[illegible] RECEIVED
2/24/10

IW 9A

NORTHEAST CONSULTING, LLC

DEVELOPMENT CONSULTANTS • CIVIL & CONSULTING ENGINEERS • ENVIRONMENTAL & SITE PLANNERS • PERMIT MANAGEMENT

118 EAST MAIN STREET, SUITE 201, TORRINGTON, CT 06790 – PHONE: 860-626-0270 – FAX: 860-626-1630

February 24, 2010

Town of Canaan
Town Hall
PO Box 47
Falls Village, CT 06031

Attn: Frederick Laser
Chairman
Planning & Zoning Commission

Re: AT&T Proposed Cellular Tower
8 Barnes Road

Dear Mr. Laser;

Pursuant to your request, we have reviewed the following documents related to the above referenced application to the Connecticut Siting Council:

The following documents were prepared by Clough, Harbour and Associates:

• Abutters Map	CO1	10/09/09
• Abutters Map	CO1	10/09/09
• Site Access Map	CO2A	10/09/09
• Site Access Map	CO2B	10/09/09
• Site Access Map	CO2C	10/09/09
• Site Access Map	CO2D	10/09/09
• Compound Plan		10/09/09
• Tower Elevation		10/09/09
• 2 Mile Viewshed Analysis	VS1	August 2009
• View 1		August 2009
• View 2		August 2009
• View 4		August 2009
• View 5		August 2009
• View 6		August 2009
• View 7		August 2009
• View 9		August 2009
• View 10		August 2009
• View 11		August 2009
• View 12		August 2009
• View 13		August 2009
• View 14		August 2009

- View 19 August 2009
- View 20 August 2009
- View 22 August 2009
- View 23 August 2009
- View 25 August 2009

The following document was also included in the documents related to this application:

- AT&T Technical Report, Proposed Cellular Tower Facility, Prepared by New Cingular Wireless PCS, LLC

AT&T TECHNICAL REPORT

I have included the language from the Report in the sections that require clarification. My comments are bulleted below the language commented on.

SECTION 3

Site Evaluation Report

II. Description

Site Topography and Surface: *...area defined by 3-15% slopes and some rock outcroppings.*

- This does not appear to include the construction of the access road that exceeds 25% in some areas.

Site Size: *100' x 100'*

- This includes only the compound area.

Surrounding Terrain, Vegetation, Wetlands or Water: *A review of available information regarding the site through Federal, Sate and local databases as well as an on site investigation indicates that there are no wetlands on the site.*

- This appears to include only the compound, indicated as the site area without regard to the construction of the access road.

III. Facilities

Vehicle Access to Site*: Access to the facility would be provided over an existing road, to be improved as a gravel access drive, approximately 4100 feet to the site.*

- This statement would give the indication that the access road construction comprises gravel improvements over an existing road. The drawings listed above indicate extensive cut and fill areas for the construction of the access road.

Clearing and Fill Requirement: *The compound will require clearing and grading to level the area. Some filling may be required.*

- This statement appears to include only the compound area.

CHA Report – Undated

Access Distance:
Distance of access over new gravel driveway: 4091'
Total distance of site access: 4091'

✓ • Although it is referred to as a new gravel driveway in this description, it is referred to as an improved existing drive above. The grade of the driveway is significantly different from the existing drive and the location differs from the existing for a portion of the length.

Distance to Nearest Wetlands:
No wetlands found on property.

✓ • This appears to relate to the compound area only. Further study is warranted in the area of the access driveway.

SECTION 4

Environmental Assessment Statement

I. Physical Impact

A. Water Flow and Quality

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the proposed facility. The construction and operation of the tower and related site improvements will have no effect on any watercourse or waterbody. Best management practices to control stormwater and soil erosion during construction will be implemented.

✓ • The plans do not contain any information regarding sediment and erosion control. Areas of the drive indicate extensive cut areas and extensive fill areas. There does not appear to be any drainage devices indicated other than swales along some points of the drive. The plans do not indicate any cross culverts or other drainage structures. This needs to be clarified as to the discharge points and effect of erosive stormwater velocity.

C. Land
Some clearing and grading will be necessary in the compound and access drive and best management practices will be implemented for an steep slopes.

✓ • The driveway depicted indicates extensive grading and clearing to accommodate the areas to the top of cuts and toe of fill slopes.

III. Scenic, Natural, Historic & Recreational Values

Additionally, The Connecticut Department of Environmental Protection Natural Diversity Database ("NDDB") map for the project area has been reviewed and attached. This map indicates that there are no nearby threatened or endangered species present and accordingly, no such impacts are anticipated.

✓ • Current CT Natural Diversity Database map for this area (Dec. 2009) indicates that the area is within areas designated as Listed Species and Natural Communities. It appears that a significant portion of the access road would fall within these areas. The CT DEP instructions for use of this mapping is as follows:

> *The Natural Diversity Data Base maps represent approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by DEP staff, scientists, conservation groups, and landowners. In some cases an occurrence represents a location derived from literature, museum records and specimens. These data are compiled and maintained in the Natural Diversity Data Base.*
>
> *The maps are intended to be a pre-screening tool to identify potential impacts to state-listed species. These data are also used by groups wishing to identify areas of potential conservation concern. The maps are updated periodically (every 6 months or so) and new information is continually being added to the database. It is important to always use the most current version for your planning needs.*

The general locations of species and communities are symbolized as shaded areas ("blobs") on the maps. Exact locations have been masked to protect sensitive species from collection and disturbance and to protect landowner's rights whenever species occur on private property.

The maps serve as guidance to identify areas with the potential to support threatened and endangered species. The mapping indicates the area of the development has potentially qualifying habitat. This needs to be investigated in the field with the CT DEP as lead agency.

BL Companies Report dated August 12, 2009

Wetland Description

No wetland areas were found on this site. However, it is likely that wetland resources are located at some point further down gradient from the site.

- This investigation appears to be confined to the compound area. The investigation needs to include the driveway area along with the compound. Further clarification is required.

Wetland Soils

There are no wetland soils on this site.

- This investigation appears to be confined to the compound area. The investigation needs to include the driveway area along with the compound. Further clarification is required.

Closing

With the appropriate soil erosion and sedimentation controls in place, there would be no anticipated negative impacts to the wetland/watercourse resources as a result of the project. No wetland resources are located on the site.

- The author of the report needs to state on the record if the above statement applies to the compound and driveway area or only the compound.

Tower Evaluation Form

19. The site location is not within an area of concern on the State and Federal Listed Species and Natural Communities Map (CT Natural Diversity Database). No biological field survey has been conducted at this time.

- Current CT Natural Diversity Database map for this area (Dec. 2009) indicates that the area is within areas designated as Listed Species and Natural Communities. It appears that a significant portion of the access road would fall within these areas. A biological field survey needs to be conducted.

20. The proposed facility will consist of a 120-foot monople and associated equipment contained within a 75x75 foot equipment compound. The planned undertaking will also involve improvement and extension of an existing access road from Barnes Road to the north.

- Improvements and extension of access road indicate extensive cuts and fill areas that appear to exceed the areas investigated for tree removal. The tree removal inventory needs to include the areas cut and the areas filled.

US Fish and Wildlife Service Letter dated January 1, 2008

No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this review

- This document exceeds its proscribed useful date. The document needs to be updated and further review done.

SITE ACCESS PLANS

Slope of Driveway

- The slope of the driveway is on average approximately 20% with areas of 26%. This is extremely steep, especially for a gravel surface. A publication entitled "Forest Road Design", published by the Oregon Department of Forestry, July, 2006, contains the statement:

  > *"Grades over 20% require assist vehicles. Rock surfaced grades over 16% require special surfacing design to alleviate traction problems."*

  This publication was intended for the logging industry in designing roads for the use with logging equipment.

  We would be very concerned about accessibility of the site, both during construction and in operation, by emergency vehicles. In the event of a fire or construction accident, it would be our opinion that with these slopes and a gravel surface, it may be impossible for a fire truck or ambulance to reach the compound area.

- Details need to be given for the road construction to assess the feasibility of the site. Access for maintenance of the equipment may only be feasible when the ground is frozen and considerable maintenance of the gravel road will be required after every rain event.

- Erosion of the gravel surface can be considerable with significant sediment loading of the watercourses down stream. A sediment and erosion control plan needs to be submitted to assess the facility of the site for this use.

- There needs to be a cut and fill analysis done for the driveway. Stock pile areas may be difficult to designate with a narrow ROW.

- There are cuts of up to 26-feet and fills of up to 38-feet. Slopes of 1:1 are used in these areas. Slope stabilization may be a key element in the ability to utilize the driveway. Sliding slopes could make the driveway impassable.

- The soils in the area are known to be shallow to bedrock with rock outcroppings. The application should indicate if blasting will be required and the amount of blasting expected.

The information reviewed for this report requires considerable clarification. The Fire Chief and the ambulance service should be consulted for their opinion on the steepness of the driveway and the gravel surface. Further environmental reviews and studies need to be done to ascertain the environmental effect of not only the tower operation but the construction of the tower and the access drive construction.

If you have any questions or require further information, please feel free to contact me.

Sincerely,
NORTHEAST CONSULTING, LLC

Richard M. Calkins, PE
Principal

RMC: rrc

will be attached to his original report sent to Fifty council

IW9-B

NORTHEAST CONSULTING, LLC

DEVELOPMENT CONSULTANTS • CIVIL & CONSULTING ENGINEERS • ENVIRONMENTAL & SITE PLANNERS • PERMIT MANAGEMENT

118 EAST MAIN STREET, SUITE 201, TORRINGTON, CT 06790 – PHONE: 860-626-0270 – FAX: 860-626-1630

December 2, 2010

Town of Canaan
Town Hall
PO Box 47
Falls Village, CT 06031

Attn: Frederick Laser
Chairman
Planning & Zoning Commission

Re: AT&T Proposed Cellular Tower
8 Barnes Road

Dear Mr. Laser;

Pursuant to your request, we have reviewed the following documents related to the above referenced application to the Connecticut Siting Council:

The following documents were included in the documents related to this application and review:

- AT&T Technical Report, Proposed Cellular Tower Facility, Prepared by New Cingular Wireless PCS, LLC
- Letter to Town of Canaan dated September 10, 2010, prepared by Cuddy & Feder, LLP

Our comments are as follows:

Width of Access Easement / Right of Way

Clarification should be required with regard to access width. Drawing CO1 indicates a proposed 20' Wide Access and Utility Easement. Drawing CO2A also indicates a 20' Wide Access and Utility Easement but also includes the following language:

> *Perpetual easement right of way for all purposes for which a public highway now or hereafter may be used, including public utilities. ROW being 30 feet wide, 15 feet on either side of the centerline of a roadway as presently laid out across parcel 2 hereof leading from Barnes Road to other lands of Joe Baker.*

The proposed access way, in part deviates from the existing access. This should be clarified with the language indicated. The width of the access construction exceeds 30 feet in areas with slope limits exceeding 80 feet in some areas. The total slope width also impacts that property of N/F Michael Burke and Patricia Ann Rovezzi. This needs to be clarified with the language and slope rights acquired.

