

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 27 GUNGY ROAD / 322  
BEAVER BROOK ROAD IN THE  
TOWN OF LYME

DOCKET NO. 381

August 25, 2009

**AT&T RESPONSE TO SITING COUNCIL INTERROGATORIES**  
**FIRST SET**

- Q1. When was the search ring first initiated for a tower in this area?
- A1. AT&T began its investigation of the area with benchmark data demonstrating a gap in wireless coverage in northern Lyme. AT&T then established a "site search area" for this geographic region in December of 2005.
- Q2. Describe the land uses surrounding the proposed tower site.
- A2. Land uses in the vicinity of the proposed facility include low-density single family homes and open space.
- Q3. By letter dated January 13, 2009, the Deputy State Historic Preservation Officer (SHPO) indicated that, "...No ground disturbance or construction-related activities should be initiated until this office has had an opportunity to review and comment upon the recommended archaeological survey report." Has the SHPO had an opportunity to review and comment on the archeological report prepared by The Ottery Group and dated May 2009? If yes, please include any follow-up correspondence from the SHPO.
- A3. In accordance with the January 13, 2009 correspondence from the Deputy State Historic Preservation Officer (SHPO), AT&T's consultants performed an archaeological study and report and submitted same for SHPO review. Included as Exhibit A is a May 6, 2009 letter from SHPO indicating that the proposed undertaking will have no effect on Connecticut's cultural heritage and accordingly that no further archaeological investigations are warranted.
- Q4. Provide the fuel source for AT&T's proposed backup generator. Would AT&T also have battery backup? Provide the estimated run times for all backup power sources at this site.

- A4. AT&T's proposed backup generator is a diesel generator. AT&T will also have a battery backup required to prevent the facility from experiencing a "re-boot" condition during the generator start-up delay period. The typical total run time of the backup generator to be used is approximately 114 hours.
- Q5. Describe the backup generator's containment of fuel and/or oil in the event of a spill.
- A5. The generator's fuel tank is a steel containment chamber that is lined with a bladder to contain fuel in the unlikely event of a fuel spill.
- Q6. Has AT&T considered using a fuel cell as a backup power source for the proposed facility? Explain.
- A6. AT&T's Northeast Market has never used fuel cells and does not have any experience with them.
- Q7. Provide the distance and direction from the proposed site to the existing sites that the proposed tower would interact with.
- A7. The table below includes the address, distance, and direction from the proposed site to the existing surrounding sites.

Site Number/Name	Address	Distance	Direction
2234	East Haddam Road, Salem	3.5 miles	North
2055	376 Butlertown Road, Montville	3.7 miles	East
5736	Maynard Road, Salem	3.79 miles	North East
5737	Butlertown Road & Route 61, Montville	4.4 miles	East

- Q8. Would flush-mounted antennas or antennas attached to the tower via T-arms provide the required coverage? Would either configuration result in reduced coverage and/or necessitate greater antenna height?
- A8. Antennas on T-arm mounts would be acceptable allowing for a full compliment of 6 antennas (2 per sector, 3 sectors total) to be installed at the same elevation without degradation of signal. Flush mounts would allow only three antennas to be mounted at the same level. The installation of a full compliment of six flush-mounted antennas would require two levels of antennas separated by 10 feet (as in the case with a flagpole design) and as a result would require additional height above that of T-arm mounts.
- Q9. Calculate the amounts of cut and fill required to develop the proposed tower site and access drive.
- A9. Approximately 744 cubic yards of fill are required for the access road and tower site. Approximately 950 cubic yards of cut are required for the access road and tower site.

Please see the memorandum from the project engineers Clough Harbour Associates dated August 12, 2009 and attached as Exhibit B.

Q10. Would any construction take place within the local regulated upland review area?

A10. Construction activities for the tower site will not take place within the 100' local regulated upland review area. Construction activities for the access road will take place within portions of the locally designated 100' wetlands buffer (i.e. "upland review area") delineated at the proposed site. To protect nearby wetlands during construction, all appropriate sediment and erosion control measures will be designed and employed in accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council of Soil and Water Conservation. Soil erosion control measures and other best management practices will be established and maintained throughout the construction of the proposed facility. Please see the memorandum from the project engineers Clough Harbour Associates dated August 12, 2009 and attached as Exhibit B.

