STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY AT 522 COLEBROOK ROAD IN THE TOWN OF COLEBROOK

DOCKET NO. 440

October 3, 2013

RESPONSES OF NEW CINGULAR WIRELESS TO CONNECTICUT SITING COUNCIL
PRE-HEARING QUESTIONS SET I

Q1. 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?

A1. Return receipts were received for all but one abutting property owner, Alesia Maltz. AT&T sent another notice to this abutting property owner via first class mail.

Q2. Is the Republican American a daily publication?

A2. Yes.

Q3. Which frequencies are New Cingular Wireless PCS, LLC (AT&T) licensed to utilize in Litchfield County?

A3. AT&T's licensed frequencies for Litchfield County include:

Cellular	
KNKN589	B-Band
PCS	
WPSL626	A3 Block
700 MHz	
WPWV376	Lower C
WQIZ617	Lower E
WQJU671	Lower B

Q4. When was AT&T's search ring first initiated for a tower in this area? Provide the size, shape, and location of the center of the search ring.

A4. AT&T issued a search ring for providing reliable service to this area of the State in April of 2010. As detailed in the Application, AT&T commenced a municipal consultation in February of 2011 and then deferred filing of an Application with the Siting Council. AT&T funded continuation of the application process for the proposed Facility earlier this year.

A map of the search ring area is provided in Attachment 1.

Q5. What is the existing signal strength in the areas AT&T is seeking to cover from the proposed tower site?

A5. The existing signal strength in the areas that would be covered by the proposed Facility range from -82 dBm to down to less than -100 dBm, which does not constitute reliable coverage.

Q6. What is the signal strength for which AT&T designs its system? For in-vehicle coverage? For in-building coverage?

A6. AT&T designs its system at -74 dBm for in-building reliable service and -82dBm for in-vehicle reliable service.

Q7. Would AT&T provide both cellular and PCS service initially or cellular first and PCS in the future? When would LTE service be provided, if applicable? Explain.

A7. AT&T will initially provide UMTS services over its cellular and PCS frequencies and LTE services over its 700 MHz frequencies when the site is placed into service. At some point in the future, AT&T will also provide LTE services over its PCS frequencies.

Q8. Would all frequencies be used to transmit voice and data?

A8. Yes, all frequencies will eventually be used to transmit voice and data.

Q9. Does AT&T have any statistics on dropped calls in the vicinity of the proposed site? If so, what do they indicate? Does AT&T have any other indicators of substandard service in this area?

A9. Yes. AT&T's dropped call data on the two neighboring sites (AT&T Sites CT1006 and CT1012) and the sectors that face directly into the area where reliable service is needed indicate elevated voice and data drops. The data show that AT&T's network performance standards are not being met in the area where reliable service is needed. Included in Attachment 2 is a map of AT&T's drive data which also confirms that reliable service is not available in this area of Colebrook.

Q10. Would this tower be needed for coverage, capacity, or both? Explain.

A10. As detailed in the RF Report included in Tab 1 of AT&T's Application, the proposed Facility is needed to principally address a gap in reliable wireless coverage in this area of Colebrook.

Q11. What is the minimum antenna centerline height required to meet AT&T's coverage objective?

A11. AT&T proposes an antenna centerline mounting height of 117' AGL to provide reliable services to this area of Colebrook.

Q12. Provide the lengths of the existing coverage gaps on any roads that AT&T seeks to provide coverage to.

A12. The lengths of the existing coverage gaps on the individual main and secondary roads include:

Street Name	Length (miles)
US Hwy 44	0.11
Beech Hill Rd	0.92
Phelps Flat Rd	0.55
Sandy Brook Rd	0.27
Smith Hill Rd	1.10
State Hwy 183	5.72
Stillman Hill Rd	1.04
Total	**9.72**

Street Name	Length (miles)
Bohun Rd	0.24
Bricklemaier Rd	0.25
Bunnell St	1.38
Bunnell Street Ext	0.11
Campbell Rd	0.29
Center Brook Rd	0.17
Chapin Rd	0.64
Cobb City Rd	1.29
Cooper Ln	0.12
Egler Rd	0.87
Fritz Rd	0.85
Greenwood Tpke	0.15
Mazepa Rd	0.16
Mcclave Rd	0.26
Millbrook Rd	0.17

Moses Rd	0.11
Old Colebrook Rd	0.18
Old North Rd	0.33
Phelps Rd	1.22
Pine Rd	0.28
Pinney St	0.14
Pisgah Mountain Rd	0.65
Prock Hill Rd	1.73
Rockhall Rd	1.08
Sandy Brook Rd	3.69
Schoolhouse Rd	0.37
Shantry Rd	1.18
Simons Rd	1.83
State Hwy 182A	1.15
Wheeler Rd	0.06
Wolfords Hill Rd	0.16
N/A	0.09
Total	**21.21**

Q13. Provide the lengths of the proposed coverage of any roads that AT&T seeks to provide coverage to based on the tower's proposed height, as well as ten and twenty feet shorter.

A13. The lengths of the proposed coverage based on the proposed antenna centerline mounting height of 117' AGL as well as 107' AGL and 97' AGL are provided in the tables below.

Main Roads -117 ft AGL	
Street Name	**Length (miles)**
US Hwy 44	0.31
Beech Hill Rd	0.92
Colebrook Rd	0.36
Phelps Flat Rd	0.22
Smith Hill Rd	1.10
State Hwy 183	3.34
Stillman Hill Rd	1.04
TOTAL	**7.29**

Main Roads - 107 ft AGL	
Street Name	**Length (miles)**
US Hwy 44	0.05
Beech Hill Rd	0.84
Colebrook Rd	0.39
Phelps Flat Rd	0.17
Smith Hill Rd	1.10
State Hwy 183	3.39
Stillman Hill Rd	1.12
TOTAL	**7.06**

Main Roads - 97 ft AGL	
Street Name	**Length (miles)**
US Hwy 44	0.04
Beech Hill Rd	0.83
Colebrook Rd	0.36
Phelps Flat Rd	0.15
Smith Hill Rd	1.10
State Hwy 183	3.31
Stillman Hill Rd	1.12
TOTAL	**6.90**

Secondary Roads 117' AGL		Secondary Roads 107' AGL		Secondary Roads 97' AGL	
Street Name	Length (miles)	Street Name	Length (miles)	Street Name	Length (miles)
Bohun Rd	0.24	Bohun Rd	0.24	Bohun Rd	0.24
Bricklemaier Rd	0.25	Bricklemaier Rd	0.16	Bricklemaier Rd	0.16
Bunnell St	1.38	Bunnell St	1.06	Bunnell St	1.06
Bunnell Street Ext	0.11	Bunnell Street Ext	0.11	Bunnell Street Ext	0.11
Campbell Rd	0.26	Campbell Rd	0.15	Campbell Rd	0.14
Center Brook Rd	0.17	Center Brook Rd	0.17	Center Brook Rd	0.17
Chapin Rd	0.22	Chapin Rd	0.22	Chapin Rd	0.22
Cobb City Rd	0.42	Cobb City Rd	0.42	Cobb City Rd	0.42
Cooper Ln	0.12	Cooper Ln	0.12	Cooper Ln	0.12
Danbury Quarter Rd	0.14				
Egler Rd	0.87	Egler Rd	0.57	Egler Rd	0.57
Fritz Rd	0.34	Fritz Rd	0.29	Fritz Rd	0.29
Greenwood Tpke	0.15				
Losaw Rd	0.20	Losaw Rd	0.03	Losaw Rd	0.03
Mazepa Rd	0.16	Mazepa Rd	0.16	Mazepa Rd	0.16
Mcclave Rd	0.26	Mcclave Rd	0.10	Mcclave Rd	0.10
Millbrook Rd	0.17	Millbrook Rd	0.03	Millbrook Rd	0.03
N Colebrook Rd	0.06	N Colebrook Rd	0.02	N Colebrook Rd	0.02
Old Colebrook Rd	0.18	Old Colebrook Rd	0.13	Old Colebrook Rd	0.13
Old North Rd	0.33	Old North Rd	0.24	Old North Rd	0.24
Phelps Rd	1.08	Phelps Rd	1.08	Phelps Rd	1.08
Pine Rd	0.28	Pine Rd	0.24	Pine Rd	0.24
Pinney St	0.14	Pinney St	0.14	Pinney St	0.14
Pisgah Mountain Rd	0.65	Pisgah Mountain Rd	0.62	Pisgah Mountain Rd	0.62
Pratt St	0.06				
Preston Rd	0.13				
Prock Hill Rd	0.73	Prock Hill Rd	0.68	Prock Hill Rd	0.68
Rattle Valley Rd	0.03				
Rockhall Rd	0.02				
Rugg Brook Rd	0.35	Rugg Brook Rd	0.13	Rugg Brook Rd	0.09
Sandy Brook Rd	0.74	Sandy Brook Rd	0.39	Sandy Brook Rd	0.36
Schoolhouse Rd	0.52	Schoolhouse Rd	0.37	Schoolhouse Rd	0.37

