

ARX WIRELESS INFRASTRUCTURE, LLC

**TECHNICAL REPORT
PROPOSED WIRELESS TELECOMMUNICATION FACILITY**

**Lot N-4, Sequin Drive
Glastonbury, CT 06033**



**ARX Wireless Infrastructure, LLC
110 Washington Avenue
North Haven, CT 06473**

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Introduction

Arx Wireless Infrastructure, LLC (“ARX”) submits this Technical Report to the Town of Glastonbury (“Town” or “Glastonbury”) pursuant to Connecticut General Statutes §16-50f. ARX proposes to install a wireless telecommunications facility (the “Facility”) on an approximately 11.24+/- acre parcel known as Lot N-4, Sequin Drive, Glastonbury and owned by New Land of Glastonbury LLC (the “Property” or the “Site”). The Facility would consist of a 115’ foot monopole structure (not to exceed 115’ with antennas) within a 50’ x 50’ fenced equipment compound (within a 50’ x 50’ leased area) surrounded by a chain-link fence, located behind an existing commercial building. The tower would accommodate the antenna arrays of New Cingular Wireless PCS, LLC (“AT&T”) and three future wireless carriers. If approved, the Facility would provide enhanced wireless communications and improved 911 service in this area of Glastonbury.

The purpose of this Technical Report is to provide the Town with information concerning the Facility. Section 1 addresses the need for the proposed Facility. Section 2 details the site selection process, including an analysis of other sites considered and rejected by ARX. Section 3 describes the Site, the design of the Facility, and the environmental effects, if any, associated with the Facility.

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SECTION 1

Site Justification

The proposed Facility is necessary to allow AT&T to provide wireless service in the Town of Glastonbury. AT&T is licensed by the Federal Communications Commission (“FCC”) to provide wireless communication service throughout the State of Connecticut, including Hartford County. AT&T’s FCC licenses require the construction and build-out of their wireless networks within their respective federally licensed service areas, which include the Town of Glastonbury.

The proposed 115-foot monopole at Sequin Drive, Glastonbury, Connecticut, will allow AT&T to provide necessary in-building residential and in-vehicle coverage if they are permitted to locate at the 111’ foot level. AT&T’s locations at the 111’ foot level will provide much-needed coverage in the area within the proposed coverage footprint. With the development of the proposed Facility, residential customers would have reliable in-vehicle and in-building coverage for their voice and data needs as well as reliable coverage for E-911 services.

The attached Statement of Need comprised of a *Calculated Radio Frequency Exposure Report and Radio Frequency Analysis Report*, includes propagation plots prepared by AT&T that depict (1) coverage from existing and approved surrounding sites, and (2) coverage from the proposed Site in conjunction with existing and approved sites. *See attached Radio Frequency Analysis Report prepared by C Squared Systems, LLC, dated December 21, 2020.* Together, these propagation plots demonstrate AT&T’s need for a site in the area of the proposed Facility and the effectiveness of the proposed Facility in meeting the need for wireless service in this area of Glastonbury. *See attached Calculated Radio Frequency Exposure Report dated December 16, 2020, and Radio Frequency Analysis Report dated December 21, 2020, both of which were prepared by C Squared Systems, LLC.*

SECTION 2

Site Search Process and Selection

Connecticut General Statutes § 16-50j requires ARX to provide the Town with a technical report considering, *inter alia*, “the site selection process.” When filing its application for a certificate of environmental compatibility and public need with the Connecticut Siting Council, ARX must include a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” Regs., Conn. State Agencies § 16-50j-74(j). In accordance with these requirements, this Technical Report details the description of the general site search process, the identification of the target search area, and the alternative locations considered for development of the proposed Facility.

As a tower infrastructure provider, ARX is in direct consultation with individual carriers and uses its overall knowledge and understanding of existing wireless carrier networks to identify geographical areas where wireless service is unreliable. ARX only pursues a site search for a new tower when it is clear that a new tower facility will be required, and all other options have been evaluated and/or exhausted. When conducting a site search, ARX’s radio frequency engineers, in consultation with the appropriate wireless carrier radio frequency engineers, identify search areas central to the necessary geographical coverage area. In this case, AT&T identified a need for wireless coverage in this area of Glastonbury and has agreed to support an application by ARX to construct a new facility in this location to provide the coverage required.

