STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

March 20, 1998

Peter J. Tyrrell
Senior Counsel
Springwich Cellular Limited Partnership
500 Enterprise Drive
Rocky Hill, CT 06067-3900

Re: Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located at 125 South Main Street, West Hartford, Connecticut.

Dear Mr. Tyrrell:

At a public meeting held on March 16, 1998, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility in West Hartford, Connecticut, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies. This acknowledgement was made consistent with a recommendation of the Town of West Hartford that the platform for a second wireless carrier would not be placed on the tower at this time, until Council approval after further consultation with the Town.

The proposed modifications are to be implemented as specified here and in your notice dated January 20, 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
Chairman

MAG/RKE/sg

c: Honorable Robert R. Bouvier, Mayor, Town of West Hartford

I:\siting\em\springwich\w_hartford\dc031698.doc

OFFICE OF
CORPORATION COUNSEL
AND ASSISTANT
CORPORATION COUNSEL

February 25, 1998

Mr. Joel Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Springwich Cellular Limited Partnership - West Hartford Cell Site (125 South Main Street)

Dear Mr. Rinebold:

The Town of West Hartford has recently adopted a zoning ordinance regulating PCS sites within West Hartford. The application pending before the Siting Council at 125 South Main Street involves the replacement of an existing monopole tower with a new tower of the same height. The new tower is designed, however, to support additional antenna loading and the applicant has provided you with supporting documentation which suggests that it may colocate additional antennae (possibly including PCS antennae) on this tower in the future. As a result of the reference in the application materials to PCS antenna loading, the matter was referred to me to look into it

I have since spoken with Peter Tyrell, counsel for Springwich Cellular Limited Partnership. He advises me that Springwich has no current plans to colocate any PCS antennae onto this tower and that the data in Springwich's application referring to PCS antenna loading was only provided in an effort to give the Siting Council all of the relevant information which it might wish to have. In light of that fact, the Town has no concerns with the application presently before you.

The Town does take the view that before a PCS carrier may colocate onto this tower in the future a site plan approval should be obtained from the Town. This site plan application is nominal in terms of requirements and involves no hearing process. It should not conflict with any of your agency requirements. It does, however, allow us to keep track of the licensed PCS carriers' buildout throughout our town in order to permit us to regulate the location of PCS equipment effectively. As you are well aware, wireless communication sites all fit together as a giant electronic jigsaw puzzle. It is important for us to have data on all of the sites in a network in order to evaluate applications for new sites as they arise.

8083

TOWN OF WEST HARTFORD

TOWN OF WEST HARTFORD 50 SOUTH MAIN STREET
WEST HARTFORD, CONNECTICUT 06107-2431
(860) 523-3171 FAX: (860) 523-3162

If I can be of any further assistance to you, or if you have any questions about this matter, please feel free to call me.

Sincerely,

Patrick G. Alair
Assistant Corporation Counsel

c. Hon. Robert Bouvier, Town Mayor
Barry M. Feldman, Town Manager
Michael McGoldrick, Corporation Counsel
Ronald Van Winkle, Director of Community Services
Donald R. Foster, Town Planner
Peter J. Tyrrell, General Counsel, Springwich Cellular Limited Partnership
Peter Van Wilgen
File: 125 South Main Street

OFFICE OF
CORPORATION COUNSEL
AND ASSISTANT
CORPORATION COUNSEL

January 30, 1998

Mr. Joel Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Springwich Cellular Limited Partnership - West Hartford Cell Site (125 South Main Street)

Dear Mr. Rinebold:

We are in receipt of a letter dated January 20, 1998 through which Springwich Cellular Limited Partnership proposes to replace an existing cellular tower (monopole) at 125 South Main Street. The Town of West Hartford has questions about the replacement of this tower which we are attempting to resolve with Springwich at this time.

I hope to be able to contact you in the near future with a more detailed position after I am able to communicate with Springwich. Thank you for your consideration of this matter.

Sincerely,

Patrick G. Alair
Assistant Corporation Counsel

c. Hon. Robert Bouvier, Town Mayor
Barry M. Feldman, Town Manager
Michael McGoldrick, Corporation Counsel
Ronald Van Winkle, Director of Community Services
Donald R. Foster, Town Planner
Peter J. Tyrrell, General Counsel, Springwich Cellular Limited Partnership
File: 125 South Main Street

8061

Springwich Cellular Limited Partnership

500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7755
Fax: (860) 513-7614

Peter J. Tyrrell
General Counsel

January 20, 1998

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

Re: **Springwich Cellular Limited Partnership - West Hartford Cell Site**

Dear Chairman Gelston:

Springwich Cellular Limited Partnership ("SCLP") requests the authority to replace the existing 100 foot monopole tower, which measures 12.45 inches at the base and tapers to 3.29 inches at the top of the tower. The tower is currently located on Southern New England Telephone (SNET) premises at 125 South Main Street in the town of West Hartford, Connecticut. This proposal will allow SCLP the opportunity to extend its offering of digital service in the current service area. Please accept this letter as notice of intent, pursuant to R.C.S.A. Section 16-50j-72(b)(2) and (3) of the placement of associated equipment on an existing facility tower. In further compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the Mayor of West Hartford.

Our current antenna configuration of (2) panel antennas brings the existing tower to its design load capacity. These antennas are not capable of supporting our current plans of offering digital service. The digital system requires that we convert our existing antenna array to a directional system.

The existing monopole's current size does not permit use of this tower for future expansion or multiple carrier use. This tower was constructed by the parent company (SNET) in the early 1970's and is not capable of supporting either proposal listed below. Due to these circumstances, SCLP would like to offer two different proposals for the Council's consideration. They are:

First Proposal:

SCLP would like to replace the existing light duty monopole with a new 100 foot monopole, 34 inches in diameter at the base and tapering to 14 inches at the top, to support an antennna platform which will be mounted at the top of the tower (See attachment #1). This platform will support the mounting of (9) nine directional antennas

(Swedcom ALP Model 11011N) which will be secured to the platform. SCLP also plans to install additional radio transmission equipment inside the existing central office building which is adjacent to the existing tower.

Second Proposal:

As an alternative, SCLP would like to suggest that the Council consider allowing SCLP to replace the existing tower with a 100 foot monopole, 34 inches in diameter at the base and tapering to 14 inches at the top, to support two (2) platforms for mounting two sets of directional antennas (See attachment #2). The first platform would be equipped as described in the first proposal. The second platform would be installed with approximately a ten (10) to fifteen (15) foot vertical separation. This arrangement would allow for diversity when considering the equipment space requirements of future clients, due to different antenna manufacturers' makes and models. These antennas would be mounted in the same fashion as described above, but on the second platform. Prior to SCLP installing this second platform for another wireless service provider, it would seek the approval from the Connecticut Siting Council.

Neither of these proposed applications of SCLP's antennas and equipment to this tower site does not constitute a substantial environmental impact, since such additions do not cause a significant change or alteration in the physical or environmental characteristics of the site (see attached site sketch). Rather, the planned changes to the existing facility tower falls squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b).

Finally, this proposed addition will not increase the noise levels at the existing facility by six decibels or more. The operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density to a level at or above the ANSI standard. A "worst-case" calculation, for both proposals, from a point of interest on the roof top indicates that SCLP's cellular operations result in a Power Density Calculation of 5.47%, which is 27.33% of the maximum permissible emissions allowed in a uncontrolled environment. (See chart listings) This calculation was arrived at using a platform height of 99 ft. and an operating power of 100 watts per channel. Final calculations for additional users will be submitted if and when a formal application is submitted to the Connecticut Siting Council for approval. However, as you can see by the chart, adding an additional PCS provider is still well within the acceptable operating parameters.

Worst Case Scenario

Service/ Point of interest	Band (MHz)	Power per Channel (watts)	# Channels	Height (ft.)	Power Density (mW/cm^2)	% of MPE ($2.9333 mW/cm^2$) Controlled	% of MPE ($0.5867 mW/cm^2$) Uncontrolled
Cellular (Roof)	880 MHz	100 watts	19	99 ft.	0.1603	5.47%	27.33%
Future PCS (Roof)	1962.5 MHz	122 watts	11	84 ft.	0.1785	3.57%	17.85%
Total						**9.04%**	**45.18%**

For the foregoing reasons, Springwich Cellular Limited Partnership seeks a ruling that its proposed additions to the tower would not cause a significant change or alteration in the physical and environmental characteristics of the site, SCLP further submits that the changes comply with R.C.S.A. Sections 16-50j-72(b)(c) (2) and (3) and therefore requests a determination that the placement of the antennas and equipment on the existing facility tower site does not constitute a substantial environmental effect under R.C.S.A Section 16-50j-72(b).

