

COMMONWEALTH OF MASSACHUSETTS

ESSEX, SS.

SUPERIOR COURT
CIVIL NO. 86-2077

FREDERICK D. SMALL, ET UX

V.

ROBERT A. WOOD, ET AL

STIPULATION OF DISMISSAL

The parties to this action hereby stipulate that this case is dismissed with prejudice, and request that the Clerk of Court enter this Dismissal on the docket.

Dated: October 17, 1986

William F. Quinn
William F. Quinn
Attorney for Plaintiffs
222 Essex Street
Salem, Massachusetts
(617) 745-8065

William G. Evans
William G. Evans
Town Counsel
Attorney for all Individual
Board of Appeal Members
58 Main Street
Topsfield, Massachusetts
01983
(617) 774-5637

Michael E. Tyler
Michael E. Tyler
Attorney for Defendants - Wood
375 Newburyport Turnpike
Topsfield, Massachusetts 01983
(617) 887-8115

*Pursuant to
Tel con
with Dan Buller.*

EVANS & EVANS
ATTORNEYS AT LAW
58 MAIN STREET
TOPSFIELD, MASSACHUSETTS 01983

WILLIAM G. EVANS
JOHN EVANS
PAULA C. BARTLETT
SUSAN C. HUBBARD

887-2166
774-5637
AREA CODE 617

October 21, 1986

Daniel Butler, Chairman
Zoning Board of Appeals
Town Hall
Topsfield, MA 01983

RE: Frederick D. Small et ux v. Robert A. Wood et al
Civil No. 86-2077

Dear Dan:


Enclosed please find a copy of a Stipulation for Dismissal. This was executed by me pursuant to our telephone conversation of a few days ago.

I would be pleased to hear from you if you have any questions or comments.

Thanking you, I am

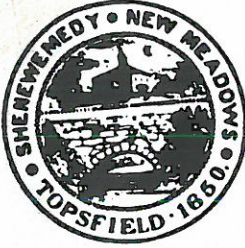
Very truly yours,

EVANS & EVANS


William G. Evans

Joan Counsel

WGE/ter
Enclosure



Town of Topsfield

TOPSFIELD, MASSACHUSETTS 01983

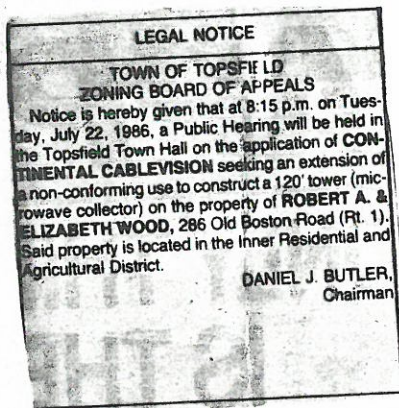
ZONING BOARD OF APPEALS

July 28, 1986

Record of Hearing-July 22, 1986

A public hearing relative to the application of CONTINENTAL CABLEVISION seeking an extension of a non-conforming use to construct a 120' tower (microwave collector) on the property of ROBERT A. & ELIZABETH WOOD, 286 Old Boston Road (Rt. 1) was held in the Topsfield Town Hall on July 22, 1986. Present were Chairman Daniel Butler and Board of Appeals members George Herland, Jan Jansen, Jean Kuftinec, and Richard Carlson.

In preparation for the hearing the following legal notice was published in the Tri-Town Transcript issues of July 3 and July 10, 1986.



Copies of this legal notice had been sent by first class mail to the petitioner, the petitioner's attorney, the Board of Selectmen, the Planning Board, the Planning Boards of adjacent towns, and the abutters whose names are listed on Application Supplement Form B.

The Chairman called the hearing to order at 8:15 p.m., explained the procedures, introduced Board members, and read the application, legal notice, and list of abutters. Atty. Michael Tyler, representing CONTINENTAL CABLEVISION, explained that the proposed tower would be located as shown on the site plan submitted to the Board. Atty. Tyler introduced three representatives from Continental Cablevision and stated that Continental had signed a provisional agreement with the Town of Topsfield to provide cable television. The proposed site for the tower is ideal because of its proximity to Beverly's transmitter of Continental. Mr. Jansen asked how the signal would come in from Beverly, and a Continental representative said "head-in" signals at Beverly would come from satellites and other sources. "Everything comes together there in Beverly," he said. Mr. Jansen asked, "This is a receiver only, a one-way thing?" The reply was, "That's correct." Mr. Herland asked if the receiver was strictly for Topsfield's use. The response was, "Yes, the contract calls for that." Mr. Carlson asked why the tower had to be 120' high. A Continental representative explained that the height was necessary to clear the trees and take into consideration the curvature of the earth. He said a study ("path profile" study) done by an independent firm indicated this was the needed height. Mr. Carlson then noted that the Topsfield Water Commissioners had written the Board of Appeals requesting the tower be located ~~at~~ 150% of its height from

the Town's water storage tank. Damon Moore, Chairman of the Topsfield Water Commissioners, said that a site visit had satisfied the Water Commissioners that the 125% distance shown on the plans would be satisfactory for safety purposes. Mr. Carlson pointed out that the plan showed a distance of approximately 133' from the water storage tank of the proposed 120' tower. Mr. Moore said his % statement was incorrect and that the 133' distance was satisfactory. He noted that the tower's design was such that it would collapse in sections, not go over as one big structure. Mr. Herland asked if the water department had any requirements about the height of radio antennas near the tank. Mr. Moore said he had no input on that.

Atty. Tyler noted that both the temporary and permanent contract between Continental and the Town of Topsfield called for the maintenance during construction and operation of liability insurance in the amounts of \$1 million for property damage and \$1 million per person/\$3 million per incident ^{on} liability.

In response to a Board member's query about the color of the dish, a Continental representative said the standard color for the 10' microwave collector is sky blue.

Mr. Butler asked if the dish would be mounted at the top of the tower, and the reply was "Near the top, facing easterly toward Beverly." Mr. Tyler noted that an application has been submitted to the FAA for determination about painting or lighting needs on the tower in conjunction with its proximity to Beverly Airport. Mr. Jansen asked if a problem might arise with ice blowing off the tower in winter? A Continental representative pointed out that the brown area shown on the site plan would have an eight-foot high fence surrounding it. He noted that each of the three faces of the tower would be about 14' at the ground level and taper down as the tower rises. He said the 40' x 48' area to be leased from the Woods (owners of the land) would accommodate a 10' building and would be alarmed to signal any vandals in the area. He said the structural integrities of the tower could be maintained in 100 mph winds with a 1" ice encrustation.

Holger Luther of the Topsfield Board of Selectmen spoke in favor of the application, noting that the Town had struggled for years to get cable TV. He said the Zoning Bylaw with the intent to prohibit such a tower in this district was valid to protect neighbors, but in this case only Mr. Wood would be the immediate target of any falling debris and there was no obvious safety problem.

Glenn Walker of the Topsfield Cable Advisory Committee said his group had been working 5 years to get Cable TV in town and believed Continental was a strong company very good about meeting and exceeding the regulations. He said if the Zoning Board did not approve this application the committee would be back at ~~the~~ square one in their search for an appropriate location for the tower.

David Small of 77 Howlett St. spoke, saying he represented both himself and his father, who would have the proposed tower "plainly visible" from his house. He said his father's house sits on a hill just as high as the water tank and could look down and see everything. Why this particular site? he asked. Did you check out Maryknoll and the other side of Rt. 1. Atty. Tyler noted that attempts had been made to negotiate on that side but no progress could be ^{made} there. ~~Now~~ A Continental representative said this site provided general distribution in town with the least distortion. The proposed tower is 96' from the existing tower, and since the land dips about 10' in the area, the new tower would be about 30' lower in height than the existing tower.

Mr. Small noted that he personally wouldn't be able to see the tower from his house and since he gets terrible reception on his TV his kids are in favor of ~~the~~ cable TV proposal. He said his father ~~xxx~~ looks down on the water tank that is now painted white and ^{as} supposes his father would p~~re~~fer not to see yet another structure in his view.

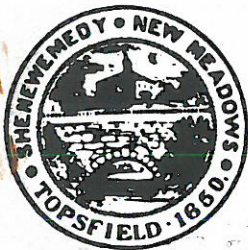
Martha MacMonagle, an abutter, noted that she owns a large residential parcel next to the land in question. As her future plans call for putting in residential lots, she stated her belief that the proposed tower would be more detrimental to the neighborhood. Mrs. Kuftinec asked if this land owned by Ms. MacMonagle was "buildable" land, and Ms. MacMonagle said, "Yes."

The Continental representative noted that the land drops off considerably with a 5-6% gradient and that he doubted if from Ms. MacMonagle's perspective that the new tower could be seen. He said the existing water tank was probably more visible. Mr. Small asked whether Continental was buying the land, and the reply was, "Leasing."

Mr. Carlson moved that the Board grant the application to construct the 120' tower as shown on the plan drawn by John Callahan Associates, 166 North Main St., Andover, Ma., 01810, dated July 2, 1986, subject to the following conditions:

1. The tower be constructed in accordance with plans submitted to the Zoning Board of appeals.
2. In the event Continental Cable TV ceases operation in Topsfield that the tower be removed 120 days following cessation of operations.
3. Use of this tower be limited to a receiving station.
4. The tower be used ~~exclusively~~ ^{exclusively} for cable TV in the town of Topsfield.

Atty. Tyler said he had problems because the proposed lease between Mr. Wood & Continental provides that Mr. Wood could also lease space on the tower to others. Mr. Carlson said he favored the clear public purpose for cable TV but objected to this "backdoor approach for other commercial purposes that are against the intent of the Topsfield Zoning Bylaw." Mrs. Kuftinec said she agreed with Mr. Carlson that the use should be limited to Continental Cablevision and suggested to Atty. Tyler since this was a provisional lease he seek rewriting this provision in the final lease. Mr. Herland said he also agreed except for the clear provision that emergency use by police/fire would be permitted. A discussion then ensued over condition 3, as Atty. Tyler pointed out that part of Contiental's contract with Topsfield was to provide an inter-link to other communities for locally-priginated programs. The Continental representative pointed out that the company would be providing the town with a considerable amount of video equipment. He said that in the case of an athletic event at Masconomet located in the town of ~~xxxxx~~ Boxford, who, if anyone, would go in to video the event: Cablevision? Rawlins Cable in Middleton? Mr. Carlson amended condition 3 to read: The tower shall have only a ~~single~~ ^{Single} dish of 10-ft. diameter mounted on it. Mr. Herland seconded the amended motion. A discussion then ensued that future needs might call for another dish. Such an extension would likely be smaller than the 10' dish proposed now. The Zoning Board of Appeals members agreed that the single dish condition be written in now and that any expansion would require a public hearing before any amendment could be considered. The Board members and Mr. Small expressed their concern that the tower might become an "octopus" without this condition. The vote on the amended motion was: Carlson, yes; Kuftinec, yes; Butler, yes; Jansen, yes; Herland, yes. Motion carried. Hearing closed at 9:00 p.m.

