Village of Lincolnwood
Plan Commission

Meeting

Wednesday May 7, 2014
7:00 P.M.

in the

Council Chambers Room
Lincolnwood Village Hall - 6900 North Lincoln Avenue

Agenda

1. **Call to Order/Roll Call**

2. **Pledge of Allegiance**

3. **Approval of Minutes**
   April 23, 2014 Meeting Minutes

4. **Public Hearing: 7177 North Lincoln Avenue – Special Use for Liquor Store**
   Request: Special Use Consideration for a Liquor Store at 7177 North Lincoln Avenue

5. **Public Hearing: 7017 North Central Park Avenue – Special Use for Wireless Communication Facility**
   Request: Special Use Consideration for a New Wireless Communications Facility on an Existing Tower

6. **Public Hearing: Bank, Credit Union, Savings and Loans and Legal Nonconforming Uses – Zoning Code Text Amendment**
   Request: Text Amendment to Definition Section to Consider Text Amendments to the Village Zoning Ordinance concerning Bank, Credit Union, Savings and Loans and Legal Nonconforming Uses located in the Business/ Residential Transition area of the B-1 Traditional Business Zoning District. Other text amendments deemed pertinent to this request that may arise during review of this matter at this Public Hearing may be considered without further notice.

7. Public Hearing: Medical Cannabis Dispensaries and Cultivation Centers – Zoning Code Text Amendment

(Continued from April 2, 2014)

Request: Text Amendment to Definitions set forth in Article II Concerning Medical Cannabis Dispensaries and Cultivation Centers, and similar uses; Consideration of Medical Cannabis Dispensaries and Cultivation Centers as a Special Use in the O-1, B-1, B-2, B-3, and M-B Districts, subject to certain restrictions; and, Establishing Off-Street Parking Requirements for Medical Cannabis Dispensaries and Cultivation Centers, or Other Similar Uses

8. Next Meeting

9. Public Comment

10. Adjournment

DRAFT **MEETING MINUTES OF THE**
PLAN COMMISSION WORKSHOP
APRIL 23, 2014 – 7:00 P.M.

LINCOLNWOOD VILLAGE HALL
COUNCIL CHAMBERS
6900 NORTH LINCOLN AVENUE
LINCOLNWOOD, ILLINOIS 60712

MEMBERS PRESENT:
Chairman Paul Eisterhold
Irving Fishman
Patricia Goldfein
Steven Jakubowski
Don Sampen

MEMBERS ABSENT:
Sue Auerbach
Mark Yohanna

STAFF PRESENT:
Aaron N. Cook, Community Development Manager

I. CALL TO ORDER

Chairman Eisterhold noted a quorum of five members and called the meeting to order at 7:05 p.m.

II. PLEDGE OF ALLEGIANCE

III. APPROVAL OF MINUTES

Motion to Approve the April 2, 2014 Meeting Minutes was made by Commissioner Fishman, and Seconded by Commissioner Goldfein.

Aye: Fishman, Goldfein, Sampen, and Eisterhold
Nay: None
Abstained: Jakubowski
Motion Approved: 4-0-1

IV. Public Hearing: Commercial Masonry Requirements – Zoning Code Text Amendment

(Continued from April 2, 2014, February 5, 2014, November 6, 2013, September 11, 2013, and Remanded by Village Board and Committee on Ordinances, Rules, and Buildings)

Staff presented the remaining items for consideration. The first outstanding item was whether the Plan Commission should be the recommending body and not the final authority. It was agreed that the Plan Commission should handle the review of requests for relief and not the Zoning Board

of Appeals due to the hardship requirements. The Plan Commission will be the recommending body to the Village Board.

Chairman Eisterhold noted there were no objections.

The next outstanding item pertained to the Plan's Commission's preference to utilize the Public Hearing process versus Public Meetings. Staff presented the difference between the two. A Public Hearing requires full notification and a Public Meeting can be held at regularly scheduled meetings.

Chairman Eisterhold noted there were no objections.

The next outstanding item was to agree to implement with limited conditions. The Plan Commission had a lengthy discussion concerning when relief is requested, perhaps limited or no conditions should be placed on an applicant.

Chairman Eisterhold noted that there were no objections to the Plan Commission's approval to place limited conditions on applicants.

The two items open for discussion pertained to the Special Use process versus Variation as a mechanism to review alternative materials and if precast materials are permitted adjacent to residential properties.

Mr. Cook explained the difference between a Special Use and a Variation. The standards for a Special Use must show that the request will fit in with the surrounding area as a whole and will not present a detriment to the community. The standard for a Variation is a specific hardship.

In response to Commissioner Fishman's inquiry as to why the Plan Commission is reviewing building materials, Mr. Cook related that the Village Board remanded this item back to the Plan Commission for additional discussion on the definitions of building materials, to determine if precast stone is an acceptable materials, and whether an administrative process to approve materials not identified in the Zoning Code is warranted.

A straw poll was conducted as to the Plan Commission utilizing the Special Use process versus the Variation process with only Chairman Sampen disagreeing.

The next discussion concerned whether precast concrete and precast stone are permitted adjacent to Residential Districts. The discussion pertained to whether the rear of a building needs to have the same design standards as the front elevation if the rear elevation is facing a Residential District as well.

Commissioner Fishman asked if these standards are too onerous and what are the requirements at the present time for the rear of a building.

Staff concurred that yes, they are onerous and the current standards are described only as being of a "high quality" material. Further, Staff stated that the goal of the Plan Commission is to identify higher design treatments for nonresidential buildings facing any residential areas.

Chairman Eisterhold noted that the Plan Commission was unanimous in their support of applying a Special Use requirement for the use of precast materials.

Commissioner Goldfein suggested to Staff if the word aggregate could be included to the precast stone definition. Staff agreed that that will be done.

Motion to Approve Text Amendment relative to commercial design requirements as presented by Staff in the Staff Report dated April 23, 2014 plus the use of precast stone adjacent to residential areas shall be a Special Use and reconfirm previous recommendations from the March 6, 2013 meeting was made by Commissioner Fishman, and Seconded by Commissioner Goldfein.

Aye: Fishman, Goldfein, Jakubowski, Sampen, and Eisterhold
Nay: None
Motion Approved: 5-0

V. Public Hearing: Lincoln Avenue Plan – Amendment to Comprehensive Plan
(Continued from April 2, 2014, February 26, 2014, January 22, 2014, December 4, 2013, and October 23, 2013)

The discussion encompassed whether there should be a moratorium on multi-family housing within the Lincoln Avenue District. Commissioner Fishman stated that he does not agree with a moratorium and that there are buildable sites along Lincoln Avenue that would be appropriate.

Commissioner Sampen agreed with Commissioner Fishman that there should be no moratorium on multi-family housing, and questioned whether or not multi-family house should require a Special Use instead.

Commissioner Jakubowski questioned if the Shoppes at Lincoln Pointe would have an impact on development of Lincoln Avenue. Commissioner Jakubowski also agreed that there should be no moratorium and concurred with the Special Use application.

Motion to Not Recommend the implementation of a moratorium relative to the Lincoln Avenue Corridor and multi-family housing made by Commissioner Fishman, and Seconded by Commissioner Jakubowski.

Aye: Fishman, Jakubowski, Goldfein, Sampen, and Eisterhold
Nay: None
Motion Approved: 5-0

Regarding the Amendment to the Comprehensive Plan, Commissioner Sampen asked Staff to provide an overview of the key items to be discussed.

Commissioner Jakubowski asked Staff if there were cost estimates regarding the implementation of the Comprehensive Plan and, if so, how does the Village plan to fund these changes. Staff explained that this is an overview of the Village's vision for the future and there are no concrete costs associated with this Plan.

Commissioner Goldfein asked if Mr. Cook could add the Special Use language to the moratorium decision. Staff agreed to this request.

Chairman Eisterhold asked in anybody in the audience would like to address the Plan Commission in any of the above matters. Let the record state that no one came forward.

Motion to Continue to the June 25, 2014 Plan Commission Meeting was made by Commissioner Sampen, and Seconded by Commissioner Fishman.

Aye: Sampen, Fishman, Goldfein, Jakubowski, and Eisterhold
Nay: None
Motion Approved: 5-0

VI. NEXT MEETING:

Chairman Eisterhold declared that the next Plan Commission Meeting will be on Wednesday, May 7, 2014.

VII. ADJOURNMENT:

Hearing no further business, **Motion to Adjourn** was made by Commissioner Sampen, and Seconded by Commissioner Goldfein. Meeting adjourned at 8:45 p.m.

Aye: Sampen, Goldfein, Fishman, Sampen, and Eisterhold
Nay: None
Motion Approved: 5-0

Respectfully Submitted,

Kathryn M. Kasprzyk
Community Development Coordinator

Staff Report
Plan Commission
May 7, 2014

Subject Property:
7177 North Lincoln Avenue

Zoning District: B-3 Village Center Planned Development District

Petitioner: Bill G. Assimakopoulos, Tenant

Nature of Request: The petitioner seeks Special Use approval for a "Liquor store, package goods" use in the tenant space commonly known as 7177 N. Lincoln Ave.

Notification: Notice of the May 7, 2014 meeting was published in the Lincolnwood Review on April 17, 2014. One Public Hearing Sign was installed at 7177 North Lincoln Avenue.

Summary of Request

The applicant requests Special Use approval to permit a "Liquor store, package goods" use in the tenant space commonly known as 7177 North Lincoln Avenue. Currently, Lincolnwood Produce sells liquor under the use of a "Grocery store". Lincolnwood Produce proposes to move the retail sales of liquor from within the grocery store to the adjoining separate space. As a result, the separate "Liquor Store" requires Special Use approval.

The space is approximately 4,000 square feet in area with approximately 3,500 square feet of the space to be devoted to sales/retail floor area. The sales/retail area includes 376 linear feet of shelf space, approximately 200 square feet of cooler space (15 cooler doors), a cashier area with cigarette display, and a lottery machine.

Related Village Action – 7177 North Lincoln Avenue

In 2008 the Village considered an application for Special Use approval for a "Liquor Store" at the same address. At the May 28, 2008 Plan Commission/Zoning Board of Appeals (PC/ZBA) meeting, by a 4-3 vote, a recommendation to deny the "Liquor store" was made. Certain improvements to the property were recommended as part of the consideration. During discussion of these required improvements, the PC/ZBA embraced a concept of holding

certain improvements in abeyance for a period of time. At the May 28th meeting, the applicant rejected the abeyance and as a result, a negative recommendation was made. It is worth noting that via a straw poll, the PC/ZBA indicated support for the "Liquor Store" use. The negative recommendation related to variations, which at the time were required.

At the Village Board meeting of June 19, 2008 the applicant requested that the application be remanded back to the PC/ZBA. The applicant indicated acceptance of the abeyance concept and based on the request the Village Board remanded the matter to the PC/ZBA. The PC/ZBA at their July 30, 2008 meeting recommended by a 5-2 vote, approval of the Special Use and certain variations with the abeyance of certain improvements for a period of three years. At the August 21, 2008 Village Board meeting the Board by a 4-1 vote concurred with the recommendation of the PC/ZBA and directed the Village Attorney to prepare an Ordinance approving the request. The applicant ultimately withdrew the request prior to the Village Board voting on an Ordinance. The conditions of the approval were beyond the scope and level of commitment of the proposed "Liquor Store". Several months later an Adult Day Care use filed for a permit and occupied the space.

In 2009 the Village modified the landscape requirements that triggered the variations requested in 2008 and as a result, those variations are no longer required.

Related Village Action – "Liquor Store, Package Goods"

Also in 2008, the Village considered a Special Use application for a "Liquor Store" at 6929 North Lincoln Avenue. Lincolnwood Wines & Spirits initially received Special Use approval in January 2009 to operate a "Package Good Liquor Store". As part of this approval several conditions were placed on the store including several operational requirements. In November 2010 the Village granted approval of an amendment to the original Special Use approval to modify some of the operational conditions. The owners of Lincolnwood Wines & Spirits indicated that in order to continue to successfully operate and offer desired products and services to their customers they needed modifications to some of the conditions. In 2012, Lincolnwood Wines & Spirits again requested amendments to previously approved Special Use Ordinances in order to modify several operational conditions for the existing liquor store. These modifications were approved by Ordinance No. 2012-3055 which is the current Ordinance applicable to Lincolnwood Wines & Spirits.

Some of the current conditions placed on Lincolnwood Wines & Spirits are difficult to apply to the proposal for 7177 North Lincoln Avenue. For example, Lincolnwood Wines & Spirits has minimum linear feet of shelving that must be devoted to bottled wine. The floor plan submitted by the applicant includes information on the amount of shelf space but does not make reference to what will be displayed.

The proposed floor plan includes a lottery machine near the entrance and a cigarette display area within the cashier space. If the conditions of Ordinance No. 2012-3005 are applied to the applicant both the lottery machine and display of cigarette would be in violation. These restrictions are part of the Lincolnwood Wines & Spirits approval and are not formally adopted standards to be necessarily applied to all "Liquor Store" uses.

Currently, there are two standalone “Liquor Stores” in Lincolnwood, Miska’s Keystone Liquors, 6423 North Cicero Avenue and Lincolnwood Wines & Spirits. Retail Sales of alcohol also occurs at Lincolnwood Produce, Walgreens (6770 North Lincoln Ave), and CVS (3950 West Devon Ave and 7179 North Lincoln Ave).

Documents Attached

1. Special Use Public Hearing Application
2. Site Plan
3. Existing and Proposed Floor Plan
4. Ordinance No. 2012-3005

VILLAGE OF LINCOLNWOOD Public Hearing Application
Community Development Department Special Use & PUD

SUBJECT PROPERTY

Property Address: 7177 N. LINCOLN AVE

Permanent Real Estate Index Number(s): 10-34-200-016-0000

Zoning District _____ Lot Area: _____

List all existing structures on the property. Include fencing, sheds, garages, pools, etc.

EXISTING STRIP MALL WITH CVS, LINCOLNWOOD PRODUCE AND TWO VACANT RETAIL UNITS

Are there existing development restrictions affecting the property? ___ Yes ___ No
(*Examples: previous variations, conditions, easements, covenants*)

If yes, describe: _____

REQUESTED ACTION

- [x] Special Use – Non-Residential
- [ ] Special Use – Residential
- [ ] Planned Unit Development (PUD)
- [ ] Other

PROJECT DESCRIPTION

Describe the Request and Project: REQUESTING FOR STANDALONE LIQUOR STORE AT 7177. EXISTING LIQUOR LICENCE TO BE RELOCATED FROM LINCOLNWOOD PRODUCE TO STANDALONE LOCATION

PROPERTY OWNER/PETITIONER INFORMATION

Property Owner(s):

Name: (List all beneficiaries if Trust): Gus Dimas

Address: 7175 N Lincoln Lincolnwood

Telephone: (847) 329 9600 Fax: (____) _____ E-mail Address: _____

Petitioner (*if different from owner*):

Name: Bill Grassinakopoulos Relationship to Property: Store Manager

Address: 4456 Green Leaf Lincolnwood IL 60712

Telephone: (708) 602 7657 Fax: (____) _____ E-mail Address: BGA1963@MSN.COM

REQUIRED ATTACHMENTS *

Check all documents that are attached:

Plat of Survey _____

Site Plan _____

Proof of Ownership _____

Floor Plans _____

Elevations _____

Applicable Zoning Worksheet _____

Photos of the property _____

PDF files of all drawings _____

For Office Use Only

Fee: _____ Deposit: _____

Date Received: _____

Checked By: _____

The article(s), section(s) and paragraph(s) of the Village of Lincolnwood Zoning Ordinance from which the Action is being sought:

_____

_____

_____

_____

_____

**The above documents are required for all applications. The Zoning Officer may release an applicant from specific required documents or may require additional documents as deemed necessary.*

COST REIMBURSEMENT REQUIREMENT

The Village requires reimbursement of certain out-of-pocket costs incurred by the Village in connection with applications for zoning approvals and relief. These costs include, but are not limited to, mailing costs, attorney and engineer costs, and other out-of-pocket costs incurred by the Village in connection with this application. In accordance with Section 5.02 of the Village of Lincolnwood Zoning Ordinance, both the petitioner and the property owner shall be jointly and severely liable for the payment of such out-of-pocket costs. Out-of pocket costs incurred shall be first applied against any hearing deposit held by the Village, with any additional sums incurred, to be billed at the conclusion of the hearing process.

Invoices in connection with this application shall be directed to:

Name: Bill G Assimakopoulos

Address: 4456 W Glenlord

City, State: Lincolnwood IL 60712

ATTESTMENT AND SIGNATURE

I hereby state that I have read and understand the Village cost reimbursement requirement, as well as the requirements and procedures outlined in Article V of the Village Zoning Ordinance, and I agree to reimburse the Village within 30 days after receipt of an invoice therefor. I further attest that all statements and information provided in this application are true and correct to the best of my knowledge and that I have vested in me the authority to execute this application.

PROPERTY OWNER

Gus Dimas _____

Signature Date

Gus Dimas.

PRINT NAME

PETITIONER *(If different than property owner)*

_____ _____

Signature Date

Bill G Assimakopoulos

PRINT NAME

Village of Lincolnwood
Community Development
Special Use Standards:

1) *Please explain how the use is necessary for public convenience at this location, and the subject property is deemed suitable for the use (please explain in detail)*

Currently Lincolnwood Produce is operating and selling liquor within the grocery store. The proposal is to relocate the liquor sales (under the existing liquor license "The Vineyards of Lincolnwood, Ltd.") into a standalone location at the vacant retail unit right beside the grocery store, within the same strip mall. Currently customers must enter the grocery store to purchase the liquor. By relocating to the vacant unit beside the grocery store, the same customers would still have access to the goods but additional new customers would become aware of the additional services available by it being a standalone location.

The subject should be deemed suitable for the use because the use is currently being preformed within the adjoining grocery store. The grocery store would halt the sales of liquor products once the license was transferred to the standalone location at 7177 N. Lincoln.

2) *Please explain how the use is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.*

Public safety health, safety and welfare would be unchanged. No adverse effects have been felt with the liquor sales taking place within the grocery store, none are expected with relocating the sales to the retail space right beside the grocery store, only 6 steps away.

3) *Please explain how this use would not cause substantial injury to the value of the other property in the neighborhood in which it is located.*

The relocating of the liquor sales to a standalone space within the strip mall will not negatively impact the stores within the strip mall or David's plaza directly across the street. This proposal merely relocates Lincolnwood Produce liquor license to an adjacent vacant unit.

The location of the proposed store would help reduce the vacancies within the strip mall. The prior tenant was a senior center. The vacant unit has struggled to maintain continuous use since the departure of the fabric store.

4) *The special use is consistent with the goals and policies of the Comprehensive Plan.*

The special use is consistent with the Comprehensive Plan for a thriving retail center.

5) *The special use would not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the underlying zoning district.*

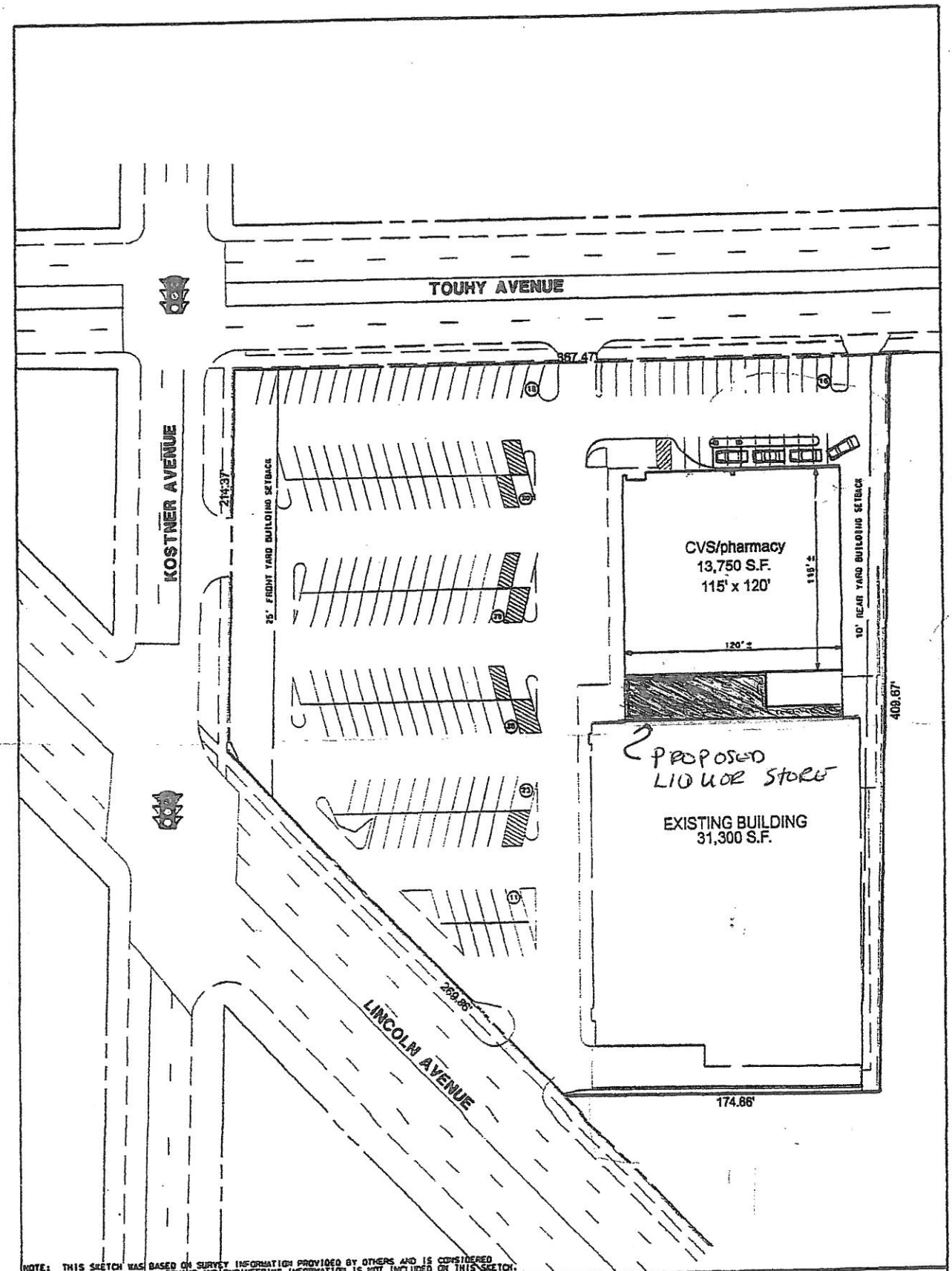
The special use would not impede development of the surrounding properties because it is moving an existing license located in the same strip mall to a vacant unit within the same strip mall.

6) *Please explain how the special use is so designed to provide adequate utilities, access road, drainage, or necessary facilities.*

The special use would have no impact on utilities, access road, drainage or necessary facilities because it is going into an established strip mall and filling a vacancy within the existing strip mall. Adequate parking exists. No changes to the parking lot will be made.

7) *Please explain how the special use is so designed to provide ingress and egress to minimize congestion on public streets.*

The traffic should not dramatically change because the use is already preexisting within the strip mall. It is merely relocating to a vacant unit thereby allowing additional shelving area for the grocery store. The customers that already frequent the liquor store would use the same street access but instead enter a separate door to the liquor store verse entering the grocery store. Additional congestion on public streets is not expected.



NOTE: THIS SKETCH WAS BASED ON SURVEY INFORMATION PROVIDED BY OTHERS AND IS CONSIDERED APPROXIMATE ONLY. ZONING AND ENGINEERING INFORMATION IS NOT INCLUDED ON THIS SKETCH.

CVS/pharmacy

STORE NUMBER	XXX
STORE ADDRESS	TOUHY AVE. & KOSTNER AVE. LINCOLNWOOD, ILLINOIS
PROJECT TYPE	

Engineers Scientists Surveyors
7325 Janes Avenue, Suite 100
Woodridge, IL 60517
630.724.9200 voice
630.724.9202 fax

PROJECT DATA	
TOTAL SITE AREA	3.02 AC.
CVS PHARMACY	13,750 SF.
EX. BLDG.	31,300 SF.
PROPOSED QT	SINGLE
PARKING INFORMATION	7 HANDICAP
	147 REGULAR
	154 TOTAL
REQUIRED PARKING	150 TOTAL

REVISIONS			
MARK	DESCRIPTION	DATE

DEVELOPER:
G.D. CVS DEVELOPERS, LLC
600 EAST 96TH ST. SUITE 150
INDIANAPOLIS, INDIANA 46240
PHONE: (317) 574-7333
FAX (317) 574-7338
CONTACT: C. GIBSON

LAYOUT COORD:	GJD
PLANNING MGR.	BTP
SCALE:	1"=50'
DATE:	01-08-03
JOB NUMBER:	03055 L105

N

0 50
1"=50' SCALE FEET

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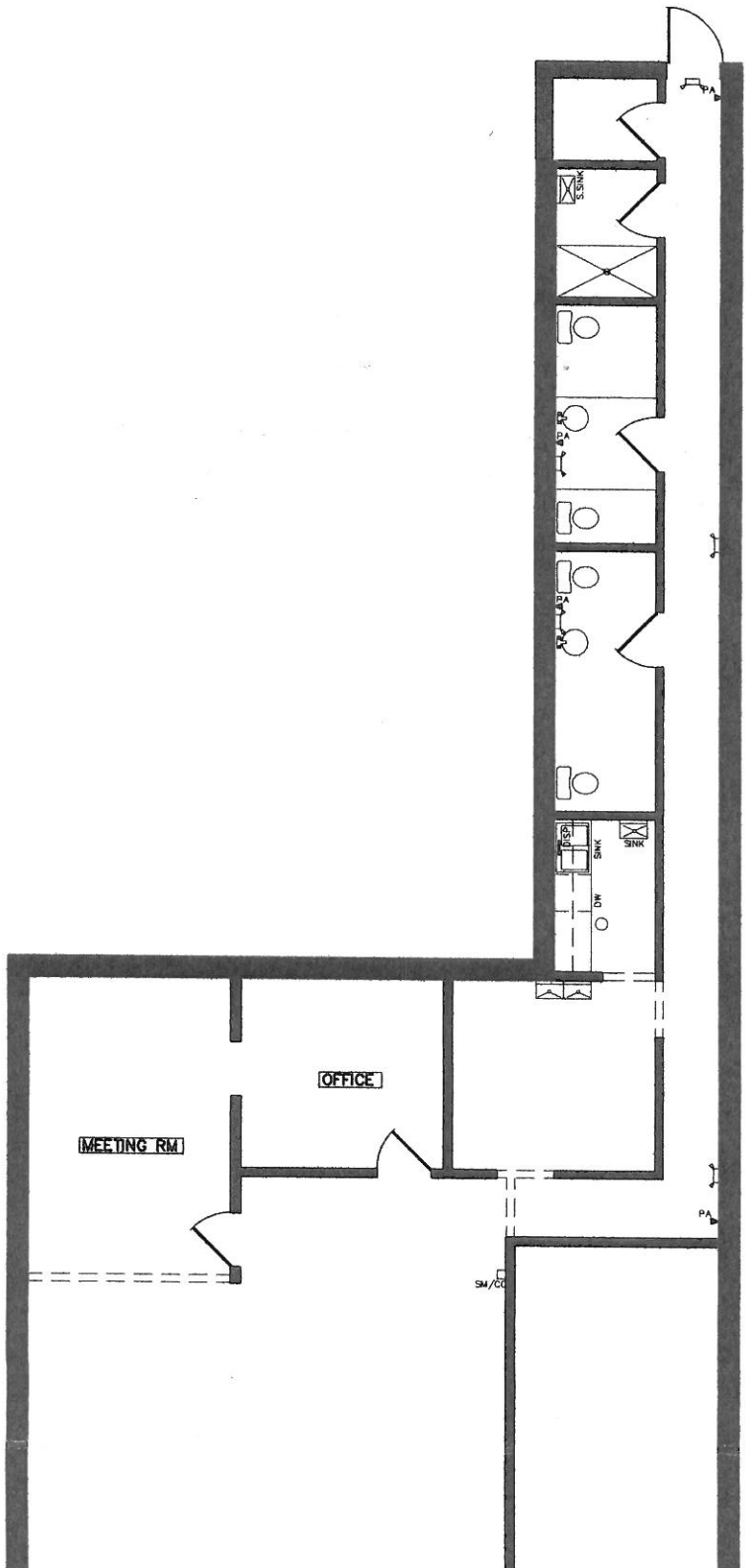

3,450 SQFT OF FLOOR AREA IN MAIN AREA
450 SQFT IN REAR HALLWAY AND BATHROOM/UTILITY AREAS

EXISTING FLOOR PLAN
SCALE: NTS
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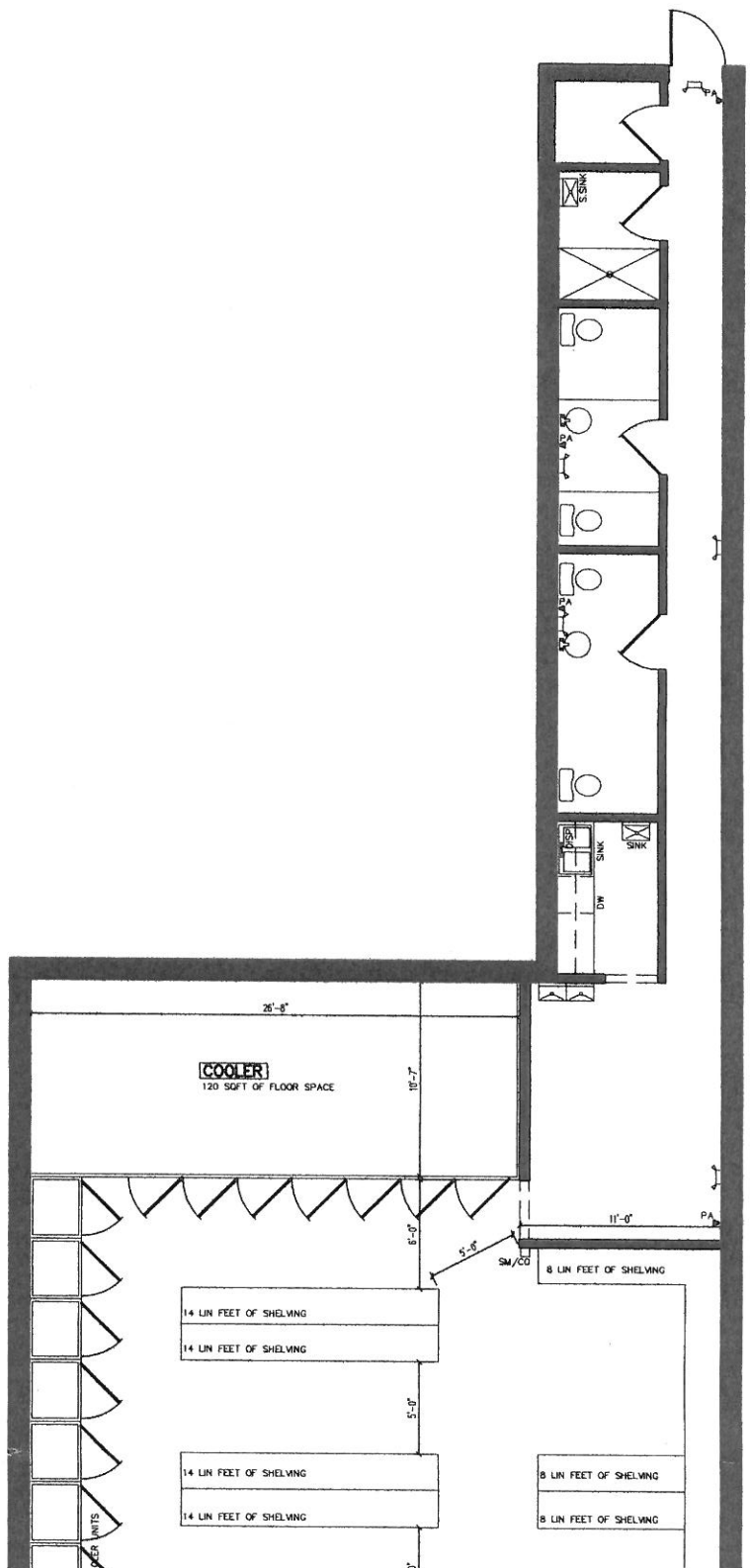
A1.0



PROPOSED FLOOR PLAN
SCALE: NTS
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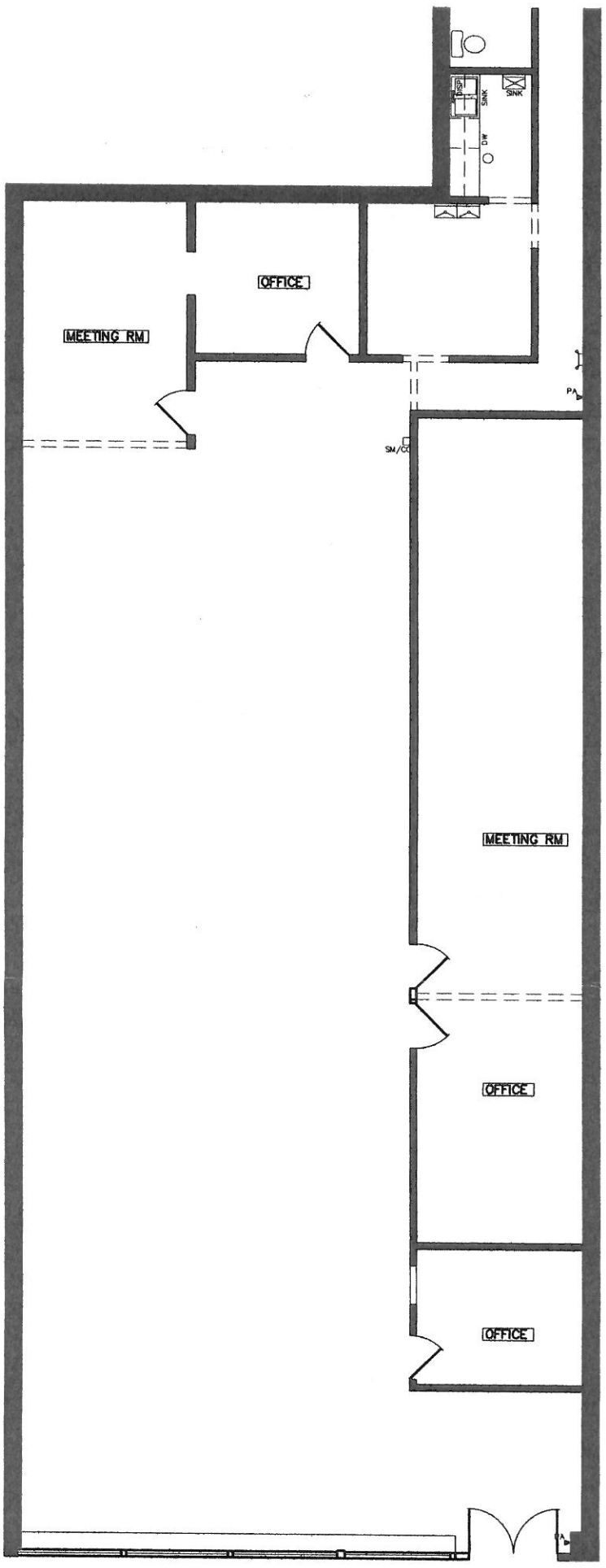
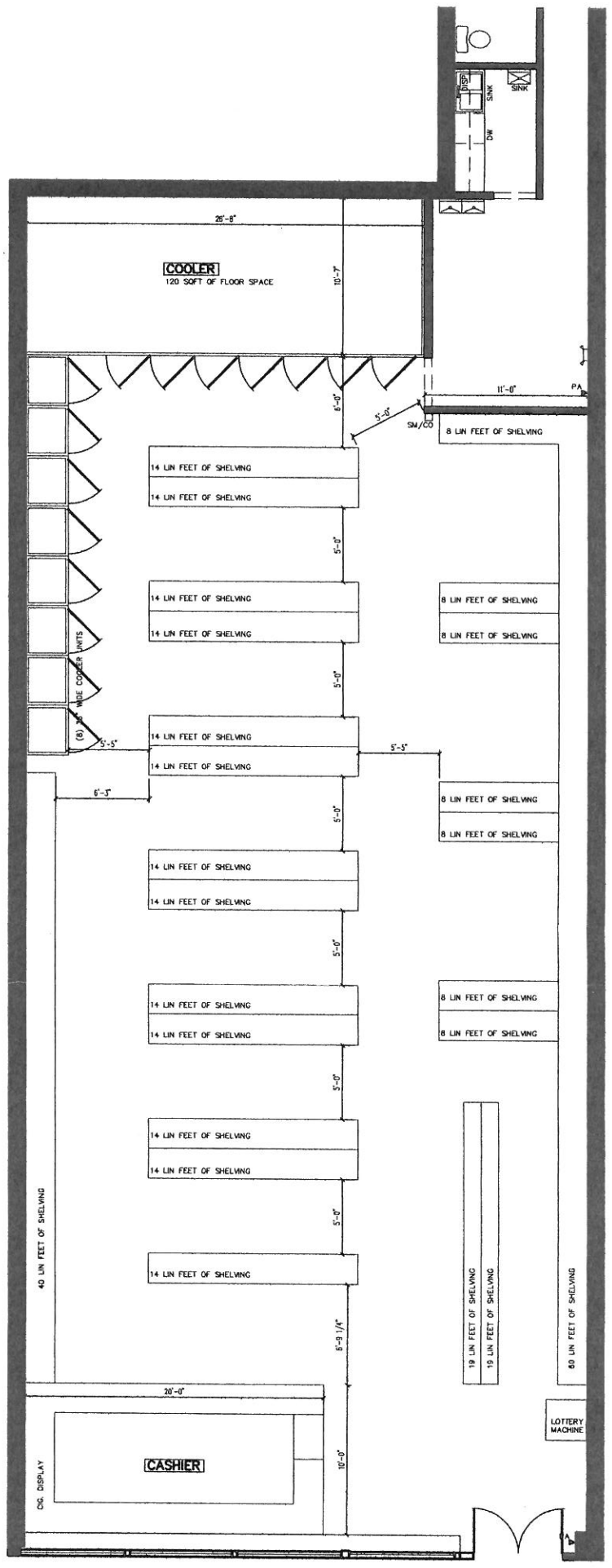
A1.0



3,450 SQFT OF FLOOR AREA IN MAIN AREA
450 SQFT IN REAR HALLWAY AND BATHROOM/UTILITY AREAS

EXISTING FLOOR PLAN
SCALE: NTS
1
A1.0



PROPOSED FLOOR PLAN
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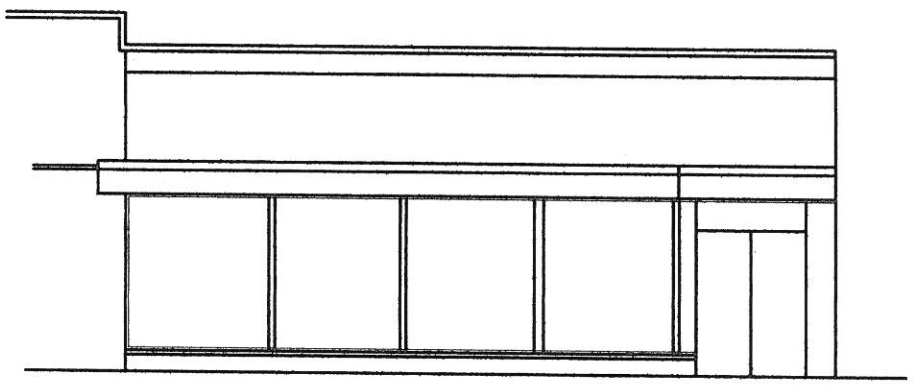
A1.0



EXISTING ELEVATION
SCALE: NTS
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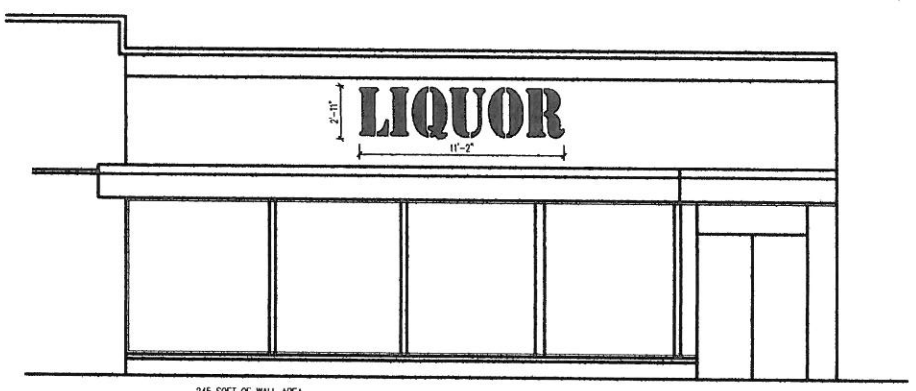
A1.0



245 SQFT OF WALL AREA
82 SQFT OF SIGNAGE ALLOWED
33 SQFT PROPOSED

PROPOSED ELEVATION
SCALE: NTS
4
A1.0

1217931097

Doc#: 1217931097 Fee: $58.00
Eugene "Gene" Moore
Cook County Recorder of Deeds
Date: 06/27/2012 03:41 PM Pg: 1 of 11

VILLAGE OF LINCOLNWOOD

ORDINANCE NO. 2012-3005

AN ORDINANCE APPROVING AN AMENDMENT TO A SPECIAL USE PERMIT FOR THE OPERATION OF A PACKAGE GOODS LIQUOR STORE

(6921-6933 North Lincoln Avenue)

ADOPTED BY THE
PRESIDENT AND BOARD OF TRUSTEES
OF THE VILLAGE OF LINCOLNWOOD
THIS 5th DAY OF JUNE, 2012.

Published in pamphlet form
by the authority of the
President and Board of Trustees
of the Village of Lincolnwood,
Cook County, Illinois this
5th day of June, 2012

Beryl Herman
Village Clerk

AN ORDINANCE APPROVING AN AMENDMENT TO A SPECIAL USE PERMIT FOR THE OPERATION OF A PACKAGE GOODS LIQUOR STORE

(6921-6933 North Lincoln Avenue)

WHEREAS, Lincolnwood Commons, LLC (***"Owner"***) is the record title owner of that certain property located in the B-1 Restricted Business District (***"B-1 District"***), commonly known as 6921-6933 Lincoln Avenue, and legally described in **Exhibit A** attached to and, by this reference, made a part of this Ordinance (***"Property"***); and

WHEREAS, the Property is improved with a building commonly known as the Lincolnwood Commons Shopping Center (***"Building"***); and

WHEREAS, on January 8, 2009, the Village President and Board of Trustees adopted Ordinance No. 2009-2831, granting a special use permit to TPDS, Inc. d/b/a Lincolnwood Wines & Spirits (***"Applicant"***) for the operation of a package goods liquor store (***"Liquor Store"***) within the approximately 4,550 square foot retail space in that portion of the Building on the Property commonly known as 6929 Lincoln Avenue (***"Original Permit"***), which Original Permit was amended by the Village President and Board of Trustees on November 5, 2010, pursuant to Ordinance No. Z2010-2914 (***"Amended Permit"***) (collectively, the Original Permit and the Amended Permit are the ***"Special Use Permit"***); and

WHEREAS, pursuant to Section 5.C of the Special Use Permit, the Village imposed specific restrictions on the operation of the Liquor Store by the Applicant (collectively, the ***"Liquor Store Operational Restrictions"***); and

WHEREAS, in accordance with Article V of "The Village of Lincolnwood Zoning Ordinance," as amended (***"Zoning Ordinance"***), the Applicant, with the consent of the Owner, has filed an application to further amend the following Liquor Store Operational Restrictions: (i) Section 5.C.1.b.ii of the Special Use Permit, governing the sale of cheese, specialty foods, and wine accessories (***"Requested Cheese and Food Sales Amendment"***); (ii) Section 5.C.1.b.iii of the Special Use Permit, governing the sale of spirits (***"Requested Spirits Sales Amendment"***); (iii) Section 5.C.1.b.v, governing the use of the cold storage and display cooler (***"Requested Cooler Amendment"***); (iv) Section 5.C.1.g, prohibiting window signage (***"Requested Window Signage Amendment"***); and (v) Section 5.C.2, governing the hours of operation of the Liquor Store (***"Requested Hours of Operation Amendment"***) (collectively, the ***"Requested Amendments"***); and

WHEREAS, a public hearing of the Plan Commission of the Village of Lincolnwood to consider approval of the Requested Amendments was duly advertised in the *Lincolnwood Review* on February 23, 2012, and conducted on March 14, 2012 and April 4, 2012; and

WHEREAS, at the public hearing on March 14, 2012, the Applicant withdrew the Requested Cheese and Food Sales Amendment, the Requested Cooler Amendment, and the Requested Hours of Operation Amendment; and

WHEREAS, on April 4, 2012, the Plan Commission made findings and recommendations in support of the Requested Spirits Sales Amendment and the Requested Window Signage Amendment, subject to specified conditions; and

WHEREAS, the Village President and Board of Trustees have determined that the Requested Spirits Sales Amendment and the Requested Window Signage Amendment meet the required standards for special use permits as set forth in Article V of the Zoning Ordinance; and

WHEREAS, the Village President and Board of Trustees have determined that it will serve and be in the best interests of the Village to further amend the Special Use Permit pursuant to the Requested Spirits Sales Amendment and the Requested Window Signage Amendment, subject to the conditions, restrictions, and provisions of this Ordinance;

NOW, THEREFORE, BE IT ORDAINED BY THE VILLAGE PRESIDENT AND BOARD OF TRUSTEES OF LINCOLNWOOD, COOK COUNTY, ILLINOIS, as follows:

SECTION 1. RECITALS. The facts and statements contained in the preamble to this Ordinance are found to be true and correct and are hereby adopted as part of this Ordinance.

SECTION 2. APPROVAL OF AMENDMENTS. Subject to, and contingent upon, the conditions, restrictions, and provisions set forth in Section Three of this Ordinance, and in accordance with, and pursuant to, Article V of the Zoning Ordinance and the home rule powers of the Village, the Village President and Board of Trustees shall, and do hereby: (i) approve the Requested Spirits Sales Amendment and the Requested Window Signage Amendment; and (ii) amend Section 5.C of the Special Use Permit to read as follows:

> "SECTION 5. CONDITIONS. Notwithstanding any use or development right that may be applicable or available pursuant to the provisions of the Zoning Ordinance, the approvals granted pursuant to Sections Two, Three, and Four of this Ordinance shall be, and are hereby, expressly subject to, and contingent upon, the development, use, and maintenance of the Property and the Premises in compliance with each and all of the following conditions:
>
> * * *
>
> C. Conditions Applicable to the Operation of the Liquor Store on the Premises
>
> 1. Upscale Liquor Store. The Applicant shall take all steps necessary to ensure that the use and operation of the Liquor Store on the Premises is, at all times, consistent with that of an upscale and high-end retail store, in conformance with the representations made by the Applicant to the Village's PC/ZBA and Board of Trustees. Accordingly, the standards that shall be maintained at all times on the Premises shall include, without limitation, the following:

a. Interior Build-Out. The interior build-out and furnishings of the Premises shall consist of high-end and upgraded materials as specifically depicted on the plans and renderings that are part of the Interior Build-Out Plan. The Premises shall at all times comply with the Interior Build-out Plan, except for minor changes and site work approved by the Village Community Development Director and the Village Engineer (for matters within their respective permitting authorities) in accordance with all applicable Village standards.

b. Restricted Use of Sales Floor. The sales floor area shall be of the size, and shall be substantially in conformance with the layout, as depicted on the Store Floor Plan ("***Sales Floor***"). The amount of space for which the Sales Floor used for the storage, display, and sale of product type shall be restricted as follows:

i. Not less than 1,288 linear feet of shelf space on the Sales Floor shall be used exclusively for the display and sale of bottled wine.

ii. Not less than 12 linear feet of shelf space on the Sales Floor shall be used exclusively for the display and sale of cheese, specialty foods, and wine accessories.

iii. Not more than ~~240~~ **360** linear feet of shelf space on the Sales Floor shall be used for the storage, display or sale of spirits.

iv. Not more than 112 linear feet of shelf space on the Sales Floor shall be used for the storage, display or sale of beer.

v. Not more than 15 sections, as measured by door openings, of the cold storage and display cooler shall be used for the storage, display or sale of beer.

vi. No cases of beer shall be stored or displayed at any location on the Sales Floor, except that not more than six cases of beer may be vertically stored or displayed at the end of each aisle on the Sales Floor.

vii. Not more than 96 linear feet of shelf space on the Sales Floor shall be used for the storage, display, or sale of soda and soft drinks.

c. No Public Access to Cooler. The walk-in portion of the cold storage and display cooler shall be restricted to store employees only.

d. Wine Expert. Not later than the date that is 60 days after the issuance of a certificate of occupancy for the Premises, the Applicant shall hire one or more individuals who are knowledgeable about, and have been trained in, the sale and purchase of wine, which individuals shall maintain regular hours of employment on the Sales Floor in the Liquor Store.

e. Prohibited Sales. At no time shall any of the following goods or items be displayed or sold on the Premises:

i. Single cans of beer

ii. Bottles of spirits containing less than three ounces

iii. Lottery tickets of any kind

f. Restricted Sales and Displays.

i. Beer kegs may be sold from the Premises, but at no time shall any beer keg be displayed on the Premises.

ii. Cigarettes may be sold from the Premises, but at no time shall any cigarettes be displayed in any portion of the Premises other than the humidor located within the Premises.

g. Window Signage and Displays ~~Prohibited~~. **Window signs are permitted only in the transom areas of the storefront above the door. All such signs may contain only general text identifying the types of alcoholic liquor sold from the Premises, and shall not advertise or identify: (i) specific brands of alcoholic liquor sold; (ii)**

specific prices for the alcoholic liquor; (iii) any discounted or promotional prices for the sale of alcoholic liquor; or (iv) the sale of cigarettes or tobacco products.. ~~No signage of any kind that is visible from any location outside of the Premises shall be allowed in the Premises or on or affixed to any exterior door or window of the Premises.~~ No cans or bottles shall be stored or displayed within three feet of any exterior door or window."

* * *

SECTION 3. CONDITIONS. Notwithstanding any use or development right that may be applicable or available pursuant to the provisions of the Zoning Ordinance, the approval granted pursuant to Section Two of this Ordinance shall be, and are hereby, expressly subject to, and contingent upon, the development, use, and maintenance of the Property and the Liquor Store in compliance with each and all of the following conditions:

A. Compliance with Laws. Except to the extent specifically provided otherwise in this Ordinance or in the Special Use Permit, the development, use, operation, and maintenance of the Property and the Liquor Store shall comply at all times with all applicable Village codes and ordinances, as the same have been or may be amended from time to time.

B. Reimbursement of Village Costs. In addition to any other costs, payments, fees, charges, contributions, or dedications required under applicable Village codes, ordinances, resolutions, rules, or regulations, the Applicant shall pay to the Village, promptly upon presentation of a written demand or demands therefor, all legal fees, costs, and expenses incurred or accrued in connection with the review, negotiation, preparation, consideration, and review of this Ordinance. Payment of all such fees, costs, and expenses for which demand has been made shall be made by a certified or cashier's check. Further, the Applicant shall be liable for, and shall pay upon demand, all costs incurred by the Village for publications and recordings required in connection with the aforesaid matters.

SECTION 4. CONFLICTING PROVISIONS. Except as provided otherwise in this Ordinance, all terms, provisions, and requirements of the Special Use Permit shall remain unchanged and in full force and effect. In the event of a conflict between this Ordinance and the Special Use Permit, this Ordinance shall control.

SECTION 5. RECORDATION; BINDING EFFECT. A copy of this Ordinance shall be recorded with the Cook County Recorder of Deeds. This Ordinance and the privileges, obligations, and provisions contained herein shall inure solely to the benefit of, and be binding upon, the Owner, the Applicant, and each of their heirs, representatives, successors, and assigns.

SECTION 6. FAILURE TO COMPLY WITH CONDITIONS. Upon the failure or refusal of the Owner or the Applicant to comply with any or all of the conditions, restrictions, or provisions of this Ordinance or of the Special Use Permit, as applicable, the approvals granted in Section Two of this Ordinance and in the Special Use Permit shall, at the sole discretion of the Village President and Board of Trustees, by ordinance duly adopted, be revoked and become null and void; provided, however, that the Village President and Board of Trustees may not so revoke the approvals granted in Section Two of this Ordinance or in the Special Use Permit unless they shall first provide the Owner and the Applicant with two months advance written notice of the reasons for revocation and an opportunity to be heard at a regular meeting of the Village President and Board of Trustees. In the event of revocation, the development and use of the Property shall be governed solely by the regulations of the B-1 District and the applicable provisions of the Zoning Ordinance, as the same may, from time to time, be amended. Further, in the event of such revocation, the Village Administrator and Village Attorney are hereby authorized and directed to bring such zoning enforcement action as may be appropriate under the circumstances.

SECTION 7. AMENDMENTS. Any amendments to the approval granted in Section Two of this Ordinance or to the Special Use Permit that may be requested by the Owner or the Applicant after the effective date of this Ordinance may be granted only pursuant to the procedures, and subject to the standards and limitations, provided in the Zoning Ordinance.

SECTION 8. SEVERABILITY. If any provision of this Ordinance or part thereof is held invalid by a court of competent jurisdiction, the remaining provisions of this Ordinance shall remain in full force and effect, and shall be interpreted, applied, and enforced so as to achieve, as near as may be, the purpose and intent of this Ordinance to the greatest extent permitted by applicable law.

SECTION 9. EFFECTIVE DATE.

A. This Ordinance shall be effective only upon the occurrence of all of the following events:

1. Passage by the Village President and Board of Trustees in the manner required by law;

2. Publication in pamphlet form in the manner required by law; and

3. The filing by the Applicant with the Village Clerk of an Unconditional Agreement and Consent, in the form of **Exhibit B** attached to and, by this reference, made a part of this Ordinance, to accept and abide by each and all of the terms, conditions, and limitations set forth in this Ordinance and to indemnify the Village for any claims that may arise in connection with the approval of this Ordinance.

B. In the event that the Applicant does not file fully executed copies of the Unconditional Agreement and Consent, as required by Section 9.A.3 of this Ordinance, within 30 days after the date of final passage of this Ordinance, the

Village President and Board of Trustees shall have the right, in its sole discretion, to declare this Ordinance null and void and of no force or effect.

PASSED this 5th day of June, 2012.

AYES: Trustees Patel, Heidtke, Leftakes, Elster, Sprogis-Marohn, Swanson

NAYS: None

ABSENT: None

ABSTENTION: None

APPROVED by me this 5th day of June, 2012.

