



**Northwest Arkansas
National Airport**

Request for Proposals (RFP)

Comprehensive Electrical System Assessment

Northwest Arkansas National Airport (XNA)

I. Introduction

Northwest Arkansas National Airport (XNA) invites proposals from qualified electrical engineering firms to conduct a comprehensive assessment of its electrical systems. This assessment will emphasize vulnerabilities related to lightning strikes and power outages, evaluate existing and potential battery backup systems, and provide recommendations for resilience, safety, compliance, and modernization.

II. Project Overview

The primary goals of this project are to:

- Comprehensively document the airport's existing electrical infrastructure
 - Assess that infrastructure for reliability, code compliance, and operational efficiency
 - Identify vulnerabilities and failure points related to lightning strikes, transient voltage events, and unplanned outages
 - Evaluate existing and potential battery backup systems and the integration of behind-the-meter solar photovoltaic (PV) power sources
 - Recommend cost-effective and scalable improvements to improve electrical system resilience, redundancy, and sustainability
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III. Scope of Work

The selected firm shall provide a full evaluation that includes, but is not limited to, the following elements:



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1. Site Evaluation and System Inventory

- Survey and document of all 120V/208V/277V/480V electrical infrastructure on campus, including:
 - All buildings and lighting on campus served by 40+ active meters
 - Main service entrance, distribution panels, switchgear
 - Backup generation and battery storage systems
 - Solar PV arrays and their interfaces with the electrical grid
- Review current utility usage
- Project electrical growth for airport over the next 10 years
- Provide feedback on potential challenges to operational efficiency in the utility distribution system
- Review of existing documentation (as-builts, load data, previous assessments)

2. Lightning Protection and Grounding

- Assessment of existing lightning protection systems
- Evaluation of recent or recurring lightning strike damage or disruptions
- Grounding and bonding review for effectiveness and NEC/FAA/NFPA compliance
- Recommendations for surge protection devices and transient voltage suppression

3. Power Outage and Resiliency Analysis

- Historical review of power outage frequency and causes
- Assessment of critical system vulnerabilities during utility power failures
- Analysis of power restoration protocols and failover system performance

4. Battery Backup and Solar Integration

- Assessment of current and planned battery energy storage systems (BESS)
- Evaluation of behind-the-meter solar panel arrays, inverters, and interconnection
- System performance analysis, including charge/discharge cycles, backup duration, and load support capacity
- Review of system controls, switching, and isolation capabilities
- Recommendations for improved integration, monitoring, and expansion of renewable backup capacity

5. Critical Systems Support

- Analysis of emergency and standby power for:



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- Baggage handling
- Security systems and access control
- Terminal communications and IT
- Airfield lighting and navigational aids

6. Code Compliance and Safety Review

- NEC, NFPA 70, 70E, and 110 compliance check
- FAA electrical standards and recommendations
- Arc flash analysis, PPE labeling, and electrical safety protocols

7. Deliverables

- Comprehensive report summarizing:
 - Findings and system deficiencies
 - Electrical As-Builts and Inventory
 - Electrical secondary service site plan
 - Electrical risk matrix (e.g., lightning, blackout vulnerability)
 - Priority-based recommendations
 - Schematic one-line diagrams (as needed)
 - Budgetary cost estimates for remedial actions
 - Roadmap for phased improvements including solar/battery resiliency planning

IV. Proposal Requirements

Proposals must include:

- 1. Firm Profile**
 - Description of firm, office locations, and relevant certifications
- 2. Team Qualifications**
 - Key personnel resumes and project roles
- 3. Project Understanding & Methodology**
 - Technical approach including inspection and testing procedures
 - Emphasis on resiliency, sustainability, and code compliance
- 4. Experience**
 - Similar projects completed in airport or critical infrastructure environments
 - Experience with lightning protection, BESS, and solar integration
- 5. Fee Proposal**



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- Detailed cost estimate including travel, testing, and deliverables
- 6. Schedule**
- Proposed timeline for assessment, draft report, and final submission

V. Evaluation Criteria

Proposals will be evaluated based on:

- Understanding of scope and technical quality of approach
- Relevant airport and energy resiliency experience
- Personnel qualifications and capacity to deliver
- Fee structure and value
- References from comparable projects

VI. Submission Instructions

- **Proposal Due Date:** May 8th, 2026, by 5:00 PM CST
- **Submission Format:** PDF via email
- **Contact Person:** Brett Meek, Chief Infrastructure Officer,
479-787-0896 | brett.meek@flyxna.com

