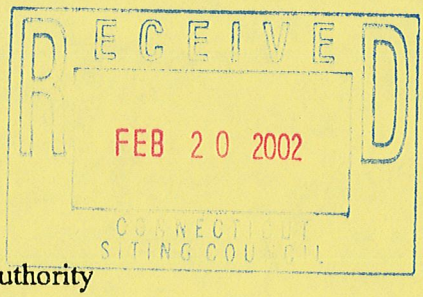
Radio Communications Service Co.

24 ROCKDALE ROAD • WEST HAVEN, CT 06516 • 203-933-2432

February 20, 2002



State of Connecticut Siting Council
Attn :Bob Earling

VIA FAX : 860-827-2950

RE: Local Building Permits and Siting Council Authority
Request for Official Interpretation

Dear Mr. Earling,

Attached please find a copy of a letter addressed to the State Building Official Christopher Laux, regarding his official interpretation of radio antenna permits and applications. In addition I have enclosed his response, which I understand has been published and distributed to most building officials.

To give you some background of my particular situation you should be aware of the following:

1) The tower is located in a light industrial zone which specifically permits communications use.

2) The property when originally purchased, was zoned to permit structures up to 250' in height, but was subsequently reduced to 60'.

3) I applied for, and was granted a variance to construct my 250' tower in accordance with plans submitted on 8/11/98.

4) The plans submitted, described three cellular mounting platforms, microwave dishes, and twelve (12) top mounted antennas. FAA airspace clearance for 84.4m or 277 feet was also included. In addition to the antennas described in the plans, there was a large visual rendering provided which depicted the top mounted antennas, cellular platforms, and microwave dishes.

5) The original top mount antennas described in the plans were very heavy and constituted almost 8 SqFt of wind load each. The choice of antennas was made with the intention that future antennas of "less loading" could put in their place without safety concerns. In essence an "equivalent antenna" having less than or equal loading to what was specified originally.

(Note: The attached response of the State Building Official I believe is flawed in this regard. He has defined an attached antenna or line to be part of the structure, and permits no replacement with an equivalent antenna or line without a new building permit. He goes on to require a new structural analysis and peer review (threshold limit) for equivalent antennas. I believe his interpretation is from a relic of AM radio Federal Law where, the tower itself is the antenna, and thus the structure)

6) On August 7, 2000 Verizon Wireless made an application to your office to share my tower. As part of that application VoiceStream as well included their equipment, and I provided a corrected inventory of my antennas, mountings, cable and power densities.

7) On September 5, 2000, your office issued a grant to Verizon (TS-BAM-015-000807) for shared use of the facility.

8) On November 7, 2000, at the personal request of Melanie Howlett, the City attorney, a restraining order to prevent use of the tower was issued by the zoning enforcement official.

This order had the practical effect of preventing local building permits to be issued by the building official, and delaying any revenue stream to my company from the towers use.

After I spent almost a year of appeals, numerous public hearings, and costly professionals, it was determined the restraining order was improperly directed, and that no violation occurred. The board of zoning appeals then had the order removed.

9) Without any consideration for the approval granted to Verizon from your office, Verizon was still required to go through the entire local zoning process numerous times to receive local zoning approval. This has delayed their use by almost two years. It was not until January, 2002 that the City of Bridgeport finally issued a Building Permit for "Verizon only".

10) As for my antennas, included as part of the original approved building permit in 1998, the building official in Bridgeport has chosen to disregard them because "they were used only to prove integrity of the tower". **My antennas properly included with the Verizon application, are the focus of this letter.**

It is because of the State Building Officials interpretation of equivalent replacement antennas, that I wished to submit an application for a local building permit to correctly specify antennas in use. (The antennas described in the Verizon approval)

On February 2, 2002, I submitted a new building permit application to the Building Official in Bridgeport, Peter Pajjan, the application included information the Verizon grant and my included antennas. He indicated to me that he is unclear if he has proper authority to grant the permit without direction from "some official authority", and has asked me to visit the local zoning official, Bill Shaw. I spoke with Mr. Shaw and he indicated that he could not authorize a grant without an interpretation from the City attorney Melanie Howlett. Considering Ms. Howlett has personally gone out of her way to thwart use of this communications site, and disparage me personally durring zoning deliberations and before my clients, its safe to presume no local zoning approval will be forthcoming.

Presently I do not have a process to follow which will allow use of my communications facility.

The main unanswered questions are:

1) Does the Siting Council's authority supersede local zoning ?

2) Does the Siting Council's authority act as a zoning approval "stamp" to the local building department ?

3) Was my inclusion of antennas, as well as VoiceStreams antennas, in the Verizon application, proper ?

4) Since the information presented to the Siting Council for approval, (e.g. antenna types, cables, power density information, structural loadings, zoning considerations) duplicates Zoning and Building Department functions, does the Siting Council approval function as a "de-facto" building permit ? (The written grant letter would not indicate this, and it more precisely requires a separate building permit from the local municipality. Additionally the State Building Official states only the local building official can issue permits.)

4) Does the antenna interpretation by the State Building Official, apply to matters under Siting Council jurisdiction ?

5) If the State Building official is correct in his assessment, it could be a long period of time to replace an antenna that is not an exact match. (A new structural analysis, and its peer review can take up to a month or more depending if a site visit or inspection is needed. In addittion, it may cost thousands of dollars in professional fees alone, to replace an antenna of one hundred dollars or less) How can these delays and costs be justified when essential services are disrupted, and how can they be in the public interest?

6) There are a number of questions left unanswered by the State Building Official that should be addressed. In particular questions 20 and 21 on zoning authority. These are tangible issues because it was discussed durring local zoning hearings on the Verizon application. In particular it was discussed that the appearance of a towers reinforcements may be grounds to deny a permit. Verizon was asked to provide a rendering to determine, should reinforcement work needed, "would the appearance would be becoming, and to the commissioners liking". Does appearance preside over safety ?

I appreciate your taking time to help with direction in this matter, and look foward to hearing from you.

Thank You,

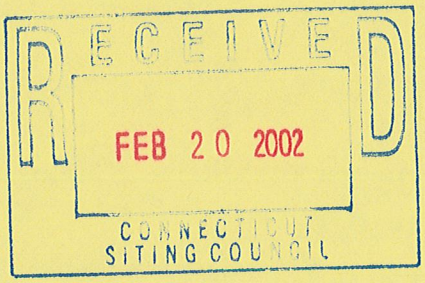
Robert Knapp
Tower Owner - Bridgeport CT
Systems Engineer
1-800-343-9333

Radio Communications Service Co.

24 ROCKDALE ROAD • WEST HAVEN, CT • 203-933-2432

October 22, 2001

State Building Official
Christopher R. Laux, A.I.A.
1111 Country Club Road
P.O. Box 2794
Middletown, CT 06457-9294



Re: Official Interpretation

Dear Mr. Laux,

My company is in the business of constructing and renting space on radio towers throughout Connecticut. It has been my observation that this type of business, in general, has been heavily restricted by both local building and zoning departments. In some cases I have clients waiting up to two years to get approvals to use my structures. This is of particular concern because in most cases, federal authority to operate expires in 18 months if systems remain un-constructed.

My clients include both Federal agencies, and private business, both of whom have been frustrated in attempts to mount antennas on my existing structures. In all cases the towers have been approved, the customers have Federal licenses, F.A.A. antenna height clearance has been granted, and in two cases, local zoning was pre-empted by the Connecticut State Siting Council.

The purpose of this request for Official Interpretation is to provide my company with an understanding of the process that it needs to follow to conduct business in Connecticut.

To begin, I think it would be instructive to provide some definitions for the terms used. These include antennas, mounting types, cables, loading, and licencing, all used in this business.

Antenna - The type of antennas described here are easily replaceable and typically attached with a pair of mounting clamps, and a single transmission cable screwed in the bottom. The antennas, although usually reliable, do fail electrically occasionally. In addition, new technologies in antenna design encourage replacement for better performing antennas. These antennas range in length from 6 inches to 21 feet. They may be constructed of aluminum, or fiberglass, and are grounded to the structure by virtue of their mounting clamps. In most cases their diameter ranges from 1 to 3 inches. The antenna is generally mounted using two pipe to pipe clamps spaced at the bottom. In most cases the antenna is vertically polarized, meaning it must be mounted in an upright vertical position, typically at the top of the structure. The weight of the antenna varies from a few ounces to typically 20 or 30 pounds. All antennas have wind load characteristics that are measured in square foot flat plate equivalents. Antennas may be broad band and support many

frequencies simultaneously.

Top Mount - This is a mounting configuration where the antenna extends beyond the top end of the physical tower. This is the most desirable mounting location since the radio wave radiation is not distorted by the tower structure itself.

Side Mount - This is a special mounting configuration where the main radiating portion of the antenna is below the top of the tower. This configuration is useful since the tower itself may shield the antenna from unwanted interference, or increase the antennas performance in a particular direction by reflection off the tower itself.

Wind load - This is the flat plate equivalent of an antenna in square feet. All antennas usually have a wind load value. This number is used in part to determine the structural integrity of a fully loaded tower, and is calculated using EIA/TIA standards.

Structural load - All towers are typically designed to carry a maximum load. When towers are ordered, they are specified with maximum numbers of antennas at specific heights. Each antenna has a wind load characteristic, and generally is related to a specific location on the tower.

Antenna Cable - The cable used to connect to the antennas typically consists of a single insulated conductor surrounded by a solid outside shield. The cables range in various diameters, typically ½ inch to 2 inches. Their equivalent wind load characteristics are always included in the overall structural load. They are used to pass high frequency RF currents, typically harmless to humans. In the case of receive only antennas, the currents induced are so low that they need special equipment to measure them.

Federal Licenses - There are four possible scenarios for licensing radio systems. First are systems which require an application to the Federal Communications Commission for authority to operate in a radio service. Second are Federal Agencies which are automatically authorized for specific frequencies, but for which no license is issued. Third, are F.C.C. permitted unlicensed communications, including receive-only applications. Fourth, are blanket licenses for a geographic area. Blanket licenses include Cellular, PCS, and Paging operations with millions of users.

I would like to put forth the following yes/no questions for official interpretation:

1) Do the radio antennas described above need a building permit to be installed ?

2) Do antenna cables need a building permit to be installed ?

3) Is it required to have an F.C.C. license to apply for an antenna building permit?

4) Do Federal or State agencies need a building permit to have their antennas or cables installed on a privately owned tower ?

5) Is it necessary to disclose the potential users of an antenna when applying for a building permit, if the structure owner is the entity applying for the permit ?

6) Are the potential frequencies of the users required to be disclosed for a building permit?

7) If a building permit was issued for an antenna, is a new permit required for an exact replacement, should it need to be changed ?

8) If a building permit was issued for an antenna, is a new permit required for an equivalent replacement should it need to be changed ? (Equivalent meaning its square foot wind load being less than or equal to what the original antenna was)

9) If customers using an antenna change, do new building permits need to be issued for future users of the existing antenna ?

10) Is notification of individual user termination required on a shared antenna ?

11) If an antenna is not being used any longer must it be removed ?

Is a demolition permit required ?

12) If a new user begins using a previously dormant antenna, is a new building permit required ?

13) If a new user joins other users on a shared active antenna, must they apply for a new building permit ?

14) It is a conservative practice to only load a tower for what is needed, not its maximum loading. Can these antennas be added later to the tower under the original building permit, without application for a new building permit ?

15) Is a new structural analysis of the entire tower needed each time any new antenna are added to the tower ?

16) Is a new structural analysis of the entire tower required for an exact replacement antenna ?

17) Is a new structural analysis of the entire tower required for an equivalent replacement antenna ? (Equivalent meaning its square foot wind load being less than or equal to what the original antenna was)

18) If two antennas near the same location are removed, can a single antenna of equivalent wind loading, be substituted without a new building permit ?

19) Does a tower require a new structural analysis if the EIA/TIA standard changes ?

20) If the EIA/TIA standard for a tower changes, and the owner wishes to improve the safety of the tower by strengthening it, can the owner be prevented in doing so by local zoning ?

21) Do issues of strengthening for safety, in general, take precedence over local zoning ?

22) Before a building permit may be issued, local zoning approval must be received. If the tower is removed from the jurisdiction of local zoning, and remanded to the care of the Connecticut State Siting Council, must the local building official recognize their authority ?

23) If the local building official will not recognize the authority of the Connecticut State Siting Council, can the State Building Official issue a permit or exemption from permit ?

24) Does the State Building Official have authority to remove a Local Building Official?

The questions presented above represent issues which have been raised, and in some instances been used to prevent the use of my radio towers. I am requesting the answers to these questions in writing because there needs to be some authority to whom I may defer concerning

these issues.

I have always done my best to comply with the requirements for doing business in Connecticut. I have made a large investment in this state, and I intend to continue grow here.

Antennas are of particular curiosity since they not a necessary component of the structure itself. They provide no additional integrity to the tower, but use its capacity. You could certainly remove an antenna from a tower, but you could not remove any steel member from the tower without compromising the integrity of the structure. Indeed the tower is there for the antenna, not the other way around. It is this functional appurtenance which although clearly not necessary to the structure, becomes classified as the structure itself.

Your answers are critical for me to be able to proceed in continuing to do business in this state, and I thank you in advance for your responses.

If you would like to discuss some of these issues in advance of your response, I generally am available after 2:00 PM weekdays at the above number.

Thank You,

Robert Knapp
Systems Engineer

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE, EMERGENCY & BUILDING SERVICES
OFFICE OF THE STATE BUILDING INSPECTOR

October 29, 2001

Mr. Robert Knapp, Systems Engineer
Radio Communications Service Co.
24 Rockdale Road
West Haven, CT 06516

RE: I-27-01

Dear Mr. Knapp:

The following is offered in response to your October 22, 2001 letter requesting a formal interpretation the BOCA National Building Code/1996 portion of the 1999 State Building Code as it applies to radio towers and associated antennae.

The antennae you describe vary in length from 6 inches to 21 feet, with diameters from 1 to 3 inches and weights that vary from a few ounces to 30 pounds.

Question 1: Do the radio antennas described above need a building permit to be installed?

Answer 1: Yes.

Question 2: Do antenna cables need a building permit to be installed?

Answer 2: Yes.

Question 3: Is it required to have an F.C.C. license to apply for an antenna building permit?

Answer 3: No.

Question 4: Do Federal or State agencies need a municipal building permit to have their antennas or cables installed on a privately owned tower?

Answer 4: Yes. Federal and State Agencies are exempt from local permitting requirements only for construction on property they own. State agencies are required to obtain building permits from the State Building Inspector for buildings and structures that exceed the statutory threshold limits.

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1111 Country Club Road P.O. Box 2794
Middletown, CT 06457-9294
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Question 5: Is it necessary to disclose the potential users of an antenna when applying for a building permit, if the structure owner is the entity applying for the permit?

Answer 5: No.

Question 6: Are the potential frequencies of the users required to be disclosed for a building permit?

Answer 6: No.

Question 7: If a building permit was issued for an antenna, is a new permit required for an exact replacement, should it need to be changed?

Answer 7: Yes.

Question 8: If a building permit was issued for an antenna, is a new permit required for an equivalent replacement should it need to be changed? (Equivalent meaning its square foot wind load being less than or equal to what the original antenna was)

Answer 8: Yes.

Question 9: If customers using an antenna change, do new building permits need to be issued for future users of the existing antenna?

Answer 9: No. The permit is for the installation or replacement of the antenna itself, and is independent of the user of the antenna.

Question 10: Is notification of individual user termination required on a shared antenna?

Answer 10: No.

Question 11a: If an antenna is not being used any longer must it be removed?

Answer 11a: No.

Question 11b: Is a demolition permit required?

Answer 11b: Yes, if the decision to remove the antenna is made. Section 29-406 of the Connecticut General Statutes states in part: "No person shall demolish any building, *structure or part thereof* without obtaining a permit for the particular demolition undertaking from the building official of the town, city or borough wherein such building or part thereof is located." (emphasis added)

Question 12: If a new user begins using a previously dormant antenna, is a new building permit required?

Answer 12: No, assuming no replacement or repair of the antenna takes place.

Question 13: If a new user joins other users on a shared active antenna, must they apply for a new building permit?

Answer 13: See response # 12.

Question 14: It is a conservative practice to only load a tower for what is needed, not its maximum loading. Can these antennas be added later to the tower under the original building permit, without application for a new building permit?

Answer 14: If the original permit for the tower included certain specified antennae, they may be added under the original permit as long as it remains valid (ie: work on the project has not been suspended for 6 months or more). If the permit has expired or the antennae differ from those included in the original application, a new permit is required.

Question 15: Is a new structural analysis of the entire tower needed each time any new antenna are added to the tower?

Answer 15: Yes, if such antennae are in addition to those covered by the original permit application, and the original structural analysis. In addition, Connecticut General Statute 29-276b requires an independent structural engineering consultant to review the plans to determine adequacy of the tower to accommodate the additional loads from the new antennae whenever the tower height exceeds 60 feet.

Question 16: Is a new structural analysis of the entire tower required for an exact replacement antenna?

Answer 16: No, not for an exact replacement. Copies of the original structural analysis must be made available at the time of permit application.

Question 17: Is a new structural analysis of the entire tower required for an equivalent replacement antenna? (Equivalent meaning its square foot wind load being less than or equal to what the original antenna was)

Answer 17: Yes.

Question 18: If two antennas near the same location are removed, can a single antenna of equivalent wind loading, be substituted without a new building permit?

Answer 18: No.

Question 19: Does a tower require a new structural analysis if the EIA/TIA standard changes?

Answer 19: No. The standard in effect at the time of permit application remains valid for the life of the tower.

Question 20: If the EIA/TIA standard for a tower changes, and the owner wishes to improve the safety of the tower by strengthening it, can the owner be prevented in doing so by local zoning?

Answer 20: I am not authorized to answer questions about zoning, which is a local matter.

Question 21: Do issues of strengthening for safety, in general, take precedence over local zoning?

Answer 21: I am not authorized to answer questions about zoning, which is a local matter.

Question 22: Before a building permit may be issued, local zoning approval must be received. If the tower is removed from the jurisdiction of local zoning, and remanded to the care of the Connecticut State Siting Council, must the local official recognize their authority?

Answer 22: Section 8-3 of the Connecticut General Statutes states in part "No building permit shall be issued for a building, use or structure subject to the zoning regulations of a municipality without certification in writing by the official charged with enforcement of such regulations that such building, use or structure is in conformity with such regulations...." If the tower is removed from the jurisdiction of local zoning, the building official is under no obligation to obtain such certification from the local zoning authority.

Question 23: If the local building official will not recognize the authority of the Connecticut State Siting Council, can the State Building Official issue a permit or exemption from permit?

Answer 23: No. The State Building Inspector has no authority to issue permits for privately owned buildings or structures constructed in local municipalities.

Question 24: Does the State Building Official have authority to remove a Local Building Official?

Answer 24: Yes, for failure to obtain the required training per subsection (b) of section 29-262, Connecticut General Statutes.

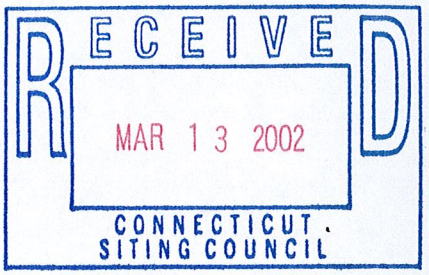
Regards,

Christopher R. Laux, AIA
State Building Inspector

Radio Communications Service Co.

24 ROCKDALE ROAD • WEST HAVEN, CT 06516 • 203-933-2432

March 11, 2002



City of Bridgeport Building Department
C/o Peter Paajanen , Building Official
45 Lyon Terrace
Room 220
Bridgeport, CT 06604

Re: Building Permit Denial, 623 Pine Street, Bridgeport CT

Dear Mr. Paajanen,

As per your request for "documents of public record", and following my second denial of a building permit for antennas to be mounted on my tower at 623 Pine Street today, I am enclosing the following:

1) Personal correspondence between myself and Bob Earling, Connecticut State Siting Council, dated February 20, 2002. This mater was forwarded to Executive Director Derek Phelps, who responded in a letter dated March 8, 2002, a copy now in your possession.

2) Personal correspondence between myself and Christoper R. Laux, A.I.A., State of Connecticut Building Official, dated October 22, 2001.

3) Response by Mr. Laux dated October 29, 2001, Official Interpretation I-27-01.

4) Personal correspondence between myself and William Shaw, Zoning Official, City of Bridgeport, dated March 1, 2002.

Since not all the information contained the various correspondences is relevant in your decision process for a building permit, I am noticing, by this letter, all affected parties of your interest in this matter as a courtesy. Mr. Shaw has not been noticed since you indicated to me he would also review all the information you receive.

Thank You,

Robert Knapp
Property Owner, 623 Pine Street

cc: Derek Phelps, Connecticut Siting Council
Christopher R. Laux, State of Connecticut Building Official

CITY ATTORNEY
Mark T. Anastasi

DEPUTY CITY ATTORNEY
John D. Guman, Jr.

ASSOCIATE CITY ATTORNEYS
John H. Barton
John P. Bohannon, Jr.
Barbara Brazzel-Massaro
Russell D. Liskov
John R. Mitola
Ronald J. Pacacha

CITY OF BRIDGEPORT
OFFICE OF THE CITY ATTORNEY
999 Broad Street
Bridgeport, Connecticut 06604-4328

Bridgeport

ASSISTANT CITY ATTORNEYS

Melanie J. Howlett
Arthur C. Laske III
R. Christopher Meyer
Raymond B. Rubens
Stephen J. Sedensky, Jr.

LEGAL ADMINISTRATOR
Kathleen Pacacha

Telephone (203) 576-7647
Facsimile (203) 576-8252

April 11, 2001

Via Facsimile and Overnight Mail

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

Re: Petition No. TS-NEXTELL-015-010327 – Nextell Communications, Inc. Notice of Intent to Modify an Existing Telecommunications facility located at 623 Pine Street, Bridgeport, CT

Dear Mr. Rinebold:

I am in receipt on March 30, 2001, of your letter dated March 29, 2001, and on April 6, 2001, of the Notice of Meeting Agenda for April 12, 2001, regarding the application noted above ("Petition") filed by Nextel Communications, Inc. ("Nextell"), to modify an existing telecommunications facility located at 623 Pine Street, Bridgeport, Connecticut ("Tower"). Please enter my appearance in this matter on behalf of the City of Bridgeport ("City").

The City has reviewed the Petition and finds that we have the following objections and conditions to its approval, as set forth below.

- The Site Plan for the Tower was approved by the City's Planning & Zoning Commission on September 28, 1998, limited to the installation of certain equipment as set forth in that application, and further discussed below. The City has continuing jurisdiction over the activities at this location.

- The prior Site Plan approved for the property owners of 923 Pine Street by the Planning and Zoning Commission did not consider the safety and environmental impact of additional antennas on this Tower because, at that time, there was insufficient information provided regarding the nature of any such future requests for additional equipment at this site. It was anticipated that such a review would occur during future applications to amend the Site Plan. The approval of the use of this site by the Planning & Zoning Commission was specifically limited to the installation of equipment on the Site Plan that belongs to the current owner. (See comments of the City dated August 30, 2000, filed in Siting Council Petition No. TS-VOICESTREAM-015-000808 – VoiceStream Wireless request for an order to approve tower sharing at an existing telecommunications tower at 623 Pine Street, Bridgeport, Connecticut, and Petition No. TS-BAM –015-000807 – Cellco Partnership d/b/a Verizon Wireless request for an Order to approve tower sharing at an existing telecommunications tower located at 623 Pine Street, Bridgeport, Connecticut.)

- The Tower is not an existing telecommunications tower, since the owners of the property at location failed to file an amended Site Plan application with the City Planning and Zoning Commission and a Cease and Desist Order was issued by the Commission regarding 923 Pine Street on November 7, 2000. Applications filed by Cellco Partnership d/b/a Verizon Wireless and Voice Stream Wireless **on behalf of the property owners** are currently pending before the Planning & Zoning Commission. This office anticipates that decisions on both these applications will be issued on April 23, 2001.

- The location at 623 Pine Street requires an amendment to the original Site Plan previously approved by the Planning and Zoning Commission **by the property owners** in order to modify the Tower base for the installation by multiple users of equipment that is necessary to power the antennas, in addition to any expanded use of the Tower itself, by Nextell. Additional fencing may be required at this location if the application for approval of an Amended Site Plan indicates the proposed installation of additional antennas on the Tower described in this Petition.

- The data supplied by Nextell in this Petition regarding the total radio frequency power density levels and/or electromagnetic radiation levels at 923 Pine Street **does not include the proposed installations of MetriCom, Inc.**, a FCC license holder which has also filed an amended Site Plan application with the Planning and Zoning Commission on behalf of the property owners of 923 Pine Street. That application is also scheduled for a decision by the City's Planning & Zoning Commission on April 23, 2001.

- The Petition by Nextell does not indicate why the antennas and equipment are needed at this time. Generally, there are two reasons for such requests: to eliminate a dead zone in coverage to serve existing customers, or to increase capacity for anticipated new customers. The City, upon the submission of the proper engineering data indicating how this location will eliminate the dead zone, does not object to the approval of a completed petition on those grounds, if that petition is properly before your Agency as discussed above. However, the City also believes that requests for tower sharing to address future capacity require an intense review to insure that the "need" is current or imminent, and is confined to this municipal area. The City finds it difficult to believe that Nextell has a current need of twelve (12) antennas to serve customers in the Bridgeport area. The City objects to the approval of this Petition until this information has been verified by your Agency.

- If and when this Petitions has been properly filed, the City's Planning & Zoning Commission and the Siting Council have overlapping jurisdiction over these matters.

- The issuance of a building permit is required and will be conditioned upon the Petitioner obtaining and maintaining a performance bond for the future removal of its equipment, if it remains out of service for a period of six (6) months, in an amount to be determined by the Office of the City Attorney based on estimated installation and removal costs to be prepared by the Petitioner.

Finally, the City requests that any approval granted for this Petition by this Agency specifically state that the Petitioner and or the site must obtain all local permits/approvals prior to the installation of additional telecommunications equipment on the Tower at this site.

If you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Melanie J. Howlett
Assistant City Attorney

Cc: William Shaw - Bridgeport Clerk Planning & Zoning Commission
Ronald C. Clark – Manager of Real Estate Operations, Nextell Communications

CITY OF BRIDGEPORT
OFFICE OF THE CITY ATTORNEY

999 Broad Street
Bridgeport, Connecticut 06604-4328

Telephone (203) 576-7647
Facsimile (203) 576-8252

FACSIMILE TRANSMITTAL SHEET

FROM: M Howlett DATE: 4/16/01

TO: Joel Rinebold FAX NO. 860-827-2950

RE: PS-Hartford-015-010327

TOTAL NUMBER OF PAGES INCLUDING COVER SHEET (4)

MESSAGE: Sorry, I did not get this to you earlier today.

M Howlett

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OPERATOR: _____

Rev. 3-2001

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
Web Site: www.state.ct.us/csc/index.htm

April 16, 2001

Ronald C. Clark
Manager, Real Estate Operations
Nextel Communications
100 Corporate Park
Rocky Hill, CT 06067

RE: **EM-NEXTEL-015-010327** - Nextel Communications, Inc. notice of intent to modify an existing telecommunications facility located at 623 Pine Street, Bridgeport, Connecticut.

Dear Mr. Clark:

At a public meeting held on April 12, 2001, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated March 27, 2001. 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 frequencies 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 also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

Although the City of Bridgeport may require the issuance of a Building Permit, this decision for the modification and use of this facility is under the exclusive jurisdiction of the Council. 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 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/laf

c: Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Michael P. Nidoh, City Planner, City of Bridgeport
Melanie J. Howlett, Assistant City Attorney, City of Bridgeport
Robert Knapp, Radio Communications Corp.
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene & MacRae
Sandy M. Carter, Verizon Wireless
David I. Bass, Esq., Rubenstein & Green, LLC

I:\siting\em\nextel\bridgeport\ac041201.doc

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
Web Site: www.state.ct.us/csc/index.htm

March 29, 2001

Honorable Joseph P. Ganim
Mayor
City of Bridgeport
City Hall
999 Broad Street
Bridgeport, CT 06604

RE: **TS-NEXTEL-015-010327** - Nextel Communications, Inc. notice of intent to modify an existing telecommunications facility located at 623 Pine Street, Bridgeport, Connecticut.

Dear Mr. Ganim:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for April 12, 2001, at 1:30 p.m. in Hearing Room Two, Ten Franklin Square, New Britain, Connecticut.

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

Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold
Executive Director

JMR/RKE/laf

Enclosure: Notice of Intent

c: Michael P. Nidoh, City Planner, City of Bridgeport
Ms. Melanie J. Howlett, Assistant City Attorney

Ronald C. Clark
Manager Real Estate Operations

Nextel Communications
100 Corporate Place, Rocky Hill, CT 06067
860 883-2112 FAX 860 513-5444

NEXTEL®

March 27, 2001

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

Dear Mr. Gelston:

Nextel Communications, Inc. ("Nextel") hereby and respectfully notifies the Connecticut Siting Council (Council) of its intent to install antennas and related wireless communications equipment at an existing telecommunications facility located in Bridgeport, Connecticut. Please accept this letter as notification (pursuant to R.C.S.A. §16-50j-73) of construction that constitutes an Exempt Modification pursuant to R.C.S.A. §16-50j-72(b)(2).

The existing facility is a 250-foot freestanding lattice telecommunications tower that is owned by Radio Communications Corporation and is located at 623 Pine Street in Bridgeport. The site is shared by a variety of communication users, including Voicestream Communications and Verizon Wireless Communications. The site is needed to increase in-building coverage in Southwest Bridgeport and to improve system coverage in the general area.

The site coordinates are: 41°-9'-58.3" N. Latitude / 73°-13'-1.4" W. Longitude. The Ground Elevation is 14-feet Above Mean Sea Level.

Nextel plans to attach twelve (12) panel antennas (3 sectors with 4 antennas per sector) center-lined at the 96-foot level of the tower (Exhibit A). Nextel's radio equipment will be installed inside the existing equipment building, which is located at the base of the tower. (Exhibit B).

The planned modifications to this facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2):

1. The proposed modification will not increase the height of the 250-foot tower. Nextel's antennas will be installed at a centerline of 96-feet above ground level. The tower profile included in Exhibit A depicts and confirms that the planned modification will not increase the overall height of the tower.

2. Nextel will install its radio equipment inside an existing equipment building located at the base of the tower and totally within the boundaries of the existing site.

3. The proposed modification to the facility will not increase the noise levels at the existing facility by six decibels or more. The only noise generated will be by the heating/cooling fan serving Nextel's radio equipment room.

4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. The "worst-case" RF power density calculation for a point at the base of the tower for the existing operations indicates a combined power density to be 28.2532% of the FCC Standard for uncontrolled environments at a mixed frequency site. Nextel's operations would add 0.035097656 mW/cm^2, or 6.19% of Nextel's FCC Standard of 0.5673 mW/cm^2. Thus, the total calculated "worst case" power density for the planned combined operation at the site is 34.4396% of the FCC Standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, Nextel respectfully submits that the proposed addition of antennas and equipment at the Southington facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Thank you for your consideration.

Sincerely,

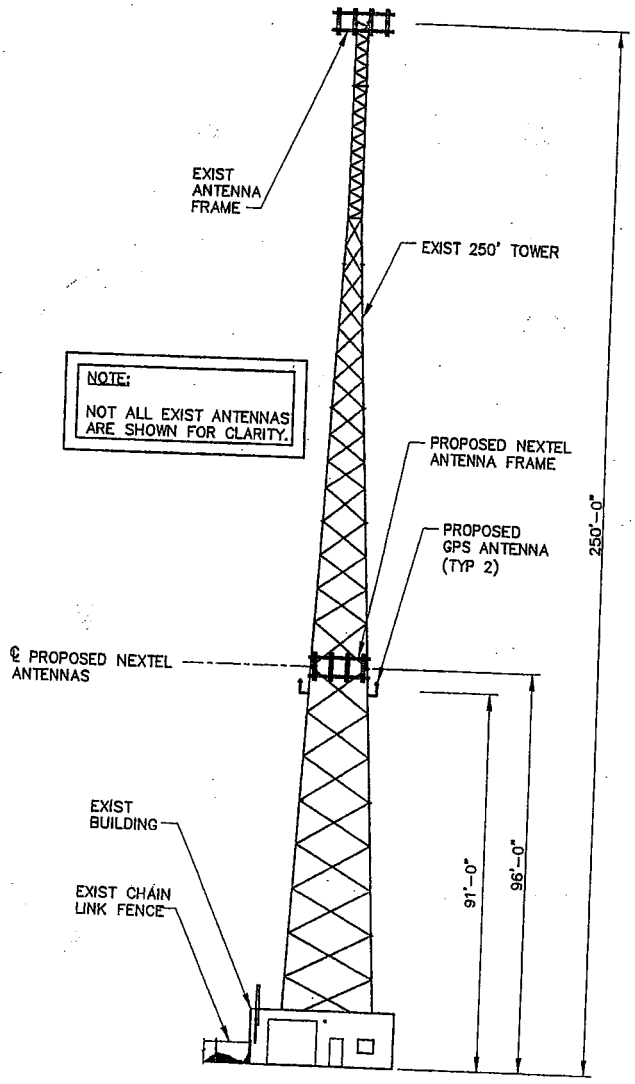
Ronald C. Clark
Manager Real Estate Operations

cc: Honorable Joseph P. Ganim,
Mayor of Bridgeport

Mr. Robert Knapp,
Radio Communications Corp.

