STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

In Re:

APPLICATION OF CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A WIRELESS TELECOMMUNICATIONS FACILITY LOCATED AT 723 LEETES ISLAND ROAD IN THE TOWN OF BRANFORD, CONNECTICUT	)	DOCKET NO. 413
	)	April 14, 2011

NEW CINGULAR WIRELESS PCS, LLC ("AT&T")
RESPONSES TO TOWN OF BRANFORD INTERROGATORIES

The following Interrogatories are directed to the Applicant and other carrier intervenors as appropriate by the Town of Branford. The Term "you" refers to the Applicant or Intervenors as may be applicable.

Q1. What propagation model does the applicant employ to determine calculated coverage?

A1. CRC Predict 2.0.

Q2. What is the frequency band that is depicted in these plots?

A2. Cellular (850 MHz).

Q3. What clutter model and what terrain data base were utilized in these calculations?

A3. Clutter and Terrain databases are provided by the United States Geological Survey (USGS).

Q4. What effective radiated power and antenna type along with beam tilt, if applicable, were utilized in these calculations?

A4. The RF parameters of existing and proposed sites are shown in the chart included in Attachment 1.

Q5. Were drive tests ("scan tests") that would verify the results of the calculated plots conducted? If so, please provide the data sets which were generated by the tests and note

whether the data needs to be corrected for variables including, but not limited to, antenna position, gain and line loss.

A5. A drive test of existing coverage was performed. A plot of this drive test is included in Attachment 2.

Q6. Have you performed continuous wave ("CW") tests from the proposed site or any other site either identified or considered?

A6. No.

Q7. In calculating the expected coverage from the proposed site, what antenna centerlines, antenna types and effective radiated power did the applicant assume would be put in use?

A7. Please see A4 and Attachment 1.

Q8. Have you performed a minimum height analysis to determine the minimum antenna centerline that it requires to meet its alleged coverage needs?

A8. Yes. Coverage analysis was performed at the reduced height of 70 feet (the next feasible lower height on the proposed structure). The reduced height resulted in significant loss of coverage along State Highway 146 northwest of the proposed site.

Q9. By what method was it determined that identified alternate sites did not meet the needs of the Applicant? If studies were conducted to confirm the utility of the alternate sites, please provide copies of those studies?

A9. Please see the Applicant's response.

Q10. What antenna centerlines, antenna types and effective radiated power did the applicant assume to determine expected coverage from alternate sites indicated?

A10. Please see the Applicant's response.

Q11. Is there another combination of alternate sites that could be utilized to achieve the alleged coverage needs?

A11. Please see the Applicant's response.

Q12. What alternate means of achieving the alleged coverage needs have been explored? Please provide any studies upon which you relied in making this determination.

A12. Please see the Applicant's response.

Q13. Does the applicant possess any data that support either dropped calls, customer complaints or other switch based or customer service representative based information that supports its claim of lack of service in the entire area that it claims it has a coverage issue?

A13. It is important to note that dropped call data is not necessarily a reliable indicator of an inadequate network for various reasons. Indeed:

- Many users become familiar with areas of poor coverage or no service and stop making calls in these areas or otherwise purposely discontinue calla before entering into an area of no or poor service;
- Since mobile communication is a two-way connection, if a site cannot "hear" a mobile unit (for example a handset), it will not register as a failure if that link is problematic; and
- Dropped calls are a partial indicator of quality - sometimes you can hold a call but the person on the other end cannot hear you.

This type of spotty and unreliable coverage currently in this area is not acceptable for users of the AT&T network. Overall, reliable coverage relates directly to the customer experience and AT&T customers are highly mobile, making calls from their vehicles, their places of business and their homes. In addition, many customers are now substituting cell phones for their landline phone service as their only means of voice communications. To properly serve these customers, the service must be reliable, particularly since the service carries 911 calls.

Q14. Are there other sites in Branford at which you are considering developing wireless communications facilities? Please describe.

A14. Yes. AT&T will co-locate on the 125' monopole under construction at 123 Pine Orchard Road (Docket No. 386) and install antennas at a centerline height of 112' AGL. AT&T, in conjunction with North Atlantic Towers, is proposing a facility at 171 Short Beach Road. A map showing of the locations of these sites and existing AT&T sites is included as Attachment 3.

Q15. Please name all carriers with whom you have reason to believe will co-locate on the proposed facility.

A15. Please see the Applicant's response.

Q16. Please identify the size of the search ring and explain why that radius was chosen and where the ring was centered.

A16. In this area, AT&T began with an approximately ¾ mile radius (1.5 mile diameter) search ring centered in the vicinity of the intersection of Leetes Island Road (Rt. 146) and Saw Mill Road.

A17. What is the percent of dropped calls in the target area?

A17. Please see A13.

Q18. If you conducted any drive tests, please produce the results of those drive tests?

A18. Please see A5 and Attachment 2.

Q19. In any coverage simulations what angle of downtilt was assumed for each facility depicted in the coverage map generation?

A19. Please see A4 and Attachment 1.

Q20. Please describe the methods used by your visual impact consultant to calculate seasonal visibility.

A20. Please see the Applicant's response.

A21. What studies did you undertake to eliminate alternate technologies from consideration given that they are of lesser impact to surrounding property uses?

Q21. Please see the Applicant's response.

Q22. Who conducted the feasibility studies on alternate technologies?

A22. Please see the Applicant's response.

A23. Please provide the feasibility studies or data by which you determined the lack of feasibility?

A23. Please see the Applicant's response.

Q24. Have you employed stealth technology including flush mounting, combined antenna arrays (single antennas which will serve LTE, PCS and 850MHz), and close centerline to centerline antennas (close meaning < 8ft)? If so, which of these technologies and where?

A24. Please see the Applicant's response.

Q25. Is there a particular standard or decibel signal strength which you believe is necessary for adequate coverage for PCS (1900MHz) service in the target coverage area? For 850MHz service?

A25. For 700 MHz AT&T designs its network based on 850 MHz. Overall, AT&T's analysis and experience in this part of Connecticut shows that -74 dBm for in-building coverage and -82 dBm for in-vehicle coverage are appropriate design parameters for reliable service.

Q26. What particular dBm signal strength do you believe is necessary for in-vehicle coverage for PCS (1900MHz), 700 MHz and 850MHz in the target area?

A26. Please see A25.

Q27. In the proposed coverage maps submitted by the Applicant, what loss margin was assumed in the modeling?

A27. This information is considered proprietary and confidential by AT&T.

Q28. For any signal strength predicted by your coverage modeling, what percent-of-locations is assumed for reliability? (e.g: 85% of locations, 95%?)

A28. This information is considered proprietary and confidential by AT&T.

Q29. Are you assuming that your target coverage is 'reliable service' or "adequate coverage"? Do these two terms differ? How do you define these two terms for the purposes of meeting the goals of the Telecommunications Act of 1996?

