# STATE OF CONNECTICUT

*CONNECTICUT SITING COUNCIL*

10 Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950


May 29, 1998

Michael A. Stemmler
Department of Public Safety
Division of State Police
1111 Country Club Road, P.O. Box 2794
Middletown, CT 06457

Re: Department of Public Safety, Division of State Police notice of intent to modify an existing telecommunications facility located on I-84 in Middlebury, Connecticut.

Dear Mr. Stemmler:

At a public meeting held on May 28, 1998, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility in Middlebury, Connecticut, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated April 2, 1998 and errata dated April 29, 1998. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston

Mortimer A. Gelston
Chairman

MAG/RKE/sg

c: Honorable Edward B. St. John, First Selectman, Town of Middlebury

I:\siting\cm\dps\middlebury\dc052898.doc

# STATE OF CONNECTICUT
## DEPARTMENT OF PUBLIC SAFETY
### DIVISION OF STATE POLICE

April 29, 1998



Mortimer A. Gelston
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Subject: Updated information for our exempt modification for
Troop A-Site#25, West Rock Ridge-Site#27,
Troop I-Site#26, and Middlebury-Site#20

Dear Chairman Gelston:

Attached please find an original and 20 copies of additional information for our Notice of Intent to Erect Exempt Telecommunications Associated Equipment pursuant to Connecticut General Statutes 16-50g et. Seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council.

Sincerely,

Michael A. Stemmler
Public Safety Engineer of Telecommunications

cc: File

1111 Country Club Road
P.O. Box 2794
Middletown, CT 06457-9294
*An Equal Opportunity Employer*

STATE OF CONNECTICUT
SITING COUNCIL

Notice of Intent to Erect Exempt Telecommunications Associated Equipment in New Haven County.

Pursuant to Connecticut General Statute 16-50g et. seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council the Division of State Police hereby give Notice of Its Intent to Erect Exempt Telecommunications Associated Equipment at its Troop A site located at 11 Lakeside Road, Southbury; West Rock Ridge site located on Brookside Avenue, New Haven; Troop I site located at 631 Amity Road, Bethany; and Middlebury site located on I-84 in Middlebury, Connecticut.

The Troop A and Troop I sites are currently occupied by active 180 foot three legged self supporting telecommunications towers. The West Rock Ridge site is currently occupied by an active 120 foot three legged self supporting telecommunications tower. The Middlebury site is currently occupied by an active 160 foot three legged self supporting telecommunications tower. Equipment on the existing Troop A tower or previously proposed to the Council consists of seven antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. Equipment on the existing West Rock Ridge tower or previously proposed to the Council consists of twenty-six antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. Equipment on the existing Troop I tower or previously proposed to the Council consists of twelve antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. Equipment on the existing Middlebury tower or previously proposed to the Council consists of thirty-five antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. All current and proposed antennas are depicted in the tower elevation drawings attached as Attachment A. This project is part of a Division of State Police effort to share tower space with other users.

The Division of State Police believes that this project is exempt from the need to obtain a Certificate of Environmental Compatibility and Public Need pursuant to Siting Council Reg. Sec. 16-50j-72(b) for the following reasons:

1. Existing Tower Sites
   The proposed locations are currently occupied by existing, active 180 foot three legged self supporting lattice type towers at Troop A and Troop I; a 120 foot three legged self supporting lattice type tower at West Rock Ridge; and a 160 foot three legged self supporting lattice type tower at Middlebury.

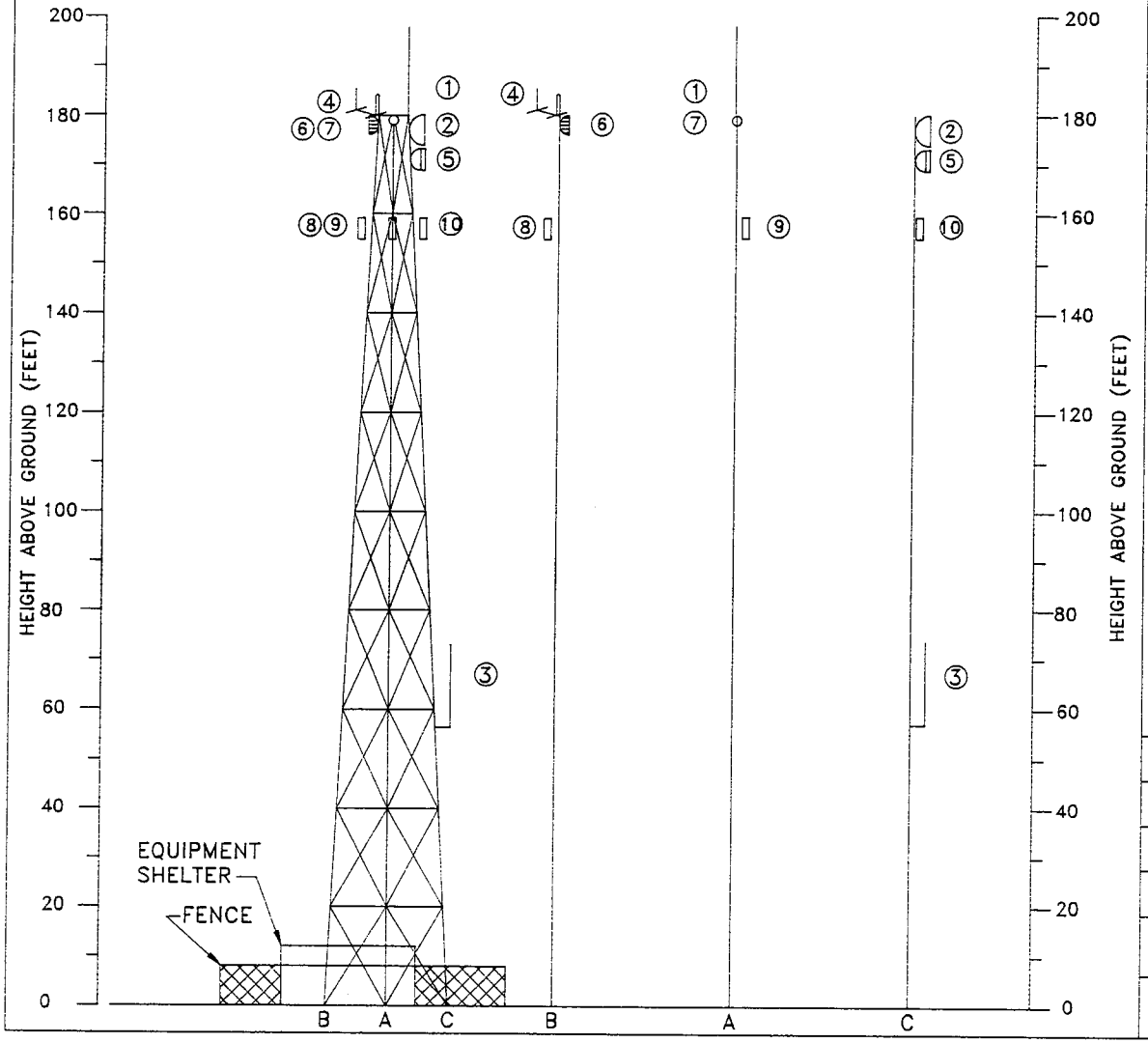
2. Site Boundaries
   As depicted in Attachment B, the property boundaries of the sites will not be extended. No tree cutting or extensive grading will be conducted at the sites.

3. Tower Height
   The existing 180 foot towers at Troop A and Troop I, the 160 foot tower at Middlebury, and the 120 foot tower at West Rock Ridge will be retained and the heights will not change.

4. Noise Levels
   The proposed antenna additions will not increase noise levels at the existing facilities by six decibels or more.

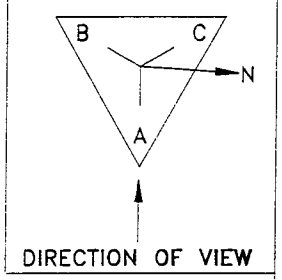
5. Radiation Power Density
   The radio frequency sending or receiving capability of the additional antennas will not increase the total radio frequency electromagnetic radiation power density measured at the tower site boundaries to or above the standard considered by the State Department of Environmental Protection (DEP). The current ANSI standard applicable to the Division of State Police facilities and the total radio frequency electromagnetic radiation power density calculated for the tower site boundaries are set forth in Attachment C.

ATTACHMENT A




LEGEND

① 22' WHIP (DOT)
② 6' DISH (DOT)
③ 13' WHIP (DOT)
④ VHF YAGI (CSP)
⑤ 6' DISH W/RADOME (CSP)
⑥ 4' GRID DISH (DOE)
⑦ 2' DISH (DOE)
⑧–⑩ 4' PANEL (OMNIP)




| | |
|---|---|
| DRAWN ARRIL 23, 1998 | |
| DESIGNED | |
| CHECKED | |
| REVISED | |
| APPROVED 41:27:25N 73:14:04W | |
| APPROVED FOR 237 FT AMSL | |

CTS PROJECT

SITE: TROOP A

TITLE: ELEVATION & ANTENNA LOCATIONS

| SIZE | PROJECT | DRAWING NUMBER | REV. |
|---|---|---|---|
| B | CTS | 025-515 | 1 |

SCALE: AS SHOWN

SHEET 1 of 1

ATTACHMENT B

Plot plan additional information.

The exact location for Omnipoint's base station equipment has not been determined at this time. The equipment will be mounted in weatherproof cabinets on an approximate 200 square foot concrete pad. The pad will be physically located as close to the base of the tower as possible. Due to differences in site layout the position will vary from site to site. Room for expansion is included on the pad to minimize construction disruption should future additions be granted by the Council. No expansion of the fenced compound is necessary. All construction and equipment will be within the existing fenced compound at all the attached Connecticut State Police communications sites.

# RADIO/ANTENNA SYSTEMS DATA

SITE NAME: MIDDLEBURY PREPARED BY: D.P.S.
TOWER HEIGHT: 160 FEET ON DATE: 02-27-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 42.0400 | 330 | 160 | WHIP ON PIPE MOUNT | 15 | 0.0 | 330 |
| 2 | 166.0000 | 250 | 153 | FOUR DIPOLE ARRAY | 22 | 6.0 | 995 |
| 3 | 2192.0000 | 3 | 150 | SOLID DISH W/RADOME | 6 | 29.9 | 1795 |
| 4 | 47.0000 | 100 | 122 | WHIP ON PIPE MOUNT | 18 | 0.0 | 100 |
| 5 | 460.3000 | 10 | 85 | CORNER REFLECTOR | 2 | 8.5 | 71 |
| 6 | 6700.0000 | 1 | 110 | SOLID DISH W/RADOME | 8 | 42.1 | 9939 |
| 7 | 6700.0000 | 1 | 110 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 8 | 867.5000 | 5 x 25 | 160 | WHIP | 13 | 9.0 | 1000 |
| 9 | 867.0000 | 5 x 25 | 160 | WHIP | 13 | 9.0 | 1000 |
| 10 | 867.0000 | 5 x 25 | 160 | WHIP | 13 | 9.0 | 1000 |
| 11 | 822.5000 | 0 | 147 | WHIP | 13 | 9.0 | 0 |
| 12 | 822.5000 | 0 | 147 | WHIP | 13 | 9.0 | 0 |
| 13 | 822.5000 | 0 | 147 | WHIP | 13 | 9.0 | 0 |
| 14 | 458.0750 | 0 | 120 | WHIP | 22 | 10.0 | 0 |
| 15 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 16 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 17 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 18 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 19 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 20 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 21 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 22 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 23 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 24 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 25 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 26 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 27 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 28 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 29 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 30 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 31 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 32 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 33 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 34 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 35 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 36 | 1937.5000 | 3 x 20 | 125 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 37 | 1937.5000 | 3 x 20 | 125 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 38 | 1937.5000 | 3 x 20 | 125 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.
ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.
ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.

