCARIFIED SERICEA LESPEDEZA. 1/4 POUND CROWN VETCH, AND ONE POUND KENTUCKY 31 FESCUE PER 1,000 SQFT WITH 30 POUNDS PER 1,000 SQFT OF 6-12-12 FERTILIZER. SLOPES 3:1 OR STEEPER SHALL BE COVERED WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKET S150 INSTALLED PER MANUFACTURERS SPECIFICATIONS (OR ENGINEER APPROVED EQUAL) TO PREVENT EROSION. CONTRACTOR SHALL WARRANTY GROUND COVER AND SLOPES FOR A PERIOD OF 1 YEAR.
6. CONFINE ALL CONSTRUCTION ACITIVITY TO PROPERTY OWNER'S PARCEL. DO NOT ENTER ADJACENT PROPERTY WITHOUT OBTAINING APPROVAL THROUGH TELLCO PARTNERSHIP.
7. CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FENCE AND OTHER TEMPORARY EROSION CONTROL MEASURES AFTER GRASS IS ESTABLISHED AND STABILIZED.
8. ALL DISTURBED AREAS NOT TO BE COVERED WITH GRAVEL, RIP RAP, PAVEMENT, OR OTHER STABILIZATION SHALL RECEIVE GROUND COVER. ALL AREAS TO RECEIVE GROUND COVER SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL
9. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES. DO NOT ALLOW WATER TO STAND OR POND. ANY DAMAGE TO STRUCTURES OR WORK ON THE SITE CAUSED BY INADEQUATE MAINTENANCE OF DRAINAGE PROVISIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ANY COST ASSOCIATED WITH REPAIRS FOR SUCH DAMAGE WILL BE AT THE CONTRACTOR'S EXPENSE.
10. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY THE NEW VERTICAL BRIDGE'S CONSTRUCTION MANAGER AND IN ACCORDANCE WITH JURISDICTIONAL AUTHORITIES.
11. EXCAVATIONS ADJACENT TO EXISTING PAVEMENT SHALL BE MADE TO A NEAT SAW-CUT LINE.
12. ALL TREES THAT ARE CUT OR KNOCKED DOWN WITHIN THE LIMITS OF DISTURBANCE SHALL BE DISPOSED OF IN ACCORDANCE WITH NOTE 10 OR MULCHED FOR LATER USE.



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REVISIONS			
0	04/07/25	BNS	FINAL ISSUE
A	04/03/25	BNS	PRELIMINARY ISSUE
#	DATE	BY	DESCRIPTION



SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

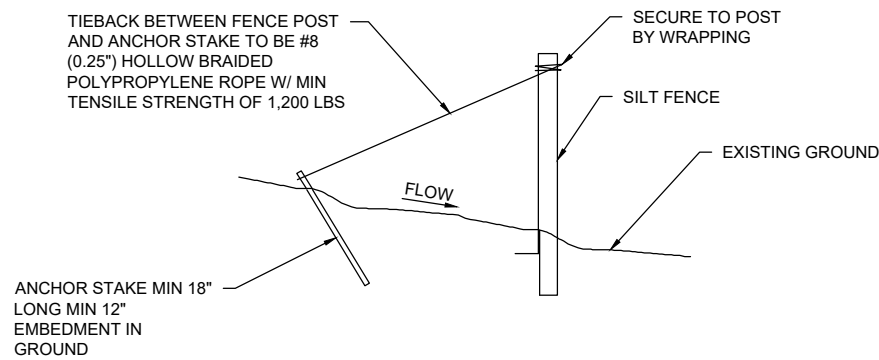
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SITE TYPE	RAWLAND

SHEET TITLE	EROSION NOTES
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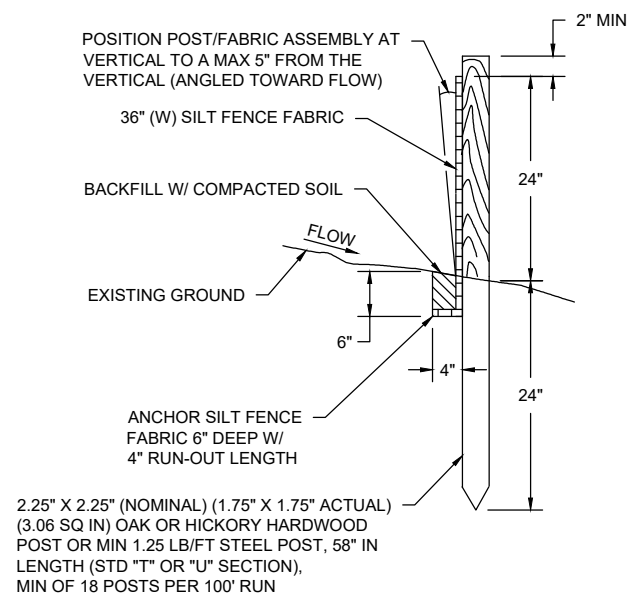
SHEET NUMBER	REVISION
C-200	0







SILT FENCE TIEBACK FOR STEEL OR WOOD POSTS



SECTIONAL VIEW

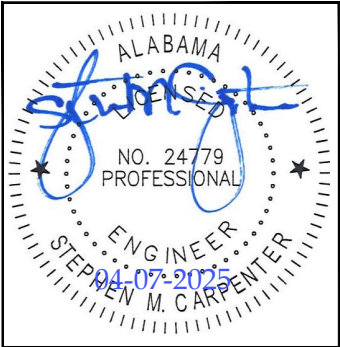
SILT FENCE DETAIL ①  
NTS



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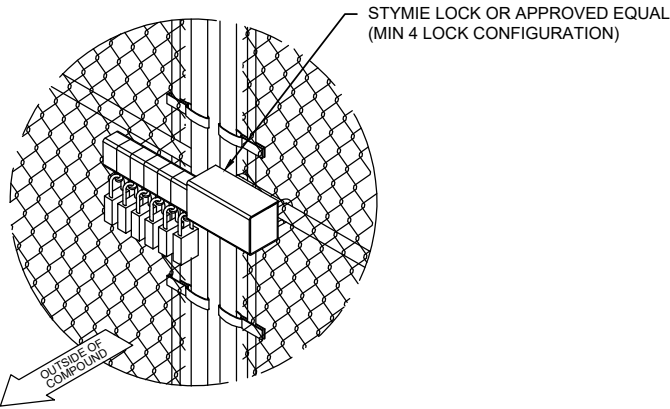
<b>verizon</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

<b>verticalbridge</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529
SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND
SHEET TITLE SITE GRADING DETAILS	
SHEET NUMBER <b>C-202</b>	REVISION <b>0</b>

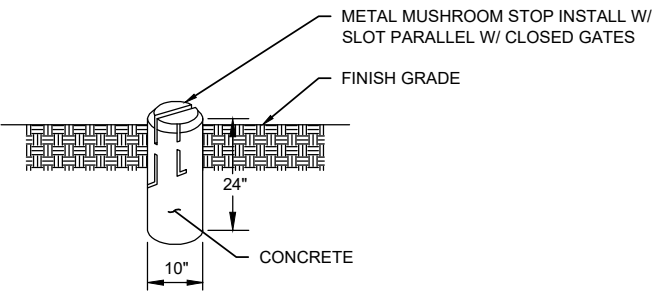


TYPICAL WOVEN WIRE FENCING NOTES:

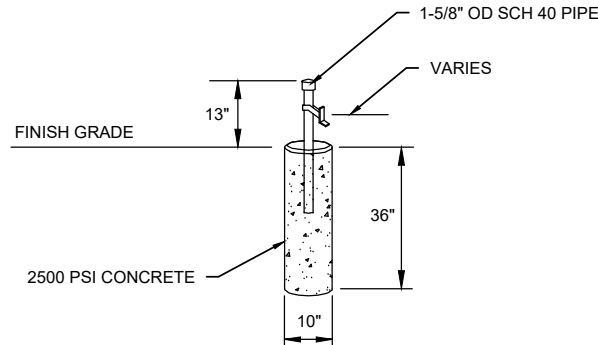
- (INSTALL FENCING PER ASTM F-567, SWING GATES PER ASTM F-900)
- GATE POST, CORNER, TERMINAL OR PULL POST SHALL BE 3"Ø SCHEDULE 40 FOR GATE WIDTHS UP THRU 7 FEET OR 14 FEET FOR DOUBLE SWING GATE PER ASTM-F1083.
  - LINE POST: 2"Ø SCHEDULE 40 PIPE PER ASTM-F1083. INSTALL EVERY 8'-0" ALONG FENCE LINE.
  - GATE FRAME: 1-1/2"Ø SCHEDULE 40 PIPE, STEEL, HOT-DIPPED ZINC COATED (GALVANIZED) WELDED STEEL PIPE PER ASTM-F1083.
  - TOP RAIL & BRACE RAIL: 1-5/8"Ø SCHEDULE 40 PIPE PER ASTM-F1083.
  - CHAIN LINK FABRIC: 9 GA. MIN. CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM-A392.
  - TIE WIRE: MINIMUM 11 GA. GALVANIZED STEEL INSTALL A SINGLE WRAP TIE WIRE AT POSTS AND RAILS AT MAX. 24" INTERVALS. INSTALL HOG RINGS ON TENSION WIRE AT 24" INTERVALS.
  - TENSION WIRE: 7 GA. GALVANIZED STEEL
  - GATE LATCH: 1-3/8" OD PLUNGER ROD W/ MUSHROOM TYPE CATCH AND LOCK (KEYED ALIKE FOR ALL SITES OR COMBINATION AS SPECIFIED BY OWNER)
  - HEIGHT = 6'-0" VERTICAL DIMENSION. WORK WITH SPECIFICATION 2831.



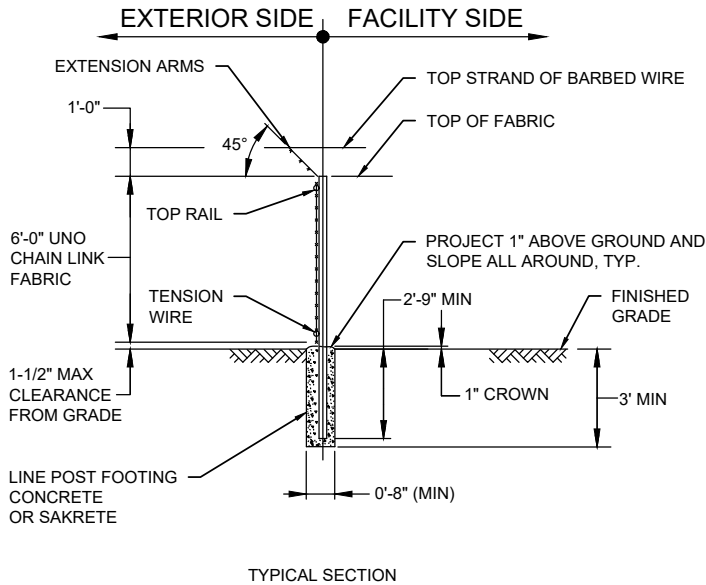
FENCE LOCK DETAIL  
NTS



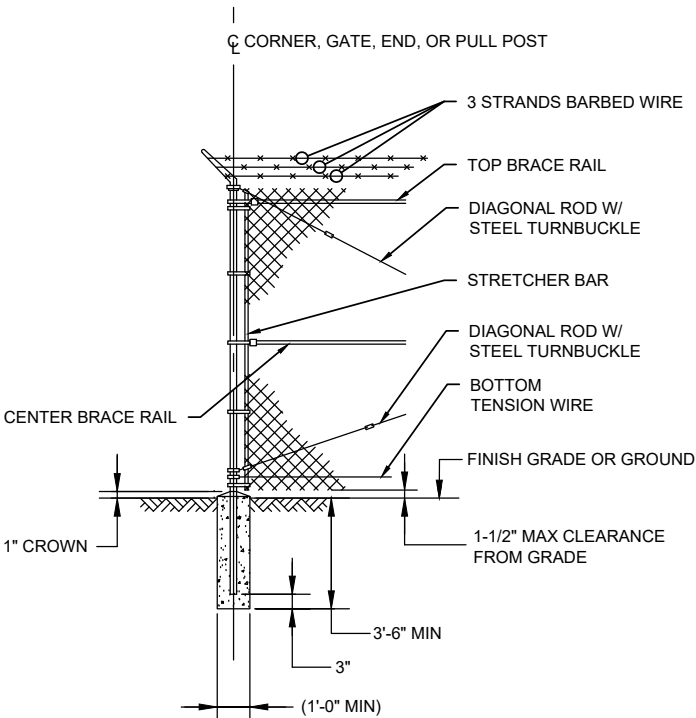
MUSHROOM STOP  
NTS



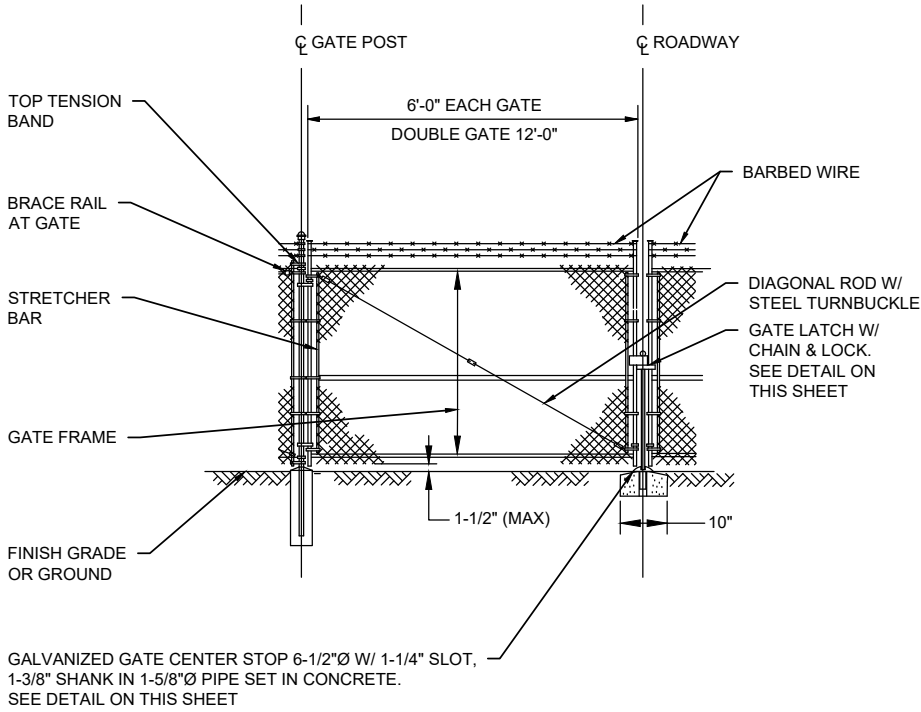
GATE STOP DETAIL  
NTS



WOVEN WIRE FENCE ①  
NTS



WOVEN WIRE CORNER, GATE, END, OR PULL POST ②  
NTS



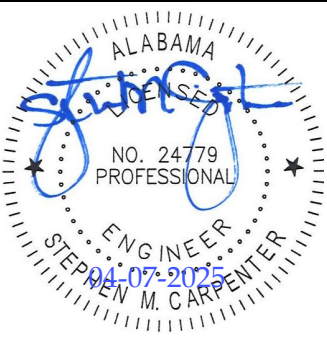
WOVEN WIRE DOUBLE GATE ③  
NTS



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#	DATE	BY	DESCRIPTION	



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SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

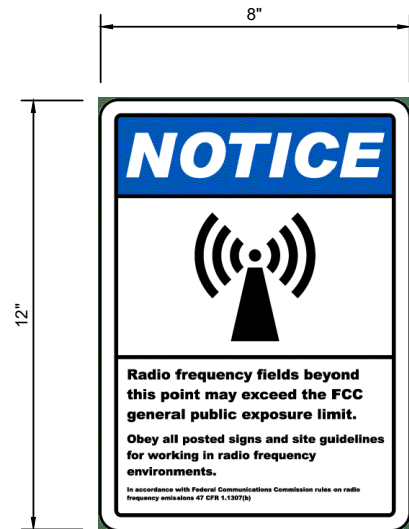
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SITE NUMBER	US-AL-5529
SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	SITE DETAILS
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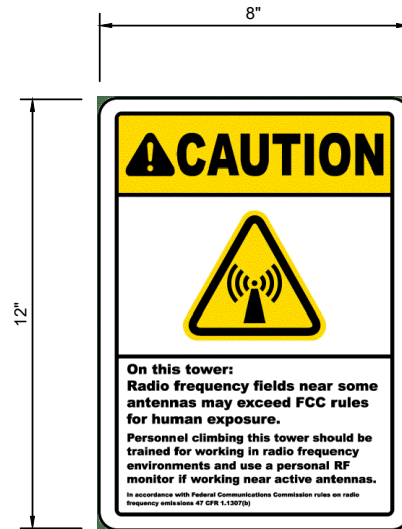
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C-301	0



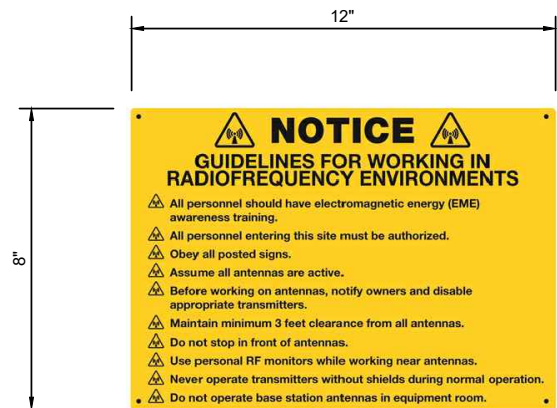
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NO TRESPASSING SIGN ①  
NTS



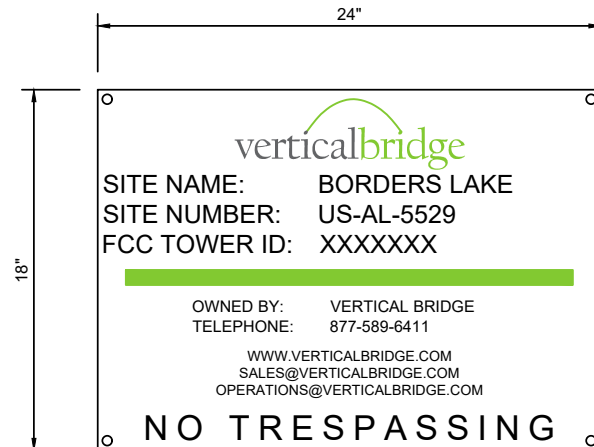
12" x 8"  
RF GUIDELINES SIGN ②  
NTS



12" x 8"  
RF GUIDELINES SIGN ③  
NTS



8" x 12"  
RF GUIDELINES SIGN ④  
NTS



18" x 24"  
SITE ID SIGN ⑤  
NTS

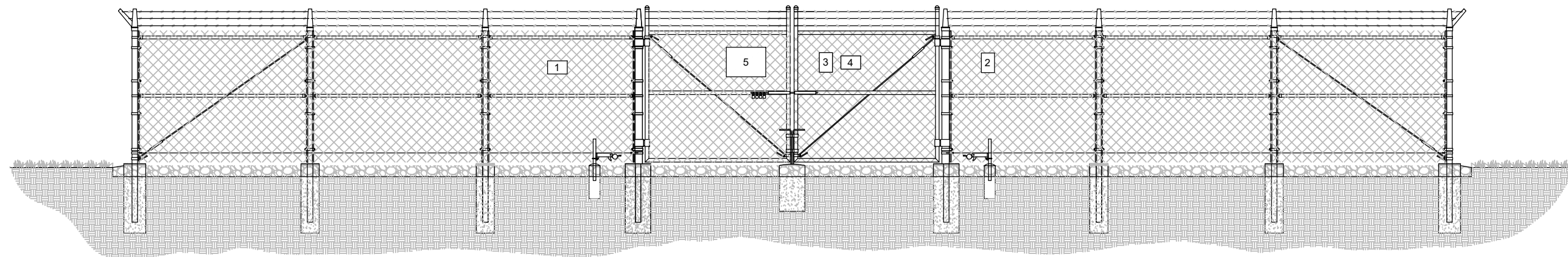
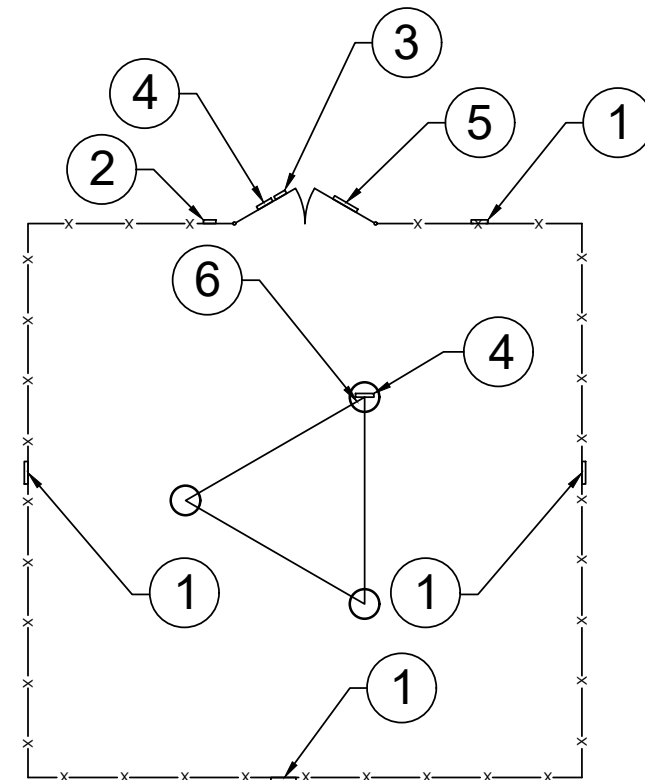
ASR # XXXXXXXX

-WHEN REQUIRED, PLACE ON TOWER

-USE A DECAL ON MONOPOLE AND METAL SIGN ON SELF-SUPPORT TOWER OR GUYED TOWER

-LETTERS TO BE 3" MIN

ASR # ⑥  
NTS



FENCED COMPOUND DETAILS  
NTS



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A	04/03/25	BNS	PRELIMINARY ISSUE	
#	DATE	BY	DESCRIPTION	

FOR REFERENCE ONLY

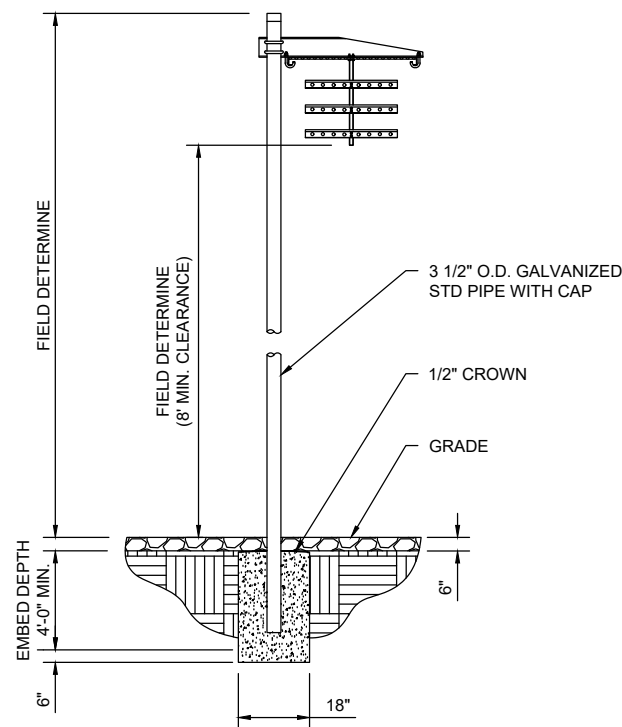
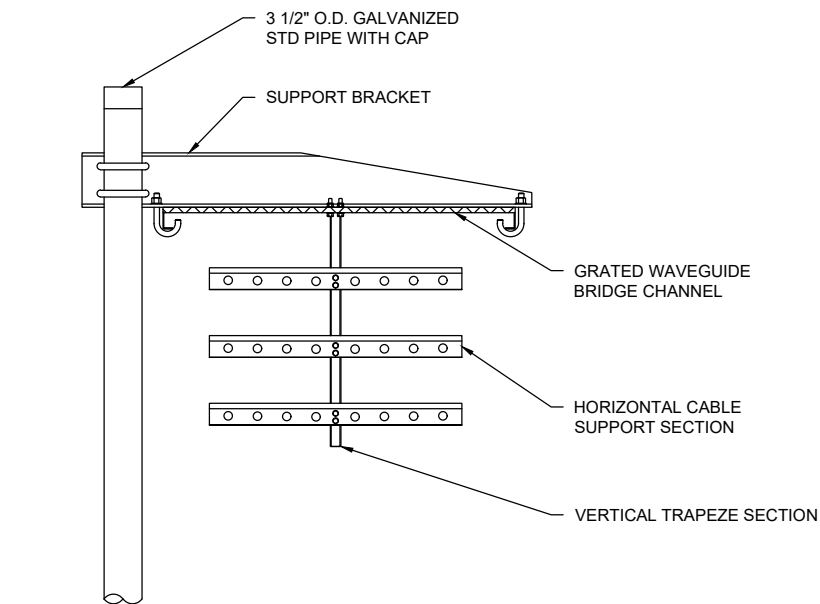
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SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

<b>verticalbridge</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	SITE DETAILS
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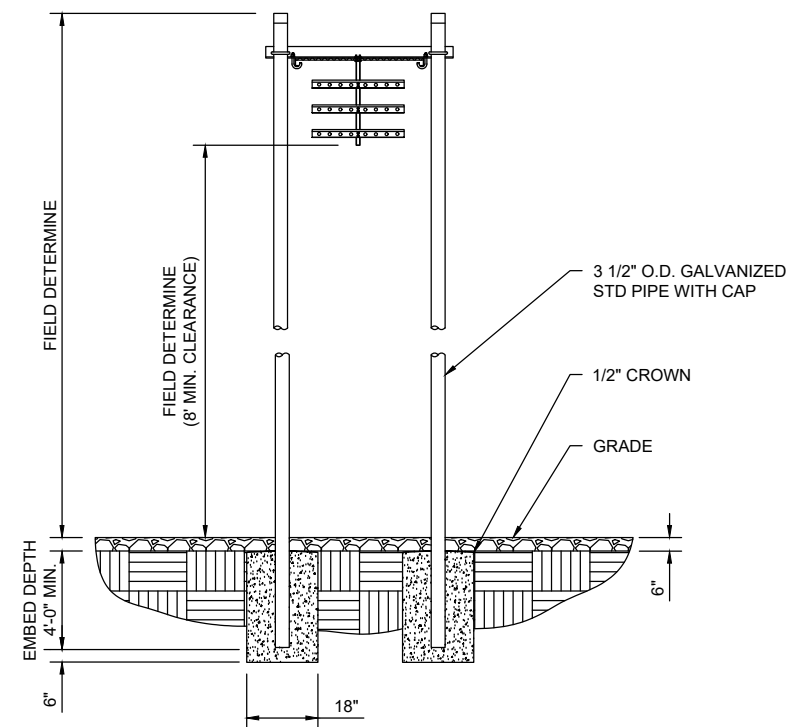
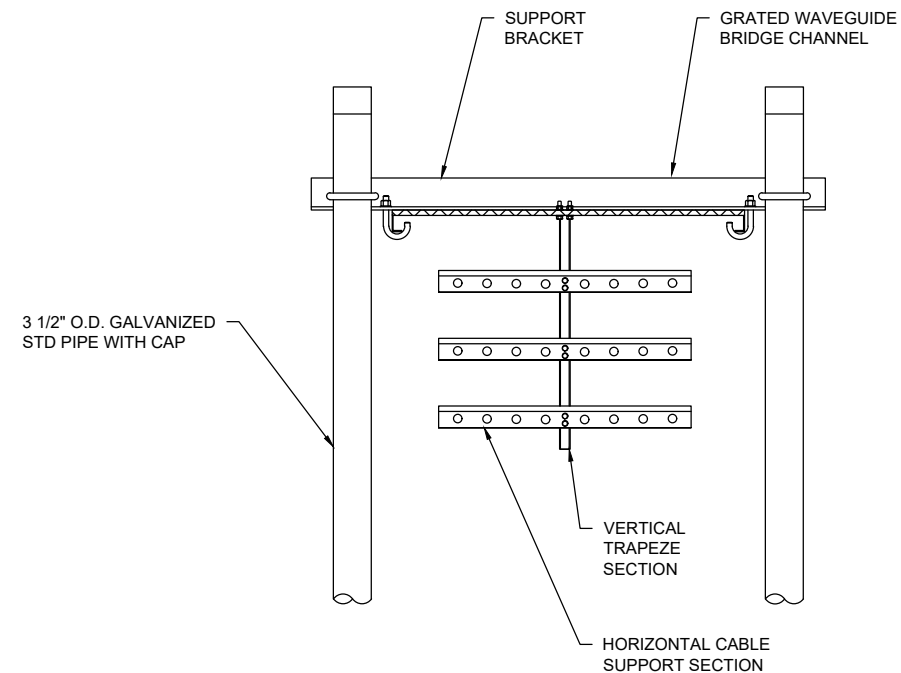
SHEET NUMBER	REVISION
C-302	0



**NOTES:**

1. ANDREW 2 POST WAVEGUIDE BRIDGE KIT (PART #\"/>

**ICE BRIDGE DETAIL** ①  
NTS



**NOTES:**

1. ANDREW 4 POST WAVEGUIDE BRIDGE KIT (PART #\"/>

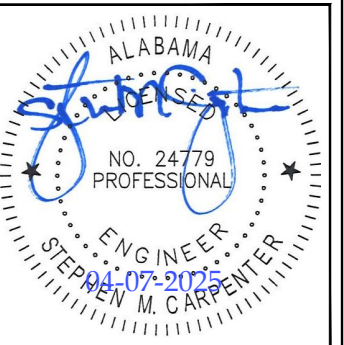
**ICE BRIDGE DETAIL (ALT 2 PIPE COLUMN DESIGN)** ②  
NTS



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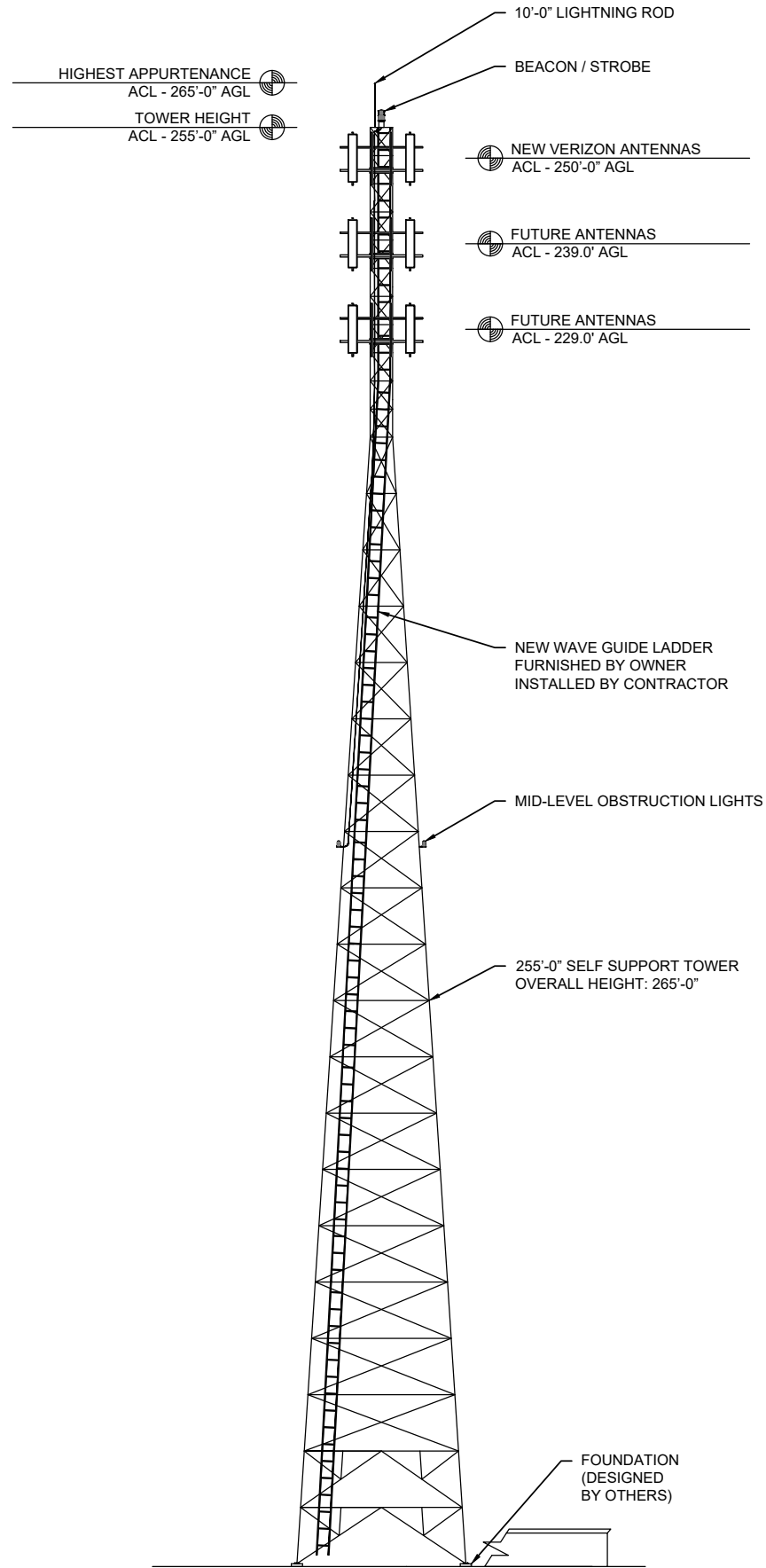
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SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

<b>verticalbridge</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	SITE DETAILS
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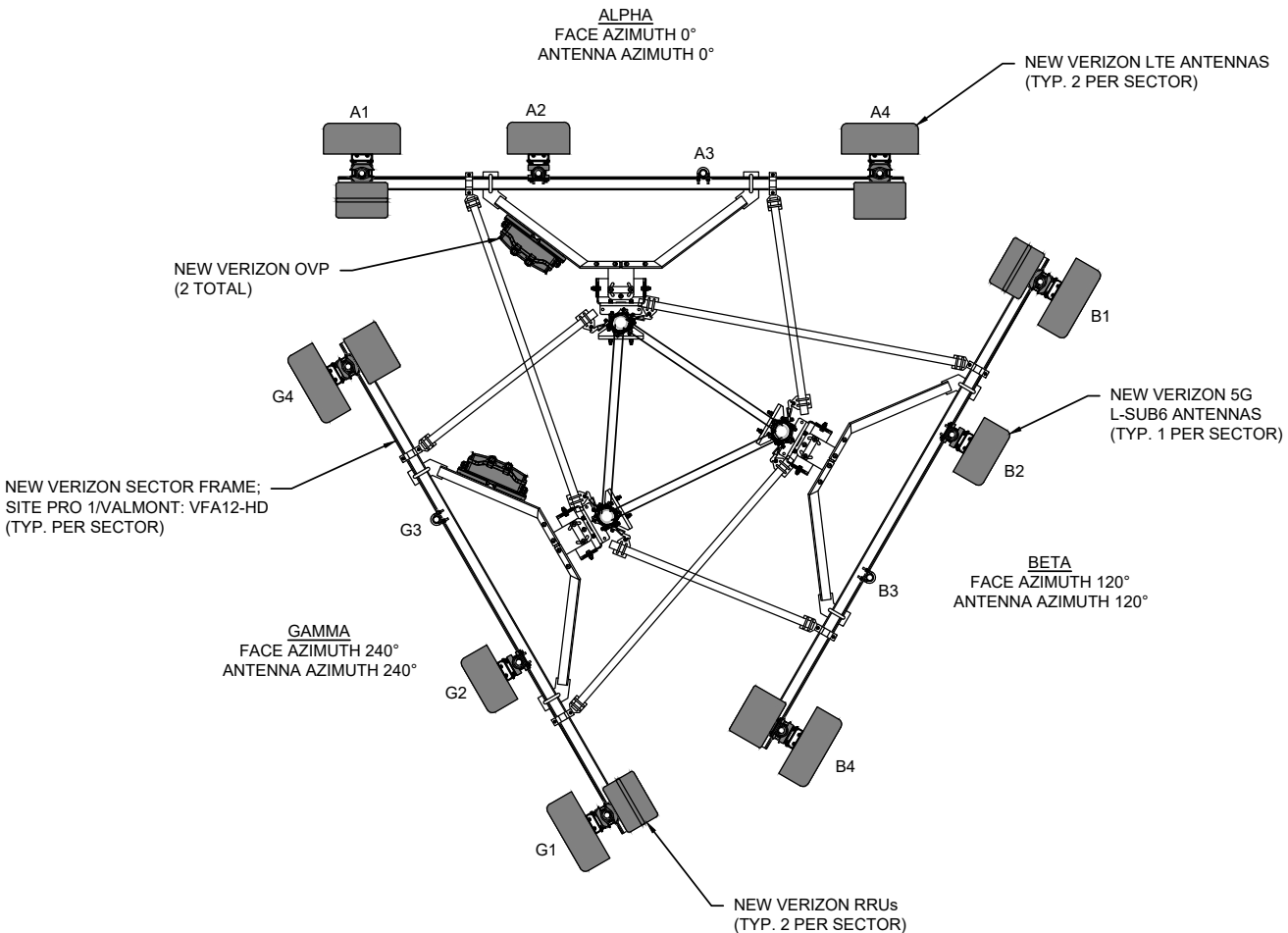
SHEET NUMBER	REVISION
C-303	0



TOWER ELEVATION ①  
NTS

NOTES:

1. ALL INFORMATION IS FOR ILLUSTRATIVE PURPOSES. CONTRACTOR SHALL CONFIRM DETAILED INFORMATION WITH THE VERIZON CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
2. GENERAL CONTRACTOR TO INSTALL HYBRID CABLES, NUMBER AND TYPE AS PER RF DESIGN SHEET.
3. GENERAL CONTRACTOR INSTALL RAYCAP OVPS, NUMBER, AND TYPE AS PER VERIZON CONSTRUCTION MANAGER.



ANTENNA ORIENTATION PLAN ②  
NTS



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#	DATE	BY	DESCRIPTION	



SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

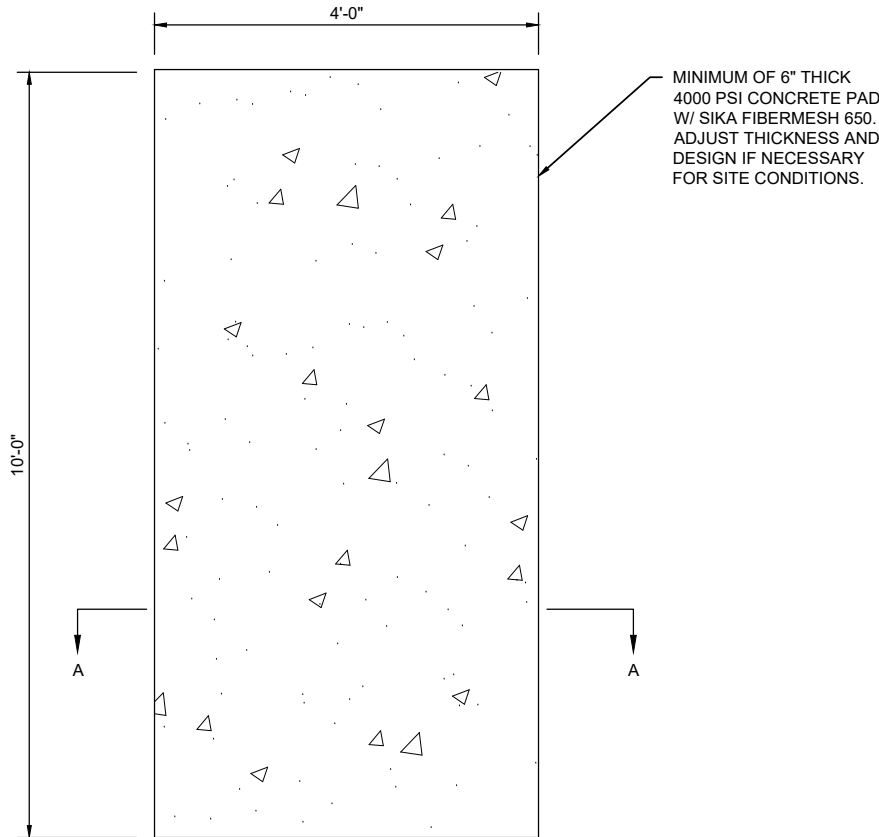
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SHEET NUMBER	REVISION
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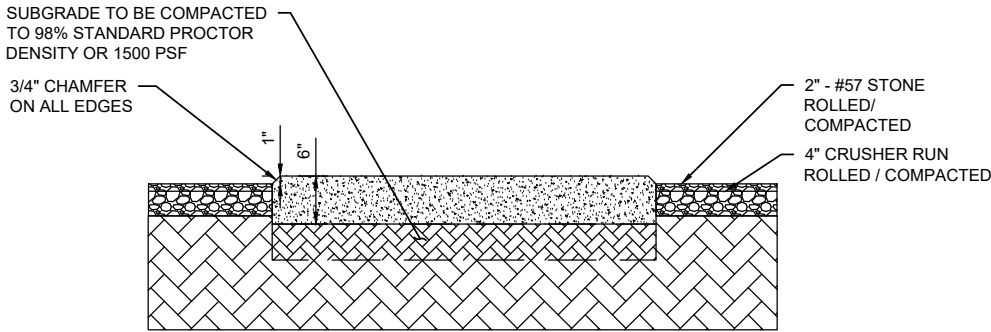


CONCRETE PAD NOTES:

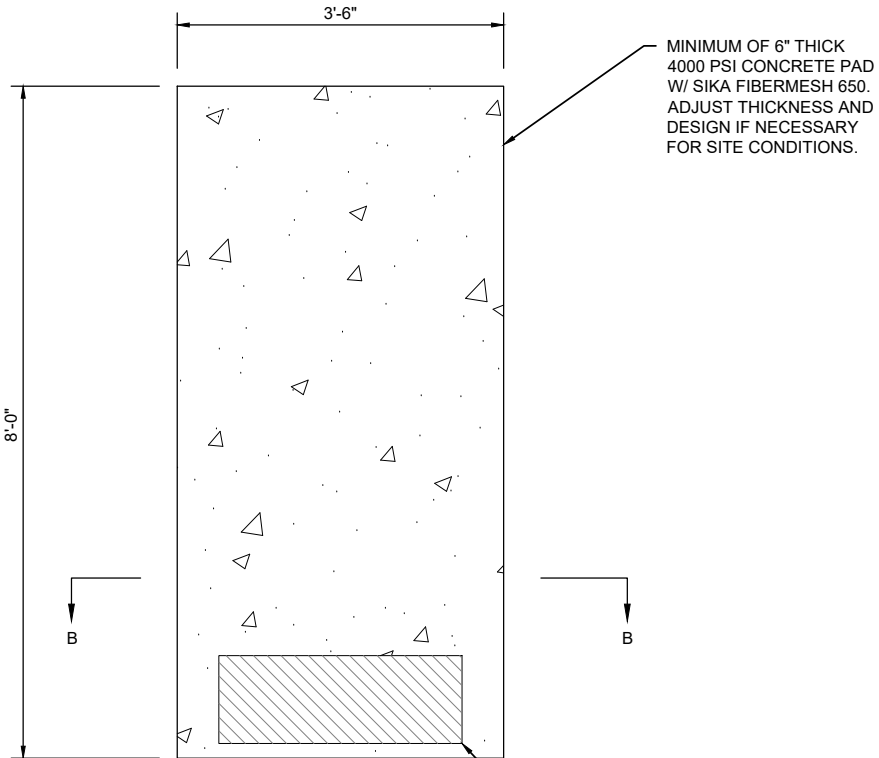
- 1. VERIFY GENERATOR STUB UP AREA FOR SPECIFIC MANUFACTURER/MODEL NUMBER.
- 2. VERIFY PAD SIZE REQUIREMENTS FOR SPECIFIC MANUFACTURER/MODEL NUMBER.
- 3. STUB UP CONDUITS 6" MINIMUM ABOVE GENERATOR PAD. TERMINATE WITH MALE ADAPTER AND THREADED BUSHING.
- 4. EMBED CONDUITS IN CONCRETE PAD.
- 5. ALL CONCRETE SHALL BE NORMAL WEIGHT AND CONFORM TO THE ACI 301 AND THE FOLLOWING:
  - 5.a. MINIMUM COMPRESSION STRENGTH 4,000 PSI
  - 5.b. AIR ENTRAPMENT RANGE 3% TO 6%
  - 5.c. SLUMP GREATER THAN 3", BUT NOT TO EXCEED 6"
- 6. CONDUITS TO BE TERMINATED WITH MALE ADAPTER AND THREADED BUSHING.



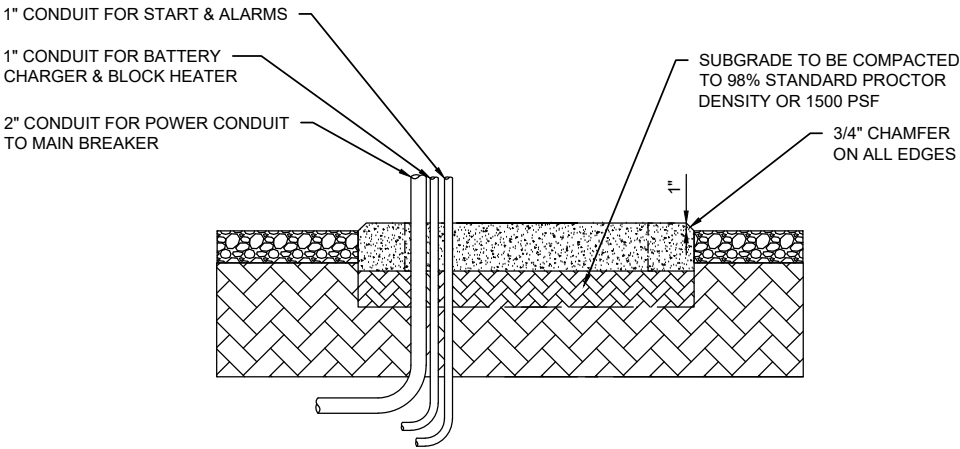
EQUIPMENT PAD PLAN ①  
NTS



SECTION A-A THROUGH EQUIPMENT PAD  
NTS



GENERATOR PAD PLAN ②  
NTS



SECTION B-B THROUGH GENERATOR PAD  
NTS



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A	04/03/25	BNS	PRELIMINARY ISSUE	
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SITE NUMBER	TBD



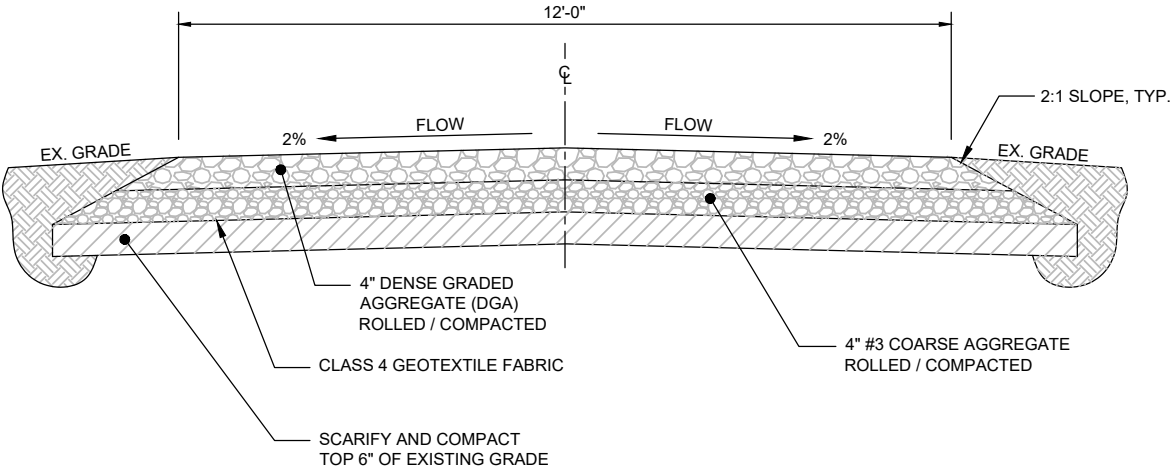
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SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

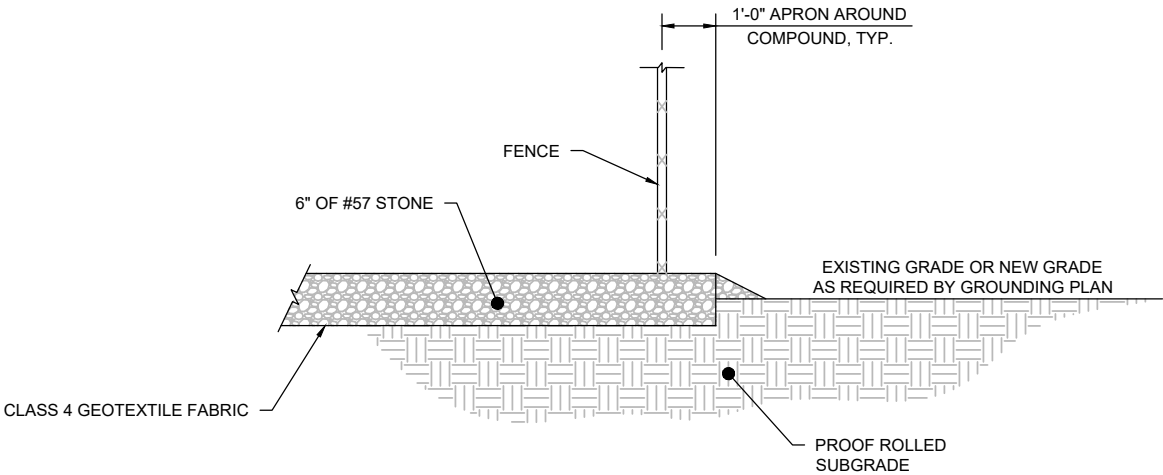
SHEET TITLE	SITE DETAILS
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SHEET NUMBER	REVISION
C-305	0

NOTE:  
REMOVE TOP 6" OF SOIL FROM SUBGRADE.



GRAVEL ACCESS ROAD ①  
NTS



COMPOUND SURFACING ②  
NTS

NOTE:  
1. THE DRIVEWAY DEPICTED WITHIN THIS DOCUMENT IS DESIGNED TO SUPPORT A STANDARD ESAL AND WILL SUPPORT A LOADED 80,000 LB. FIRE TRUCK.



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REVISIONS				
0	04/07/25	BNS	FINAL ISSUE	
A	04/03/25	BNS	PRELIMINARY ISSUE	
#	DATE	BY	DESCRIPTION	



SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	SITE DETAILS
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SHEET NUMBER	REVISION
C-306	0



ELECTRICAL SPECIFICATIONS:

PART 1 GENERAL

1.01 DEFINITIONS AND ABBREVIATIONS

1. THE FOLLOWING DEFINITIONS SHALL APPLY:

- A. AHJ - AUTHORITY HAVING JURISDICTION
- B. CONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
- C. ENGINEER - GEN7 ENGINEERING, LLC.
- D. CARRIER - VERIZON WIRELESS
- E. OEM - ORIGINAL EQUIPMENT MANUFACTURER
- F. OWNER - VERTICAL BRIDGE VBTS, LLC
- G. OWNER REPRESENTATIVE - CONSTRUCTION MANAGEMENT

2. THE FOLLOWING ABBREVIATIONS SHALL APPLY:

- A. AWG - AMERICAN WIRE GAUGE
- B. BTCW - BARE TINNED COPPER WIRE
- C. EMT - ELECTRICAL METALLIC TUBING
- D. ENT - ELECTRICAL NONMETALLIC TUBING
- E. IMC - INTERMEDIATE METALLIC CONDUIT
- F. PVC - POLYVINYL CHLORIDE CONDUIT
- G. RGS - RIGID GALVANIZED STEEL
- H. UNO - UNLESS NOTED OTHERWISE
- I. WIC - WALK IN CABINET
- J. W/ - WITH

1.02 CODES REQUIREMENTS

1. THE INSTALLATION SHALL COMPLY W/ APPLICABLE LAWS AND ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF THE FOLLOWING:

- A. ACI - AMERICAN CONCRETE INSTITUTE
- B. AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- C. IBC - INTERNATIONAL BUILDING CODE
- D. IECC - INTERNATIONAL ENERGY CONSERVATION CODE
- E. IFGC - INTERNATIONAL FUEL GAS CODE
- F. NEC - NATIONAL ELECTRIC CODE
- G. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
- H. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
- I. NFC - NATIONAL FIRE CODES
- J. OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT
- K. SBC - STANDARD BUILDING CODE
- L. UL - UNDERWRITERS LABORATORIES

2. CONTRACTOR SHALL COMPLY W/ THE REQUIREMENTS OF THE GENERAL CONDITIONS AND THE SUPPLEMENTARY CONDITIONS OF THE PROJECT SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING LABOR, MATERIALS, TOOLS, AND EQUIPMENT TO COMPLETE THE INSTALLATION AS SHOWN IN THE DRAWINGS.

3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, LICENSES, ETC. CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM LOCAL INSPECTOR IS TO BE OBTAINED BY CONTRACTOR AND FURNISHED TO OWNER.

1.03 WARRANTY

1. THE CONTRACTOR SHALL WARRANT ALL WORK FOR A PERIOD OF FOURTEEN (14) MONTHS FROM THE DATE OF THE FINAL ACCEPTANCE. THE CONTRACTOR SHALL WARRANT ALL EQUIPMENT AND MATERIALS TO THE EXTENT OF THE MANUFACTURER'S WARRANTY. DEFECTIVE MATERIALS AND/OR WORKMANSHIP SHALL BE REPAIRED/REPLACED IMMEDIATELY UPON NOTIFICATION AT NO COST TO THE OWNER FOR THE PERIOD OF THE WARRANTY.

PART 2 PRODUCTS

2.01 GENERAL

1. THE WORD "PROVIDE" DENOTES FURNISH AND INSTALL.

2. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE W/ ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY W/ ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY W/ ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

3. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS UNO. THE CONTRACTOR SHALL SUBMIT BROCHURES FOR APPROVAL ON MAJOR SYSTEM COMPONENTS.

4. ALL MATERIALS SHALL BE AS SPECIFIED UNLESS ALTERNATE HAS BEEN APPROVED BY THE ENGINEER SEVEN (7) DAYS BEFORE NOTICE TO PROCEED.

5. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE TO OWNER AND/OR OWNER REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.

6. THE CONTRACTOR SHALL CONNECT AND VERIFY FUNCTIONALITY OF ALL ELECTRICALLY OPERATED EQUIPMENT.

2.02 MATERIALS

1. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

2. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

3. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS. CABINETS, BOXES, WIREWAY, RACEWAY, AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE W/ NEMA, UL, ANSI/IEEE, AND NEC. NEW CABINETS, BOXES, WIREWAY, RACEWAY, AND CABLE TRAY SHALL MATCH THE EXISTING WHERE POSSIBLE.

4. CONDUCTORS:

- A. ALL CONDUCTORS SHALL BE INSULATED IN ACCORDANCE W/ THE NATIONAL ELECTRIC CODE FOR THE PARTICULAR APPLICATION.
- B. ALL CONDUCTORS NOT ASSOCIATED W/ THE EXTERIOR BURIED GROUND RING OR BONDS TO SAME SHALL BE 98% CONDUCTIVITY COPPER, INSULATED FOR 600 VOLTS, TYPE THHN-2/THWN-2 OR XHHW-2 90°C, COLOR CODED UNO.
- C. ALL CONDUCTORS SHALL BE SOLID UP TO AND INCULDING NO. 10 AWG. AND STRANDED ABOVE NO. 10 AWG.

5. ALL POWER AND GROUNDING MECHANICAL CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).

6. CONDUITS AND RACEWAYS:

- A. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.

B. OUTDOOR CONDUITS:

- i. SCH 40 PVC (MEET NEMATC2 1990).
- ii. SCH 80 PVC WHERE EXPOSED TO POTENTIAL PHYSICAL DAMAGE.
- iii. PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LB TEST POLYETHYLENE CORD.

C. INDOOR CONDUITS:

- i. EMT OR PVC (I.E., SCH 40 PVC OR SCH 80 PVC FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ii. EMT, ENT, OR SCH 40 PVC SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

D. MISC CONDUITS:

- i. RGS CONDUIT SHALL BE USED AS NOTED IN DRAWINGS. WHEN SPECIFIED, RGS CONDIUTS SHALL MEET UL-6 FOR GALVANIZED STEEL.
- ii. GALVANIZED STEEL IMC SHALL BE USED OUTDOORS ABOVE GRADE OR INDOORS AS NOTED IN DRAWINGS.
- iii. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (FLEX) SHALL BE USED OUTDOOR ABOVE GRADE OR INDOORS AS NOTED IN DRAWINGS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

E. CONDUIT BENDS TO BE MINIMUM 24".

F. PROVIDE CONDUIT SUPPORTS AS REQUIRED PER NEC.

G. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

3. FUSES PROVIDED IN THE MAIN SERVICE ENTRANCE EQUIPMENT SHALL BE CURRENT LIMITING, 200,000 RMS AMPERES SYMMETRICAL INTERRUPTING CAPACITY, REJECTION TYPE, BUSSMAN LIMITRON OR EQUIVALENT BY GOULD-SHAWMUT.

4. LABELS:

- C. THE CONTRACTOR SHALL IDENTIFY SERVICE DISCONNECTING MEANS W/ A PERMANENT NAME PLATE.
- D. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED W/ ENGRAVED LAMACOID PLASTIC
- C. ALL EQUIPMENT SHALL BE LABELED W/ THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- D. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED W/ ENGRAVED LAMACOID PLASTIC LABELS.
- E. EACH END OF ALL POWER, GROUNDING, AND COMMUNICATIONS CONDUCTORS SHALL BE LABELED W/ COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE W/ UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM W/ NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.
- F. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE W/ THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

PART 3 EXECUTION

3.01 GENERAL

1. PRIOR TO BID SUBMISSION, CONTRACTOR SHALL PERFORM A SITE VISIT TO VERIFY EXISTING DIMENSIONS AND CONDITIONS AND CONFIRM THE CONSTRUCTABILITY OF THE WORK SHOWN ON THE CONSTRUCTION DRAWINGS. DIMENSIONS OF ALL EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF OWNER, OWNER REPRESENTATIVE, AND ENGINEER PRIOR TO ORDERING MATERIAL OR BEGINNING ANY WORK. CONTRACTOR SHALL INCLUDE IN BID ALL COSTS ASSOCIATED W/ THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES ON THE SITE. INTERRUPTION OF EXISTING SERVICES MAY ONLY BE PERFORMED W/ WRITTEN PERMISSION OF THE OWNER.

2. A SET OF CONTRACT DOCUMENTS SHALL BE MAINTAINED AT THE SITE. ALL CHANGES AND DEVIATIONS SHALL BE NEATLY MARKED. ALL ADDITIONS SHALL BE MARKED IN RED AND ALL DELETIONS SHALL BE MARKED IN GREEN. THESE DRAWINGS WILL BE KEPT SEPARATE FROM THOSE USED FOR CONSTRUCTION PURPOSES AND SHALL BE AVAILABLE FOR INSPECTION BY THE OWNER'S REPRESENTATIVE AT ALL TIMES. THIS SET OF "AS-BUILTS" SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE UPON THE COMPLETION OF THE CONTRACT.

3. THE CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT, ETC., REQUIRED TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

4. THE CONSTRUCTION DRAWINGS PROVIDED SHALL NOT BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

5. THE CONTRACTOR SHALL OBTAIN AND PAY FOR REQUIRED PERMITS, LICENSES, FEES, INSPECTIONS, ETC.

6. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER AND/OR OWNER REPRESENTATIVE. CUTTING TO BE PROVIDED AS REQUIRED TO DO THE WORK. DO NOT CUT MAJOR STRUCTURAL ELEMENTS WITHOUT APPROVAL. PATCHING SHALL BE OF EQUAL QUALITY AND APPEARANCE OF EXISTING CONSTRUCTION.

7. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE OWNER AND/OR OWNER REPRESENTATIVE BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

8. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

9. AT THE END OF EACH DAY AND AT THE CONCLUSION OF THE WORK, CONTRACTOR SHALL LEAVE PREMISES IN CLEAN AND SAFE CONDITION.

10. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE W/ AMERICAN CONCRETE INSTITUTE (ACI) 301.