Gerald C. Turry, President
Village of Lincolnwood, Cook County, Illinois

ATTESTED and FILED in my office this
5th day of June, 2012

Beryl Herman, Village Clerk
Village of Lincolnwood, Cook County, Illinois

#11159402_v3

Additions are bold and double-underlined; ~~deletions are struck through.~~

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

LOTS 9, 10, 11, 12, 13, 14, 15, 16, 17, AND LOT 18 (EXCEPT THE NORTH 50 FEET THEREOF) IN BLOCK 4 IN LINCOLN CRAWFORD MANOR, BEING A SUBDIVSION OF THE NORTH ½ OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 34, TOWNSHIP 41 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN TOGETHER WITH THE SOUTHWESTERLY ½ OF THE 16 FT. VACATED ALLEY AS PER DOC. NO. 17828492 AND LYING NORTHEASTERLY OF AFORESAID LOTS, IN COOK COUNTY, ILLINOIS.

Commonly known as: 6921-6933 Lincoln Avenue, Lincolnwood, Illinois.

P.I.N.: 10-34-216-007-0000, 10-34-216-008-0000, 10-34-216-009-0000, 10-34-216-010-0000, 10-34-216-011-0000, 10-34-216-012-0000, 10-34-216-013-0000, 10-34-216-014-0000, 10-34-216-015-0000, 10-34-216-031-0000

EXHIBIT B

UNCONDITIONAL AGREEMENT AND CONSENT

TO: The Village of Lincolnwood, Illinois (***"Village"***):

WHEREAS, Lincolnwood Commons, LLC is the record title owner of that certain property located in the B-1 Restricted Business District (***"B-1 District"***), commonly known as 6921-6933 Lincoln Avenue, in the Village (***"Property"***); and

WHEREAS, TPDS, Inc. d/b/a Lincolnwood Wines & Spirits (***"Applicant"***) filed an application to amend its existing special use permit for the operation of a package goods liquor store on the Property (the ***"Requested Relief"***);

WHEREAS, Ordinance No. 2012-3005, adopted by the Village President and Board of Trustees on June 5, 2012 (***"Ordinance"***), grants the Requested Relief to the Applicant; and

WHEREAS, Section 9 of the Ordinance provides, among other things, that the Ordinance will be of no force or effect unless and until the Applicant shall have filed, within 30 days following the passage of the Ordinance, its unconditional agreement and consent to accept and abide by each and all of the terms, conditions, and limitations set forth in the Ordinance;

NOW, THEREFORE, the Applicant do hereby agree and covenant as follows:

1. The Applicant does hereby unconditionally agree to, accept, consent to, and abide by each and all of the terms, conditions, limitations, restrictions, and provisions of the Ordinance.

2. The Applicant acknowledges that public notices and hearings have been properly given and held with respect to the adoption of the Ordinance, has considered the possibility of the revocation provided for in the Ordinance, and agrees not to challenge any such revocation on the grounds of any procedural infirmity or a denial of any procedural right.

3. The Applicant acknowledges and agrees that the Village is not and shall not be, in any way, liable for any damages or injuries that may be sustained as a result of the Village's granting of the Requested Relief for the Property or its adoption of the Ordinance, and that the Village's approvals do not, and shall not, in any way, be deemed to insure the Applicant against damage or injury of any kind and at any time.

4. The Applicant shall, and does hereby agree to, hold harmless and indemnify the Village, the Village's corporate authorities, and all Village elected and appointed officials, officers, employees, agents, representatives, and attorneys, from any and all claims that may, at any time, be asserted against any of such parties in connection with the Village's adoption of the Ordinance granting the Requested Relief for the Property.

Dated: June 5, 2012

ATTEST:

By: _____
Its: _____

LINCOLNWOOD COMMONS, LLC

By: _____ as manager
Its: Manager

ATTEST:

By: _____
Its: _____

TPDS, INC. d/b/a LINCOLNWOOD WINE & SPIRITS

By: Sanjay Donare
Its: mgr

Staff Report
Plan Commission
May 7, 2014

Subject Property:
7017 North Central Park Avenue

Zoning District: MB Light Industrial/Business District

Petitioner: Mike Bieniek on Behalf of Verizon Wireless, Tenant

Nature of Request: The petitioner seeks Special Use approval to install wireless equipment on existing freestanding tower.

Notification: Notice of the May 7, 2014 meeting was published in the Lincolnwood Review on April 17, 2014. One Public Hearing Sign was installed at 7017 North Central Park Avenue.

Summary of Request

Verizon Wireless is seeking Special Use authorization in order to install three new antennas and ground equipment at the existing American Tower Corporation freestanding tower at 7017 North Central Park Avenue. This tower is located adjacent to the Village's water tank and behind Lowe's Home Improvement. The Zoning Code requires Special Use Approval for wireless facilities.

The center-point of the new antennas will be installed at approximately 30 feet above grade on the existing 100-foot steel lattice tower (shown on page A-1). The ground equipment will be located within the existing fenced compound (shown on page C-2). The ground equipment will be housed within a cabinet to be installed on a concrete slab. The existing American Tower facility also includes an existing wireless site at the top of the existing tower with ground equipment located within a shelter.

The applicant has stated that the new equipment is needed in order to improve coverage and the quality of service to their customers in the area.

Related Village Action

Since 2009, the Village has reviewed and approved four new wireless facilities (all co-location on existing structures) and one replacement/upgrade to a wireless facility. Staff does not have concern with the existing site as there are no records of complaints associated with the freestanding tower equipment more specifically.

Documents Attached

1. Special Use Public Hearing Application
2. Site Lease Agreement
3. Structural Analysis Report
4. Survey
5. Drawings Prepared by Edge Consulting Engineers, Inc.

VILLAGE OF LINCOLNWOOD Public Hearing Application
Community Development Department Special Use & PUD

SUBJECT PROPERTY

Property Address: 7001 N Central Park Avenue

Permanent Real Estate Index Number(s): 10-35-200-040-0000

Zoning District _____ Lot Area: _____

List all existing structures on the property. Include fencing, sheds, garages, pools, etc.

_____

_____

Are there existing development restrictions affecting the property? ___ Yes ___ No
(*Examples: previous variations, conditions, easements, covenants*)

If yes, describe: _____

REQUESTED ACTION

☒ Special Use – Non-Residential

☐ Special Use – Residential

☐ Planned Unit Development (PUD)

☐ Other

PROJECT DESCRIPTION

Describe the Request and Project: Verizon Wireless is co-locating on the existing wireless communications facility on the property. Verizon Wireless will be adding 3 new antennas at the 30'-0" level on the existing 100'-0" self-support tower. Ground equipment will be located in a 58.4" x 28.1" equipment cabinet, which will be located on a proposed 3'-0" x 6'-0" lease area on the existing site.

PROPERTY OWNER/PETITIONER INFORMATION

Property Owner(s):

Name: (List all beneficiaries if Trust): American Tower Corp. (tower owner)

Address: 1101 Perimeter Drive, Suite 700 Schaumburg, IL 60173

Telephone: (847) 240-1508 x 2574 Fax: (_____) _____ E-mail Address: _____

Petitioner (*if different from owner*):

Name: Mike Bieniek, AICP agent for Verizon Wireless Relationship to Property: Lessee

Address: 10700 West Higgins Road Suite 240, Rosemont, IL 60018

Telephone: (847) 380-5569 Fax: (_____) _____ E-mail Address: mbieniek@lcclaw.net

REQUIRED ATTACHMENTS *

Check all documents that are attached:

Plat of Survey	
Site Plan	x
Proof of Ownership	
Floor Plans	
Elevations	x
Applicable Zoning Worksheet	
Photos of the property	
PDF files of all drawings	x

For Office Use Only

Fee: _____ Deposit: _____

Date Received: _____

Checked By: _____

The article(s), section(s) and paragraph(s) of the Village of Lincolnwood Zoning Ordinance from which the Action is being sought:

_____

_____

_____

_____

_____

**The above documents are required for all applications. The Zoning Officer may release an applicant from specific required documents or may require additional documents as deemed necessary.*

COST REIMBURSEMENT REQUIREMENT

The Village requires reimbursement of certain out-of-pocket costs incurred by the Village in connection with applications for zoning approvals and relief. These costs include, but are not limited to, mailing costs, attorney and engineer costs, and other out-of-pocket costs incurred by the Village in connection with this application. In accordance with Section 5.02 of the Village of Lincolnwood Zoning Ordinance, both the petitioner and the property owner shall be jointly and severely liable for the payment of such out-of-pocket costs. Out-of pocket costs incurred shall be first applied against any hearing deposit held by the Village, with any additional sums incurred, to be billed at the conclusion of the hearing process.

Invoices in connection with this application shall be directed to:

Name: Lora, Chanthadouangsy & Castellanos, LLC attn: Mike Bieniek

Address: 10700 West Higgins Road Suite 240

City, State: Rosemont, IL 60018

ATTESTMENT AND SIGNATURE

I hereby state that I have read and understand the Village cost reimbursement requirement, as well as the requirements and procedures outlined in Article V of the Village Zoning Ordinance, and I agree to reimburse the Village within 30 days after receipt of an invoice therefor. I further attest that all statements and information provided in this application are true and correct to the best of my knowledge and that I have vested in me the authority to execute this application.

PROPERTY OWNER

_____ _____

Signature Date

_____

PRINT NAME

PETITIONER *(If different than property owner)*

_____ March 19, 2014

Signature Date

Michael Bieniek, AICP

PRINT NAME

VILLAGE OF LINCOLNWOOD
COMMUNITY DEVELOPMENT DEPARTMENT

SPECIAL USE STANDARDS

To be approved, each special use request must meet certain specific standards. These three standards are listed below. After each listed standard, explain how the special use request satisfies the listed standard. Use additional paper if necessary.

1. Please explain how the use is necessary for the public convenience at this location, and the subject property is deemed suitable for the use. (Please explain in detail)

This location was chosen because there is already an existing wireless facility on the property. Therefore, Verizon Wireless will not need to construct a new facility in order to provide better coverage to the residents of the Village of Lincolnwood.

2. Please explain how the use is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.

Due to the diminutive size of the proposed equipment, it will not have an adverse effect on the surrounding properties or the character of the area. PCS wireless transmissions do not interfere with any other form of communications, whether public or private, or in any way endanger the public health, safety, morals, or general welfare. Wireless telephones provide an alternate communication system which has repeatedly proven its effectiveness in emergency situations and is commonly being used by police and fire departments to protect the general public's health, safety, and welfare.

3. Please explain how this use would not cause substantial injury to the value of other property in the neighborhood in which it is located.

Due to the minimal size of the leased parcel and the nature of the surrounding uses, there will be little impact on the character of the locality with no adverse effect on existing or future development in the area. Enhanced wireless communications will have a positive influence on the development of this area.

4. The special use is consistent with the goals and policies of the Comprehensive Plan.

The Special Use will be in harmony with the the spirit and intent of the Village of Lincolnwood Ordinance. Wireless telephones provide an alternate communication system which has repeatedly proven its effectiveness in emergency situations and is commonly being used by police and fire departments to protect the general public's health, safety, and welfare. Therefore, the granting of the Special Use will be in conformance with the general and specific purposes imposed by the Village of Lincolnwood's Zoning Ordinance and the Comprehensive Plan.

5. The special use would not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the underlying zoning district.

There is already an existing wireless communications facility on the property, so the Special Use would not interfere with any current patterns of development. There will be minimum impact on the character of the locality with no adverse effect on future development in the area. Enhanced wireless service will have a positive influence on development in the area.

6. Please explain how the special use is so designed to provide adequate utilities, access roads, drainage, or necessary facilities.

The Special Use is designed to provide better wireless communication coverage to the Village of Lincolnwood. Wireless telephone technology provides many benefits to the communities it serves, including 911 program allowing motorists to summon aid and report dangerous situations, support for emergency services by providing wireless communications to police, firefighters, and paramedics, a backup system to the land-line system in the event of a natural or man-made disaster, communication capabilities in remote areas, and support for the busy lives of people in the area reducing stress and increasing productivity.

7. Please explain how the special use is so designed to provide ingress and egress to minimize traffic congestion on public streets.

A PCS facility is unstaffed, therefore there will be no impact on the existing traffic, nor will there be any traffic hazards generated. Maintenance personnel will visit the facility once or twice per month in a van sized vehicle. Access will be provided via existing entrances. Existing parking at the subject property is more than adequate for the expected infrequent maintenance visits to this site.

VILLAGE OF LINCOLNWOOD
COMMUNITY DEVELOPMENT DEPARTMENT

PUBLIC HEARING FEES & DEPOSITS SCHEDULE

Plan Commission

Hearing Type	Hearing Fee*	Hearing Deposit**
Special Use – Non Residential Property	$500	$2,000
Special Use – Residential Property	$250	NA
Reasonable Accommodation	$250	$2,000
Text Amendment	$500	$2,000
Map Amendment	$500	$2,000
Planned Unit Development (PUD) 0 to 5 acres	$1,250	$10,000
Planned Unit Development (PUD) 5 to 10 acres	$2,500	$10,000
Planned Unit Development (PUD) Over 10 acres	$3,000	$10,000
Minor Subdivision	$250	NA
Major Subdivision	$500	$2,000

Zoning Board of Appeals

Hearing Type	Hearing Fee*	Hearing Deposit**
Major Variation – Non Residential Property	$500	NA
Major Variation – Residential Property	$250	NA
Variation – Off-Street Parking	$500	NA
Variation – Design Standards	$250	NA
Minor Variation	$125	NA
Sign Variation/Special Signs	$500	NA

* Hearing fees are non-refundable.

** Hearing Deposits shall be applied to out-of-pocket expenses incurred by the Village as the result of the public hearing process. If additional costs are incurred, or if no deposit is provided, such out-of-pocket expenses will be billed directly to the applicant.

This instrument prepared by:

Permanent Tax Index
No. 10-35-200-028

Stephen M. Dorfman
ALTHEIMER & GRAY
10 South Wacker Drive
Chicago, IL 60606

SITE AGREEMENT NO. 64 - LINCOLNWOOD, ILLINOIS

THIS AGREEMENT, made as of the 11th day of May, 1990, between the lessor, VILLAGE OF LINCOLNWOOD, an Illinois Municipal corporation ("Lessor"), and the lessee, CELLULAR ONE®-CHICAGO, a division of Southwestern Bell Mobile Systems, Inc., a corporation incorporated under the laws of the State of Delaware and the Commonwealth of Virginia ("Lessee"):

W I T N E S S E T H:

IN CONSIDERATION of the terms hereof, the parties hereto agree as follows:

1. A. Lessor hereby demises and leases to Lessee the parcel of real estate measuring forty (40) feet by forty (40) feet situated in the Village of Lincolnwood in the County of Cook and State of Illinois (the "Real Estate"), described in Exhibit A and depicted in Exhibit B, both of which are attached hereto and made a part hereof, together with all right, title and interest of Lessor in and to all easements, privileges and other appurtenances pertaining to the Real Estate (which Real Estate and the aforesaid right, title and interest of Lessor shall hereinafter collectively be called the "Premises"), and hereby grants and conveys to Lessee certain Rights of Use (as hereinafter defined) appurtenant to the Premises; TO HAVE AND TO HOLD the Premises and the Rights of Use unto Lessee, for the benefit of Lessee, its affiliates and their respective subtenants and their respective successors and assigns (collectively, "Lessee's Related Parties"), for a term (the "Term") commencing on the date of this agreement and expiring April 30, 2030, and for any Extended Terms (as hereinafter defined).

B. In consideration of the leasing of the Premises by Lessor to Lessee, within a reasonable time after the commencement of Monthly Monetary Consideration payments pursuant to paragraph 2 but subject to strike, lockout or labor difficulty, explosion, sabotage, accident, riot or civil commotion, act of war, fire or other catastrophe, or any other cause beyond Lessee's reasonable control, Lessee shall construct upon the Premises, at Lessee's sole cost and expense, a new one hundred (100) foot tall self-supporting steel antenna tower ("Tower").

C. From and after the date that the Tower is constructed and usable for its intended purpose, and for the balance of the Term and any Extended Terms, subject to the terms and conditions set forth in this paragraph 1, Lessor shall have the right to maintain on the Tower the following attachments ("Lessor's Attachments"), at such height or heights as Lessee shall approve in advance in each instance such number and such type of antennas as Lessor deems necessary and as Lessee shall approve in Lessee's sole discretion, for use solely for police communications for Lessor's police department. Lessor shall keep and maintain Lessor's Attachments and ancillary equipment located outside the Premises in adjustment so as to conform with all applicable local, state and Federal regulations, rules and operating procedures.

D. At the request of Lessor from time to time, Lessee shall grant Lessor access to the Tower to install or maintain Lessor's attachments, provided that Lessor shall telephone Lessee's office at least twenty-four (24) hours in advance to set up an appointment, and provided that one of Lessee's agents or employees accompanies Lessor onto the Premises in connection with such access.

E. Lessee may alter the mounting height of Lessor's Attachments and relocate Lessor's Attachments if such alteration and relocation is deemed necessary or desirable by Lessee; provided that, prior to relocating any of

Lessor's Attachments, Lessee shall obtain Lessor's consent, which consent shall not be unreasonably delayed or withheld, but which consent shall not be required if the relocated Lessor's Attachments shall properly perform their intended function at the altered mounting height proposed by Lessee; and provided further that, during any such relocation, Lessee shall use reasonable efforts to minimize disruption of the functions of Lessor's Attachments; and provided further that any such relocation shall comply with applicable regulations of the Federal Communications Commission ("FCC").

F. Lessor shall be responsible at Lessor's sole expense for taking such steps as may be necessary to prevent or eliminate any interference or spurious radiation from Lessor's Attachments on the Tower which affects any other communications systems located on the Tower. If such interference or spurious radiation is not reduced to levels reasonably acceptable to Lessee at Lessee's sole determination, Lessee may elect by giving telephone or written notice to Lessor, to have Lessor immediately cease operation of Lessor's Attachments on the Tower until such interference or spurious radiation is reduced to levels reasonably acceptable to Lessee. If Lessor fails to cease such operation within twenty-four (24) hours of Lessor's receipt of such telephone or written notice, Lessee may disconnect Lessor's Attachments until Lessor provides assurances reasonably acceptable to Lessee that Lessor has taken such steps as are necessary to prevent or eliminate such interference or spurious radiation.

G. Neither Lessee, its agents and employees, nor Lessor, its agents and employees, shall knowingly take any action which shall jeopardize the validity of FCC licenses then in effect concerning attachments on the Tower and related equipment.

H. Lessee shall not be liable for injury or damage to any person or property occurring on the Premises, or for damage to Lessor's Attachments or ancillary equipment unless caused by the negligence of Lessee, its agents or employees.

I. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN THIS AGREEMENT, LESSEE MAKES NO WARRANTY OR REPRESENTATION AS TO THE UTILITY OR SUITABILITY OF THE TOWER OR THE LOCATION OF THE TOWER FOR THE USES CONTEMPLATED BY LESSOR.

J. Lessee represents that to its knowledge, Lessee's Equipment and its operations will not endanger or adversely affect the public health or safety. Lessee covenants that it shall comply with any and all FCC rules, regulations and orders regarding the health effects of Lessee's Equipment and operations, provided that Lessee may, at its own expense, contest, by appropriate proceedings conducted diligently and in good faith, the validity or applicability of any such rule, regulation or order. Lessee need not comply with such rule, regulation or order so long as Lessee shall be so contesting the validity or applicability thereof. If, at any time, the FCC or any other governmental agency having jurisdiction over Lessee's Equipment and operations issues a final, unreviewable order containing a determination that Lessee's Equipment or operations cause a material adverse health effect, Lessee shall take whatever steps are necessary to mitigate such adverse health effect and comply with the order or, in lieu thereof, at Lessee's election, Lessee may terminate this agreement by notice to Lessor. Lessee shall with reasonable promptness and diligence after the date of such final order either comply therewith or terminate this agreement or provide evidence to Lessor which satisfies Lessor, in Lessor's reasonable judgment, that such determination is in error.

2. Lessee shall pay, or otherwise provide to Lessor, rent for the Premises, consisting of three components, i.e., Monthly Monetary Consideration, One-Time Consideration and Additional Consideration, as set forth in subparagraphs (i), (ii), (iii), (iv) and (v) below:

(i) Rent shall be payable or otherwise provided to Lessor at 6919 KEELER AVE, Lincolnwood, Illinois, or such other person or place as Lessor may designate from time to time by notice to Lessee.

(ii) Lessee shall pay Lessor, as One-Time Consideration on the date hereof, a one-time, non-refundable, non-proratable payment of Five

Hundred Dollars [redacted] to cover the period from the date hereof until the commencement of Monthly Monetary Consideration payments as hereinafter provided.

(iii) Subject to the provisions of subparagraph 2A(i), Lessee shall pay Lessor Monthly Monetary Consideration monthly commencing with the first day of the calendar month following Lessee's receipt of the last of the necessary local, state and federal approvals, licenses and permits so as to permit construction on and use of the Premises for all of the purposes permitted by this agreement (such approvals, licenses and permits hereinafter collectively called the "Approvals"). Subject to the preceding sentence, Monthly Monetary Consideration shall be payable in advance on the first day of each calendar month of the Term through the date of expiration of the Term, or such earlier date as this agreement is terminated, in the amounts set forth in Schedule 1 attached hereto and made a part hereof.

(iv) Subject to the provisions of subparagraph 2A(i) and subparagraph 2A(v), within thirty (30) days after the commencement of Monthly Monetary Consideration pursuant to subparagraph 2A(iii) and thereafter during the Term through the date of expiration of the Term, or such earlier date as this agreement is terminated, Lessee shall provide Lessor with Additional Consideration as follows:

Lessee shall assign or cause to be assigned to Lessor eight (8) telephone numbers on Lessee's cellular mobile telephone system (the "System"); and thereafter for as long as this agreement is in effect, subject to the provisions of subparagraph 2A(v), Lessee shall provide to Lessor a basic package of service on the System ("Basic Service Package") for each of the eight (8) telephone numbers assigned to Lessor. Subject to the provisions of subparagraph 2A(v), each Basic Service Package shall provide, without cost to Lessor, "standard service" and an allowance of [redacted] minutes of "air time" per month on the System. It is understood that, during any month, use of "air time" in excess of the [redacted], with respect to any of the telephone numbers assigned to Lessor, will be charged to and payable by Lessor at the regular per minute rate for use of excess "air time" then being charged to customers of the System who have elected to purchase "air time" on the System through a so-called "[redacted]" or such other comparable volume discount package as Lessee shall designate from time to time, and who have used in excess of the maximum number of minutes included with such package. Lessor acknowledges that the Basic Service Package does not include any service above the basic service: for example, but not by way of limitation, the Basic Service Package does not include services such as call forwarding, call waiting, call transfer, three-way calling, data transmission or cellular message service. The Basic Service Package to be provided by Lessee does not include, and Lessor shall be responsible to pay for, (1) any service desired by Lessor over and above the Basic Service Package, (2) all state, local and federal taxes, (3) all long distance charges for telephone calls outside the normal coverage area of the System itself, and (4) all directory assistance and third party charges.

(v) **LESSEE WILL NOT AND DOES NOT WARRANT THAT SERVICE ON THE SYSTEM SHALL BE FREE FROM INTERRUPTIONS CAUSED BY EQUIPMENT BREAKDOWN, WEATHER-RELATED INCIDENTS, INABILITY OF LESSEE TO OBTAIN FUEL OR SUPPLIES OR ANY OTHER REASON OF SIMILAR OR DISSIMILAR NATURE BEYOND THE REASONABLE CONTROL OF THE LESSEE, INCLUDING, WITHOUT LIMITATION, STRIKES, LOCKOUTS, LABOR DIFFICULTIES, CATASTROPHE, EXPLOSION, SABOTAGE, ACCIDENT, RIOT OR CIVIL COMMOTION, ACTS OF WAR OR FIRE OR OTHER CASUALTY; AND ANY SUCH INTERRUPTIONS SHALL NEVER RENDER LESSEE LIABLE TO LESSOR FOR DAMAGES OR RELIEVE LESSOR'S OBLIGATIONS UNDER THIS SITE AGREEMENT, AND EXCEPT AS PROVIDED OTHERWISE IN THIS SITE AGREEMENT, LESSOR'S USE OF THE SYSTEM SHALL ALWAYS BE SUBJECT TO THE STANDARD TERMS AND CONDITIONS OF LESSEE'S GENERALLY APPLICABLE AGREEMENTS, RULES, REGULATIONS, AND CONDITIONS CONCERNING USE OF THE SYSTEM, AS AMENDED FROM TIME TO TIME, ALL OF WHICH ARE INCORPORATED HEREIN BY REFERENCE, AND SHALL BE DEEMED TO BE REINCORPORATED AS AMENDED FROM TIME TO TIME.**

3. The Premises shall be used for operation of a communications tower, radio equipment, antennas and microwave and other dishes and for transmitting and receiving communications signals, and, in connection therewith, for the installation, repair, maintenance, operation, housing and removal of antennas, microwave and other dishes, wires, transmitters, receivers, appliances, machinery, trade fixtures and communications and other equipment (collectively, the "Equipment"), whether freestanding or located on or in improvements to be constructed upon or in the Premises, or for any other, related or similar, lawful purpose.

4. A. Subject to paragraph 5A herein, Lessor hereby grants and conveys to Lessee, for the benefit of Lessee and Lessee's Related Parties, the following rights of use ("Rights of Use"), which shall remain in effect and shall be irrevocable during the Term:

(i) a Right of Use upon, over and across other real estate owned by Lessor described on Exhibit A attached hereto and described and depicted on Exhibit B attached hereto as "Easement for Ingress and Egress", to provide access, twenty-four (24) hours each and every day, seven (7) days each and every week, for ingress and egress and passage of pedestrians, vehicles and construction materials and equipment, to and from the Premises from and to the nearest public way, and to provide parking and temporary storage for service vehicles, equipment and supplies during any time, from time to time, that Lessee or one of Lessee's Related Parties is constructing, installing, removing, repairing, relocating, replacing, maintaining or operating improvements and/or Equipment pursuant to this agreement;

(ii) a Right of Use upon, over, under and across other real estate owned by Lessor described on Exhibit A attached hereto and described and depicted on Exhibit B attached hereto as "Easement for Ingress and Egress", for the purpose of construction, installation, removal, repair, relocation, replacement, maintenance and operation of electrical, telephone and other communication facilities as may be required in connection with the transmission and distribution of electricity, telephone and other communications and sounds and signals, and to provide access, twenty-four (24) hours each and every day, seven (7) days each and every week, for ingress and egress and passage of pedestrians, vehicles and construction materials and equipment, from and to the nearest public way, and to provide parking and temporary storage for service vehicles, equipment and supplies during any time, from time to time, that Lessee or one of Lessee's Related Parties is constructing, installing, removing, repairing, relocating, replacing, maintaining or operating such facilities; and

(iii) a Right of Use upon, over, under and across other real estate owned by Lessor, adjacent to the Premises, described on Exhibit A attached hereto and described and depicted on Exhibit B attached hereto as "Easement for Construction", for storage and use of construction materials and equipment during any time, from time to time, that Lessee or one of Lessee's Related Parties is constructing, installing, removing, repairing, relocating, replacing, maintaining or operating improvements or Equipment pursuant to this agreement, and during the time of set-up operations before, and clean-up operations after, any such construction, installation, removal, repair, relocation, replacement, maintenance or operation. After any such use, Lessee shall restore the area so used to at least as good a condition as before such use.

Lessor shall not be responsible for any ongoing repair or maintenance of the areas covered by the Rights of Use ("Right of Use Areas"). No additional rent or other payments shall be payable by reason of Lessor's grant of the Rights of Use. It is hereby understood that Lessee shall be responsible for removing any of its personal property used for construction, repair, maintenance or installation, including, but not limited to, materials, debris, or vehicles used by Lessee in the Right of Use Areas, and restoring the Right of Use Areas to good condition and repair if Lessee or Lessee's Related Parties have materially damaged the Right of Use Areas as a result of its foregoing activities.

B. At the request of Lessee or one of Lessee's Related Parties from time to time, and without further payment or consideration, Lessor shall grant and convey to Lessee or to the electric and/or telephone utility companies serving or authorized to serve the Premises, rights to use any existing poles owned by Lessor and/or easements to use other real estate owned by Lessor within a one-half (1/2) mile square radius of the Premises, for the purposes of construction, installation, removal, repair, relocation, replacement, maintenance and operation of electrical, telephone and other communication facilities as may be required in connection with the transmission and distribution of electricity, telephone and other communications and sounds and signals; and to provide access, twenty-four (24) hours each and every day, seven (7) days each and every week, for ingress and egress and passage of pedestrians, vehicles and construction materials and equipment, from and to the nearest public way, and to provide parking and temporary storage for service vehicles, equipment and supplies during any time, from time to time, that Lessee, one of Lessee's Related Parties or one or more of such companies is constructing, installing, removing, repairing, relocating, replacing, maintaining or operating such facilities or Lessee's improvements and/or Equipment; provided that, without Lessor's prior consent, which consent shall not be unreasonably delayed or withheld, said easements shall not exceed in duration the longer of (i) the length of the Term, and (ii) the length of time requested by any of such utility companies; and Lessor shall take any and all actions and execute, acknowledge and deliver any and all documents requested by Lessee, any of Lessee's Related Parties or any of such companies in order to accomplish the foregoing.

5. A. Lessor represents and warrants that Lessor owns good and marketable title in fee simple to the Premises, free and clear of all liens and encumbrances except as set forth on Exhibit C attached hereto and made a part hereof, and Lessor acknowledges that Lessee is relying upon the foregoing representation and warranty in entering into this agreement and in expending monies in connection herewith. Lessor covenants, represents and warrants that on or before sixty (60) days after the date hereof, Lessor will obtain fee simple title for the Right of Use Areas set forth in Exhibits A and B, or absent fee simple title, Lessor will obtain an easement for and to the benefit of Lessee's activities set forth in paragraph 4A for the Right of Use Areas designated in Exhibits A and B.

B. Lessor represents and warrants that no litigation or governmental, administrative, or regulatory proceeding is pending, proposed, or threatened with respect to the Premises or the Right of Use Areas, including, without limitation, claims of third parties.

6. A. Lessee shall pay all charges for utilities used by Lessee in connection with the Premises during the Term and any Extended Terms.

B. It shall be a "Lessor Breach" if Lessor defaults in its obligations under this agreement. If Lessor does not cure or reverse the effect of a Lessor Breach within thirty (30) days after notice to Lessor (provided, however, that such notice shall not be required in circumstances which Lessee reasonably deems to be an emergency), then Lessee may (x) withhold payments of rent until Lessor cures or reverses the effect of the Lessor Breach, or (y) Lessee may terminate this agreement by notice to Lessor, and upon such termination the Term and all obligations of Lessee contained herein shall forthwith terminate and end.

C. For purposes of this paragraph 6C, the following terms shall have the respective meanings set forth as follows: the term "Taxes" means all federal, state and local governmental taxes, assessments and charges of every kind or nature whatsoever (whether general, special, ordinary or extraordinary) levied, assessed or charged against the specified real estate and improvements because of or in connection with the ownership, leasing, management, control or operation of the specified real estate and improvements including, without limitation, real estate taxes or assessments, transit or transit district taxes or assessments, any tax or excise on rent or any other tax, however described, on account of rental received for use and occupancy of any or all of the specified real estate and improvements, whether any such taxes are imposed by the governments of the United States, the State of Illinois, the County in which the specified real estate and improvements in

question are located or any local governmental municipality, authority or agency or any political subdivision thereof or any other taxing body and including any rental fees or similar taxes levied in lieu of, or in addition to, general real property taxes, but excluding any federal, state or local sales, use, franchise, capital stock, inheritance, general or net income, gift or estate taxes; the term "Lessor's Entire Property" means collectively the entire parcel of real estate presently owned by Lessor of which the Premises is a part, the existing improvements on said entire parcel (which entire parcel and existing improvements are presently designated by Permanent Index Number 10-35-200-028), and the improvements hereafter located on said entire parcel; the term "Lessor's Net Property" means Lessor's Entire Property less (i) the Premises and (ii) the improvements and additions hereafter constructed or made by Lessee and Lessee's Related Parties on the Premises; and the term "Lessee's Property" means Lessor's Entire Property less Lessor's Net Property.

Lessee is hereby authorized and directed to prepare and file, at Lessee's expense, during 1990 with the appropriate governmental authorities of the jurisdiction in which the Premises are located, a petition for a tax division with respect to Lessor's Entire Property, so as to designate Lessee's Property as a separate tax parcel. Until such time as such tax division is effective and a separate tax bill is issued for Lessee's Property, Lessor shall pay prior to the delinquency date any and all Taxes assessed, levied or incurred for 1989 and subsequent years on or against Lessor's Entire Property. From and after the time that such designation is effective, Lessee shall pay prior to the delinquency date any and all Taxes assessed, levied or incurred from and after such designation during the Term and any Extended Terms on or against Lessee's Property; and Lessor shall pay prior to the delinquency date any and all Taxes assessed, levied or incurred against Lessor's Net Property. If any rebate or refund of the aforedescribed Taxes is made, the rebate or refund (less the reasonable expenses incurred in obtaining same) shall be retained by or paid to Lessee based on the proportion which the Taxes paid by Lessee bears to the total amount of Taxes to which such rebate or refund relates.

Lessee and Lessee's Related Parties shall have the right at Lessee's expense, in Lessee's name or in the name of Lessor, to contest the amount and validity, in whole or in part, of any component of the Taxes or any of the Taxes or portion thereof for which Lessee is responsible pursuant to the terms hereof, by appropriate proceedings diligently conducted. Lessor shall promptly provide Lessee with copies of all bills for Taxes, applicable assessment and reassessment notices and other matters relating to any Taxes to the end that Lessee is not prejudiced in exercising the rights granted hereunder.

7. Lessee and Lessee's Related Parties shall have the right at any time during the Term, at their own expense (a) to construct or make any improvements of whatever kind or description upon or in the Premises, (b) to install Equipment upon or in the Premises, (c) to install Equipment such as wires, cables, junction boxes and related or similar fixtures upon or in the Right of Use Areas, provided that all such installations meet applicable municipal ordinances and codes and (d) to remove any such improvements and Equipment so constructed, made or installed. Any and all improvements and Equipment so constructed, made or installed shall remain personal property and shall belong to and be removable by Lessee during the Term, and for a reasonable time after the expiration of the Term or such earlier date as this agreement is terminated.

8. Lessee shall keep the Premises in good condition and repair in accordance with applicable state and municipal laws, and, at the expiration of the Term, or such earlier date as this agreement is terminated, Lessee will remove all above-ground improvements and Equipment constructed, made or installed by Lessee, and will otherwise yield up the Premises in at least as good a condition as when the same were entered upon by Lessee, ordinary wear and tear and loss by causes beyond Lessee's control excepted.

9. Lessee and its agents may apply to governmental authorities and public utility companies for any Approvals and easements required of or deemed useful by Lessee for its use of the Premises, or in order to construct or make improvements, or to install Equipment, pursuant to this agreement. Lessor shall cooperate fully with Lessee in connection with the foregoing and, upon

request of Lessee, shall take any and all actions and execute, acknowledge and deliver any and all documents and instruments reasonably requested by Lessee in connection therewith, including, without limitation, easements for public utilities provided that such documents or instruments are in form reasonably acceptable to Lessor's counsel and provided further that none of the foregoing actions, documents or instruments shall impose any liability on Lessor. Lessee shall reimburse Lessor for any reasonable costs reasonably expended by Lessor in connection with the foregoing. Lessee shall pay all license, permit and inspection fees required in connection with its use of the Premises or the conduct of its business thereon.

10. Lessee's obligations hereunder are contingent upon the occurrence of the following events on or before December 31, 1990:

(a) Lessee shall have received the Approvals and easements referred to in paragraphs 2, 4B and 9 hereof; and

(b) Lessee shall have received results of soil and/or radio frequency tests (to be obtained by Lessee at Lessee's expense) relating to the Premises, and such results are satisfactory to Lessee in its sole discretion.

If one or more of such events shall not have occurred or if Lessor shall not have obtained fee simple title for the Right of Use Areas set forth in Exhibits A and B, or absent fee simple title, an easement for and to the benefit of Lessee's activities as set forth in paragraph 4A for the Right of Use Areas designated in Exhibits A and B on or before sixty (60) days after the date hereof, then at Lessee's option, Lessee may terminate this agreement by giving a notice to Lessor on or before said date. Upon such termination by Lessee, the Term and all of Lessee's obligations contained herein shall forthwith terminate and end on the date specified in such notice. If Lessee terminates this agreement, Lessor shall be entitled to retain all rent theretofore paid by Lessee.

11. Lessee shall indemnify Lessor and the Premises from all liens or claims for lien for labor or material by reason of any work done or material furnished Lessee in connection with construction pursuant to this agreement. If any such lien or claim for lien is filed against the Premises, Lessor shall give Lessee notice thereof and demand that Lessee remove the same, and if the same is not removed within thirty (30) days after Lessee receives such notice and demand, then (and only then) Lessor may (unless within such thirty (30) day period Lessee furnishes to Lessor reasonable security to protect against such lien), without inquiring into the validity thereof, remove the same at its expense, and Lessee shall repay Lessor for any amounts so advanced within fifteen (15) days after receipt of Lessor's statement therefor.

12. During the Term, Lessee shall, at its expense, obtain liability insurance issued by a company authorized to do business in Illinois, providing coverage in limits of at least $1,000,000.00, in the event of bodily injury or death, or property damage, or both, as a result of any one accident or occurrence on the Premises. Lessee shall send a certificate therefor to Lessor within a reasonable time after receipt of Lessor's request therefor; provided that Lessor shall not make such a request more than a reasonable number of times. Such certificate shall list Lessor as an additional insured and shall contain a statement substantially as follows: "should any of the policies described [therein] be cancelled before the expiration date thereof, the issuing company will endeavor to mail 30 days written notice to the certificate holder named [therein], but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives."

13. INTENTIONALLY DELETED

14. For purposes of this paragraph, each of the following dates is a "Rent Stop Date": the last day of the month of April in each of the years 1995, 2000, 2005, 2010, 2015, 2020, 2025 and 2030. If this agreement has not been terminated pursuant to paragraph 10 hereof, then at Lessee's option, Lessee may terminate this agreement, effective as of a termination date selected by Lessee in its discretion (the "Termination Date"), by sending a termination notice ("Lessee's Termination Notice") to Lessor, and upon such termination

the Term and all obligations of Lessee contained herein shall forthwith terminate and end on the Termination Date specified in Lessee's Termination Notice; provided that, in the event of a termination pursuant to the foregoing provision, notwithstanding the termination and irrespective of the actual Termination Date, Lessee's obligation to pay Monthly Monetary Consideration shall continue through (and shall end on) the Rent Stop Date next following the Termination Date; but if the Termination Date is the same as a Rent Stop Date, then Lessee's obligation to pay Monthly Monetary Consideration shall end on the Termination Date. The foregoing right to terminate shall not be deemed to be exclusive and shall not preclude a termination by Lessee in the event of a default by Lessor.

15. A. Lessee shall have the right to sublease, for the same purpose, all or any part of the Premises or the improvements and Equipment constructed, made or installed pursuant to this agreement for any use permitted by this agreement and/or to assign or transfer this agreement, all or any of Lessee's rights or interests hereunder, for the same purposes set forth by this agreement; and any such sublease, assignment or transfer may be absolute, conditional or in consideration of or as additional security for any financing or equipment leasing arrangement into which Lessee may enter. Lessee shall have the right to record, register and/or file such evidence of any such sublease, assignment or transfer as Lessee may deem appropriate, without thereby committing a default under this agreement.

B. Lessor shall have the unconditional right to assign or transfer this agreement provided that the rights granted to Lessor under paragraph 1C hereof are personal to Lessor and may not be assigned.

16. Lessor, on behalf of Lessor and all persons, corporations and other entities claiming by, through or under Lessor, and their respective heirs, executors, administrators, personal representatives, successors and assigns, covenants and agrees with Lessee that as long as Lessee, or one of Lessee's Related Parties, pays the rent herein reserved and performs all of Lessee's obligations hereunder, Lessee and Lessee's Related Parties (a) shall have quiet and peaceful enjoyment and possession of the Premises and the Rights of Use Areas throughout the Term free from claims and demands by Lessor and all persons, corporations and other entities claiming by, through or under Lessor, or claiming under title paramount to Lessor, and (b) shall be entitled to exercise all of Lessee's rights hereunder during the Term.

17. Each party hereto shall, from time to time, within fourteen (14) days after a written request is made by the other party, execute, acknowledge and deliver to the requesting party a certificate in writing (a) stating that this agreement is unmodified and in full force and effect (or, if modified, stating in detail the nature of such modifications and stating that this agreement, as so modified, is in full force and effect) and stating the date to which rent and other charges have been paid, and (b) either stating that to the knowledge of the certifying party no default exists hereunder or specifying each default of which the certifying party has knowledge. Any such certificate may be conclusively relied upon by any person or entity. Failure to deliver such a certificate within fourteen (14) days after such request is made shall be conclusive against the party failing to deliver such certificate (a) that this agreement is in full force and effect, without modification except as may be represented by the party that requested such certificate, and (b) that the party that requested such certificate is not in default hereunder.

18. If (a) Lessee shall default in the payment of Monthly Monetary Consideration and such default shall continue for fifteen (15) days after written notice thereof is received by Lessee, or (b) Lessee shall default in the performance of any other of Lessee's obligations herein contained and such default shall continue for thirty (30) days after written notice thereof is received by Lessee (provided, however, that if the default reasonably cannot be cured within thirty (30) days, said thirty (30) day period shall be extended for such additional time as is reasonably necessary to cure the default), or (c) Lessee is adjudicated a bankrupt or a trustee is appointed for Lessee after a petition has been filed against Lessee under the Bankruptcy Act of the United States, or a receiver is appointed for Lessee's business or property (and the order of adjudication or appointing a trustee or receiver has not been vacated within sixty (60) days after the entry thereof), then, upon ten (10) days' notice to Lessee, Lessee's right to possession of the

Premises may be terminated and the mere retention of possession thereafter by Lessee shall constitute a forcible detainer of the Premises, and if Lessor so elects by notice to Lessee, this agreement shall thereupon terminate, and upon termination of Lessee's right to possession, whether this agreement be terminated or not, Lessee shall surrender possession of the Premises immediately. Lessor hereby expressly waives any and all right to distrain for rent due and any and all landlord's liens or claim of such upon any or all property of Lessee and Lessee's Related Parties, on the Premises or the Right of Use Areas.

19. If any suit or action shall be brought to enforce or declare any of the terms of this agreement, to terminate this agreement, to recover possession of the Premises or to recover any rent or damages sustained as a result of a default in the performance of any obligations under this agreement or a breach of any of the representations and warranties herein contained, the party not prevailing in such suit or action shall be liable to the prevailing party for the prevailing party's costs and expenses, including, without limitation, court costs and reasonable attorneys' and expert witnesses' fees, the amount of which shall be fixed by the court and shall be made a part of any judgment rendered.

20. All notices and demands under this agreement shall be in writing, and shall be deemed to have been given when delivered in person or by courier, or when mailed by United States registered or certified mail with proper postage prepaid, to Lessor, if intended for it, at the address for payment of rent designated by Lessor from time to time by notice to Lessee, or to Lessee, if intended for it, at Cellular One, 840 East State Parkway, Schaumburg, Illinois, 60173 Attention: Business Manager. Either party hereto may change the place for notice to it by sending like written notice to the other party hereto.

21. Each party hereto represents and warrants that it has full power and authority to enter into this agreement and to perform the covenants and obligations herein contained. Each person executing this agreement represents and warrants that he or she is duly authorized to execute this agreement.

22. This agreement and all the rights, covenants and obligations contained in this agreement shall inure to the benefit of and be binding upon Lessor, Lessee, Lessee's Related Parties and their respective heirs, executors, administrators, personal representatives, successors and assigns. It is understood that as of the date of this agreement, Lessor is comprised only of the party or parties named as such in this agreement or any other instrument executed herewith. If now or at any time hereafter Lessor is comprised of more than one person or entity, Lessor's obligations under this agreement shall be the joint and several obligations of all persons and entities comprising Lessor.

23. In any case where the approval or consent of Lessor is required, requested or otherwise to be given under this agreement, an approval or consent by any of the persons or entities comprising Lessor shall be sufficient, and Lessee may rely upon any such approval or consent. In any case where the approval or consent of Lessor is required under this agreement, Lessor shall not unreasonably delay or withhold its approval or consent.

24. This agreement supersedes all prior agreements and understandings, both written and oral, of the parties with respect to the subject matter hereof. This agreement may be executed in any number of counterparts, and by the different parties on different counterparts, each of which when executed shall be deemed an original, and all of which together shall constitute one and the same agreement. If any clause, phrase, provision or portion of this agreement or the application thereof to any person or circumstance shall be invalid or unenforceable under applicable law, such event shall not affect, impair or render invalid or unenforceable the remainder of this agreement, nor any other clause, phrase, provision or portion hereof, nor shall it affect the application of any clause, phrase, provision or portion hereof to other persons or circumstances. Changes in the number, gender and grammar of terms and phrases herein, where necessary to conform this agreement to the circumstances of the parties hereto, shall in all cases be assumed as though in each case fully expressed herein. This agreement shall be construed in accordance with the laws of the State of Illinois.

25. Contemporaneously with Lessor's execution hereof, Lessor shall furnish Lessee with a certified copy of Lessor's resolutions authorizing execution of this agreement and an opinion of Lessor's counsel in substantially the form attached hereto as Exhibit D.

26. Notwithstanding anything to the contrary contained herein, this agreement shall be subject to the following conditions:

(i) Construction shall be in substantial compliance with Lessee's Application for a Special Use and with the building plans submitted to Lessor, and in any event shall comply with the Lincolnwood Building Code and any directives of the Building Commissioner;

(ii) Lessee shall install climb guards at the base of the Tower;

(iii) Lessee shall not use the Tower for advertising, displays or signs of any kind;

(iv) In the event the Tower or Lessee's equipment building on the Premises for the purposes set forth herein shall be abandoned for any reason whatsoever for a period of at least six (6) months, Lessee shall, at Lessee's expense, remove the Tower and any other improvements and restore the Premises in at least as good a condition as when the same were entered upon by Lessee, ordinary wear and tear and loss by causes beyond Lessee's control excepted; and

(v) Lessee shall reimburse Lessor for any attorneys' fees incurred in connection with this agreement upon submission by Lessor to Lessee of an itemized statement of such fees.

(vi) Lessor shall obtain fee simple title for the Right of Use Areas set forth in Exhibits A and B, or absent fee simple title, Lessor will obtain an easement for and to the benefit of Lessee's activities as set forth in paragraph 4A for the Rights of Use Areas designated in Exhibits A and B.

IN WITNESS WHEREOF, the parties have executed this agreement as of the day and year first above written.

LESSOR:

VILLAGE OF LINCOLNWOOD, an Illinois Municipal corporation

By: _____
Its: VILLAGE ADMINISTRATOR

Attest: _____
Its: Village Clerk

LESSEE:

CELLULAR ONE®-CHICAGO, a division of Southwestern Bell Mobile Systems, Inc.

By: _____
Its: Vice President-Network Operations

NOTARY ACKNOWLEDGEMENT FOR CORPORATE LESSOR

STATE OF _____)
) SS.
COUNTY OF _____)

I, _____, a Notary Public in and for the said County and State aforesaid DO HEREBY CERTIFY that the foregoing instrument was acknowledged before me this _____, 19__, by _____ and _____, personally known to me to be the _____ and the _____, respectively, of VILLAGE OF LINCOLNWOOD, an Illinois Municipal corporation, on behalf of the corporation.

_____
Notary Public

My commission expires: _____

"OFFICIAL SEAL"
LORRAINE E. BENTLEY
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 4/28/93

NOTARY ACKNOWLEDGEMENT FOR LESSEE

STATE OF ILLINOIS)
) SS.
COUNTY OF COOK)

I, KAY DAWN TOWER, a Notary Public in and for the said County and State aforesaid DO HEREBY CERTIFY that the foregoing instrument was acknowledged before me this JULY 30, 1990, by LANE ERSHEN, personally known to me to be the Vice-President - Network Operations of CELLULAR ONE®-CHICAGO, a division of Southwestern Bell Mobile Systems, Inc., a corporation incorporated under the laws of the State of Delaware and the Commonwealth of Virginia, on its behalf.

Kay Dawn Tower
Notary Public

My commission expires: 12/18/93

OFFICIAL SEAL
KAY DAWN TOWER
NOTARY PUBLIC STATE OF ILLINOIS
MY COMMISSION EXP. DEC. 18, 1993

NOTARY ACKNOWLEDGEMENT FOR CORPORATE LESSOR

STATE OF ILLINOIS)
) SS.
COUNTY OF COOK)

I, Joy G Zaussa, a Notary Public in and for the said County and State aforesaid DO HEREBY CERTIFY that the foregoing instrument was acknowledged before me this June 5, 1990, by William R Sommer and Debra Gimbel, personally known to me to be the Village Administrator and the Village Clerk, respectively, of VILLAGE OF LINCOLNWOOD, an Illinois Municipal corporation, on behalf of the corporation.

Joy G Zaussa
Notary Public, State of Illinois
My commission expires: 2/4/1990

NOTARY ACKNOWLEDGEMENT FOR LESSEE

STATE OF _____)
) SS.
COUNTY OF _____)

I, _____, a Notary Public in and for the said County and State aforesaid DO HEREBY CERTIFY that the foregoing instrument was acknowledged before me this _____, 19____, by _____, personally known to me to be the Vice-President - Network Operations of CELLULAR ONE®-CHICAGO, a division of Southwestern Bell Mobile Systems, Inc., a corporation incorporated under the laws of the State of Delaware and the Commonwealth of Virginia, on its behalf.

_____
Notary Public

My commission expires:_____

EXHIBIT A

Common address or approximate location of Premises:

(Vacant Lot) Lunt Avenue, Lincolnwood, Illinois

Legal Descriptions:

REAL ESTATE DESCRIPTION

THAT PART OF LOT FIVE IN ANDREW BARKULES AND SONS SUBDIVISION IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION THIRTY-FIVE, TOWNSHIP FORTY-ONE NORTH, RANGE THIRTEEN, EAST OF THE THIRD PRINCIPAL MERIDIAN, SAID ANDREW BARKULES AND SONS SUBDIVISION RECORDED ON JUNE 24, 1966 AS DOCUMENT NO. 19867378, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE MOST SOUTHWESTERLY CORNER OF SAID LOT FIVE; THENCE NORTH 00°-01'-30" WEST, BEING AN ASSUMED BEARING ON THE WEST LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION THIRTY-FIVE, ALSO BEING THE MOST WESTERLY LINE OF SAID LOT FIVE, A DISTANCE OF 57.32 FT. TO THE INTERSECTION WITH THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 22°-04'-30" EAST ON THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF SAID CHICAGO AND NORTHWESTERN RAILWAY, ALSO BEING THE NORTHWESTERLY LINE OF SAID LOT FIVE, A DISTANCE OF 107.0 FT. TO THE POINT OF BEGINNING; THENCE SOUTH 67°-55'-30" EAST A DISTANCE OF 40.0 FT.; THENCE NORTH 22°-04'-30" EAST A DISTANCE OF 40.0 FT.; THENCE NORTH 67°-55'-30" WEST A DISTANCE OF 40.0 FT.; THENCE SOUTH 22°-04'-30" WEST A DISTANCE OF 40.0 FT. TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

EASEMENT FOR CONSTRUCTION

THAT PART OF LOT FIVE IN ANDREW BARKULES AND SONS SUBDIVISION IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION THIRTY-FIVE, TOWNSHIP FORTY-ONE NORTH, RANGE THIRTEEN, EAST OF THE THIRD PRINCIPAL MERIDIAN, SAID ANDREW BARKULES AND SONS SUBDIVISION RECORDED ON JUNE 24, 1966 AS DOCUMENT NO. 19867378, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE MOST SOUTHWESTERLY CORNER OF SAID LOT FIVE; THENCE NORTH 00°-01'-30" WEST, BEING AN ASSUMED BEARING ON THE WEST LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION THIRTY-FIVE, ALSO BEING THE MOST WESTERLY LINE OF SAID LOT FIVE, A DISTANCE OF 57.32 FT. TO THE INTERSECTION WITH THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 22°-04'-33" EAST ON THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF SAID CHICAGO AND NORTHWESTERN RAILWAY, ALSO BEING THE NORTHWESTERLY LINE OF SAID LOT FIVE, A DISTANCE OF 107.0 FT. TO THE POINT OF BEGINNING; THENCE SOUTH 67°-55'-30" EAST A DISTANCE OF 40.0 FT.; THENCE SOUTH 22°-04'-30" WEST A DISTANCE OF 60.0 FT.; THENCE NORTH 67°-55'-30" WEST A DISTANCE OF 40.0 FT.; THENCE NORTH 22°-04'-30" EAST A DISTANCE OF 60.0 FT. TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

EASEMENT FOR INGRESS AND EGRESS

THAT PART OF THE NORTH HALF OF SECTION THIRTY-FIVE, TOWNSHIP FORTY-ONE NORTH, RANGE THIRTEEN, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND PART OF LOT FIVE IN ANDREW BARKULES AND SONS SUBDIVISION IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION THIRTY-FIVE, SAID ANDREW BARKULES AND SONS SUBDIVISION RECORDED ON JUNE 24, 1966 AS DOCUMENT NO. 19867378, BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION THIRTY-FIVE; THENCE NORTH 00°-01'-30" WEST, BEING AN ASSUMED BEARING ON THE WEST LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION THIRTY-FIVE, A DISTANCE OF 187.57 FT.; THENCE NORTH 22°-04'-30" EAST A DISTANCE OF 147.30 FT.; THENCE SOUTH 67°-55'-30" EAST A DISTANCE OF 15.0 FT.; THENCE SOUTH 22°-04'-30" WEST A DISTANCE OF 144.37 FT. TO THE SOUTHEASTERLY LINE OF SAID LOT FIVE; THENCE SOUTH 00°-01'-30" EAST A DISTANCE OF 184.25 FT. TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION THIRTY-FIVE; THENCE SOUTH 88°-27'-13" WEST ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION THIRTY-FIVE AND THE SOUTH LINE OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION THIRTY-FIVE, A DISTANCE OF 15.01 FT. TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

EXHIBIT B

(PLAT OF SURVEY AND/OR SITE PLAN TO BE INSERTED BY LESSEE)

EXHIBIT C

Liens and encumbrances to which the Premises and the Right of Use Areas are subject:

Lessee's rights under the agreement of which this Exhibit C is a part

EXHIBIT D

_____, 19___

Cellular One® - Chicago,
a division of Southwestern
Bell Mobile Systems, Inc.
840 East State Parkway
Schaumburg, IL 60195

Re: Village of Lincolnwood

Gentlemen:

We have acted as the attorneys for the Village of Lincolnwood ("Village") in connection with that certain Site Agreement No. 64 - Lincolnwood, Illinois, dated as of _____, by and between the Village and Cellular One® - Chicago, a division of Southwestern Bell Mobile Systems, Inc. ("Cellular"), pursuant to which the Village has leased to Cellular certain Premises (as such term is defined therein) and granted to Cellular certain Rights of Use (as such term is defined therein) appurtenant to the Premises, all situated in the Village of Lincolnwood, in the County of Cook and State of Illinois ("Agreement").