A29. This question as drafted calls for legal conclusions and as such can be objected to. AT&T's objective in co-location on this site is to close a gap in its reliable service.

With respect to the Telecommunications Act of 1996, the first paragraph of the Act is:

> An Act
>
> To promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.

Consumer demand has made it necessary for wireless carriers to provide higher levels of service in order to overcome the signal losses.

With more customers using wireless as their sole means of communication, the wireless operator must also achieve levels of coverage reliability commensurate with being the provider of E911 service.

Customers are also demanding high speed wireless data services and carriers must respond by equipping their networks with the increased signal coverage necessary to reliably provide this service.

All these factors have combined to raise the bar for wireless service and require more facilities to provide the capacity and coverage levels necessary to meet consumer demand.

Q30. How many residences (as opposed to acres) will have year round views of the proposed towers? Seasonal views?

A30. Please see the Applicant's response.

Q31. Your visual impact analysis indicates that a portion of the visibility of the tower will occur over open water. Did you simulate any of the views from open water or in any way determine the impact to the scenic views of tourists and residents using the open water for recreation?

A31. Please see the Applicant's response.

Q32. What is the percentage of dropped calls and ineffective attempts, as compared to the remainder of the Market Trading Area for Branford?

A32. Please see A13.

Q33. What is the lowest height you can construct a tower to improve coverage (with and without co-located carriers)?

A33. AT&T's minimum height to achieve its coverage objectives from this site is 100' AGL.

A34. Can you provide separate proposed and existing coverage maps depicting the coverage from the target levels up to -88dBm with the levels at -3dBm intervals (e.g.: -74 to -77dBm, -77dBm to -80dBm, etc)?

A34. The requested plots are included in Attachment 4.

Q35. Please identify how many other future sites will be necessary, at a minimum to accomplish adequate coverage for Branford.

A35. Please see A14 for AT&T's other sites to provide service to the shore areas in Branford.

Q36. Please identify any sites in addition to the Proposed Facility at which you intend to seek permission from the Siting Council to construct or modify a facility in the Branford area (Branford and adjacent towns)?

A36. As noted in A14, one site is proposed in the Short Beach area. While technology. Frequency and demand can always change the need for sites. That is the extent of AT&T's current and foreseeable build-out plan for Branford.

Q37. Will construction practices for the proposed facility conform to local building and zoning ordinances and regulations?

A37. Please see the Applicant's response.

Q38. Can you provide coverage propagation maps and isolated propagation maps for the proposed facility on clear plastic overlays using a scale that matches that of the Application?

A38. The requested plots are included in Attachment 5.

Q39. What is the minimum dBm signal strength to accomplish hand off of a call to an adjacent cell for 700MHz, 850 MHz and 1900 MHz?

A39. The in-building and in-vehicle thresholds used by AT&T, as noted in A25, provides sufficient handover margin.

Q40. What are the coordinates, antenna heights, antenna types, orientations, tilt, and EIRP for all of your existing wireless facilities in Branford and adjacent towns which are directed into Branford?

A40. Please see A4 and Attachment 1.

CERTIFICATE OF SERVICE

I hereby certify that on this day, a copy of the foregoing was sent by electronic mail and overnight mail to the Connecticut Siting Council and:

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Dated: April 14, 2011

Lucia Chiocchio

Lucia Chiocchio

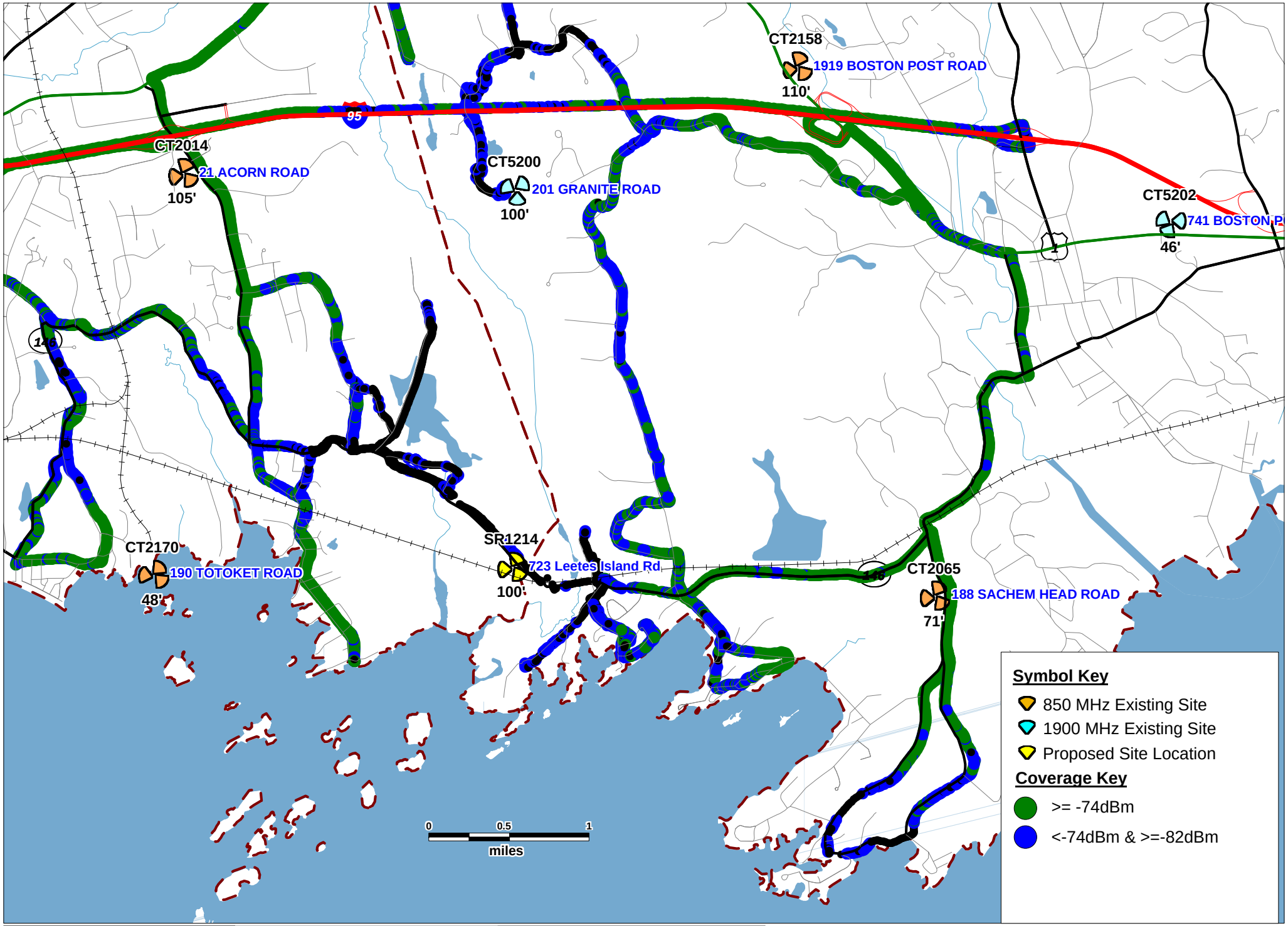
cc: Michele Briggs, AT&T
David Vivian, SAI
Anthony Wells, C Squared Systems
Scott Pollister, C Squared Systems