11. UNO. ANY NEW CONCRETE NEEDED SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE W/ ACI 318 CODE REQUIREMENTS.

12. ALL STRUCTURAL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE W/ AISC SPECIFICATIONS.

13. ALL CONSTRUCTION SHALL COMPLY W/ SPECIFICATION 24782-000-3APS-AOOZ-00002, GENERAL CONSTRUCTION SERVICES.

14. TRENCHES SHALL BE EXCAVATED TO THE DEPTH REQUIRED FOR THE UTILITIES INVOLVED. ALL TRENCH BOTTOMS SHALL BE FREE OF SOFT SPOTS OR STONES OR OTHER DEBRIS THAT COULD DAMAGE CONDUITS OR CONDUCTORS. TRENCHES THROUGH SPECIALLY TREATED OR SURFACED AREAS SHALL HAVE THE SURFACE CUT AN ADDITIONAL 8" ON EITHER SIDE OF THE OPEN TRENCH. ALL SUCH DISTURBED SURFACES ARE TO BE REPLACED EQUAL TO THE ORIGINAL CONSTRUCTION W/ RESPECT TO GRADE, MATERIAL TYPE, AND MATERIAL DEPTH. FOLLOWING ACCEPTANCE BY OWNER'S REPRESENTATIVE, TRENCHES SHALL BE BACK FILLED AND COMPACTED TO INSURE AGAINST DIFFERENTIAL SETTLLING.

15.REFER TO THE SITE PLAN FOR EQUIPMENT PAD LOCATIONS AND ORIENTATION.

16.UNO. UNDERGROUND CONDUITS ROUTED WITHIN COMPOUND TO HAVE MINIMUM 36" COVER; ROUTED OUTSIDE COMPOUND TO HAVE MINIMUM 24" COVER.

3.02 COORDINATION

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION W/ THE ELECTRICAL UTILITY COMPANY FOR

INSTALLATION OF METERED ELECTRICAL SERVICE TO THE EQUIPMENT INSTALLATION.

CONTRACTOR TO VERIFY AND COMPLY W/ ALL ELECTRIC UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL INCLUDE IN BID ALL COSTS RELATED TO INSTALLATION OF METERED SERVICE TO OWNER'S EQUIPMENT INCLUDING BUT NOT LIMITED TO FEES, DEPOSITS AND AID TO CONSTRUCTION.

2. CONTRACTOR IS RESPONSIBLE FOR COORDINATION W/ THE INTERCONNECT PROVIDER FOR INSTALLATION OF INTERCONNECT SERVICE. CONTRACTOR SHALL VERIFY W/ OWNER INTERCONNECT SERVICE REQUIREMENTS. CONTRACTOR SHALL VERIFY AND COMPLY W/ ALL INTERCONNECT PROVIDER REQUIREMENTS FOR PROVISIONING OF SERVICE TO EQUIPMENT INSTALLATION. WHERE THE INTERCONNECT PROVIDER DEMARCATION POINT WILL BE OUTSIDE OWNER'S EQUIPMENT, CONTRACTOR SHALL PROVIDE A 24 AWG CABLE BETWEEN DEMARCATION POINT AND OWNER'S EQUIPMENT.

3. CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMATIC. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUITS, POWER CABLES, COMMUNICATION CABLES, AND GROUNDING CABLES AS DEPICTED ON THE DRAWINGS. CONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR PROVIDE NEW TRAYS AS NECESSARY. CONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING OF CONDUITS, CABLES, AND TRENCHING W/ THE OWNER AND/OR OWNER REPRESENTATIVE.

5. THE EXISTING FACILITY IS IN OPERATION. ANY WORK BY CONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED W/ OWNER AND/OR OWNER REPRESENTATIVE. IN THE EVENT WORK SHALL INTERFERE W/ NORMAL OPERATION, WORK MAY NEED TO BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

6. ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHALL BE DE-ENERGIZED PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

7. THE CONTRACTOR SHALL COORDINATE WORK W/ OTHER TRADES.

8. THE CONTRACTOR SHALL MAINTAIN A RECORD OF ALL CHANGES AND SUBSTITUTIONS BETWEEN WORK AS SPECIFIED AND INSTALLED AND MAINTAIN A RECORD OF SUCH CHANGES ON A CLEAN SET OF CONTRACT DOCUMENTS TO BE PROVIDED TO THE OWNER AND/OR OWNER REPRESENTATIVE UPON COMPLETION OF THE PROJECT.

PART 4 GROUNDING

4.01 DEFINITIONS AND ABBREVIATIONS

1. THE FOLLOWING DEFINITIONS SHALL APPLY:

A. BOND/BONDED - PERMANENT JOINING OF METALLIC PARTS TO FORM AN ELECTRICALLY CONDUCTIVE PATH.

2. THE FOLLOWING ABBREVIATIONS SHALL APPLY:

- A. AWG - AMERICAN WIRE GAUGE
- B. BTCW - BARE SOLID TINNED COPPER WIRE
- C. CIGBE - COAXIAL ISOLATED GROUND BAR EXTERIOR
- D. CIGBI - COAXIAL ISOLATED GROUND BAR INTERIOR
- E. UNO - UNLESS NOTED OTHERWISE
- F. W/ - WITH

4.02 GENERAL

1. PRIMARY EARTH BOND TO CONSIST BURIED GROUND CONDUCTORS:

A. TOWER GROUND RING:

i. BURIED GROUND CONDUCTOR ROUTED AROUND TOWER BASE.

ii. #2 AWG BTCW CONDUCTOR, UNO, THE GREATER OF 30" BELOW FINISHED GRADE OR BELOW FROST LINE. LOCATE 24" MINIMUM AND 36" MAXIMUM FROM TOWER FOUNDATION AND MINIMUM 24" FROM ALL EXISTING AND PROPOSED EQUIPMENT PADS, BUILDINGS, OR FOUNDATIONS UNO.

iii. MINIMUM OF (3) GROUND RODS (PLATES) INSTALLED PLUS ADDITIONAL AS REQUIRED TO COMPLY W/ THE SPACING AND ALLOWABLE RESISTANCE TO GROUND REQUIREMENTS.

B. EQUIPMENT GROUND RING(S):

i. BURIED GROUND CONDUCTOR ROUTED AROUND EQUIPMENT INSTALLATION(S).

ii. #2 AWG BTCW CONDUCTOR, UNO, THE GREATER OF 30" BELOW FINISHED GRADE OR BELOW FROST LINE. LOCATE 24" MINIMUM AND 36" MAXIMUM FROM EQUIPMENT AREA AND MINIMUM 24" FROM ALL EXISTING AND PROPOSED EQUIPMENT PADS, BUILDINGS, OR FOUNDATIONS UNO.

iii. MINIMUM OF (4) GROUND RODS (PLATES) INSTALLED AT THE CORNERS OF THE GROUND RING PLUS ADDITIONAL RODS AS REQUIRED TO COMPLY W/ THE SPACING AND ALLOWABLE RESISTANCE TO GROUND REQUIREMENTS.

iv. EQUIPMENT GROUND RING(S) AND TOWER GROUND RING SHALL BE BONDED TOGETHER W/ (2) #2 AWG BTCW GROUND LEADS INSIDE INSPECTION SLEEVES, MINIMUM 2' APART, TYPICALLY ONE ON EACH SIDE OF ICE BRIDGE. INSPECTION SLEEVE CAPS TO BE PAINTED ORANGE.

2. ALL GROUNDING OF FACILITY COMPONENTS OWNED AND/OR MAINTAINED BY OWNER TO COMPLY W/ LATEST VERSION OF OWNER'S GROUNDING GUIDELINES.

3. ALL GROUNDING OF EQUIPMENT AND COMPONENTS OWNED AND/OR MAINTAINED BY CARRIER TO COMPLY W/ LATEST VERSION OF CARRIER'S GROUNDING GUIDELINES.

4. ALL SERVICE EQUIPMENT, CONDUIT, SUPPORTS, CABINETS, FIXTURES, ETC. AND THE GROUND CIRCUIT CONDUCTOR SHALL BE GROUNDED IN ACCORDANCE W/ THE CURRENTLY APPLICABLE EDITION OF THE NATIONAL ELECTRIC CODE, AHJ AND UTILITY COMPANY REQUIREMENTS.

5. IN ACCORDANCE W/ THE NATIONAL ELECTRIC CODE, A SEPARATE, PROPERLY SIZED GROUNDING CONDUCTOR SHALL BE PROVIDED IN ALL RACEWAYS.

4.02 MATERIALS

1. CONDUCTORS:

- A. ALL BURIED GROUND CONDUCTORS AND LEADS TERMINATING ON THE BURIED GROUND RING SHALL BE BE #2 AWG SOLID BTCW.
- B. ALL LEADS FROM THE BURIED GROUND RING SHALL BE #2 AWG SOLID BTCW.
- C. MAIN GROUNDING CONDUCTORS TO BE A MINIMUM #2 AWG SOLID BTCW. GROUNDING LEADS ON ANTENNA SUPPORT STRUCTURES SHALL BE A MINIMUM OF #2 AWG BTCW.
- D. ALL INSULATED GROUND CONDUCTORS SHALL BE COLOR-CODED GREEN. INSULATED GROUND SYSTEM SHALL BE TERMINATED WITH INSULATED BUSHINGS.



THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT IS STRICTLY PROHIBITED.

DRAWN BY	BNS
CHECKED BY	BNS

REVISIONS			
0	04/07/25	BNS	FINAL ISSUE
A	04/03/25	BNS	PRELIMINARY ISSUE
#	DATE	BY	DESCRIPTION



SITE NAME

BORDERS LAKE

SITE NUMBER

TBD

SITE NAME

BORDERS LAKE

SITE NUMBER

US-AL-5529

SITE ADDRESS

5842 POPES CHAPEL ROAD  
RAGLAND, AL 35131

SITE TYPE

RAWLAND

SHEET TITLE

ELECTRICAL NOTES

SHEET NUMBER	REVISION
E-001	0

ELECTRICAL SPECIFICATIONS - CONTINUED:

2. GROUND RODS/PLATES:

A. GROUND RODS:

i. COPPER CLAD STEEL, 5/8" Ø, 10' LONG.

ii. SPACING BETWEEN GROUND RODS: 10' MINIMUM, 15' MAXIMUM.

iii. TOP OF GROUND ROD GREATER OF 30" BELOW FINISHED GRADE OR BELOW FROST LINE.

iv. BOND TOP OF GROUND ROD TO GROUND WIRE W/ EXOTHERMIC WELD. DO NOT EXOTHERMICALLY WELD ANYTHING TO GROUND ROD EXCEPT GROUND WIRE WHICH PASSES OVER TOP OF GROUND ROD.

B. GROUND PLATES:

i. 18"X18"X1/8" COPPER W/ 36" #2 AWG BTCW PIGTAIL EXOTHERMICALLY WELDED AT THE MIDDLE (ALLTEC PART # GP-C-18-1/8-WM-2T-36-1F OR EQUIVALENT).

ii. SPACING BETWEEN GROUND PLATES: 6' MINIMUM.

iii. 50 LBS OF SOIL ENHANCEMENT MATERIAL (ALLTEC TERRAFILL, PART # TF-50 OR EQUIVALENT); 25 LBS BELOW AND 25 ABOVE GROUND PLATE.

3. GROUND BARS:

A. 1/4" THICK, 4" WIDE, LENGTH AS REQUIRED.

4.03 EXECUTION

1. CONTRACTOR TO PROVIDE ALL LABOR AND MATERALS REQUIRED TO ACHIEVE GROUNDING SCOPE OF WORK.

2. ALL CONNECTIONS TO THE BURIED GROUND CONDUCTOR SHALL UTILIZE PARALLEL-TYPE EXOTHERMIC WELDS.

3. ALL PRIMARY CONNECTIONS TO THE BURIED GROUND RING SHALL BE PLACED IN AN INSPECTION SLEEVE. A MAXIMUM OF THREE CONNECTIONS MAY BE MADE WITHIN ONE INSPECTION SLEEVE.

A. PRIMARY CONNECTIONS INCLUDE:

i. CELL REFERENCE GROUND BAR (CRGB)

ii. TELCO GROUND BAR

iii. SHELTER HALO DOWNLEADS

iv. HATCHPLATE GROUND BAR

v. ATTACHMENT OF LEADS BETWEEN TOWER AND EQUIPMENT GROUND RINGS (BOTH ENDS) TOWER BONDS

vi. TOWER EXIT GROUND BAR

4. FOR COLLOCATIONS, NEW BURIED GROUND RING, UPON FINAL APPROVAL FROM OWNER, SHALL BE ATTACHED TO EXISTING GROUND RING AT TWO POINTS AS PROVIDED IN DRAWINGS. AN INSPECTION SLEEVE WITH AN ORANGE REMOVABLE COVER SHALL BE PROVIDED AT BOTH CONNECTION POINTS.

5. GROUND RODS:

A. GROUND RODS TO BE DRIVEN VERTICALLY WITH THE TOPS LEFT A MINIMUM OF 30" BELOW FINISHED GRADE.

B. IF GROUND RODS CANNOT BE DRIVEN VERTICALLY, A MAXIMUM ANGLE OF 45° FROM VERTICAL, PARALLEL TO OR PERPENDICULAR AWAY FROM THE EQUIPMENT PAD, WILL BE ALLOWED. WHERE SPREAD TOWER FOOTING WOULD PREVENT GROUND RODS FROM BEING DRIVEN INTO SOIL ADJACENT TO TOWER, PROVIDE VERTICAL 1" DIAMETER PVC SLEEVES EMBEDDED IN FOOTING TO ALLOW INSTALLATION OF GROUND RODS.

C. THE BURIED GROUND CONDUCTOR IS TO BE EXOTHERMICALLY WELDED TO EACH GROUND ROD UTILIZING A T-TYPE CONNECTION.

D. A MINIMUM OF FOUR GROUND RODS ARE TO BE USED.

6. GROUND BARS:

A. CARRIER CELL REFERENCE GROUND BAR (CRGB) SHALL BE LOCATED AT A POINT BELOW THE END OF THE COAX TERMINATION PRIOR TO THE ENTRY POINT TO THE EQUIPMENT CABINET OR BENEATH HATCHPLATE FOR EQUIPMENT SHELTERS.

i. THE CRGB SHALL BE MOUNTED UTILIZING ISOLATING HARDWARE.

ii. THE CRGB SHALL BE ATTACHED TO THE BURIED GROUND RING VIA TWO #2 LEADS EXOTHERMICALLY WELDED TO THE BAR. THE CRGB LEADS SHALL BOND TO THE BURIED GROUND RING AT TWO POINTS SEPARATED BY NOT LESS THAN TWO FEET. LEADS TO THE CRGB SHALL BE MADE AS STRAIGHT AS PRACTICAL.

B. CARRIER TOWER EXIT GROUND BAR SHALL BE PLACED BELOW THE TRANSITION FROM VERTICAL TO HORIZONTAL OF THE ANTENNA FEEDLINE(S) AT THE BASE OF THE TOWER.

i. THE TOWER EXIT GROUND BAR SHALL BE BE 1/4"X4"X24".

ii. THE TOWER EXIT GROUND BAR SHALL BE ATTACHED TO THE TOWER OR ICE-BRIDGE UTILIZING ISOLATING HARDWARE.

iii. THE TOWER EXIT GROUND BAR SHALL BE ATTACHED TO THE BURIED GROUND RING VIA TWO #2 AWG LEADS EXOTHERMICALLY WELDED TO THE BAR.

iv. THE TOWER EXIT GROUND BAR LEADS SHALL BOND TO THE BURIED GROUND RING AT TWO POINTS SEPARATED BY NOT LESS THAN TWO FEET.

v. LEADS TO THE TOWER EXIT GROUND BAR SHALL HAVE MINIMAL CURVES AND BE PROPERLY SUPPORTED SO AS TO NOT TOUCH THE TOWER.

C. CARRIER TOWER GROUND BARS:

i. TOWER GROUND BARS TO BE 1/4"X4"X24".

ii. TOWER GROUND BARS SHALL ACCEPT BOTH 3/4" AND 1" SPACED DOUBLE HOLE LUGS.

iii. TOWER GROUND BARS SHALL BE ATTACHED TO THE TOWER UTILIZING NON-INSULATING HARDWARE. THE USE OF INSULATING HARDWARE IS PROHIBITED. ANGLE ADAPTERS OR ROUND MEMBER ADAPTERS MAY NOT BE USED FOR GROUND BAR ATTACHMENT.

iv. FOR ANTENNA INSTALLATIONS AT ELEVATIONS GREATER THAN 200 FEET AN INTERMEDIATE GROUND BAR SHALL BE INSTALLED.

7. ALL COAX GROUNDS SHALL BE INSTALLED SUCH THAT THE LEADS FALL DOWNWARD TO THE CONNECTION TO THE GROUND BAR. ALL COAX GROUNDS SHALL BE BONDED TO THE GROUND BAR UTILIZING TWO HOLE LUGS.

8. GROUND BARS MUST BE PROPERLY CLEANED BEFORE LEADS ARE ATTACHED. ALL CONNECTIONS SHALL BE COATED WITH AN ANTI-OXIDIZING MATERIAL.

9. TOWER GROUNDING:

A. ALL TOWERS SHALL HAVE THREE SEPARATE GROUND LEADS FROM THE GROUND RING BONDED TO THE TOWER.

i. GROUND LEADS TO TOWER SHALL ONLY BE EXOTHERMICALLY WELDED TO MANUFACTURER'S GROUNDING TAB OR THE BASEPLATES. NEVER EXOTHERMICALLY WELD, BRAZE OR WELD TO THE TOWER STRUCTURE.

B. PROVIDE #2 AWG BTCW RADIALS FROM THE TOWER GROUND RING TO EACH FENCE CORNER POST. EQUIPMENT AREA GROUND RING AND CONNECTING GROUND LEADS BETWEEN EQUIPMENT AREA AND TOWER GROUND RINGS MAY BE USED AS PART OF THE RADIAL GOING TO THE FENCE CORNER POST CLOSEST TO THE EQUIPMENT AREA.

10. ALL SPARE GROUND LEADS SHALL BE CUT OFF AT 12" ABOVE GRADE AND ZIP TIED OR TAPED TO THE ATTACHED TOWER LEAD.

11. BONDING:

A. ALL EXTERIOR METAL OBJECTS ARE TO BE BONDED TO THE BURIED GROUND RING IN ACCORDANCE W/ THE PROJECT SCOPE.

B. ANY METALLIC OBJECT WITHIN 6" OF A BURIED GROUND RING NOT SHOWN ON THESE DRAWINGS SHALL BE BONDED TO THE BURIED GROUND RING.

C. ALL EXTERIOR MECHANICAL CONNECTIONS ARE TO BE COATED W/ ANTI-OXIDIZING MATERIAL ON CONTACTING SURFACES PRIOR TO MAKING CONNECTION. FOLLOWING COMPLETION OF CONNECTION, ALL EXPOSED SURFACES OF CONNECTION ARE TO BE COATED W/ ANTI-OXIDIZING MATERIAL.

D. ALL INTERNAL AND CABINET GROUNDING PIGTAILS OF NEW EQUIPMENT TO BE BONDED TO BURIED GROUND RING.

E. BOND EACH GATE POST W/ #2 AWG TO NEAREST PORTION OF GROUNDING SYSTEM INSIDE COMPOUND.

F. BOND EACH GATE TO GATE POST W/ FLEXIBLE INSULATED OR BRAIDED #4/0 AWG COPPER STRAP. EXOTHERMICALLY WELD STRAP TO BOTH GATE AND GATE POST.

G. ANY METAL FENCE POST WITHIN 6" OF A GROUNDED METAL OBJECT SHALL BE BONDED TO THE NEAREST GROUND RING. ANY METAL FENCE WITHIN 6" OF A GROUND RING SHALL HAVE THE LINE POSTS BONDED TO THE GROUND RING AT 20' MAXIMUM INTERVALS AS MEASURED ALONG THE LENGTH OF THE FENCE.

12. GROUND LEADS:

A. GROUND CONNECTIONS SHOULD BE AS SHORT AS POSSIBLE. UNNECESSARY BENDS SHOULD BE AVOIDED. MINIMUM BENDING RADIUS FOR ANY GROUND LEAD IS 12".

B. ALL GROUND LEADS EXTENDING ABOVE THE FINISHED GRADE OF THE SITE SHALL BE PROTECTED IN 1/2" NONMETALIC PVC CONDUIT SUPPORTED AT MAXIMUM INTERVALS OF 18". MAXIMUM CONDUIT SIZE TO BE USED ON ANY GROUND LEAD IS 3/4". ABOVE GRADE OPENINGS IN GROUNDING CONDUITS TO BE SEALED WITH SILICONE.

C. ALL LEADS SHALL FLOW IN A SMOOTH PATH WITH NO KINKS OR SHARP BENDS.

13. EXOTHERMIC WELDS:

A. ALL BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC WELDS.

B. ALL EXOTHERMIC WELDS TO ABOVE GRADE STEEL STRUCTURES MUST BE COLD GALVANIZED AND SPRAYED WITH MATCHING RUST INHIBITOR PAINT.

C. PRIOR TO MAKING EXOTHERMIC CONNECTIONS, ALL SURFACES TO BE WELDED MUST BE CLEANED OF ALL CONTAMINANTS UTILIZING A BRONZE BRUSH. ALL EXOTHERMIC CONNECTIONS TO GALVANIZED SURFACES ARE TO PAINTED WITH GALVANIZING PAINT.

14. MECHANICAL CONNECTIONS:

A. MUST UTILIZE TWO HOLE LUGS.

B. MUST HAVE ANTIOXIDANT COMPOUND APPLIED.

4.04 TESTING

1. CONTACT OWNER REPRESENTATIVE A MINIMUM OF 24 HOURS BEFORE TESTING.

2. THE NEW GROUND SYSTEM SHOULD BE TESTED INDEPENDENTLY OF ALL OTHER GROUNDING ON THE SITE.

3. REQUIREMENT FOR RESISTIVITY TO EARTH IS 5-OHMS OR LESS. CONTRACTOR IS RESPONSIBLE FOR MEETING CRITERIA.

4. PERFORM THREE POINT FALL OF POTENTIAL GROUNDING (MEGGER) TEST UTILIZING THE "AEMC 4500" TEST INSTRUMENT OR EQUIVALENT FROM A MINIMUM OF TWO SEPARATE POINTS IN TWO SEPARATE DIRECTIONS FROM THE POINT OF CONTACT.

5. PERFORM GROUND TESTING ONLY IF NO RAINFALL HAS OCCURRED WITHIN THREE DAYS, AND THERE IS NO STANDING WATER IN THE GROUND WIRE TRENCHES.

6. THE CONTRACTOR SHALL DOCUMENT MEGGER TEST RESULTS FOR THE LOCATION OF ALL UNDERGROUND GROUNDING COMPONENTS AND PHOTOGRAPH WITH A DIGITAL CAMERA THE ENTIRE INSTALLED GROUNDING SYSTEM PRIOR TO BACKFILLING ANY OPEN TRENCHES.

7. FORWARD THE MEGGER TEST DOCUMENTATION TO THE OWNER CONSTRUCTION MANAGER AND INCORPORATE AS PART OF THE FINAL SITE ACCEPTANCE DOCUMENTATION.

8. ADDITIONAL WORK REQUIRED TO ACHIEVE A RESISTANCE OF 5 OHMS OR LESS MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO IMPLEMENTATION.

9. UPON INSPECTION AND APPROVAL BY OWNER'S REPRESENTATIVE, THE GROUNDING SYSTEM MAY BE BACK-FILLED.

PART 5 ANTENNA INSTALLATION SPECIFICATIONS

5.01 GENERAL

1. CODES REQUIREMENTS

A. INSTALL ANTENNA, COAXIAL CABLES, TMA'S, GROUNDING SYSTEM, AND ALL OTHER EQUIPMENT SHOWN ON THESE DRAWINGS OR THE OWNER'S RF DESIGN IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS IN EFFECT AT THE PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK. THESE CODES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

i. EIA - ELECTRONIC INDUSTRIES ASSOCIATION RS-22. STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.

ii. FAA - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC 70/7480-IH, CONSTRUCTION MARKING AND LIGHTING.

iii. FCC - FEDERAL COMMUNICATION COMMISSION RULES AND REGULATIONS FORM 715, OBSTRUCTION MARKING AND LIGHTING SPECIFICATION FOR ANTENNA STRUCTURES.

iv. AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION FOR STRUCTURAL JOINTS USING ASTM 1325 OR A490 BOLTS.

v. NEC - NATIONAL ELECTRIC CODE - ON TOWER LIGHTING KITS.

vi. UL - UNDERWRITER'S LABORATORIES APPROVED ELECTRICAL PRODUCTS.

vii. IN ALL CASES, PART 77 OF THE FAA RULES AND PARTS 17 AND 22 OR THE FCC RULES ARE APPLICABLE AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.

viii. LIFE SAFETY CODE NFPA, LATEST EDITION.

2. WORK INCLUDED

A. INSTALLATION OF GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.

B. INSTALLATION OF GALVANIZED STEEL CABLE LADDER AS INDICATED ON DRAWINGS.

C. INSTALLATION OF ALL ANTENNAS, TMA'S, COAXIAL CABLES, AND OTHER EQUIPMENT AS SPECIFIED ON THE OWNER'S RF DESIGN.

D. INSTALLATION OF PROPER GROUNDING FOR LINES, ANTENNAS AND OTHER NEW EQUIPMENT.

E. TESTING OF ALL LINES, ANTENNAS, AND OTHER EQUIPMENT PER OWNER'S SPECIFICATIONS.

F. DAILY CLEAN UP AND REMOVAL OF ALL DEBRIS, EXCESS MATERIALS, AND TRASH FROM THE SITE.

G. RELATED WORK

i. FURNISH THE FOLLOWING WORK AS SPECIFIED IN CONSTRUCTION DOCUMENTS, BUT COORDINATE WITH OTHER TRADES PRIOR TO BID:

a) FLASHING OF OPENINGS INTO OUTSIDE WALLS.

b) SEALING AND CAULDING ALL OPENINGS.

c) PAINTING.

d) CUTTING AND PATCHING.

3. GENERAL

A. NO WORK SHALL BE PERFORMED ON THE SITE BY THE CONTRACTOR WITHOUT A FINAL RF CONFIGURATION SHEET.

B. CONTRACTOR IS RESPONSIBLE TO REVIEW AND ADHERE TO RF EXPOSURE OCCUPATIONAL M.O.P. PROVIDED BY OWNER.

5.02 PRODUCTS

1. EQUIPMENT

A. UNLESS SPECIFIED OTHERWISE BY OWNER, ANTENNAS, COAXIAL CABLES, TMA'S, JUMPERS, CONNECTORS, GROUND KITS, AND ATTACHMENT HARDWARE ARE FURNISHED BY OTHERS UNDER SEPARATE CONTRACT.

B. ALL WEATHERPROOFING TO BE SUPPLIED BY CONTRACTOR

5.03 EXECUTION

1. INSTALLATION

A. ANY EXISTING CONDITIONS THAT WOULD PREVENT THE INSTALLATION OF THE MOUNTS, COAXIAL CABLES, ANTENNAS, OR ANY OTHER EQUIPMENT TO BE INSTALLED ACCORDING TO THE SPECIFIED RF CONFIGURATION OR THAT WOULD CAUSE SHADOWING, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER OR OWNER REPRESENTATIVE IMMEDIATELY.

B. THE CONTRACTOR SHOULD CHECK TO VERIFY THAT NO PART OF THE TOWER STRUCTURE OR OTHER OBSTRUCTIONS EXISTS WITHIN A 180 DEGREE VIEW OF THE ANTENNAS AND MOUNT.

C. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND OWNER'S SPECIFICATIONS.

D. INSTALL GALVANIZED STEEL ANTENNA MOUNTS.

E. INSTALL COAXIAL CABLES AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.

F. BENDS IN COAXIAL CABLES ARE TO BE KEPT TO A MINIMUM. UNDER NO CIRCUMSTANCES SHOULD COAXIAL CABLE BE BENT TO A RADIUS LESS THAN FOLLOWS:

CABLE SIZE	MINIMUM BENDING RADIUS
1/2" SUPERFLEX	1.25"
1/2"	5"
3/8"	3.75"
5/8"	8"
7/8"	10"
1-1/4"	15"
1-5/8"	20"

G. JUMPERS SHALL BE INSTALLED WITH MINIMUM BENDS. MINIMUM BENDING RADIUS FOR 1/2" JUMPER IS 5". JUMPERS SHALL NOT BE COILED.

H. ANTENNA JUMPERS SHALL BE SUPPORTED AT MAXIMUM 3' SPACING WITH SUPPORT SUPPLIED HIN 1 OF EACH END OF THE JUMPER.

I. CABLES THAT EXCEED THE MINIMUM BENDING RADIUS, ARE CRUSHED, OR ARE OTHERWISE DAMAGED SHALL BE DISCARDED AND REPLACED AT CONTRACTOR'S EXPENSE.

J. DO NOT REMOVE DUST CAPS FROM CONNECTORS OF JUMPERS UNTIL CONNECTION IS READY TO BE MADE. USE CARE IN MAKING CONNECTIONS. VISUALLY INSPECT THE CENTER PIN.

K. ANTENNAS SHALL BE INSTALLED WITH DOWNTILT BRACKETS AND HEAVY DUTY CLAMPS SUPPLIED BY THE MANUFACTURER.

5.04 GROUNDING

1. ANTENNA AND COAXIAL CABLE GROUNDING:

A. GROUNDS SHALL BE INSTALLED ON THE COAXIAL CABLE APPROXIMATELY TWO FEET ABOVE THE VERTICAL TO HORIZONTAL TRANSITION.

B. ALL EXTERIOR #6 GREEN GROUND WIRE DAISY CHAIN CONNECTIONS TO BE WEATHER SEALED W/ ANDREWS CONNECTOR/SPLICE WEATHERPROOFING KIT TYPE 322121 OR EQUIVALENT.

C. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).

D. ALL COAX GROUNDS SHALL BE BONDED TO THE GROUND BAR UTILIZING TWO HOLE LUGS.

E. ALL COAX GROUND LEADS ARE TO BE INSTALLED WITH 2" OF SLACK TO ACCOMMODATE MOVEMENT IN THE LINES.

F. ALL COAX GROUNDS SHALL BE INSTALLED SUCH THAT THE LEADS FALL DOWNWARD TO THE CONNECTION TO THE GROUND BAR.

G. ALL ANTENNA MOUNTING PIPES TO BE BONDED TO TOWER GROUND BAR.

2. COLOR CODING

A. ALL JUMPERS, COAX RUNS, AND BIAS-T POWER CABLES TO HAVE COLOR CODE BANDS INSTALLED ON BOTH ENDS.

B. COLOR CODE BANDS TO BE INSTALLED UTILIZING MINIMUM THREE WRAPS OF 3M-35 TAPE. COLOR CODE BANDS ON MAIN COAX CABLES AT TOP OF TOWER TO BE INSTALLED UTILIZING MINIMUM 3" WIDE BANDS WITH MINIMUM 3/4" SPACING BETWEEN BANDS. COLOR CODE BANDS NEAR GROUND LEVEL TO BE INSTALLED UTILIZING 3/4" WIDE BANDS.

C. ON 'COMMON' ELEMENTS, THOSE CARRYING BOTH 850MHZ AND 1900MHZ SIGNALS, THE COLOR CODE IS TO MATCH THE 850MHZ COLOR CODE (NO WHITE).

3. INSPECTION, TESTING, AND CLOSE OUT

A. MOUNT ORIENTATION MUST BE LESS THAN 10 DEGREES FROM THE DESIRED AZIMUTH. MOUNTS MUST NOT OVERSHADOW OR IMPEDE ANTENNAS ON OTHER SECTORS.

B. ALL ANTENNAS MUST BE WITHIN ±3 DEGREES FROM THE SPECIFIED RF CONFIGURATION. ALL ANTENNAS IN A SECTOR MUST BE WITHIN ±1 DEGREE FROM OTHER ANTENNAS IN THE SAME SECTOR.

C. EACH ANTENNA MUST HAVE THE DOWNTILT VERIFIED UTILIZING A DIGITAL LEVEL. A PHOTOGRAPH OF THE ANTENNA WITH THE LEVEL IN PLACE MUST BE TAKEN FOR EACH ANTENNA. ALL PHOTOGRAPHS MUST CLEARLY IDENTIFY THE SECTOR AND ANTENNA BEING DISPLAYED.

D. THE MODEL NUMBER OF ALL NEW AND EXISTING ANTENNAS SHALL BE PHOTOGRAPHED. THIS INFORMATION SHOULD BE RECORDED ON THE JOB CHECKLIST. ALL PHOTOGRAPHS MUST CLEARLY IDENTIFY THE SECTOR AND ANTENNA BEING DISPLAYED.

E. THE CONTRACTOR SHALL CONDUCT SWEEP TEST FOR THE COMPLETED ANTENNA SYSTEM PER OWNER'S REQUIREMENTS.

END OF SPECIFICATON

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verizon

SITE NAME

BORDERS LAKE

SITE NUMBER

TBD

verticalbridge

SITE NAME

BORDERS LAKE

SITE NUMBER

US-AL-5529

SITE ADDRESS

5842 POPES CHAPEL ROAD  
RAGLAND, AL 35131

SITE TYPE

RAWLAND

SHEET TITLE

ELECTRICAL NOTES

SHEET NUMBER <div>E-002</div>	REVISION <div>0</div>
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KEY NOTES:

- 1. APPROXIMATE LOCATION OF NEW VERIZON FIBER HAND HOLE AT ROW IS: 33° 44' 32.4" N, 86° 13' 05.7" W (NOTE: LID OF HAND HOLE TO BE PERMANENTLY LABELED "VZW FIBER".)
- 2. INSTALL A 4" CONDUIT BRIDGE FROM THE NEW VERIZON FIBER HAND HOLE TO THE EXISTING LIT FIBER HAND HOLE AT ROW. (NOTE: BRIDGE CONDUIT WILL BE BY OTHERS IF THERE IS NO EXISTING FIBER HAND HOLE /PEDESTAL AT THE ROW WHEN VERIZON HAND HOLE IS INSTALLED.)
- 3. (2) 2" TELCO CONDUITS (1 - LIT FIBER CONDUIT & 1 - DARK FIBER CONDUIT) FROM VERIZON HAND HOLES AT ROW TO VERIZON HAND HOLES AT COMPOUND, LENGTH = 79±. CONTRACTOR IS TO CONFIRM WITH VERIZON CM WHETHER INSTALLATION OF THE TWO 2" CONDUITS WILL BE PART OF THE INITIAL CONSTRUCTION. CONTRACTOR TO INSTALL TRACER WIRE & TWO PULL ROPES IN EACH TELCO CONDUIT.
- 4. INTERMEDIATE FIBER HAND HOLES PLACED AT MAJOR ANGULAR TRANSITIONS, (>45 DEGREES) AND EVERY 500 FT MAXIMUM OF TELCO CONDUITS PATH.
- 5. NEW VERIZON FIBER HAND HOLE LOCATED OUTSIDE OF THE FENCED COMPOUND. (NOTE: LID OF HAND HOLE TO BE PERMANENTLY LABELED "VZW FIBER")
- 6. NEW VERTICAL BRIDGE LIT FIBER HAND HOLE/PEDESTAL LOCATED OUTSIDE OF FENCED COMPOUND.
- 7. INSTALL A 4" CONDUIT BRIDGE FROM NEW VERIZON FIBER HAND HOLE TO THE EXISTING LIT FIBER HAND HOLE/PEDESTAL AT THE FENCED COMPOUND. CONTRACTOR TO LEAVE A 5 FOOT LONG CAPPED STUB CONDUIT IF THERE IS NO EXISTING HAND HOLE/PEDESTAL WHEN VERIZON HAND HOLE IS INSTALLED.





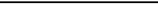

POWER NOTES:

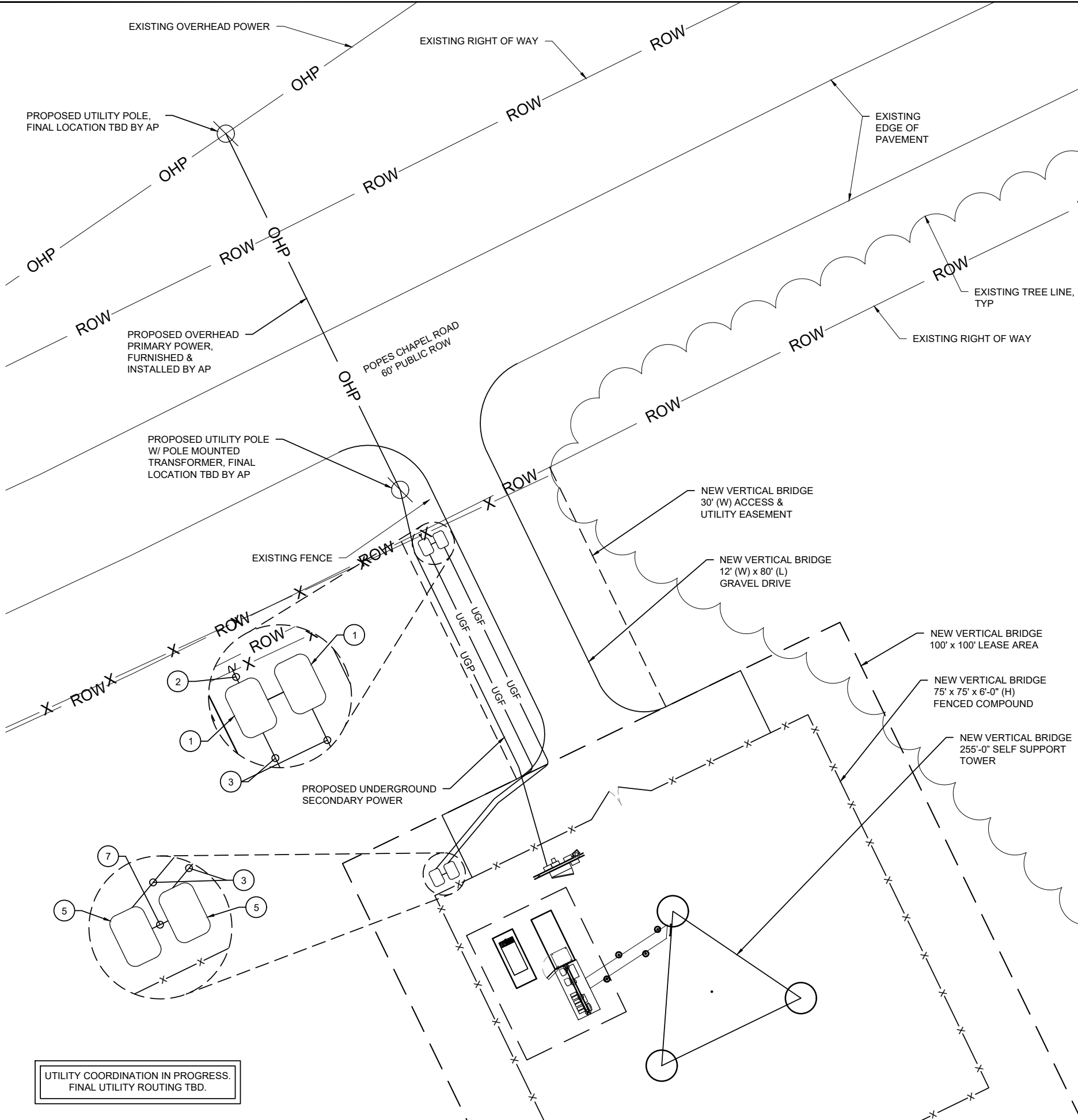
- 1. POWER NOTES TO BE ADDED AT A LATER DATE. UTILITY COORDINATION IN PROGRESS. FINAL UTILITY ROUTING TBD.

NOTE:  
CONDUITS DEPICTED IN THIS DRAWING ARE SHOWN FOR CLARITY PURPOSES, ACTUAL CONDUITS INSTALLED IN THE FIELD MAY VARY.

NOTE:  
ALL CONDUITS TO BE SCH 40 PVC UNLESS THE CONDUIT IS INSTALLED UNDER DRIVEWAYS, DRIVEWAY TURN-AROUNDS, ABOVE GRADE OR STUBBED UP ABOVE GRADE. IN THE EVENT ANY OF THE ABOVE CONDITIONS OCCUR, INSTALL SCH 80 PVC CONDUITS OR RGS.

ELECTRICAL LEGEND

TELEPHONE PEDESTAL	
OVERHEAD TELEPHONE	 OHT
UNDERGROUND TELEPHONE	 UGT
OVERHEAD POWER	 OHP
UNDERGROUND POWER	 UGP
UNDERGROUND FIBER	 UGF



UTILITY COORDINATION IN PROGRESS.  
FINAL UTILITY ROUTING TBD.



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SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	OVERALL ELECTRICAL SITE PLAN
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SHEET NUMBER	REVISION
E-101	0







KEY NOTES:

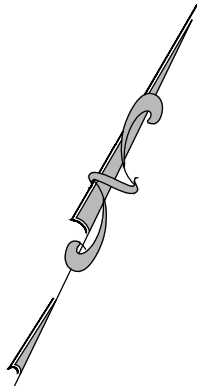
1. VERIZON FIBER HAND HOLE LIDS TO BE PERMANENTLY LABELED "VZW FIBER".
2. INSTALL A 4" BRIDGE CONDUIT FROM NEW VERIZON FIBER HAND HOLE TO EXISTING LIT FIBER HAND HOLE. LIT FIBER HAND HOLE WILL BE "BY OTHERS" IF NOT EXISTING WHEN NEW VERIZON HAND HOLE IS CONSTRUCTED AND 4" BRIDGE CONDUIT TO BE CAPPED 5' FROM VERIZON FIBER HAND HOLE.
3. NOT USED.
4. CONTRACTOR TO INSTALL TRACER WIRE & (2) PULL ROPES IN ALL TELCO CONDUITS.
5. (2) 2" TELCO CONDUITS, FROM COMPOUND HAND HOLE TO EQUIPMENT H-FRAME, 45'±. (SEE DETAIL 1, SHEET E-304)
6. NEW VERTICAL BRIDGE UTILITY H-FRAME. (SEE DETAIL 1 OR 2, SHEET E-301)
7. VERIZON 2" SCH 40 PVC POWER CONDUIT, 55'±. (SEE DETAIL 1, SHEET E-304)
8. VERIZON EQUIPMENT H-FRAME. (SEE DETAIL 1, SHEETS E-302 & E-303)
9. VERIZON ILC CABINET. (SEE SHEET E-306)
10. NOT USED.
11. VERIZON TELCO BOX.
12. VERIZON 4' x 10' CONCRETE EQUIPMENT PAD.
13. VERIZON PRIMARY RF CABINET.
14. (1) 2" SCH. 40 PVC FIBER CONDUIT FROM EXISTING LIT FIBER HAND HOLE TO TELCO HOFFMAN BOX ON COMPOUND H-FRAME; 25'±.
15. VERIZON 50KW DIESEL GENERATOR ON A 3'-6" x 8' PAD.
16. GENERATOR CONDUITS TO BE RUN UNDERGROUND (SEE DETAIL 2, SHEET E-304 & SEE DETAIL 1, SHEET E-305):
  - 16.1. (1) - 2" SCH 40 PVC W/ (3) 3/0 AWG AND #6 AWG GND; 15'±.
  - 16.2. (1) - 1" SCH 40 PVC W/ (4) #12 AWG; 15'±.
  - 16.3. (1) - 1" SCH 40 PVC W/ CONTROL & ALARM CABLE; 15'±
17. S.O. CORDS IN 2"Ø PVC CONDUIT TO TOWER LIGHTS.
18. 2" TELCO CONDUIT, FROM MULTI-TENANT NEMA TO EQUIPMENT H-FRAME, 56'± (SEE DETAIL 1, SHEET E-304)

NOTE:  
CONDUITS DEPICTED IN THIS DRAWING ARE SHOWN FOR CLARITY PURPOSES, ACTUAL CONDUITS INSTALLED IN THE FIELD MAY VARY.

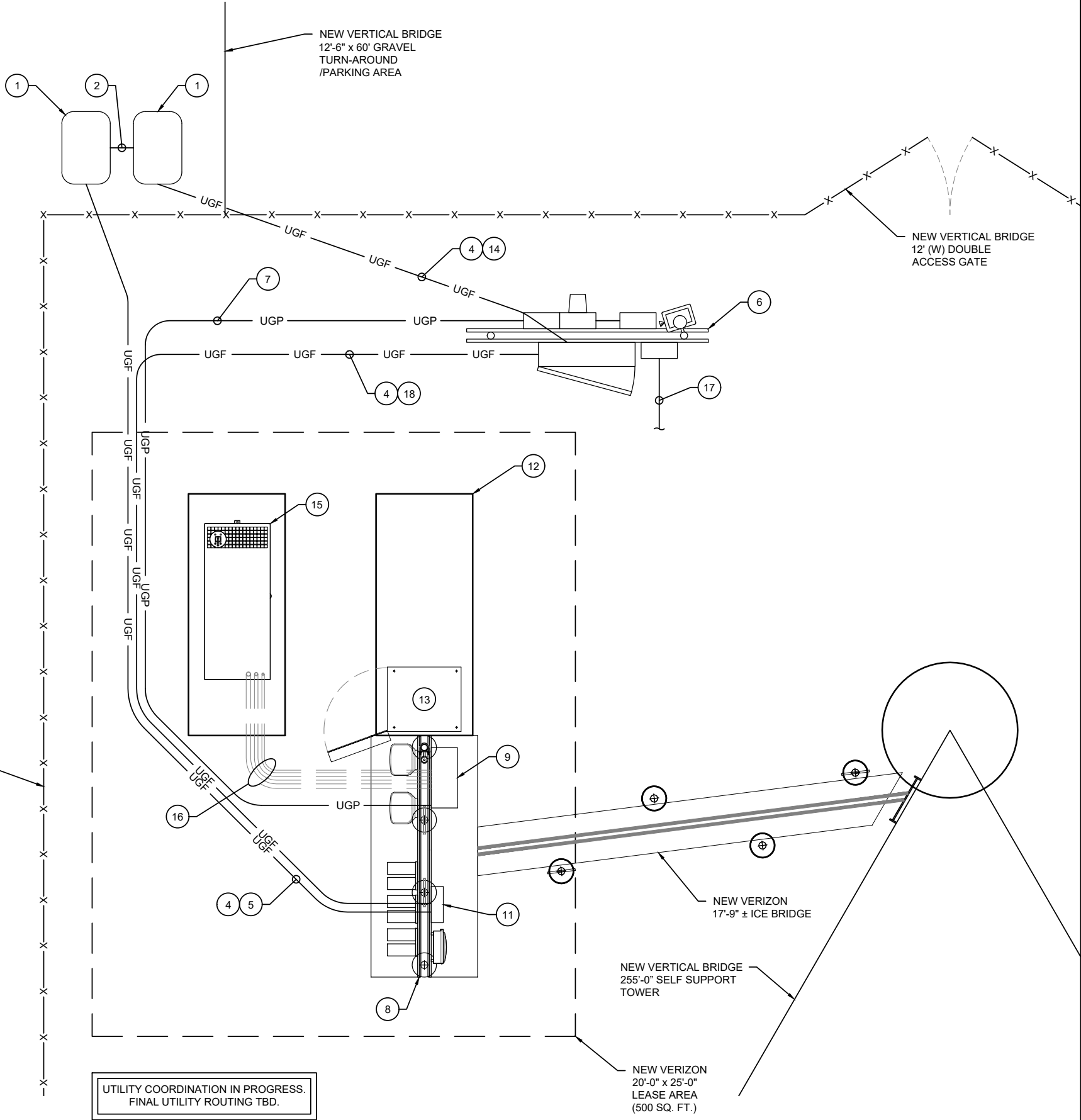
NOTE:  
ALL CONDUITS TO BE SCH 40 PVC UNLESS THE CONDUIT IS INSTALLED UNDER DRIVEWAYS, DRIVEWAY TURN-AROUNDS, ABOVE GRADE OR STUBBED UP ABOVE GRADE. IN THE EVENT ANY OF THE ABOVE CONDITIONS OCCUR, INSTALL SCH 80 PVC CONDUITS OR RGS.

ELECTRICAL LEGEND

TELEPHONE PEDESTAL	
OVERHEAD TELEPHONE	 OHT
UNDERGROUND TELEPHONE	 UGT
OVERHEAD POWER	 OHP
UNDERGROUND POWER	 UGP
UNDERGROUND FIBER	 UGF



NEW VERTICAL BRIDGE  
75' x 75' x 6'-0" (H)  
FENCED COMPOUND



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SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	ELECTRICAL SITE PLAN
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SHEET NUMBER	REVISION
E-102	0



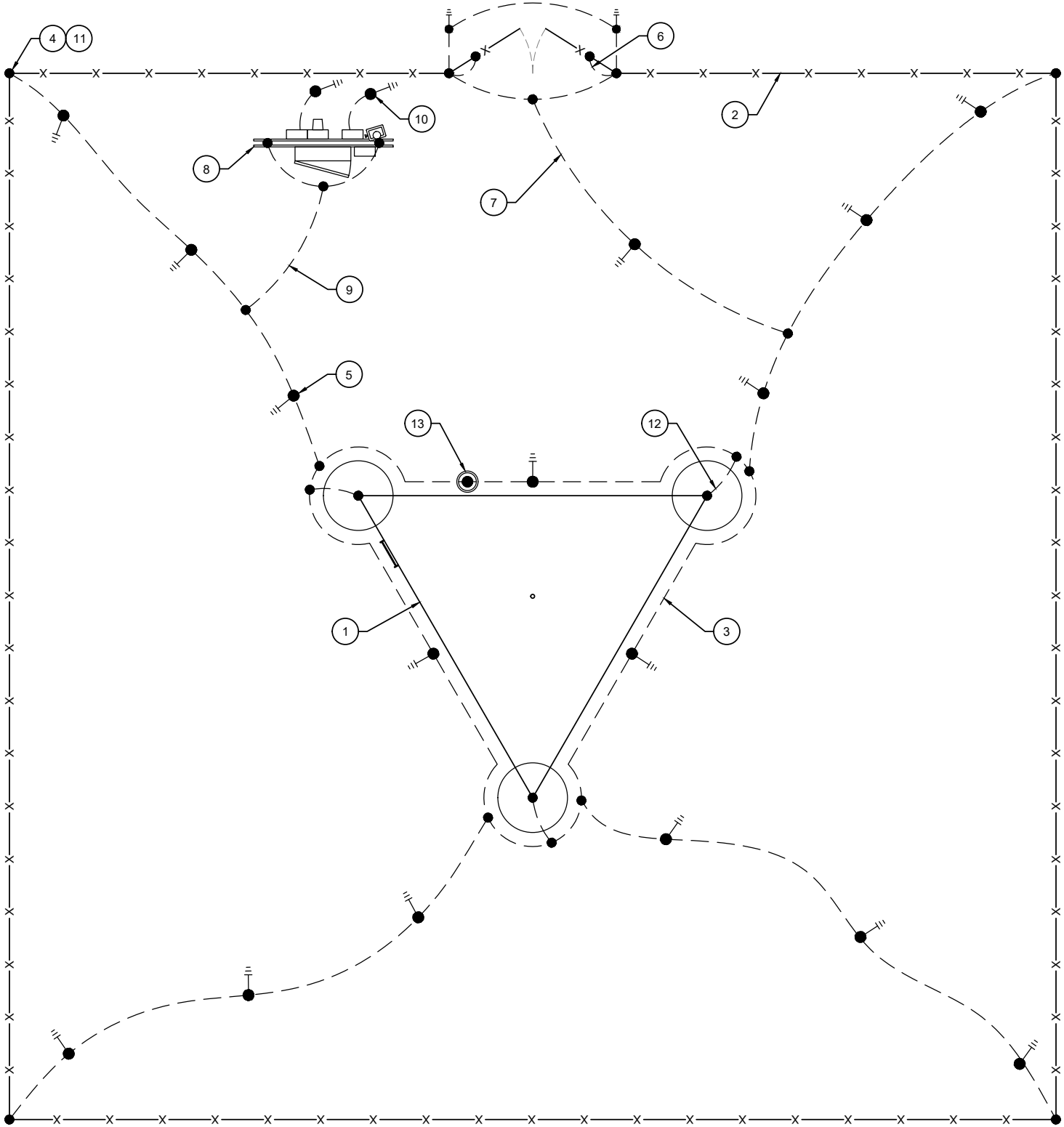
KEY NOTES:

- 1. NEW VERTICAL BRIDGE SELF SUPPORT TOWER.
- 2. NEW VERTICAL BRIDGE FENCED COMPOUND.
- 3. PROPOSED TOWER GROUND RING 2' FROM FOUNDATION, BELOW FROST DEPTH.
- 4. EXOTHERMIC WELD, TYP.
- 5. GROUND ROD WITH EXOTHERMIC WELD TO BE SPACED EVENLY BETWEEN 10' AND 20' SEPARATION.
- 6. GATE GROUNDED TO GATE POST WITH #2 AWG BTCW, TYP. EACH GATE.
- 7. GATE POSTS GROUNDED TO COMPOUND GROUND LEAD WITH #2 AWG SOLID BTCW, TYP.
- 8. NEW VERTICAL BRIDGE 10' (W) UTILITY H-FRAME.
- 9. H-FRAME GROUNDED TO COMPOUND GROUND LEAD WITH #2 AWG SOLD BTCW, TYP. EACH POST.
- 10. GROUND METER CENTER WITH 2/0 STRANDED BTCW TO (2) GROUND RODS PLACED MIN 6' APART BEFORE GROUNDING TO GROUND LEAD (PER NEC 250.53 (A) REQUIREMENTS).
- 11. GROUND EACH CORNER FENCE POST TO TOWER GROUND RING WITH #2 AWG SOLID BTCW.
- 12. GROUND TOWER TO TOWER GROUND RING WITH #2 AWG SOLID BTCW, TYP. OF 3.
- 13. GROUND INSPECTION WELL AT TOWER GROUND RING, FIELD DETERMINE LOCATION.

GROUNDING NOTES:

- 1. SYSTEM GROUND RESISTANCE SHALL NOT EXCEED 5 OHMS. A THREE POINT SYSTEM RESISTANCE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH OWNER SPECIFICATIONS.
  - A. PERFORM THREE TESTS AT EACH SITE.
  - B. CONTRACTOR SHALL PROVIDE A WRITTEN REPORT CONSISTING OF THE FOLLOWING: SITE NAME, ADDRESS AND IDENTIFICATION NUMBER, DESCRIPTION OF SITE SOIL AND MOISTURE CONDITION, DESCRIPTION OF WEATHER, MODEL NUMBER OF TESTING EQUIPMENT, DATE OF LAST CALIBRATION, SITE SKETCH SHOWING LOCATION OF TEST PROBES AND ALL FIELD DATA COLLECTED (READINGS, RANGE, TEST, MILLIAMPS, ETC.).
  - C. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES PERFORMING SYSTEM RESISTANCE TESTS OR IF MEASUREMENTS ARE ABOVE 5 OHMS. THE CONSTRUCTION MANAGER SHALL PROVIDE INSTRUCTION TO THE CONTRACTOR TO INSTALL ADDITIONAL GROUNDING MEASUREMENTS TO MEET THE 5 OHM REQUIREMENT.
- 2. GROUNDING SHALL CONFORM WITH OWNER STANDARDS AND PER FEDERAL, STATE AND LOCAL CODES. IN THE EVENT OF A CONFLICT, MEET THE MOST STRINGENT REQUIREMENT.
- 3. GROUND RODS PAST METER SHALL BE COPPER CLAD STEEL 5/8 INCH DIAMETER 10 FEET IN LENGTH (MIN.)
- 4. ALL GROUND CONDUCTORS PAST METER SHALL BE #2 AWG SOLID BTCW. MINIMUM BEND RADIUS FOR CONDUCTORS SHALL BE 8 INCHES.
- 5. CONTRACTOR SHALL ADD ADDITIONAL RODS AND CONDUCTORS OR APPROVED GROUND ENHANCING MATERIAL TO ACHIEVE LESS THAN 10 OHMS RESISTANCE TO GROUND.
- 6. ALL GROUNDING INSTALLATIONS SHALL BE INSPECTED AND APPROVED BY ANY JURISDICTION HAVING INSPECTION & APPROVAL AUTHORITY (IF REQUIRED) AND OWNER BEFORE PLACING ANY BACKFILL.
- 7. ALL GROUNDING SPLICES AND CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS (OR EQUIVALENT). COAT ALL WELDS WITH A ZINC RICH PAINT.

