# Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street Hartford, CT 06103-3597 Main (860) 275-8200 Fax (860) 275-8299 kbaldwin@rc.com Direct (860) 275-8345

Also admitted in Massachusetts and New York

April 10, 2022

# Via Electronic Mail and Hand Delivery

Melanie A. Bachman, Esq. Executive Director/Staff Attorney Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Docket No. 513 – Application of Cellco Partnership D/B/A Verizon Wireless for a Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance and Operation of a Wireless Telecommunications Facility Off Mason Hill Road, Litchfield, Connecticut

Dear Attorney Bachman:

On behalf of Cellco Partnership d/b/a Verizon Wireless ("Cellco"), enclosed please find the original and fifteen (15) copies of Cellco's Responses to Council Interrogatories related to Docket No. 513. Electronic copies of these responses have also been sent to the Council today.

If you have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,

Kenneth C. Baldwin

KCB/kia Enclosure

# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:

:

APPLICATION OF CELLCO PARTNERSHIP : DOCKET NO. 513

D/B/A VERIZON WIRELESS FOR A

CERTIFICATE OF ENVIRONMENTAL

COMPATIBILITY AND PUBLIC NEED FOR

THE CONSTRUCTION, MAINTENANCE AND : OPERATION OF A WIRELESS :

TELECOMMUNICATIONS FACILITY OFF

MASON HILL ROAD, LITCHFIELD,

CONNECTICUT APRIL 10, 2023

# RESPONSES OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS TO CONNECTICUT SITING COUNCIL INTERROGATORIES (SET 1)

On March 20, 2023, the Connecticut Siting Council ("Council") issued Interrogatories to Cellco Partnership d/b/a Verizon Wireless ("Cellco"), relating to Docket No. 513. Below are Cellco's responses.

# General

# Question No. 1

Is the project, or any portion of the project, proposed to be undertaken by state departments, institutions or agencies, or to be funded in whole or in part by the state through any contract or grant?

# Response

No.

# Question No. 2

Referencing Application Attachment 4, of the letters sent to abutting property owners, how many certified mail receipts were received? If any receipts were not returned, which owners

did not receive their notice? Were any additional attempts made to contact those property owners?

# Response

As of the date of this filing Cellco received all but one certified mail receipt from the abutting property owners. On April 3, 2023, an additional notice letter was sent via first-class mail to Frank and Lisa Simone at 445 Mason Hill Road in Northfield.

# Question No. 3

Referencing Application p. 22, how is the construction cost of the facility recovered?

Response

The costs associated with providing Cellco customers with the nation's most reliable wireless service network, including the cost for development of network infrastructure, are paid for by the individuals, corporations and government entities that purchase Cellco's wireless service.

#### Question No. 4

Referencing Application p. 20, how many Town officials/area residents attended the December 6, 2022 public information meeting? What concerns were raised by residents and town officials and how were these concerns addressed? What was the date and time of the subsequent balloon float?

# Response

The Public Information Meeting on December 6, 2022 was attended by approximately 20 residents and public officials. Most attended the meeting in-person while others attended via video conference. Some of the attendees lived in the area around the proposed tower site and had questions about the tower's visual impact; its impact on property values in the area; alternative

parcels considered; RF emissions and safety issues; and the Council's regulatory process.

Cellco's representatives provided information about the Council's application process and statutory review criteria for a Certificate of Environmental Compatibility and Public Need.

Additional information was provided in response to a January 3, 2023 letter Cellco received from the Carol Bramley, Chair of the Litchfield Planning and Zoning Commission, who attended the Public Information Meeting virtually. Cellco's January 26, 2023 response to Ms. Bramley was included in Attachment 17 of the Application.

In an attempt to address concerns for visual impacts raised at the Public Information Meeting, Cellco agreed to conduct a second balloon float at the proposed tower site and did so on January 9, 2023. Members of the public who gave Cellco their contact information at the December 6, 2022 Public Information Meeting, and Litchfield public officials were notified, by email, in advance of the second balloon float.

#### Site Search

# Question No. 5

Did Cellco issue a Site Acquisition Request Form (SARF) for the facility? If yes, provide a copy of the SARF.

# Response

Yes. A screen-shot of the SARF for the proposed Litchfield SE facility (formerly identified as the Plymouth NW2 facility) is provided below.