2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: MIDDLEBURY
TOWER HEIGHT: 160 FEET

PREPARED BY: D.P.S.
ON DATE: 02-27-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 42.0400 | 541 | 168 | 0.200 | 0.0006608 | 0.3304 |
| 2 | 166.0000 | 1633 | 164 | 0.200 | 0.0020791 | 1.0395 |
| 3 | 2192.0000 | 2945 | 150 | 1.000 | 0.0000149 | 0.0015 |
| 4 | 47.0000 | 164 | 131 | 0.200 | 0.0003274 | 0.1637 |
| 5 | 460.3000 | 116 | 85 | 0.306 | 0.0005505 | 0.1799 |
| 6 | 6700.0000 | 16305 | 110 | 1.000 | 0.0004666 | 0.0467 |
| 7 | 6700.0000 | 9172 | 110 | 1.000 | 0.0004666 | 0.0467 |
| 8 | 867.5000 | 1641 | 167 | 0.578 | 0.0020267 | 0.3506 |
| 9 | 867.0000 | 1641 | 167 | 0.578 | 0.0020267 | 0.3506 |
| 10 | 867.0000 | 1641 | 167 | 0.578 | 0.0020267 | 0.3506 |
| 11 | 822.5000 | 0 | 154 | 0.548 | 0.0000000 | 0.0000 |
| 12 | 822.5000 | 0 | 154 | 0.548 | 0.0000000 | 0.0000 |
| 13 | 822.5000 | 0 | 154 | 0.548 | 0.0000000 | 0.0000 |
| 14 | 458.0750 | 0 | 131 | 0.305 | 0.0000000 | 0.0000 |
| 15 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 16 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 17 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 18 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 19 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 20 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 21 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 22 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 23 | 1957.5000 | 4006 | 97 | 1.000 | 0.0145821 | 1.4582 |
| 24 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 25 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 26 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 27 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 28 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 29 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 30 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 31 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 32 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 33 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 34 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 35 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 36 | 1937.5000 | 4397 | 125 | 1.000 | 0.0096371 | 0.9637 |
| 37 | 1937.5000 | 4397 | 125 | 1.000 | 0.0096371 | 0.9637 |
| 38 | 1937.5000 | 4397 | 125 | 1.000 | 0.0096371 | 0.9637 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 38 RADIO SYSTEMS = 18.8753

NOTES:
1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OET BULLETIN NO.65', AUGUST 1997
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

# POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | MIDDLEBURY | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 160 FEET | ON DATE: | 02-27-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 18.8753 |
| 100 | 11.1533 |
| 200 | 5.5631 |
| 300 | 3.1035 |
| 400 | 1.9311 |
| 500 | 1.3016 |
| 600 | 1.0303 |
| 700 | 0.8437 |
| 800 | 0.7003 |
| 900 | 0.5875 |
| 1000 | 0.4980 |
| 1100 | 0.4346 |
| 1200 | 0.3898 |
| 1300 | 0.3513 |
| 1400 | 0.3177 |
| 1500 | 0.2882 |
| 1600 | 0.2623 |
| 1700 | 0.2393 |
| 1800 | 0.2190 |
| 1900 | 0.2011 |
| 2000 | 0.1851 |
| 2100 | 0.1708 |
| 2200 | 0.1581 |
| 2300 | 0.1467 |
| 2400 | 0.1364 |
| 2500 | 0.1300 |

# RADIO/ANTENNA SYSTEMS DATA

SITE NAME: TROOP A PREPARED BY: D.P.S.
TOWER HEIGHT: 180 FEET ON DATE: 04-22-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 458.0250 | 0 | 180 | WHIP | 22 | 10.0 | 0 |
| 2 | 2197.6000 | 3 | 177 | SOLID DISH | 6 | 29.9 | 1804 |
| 3 | 453.0250 | 25 | 58 | WHIP | 13 | 7.5 | 141 |
| 4 | 158.9250 | 50 | 180 | YAGI | 4 | 3.0 | 100 |
| 5 | 6785.0000 | 1 | 172 | SOLID DISH W/SHROUD | 6 | 39.7 | 5733 |
| 6 | 2674.0000 | 0 | 178 | GRID DISH | 4 | 28.1 | 0 |
| 7 | 2674.0000 | 1 | 179 | SOLID DISH | 2 | 22.1 | 99 |
| 8 | 1937.5000 | 3 x 20 | 157 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 9 | 1937.5000 | 3 x 20 | 157 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 10 | 1937.5000 | 3 x 20 | 157 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.
ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.
ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.

2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

ATTACHMENT C

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: TROOP A
TOWER HEIGHT: 180 FEET

PREPARED BY: D.P.S.
ON DATE: 04-22-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 458.0250 | 0 | 191 | 0.305 | 0.0000000 | 0.0000 |
| 2 | 2197.6000 | 2960 | 177 | 1.000 | 0.0000107 | 0.0011 |
| 3 | 453.0250 | 231 | 65 | 0.302 | 0.0018986 | 0.6287 |
| 4 | 158.9250 | 164 | 180 | 0.200 | 0.0001730 | 0.0865 |
| 5 | 6785.0000 | 9406 | 172 | 1.000 | 0.0000033 | 0.0003 |
| 6 | 2674.0000 | 0 | 178 | 1.000 | 0.0000000 | 0.0000 |
| 7 | 2674.0000 | 162 | 179 | 1.000 | 0.0000011 | 0.0001 |
| 8 | 1937.5000 | 4397 | 157 | 1.000 | 0.0061090 | 0.6109 |
| 9 | 1937.5000 | 4397 | 157 | 1.000 | 0.0061090 | 0.6109 |
| 10 | 1937.5000 | 4397 | 157 | 1.000 | 0.0061090 | 0.6109 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 10 RADIO SYSTEMS = 2.5494

NOTES:
1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OET BULLETIN NO.65', AUGUST 1997
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

# POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | TROOP A | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 180 FEET | ON DATE: | 04-22-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 2.5494 |
| 50 | 2.1388 |
| 100 | 1.6465 |
| 150 | 1.2675 |
| 200 | 0.9738 |
| 250 | 0.7538 |
| 300 | 0.6021 |
| 350 | 0.5072 |
| 400 | 0.4288 |
| 450 | 0.3643 |
| 500 | 0.3115 |
| 550 | 0.2683 |
| 600 | 0.2328 |
| 650 | 0.2034 |
| 700 | 0.1791 |
| 750 | 0.1587 |
| 800 | 0.1415 |
| 850 | 0.1269 |
| 900 | 0.1144 |
| 950 | 0.1037 |
| 1000 | 0.0943 |
| 1050 | 0.0862 |
| 1100 | 0.0791 |
| 1150 | 0.0728 |
| 1200 | 0.0673 |
| 1250 | 0.0624 |

# RADIO/ANTENNA SYSTEMS DATA

SITE NAME: TROOP I — PREPARED BY: D.P.S.
TOWER HEIGHT: 180 FEET — ON DATE: 02-23-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 2136.4000 | 3 | 142 | SOLID DISH | 6 | 29.7 | 1705 |
| 2 | 2130.8000 | 3 | 138 | SOLID DISH | 6 | 29.7 | 1696 |
| 3 | 42.4800 | 300 | 180 | FOLDED MONOPOLE | 7 | 0.0 | 300 |
| 4 | 465.1500 | 50 | 160 | WHIP | 20 | 10.0 | 500 |
| 5 | 154.6650 | 2 x 330 | 150 | FOUR DIPOLE ARRAY | 20 | 6.0 | 2628 |
| 6 | 460.1500 | 0 | 110 | WHIP | 20 | 10.0 | 0 |
| 7 | 6700.0000 | 1 | 148 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 8 | 867.5000 | 5 x 25 | 180 | WHIP | 13 | 9.0 | 1000 |
| 9 | 867.5000 | 5 x 25 | 180 | WHIP | 13 | 9.0 | 1000 |
| 10 | 822.5000 | 0 | 180 | WHIP | 13 | 9.0 | 0 |
| 11 | 822.5000 | 0 | 180 | WHIP | 13 | 9.0 | 0 |
| 12 | 148.1500 | 110 | 120 | FOUR DIPOLE ARRAY | 22 | 6.0 | 438 |
| 13 | 149.9250 | 45 | 95 | FOUR DIPOLE ARRAY | 22 | 6.0 | 179 |
| 14 | 1937.5000 | 3 x 20 | 143 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 15 | 1937.5000 | 3 x 20 | 143 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 16 | 1937.5000 | 3 x 20 | 143 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.
ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.
ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.

2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: TROOP I
TOWER HEIGHT: 180 FEET

PREPARED BY: D.P.S.
ON DATE: 02-23-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 2136.4000 | 2798 | 142 | 1.000 | 0.0000163 | 0.0016 |
| 2 | 2130.8000 | 2783 | 138 | 1.000 | 0.0000172 | 0.0017 |
| 3 | 42.4800 | 492 | 184 | 0.200 | 0.0005006 | 0.2503 |
| 4 | 465.1500 | 820 | 170 | 0.310 | 0.0009721 | 0.3136 |
| 5 | 154.6650 | 4311 | 160 | 0.200 | 0.0057666 | 2.8833 |
| 6 | 460.1500 | 0 | 120 | 0.306 | 0.0000000 | 0.0000 |
| 7 | 6700.0000 | 9172 | 148 | 1.000 | 0.0000045 | 0.0005 |
| 8 | 867.5000 | 1641 | 187 | 0.578 | 0.0016153 | 0.2795 |
| 9 | 867.5000 | 1641 | 187 | 0.578 | 0.0016153 | 0.2795 |
| 10 | 822.5000 | 0 | 187 | 0.548 | 0.0000000 | 0.0000 |
| 11 | 822.5000 | 0 | 187 | 0.548 | 0.0000000 | 0.0000 |
| 12 | 148.1500 | 718 | 131 | 0.200 | 0.0014337 | 0.7169 |
| 13 | 149.9250 | 294 | 106 | 0.200 | 0.0008958 | 0.4479 |
| 14 | 1937.5000 | 4397 | 143 | 1.000 | 0.0073637 | 0.7364 |
| 15 | 1937.5000 | 4397 | 143 | 1.000 | 0.0073637 | 0.7364 |
| 16 | 1937.5000 | 4397 | 143 | 1.000 | 0.0073637 | 0.7364 |
| | | | | | | 7.3838 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 16 RADIO SYSTEMS = 7.3838

NOTES:
1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OET BULLETIN NO.65', AUGUST 1997
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

# POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | TROOP I | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 180 FEET | ON DATE: | 02-23-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 7.3838 |
| 50 | 6.6350 |
| 100 | 5.3605 |
| 150 | 4.1665 |
| 200 | 3.2020 |
| 250 | 2.4765 |
| 300 | 1.9424 |
| 350 | 1.5683 |
| 400 | 1.3040 |
| 450 | 1.1438 |
| 500 | 1.0386 |
| 550 | 1.0883 |
| 600 | 1.1034 |
| 650 | 1.0903 |
| 700 | 1.0579 |
| 750 | 1.0138 |
| 800 | 0.9632 |
| 850 | 0.9101 |
| 900 | 0.8569 |
| 950 | 0.8050 |
| 1000 | 0.7554 |
| 1050 | 0.7086 |
| 1100 | 0.6647 |
| 1150 | 0.6238 |
| 1200 | 0.5879 |
| 1250 | 0.5565 |

# RADIO/ANTENNA SYSTEMS DATA

SITE NAME: WEST ROCK RIDGE  PREPARED BY: D.P.S.
TOWER HEIGHT: 120 FEET  ON DATE: 04-22-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 47.3000 | 100 | 120 | WHIP ON PIPE MOUNT | 18 | 0.0 | 100 |
| 2 | 453.1750 | 2 x 25 | 120 | WHIP | 13 | 7.5 | 281 |
| 3 | 453.7250 | 2 x 75 | 100 | WHIP | 14 | 8.0 | 946 |
| 4 | 6700.0000 | 1 | 115 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 5 | 42.0000 | 0 | 50 | WHIP | 12 | 0.0 | 0 |
| 6 | 6700.0000 | 1 | 116 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 7 | 6700.0000 | 1 | 111 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 8 | 867.5000 | 5 x 16 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 1000 |
| 9 | 867.5000 | 5 x 16 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 1000 |
| 10 | 822.5000 | 0 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 0 |
| 11 | 822.5000 | 0 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 0 |
| 12 | 165.0000 | 100 | 90 | FOUR DIPOLE ARRAY | 22 | 6.0 | 398 |
| 13 | 165.0000 | 100 | 90 | FOUR DIPOLE ARRAY | 22 | 6.0 | 398 |
| 14 | 42.0000 | 100 | 85 | SINGLE DIPOLE | 6 | 0.0 | 100 |
| 15 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 16 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 17 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 18 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 19 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 20 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 21 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 22 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 23 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 24 | 165.0000 | 100 | 90 | FOUR DIPOLE ARRAY | 22 | 6.0 | 398 |
| 25 | 2000.0000 | 0 | 60 | PANEL ANTENNA | 1 | 0.0 | 0 |
| 26 | 45.5200 | 100 | 85 | WHIP | 9 | 0.0 | 100 |
| 27 | 1937.5000 | 3 x 20 | 95 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 28 | 1937.5000 | 3 x 20 | 95 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 29 | 1937.5000 | 3 x 20 | 95 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.
ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.
ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.