GROUNDING LEGEND	
#2 AWG SOLID BTCW CONDUCTOR 30" BELOW GRADE	— — —
5/8" x 10'-0" COPPER CLAD GROUND ROD (MIN 10' SPACING)	⏏●
18" x 18" x 1/8" COPPER GROUND PLATE (MIN 6' SPACING)	⊠
EXOTHERMIC WELD	●
GROUND ROD W/ INSPECTION SLEEVE	⏏●
EXOTHERMIC WELD W/ INSPECTION SLEEVE	⦿
MECHANICAL CONNECTION	■



TYPICAL COMPOUND GROUNDING PLAN ①  
NTS



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SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

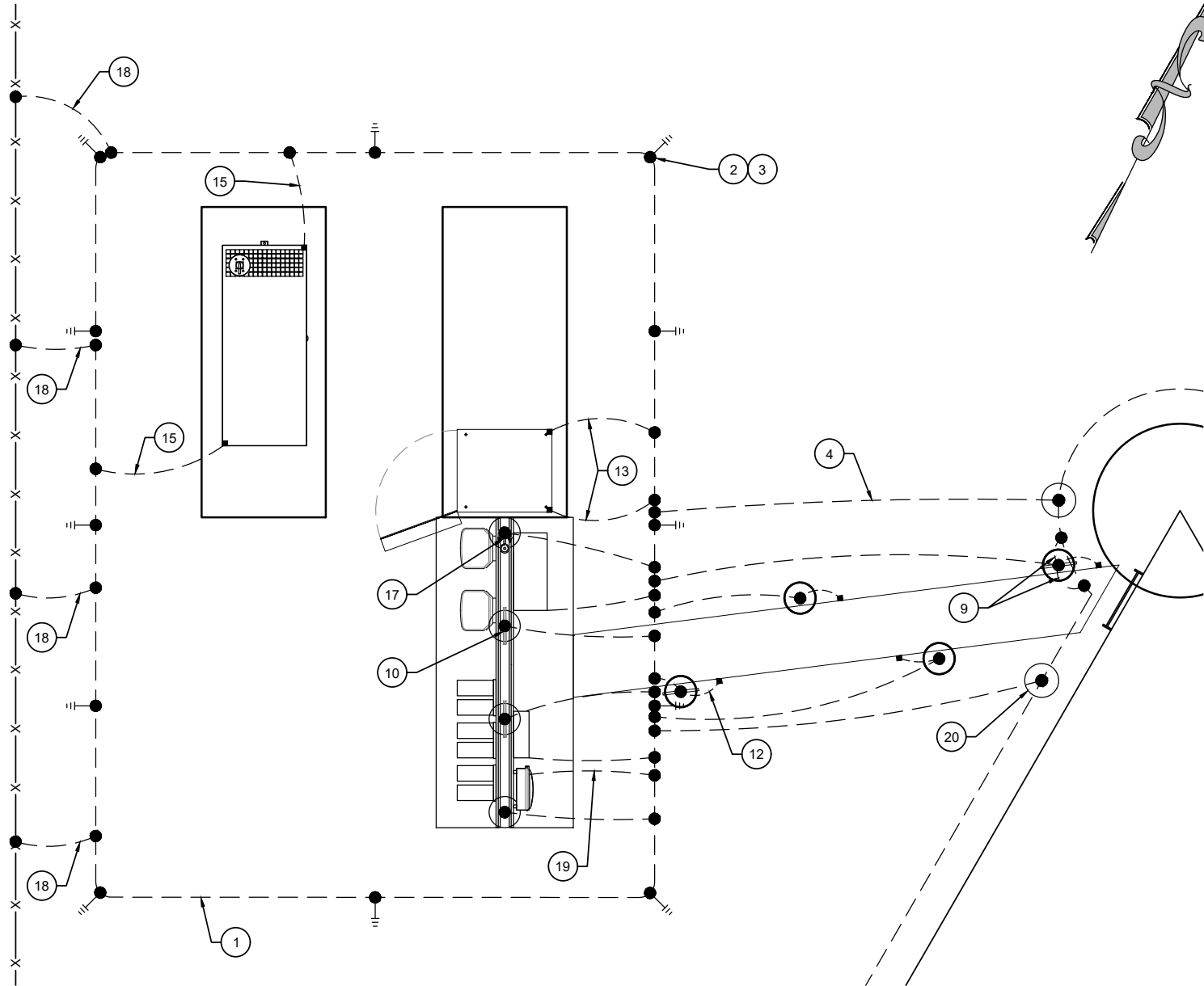
SHEET TITLE	COMPOUND GROUNDING PLAN
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SHEET NUMBER	REVISION
E-201	0

GROUNDING NOTES:

- DEFINITIONS:
- |           |   |
|-----------|---|
| BONDED    | PERMANENT JOINING OF METALLIC PARTS TO FORM AN ELECTRICALLY CONDUCTIVE PATH |
| CIGBE     | COAXIAL ISOLATED GROUND BAR EXTERIOR  |
| CIGBI     | COAXIAL ISOLATED GROUND BAR INTERIOR  |
| BTCW      | BARE SOLID TINNED COPPER WIRE   |
| TDSGA     | ERICO THEFT DETERRENT GROUND ASSEMBLY                                       |
| TDSGABC14 | FLANGE MOUNT ASSEMBLY - NO CUTTING OR DRILLING CONNECTION                   |
| TDSGAPC14 | PIPE MOUNT ASSEMBLY - NO CUTTING OR DRILLING CONNECTION                     |
| TDSGAPA14 | PIPE MOUNT ASSEMBLY - DRILLED CONNECTION                                    |
| TDSGAWB17 | WALL MOUNT ASSEMBLY   |
| UNO       | UNLESS NOTED OTHERWISE  |
- THE GROUND RING SHALL CONSIST OF #2 AWG BTCW CONDUCTOR, UNO, THE GREATER OF 30" BELOW FINISHED GRADE OR BELOW FROST LINE. LOCATE 24" MINIMUM AND 36" MAXIMUM FROM EQUIPMENT AREA AND FROM TOWER FOUNDATION. ALL CONNECTIONS SHALL BE MADE USING A PARALLEL TYPE EXOTHERMIC WELD, UNLESS NOTED OTHERWISE.
  - INSTALL GROUND RODS OR PLATES AS SHOWN AND AS REQUIRED TO MEET SPACING AND ALLOWABLE RESISTANCE TO GROUND REQUIREMENTS. (SEE DETAIL 1 ON SHEET E-203)
    - GROUND RODS:
      - COPPER CLAD STEEL, 5/8" DIAMETER AND 10' IN LENGTH.
      - SPACING BETWEEN GROUND RODS SHALL BE 20' MINIMUM
      - TOP OF GROUND ROD TO BE THE GREATER OF 30" BELOW FINISHED GRADE OR BELOW FROST LINE.
      - BOND TOP OF GROUND ROD TO GROUND WIRE W/ EXOTHERMIC WELD. DO NOT EXOTHERMICALLY WELD ANYTHING TO GROUND ROD EXCEPT GROUND WIRE WHICH PASSES OVER TOP OF GROUND ROD.
    - GROUND PLATES:
      - 18"x18"x1/8" COPPER W/ 36" #2 AWG BTCW PIGTAIL EXOTHERMICALLY WELDED AT THE MIDDLE (ALLTEC PART # GP-C-18-1/8-WM-2T-36-1F OR EQUIVALENT).
      - SPACING BETWEEN GROUND PLATES SHALL BE 6' MINIMUM.
      - 50 LBS OF SOIL ENHANCEMENT MATERIAL (ALLTEC TERRAFILL, PART # TF-50 OR EQUIVALENT); 25 LBS BELOW AND 25 LBS ABOVE GROUND PLATE.
  - EQUIPMENT GROUND RING SHALL HAVE A MINIMUM OF (4) GROUND RODS (PLATES), INSTALLED AT THE CORNERS OF THE GROUND RING PLUS ADDITIONAL RODS (PLATES) AS REQUIRED TO COMPLY W/ THE SPACING AND ALLOWABLE RESISTANCE TO GROUND REQUIREMENTS.
  - EQUIPMENT GROUND RING AND TOWER GROUND RING SHALL BE BONDED TOGETHER W/ (2) #2 AWG BTCW GROUND LEADS INSIDE INSPECTION SLEEVES, TYPICALLY ONE ON EACH SIDE OF ICE BRIDGE. INSPECTION SLEEVE CAPS TO BE PAINTED RED. (SEE DETAIL 3 ON SHEET E-203)
  - PROVIDE #2 AWG BTCW RADIALS FROM THE TOWER GROUND RING TO EACH FENCE CORNER POST. RADIALS SHALL HAVE GROUND RODS (PLATES) AS PER THE REQUIRED SPACING. THE GROUND ROD AT THE END OF EACH RADIAL SHALL BE 24" MAXIMUM FROM FENCE CORNER POST. EQUIPMENT AREA GROUND RING AND CONNECTING GROUND LEADS [BETWEEN EQUIPMENT AREA AND TOWER GROUND RINGS] MAY BE USED AS PART OF THE RADIAL GOING TO THE FENCE CORNER POST CLOSEST TO THE EQUIPMENT AREA.
  - MINIMUM BEND RADIUS FOR #2 AWG GROUND WIRE IS 12", EXCEPT USE 24" FOR TOWER GROUND RINGS AND EQUIPMENT PAD GROUND RINGS.
  - GROUND ALL EXTERIOR EXPOSED METAL OBJECTS. USE TWO HOLE LUGS FOR CONNECTION TO FLAT METAL SURFACES. USE ONLY STAINLESS-STEEL HARDWARE ON ALL MECHANICAL CONNECTIONS. CLEAN ALL SURFACES (AND STRIP PAINTED SURFACES) TO BARE BRIGHT METAL PRIOR TO MAKING GROUND CONNECTIONS. APPLY ANTI-OXIDE COMPOUND TO ALL CONNECTIONS. APPLY ZINC RICH PAINT (COLD GALV.) TO ALL EXOTHERMIC WELDS, AND TO ANY METAL EXPOSED BY CLEANING, STRIPPING, GRINDING, CUTTING OR DRILLING.
  - ALL GROUNDING CONDUCTORS ABOVE GRADE SHALL BE PLACED IN 3/4" FLEXIBLE PVC CONDUIT. CONDUIT SHALL BEGIN WITHIN 3/4" OF ABOVE GROUND CONNECTION POINT, SHALL EXTEND MINIMUM 24" BELOW GRADE, AND SHALL BE FILLED W/ SEALANT AT ABOVE GROUND CONNECTION POINT. SECURE CONDUIT EVERY 24" ON VERTICAL RUNS AND EVERY 36" ELSEWHERE W/ NON-METALLIC TIES.
  - TOWER EXIT GROUND BARS (SEE DETAIL 2 ON SHEET E-203)
    - AT GUYED AND SELF SUPPORT TOWERS MOUNT TDSGA-PA14 TOWER BOTTOM GROUND BAR ON DEDICATED POST DIRECTLY BELOW COAX CABLES COMING OFF TOWER. POST TO BE 3.5" OD GALVANIZED SCHEDULE 40 PIPE W/ GALVANIZED PIPE CAP. TOP OF POST TO BE 78" ABOVE GRADE. EMBED POST 30" MINIMUM IN 12" DIAMETER BY 36" DEEP MINIMUM CONCRETE FOOTING W/ TOP OF FOOTING 6" BELOW GRADE. IF TOWER FOUNDATION OBSTRUCTS AUGERED FOOTING, USE POST W/ 10" SQUARE GALVANIZED STEEL FLANGE PLATE WELDED TO BOTTOM AND BOLT FLANGE TO TOP OF CONCRETE TOWER FOOTING.
    - AT MONOPOLE TOWERS CLAMP TDSGA-BC14 TOWER BOTTOM GROUND BAR DIRECTLY TO TOWER. IF RUNNING COAX INSIDE MONOPOLE, CLAMP ONTO BOTTOM LIP OF EXIT PORT. IF BANDING COAX TO OUTSIDE OF TOWER, CLAMP ONTO STEEL ANGLE WHICH IS BANDED TO TOWER. BOND TDSGA-BC14 TO TOWER GROUND RING W/ (2) #2 AWG BTCW LEADS LUGGED TO GROUND BAR AND EXOTHERMICALLY WELDED TO GROUND RING.
  - AT EQUIPMENT AREA, INSTALL TDSGA-PA14 EXTERIOR GROUND BAR (THRU-BOLTED STYLE) AT BASE OF (2) INTERIOR H-FRAME POSTS AND AT TOP OF ICE BRIDGE POST WHICH IS NEAREST TO (BUT CLOSER TO TOWER THAN) THE COAX CABLE TERMINATION. MOUNT GROUND BAR TO H-FRAME POSTS AT 6" ABOVE GRAVEL AND TO ICE BRIDGE POST AT 6' ABOVE GRAVEL. (SEE DETAIL 1 ON SHEET E-204)
  - JUMPER ALL ICE BRIDGE SECTIONS TOGETHER W/ #2 WIRE, EITHER BARE TINNED COPPER OR GREEN INSULATED STRANDED. ICE BRIDGE SHALL BE GROUNDED AT EACH END W/ #2 AWG BTCW LUGGED TO ICE BRIDGE AND EXOTHERMICALLY WELDED TO UPPER PORTION OF NEAREST ICE BRIDGE POST. ICE BRIDGE SECTIONS ABOVE H-FRAME SHALL BE BONDED TO EACH OTHER W/ JUMPERS AT EACH END - THIS ASSEMBLY WILL BE CONSIDERED AS A SINGLE ICE BRIDGE SECTION FOR GROUNDING PURPOSES.
  - BOND EACH ICE BRIDGE POST, H-FRAME POST, OR DEDICATED GROUNDING POST TO BURIED GROUNDING SYSTEM W/ #2 AWG BTCW LEAD EXOTHERMICALLY WELDED TO POST BELOW TOP OF GRAVEL AND EXOTHERMICALLY WELDED TO GROUND RING. EACH POST TO HAVE SEPARATE GROUND LEAD DIRECTLY TO GROUND RING - DO NOT DAISY CHAIN POSTS TOGETHER.
  - BOND EACH RF CABINET TO EQUIPMENT GROUND RING W/ (2) #2 AWG BTCW LUGGED TO CABINET BODY AND EXOTHERMICALLY WELDED TO GROUND RING. LUG TO CABINET BODY USING LOCATION AT WHICH STUDS ON CABINET CHASSIS HAVE DIRECT GROUND WIRE CONNECTION TO CABINET INTERNAL GROUND BAR. RUN CONDUIT AND CONDUCTOR ACROSS BACK OF CABINET (DO NOT RUN TOWARDS NEAREST CORNER OF CABINET AND THEN BEND GROUND WIRE SHARPLY), TAKE SHORTEST PATH ACROSS CONCRETE PAD, THEN DOWN INTO GRAVEL AREA.
  - BOND EACH BATTERY CABINET (WHERE USED) TO GROUND RING W/ (2) #2 AWG BTCW LUGGED TO CABINET BODY AND EXOTHERMICALLY WELDED TO GROUND RING. RUN GROUND LEAD IN FLEX CONDUIT ALONG BACK OF CABINET, TAKE SHORTEST PATH ACROSS CONCRETE PAD, THEN DOWN INTO GRAVEL AREA. CONNECT TWO HOLE LUG TO BACK OF CABINET AT FACTORY PROVIDED GROUNDING STUDS.

- BOND GENERATOR TO GROUND RING W/ (2) #2 AWG BTCW MECHANICALLY FASTENED TO GENERATOR AND EXOTHERMICALLY WELDED TO GROUND RING. LOCATE GROUND LEADS AT TWO DIAGONALLY OPPOSITE CORNERS OF GENERATOR BY DRILLING AND BOLTING TWO HOLE LUG TO FINS ON GENERATOR BASE STRUCTURE. GROUND LEADS SHOULD TAKE SHORTEST PATH ACROSS CONCRETE PAD TO GRAVEL AREA, THEN CONTINUE TO GROUND RING.
- WHERE PROPANE TANK IS INSTALLED TO FUEL GENERATOR, BOND PROPANE TANK TO GROUND RING W/ A SINGLE #2 AWG BTCW CLAMPED TO FILLER PIPE OF PROPANE TANK AND EXOTHERMICALLY WELDED TO GROUND RING. GROUND LEAD SHOULD RUN TO TANK SUPPORT AND TAKE SHORTEST PATH ACROSS CONCRETE PAD TO GRAVEL AREA, THEN CONTINUE TO GROUND RING. IF PROPANE TANK FUEL LINE IS METALLIC AND CROSSES EQUIPMENT GROUND RING, BOND FUEL LINE TO EQUIPMENT GROUND RING WHERE THE TWO LINES CROSS W/ A SINGLE #2 AWG BTCW CLAMPED TO FUEL LINE AND EXOTHERMICALLY WELDED TO GROUND RING.
- BOND GPS ANTENNA AND GPS ANTENNA MOUNT TO TSDGA GROUND BAR AT BOTTOM OF H-FRAME POST W/ #6 AWG GREEN INSULATED STRANDED GROUND WIRE.
- ANY METAL FENCE POST WITHIN 6' OF A GROUNDED METAL OBJECT SHALL BE BONDED TO THE NEAREST GROUND RING. ANY METAL FENCE WITHIN 6' OF A GROUND RING SHALL HAVE THE LINE POSTS BONDED TO THE GROUND RING AT 20' MAXIMUM INTERVALS AS MEASURED ALONG THE LENGTH OF THE FENCE. (SEE DETAIL 4 ON SHEET E-203)
- WHERE GROUND BASED RRUS, RAYCAP OVPS, OR DIPLEXERS ARE INSTALLED AT THE EQUIPMENT AREA, BOND EACH COMPONENT TO NEAREST TDSGA GROUND BAR BELOW THE COMPONENT W/ #2 AWG GREEN INSULATED STRANDED GROUND WIRE. SINGLE HOLE LUG OR RING TYPE CONNECTOR IS SUITABLE FOR CONNECTION TO GROUNDING STUD ON EACH COMPONENT.
- GROUND INSPECTION WELL AT TOWER GROUND RING FOR NEW VERIZON EQUIPMENT, TYP. OF 2.
- NOTIFY OWNER REPRESENTATIVE TO INSPECT GROUND RING BEFORE BACKFILLING. CONTRACTOR SHALL HIRE A 3RD PARTY TO PERFORM AN IEEE81 FALL OF POTENTIAL METHOD GROUND TEST. MAXIMUM ALLOWABLE RESISTANCE TO GROUND IS 5 OHMS. CONTRACTOR TO NOTIFY OWNER REPRESENTATIVE AND ENGINEER IF RESISTANCE TO GROUND IS GREATER THAN 5 OHMS AND PROVIDE ADDITIONAL GROUND SYSTEM COMPONENTS AS REQUIRED TO ACHIEVE THIS VALUE.
- GROUNDING OF ALL ELECTRICAL EQUIPMENT SHALL BE AS PER NEC, MUNICIPAL AND UTILITY COMPANY REQUIREMENTS



TYPICAL EQUIPMENT GROUNDING PLAN VIEW

NTS

GROUNDING LEGEND

#2 AWG SOLID BTCW CONDUCTOR 30" BELOW GRADE	— — —
5/8" x 10'-0" COPPER CLAD GROUND ROD (MIN 10' SPACING)	⊥—●
18" x 18" x 1/8" COPPER GROUND PLATE (MIN 6' SPACING)	⊗
EXOTHERMIC WELD	●
GROUND ROD W/ INSPECTION SLEEVE	⊥—⊙
EXOTHERMIC WELD W/ INSPECTION SLEEVE	⊙
MECHANICAL CONNECTION	■



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SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



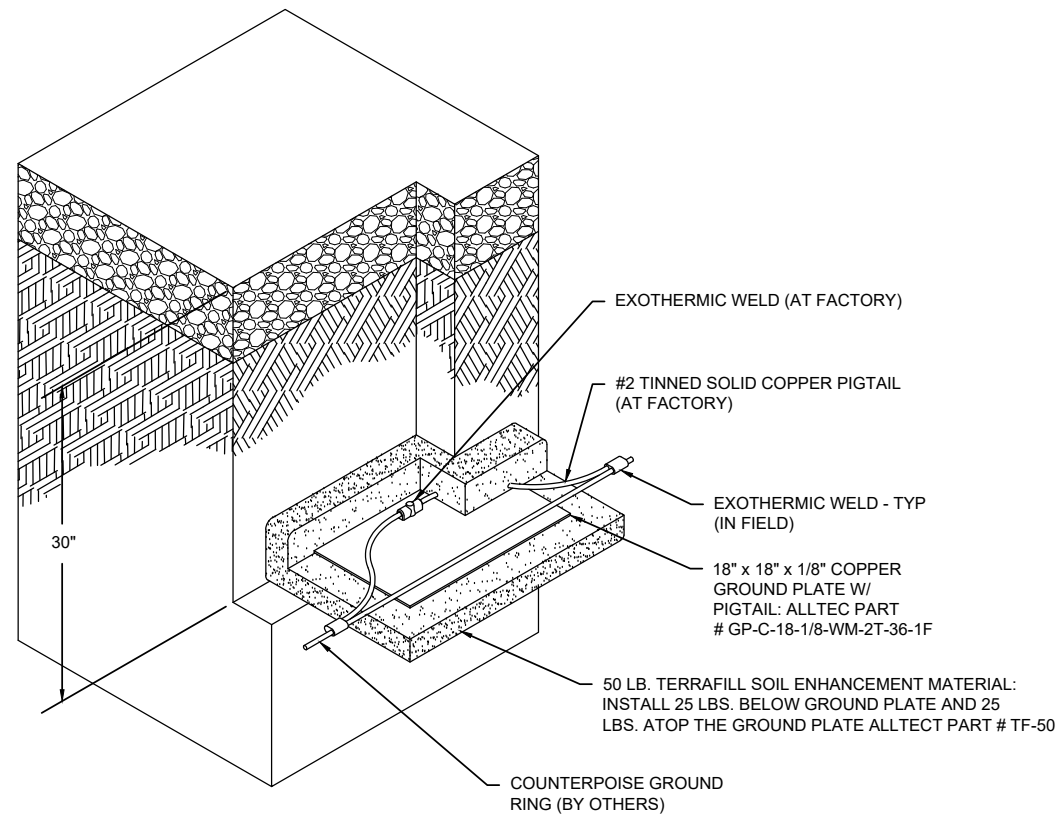
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
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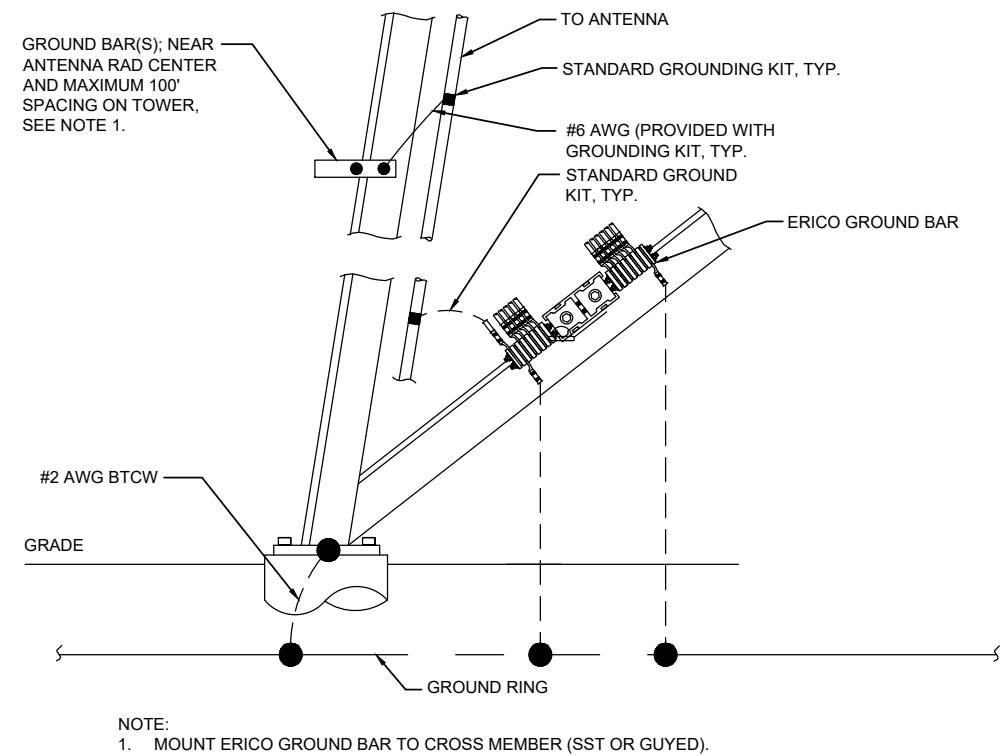
SITE TYPE	RAWLAND
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SHEET TITLE	EQUIPMENT GROUNDING PLAN
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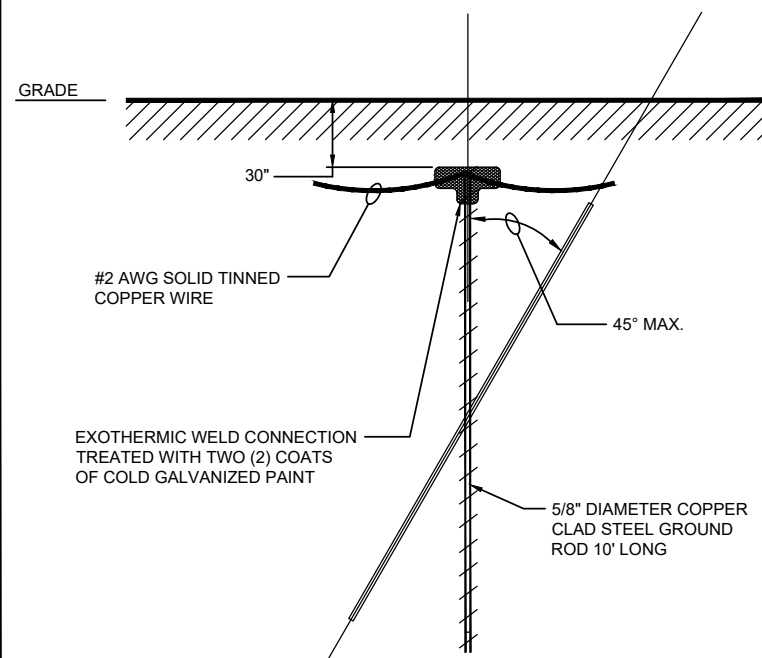
SHEET NUMBER	REVISION
E-202	0



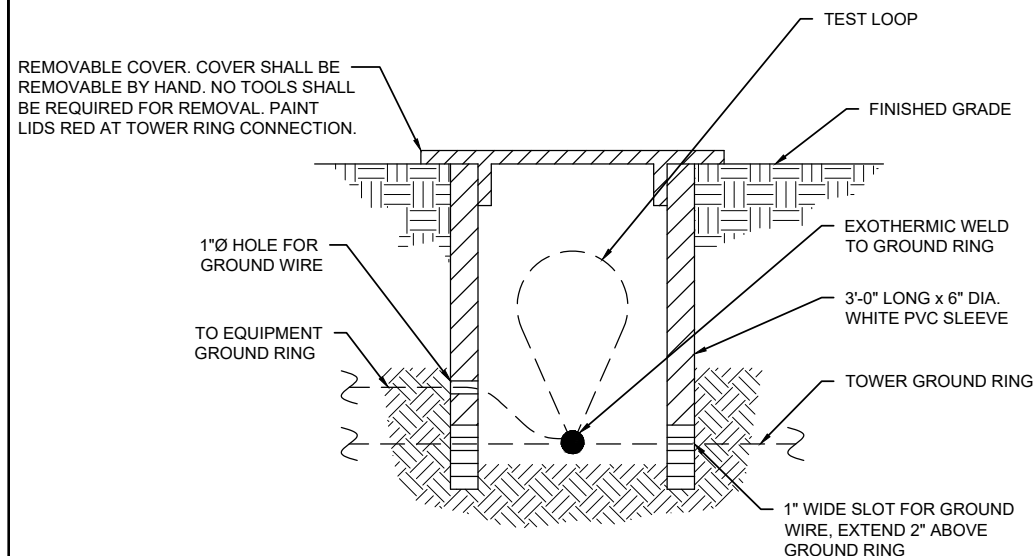
GROUND PLATE DETAIL ①  
NTS



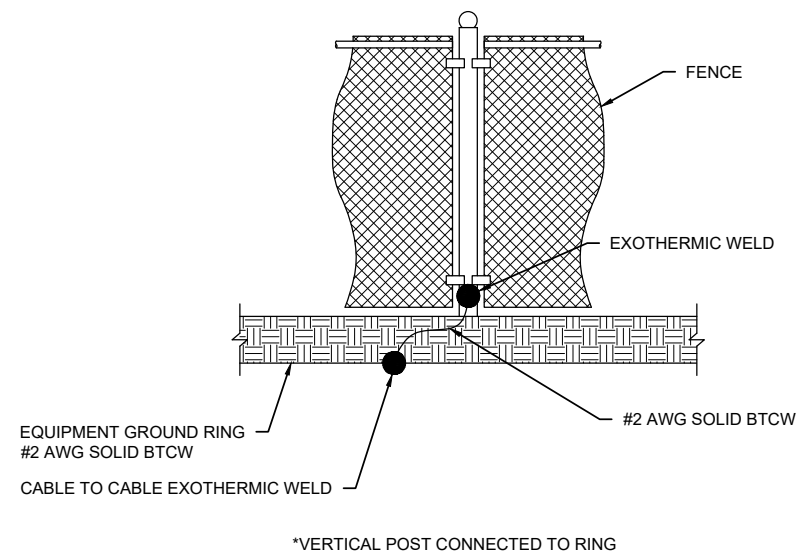
ANTENNA CABLE GROUNDING FOR SELF SUPPORT TOWER ②  
NTS



GROUND ROD DETAIL ③  
NTS



INSPECTION SLEEVE DETAIL ④  
NTS



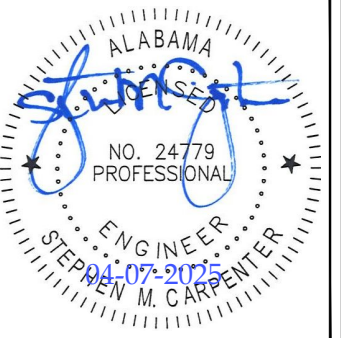
FENCE GROUNDING ⑤  
NTS



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#	DATE	BY	DESCRIPTION	



SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



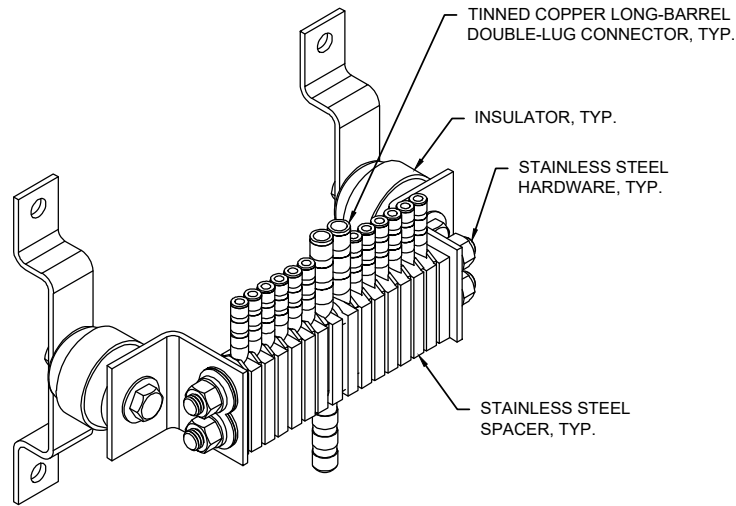
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SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

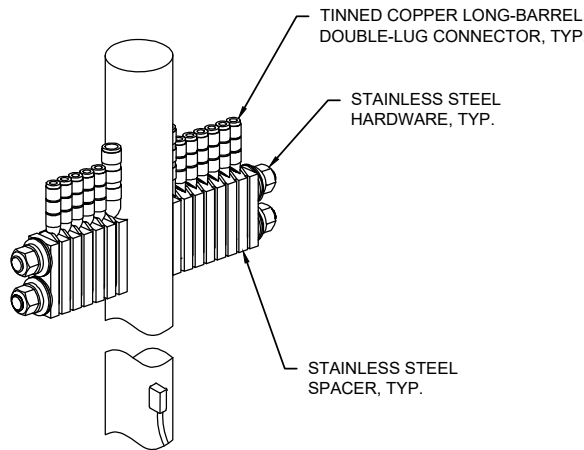
SHEET TITLE	GROUNDING DETAILS
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SHEET NUMBER	REVISION
E-203	0

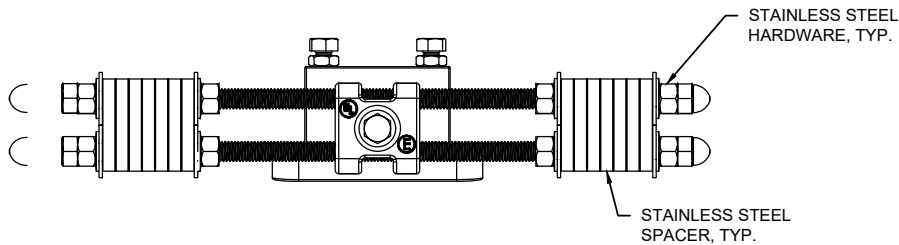




OPTION 1:  
ERICO TDSGA-WB17 GROUND BAR  
NTS

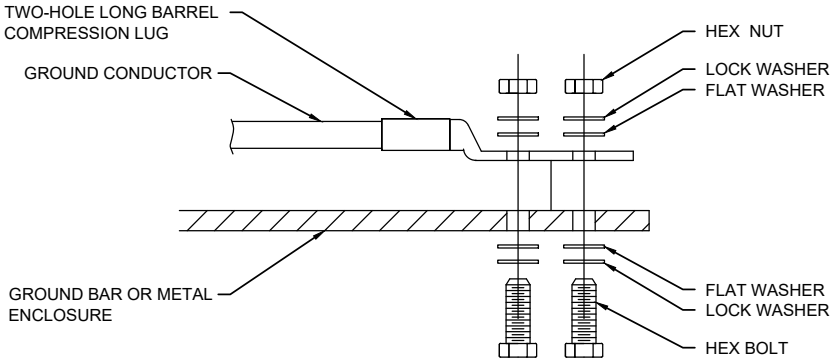


OPTION 2:  
ERICO TDSGA-PA14 GROUND BAR  
NTS



OPTION 3:  
ERICO TDSGA-BC14 GROUND BAR  
NTS

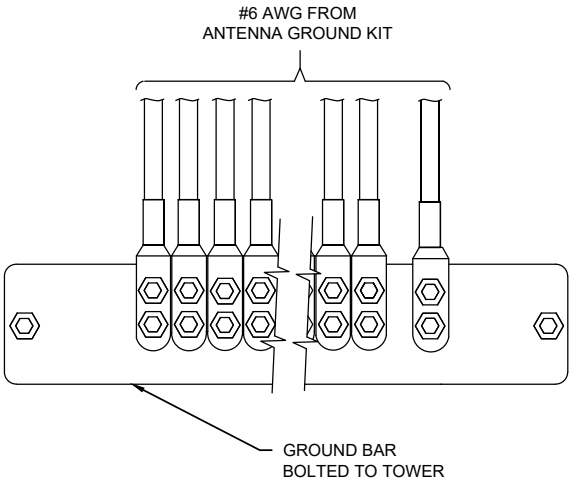
EXTERIOR GROUND BAR DETAILS ①  
NTS



INSTALLATION NOTES:

1. BOLTS, WASHERS, AND NUTS SHALL BE A STAINLESS STEEL.
2. SELECT BOLT LENGTH TO PROVIDE A MINIMUM OF TWO EXPOSED THREADS.
3. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF LUG CONTACT.
4. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF LUG & WIPE CLEAN EXCESS COMPOUND.
5. USE 1/4" HARDWARE FOR ATTACHMENT TO METAL ENCLOSURES & 3/8" FOR ATTACHMENT TO ERICO GROUND BAR.
6. ALL BOLTS MUST HAVE AT LEAST 2 THREAD ENGAGEMENT.

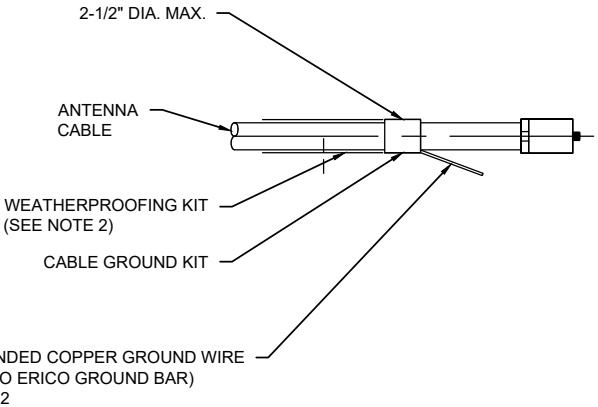
GROUNDING CONNECTION TO BAR  
NONE SOLUTION KIT OR FLAT SURFACE ②  
NTS



INSTALLATION OF GROUND  
WIRE TO GROUND BAR ③  
NTS

GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ERICO GROUND BAR.
2. GROUNDING KIT AND WEATHER PROOFING KIT SHALL BE OF THE SAME TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.



CONNECTION OF CABLE GROUND  
KIT TO ANTENNA CABLE ④  
NTS



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SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	GROUNDING DETAILS
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SHEET NUMBER	REVISION
E-204	0

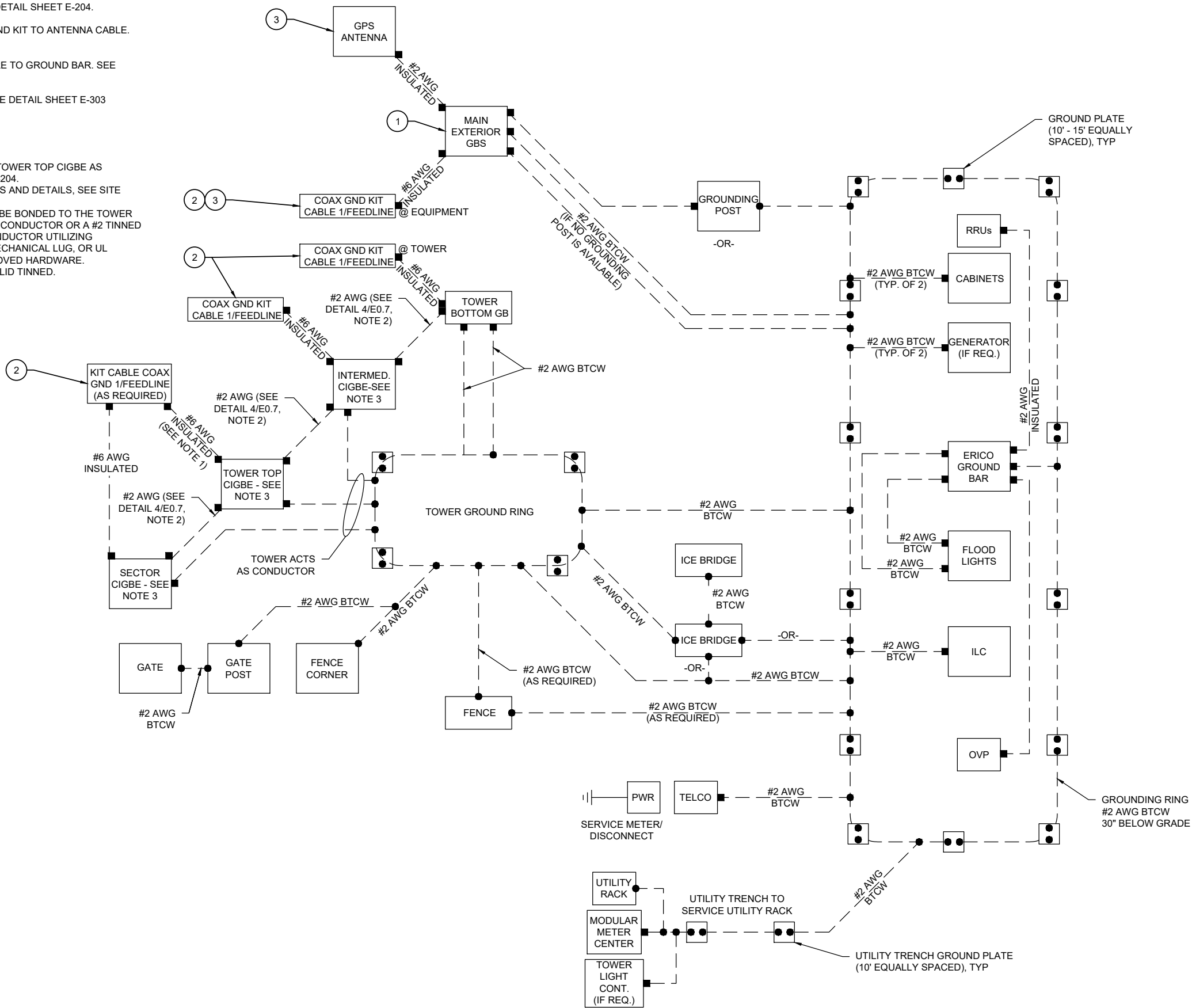


REFERENCE NOTES:

- 1 EXTERIOR GROUND BAR. SEE DETAIL SHEET E-204.
- 2 CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE. SEE DETAIL SHEET E-203.
- 3 INSTALLATION OF GROUND WIRE TO GROUND BAR. SEE DETAIL SHEET E-204.
- 4 GPS ANTENNA GROUNDING. SEE DETAIL SHEET E-303

NOTES:

1. BOND COAX GROUND KITS TO TOWER TOP CIGBE AS PROVIDED ON DETAIL SHEET E-204.
2. FOR GROUNDING CONNECTIONS AND DETAILS, SEE SITE GROUNDING PLAN.
3. ALL TOWER GROUND BARS TO BE BONDED TO THE TOWER W/ A #2 TINNED SOLID COPPER CONDUCTOR OR A #2 TINNED MULTI-STRANDED COPPER CONDUCTOR UTILIZING EXOTHERMIC WELD, 2-HOLE MECHANICAL LUG, OR UL APPROVED CLAMP WITH APPROVED HARDWARE.
4. ALL #2 AWG BTCW MUST BE SOLID TINNED.



GROUNDING SYSTEM SINGLE LINE DIAGRAM 1

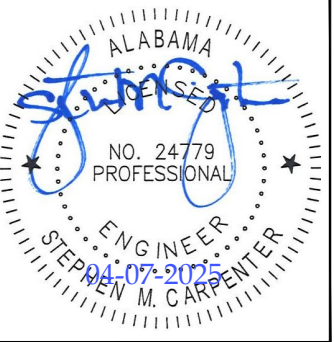
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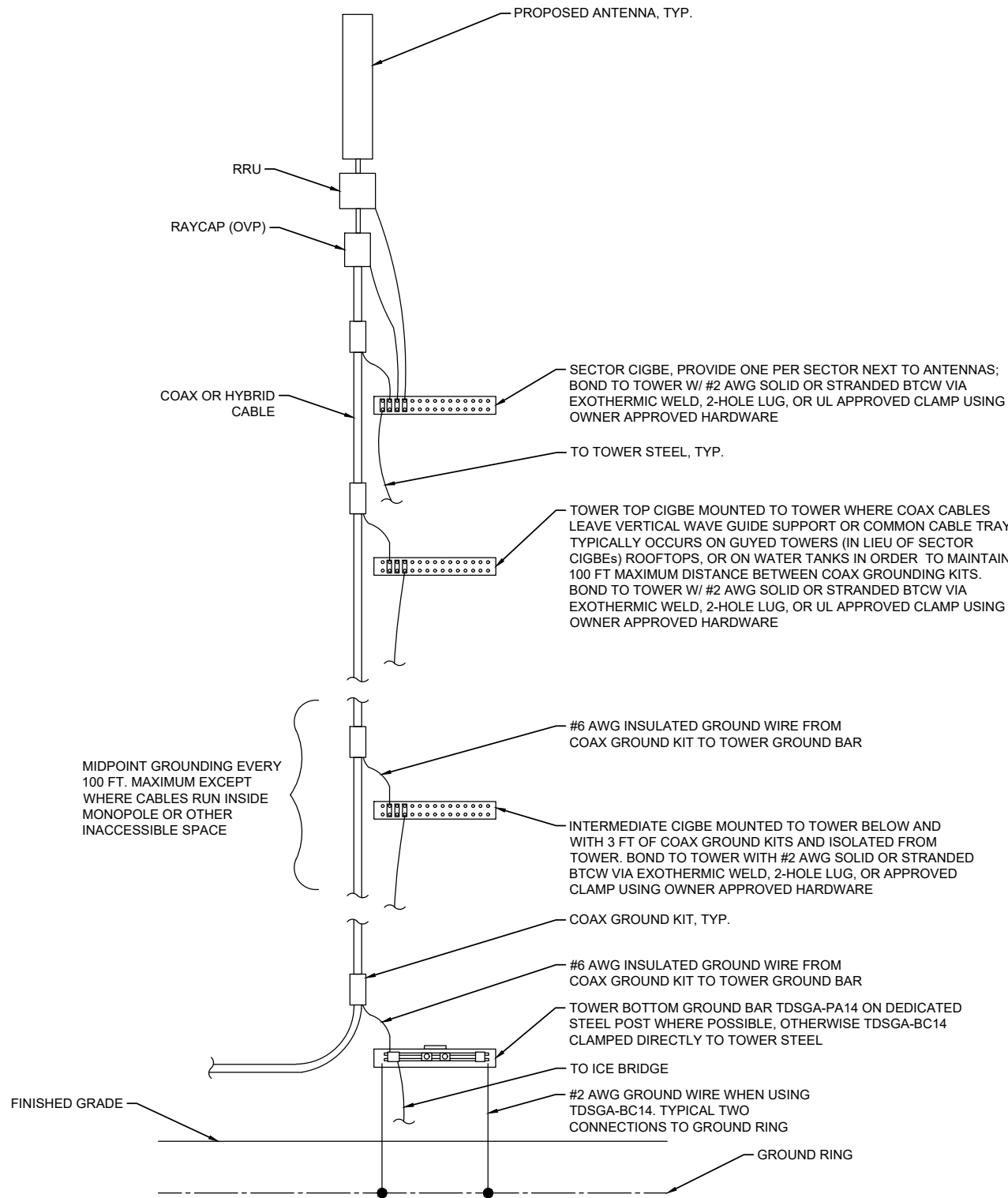
<b>verizon</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

<b>verticalbridge</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	GROUNDING DETAILS
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SHEET NUMBER	REVISION
E-205	0



NOTES:

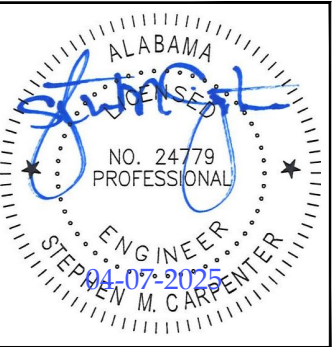
ALL CIGBE ON TOWER ARE TO BE ERICO TDSGA OR APPROVED EQUAL. TYPICALLY USE TDSGA-WB17 ISOLATED FROM UNISTRUT.



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verizon

SITE NAME

BORDERS LAKE

SITE NUMBER

TBD

verticalbridge

SITE NAME

BORDERS LAKE

SITE NUMBER

US-AL-5529

SITE ADDRESS

5842 POPES CHAPEL ROAD  
RAGLAND, AL 35131

SITE TYPE

RAWLAND

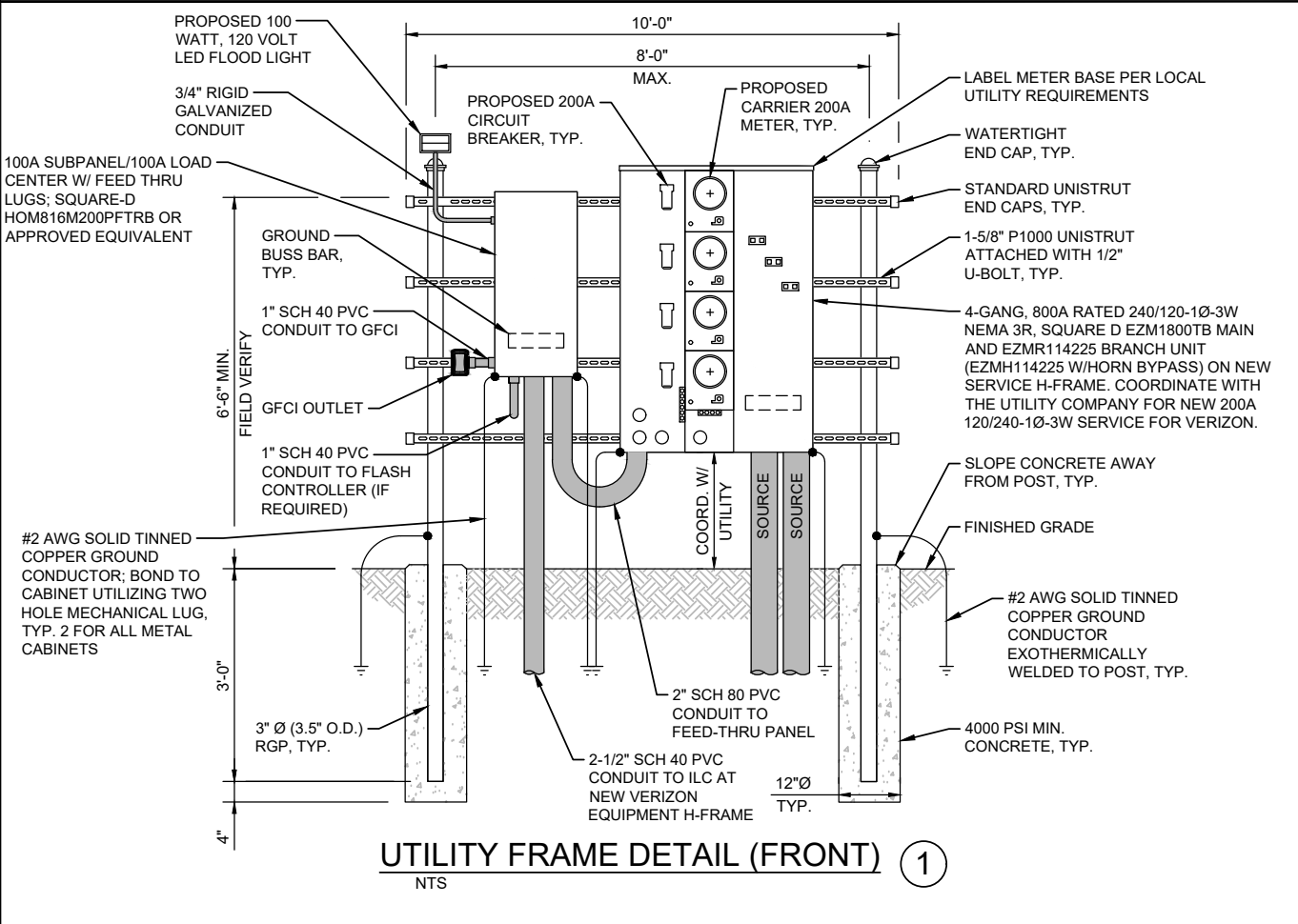
SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER	REVISION
E-206	0

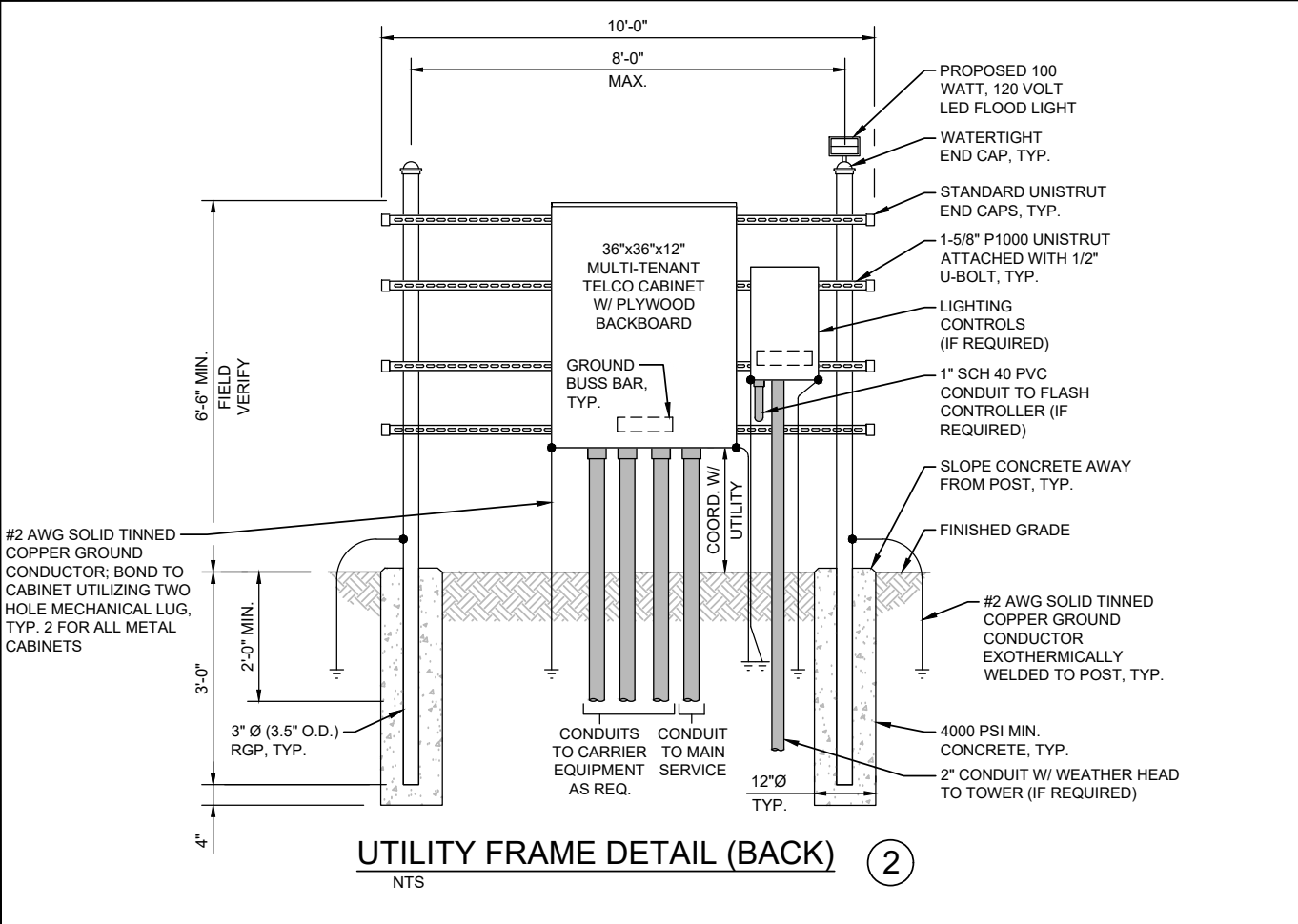
COAX/TOWER GROUNDING SCHEMATIC ①

NTS



NOTES:

1. CONTRACTOR SHALL FIELD LOCATE THE METER PEDESTAL AS SHOWN ON SITE PLAN. INSTALL THE METER PEDESTAL NEAR THE PERIMETER OF THE FENCED COMPOUND WITH THE METERS FACING AS SHOWN.
2. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY COMPANY FOR THE CONDUIT RUN TO THE MAIN SERVICE CONNECTION OR TRANSFORMER.
3. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY COMPANY FOR GROUND ROD REQUIREMENTS. IF REQUIRED, THE CONTRACTOR SHALL ORDER AND PAY FOR NECESSARY GROUND TESTS.
4. SUPPORT POST AND UNISTRUT SHALL BE GALVANIZED. PIPE CLAMPS AND HARDWARE SHALL BE GALVANIZED OR STAINLESS STEEL.
5. IF REQUIRED - TELCO CABINET SHALL BE 48"x48"x12" HOFFMAN OR EQUIVALENT. PROVIDE 3/4" PLYWOOD BACKBOARD INSIDE THE MULTI-TENANT TELCO CABINET.
6. ADJUSTMENTS TO THE METER PEDESTAL DESIGN MAY BE REQUIRED DEPENDING ON THE EXACT METER PANEL INSTALLED. CONTRACTOR SHALL FIELD COORDINATE ADJUSTMENTS AND INFORM THE ENGINEER IF ANY UNUSUAL CONDITIONS ARE FOUND TO EXIST.



VERTICAL BRIDGE PANEL SCHEDULE															
MAIN BREAKER: 100A			VOLTAGE 120/240 V, 1 PH, 3W												
POS.	DESCRIPTION	BKR.	WIRE AWG.	ON / OFF	C / NC	VA	L1 (VA)	L2 (VA)	VA	C / NC	ON / OFF	WIRE AWG.	BKR.	DESCRIPTION	POS.
1	EXT. GFCI	20	12	ON	NC	180	360		180	NC	ON	12	15	WORK LIGHT	2
3	TOWER LIGHTS	20	12	ON	NC	250		250	--	--	--	--	--	VACANT	4
5	VACANT	--	--	--	--	--	0		--	--	--	--	--	VACANT	6
7	VACANT	--	--	--	--	--		0	--	--	--	--	--	VACANT	8
PHASE TOTALS (VA)							360	250	AMPERES PER PHASE CANNOT EXCEED MAIN BREAKER RATING LEGEND: C = CONTINUOUS, NC = NON-CONTINUOUS						
PHASE CURRENT (A)							3	2							
PANEL TOTAL (VA)							610.0								
PANEL CAPACITY AT 80% (VA)							19,200.0								
PANEL LOADING (100% NON-CONTINUOUS) (VA)							610.0								
PANEL LOADING (125% CONTINUOUS) (VA)							0.0								
TOTAL PANEL LOADING (VA)							610.0								
PANEL SPARE CAPACITY (VA)							18,590.0								

VERTICAL BRIDGE PANEL SCHEDULE 3

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SITE NUMBER	TBD



SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

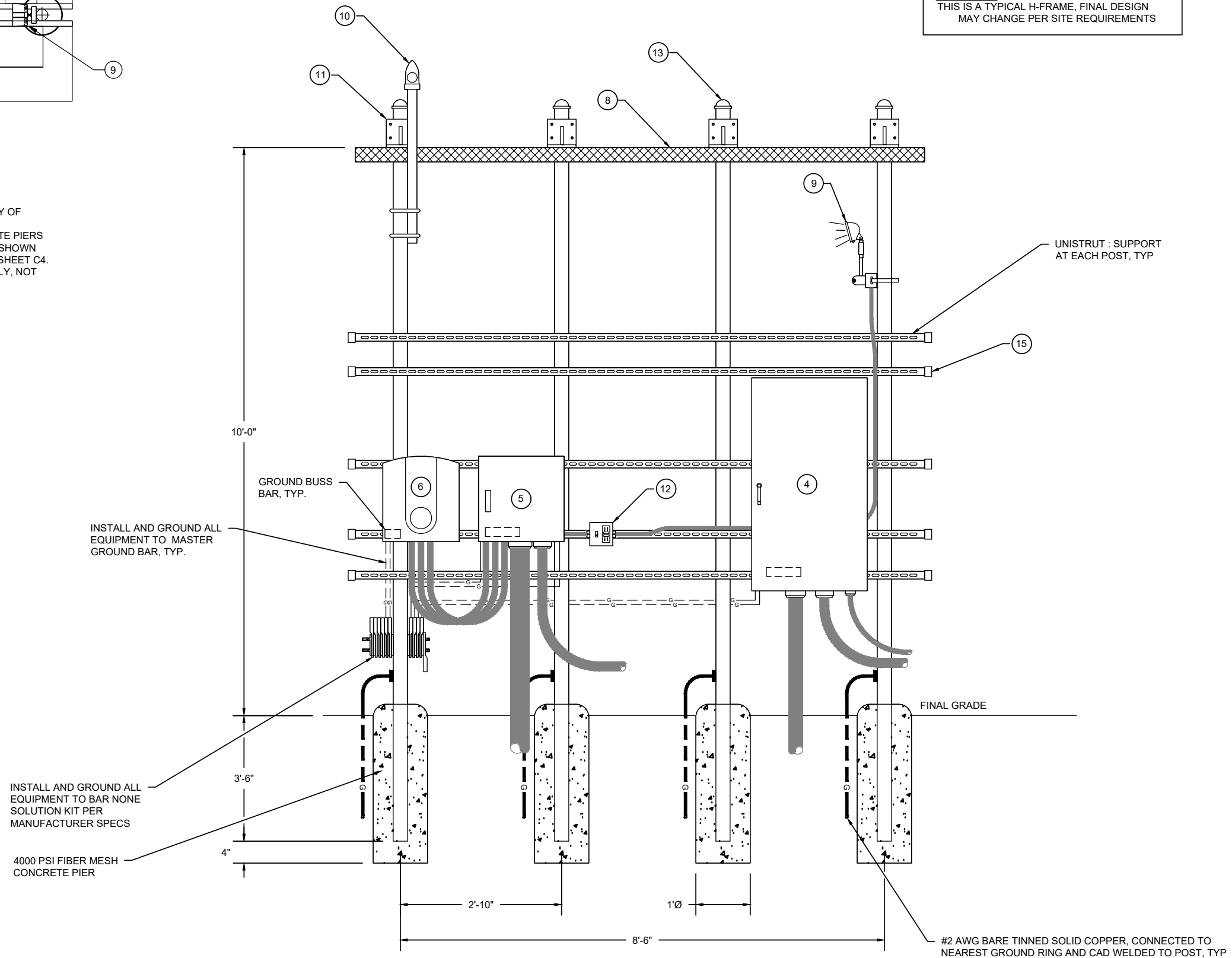
SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
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SITE TYPE	RAWLAND
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SHEET TITLE	ELECTRICAL DETAILS
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SHEET NUMBER	REVISION
E-301	0

0





EQUIPMENT SCHEDULE:

- 1. PRIMARY CABINET
- 2. OVP-12
- 3. ERICSSON RRU 2212 (STACKED 6x3)
- 4. ILC CABINET (w/ CAMLOCK IF REQUIRED)
- 5. HOFFMAN BOX
- 6. CIENNA BOX
- 7. RESERVED DIPLEXER AREA
- 8. 24" ICE BRIDGE / 12 GA GALVANIZED STEEL GRIP STRUT
- 9. SAFETY GRATING (COORDINATE HEIGHT W/ PRE-FABRICATED CABLE ENTRY PORT)
- 10. DUAL FIXTURE LED MOTION SENSOR W/ 60 MINUTE TIMER
- 11. (1) GPS ANTENNA
- 12. HORSEHEADS MOUNTED BACK TO BACK AND THRU BOLTED W/ 1/2" ALL THREAD, TYP
- 13. LIGHT SWITCH & GFCI RECEPTACLE
- 14. POST CAP ON POST, TYP
- 15. TRAPEZE KIT
- 16. END CAP ON UNISTRUT, TYP

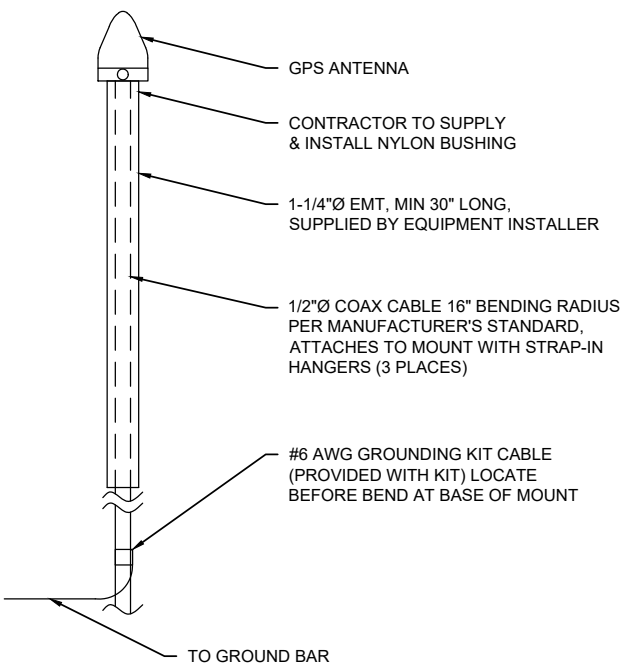
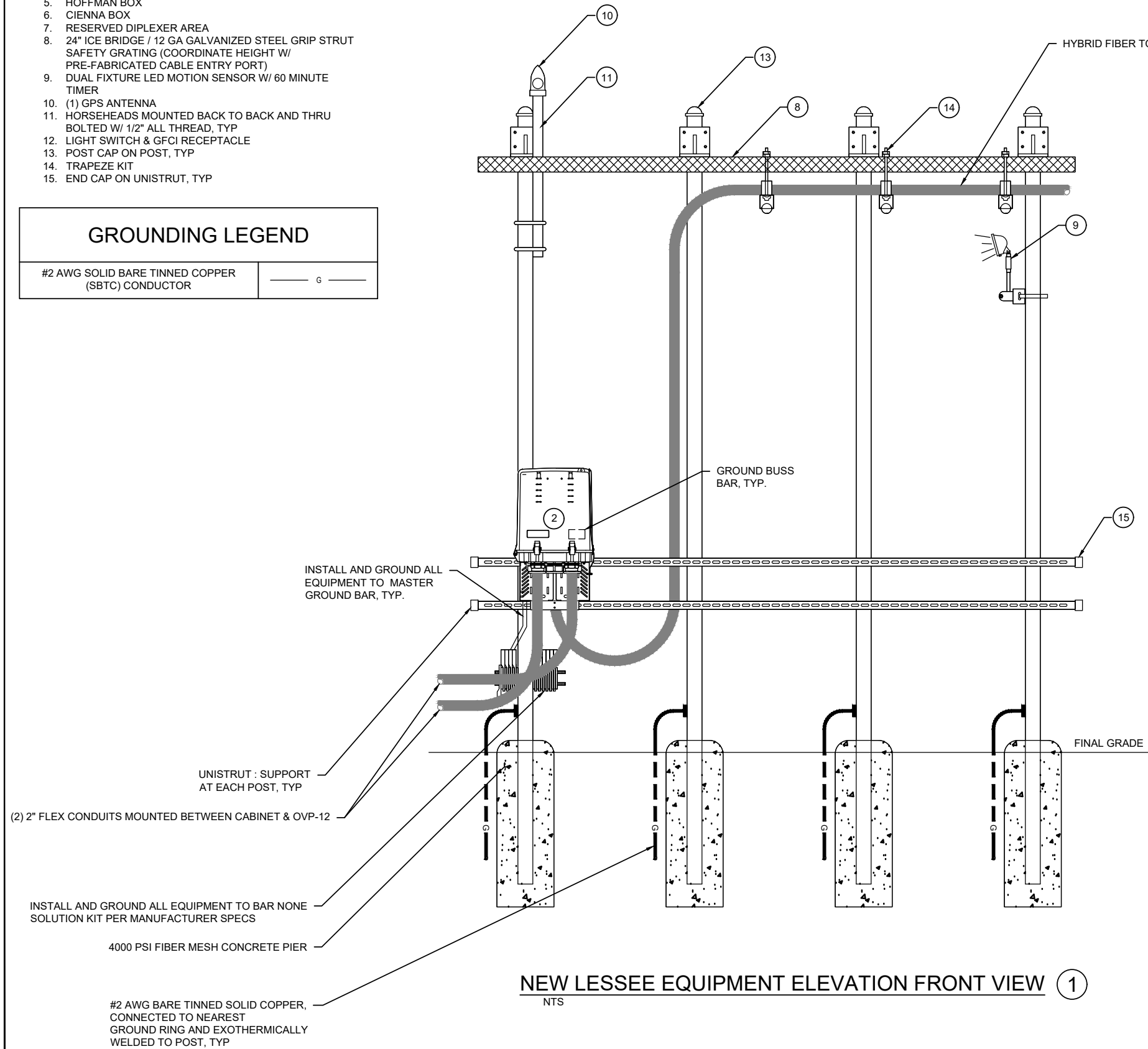
GROUNDING LEGEND

#2 AWG SOLID BARE TINNED COPPER (SBTC) CONDUCTOR

G

NOTE:

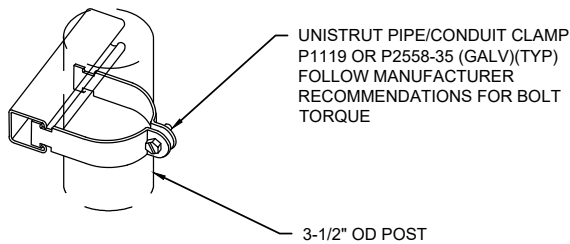
THIS IS A TYPICAL H-FRAME, FINAL DESIGN MAY CHANGE PER SITE REQUIREMENTS



GPS MOUNTING DETAIL

NTS

- 1. EQUIPMENT INSTALLER IS RESPONSIBLE FOR INSTALLATION OF ANTENNA, MOUNTS, & COAX.
- 2. CONTRACTOR IS RESPONSIBLE FOR GPS MOUNTING PIPE, GROUND AND CLAMP AROUND THE MAST FOR THE GPS.



