STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

November 9, 2001

David S. Malko
Manager-Engineering
Verizon Wireless
Network Department
99 East River Drive
East Hartford, CT 06108

RE: **TS-VER-022-011018** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at a telecommunications facility located at 53 Westminster Road, Canterbury, Connecticut.

Dear Mr. Malko:

At a public meeting held November 7, 2001, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures, with the condition that PCS antennas are removed within 6 months of installation if they are not used. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated October 11, 2001.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/laf

c: Honorable Neil A. Dupont, Sr., First Selectman, Town of Canterbury
Darlene L. Gannon, Zoning Enforcement Officer, Town of Canterbury
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC

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STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

October 23, 2001

Honorable Neil A. Dupont, Sr.
First Selectman
Town of Canterbury
P O Box 27
Canterbury, CT 06331-0027

RE: **TS-VER-022-011018** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at a telecommunications facility located at 53 Westminster Road, Canterbury, Connecticut.

Dear Mr. Dupont:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for Wednesday, November 7, 2001, at 1:00 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold
Executive Director

JMR/RKE/grg

Enclosure: Notice of Tower Sharing

c: Darlene L. Gannon, Zoning Enforcement Officer, Town of Canterbury

October 11, 2001

verizon wireless

Network Department
99 East River Drive
East Hartford, CT 06108

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

Re: Request by Cellco Partnership d/b/a/ Verizon Wireless for an Order to Approve the Shared Use of a Tower Facility located at 53 Westminster Road, Canterbury, Connecticut.

Dear Chairman Gelston:

Pursuant to Connecticut General Statutes (C.G.S.) Sec. 16-50aa, Cellco Partnership d/b/a/ Verizon Wireless hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed-shared use by Verizon Wireless of an existing tower located at 53 Westminster Road, Canterbury, Connecticut. The property is owned by Carolyn J. Besade and leased to Sprint Spectrum L.P. Sprint Spectrum L.P. owns and manages the tower. As shown on the attached drawings and as further described below, Verizon Wireless proposes to install antennas on the existing tower and to locate its equipment building at the base of the tower. Verizon Wireless requests that the Council find that the proposed shared use of the tower facility satisfy the criteria stated in the C.G.S. Sec. 16-50aa, and to issue an order approving the proposed shared use.

Background

Verizon Wireless is licensed by the Federal Communications Commission to provide cellular telephone service in the Windham County RSA, which includes the area to be served by the proposed Canterbury installation.

The facility at 53 Westminster Road, Canterbury consists of a 180-foot AGL monopole tower. Verizon Wireless and Sprint Spectrum L.P. have agreed to the proposed-shared use of this tower pursuant to mutually acceptable terms and conditions. Sprint Spectrum L.P. has authorized Verizon Wireless to apply for all necessary permits, approvals and authorizations which may be required for the proposed shared use of this facility.

Verizon Wireless proposes to install twelve (12) panel type antennas on a platform with their center of radiation at approximately 170 feet above ground level ("AGL").Verizon Wireless will also install one (1) GPS antenna on the tower. Of the 12 antennas, six will be used in Cellco's cellular system, Model No. DB844H90, and six will be used in its Personal Communications Services (PCS) system, Model No. DB948F85.

Equipment associated with these antennas will be located in a new approximately 12 foot by 30 foot equipment building located at the base of the tower. Verizon Wireless will install a diesel generator for emergency use. The generator will be installed following receipt of the required DEP permit.

G.C.S. Sec. 16-50aa provides that written request for approval of a shared use, "if the Council finds that the proposed-shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the Council shall issue an order approving such use" (G.C.S. Sec. 16-50aa(c) (1).)

Discussion

A. Technical Feasibility. The existing tower is structurally sound and capable of supporting the proposed Verizon antennas. Enclosed is the structural design and analysis of the tower. Verizon engineers have determined that the proposed antenna installations present minimal potential for interference to or from existing radio transmissions from this location. In addition, the applicant is unaware of any occasion where its operations have caused interference with AM, FM, or television reception. The proposed-shared use of this tower therefore is technically feasible.

B. Legal Feasibility. Under C.G.S. Sec. 16-50aa, the Council has been authorized to issue an order approving the proposed-shared use of an existing communications tower facility such as the facility at 53 Westminster road in Canterbury. (C.G.S. Sec. 16-50aa(c)(1).) This authority complements the Council's prior-existing authority under C.G.S. Sec. 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. C.G.S. Section 16-50x(a) directs the Council to "give consideration to other state laws and municipal regulations as it shall deem appropriate' in ruling on requests for the shared use of existing tower facilities. Under the authority vested in the Council by C.G.S. Sec. 16-50aa, an order by the council approving the shared use would permit the applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use would have a minimal environmental effect for the following reasons:

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. The addition of the proposed antennas would not increase the height of the tower, and would not extend the boundaries of the tower site, including the placement of the equipment building near the base of the existing tower.

2. The proposed installation would not increase the noise levels at the existing facility by six decibels or more. The only additional noise will occur during emergency use or periodic exercising of the generator.

3. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base to a level at or above the applicable standard. "Worst-case " exposure calculations for a point at the base of the tower in relation to each carriers operation are as follows:

	Applicable ANSI Stnd	Calculated "Worst-Case	Percentage of Stnd.
Verizon	0.583 mW/cm2	0.0236 mW/cm2	4.05%
Sprint	1.00 mW/cm2	0.0149 mW/cm2	1.49%

The collective "worst-case" exposure would be only 5.54% of the ANSI standard, as calculated for mixed frequency sites. Power density levels from shared use of the tower facility would thus be well below applicable ANSI standards.

4. The proposed installations would not require any water or sanitary Facilities, or generate discharges to water bodies. Operations of the emergency back-up generator will result in limited air emissions Pursuant to R.S.A. Section 22a-174-3, the generator will require the issuance of a permit from the department of Environmental Protection Bureau of Air Management. After construction is complete, the proposed installation would not generate any traffic other than periodic maintenance visits. The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

D. Economic Feasibility. As previously mentioned, the tower owner and the applicant have entered into a mutual agreement to share the use of the existing tower on terms agreeable to the parties, and the proposed tower sharing is thus economically feasible.

E. Public Safety Concerns. As stated above, the existing tower is structurally capable of supporting the proposed Verizon Wireless antennas. The applicant is not aware of any other public safety concerns relative to the proposed tower sharing of the existing tower. In fact, the provision of continued and improved cellular phone service in the greater Willimantic area is expected to enhance the safety and welfare of area residents. The public safety benefits of wireless service are further illustrated by the decision of local authorities elsewhere in Connecticut to provide cellular phones to residents to improve local public safety and emergency communications. The proposed shared use of this facility would likewise improve public safety in the Canterbury area.

Conclusion

For the reasons discussed above, the proposed shared use of the existing telecommunications tower facility at 53 Westminster Road satisfies the criteria stated in C.G.S. Sec. 16-50aa, and advances the General Assembly's and the Council's goal of preventing the proliferation of towers in Connecticut. The applicant therefore requests that the Council issue an order approving the proposed-shared use.

Thank you for your consideration of this matter.

Pursuant to Connecticut General Statutes Sec. 16-50v an d Section 16-50-1(a) of the regulations of Connecticut State Agencies, Verizon Wireless has provided a check in the amount of $500.00 for the required filing fee.