2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: WEST ROCK RIDGE
TOWER HEIGHT: 120 FEET

PREPARED BY: D.P.S.
ON DATE: 04-22-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 47.3000 | 164 | 129 | 0.200 | 0.0003376 | 0.1688 |
| 2 | 453.1750 | 461 | 127 | 0.302 | 0.0009872 | 0.3269 |
| 3 | 453.7250 | 1553 | 107 | 0.302 | 0.0046445 | 1.5379 |
| 4 | 6700.0000 | 9172 | 115 | 1.000 | 0.0004463 | 0.0446 |
| 5 | 42.0000 | 0 | 56 | 0.200 | 0.0000000 | 0.0000 |
| 6 | 6700.0000 | 9172 | 116 | 1.000 | 0.0004425 | 0.0442 |
| 7 | 6700.0000 | 9172 | 111 | 1.000 | 0.0004624 | 0.0462 |
| 8 | 867.5000 | 1641 | 127 | 0.578 | 0.0035110 | 0.6074 |
| 9 | 867.5000 | 1641 | 127 | 0.578 | 0.0035110 | 0.6074 |
| 10 | 822.5000 | 0 | 127 | 0.548 | 0.0000000 | 0.0000 |
| 11 | 822.5000 | 0 | 127 | 0.548 | 0.0000000 | 0.0000 |
| 12 | 165.0000 | 653 | 101 | 0.200 | 0.0021927 | 1.0963 |
| 13 | 165.0000 | 653 | 101 | 0.200 | 0.0021927 | 1.0963 |
| 14 | 42.0000 | 164 | 88 | 0.200 | 0.0007255 | 0.3628 |
| 15 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 16 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 17 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 18 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 19 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 20 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 21 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 22 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 23 | 1957.5000 | 4006 | 71 | 1.000 | 0.0272174 | 2.7217 |
| 24 | 165.0000 | 653 | 101 | 0.200 | 0.0021927 | 1.0963 |
| 25 | 2000.0000 | 0 | 60 | 1.000 | 0.0000000 | 0.0000 |
| 26 | 45.5200 | 164 | 90 | 0.200 | 0.0007014 | 0.3507 |
| 27 | 1937.5000 | 4397 | 95 | 1.000 | 0.0166848 | 1.6685 |
| 28 | 1937.5000 | 4397 | 95 | 1.000 | 0.0166848 | 1.6685 |
| 29 | 1937.5000 | 4397 | 95 | 1.000 | 0.0166848 | 1.6685 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 29 RADIO SYSTEMS = 36.8872

NOTES:
1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OET BULLETIN NO.65', AUGUST 1997
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

# POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | WEST ROCK RIDGE | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 120 FEET | ON DATE: | 04-22-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 36.8872 |
| 50 | 27.1523 |
| 100 | 16.1754 |
| 150 | 9.8911 |
| 200 | 6.4507 |
| 250 | 4.4681 |
| 300 | 3.2510 |
| 350 | 2.6905 |
| 400 | 2.3276 |
| 450 | 2.0239 |
| 500 | 1.7652 |
| 550 | 1.5581 |
| 600 | 1.4108 |
| 650 | 1.2815 |
| 700 | 1.1657 |
| 750 | 1.0621 |
| 800 | 0.9695 |
| 850 | 0.8868 |
| 900 | 0.8129 |
| 950 | 0.7469 |
| 1000 | 0.6878 |
| 1050 | 0.6350 |
| 1100 | 0.5875 |
| 1150 | 0.5448 |
| 1200 | 0.5064 |
| 1250 | 0.4716 |

# STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC SAFETY
DIVISION OF STATE POLICE

RECEIVED
APR 06 1998
CONNECTICUT SITING COUNCIL

April 2, 1998

Mortimer A. Gelston
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Subject: Exempt Modification -- Troop A-Site#~~5~~25, West Rock Ridge-Site#27,
Troop I-Site#26, and Middlebury-Site#20

Dear Chairman Gelston:

Attached please find an original and 20 copies of a Notice of Intent to Erect Exempt Telecommunications Associated Equipment pursuant to Connecticut General Statutes 16-50g et. Seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council.

The Council's acknowledgment of the attached notice would be appreciated.

Sincerely,

Michael A. Stemmler
Public Safety Engineer of Telecommunications

cc: P. Seaha
File

1111 Country Club Road
P.O. Box 2794
Middletown, CT 06457-9294
*An Equal Opportunity Employer*

STATE OF CONNECTICUT
SITING COUNCIL

Notice of Intent to Erect Exempt Telecommunications Associated Equipment in New Haven County.

Pursuant to Connecticut General Statute 16-50g et. seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council the Division of State Police hereby give Notice of Its Intent to Erect Exempt Telecommunications Associated Equipment at its Troop A site located at 11 Lakeside Road, Southbury; West Rock Ridge site located on Brookside Avenue, New Haven; Troop I site located at 631 Amity Road, Bethany; and Middlebury site located on I-84 in Middlebury, Connecticut.

The Troop A and Troop I sites are currently occupied by active 180 foot three legged self supporting telecommunications towers. The West Rock Ridge site is currently occupied by an active 120 foot three legged self supporting telecommunications tower. The Middlebury site is currently occupied by an active 160 foot three legged self supporting telecommunications tower. Equipment on the existing Troop A tower or previously proposed to the Council consists of five antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. Equipment on the existing West Rock Ridge tower or previously proposed to the Council consists of twenty-six antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. Equipment on the existing Troop I tower or previously proposed to the Council consists of twelve antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. Equipment on the existing Middlebury tower or previously proposed to the Council consists of thirty-five antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. All current and proposed antennas are depicted in the tower elevation drawings attached as Attachment A. This project is part of a Division of State Police effort to share tower space with other users.

The Division of State Police believes that this project is exempt from the need to obtain a Certificate of Environmental Compatibility and Public Need pursuant to Siting Council Reg. Sec. 16-50j-72(b) for the following reasons:

1. Existing Tower Sites
   The proposed locations are currently occupied by existing, active 180 foot three legged self supporting lattice type towers at Troop A and Troop I; a 120 foot three legged self supporting lattice type tower at West Rock Ridge; and a 160 foot three legged self supporting lattice type tower at Middlebury.

2. Site Boundaries
   As depicted in Attachment B, the property boundaries of the sites will not be extended. No tree cutting or extensive grading will be conducted at the sites.

3. Tower Height
   The existing 180 foot towers at Troop A and Troop I, the 160 foot tower at Middlebury, and the 120 foot tower at West Rock Ridge will be retained and the heights will not change.

4. Noise Levels
   The proposed antenna additions will not increase noise levels at the existing facilities by six decibels or more.

5. Radiation Power Density
   The radio frequency sending or receiving capability of the additional antennas will not increase the total radio frequency electromagnetic radiation power density measured at the tower site boundaries to or above the standard considered by the State Department of Environmental Protection (DEP). The current ANSI standard applicable to the Division of State Police facilities and the total radio frequency electromagnetic radiation power density calculated for the tower site boundaries are set forth in Attachment C.

## Conclusion

For all of the above stated reasons, the Division of State Police requests the Siting Council to rule that this notice is in compliance with the exception criteria for changes to an existing facility pursuant to Reg. Sec. 16-50j-72(b).

Dated at Middletown this 6TH day of APRIL, 1998.

By: _____

Michael A. Stemmler
Public Safety Engineer of Telecommunications
P.O. Box 2794
Middletown, CT 06457-9294

## Certification

The undersigned hereby certifies that a copy of the forgoing Notice of Intent to Erect Telecommunications Associated Equipment was mailed this 6TH day of APRIL, 1998, to the below named chief elected officials in Bethany, Southbury, New Haven and Middlebury, Connecticut pursuant to Reg. Sec. 16-50j-73.

John E. Ford III
First Selectman
Town Hall
40 Peck Road
Bethany, CT 06524-3322

Alfio Candido
First Selectman
Town Hall
501 Main Street South
Southbury, CT 06488-2295
262-0657

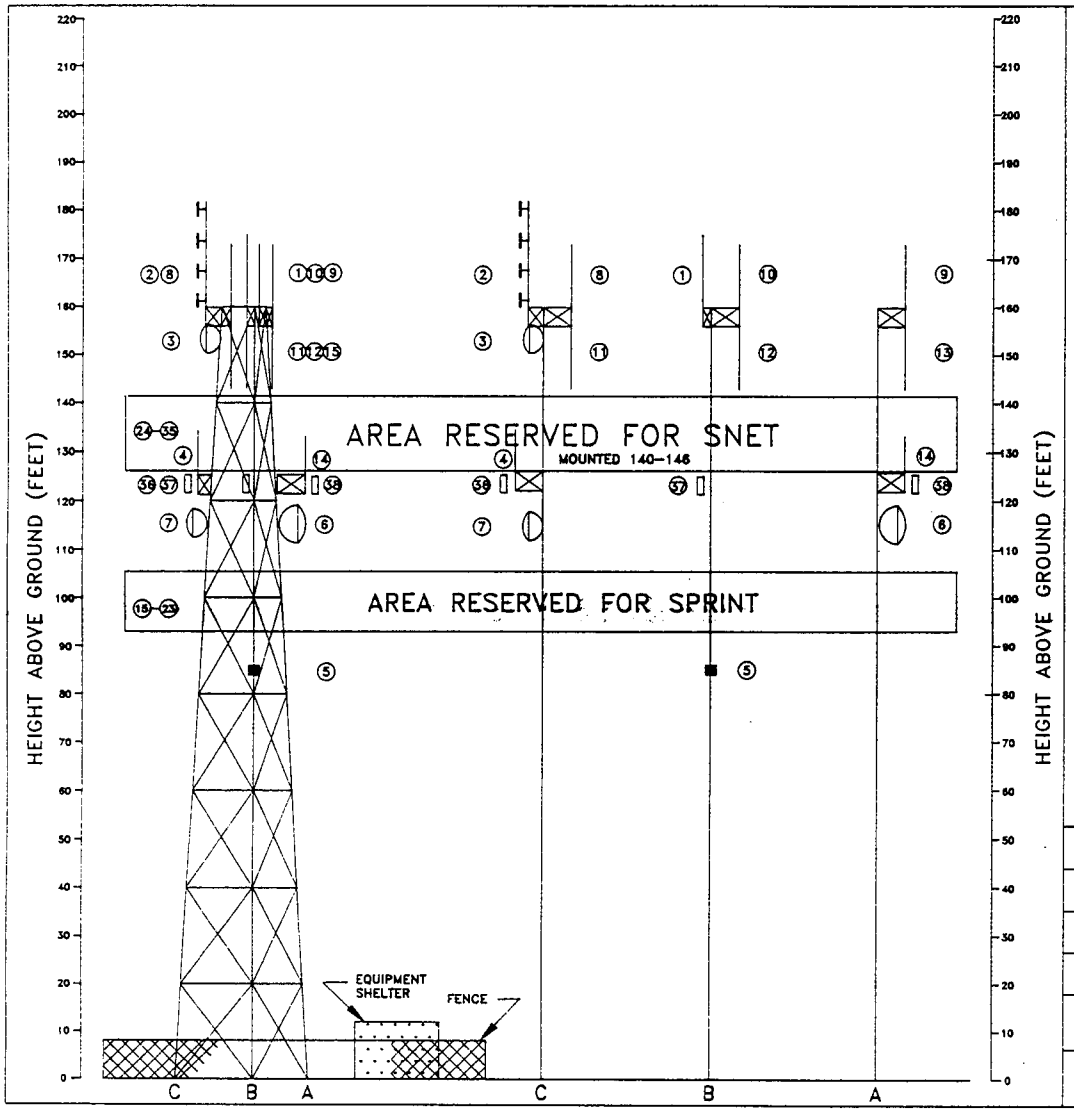
John DeStefano, Jr.
Mayor
Hall of Records
200 Orange Street
New Haven, CT 06510

Edward B. St.John
First Selectman
Town Hall
1212 Whittemore Road
Middlebury, CT 06762
758-2557

By: _____

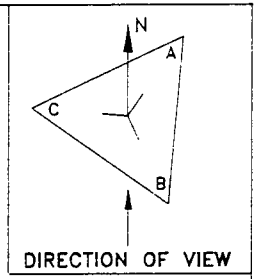
Michael A. Stemmler
Public Safety Engineer of Telecommunications
P.O. Box 2794
Middletown, CT 06457-9294