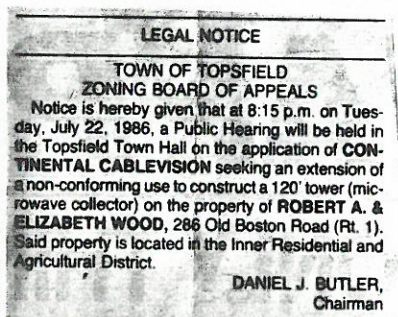


Town of Topsfield

TOPSFIELD, MASSACHUSETTS 01983

ZONING BOARD OF APPEALS

July 25, 1986



DECISION

On the application of CONTINENTAL CABLEVISION seeking an extension of a non-conforming use to construct a 120' tower with microwave collector on the property of ROBERT A. & ELIZABETH WOOD, 286 Old Boston Road (Rt. 1):

After due notice to abutters and consideration of all the evidence at the Public Hearing held at the Topsfield Town Hall on July 22, 1986, with Board members Daniel Butler, Jan Jansen, Richard Carlson, George Herland, and Jean Kuftinec present and all voting affirmatively, the Board grants the permission sought subject to the following conditions:

1. The tower shall be constructed in accordance with plans submitted to the Zoning Board of Appeals and as shown on the site plan drawn by the office of John Callahan Associates, 166 North Main Street, Andover, Ma., 01810, dated July 2, 1986.
2. In the event Continental Cablevision ceases operation in Topsfield the tower shall be removed within 120 days following cessation of Continental's operation.
3. The tower shall have only a single dish of 10-ft. diameter mounted on it.
4. The tower shall be used exclusively for the purposes of cable television in the Town of Topsfield.

The Board finds that with these conditions this extension of non-conforming use will not be more detrimental or objectionable to the neighborhood than the existing non-conforming use.

Appeals, if any, shall be made pursuant to Section 17, M.G.L., Chapter 40A, and shall be filed within 20 days after the filing of this notice of decision in the office of the Town Clerk. This approval to expand the existing non-conforming use shall not take effect until a copy of the decision bearing the certification of the Town Clerk that 20 days have elapsed and no appeal has been filed, or that if such appeal has been filed, that it has been dismissed or denied, is recorded in the Registry of Deeds for the County and District in which the land is located and indexed in the grantor index under the name of the owner of record, or is recorded and noted on the owner's certificate of title.

(Zoning Board of Appeals signatures on reverse side of this page)

ZONING BOARD OF APPEALS

Decision on Expansion of non-conforming use at 286 Old Boston Rd. (Rt. 1) CONTINENTAL
CABLEVISION (owners of record ROBERT A. AND ELIZABETH WOOD) on reverse side of this
page:

J. Jankutins
Harriet Butler
George H. Land

J. H. Jensen

RECEIVED *July 28, 1986*
OFFICE OF TOWN CLERK
TOPSFIELD, MA 01983
Beverly Ann Gervais
Town Clerk

Public Hearing
7-22-86
Wood/Cable Television 286 Boston St

NAME

Address

Raymond Fournier

Continental Cablevision
220 Ballardvale

Wilmington, MA.

Michael E. Tyler
Danvers

65 Prospect St Tops,

36 Rowley Rd Topsfield

(Board of Water Commissioners)

Barbara Stierbert

Continental Cablevision
220 Ballardvale St
Wilmington 01887

JOHN CAULAHAN

JOHN CAULAHAN ASSOCIATES
166 N. MAIN ST.
ANDOVER MA 01810

Glen R. Wether

22 Maple Ave Danvers Tops Cable Comm.

James Moore

53 Main St Topsfield Tops cable comm.

David Small
Dana

77 Howlett St. Topsfield

30 Woods. Dr Rt cable comm.

William A. Good

TOPSFIELD WATER DEPT

Halper Further

Topsfield Bd Selectmen

Martha MacMynage

59 Newcomb Rd Stoneham
46 Hoga Rd

Patrick J. Galt Stoughton

Continental Cablevision Northbrook, Ill.

Jason

Berry Jones

TOWN OF TOPSFIELD

RECEIVED

ZONING BOARD OF APPEALS

JUN 17 1986

Application Supplement FORM BTOPSFIELD
ASSESSORS

Attach to this form a copy of the Assessors' map (scale 1"= 200') showing the property and all other properties and roadways within 300 feet of any portion of the property. Also show the lot number and lot owner's name on each lot within the 300'.

List below those lot owners' names with the mailing address as shown in assessors' records, beginning with the property of the Applicant.

MAP 7	<u>Lot Number</u>	<u>Owner's Name</u>	<u>Mailing Address</u>
	<u>Boston Street:</u>		
197-286	Robert & Elizabeth Wood	286 Boston St., Topsfield, MA 01983	
196-276L	Martha MacMonagle & Lorna Philley	171 Woodcrest Dr., Melrose, MA 02176	
198-288L	Town of Topsfield Water Department	Town Hall, Topsfield, MA 01983	
324A-293L	Green Acres <i>RICHARD Skeffington</i>	129 Perkins Row, Topsfield, MA 01983	
349-285	Green Acres <i>RICHARD Skeffington</i>	129 Perkins Row, Topsfield, MA 01983	
350-9780	Wylde Wood Water Works, Inc.	129 Perkins Row, Topsfield, MA 01983	
351-279	Comm of Mass. Dept. of Youth Service	<i>150 Causeway</i> Topsfield, MA 01983 <i>? address Boston</i>	
	<u>Howlett Street:</u>		
204-69	Fred & Karen Small	77 69 Howlett St., Topsfield, MA 01983	
201-77	David Small & Gail C. Dwyer	77 Howlett St., Topsfield, MA 01983	

(Attach additional sheets if above space is insufficient.)

ASSESSORS' CERTIFICATION

To the Topsfield Zoning Board of Appeals:

This is to certify that, at the time of the last assessment for taxation made by the Town of Topsfield, the names and mailing addresses of the parties assessed as owners of land within 300' of the parcel of land shown in the attached sketch were as listed.

Authorized Signature
Assessors' Office

Pauline M. Evers

Date of Verification

June 18, 1986

MICHAEL E. TYLER
ATTORNEY AT LAW
375 NEWBURYPORT TPKE. (RT-1)
TOPSFIELD, MA 01983
OFFICE (617) 887-8115
RES. (617) 887-2525

JUN 18 1986

TOWN CLERK'S OFFICE

[Signature]

DELIVERED BY HAND

*2BA
file
(to everyone)
6-24-86*

June 18, 1986

Topsfield Zoning Board of Appeals
Town Hall
Topsfield, Massachusetts 01983

Reference: Request for an Extension of a Non-Conforming Use
Applicant: Continental Cablevision

Dear Zoning Board of Appeals:

Enclosed please find four (4) copies of Application Form A, with Addendum, one (1) copy of Application Supplemental Form B, with Assessors' Certification, one (1) copy of Assessors' Map, and the Building Inspector's Denial, in re the above matter.

Also enclosed please find the Topsfield Tower Specifications as provided by the Applicant, together with supplemental material regarding the construction of the tower, as well as a copy of the Lease entered into by and between the Applicant and the owner of the premises, Robert A. Wood and Elizabeth Wood.

I would appreciate your waiving the requirement for a Certified Plot Plan, inasmuch as same is not necessary in this matter.

My check in the amount of Seventy Five Dollars (\$75.00) is enclosed representing the required filing fee.

I would appreciate your establishing a hearing date and publishing at the earliest possible date, inasmuch as time is of the essence.

Thank you very much for your kind attention.

Very truly yours,

[Signature]
Michael E. Tyler

MET:drd

Enclosures - Application Form A, w/Addendum (4)
- Application Supplemental Form B
- Assessors' Map
- Building Inspector's Denial
- Specifications and documentation from Applicant
- Copy of Lease of Applicant/Owner
- Check No. 7316

TOWN OF TOPSFIELD
ZONING BOARD OF APPEALS

Application FORM A

This is an application for a: Variance (EXTENSION OF A NON-CONFORMING USE)
(check one only)

Special Permit _____

DATE June 18, , 19 86

To the Zoning Board of Appeals, Town of Topsfield, Mass.:

The undersigned hereby applies for an Extension of a non-conforming use
to construct a Communications Tower on the property of Robert A.
Wood, 286 Old Boston Road (Rt. 1), Topsfield, Massachusetts, by
Continental Cablevision. (SEE CONTINUATION SHEET)

for a VARIANCE, describe the hardship that would exist if relief
through variance is not granted.

for a SPECIAL PERMIT, describe reasons for seeking special permit.

(Attach additional sheets if above space is insufficient.)

PROPERTY OWNER OF RECORD ROBERT A. WOOD and ELIZABETH WOOD

ADDRESS OF PROPERTY (Street & No.) 286 Old Boston Road (Rt. 1)

ASSESSORS' LOT NUMBER 7-197-286

Name of Applicant* (Printed) Michael E. Tyler, Attorney
for Applicant

Signature of applicant: 

Complete address (Street & No.) 375 Newburyport Turnpike

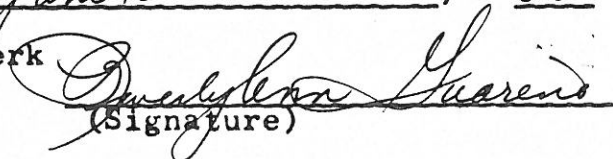
(Town & State) Topsfield, MA 01983

Telephone Number (617) 887-8115

*If applicant is not the owner of record, authorization satisfactory to
the Board to act in behalf of the owner must accompany this application.

Date of submission June 18 , 19 86

Received by Town Clerk


(Signature)

CONTINUATION SHEET

to

Application Form A

The 120' Tower to be located as shown on the enclosed Plan. The said premises is located in the IRA District. There is an existing Tower on the site, and there is another Tower located on the opposite side of Boston Street, on property of Richard W. Skeffington. The construction of the Tower by Continental Cablevision will not deviate from the existing Town of Topsfield By-Laws, and it will not derogate from the surrounding neighborhood. The denial of this extension would constitute a hardship inasmuch as the Applicant has signed a Contract with the Town of Topsfield for Cable Television to be supplied to the residents of Topsfield, and the site is the only location in the Town suitable for erecting said Tower.