ARX is sensitive to State and local desires to minimize the construction of new towers, and it does not pursue development of a new facility where an acceptable existing structure can be found. In general, ARX’s site acquisition personnel study the area in and near the search area to determine whether any suitable structure exists. If ARX cannot find a structure with appropriate height and structural capabilities, it turns to industrial and commercial areas or individual parcels that have appropriate environmental and land use characteristics. The list of potential locations is limited by the willingness of property owners to make their properties available for a telecommunications facility. Radio frequency engineers study potentially suitable and available locations to determine whether those locations will meet the technical requirements for a telecommunications facility. The list of possible alternative sites may be further narrowed by ARX’s analysis of potential environmental effects and benefits. The weight given to relevant factors varies for each search, depending on the nature of the area and the availability of potential sites. *See attached Existing Telecommunications Sites Within 4 Mile Radius – map and site listing, prepared by Virtual Site Simulations, LLC (“VSS”) dated January 15, 2021.*

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the submission of a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” In accordance with this requirement, descriptions of the general site search process, the identification of the applicable search area, and

the alternative locations considered for development of the proposed telecommunications facility in Glastonbury are provided below.

Site Search Process

A site search ring is selected in an area where wireless service problems have been identified. In any search ring or search area, ARX seeks to avoid the unnecessary proliferation of towers and to reduce the potential adverse environmental effects of the cell site, while at the same time maximizing the quality of service provided from a particular facility. These objectives are achieved by initially locating existing towers and other sufficiently tall structures within and near the site search area. If any are found, they are evaluated to determine whether they are capable of supporting a carrier's telecommunications antennas and related equipment at a location and elevation that satisfies its technical requirements.

The list of available locations may be further reduced if, after preliminary negotiations, the property owners withdraw a site from further consideration. From among the remaining locations, the proposed sites are selected by eliminating those that have greater potential for adverse environmental effects and fewer benefits to the public (*i.e.*, those requiring taller towers; those with substantial adverse environmental impacts; or those with limited ability to share space with other public or private telecommunications service providers). It should be noted that in any given site search, the weight afforded to factors considered in the selection process will vary depending upon the availability and nature of sites within the search area.

Sites Investigated

1. Owner: New Land of Glastonbury LLC

Map Block and Lot: F5 6200 N004

Site Location: Sequin Drive

Property Size 11.24 acres

This location is the Property on which ARX proposes to construct the Facility.

ARX determined that the Property is preferable to the other properties in the area. The Property is an approximately 11.24-acre parcel designated in a Planned Commerce (PC) section in the Town's zoning records. There are no trees that will need to be removed to construct the Facility. Access to and from the Site is off Sequin Drive.

2. Owner: 210 Commerce Street, LLC

Map Block and Lot F6 1320 S002

Site Location: 210 Commerce Street

Property Size: 3.84 acres

This site was deemed unusable due to a lack of interest from the owner.

3. Owner: 240 Oakwood LLC

Map Block and Lot: F6 4900 E0011A

Site Location: 240 Oakwood Drive

Property Size: 3.00 acres

This site was deemed unusable due to a lack of interest from the owner.

4. Owner: Depersia, Karen A, James M, Jeffrey P.

Map Block and Lot: F5 6200 N006

Site Location: Sequin Drive

Property Size: 4.14 acres

This site was deemed unusable due to a lack of interest from the owner.

5. Owner: Sovran Acquisition, Limited Partnership

Map Block and Lot: F6 4900 W009

Site Location: 269 Oakwood Drive

Property Size: 11.03 acres

This site was deemed unusable due to a lack of interest from the owner.

6. Owner: Oakwood Sports Center of Glastonbury, LLC

Map Block and Lot: F5 4900 E0002

Site Location: 40 Oakwood Drive

Property Size: 7.32 acres

This site was deemed unusable due to a lack of interest from the owner.

7. Owner: Town of Glastonbury Board of Education Bus Lot

Map Block and Lot: F6 4900 W0011

Site Location: 311 Oakwood Drive

Property Size: 12.7 acres

This is a viable property if the Town is interested in moving forward with a lease with ARX.