Secondary Roads 117' AGL		Secondary Roads 107' AGL		Secondary Roads 97' AGL	
Street Name	**Length (miles)**	**Street Name**	**Length (miles)**	**Street Name**	**Length (miles)**
Shantly Rd	0.07	Shantly Rd	0.07	Shantly Rd	0.07
Shantry Rd	0.84	Shantry Rd	0.76	Shantry Rd	0.76
Simons Rd	0.78	Simons Rd	0.78	Simons Rd	0.78
Spencer Hill Rd	0.01	Skinner Rd	0.01		
State Hwy 182A	1.15	State Hwy 182A	1.02	State Hwy 182A	1.02
Tim Oconner Rd	0.09				
Tower Hill Rd	0.05	Tower Hill Rd	0.02	Tower Hill Rd	0.02
Wheeler Rd	0.06	Wheeler Rd	0.06	Wheeler Rd	0.06
Yates Rd	0.09	Yates Rd	0.03	Yates Rd	0.03
N/A	0.15	N/A	0.03	N/A	0.01
TOTAL	**14.08**		**10.64**		**10.54**

Q14. Provide estimated average daily traffic counts for those portions of Routes 182, 182A, and 183 that would be covered from the proposed facility.

A14. The table below includes the estimated average daily traffic counts for the portions of Routes 182, 182A and 183 that would have reliable service from the proposed Facility that are shown in the map provided in the RF Report included in Tab 1 of AT&T's Application.

Road	AADT	Station Number
Route 183 north of Smith Hill Road	1300	40
Route 182A northeast of Stillman Hill Road	300	8
Route 182 west of Rockwell Road	700	15
Routes 182&183 north of Old Colebrook Road	850	39
Routes 182&183 south of Old Colebrook Road	1100	10
Old Colebrook Road west of Millbrook Road	550	9
Old Colebrook Road east of Millbrook Road	350	35

Q15. Provide the areas to be covered (in square miles) assuming the tower is at the proposed height and also ten and twenty feet shorter.

A15. The table below includes the estimated area to be covered in square miles at the proposed antenna centerline height (117' AGL) and ten (107' AGL) and twenty feet (97' AGL) lower than the proposed antenna centerline mounting height.

Area Coverage		Incremental Coverage (sq. mi.)
117' AGL	In-Building	7.7
	In-Vehicle	9.3
107'AGL	In-Building	5.4
	In-Vehicle	6.8
97' AGL	In-Building	5.2
	In-Vehicle	6.6

Q16. Using the same scale as the coverage plots in the Radio Frequency Analysis Report, provide separate coverage plots assuming the tower is ten and twenty feet shorter.

A16. Included in Attachment 3 are propagation maps depicting existing coverage and proposed coverage at antenna centerline heights of 107' AGL and 97' AGL (ten and twenty feet lower than the proposed antenna centerline height of 117' AGL). These propagation maps show gaps to the north and west, particularly along Routes 183 and 182.

The gaps in reliable service at 107' AGL and 97' AGL are also demonstrated in the table below which includes the incremental population coverage at 117' AGL (the proposed antenna centerline height), 107' AGL and 97' AGL.

Population Coverage		Incremental Coverage
117' AGL	In-Building	372
	In-Vehicle	477
107'AGL	In-Building	270
	In-Vehicle	357
97' AGL	In-Building	264
	In-Vehicle	350

Q17. Provide the distance and direction from the proposed site to the existing (or proposed) sites that the proposed tower would interact with. Also include the addresses, tower heights, antenna heights and tower types (e.g. monopole). Alternatively, if these sites are already included in the table on page 8 of the Radio Frequency Analysis, indicate which sites they are.

A17. AT&T's existing and proposed sites that would interact with the proposed Facility are provided on page 8 of the RF Report and also included in the table below.

Site Name	Address	Town	Latitude	Longitude	Antenna Centerline (feet)	Distance to Proposed Site (miles)	Structure Height	Structure Type	Ground Elevation (feet)
CT1254	Colebrook River Road	Colebrook	41.9922	-73.0397	137	2.74 E	150	Monopole	1163

Site Name	Address	Town	Latitude	Longitude	Antenna Centerline (feet)	Distance to Proposed Site (miles	Structure Height	Structure Type	Ground Elevation (feet)
CT1006	453 Loon Meadow Road	Norfolk	42.0091	-73.1809	143	4.88 W	160	Monopole	1670
CT1071	15 Oakdale Avenue	Winchester	41.9217	-73.0495	180	4.84 SE	180	Monopole	1075
CT1012	161 Pinney St	Colebrook	41.9664	-73.1217	110	1.96 SW	150	Monopole	1227
SR1175	Norfolk Road	Winchester	41.9402	-73.0959	140	3.05 S	150	Monopine	1145
SR1176	Greenwood Road East	Norfolk	41.9833	, -73.1536	177	3.17	180	Monopole	1476

Q18. Provide the tower/structure heights for the facilities listed on page 8 of the Radio Frequency Analysis Report in the Application.

A18. The table included on page 8 of the RF Report in Tab 1 of AT&T's Application is provided below with the addition of a column that includes the structure height.

Site Name	Address	Town	Latitude	Longitude	Antenna Centerline (feet)	Distance to Proposed Site (miles)	Structure Height	Structure Type	Ground Elevation (feet)
CT1006	453 Loon Meadow Road	Norfolk	42.0091	-73.1809	143	4.88	160	Monopole	1670
CT1012	161 Pinney St	Colebrook	41.9664	-73.1217	110	1.96	150	Monopole	1227
CT1071	15 Oakdale Avenue	Winchester	41.9217	-73.0495	180	4.84	180	Monopole	1075
CT1181	10 Ashpohtag Road	Norfolk	42.0027	-73.2214	137	6.77	150	Monopole	987
CT1254	Colebrook River Road	Colebrook	41.9922	-73.0397	137	2.74	150	Monopole	1163
CT1263	Center Hill Road	West Hartland	41.9788	-72.9822	160	5.65	180	Lattice	1221
CT1280	350 Hartland Blvd	Hartland	41.9461	-72.9115	167	9.64	175	Monopole	1138

Site Name	Address	Town	Latitude	Longitude	Antenna Centerline (feet)	Distance to Proposed Site (miles)	Structure Height	Structure Type	Ground Elevation (feet)
CT1186	5 Old Farm Road	Barkhamsted	41.9145	-73.0223	134	5.99	145	Monopole	816
SR1175	Norfolk Road	Winchester	41.9402	-73.0959	140	3.05	150	Monopine	1145
SR1176	Greenwood Road East	Norfolk	41.9833	, -73.1536	177	3.17	180	Monopole	1476
MA5254	1 East Otis Road	Tolland MA	42.0952	-73.0623	137	7.82	175	Lattice	1456
MA5069	156 North Lane Road	Granville MA	42.0879	-72.9261	187	11.13	189	Lattice	1419

Q19. Does AT&T plan to co-locate on the Norfolk Road, Winchester tower (S1175)? If yes, does AT&T plan to submit a tower share application to the Council for this site?

A19. Yes, AT&T plans to co-locate on the Norfolk Road, Winchester tower and AT&T will submit a tower share petition to the Council. The schedule for co-location on this tower has not been established.

Q20. What is the status of AT&T's co-location on the Greenwoods Road East, Norfolk tower (S1176)?

A20. The schedule of AT&T's co-location on the Greenwoods Road East, Norfolk tower has not been established.