	SARF
ATOLL Market:	NEWENGLANDWEST
SR Name :	PLYMOUTH NW2 CT
Granite Locale :	NEW ENGLAND WEST
Address:	No Address
City:	Thomaston
State :	CONNECTICUT
County:	Litchfield
Zipcode:	06787
Latitude :	41.692648
Longitude :	-73.09938431
Radius:	5
Centerline(ft.):	100
Sectors:	3
Antenna Type :	Select Antenna Type
Antenna Total :	0
Total RRU-RRH :	9

# Question No. 6

Were the properties at 282 and/or 352 Mason Hill Road, Litchfield considered for telecommunications use?

# Response

No. Both of these parcels are encumbered by the same electric transmission line that bisects the parcel hosting the proposed Litchfield SE tower site. Unlike the host parcel, however, both 282 and 352 Mason Hill Road are currently used for residential purposes. Land outside the

transmission line ROW that might be available for use by Cellco on these parcels is somewhat limited and closer to residential buildings and structures on each lot. These parcels were, therefore, deemed less desirable than the undeveloped host parcel.

# Question No. 7

Were the transmission line structures in the site area considered for telecommunications use?

# Response

Transmission line structures near proposed tower sites are always considered as a part of the site search process but often rejected for the reasons discussed below. As the Council is aware from numerous prior telecommunications dockets, the use of existing electric transmission line towers to support wireless antennas and related equipment, is not preferred and presents several significant challenges to both the transmission line owners (Eversource in this case) and the wireless service provider. These challenges and difficulties are described in a February 19, 2010 letter from Eversource to AT&T Wireless specifically referencing the transmission line discussed in Docket No. 388. The Council regularly takes administrative notice of this Eversource letter in telecommunication dockets.

Eversource is responsible for the maintenance, security and reliability of the region's electric transmission system. Eversource's transmission grid is subject to strict State and Federal oversight and generally discourages access to its transmission line structures for any purpose other than the transmission of electricity. The installation of a wireless telecommunications facility on a transmission line structure or any maintenance required of that facility throughout its life, is strictly controlled by Eversource and can only occur during an outage (the temporary termination of service) on that line. To ensure the reliability of the electric grid, these outages

require advanced scheduling (typically several months ahead) or otherwise occur infrequently, making it extremely challenging for a wireless telecommunications provider, who needs regular access to its facility and equipment, to use these structures, especially when other suitable alternatives are available.

# Question No. 8

Are small cells a feasible alternative to a new tower? Estimate the number of polemounted small cells that would be required for reliable service within the proposed service area. Would certain frequencies be limited through the use of small cells? What would be the cost of each small cell for both the use of existing utility poles and new poles specific for small cells. What type of equipment would be attached to each pole?

# Response

It may be theoretically and technically possible to install a large number of small cells or Distributed Antenna System nodes in the area that could closely match the coverage footprint of the proposed Litchfield SE Facility (macro cell). Such an approach, however, is not practically nor economically feasible and is not consistent with good RF Engineering practice. Typically, small cell facilities or DAS nodes would utilize existing infrastructure (i.e. electric distribution poles) along public rights of way in areas where coverage and/or capacity problems exist. These existing utility poles are often encumbered by other equipment (i.e. transformers, street lights and risers) that will limit Cellco's ability to use the pole. Structural limitations of the existing poles could also limit Cellco's ability to deploy all the equipment needed to provide service in all of its operating frequencies. Providing some form of back-up power to small cells or DAS nodes is very difficult and, in many cases, impossible, making the service even more vulnerable to storm events. In areas where this existing infrastructure is not available, for example, along private

roads or on private and municipal properties, property rights would need to be acquired and new poles would need to be installed. The actual number of small cell facilities that would be needed to provide a service comparable to that from the proposed Facility is not known but would be significant given the overall size of the area that Cellco is attempting to serve with the proposed facility. Individual small cell would be capable of providing service in some but not all of Cellco's operating frequencies further limiting network capacity in the area around the Litchfield SE Facility.

As reported in prior dockets, Cellco estimates the cost of small cell facilities to be between \$70,000 and \$75,000 and would typically involve the installation of a single cannister antenna, a remote radio heads and electrical and fiber connections on an existing or new electric distribution system.