Q11. Does the Town of Lyme have an Upland Review Area for wetlands?

A11. Yes. Section 2(2)(v) of the Town of Lyme Inland Wetlands & Watercourses Regulations defines "regulated area" to include those areas "within 100 feet of all wetlands and watercourses and tributaries thereof whether tidal or wetland".

Q12. Does AT&T seek to provide both cellular and PCS services? Explain.

A12. Initially, AT&T will deploy 850 MHz and (cellular) equipment at this facility to provide coverage to the area targeted for service. If usage of the facility warrants additional capacity, the 1900 MHz equipment will be deployed for capacity relief.

Q13. If both cellular and PCS services are to be provided, explain why only one set of coverage plots is provided in the Application? Also, provide the other set of plots (cellular or PCS) if applicable, assuming the proposed tower height.

A13. AT&T designs its network to provide coverage using its 850 MHz (cellular) service and the propagation plots provided in the application show the 850 MHz service. Exhibit C includes a plot demonstrating PCS service (1900 MHz) at the proposed height of 180 feet.

Q14. Provide cellular and PCS coverage plots, as applicable, using the same scale provided assuming the tower is 170 feet tall (with 167 foot antenna centerline height) and 160 feet tall (with 157 feet antenna centerline height), respectively.

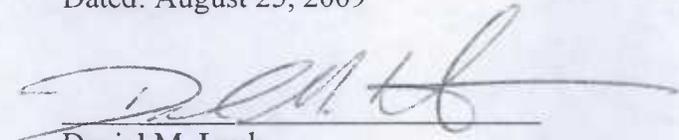
A14. Exhibit D includes cellular (850 MHz) and PCS (1900 MHz) coverage plots assuming the tower is 170 feet in height (with an antenna centerline mounting height of 167 feet) and 160 feet in height (with an antenna centerline mounting height of 157 feet), respectively.

- Q15. Provide the lengths of the coverage gaps in miles for cellular and PCS, as applicable, of any roads that AT&T seeks to provide coverage to in the vicinity of the proposed tower.
- A15. As noted in the responses above, AT&T will deploy 850 MHz for -82 dBm coverage to the area targeted for service by the proposed facility. Key roads in this area are Gungy Road, Grassy Hill Road and Beaver Brook Road. In total, the coverage gap along these roads is approximately 8.7 miles.
- Q16. Provide the lengths of the proposed coverage in miles for cellular and PCS, as applicable, of any roads that AT&T seeks to provide coverage to in the vicinity of the proposed tower assuming the following antenna heights: 177 feet (proposed); 167 feet; and 157 feet.
- A16. As noted in the responses above, AT&T will deploy 850 MHz for coverage to the area targeted for service by the proposed facility. For 850 MHz (-82 dBm) service, the proposed coverage in miles along Gungy Road, Grassy Hill Road and Beaver Brook Road is approximately as follows:
1. at 157 feet: 5.95 miles;
  2. at 167 feet: 6.51 miles; and
  3. at 177 feet: 6.93 miles
- Q17. Provide the areas to be covered (in square miles) for cellular and PCS service, as applicable, assuming the following antenna heights: 177 feet (proposed); 167 feet; and 157 feet.
- A17. The approximate areas to be covered in square miles for cellular (850 MHz) coverage are:
1. at 177 feet: 27.66 sq miles;
  2. at 167 feet: 23.76 sq miles; and
  3. at 157 feet: 20.81 sq miles.

CERTIFICATION OF SERVICE

I hereby certify that on this day, an original and fifteen (15) copies of the foregoing and attached was served on the Connecticut Siting Council by overnight mail with copy also sent via electronic mail.