Access Design and Construction

The "Application for Certificate of Environmental Compatibility and Public Need", dated October 18, 2010 contains a letter from CHA, dated September 22, 2010 (Tab 5) indicating the evaluation of the proposed access, designed by CHA. The Letter indicates the following:

"The proposed road is 3,050 feet long, has an approximate 20% grade along a majority of its length, has a 12' width with widened curves, has a 12" crowned crushed stone surface, ..."

The road is almost six tenths of a mile long and very steep. The 20% grade appears to be an average grade. There are sections of this road that are 22.7%. This is extremely steep, especially for a gravel or crushed stone surface.

"The 20% grade has proven to provide safe access to tower facilities for site technicians and heavy construction equipment"

The publication "Forest Road Design", published by the Oregon Department of Forestry, July 2006 states, "grades over 20%require assist vehicles. Rock surface grades over 16% require special surfacing design to alleviate traction problems". We have serious concerns as to the ability of a loaded tri-axle or loaded concrete mixer to negotiate a grade approaching 23% safely.

The crowned 12" thick crushed rock surface will promote water drainage from the road surface and will prevent the road deterioration and rutting that currently exists

The crowned 12" crushed rock surface is not likely to prevent the road deterioration and rutting that it, as stated, currently exists. Rutting is likely to occur due to soft or poor quality base materials. Adding 12" of material on top of a poor base is not likely to improve the conditions. Without definitive specifications as to the type of material comprising the 12" crushed rock, the water drainage abilities cannot be determined. If the material utilized for the 12" surface allows water to infiltrate, the road will turn to mud.
Although the applicants statement indicates that 12" of crushed rock will be installed over an existing road, there are areas with 32 feet of fill and areas of 20 feet of cut. The road deviates from its present location in one area. This would indicate that access is more than just a top dressing.

Along portions of the access road, 1:1 and 2:1 down slopes with drops in the range of 10' exist in some areas on either side of the road. Guard rails will be installed in these areas, especially at curves, for safety.

In at least one location, on a curve, the 2:1 down slope is indicated at approximately 32 feet. The road grade approaching this location a 20% down slope on a gravel surface. Guard rails (or as indicated by CT DOT, guide rails) have little chance of stopping a tri axle or a concrete truck. The steepness of the grade, traction conditions on a gravel surface and height of the embankment are a severe safety concern.
Quantities of fill material and cut material need to be provided. With fills of 32 feet in depth and 20 deep cuts, this information needs to be provided along with stockpile location. With the documents indicating shallow to bedrock soils, the amount of blasting needs to be provided.

In conclusion, a road designed to provide safe access for technicians and heavy construction equipment will be able to provide safe access for emergency vehicles.

We understand that this road will be used by construction equipment during construction of the facility. There is no indication of the size or type of equipment and no indication as to the length of the tower sections that will need to be delivered to the compound location. The road does not appear to be designed to allow tractor trailer traffic over the surface without assistance. There appears to be no indication of how this crushed rock surface is to be maintained for future access.

The proposed access road complies with typical tower site road design practices and will be able to safely accommodate all required traffic.

We know of no "typical tower site road design practices" that could be complied with. From a practical standpoint, this is an extremely steep road with a crushed rock surface that, from a safety stand point would preclude the ability of emergency vehicles from accessing the site during construction. Should a construction vehicle create an emergency during construction with an accident while traversing this road, it may be impossible for emergency agencies to access that accident in a timely manner.
To further accentuate the safety concerns, the introduction to the "Application for Certificate of Environmental Compatibility and Public Need", dated October 18, 2010 contains in Section E, page 18 indicates that provisions

? propane

are to be made for a permanent diesel generator on-site. The document does not indicate how the diesel fuel is to be delivered to the site. A tank truck of diesel fuel would have an extremely difficult time climbing this road without assistance but the real safety concern would be on the way back down. A tank truck loaded with diesel fuel traversing a 20% to 23% down gradient on a crushed stone surface with limited traction invites an incident that may include driver injury, a fuel spill and possibly a fire in an area that likely will not be accessible by emergency personnel. This would also be an issue during construction unless all of the equipment is to be driven to the bottom for fuelling.

Environmental Assessment

This project access is more that just an improvement to an existing road. In places it cuts a cleared swath through the forest that is 60' to 80 feet wide. A minimum of 127 trees, 6" + in diameter will be removed. This clearing should be addressed for a shift in the current ecological balance of the forested area by altering the edge. The environmental report should address the issue of proliferation of invasive species along this opened corridor.

Sediment and erosion control has not been addressed. Unless meticulously maintained, a crushed rock road can contribute heavy sediment loads to the swales along the road edges. Maintenance of these swales needs to be committed to by the applicant on a regular basis. With the road slope at 20% to 23%, erosion and washout of the road surface is a likely frequent event.

The application needs to address the stabilization of the constructed embankments. The 10 foot high, 1:1 fill slope will require extensive reinforcement to prevent collapse. Should slope failure occur, the road would be impassable. The 32 foot high, 2:1 fill slope and the 20 foot high, 2:1 cut slope will need to be reinforced to prevent sliding. As with the 1:1 slope, embankment failure will render the road impassable.

The information reviewed for this report requires considerable clarification. The Fire Chief and the ambulance service should be consulted for their opinion on the steepness of the driveway and the gravel surface. Further environmental reviews and studies need to be done to ascertain the environmental effect of not only the tower operation but the construction of the tower and the access drive construction.

If you have any questions or require further information, please feel free to contact me.

Sincerely,
NORTHEAST CONSULTING, LLC

Richard M. Calkins, PE
Principal

RMC: rrc

F. Herbert Bormann
Gene E. Likens

Pattern and Process in a Forested Ecosystem

Disturbance, Development and the Steady State
Based on the Hubbard Brook Ecosystem Study

Springer-Verlag
New York Heidelberg Berlin

F. Herbert Bormann
School of Forestry and Environmental Studies
Yale University
New Haven, Connecticut 06510, USA

Gene E. Likens
Section of Ecology and Systematics
Cornell University
Ithaca, New York 14853, USA

Library of Congress Cataloging in Publication Data
Bormann, F. Herbert, 1922–
Pattern and process in a forested ecosystem.
Bibliography: p.
Includes index.
1. Forest ecology—New Hampshire—Hubbard Brook Valley. I. Likens, Gene E., 1935– joint author.
II. Title.
QH105.N4B67 574.5'264 78–6015
ISBN 0-387-90321-6

Printed in the United States of America

9 8 7 6 5 4 3 2 1

ISBN 0-387-90321-6 Springer-Verlag New York

ISBN 3-540-90321-6 Springer-Verlag Berlin Heidelberg

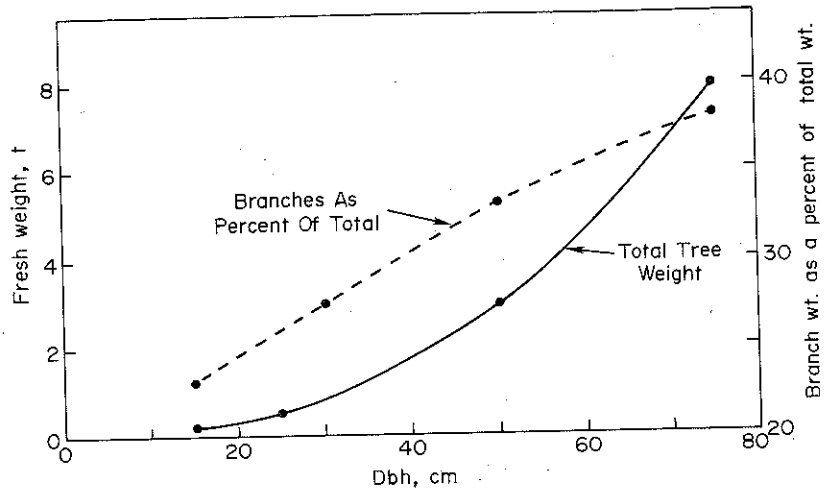


Figure 4-9. Estimated total fresh weight aboveground and branch weight (percentage of total weight) as a function of dbh. Data are an average of total weight for yellow birch, sugar maple, and beech. Estimates were made using regression equations for stem, branch, leaf, and twig dry weight (Whittaker et al., 1974) and fresh moisture contents (USDA Publ. No. 72).

openings in the upper canopy, e.g., 300 to 500-m^2, comprising space vacated by the falling tree plus that resulting from snapping off, uprooting, or limb-stripping of individuals in its path of fall.

Thus, treefall may have a marked effect on the biogeochemistry of local points within the ecosystem. Treefall implies a local reduction in net primary productivity, an increase in dead wood, and an accumulation in the soil of water and nutrients previously used by the fallen trees. It also implies increased decomposition and mineralization due to increased water and nutrients and warmer soil. In other words, the location becomes an enriched site within the ecosystem. Of course, the degree of enrichment is related to the amount of disturbance caused by the fall, and this is related to tree size. It seems probable that there is a continuum of biogeochemical, hydrologic, and radiant energy responses at the forest floor, ranging from those similar to a closed aggrading forest (Chapter 2) when a small tree falls to those approaching a recently clear-cut forest (Chapter 3), when a patch of large trees fall.

INTERACTIONS BETWEEN REPRODUCTIVE STRATEGIES AND DEGREE OF CANOPY DISTURBANCE

Based on our own observations and extensive patch and clear-cutting experiments by scientists of the U.S. Forest Service, we suggest that for northern hardwood forests, the importance of the various reproductive

We conclude that reestablishment of biotic regulation over export of nutrients from commercially cut forests is similar to that shown for the experimentally devegetated system. Nutrient export in stream water is a function of concentration and amount of streamflow. In the northern hardwood system, regulation of stream-water concentrations is established fairly rapidly for nitrate (1 to 5 years) and more slowly for cations (5 to 10 years) and regulation of streamflow occurs still more slowly (10 to 20 years). Considering concentration and streamflow together, it is apparent that biotic regulation (over *large increases* in nutrient export) is achieved fairly rapidly, i.e., within 3 to 5 years after cutting, but that one or two decades is required before precutting levels of export are reestablished. Substantial quantities of nutrients are lost from the clear-cut ecosystem before full control is reestablished.

COUPLING OF MINERALIZATION AND STORAGE PROCESSES

A major consideration in the analysis of ecosystem dynamics after disturbance is the efficiency with which the ecosystem is able to store nutrients. Storage may consist of the transfer of nutrients to new vegetation or to other sinks within the ecosystem. For example, following clear-cutting in a Douglas fir forest, a very different kind of ecosystem, little export of nutrients was reported, but major transfers from upper to lower horizons are thought to occur (Cole and Gessel, 1965; Gessel et al., 1973).