Mr. Kenneth C. Baldwin, Esq.
Robinson & Cole

EXHIBIT A



1 / L-3 TOWER ELEVATION

TECTONIC/KEYES ASSOCIATES
1344 SILAS DEANE HIGHWAY, SUITE 500
ROCKY HILL, CT 06067
(860) 563-2341
FAX(860) 257-4882

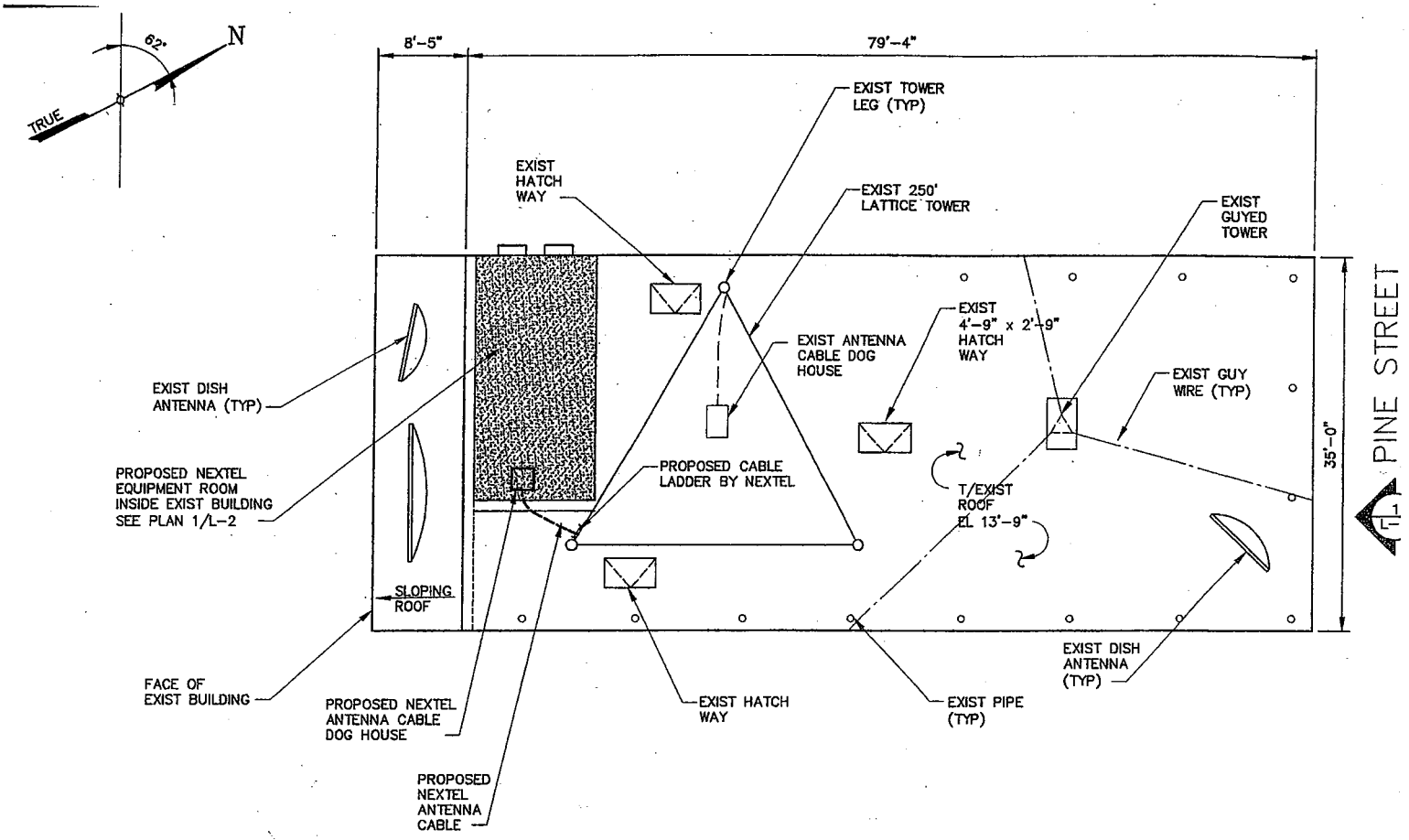
ISSUED BY:

W.O. 2993.3612

3/19

3/12

EXHIBIT B



1/L-1 ROOF PLAN

NORTH NOTE:
NORTH SHOWN HAS BEEN ESTABLISHED USING THE USGS QUADRANGLE 7.5 MINUTE MAPS AND IS APPROXIMATE. VERIFY TRUE NORTH PRIOR TO INSTALLATION OF ANTENNAS.

TECTONIC/KEYES ASSOCIATES

1344 SILAS DEANE HIGHWAY, SUITE 500
ROCKY HILL, CT 06067
(860) 563-2341 FAX(860) 257-4882

ISSUED BY:	W.O. 2993.3612	3/19
		3/12

Proposed Nextel Site - Bridgeport, CT (623 Pine Street) - CT Siting Council Power Density Calculations

Verizon Wireless (BAM) - 875 MHz at centerline 110' AGL - Existing *

VoiceStream (Omnipoint) - 1930 MHz at centerline 180' AGL - Existing *

162 MHz - at centerline 272' AGL - Existing *

930 MHz - at centerline 267' AGL - Existing *

450 MHz - at centerline 260' AGL - Existing *

Nextel Directional Antennas ESMR - 851 MHz at centerline 96' AGL - Proposed

Note: Power densities are in mW/ cm²

Transmitters:	Frequency in MHz	CT Standard mW/ cm²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
Verizon Wireless - at centerline 110' AGL - Existing *	875	0.583	*	*	*	0.0564	9.68%
VoiceStream - at centerline 180' AGL - Existing *	1930	1.000	*	*	*	0.022532	2.2532%
162 MHz - at centerline 272' AGL - Existing *	162	0.200	*	*	*	0.0024	1.21%
930 MHz - at centerline 267' AGL - Existing *	930	0.620	*	*	*	0.0529	8.54%
450 MHz - at centerline 260' AGL - Existing *	450	0.300	*	*	*	0.0197	6.57%
Nextel - at centerline 96' AGL - Proposed	**851**	**0.5673**	**9**	**100**	**96**	**0.035097656**	**6.19%**
Total % of CT Standard							34.4396%

* The Power Densities for all existing carriers are taken from Verizon's request for Tower Sharing dated 08/07/00. The worst case values from their power density calculations were used.

EXHIBIT C

Tower Sites
(Available July 1999)

SITE NAME: Radio Communications (Bridgeport)

Ground Elevation: 25'

N. LAT.: 41-09-58
W. LONG: 73-13-03

Address/Location: 623 Pine Street
City: Bridgeport
County: Fairfield
State: CT

Existing Licensee on Structure: Paging Associates, Inc.
-Call Sign Name....: KUC 925
-Radio Service.....: DPLMRS

Structure Type.....: Tower
Structure Height.....: 250'
Overall Height.....: 277'
(including all antennas)

FAA Study Number: 91-ANE-122-OE
-Name Filed Under...: Paging Associates, Inc.
-FAA Regional Office: New England Region
-Dated Filed.....: 04/26/91

Name of Nearest Aircraft Landing Area: Sikorsky Airport
-Distance to " " : 4.4 miles
-Direction to " " : East

SITE MANAGER/Tel. No. (if applicable):

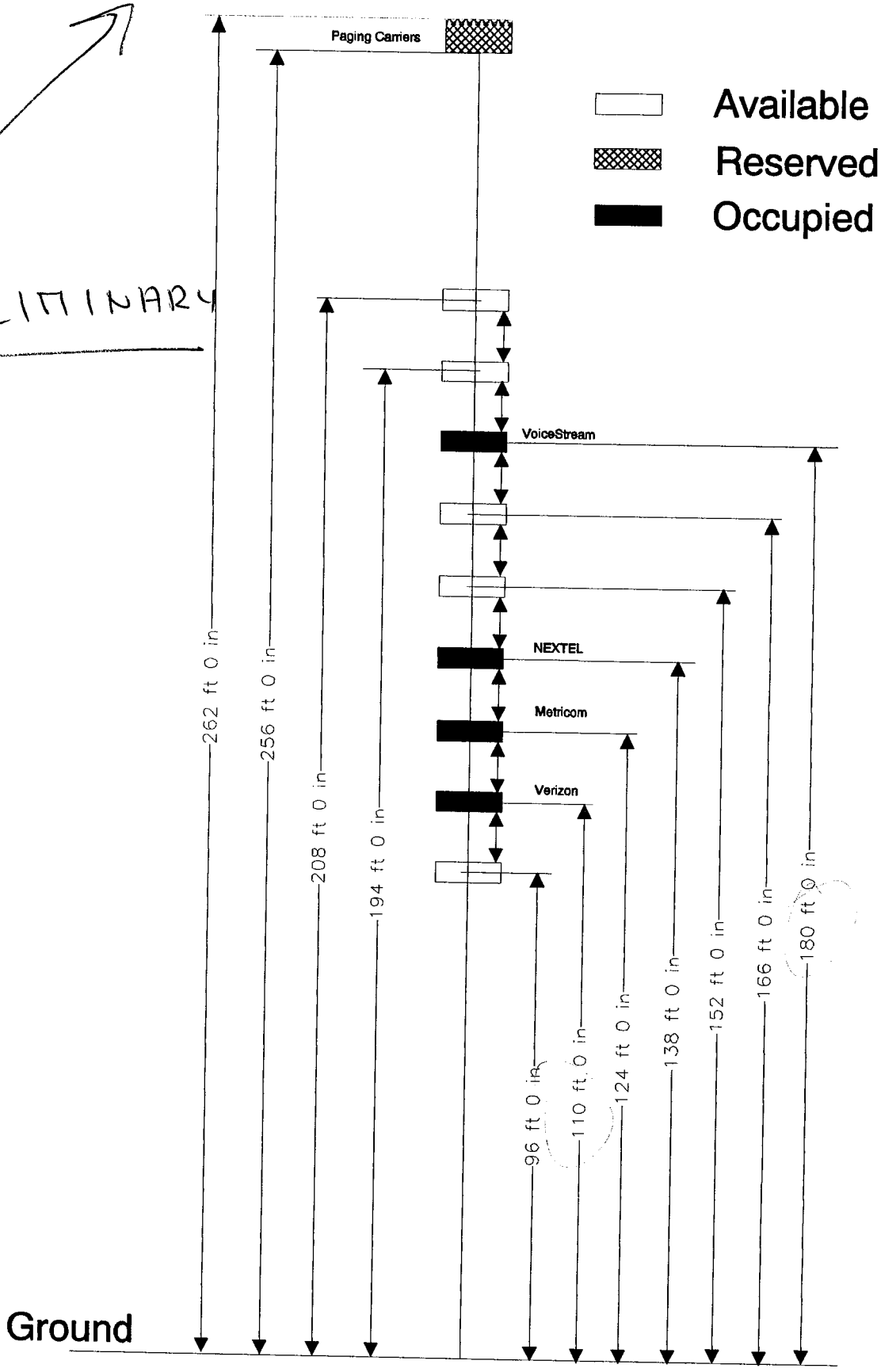
Bob Knapp 203-933-2432
800-343-9333

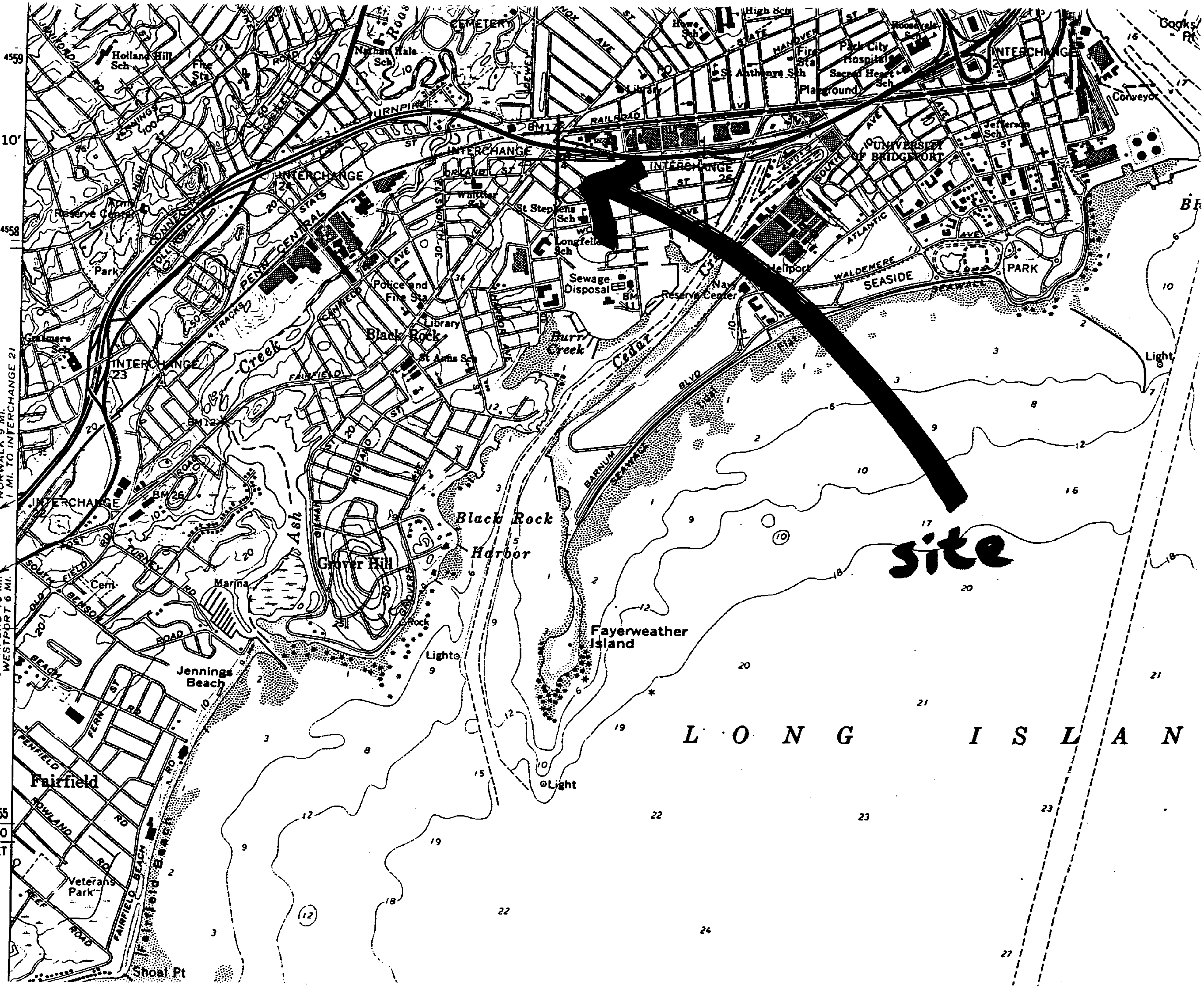
FAX: 203-933-2259

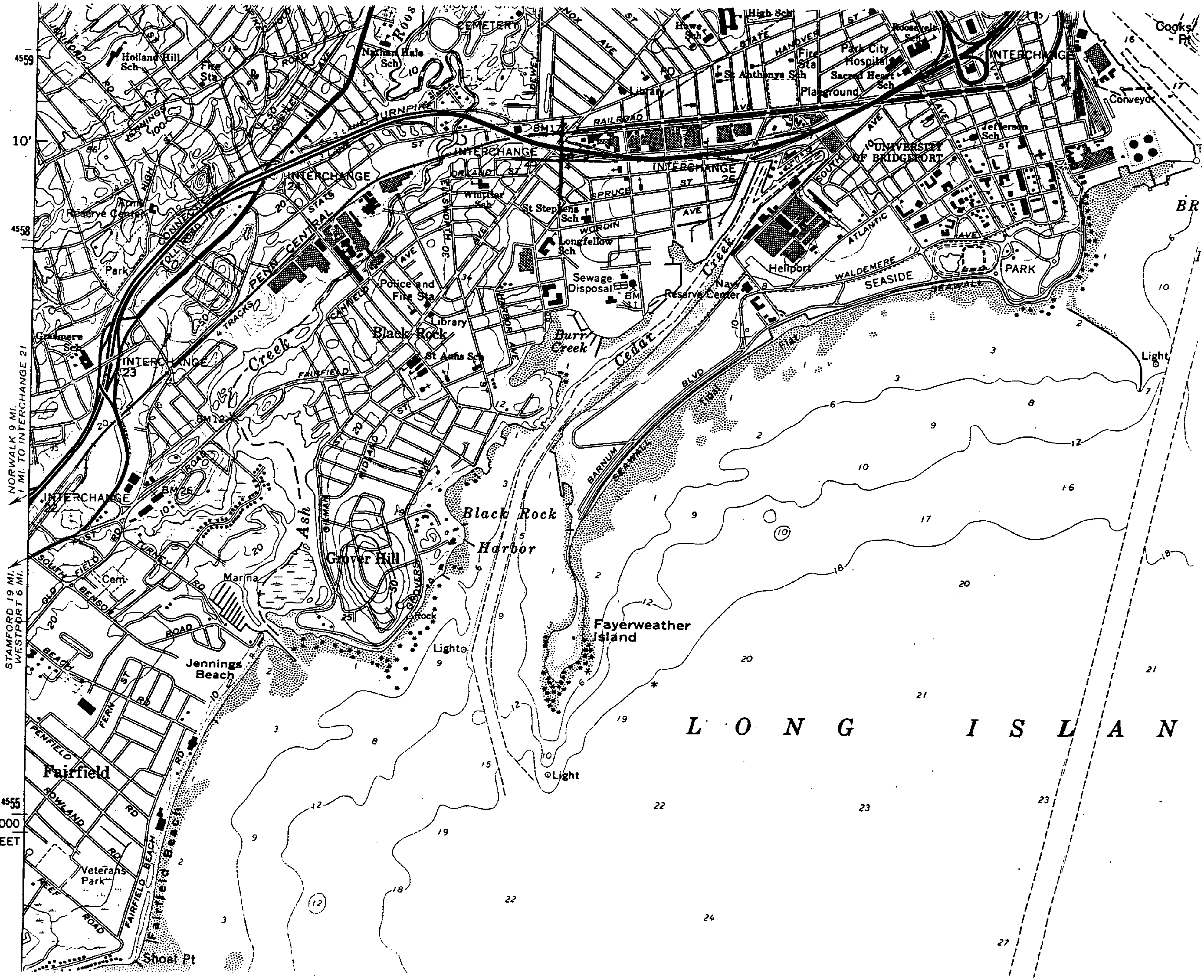
Site Manager Address : Radio Communications
24 Rockdale Road
West Haven, CT 06516

Bridgeport Tower Available Mounting Locations
623 Pine Street 1-800-343-9333

PRELIMINARY




site
LONG ISLAN
Fayerweather Island
Black Rock Harbor
Black Rock
Grover Hill
Jennings Beach
Fairfield
Fairfield Beach
Shoal Pt
UNIVERSITY OF BRIDGEPORT
SEASIDE PARK
Cedar Creek
Burr Creek
Ash Creek
INTERCHANGE 26
INTERCHANGE 24
INTERCHANGE 23
Sewage Disposal
Naval Reserve Center
Heliport
Veterans Park
Marina
Light
NORWALK 9 MI. 1 MI. TO INTERCHANGE 21
STAMFORD 19 MI. WESTPORT 6 MI.
110 000 FEET


LONG ISLAN
Fayerweather Island
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Fairfield
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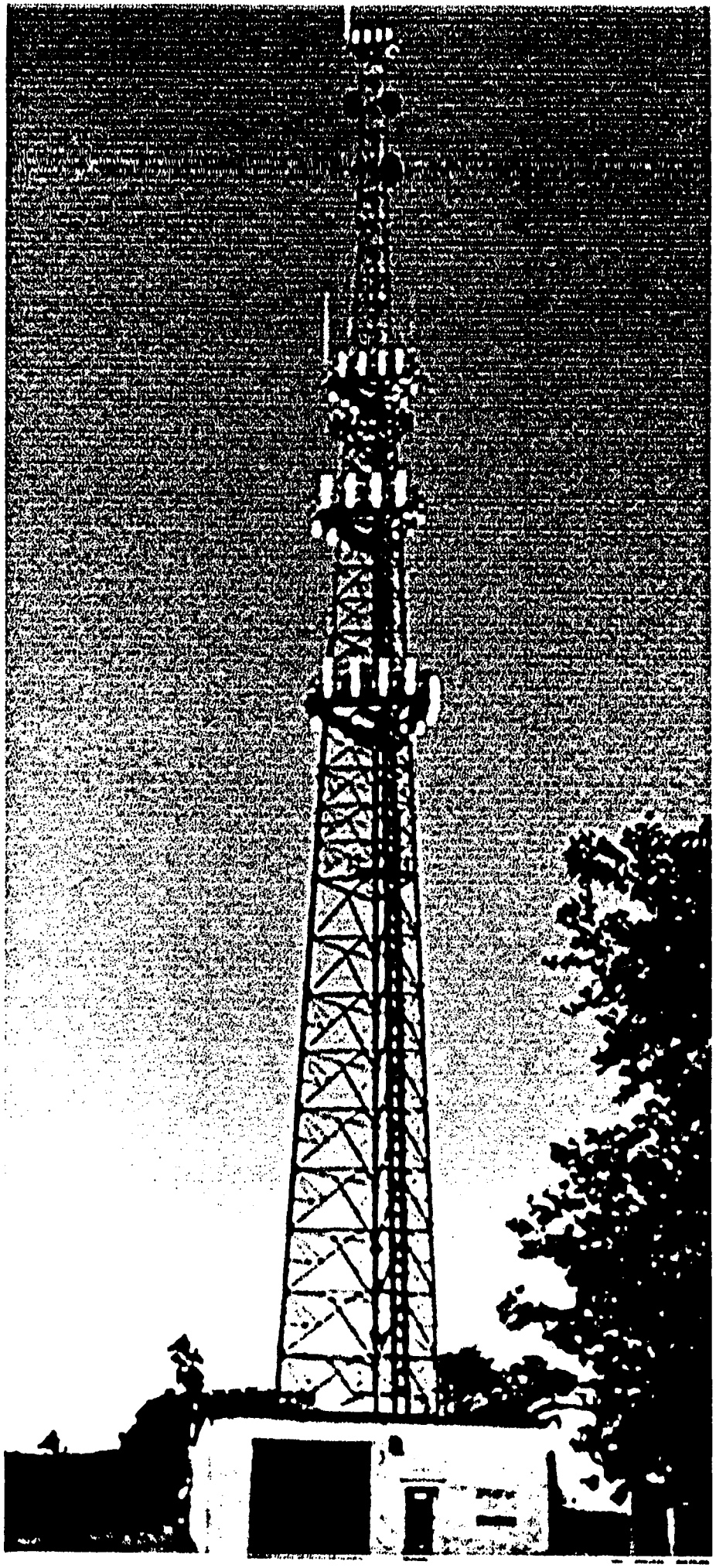
Marina
Cedar Creek
Burr Creek
Ash Creek
SEASIDE PARK
UNIVERSITY OF BRIDGEPORT
Heliport
Navy Reserve Center
Sewage Disposal
Police and Fire Sta
Library
St Anns Sch
Longfellow Sch
St Stephens Sch
Whittier Sch
Holland Hill Sch
Fire Sta
Nathan Hale Sch
Roosevelt Sch
Park City Hospital
Sacred Heart Sch
Playground
St Anthonys Sch
High Sch
Howe Sch
Jefferson Sch
Army Reserve Center
Grasmere Sch
Park
Cem
CEMETERY
Conveyor
Cooks Pt
INTERCHANGE 22
INTERCHANGE 23
INTERCHANGE 24
INTERCHANGE 25
INTERCHANGE 26
INTERCHANGE
PENN CENTRAL RAILROAD
4 TRACKS
CONNECTICUT TOLL ROAD
TURNPIKE
BARNUM BLVD
SEAWALL
WALDEMERE
ATLANTIC
Tidal Flat
Light
Rock
NORWALK 9 MI.
1 MI. TO INTERCHANGE 21
STAMFORD 19 MI.
WESTPORT 6 MI.
4559
10′
4558
4555
110 000
FEET



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
ANTENNA STRUCTURE REGISTRATION

Owner: PAGING ASSOICATES, INC.

PAGING ASSOICATES, INC. 24 ROCKDALE ROAD WEST HAVEN, CT 06516	Registration Number: 1200672
	Issue Date: 07-30-1999
Location of Antenna Structure: 623 PINE STREET BRIDGEPORT, CT	Ground Elevation (AMSL): 4.6 meters Overall Height Above Ground (AGL): 84.4 meters
Latitude: 41-9-58.3N Longitude: 73-13-1.4W NAD83	Overall Height Above Mean Sea Level (AMSL): 89.0 meters

Painting and Lighting Requirements:

FAA Chapters 4, 6, 13
Paint and Light in Accordance with FAA Circular Number 70/7460-1J

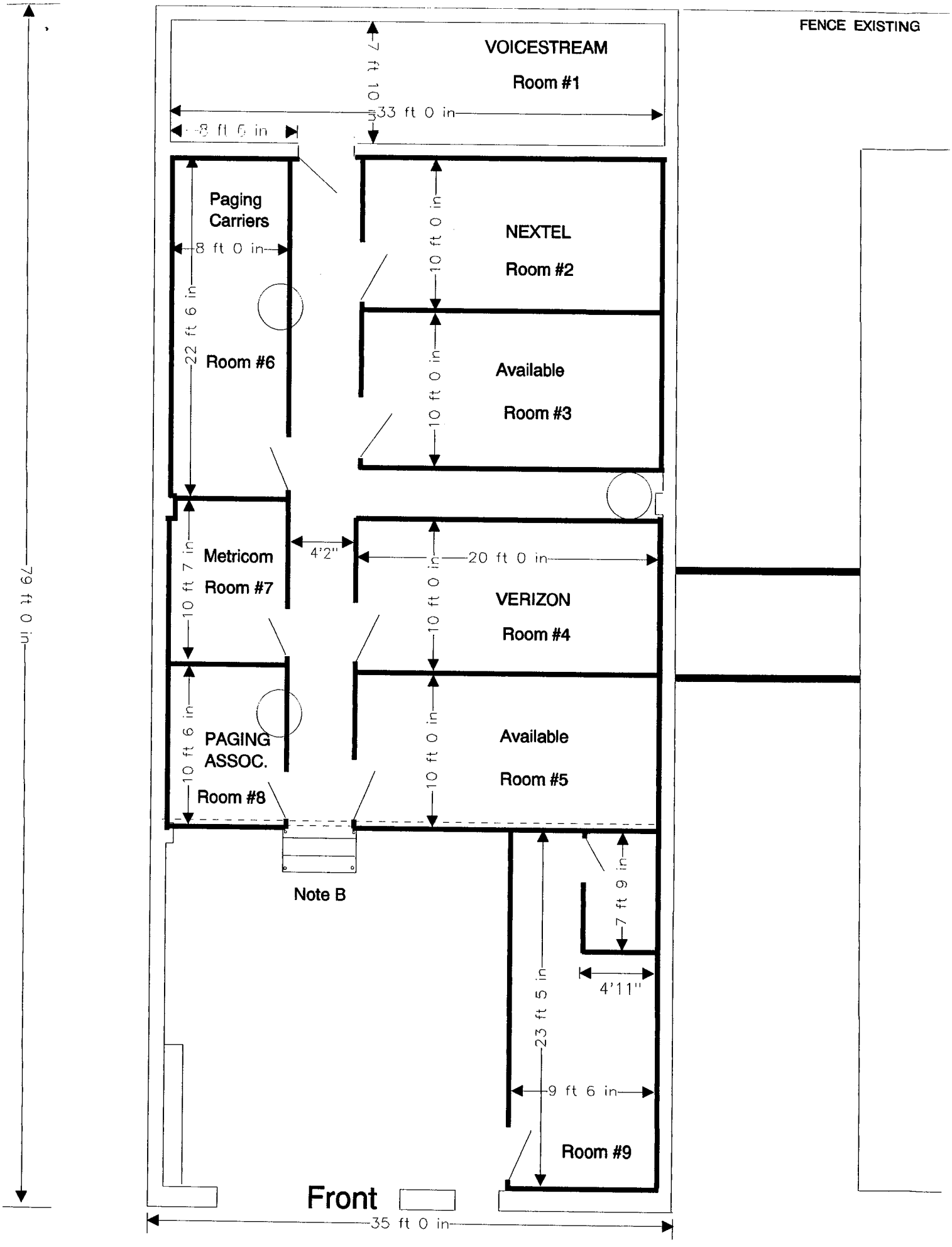
Special Conditions:

This registration is effective upon completion of the described antenna structure and notification to the Commission. **YOU MUST NOTIFY THE COMMISSION WITHIN 24 HOURS OF COMPLETION OF CONSTRUCTION OR CANCELLATION OF YOUR PROJECT.** Use FCC Form 854. To file electronically, connect to the antenna structure registration system by pointing your web browser to http://www.fcc.gov/wtb/antenna. Electronic filing is recommended. You may also file manually by submitting a paper copy of FCC Form 854. Use purpose code "NT" for notification of completion of construction; use purpose code "CA" to cancel your registration.

The Antenna Structure Registration is not an authorization to construct radio facilities or transmit radio signals. It is necessary that all radio equipment on this structure be covered by a valid FCC license or construction permit.

You must immediately *provide* a copy of this Registration to all tenant licensees and permittees sited on the structure described on this Registration (although not required, you may want to use Certified Mail to obtain proof of receipt), and *display* your Registration Number at the site. See reverse for important information about the Commission's Antenna Structure Registration rules.

FCC 854R
July 1999


FENCE EXISTING
VOICESTREAM
Room #1
7 ft 10 in
33 ft 0 in
8 ft 0 in
Paging
Carriers
8 ft 0 in
22 ft 6 in
Room #6
NEXTEL
Room #2
10 ft 0 in
Available
Room #3
10 ft 0 in
Metricom
Room #7
10 ft 7 in
4'2"
20 ft 0 in
VERIZON
Room #4
10 ft 0 in
PAGING
ASSOC.
Room #8
10 ft 6 in
Available
Room #5
10 ft 0 in
Note B
7 ft 9 in
4'11"
23 ft 5 in
9 ft 6 in
Room #9
Front
35 ft 0 in
79 ft 0 in

Amended Construction Notes
Interior Room Layout
623 Pine Street
Bridgeport, CT 06605

May 19, 2000

General Notes:

1) Unless otherwise specified, all interior doors are 42" x 84" hollow metal doors.

2) Interior walls (shown in dark outline), partitions using 2"x4"x10' steel studs, ½ sheetrock, non kraft face insulation in walls, suspended ceiling, 2'x2' grid basic acoustical tile. Area above suspended ceiling open.

3) All work internal to building, exterior to remain undisturbed.

Note A: Existing interior cement floor / room backfilled to allow for 6" new cement floor at same grade as interior floor. Concrete is a 3000 psi mix with nonreactive 3/4" aggregate and welded wire fabric reinforcement. Interior connection to corridor shown, existing connection closed with 12" block.

Note B: Internal ramp replaced with steps. Rails and steps typical of ST-7/1

Note C: Interior doors 36" x 84" hollow metal doors.