# Site/Tower

#### Question No. 9

What measures are proposed for the site to ensure security and deter vandalism? (Including alarms, gates, locks, anti-climb fence design, etc.)

#### Response

The wireless facility compound will be surrounded by an eight (8) foot tall chain link security fence and gate. The gate will be locked with access limited to the wireless carriers sharing the facility. Cellco's wireless equipment will maintain separate silent intrusion alarms which are monitored remotely. Climbing pegs on the lower portion of the tower will also be removed to deter climbing of the tower.

# Question No. 10

Pursuant to CGS §16-50p(a)(3)(G), identify the safety standards and/or codes by which

equipment, machinery or technology that would be used or operated at the proposed facility.

What structural design codes apply to the tower and antenna mounts?

# Response

- 2021 International Building Code (IBC), with the 2022 Connecticut State Building Code amendments.
- National Electric Code (NFPA 70).
- 2021 International Mechanical Code, with the 2022 Connecticut State Building Code amendments.
- 2022 Connecticut State Fire Safety Code.
- ANSI/TIA-222-H "Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures".
- Occupational Safety and Health Administration (OSHA).

Cellco will comply with these safety standards and codes as the may be updated over time.

# Question No. 11

What is the maximum wind speed tolerance for the antennas on the proposed monopole?

# Response

The proposed JMA and Samsung antennas to be used on the Litchfield SE tower have a "rated wind survival speed" of 150 mph and 161 mph respectively.

# Question No. 12

Referring to Application p. 14, what is the distance and direction to the nearest residence not owned by the lessor?

# Response

The nearest residence to the tower site is located approximately 384 feet to the north at 282 Mason Hill Road. This parcel is owned by Donald and Dianne Voluckas.

# Question No. 13

Referring to Application p. 8 and Attachment 14, would Cellco require an agreement from Eversource to cross or utilize the Eversource right-of-way for access to the site? If yes, has an agreement been reached? Is the right-of-way gated?

# Response

Yes, Cellco would need to enter into a License Agreement with Eversource to cross and/or use a portion of the existing Eversource easement area. Cellco has reached out to Eversource but no agreement is currently in place. There is an existing gate across the driveway that extends into the subject parcel from Mason Hill Road.

# Question No. 14

Referring to Application Attachment 14, how many acres of the total 0.59 acres of the Prime Farmland Soils would be disturbed by the proposed project?

#### Response

Approximately 0.10 of the 0.59 acres of Prime Farmland Soils would be disturbed by the proposed Facility.

# Coverage/Capacity

#### Question No. 15

Application Attachment 6 indicates other frequencies will be installed in addition to the 700 MHz frequency, Does the 700 MHz frequency act as the "base frequency" of the network where most of the wireless traffic occurs? How do the other frequencies interact in Cellco's

wireless system?

#### Response

Yes, Cellco's 700 MHz frequencies act as a "base frequency" for its network throughout Connecticut and nationwide. This frequency handles a large majority of Cellco's wireless traffic. All of Cellco's licensed frequencies (700 MHz, 850 MHz, 1900 MHz, 2100 MHZ) are used to transmit both voice and data services. Cellco customers transfer seamlessly between Cellco's operating frequencies during handoff between cell sites. Handoff can also occur between frequencies at an individual cell site for load balancing purposes. Subject to availability at a particular cell site, frequencies can also be used together (a feature called "carrier aggregation") making more of the existing bandwidth available to a particular user.

# Question No. 16

What is the signal strength for which Cellco designs its system? For in-vehicle coverage? For in-building coverage?

# Response

Neg 85 dBm RSRP for in vehicle coverage.

Neg 95 dBm RSRP for in building coverage.

#### Question No. 17

Can coverage objectives be met by installing antennas at a lower tower height? Identify the lowest possible antenna height and describe how this height would affect coverage needs and/or capacity relief within the service area.