APPLICATION FOR BUILDING PERMIT, TOPSFIELD MASS 01983



DATE C-12-86 APPLICATION NO. — FEE \$ —

1. Structure

Owner, address, telephone CONTINENTAL CABLE VISION INC.
 Builder, address, telephone, license —
 Type of structure: 120' HIGH (MICROWAVE COLLECTOR) TOWER
 Location: *280 BOSTON ST. Size (gross) —
 No. of Rooms — No. Stories — Area (heated) —
 No. of baths — Garage — Area (garage) —
 Basement — Heat by — Area (porch/deck) —
 Fireplace — Stove — Reported cost \$ —
 Construction: Fireproof (concrete); Non-combustible (steel); Masonry veneer; Wood Frame
 Use: Assembly; Business; Factory; High Hazard; Institutional; Mercantile; Residential; Storage; Temporary;
 Miscellaneous; Fence

2. Zoning ORA IRA CR / BV / BH / BP (Circle One)

Use: Old / New / Principal / Accessory / P / S / Non conforming

Dimensional & Density Requirements

	ORA	IRA	CR	BV	BH	BP	Proposed
Lot Area (S.F.)	87,120	40,000	20,000	20,000	40,000	87,500	—
Lot Frontage (ft)	200	150	100	100	200	350	—
Lot Depth (ft)	200	150	120	100	175	250	—
Front Setback (ft)	20	20	20	40	75	75	—
Side Setback ‡ (ft)	20	15	10	30*	40	50†	—
Rear Setback ‡ (ft)	40	40	30	30*	40	50†	—
Height	35	35	35	30	30	45	—
No. of Stories	2½	2½	2½	2½	2	3	—
Building Area (%)	15	25	40	40	40	25	—
Open Space (%)	50	50	40	30	30	25	—

*Increase to 50 ft. where adjacent to residential use or district.

†Increase to 150 ft. where adjacent to residential use or district.

3. Assessors Information

Map — Block — Lot —
 Sketch

4. Additional Town Boards Requiring Approval Before Submitting Application — (applicable/not applicable)

(A/NA) Conservation Commission: "Determination of Applicability" if within 100' of "wetland".

(A/NA) Health Department: (New building or increased occupancy or use / barn / stable / swimming pools.)

(A/NA) Planning Board: Site plan is either part of an approved subdivision or stamped "Not Subject to Planning Board Approval".

(A/NA) Fire Department: (New construction or major alteration for 1 or 2 family residential.)

(A/NA) Electrical Department: (For swimming pools, electrical permit required before a building permit is issued.)

(A/NA) Historic District Commission: (New construction or exterior alterations therein.)

(A/NA) Soil Removal Board: (Removal of soil in excess of 120% of the volume of the foundation.)

(A/NA) Highway Department: (Town street cuts.)

(A/NA) State Department of Public Works: (State Road cuts — Rte. 1.)

(A/NA) Board of Appeals:

Permit Granted/Not Granted

DENIED. SUCH TOWERS ARE NOT ALLOWED IN IRA ZONE. RECOMMEND
APPLIC C.C. WATSON

TOWN OF TOPSFIELD

RECEIVED

ZONING BOARD OF APPEALS

JUN 17 1986

Application Supplement FORM BTOPSFIELD
ASSESSORS

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	349-285	Green Acres <i>RICHARD Skeffington</i>	129 Perkins Row, Topsfield, MA 01983
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	351-279	Comm of Mass. Dept. of Youth Service	Topsfield, MA 01983 <i>150 Causeway Boston</i>
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	204-69	Fred & Karen Small	71 69 Howlett St., Topsfield, MA 01983
	201-77	David R. Small & Gail C. Dwyer	77 Howlett St., Topsfield, MA 01983

(Attach additional sheets if above space is insufficient.)

ASSESSORS' CERTIFICATION

To the Topsfield Zoning Board of Appeals:

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Authorized Signature
Assessors' Office

Pauline M. Evans

Date of Verification

June 18, 1986

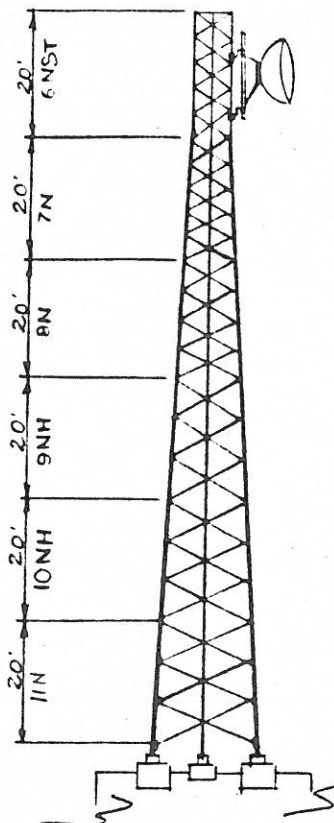


**Continental
Cablevision**

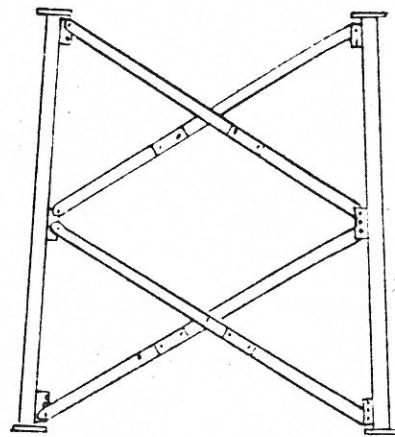
TOPSFIELD TOWER SPECIFICATIONS

- 120' high; self-supporting, tapering tower
- Designed by UNR-ROHN, model SSV
- Triangular base, 14'7-7/8" on a side, tapering to 4'6-1/4" on a side
- Base of tower is bolted to 3 concrete piers which are anchored to a concrete pad and foundation in the ground
- 10' microwave parabolic antenna (spun aluminum, light blue) mounted near top of the tower
- A jacketed, copper, elliptical waveguide feed (conduit) to be run inside the tower from the back of the dish to the back of the receiver.
- Receiver is mounted approximately 4 1/2' off the ground on the tower or inside a small equipment housing (enclosure).
- Inside corner climbing ladder
- Tower bracing as shown on drawing
- Site location as specified on drawing

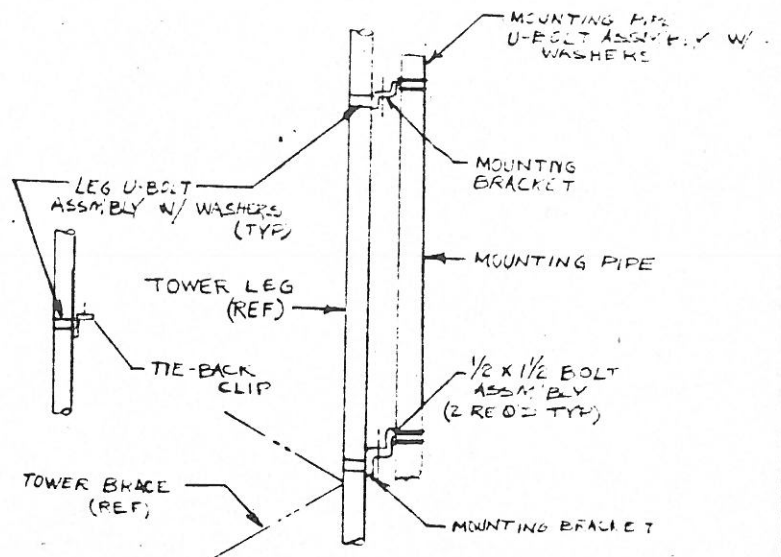
TOPSFIELD TOWER



TOWER ELEVATION



BRACING DETAIL



MOUNTING BRACKETS

TOWER DESIGN LOADING		
WIND LOAD = E.I.A. ZONE "A"		
TOWER DESIGN ASSUMES TRANSMISSION LINES ARE EQUALLY DISTRIBUTED OVER THREE TOWER FACES.		
THIS TOWER IS DESIGNED TO SUPPORT THE FOLLOWING LOADS		
ELEVATION (FT)	ANTENNA TYPE	PROJ. AREA (SF)
200	2 - ANT'S	14 (TOTAL)
190	2 - ANT'S	14 (TOTAL)
180	2 - ANT'S	14 (TOTAL)

R1	REVISED SECTION 4N TO MATCH SECTION 4N TO C830893. SECTION C820120 TO C830893.			
	UNR-ROHN			
DIVISION OF UNARCO INDUSTRIES, INC.		UNR-ROHN		
THIS DRAWING IS THE PROPERTY OF UNR-ROHN. IT IS NOT TO BE REPRODUCED, COPIED OR TRACED, IN WHOLE OR IN PART, WITHOUT OUR WRITTEN CONSENT.				
200' SSV		TOWER ASSEMBLY		
E.I.A. ZONE "A", NO ICE		FOR		
SCALE 1" = 20.0'	DATE	MATERIAL	FINISH	WEIGHT
DRAWN BY: JPD	2 JUN 83			
CHECKED BY: JH	2 JUN 83			
APPRD. ENG.: L			FILE NUMBER	
APPRD. SALES:				
APPRD. PROD.:				
DRAWING NUMBER				C830893

SECTION ASSEMBLY DETAILS			
DRAWINGS SUBMITTED ARE LATEST REVISIONS			
SECTION NUMBER	ASSEMBLY DRAWING	FAB. DWG. - (IF REQ'D.)	
		LEG	BRACE
4NST	A790114	-----	-----
5N	A790119	-----	-----
6N	A780200	-----	-----
7N1	A780142	-----	-----
8N	A780252	-----	-----
9NH	A780318	-----	-----
10NH	A780386	-----	-----
11N	A780447	-----	-----
12NH	A780006	-----	-----
13N	A780028	-----	-----

TOWER FOUNDATIONS DATA						
TOWER HT.	BASE SECT.	BASE SPREAD	ANC. BOLTS	A.B. TEMP.	GROUND KITS	FDN. DWG. NO.
200'	13N	18'-8 3/8"	12-7/8X42	11NAB	3-BGK7	D700300
180'	12NH	16'-8 3/8"	12-7/8X42	11NAB	3-BGK7	D700200
160'	11N	14'-7 7/8"	12-7/8X42	11NAB	3-BGK7	D700300
140'	10NH	12'-7 1/4"	12-3/4X36	10NAB	3-BGK6	D700200
120'	9NH	10'-6 3/4"	12-5/8X30	6NAB	3-BGK5	D700200
100'	8N	8'-6 3/4"	12-5/8X30	6NAB	3-BGK5	D700300
80'	7N1	6'-6 3/4"	12-5/8X30	VL25	3-BGK5	C831314
60'	6N	4'-6 1/4"	12-5/8X30	6NAB	3-BGK6	D700300
40'	5N	2'-6"	NONE	SEE #	3-BGK5	D700300
20'	4NST	2'-2"	NONE	SEE #	3-BGK5	D700300