623 Pine Street, Bridgeport, CT
Transmitter Power Density Information
Frequency / ERP / Antenna Type / Azmuth / Elevation
6/7/00

Frequency	Radiation Center AGL	ERP Watts	Antenna Type	Azmuth/Omni	Location
471.6875	272'	500	DB640	Omni	G-T
451.2750	272'	500	DB640	Omni	G-T
451.7250	272'	500	DB640	Omni	G-T
452.0500	272'	500	DB640	Omni	G-T
452.2500	272'	500	DB640	Omni	G-T
452.6250	272'	500	DB640	Omni	G-T
453.0000	272'	500	DB640	Omni	G-T
454.0750	260'	210	(2) CL-400	57 & 323 deg.	A
929.6625	267'	3500	DB806M	Omni	P-T
929.7625	267'	3500	DB806M	Omni	P-T
929.7125	267'	3500	DB806M	Omni	M-T
162.0000	272'	500	DB268	Omni	J-T
13.6 GHz	245'	500	6' Dish	236.4 deg.	P
TV CH 28	101'	44300	(8) CL-1483	330 deg.	Small Tower
TV CH 65	260'	1260	4DR-4-2HW	255 deg.	J
Verizon	110'				P,D,J
Omnipoint	180'				P,D,J

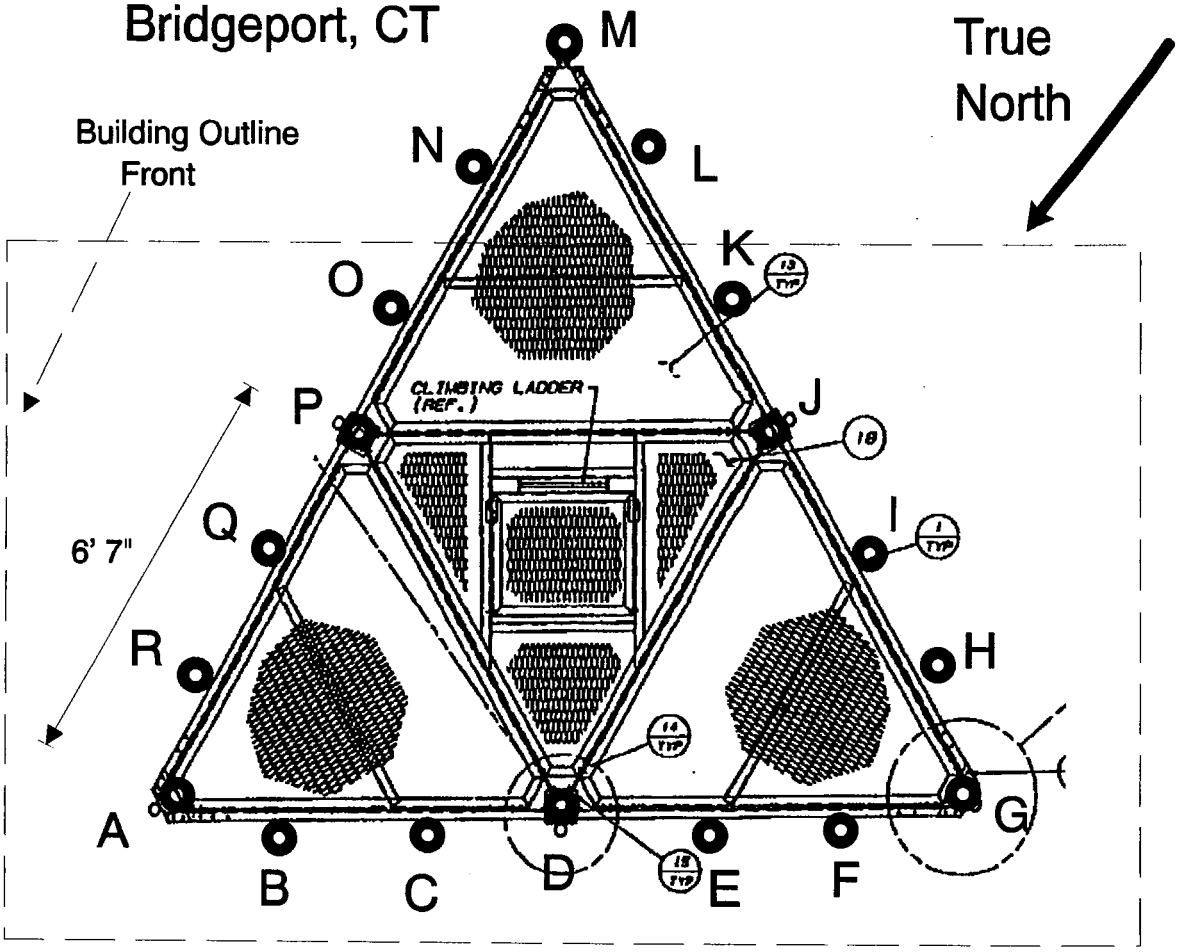
Note: TV CH 28 operational now will be removed from the small co-located tower and turned off sometime this summer. It is not anticipated that the antenna array will be moved to the new tower. At the same time TV 28 goes off, TV 65 will turn on. Actual TV 65 ERP power level will be less than specified, but no greater.

Additional Receive Antennas:

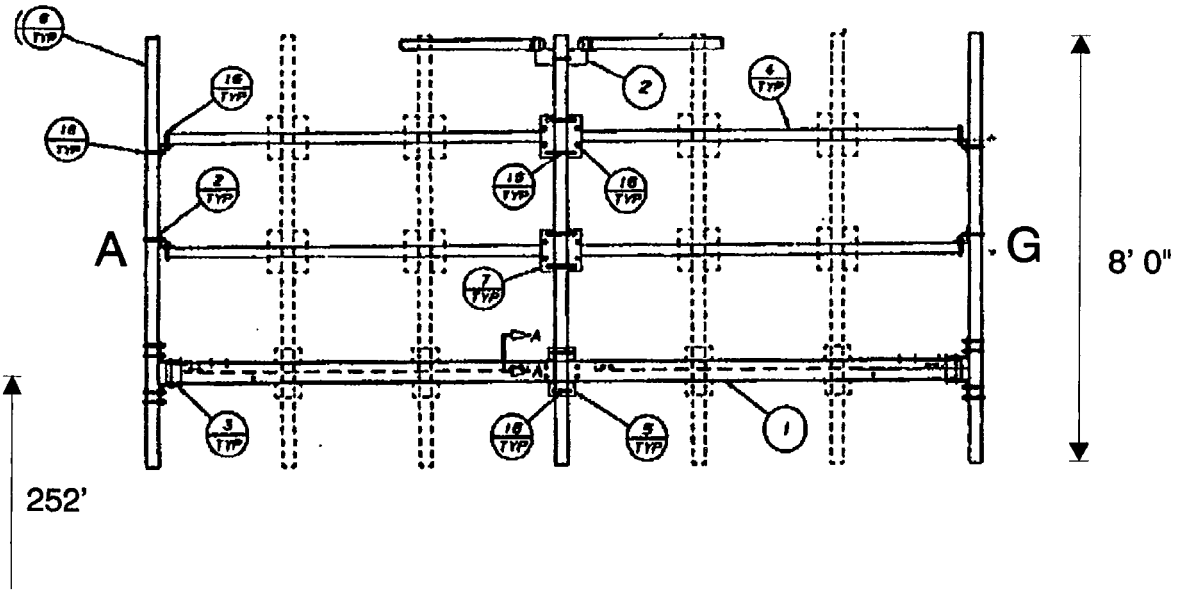
450-480	242'		DB640	Omni	G-I
806-940	225'		DB806	Omni	D
806-940	225'		DB806	Omni	P
450-470	208'		DB436	236.4 deg.	D

Note: Antennas shown above are either the exact type or may be fully equivalent.

Top Platform Mounting Positions
Bridgeport, CT



Note: Locations will be known as -T for top and -I for inverted.
Locations P,D, and J have no inverted locations.
Locations P,D, and J will be refered to as mounting legs.



Tower Structural Engineering Requirements

The tower in its present form is well below structural capacity for the top 56 feet.

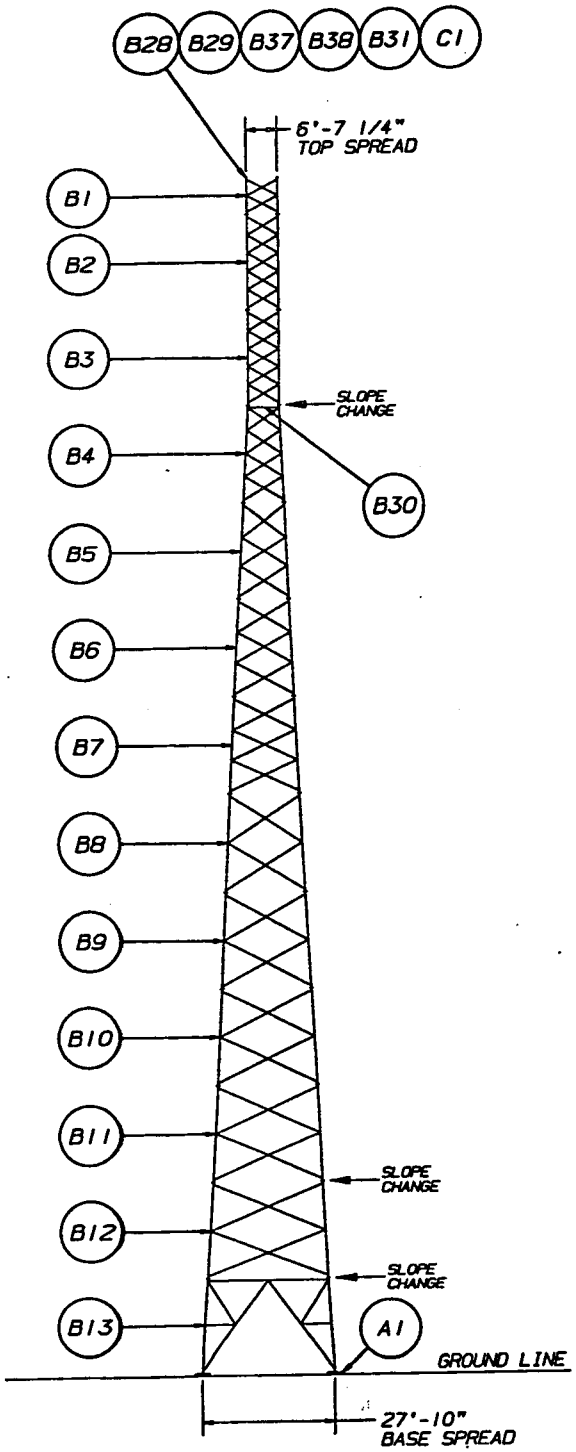
To maintain tower integrity for the top 56', the original tower design loading criteria should be used rather than the actual loading given above.

The initial design specifications for the top 56' are as shown on drawing number C990850.

Locations to be considered fully loaded are : Top, 230', and 200' with the cables specified.

Major carrier antenna arrays must be designed to provide for a minimum of structural loading.

TOWER HT. = 250'



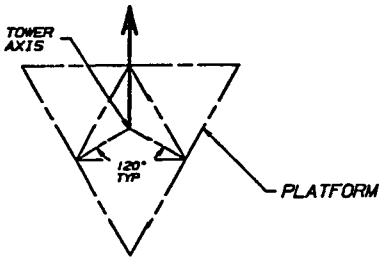
TOWER DESIGN LOADING

DESIGN WIND LOAD PER ANSI/TIA/EIA-222-F-1996, 85 MPH BASIC WIND SPEED (1/2" RADIAL ICE LOAD), GH & KZ PER ASCE 7-93 EXPOSURE 'D'.
THIS TOWER IS DESIGNED TO SUPPORT THE FOLLOWING LOADS:

ELEV-ATION (FT)	ANTENNA TYPE	E.P.A. (SF) NO ICE	E.P.A. (SF) W/ICE	LINE SIZE
TOP	(12)DB878H ANTENNAS W/CELLULAR PLATFORM	105.0 (TOTAL)	114.0 (TOTAL)	(12)1-1/4"
230	(2)10' STD DISHES W/RADOME [0] & [180]	119.7 (TOTAL)	119.7 (TOTAL)	(2)1-5/8"
200	10' STD DISH W/RADOME [0]	70.6	70.6	(1)1-5/8"
150	(12)ALP9212 ANTENNAS W/15' LEG MOUNTING FRAMES	114.0 (TOTAL)	139.0 (TOTAL)	(12)1-5/8"
130	(12)ALP9212 ANTENNAS W/15' LEG MOUNTING FRAMES	114.0 (TOTAL)	139.0 (TOTAL)	(12)1-5/8"
110	(12)ALP9212 ANTENNAS W/15' LEG MOUNTING FRAMES	114.0 (TOTAL)	139.0 (TOTAL)	(12)1-5/8"

NOTE: ANTENNA AZIMUTH IS SHOWN IN DEGREES WITHIN THE [BRACKETS]

(0° SEE NOTE #29)



TOWER AND PLATFORM CONFIGURATION
N.T.S.

FOR GENERAL NOTES SEE DWG. NO.: CT990850,1-2
FOR BILL OF MATERIAL SEE DWG. NO.: CM990850,1-2

TOWER REACTIONS

COMPRESSION = 524.8 KIPS
TENSION = 460.5 KIPS
TOTAL SHEAR = 93.1 KIPS
O.T.M. = 11758.6 FT-KIPS

TOWER SITE: BRIDGEPORT, CT
COUNTY: FAIRFIELD

Pt 133923

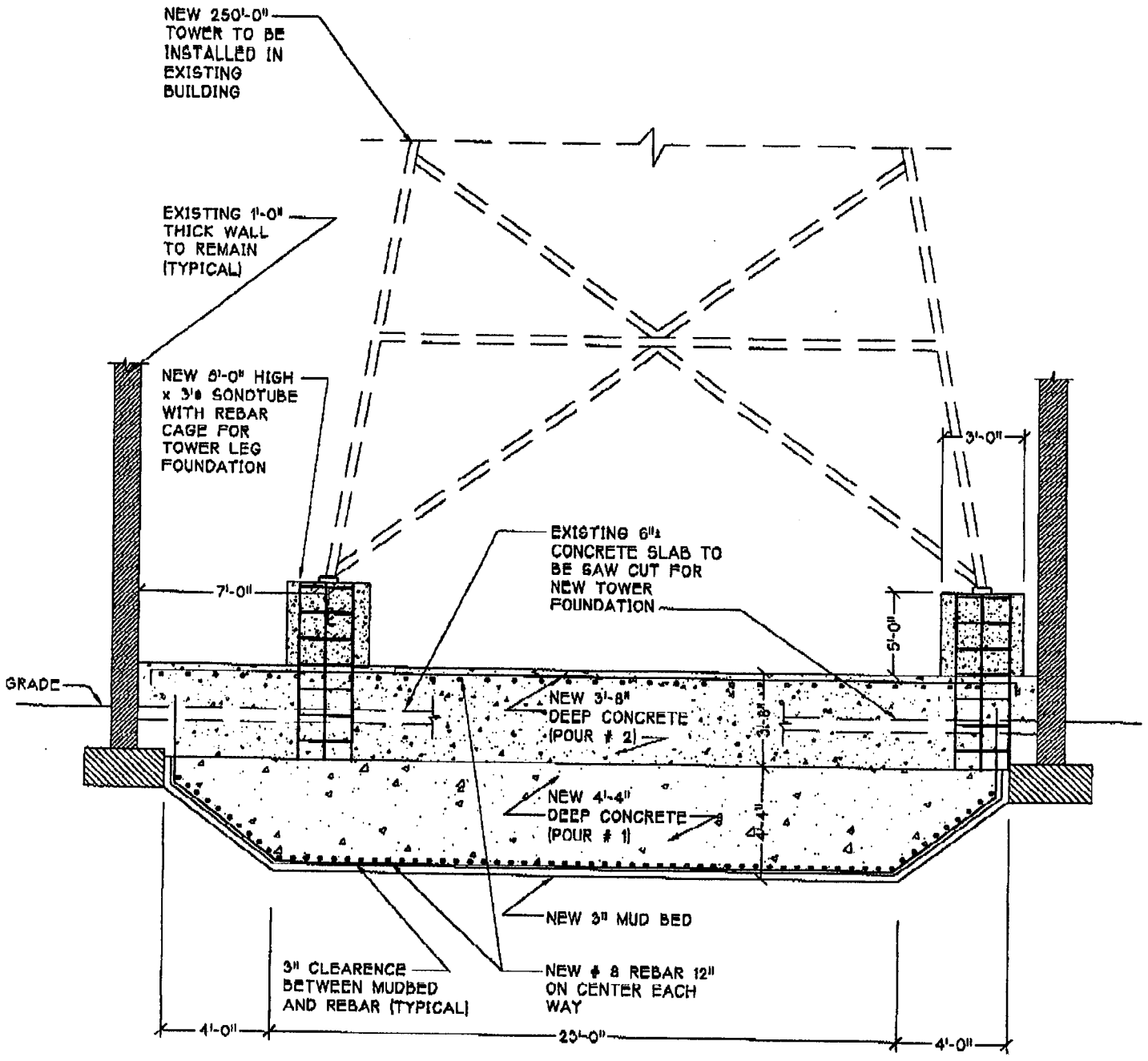
No.	Revision Description	Date	Rev By	Ckd By	Appd By

ROHN

	By	Date
Scale: NONE		
Drawn:	JHN	3-22-99
Checked:	[illegible]	3/24/99
App. Eng.:	[illegible]	3/25/99
Parent File:		

250' SSVMW TOWER ASSEMBLY
FOR RADIO COMMUNICATIONS SERVICE CO.

ENG. FILE: 37679AE
DWG. NO.: C990850
SHEET 1 OF 1
REV.

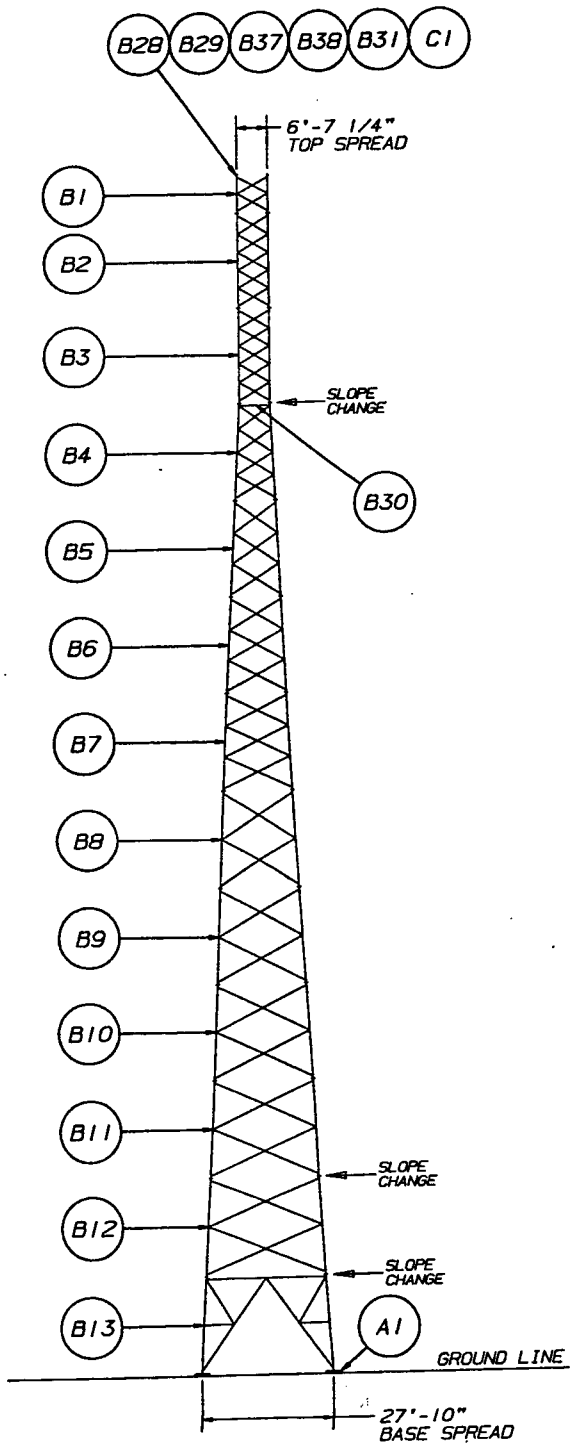


1 / ST-2 SECTION

SCALE 3/16 = 1'-0"

KM Consulting Engineers, Inc. Multi-Disciplined Engineering and Project Management. P.O. Box 7828 Ewing, New Jersey 08628 (609) 818-0800 FAX (609) 818-0844	Drawing Title: FOUNDATION DETAIL	Project: BRIDGEPORT TOWER	
	Client: RADIO COMMUNICATIONS SERVICES COMPANY	Address: 623 PINE STREET BRIDGEPORT, CT	
Search Area: BRIDGEPORT CT Site ID No.	P.E.: LE / Chkd. by	Project No.: 980610 / Drawn: TLo / Date	Approved by: OWNER/SAC: DATE: R.F. ENGR.: DATE: NETWORK: DATE:
			Revision No. / Date
			Drawing No.: ST-2

TOWER HT. = 250'



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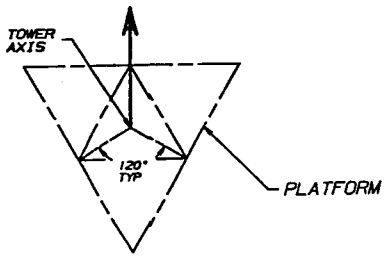
230	(2)10' STD DISHES W/RADOME [0] & [180]	119.7 (TOTAL)	119.7 (TOTAL)	(2)1-5/8"
200	10' STD DISH W/RADOME [0]	70.6	70.6	(1)1-5/8"
150	(12)ALP9212 ANTENNAS W/15' LEG MOUNTING FRAMES	114.0 (TOTAL)	139.0 (TOTAL)	(12)1-5/8"
130	(12)ALP9212 ANTENNAS W/15' LEG MOUNTING FRAMES	114.0 (TOTAL)	139.0 (TOTAL)	(12)1-5/8"
110	(12)ALP9212 ANTENNAS W/15' LEG MOUNTING FRAMES	114.0 (TOTAL)	139.0 (TOTAL)	(12)1-5/8"
NOTE: ANTENNA AZIMUTH IS SHOWN IN DEGREES WITHIN THE [BRACKETS]				

(0° SEE NOTE #29)



TOWER AND PLATFORM CONFIGURATION
N.T.S.

FOR GENERAL NOTES SEE DWG. NO.: CT990850,1-2
FOR BILL OF MATERIAL SEE DWG. NO.: CM990850,1-2

TOWER REACTIONS	
COMPRESSION =	524.8 KIPS
TENSION =	460.5 KIPS
TOTAL SHEAR =	93.1 KIPS
O.T.M. =	11758.6 FT-KIPS

TOWER SITE: BRIDGEPORT, CT
COUNTY: FAIRFIELD

Pt 133923

No.	Revision Description	Date	Rev By	Ckd By	Appd By

ROHN

Scale: NONE	By	Date
Drawn:	JHN	3-22-99
Checked:		3/24/99
App. Eng.:		3/25/99
Parent File:		

250' SSVMW TOWER ASSEMBLY FOR RADIO COMMUNICATIONS SERVICE CO.

ENG. FILE: 37679AE

DWG. NO.: C990850

SHEET 1 OF 1

REV.

Bill of Material for C990850ANC B.O.M A-BOLTS AND TEMP 250' SSVMW

Item	Qty	Part-No	Description	Dwg.No.
A1	1	481X78AB	ANCHOR BOLT ASSY 48-1X78&21LT	N/A
A2	1	A971682	ANCHOR BL 16HOLE FS 27'-10"	A971682
A3	1	A810214	FOUNDATION & ANCHOR TOLERANCE	A810214
A4	1	B730521	ANCHOR BOLT TEMPLATE INSTALLATION	B730521

Bill of Material for C990850LAB TOWER ASSY SSVMW 250' L/AB'S & TEMP.

Item	Qty	Part-No	Description	Dwg.No.
B1	1	7N4933S	SECTION ASSY 7N 8'3STD L1.75 3STEP LEGS	A920876
B2	1	7N6753S	SECTION ASSY 7N 20'3EH L2 3STEP LEGS	A953240
B3	1	7N7953S	SECTION ASSY 7N 20'4EH L2 3STEP LEGS	A972791
B4	1	8N4353S	SECTION ASSY 8N 20'5EH L2 3STEP LEGS	A953179
B5	1	9N4023S	SECTION ASSY 9N 20'6EH L2.5 3STEP LEGS	A972511
B6	1	10N2743S	SECTION ASSY 10N 20'6EH L3 3STEP LEGS	A952343
B7	1	11N2423S	SECTION ASSY 11N 20'6EH L3 3STEP LEGS	A941285
B8	1	12N148	SECTION ASSY 12N 20'8EHS L4X.38"	A991138
B9	1	13N135	SECTION ASSY 13N 20'8EH L4X.31	A973159
B10	1	14N113	SECTION ASSY 14N 20'10EH 5X.38	A972635
B11	1	15N96	SECTION ASSY 15N 20'10EH L5X.38	A973160
B12	1	16NH41MW	SECTION ASSY 16NHMW 20'10EH L5	B971727
B13	1	MWK101	SECTION ASSY MWK 20'10EH BASE	B910823
B14	1	WY7740A	LADDER ASSY 20' STD INS CORMWK	C940699
B15	4	VY3093A	LADDER ASSY 20' STD INS COR L1.5"-2.5"	C821692
B16	1	VY3092A	LADDER ASSY 10' STD INS COR L1.5"-2.5"	C821692
B17	4	VY3095A	LADDER ASSY 20' STD INS COR L3.0"-4.0"	C821692
B18	3	VY4998A	LADDER ASSY 20' STD INS COR L5X.38	C821692
B19	3	BGK8G	KIT BASE GRD SSV 1"AB 4SOL TIN	C731105
B20	11	WL20F154KD	LADDER ASSY W/G FACE 20'.75.44	C901818, 1819
B21	2	WL10F154KD	LADDER ASSY W/G FACE 10'.75.44	C901818, 1819
B22	14	KY695	CLIP ASSY 1.75-2.5" ANGLE BRACE LADORW/G	N/A
B23	6	KY697	CLIP ASSY 3" ANGLE BRACE LADORW/G	N/A
B24	4	KY1287A	CLIP ASSY 3.5-4" ANGLE LADORW/G	N/A
B25	6	WY7729A	CLIP ASSY W/G LAD L5X5X.38"	N/A
B26	1	WY3080A	CLAMP ASSY W/G LAD F/1.5-2.38"	N/A
B27	1	WY3081A	CLAMP ASSY W/G LAD F/2.88-3.5"	N/A
B28	1	VX2527A	PLATFORM ASSY FULL 7NST CELLUL	D910968
B29	1	VY3434A	LEG STUB MNT ASSY 2EHX9.63"	*B840789
B30	1	VB831A	GIRT ASSY 8N L2X.13" .63"BOLT TOP CLIP	D880698
B31	12	VX2528A8	MAST ASSY ANTENNA 2EHX8'PIPE	D910968
B32	1	ACWS	SIGN ANTI-CLIMB WARNING ASSY	N/A
B33	1	A790135	BOLT ASSY DRAWING	A790135
B34	1	B651264	STEPBOLT DETAIL	B651264
B35	1	B691111	GROUTING&DRAINAGE DETAILS MW	B691111
B36	1	NL10	LADDER 10' STD 1.13'WIDE 15"OC	*SK680905
B37	1	KH1195	PIPE 2EHX10.0' HDG	*B790909
B38	1	APL1258UM	PLATE ASSY MID BEAC UNIV1.25-8	C911782

* Fabrication drawings, if referenced, are for shop use only.

No.	Revision Description	Date	Rev By	Ckd By	Appd By

ROHN

Scale: NONE	By	Date
Drawn:	JHN	03/24/99
Checked: C	SRH	3/24/99
App. Eng.:	JS	3/25/99

Title: **BILL OF MATERIALS FOR RADIO COMMUNICATIONS SERVICE CO.**

ENG. FILE: 37679AE DRAWING NO.: CM990850-1

Bill of Material for C990850SD B.O.M SAFETY DEVICE 250' SSVMW

Item	Qty	Part-No	Description	Dwg.No.
C1	1	A790135	BOLT ASSY DRAWING	A790135
C2	1	RL260LAD	SAFETY DEVICE,ROHN-LOC/LADDERS	C741170
C3	1	VY1423	RESTRAINT ASSY SAFETY CABLE	B790421

* Fabrication drawings, if referenced, are for shop use only.

No.	Revision Description	Date	Rev By	Ckd By	Appd By

ROHN

Scale: NONE	By	Date
Drawn:	JHN	03/24/99
Checked:	SRH	3/24/99
App. Eng.:	TS	3/25/99

Title: **BILL OF MATERIALS FOR RADIO COMMUNICATIONS SERVICE CO.**

ENG. FILE: 37679AE

DRAWING NO.: CM990850-2

General Notes

1. ROHN communication tower designs conform to ANSI/TIA/EIA-222-F unless otherwise specified under tower design loading.
2. Antennas and lines listed in tower design loading table are provided by others unless otherwise specified.
3. The design loading criteria indicated has been provided to ROHN. The design loading criteria has been assumed to be based on site-specific data in accordance with ANSI/TIA/EIA-222-F and must be verified by others prior to installation.
4. See individual section assembly drawings for part numbers and section assembly details.
5. Step bolts are provided on all three legs for all sections.
6. Refer to the latest revisions of the drawings shown in the bill of materials.
7. Pal nuts are provided for all tower and anchor bolts (see DWG. A790135).
8. The leg part number is stamped at the bottom of each leg of each section.
9. Design assumes level grade at tower site.
10. Work shall be in accordance with ANSI/TIA/EIA-222-F, "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures".
11. Tolerance on tower steel height is equal to plus 1% or minus 1/2%.
12. Purchaser shall verify the installation is in conformance with local, state, and federal requirements for obstruction marking and lighting.
13. Tower member design does not include stresses due to erection since erection equipment and conditions are unknown. Design assumes competent and qualified personnel will erect the tower.
14. Design assumes that, as a minimum, maintenance and inspection will be performed over the life of the structure in accordance with ANSI/TIA/EIA-222-F.
15. Tower and platform orientation to be provided by others.
16. Design assumes DB & ALP type antennas are mounted symmetrically to minimize torque.
17. Design assumes that antenna transmission lines and (5) waveguide ladders are evenly distributed over three tower faces.
18. One 15-hole waveguide ladder with 4'-0" on center rung spacing is provided from 10'± elevation to top of tower for snap-on hangers. (Four waveguide ladders are future.) (Mount on outside face of tower)
19. Standard inside corner mounted climbing ladder with ROHN-LOC safety device is provided for climbing the entire tower height.
20. Foundations must be designed per a site-specific soils report to support the reactions shown.

ROHN®

Scale: none	By	Date
Drawn:	JHN	3-22-99
Checked:	SRH	3/24/99
App. Eng.:	TS	3/25/99
App. Sales:		

Title: General Notes for Radio Communications Service Co.

Eng. File: 37679AE

Drawing No.: CT990850-1

General Notes

21. Tower lighting, provided by others, must meet all applicable codes.
22. Dish mounts are to be provided by others.
23. 15' leg mounting frames are to be provided by others.
24. Numbers shown in balloons denote item numbers in bill of material.
25. Waveguide lines are to be placed on the inside face or outside face of tower as recommended by customer to facilitate future installation of transmission lines.
26. Climbing ladder assy P/N VY4998A is the same as VY3095A (dwg. C821692) except that (2) P/N H183 ladder clips replace (2) P/N H17A ladder clips. (4) P/N J164A j-bolt assy's replace (4) P/N J51A j-bolt assy.
27. Rohn shall have the option to review final dish locations, azimuths and mounts to verify that assumed torque values and local stresses are not exceeded.
28. Dish azimuths shown are nominal azimuths used for design. Actual azimuths (to be determined by others) must not result in increased design loads.
29. The tower azimuth shown is a relative azimuth used to establish the relative position of antennas with respect to the tower for design.
30. Waveguide and climbing ladder sections may require field cutting to proper length after assembly. All field cutting must be repaired with cold galv or zinc rich paint.
31. Tower sections used are identical to drawings referenced except they have 3 step bolt legs and 48 step bolts.
32. Replace (1) p/n KH281 mounting pipe in p/n VX2527A platform assembly with (1) p/n KH1195 10' lg. mounting pipe for APL1258UM beacon plate assembly.