Q21. Would the battery backup provide "seamless" uninterrupted power until the generator starts?

A21. Yes. AT&T will have a battery backup required to prevent the facility from experiencing a "re-boot" condition during the generator start-up delay period thus allowing for continued or "seamless" provision of service where signal levels allow.

Q22. How long would the battery backup last in the event that the back-up generator fails to start?

A22. The battery backup system provides power to the facility for approximately 4 to 6 hours.

Q23. What is the fuel type for the backup generator? What is the approximate run time of the generator based on its fuel tank size?

A23. AT&T's proposed backup generator is a diesel generator to serve its facility. The estimated runtime is 48 hours assuming full load and 200 gallons of fuel available.

Q24. Has AT&T considered using a fuel cell as a backup power source for the proposed site? Explain.

A24. No. As set forth in the Siting Council's Feasibility Study in Docket 432 (Feasibility study of backup power requirements for telecommunications towers and antennas pursuant to Public Act 12-148), the type of backup power chosen for use at a facility is determined by facility constraints (such as space, weight restrictions, lease arrangements, zoning codes), environmental limitations and liabilities, capital and operating/maintenance costs, network functionality and fuel availability. Costs and fuel sources (including lack of reliable distribution channels in some cases) have generally led AT&T to exclude them for its business plan.

Q25. Does AT&T anticipate the use of the backup generator as a temporary power source until permanent electrical service is provided?

A25. No, AT&T does not anticipate the use of the backup generator as a temporary power source until permanent electrical service is provided.

Q26. What is the expected cumulative noise level at the nearest property line from the proposed facility assuming the backup generator and air conditioning unit(s) are running at the same time?

A26. The southern property line is the nearest property line to the equipment compound and is located approximately 114 feet from the equipment compound. The estimated calculated cumulative noise level at this property line is approximately 59db(A) (including the emergency generator), or the level of conversational speech. Included in Attachment 4 is the anticipated noise level calculation as well as a chart of examples of noise levels.

Q27. Identify the safety standards and/or codes by which equipment, machinery, or technology would be used or operated at the proposed facility.

A27. OSHA and ET docket 93-62 and 47 CFR parts 1,2,15,42 and 97 as well as OET Bulletin 65, Edition 97-01.

Q28. What is the tower design wind speed for this area (Litchfield County)?

A28. The tower design wind speed for this area is 90 mph.

Q29. Under Tab 3, page 2, Section II. F of the Site Evaluation Report of the Application, the general land uses surrounding the subject property are listed. Provide general (N/S/E/W) directions for each use listed, e.g. rural residential to the east, etc.

A29. Wooded residential parcels are located to the north and south of the Site. Agricultural fields are located to the southeast and west.

Q30. Would any blasting be required to develop this site?

A30. The presence of ledge is not anticipated but will be confirmed upon completion of a geotechnical investigation. If ledge is encountered, removal by mechanical means is first attempted. If mechanical removal methods are unsuccessful, blasting would be utilized as required to remove the ledge.

Q31. Quantify the amounts of cut and fill that would be required to develop the proposed facility.

A31. The estimated amounts of cut and fill required for the construction of the proposed Facility include:

450 cubic yards of fill
340 cubic yards of cut

Q32. Is the proposed site located within a 100-year or 500-year flood zone?

A32. No, the proposed Site is not located within a 100-year or 500-year flood zone.

Q33. Has AT&T considered co-locating on one of the approved BNE Colebrook North or Colebrook South wind turbines?

A33. No. AT&T has not considered co-locating on one of the BNE Colebrook North or South wind turbines given the technical issues with mounting antennas on structures with moving turbine blades (the moving turbine blades may impact RF propagation and the necessary distance between the turbine blade tips and the antenna platform to ensure maintenance safety is unknown). AT&T did review the locations of the BNE wind turbines and determined that a new communications tower at these locations would not provide reliable service to the area proposed in this Docket.

Q34. Would the proposed antennas be mounted on a low-profile platform?

A34. Yes. The proposed Facility design includes antennas mounted on a low-profile platform.

Q35. Would flush-mounted antennas or antennas attached to the tower at the proposed height via T-arms provide the required coverage? Would either configuration result in reduced coverage and/or necessitate greater antenna height with multiple levels of antennas? Explain.

A35. A flush mount configuration would result in reduced coverage or necessitate greater antenna height while hindering future technological upgrades. "Flush" mounting to a tower generally refers to close contact attachment of antennas directly to the tower

without use of a platform or T-arms to offset antennas from a tower for mounting. When used on a tower structure, flush mounting usually only allows three antennas to be installed at one level (i.e. same height AGL). A carrier must then mount sets of three antennas at multiple levels on a tower. To achieve reliable service without compromising capacity or performance the lowest level would be at the minimum height necessary with additional levels installed above that minimum level on the tower. For example, an installation of twelve antennas on a tower would require the mounting of antennas at four levels (3 antennas per level) beginning at the minimum required height required. By comparison, platforms or t-arms would entail mounting of antennas at one level.

In general, because flush mounting requires the use of multiple levels on a tower by a single carrier, it limits the ability for other carriers to co-locate on that tower. A flush mount configuration also limits the space available for any additional equipment such as remote radio head units (RRH's), surge arrestors and other associated equipment carriers typically install along with its antennas. Flush mounting limits the space available on a given tower and it is conceivable such limits could inhibit future technological upgrades. It should also be noted that in many instances flush mounting can inhibit the ability of a carrier to tilt and angle antennas to maximally optimize performance and achieve the best coverage at a given height and location. While certainly possible, AT&T usually reserves flush mounting, or similar structures to cases where historic or documented scenic views might be impacted.

Q36. What, if any, stealth tower design options would be feasible to employ at this site? For example, has AT&T considered a tree tower design (e.g. monopine)? Explain.

A36. AT&T did consider a tree tower design during the design process (see Photosimulation No. 6 in the Visibility Analysis included in Tab 5 of the Application). However, the results of the visibility analysis indicate that near views (within 0.5 mile) are negligible. The most prominent view of the facility would occur from a distance of over 0.75 mile from the site, where it would extend above the ridge and tree line nearly 40 feet (see Photosimulation No. 6 in the Visibility Analysis included in Tab 5 of the Application). From this perspective, the use of a "monopine" would likely provide a larger viewing object on the horizon than a traditional monopole. Based on the relatively low height of the facility and dense mature tree cover found throughout the area and the resultant lack of substantial visibility, it was determined that a stealth option would provide minimal visual benefits.

Q37. Provide a map or drawing depicting the wetland locations on the subject property.

A37. The drawings included in Tab 3 of the Application include the wetlands delineation. In addition, a copy of the June 14, 2013 Wetland Investigation Report with a Wetlands Delineation Map is provided in Attachment 5.

Q38. The proposed access from Smith Hill Road is 1,337 feet long and would result in a total of approximately 170 trees to be removed for the project. The earlier access proposal from Colebrook Road is longer at 1,805 feet but only requires the removal of 97 trees for

the project. Does access from Colebrook Road have less tree removal due to the use of an existing (already cleared) access onto the subject property?

A38. Yes. As noted in the Application, the access drive was relocated to address concerns from the neighbors regarding an underground pipe on the western side of the site that conveys water to neighboring parcels.

Q39. How many homes are located on the subject property? What is the existing access on the subject property (from Colebrook Road) currently used for?

A39. One single family home is located on the Site. This home is accessed via the existing access drive from Colebrook Road.

Q40. Are there any hiking trails in the vicinity of the proposal tower site?

A40. No Connecticut Blue-blazed hiking trails are located within the Town of Colebrook. Walking trails exist within the Algonquin State Forest and Sandy Brook, located approximately 1 to 1.5 miles to the northeast of the Site. Two prominent hills, Panorama Hill (to the south) and Mount Pisgah (to the north), are located within approximately one-plus mile of the Site. No formal hiking trails are depicted on the USGS topographic maps. As shown in the view shed maps in the Visibility Analysis included in Tab 5 of AT&T's Application, no views of the proposed Facility are expected from Panorama Hill or Mount Pisgah.

