

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
: :  
APPLICATION OF CELLCO PARTNERSHIP : DOCKET NO. 481  
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 AT 667, :  
665, 663 AND 663R MAIN STREET IN :  
CROMWELL, CONNECTICUT : APRIL 12, 2018

**RESPONSES OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS  
TO CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES**

On March 22, 2018, the Connecticut Siting Council (“Council”) issued Pre-Hearing Interrogatories to Cellco Partnership d/b/a Verizon Wireless (“Cellco”), relating to Docket No. 481. Below are Cellco’s responses.

**General**

Question No. 1

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

Cellco received return receipts for seventeen (17) of the eighteen (18) abutter notices sent on February 20, 2018. The last notice letter, addressed to Susan M. Boucher at 666 Main Street, was returned marked “unclaimed”. Notice to Ms. Boucher was sent a second time on March 21, 2018 by first class mail.

On March 8, 2018, Janet Steucek, an abutter at 668 Main Street, contacted Counsel for Cellco and stated that she had not received notice of the Council filing nor did she receive notice from the post office that a certified letter was available for her to pick up. Cellco did, however, receive a return receipt for Ms. Steucek's notice letter confirming that her letter was, in fact retrieved. Who ultimately retrieved the notice letter is unclear as the signature on the receipt is illegible and Ms. Steucek stated that she did not retrieve the notice letter. Regardless, a copy of the notice letter, along with a copy of the return receipt was emailed to Ms. Steucek on March 8, 2018.

Question No. 2

Referencing Sheet R-1 of Cellco Partnership d/b/a Verizon Wireless' (Cellco) Application, the proposed facility would be located in the northwestern corner of the 667 Main Street property. Given the area of the subject properties on 667, 665, 663 and 663R Main Street, how was the proposed tower location selected?

Response

The primary reason for selecting the northwest corner of the subject parcel was to limit, to the extent possible, impacting the landlords existing business operations at the site. As shown on the Site Schematic (Aerial Photo) included behind Tab 1, Page 3 of the Application, much of the 7.78 acre Cromwell Concrete Products parcel (the "Property") is occupied by buildings or used for products and materials storage. The northwest portion of the property is also further from residences along Sunset Drive and Main Street.

On March 7, 2018, Counsel for Cellco was contacted by Attorney Keith Ainsworth, representing John Lael Libera, the owner of the property at 16 Sunset Drive, the closest abutting residence to the tower site. Mr. Ainsworth asked, on behalf of his client, if Cellco would

consider moving the tower site 100 feet to the east of its proposed location. Cellco reached out to its landlord who was agreeable to the proposed relocation of the tower site. Included in Attachment 1 to these responses is a revised set of project plans showing the alternative tower location that has been proposed to accommodate Mr. Libera's request.

### **Site Tower**

#### Question No. 3

Could the tower be designed with a yield point to ensure that the tower setback radius remains within the boundaries of the subject property?

#### Response

Yes, the tower could be designed with a yield point at a height of 85 feet above ground level ("AGL"). The closest property boundary is 35 feet to the north of the proposed tower site.

#### Question No. 4

Quantify the amounts of cut and fill that would be required to develop the proposed facility.

#### Response

The site improvements at the Cromwell North 2 Facility will include approximately of 450 cubic yards (net) of excavation for the construction of the proposed access driveway and compound area.

#### Question No. 5

Would any blasting be required to develop the site?

#### Response

Cellco does not anticipate the need for blasting to construct the Cromwell North 2 Facility. That said, if the facility is approved, a geotechnical survey will be prepared and

subsurface conditions will be evaluated.

Question No. 6

What is the structural design standard applicable to the proposed square antenna platform mount?

Response

TIA-222-G-4 “Structural Standards for Steel Antenna Towers and Antenna Supporting Structures”.

Question No. 7

Would the tower have a galvanized gray finish?

Response

Yes, as proposed the tower would maintain a galvanized steel finish.

Question No. 8

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

Response

Several security measures have been incorporated into the facility’s design. The tower’s climbing pegs will be removed to a height of approximately twelve (12) feet AGL. The tower compound would be surrounded by an eight-foot tall (1.25 inch mesh) security fence and a locked gate. Cellco’s radio equipment cabinets are equipped with silent intrusion alarms. If someone attempts to tamper with or break into the cabinets, technicians monitoring the site will be alerted and local police will be contacted.

Question No. 9

Identify the safety standards and/or codes by which equipment, machinery or technology that would be used or operated at the proposed facility.

Response

- 2012 International Building Code with the 2016 CT Building Code Amendments.
- National Electric Code (NFPA70).
- 2005 CT State Fire Safety Code with the 2009 Amendments.
- TIA-222-G “Structural Standards for Steel Antenna Towers and Antenna Supporting Structures”.
- Occupational Safety and Health Administration (OSHA).

Question No. 10

Has the State of Connecticut Department of Agriculture purchased any development rights for the proposed site as part of the State Farmland Preservation Program?

Response

No. According to a title report prepared for the Cromwell North 2 Facility, the Department of Agriculture has no interest in the Property.

Question No. 11

Is any portion of the proposed site, including the lease area and access road, currently in productive agricultural use?

Response

Farmland soils suitable for agricultural use includes land that is defined as prime farmland or farmland of Statewide or local importance, based on soil type. It identifies the location and extent of the most suitable land for producing food, feed, fiber, forage, and oilseed

crops and is available for these uses. According to the National Cooperative Soil Survey (U.S. Department of Agriculture, Natural Resources Conservation Service), Statewide Important Farmland soils, is limited to the eastern-most portion of the Property along its Main Street frontage. (See Farmland Soils Map included in the Application, Tab 13). This area, however, is currently occupied by structures and paved parking used as a part of the concrete products business.

Question No. 12

Referencing the Farmland Soils Map under Tab 13 of the Application, is it correct to say that the proposed project would have a negligible impact on Statewide Important Farmland Soils and no impact on Prime Farmland Soils?

Response

Yes. There are no farmland soils are located within the footprint of the proposed Cromwell North 2 Facility or its access driveway. In addition, the subject parcels are fully developed and used for commercial/industrial purposes, including several buildings, manufacturing areas, and material storage. Site development and use activities have altered the original soil profiles to such a degree that they can no longer classified as “Statewide Important” or “Prime” Farmland Soils.

Question No. 13

Is the site parcel part of the Public Act 490 Program? If so, how does the town land use code classify the parcel?

Response

No.

Question No. 14

Referencing Tab 8 of the Application, when was the search ring first established for this area? What was the approximate radius of Cellco's search ring for this area? Provide the approximate longitude and latitude coordinates of the center of the search ring for this area. Provide a site search summary map with the search ring.

Response

The Cromwell North 2 Facility search area was established in September of 2014. The search area contains approximately 0.072 square miles and is centered, roughly, on the residential parcel at 664 Main Street (Coordinates are 41.631874 /72.649987). The site search summary map requested is included in Attachment 2 to these responses.

Question No. 15

Did Cellco consider the Cromwell Fire District property north of the proposed site as a possible tower site? Explain.

Response

No. The Cromwell Fire District ("CFD") parcel was not a site investigated in Cellco's initial site search. As discussed in the Application, at the November 30, 2015 Public Information Meeting, neighbors asked Cellco to explore the Gardiners Nursery parcel immediately north of the Property and adjacent to the CFD parcel.

The CFD parcel is a 7.6 acre parcel approximately 0.3 miles north of the proposed Cromwell North 2 Facility location at the Property. Based on a review of publicly available mapping, the parcel is bisected by Dividend Brook and a significant portion of this parcel is encumbered by wetlands and floodplain areas associated with Dividend Brook. The southernmost portion of the CFD parcel is also encumbered by the (underground) Algonquin Gas

Transmission line and its associated right of way. The ground elevation in the southwest portion of the CFD parcel is between 35 and 40 feet lower than the ground elevation at the proposed Cromwell North 2 Facility location. If Cellco were able to use the southwest portion of the CFD parcel, it would need to build a significantly taller tower (150' to 160' AGL) in order to satisfy its wireless service objectives in the area.

### **Coverage/Capacity**

#### Question No. 16

Would the proposed site be needed for coverage, capacity, or both? Explain.

#### Response

As discussed in the Application, the Cromwell North 2 Facility is needed for both coverage and capacity relief in the area. Gaps in service exist today along Route 99 (Main Street) and in areas around the Property, including residential and commercial areas to the south and east, as well as portions of the TPC River Highlands Golf Course and residential areas to the north, particularly at 2100 MHz.

The Cromwell North 2 Facility will also off-load service from Cellco's existing Cromwell North and Rocky Hill 2 cell sites, both of which are operating at or near their respective capacity limits. Cellco customers at Watrous Park, at the Cromwell Middle School and at the TPC River Highlands Golf Course (Travelers Championship) would directly benefit from the capacity off-loading provided by the Cromwell North 2 Facility.

#### Question No. 17

Would both the 700 MHz and 2100 MHz frequencies be used to transmit voice and data?

#### Response

Yes.



Question No. 18

What is the lowest height at which Cellco's antennas could achieve its wireless service objectives?

Response

The 120-foot antenna height is the minimum required for Cellco to satisfy its wireless service objectives in the area.

Question No. 19

Could the required coverage and capacity upgrade needs be met by a series of small cell facilities or a distributed antenna system rather than the proposed macro tower facility? Explain.