Covington (1976) has pointed out that during the Reorganization Phase more nitrogen is released from the forest floor than can be accounted for by a net accumulation in living biomass plus that lost as dissolved substances in stream water.

To gain a more detailed insight into mineralization–storage processes in northern hardwoods, we estimated nutrient losses from the forest floor, nutrient gains by regrowing vegetation, and net nutrient export of dissolved substances in stream water for an average stand over a 4-yr period after commercial clear-cutting (Figures 5-9, 5-10, and 5-11). These average data were obtained by compositing data collected in different stands at different times and thus should be considered as a first approximation. More precise data are needed, and a simultaneous study of all of these parameters should be conducted in a single stand over the same time period. Nevertheless, the present analysis suggests several interesting and to some degree startling conclusions.

1. In immediately revegetating clear-cut ecosystems, the growth response of new vegetation is not sufficient to prevent significant losses of dissolved substances. However, within a few years after cutting, annual increases of nutrients stored in biomass were approximately equal to or greater than annual *decreases* in stream-

may foster locally increased decomposition and nitrification and marked local changes in productivity causing the equilibrium between productivity and resource availability for the ecosystem as a whole to exhibit somewhat wider oscillations. This in turn may result in slightly increased oscillations in the export of nutrients and water. The effect of declining biomass storage on biogeochemistry will be discussed in Chapter 6.

The Reorganization Phase

The Aggradation Phase, with its fairly constant curve of biomass accumulation and its highly predictable biogeochemistry represents a system under strong regulation. In a sense it also represents a period of relative quiescence in our model of ecosystem development, a period with relatively little endogenous disturbance. In contrast, the Reorganization Phase begins with a major exogenous perturbation—clear-cutting. Clear-cutting sets in motion a series of unusually severe stresses whose initial effect is to reduce markedly the capacity of the ecosystem to regulate the flow of both radiant and mechanical energy, water, and nutrients in ways that diminish destructive effects. In a sense, the disturbance opens the system to those potentially degrading forces that are ever-present in its environment: rain, running water, wind, heat, and gravity. The longer these forces operate in an uncontrolled way, the more the ecosystem is degraded and the longer the time necessary for the ecosystem to recover to predisturbance conditions, if indeed recovery is possible.

For many humid terrestrial ecosystems, particularly those on slopes or with readily erodible substrates, erosion of particulate matter after disturbance presents great potential danger (Stone, 1973; Bormann et al., 1974). The physical removal of organic and inorganic materials not only results in loss of exchangeable cations attached to exchange surfaces but in the removal of the surfaces themselves. These losses in nutrient capital and exchange capacity in turn affect the productive capacity of the ecosystem and its ability to regain predisturbance levels of regulation over the flow of energy, water, and nutrients. In instances of severe erosion, an ecosystem might require a very long time to attain previous levels of production. Not only would productive capacity be sharply reduced from predisturbance levels, but redevelopment would involve the slow formation of new humic and clay surfaces and the sequestration of substantial amounts of nutrient capital. Unless checked by biological activities, accelerated erosion might continue until the ecosystem achieved a new relationship with the physical forces impinging on it; and this would occur at a much lower level of productivity and with far less ecosystem regulation of the physical environment (Figure 6-10).

A Hypothesis of Homeostasis. We propose that the severe stress initiated by clear-cutting not only accelerates the activity of some of the

mechanisms responsible for biotic regulation during the Aggradation Phase but also calls into action another set of mechanisms largely quiescent during that phase. This idea is based, in part, on the set of relationships discussed in Chapter 3 and summarized in Figure 5-1.

Availability of many resources increases as a result of clear-cutting. There is a greater availability of soil moisture throughout the total profile caused by severely reduced transpiration. Removal of the canopy causes radiant energy reaching the forest floor to be increased by several orders of magnitude. Concentrations of dissolved substances in the soil solution are increased about an order of magnitude owing to accelerated decomposition and mineralization resulting from warmer and moister soil. There is also an increase in the activity of nitrifying organisms related to the removal of vegetation. Heterotrophic processes may for a time exhibit positive feedback (as shown in Figure 3-5) that raises levels of decomposition to a maximum the first year after cutting, while mineralization reaches its maximum during the second year.

The cutover ecosystem responds to these conditions of increased resource availability by a burst in primary production (Figure 5-2), not only by species that characterize the precutting forest but also by a group of species not part of the predisturbance forest (e.g., buried-seed species) that may have evolved specifically to fill a niche created by this type of disturbance (Chapter 4). Compared to the aggrading forest, primary productivity for the recently cutover ecosystem swings through at least one very wide oscillation. Cutting reduces productivity to near-zero, but productivity rapidly rises and for a few years may exceed that of the uncut aggrading forest. Thus, productivity is rapidly restored, and within a few years hydrologic and biogeochemical functions begin to approach the predisturbance levels discussed in Chapter 2.

In contrast to the rapid changes in available nutrients and water in the soil, increases in erodibility of the ecosystem are relatively slow to develop (Chapter 3). Processes related to dead biomass maintain a high level of regulation over erodibility for about 2 years. The clear-cutting and enforced-devegetation experiment showed that these mechanisms begin to weaken seriously only in the third growing season. In well-designed clear-cuts with immediate revegetation, accelerated productivity prevents serious erosion from ever occurring.

The coupling of heterotrophic processes to autotrophic processes is far from perfect. Considerable leakage of nutrients from the ecosystem occurs during the first few years, even in immediately revegetating clear-cut systems (Chapter 5). Such losses might be even higher if the release of gaseous nitrogen were included. This suggests that the rapid increase in productivity that follows disturbance is a relatively inefficient activity and is costly in terms of nutrient and biomass storage within the ecosystem. *However, the sacrifice of efficiency which results in accelerated production which may be considered an effective strategy of ecosystem stability since it forestalls a still-greater sacrifice in biotic regulation of erosion.*

Patric (1977) cites 6 to 16% in West Virginia, while Kochenderfer (1977) reports that roads and landings occupy 10% of nine central Appalachian areas logged with wheeled skidders and 8% in areas logged with jammers.

Temporary roads may alter long-term productivity in a number of ways (Figure 8-1), all of which should receive further study. One of the most obvious impacts of road building in the northern hardwood ecosystem is disruption of the forest floor geometry already discussed. Forest floor material is removed from the area occupied by the road crown, side ditches, and any adjacent slopes used in cut and fill (Akesson, 1963); downslope forest floor material also may be covered by fill. Thus, forest floor material may be removed from or buried over widths ranging from about 9 m in fairly level areas (Akesson, 1963) to greater widths as slope increases. We should assess whether the rearrangement of forest floor material in road building results in changes in productivity; for example, will accelerated growth of trees in areas of humus deposition offset lesser growth in areas of exposed mineral soil?

A much more subtle question concerns the rearrangement of subsurface flow patterns. In addition to the obvious flow of water in stream channels, both permanent and temporary, water moves downslope as subsurface flow. Subsurface flow helps to maintain flow in stream channels during both wet and dry periods. In the summer of 1976, we dug

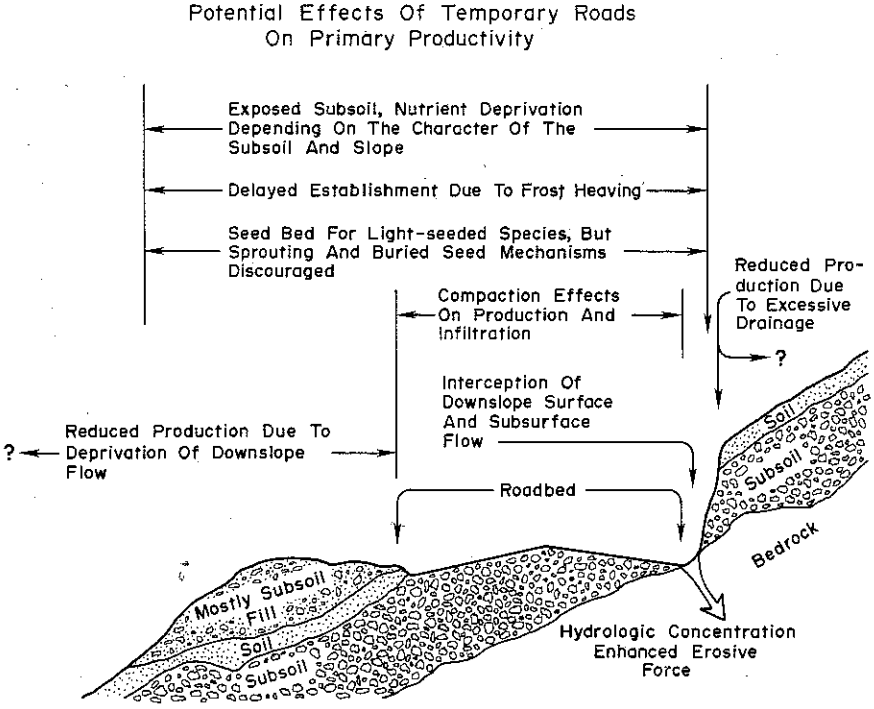


Figure 8-1. Potential effects of temporary roads on primary productivity.

a 22-m-long soil pit along a contour in the Hubbard Brook Experimental Forest. The pit penetrated into the underlying impervious till. Inspection of this pit after a heavy rain indicated seepage above the till throughout the downslope face of the pit. In one place, although there was no surface evidence of subsurface drainage, i.e., vegetation characteristic of wet sites, there was an underground channel carrying flowing water.

We should evaluate the role of the downslope movement of surface water in the maintenance of ecosystem productivity: Does subsurface flow provide the vegetation of lower slopes with a supply of water in addition to precipitation, and does it contribute to the generally high levels of production typical of lower slopes?

Megahan (1972) has studied the effects of logging roads on subsurface flow in the mountains of central Idaho. He estimated that roads in his study area intercepted 10 to 20-cm of downslope flow, concentrated it in drainage ditches, and channeled it to streambeds. Megahan (1972) and E. R. Burroughs (personal communication) have pointed out that the conversion of subsurface flow into surface flow by roads may have profound ecological effects on downslope vegetation. We suggest that this could be a fruitful area of research in northern hardwood forests of the northeastern United States, as well as in the northwestern United States.

Long-Term Effects of Forest Harvesting

Perhaps the most difficult question for the forest manager is how to evaluate the long-term effect of harvesting procedures on the future structure, metabolism, and biogeochemistry of the forested ecosystem. This question has tended to polarize the thinking of a number of foresters (Stone, 1973; Marquis, 1976; Patric, 1976a,b) and conservationists (Curry, 1971), who cite either the continuous use of some European forests or the occurrence of forest catastrophes to prove that harvesting may or may not have a long-term impact on the forested ecosystem.

Actually, the question of maintenance of long-term forest productivity, except for instances of fairly obvious degradation associated with harvesting, is very difficult, if not impossible, to answer with any precision using historical data. The complexity of the forested ecosystem, the fickleness of the climatic variables affecting growth, the time periods involved, and the incompleteness of historical records on growth variables like primary production preclude the detection of any but the most gross changes in productivity due to repeated cycles of harvesting.