Thank you for your cooperation and attention to this matter.

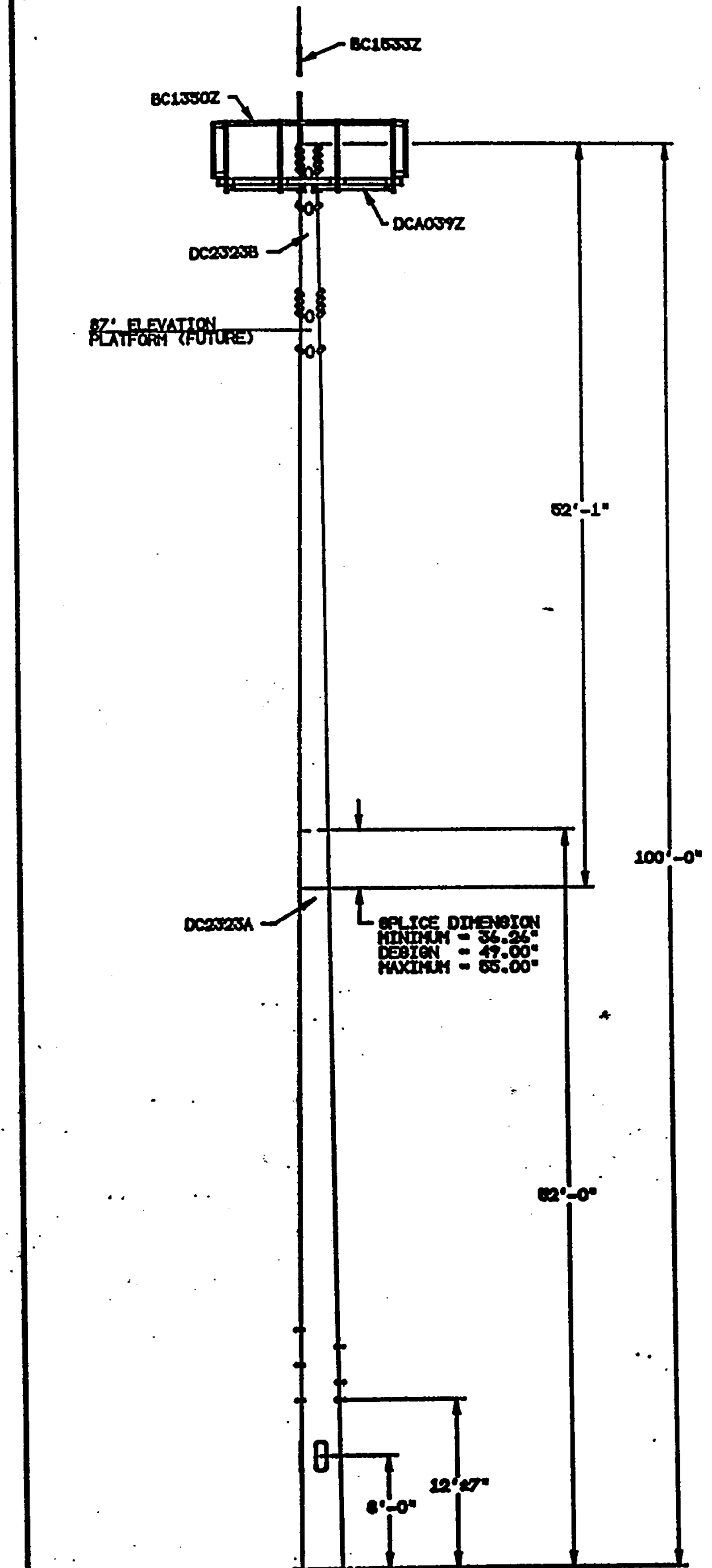
Sincerely,

Peter J. Tyrrell

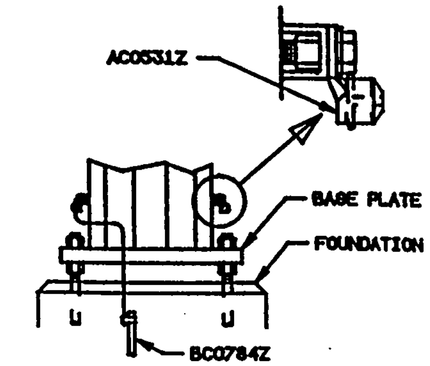
Attachments

cc Mayor of West Hartford

ATTACHMENT #1

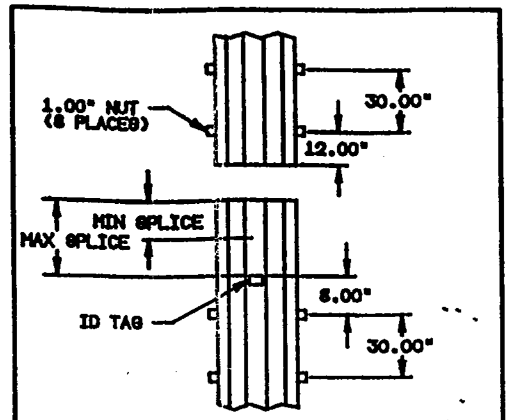


ELEVATION VIEW
SEE FABRICATION DRAWINGS FOR ADDITIONAL DETAILS



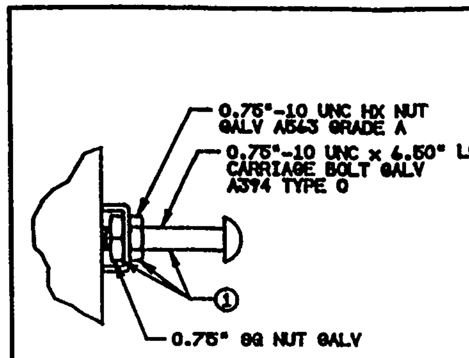
SEE CC01304 FOR CAGE INFORMATION. A MINIMUM OF TWO FULL THREADS IS REQUIRED ABOVE TOP NUTS.

BASE PLATE CONNECTION



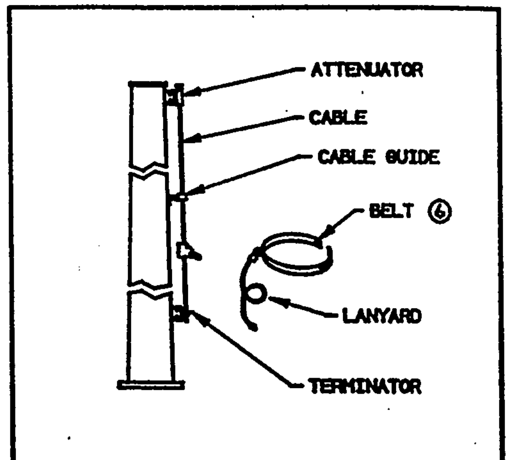
REFER TO ELEVATION VIEW FOR MINIMUM AND MAXIMUM SPLICE VALUES.

SPLICE DETAIL

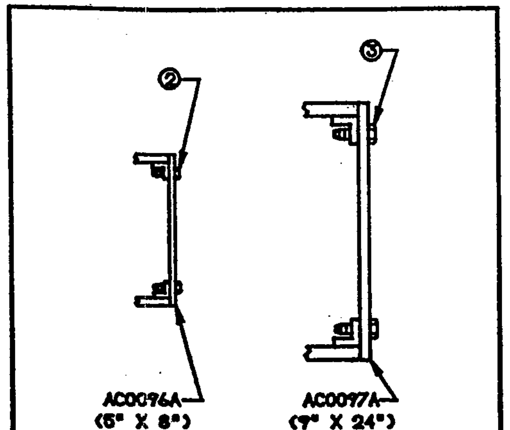


TURN STEP BOLTS UNTIL FRONT EDGE TOUCHES POLE SHAFT

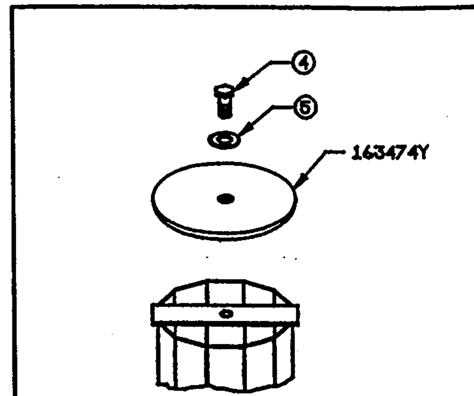
POLE STEP KIT



SAFETY CLIMB / BCA100Z



HANDHOLE COVERS



POLE CAP CONNECTION

NOTES:

1. POLE SHAFT-GOVERNING REACTIONS.
   MOMENT = 13,919 IN-KIPS
   SHEAR = 14,154 #
   VERTICAL = 14,676 #
2. COMPONENT IDENTIFICATION: TAG LOCATIONS ARE INDICATED BY CALLOUTS ON DRAWING. "TAG MARK" IN BILL OF MATERIAL SHOWS FIRST 4 DIGITS ON EACH TAG. SUBSEQUENT DIGITS WILL INDICATE SEQUENCE OF MANUFACTURER.
3. ASSEMBLY AND ERECTION GUIDELINES: SEE VALMONT COMMUNICATION POLE INSTALLATION GUIDELINE I012.
4. SLIP JOINT JACKING FORCE
   MINIMUM = 25,000#
   MAXIMUM = 70,000#
5. WEIGHT: WEIGHT IN TITLE BLOCK IS TOTAL STRUCTURE WEIGHT EXCLUDING ANCHORAGE.
6. FINISH: GALVANIZED PER ASTM A-123.
7. POLE DESIGN CONFORMS TO EIA/TIA-222-E FOR:
   100 MPH WIND WITH NO ICE, EXPOSURE "B".
   87 MPH WIND WITH 1/2" ICE, EXPOSURE "B".
8. DESIGN LOADING:
   1-CELLULAR PLATFORM MOUNTED @ 97' ELEV.
   12-ALP9212'S MOUNTED ON PLATFORM FACES.
   3-DB809'S MOUNTED ON PLATFORM CORNERS.
   1-CELLULAR PLATFORM MOUNTED @ 87' ELEV. (F)
   12-ALP9212'S MOUNTED ON PLATFORM FACES. (F)
   3-DB809'S MOUNTED ON PLATFORM CORNERS. (F)

BILL OF MATERIAL
(SHIPPING SEQ.-1 FOR ALL)

VALMONT PART NUMBER PREFIX	VALMONT PART NUMBER TAG MARK	DESCRIPTION		UNIT WEIGHT (LBS)	QTY PER STR
DC2	323A	SECTION ASSEMBLY		6,400	1
DC2	323B	SECTION ASSEMBLY		2,825	1
CC0	1304	CAGE ASSEMBLY		1,394	1
—	NOTE	PLATFORM ASSEMBLY	(DCA039Z)	1,277	1
—	NOTE	SAFETY CLIMB ASSY	(BCA100Z)	39	1
—	NOTE	E.I.A. GROUNDING	(BC0784Z)	20	1
—	NOTE	RAIL KIT ASSEMBLY	(BC1350Z)	412	1
—	NOTE	LIGHTNING ROD KIT	(BC1533Z)	69	1
—	NOTE	GROUND LUG KIT	(AC0531Z)	1	2
MISCELLANEOUS					
AC0096A		HANDHOLE COVER PLATE (5 X 8)		3	12
AC0097A		HANDHOLE COVER PLATE (7 X 24)		9	2
163474Y		POLE CAP COVER PLATE (15" DIA)		13	1

ITEM NO.	VALMONT PART NUMBER	HARDWARE SIZE (IN) BOLT DIA	BOLT LONG	NUT	WSHR	GENERAL	FINISH	ASTM SPEC	QTY PER STR
1	2136A					STEP KIT	HDGV		74
2	164035	0.25	0.75			SCREW	S.S.	A410	26
3	161647	0.38	1.00			SCREW	S.S.	A410	9
4	161171	0.75	1.75			CAP BOLT	HDGV	A325 •	1
5	142056				0.75	FLAT	HDGV	F436	1
6	ABLBELT					SAFTYBELT			1

• PER ASTM A325-91C, EXCLUDE SECTIONS 6.3 & 9.2

SHAFT INFO					
SEC	LENGTH	BASE OD	TOP OD	THK	MAT
A	52'-00"	34.00"	23.34"	0.313"	S-22
B	52'-01"	24.67"	14.00"	0.250"	S-22

DUPLICATE DRAWING DISTRIBUTION
BRENHAM TX

PED11663 100' MONOPOLE
DWG SIZE B CLASS CODE (1) 1 CLASS NO. (3) 450

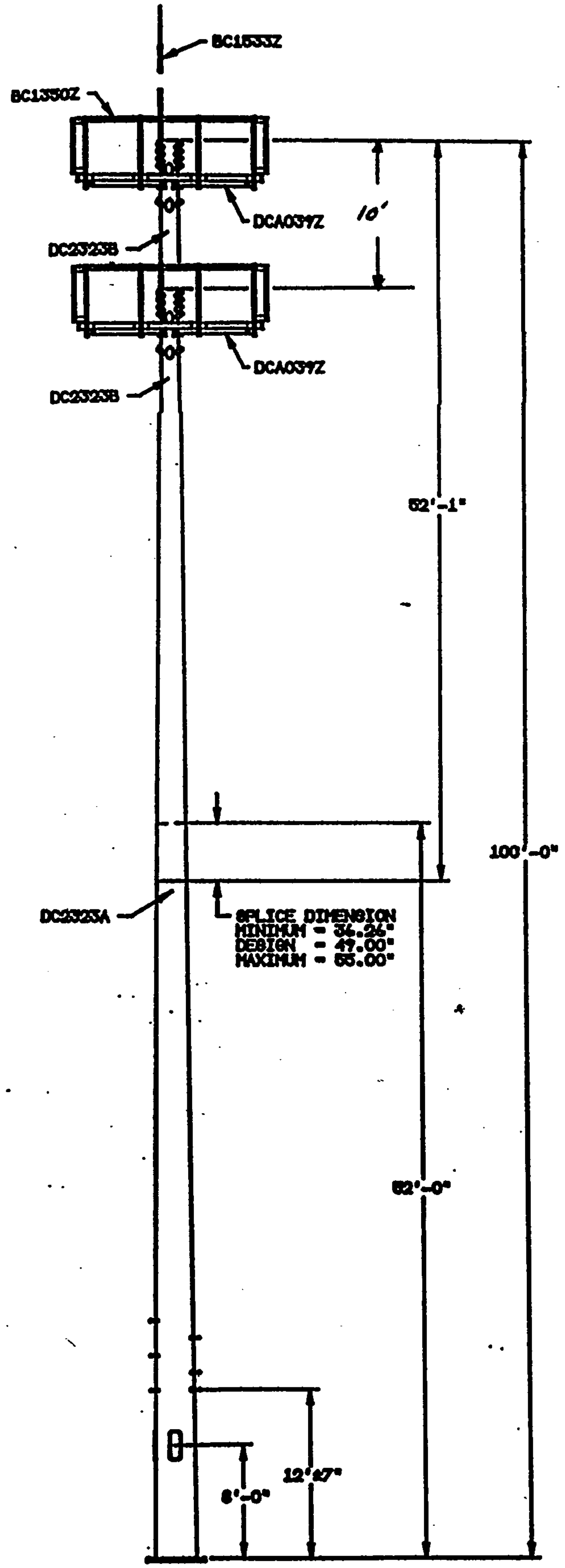
REV NO	DATE	REV BY	CHK BY	REVISION DESCRIPTION
A	04/19/95	LVG	LVG	RVS'D PER CUST REQUEST

DRAWN LVG | ENGR TGH | DATE 04/11/95 | SCALE NONE
P.A. CHK | SHOP CHK LVG
OTHER SPECIFICATIONS
MATERIAL | THICKNESS | WEIGHT 11,311#