ROHN®

Scale: none	By	Date
Drawn:	JHN	3-22-99
Checked:	SRH	3/24/99
App. Eng.:	JT	3/25/99
App. Sales:		

Title: General Notes for Radio Communications Service Co.

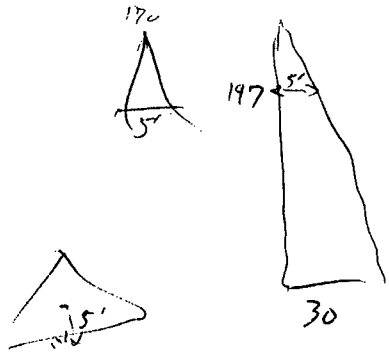
Eng. File: 37679AE

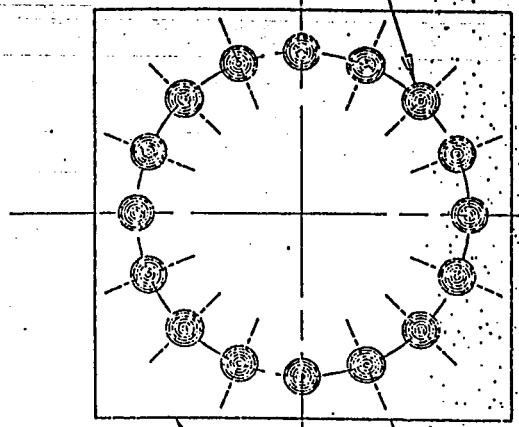
Drawing No.: CT990850-2

Item---------- Description---------- ------Old Wt ----Accum Wt

C990850LAB TOWER ASSY SSVMW 250' L/A 63,358.88

item	quantity	u-m	unit wt.	ext. wt.	galv. wt.	
7N4933S	1.00000	EA	525.60	525.60	525.60	25'
7N6753S	1.00000	EA	1,646.55	1,646.55	1,646.55	24'
7N7953S	1.00000	EA	2,014.89	2,014.89	2,014.89	22'
8N4353S	1.00000	EA	2,534.94	2,534.94	2,534.94	20'
9N4023S	1.00000	EA	3,340.23	3,340.23	3,340.23	18'
10N2743S	1.00000	EA	3,670.23	3,670.23	3,670.23	16'
11N2423S	1.00000	EA	4,155.24	4,155.24	4,155.24	14'
12N148	1.00000	EA	5,619.90	5,619.90	5,619.90	12'
13N135	1.00000	EA	6226.00	0.00	0.00	10'
14N113	1.00000	EA	8,569.89	8,569.89	8,569.89	8'
15N96	1.00000	EA	9,083.29	9,083.29	9,083.29	6'
16NH41MW	1.00000	EA	9,268.14	9,268.14	9,268.14	4'
MWK101	1.00000	EA	7,982.91	7,982.91	7,982.91	2'
WY7740A	1.00000	EA	137.00	137.00	137.00	
VY3093A	4.00000	EA	108.40	433.60	433.60	
VY3092A	1.00000	EA	71.10	71.10	71.10	
VY3095A	4.00000	EA	108.50	434.00	434.00	
VY4998A	3.00000	EA	105.35	316.05	316.05	
BGK8G	3.00000	EA	11.02	33.06	33.06	
WL20F154KD	11.00000	EA	75.16	826.76	826.76	
WL10F154KD	2.00000	EA	40.70	81.40	81.40	
KY695	14.00000	EA	2.14	29.96	29.96	
KY697	6.00000	EA	1.80	10.80	10.80	
KY1287A	4.00000	EA	3.08	12.32	12.32	
WY7729A	6.00000	EA	2.44	14.64	14.64	
WY3080A	1.00000	EA	3.60	3.60	3.60	
WY3081A	1.00000	EA	3.20	3.20	3.20	
VX2527A	1.00000	EA	1,570.93	1,570.93	1,570.93	
VY3434A	1.00000	EA	62.55	62.55	62.55	
VB831A	1.00000	EA	35.64	35.64	35.64	
VX2528A8	12.00000	EA	62.47	749.64	749.64	
ACWS	1.00000	EA	0.06	0.06	0.06	
A790135	1.00000	EA	0.00	0.00	0.00	
B651264	1.00000	EA	0.00	0.00	0.00	
B691111	1.00000	EA	0.00	0.00	0.00	
NL10	1.00000	EA	37.33	37.33	37.33	
KH1195	1.00000	EA	53.21	53.21	53.21	
APL1258UM	1.00000	EA	30.22	30.22	30.22	
				63,358.88	63,358.88	TOTAL





NOTES

1. FOR ANCHOR AND FOUNDATION TOLERANCES REFER TO THE LATEST REVISION OF DWG. NO. A810214.
2. ALL ANCHOR BOLTS SHALL MEET OR EXCEED REQUIREMENTS OF ASTM A354 GR BC AND ARE HOOKED 180° AT THE BOTTOM.
3. WHEN FOUNDATIONS ARE DESIGNED BY OTHERS, IT SHALL BE THE RESPONSIBILITY OF THE PURCHASER'S FOUNDATION ENGINEER TO INSURE THAT THE ANCHORAGES PROVIDED ARE COMPATIBLE WITH THE PROPOSED FOUNDATION DESIGNS AND THAT THE CAPACITIES OF THE ANCHORAGES ARE NOT LIMITED BY THE STRENGTH OF THE FOUNDATIONS.

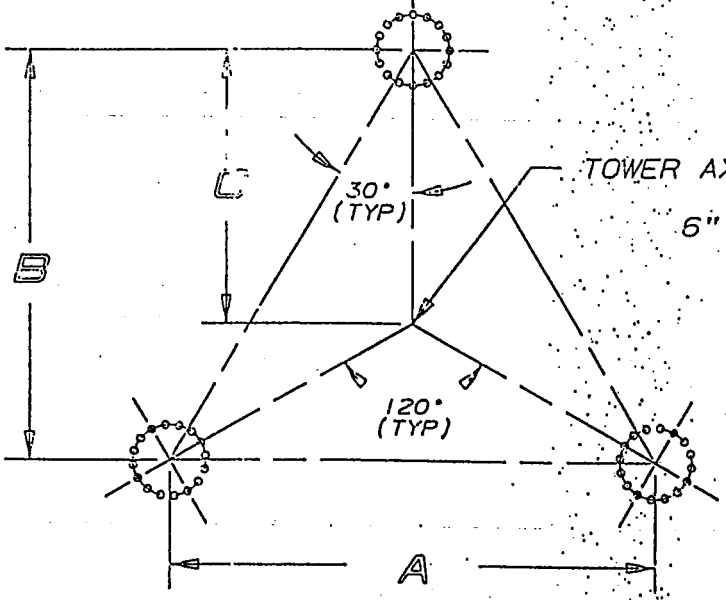
A	B	C
27'-10"	24'-1 1/4"	16'-0 13/16"

FOR ANCHOR BOLT TEMPLATE DETAILS SEE DWG. B730521

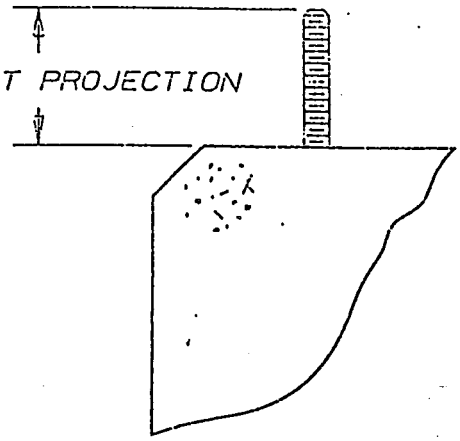
ANCHOR BOLT SETTING TEMPLATE PT. NO. 21LT OR 21LB

22.5°

TO TOWER AXIS



PLAN VIEW



No.	Revision Description	Date	Rev By	Ckd By	Apvd By

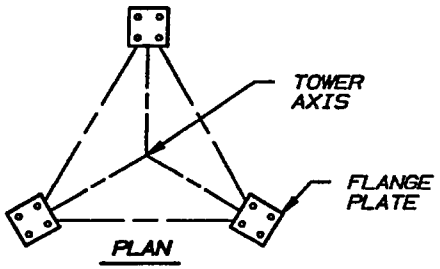
ROHN

	By	Date
Scale: NONE		
Drawn:	JLR	4/24/97
Checked:	JAM	4-30-97
App. Eng.:	TS	12-8-97
App. Sales:		

Title: ANCHOR BOLT LAYOUT

ENG. FILE:

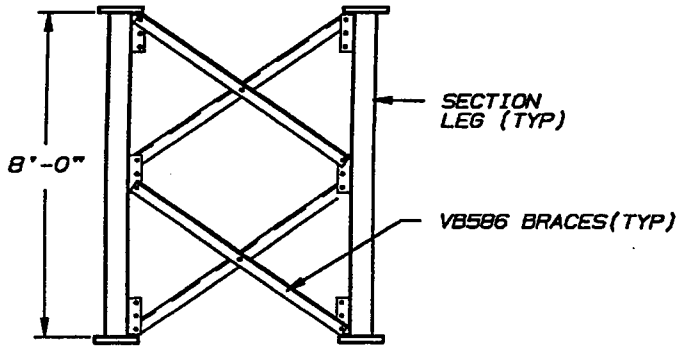
DRAWING NO.: A971682



PLAN

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL2138	LEG (PIPE 3 STD)	B920936
2	1	VL2138S	LEG STEP (PIPE 3 STD)	B920936
3	12	VB586	BRACE DIAGONAL L1-3/4X3/16	B841312
4	30	210029GA	5/8" X 1-1/2" BOLT ASSY (BRACE)	C770404
* 5	12	210063GA	7/8X3-1/2 BOLT ASSY (FLANGES)	C770404



ELEVATION

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
1/2	--	6X6X3/4"	6C	7X7X1"	7J	6'-7 1/4"	6'-8 1/4"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

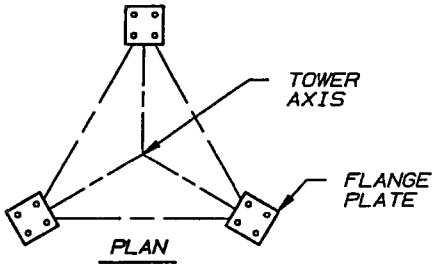
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

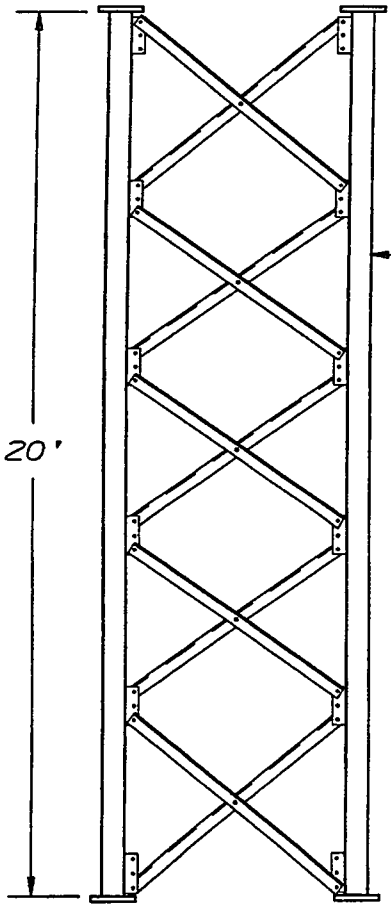
Scale: None	By	Date
Drawn:	KKG	4/1/92
Checked:	KK	4-1-92
App. Eng.:	TS	4-1-92
App. Sales:	JC	4-1-92

Title: ASSEMBLY DETAILS FOR SSV SECTION 7N493

DRAWING NO.: A920876



PLAN



ELEVATION

NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL2398	LEG (PIPE 3EH)	B932831
2	1	VL2398S	STEP LEG (PIPE 3EH)	B932831
3	24	VB132	DIAG. BRACE L 2 X 2 X 1/4	B770463
4	6	VB133	DIAG. BRACE L 2 X 2 X 1/4	B770463
5	75	210030GA	5/8 X 1 3/4 BOLT ASSY (BRACE)	C770404
* 6	12	210063GA	7/8 X 3 1/2 BOLT ASSY (FLANGE)	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
1/2"	---	7X7X1	7D	7X7X1	7J	6' 8-1/4"	6' 9-1/8'

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

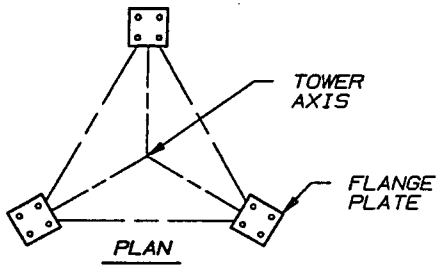
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

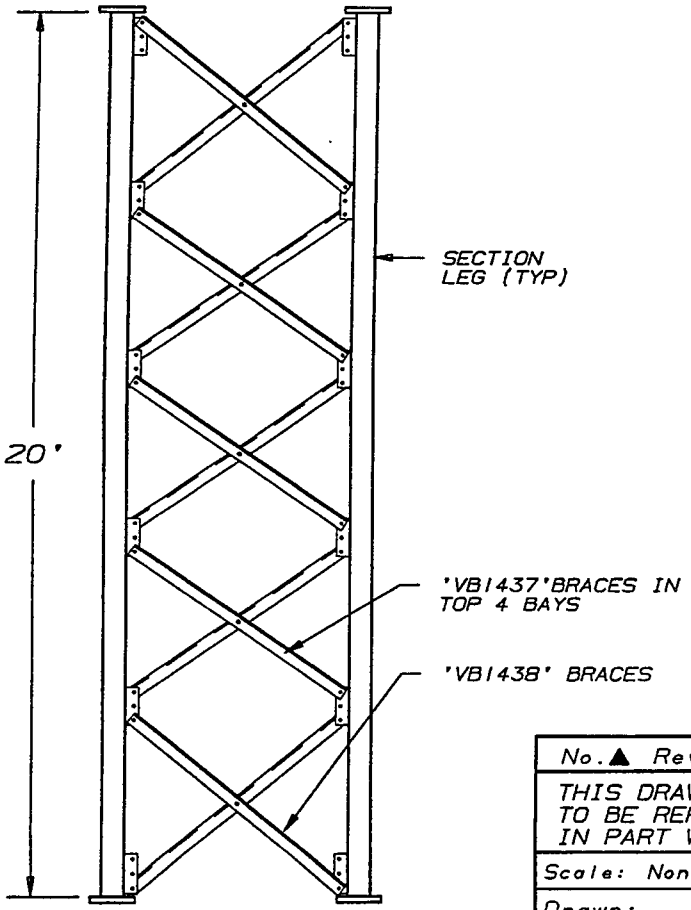
	By	Date
Scale: None		
Drawn:	JAK	12/18/95
Checked:	[illegible]	12-12-95
App. Eng.:	[illegible]	12-12-95
App. Sales:	[illegible]	12-12-95

Title: ASSEMBLY DETAILS FOR SSV SECTION 7N675

DRAWING NO.: A953240



PLAN



ELEVATION

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL2354	LEG (PIPE 4EH)	B932371
2	1	VL2354S	STEP LEG (PIPE 4EH)	B932371
3	24	VB1437	DIAGONAL BRACE (L2 X 2 X 1/4)	B971981
4	6	VB1438	DIAGONAL BRACE (L2 X 2 X 1/4)	B971981
5	75	210030GA	5/8 X 1-3/4 BOLT ASSEMBLY (BRACES)	C770404
* 6	12	210069GA	1 X 4 1/4 BOLT ASSEMBLY (FLANGES)	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
1/2"	3-1/3° REV	7X7X1	7G	9.5X1/4	95B	6'-9 1/8"	6'-10"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

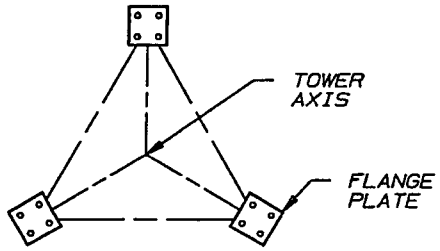
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

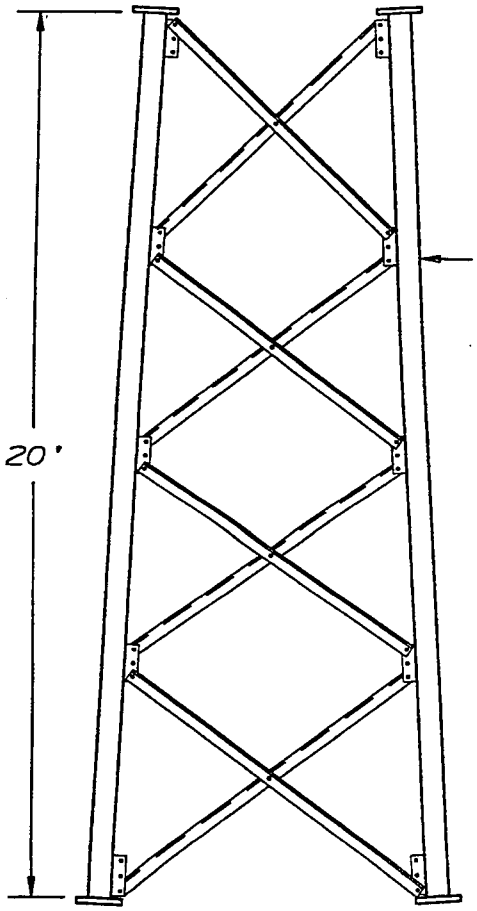
	By	Date
Scale: None		
Drawn:	JLR	8/21/97
Checked: U	WMN	8-28-97
App. Eng.:	TS	8-29-97
App. Sales:	PK	8-30-97

Title: ASSEMBLY DETAILS FOR SSV SECTION 7N795

DRAWING NO.: A972791



PLAN



ELEVATION

NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL2287	LEG (PIPE 5 EH)	B931756
2	1	VL2287S	STEP LEG (PIPE 5 EH)	B931756
3	6	VB128	DIAG. BRACE (L 2X2X1/4)	B770462
4	6	VB129	DIAG. BRACE (L 2X2X1/4)	B770462
5	6	VB130	DIAG. BRACE (L 2X2X1/4)	B770462
6	6	VB131	DIAG. BRACE (L 2X2X1/4)	B770462
7	60	210030GA	5/8" X 1-3/4" BOLT ASSY (BRACE)	C770404
8 *	18	210069GA	1" X 4-1/4" BOLT ASSY (FLANGE)	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
1/2"	N/A	9.5X9.5 X1.25	95C	13.5X13.5 X1.25	135A	6'-10"	8'-11"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

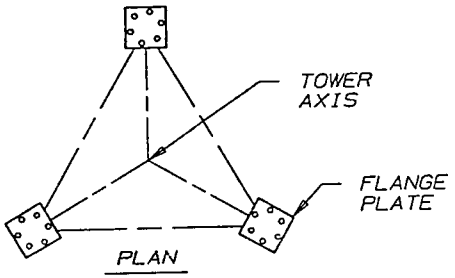
ROHN

Scale: None	By	Date
Drawn:	JAK	11/27/95
Checked: U	KR	11-27-95
App. Eng.:	HA	11-28-95
App. Sales:	JC	11-29-95

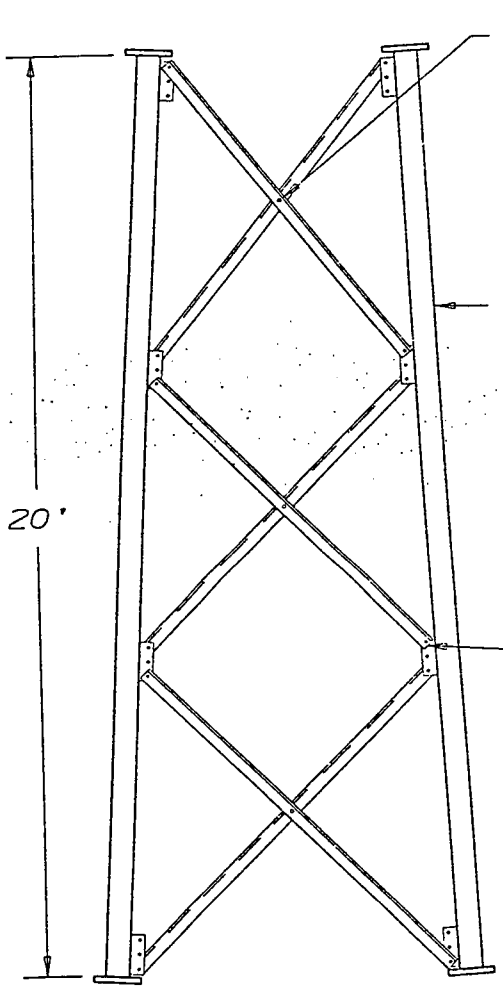
Title:

ASSEMBLY DETAILS FOR SSV SECTION 8N435

DRAWING NO.: A953179



PLAN



ELEVATION

NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

BILL OF MATERIAL

	ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
	1	2	VL2657	LEG (PIPE 6 EH)	B951995
	2	1	VL2657S	STEP LEG (PIPE 6EH)	B951995
	3	6	VB1132	DIAG. BRACE (2.5 X 2.5 X 1/4)	B921187
	4	6	VB1133	DIAG. BRACE (2.5 X 2.5 X 1/4)	B921187
	5	6	VB1134	DIAG. BRACE (2.5 X 2.5 X 1/4)	B921187
	6	9	210046GA	3/4" X 1-3/4" BRACE BOLT ASSY	C770404
	7	36	210047GA	3/4" X 2" BRACE BOLT ASSY	C770404
*	8	18	210069GA	1" X 4-1/4" FLANGE BOLT ASSY	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
----	----	13-1/2X13-1/2 X1-1/4	135B	13-1/2X13-1/2 X1-1/4	135B	8'-11"	10'-11"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

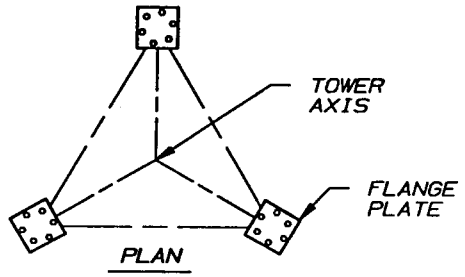
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

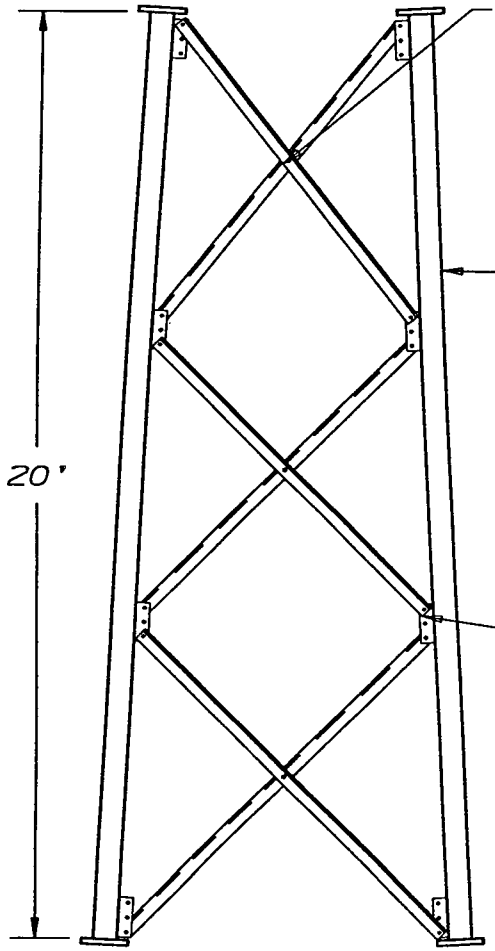
	By	Date
Scale: None		
Drawn:	JLR	7/22/97
Checked: U	JDM	7-25-97
App. Eng.:	TS	7-29-97
App. Sales:	DAK	7-29-97

Title: ASSEMBLY DETAILS FOR SSV SECTION 9N402

DRAWING NO.: A972511



PLAN



ELEVATION

NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL2657	LEG (PIPE 6EH)	B951995
2	1	VL2657S	STEP LEG (PIPE 6EH)	B951995
3	6	VB1129	DIAG. BRACE (3 X 3 X 1/4)	B921189
4	6	VB1130	DIAG. BRACE (3 X 3 X 1/4)	B921189
5	6	VB1131	DIAG. BRACE (3 X 3 X 1/4)	B921189
6	9	210046GA	3/4" X 1-3/4" BRACE BOLT ASSY	C770404
7	36	210047GA	3/4" X 2" BRACE BOLT ASSY	C770404
* 8	18	210069GA	1" X 4-1/4" FLANGE BOLT ASSY	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
----	----	13-1/2X13-1/2 X1-1/4	135B	13-1/2X13-1/2 X1-1/4	135B	10'-11"	12'-11"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

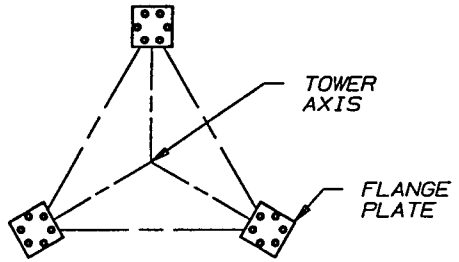
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

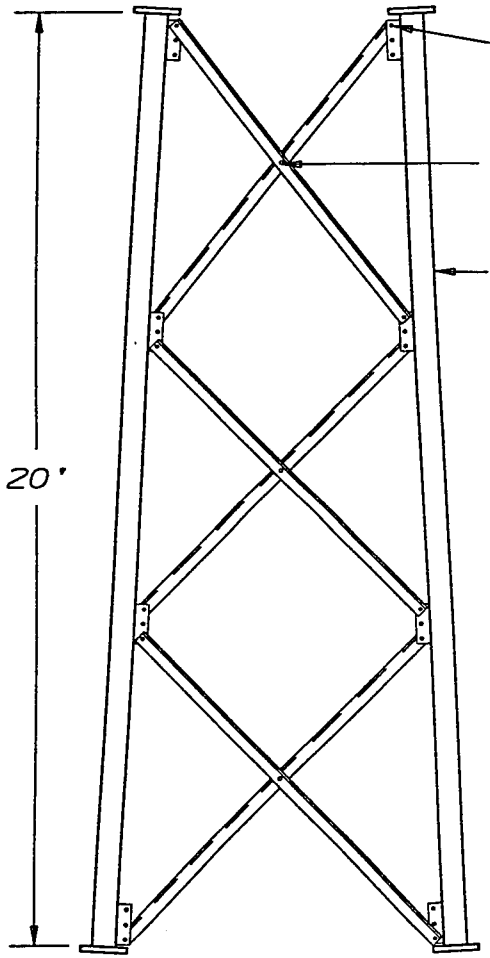
Scale: None	By	Date
Drawn:	BRT	8/9/95
Checked:	[illegible]	8/15/95
App. Eng.:	[illegible]	8/16/95
App. Sales:	JC	8-16-95

Title: ASSEMBLY DETAILS FOR SSV SECTION 10N274

DRAWING NO.: A952343



PLAN



NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

ELEVATION

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL2454	LEG 6EH PIPE	B941581
2	1	VL2454S	STEP LEG 6EH PIPE	B941581
3	6	VB87	DIAG. BRACE (3 X 3 X 1/4)	B760803
4	6	VB88	DIAG. BRACE (3 X 3 X 1/4)	B760803
5	6	VB89	DIAG. BRACE (3 X 3 X 1/4)	B760803
6	36	210047GA	3/4" X 2" BOLT ASSY (BRACES)	C770404
7 *	24	210164GA	1" X 5-3/4" BOLT ASSY	C770404
8	9	210046GA	3/4"X 1-3/4" BOLT ASSY (CENTER OF BRACE)	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE							SPREAD	
		TOP		BOTTOM				
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N		TOP	BOTTOM
1/2"	N/A	13.5X13.5X 1.25	135B	17X17X2	17N		12'-11"	14' 11-7/8"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

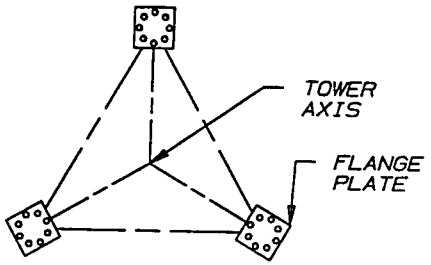
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

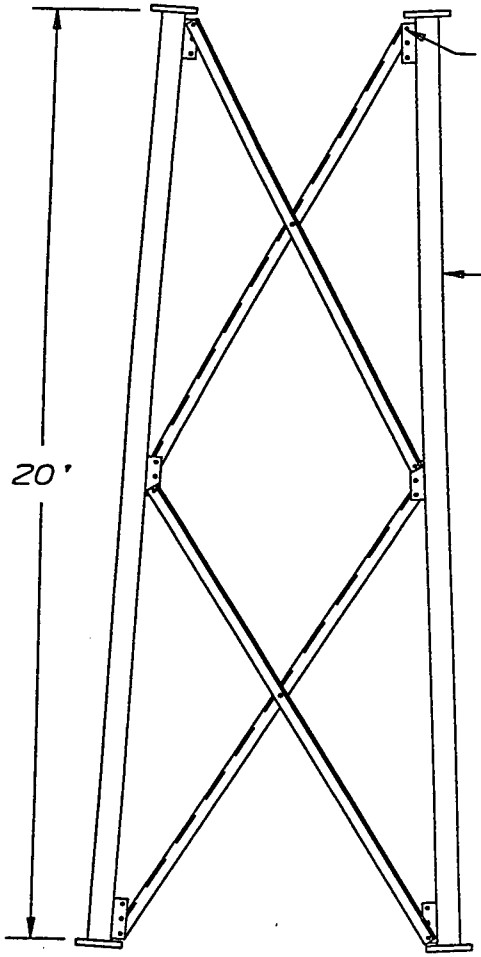
Scale: None	By	Date
Drawn:	JDM	4-12-94
Checked:	KR	4/13/94
App. Eng.:	TB	4-14-94
App. Sales:	JC	4-14-94

Title:
ASSEMBLY DETAILS FOR SSV SECTION 11N242

DRAWING NO.: A941285



PLAN



ELEVATION

NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	3	VL2763	STEP LEG 8EHS PIPE	B952479
2	6	VB259	DIAG. BRACE (4X4X3/8)	B790551
3	6	VB260	DIAG. BRACE (4X4X3/8)	B790551
4	30	210047GA	3/4 X 2 BOLT ASSY	C770404
5	24	210164GA	1 X 5-3/4 BOLT ASSY (FLANGES)	C770404
6	48	5/8STEP	5/8 X 6 1/2 STEPBOLT ASSY	B651264

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
9/16 STD.	N/A	17X17X2	17A	17X17X2	17T	14'-11 7/8"	17'-1"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ALL THREE LEGS.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

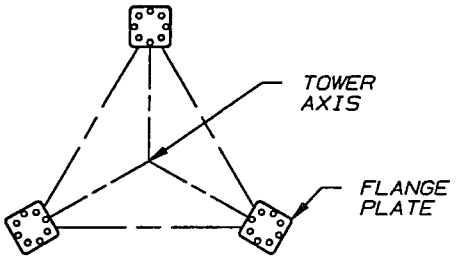
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

Scale: None	By	Date
Drawn:	JHN	3-24-99
Checked:	SCH	3/24/99
App. Eng.:	TS	3/25/99
App. Sales:		

Title:
ASSEMBLY DETAILS FOR
SSV SECTION
12N148

DRAWING NO.: A991138



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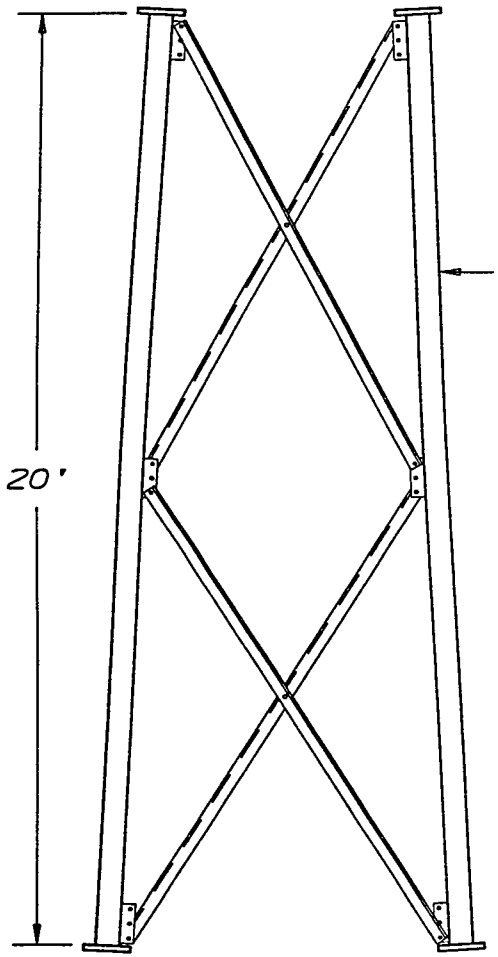


NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

ELEVATION

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	3	VL3082	STEP LEG (PIPE BEH)	B971762
2	6	VB1405	DIAG. BRACE (4X4X.31)	B971469
3	6	VB1406	DIAG. BRACE (4X4X.31)	B971469
4	24	210060GA	Ø.875 X 2.00 BOLT ASSY (BRACES)	C770404
* 5	36	210164GA	Ø1.00 X 5.75" BOLT ASSY (FLANGES)	C770404
6	6	210046GA	Ø.75 X 1.75" BOLT ASSY	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
3/4 STD	---	17X17X2	17A	20X20X2	20P	17'-1"	19'-3"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ALL THREE LEGS.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

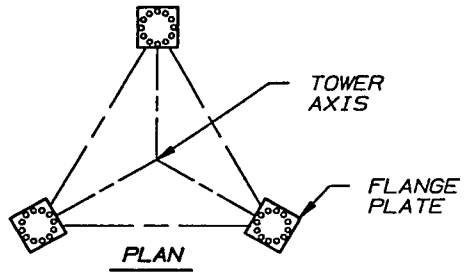
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

	By	Date
Scale: None		
Drawn:	LLK	10/03/97
Checked:	JDM	3-26-99
App. Eng.:	TS	3-26-97
App. Sales:		

Title:
ASSEMBLY DETAILS FOR
SSV SECTION
13N135

DRAWING NO.: A973159



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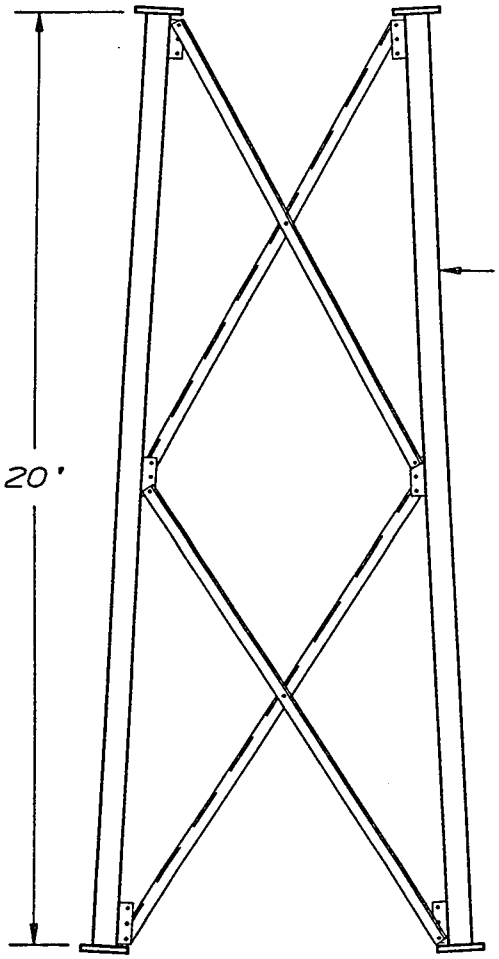


ELEVATION

NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	3	VL3176	STEP LEG (PIPE 10EH)	B972271
2	6	VB1447	DIAGONAL BRACE (5X5X3/8)	B972196
3	6	VB1448	DIAGONAL BRACE (5X5X3/8)	B972196
4	30	210061GA	7/8 X 2-1/4 BOLT ASSY (BRACES)	C770404
* 5	36	210164GA	1" X 5-3/4" BOLT ASSY (FLANGES)	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
---	---	20X20X2	20B	20X20X2	20B	19'-3"	21'-3"

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ALL THREE LEGS.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

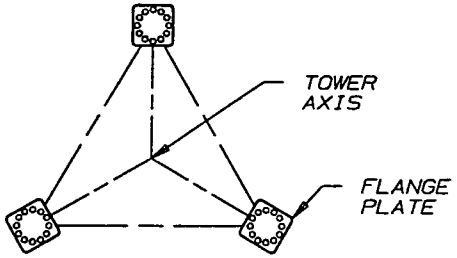
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

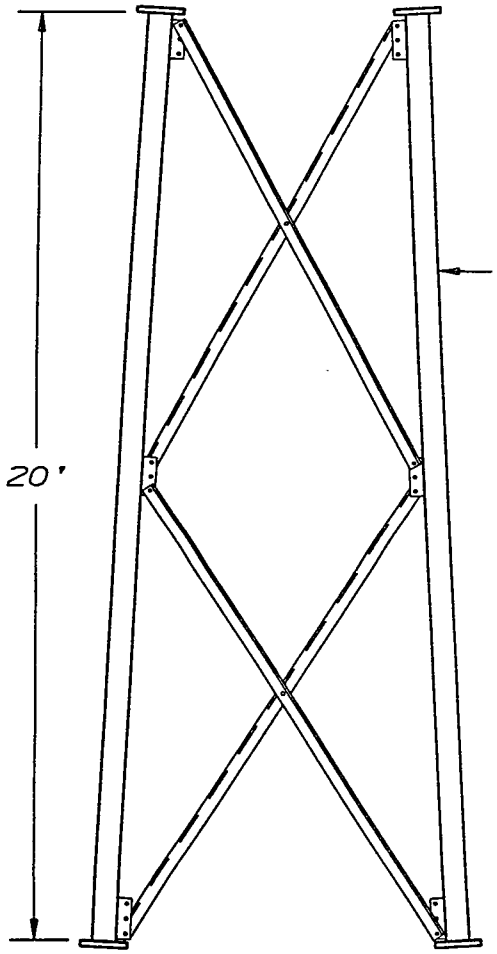
Scale: None	By	Date
Drawn:	MGP	08/04/97
Checked:	WMN	8-21-97
App. Eng.:	JS	8-26-97
App. Sales:	SAIC	8-27-97

Title: ASSEMBLY DETAILS FOR SSV SECTION 14N113

DRAWING NO.: A972635



PLAN



ELEVATION

NOTE:
BRACES ARE PLACED IN TOP TO BOTTOM ORDER GIVEN IN BILL OF MATERIAL.

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	3	VL3176	STEP LEG (PIPE 10EH)	B972271
2	6	VB1333	DIAG. BRACE (5X5X.38)	B952465
3	6	VB1334	DIAG. BRACE (5X5X.38)	B952465
4	30	210061GA	.875 X 2.25 BOLT ASSY (BRACES)	C770404
* 5	36	210164GA	1.00 X 5.75 BOLT ASSY (FLANGES)	C770404

MISCELLANEOUS INFORMATION

FLANGE PLATE						SPREAD	
		TOP		BOTTOM			
OFFSET	BEVEL	SIZE	P/N	SIZE	P/N	TOP	BOTTOM
---	---	20X20X2	20B	20X20X2	20B	21'-3"	23'-2 3/4

GENERAL NOTES

1. LEG P/N IS STAMPED AT BOTTOM OF EACH LEG OF EACH SECTION.
2. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
3. STEP BOLTS ARE PROVIDED ON ALL THREE LEGS.
4. FLANGE BOLTS (*) GIVEN IN BILL OF MATERIAL ARE FOR FLANGE PLATES AT BOTTOM OF SECTION. IF THE SECTION IS USED AS A BASE SECTION SEE THE TOWER ASSEMBLY DRAWING OR ANCHOR BOLT LAYOUT FOR CORRECT SIZE AND QUANTITY OF ANCHOR BOLTS.
5. BEVEL FOR FLANGE PLATES IS FOR BOTTOM FLANGE PLATES ONLY UNLESS OTHERWISE NOTED.

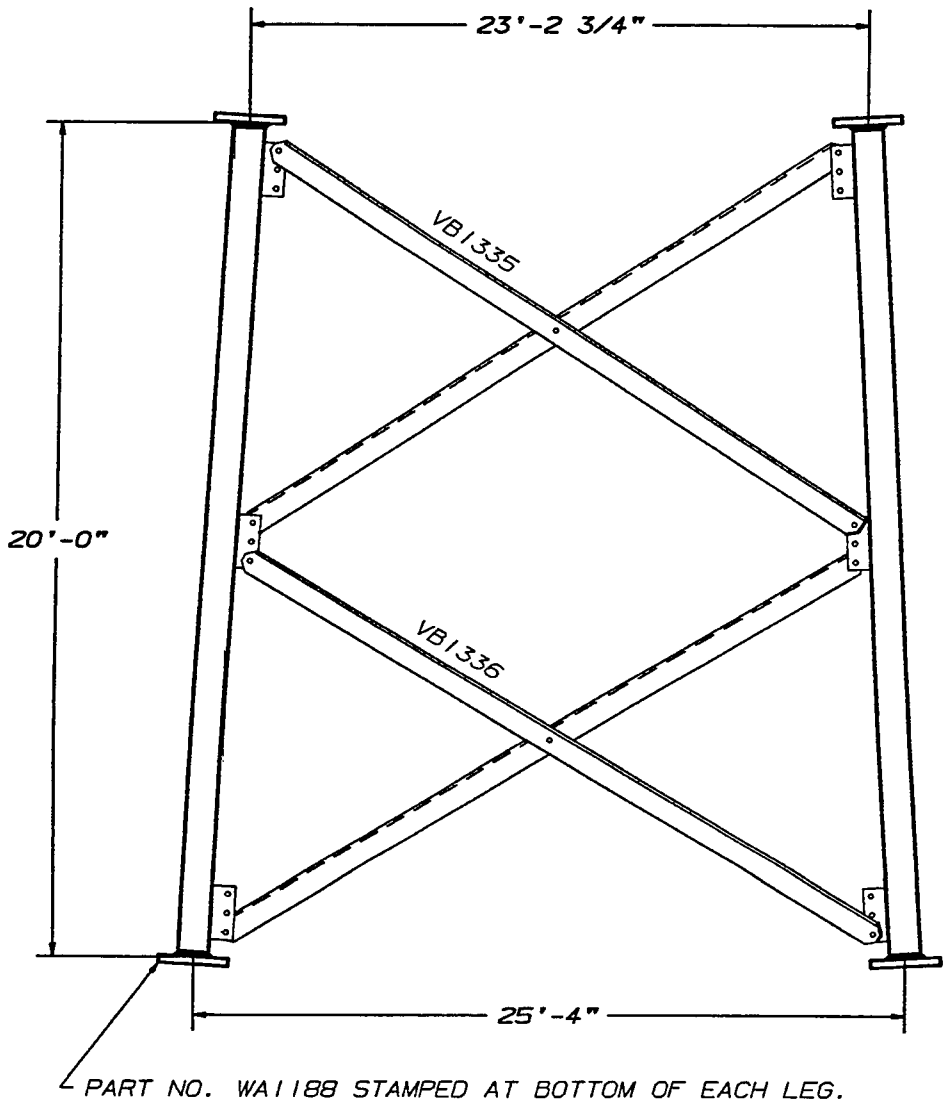
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

Scale: None	By	Date
Drawn:	LLK	10/03/97
Checked:	ACS	10-16-97
App. Eng.:	HA	10-17-97
App. Sales:	Reg'd	10-17-97

Title: ASSEMBLY DETAILS FOR SSV SECTION 15N96

DRAWING NO.: A973160



PART NO. WA1188 STAMPED AT BOTTOM OF EACH LEG.

BILL OF MATERIAL

ITEM	QTY	PART NO.	DESCRIPTION	DWG NO.
1	3	WA1188	LEG (PIPE 10 EH)	B971743
2	6	VB1335	DIAGONAL BRACE (L5X5X3/8)	B952468
3	6	VB1336	DIAGONAL BRACE (L5X5X3/8)	B952468
4	30	210061GA	7/8" X 2-1/4" BOLT ASSY (BRACES)	C770404
5	36	210164GA	1" X 5-3/4" BOLT ASSY (FLANGE)	C770404

No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ck'd By	▲ Appd By

ROHN

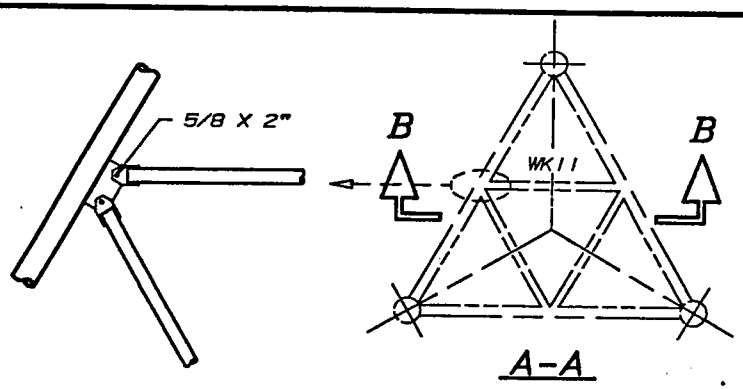
	By	Date
Scale: NONE		
Drawn:	JHN	04/03/97
Checked:	[illegible]	4/16/97
App. Eng.:	[illegible]	4/16/97
App. Sales:	[illegible]	4/16/97

Title:

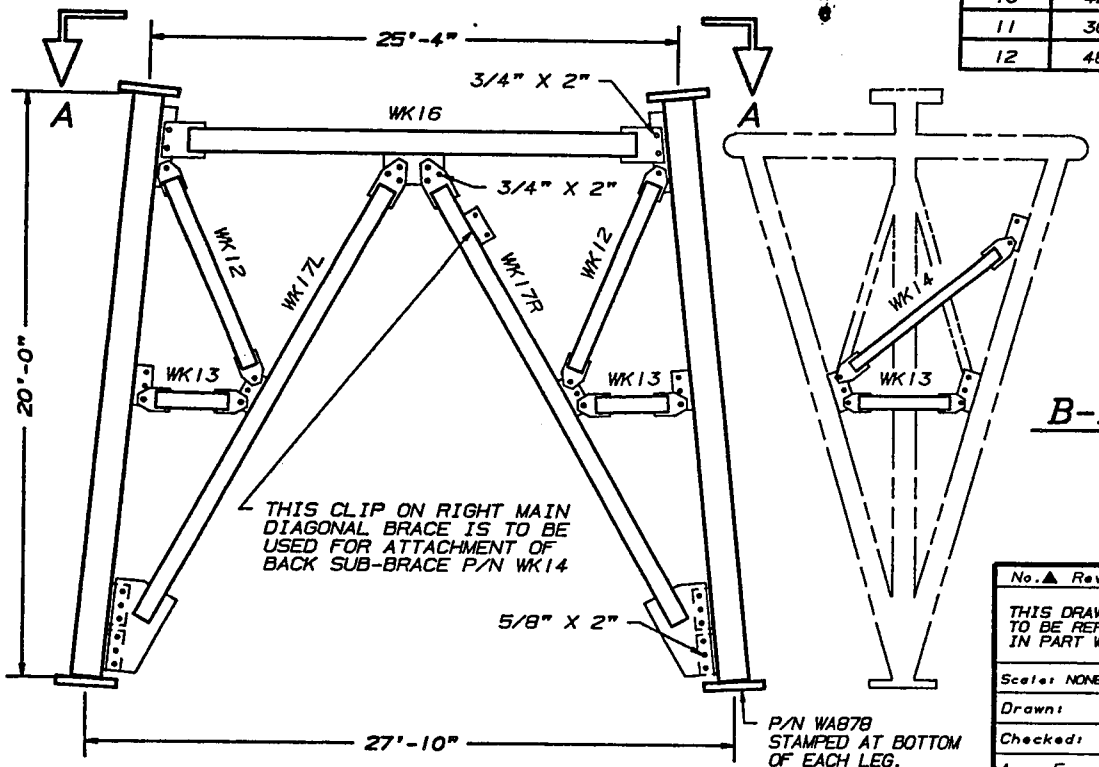
16NH41MW
SECTION ASSY 16NHMW 20° 10 EH
L5X5X3/8

ENG. FILE:

DRAWING NO.: B971727



A-A



B-B

BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	3	WA878	LEG 10EH PIPE	B910824
2	3	WK16	BRACE 3STD PIPE	SK731106
3	3	WK17R	BRACE 3STD PIPE	SK731114
4	3	WK17L	BRACE 3STD PIPE	SK731114
5	6	WK12	BRACE 1 1/2STD PIPE	C821638
6	9	WK13	BRACE 1 1/2STD PIPE	C821638
7	3	WK14	BRACE 2 1/2 STD PIPE	C821638
8	3	WK11	BRACE 3 STD PIPE	C821638
9	36	210030GA	5/8 X 1 3/4" BOLT ASSY	C770404
10	42	210031GA	5/8 X 2" BOLT ASSY	C770404
11	30	210047GA	3/4 X 2" BOLT ASSY	C770404
12	48	230029	1" PAL NUT	N/A

NOTE:
ALL BRACE BOLTS ARE 5/8" X 1 3/4" UNLESS OTHERWISE NOTED.

No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

	By	Date
Scale: NONE		
Drawn:	RKB	1-17-91
Checked:	KEZ	1-21-91
App. Eng.:	JT	1-22-91
App. Sales:	I	1-22-91

Title:
MWK101
SECTION ASSY MWK 20'10EH BASE

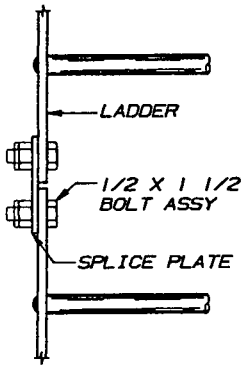
ENG. FILE:

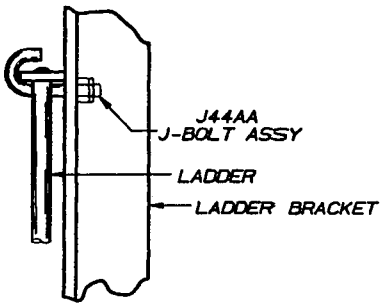
DRAWING NO.: B910823

LADDER SUPPORT BRACKET DATA

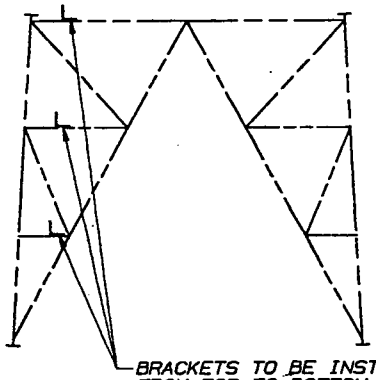
SECTION	BRACKET P/N	BRACKET QTY	J44AA BOLT	1/2"FLAT WASHER (2500116)	U-BOLT P/N	U-BOLT QTY	CONDUIT U-BOLT P/N	CONDUIT U-BOLT QTY
◆MWK	WY589	1	4	8	JR89A	2	---	---
	WY590	1			JR83A	2		

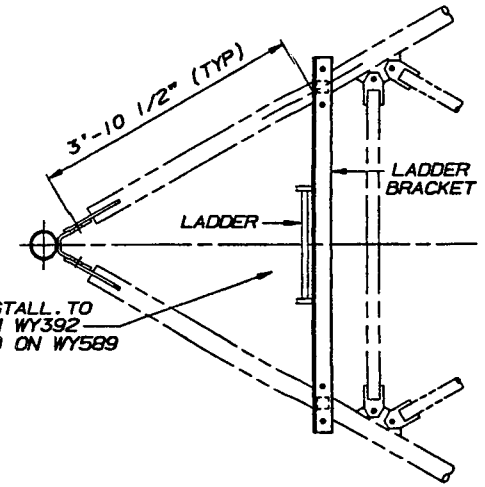
NOTE: AFTER INSTALLATION, BOTTOM OF LADDER MAY BE EMBEDDED IN CONCRETE FOR ADDED RIGIDITY.





ASSY. PT.NO. WY7740A





NOTE: THIS TYPE OF INSTALL. TO BE FOR BRKTS P/N WY392 THRU WY399. ALSO ON WY589 & WY590.

LADDER SUMMARY

LADDER SECTION P/N	LADDER SECTION QTY	SPLICE PLATE (KY95)	SPLICE BOLT ASSY 1/2 X 1 1/2 (210018GA)
NL20	1	2	4

HORIZ BRACE SIZE	LADDER BRACKET P/N	U-BOLT ASSY P/N
1 1/2"TUBE	WY392	JR83A
1 1/2"PIPE,2"TUBE	WY393	JR83A
2 1/4"TUBE	WY394	JR84A
2"PIPE	WY395	JR84A
2 1/2"PIPE	WY396	JR89A
3"PIPE	WY396	JR85A
3 1/2"PIPE	WY397	JR86A
4"PIPE	WY398	JR86A
5"PIPE	WY398	JR87A
6"PIPE	WY4557	JR90SSA

NOTES:

1. PAL NUTS PROVIDED FOR ALL LADDER HARDWARE.
2. SEE DWGS. SK7404198 & SK740202 FOR BRACKET FABS. & DWG. SK680905 FOR LADDER FABS.
3. LADDER TO BE FIELD CUT TO PROPER LENGTH AFTER INSTALLATION.
4. AN ADDITIONAL 10' OF LADDER IS PROVIDED WITH ALL TOWERS 200' & OVER.
5. SEE DWG. B651028 FOR U-BOLT CHART & DWG. B831315 FOR P/N JR90SSA.
6. WASHERS PROVIDED FOR ALL SLOTTED HOLES.
7. LADDER BRACKETS OMITTED AT PLATFORM ELEVS. WITH PLATFORMS SERVING AS LADDER SUPPORTS.
8. ◆ SUBSTITUTE WY589 & WY590 FOR WY396 & WY392 WHEN SECTION 16NMW IS ABOVE SECTION MWK.

No.▲ Revision Description	▲Date	▲Rev By	▲Ckd By	▲Appd E

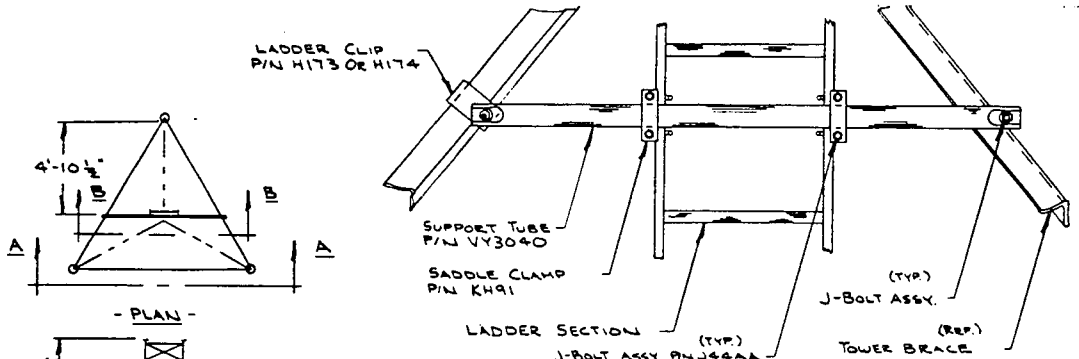
ROHN

Scale: NONE	By	Date
Drawn:	KTL	2-28-94
Checked:	[illegible]	3-2-94
App. Eng.:	[illegible]	3-2-94
App. Sales:	[illegible]	3-2-94

Title: CLIMBING LADDER ASSEMBLY

ENG. FILE:

DRAWING NO.: C940699



- PLAN -

ASSY. P/N VY3092A (10' SECTION) FOR 1½" - 2½" BRACE

ITEM	QTY.	PART NO.	DESCRIPTION	DWG. NO.
1	1	NL10	10'-0" LADDER SECTION	SK680905
2	2	KY95	LADDER SPLICE PLATE	SK680905
3	2	VY3040	LADDER SUPPORT TUBE	B820864
4	4	Z1001BGA	½" x 1½" BOLT ASSY.	C770404
5	12	J44AA	3/8" J-BOLT ASSY	BZ942A
6	4	KH91	SADDLE CLAMP	B770214
7	2	H173	LADDER CLIP	B820993

ASSY. P/N VY3093A (20' SECTION) FOR 1½" - 2½" BRACE

ITEM	QTY.	PART NO.	DESCRIPTION	DWG. NO.
1	1	NL20	20'-0" LADDER SECTION	SK680905
2	2	KY95	LADDER SPLICE PLATE	SK680905
3	2	VY3040	LADDER SUPPORT TUBE	B820864
4	4	Z1001BGA	½" x 1½" BOLT ASSY.	C770404
5	12	J44AA	3/8" J-BOLT ASSY.	BZ942A
6	4	KH91	SADDLE CLAMP	B770214
7	2	H173	LADDER CLIP	B820993

ASSY. P/N VY3094A (10' SECTION) FOR 3" - 4" BRACE

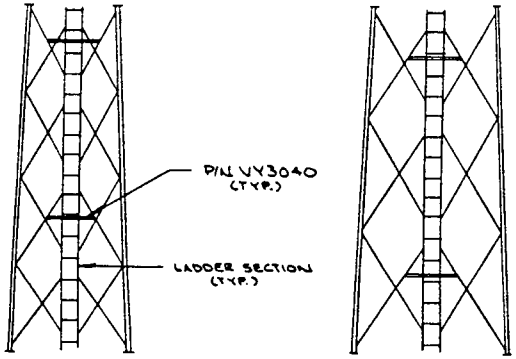
ITEM	QTY.	PART NO.	DESCRIPTION	DWG. NO.
1	1	NL10	10'-0" LADDER SECTION	SK680905
2	2	KY95	LADDER SPLICE PLATE	SK680905
3	2	VY3040	LADDER SUPPORT TUBE	B820864
4	4	Z1001BGA	½" x 1½" BOLT ASSY.	C770404
5	4	J51A	3/8" J-BOLT ASSY.	BZ947
6	4	KH91	SADDLE CLAMP	B770214
7	8	J44AA	3/8" J-BOLT ASSY	BZ942A
8	2	H174	LADDER CLIP	B820993

ASSY. P/N VY3095A (20' SECTION) FOR 3" - 4" BRACE

ITEM	QTY.	PART NO.	DESCRIPTION	DWG NO.
1	1	NL20	20'-0" LADDER SECTION	SK680905
2	2	KY95	LADDER SPLICE PLATE	SK680905
3	2	VY3040	LADDER SUPPORT TUBE	B820864
4	4	Z1001BGA	½" x 1½" BOLT ASSY.	C770404
5	4	J51A	3/8" J-BOLT ASSY.	BZ947
6	4	KH91	SADDLE CLAMP	B770214
7	8	J44AA	3/8" J-BOLT ASSY.	BZ942A
8	2	H174	LADDER CLIP	B820993

NOTE: IT IS RECOMMENDED A ROHN-LOC SAFETY DEVICE BE PROVIDED WITH LADDER INSTALLATIONS FOR ADDED CLIMBER SAFETY.

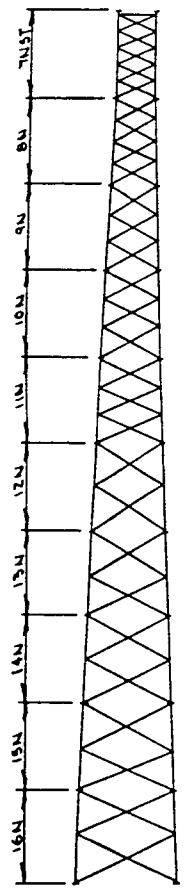
SECTION 'B-B'



8N (4 BAYS)
(SECTION 'A-A')

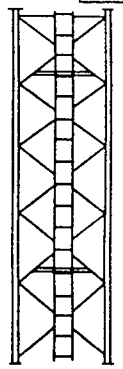
9N-11N (3 BAYS)
(SECTION 'A-A')

NOTE: SEE CHART BELOW FOR LOCATION OF P/N VY3040 ON INDIVIDUAL TOWER SECTIONS.

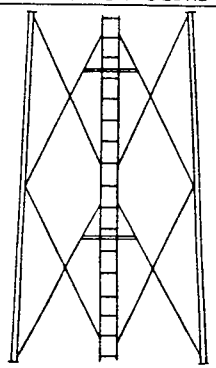


TYP. TOWER SECTIONS

- ELEVATION -



7NST (5 BAYS)
(SECTION 'A-A')



12N-16N (4 BAYS)
(SECTION 'A-A')

NOTE: AN ADDITIONAL 10 FEET OF LADDER IS PROVIDED WITH ALL TOWERS 200 FEET AND OVER. LADDER IS TO BE FIELD CUT TO PROPER LENGTH AFTER INSTALLATION.

LADDER CONNECTION LOCATION CHART

20' SECTIONS		10' SECTIONS	
SECT.	ELEVATION ±	SECT.	ELEVATION ±
7NST	5'-0", 16'-0"	7NST	1'-6", 9'-0"
8N, 8NST	7'-0", 18'-0"	8N, 8NST	2'-6", 8'-0"
9N, 9NST	5'-0", 17'-6"	9N, 9NST	1'-0", 7'-6"
10N	5'-0", 17'-6"	10N	1'-0", 7'-6"
11N	5'-0", 17'-6"	11N	1'-0", 7'-6"
12N	7'-0", 17'-0"		
13N	7'-0", 17'-0"		
14N	7'-0", 17'-0"		
15N	7'-0", 17'-0"		
16N	7'-0", 17'-0"		

NOTE: SECTION 'A-A' VIEWS ARE INCOMPLETE FOR CLARITY OF INSTALLATION

No.	Revision Description	Date	By
R1	ADDED ROHN-LOC NOTE	1-30-85	GLJ

UNR-Rohn
Division of UNR Inc

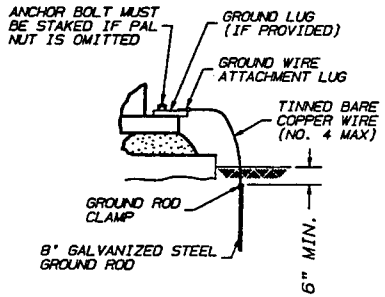
Title
LADDER, ASSY INSIDE COR. (7NST-16N)

Scale	NONE		
Drawn by	AWG	Date	12/29/82
Checked by		Date	
Approved by Engineering	TS	Date	1-19-83
Approved by Production		Date	
Approved by Sales	JL	Date	1-19-83

Unless otherwise specified dimensions are given in inches
Tolerances: Decimals ± | Fractions ± | Angles ±
Material | Finish | Weight

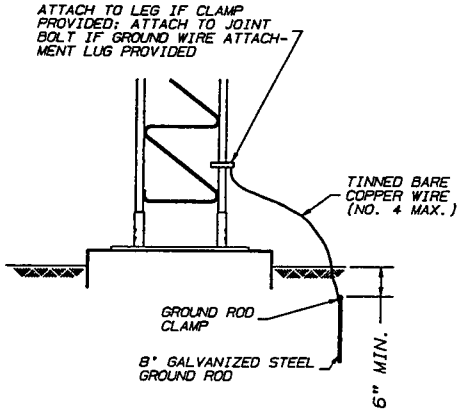
File Number

Drawing Number
C821692 R1



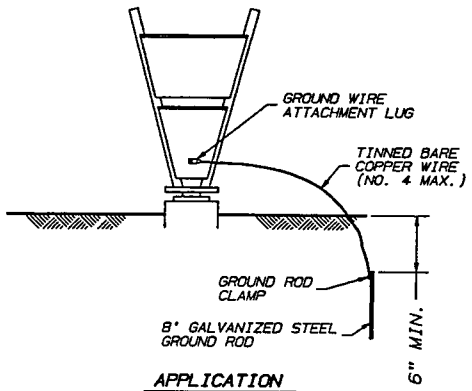
APPLICATION

SELF-SUPPORTING TOWERS AND GUYED TOWERS WITH ANCHOR BOLTS



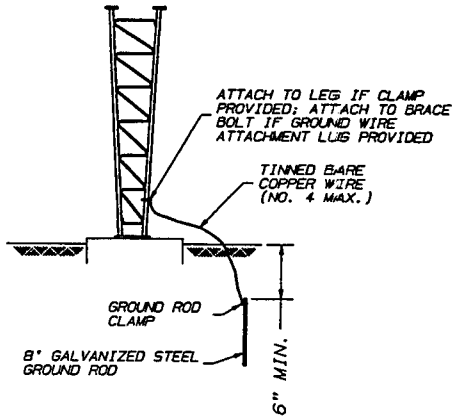
APPLICATION

NO. 25B, 45B & 55B TOWERS WITH FLAT BASE



APPLICATION

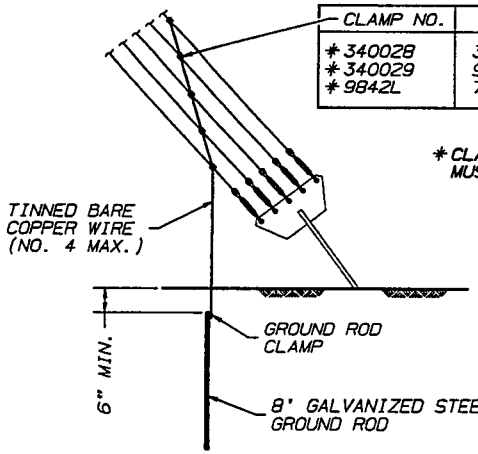
NO. 25B, 45B, 55B, 36, 48, 80, 90, C & D TOWERS WITH TAPERED BASE



APPLICATION

NO. 65B & J TOWERS WITH TAPERED BASE

BASE GROUNDING KITS (BGK)



CLAMP NO.	GUY WIRE SIZE
*340028	3/16" - 1/2"
*340029	9/16" - 3/4"
*9842L	7/8" - 1" (SEE INSTALL. DETAIL BB01367)

*CLAMP IS NOT INCLUDED IN GROUNDING KIT. MUST BE ORDERED AS A SEPARATE ITEM.