Dated: August 25, 2009



Daniel M. Laub  
Cuddy & Feder LLP  
445 Hamilton Avenue, 14<sup>th</sup> Floor  
White Plains, New York 10601  
Attorneys for:  
AT&T

# EXHIBIT A



Connecticut Commission on Culture & Tourism

May 6, 2009

Historic Preservation  
and Museum Division

One Constitution Plaza  
Second Floor  
Hartford, Connecticut  
06103

800 256 2600  
860 256 2963 (T)

Mr. Lyle C. Torp  
The Ottery Group  
1810 August Drive  
Silver Spring, MD 20902

Subject: AT&T Mobility Telecommunications Facilities  
322 Beaver Brook Road  
Lyme, CT

Dear Mr. Torp:

The State Historic Preservation Office has reviewed the reconnaissance survey prepared by The Ottery Group concerning the above-named project. In the opinion of the State Historic Preservation Office, the archival and archaeological methodologies employed by The Ottery Group are consistent with our *Environmental Review Primer for Connecticut's Archaeological Resources*.

The State Historic Preservation Office concurs that no additional archaeological investigations appear warranted with respect to the proposed undertaking. This office believes that the proposed undertaking will have no effect upon Connecticut's cultural heritage.

This office recommends that The Ottery Group consult with the Office of State Archaeology at the University of Connecticut (Storrs) concerning the professional transfer of all field notes, photographs, and artifactual materials generated by the archaeological investigations.

This comment updates and supersedes all previous correspondence regarding the proposed project. For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

David Bahlman  
Deputy State Historic Preservation Officer

cc: Dr. Nicholas Bellantoni/OSA  
Dr. Jeffrey Bendremer/MT

CONNECTICUT  
[www.cultureandtourism.org](http://www.cultureandtourism.org)

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# EXHIBIT B



August 12, 2009

Daniel M. Laub  
Cuddy & Feder LLP  
445 Hamilton Avenue, 14th Floor  
White Plains, New York 10601  
Tel 914.761.1300 Fax 914.761.5372

Dear Mr. Laub:

The following are CHA's responses to the interrogatories for the telecommunications site located at 322 Beaver Brook Road in Lyme, CT:

**Q9. Calculate the amounts of cut and fill required to develop the proposed tower site and access drive.**

Approximately 744 CY of fill is required to level a couple of areas along the access road and to level the Southeast corner of the compound area. Approximately 950 CY of cutting is required to level the Northwest corner of the compound and to skim a majority of the access road for installation of the gravel road surface. The excess cut material can be properly located on site or properly disposed of off site.

**Q10. Would any construction take place within the local regulated upland review area?**

Construction activities for the tower site would not occur within the 100' upland review area. However, construction activities for the access road would occur within the 100' upland review area. The amount of work, in square feet, that will take place within the 100' upland review area for each of the three wetlands is summarized in the below table:

Wetland	Area of Work Within 100' Review Area (SF)
B	6,800
C	2,100
D	2,300
TOTAL	11,200

To protect nearby wetlands while working within the upland review area, all appropriate sediment and erosion control measures will be designed and employed in accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council of Soil and Water Conservation. Soil erosion control measures and other best management practices will be established and maintained throughout the construction of the proposed Facility.

If you have any questions or need additional information, please do not hesitate to contact me at (860) 257-4557.