Our inability to measure the long-term impact of repeated harvesting on most forest lands points up a major need—the construction of realistic forest growth models that would provide reasonable estimates of the long-term ecologic and economic cost/benefit relationships resulting from various harvesting procedures. Until such understanding is developed, estimates of long-term effects will have to remain largely what they are—educated guesses. Given the complexity of forest ecosystems, basing

IW 11

TOWN OF CANAAN

TOWN ROAD INVENTORY AND POLICY RECOMMENDATIONS

SELECTMEN'S OFFICE
Town of Canaan
Main Street
Falls Village, Conn. 06031
Tel: (203) 824-0702

I CERTIFY THIS TO BE A TRUE COPY OF THE COVER OF THE TOWN ROAD INVENTORY AND POLICY RECOMMENDATIONS. ATTACHED HERETO ARE 10 EXCERPTS FROM THIS INVENTORY UPON WHICH I HAVE AFFIXED THE TOWN SEAL.

Mary M. Palmer

MARY M. PALMER, TOWN CLERK
(SEAL)
2/11/2011

Prepared by: Northwestern Connecticut Regional Planning Agency

CANAAN

TOWN ROAD INVENTORY AND POLICY RECOMMENDATIONS

A. INTRODUCTION: THE TOWN ROAD SITUATION

1. Development Pressures on Unimproved Roads

In the Town of Canaan there are several unimproved roads which provide little or no service to the general public. These roads are generally characterized as being unpaved, unable to accept the free flow of two-way traffic, and in some cases where seasonal washouts occur or where trees or undergrowth have emerged, impassable. Through the years these roads have provided a means of access to isolated houses, seasonal dwellings, farm lands and wood lots, and landowners have had little or no cause to maintain or improve these roads or to ask the Town to do so.

However, in recent years Canaan has witnessed an increased number of residential building lots and subdivisions of land located along roads in this unimproved state. Since the Town contains many miles of unimproved road and much of this mileage is adjacent to large tracts of vacant land, there is good reason to believe that development pressures will continue along these roads. (NOTE: As of December 31, 1982, Canaan had 3.85 miles of unimproved road on the State Department of Transportation's Town Aid List.) In addition to this total, there are a number of privately owned and maintained roads serving small groups of residences. There may be pressure for the Town to take over these roads in the future.

NWCRPA REPRESENTATIVES BY MUNICIPALITY

CANAAN	+	Harry Almond
	.	William C. Tugeau
CORNWALL	+	Larry Gates
	.	Michael R. Gannett
KENT	+	
	.	Lorna Mitchell
NORTH CANAAN	+	Fred Segalla
	.	David Brooks
ROXBURY	+	Ruth Johnson
	.	Dorothy Westerhoff
SALISBURY	+	James L. Stewart
	.	Charlotte Reid
SHARON	+	Lee R. Burne
	.	William Manasse
WARREN	+	Richard K. Abrahams
	.	George Bates
WASHINGTON	+	Andreas Duus, Jr.
	.	Nicholas Solley

Chairman - Dorothy Westerhoff
Vice Chairman - David Brooks
Treasurer - Richard Abrahams
Secretary - Michael R. Gannett
Member At Large - Lee Rand Burne

+ Planning Commission's Representative - elected
. Selectmen's Representative - appointed

Prepared
cluding
Transpor

TOWN OF CANAAN

TOWN ROAD INVENTORY AND POLICY RECOMMENDATIONS

PREPARED BY:

NORTHWESTERN CONNECTICUT REGIONAL PLANNING AGENCY

SACKETT HILL ROAD

WARREN, CT 06754

Planning Staff

Charles A. Boster, Executive Director

Stephen W. Dunn, Transportation Planner*

Bruce P. Soroka, PE&LS, Highway Safety Engineer*

Richard M. Lynn, Planner, Environmental Review Team

Patricia G. Ferriss, Administrative Assistant

Jamie L. Whitman, Secretary & Cartographer

*Resigned; Responsible for preparation of parts of this report

JUNE 1984

Prepared in cooperation with the U.S. Department of Transportation (including its participating agencies) and the Connecticut Department of Transportation.

Acknowledgements

This report was prepared through the cooperative efforts of several persons, including but not limited to:

Peter G. Lawson, First Selectman, Canaan

Edward Manasse, Attorney, Town Attorney

Faye H. Lawson, Assessor

Mrs. Lucille E. Marston, Clerk

Mrs. Karen A. Surdam, Assistant Clerk

Marion Stock, Canaan/Falls Village Historical Society

The NWCRPA also appreciates the assistance of Geofrey Colegrove, Executive Director, and staff of the Midstate Regional Planning Agency in providing materials from an element of the 1980 Plan of Development, Town of East Haddam, Connecticut, Town Road Inventory and Policy Recommendations. These materials were utilized as a model for undertaking the Canaan study.

The opinions, findings, and conclusions expressed in this publication are those of the Northwestern Connecticut Regional Planning Agency staff and do not necessarily reflect the official views or policies of the Connecticut Department of Transportation and/or the Federal Highway Administration.

Material in this report is limited to the single purpose of this special planning study to determine how to address the issue of "public roads" in a rural Connecticut town. The final determination of the status of any specific road will require further research and study.

As noted in the report, the material is also limited by the research material not available during the study. Under no circumstances should this report be utilized to establish the status of a specific road. This methodology is recommended to the towns of northwestern Connecticut as a starting point for addressing a complex question of public policy.

F. PROPOSED CONSTRUCTION CLASS

Three classes of road construction were recommended for most roads in NWCRPA's 1982 report. Discontinued roads, private ways and certain older roads of dubious status are not assigned a construction class. As new information becomes available or when circumstances change, some of the roads in these latter two categories may be assigned a construction class.

The bases for assigning a construction class are: 1) the 1984 Physical Condition Survey, 2) proposed functional classification, and 3) input from the First Selectman and the Planning and Zoning Commission. In preparing the classes, thought was given to allowing flexibility in the design of roads given the rugged topography characteristic of most of the Town. Many alternative standards and specifications were analyzed by the staff before the final three were chosen. They are summarized below:

1) Class 1 - Highest quality class, bituminous concrete, applies to most arterials, collectors and new sub-divisions.

2) Class 2 - Slightly lower specifications in terms of design elements, recommended for most existing local access roads.

3) Class 3 - Gravel surface, less stringent specifications, recommended for some local access roads and most older unimproved roads.

It is suggested that when road improvements are made, either

by the Town or a private party, one of the three classes be used. It is also recommended that these standards be fully integrated with the present subdivision road standards. The following chart summarizes the major design elements of the three classes. This is followed by the "Minimum Standards and Specifications for Improvements on Existing Town Roads" and the "Proposed Construction Classes" Map.

SUMMARY

MINIMUM STANDARDS AND SPECIFICATIONS

FOR IMPROVEMENTS ON EXISTING TOWN ROADS

	CLASS 1	CLASS 2	CLASS 3
Road width	24' - 26'	22' - 24'	18 - 24'
Right of way width	50'	50'	50'
Road grades	8% - 12%	8% - 12%	6% - 10%
Sight distance	200' minimum	200' minimum	200' minimum
Pavement type	bituminous concrete pavement (3") on gravel base	bituminous concrete pavement (1½")	surface treated rolled gravel

MINIMUM STANDARDS & SPECIFICATIONS

FOR IMPROVEMENTS ON EXISTING TOWN ROADS

(Developed by Midstate Regional Planning Agency)

CLASS 1

Road Width: 24' - 26'

Right-of-Way Width: 50'

Road Grades: 8% maximum, however grades between 8 & 12% can be allowed only if the length of the steep grade is less than 350' long. A minimum transition length of 450' shall be maintained between two steep grades.

Sight Distance: 200' minimum or determined by speed limit.

CONSTRUCTION SPECIFICATIONS:

Preparation of Subgrade: All soft and yielding material, along with loose rock and boulders and other portions of the subgrade which will not compact readily when rolled shall be removed. All holes or depressions made by the removal of unsuitable material shall be filled with suitable material and the whole surface compacted uniformly with roller. If the surface of an existing road is one foot or less below the proposed subgrade surface, it shall be scarified for the full width of the roadbed. All rock shall be removed 12 inches below subgrade.

Gravel Base: The sub-base shall consist of at least 8" of Bank Run Gravel constructed in accord with Section 2.12, Form 811. Where ledge-rock (bedrock) is encountered, it shall be excavated as above and the gravel sub-base shall be 12" minimum.

Base Course: The base course shall consist of one 4-inch course of Processed Gravel constructed in accord with Section 3.04 of

Form 811 for roads under 6%. For paved roads over 6%, crushed stone shall be substituted for processed gravel and shall be placed in accord with Sections 3.02 & 4.11 of Form 811.

Wearing Surface: The wearing surface will be three inches of bituminous concrete pavement, constructed in two courses and in accord with Section 4.02 and 4.05 of Form 811.

Six inch curbs shall be constructed on both sides of all roads, of bituminous concrete. Six inch curbs shall be placed by an approved bituminous concrete curb machine true to line and grade indicated on the plan-profile drawings. Immediately prior to placement of the 6" curb, the surface of the road receiving the 6" curb shall be coated with an approved bitumen. All 6" curbs shall be backed up full height with solidly packed earth.

Drainage: All roads of this class shall be properly drained and sufficient culverts, manholes and catch basins installed. Culverts shall be sized to carry the flows based on Connecticut Highway Department design standards. No portion of any road shall drain in one direction more than 350' without catch basins installed on both sides of the road and approved by the Town Engineer.

All drainage pipe shall be at least fifteen inches in diameter and installed with a minimum cover of 3'. All pipe trench backfill shall be pervious, free draining material. Drawings and calculations showing size of watershed area and quantity of water drained by each culvert that crosses or is a part of the roadway drainage system or subdivision drainage system shall be submitted. Drainage rights-of-way through lots shall be at least twenty feet wide. Concrete or stone masonry headwalls or reinforced concrete culvert ends conforming to Section M.08.01-22, Form 811 shall be located at culvert ends.

CLASS 2

Road width: 22' - 24'

Right-of-Way Width: 50'

Road Grades: 8% maximum (same as Class 1)

Sight Distance: (same as Class 1)

CONSTRUCTION SPECIFICATIONS:

Preparation of Subgrade: (same as Class 1)

Gravel Base: (same as Class 1)

Base Course: (same as Class 1)

Wearing Surface: The wearing surface will consist of 1½" of bituminous concrete pavement (Class 1, 2 or 3) constructed in accordance with Sections 4.02 and 4.05 of Form 811.

Six inch curbs shall be constructed as for Class 1 or paved gutters on both sides of the road can be constructed as an alternative approved by the Town Engineer.