Response

It may be theoretically and technically possible to install a large number of small cell facilities in the area that could match or closely match the coverage footprint of the proposed Cromwell North 2 Facility macro cell. Such an approach, however, is not economically feasible and is not consistent with good RF Engineering practice. Typically, small cell facilities utilize existing infrastructure (i.e. electric distribution poles) along public rights of way in areas where coverage and/or capacity problems exist. In areas where this existing infrastructure is not available, for example, along private roads or on private and municipal property, 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 Cromwell North 2 Facility is not known but would be significant given the overall size of the area that Cellco is attempting to serve.

Question No. 20

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

Response

Cellco's minimum design threshold for LTE service is -95 dB Receive Signal Reference Power (RSRP) for in-vehicle service and -85 dB RSRP for in-building service.

Question No. 21

What is the existing signal strength within the area Cellco is seeking to cover from this site?

Response

Cellco's LTE signal strength in the area ranges from -85 dB and -105 dB RSRP at 700 MHz, and -85 dB and no coverage at all for RSRP at 2100 MHz.

Question No. 22

Does Cellco have any statistics on dropped calls and/or ineffective attempts in the vicinity of the proposed facility? If so, what do they indicate? Does Cellco have any other indicators of substandard service in this area?

Response

There are numerous parameters that Cellco considers in its effort to improve network performance. The most critical parameters are the Voice Over LTE (VoLTE) Ineffective Attempts (IA) and VoLTE Dropped Calls (DC). The table below includes the relevant DC and IA data for the 30 days immediately prior to and including March 26, 2018 (excluding weekends and any maintenance windows).

Facility Name	Sector	Carrier	Ineffective Attempts % (IA)	Dropped Calls % (DC)
Portland	Alpha	700 MHz	0.15%	1.05%
Cromwell SE	Alpha	700 MHz	0.25%	0.80%
Cromwell	Alpha	700 MHz	0.11%	0.60%
Cromwell North	Beta	700 MHz	0.2%	0.95%
Rocky Hill 2	Beta	700 MHz	0.3%	1.4%
Rocky Hill 4	Beta	700 MHz	0.2%	1.3%
Rocky Hill East	Beta	700 MHz	0.17%	0.90%

Cellco's system performance standard is 0.75% or better for DC and IA. For LTE voice services, six (6) of the seven (7) surrounding cell sites do not satisfy Cellco's DC performance standard.

Question No. 23

On page 8 of the Application, Cellco provided the individual coverage distances for the proposed facility for Route 99 based on 700 MHz and 2100 MHz. Provide the lengths of the respective existing coverage gaps for Route 99 (based on 700 MHz and 2100 MHz) that would be covered by the proposed facility.

Response

The coverage gap along Route 99 is only 0.1 miles at 700 MHz and 1.1 miles at 2100 MHz.

Question No. 24

Page 7 of the Application references capacity relief for the existing Cellco sites: Cromwell North (Alpha sector) and Rocky Hill 2 (Beta sector). At which frequencies? Please include the projected exhaustion dates for these sectors. Would the deployment of the Cromwell North 2 facility be sufficient to address these capacity concerns, or would an additional facility be

required in the near term to off-load traffic?

Response

For the Cromwell North (Alpha) facility, capacity relief is provided at both 700 MHz and 2100 MHz. Cromwell North (Alpha) is currently operating in exhaust. For Rocky Hill 2 capacity relief is also provided at both 700 MHz and 2100 MHz. The Rocky Hill 2 facility is projected to be in exhaust in 2020. The deployment of the Cromwell North 2 Facility will likely resolve these capacity problems for the foreseeable future.

Question No. 25

Are any other adjacent sectors nearing exhaustion? If yes, identify the sectors, frequencies and estimated exhaustion dates.

Response

Cellco's Portland (Alpha) Facility is also currently projected to "exhaust" in the 4<sup>th</sup> quarter of 2019.

Question No. 26

Would flush-mounted antennas provide the required coverage? Would the flush-mount configuration result in reduced coverage and/or necessitate greater antenna height with multiple levels of antennas? Explain.

Response

Flush-mounted antennas utilizing one antenna per sector attached directly to the tower mast could provide the coverage needed to the area around the Cromwell North 2 Facility. This approach, however, is not consistent with good RF Engineering practice. If Cellco were required to utilize flush-mounted antennas, it would need to use two (2) or possibly three (3) antenna mounting levels on the tower, thereby limiting the amount of available space on the tower for

other wireless carriers or emergency service entities. The use of flush-mounted antennas could also limit Cellco's ability to install new technologies and make other cell site enhancements in the future. Flush-mounted antennas is simply not the preferred solution.

Question No. 27

Identify the containment measures to protect against possible fluid leakage from the backup generator?

Response

The generator's fuel tank is double-walled and maintains leak detection alarms. The generator itself also maintains secondary containment for engine oil and coolant within the generator's weather enclosure.

Question No. 28

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

Response

Since the filing of the Application on February 23, 2018, Cellco has decided to increase the size of its backup generators at the Cromwell North 2 Facility from a 20 kW unit to a 30 kW unit. The 30 kW generator would still be placed on Cellco's equipment platform. At full load, the proposed 30 kW diesel generator could operate for approximately 46 hours before refueling would be necessary.

Question No. 29

Could the proposed generator be shared by other carriers that may locate at the proposed facility? What effect would a shared generator have on the run time of the generator if at full load?

Response

A 30 kW generator would not be capable of supporting the operational needs of Cellco and a second wireless carrier at the proposed cell site. The 30 kW generator would need to be replaced with a larger capacity generator (50 kW) if a second wireless carrier wanted to share this back-up power supply. Cellco would be amenable to letting a second carrier upgrade its 30 kW generator to a 50 kW unit if a need exists in the future.

Question No. 30

Would the battery backup be used to provide uninterrupted power (such as during the backup generator startup delay period) and prevent a reboot condition? How long could the battery backup alone supply power to the facility in the event that the generator fails to start?

Response

Yes. The proposed battery system allows for the provision of uninterrupted power prior to the generator taking over and would prevent a “reboot” condition. Operating alone and without any recharging opportunities, the on-site batteries could keep the site operational for approximately four (4) hours.

**Public Safety**

Question No. 31

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

Response

Yes. The proposed Cromwell North 2 Facility will be capable of supporting text-to-911 as soon as the Public Safety Answering Point (PSAP) is capable of receiving text-to-911. No additional cell site equipment is necessary to support this service. Cellco is not aware of any

Public Safety Answering Points in the area of the proposed Cromwell North 2 cell site that are about to accept text-to-911 at this time.

Question No. 32

Would Cellco's proposed facility comply with federal E911 requirements?

Response

Yes.

Question No. 33

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

Response

Yes.

**Environment/Cultural**

Question No. 34

Referencing the Viewshed Map under Tab 9 of the Application, identify the trail system in Rocky Hill, located north of the proposed facility. Also identify the trail system in Cromwell, located southeast of the proposed facility.

Response

The trails to the north of the proposed Cromwell North 2 Facility are part of Dinosaur State Park trail system in Rocky Hill. The trail system in Cromwell to the southeast is associated with River Highlands State Park. There will be no views of the tower from either of these resources.

Question No. 35

What, if any, stealth tower design options would be feasible to employ at this site? Please provide costs related to each stealth tower design.

Response

The proposed 120-foot tower would rise well above the tree canopy when viewed from several surrounding locations. As a result, effective camouflaging options are somewhat limited in this case. For instance, a “monopine” design or a painting scheme for the tower would likely increase visual impacts. A slimmer antenna array profile at the top of the tower (e.g. flush-mounted antennas) might soften views of the tower, as would deployment of internally mounted antennas. Both of these options, however, will affect cell site operations. (See Response No. 26 above).

Generally speaking, the cost differential between a conventional monopole with a triangular antenna platform and a monopole with a cluster-mounted antenna configuration is insignificant. The same would be true for a monopole tower that was painted in some fashion. A painted tower would add cost to the maintenance budget of a particular cell site but would not add significantly to the original construction budget. A flagpole tower design, which would not, in this instance, satisfy Celco’s wireless service objectives, would be marginally less expensive than a traditional monopole. Finally, the cost of a “monopine” tree tower, is typically three times that of a conventional monopole.

Question No. 36

Would the proposed facility comply with Department of Energy and Environmental Protection (DEEP) noise control standards at the property boundaries?



Response

Yes. Included in Attachment 3 is a Noise Evaluation Report from HMB Acoustics LLC confirming that the facility will comply with State and local noise ordinances.

Question No. 37

Is the proposed facility within a DEEP-designated Aquifer Protection Area?

Response

No. The nearest Aquifer Protection Area (“APA”) is located to the southeast of the Property identified by DEEP as the Gardiner Expansion APA, a Level A APA. Included in Attachment 4 is a map depicting the location of the Gardiner Expansion APA.

Question No. 38

Referencing Tab 10 of the Application, while no State-listed species are currently identified on the DEEP Natural Diversity Database maps for the proposed site, the Applicant consulted with DEEP for final confirmation. Has Cellco received a response from DEEP? If yes, provide a copy of such response.

Response

Cellco is aware of the Council’s March 28, 2018 *Connecticut Department of Energy and Environmental Protection Natural Diversity Database Consultations* memorandum which states that the Council “no longer requires a formal DEEP NDDB consultation for proposed facilities with site boundaries that are located more than ¼ mile from a shaded area of the most recent NDDB map.” The proposed facility is located ±225 feet (±0.04 mile) east of a NDDB shaded area; please refer to the enclosed NDDB Map included in Attachment 5. Therefore, in accordance with the Council’s NDDB review policy, formal consultation with DEEP NDDB is required.