GUY WIRE GROUNDING (AGK)

ANCHOR GROUNDING KITS

GENERAL NOTES

1. USE SUFFICIENT BEND RADIUS TO PREVENT KINKING OF THE GROUND WIRE.
2. CUT WIRE TO PROPER LENGTHS. DO NOT COIL GROUND WIRE.

No.	Revision Description	Date	Rev By	Ckd By	Appd By
R6	REV. GUY WIRE GROUND CLAMP NOTE	2/10/98	JHD	JM1	TS
R5	RV. PER ANSI/TIA/EIA-222-F	1-2-96	JDM	WDU	HA

ROHN

	By	Date
Scale: NONE		
Drawn:	JER	11-20-73
Checked:	WDU	11-27-73
App. Eng.:	CW	11-27-73
App. Sales:	MF	12-7-73

Title: TOWER GROUNDING METHODS

ENG. FILE:

DRAWING NO.: C731105 R6

W/G LADDER MOUNTING CLIP ASSEMBLIES

CLIP ASSEMBLY P/N	TOWER BRACE SIZE (L)	LADDER CLIP			J-BOLT		
		P/N	DWG. NO.	QUAN	P/N	DWG. NO.	QUAN
KY693	1-1/2"	H173	B820993	2	J44AA	B2942A	2
KY695	1-3/4"-2-1/2"	H173	B820993	2	J51A	B2947	2
KY697	3"	H174	B820993	2	J51A	B2947	2
KY1287A	3-1/2"-4"	H174	B820993	2	J107A	B29108	2

* CLIP ASSEMBLY ORDERING INFO

ALL SECTIONS EXCEPT 12N THRU 16N: ORDER 3 CLIP ASSYS (SEE BRACE SIZE) WITH EACH 20' TOWER SECTION OR 2 CLIP ASSYS FOR EACH 10' TOWER SECTION

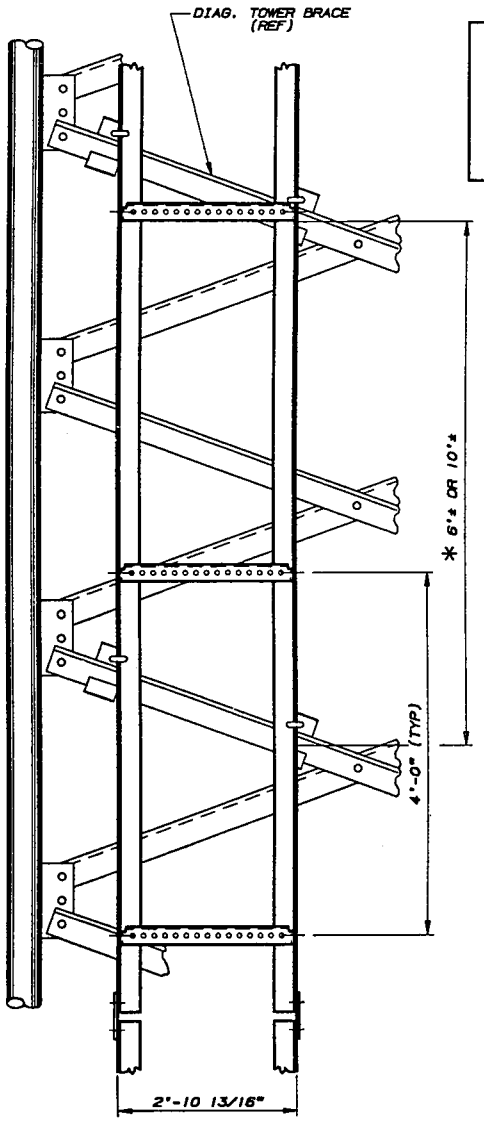
12N, 13N, 14N, 15N & 16N: ORDER 2 CLIP ASSYS (SEE BRACE SIZE) WITH EACH 20' OR 10' TOWER SECTION

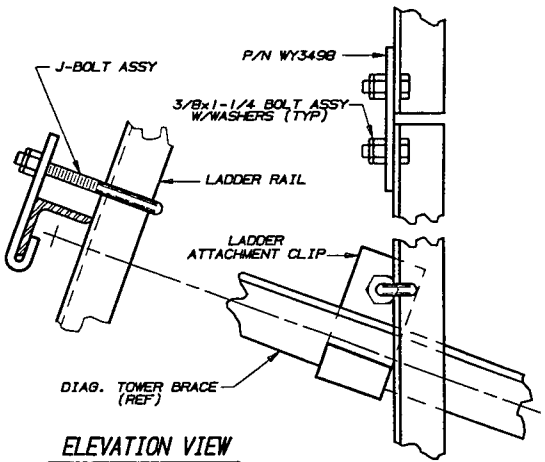
20' W/G LADDER SECTION BILL OF MATERIAL (WL20F154KD)

ITEM	QTY	PART NO.	DESCRIPTION	DWG NO.
1	2	WY3425	20' W/G LADDER RAIL	C840372
2	5	WY7459	LADDER RUNG (15 HOLE)	C901822
3	2	WY3498	SPLICE PLATE	B820868
4	4	2500080	3/8" WASHER	C770404
5	14	2100058A	3/8x1-1/4 BOLT ASSEMBLY	C770404
6	REF	SEE CHART	MOUNTING CLIP ASSY	SEE CHART

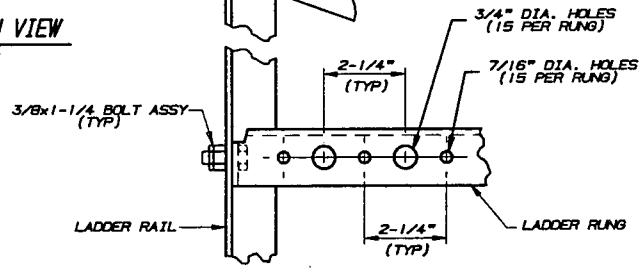
10' W/G LADDER SECTION BILL OF MATERIAL (WL10F154KD)

ITEM	QTY	PART NO.	DESCRIPTION	DWG NO.
1	2	WY3426	10' W/G LADDER RAIL	C840372
2	3	WY7459	LADDER RUNG (15 HOLE)	C901822
3	2	WY3498	SPLICE PLATE	B820868
4	4	2500080	3/8" WASHER	C770404
5	10	2100058A	3/8x1-1/4 BOLT ASSEMBLY	C770404
6	REF	SEE CHART	MOUNTING CLIP ASSY	SEE CHART





ELEVATION VIEW
(N.T.S.)



GENERAL NOTES

1. SPACE LADDER CLIPS AS SHOWN.
2. THE W/G LADDER MAY REQUIRE FIELD CUTTING TO THE PROPER LENGTH AFTER ASSEMBLY.
3. W/G LADDER MAY BE MOVED HORIZONTALLY FOR PROPER ALIGNMENT.
4. WASHERS ARE PROVIDED FOR ALL SLOTTED HOLES.
5. W/G LADDER MAY BE MOUNTED INSIDE OR OUTSIDE OF TOWER AS REQUIRED.
6. THE W/G LADDER MUST BE OFFSET FROM THE CENTER OF THE TOWER WHEN USED WITH A FACE MOUNTED CLIMBING LADDER FOR REQUIRED CLEARANCES.

NOTE: IF CIRCULAR W/G IS USED, THREADED ADAPTERS, PROVIDED BY OTHERS, MAY BE REQUIRED TO PERFECTLY ALIGN W/G'S ON LADDER.

No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

	By	Date
Scale: NONE		
Drawn:	WEB	10/24/90
Checked:	[illegible]	10/26/90
App. Eng.:	[illegible]	10-26-90
App. Sales:	[illegible]	10-26-90

Title: LADDER ASSY W/G FACE MTD FOR SSV TOWERS 15 HOLE 4' KD 2.25" O.C. 3/4" & 7/16" DIA.

DRAWING NO.: C901818

W/G LADDER MOUNTING CLAMP ASSEMBLIES

CLAMP ASSEMBLY P/N	TOWER BRACE SIZE (O.D.)	LADDER CLAMP			J-BOLT		
		P/N	DWG. NO.	QUAN	P/N	DWG. NO.	QUAN
WY3080A	1-1/2"-2-3/8"	WY23	SK7303528	2	J44AA	B2942A	4
WY3081A	2-7/8"-3-1/2"	WY23	SK7303528	2	J51A	B2947	4
WY3082A	4"-4-1/2"	WY24	SK7303528	2	J51A	B2947	4
WY3083A	5-9/16"	WY25	SK7303568	2	J51A	B2947	4
WY4559A	6-5/8"	WY4558	B831316	2	J51A	B2947	4

CLAMP ASSEMBLY ORDERING INFO

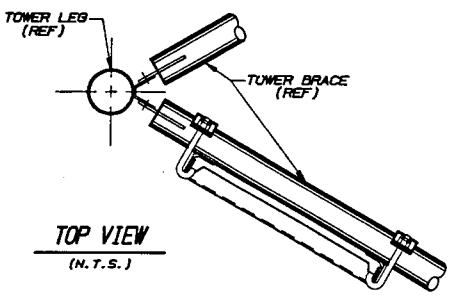
ORDER 1 CLAMP ASSEMBLY (SEE BRACE SIZE) FOR EACH HORIZONTAL BRACE THAT THE W/G LADDER CROSSES.

20' W/G LADDER SECTION BILL OF MATERIAL (WL20F154KD)

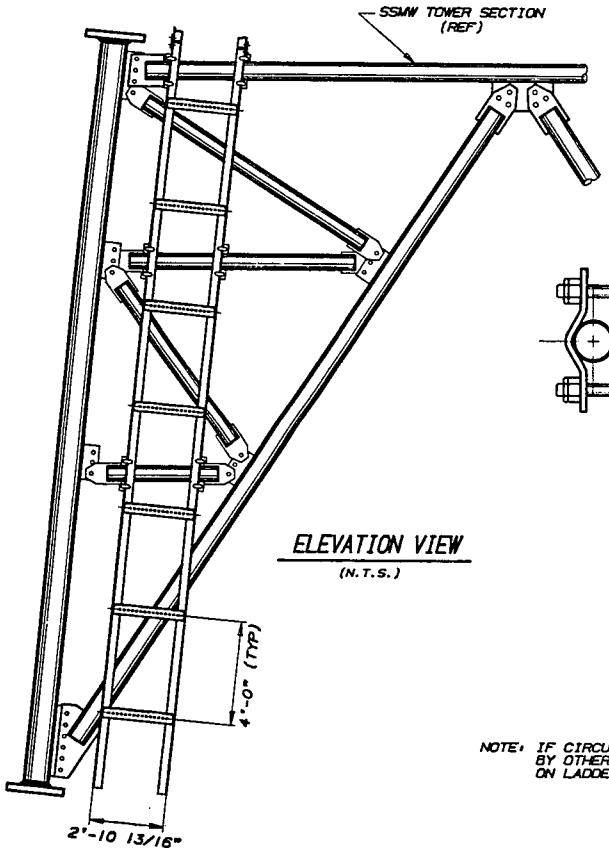
ITEM	QTY	PART NO.	DESCRIPTION	DWG NO.
1	2	WY3425	20' W/G LADDER RAIL	C840372
2	5	WY7459	LADDER RUNG (15 HOLE)	C901822
3	2	WY3498	SPLICE PLATE	B820868
4	4	2500086	3/8" WASHER	C770404
5	14	210005GA	3/8x1-1/4 BOLT ASSEMBLY	C770404
6	REF	SEE CHART	MOUNTING CLAMP ASSY	SEE CHART

10' W/G LADDER SECTION BILL OF MATERIAL (WL10F154KD)

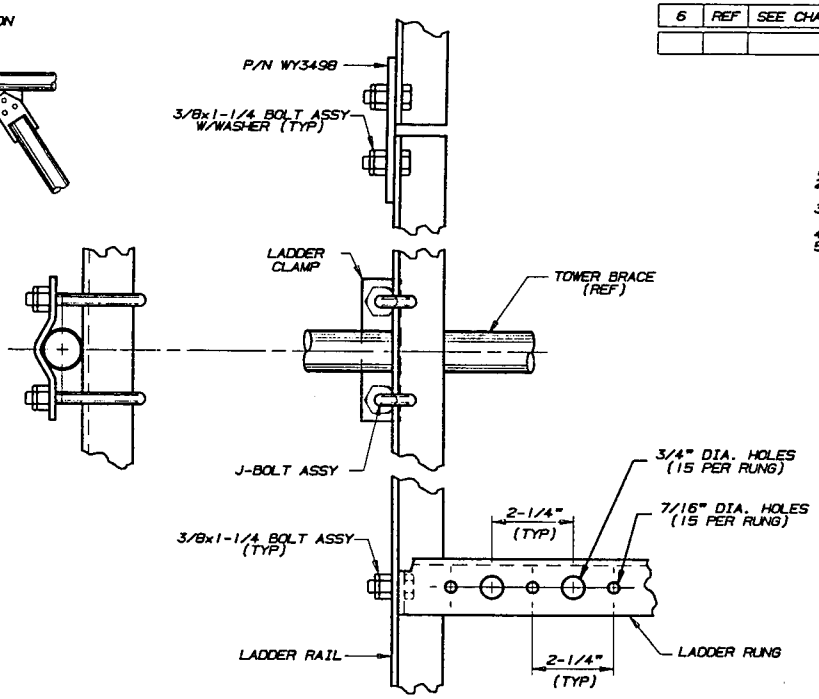
ITEM	QTY	PART NO.	DESCRIPTION	DWG NO.
1	2	WY3426	10' W/G LADDER RAIL	C840372
2	3	WY7459	LADDER RUNG (15 HOLE)	C901822
3	2	WY3498	SPLICE PLATE	B820868
4	4	2500086	3/8" WASHER	C770404
5	10	210005GA	3/8x1-1/4 BOLT ASSEMBLY	C770404
6	REF	SEE CHART	MOUNTING CLAMP ASSY	SEE CHART



TOP VIEW
(N.T.S.)



ELEVATION VIEW
(N.T.S.)



GENERAL NOTES

1. SPACE LADDER CLAMPS AS SHOWN.
2. THE W/G LADDER MAY REQUIRE FIELD CUTTING TO THE PROPER LENGTH AFTER ASSEMBLY.
3. W/G LADDER MAY BE MOVED HORIZONTALLY FOR PROPER ALIGNMENT.
4. WASHERS ARE PROVIDED FOR ALL SLOTTED HOLES.
5. W/G LADDER MAY BE MOUNTED INSIDE OR OUTSIDE OF TOWER AS REQUIRED.

NOTE: IF CIRCULAR W/G IS USED, THREADED ADAPTERS, PROVIDED BY OTHERS, MAY BE REQUIRED TO PERFECTLY ALIGN W/G'S ON LADDER.

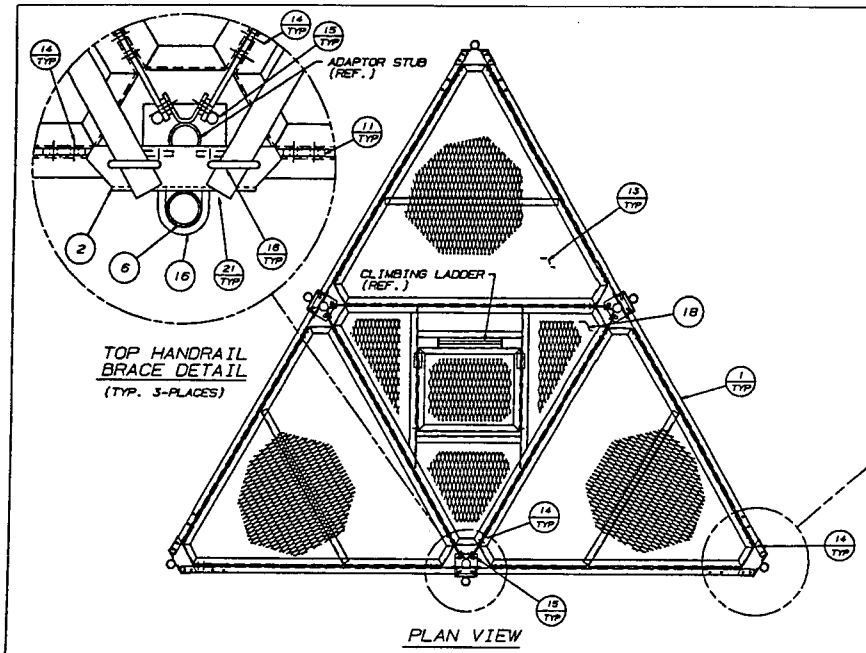
No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN

	By	Date
Scale: NONE		
Drawn:	WEB	10/24/90
Checked:	[illegible]	10-26-90
App. Eng.:	[illegible]	10-26-90
App. Sales:	[illegible]	10-26-90

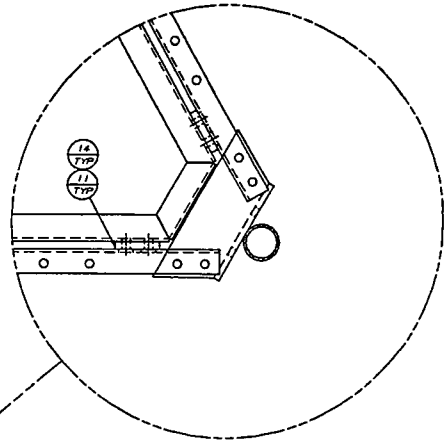
Title:
LADDER ASSY W/G FACE MTD FOR SSMW TOWERS 15 HOLE 4' KD 2.25" O.C. 3/4" & 7/16" DIA.

DRAWING NO.: C901819



TOP HANDRAIL BRACE DETAIL
(TYP. 3-PLACES)

PLAN VIEW



ASSY P/N VX2527A BILL OF MATERIAL

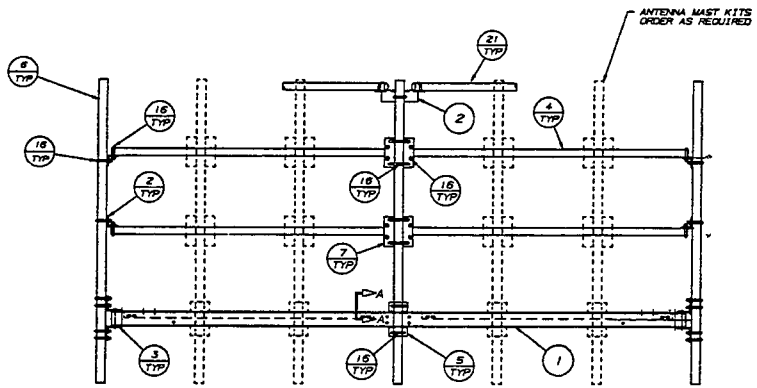
ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	3	VX2358	CHANNEL PLATFORM SUPPORT	8901473
2	9	VX1705	HANDRAIL SUPPORT	8840587
3	6	VX1711	ANGLE CHANNEL SUPPORT	8840587
4	6	VX1650	HANDRAIL PIPE(1-1/2 STD X 12'-10" LG.)	8840439
5	8	VX1704	MOUNTING PIPE SUPPORT ANGLE	8840587
6	6	KH281	MOUNTING PIPE (2 STD X 6'-8" LG.)	8770180
7	6	KY14	HANDRAIL SUPPORT PLATE	C740108
8	3	VY3412	ANGLE KNEE BRACE	8840825
9	3	VY3413	ANGLE KNEE BRACE	8840825
10	3	VY3411	KNEE BRACE SUPPORT PLATE	8840825
11	12	VX1652	SPACER	8840439
12	18	2100308A	5/8 X 1-3/4 BOLT ASSEMBLY	C770404
13	3	VX1709	PLATFORM PANEL	C840884
14	72	2100198A	1/2 X 1-3/4 BOLT ASSEMBLY	C770404
15	6	2100208A	1/2 X 2 BOLT ASSEMBLY	C770404
16	63	JR83A	1/2 X 2-1/2 U-BOLT ASSEMBLY	8651028
17	12	JR88A	1/2 X 3-1/2 U-BOLT ASSEMBLY	8651028
18	1	VX1116A	PLATFORM ASSY FULL 7NST W/TD	C810478
19	38	2500108	1/2 BEVELED WASHER	N/A
20	24	2500110	1/2 WASHER	N/A
21	3	KH1260	HANDRAIL BRACE PIPE(1-1/2 STD X 7' LG)	C800210
22	6	2100310A	5/8 X 2 BOLT ASSEMBLY	C770404

P/N VX2528A ANTENNA MAST KIT

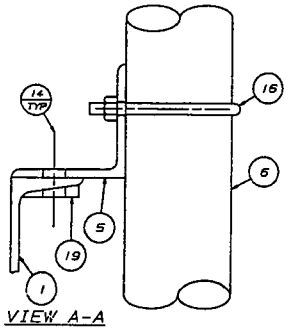
ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
5	2	VX1704	SUPPORT ANGLE	8840587
6	1	KH281	MOUNTING PIPE (2 STD X 6'-8" LG.)	8770180
7	2	KY14	SUPPORT PLATE	C740108
16	10	JR83A	1/2 X 2-1/2 U-BOLT ASSEMBLY	8651028
14	4	2100198A	1/2 X 1-3/4 BOLT ASSEMBLY	C770404
19	4	2500108	1/2 BEVELED WASHER	N/A

ORDERING INFO

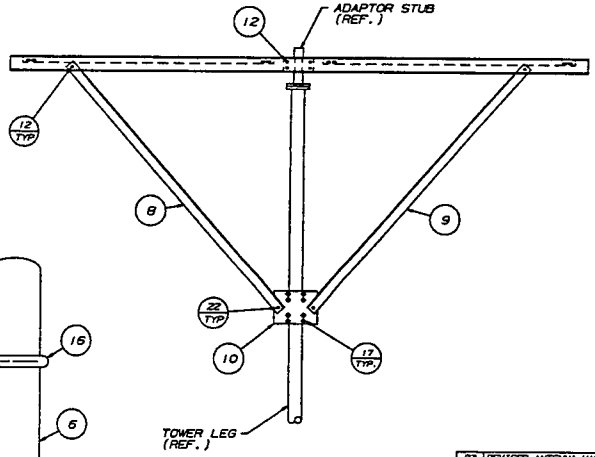
ORDER (1) PLATFORM ASSY P/N VX2527A
ORDER ANTENNA MAST KIT AS REQUIRED P/N VX2528A



ELEVATION VIEW



VIEW A-A



KNEE BRACE DETAIL
(TYP. 3-PLACES)

Rev	Revised	By	Date	Chkd By	Appd By
R2	REVISED ANTENNA MAST KIT B.O.M.	WEB	5-15-92	RTL	TS
R1	REVISED LADDER LOCATION	WEB	3-20-92	RTL	TS

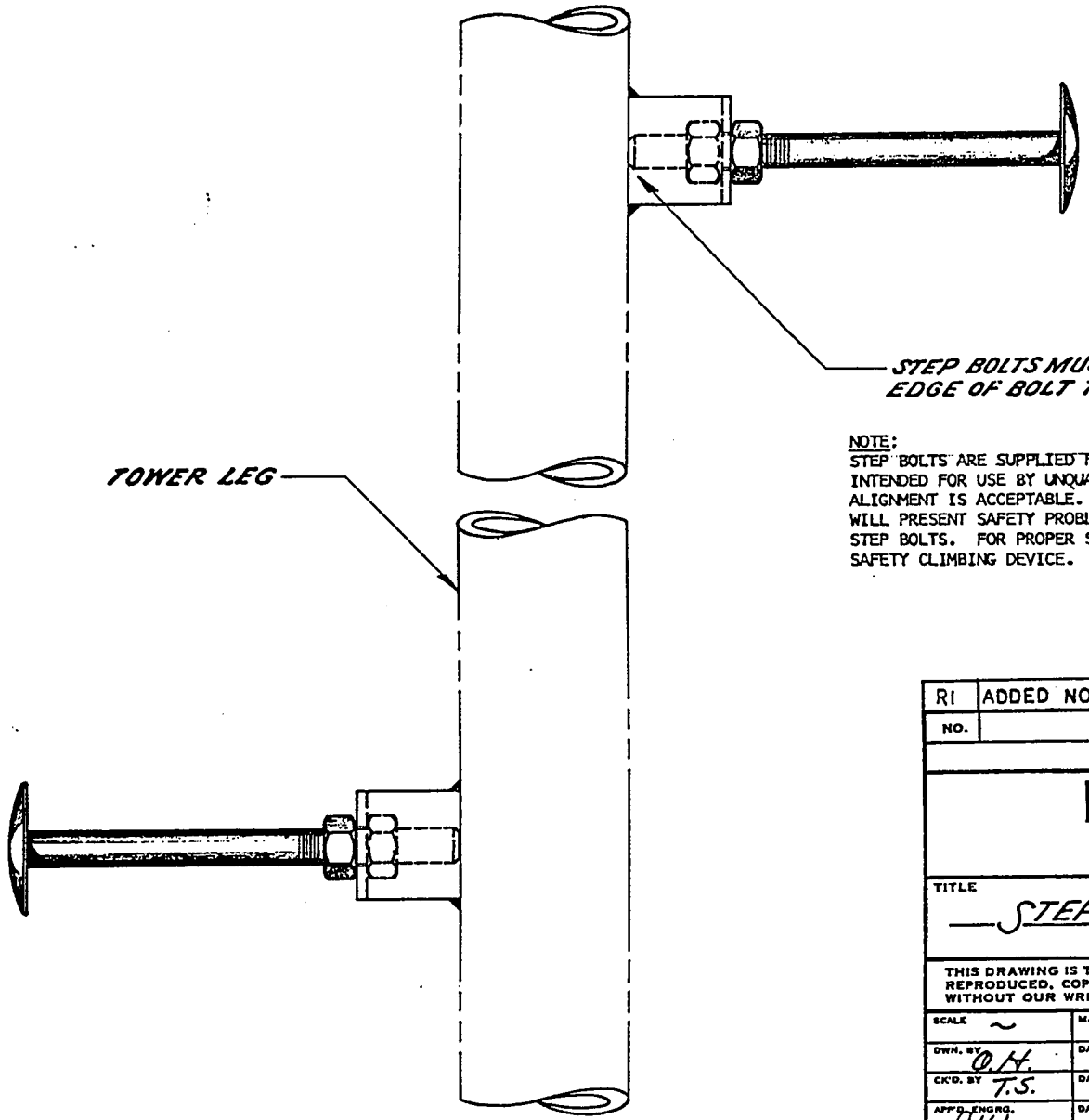
No. & Revision Description — & Date & Rev By & Chd By & Appd By

ROHN

Sealer NONE	By	Date
Drawn	WEB	12/18/91
Checked	WDJ	12/18/91
App. Eng.	TS	12/20/91
App. Sales	PEH	12/20/91

Title: PLATFORM ASSEMBLY FULL 7NST CELLULAR

ENG. FILE: DRAWING NO.: D910968R2



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.

NO.	DESCRIPTION	DATE	BY
R1	ADDED NOTE	1-2-85	MK

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

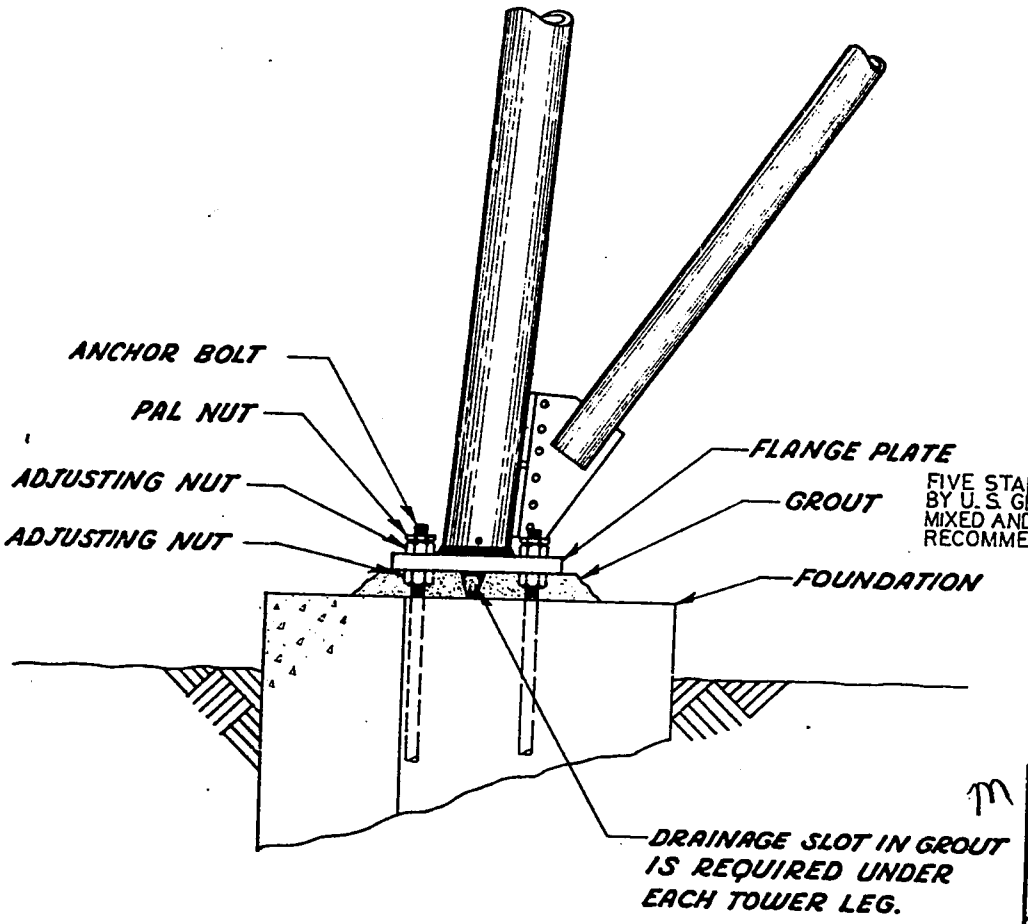
TITLE: STEP BOLT INSTALLATION DETAIL

FILE NO.

SCALE ~	MATERIAL	FINISH	WT.
DWN. BY O.H.	DATE 4-16-74	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY T.S.	DATE 4-17-74	TOLERANCES: DEC. ± FRAC. ± ANGLES ±	DWG. NO. B-651264 R1
APP'D. ENGRG. CW	DATE 4-17-74		
APP'D. QA'S. DS	DATE 4-17-74		

PRINTED IN U.S.A.

GAF 880-250 2-72 48191



FIVE STAR SPECIAL GROUT 100 AS MANUFACTURED BY U.S. GROUT CORPORATION OR APPROVED EQUAL. MIXED AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

NO.	DESCRIPTION	DATE	BY
R2	ADDED GROUT NOTE	10/18/85	RLB

REVISIONS

ROHN

TITLE

GROUTING & DRAINAGE DETAIL FOR PORTAL & M.W. SERIES SECTIONS

FILE NO.