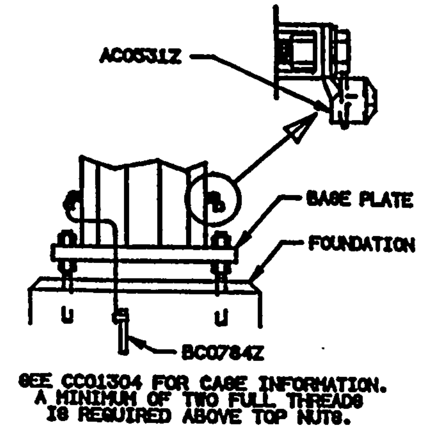
VALMONT

ORDER NO. 11663-95 | CUSTOMER BELL ATLANTIC MOBILE | DESCRIPTION 100' MONOPOLE | DWG NO. DC2323Z

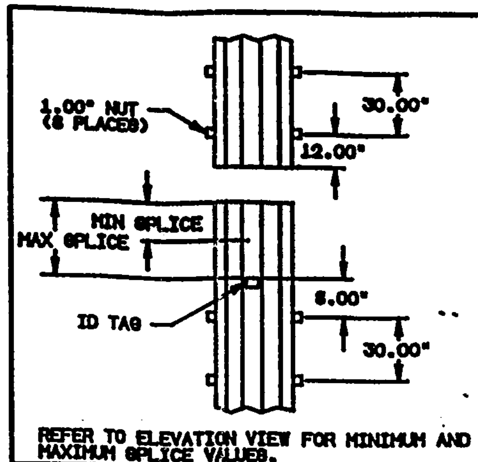
ATTACHMENT 2



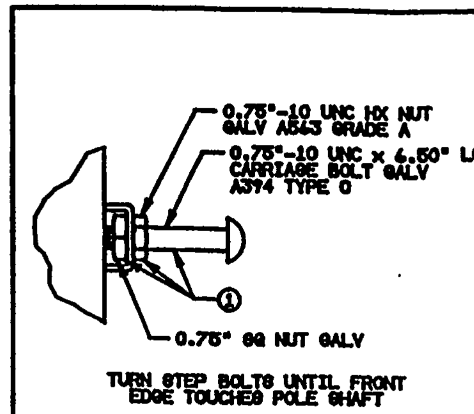
ELEVATION VIEW
SEE FABRICATION DRAWINGS FOR ADDITIONAL DETAILS



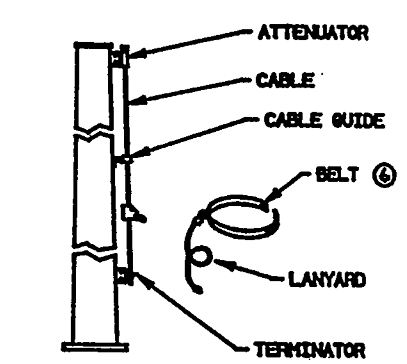
BASE PLATE CONNECTION



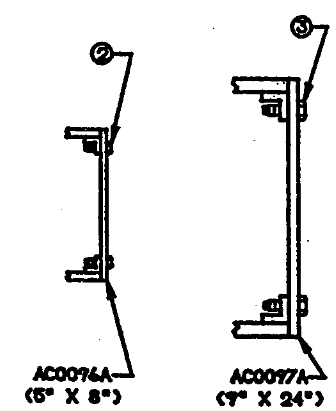
SPLICE DETAIL



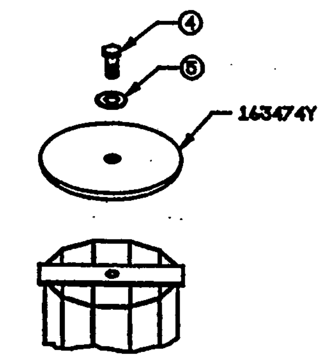
POLE STEP KIT



SAFETY CLIMB / BCA100Z



HANDHOLE COVERS



POLE CAP CONNECTION

NOTES:

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   VERTICAL = 14,475 #
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4. SLIP JOINT JACKING FORCE
   MINIMUM = 25,000#
   MAXIMUM = 70,000#
5. WEIGHT: WEIGHT IN TITLE BLOCK IS TOTAL STRUCTURE WEIGHT EXCLUDING ANCHORAGE.
6. FINISH: GALVANIZED PER ASTM A-123.
7. POLE DESIGN CONFORMS TO EIA/TIA-222-E FOR:
   100 MPH WIND WITH NO ICE, EXPOSURE "B".
   87 MPH WIND WITH 1/2" ICE, EXPOSURE "B".
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   1-CELLULAR PLATFORM MOUNTED @ 97' ELEV.
   12-ALP9212'S MOUNTED ON PLATFORM FACES.
   3-DB807'S MOUNTED ON PLATFORM CORNERS.
   1-CELLULAR PLATFORM MOUNTED @ 87' ELEV. (F)
   12-ALP9212'S MOUNTED ON PLATFORM FACES. (F)
   3-DB807'S MOUNTED ON PLATFORM CORNERS. (F)

BILL OF MATERIAL
(SHIPPING SEQ.=1 FOR ALL)

VALMONT PART NUMBER PREFIX	TAG MARK	DESCRIPTION	UNIT WEIGHT (LBS)	QTY PER STR
DC2	323A	SECTION ASSEMBLY	4,400	1
DC2	323B	SECTION ASSEMBLY	2,825	1
CC0	1304	CAGE ASSEMBLY	1,394	1
—	NOTE	PLATFORM ASSEMBLY (DCA039Z)	1,277	1
—	NOTE	SAFETY CLIMB ASSY (BCA100Z)	39	1
—	NOTE	E.I.A. GROUNDING (BC0784Z)	20	1
—	NOTE	RAIL KIT ASSEMBLY (BC1350Z)	412	1
—	NOTE	LIGHTNING ROD KIT (BC1533Z)	69	1
—	NOTE	GROUND LUG KIT (AC0531Z)	1	2
MISCELLANEOUS				
AC0076A		HANDHOLE COVER PLATE (5 X 8)	3	12
AC0077A		HANDHOLE COVER PLATE (7 X 24)	9	2
143474Y		POLE CAP COVER PLATE (15" DIA)	13	1

ITEM NO.	VALMONT PART NUMBER	BOLT DIA	BOLT LONG	NUT	WSHR	GENERAL	FINISH	ASTM SPEC	QTY PER STR
1	2134A					STEP KIT	HDGV		74
2	164035	0.25	0.75			SCREW	S.S.	A410	26
3	161647	0.38	1.00			SCREW	S.S.	A410	9
4	161171	0.75	1.75			CAP BOLT	HDGV	A325 •	1
5	142054				0.75	FLAT	HDGV	F436	1
6	ABLBELT					SAFTYBELT			1

(DESCRIPTION — HARDWARE SIZE (IN))

• PER ASTM A325-71C, EXCLUDE SECTIONS 6.3 & 9.2

SHAFT INFO

SEC	LENGTH	BASE OD	TOP OD	THK	MAT
A	52'-00"	34.00"	23.34"	0.313"	8-22
B	52'-01"	24.47"	14.00"	0.250"	8-22

DUPLICATE DRAWING DISTRIBUTION
BRENHAM TX

PED11663 100' MONOPOLE
DWG SIZE B   CLASS CODE (1) 1   CLASS NO. (3) 450

REV NO	DATE	REV BY	CHK BY	REVISION DESCRIPTION
A	04/19/95	LVG	IVG	RVS'D PER CUST REQUEST

DRAWN: LVG   ENGR: TGH   DATE: 04/11/95   SCALE: NONE
P.A. CHK   SHOP CHK IVG
OTHER SPECIFICATIONS
MATERIAL   THICKNESS   WEIGHT 11,311#