In connection with the opinions expressed below, we have reviewed the following: (i) the Agreement; (ii) [relevant enabling statute] ("Act") including, without limitation, Section _____ thereof; and (iii) such other information, data, documents, records and instruments as we have deemed necessary and relevant in order to enable us to render our opinions as hereinafter set forth.

Based on the foregoing, it is our opinion that: (1) the Agreement has been duly authorized, executed and delivered by the Village and is valid, binding and enforceable against the Village in accordance with its terms; (2) the Village has taken all necessary corporate action with respect to the Agreement and has full power to enter into and perform its obligations under the Agreement; (3) no notice to or signature, acknowledgement, affidavit, certificate, consent, approval, resolution or other authorization of, or by, the Village, its Village Council, any elected official of the Village or any other person is required in connection with the Village's authorization, execution and delivery of the Agreement, and its performance thereunder and compliance therewith, other than the notices, signatures, acknowledgements, affidavits, certificates, consents, approvals, resolutions and authorizations that have been given, obtained or made to date; (4) neither the execution and delivery by the Village of the Agreement, nor its compliance therewith, nor its performance of its obligations under the Agreement, will conflict with the Act, or, to our knowledge (having made due inquiry), will result in a default under or a breach of any other agreement or instrument to which the Village is a party or may be bound; and (5) neither the execution and delivery by the Village of the Agreement, nor its compliance therewith, nor its performance of its obligations under the Agreement, will result in a violation of the Act, any statute, regulation, law or ordinance, or, to our knowledge (having made due inquiry), will result in a violation of any order, writ, judgment or decree of any court, agency or governmental authority to which the Village is a party or may be bound.

SCHEDULE 1

Monthly Monetary Consideration

[redacted] per month for the period through April 30, 1995;
[redacted] per month for the period from May 1, 1995 through April 30, 2000;
[redacted] per month for the period from May 1, 2000 through April 30, 2005;
[redacted] per month for the period from May 1, 2005 through April 30, 2010;
[redacted] per month for the period from May 1, 2010 through April 30, 2015;
[redacted] per month for the period from May 1, 2015 through April 30, 2020;
[redacted] per month for the period from May 1, 2020 through April 30, 2025; and
[redacted] per month for the period from May 1, 2025 through April 30, 2030.

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**100 ft Self Supported Tower**
ATC Site Name	:	**Lincolnwood, IL**
ATC Site Number	:	**303900**
Engineering Number	:	**56280725**
Proposed Carrier	:	**Verizon**
Carrier Site Name	:	**Lincolnwood ATC SC**
Carrier Site Number	:	**277176**
Site Location	:	**7001 Central Park** **Chicago, IL 60712-2613** **42.009083, -87.718700**
County	:	**Cook**
Date	:	**February 26, 2014**
Max Usage	:	**64%**
Result	:	**Pass**

Michael B. Davenport
Structural Engineer III

Feb 26 2014 5:15 PM

AMERICAN TOWER®
CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 100 ft self supported tower to reflect the change in loading by Verizon.

Supporting Documents

Tower Drawings	Pirod Drawing #113637-B, dated March 15, 1989
Foundation Drawing	Louis C. Cordogan Job #54924, dated January 30, 1990
Geotechnical Report	H. H. Holmes File #7306.71, dated February 22, 1990
TIA Inspection	Norman Tower Service Report, dated February 4, 2010

Analysis

The tower was analyzed using tnxTower version 6.1 tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/EIA-222.

Basic Wind Speed:	90 mph (3-Second Gust) / 20 psf Minimum Wind Pressure
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / Chicago Building Code
Structure Class:	II
Exposure Category:	C
Topographic Category:	1

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Mount Elev.[1] (ft)	Qty.	Antenna	Mount Type	Lines	Carrier
98.0	12	CSS DBC-750	Sector Frame	(18) 7/8" Coax (3) 0.82" 8 AWG 6 (1) 0.40" Fiber (1) 2" conduit (1) 3/8" Coax	AT&T Mobility
	12	Ericsson KRY 112 76/1			
	1	Raycap DC6-48-60-18-8F			
	1	Raycap DC6-48-60-0-8F			
	6	Ericsson RRUS 11			
	3	Ericsson KRC 161 423/1			
	3	Andrew SBNHH-1D65B			
	6	Powerwave P65-16-XLH-RR			
	3	Ericsson KRC 118 048/1			
97.0	1	8' Dipole	Leg	(1) 7/8" Coax	-

Proposed Equipment

Elevation[1] (ft)		Qty.	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
30.0	30.0	1	CANTEX 6"X6"x4" Junction box	Stand-Off	(4) 0.51" Hybrid (2) 2" Carflex Non-Metallic Conduit	Verizon Wireless
		1	Ericsson RRUL			
		3	Antel QXW-632X634XBF-EDIN			
		1	Ericsson RRUS 12 - Band 4			

[1]Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed conduit single stacked on any tower face with hybrid lines running inside of conduit.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	64%	Pass
Diagonals	55%	Pass
Horizontals	36%	Pass
Anchor Bolts	29%	Pass
Leg Bolts	25%	Pass

Foundations

Reaction Component	Analysis Reactions
Uplift (Kips)	98.8
Axial (Kips)	108.6
Shear (Kips)	11.0

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Deflection (in)	Twist (°)	Sway (Rotation) (°)
30.0	0.196	0.003	0.065

***Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G**

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

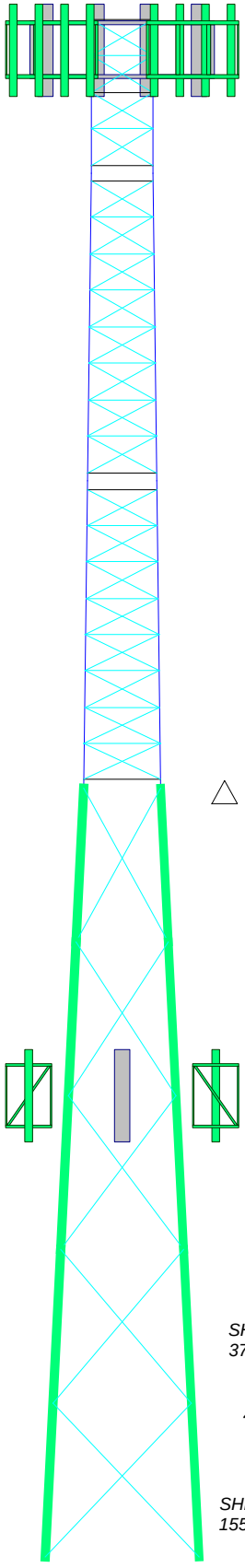
-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Section	T1	T2	T3	T4	T5	T6
Legs	SR 1 1/2	SR 1 3/4	SR 2	Pirod 105244	Pirod 105216	Pirod 105217
Leg Grade	A572-50					
Diagonals	SR 3/4		SR 7/8		L3x3x3/16	
Diagonal Grade	A572-50				A36	
Top Girts	SR 7/8				N.A.	
Mid Girts	SR 7/8		N.A.			
Bottom Girts	SR 7/8		N.A.		N.A.	
Horizontals	SR 3/4		N.A.		N.A.	
Face Width (ft)	4	4.5	5	6	8	10
# Panels @ (ft)	12 @ 2.375		8 @ 2.364		5 @ 10	
Weight (lb)	442.6	958.2	1296.3	1112.3	2089.2	2490.3



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Flat Sector Frame	98	SBNHH-1D65B	98
Flat Sector Frame	98	SBNHH-1D65B	98
Flat Sector Frame	98	(2) P65-16-XLH-RR	98
(4) DBC-750	98	(2) P65-16-XLH-RR	98
(4) DBC-750	98	(2) P65-16-XLH-RR	98
(4) DBC-750	98	KRC 118 048/1	98
(4) KRY 112 76/1	98	KRC 118 048/1	98
(4) KRY 112 76/1	98	KRC 118 048/1	98
(4) KRY 112 76/1	98	8' Dipole	98 - 97
DC6-48-60-18-8F	98	Flat Side Arm	30
DC6-48-60-0-8F	98	Flat Side Arm	30
(2) RRUS 11 (Band 7)	98	Flat Side Arm	30
(2) RRUS 11 (Band 7)	98	RRUS 12 - Band 4	30
(2) RRUS 11 (Band 7)	98	RRUL	30
KRC 161 423/1	98	QXW-632X634XBF-EDIN	30
KRC 161 423/1	98	QXW-632X634XBF-EDIN	30
KRC 161 423/1	98	QXW-632X634XBF-EDIN	30
SBNHH-1D65B	98	6"X6"x4" Junction box	30

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in Cook County, Illinois.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 90 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 40 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 64.1%

Original Design Reactions (Factored by 1.35, per TIA-222-G, Section 15.5.1)
Uplift: 109.8 K
Axial: 120.3 K
Shear: 16.9 K
Maximum Usage, per Analysis: 90% (100% Limit)

ALL REACTIONS ARE FACTORED

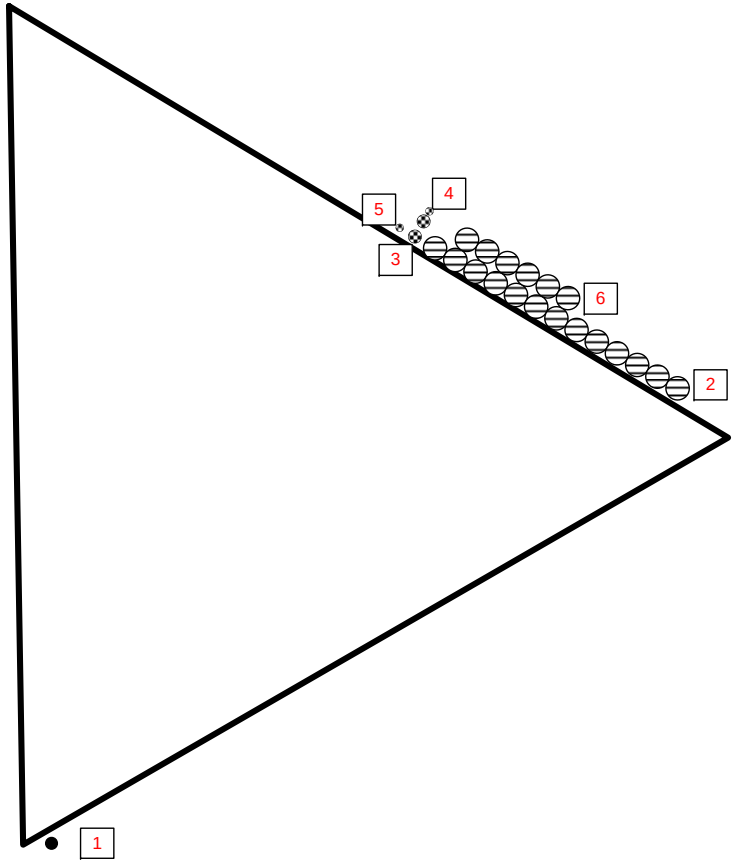
MAX. CORNER REACTIONS AT BASE:
DOWN: 108639 lb
SHEAR: 10974 lb

UPLIFT: -98844 lb
SHEAR: 10060 lb

AXIAL 53711 lb
SHEAR 3769 lb *MOMENT 227319 lb-ft*
TORQUE 649 lb-ft
40 mph WIND - 0.7500 in ICE
AXIAL 16850 lb
SHEAR 15568 lb *MOMENT 897838 lb-ft*
TORQUE 3229 lb-ft
REACTIONS - 90 mph WIND

ATC Tower Services
3500 Regency Parkway
Cary, NC 27518
Phone: (919) 466-5147
FAX:

Job: *Lincolnwood, IL (303900)*			
Project: *56280725*			
Client: Verizon	Drawn by: michael.davenport		App'd:
Code: TIA-222-G	Date: 02/26/14		Scale: NTS
Path: C:\Users\michael.davenport\Desktop\303900-56280725-Verizon.eri			Dwg No. E-1



TOWER INFORMATION					
TOWER TAG	YES	OASIS	YES		
MANUFACTURER	PIROD				
HEIGHT	100'	TYPE:	SELF SUPPORT		
DRAW #:	113637-B	DATE :	03-15-1989		
TOWER PAINTED:	NO	COAX PAINTED	NO		
DETUNING	NO				

COAX LOADING

#	CARRIER :	I/O	# COAX	SIZE
1	Safety Climb	O	1	3/8"
2	UNKNOWN 99.5'	O	1	7/8"
3	AT&T MOBILITY 99.5' DC	O	2	19.7mm
4	AT&T MOBILITY 99.5' FIBER	O	1	10mm
5	AT&T MOBILITY 97.5' RET	O	1	3/8"
6	AT&T MOBILITY 97.5' COAX	O	18	7/8"
7	7			

SITE REVIEW	**AS BUILT**
JOHN GOULAS	AMERICAN TOWER
SITE SUPERVISOR	

American Tower Corporation	LINCOLNWOOD
	COAX LAYOUT
SIZE	FSCM NO: 303900 REV
SCALE 1" = 10'	SHEET

7/8"

1/2"

EW63

EW52

2- ¼"

1-5/8"

1-¼"

COAX WITH RED LINES ARE TO BE REMOVED

COAX WITH BLUE LINES ARE PROPOSED

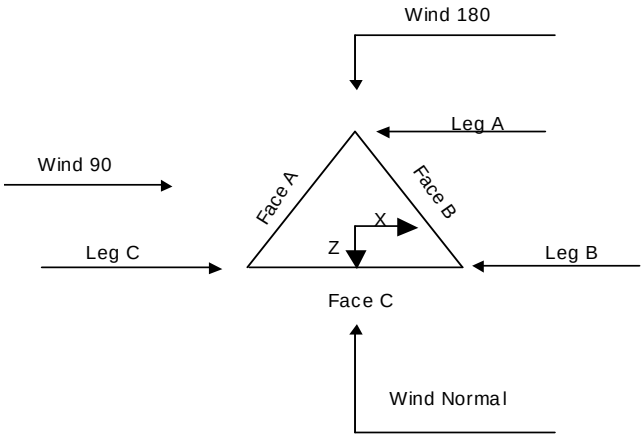
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 100.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 4.00 ft at the top and 10.00 ft at the base.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Tower is located in Cook County, Illinois.
Basic wind speed of 90 mph.
Structure Class II.
Exposure Category C.
Topographic Category 1.
Crest Height 0.00 ft.
Nominal ice thickness of 0.7500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 40 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Treat Feedline Bundles As Cylinder
	Consider Moments - Horizontals		Assume Legs Pinned		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Diagonals	√	Assume Rigid Index Plate	√	Calculate Redundant Bracing Forces
	Use Moment Magnification	√	Use Clear Spans For Wind Area		Ignore Redundant Members in FEA
√	Use Code Stress Ratios	√	Use Clear Spans For KL/r	√	SR Leg Bolts Resist Compression
√	Use Code Safety Factors - Guys	√	Retension Guys To Initial Tension	√	All Leg Panels Have Same Allowable
	Escalate Ice	√	Bypass Mast Stability Checks		Offset Girt At Foundation
	Always Use Max Kz	√	Use Azimuth Dish Coefficients	√	Consider Feedline Torque
	Use Special Wind Profile	√	Project Wind Area of Appurt.	√	Include Angle Block Shear Check
√	Include Bolts In Member Capacity	√	Autocalc Torque Arm Areas		Poles
	Leg Bolts Are At Top Of Section		SR Members Have Cut Ends		Include Shear-Torsion Interaction
√	Secondary Horizontal Braces Leg	√	Sort Capacity Reports By Component		Always Use Sub-Critical Flow
	Use Diamond Inner Bracing (4 Sided)	√	Triangulate Diamond Inner Bracing		Use Top Mounted Sockets
	Add IBC .6D+W Combination		Use TIA-222-G Tension Splice Capacity Exemption		



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T1	100.00-90.00		V4 106778	4.00	1	10.00
T2	90.00-70.00		H4.5 107345	4.00	1	20.00
T3	70.00-50.00		H5.0 107733	4.50	1	20.00
T4	50.00-40.00		U6.0 105244	5.00	1	10.00
T5	40.00-20.00		U8.0 105216	6.00	1	20.00
T6	20.00-0.00		U10.0 105217 L3x3/16	8.00	1	20.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	100.00-90.00	2.38	X Brace	No	Steps	0.0000	6.0000
T2	90.00-70.00	2.38	X Brace	No	Steps	6.0000	6.0000
T3	70.00-50.00	2.36	X Brace	No	Steps	6.5280	6.5280
T4	50.00-40.00	10.00	X Brace	No	No	0.0000	0.0000
T5	40.00-20.00	10.00	X Brace	No	No	0.0000	0.0000
T6	20.00-0.00	10.00	X Brace	No	No	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 100.00-90.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 90.00-70.00	Solid Round	1 3/4	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T3 70.00-50.00	Solid Round	2	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T4 50.00-40.00	Truss Leg	Pirod 105244	A572-50 (50 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T5 40.00-20.00	Truss Leg	Pirod 105216	A572-50 (50 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T6 20.00-0.00	Truss Leg	Pirod 105217	A572-50 (50 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 100.00-90.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 90.00-70.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 70.00-50.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 100.00-90.00	1	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 90.00-70.00	None	Solid Round		A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T3 70.00-50.00	None	Solid Round		A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
T1 100.00-90.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000
T2 90.00-70.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000
T3 70.00-50.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000
T4 50.00-40.00	0.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T5 40.00-20.00	0.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T6 20.00-0.00	0.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1	No	Yes	1	1	1	1	1	1	1	1
100.00-90.00				1	1	1	1	1	1	1
T2	No	Yes	1	1	1	1	1	1	1	1
90.00-70.00				倀□ 1	1	1	1	1	1	1
T3	No	Yes	1	1	1	1	1	1	1	1
70.00-50.00				1	1	1	1	1	1	1
T4	Yes	No	1	1	1	1	1	1	1	1
50.00-40.00				1	1	1	1	1	1	1
T5	Yes	No	1	1	1	1	1	1	1	1
40.00-20.00				1	1	1	1	1	1	1
T6 20.00-0.00	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Truss-Leg K Factors Truss-Legs Used As Leg Members Leg Panels	X Brace Diagonals	Z Brace Diagonals	Truss-Legs Used As Inner Members Leg Panels	X Brace Diagonals	Z Brace Diagonals
T4 50.00-40.00	1	0.5	0.85	1	0.5	0.85
T5 40.00-20.00	1	0.5	0.85	1	0.5	0.85
T6 20.00-0.00	1	0.5	0.85	1	0.5	0.85

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 100.00-90.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T2 90.00-70.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T3 70.00-50.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T4 50.00-40.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T5 40.00-20.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T6 20.00-0.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 100.00-90.00	Sleeve DS	0.6250 A325N	4	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 90.00-70.00	Sleeve DS	0.6250 A325N	5	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 70.00-50.00	Flange	1.0000 A325N	6	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 50.00-40.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 40.00-20.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 20.00-0.00	Flange	1.0000 A687	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
3/8" Coax	B	No	Ar (CaAa)	98.00 - 0.00	0.0000	0.25	1	1	0.4400	0.4400		0.08
2" Conduit	B	No	Ar (CaAa)	98.00 - 0.00	0.0000	0.25	1	1	2.3800	2.3800		3.65
7/8" Coax	B	No	Ar (CaAa)	98.00 - 0.00	0.0000	0.25	18	12	1.0000 0.5000	1.0900		0.33
0.82" (20.8 mm) 8 AWG 6	B	No	Ar (CaAa)	98.00 - 0.00	0.0000	0.25	3	3	0.8200	0.8200		0.62
0.40" (10.3 mm) Fiber	B	No	Ar (CaAa)	97.00 - 0.00	0.0000	0.25	1	1	0.4100	0.4100		0.11
Feedline Ladder (Af) ****	B	No	Af (CaAa)	98.00 - 0.00	0.0000	0.25	1	1	3.0000	3.0000		8.40

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
0.51" (13 mm) Hybrid	C	No	Ar (CaAa)	30.00 - 0.00	0.0000	0	4	4	0.5100	0.5100		0.14
2" Carflex Non-Metalic Conduit	C	No	Ar (CaAa)	30.00 - 0.00	0.0000	0	2	2	2.3600	2.3600		0.68

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	100.00-90.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	24.207	0.000	160.21
		C	0.000	0.000	0.000	0.000	0.00
T2	90.00-70.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	60.620	0.000	400.80
		C	0.000	0.000	0.000	0.000	0.00
T3	70.00-50.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	60.620	0.000	400.80
		C	0.000	0.000	0.000	0.000	0.00
T4	50.00-40.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	30.310	0.000	200.40
		C	0.000	0.000	0.000	0.000	0.00
T5	40.00-20.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	60.620	0.000	400.80
		C	0.000	0.000	6.760	0.000	19.20
T6	20.00-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	60.620	0.000	400.80
		C	0.000	0.000	13.520	0.000	38.40

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	100.00-90.00	A	1.667	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	53.464	0.000	834.80
		C		0.000	0.000	0.000	0.000	0.00
T2	90.00-70.00	A	1.639	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	133.778	0.000	2065.27
		C		0.000	0.000	0.000	0.000	0.00
T3	70.00-50.00	A	1.592	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	132.442	0.000	2012.50
		C		0.000	0.000	0.000	0.000	0.00
T4	50.00-40.00	A	1.547	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	65.573	0.000	980.92
		C		0.000	0.000	0.000	0.000	0.00
T5	40.00-20.00	A	1.486	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	129.381	0.000	1893.86
		C		0.000	0.000	23.485	0.000	245.14
T6	20.00-0.00	A	1.331	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	124.952	0.000	1727.98
		C		0.000	0.000	44.885	0.000	439.44

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T1	100.00-90.00	3.6765	0.5471	2.5972	0.3915
T2	90.00-70.00	4.0673	0.6153	3.1316	0.4813
T3	70.00-50.00	4.3578	0.6773	3.4007	0.5360
T4	50.00-40.00	3.7954	0.6082	2.6827	0.4320
T5	40.00-20.00	4.5125	1.1684	3.3584	0.7773
T6	20.00-0.00	5.2524	1.8095	4.1374	1.2502

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	3/8" Coax	90.00 - 98.00	0.6000	0.4457
T1	2	2" Conduit	90.00 - 98.00	0.6000	0.4457
T1	3	7/8" Coax	90.00 - 98.00	0.6000	0.4457
T1	4	0.82" (20.8 mm) 8 AWG 6	90.00 - 98.00	0.6000	0.4457
T1	5	0.40" (10.3 mm) Fiber	90.00 - 97.00	0.6000	0.4457
T1	6	Feedline Ladder (Af)	90.00 - 98.00	0.6000	0.4457
T2	1	3/8" Coax	70.00 - 90.00	0.6000	0.5197
T2	2	2" Conduit	70.00 - 90.00	0.6000	0.5197
T2	3	7/8" Coax	70.00 - 90.00	0.6000	0.5197
T2	4	0.82" (20.8 mm) 8 AWG 6	70.00 - 90.00	0.6000	0.5197
T2	5	0.40" (10.3 mm) Fiber	70.00 - 90.00	0.6000	0.5197
T2	6	Feedline Ladder (Af)	70.00 - 90.00	0.6000	0.5197
T3	1	3/8" Coax	50.00 - 70.00	0.6000	0.5359
T3	2	2" Conduit	50.00 - 70.00	0.6000	0.5359
T3	3	7/8" Coax	50.00 - 70.00	0.6000	0.5359
T3	4	0.82" (20.8 mm) 8 AWG 6	50.00 - 70.00	0.6000	0.5359
T3	5	0.40" (10.3 mm) Fiber	50.00 - 70.00	0.6000	0.5359
T3	6	Feedline Ladder (Af)	50.00 - 70.00	0.6000	0.5359
T4	1	3/8" Coax	40.00 - 50.00	0.6000	0.3298
T4	2	2" Conduit	40.00 - 50.00	0.6000	0.3298
T4	3	7/8" Coax	40.00 - 50.00	0.6000	0.3298
T4	4	0.82" (20.8 mm) 8 AWG 6	40.00 - 50.00	0.6000	0.3298
T4	5	0.40" (10.3 mm) Fiber	40.00 - 50.00	0.6000	0.3298
T4	6	Feedline Ladder (Af)	40.00 - 50.00	0.6000	0.3298
T5	1	3/8" Coax	20.00 - 40.00	0.6000	0.4399
T5	2	2" Conduit	20.00 - 40.00	0.6000	0.4399
T5	3	7/8" Coax	20.00 - 40.00	0.6000	0.4399
T5	4	0.82" (20.8 mm) 8 AWG 6	20.00 - 40.00	0.6000	0.4399
T5	5	0.40" (10.3 mm) Fiber	20.00 - 40.00	0.6000	0.4399
T5	6	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.4399
T5	8	0.51" (13 mm) Hybrid	20.00 - 30.00	0.6000	0.4399
T5	9	2" Carflex Non-Metalic Conduit	20.00 - 30.00	0.6000	0.4399
T6	1	3/8" Coax	0.00 - 20.00	0.6000	0.5431
T6	2	2" Conduit	0.00 - 20.00	0.6000	0.5431
T6	3	7/8" Coax	0.00 - 20.00	0.6000	0.5431
T6	4	0.82" (20.8 mm) 8 AWG 6	0.00 - 20.00	0.6000	0.5431

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T6	5	0.40" (10.3 mm) Fiber	0.00 - 20.00	0.6000	0.5431
T6	6	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.5431
T6	8	0.51" (13 mm) Hybrid	0.00 - 20.00	0.6000	0.5431
T6	9	2" Carflex Non-Metalic Conduit	0.00 - 20.00	0.6000	0.5431

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Flat Sector Frame	A	From Leg	3.00	0.0000	98.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
Flat Sector Frame	B	From Leg	3.00	0.0000	98.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
Flat Sector Frame	C	From Leg	3.00	0.0000	98.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
(4) DBC-750	A	From Leg	3.00	0.0000	98.00	No Ice	0.50	0.09	4.80
			0.00			1/2" Ice	0.60	0.15	7.57
			0.00			1" Ice	0.70	0.22	11.54
(4) DBC-750	B	From Leg	3.00	0.0000	98.00	No Ice	0.50	0.09	4.80
			0.00			1/2" Ice	0.60	0.15	7.57
			0.00			1" Ice	0.70	0.22	11.54
(4) DBC-750	C	From Leg	3.00	0.0000	98.00	No Ice	0.50	0.09	4.80
			0.00			1/2" Ice	0.60	0.15	7.57
			0.00			1" Ice	0.70	0.22	11.54
(4) KRY 112 76/1	A	From Leg	3.00	0.0000	98.00	No Ice	1.75	0.55	19.60
			0.00			1/2" Ice	1.93	0.68	29.79
			0.00			1" Ice	2.12	0.82	42.17
(4) KRY 112 76/1	B	From Leg	3.00	0.0000	98.00	No Ice	1.75	0.55	19.60
			0.00			1/2" Ice	1.93	0.68	29.79
			0.00			1" Ice	2.12	0.82	42.17
(4) KRY 112 76/1	C	From Leg	3.00	0.0000	98.00	No Ice	1.75	0.55	19.60
			0.00			1/2" Ice	1.93	0.68	29.79
			0.00			1" Ice	2.12	0.82	42.17
DC6-48-60-18-8F	C	From Leg	3.00	0.0000	98.00	No Ice	1.47	1.47	31.80
			0.00			1/2" Ice	1.67	1.67	49.52
			0.00			1" Ice	1.88	1.88	69.72
DC6-48-60-0-8F	C	From Leg	3.00	0.0000	98.00	No Ice	1.36	1.36	32.80
			0.00			1/2" Ice	1.55	1.55	49.52
			0.00			1" Ice	1.75	1.75	68.65
(2) RRUS 11 (Band 7)	A	From Leg	3.00	0.0000	98.00	No Ice	3.26	1.38	50.70
			0.00			1/2" Ice	3.50	1.56	71.57
			0.00			1" Ice	3.75	1.74	95.48
(2) RRUS 11 (Band 7)	B	From Leg	3.00	0.0000	98.00	No Ice	3.26	1.38	50.70
			0.00			1/2" Ice	3.50	1.56	71.57
			0.00			1" Ice	3.75	1.74	95.48
(2) RRUS 11 (Band 7)	C	From Leg	3.00	0.0000	98.00	No Ice	3.26	1.38	50.70

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00					1/2" Ice	3.50	1.56	71.57
			0.00					1" Ice	3.75	1.74	95.48
KRC 161 423/1	A	From Leg	3.00			0.0000	98.00	No Ice	3.87	2.76	77.00
			0.00					1/2" Ice	4.15	3.02	104.93
			0.00					1" Ice	4.44	3.29	136.47
KRC 161 423/1	B	From Leg	3.00			0.0000	98.00	No Ice	3.87	2.76	77.00
			0.00					1/2" Ice	4.15	3.02	104.93
			0.00					1" Ice	4.44	3.29	136.47
KRC 161 423/1	C	From Leg	3.00			0.0000	98.00	No Ice	3.87	2.76	77.00
			0.00					1/2" Ice	4.15	3.02	104.93
			0.00					1" Ice	4.44	3.29	136.47
SBNHH-1D65B	A	From Leg	3.00			0.0000	98.00	No Ice	8.41	5.41	50.70
			0.00					1/2" Ice	8.96	5.86	101.21
			0.00					1" Ice	9.52	6.33	157.85
SBNHH-1D65B	B	From Leg	3.00			0.0000	98.00	No Ice	8.41	5.41	50.70
			0.00					1/2" Ice	8.96	5.86	101.21
			0.00					1" Ice	9.52	6.33	157.85
SBNHH-1D65B	C	From Leg	3.00			0.0000	98.00	No Ice	8.41	5.41	50.70
			0.00					1/2" Ice	8.96	5.86	101.21
			0.00					1" Ice	9.52	6.33	157.85
(2) P65-16-XLH-RR	A	From Leg	3.00			0.0000	98.00	No Ice	8.40	4.70	53.00
			0.00					1/2" Ice	8.95	5.15	100.28
			0.00					1" Ice	9.51	5.60	153.59
(2) P65-16-XLH-RR	B	From Leg	3.00			0.0000	98.00	No Ice	8.40	4.70	53.00
			0.00					1/2" Ice	8.95	5.15	100.28
			0.00					1" Ice	9.51	5.60	153.59
(2) P65-16-XLH-RR	C	From Leg	3.00			0.0000	98.00	No Ice	8.40	4.70	53.00
			0.00					1/2" Ice	8.95	5.15	100.28
			0.00					1" Ice	9.51	5.60	153.59
KRC 118 048/1	A	From Leg	3.00			0.0000	98.00	No Ice	11.20	8.55	154.00
			0.00					1/2" Ice	11.81	9.13	223.90
			0.00					1" Ice	12.42	9.73	301.40
KRC 118 048/1	B	From Leg	3.00			0.0000	98.00	No Ice	11.20	8.55	154.00
			0.00					1/2" Ice	11.81	9.13	223.90
			0.00					1" Ice	12.42	9.73	301.40
KRC 118 048/1	C	From Leg	3.00			0.0000	98.00	No Ice	11.20	8.55	154.00
			0.00					1/2" Ice	11.81	9.13	223.90
			0.00					1" Ice	12.42	9.73	301.40
8' Dipole	C	From Leg	3.00			0.0000	98.00 - 97.00	No Ice	2.40	2.40	25.00
			0.00					1/2" Ice	3.19	3.19	42.51
			0.00					1" Ice	3.67	3.67	65.37
****											
Flat Side Arm	A	From Leg	3.00			0.0000	30.00	No Ice	6.30	2.14	150.00
			0.00					1/2" Ice	7.00	2.60	230.00
			0.00					1" Ice	7.70	3.06	310.00
Flat Side Arm	B	From Leg	3.00			0.0000	30.00	No Ice	6.30	2.14	150.00
			0.00					1/2" Ice	7.00	2.60	230.00
			0.00					1" Ice	7.70	3.06	310.00
Flat Side Arm	C	From Leg	3.00			0.0000	30.00	No Ice	6.30	2.14	150.00
			0.00					1/2" Ice	7.00	2.60	230.00
			0.00					1" Ice	7.70	3.06	310.00
RRUS 12 - Band 4	C	From Leg	3.00			0.0000	30.00	No Ice	3.69	1.47	58.00
			0.00					1/2" Ice	3.95	1.65	81.19
			0.00					1" Ice	4.21	1.85	107.57
RRUL	C	From Leg	3.00			0.0000	30.00	No Ice	1.91	1.47	38.60
			0.00					1/2" Ice	2.10	1.65	54.31
			0.00					1" Ice	2.30	1.83	72.63

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
QXW-632X634XBF-EDIN	A	From Leg	3.00	0.0000	30.00	No Ice	2.71	1.60	11.00
			0.00			1/2" Ice	2.94	1.80	29.52
			0.00			1" Ice	3.18	2.01	50.99
QXW-632X634XBF-EDIN	B	From Leg	3.00	0.0000	30.00	No Ice	2.71	1.60	11.00
			0.00			1/2" Ice	2.94	1.80	29.52
			0.00			1" Ice	3.18	2.01	50.99
QXW-632X634XBF-EDIN	C	From Leg	3.00	0.0000	30.00	No Ice	2.71	1.60	11.00
			0.00			1/2" Ice	2.94	1.80	29.52
			0.00			1" Ice	3.18	2.01	50.99
6"X6"x4" Junction box	C	From Leg	3.00	0.0000	30.00	No Ice	0.44	0.26	2.00
			0.00			1/2" Ice	0.53	0.33	5.79
			0.00			1" Ice	0.63	0.42	10.90

Truss-Leg Properties

Section Designation	Area in^2	Area Ice in^2	Self Weight lb	Ice Weight lb	Equiv. Diameter in	Equiv. Diameter Ice in	Leg Area in^2
Pirod 105244	1026.8606	3073.2757	562.76	1018.54	7.1310	21.3422	3.6816
Pirod 105216	1998.0891	6274.4670	505.25	2062.84	6.9378	21.7863	3.6816
Pirod 105217	2130.7479	6209.8165	619.35	2027.30	7.3984	21.5619	5.3014

Tower Pressures - No Ice

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg %	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
T1	95.00	1.252	22	41.250	A	0.000	5.601	2.500	44.64	0.000	0.000
100.00-90.00					B	0.000	5.601		44.64	24.207	0.000
					C	0.000	6.085		41.08	0.000	0.000
T2 90.00-70.00	80.00	1.208	21	87.917	A	0.000	11.134	5.834	52.40	0.000	0.000
					B	0.000	11.134		52.40	60.620	0.000
					C	0.000	12.930		45.12	0.000	0.000
T3 70.00-50.00	60.00	1.137	20	98.334	A	0.000	13.309	6.667	50.10	0.000	0.000
					B	0.000	13.309		50.10	60.620	0.000
					C	0.000	15.314		43.54	0.000	0.000
T4 50.00-40.00	45.00	1.07	20	66.055	A	5.104	11.905	11.905	69.99	0.000	0.000
					B	5.104	11.905		69.99	30.310	0.000
					C	5.104	11.905		69.99	0.000	0.000
T5 40.00-20.00	30.00	0.982	20	162.111	A	10.467	23.165	23.165	68.88	0.000	0.000
					B	10.467	23.165		68.88	60.620	0.000
					C	10.467	23.165		68.88	6.760	0.000
T6 20.00-0.00	10.00	0.85	20	202.528	A	11.964	24.703	24.703	67.37	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					B	11.964	24.703		67.37	60.620	0.000
					C	11.964	24.703		67.37	13.520	0.000

Tower Pressure - With Ice

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1 100.00-90.00	95.00	1.252	4	1.6673	44.029	A	0.000	24.407	8.058	33.01	0.000	0.000
						B	0.000	24.407		33.01	53.464	0.000
						C	0.000	27.045		29.79	0.000	0.000
T2 90.00-70.00	80.00	1.208	4	1.6389	93.380	A	0.000	44.853	16.761	37.37	0.000	0.000
						B	0.000	44.853		37.37	133.778	0.000
						C	0.000	54.496		30.76	0.000	0.000
T3 70.00-50.00	60.00	1.137	4	1.5924	103.642	A	0.000	48.100	17.285	35.93	0.000	0.000
						B	0.000	48.100		35.93	132.442	0.000
						C	0.000	58.621		29.49	0.000	0.000
T4 50.00-40.00	45.00	1.07	4	1.5473	68.637	A	5.104	40.894	35.630	77.46	0.000	0.000
						B	5.104	40.894		77.46	65.573	0.000
						C	5.104	40.894		77.46	0.000	0.000
T5 40.00-20.00	30.00	0.982	4	1.4858	167.070	A	10.467	83.110	72.742	77.74	0.000	0.000
						B	10.467	83.110		77.74	129.381	0.000
						C	10.467	83.110		77.74	23.485	0.000
T6 20.00-0.00	10.00	0.85	4	1.3312	206.971	A	11.964	82.610	71.993	76.12	0.000	0.000
						B	11.964	82.610		76.12	124.952	0.000
						C	11.964	82.610		76.12	44.885	0.000

Tower Pressure - Service

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1	95.00	1.252	10	41.250	A	0.000	5.601	2.500	44.64	0.000	0.000
100.00-90.00					B	0.000	5.601		44.64	24.207	0.000
					C	0.000	6.085		41.08	0.000	0.000
T2 90.00-70.00	80.00	1.208	9	87.917	A	0.000	11.134	5.834	52.40	0.000	0.000
					B	0.000	11.134		52.40	60.620	0.000
					C	0.000	12.930		45.12	0.000	0.000
T3 70.00-50.00	60.00	1.137	9	98.334	A	0.000	13.309	6.667	50.10	0.000	0.000
					B	0.000	13.309		50.10	60.620	0.000
					C	0.000	15.314		43.54	0.000	0.000
T4 50.00-40.00	45.00	1.07	9	66.055	A	5.104	11.905	11.905	69.99	0.000	0.000
					B	5.104	11.905		69.99	30.310	0.000
					C	5.104	11.905		69.99	0.000	0.000
T5 40.00-20.00	30.00	0.982	9	162.111	A	10.467	23.165	23.165	68.88	0.000	0.000
					B	10.467	23.165		68.88	60.620	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	10.467	23.165		68.88	6.760	0.000
T6 20.00-0.00	10.00	0.85	9	202.528	A	11.964	24.703	24.703	67.37	0.000	0.000
					B	11.964	24.703		67.37	60.620	0.000
					C	11.964	24.703		67.37	13.520	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	160.21	442.60	A	0.136	2.825	22	1	1	3.172	440.47	44.05	B
100.00-90.00			B	0.136	2.825		1	1	3.172			
			C	0.148	2.781		1	1	3.452			
T2	400.80	958.17	A	0.127	2.859	21	1	1	6.297	983.75	49.19	B
90.00-70.00			B	0.127	2.859		1	1	6.297			
			C	0.147	2.782		1	1	7.335			
T3	400.80	1296.34	A	0.135	2.826	20	1	1	7.536	981.98	49.10	B
70.00-50.00			B	0.135	2.826		1	1	7.536			
			C	0.156	2.75		1	1	8.701			
T4	200.40	1112.31	A	0.257	2.415	20	1	1	11.167	761.85	76.18	B
50.00-40.00			B	0.257	2.415		1	1	11.167			
			C	0.257	2.415		1	1	11.167			
T5	420.00	2089.20	A	0.207	2.571	20	1	1	22.024	1680.35	84.02	B
40.00-20.00			B	0.207	2.571		1	1	22.024			
			C	0.207	2.571		1	1	22.024			
T6 20.00-0.00	439.20	2490.28	A	0.181	2.661	20	1	1	24.064	1842.38	92.12	B
			B	0.181	2.661		1	1	24.064			
			C	0.181	2.661		1	1	24.064			
Sum Weight:	2021.41	8388.91						OTM	282581.19 lb-ft	6690.78		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	160.21	442.60	A	0.136	2.825	22	0.8	1	3.172	452.50	45.25	C
100.00-90.00			B	0.136	2.825		0.8	1	3.172			
			C	0.148	2.781		0.8	1	3.452			
T2	400.80	958.17	A	0.127	2.859	21	0.8	1	6.297	1027.19	51.36	C
90.00-70.00			B	0.127	2.859		0.8	1	6.297			
			C	0.147	2.782		0.8	1	7.335			
T3	400.80	1296.34	A	0.135	2.826	20	0.8	1	7.536	1026.84	51.34	C
70.00-50.00			B	0.135	2.826		0.8	1	7.536			
			C	0.156	2.75		0.8	1	8.701			
T4	200.40	1112.31	A	0.257	2.415	20	0.8	1	10.147	720.26	72.03	C
50.00-40.00			B	0.257	2.415		0.8	1	10.147			
			C	0.257	2.415		0.8	1	10.147			
T5	420.00	2089.20	A	0.207	2.571	20	0.8	1	19.931	1587.16	79.36	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
40.00-20.00			B	0.207	2.571		0.8	1	19.931			
			C	0.207	2.571		0.8	1	19.931			
T6 20.00-0.00	439.20	2490.28	A	0.181	2.661	20	0.8	1	21.671	1734.28	86.71	C
			B	0.181	2.661		0.8	1	21.671			
			C	0.181	2.661		0.8	1	21.671			
Sum Weight:	2021.41	8388.91						OTM	284141.77 lb-ft	6548.22		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T1	160.21	442.60	A	0.136	2.825	22	0.85	1	3.172	452.50	45.25	C
100.00-90.00			B	0.136	2.825		0.85	1	3.172			
			C	0.148	2.781		0.85	1	3.452			
T2	400.80	958.17	A	0.127	2.859	21	0.85	1	6.297	1027.19	51.36	C
90.00-70.00			B	0.127	2.859		0.85	1	6.297			
			C	0.147	2.782		0.85	1	7.335			
T3	400.80	1296.34	A	0.135	2.826	20	0.85	1	7.536	1026.84	51.34	C
70.00-50.00			B	0.135	2.826		0.85	1	7.536			
			C	0.156	2.75		0.85	1	8.701			
T4	200.40	1112.31	A	0.257	2.415	20	0.85	1	10.402	730.66	73.07	C
50.00-40.00			B	0.257	2.415		0.85	1	10.402			
			C	0.257	2.415		0.85	1	10.402			
T5	420.00	2089.20	A	0.207	2.571	20	0.85	1	20.454	1610.46	80.52	C
40.00-20.00			B	0.207	2.571		0.85	1	20.454			
			C	0.207	2.571		0.85	1	20.454			
T6 20.00-0.00	439.20	2490.28	A	0.181	2.661	20	0.85	1	22.270	1761.31	88.07	C
			B	0.181	2.661		0.85	1	22.270			
			C	0.181	2.661		0.85	1	22.270			
Sum Weight:	2021.41	8388.91						OTM	285578.83 lb-ft	6608.94		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T1	834.80	1411.72	A	0.554	1.839	4	1	1	17.470	206.27	20.63	B
100.00-90.00			B	0.554	1.839		1	1	17.470			
			C	0.614	1.796		1	1	20.362			
T2	2065.27	2753.90	A	0.48	1.927	4	1	1	30.256	453.80	22.69	B
90.00-70.00			B	0.48	1.927		1	1	30.256			
			C	0.584	1.815		1	1	39.972			
T3	2012.50	3226.68	A	0.464	1.951	4	1	1	32.048	446.23	22.31	B
70.00-50.00			B	0.464	1.951		1	1	32.048			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
			C	0.566	1.829		1	1	42.354			
T4	980.92	3392.36	A	0.67	1.777	4	1	1	37.417	292.85	29.29	B
50.00-40.00			B	0.67	1.777		1	1	37.417			
			C	0.67	1.777		1	1	37.417			
T5	2139.00	9812.43	A	0.56	1.834	4	1	1	70.241	668.35	33.42	B
40.00-20.00			B	0.56	1.834		1	1	70.241			
			C	0.56	1.834		1	1	70.241			
T6 20.00-0.00	2167.42	10046.69	A	0.457	1.962	4	1	1	66.710	745.97	37.30	B
			B	0.457	1.962		1	1	66.710			
			C	0.457	1.962		1	1	66.710			
Sum Weight:	10199.90	30643.79						OTM	123361.93 lb-ft	2813.47		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T1	834.80	1411.72	A	0.554	1.839	4	0.8	1	17.470	222.69	22.27	C
100.00-90.00			B	0.554	1.839		0.8	1	17.470			
			C	0.614	1.796		0.8	1	20.362			
T2	2065.27	2753.90	A	0.48	1.927	4	0.8	1	30.256	504.73	25.24	C
90.00-70.00			B	0.48	1.927		0.8	1	30.256			
			C	0.584	1.815		0.8	1	39.972			
T3	2012.50	3226.68	A	0.464	1.951	4	0.8	1	32.048	496.53	24.83	C
70.00-50.00			B	0.464	1.951		0.8	1	32.048			
			C	0.566	1.829		0.8	1	42.354			
T4	980.92	3392.36	A	0.67	1.777	4	0.8	1	36.396	286.81	28.68	C
50.00-40.00			B	0.67	1.777		0.8	1	36.396			
			C	0.67	1.777		0.8	1	36.396			
T5	2139.00	9812.43	A	0.56	1.834	4	0.8	1	68.147	655.22	32.76	C
40.00-20.00			B	0.56	1.834		0.8	1	68.147			
			C	0.56	1.834		0.8	1	68.147			
T6 20.00-0.00	2167.42	10046.69	A	0.457	1.962	4	0.8	1	64.317	730.22	36.51	C
			B	0.457	1.962		0.8	1	64.317			
			C	0.457	1.962		0.8	1	64.317			
Sum Weight:	10199.90	30643.79						OTM	131190.53 lb-ft	2896.19		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T1	834.80	1411.72	A	0.554	1.839	4	0.85	1	17.470	213.86	21.39	C
100.00-90.00			B	0.554	1.839		0.85	1	17.470			
			C	0.614	1.796		0.85	1	20.362			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T2	2065.27	2753.90	A	0.48	1.927	4	0.85	1	30.256	479.89	23.99	C
90.00-70.00			B	0.48	1.927		0.85	1	30.256			
			C	0.584	1.815		0.85	1	39.972			
T3	2012.50	3226.68	A	0.464	1.951	4	0.85	1	32.048	472.42	23.62	C
70.00-50.00			B	0.464	1.951		0.85	1	32.048			
			C	0.566	1.829		0.85	1	42.354			
T4	980.92	3392.36	A	0.67	1.777	4	0.85	1	36.651	280.97	28.10	C
50.00-40.00			B	0.67	1.777		0.85	1	36.651			
			C	0.67	1.777		0.85	1	36.651			
T5	2139.00	9812.43	A	0.56	1.834	4	0.85	1	68.671	638.38	31.92	C
40.00-20.00			B	0.56	1.834		0.85	1	68.671			
			C	0.56	1.834		0.85	1	68.671			
T6 20.00-0.00	2167.42	10046.69	A	0.457	1.962	4	0.85	1	64.915	709.80	35.49	C
			B	0.457	1.962		0.85	1	64.915			
			C	0.457	1.962		0.85	1	64.915			
Sum Weight:	10199.90	30643.79						OTM	125945.54 lb-ft	2795.31		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T1	160.21	442.60	A	0.136	2.825	10	1	1	3.172	195.76	19.58	B
100.00-90.00			B	0.136	2.825		1	1	3.172			
			C	0.148	2.781		1	1	3.452			
T2	400.80	958.17	A	0.127	2.859	9	1	1	6.297	437.22	21.86	B
90.00-70.00			B	0.127	2.859		1	1	6.297			
			C	0.147	2.782		1	1	7.335			
T3	400.80	1296.34	A	0.135	2.826	9	1	1	7.536	436.44	21.82	B
70.00-50.00			B	0.135	2.826		1	1	7.536			
			C	0.156	2.75		1	1	8.701			
T4	200.40	1112.31	A	0.257	2.415	9	1	1	11.167	338.60	33.86	B
50.00-40.00			B	0.257	2.415		1	1	11.167			
			C	0.257	2.415		1	1	11.167			
T5	420.00	2089.20	A	0.207	2.571	9	1	1	22.024	746.82	37.34	B
40.00-20.00			B	0.207	2.571		1	1	22.024			
			C	0.207	2.571		1	1	22.024			
T6 20.00-0.00	439.20	2490.28	A	0.181	2.661	9	1	1	24.064	818.84	40.94	B
			B	0.181	2.661		1	1	24.064			
			C	0.181	2.661		1	1	24.064			
Sum Weight:	2021.41	8388.91						OTM	125591.64 lb-ft	2973.68		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T1	160.21	442.60	A	0.136	2.825	10	0.8	1	3.172	201.11	20.11	C
100.00-90.00			B	0.136	2.825		0.8	1	3.172			
			C	0.148	2.781		0.8	1	3.452			
T2	400.80	958.17	A	0.127	2.859	9	0.8	1	6.297	456.53	22.83	C
90.00-70.00			B	0.127	2.859		0.8	1	6.297			
			C	0.147	2.782		0.8	1	7.335			
T3	400.80	1296.34	A	0.135	2.826	9	0.8	1	7.536	456.37	22.82	C
70.00-50.00			B	0.135	2.826		0.8	1	7.536			
			C	0.156	2.75		0.8	1	8.701			
T4	200.40	1112.31	A	0.257	2.415	9	0.8	1	10.147	320.11	32.01	C
50.00-40.00			B	0.257	2.415		0.8	1	10.147			
			C	0.257	2.415		0.8	1	10.147			
T5	420.00	2089.20	A	0.207	2.571	9	0.8	1	19.931	705.40	35.27	C
40.00-20.00			B	0.207	2.571		0.8	1	19.931			
			C	0.207	2.571		0.8	1	19.931			
T6 20.00-0.00	439.20	2490.28	A	0.181	2.661	9	0.8	1	21.671	770.79	38.54	C
			B	0.181	2.661		0.8	1	21.671			
			C	0.181	2.661		0.8	1	21.671			
Sum Weight:	2021.41	8388.91						OTM	126285.23 lb-ft	2910.32		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T1	160.21	442.60	A	0.136	2.825	10	0.85	1	3.172	201.11	20.11	C
100.00-90.00			B	0.136	2.825		0.85	1	3.172			
			C	0.148	2.781		0.85	1	3.452			
T2	400.80	958.17	A	0.127	2.859	9	0.85	1	6.297	456.53	22.83	C
90.00-70.00			B	0.127	2.859		0.85	1	6.297			
			C	0.147	2.782		0.85	1	7.335			
T3	400.80	1296.34	A	0.135	2.826	9	0.85	1	7.536	456.37	22.82	C
70.00-50.00			B	0.135	2.826		0.85	1	7.536			
			C	0.156	2.75		0.85	1	8.701			
T4	200.40	1112.31	A	0.257	2.415	9	0.85	1	10.402	324.74	32.47	C
50.00-40.00			B	0.257	2.415		0.85	1	10.402			
			C	0.257	2.415		0.85	1	10.402			
T5	420.00	2089.20	A	0.207	2.571	9	0.85	1	20.454	715.76	35.79	C
40.00-20.00			B	0.207	2.571		0.85	1	20.454			
			C	0.207	2.571		0.85	1	20.454			
T6 20.00-0.00	439.20	2490.28	A	0.181	2.661	9	0.85	1	22.270	782.80	39.14	C
			B	0.181	2.661		0.85	1	22.270			
			C	0.181	2.661		0.85	1	22.270			
Sum Weight:	2021.41	8388.91						OTM	126923.92 lb-ft	2937.31		

Force Totals

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M_x lb-ft	Sum of Overturning Moments, M_z lb-ft	Sum of Torques lb-ft
Leg Weight	5564.23					
Bracing Weight	2824.67					
Total Member Self-Weight	8388.91			1474.67	-3579.69	
Total Weight	14041.62			1474.67	-3579.69	
Wind 0 deg - No Ice		21.27	-8812.17	-508169.26	-4217.74	1479.04
Wind 30 deg - No Ice		4786.26	-8247.51	-472474.11	-277950.90	1994.76
Wind 60 deg - No Ice		8303.07	-4793.78	-275464.05	-483251.62	1727.32
Wind 90 deg - No Ice		9636.00	-21.27	836.62	-558525.81	995.32
Wind 120 deg - No Ice		7555.32	4337.50	252089.65	-438933.67	84.30
Wind 150 deg - No Ice		3916.24	6783.13	402916.58	-235352.28	-544.19
Wind 180 deg - No Ice		-21.27	8468.97	498061.52	-2941.64	-1348.83
Wind 210 deg - No Ice		-4786.26	8247.51	475423.45	270791.53	-1994.76
Wind 240 deg - No Ice		-8426.53	4865.06	277633.10	474740.75	-1776.93
Wind 270 deg - No Ice		-9636.00	21.27	2112.72	551366.44	-995.32
Wind 300 deg - No Ice		-7344.98	-4216.07	-246266.19	426796.17	-108.26
Wind 330 deg - No Ice		-3916.24	-6783.13	-399967.24	228192.91	544.19
Member Ice	22254.89					
Total Weight Ice	50902.70			6998.64	-18801.53	
Wind 0 deg - Ice		4.67	-3467.46	-186474.71	-18941.68	524.67
Wind 30 deg - Ice		1778.17	-3070.53	-162037.69	-116556.53	619.61
Wind 60 deg - Ice		3264.45	-1884.73	-97623.96	-200013.20	564.55
Wind 90 deg - Ice		3665.89	-4.67	6858.49	-222720.83	295.70
Wind 120 deg - Ice		2903.36	1670.86	99287.92	-178931.55	-4.32
Wind 150 deg - Ice		1605.65	2781.07	161733.09	-108137.50	-258.15
Wind 180 deg - Ice		-4.67	3314.89	190996.50	-18661.38	-483.11
Wind 210 deg - Ice		-1778.17	3070.53	176034.97	78953.48	-619.61
Wind 240 deg - Ice		-3192.81	1843.37	107706.95	155630.37	-552.40
Wind 270 deg - Ice		-3665.89	4.67	7138.79	185117.78	-295.70
Wind 300 deg - Ice		-2873.11	-1653.40	-84878.91	140615.37	1.44
Wind 330 deg - Ice		-1605.65	-2781.07	-147735.81	70534.45	258.15
Total Weight	14041.62			1474.67	-3579.69	
Wind 0 deg - Service		9.45	-3916.52	-225923.41	729.68	657.35
Wind 30 deg - Service		2127.23	-3665.56	-210058.90	-120929.50	886.56
Wind 60 deg - Service		3690.25	-2130.57	-122498.87	-212174.27	767.70
Wind 90 deg - Service		4282.67	-9.45	301.43	-245629.46	442.37
Wind 120 deg - Service		3357.92	1927.78	111969.44	-192477.40	37.47
Wind 150 deg - Service		1740.55	3014.72	179003.63	-101996.78	-241.86
Wind 180 deg - Service		-9.45	3763.99	221290.27	1296.84	-599.48
Wind 210 deg - Service		-2127.23	3665.56	211228.91	122956.02	-886.56
Wind 240 deg - Service		-3745.12	2162.25	123322.08	213600.12	-789.75
Wind 270 deg - Service		-4282.67	9.45	868.58	247655.98	-442.37
Wind 300 deg - Service		-3264.43	-1873.81	-109522.04	192291.41	-48.11
Wind 330 deg - Service		-1740.55	-3014.72	-177833.62	104023.30	241.86