Very Truly Yours,

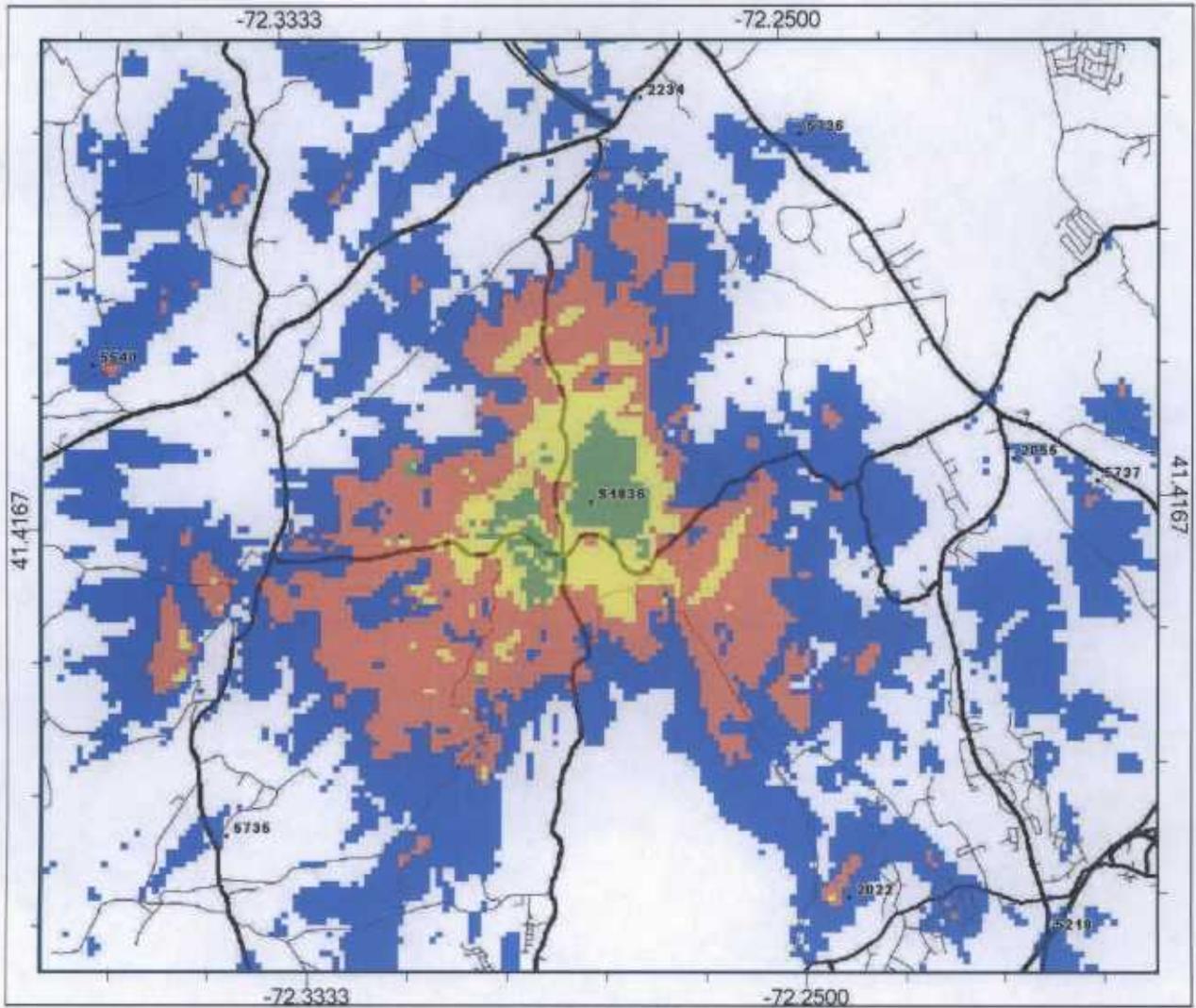
Paul Lusitani

Project Engineer

# EXHIBIT C



# 1900 MHz only Coverage from Proposed Site at 180'



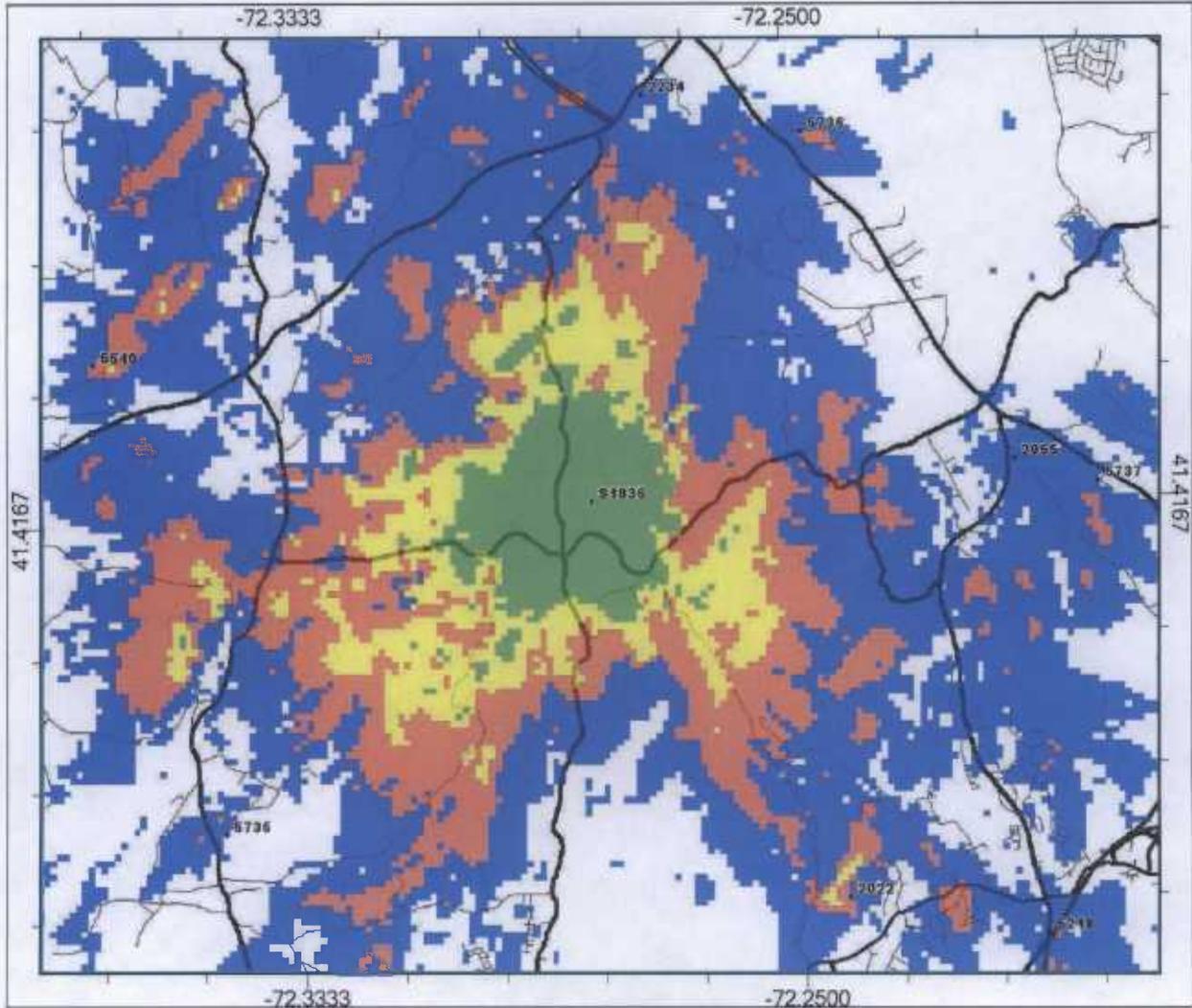
### Coverage by Signal Level

- Best signal level (dBm)  $\geq -74$
- Best signal level (dBm)  $\geq -82$
- Best signal level (dBm)  $\geq -92$
- Best signal level (dBm)  $\geq -105$