ORDER NO. 11663-95   CUSTOMER: BELL ATLANTIC MOBILE   DESCRIPTION: 100' MONOPOLE   DWG NO. DC2323Z

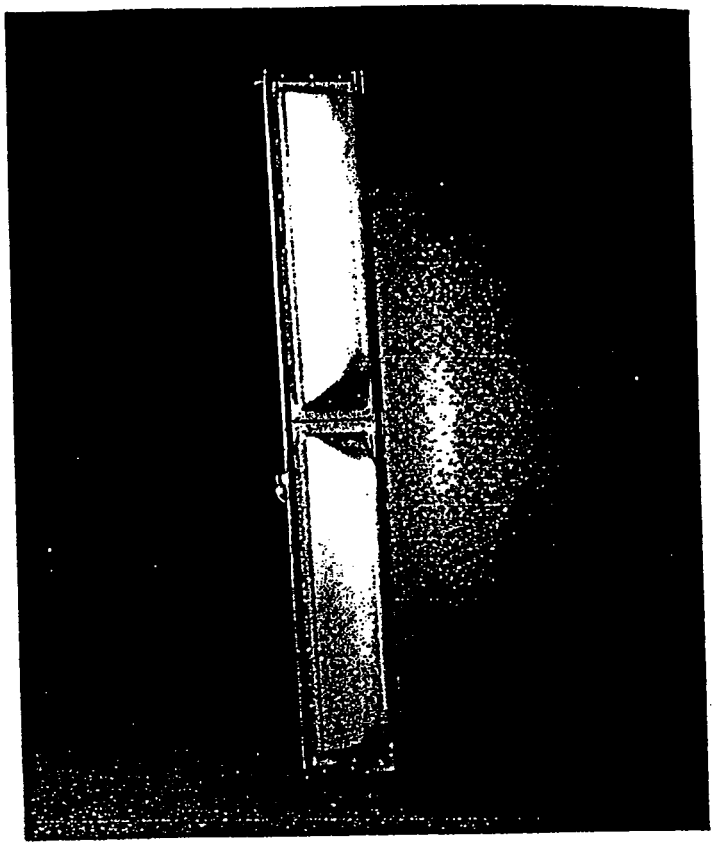
VALMONT

Swedcom Corporation

ALP 11011—N

LOG-PREIODIC REFLECTOR ANTENNA

110 Degrees 11 dBd



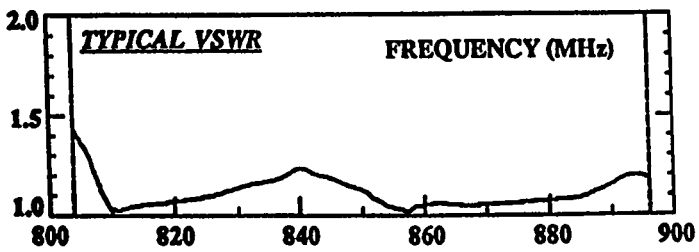
Features:

- ☐ Broadbanded. (800-900 MHz)
- ☐ Low backlobe radiation. Front to back ratio better than 25 dB.
- ☐ Low intermodulation products.
- ☐ Low wind-load.
- ☐ Low weight.
- ☐ Small size.
- ☐ Rugged design.

Please see the following pages including radiation patterns for ALP 11011-N.

Electrical Specifications:

Frequency range:	806-896 MHz
Impedance:	50 Ohm
Connector:	N female
VSWR:	Typ. 1,3:1 max 1,5:1
Polarization:	Vertical
Gain:	11 dBd
Front to back ratio:	>25 dB
Intermodulation: (2x25 W)	IM5 - 107 dBm
Power Rating:	500 W
H-Plane: -3 dB	110°
E-Plane: -3 dB	15°
Lightning Protection:	DC Grounded



Mechanical Specifications:

Overall height:	51 in. (1320 mm)
Width:	8.3 in. (210 mm)
Depth:	11.4 in. (290 mm)
Weight incl. mounting items:	24.5 lbs (11 Kg)
Rated wind velocity:	113 mph (180 Km/h)
Wind Area (CxA/Front):	3.7 sq.ft (0.34 sq.m)
Lateral thrust at rated wind:	
Worst case	530 N

Materials:

Radiating elements:	Aluminum
Element housing:	Grey PVC
Reflector:	Aluminum
Mounting Hardware	
clamps:	Hot dip galvanized steel
bolts:	Stainless steel

Manufactured by: Allgon System AB

Springwich Cellular Limited Partnership

500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7755
Fax: (860) 513-7614

Peter J. Tyrrell
General Counsel

January 20, 1998

The Honorable Rob Bouvier, Mayor
Town of West Hartford, Town Hall
50 South Main Street
West Hartford, Connecticut 06107

Dear Mayor Bouvier:

Springwich Cellular Limited Partnership (SCLP) plans to replace the existing 100 foot monopole tower, located at the Southern New England Telephone (SNET) premises at 125 South Main Street in West Hartford.

As required by Section 16-50j-73 of the Regulations of Connecticut State Agencies (R.C.S.A.), please accept this letter and the attached filing with the Connecticut Siting Council dated January 20, 1998, as notice of intent of the placement of associated equipment on an existing facility tower pursuant to R.C.S.A Section 16-50j-72(b) (2) and (3).

The attached letter fully describes SCLP's proposal. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7755 or Mr. Joel Rinebold, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Peter J. Tyrrell

Enclosure

Springwich Cellular Limited Partnership
500 Enterprise Drive
Rocky Hill, Connecticut 06067
Phone (860) 513-7755

SPRINGWICH CELLULAR LIMITED PARTNERSHIP

Peter J. Tyrrell
General Counsel

November 24, 1997

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

Re: **Springwich Cellular Limited Partnership - West Hartford Cell Site**

Dear Chairman Gelston:

Springwich Cellular Limited Partnership ("SCLP") requests the authority to replace the existing 100 foot monopole tower, which is currently located on Southern New England Telephone (SNET) premises at 125 South Main Street in the town of West Hartford, Connecticut. This proposal will allow SCLP the opportunity to extend its offering of digital service in the current service area. Please accept this letter as notice of intent, pursuant to R.C.S.A. Section 16-50j-72 (b) (3), of the placement of associated equipment on an existing non-facility tower pursuant to R.C.S.A. Section 16-50j-72(c). In further compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the Mayor of West Hartford.

Our current antenna configuration is equipped with a 360 degree omni antenna (Whip) which does not support our current plans of offering digital service. This system requires that we convert our existing antenna array to a directional system.

The existing monopole's current size does not permit use of this tower for future expansion or multiple carrier use. This tower was constructed by the parent company (SNET) in the early 1970's and is not capable of supporting either proposal listed below. Due to these circumstances, SCLP would like to offer two different proposals for the Council's consideration. They are:

First Proposal:

SCLP would like to replace the existing light duty monopole with a new monopole, 34 inches in diameter at the base and tapering to 14 inches at the top, to support an antennna platform, which will be mounted at the top of the tower(See attachment #1). This platform will support the mounting of (9) nine directional antennas

(ALP Model 11011N) which will be secured to the platform. SCLP also plans on installing any additional radio transmission equipment inside of the existing central office building which is adjacent to the existing tower.

Second Proposal:

As an alternative, SCLP would like to suggest the Council consider allowing SCLP to replace the existing tower with a monopole, 34 inches in diameter at the base and tapering to 14 inches at the top, to support two (2) platforms for mounting two sets of directional antennas (See attachment #2). The first platform would be equipped as described in the first proposal. The second platform would be installed with approximately a ten (10) to fifteen (15) foot vertical separation. This arrangement would allow for diversity when considering the equipment space requirements of future clients, due to different antenna manufacturers' makes and models. These antennas would be mounted in the same fashion as describe above, but on the second platform. Prior to SCLP installing this second platform for another wireless service provider, it would seek the approval from the Connecticut Siting Council.

In addition, both of these applications of SCLP's antennas and equipment to this tower site does not constitute a substantial environmental impact since such additions do not cause a significant change or alteration in the physical and environmental characteristics of the site (see attached site sketch). Rather, the planned changes to the existing non-facility tower falls squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(c).

Finally, this proposed addition will not increase the noise levels at the existing facility by six decibels or more. The operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density to a level at or above the ANSI standard. A "worst-case" calculation, for both proposals, from a point of interest on the roof top indicates that SCLP's cellular operations result in a Power Density Calculation of 5.47%, which is 27.33% of the maximum permissible emissions allowed in a uncontrolled environment. (See chart listings) This calculation was arrived at using a platform height of 99 ft. and an operating power of 100 watts per channel. Final calculations for additional users will be submitted if and when a formal application is submitted to the Connecticut Siting Council for approval. However, as you can see by the chart, adding an additional PCS provider is still well within the acceptable operating parameters.

Worst Case Scenario

Service/ Point of interest	Band (MHz)	Power per Channel (watts)	# Channels	Height (ft.)	Power Density (mW/cm^2)	% of MPE ($2.9333 mW/cm^2$) Controlled	% of MPE ($0.5867 mW/cm^2$) Uncontrolled
Cellular (Roof)	880 MHz	100 watts	19	99 ft.	0.1603	5.47%	27.33%
PCS (Roof)	1962.5 MHz	122 watts	11	84 ft.	0.1785	3.57%	17.85%
Total						**9.04%**	**45.18%**

For the foregoing reasons, Springwich Cellular Limited Partnership seeks a ruling that its proposed additions to the non-facility tower would not cause a significant change or alteration in the physical and environmental characteristics of the site pursuant to R.C.S.A. Section 16-50j-72(c) (1). SCLP further submits that the changes comply with R.C.S.A. Sections 16-50j-72(c) (2) through (5) and therefore request a determination that the placement of the antennas and equipment on the existing non-facility tower site does not constitute a substantial environmental effect under R.C.S.A Section 16-50j072(c).

Thank you for your cooperation and attention to this matter.