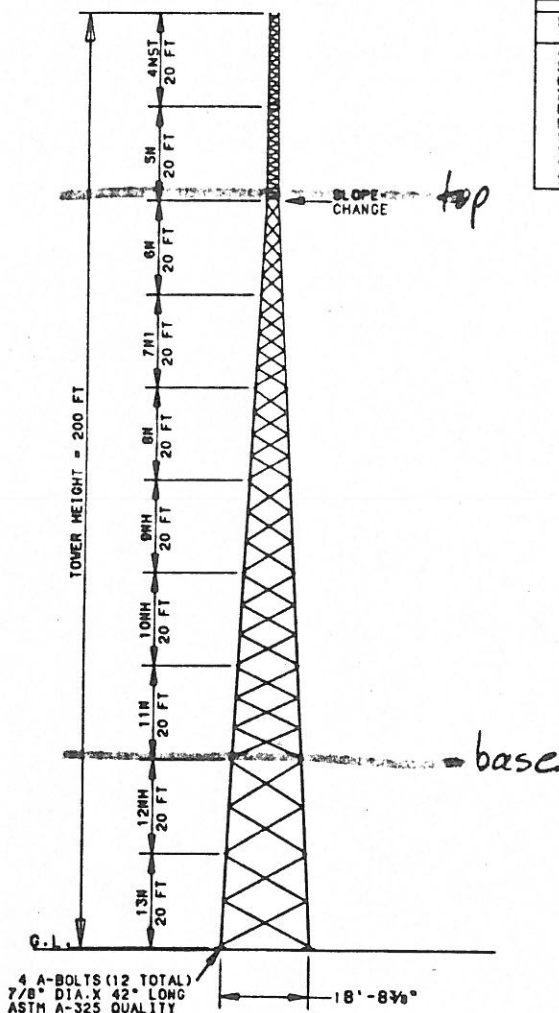
GENERAL NOTES

- SEE INDIVIDUAL SECTION ASSEMBLY DRAWINGS FOR PART NUMBERS AND SECTION ASSEMBLY DETAILS.
- FABRICATION DRAWINGS, IF REFERENCED, ARE FOR SHOP USE ONLY.
- THE LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG OF EACH SECTION.
- STEP BOLTS ARE PROVIDED ON ONE LEG ONLY FOR SECTIONS 8 THROUGH 11, AND ON ALL THREE LEGS FOR SECTIONS 12 THROUGH 16 AND ALL NH SECTIONS.
- PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.

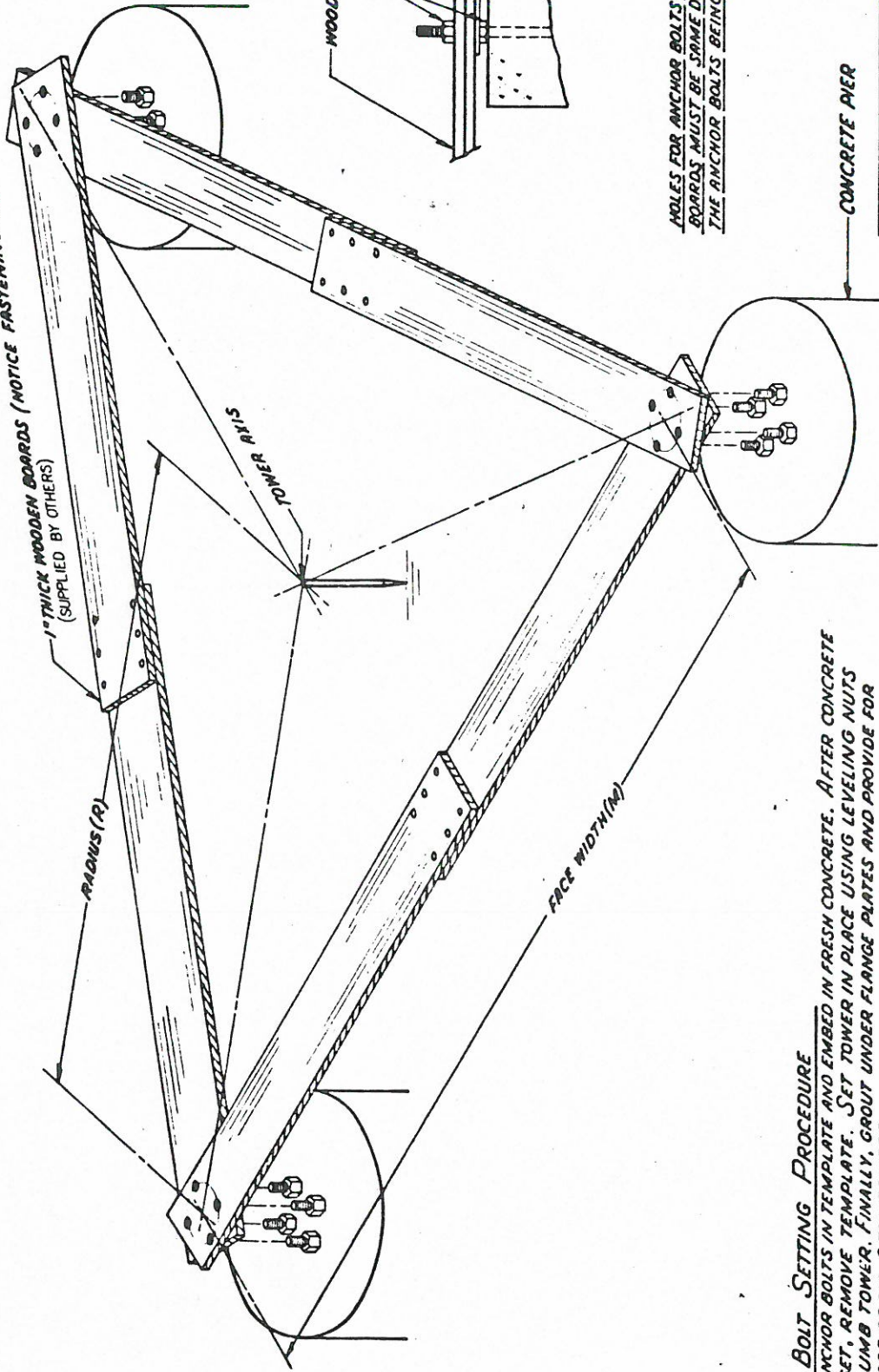
REFERENCE DRAWINGS

(DRAWINGS SUBMITTED ARE LATEST REVISIONS)

GROUTING AND DRAINAGE DETAIL (ALL 'NH' BASE SECTIONS)	-----B691111
GROUTING AND DRAINAGE DETAIL (ALL 'SSV' BASE SECTIONS)	-----SK720305
FOUNDATION AND ANCHOR TOLERANCE	-----A810214
ANCHOR BOLT TEMPLATE INSTALLATION (6NAB - 15NHAB)	-----CU730104
ANCHOR BOLT TEMPLATE INSTALLATION (VL25 - VL28 AND 13.5)	-----B730521
STEP BOLT DETAIL	-----B651264
GROUNDING DETAIL	-----C731105

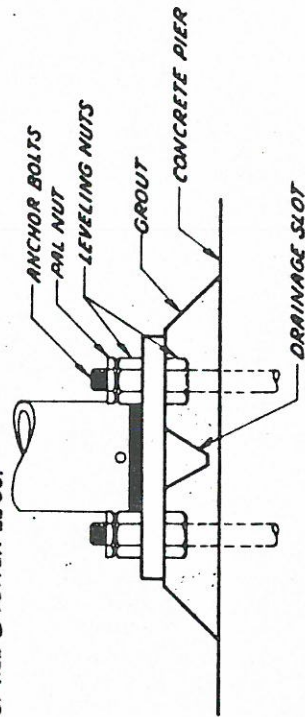


1" THICK WOODEN BOARDS (NOTICE FASTENING ARRANGEMENT)



ANCHOR BOLT SETTING PROCEDURE

SET ANCHOR BOLTS IN TEMPLATE AND EMBED IN FRESH CONCRETE. AFTER CONCRETE HAS SET, REMOVE TEMPLATE. SET TOWER IN PLACE USING LEVELING NUTS TO PLUMB TOWER. FINALLY, GROUT UNDER FLANGE PLATES AND PROVIDE FOR DRAINAGE OF ALL 3 TOWER LEGS.



NOTE: ANCHOR BOLT ORIENTATION SHOWN ABOVE IS ONLY FOR SECTIONS 6N THRU 16N STANDARD OR HEAVY SERIES.

HOLES FOR ANCHOR BOLTS IN WOODEN BOARDS MUST BE SAME DIAMETER AS THE ANCHOR BOLTS BEING USED.

REV	DESCRIPTION	DATE	BY
R2	UPDATED DRAWING	9-4-80	A/JG
R1	ADDED NOTE	4-12-77	

UNARCO-ROHN
Division of Unarco Industries Inc.

ANCHOR BOLT SETTING PROCEDURE
FOR SELF-SUPPORTING TOWERS

Scale: NONE

Drawn by: DRY Date: 10-11-71

Checked by: TS Date: 10-14-71

Approved by: P-1 Date: 10-12-71

Approved by: Production Date: 11-1-71

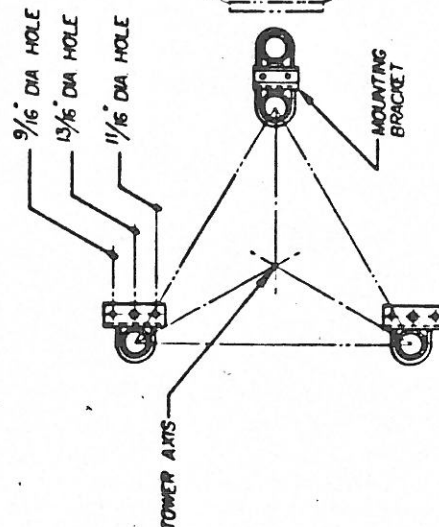
Approved by: Sales Date: 11-1-71

Drawing Number: C711017 R2

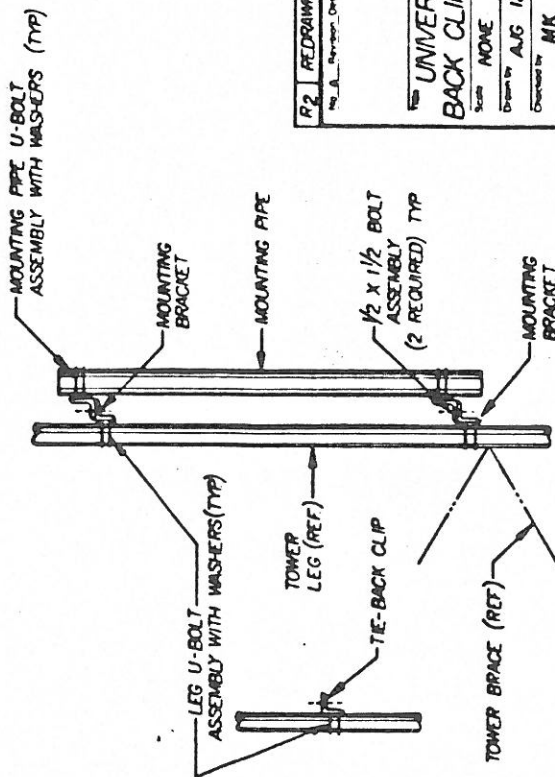
DISH MOUNTS WITH MOUNTING PIPE 4' STD X 5'-0" LG. & TIE-BACK CLIPS							
ASSEMBLY PT NO	TOWER LEG PIPE SIZE	MOUNTING BRACKET PT NO (4-REQ'D) (EXCEPT AS NOTED)	LEG U-BOLT ASSY WITH WASHERS (8-REQUIRED)	MOUNTING PIPE PT NO (1-REQ'D)	TIE-BACK CLIP PT NO (2-REQ'D)	MTG PIPE U-BOLT ASSY w/WASHERS (4-REQUIRED)	CONNECTION BOLT ASSEMBLY 1/2 x 1 1/2 (4-REQUIRED)
STB20UM	2"	VY1627	JR83AW	KH279	VY1653	JR85AW	20018GA
STB25UM	2 1/2"	VY1627	JR84AW	KH279	VY1653	JR85AW	20018GA
STB30UM	3"	VY1627	JR88AW	KH279	VY1653	JR85AW	20018GA
STB35UM	3 1/2"	VY1627	JR89AW	KH279	VY1653	JR85AW	20018GA
STB40UM	4"	VY1627	JR85AW	KH279	VY1653	JR85AW	20018GA
STB50UM	5"	2-VY1627 2-VY1628	JR86AW	KH279	VY1654	JR85AW	20018GA
STB60UM	6"	2-VY1627 2-VY1628	JR87AW	KH279	VY1654	JR85AW	20018GA