CLAMP DETAIL

NTS



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SITE NUMBER TBD



SITE NAME BORDERS LAKE

SITE NUMBER US-AL-5529

SITE ADDRESS 5842 POPES CHAPEL ROAD RAGLAND, AL 35131

SITE TYPE RAWLAND

SHEET TITLE ELECTRICAL DETAILS

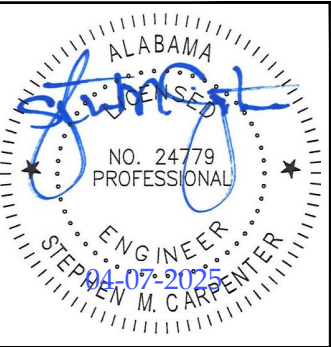
SHEET NUMBER E-303  
REVISION 0



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SITE NUMBER	TBD

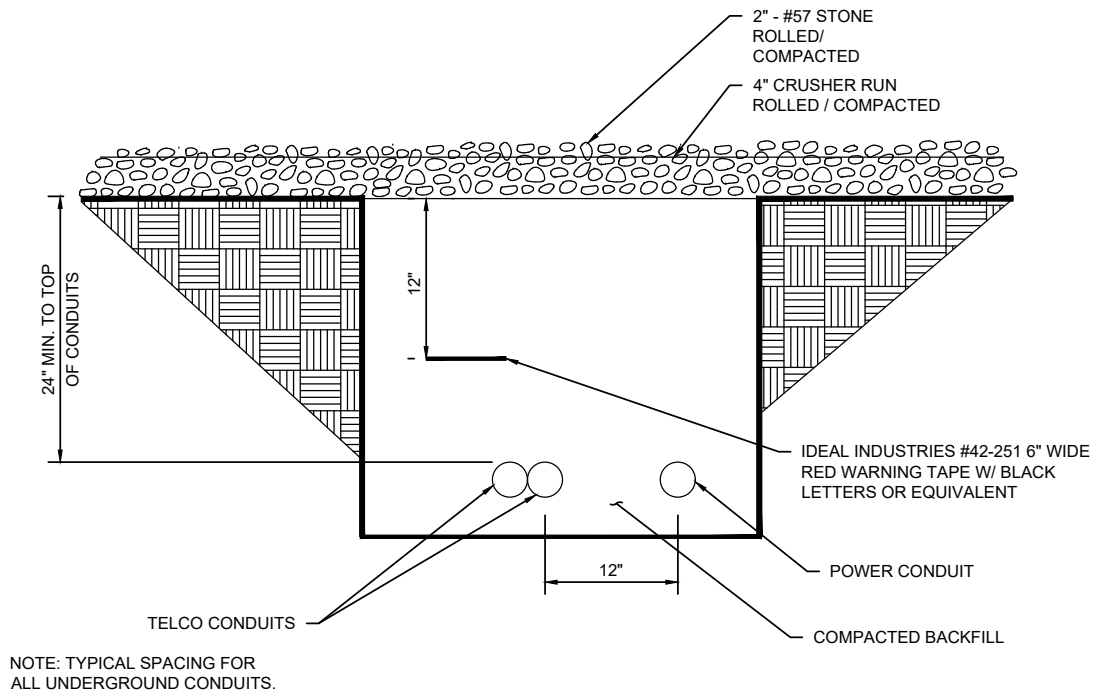


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SITE NUMBER	US-AL-5529

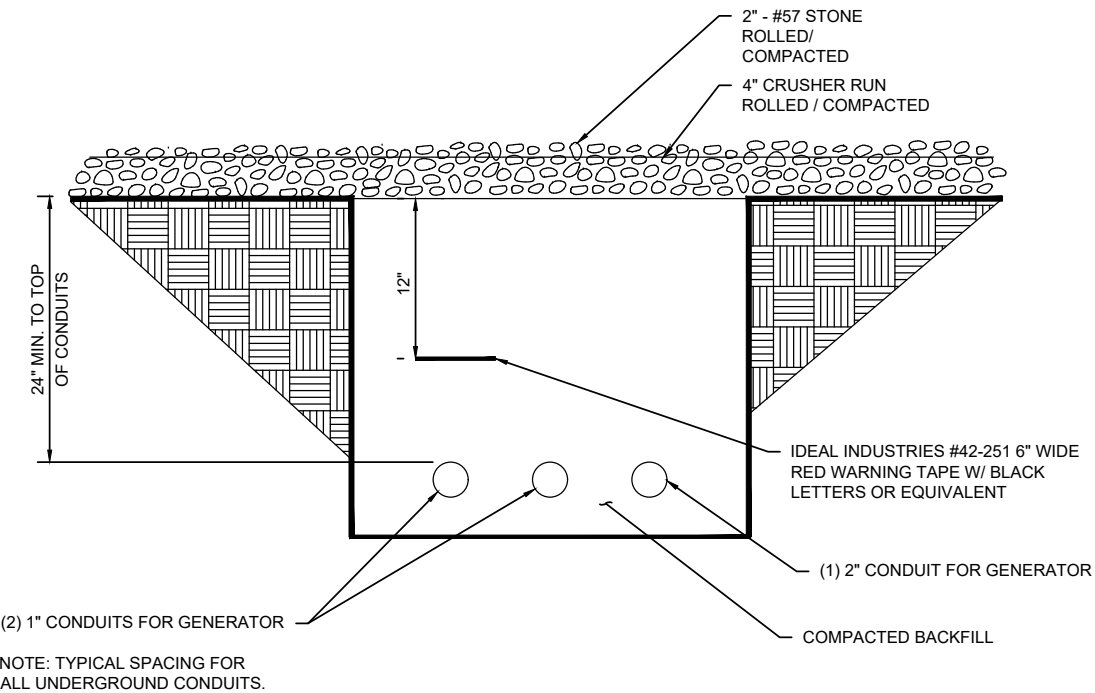
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SITE TYPE	RAWLAND

SHEET TITLE	ELECTRICAL DETAILS
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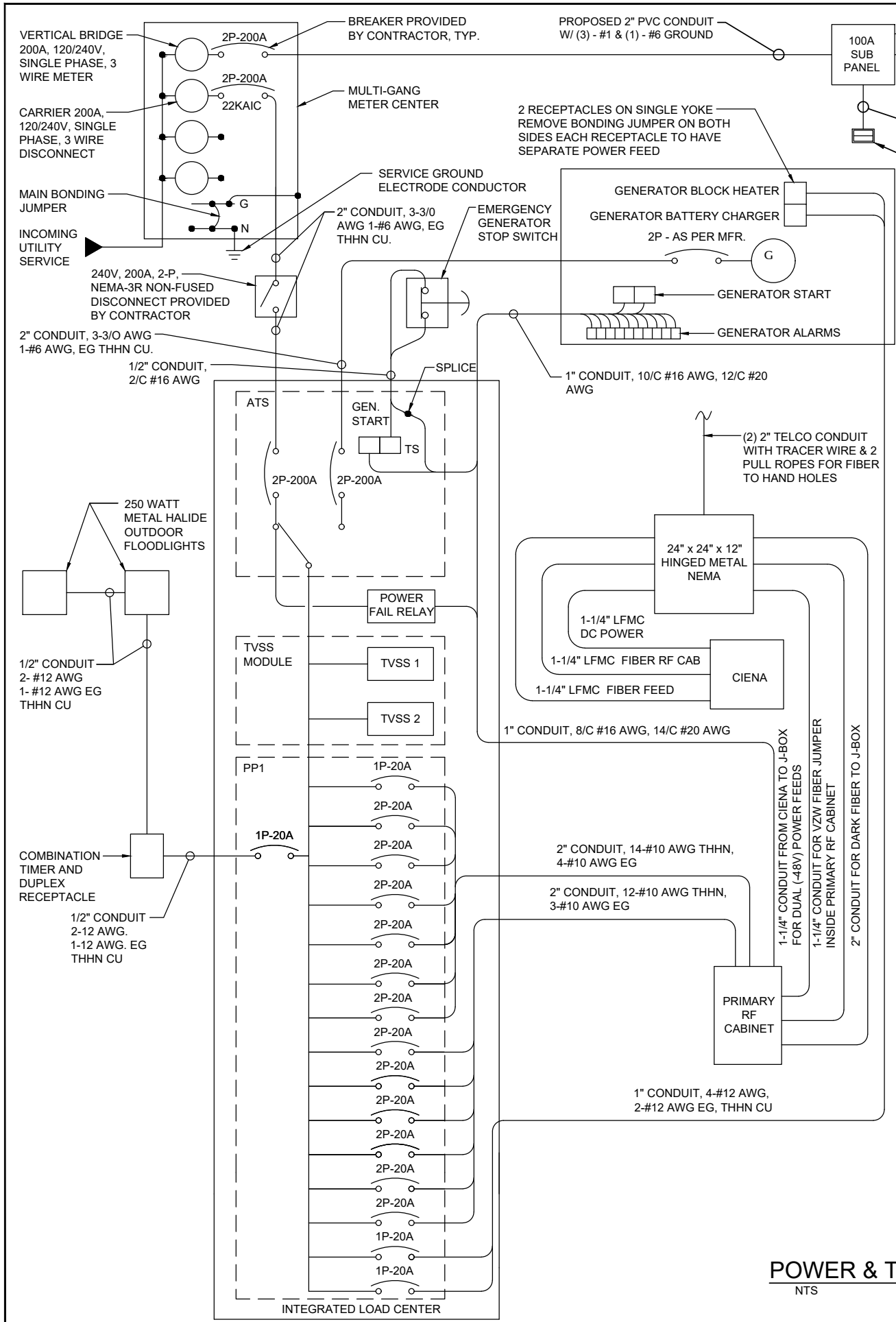
SHEET NUMBER	REVISION
E-304	0



EQUIPMENT POWER/FIBER CONDUIT TRENCH DETAIL ①



GENERATOR CONDUIT TRENCH DETAIL ②



PANEL:		PP1			VOLTAGE:			120/240		PHASE:			1		WIRE:			3
BUS RATING:		200 AMP			MAIN:			YES - 200/2P						BUS:			CU	
LUGS/PHASE:		#3/0			ENTRY:			BOTTOM		AIC:			22,000					
					ENCLOSURE:			NEMA 3R										
					MOUNTING:			SURFACE										
#	DESCRIPTION	AMP	POLE	ON/OFF	C/NC	VA	A	B	VA	C/NC	ON/OFF	POLE	AMP	DESCRIPTION	#			
1	RECTIFIER 1	20	2	ON	NC	1,780	3,560		1,780	NC	ON	2	20	RECTIFIER 7	2			
3					NC	1,780		3,560	1,780	NC					4			
5	RECTIFIER 2	20	2	ON	NC	1,780	3,560		1,780	NC	ON	2	20	RECTIFIER 8	6			
7					NC	1,780		3,560	1,780	NC					8			
9	RECTIFIER 3	20	2	ON	NC	1,780	3,560		1,780	NC	ON	2	20	RECTIFIER 9	10			
11					NC	1,780		3,560	1,780	NC					12			
13	RECTIFIER 4	20	2	ON	NC	1,780	3,560		1,780	NC	ON	2	20	RECTIFIER 10	14			
15					NC	1,780		3,560	1,780	NC					16			
17	RECTIFIER 5	20	2	ON	NC	1,780	3,560		1,780	NC	ON	2	20	RECTIFIER 11	18			
19					NC	1,780		3,560	1,780	NC					20			
21	RECTIFIER 6	20	2	ON	NC	0	0		0	NC	ON	2	20	RECTIFIER 12	22			
23					NC	0		0	0	NC					24			
25	GFCI/LIGHTS (H-FRAME)	20	1	ON	C	360	540		180	C	ON	1	20	CABINET GFCI	26			
27	GEN BATTERY	20	1	ON	NC	300		1,800	1,500	NC	ON	1	20	GEN BLOCK HEATER	28			
29	VACANT	--	--	--	--					--	--	--	--	VACANT	30			
31	VACANT	--	--	--	--			0		--	--	--	--	VACANT	32			
33	VACANT	--	--	--	--		0			--	--	--	--	VACANT	34			
35	VACANT	--	--	--	--			0		--	--	--	--	VACANT	36			
37	VACANT	--	--	--	--		0			--	--	--	--	VACANT	38			
39	VACANT	--	--	--	--			0		--	--	--	--	VACANT	40			
41	VACANT	--	--	--	--		0			--	--	--	--	VACANT	42			
PANEL CONFIGURATION PART OF INTEGRATED LOAD CENTER		PHASE TOTALS CONNECTED (VA)					18,340	19,600	PANEL TO BE SERVICE ENTRANCE RATED.									
		PHASE CURRENT CONNECTED (A)					153	163										
		PANEL TOTAL CONNECTED (VA)					37,940		LEGEND: C=CONTINUOUS, NC=NON-CONTINUOUS									
PANEL CAPACITY AT 80% (VA)						37,940.0		NOTES:										
PANEL LOADING (100% NC) (VA)						37,400.0		1. ALL CONTINUOUS LOADS CONSIDERED W/ DEMAND FACTOR OF 1.25. ALL NON-CONTINUOUS LOADS CONSIDERED W/ DEMAND FACTOR OF 1.0.										
PANEL LOADING (125% C) (VA)						900.0												
TOTAL FACTORED PANEL LOADING (VA)						38,300.0												
PANEL SPARE CAPACITY (VA)						100.0												

POWER & TELCO SINGLE LINE DIAGRAM ①



THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT IS STRICTLY PROHIBITED.

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REVISIONS				
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A	04/03/25	BNS	PRELIMINARY ISSUE	
#	DATE	BY	DESCRIPTION	

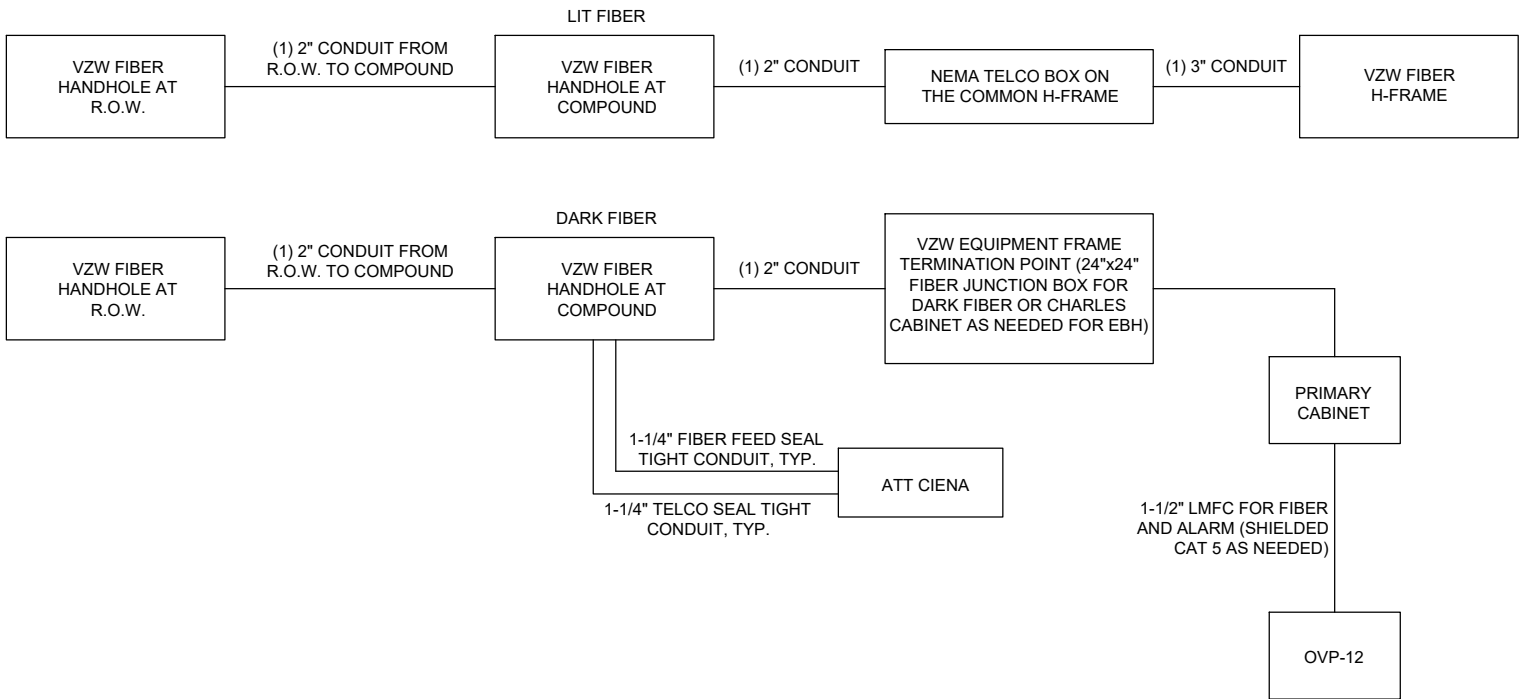


verizon	
SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

verticalbridge	
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529
SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	ELECTRICAL DETAILS
-------------	--------------------

SHEET NUMBER	REVISION
E-305	0



- NOTE:
- ADD (1) ADDITIONAL 2" CONDUIT FOR DARK FIBER (2 TOTAL) IF REQUIRED BY LOCAL MARKET FACILITIES, VERIFY PRIOR TO CONSTRUCTION. (ADD TRACER WIRE & 2 PULL STRINGS TO EACH CONDUIT).
  - VERIFY EBH REQUIREMENTS WITH TELCO PROVIDER PRIOR TO CONSTRUCTION (ADD TRACER WIRE & 2 PULL STRINGS TO EACH CONDUIT).

FIBER SINGLE LINE DIAGRAM 1

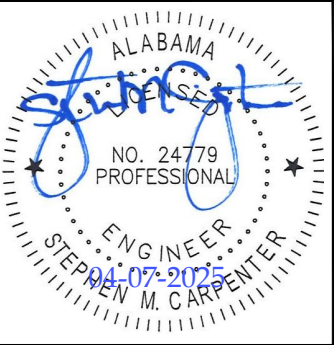
NTS



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REVISIONS				
0	04/07/25	BNS	FINAL ISSUE	
A	04/03/25	BNS	PRELIMINARY ISSUE	
#	DATE	BY	DESCRIPTION	



SITE NAME	BORDERS LAKE
SITE NUMBER	TBD



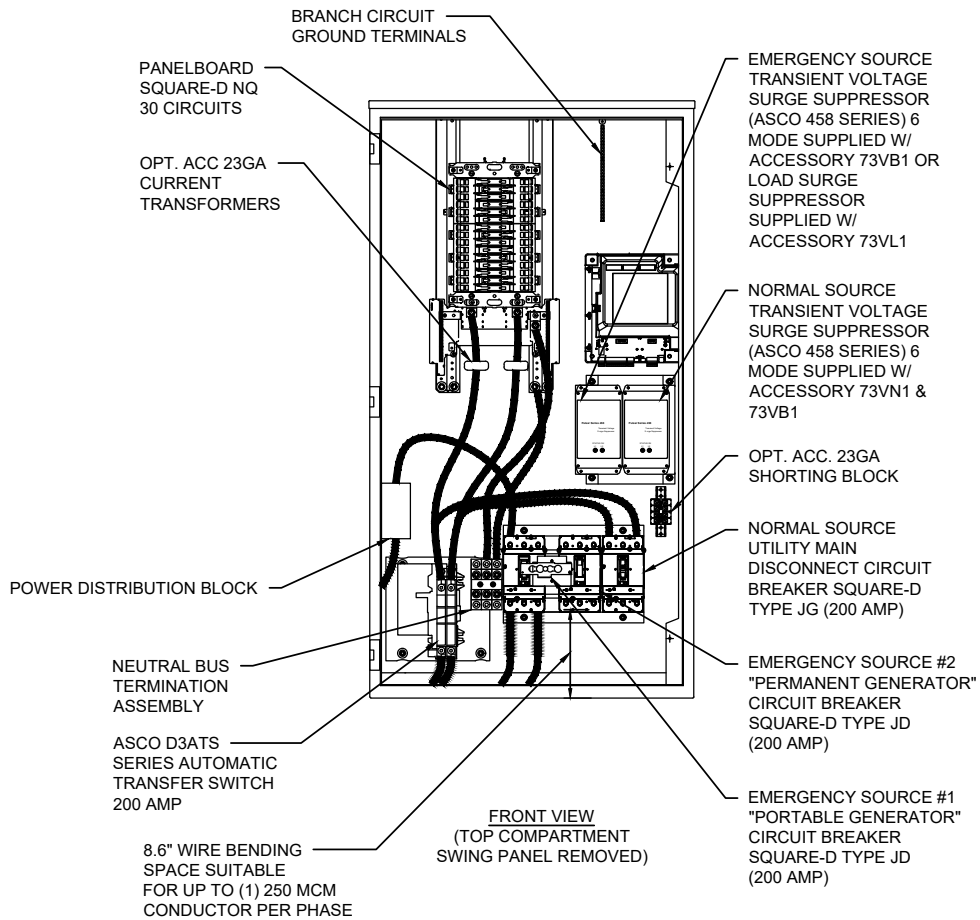
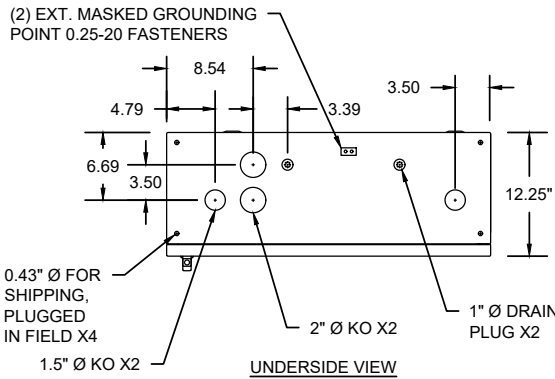
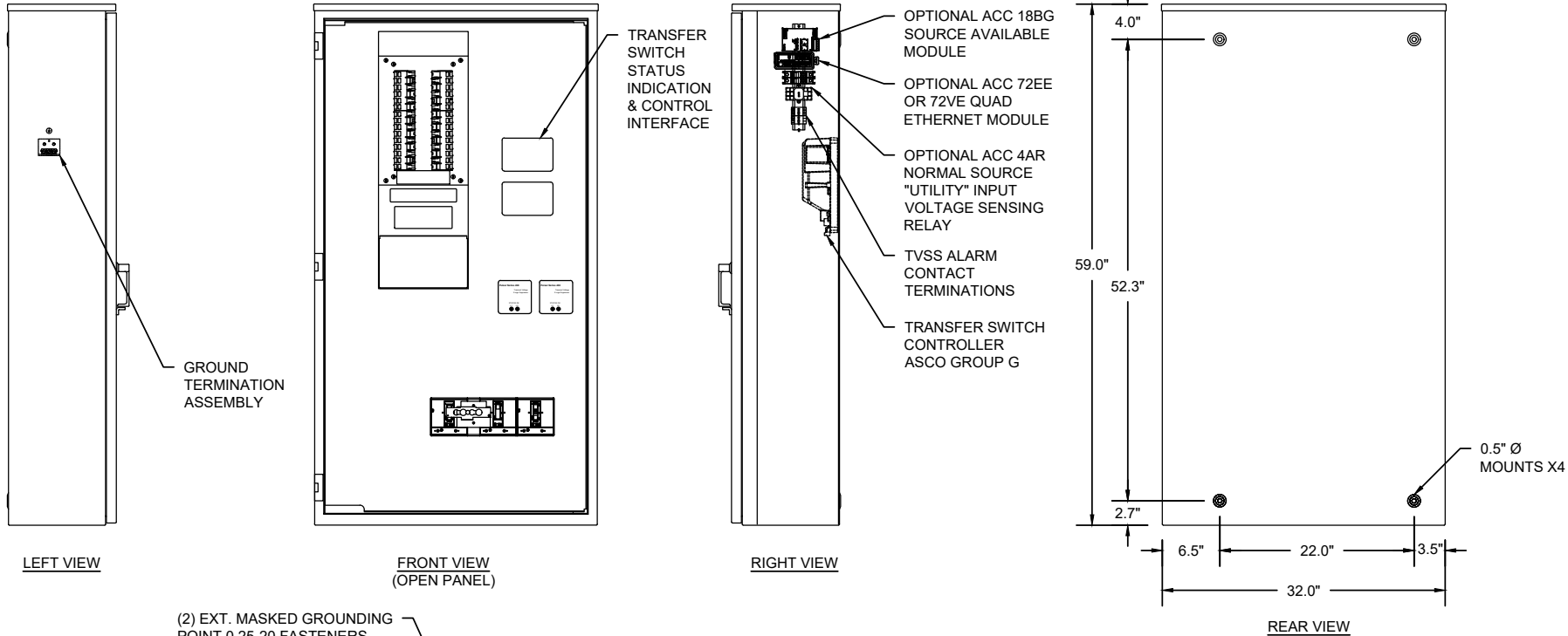
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529

SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	ELECTRICAL DETAILS
-------------	--------------------

SHEET NUMBER	REVISION
E-305A	0





- NOTES:
- POWER TRANSFER LOAD CENTER CONSTRUCTED IN ACCORDANCE W/ UL 67 STANDARD FOR PANELBOARDS SUITABLE FOR USE AS SERVICE EQUIPMENT.
  - AUTOMATIC POWER TRANSFER SWITCH: ASCO D3ATS, 2 POLE, 200 AMP, 240 VAC MAX, UL LISTED TO UL 1008 STANDARD FOR TRANSFER SWITCHING EQUIPMENT. TRANSFER CONTROLLER - ASCO GROUP G AUTOMATIC TRANSFER SWITCH CONTROLLER INCLUDING:  
AUTOMATIC ENGINE STARTING CONTACTS  
SINGLE PHASE VOLTAGE SENSING OF NORMAL AND EMERGENCY SOURCES.  
FREQUENCY SENSING OF EMERGENCY SOURCE.
  - SHORT CIRCUIT RATINGS: ACCESSORY 117CB6 (STANDARD)  
(MAINS): NORMAL SOURCE - 65KA AT 240 VAC (UTILITY MAIN DISCONNECT CIRCUIT BREAKER), SQUARE-D CAT. TYPE JD, 2 POLE, 200 AMPS.  
EMERGENCY SOURCE #1 (PORTABLE GENERATOR INPUT CIRCUIT BREAKER) - USING STANDARD ACC. 37P GENERATOR INPUT RECEPTACLE: 5KA AT 240VAC, AS LIMITED BY INPUT RECEPTACLE ASSEMBLY. CONNECTED TO SQUARE-D CAT. TYPE JD, 2 POLE, 200 AMPS.  
EMERGENCY SOURCE #2 (PERMANENT GENERATOR INPUT CIRCUIT BREAKER) - 22KA AT 240 VAC, SQUARE-D CAT. TYPE JD, 2 POLE, 200 AMPS  
(BRANCH): RATINGS AS FOLLOWS WHEN USED W/ SPECIFIED BRANCH DEVICES  
65KA USING SQ-D QH OR QHB RATED: 1 POLE 15-30A, 2 POLE 15-30 A, 3 POLE 15-30 A  
22KA USING SQ-D QO-VH OR QOB-VH RATED: 3 POLE 35-150A  
10KA USING SQ-D QO OR QB RATED: 1 POLE 15-70A, 2 POLE 15-125A, 3 POLE 15-100A
  - PANELBOARD SQUARE-D NQ, 225 AMPS MAX, 240 VAC MAX, SINGLE PHASE W/ 100% RATED NEUTRAL, 30 CIRCUITS, ACCEPTS BOLT-ON OR PLUG-ON BRANCH DEVICES.
  - ACCESSORY 4AR (OPT.) VOLTAGE SENSING RELAY TO INDICATE THE PRESENCE OF THE NORMAL SOURCE "UTILITY" VOLTAGE AHEAD OF THE NORMAL SOURCE MAIN DISCONNECT CIRCUIT BREAKER, REGARDLESS OF THE POSITION OF THE CIRCUIT BREAKER.
  - ACCESSORY 11BE (OPT.) A FOUR-FUNCTION SOFTWARE BUNDLE PROVIDING THE FOLLOWING FUNCTIONS:  
SERIAL COMMUNICATIONS (RS-485)  
PROGRAMMABLE ENGINE EXERCISER W/ BATTERY BACK-UP  
EVENT LOG  
COMMON ALARM SIGNAL CAPABILITY ON GROUP G CONTROLLER "OP1" OUTPUT
  - ACCESSORY 18BG (OPT.) SIGNALS AVAILABILITY OF NORMAL & EMERGENCY SOURCES WHEN PROVIDED. OUTPUT CONTACTS "RL5" (EMERGENCY SOURCE AVAILABLE) AND "RL6" (NORMAL SOURCE AVAILABLE) CHANGE POSITION WHEN SOURCE IS ACCEPTABLE.
  - ACCESSORY 23GA (OPT.) SINGLE PHASE CURRENT SENSING MODULE W/ CURRENT TRANSFORMERS & SHORTING BLOCKS. PHASE CURRENT MEASUREMENTS AVAILABLE FOR DISPLAY ON GROUP G CONTROLLER.
  - ACCESSORY 37P (STD.) GENERATOR INPUT RECEPTACLE MANUFACTURED BY APPLETON (EMERGENCY SOURCE #1) - RATED 200 AMPS, 1 PHASE/3 WIRE W/ GROUND. 4 WIRE/4 POLE W/ CASE GROUND. REVERSE SERVICE CONNECTION. APPLETON PN AR20044-RS. ACCEPTS MATING PLUG (CUSTOMER PROVIDED), APPLETON AP20044-RS.
  - ACCESSORY 72EE OR 72VE (OPT.) ASCO 5140 ETHERNET CONNECTIVITY MODULE. PROVIDES REMOTE ATS & GENERATOR CONTROL. MONITORING & CONNECTIVITY FEATURES VIA INTEGRATED WEB PAGE DASHBOARDS.
  - ACCESSORY 73VN1, 73VB1, OR 73VL1 (OPT.) TRANSIENT VOLTAGE SURGE SUPPRESSION ASCO 458 SERIES TVSS, 6 MODE PROTECTION, L-L, L-N, L-G, N-G, 240/120V INTEGRAL LED STATUS INDICATION PER PHASE SIGNALING SERVICE AVAILABLE & STATUS OK. ONE (1) FORM C CONTACT CONNECTED TO TERMINAL BLOCK TO SIGNAL STATUS OK.
  - ACCESSORY 117IB (STD.) GENERATOR SELECTOR CIRCUIT BREAKERS (EMERGENCY SOURCE #1 & EMERGENCY SOURCE #2) - ONE EACH 2 POLE, 200A CIRCUIT BREAKER FOR TWO SEPARATE GENERATOR INPUTS. UL 1008 APPROVED MANUAL SLIDE TYPE INTERLOCK TO PERMIT CONNECTION OF ONLY ONE GENERATOR TO TRANSFER SWITCH EMERGENCY SOURCE INPUT.
  - ENCLOSURE TYPE 3R LISTED TO UL 50/50E. SINGLE COMPARTMENT WALL MOUNT PROVIDES TYPE 1 PROTECTION W/ EXTERIOR OPEN & SWING PANELS CLOSED. BOX & DOORS CONSTRUCTED OF 0.095 THICK ALUM. ALLOY (5052-H32). ALL INTERIOR & EXTERIOR FINISHED SURFACES ARE TEXTURED POLYESTER POWDER COAT, LIGHT GRAY (RAL 7035)
  - GROUNDING PROVISIONS FOR NORMAL, EMERGENCY & LOAD
  - OVERALL DIMENSIONS : 59" X 32" X 12.3"
  - APPROX. WEIGHT 195 LBS.



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CHECKED BY	BNS

REVISIONS				
0	04/07/25	BNS	FINAL ISSUE	
A	04/03/25	BNS	PRELIMINARY ISSUE	
#	DATE	BY	DESCRIPTION	



<b>verizon</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	TBD

<b>verticalbridge</b>	
SITE NAME	BORDERS LAKE
SITE NUMBER	US-AL-5529


SITE ADDRESS	5842 POPES CHAPEL ROAD RAGLAND, AL 35131
SITE TYPE	RAWLAND

SHEET TITLE	ELECTRICAL DETAILS
-------------	--------------------

SHEET NUMBER	REVISION
E-306	0

## ASCO D300L SERIES POWER TRANSFER LOAD CENTER

RATED 200 AMPS, 240 VAC MAX, SINGLE PHASE/3 WIRE, TYPE 3R ENCLOSURE

OUTLINE & MOUNTING			TYPE 3R, ALUM.				
<b>ASCO</b> <sup>®</sup> ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932							
DWG NO		1015683-046-L		ECN NO		251558	
DWN BY		DL		APPR BY		JPB	
				DATE		03/23/15	
							
						THIRD ANGLE PROJECTION	

PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR ASCO WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC COMPONENTS SEE MP-I-055.

**Appendix B**


**Air Quality and EPA Programs**



Search Place: -86.218105 33.742099

 Basemap ▾

Tools ▾

 More Data ▾

Search Envirofacts ▾

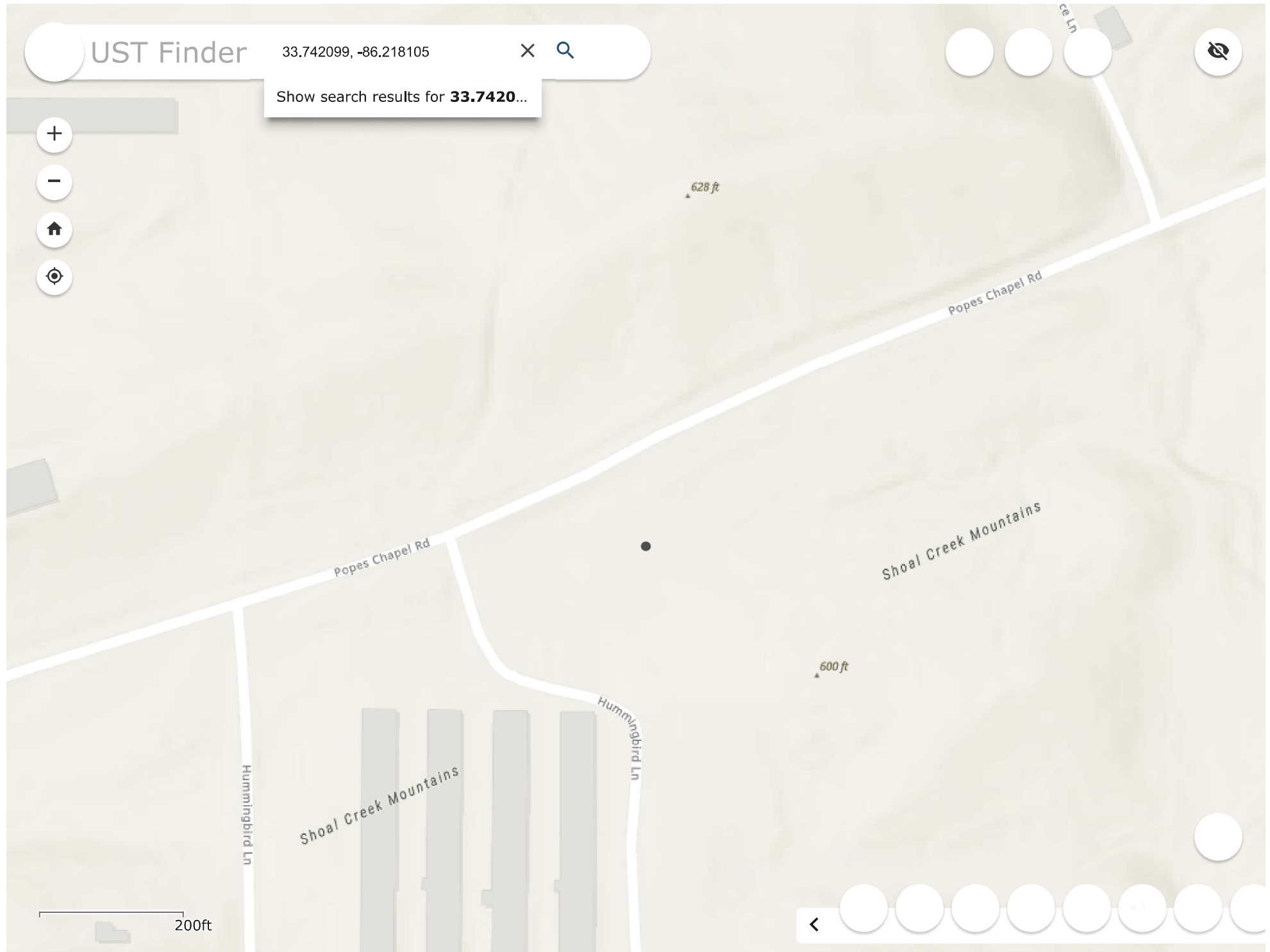
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## Select Map Contents

- ☐ USA Semi-transparent Background
- ☐ States
- ☒ Nonattainment Areas and Designations - Ozone 8-hr (2015 Standard)
- ☒ Ozone Design Values - Not Valid
- ☒ Nonattainment Areas and Designations - Ozone 8-hr (2015 Standard)
- ☒ Ozone Design Values
- ☒ Ozone 8-hr (2008 standard)
- ☒ SO2 1-hr (2010 standard)
- ☒ Lead (2008 standard)
- ☒ Ozone 1-hr (1979 standard-revoked)
- ☒ Ozone 8-hr (1997 standard)
- ☒ CO (1971 Standard)
- ☒ PM2.5 Annual (1997 standard)
- ☒ PM2.5 24hr (2006 standard)
- ☒ Ozone 8-hr (2015 Standard)
- ☒ PM2.5 Annual (2012 standard)
- ☒ PM10 (1987 standard)







## EnviroMapper

Home |

Search Place: Popes Chapel Rd, Ragland, Alabama, 35131

Basemap

Tools

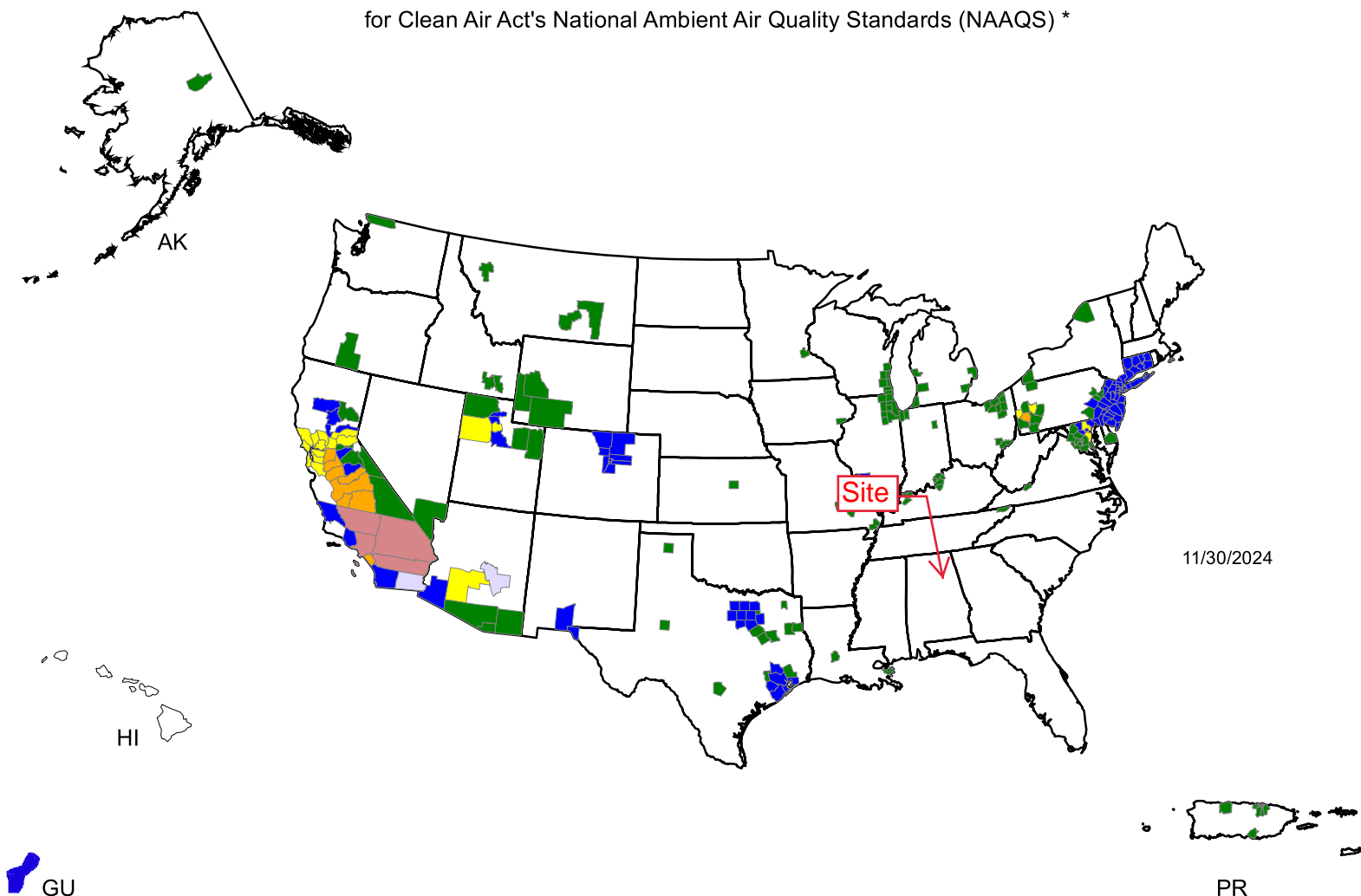
More Data

Search Er



# Counties Designated "Nonattainment"

for Clean Air Act's National Ambient Air Quality Standards (NAAQS) \*



## Legend \*\*

- County Designated Nonattainment for 6 NAAQS Pollutants
- County Designated Nonattainment for 5 NAAQS Pollutants
- County Designated Nonattainment for 4 NAAQS Pollutants
- County Designated Nonattainment for 3 NAAQS Pollutants
- County Designated Nonattainment for 2 NAAQS Pollutants
- County Designated Nonattainment for 1 NAAQS Pollutant

\* The National Ambient Air Quality Standards (NAAQS) are health standards for Carbon Monoxide, Lead (1978 and 2008), Nitrogen Dioxide, 8-hour Ozone (2008), Particulate Matter (PM-10 and PM-2.5 (1997, 2006 and 2012), and Sulfur Dioxide.(1971 and 2010)

\*\* Included in the counts are counties designated for NAAQS and revised NAAQS pollutants. Revoked 1-hour (1979) and 8-hour Ozone (1997) are excluded. Partial counties, those with part of the county designated nonattainment and part attainment, are shown as full counties on the map.



# EPA Programs



5/20/2025

World Imagery

Low Resolution 15m Imagery

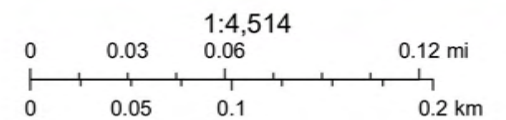
High Resolution 60cm Imagery

High Resolution 30cm Imagery

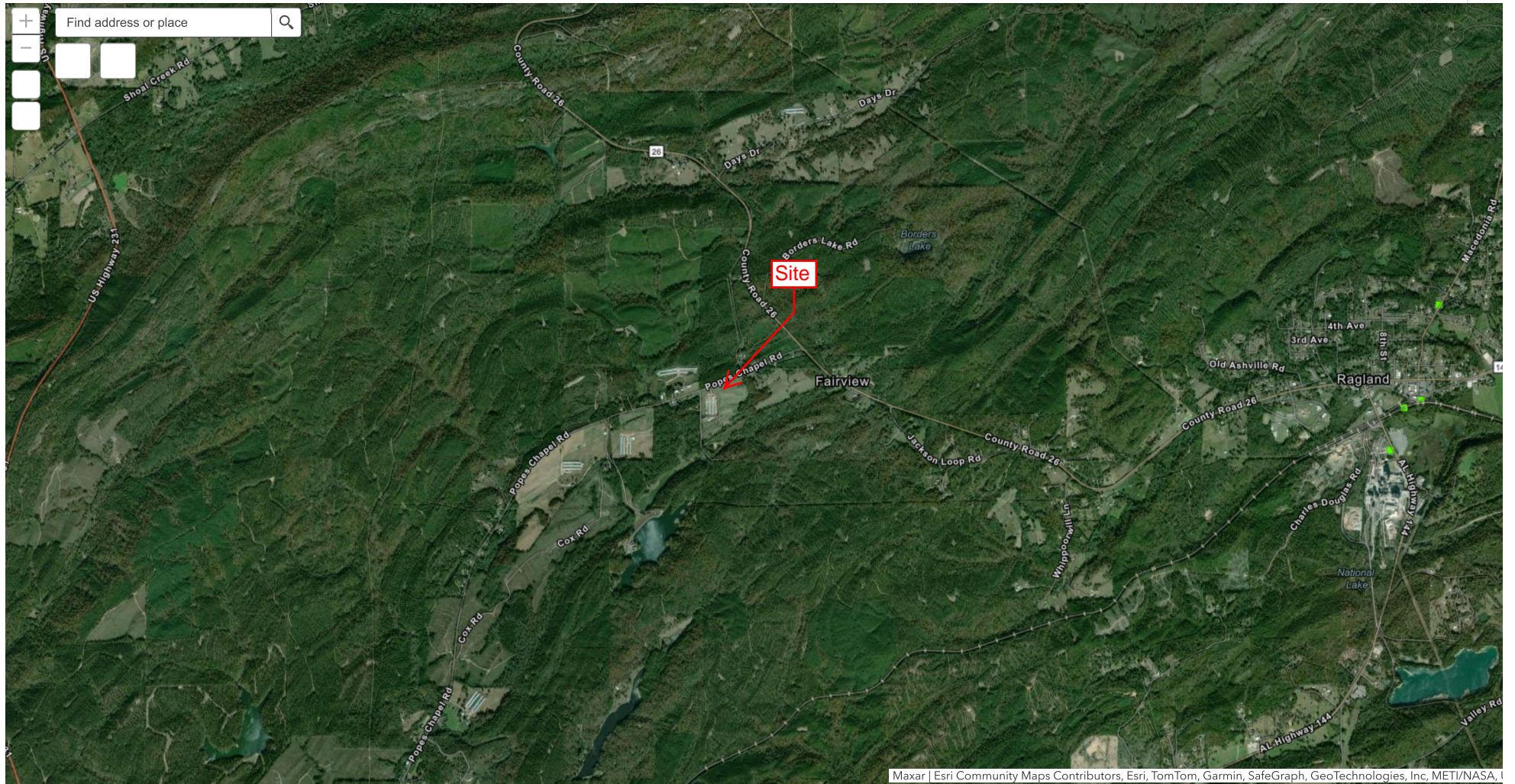
Citations

1.2m Resolution Metadata

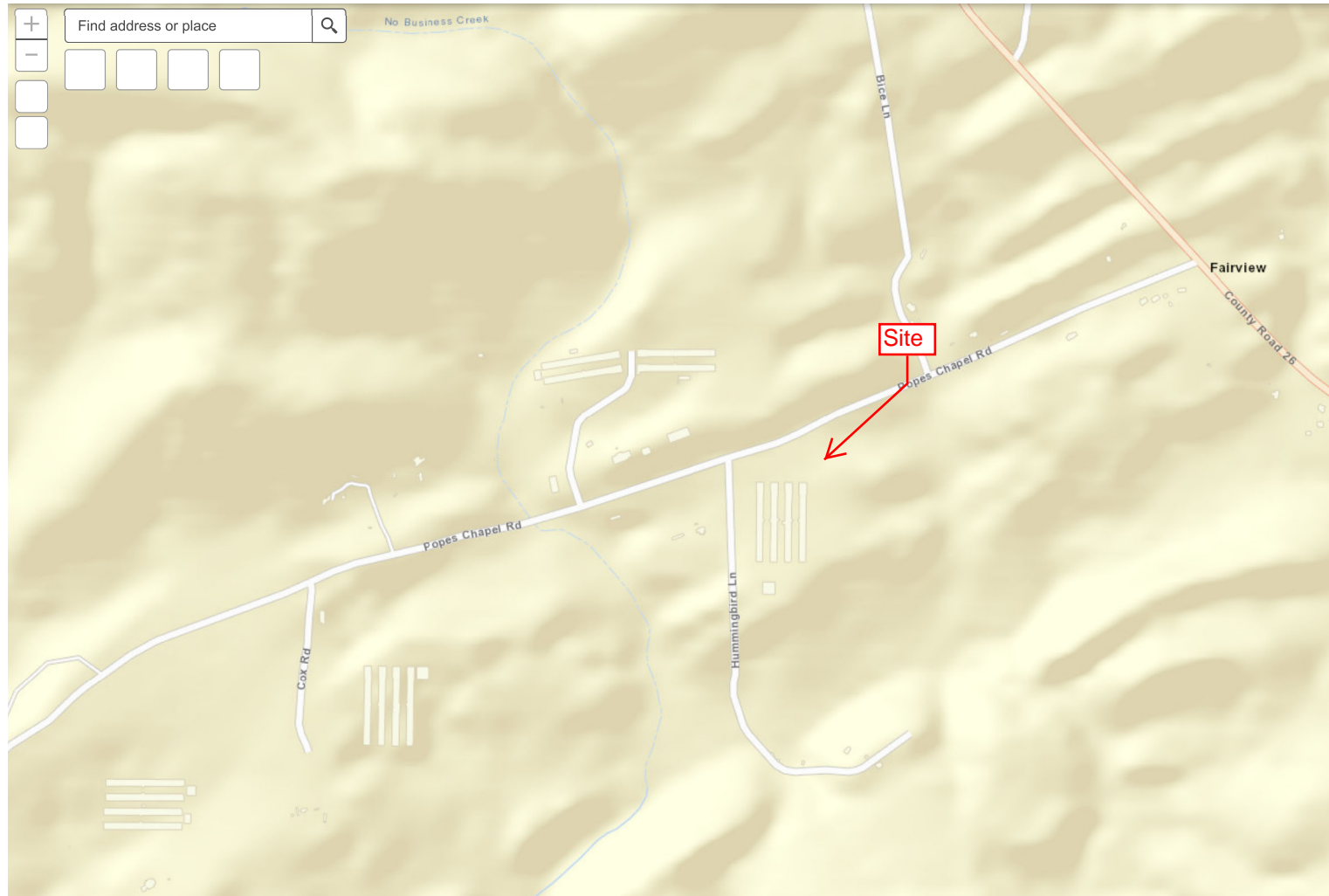
Maxar











## Legend

ADEM - ALCNTY\_WGS83



UST\_Sites

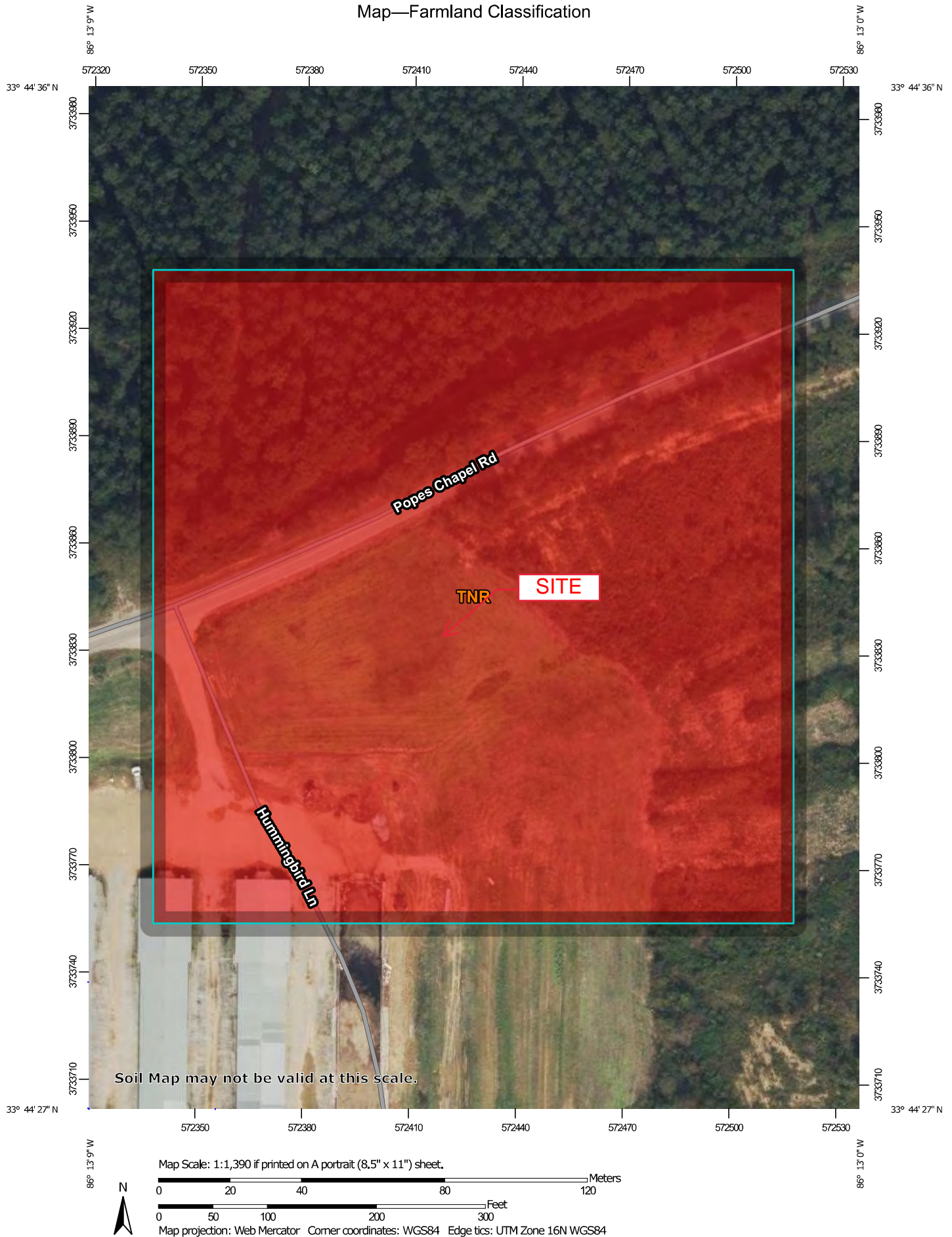
UST Sites



## **Appendix C**

### **Geology and Soils**

# Custom Soil Resource Report Map—Farmland Classification






# Custom Soil Resource Report









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






### Area of Interest (AOI)






 Area of Interest (AOI)








### Soils



#### Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

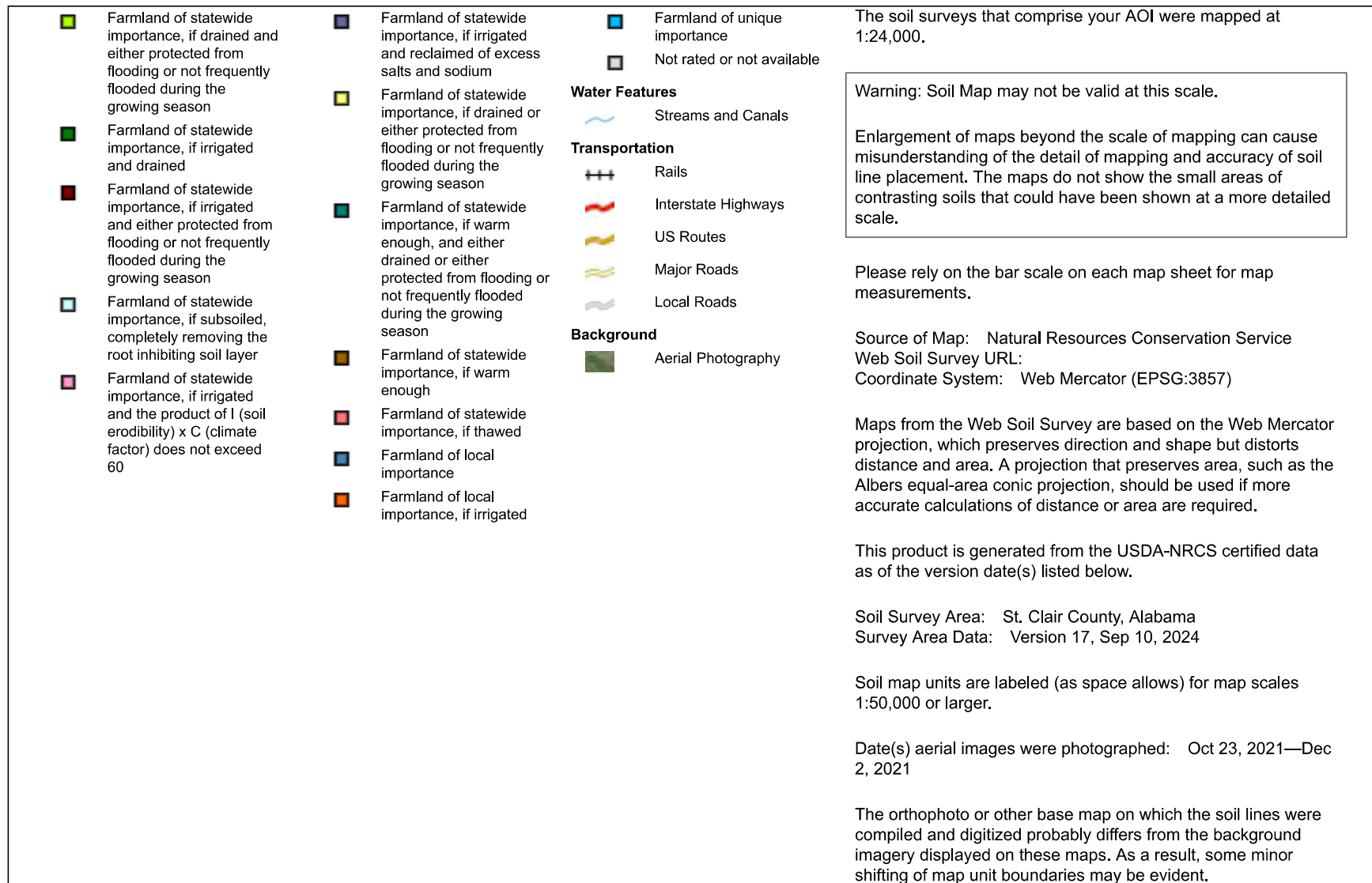
### Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

## Custom Soil Resource Report

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	<b>Soil Rating Points</b>			Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Prime farmland if drained		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season				Farmland of local importance		Prime farmland if irrigated		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated				Farmland of local importance, if irrigated		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated

## Custom Soil Resource Report





**Table—Farmland Classification**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
TNR	Townley-Nauvoo association, rolling	Not prime farmland	8.2	100.0%
<b>Totals for Area of Interest</b>			<b>8.2</b>	<b>100.0%</b>

**Rating Options—Farmland Classification**

*Aggregation Method:* No Aggregation Necessary

*Tie-break Rule:* Lower


# Custom Soil Resource Report Soil Map




# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)


### Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip

 Sodic Spot


 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other


 Special Line Features

### Water Features

 Streams and Canals


### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Clair County, Alabama  
Survey Area Data: Version 17, Sep 10, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 23, 2021—Dec 2, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.





# ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

## Geotechnical Investigation

**US-AL-5529 Borders Lake  
(SMW # 19-2162.1)**

**5842 Popes Chapel Road  
Ragland, St. Clair County, Alabama**

ECA Project No. 25-001217



### SUBMITTED TO:

SMW Engineering Group, Inc.  
158 Business Center Drive  
Birmingham, AL 35244

### PREPARED BY:

Environmental Corporation of America  
1375 Union Hill Industrial Court, Suite A  
Alpharetta, GA 30004



## ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

May 5, 2025

SMW Engineering Group, Inc.  
158 Business Center Drive  
Birmingham, AL 35244

Attention: Mr. Steve Manuel

**Subject: Geotechnical Investigation Report**  
**US-AL-5529 Borders Lake (SMW # 19-2162.1)**  
**5842 Popes Chapel Road**  
**Ragland, St. Clair County, Alabama**  
**ECA Project No. 25-001217**

Dear Mr. Manuel:

Environmental Corporation of America (ECA) is pleased to submit this report of our geotechnical investigation for the proposed project. Our services were provided as authorized by SMW Engineering Group, Inc. using an email approval dated March 24, 2025.

This report presents a review of the information provided to us, a description of the site and subsurface conditions, and our recommendations. The appendices contain a Site Location Map, a Boring Location Plan, a Boring Log, and the Laboratory Earth Resistivity Test Data.

We will be happy to discuss our recommendations with you and look forward to providing the additional studies or services necessary to complete this project. We appreciate the opportunity to be of service. Please call us with any questions at (770) 667-2040.

Sincerely,

**Environmental Corporation of America**

Athulya Balakrishnan, P.E.  
Geotechnical Engineer  
State of Alabama P.E. #52425



Marvin G. Webster  
President

## Purpose and Scope of Work

The purpose of this investigation was to obtain specific subsurface data at the project location and to provide geotechnical related parameters for the design and construction of the foundations for a self-supported lattice tower.

Our scope of work included the following:

- One (1) soil test boring was drilled to a depth of 31 feet below ground surface (bgs).
- Figure 1 shows the Site Location Map. Figure 2 shows the Boring Location Plan.
- Standard penetration tests (SPTs) were conducted to obtain soil samples and SPT N-values, in accordance with ASTM D-1586.
- The depth to groundwater, if any, was measured in the boring after drilling was completed.
- The soil samples were visually classified in accordance with ASTM D-2488 and a boring log was prepared. Natural moisture content ( $WC_N$ ) tests were performed on a selected number of soil samples in accordance with ASTM D-2216.
- A soil laboratory resistivity test was conducted in accordance ASTM G-57.
- Unconfined compressive strength ( $q_u$ ) index tests were performed using a pocket penetrometer test or the spring tester test (whenever possible).
- The soil conditions were evaluated by a registered professional engineer and this geotechnical report was prepared with our recommendations.

We have recommended design parameters and settlements based on the SPT N-values, an examination of the soil samples, and our experience with similar soil conditions and structures.

## Project Information

We were provided with a set of construction drawings prepared by TeleCad Wireless Inc. and dated April 13, 2020. The proposed tower would be located at 5842 Popes Chapel Road, near Ragland, St. Clair County, Alabama.

We understand that plans include constructing a 255-foot-tall self-supported lattice tower, approximately as shown in Figure 2. We assume that the equipment building/cabinet will be a prefabricated structure supported on a perimeter grade beam, spread footing or turndown slab. The project also includes the construction of a 30-foot wide ingress/egress and utility easement.



## Field Drilling Work

The field drilling work was conducted on April 28, 2025. Information obtained from the boring log was used to help us evaluate the subsurface conditions and to assist in formulating our recommendations. The site was staked at the time of our field visit.

## Subsurface Soil Conditions (Boring B-1)

In general, soil conditions encountered at the site consisted of very stiff to hard sandy Clay (CL) to an approximate depth of 13.5 feet, underlain by Weathered Shale manually described as hard to very hard silty Clay (Shale) to the explored depth of 31 feet. Auger refusal was encountered at 31 feet. The following table presents a summary of the existing soil conditions.

Soil Profile Depth (ft)		Type of Soils (Soil Manual Classification)	*Soil Symbols	SPT N-Values bpf (blows per foot)
0	13.5	Very stiff to hard sandy Clay	CL	18 to 52
13.5	31	Weathered Shale manually described as hard to very hard silty Clay	Weathered Shale	Over 50 bpf
*Soil symbols are based in the Unified Soil Classification System (USCS).				

The encountered upper clay layer is very stiff to hard in consistency with estimated unconfined compressive strength ( $q_u$ ) measurements between 4,000 to 7,000 psf. The shale layer encountered is very hard in consistency with estimated unconfined compressive strength ( $q_u$ ) measurements of 8,500 psf. Natural moisture ( $WC_N$ ) content measurements were conducted on selected soil samples and ranged between 3.0% to 19.7%. A final boring log is shown in Appendix B.

## Groundwater Level Condition

A groundwater level was encountered at 29 feet at the time of drilling. It should be noted that groundwater level observations made within mostly cohesive soils during drilling could be misleading. It should be anticipated that the groundwater level will fluctuate due to seasonal climatic changes. To determine actual groundwater level measurements, groundwater levels should be measured using observation wells installed for prolonged periods.

## Laboratory Electrical Resistivity Test

A laboratory resistivity value of 25,859 ohms-cm was reported. A table with the laboratory test data is shown in Appendix C. It should be noted that the soil samples were saturated for this testing procedure. Based on the laboratory test results, most of the soil is rated “Non-Corrosive”.

## Foundation Construction Recommendations

The subsurface conditions are suitable for the support of the proposed tower using either a shallow foundation system or a deep foundation system.

### Deep Foundation System

Based on our review of the subsurface soil conditions encountered in the boring, we offer the following average soil parameters for the design of a proposed drilled shafts.

Boring Depth (feet)		*Unit Weight $\gamma_{wet} / \gamma_b$ (pcf)	Friction Angle $\phi$ (deg)	Soil Cohesion $C_u$ (psf)	$K_p$	Allowable Skin Friction $f_s$ (psf)	Allowable Bearing Pressure $q_{ALL}$ (psf)	Soil Modulus $K_H$ (pci)
0	6	115	0	2,000	1.00	450	-	80
6	13.5	120	0	3,000	1.00	560	5,000	205
13.5	23.5	120 / 58	0	4,000	1.00	595	7,500	310
23.5	31	125 / 63	0	4,150	1.00	600	10,000	415
Notes: A safety factor of 2 is used for allowable skin friction ( $f_s$ ). A safety factor of 3 is used for allowable soil bearing pressure ( $q_{ALL}$ ). *Below the groundwater level designer should consider the buoyant unit weight ( $\gamma_b$ ) = $\gamma_{wet} - \gamma_{water}$ . Active earth pressure coefficient $K_A = \tan^2(45 - \phi/2) = 1/K_P$ . At rest earth pressure coefficient $K_O = 1 - \sin(\phi)$ .								

The proposed drilled shaft should be designed using a combination of point bearing and friction forces. Total drilled shaft foundation settlement should be limited to 1-inch. Final shaft diameter (D) and embedment length (L) will depend upon final tower loading conditions. For these foundations ECA recommends a minimum concrete strength ( $f'_c$ ) of 4,000 psi (pounds per square inch).

### Shallow Foundation System

The proposed tower may be supported using either a pad and pier or a mat foundation using a maximum net allowable soil bearing pressure ( $q_{ALL}$ ) of 4,000 psf at a minimum depth of foundation ( $D_f$ ) of 6 feet, for foundations bearing on compacted fill material. Total and differential settlement should be less than 1-inch and 1/2-inch, respectively. A safety factor of 3 and a wet soil unit weight ( $\gamma_{wet}$ ) of 120 pcf were considered for soil bearing computations.

The provided soil bearing pressure assumes the bottom of excavation would be dry and stable. The bottom of excavation should be proof rolled, observed, and inspected prior to placing any concrete. For more details, please refer to our Fill Placement section.

### Building Foundations

The proposed equipment building can be supported on a perimeter grade beam, spread footing or turndown slab foundation. For the design of the building foundation the soils are capable of a maximum net allowable soil bearing pressure ( $q_{ALL}$ ) of 2,000 psf. A minimum depth of foundation ( $D_f$ ) of 1.5 feet below existing grades elevations should be considered. Total and differential settlements should be less than 1/2-inch and 1/4-inch, respectively.

Ground floor slabs may be designed as conventional slabs on grade over the existing soils or on engineered compacted fill using a Modulus of Subgrade Reaction ( $K_s$ ) of 125 pci (pounds per cubic inch). The bearing pad should be prepared and compacted prior to placing any concrete. Contractors should verify the Fill Placement section of this report.

### Soil Site Class

Based on our site evaluation and the information provided by the International Building Code (IBC 2018 / ASCE 7-10) to perform a dynamic analysis the project engineer should consider the soil at the site falls under **Very Dense and Soft Rock Profile and Site Class C**.

### Foundation Excavations

A groundwater level was encountered during boring operations; but was encountered below foundation depths. However, drilling method should be selected by the contractor based on their experience with similar soil conditions.

**A very hard weathered shale formation was encountered at the site in Boring B-1 at a depth below 13.5 feet bgs. The prospective contractor should consider specialized equipment for hard soil excavation or caisson drilling. Further, though we were able to drill to a depth of 31 feet bgs using a small diameter auger, drilling with large diameter foundation augers may not be possible below 13.5 feet.**

To avoid softening of the shallow soils exposed at the foundation bearing level, excavations should not be left open for extended periods prior to placing reinforcing steel and concrete. If rain or freezing weather is expected, excavations should not be completed. Leaving the excavations at least 1-foot above final grade should protect the bearing soils from deterioration.

If the excavation must remain open overnight or if rainfall becomes imminent while the bearing soils are exposed, we recommend that a 2 to 4-inch thick "mud-mat" of "lean" (2,000 psi) concrete be placed on the bearing soils before the placement of reinforcing steel. If the bearing soils are softened by surface water intrusion or exposure, the softened soils must be removed from the foundation excavation bottom immediately prior to placement of concrete.

### Fill Placement

If required, borrow materials for fill, unless otherwise specified, should consist of essentially granular material (GW, GM, GC, GP, SW, SM or SP Unified Soil Classification System); **A-2-4**



or better, AASHTO Classification, as approved by the Project Geotechnical Engineer. These should be free from vegetation and should not contain rocks greater than 6 inches in size.

The amount of fill required for this project depends on the planned final grades. Any fill or backfill required to attain finished grade should be placed in layers not exceeding 8- to 10-inch thick lifts and compacted to not less than 95% of the Standard Proctor Maximum dry density, as determined by method (ASTM D-698). The soil moisture content should be close to the optimum moisture content. All required fills should meet the specified compaction criteria.

ECA does not know the capability of the surficial soil to support pavements. However, we suggest that the upper soils be replaced by granular fill in areas of heavy traffic to improve the subgrade support capabilities and moisture sensitivity.

Field density tests should be conducted at routine intervals as the fill is being placed to verify that adequate compaction is achieved. Prior to placing any new fill, any soft or loose near surface soils should be removed and the area proof-rolled with a heavy vehicle or a heavy compaction vibratory roller to confirm that any unsuitable soil conditions have been discovered.

#### Basis for Recommendations

The subsurface conditions encountered at the boring location is shown on the Boring Log in Appendix B. The Boring Log represents our interpretation of the subsurface conditions based on the field logs and visual examination of field samples by an engineer. The lines designating the interface between various strata on the Boring Log represents the approximate interface locations. In addition, the transition between strata may be gradual. The water level shown on the Boring Log, if any, represents the condition only at the time of our exploration.

The recommendations contained herein are based in part on project information provided to us and only apply to the specific project and site discussed in this report. If the project information section in this report contains incorrect information or if additional information is available, please let us know so that we may review the validity of our recommendations.

Regardless of the thoroughness of a geotechnical investigation, there is always a possibility that conditions between borings will be different from those at specific boring locations and that conditions will not be as anticipated by the designers or contractors. In addition, the construction process may itself alter soil conditions. Therefore, experienced geotechnical personnel should observe and document the construction procedures used and the conditions encountered. Unanticipated conditions and inadequate procedures should be reported to the design team along with timely recommendations to solve any problems created. ECA is best qualified to provide this service based on our familiarity with the project, the subsurface conditions, and the intent of the recommendations and design.

We wish to remind you that we will store the soil samples for 30 days. The samples will then be discarded unless you request otherwise.

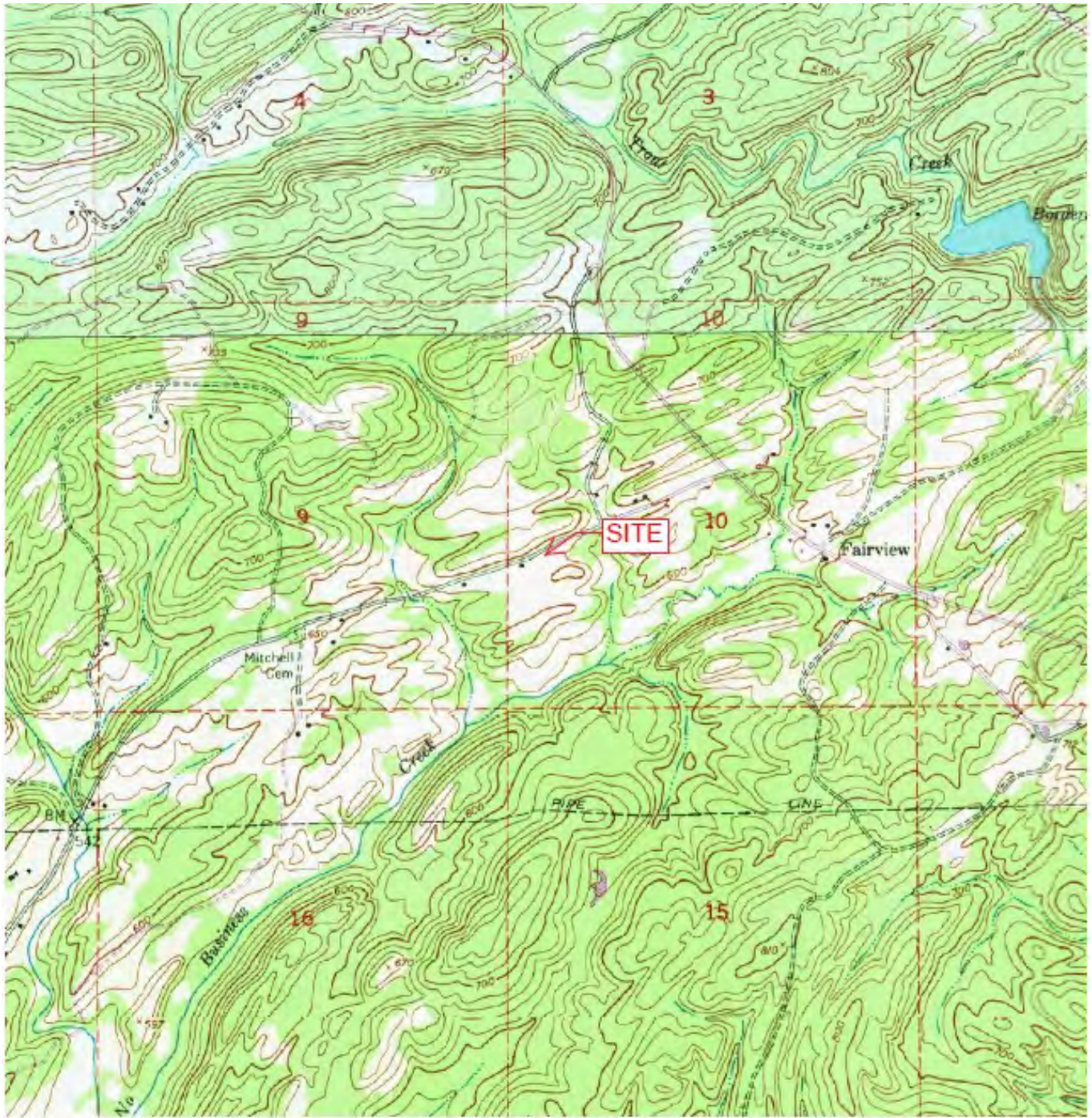
## **APPENDICES**

- Appendix A   Figures
- Appendix B   Boring Log
- Appendix C   Laboratory Earth Resistivity Test Data

# APPENDIX A

## Figures





2,000 0 2,000 ft

Source: USGS Topographic Map: Ragland, AL (1975).



US-AL-5529 Borders Lake  
5842 Popes Chapel Road  
Ragland, St. Clair County, Alabama  
Figure 1: Site Location Map



ECA Project # 25-001217





# APPENDIX B

## Boring Log

Project: <b>US-AL-5529 Borders Lake</b>	Environmental Corp of America 1375 Union Hill Industrial Ct. Suite-A Alpharetta, GA 30004 (770) 667-2040	Log of Boring B-1 Sheet 1 of 1
Project Location: <b>Ragland, AL</b>		
Project Number: <b>25-001217</b>		

Date(s) Drilled <b>4/28/2025</b>	Logged By <b>A. Balakrishnan</b>	Checked By <b>A. Balakrishnan</b>
Drilling Method <b>HSA</b>	Drill Bit Size/Type <b>2.25 inches</b>	Total Depth of Borehole <b>31 feet bgs</b>
Drill Rig Type <b>Truck</b>	Drilling Contractor <b>South Bros Drilling</b>	Approximate Surface Elevation <b>585 feet AMSL</b>
Groundwater Level and Date Measured <b>29 feet ATD</b>	Sampling Method(s) <b>SPT</b>	Hammer Data <b>140 Lbs hammer, rope and cathead</b>
Borehole Backfill <b>Cuttings</b>	Location <b>Ragland, St. Clair County, Alabama</b>	

Depth (feet)	Sample Number	Sample Type	Sampling Resistance, blows/ft	SPT N Values	Rec (%) / RQD (%)	MATERIAL DESCRIPTION	Material Type	Graphic Log	Water Content, %	qu (tsf)	PH	LL, %	PI, %
0	1		5-7-11	18		Reddish brown/yellowish brown, very stiff sandy Clay, dry	CL		-	4.0			
	2		10-11-14	25		Same as above, very stiff, damp	CL		10.8	4.5			
	3		12-18-34	52		Same as above, hard, damp	CL		-	4.5			
	4		16-17-24	41		Same as above, hard, damp	CL		19.7	4.5			
	5		50/3"	50/3"		Weathered Shale Rock manually described as dark grey very hard silty Clay, dry	Shale		-	-			
	6		50/3"	50/3"		Same as above, very hard, dry	Shale		4.5	-			
	7		50/3"	50/3"		Same as above, very hard, dry	Shale		-	-			
	8		50/1"	50/1"		Same as above, very hard, dry	Shale		3.0	-			
						Auger refusal at 31 feet. End of Boring at 31 feet.							

F:\PROJECT\2025proj\25-001200 - 25-001224\25-001217\Boring B-1 US-AL-5529 Borders Lake\_25-001217.bg4[ECA Temp.tbl]





Project: **US-AL-5529 Borders Lake**  
Project Location: **Ragland, AL**  
Project Number: **25-001217**

Environmental Corp of America  
1375 Union Hill Industrial Ct. Suite-A  
Alpharetta, GA 30004  
(770) 667-2040

## Key to Log of Boring Sheet 1 of 1

Depth (feet)	Sample Number	Sample Type	Sampling Resistance, blows/ft	SPT N Values	Rec (%) / RQD (%)	MATERIAL DESCRIPTION	Material Type	Graphic Log	Water Content, %	qu (tsf)	PH	LL, %	PI, %
1	2	3	4	5	6	7	8	9	10	11	12	13	14

### COLUMN DESCRIPTIONS

- 1** Depth (feet): Depth in feet below the ground surface.  
**2** Sample Number: Sample identification number.  
**3** Sample Type: Type of soil sample collected at the depth interval shown.  
**4** Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.  
**5** SPT N Values: SPT N Values  
**6** Rec (%) / RQD (%): Core Recovery(%) & Rock Quality Designation (%)  
**7** MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.  
**8** Material Type: Type of material encountered.  
**9** Graphic Log: Graphic depiction of the subsurface material encountered.  
**10** Water Content, %: Water content of the soil sample, expressed as percentage of dry weight of sample.  
**11** qu (tsf): Unconfined Compression test  
**12** PH : Soil PH Tested  
**13** LL, %: Liquid Limit, expressed as a water content.  
**14** PI, %: Plasticity Index, expressed as a water content.

### FIELD AND LABORATORY TEST ABBREVIATIONS

CHEM: Chemical tests to assess corrosivity  
COMP: Compaction test  
CONS: One-dimensional consolidation test  
LL: Liquid Limit, percent

PI: Plasticity Index, percent  
SA: Sieve analysis (percent passing No. 200 Sieve)  
UC: Unconfined compressive strength test, Qu, in ksf  
WA: Wash sieve (percent passing No. 200 Sieve)

### MATERIAL GRAPHIC SYMBOLS



Lean CLAY, CLAY w/SAND, SANDY CLAY (CL)



Shale

### TYPICAL SAMPLER GRAPHIC SYMBOLS



Auger sampler



CME Sampler



Bulk Sample



Grab Sample



3-inch-OD California w/ brass rings



2.5-inch-OD Modified California w/ brass liners



Pitcher Sample



2-inch-OD unlined split spoon (SPT)



Shelby Tube (Thin-walled, fixed head)

### OTHER GRAPHIC SYMBOLS



Water level (at time of drilling, ATD)



Water level (after waiting, AW)



Minor change in material properties within a stratum



Inferred/gradational contact between strata



Queried contact between strata

### GENERAL NOTES

- 1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.  
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.



# APPENDIX C

## Laboratory Earth Resistivity Test Data

## APPENDIX C

### Laboratory Earth Resistivity Test Data per ASTM G-57

Site Name: US-AL-5529 Borders Lake

ECA Project #: 25-001217

Test Date: May 5, 2025

Test No.	Lab Meter Reading (R)	Calculated Resistivity (Ohms-cm)
Test Trial #1	19.72	25,862
Test Trial #2	19.71	25,849
Test Trial #3	19.72	25,862
Test Trial #4	19.72	25,862
<b>*Average Reported Lab ER Value</b>		<b>25,859</b>
*The lab resistivity test was performed using the auger cut samples within the upper 6 feet.		

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
TNR	Townley-Nauvoo association, rolling	8.2	100.0%
<b>Totals for Area of Interest</b>		<b>8.2</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.



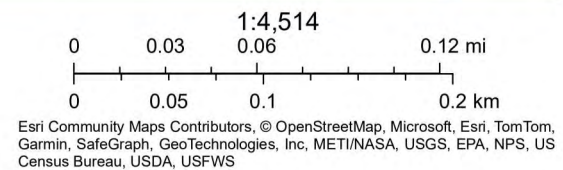
## **Appendix D**

### **Water Resources**

# Sole Source Aquifer



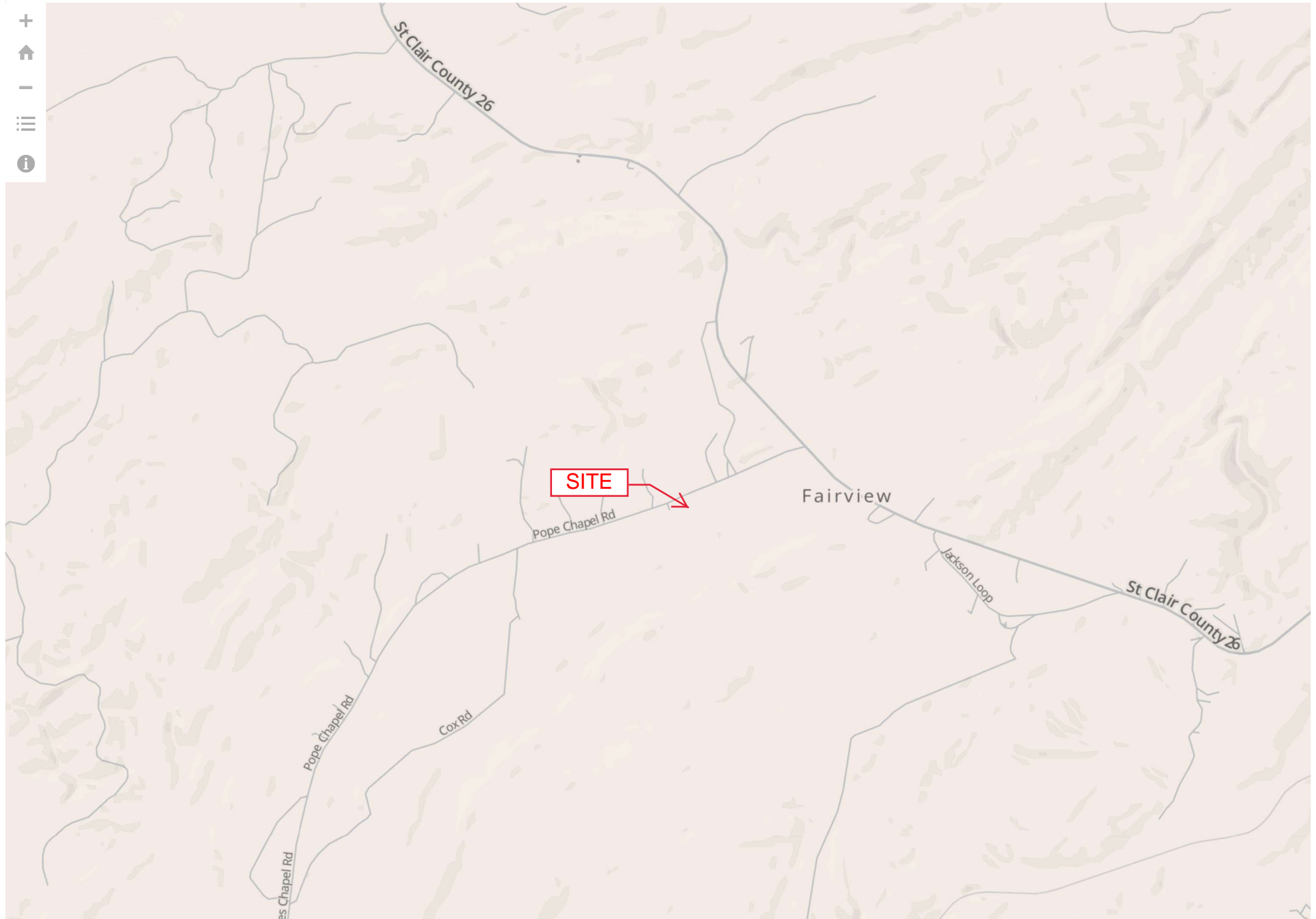
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## Wild &amp; Scenic Rivers



-86.218105, 33.742099





U.S. Fish and Wildlife Service

# National Wetlands Inventory

25-001749



May 20, 2025

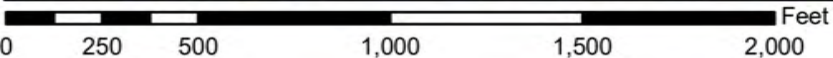
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



# National Flood Hazard Layer FIRMMette



86°13'24"W 33°44'47"N



1:6,000

86°12'46"W 33°44'17"N

Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/20/2025 at 3:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

**Appendix E**  
**Biological Resources**



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
**P** (770) 623 0755  
**F** (770) 623-9628  
[Terracon.com](http://Terracon.com)

March 10, 2025

Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

**Re: Addendum Letter Notification for Ownership Change and Project Refresh**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Original Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>Revised Address:</b>	<b>5842 Popes Chapel Road</b>
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
<b>Proposed Tower Height:</b>	269 Feet
<b>Structure Type:</b>	Self-Support
<b>IPaC Project Code:</b>	<u>2025-0065669</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. The above referenced project has been transferred from the ownership of Verizon Wireless to the ownership of The Towers LLC. The Towers LLC will be building the proposed tower and will be responsible for adhering to all NEPA special conditions.

Terracon is submitting this letter to refresh the previous submittal to your office regarding the above-referenced site. Since completing original submittal, the proposed project has not been constructed to-date. It should be noted that no changes have occurred to the project design and this report is to serve as a refresh due to four years having passed since the original report. Terracon re-visited the site on March 6, 2025. It should be noted that the site consists of grassed land and the environmental setting has not changed since the original site reconnaissance that was conducted in 2020.

An updated IPaC was obtained and the Finelined Pocketbook, Ovate Clubshell, Southern Clubshell, and Upland Combshell were removed. The Tricolored Bat, Whooping Crane, and Monarch Butterfly were added.

An Alabama USFWS Determination Key and Indiana Bat Determination Keys were completed with findings of No Effect. A Tricolored Bat and Northern Long-eared Bat Determination Key was completed for the site with a finding of may affect due to a confirmed inconsistency of the Determination Key when stating there would be drilling or blasting on the site. Due to the lack of tree clearing on the site, Terracon recommends a finding of No Effect for the Tricolored Bat and Northern Long-eared Bat

It is Terracon's opinion that the proposed tower design will have no effect on listed or proposed protected species or critical habitats. Terracon does not anticipate this update to change your office's previous determination.

If you would like to issue a response, please do so within 30-days of this letter. You may reach me by email at [joann.ivey@terracon.com](mailto:joann.ivey@terracon.com), by letter or by phone at 770-623-0755.





2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
**P** (770) 623 0755  
**F** (770) 623-9628  
[Terracon.com](http://Terracon.com)

Sincerely,



JoAnn Ivey, PMP  
Senior Scientist

A handwritten signature in black ink, which appears to read 'Jim Baxter'.

For:

Jim Baxter  
Regional Services Specialist

*Attachments: Site Plans  
Updated Site Photographs  
Updated IPaC  
Determination Keys  
Original Submittal and Reply*



*See Appendix A for Site Plans*

*See Appendix B for Site Photos*



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

In Reply Refer To:

07/30/2025 21:36:56 UTC

Project Code: 2025-0129323

Project Name: US-AL-5529 Borders Lake

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Project consultation requests may be submitted by mail or email ([Alabama@fws.gov](mailto:Alabama@fws.gov)). **Ensure that the Project Code in the header of this letter is clearly referenced in any request for consultation or correspondence submitted to our office.**

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.



We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Ensure that the Project Code in the header of this letter is clearly referenced with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Alabama Ecological Services Field Office**

1208 B Main Street

Daphne, AL 36526-4419

(251) 441-5181

## PROJECT SUMMARY

Project Code: 2025-0129323

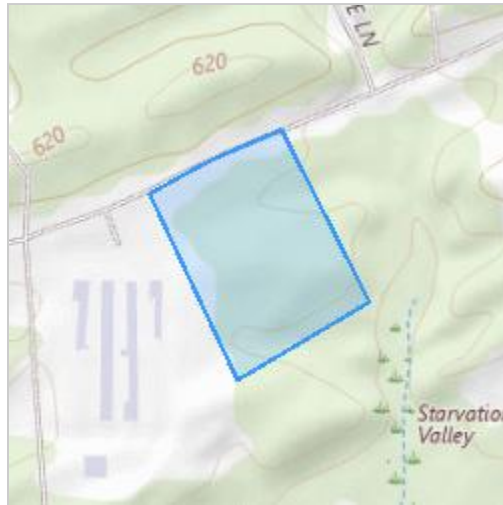
Project Name: US-AL-5529 Borders Lake

Project Type: Communication Tower New Construction

Project Description: Proposed 265' Self-Support Telecommunications Tower and support equipment at grade as well as access and utility easements.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.741792000000004,-86.21718281972787,14z>



Counties: St. Clair County, Alabama

## ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6329">https://ecos.fws.gov/ecp/species/6329</a>	Endangered
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Experimental Population, Non- Essential

## REPTILES

NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4658">https://ecos.fws.gov/ecp/species/4658</a>	Proposed Threatened

## CLAMS

NAME	STATUS
Ovate Clubshell <i>Pleurobema perovatum</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5430">https://ecos.fws.gov/ecp/species/5430</a>	Endangered
Southern Pigtoe <i>Pleurobema georgianum</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1520">https://ecos.fws.gov/ecp/species/1520</a>	Endangered

## INSECTS



NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

## FLOWERING PLANTS

NAME	STATUS
Tennessee Yellow-eyed Grass <i>Xyris tennesseensis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6010">https://ecos.fws.gov/ecp/species/6010</a>	Endangered

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act <sup>2</sup> and the Migratory Bird Treaty Act (MBTA) <sup>1</sup>. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

- 
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
  2. The [Migratory Birds Treaty Act](#) of 1918.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

### Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

### Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

**Breeding Season (■)**

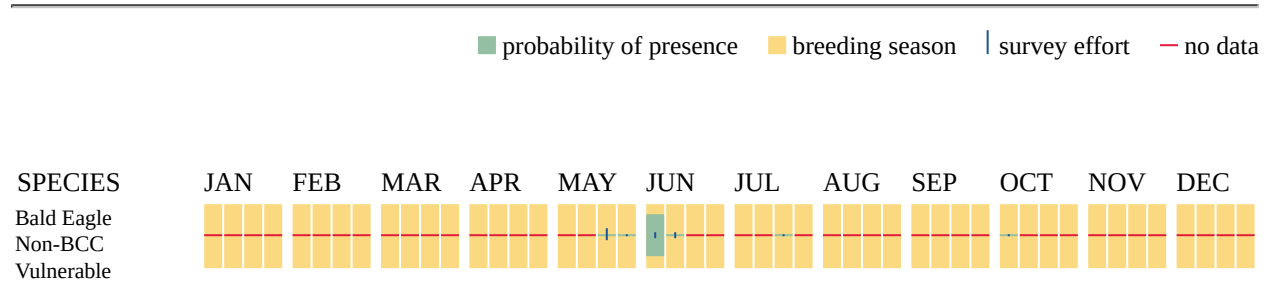
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

**Survey Effort (|)**

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

**No Data (—)**

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) <sup>1</sup> prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Aug 31
<b>Kentucky Warbler <i>Geothlypis formosa</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9443">https://ecos.fws.gov/ecp/species/9443</a>	Breeds Apr 20 to Aug 20
<b>Prairie Warbler <i>Setophaga discolor</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9513">https://ecos.fws.gov/ecp/species/9513</a>	Breeds May 1 to Jul 31
<b>Prothonotary Warbler <i>Protonotaria citrea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9439">https://ecos.fws.gov/ecp/species/9439</a>	Breeds Apr 1 to Jul 31
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9398">https://ecos.fws.gov/ecp/species/9398</a>	Breeds May 10 to Sep 10
<b>Wood Thrush <i>Hylocichla mustelina</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9431">https://ecos.fws.gov/ecp/species/9431</a>	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)



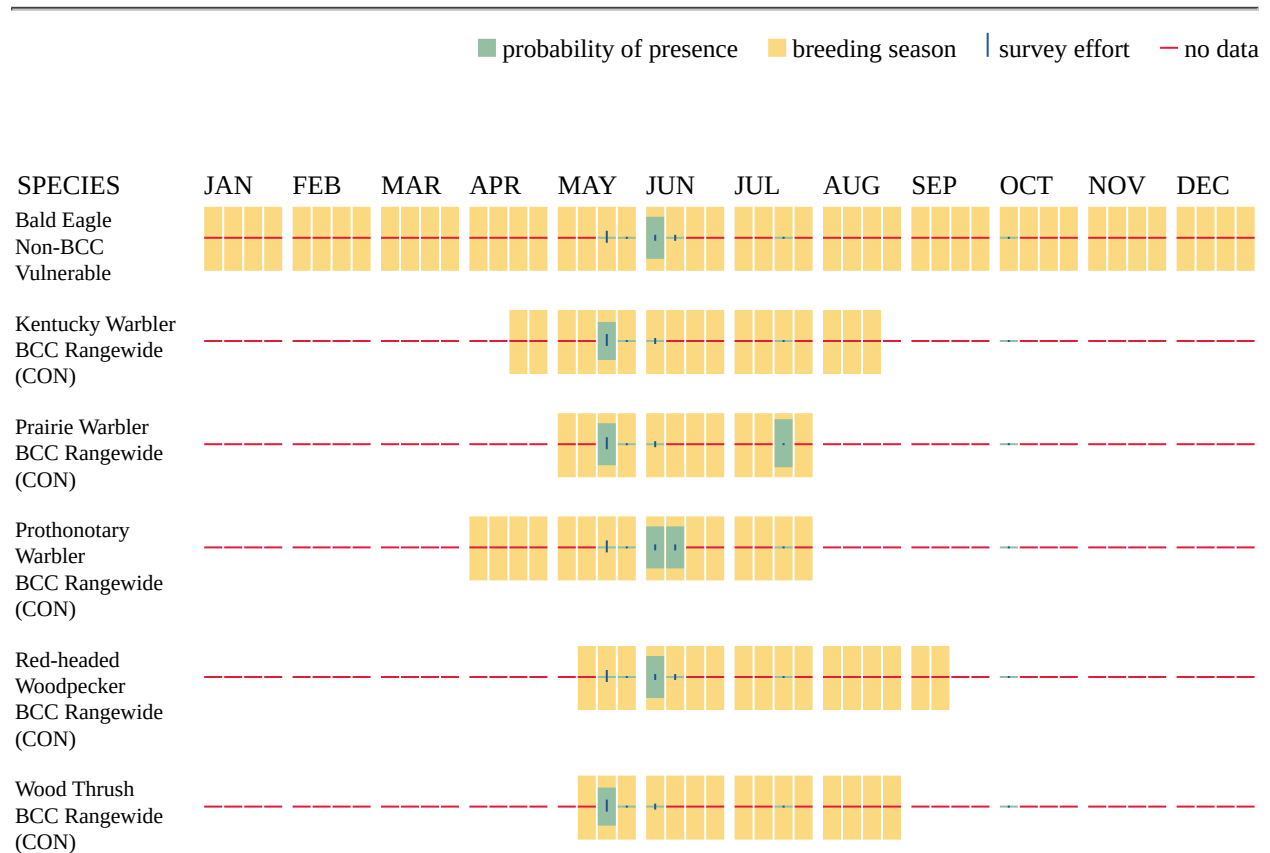
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

## IPAC USER CONTACT INFORMATION

Agency: National Telecommunications and Information Administration

Name: Michael Way

Address: 1401 Constitution Ave NW

City: Washington

State: DC

Zip: 20230

Email: mway@ntia.gov

Phone: 2028414926

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

In Reply Refer To:

03/07/2025 15:16:30 UTC

Project Code: 2025-0065669

Project Name: US-AL-5529 Borders Lake

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Project consultation requests may be submitted by mail or email ([Alabama@fws.gov](mailto:Alabama@fws.gov)). **Ensure that the Project Code in the header of this letter is clearly referenced in any request for consultation or correspondence submitted to our office.**

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered



species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Ensure that the Project Code in the header of this letter is clearly referenced with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Alabama Ecological Services Field Office**

1208 B Main Street

Daphne, AL 36526-4419

(251) 441-5181

## PROJECT SUMMARY

Project Code: 2025-0065669

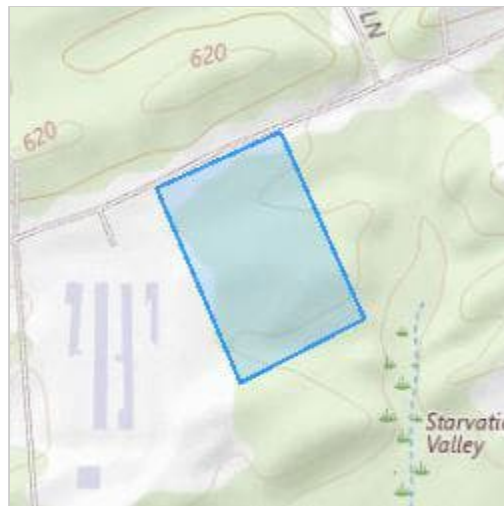
Project Name: US-AL-5529 Borders Lake

Project Type: Communication Tower New Construction

Project Description: Proposed 269' Self-Support Telecommunications Tower and associated easements/equipment.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.74170585,-86.2171519425232,14z>



Counties: St. Clair County, Alabama

## ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.



## MAMMALS

NAME	STATUS
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Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Experimental Population, Non- Essential

## REPTILES

NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4658">https://ecos.fws.gov/ecp/species/4658</a>	Proposed Threatened

## CLAMS

NAME	STATUS
Ovate Clubshell <i>Pleurobema perovatum</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5430">https://ecos.fws.gov/ecp/species/5430</a>	Endangered
Southern Pigtoe <i>Pleurobema georgianum</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1520">https://ecos.fws.gov/ecp/species/1520</a>	Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

## FLOWERING PLANTS

NAME	STATUS
Tennessee Yellow-eyed Grass <i>Xyris tennesseensis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6010">https://ecos.fws.gov/ecp/species/6010</a>	Endangered

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## **IPAC USER CONTACT INFORMATION**

Agency: Federal Communications Commission

Name: JoAnn Ivey

Address: 2105 Newpoint Place

Address Line 2: Suite 600

City: Lawrenceville

State: GA

Zip: 30043

Email: joann.ivey@terracon.com

Phone: 7706238716



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

In Reply Refer To:  
Project code: 2025-0129323  
Project Name: US-AL-5529 Borders Lake

07/30/2025 21:41:48 UTC

***Please provide this document to the Federal agency or their designee with your FCC telecommunication tower application.***

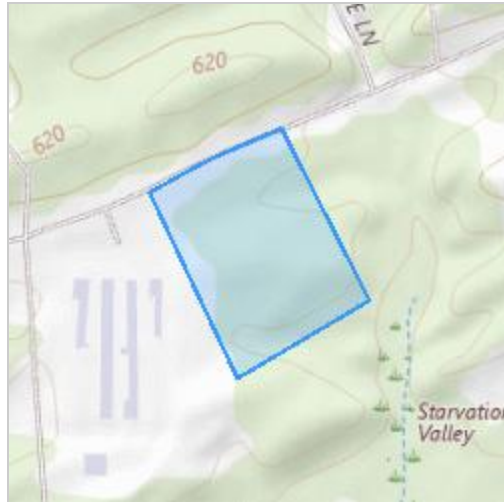
Subject: Technical Assistance letter for the project named 'US-AL-5529 Borders Lake' for specified threatened and endangered species that may occur in your proposed project location, pursuant to the IPaC determination key titled 'U.S. Fish and Wildlife Service Clearance to Proceed with Communication Tower Projects in Alabama'(DKey).

To whom it may concern:

On July 30, 2025, Michael Way used the IPaC determination key 'Clearance to Proceed with Construction of Communication Towers and Related Activities'; dated June 30, 2025, in the U.S. Fish and Wildlife Service's online [IPaC tool](#) to evaluate potential impacts to listed species from a project named 'US-AL-5529 Borders Lake' in St. Clair County, Alabama (shown below). This evaluation was done in support of a permit being sought with the Federal Communications Commission. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531et seq.).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.741792000000004,-86.21718281972787,14z>





The following description was provided for the project 'US-AL-5529 Borders Lake':

Proposed 265' Self-Support Telecommunications Tower and support equipment at grade as well as access and utility easements.

Based on your answers and the assistance of the Service's Alabama DKey, you determined the proposed Action will have "No Effect" on the following species:

Species	Listing Status	Determination
Gray Bat ( <i>Myotis grisescens</i> )	Endangered	No effect
Ovate Clubshell ( <i>Pleurobema perovatum</i> )	Endangered	No effect
Southern Pigtoe ( <i>Pleurobema georgianum</i> )	Endangered	No effect
Tennessee Yellow-eyed Grass ( <i>Xyris tennesseensis</i> )	Endangered	No effect

### Consultation Status

Thank you for informing the Service of your "No Effect" determinations for the species listed above. No further consultation/coordination for this project is required for these species.

This letter confirms you may rely on effect determinations provided in the U.S. Fish and Wildlife Service Standing Analysis on Communication Tower Projects in Alabama Determination key for federally listed species to satisfy agency consultation requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

Please be advised that, if later modifications are made to the project, if additional information involving potential effects to listed species becomes available, if a listed species is found to be present at the site, or if a new species is listed that may be present at the site, additional technical assistance and reevaluations of coordination or consultation may be necessary. If the project is not initiated within one year of completing a review using the Key, we recommend reevaluating the project.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office or evaluate the project with other available determination keys to determine whether the Action may cause prohibited take of the species or critical habitats that are not covered by the DKey. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

### **SPECIES PROTECTION MEASURES:**

Additional information on measures that may be implemented to promote conservation of natural ecosystems and the species on which they depend are available at the following website. We encourage you to implement such measures as appropriate.

<https://www.fws.gov/library/collections/alabama-conservation-measures-library>

### **ADDITIONAL CONSIDERATIONS FOR NON-FEDERALLY LISTED SPECIES**

- **Bald Eagle Nest Issues.** If any of the above-referenced activities (rehabilitation, demolition, or rebuilding) are proposed to occur **within 660 feet** of an active or alternate bald eagle (*Haliaeetus leucocephalus*) nest during the nesting season (October 1 through May 15), we recommend the applicant or their designated agent review the information available for eagle management at <https://www.fws.gov/birds/management/managed-species/eagle-management.php>. Information is available for avoidance and minimization of impacts, and permitting options, if necessary.
- **Migratory Bird Issues.** To ensure there no violations to the Migratory Bird Treaty Act or State regulation, in the event any native birds are using the structures for nesting, we recommend the applicant or their designated agent coordinate with the appropriate Service office <https://www.fws.gov/birds/index.php> so that impacts can be avoided and/or minimized.
- **Note.** Ospreys (*Pandion haliaetus*) frequently nest on communication towers. If you have a nest on your communication tower it may be protected under the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act. Please contact our office for further guidance prior to any work.

## DETERMINATION KEY RESULTS

1. Does the proposed action include a communication tower requiring Federal Communication Commission (FCC) authorization or other Federal agency approval?

Yes

2. Will the communication tower follow the most current [Federal Aviation Administration \(FAA\) obstruction marking and lighting circular](#)?

Yes

3. Does the proposed action intersect Critical Habitat?

**Automatically answered**

No

4. Does this project involve the construction of a new communication tower?

Yes

5. Will the proposed action disturb the ground?

Yes

6. Is the entire site currently developed (i.e. the site is disturbed, urbanized, developed, or in areas that do not provide potential habitat for federally listed species due to a prevalence of human activities)?

After you answer this question you will be prompted to upload photographs of the site. Photographs should thoroughly document habitat at the site.

Yes

### **SUBMITTED DOCUMENTS**

- *Borders Lake US-AL-5529 Site Photos.pdf* <https://ipac.ecosphere.fws.gov/project/NIPMIHCNFZEYXJSF5XMLVURXA4/projectDocuments/166132292>

7. Does the proposed action area intersect the Tennessee yellow-eyed grass AOI?

**Automatically answered**

Yes

8. Does the proposed action area intersect the gray Bat AOI?

**Automatically answered**

Yes

9. Is the project within 200 feet of a waterbody (stream, lake, pond, wet weather conveyance, wetland, spring, beaver pond, etc.) or habitat that could be described as a wetland, bog, fen, stream, seep, or wet meadow?

No

10. Will all the following BMP's be implemented:
- 1.) Develop an erosion control plan tailored to the site. All erosion controls should be inspected routinely, especially during and immediately following significant rain events, to ensure no impacts to nearby surface waters and aquatic habitat. Immediate corrective action should be taken if erosion or sedimentation is observed.
  - 2.) Immediately revegetate any disturbed areas with a native species or an annual grass.
  - 3.) To the extent feasible, complete any work that results in exposed earth during periods when significant rainfall is not predicted.

For specific techniques, see “The Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas” (2018), available from the Alabama Soil and Water Conservation Committee or on-line at: <https://alabamasoilandwater.gov/wp-content/uploads/2021/03/2018-Handbook-Vol-1.pdf>

Yes

11. Does the action area intersect Ovate Clubshell AOI?

**Automatically answered**

Yes

12. Does the action area intersect Southern pigtoe AOI?

**Automatically answered**

Yes



## **DETERMINATION KEY DESCRIPTION: U.S. FISH AND WILDLIFE SERVICE CLEARANCE TO PROCEED WITH COMMUNICATION TOWER PROJECTS IN ALABAMA.**

This key was last updated in IPaC on June 30, 2025. Keys are subject to periodic revision.

This Clearance to Proceed with Communication Tower Projects (Key) letter revises and replaces all prior versions of communication tower clearance letters within the State of Alabama. The purpose of this Key is to assist the Federal Communications Commission (FCC), the non-federal designee of the FCC, or other Federal agencies in making appropriate effects determinations for communication tower projects under section 7 of the [Endangered Species Act of 1973](#), as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 et seq.). The Key is intended to streamline consultation with the U.S. Fish and Wildlife Service (Service) when the proposed action can be walked through the Key and the appropriate conclusion is the proposed action will have no effect on listed species. For towers where the Service believes that further evaluation of the proposed tower is necessary, the Key recommends contacting the local field office and requesting consultation.

There's a win-win opportunity for both communication tower owners and birds, and it's as simple as switching to flashing lights on towers. To learn more about how you can help, please watch this short [video](#) and review the Service's [Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning](#) document.

This guidance is based on the signed letter [U.S. Fish and Wildlife Service Clearance to Proceed with Communication Tower Project Requests](#).

## **U.S. FISH & WILDLIFE SERVICE CONTACT LIST**

### **DETERMINATION KEY OFFICE CONTACT INFORMATION**

#### **Alabama Ecological Services Field Office**

1208 B Main Street

Daphne, AL 36526-4419

(251) 441-5181

### **OFFICES WITH JURISDICTION OVER PROJECT AREA**

#### **Alabama Ecological Services Field Office**

1208 B Main Street

Daphne, AL 36526-4419

(251) 441-5181

## IPAC USER CONTACT INFORMATION

Agency: National Telecommunications and Information Administration

Name: Michael Way

Address: 1401 Constitution Ave NW

City: Washington

State: DC

Zip: 20230

Email: mway@ntia.gov

Phone: 2028414926

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)



## United States Department of the Interior



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Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

In Reply Refer To:  
Project code: 2025-0065669  
Project Name: US-AL-5529 Borders Lake

03/07/2025 15:48:09 UTC

***Please provide this document to the Federal agency or their designee with your FCC telecommunication tower application.***

Subject: Technical Assistance letter for the project named 'US-AL-5529 Borders Lake' for specified threatened and endangered species that may occur in your proposed project location, pursuant to the IPaC determination key titled 'U.S. Fish and Wildlife Service Clearance to Proceed with Communication Tower Projects in Alabama'(DKey).

To whom it may concern:

On March 07, 2025, JoAnn Ivey used the IPaC determination key 'Clearance to Proceed with Construction of Communication Towers and Related Activities'; dated January 08, 2025, in the U.S. Fish and Wildlife Service's online [IPaC tool](#) to evaluate potential impacts to listed species from a project named 'US-AL-5529 Borders Lake' in St. Clair County, Alabama (shown below). This evaluation was done in support of a permit being sought with the Federal Communications Commission. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531et seq.).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.74170585,-86.2171519425232,14z>





The following description was provided for the project 'US-AL-5529 Borders Lake':

Proposed 269' Self-Support Telecommunications Tower and associated easements/equipment.

Based on your answers and the assistance of the Service's Alabama DKey, you determined the proposed Action will have "No Effect" on the following species:

Species	Listing Status	Determination
Gray Bat ( <i>Myotis grisescens</i> )	Endangered	No effect
Ovate Clubshell ( <i>Pleurobema perovatum</i> )	Endangered	No effect
Southern Pigtoe ( <i>Pleurobema georgianum</i> )	Endangered	No effect
Tennessee Yellow-eyed Grass ( <i>Xyris tennesseensis</i> )	Endangered	No effect

### Consultation Status

Thank you for informing the Service of your "No Effect" determinations for the species listed above. No further consultation/coordination for this project is required for these species.

This letter confirms you may rely on effect determinations provided in the U.S. Fish and Wildlife Service Standing Analysis on Communication Tower Projects in Alabama Determination key for federally listed species to satisfy agency consultation requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

Please be advised that, if later modifications are made to the project, if additional information involving potential effects to listed species becomes available, if a listed species is found to be present at the site, or if a new species is listed that may be present at the site, additional technical assistance and reevaluations of coordination or consultation may be necessary. If the project is not initiated within one year of completing a review using the Key, we recommend reevaluating the project.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office or evaluate the project with other available determination keys to determine whether the Action may cause prohibited take of the species or critical habitats that are not covered by the DKey. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

### **SPECIES PROTECTION MEASURES:**

Additional information on measures that may be implemented to promote conservation of natural ecosystems and the species on which they depend are available at the following website. We encourage you to implement such measures as appropriate.

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### **ADDITIONAL CONSIDERATIONS FOR NON-FEDERALLY LISTED SPECIES**

- **Bald Eagle Nest Issues.** If any of the above-referenced activities (rehabilitation, demolition, or rebuilding) are proposed to occur **within 660 feet** of an active or alternate bald eagle (*Haliaeetus leucocephalus*) nest during the nesting season (October 1 through May 15), we recommend the applicant or their designated agent review the information available for eagle management at <https://www.fws.gov/birds/management/managed-species/eagle-management.php>. Information is available for avoidance and minimization of impacts, and permitting options, if necessary.
- **Migratory Bird Issues.** To ensure there no violations to the Migratory Bird Treaty Act or State regulation, in the event any native birds are using the structures for nesting, we recommend the applicant or their designated agent coordinate with the appropriate Service office <https://www.fws.gov/birds/index.php> so that impacts can be avoided and/or minimized.
- **Note.** Ospreys (*Pandion haliaetus*) frequently nest on communication towers. If you have a nest on your communication tower it may be protected under the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act. Please contact our office for further guidance prior to any work.

## DETERMINATION KEY RESULTS

1. Does the proposed action include a communication tower requiring Federal Communication Commission (FCC) authorization or other Federal agency approval?  
Yes
2. Will the communication tower follow the most current [Federal Aviation Administration \(FAA\) obstruction marking and lighting circular](#)?  
Yes
3. Does the proposed action intersect Critical Habitat?  
**Automatically answered**  
No
4. Does this project involve the construction of a new communication tower?  
Yes
5. Will the proposed action disturb the ground?  
Yes
6. Is the entire site currently developed (i.e. the site is disturbed, urbanized, developed, or in areas that do not provide potential habitat for federally listed species due to a prevalence of human activities)?

After you answer this question you will be prompted to upload photographs of the site. Photographs should thoroughly document habitat at the site.

Yes

### **SUBMITTED DOCUMENTS**

- *US-AL-5529 Borders Lake Site Photos.pdf* <https://ipac.ecosphere.fws.gov/project/7AKLOZ46YVCULH36KVP33MAROA/projectDocuments/158502848>

7. Does the proposed action area intersect the Tennessee yellow-eyed grass AOI?  
**Automatically answered**  
Yes
8. Does the proposed action area intersect the gray Bat AOI?  
**Automatically answered**  
Yes
9. Is the project within 200 feet of a waterbody (stream, lake, pond, wet weather conveyance, wetland, spring, beaver pond, etc.) or habitat that could be described as a wetland, bog, fen, stream, seep, or wet meadow?  
No

10. Will all the following BMP's be implemented:
- 1.) Develop an erosion control plan tailored to the site. All erosion controls should be inspected routinely, especially during and immediately following significant rain events, to ensure no impacts to nearby surface waters and aquatic habitat. Immediate corrective action should be taken if erosion or sedimentation is observed.
  - 2.) Immediately revegetate any disturbed areas with a native species or an annual grass.
  - 3.) To the extent feasible, complete any work that results in exposed earth during periods when significant rainfall is not predicted.

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Yes

11. Does the action area intersect Ovate Clubshell AOI?

**Automatically answered**

Yes

12. Does the action area intersect Southern pigtoe AOI?

**Automatically answered**

Yes



## **DETERMINATION KEY DESCRIPTION: U.S. FISH AND WILDLIFE SERVICE CLEARANCE TO PROCEED WITH COMMUNICATION TOWER PROJECTS IN ALABAMA.**

This key was last updated in IPaC on January 08, 2025. Keys are subject to periodic revision.

This Clearance to Proceed with Communication Tower Projects (Key) letter revises and replaces all prior versions of communication tower clearance letters within the State of Alabama. The purpose of this Key is to assist the Federal Communications Commission (FCC), the non-federal designee of the FCC, or other Federal agencies in making appropriate effects determinations for communication tower projects under section 7 of the [Endangered Species Act of 1973](#), as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 et seq.). The Key is intended to streamline consultation with the U.S. Fish and Wildlife Service (Service) when the proposed action can be walked through the Key and the appropriate conclusion is the proposed action will have no effect on listed species. For towers where the Service believes that further evaluation of the proposed tower is necessary, the Key recommends contacting the local field office and requesting consultation.

There's a win-win opportunity for both communication tower owners and birds, and it's as simple as switching to flashing lights on towers. To learn more about how you can help, please watch this short [video](#) and review the Service's [Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning](#) document.

This guidance is based on the signed letter [U.S. Fish and Wildlife Service Clearance to Proceed with Communication Tower Project Requests](#).

## **U.S. FISH & WILDLIFE SERVICE CONTACT LIST**

### **DETERMINATION KEY OFFICE CONTACT INFORMATION**

#### **Alabama Ecological Services Field Office**

1208 B Main Street

Daphne, AL 36526-4419

(251) 441-5181

### **OFFICES WITH JURISDICTION OVER PROJECT AREA**

#### **Alabama Ecological Services Field Office**

1208 B Main Street

Daphne, AL 36526-4419

(251) 441-5181

**IPAC USER CONTACT INFORMATION**

Agency: Federal Communications Commission

Name: JoAnn Ivey

Address: 2105 Newpoint Place

Address Line 2: Suite 600

City: Lawrenceville

State: GA

Zip: 30043

Email: joann.ivey@terracon.com

Phone: 7706238716



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

In Reply Refer To:

07/30/2025 21:48:11 UTC

Project code: 2025-0129323

Project Name: US-AL-5529 Borders Lake

Subject: Technical Assistance letter for the project named 'US-AL-5529 Borders Lake' for the endangered Indiana bat and its critical habitat in the proposed project location, pursuant to the Indiana Bat Determination Key (DKey)

Dear Michael Way:

The U.S. Fish and Wildlife Service (Service) received on **July 30, 2025** your effect determination(s) for the 'US-AL-5529 Borders Lake' using the Indiana Bat DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Indiana Bat DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Indiana Bat ( <i>Myotis sodalis</i> )	Endangered	No effect

### Consultation Status

**No Effect Determinations:** : Species with No effect determinations are those for which you determined the proposed Action would have “no effect” on the species. There is no statutory requirement for the federal action agency to request concurrence with that determination; however, the federal action agency should document the supporting information for this determination in their files. This documentation would typically demonstrate a lack of suitable habitat within the action area, show that no impacts to suitable habitat would occur, or provide information that the species is not reasonably certain to occur in the action area even though suitable habitat is present.

The Service recommends that your agency contact the Alabama Ecological Services Field Office or re-evaluate the Action in IPaC if: 1) the scope, timing, duration, or location of the Action changes, 2) new information reveals the Action may affect listed species or designated critical



habitat, or 3) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Alabama Ecological Services Field Office should take place before project changes are final or resources committed.

In addition to the Indiana bat, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Gray Bat *Myotis grisescens* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Ovate Clubshell *Pleurobema perovatum* Endangered
- Southern Pigtoe *Pleurobema georgianum* Endangered
- Tennessee Yellow-eyed Grass *Xyris tennesseensis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

To address effects to other federally listed or proposed species and/or their designated critical habitat, you can request project-specific review by following the instructions in the “Next Steps” section of your species list letter, or you may use another determination key, if available.