ATTACHMENT 1

Attachment 1

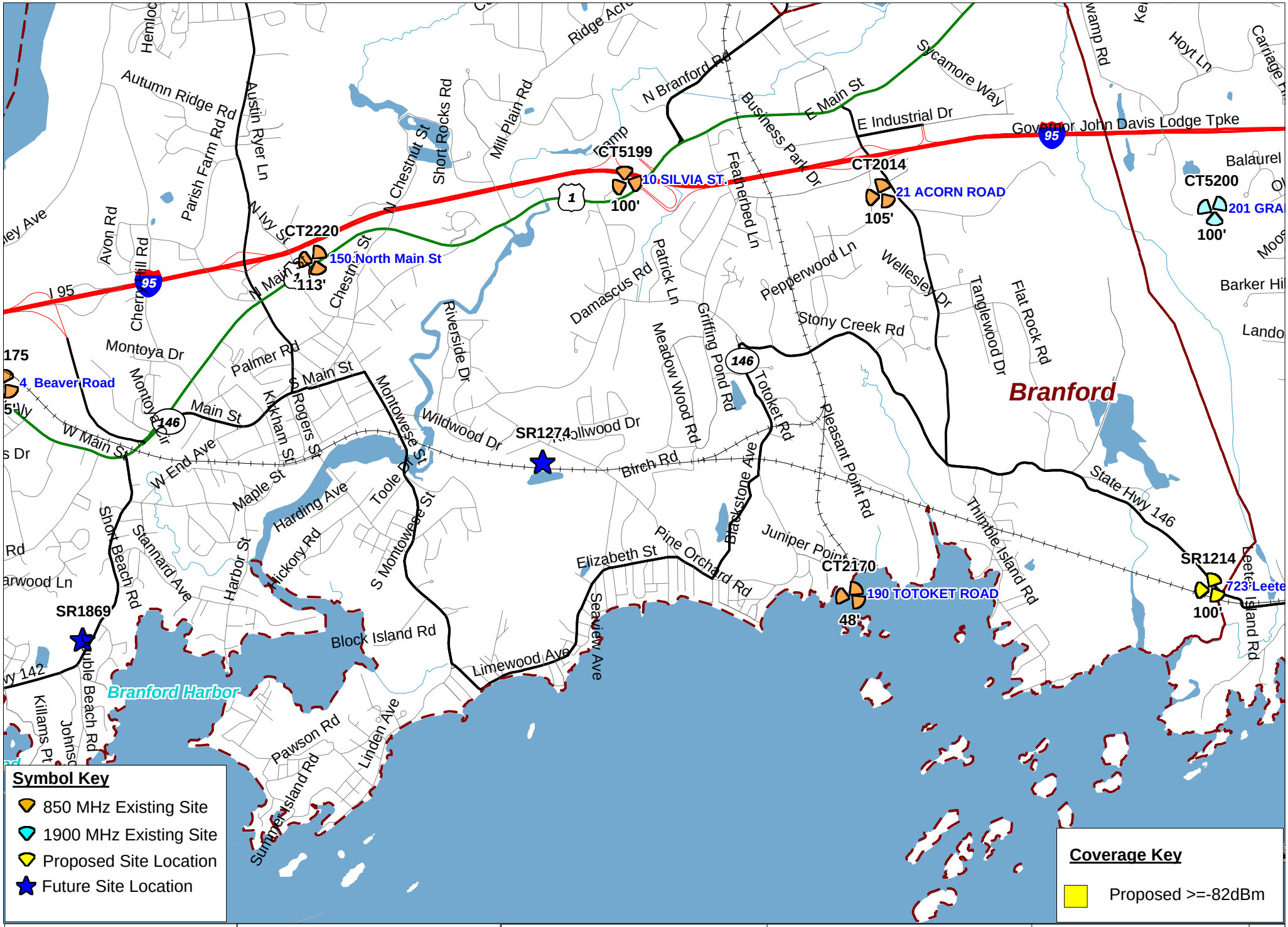
Site_Id	Antenna Id	T_Height	T_Power	Antenna_File	Antenna Azimuth	Antenna Tilt	Town	Address
CT2014_C	1	105	52.85	777000_850_04T	143	0	BRANFORD	21 ACORN ROAD
CT2014_C	2	105	50.85	777000_850_04T	263	0	BRANFORD	21 ACORN ROAD
CT2014_C	6	105	49.35	777000_850_04T	23	0	BRANFORD	21 ACORN ROAD
CT2015_C	1	153	55.11	777000_850_10T	143	0	Branford	405 Brushy Plain Rd
CT2015_C	2	153	50.61	777000_850_10T	263	0	Branford	405 Brushy Plain Rd
CT2015_C	6	153	52.11	777000_850_04T	23	0	Branford	405 Brushy Plain Rd
CT2017_C	1	152	50.00	7770_00_00_850	143	0	GUILFORD	10 TANNER MARSH ROAD
CT2017_C	2	152	50.00	7770_00_00_850	263	-3	GUILFORD	10 TANNER MARSH ROAD
CT2017_C	3	152	50.00	7770_00_00_850	22	-2	GUILFORD	10 TANNER MARSH ROAD
CT2065_C	1	71	52.51	777000_850_04T	30	0	GUILFORD	188 SACHEM HEAD ROAD
CT2065_C	2	71	51.92	777000_850_04T	270	0	GUILFORD	188 SACHEM HEAD ROAD
CT2065_C	6	71	54.51	777000_850_04T	150	0	GUILFORD	188 SACHEM HEAD ROAD
CT2158_C	1	110	51.19	777000_850_07T	23	0	GUILFORD	1919 BOSTON POST ROAD
CT2158_C	5	110	51.19	777000_850_07T	143	0	GUILFORD	1919 BOSTON POST ROAD
CT2158_C	6	110	53.19	777000_850_07T	263	0	GUILFORD	1919 BOSTON POST ROAD
CT2170_C	1	48	50.00	MB96RR900200_BL	283	0	BRANFORD	190 TOTOKET ROAD
CT2170_C	2	48	50.00	MB96RR900200_BL	45	0	BRANFORD	190 TOTOKET ROAD
CT2170_C	3	48	50.00	MB96RR900200_BL	135	0	BRANFORD	190 TOTOKET ROAD
CT2220_C	1	113	50.38	DUO1417-8686-0c	44	0	Branford	150 North Main St
CT2220_C	4	113	48.38	DUO1417-8686-0c	284	-2	Branford	150 North Main St
CT2220_C	7	113	50.88	DUO1417-8686-0c	164	-6	Branford	150 North Main St
CT5199_C	4	100	47.34	777000_850_02T	250	0	Branford	10 SILVIA ST.
CT5199_C	5	100	50.84	777000_850_02T	110	0	Branford	10 SILVIA ST.
CT5199_C	6	100	54.84	777000_850_02T	0	0	Branford	10 SILVIA ST.
CT5200_P	1	100	57.51	7770_00_1900_06T	180	0	Guilford	201 GRANITE ROAD
CT5200_P	2	100	57.51	7770_00_1900_02T	300	0	Guilford	201 GRANITE ROAD
CT5200_P	3	100	57.51	7770_00_1900_02T	60	0	Guilford	201 GRANITE ROAD
CT5202_P	1	46	54.30	7770_00_1900_02T	210	0	Guilford	741 BOSTON POST RD
CT5202_P	2	46	55.62	7770_00_1900_02T	300	0	Guilford	741 BOSTON POST RD
CT5202_P	3	46	53.96	7770_00_1900_02T	90	0	Guilford	741 BOSTON POST RD
SR1214_C	1	100	50.88	7770_00_00_850	30	0	Branford	723 Leetes Island Rd
SR1214_C	2	100	50.38	7770_00_00_850	150	0	Branford	723 Leetes Island Rd
SR1214_C	3	100	50.38	7770_00_00_850	270	0	Branford	723 Leetes Island Rd
SR1214_P	1	100	50.88	7770_00_00_850	30	0	Branford	723 Leetes Island Rd
SR1214_P	2	100	50.38	7770_00_00_850	150	0	Branford	723 Leetes Island Rd
SR1214_P	3	100	50.38	7770_00_00_850	270	0	Branford	723 Leetes Island Rd