CERTIFICATE OF SERVICE

I hereby certify that on this day, an original and fifteen copies of the foregoing was sent electronically and by overnight mail to the Connecticut Siting Council:

Thomas D. McKeon
First Selectman
Town of Colebrook
P.O. Box 5
Colebrook, CT 06021
860-379-3359
tmckeon@colebrooktownhall.org

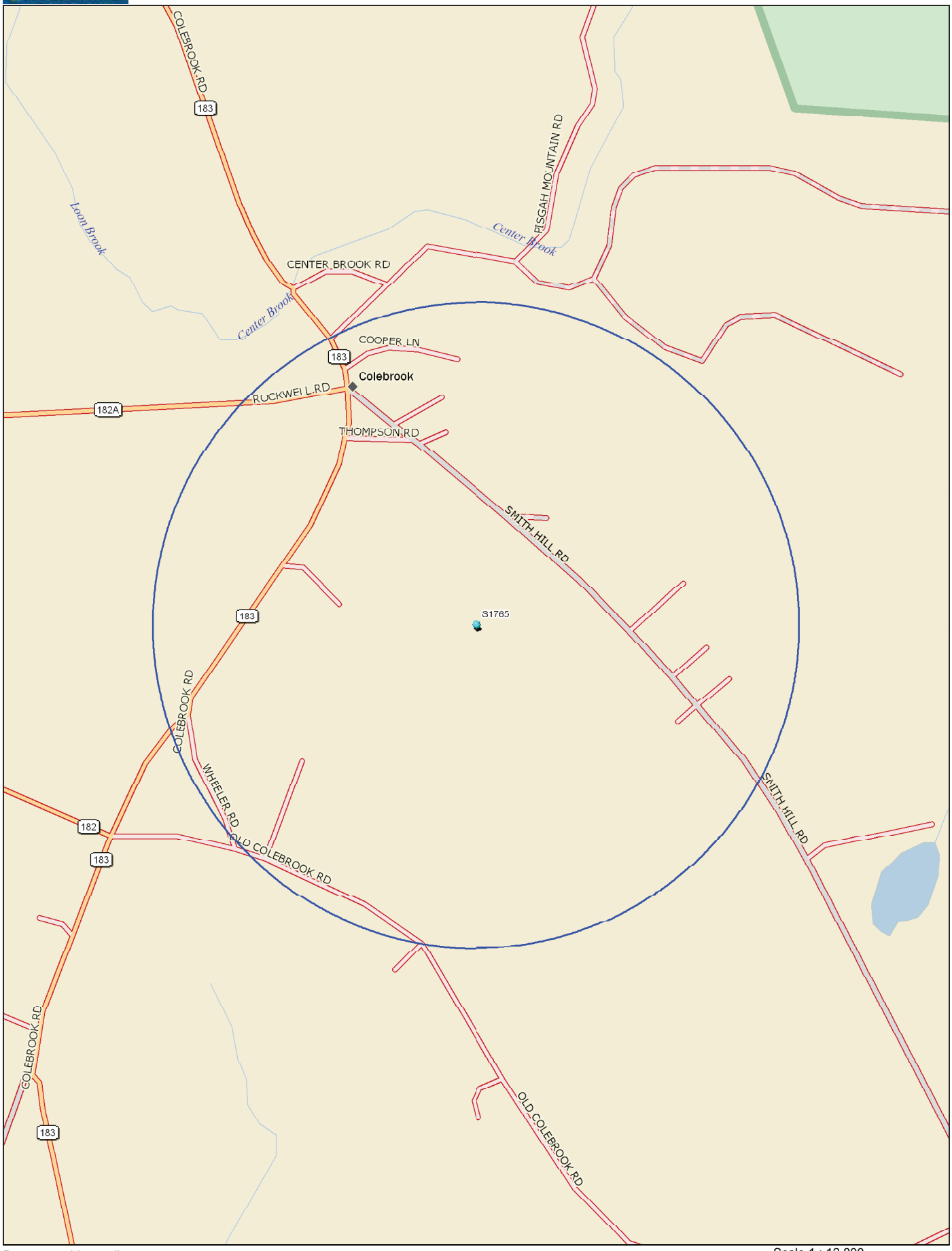
Dated: October 3, 2013

Lucia Chiocchio

Lucia Chiocchio

cc: Michele Briggs, AT&T
David Vivian
Tony Wells
Martin Lavin
Mike Libertine
Dean Gustafson
Paul Lusitani
Christopher B. Fisher, Esq.

ATTACHMENT 1



TN

MN (13.8°W)