#### Response

No. Antennas at the 105-foot level is the minimum height needed by Cellco to meet its wireless service objectives in the area around the Litchfield SE facility. To minimize impacts

associate with the tower, particularly visual impacts, Cellco typically proposes the lowest antenna height necessary to satisfy its wireless service objectives. Installing antennas below the 105-foot centerline height, in this instance, will result in gaps in service opening up along portion of Route 254 and local roads in the area including those areas between the connecting sites to the east (Plymouth NW CT) and to the south, (Thomaston CTR CT) and will also partially fill service gaps to the southwest and west of RTE 254. Installing antennas lower than 105 feet above grade would also impact this site's ability to provide capacity relief to the adjacent Bethlehem NE CT facility (Alpha sector) which is currently operating in-exhaust in its low band frequencies (700 MHz and 850 MHz) which provides coverage to some portions of State Route 254.

#### Question No. 18

Can flush-mounted antennas be installed at the site to provide the required coverage?

Describe any antenna/tower modifications that would be required to achieve coverage objectives.

Response

No. Cellco's antennas need to be mounted in a side by side configuration to take advantage of a feature called beamforming which improves the overall capacity of an individual cell site. Flush mounting antennas at different heights would result in decreased capacity, preventing beamforming.

# Question No. 19

What type of statistics/indicators does Cellco use to determine there is substandard service in this area?

#### Response

Cellco system performance technicians rely of serval statistics/indicators when evaluating substandard service in an area or from a particular cell site. Coverage data, actual and computer

generated, along with drive test data can help to identify areas of poor or no service along area roadways and on adjacent properties. Dropped call and ineffective attempt data for cell sites surrounding a particular target area also provides data service deficiencies for the sector or sectors of antennas that may be operating at or above their respective capacity limits.

# Question No. 20

Application p. 8 provides the overall coverage footprint for different frequencies that would operate at the site. Does this data include areas that are covered by other adjacent Cellco sites and would overlap with coverage from the proposed site? If yes, what is the coverage footprint of new, reliable service from the proposed site?

# Response

No. The table provided on page 8 of the Application shows coverage along area roadways and the overall coverage footprint by frequency for the Litchfield SE Facility only. The coverage footprint for the Litchfield SE Facility will overlap, to a limited extent, with the adjacent sites including Plymouth NW CT to the east, Thomaston CTR CT to the south, Watertown NE CT to the southwest and Bethlehem NE CT to the southwest.

#### Question No. 21

In addition to coverage, would the proposed site also provide capacity relief to adjacent Cellco sites that are at or near exhaustion? If yes, provide information regarding these sites (location, sector, and frequency).

# Response

As mentioned above in response to Q17, the only surrounding site which is currently "inexhaust" is Bethlehem NE (Alpha sector). The Bethlehem NE facility is operating in Cellco's Low band (700MHz and 850MHz) frequencies and provides coverage to a portion of Route 254,

which will also be served by the proposed Litchfield SE Facility, if approved.

# Backup Power

#### Question No. 22

Page 7 of Attachment 2 to the application references a natural gas-fueled generator. Is natural gas available in the site vicinity?

# Response

This reference in Attachment 1, page 7 is incorrect. Cellco is proposing to use a propanefuel back up generator.

#### Question No. 23

What would be the run time for Cellco's proposed generator before it would need to be refueled, assuming it is running at full load under normal conditions?

# Response

Cellco intends to install a 30-kW propane-fueled generator at the proposed tower site.

Under normal loading conditions, the proposed 30-kW generator could operate for approximately 185 hours (7.7 days) before refueling would be necessary.

#### Question No. 24

Is a backup battery system also proposed? If yes, how long can it provide power to Cellco's equipment if the backup generator failed to start?

# Response

Yes, battery backup would provide uninterrupted power to the facility and prevent a "reboot" condition. The backup battery system is designed to keep the cell site operating for up to eight (8) hours.

# **Public Safety**

#### Question No. 25

Would the proposed facility support text-to-911 service? Is additional equipment required for this purpose?

# Response

Yes, text-to-911service will be available at the proposed facility. No additional equipment is required to provide this service.

# Question No. 26

Would Cellco's installation comply with the intent of the Warning, Alert and Response Network Act of 2006?

# Response

Yes.

# Question No. 27

Is the proposed facility located within a Department of Energy and Environmental

Protection designated Aquifer Protection Area or within a public water supply watershed area?

Response

The Litchfield SE Facility is <u>not</u> located within a Department of Energy and Environmental Protection designated Aquifer Protection Area, nor is it within a public water supply watershed area.