ATTACHMENT 2



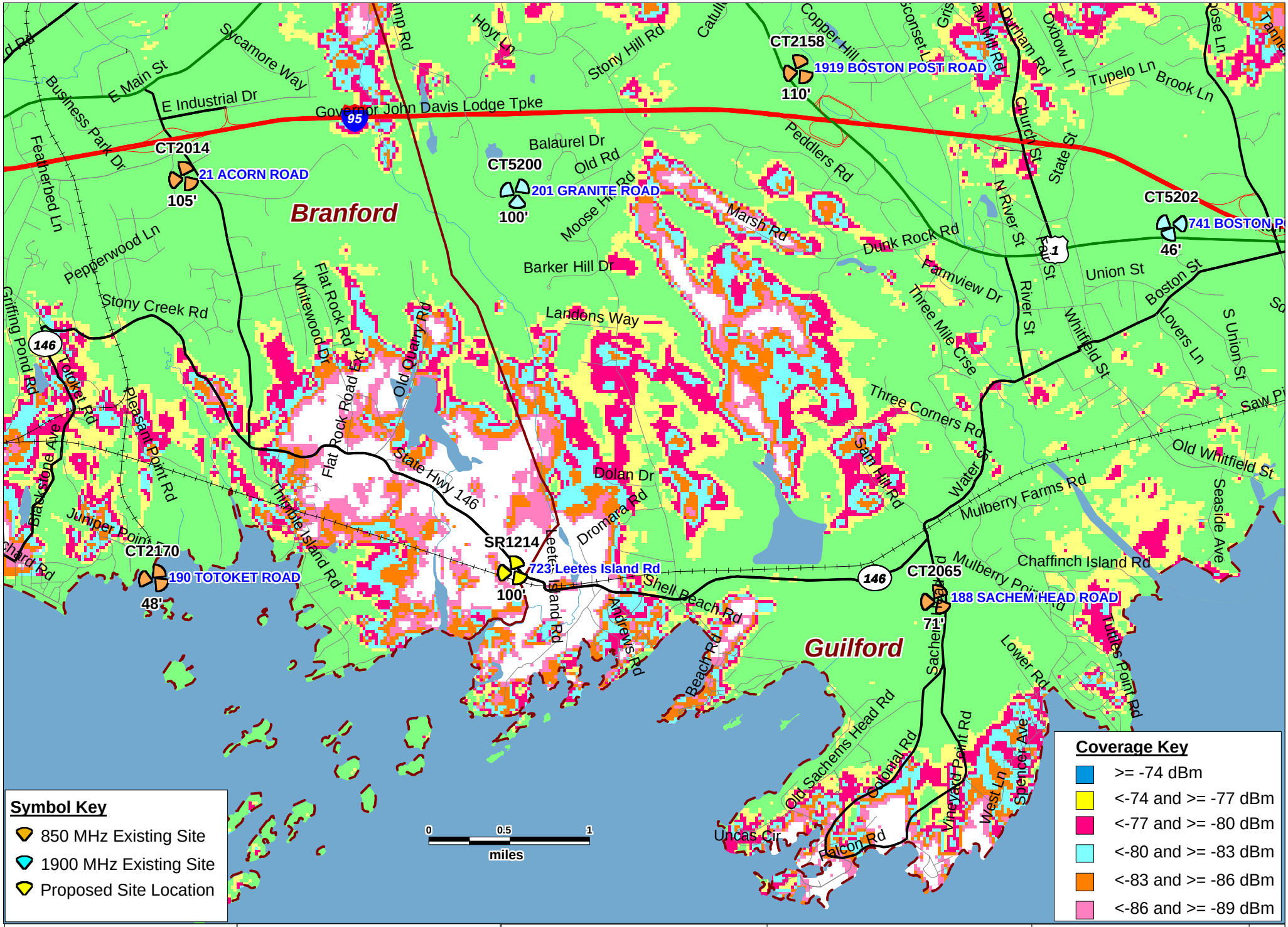
Drive Test (Driven Date: 01/21/2011)	**Branford**	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE: 04/12/2011 REV 0