VII. General Terms




- XNA reserves the right to reject any or all proposals, waive requirements, or otherwise act in the best interest of the Airport
- Award is contingent on final contract negotiation and Board approval
- All submitted materials become the property of XNA

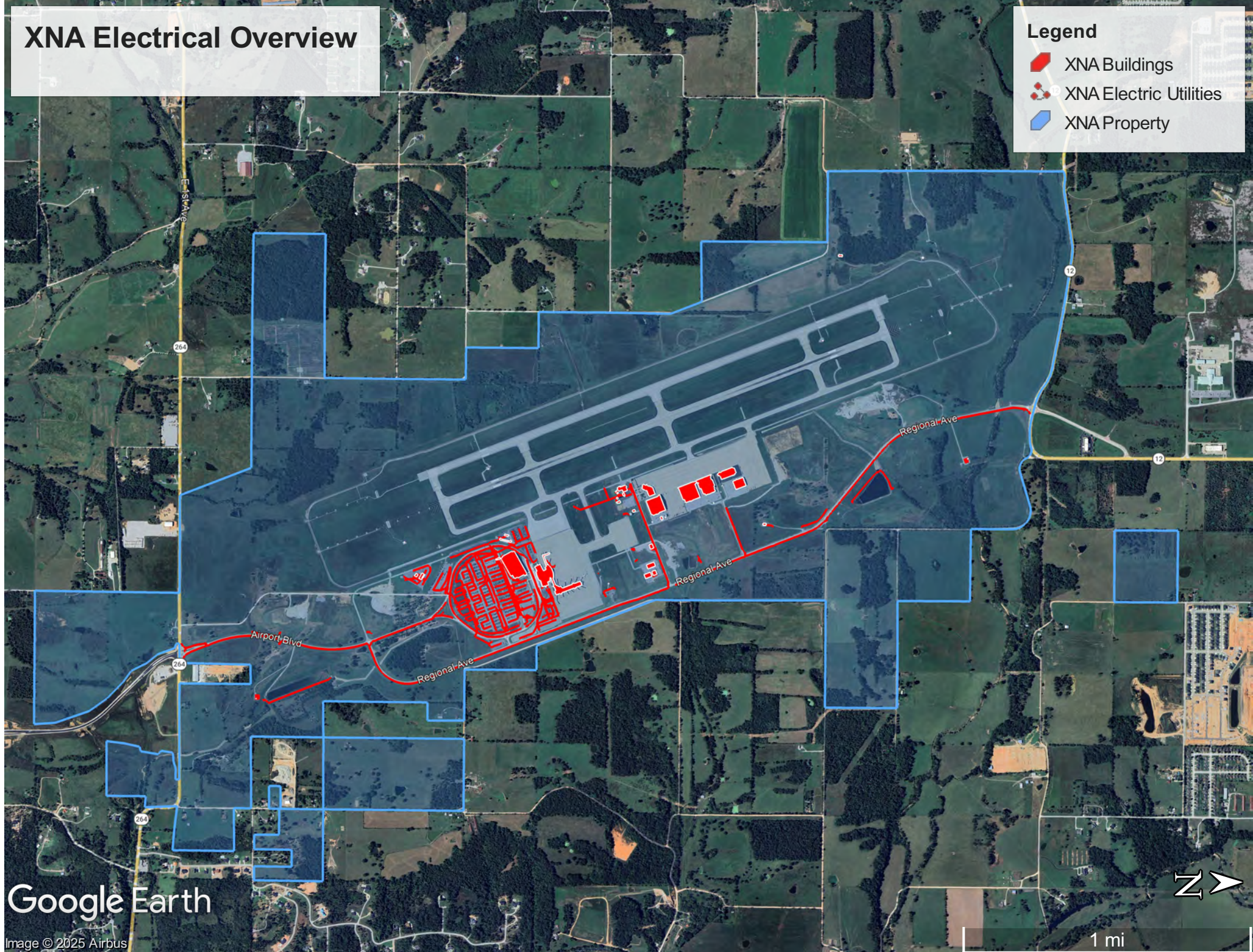
VIII. Attachments

- Airport site electrical drawings and layout
- Required federal contract provisions