Scale 1 : 12,800

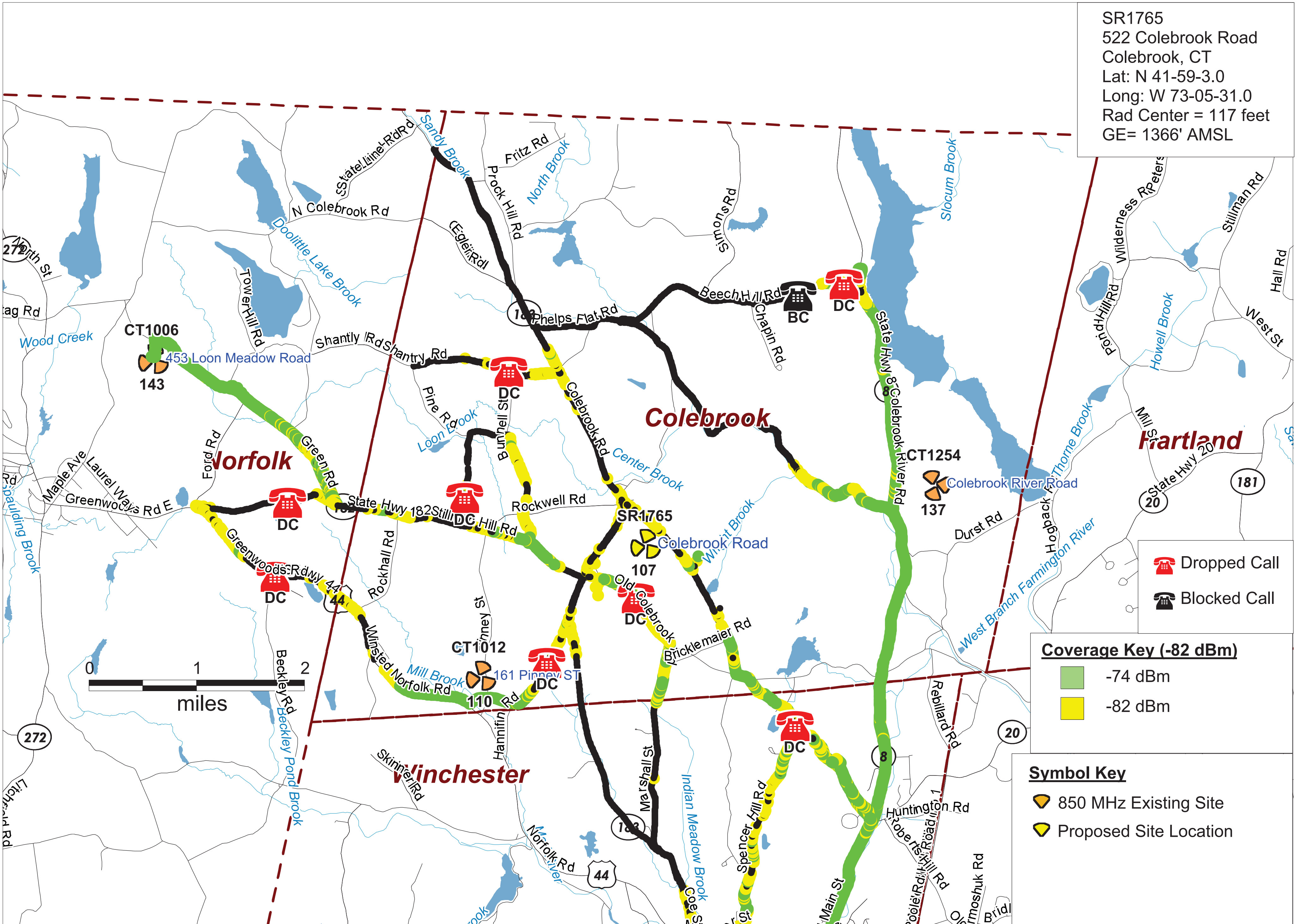
0 200 400 600 800 1000 ft

0 100 200 300 400 500 m

1" = 1,066.7 ft

Data Zoom 14-0

ATTACHMENT 2



Drive Test Scan Data and Dropped Calls

SR1765
Colebrook, CT

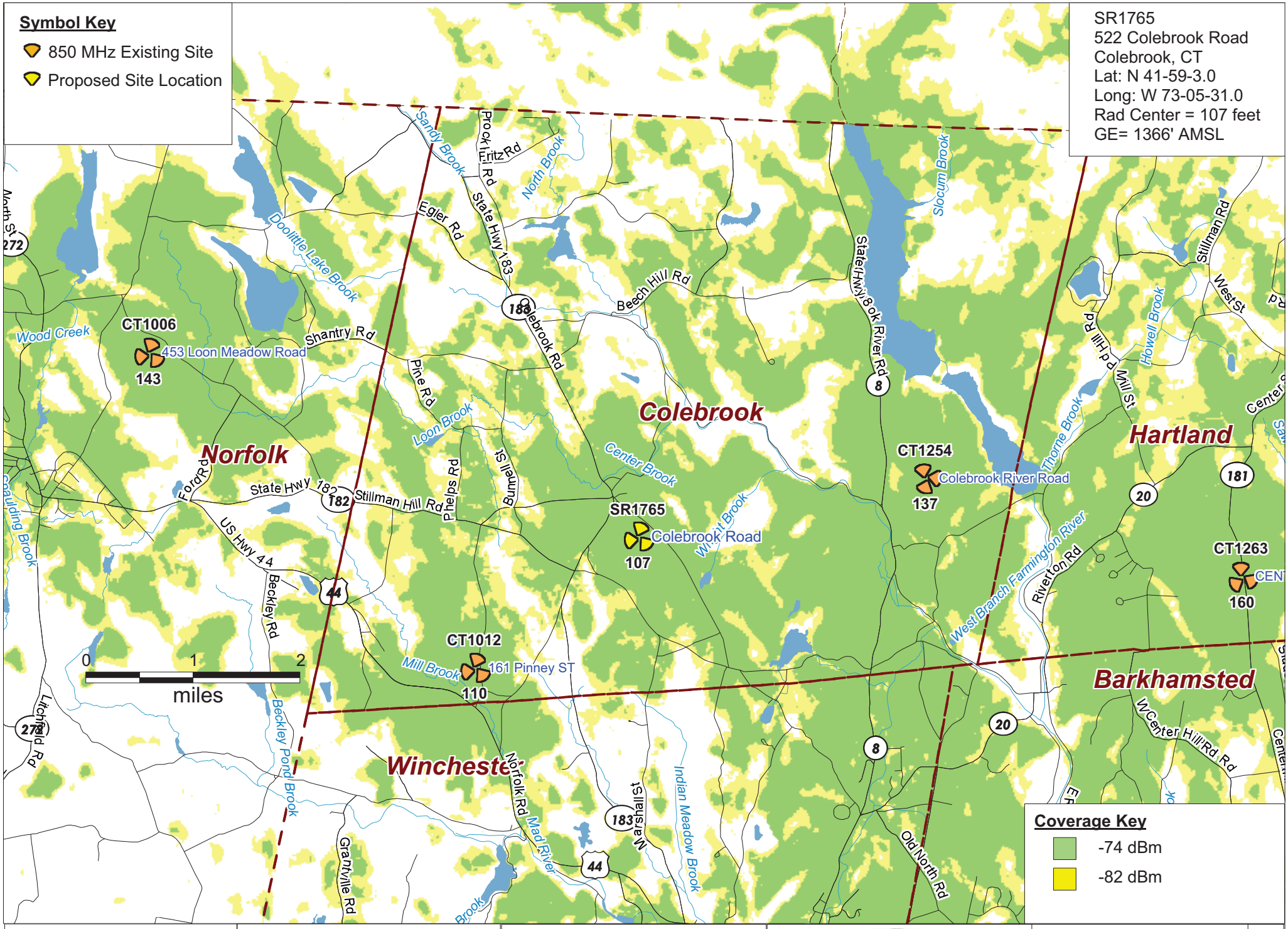
522 Colebrook Road
Colebrook CT

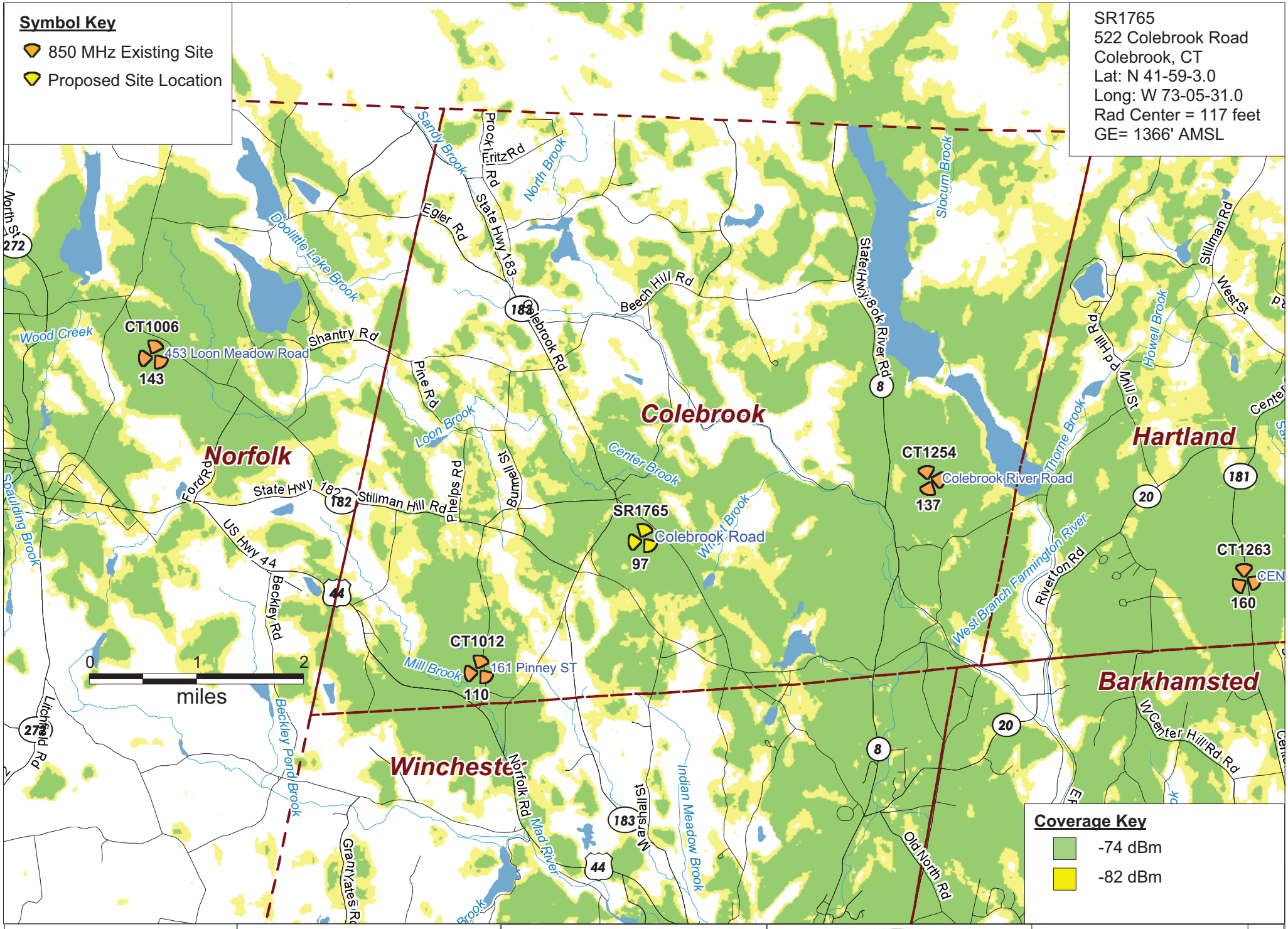
at&t

PREPARED ON
DATE: 09/30/2013

REV
0

ATTACHMENT 3


Symbol Key
850 MHz Existing Site
Proposed Site Location
SR1765
522 Colebrook Road
Colebrook, CT
Lat: N 41-59-3.0
Long: W 73-05-31.0
Rad Center = 107 feet
GE= 1366' AMSL
CT1006
453 Loon Meadow Road
143
CT1254
Colebrook River Road
137
SR1765
Colebrook Road
107
CT1263
160
CT1012
161 Pinney ST
110
Colebrook
Norfolk
Hartland
Barkhamsted
Winchester
Sandy Brook
Prock Fritz Rd
North Brook
Egler Rd
State Hwy 183
Doolittle Lake Brook
Wood Creek
Shantry Rd
Beech Hill Rd
Colebrook Rd
Slocum Brook
State Hwy 8
Ok River Rd
Stillman Rd
West St
Howell Brook
Mill St
Pine Rd
Loon Brook
Center Brook
Thorne Brook
Ford Rd
State Hwy 182
Stillman Hill Rd
Phelps Rd
Gunnell St
US Hwy 44
Beckley Rd
Riverton Rd
West Branch Farmington River
Mill Brook
Beckley Pond Brook
Norfolk Rd
Mad River
Marshall St
Indian Meadow Brook
Granville Rd
Old North Rd
Center Hill Rd
0
1
2
miles
Coverage Key
-74 dBm
-82 dBm
Existing and Proposed @ 107 feet AGL Coverage
SR1765
Colebrook, CT
522 Colebrook Road
Colebrook CT
at&t
PREPARED ON
DATE: 09/19/2013
REV 0



Existing and Proposed @ 97 feet AGL Coverage	SR1765 Colebrook, CT	522 Colebrook Road Colebrook CT	at&t	PREPARED ON DATE: 09/23/2013 REV 0

ATTACHMENT 4

CHA COMPUTATION PAD

COMPLETED BY:	PAC
CHECKED BY:	
PROJECT NAME:	AT&T Colebrook
PROJECT LOCATION:	Colebrook, CT

PROJECT	PHASE	ORG
18301	1025	

SHEET #: 1 OF 1

DATE: 09/26/2013

SUBJECT: Noise Level

Sound level at Nearest Property Line:

(a) Data:

Equipment:

AC Unit #1	73 db(A)	@ 23'
AC Unit #2	73 db(A)	@ 23'
Generator	71 db(A)	@ 23'

Distance to Property Line = 114'

(b) Cumulative Noise Level:

When adding noise levels, the following guideline will be followed:

Use the highest sound level, for each additional piece of equipment, add the following:

3 db(A) if level differs by 0 to 1 db(A)
2 db(A) if level differs by 2 to 3 db(A)
1 db(A) if level differs by 4 to 9 db(A)
0 db(A) if level differs by 10 db(A) or more

73 + 3 + 2 = 78 db(A) cumulative

(c) Reduction in Noise Level:

$$\text{Change in db(A)} = 20 \times \log\left(\frac{D_1}{D_2}\right) = 20 \times \log\left(\frac{23}{114}\right) =$$

$$-14.0 \text{ db(A)}$$

(d) Noise Level @ Property Line:

78 - 14 = 64 db(A) (assuming no sound buffer)
For every 100' of tree buffer, level drops by 5 to 8 db(A). Therefore, say 64 - 5 = 59 db(A)

Noise Level Chart

A noise level chart showing examples of sounds with dB levels ranging from 0 to 180 decibels.

dBA	Example	Home & Yard Appliances	Workshop & Construction
0	healthy hearing threshold		
10	a pin dropping		
20	rustling leaves		
30	whisper		
40	babbling brook	computer	
50	light traffic	refrigerator	
60	conversational speech	air conditioner	
70	shower	dishwasher	
75	toilet flushing	vacuum cleaner	
80	alarm clock	garbage disposal	
85	passing diesel truck	snow blower	
90	squeeze toy	lawn mower	arc welder
95	inside subway car	food processor	belt sander
100	motorcycle (riding)		handheld drill
105	sporting event		table saw
110	rock band		jackhammer
115	emergency vehicle siren		riveter
120	thunderclap		oxygen torch
125	balloon popping		
130	peak stadium crowd noise		
135	air raid siren		
140	jet engine at takeoff		
145	firecracker		
150	fighter jet launch		
155	cap gun		
160	shotgun		
165	.357 magnum revolver		
170	safety airbag		

175	howitzer cannon		
180	rocket launch		
...			
194	sound waves become shock waves		

Most noise levels are given in dBA, which are decibels adjusted to reflect the ear's response to different frequencies of sound. Sudden, brief impulse sounds, like many of those shown at 120 dB or greater, are often given in dB (no adjustment).

ATTACHMENT 5

WETLAND INVESTIGATION

June 14, 2013

Site Acquisitions, Inc.
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067

APT Project No.: CT193990

Attn: Tim Burks

Re: Proposed AT&T Facility
522 Colebrook Road
Colebrook, Connecticut

Dear Mr. Burks,