ATTACHMENT 3

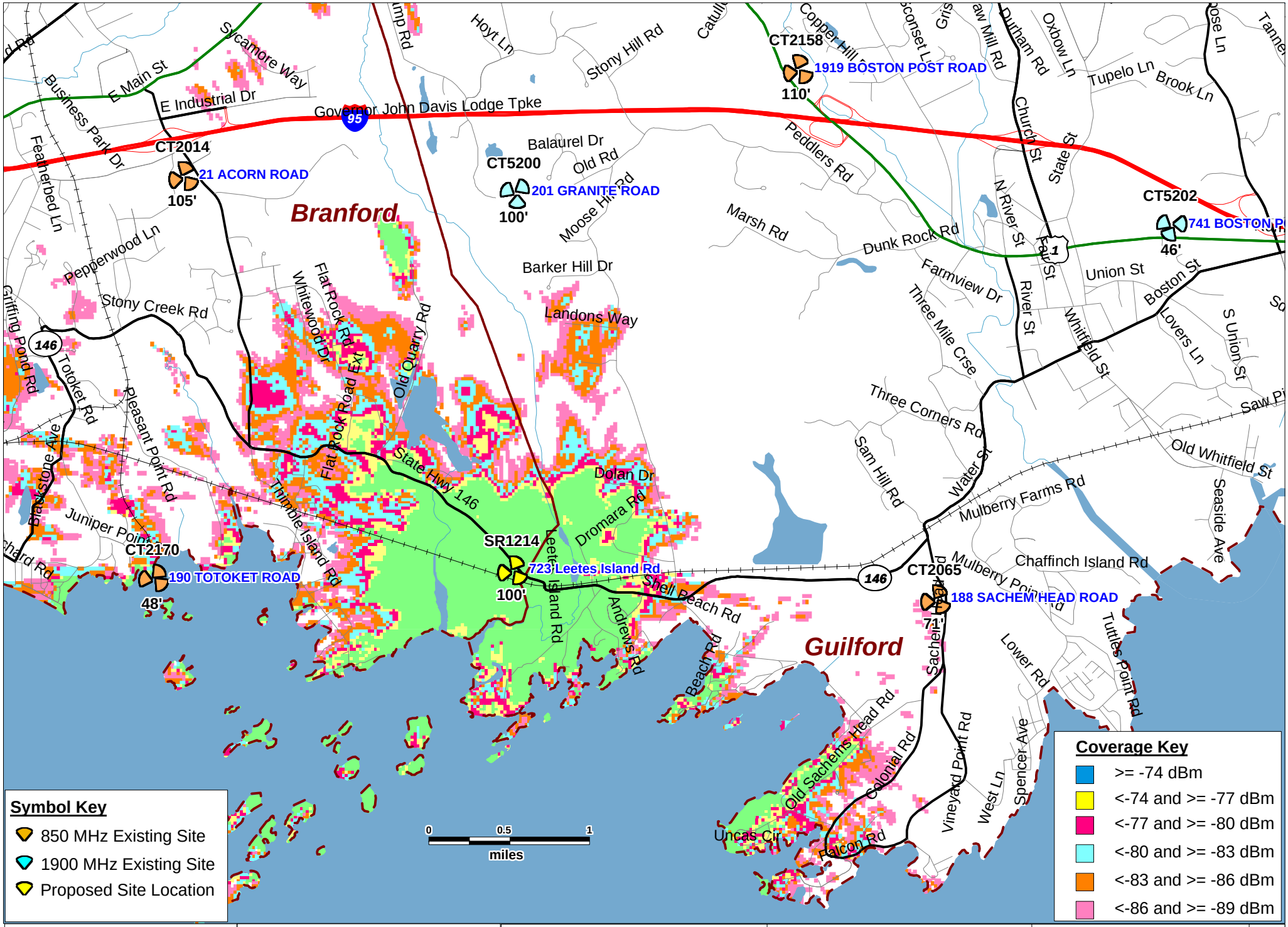


Existing, Proposed & Future Site Locations	**Branford**	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/14/2011 REV 0

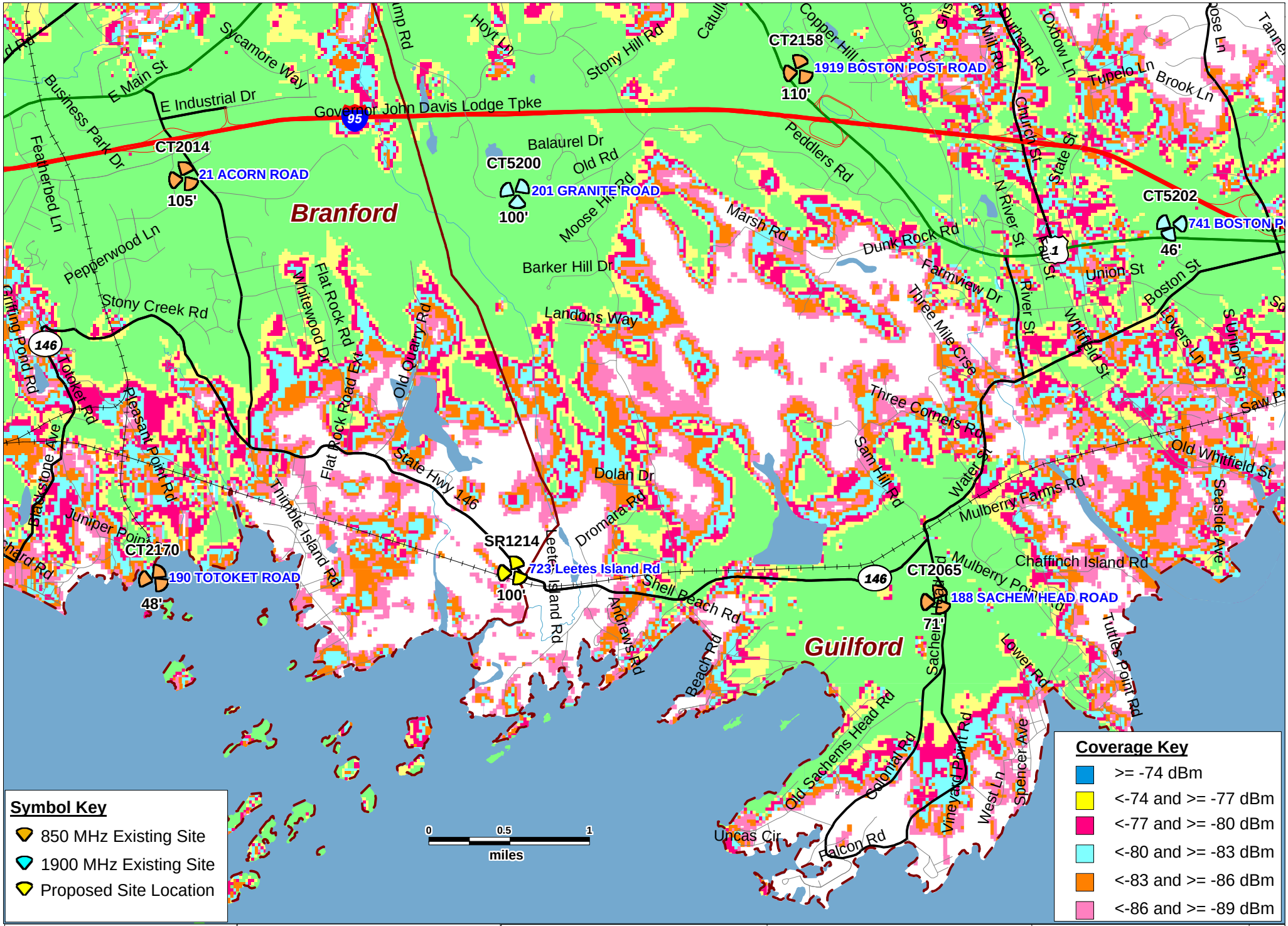
ATTACHMENT 4



Existing Cellular Coverage	Branford	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/12/2011 REV 0