#### **Additional Coordination**

To request additional technical assistance or consultation, please contact the Alabama Ecological Services Field Office . When you contact the office, please provide all relevant site-specific information regarding the proposed Action. The Alabama Ecological Services Field Office will respond within 30 to 60 days of your submittal.

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

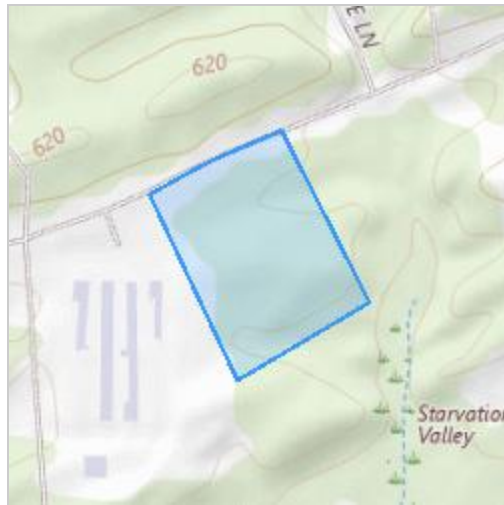
US-AL-5529 Borders Lake

**2. Description**

The following description was provided for the project 'US-AL-5529 Borders Lake':

Proposed 265' Self-Support Telecommunications Tower and support equipment at grade as well as access and utility easements.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.741792000000004,-86.21718281972787,14z>



## QUALIFICATION INTERVIEW

1. Does the project intersect the Indiana bat species list area?

**Automatically answered**

*Yes*

2. Will the proposed action involve Federal funding, permitting, or authorization, or will it be carried out by a Federal Agency?

*Yes*

3. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead Federal Agency for this action?

*No*

4. Are you the lead Federal Action Agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

*Yes*

5. Does the proposed action involve **wind or solar energy**?

*No*

6. Will the proposed Action involve blasting, other than a fireworks display?

*No*

7. Will the proposed Action involve a new point source discharge from a facility other than a water treatment plant or storm water system?

*No*

8. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

**Note:** For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

*No*

9. Will the proposed Action include the removal, replacement, repair and/or maintenance of an existing bridge or culvert?

*No*

10. Will the proposed Action involve perennial stream loss that would require an individual permit under 404 of the Clean Water Act?

*No*

11. Will the proposed Action involve discharge of sediment into a stream?

*No*

12. Does the Action Area contain any caves (including their associated sinkholes, fissures, or other karst features), rockshelters, underground quarries, or abandoned mine portals (including associated underground workings)?

*No*

13. Will the proposed project result in the removal of trees?

*No*

14. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service under the standing analyses that supports this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the Indiana bat.

What determination do you want to make for the Indiana bat:

**Note:** IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

*No effect*



## IPAC USER CONTACT INFORMATION

Agency: National Telecommunications and Information Administration

Name: Michael Way

Address: 1401 Constitution Ave NW

City: Washington

State: DC

Zip: 20230

Email: mway@ntia.gov

Phone: 2028414926

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Alabama Ecological Services Field Office  
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Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

In Reply Refer To:

03/07/2025 15:31:15 UTC

Project code: 2025-0065669

Project Name: US-AL-5529 Borders Lake

Subject: Technical Assistance letter for the project named 'US-AL-5529 Borders Lake' for the endangered Indiana bat and its critical habitat in the proposed project location, pursuant to the Indiana Bat Determination Key (DKey)

Dear JoAnn Ivey:

The U.S. Fish and Wildlife Service (Service) received on **March 07, 2025** your effect determination(s) for the 'US-AL-5529 Borders Lake' using the Indiana Bat DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Indiana Bat DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Indiana Bat ( <i>Myotis sodalis</i> )	Endangered	No effect

### Consultation Status

**No Effect Determinations:** : Species with No effect determinations are those for which you determined the proposed Action would have “no effect” on the species. There is no statutory requirement for the federal action agency to request concurrence with that determination; however, the federal action agency should document the supporting information for this determination in their files. This documentation would typically demonstrate a lack of suitable habitat within the action area, show that no impacts to suitable habitat would occur, or provide information that the species is not reasonably certain to occur in the action area even though suitable habitat is present.

The Service recommends that your agency contact the Alabama Ecological Services Field Office or re-evaluate the Action in IPaC if: 1) the scope, timing, duration, or location of the Action changes, 2) new information reveals the Action may affect listed species or designated critical

habitat, or 3) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Alabama Ecological Services Field Office should take place before project changes are final or resources committed.

In addition to the Indiana bat, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Gray Bat *Myotis grisescens* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Ovate Clubshell *Pleurobema perovatum* Endangered
- Southern Pigtoe *Pleurobema georgianum* Endangered
- Tennessee Yellow-eyed Grass *Xyris tennesseensis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

To address effects to other federally listed or proposed species and/or their designated critical habitat, you can request project-specific review by following the instructions in the “Next Steps” section of your species list letter, or you may use another determination key, if available.

#### **Additional Coordination**

To request additional technical assistance or consultation, please contact the Alabama Ecological Services Field Office . When you contact the office, please provide all relevant site-specific information regarding the proposed Action. The Alabama Ecological Services Field Office will respond within 30 to 60 days of your submittal.

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

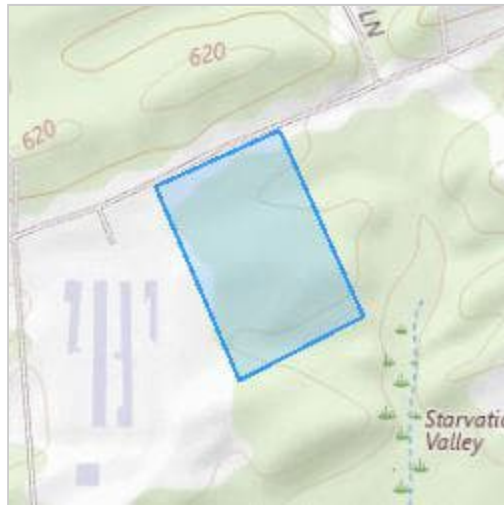
US-AL-5529 Borders Lake

**2. Description**

The following description was provided for the project 'US-AL-5529 Borders Lake':

Proposed 269' Self-Support Telecommunications Tower and associated easements/  
equipment.

The approximate location of the project can be viewed in Google Maps: [https://  
www.google.com/maps/@33.74170585,-86.2171519425232,14z](https://www.google.com/maps/@33.74170585,-86.2171519425232,14z)



## QUALIFICATION INTERVIEW

1. Does the project intersect the Indiana bat species list area?

**Automatically answered**

*Yes*

2. Will the proposed action involve Federal funding, permitting, or authorization, or will it be carried out by a Federal Agency?

*Yes*

3. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead Federal Agency for this action?

*No*

4. Are you the lead Federal Action Agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

*Yes*

5. Will the proposed Action involve construction or operation of wind turbines?

*No*

6. Will the proposed Action involve blasting, other than a fireworks display?

*No*

7. Will the proposed Action involve a new point source discharge from a facility other than a water treatment plant or storm water system?

*No*

8. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

**Note:** For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

*No*

9. Will the proposed Action include the removal, replacement, repair and/or maintenance of an existing bridge or culvert?

*No*

10. Will the proposed Action involve perennial stream loss that would require an individual permit under 404 of the Clean Water Act?

*No*

11. Will the proposed Action involve discharge of sediment into a stream?

*No*

12. Does the Action Area contain any caves (including their associated sinkholes, fissures, or other karst features), rockshelters, underground quarries, or abandoned mine portals (including associated underground workings)?

*No*



13. Will the proposed project result in the removal of trees?

*No*

14. Based on the responses you have provided, we believe that the proposed Action is consistent with the type of Actions programmatically evaluated by the Service under the standing analyses that supports this determination key. These Actions typically conclude with "no effect" or "may affect - not likely to adversely affect" determinations for the Indiana bat.

What determination do you want to make for the Indiana bat:

**Note:** IPaC will not provide a concurrence for "no effect" determinations, because there is no statutory requirement to request concurrence from the Service. IPaC will provide concurrence for "May affect – not likely to adversely affect" determinations. If you choose "May affect – likely to adversely affect" or "Unsure," additional coordination with the Service is recommended.

*No effect*

**IPAC USER CONTACT INFORMATION**

Agency: Federal Communications Commission

Name: JoAnn Ivey

Address: 2105 Newpoint Place

Address Line 2: Suite 600

City: Lawrenceville

State: GA

Zip: 30043

Email: joann.ivey@terracon.com

Phone: 7706238716



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

In Reply Refer To:  
Project code: 2025-0129323  
Project Name: US-AL-5529 Borders Lake

07/30/2025 21:52:49 UTC

Federal Nexus: yes  
Federal Action Agency (if applicable): National Telecommunications and Information Administration

**Subject:** Technical assistance for 'US-AL-5529 Borders Lake'

Dear Michael Way:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 30, 2025, for 'US-AL-5529 Borders Lake' (here forward, Project). This project has been assigned Project Code 2025-0129323 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

### Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey), invalidates this letter.**

### Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat ( <i>Myotis septentrionalis</i> )	Endangered	May affect
Tricolored Bat ( <i>Perimyotis subflavus</i> )	Proposed	May affect
	Endangered	

## Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Gray Bat *Myotis grisescens* Endangered
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Ovate Clubshell *Pleurobema perovatum* Endangered
- Southern Pigtoe *Pleurobema georgianum* Endangered
- Tennessee Yellow-eyed Grass *Xyris tennesseensis* Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

## Conclusion

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect.” A “May Affect” determination in this key indicates that the project, as entered, is not consistent with the questions in the key. Not all projects that reach a “May Affect” determination are anticipated to result in adverse impacts to listed species. These projects may result in a “No Effect”, “May Affect, Not Likely to Adversely Affect”, or “May Affect, Likely to Adversely Affect” determination depending on the details of the project. Please contact our Alabama Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate. Projects that receive a may affect determination for tricolored bat through the key, should contact the appropriate Ecological Services Field Office if they want to conference on this species.

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

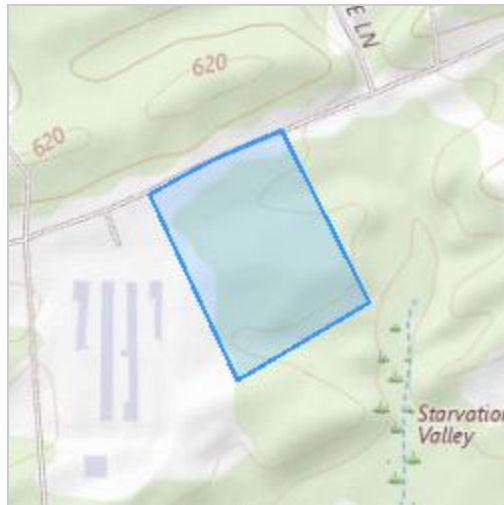
US-AL-5529 Borders Lake

**2. Description**

The following description was provided for the project 'US-AL-5529 Borders Lake':

Proposed 265' Self-Support Telecommunications Tower and support equipment at grade as well as access and utility easements.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.741792000000004,-86.21718281972787,14z>





## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect” for a least one species covered by this determination key.

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

*No*

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

**Automatically answered**

*No*

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

**Automatically answered**

*No*

4. Does the proposed action involve wind or solar energy?

*No*

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

**Note for projects in Pennsylvania:** Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer ‘yes’ to this question.

*Yes*

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

*No*

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

Yes

9. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

10. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

11. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

No

12. Will the action cause effects to a bridge?

**Note:** Covered bridges should be considered as bridges in this question.

No

13. Will the action result in effects to a culvert or tunnel at any time of year?

No

14. Are trees present within 1000 feet of the action area?

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

15. Does the action include the intentional exclusion of bats from a building or building-like structure? **Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

16. Does the action involve removal, modification, or maintenance of a human-made building-like structure (barn, house, or other building) **known or suspected to contain roosting bats?**

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

**Note:** For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the proposed action involve blasting or drilling?

Yes

23. Does the action area intersect the northern long-eared bat species list area?

**Automatically answered**

Yes

24. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known NLEB hibernacula? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

25. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

26. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency. Have you contacted the appropriate agency to determine if your action is within 150 feet of any documented northern long-eared bat roosts?

**Note:** A document with links to Natural Heritage Inventory databases and other state-specific sources of information on the locations of northern long-eared bat roosts is available [here](#). Location information for northern long-eared bat roosts is generally kept in state natural heritage inventory databases – the availability of this data varies by state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited.

**Automatically answered**

No

27. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

If unsure, answer "Yes."

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

28. Has a presence/probable absence summer bat survey targeting the northern long-eared bat following the Service's [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

29. Does the action area intersect the tricolored bat species list area?

**Automatically answered**

Yes

30. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known tricolored bat hibernacula? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

31. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

32. Has a presence/probable absence bat survey targeting the [tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

33. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?

(If unsure, answer ""Yes."" )

**Note:** If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

Yes



34. Do you have any documents that you want to include with this submission?

*No*

## PROJECT QUESTIONNAIRE

## IPAC USER CONTACT INFORMATION

Agency: National Telecommunications and Information Administration

Name: Michael Way

Address: 1401 Constitution Ave NW

City: Washington

State: DC

Zip: 20230

Email: mway@ntia.gov

Phone: 2028414926

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181 Fax: (251) 441-6222  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)



In Reply Refer To:

03/10/2025 14:57:56 UTC

Project code: 2025-0065669

Project Name: US-AL-5529 Borders Lake

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Communications Commission

**Subject:** Technical assistance for 'US-AL-5529 Borders Lake'

Dear JoAnn Ivey:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on March 10, 2025, for 'US-AL-5529 Borders Lake' (here forward, Project). This project has been assigned Project Code 2025-0065669 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

### Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey), invalidates this letter.**

### Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat ( <i>Myotis septentrionalis</i> )	Endangered	May affect
Tricolored Bat ( <i>Perimyotis subflavus</i> )	Proposed	May affect
	Endangered	

## Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Gray Bat *Myotis grisescens* Endangered
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Ovate Clubshell *Pleurobema perovatum* Endangered
- Southern Pigtoe *Pleurobema georgianum* Endangered
- Tennessee Yellow-eyed Grass *Xyris tennesseensis* Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

## Conclusion

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect.” A “May Affect” determination in this key indicates that the project, as entered, is not consistent with the questions in the key. Not all projects that reach a “May Affect” determination are anticipated to result in adverse impacts to listed species. These projects may result in a “No Effect”, “May Affect, Not Likely to Adversely Affect”, or “May Affect, Likely to Adversely Affect” determination depending on the details of the project. Please contact our Alabama Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate. Projects that receive a may affect determination for tricolored bat through the key, should contact the appropriate Ecological Services Field Office if they want to conference on this species.



**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

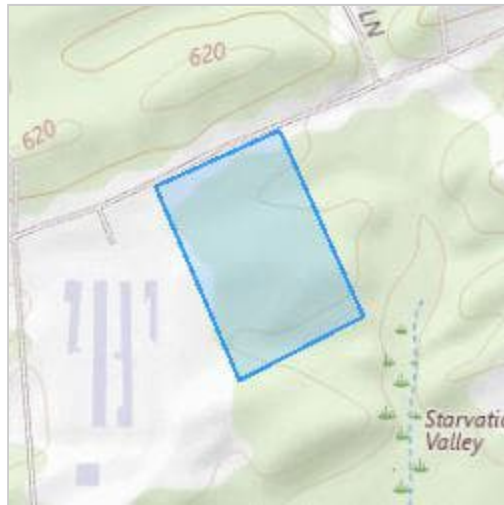
US-AL-5529 Borders Lake

**2. Description**

The following description was provided for the project 'US-AL-5529 Borders Lake':

Proposed 269' Self-Support Telecommunications Tower and associated easements/  
equipment.

The approximate location of the project can be viewed in Google Maps: [https://  
www.google.com/maps/@33.74170585,-86.2171519425232,14z](https://www.google.com/maps/@33.74170585,-86.2171519425232,14z)



## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect” for a least one species covered by this determination key.

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

*No*

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

**Automatically answered**

*No*

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

**Automatically answered**

*No*

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

*No*

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

*Yes*

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

*No*

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

Yes

9. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

10. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

11. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

No

12. Will the action cause effects to a bridge?

**Note:** Covered bridges should be considered as bridges in this question.

No

13. Will the action result in effects to a culvert or tunnel at any time of year?

No

14. Are trees present within 1000 feet of the action area?

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

15. Does the action include the intentional exclusion of bats from a building or structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats**?

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic permanently or temporarily on one or more existing roads?

**Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

**Note:** For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the proposed action involve blasting or drilling?

Yes

23. Does the action area intersect the northern long-eared bat species list area?

**Automatically answered**

Yes

24. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

**Automatically answered**

No

25. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

26. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

If unsure, answer "Yes."

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

27. Has a presence/probable absence summer bat survey targeting the northern long-eared bat following the Service's [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

28. Does the action area intersect the tricolored bat species list area?

**Automatically answered**

Yes



29. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

30. Has a presence/probable absence bat survey targeting the [tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

31. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?

(If unsure, answer ""Yes."" )

**Note:** If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

Yes

32. Do you have any documents that you want to include with this submission?

No

# PROJECT QUESTIONNAIRE

**IPAC USER CONTACT INFORMATION**

Agency: Federal Communications Commission

Name: JoAnn Ivey

Address: 2105 Newpoint Place

Address Line 2: Suite 600

City: Lawrenceville

State: GA

Zip: 30043

Email: joann.ivey@terracon.com

Phone: 7706238716

*See Appendix G for USFWS Documentation*

CPA/BBJ

2020-CPA-0148

RECEIVED  
JUN 22 2020BY: *CP*

June 18, 2020

**Terracon**

United States Fish and Wildlife Service  
Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
ATTN: Bill Pearson  
Phone: (251) 441-5181

Sent Via: FedEx

**Re: Natural Resources Site Evaluation for a Telecommunications Site**

To Whom It May Concern:

On behalf of our Client, Terracon is requesting a review of potential impacts to listed and proposed threatened/endangered species and critical habitats resulting from the proposed construction of a telecommunications site. Federal Communication Commission (FCC) regulations, as identified in 47CFR § 1.1307 (a) 3, require that Verizon Wireless consider the effects of the proposed tower construction to protected species and critical habitats. Findings in this report are based upon the site's current utilization, the most recent reconnaissance information and from other activities described herein; such information is subject to change. Basic site information is presented in the table below.

<b>Site Name:</b>	BORDERS_LAKE – Buckner 2 – B
<b>Site Number:</b>	616478418
<b>Project Number:</b>	49207201A
<b>Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL 35131
<b>Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 5.177" W
<b>Proposed Lease Area:</b>	Approximately 10,000 square feet (SF)
<b>Proposed Access Road:</b>	Approximately 30-foot by 47-foot access road extending northwest from the proposed tower compound to Popes Chapel Road
<b>Proposed Tower Height:</b>	269-feet
<b>Tower Type:</b>	Self-Support
<b>Description of the site</b>	Grassed land
<b>Description of the surrounding properties</b>	Grassed land, wooded land, and a road to the north; wooded land to the east; grassed land and poultry houses to the south; and grassed land to the west
<b>Description of wetlands or water bodies near the site</b>	The closest surface water is a stream mapped approximately 695 feet east of the proposed tower compound. No wetlands or surface waters are located on the Site.
<b>Elevation and topography</b>	The elevation at the tower is 585.4-feet above mean sea level and the topography in the area slopes generally toward the southeast.



Terracon conducted a preliminary review using the U.S. Fish and Wildlife Service (USFWS) Information, Planning and Conservation System (IPaC) Endangered Species Act species list to identify listed and proposed threatened and endangered species, as well as critical habitats that may be located on or near the proposed tower site.

According to the IPaC report, the following species are listed to have the potential to be present in the vicinity of the project area:

Taxon	Name	Species Habitat	Status
Mammals	Gray Bat ( <i>Myotis grisescens</i> )	Found in caves year-round, and this species selects deep, vertical caves during winter and caves along rivers during summer. These caves are found in the limestone karst areas of the southeastern United States (USFWS).	Endangered (Federal)
	Indiana Bat ( <i>Myotis sodalis</i> )	Found in caves and in wooded land. During the winter, this species utilizes caves or abandoned mines. During summer, this species utilizes wooded areas where trees contain exfoliating bark of live trees or decaying bark of snag trees. (Critical habitat for this species in Kentucky is designated as (1) Bat Cave, Carter County and (2) Coach Cave, Edmonson County. (USFWS).	Endangered (Federal)
	Northern Long-eared Bat ( <i>Myotis septentrionalis</i> )	Found in caves and in wooded land. During the winter, this species utilizes caves or abandoned mines, called hibernacula. During summer, this species utilizes wooded areas where trees contain exfoliating bark of live trees or decaying bark of snag trees (USFWS).	Threatened (Federal)
Clams	Finelined Pocketbook ( <i>Lamellis altilis</i> )	Found in small streams to large rivers with sandy to muddy sand substrates or gravel shoals with slight to moderate current.	Threatened (Federal)
	Ovate Clubshell ( <i>Pleurobema perovatum</i> )	Found in small to medium streams and rivers with clean, loose sand and gravel substrates. In Tennessee, found in sand and fine gravel substrate in stretches of river with moderate current and typically at a depth of less than three feet (NatureServe).	Endangered (Federal)
	Southern Clubshell ( <i>Pleurobema decisum</i> )	Typically found in large streams to large rivers with moderate flow and sand or gravel substrates and sometimes in pools with slow or no current. It prefers clean, loose sand and gravel and found up to substrate depths up to four inches.	Endangered (Federal)
	Southern Pigtoe ( <i>Pleurobema georgianum</i> )	Typically occupies medium size streams to large rivers with moderate flow and sand or gravel substrates.	Endangered (Federal)
	Upland Combshell ( <i>Epioblasma metastrata</i> )	Found in small to medium streams and rivers with stable rock and gravel substrates. This species is primarily found in the Coosa and Conasauga Rivers of Georgia, Alabama, and Tennessee (USFWS).	Endangered (Federal)
Flowering Plants	Tennessee Yellow-eyed Grass ( <i>Xyris tennesseensis</i> )	Found in sunny, wet habitats over calcareous bedrock such as spring runs, edges of shallow streams and ponds, seeps, wet meadows, and swales.	Endangered (Federal)

Based on a review of the habitats for the above-listed species, compared to an analysis of the habitat present on the site, it is not anticipated that the construction of the proposed telecommunications tower site will affect listed or proposed protected species or critical habitats. The project area consisted of grass land; therefore, no suitable habitat for listed species. There are no critical habitats, wildlife refuges, or fish hatcheries documented at the site.

USFWS recommendations published in Revised Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning (2013) state the preferred tower height to decrease potential effects on migratory birds is less than 200 feet tall. Siting and design process for this project could not conform to all the USFWS recommendations; however, mitigating factors proposed for implementation at the site include the following:

- location in minimally sensitive areas
- eliminating the need for guy wires
- utilizing a lighting style that eliminates the need for red steady-burning lighting

Based on Terracon's analysis and reconnaissance, it is not anticipated that the construction of the proposed telecommunications tower site will affect listed or proposed protected species or critical habitats. Your confirmation of this, however, would be greatly appreciated. Please feel free to contact our office at 770-623-0755 if you need additional information. Thank you for your assistance with this project.

Sincerely,

**Terracon**

  
Savanna Sapp  
Staff Scientist

  
For: Iris Avila  
Senior Staff Scientist

Attachments: Tower Site Evaluation Form, Topographic Site Location Map, NWI Map, Site Plans, Photographs, IPaC Report



U.S. Fish and Wildlife Service  
1208-B – Daphne, Alabama 36526  
Phone: 251-441-5181 Fax: 251-441-6222

No federally listed species/critical habitat are known to occur in the project area. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW. To avoid and/or minimize impacts to neotropical migrant bird species, other birds, and bats, we recommend incorporating the following guidelines into the tower design: See <http://www.fws.gov/daphne/towers/towers.html>

William J. Pearson, Field Supervisor

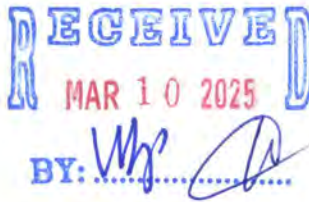
Date

# 1





JG



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
P (770) 623 0755  
F (770) 623-9628  
Terracon.com

March 10, 2025

Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

**Re: Addendum Letter Notification for Ownership Change and Project Refresh**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Original Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>Revised Address:</b>	<b>5842 Popes Chapel Road</b>
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
<b>Proposed Tower Height:</b>	269 Feet
<b>Structure Type:</b>	Self-Support
<b>IPaC Project Code:</b>	2025-0065669

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. The above referenced project has been transferred from the ownership of Verizon Wireless to the ownership of The Towers LLC. The Towers LLC will be building the proposed tower and will be responsible for adhering to all NEPA special conditions.

Terracon is submitting this letter to refresh the previous submittal to your office regarding the above-referenced site. Since completing original submittal, the proposed project has not been constructed to-date. It should be noted that no changes have occurred to the project design and this report is to serve as a refresh due to four years having passed since the original report. Terracon re-visited the site on March 6, 2025. It should be noted that the site consists of grassed land and the environmental setting has not changed since the original site reconnaissance that was conducted in 2020.

An updated IPaC was obtained and the Finelined Pocketbook, Ovate Clubshell, Southern Clubshell, and Upland Combshell were removed. The Tricolored Bat, Whooping Crane, and Monarch Butterfly were added.

An Alabama USFWS Determination Key and Indiana Bat Determination Keys were completed with findings of No Effect. A Tricolored Bat and Northern Long-eared Bat Determination Key was completed for the site with a finding of may affect due to a confirmed inconsistency of the Determination Key when stating there would be drilling or blasting on the site. Due to the lack of tree clearing on the site, Terracon recommends a finding of No Effect for the Tricolored Bat and Northern Long-eared Bat

It is Terracon's opinion that the proposed tower design will have no effect on listed or proposed protected species or critical habitats. Terracon does not anticipate this update to change your office's previous determination.

If you would like to issue a response, please do so within 30-days of this letter. You may reach me by email at [joann.ivey@terracon.com](mailto:joann.ivey@terracon.com), by letter or by phone at 770-623-0755.



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
P (770) 623 0755  
F (770) 623-9628  
[Terracon.com](http://Terracon.com)

Sincerely,

  
*JoAnn Ivey*

JoAnn Ivey, PMP  
Senior Scientist

*Jim Baxter*

For:

Jim Baxter  
Regional Services Specialist

Attachments: *Site Plans*  
*Updated Site Photographs*  
*Updated IPaC*  
*Determination Keys*  
*Original Submittal and Reply*



U.S. Fish and Wildlife Service  
1208-B – Daphne, Alabama 36526  
Phone: 251-441-5181 Fax: 251-441-6222

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*William J. Pearson*

William J. Pearson  
Field Supervisor

Alabama Ecological Services Field Office

MAR 20 2025

Date

# 1



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
**P** (770) 623 0755  
**F** (770) 623-9628  
[Terracon.com](http://Terracon.com)

May 1, 2025

Alabama Ecological Services Field Office  
1208 B Main Street  
Daphne, AL 36526-4419  
Phone: (251) 441-5181  
Email Address: [alabama@fws.gov](mailto:alabama@fws.gov)

**Re: Reduced Height Addendum for Proposed Telecommunications Tower**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Address:</b>	5842 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
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<b>Revised Tower Height:</b>	<b>265 Feet</b>
<b>Structure Type:</b>	Self-Support
<b>IPaC Project Code:</b>	<u>2025-0065669</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. Terracon is submitting an update on the proposed tower height. The overall tower height has been reduced from 269-feet to 265-feet. It should be noted that the proposed location of the tower has not changed, and the proper location of this tower was surveyed during the original site reconnaissance. Terracon does not anticipate these design changes to change your office's previous determination of effect.

We are bringing to your attention the update so that you may add this information to your files. A response from you is not required at this time. If you have questions, please feel free to reach me at [joann.ivey@terracon.com](mailto:joann.ivey@terracon.com) or at the office at 770-623-0755 if you need additional information. Thank you for your assistance with this project.

Sincerely,

JoAnn Ivey, PMP  
Senior Scientist

Attachments: Revised Site Plans





2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
P (770) 623 0755  
F (770) 623-9628  
[Terracon.com](http://Terracon.com)

March 10, 2025

Alabama Department of Conservation and Natural Resources  
64 North Union Street  
Montgomery, AL 36130  
Attn: Mr. Todd Fobian  
Email: [Todd.Fobian@dcnr.alabama.gov](mailto:Todd.Fobian@dcnr.alabama.gov)

**Re: Addendum Letter Notification for Ownership Change and Project Refresh**

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<b>Terracon Project Number:</b>	49257199A
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Sincerely,



*JoAnn Ivey*

JoAnn Ivey, PMP  
Senior Scientist

*Jim Baxter*

For:

Jim Baxter  
Regional Services Specialist

*Attachments: Site Plans  
Updated Site Photographs  
Updated IPaC  
Determination Keys  
Original Submittal and Reply*



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Lawrenceville, GA 30043  
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May 1, 2025

Alabama Department of Conservation and Natural Resources  
64 North Union Street  
Montgomery, AL 36130  
Attn: Mr. Todd Fobian  
Email: [Todd.Fobian@dcnr.alabama.gov](mailto:Todd.Fobian@dcnr.alabama.gov)

**Re: Reduced Height Addendum for Proposed Telecommunications Tower**

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Sincerely,

JoAnn Ivey, PMP  
Senior Scientist

Attachments: Revised Site Plans

# ALNHP Rare Species Occurrences by County - St. Clair County

TAX_GROUP	EO_ID	SCIENTIFIC_NAME	COMMON_NAME	FED_STATUS	STATE_STATUS	COUNTIES
Amphibians	1904	Aneides aeneus	Green Salamander	UR	SP	St. Clair (AL)
Crayfishes	5215	Cambarus ludovicianus	Painted Devil Crayfish			St. Clair (AL)
Crayfishes	1928	Cambarus ludovicianus	Painted Devil Crayfish			St. Clair (AL)
Dicots	2666	Clematis socialis	Alabama Leather-flower	LE		St. Clair (AL)
Dicots	6688	Clematis socialis	Alabama Leather-flower	LE		St. Clair (AL)
Dicots	10291	Delphinium alabamicum	Alabama Larkspur			St. Clair (AL)
Freshwater Snails	6001	Elimia cahawbensis	Cahaba Elimia			St. Clair (AL)
Freshwater Snails	5074	Elimia capillaris	Spindle Elimia			St. Clair (AL)
Freshwater Snails	6917	Elimia carinocostata	Fluted Elimia			St. Clair (AL)
Freshwater Snails	7903	Elimia chiltonensis	Prune Elimia			St. Clair (AL)
Freshwater Snails	3576	Elimia clara	Riffle Elimia			St. Clair (AL)
Freshwater Snails	8396	Elimia modesta	Coldwater Elimia			St. Clair (AL)
Freshwater Snails	3512	Elimia modesta	Coldwater Elimia			St. Clair (AL)
Freshwater Snails	4252	Elimia modesta	Coldwater Elimia			St. Clair (AL)
Freshwater Snails	4261	Elimia modesta	Coldwater Elimia			St. Clair (AL)
Freshwater Snails	2550	Elimia modesta	Coldwater Elimia			St. Clair (AL)
Freshwater Snails	173	Elimia modesta	Coldwater Elimia			St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9359	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9908	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9909	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)

Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9378	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9358	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9377	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9376	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9375	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9363	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9362	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9361	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	9360	Etheostoma trisella	Trispot Darter	PT	SP	St. Clair (AL)
Dicots	4818	Fothergilla major	Mountain Witch-alder			St. Clair (AL)
Dicots	204	Lathyrus venosus	Smooth Veiny Peavine			St. Clair (AL)
Dicots	7420	Leavenworthia exigua var. lutea	Pasture Glade-cress			St. Clair (AL)
Dicots	892	Lysimachia fraseri	Fraser's Loosestrife			St. Clair (AL)



Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	4791	Notropis asperifrons	Burrhead Shiner			St. Clair (AL)
Reptiles	881	Plestiodon anthracinus	Coal Skink		SP	St. Clair (AL)
Freshwater Snails	588	Pleurocera showalteri	Upland Hornsnail			St. Clair (AL)
Caddisflies	2170	Protophila cahabensis	Cahaba Saddle-case Caddisfly			St. Clair (AL)
Dicots	2225	Ptilimnium costatum	Eastern Bishop-weed			St. Clair (AL)
Dicots	445	Ptilimnium costatum	Eastern Bishop-weed			St. Clair (AL)
Dicots	4064	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Dicots	10706	Quercus boyntonii	Boynton's Sand Post Oak			St. Clair (AL)
Dicots	10705	Quercus boyntonii	Boynton's Sand Post Oak			St. Clair (AL)
Dicots	10704	Quercus boyntonii	Boynton's Sand Post Oak			St. Clair (AL)
Dicots	7002	Quercus boyntonii	Boynton's Sand Post Oak			St. Clair (AL)
Dicots	1114	Quercus boyntonii	Boynton's Sand Post Oak			St. Clair (AL)
Dicots	8238	Quercus georgiana	Georgia Oak			St. Clair (AL)
Dicots	6028	Quercus georgiana	Georgia Oak			St. Clair (AL)
Dicots	2682	Quercus georgiana	Georgia Oak			St. Clair (AL)
Dicots	7362	Rudbeckia auriculata	Eared Coneflower			St. Clair (AL)
Dicots	3423	Rudbeckia auriculata	Eared Coneflower			St. Clair (AL)
Dicots	8504	Sabatia capitata	Rose Gentian			St. Clair (AL)
Dicots	3569	Sabatia capitata	Rose Gentian			St. Clair (AL)

Dicots	9060	Scutellaria alabamensis	Alabama Skullcap			St. Clair (AL)
Dicots	10768	Silene ovata	Ovate Catchfly			St. Clair (AL)
Dicots	5004	Silphium trifoliatum var. latifolium	Threeleaf Rosinweed			St. Clair (AL)
Dicots	10030	Solidago buckleyi	Buckley's Goldenrod			St. Clair (AL)
Dicots	10744	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Dicots	7956	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Dicots	8199	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Dicots	6321	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Dicots	4466	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Dicots	3103	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Dicots	211	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Monocots	3428	Trillium decumbens	Decumbent Trillium			St. Clair (AL)
Monocots	10609	Trillium lancifolium	Narrow-leaved Trillium			St. Clair (AL)
Monocots	10619	Trillium rugelii	Southern Nodding Trillium			St. Clair (AL)
Freshwater Snails	3641	Tulotoma magnifica	Tulotoma Snail	LT	SP	St. Clair (AL)
Freshwater Snails	4399	Tulotoma magnifica	Tulotoma Snail	LT	SP	St. Clair (AL)
Monocots	5053	Lilium canadense	Canada Lily			St. Clair (AL)
Dicots	6590	Symphyotrichum georgianum	Georgia Aster			St. Clair (AL)
Reptiles	7572	Pituophis melanoleucus melanoleucus	Northern Pinesnake	SC	SP	St. Clair (AL)
Monocots	10600	Trillium flexipes	Nodding Trillium			St. Clair (AL)

**Appendix F**  
**Historic and Cultural Resources**



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
**P** (770) 623 0755  
**F** (770) 623-9628  
[Terracon.com](http://Terracon.com)

March 10, 2025

Alabama Historical Commission  
Attn: Section 106 Review  
468 South Perry Street  
Montgomery, Alabama 36130-0900

**Re: Addendum Letter Notification for Ownership Change and Project Refresh**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Original Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>Revised Address:</b>	<b>5842 Popes Chapel Road</b>
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
<b>Proposed Tower Height:</b>	269 Feet
<b>Structure Type:</b>	Self-Support
<b>SHPO File #:</b>	<u>AHC 20-0995</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. The above referenced project has been transferred from the ownership of Verizon Wireless to the ownership of The Towers LLC. The Towers LLC will be building the proposed tower and will be responsible for adhering to all NEPA special conditions.

Terracon is submitting this letter to refresh the previous submittal to your office regarding the above-referenced site. Terracon originally surveyed the site location on June 3, 2020 and there were no archaeological materials (i.e. artifacts, cultural deposits, features, or human remains) located within the survey area. Terracon submitted a letter to your office on June 17, 2020 and a concurrence was received for the site on July 17, 2020. Since completing Section 106 Compliance, the proposed project has not been constructed to-date. It should be noted that no changes have occurred to the project design and this report is to serve as a refresh due to four years having passed since the original report. Terracon re-visited the site on March 6, 2025. It should be noted that the site consists of grassed land and the environmental setting has not changed since the original site reconnaissance that was conducted in 2020.

Terracon's findings and recommendations have not changed since our original submittal and the proposed tower design will not result in an adverse effect to historic resources listed or eligible for listing on the NRHP. Terracon is submitting this letter on behalf of The Towers LLC to comply with Federal Communications Commission (FCC) requirements as identified in 47CFR Ch. I §1.1307.

If you would like to issue a response, please do so within 30-days of this letter. You may reach me by email at joann.ivey@terracon.com, by letter or by phone at 770-623-0755.

Sincerely,

  
*JoAnn Ivey*

JoAnn Ivey, PMP  
Senior Scientist

Craig Pruett  
Principal

For:

Attachments: *Site Plans*  
*Previous Submittal and Reply*



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
P (770) 623 0755  
F (770) 623-9628  
[Terracon.com](http://Terracon.com)

May 1, 2025

Alabama Historical Commission  
Attn: Section 106 Review  
468 South Perry Street  
Montgomery, Alabama 36130-0900

**Re: Reduced Height Addendum for Proposed Telecommunications Tower**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Address:</b>	5842 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL
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<b>Revised Tower Height:</b>	265 Feet
<b>Structure Type:</b>	Self-Support
<b>SHPO File #:</b>	<u>AHC 20-0995</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. Terracon is submitting an update on the proposed tower height. The overall tower height has been reduced from 269-feet to 265-feet. It should be noted that the proposed location of the tower has not changed, and the proper location of this tower was surveyed during the original site reconnaissance. Terracon does not anticipate these design changes to change your office's previous determination of effect.

We are bringing to your attention the update so that you may add this information to your files. A response from you is not required at this time. If you have questions, please feel free to reach me at joann.ivey@terracon.com or at the office at 770-623-0755 if you need additional information. Thank you for your assistance with this project.

Sincerely,

JoAnn Ivey, PMP  
Senior Scientist

Attachments: Revised Site Plans



Tribal Summary Table						
Site Name: US-AL-5529 Borders Lake						
TCNS #: 205032				TCNS Notification Date: April 24, 2020		
Tribe	TCNS Auto Reply	Request from Tribes	Follow Up(s)	Final Reply	FCC Referral	Standing Agreements and Comments
Alabama-Coushatta Tribe of Texas	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Coushatta Indian Tribe	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Eastern Band of Cherokee Indians	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Jena Band of Choctaw Indians	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	8/3/2020; 3/21/2025	7/30/20	N/A
Chickasaw Nation			Addendum 3/10/2025 and 5/1/2025	6/8/2020; Addendum Time Out 4/9/2025	N/A	N/A
Kialegee Tribal Town	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Seminole Nation of Oklahoma	30 Day Time Out		Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Time out 5/24/2020; Addendum Time Out 4/9/2025	N/A	N/A
Cherokee Nation	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	7/23/2020; Addendum Time Out 4/9/2025	N/A	N/A
Muscogee (Creek) Nation	Requests additional site information	Requests 620 in TCNS	Mail E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
United Keetoowah Band of Cherokee Indians in Oklahoma	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Eastern Shawnee Tribe of Oklahoma	Requests additional site information	Requests 620 in TCNS	Mailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Alabama Quassarte Tribal Town	Replied with NOO		Addendum 3/10/2025 and 5/1/2025	4/24/2020 (NOO); Addendum Time Out 4/9/2025	N/A	N/A
Thlopthlocco Tribal Town	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Shawnee Tribe	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Referral Time Out 8/14/2020; Addendum Time Out 4/9/2025	7/30/20	N/A
Poarch Band of Creek Indians	30 Day Time Out		Addendum 3/10/2025 and 5/1/2025	Time out 5/24/2020; Addendum Time Out 4/9/2025	N/A	N/A
Tunica-Biloxi Tribe of LA	30 Day Time Out		Emailed E106 6/17/2020; Addendum 3/10/2025 and 5/1/2025	Time out 5/24/2020; Addendum Time Out 4/9/2025	N/A	N/A

---

**TCNS #: 205032 Addendum**

---

**From** Ivey, JoAnn T <Joann.Ivey@terracon.com>

**Date** Mon 3/10/2025 12:44 PM

**Bcc** Celestine.bryant@actribe.org <Celestine.bryant@actribe.org>; dakotajohn@coushatta.org <dakotajohn@coushatta.org>; kdawsey@coushatta.org <kdawsey@coushatta.org>; syerka@nc-cherokee.com <syerka@nc-cherokee.com>; lwilliamson@jenachoctaw.org <lwilliamson@jenachoctaw.org>; monty.stick@chickasaw.net <monty.stick@chickasaw.net>; david.cook@kialegeetribenet.net <david.cook@kialegeetribenet.net>; jeremiah.hobia@kialegeetribenet.net <jeremiah.hobia@kialegeetribenet.net>; tcns-sno@sno-nsn.gov <tcns-sno@sno-nsn.gov>; gwen-terrapin@cherokee.org <gwen-terrapin@cherokee.org>; tcns@ukb-nsn.gov <tcns@ukb-nsn.gov>; kpritchett@ukb-nsn.gov <kpritchett@ukb-nsn.gov>; brina.williams@alabama-quassarte.org <brina.williams@alabama-quassarte.org>; thpo@tttown.org <thpo@tttown.org>; tcns@shawnee-tribe.com <tcns@shawnee-tribe.com>; lhaikey@pci-nsn.gov <lhaikey@pci-nsn.gov>; earlii@tunica.org <earlii@tunica.org>

 2 attachments (1 MB)

US-AL-5529 Borders Lake TCNS Addendum.pdf; US-AL-5529 Borders Lake Site Plans.pdf;

Good Afternoon,

Please see attached Addendum Letter Notification for Ownership Change and Project Refresh.

Thank you,

**JoAnn Ivey, PMP** (she/her)

Senior Scientist

NEPA Telecom Manager | Environmental



2105 Newpoint Place, Suite 600 | Lawrenceville, GA 30043

D (770) 623-8716 | M (618) 713-6884

[joann.ivey@terracon.com](mailto:joann.ivey@terracon.com) | [Terracon.com](http://Terracon.com)



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
P (770) 623 0755  
F (770) 623-9628  
[Terracon.com](http://Terracon.com)

March 10, 2025

**Re: Addendum Letter Notification for Ownership Change and Project Refresh**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Original Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>Revised Address:</b>	<b>5842 Popes Chapel Road</b>
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
<b>Proposed Tower Height:</b>	269 Feet
<b>Structure Type:</b>	Self-Support
<b>TCNS #</b>	<u>205032</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. The above referenced project has been transferred from the ownership of Verizon Wireless to the ownership of The Towers LLC. The Towers LLC will be building the proposed tower and will be responsible for adhering to all NEPA special conditions.

Terracon is submitting this letter to refresh the previous submittal to your office regarding the above-referenced site. Since completing original submittal, the proposed project has not been constructed to-date. It should be noted that no changes have occurred to the project design and this report is to serve as a refresh due to four years having passed since the original report. Terracon re-visited the site on March 6, 2025. It should be noted that the site consists of grassed land and the environmental setting has not changed since the original site reconnaissance that was conducted in 2020.

Terracon's findings and recommendations have not changed since our original submittal and the proposed tower design will not result in an adverse effect to historic resources listed or eligible for listing on the NRHP. Terracon is submitting this letter on behalf of The Towers LLC to comply with Federal Communications Commission (FCC) requirements as identified in 47CFR Ch. I §1.1307.

If you would like to issue a response, please do so within 30-days of this letter. You may reach me by email at [joann.ivey@terracon.com](mailto:joann.ivey@terracon.com), by letter or by phone at 770-623-0755.

Sincerely,

  
*JoAnn Ivey*

JoAnn Ivey, PMP  
Senior Scientist

Craig Pruett  
Principal

For:

*Attachments: Site Plans*

---


**TCNS # 205032**

---

**From** Ivey, JoAnn T <Joann.Ivey@terracon.com>

**Date** Thu 5/1/2025 9:28 AM

**Bcc** Celestine.bryant@actribe.org <Celestine.bryant@actribe.org>; dakotajohn@coushatta.org <dakotajohn@coushatta.org>; kdawsey@coushatta.org <kdawsey@coushatta.org>; syerka@nc-chokekee.com <syerka@nc-chokekee.com>; lwilliamson@jenachoctaw.org <lwilliamson@jenachoctaw.org>; monty.stick@chickasaw.net <monty.stick@chickasaw.net>; david.cook@kialegeetribes.net <david.cook@kialegeetribes.net>; jeremiah.hobia@kialegeetribes.net <jeremiah.hobia@kialegeetribes.net>; tcns-sno@sno-nsn.gov <tcns-sno@sno-nsn.gov>; gwen-terrapin@chokekee.org <gwen-terrapin@chokekee.org>; tcns@ukb-nsn.gov <tcns@ukb-nsn.gov>; kpritchett@ukb-nsn.gov <kpritchett@ukb-nsn.gov>; brina.williams@alabama-quassarte.org <brina.williams@alabama-quassarte.org>; thpo@tttown.org <thpo@tttown.org>; tcns@shawnee-tribe.com <tcns@shawnee-tribe.com>; lhaikey@pci-nsn.gov <lhaikey@pci-nsn.gov>; earlii@tunica.org <earlii@tunica.org>

 1 attachment (3 MB)

US-AL-5529 Borders Lake Plans.pdf;

May 1, 2025

**Re: Reduced Height Addendum for Proposed Telecommunications Tower**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Address:</b>	5842 Popes Chapel Road
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<b>Revised Tower Height:</b>	265 Feet
<b>Structure Type:</b>	Self-Support
<b>TCNS #</b>	<u>205032</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. Terracon is submitting an update on the proposed tower height. The overall tower height has been reduced from 269-feet to 265-feet. It should be noted that the proposed location of the tower has not changed, and the proper location of this tower was surveyed during the original site reconnaissance. Terracon does not anticipate these design changes to change your office's previous determination of effect.

We are bringing to your attention the update so that you may add this information to your files. A response from you is not required at this time. If you have questions, please feel free to reach me at joann.ivey@terracon.com or at the office at 770-623-0755 if you need additional information. Thank you for your assistance with this project.

Sincerely,

JoAnn Ivey, PMP

Senior Scientist

*Attachments: Revised Site Plans*

**JoAnn Ivey, PMP** (she/her)

Senior Scientist

Telecom NEPA Manager | Environmental



2105 Newpoint Place, Suite 600 | Lawrenceville, GA 30043

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[joann.ivey@terracon.com](mailto:joann.ivey@terracon.com) | [Terracon.com](http://Terracon.com)



---

Re: TCNS #: 205032 Addendum

---

From Lillie Williamson <lwilliamson@jenachoctaw.org>

Date Fri 3/21/2025 11:32 AM

To Ivey, JoAnn T <Joann.Ivey@terracon.com>

To Whom It May Concern:

Thank you for the update and additional information regarding **TCNS# 205032, 5842 POPES CHAPEL ROAD, RAGLAND, ST. CLAIR COUNTY, ALABAMA.**

After reviewing the updated information (**the above-referenced project has been transferred from the ownership of Verizon Wireless to the ownership of The Towers LLC**), our original concurrence of this project is still in effect.

The Tribe's original reply was sent on **8-30-2020**

For your files, below is the original response for this project.

***"We are unaware of any sacred sites or significant cultural resources in this area. However, if the applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.***

***If you have any comments or questions, please feel free to contact me.***

***Please refer to the contact information below.***

***Thank you***

On Mon, Mar 10, 2025 at 11:44 AM Ivey, JoAnn T <[Joann.Ivey@terracon.com](mailto:Joann.Ivey@terracon.com)> wrote:

Good Afternoon,

Please see attached Addendum Letter Notification for Ownership Change and Project Refresh.

Thank you,

**JoAnn Ivey, PMP** (she/her)

Senior Scientist

NEPA Telecom Manager | Environmental

2105 Newpoint Place, Suite 600 | Lawrenceville, GA 30043

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[joann.ivey@terracon.com](mailto:joann.ivey@terracon.com) | [Terracon.com](http://Terracon.com)

Terracon provides environmental, facilities, geotechnical, and materials consulting engineering services delivered with responsiveness, resourcefulness, and reliability.

---

*Private and confidential as detailed here ([www.terracon.com/disclaimer](http://www.terracon.com/disclaimer)). If you cannot access the hyperlink, please e-mail sender.*



**Lillie Williamson**  
**TCNS Representative**  
**Jena Band of Choctaw Indians**  
**P O Box 14,**  
**Jena, LA 71342**  
**PH: 318-992-8258**  
**FAX: 318-992-8244**  
**[lwilliamson@jenachoctaw.org](mailto:lwilliamson@jenachoctaw.org)**

**Jena Band of Choctaw Indians Email Confidentiality Statement:**

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you are not the named addressee, you should not disseminate, distribute or copy this email. Please notify the sender immediately by email if you have received this email by mistake, and delete this e-mail from your system. If you are not the intended recipient, you are notified that disclosing, copying, distributing, or taking any action in reliance on the contents of this information is strictly prohibited. Opinions, conclusions and other information in this message that do not relate to the official business of this company shall be understood as neither given nor endorsed by.



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[Terracon.com](http://Terracon.com)

March 10, 2025

Muscogee (Creek) Nation  
TCNS Manager Jason Sawyer  
Cultural Preservation Office  
P.O. Box 580  
Okmulgee, OK 74447  
918-732- 7835

**Re: Addendum Letter Notification for Ownership Change and Project Refresh**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Original Address:</b>	Adjacent to 5661 Popes Chapel Road
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To Whom It May Concern:

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Sincerely,

  
*JoAnn Ivey*

JoAnn Ivey, PMP  
Senior Scientist

*Attachments: Site Plans*

Craig Pruett  
Principal

For:



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
**P** (770) 623 0755  
**F** (770) 623-9628  
[Terracon.com](http://Terracon.com)

May 1, 2025

Muscogee (Creek) Nation  
TCNS Manager Jason Sawyer  
Cultural Preservation Office  
P.O. Box 580  
Okmulgee, OK 74447  
918-732- 7835

**Re: Reduced Height Addendum for Proposed Telecommunications Tower**

<b>Site Name:</b>	US-AL-5529 Borders Lake
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Sincerely,



JoAnn Ivey, PMP  
Senior Scientist

*Attachments: Revised Site Plans*



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
P (770) 623 0755  
F (770) 623-9628  
[Terracon.com](http://Terracon.com)

March 10, 2025

Eastern Shawnee Tribe of Oklahoma  
Cell Tower Coordinator Kelly Nelson  
Cultural Preservation Department  
70500 East 128 Road  
Wyandotte, OK 74370  
918-666-2435

**Re: Addendum Letter Notification for Ownership Change and Project Refresh**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Original Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>Revised Address:</b>	<b>5842 Popes Chapel Road</b>
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
<b>Proposed Tower Height:</b>	269 Feet
<b>Structure Type:</b>	Self-Support
<b>TCNS #</b>	<u>205032</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. The above referenced project has been transferred from the ownership of Verizon Wireless to the ownership of The Towers LLC. The Towers LLC will be building the proposed tower and will be responsible for adhering to all NEPA special conditions.

Terracon is submitting this letter to refresh the previous submittal to your office regarding the above-referenced site. Since completing original submittal, the proposed project has not been constructed to-date. It should be noted that no changes have occurred to the project design and this report is to serve as a refresh due to four years having passed since the original report. Terracon re-visited the site on March 6, 2025. It should be noted that the site consists of grassed land and the environmental setting has not changed since the original site reconnaissance that was conducted in 2020.

Terracon's findings and recommendations have not changed since our original submittal and the proposed tower design will not result in an adverse effect to historic resources listed or eligible for listing on the NRHP. Terracon is submitting this letter on behalf of The Towers LLC to comply with Federal Communications Commission (FCC) requirements as identified in 47CFR Ch. I §1.1307.

If you would like to issue a response, please do so within 30-days of this letter. You may reach me by email at joann.ivey@terracon.com, by letter or by phone at 770-623-0755.

Sincerely,

  
*JoAnn Ivey*

JoAnn Ivey, PMP  
Senior Scientist

For:

Craig Pruett  
Principal

*Attachments: Site Plans*





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May 1, 2025

Eastern Shawnee Tribe of Oklahoma  
Cell Tower Coordinator Kelly Nelson  
Cultural Preservation Department  
70500 East 128 Road  
Wyandotte, OK 74370  
918-666-2435

**Re: Reduced Height Addendum for Proposed Telecommunications Tower**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Original Address:</b>	5842 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
<b>Proposed Tower Height:</b>	269 Feet
<b>Revised Tower Height:</b>	265 Feet
<b>Structure Type:</b>	Self-Support
<b>TCNS #</b>	<u>205032</u>

To Whom It May Concern:

This letter is to update the previous submittal to your office regarding the above-referenced site. Terracon is submitting an update on the proposed tower height. The overall tower height has been reduced from 269-feet to 265-feet. It should be noted that the proposed location of the tower has not changed, and the proper location of this tower was surveyed during the original site reconnaissance. Terracon does not anticipate these design changes to change your office's previous determination of effect.

We are bringing to your attention the update so that you may add this information to your files. A response from you is not required at this time. If you have questions, please feel free to reach me at joann.ivey@terracon.com or at the office at 770-623-0755 if you need additional information. Thank you for your assistance with this project.

Sincerely,



JoAnn Ivey, PMP  
Senior Scientist

*Attachments: Revised Site Plans*



2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
P (770) 623 0755  
F (770) 623-9628  
[Terracon.com](http://Terracon.com)

May 1, 2025

**Tribal Consultation Certification Letter**

<b>Site Name:</b>	US-AL-5529 Borders Lake
<b>Terracon Project Number:</b>	49257199A
<b>Revised Address:</b>	5842 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL
<b>Proposed Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 05.177" W
<b>Proposed Tower Height:</b>	265 Feet
<b>Structure Type:</b>	Self-Support
<b>TCNS #:</b>	<u>205032</u>

Dear The Towers LLC:

All tribes that were consulted on the original project were notified of the project changes. Tribes have replied with no objection to the revised undertaking or were unresponsive and the appropriate waiting period has expired. The Towers LLC can proceed with the site, in compliance with Section 106 of the NHPA and the FCC's NPA. If any tribe replies in the future with an interest in the project, you will be notified immediately by Terracon Consultants.

Sincerely,

JoAnn Ivey  
Senior Scientist



STATE OF ALABAMA  
**DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES**  
**WILDLIFE AND FRESHWATER FISHERIES DIVISION**

64 North Union Street, Ste. 567  
P. O. Box 301456  
Montgomery, AL 36130-1456  
Phone: (334) 242-3465 Fax: (334) 242-3032  
[www.outdooralabama.com](http://www.outdooralabama.com)



**KAY IVEY**  
GOVERNOR

**CHRISTOPHER M. BLANKENSHIP**  
COMMISSIONER

**EDWARD F. POOLOS**  
DEPUTY COMMISSIONER

*The mission of the Wildlife and Freshwater Fisheries Division is to manage, protect, conserve, and enhance the wildlife and aquatic resources of Alabama for the sustainable benefit of the people of Alabama.*

**CHARLES F. "CHUCK" SYKES**  
DIRECTOR

**FRED R. HARDERS**  
ASSISTANT DIRECTOR

July 16, 2020

Ms. Savanna Sapp  
Ms. Iris Avila  
Terracon Consultants, Inc.  
2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043

**RE: Natural Resources Site Evaluation for a Telecommunications Site**  
**Tower Site Evaluation: 269-foot Self-Support Telecommunications Towers**  
**Site Name: BORDERS LAKE-Buckner 2-B Site Number: 616478418**  
**Site Address: Adjacent to 5661 Popes Chapel Road, Ragland, St. Clair County, Alabama 35131**  
**Latitude / Longitude: 33° 44' 31.555" N, -86° 13' 5.177" W**  
**Terracon Project Number: 49207201A**

Dear Ms. Sapp and Ms. Avila:

The Division of Wildlife and Freshwater Fisheries, Department of Conservation and Natural Resources (ADCNR) has reviewed the above-referenced project and provides the following comments and recommendations:

- Based on the information provided in your letter received June 18, 2020 and our own research, it does not appear that this project will adversely affect any state or federally protected species. We note that you have consulted the U. S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System for a preliminary review of species in the project area. Please contact that agency regarding potential impacts to federally protected species (251-441-5181).
- We recommend that if any state or federally protected species are observed during construction, the team should halt work activities and contact USFWS and ADCNR for further instructions and to re-evaluate project activities.
- The state and federally protected species in St. Clair county are highly sensitive to runoff, erosion, and sedimentation from disturbed soils. Environmental impacts should be minimized prior to and during construction by strict adherence to proper erosion control and re-vegetation procedures. Installation and implementation of best management practices (BMPs), as outlined in the Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas (July 2018) and the Field Guide for Erosion and Sediment Control on Construction Sites in Alabama (December 2018), will aid in minimizing erosion and migration of sediments into nearby streams and creeks. State water quality standards (particularly those related to erosion control, water turbidity, and dissolved oxygen) should be strictly adhered to.

- Communication towers can have negative impacts on flying birds. USFWS has developed guidelines on communication towers in order to address some of these impacts. Some guidelines may not apply in this case. However, a summary of those guidelines is listed below:
  - We recommend that communication towers be installed onto existing towers or structures whenever possible.
  - New towers that are developed should be no more than 199 feet above ground level, should not require guy wires, and should be unlighted.
  - Guy wires should have daytime visual markers on the wires to avoid collisions.
  - The footprint of towers or equipment areas should be constructed in a way to minimize habitat loss.
  - Any on-ground security lighting should be down-shielded to keep light within boundaries of the site. If lights are required for aviation safety, the Federal Aviation Administration (FAA) should be consulted. Lights used at night should be red or white (white is preferred) strobe lights. The minimum number, minimum intensity, and minimum flashes per minute (longest duration between flashes), allowable by the FAA should be used. The use of solid red or pulsating red warning lights should be avoided.
  - Towers no longer in use should be removed within 12 months of cessation of use.
- The Migratory Bird Treaty Act (MBTA) prohibits the take of migratory birds, their nests, and eggs, except when specifically authorized by the Department of the Interior. Also, bald eagles are protected under the Bald and Golden Eagle Protection Act. The closest known bald eagle nest location is within 9 miles from the site, but eagles are possible in the area with the increased population statewide. ADCNR's finding that it does not appear this project will adversely affect any state or federally protected species does not exempt the project from federal provisions as listed under the MBTA or Bald and Golden Eagle Protection Act.

We appreciate the opportunity to comment on this project. Please contact me if we may be of further assistance (334-242-3469).