DISH MOUNTS WITH MOUNTING PIPE 4' STD X 6'-8" LG. & TIE-BACK CLIPS							
ASSEMBLY PT NO	TOWER LEG PIPE SIZE	MOUNTING BRACKET PT NO (4-REQ'D) (EXCEPT AS NOTED)	LEG U-BOLT ASSY WITH WASHERS (8-REQUIRED)	MOUNTING PIPE PT NO (1-REQ'D)	TIE-BACK CLIP PT NO (2-REQ'D)	MTG PIPE U-BOLT ASSY w/WASHERS (4-REQUIRED)	CONNECTION BOLT ASSEMBLY 1/2 x 1 1/2 (4-REQUIRED)
STB20UM	2"	VY1627	JR83AW	KH285	VY1653	JR85AW	20018GA
STB25UM	2 1/2"	VY1627	JR84AW	KH285	VY1653	JR85AW	20018GA
STB30UM	3"	VY1627	JR88AW	KH285	VY1653	JR85AW	20018GA
STB35UM	3 1/2"	VY1627	JR89AW	KH285	VY1653	JR85AW	20018GA
STB40UM	4"	VY1627	JR85AW	KH285	VY1653	JR85AW	20018GA
STB50UM	5"	2-VY1627 2-VY1628	JR86AW	KH285	VY1654	JR85AW	20018GA
STB60UM	6"	2-VY1627 2-VY1628	JR87AW	KH285	VY1654	JR85AW	20018GA

NOTE: FLAT WASHERS ARE PROVIDED FOR ALL SLOTTED HOLES.



PLAN VIEW



ELEVATION VIEW

GENERAL NOTES

1. MOUNTING BRACKETS MUST BE MOUNTED AS CLOSE TO A BRACE CLIP AS POSSIBLE.
2. FOR MOUNTING BRACKET FABRICATION, SEE DRAWING NUMBER 8800005.
3. FOR U-BOLT FABRICATION, SEE DRAWING NUMBER 865028.
4. FOR MOUNTING PIPE FABRICATION, SEE DRAWING NUMBER 87060.
5. FOR TIE-BACK CLIP ANGLE FABRICATION, SEE DRAWING NUMBER 880004.

REV	DATE	BY	CHKD	APP'D
R2	12-5-81	AUG		

UNIRAC-ROHN
Division of Unirac Industries, Inc.

UNIVERSAL LEG DISH MOUNTS & TIE-BACK CLIPS FOR STRAIGHT TOWER SECTIONS

Scale: NONE

Drawn by: AUG 12-5-81

Checked by: MK 12-14-81

Approved by: 75 12-16-81

Approved for Production: 12-16-81

Approved by: G.L. 12-16-81

Drawing Number: C800125 R2

Series Description

Standard PA/PAL/PAX/PAF

These antennas are unshrouded and offer standard and low VSWR models for applications where frequency coordination permits relaxed side-lobe suppression and where full channel expansion capability is not required.

Each antenna consists of a precision heavy duty spun aluminum parabolic reflector with a waveguide or coaxial feed depending on frequency of operation. All 12 foot diameter reflectors are sectionalized; 8 and 10 foot reflectors are supplied in one piece and are available sectionalized as an option. Each feed, with the exception of the PAF Series, is designed to be pressurized. Each antenna comes with a heavy duty galvanized steel mount designed to fit a 4 inch ips pipe (4½ inch actual diameter) complete with azimuth and elevation adjustments with threaded hardware of stainless steel. For protection against antenna shifting, each assembly from 8 feet to 10 feet diameter includes a sway bar for attachment directly to the tower. 12 feet diameter assemblies include two sway bars. The sway bar features an azimuth fine adjustment mechanism to provide ease in final alignment of the antenna. Radomes are available for all standard antennas and must be ordered separately.

Four versions offered are:

1. Series PA — Plane Polarized.
2. Series PAL — Plane Polarized, Low VSWR.
3. Series PAX — Dual Polarized.
4. Series PAF — Non-Pressurized 2GHz.

The PAF series of antennas incorporates all the standard features of the PA type antennas except the feeds are of a non-pressurized type and will not require pressurization of any kind. This series of antennas is limited to 2GHz frequency operation only.

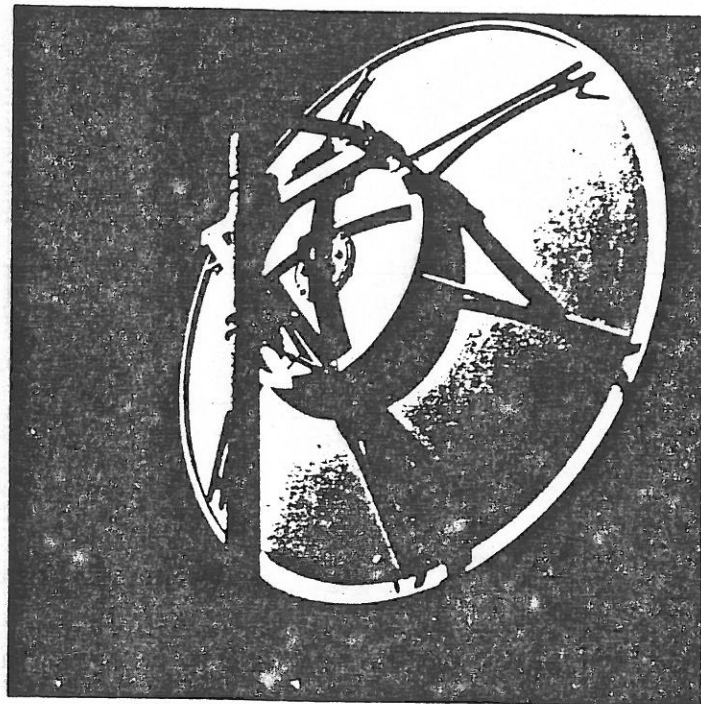
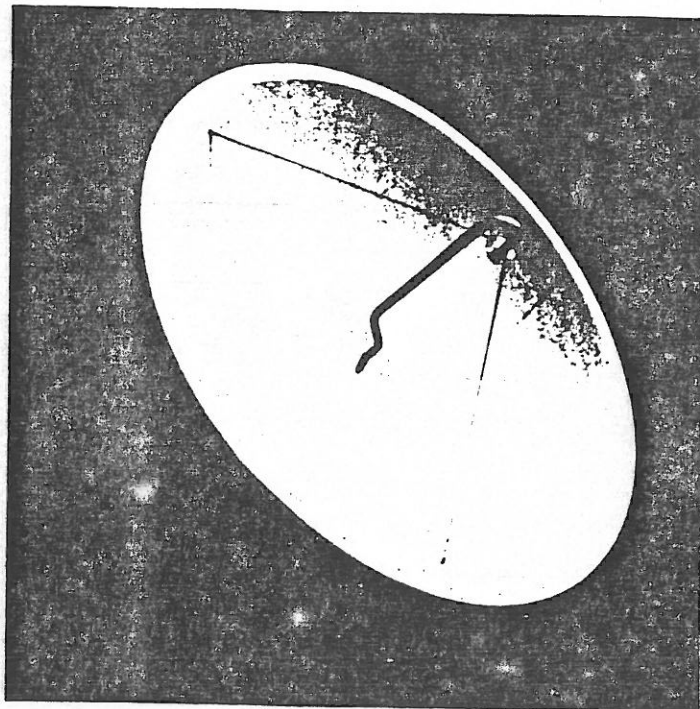
Standard colors for all antennas through 13 GHz are light blue, international orange and white. Light blue is supplied unless otherwise specified. Standard color for 18 GHz antennas is white. For custom colors contact the factory.

Pattern Performance

Radiation Distribution Envelopes for all Cablewave Systems antennas are on file with the FCC in Washington, D.C. Copies are available upon request from the factory. Actual performance will not exceed these patterns by more than 3 dB from 0° to 100° (exclusive of the co-polarized main beam) and 2 dB from 100° to 180°.

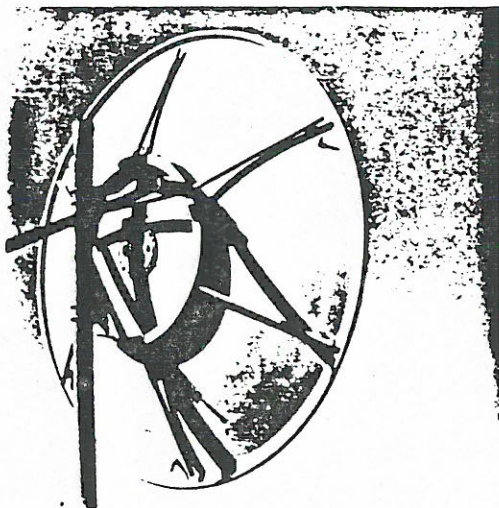
All Cablewave Systems' antennas meet EIA Standards RS-195B and RS-222C.

Microwave Parabolic Antennas



12.7-13.25 GHz Standard—PA/PAL/PAX Series

Microwave Parabolic Antennas Antenna Data



FEATURES

- Antennas utilize heavy gauge spun aluminum reflectors and center fed dipole feeds mounted from the rear. 12 foot antennas are sectionalized; 8 and 10 foot antennas are supplied in one piece, and available sectionalized as an option.
- Feeds can be pressurized up to 10 psi and feature 360° polarization orientation.
- Antennas will withstand 125 mph wind with one inch radial ice without damage.
- Feed guy wires are included with antennas of 6 feet diameter and larger.
- All antennas include vertical mounts for attachment to a 4½ inch outer diameter pipe (pipe not included) with azimuth and elevation adjustment of ±5°. All hardware is stainless steel. One azimuth stabilizing strut (sway bar) is included on 8' and 10', two on 12' units. Other type mounts are also available.
- Radomes are available for all sizes.
- Cross Polarization discrimination is better than 25 dB, nominally 30 dB.
- All Cablewave Systems' antennas meet EIA Standards RS-195B and RS-222C.