Proposed Cellular Coverage @ 100 ft AGL	Branford	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/12/2011 REV 0



Existing PCS Coverage

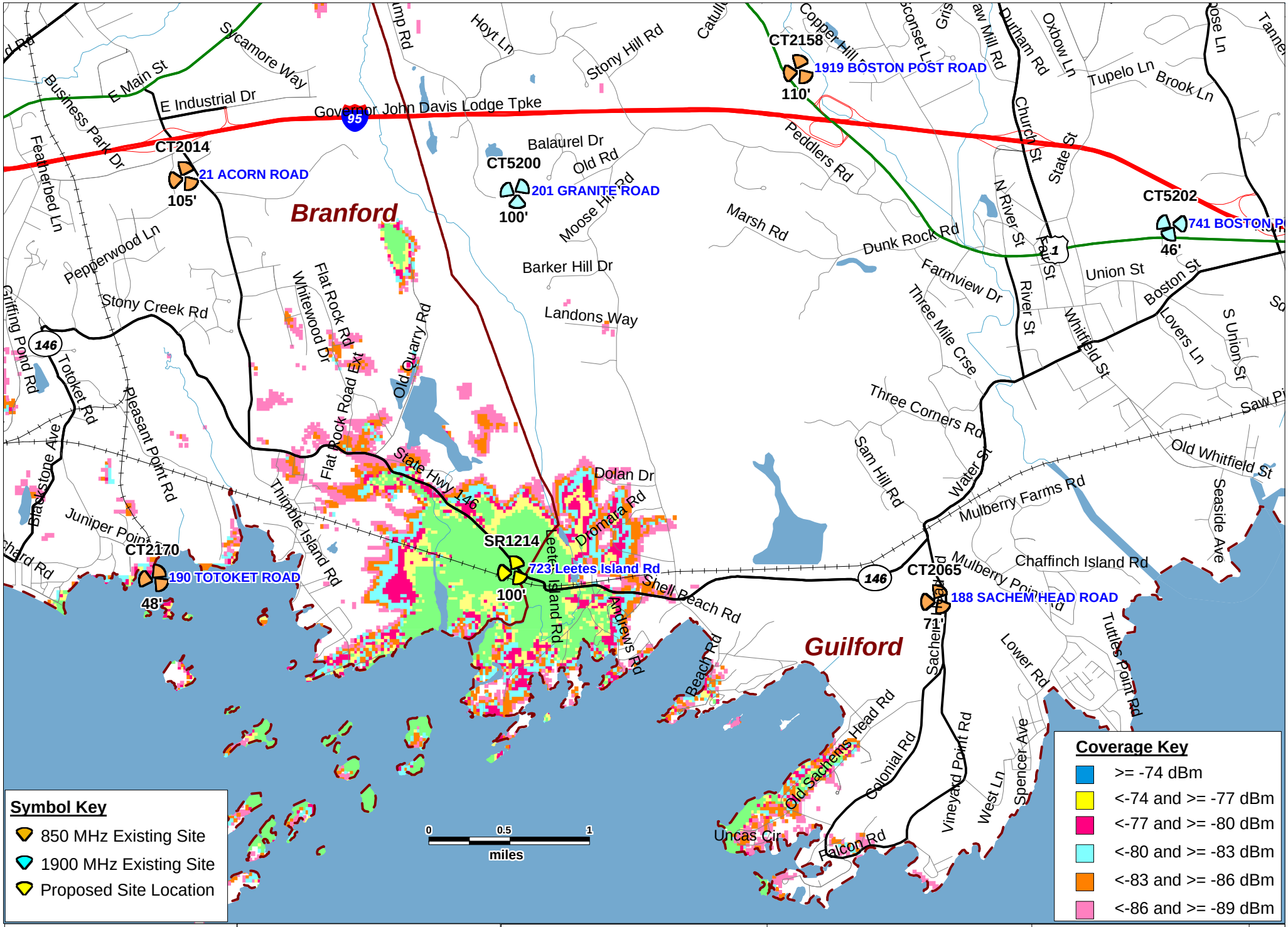
Branford

723 Leetes Island Rd
Branford, CT

at&t