Sincerely,



Carrie Threadgill  
Nongame Wildlife Program Coordinator

Notification Date: **7AM EST 06/17/2020****New Tower ("NT") Submission Packet**

See instructions for

File Number: **0009116316**

public burden estimates

**General Information**

1) (Select only one) ( <b>NE</b> ) <b>NE</b> – New <b>UA</b> – Update of Application <b>WD</b> – Withdrawal of Application	
2) If this application is for an Update or Withdrawal, enter the file number of the pending application currently on file.	File Number:

**Applicant Information**

3) FCC Registration Number (FRN): <b>0012845343</b>
4) Name: <b>Verizon Wireless</b>

**Contact Name**

5) First Name: <b>Nakul</b>	6) MI:	7) Last Name: <b>Mate</b>	8) Suffix:
9) Title: <b>VZW HQ - NEPA Regulatory Compliance</b>			

**Contact Information**

10) P.O. Box:	And /Or	11) Street Address: <b>5055 North Point Pkwy NP2NE Network Engineering</b>	
12) City: <b>Alpharetta</b>		13) State: <b>GA</b>	14) Zip Code: <b>30022</b>
15) Telephone Number: <b>(678)277-3656</b>		16) Fax Number:	
17) E-mail Address: <b>vzwnpa-nepa@verizonwireless.com</b>			

**Consultant Information**

18) FCC Registration Number (FRN): <b>0025370719</b>
19) Name: <b>Terracon Consultants</b>

**Principal Investigator**

20) First Name: <b>Billy</b>	21) MI:	22) Last Name: <b>McCarley</b>	23) Suffix:
24) Title:			

**Principal Investigator Contact Information**

25) P.O. Box:	And /Or	26) Street Address: <b>2105 Newpoint Place Suite 600</b>	
27) City: <b>Lawrenceville</b>		28) State: <b>GA</b>	29) Zip Code: <b>30043</b>
30) Telephone Number: <b>(770)623-0755</b>		31) Fax Number:	
32) E-mail Address: <b>slsapp@terracon.com</b>			



**Professional Qualification**

33) Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards?	( <input checked="" type="checkbox"/> ) <u>Y</u> es ( ) <u>N</u> o
34) Areas of Professional Qualification: ( <input checked="" type="checkbox"/> ) Archaeologist ( ) Architectural Historian ( ) Historian ( ) Architect ( ) Other (Specify) _____	

**Additional Staff**

35) Are there other staff involved who meet the Professional Qualification Standards of the Secretary of the Interior?	( ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
--	--

If "YES," complete the following:

36) First Name:	37) MI:	38) Last Name:	39) Suffix:
40) Title:			
41) Areas of Professional Qualification: ( ) Archaeologist ( ) Architectural Historian ( ) Historian ( ) Architect ( ) Other (Specify) _____			

## Site Information

### Tower Construction Notification System

1) TCNS Notification Number: **205032**

### Site Information

2) Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: ( ) Yes ( **X** ) No

3) Site Name: **BORDERS\_LAKE - Buckner 2 - B**

4) Site Address: **Adjacent to 5661 Popes Chapel Road**

5) Detailed Description of Project:

6) City: **Ragland**

7) State: **AL**

8) Zip Code: **35131**

9) County/Borough/Parish: **ST. CLAIR**

10) Nearest Crossroads: **Popes Chapel Road & Bice Lane**

11) NAD 83 Latitude (DD-MM-SS.S): **33-44-31.5**

( **X** ) N or ( ) S

12) NAD 83 Longitude (DD-MM-SS.S): **086-13-05.1**

( ) E or ( **X** ) W

### Tower Information

13) Tower height above ground level (include top-mounted attachments such as lightning rods): **82.0** ( ) Feet ( **X** ) Meters

14) Tower Type (Select One):

( ) Guyed lattice tower

( **X** ) Self-supporting lattice

( ) Monopole

( ) Other (Describe):

### Project Status

15) Current Project Status (Select One):

( **X** ) Construction has not yet commenced

( ) Construction has commenced, but is not completed

Construction commenced on: \_\_\_\_\_

( ) Construction has been completed

Construction commenced on: \_\_\_\_\_

Construction completed on: \_\_\_\_\_

**Determination of Effect**

14) Direct Effects (Select One):

- ( ☒ ) No Historic Properties in Area of Potential Effects (APE)
- ( ☐ ) No Effect on Historic Properties in APE
- ( ☐ ) No Adverse Effect on Historic Properties in APE
- ( ☐ ) Adverse Effect on one or more Historic Properties in APE

15) Visual Effects (Select One):

- ( ☒ ) No Historic Properties in Area of Potential Effects (APE)
- ( ☐ ) No Effect on Historic Properties in APE
- ( ☐ ) No Adverse Effect on Historic Properties in APE
- ( ☐ ) Adverse Effect on one or more Historic Properties in APE

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?		( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u>		Number of Tribes/NHOs: <u>16</u>
2b) Tribes/NHOs contacted through an alternate system:		Number of Tribes/NHOs: <u>0</u>

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Alabama Quassarte Tribal Town</b>

#### Contact Name

5) First Name: <b>Janice</b>	6) MI:	7) Last Name: <b>Lowe</b>	8) Suffix:
9) Title: <b>Assistant</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Alabama-Coushatta Tribe of Texas</b>

#### Contact Name

5) First Name: <b>Bryant</b>	6) MI: <b>J</b>	7) Last Name: <b>Celestine</b>	8) Suffix:
9) Title: <b>Historic Preservation Officer</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?		( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u>		Number of Tribes/NHOs: <u>16</u>
2b) Tribes/NHOs contacted through an alternate system:		Number of Tribes/NHOs: <u>0</u>

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Cherokee Nation</b>

#### Contact Name

5) First Name: <b>Gwen</b>	6) MI:	7) Last Name: <b>Terrapin</b>	8) Suffix:
9) Title:			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Chickasaw Nation</b>

#### Contact Name

5) First Name: <b>Karen</b>	6) MI:	7) Last Name: <b>Brunso</b>	8) Suffix:
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied <u>06/08/2020</u>
(    ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
( <input checked="" type="checkbox"/> ) Replied/Other	



### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u> Number of Tribes/NHOs: <u>16</u>	
2b) Tribes/NHOs contacted through an alternate system:      Number of Tribes/NHOs: <u>0</u>	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Coushatta Indian Tribe</b>

#### Contact Name

5) First Name: <b>Linda</b>	6) MI: <b>P</b>	7) Last Name: <b>Langley</b>	8) Suffix:
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Eastern Band of Cherokee Indians</b>

#### Contact Name

5) First Name: <b>Stephen</b>	6) MI:	7) Last Name: <b>Yerka</b>	8) Suffix:
9) Title: <b>Tribal Historic Preservation Specialist</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?		( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u>		Number of Tribes/NHOs: <u>16</u>
2b) Tribes/NHOs contacted through an alternate system:		Number of Tribes/NHOs: <u>0</u>

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Eastern Shawnee Tribe of Oklahoma</b>

#### Contact Name

5) First Name: <b>Kelly</b>	6) MI:	7) Last Name: <b>Nelson</b>	8) Suffix:
9) Title: <b>Cell Tower Coordinator</b>			

#### Dates & Response

10) Date Contacted <u>04/23/2020</u>	11) Date Replied <u>04/27/2020</u>
(    ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
( <input checked="" type="checkbox"/> ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Jena Band of Choctaw Indians</b>

#### Contact Name

5) First Name: <b>Lillie</b>	6) MI:	7) Last Name: <b>Williamson</b>	8) Suffix:
9) Title: <b>TCNS Representative</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u> Number of Tribes/NHOs: <u>16</u>	
2b) Tribes/NHOs contacted through an alternate system:      Number of Tribes/NHOs: <u>0</u>	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Kialegee Tribal Town</b>

#### Contact Name

5) First Name: <b>David</b>	6) MI:	7) Last Name: <b>Cook</b>	8) Suffix:
9) Title: <b>Tribal Administrator</b>			

#### Dates & Response

10) Date Contacted <u>04/23/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Muscogee (Creek) Nation</b>

#### Contact Name

5) First Name: <b>Anne</b>	6) MI:	7) Last Name: <b>Edwards-Martel</b>	8) Suffix: <b>Ms</b>
9) Title: <b>TCNS Coordinator</b>			

#### Dates & Response

10) Date Contacted <u>04/23/2020</u>	11) Date Replied <u>05/12/2020</u>
(    ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
( <input checked="" type="checkbox"/> ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?		( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u>		Number of Tribes/NHOs: <u>16</u>
2b) Tribes/NHOs contacted through an alternate system:		Number of Tribes/NHOs: <u>0</u>

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Poarch Band of Creek Indians</b>

#### Contact Name

5) First Name: <b>Larry</b>	6) MI:	7) Last Name: <b>Haikey</b>	8) Suffix:
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>04/23/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Seminole Nation of Oklahoma</b>

#### Contact Name

5) First Name: <b>Brigita</b>	6) MI:	7) Last Name: <b>Leader</b>	8) Suffix:
9) Title: <b>Historic Preservation Officer</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u> Number of Tribes/NHOs: <u>16</u>	
2b) Tribes/NHOs contacted through an alternate system:      Number of Tribes/NHOs: <u>0</u>	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Shawnee Tribe</b>

#### Contact Name

5) First Name: <b>Kim</b>	6) MI:	7) Last Name: <b>Jumper</b>	8) Suffix:
9) Title: <b>Cell t</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Thlopthlocco Tribal Town</b>

#### Contact Name

5) First Name: <b>Ryan</b>	6) MI:	7) Last Name: <b>Morrow</b>	8) Suffix:
9) Title: <b>Mekko</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	



### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <b>Yes</b> ( <input type="checkbox"/> ) <b>No</b>
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>205032</u> Number of Tribes/NHOs: <u>16</u>	
2b) Tribes/NHOs contacted through an alternate system: Number of Tribes/NHOs: <u>0</u>	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Tunica-Biloxi Tribe of LA</b>

#### Contact Name

5) First Name: <b>Earl</b>	6) MI: <b>J</b>	7) Last Name: <b>Barbry</b>	8) Suffix: <b>Jr</b>
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>United Keetoowah Band of Cherokee Indians in Oklahoma</b>

#### Contact Name

5) First Name: <b>Whitney</b>	6) MI:	7) Last Name: <b>Warrior</b>	8) Suffix:
9) Title: <b>NRCP Director</b>			

#### Dates & Response

10) Date Contacted <u>04/22/2020</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

## Other Tribes/NHOs Contacted

### Tribe/NHO Information

1) FCC Registration Number (FRN):
2) Name:

### Contact Name

3) First Name:	4) MI:	5) Last Name:	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	And /Or	9) Street Address:	
10) City:		11) State:	12) Zip Code:
13) Telephone Number:		14) Fax Number:	
15) E-mail Address:			
16) Preferred means of communication:  (    ) E-mail  (    ) Letter  (    ) Both			

### Dates & Response

17) Date Contacted _____	18) Date Replied _____
(    ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

## Historic Properties

### Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(    ) <u>Y</u> es ( <b>X</b> ) <u>N</u> o
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	(    ) <u>Y</u> es ( <b>X</b> ) <u>N</u> o
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	(    ) <u>Y</u> es ( <b>X</b> ) <u>N</u> o

### Historic Property

4) Property Name:
5) SHPO Site Number:

### Property Address

6) Street Address:		
7) City:	8) State:	9) Zip Code:
10) County/Borough/Parish:		

### Status & Eligibility

11) Is this property listed on the National Register?  Source: _____	(    ) <u>Y</u> es (    ) <u>N</u> o
12) Is this property eligible for listing on the National Register?  Source: _____	(    ) <u>Y</u> es (    ) <u>N</u> o
13) Is this property a National Historic Landmark?	(    ) <u>Y</u> es (    ) <u>N</u> o

14) Direct Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE
15) Visual Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):
2) Name: <b>St. Clair County Commission</b>

### Contact Name

3) First Name: <b>To whom</b>	4) MI:	5) Last Name: <b>it may concern</b>	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	<b>And /Or</b>	9) Street Address: <b>165 5th Avenue Suite 100</b>	
10) City: <b>Ashville</b>		11) State: <b>AL</b>	12) Zip Code: <b>35953</b>
13) Telephone Number: <b>(205)594-2100</b>		14) Fax Number:	
15) E-mail Address: <b>info@stclairco.com</b>			
16) Preferred means of communication: ( <input checked="" type="checkbox"/> ) E-mail (     ) Letter (     ) Both			

### Dates & Response

17) Date Contacted <b>04/22/2020</b>	18) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(     ) Replied/No Interest	
(     ) Replied/Have Interest	
(     ) Replied/Other	

### Additional Information

19) Information on local government's role or interest (optional):
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## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):
2) Name: <b>Regional Planning Commission of Greater Birmingham</b>

### Contact Name

3) First Name: <b>To whom</b>	4) MI:	5) Last Name: <b>it may concern</b>	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	And /Or	9) Street Address: <b>2 20th Street North Suite 1200</b>	
10) City: <b>Birmingham</b>		11) State: <b>AL</b>	12) Zip Code: <b>35203</b>
13) Telephone Number: <b>(205)251-8139</b>		14) Fax Number:	
15) E-mail Address: <b>Stillman@rpcgb.org</b>			
16) Preferred means of communication: ( <input checked="" type="checkbox"/> ) E-mail (     ) Letter (     ) Both			

### Dates & Response

17) Date Contacted <b>04/22/2020</b>	18) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(     ) Replied/No Interest	
(     ) Replied/Have Interest	
(     ) Replied/Other	

### Additional Information

19) Information on local government's role or interest (optional):
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## Other Consulting Parties

### Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	( <input checked="" type="checkbox"/> ) Yes ( <input type="checkbox"/> ) No
--	---

### Consulting Party

2) FCC Registration Number (FRN):
3) Name: <b>St. Clair Historical Society</b>

### Contact Name

4) First Name: <b>To whom</b>	5) MI:	6) Last Name: <b>it may concern</b>	7) Suffix:
8) Title:			

### Contact Information

9) P.O. Box: <b>1570</b>	And /Or	10) Street Address:	
11) City: <b>Ashville</b>		12) State: <b>AL</b>	13) Zip Code: <b>35953</b>
14) Telephone Number: <b>(205)594-2128</b>		15) Fax Number:	
16) E-mail Address: <b>archives@stclairco.com</b>			
17) Preferred means of communication: ( <input checked="" type="checkbox"/> ) E-mail ( <input type="checkbox"/> ) Letter ( <input type="checkbox"/> ) Both			

### Dates & Response

18) Date Contacted <b>04/22/2020</b>	19) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply ( <input type="checkbox"/> ) Replied/No Interest ( <input type="checkbox"/> ) Replied/Have Interest ( <input type="checkbox"/> ) Replied/Other	

### Additional Information

20) Information on other consulting parties' role or interest (optional):
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## Designation of SHPO/THPO

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower.

### SHPO/THPO

Name: **Alabama Historical Commission**

2) You may also designate up to three additional SHPOs/THPOs if the APEs include multiple states. If the APEs include other countries, enter the name of the National Historic Preservation Agency and any state and provincial Historic Preservation Agency.

SHPO/THPO Name: \_\_\_\_\_

SHPO/THPO Name: \_\_\_\_\_

SHPO/THPO Name: \_\_\_\_\_

### Certification

I certify that all representations on this FCC Form 620 Submission Packet and the accompanying attachments are true, correct, and complete.

#### Party Authorized to Sign

First Name: **Savanna**

MI:

Last Name: **Sapp**

Suffix:

Signature: **Savanna Sapp**

Date: **06/16/2020**

**FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.**

**WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).**

Morgando, JoAnn T

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From: towernotifyinfo@fcc.gov  
Sent: Friday, April 24, 2020 5:21 PM  
To: Morgando, JoAnn T  
Cc: tcnsweekly@fcc.gov  
Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER  
CONSTRUCTION NOTIFICATION INFORMATION - Email ID #6888580

Dear Applicant:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the notification that you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter). We note that the review period for all parties begins upon receipt of the Submission Packet pursuant to Section VII.A of the NPA and notifications that do not provide this serve as information only.

Persons who have received the notification that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribal Nations"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribal Nations and NHOs and in making further contacts, the City and State of the Seat of Government for each Tribal Nation and NHO, as well as the designated contact person, is included in the listing below. We note that Tribal Nations may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribal Nations and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribal Nation or NHO. (NPA, Section IV.F.4).

The notification that you provided was forwarded to the following Tribal Nations and NHOs. A Tribal Nation or NHO may not respond until a full Submission Packet is provided. If, upon receipt, the Tribal Nation or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribal Nation or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event a Tribal Nation or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribal Nation or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Second Report and Order released on March 30, 2018 (FCC 18-30).

1. Historic Preservation Officer Bryant J Celestine - Alabama-Coushatta Tribe of Texas - 571 State Park Road 56 Livingston, TX - Celestine.bryant@actribe.org - 936-563-1181 - electronic mail

2. THPO Linda P Langley - Coushatta Indian Tribe - (PO Box: 10) Elton, LA - llangley@coushattatribela.org - 337-584-1560 - electronic mail

3. Tribal Historic Preservation Specialist Stephen Yerka - Eastern Band of Cherokee Indians - 2877 Governor's Island Road (PO Box: 455) Cherokee, NC - syerka@nc-chokeee.com - 828-359-6852 - electronic mail

4. TCNS Representative Lillie Williamson - Jena Band of Choctaw Indians - (PO Box: 14) Jena, LA - lwilliamson@jenachoctaw.org - 318-992-8258 - electronic mail  
Exclusions: All FCC correspondence should be sent electronically to the e-mail lwilliamson@jenachoctaw.org

5. Historic Preservation Monty E Stick - Chickasaw Nation - (PO Box: 1548) Ada, OK - monty.stick@chickasaw.net - 580-564-3060 - electronic mail

6. Tribal Administrator David Cook - Kialegee Tribal Town - (PO Box: 332) Wetumka, OK - david.cook@kialegeetribe.net; jeremiah.hobia@kialegeetribe.net - 405-452-3262 (ext: 15) - electronic mail and regular mail

7. Historic Preservation Officer Brigita Leader - Seminole Nation of Oklahoma - (PO Box: 1498) Wewoka, OK - tcns-sno@sno-nsn.gov - 405-234-5218 - electronic mail  
Exclusions: Please send all inquiries to email address: tcns-sno@sno-nsn.gov

If the applicant/tower builder receives no response from the Seminole Nation of Oklahoma within 30 days after notification through TCNS, the Seminole Nation of Oklahoma has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Seminole Nation of Oklahoma in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

8. Gwen Terrapin - Cherokee Nation - (PO Box: 948) Tahlequah, OK - historicpreservation@cherokee.org; gwen-terrapin@cherokee.org - 918-772-4165 - electronic mail  
Exclusions: Please email all review documents for FCC Form 620/621 (i.e. archeologist report, photos, SHPO response, etc.) to historicpreservation@cherokee.org or gwen-terrapin@cherokee.org. You may also mail a cover letter and a CD or flash drive containing the review documents and FCC forms to: Cherokee Nation: Attn: Gwen Terrapin, PO Box 948, Tahlequah, OK 74465. Should you have any questions, please do not hesitate to email or call 918.772.4165.

Wado,

## Cherokee Nation

9. TCNS Coordinator Anne Edwards-Martel Ms - Muscogee (Creek) Nation - Highway 75 & Loop 56 (PO Box: 580) Okmulgee, OK - mcntcns@mcn-nsn.gov; section106@mcn-nsn.gov - 918-732-7639 - regular mail

10. NRCP Director Whitney Warrior - United Keetoowah Band of Cherokee Indians in Oklahoma - (PO Box: 746) Tahlequah, OK - tcns@ukb-nsn.gov; kpritchett@ukb-nsn.gov - 918-871-2838 - electronic mail

11. Cell Tower Coordinator Kelly Nelson - Eastern Shawnee Tribe of Oklahoma - 70500 East 128 Road Wyandotte, OK - celltower@estoo.net - 918-666-2435 (ext: 1861) - regular mail  
Exclusions: Consistent with guidance provided by the Advisory Council on Historic Preservation, Section 106 review deadlines for this office are paused due to office closure associated with impacts of the COVID-19 outbreak. Should you have any questions, FCC staff is available to assist you at tcnshelp@fcc.gov.

DO NOT EMAIL DOCUMENTATION; it will be deleted without being opened.  
Submit one printed color copy by US postal mail or other parcel carrier of all documentation to:

Eastern Shawnee Tribe  
Attn: CellTower Program  
70500 E. 128 Rd.  
Wyandotte, OK 74370

Provide a 1-page cover letter with the following information:

- a. TCNS Number
- b. Company Name
- c. Project Name, City, County, State
- d. Project type
- e. Project coordinates
- f. Contact information

The Eastern Shawnee Procedures document is available and highly recommended for guidance; send an email to celltower@estoo.net requesting our most current copy.

12. Assistant Janice Lowe - Alabama Quassarte Tribal Town - (PO Box: 187) Wetumka, OK - jlowe@alabama-quassarte.org; srobison@alabama-quassarte.org - 405-452-3881 (ext: 103) - electronic mail

Exclusions: The Alabama Quassarte Tribal Town is unaware of any cultural or sacred sites located within the immediate project area. The AQTT's Historic Preservation Department concurs that there should be no adverse effect to any known historic properties and that work should proceed as planned. However, as the project is located in an area that is general historic interest to the Tribe, we request that work be stopped and our office contacted immediately if any Native American cultural materials or human remains are encountered.

If you have any questions, please contact our office at the number below.

Respectfully,

Janice Lowe, TCNS/106 Assistant  
Alabama Quassarte Tribal Town  
P.O. Box 187  
Wetumka, Ok 74883  
(P) 405-452-3881  
(F) 405-452-3889

13. Mekko Ryan Morrow - Thlopthlocco Tribal Town - P.O. Box 188 Okemah, OK - thpo@tttown.org - 000-000-0000 - electronic mail

Exclusions: Thlopthlocco Tribal Town requests that all initial review materials required by applicable law be submitted by email directly to thpo@tttown.org. In addition, in the event archeological or cultural materials or human remains are discovered at any time during this undertaking, please notify Thlopthlocco Tribal Town immediately.

14. Cell t Kim Jumper - Shawnee Tribe - 29 South 69A Highway Miami, OK - tcns@shawnee-tribe.com - 918-542-2441 - electronic mail

15. THPO Larry Haikey - Poarch Band of Creek Indians - 5811 Jack Springs Road Atmore, AL - lhaikey@pci-nsn.gov - 251-368-9136 (ext: 2072) - electronic mail and regular mail

If the applicant/tower builder receives no response from the Poarch Band of Creek Indians within 30 days after notification through TCNS, the Poarch Band of Creek Indians has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Poarch Band of Creek Indians in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

16. THPO Earl J Barbry Jr - Tunica-Biloxi Tribe of LA - Tunica-Biloxi Historic Preservation Office Attn: Earl, Jr., CERC (PO Box: 1589) Marksville, LA - earlii@tunica.org - 318-240-6451 - electronic mail

Exclusions: Email all requests for review rather than mailing hard copy.

If the applicant/tower builder receives no response from the Tunica-Biloxi Tribe of LA within 30 days after notification through TCNS, the Tunica-Biloxi Tribe of LA has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Tunica-Biloxi Tribe of LA in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

The notification that you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA unless the project is excluded from SHPO review under Section III D or E of the NPA.

17. SHPO Lee Warner - Alabama Historical Commission - 468 South Perry Street Montgomery, AL -  
lwarner@mail.preserveala.org - 334-242-3184 - electronic mail

18. Deputy SHPO Elizabeth Ann Brown - Alabama Historical Commission - 468 South Perry Street Montgomery, AL -  
ebrown@mail.preserveala.org - 334-242-3185 - electronic mail

19. SHPO Katie Blount - Mississippi Dept of Archives & History - (PO Box: 571) Jackson, MS -  
kblount@mdah.state.ms.us - 601-359-6850 - regular mail

20. Deputy SHPO Kenneth H P'Pool - Division of Historic Preservation - (PO Box: 571) Jackson, MS -  
kppool@mdah.state.ms.us - 601-359-6940 - electronic mail

TCNS automatically forwards all notifications to all Tribal Nations and SHPOs that have an expressed interest in the geographic area of a proposal. However, if a proposal for PTC wayside poles falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribal Nation or SHPO. In addition, a particular Tribal Nation or SHPO may also set forth policies or procedures within its details box that exclude from review certain facilities (for example, a statement that it does not review collocations with no ground disturbance; or that indicates that no response within 30 days indicates no interest in participating in pre-construction review).



Please be advised that the FCC cannot guarantee that the contact(s) listed above have opened and reviewed an electronic or regular mail notification. If you learn that any of the above contact information is no longer valid, please contact the FCC by emailing [tcnshelp@fcc.gov](mailto:tcnshelp@fcc.gov). The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 04/17/2020

Notification ID: 205032

Excluded from SHPO Review: No

Tower Owner Individual or Entity Name: Verizon Wireless

Consultant Name: JoAnn Morgando

Street Address: 2105 Newpoint Place

Suite 600

City: Lawrenceville

State: GEORGIA

Zip Code: 30043

Phone: 770-623-0755

Email: [joann.morgando@terracon.com](mailto:joann.morgando@terracon.com)

Structure Type: LTOWER - Lattice Tower

Latitude: 33 deg 44 min 31.5 sec N

Longitude: 86 deg 13 min 5.1 sec W

Location Description: Adjacent to 5661 Popes Chapel Road

City: Ragland

State: ALABAMA

County: ST. CLAIR

Detailed Description of Project:

Ground Elevation: 178.4 meters

Support Structure: 79.2 meters above ground level

Overall Structure: 82.0 meters above ground level

Overall Height AMSL: 260.4 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic Help Request form located on the FCC's website at:

<https://www.fcc.gov/wireless/available-support-services>

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8:00 a.m. to 6:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,  
Federal Communications Commission



April 22, 2020

St. Clair County Commission  
165 5<sup>th</sup> Avenue, Suite 100  
Ashville, AL 35953  
(205) 594-2100  
[info@stclairco.com](mailto:info@stclairco.com)

**RE: Invitation to Comment as a Consulting Party on a Proposed Telecommunications Tower**

<b>Site Name:</b>	BORDERS LAKE – Buckner 2 – B
<b>Site Number:</b>	616478418
<b>Terracon Project Number:</b>	49207201A
<b>Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL 35131
<b>Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 5.177" W
<b>Proposed Lease Area:</b>	Approximately 10,000 square feet (SF)
<b>Access Road:</b>	Approximately 30-foot by 47-foot access road extending northwest from the proposed tower compound to Popes Chapel Road
<b>Proposed Support Structure Height:</b>	260 feet
<b>Proposed Overall Tower Height (With Appurtenances):</b>	269 feet
<b>Tower Type:</b>	Self-Support
<b>Ground Elevation:</b>	585.4 feet

To Whom It May Concern:

On behalf of Cellco Partnership and its controlled affiliates doing business as Verizon Wireless, Terracon is writing to invite your comment on the effect of the above-referenced project on **historic resources** within the project's Area of Potential Effects (APE). We are requesting your review pursuant to Section 106 of the National Historic Preservation Act, the Advisory Council on Historic Preservation's regulation for compliance with Section 106, and the Nationwide Programmatic Agreement on the Collocation of Wireless Antennas (adopted March 16, 2001), and the Nationwide Programmatic Agreement effective March 7, 2005.

Field assessment for both historic properties and archaeological sites will be conducted and a determination will be made of the project's direct and indirect effects on eligible properties. Consulting parties are invited to provide information concerning historic or archaeological properties already listed in the National Register or that could be eligible for listing in the National Register. **We welcome your comments regarding the effect of the tower on historic resources that may be eligible for the National Register of Historic Places.** If you would like to comment, please respond to this letter within 30 days of its receipt. Thank you for your response on this matter. If you have any questions, please do not hesitate to call. If you wish to respond by email, I may be reached at [slsapp@terracon.com](mailto:slsapp@terracon.com) and 770-623-8296.

Sincerely,

Savanna Sapp  
Staff Scientist

*Attachment: Project Location Map with APE*



April 22, 2020

Regional Planning Commission of Greater Birmingham  
220<sup>th</sup> Street North, Suite 1200  
Birmingham, AL 35203  
(205) 251-8139  
[stillman@rpcgb.org](mailto:stillman@rpcgb.org)

**RE: Invitation to Comment as a Consulting Party on a Proposed Telecommunications Tower**

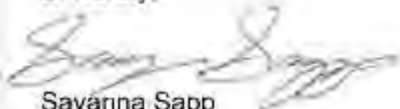
<b>Site Name:</b>	BORDERS LAKE – Buckner 2 – B
<b>Site Number:</b>	616478418
<b>Terracon Project Number:</b>	49207201A
<b>Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL 35131
<b>Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 5.177" W
<b>Proposed Lease Area:</b>	Approximately 10,000 square feet (SF)
<b>Access Road:</b>	Approximately 30-foot by 47-foot access road extending northwest from the proposed tower compound to Popes Chapel Road
<b>Proposed Support Structure Height:</b>	260 feet
<b>Proposed Overall Tower Height (With Appurtenances):</b>	269 feet
<b>Tower Type:</b>	Self-Support
<b>Ground Elevation:</b>	585.4 feet

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Field assessment for both historic properties and archaeological sites will be conducted and a determination will be made of the project's direct and indirect effects on eligible properties. Consulting parties are invited to provide information concerning historic or archaeological properties already listed in the National Register or that could be eligible for listing in the National Register. **We welcome your comments regarding the effect of the tower on historic resources that may be eligible for the National Register of Historic Places.** If you would like to comment, please respond to this letter within 30 days of its receipt. Thank you for your response on this matter. If you have any questions, please do not hesitate to call. If you wish to respond by email, I may be reached at [slsapp@terracon.com](mailto:slsapp@terracon.com) and 770-623-8296.

Sincerely,



Savanna Sapp  
Staff Scientist

*Attachment: Project Location Map with APE*



April 22, 2020

St. Clair Historical Society  
P.O. Box 1570  
Ashville, AL 35953  
205-594-2128  
[archives@stclairco.com](mailto:archives@stclairco.com)

**RE: Invitation to Comment as a Consulting Party on a Proposed Telecommunications Tower**


<b>Site Name:</b>	BORDERS LAKE – Buckner 2 – B
<b>Site Number:</b>	616478418
<b>Terracon Project Number:</b>	49207201A
<b>Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL 35131
<b>Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 5.177" W
<b>Proposed Lease Area:</b>	Approximately 10,000 square feet (SF)
<b>Access Road:</b>	Approximately 30-foot by 47-foot access road extending northwest from the proposed tower compound to Popes Chapel Road
<b>Proposed Support Structure Height:</b>	260 feet
<b>Proposed Overall Tower Height (With Appurtenances):</b>	269 feet
<b>Tower Type:</b>	Self-Support
<b>Ground Elevation:</b>	585.4 feet

To Whom It May Concern:

On behalf of Cellco Partnership and its controlled affiliates doing business as Verizon Wireless, Terracon is writing to invite your comment on the effect of the above-referenced project on **historic resources** within the project's Area of Potential Effects (APE). We are requesting your review pursuant to Section 106 of the National Historic Preservation Act, the Advisory Council on Historic Preservation's regulation for compliance with Section 106, and the Nationwide Programmatic Agreement on the Collocation of Wireless Antennas (adopted March 16, 2001), and the Nationwide Programmatic Agreement effective March 7, 2005.

Field assessment for both historic properties and archaeological sites will be conducted and a determination will be made of the project's direct and indirect effects on eligible properties. Consulting parties are invited to provide information concerning historic or archaeological properties already listed in the National Register or that could be eligible for listing in the National Register. **We welcome your comments regarding the effect of the tower on historic resources that may be eligible for the National Register of Historic Places.** If you would like to comment, please respond to this letter within 30 days of its receipt. Thank you for your response on this matter. If you have any questions, please do not hesitate to call. If you wish to respond by email, I may be reached at [slsapp@terracon.com](mailto:slsapp@terracon.com) and 770-623-8296.

Sincerely,

  
Savannah Sapp  
Staff Scientist

*Attachment: Project Location Map with APE*

# Affidavit of Publication

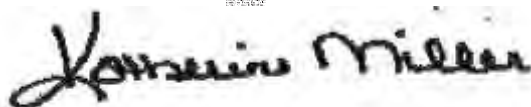
## STATE OF ALABAMA COUNTY OF ST. CLAIR

Before me, a notary public in and for the county and state above listed, personally appeared Katherine Miller, who, by me duly sworn, deposes and says that: My name is Katherine Miller, I am the publisher of St. Clair News-Aegis.

The Newspaper published the attached legal notice(s) in the issue(s) of: St Clair News-Aegis: 04/30/20. The sum charged for publication was \$54.00. The sum charged by the Newspaper for said publication does not exceed the lowest classified rate paid by commercial customers for an advertisement of similar size and frequency in the same newspaper(s) in which the public notice(s) appeared.

There are no agreements between the Newspaper and the officer or attorney charged with the duty of placing the attached legal advertising notices whereby any advantage, gain or profit accrued to said officer or attorney."

Signed:



Sworn and subscribed of this day  
04/30/2020.

Notary Public:



MY COMMISSION EXPIRES  
12-21-2021



### PUBLIC NOTICE:

Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (Verizon Wireless) is proposing to build a 269-foot Self-Support Telecommunications Tower. The site location is Adjacent to 5661 Popes Chapel Road, Ragland, St. Clair County, AL 35131 (33° 44' 31.555" North and 86° 13' 5.177" West). Anticipated lighting application is medium intensity dual red/white strobes. The Federal Communications Commission (FCC) Antenna Structure Registration (ASR, Form 854) filing number is A1157792.

**HISTORIC PROPERTIES EFFECTS** – Public comments regarding potential effects on historic properties may be submitted within 30 days from the date of this publication to: S. Sapp, Terracon, 2105 Newpoint Place, Suite 600, Lawrenceville, GA 30043; 770-623-0755; [slsapp@terracon.com](mailto:slsapp@terracon.com).

**ENVIRONMENTAL EFFECTS** – Interested persons may review the application ([www.fcc.gov/asr/applications](http://www.fcc.gov/asr/applications)) by entering the filing number. Environmental concerns may be raised by filing a Request for Environmental Review ([www.fcc.gov/asr/environmentalrequest](http://www.fcc.gov/asr/environmentalrequest)) and online filings are strongly encouraged. The mailing address to file a paper copy is: FCC Requests for Environmental Review, Attn: Ramon Williams, 445 12th Street SW, Washington, DC 20554.

April 30, 2020



# **Phase I Archaeological Survey of the Proposed Borders Lake Telecommunications Facility in Ragland**

St. Clair County, Alabama

**June 2020**





# **Phase I Archaeological Survey of the Proposed Borders Lake Telecommunications Facility in Ragland**

St. Clair County, Alabama

June 3, 2020

**Prepared by:**

Billy J. McCarley  
Subterranean Consultants  
Heflin, Alabama 36264

**Prepared for:**

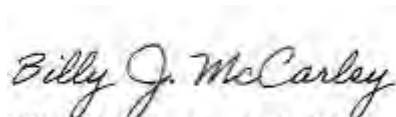
Cellco Partnership on behalf of Verizon Wireless

**Through the Firm of:**

Terracon Consultants  
2105 Newpoint Place, Suite 600  
Lawrenceville, GA 30043  
Project No. 49207201A

**Lead Agency:**

Federal Communications Commission (FCC)

A handwritten signature in black ink that reads "Billy J. McCarley". The signature is written in a cursive, flowing style.

Billy J. McCarley, MA, RPA  
Principal Investigator

## MANAGEMENT SUMMARY

---

Subterranean Consultants (STC) conducted a Phase I archaeological survey of the Borders Lake telecommunication facility lease area and access/utility easement on June 3, 2020. The project area is in eastern St. Clair County, 5.5 km (3.4 mi) west of Ragland, Alabama. Archaeology survey was conducted for Terracon Consultants, Inc., on behalf of Celco Partnership and its controlled affiliates doing business as Verizon Wireless, to locate and identify archaeological resources and to assess resource significance based on National Register of Historic Places (NRHP) criteria (36CFR Part 60.4 [a-d]). This survey was conducted to comply with the provisions of the Federal Communications Commission (FCC) permitting under the Nationwide Programmatic Agreement (47 CFR Part 1). In accordance with the permitting process, the survey was conducted in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

The Phase I survey included a literature review and intensive field survey. During the literature review, which took place on May 30, 2020, state and county maps and documents were examined to determine if previously recorded archaeological resources are in the project area. The field survey was conducted using surface and subsurface techniques (i.e., visual inspection and shovel testing) to locate and identify archaeological resources within the study area.

**Literature Review:** Review of the Alabama State Archaeological Site File (ASASF) revealed that there are no archaeological sites or surveys within 1.2 km (.75 mi) of the current project area. No sites or surveys are previously recorded within the current direct effects APE.

**Archaeological Resources Field Survey:** There were no archaeological materials (i.e., culturally modified artifacts, cultural deposits, features, or human remains) located within the survey area.

**Recommendations:** No archaeological resources will be impacted by the proposed project. Therefore, STC recommends that the current proposed project receive archaeological resource clearance; no further archaeological work is recommended.

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## I. INTRODUCTION

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<b>Project Name:</b>	Borders Lake
<b>Project Type:</b>	Rawland Tower, Compound and Access/Utility Easement
<b>Lead Agency:</b>	Federal Communications Commission (FCC)
<b>State:</b>	Alabama
<b>City:</b>	Ragland
<b>County:</b>	St. Clair
<b>Township/Range/Section:</b>	15S/4E/10
<b>USGS Topographic Map:</b>	Cox Gap, AL and Ragland, AL (1947, Pr. 1972)
<b>Geographic Coordinates:</b>	NAD 83; N 33° 44' 31.555", W 86° 13' 05.177"
<b>UTM:</b>	NAD 83; Zone 16, E 572425, N 3733835
<b>Total Area of Proposed Project:</b>	.26 acres (11,432 sq. ft.)
<b>Total Area Surveyed:</b>	.26 acres (11,432 sq. ft.)
<b>Survey Type:</b>	Phase I Intensive Archaeological Survey
<b>Results:</b>	Negative

---

Subterranean Consultants (STC) conducted an intensive Phase I archaeological survey of the proposed Borders Lake telecommunications facility on June 3, 2020 in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The archaeological survey area was equal to the area of ground disturbing activity (APE for direct effects), which would consist of a proposed 100-ft. by 100-ft. (30-m by 30-m) lease area and a 47.74-ft. by 30-ft. (14.5-m by 9-m) access/utility easement, all totaling .26 acres (11,432 sq. ft.). The proposed project area is in eastern St. Clair County 5.5 km (3.4 mi) west of Ragland, Alabama, and 256 m (840 ft.) west of the intersection of Popes Chapel Road and Bice Lane (Figure 1). To comply with section 106 of the NHPA and the Federal Communications Commission (FCC) Nationwide Programmatic Agreement (NPA) (47 CFR Part 1), STC followed 36 CFR Part 800 of the Code of Federal Regulations (CFR) during this identification effort, and if significant archaeological resources are identified, STC would assess resource significance based on National Register of Historic Places (NRHP) criteria (36CFR Part 60.4 [a-d]). No resources were identified during this archaeological survey. Therefore, the report is abbreviated and includes a topographic map of the survey vicinity, environmental context, including photographs of the project area surveyed, research and field methodologies, and results. Billy McCarley, MA, RPA, conducted the fieldwork and served as principal investigator for this archaeological survey (Appendix C).



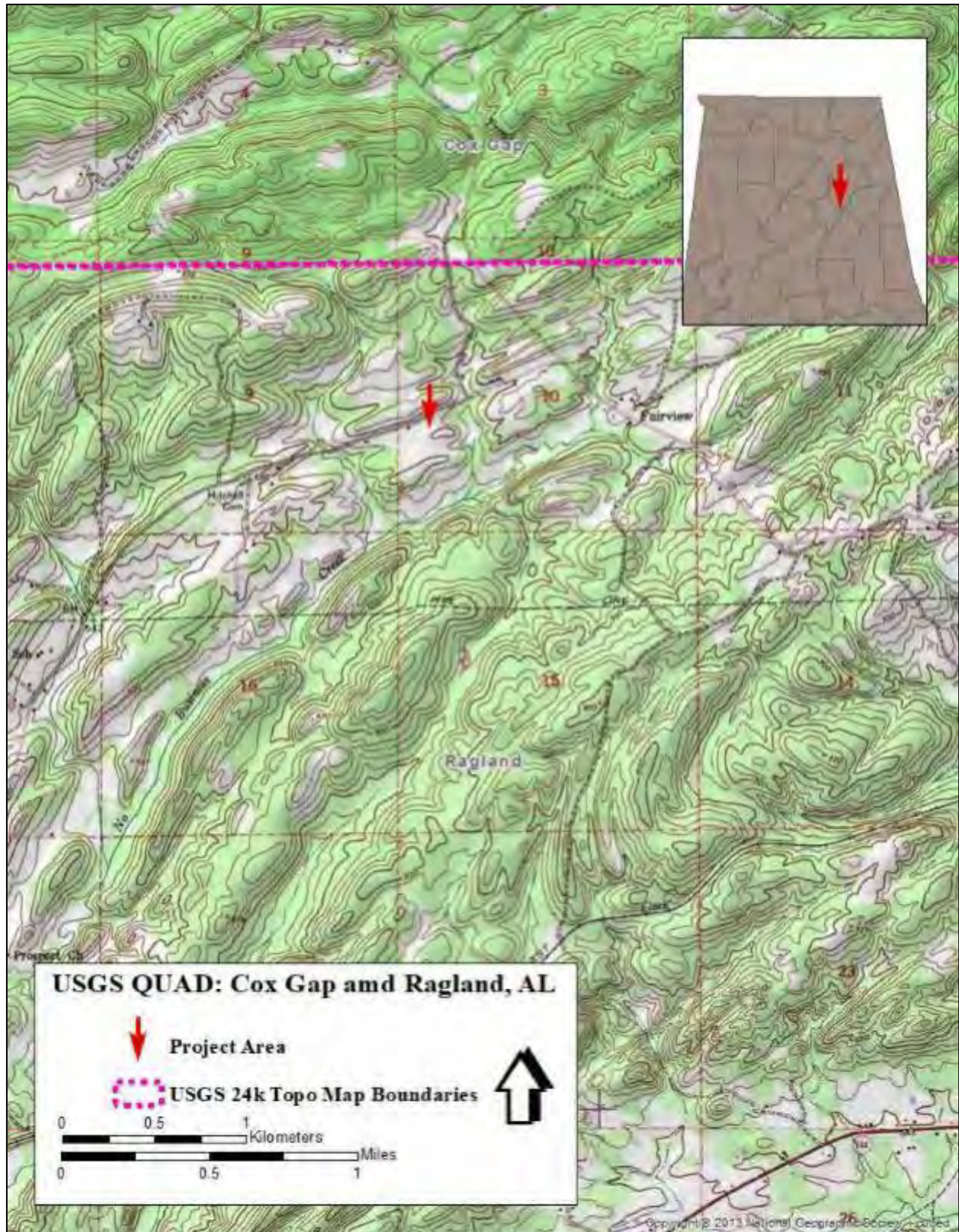


Figure 1: USGS 7.5 Minute Series topographic map depicting the project vicinity and environs.



## II. ENVIRONMENTAL CONTEXT

---

The project area (lease area and access/utility easement) is located on an upland in grass pasture (Figures 2-3).



Figure 2: Photograph of access facing southeast.



Figure 3: Photograph facing southeast toward lease area.

## **Physiographic Province**

The survey area lies within the Coosa Valley district of the Ridge and Valley physiographic province. The Ridge and Valley is bounded by the Cumberland Plateau to the northwest, the East Gulf Coastal Plains to the south, and the Piedmont Uplands to the southeast. It is characterized by zigzagging, northeasterly-trending ridges ranging from 1000 to 1600 feet above sea level. Fertile valleys of folded strata are formed by residual deposits of eroding Appalachian crystalline rocks. The Coosa Valley is undulating and flanked by low rolling hills that are dominated by shale (Fenneman 1928). Geology in the area consists of the Pennsylvanian-age shale and siltstone (Szabo 1988). A tributary of Business Creek is 511 m (1676 ft.) west of the project area. On a broader scale, the area is drained by the Coosa River.

## **Soils**

According to the USDA, Web Soil Survey (2020), Townley and Nauvoo soils were formed along the project area in clayey residuum weathered from sandstone and shale. The Townley-Nauvoo association soils are comprised of well drained textures of sandy loam and clay. Subsoil generally occurs at between 15 and 22 centimeters below the surface (cmbs). Typically, subsoil is yellowish-red silty clay loam (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 1920).

## **Vegetation**

The project area lies within the Eastern Temperate Forest ecoregion. Here, the canopy consists of oak, hickory, and pine, with a lower stratum of tree ferns, shrubs, and herbaceous plants (Bailey 1995).

## **Fauna**

Native habitat for the region includes raccoon, whitetail deer, flying squirrels, rabbits, opossums, and ground rodents. Wild turkey and bobwhite are common birds, while the timber rattler and turtle are common reptiles (Bailey 1995).

### III. METHODOLOGY

---

#### **Fieldwork**

This Archaeological investigation was completed in compliance with Section 106 of the National Historic Preservation Act, as amended, and field methods generally followed the 2006 Alabama Historical Commission's (AHC) administrative code (460-x-9) for Archaeological Investigations. Field investigations of low probability areas included a 100% visual surface inspection of the entire project area. All surfaces, including animal burrows and fallen tree root clusters, within the survey area were inspected for the presence of rock shelters, caves, mines, quarries, chimney falls, historic wells, petroglyphs, or other standing structures.

Subsurface inspection (i.e., shovel testing) was used to verify soil conditions. In dynamic depositional areas that have greater than 30 percent surface visibility, surface inspection and 30-m (100 ft.) interval subsurface testing was employed. Shovel tests were placed at 15-m (50 ft.) intervals along the proposed irregular-shaped lease area. For areas containing slope, the following equation was used to calculate the degree of slope: run of land (m) divided by the change in elevation (m) multiplied by 100. Shovel tests were approximately 45-cm (18-in) in diameter and excavated until subsoil or impenetrable substrate (i.e. bedrock or clay) was reached, or until the water table was reached. All soil matrices removed were screened using a 6-mm (.25-in) hardware cloth screen.

Each shovel test was recorded noting its location, depth, soil profile, artifact yield, general conditions, and other pertinent information. Each test was given a field designation; if materials are recovered, then each would be catalogued using a discrete provenience.

#### **Laboratory**

Artifacts, if located during fieldwork, photographs, fieldnotes, and maps will be prepared for permanent curation following the standards and guidelines set forth by the Office of Archaeological Research (OAR), Erskine Ramsey Curation Facility, University of Alabama Museum, Moundville, Alabama.

#### **Records Review**

Background research was conducted on May 30, 2020 by the staff of the Alabama State Archaeological Site File (ASASF) to determine the presence of previously recorded archaeological sites within the survey area or within 1.2 km (.75 mi) of the survey area.

## IV. RESULTS

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### Research

Review of the Alabama State Archaeological Site File (ASASF) revealed that there are no sites or surveys within 1.2 km (.75 mi) of the current project area. No sites or surveys are previously recorded within the current direct effects APE.

### Field

Six negative shovel tests were excavated throughout the .26-acre project area (Figures 4-5; Table 1). Shovel tests 1 through 6 were in a grass pasture with no soil surface visibility. Soil colors ranged from dark yellowish brown silt loam to yellowish brown silty clay. All shovel tests ceased at sterile subsoil. There were no archaeological materials (i.e., culturally modified artifacts, deposits, features, or human remains) within the project area APE for direct effects.

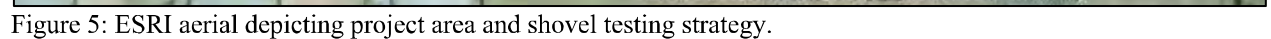


Figure 4: Representative soil profile within the lease area.

Table 1: Shovel Test Results.

ST	Results	Depth	Width	Stratum	Color	Soil Description
1-6	Negative	0-10 cmbs 10-20 cmbs	45 cm	I II	10YR 4/4 10YR 5/6	Dark yellowish-brown silt loam Yellowish-brown silty clay





## V. CONCLUSION

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Because of the absence of archaeological materials within the area of survey (project area), no archaeological resources will be impacted by the proposed project. No additional archaeological work in the project area is recommended.

Should buried artifacts, human remains, cultural sites or ground features be unexpectedly unearthed during ground disturbing activities, all construction should immediately cease and the resources be examined by a professional archaeologist. Additionally, all appropriate authorities-including all pertinent tribal entities and the state historic preservation office -should be notified. Inadvertent discoveries will follow the procedures set forth in the Verizon Wireless Unanticipated Discovery Plan (UDP).



## REFERENCES CITED

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Alabama Historical Commission

2006 *Archaeological Investigations*. Alabama Historical Commission Administrative Code (460-x-9). Available online at <http://preserveala.org/pdfs/Archaeology/AHCSurveyStandards>, accessed November 2019.

Bailey, Robert G.

1995 *Description of the Ecoregions of the United States*. United States Department of Agriculture, Washington, DC.

Fenneman, Nevin M.

1928 Physiographic Divisions of the United States. *Annals of the Association of American Geographers* 13(4) 292.

Szabo, M. W., Osborne, E. W., Copeland, C. W. Jr., Neathery, T. L.

1988, Geologic Map of Alabama, Geological Survey of Alabama. Tuscaloosa, Alabama.

United States Department of Agriculture

1920 Soil Survey of St. Clair County, Alabama. Soil Conservation Service, Washington, DC.

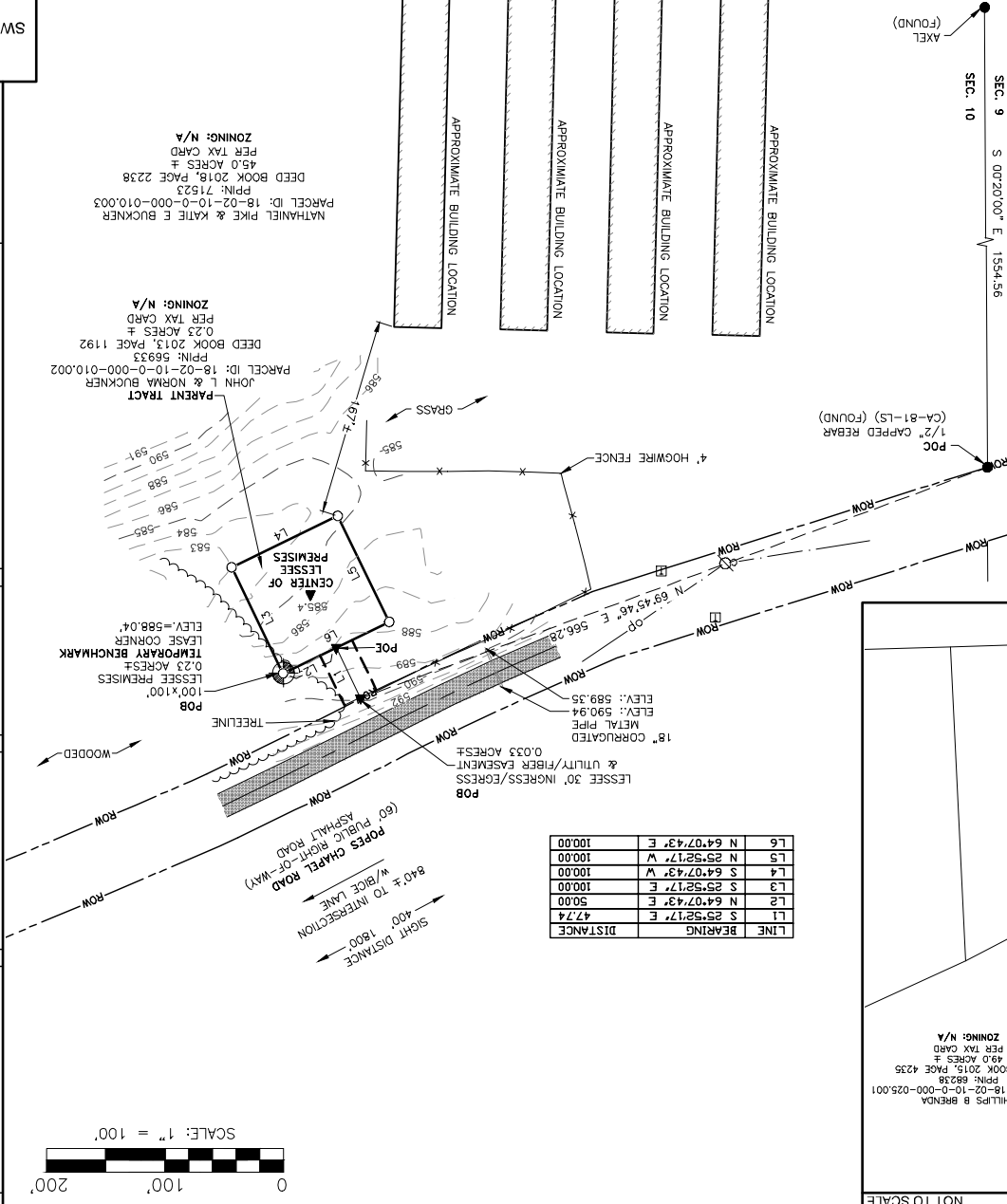
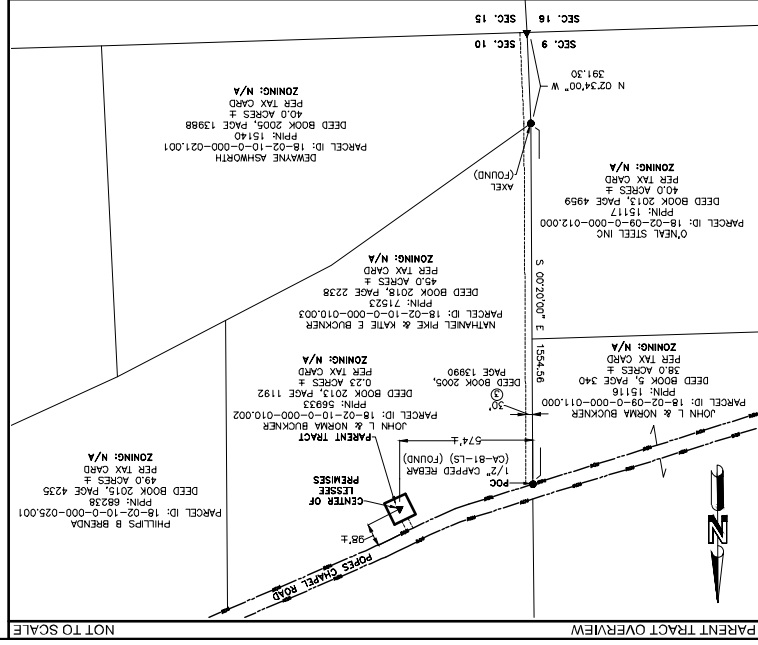
2020 Web Soil Survey, Natural Resources Conservation Service. Available online at <http://websoilsurvey.nrcs.usda.gov/>, accessed May 2020.

United States Geological Survey

1947 USGS 7.5 Minute Series Topographical Map, Ragland and Cox Gap, AL. United States Department of Interior Geological Survey, Washington, DC.

## APPENDIX A

### **Project Plans**



**TOWER INFO**

LATITUDE: 33°44'31.565" NORTH  
LONGITUDE: 86°13'05.177" WEST  
GROUND ELEVATION: 585.4'  
ABOVE MEAN SEA LEVEL (NAVD83)

ADDRESS: (PER TAX ASSESSOR)  
POPPES CHAPEL RD  
RAWLAND, AL 35131

**VICINITY MAP**

NOT TO SCALE

**ALABAMA EAST**

GRID TO TRUE NORTH  
CONVERGENCE  
-0°12'  
TRUE NORTH TO MAGNETIC  
356° W  
COMBINED SCALE FACTOR  
0.999975663

**LEGEND**

○ = 5/8" REBAR SET  
● = FOUND PROPERTY MARKER  
P08 = POINT OF BEGINNING  
P0C = POINT OF COMMENCEMENT  
P0E = POINT OF ENDING  
▲ = OLD LEASE CORNER  
◊ = CALCULATED POINT  
(R) = REFERENCED INFORMATION  
(M) = MEASURED  
⊗ = POWER POLE  
⊠ = TELEPHONE PEDESTAL

**FLOOD NOTE**

By graphic plotting only, the subject property appears to lie in Zone 'X', which bears an effective date of August 17, 2016 and is NOT in a special flood hazard area. Zone 'X': Areas determined to be outside the 0.2% annual chance floodplain.

**RAWLAND TOWER SURVEY**

SMW Engineering Group, Inc.  
158 Business Centre Drive  
Birmingham, Alabama 35244  
Ph: 205-252-8985  
www.smweng.com

TELECAD  
1961 NORTHPOINT BLVD SUITE 130  
HUNTSVILLE, TN 37424

PROJECT NO. 19-2-162

DRAWN BY: MGC  
CHECKED BY: JWS  
DESIGNED BY: JWS  
APPROVED BY: WJO  
DATE: 1/3/20  
SCALE: 1" = 100'

NO. 1  
REVISION  
ADDED TITLE COMMENT  
DATE  
BY

SHEET 1 OF 2

Property located in St. Clair County, Alabama  
The following described real estate situated in St. Clair County, Alabama, to-wit:

That part of the Southwest quarter of the Southwest quarter (SW 1/4 of SW 1/4) lying on the Northeast side of the East and West Railroad right of way; and that part of the Northwest quarter of the Southwest quarter (NW 1/4 of SW 1/4) lying South of Pope's Chapel Road in Section 10, Township 15 South, Range 4 East, St. Clair County, Alabama.

AND BEING the same property conveyed to John L. Buckner and Norma Buckner from Andrew Lee and Stacy H. Lee Williams by Warranty Deed dated January 29, 2013 and recorded February 4, 2013 in Deed Book 2013, Page 1192.

Tax Parcel No. 18-02-10-0-000-010.002

A portion of the Buckner tract described in Book 2013, Page 1192 as recorded in the Office of the Judge of Probate for St. Clair, Alabama, being in the SW 1/4 of the SW 1/4 of Section 10, Township 15 South, Range 4 East, St. Clair, Alabama, and being more particularly described as follows;

Commencing at a half inch copper bar found at the intersection formed by the southerly right-of-way of Popes Chapel Road (having a 60 foot public right-of-way) and the westerly line of the NW 1/4 of the SW 1/4 of Section 10; thence, leaving said section line and running along a tie-line North 69°45'46" East, 566.28 feet to a point on the southerly right-of-way of Popes Chapel Road; thence, leaving said right-of-way and running South 25°52'17" East, 47.74 feet to a point; thence, North 64°07'43" East, 50.00 feet to a point and the true Point of Beginning; thence, South 25°52'17" East, 100.00 feet to a point; thence, South 64°07'43" West, 100.00 feet to a point; thence, North 25°52'17" West, 100.00 feet to a point; thence, North 64°07'43" East, 100.00 feet to the POINT OF BEGINNING. Said Lease area contains 0.23 acres.

A portion of the Buckner tract described in Book 2013, Page 1192 as recorded in the Office of the Judge of Probate for St. Clair, Alabama, being in the SW 1/4 of the SW 1/4 of Section 10, Township 15 South, Range 4 East, St. Clair, Alabama, and being more particularly described as follows;

Commence at a half inch capped rebar found at the intersection formed by the southerly right-of-way of Popes Chapel Road (having a 60 foot public right-of-way) and the westerly line of the NW 1/4 of the SW 1/4 of Section 10; thence, leaving said section line and running along a tie-line North 69°45'46" East, 566.28 feet to a point on the southerly right-of-way of Popes Chapel Road and the Point of Beginning of a 30' wide Ingress/Egress & Utility/Effer Easement situated 15' on each side of the following described centerline; thence, leaving said right-of-way and running South 25°52'17" East, 47.74 feet to the ENDING. Said easement contains (1432.2 sq. ft.) 0.033 acres, more or less.

Fidelity National Title Insurance Company  
Commitment for Title Insurance Commitment No. 30539742  
Date December 24, 2019  
Schedule B, Section II

<u>Exception No.</u>	<u>Instrument</u>	<u>Comment</u>
1-2		Standard exceptions. Contain no survey matters.
3	Deed Book 2005, Page 13990	Does not affect the subject Lease area or easement as shown hereon.
4	Deed Book 2006, Page 12344	Does affect the subject Lease area and easement, is blanket in nature and is not shown hereon.
5	Deed Book 2009, Page 4886	Prior Lease Sale Contract of current Parent tract.
6	Deed Book 2018, Page 6804	Mortgage Agreement, not a survey matter.
7	Deed Book 2018, Page 6816	Mortgage Agreement, not a survey matter.
8	Deed Book 2018, Page 6828	Mortgage Agreement, not a survey matter.

DRAWN BY: MGC CHECKED BY: TS FIELD CREW: SP/KW APPROVED BY: MKD DATE: 1/3/20 SCALE: N/A SHEET 2 OF 2	PROJECT NO. 19-2162		NO.	REVISION	DATE	BY
		1	ADDED TITLE COMMITMENT	1/21/20	MC	

1. This is a Raw Land Tower Survey, made on the ground under the supervision of a Alabama Registered Land Surveyor. Date of field survey is December 12, 2019.
2. The following surveying instruments were used at time of field visit: Topcon DM55 Total Station, Reflectorless and Hiper SR RTK Network Rover with static capability.
3. Bearings are based on Alabama East State Plane Coordinates NAD 83 by GPS observation.
4. No underground utilities, underground encroachments or building foundations were measured or located as a part of this survey, unless otherwise shown. Trees and shrubs not located, unless otherwise shown.
5. Benchmark used is a GPS Continuously Operating Reference Station, PID M39377. Onsite benchmark is as shown hereon.
6. Elevation shown in feet and inches and refer to WAD 83.
7. This survey was conducted for the purpose of a Raw Land Tower Survey only, and is not intended to delineate the regulatory jurisdiction of any federal, state, regional or local agency, board, commission or other similar entity.
7. Attention is directed to the fact that this survey may have been reduced or enlarged in size due to reproduction. This should be taken into consideration when siting and planning.
8. This Survey was conducted with the benefit of an Abstract Title search.
9. Surveyor hereby states the Geodetic Coordinates and the elevation shown for the proposed centerline of the tower are accurate to within +/- 20 feet horizontally and to within +/- 3 feet vertically (FAA Accuracy Code 1A).
10. Survey shown hereon conforms to the Minimum Requirements as set forth by the State Board for a Class "A" Survey. The survey is shown upon this map or plot is based has a closure precision of not less than one-foot in 15,000 feet (1:15,000) and no angular error that does not exceed 10 seconds times the square root of the number of angles turned. Field traverse was not adjusted.
11. This survey is not valid without the original signature and the original seal of a state licensed surveyor.
12. This survey does not constitute a boundary survey of the Parent Tract. Any parent tract property lines shown hereon are from supplied information and may not be field verified.
14. Per supplied information the site falls within the Zoning Jurisdiction of St. Clair County and is not subject to Zoning regulations.

I certify that all parts of this survey and drawing have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Alabama to the best of my knowledge, information, and belief.