Sincerely,

David S. Malko, P.E.
Manager-Engineering
Verizon Wireless

Cc: Mr. Neil A. Dupont, First Selectman

SPRINT SITES USA
535 East Crescent Avenue
Ramsey, NJ 07446
NJRAMA0101
Voice 201 995 4000
Fax 201 995 4001

October 17, 2001

Andy Ahrens
WFI for Verizon Wireless
1 Paragon Drive, Suite 240
Montvale, NJ 07645

Re: Sprint Site ID: CT33XC084-01 (53 Westminister Road, Canterbury, CT 06331)
Verizon Site ID: #1011050235

Dear Mr. Ahrens:

Please be advised that Verizon Wireless is hereby authorized to act as applicant to file with the Connecticut Siting Council for the necessary approvals and permits required for collocation on the above-referenced tower location.

Authorization to Act as Applicant

I, Robert Greenwell, Property Manager of Sprint Sites USA [NorthEast Region] representing SprintCom, Inc. (property owner) authorize Verizon Wireless and Andy Ahrens to act as applicant, representing us before the Connecticut Siting Council (governing jurisdiction) to obtain zoning approval for any permit required for zoning compliance. Nevertheless, Verizon Wireless and Andy Ahrens shall not be authorized to make any concessions or commitments to the Connecticut Siting Council that may affect the operations or future leasing opportunities of Sprint PCS beyond what is shown on the preliminary site plan dated October 17, 2001, for site CT33XC084-01, without obtaining the prior approval and consent of Sprint Sites USA, a division of SprintCom, Inc.

Should you have any questions please do not hesitate to contact Tawana Sanders at (201) 995-4029.

Robert A. Greenwell — 10/17/01
SSUSA Property Manager or Director-East Region — Date

Robert Greenwell
Signature

Sworn and subscribed before me this 17th day of OCTOBER, 2001

State of NEW JERSEY County of BERGEN

Notary Public Signature David V. Weiner

David V. Weiner
Attorney At Law of
The State of New Jersey

ENGINEERED ENDEAVORS INCORPORATED

The Experienced Point of View

July 12, 2001

Andy Ahrens
Wireless Facilities, Inc.
1 Paragon Drive
Montdale, NJ 07645

Reference: Structural Review of a 180 *ft* Monopole
Site Name: Canterbury, CT
EEI Job Number: 9574, Reference Job 6897

The 180 *ft* monopole referenced above was reviewed under the proposed loading presented by Andy Ahrens with Wireless Facilities, Inc. This monopole was designed and supplied by Engineered Endeavors, Inc. and depicted in drawing GS52249. The objective of this review is to determine if the monopole can structurally support the desired configuration and meet the requirements of the TIA/EIA 222-F code and Manual of Steel Construction Allowable Stress Design.

The initial design is for a 180 *ft* monopole with three carriers of (9) DB980 antennas at the top, and (12) DB 980 antennas at the 170 and 160 *ft* elevations on Low Profile Platforms. The proposed loading is (12) DB844 antennas on a Low Profile Platform at 170 *ft*. The monopole will be subject to less wind load than originally designed. Therefore, EEI has concluded that the monopole and foundation is **adequate** to support the proposed loading.

It is the responsibility of WFI to verify that the monopole reviewed is the correct structure that exists. The base section should be marked with number 26773. This review is intended for use with regard to this specific monopole discussed in general herein. Any substantial changes in mounting or loading should be brought to EEI's attention so that we can determine how this may affect our conclusions.

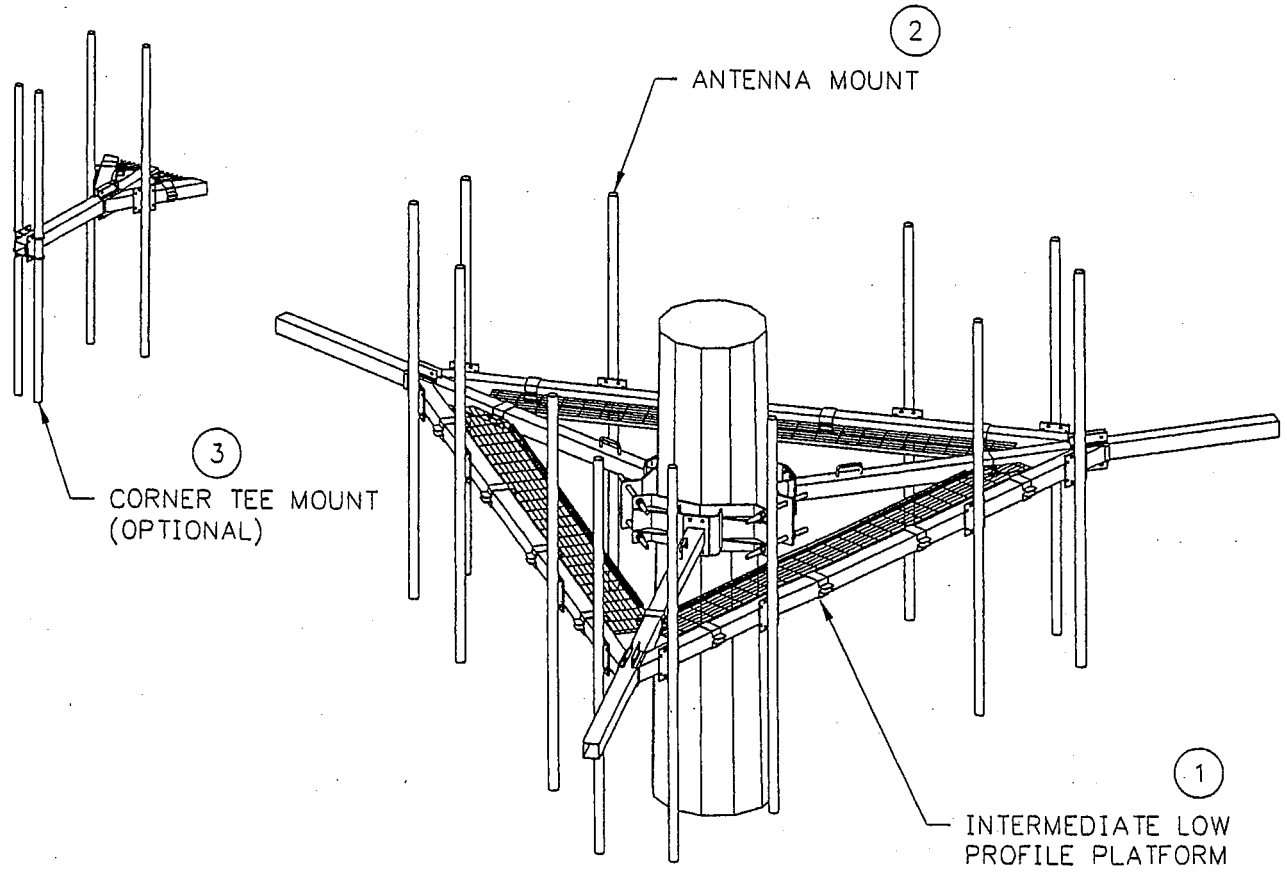
Sincerely,
Engineered Endeavors, Inc.