DEEP responded in a February 25, 2018 letter that a population of State-listed Special Concern Species, *Terrapene c. carolina* (eastern box turtle), are known to occur in the vicinity of the Property. A copy of the DEEP letter is included in Attachment 6. Also included in Attachment 5 is an eastern box turtle protection plan that follows protection measures recommended in DEEP's letter and which is similar to turtle protection plans that the Connecticut Siting Council has approved on previous dockets for Cellco projects. Cellco will implement the eastern box turtle protection plan during construction of the proposed facility, should it be approved, to avoid impact to this State-listed species.

Question No. 39

Has Cellco received a response from the State Historic Preservation Office regarding the proposed project? If yes, provide a copy of such response.

Response

No. Cellco has not yet submitted project information to the SHPO for review. However, as indicated in the Preliminary Historic Resources Determination behind Tab 12 of the Application, no sites listed on the National Register of Historic Places are located proximate to the proposed Facility. Further, no views of the proposed tower would be achieved from the lone state-registered historic place located approximately 0.5 mile to the northeast. Based on this information, Cellco anticipates a "No Effect" determination from SHPO.

# **ATTACHMENT 1**

# verizon

## WIRELESS SERVICES FACILITY

### CROMWELL NORTH 2 CT 667 MAIN STREET CROMWELL, CT 06416

Cellco Partnership d/b/a

**verizon**

20 ALEXANDER DRIVE  
WALLINGFORD, CT 06492

**ALL-POINTS**  
TECHNOLOGY CORPORATION

3 SADDLEBROOK DRIVE PHONE: (860)-663-1697  
KILLINGWORTH, CT 06419 FAX: (860)-663-0955  
WWW.ALLPOINTS TECH.COM

**PERMITTING DOCUMENTS**

NO	DATE	REVISION
0	05/24/17	FOR REVIEW: RCB
1	02/09/18	FOR REVIEW: RCB
2	02/16/18	CLIENT REVS: RCB
3	04/12/18	COMPOUND RELOC.: RCB
4		
5		
6		

**DESIGN PROFESSIONALS OF RECORD**

PROF: SCOTT M. CHASSE P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419

**VERIZON AT  
CROMWELL NORTH 2 CT**

SITE ADDRESS: 667 MAIN STREET  
CROMWELL, CT 06416

APT FILING NUMBER: NY141NB6710

DRAWN BY: CSH

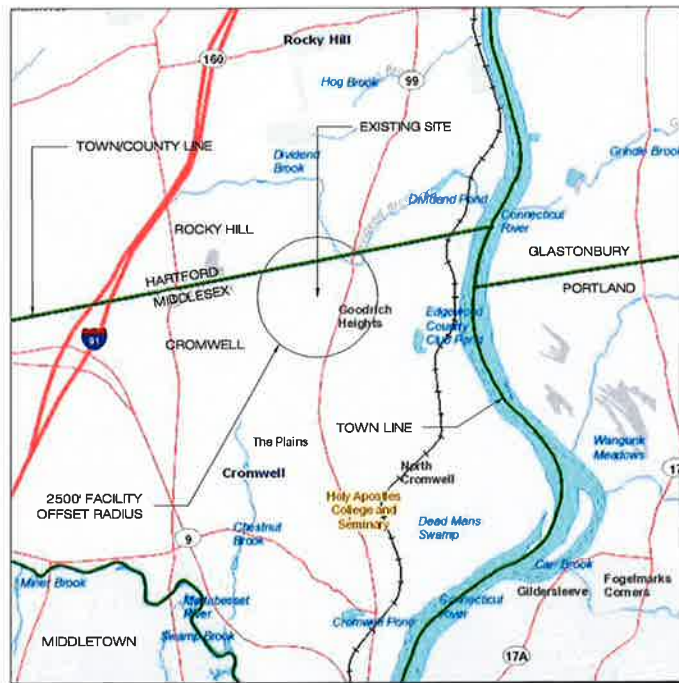
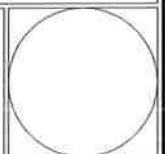
DATE: 05/24/17 CHECKED BY: RCB

SHEET TITLE:

**TITLE SHEET  
& INDEX**

SHEET NUMBER:

**T-1**



**MUNICIPAL NOTIFICATION LIMIT MAP**  
SCALE: 1" = 4000'-0"



**VICINITY MAP**  
SCALE: 1" = 1000'-0"

**SITE INFORMATION**

SITE TYPE: NEW 120' AGL MONOPOLE  
SCOPE OF WORK: PROPOSED RF EQUIPMENT ON NEW 120' AGL MONOPOLE W/ CORRESPONDING GROUND EQUIPMENT WITHIN A PROPOSED 50'x50' FENCED COMPOUND  
SITE NAME: CROMWELL NORTH 2 CT  
SITE ADDRESS: 667, 665 & 663R MAIN STREET CROMWELL, CT 06416  
ZONING JURISDICTION: CONNECTICUT SITING COUNCIL  
COUNTY: MIDDLESEX  
ASSESSORS TAX ID#: MAP: 48, BLOCK 15, LOTS: 28C, 28 & 40  
ZONING DISTRICT: BUSINESS PARK (BP) & RESIDENTIAL (R-15)  
LATITUDE: 41°37'56.625" N  
LONGITUDE: 72°39'10.727" W  
GROUND ELEVATION: 147.0'± AMSL  
PROPERTY OWNER: CROMWELL CONCRETE PRODUCTS, INC. 667 MAIN STREET CROMWELL, CT 06416  
APPLICANT: CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492  
LEGAL: ROBINSON & COLE, LLP KENNETH C. BALDWIN 280 TRUMBULL STREET HARTFORD, CT 06103  
SITE ENGINEER: ALL-POINTS TECHNOLOGY CORP., P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 (860) 663-1697

**LIST OF DRAWINGS**

- T-1 TITLE SHEET & INDEX
- R-1 ABUTTERS MAP
- A-1 COMPOUND PLAN & TOWER ELEVATION
- C-1 SITE DETAILS

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ADD: 3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419

VERIZON AT CROMWELL NORTH 2 CT

SITE 667 MAIN STREET  
ADDRESS: CROMWELL, CT 06416

APT FILING NUMBER: NY141NB6710

DRAWN BY: CSH

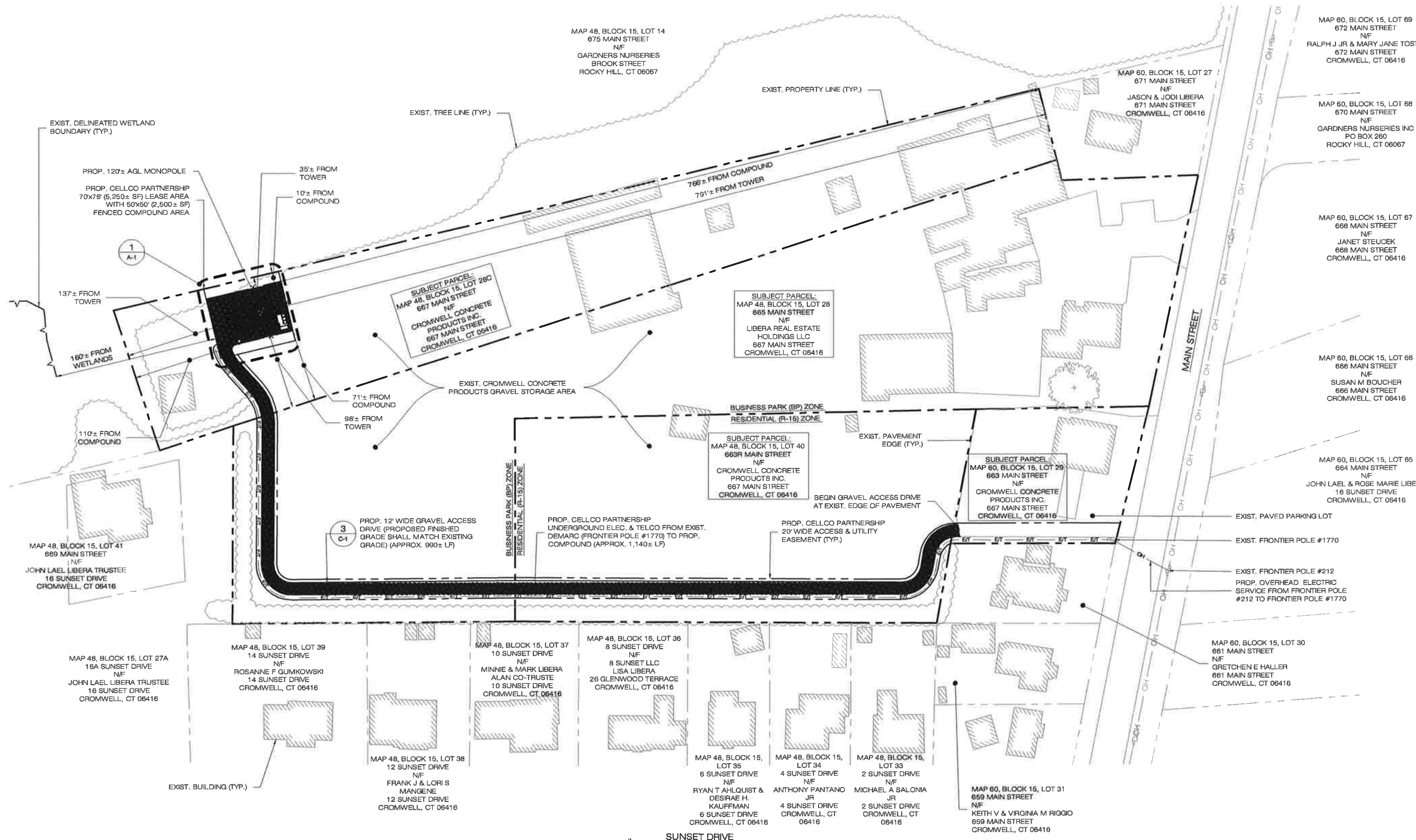
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SHEET TITLE:

ABUTTERS MAP

SHEET NUMBER:

R-1

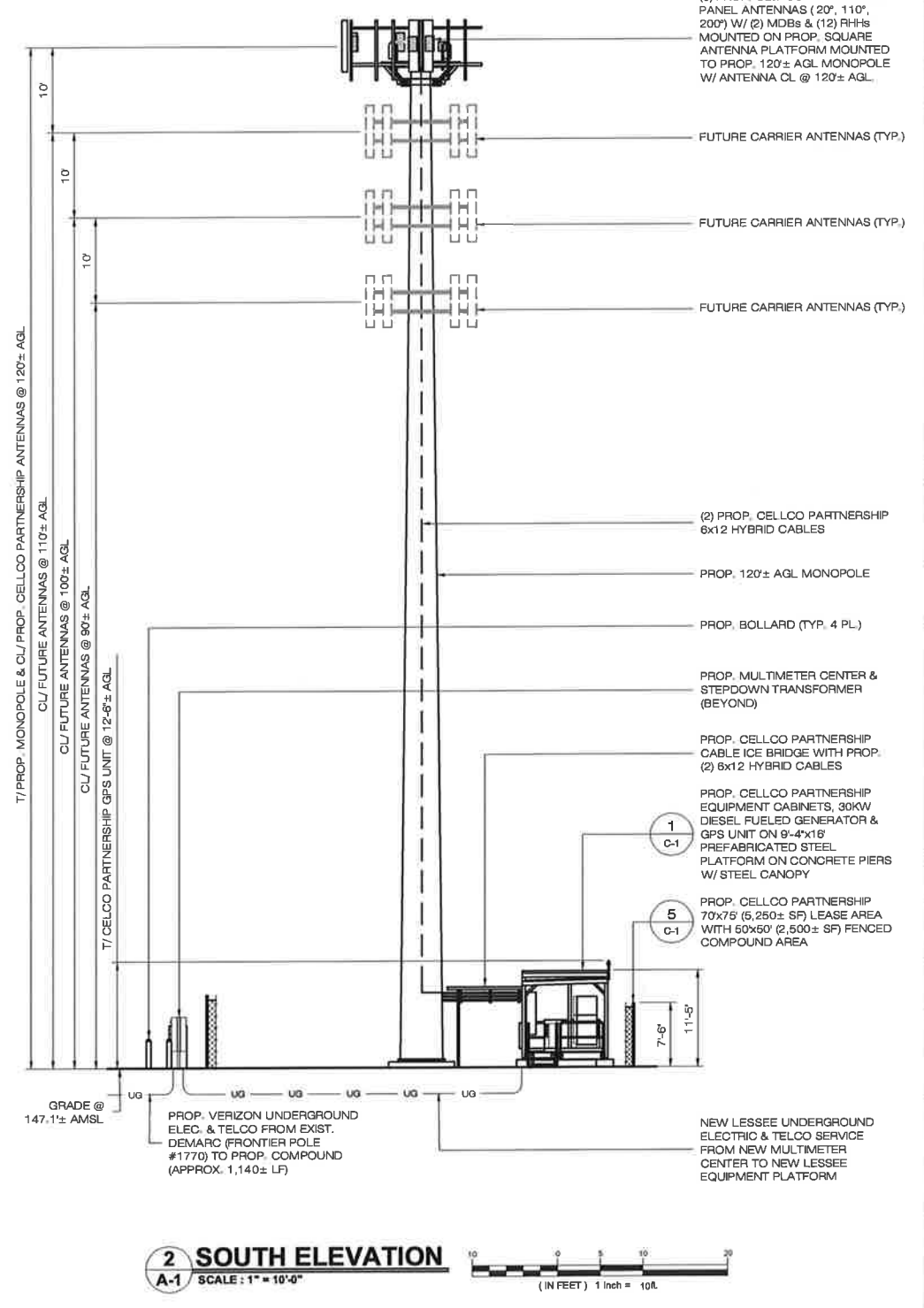
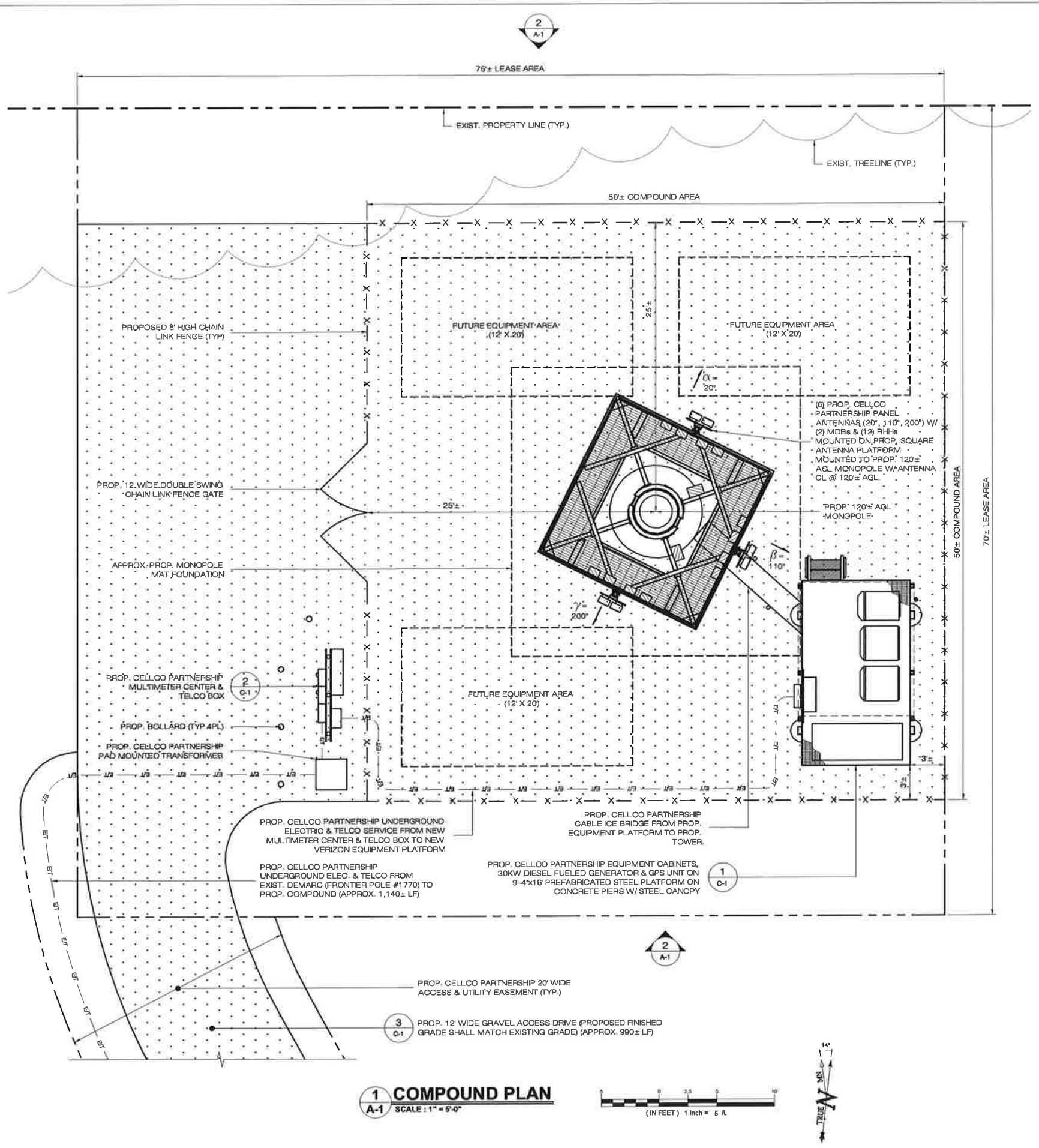


BASE MAPPING FOR SHEETS A-1 & SP-1 FROM:  
1. BASE MAPPING BASED ON AERIAL PHOTOGRAPHY AND TOWN OF CROMWELL GIS DATA.  
2. BASE MAPPING SUPPLEMENTED W/ FIELD MEASUREMENTS TAKEN BY ALL-POINTS TECHNOLOGY CORP. ON 04-21-2017.