All-Points Technology Corporation, P.C. ("APT") understands that a wireless telecommunications facility ("Facility") is proposed by New Cingular Wireless PCS, LLC ("AT&T") at 522 Colebrook Road in Colebrook, Connecticut ("Subject Property"). At your request, Matthew Gustafson, a Connecticut registered Soil Scientist with APT conducted an inspection of the Subject Property on May 14 and 16, 2013 to determine the presence or absence of wetlands and watercourses within approximately 200 feet of proposed development activities ("Study Area"). Dean Gustafson, a Connecticut registered Professional Soil Scientist with APT reviewed this delineation on May 30, 2013. The delineation methodology followed was consistent with both the Connecticut Inland Wetlands and Watercourses Act (IWWA) and the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Version 2.0 (January 2012). The results of this wetland investigation are provided below.

Site and Project Description:

The Subject Property consists of an approximately 76.3 acre parcel partially developed with a small residential lot identified as 522 Colebrook Road in Colebrook, Connecticut. The area proposed for the wireless communications facility is located adjacent to the southern property boundary in the central portion of the Subject Property in an area that is currently comprised of mature upland hardwood forest. Access to the Facility is proposed to come off Smith Hill Road briefly crossing an intermittent stream feature and generally following an historic logging "skid" road. The Study Area is dominated by mature upland hardwood forests with complexes of forested hillside seep and isolated depressional wetland systems intermingled with the bedrock controlled upland glacial till habitat. The surrounding land-use consists of light residential development and large undeveloped forested areas.

Five wetland areas were delineated within the Study Area consisting of four hillside seep and depressional wetland systems and an intermittent stream adjacent to Smith Hill Road. The wetland areas are primarily forested with numerous "blow-downs" occurring throughout. Please refer to the enclosed Wetlands Delineation Map for approximate locations of the identified wetland resource areas. Wetlands were marked with pink and blue plastic flagging tape numbered with the following sequence: WF 1-01 to 1-08, WF 2-01 to 2-13 (loop), WF 3-01 to 3-100, 4-01 to 4-05 (loop), and WF 5-01 to 5-07. General weather conditions encountered during the above-referenced inspection include high 60° F temperatures with generally sunny skies on May 14, 2012 and low 50° F temperatures with generally sunny skies on May 16, 2012.

Regulation of Wetlands:

Wetlands and watercourses are regulated by local, state and federal regulations, with each regulatory agency differing slightly in their definition and regulatory authority of resource areas, as further discussed below. The proposed Facility is under the exclusive jurisdiction of the State of Connecticut Siting Council and therefore exempt from local regulation, although local wetland regulations are considered by the Siting Council. If wetlands are identified on the Subject Property and direct impact is proposed, those wetlands may be considered Waters of the United States and therefore the activity may also be subject to jurisdiction by the U.S. Army Corps of Engineers ("ACOE") New England District.

Town of Colebrook: The Town of Colebrook regulates activities within wetlands and watercourses and within 75 feet of wetlands and watercourses through administration of the Connecticut Inland Wetlands and Watercourses Act (IWWA).

State of Connecticut: **Freshwater Wetlands:** The IWWA requires the regulation of activities affecting or having the potential to affect wetlands under Sec. 22a-36 through 22a-45 of the Connecticut General Statutes. The IWWA is administered through local municipalities. The IWWA defines wetlands as areas of poorly drained, very poorly drained, floodplain, and alluvial soils, as delineated by a soil scientist. Watercourses are defined as bogs, swamps, or marshes, as well as lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent. Intermittent watercourse determinations are based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus; (2) the presence of standing or flowing water for a duration longer than a particular storm incident; and (3) the presence of hydrophytic vegetation.