Lynn A. Padgett
Design Engineer

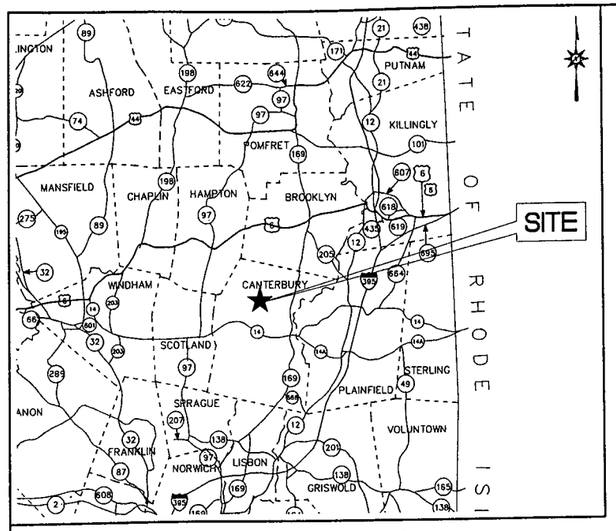
STATE OF CONNECTICUT
MICHAEL R. MOREL
No. 21220
LICENSED PROFESSIONAL ENGINEER

Michael R. Morel, P.E.
Vice President, Engineering

INTERMEDIATE LOW PROFILE PLATFORM



ITEM	PART #	DESCRIPTION
1	K10996	12' INTERMEDIATE LOW PROFILE PLATFORM (10"ø to 25"ø)
	K11010	12' INTERMEDIATE LOW PROFILE PLATFORM (22"ø to 38"ø)
	K10997	16' INTERMEDIATE LOW PROFILE PLATFORM (10"ø to 25"ø)
	K11011	16' INTERMEDIATE LOW PROFILE PLATFORM (22"ø to 43"ø)
2	K11014	8'-6" DIRECTIONAL ANTENNA MOUNT
3	K11070	CORNER TEE MOUNT (Min Separation 14'-3")



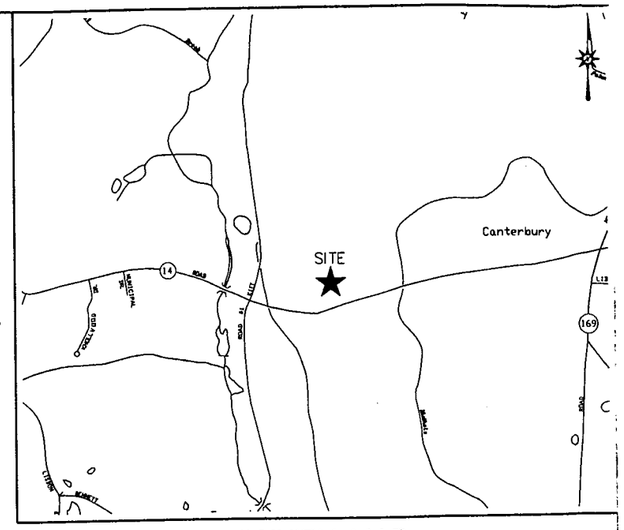
LOCATION MAP

NTS

SITING COUNCIL SUBMISSION

PLAINFIELD WEST
TELECOMMUNICATION FACILITY

53 WESTMINSTER ROAD
CATERBURY, CONNETICUT 06331



VICINITY MAP

SCALE 1"=1000'

PREPARED FOR:

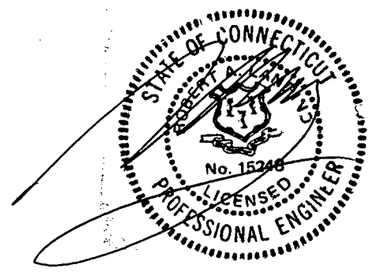
CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS
99 EAST RIVER DRIVE
9TH FLOOR
EAST HARTFORD, CONNECTICUT 06108

PREPARED BY:

BL Companies

ARCHITECTURE ENGINEERING PLANNING LANDSCAPE ARCHITECTURE
LAND SURVEYING ENVIRONMENTAL SCIENCES ANALYTICAL SERVICES

355 RESEARCH PARKWAY
MERIDEN, CONNECTICUT 06450
(203) 630-1406
(203) 630-2615 Fax



CONTENTS

CAD FILE: CVC00201

NOT FOR CONSTRUCTION
FOR PERMITTING ONLY

DATES

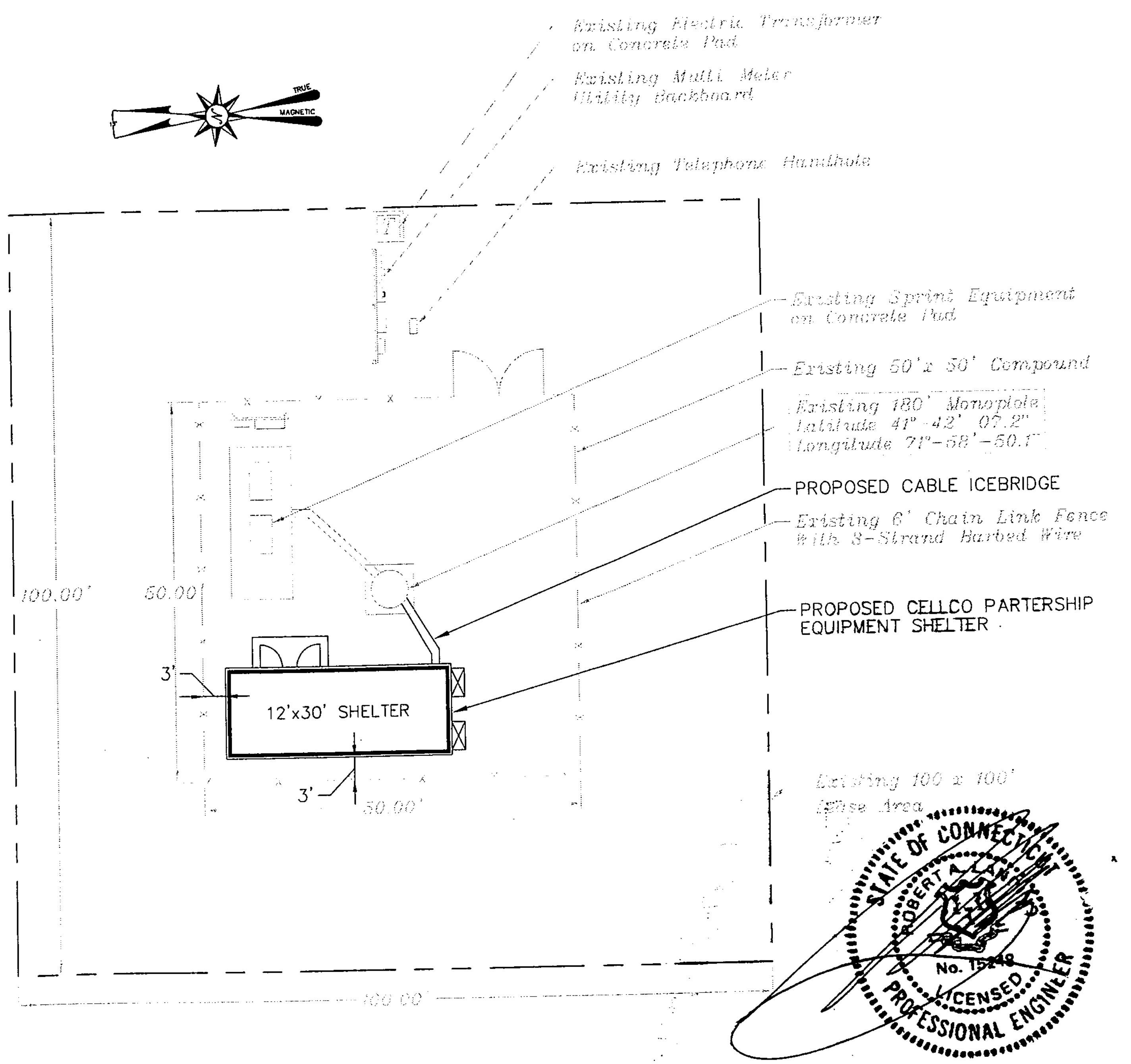
ISSUE DATE: OCTOBER 16, 2001 (ISSUED FOR PERMITTING)
REVISION: -

GENERAL NOTES:

1. COMPOUND LAYOUT IS TYPICAL AND MAY CHANGE PER FINAL ENGINEERING DESIGN DUE TO SITE CONDITIONS AND FINAL SURVEY INFORMATION.