1 ABUTTERS MAP  
SCALE: 1" = 50'-0"





Cellco Partnership d/b/a  
**verizon**  
20 ALEXANDER DRIVE  
WALLINGFORD, CT 06492

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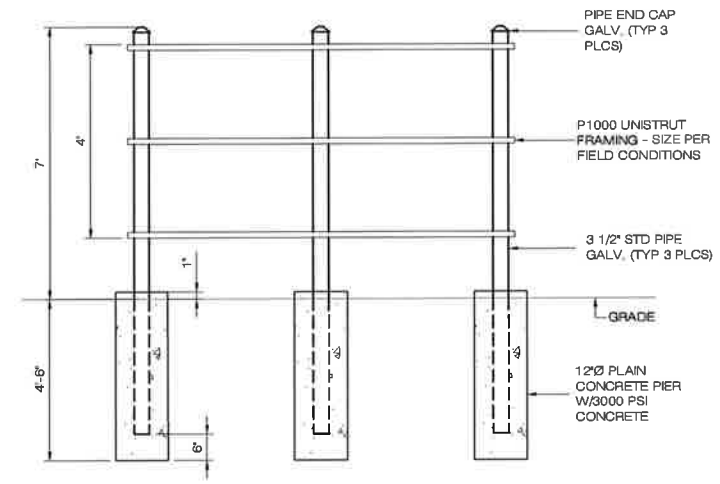
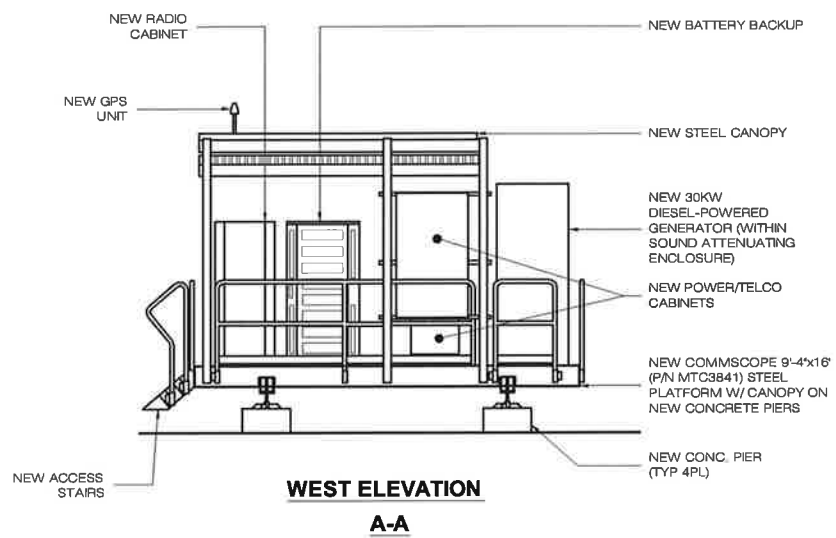
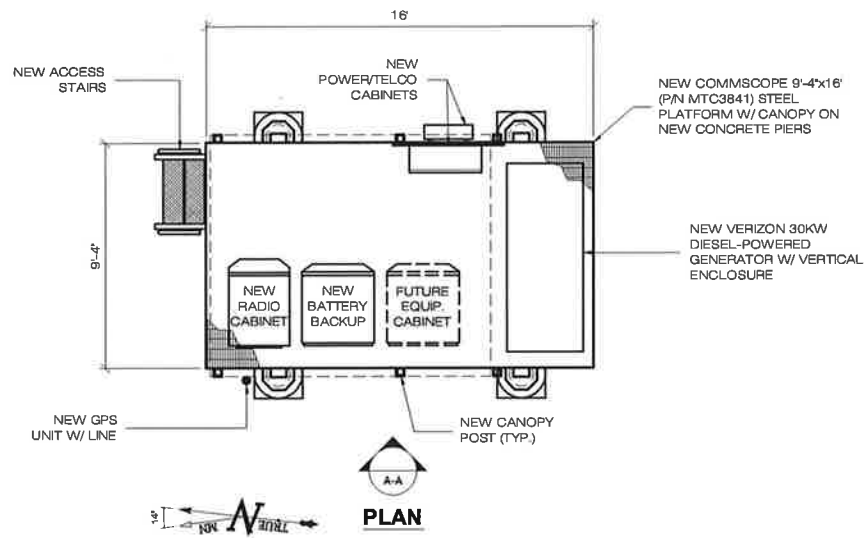
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**ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419**

**VERIZON AT CROMWELL NORTH 2 CT**  
**SITE ADDRESS: 867 MAIN STREET CROMWELL, CT 06416**  
**APT FILING NUMBER: NY141NB6710**  
**DATE: 05/24/17**  
**DRAWN BY: CSH**  
**CHECKED BY: RCB**

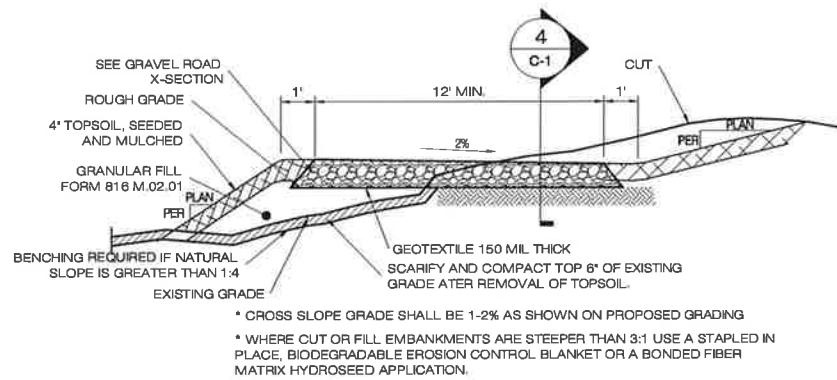
SHEET TITLE:  
**COMPOUND PLAN & TOWER ELEVATION**

SHEET NUMBER:  
**A-1**

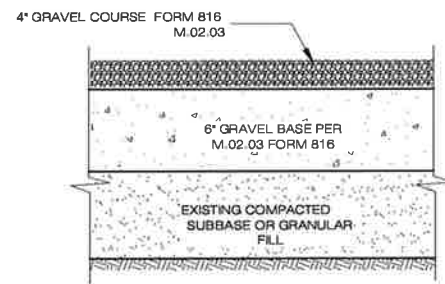


**1 EQUIPMENT PLATFORM**  
C-1 SCALE: 1/4" = 1'-0"

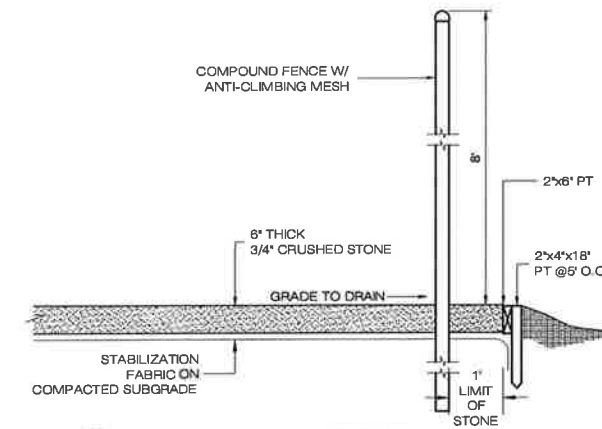
**2 UTILITY BACKBOARD DETAIL**  
C-1 SCALE: NTS



**3 TYPICAL ROAD CROSS SECTION**  
C-1 SCALE: NTS



**4 GRAVEL ROAD SECTION**  
C-1 SCALE: NTS



**5 COMPOUND DETAIL**  
C-1 SCALE: NTS

Cellco Partnership d/b/a

**verizon**

20 ALEXANDER DRIVE  
WALLINGFORD, CT 06492

**ALL-POINTS TECHNOLOGY CORPORATION**

3 SADDLEBROOK DRIVE PHONE: (860)-663-1697  
KILLINGWORTH, CT 06419 FAX: (860)-663-0935  
WWW.ALLPOINTS TECH.COM

PERMITTING DOCUMENTS		
NO	DATE	REVISION
0	05/24/17	FOR REVIEW: RCB
1	02/09/18	FOR REVIEW: RCB
2	02/15/18	CLIENT REVS: RCB
3	04/12/18	COMPOUND RELOC.: RCB
4		
5		
6		

**DESIGN PROFESSIONALS OF RECORD**

PROF: SCOTT M. CHASSE P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419

**VERIZON AT CROMWELL NORTH 2 CT**

SITE 657 MAIN STREET  
ADDRESS: CROMWELL, CT 06416

APT FILING NUMBER: NY141NB6710

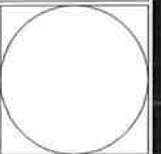
DATE: 05/24/17 DRAWN BY: CSH  
CHECKED BY: RCB

SHEET TITLE:

**SITE DETAILS**

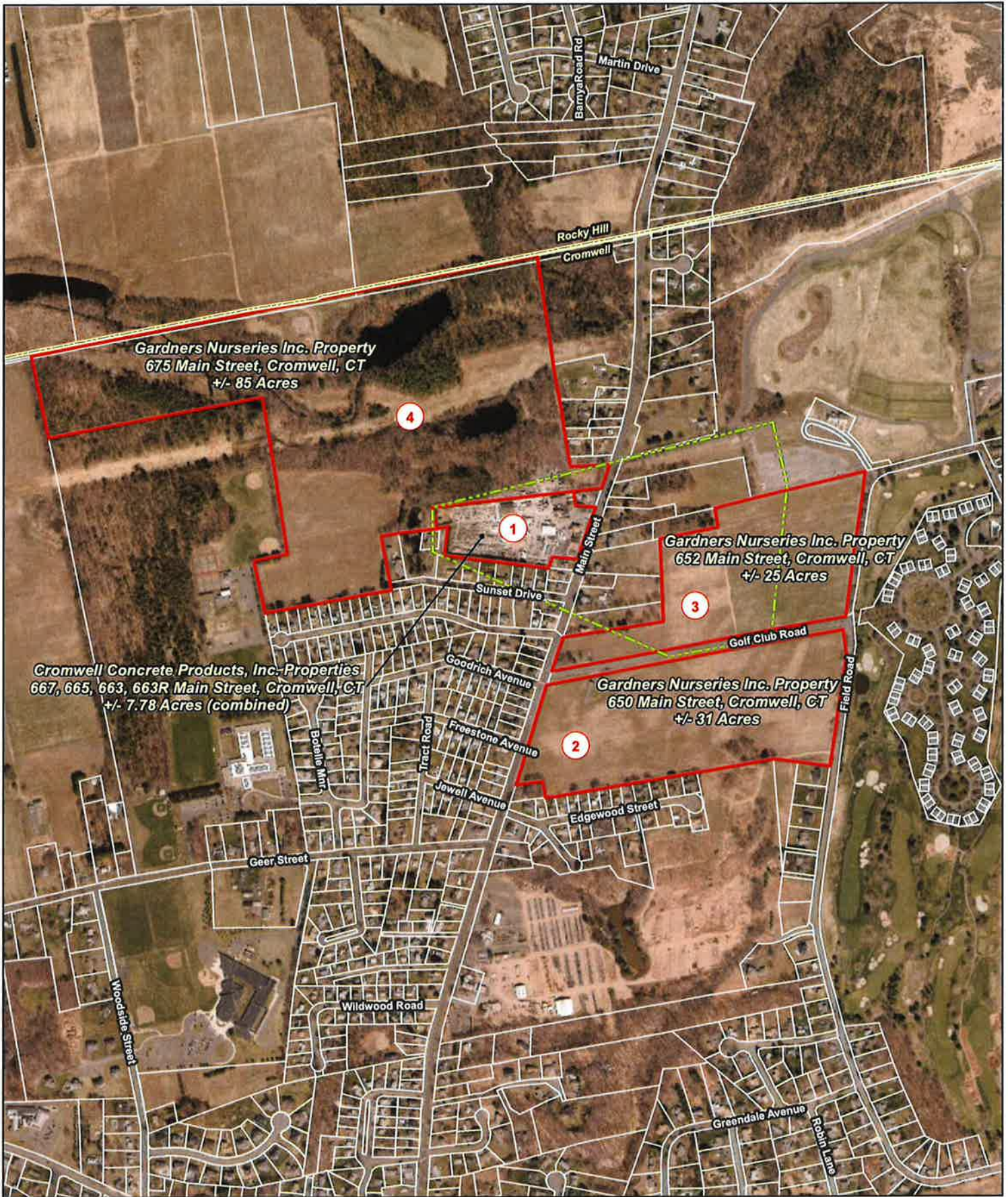
SHEET NUMBER:

**C-1**



# **ATTACHMENT 2**





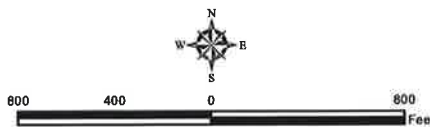
- Legend**
- Site Investigated (Numbered and Labeled by Location)
  - Verizon Wireless Search Area
  - Approximate Parcel Boundary (CTDEEP GIS)

**Site Search Summary Map**

Proposed Wireless  
Telecommunications Facility  
Cromwell North 2 CT  
667 Main Street  
Cromwell, Connecticut



*Map Notes:*  
Base Map Source: 2016 Aerial Photograph (CT ECO)  
Map Scale: 1 Inch = 800 feet  
Map Date: April 2018





# **ATTACHMENT 3**

# HMB

HMB Acoustics LLC

3 Cherry Tree Lane, Avon, CT 06001

860-677-5955

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## Noise Evaluation Report

Verizon Wireless Services Facility  
Cromwell North 2 CT  
667 Main Street  
Cromwell, CT

April 5, 2018

Prepared For:  
Kenneth Baldwin, ESQ  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT

Prepared By:  
Allan Smardin  
HMB Acoustics LLC  
3 Cherry Tree Lane  
Avon, CT

## **Introduction**

Verizon is proposing a wireless services facility at 667 Main Street, Town of Cromwell, CT. This facility will include a 30 kw emergency generator housed in a sound attenuating enclosure. The generator will be located inside a 50' x 50' compound area. There will be three (3) equipment cabinets inside the compound area with the generator. The compound will be surrounded by an 8 foot tall chain link fence.

The generator and cabinets have been re-located further to the East by approximately 85-100 feet. In addition, the generator has been re-oriented so that it is now in the Southeast corner of the compound, instead of the Southwest corner. This new location will result in an estimated overall noise level reduction of 2 dBA. The new noise evaluation results have been applied to this report.

On April 3, 2018, I visited the areas around the proposed site in order to perform an acoustical evaluation. I found the area to be mixed industrial, commercial, and residential. The average noise level was 45-50 dBA, predominantly from vehicular traffic.

This report and the Town of Cromwell noise ordinance utilize a dBA scale. This scale is used because it closely approximates the response characteristic of the human ear to loudness, and is the scale most commonly used in the measurement of community noise. The purpose of this evaluation is to determine whether the generator and equipment cabinets will comply with the noise limits in the Town of Cromwell noise ordinance.

It is important to note that the emergency generator operates for approximately 15-20 minutes every other week for testing. All testing is done during the daytime hours. Other than these testing periods, the generator runs only in times of emergency, when commercial power to the facility is interrupted.

### **Noise Regulations**

The Town of Cromwell has enacted regulations which limit the amount of noise which may be transferred from one property to another. In pertinent part, the regulations provide as follows:

Daytime Hours - The hours between 7 a.m. and 9 p.m. Monday through Saturday; and the hours between 9 a.m. and 9 p.m. on Sunday.

Nighttime Hours - The hours between 9 p.m. and 7 a.m. Sunday evening through Saturday morning, and between 9 p.m. and 9 a.m. Saturday evening through Sunday morning.

(Sec. 168-1)

### **Classification of Noise Zones**

<u>Zone</u>	<u>Use</u>
A	Residential
B	Commercial
C	Industrial

(Sec. 184-4)

### **Noise Zone Standards**

Noise emitted from an Industrial Noise Zone to abutting premises shall not exceed the dBA levels stated below:

<u>Emitter Noise Zone</u>	<u>Receptor Noise Zone Class (dBA)</u>			
	A-Day	A-Night	B	C
Class "C" Industrial	61	51	66	70

(Sec. 168-5)

The calculated noise levels (dBA) from the proposed generator and equipment cabinets have been projected to the nearest abutting properties; and are listed below:

<u>dBA Levels</u>	<u>Noise Zone Receptors (dBA)</u>	
	<u>Residential</u>	<u>Commercial</u>
North (commercial)		39
East (commercial)		35
East (residential)	35	
Southeast (residential)	38	
South (residential)	41	
Southwest (residential)	42	
West (wetland)	43	

### **Noise Evaluation Results**

The dBA scale takes into account the effect of acoustical shielding provided by other structures on the premises. The calculated noise data demonstrates that the noise levels, from the proposed generator and equipment cabinets, meet the conditions for compliance as set forth in the Town of Cromwell noise ordinance when projected to the nearest property lines.

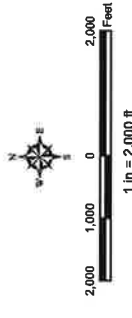
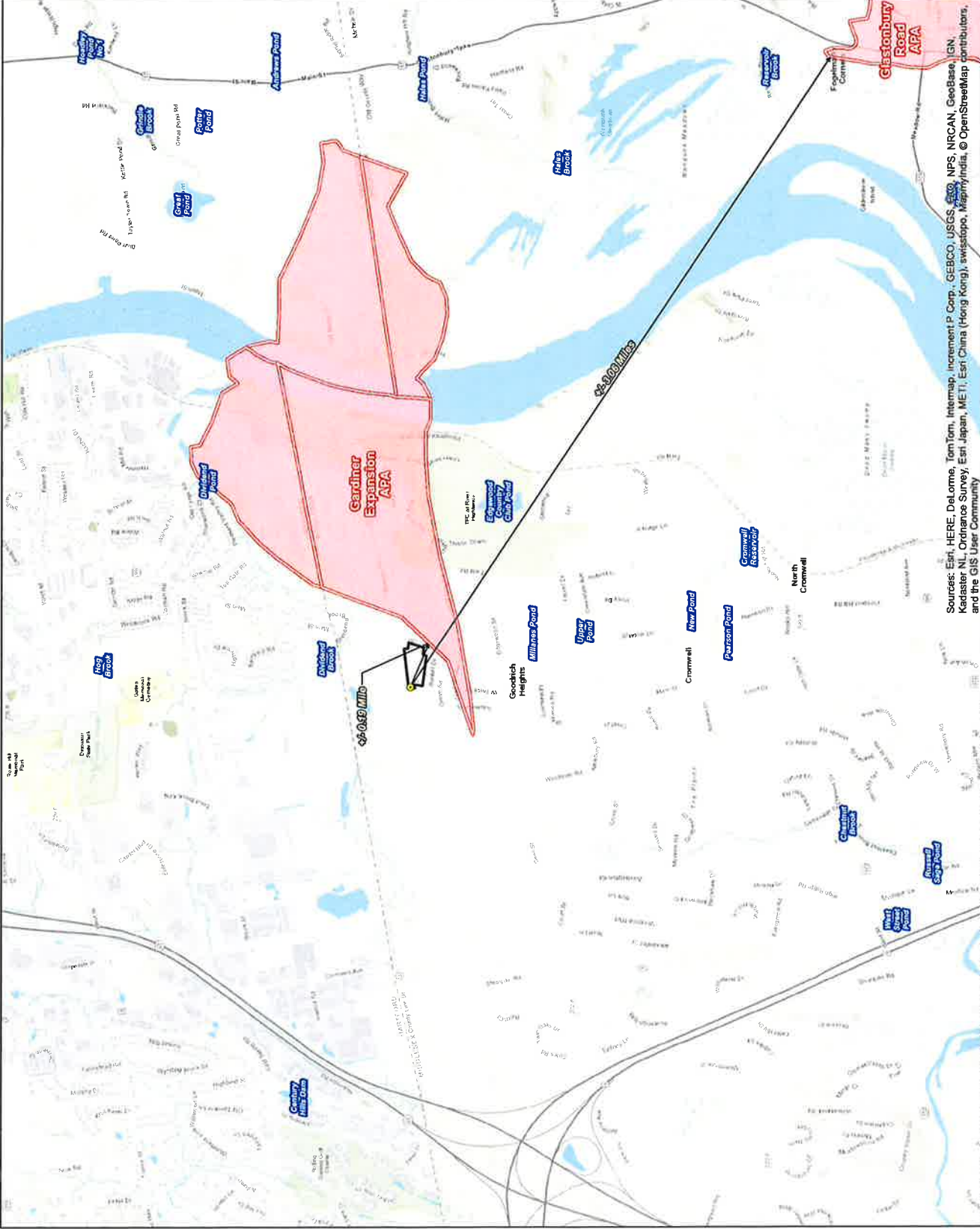
# **ATTACHMENT 4**