#### Question No. 28

Besides the backup power source, what other facility equipment generates noise? Would the noise from this equipment (non-backup power sources) comply with Department of Energy and Environmental Protection noise control standards at the property boundaries?

# Response

Noise levels emitted from the proposed equipment cabinet are negligible (<60 dBA at a distance of five feet), similar to normal conversation noise levels.

# Question No. 29

What is the distance between the proposed tower and the nearest edge of the Eversource right-of-way? Are there any restrictions/NESC clearance requirements on how close the tower can be to the to the right-of-way and/or transmission lines?

# Response

The proposed tower is located 92 feet from the nearest transmission line and is located 10 feet inside the eastern edge of the transmission line right of way. According to Cellco's project engineers, there are no NESC setback requirements for towers near transmission lines.

#### Environmental

# Question No. 30

Refencing Site Plan C-5, Erosion and Sediment Control Sequence, provide the following;

- a. Note 4 states in part, "latest date of the Council on Soil and Water Conservation".
   Clarify.
- b. Note 5 states in part "Stabilized to the Satisfaction of the Town Staff". Clarify.
- c. Note 7 refers to siltation fence to be placed where indicated but the Site Plans do not show locations of erosion control measures. Clarify.

#### Response

a. Clarification to Note 4: All soil erosion and sediment control work shall be done in strict accordance with the "Connecticut guidelines for erosion and sediment

control," including the latest published errata sheet. This note revision will be

applied to the D&M Plan if the Litchfield tower site is approved.

b. Clarification to Note 5: Any additional erosion/sedimentation control measures

deemed necessary by Council staff during construction, shall be installed by the

developer. In addition, the developer shall be responsible for the

repair/replacement/maintenance of all erosion control measures until all disturbed

areas are stabilized to the satisfaction of the Council. This note revision will be

applied to the D&M Plan, if the Litchfield SE facility is approved.

c. Siltation fence locations are shown on sheet C-3 (see symbols legend) of the Rev4

(S&S) plan set, dated 02.16.23, prepared by Centek Engineering.

Question No. 31

Referencing Application Attachment 13, when would Cellco submit the cultural resource

study to the State Historic Preservation Office (SHPO)?

Response

Cellco typically submits its request for SHPO review after the approval of the tower site

by the Council. The preliminary review provided in the application gives Cellco a high level of

confidence that the facility will not likely impact historic or cultural resources in the area.

Question No. 32

Estimate the amount of cut and fill required to develop the proposed facility.

Response

Total Fill: Approximately 200 cubic yards

Total Cut: Approximately 0 cubic yards

-16-

#### Question No. 33

Referencing Application Attachment 9, Visual Resource Assessment, estimate the number of residences that would have seasonal and/or year-round views within 0.5 miles of the proposed facility.

#### Response

Visibility of the proposed facility is predicted from total of 35 residential properties within 0.5 mile of the site. There are no residential properties estimated to have only year-round visibility throughout the parcel; eight (8) properties may have a mix of both year-round and seasonal visibility (depending upon where on is standing) and 27 residential properties are estimated to have some level of seasonal visibility.

#### Question No. 34

Submit photographic site documentation with notations linked to the site plans or a detailed aerial image that identifies locations of site-specific and representative site features. The submission should include photographs of the site from public road(s) or publicly accessible area(s) as well as Site-specific locations depicting site features including, but not necessarily limited to, the following locations as applicable:

For each photo, please indicate the photo viewpoint direction and stake or flag the locations of site-specific and representative site features. Site-specific and representative site features include, but are not limited to, as applicable:

- a. wetlands, watercourses and vernal pools;
- b. forest/forest edge areas;
- c. agricultural soil areas;
- d. sloping terrain;
- e. proposed stormwater control features;

- f. nearest residences;
- g. Site access and interior access road(s);
- h. tower location/compound;
- i. clearing limits/property lines;
- j. mitigation areas; and
- k. any other noteworthy features relative to the Project.

A photolog graphic must accompany the submission, using a site plan or a detailed aerial image, depicting each numbered photograph for reference. For each photo, indicate the photo location number and viewpoint direction, and clearly identify the locations of site specific and representative site features shown (e.g., physical staking/flagging or other means of marking the subject area).