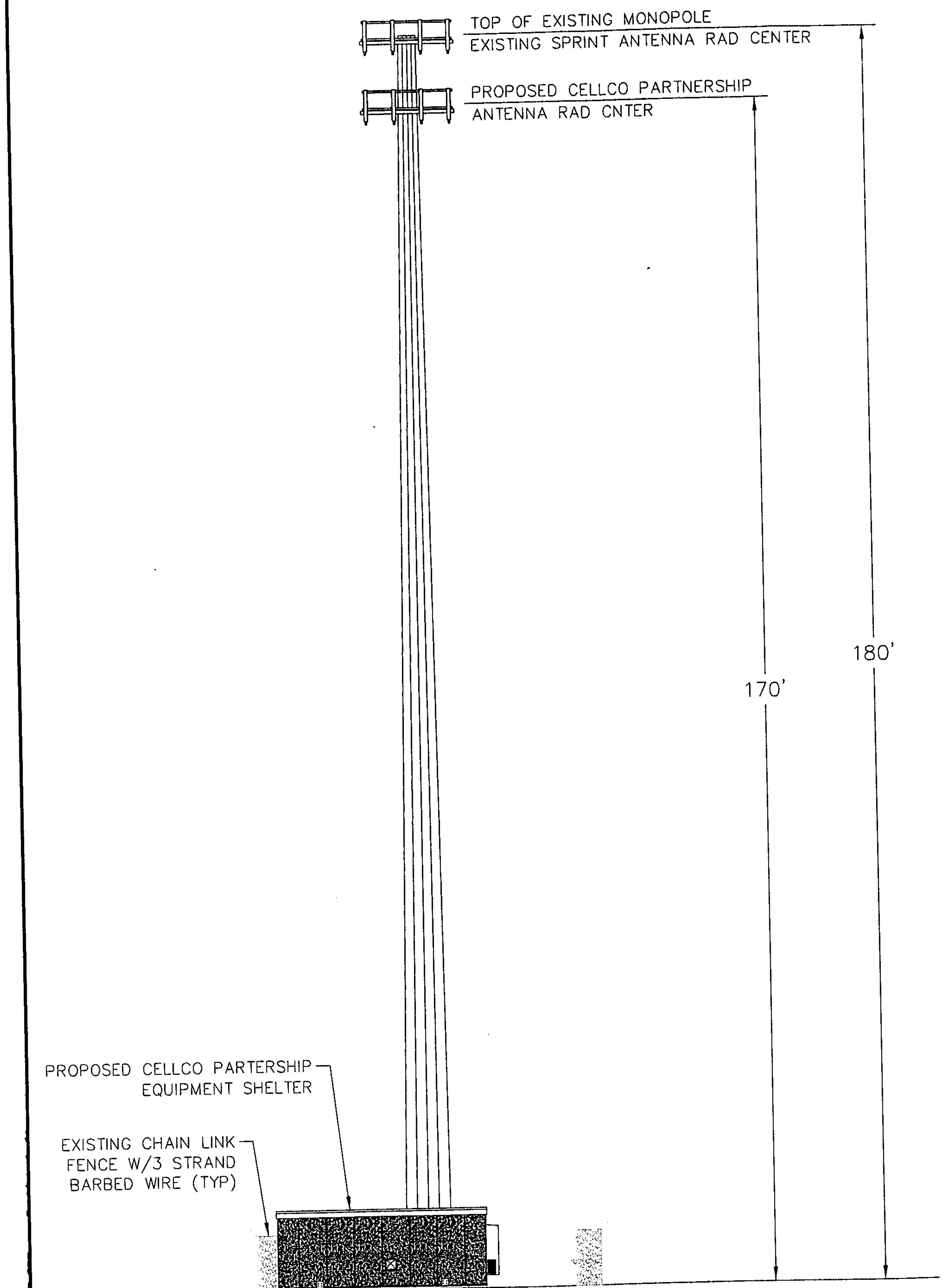
2. POWER AND TELCO SERVICE TO BE VERIFIED BY RESPECTIVE COMPANIES IN THE FIELD.

3. THIS PLAN WAS BASED ON LIMITED DATA. THE LOCATION OF BOUNDARIES, INLAND WETLANDS, WATERCOURSES, TOWER LATITUDE / LONGITUDE AND RELATED TOPOGRAPHIC DATA WILL BE UPDATED UPON PREPARATION OF A DETAILED SURVEY.



NOT FOR CONSTRUCTION
FOR PERMITTING ONLY

SITE PLAN
SCALE 1"=10'



TOWER ELEVATION
SCALE 1"=10'

BL Companies
ARCHITECTURE
ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
ENVIRONMENTAL SCIENCES
ANALYTICAL SERVICES

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

SITE PLAN AND TOWER ELEVATION

PLAINFIELD WEST TELECOMMUNICATION FACILITY

53 WESTMINSTER ROAD
CANTERBURY CONNECTICUT 06331

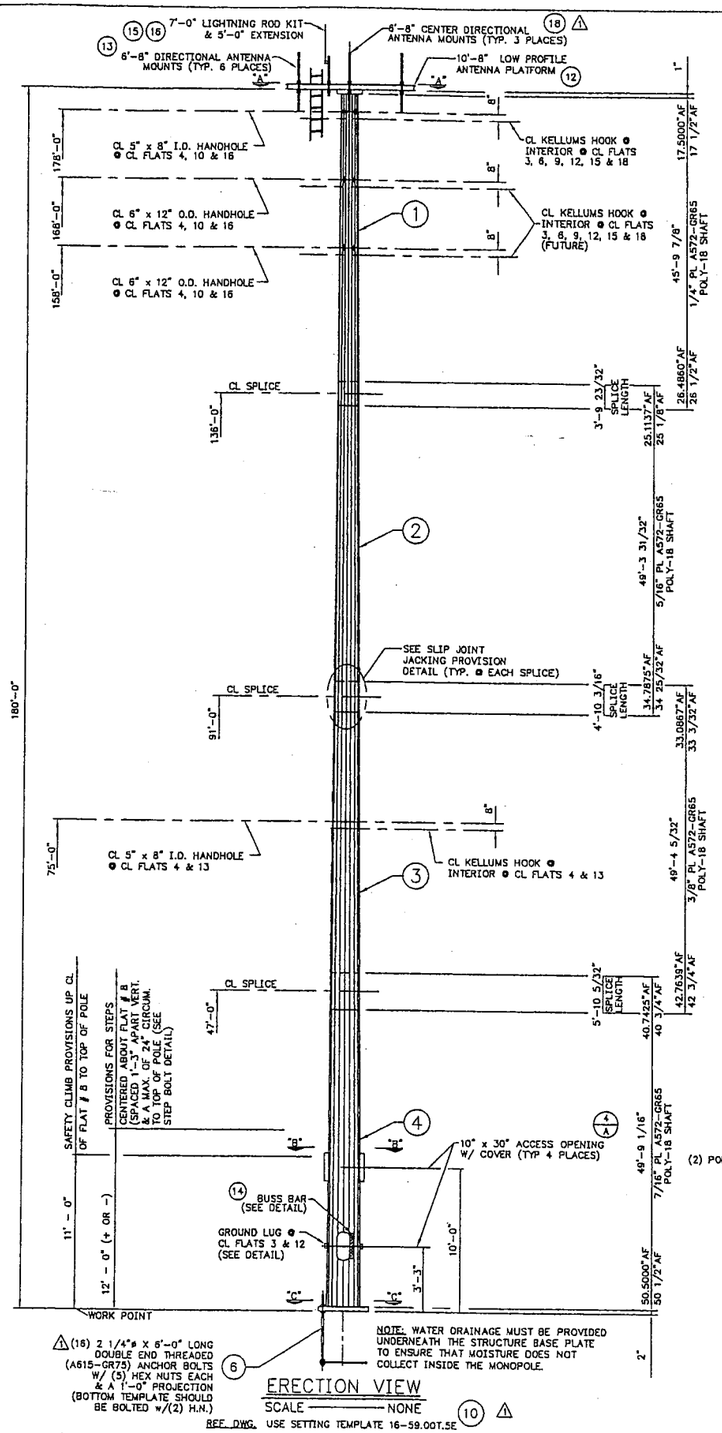
REVISIONS No. Date Desc.