SCALE: NONE	MATERIAL	FINISH	WT
DWN BY: O. HASCHKE	DATE: 11-12-69	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES	
CK'D BY: T.S. CH	DATE: 12-1-69	TOLERANCES: DEC ± FRAC ± ANGLES ±	DWG. NO. B 691111 R2
APP'D: MF	DATE: 12/2/69		

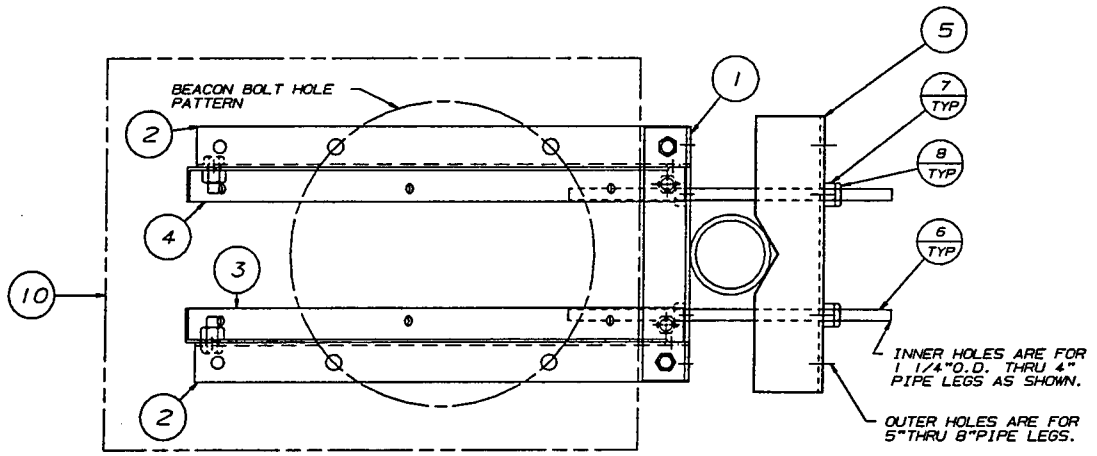
ASSY P/N APL1258UM BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	KH4478	SUPPORT BRACKET L2 X 3/16"	B911674
2	2	KH4479	SUPPORT BRACKET L1 3/4 X 3/16"	B911675
3	1	KH4480	ANGLE KNEE BRACE L1 1/2 X 1/8"	B911676
4	1	KH4481	ANGLE KNEE BRACE L1 1/2 X 1/8"	B911676
5	2	KH3238	CLAMP	C861055
6	4	210255G	1/2" THREADED ROD 14"	N/A
7	8	230013	1/2" NUT	C770404
8	8	230011	1/2" PAL NUT	C770404
9	6	210017GA	BOLT ASSY 1/ X 1 1/4"	C770404

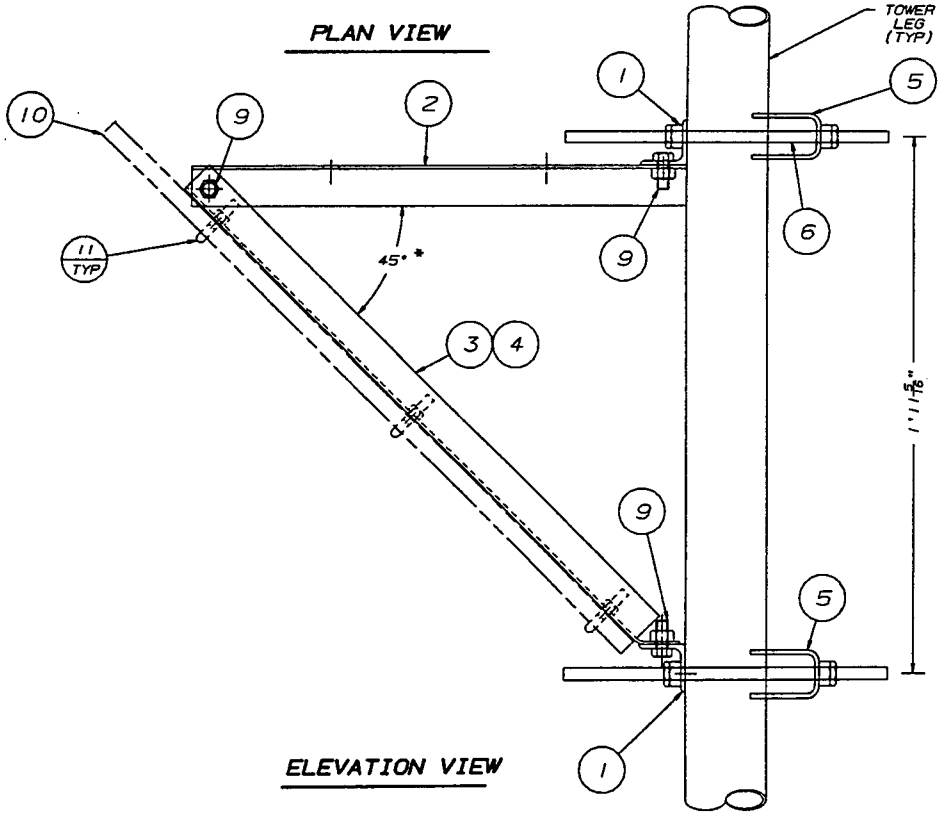
ASSY P/N ISBEACON BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	KH4478	SUPPORT BRACKET L2 X 3/16"	B911674
2	2	KH4479	SUPPORT BRACKET L1 3/4 X 3/16"	B911675
3	1	KH4480	ANGLE KNEE BRACE L1 1/2 X 1/8"	B911676
4	1	KH4481	ANGLE KNEE BRACE L1 1/2 X 1/8"	B911676
5	2	KH3238	CLAMP	C861055
6	4	210255G	1/2" THREADED ROD 14"	N/A
7	8	230013	1/2" NUT	C770404
8	8	230011	1/2" PAL NUT	C770404
9	6	210017GA	BOLT ASSY 1/ X 1 1/4"	C770404
10	1	KH4482	3LB GRATING ICE SHIELD	B911686
11	6	J167A	J-BOLT ASSY 3/8 X 1-5/8"	B910973

* BEACON MOUNTING SURFACE SHALL BE LEVEL. ADJUST KNEE BRACE ANGLE ACCORDINGLY ON A TAPERED LEGS.

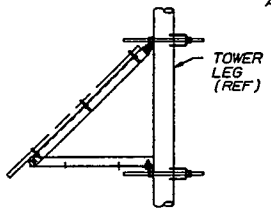


PLAN VIEW



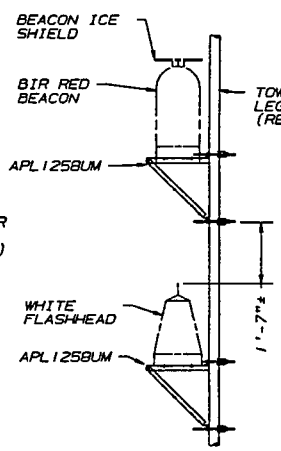
ELEVATION VIEW

SEE TOWER ASSEMBLY DRAWING IF ADDITIONAL LIGHTS ARE REQUIRED.

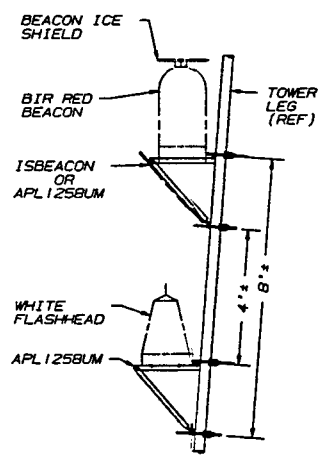


ISBEACON

LOCATE APPROXIMATELY 4' ABOVE BEACON BASE



DUAL BEACONS ON STRAIGHT TOWER



DUAL BEACONS ON TAPERED TOWER

R1	REMOVED BEACON ICE SHIELD P/N-ISBIR	4-19-96	PJD	WAN	TS
No.▲	Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

R O H N

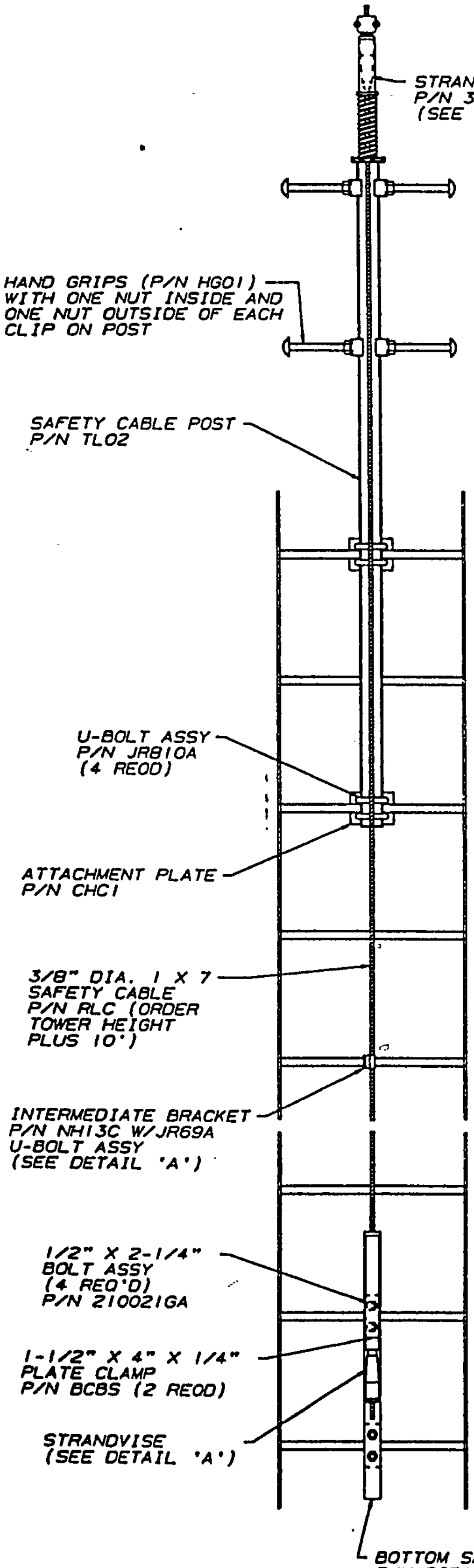
	By	Date
Scale: NONE		
Drawn:	RKB	12-5-91
Checked:	WDU	12-11-91
App. Eng.:	TS	12-12-91
App. Sales:	JC	12-12-91

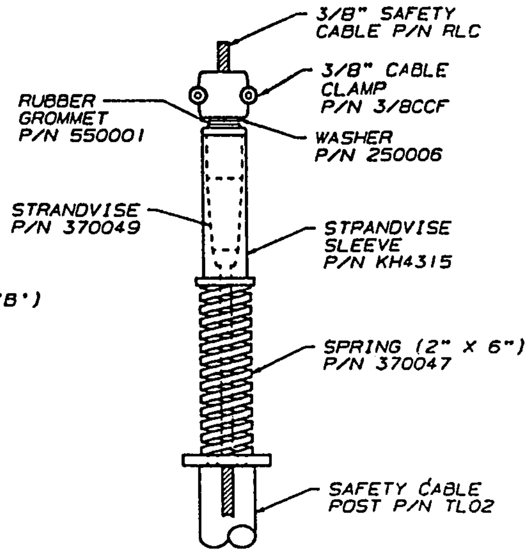
Title: MID BEACON PLATE ASSEMBLY AND BEACON ICE SHIELD 1 1/4"OD THRU 8"LEGS

ENG. FILE:

DRAWING NO.: C911782R1

S





DETAIL 'B'

NOTE: THIS SAFETY DEVICE INSTALLATION TO BE USED FOR ALL ROHN TOWERS USING EITHER A HEAVY OR STANDARD LADDER.

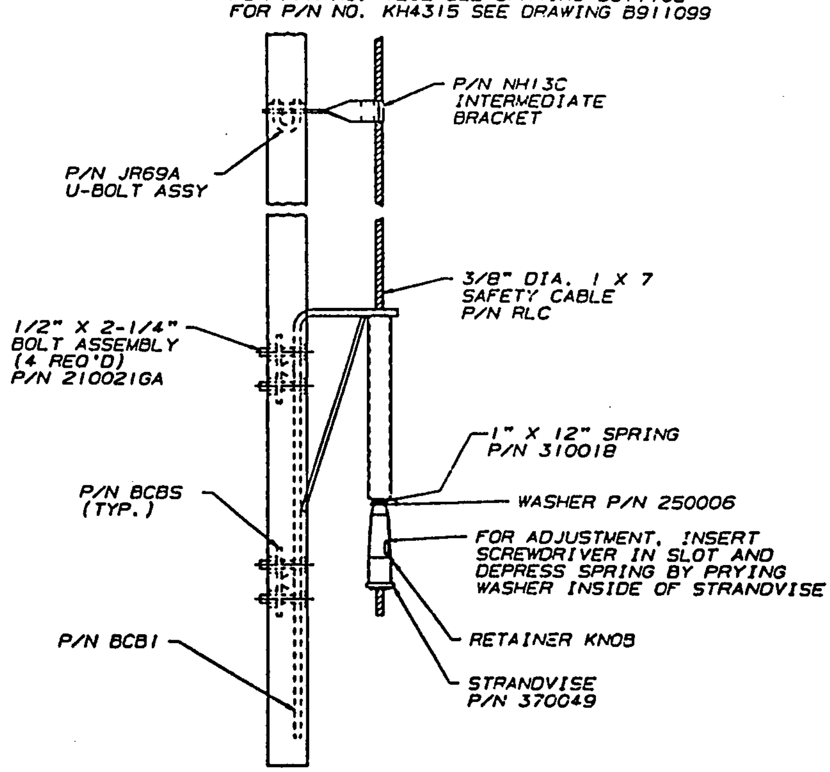
DESIGN NOTES:

1. ROHN-LOC CLAMP MUST BE USED WITH A 3/8" DIA. 1 X 7 STEEL SAFETY CABLE.
2. IN THE EVENT OF A FALL, INSPECT COMPLETE SAFETY CLIMB SYSTEM AND REPLACE ANY DAMAGED PARTS BEFORE REUSING.
3. ROHN-LOC SYSTEM MEETS OSHA 1910.27 AND ANSI A14.3-1984.

FABRICATION DRAWINGS

(FOR SHOP USE ONLY)

FOR P/N NO. BCB1 & BCBS SEE DRAWING C730517
FOR P/N NO. NH13C SEE DRAWING B740610
FOR P/N NO. CHC1 SEE DRAWING SK7309038
FOR P/N NO. TL02 SEE DRAWING B911108
FOR P/N NO. KH4315 SEE DRAWING B911099



DETAIL 'A'

NOTE: PAL NUTS PROVIDED FOR ALL BOLTS EXCEPT HAND GRIPS

No.	Revision Description	Date	Rev By	Ckd By	Appd By
R4	ADDED PART NUMBERS	[illegible]	JHD	LJC	[illegible]
R3	ADDED SPRING AT TOP & REDRAWN	[illegible]	WEB	WDU	HA
R2	REVISED BOTTOM BOLTS TO 2-1/4" LG.	[illegible]	JHD	WDU	TS
R1	ADDED DETAIL B	7/9/80	KTL	JHD	

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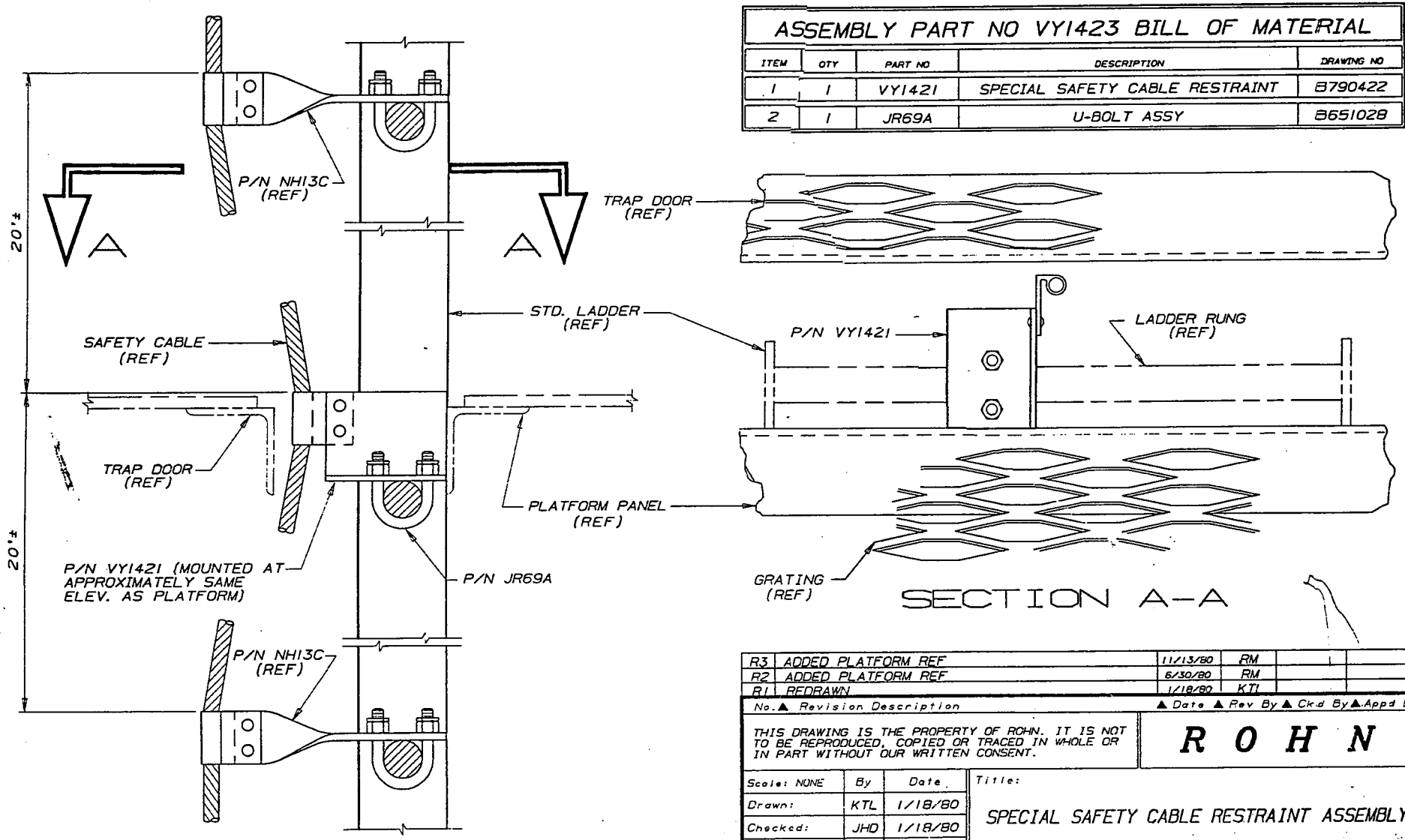
ROHN

Title: ROHN-LOC INSTALLATION DETAILS FOR ROHN TOWERS W/LEG OR FACE MOUNTED LADDER

Scale: NONE	By	Date
Drawn:	OH	11/22/74
Checked:	WDU	12/3/74
App. Eng.:	CW	1/8/75
App. Sales:	CAW	1/8/75

DRAWING NO.: C7411170R4



ASSEMBLY PART NO VY1423 BILL OF MATERIAL

ITEM	QTY	PART NO	DESCRIPTION	DRAWING NO
1	1	VY1421	SPECIAL SAFETY CABLE RESTRAINT	B790422
2	1	JR69A	U-BOLT ASSY	B651028

R3	ADDED PLATFORM REF	11/13/80	RM		
R2	ADDED PLATFORM REF	6/30/80	RM		
R1	REDRAWN	1/18/80	KTL		

No.▲ Revision Description ▲ Date ▲ Rev By ▲ Ck'd By ▲ Appd By

ROHN

Scale: NONE	By	Date
Drawn:	KTL	1/18/80
Checked:	JHD	1/18/80
App. Eng.:	TS	1/19/80
App. Sales:	JC	9/2/80

Title: SPECIAL SAFETY CABLE RESTRAINT ASSEMBLY

ENG. FILE:

DRAWING NO.: B790421 R3

ASSEMBLY BOLT INSTALLATION:

ALL TOWER ASSEMBLY BOLTS ARE TO BE INSERTED OUT AND/OR UP (I.E. WITH NUTS AND PAL NUTS ON OUTSIDE OF TOWER FACE AND/OR ON TOP OF FLANGE PLATES) UNLESS PROHIBITED BY LACK OF CLEARANCE

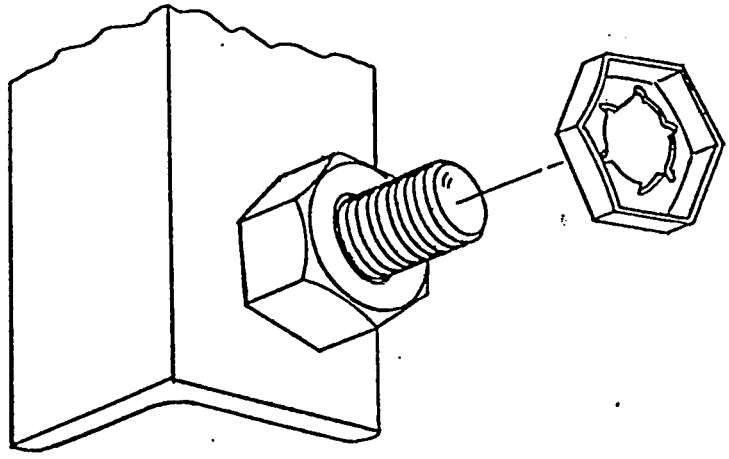
ALL ASSEMBLY AND ANCHOR BOLTS ARE TO BE TIGHTENED IN ACCORDANCE WITH ANSI/EIA-222-E SECTION 1.1.3.2 - (WHERE HIGH-STRENGTH BOLTS ARE USED FOR BEARING-TYPE CONNECTIONS, AS A MINIMUM, THE BOLTS SHALL BE TIGHTENED TO A " SNUG TIGHT" CONDITION AS DEFINED IN THE NOVEMBER 13,1985, AISC, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".)

FLAT WASHERS ARE TO BE INSTALLED WITH BOLTS OVER SLOTTED HOLES.

CAUTION: DO NOT OVER-TORQUE! GALVANIZING ON BOLTS, NUTS, AND STEEL PARTS MAY ACT AS A LUBRICANT, THUS OVER-TIGHTENING MAY OCCUR AND MAY CAUSE BOLTS TO CRACK AND SNAP OFF.

PAL NUT INSTALLATION

PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT. (SEE PICTURE) PAL NUTS NOT REQUIRED WHEN SELF-LOCKING NUTS ARE PROVIDED.



R2	UPGRADE FOR E.I.A. REV E	8-4-92	WRJ KPT
R1	UPGRADE FOR EIA REV. D	12-29-87	FHT/JHD/

No. ▲ Revision Description ▲Date ▲By

Unarco-Rohn

Division of Unarco Industries, Inc.

Title

BOLT ASSEMBLY INSTALLATION

Scale NONE

Drawn by O.A. Date 7-5-79

Checked by JWB Date 7-5-79

Approved by Engineering TS Date 7-5-79

Approved by Production Date

Approved by Sales PHL Date 7-10-79

Unless otherwise specified, dimensions are given in inches.

Tolerances

Decimals	Fractions	Angles
±	±	±

Material | Finish | Weight

File Number

Drawing Number A 790135 R2

FOUNDATION AND ANCHOR TOLERANCES

ALL FOUNDATIONS

1. CONCRETE DIMENSIONS - PLUS OR MINUS 1" (25 mm).
2. DEPTH OF FOUNDATION - PLUS 3" (76 mm) OR MINUS 0".
3. DRILLED FOUNDATIONS OUT OF PLUMB - 1.0 DEGREE.
4. REINFORCING STEEL PLACEMENT - PER A.C.I. 301.
5. PROJECTION OF EMBEDMENTS - PLUS OR MINUS 1/8" (3 mm).
6. VERTICAL EMBEDMENTS OUT OF PLUMB - 1/2 DEGREE.

ANCHOR BOLTS

7. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTERLINE OF FOUNDATION - 1/24 OF PIER DIAMETER UP TO A MAXIMUM OF 2". (51 mm).
8. ANCHOR BOLT SPACING - 1/16" (2 mm).
9. ANCHOR BOLT CIRCLE ORIENTATION - 1/4 DEGREE.
10. ANCHOR BOLT CIRCLE DIAMETER - PLUS OR MINUS 1/16" (2 mm).

SELF-SUPPORTING TOWERS

11. FACE SPREAD DIMENSION CENTER TO CENTER OF ANCHOR BOLT CIRCLES - PLUS OR MINUS 1/16" (2 mm) OR 1/16" (2 mm) PER 20 FT (6 m) OF FACE SPREAD.
12. MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS - 1/2" (13 mm).

GUYED TOWERS

13. GUY RADIUS - PLUS OR MINUS 5 PERCENT OF DISTANCE SPECIFIED.
14. ANCHOR ELEVATION - PLUS OR MINUS 5 PERCENT OF GUY RADIUS.
15. ANCHOR ALIGNMENT (PERPENDICULAR TO GUY RADIUS) - 0.1 DEGREES.
16. ANCHOR ROD SLOPE - PLUS OR MINUS 1.0 DEGREE.
17. ANCHOR ROD ALIGNMENT WITH GUY RADIUS PLUS OR MINUS 1.0 DEGREE.
18. ANCHOR HEAD OUT OF PLUMB - 1.0 DEGREE.
19. GUY INITIAL TENSION - PLUS OR MINUS 10 PERCENT OF TENSION SPECIFIED.

NOTE: TOLERANCES IN NOTES 13 AND 14 CAN NOT OCCUR SIMULTANEOUSLY.

WARNING !!!

AFTER ANCHOR BOLTS ARE INSTALLED AND CONCRETE HAS TAKEN ITS INITIAL SET, ANCHOR BOLTS MUST NOT BE MOVED, BENT OR REALIGNED IN ANY MANNER. A NUT LOCKING DEVICE MUST BE INSTALLED ON ALL ANCHOR BOLTS.

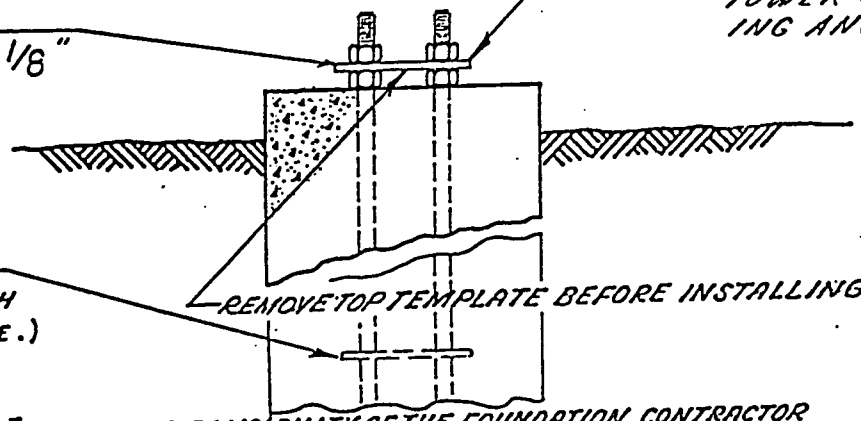
No. ▲	Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By
R6	REVISED AND REDRAWN	12/23/96	JLR	[illegible]	XK

ROHN

Scale: NONE	By	Date
Drawn:	CSR	6/19/87
Checked:	KTL	9/25/87
App. Eng.:	XK	9/25/87
App. Sales:	AE	2/12/88

Title: FOUNDATION AND ANCHOR TOLERANCES

DRAWING NO.: A810214R6



(R3) ANCHOR BOLT TEMPLATE (WITH 1/8" CENTER HOLE)

ANCHOR BOLT SETTING TEMPLATE - (SEE ANCHOR BOLT LAYOUT OF EACH TOWER SITE FOR TEMPLATE PART NO.).

(R1) FOR 6" THRU 14" PIPE LEGS ONLY LOCATE TEMPLATE SUCH THAT SCRIBED LINE PASSING THRU CENTER HOLE & 2 CENTER PUNCH MARKS IS ON LINE TO TOWER AXIS. SEE ANCHOR BOLT LAYOUT OF EACH TOWER SITE FOR FURTHER INFORMATION CONCERNING ANCHOR BOLT ORIENTATION.

CHECK ANCHOR BOLT SIZE, NO., SPACING, & BOLT CIRCLE DIA. ON TEMPLATE AGAINST ANCHOR BOLT LAYOUT DRAWINGS BEFORE INSTALLATION.

(R2) ANCHOR BOLT TEMPLATE (WITH LAREER CENTER HOLE.)

REMOVE TOP TEMPLATE BEFORE INSTALLING TOWER.

NOTE: IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY THAT THE CORRECT ANCHOR BOLT TEMPLATE AND FOUNDATION DIMENSIONS SHOWN ON RESPECTIVE SITE DRAWINGS ARE BEING USED.

NO.	DESCRIPTION	DATE	BY
R4	REVISED AND ADDED NOTE AS MARKED	8/3/82	ZZ
R3	REVISED LEG SIZE	10/13/80	OH
R2	CORRECTED LEG SIZE	4/20/79	GLS
R1	ADD NOTE.	12/20/78	GLS

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

TITLE
ANCHOR BOLT TEMPLATE INSTALLATION

FILE NO.