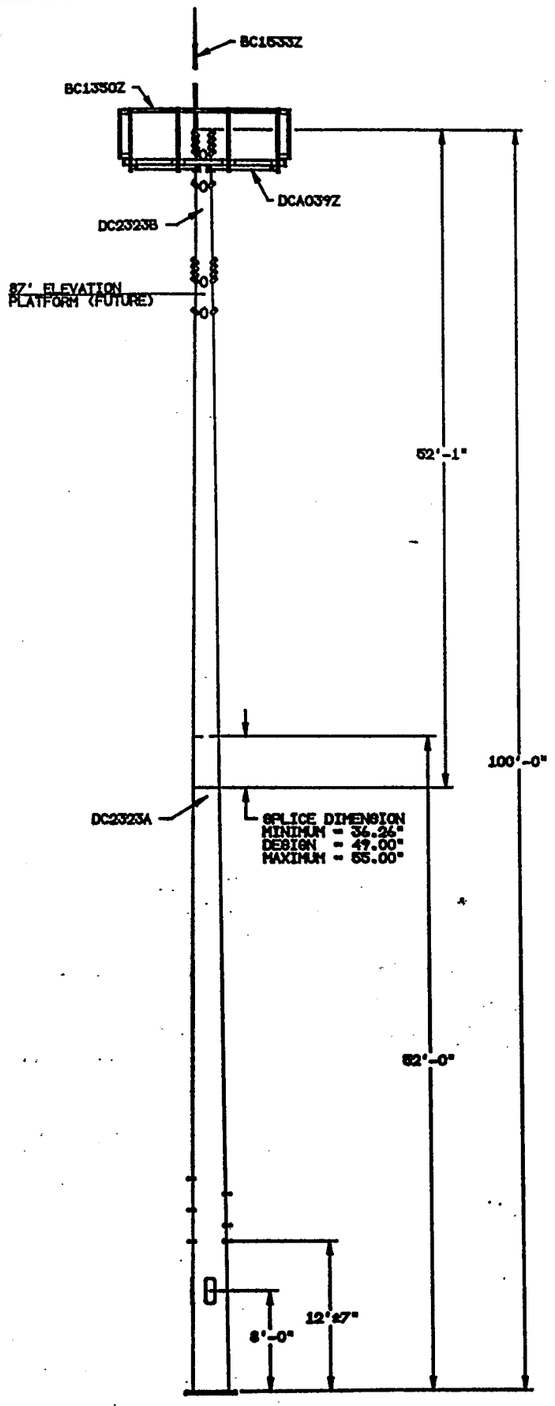
Sincerely,

Peter J Tyrrell

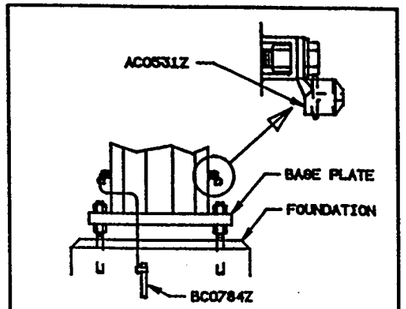
Attachments

cc Mayor of West Hartford

ATTACHMENT #1

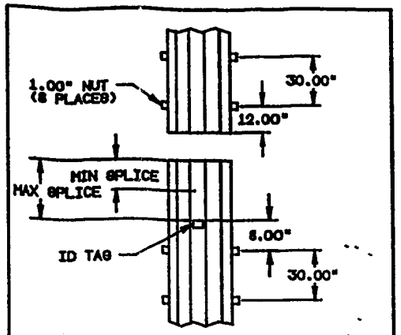


ELEVATION VIEW
SEE FABRICATION DRAWINGS FOR ADDITIONAL DETAILS



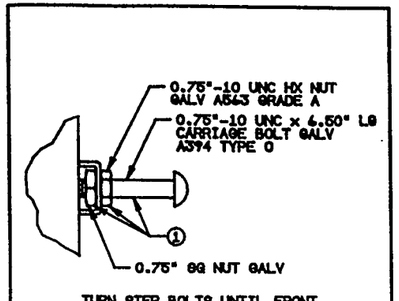
SEE CC01304 FOR CASE INFORMATION. A MINIMUM OF TWO FULL THREADS IS REQUIRED ABOVE TOP NUTS.

BASE PLATE CONNECTION



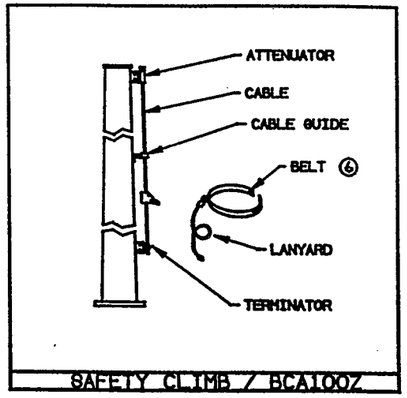
REFER TO ELEVATION VIEW FOR MINIMUM AND MAXIMUM SPLICE VALUES.

SPLICE DETAIL

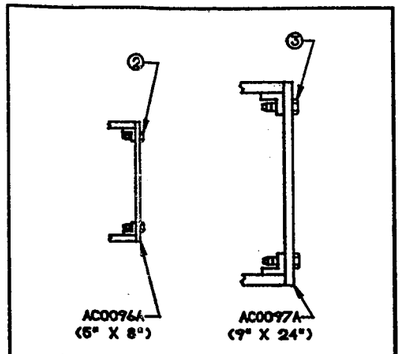


TURN STEP BOLTS UNTIL FRONT EDGE TOUCHES POLE SHAFT

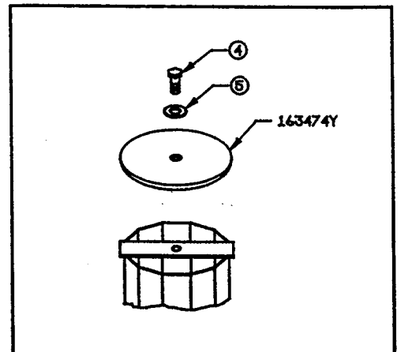
POLE STEP KIT



SAFETY CLIMB / BCA100Z



HANDHOLE COVERS



POLE CAP CONNECTION

NOTES:
1. POLE SHAFT-GOVERNING REACTIONS.
   MOMENT = 13,919 IN-KIPS
   SHEAR = 14,164 #
   VERTICAL = 14,475 #
2. COMPONENT IDENTIFICATION: TAG LOCATIONS ARE INDICATED BY CALLOUTS ON DRAWING. "TAG MARK" IN BILL OF MATERIAL SHOWS FIRST 4 DIGITS ON EACH TAG. SUBSEQUENT DIGITS WILL INDICATE SEQUENCE OF MANUFACTURER.
3. ASSEMBLY AND ERECTION GUIDELINES: SEE VALMONT COMMUNICATION POLE INSTALLATION GUIDELINE 1012.
4. SLIP JOINT JACKING FORCE
   MINIMUM = 25,000#
   MAXIMUM = 70,000#
5. WEIGHT: WEIGHT IN TITLE BLOCK IS TOTAL STRUCTURE WEIGHT EXCLUDING ANCHORAGE.
6. FINISH: GALVANIZED PER ASTM A-123.
7. POLE DESIGN CONFORMS TO EIA/TIA-222-E FOR:
   100 MPH WIND WITH NO ICE, EXPOSURE "B".
   87 MPH WIND WITH 1/2" ICE, EXPOSURE "B".
8. DESIGN LOADING:
   1-CELLULAR PLATFORM MOUNTED @ 87' ELEV.
   12-ALP7212'S MOUNTED ON PLATFORM FACES.
   3-DB809'S MOUNTED ON PLATFORM CORNERS.
   1-CELLULAR PLATFORM MOUNTED @ 87' ELEV. (F)
   12-ALP7212'S MOUNTED ON PLATFORM FACES. (F)
   3-DB809'S MOUNTED ON PLATFORM CORNERS. (F)

BILL OF MATERIAL
(SHIPPING SEQ.=1 FOR ALL)