8. Owner: Grunberg 628 Hebron, LLC

Map Block and Lot: E5 2920 S0034A

Site Location: 626-628 Hebron Avenue

Property Size: 7.9 acres

This site was deemed unusable due to a lack of interest from the owner.

SECTION 3

PROPOSED SITE AND FACILITY

**Lot N-4, Sequin Drive
Glastonbury, CT 06460**

Map Block & Lot F5 6200 N0004
11.24+/- Acres

GENERAL SITE AND FACILITY DESCRIPTION

The Site is an approximately 11.24+/- acre parcel, with a designated land use (as reflected in the Town's records) as a Planned Commerce zone ("PC"). The Property is presently developed with a commercial/industrial storage building. The Site is situated on the north side of Sequin Drive and Oakwood Drive to the south.

ARX is proposing to construct a telecommunications facility consisting of a 115' tall monopole with AT&T equipment and antennas, situated within a 50' x 50' fenced equipment compound within a 50' x 50' leased area. A 25'-wide access and utility easement originating off Sequin Drive would provide the Site with underground utilities and vehicular access. The vehicular access will be on a 12' access driveway within the 25'-wide access and utility easement. The antennas affixed to the top of the monopole will consist of AT&T panel antennas, mounted in three sectors, at a centerline height of 111'. See *attached Abutters Plan, Existing Conditions Plan, Site Plan, Compound Plan / Tower Elevation*.

SITE EVALUATION REPORT

I. LOCATION

- A. COORDINATES: N 41° 42' 51.2"
W 72° 34' 54.32"
- B. GROUND ELEVATION: 94 +/- feet AMSL (Proposed)

USGS MAP: 7.5 Minute Series Topographic Quadrangle Map,
Glastonbury, Connecticut, 2015
- C. SITE ADDRESS: Lot N-4, Sequin Drive
Glastonbury, CT 06051
- E. ZONING CLASSIFICATION: Parcel is zoned PC, and current use is designated as a commercial/industrial storage building in the Town's tax assessment records.

II. DESCRIPTION

- A. COMPOUND SIZE: 2,500 square feet
- B. TOWER TYPE/HEIGHT: 115-foot monopole with antenna to 115 feet
- C. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER:
The existing terrain consists of a commercially developed piece of Property consisting of a storage building. There are no wetlands located on the Property. *See attached Natural Resources Review prepared by EBI Consulting dated January 6, 2021.*
- D. LAND USE WITHIN ¼ MILE OF SITE: A mix of commercial/industrial, office, and residential development.
- E. LOCATION OF ALL SCHOOLS NEAR SITE: The closest school is The Links Transition School / Links Academy, 628 Hebron Avenue, located approximately 0.46 miles to the west of the Proposed Facility. The closest licensed day care facility is the YMCA Child Care Program / Preschool, 95 Oakwood Drive, located approximately 0.43 miles to the southwest of the Proposed Facility. There are no schools or licensed day care facilities within 250 feet of the proposed Facility. *See attached Preliminary Visibility Analysis Package prepared by Virtual Site Simulations, LLC, dated December 18, 2020.*

III. FACILITIES

- A. POWER COMPANY: Eversource
- B. POWER PROXIMITY TO SITE: Existing utility service on Sequin Drive is 260'+/- south of the Site.
- C. TELEPHONE COMPANY: Frontier Communications
- D. PHONE SERVICE PROXIMITY: Existing utility service on Sequin Drive is 260'+/- West of the Site.
- E. VEHICLE ACCESS TO SITE: Access to the proposed Facility would be from Sequin Drive.
- F. OBSTRUCTION: None

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: New Land of Glastonbury LLC
- C. ADDRESS: 734 Hebron Ave, Glastonbury, Connecticut 06033
- D. DEED ON FILE AT: Book 2547/Page 0107

FACILITIES AND EQUIPMENT SPECIFICATIONS (TOWER & EQUIPMENT)