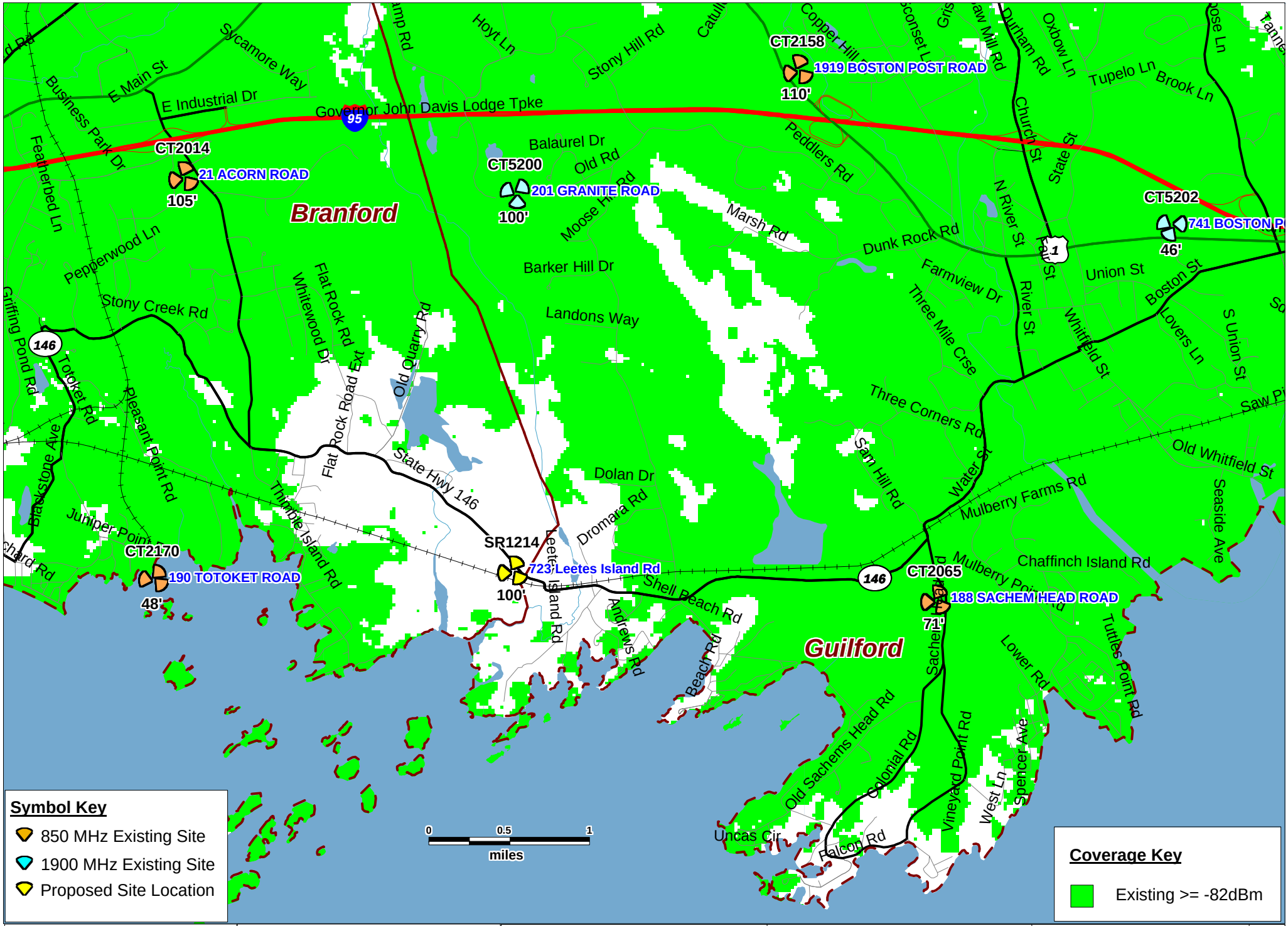
PREPARED ON
DATE:04/12/2011

REV 0

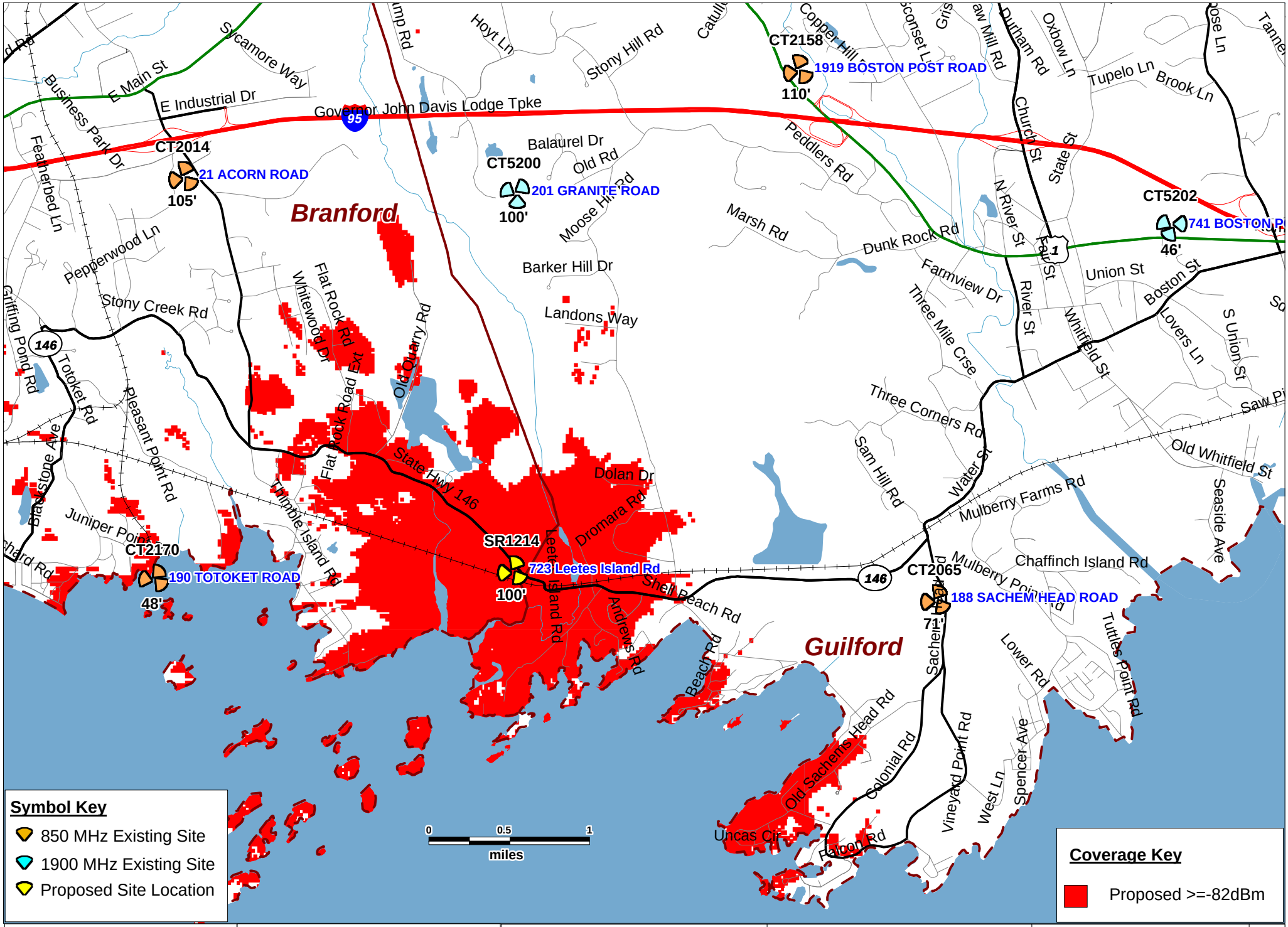


Proposed PCS Coverage @ 100 ft AGL	Branford	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/12/2011 REV 0