Drainage: (same as Class 1)

CLASS 3

Road Width: 18' - 24'

Right-of-Way Width: 50'

Road Grades: 6% maximum, however, grades between 6 & 10% can be allowed only if the length of the steep grade exceeding 6% is less than 200' long. A minimum transition length of 300' shall be maintained between two steep grades (6-10%).

Sight Distance: 200' minimum

CONSTRUCTION SPECIFICATIONS:

Preparation of Subgrade: (same as Class 1)

Gravel Base: (same as Class 1)

Base Course: (same as Class 1)

Wearing Surface: Shall consist of a 1' thick binder layer of screenings spread over a scarified base course and compacted in accordance with Section 4.13 of Form 811.

Drainage: Road drainage measures and/or structures shall be sufficient to carry runoff from the road surface and divert water across, beneath or around the road without causing increases in erosion or sedimentation and shall be approved by the Town Engineer. Drawings and calculations showing the size of watershed area and the quantity of water drained by each culvert and roadside ditch that crosses or is part of the roadway drainage system or subdivision drainage system shall be submitted. Drainage rights-of-way through lots shall be at least twenty feet wide. Headwalls and outlets conforming to Section M.08.01-22, Form 811, shall be located at culvert ends.

G. ROAD POLICY RECOMMENDATIONS AND FUTURE CONCERNS

This section sets forth the road policy recommendations of the Plan and is based on the research of Sections C, D and E, the Policy Maps of Sections E and F, and input from the First Selectman. It is suggested that the Selectman and Planning and Zoning Commission adopt subdivision and road construction standards based on NWCRPA's 1982 Town Road Standards report.

POLICY RECOMMENDATIONS:

POLICY 1: ADOPT FUNCTIONAL CLASSIFICATION OF ROADS SYSTEM

Action A: Board of Selectmen initiate Town ordinance regarding "functional classification of roads" based on text and map presented in Plan.

IW 12

THE OTTERY GROUP

August 24, 2009

Patricia Allyn Mechare, 1st Selectman
Town of Canaan
P.O. Box 47
Falls Village, CT 06031-0047

Re: Invitation to participate as a consulting party to the Section 106 review of the proposed AT&T Mobility "Falls Village/Canaan #2413 Telecommunications Facility" – 8 Barnes Road, Falls Village, CT 06031

Ms. Mechare:

Prior to the construction of a telecommunications facility by AT&T at 8 Barnes Road on Cobble Hill, in Falls Village, CT, the Ottery Group has submitted documentation to the Connecticut Department of Culture and Tourism, History Division (SHPO) regarding the effect of the proposed undertaking on historic properties. As tower construction is regulated by the FCC, AT&T is required to consider the effects of planned undertakings on cultural resources for compliance with the National Environmental Policy Act (NEPA) as well as Section 106 of the National Historic Preservation Act. Pursuant to Section 106 requirements, this notification is being made to invite potentially interested parties that may desire to participate in the consultation process.

The proposed undertaking consists of the construction of a telecommunications facility in a densely wooded area at the above-referenced location. The proposed facility will consist of a 120-foot monopole and associated equipment all contained within a 75x75-foot fenced compound.

If you have any questions, concerns, or comments regarding the proposed undertaking, please contact our office within 30 days of receipt of this notification. The project review staff at the Maryland Historical Trust will have all documentation regarding this undertaking on file; however, I will be glad to furnish you with an electronic copy if requested. I look forward to your comments regarding the effects of the proposed undertaking.

If you have any questions or require more information please feel free to contact me by phone (301.562.1975) or email (stacy.patterson@otterygroup.com). I appreciate your assistance with this project.

Sincerely,
THE OTTERY GROUP, INC.

Stacy P. Montgomery

Stacy P. Montgomery
Architectural Historian

1810 AUGUST DRIVE • SILVER SPRING, MARYLAND 20902 • 301.562.1975 (MAIN) • 301.562.1976 (FAX)
www.otterygroup.com

Town of Canaan
108 Main Street
P.O. Box 47
Falls Village, CT 06031-0047

"Liberty and Property"

AN EQUAL OPPORTUNITY EMPLOYER,
PROVIDER AND HOUSING ADVOCATE

Telephone: 860 824-0707
Fax: 860 824-4506
E-mail: canaan021@comcast.net

IW 13

September 21st, 2009

Stacy P. Montgomery, Architectural Historian
The Ottery Group, Inc.
1810 August Drive
Silver Spring, Maryland 20902

Re: Letter, Dated 8/24/09 to !st Selectman, Town of Canaan

Dear Ms. Montgomery:

The Conservation Commission of Falls Village, Town of Canaan, by vote has directed me to write you regarding our strong exception to the placement of a 120-foot monopole on the crest of Cobble Hill in Falls Village.

The proposed tower, virtually over the South Canaan Meeting house, the historic 1800's Congregational Church, would irreparably ruin the traditional view of this small and historic settlement from both the north, approaching south on Route 7 and from the south, approaching north on Route 7, and from Page Road, approaching Route 7. The view shed now includes the steeple standing above the trees and the barns from the south and similarly the trees as viewed across the valley from the north.

We expect also that the proposed monopole will mar the view sheds of Cobble Hill from Route 126, Johnson Road, and Route 63. At present these are relatively bucolic views. The prospect of a spire jutting up from the Cobble Hill crest is stunningly inappropriate and insultingly contrary to the conservation of this historic view shed and the cultural values implied by what is left of our unsullied rural settings.

With farms disappearing and livelihood from the land becoming more problematic on the small scale of rural New England, this intrusion destroys this area's viability as a scenic treasure for visitors and inhibits a valuable resource for our communities.

Sincerely,

Ellery W. Sinclair
Chairman, Conservation Commission

IW 14

CUDDY& FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

October 29, 2009

VIA FIRST CLASS MAIL
First Selectman Patricia Allyn Mechare
Town of Canaan
Falls Village
Town Hall
P.O. Box 47
Falls Village, CT 06031-0047
Phone: (860) 824-0707

Re: AT&T
Proposed Wireless Telecommunications Tower Facility
8 Barnes Road
Town of Canaan, Falls Village, Connecticut

Dear First Selectman Mechare:

We are writing to you on behalf of our client, New Cingular Wireless PCS, LLC ("AT&T") with respect to the above captioned matter involving a proposed wireless telecommunications tower facility to be located at 8 Barnes Road in the Town of Canaan, Falls Village. As you know, jurisdiction over such facilities rests exclusively with the State of Connecticut Siting Council pursuant to Section 16-50i and x of the Connecticut General Statutes.

Section 16-50l(e) of the Connecticut General Statutes does nevertheless require that AT&T consult with a municipality prior to such an application being filed with the Siting Council. The purpose of such local consultation is to give the municipality in which a facility has been proposed an opportunity to provide the applicant with any recommendations or preferences it may have prior to the applicant's filing of an application. As set forth in the statute, any such recommendations must be issued by the municipality within sixty days of its receipt of technical information concerning the proposed facility from the applicant.

The purpose of this letter is to formally notify you of the proposed Facility in the Town of Canaan and commence the sixty day consultation period that is required prior to AT&T's filing of any application with the Siting Council. Enclosed is a "Technical Report" for your review and consideration which includes information about the need for the proposed tower facility, a summary of the site selection process and the environmental effects of a tower that has been proposed. The enclosed Technical Report also includes information provided by AT&T regarding its lack of service in this area of the State and how the proposed facility would integrate into its network. We trust that this information will prove helpful to you and others in Falls Village in formulating any recommendations you may have about the proposal.

We would appreciate the opportunity to meet with you to review the Technical Report and will follow this letter with a call to schedule such a meeting to discuss the proposed facility at your

convenience. Additionally, should Falls Village elect to conduct a public meeting about the proposal during the consultation period, we would ask that you let us know at your earliest convenience so that we may have representatives available to discuss the project.

Thank you for your consideration of this letter and its enclosures. We look forward to meeting with you.

Very truly yours,

Lucia Chiocchio for

Christopher B. Fisher

Enclosure

cc w/ enclosures:

Michael O'Neil, Zoning Enforcement Officer
Michelle Briggs, AT&T
David Vivian, SAI Communications
Lucia Chiocchio, Esq.

IW15

INLAND WETLANDS/CONSERVATION
COMMISSION

February 8th, 2010

Mr. Greg Marlowe, General Manager
Century Aggregates
47 Sand Road
Falls Village, CT 06031

Dear Greg:

I wish to confirm that the Falls Village (Town of Canaan) Inland Wetlands/Conservation Commission has approached you regarding a possible telecommunications site at Century Aggregates.

Our belief is that this site across Sand Road from the Century Aggregates quarry would be a far more suitable tower site than the proposed Cobble Hill site for several reasons-- some of which specifically concern the IW/CC and others which probably concern the Planning and Zoning Commission.

While the IW/CC does not have the resources to determine the extent of telecommunications coverage from the Sand Road site, it is evident that this site would provide linkage with the Church Hill site in North Canaan, while Cobble Hill does not.

Visually at the Sand Road site, at least the lower portion of a tower would be screened against the 800 ft hill at the quarry face, perhaps for its entire height from the base at 650 ft. The proposed Cobble Hill tower would rise 120 ft from the hill's peak in the geographic center of the township, providing a significant visual intrusion.

One of the major objections could be the proximity of the Sand Road site to Robbins Swamp. Robbins swamp may be already compromised at its northern end by the Church Hill tower and could be at its southern end by a Cobble Hill tower. Since the Federal Communications Commission preempts these considerations, the IW/CC is looking to other issues to preserve an area of special concern around Cobble Hill and in Wangum Valley, hitherto undisturbed. The site at Century Aggregates is, on the other hand, historically an industrial site.

Thank you for your consideration of this request to provide a tower site on your Sand Road property. If this is agreeable, please contact Lucia Chiocchio at Cuddy & Feder, 445 Hamilton Avenue, 14th Floor, White Plains, New York 10601, tel: 1-914-761-1300.

Sincerely,

Ellery W. Sinclair, Chairman

CUDDY& FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

IW 16

March 24, 2010

VIA FAX (860) 824-4506 & FIRST CLASS MAIL
Ellery W. Sinclair, Chairman
Inland Wetland/Conservation Commission
Town of Canaan
Falls Village
108 Main Street
P.O. Box 47
Falls Village, CT 06031-0047
Phone: (860) 824-0707

Re: AT&T
Proposed Wireless Telecommunications Tower Facility
8 Barnes Road
Town of Canaan, Falls Village, Connecticut

Dear Chairman Sinclair:

I am writing to you on behalf of our client, New Cingular Wireless PCS, LLC ("AT&T") in connection with the above referenced facility and in response to your March 19, 2010 letter regarding your two suggested alternative sites - Music Mountain and Century Aggregate.

As you know, the Music Mountain property is located well south of AT&T's proposed Barnes Road facility and the Century Aggregate property is located well north of AT&T's proposed facility. In and of themselves, neither site is a viable alternative to the AT&T proposed site on Barnes Road. Indeed, as demonstrated in the enclosed coverage plot, AT&T studied the Music Mountain site as high as 196' AGL and it simply would not provide adequate and reliable coverage to the public in areas AT&T is looking to serve with the proposed site at 8 Barnes Road.