PRELIMINARY UNTIL FINALIZED WITH SIGNATURE AND SEAL


Michael K. Davis  
Alabama License No. 31571

SW 1/4, SEC. 10, T-15-S, R-4-E  
ST. CLAIR COUNTY, ALABAMA

RAWLAND TOWER SURVEY

**TELECAD**  
1961 NORTHPOINT BLVD SUITE 130  
HIXSON, TN 37343

**SMW Engineering Group, Inc.**  
158 Business Center Drive  
Birmingham, Alabama 35244  
Ph: 205-252-6985  
[www.smweng.com](http://www.smweng.com)  
CA 627 LS, Expires January 31, 2020



**SWM**  
ENGINEERING GROUP, INC.

## APPENDIX B

### **Curation Agreement**

January 24, 2020

Billy J. McCarley  
Subterranean Consultants  
1269 County Road 158  
Heflin AL 36264

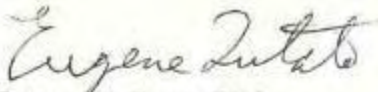
Dear Mr. McCarley:

As per your request, this letter is to establish an agreement with you to provide curation services to Subterranean Consultants on an as-needed basis. We are recognized by a variety of Federal agencies as a repository meeting the standards in 36 CFR Part 79 and have formal agreements to provide curation under these guidelines to agencies such as the Department of Defense, National Park Service, U.S. Fish and Wildlife Service, U.S. Soil Conservation Service, U.S. Army Corps of Engineers, Tennessee Valley Authority, National Forest Service, etc.

Please be advised that once a year we must be notified of all reports in which we were named as the repository. Project collections must be submitted within one calendar year of completion. Small projects may be compiled for periodic submission. For Alabama, the AHC survey policy specifies which materials must be curated (Administrative Code of Alabama, Chapter 460-X-9). Archaeological documentation must be curated even if no artifacts are recovered. Renewal of this agreement is contingent upon compliance.

We appreciate having the opportunity to assist you with curation services and look forward to working with you in the future.

Sincerely,



Eugene M. Futato RPA  
Deputy Director



**APPENDIX C**  
**Principal Investigator CV**

**BILLY J. MCCARLEY, MA, RPA**

Heflin, AL 36264 | 256-453-7811 | bmcicarley@subterraneanco.com

**EDUCATION**

Georgia State University, Atlanta, GA

**MA in Anthropology**

**2012**

Thesis: An Archaeological Survey at Oak Level Mound: Investigating Settlement Patterns and Intrasite Use during the Middle Mississippian Period (A.D. 1150-1350)

The University of Alabama, Tuscaloosa, AL

**BA in Interdisciplinary Studies (Culture and Society)**

**2008**

**AWARDS**

Sigma Alpha Lambda, Leadership and Honors

**June 2008**

**GENERAL RELATED EXPERIENCE**

Moreland Altobelli Associates, Inc, Norcross, Georgia

**Principal Archaeologist/Senior Archaeologist**

**June 2014 – June 2016**

Conducted phase I and II archaeological assessments and evaluations of NEPA projects-United States Army Corp of Engineers (USACE) Section 404 permitting (cultural resource assessments) and Georgia Department of Transportation projects. Completed Section 106 reports and reviews, consulted with Georgia SHPO, and reviewed and sign reports written by staff archaeologists. Conducted research design development, background research, topographical map overlays, shovel testing, unit excavation, recordation, photographing, report writing, and recommendations on future site work and NRHP eligibility. Recorded archaeological sites with the Georgia Archaeological Site File (GASF). Conducted project scoping and proposals. Prepared projects for curation following Antonio J. Waring Archaeological Laboratory or Erskine Ramsey Curation Facility, University of Alabama Museum curation standards.

Subterranean Consultants, Heflin, AL

**Principal Archaeologist/Senior Archaeologist**

**September 2013 – Present**

Performs phase I and II archaeological assessments and evaluations of NEPA projects- United States Army Corp of Engineers (USACE) Section 404 permitting (cultural resource assessments), Georgia municipal development projects, and FCC telecommunications projects. Completes Section 106 reports and reviews; Consults with Georgia SHPO and regional tribes; and reviews and sign reports written by staff archaeologists. Completes desktop assessments of fiber optics installation and impacts on NRHP-listed or NRHP-eligible archaeological sites. Performs fieldwork on all projects (field director), including pre-visit research design development, back ground research, topographical map overlays, shovel testing, unit excavation, recordation, photographing, and report writing, including recommendations on future site work and NRHP eligibility. Records archaeological sites with the Georgia Archaeological Site File (GASF). Performs project scoping and proposals. Prepares projects for curation following Antonio J. Waring Archaeological Laboratory or Erskine Ramsey Curation Facility, University of Alabama Museum curation standards. Notable projects include expansion and development cultural resource assessment of the Habersham County Airport industrial complex, Section 404 USACE wetland permit cultural resource assessment in Sycamore, Georgia, Eagle-Net terrestrial fiber optics cultural resource assessment, ball park expansion in Fairburn, Georgia, Osage Nation cultural resource assessment of county road construction, and prehistoric prayer rings in Death Valley National Park.

Algonquin Consultants, Miami, Oklahoma

**Field Director**

**February 2014**

Served as field director on a phase II evaluation of a FCC permitting project in Jefferson City, Missouri. Prepared research design for the evaluation of cultural deposits at a prehistoric lithic production site. Supervised four employees in the placement of four 1-by-1 test units. Supervised data collection, site recordation, and completed a management summary, including all GIS map production, post field-work.

Tetra Tech

**Crew Chief**

**June 2013**

Served as crew chief on an 85-mi pipeline cultural resource assessment spanning from Oklahoma to Texas. Preplanned for daily field work, supervised a crew of two field technicians in the implementation of phase I shovel testing. Performed transect layouts using Geoexplorer GPS unit. Completed daily progress reports for submission to project field director.

US Department of Agriculture (US Forest Service)

**Crew Chief**

**December 2012 – March 2013**

Served as crew chief on an 800-acre timber tract cultural resource assessment in Andalusia, Alabama. Preplanned for daily field work. Implementation of phase I shovel testing. Performed transect layouts using Geoexplorer GPS unit. Completed daily progress reports for submission to project field director.

Georgia State University

**Co-Principal Investigator/Field Director**

**June 2012 – February 2013**

Investigated and excavated a Middle Mississippian burial mound site along the Ogeechee River in Richmond Hill, Georgia. Prepared a research design, gridded site using a total station, implement NOAA provided LIDAR for the regional comparative study of Middle Mississippian mound sites along the Georgia coast. Performed shovel testing on 5-acre mound site. Analyze and curate artifacts post fieldwork and produce a management summary and archaeological assessment report.

Jacksonville State University Archaeological Laboratory

**Field Archaeologist**

**June 2008 – June 2012**

Investigated and excavated a late Woodland to early Mississippian village along the Choccolocco Creek in Calhoun County, Alabama. Conducted unit layout and documentation; Excavated 2-by-2 units; Screened matrix; identified artifacts; and produced a management summary of project progress.

**REPRESENTATIVE REPORTS/PROJECTS<sup>1</sup>**

Phase I Archaeological Survey of the Proposed 80-Mile Pipeline, Wichita County, Texas	2014
Phase I Archaeological Survey of the Proposed Harmony Senior Living Community, Spalding County, Georgia	2014
Phase I Archaeological Assessment of the Five Forks Trickum Road Widening, Gwinnett County, Georgia	2014
Addendum Phase I Archaeological Survey of 1-16 at Old River Road, Effingham County, Georgia	2014
Phase I Archaeological Survey for the Proposed 7th Street and Broad Street Bridge Replacements in Augusta, Richmond County, Georgia	2014
Phase I Archaeological Assessment of Habersham County Industrial Park, Habersham County, Georgia	2014
Phase I Archaeological Assessment of Dollar General Wetland Mitigation, Sycamore, Georgia	2014
Phase I Archaeological Assessment of Spence Ball Park Development, Fairburn, Georgia	2014
Phase I Archaeological Survey of Sigman Road Widening, Rockdale County, Georgia	2015
Phase I Archaeological Survey of the Proposed State Route (SR) 400 at McGinnis Ferry Road Interchange, Fulton and Forsyth Counties, Georgia	2015
Second Addendum Phase I Archaeological Survey of the Proposed East Kingsland Bypass, Camden County, Georgia	2015
Second Addendum Phase I Archaeological Survey of the Proposed Two Interchanges on Interstate 75, SR 7 and SR 122, Lowndes County, Georgia	2016
Phase I Archaeological Survey for the Proposed O'Reilly Auto Parts in Pigeon Forge, Tennessee	2017
Phase I Archaeological Survey for the City of Tuscumbia's Historic Rail Yard, Tuscumbia, Alabama	2017
Phase I Archaeological Survey of the Proposed Effingham Bypass, Effingham and Chatham Counties, Georgia	2017
Phase I Archaeological Survey of the Proposed El Dorado Boulevard, Harris County, Texas	2017
Phase II Archaeological Evaluation of the Rice Fields and Colebrook Plantation Cemetery along Effingham Bypass, Effingham and Chatham Counties, Georgia	2018
Phase I Archaeological Survey of the Proposed Harper Street Crossing, Fulton County, Georgia	2018
Phase I Archaeological Survey of the Proposed US 84 Connector, Liberty County, Georgia	2018
Phase I Archaeological Survey of the Proposed Gant Road Solar Development, Upper Marlboro County, Maryland	2018
Phase I Archaeological Survey of the Proposed Brown Bridge at Yellow River Replacement, Newton County, Georgia	2018

**CONTINUING EDUCATION**

Advanced Metal Detecting for Archaeologists	2014
National Parks Training Center, Field Survey and Modern Technology	2014

<sup>1</sup> Approximately 1,200 telecommunications, solar, and ACOE projects not listed.

National Preservation Institute (NPI), Section 106 Agreement Documents	2014
National Preservation Institute (NPI), Traditional Cultural Places	2014

**MEMBERSHIPS**

Register of Professional Archaeologist (RPA)	2013
Society for American Archaeology (SAA)	2013
Tennessee Council for Professional Archaeology	2014

**Ohio River Valley Summary Experience**

- \* 150 Tennessee telecommunications projects and reports totaling 2,400 hours of Ohio River Valley experience.
- 45 Ohio telecommunications and solar farm projects totaling 800 hours of experience.
- 12 West Virginia telecommunications projects totaling 96 hours of experience.
- 25 Illinois Solar and Telecommunications Projects totaling 112 hours of experience.
- 41 Indiana Telecommunications projects totaling 85 hours of experience.

<b>Site Name:</b>	BORDERS LAKE – Buckner 2 – B
<b>Site Number:</b>	616478418
<b>Terracon Project Number:</b>	49207201A
<b>Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL 35131
<b>Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 5.177" W
<b>Proposed Lease Area:</b>	Approximately 10,000 square feet (SF)
<b>Proposed Tower Height:</b>	269 ft.
<b>Tower Type:</b>	Self-Support
<b>APE for Visual Effects:</b>	0.75-mile

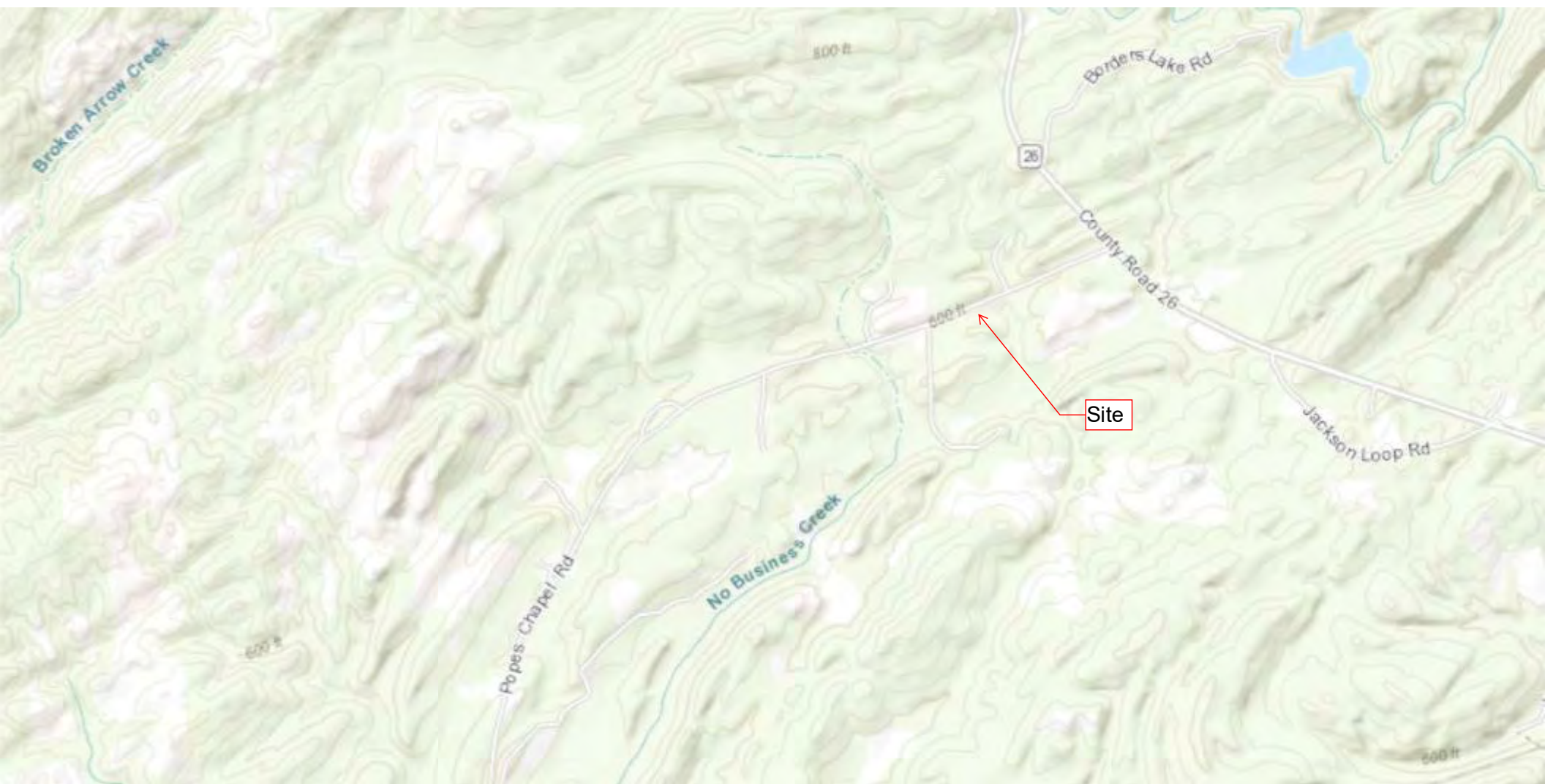
Federal Communications Commission (FCC) regulations require that the client consider the effects of the proposed undertaking on historic properties in compliance of the *National Programmatic Agreement (NPA) for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission* (Nationwide PA [FCC 04-222]) and the National Historic Preservation Act (NHPA), as amended. In fulfillment of these requirements, Terracon conducted a historic resource review for the proposed project.

The goal of the review was to determine if National Register of Historic Places (NRHP) eligible or NRHP-listed historic resources are located within the area of potential effect (APE) for visual effects.

### ***Records Review***

The proposed tower will be a 269-foot self-support. Therefore, an area of potential effect for visual effects for this project was set at a 0.75-mile radius from the proposed tower. The determination of the APE was based on the type and height of the proposed tower, the general topography and the vegetative buffering in the vicinity of the proposed tower.

File review at the State Historic Preservation Office was conducted by an SOI-qualified Principal Investigator for the project's visual APE. Based on the result of the file review, no NRHP listed or NRHP eligible resources were identified in the APE; therefore, no further work was conducted regarding visual impacts.







# ALABAMA HISTORICAL COMMISSION

468 South Perry Street  
P.O. Box 300900  
Montgomery, Alabama 36130-0900  
334-242-3184 / Fax: 334-240-3477

Lisa D. Jones  
Executive Director  
State Historic Preservation Officer

July 17, 2020

Savanna Sapp  
Terracon Consultants  
2105 Newpoint Place Suite 600  
Lawrenceville, GA 30043

Re: AHC 20-0995  
CRA  
Borders\_Lake Buckner 2-B-Project No. 49207201A  
St. Clair County

Dear Ms. Sapp:

Upon review of the cultural resource assessment conducted for the above referenced project, we have determined that project activities will have no effect on cultural resources eligible for or listed on the National Register of Historic Places. Therefore, we concur with the proposed project activities.

Consultation with the State Historic Preservation Office does not constitute consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public. If archaeological materials are encountered during construction, the procedures codified at 36 CFR 800.13(b) will apply. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal, and glass objects. The federal agency or the applicant receiving federal assistance should contact our office immediately. If human remains are encountered, the provisions of the Alabama Burial Act (*Code of Alabama* 1975, §13A-7-23.1, as amended; Alabama Historical Commission Administrative Code Chapter 460-X-10 Burials) should be followed. This stipulation shall be placed on the construction plans to insure contractors are aware of it.

We appreciate your commitment to helping us preserve Alabama's historic archaeological and architectural resources. Should you have any questions, please contact Amanda McBride at 334.230.2692 or [Amanda.McBride@ahc.alabama.gov](mailto:Amanda.McBride@ahc.alabama.gov). Have the AHC tracking number referenced above available and include it with any future correspondence.

Sincerely,

Lee Anne Wofford  
Deputy State Historic Preservation Officer

LAW/amh

## Sapp, Savanna L

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**From:** towernotifyinfo@fcc.gov  
**Sent:** Tuesday, June 16, 2020 3:17 PM  
**To:** Sapp, Savanna L  
**Subject:** Section 106 New Filing Submitted- Email ID #4688120

The following new Section 106 filing has been submitted:

File Number: 0009116316  
TCNS Number: 205032  
Purpose: New Tower Submission Packet

Notification Date: 7AM EST 06/17/2020

Applicant: Verizon Wireless  
Consultant: Terracon Consultants  
Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No  
Site Name: BORDERS\_LAKE - Buckner 2 - B  
Site Address: Adjacent to 5661 Popes Chapel Road  
Detailed Description of Project:  
Site Coordinates: 33-44-31.5 N, 86-13-5.1 W  
City: Ragland  
County: ST. CLAIR  
State: AL  
Lead SHPO/THPO: Alabama Historical Commission

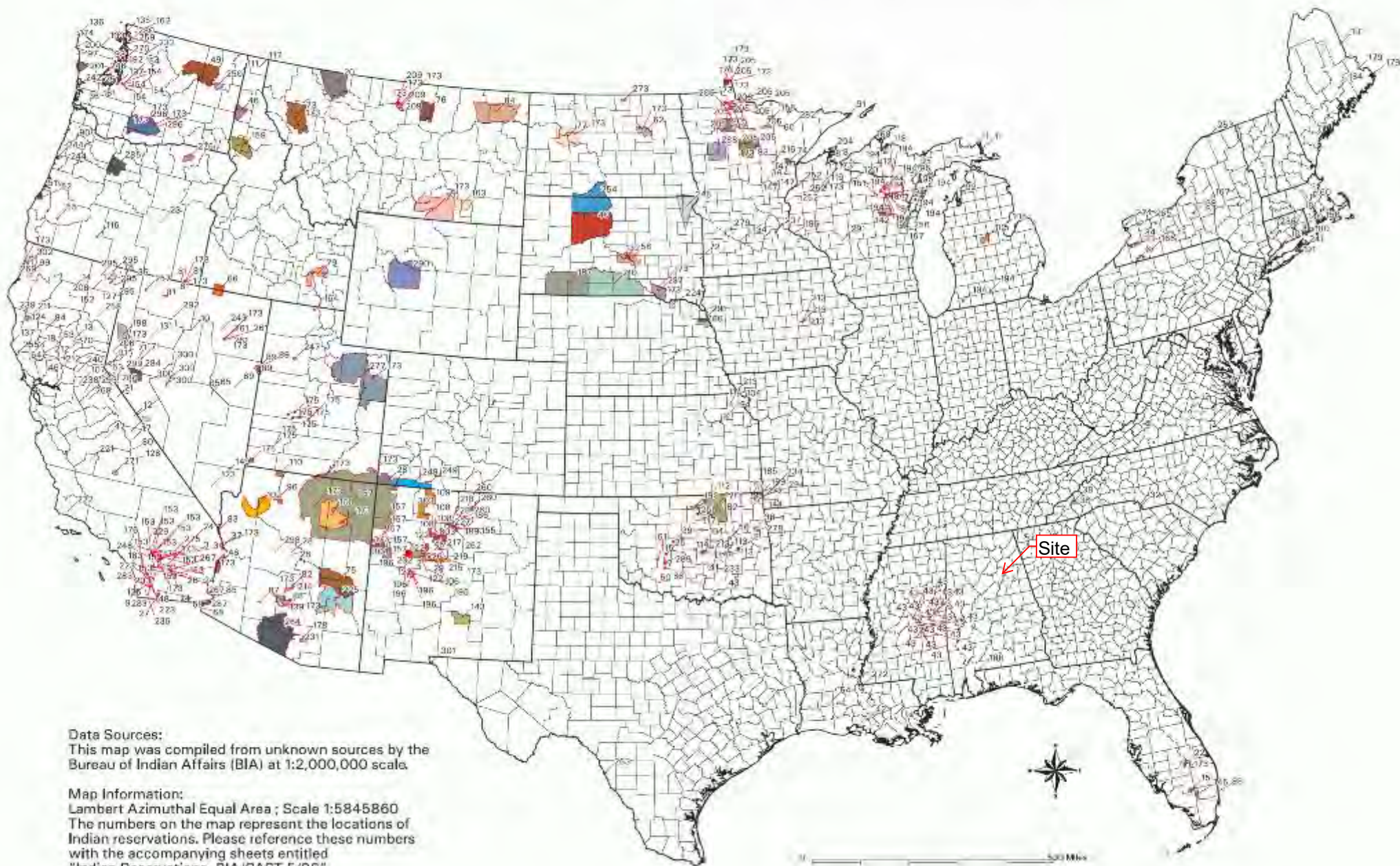
Consultant Contact Information:  
Name: Terracon Consultants  
Title:  
PO Box:  
Address: 2105 Newpoint Place  
Suite 600  
City: Lawrenceville  
State: GA  
Zip: 30043  
Phone: 770-623-0755  
Fax:  
Email: slsapp@terracon.com

### NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.



# Indian Reservations in the Continental United States



Tribal Summary Table						
Site Name: <b>BORDERS LAKE - Buckner 2 - B</b>				Site ID: <b>616478418</b>		
TCNS #: <b>205032</b>				TCNS Notification Date: <b>April 24, 2020</b>		
Tribe	TCNS Auto Reply	Request from Tribes	Follow Up(s)	Final Reply	FCC Referral	Standing Agreements and Comments
Alabama-Coushatta Tribe of Texas	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Coushatta Indian Tribe	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Eastern Band of Cherokee Indians	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Jena Band of Choctaw Indians	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	8/3/2020	7/30/20	N/A
Chickasaw Nation				6/8/2020	N/A	N/A
Kialegee Tribal Town	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Seminole Nation of Oklahoma	30 Day Time Out		Emailed E106 6/17/2020	Time out 5/24/2020	N/A	N/A
Cherokee Nation	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	7/23/2020	N/A	N/A
Muscogee (Creek) Nation	Requests additional site information	Requests 620 in TCNS	Mail E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
United Keetoowah Band of Cherokee Indians in Oklahoma	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Eastern Shawnee Tribe of Oklahoma	Requests additional site information	Requests 620 in TCNS	Mailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Alabama Quassarte Tribal Town	Replied with NOO			4/24/2020 (NOO)	N/A	N/A
Thlopthlocco Tribal Town	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Shawnee Tribe	Requests additional site information	Requests 620 in TCNS	Emailed E106 6/17/2020	Referral Time Out 8/14/2020	7/30/20	N/A
Poarch Band of Creek Indians	30 Day Time Out			Time out 5/24/2020	N/A	N/A
Tunica-Biloxi Tribe of LA	30 Day Time Out		Emailed E106 6/17/2020	Time out 5/24/2020	N/A	N/A

Morgando, JoAnn T

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From: towernotifyinfo@fcc.gov  
Sent: Thursday, July 30, 2020 9:04 AM  
To: Morgando, JoAnn T  
Cc: tcnsweekly@fcc.gov  
Subject: Proposed Construction of Communications Facilities Notification of Final Contacts - Email ID #27102

Verizon Wireless  
JoAnn Morgando  
2105 Newpoint Place  
Suite 600  
Lawrenceville, GA 30043

Dear Applicant:

This letter addresses the proposed communications facilities listed below that you have referred to the Federal Communications Commission (Commission) for purposes of contacting federally recognized Indian Tribes, including Alaska Native Villages (collectively Indian Tribes), and Native Hawaiian Organizations (NHOs), as specified by Section IV.G of the Nationwide Programmatic Agreement (NPA). Consistent with the procedures outlined in the Commission's Wireless Infrastructure Second Report and Order (1), we have contacted the Indian Tribes or NHOs identified in the attached Table for the projects listed in the attached Table. You referred these projects to us between 07/23/2020 and 07/30/2020. Our contact with these Tribal Nations or NHOs was sent on 07/30/2020.

Thus, as described in the Wireless Infrastructure Second Report and Order (2), if you or Commission staff do not receive a statement of interest regarding a particular project from any Tribe or NHO within 15 calendar days of 07/30/2020, your obligations under Section IV of the NPA with respect to these Tribal Nations or NHOs are complete. If a Tribal Nation or NHO responds that it has concerns about a historic property of traditional religious and cultural significance that may be affected by the proposed construction within the 15 calendar day period, the Applicant must involve it in the review as set forth in the NPA, and may not begin construction until the process set forth in the NPA is completed.

You are reminded that Section IX of the NPA imposes independent obligations on an Applicant when a previously unidentified site that may be a historic property, including an archeological property, is discovered during construction or after the completion of review. In such instances, the Applicant must cease construction and promptly notify, among others, any potentially affected Tribal Nation or NHO. A Tribal Nation's or NHO's failure to express interest in participating in pre-construction review of an undertaking does not necessarily mean it is not interested in archeological properties or human remains that may inadvertently be discovered during construction. Hence, an Applicant is still required to notify any potentially affected Tribal Nation or NHO of any such finds pursuant to Section IX or other applicable law.

Sincerely,  
Jill Springer  
Federal Preservation Officer  
Federal Communications Commission  
jill.springer@fcc.gov

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1) See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment, Second Report and Order, FCC 18-30 (Mar. 30, 2018) (Wireless Infrastructure Second Report and Order).

2) See id. at paras. 111-112.

#### LIST OF PROPOSED COMMUNICATIONS TOWERS

TCNS# 201132 Referred Date: 07/29/2020 Location: Barker Road, Columbia, TN

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

Tribe Name: Shawnee Tribe

Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

TCNS# 201131 Referred Date: 07/29/2020 Location: Tommy Dodson Hwy, Cookeville, TN

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

Tribe Name: Shawnee Tribe

Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

TCNS# 200684 Referred Date: 07/29/2020 Location: 7450 US Highway 19, Marble, NC

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 200715 Referred Date: 07/29/2020 Location: New Bushy Branch Road, Manchester, TN

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

TCNS# 206869 Referred Date: 07/29/2020 Location: Highway 51, Ariton, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 206861 Referred Date: 07/29/2020 Location: County Line Road, Leighton, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 204028 Referred Date: 07/29/2020 Location: 359 Theodore Cox Circle, Canton, GA

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

Tribe Name: Muscogee (Creek) Nation

TCNS# 205248 Referred Date: 07/29/2020 Location: US Hwy 80, Selma, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 205759 Referred Date: 07/29/2020 Location: 2nd Avenue, Hendersonville, NC

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 205916 Referred Date: 07/29/2020 Location: 6404 Centennial Blvd, Nashville, TN

Detailed Description of Project:



Tribe Name: Absentee-Shawnee Tribe of Indians of Oklahoma

TCNS# 205133 Referred Date: 07/29/2020 Location: 546 Talley Ho Road, Anniston, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 203795 Referred Date: 07/23/2020 Location: Edisto St at Sawyer Ave, Johnston, SC

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 199050 Referred Date: 07/23/2020 Location: 5558 Short Mountain Hwy, Smithville, TN

Detailed Description of Project:

Tribe Name: Coushatta Indian Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Flandreau Santee Sioux Tribe

Tribe Name: Jena Band of Choctaw Indians

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin

Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 206978 Referred Date: 07/23/2020 Location: 2043 Catawba Valley Blvd SE, Hickory, NC

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 201866 Referred Date: 07/23/2020 Location: Near 329 Crystal Springs Road, Graniteville, SC

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 197438 Referred Date: 07/23/2020 Location: 410 E. Main Street, Easley, SC

Detailed Description of Project: A deployment of three communication antennae atop individual poles within a geographic grouping

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 204342 Referred Date: 07/23/2020 Location: 60 Interstate North Parkway SE, Atlanta, GA

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 200781 Referred Date: 07/23/2020 Location: Deep Cut Road, Erin, TN

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 204833 Referred Date: 07/23/2020 Location: Stoney Ridge Road/Osborn Lake Road, Blountville, AL

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 205029 Referred Date: 07/23/2020 Location: Vacant lot near 814 Peggy Drive, Fort Valley, GA

Detailed Description of Project:

Tribe Name: Coushatta Indian Tribe

Tribe Name: Kialegee Tribal Town

Tribe Name: Seminole Tribe of Florida

Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

TCNS# 202449 Referred Date: 07/23/2020 Location: Harris Road, Lexington, GA

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 204173 Referred Date: 07/23/2020 Location: Across from 256 Wallace Lane, Albertville, AL

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 208324 Referred Date: 07/23/2020 Location: 2785 Cumberland Pkwy SE, Atlanta, GA

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 208327 Referred Date: 07/23/2020 Location: 2109 Power Ferry Rd, Marietta, GA

Detailed Description of Project: A deployment of communications antennae atop two individual poles within a geographic grouping

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 198971 Referred Date: 07/23/2020 Location: 100 BLOCK OF HIGHLAND DRIVE, Lexington, SC

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 208436 Referred Date: 07/23/2020 Location: 396 S Main St, Crossville, TN

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 199992 Referred Date: 07/23/2020 Location: Near Sawmill Ln, Waverly, TN

Detailed Description of Project:

Tribe Name: Absentee-Shawnee Tribe of Indians of Oklahoma

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 206542 Referred Date: 07/23/2020 Location: 202 NC-9, Black Mountain, NC

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 198784 Referred Date: 07/23/2020 Location: 7536 Caughman Rd, Columbia, SC

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 200095 Referred Date: 07/23/2020 Location: 493 Antique Alley Drive, Clarkesville, GA

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 201131 Referred Date: 07/23/2020 Location: Tommy Dodson Hwy, Cookeville, TN

Detailed Description of Project:

Tribe Name: Coushatta Indian Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Flandreau Santee Sioux Tribe

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin

Tribe Name: Thlopthlocco Tribal Town

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 204028 Referred Date: 07/23/2020 Location: 359 Theodore Cox Circle, Canton, GA

Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas

Tribe Name: Coushatta Indian Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Kialegee Tribal Town

Tribe Name: Seminole Tribe of Florida

Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 205916 Referred Date: 07/23/2020 Location: 6404 Centennial Blvd, Nashville, TN

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 207472 Referred Date: 07/23/2020 Location: 5864 Due West Rd NW, Powder Springs, GA

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 205133 Referred Date: 07/23/2020 Location: 546 Talley Ho Road, Anniston, AL

Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas

Tribe Name: Coushatta Indian Tribe

Tribe Name: Jena Band of Choctaw Indians

Tribe Name: Kialegee Tribal Town

Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

TCNS# 200925 Referred Date: 07/23/2020 Location: 2675 Windy Hill Rd SE, Marietta, GA

Detailed Description of Project:

Tribe Name: Eastern Band of Cherokee Indians

TCNS# 199050 Referred Date: 07/29/2020 Location: 5558 Short Mountain Hwy, Smithville, TN

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

TCNS# 204864 Referred Date: 07/29/2020 Location: Cherryfield Road, Woodville, MS

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

TCNS# 205032 Referred Date: 07/29/2020 Location: Adjacent to 5661 Popes Chapel Road, Ragland, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 205029 Referred Date: 07/29/2020 Location: Vacant lot near 814 Peggy Drive, Fort Valley, GA

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation  
Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 206959 Referred Date: 07/29/2020 Location: Highway 93, Brundidge, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation  
Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 207919 Referred Date: 07/29/2020 Location: 3100 Magnolia Branch Drive, Cell, Memphis, TN

Detailed Description of Project:

Tribe Name: Quapaw Tribe of Oklahoma  
Tribe Name: Eastern Shawnee Tribe of Oklahoma  
Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

TCNS# 209047 Referred Date: 07/23/2020 Location: 711 Columbiana Dr Util A, Irmo, SC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 210151 Referred Date: 07/23/2020 Location: 111 Northway Road Util A1, Columbia, SC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 209043 Referred Date: 07/23/2020 Location: 2702 Platt Springs Road, West Columbia, SC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 209051 Referred Date: 07/23/2020 Location: 589 Chris Drive, West Columbia, SC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 200715 Referred Date: 07/23/2020 Location: New Bushy Branch Road, Manchester, TN

Detailed Description of Project:

Tribe Name: Coushatta Indian Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Flandreau Santee Sioux Tribe

Tribe Name: Jena Band of Choctaw Indians

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin

Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 205759 Referred Date: 07/23/2020 Location: 2nd Avenue, Hendersonville, NC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Flandreau Santee Sioux Tribe

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 209039 Referred Date: 07/23/2020 Location: 703 Hallbrook Dr, Columbia, SC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Flandreau Santee Sioux Tribe

Tribe Name: Kialegee Tribal Town

Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 209043 Referred Date: 07/29/2020 Location: 2702 Platt Springs Road, West Columbia, SC

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 209051 Referred Date: 07/29/2020 Location: 589 Chris Drive, West Columbia, SC

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 208752 Referred Date: 07/29/2020 Location: Hysco Dr, Greenville, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 209039 Referred Date: 07/29/2020 Location: 703 Hallbrook Dr, Columbia, SC

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 209017 Referred Date: 07/29/2020 Location: Bowden Road, Honoraville, AL

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

Tribe Name: Muscogee (Creek) Nation

TCNS# 209059 Referred Date: 07/29/2020 Location: 2913 Bush River Road, Columbia, SC

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 209047 Referred Date: 07/29/2020 Location: 711 Columbiana Dr Util A, Irmo, SC

Detailed Description of Project:

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 209055 Referred Date: 07/29/2020 Location: 2609 Myrtle St, Newberry, SC

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 209509 Referred Date: 07/29/2020 Location: 1275 S. Germantown Parkway, Germantown, TN

Detailed Description of Project:

Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 204864 Referred Date: 07/28/2020 Location: Cherryfield Road, Woodville, MS

Detailed Description of Project:

Tribe Name: Choctaw Nation of Oklahoma

Tribe Name: Coushatta Indian Tribe

Tribe Name: Crow Creek Sioux Tribe

Tribe Name: Jena Band of Choctaw Indians

Tribe Name: Keweenaw Bay Indian Community

Tribe Name: Kialegee Tribal Town

Tribe Name: Mississippi Band of Choctaw Indians

Tribe Name: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin

Tribe Name: Thlopthlocco Tribal Town

TCNS# 208380 Referred Date: 07/28/2020 Location: 489 E Clayton St, Athens, GA

Detailed Description of Project:

Tribe Name: Coushatta Indian Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Kialegee Tribal Town

Tribe Name: Seminole Tribe of Florida

Tribe Name: Shawnee Tribe

Tribe Name: Thlopthlocco Tribal Town

Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 206861 Referred Date: 07/26/2020 Location: County Line Road, Leighton, AL

Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas

Tribe Name: Coushatta Indian Tribe

Tribe Name: Eastern Band of Cherokee Indians

Tribe Name: Jena Band of Choctaw Indians

Tribe Name: Kialegee Tribal Town



Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 206959 Referred Date: 07/24/2020 Location: Highway 93, Brundidge, AL  
Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Mississippi Band of Choctaw Indians  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town

TCNS# 205032 Referred Date: 07/24/2020 Location: Adjacent to 5661 Popes Chapel Road, Ragland, AL  
Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 207919 Referred Date: 07/24/2020 Location: 3100 Magnolia Branch Drive, Cell, Memphis, TN  
Detailed Description of Project:

Tribe Name: Choctaw Nation of Oklahoma  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Keweenaw Bay Indian Community  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 206869 Referred Date: 07/24/2020 Location: Highway 51, Ariton, AL  
Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Mississippi Band of Choctaw Indians  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town

TCNS# 209017 Referred Date: 07/26/2020 Location: Bowden Road, Honoraville, AL  
Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Mississippi Band of Choctaw Indians

Tribe Name: Shawnee Tribe

TCNS# 205248 Referred Date: 07/23/2020 Location: US Hwy 80, Selma, AL

Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Choctaw Nation of Oklahoma  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Mississippi Band of Choctaw Indians  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town

TCNS# 208752 Referred Date: 07/26/2020 Location: Hysco Dr, Greenville, AL

Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Mississippi Band of Choctaw Indians  
Tribe Name: Shawnee Tribe

TCNS# 209972 Referred Date: 07/24/2020 Location: Huntsville-Browns Ferry Road, Madison, AL

Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 209055 Referred Date: 07/23/2020 Location: 2609 Myrtle St, Newberry, SC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 200684 Referred Date: 07/23/2020 Location: 7450 US Highway 19, Marble, NC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Muscogee (Creek) Nation  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 209059 Referred Date: 07/23/2020 Location: 2913 Bush River Road, Columbia, SC

Detailed Description of Project:

Tribe Name: Crow Creek Sioux Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Kialegee Tribal Town  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 201132 Referred Date: 07/23/2020 Location: Barker Road, Columbia, TN

Detailed Description of Project:

Tribe Name: Alabama-Coushatta Tribe of Texas  
Tribe Name: Coushatta Indian Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Jena Band of Choctaw Indians  
Tribe Name: Muscogee (Creek) Nation  
Tribe Name: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 208554 Referred Date: 07/23/2020 Location: Highway 10, Hartsville, TN

Detailed Description of Project:

Tribe Name: Coushatta Indian Tribe  
Tribe Name: Eastern Band of Cherokee Indians  
Tribe Name: Flandreau Santee Sioux Tribe  
Tribe Name: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin  
Tribe Name: Shawnee Tribe  
Tribe Name: Thlopthlocco Tribal Town  
Tribe Name: United Keetoowah Band of Cherokee Indians in Oklahoma

TCNS# 208380 Referred Date: 07/29/2020 Location: 489 E Clayton St, Athens, GA

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation  
Tribe Name: Eastern Shawnee Tribe of Oklahoma

TCNS# 208554 Referred Date: 07/29/2020 Location: Highway 10, Hartsville, TN

Detailed Description of Project:

Tribe Name: Absentee-Shawnee Tribe of Indians of Oklahoma  
Tribe Name: Muscogee (Creek) Nation  
Tribe Name: Eastern Shawnee Tribe of Oklahoma  
Tribe Name: Lac du Flambeau Band of Lake Superior Chippewa Indians

TCNS# 209972 Referred Date: 07/29/2020 Location: Huntsville-Browns Ferry Road, Madison, AL

Detailed Description of Project:

Tribe Name: Muscogee (Creek) Nation

LEGEND:

\* - Notification numbers are assigned by the Commission staff for sites where initial contact was not made through TCNS.



Wed Jun 17, 2020, 9:40 AM  
Ann Morgando  
TCNS 205012

0/1

Ann Morgando



BORDERS LAKE - Buckner 2 - B - E100.pdf  
0 KB

June 17, 2020

Site Name:	BORDERS LAKE - Buckner 2 - B
Site Number:	616478418
Terracon Project Number:	49207201A
Address:	Adjacent to 5661 Popes Chapel Road
City, County, State:	Ragland, St. Clair County, AL 36131
Lat/Long:	33° 44' 31.555" N 86° 13' S 177" W
Proposed Lease Area:	Approximately 16,000 square feet (SF)
Proposed Overall Tower Height (With Appurtenances):	269 feet
Tower Type:	Self-Support
TCNS Number:	205012

To Whom It May Concern:

Our client is proposing to construct a telecommunication project at the above-referenced location and specifications. In accordance with the Nationwide Programmatic Agreement, this letter is a respectful request to determine whether your Tribe would like to comment on the planned communications site for its impact on properties of religious or cultural significance to the Tribe and ensure review of both direct and indirect effects on historic properties. For your convenience, please find attached the Form 620 for your review. Reference the above TCNS # in your response if you choose to comment on this undertaking. Please note that per the 2018 FCC Rule changes, applicants are no longer required to pay up-front initial fees.

Thank you for your response on this matter, as your reply is highly valued and appreciated. If you have any questions, please do not hesitate to call the undersigned at 770-623-0755. If you wish to respond by email, please send your e-mail responses to [ann.morgando@terracon.com](mailto:ann.morgando@terracon.com).

Sincerely,  
Terracon Consultants, Inc.



Ann Morgando  
Senior Staff Scientist

Attachment: Form 620

Morgando, JoAnn T

---

From: towernotifyinfo@fcc.gov  
Sent: Monday, August 3, 2020 4:13 PM  
To: Morgando, JoAnn T  
Cc: tcns.fccarchive@fcc.gov; lwilliamson@jenachoctaw.org  
Subject: Reply to Proposed Tower Structure (Notification ID: 205032) - Email ID #7231078

Dear JoAnn Morgando,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from TCNS Representative Lillie Williamson of the Jena Band of Choctaw Indians in reference to Notification ID #205032:

To Whom It May Concern:

We are unaware of any sacred sites or significant cultural resources in this area. However, if the applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

If you have any comments or questions, please feel free to contact me. Refer to the information below.

Thank you.

Lillie Williamson  
TCNS Representative  
Jena Band of Choctaw Indians  
P. O. Box 14  
Jena, LA 71342  
ph: 318-992-8258  
fax: 318-992-8244  
email: lwilliamson@jenachoctaw.org

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 04/17/2020  
Notification ID: 205032  
Tower Owner Individual or Entity Name: Verizon Wireless  
Consultant Name: JoAnn Morgando  
Street Address: 2105 Newpoint Place

Suite 600

City: Lawrenceville

State: GEORGIA

Zip Code: 30043

Phone: 770-623-0755

Email: joann.morgando@terracon.com

Structure Type: LTOWER - Lattice Tower

Latitude: 33 deg 44 min 31.5 sec N

Longitude: 86 deg 13 min 5.1 sec W

Location Description: Adjacent to 5661 Popes Chapel Road

City: Ragland

State: ALABAMA

County: ST. CLAIR

Detailed Description of Project:

Ground Elevation: 178.4 meters

Support Structure: 79.2 meters above ground level

Overall Structure: 82.0 meters above ground level

Overall Height AMSL: 260.4 meters above mean sea level



Morgando, JoAnn T

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From: towernotifyinfo@fcc.gov  
Sent: Monday, June 8, 2020 3:01 PM  
To: Morgando, JoAnn T  
Cc: tcns.fccarchive@fcc.gov; hpo@chickasaw.net  
Subject: Reply to Proposed Tower Structure (Notification ID: 205032) - Email ID #7053525

Dear JoAnn Morgando,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO Karen Brunso of the Chickasaw Nation in reference to Notification ID #205032:

This project location is outside of the Chickasaw Nation's area of interest at this time. Therefore, we will not request government-to-government consultation regarding this undertaking. Your efforts to preserve and protect significant historic properties are appreciated. If you have any questions, please contact Ms. Karen Brunso, tribal historic preservation officer, at karen.brunso@chickasaw.net.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 04/17/2020  
Notification ID: 205032  
Tower Owner Individual or Entity Name: Verizon Wireless  
Consultant Name: JoAnn Morgando  
Street Address: 2105 Newpoint Place  
Suite 600  
City: Lawrenceville  
State: GEORGIA  
Zip Code: 30043  
Phone: 770-623-0755  
Email: joann.morgando@terracon.com

Structure Type: LTOWER - Lattice Tower  
Latitude: 33 deg 44 min 31.5 sec N  
Longitude: 86 deg 13 min 5.1 sec W  
Location Description: Adjacent to 5661 Popes Chapel Road  
City: Ragland  
State: ALABAMA  
County: ST. CLAIR

Detailed Description of Project:

Ground Elevation: 178.4 meters

Support Structure: 79.2 meters above ground level

Overall Structure: 82.0 meters above ground level

Overall Height AMSL: 260.4 meters above mean sea level

Morgando, JoAnn T

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From: towernotifyinfo@fcc.gov  
Sent: Thursday, July 23, 2020 5:13 PM  
To: Morgando, JoAnn T  
Cc: tcns.fccarchive@fcc.gov; historicpreservation@cherokee.org; gwen-terrapin@cherokee.org  
Subject: Reply to Proposed Tower Structure (Notification ID: 205032) - Email ID #7210414

Dear JoAnn Morgando,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Gwen Terrapin of the Cherokee Nation in reference to Notification ID #205032:

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 04/17/2020  
Notification ID: 205032  
Tower Owner Individual or Entity Name: Verizon Wireless  
Consultant Name: JoAnn Morgando  
Street Address: 2105 Newpoint Place  
Suite 600  
City: Lawrenceville  
State: GEORGIA  
Zip Code: 30043  
Phone: 770-623-0755  
Email: joann.morgando@terracon.com

Structure Type: LTOWER - Lattice Tower  
Latitude: 33 deg 44 min 31.5 sec N  
Longitude: 86 deg 13 min 5.1 sec W  
Location Description: Adjacent to 5661 Popes Chapel Road  
City: Ragland  
State: ALABAMA  
County: ST. CLAIR

Detailed Description of Project:

Ground Elevation: 178.4 meters

Support Structure: 79.2 meters above ground level

Overall Structure: 82.0 meters above ground level

Overall Height AMSL: 260.4 meters above mean sea level



June 17, 2020

Muscogee (Creek) Nation  
TCNS Coordinator Anne Edwards-Martel Ms  
Cultural Preservation Office  
P.O. Box 580  
Okmulgee, OK 74447

<b>Site Name:</b>	BORDERS LAKE – Buckner 2 – B
<b>Site Number:</b>	616478418
<b>Terracon Project Number:</b>	49207201A
<b>Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL 35131
<b>Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 5.177" W
<b>Proposed Lease Area:</b>	Approximately 10,000 square feet (SF)
<b>Proposed Overall Tower Height (With Appurtenances):</b>	269 feet
<b>Tower Type:</b>	Self-Support
<b>TCNS Number:</b>	205032

To Whom It May Concern:

Our client is proposing to construct a telecommunication project at the above-referenced location and specifications. In accordance with the Nationwide Programmatic Agreement, this letter is a respectful request to determine whether your Tribe would like to comment on the planned communications site for its impact on properties of religious or cultural significance to the Tribe and ensure review of both direct and indirect effects on historic properties. For your convenience, please find attached the Form 620 for your review. Reference the above TCNS # in your response if you choose to comment on this undertaking. Please note that per the 2018 FCC Rule changes, applicants are no longer required to pay up-front tribal fees.

Thank you for your response on this matter, as your reply is highly valued and appreciated. If you have any questions, please do not hesitate to call the undersigned at 770-623-0755. If you wish to respond by email, please send your e-mail responses to [joann.morgando@terracon.com](mailto:joann.morgando@terracon.com).

Sincerely,  
**Terracon Consultants, Inc.**

JoAnn Morgando  
Senior Staff Scientist

Attachment: Form 620



June 17, 2020

Eastern Shawnee Tribe of Oklahoma  
Cell Tower Coordinator Kelly Nelson  
Cultural Preservation Department  
70500 East 128 Road  
Wyandotte, OK 74370

<b>Site Name:</b>	BORDERS LAKE – Buckner 2 – B
<b>Site Number:</b>	616478418
<b>Terracon Project Number:</b>	49207201A
<b>Address:</b>	Adjacent to 5661 Popes Chapel Road
<b>City, County, State:</b>	Ragland, St. Clair County, AL 35131
<b>Lat/Long:</b>	33° 44' 31.555" N, 86° 13' 5.177" W
<b>Proposed Lease Area:</b>	Approximately 10,000 square feet (SF)
<b>Proposed Overall Tower Height (With Appurtenances):</b>	269 feet
<b>Tower Type:</b>	Self-Support
<b>TCNS Number:</b>	205032

To Whom It May Concern:

Our client is proposing to construct a telecommunication project at the above-referenced location and specifications. In accordance with the Nationwide Programmatic Agreement, this letter is a respectful request to determine whether your Tribe would like to comment on the planned communications site for its impact on properties of religious or cultural significance to the Tribe and ensure review of both direct and indirect effects on historic properties. For your convenience, please find attached the Form 620 for your review. Reference the above TCNS # in your response if you choose to comment on this undertaking. Please note that per the 2018 FCC Rule changes, applicants are no longer required to pay up-front tribal fees.

Thank you for your response on this matter, as your reply is highly valued and appreciated. If you have any questions, please do not hesitate to call the undersigned at 770-623-0755. If you wish to respond by email, please send your e-mail responses to [joann.morgando@terracon.com](mailto:joann.morgando@terracon.com).

Sincerely,  
**Terracon Consultants, Inc.**

JoAnn Morgando  
Senior Staff Scientist

Attachment: Form 620



NOO 4/24/2020

12. Assistant Janice Lowe - Alabama Quassarte Tribal Town - (PO Box: 187) Wetumka, OK - jlowe@alabama-quassarte.org; srobison@alabama-quassarte.org - 405-452-3881 (ext: 103) - electronic mail

3

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Exclusions: The Alabama Quassarte Tribal Town is unaware of any cultural or sacred sites located within the immediate project area. The AQTT's Historic Preservation Department concurs that there should be no adverse effect to any known historic properties and that work should proceed as planned. However, as the project is located in an area that is general historic interest to the Tribe, we request that work be stopped and our office contacted immediately if any Native American cultural materials or human remains are encountered.

If you have any questions, please contact our office at the number below.

Respectfully,

Janice Lowe, TCNS/106 Assistant  
Alabama Quassarte Tribal Town  
P.O. Box 187  
Wetumka, Ok 74883  
(P) 405-452-3881  
(F) 405-452-3889

August 14, 2020



**Tribal Consultation Certification Letter**

**Prepared for:** Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (Verizon Wireless)

**Project Description:** Raw Land-New Build, 269-foot (overall height including attachments) Self-Support Telecommunications Tower

**Site Name:** BORDERS\_LAKE – Buckner 2 – B

**Site Address:** Adjacent to 5661 Popes Chapel Road, Ragland, St. Clair County, AL 35131

**TCNS No.** 205032

**Site No.** 616478418

**Terracon Project No.** 49207201A

Dear Verizon Wireless:

All tribes that were consulted on this project have replied with no objection to the proposed undertaking or were unresponsive and have been referred to the FCC for final contact and the appropriate waiting period has expired. Verizon Wireless can proceed with the site, in compliance with Section 106 of the NHPA and the FCC's NPA. If any tribe replies in the future with an interest in the project, you will be notified immediately by Terracon Consultants.

Sincerely,

A handwritten signature in black ink, appearing to read "Savanna Sapp", is written over a light gray rectangular background.

Savanna Sapp  
Staff Scientist

**Appendix G**  
**FCC and FAA Documentation**



Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2025-ASO-4119-OE

Issued Date: 04/03/2025

Julie Heffernan  
The Towers, LLC  
7500 Park of Commerce Dr  
Suite 200  
Boca Raton, FL 33487

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Antenna Tower US-AL-5529 - Borders Lake
Location:	Ragland, AL
Latitude:	33-44-31.56N NAD 83
Longitude:	86-13-05.18W
Heights:	585 feet site elevation (SE) 269 feet above ground level (AGL) 854 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Emissions from this site must be in compliance with the parameters set by collaboration between the FAA and telecommunications companies and reflected in the FAA 5G C band compatibility evaluation process (such as power, frequencies, and tilt angle). Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. **Failure to comply with this condition will void this determination of no hazard.**

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M Change 1, Obstruction Marking and Lighting, a med-dual system-Chapters 4,8(M-Dual),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

\_\_\_\_ At least 10 days prior to start of construction (7460-2, Part 1)  
\_\_X\_\_ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

**See attachment for additional condition(s) or information.**

This determination expires on 10/03/2026 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

**NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.**

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (817) 222-5928, or [chris.smith@faa.gov](mailto:chris.smith@faa.gov). On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2025-ASO-4119-OE.

**Signature Control No: 648696919-652706685**

( DNE )

Chris Smith  
Specialist

Attachment(s)

Additional Information  
Frequency Data  
Map(s)

cc: FCC



Part 77 authorizes the FAA to evaluate a structure or object's potential electromagnetic effects on air navigation, communication facilities, and other surveillance systems. It also authorizes study of impact on arrival, departure, and en route procedures for aircraft operating under visual or instrument flight rules, as well as the impact on airport traffic capacity at existing public use airports. Broadcast in the 3.7 to 3.98 GHz frequency (5G C band) currently causes errors in certain aircraft radio altimeters and the FAA has determined they cannot be relied upon to perform their intended function when experiencing interference from wireless broadband operations in the 5G C band. The FAA has adopted Airworthiness Directives for all transport and commuter category aircraft equipped with radio altimeters that prohibit certain operations when in the presence of 5G C band.

This determination of no hazard is based upon those mitigations implemented by the FAA and operators of transport and commuter category aircraft, and helicopters operating in the vicinity of your proposed location. It is also based on telecommunication industry and FAA collaboration on acceptable power levels and other parameters as reflected in the FAA 5G C band evaluation process.

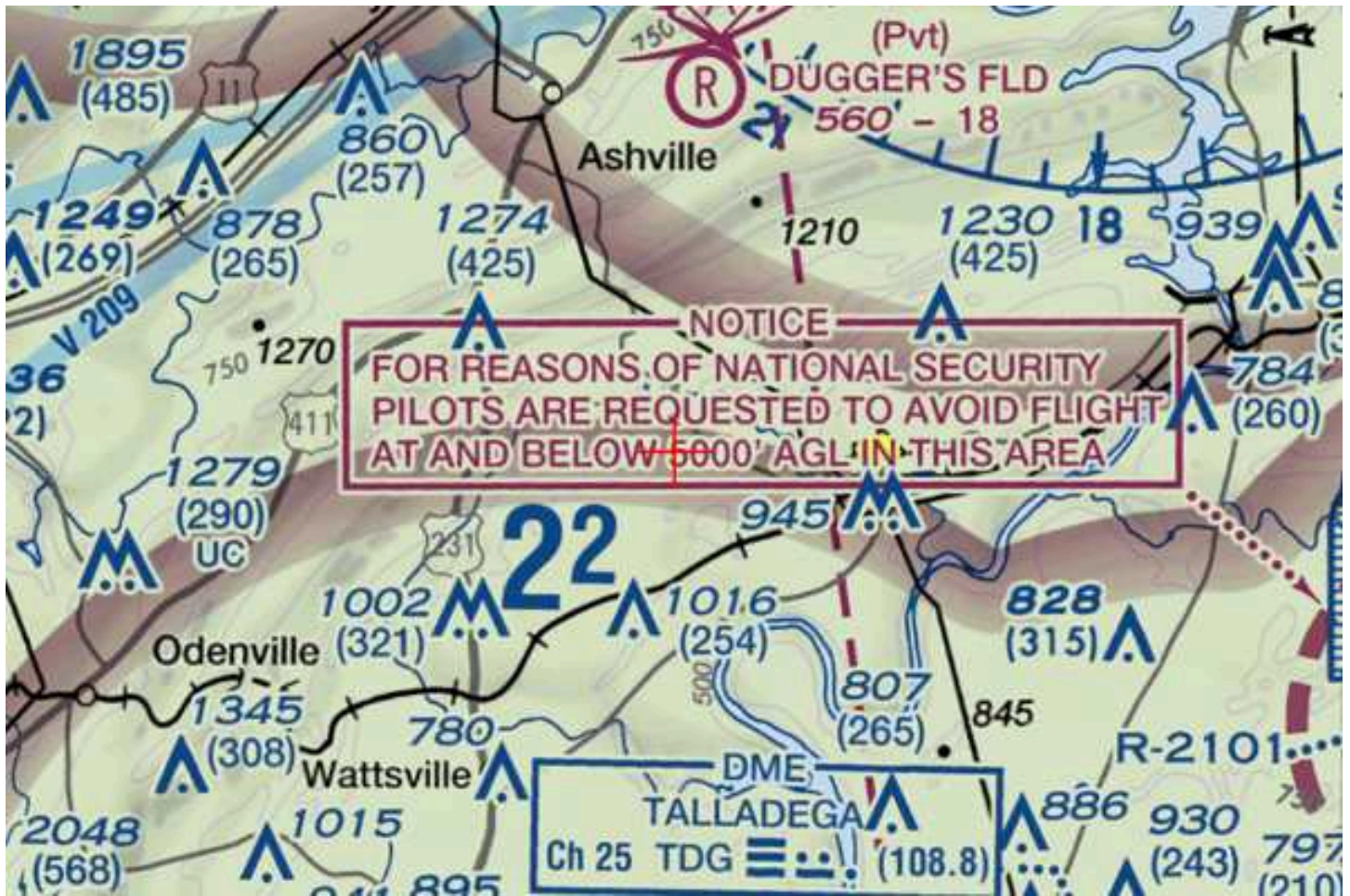
The FAA 5G C band compatibility evaluation is a data analytics system used by FAA to evaluate operational hazards related to aircraft design. The FAA 5G C band compatibility evaluation process refers to the process in which the telecommunication companies and the FAA have set parameters, such as power output, locations, frequencies, and tilt angles for antenna that mitigate the hazard to aviation. As the telecommunication companies and FAA refine the tools and methodology, the allowable frequencies and power levels may change in the FAA 5G C band compatibility evaluation process. Therefore, your proposal will not have a substantial adverse effect on the safe and efficient use of the navigable airspace by aircraft provided the equipment and emissions are in compliance with the parameters established through the FAA 5G C band compatibility evaluation process.

Any future changes that are not consistent with the parameters listed in the FAA 5G C band compatibility evaluation process will void this determination of no hazard.

# Frequency Data for ASN 2025-ASO-4119-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	2000	W
614	698	MHz	1000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W
3700	3980	MHz	3280	W





[ASR Registration Search](#)**Registration 1315106**[Map Registration](#)**Registration Detail**

Reg Number	1315106	Status	Granted
File Number	A1157792	Constructed	
EMI	No	Dismantled	
NEPA			

**Antenna Structure**

Structure Type	LTOWER - Lattice Tower		
<b>Location</b> (in NAD83 Coordinates)			
Lat/Long	33-44-31.5 N 086-13-05.1 W	Address	Adjacent to 5661 Popes Chapel Road (2212117)
City, State	Ragland , AL		
Zip	35131	County	ST. CLAIR
Center of AM Array		Position of Tower in Array	

**Heights (meters)**

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
178.6	81.9
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
260.5	79.2

**Painting and Lighting Specifications**

FAA Chapters 4, 8, 12  
 Paint and Light in Accordance with FAA Circular Number 70/7460-1L

**FAA Notification**

FAA Study	2020-ASO-5486-OE	FAA Issue Date	02/28/2020
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**Owner & Contact Information**

FRN	0003290673	Owner Entity Type	General Partnership
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**Owner**

Cellco Partnership  
 Attention To: Network Regulatory  
 5055 North Point Pkwy  
 NP2NE Network Engineering  
 Alpharetta , GA 30022

P: (770)797-1070  
 F:  
 E: Network.Regulatory@verizonwireless.com

**Contact**

Manager , Regulatory  
 Attention To: Network Regulatory  
 5055 North Point Pkwy  
 NP2NE Network Engineering  
 Alpharetta , GA 30022

P: (770)797-1070  
 F:  
 E: Network.Regulatory@verizonwireless.com

**Last Action Status**

Status	Granted	Received	06/29/2020
Purpose	Amendment	Entered	06/29/2020
Mode	Interactive		

**Related Applications**

06/29/2020	A1157792 - Amendment (AM)
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**Comments****Comments**

None

**History**

Date	Event
07/07/2021	Construction Reminder Letter Sent
06/30/2020	Registration Printed

**Pleadings**

Pleading Type	Filer Name	Description	Date Entered
None			

**Automated Letters**

07/07/2021	Construction Reminder, Reference 1149433
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CLOSE WINDOW



## **Appendix H**

### **List of Preparers**

Name	Organization	Discipline/Expertise	Years of Experience	Role in Preparing EA
Ryan Edson	Environmental Corporation of America	NEPA / Cultural Resources	6 years	Document preparation
Eric Johnson	Environmental Corporation of America	NEPA/Environmental Sciences	14 years	Principal review and document preparation
Ashley Bean	Environmental Corporation of America	Biology/Environmental Sciences	3 years	Document preparation
Ben Salter	Environmental Corporation of America	NEPA/Biology/Environmental Sciences	23 years	Principal review and oversight
Shannon Lowman	Environmental Corporation of America	Cultural Resources	6 years	Document preparation
Dina Bazzill	Environmental Corporation of America	NEPA / Cultural Resources	15 years	Principal review and oversight