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice

Comb. No.	Description
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T1	100 - 90	Leg	Max Tension	15	9746.95	-22.93	657.17
			Max. Compression	18	-12242.00	211.07	-122.84
			Max. Mx	8	-10733.51	663.16	11.49
			Max. My	2	-12040.99	24.63	-663.98
			Max. Vy	20	-1792.87	232.97	-26.32
			Max. Vx	2	-1821.44	-6.62	246.22
		Diagonal	Max Tension	9	2345.27	0.00	0.00
			Max. Compression	8	-2413.06	0.00	0.00
			Max. Mx	33	439.85	-4.33	0.01
			Max. My	8	-2008.44	-1.05	0.68

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	33	8.64	-4.33	0.01
			Max. Vx	8	-0.29	-1.05	0.68
		Horizontal	Max Tension	2	575.89	0.00	0.00
			Max. Compression	15	-500.14	0.00	0.00
			Max. Mx	26	111.17	13.53	0.00
			Max. My	8	41.58	0.00	0.00
			Max. Vy	26	-13.53	0.00	0.00
			Max. Vx	8	-0.00	0.00	0.00
		Top Girt	Max Tension	7	305.36	0.00	0.00
			Max. Compression	10	-351.06	0.00	0.00
			Max. Mx	26	-72.70	15.37	0.00
			Max. My	8	-3.74	0.00	0.00
			Max. Vy	26	15.37	0.00	0.00
			Max. Vx	8	-0.00	0.00	0.00
		Bottom Girt	Max Tension	6	1065.36	0.00	0.00
			Max. Compression	10	-1101.81	0.00	0.00
			Max. Mx	26	12.91	15.37	0.00
			Max. My	6	-483.35	0.00	-0.00
			Max. Vy	26	15.37	0.00	0.00
			Max. Vx	6	0.00	0.00	0.00
		Mid Girt	Max Tension	22	640.46	0.00	0.00
			Max. Compression	19	-600.00	0.00	0.00
			Max. Mx	26	58.79	15.37	0.00
			Max. My	6	-277.49	0.00	-0.00
			Max. Vy	26	15.37	0.00	0.00
			Max. Vx	6	0.00	0.00	0.00
T2	90 - 70	Leg	Max Tension	15	38016.77	824.06	-0.05
			Max. Compression	10	-41358.26	217.23	2.93
			Max. Mx	2	-12074.98	1063.88	37.01
			Max. My	12	-1518.52	-17.84	-1010.80
			Max. Vy	2	-2129.86	223.24	-1.24
			Max. Vx	16	-1841.37	-8.75	168.69
		Diagonal	Max Tension	20	2735.16	0.00	0.00
			Max. Compression	20	-2739.44	0.00	0.00
			Max. Mx	32	579.29	-5.07	0.17
			Max. My	20	-2609.62	-0.71	-1.19
			Max. Vy	33	-9.38	-4.94	0.20
			Max. Vx	20	0.51	-0.71	-1.19
		Horizontal	Max Tension	14	686.25	0.00	0.00
			Max. Compression	3	-573.80	0.00	0.00
			Max. Mx	26	185.75	16.23	0.00
			Max. My	18	140.39	0.00	0.00
			Max. Vy	26	-14.66	0.00	0.00
			Max. Vx	18	-0.00	0.00	0.00
		Top Girt	Max Tension	10	1244.17	0.00	0.00
			Max. Compression	6	-1215.09	0.00	0.00
			Max. Mx	26	-8.08	15.17	0.00
			Max. My	18	-478.22	0.00	0.00
			Max. Vy	26	-15.12	0.00	0.00
			Max. Vx	18	-0.00	0.00	0.00
		Bottom Girt	Max Tension	14	1369.55	0.00	0.00
			Max. Compression	3	-1372.96	0.00	0.00
			Max. Mx	26	44.71	18.97	0.00
			Max. My	16	198.25	0.00	-0.00
			Max. Vy	26	-16.91	0.00	0.00
			Max. Vx	16	0.00	0.00	0.00
T3	70 - 50	Leg	Max Tension	7	67399.29	114.79	13.05
			Max. Compression	10	-71629.59	1212.98	-6.34
			Max. Mx	2	-41015.35	1367.45	-6.55
			Max. My	16	-2210.56	-35.59	1171.16
			Max. Vy	22	2448.97	-1211.59	7.69

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vx	4	2161.50	0.54	-984.41
		Diagonal	Max Tension	20	2908.57	0.00	0.00
			Max. Compression	20	-3116.38	0.00	0.00
			Max. Mx	31	476.37	-7.01	0.20
			Max. My	8	-3093.74	-0.35	1.86
			Max. Vy	31	11.57	-7.01	0.20
			Max. Vx	8	-0.73	-0.35	1.86
		Horizontal	Max Tension	14	1040.22	0.00	0.00
			Max. Compression	3	-916.18	0.00	0.00
			Max. Mx	26	163.04	19.41	0.00
			Max. My	18	253.68	0.00	0.00
			Max. Vy	26	-15.76	0.00	0.00
			Max. Vx	18	0.00	0.00	0.00
		Top Girt	Max Tension	18	1183.62	0.00	0.00
			Max. Compression	22	-1119.45	0.00	0.00
			Max. Mx	26	7.45	18.60	0.00
			Max. My	18	-455.00	0.00	0.00
			Max. Vy	26	-16.49	0.00	0.00
			Max. Vx	18	-0.00	0.00	0.00
		Bottom Girt	Max Tension	14	1454.97	0.00	0.00
			Max. Compression	3	-1319.41	0.00	0.00
			Max. Mx	26	84.72	22.70	0.00
			Max. My	16	2.42	0.00	-0.00
			Max. Vy	26	-18.21	0.00	0.00
			Max. Vx	16	0.00	0.00	0.00
T4	50 - 40	Leg	Max Tension	7	66595.87	-1204.64	-43.30
			Max. Compression	10	-70575.76	3303.82	-15.26
			Max. Mx	6	65979.08	-3579.61	-47.28
			Max. My	8	-2639.72	-123.22	6070.50
			Max. Vy	22	325.19	-3555.19	1.76
			Max. Vx	4	606.44	-107.98	-6064.81
		Diagonal	Max Tension	17	3416.64	111.16	13.78
			Max. Compression	4	-3780.72	0.00	0.00
			Max. Mx	6	2140.64	127.75	17.44
			Max. My	8	-1533.93	-96.71	-32.31
			Max. Vy	29	31.62	50.68	1.12
			Max. Vx	8	6.57	0.00	0.00
T5	40 - 20	Leg	Max Tension	7	80253.53	-3424.55	-27.73
			Max. Compression	10	-86428.61	3393.07	-6.25
			Max. Mx	6	74008.86	-3579.62	-47.28
			Max. My	8	-3344.57	-123.30	6070.50
			Max. Vy	6	-346.17	-3437.48	-31.20
			Max. Vx	4	-415.34	-108.07	-6064.81
		Diagonal	Max Tension	7	2817.16	97.75	5.08
			Max. Compression	18	-3245.45	0.00	0.00
			Max. Mx	10	2435.13	133.12	-8.61
			Max. My	4	2088.12	107.75	-12.27
			Max. Vy	31	-39.75	77.87	-9.77
			Max. Vx	29	3.04	0.00	0.00
T6	20 - 0	Leg	Max Tension	7	93639.11	-3293.73	-35.48
			Max. Compression	10	-102466.27	0.00	0.01
			Max. Mx	10	-95401.49	3393.07	-6.25
			Max. My	4	-5681.74	-174.67	-5340.54
			Max. Vy	22	-434.03	-3328.28	-1.79
			Max. Vx	4	-644.44	-174.73	-5340.54
		Diagonal	Max Tension	7	4113.76	0.00	0.00
			Max. Compression	18	-4602.66	0.00	0.00
			Max. Mx	10	2053.07	84.77	-11.12
			Max. My	5	-3482.33	-31.94	-15.44
			Max. Vy	30	41.32	50.68	11.78
			Max. Vx	28	3.13	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Leg C	Max. Vert	18	107979.16	9601.50	-5341.13
	Max. H_x	18	107979.16	9601.50	-5341.13
	Max. H_z	7	-98843.93	-8787.62	4896.47
	Min. Vert	7	-98843.93	-8787.62	4896.47
	Min. H_x	7	-98843.93	-8787.62	4896.47
	Min. H_z	18	107979.16	9601.50	-5341.13
Leg B	Max. Vert	10	108638.70	-9508.51	-5479.57
	Max. H_x	23	-97992.57	8672.54	4990.98
	Max. H_z	23	-97992.57	8672.54	4990.98
	Min. Vert	23	-97992.57	8672.54	4990.98
	Min. H_x	10	108638.70	-9508.51	-5479.57
	Min. H_z	10	108638.70	-9508.51	-5479.57
Leg A	Max. Vert	2	107868.42	146.94	10953.74
	Max. H_x	6	56878.68	336.00	5689.74
	Max. H_z	2	107868.42	146.94	10953.74
	Min. Vert	15	-98568.75	-114.22	-10021.91
	Min. H_x	18	-45950.19	-264.00	-4770.68
	Min. H_z	15	-98568.75	-114.22	-10021.91

Tower Mast Reaction Summary

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x lb-ft	Overturning Moment, M_z lb-ft	Torque lb-ft
Dead Only	14041.62	0.00	0.00	1614.76	-3579.92	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	16849.93	34.03	-15508.84	-885526.31	-5346.37	2391.90
0.9 Dead+1.6 Wind 0 deg - No Ice	12637.45	34.02	-15508.48	-884614.02	-4261.23	2385.52
1.2 Dead+1.6 Wind 30 deg - No Ice	16849.93	7737.97	-13334.64	-771338.70	-451972.05	3229.16
0.9 Dead+1.6 Wind 30 deg - No Ice	12637.45	7737.65	-13334.29	-770598.25	-450163.88	3221.70
1.2 Dead+1.6 Wind 60 deg - No Ice	16849.93	13284.44	-7669.78	-443942.29	-776649.50	2789.76
0.9 Dead+1.6 Wind 60 deg - No Ice	12637.45	13284.55	-7669.84	-443742.69	-774369.17	2783.52
1.2 Dead+1.6 Wind 90 deg - No Ice	16849.93	15417.12	-33.96	933.18	-897837.73	1599.19
0.9 Dead+1.6 Wind 90 deg - No Ice	12637.45	15416.65	-33.86	453.74	-895324.67	1595.83
1.2 Dead+1.6 Wind 120 deg - No Ice	16849.93	13448.06	7724.95	444806.35	-773411.52	132.43
0.9 Dead+1.6 Wind 120 deg - No Ice	12637.45	13447.75	7724.77	443615.33	-771110.95	132.60
1.2 Dead+1.6 Wind 150 deg - No Ice	16849.93	7679.15	13300.54	774223.47	-450192.93	-880.19

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	lb-ft	lb-ft	lb-ft
0.9 Dead+1.6 Wind 150 deg - No Ice	12637.45	7679.00	13300.09	772492.79	-448403.07	-876.53
1.2 Dead+1.6 Wind 180 deg - No Ice	16849.93	-34.03	15280.61	891980.79	-3302.72	-2183.88
0.9 Dead+1.6 Wind 180 deg - No Ice	12637.45	-34.03	15280.74	890111.62	-2218.23	-2177.48
1.2 Dead+1.6 Wind 210 deg - No Ice	16849.93	-7738.09	13334.57	775250.22	443315.71	-3226.36
0.9 Dead+1.6 Wind 210 deg - No Ice	12637.45	-7737.95	13334.11	773518.90	443694.92	-3218.92
1.2 Dead+1.6 Wind 240 deg - No Ice	16849.93	-13482.09	7783.89	446581.89	765791.01	-2866.29
0.9 Dead+1.6 Wind 240 deg - No Ice	12637.45	-13481.78	7783.71	445390.04	765659.51	-2860.10
1.2 Dead+1.6 Wind 270 deg - No Ice	16849.93	-15417.12	34.10	2977.29	889198.48	-1599.32
0.9 Dead+1.6 Wind 270 deg - No Ice	12637.45	-15416.66	34.20	2497.09	888854.71	-1595.92
1.2 Dead+1.6 Wind 300 deg - No Ice	16849.93	-13250.41	-7610.84	-442177.19	766985.49	-174.09
0.9 Dead+1.6 Wind 300 deg - No Ice	12637.45	-13250.52	-7610.90	-441978.05	766874.42	-174.24
1.2 Dead+1.6 Wind 330 deg - No Ice	16849.93	-7679.04	-13300.61	-770320.62	441555.75	877.56
0.9 Dead+1.6 Wind 330 deg - No Ice	12637.45	-7678.72	-13300.26	-769580.52	441917.60	873.89
1.2 Dead+1.0 Ice+1.0 Temp	53711.02	-0.19	-0.08	8012.88	-19804.25	0.05
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	53711.02	4.66	-3678.54	-196501.09	-19990.01	552.40
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	53711.02	1836.92	-3172.32	-171471.34	-123624.07	649.03
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	53711.02	3264.34	-1884.68	-98343.82	-204089.78	589.28
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	53711.02	3665.76	-4.67	7906.78	-227181.47	308.45
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	53711.02	3188.03	1835.22	110166.27	-197041.79	-8.24
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	53711.02	1828.83	3167.64	187359.99	-123411.03	-277.87
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	53711.02	-4.68	3761.25	220525.06	-19708.12	-511.88
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	53711.02	-1836.94	3172.31	187508.04	83959.06	-648.92
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	53711.02	-3192.73	1843.31	110414.84	157490.71	-576.16
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	53711.02	-3665.78	4.67	8188.32	187491.59	-308.36
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	53711.02	-3259.69	-1876.59	-98101.13	164254.60	5.49
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	53711.02	-1828.85	-3167.65	-171331.25	83682.40	277.67
Dead+Wind 0 deg - Service	14041.61	9.45	-4307.85	-244638.53	-3880.45	662.92
Dead+Wind 30 deg - Service	14041.61	2149.46	-3704.08	-212965.17	-127818.44	892.96
Dead+Wind 60 deg - Service	14041.61	3690.15	-2130.51	-122112.68	-217916.82	773.56
Dead+Wind 90 deg - Service	14041.61	4282.56	-9.45	1340.83	-251547.48	446.38
Dead+Wind 120 deg - Service	14041.61	3735.43	2145.74	124509.26	-217008.66	37.12
Dead+Wind 150 deg - Service	14041.61	2133.10	3694.62	215928.62	-127326.68	-246.32
Dead+Wind 180 deg - Service	14041.61	-9.45	4244.65	248606.39	-3313.80	-606.25
Dead+Wind 210 deg - Service	14041.61	-2149.47	3704.07	216213.38	120624.39	-892.74
Dead+Wind 240 deg - Service	14041.61	-3744.89	2162.11	125001.30	210099.34	-795.29
Dead+Wind 270 deg - Service	14041.61	-4282.56	9.46	1908.04	244354.51	-446.43

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	lb-ft	lb-ft	lb-ft
Dead+Wind 300 deg - Service	14041.61	-3680.70	-2114.14	-121621.45	210439.56	-48.11
Dead+Wind 330 deg - Service	14041.61	-2133.09	-3694.63	-212681.28	120133.30	246.15

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	% Error
1	-0.00	-14041.62	-0.00	-0.00	14041.62	-0.00	0.000%
2	34.03	-16849.94	-15509.25	-34.03	16849.93	15508.84	0.002%
3	34.03	-12637.45	-15509.25	-34.02	12637.45	15508.48	0.004%
4	7738.27	-16849.94	-13335.02	-7737.97	16849.93	13334.64	0.002%
5	7738.27	-12637.45	-13335.02	-7737.65	12637.45	13334.29	0.005%
6	13284.91	-16849.94	-7670.05	-13284.44	16849.93	7669.78	0.002%
7	13284.91	-12637.45	-7670.05	-13284.55	12637.45	7669.84	0.002%
8	15417.60	-16849.94	-34.03	-15417.12	16849.93	33.96	0.002%
9	15417.60	-12637.45	-34.03	-15416.65	12637.45	33.86	0.005%
10	13448.42	-16849.94	7725.15	-13448.06	16849.93	-7724.95	0.002%
11	13448.42	-12637.45	7725.15	-13447.75	12637.45	-7724.77	0.004%
12	7679.33	-16849.94	13300.99	-7679.15	16849.93	-13300.54	0.002%
13	7679.33	-12637.45	13300.99	-7679.00	12637.45	-13300.09	0.005%
14	-34.03	-16849.94	15281.16	34.03	16849.93	-15280.61	0.002%
15	-34.03	-12637.45	15281.16	34.03	12637.45	-15280.74	0.002%
16	-7738.27	-16849.94	13335.02	7738.09	16849.93	-13334.57	0.002%
17	-7738.27	-12637.45	13335.02	7737.95	12637.45	-13334.11	0.005%
18	-13482.45	-16849.94	7784.09	13482.09	16849.93	-7783.89	0.002%
19	-13482.45	-12637.45	7784.09	13481.78	12637.45	-7783.71	0.004%
20	-15417.60	-16849.94	34.03	15417.12	16849.93	-34.10	0.002%
21	-15417.60	-12637.45	34.03	15416.66	12637.45	-34.20	0.005%
22	-13250.88	-16849.94	-7611.11	13250.41	16849.93	7610.84	0.002%
23	-13250.88	-12637.45	-7611.11	13250.52	12637.45	7610.90	0.002%
24	-7679.33	-16849.94	-13300.99	7679.04	16849.93	13300.61	0.002%
25	-7679.33	-12637.45	-13300.99	7678.72	12637.45	13300.26	0.005%
26	-0.00	-53711.02	-0.00	0.19	53711.02	0.08	0.000%
27	4.67	-53711.02	-3678.65	-4.66	53711.02	3678.54	0.000%
28	1836.99	-53711.02	-3172.41	-1836.92	53711.02	3172.32	0.000%
29	3264.45	-53711.02	-1884.73	-3264.34	53711.02	1884.68	0.000%
30	3665.89	-53711.02	-4.67	-3665.76	53711.02	4.67	0.000%
31	3188.14	-53711.02	1835.28	-3188.03	53711.02	-1835.22	0.000%
32	1828.90	-53711.02	3167.74	-1828.83	53711.02	-3167.64	0.000%
33	-4.67	-53711.02	3761.37	4.68	53711.02	-3761.25	0.000%
34	-1836.99	-53711.02	3172.41	1836.94	53711.02	-3172.31	0.000%
35	-3192.81	-53711.02	1843.37	3192.73	53711.02	-1843.31	0.000%
36	-3665.89	-53711.02	4.67	3665.78	53711.02	-4.67	0.000%
37	-3259.78	-53711.02	-1876.64	3259.69	53711.02	1876.59	0.000%
38	-1828.90	-53711.02	-3167.74	1828.85	53711.02	3167.65	0.000%
39	9.45	-14041.62	-4308.12	-9.45	14041.61	4307.85	0.002%
40	2149.52	-14041.62	-3704.17	-2149.46	14041.61	3704.08	0.001%
41	3690.25	-14041.62	-2130.57	-3690.15	14041.61	2130.51	0.001%
42	4282.67	-14041.62	-9.45	-4282.56	14041.61	9.45	0.001%
43	3735.67	-14041.62	2145.88	-3735.43	14041.61	-2145.74	0.002%
44	2133.15	-14041.62	3694.72	-2133.10	14041.61	-3694.62	0.001%
45	-9.45	-14041.62	4244.77	9.45	14041.61	-4244.65	0.001%
46	-2149.52	-14041.62	3704.17	2149.47	14041.61	-3704.07	0.001%
47	-3745.12	-14041.62	2162.25	3744.89	14041.61	-2162.11	0.002%
48	-4282.67	-14041.62	9.45	4282.56	14041.61	-9.46	0.001%
49	-3680.80	-14041.62	-2114.20	3680.70	14041.61	2114.14	0.001%
50	-2133.15	-14041.62	-3694.72	2133.09	14041.61	3694.63	0.001%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00000001
2	Yes	12	0.00000001	0.00006616
3	Yes	11	0.00000001	0.00011323
4	Yes	12	0.00000001	0.00007803
5	Yes	11	0.00000001	0.00014092
6	Yes	12	0.00000001	0.00008814
7	Yes	12	0.00000001	0.00006779
8	Yes	12	0.00000001	0.00007792
9	Yes	11	0.00000001	0.00014070
10	Yes	12	0.00000001	0.00006617
11	Yes	11	0.00000001	0.00011316
12	Yes	12	0.00000001	0.00007768
13	Yes	11	0.00000001	0.00014016
14	Yes	12	0.00000001	0.00008798
15	Yes	12	0.00000001	0.00006765
16	Yes	12	0.00000001	0.00007796
17	Yes	11	0.00000001	0.00014066
18	Yes	12	0.00000001	0.00006627
19	Yes	11	0.00000001	0.00011332
20	Yes	12	0.00000001	0.00007791
21	Yes	11	0.00000001	0.00014067
22	Yes	12	0.00000001	0.00008807
23	Yes	12	0.00000001	0.00006773
24	Yes	12	0.00000001	0.00007775
25	Yes	11	0.00000001	0.00014039
26	Yes	10	0.00000001	0.00013359
27	Yes	13	0.00000001	0.00006519
28	Yes	13	0.00000001	0.00006870
29	Yes	13	0.00000001	0.00007145
30	Yes	13	0.00000001	0.00007045
31	Yes	13	0.00000001	0.00006908
32	Yes	13	0.00000001	0.00006999
33	Yes	13	0.00000001	0.00007075
34	Yes	13	0.00000001	0.00006789
35	Yes	13	0.00000001	0.00006446
36	Yes	13	0.00000001	0.00006467
37	Yes	13	0.00000001	0.00006614
38	Yes	13	0.00000001	0.00006503
39	Yes	11	0.00000001	0.00014396
40	Yes	12	0.00000001	0.00006258
41	Yes	12	0.00000001	0.00006539
42	Yes	12	0.00000001	0.00006249
43	Yes	11	0.00000001	0.00014404
44	Yes	12	0.00000001	0.00006236
45	Yes	12	0.00000001	0.00006527
46	Yes	12	0.00000001	0.00006255
47	Yes	11	0.00000001	0.00014416
48	Yes	12	0.00000001	0.00006246
49	Yes	12	0.00000001	0.00006530
50	Yes	12	0.00000001	0.00006236

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	100 - 90	2.898	42	0.2497	0.0141
T2	90 - 70	2.352	42	0.2439	0.0134
T3	70 - 50	1.351	42	0.1992	0.0099
T4	50 - 40	0.613	42	0.1299	0.0062
T5	40 - 20	0.369	42	0.0968	0.0044
T6	20 - 0	0.085	42	0.0375	0.0019

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
98.00	Flat Sector Frame	42	2.788	0.2490	0.0140	99093
97.50	8' Dipole	42	2.760	0.2488	0.0140	99093
97.00	8' Dipole	42	2.733	0.2486	0.0140	99093
30.00	Flat Side Arm	42	0.196	0.0650	0.0030	19210

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	100 - 90	10.359	8	0.8921	0.0512
T2	90 - 70	8.404	8	0.8720	0.0484
T3	70 - 50	4.828	8	0.7114	0.0360
T4	50 - 40	2.190	8	0.4638	0.0225
T5	40 - 20	1.320	8	0.3455	0.0159
T6	20 - 0	0.304	8	0.1338	0.0069

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
98.00	Flat Sector Frame	8	9.965	0.8898	0.0508	28114
97.50	8' Dipole	8	9.867	0.8891	0.0507	28114
97.00	8' Dipole	8	9.768	0.8885	0.0506	28114
30.00	Flat Side Arm	8	0.701	0.2322	0.0108	5372

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	100	Leg	A325N	0.6250	4	3060.50	24850.50	0.123 ✔	1	Bolt DS
T2	90	Leg	A325N	0.6250	5	8271.65	24850.50	0.333 ✔	1	Bolt DS
T3	70	Leg	A325N	1.0000	6	11233.20	53014.40	0.212 ✔	1	Bolt Tension
T4	50	Leg	A325N	1.0000	6	11099.30	53014.40	0.209 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	3416.64	11682.40	0.292 ✔	1	Member Block Shear
T5	40	Leg	A325N	1.0000	6	13332.50	53014.40	0.251 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	2817.16	11682.40	0.241 ✔	1	Member Block Shear
T6	20	Leg	A687	1.0000	6	15606.50	54516.40	0.286 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	4113.76	11682.40	0.352 ✔	1	Member Block Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	1 1/2	10.00	2.38	76.0 K=1.00	1.7672	-12242.00	52128.00	0.235 [1] ✔
T2	90 - 70	1 3/4	20.00	2.38	65.1 K=1.00	2.4053	-41358.30	79359.30	0.521 [1] ✔
T3	70 - 50	2	20.00	2.36	56.7 K=1.00	3.1416	-71629.60	111718.00	0.641 [1] ✔
T4	50 - 40	Pirod 105244	10.02	10.02	45.4 K=1.00	3.6816	-70575.80	142493.00	0.495 [1] ✔
T5	40 - 20	Pirod 105216	20.03	10.02	45.4 K=1.00	3.6816	-86428.60	142493.00	0.607 [1] ✔
T6	20 - 0	Pirod 105217	20.03	10.02	37.8 K=1.00	5.3014	-102466.00	214859.00	0.477 [1] ✔

[1] P_u / ϕP_n controls

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n lb	A in^2	V_u lb	ϕV_n lb	Stress Ratio
T4	50 - 40	0.5	1.48	121.0	165670.00	0.1963	606.90	3388.58	0.180 ✔
T5	40 - 20	0.5	1.48	121.0	165670.00	0.1963	416.01	3292.47	0.127

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n lb	A in^2	V_u lb	ϕV_n lb	Stress Ratio
T6	20 - 0	0.5	1.47	120.0	238565.00	0.1963	645.19	3335.33	0.194

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	3/4	4.65	2.25	129.8 K=0.90	0.4418	-2413.06	5924.80	0.407 [1]
T2	90 - 70	3/4	5.05	2.46	141.7 K=0.90	0.4418	-2739.44	4972.06	0.551 [1]
T3	70 - 50	7/8	5.49	2.67	131.8 K=0.90	0.6013	-2736.36	7818.09	0.350 [1]
T4	50 - 40	L3x3x3/16	11.42	4.98	105.2 K=1.05	1.0900	-3780.72	19425.90	0.195 [1]
T5	40 - 20	L3x3x3/16	12.50	5.63	115.0 K=1.01	1.0900	-3245.45	17418.80	0.186 [1]
T6	20 - 0	L3x3x3/16	13.80	6.33	127.4 K=1.00	1.0900	-4602.66	14946.80	0.308 [1]

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	3/4	4.00	3.88	173.6 K=0.70	0.4418	-500.14	3311.71	0.151 [1]
T2	90 - 70	3/4	4.37	4.22	189.2 K=0.70	0.4418	-517.99	2788.50	0.186 [1]
T3	70 - 50	3/4	4.57	4.41	197.4 K=0.70	0.4418	-916.18	2561.54	0.358 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	7/8	4.00	3.88	148.8 K=0.70	0.6013	-351.06	6135.36	0.057 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T2	90 - 70	7/8	4.01	3.87	148.5 K=0.70	0.6013	-1215.09	6161.83	0.197 [1] ✔
T3	70 - 50	7/8	4.51	4.35	166.9 K=0.70	0.6013	-1119.45	4875.48	0.230 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	7/8	4.00	3.88	148.8 K=0.70	0.6013	-1101.81	6135.36	0.180 [1] ✔
T2	90 - 70	7/8	4.49	4.34	166.7 K=0.70	0.6013	-1372.96	4887.32	0.281 [1] ✔
T3	70 - 50	7/8	4.99	4.82	185.1 K=0.70	0.6013	-1319.41	3965.86	0.333 [1] ✔

[1] P_u / ϕP_n controls

Mid Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	7/8	4.00	3.88	148.8 K=0.70	0.6013	-600.00	6135.36	0.098 [1] ✔

[1] P_u / ϕP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	1 1/2	10.00	2.38	76.0	0.7732	9746.95	37695.20	0.259 [1] ✔
T2	90 - 70	1 3/4	20.00	2.38	65.1	1.2339	38016.80	60150.90	0.632 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	70 - 50	2	20.00	2.36	56.7	3.1416	67399.30	141372.00	0.477 [1] ✔
T4	50 - 40	Pirod 105244	10.02	10.02	45.4	3.6816	66595.90	165670.00	0.402 [1] ✔
T5	40 - 20	Pirod 105216	20.03	10.02	45.4	3.6816	79994.80	165670.00	0.483 [1] ✔
T6	20 - 0	Pirod 105217	20.03	10.02	37.8	5.3014	93639.10	238565.00	0.393 [1] ✔

[1] P_u / ϕP_n controls

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n lb	A in^2	V_u lb	ϕV_n lb	Stress Ratio
T4	50 - 40	0.5	1.48	121.0	165670.00	0.1963	606.90	3388.58	0.180 ✔
T5	40 - 20	0.5	1.48	121.0	165670.00	0.1963	416.01	3292.47	0.127 ✔
T6	20 - 0	0.5	1.47	120.0	238565.00	0.1963	645.19	3335.33	0.194 ✔

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	3/4	4.65	2.25	144.2	0.4418	2345.27	19880.40	0.118 [1] ✔
T2	90 - 70	3/4	5.05	2.46	157.4	0.4418	2735.16	19880.40	0.138 [1] ✔
T3	70 - 50	7/8	5.12	2.49	136.3	0.6013	2908.57	27059.40	0.107 [1] ✔
T4	50 - 40	L3x3x3/16	11.42	4.98	66.3	0.6593	3416.64	28679.40	0.119 [1] ✔
T5	40 - 20	L3x3x3/16	12.50	5.63	74.6	0.6593	2817.16	28679.40	0.098 [1] ✔
T6	20 - 0	L3x3x3/16	13.80	6.33	83.5	0.6593	4113.76	28679.40	0.143 [1] ✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	3/4	4.00	3.88	248.0	0.4418	575.90	19880.40	0.029 [1] ✔
T2	90 - 70	3/4	4.07	3.93	251.3	0.4418	686.25	19880.40	0.035 [1] ✔
T3	70 - 50	3/4	4.57	4.41	282.0	0.4418	1040.22	19880.40	0.052 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	7/8	4.00	3.88	212.6	0.6013	305.36	27059.40	0.011 [1] ✔
T2	90 - 70	7/8	4.01	3.87	212.1	0.6013	1244.17	27059.40	0.046 [1] ✔
T3	70 - 50	7/8	4.51	4.35	238.5	0.6013	1183.62	27059.40	0.044 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	7/8	4.00	3.88	212.6	0.6013	1065.36	27059.40	0.039 [1] ✔
T2	90 - 70	7/8	4.49	4.34	238.2	0.6013	1369.55	27059.40	0.051 [1] ✔
T3	70 - 50	7/8	4.99	4.82	264.4	0.6013	1454.97	27059.40	0.054 [1] ✔

[1] P_u / ϕP_n controls

Mid Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	100 - 90	7/8	4.00	3.88	212.6	0.6013	640.46	27059.40	0.024 [1]

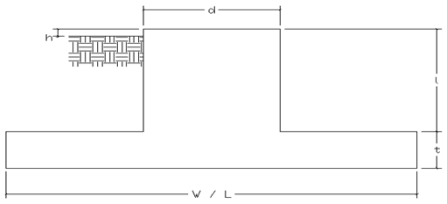
Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
									✔

[1] P_u / ϕP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	100 - 90	Leg	1 1/2	3	9746.95	37695.20	25.9	Pass
T2	90 - 70	Leg	1 3/4	41	38016.80	60150.90	63.2	Pass
T3	70 - 50	Leg	2	104	-71629.60	111718.00	64.1	Pass
T4	50 - 40	Leg	Pirod 105244	168	-70575.80	142493.00	49.5	Pass
T5	40 - 20	Leg	Pirod 105216	177	-86428.60	142493.00	60.7	Pass
T6	20 - 0	Leg	Pirod 105217	192	-102466.00	214859.00	47.7	Pass
T1	100 - 90	Diagonal	3/4	14	-2413.06	5924.80	40.7	Pass
T2	90 - 70	Diagonal	3/4	48	-2739.44	4972.06	55.1	Pass
T3	70 - 50	Diagonal	7/8	112	-2736.36	7818.09	35.0	Pass
T4	50 - 40	Diagonal	L3x3x3/16	173	-3780.72	19425.90	19.5 29.2 (b)	Pass
T5	40 - 20	Diagonal	L3x3x3/16	179	-3245.45	17418.80	18.6 24.1 (b)	Pass
T6	20 - 0	Diagonal	L3x3x3/16	194	-4602.66	14946.80	30.8 35.2 (b)	Pass
T1	100 - 90	Horizontal	3/4	32	-500.14	3311.71	15.1	Pass
T2	90 - 70	Horizontal	3/4	61	-517.99	2788.50	18.6	Pass
T3	70 - 50	Horizontal	3/4	160	-916.18	2561.54	35.8	Pass
T1	100 - 90	Top Girt	7/8	6	-351.06	6135.36	5.7	Pass
T2	90 - 70	Top Girt	7/8	43	-1215.09	6161.83	19.7	Pass
T3	70 - 50	Top Girt	7/8	108	-1119.45	4875.48	23.0	Pass
T1	100 - 90	Bottom Girt	7/8	9	-1101.81	6135.36	18.0	Pass
T2	90 - 70	Bottom Girt	7/8	45	-1372.96	4887.32	28.1	Pass
T3	70 - 50	Bottom Girt	7/8	109	-1319.41	3965.86	33.3	Pass
T1	100 - 90	Mid Girt	7/8	11	-600.00	6135.36	9.8	Pass
							Summary	
							Leg (T3) 64.1	Pass
							Diagonal (T2) 55.1	Pass
							Horizontal (T3) 35.8	Pass
							Top Girt (T3) 23.0	Pass
							Bottom Girt (T3) 33.3	Pass
							Mid Girt (T1) 9.8	Pass
							Bolt Checks 35.2	Pass
							RATING = 64.1	**Pass**

Site Name:	Lincolnwood, IL	*Program Last Updated:*	*11/15/2012*
Site Number:	303900		
Engineering Number:	56280725		
Engineer:	M. Davenport		
Date:	02/26/14		
Tower Type:	SST w/3 Legs		



Design Loads (Factored) - Analysis per TIA-222-G Standards

Design / Analysis / Mapping:	Analysis				
Compression/Leg:	108.6	k	Concrete Strength (f'_c):	3000	psi
Uplift/Leg:	98.8	k	Pad Tension Steel Depth:	20.00	in
Total Shear:	15.6	k	ϕ_{Shear}:	0.75	
Moment:	897.8	k-ft	$\phi_{Flexure\ /\ Tension}$:	0.90	
Tower + Appurtenance Weight:	16.9	k	$\phi_{Compression:}$	0.65	
Depth to Base of Foundation (l + t - h):	3.50	ft	β:	0.85	
Diameter of Pier (d):	2.50	ft	Bottom Pad Rebar Size #:	7	
Height of Pier above Ground (h):	1.50		# of Bottom Pad Rebar:	24	
Width of Pad (W):	24.00	ft	Pad Bottom Steel Area:	14.40	in^2
Length of Pad (L):	24.00	ft	Pad Steel F_y:	60000	psi
Thickness of Pad (t):	2.00	ft	Top Pad Rebar Size #:	7	
Tower Leg Center to Center:	10.00	ft	# of Top Pad Rebar:	24	
Number of Tower Legs:	3.0	(1 if MP or GT)	Pad Top Steel Area:	14.40	in^2
Tower Center from Mat Center:	0.00	ft	Pier Rebar Size #:	8	
Depth Below Ground Surface to Water Table:	3.00	ft	Pier Steel Area (Single Bar):	0.79	in^2
Unit Weight of Concrete:	150.0	pcf	# of Pier Rebar:	10	
Unit Weight of Soil Above Water Table:	100.0	pcf	Pier Steel F_y:	60000	psi
Unit Weight of Water:	62.4	pcf	Pier Cage Diameter:	22.0	in
Unit Weight of Soil Below Water Table:	50.0	pcf	Rebar Strain Limit:	0.008	
Friction Angle of Uplift:	0.0	Degrees	Steel Elastic Modulus:	29000	ksi
Ultimate Coefficient of Shear Friction:	0.40		Tie Rebar Size #:	3	
Ultimate Compressive Bearing Pressure:	3000.0	psf	Tie Steel Area (Single Bar):	0.11	in^2
Ultimate Passive Pressure on Pad Face:	0.0	psf	Tie Spacing:	16	in
$\phi_{Soil\ and\ Concrete\ Weight}$:	0.9		Tie Steel F_y:	60000	psi
ϕ_{Soil}:	0.75				

Overturning Moment Usage

Design OTM:	975.8	k-ft
OTM Resistance:	2805.1	k-ft
Design OTM / OTM Resistance:	0.35	Result: OK

Soil Bearing Pressure Usage

Net Bearing Pressure:	764	psf
Factored Nominal Bearing Pressure:	2250	psf
Net Bearing Pressure/Factored Nominal Bearing Pressure:	0.34	Result: OK
Load Direction Controling Design Bearing Pressure:	Diagonal to Pad Edge	

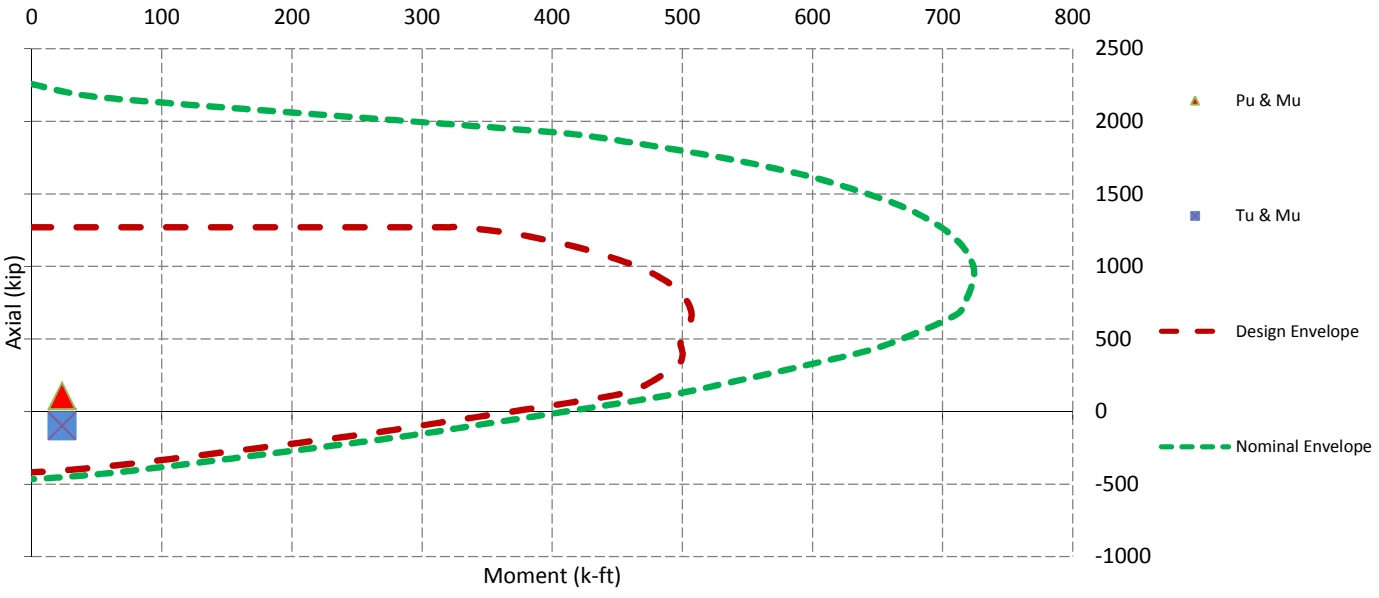
Sliding Factor of Safety

Total Factored Sliding Resistance:	77.9	k
Sliding Design / Sliding Resistance:	0.20	Result: OK

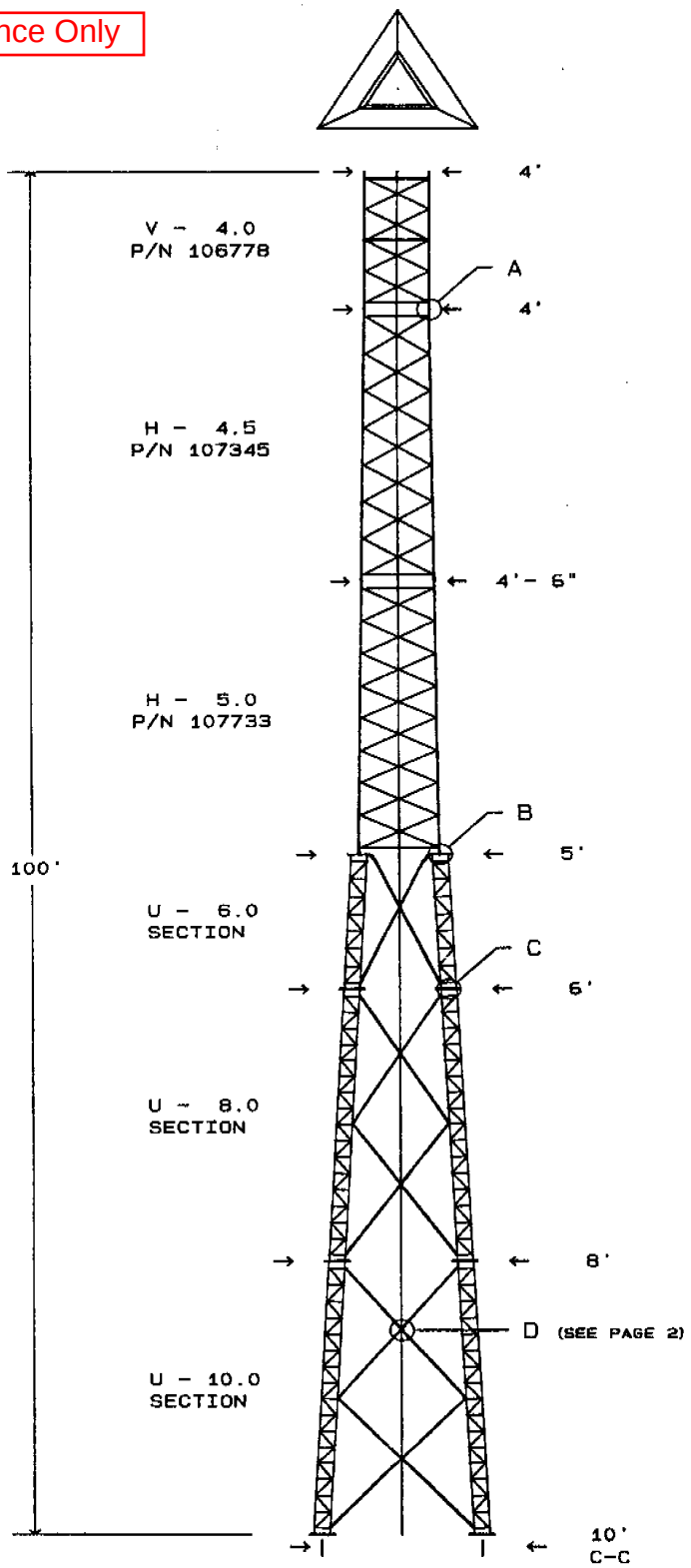
One Way Shear, Flexual Capacity, and Punching Shear

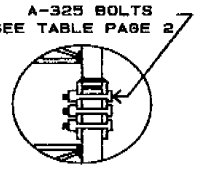
Factored One Way Shear (V_u):	75.3	k
One Way Shear Capacity (ϕV_c):	473.2	k - ACI11.3.1.1
V_u / ϕV_c:	0.16	Result: OK
Load Direction Controling Shear Capacity:	Parallel to Pad Edge	
Lower Steel Pad Factored Moment (M_u):	388.0	k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	1263.6	k-ft - ACI10.3
M_u / ϕM_n:	0.31	Result: OK
Load Direction Controling Flexural Capacity:	Parallel to Pad Edge	
Upper Steel Pad Factored Moment (M_u):	200.3	k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	1263.6	k-ft
M_u / ϕM_n:	0.16	Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0025	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0025	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	12	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	12	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	103.1	k
Nominal Punching Shear Capacity ($\phi_c V_n$):	516.2	k - ACI11.12.2.1
V_u / ϕV_c:	0.20	Result: OK
Factored Moment in Pier (M_u):	23.4	k-ft
Pier Moment Capacity (ϕM_n):	384.0	k-ft
M_u / ϕM_n:	0.06	Result: OK
Factored Shear in Pier (V_u):	10.4	k
Pier Shear Capacity (ϕV_n):	54.0	k
V_u / ϕV_c:	0.19	Result: OK
Pier Shear Reinforcement Ratio:	0.0012	No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	98.8	k
Pier Tension Capacity (ϕT_n):	426.6	k
T_u / ϕT_n:	0.23	Result: OK
Factored Compression in Pier (P_u):	108.6	k
Pier Compression Capacity (ϕP_n):	926.8	k - ACI10.3.6.2
P_u / ϕP_n:	0.12	Result: OK
Pier Compression Reinforcement Ratio:	0.011	OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u/\phi_B M_n + T_u/\phi_T T_n$:	0.29	Result: OK

Nominal and Design Moment Capacity and Factored Design Loads

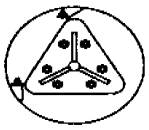


For Reference Only

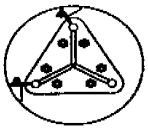


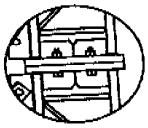


VIEW A
TYPICAL LEG CONNECTION
FOR FABRICATED SECTIONS



VIEW B
LEG CONNECTION AT 50 FT.





VIEW C
TYPICAL LEG CONNECTION
FOR BREAKDOWN SECTIONS

CELLULAR ONE
LINCOLNWOOD (SITE # 64)

CHG LET	DESCRIPTION	DATE
	REVISIONS	

NAME: U 10.0 X 100'
SELF-SUPPORTING TOWER

APPROVED BY | DR BY MBG | DATE 15-MAR-89

REG. ENGINEER | REG. NO

SCALE: AS NOTED

PART NO. A-107106

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. (08616.) 113637-B1 PAGE 1 OF 3

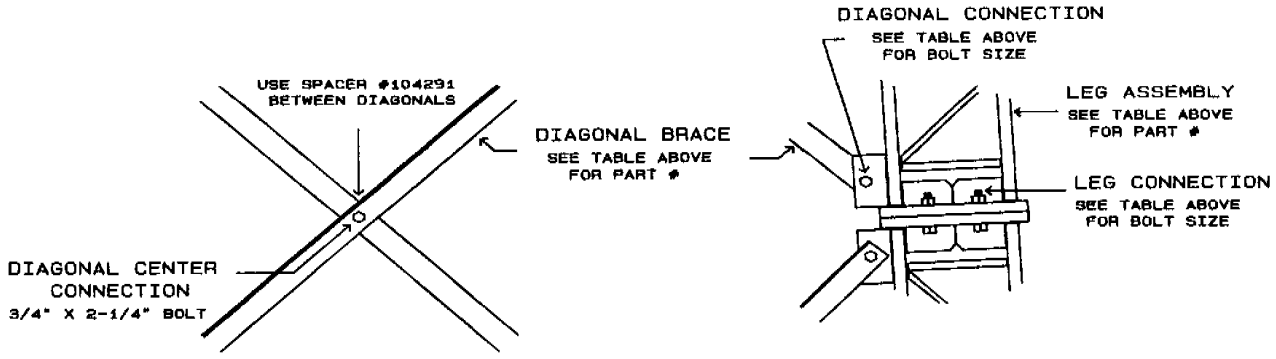
For Reference Only

FABRICATED SECTION DATA

SECTION LENGTH	SEC #	SECTION PART#	LEG/WALL SIZE	BRACE SIZE	SECTION WEIGHT	BOLTS AT BOTTOM DIAM	LENGTH	#
10'	V- 4.0	106778	1- 1/2 "	3/4 "	804#	5/8"	4"	12
20'	H- 4.5	107345	1- 3/4 "	3/4 "	945#	5/8"	4-1/2"	15
20'	H- 5.0	107733	2 "	7/8 "	1273#	1 "	3-1/2"	18

BREAKDOWN SECTION DATA (12" LEG)

SEC #	SECTION LENGTH	LEG SIZE	LEG PART#	TOP DIAG PART#	BOT DIAG PART#	QTY HORIZ	SECTION WEIGHT	LEG CONNECT DIAM	LEG CONNECT LENGTH	DIAG CONNECT DIAM	DIAG CONNECT LENGTH
U- 6.0	10'	1- 1/4"	105244		105557		985#	1 "	3-1/2"	1 "	2-1/4"
U- 8.0	20'	1- 1/4"	105216	105559	105562		1846#	1 "	3-1/2"	1 "	2-1/4"
U-10.0	20'	1- 1/2"	105217	105565	105568		2250#			1 "	2-1/4"



VIEW D (SEE PAGE 1 FOR VIEW DEFINITION) VIEW C

NOTES

1. TOWER DESIGN CONFORMS TO EIA STANDARD RS-222-C FOR 40 PSF WINDLOAD WITH NO ICE.
2. MATERIAL: (A) TOWER MEMBERS 3/4" AND LARGER: Fy=50,000 PSI. (B) TOWER MEMBERS LESS THAN 3/4" Fy=36,000 PSI.
3. BASE REACTIONS: TOTAL WEIGHT = 11.6 KIPS. MAXIMUM COMPRESSION = 89.1 KIPS PER LEG.
   MOMENT = 738.1 KIP-FT. MAXIMUM UPLIFT = 61.3 KIPS PER LEG.
   MAXIMUM SHEAR = 12.5 KIPS TOTAL.
4. FINISH: HOT DIPPED GALVANIZED AFTER FABRICATION.
5. ANTENNAS: THREE- CELLULAR SECTORS AT TOP OF TOWER TWO- 6' SOLID/RADOME AT 95' (FUTURE CAPACITY)
6. MIN. WELDS 1/4" UNLESS OTHERWISE SPECIFIED. ALL WELDING TO CONFORM TO AWS SPECIFICATIONS.
7. EIA GROUNDING FOR TOWER.

CELLULAR ONE
LINCOLNWOOD (SITE #64)

CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME: U 10.0 X 100' SELF-SUPPORTING TOWER

APPROVED BY | DR BY MBG 15-MAR-89 | DATE

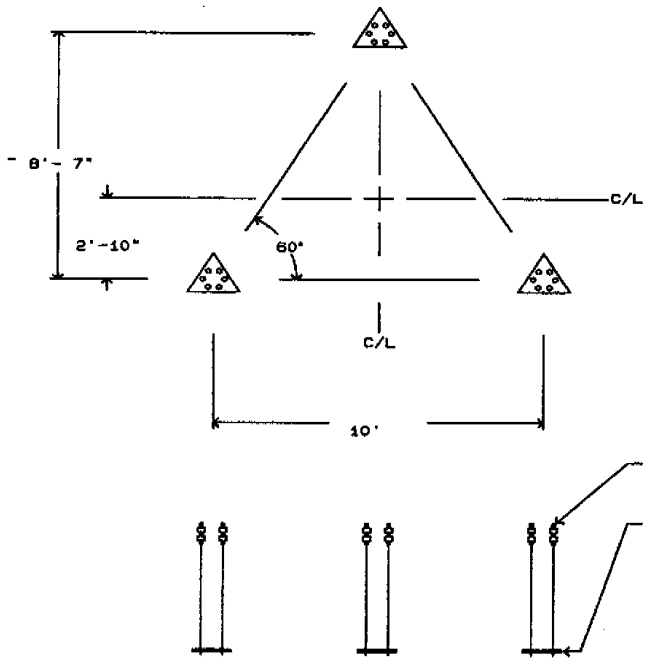
REG. ENGINEER REG. NO | SCALE AS NOTED

PART NO. A-107106

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. (08616.)113637-B PAGE 2 OF 3

For Reference Only



TOWER ANCHOR STEEL PLACEMENT

FOUNDATION NOTES

1. DESIGN REACTIONS:
   - TOTAL WEIGHT = 11.6 KIPS.
   - MOMENT = 738.1 KIP-FT.
   - MAXIMUM SHEAR = 12.5 KIPS TOTAL.
   - MAXIMUM COMPRESSION = 89.1 KIPS PER LEG.
   - MAXIMUM UPLIFT = 81.3 KIPS PER LEG.
2. FOUNDATION DESIGN BY OTHERS.