Designed F
Drawn
Checked R.C
Approved R.A
Scale AS SHO
Project No. 03C
Date 10/16/
CAD File SPC0

Xref (s): BRC00201, DIC00201, XCC00201, XCC00202

Sheet No.

SP-1



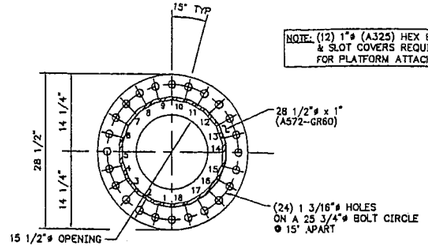
△(18) 2 1/4"ø x 8'-0" LONG DOUBLE END THREADED (A615-GR75) ANCHOR BOLTS W/ (5) HEX NUTS EACH & A 1'-0" PROJECTION (BOTTOM TEMPLATE SHOULD BE BOLTED W/(2) H.N.)

NOTE: WATER DRAINAGE MUST BE PROVIDED UNDERNEATH THE STRUCTURE BASE PLATE TO ENSURE THAT MOISTURE DOES NOT COLLECT INSIDE THE MONOPOLE.

ERECTION VIEW

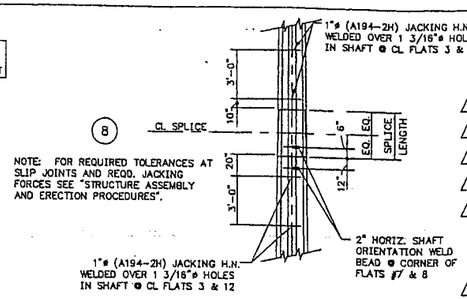
SCALE — NONE (10) △

REF. DWG. USE SETTING TEMPLATE 16-59.00T.SE



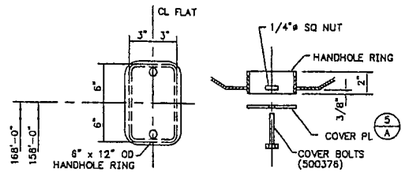
VIEW "A-A"

NOTE: PLATFORM REMOVED FOR CLARITY

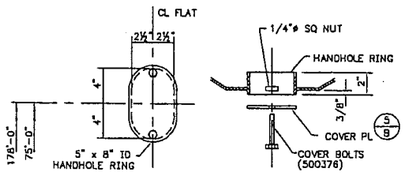


(8) NOTE: FOR REQUIRED TOLERANCES AT SLIP JOINTS AND REQD. JACKING FORCES SEE "STRUCTURE ASSEMBLY AND ERECTION PROCEDURES".

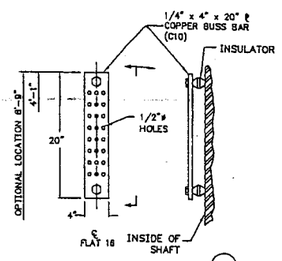
SLIP JOINT JACKING PROVISION DETAIL



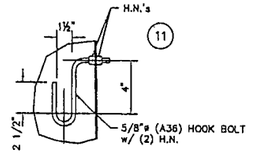
6" X 12" HANDHOLE DETAIL



HANDHOLE DETAIL



BUSS BAR DETAIL (14)



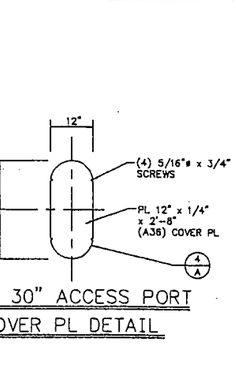
KELLUMS HOOK DETAIL

MATERIAL REQ'D. PER ASSEMBLY

	GALV. WT.	QTY.	ITEM	MK. NO.	DESCRIPTION
△*	3043.78	1	1	GSC26770	SHAFT ASSY. (TOP SECTION)
△*	5187.92	1	2	GSC26771	SHAFT ASSY. (UP. MID. SECTION)
△*	7896.17	1	3	GSC26772	SHAFT ASSY. (LOW. MID. SECTION)
△*	12717.38	1	4	GSC26773	SHAFT ASSY. (BOTTOM SECTION)
△*	25.00	4	4/A	C12669	12" x 32" ACCESS PORT COVER PL w/ (4)BOLTS (500822) & (4)WASHERS (500234)
			5		HARDWARE AS FOLLOWS:
*	5.51	6	5/A	GS14842	6" x 12" HANDHOLE COVER PLATE w/ (2) BOLTS (500378)
△*	2.64	5	5/B	P-10811	5" x 8" HANDHOLE COVER PLATE w/ (2) BOLTS (500376)
△	105.78	16	6	AB060DE-5	2 1/4"ø x 6'-0" LG. (A615-GR75) ANCHOR BOLTS W/ (5) HEX NUTS (A194-GR2H), EACH
	1.08	143	7	S10006	5/8"ø x 6 1/2" LG. BUTTON HEAD STEP BOLT w/ (1) HEX & (1) SQUARE NUT EACH
		1	8		STRUCTURE ASSEMBLY AND ERECTION PROCEDURES
		1	9	DBI-180	180'-0" SAFETY CLIMB KIT
△	147.62	2	10	16-59.00T.SE	SETTING TEMPLATE
△	1.50	8	11	GS13625	5/8"ø KELLUMS HOOK ASSY.
	1235.15	1	12	K10008A	10'-8" LOW PROFILE ANTENNA PLATFORM
	32.63	6	13	K10009	6'-8" DIRECTIONAL ANTENNA MOUNT
	7.50	1	14	K10062	BUSS BAR KIT
	27.73	1	15	K10556	5'-0" LIGHTNING ROD EXTENSION
	28.60	1	16	K10333	7'-0" LIGHTNING ROD
		1	17		STRUCTURE IDENTIFICATION TAG
△	32.83	3	18	K10018	6'-8" CENTER DIRECTIONAL ANTENNA MOUNT