ATTACHMENT A




## LEGEND

(1) 15' WHIP ON PIPE MOUNT (CSP)
(2) 22' 4-DIPOLE ARRAY (ATF)
(3) 6' DISH (DOT)
(4) 9' WHIP ON PIPE MOUNT (DOT)
(5) 2' PANEL (CSP)
(6) 8' DISH W/RADOME (CSP)
(7) 6' DISH W/RADOME (CSP)
(8)–(13) 13' WHIP (CSP)
(14) 9' WHIP (EMS)
(15)–(23) 4' PANEL ARRAY (SPRINT)
(24)–(35) 4' PANEL ARRAY (SNET)
(36)–(38) 4' PANELS (OMNIP)




| | |
|---|---|
| DRAWN 3-1-98 | |
| DESIGNED | |
| CHECKED | |
| REVISED | |
| APPROVED 41:30:49N 73:07:27W | |
| APPROVED FOR 760 FT AMSL | |

CTS PROJECT

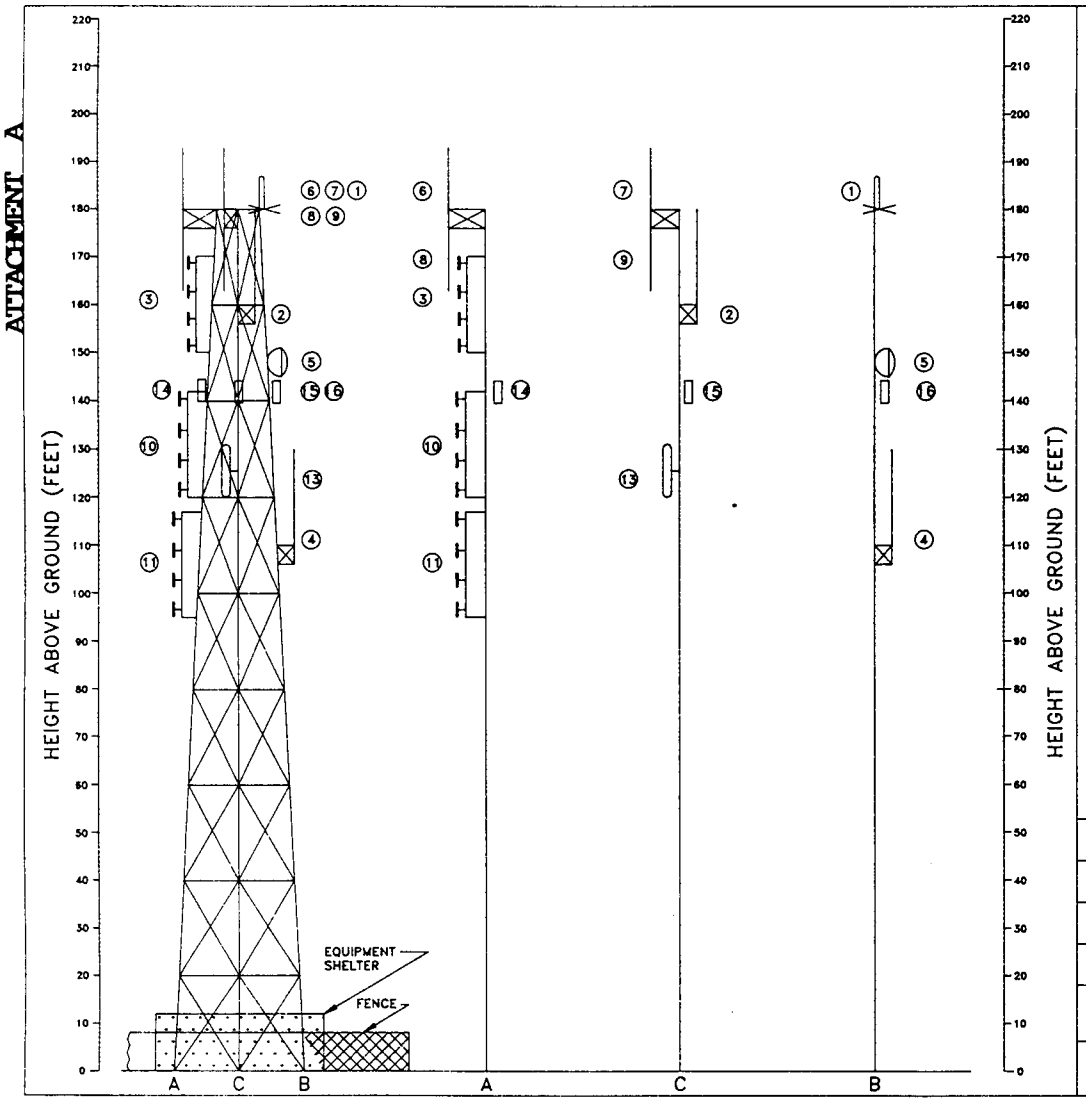
SITE MIDDLEBURY

TITLE ELEVATION & ANTENNA LOCATIONS

| SIZE | PROJECT | DRAWING NUMBER | REV. |
|---|---|---|---|
| B | CTS | 020-515 | 1 |

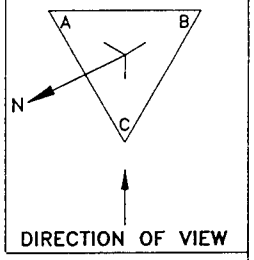
SCALE AS SHOWN SHEET 1 of 1

ATTACHMENT A



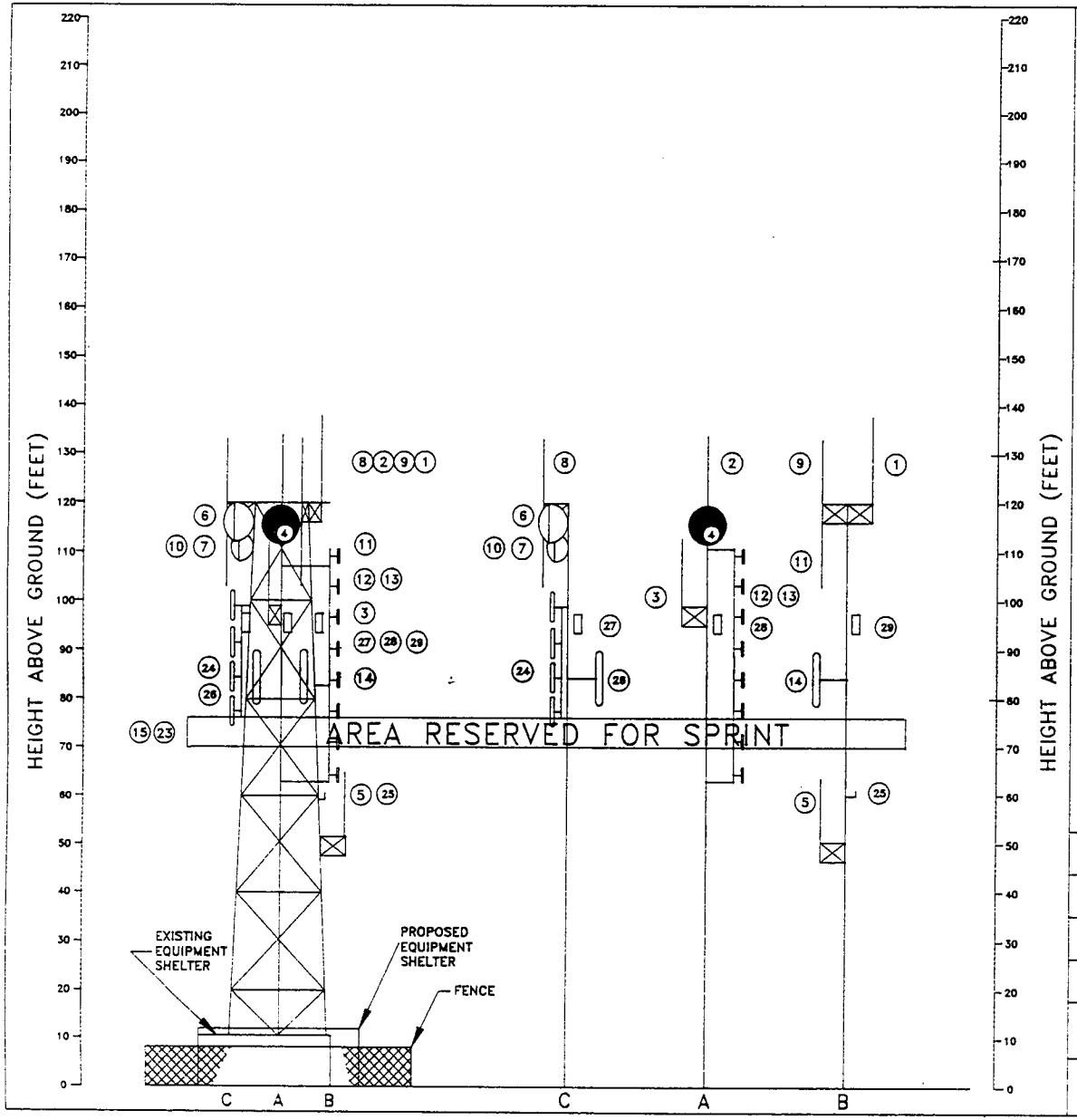

LEGEND

(1) 7' FOLDED MONOPOLE (CSP)
(2)(4) 20' WHIP (CSP)
(3) 20' 4-DIPOLE ARRAY (CSP/SHF)
(5) 6' DISH W/RADOME (CSP)
(6)(7)(8)(9) 13' WHIP (CSP)
(10)(11) 22' 4-DIPOLE ARRAY (CAP)
(12) NOT USED
(13) 11' DIPOLE (CSP)
(14) 4' PANEL (OMNIP)
(15) 4' PANEL (OMNIP)
(16) 4' PANEL (OMNIP)



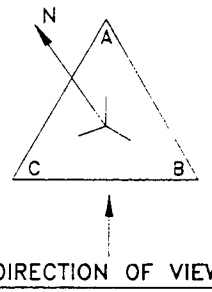

| | | | | | |
|---|---|---|---|---|---|
| DRAWN | | CTS PROJECT | | | |
| DESIGNED | | SITE | TROOP 1 | | |
| CHECKED | | TITLE | ELEVATION & ANTENNA LOCATIONS | | |
| REVISED | | | | | |
| APPROVED | 41:26:01N 72:59:41W | SIZE | PROJECT | DRAWING NUMBER | REV. |
| | | B | CTS | 026-515 | 2 |
| APPROVED FOR | 670FT AMSL | SCALE | AS SHOWN | SHEET 1 of 1 | |