CELLULAR ONE
LINCOLNWOOD (SITE #64)

CHG LET	DESCRIPTION	DATE
REVISIONS		

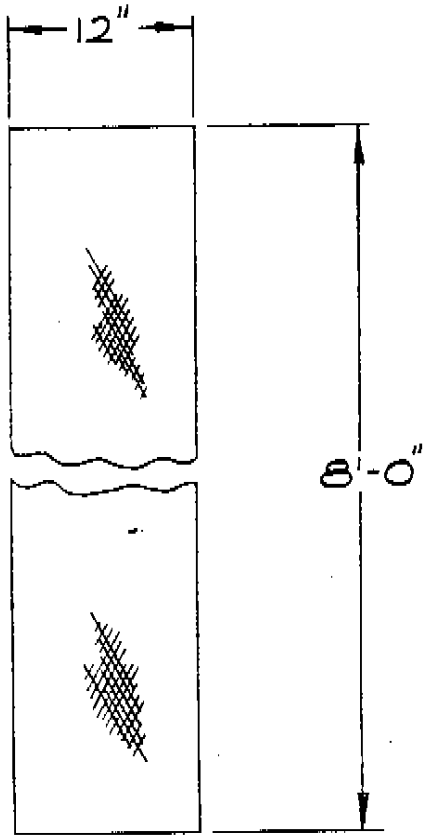
NAME: U 10.0 X 100' BASE FOUNDATION

APPROVED BY | DR BY MBG 15-MAR-89 | DATE

REG. ENGINEER REG. NO | SCALE AS NOTED | DWG. NO. (08618.) 113637-B | PAGE 3 OF 3

PART NO. A-107106

PI-ROD, INC.
PLYMOUTH, INDIANA 46563



MATERIAL:
1/2"x13-15 EXPANDED STEEL MESH FLATTENED

WEIGHT = 11#

P/N 101247

CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME ANTI-CLIMB GUARD	PI-ROD TOWER COMPANY, INC. PLYMOUTH, INDIANA 46563
APPROVED BY	DR BY Rinkenberg DATE 11-14-79
REG. ENGINEER REG. NO.	SCALE —
	DWG. NO. 101247-A

PI-ROD INC.
CELLULAR ONE
LINCOLNWOOD (SITE #64)
MODEL : U- 10.0 x 100

JOB # :A-107106 (IV3.24)
DRW # :113637-B (1V3.23)

15-MAR-89 08:53:15

REVISION:	DATE	INITIALS:	DESCRIPTION
A	3/7/90	MBG	ADDED ANTI-CLIMB (PAGE 1)

QUANTITY: + EXTRAS:	PART #	DRAWING#:	DESCRIPTION
			OVERALL HT.= 100
			ANCHOR STEEL (4V3
		106063-B	INSTALLATION DRAWING
3	102716		TEMPLATE FOR 1 IN. ANCHOR BOLT (TAPERED TOWER)
3	107973	107973-A	PLATE--ANCHOR BOLT
3	102816		2.0 FT. SPACER FOR TEMPLATE
18	103182	103182-A	1 IN. HIGH STRENGTH ANCHOR BOLTS
12	7/8 X 3 1/2 IN		A-325 BOLTS W/ LOCKNUTS
	NOTE-- SPACER MAY BE REPLACED BY TWO OR MORE SHORTER SPACERS		
18	101247	101247-A	12" x 8'-0" ANTI-CLIMB GUARD - TAC WELD ENC COLD GALV. AT PI-ROD

CONT'.--

PI-ROD INC.

CELLULAR ONE
LINCOLNWOOD (SITE #64)
MODEL : U- 10.0 x 100

JOB # :A-107106 (IV3.24)
DRW # :113637-2 (1V3.23)

15-MAR-89 08:53:15

REVISION:	DATE	INITIALS:	DESCRIPTION

QUANTITY: + EXTRAS:	PART #	DRAWING#:	DESCRIPTION
			OVERALL HT.= 100
			ANCHOR STEEL (4V3.24)
		106063-B	INSTALLATION DRAWING
3	102716		TEMPLATE FOR 1 IN. ANCHOR BOLT (TAPERED TOWER)
3	107973	107973-A	PLATE--ANCHOR BOLT
3	102816		2.0 FT. SPACER FOR TEMPLATE
18	103182	103182-A	1 IN. HIGH STRENGTH ANCHOR BOLTS
12	7/8 X 3 1/2 IN		A-325 BOLTS W/ LOCKNUTS
	NOTE-- SPACER MAY BE REPLACED BY TWO OR MORE SHORTER SPACERS		

CONT'.--

LINCOLNWOOD (SITE #64) 15-MAR-89 08:53:15

QUANTITY: + EXTRAS:	PART #	DRAWING#:	DESCRIPTION
1			TAPER 10.0-- 8.0 BOTTOM HT.= 0 **SECTION U-10.**
3	105217	105217-B	20 FT #12 LEG SECTION - 1.50 " RODS
6	105565	105556-B	DIAGONALS 3/16 x 3 x 3 11 FT. 8 7/32 IN.
6	105568	105556-B	DIAGONALS 3/16 x 3 x 3 12 FT. 3 5/ 8 IN.
24 + 2	1 X 2-1/4		A-325 BOLTS W/ LOCKNUTS--DIAG CONNECTION
6 + 1	3/4 X 2-1/4		A-325 BOLTS W/ LOCKNUTS ---- DIAGONAL CENTER CONNECTION
6 + 1	104291	104291-A	SPACERS--BRACE DIAGONALS
1			TAPER 8.0---6.0 BOTTOM HT.= 20 **SECTION U- 8.**
3	105216	105215-B	20 FT #12 LEG SECTION - 1.25 " RODS
6	105559	105556-B	DIAGONALS 3/16 x 3 x 3 10 FT. 7 9/16 IN.
6	105562	105556-B	DIAGONALS 3/16 x 3 x 3 11 FT. 1 15/32 IN.
18 + 2	1 x 3-1/2		A-325 BOLTS W/ LOCKNUTS--LEG CONNECTION AT BOTTOM
24 + 2	1 X 2-1/4		A-325 BOLTS W/ LOCKNUTS--DIAG CONNECTION
6 + 1	3/4 X 2-1/4		A-325 BOLTS W/ LOCKNUTS ---- DIAGONAL CENTER CONNECTION
6 + 1	104291	104291-A	SPACERS--BRACE DIAGONALS

CONT'.--

LINCOLNWOOD (SITE #64) 15-MAR-89 08:53:15

QUANTITY: + EXTRAS:	PART #	DRAWING#:	DESCRIPTION
1			TAPER 6.0-- 5.0 BOTTOM HT.= 40 **SECTION U- 6.**
3	105244	105243-B	10 FT #12 LEG SECTION - 1.25 " RODS
** 6	105557	105556-B	DIAGONALS 3/16" x 3" x 3" 10 FT. 2 17/32 IN.
18 + 2	1 x 3-1/2		A-325 BOLTS W/ LOCKNUTS--LEG CONNECTION AT BOTTOM
12 + 2	1 X 2-1/4		A-325 BOLTS W/ LOCKNUTS--DIAG CONNECTION
3 + 1	3/4 X 2-1/4		A-325 BOLTS W/ LOCKNUTS ---- DIAGONAL CENTER CONNECTION
3 + 1	104291	104291-A	SPACERS--BRACE DIAGONALS
			(5V3.24)
			TAPER 60-- 54 BOTTOM H**SECTION H-5.0**
1	107733	107733-B	TAPERED FABRICATED SECTION--2.000 LEGS 0.875 DIAGONALS (20 FT)
18 + 2	1 x 3-1/2		A-325 BOLTS W/ LOCKNUTS --LEG CONNECTION AT BOTTOM
			TAPER 54-- 48 BOTTOM H**SECTION H-4.5**
1	107345	107345-A	TAPERED FABRICATED SECTION--1.750 LEGS 0.750 DIAGONALS (20 FT)
15 + 1	5/8 X 4-1/2		A-325 BOLTS W/ LOCKNUTS --LEG CONNECTION AT BOTTOM

CONT'.--

LINCOLNWOOD (SITE #64) 15-MAR-89 08:53:15

QUANTITY: EXTRAS:	PART #	DRAWING#:	DESCRIPTION
			NO TAPER (48) BOTTOM SECTION V-4.0
1	106778	106775-B	STRAIGHT FABRICATED SECTION--1.500 LEGS 0.750 DIAGONALS (10 FT)
12 + 1	5/8 X 4		A-325 BOLTS W/ LOCKNUTS --LEG CONNECTION AT BOTTOM
			WELD LIGHTNING ROD HOLDER AT TOP
1	101620	101620-A	LIGHTNING ROD (6V3.24)
2		1/2 IN.	NUTS & LOCKS FOR LIGHTNING ROD
			BOLT RECAP
60	1 x 3-1/2		A-325 BOLTS W/ LOCKNUTS & PLAIN WASHERS
13	5/8 X 4		A-325 BOLTS W/ LOCKNUTS
16	5/8 X 4-1/2		A-325 BOLTS W/ LOCKNUTS
18	3/4 X 2-1/4		A-325 BOLTS W/ LOCKNUTS & PLAIN WASHERS
66	1 X 2-1/4		A-325 BOLTS W/ LOCKNUTS & PLAIN WASHERS

CONT'.--

LINCOLN WOOD (SITE #64) 15-MAR-89 08:53:15

QUANTITY: PART # + EXTRAS:	: DRAWING#:	DESCRIPTION
1 :	:101632-B	: **ICE BRIDGE ASSEMBLY**
1 : 101593	:101593-A	: 10 FT. ICE BRIDGE CHANNEL
1 : 101631	:101631-A	: BRKT. ICE BRIDGE MOUNTING
1 : 100191	:100191-A	: BRKT. ICE BRIDGE
1 : 100151	:100151-A	: BUILDING MOUNTING BRACKET
4 : 100064	:100064-A	: CLAMPS
4 : 104224	: 104224-A	: BRACKET, TRANSMISSION LINE (3 FT. SPACING)
4 : 104223	: 104223-A	: CLAMP BRACKET
2 :	:	: 1/2" x 12" THREADED ROD W/ LOCKNUTS
1 + 1 : 1/2" x 1 1/2"	:	: A-325 BOLT W/ LOCKNUTS
16 + 4 : 1/2 x 4	:	:A-325 BOLTS (FULL THREAD) WITH LOCKNUTS
:	:	:
:	:	:
:	:	:
:	:	: GROUNDING MATERIALS
:	:	101650-B : INSTALLATION DRAWING FOR EIA GROUNDING
3 :	:	: 8 FT. GROUND RODS
3 : 101628	: 101628-A	: GROUND ROD CLAMPS
3 : 101629	: 101629-A	: PLATE GROUND CONNECTORS
3 + 1 : 1/2" x 1 1/2"	:	: A-325 BOLT W/ LOCKNUTS AND WASHERS
33 :	:	: #2 COPPER GROUND WIRE
:	:	:
:	:	:
:	:	:

CONT'.--

LINCOLNWOOD (SITE #64) 15-MAR-89 08:53:15

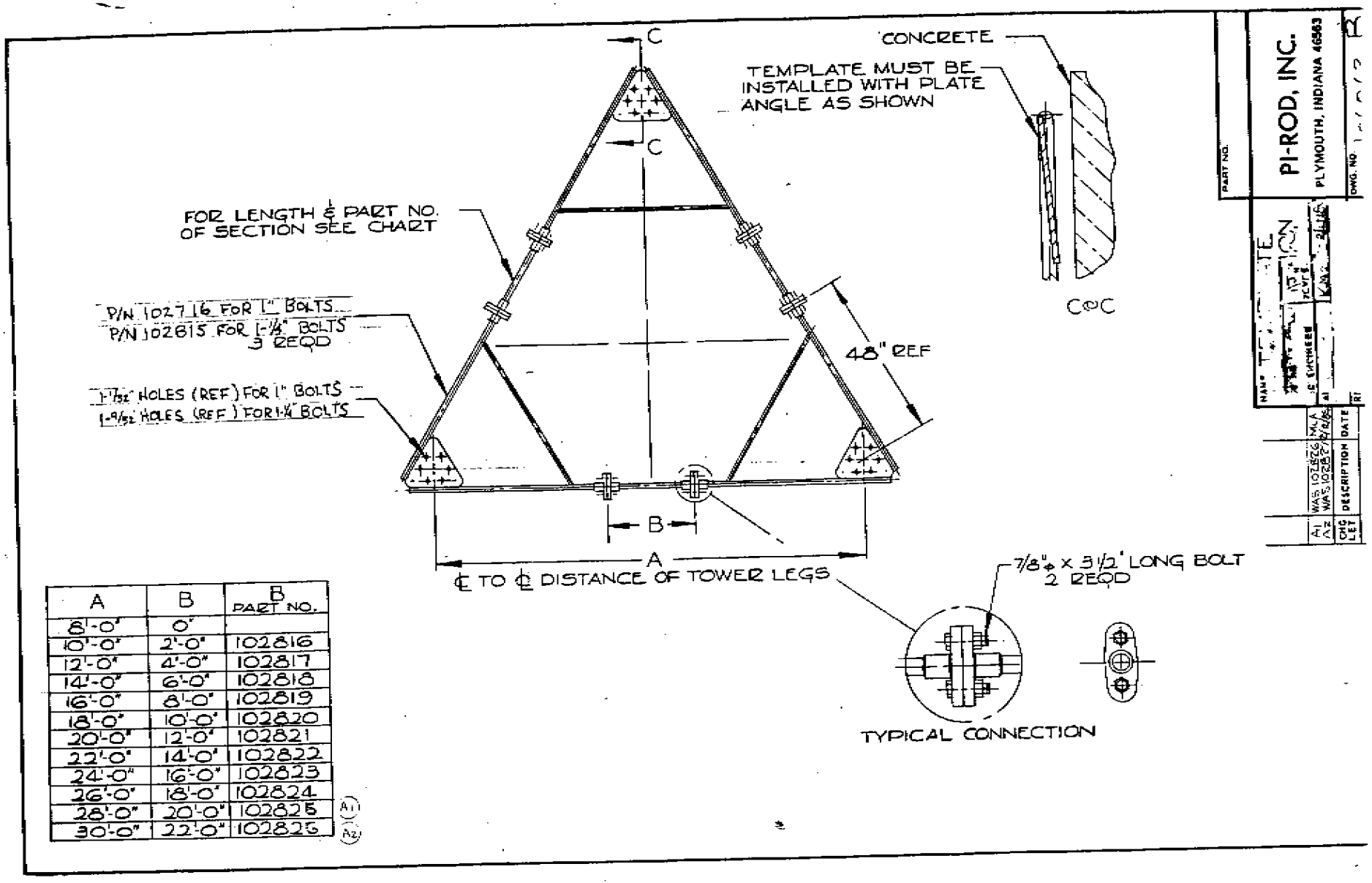
QUANTITY: PART # + EXTRAS:	DRAWING#:	DESCRIPTION	
	111810-B	INSTALLATION OUTSIDE FACE TRANS. BRACKET	
5	112692	112692-A TRANS. LINE LADDER (SNAP) 20 FT.	
6	111662	111662-A CLAMP ON TRANS. LINE BRACKET (FAB.)	
6	111663	111663-B CLAMP ON TRANS. LINE BRACKET (KNOCKDOWN)	
24+2	100064	100064-A CLAMP	
32+4	1/2" x 2 1/2"	A-325 BOLT W/ LOCKNUTS	
16+2	1/2" x 4"	A-325 BOLT W/ LOCKNUTS	
24+2	100876	100876-A #011 U-BOLTS	
48+4	5/16"	FLAT WASHERS W/ LOCKNUTS	
3		103531-B DISH MOUNT ASSEMBLY DRAWING	
3	106118	101619-A 4 1/2" O.D. x 5'-3" PIPE MOUNT	(7V3.28)
6	101619	101619-A 80" CROSSARM MOUNTING BRACKET	
24+2	100064	100064-A CLAMP	
18+2	106114	106114-A BACK PLATE	
6	104379	104379-A SPACER (USE DIRECTLY AT THE PIPEMOUNT/CROSSARM INTERFACE)	
72+4	1/2" x 5 1/2"	A-325 BOLT W/ LOCKNUTS	
3		108663-B CELLULAR ANTENNA MOUNTING INSTALLATION	
3	108658	108658-B BRACKET ANTENNA MOUNTING CELLULAR	
6	111716	111716-A BRACKET ANGLE FOR DB-858A	
9	108675	108675-A BRACE (VERTICAL)	

CONT'.--

LINCOLNWOOD (SITE #64) 15-MAR-89 08:53:15

QUANTITY: EXTRAS:	PART #	DRAWING#:	DESCRIPTION
3	108677	108677-A	BRACKET, STRUT MOUNTING
78+4	1/2" x 2 1/2"		A-325 BOLT W/ LOCKNUTS
24+2	1/2" x 6 1/2"		A-325 BOLT W/ LOCKNUTS
12+2	104223	104223-A	CLAMP (6 5/8")
3	107998	105965-A	STABILIZER STRUT (6'-8" LONG)
3+1	104701	104701-A	CLAMP BRACKET (SPECIAL)
6+1	100064	100064-A	CLAMP
6+1	1/2" x 2 1/2"		A-325 BOLT W/ LOCKNUTS
6+1	1/2" x 4"		A-325 BOLT W/ LOCKNUTS
3+1	105074	105074-B	CLAMP ASSEMBLY ANTENNA STRUT
3+1	100064	100064-A	CLAMP
6+1	1/2" x 4"		A-325 BOLT W/ LOCKNUTS
			NOTE: P/N 105074 CONSISTS OF P/N 105075 1/2" x 3" BOLT W/ LOCKNUTS AND 105076 1/2" x 1 1/2" BOLT W/ LOCKNUTS
27	109907	109907-B	ANTENNA ANGLE ADAPTERS - ASSEMBLY AT P.ROD WITH 1/2" x 3" BOLT W/ LOCKNUTS
72+3	1/4" x 1"		S.S. BOLTS W/ NUTS AND LOCKWASHERS
36+2	100876	100876-A	#011 U-BOLTS W/ LOCKNUTS
18			6" CONDUIT x 1'-6" LONG
(			CAN COLD-GALV. FOR TOUCH UP

END



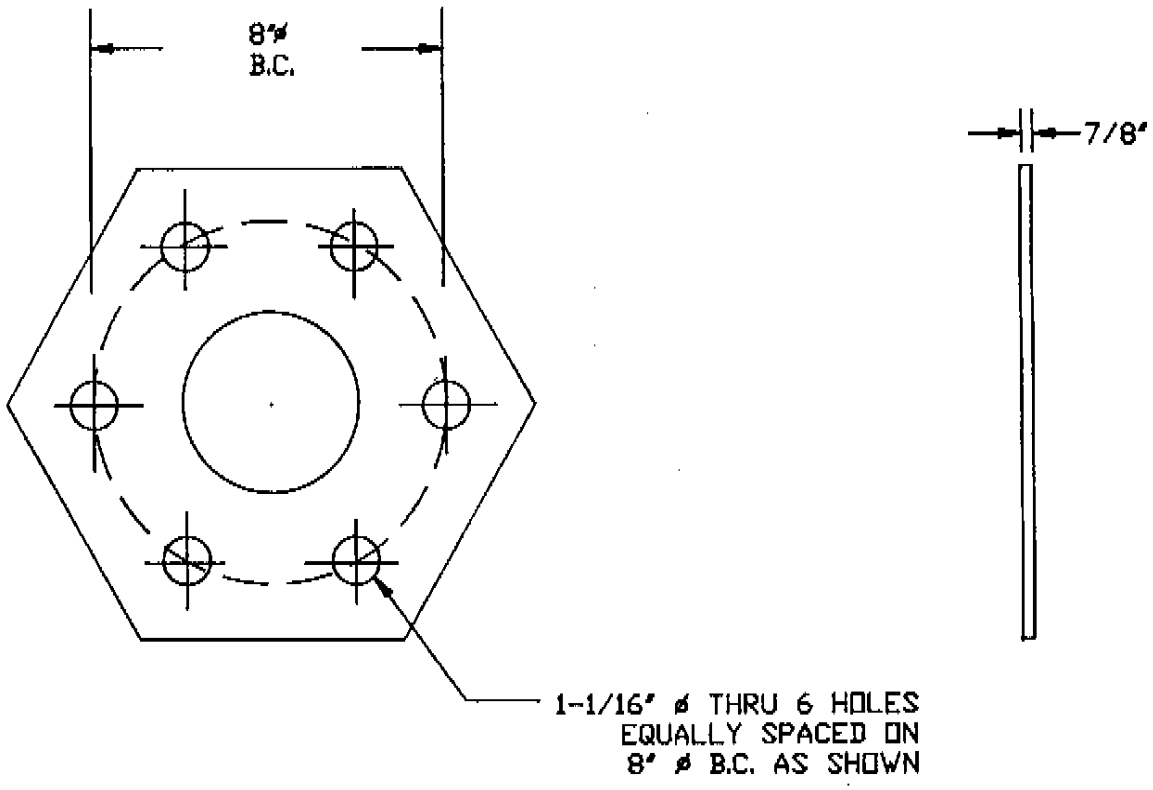
A	B	B PART NO.
8'-0"	0"	
10'-0"	2'-0"	102816
12'-0"	4'-0"	102817
14'-0"	6'-0"	102818
16'-0"	8'-0"	102819
18'-0"	10'-0"	102820
20'-0"	12'-0"	102821
22'-0"	14'-0"	102822
24'-0"	16'-0"	102823
26'-0"	18'-0"	102824
28'-0"	20'-0"	102825 (A1) (A2)
30'-0"	22'-0"	102826

PART NO.

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO.

CHG LET	DESCRIPTION	DATE	BY
A1	WAS 102826 NLA		
A2	WAS 102827 NLA	7/8/85	



MATERIAL:

MAKE FROM 107972 BLANK

CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME ANCHOR PLATE
12 SECTION 1-1/4"ø
& 1-3/4"ø LEGS

PART NO. 107973

APPROVED BY

DR BY ERICHSEN DATE SEPT. 28, 1983

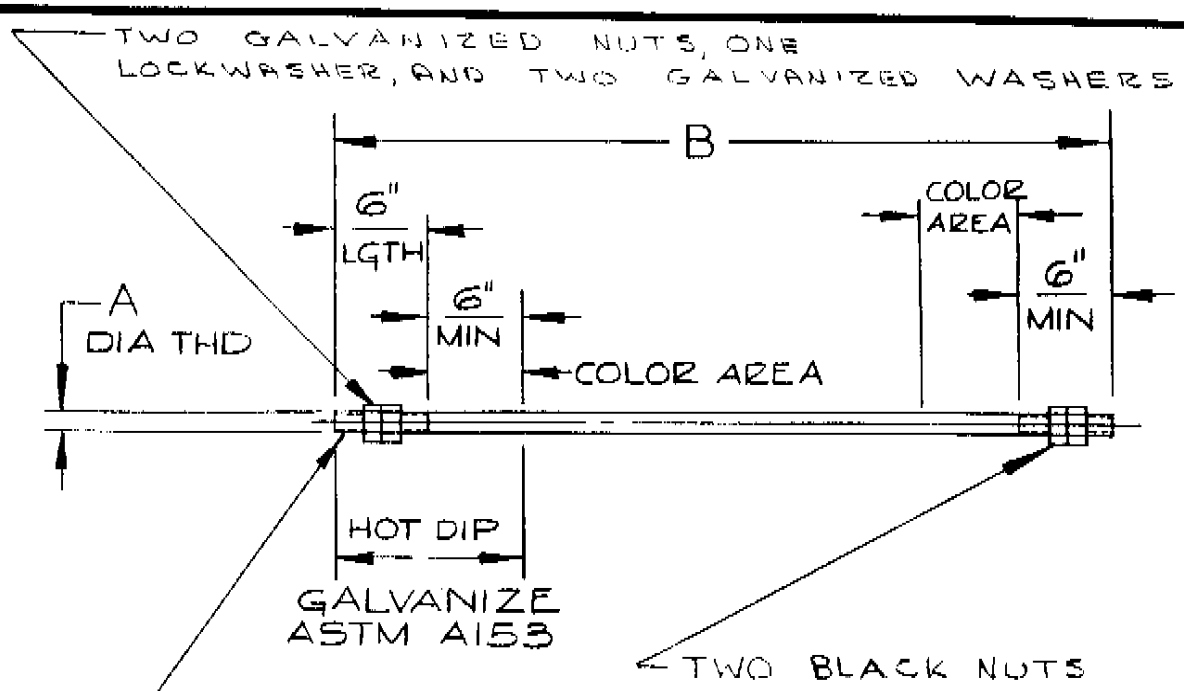
REG. ENGINEER
REG. NO.

SCALE NONE

DWG. NO. 107,973-A

PI-ROD INC.

PLYMOUTH, INDIANA 46563



"A" UNC-2A THD (THDS MAY BE CUT OR ROLLED)

THD SIZE	PART NO.	A	B	CAPACITY	PAINT COLOR
1"-8	103182	1"ϕ	5'-0"	36.3 KIPS	BLACK & GOLD
1 1/4"-7	103183	1 1/4"ϕ	5'-0"	58.1 KIPS	PINK & WHITE
1 1/4"-7	109881	1 1/4"ϕ	6'-8"	58.1 KIPS	PINK & WHITE
1"-8	110986	1"ϕ	3'-6"	36.3 KIPS	BLACK & GOLD
1 1/4"-7	111965	1 1/4"ϕ	3'-6"	58.1 KIPS	PINK & WHITE
5/8-11	112601	5/8"ϕ	3'-0"	13.5 KIPS	RED & WHITE

MATERIAL:
STRESS PROOF BAR (100,000 MIN. YIELD)
(CERTIFICATION REQD.)

CHG LET	DESCRIPTION	DATE
G	ADDED 111965	MGG 10/12/88
F	REVISED NOTES	MGG 2/3/88
E	110986 ADDED	4/16/87 DJR
D	COLORS ADDED	4/4/87 DJR
C	REDRAWN 109881 ADDED	2/23/87 DJR
H	112601 ADDED	1/16/87 DJR

REVISIONS

PART NO.

NAME
ANCHOR BOLT
BREAKDOWN TOWERS

APPROVED BY

DR BY MLA DATE 4/9/82

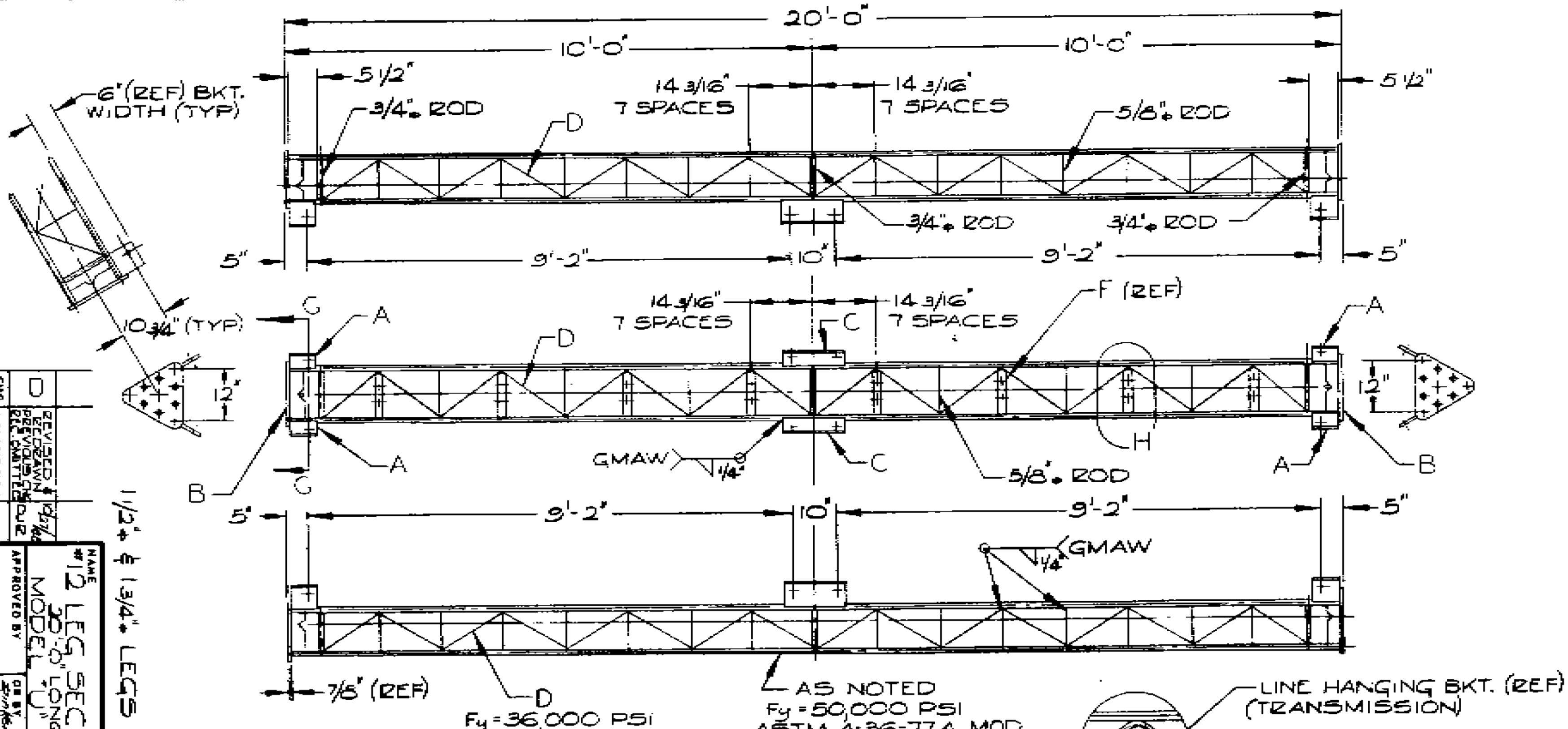
REG. ENGINEER

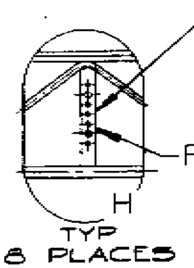
REG. NO.

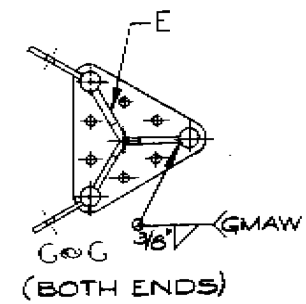
SCALE —

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. 103182-A







NOTES:

1. WELDING WIRE PER AWS A5.18 ER70S-3
2. ALL WELDERS MUST BE QUALIFIED IN ACCORDANCE WITH ASME SECTION IX

1"⌀ BOLTS

SECTION PART NO.	LEG DIA	A PART NO.	B PART NO.	C PART NO	D ROD DIA	E PART NO.	F PART NO.	WEIGHT
105217	1/2"⌀	105223	100843	105229	1/2"⌀	103502	112243	585#
105218	1 3/4"⌀	105224	100843	105230	1/2"⌀	103505	112244	715#

CHG LET	DESCRIPTION	DATE
D	REVISED & REDRAWN PREVIOUS CHG. REF. OMITTED DJR	10/31/86

REVISIONS

1/2"⌀ & 1 3/4"⌀ LEGS

NAME #12 LEG SECTION 20'-0" LONG MODEL "U"

APPROVED BY | DR BY Spinkenberg | DATE 1/11/84

REG. ENGINEER | SCALE 1/2"=1'-0"

REG. NO.

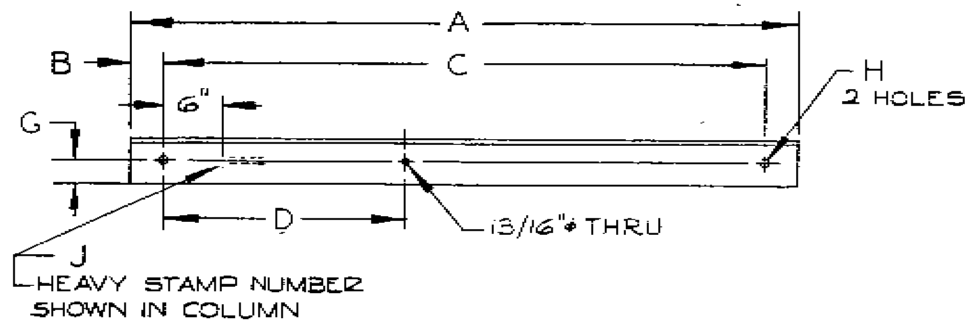
PART NO.

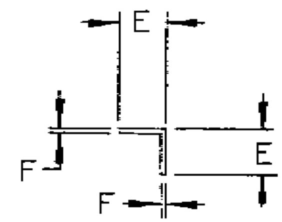
PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. 105217-B

NOTE:
ASSEMBLE BRACE TO TOWER WITH NUMBER END AT TOP

MATERIAL:
A-36 STEEL ANGLE





SECTION NUMBER & LENGTH	BRACE LOCATION	PART NUMBER	A	B	C	D	E	F	G	H	J	WEIGHT
U-6 20'-0"	U-5 UPPER HALF 10'-0"	105898	9'-10 9/16"	2"	9'-6 9/16"	3'-11 19/32"	2½"	3/16"	1 1/8"	1 1/16	105898	30.3#
		105899	9'-10 9/16"	2"	9'-6 9/16"	3'-11 19/32"	3"	3/16"	1½"	1 1/16	105899	36.6#
		105900	9'-10 9/16"	2"	9'-6 9/16"	3'-11 19/32"	3"	5/16"	1½"	1 1/16	105900	60.3#
	U-6 LOWER HALF 10'-0"	105556	10'-2 17/32"	2"	9'-10 17/32"	4'-3 15/16"	2½"	3/16"	1 1/8"	1 1/16	105556	31.3#
		105557	10'-2 17/32"	2"	9'-10 17/32"	4'-3 15/16"	3"	3/16"	1½"	1 1/16	105557	37.9#
		105901	10'-2 17/32"	2"	9'-10 17/32"	4'-3 15/16"	3"	5/16"	1½"	1 1/16	105901	62.3#
U-8 20'-0"	U-7 UPPER HALF 10'-0"	105558	10'-7 9/16"	2"	10'-3 9/16"	4'-7 3/4"	2½"	3/16"	1 1/8"	1 1/16	105558	32.4#
		105559	10'-7 9/16"	2"	10'-3 9/16"	4'-7 3/4"	3"	3/16"	1½"	1 1/16	105559	39.4#
		105560	10'-7 9/16"	2"	10'-3 9/16"	4'-7 3/4"	3"	5/16"	1½"	1 1/16	105560	64.3#
		111017	10'-7 9/16"	2"	10'-3 9/16"	4'-7 3/4"	3½"	5/16"	1½"	1 1/16	111017	76.5#
	U-8 LOWER HALF 10'-0"	105561	11'-1 15/32"	2"	10'-9 15/32"	4'-11 17/32"	2½"	3/16"	1 1/8"	1 1/16	105561	33.9#
		105562	11'-1 15/32"	2"	10'-9 15/32"	4'-11 17/32"	3"	3/16"	1½"	1 1/16	105562	41.3#
		105563	11'-1 15/32"	2"	10'-9 15/32"	4'-11 17/32"	3"	5/16"	1½"	1 1/16	105563	67.3#
		111018	11'-1 15/32"	2"	10'-9 15/32"	4'- 11 17/32"	3½"	5/16"	1½"	1 1/16	111018	80.1#
U-10 20'-0"	U-9 UPPER HALF 10'-0"	105564	11'-8 7/32"	2"	11'-4 7/32"	5'-3 15/32"	2½"	3/16"	1 1/8"	1 1/16	105564	35.6#
		105565	11'-8 7/32"	2"	11'-4 7/32"	5'-3 15/32"	3"	3/16"	1½"	1 1/16	105565	43.4#
		105566	11'-8 7/32"	2"	11'-4 7/32"	5'-3 15/32"	3"	5/16"	1½"	1 1/16	105566	70.8#
		111019	11'-8 7/32"	2"	11'-4 7/32"	5'-3 15/32"	3½"	5/16"	1½"	1 1/16	111019	84.1#
	U-10 LOWER HALF 10'-0"	105567	12'-3 5/8"	2"	11'-11 5/8"	5'-7 9/16"	2½"	3/16"	1 1/8"	1 1/16	105567	37.5#
		105568	12'-3 5/8"	2"	11'-11 5/8"	5'-7 9/16"	3"	3/16"	1½"	1 1/16	105568	45.6#
		105569	12'-3 5/8"	2"	11'-11 5/8"	5'-7 9/16"	3"	5/16"	1½"	1 1/16	105569	74.5#
		111020	12'-3 5/8"	2"	11'-11 5/8"	5'-7 9/16"	3½"	5/16"	1½"	1 1/16	111020	88.6#

REVISIONS: CHG LET A, B, C — DESCRIPTION: REDRAWN; REVISED; ADDED

NAME: BRACE ANGLE MODEL "U"

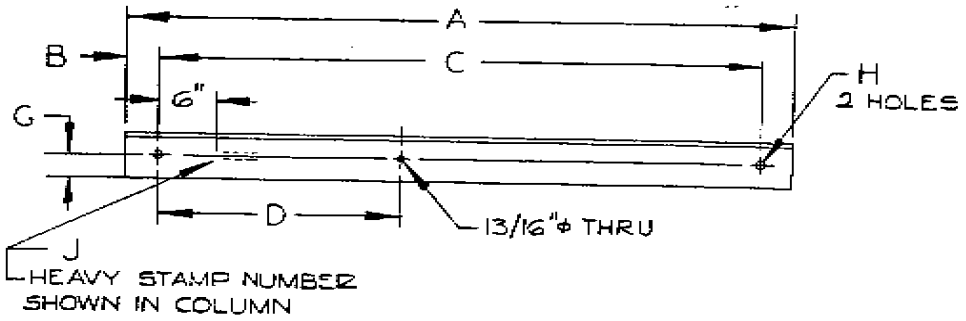
PI-ROD, INC.
PLYMOUTH, INDIANA 46563

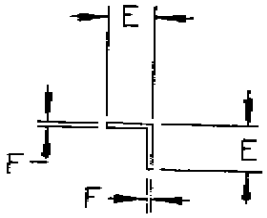
DR BY: CF — DATE: 5/28/84

UNIMG 4D-22 57251

NOTE:
ASSEMBLE BRACE TO TOWER WITH NUMBER END AT TOP

MATERIAL:
A-36 STEEL ANGLE





SECTION NUMBER & LENGTH	BRACE LOCATION	PART NUMBER	A	B	C	D	E	F	G	H	J	WEIGHT
U-12 20'-0"	U-11 UPPER HALF 10'-0"	105570	12'-11 21/32"	2"	12'-7 21/32"	5'-11 27/32"	2½"	3/16"	1 1/8"	1 1/16	105570	39.6#
		105571	12'-11 21/32"	2"	12'-7 21/32"	5'-11 27/32"	3"	3/16"	1 1/4"	1 1/16	105571	47.8#
		105572	12'-11 21/32"	2"	12'-7 21/32"	5'-11 27/32"	3"	5/16"	1 1/4"	1 1/16	105572	78.6#
		111693	12'-11 21/32"	2"	12'-7 21/32"	5'-11 27/32"	3½"	5/16"	1 3/4"	1 1/16	111693	93.4#
	U-12 LOWER HALF 10'-0"	105573	13'-8 5/32"	2"	13'-4 5/32"	6'-4 9/32"	2½"	3/16"	1 1/8"	1 1/16	105573	41.7#
		105574	13'-8 5/32"	2"	13'-4 5/32"	6'-4 9/32"	3"	3/16"	1 1/8"	1 1/16	105574	50.4#
		105575	13'-8 5/32"	2"	13'-4 5/32"	6'-4 9/32"	3"	5/16"	1 1/8"	1 1/16	105575	82.9#
		111694	13'-8 5/32"	2"	13'-4 5/32"	6'-4 9/32"	3½"	5/16"	1 3/4"	1 1/16	111694	98.5#
U-14 20'-0"	U-13 UPPER HALF 10'-0"	105576	14'-5 3/32"	2"	14'-1 3/32"	6'-8 15/16"	3"	3/16"	1 1/4"	1 1/16	105576	53.5#
		105577	14'-5 3/32"	2"	14'-1 3/32"	6'-8 15/16"	3"	5/16"	1 1/4"	1 1/16	105577	88.0#
		105578	14'-5 3/32"	2"	14'-1 3/32"	6'-8 15/16"	3½"	5/16"	1 3/4"	1 1/16	105578	103.8#
	U-14 LOWER HALF 10'-0"	105579	15'-2 3/8"	2"	14'-10 3/8"	7'-1 11/16"	3"	3/16"	1 1/4"	1 1/16	105579	56.4#
		105580	15'-2 3/8"	2"	14'-10 3/8"	7'-1 11/16"	3"	5/16"	1 1/4"	1 1/16	105580	92.7#
		105581	15'-2 3/8"	2"	14'-10 3/8"	7'-1 11/16"	3½"	5/16"	1 3/4"	1 1/16	105581	109.4#
U-16 20'-0"	U-15 UPPER HALF 10'-0"	105582	15'-11 31/32"	2"	15'-7 31/32"	7'-6 19/32"	3"	3/16"	1 1/4"	1 1/16	105582	59.0#
		105583	15'-11 31/32"	2"	15'-7 31/32"	7'-6 19/32"	3"	5/16"	1 1/4"	1 1/16	105583	97.1#
		105584	15'-11 31/32"	2"	15'-7 31/32"	7'-6 19/32"	4"	1/4"	2"	1 1/16	105584	105.0#
		105585	15'-11 31/32"	2"	15'-7 31/32"	7'-6 19/32"	4"	3/8"	2"	1 1/16	105585	156.0#
		105586	15'-11 31/32"	2"	15'-7 31/32"	7'-6 19/32"	3½"	5/16"	1 3/4"	1 1/16	105586	115.2#
	U-16 LOWER HALF 10'-0"	105587	16'-9 27/32"	2"	16'-5 27/32"	7'-11 5/8"	3"	3/16"	1 1/4"	1 1/16	105587	62.1#
		105588	16'-9 27/32"	2"	16'-5 27/32"	7'-11 5/8"	3"	5/16"	1 1/4"	1 1/16	105588	102.1#
		105589	16'-9 27/32"	2"	16'-5 27/32"	7'-11 5/8"	4"	1/4"	2"	1 1/16	105589	111.0#
		105590	16'-9 27/32"	2"	16'-5 27/32"	7'-11 5/8"	4"	3/8"	2"	1 1/16	105590	164.8#
		105591	16'-9 27/32"	2"	16'-5 27/32"	7'-11 5/8"	3½"	5/16"	1 3/4"	1 1/16	105591	121.1#

CHG LET	DESCRIPTION	DATE
B	P/N 105570 THRU 105591 ADDED	11/16/84
A	REVISED & REDRAWN	5/18/84 C.E.

REG ENGINEER | APPROVED BY | DR BY CF | DATE 3/20/84 | SCALE

NAME BRACE ANGLE MODEL "U"

PART NO.

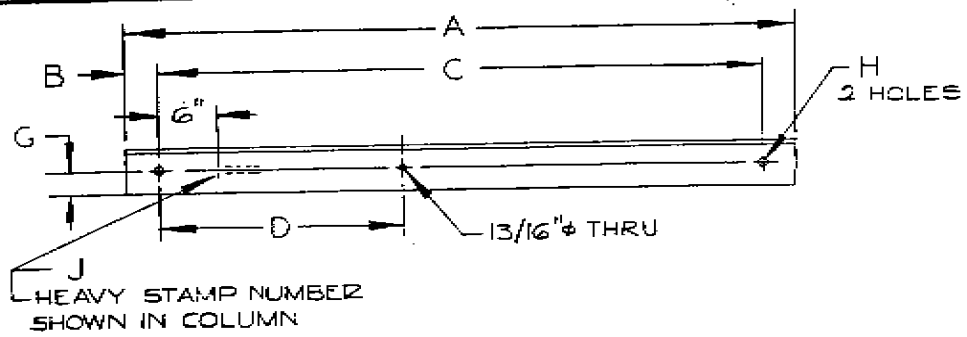
PWE NO.

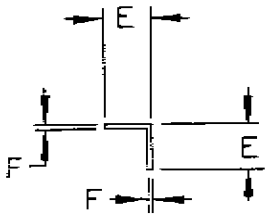
PI-ROD, INC.
PLYMOUTH, INDIANA 46563

ING 40-22 57251

NOTE:
ASSEMBLE BRACE TO TOWER WITH NUMBER END AT TOP

MATERIAL:
A-36 STEEL ANGLE





SECTION NUMBER & LENGTH	BRACE LOCATION	PART NUMBER	A	B	C	D	E	F	G	H	J	WEIGHT
U-18 20'-0"	U-17 UPPER HALF 10'-0"	105592	17'-7 29/32"	2"	17'-3 29/32"	8'-4 23/32"	4"	1/4"	2"	1 1/16	105592	116.5#
		105593	17'-7 29/32"	2"	17'-3 29/32"	8'-4 23/32"	4"	3/8"	2"	1 1/16	105592	173.0#
		105594									105594	
	U-18 LOWER HALF 10'-0"	105595	18'-6 3/16"	2"	18'-2 3/16"	8'-9 29/32"	4"	1/4"	2"	1 1/16	105595	122.2#
		105596	18'-6 3/16"	2"	18'-2 3/16"	8'-9 29/32"	4"	3/8"	2"	1 1/16	105596	181.4#
		105597									105597	

CHG LET	DESCRIPTION	DATE
A	REVISED & REDRAWN	3/24/[illegible]

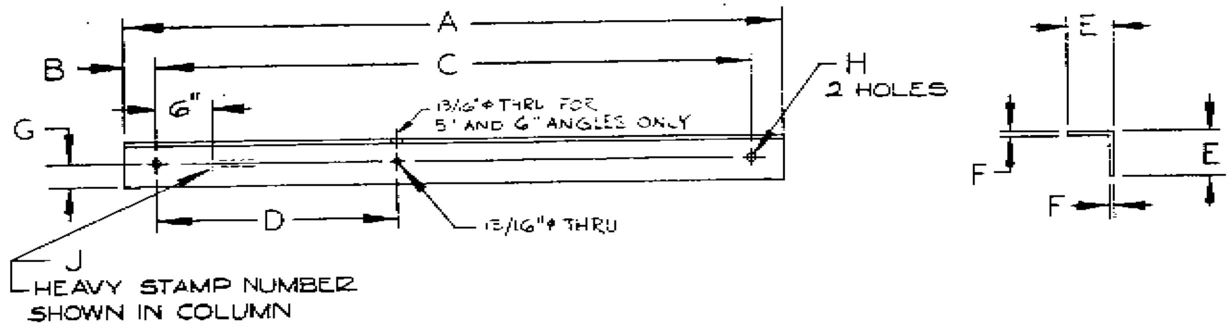
NAME: BRACE ANGLE MODEL "U"
APPROVED BY
REG. ENGINEER
DR BY CF
DATE 3/24/[illegible]
SCALE
DWG. NO. [illegible]
PART NO.

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

UNING 40-22 57251

NOTE:
ASSEMBLE BRACE TO TOWER WITH NUMBER END AT TOP

MATERIAL:
A-36 STEEL ANGLE



SECTION NUMBER & LENGTH	BRACE LOCATION	PART NUMBER	A	B	C	D	E	F	G	H	J	WEIGHT
U-20 20'-0"	U-19 UPPER HALF 10'-0"	105598	19'-3 1/32"	2 1/2	18'-10 1/32"	9'-1 7/8"	3 1/2"	5/16"	3/4"	1 5/16"	105595	138.6#
		105599	19'-3 1/32"	2 1/2	18'-10 1/32"	9'-1 7/8"	4"	1/2"	2"	1 5/16"	105599	127.0#
		105600	19'-3 1/32"	2 1/2	18'-10 1/32"	9'-1 7/8"	4"	3/8"	2"	1 5/16"	105600	188.6#
		106217	19'-3 1/32"	2 1/2"	18'-10 1/32"	9'-1 7/8"	5"	3/8"	2 1/2"	1 5/16"	106217	236.8#
	U-20 LOWER HALF 10'-0"	105601	20'-1 19/32"	2 1/2	19'-8 19/32"	9'-7 3/16"	3 1/2"	5/16	1 3/4"	1 5/16"	105601	145.2#
		105602	20'-1 19/32"	2 1/2	19'-8 19/32"	9'-7 3/16"	4"	1/4"	2"	1 5/16"	105602	133.1#
		105603	20'-1 19/32"	2 1/2	19'-8 19/32"	9'-7 3/16"	4"	3/8"	2"	1 5/16"	105603	197.6#
		106218	20'-1 19/32"	2 1/2"	19'-8 19/32"	9'-7 3/16"	5"	3/8"	2 1/2"	1 5/16"	106218	247.6#
U-22 20'-0"	U-21 UPPER HALF 10'-0"	105604	21'-0 9/32"	2 1/2	20'-7 9/32"	10'-0 9/16"	4"	1/4"	2"	1 5/16"	105604	138.6#
		105605	21'-0 9/32"	2 1/2	20'-7 9/32"	10'-0 9/16"	4	3/8"	2"	1 5/16"	105605	205.8#
		105606	21'-0 9/32"	2 1/2	20'-7 9/32"	10'-0 9/16"	5"	3/8"	2 1/2"	1 5/16"	105606	258.3#
	U-22 LOWER HALF 10'-0"	105607	21'-11 3/32"	2 1/2	21'-6 3/32"	10'-6"	4"	1/4"	2"	1 5/16"	105607	144.6#
		105608	21'-11 3/32"	2 1/2	21'-6 3/32"	10'-6"	4"	3/8"	2"	1 5/16"	105608	214.8#
		105609	21'-11 3/32"	2 1/2	21'-6 3/32"	10'-6"	5"	3/8"	2 1/2"	1 5/16"	105609	259.6#
U-24 20'-0"	U-23 UPPER HALF 10'-0"	105610	22'-10"	2 1/2	22'-5"	10'-11 15/32"	4"	3/8"	2"	1 5/16"	105610	223.8#
		105611	22'-10"	2 1/2	22'-5"	10'-11 15/32"	5"	3/8"	2 1/2"	1 5/16"	105611	280.8#
		105612	MOVED TO DRAWING #106135-B									
		113422	22'-10"	2 1/2"	22'-5"	10'-11 15/32"	4"	1/4"	2"	1 5/16"	113422	150.7#
	U-24 LOWER HALF 10'-0"	105613	23'-9"	2 1/2	23'-4"	11'-5"	4"	3/8"	2"	1 5/16"	105613	232.7#
		105614	23'-9"	2 1/2	23'-4	11'-5"	5"	3/8	2 1/2"	1 5/16"	105614	292.1#
		105615	MOVED TO DRAWING #106135-B									
		113423	23'-9"	2 1/2"	23'-4"	11'-5"	4"	1/4"	2"	1 5/16"	113423	156.8#

CHG LET	DESCRIPTION	DATE
B	P/N'S 106217 & 106218	6/19/84 DJE
A	REVISED & REDRAWN	7/96

REVISIONS

NAME: BRACE ANGLE MODEL "U"

APPROVED BY: | DR BY: K.R.B. | DATE: 5/29/84

REG. ENGINEER | SCALE

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

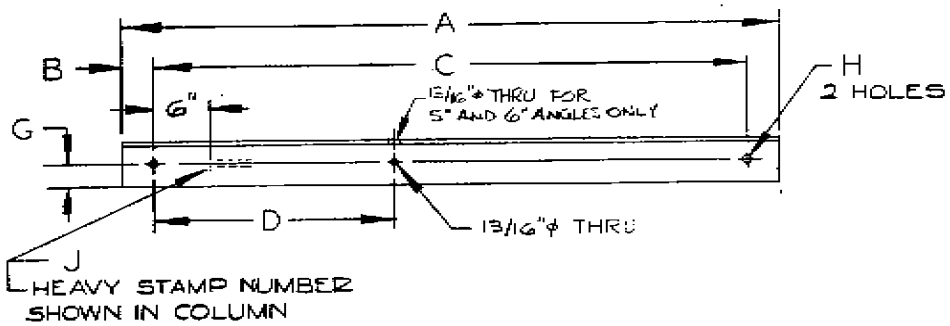
PART NO.

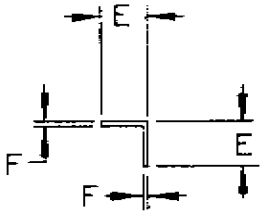
DWG. NO. 105556-R

340-22 57251

OTE:
SSEMBLE BRACE TO TOWER
/ITH NUMBER END AT TOP

ATERIAL:
-36 STEEL ANGLE





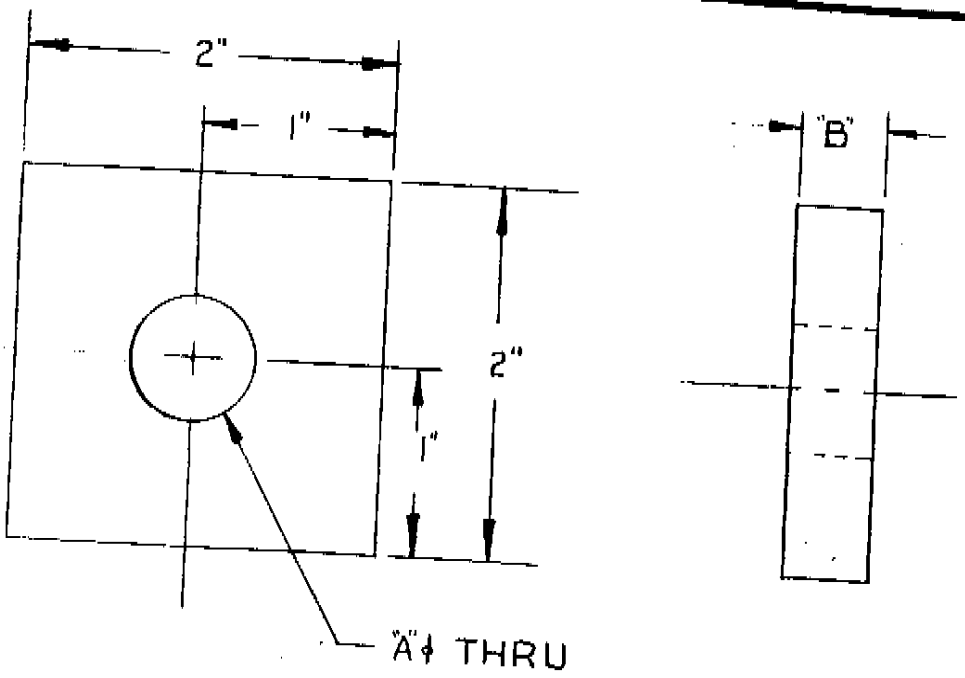
SECTION NUMBER & LENGTH	BRACE LOCATION	PART NUMBER	A	B	C	D	E	F	G	H	J	WEIGHT
U-26 20'-0"	U-25 UPPER HALF 10'-0"	105616	24'-8 1/16"	2 1/2"	24'-3 1/16"	11'-10 9/16"	5"	3/8"	2 1/2"	1 5/16"	105616	303.4#
		105617	MOVED TO DRAWING # 106135-B									
		106919	24'-8 1/16"	2 1/2"	24'-3 1/16"	11'-10 5/16"	4"	3/8"	2"	1 5/16"	106919	241.5#
	U-26 LOWER HALF 10'-0"	105618	25'-7 7/32"	2 1/2"	25'-2 7/32"	12'-4 5/32"	5"	3/8"	2 1/2"	1 5/16"	105618	314.7#
		105619	MOVED TO DRAWING # 106135-B									
		106920	25'-7 7/32"	2 1/2"	25'-2 7/32"	12'-4 5/32"	4"	3/8"	2 1/2"	1 5/16"	106920	251.0#
U-28 20'-0"	U-27 UPPER HALF 10'-0"	105620	26'-6 13/32"	2 1/2"	26'-1 13/32"	12'-9 25/32"	5"	3/8"	2 1/2	1 5/16"	105620	325.9#
		105621	MOVED TO DRAWING # 106135-B									
		105622	26'-6 13/32"	2 1/2"	26'-1 13/32"	12'-9 25/32"	6"	1/2"	3	1 5/16"	105622	519.4#
	U-28 LOWER HALF 10'-0"	105623	27'-5 11/16"	2 1/2"	27'-0 11/16"	13'-3 13/32"	5"	3/8"	2 1/2	1 5/16"	105623	337.7#
		105624	MOVED TO DRAWING # 106135-B									
		105625	27'-5 11/16"	2 1/2"	27'-0 11/16"	13'-3 13/32"	6"	1/2"	3	1 5/16"	105625	538.2#
U-30 20'-0"	U-29 UPPER HALF 10'-0"	105626	28'-5"	2 1/2"	28'-0"	13'-9 5/32"	6"	3/8"	3	1 5/16"	105626	423.4#
		105627	28'-5"	2 1/2"	28'-0"	13'-9 5/32"	6"	1/2"	3	1 5/16"	105627	557.0#
		106921	28'-5"	2 1/2"	28'-0"	13'-9 3/32"	5"	3/8"	2 1/2	1 5/16"	106921	349.5#
	U-30 LOWER HALF 10'-0"	105628	29'-4 3/8"	2 1/2"	28'-11 3/8"	14'-2 25/32"	6"	3/8"	3	1 5/16"	105628	437.5#
		105629	29'-4 3/8"	2 1/2"	28'-11 3/8"	14'-2 25/32"	6"	1/2"	3	1 5/16"	105629	575.5#
		106922	29'-4 3/8"	2 1/2"	28'-11 3/8"	14'-2 25/32"	5"	3/8"	2 1/2	1 5/16"	106922	361.1#

CHG	DESCRIPTION	DATE	BY
B	106919 106920 106922 ADDED		
A	REVISED & REDRAWN	4/24/84	DJB

NAME BRACE ANGLE
MODEL "U"
APPROVED BY
DR BY DATE 4-13-84

PART NO.