I. TOWER SPECIFICATIONS

- A. MANUFACTURER: TBD
- B. TYPE: Monopole
- C. HEIGHT: 115'
- D. DIMENSIONS: TBD

II. TOWER LOADING

A. AT&T

- 1. MODEL: TPA65R-BU8DA-K & DMP65R-BU8DA-K
- 2. DIMENSIONS: (96 X 21 X 7.8) & (96 X 20.7 X 7.7)
- 3. ANTENNAS: 6 antennas on a WLL frame mount
- 4. TOWER POSITION: 111' AGL at the center of the antenna array
- 5. TRANSMISSION LINES: (1) 1/2" Fiber and (4) .92 DC Cables

B. FUTURE CARRIERS: 3 additional carriers

III. ENGINEERING ANALYSIS AND CERTIFICATION:

All work shall be in accordance with the 2015 International Building Code, as modified by the 2018 Connecticut supplement, including the TIA/EIA-222 revision G "structural standards for steel antenna towers and supporting structures," 2018 Connecticut Fire Safety Code and 2009 amendments, National Electrical Code, and local codes. The foundation design will be based on soil conditions at the Site.

ENVIRONMENTAL ASSESSMENT STATEMENT

I. PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the Facility. The construction, operation, and maintenance of the Facility would not adversely impact any wetlands. There are no wetlands on the Property or floodplains proximate to the Site. See *attached Natural Resources Review prepared by EBI Consulting dated January 6, 2021*.

B. AIR QUALITY

Under ordinary operating conditions, the equipment located at this Facility would emit no air pollutants of any kind. For limited periods during power outages, a generator will be utilized.

C. LAND

Grading would be required for development of the Facility. The remainder of the Property would remain unchanged by the construction and operation of the Facility.

D. NOISE

The Facility equipment after construction would not emit any noise other than the installed heating, air conditioning, ventilation systems, and in the event of a power outage, the proposed self-contained diesel generator. Some noise is anticipated during the construction of the Facility, which is expected to take approximately 10 weeks.

E. POWER DENSITY

The Facility is compliant with FCC/ANSI standards. See *attached Calculated Radio Frequency Exposure Report dated December 16, 2020, prepared by C Squared Systems, LLC*.

F. VISIBILITY

ARX has retained Virtual Site Simulations, LLC (“VSS”) to perform an initial viewshed mapping and an evaluation of the proposed visibility within a one-mile radius of the Site. Visibility of the tower is predicted to be from approximately 22.6 acres year-round (approximately 1.13% of the one-mile

radius) and 4.2 acres seasonally (approximately 0.2% of the one-mile radius). The preliminary viewshed mapping will be field verified in the near future via a balloon float. An updated report with photo-simulations will be prepared for inclusion in the Application to the Connecticut Siting Council. *See attached Preliminary Visibility Analysis Package prepared by VSS, dated December 18, 2020.* In addition, the Federal Aviation Administration has concluded that the Facility does not exceed obstruction standards and will not be a hazard to air navigation, based on conditions that ARX will meet. *See attached Determination of No Hazard to Air Navigation dated January 7, 2021.*

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

ARX has retained EBI Consulting (“EBI”) to evaluate the Facility in accordance with the FCC’s regulations implementing the National Environmental Policy Act of 1969 (“NEPA”). A copy of the NEPA will be included in the Application to the Connecticut Siting Council.

In its review, EBI has concluded that the proposed Facility will not impact identified wetlands, and: 1) is not within the boundaries, or within one mile, of federally protected land, including wildlife preserves or wilderness areas, 2) is not within the boundaries of a FEMA-designated 100-year flood zone, and 3) is not anticipated to result in a significant change to surface features. Further, EBI identified that potentially suitable habitats capable of supporting the Northern long-eared bat were noted within the vicinity and at the proposed Site. However, EBI has concluded that any incidental take as a result of this project would not be prohibited by the final 4(d) rule. *See attached Natural Resources Review prepared by EBI Consulting dated January 6, 2021.*

EBI also conducted a National Environmental Policy Act Archaeology Scope Statement based on an examination of data obtained from the Connecticut State Historic Preservation Office (CT-SHPO). EBI concludes that no archaeologically sensitive sites have been identified on or adjacent to the Project Site. *See attached NEPA Archaeology Scope Statement prepared by EBI, dated January 5, 2021.*