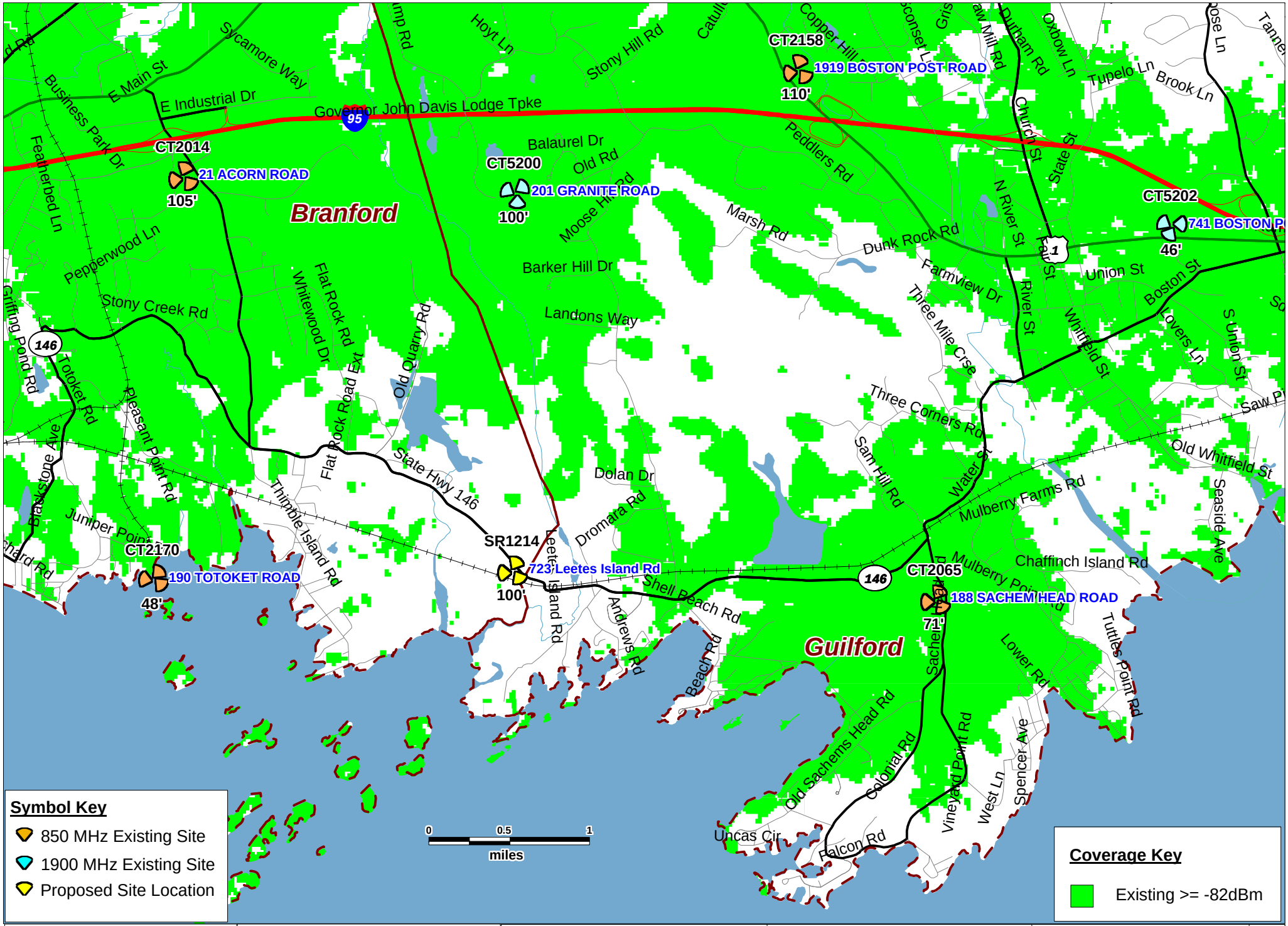
ATTACHMENT 5



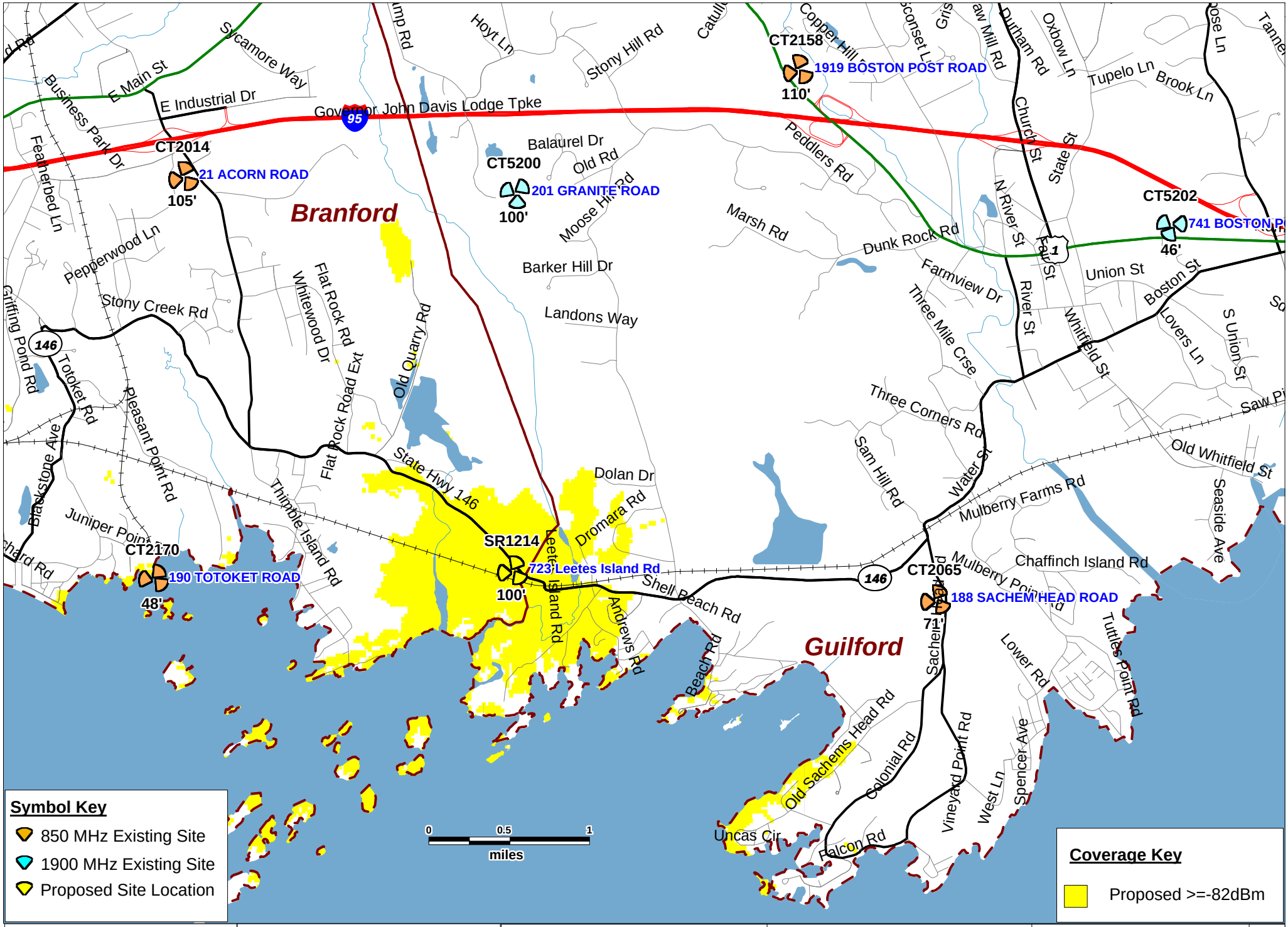
Existing Cellular Coverage	Branford	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/14/2011 REV 0



Proposed Cellular @ 100 ft AGL	Branford	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/14/2011 REV 0



Existing PCS Coverage	Branford	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/14/2011 REV 0



Proposed PCS @ 100 ft AGL	Branford	723 Leetes Island Rd Branford, CT	at&t	PREPARED ON DATE:04/14/2011 REV 0