TOTAL GALV. STR. & ACCES. WT. 30,685.54#

TOTAL ANCHOR BOLT & TEMPLATE WT. 1,987.72#



SAFETY CLIMB ATTACHMENT DETAILS

(LOCATED ALONG CL OF FLAT #8)

GENERAL NOTES

1) ALL WELDS SHALL BE IN ACCORDANCE WITH A.W.S. D.1.1.
2) LONGITUDINAL SEAM WELDS IN FEMALE SECTION OF THE SLIP JOINT SHALL BE FULL PENETRATION WELDS.
3) FOR PROPER SHAFT ALIGNMENT, A 2" HORIZONTAL WELD BEAD AND A MARK NUMBER ARE POSITIONED ON EACH SHAFT AT EACH SPLICE. THE 2" HORIZONTAL WELD BEADS ARE ON MATCHING CORNERS. THE MARK NUMBER IS ON AN ADJACENT FLAT. THE HORIZONTAL WELD BEAD CORNERS SHALL BE ALIGNED TOP TO BOTTOM OF THE POLE. MATCH NUMBERS SHALL BE MATCHED FOR EACH SIDE.
4) FIELD ASSEMBLY NUTS (1" DIA) ARE LOCATED ON OPPOSING SECTION FLATS ABOVE AND BELOW SPLICES FOR JACKING SHAFTS TOGETHER.
5) THE BOTTOM OF THE UPPER SECTION SHALL BE TELESCOPED IN THE FIELD TO WITHIN 12" OF THE WELD ORIENTATION MARK ON THE LOWER SECTION.
6) A SLOT 1 1/2" x 4" IS REQUIRED AT THE TOP OF THE BOTTOM SECTION AND AT THE BOTTOM OF THE TOP SECTION FOR HANDLING DURING GALVANTIZING.
7) GAP BETWEEN TOP OF FOOTING AND BOTTOM BASE PLATE SHALL BE FILLED WITH A NON-SHRINK GROUT.
8) POLES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
9) POLE TAPER = 0.1961 IN./FT.

DESIGN NOTES

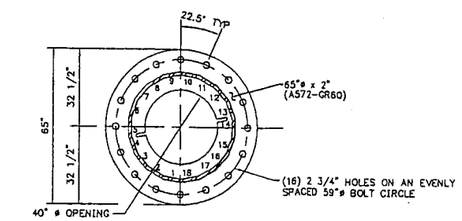
DESIGNED IN ACCORDANCE WITH TIA/EIA 222-F
90 MPH BASIC WIND SPEED
1/2" RADIAL ICE

CASE I - 50 MPH OPERATIONAL WIND
ALLOWABLE ROTATION = 3.00° @ TOP

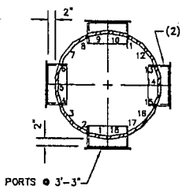
CASE II - 90 MPH BASIC WIND SPEED

CASE III - 75% OF 90 MPH BASIC WIND WITH 1/2" SIMULTANEOUS ICE

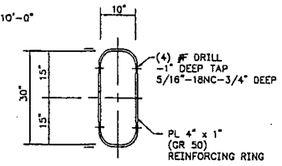
DESIGNED IN COMPLIANCE WITH SPRINT TOWER SPECIFICATIONS SSEO 3.001.06.001 (06/01/99)



SECTION "C-C" △

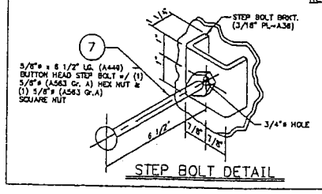


SECTION "B-B"

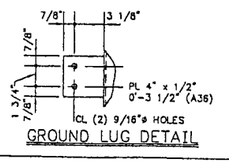


REIN. RING DETAIL @ 10" x 30" ACCESS OPENING

10" x 30" ACCESS PORT COVER PL DETAIL



STEP BOLT DETAIL



GROUND LUG DETAIL

ASSEMBLY MARKING PROCEDURE

EACH INDIVIDUAL ASSEMBLY SHALL HAVE A METAL TAG WELDED TO IT WHICH WILL BE ENGRAVED WITH THE ASSEMBLY MARK NO. AS SHOWN IN THE MATERIAL BLOCK. (MINIMUM OF 5/8" HIGH LETTERS)

CANTERBURY, CT
SITE: WESTMINSTER ROAD, CT33XC084

REV.	DESCRIPTION	DATE	DWN.	CHK.	APP.
2	COMPLETED DETAILING	8/7/00	R.V.H.		
1	REVISED DESIGN & ADDED HARDWARE	6/26/00	R.V.H.		

6897

ENGINEERED ENDEAVORS INCORPORATED
* 7610 Janther Drive Mentor, Ohio 44060
* (440) 918-1101

180'-0" MONOPOLE
SPRINT PCS/NJ

DWN. R.V.H. DATE 04-21-00	CHK'D. APP. DATE	ORIG. DATE	FINAL APP. DATE
SCALE NONE	SH. 1 OF 1	GS52249	

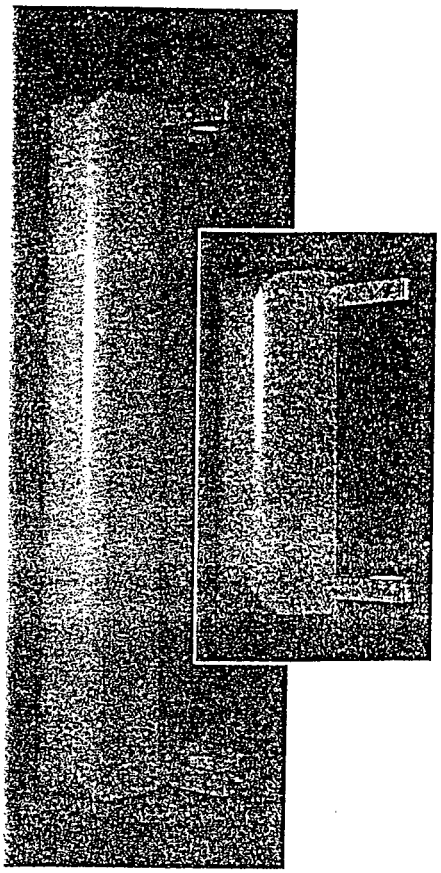
DB842H80N-XY, DB842H90N-XY dB DIRECTOR™ LOG PERIODIC ANTENNAS
DB844H80N-XY, DB844H90N-XY 9-13 dBd GAIN, 40 dB F/B RATIO, 806-960 MHz

Ideal for cellular and trunking/ESMR applications, these high quality log periodics are now available from Decibel in four new models with 80 or 90 degree horizontal apertures. They're compact, lightweight, and provide an **unmatched front-to-back ratio of 40 dB.**

- Less Wind Loading - They measure only 24 or 48 inches (610 or 1219 mm) tall, 8.5 inches deep (216 mm), and 6 inches wide (152 mm). They weigh only 5 or 10 pounds.
- Downtilt - Electrical downtilt is available on all 4-foot models, 6°, 8°, 11°, 13°, or for mechanical downtilt, order DB5083 bracket.
- Null-Fill - Four-foot models provide null-fill and upper lobe suppression.
- Most Stringent IM Test - Each antenna is tested for the absence of IM with 16 carriers at 500 watts of composite power.
- Sturdy Construction - Made in the U.S. of high-strength aluminum alloy backs, brass elements and UV resistant ABS plastic radomes. No rivets are used!
- Lightning Resistant - All metal parts are grounded.
- Terminations and Mounts - All models are available with N-Female or 7/16 DIN connectors. DB380 pipe mount is included.