ACOE: The U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act. Waters of the United States are navigable waters, tributaries to navigable waters, wetlands adjacent to those waters, and/or isolated wetlands that have a demonstrated interstate commerce connection. The ACOE Wetlands Delineation Manual defines wetlands as "[t]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. This section provides that the construction of any structure in or over any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been approved by the ACOE.

Soil Description:

Soil types encountered throughout the Site were generally consistent with digitally available soil survey information obtained from the Natural Resources Conservation Service ("NRCS")[1]. The exception is the lack of mapped wetland soils on the Site by NRCS, which was field identified as Ridgebury fine sandy loam. The non-wetland soils were examined along the wetland boundary and more distant upland areas during the delineation, including the proposed Facility location. They are dominated by Woodbridge fine sandy loam and Paxton and Montauk fine sandy loams. Detailed descriptions of wetland and upland soil types are provided below.

Wetland Soils:

The **Leicester** series consists of very deep, poorly drained loamy soils formed in friable till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume to a depth of 40 inches and up to 50 percent below 40 inches. Leicester soils have a water table at or near the surface much of the year.

The **Ridgebury** series consists of very deep, somewhat poorly and poorly drained soils formed in glacial till derived mainly from granite, gneiss and schist. They are nearly level to gently sloping soils in low areas in uplands. This series includes phases that are poorly drained and the wetter part of somewhat poorly drained. A perched, fluctuating water table above the dense till saturates the solum to or near the surface for 7 to 9 months of the year.

The **Whitman** series consists of very deep, very poorly drained soils formed in glacial till derived mainly from granite, gneiss, and schist. They are nearly level or gently sloping soils in depressions and drainageways on uplands. Depth to dense till is 12 to 30 inches. Some pedons have organic horizons overlying the A horizon. They are fibric hemic or sapric material, and are up to 5 inches thick. Whitman soils are found on nearly level and gently sloping soils in depressions and in drainage ways of glacial uplands. Slopes are typically 0 to 2 percent but range up to 8 percent where wetness is due to seepage water. This soil is very poorly drained. A perched water table, or excess seepage water, is at or near the surface for about 9 months of the year.

Upland Soils:

The **Paxton** and **Montauk** series consists of very deep, well drained loamy soils formed in subglacial till derived primarily from granitic materials. The soils formed in thick moderately coarse or medium textured glacial till mantles underlain by firm to dense sandy till (known locally as hardpan). They are nearly level to steep soils on till plains, hills, and drumlins. The depth to the densic contact and material is commonly 20 to 40 inches but the range includes 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Permeability is moderate or moderately rapid in the solum and slow or moderately slow in the substratum.

The **Woodbridge** series consists of moderately well drained loamy soils formed in compact, subglacial till. They are very deep to bedrock. They are nearly level to moderately steep soils on till plains, hills, and drumlins. Depth to the compact layer (hardpan) is 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Woodbridge soils have a seasonal high water table on top of the compact layer (18-40") from fall through late spring.

[1] NRCS Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/, accessed on May 13, 2013.

Wetlands Discussion:

Wetland 1 Classification Summary:

Wetland 1[2] (WF 1-01 to 1-08)	**System** Palustrine	**Subsystem**	**Class** Forested	**Subclass** Broad-leaved Deciduous	**Water Regime** Saturated	**Special Modifier**
Watercourse Type (none)	Perennial ☐	Intermittent ☐	Tidal ☐	**Special Aquatic Habitat** (none)	Vernal Pool ☐	Other ☐

Wetland 1 Description:

Wetland 1 is a relatively small, isolated hillside seep depressional wetland system formed in dense glacial till. Portions of Wetland 1 are located off the Subject Property to the south across an existing stone wall. This feature is located approximately 475 feet from the proposed Facility.

Wetland 1 Dominant Vegetation:

Dominant Wetland Species Common Name (*Latin Name*)	**Dominant Adjacent Upland Species** Common Name (*Latin Name*)
Green Ash (*Fraxinus pennsylvanica*)	Eastern Hemlock (*Tsuga canadensis*)
Eastern Hemlock (*Tsuga canadensis*)	Black Birch (*Betula lenta*)
Black Birch (*Betula lenta*)	American Beech (*Fagus grandifolia*)
Red Maple (*Acer rubrum*)	Canada Mayflower (*Maianthemum candense*)
	Mountain Maple (*Acer spicatum*)
	Wintergreen (*Gaultheria procumbens*)

Wetland 2 Classification Summary:

Wetland 2 (WF 2-01 to 2-13)	**System** Palustrine	**Subsystem**	**Class** Forested	**Subclass** Broad-leaved Deciduous	**Water Regime** Saturated	**Special Modifier** Partly Drained
Watercourse Type (none)	Perennial ☐	Intermittent ☐	Tidal ☐	**Special Aquatic Habitat** (potential)	Vernal Pool ☒	Other ☐

Wetland 2 Description:

Wetland 2 is an isolated depressional wetland system formed in bedrock controlled soils. Northern portions of Wetland 2 have had numerous trees blown down, resulting in a re-initiation of the understory vegetation. Wetland 2 is located approximately 175 feet from the proposed Facility, and approximately 30 feet from the proposed access road. This wetland may seasonally pond water that could result in support of vernal pool habitat. However, no use of this wetland by obligate or facultative vernal pool species for breeding was observed during the various wetland investigation dates; no ponding was observed on May 14th or 16th but ponding was observed on May 30th.

[2] Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. http://www.npwrc.usgs.gov/resource/wetlands/classwet/index.htm - contents.

Wetland 2 Dominant Vegetation:

Dominant Wetland Species Common Name (*Latin Name*)	**Dominant Adjacent Upland Species** Common Name (*Latin Name*)
Cinnamon Fern (*Osmunda cinnamomea*)	Eastern Hemlock (*Tsuga canadensis*)
Eastern Hemlock (*Tsuga canadensis*)	Black Birch (*Betula lenta*)
Black Birch (*Betula lenta*)	American Beech (*Fagus grandifolia*)
Red Maple (*Acer rubrum*)	Canada Mayflower (*Maianthemum candense*)
	Mountain Maple (*Acer spicatum*)
	Wintergreen (*Gaultheria procumbens*)

Wetland 3 Classification Summary:

Wetland 3 (WF 3-01 to 3-100)	**System** Palustrine	**Subsystem**	**Class** Forested	**Subclass** Broad-leaved Deciduous	**Water Regime** Seasonally Flooded	**Special Modifier**
Watercourse Type	Perennial ☐	Intermittent ☒	Tidal ☐	**Special Aquatic Habitat** (potential cryptic habitat)	Vernal Pool ☒	Other ☐

Wetland 3 Description:

Wetland 3 begins near the southeast property corner, paralleling the east property boundary along Smith Hill Road, as a broad depressional wetland seep system. This southern portion of Wetland 3 is characterized by Eastern hemlock "hummock-hollow" wetland system topography (typical to northwestern Connecticut) that potentially supports cryptic vernal pool habitat. The south end of Wetland 3 flows northwest to southeast but then turns from southeast to northwest as a drainage divide exists within this wetland system. As the gradient increases further to the northwest, Wetland 3 transitions to a well-defined intermittent stream with a narrow, well-defined bank. Occasionally, the intermittent stream flows diverge resulting in gutter flow along Smith Hill Road. Two catch basins along the west side of Smith Hill Road collect this runoff (along with road runoff) into a closed drainage system that is discharged to areas east of Smith Hill Road. At the northern extent of Wetland 3, a hillside seep forms as a result of an old road cut. This hillside seep forms mid-slope as it intercept the seasonal high groundwater table and flows downslope to the north, eventually draining into Smith Hill Road.