SCALE ~	MATERIAL	FINISH	WT.
DWN. BY O.H.	DATE 4-7-73	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CH'D. BY T.S.	DATE 4-13-73	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. B 730521 R5
APP'D. ENGR. [illegible]	DATE 4-13-73		
APP'D. SALES [illegible]	DATE 4-12-73		

R5	REVISED ANCHOR BOLT TEMPLATES.	12-29-87	FHT/JHD	

STANDARD FOUNDATION NOTES

1. FOUNDATION DESIGNS ARE IN ACCORDANCE WITH ANSI/EIA-222-E, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES", SECTION 7, FOR "NORMAL" SOIL CONDITIONS. "NORMAL" SOIL IS DEFINED AS DRY, COHESIVE SOIL WITH AN ALLOWABLE NET VERTICAL BEARING CAPACITY OF 4000 PSF (192 kPa) AND AN ALLOWABLE NET HORIZONTAL PRESSURE OF 400 PSF PER LINEAL FOOT OF DEPTH (62.8 kPa PER LINEAL METER OF DEPTH) TO A MAXIMUM OF 4000 PSF (192 kPa).
2. THE PURCHASER MUST VERIFY THAT ACTUAL SITE SOIL PARAMETERS MEET OR EXCEED E.I.A. "NORMAL" SOIL PARAMETERS AND THAT THE DEPTH OF STANDARD FOUNDATIONS ARE ADEQUATE BASED ON THE FROST PENETRATION AND/OR ZONE OF SEASONAL MOISTURE VARIATION AT THE SITE. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT "NORMAL" SOIL PARAMETERS ARE NOT APPLICABLE FOR THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED.
3. FOUNDATION DESIGNS ASSUME FIELD INSPECTIONS WILL BE PERFORMED BY THE PURCHASER'S REPRESENTATIVE TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON THE CONDITIONS EXISTING AT THE SITE.
4. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
5. ANCHOR BOLTS SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM A354 GRADE BC AND SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION (FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH).
6. PAL NUTS OR ANCO NUTS SHALL BE INSTALLED ON ALL ANCHOR BOLTS.
7. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE STATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
8. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI (20.7 MPa) IN 28 DAYS.
9. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.
10. REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.
11. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE.
12. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
13. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES (76 mm) UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH (76 mm) MINIMUM COVER ON REINFORCEMENT.
14. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES (76 mm) NOR BE LESS THAN 2 INCHES (51 mm).
15. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
16. FOUNDATION DESIGNS ASSUME STRUCTURAL BACKFILL TO BE COMPACTED IN 8 INCH (200 mm) MAXIMUM LAYERS TO 95% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16 kN/m3).
17. FOUNDATION DESIGNS ASSUME LEVEL GRADE AT TOWER SITE.
18. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED INSTALLATION PRACTICES.
19. FOR FOUNDATION AND ANCHOR TOLERANCES SEE DRAWING AB10214.
20. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
21. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS AND OTHER OCCURRENCES WHICH MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
22. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING SIDES OF EXCAVATION, FORMWORK, REINFORCING BARS, FORM TIES, CAGE BRACING OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
23. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL EXCEPT FOR PIERS OF PIER AND PAD FOUNDATIONS. FORMS FOR PIERS SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.
24. CONSTRUCTION JOINTS, IF REQUIRED IN PIER MUST BE AT LEAST 12 INCHES (305MM) BELOW BOTTOM OF EMBEDMENTS AND MUST BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 1/4 INCH (6MM). FOUNDATION DESIGN ASSUMES NO OTHER CONSTRUCTION JOINTS.
25. TOP OF FOUNDATION OUTSIDE LIMITS OF ANCHOR BOLTS SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH. AREA INSIDE LIMITS OF ANCHOR BOLTS SHALL BE LEVEL WITH A SCRATCHED FINISH.
26. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" (19 mm X 19 mm) MINIMUM.
27. FOR ANCHOR BLOCK TYPE FOUNDATIONS, THE PORTION OF ALL STEEL ANCHORS, FROM TOP OF ANCHOR BLOCK TO GROUND LEVEL, SHALL BE COATED WITH BITUMEN. DESIGN ASSUMES PERIODIC INSPECTIONS WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE TO DETERMINE IF ADDITIONAL ANCHOR CORROSION PROTECTION MEASURES MUST BE IMPLEMENTED BASED ON OBSERVED SITE-SPECIFIC CONDITIONS

No.	Revision Description	Date	Rev By	Ckd By	Appd By
R10	REVISED NOTE #9 & #24	11/3/94	CSR	KTC	KK
R9	REV'D NOTES 27 & 9	1-18-94	RKB	WDU	XK

ROHN

	By	Date
Scale: NONE		
Drawn:	CSR	6/17/87
Checked:	HA	1/6/88
App. Engr.:	XK	1/6/88
App. Sales:	AE	2/2/88

Title: FOUNDATION MATERIAL SPECIFICATIONS, INSTALLATION NOTES AND TOLERANCES

DRAWING NO.: B841300R10

A	B	C	D	U-BOLT P/N	HEX NUTS 2 REQ'D.	PAL NUTS 2 REQ'D.	U-BOLT ASS'Y. P/N
1/4	1	2	1 1/4	JR 41	240005	—	JR 41A
	1 3/4	2 1/4	1 1/4	JR 44	240005	—	JR 44A
	1 1/4	2 1/4	1 3/8	JR 45	240005	—	JR 45A
	5/8	1 5/16	1/2	JR 47	240005	—	JR 47A
5/16	1 1/2	2 5/8	1 1/4	JR 51	230002	230001	JR 51A
	2	3	1 1/2	JR 52	240014	—	JR 52A
	2 1/4	2 3/16	7/8	JR 53	230002	230001	JR 53A
	1 11/16	2 1/4	1	JR 54	230002	230001	JR 54A
	1 1/2	2	1 1/4	JR 55	230002	230001	JR 55A
	SEE DWG. NO. BT70803			JR 56	230002	230001	JR 56A
3/8	2 1/2	3 1/2	1 1/2	JR 61	230005	230007	JR 61A
	4	6	2 1/4	JR 62	230005	230007	JR 62A
	4 1/2	6 1/2	2 1/4	JR 63	230005	230007	JR 63A
	3 1/2	4 5/8	1 5/8	JR 64	230005	230007	JR 64A
	1 1/2	3	1 3/4	JR 65	230005	230007	JR 65A
	1 1/4	2 3/4	1 5/8	JR 66	230005	230007	JR 66A
	1	2 1/4	1 1/4	JR 67	230005	230007	JR 67A
	2 1/8	3	1 1/4	JR 68	230005	230007	JR 68A
	1 3/16	1 5/8	7/8	JR 69	230005	230007	JR 69A
	2 1/2	4	2	JR 60	230005	230007	JR 60A
				JR817	230013	230011	JR817A
1/2	1 3/4	3 1/4	1 3/4	JR 810	230013	230011	JR 810A
	2	4 1/4	2 1/4	JR 81	230013	230011	JR 81A
	3/4	3 1/2	2 1/2	JR 82	230013	230011	JR 82A
	2 1/4	4 1/2	2 1/4	JR 83	230013	230011	JR 83A
	2 1/2	4 1/2	2 1/2	JR 84	230013	230011	JR 84A
	3	5 5/8	3	JR 85	230013	230011	JR 85A
	4 1/2	6	2 1/4	JR 86	230013	230011	JR 86A
	5 5/8	8	3 1/4	JR 87	230013	230011	JR 87A
	6 3/4	9	3 1/4	JR 88	230013	230011	JR 88A
	3 1/2	6	3	JR 89	230013	230011	JR 89A
	4	6 1/2	3 1/2	JR 90S	230013	230011	JR 90SA
	8 3/4	11 7/8	2 1/2	JR 110	230013	230011	JR 110A
	10 7/8	13	2 1/2	JR 120	230013	230011	JR 120A
	12 7/8	15	2 1/2	JR 85XL	230013	230011	JR 85XLA
*	4 1/2	8 5/16	2 1/2	JR 140	230013	230011	JR 140A
	17 1/8	16 7/4	2 1/2				

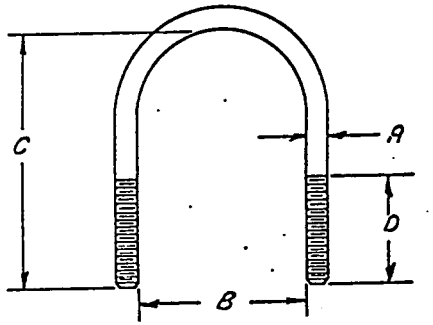
NOTE: *

U-BOLT JR85XL CAN BE FABRICATED FROM U-BOLT JR56 (THIS IS AN EXTRA LONG U-BOLT FOR 4" PIPE)

FABRICATION DRAWINGS
(FOR SHOP USE ONLY)

JR 90S — — — — A 690902 A
JR 110 — — — — A 730501
JR 120 — — — — A 730502
*JR85XL — — — — BE10416
JR 140 — — — — A810189
JR817 — — — — — A940936

NOTE: ALL THREADS ARE NC ROLLED.



R27	ADDED JR817 U-BOLT	2-14-94	RKE
R26	JR810 WAS 3 3/4" LONG & D WAS 1 3/4"	4-21-89	JHD
R25	JR85XL WAS JR85L	10-7-85	RCB
R24	JR86 & JR87 - 'D' DIM. WAS 2 1/2"	2-17-84	RAR
R23	REDRAW & REV. JR88 (D DIMENSION WAS 2 1/2)	12-21-81	HRS
No.	Revision Description	Date	By

ROHN

Title: U-BOLT ASSEMBLY

Scale: NONE

Drawn by: DWL — Date: 5-5-77

Checked by: MCD — Date: 5-10-77

Approved by Engineering: CLJ — Date: 5-11-77

Approved by Production — Date

Approved by Sales: JC — Date: 5-11-77

Unless otherwise specified, dimensions are given in inches.
Tolerances
Decimals ± | Fractions ± | Angles ±
Material | Finish | Weight

File Number

Drawing Number: B 651028 R27

(1/2"BOLT) HORIZONTAL BRACE ASSEMBLIES

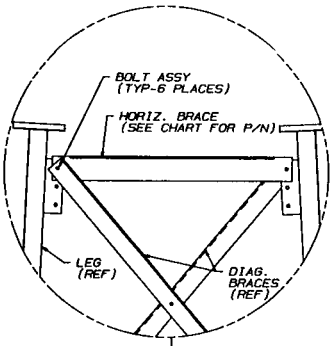
SECTION NUMBER	● HOR. BRACE LOCATION	ASSY P/N	ANGLE BRACE SIZE	HORIZ. BRACE P/N	QTY	BOLT SIZE	BOLT ASSY PART NO.	QTY	HORIZ. BRACE FAB. DWG. NO.
6N	1-TOP CLIP	VB798A	L1 1/2X1/8"	VB739	3	1/2 X 1 1/2"	* 2100180AW	6	8880973
	2-2nd CLIP	VB799A	L1 1/2X1/8"	VB756	3	1/2 X 1 1/4"	2100170A	6	8880979
	3-3rd CLIP	VB800A	L1 1/2X1/8"	VB757	3	1/2 X 1 1/4"	2100170A	6	8880979
	4-4th CLIP	VB801A	L1 1/2X1/8"	VB758	3	1/2 X 1 1/4"	2100170A	6	8880979
	5-5th CLIP	VB802A	L1 1/2X1/8"	VB759	3	1/2 X 1 1/4"	2100170A	6	8880979
7N	6-TOP CLIP	VB803A	L1 1/2X1/8"	VB741	3	1/2 X 1 1/2"	* 2100180AW	6	8880973
	7-2nd CLIP	VB804A	L1 1/2X1/8"	VB764	3	1/2 X 1 1/4"	2100170A	6	8880979
	8-3rd CLIP	VB805A	L1 1/2X1/8"	VB765	3	1/2 X 1 1/4"	2100170A	6	8880979
	9-4th CLIP	VB806A	L1 3/4X1/8"	VB766	3	1/2 X 1 1/4"	2100170A	6	8880979
	10-5th CLIP	VB807A	L1 3/4X1/8"	VB767	3	1/2 X 1 1/4"	2100170A	6	8880979
8N	11-TOP CLIP	VB808A	L2X2X1/8"	VB743	3	1/2 X 1 1/2"	* 2100180AW	6	8880973
	12-2nd CLIP	VB809A	L2X2X1/8"	VB772	3	1/2 X 1 1/4"	2100170A	6	8880980
	13-3rd CLIP	VB810A	L2 1/2X3/16"	VB773	3	1/2 X 1 1/4"	2100170A	6	8880980
	14-4th CLIP	VB811A	L2 1/2X3/16"	VB774	3	1/2 X 1 1/4"	2100170A	6	8880980
9N	15-TOP CLIP	VB812A	L2 1/2X3/16"	VB745	3	1/2 X 1 1/2"	2100180A	6	8880973
	16-2nd CLIP	VB813A	L3X3X3/16"	VB778	3	1/2 X 1 1/2"	2100180A	6	8880981
	17-3rd CLIP	VB814A	L3X3X3/16"	VB779	3	1/2 X 1 1/2"	2100180A	6	8880981
10N	18-TOP CLIP	VB815A	L3 1/2X1/4"	VB748	3	1/2 X 1 3/4"	★ 2100190AWW	6	8880974
	19-2nd CLIP	VB816A	L3 1/2X1/4"	VB784	3	1/2 X 1 3/4"	★ 2100190AWW	6	8880981
	20-3rd CLIP	VB817A	L3 1/2X1/4"	VB785	3	1/2 X 1 3/4"	★ 2100190AWW	6	8880981
11N	21-TOP CLIP	VB818A	L4X4X1/4"	VB751	3	1/2 X 1 3/4"	★ 2100190AWW	6	8880974
	22-2nd CLIP	VB819A	L5X5X5/16"	VB790	3	1/2 X 1 3/4"	* 2100190AW	6	8880982
	23-3rd CLIP	VB820A	L5X5X5/16"	VB791	3	1/2 X 1 3/4"	* 2100190AW	6	8880982

(5/8"BOLT)HORIZONTAL BRACE ASSEMBLIES

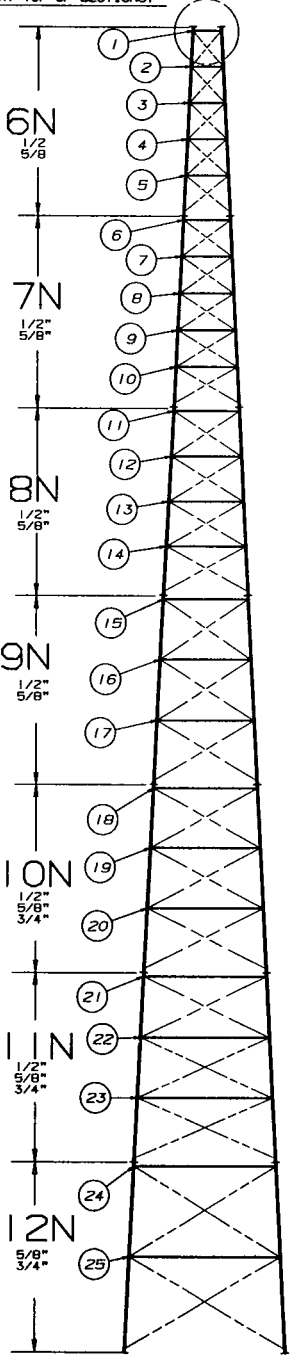
SECTION NUMBER	● HOR. BRACE LOCATION	ASSY P/N	ANGLE BRACE SIZE	HORIZ. BRACE P/N	QTY	BOLT SIZE	BOLT ASSY PART NO.	QTY	HORIZ. BRACE FAB. DWG. NO.
6N	1-TOP CLIP	VB821A	L1 3/4 X 1/8"	VB740	3	5/8 X 1 3/4"	2100300A	6	8880973
	2-2nd CLIP	VB822A	L1 3/4 X 1/8"	VB760	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880979
	3-3rd CLIP	VB823A	L1 3/4 X 1/8"	VB761	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880979
	4-4th CLIP	VB824A	L1 3/4 X 1/8"	VB762	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880979
	5-5th CLIP	VB825A	L1 3/4 X 1/8"	VB763	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880979
7N	6-TOP CLIP	VB826A	L1 3/4 X 1/8"	VB742	3	5/8 X 1 3/4"	2100300A	6	8880973
	7-2nd CLIP	VB827A	L1 3/4 X 1/8"	VB768	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880980
	8-3rd CLIP	VB828A	L1 3/4 X 1/8"	VB769	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880980
	9-4th CLIP	VB829A	L1 3/4 X 1/8"	VB770	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880980
	10-5th CLIP	VB830A	L1 3/4 X 1/8"	VB771	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880980
8N	11-TOP CLIP	VB831A	L2X2X1/8"	VB744	3	5/8 X 2"	★ 2100310AWW	6	8880973
	12-2nd CLIP	VB832A	L2X2X1/8"	VB775	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880980
	13-3rd CLIP	VB833A	L2 1/2X3/16"	VB776	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880980
	14-4th CLIP	VB834A	L2 1/2X3/16"	VB777	3	5/8 X 1 3/4"	★ 2100300AWW	6	8880980
9N	15-TOP CLIP	VB835A	L2 1/2X3/16"	VB746	3	5/8 X 2"	★ 2100310AWW	6	8880973
	16-2nd CLIP	VB836A	L3X3X3/16"	VB780	3	5/8 X 2"	★ 2100310AWW	6	8880981
	17-3rd CLIP	VB837A	L3X3X3/16"	VB781	3	5/8 X 2"	★ 2100310AWW	6	8880981
10N	18-TOP CLIP	VB838A	L3 1/2X1/4"	VB749	3	5/8 X 2"	* 2100310AW	6	8880974
	19-2nd CLIP	VB839A	L3 1/2X1/4"	VB786	3	5/8 X 2"	* 2100310AW	6	8880981
	20-3rd CLIP	VB840A	L3 1/2X1/4"	VB787	3	5/8 X 2"	* 2100310AW	6	8880981
11N	21-TOP CLIP	VB841A	L4X4X1/4"	VB752	3	5/8 X 2"	* 2100310AW	5	8880974
	22-2nd CLIP	VB842A	L5X5X5/16"	VB792	3	5/8 X 2"	2100310A	6	8880982
	23-3rd CLIP	VB843A	L5X5X5/16"	VB793	3	5/8 X 2"	2100310A	6	8880982
12N	24-TOP CLIP	VB844A	L5X5X5/16"	VB754	3	5/8 X 2"	2100310A	6	8880974
	25-2nd CLIP	VB845A	L5X5X5/16"	VB796	3	5/8 X 2"	2100310A	6	8880982

(3/4"BOLT) HORIZONTAL BRACE ASSEMBLIES

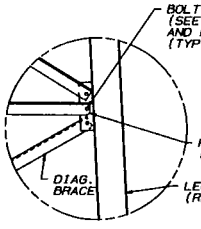
SECTION NUMBER	● HOR. BRACE LOCATION	ASSY P/N	ANGLE BRACE SIZE	HORIZ. BRACE P/N	QTY	BOLT SIZE	BOLT ASSY PART NO.	QTY	HORIZ. BRACE FAB. DWG. NO.
10N	18-TOP CLIP	VB849A	L3 1/2X1/4"	VB750	3	3/4 X 2 1/4"	2100480A	6	8880974
	19-2nd CLIP	VB850A	L3 1/2X1/4"	VB788	3	3/4 X 2 1/4"	2100480A	6	8880981
	20-3rd CLIP	VB851A	L3 1/2X1/4"	VB789	3	3/4 X 2 1/4"	2100480A	6	8880981
11N	21-TOP CLIP	VB852A	L4X4X1/4"	VB753	3	3/4 X 2 1/4"	* 2100480AW	6	8880974
	22-2nd CLIP	VB853A	L5X5X5/16"	VB794	3	3/4 X 2 1/4"	2100480A	6	8880982
	23-3rd CLIP	VB854A	L5X5X5/16"	VB795	3	3/4 X 2 1/4"	2100480A	6	8880982
12N	24-TOP CLIP	VB855A	L5X5X5/16"	VB755	3	3/4 X 2 1/4"	2100480A	6	8880974
	25-2nd CLIP	VB856A	L5X5X5/16"	VB797	3	3/4 X 2 1/4"	2100480A	6	8880982



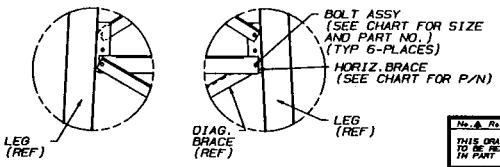
TYPICAL HORIZ.BRACE CONN. AT TOP OF SECTIONS.



ELEVATION VIEW



TYPICAL BRACE CONNECTION FOR SECTIONS 6 THRU 8



TYPICAL BRACE CONNECTION FOR SECTIONS 9 THRU 12

GENERAL NOTES

*1. A FLAT WASHER IS PROVIDED, AT LEAST TWO THREADS MUST BE SHOWING AFTER PAL NUTS ARE TIGHTENED.
2. HORIZONTAL BRACE CAN BE MOUNTED ON THE INSIDE OF THE TOWER (IF REQUIRED).
●3. BALLOONS INDICATE HORIZONTAL BRACE LOCATION.
*4. DOUBLE WASHERS ARE PROVIDED, AT LEAST TWO THREADS MUST BE SHOWING AFTER PAL NUTS ARE TIGHTENED.

No. & Revision Description	Date	Rev. By	Chd By	Appd By

ROHN

Scale: NONE	By	Date
Drawn:	RKB	8-4-88
Checked:	WHN	12/20/90
App. Eng.:	JS	12/28/90
App. Sales:	[illegible]	11/16/90

Title: 1/2, 5/8 & 3/4" HORIZONTAL BRACE ASSY'S FOR TAPERED SECTIONS

DRAWING NO.: D8806981 RO

enhancement of Sun's Java programming language, which permits platform independence. Jini is an unrestricted standard that allows traditionally and non-traditionally networked devices to 'talk' to each other. Thus, it will permit previously incompatible devices, like computers, cellular phones and TVs, to communicate

six months ago. The licensee equipment manufacturers on board so far have had access to the Jini network management tool during the intervening time while it was under development.

The new Jini network manager is based on Sun's Solstice Enterprise Management software, which already "has been deployed by telecommunications and en-

BEA Systems, Bosch Siemens, Bull, Canon, Cisco Systems Inc., Computer Associates, Creative Design Solutions, Dallas Semiconductor, Echelon, Encanto, Ericsson Inc., Funai, Inprise Corp., Kinkos Corp., Kodak Corp., Motorola Inc., Novell, Nokia Inc., Oki Electric, Philips, Phoenix Technologies, Quantum, Samsung, Seagate, Seiko Epson,

Sharp, Sony Corp., Sy
3Com Palm Computing,
Toshiba and Xerox Corp.

"Similar to the dial tone
senting continuous access
telephone, Jini technolog
vides for a seamless Web t
the network. [It] is a radi
parture ... as it complete
passes the need for bl
complex operating syster
trolled networks and inste
lows for direct plug-in t
network using intelligent
faces," Sun said.

"Jini technology uses the
ing infrastructure of the ne
so legacy devices can be sust
and brought forward as th
work evolves."

Sun said its Jini technology
ates with the support of four

Motorola, Su
on wireless

SCHAUMBURG, Ill.—M
Sun Microsystems' Jini tech
ware project code-named Pi

Currently in the research
technology that would enab
other nearby electronic devi
ing with them, according to
vices come into physical pro
cally detect each other's pres

Jini is a Sun project that ex
allowing networking of a wid

Motorola envisions using b
lular phones, pagers, persona
vices to create a personal wire
diately around them.

Among the devices in this n
ticipate the use of small Jini-
with the Internet or local intr

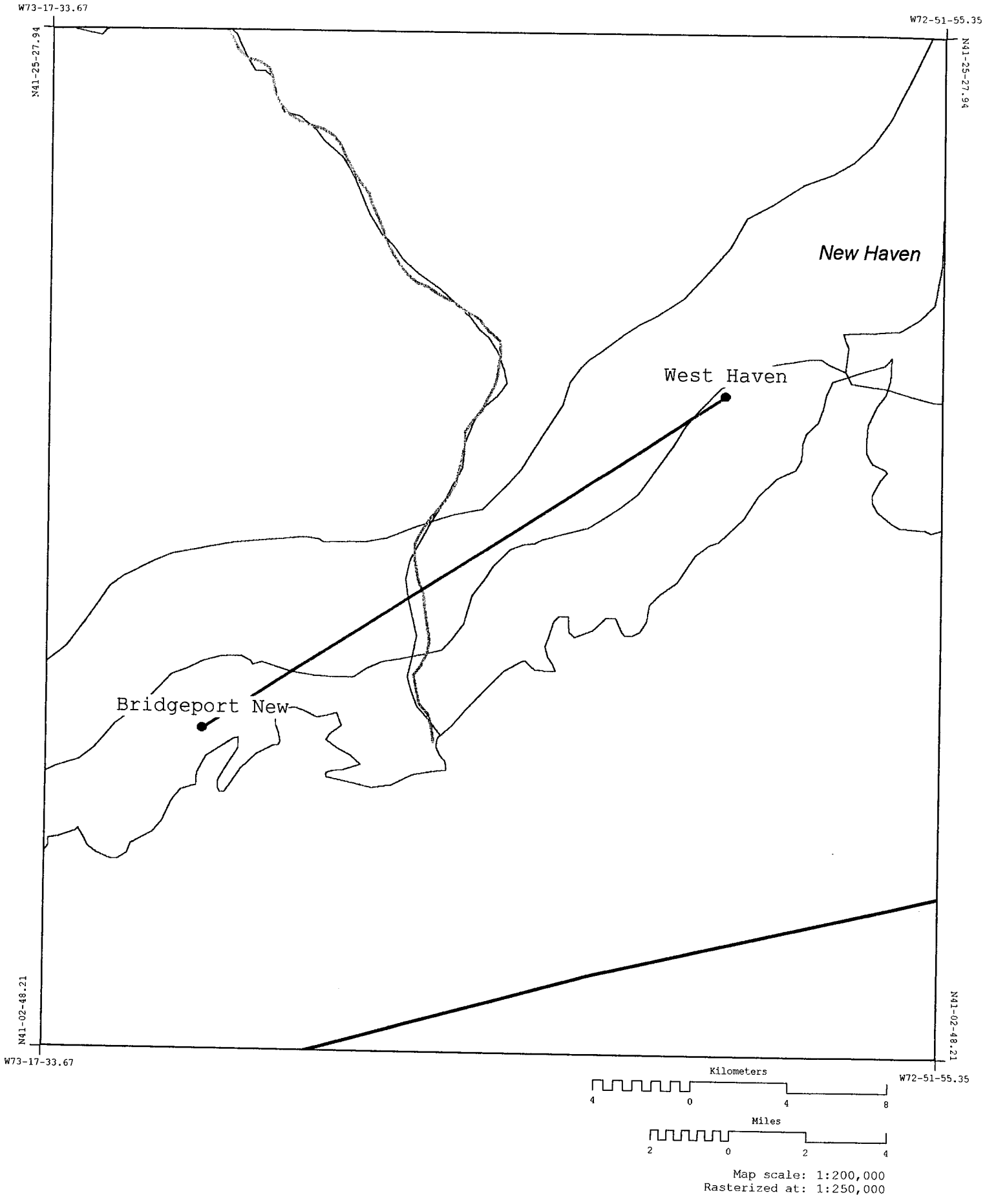
Motorola has been concentr
Special Interest Group plans
Motorola.

Prop levels:
-80.00 dBmW
-83.00 dBmW
-93.00 dBmW
-102.00 dBmW
-104.00 dBmW

Kilometers
3 0 3 6

Miles
2 0 2 4

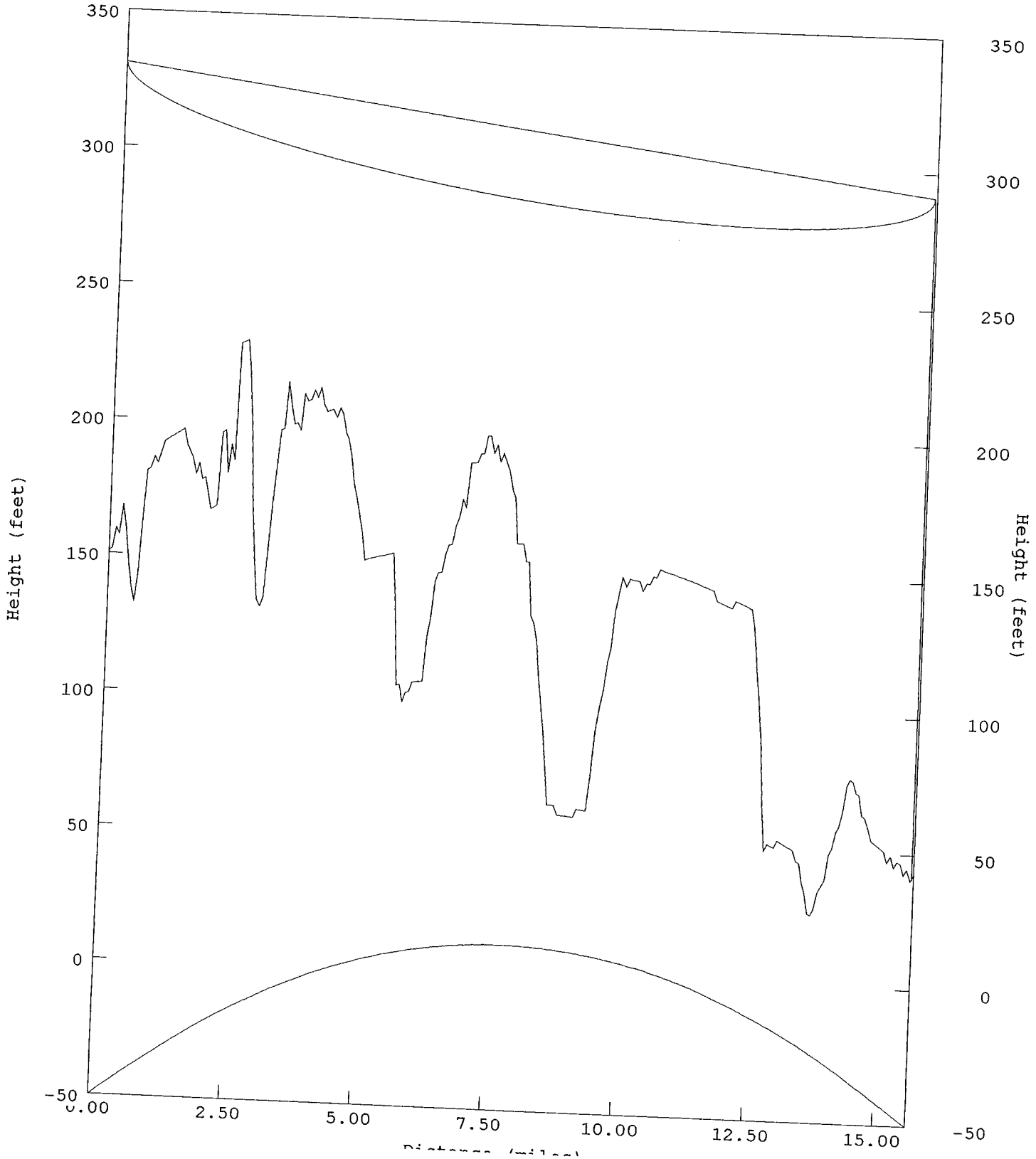
Map scale: 1:150,000
Rasterized at: 1:250,000


W73-17-33.67
W72-51-55.35
N41-25-27.94
N41-25-27.94
New Haven
West Haven
Bridgeport New
N41-02-48.21
N41-02-48.21
W73-17-33.67
W72-51-55.35
Kilometers
4 0 4 8
Miles
2 0 2 4
Map scale: 1:200,000
Rasterized at: 1:250,000

March 07, 2000

Study: West Haven-Bridgeport New
TX Site: West Haven
RX Site: Bridgeport New
TX --> RX: 15.56 mi, 236.4 degrees, 137.0 dB loss

TX Latitude: N41-17-28.35
TX Longitude: W72-58-04.37
RX Latitude: N41-09-58.35
RX Longitude: W73-13-01.41



WITH

ED TO A "SNUGTIGHT
985, AISC "SPECIFI-
25 OR A490 BOLTS".
V IS IN CONFORMANCE
NTS FOR OBSTRUCTION

TO PLUS 1% OR MINUS

ANCE AND INSPECTION
UCTURE IN

RS.
INES AND WAVEGUIDE
ACES.
RE MOUNTED SYMMETRI-

ROVIDED FROM 10' TO
DERS SHALL BE
GHT.
ERS, MUST BE ADEQUATE

PROVIDED FOR

WITH ROHN-LOC SAFETY
ENTIRE HEIGHT OF THE

SED FOR DESIGN. ACTUAL
NOT RESULT IN INCREASED

UTH USED TO ESTABLISH
PECT TO THE TOWER FOR

	W/15' MOUNTING FRAMES	(TOTAL)	(TOTAL)

NOTE: ANTENNA AZIMUTH IS SHOWN IN DEGREES WITHIN THE [BRACKETS]

SEE STRESS ANALYSIS FOR A COMPLETE LISTING OF ALL LOADS ON TOWER

SECTION MEMBER SCHEDULE

SECTION	LEG			BRACE	
	SIZE	BOLTED FLANGE CONNECTION NO.	BOLTED FLANGE CONNECTION SIZE (IN)	SIZE	CO
7A	PIPE2.5STD	4	3/4	L1.75X3/16	
7B	PIPE3.0STD	4	7/8	L 2X2X1/4	
7C	PIPE4.0E.H	4	1	L 2X2X1/4	
8	PIPE5.0E.H	6	1	L 2X2X1/4	
9	PIPE6.0E.H	6	1	L2-1/2X1/4	
10	PIPE6.0E.H	6	1	L 3X3X1/4	
11	PIPE6.0E.H	8	1	L 3X3X1/4	
12	PIPE8.0EHS	8	1	L 4X4X3/8	
13	PIPE8.0E.H	12	1	L 4X4X3/8	
14	PIPE10.E.H	12	1	L 5X5X3/8	
15	PIPE10.E.H	12	1	L 5X5X3/8	
16	PIPE10.E.H	12	1	L 5X5X3/8	
K	PIPE10.E.H	16	1	PIPE3.0STD PIPE3.0STD(H)	

NOTE: (H) REPRESENTS THE HORIZONTAL BRACE
NOTE: SECTION NUMBERS ARE FOR REFERENCE ONLY
FOR NOMINAL FACE WIDTH DIMENSIONS, REFER TO STRES

TUBULAR MEMBER PROPERTIES

MEMBER	SIZE	
	O.D. (IN)	THICK. (IN)
PIPE2.5STD	2.875	0.203
PIPE 3 STD	3.500	0.216
PIPE 4 E.H	4.500	0.337
PIPE 5 E.H	5.500	0.375
PIPE 6 E.H	6.625	0.432
PIPE 8 EHS	8.750	0.375
PIPE 8 E.H	8.750	0.500
PIPE10.E.H	10.750	0.500

RATION

EPORT, CT
TELD

No. ▲ Revision Description	▲ Date ▲
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Scale: NONE	By	Date
Drawn:	DLB	07/01/98
Checked:	JPG	7/1/98
App. Eng.:	HA	7/1/98
Parent File:		

250' SSVMW TOI
FOR
RADIO COMMUNICATIO

ENG. FILE: 37679AE

DWG. NO

SHEET