The submission shall be delivered electronically in a legible portable document format (PDF) with a maximum file size of <20MB. If necessary, multiple files may be submitted and clearly marked in terms of sequence.

# Response

See Remote Field Review attached.

# REMOTE FIELD REVIEW



CT SITING COUNCIL DOCKET NO. 513
RESPONSE TO INTERROGATORY #34
LITCHFIELD SE CT
MASON HILL ROAD
NORTHFIELD, CT

PREPARED FOR:

**VERIZON WIRELESS** 



PREPARED BY:

**ALL-POINTS TECHNOLOGY CORPORATION, P.C.** 

567 Vauxhall Street Extension – Suite 311 Waterford, CT 06385

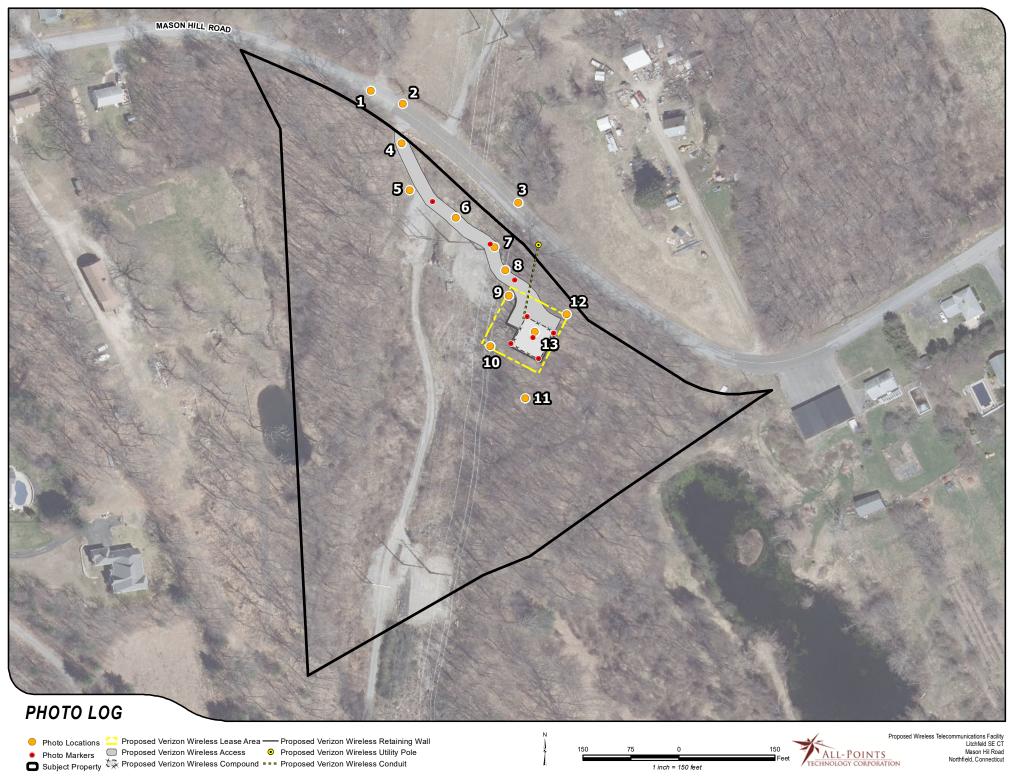




PHOTO DESCRIPTION

1 MASON HILL ROAD LOOKING SOUTHEAST TOWARD ACCESS DRIVE







MASON HILL ROAD LOOKING SOUTH TOWARD ACCESS DRIVE

2







PHOTO **DESCRIPTION** 3

MASON HILL ROAD LOOKING NORTHWEST TOWARD ACCESS DRIVE







4A ACCESS DRIVE LOOKING SOUTHEAST







PHOTO DESCRIPTION

4B ACCESS DRIVE LOOKING NORTH







PHOTO DESCRIPTION

5 WEST OF ACCESS DRIVE LOOKING SOUTHEAST







PHOTO DESCRIPTION

6A ACCESS DRIVE LOOKING SOUTHEAST