Moreover, the Century Aggregate property is located in close proximity to an existing AT&T facility owned by Litchfield County Dispatch. As such, the Century Aggregate site would be largely redundant and cannot be used by AT&T in any scenario including a two tower site combination. While not requested in your letter, AT&T did also investigate the feasibility of providing service with a two tower site combination involving the Music Mountain property and a site at the approved tower facility at the Falls Village Fire Department site. This combination is similarly not a viable alternative largely due to the coverage limitations of the Music Mountain location.

AT&T is continuing to pursue its proposed Barnes Road facility in conjunction with future co-location on the approved Verizon facility at the Falls Village Volunteer Fire Department in order to provide adequate and reliable service in this area of the State. AT&T is in the process of

assembling its Application for a Certificate of Environmental Compatibility and Public Need for filing with the Connecticut Siting Council and we welcome any comments you may have at this time notwithstanding close of the technical consultation process pursuant to Section 16-50*l* of the Connecticut General Statutes. Thank you for your understanding in this regard.

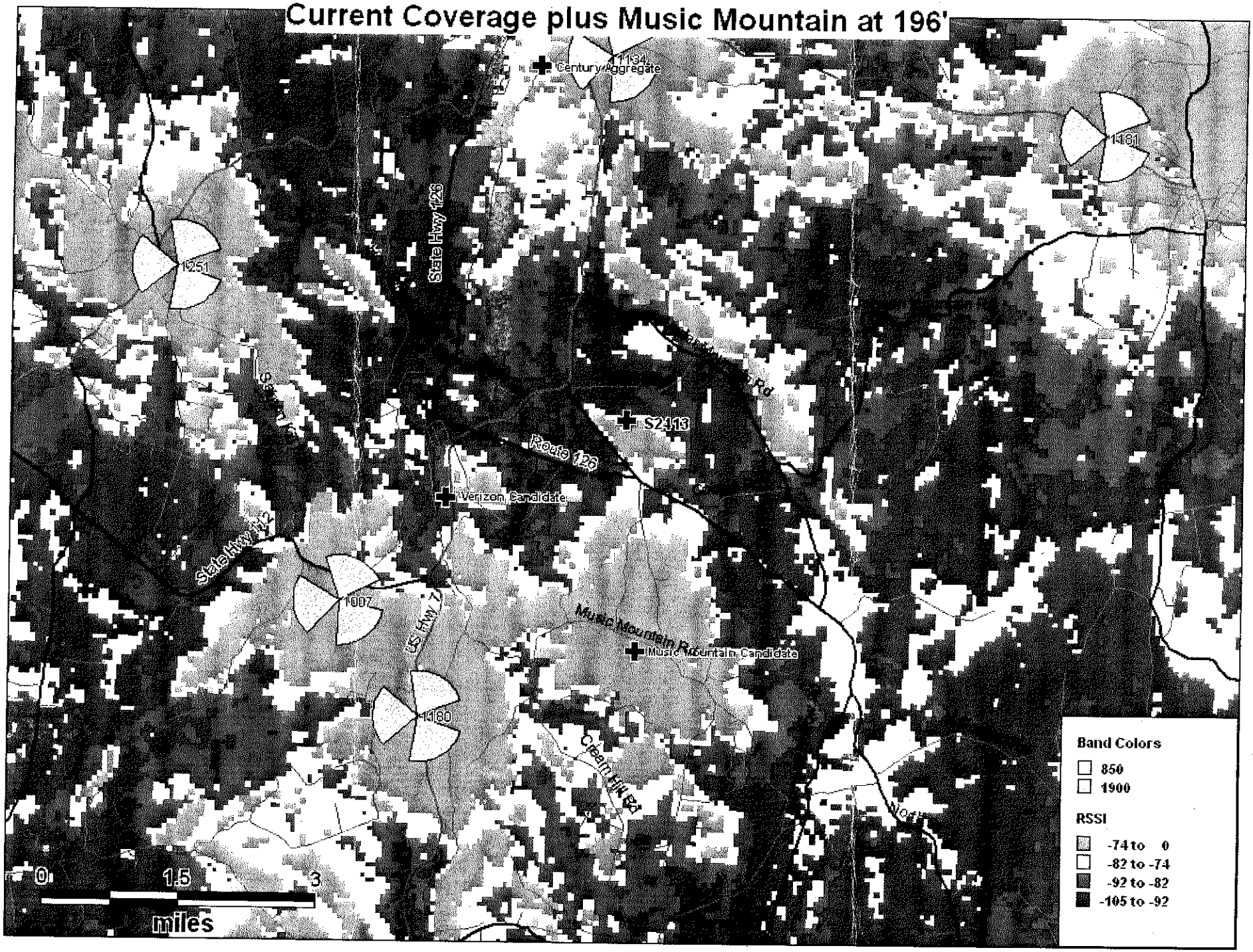
Should you have any questions regarding this information, do not hesitate to contact me.

Very truly yours,

Lucia Chiocchio

Lucia Chiocchio

cc: First Selectwoman Patricia Allyn Mechare
Frederick Laser, Chairman, Planning & Zoning Commission
Michelle Briggs, AT&T
David Vivian, SAI
John Blevins, AT&T
Anthony Wells, C Squared
Christopher B. Fisher, Esq.


Current Coverage plus Music Mountain at 196'
Century Aggregate
1134
1181
1251
State Hwy 126
S2413
Route 126
Verizon Candidate
State Hwy 42
1007
US Hwy 7
Music Mountain Candidate
1180
Band Colors
850
1900
RSSI
-74 to 0
-82 to -74
-92 to -82
-105 to -92
0
1.5
3
miles

IW 17

cingular raising the bar

The new at&t Your world. Delivered.

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (413) 218-5042
Fax: (860) 513-7190

David Vivian
Site Acquisition Consultant

April 28, 2010

Mr. Greg Marlowe
Century Aggregate Inc.
74 Sand Road
Canaan, Connecticut 06018

Re: AT&T
Proposed Wireless Telecommunications Tower Facility
Falls Village, Connecticut

Dear Mr. Marlowe:

I am writing to you on behalf of New Cingular Wireless PCS, LLC ("AT&T") and as a follow up to our discussion regarding the alternative property you suggested for the siting of AT&T's proposed wireless facility.

As we discussed, based upon the coordinates you provided (41-59-4.9N and 73-21-10.74W), AT&T's Radio Frequency Engineers evaluated this location and determined that it was not a viable alternative to its proposed facility on Barnes Road due to the location of the property and the topography of the surrounding area. As shown in the enclosed coverage plot, even a facility with a height of 195' above grade level would not provide adequate and reliable coverage to the areas AT&T is looking to serve with its proposed Barnes Road facility.

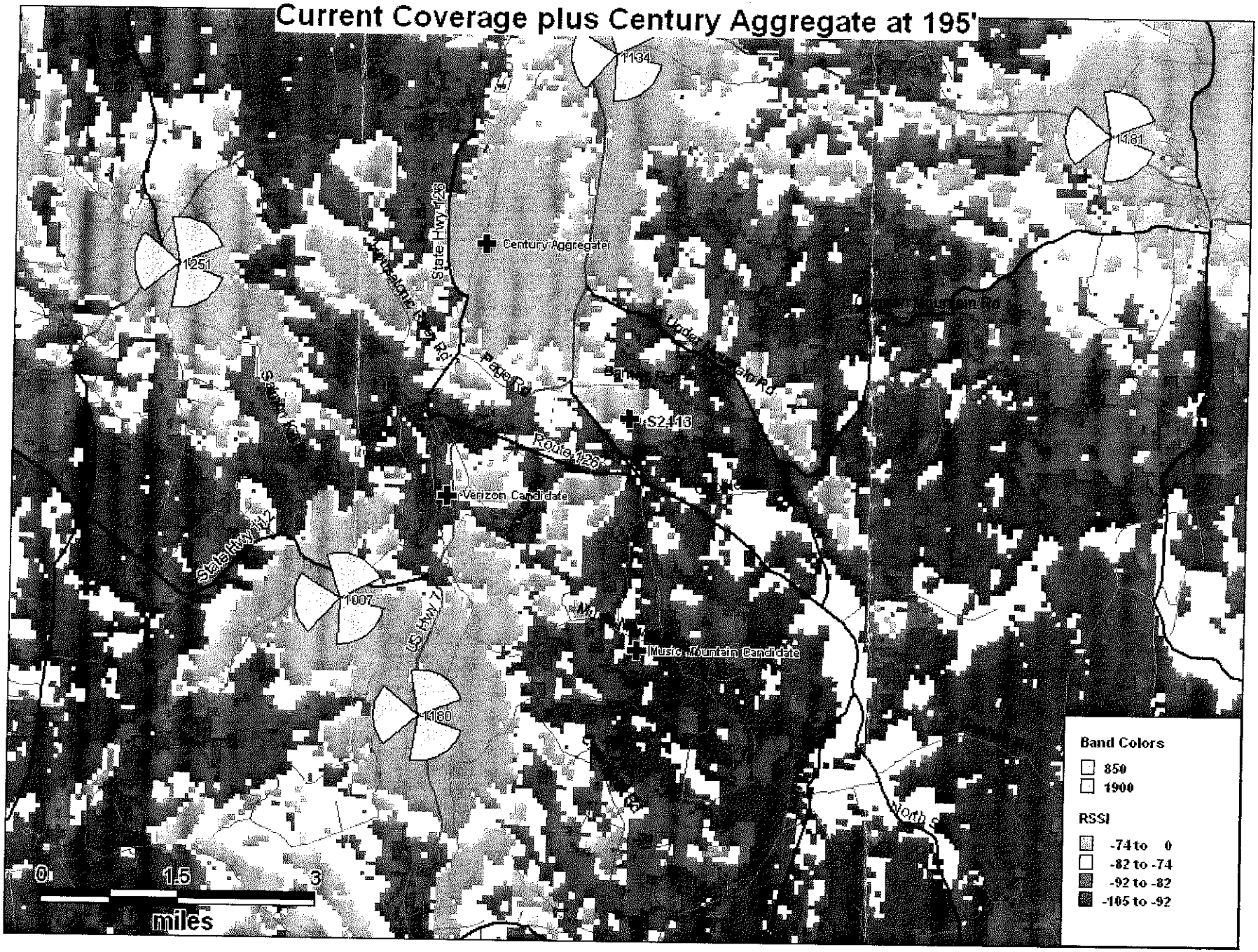
The property you suggested was also evaluated in conjunction with a site at the approved Verizon Wireless tower facility at the Falls Village Fire Department. This proposed combination of sites is also not a viable alternative as shown in the enclosed plot.