PI-ROD, INC.
PLYMOUTH, INDIANA 46563



MATERIAL:
2" x 2" x ½" BAR (STEEL)

PART NO.	"A" DIM.	"B" DIM.	LOCATION "B" SERIES	LOCATION "M" SERIES
104291	13/16" ϕ	½" (B)	SECT 13-1 THRU 15-2	
104292	15/16" ϕ	½"	SECT 16-1 THRU 18-2	SECT 9-1 THRU 11-2
104293	1 1/16" ϕ	½"	SECT 19-1 THRU 22-2	SECT 12-1 THRU 15-2
104294	1 3/16" ϕ	½"	SECT 23	SECT 16-1 THRU 18-2
104295	1 5/16" ϕ	½"		SECT 19-1 THRU 20-2
104347	11/16" ϕ	1"	MH SERIES	

CHG LET	DESCRIPTION	DATE
B	104291 WAS 3/8"	MAC 6/8/83
A	104347 WAS ALL	2/3/83

NAME: SPACERS BRACE ANGLE

APPROVED BY

DR BY MEC

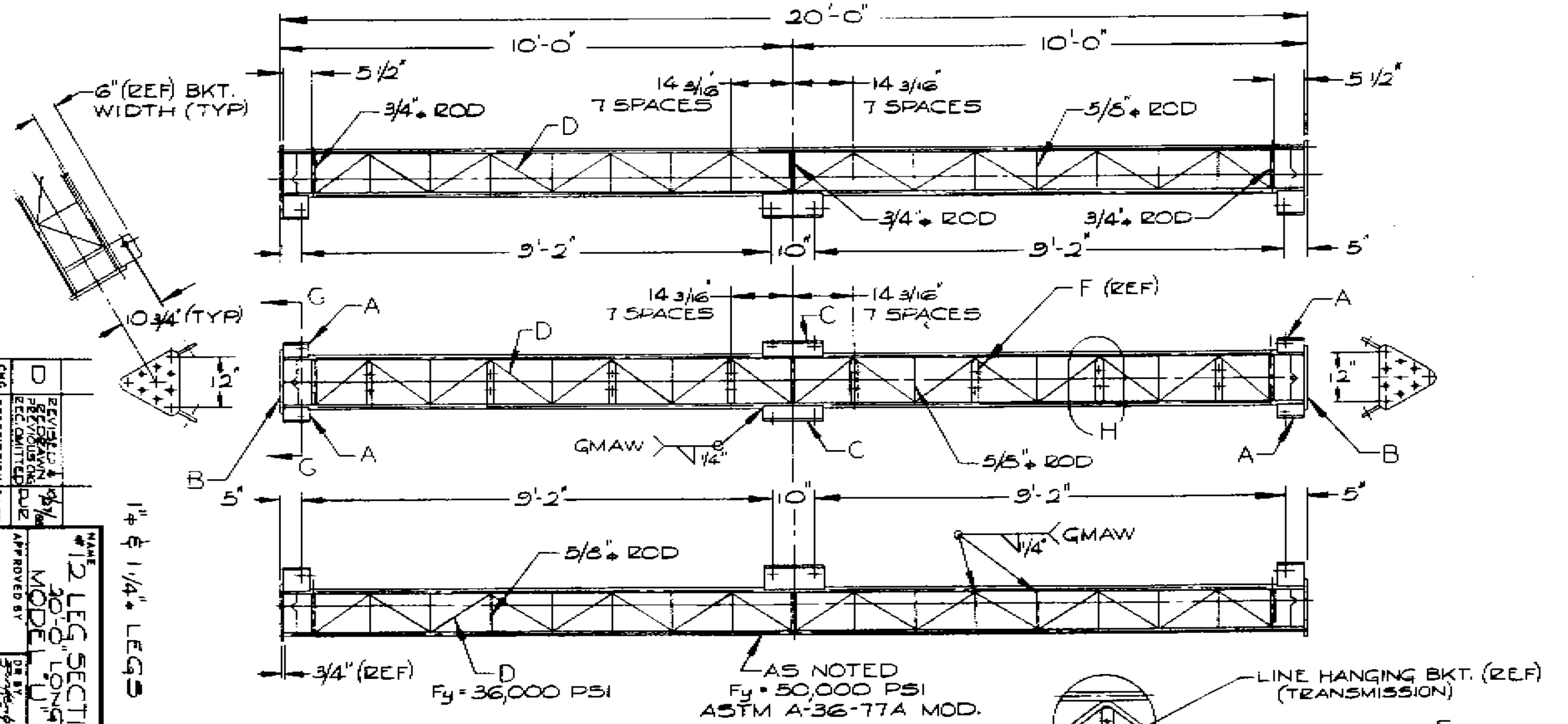
DATE 1/31/83

REG. ENGINEER

PART NO.

PI-ROD, INC.

PLYMOUTH, INDIANA 46563



NOTES:

① WELDING WIRE PER AWS A5.18 ER70S-3

② ALL WELDERS MUST BE QUALIFIED IN ACCORDANCE WITH ASME SECTION IX

SECTION PART NO.	LEG DIA	A PART NO.	B PART NO.	C PART NO.	D ROD DIA	E P/N	F PART NO.	WEIGHT
105215	1"⌀	105221	102188	105227	1/2"⌀	105897	112241	375#
105216	1 1/4"⌀	105222	102188	105228	1/2"⌀	103501	112242	465#

CHG LET	DESCRIPTION	DATE
D	REVISED & REDRAWN PREVIOUS CKG ECC OMITTED DUE	9/27/88

REVISIONS

NAME: #12 LEG SECTION 20'-0" LONG MODEL "U"

APPROVED BY

DR BY / DATE: 1/12/82

REG. ENGINEER

REG. NO.

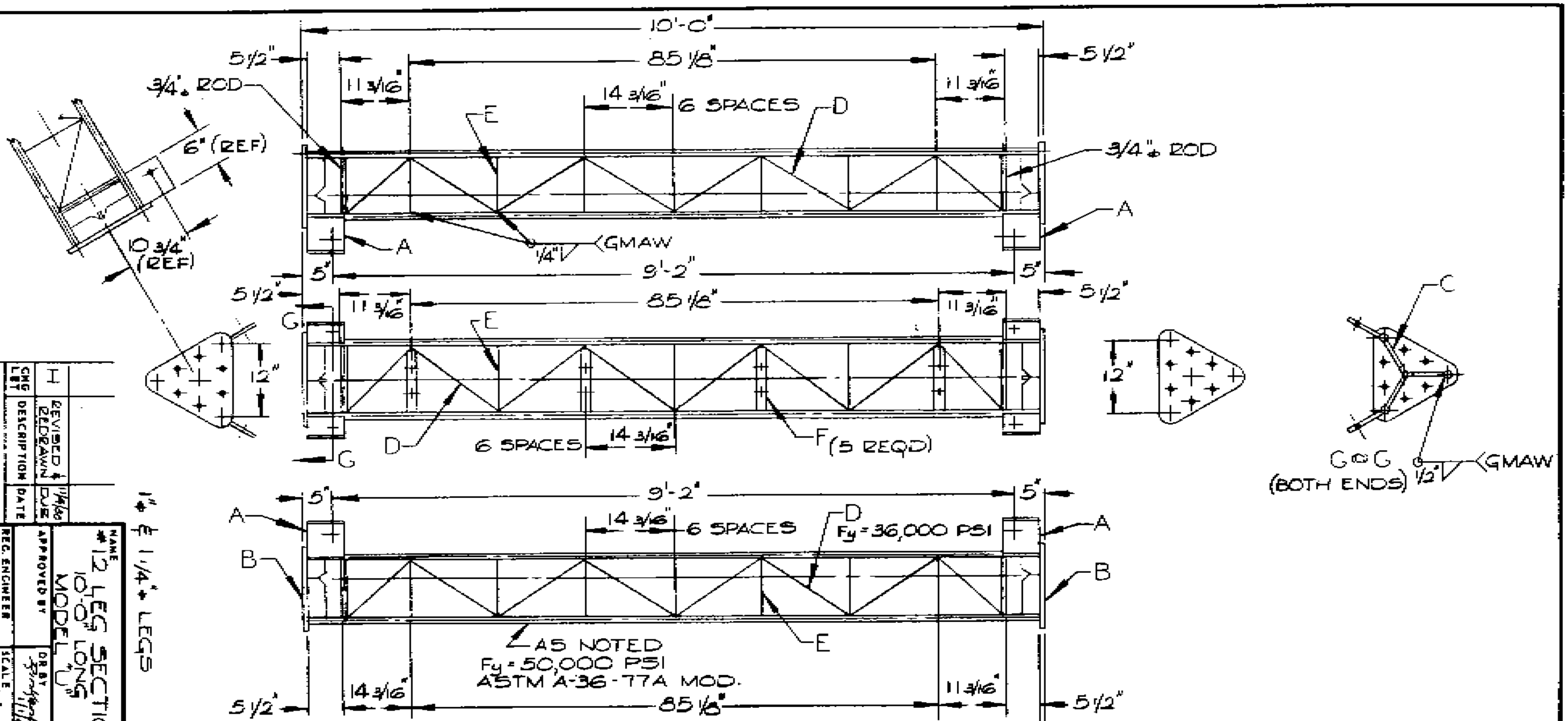
SCALE: 1/2" = 1'-0"

PART NO

PI-ROD, INC.

PLYMOUTH, INDIANA 46563

DWG NO 105215-B



NOTES:

1. WELDING WIRE PER AWS A5.18 ER70S-3
2. ALL WELDERS MUST BE QUALIFIED IN ACCORDANCE WITH ASME SECTION IX

SECTION PART NO.	LEG DIA	A PART NO.	B PART NO.	C PART NO.	D ROD DIA	E ROD⌀	F PART NO.	WEIGHT
105243	1"⌀	105221	102188	105897	1/2"⌀	5/8"⌀	112241	215#
105244	1 1/4"⌀	105222	102188	103501	1/2"⌀	5/8"⌀	112242	260#
105245	1 1/2"⌀	105223	100843	103502	1/2"⌀	5/8"⌀	112243	315#
105246	1 3/4"⌀	105224	100843	103503	1/2"⌀	5/8"⌀	112244	380#

REVISIONS

CHG LET	DESCRIPTION	DATE
H	REVISED & REDRAWN	11/4/80 DJE

1"⌀ & 1 1/4"⌀ LEGS

NAME #12 LEG SECTION 10'-0" LONG MODEL "U"

APPROVED BY

DR BY / DATE 11/1/63

REG. ENGINEER

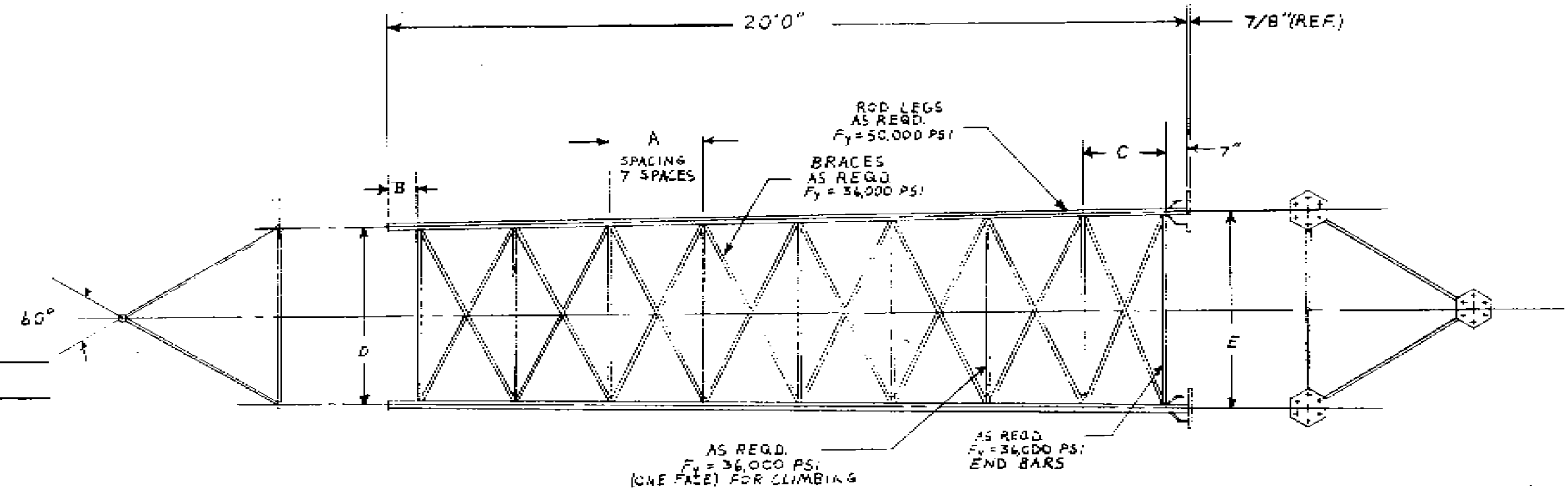
SCALE 3/4"=1'-0"

REG. NO.

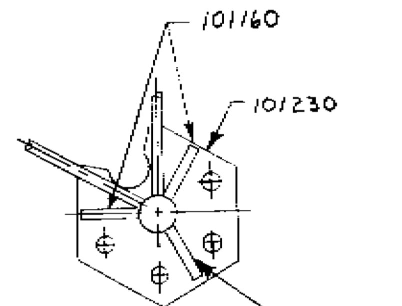
PART NO

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO 105243-B



PART NUMBER	BOTTOM WIDTH	LEGS ϕ	BRACES	LADDERS	END BARS	A	B	C	D	E	WEIGHT
107733	5.0'	2"ϕ	7/8"ϕ	3/4"ϕ	7/8"ϕ	28 7/8"	9"	25"	54"	60"	1350#
107734	6.0'	2 1/4"ϕ	1"ϕ	7/8"ϕ	1"ϕ	28 1/8"	11 1/2"	24 5/8"	66"	72"	1800#
107735	7.0'	2 1/2"ϕ	1 1/8"ϕ	1 1/8"ϕ	1 1/4"ϕ	28"	12"	24 3/8"	78"	84"	2620#
109079	7.0'	3"ϕ	1 1/4"ϕ	1 1/8"ϕ	1 1/4"ϕ	23 3/8"	14"	26 1/8"	78"	84"	3391#



FOOT PAD AND
GUSSETS (TYP.)
3 REQD.

CHG LET	DESCRIPTION	DATE
A	ADDED P/N 109079	11/18/86

REVISIONS

NAME: TRANSITION FROM KNOCKDOWN TO FABRICATED SECTION

APPROVED BY

DR BY: RPK DATE: 7/30/85

REG. ENGINEER

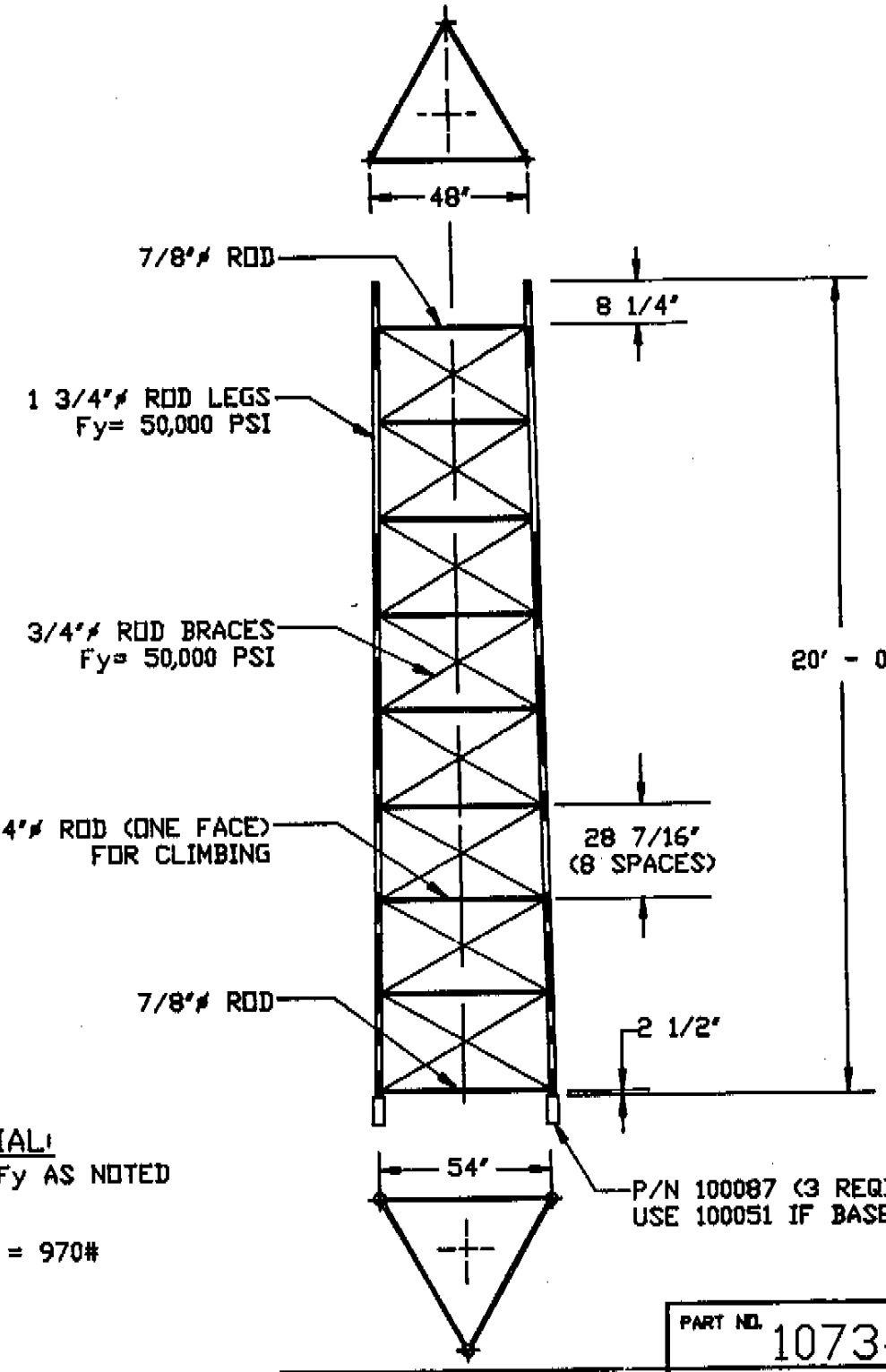
REG. NO.

SCALE: —

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

PART NO.

DWG. NO. 107733-B



MATERIAL:
STEEL, Fy AS NOTED

WEIGHT = 970#

A	REDRAWN	MBG 6/4/86
CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME: H-4.5 SECTION

APPROVED BY | DR BY MBG DATE 6/4/86

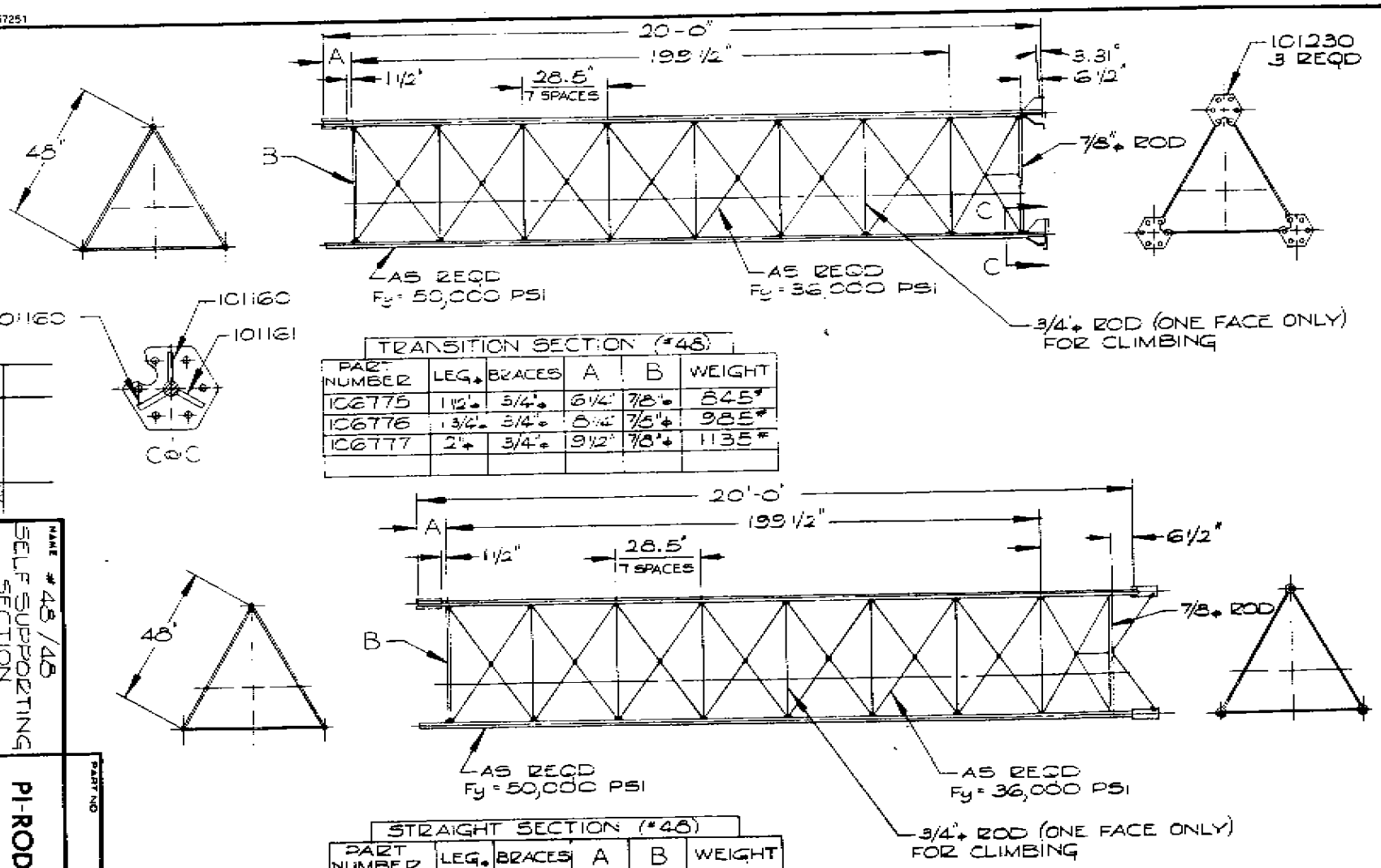
REG. ENGINEER REG. NO. | SCALE 1/4" = 12"

PART NO. 107345

PI-ROD INC.
PLYMOUTH, INDIANA 46563

DWG. NO. 107345-A

BRUNING 40-22 57251



TRANSITION SECTION (#48)

PART NUMBER	LEGø	BRACESø	A	B	WEIGHT
106775	1 1/2"ø	3/4"ø	6 1/4"	7/8"ø	845#
106776	1 3/4"ø	3/4"ø	6 1/4"	7/8"ø	985#
106777	2"ø	3/4"ø	9 1/2"	7/8"ø	1135#

STRAIGHT SECTION (#48)

PART NUMBER	LEGø	BRACESø	A	B	WEIGHT
106778	1 1/2"ø	3/4"ø	6 1/4"	7/8"ø	775#
106779	1 3/4"ø	3/4"ø	6 1/4"	7/8"ø	920#
106780	2"ø	3/4"ø	9 1/2"	7/8"ø	1115#

REVISIONS

CHG LET	DESCRIPTION	DATE
A	REVISED	7/[illegible]

NAME #48/48 SELF SUPPORTING SECTION

APPROVED BY

DRN BY [illegible] DATE [illegible]

REG. ENGINEER

REG. NO.

SCALE 3/8" = 1'-0"

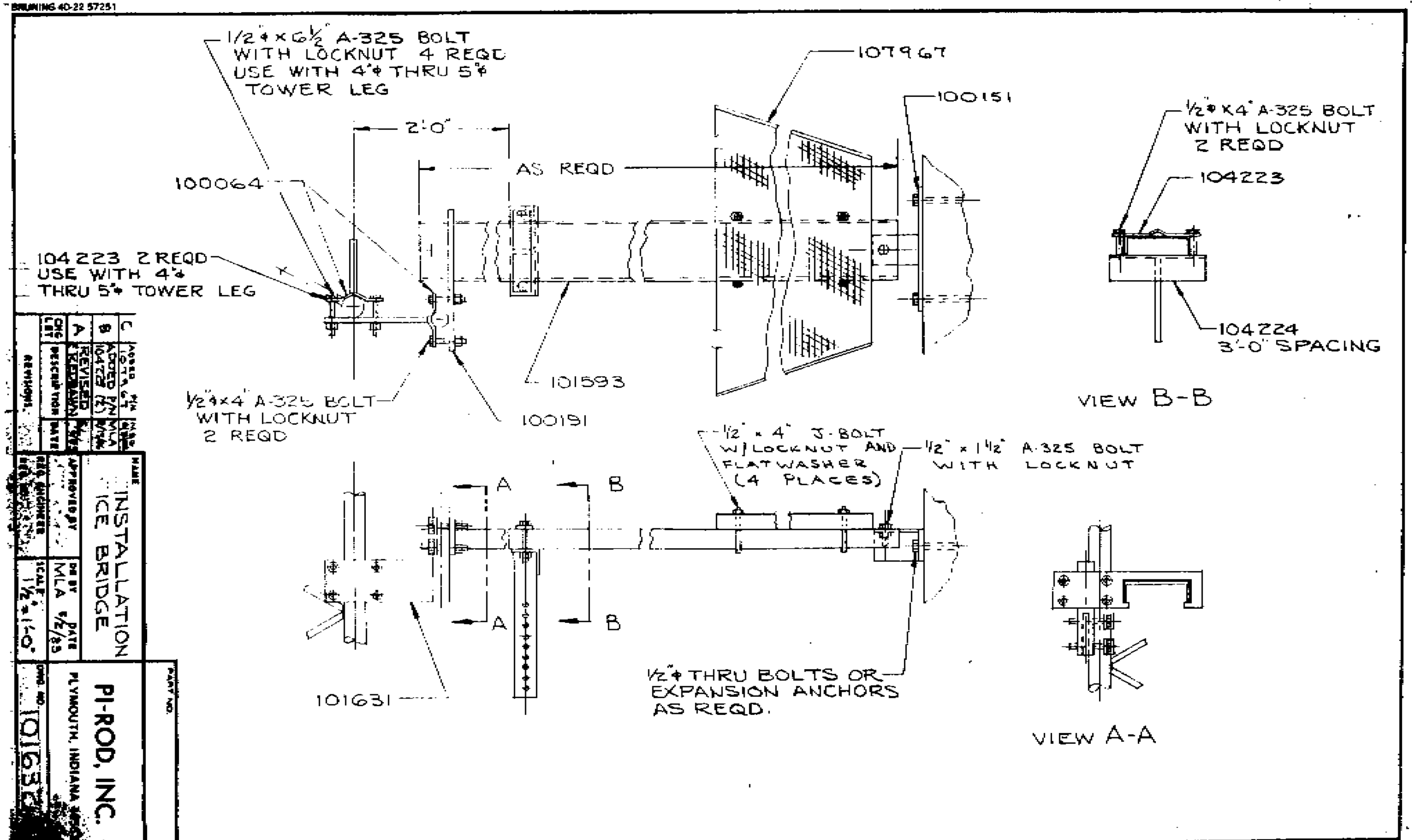
PART NO

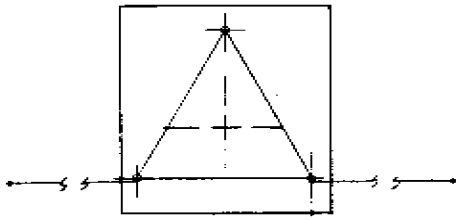
DWG. NO. 106775-B

PI-ROD, INC.

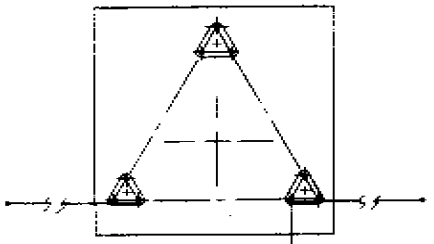
PLYMOUTH, INDIANA 46563

BRUNING 40-22 57251

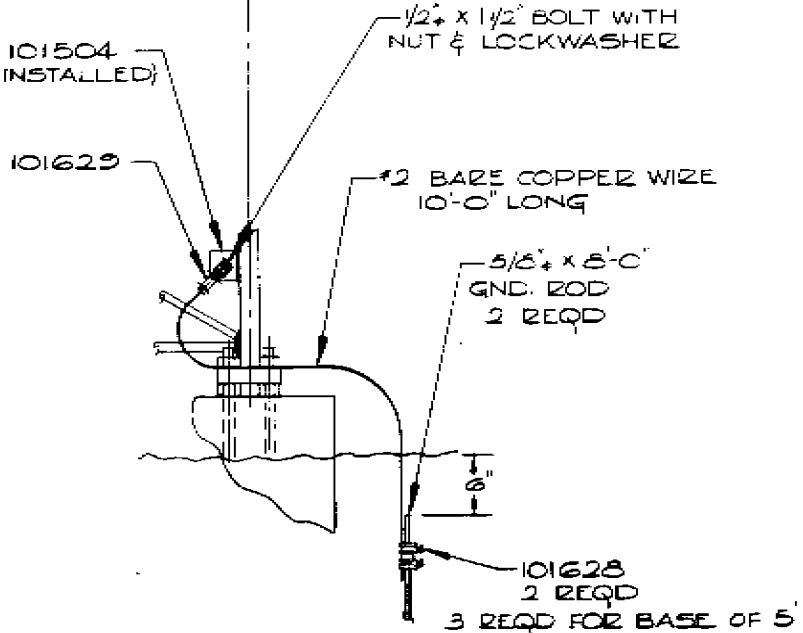


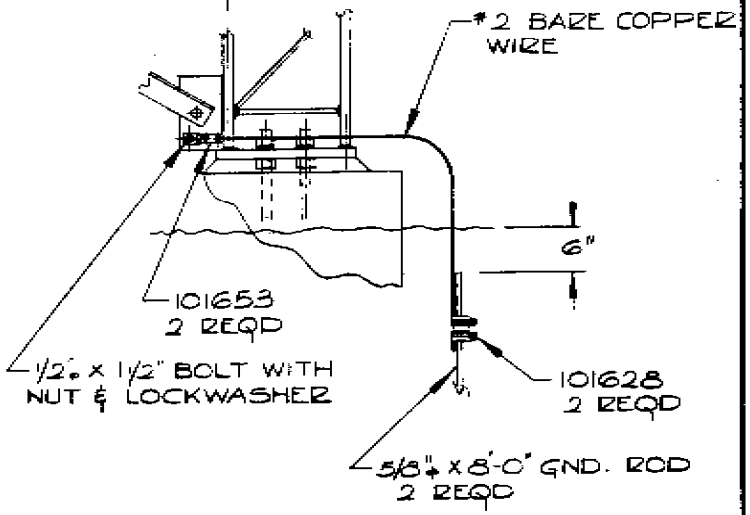


STANDARD SECTION DESIGN



BREAKDOWN LEG DESIGN





REVISIONS				
CHG LET	DESCRIPTION	DATE		
B	REDRAWN WAS A SIZE	DJB		

NAME E.I.A. GROUNDING SYSTEM FOR SELF SUPPORTING TOWERS

APPROVED BY

DR BY

DATE

REG. ENGINEER

REG. NO.

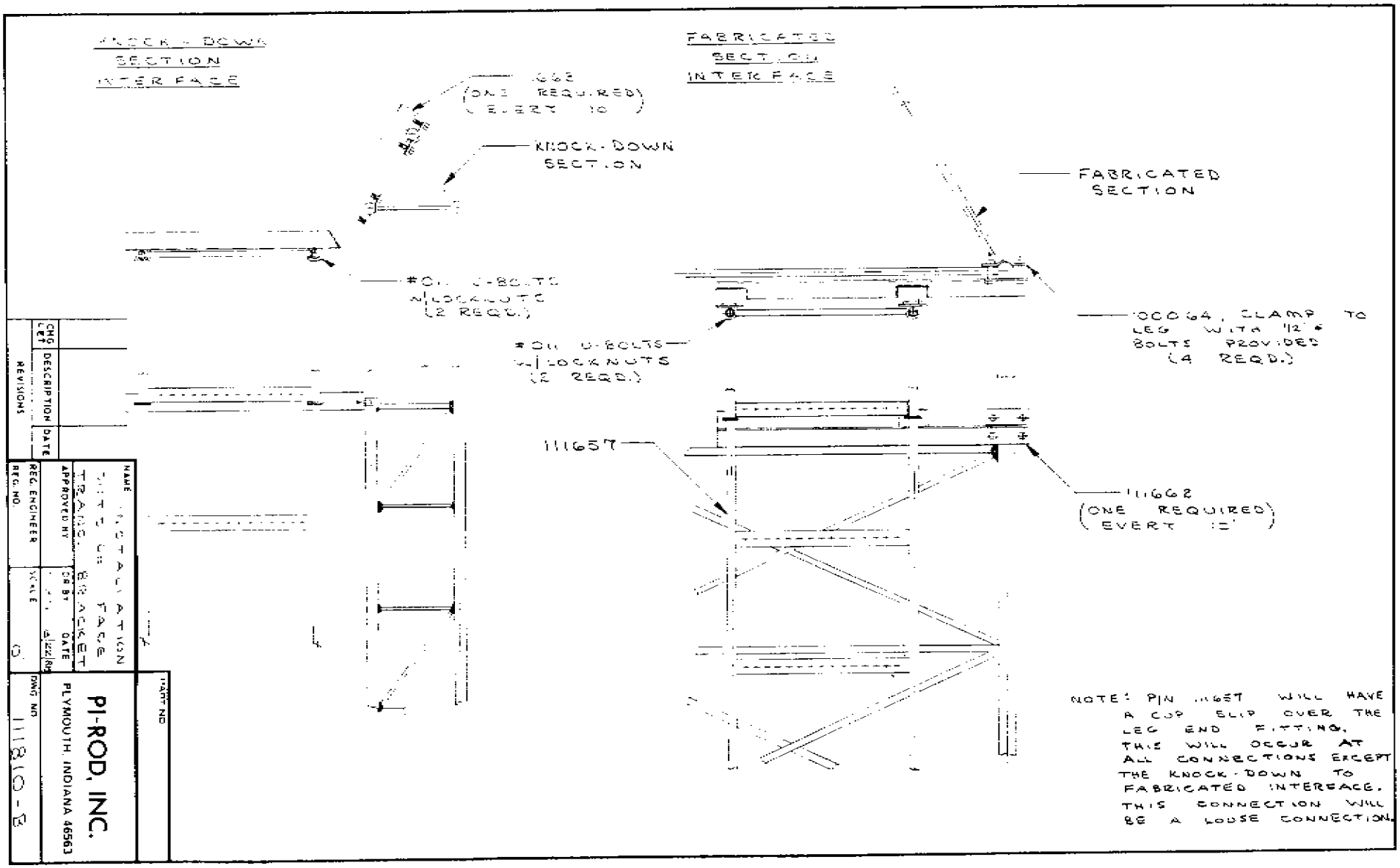
SCALE

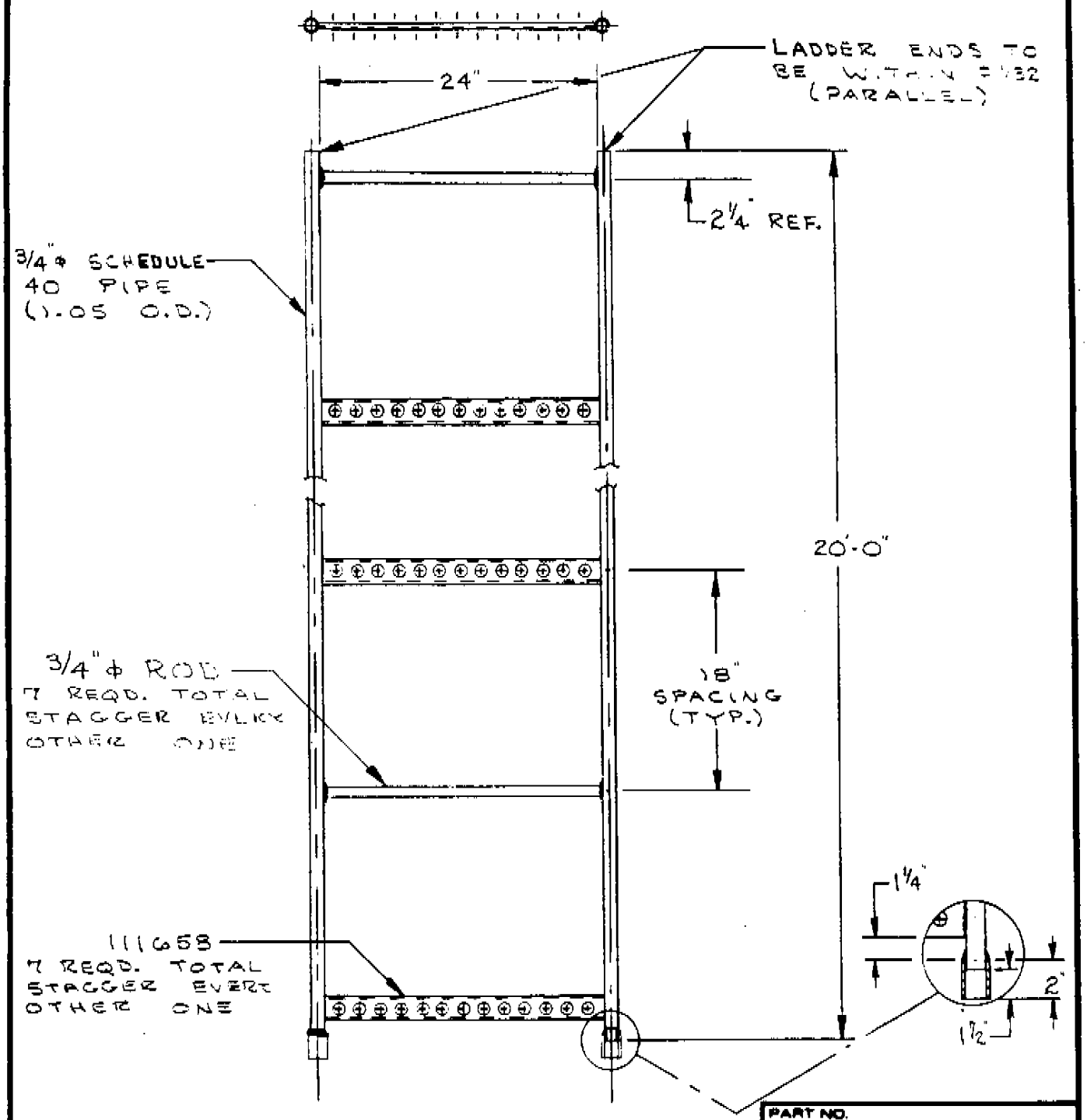
DWG NO 101650-B

PART NO

PI-ROD, INC.

PLYMOUTH, INDIANA 46563


KNOCK-DOWN SECTION INTERFACE
FABRICATED SECTION INTERFACE
(ONE REQUIRED) (EVERY 10')
KNOCK-DOWN SECTION
FABRICATED SECTION
#011 U-BOLTS W/LOCKNUTS (2 REQD.)
#011 U-BOLTS W/LOCKNUTS (2 REQD.)
111657
111662 (ONE REQUIRED EVERY 10')
OCO64, CLAMP TO LEG WITH 1/2" BOLTS PROVIDED (4 REQD.)
NOTE: P/N 111657 WILL HAVE A CUP SLIP OVER THE LEG END FITTING. THIS WILL OCCUR AT ALL CONNECTIONS EXCEPT THE KNOCK-DOWN TO FABRICATED INTERFACE. THIS CONNECTION WILL BE A LOOSE CONNECTION.
CHG LET
DESCRIPTION
DATE
REVISIONS
NAME
INSTALLATION
UNIT TO FACE
TRANS. BRACKET
APPROVED BY
DRAWN BY
DATE
REG. ENGINEER
REG. NO.
SCALE
DWG NO
111810-B
PART NO
PI-ROD, INC.
PLYMOUTH, INDIANA 46563



WEIGHT = 87 #

CHG LET	DESCRIPTION	DATE
REVISIONS		

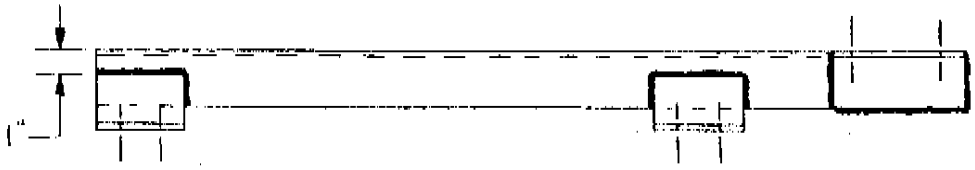
NAME OUTSIDE FACE LADDER TYPE TRANS. BRACKET (SNAP)

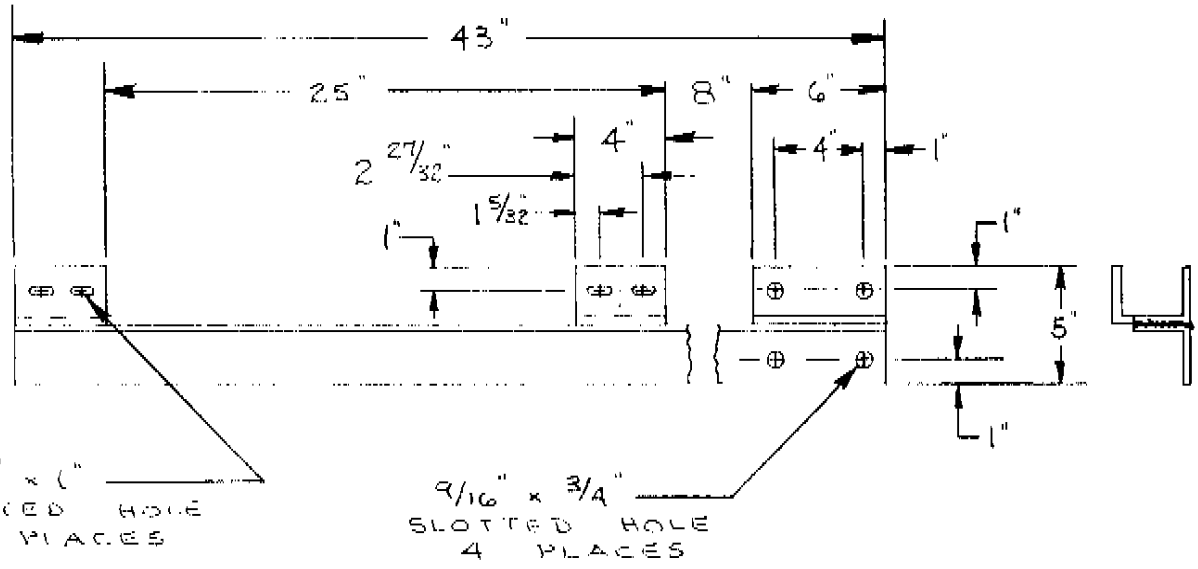
PART NO. 112692

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

APPROVED BY	DR BY	DATE
	MBG	2/2/89
REG. ENGINEER	SCALE	
REG. NO.	¼	

DWG. NO. 112692-A

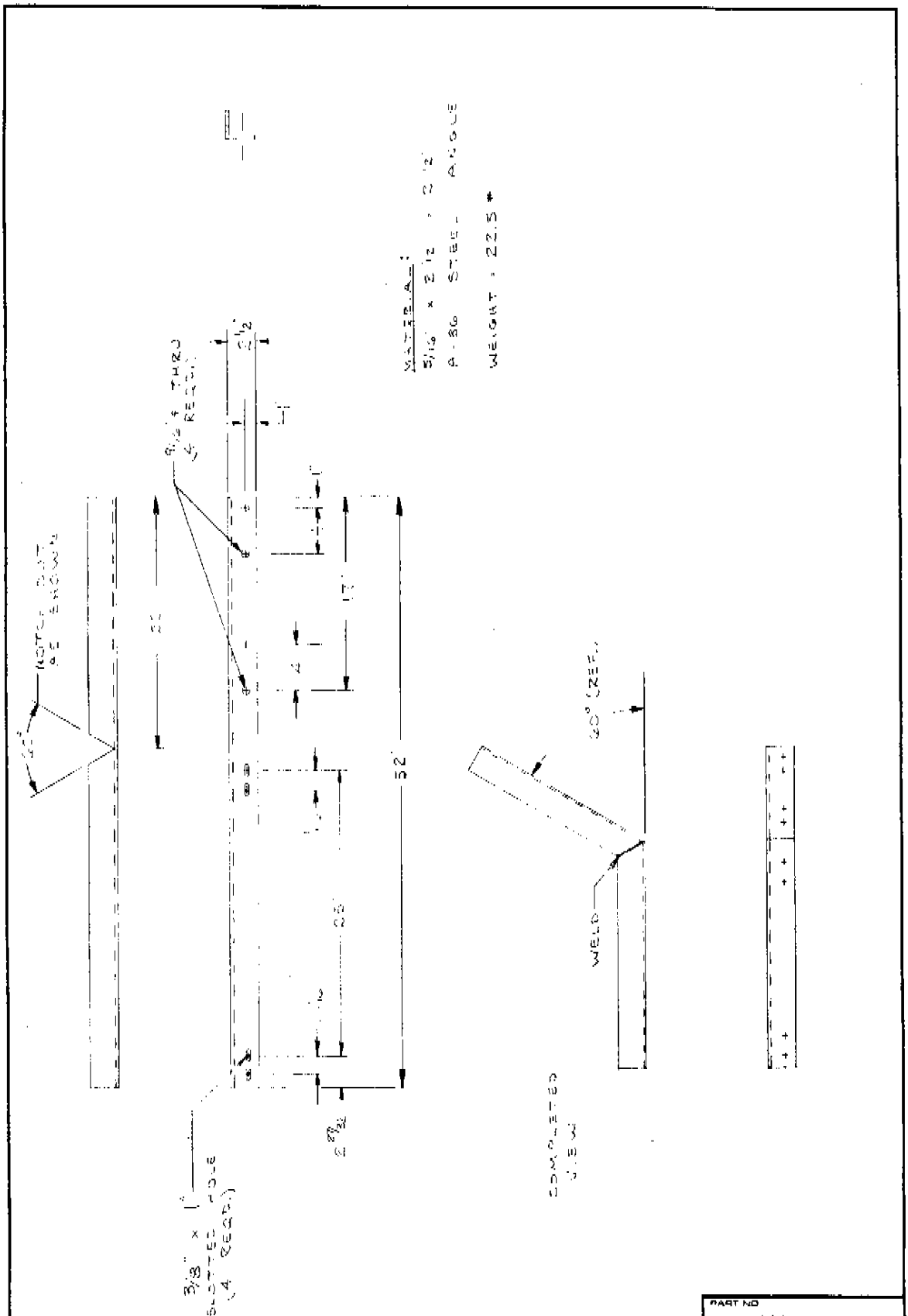




MATERIAL:
5/16" x 2 1/2" x 2 1/2"
A 36 STEEL ANGLE

WEIGHT = 24 #

			PART NO. 111662
		NAME CLAMP ON TRANS. LINE BRACKET (FAB. SECT.)	PI-ROD, INC. PLYMOUTH, INDIANA 46563
		APPROVED BY	DR BY MBG DATE 7/19/88
CHG LET	DESCRIPTION	DATE	
	REVISIONS	REG. ENGINEER	SCALE 1 1/2" = 1'-0"
		REG. NO.	DWG. NO. 111662-A



CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME CLAMP ON TRANS. LINE BRACKET (KNOCK DOWN)

APPROVED BY | DR BY MBC | DATE 7/19/88

REG. ENGINEER | REG. NO.

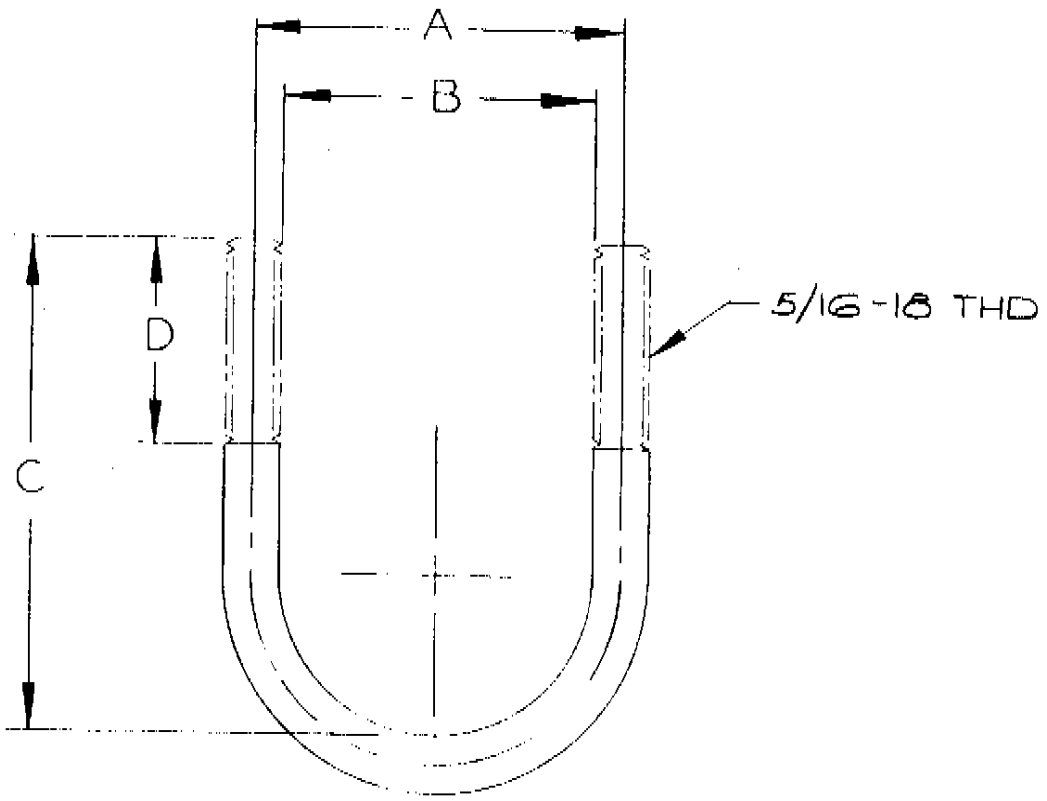
SCALE 1" = 1'-0"

PART NO 111668

PI-ROD, INC.

PLYMOUTH, INDIANA 46563

DWG. NO 111668-B



MATERIAL: STAINLESS STEEL TYPE 304

PART NUMBER	A	B	C"	D	CHICAGO HDW. CO. THEIR P/N
100876	1 11/16"	1 3/8"	2 3/16	1"	011
100878	2 1/16"	1 3/4"	2 11/16"	1 1/8"	013
101862	1 11/16"	1 3/8"	3 5/8"	2"	011L
105883	2 1/16"	1 3/4"	4 1/2"	2"	013L

CHG LET	DESCRIPTION	DATE
C	ADDED TYPE 304 TO S.S. MATERIAL	1/13/83 MLA
B	MATL. WAS GALVANIZED	2/2/88 DJR
A	REDRAWN 100878 101862 105883 ADDED	3/24/84 DJR

REVISIONS

NAME: U-BOLT

APPROVED BY

DR BY: Schenberg DATE: 4/27/82

REG. ENGINEER

REG. NO.

SCALE

PART NO.

PI-ROD, INC.