SYSTEM ACCESSORIES

	Page		
Antenna Type Descriptions	8	Pressurization Equipment	178
Mounts	67-70	Shipping	77
Radomes	66	System Planning Worksheet	61
Elliptical Waveguide/Connectors	94		

ELECTRICAL SPECIFICATIONS

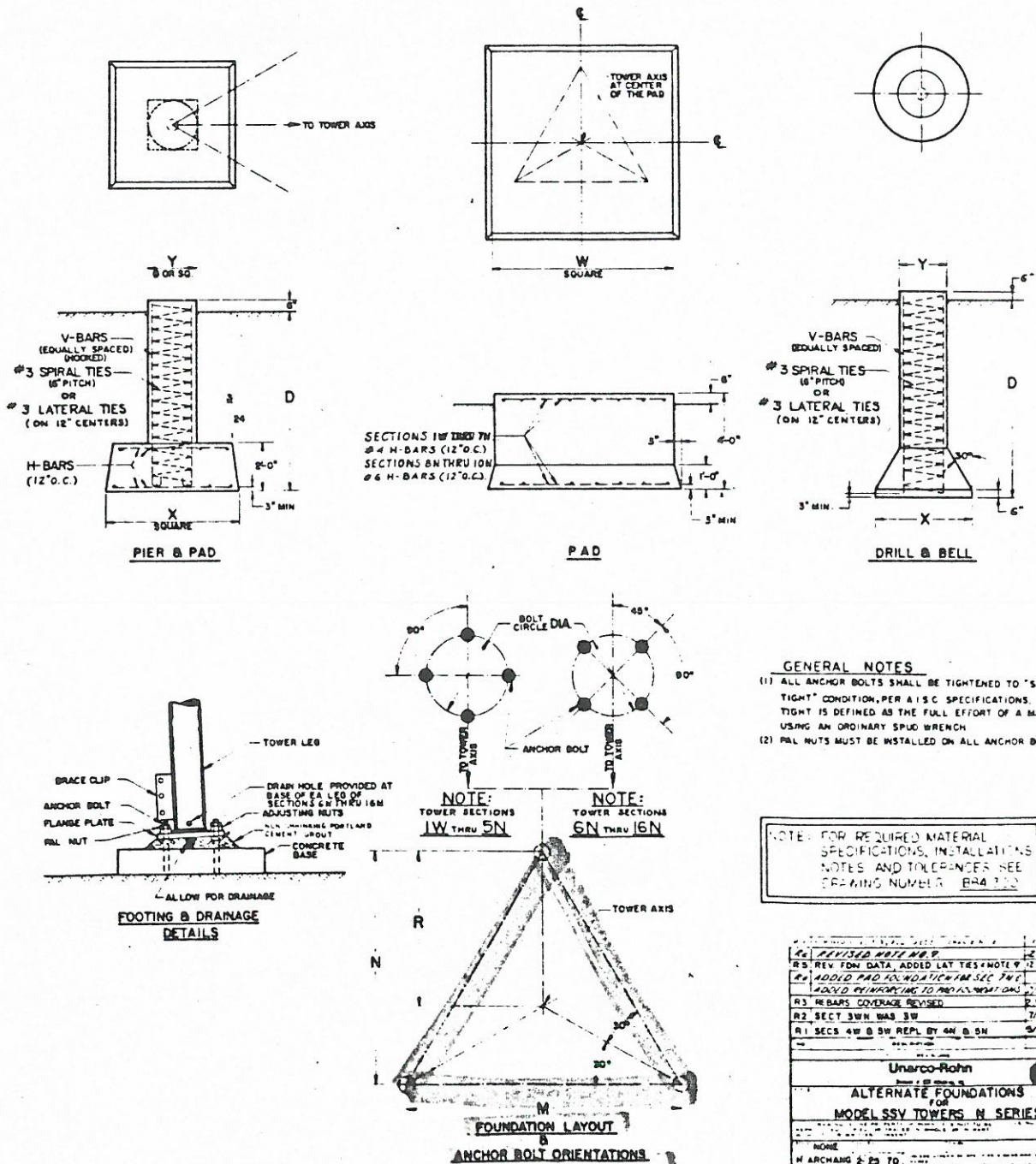
DIA. ft.	TYPE NO.	PART NO.	G A I N dBi			BEAM WIDTH Degrees	F/B RATIO dB	MAX VSWR	FEED INPUT FLANGE
			Low	Mid	High				
12.7-13.25 GHz SINGLE POLARIZED, STANDARD									
2	PA2 - 127	301180	35.6	35.7	35.9	2.8	42	1.12	WR75 CHOKE
4	PA4 - 127	301181	41.6	41.7	41.9	1.4	50	1.10	WR75 CHOKE
6	PA6 - 127	301182	45.2	45.3	45.5	0.9	52	1.10	WR75 CHOKE
8	PA8 - 127	301183	47.7	47.8	48.0	0.7	54	1.10	WR75 CHOKE
10	PA10-127	300184	48.9	49.0	49.2	0.6	57	1.10	WR75 CHOKE
12	PA12-127	301185	51.1	51.2	51.4	0.5	58	1.10	WR75 CHOKE

12.7-13.25 GHz SINGLE POLARIZED, LOW VSWR									
2	PAL2 - 127	301190	35.6	35.7	35.9	2.8	42	1.10	WR75 CHOKE
4	PAL4 - 127	301191	41.6	41.7	41.9	1.4	50	1.08	WR75 CHOKE
6	PAL6 - 127	301192	45.2	45.3	45.5	0.9	52	1.08	WR75 CHOKE
8	PAL8 - 127	301193	47.7	47.8	48.0	0.7	54	1.08	WR75 CHOKE
10	PAL10-127	300194	48.9	49.0	49.2	0.6	57	1.08	WR75 CHOKE
12	PAL12-127	301195	51.1	51.2	51.4	0.5	58	1.08	WR75 CHOKE

12.7-13.25 GHz DUAL POLARIZED, LOW VSWR									
4	PAX4 - 127	301311	41.4	41.5	41.7	1.4	50	1.10	WR75 CHOKE
6	PAX6 - 127	301312	45.0	45.1	45.3	0.9	52	1.10	WR75 CHOKE
8	PAX8 - 127	301313	47.5	47.6	47.8	0.7	54	1.10	WR75 CHOKE
10	PAX10-127	300314	48.7	48.8	49.0	0.6	57	1.10	WR75 CHOKE
12	PAX12-127	301315	50.9	51.0	51.2	0.5	58	1.10	WR75 CHOKE

FOUNDATION DATA																													
TOWER BASE SEC. NO.	MAX ALLOWABLE LEG T LOAD LBS	MAX ALLOWABLE SHEAR LBS	ANCHOR BOLT DATA						PIER & PAD							PAD		DRILL & BELL											
			LAYOUT DIMENSIONS			SIZE	BOLT CIRCLE DIA.	PROJ.	D	X	Y	V-BARS	H-BARS	REG'D CONC. CU YDS		W	REG'D CONC. CU YDS	D	X	Y	V-BARS	REG'D CONC. CU YDS							
			M	N	R									ROUND PIER	SQUARE PIER														
1W			1'-2"	1'-0"	0'-8"	12- $\frac{9}{16}$ " x 18	2 $\frac{1}{2}$	2 $\frac{1}{2}$																					
2W			1'-6"	1'-3"	0'-10"	12- $\frac{9}{16}$ " x 18	2 $\frac{1}{2}$	2 $\frac{1}{2}$																					
3WN			1'-10"	1'-7"	1'-0"	12- $\frac{9}{16}$ " x 24	3 $\frac{1}{2}$	3																					
4N			2'-2"	1'-10"	1'-3"	12- $\frac{9}{16}$ " x 30	4 $\frac{1}{2}$	3 $\frac{1}{2}$																					
5N			2'-6"	2'-2"	1'-5"	12- $\frac{9}{16}$ " x 30	4 $\frac{1}{2}$	3 $\frac{1}{2}$																					
6N	25,300	2,000	4'-6"	3'-11"	2'-7"	12- $\frac{9}{16}$ " x 30	4 $\frac{1}{2}$	3 $\frac{1}{2}$																					
7N	25,300	2,000	6'-6"	5'-8"	3'-9"	12- $\frac{9}{16}$ " x 30	4 $\frac{1}{2}$	3 $\frac{1}{2}$	6'-6"	4'-6"	1'-6"	6# 6	# 6	5.0	5.3	10'-0"	15.0	8'-6"	4'-0"	2'-0"	6# 8	4.5							
8N	39,400	5,000	8'-6"	7'-5"	4'-11"	12- $\frac{9}{16}$ " x 30	4 $\frac{1}{2}$	3 $\frac{1}{2}$	8'-0"	5'-6"	Z'-0"	8# 7	# 6	8.4	9.1	13'-6"	27.3	9'-6"	5'-0"	2'-0"	8# 7	6.5							
9N	32,700	5,500	10'-6"	9'-1"	6'-1"	12- $\frac{9}{16}$ " x 30	4 $\frac{1}{2}$	3 $\frac{1}{2}$	8'-0"	5'-6"	Z'-0"	8# 7	# 6	8.4	9.1	14'-0"	29.3	9'-0"	5'-0"	2'-0"	8# 7	6.3							
10N	32,700	5,500	12'-7"	10'-11"	7'-3"	12- $\frac{9}{16}$ " x 30	5 $\frac{1}{2}$	4	8'-0"	5'-6"	Z'-0"	8# 7	# 6	8.4	9.1	17'-0"	43.2	9'-0"	5'-0"	2'-0"	8# 7	6.3							
11N	48,700	4,500	14'-7"	12'-8"	8'-5"	12- $\frac{9}{16}$ " x 42	7 $\frac{1}{2}$	5	9'-3"	5'-6"	Z'-0"	8# 7	# 6	8.9	9.6			10'-6"	5'-0"	2'-0"	8# 7	6.8							
12N	47,700	4,500	16'-8"	14'-5"	9'-7"	12- $\frac{9}{16}$ " x 42	7 $\frac{1}{2}$	5	9'-3"	5'-6"	Z'-0"	8# 7	# 6	8.9	9.6			10'-6"	5'-0"	2'-0"	8# 7	6.8							
13N	62,200	5,000	18'-8"	16'-2"	10'-9"	12- $\frac{9}{16}$ " x 42	7 $\frac{1}{2}$	5	9'-3"	6'-0"	Z'-0"	8# 8	# 6	10.1	10.8			11'-0"	6'-0"	2'-6"	10# 8	11.0							
14N	62,200	5,000	20'-9"	17'-11"	12'-0"	12- $\frac{9}{16}$ " x 48	9 $\frac{1}{2}$	5 $\frac{1}{2}$	9'-3"	6'-0"	Z'-0"	8# 8	# 6	10.1	10.8			11'-0"	6'-0"	2'-6"	10# 8	11.0							
15N	97,000	10,000	22'-9"	19'-8"	13'-1"	12- $\frac{9}{16}$ " x 48	9 $\frac{1}{2}$	5 $\frac{1}{2}$	11'-0"	6'-0"	Z'-6"	12# 8	# 6	12.6	14.0			13'-0"	6'-0"	2'-6"	12# 8	12.1							
16N	97,000	10,000	24'-9"	21'-5"	14'-3"	12- $\frac{9}{16}$ " x 48	9 $\frac{1}{2}$	5 $\frac{1}{2}$	11'-0"</																				