ATTACHMENT A



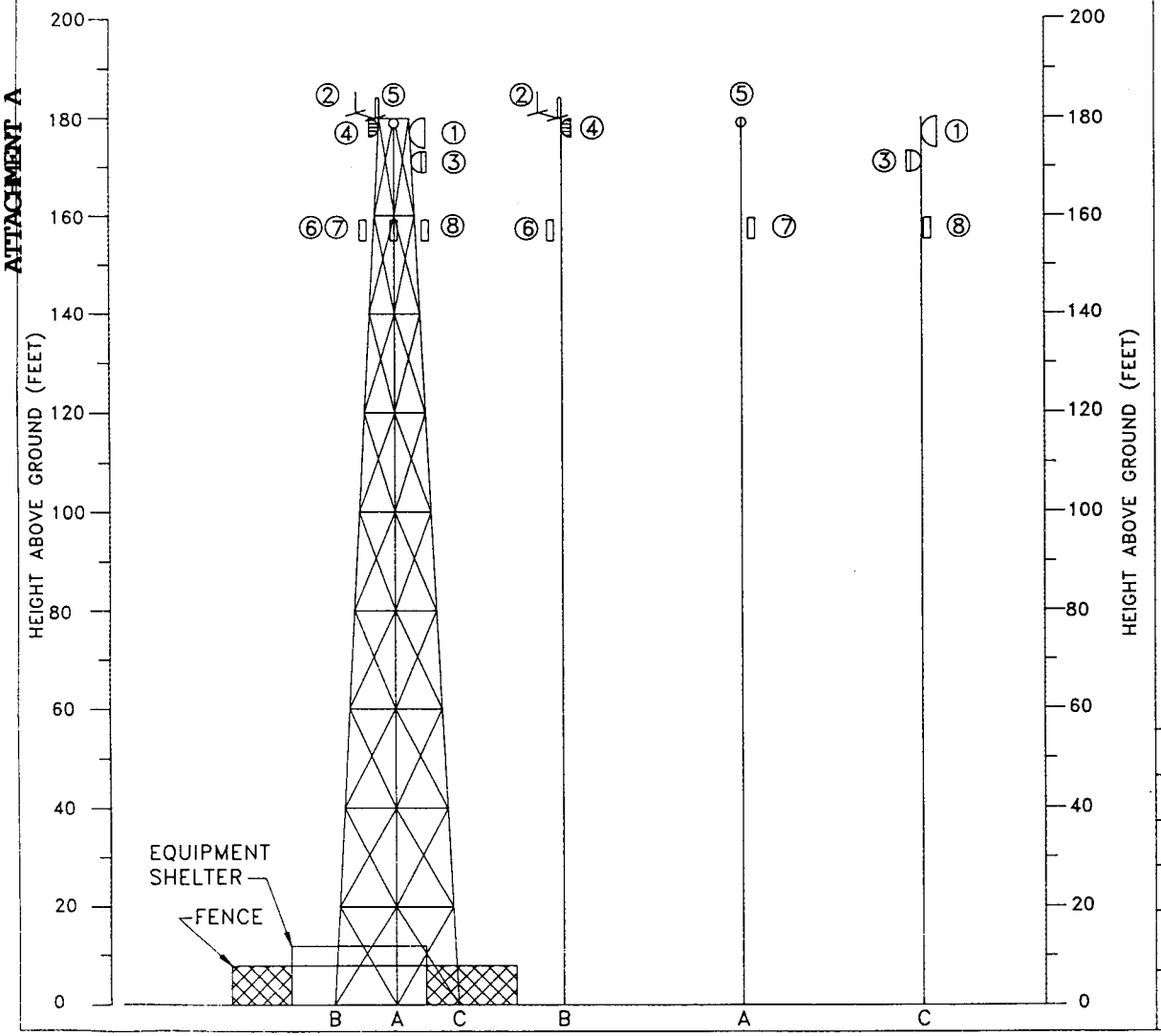

## LEGEND

(1) 18' WHIP ON PIPE MOUNT (DOT)
(2)(3) 14' WHIP (CTT)
(4) 8' DISH W/RADOME (CSP)
(5) LB RX WHIP (CSP)
(6) 8' DISH W/RADOME (CSP)
(7) 6' DISH W/RADOME (CSP)
(8)(9)(10)(11) 13' WHIP (CSP)
(12) DIPOLE ARRAY (MULTI-USER)
(13) DIPOLE ARRAY (MULTI-USER)
(14) DIPOLE (CSP)
(15)-(23) 4' PANEL ARRAY (SPRINT)
(24) 22' DIPOLE ARRAY (FBI)
(25) GPS
(26) DIPOLE (OEM)
(27)-(29) 4' PANEL (OMNIP)



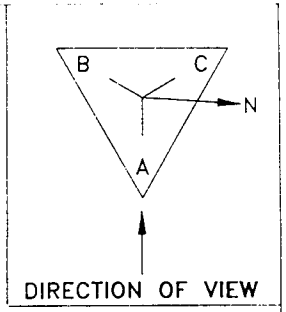

| | |
|---|---|
| DRAWN 3-1-98 | CTS PROJECT |
| DESIGNED | SITE WEST ROCK RIDGE |
| CHECKED | TITLE ELEVATION & ANTENNA LOCATIONS |
| REVISED | |
| 41:20:43 N 72:58:16 W | SIZE B / PROJECT CTS / DRAWING NUMBER 027-515 / REV. 2 |
| APPROVED FOR 418 FT AMSL | SCALE AS SHOWN / SHEET 1 of 1 |

ATTACHMENT A

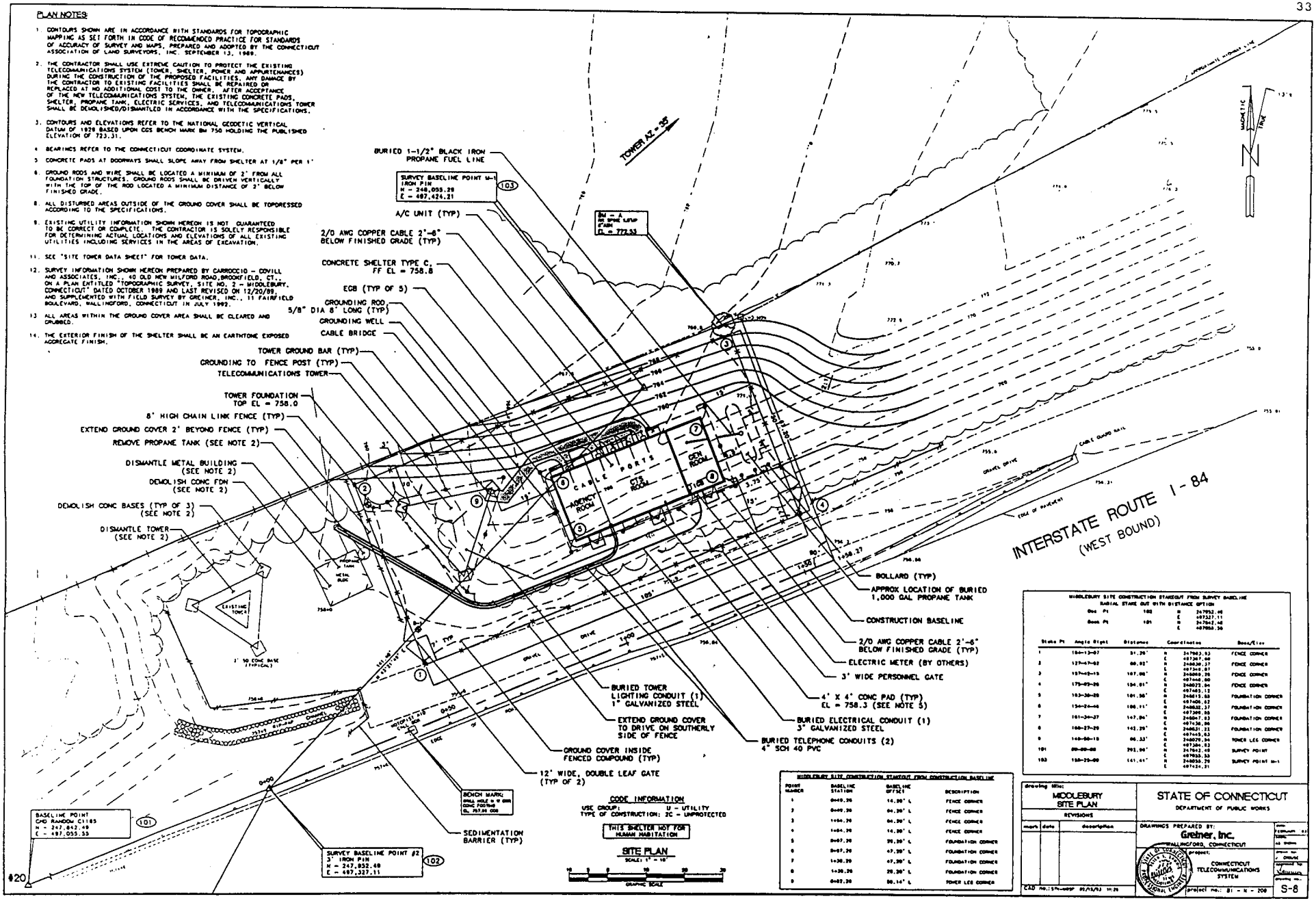



LEGEND

① 6' DISH (DOT)
② 4' YAGI (CSP)
③ 4' DISH W/SHROUD (CSP)
④ 4' GRID DISH (DOE)
⑤ 2' DISH (DOE)
⑥ 4' PANEL (OMNIP)
⑦ 4' PANEL (OMNIP)
⑧ 4' PANEL (OMNIP)

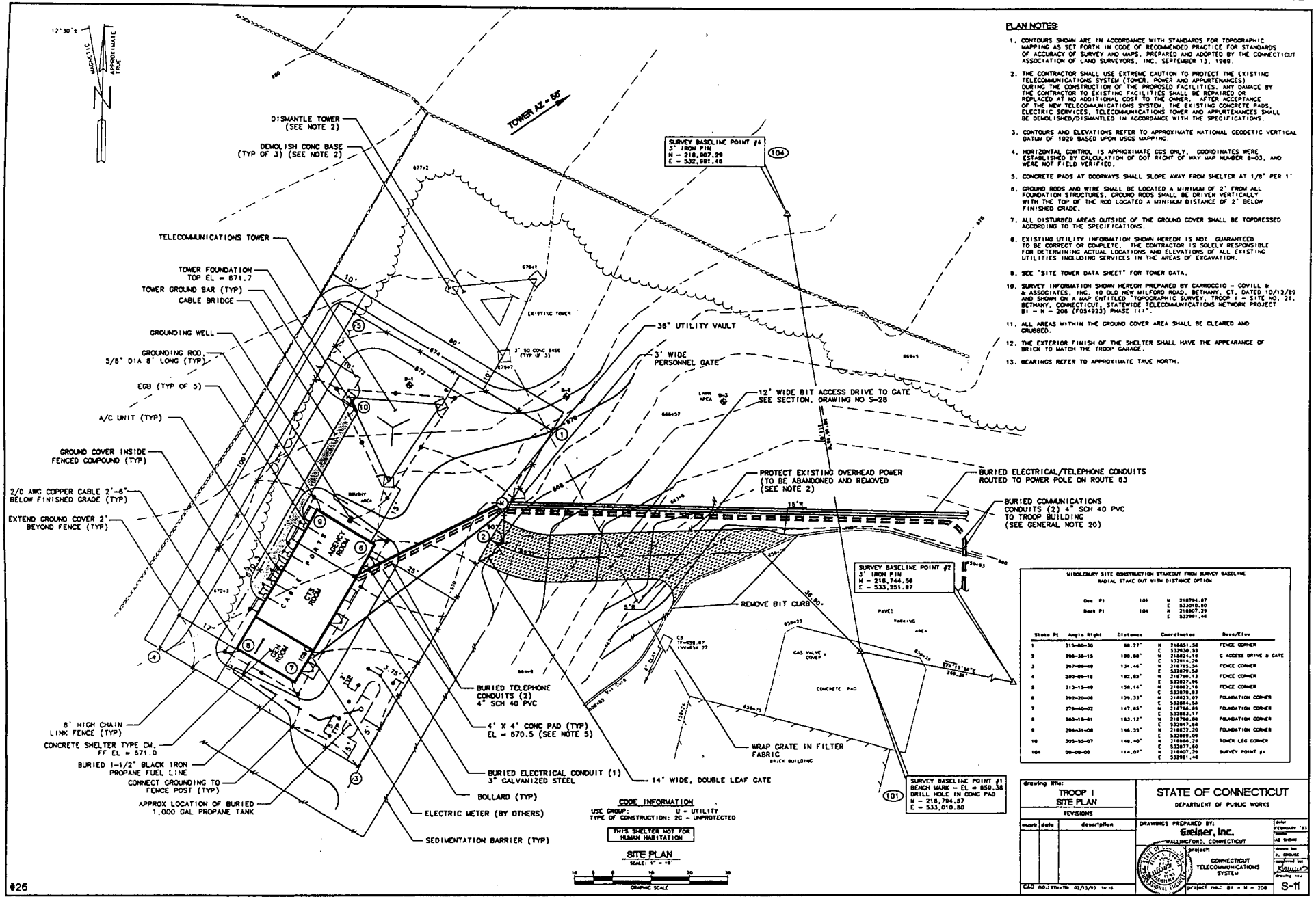



| | | | | | |
|---|---|---|---|---|---|
| DRAWN | | CTS PROJECT | | | |
| DESIGNED | | SITE | TROOP A | | |
| CHECKED | | TITLE | ELEVATION & ANTENNA LOCATIONS | | |
| REVISED | | | | | |
| APPROVED 41:27:25N 73:14:04W | | SIZE | PROJECT | DRAWING NUMBER | REV. |
| APPROVED FOR 237 FT AMSL | | B | CTS | 025-515 | 1 |
| | | SCALE AS SHOWN | | | SHEET 1 of 1 |