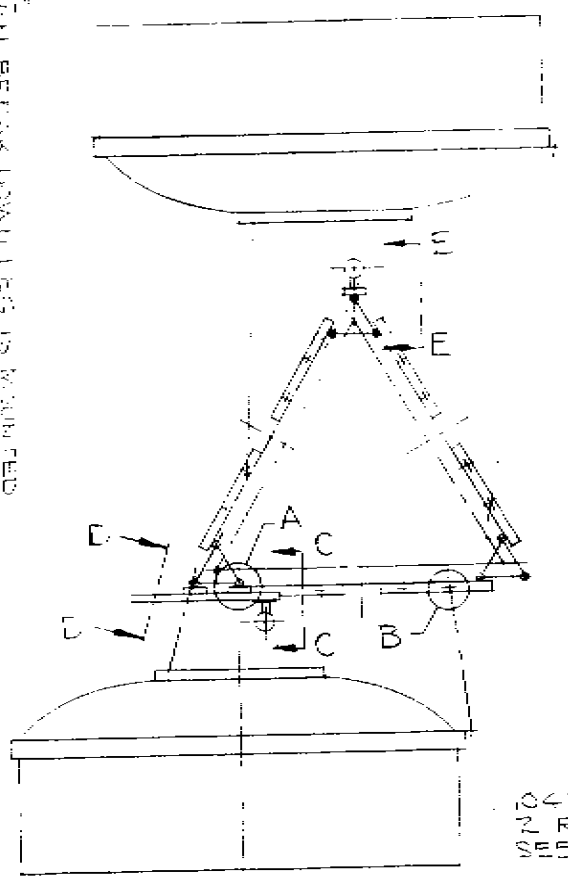
PLYMOUTH, INDIANA 46563

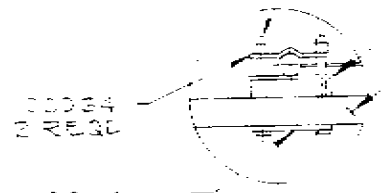
DWG. NO. 100876-A

BRUNING 40-22 57251

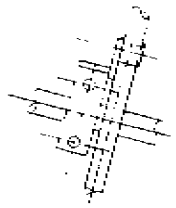
RUNING 40-22 57251

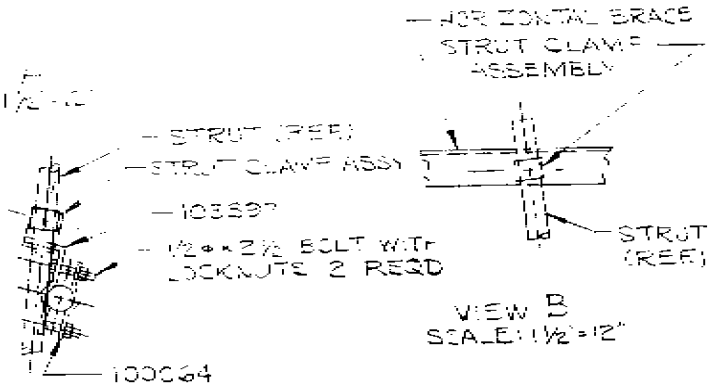
NOTE
1. WHEN BREAK-DOWN LEG IS MOUNTED TRUE VERTICAL, STRAIGHT LEG IS NOT NEEDED





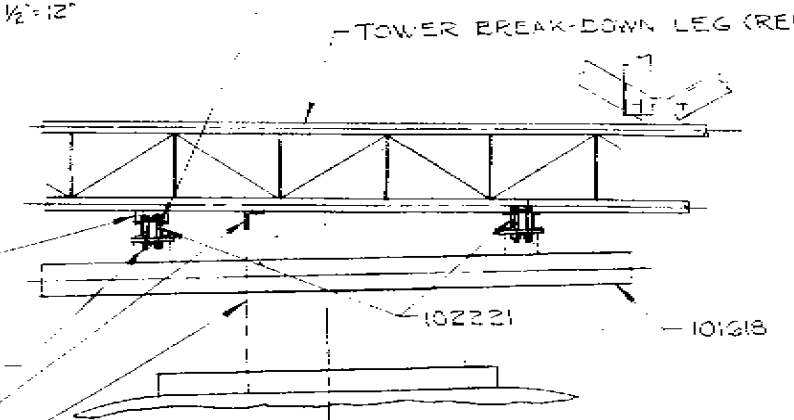
VIEW A
SCALE: 1½"=12"





VIEW B
SCALE: 1½"=12"

VIEW D-D
SCALE: 1½"=12"



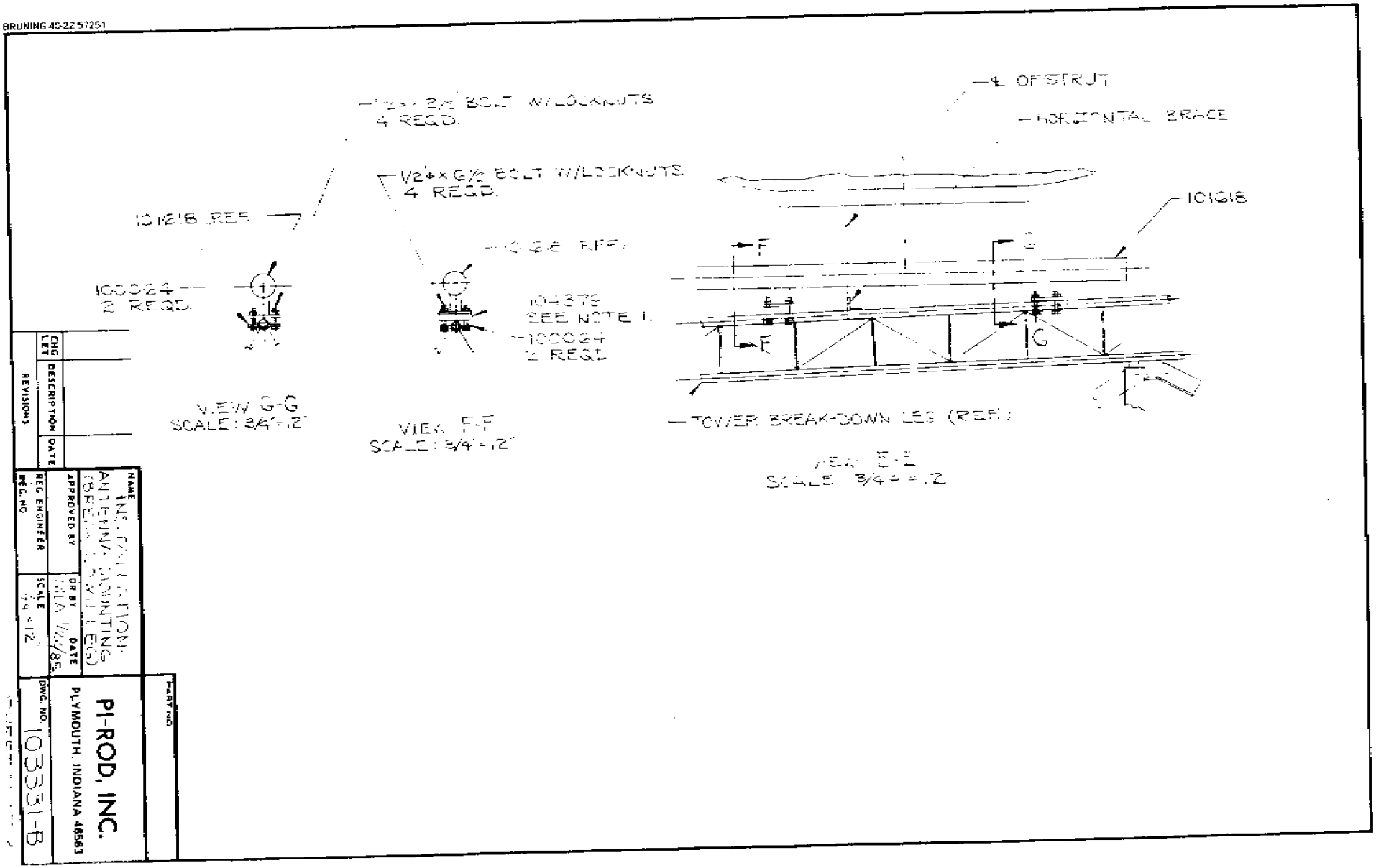
VIEW C-C
SCALE: 3/4"=12"

REVISIONS			
CHG LET	DESCRIPTION	DATE	
A	PER (REDRAWN ALL VIEWS & SHTS)	1/22/85	

NAME: INSTALLATION, ANTENNA MOUNTING (BREAK-DOWN LEG)
APPROVED BY
REG. ENGINEER
REG. NO
DR BY: MLA DATE: 1/22/85
SCALE: 3/4" = 12"
DWG. NO: 103331-B
PART NO

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

BRUNING 40-22 57251



REVISIONS			
CHG LET	DESCRIPTION	DATE	

NAME INSTALLATION ANTENNA MOUNTING (BEFORE PAINTING)

APPROVED BY

DR BY [illegible] DATE [illegible]

REG ENGINEER

REG. NO

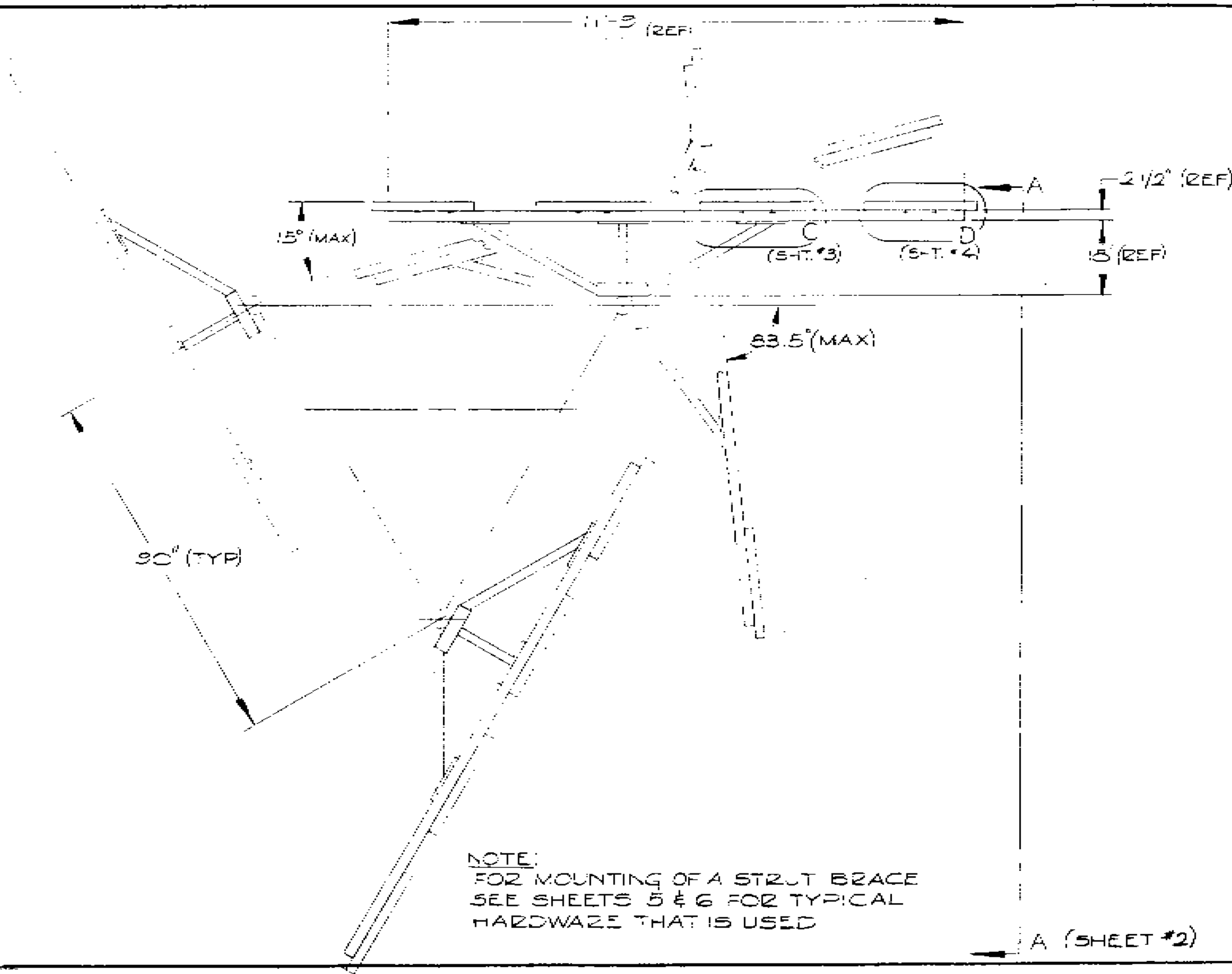
SCALE 3/4"=1'2"

PI-ROD, INC.

PLYMOUTH, INDIANA 46563

DWG. NO. 103331-B

PART NO



CHG LET	DESCRIPTION	DATE
A	REVISED TO 6 SHT. DRAWING	10/17/88 DJR

REVISIONS

NAME: INSTALLATION CELLULAR ANTENNA TO KID-90 SECTION

APPROVED BY:

DR BY / DATE: 10/10/88

REG. ENGINEER

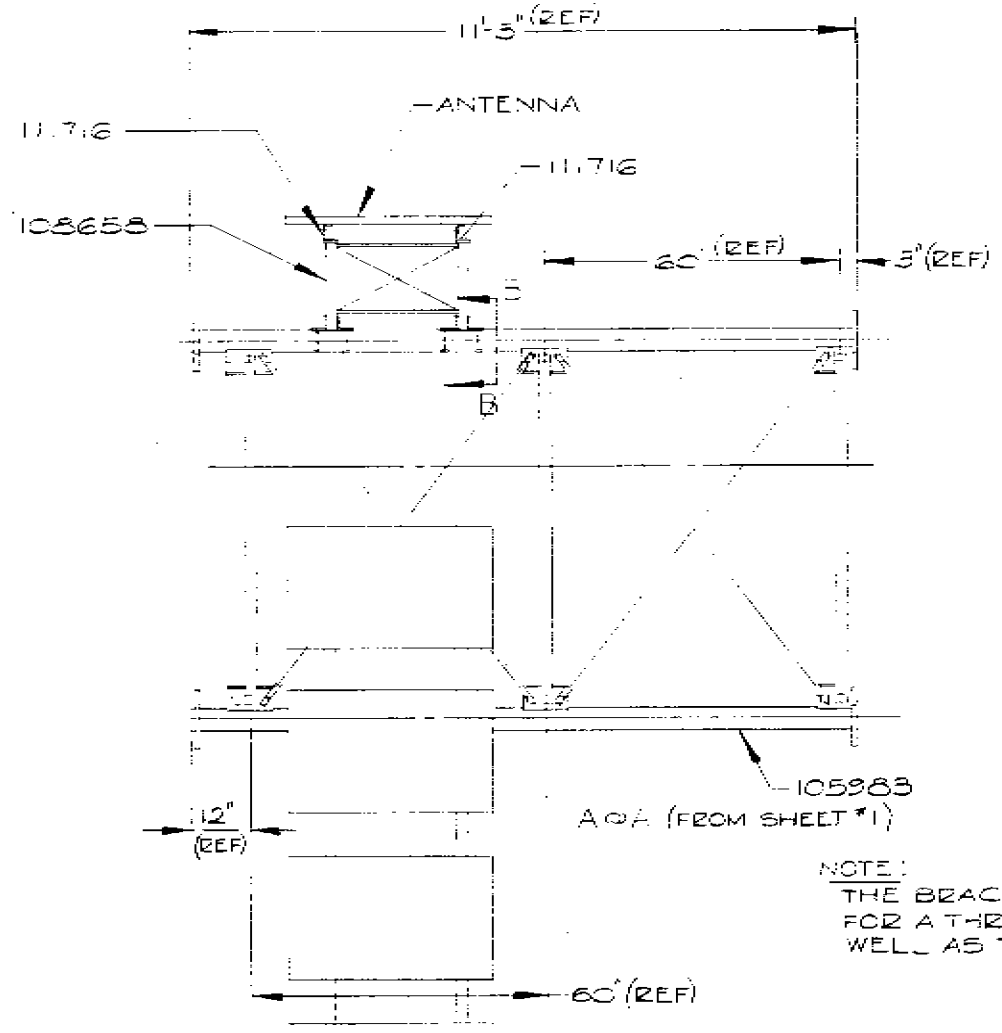
REG NO

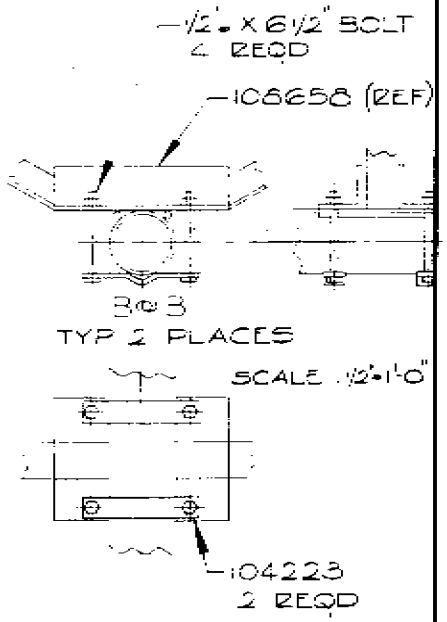
SCALE: 1/2" = 1'-0"

PART NO

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. 10863-B





NOTE:
THE BRACKET P/N 11716 IS DESIGNED FOR A THREE ANTENNA SYSTEM AS WELL AS THE FOUR ANTENNA SHOWN

REVISIONS			CHG LET
DESCRIPTION	DATE		

NAME INSTALLATION CELLULAR ANTENNA

APPROVED BY

DRAWN BY DATE 5/16/88

REG. ENGINEER

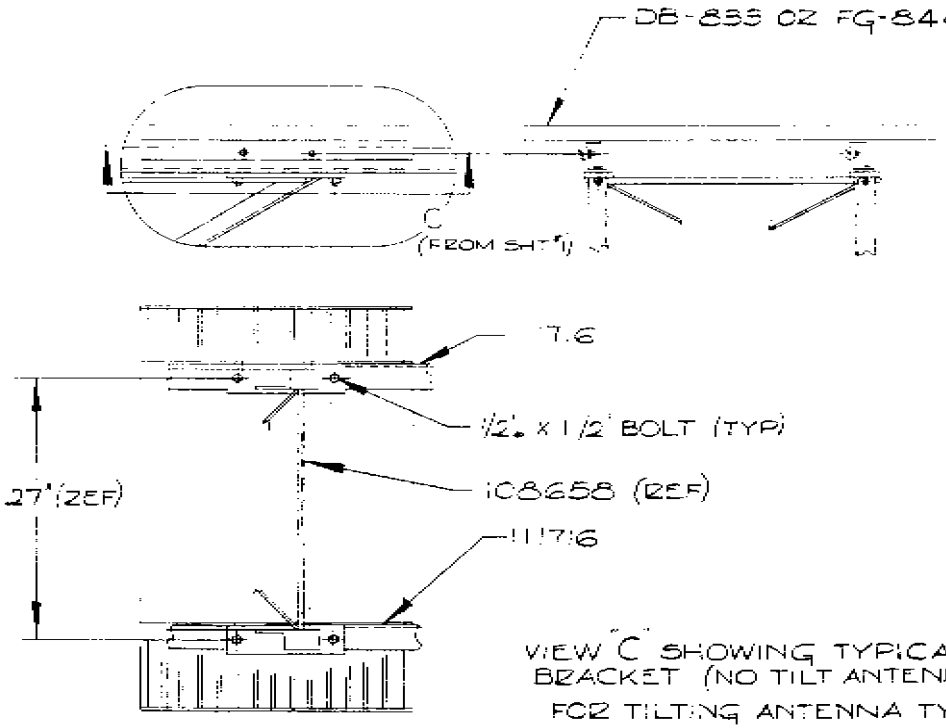
REG. NO.

SCALE 1/2" = 1'-0"

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG NO. 108663-B

PART NO.



VIEW "C" SHOWING TYPICAL MOUNTING OF ANTENNA TO BRACKET (NO TILT ANTENNA TYPE MOUNTING)

FOR TILTING ANTENNA TYPE MOUNTING SEE SHEET #4

REVISIONS		
CHG LET	DESCRIPTION	DATE

NAME INSTALLATION
CELLULAR ANTENNA

APPROVED BY

REG. ENGINEER

REG. NO

DRAWN BY DATE

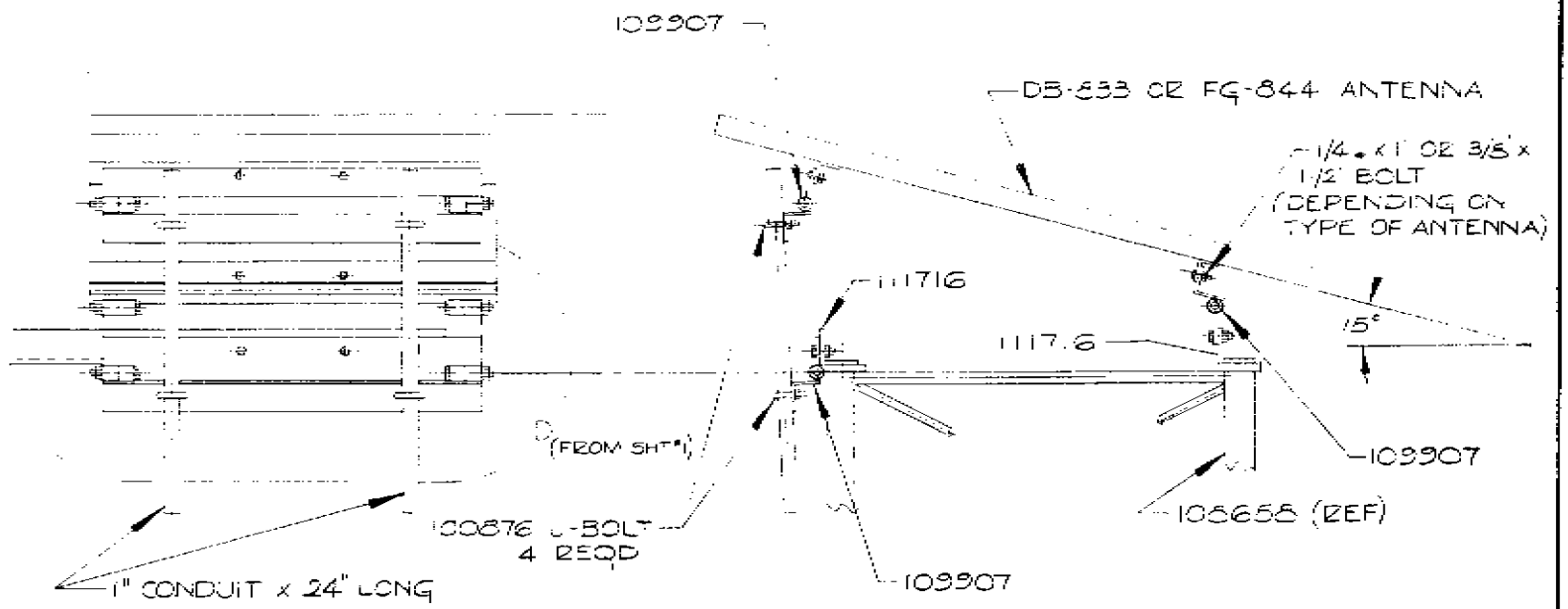
SCALE 1" = 1'-0"

PART NO

PI-ROD, INC.

PLYMOUTH, INDIANA 46563

DWG. NO. 108663-B



VIEW D SHOWING A TYPICAL MOUNTING OF ANTENNA TO BRACKET USING HDW BRACKETS ALLOWING THE ANTENNA TO BE MOUNTED WITH A TILT (MAX TILT = 30°)

REVISIONS

CHG LET	DESCRIPTION	DATE

NAME INSTALLATION CELLULAR ANTENNA

APPROVED BY

DRN BY [illegible] DATE 2/13/89

REG. ENGINEER

REG. NO

SCALE 1/2" = 1'-0"

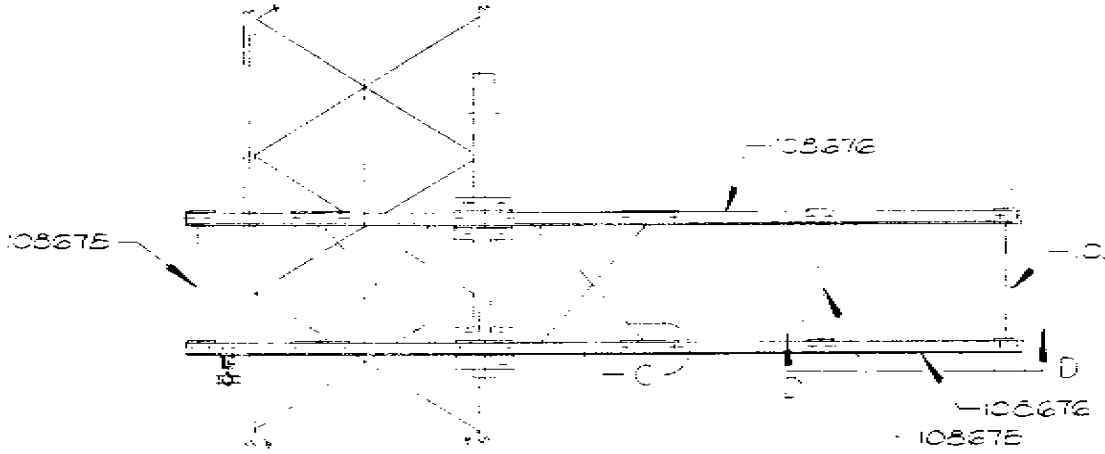
PI-ROD, INC.

PLYMOUTH, INDIANA 46563

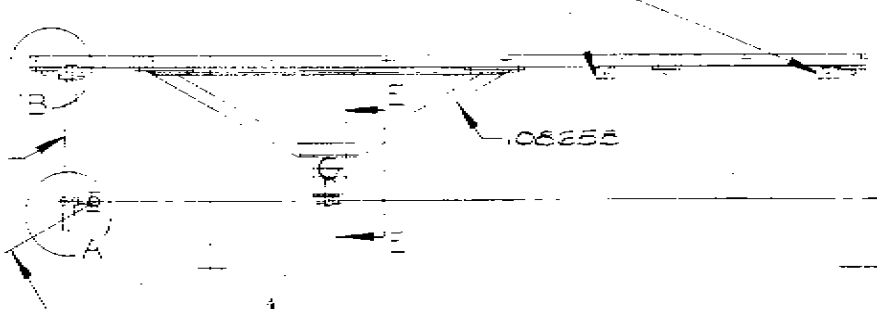
DWG NO 108663-B

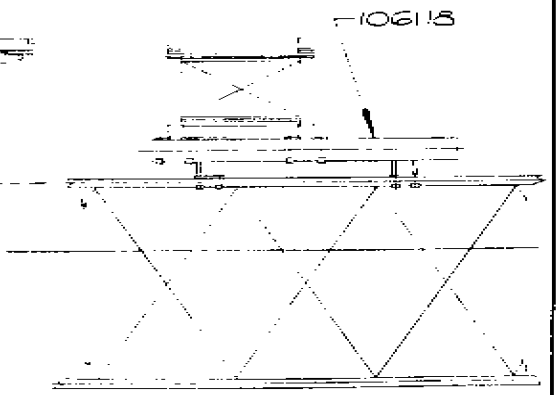
PART NO

BRUN-VG 40-22 57251



ALTERNATE STRUT A2V LOCATIONS





3 SCHEDULE 40 PIPE (STEEL)

NOTE: (PI-ROD TYPE DRAWINGS)
THIS TYPE OF ANTENNA MOUNTING CAN BE INSTALLED ON A 36' MIN FACE, IT ALSO CAN BE INSTALLED ON A MODEL-U 12" LEG TOWER WITH ℄ TO ℄ DISTANCE OF 6 THRU 30' AND ON A MODEL-MH 18" LEG TOWER WITH ℄ TO ℄ DISTANCE OF 20' THRU 50'

REVISIONS			CHG LET
DESCRIPTION	DATE		

NAME INSTALLATION
CELLULAR ANT MTG
EXT TYP TOWABLE LEG

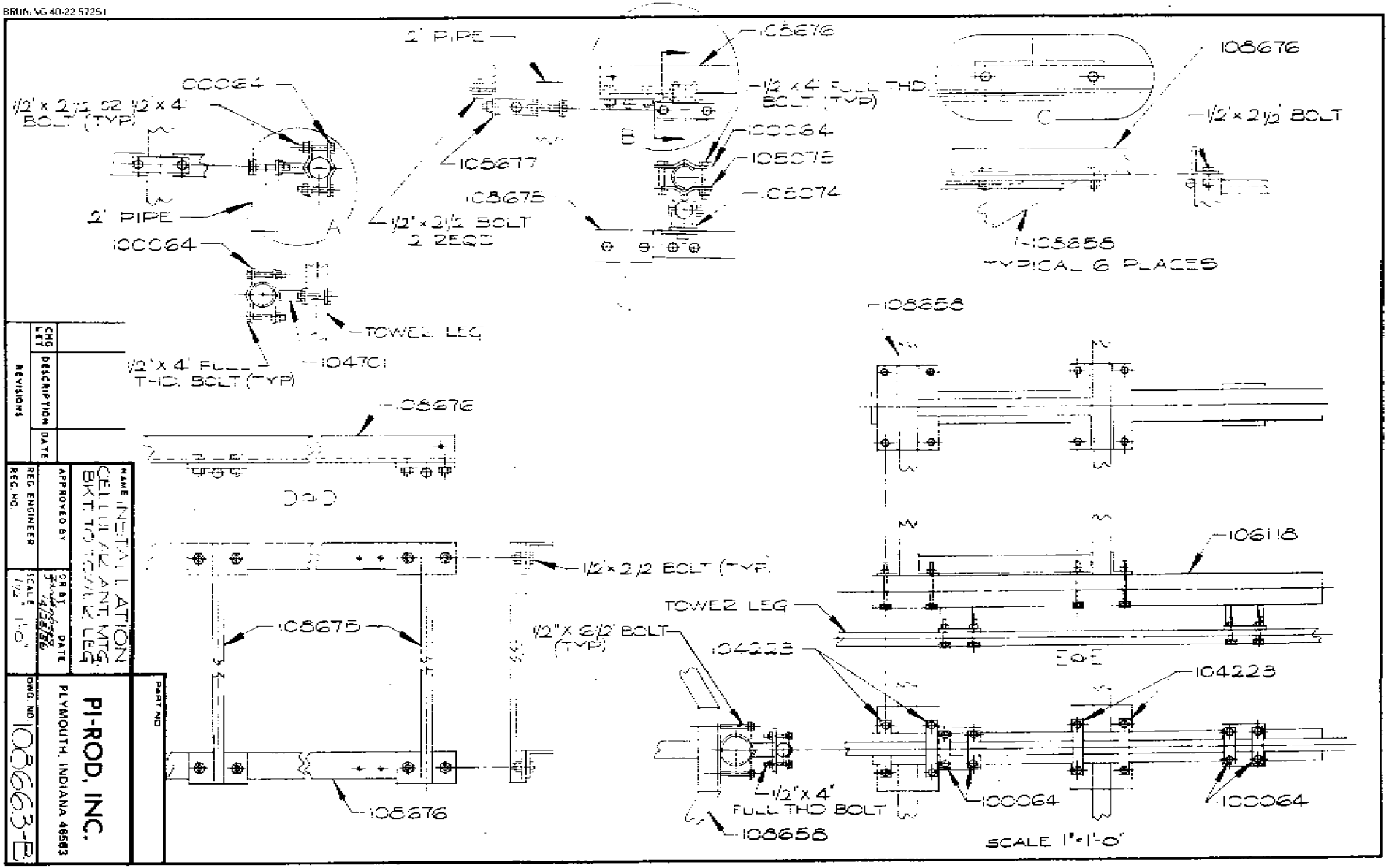
REG. ENGINEER	APPROVED BY
REG. NO.	DR BY DATE
SCALE 1/2" = 1'-0"	CH BY DATE

PART NO

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG NO 10866 3-B

BRUN.VG 40-22 57251



REVISIONS		
CHG LET	DESCRIPTION	DATE

NAME INSTALLATION CELLULAR ANT. MTG. BKT. TO 72' LATTICE LEG

APPROVED BY

DR BY [illegible] DATE [illegible]

REG ENGINEER

REG NO.

SCALE 1/2" = 1'-0"

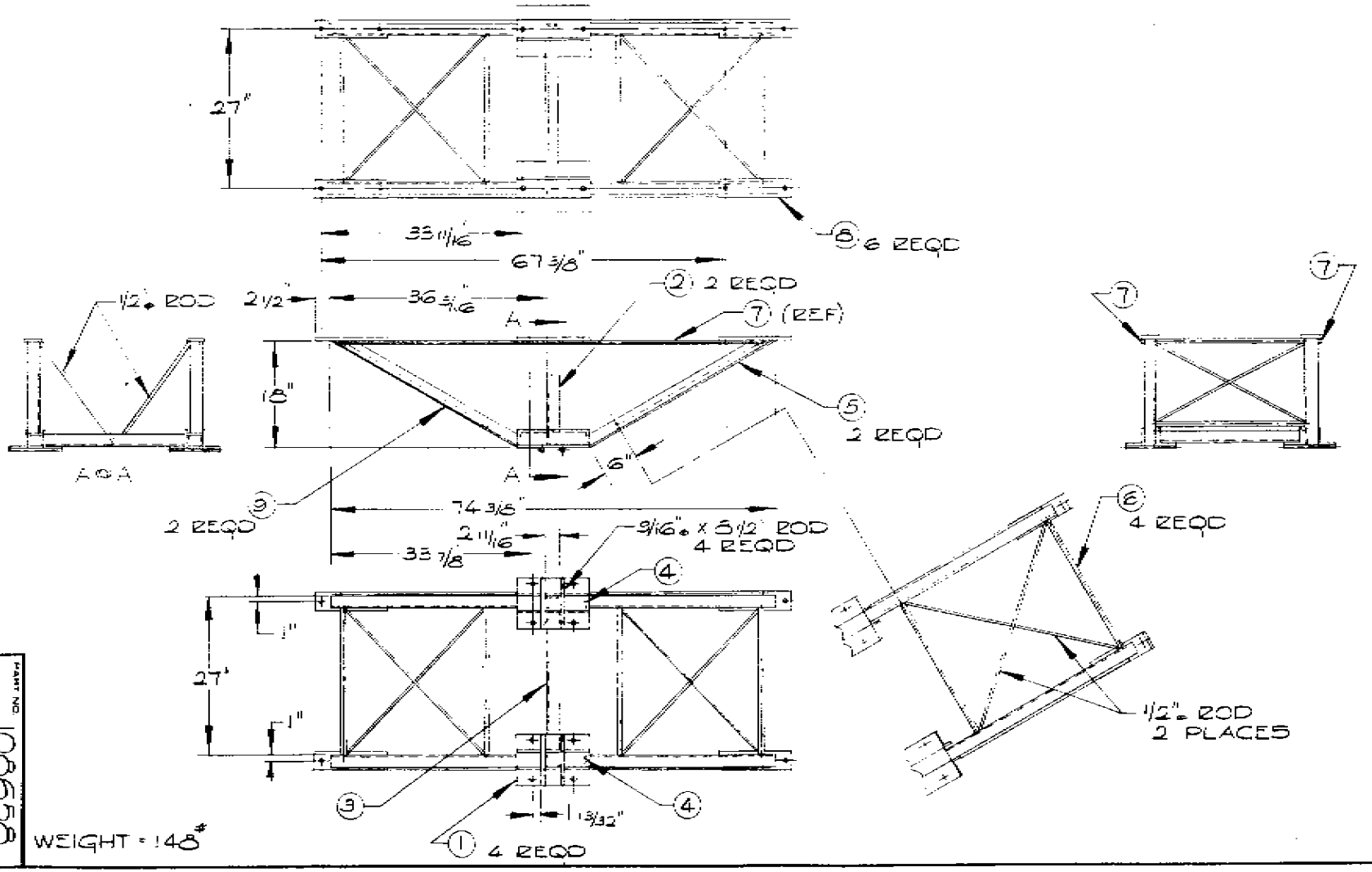
PART NO

DWG. NO. 108663-B

PI-ROD, INC.

PLYMOUTH, INDIANA 46563

NOTE:
SEE SHEET #2 FOR PART DETAIL DIMENSIONS



WEIGHT = 148#

REVISIONS			
CHG LET	DESCRIPTION	DATE	
D	RED&AWN	3/4/88	DJC

NAME BRACKET ANTENNA MOUNTING CELLULAR

APPROVED BY

REG ENGINEER

REG. NO.

DR BY

DATE

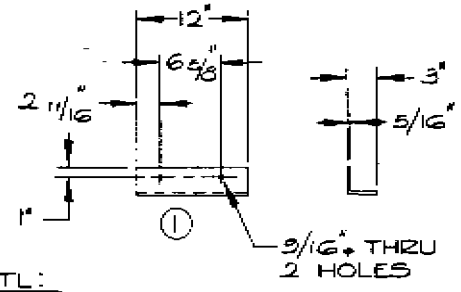
SCALE 3/4"=1'-0"

PART NO. 108658

DWG NO. 108658-B

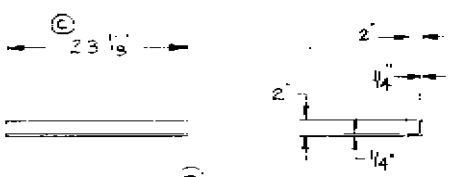
PI-ROD, INC.
PLYMOUTH, INDIANA 46563

BRUNING 40-22 5725

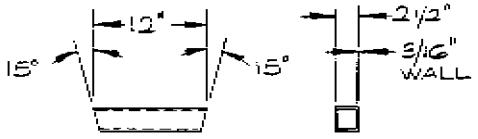


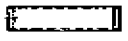
MATL:
3" X 3" X 5/16" STEEL ANGLE

MATERIAL: 1/4 x 2 x 2 A-36 ANGLE

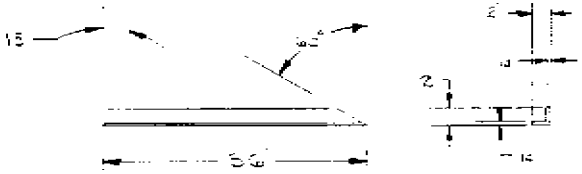


MATERIAL: 1/4 x 2 x 2 A-36 ANGLE

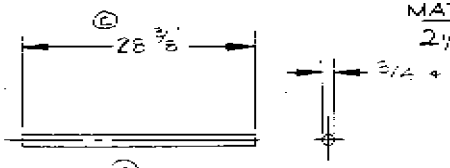




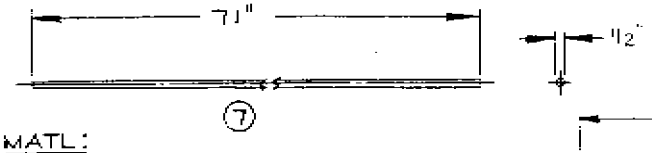
MATL:
2 1/2" X 2 1/2" X 5/16" WALL STEEL TUBING



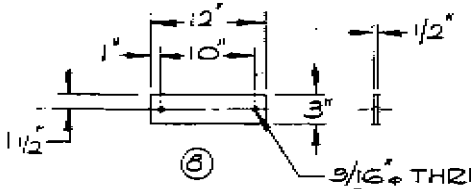
MATERIAL: 1/4 x 2" x 2" A-36 ANGLE



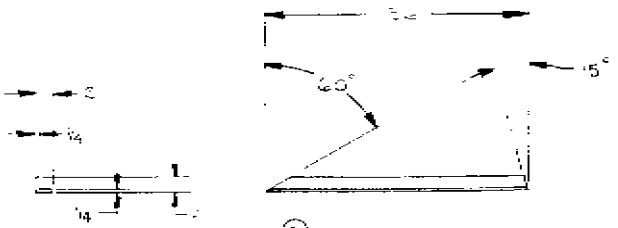
MATL:
A-36 ROD



MATL:
A-36 ROD



MATL:
1/2" X 3" FLAT STEEL



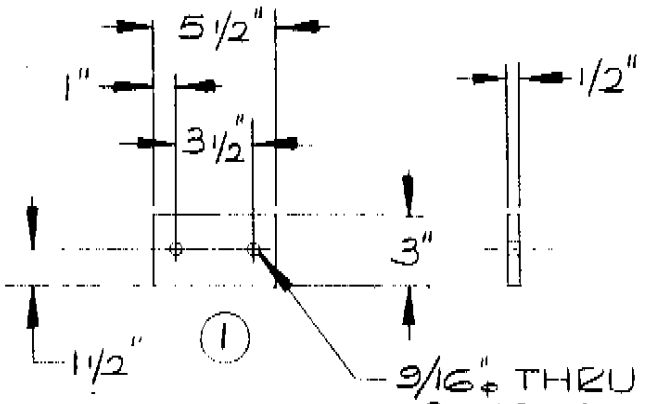
MATERIAL: 1/4 x 2" x 2" A-36 ANGLE

REVISIONS			
CHG LET	DESCRIPTION	DATE	
D	NOTES & DETAILS REMOVED	10/19/82	
B			
C			

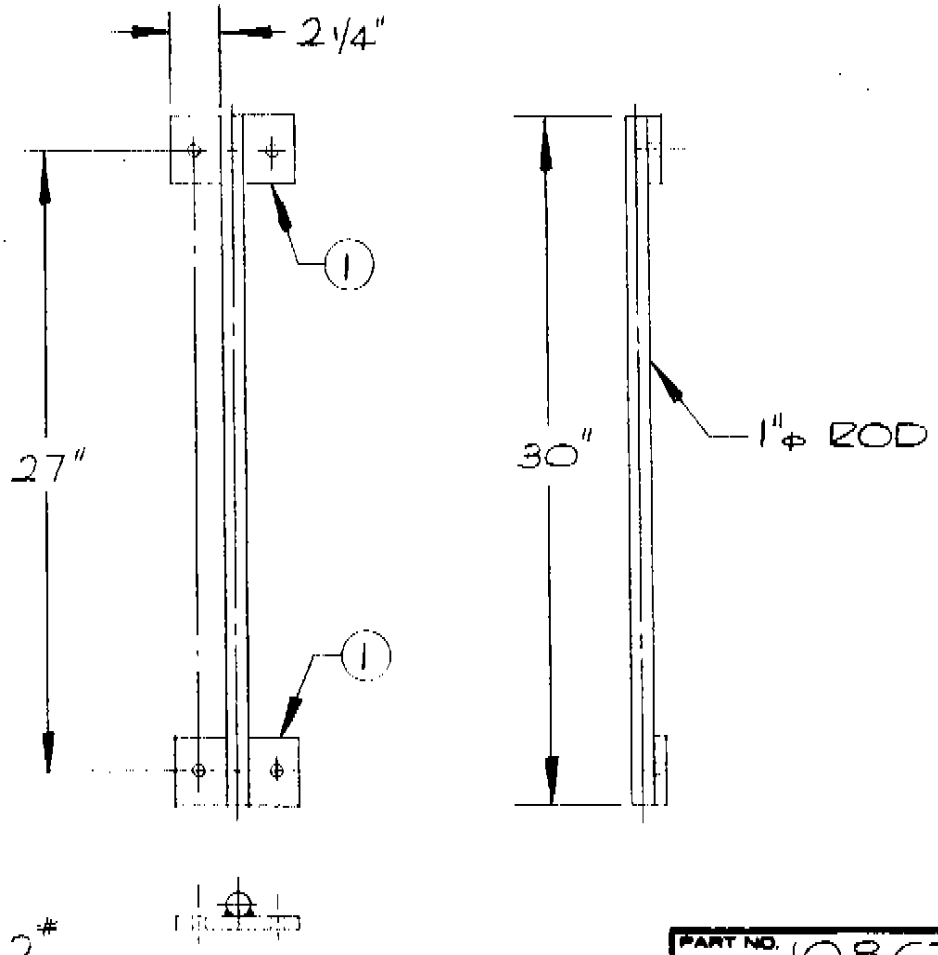
NAME	BRACKET ANTENNA MTG. CELLULAR
APPROVED BY	
DRAWN BY	DATE
REG. ENGINEER	
REG. NO.	
SCALE	3/4"=1'-0"
DWG NO	108658-B
PART NO.	

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

SHEET 2 OF 2



MATL:
1/2" X 3" FLAT STEEL BAR



WEIGHT = 11.2#

CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME BRACE VERTICAL (CELLULAR ANT. MTG.)

APPROVED BY | DR BY Jim Kemberg DATE 4/23/86

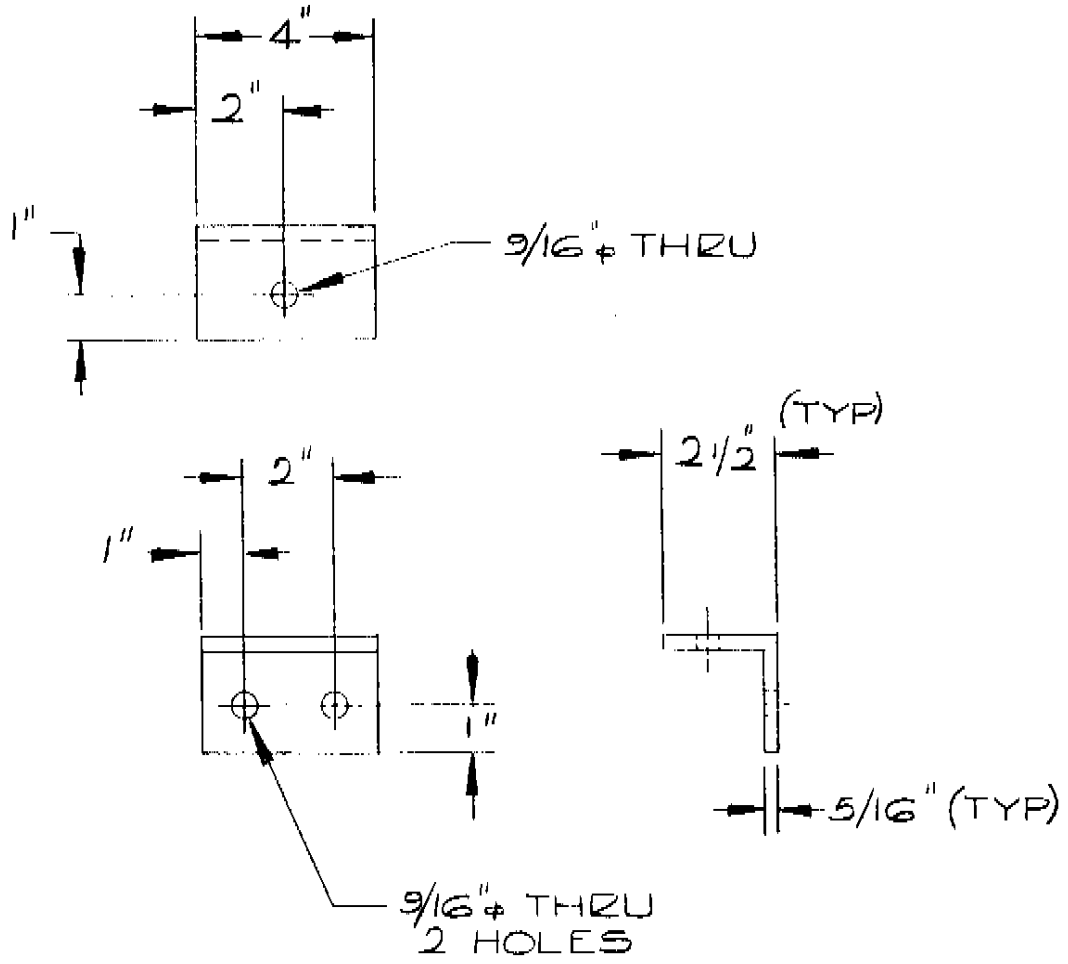
REG. ENGINEER | SCALE 1 1/2" = 1'-0"

REG. NO.

PART NO. 108675

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. 108675-A



MATL:
2 1/2" X 2 1/2" X 5/16" STEEL ANGLE

WEIGHT = 1.6#

CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME BRACKET STRUT MOUNTING (CELLULAR ANT.)

APPROVED BY

DR BY Bjr. Kenberg DATE 4/24/84

REG. ENGINEER

REG. NO.

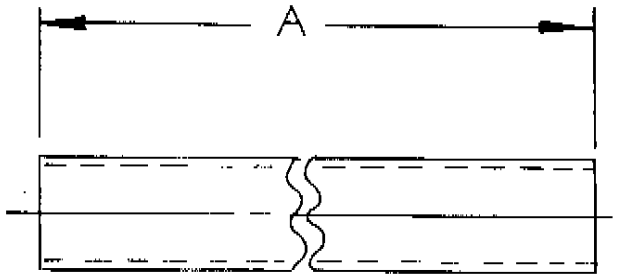
SCALE 3" = 1'-0"

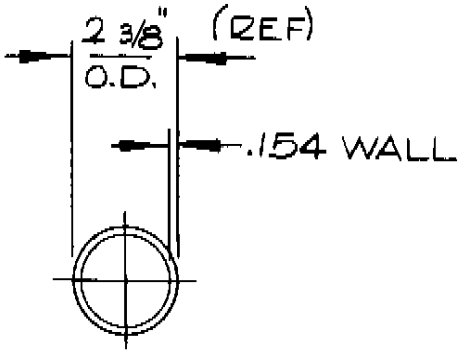
PART NO. 108677

PI-ROD, INC.

PLYMOUTH, INDIANA 46563

DWG. NO. 108677-A





MATERIAL:

2" SCHEDULE 40 PIPE
(3.65#/FT.)

PART NUMBER	A	WEIGHT
105965	18"	5.48#
105966	40"	12.17#
106253	24"	7.30#
106677	15'-0"	54.75#
107690	6'-0"	21.9#
107950	4'-0"	14.6#
107994	50 3/8"	15.3#
107998	6'-8"	24.3#
108170	54"	16.5#
108673	10'-6"	38.3#
109084	13'-0"	47.45#

PART NUMBER	A	WEIGHT
110856	36"	10.95#
111436	7'-0"	25.5#

CHG LET	DESCRIPTION	DATE
K	ADDED P/N 111436	5/25/84 MLA
J	REDRAWN PREVIOUS CHG. RECORD OMITTED	

REVISIONS

NAME PIPE
ANTENNA MOUNTING

APPROVED BY

DR BY Binkenberg DATE 4/11/84

REG. ENGINEER

REG. NO.

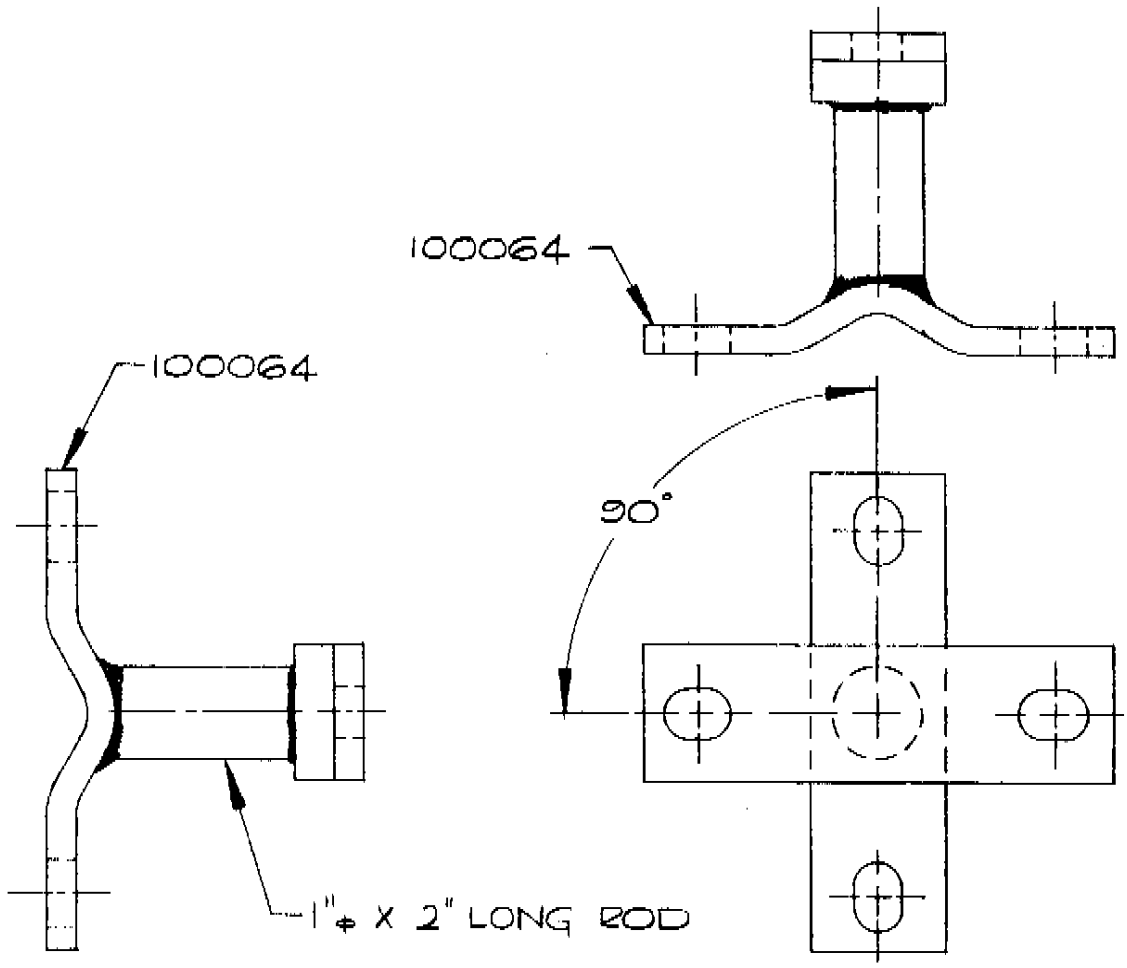
SCALE

PART NO.

PI-ROD, INC.