Ordering information - See table for models to fit your requirements.

UPS Shippable



4-Foot and 2-Foot dB DIRECTORS

Models Available

Model*	DB842H80N-XY	DB844H80N-XY	DB842H90N-XY	DB844H90N-XY
Gain – dBd/dBi	10/12.1	13/15.1	9/11.1	12/14.1
F/B Ratio – dB	40	40	40	40
Horizontal beamwidth**	80°	80°	90°	90°
Vertical beamwidth**	30°	15°	30°	15°
Height – in. (mm)	24 (610)	48 (1219)	24 (610)	48 (1219)
Weight – lbs. (kg)	5 (2.3)	10 (4.6)	5 (2.3)	10 (4.6)
Shipping weight – lbs. (kg)	8 (3.6)	15 (6.8)	8 (3.6)	15 (6.8)

* For 7/16 DIN connectors substitute "E" for "N" in the model numbers. Example: DB842H80E-XY.

** 3 dB from maximum.

Side offset mounting bracket is included. For electrical downtilt of 6°, 8°, 11° or 13° add T6, T8, T11 or T13 before the "N" or "E" in any 4-foot model number. Example: DB844H80T6N-XY. Note: Electrical downtilt causes a gain loss of .05 dB, or , at the horizon, a reduction of 3, 6, 9 or 12 dB on downtilts of 6°, 8°, 11° or 13° respectively. For mechanical downtilt order DB5083 bracket.

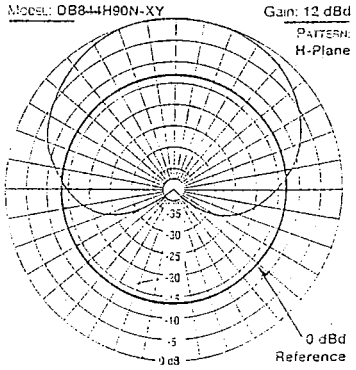
Mechanical Data

Width – in. (mm)	6 (152)
Depth – in. (mm)	8.5 (216)
Height	See table above
Maximum wind speed – mph (km/h)	125 (200)
Wind area – ft² (m²)	
24" (610 mm) antenna	1 (.093)
48" (1219 mm) antenna	2 (.186)
Wind load (at 100 mph/161 km/h) – lbf (N) kp	
24" (610 mm) antenna	40 (178) 18
48" (1219 mm) antenna	80 (356) 36
Radome	Gray ABS
Backplate	Passivated aluminum
Radiators	Brass
Mounting hardware	Galvanized steel
Weight	See table above

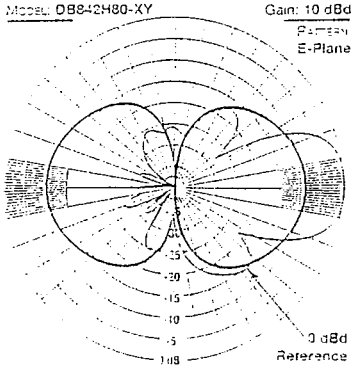
Electrical Data

Frequency Range - MHz	806-960
Gain - dBd	See table above
Front-to-back ratio - dB	>40
Beamwidths	See table above
VSWR	<1.5:1
Null-fill and secondary lobe suppression	On 48" (1219 mm) models only
Maximum power input - watts	500
Nominal impedance - ohms	50
Lightning protection	All metal parts grounded
Termination	N-Female or 7/16 DIN

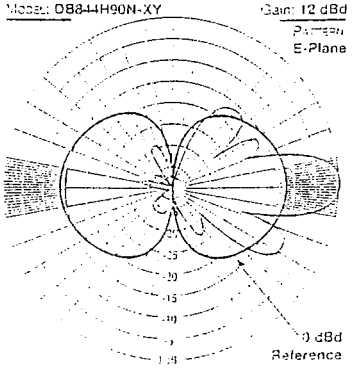
Typical DB842H90N-XY, DB844H90N-XY Horizontal Pattern



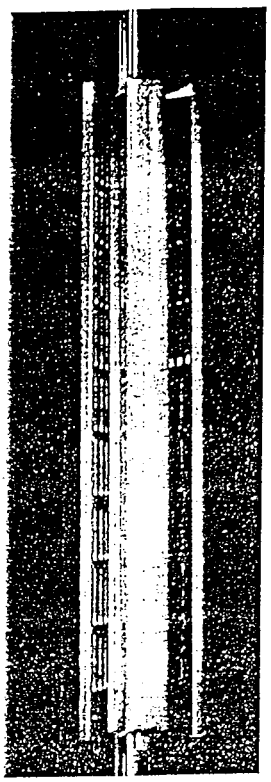
Typical DB842H80-XY Vertical Pattern



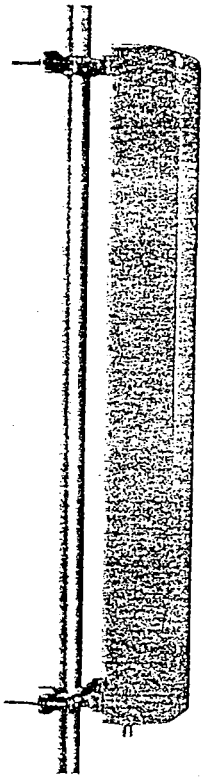
Typical DB844H90N-XY Vertical Pattern



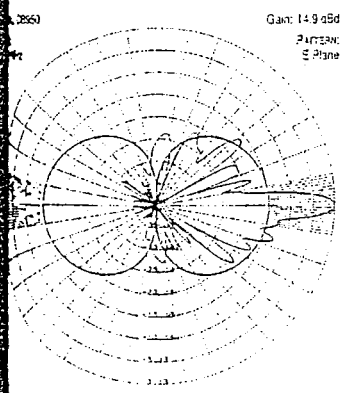
dB Director Log Periodic Antenna Family is engineered to
ide the best possible coverage control for today's complex
l systems.
educe co-channel interference.
rovide exact coverage penetration.
ntegrated phasing and array structure in a single circuit.
o uncontrolled fasteners, mechanical screws, or rivets in
current path.
attern shaping options:
- Max Gain™ – focused gain on the horizon.
- Max Fill™ – excellent USLS of 18 db and null fill
of 11 to 12 dB.
utstanding "cone of silence" and front to back ratio
40 dB, typical.
xcellent control of intermodulation, IM3-147 dBc.
vailable in a wide range of gains and beam shapes.
lim profile for outstanding reduction of wind load.
ring Information: "G" indicates "Max Gain™", "F" indicates
x Fill™". Max Fill™ antenna gain is typically down 0.5 to
B from Max Gain™. All antennas above are standard with
DIN connectors, bottom mounted.
uency Designations: M-1850-1990, KL-1710-1880.
nting:
-08390 Pipe mount kit (included).
-085098 Downtilt Bracket (optional).