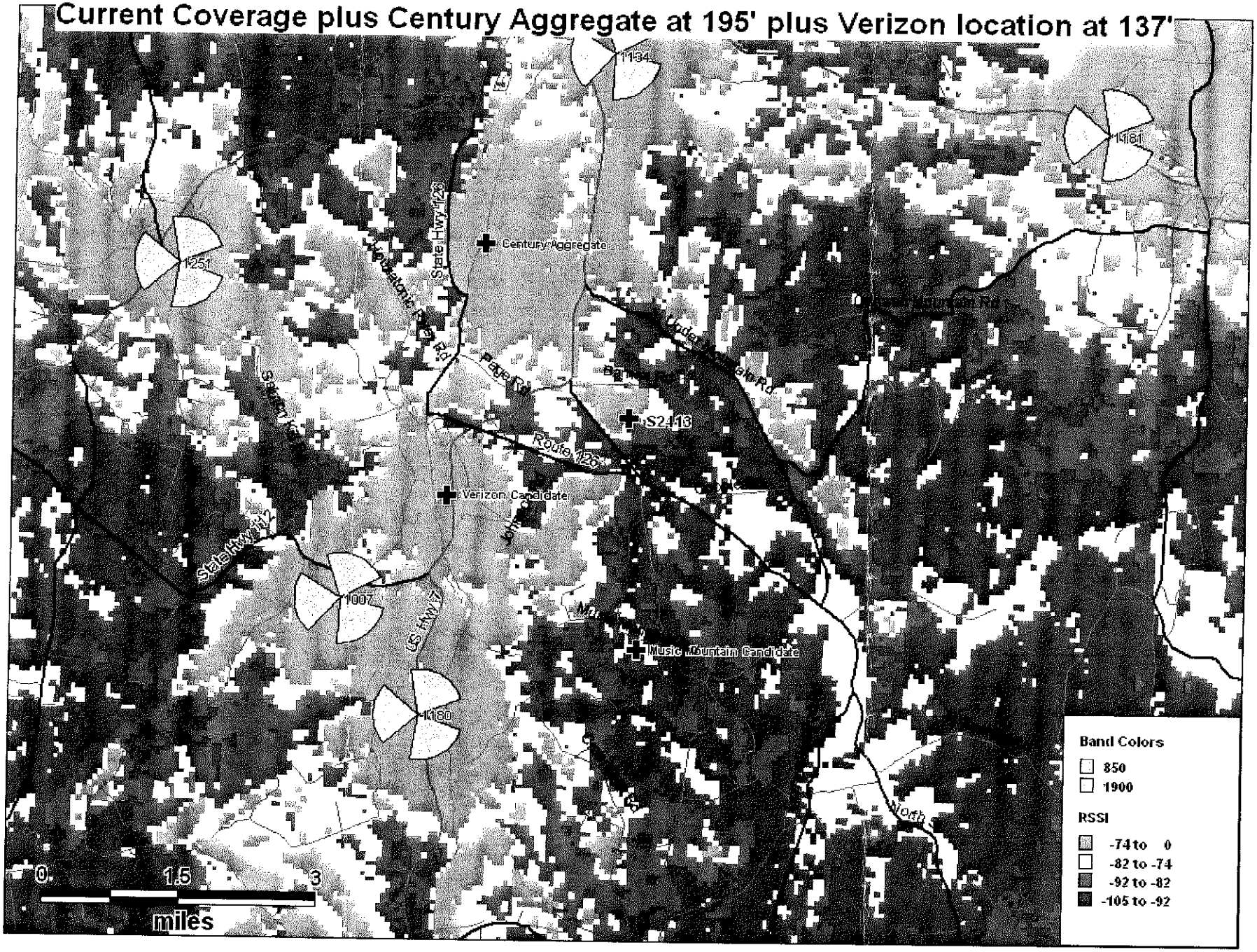
Thank you for providing information on a suggested alternative location. Should you have any questions regarding this information, do not hesitate to contact me.

Sincerely,

David Vivian

cc: First Selectwoman Patricia Allyn Mechare
Chairman Ellery W. Sinclair, Inland Wetland/Conservation Commission
Chairman Fred Laser, Planning & Zoning Commission
Lucia Chiocchio, Esq.


Current Coverage plus Century Aggregate at 195'
1134
1181
1251
1007
1180
Century Aggregate
S2413
Verizon Candidate
Music Mountain Candidate
State Hwy 126
Route 126
Band Colors
850
1900
RSSI
-74 to 0
-82 to -74
-92 to -82
-105 to -92
0
1.5
3
miles


Current Coverage plus Century Aggregate at 195' plus Verizon location at 137'
1134
1181
1251
1007
1180
Century Aggregate
S2413
Verizon Candidate
Music Mountain Candidate
State Hwy 23
Page Rd.
Route 125
US Hwy 7
Band Colors
850
1900
RSSI
-74 to 0
-82 to -74
-92 to -82
-105 to -92
0
1.5
3
miles

CUDDY & FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

October 19, 2010

INLAND WETLANDS / CONSERVATION COMMISSION
E. H. SINCLAIR, CHAIR

IW 18

BY HAND
Hon. Daniel F. Caruso, Chairman
and Members of the Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: AT&T
Application for Certificate of Environmental Compatibility and Public Need
8 Barnes Road, Canaan (Falls Village), Connecticut

Dear Chairman Caruso and Members of the Council:

On behalf of AT&T, we respectfully enclose an original and twenty copies of its Application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility in the Town of Canaan, commonly known as Falls Village.

Also accompanying AT&T's Application, please find four copies of a bulk filing each of which includes the Town of Canaan's Plan of Conservation and Development, Zoning Regulations, Zoning Map and Inland Wetlands and Watercourses Regulations and the Technical Report materials submitted to Falls Village as required by State statute and Council regulations. Enclosed please also find a redacted copy of the lease as well as a sealed envelope containing select unredacted pages of the lease containing proprietary and confidential information with an accompanying request for a protective order, an affidavit regarding the confidential information and a proposed Protective Order for signature.

A check payable to the "Connecticut Siting Council" in the amount of $1,250, representing the filing fee and an electronic copy of the Application and its attachments are also enclosed.

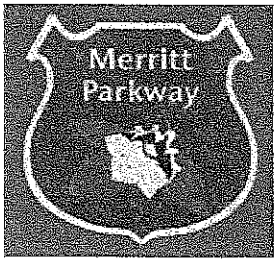
We would respectfully request that this matter be assigned a docket number and placed on the next available Council agenda for scheduling of a public hearing in Falls Village. Should the Council or staff have any questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

Lucia Chiocchio

cc: Service List
Linda Roberts, CSC Executive Director
Hon. Patricia Allyn Mechare, First Selectman, Falls Village
Michele Briggs, AT&T
David Vivian, SAI
Christopher B. Fisher, Esq.

Connecticut Scenic Roads



Connecticut has over the past several years designated several sections of its rural two-lane highways as Scenic Roads. This designation not only encourages sightseeing along the road but helps preserve it from modifications that would detract from its appearance, such as rerouting or widening.

CRITERIA FOR DESIGNATION OF SCENIC HIGHWAYS

A potential state scenic highway must abut significant natural or cultural features such as agricultural land or historic buildings and structures which are listed on the National or State Register of Historic Places, or afford vistas of marshes, shoreline, forests with mature trees, or other notable natural or geologic feature which singularly or in combination set the highway apart from other state highways as being distinct. The Highway shall have a minimum length of one (1) mile and shall abut development which is compatible with its surroundings. Such development must not detract from the scenic or natural character or visual qualities of the highway area.

Guidelines for Requesting Designation

1. Requests for state scenic highway designation from any agency, municipality, group or individual should be directed to:

Commissioner
Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

2. The applicant must prepare a report for submission to the Commissioner which shall include the following:

a. A statement of the highway segments or areas to be included.
b. A description of natural and cultural resources and features of scenic interest.
c. A description of existing land use.
d. Photographs of outstanding and representative scenery.
e. A list of properties on the National or State Register of Historic Places. The applicant may contact the Connecticut Historical Commission [(860) 566-3005] for assistance in identifying properties which have been historically designated along a proposed scenic highway.

3. The Scenic Roads Advisory Committee shall make a systematic evaluation of the extent and quality of historic, scenic, natural and cultural resources for the proposed scenic highway.

4. The Scenic Roads Advisory Committee may review any reports, letter, articles, or other documents which is deemed necessary to assist in its recommendation. It may also request additional information from the applicant to clarify any information provided in the report. Its recommendation shall be forwarded to the Commissioner for action.

List of Connecticut Scenic Roads

Legislation for Designation of Scenic Roads

Scenic Road Advisory Committee Members

Printable Version

CONNECTICUT STATE SCENIC ROADS

As of November 1, 2008

ROUTE	TOWN	DATE DESIGNATED	MILES	LOCATION
1	Madison	October 14, 2008	2.3	From Neck Road #2 north to Lovers Lane
4	Sharon	July 26, 1990	3.10	From Route 7 west to Dunbar Road.
4	Sharon	October 22, 1992	0.80	From Dunbar Road west to Old Sharon Road.
4 118	Harwinton	July 29, 1996	1.60 0.10	From Cooks Dam west to Route 118. From Route 4 west to Cemetery Road.
7	Sharon	July 26, 1990	4.29	From the Cornwall Bridge crossing of the Housatonic River north to Route 128 at the covered bridge.
7	Kent	October 17, 1991	10.50	From the New Milford town line north to the Cornwall town line.
7	Cornwall	January 3, 2002	3.56	From the Kent town line north to Route 4.
7	Sharon, Salisbury, Canaan	January 3, 2002	10.26	From Route 128 north to the North Canaan town line.
10	Farmington	April 13, 1999	1.0	From Route 4 south to Tunxis Street.
14	Windham, Scotland	January 13, 1999	4.40	From the Windham Center School to 0.3 mi. east of Scotland Center.
14A	Sterling	February 2, 1995	0.70	From Route 49 east to Porter Pond Road.

DEPARTMENT OF TRANSPORTATION

Designation of Scenic Roads

Section 1: Regulations of Connecticut State Agencies are amended by adding new sections 13b-31c-1 to 13b-31c-5 inclusive, as follows:

Sec. 13b-31c-1. Definitions

(a) "Advisory Committee" means the Scenic Road Advisory Committee established pursuant to these regulations.

(b) "Commissioner" means the Commissioner of the Department of Transportation (DOT).

(c) "Department" means the Department of Transportation (DOT).

(d) "Improvement" means actions or activities initiated by the Department of Transportation which alter or improve a designated scenic road in one or more of the following ways: (1) widening of the right-of-way or traveled portion of the highway, (2) installation or replacement of guide railing, (3) paving, (4) changes of grade, and (5) straightening and removal of stone walls or mature trees.

(e) "Scenic Road" means any state highway or portion thereof that (1) passes through agricultural land or abuts land on which is located an historic building or structure listed on the National Register of Historic Places or the state register of historic places, compiled pursuant to section 10-321 of the general statutes, or (2) affords vistas of marshes, shoreline, forests with mature trees or notable geologic or other natural features.