• CONCRETE QUANTITIES SHOWN ARE FOR THREE PIERS



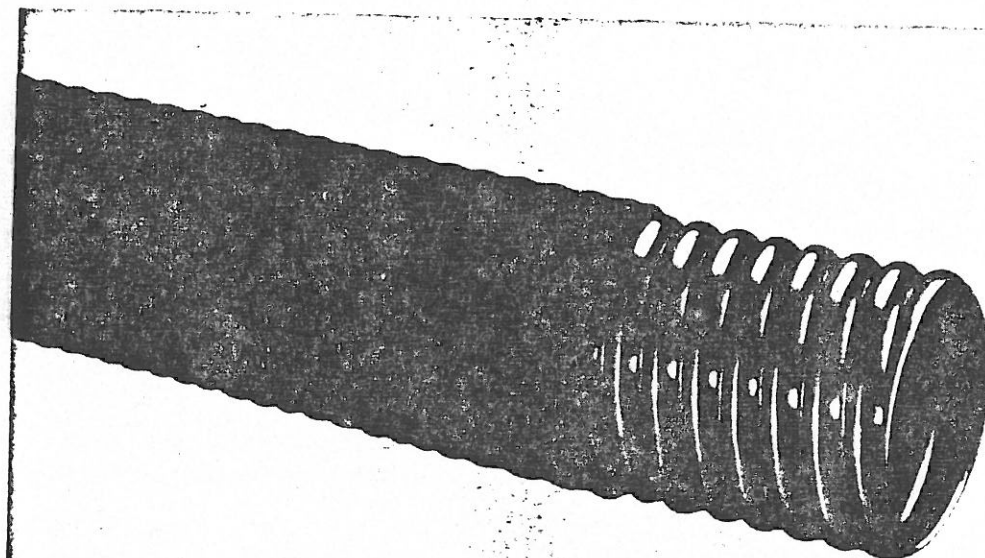
GENERAL NOTES

- (1) ALL ANCHOR BOLTS SHALL BE TIGHTENED TO "SNUG TIGHT" CONDITION, PER AISC SPECIFICATIONS. SNUG TIGHT IS DEFINED AS THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH
- (2) PAL NUTS MUST BE INSTALLED ON ALL ANCHOR BOLTS

NOTES: FOR REQUIRED MATERIAL
SPECIFICATIONS, INSTALLATIONS,
NOTES AND TOLERANCES SEE
DRAWING NUMBER BR4 100

R3	REV FOM DATA, ADDED LAT TES (NOTE 7)	2/18/72 GUS
R4	ADDED PAD IN LOCATION FOR SEC INC	2/18/72 GUS
R5	ADDED CORRECTIONS TO PROBABLY GREAT CIRC	2/18/72 GUS
R3	NR BARS COVERAGE REVISED	2/18/72 GARA
R2	SECT 3WN WAS 3W	7/6/71 DND
R1	SECS 4W & 5W REPL BY 4W & 5W	9/5/71 DND
<p align="center">Umarco-Rohn</p> <p align="center">ALTERNATE FOUNDATIONS</p> <p align="center">FOR</p> <p align="center">MODEL SSV TOWERS N SERIES</p>		6
<p>NOTE: 1. ALL DIMENSIONS ARE IN FEET AND INCHES.</p> <p>2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.</p> <p>3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.</p> <p>4. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.</p> <p>5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.</p>		
<p>NO. ARCHANG 2-23 70</p> <p>DATE 0-700300</p>		

Flexwell Elliptical Waveguide



Cablewave Systems Flexwell elliptical waveguide consists of a longitudinally welded, high conductivity copper tube, corrugated and precision formed into an elliptical cross section. The corrugation design achieves unusually high transverse stability and crush strength, yet offers excellent flexibility for forming at installation. A protective black polyethylene jacket is applied over the corrugated waveguide for improved handling and installation characteristics. Cablewave Systems Flexwell elliptical designs include equivalents to WR229 through WR42 waveguide, covering frequency bands from 3.6 to 19.04 GHz. Connectors are offered to mate with popular MIL, EIA and IEC flanges.

Cablewave Systems elliptical waveguide is based upon the latest Kabelmetal Electro designs, engineered for North American frequency bands and Cablewave Systems manufacture. The long length availability and typical low VSWR of Flexwell elliptical guide allow it to be run directly from the antenna to the equipment building, eliminating flange joint discontinuities from multiple

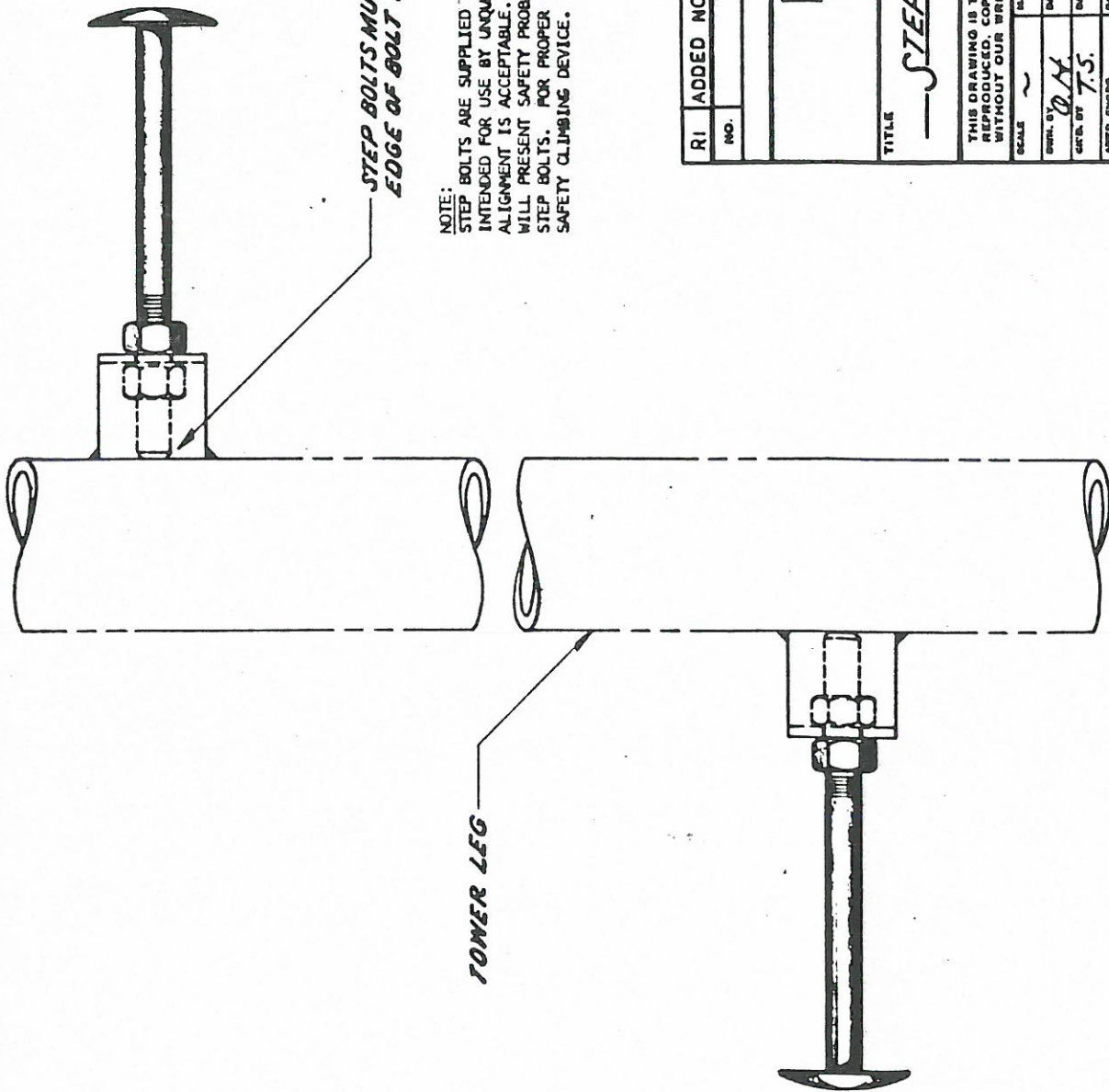
straight rectangular waveguide sections, bends, twists and flange sections. A Flexwell elliptical waveguide feeder achieves lower planning and installation costs and superior echo distortion performance when compared with rigid rectangular waveguide.

The Flexwell designs have proven successful in thousands of installations throughout the world. In Europe, these waveguide assemblies are manufactured by Kabelmetal Electro of Hannover, West Germany and marketed under the same Flexwell trade name.

Two versions of Flexwell elliptical waveguide are offered. Flexwell "standard" waveguide is recommended for low and medium capacity radio relay systems, while Flexwell "premium" elliptical waveguide assemblies with tuned connectors are recommended for high capacity radio systems. Standard and premium assemblies differ only in testing and guaranteed attainable VSWR. Flexwell waveguide may be supplied cut to length with connectors attached or shipped in bulk for termination in the field.