**Aquifer Protection Area Map**  
**Proposed Wireless Telecommunications Facility**  
 Cromwell North 2 CT  
 667 Main Street  
 Cromwell, Connecticut



**Legend**

- ⊙ Proposed Monopole Tower
- ◻ Subject Property
- ◻ Final Adopted Aquifer Protection Area
- ◻ Final Aquifer Protection Area\*
- ◻ Preliminary Aquifer Protection Area\*



Map Sources: ESRI, World Street Map

CTDEP's data library (<http://www.ct.gov/dep>)  
 Data layers are maintained and updated by CTDEP and represent  
 the most recent publications.

Map Date: March 2018

Sources: Esri, HERE DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, IGN, FRS, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

C:\Users\stamosperewals\Dropbox (APT GIS)\APT GIS Team Field\Projects\Verizon\Cromwell North 2\Map\Cromwell N 2 APA.mxd RCC



# **ATTACHMENT 5**





**Legend**

- Proposed Tower
- Proposed Site Layout
- Natural Diversity Database (updated December 2017)
- Delineated Wetland Boundary
- Approximate Wetland
- Open Water (CTDEEP)
- Subject Property
- Approximate Parcel Boundary (CTDEEP)

**Map Notes:**

Base Map Source: 2016 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 250 feet  
 Map Date: January 2018



**NDDB Map**

Proposed Wireless Telecommunications Facility  
 Cromwell North 2 CT  
 667 Main Street  
 Cromwell, Connecticut

verizon



# **ATTACHMENT 6**





Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

February 25, 2018

Dean Gustafson  
All-Points Technology Corporation, P.C.  
3 Saddlebrook Drive  
Killingworth, CT 06419  
[dgustafson@allpointstech.com](mailto:dgustafson@allpointstech.com)

Project: Verizon Wireless Telecommunications Facility "Cromwell North 2" at Cromwell Concrete Products  
Property Located at 667 Main Street in Cromwell, Connecticut  
NDDDB Determination No.: 201801108

Dear Dean Gustafson,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed Verizon Wireless Telecommunications Facility "Cromwell North 2" at Cromwell Concrete Products Property Located at 667 Main Street in Cromwell, Connecticut. According to our records we have known extant population of state special concern *Terrapene c. carolina* (eastern box turtle) from this area.

**Eastern Box Turtle (*Terrapene c. carolina*):** Eastern box turtles inhabit old fields and deciduous forests, which can include power lines and logged woodlands. They are often found near small streams and ponds. The adults are completely terrestrial but the young may be semiaquatic, and hibernate on land by digging down in the soil from October to April. They have an extremely small home range and can usually be found in the same area year after year. Eastern box turtles have been negatively impacted by the loss of suitable habitat. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated. Reducing the frequency that motorized vehicles enter box turtle habitat would be beneficial in minimizing direct mortality of adults.

**Recommended Protection Strategies for Turtles:**

Work should occur when these turtles are active (April 1st to October 30<sup>th</sup>). Conducting land clearing while the turtle is active will allow the animal to move out of harm's way and minimize mortality to hibernating individuals. I recommend the additional following protection strategies in order to protect these turtles:

- Hiring a qualified herpetologist to be on site to ensure these protection guidelines remain in effect and to prevent turtles from being run over when moving heavy equipment. This is especially important in the month of June when turtles are selecting nesting sites.
- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance.
- Exclusionary fencing must be at least 20 in tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through. Do not use plastic or netted silt-fence.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species, and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point.

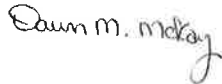
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal pools.
- The Contractor and consulting herpetologist must search the work area each morning prior to any work being done.
- When felling trees adjacent to brooks and streams please cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- Avoid and limit any equipment use within 50 feet of streams and brooks.
- Any confirmed sightings of box, wood or spotted turtles should be reported and documented with the NDDDB ([nddbrequestdep@ct.gov](mailto:nddbrequestdep@ct.gov)) on the appropriate special animal form found at ([http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav\\_GID=1641](http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641))

If these protection strategies are followed then the proposed activities will lessen the impact on this state-listed species. This determination is good for two years. Please re-submit an NDDDB Request for Review if the scope of work changes or if work has not begun on this project by February 25, 2020.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or [dawn.mckay@ct.gov](mailto:dawn.mckay@ct.gov) . Thank you for consulting the Natural Diversity Data Base. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEEP for the proposed site.

Sincerely,



Dawn M. McKay  
Environmental Analyst 3

# WILDLIFE IN CONNECTICUT

## STATE SPECIES OF SPECIAL CONCERN

### Eastern Box Turtle

*Terrapene carolina carolina*

#### Description

The eastern box turtle is probably the most familiar of the 8 species of turtles found in Connecticut's landscape. It is known for its high-domed carapace (top shell). The carapace has irregular yellow or orange blotches on a brown to black background that mimic sunlight dappling on the forest floor. The plastron (under shell) may be brown or black and may have an irregular pattern of cream or yellow. The length of the carapace usually ranges from 4.5 to 6.5 inches, but can measure up to 8 inches long. The shell is made up of a combination of scales and bones, and it includes the ribs and much of the backbone.

Each individual turtle has distinctive head markings. Males usually have red eyes and a concave plastron, while females have brown eyes and a flat plastron. Box turtles also have a horny beak, stout limbs, and feet that are webbed at the base. This turtle gets its name from its ability to completely withdraw into its shell, closing itself in with a hinged plastron. Box turtles are the only Connecticut turtle with this ability.

#### Range

Eastern box turtles are found throughout Connecticut, except at the highest elevations. They range from southeastern Maine to southeastern New York, west to central Illinois, and south to northern Florida.

#### Habitat and Diet

In Connecticut, this terrestrial turtle inhabits a variety of habitats, including woodlands, field edges, thickets, marshes, bogs, and stream banks. Typically, however, box turtles are found in well-drained forest bottomlands and open deciduous forests. They will use wetland areas at various times during the season. During the hottest part of a summer day, they will wander to find springs and seepages where they can burrow into the moist soil. Activity is restricted to mornings and evenings during summer, with little to no nighttime activity, except for egg-



© PAUL J. FUSCO

laying females. Box turtles have a limited home range where they spend their entire life, ranging from 0.5 to 10 acres (usually less than 2 acres).

Box turtles are omnivorous and will feed on a variety of food items, including earthworms, slugs, snails, insects, frogs, toads, small snakes, carrion, leaves, grass, berries, fruits, and fungi.

#### Life History

From October to April, box turtles hibernate by burrowing into loose soil, decaying vegetation, and mud. They tend to hibernate in woodlands, on the edge of woodlands, and sometimes near closed canopy wetlands in the forest. Box turtles may return to the same place to hibernate year after year. As soon as they come out of hibernation, box turtles begin feeding and searching for mates.

The breeding season begins in April and may continue through fall. Box turtles usually do not breed until they are about 10 years old. This late maturity is a result of their long lifespan, which can range up to 50 to even over 100 years of age. The females do not have to mate every year to lay eggs as they can store sperm for up



to 4 years. In mid-May to late June, the females will travel from a few feet to more than a mile within their home range to find a location to dig a nest and lay their eggs. The 3 to 8 eggs are covered with dirt and left to be warmed by the sun. During this vulnerable time, skunks, foxes, snakes, crows, and raccoons often raid nests. Sometimes, entire nests are destroyed. If the eggs survive, they will hatch in late summer to early fall (about 2 months after being laid). If they hatch in the fall, the young turtles may spend the winter in the nest and come out the following spring.

As soon as the young turtles hatch, they are on their own and receive no care from the adults. This is a dangerous time for young box turtles because they do not develop the hinge for closing into their shell until they are about 4 to 5 years old. Until then, they cannot entirely retreat into their shells. Raccoons, skunks, foxes, dogs, and some birds will prey on young turtles.