(f) "State Highway" means a highway, bridge or appurtenance to a highway or bridge designated as part of the state highway system within the provisions of chapter 237 of the Connecticut General Statutes, or a highway, bridge or appurtenance to a highway or bridge specifically included in the state highway system by statute.

Sec. 13b-31c-2. Administration, advisory committee, composition and duties

(a) The Commissioner shall establish a Scenic Road Advisory Committee. This Committee will include representation from the Departments of Transportation, Environmental Protection and Economic Development.

(b) The Advisory Committee shall meet quarterly, unless there is no business, or as necessary to:

(1) Develop a method to systematically evaluate request for scenic road designation.

(2) Review and evaluate the requests submitted to the Commissioner to designate a State highway, or portion thereof, as a scenic road.

(3) Prepare recommendations to the Commissioner as to those highways, or portion thereof, appropriate for designation as a scenic road.

(4) Review Department proposals to evaluate whether the proposed improvement will have an effect upon or alter the characteristics that qualified the highway as scenic.

(5) Recommend alternate courses of action which could avoid, mitigate or minimize adverse effects of the improvement on the scenic road, without compromising the safety of the traveling public.

(6) When conditions of development, zone change or other local action occur they may review the designated scenic road and recommend to the Commissioner any changes in designation.

Section 13b-31c-3. Request to designate a highway as scenic

(a) Requests to designate a state highway as a scenic road may be made to the Commissioner by any agency, municipality, group or individual.

(1) Requests for consideration must include a report providing pertinent information on the proposed designated highway. This report shall be prepared by the requesting agency, municipality, group or individual and submitted to the Commissioner. The report shall include the following:

(A) Highway segments or areas to be included.

(B) Description of natural and cultural resources and features of scenic interest.

(C) Existing land use.

(D) Photographs of outstanding and representative scenery.

(E) Properties listed on the National Register of Historic Places and/or state register of historic places.

(b) The Advisory Committee shall make a systematic evaluation of the extent and quality of historic or scenic, natural and cultural resources for the proposed designated scenic road.

(c) The Advisory Committee may review any reports, letters, articles, etc. or any other document which it deems necessary to assist in its recommendation. It may also request additional information from the applicant to clarify any information provided in the report.

(d) Within 90 days of its meeting, the Advisory Committee shall, based on the review of the submitted information report and systematic evaluation of the resources, forward recommendations to the Commissioner for approval or denial of designation. This recommendation will include the identification of the specific features or characteristics which would qualify it as scenic or the reasons why a scenic designation is not considered appropriate.

(e) Within 45 days after reviewing the Advisory Committee's recommendation, the Commissioner will approve or deny the request for scenic road designation.

(f) Within 15 days of the Commissioner's determination, the requesting agency, municipality, group or individual shall be informed in writing of the decision and the basis for it.

Sec. 13b-31c-4. Reconsideration of requests to designate a highway

(a) State highways which do not receive a recommendation for designation or are recommended for deletion will receive no further consideration until additional information is presented to the Commissioner. This additional data is limited to the specific item or items which resulted in the denial or deletion of scenic designation. Within 60 days of its meeting to reconsider, the Advisory Committee shall forward its recommendation to the Commissioner for a final decision.

(b) Within 45 days after receiving the Advisory Committee's recommendation, the Commissioner shall render a final decision on the requested designation.

(c) Within 15 days of the Commissioner's final determination, the requesting agency, municipality, group or individual shall be informed in writing of the final decision and the basis for it.

Sec. 13b-31c-5. Qualifications for a scenic road

(a) In order to qualify for scenic road designation, the state highway under consideration must have significant natural or cultural features along its borders such as agricultural land, an historic building or structure which is listed on the National Register of Historic Places or the state register of historic places or affords vistas of marches, shoreline, forests with mature trees or notable geologic or other natural features which singly or in combination set this highway apart from other highways as being distinct.

(b) The proposed scenic road shall have a minimum length of 1 mile.

(c) The proposed scenic road shall have development which is compatible with its surroundings and must not detract from the scenic, natural character and visual quality of the highway area.

Section 2: The Regulations of Connecticut State Agencies are amended by adding new sections 13b-31e-1 to 13b-31e-4 inclusive, as follows:

Section 13b-31e-1. Determination of effect upon designated scenic roads

(a) **Determination of effect**: Improvements proposed to scenic roads shall be reviewed by the Advisory Committee to evaluate whether the improvements will have a significant effect upon or alter the specific features or characteristics that qualified it to be designated as scenic.

(1) No adverse effect: If the Advisory Committee finds that the proposed improvement will not significantly affect these features or characteristics, the undertaking may proceed as proposed.

(2) Adverse effect: If the Advisory Committee finds that the proposed improvement will have a significant adverse impact on the features or characteristics of the scenic road, it shall:

(A) Notify the Commissioner of their finding.

(B) Return the project to the designer with recommended alternate courses of action that could avoid, mitigate or minimize adverse effects of undertaking on the scenic road. These recommendations could include, but are not limited to, consideration of a waiver of Department or Federal standards, the use of tinted pavements, stone wall replacements and tree or shrub replacements.

(C) If alternatives or waivers are not considered to be feasible by the designer, the Advisory Committee shall make recommendations to the Commissioner as to whether the project should be constructed as proposed.

(D) In all cases, the Commissioner shall make the final determination as to whether to approve or deny the proposed improvements or alternations.

Sec. 13b-31e-2. Public notification of proposed improvements or alterations to a designated scenic road

(a) For those highway construction or maintenance activities that a majority of the Advisory Committee determines to constitute an "improvement" to a designated scenic road within the meaning of Section 1(d) of this regulation, the Department shall publish, in a newspaper of general circulation in the area of the proposed improvements, a notice

describing the alteration or improvement. There shall be a thirty (30) day comment period following this notice during which interested persons may submit written comments.

(b) The Advisory Committee shall review and evaluate all written comments. A report of findings will be prepared outlining the resolution of the various comments and forward to the Commissioner.

(c) In all cases, the Commissioner shall make the final determination as to whether to approve or deny the proposed improvements or alterations.

Sec. 13b-31e-3. Special improvement and maintenance standards for scenic roads

(a) At the time a highway is officially designated as scenic, the characteristics responsible for this designation shall be clearly identified and recorded. Any alteration to a scenic road shall maintain these characteristics, if practical.

(b) Improvements to scenic roads shall be developed in conformity with current Department design and/or maintenance standards for the type road unless it is determined that using such standards will have a significant adverse impact upon the roadway's scenic characteristics. In which case, exemption from Department or Federal standards may be considered to preserve the roadway's scenic qualities.

(c) In designing improvements to and/or preparing for maintenance on a designated scenic road, special consideration should be given to the following:

(1) **Widening of the Right of Way**: The Department may not purchase additional property along a designated scenic road unless the Commissioner has first determined that property acquisition is necessary. The area purchased should be kept to a minimum with the need and use outlined in a detailed report to the Commissioner.

(2) **Widening of the Traveled Portion**: Wherever possible and as safety allows, roadway widening should be kept to a minimum width and accomplished within the existing highway right-of-way. The Department may not widen or issue a permit to allow others to widen any portion of a designated scenic road unless the Commissioner has first determined, after review and approval of a traffic engineering report, that such an improvement is necessary to improve an existing or potential traffic problem.

(3) **Guide Rails (Guardrails):** Guide rails should be replaced in-kind in accordance with current Department standards unless the Commissioner determines after review and approval of a traffic engineering report, that a safety problem exists and another type of guard rail system is necessary for more positive protection.

(4) **Paving**: Paving is to be accomplished in accordance with current Department standards. The pavement type, drainage appurtenances and curbing installation will be accomplished as required with consideration given to the characteristics of the scenic road. The width of paving should not extend more than 12 inches beyond the existing shoulder.

(5) **Changes of Grade:** Wherever possible, proposed changes in grade should be designed to a minimum to restrict the impact on the scenic features. Changes of grade must be approved by the Commissioner after review and approval of a traffic engineering report where it has been determined that such an improvement is necessary to improve an existing or potential traffic problem.

(6) **Straightening or Removal of Stone Walls**: The Commissioner may approve the straightening or removal of a stone wall after review and approval of a traffic engineering report that has determined that such action is necessary to improve an existing or potential safety hazard, improve a sight line restriction, for installation of drainage appurtenances or for other sound reason. The Department will attempt, if practical, to relocate the stone wall within the highway right-of-way or on private property of the abutting property owner. The stone wall should be reconstructed in a manner consistent with its former appearance.

(7) **Removal of Mature Trees**: Wherever possible and as safety allows, mature trees within the highway right-of-way should not be removed. If roadway widening is approved, the alignment should be such as to restrict its impact on mature trees. The Commissioner may approve the removal of mature trees after review of an engineering report which outlines the need.

(8) **General Maintenance**: All scenic roads shall receive the level of maintenance necessary for safe public travel.

(9) **Road Bed Maintenance**: Necessary improvements, as determined by the Director of Maintenance, may be made to improve safety, drainage or reduce a maintenance problem, but shall not disturb the scenic characteristics for which the roadway was designated.

(10) **Cross Drainage Maintenance**: Cross drainage shall be maintained where necessary to prevent damage to the highway, possible washouts and other problems which may be detrimental to the safety of the traveling public.

(11) **Vegetation Maintenance**: Where necessary for the safety and protection of the traveling public, tree branches and shrubs may be trimmed. Mowing shall be performed as necessary in accordance with Department standards for health and safety requirements.

(12) **Sign Maintenance**: All information, regulatory, warning and identification signs shall be erected and maintained as necessary or provided for by the State Traffic Commission.

(13) **Winter Maintenance**: Winter maintenance procedures shall be conducted in accordance with standard Department policy. Snow and ice control shall be performed in accordance with the latest Department policy.

Sec. 13b-31e-4. Emergency repairs

Should the Commissioner declare an emergency, as specified under Section 13b-26(f) of the General Statutes, repairs will be made in a manner which will minimize, as much as reasonably possible, the effect upon the features for which the highway was designated as scenic.

Statement of purpose: To provide regulations for the designation of State highways as scenic roads in accordance with Public Act No. 87-280.

Be it known that the foregoing regulations are adopted by the aforesaid agency pursuant to Public Act No. 87-280 of the Public Acts, after publication in the Connecticut Law Journal on March 8, 1988, of the notice of the proposal to adopt such regulations.

Wherefore, the foregoing regulations are hereby adopted, effective when filed with the Secretary of the State.

In Witness Whereof: March 28, 1989, J. William Burns, Commissioner.

Approved by the Attorney General as to legal sufficiency in accordance with Sec. 4-169, as amended, General Statutes: March 31, 1989.

Approved by the Legislative Regulation Review Committee in accordance with Sec. 4-170, as amended, of the General Statues: April 18, 1989.

Two certified copies received and filed, and one such copy forwarded to the Commission on Official Legal Publications in accordance with Sec. 4-172, as amended, of the General Statues, Secretary of State: May 1, 1989.