# EXHIBIT D



# 850 MHz only Coverage from Proposed Site at 160'



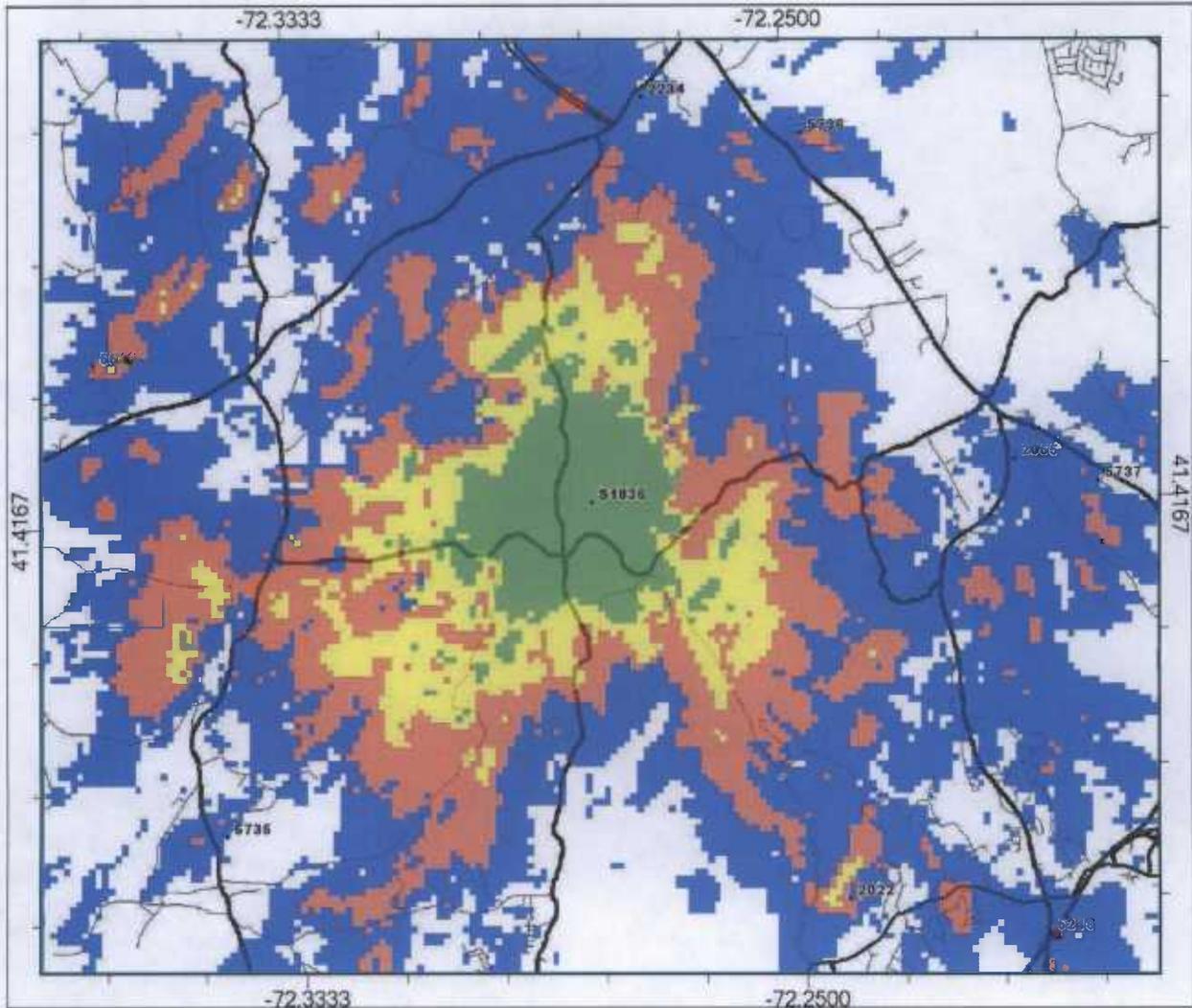
Scale: 1:94,336  
0 1 2 miles

### Coverage by Signal Level

- Best signal level (dBm)  $\geq -74$
- Best signal level (dBm)  $\geq -82$
- Best signal level (dBm)  $\geq -92$
- Best signal level (dBm)  $\geq -105$