VALMONT PART NUMBER PREFIX	TAG MARK	DESCRIPTION		UNIT WEIGHT (LBS)	QTY PER STR
DC2	3233A	SECTION ASSEMBLY		6,400	1
DC2	3233B	SECTION ASSEMBLY		2,825	1
CC0	1304	CAGE ASSEMBLY		1,394	1
——	NOTE	PLATFORM ASSEMBLY	(DCA039Z)	1,277	1
——	NOTE	SAFETY CLIMB ASSY	(BCA100Z)	39	1
——	NOTE	E.I.A. GROUNDING	(BC0784Z)	20	1
——	NOTE	RAIL KIT ASSEMBLY	(BC13502Z)	412	1
——	NOTE	LIGHTNING ROD KIT	(BC15332Z)	49	1
——	NOTE	GROUND LUG KIT	(AC05312Z)	1	2
		MISCELLANEOUS			
AC00964		HANDHOLE COVER PLATE (6 X 8)		3	12
AC00974		HANDHOLE COVER PLATE (7 X 24)		9	2
163474Y		POLE CAP COVER PLATE (15" DIA)		13	1

ITEM NO.	VALMONT PART NUMBER	DESCRIPTION							QTY PER STR
		HARDWARE SIZE (IN)				GENERAL	FINISH	ASTM SPEC	
		BOLT DIA	BOLT LONG	NUT	WSHR				
1	21341					STEP KIT	HDGV		74
2	144033	0.25	0.75			SCREW	S.S.	A410	28
3	141647	0.38	1.00			SCREW	S.S.	A410	9
4	141171	0.75	1.75			CAP BOLT	HDGV	A325 *	1
5	142054				0.78	FLAT	HDGV	F436	1
6	ABLBELT					SAFTYBELT			1

* PER ASTM A325-91C, EXCLUDE SECTIONS 4.3 & 7.2

SHAFT INFO					
SEC	LENGTH	BASE OD	TOP OD	THK	MAT
A	52'-00"	34.00"	23.34"	0.313"	A-22
B	52'-01"	24.47"	14.00"	0.250"	A-22

DUPLICATE DRAWING DISTRIBUTION
BRENHAM TX

PED11663 100' MONOPOLE
DWG SIZE B CLASS CODE (1) 1 CLASS NO. (3) 450

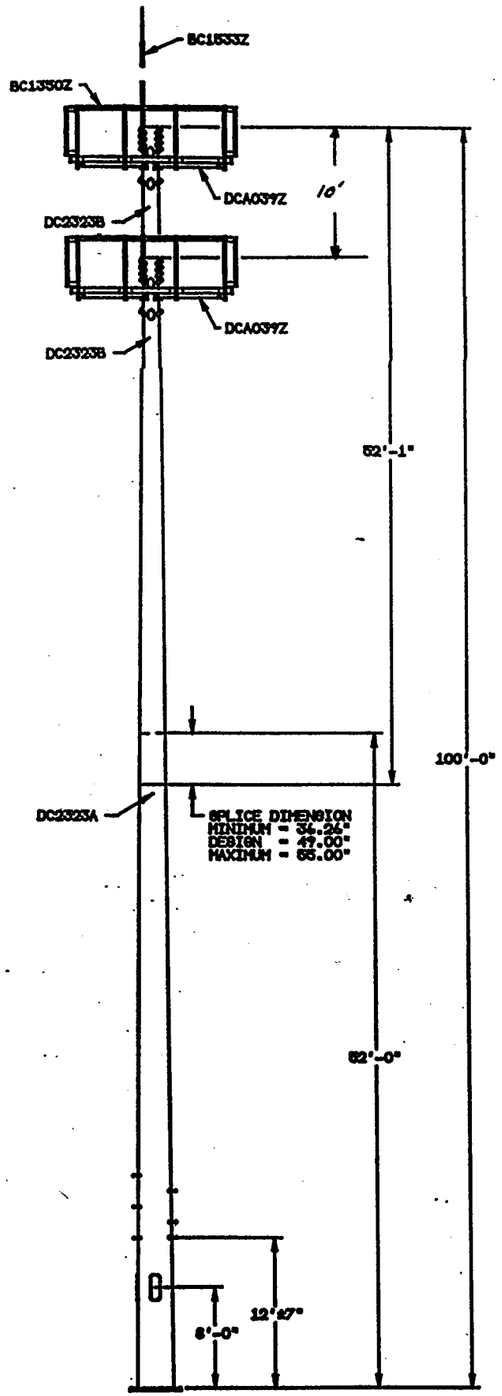
REV NO	DATE	REV BY	CHK BY	REVISION DESCRIPTION
4	04/17/98	LVG	MF	REV'D PER CUST REQUEST

DRAWN LVG | CHKD TGH | DATE 04/17/98 | SCALE NONE
P.A. ERK | EXP ERK 7/98
OTHER SPECIFICATIONS
MATERIAL | FINISH | WEIGHT 11,311#

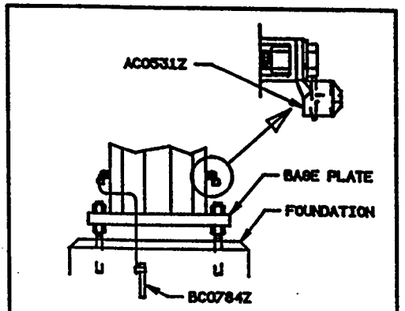
VALMONT

ORDER NO.	CUSTOMER	DESCRIPTION	DRG NO.
01445-98	BELL ATLANTIC MOBILE	100' MONOPOLE	DC2323S7

ATTACHMENT 2

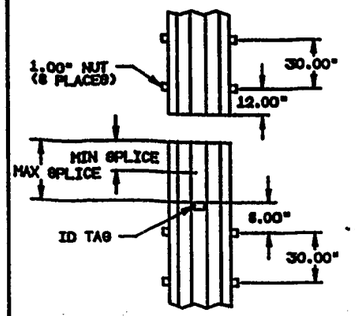


ELEVATION VIEW
SEE FABRICATION DRAWINGS FOR ADDITIONAL DETAILS



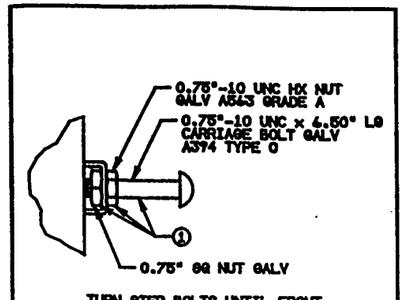
SEE CC01304 FOR CASE INFORMATION. A MINIMUM OF TWO FULL THREADS IS REQUIRED ABOVE TOP NUTS.

BASE PLATE CONNECTION



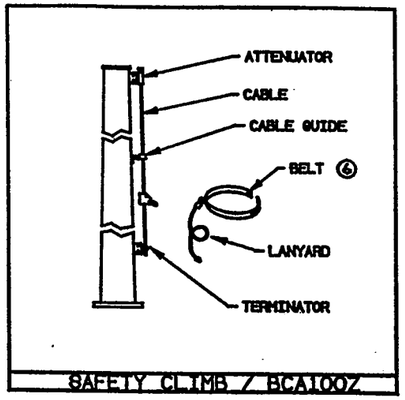
REFER TO ELEVATION VIEW FOR MINIMUM AND MAXIMUM SPLICE VALUES.

SPLICE DETAIL

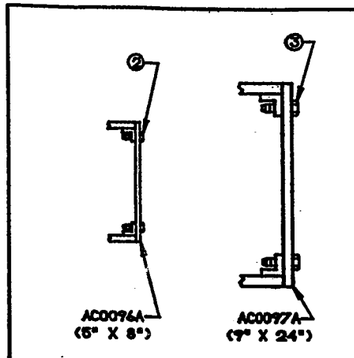


TURN STEP BOLTS UNTIL FRONT EDGE TOUCHES POLE SHAFT

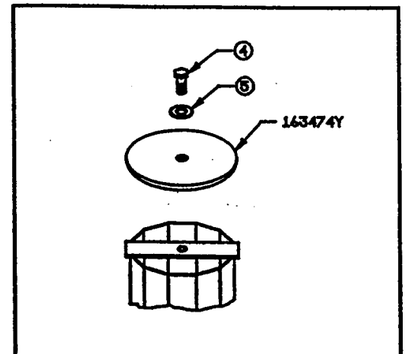
POLE STEP KIT



SAFETY CLIMB / BCA100Z



HANDHOLE COVERS



POLE CAP CONNECTION

NOTES:

1. POLE SHAFT-GOVERNING REACTIONS.
   MOMENT = 13,919 IN-KIPS
   SHEAR = 14,154 #
   VERTICAL = 14,476 #
2. COMPONENT IDENTIFICATION: TAG LOCATIONS ARE INDICATED BY CALLOUTS ON DRAWING. "TAG MARK" IN BILL OF MATERIAL SHOWS FIRST 4 DIGITS ON EACH TAG. SUBSEQUENT DIGITS WILL INDICATE SEQUENCE OF MANUFACTURER.
3. ASSEMBLY AND ERECTION GUIDELINES: SEE VALMONT COMMUNICATION POLE INSTALLATION GUIDELINE 1012.
4. SLIP JOINT JACKING FORCE
   MINIMUM = 25,000#
   MAXIMUM = 70,000#
5. WEIGHT: WEIGHT IN TITLE BLOCK IS TOTAL STRUCTURE WEIGHT EXCLUDING ANCHORAGE.
6. FINISH: GALVANIZED PER ASTM A-123.
7. POLE DESIGN CONFORMS TO EIA/TIA-222-E FOR:
   100 MPH WIND WITH NO ICE, EXPOSURE "B".
   87 MPH WIND WITH 1/2" ICE, EXPOSURE "B".
8. DESIGN LOADING:
   1-CELLULAR PLATFORM MOUNTED @ 97' ELEV.
   12-ALP7212'S MOUNTED ON PLATFORM FACES.
   3-DB807'S MOUNTED ON PLATFORM CORNERS.
   1-CELLULAR PLATFORM MOUNTED @ 87' ELEV. (F)
   12-ALP7212'S MOUNTED ON PLATFORM FACES. (F)
   3-DB807'S MOUNTED ON PLATFORM CORNERS. (F)

BILL OF MATERIAL
(SHIPPING SEQ.=1 FOR ALL)

VALMONT PART NUMBER PREFIX	TAG MARK	DESCRIPTION		UNIT WEIGHT (LBS)	QTY PER STR
DC2	3233A	SECTION ASSEMBLY		4,400	1
DC2	3233B	SECTION ASSEMBLY		2,825	1
CC0	1304	CAGE ASSEMBLY		1,394	1
——	NOTE	PLATFORM ASSEMBLY	(DCA039Z)	1,277	1
——	NOTE	SAFETY CLIMB ASSY	(BCA100Z)	39	1
——	NOTE	E.I.A. GROUNDING	(BC07842)	20	1
——	NOTE	RAIL KIT ASSEMBLY	(BC13502Z)	412	1
——	NOTE	LIGHTNING ROD KIT	(BC15332Z)	69	1
——	NOTE	GROUND LUG KIT	(AC05312)	1	2
		MISCELLANEOUS			
AC0076A		HANDHOLE COVER PLATE (5 X 8)		3	12
AC0077A		HANDHOLE COVER PLATE (7 X 24)		7	2
163474Y		POLE CAP COVER PLATE (15" DIA)		13	1

ITEM NO.	VALMONT PART NUMBER	DESCRIPTION							QTY PER STR
		HARDWARE SIZE (IN)				GENERAL	FINISH	ASTM SPEC	
		BOLT DIA	BOLT LONG	NUT	WSHR				
1	21334A					STEP KIT	HDGV		74
2	144035	0.25	0.75			SCREW	S.S.	A410	25
3	141447	0.38	1.00			SCREW	S.S.	A410	9
4	141171	0.75	1.75			CAP BOLT	HDGV	A325 *	1
5	142054				0.75	FLAT	HDGV	F436	1
6	ASLBELT					SAFTYBELT			1

* PER ASTM A325-91C, EXCLUDE SECTIONS 4.3 & 7.2

SHAFT INFO					
SEC	LENGTH	BASE OD	TOP OD	THK	MAT
A	52'-00"	24.00"	23.34"	0.313"	A-22
B	82'-01"	24.47"	14.00"	0.250"	A-22

DUPLICATE DRAWING DISTRIBUTION
BRENHAM TX

PED11643 100' MONOPOLE
DWG SIZE B CLASS CODE (1) 1 CLASS NO. (5) 450

REV NO	DATE	BY	CK	REVISION DESCRIPTION
1	04/19/96	LVG	JW	RVS'D PER CUST REQUEST

DRAWN LVG | CHKD TSH | DATE 04/17/96 | SCALE NONE
E.A. ENG | MFG ENG 7/8
OTHER SPECIFICATIONS
MATERIAL | FINISHED | WEIGHT 11,311#
ORDER NO. 11443-96 | PURCHASER BELL ATLANTIC MOBILE | DESCRIPTION 100' MONOPOLE | DWG NO. DC2323Z

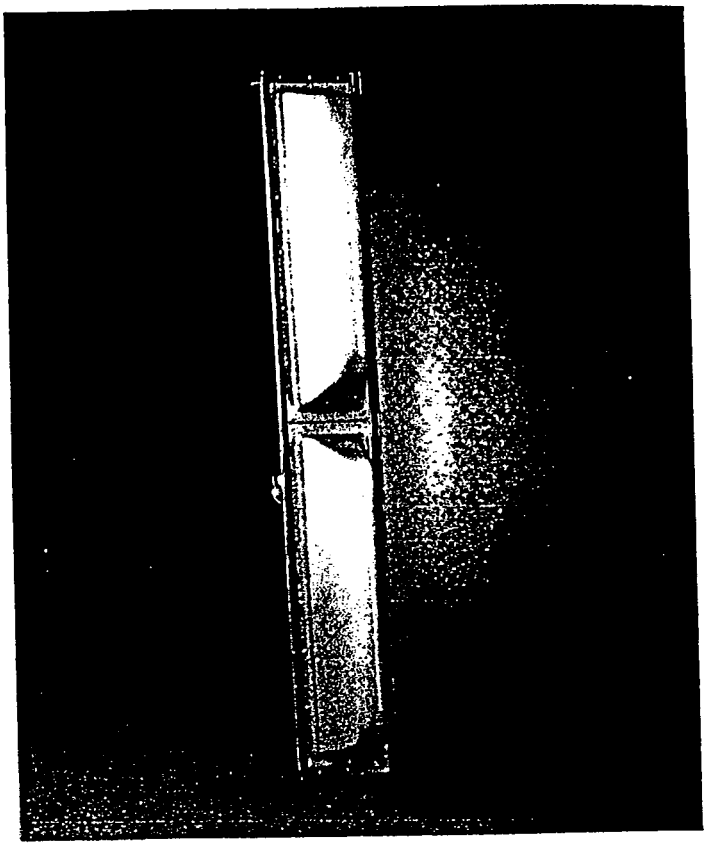
VALMONT

Swedcom Corporation

ALP 11011—N

LOG-PREIODIC REFLECTOR ANTENNA

110 Degrees 11 dBd



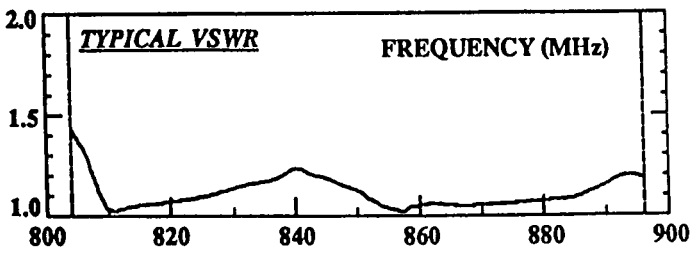
Features:

- ☐ **Broadbanded. (800-900 MHz)**
- ☐ **Low backlobe radiation. Front to back ratio better than 25 dB.**
- ☐ **Low intermodulation products.**
- ☐ **Low wind-load.**
- ☐ **Low weight.**
- ☐ **Small size.**
- ☐ **Rugged design.**

Please see the following pages including radiation patterns for ALP 11011-N.

Electrical Specifications:

Frequency range:	806-896 MHz
Impedance:	50 Ohm
Connector:	N female
VSWR:	Typ. 1,3:1 max 1,5:1
Polarization:	Vertical
Gain:	11 dBd
Front to back ratio:	>25 dB
Intermodulation: (2 x 25 W)	IM5 - 107 dBm
Power Rating:	500 W
H-Plane: -3 dB	110°
E-Plane: -3 dB	15°
Lightning Protection:	DC Grounded



Mechanical Specifications:

Overall height:	51 in. (1320 mm)
Width:	8.3 in. (210 mm)
Depth:	11.4 in. (290 mm)
Weight incl. mounting items:	24.5 lbs (11 Kg)
Rated wind velocity:	113 mph (180 Km/h)
Wind Area (CxA/Front):	3.7 sq.ft (0.34 sq.m)
Lateral thrust at rated wind:	
Worst case	530 N

Materials:

Radiating elements:	Aluminum
Element housing:	Grey PVC
Reflector:	Aluminum
Mounting Hardware	
clamps:	Hot dip galvanized steel
bolts:	Stainless steel

*Manufactured by: **Allgon System AB***