PHOTO DESCRIPTION

6B ACCESS DRIVE LOOKING NORTHWEST







PHOTO DESCRIPTION

7A ACCESS DRIVE LOOKING SOUTHEAST





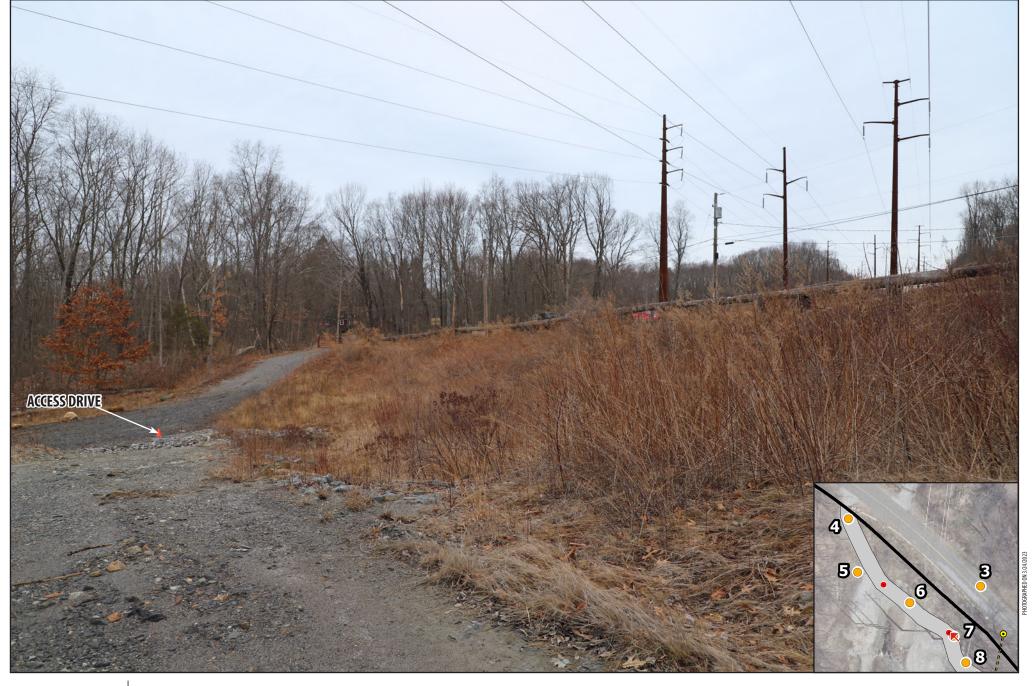


PHOTO DESCRIPTION

7B ACCESS DRIVE LOOKING NORTHWEST







PHOTO DESCRIPTION

8A ACCESS DRIVE LOOKING SOUTHEAST







PHOTO DESCRIPTION

8B ACCESS DRIVE LOOKING NORTHWEST







PHOTO DESCRIPTION

9A NORTHERN CORNER OF LEASE AREA LOOKING SOUTHEAST







PHOTO DESCRIPTION

9B

NORTHERN CORNER OF LEASE AREA LOOKING NORTHWEST







PHOTO **DESCRIPTION** 10A

**WESTERN CORNER OF LEASE AREA LOOKING EAST** 







WESTERN CORNER OF LEASE AREA LOOKING WEST

10B







ALL-POINTS TECHNOLOGY CORPORATION





PHOTO DESCRIPTION

11B SOUTH OF COMPOUND LOOKING SOUTHWEST







EASTERN CORNER OF LEASE AREA LOOKING SOUTHWEST

12A





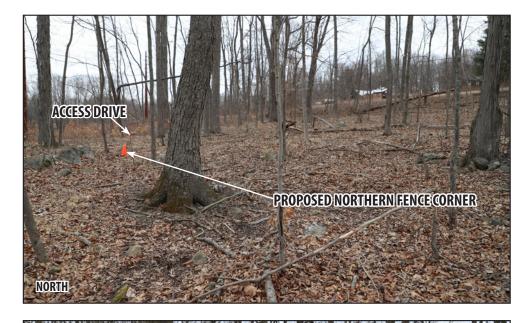


PHOTO DESCRIPTION

12B EASTERN CORNER OF LEASE AREA LOOKING NORTHEAST











13



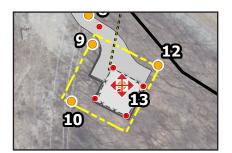


PHOTO DESCRIPTION

**VIEW FROM PROPOSED TOWER - FOUR CARDINAL POINTS** 