### ***Conservation Concerns***

The eastern box turtle was once common throughout the state, mostly in the central Connecticut lowlands. However, its distribution is now spotty, although where found, turtles may be locally abundant. Because of the population decline in Connecticut, the box turtle was added to the state's List of Endangered, Threatened, and Special Concern Species when it was revised in 1998. It is currently listed as a species of special concern. The box turtle also is protected from international trade by the 1994 CITES treaty. It is of conservation concern in all the states where it occurs at its northeastern range limit, which includes southern New England and southeastern New York.

Many states have laws that protect box turtles and prohibit their collection. In Connecticut, eastern box turtles **cannot** be collected from the wild (DEP regulations 26-66-14A). Another regulation (DEP regulations 26-55-3D) "grandfathers" those who have a **box turtle collected before 1998**. This regulation limits possession to a single turtle collected before 1998. These

regulations provide some protection for the turtles, but not enough to combat some of the even bigger threats these animals face. The main threats in Connecticut (and other states) are loss and fragmentation of habitat due to deforestation and spreading suburban development; vehicle strikes on the busy roads that bisect the landscape; and indiscriminate (and now illegal) collection of individuals for pets.

Loss of habitat is probably the greatest threat to turtles. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated.

Adult box turtles are relatively free from predators due to their unique shells. The shell of a box turtle is extremely hard. However, the shell is not hard enough to survive being run over by a vehicle. Roads bisecting turtle habitat can seriously deplete the local population. Most vehicle fatalities are pregnant females searching for a nest site.

### ***How You Can Help***

- *Leave turtles in the wild. They should never be kept as pets. Whether collected singly or for the pet trade, turtles that are removed from the wild are no longer able to be a reproducing member of a population. Every turtle removed reduces the ability of the population to maintain itself.*
- *Never release a captive turtle into the wild. It probably would not survive, may not be native to the area, and could introduce diseases to wild populations.*
- *Do not disturb turtles nesting in yards or gardens.*
- *As you drive, watch out for turtles crossing the road. Turtles found crossing roads in June and July are often pregnant females and they should be helped on their way and not collected. Without creating a traffic hazard or compromising safety, drivers are encouraged to avoid running over turtles that are crossing roads. Also, still keeping safety precautions in mind, you may elect to pick up turtles from the road and move them onto the side they are headed. Never relocate a turtle to another area that is far from where you found it.*
- *Learn more about turtles and their conservation concerns. Spread the word to others on how they can help Connecticut's box turtle population.*



State of Connecticut  
Department of Environmental Protection  
Bureau of Natural Resources  
Wildlife Division  
[www.ct.gov/dep](http://www.ct.gov/dep)



The production of this Endangered and Threatened Species Fact Sheet is made possible by donations to the Connecticut Endangered Species/Wildlife Income Tax Checkoff Fund.

## ENVIRONMENTAL NOTES

### Eastern Box Turtle Protection Program

Eastern Box Turtle (*Terrapene c. carolina*), a State Special Concern species afforded protection under the Connecticut Endangered Species Act, is known to occur within the vicinity of the proposed Cellco communications tower facility at 667 Main Street in Cromwell, Connecticut. The following turtle protection measures satisfy requirements from the Connecticut Department of Energy & Environmental Protection ("DEEP") Wildlife Division in accordance with their Natural Diversity Data Base ("NDDDB") determination letter (No. 201801108) dated February 25, 2018; this determination is valid until February 25, 2020 provided the scope of the project has not changed and work has begun on the project prior to the expiration date.

It is of the utmost importance that the Contractor complies with the requirement for implementation of these protective measures and the education of its employees and subcontractors performing work on the project site. This protection plan shall be implemented if work will occur during the turtle's active period (April 1<sup>st</sup> to October 30<sup>th</sup>). The proposed communications tower facility would be sited in a concrete products storage yard that is cleared and consists of a gravel surface which does not provide suitable hibernating habitat for Eastern Box Turtle; hibernation habitat typically includes woodlands, woodland edges and forested wetlands. Therefore, protection measures during the turtle's inactive period (October 1<sup>st</sup> through March 30<sup>th</sup>) are not required for this project.

All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection measures are implemented properly and will provide an education session on rare species that may be encountered and the project's proximity to sensitive habitat prior to the start of construction activities. The Contractor shall contact Dean Gustafson, Senior Environmental Scientist at APT, at least 5 business days prior to the start of any construction activities. Mr. Gustafson can be reached by phone at (860) 663-1697 ext. 201 or via email at [dgustafson@allpointstech.com](mailto:dgustafson@allpointstech.com).

The proposed protection program consists of several components: education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; periodic inspection of the construction project; and, reporting.

#### 1. Isolation Measures & Sedimentation and Erosion Controls

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals, but particularly snakes. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary erosion control products will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Installation of sedimentation and erosion controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing turtles, shall be performed by the Contractor following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation to ensure the area is free of Eastern Box Turtle and document barriers have been satisfactorily installed. The intent of the barrier is to segregate the majority of the work zone and isolate it from foraging/migrating/dispersing turtles, snakes and other herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. Although the barriers may not completely isolate the work zone, they will be positioned to deflect



migrating/dispersal routes away from the work zone to minimize potential encounters with turtles, snakes and other herpetofauna.

- c. The Contractor is responsible for daily inspections of the sedimentation and erosion controls for tears or breeches and accumulation levels of sediment, particularly following storm events that generate a discharge. APT will provide periodic inspections of the sedimentation and erosion controls throughout the duration of construction activities only as it pertains to protection of rare species. Third party monitoring of sedimentation and erosion controls will be performed by other parties, as necessary, under applicable local, state and/or federal regulations.
- d. The extent of the sedimentation and erosion controls will be as shown on the site plans. The Contractor shall have additional sedimentation and erosion controls stockpiled on site should field or construction conditions warrant extending the controls as directed by APT.
- e. No equipment, vehicles or construction materials shall be stored outside of the sedimentation and erosion controls within 100 feet of wetlands or watercourses.
- f. All sedimentation and erosion controls shall be removed within 30 days of completion of work and permanent stabilization of site soils so that reptile and amphibian movement between uplands and wetlands is not restricted.

## **2. Contractor Education**

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT providing photos of Eastern Box Turtle emphasizing the non-aggressive nature of these species, the absence of need to destroy animals that might be encountered and the need to follow Protective Measures as described in Section 4 below. Workers will also be provided information regarding the identification of other turtles, snakes and common herpetofauna species that could be encountered.
- b. The education session will also focus on means to discriminate between the species of concern and other native species to avoid unnecessary "false alarms". Encounters with any species of turtles or snakes will be documented.
- c. The Contractor will be provided with cell phone and email contacts for APT personnel to immediately report any encounters with Eastern Box Turtle or other species. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.

## **3. Petroleum Materials Storage and Spill Prevention**

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill to avoid possible impact to nearby habitats.
- b. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.
- c. The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.

i. Petroleum and Hazardous Materials Storage and Refueling

1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands or watercourses and shall take place on an impervious pad with secondary containment designed to contain fuels.
2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands or watercourses.

ii. Initial Spill Response Procedures

1. Stop operations and shut off equipment.
2. Remove any sources of spark or flame.
3. Contain the source of the spill.
4. Determine the approximate volume of the spill.
5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands.
6. Ensure that fellow workers are notified of the spill.

iii. Spill Clean Up & Containment

1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
3. Isolate and eliminate the spill source.
4. Contact the appropriate local, state and/or federal agencies, as necessary.
5. Contact a disposal company to properly dispose of contaminated materials in accordance with all local, state and federal regulations.

iv. Reporting

1. Complete an incident report.
2. Submit a completed incident report to the appropriate Town of Cromwell, Connecticut Siting Council and other applicable local, state and federal officials.

**4. Turtle Protective Measures**

- a. Prior to the start of construction each day, the Contractor shall search the entire work area for turtles.
- b. If a turtle is found, it shall be immediately moved, unharmed, by carefully grasped in both hands, one on each side of the shell, between the turtle's forelimbs and the hind limbs, and placed just outside of the isolation barrier in the same approximate direction it was walking.
- c. Special care shall be taken by the Contractor during early morning and evening hours so that possible basking or foraging turtles are not harmed by construction activities.

## **5. Herbicide and Pesticide Restrictions**

- a. The use of herbicides and pesticides at the proposed communications tower facility shall be avoided when possible. In the event herbicides and/or pesticides are required at the proposed facility, their use will be used in accordance with Integrated Pest Management ("IPM") principles with particular attention to minimize applications within 100 feet of wetland or watercourse resources. No applications of herbicides or pesticides are allowed within actual wetland or watercourse resources.

## **6. Reporting**

- a. Daily Compliance Monitoring Reports (brief narrative and applicable photos) documenting each APT inspection will be submitted by APT to Cellco for compliance verification. Any observations of turtles will be included in the reports.
- b. Following completion of the construction project, APT will provide a Compliance Monitoring Summary Report to Cellco documenting implementation of the rare species and wetland protection program, monitoring and any species observations. Cellco will provide a copy of the Compliance Monitoring Summary Report to the Connecticut Siting Council for compliance verification.
- c. Any observations of Eastern Box Turtle will be reported to CTDEEP by APT, with photo-documentation (if possible) and with specific information on the location and disposition of the animal.