XNA Electrical Overview

Legend

-  XNA Buildings
-  XNA Electric Utilities
-  XNA Property



Google Earth




Image © 2025 Airbus

1 mi

XNA Electrical Overview

South End

Legend

-  XNA Buildings
-  XNA Electric Utilities
-  XNA Property






Google Earth

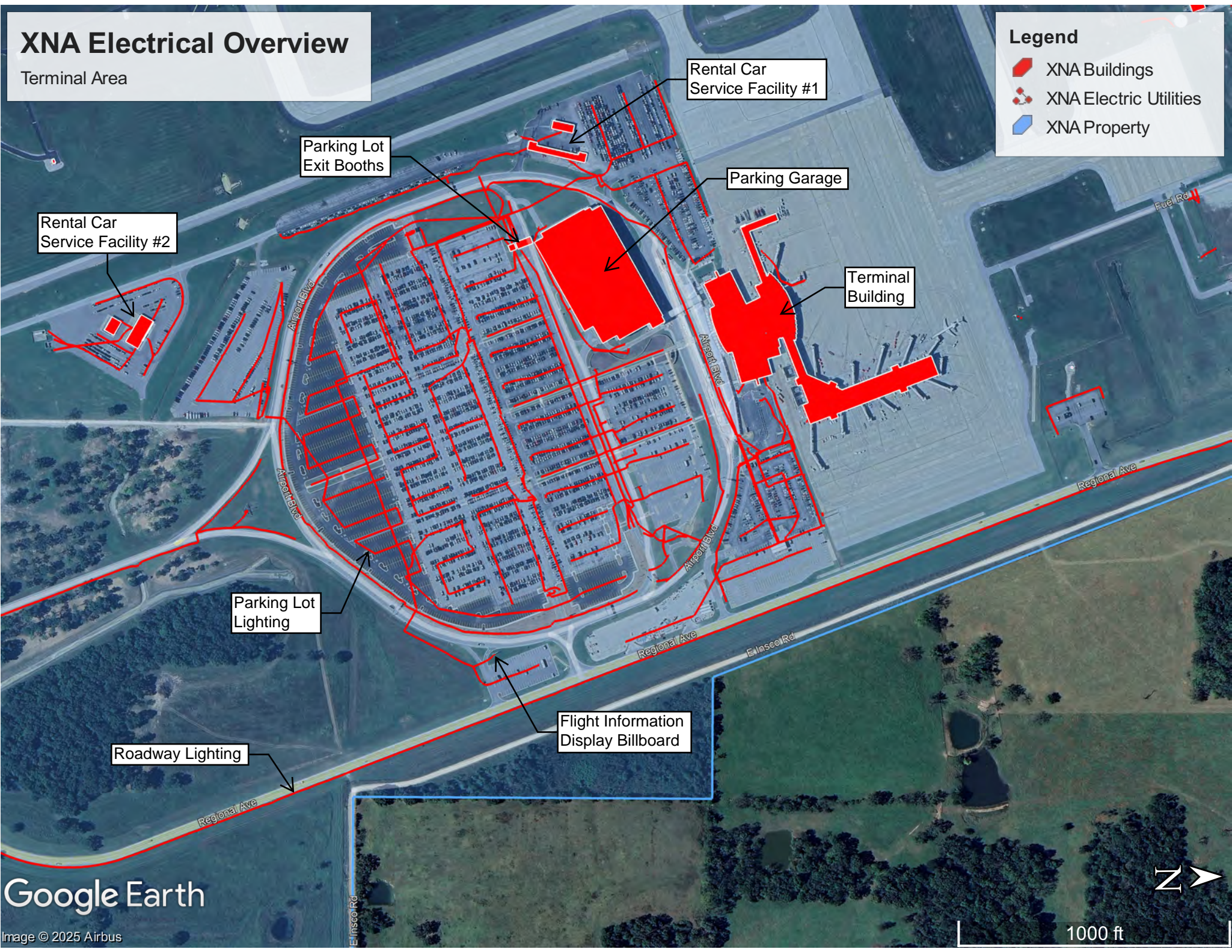
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XNA Electrical Overview

Terminal Area

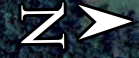
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-  XNA Buildings
-  XNA Electric Utilities
-  XNA Property