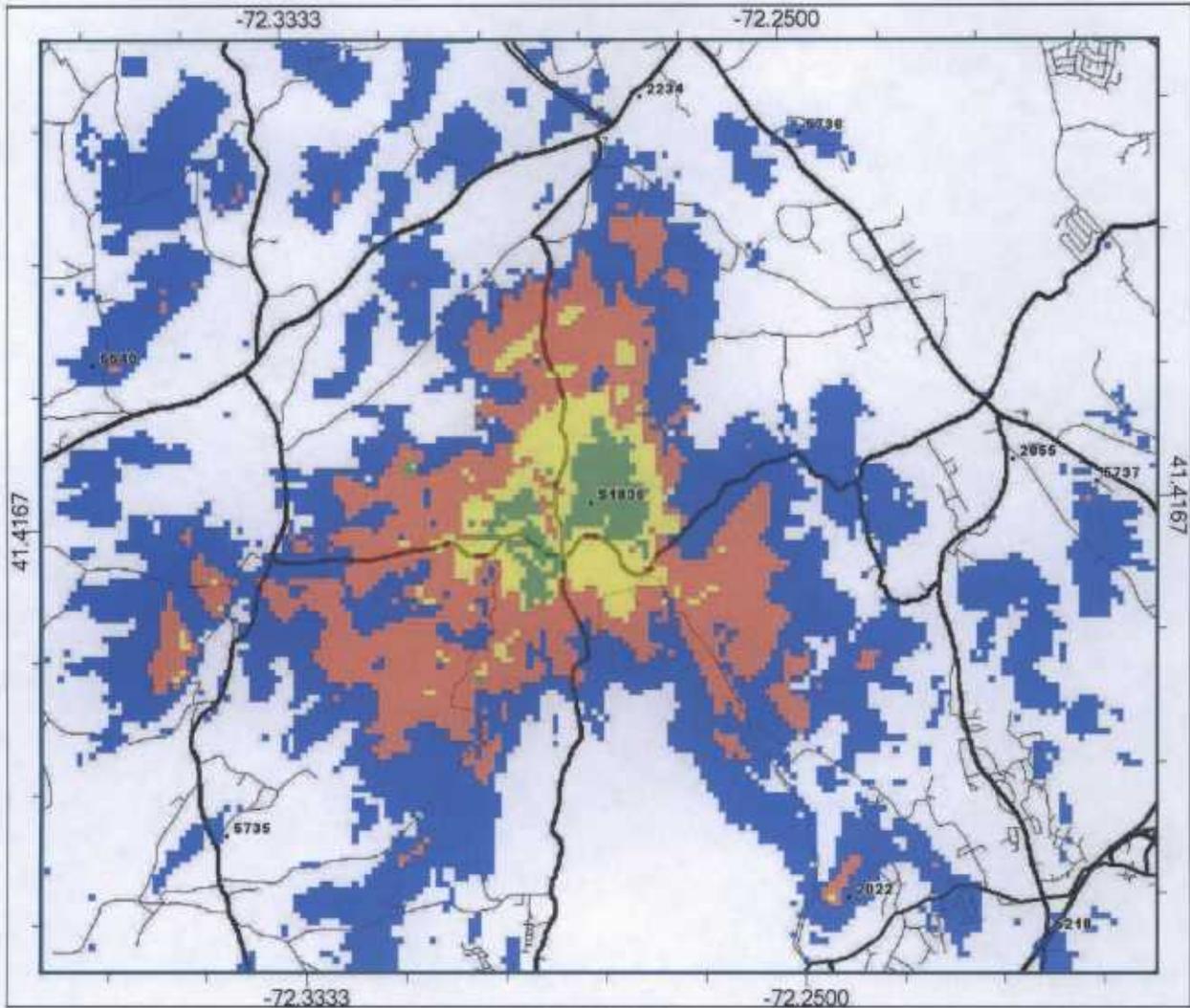
# 850 MHz only Coverage from Proposed Site at 170'



- Coverage by Signal Level**
- Best signal level (dBm) >=-74
  - Best signal level (dBm) >=-82
  - Best signal level (dBm) >=-92
  - Best signal level (dBm) >=-105