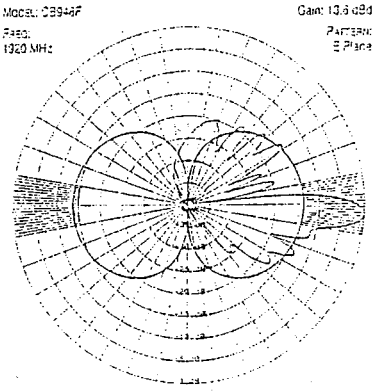


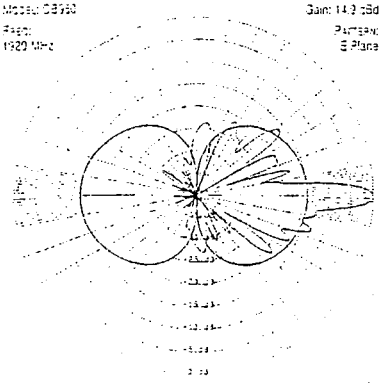
D8950G65

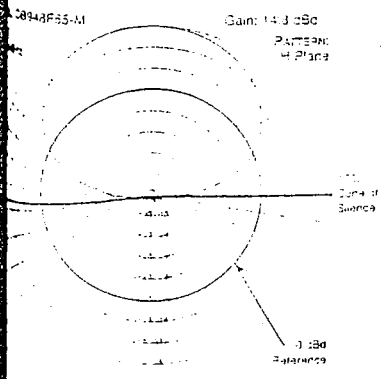


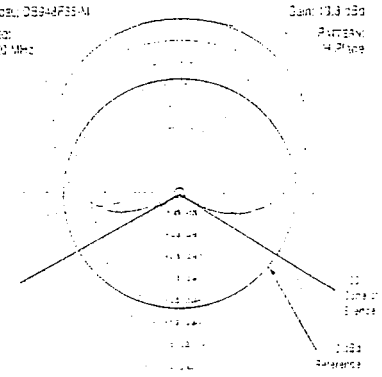
D8948F85



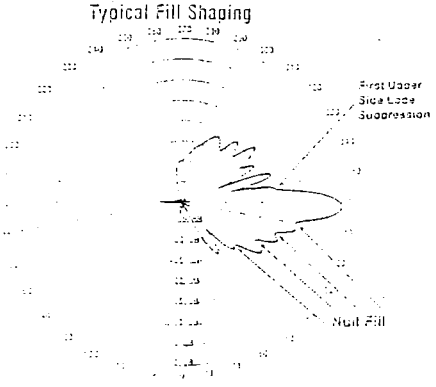








Typical Fill Shaping



DECIBEL PRODUCTS

806 - 960 MHz

DB Director™ Log Periodic Antenna

DB948, DB950

Medium Gain	MaxGain®	MaxFill™	MaxGain®	MaxFill®	MaxGain®
Model Number	DB948G40	DB948F65	DB948G65	DB948F85	DB948G85
Gain: dbd (dBi)	17.5 (19.6)	15.1 (17.2)	15.5 (17.6)	14 (16.1)	14.8 (16.9)
Horizontal Beamwidth	40°	65°	65°	85°	85°
Vertical Beamwidth	7°	3°	7°	8°	7°
Electrical Downtilt Options	0°	0°, 2°, 4°	0°, 4°	0°, 2°, 4°	0°, 4°
Length: in. (mm)	48.5 (1232)	48.5 (1232)	48.5 (1232)	48.5 (1232)	48.5 (1232)
Width: in. (mm)	11 (279)	10.5 (267)	10.5 (267)	3.5 (89)	3.5 (89)
Depth: in. (mm)	7.8 (198)	7 (178)	6.5 (165)	6.9 (175)	6.5 (165)
Weight: lbs. (Kg)	17 (7.7)	14 (6.4)	14 (6.4)	8.5 (3.9)	8.5 (3.9)
Frontal Wind Area: ft² (m²)	3.7 (0.34)	3.5 (0.33)	3.5 (0.33)	1.2 (0.11)	1.2 (0.11)
Lateral Wind Area: ft² (m²)	2.6 (0.24)	2.4 (0.22)	2.2 (0.20)	2.3 (0.21)	2.2 (0.20)
Frontal Wind Load (at 100mph)	148 lbf (658N) 66.5 kp	140 lbf (623N) 62.9 kp	140 lbf (623N) 62.9 kp	43 lbf (214N) 21.6 kp	48 lbf (214N) 21.6 kp
Lateral Wind Load (at 100mph)	104 lbf (463N) 46.7 kp	96 lbf (427N) 43.1 kp	88 lbf (391N) 93.5 kp	92 lbf (409N) 41.3 kp	88 lbf (391N) 39.5 kp

High Gain	MaxGain®	MaxFill™	MaxGain®	MaxFill®	MaxGain®
Model Number	DB950G40	DB950F65	DB950G65	DB950F85	DB950G85
Gain: dbd (dBi)	19 (21.1)	16.1 (18.2)	16.6 (18.7)	14.9 (17.0)	15.9 (18.0)
Horizontal Beamwidth	40°	65°	65°	85°	85°
Vertical Beamwidth	5.5°	6.5°	5.5°	6.5°	5.5°
Electrical Downtilt Options	0°	0°, 2°, 4°	0°	0°, 2°, 4°	0°
Length: in. (mm)	60 (1524)	60 (1524)	60 (1524)	60 (1524)	60 (1524)
Width: in. (mm)	11 (279)	10.5 (267)	10.5 (267)	3.5 (89)	3.5 (89)
Depth: in. (mm)	7.8 (198)	7 (178)	7 (178)	6.9 (175)	6.9 (175)
Weight: lbs. (Kg)	20 (9 1)	15 (6.8)	15 (6.8)	10.5 (4.8)	10.5 (4.8)
Frontal Wind Area: ft² (m²)	4.6 (0.43)	4.4 (0.41)	4.4 (0.41)	1.5 (0.14)	1.5 (0.14)
Lateral Wind Area: ft² (m²)	3.3 (0.30)	2.9 (0.27)	2.9 (0.27)	2.9 (0.27)	2.9 (0.27)
Frontal Wind Load (at 100mph)	184 lbf (818N) 82.7 kp	176 lbf (783N) 79.1 kp	176 lbf (783N) 79.1 kp	60 lbf (267N) 27.0 kp	60 lbf (267N) 27.0 kp
Lateral Wind Load (at 100mph)	132 lbf (587N) 59.3 kp	116 lbf (516N) 52.1 kp	116 lbf (516N) 52.1 kp	60 lbf (267N) 27.0 kp	60 lbf (267N) 27.0 kp

Other configurations available. Please call Customer Service or your Sales Representative.

Standard Specifications	KL	M
Frequency Range (MHz)	1710 - 1880	1850 - 1990
Application	GSM 1800	PCS
VSWR	1.4:1	
IM3	150 dBc, typical	
Polarization	Vertical	
Front-to-Back Ratio	40 db, typical	
Max. Input Power	250 Watts	
Lightning Protection	All metal parts grounded	
Connector Options	E: 7/16 DIN, N: Type N-Female	

verizonwireless

Network Department
99 East River Drive
East Hartford, CT 06108

October 11, 2001

Honorable Mr. Neil A. Dupont
First Selectman
Town Hall
P.O. Box 26
Canterbury, CT 06331

Dear Mr. Dupont,

This letter is to inform you that Cellco Partnership d/b/a Verizon Wireless plans to install antennas and associated equipment at the existing tower facility located at 53 Westminster Road, Canterbury, Connecticut. I am enclosing a copy of Verizon Wireless's tower sharing application to the Connecticut Siting Council.

The application fully sets forth the Company's proposal. However, if you have any questions or require further information on our plans or the Siting Council's procedures, please contact me at (860) 803-8213 or Mr. Joel Rinebold, Executive Director of the Connecticut Siting Council at (860) 827-2935.

Sincerely,

David S. Malko P.E.
Manager-Engineering
Verizon Wireless

Enclosure