Google Earth

Image © 2025 Airbus






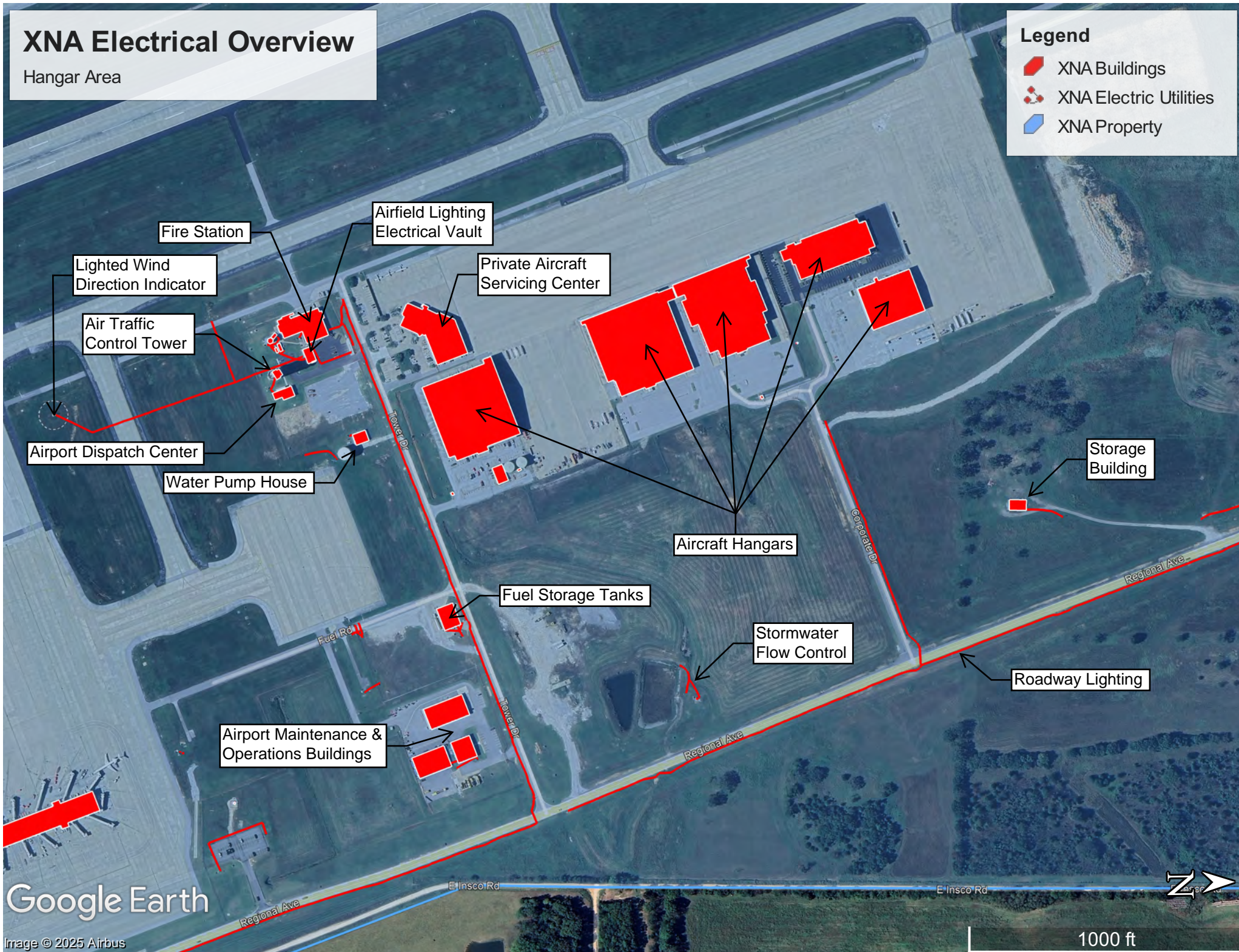
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XNA Electrical Overview