ATTACHMENT B

ATTACHMENT B




PLAN NOTES

1. CONTOURS SHOWN ARE IN ACCORDANCE WITH STANDARDS FOR TOPOGRAPHIC MAPPING AS SET FORTH IN CODE OF RECOMMENDED PRACTICE FOR STANDARDS OF ACCURACY OF SURVEY AND MAPS, PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. SEPTEMBER 13, 1969.
2. THE CONTRACTOR SHALL USE EXTREME CAUTION TO PROTECT THE EXISTING TELECOMMUNICATIONS SYSTEM (TOWER, POWER AND APPURTENANCES) DURING THE CONSTRUCTION OF THE PROPOSED FACILITIES. ANY DAMAGE BY THE CONTRACTOR TO EXISTING FACILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. AFTER ACCEPTANCE OF THE NEW TELECOMMUNICATIONS SYSTEM, THE EXISTING CONCRETE PADS, ELECTRIC SERVICES, TELECOMMUNICATIONS TOWER AND APPURTENANCES SHALL BE DEMOLISHED/DISMANTLED IN ACCORDANCE WITH THE SPECIFICATIONS.
3. CONTOURS AND ELEVATIONS REFER TO APPROXIMATE NATIONAL GEODETIC VERTICAL DATUM OF 1929 BASED UPON USGS MAPPING.
4. HORIZONTAL CONTROL IS APPROXIMATE CCS ONLY. COORDINATES WERE ESTABLISHED BY CALCULATION OF DOT RIGHT OF WAY MAP NUMBER B-03, AND WERE NOT FIELD VERIFIED.
5. CONCRETE PADS AT DOORWAYS SHALL SLOPE AWAY FROM SHELTER AT 1/8" PER 1'
6. GROUND RODS AND WIRE SHALL BE LOCATED A MINIMUM OF 2' FROM ALL FOUNDATION STRUCTURES. GROUND RODS SHALL BE DRIVEN VERTICALLY WITH THE TOP OF THE ROD LOCATED A MINIMUM DISTANCE OF 2" BELOW FINISHED GRADE.
7. ALL DISTURBED AREAS OUTSIDE OF THE GROUND COVER SHALL BE TOPDRESSED ACCORDING TO THE SPECIFICATIONS.
8. EXISTING UTILITY INFORMATION SHOWN HEREON IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES INCLUDING SERVICES IN THE AREAS OF EXCAVATION.
9. SEE "SITE TOWER DATA SHEET" FOR TOWER DATA.
10. SURVEY INFORMATION SHOWN HEREON PREPARED BY CARROCCIO - COVILL & & ASSOCIATES, INC. 40 OLD NEW MILFORD ROAD, BETHANY, CT, DATED 10/12/89 AND SHOWN ON A MAP ENTITLED "TOPOGRAPHIC SURVEY, TROOP I - SITE NO. 28, BETHANY, CONNECTICUT, STATEWIDE TELECOMMUNICATIONS NETWORK PROJECT BI - N - 208 (F054923) PHASE III".
11. ALL AREAS WITHIN THE GROUND COVER AREA SHALL BE CLEARED AND GRUBBED.
12. THE EXTERIOR FINISH OF THE SHELTER SHALL HAVE THE APPEARANCE OF BRICK TO MATCH THE TROOP GARAGE.
13. BEARINGS REFER TO APPROXIMATE TRUE NORTH.

MIDDLEBURY SITE CONSTRUCTION STAKEOUT FROM SURVEY BASELINE
RADIAL STAKE OUT WITH DISTANCE OPTION

| | | | |
|---|---|---|---|
| Occ Pt | 101 | N | 218794.87 |
| | | E | 533010.80 |
| Back Pt | 104 | N | 218907.29 |
| | | E | 532981.46 |

| Stake Pt | Angle Right | Distance | Coordinates | Desc/Elev |
|---|---|---|---|---|
| 1 | 315-00-30 | 98.27' | N 218851.58 E 532938.93 | FENCE CORNER |
| 2 | 298-38-15 | 180.88' | N 218824.18 E 532914.29 | C ACCESS DRIVE & GATE |
| 3 | 267-09-48 | 134.46' | N 218795.54 E 532879.58 | FENCE CORNER |
| 4 | 280-09-18 | 182.89' | N 218798.13 E 532827.96 | FENCE CORNER |
| 5 | 313-15-48 | 158.14' | N 218862.19 E 532879.83 | FENCE CORNER |
| 6 | 292-30-08 | 129.33' | N 218823.02 E 532884.58 | FOUNDATION CORNER |
| 7 | 270-40-02 | 147.85' | N 218786.88 E 532863.17 | FOUNDATION CORNER |
| 8 | 260-10-51 | 163.12' | N 218798.06 E 532847.88 | FOUNDATION CORNER |
| 9 | 284-31-08 | 146.35' | N 218832.28 E 532868.06 | FOUNDATION CORNER |
| 10 | 305-53-07 | 148.40' | N 218868.28 E 532877.60 | TOWER LEG CORNER |
| 104 | 00-00-00 | 114.07' | N 218907.29 E 532981.46 | SURVEY POINT #4 |

drawing title: TROOP I SITE PLAN

REVISIONS

| mark | date | description |
|---|---|---|
| | | |

CAD no.: STN-TR 02/15/93 14:16

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS

DRAWINGS PREPARED BY:
Greiner, Inc.
WALLINGFORD, CONNECTICUT

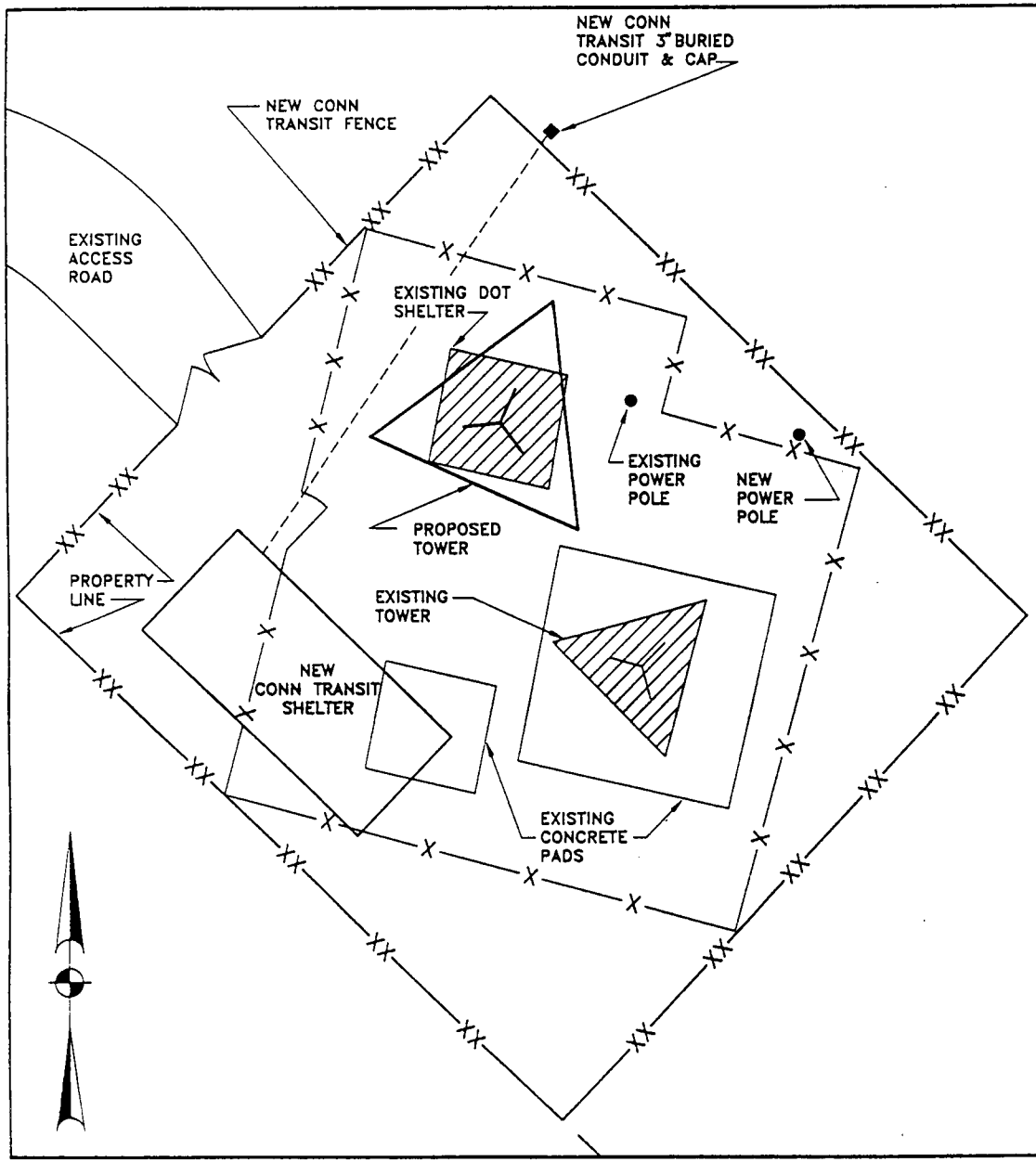
project: CONNECTICUT TELECOMMUNICATIONS SYSTEM

date: FEBRUARY '93
scale: AS SHOWN
drawn by: J. CROUSE
supplement to:
drawing no.: S-11

project no.: BI - N - 208

#26

ATTACHMENT B




NOTES:

1. ARROW INDICATES TRUE NORTH.
2. ALL DIMENSIONS ARE IN FEET.
3. UNDER A CURRENT CONTRACT WITH CONNECTICUT TRANSIT, THE FOLLOWING WILL BE DONE BY EARLY 1990.
   - REMOVE EXISTING FENCE
   - BUILD NEW SHELTER
   - REMOVE EXISTING DOT SHELTER
   - BUILD NEW FENCE TO LIMITS SHOWN
   - MOVE EXISTING POWER POLE TO THE SOUTHEAST
   - INSTALL NEW BURIED CONDUIT
4. WHEN A STRUCTURE IS TO BE DISMANTLED AND REMOVED. THE WORKS SHALL INCLUDE THE REMOVAL OF ANY AND ALL FOUNDATIONS, GUYS, GUY ANCHORS, GENERATOR SETS, AND FUEL TANKS ASSOCIATED WITH THE STRUCTURE.
5. PROPOSED SHELTER AND FENCE TO BE LOCATED BY GREINER.

LEGEND

STRUCTURES TO BE DISMANTLED AND REMOVED FROM SITE .

| REV. | DESCRIPTION | DATE | APP. |
|---|---|---|---|
| 5 | REMOVED PROPOSED SHELTER AND FENCE. ADDED NOTE 5 | ←27 92 | WLF |
| 4 | REVISED TO REFLECT CONN TRANSIT AGREEMENT – MARCH 1990 | ←25 90 | EHW |
| 3 | RELOCATED PROPOSED TOWER, CHANGED PATH NO. 3 | 2–5 90 | JCM |
| 2 | ADDED BAR SCALE | 1–24 90 | EHW |
| 1 | RELOCATED CTS SHELTER. ADDED PROPOSED TOWER NEW DOT SHELTER, AND NEW FENCE | 7–24 89 | RKM |

| | | |
|---|---|---|
| DRAWN | WLF | 9/29/88 |
| DESIGNED | DDS | 9/30/88 |
| CHECKED | EHW | 9/30/88 |
| PROJECT APPROVED | RKM | 10/9/88 |
| APPROVED FOR | | |
| APPROVED FOR | | |