Wetland 3 Dominant Vegetation:

Dominant Wetland Species Common Name (*Latin Name*)	**Dominant Adjacent Upland Species** Common Name (*Latin Name*)
Eastern Hemlock (Tsuga canadensis)	Eastern Hemlock (Tsuga canadensis)
Sensitive Fern (*Onoclea sensibilis*)	Black Birch (*Betula lenta*)
Winterberry (*Ilex verticillata*)	American Beech (*Fagus grandifolia*)
Yellow Birch (*Betula alleghaniensis*)	Canada Mayflower (*Maianthemum candense*)
Royal Fern (*Osmunda regalis*)	Mountain Maple (*Acer spicatum*)
Canada Mayflower (*Maianthemum candense*)	Wintergreen (*Gaultheria procumbens*)
Red Maple (*Acer rubrum*)	
Sensitive fern (*Onoclea sensibilis*)	
White Oak (*Quercus alba*)	

Wetland 4 Classification Summary:

Wetland 4 (WF 4-01 to 4-05)	**System** Palustrine	**Subsystem**	**Class** Forested	**Subclass** Broad-leaved Deciduous	**Water Regime** Saturated	**Special Modifier** Partly Drained
Watercourse Type (none)	Perennial ☐	Intermittent ☐	Tidal ☐	**Special Aquatic Habitat** (none)	Vernal Pool ☐	Other ☐

Wetland 4 Description:

Wetland 4 is a very small, isolated depressional wetland feature located mid-slope, formed in dense glacial till. Wetland 4 is located approximately 50 feet from the proposed Facility. Evidence in the form of relic charcoal fragments found in multiple soil test pits indicates that grades in this area may have been altered in the creation of charcoal pit. The cut into the slope to create the possible charcoal pit likely resulted in the creation of this small wetland pocket through interception of the seasonally high groundwater table.

Wetland 4 Dominant Vegetation:

Dominant Wetland Species Common Name (*Latin Name*)	**Dominant Adjacent Upland Species** Common Name (*Latin Name*)
American Beech (*Fagus grandifolia*)	Eastern Hemlock (*Tsuga canadensis*)
	Black Birch (*Betula lenta*)
	American Beech (*Fagus grandifolia*)
	Canada Mayflower (*Maianthemum candense*)
	Mountain Maple (*Acer spicatum*)
	Wintergreen (*Gaultheria procumbens*)

Wetland 5 Classification Summary:

Wetland 5 (WF 5-01 to 5-07)	**System** Palustrine	**Subsystem**	**Class** Forested	**Subclass** Broad-leaved Deciduous	**Water Regime** Saturated	**Special Modifier**
Watercourse Type (none)	Perennial ☐	Intermittent ☐	Tidal ☐	**Special Aquatic Habitat** (none)	Vernal Pool ☐	Other ☐

Wetland 5 Description:

Wetland 5 is a relatively small, hillside seep wetland system formed in dense glacial till. Wetland 5 generally begins as a seasonal seep breakout as it flows to the north. This feature is located approximately 350 feet from the proposed Facility.

Wetland 5 Dominant Vegetation:

Dominant Wetland Species Common Name (*Latin Name*)	**Dominant Adjacent Upland Species** Common Name (*Latin Name*)
Cinnamon Fern (*Osmunda cinnamomea*)	Eastern Hemlock (*Tsuga canadensis*)
Eastern Hemlock (*Tsuga canadensis*)	Black Birch (*Betula lenta*)
Black Birch (*Betula lenta*)	American Beech (*Fagus grandifolia*)
Red Maple (*Acer rubrum*)	Canada Mayflower (*Maianthemum candense*)
	Mountain Maple (*Acer spicatum*)
	Wintergreen (*Gaultheria procumbens*)

Summary:

Based on APT's understanding of the proposed AT&T development, direct impact to wetlands is being proposed in order to cross Wetland 3, a narrow wetland feature, with the proposed access drive. Design of this wetland crossing has not been completed as of the drafting of this report. The proposed Facility and access drive are located in proximity to other wetland resources located within the Study Area. Therefore, APT will provide an evaluation of the project's potential wetland impacts under separate cover following review of the project's site plans, including grading plans and the wetland crossing design.

If you have any questions regarding the above-referenced information, please feel free to contact me at (860) 984-9515 or at dgustafson@allpointstech.com.

Sincerely,

All-Points Technology Corporation, P.C.

Delineation Performed by:

Matthew Gustafson

Registered Soil Scientist

Delineation Reviewed by:

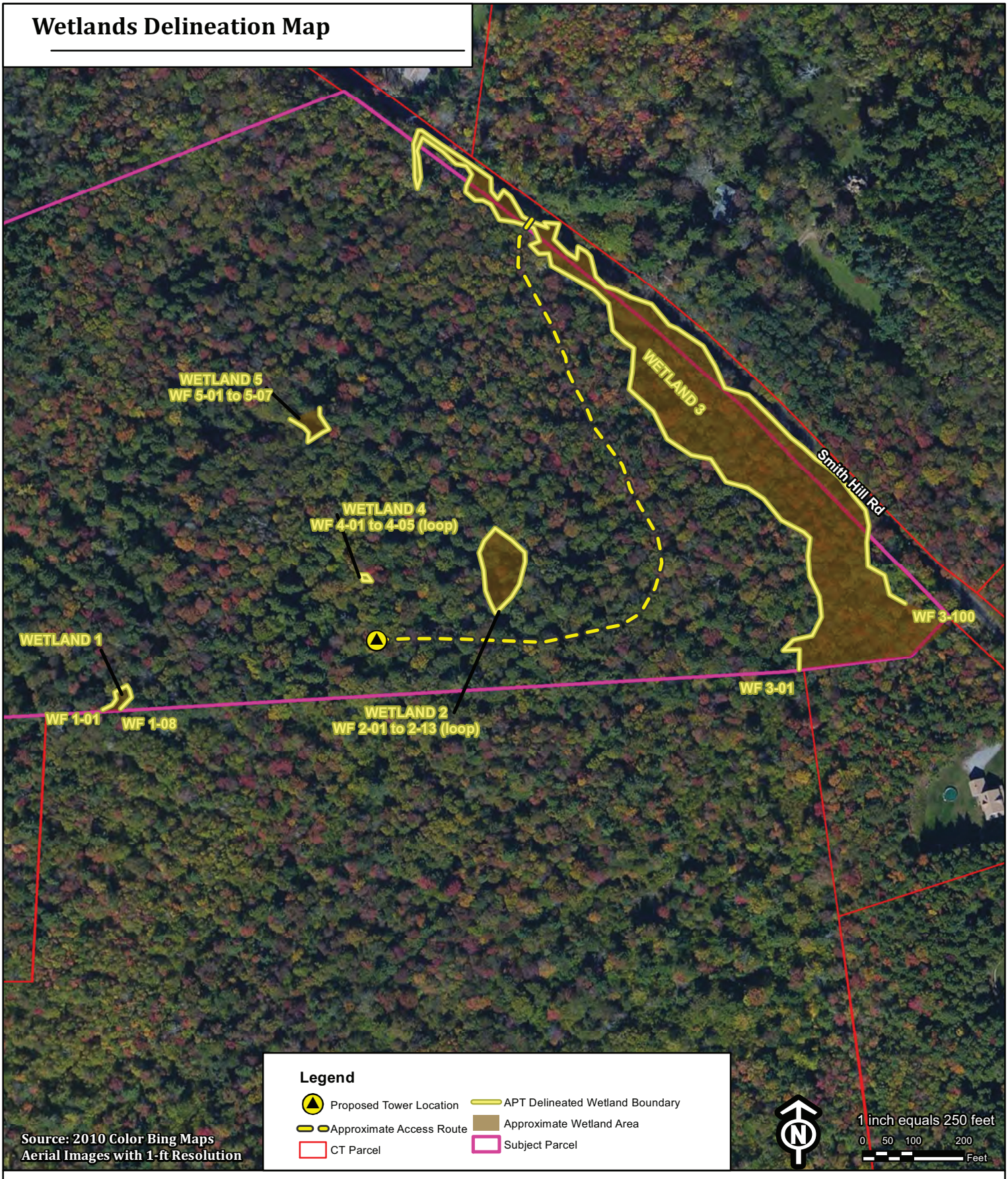
Dean Gustafson

Professional Soil Scientist

Enclosure

Wetlands Delineation Map

Wetlands Delineation Map



Proposed AT&T Wireless Communications Facility
522 Colebrook Road
Colebrook, Connecticut

at&t

ALL-POINTS TECHNOLOGY CORPORATION

Friday, June 14, 2013

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