Hangar Area

Legend

-  XNA Buildings
-  XNA Electric Utilities
-  XNA Property



Google Earth




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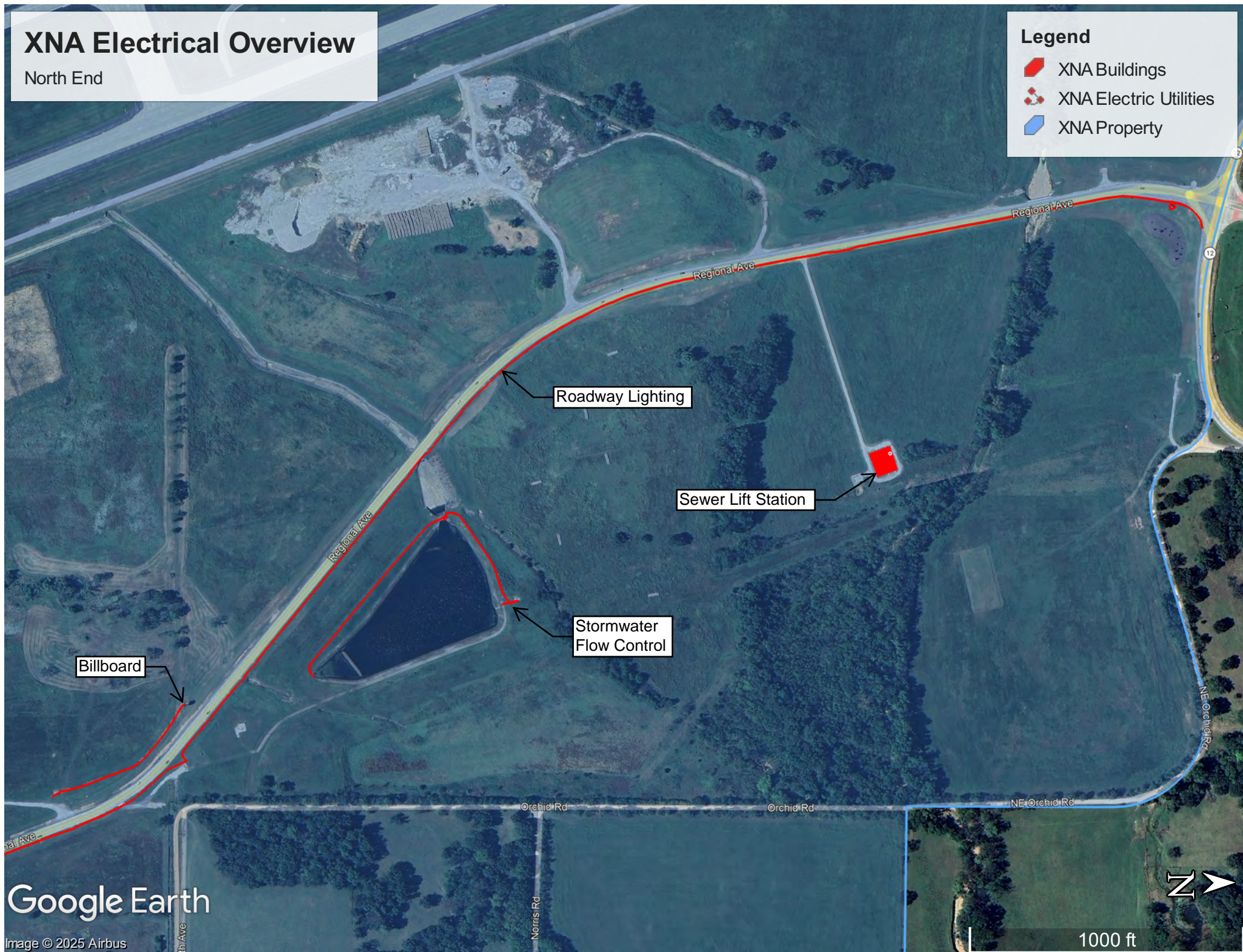
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XNA Electrical Overview

North End

Legend

-  XNA Buildings
-  XNA Electric Utilities
-  XNA Property



Google Earth

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1000 ft

EXHIBIT "A"

MANDATORY FEDERAL CONTRACT PROVISIONS

As used in this Exhibit, "Contractor" shall refer to **[Consulting Engineer TBD]**

GENERAL CIVIL RIGHTS PROVISIONS

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin, creed, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

TITLE VI SOLICITATION NOTICE:

The Northwest Arkansas Regional Airport Authority, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4), 28 CFR § 50.3, and 49 CFR Part 21, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, all contractors will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of the owner's race, color, national origin, sex, creed, age, or disability in consideration for an award.

TITLE VI LIST OF PERTINENT NONDISCRIMINATION ACTS AND AUTHORITIES

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR Part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964) including amendments thereto;

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 U.S.C. § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (P.L. 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101, *et seq.*) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR Parts 37 and 38;
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681, *et seq.*).

COMPLIANCE WITH NONDISCRIMINATION REQUIREMENTS

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin), creed, sex, age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the

Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21 including amendments thereto.

3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.