AEROFLEX SYSTEMS CORPORATION
An ARX Company

SITE WEST ROCK RIDGE

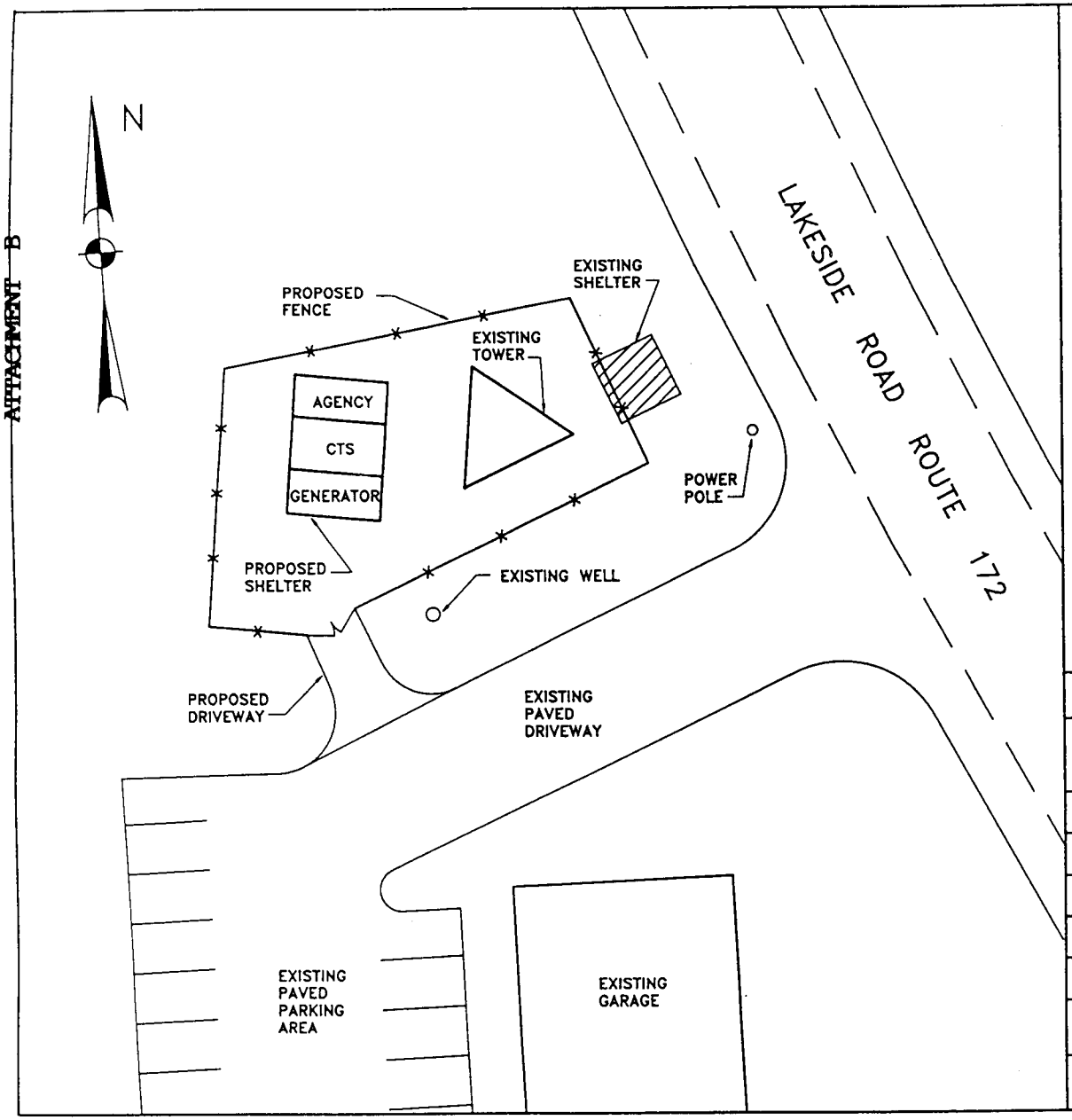
TITLE SITE PLAN

| SIZE | PROJECT | DRAWING NUMBER | REV. |
|---|---|---|---|
| B | CTS | 027-200 | 5 |

SCALE 0 5 FEET 15 20

SHEET 1 of 1

ATTACHMENT B




NOTES:

1. ALL DIMENSIONS ARE IN FEET.
2. ARROW INDICATES TRUE NORTH.
3. WHEN A STRUCTURE IS TO DISMANTLED AND REMOVED, THE WORKS SHALL INCLUDE THE REMOVAL OF ANY AND ALL FOUNDATIONS, GUYS, GUY ANCHORS, GENERATOR SETS, AND FUEL TANKS ASSOCIATED WITH THE STRUCTURE.

LEGEND

STRUCTURES TO BE DISMANTLED AND REMOVED FROM SITE .

| REV. | DESCRIPTION | DATE | APP. |
|---|---|---|---|
| 2 | STANDARDIZE DRAWING | 4-23 90 | EHW |
| 1 | SET SHELTER DISTANCE FROM TOWER AT 15 FEET DELETED SHEETS 2 AND 3, WAVEGUIDE BRIDGE NOTE. ADDED PATH AZIMUTH. | 5-11 89 | DDS |

| | | |
|---|---|---|
| DRAWN | WLF | 9/19/88 |
| DESIGNED | DDS | 9/30/88 |
| CHECKED | EHW | 9/30/88 |
| PROJECT APPROVED | RKM | 10/4/88 |
| APPROVED FOR | | |
| APPROVED FOR | | |

AEROFLEX SYSTEMS CORPORATION
An ARX Company

SITE: TROOP A

TITLE: SITE PLAN

| SIZE | PROJECT | DRAWING NUMBER | REV. |
|---|---|---|---|
| B | CTS | 025-200 | 2 |

SCALE 0 10 FEET 30 40 SHEET 1 of 1

**ATTACHMENT C**

# RADIO/ANTENNA SYSTEMS DATA

SITE NAME: MIDDLEBURY
TOWER HEIGHT: 160 FEET
PREPARED BY: D.P.S.
ON DATE: 02-27-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 42.0400 | 330 | 160 | WHIP ON PIPE MOUNT | 15 | 0.0 | 330 |
| 2 | 166.0000 | 250 | 153 | FOUR DIPOLE ARRAY | 22 | 6.0 | 995 |
| 3 | 2192.0000 | 3 | 150 | SOLID DISH W/RADOME | 6 | 29.9 | 1795 |
| 4 | 47.0000 | 100 | 122 | WHIP ON PIPE MOUNT | 18 | 0.0 | 100 |
| 5 | 460.3000 | 10 | 85 | CORNER REFLECTOR | 2 | 8.5 | 71 |
| 6 | 6700.0000 | 1 | 110 | SOLID DISH W/RADOME | 8 | 42.1 | 9939 |
| 7 | 6700.0000 | 1 | 110 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 8 | 867.5000 | 5 x 25 | 160 | WHIP | 13 | 9.0 | 1000 |
| 9 | 867.0000 | 5 x 25 | 160 | WHIP | 13 | 9.0 | 1000 |
| 10 | 867.0000 | 5 x 25 | 160 | WHIP | 13 | 9.0 | 1000 |
| 11 | 822.5000 | 0 | 147 | WHIP | 13 | 9.0 | 0 |
| 12 | 822.5000 | 0 | 147 | WHIP | 13 | 9.0 | 0 |
| 13 | 822.5000 | 0 | 147 | WHIP | 13 | 9.0 | 0 |
| 14 | 458.0750 | 0 | 120 | WHIP | 22 | 10.0 | 0 |
| 15 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 16 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 17 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 18 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 19 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 20 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 21 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 22 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 23 | 1957.5000 | 33 x 2 | 97 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 24 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 25 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 26 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 27 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 28 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 29 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 30 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 31 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 32 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 33 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 34 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 35 | 860.0000 | 0 | 140 | PANEL ANTENNA | 4 | 15.0 | 0 |
| 36 | 1937.5000 | 3 x 20 | 125 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 37 | 1937.5000 | 3 x 20 | 125 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 38 | 1937.5000 | 3 x 20 | 125 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'. ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER. ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.

2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

**ATTACHMENT C**

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: MIDDLEBURY
TOWER HEIGHT: 160 FEET

PREPARED BY: D.P.S.
ON DATE: 02-27-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 42.0400 | 541 | 168 | 0.200 | 0.0006608 | 0.3304 |
| 2 | 166.0000 | 1633 | 164 | 0.200 | 0.0020791 | 1.0395 |
| 3 | 2192.0000 | 2945 | 150 | 1.461 | 0.0000149 | 0.0010 |
| 4 | 47.0000 | 164 | 131 | 0.200 | 0.0003274 | 0.1637 |
| 5 | 460.3000 | 116 | 85 | 0.306 | 0.0005505 | 0.1799 |
| 6 | 6700.0000 | 16305 | 110 | 4.466 | 0.0004666 | 0.0104 |
| 7 | 6700.0000 | 9172 | 110 | 4.466 | 0.0004666 | 0.0104 |
| 8 | 867.5000 | 1641 | 167 | 0.578 | 0.0020267 | 0.3506 |
| 9 | 867.0000 | 1641 | 167 | 0.578 | 0.0020267 | 0.3506 |
| 10 | 867.0000 | 1641 | 167 | 0.578 | 0.0020267 | 0.3506 |
| 11 | 822.5000 | 0 | 154 | 0.548 | 0.0000000 | 0.0000 |
| 12 | 822.5000 | 0 | 154 | 0.548 | 0.0000000 | 0.0000 |
| 13 | 822.5000 | 0 | 154 | 0.548 | 0.0000000 | 0.0000 |
| 14 | 458.0750 | 0 | 131 | 0.305 | 0.0000000 | 0.0000 |
| 15 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 16 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 17 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 18 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 19 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 20 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 21 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 22 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 23 | 1957.5000 | 4006 | 97 | 1.305 | 0.0145821 | 1.1174 |
| 24 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 25 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 26 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 27 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 28 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 29 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 30 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 31 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 32 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 33 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 34 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 35 | 860.0000 | 0 | 140 | 0.573 | 0.0000000 | 0.0000 |
| 36 | 1937.5000 | 4397 | 125 | 1.291 | 0.0096371 | 0.7465 |
| 37 | 1937.5000 | 4397 | 125 | 1.291 | 0.0096371 | 0.7465 |
| 38 | 1937.5000 | 4397 | 125 | 1.291 | 0.0096371 | 0.7465 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 38 RADIO SYSTEMS = 15.0835

# POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | MIDDLEBURY | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 160 FEET | ON DATE: | 02-27-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 15.0835 |
| 50 | 12.6409 |
| 100 | 9.2399 |
| 150 | 6.5864 |
| 200 | 4.7766 |
| 250 | 3.5516 |
| 300 | 2.7138 |
| 350 | 2.1250 |
| 400 | 1.7006 |
| 450 | 1.3872 |
| 500 | 1.1504 |
| 550 | 1.0224 |
| 600 | 0.9238 |
| 650 | 0.8392 |
| 700 | 0.7647 |
| 750 | 0.6984 |
| 800 | 0.6393 |
| 850 | 0.5864 |
| 900 | 0.5391 |
| 950 | 0.4966 |
| 1000 | 0.4585 |
| 1050 | 0.4242 |
| 1100 | 0.4018 |
| 1150 | 0.3812 |
| 1200 | 0.3621 |
| 1250 | 0.3442 |

**ATTACHMENT C**

RADIO/ANTENNA SYSTEMS DATA

SITE NAME: TROOP I PREPARED BY: D.P.S.
TOWER HEIGHT: 180 FEET ON DATE: 02-23-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 2136.4000 | 3 | 142 | SOLID DISH | 6 | 29.7 | 1705 |
| 2 | 2130.8000 | 3 | 138 | SOLID DISH | 6 | 29.7 | 1696 |
| 3 | 42.4800 | 300 | 180 | FOLDED MONOPOLE | 7 | 0.0 | 300 |
| 4 | 465.1500 | 50 | 160 | WHIP | 20 | 10.0 | 500 |
| 5 | 154.6650 | 2 x 330 | 150 | FOUR DIPOLE ARRAY | 20 | 6.0 | 2628 |
| 6 | 460.1500 | 0 | 110 | WHIP | 20 | 10.0 | 0 |
| 7 | 6700.0000 | 1 | 148 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 8 | 867.5000 | 5 x 25 | 180 | WHIP | 13 | 9.0 | 1000 |
| 9 | 867.5000 | 5 x 25 | 180 | WHIP | 13 | 9.0 | 1000 |
| 10 | 822.5000 | 0 | 180 | WHIP | 13 | 9.0 | 0 |
| 11 | 822.5000 | 0 | 180 | WHIP | 13 | 9.0 | 0 |
| 12 | 148.1500 | 110 | 120 | FOUR DIPOLE ARRAY | 22 | 6.0 | 438 |
| 13 | 149.9250 | 45 | 95 | FOUR DIPOLE ARRAY | 22 | 6.0 | 179 |
| 14 | 1937.5000 | 3 x 20 | 143 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 15 | 1937.5000 | 3 x 20 | 143 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 16 | 1937.5000 | 3 x 20 | 143 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.
ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.
ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.