1900 MHz only Coverage from Proposed Site at 160'

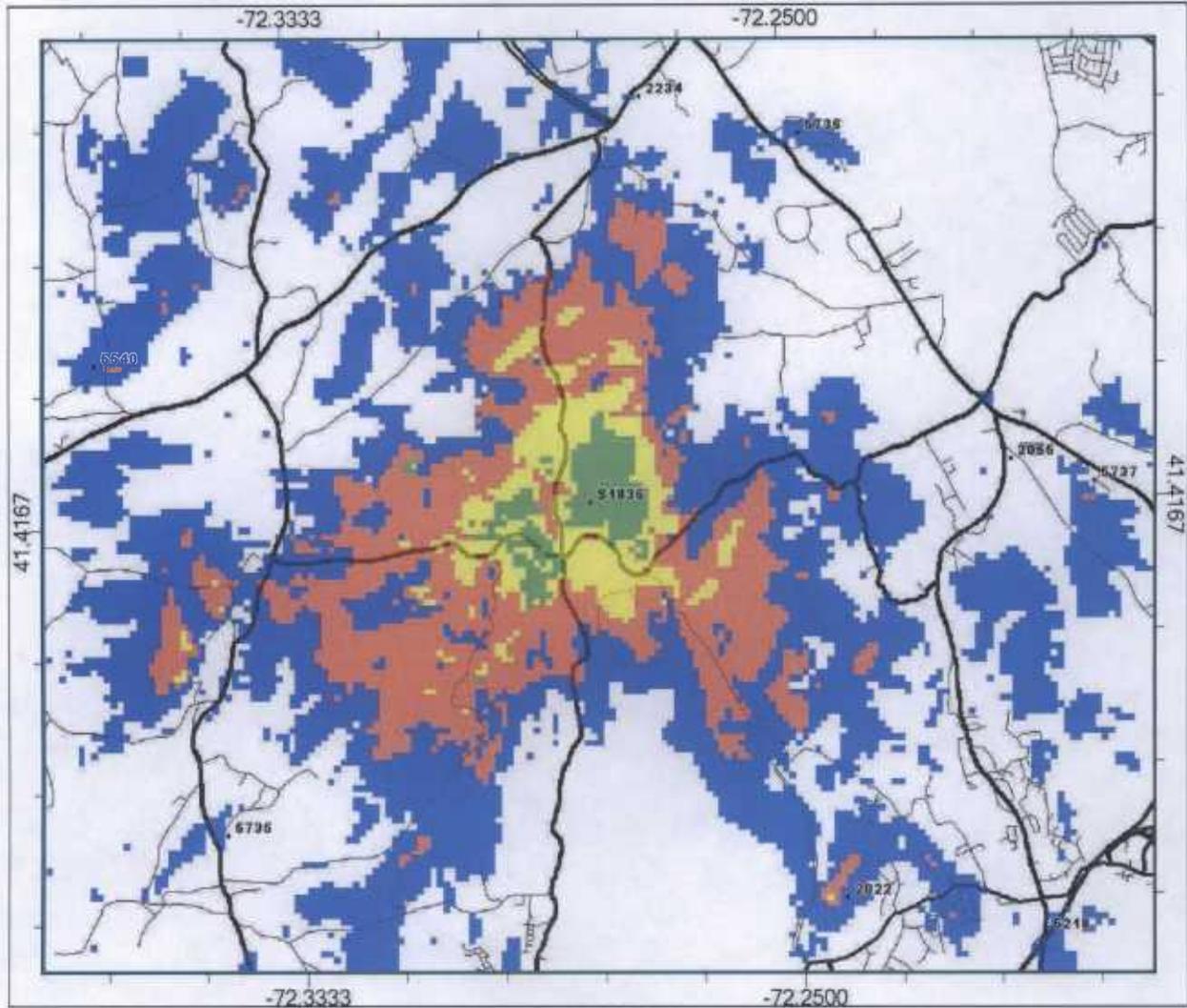


Scale: 1:94,336  
0 1 2 miles

- Coverage by Signal Level
- Best signal level (dBm)  $\geq -74$
  - Best signal level (dBm)  $\geq -82$
  - Best signal level (dBm)  $\geq -92$
  - Best signal level (dBm)  $\geq -105$



# 1900 MHz only Coverage from Proposed Site at 170'



- Coverage by Signal Level**
- Best signal level (dBm)  $\geq -74$
  - Best signal level (dBm)  $\geq -82$
  - Best signal level (dBm)  $\geq -92$
  - Best signal level (dBm)  $\geq -105$