FLEXWELL ELLIPTICAL WAVEGUIDE

Waveguide Operating Frequency, GHz	Standard		Premium		Specifications See Page
	Type No.	Part No.	Type No.	Part No.	
3.60-4.20	WE37	810250-001	WEP37	810250-002	88
4.40-5.00	WE44	810251-001	WEP44	810251-002	88
5.925-6.425	WE61	810265-001	WEP61	810265-002	90
6.425-7.125	WE65	810261-001	WEP65	810261-002	90
7.125-7.750	WE70	810254-001	WEP70	810254-002	92
7.125-8.50	WE71	810255-001	WEP71	810255-002	92
10.70-11.70	WE108	810264-001	WEP108	810264-002	94
11.70-13.20	WE130	810258-001	WEP130	810258-002	94
18.36-19.04	WE190	810260-001	WEP190	810260-002	96



NOTE:

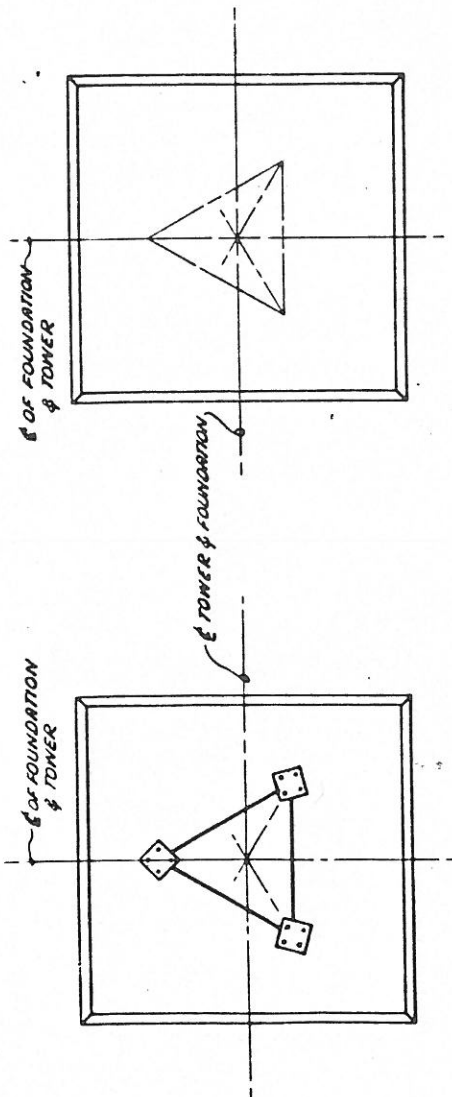
STEP BOLTS ARE SUPPLIED FOR CONSTRUCTION PURPOSES AND ARE NOT INTENDED FOR USE BY UNQUALIFIED PERSONNEL. A DEVIATION FROM PERFECT ALIGNMENT IS ACCEPTABLE. IF YOU OR YOUR CUSTOMER THINK STEP BOLTS WILL PRESENT SAFETY PROBLEMS TO ANY PERSONNEL, DO NOT INSTALL THE STEP BOLTS. FOR PROPER SAFETY UNR-ROHN RECOMMENDS A LADDER AND SAFETY CLIMBING DEVICE.

RI	ADDED NOTE	1-2-85	MK
NO.	DESCRIPTION	DATE	BY
REVISIONS			
ROHN® MANUFACTURING DIVISION OF			
TITLE <u>STEP BOLT INSTALLATION DETAIL</u>			
THIS DRAWING IS THE PROPERTY OF ROHN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRACED IN WHOLE OR IN PART WITHOUT OUR WRITTEN CONSENT.			
SCALE	MATERIAL	FINISH	WT.
DRW. BY D.H.	DATE 4-16-74	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CHKD. BY T.S.	DATE 4-17-74	VOL. DRAWN	
APP. BY D.W.	DATE 4-17-74	FILE NO.	
APP. BY D.W.	DATE 4-17-74	D.W.G. NO. B-651264	
			RI

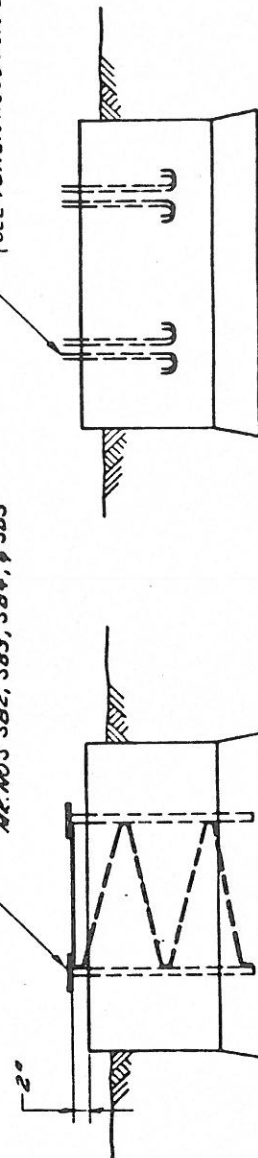
BOLT TEMPLATE INFORMATION

TEMPLATE MK. NO.	PART NO.	ANCHOR BOLTS	BASE FLANGE SIZE	TOWER BASE SECTION (SEE TOWER ASS'Y)
VL-25	6N-AB	5/8 X 30"	51 X 1 3/4	6N, 7N, 8N, 9N, 9NH
VL-26	10N-AB	3/4 X 36"	6 X 6 X 3/4	10N, 10NH
VL-27	11N-AB	7/8 X 42"	7 X 7 X 1	11N, 12N, 12NH, 13N, 13NH
VL-28	14N-AB	1 X 48"	9 1/2 X 9 1/2 X 1 1/4	14NH, 14N, 15N, 16N
VL-28	15NH-AB	1 X 72"	9 1/2 X 9 1/2 X 1 1/4	15NH & 16NH

ANCHOR BOLT SETTING
TEMPLATES (SEE CHART
FOR MARK NO. REQ'D.)
REMOVE UPPER TEMPLATE
BEFORE INSTALLING
TOWER.



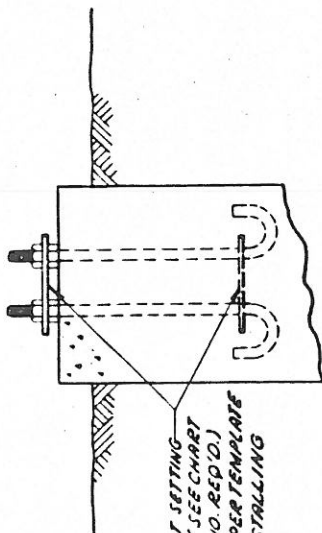
ALL WELDED 'SB' ASS'Y.
FOR SECTIONS 2N, 3NH, 4N, 85N
MK. NO'S SB2, SB3, SB4, 8 SB5



AND FOUNDATION FOR SECTIONS 1N-7N
3 PIER & PAD FOUNDATIONS FOR SECTIONS
7N THRU 16N OR 16NH

NOTES

1. IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY THAT THE CORRECT SETTING TEMPLATE & FOUNDATION DWG. ARE BEING USED.
2. CHECK ANCHOR BOLT SIZE, NO., SPACING, & BOLT CIRCLE DIA. ON TEMPLATE AGAINST ANCHOR BOLT LAYOUT DRAWINGS BEFORE INSTALLATION.
3. BOLT TEMPLATES AVAILABLE FOR SECTIONS 6N THRU 16N OR 16NH.
4. ALLOW FOR DRAINAGE OF ALL PIPE LEG TOWER SECTIONS.
5. PART NO. IN CHART AT UPPER LEFT CONSISTS OF 12 ANCHOR BOLTS & 6 TEMPLATES.



REV.	DESCRIPTION	DATE	BY
R2	RE-DRAWN (REPLACES CU-T30104R1)	2-16-75	QW

ROHN MANUFACTURING			
DIVISION OF			
TITLE ANCHOR BOLT SETTING TEMPLATE INFORMATION & SHORT BASE DETAILS			
THIS DRAWING IS THE PROPERTY OF ROHN. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT OUR WRITTEN CONSENT.			
DATE	ISSUED	REVISION	FILE NO.
2-18-75	2-18-75	2-18-75	CU-T30104R2
2-18-75	2-18-75	2-18-75	CU-T30104R2
2-18-75	2-18-75	2-18-75	CU-T30104R2

NOTE: SEE DWG. NO. 8-P40973 FOR TEMPLATE FABRICATION DETAILS.

WATER DEPARTMENT



TOPSFIELD, MASS. 01983

TOPSFIELD, MASS., July 7 19 86

Memo: Zoning Board of Appeals

From: Board of Water Commissioners *EBM*

Re: Public Hearing on July 22, 1986 concerning Continental Cablevision constructing a 120" tower.

Any tower installed within the area of a water tank should be the height of the mast plus 50% of that height away from the base of the water tank. This is to protect the tank from accidents involving the tower or trees hit by the tower.

FOR PUBLICATION IN TRI-TOWN TRANSCRIPT

issues of July 3 & July 10, 1986

Please bill: Zoning Board of Appeals
Town Hall
Topsfield, Ma. 01983

LEGAL NOTICE

TOWN OF TOPSFIELD

ZONING BOARD OF APPEALS

Notice is hereby given that at 8:15 p.m. on Tuesday, July 22, 1986, a Public Hearing will be held in the Topsfield Town Hall on the application of CONTINENTAL CABLEVISION seeking an extension of a non-conforming use to (microwave collector) construct a 120' tower on the property of ROBERT A. & ELIZABETH WOOD, 286 Old Boston Road (Rt. 1). Said property is located in the Inner Residential and Agricultural District.

DANIEL J. BUTLER, Chairman



Town of Topsfield

TOPSFIELD, MASSACHUSETTS 01983

June 25, 1986

To: Michael E. Tyler

From: Zoning Board of Appeals

re: Application request for an extension of a
non-conforming use: Continental Cablevision

The Zoning Board of Appeals at its regular meeting on June 24, 1986, voted NOT to waive the requirement for a certified plot plan. Such plan is needed to act upon the application.

The public hearing on this application has been set for Tuesday, July 22, 1986, at 8:15 p.m.

At this hearing we will need the required 4 copies of the certified plot plan showing all information as required by our rules & regulations (copy of such requirements attached.)

Please note that it is extremely important that the plan show all dimensions of the land, existing structures, and proposed structures and all distances from lot lines of such existing and proposed structures.

III. The General Procedures for application to the Board

1. All applications for Variance or Special Permit must be made as follows:

(Check List)

- a. 4 copies of Application FORM A _____
- b. 1 copy of Application Supplemental FORM B _____
with Assessors' Certification _____
- c. 1 copy of Assessors' map (scale 1"=200') _____
- d. 4 copies of Plot Plan to Scale Certified by _____
a Registered Land Surveyor _____
- e. Copy of Inspector of Buildings' denial _____

Application Forms A & B are available at the Town Clerk's Office in the Town Hall.

2. Plot Plan certified by a Registered Land Surveyor must include:

- _____ a. All dimensions of land
- _____ b. All existing and proposed structures with dimensions
- _____ c. Distance of all existing and proposed structures, additions, or changes from front, side & rear lot lines
- _____ d. Zoning District classification and any Zoning District boundary line that may pass through the property
- _____ e. All driveways and parking areas and dimensions
- _____ f. All roadways and properties abutting lot
- _____ g. Title indicating Lot Number, Street Address, Property Owner, and Scale
- _____ h. North arrow
- _____ i. Certification by a Registered Land Surveyor of accuracy of Plot Plan (signed and dated)

3. The Board may, in unusual cases, waive the requirement for a Certified Plot Plan. However, the Town Clerk CANNOT accept for filing an application unless the Certified Plot Plan, or a waiver from the Zoning Board of Appeals, is included. If a waiver is sought, applicant should contact Chairman of the Zoning Board of Appeals to be put on the agenda of a Board meeting.

4. A non-refundable fee of \$75.00 payable to the Town of Topsfield must accompany the application to cover the costs of Legal Notice publication and other expenses associated with the required Public Hearing.
5. The Town Clerk will accept and date stamp an application only if all items listed above are in order.