2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

**ATTACHMENT C**

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: TROOP I
TOWER HEIGHT: 180 FEET

PREPARED BY: D.P.S.
ON DATE: 02-23-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 2136.4000 | 2798 | 142 | 1.424 | 0.0000163 | 0.0011 |
| 2 | 2130.8000 | 2783 | 138 | 1.420 | 0.0000172 | 0.0012 |
| 3 | 42.4800 | 492 | 184 | 0.200 | 0.0005006 | 0.2503 |
| 4 | 465.1500 | 820 | 170 | 0.310 | 0.0009721 | 0.3136 |
| 5 | 154.6650 | 4311 | 160 | 0.200 | 0.0057666 | 2.8833 |
| 6 | 460.1500 | 0 | 120 | 0.306 | 0.0000000 | 0.0000 |
| 7 | 6700.0000 | 9172 | 148 | 4.466 | 0.0000045 | 0.0001 |
| 8 | 867.5000 | 1641 | 187 | 0.578 | 0.0016153 | 0.2795 |
| 9 | 867.5000 | 1641 | 187 | 0.578 | 0.0016153 | 0.2795 |
| 10 | 822.5000 | 0 | 187 | 0.548 | 0.0000000 | 0.0000 |
| 11 | 822.5000 | 0 | 187 | 0.548 | 0.0000000 | 0.0000 |
| 12 | 148.1500 | 718 | 131 | 0.200 | 0.0014337 | 0.7169 |
| 13 | 149.9250 | 294 | 106 | 0.200 | 0.0008958 | 0.4479 |
| 14 | 1937.5000 | 4397 | 143 | 1.291 | 0.0073637 | 0.5704 |
| 15 | 1937.5000 | 4397 | 143 | 1.291 | 0.0073637 | 0.5704 |
| 16 | 1937.5000 | 4397 | 143 | 1.291 | 0.0073637 | 0.5704 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 16 RADIO SYSTEMS = 6.8845

NOTES:
1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OST BULLETIN NO. 65', OCTOBER 1985.
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

# POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | TROOP I | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 180 FEET | ON DATE: | 02-23-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 6.8845 |
| 50 | 6.1895 |
| 100 | 5.0241 |
| 150 | 3.9276 |
| 200 | 3.0319 |
| 250 | 2.3523 |
| 300 | 1.8489 |
| 350 | 1.4961 |
| 400 | 1.2467 |
| 450 | 1.0974 |
| 500 | 1.0003 |
| 550 | 1.0561 |
| 600 | 1.0759 |
| 650 | 1.0666 |
| 700 | 1.0372 |
| 750 | 0.9955 |
| 800 | 0.9469 |
| 850 | 0.8955 |
| 900 | 0.8436 |
| 950 | 0.7930 |
| 1000 | 0.7444 |
| 1050 | 0.6984 |
| 1100 | 0.6553 |
| 1150 | 0.6151 |
| 1200 | 0.5797 |
| 1250 | 0.5489 |

**ATTACHMENT C**

RADIO/ANTENNA SYSTEMS DATA

SITE NAME: WEST ROCK RIDGE PREPARED BY: D.P.S.
TOWER HEIGHT: 120 FEET ON DATE: 03-03-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 47.3000 | 100 | 120 | WHIP ON PIPE MOUNT | 18 | 0.0 | 100 |
| 2 | 453.1750 | 2 x 25 | 120 | WHIP | 13 | 7.5 | 281 |
| 3 | 453.7250 | 2 x 75 | 100 | WHIP | 14 | 8.0 | 946 |
| 4 | 6700.0000 | 1 | 115 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 5 | 42.0000 | 0 | 50 | WHIP | 12 | 0.0 | 0 |
| 6 | 6700.0000 | 1 | 116 | SOLID DISH W/RADOME | 8 | 42.1 | 9939 |
| 7 | 6700.0000 | 1 | 111 | SOLID DISH W/RADOME | 6 | 39.6 | 5591 |
| 8 | 867.5000 | 5 x 16 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 1000 |
| 9 | 867.5000 | 5 x 16 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 1000 |
| 10 | 822.5000 | 0 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 0 |
| 11 | 822.5000 | 0 | 120 | WHIP WITH REFLECTOR | 13 | 11.0 | 0 |
| 12 | 165.6875 | 100 | 90 | FOUR DIPOLE ARRAY | 22 | 6.0 | 398 |
| 13 | 165.3750 | 100 | 90 | FOUR DIPOLE ARRAY | 22 | 6.0 | 398 |
| 14 | 42.0000 | 100 | 85 | SINGLE DIPOLE | 6 | 0.0 | 100 |
| 15 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 16 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 17 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 18 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 19 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 20 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 21 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 22 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 23 | 1957.5000 | 33 x 2 | 71 | PANEL ANTENNA | 4 | 15.0 | 2442 |
| 24 | 165.0000 | 100 | 90 | FOUR DIPOLE ARRAY | 22 | 6.0 | 398 |
| 25 | 2000.0000 | 0 | 60 | PANEL ANTENNA | 1 | 0.0 | 0 |
| 26 | 45.5200 | 100 | 85 | WHIP | 9 | 0.0 | 100 |
| 27 | 1937.5000 | 3 x 20 | 95 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 28 | 1937.5000 | 3 x 20 | 95 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 29 | 1937.5000 | 3 x 20 | 95 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.
ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.
ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.
2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

**ATTACHMENT C**

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: WEST ROCK RIDGE
TOWER HEIGHT: 120 FEET

PREPARED BY: D.P.S.
ON DATE: 03-03-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 47.3000 | 164 | 129 | 0.200 | 0.0003376 | 0.1688 |
| 2 | 453.1750 | 461 | 127 | 0.302 | 0.0009872 | 0.3269 |
| 3 | 453.7250 | 1553 | 107 | 0.302 | 0.0046445 | 1.5379 |
| 4 | 6700.0000 | 9172 | 115 | 4.466 | 0.0004463 | 0.0100 |
| 5 | 42.0000 | 0 | 56 | 0.200 | 0.0000000 | 0.0000 |
| 6 | 6700.0000 | 16305 | 116 | 4.466 | 0.0004425 | 0.0099 |
| 7 | 6700.0000 | 9172 | 111 | 4.466 | 0.0004624 | 0.0104 |
| 8 | 867.5000 | 1641 | 127 | 0.578 | 0.0035110 | 0.6074 |
| 9 | 867.5000 | 1641 | 127 | 0.578 | 0.0035110 | 0.6074 |
| 10 | 822.5000 | 0 | 127 | 0.548 | 0.0000000 | 0.0000 |
| 11 | 822.5000 | 0 | 127 | 0.548 | 0.0000000 | 0.0000 |
| 12 | 165.6875 | 653 | 101 | 0.200 | 0.0021927 | 1.0963 |
| 13 | 165.3750 | 653 | 101 | 0.200 | 0.0021927 | 1.0963 |
| 14 | 42.0000 | 164 | 88 | 0.200 | 0.0007255 | 0.3628 |
| 15 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 16 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 17 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 18 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 19 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 20 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 21 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 22 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 23 | 1957.5000 | 4006 | 71 | 1.305 | 0.0272174 | 2.0856 |
| 24 | 165.0000 | 653 | 101 | 0.200 | 0.0021927 | 1.0963 |
| 25 | 2000.0000 | 0 | 60 | 1.333 | 0.0000000 | 0.0000 |
| 26 | 45.5200 | 164 | 90 | 0.200 | 0.0007014 | 0.3507 |
| 27 | 1937.5000 | 4397 | 95 | 1.291 | 0.0166848 | 1.2924 |
| 28 | 1937.5000 | 4397 | 95 | 1.291 | 0.0166848 | 1.2924 |
| 29 | 1937.5000 | 4397 | 95 | 1.291 | 0.0166848 | 1.2924 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 29 RADIO SYSTEMS = 29.9290

NOTES:
1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OST BULLETIN NO. 65', OCTOBER 1985.
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

**ATTACHMENT C**

# POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | WEST ROCK RIDGE | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 120 FEET | ON DATE: | 03-03-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 29.9290 |
| 50 | 22.3457 |
| 100 | 13.7234 |
| 150 | 8.5208 |
| 200 | 5.6023 |
| 250 | 3.8946 |
| 300 | 2.8413 |
| 350 | 2.3841 |
| 400 | 2.0902 |
| 450 | 1.8347 |
| 500 | 1.6111 |
| 550 | 1.4301 |
| 600 | 1.3028 |
| 650 | 1.1893 |
| 700 | 1.0860 |
| 750 | 0.9926 |
| 800 | 0.9083 |
| 850 | 0.8324 |
| 900 | 0.7644 |
| 950 | 0.7033 |
| 1000 | 0.6485 |
| 1050 | 0.5992 |
| 1100 | 0.5549 |
| 1150 | 0.5150 |
| 1200 | 0.4790 |
| 1250 | 0.4464 |

**ATTACHMENT C**

# RADIO/ANTENNA SYSTEMS DATA

SITE NAME: TROOP A
TOWER HEIGHT: 180 FEET

PREPARED BY: D.P.S.
ON DATE: 02-23-1998

| No | OPERATING FREQUENCY (MHz) | TRANSMIT POWER (WATTS) | ANTENNA HEIGHT (FEET) | ANTENNA TYPE | ANTENNA VERTICAL SIZE (FT) | ANTENNA GAIN (dB) | ERP (W) |
|---|---|---|---|---|---|---|---|
| 1 | 458.0250 | 0 | 180 | WHIP | 22 | 10.0 | 0 |
| 2 | 2197.6000 | 3 | 177 | SOLID DISH | 6 | 29.9 | 1804 |
| 3 | 453.0250 | 25 | 58 | WHIP | 13 | 7.5 | 141 |
| 4 | 158.9250 | 50 | 180 | YAGI | 4 | 3.0 | 100 |
| 5 | 18700.0000 | 1 | 172 | SOLID DISH W/SHROUD | 4 | 45.0 | 19355 |
| 6 | 2674.0000 | 0 | 178 | GRID DISH | 4 | 28.1 | 0 |
| 7 | 2674.0000 | 1 | 179 | SOLID DISH | 2 | 22.1 | 99 |
| 8 | 1937.5000 | 3 x 20 | 157 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 9 | 1937.5000 | 3 x 20 | 157 | PANEL ANTENNA | 4 | 16.5 | 2680 |
| 10 | 1937.5000 | 3 x 20 | 157 | PANEL ANTENNA | 4 | 16.5 | 2680 |

NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.
ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.
ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.

2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

# POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: TROOP A
TOWER HEIGHT: 180 FEET

PREPARED BY: D.P.S.
ON DATE: 02-23-1998

| No | OPERATING FREQUENCY (MHz) | EIRP (WATTS) | DISTANCE TO BASE OF TOWER (FEET) | MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM) | AT THE BASE OF THE TOWER: POWER DENSITY (MW/SQ-CM) | AT THE BASE OF THE TOWER: PERCENT OF MAX. EXPOSURE |
|---|---|---|---|---|---|---|
| 1 | 458.0250 | 0 | 191 | 0.305 | 0.0000000 | 0.0000 |
| 2 | 2197.6000 | 2960 | 177 | 1.465 | 0.0000107 | 0.0007 |
| 3 | 453.0250 | 231 | 65 | 0.302 | 0.0018986 | 0.6287 |
| 4 | 158.9250 | 164 | 180 | 0.200 | 0.0001730 | 0.0865 |
| 5 | 18700.0000 | 31754 | 172 | 10.000 | 0.0008329 | 0.0083 |
| 6 | 2674.0000 | 0 | 178 | 1.782 | 0.0000000 | 0.0000 |
| 7 | 2674.0000 | 162 | 179 | 1.782 | 0.0000011 | 0.0001 |
| 8 | 1937.5000 | 4397 | 157 | 1.291 | 0.0061090 | 0.4732 |
| 9 | 1937.5000 | 4397 | 157 | 1.291 | 0.0061090 | 0.4732 |
| 10 | 1937.5000 | 4397 | 157 | 1.291 | 0.0061090 | 0.4732 |
| | | | | | | 2.1439 |

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 10 RADIO SYSTEMS = 2.1439

NOTES:
1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OST BULLETIN NO. 65', OCTOBER 1985.
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

# POWER DENSITY ANALYSIS

## POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

| | | | |
|---|---|---|---|
| SITE NAME: | TROOP A | PREPARED BY: | D.P.S. |
| TOWER HEIGHT: | 180 FEET | ON DATE: | 02-23-1998 |

| DISTANCE (FEET) | POWER DENSITY (% OF MAX. EXPOSURE |
|---|---|
| 0 | 2.1439 |
| 50 | 1.7708 |
| 100 | 1.3514 |
| 150 | 1.0503 |
| 200 | 0.8151 |
| 250 | 0.6359 |
| 300 | 0.5123 |
| 350 | 0.4371 |
| 400 | 0.3728 |
| 450 | 0.3187 |
| 500 | 0.2737 |
| 550 | 0.2365 |
| 600 | 0.2057 |
| 650 | 0.1801 |
| 700 | 0.1588 |
| 750 | 0.1408 |
| 800 | 0.1257 |
| 850 | 0.1128 |
| 900 | 0.1017 |
| 950 | 0.0922 |
| 1000 | 0.0839 |
| 1050 | 0.0767 |
| 1100 | 0.0703 |
| 1150 | 0.0648 |
| 1200 | 0.0598 |
| 1250 | 0.0554 |