PLYMOUTH, INDIANA 46563

DWG. NO. 105965-A

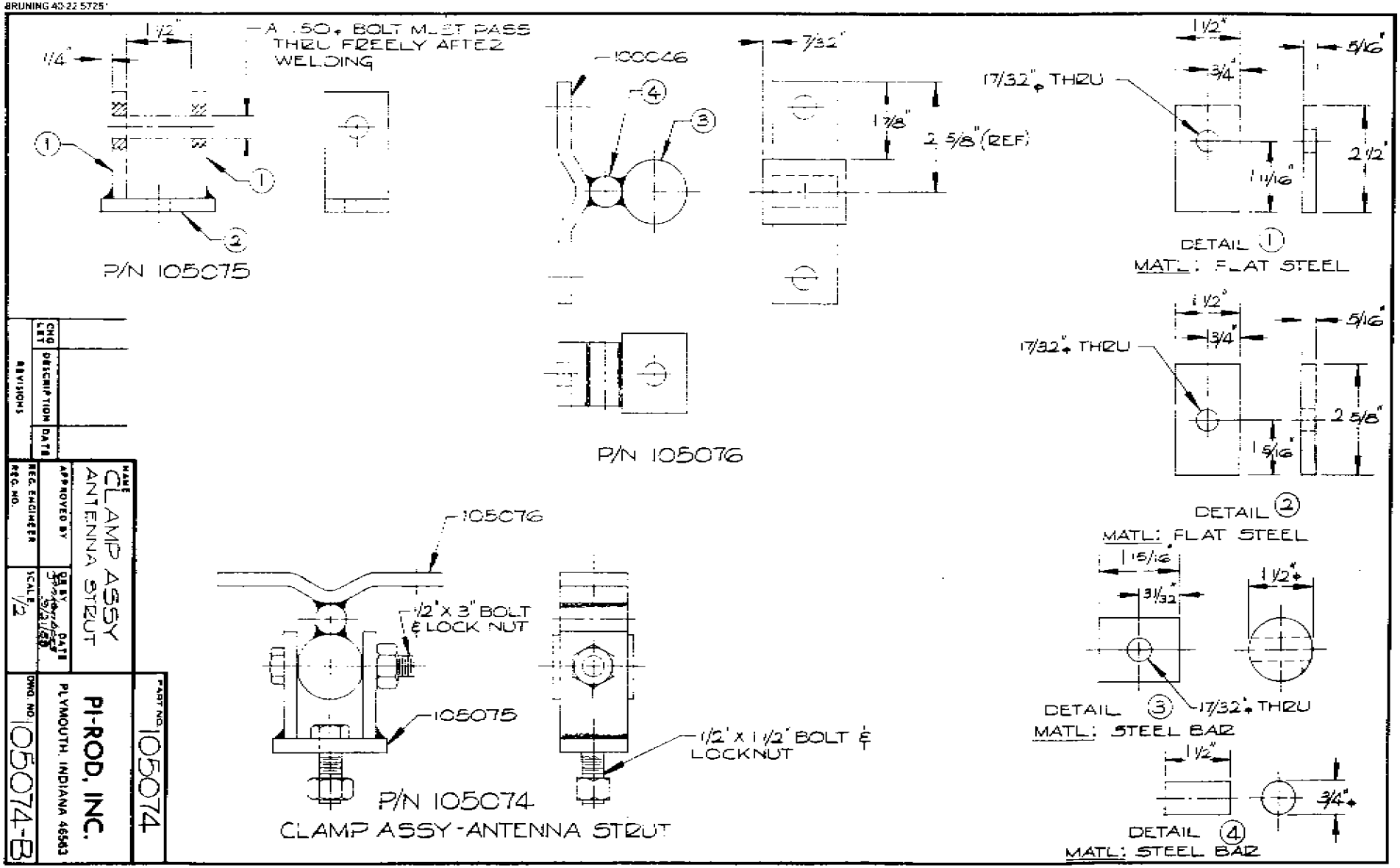


WEIGHT = 1.5 #

			PART NO. 104701
		NAME CLAMP BRACKET SPECIAL	PI-ROD, INC. PLYMOUTH, INDIANA 46563
A	REDRAWN WAS "B" SIZE	12/5/85 DJE	APPROVED BY / DR BY VINCEK DATE 5/31/85
CHG LET	DESCRIPTION	DATE	REG. ENGINEER / REG. NO. / SCALE 1/2
REVISIONS			DWG. NO. 104701-A

DRUNING NO. 1201

BRUNING 40-22 5725



REVISIONS			
CHG LET	DESCRIPTION	DATE	

NAME: CLAMP ASSY ANTENNA STRUT

APPROVED BY

DRAWN BY: [illegible] DATE: 5/21/80

REG. ENGINEER

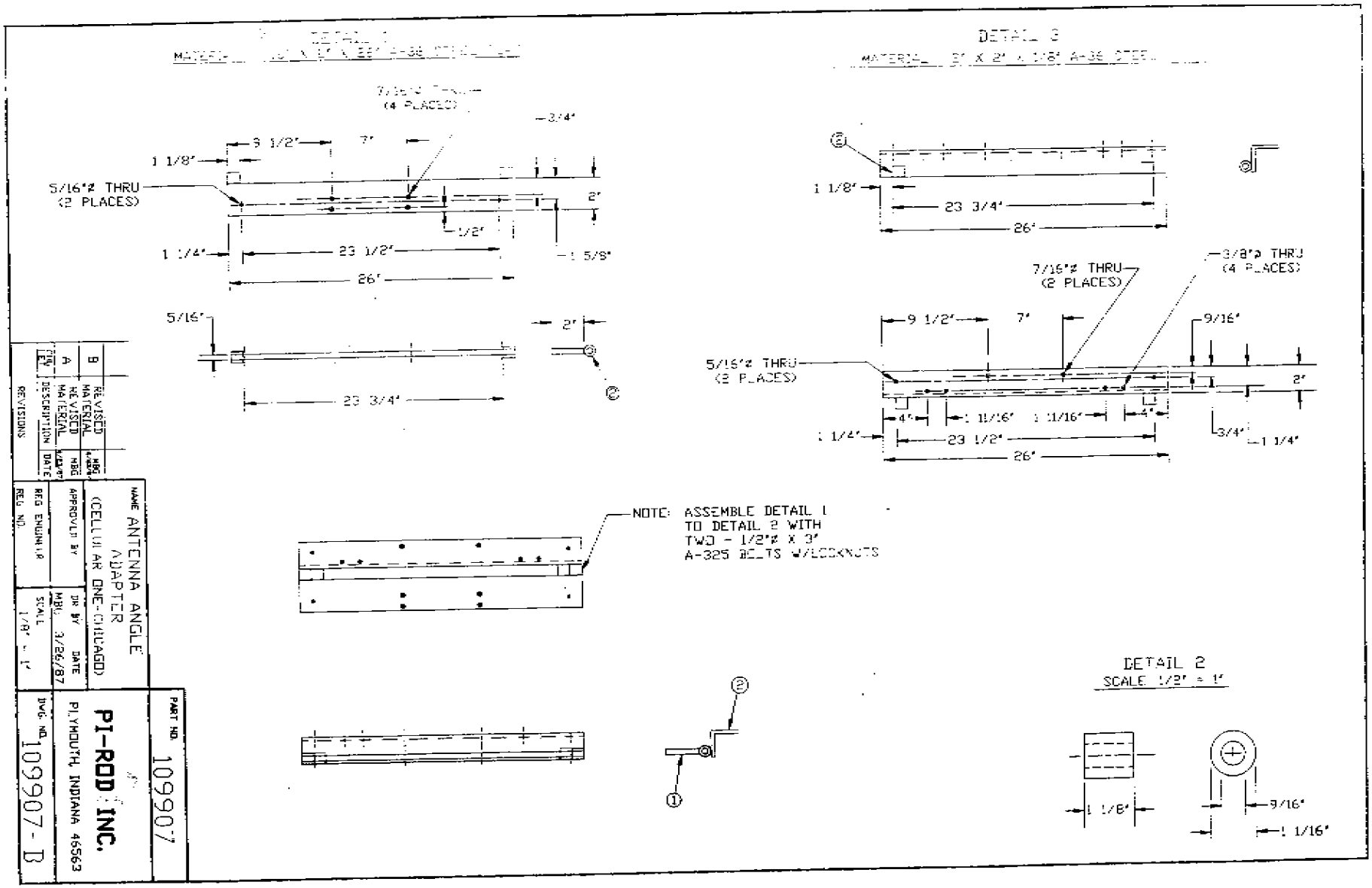
REG. NO.

SCALE: 1/2

PART NO. 105074

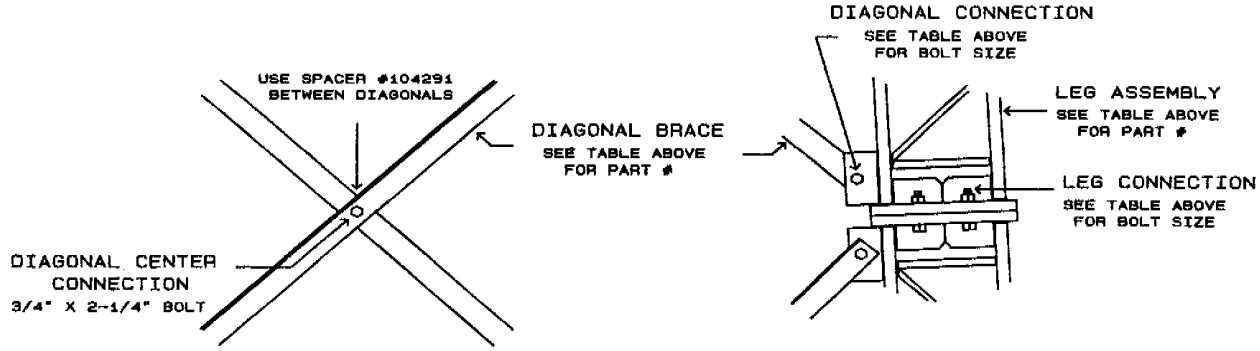
DWG. NO. 105074-B

PI-ROD, INC.
PLYMOUTH, INDIANA 46563


DETAIL 1
MATERIAL
7/16"ø THRU
(4 PLACES)
3/4"
9 1/2"
7"
1 1/8"
5/16"ø THRU
(2 PLACES)
2"
1/2"
1 1/4"
23 1/2"
1 5/8"
26"
5/16"
2"
23 3/4"
DETAIL 3
MATERIAL 3" X 2" X 1/8" A-36 STEEL
1 1/8"
23 3/4"
26"
7/16"ø THRU
(2 PLACES)
3/8"ø THRU
(4 PLACES)
9 1/2"
7"
9/16"
5/16"ø THRU
(2 PLACES)
2"
4"
1 11/16"
1 11/16"
4"
1 1/4"
23 1/2"
26"
3/4"
1 1/4"
NOTE: ASSEMBLE DETAIL 1
TO DETAIL 2 WITH
TWO - 1/2"ø X 3"
A-325 BOLTS W/LOCKNUTS
DETAIL 2
SCALE 1/2" = 1"
1 1/8"
9/16"
1 1/16"
REVISIONS
LTR
DESCRIPTION
DATE
A
REVISED MATERIAL
MBG 3/26/87
B
REVISED MATERIAL
MBG 4-1-87
NAME ANTENNA ANGLE ADAPTER (CELLULAR ONE-CHICAGO)
APPROVED BY
REG ENGINEER
REG NO.
DR BY MBG
DATE 3/26/87
SCALE 1/8" = 1"
PI-ROD INC.
PLYMOUTH, INDIANA 46563
DWG. NO. 109907-B
PART NO. 109907

FABRICATED SECTION DATA								
SECTION LENGTH	SEC #	SECTION PART#	LEG/WALL SIZE	BRACE SIZE	SECTION WEIGHT	BOLTS AT BOTTOM DIAM	LENGTH	#
10'	V- 4.0	106778	1- 1/2 "	3/4 "	804#	5/8"	4"	12
20'	H- 4.5	107345	1- 3/4 "	3/4 "	945#	5/8"	4-1/2"	15
20'	H- 5.0	107733	2 "	7/8 "	1273#	1 "	3-1/2"	18

BREAKDOWN SECTION DATA (12" LEG)										
SEC #	SECTION LENGTH	LEG SIZE	LEG PART#	TOP DIAG PART#	BOT DIAG PART#	QTY HORIZ	SECTION WEIGHT	LEG CONNECT DIAM	LEG CONNECT LENGTH	DIAG CONNECT DIAM / LENGTH
U- 8.0	10'	1- 1/4"	105244		105557		985#	1 "	3-1/2"	1 " / 2-1/4"
U- 8.0	20'	1- 1/4"	105216	105559	105562		1846#	1 "	3-1/2"	1 " / 2-1/4"
U-10.0	20'	1- 1/2"	105217	105565	105568		2250#			1 " / 2-1/4"



VIEW D (SEE PAGE 1 FOR VIEW DEFINITION) VIEW C

NOTES

1. TOWER DESIGN CONFORMS TO EIA STANDARD RS-222-C FOR 40 PSF WINDLOAD WITH NO ICE.
2. MATERIAL: (A) TOWER MEMBERS 3/4" AND LARGER: Fy=50,000 PSI. (B) TOWER MEMBERS LESS THAN 3/4" Fy=36,000 PSI.
3. BASE REACTIONS: TOTAL WEIGHT = 11.6 KIPS. MAXIMUM COMPRESSION = 89.1 KIPS PER LEG.
   MOMENT = 738.1 KIP-FT. MAXIMUM UPLIFT = 81.3 KIPS PER LEG.
   MAXIMUM SHEAR = 12.5 KIPS TOTAL.
4. FINISH: HOT DIPPED GALVANIZED AFTER FABRICATION.
5. ANTENNAS: THREE- CELLULAR SECTORS AT TOP OF TOWER TWO- 6' SOLID/RADOME AT 95' (FUTURE CAPACITY)
6. MIN. WELDS 1/4" UNLESS OTHERWISE SPECIFIED. ALL WELDING TO CONFORM TO AWS SPECIFICATIONS.
7. EIA GROUNDING FOR TOWER.

CELLULAR ONE
LINCOLNWOOD (SITE #64)

CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME: U 10.0 X 100' SELF-SUPPORTING TOWER

APPROVED BY | DR BY MBG 15-MAR-89 | DATE

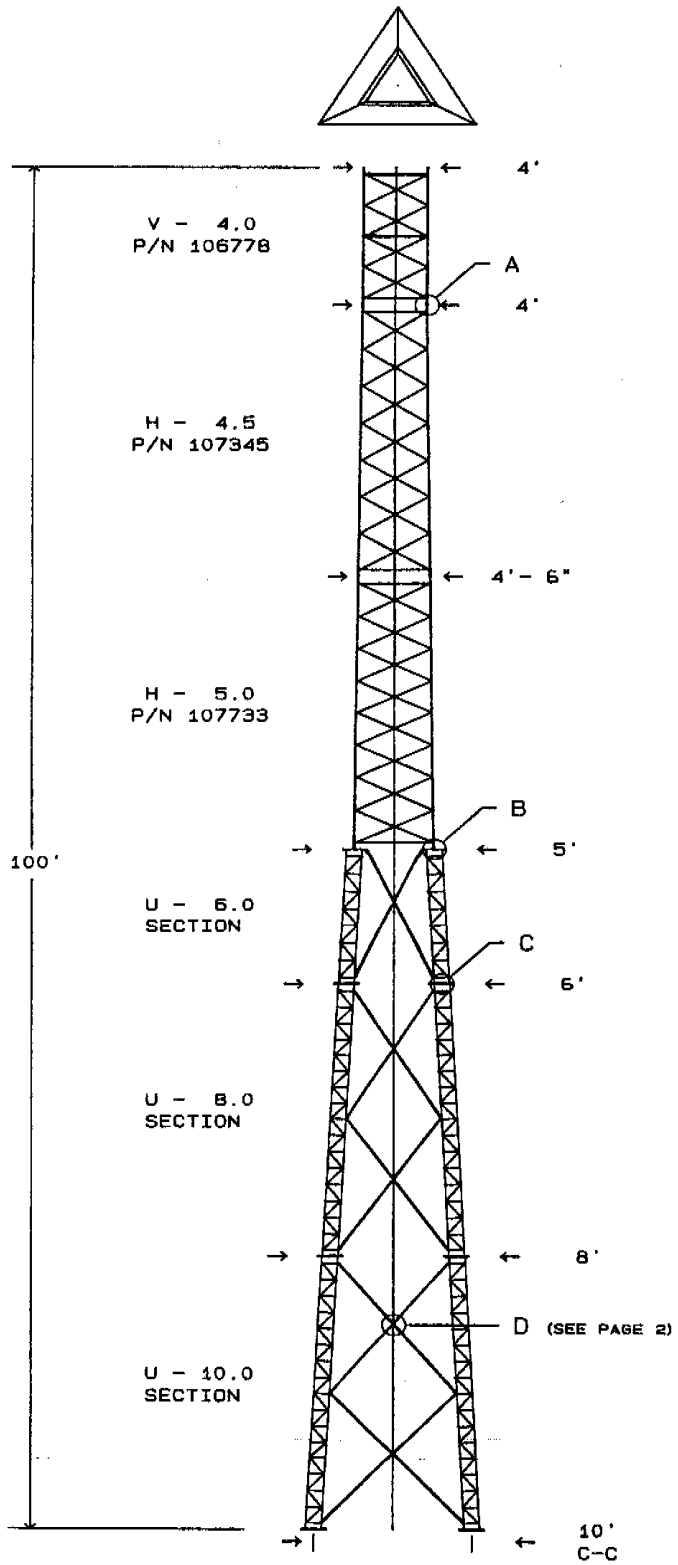
REG. ENGINEER | REG. NO

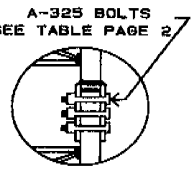
SCALE: AS NOTED

PART NO. A-107106

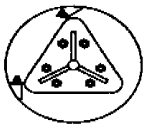
PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. (08616.) 113637-B

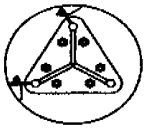


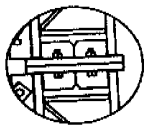


VIEW A
TYPICAL LEG CONNECTION
FOR FABRICATED SECTIONS



VIEW B
LEG CONNECTION AT 50 FT.

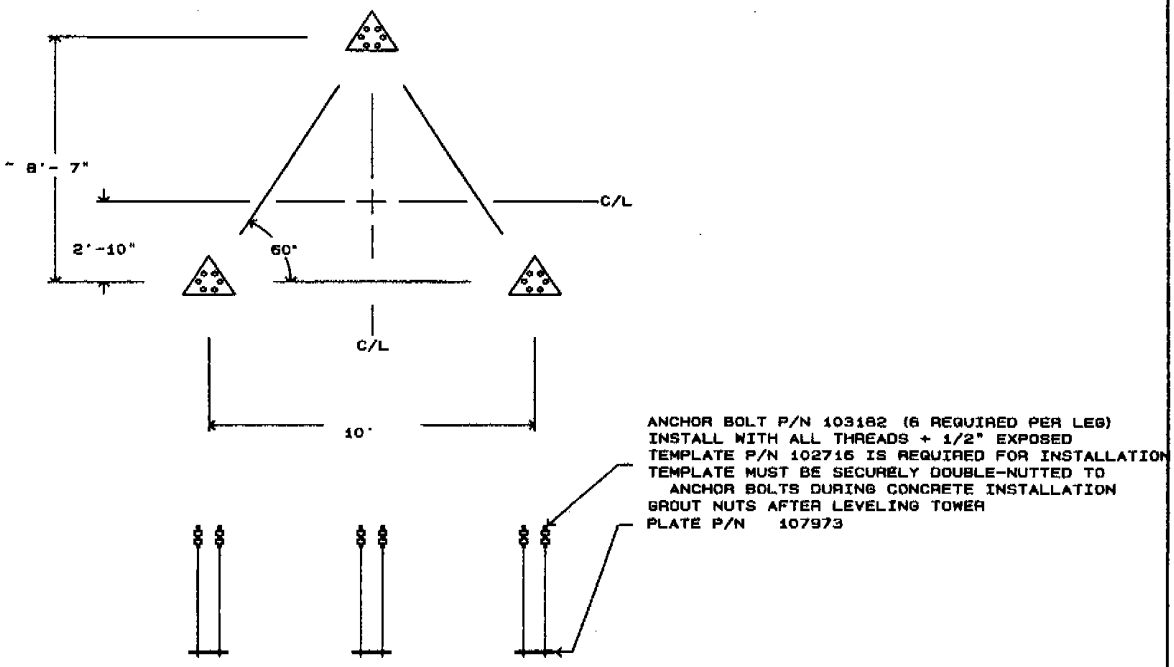




VIEW C
TYPICAL LEG CONNECTION
FOR BREAKDOWN SECTIONS

CELLULAR ONE
LINCOLNWOOD (SITE # 64)

		NAME: U 10.0 X 100' SELF-SUPPORTING TOWER	PART NO. A-107106
		APPROVED BY	DR BY MBG 15-MAR-89 DATE
CHG LET	DESCRIPTION DATE		PI-ROD, INC. PLYMOUTH, INDIANA 46563
REVISIONS		REG. ENGINEER REG. NO	SCALE AS NOTED
			DWG. NO. (08616.) 113637-B1 PAGE 1 OF 3



TOWER ANCHOR STEEL PLACEMENT

FOUNDATION NOTES

1. DESIGN REACTIONS:
   - TOTAL WEIGHT = 11.6 KIPS.
   - MOMENT = 738.1 KIP-FT.
   - MAXIMUM SHEAR = 12.5 KIPS TOTAL.
   - MAXIMUM COMPRESSION = 89.1 KIPS PER LEG.
   - MAXIMUM UPLIFT = 81.3 KIPS PER LEG.
2. FOUNDATION DESIGN BY OTHERS.

CELLULAR ONE
LINCOLNWOOD (SITE #GA)

CHG LET	DESCRIPTION	DATE
REVISIONS		

NAME: U 10.0 X 100' BASE FOUNDATION

APPROVED BY | DR BY MBG 15-MAR-89 DATE

REG. ENGINEER REG. NO

SCALE: AS NOTED

PART NO. A-107106

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

DWG. NO. (08616.) 113637-B PAGE 3 OF 3

For Reference Only

SPECIFICATIONS AND RMES FOR MAT FOUNDATION AND PIERS
BY KOTTER ENGINEERING CO, AURORA, IL 60507 (708)897-2300

CELLULAR ONE CHICAGO   FILE # 8-10804A
SITE: 64
LOCATION: ....CENTRAL PARK & LUNT AV, LINCOLNWOOD, IL
TOWER: ....U 40 X 100
****TOWER REACTIONS BY PI-ROD INC. PLYMOUTH, INDIANA.
WT :TOTAL TOWER WEIGHT.......... 12.3 (K)
MT :TOTAL TOWER MOMENT. .... 741.0 (K-FT)
SHR:MAXIMUM TOTAL SHEAR .... 12.6 (K)
COMP:MAX COMPRESSION PER LEG..... 89.8 (K)
UP :MAX. UPLIFT PER LEG.......... 81.4 (K)

****SOIL REPORT: BY H. H. HOLMES TESTING LABS. INC. WHEELING, IL
DATED: 2 22-90
LAB NO: ....CH 5742
FILE NO: 7300.71
RECOMMENDED DEPTH FROM GRADE....   (3.5' B/GRDE OVER 1' FILL)
SOCIETY BEARING CAPACITY........ 1.50 KSF (3.5' B/GRDE OVER 1' FILL)

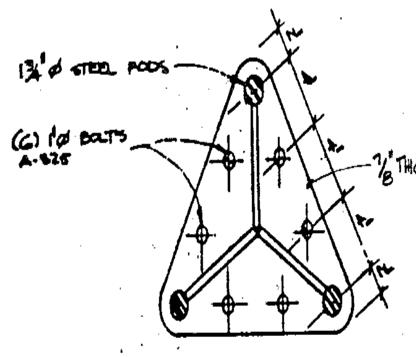
*CONCRETE:
1: CONCRETE FOR MAT SHALL HAVE A MINIMUM ULTIMATE STRENGTH (f'c) OF 3000 PSI AT 28 DAYS WITH A SLUMP OF 3 TO 5 INCHES WHEREAS 3500 PSI FOR PIERS.
2: FRESH CONCRETE SHALL BE PROPERLY CURED AND PROTECTED FROM FREEZING FOR 5 DAYS.
3: THREE CYLINDERS SHALL BE TAKEN BY THE CONTRACTOR FROM EACH TRUCK FOR TESTING BY LAB. APPROVED ENGINEER.

*STEEL:
1: ALL REINFORCING STEEL SHALL BE GRADE 60 (A.S.T.M. A615-A617).
2: USE STANDARD TYPES AND SIZES OF WIRE BAR SUPPORTS TO FIRMLY SPACE AND HOLD THE REINFORCING BARS IN PLACE PRIOR TO AND DURING THE PLACING OF CONCRETE.
3: A MINIMUM CLEAR CONCRETE COVER OF 2 INCHES WILL BE PROVIDED FOR ALL REINFORCEMENT EXCEPT FOR MAT BOTTOM, WHERE IT WILL BE 3 INCHES.

*CONSTRUCTION:
1: ALL CONCRETE WORK, DETAILS, METHODS OF CONSTRUCTION, ETC SHALL COMPLY WITH ACI 318 83.
2: ALL CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS.
3: CONCRETE SHALL BE PROPERLY VIBRATED TO ELIMINATE VOIDS AND TO ENSURE COMPACTION. SEGREGATION AND/OR SEPARATION OF AGGREGATES SHALL BE AVOIDED WHEN CONCRETE IS POURED AND VIBRATED. REINFORCING STEEL SHALL NOT BE INSTALLED OR MOVED DURING THE CONCRETE PLACEMENT PROCESS.
4: CROWN TOP OF THE PIER FOR PROPER DRAINAGE.
5: CONCRETE SHALL NOT BE PLACED ON FROZEN GROUNDS OR IN EXCAVATIONS CONTAINING WATER.
6: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND SHALL BE AWARE OF FIELD CONDITIONS PRIOR TO PURCHASINGS AND CONSTRUCTION.

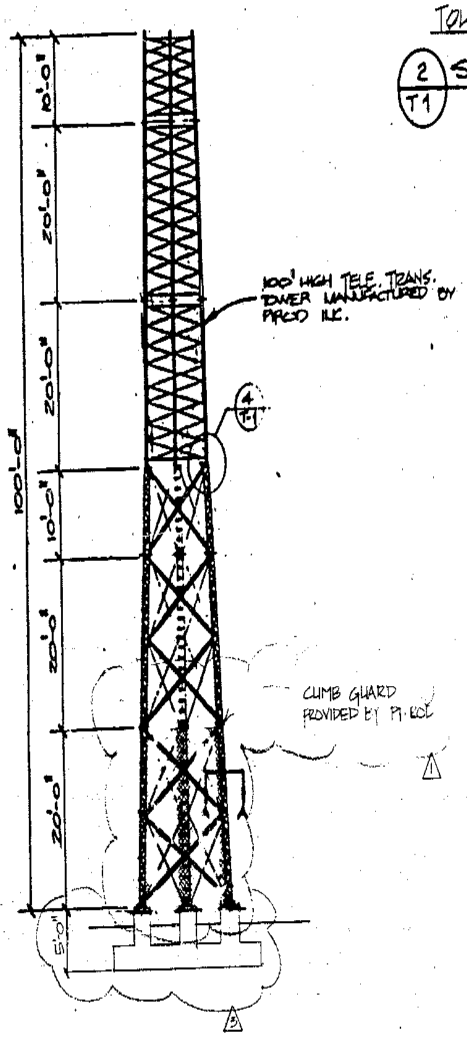
SPECIAL NOTES:
1***THE SOIL SHOULD BE EXCAVATED TO A DEPTH OF APPROXIMATELY 4'-6" BELOW GRADE. PLACE A 1'-6" THICK COMPACTED LAYER OF THREE INCH DIAMETER CRUSHED LIMESTONE.

2***WHEN CONSIDERING THE DEPTH OF THE TRUE GROUNDWATER TABLE IN RELATION TO THE PROPOSED AVERAGE EXCAVATION DEPTH, IT IS THOUGHT THAT GROUNDWATER INFILTRATION PROBLEMS WILL BE PRESENT. CARE SHOULD BE EXERCISED TO ALL WATER AS WELL AS ANY LOOSENED DISTURBED MATERIALS FROM THE BASE OF ALL EXCAVATIONS IMMEDIATELY PRIOR TO THE PLACING OF CONCRETE. THE BASE OF ALL EXCAVATIONS SHOULD ALSO BE PROTECTED DURING CONSTRUCTION FROM DETERIORATION OR SOFTENING CAUSED BY FROST AND CONSTRUCTION ACTIVITY.

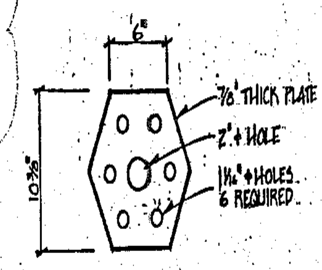


TOWER BASE PLATE

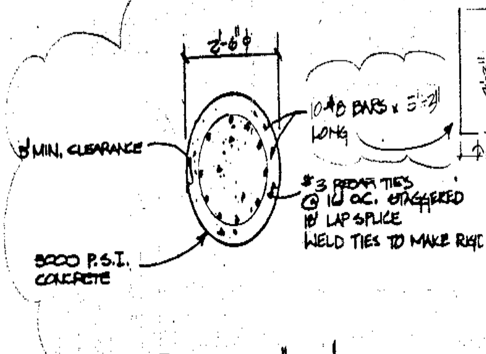
2 / T1 SECTION "A-A" 1½"=1'-0"



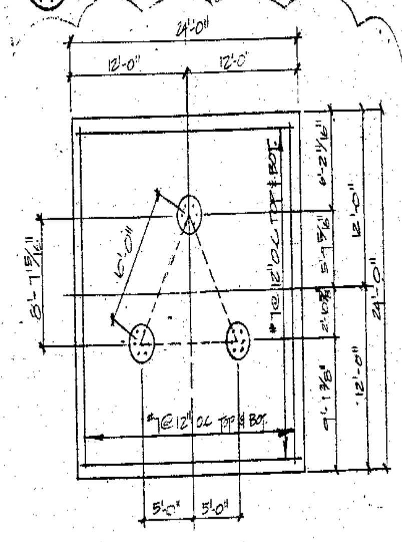
1 / T1 TOWER ELEVATION N.T.S.



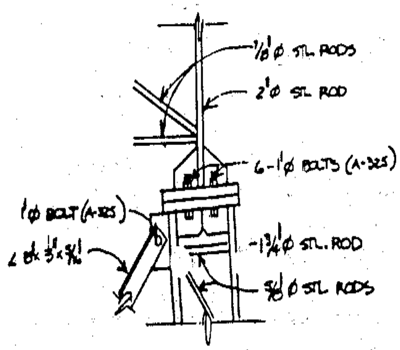
6 / T1 ANCHOR BOLT BASE PLATE



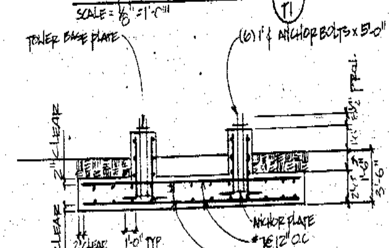
3 / T1 SECTION "B-B"



TOWER FOUNDATION SCALE = ⅛"=1'-0" 5 / T1



4 / T1 TOWER DETAIL ¾"=1'-0"



7 / T1 FOUNDATION SECTION SCALE = ⅛"-1'-0"

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY PERSONAL SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE ACCESSIBILITY STANDARDS OF THE STATE OF ILLINOIS MARCH 1985 AND COMPLY WITH THE ORDINANCES OF THE

CITY OF LINCOLNWOOD

REVISIONS
3 9 90
5 8 90
7 19 90

LOUIS C. CORDOGAN ARCHITECT P.C.
111 W. DOWNER PL. AURORA IL 60506 (312) 896-4678

JOB NUMBER 5499 24
DATE 1-30-90

CELLULAR ONE CHICAGO SITE DEVELOPMENT
LUNT AVENUE LINCOLNWOOD ILLINOIS SITE # 64
TOWER DETAILS

T1

HHH
- inspection
- evaluation
- research

construction materials

SUBSURFACE INVESTIGATION

and

GEOTECHNICIAL ANALYSIS

PROPOSED CELLULAR ONE CHICAGO
CELL SITE # 64 RADIOTOWER AND
EQUIPMENT SUPPORT BUILDING FACILITY
NE CORNER CENTRAL PARK & LUNT AV
LINCOLNWOOD, ILLINOIS

MDM CONSTRUCTION
ROSELLE, ILLINOIS

H. H. HOLMES TESTING LABORATORIES, INC.

• inspection
• evaluation
• research
construction materials

• 170 Shepard Avenue • Wheeling, Illinois 60090 • 708 • 541-4040 • Fax: 708 • 537-9098

February 22, 1990

MDM CONSTRUCTION

10 Monaco Drive
Roselle, Illinois 60172

Lab No. CH 5742
File No. 7306.71

Attn: Mr. Fred Marchese
RE: Subsurface Investigation
and Geotechnical Analysis

Gentlemen:

At your request, one (1) soil boring was drilled for the proposed Cellular One Chicago Cell Site No. 64 Radiotower and Equipment Support Building Facility to be constructed on the property located near the Northeast corner of the intersection of Central Park and Lunt Avenue in Lincolnwood, Illinois. The approximate location of this boring and test results are enclosed in this report.

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• evaluation
• research
construction materials

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Feburary 22, 1990

MDM CONSTRUCTION
Lab No. CH 5742
File No. 7306.71

The purposes of this report are to describe the subsurface conditions encountered at the site at the boring location, evaluate the physical characteristics of the underlying strata by means of testing of the soils in the laboratory and to submit recommendations regarding the design and construction of the foundation of the proposed structure. Also included are the recommendations regarding the parking lot and driveway facilities.

Conversation with the owner's representative indicated that the Equipment Support structure will be one story in height with slab-on-grade floor and without basement. The design loads are not known at the present time, however, it is our understanding that they will be relatively light in magnitude.

This boring, selected by the project's engineer and located in the field by a representative of H. H. Holmes Testing Laboratories, Inc., was made utilizing a truck mounted rotary type of drill rig which advances the boreholes by continuous flight auger method (ASTM Standard D 1452-80) and various cutting bits. Representative soil samples were obtained by means of the split barrel sampling procedure performed in accordance with ASTM Standard D 1586-84, "Method for Penetration Test and Split Barrel Sampling of Soils". In this sampling procedure, a

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Feburary 22, 1990

MDM CONSTRUCTION
Lab No. CH 5742
File No. 7306.71

2 inch OD split barrel sampler is driven into the soil a distance of 18 inches by means of a 140 pound hammer falling 30 inches. The value of the Standard Penetration Resistance (SPR N-value) is obtained by counting the number of blows of the hammer over the final 12 inches of driving. Also, additional samples were obtained from the auger's blades. This boring was extended to a depth of 35 feet below present grade.

A field log of soils encountered in the boring was maintained by the drill crew. This field log was later used to help prepare the final boring log. All soil samples obtained from the drilling operations were identified, sealed immediately in the field and brought to the laboratory for further examination and testing.

The laboratory testing program consisted of performing natural moisture content test on all representative portions of each sample (ASTM Standard D 2216-80) and unconfined compressive strength tests on representative cohesive samples (ASTM Standard D 2166-85). Also, additional estimated unconfined compressive strength values were obtained by using calibrated spring-loaded pocket penetrometer. After completion of the testing program, every soil sample was visually classified in accordance with the Unified Soil Classification System

Feburary 22, 1990

MDM CONSTRUCTION
Lab No. CH 5742
File No. 7306.71

(ASTM Standards D 2487-85 and D 2488-84) by an experienced soil engineer. A brief description of the Unified System of classification is included in the Appendix of this report.

The general soil conditions present at the surface of the project site consist of approximately 4.0 feet of rubble fill and organic topsoil. Underlying the aforementioned materials, this boring encountered tough brown to gray silty clay and then a layer of gray silty clay, that is stiff to tough in consistency.

The groundwater level measurements were obtained while drilling and after completion of the boring. Short term groundwater level measurements indicate that the perched water table was encountered approximately 3 feet below the existing grade. Seasonal and yearly fluctuations in the water table can be anticipated due to changes in hydrogeologic regime, such as, but not limited to, variations in precipitation, evaporation and surface runoff.

EQUIPMENT SUPPORT BUILDING:

On the basis of the soil boring and laboratory testing of the soils, it is recommended that the proposed structure be supported by the most economical

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• research
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Feburary 22, 1990

MDM CONSTRUCTION
Lab No. CH 5742
File No. 7306.71

foundation system such as exterior and/or interior wall footings and interior column footings. These footings should be founded approximately 4.0 feet below present grade on underlying original brown-gray silty clay possessing maximum net allowable bearing capacity of 2,000 PSF. Following Table I exhibits the recommended minimum depth of the bottom of the footing from the existing ground surface level to achieve maximum net allowable bearing capacity of 2,000 PSF.

Please be advised that as per the local Building Codes, all footings should be carried to a depth of at least 3' - 6" below the adjoining ground surface, except that a reinforced concrete slab foundation extending over the entire area below a one-story building shall be permitted at a lesser depth below the adjoining ground surface when so designed as to eliminate structural damage from frost action.

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Feburary 22, 1990

MDM CONSTRUCTION
Lab No. CH 5742
File No. 7306.71

Table 1

SOIL BORING NUMBER	RECOMMENDED MIN. DEPTH OF FOOTING BOTTOM FROM EXT. GRADE FOR MAX. NET ALLOWABLE BEARING CAPACITY OF 2,000 PSF (ft.)	SOIL TYPE @ PROPOSED FOOTING ELEVATION
B-1	4.0	Brown-gray Silty Clay

CH 5742 . doc . Table.1

Due to potential variations in the site conditions, we recommend that the adequacy of the subgrade soils be reconfirmed in the field by a qualified soil technician from H. H. Holmes Testing Laboratories. If wet and/or loose sand/silt seams are encountered at the footing level, we recommend to remove all the disturbed soil from the excavation and replace with 3-inch diameter crushed limestone choked with CA-7.

In order to provide for uniform floor slab support, upon removal of the upper 24 inch layer of the unsuitable fill from the slab area, it is recommended to proof-

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roll this area with a heavy rubber tired construction equipment. The proof-rolling procedure should help to locate weak zones that may be present below stripped grade. The proof-rolling procedure should be observed by an experienced soil engineer in order to aid in locating any unsuitable materials. The areas of unsuitable soils should be removed to the depth encountered or to a maximum depth of 3.0 feet below design sub-grade, exposed grade should be re-compacted, and then bring the site to the desired sub-slab grade with an approved inorganic fill, that is free of debris, placed in loose layers of eight (8) inches and compacted to a minimum of 90% of maximum dry density obtained in accordance with ASTM Standard D 1557-78 (Modified Proctor Method) for cohesive soil, or, if granular material is used, 75% relative density in accordance with ASTM Standard D 2049-69. A typical granular fill consists of CA-6 or Grade 8 stone as per the State of Illinois Specifications for Road and Bridge Construction. Degree of compaction achieved should be checked in the field by a qualified soil technician. The area of soil processing should include building limits plus 5.0 feet. Also, final 4 inches of fill beneath all interior slabs-on-grade should be free-draining crushed stone or gravel. This layer will not only facilitate fine grading of the slab subgrade surface, but would also serve as a capillary cutoff layer which would minimize the migration of moisture through the floor slab. Where standing water develops on

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the floor slab subgrade, softening of the subgrade or other problems resulting in premature floor slab deterioration can also be expected. All floor slabs-on-grade should be isolated from the foundation system, and should contain an appropriate number of isolation and contraction joints in order to maintain the integrity of the slab should minor differential movements occur; and should be reinforced sufficiently with 6" x 6", #6/#6 WWF wire mesh (or Fibermesh, if applicable). Adequate construction, as well as control, joints should also be provided in order to minimize minor slab cracking.

RADIOTOWER:

On the basis of the soil boring and laboratory testing of the soils, it is recommended that the proposed structure be supported by a reinforced concrete mat foundation system. Bottom of this mat, proportioned on the basis of net allowable bearing capacity of 1,500 PSF, should be located approximately 3.5 feet below the existing grade upon the placed one-foot thick layer of three-inch diameter crushed limestone, that should be embedded into the exposed clay sub-grade. Adequate factors of safety should be utilized for the overturning moment and sliding resistance design. Coefficient of friction between the bottom of the concrete mat and crushed limestone can be assumed to be 0.40.

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Due to the potential variations in the site conditions, we recommend that the structural adequacy of the soils be reconfirmed in the field by a qualified soil technician from H. H. Holmes Testing Laboratories.

The above mentioned foundation system should be designed by a qualified Illinois-registered Professional Engineer.

It is believed that most of the paved areas will be subjected to AASHTO-H-20 loading as a maximum. We recommend a flexible pavement section which should be designed according to the "State of Illinois Department of Transportation, Division of Highways, Highway Design Manual".

Based upon the soil boring drilled in the proposed project area, it is recommended to proof-roll driveway/parking areas, remove the unsuitable materials to the depth encountered or to a maximum depth of 2.0 feet below the design sub-grade, re-compact the exposed soils, and then bring the site grade to the desired sub-grade elevation with an approved inorganic fill material, that is free of debris, placed in loose layers not to exceed nine (9) inches in thickness and compacted to a minimum of 95% of maximum dry density obtained in accordance

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with ASTM Standard D 1557-78 (Modified Proctor Method) for cohesive soil, or, if granular material is used, 80% relative density in accordance with ASTM Standard D 2049-69. A typical granular fill consists of CA-6 or Grade 8 stone as per the State of Illinois Specifications for Road and Bridge Construction. Degree of compaction achieved should be checked in the field by a qualified soil technician. The area of soil processing should include the limits of paved areas plus 2.0 feet. The base course shall be CA-6 or Grade 8 Crushed Stone and the bituminous concrete binder and surface courses should consist of fine dense graded aggregate, Class I, Sub-Class I-11 as defined in the State of Illinois Standard Specifications for Road and Bridge Construction (Ref. #5).

The design of pavements should incorporate provisions for drainage of both the pavement surface and the base course layer. Where standing water is allowed to accumulate on the pavement surface or within the base course, softening of the subgrade and thus the deterioration of the pavement is likely.

When considering the depth of the true groundwater table in relation to the proposed average excavation depth, it is thought that groundwater infiltration problems will be present. Care should be exercised to remove all water as well as

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any loosened or disturbed materials from the base of all excavations immediately prior to the placing of concrete. The base of all excavations should also be protected during construction from deterioration or softening caused by frost and construction activity.

This report has been prepared in order to aid in the evaluation and design of this project. In the event that any changes in the design and/or location of the building(s) as outlined in this report are planned, we should be informed so the changes can be reviewed and the conclusions of this report modified as necessary in writing by the soil and foundation engineer. If you wish, we would welcome the opportunity to provide field construction services for this project. The analysis and recommendations submitted in this report are based upon the data obtained from the soil boring performed at the location indicated on the location diagram. This report does not reflect any variations which may occur beyond this boring.

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We have welcomed the opportunity to be of service to you on this project. If there are any questions with regard to the information and/or recommendations presented, please do not hesitate to contact us.

Very truly yours,

H. H. HOLMES TESTING LABORATORIES, INC.

Richard E. Nelson, Jr.
President

S. Meilman, P.E.
Soil Engineer

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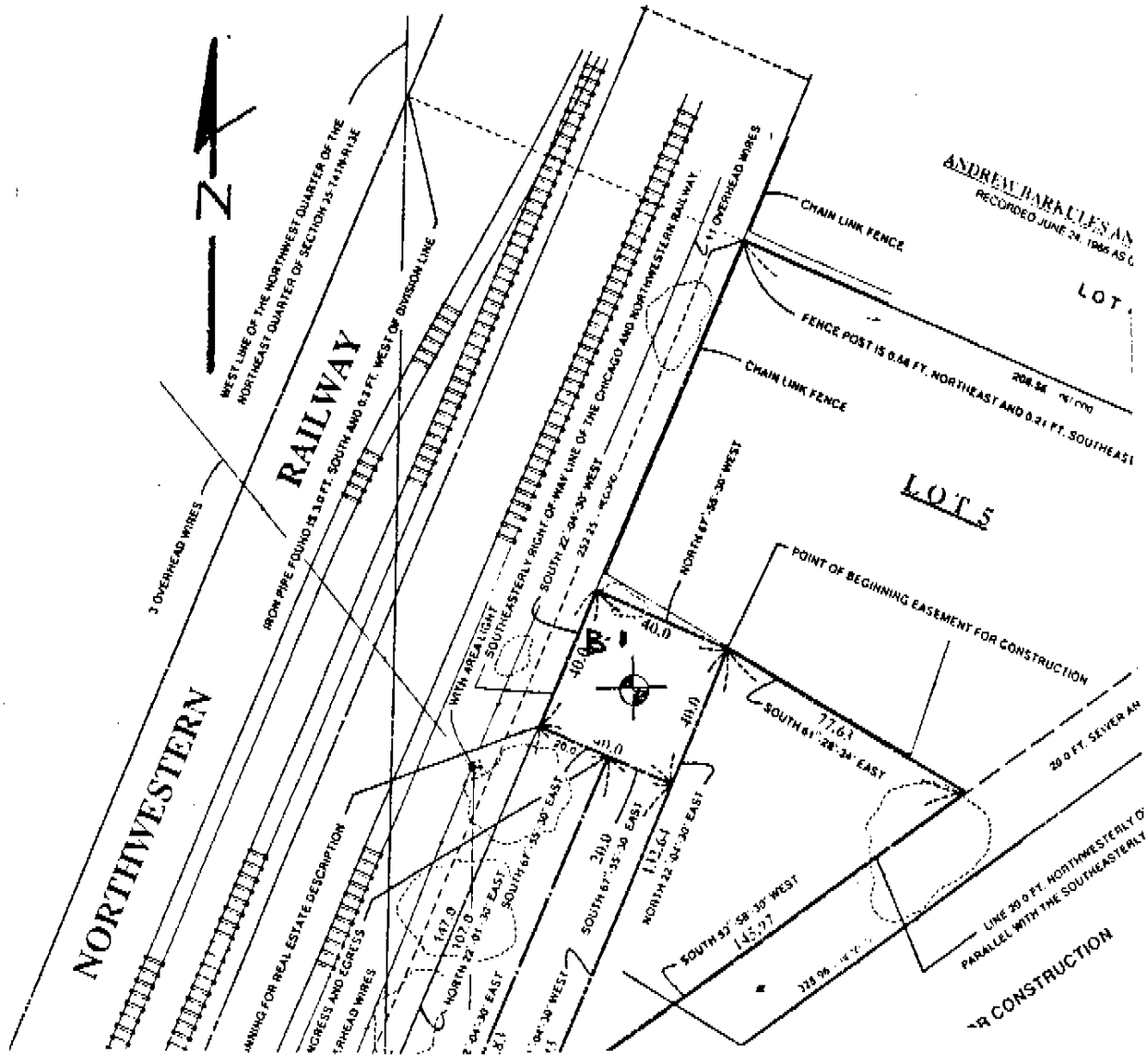

SOIL BORING LOCATION DIAGRAM (N.T.S.)

Project: CELLULAR ONE CHICAGO SITE # 64
(MDM CONSTRUCTION)

Date: 1-31-90

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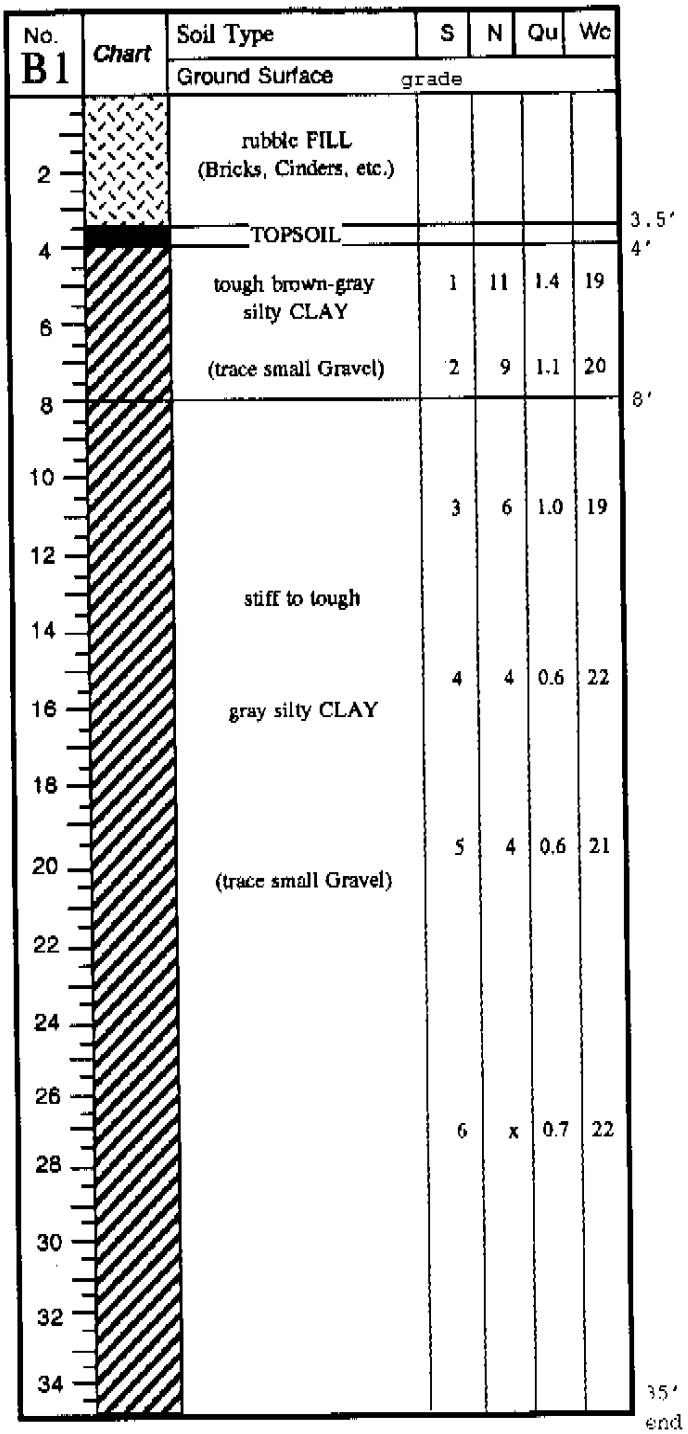
FILE No. 7306.71
LAB No. CH 5742

LOG OF TEST BORINGS



KEY

S = SAMPLE NUMBER
N = PENETRATION - blows / foot
Qu = UNCONFINED STRENGTH (tons / Square Foot)
Wc = WATER CONTENT IN %

= WATER LEVEL WHILE SAMPLING

= WATER LEVEL AFTER BORING

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LIST OF REFERENCES

1 -- "Design of Concrete Structures", 9th Edition, by G.Winter and A.H.Nilson, 1979.

2 -- "City of Chicago Building Code", 1973.

3 -- "Basic Soil Engineering", 2nd Edition, by B.K.Hough, 1969.

4 -- "1987 Annual Book of ASTM Standards", Section 4 - Volume 04.08, "Soil and Rock; Building Stones".

5 -- "Standard Specifications for Road and Bridge Construction", Adopted October 1, 1983, IDOT.

6 -- "Construction and Geotechnical Methods in Foundation Engineering", by R.M.Koerner, 1984.

7 -- "Geotechnical Engineering", by R.D. Holtz and W.D. Kovacs, 1981.

8 -- "Foundation Engineering", by R.B. Peck, W. E. Hanson and T.H. Thornburn, 1974.

9 -- "Theoretical Soil Mechanics", by Karl Terzaghi, 1943.

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LEGEND FOR BORING LOGS

MATERIAL	*SIZE RANGE*
Boulder	Over 8 inches
Cobble	2.5 inches to 8 inches
Coarse Gravel	1 inch to 2.5 inches
Medium Gravel	3/8 inch to 1 inch
Small Gravel	No. 4 sieve to 3/8 inch
Coarse Sand	No. 20 sieve to No. 4 sieve
Medium Sand	No. 60 sieve to No. 20 sieve
Fine Sand	No. 200 sieve to No. 60 sieve
Silt or Clay	Finer than No. 200 sieve

COHESIVE SOILS

Classification	Qu
Very Soft	0.00 - 0.35
Soft	0.35 - 0.59
Stiff	0.60 - 0.99
Tough	1.00 - 1.99
Very Tough	2.00 - 3.99
Hard	over 4.00

COHESIONLESS SOILS

Classification	N
Very Loose	0 - 4
Loose	5 - 9
Firm	10 - 29
Dense	30 - 49
Very Dense	over 50

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MAJOR MODIFIERS: Silty, Sandy, Clayey and Gravelly

Modifying Term	*Percent by Weight*
Trace	1 - 10
Little	10 - 20
Some	20 - 35
And	35 - 50

SOIL COMPONENTS, FRACTIONS, TERMS AND ABBREVIATIONS FOR VISUAL IDENTIFICATION OF SOILS

DEFINITION OF TERMS RELATING TO STRATIFIED SOILS:

Parting	-	0 to 1/16 inch thickness
Seam	-	1/16 inch to 1/2 inch thickness
Layer	-	1/2 inch to 12 inch thickness
Stratum	-	Usually greater than 12 inches thick; occasionally less, e.g. topsoil
Varved Silt	-	Fresh water lake deposit usually in seams, but occasionally in layers
Pocket	-	Small, erratic deposit usually less than 12"
Lens	-	Lenticular deposit, larger than pocket
Occasional	-	One or less per 12 inches of thickness
Frequent	-	More than one per 12 inches of thickness

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GLOSSARY OF MODIFYING TERMS

CATEGORY	*SYMBOL*	*TERM*	*SYMBOL*	*TERM*
Colors	bk	black	rd	red
	bl	blue	tn	tan
	br	brown	wh	white
	gr	gray	yw	yellow
	gn	green	dk	dark
	or	orange	lt	light
Organic Soils	dec	decayed	rts	roots
	dec'g	decaying	ts	topsoil
	lig	lignite	veg	vegetation
	o	organic	pt	peat
Stratification	alt	alternating	pkt	pocket
	lns	lens	prt	parting
	lyr	layer	sm	seam
	occ	occasional	vvd	varved
	frqt	frequent	w	with

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IDENTIFYING TERMS FOR COMPOSITION OF GRANULAR SOILS

IDENTIFICATION			TERMS IDENTIFYING PROPORTIONS*		DEFINING RANGE OF PERCENTAGES BY WEIGHT
COMPONENT	*WRITTEN*	*SYMBOL*		*WRITTEN*	*SYMBOL*
Principal Component	Gravel Sand Silt	G S S			50 or more
Minor Component	Gravel Sand Silt	G S S	and some little trace	a s l t	35 to 50 20 to 35 10 to 20 1 to 10

* Proportions refer to the percentage of the whole soil finer and coarser than the principal component.

Plus (+) nearer the upper limits of a proportion.

Minus (-) nearer the lower limits of a proportion.

No sign, middle range of a proportion.

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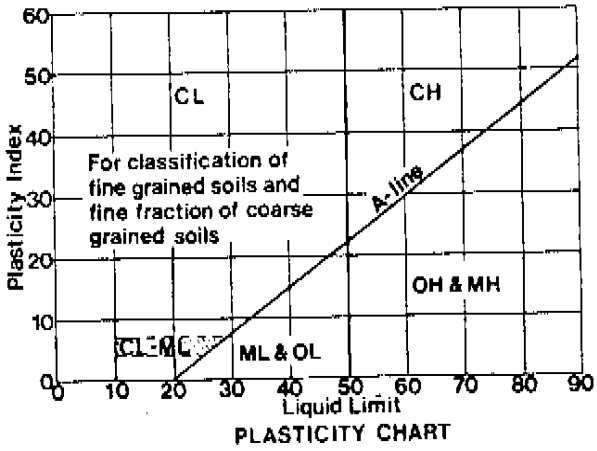
IDENTIFYING TERMS FOR COMP. CLAY-SOIL ON OVERALL PLASTICITY BASIS

DEGREE OF OVERALL PLASTICITY		OVERALL PLASTICITY INDEX SAND-SILT-CLAY	IDENTIFICATION OF PRINCIPAL COMPONENTS	
Written	*Symbol*		*Written*	*Symbol*
Non-plastic		0	Silt	S
Slight	Sl	1 to 5	Clayey Silt	CyS
Low	L	5 to 10	Silt and Clay	S&C
Medium	M	10 to 20	Clay and Silt	C&S
High	H	20 to 40	Silty Clay	SyC
Very High	VH	over 40	Clay	C

SOIL CLASSIFICATION SYSTEM

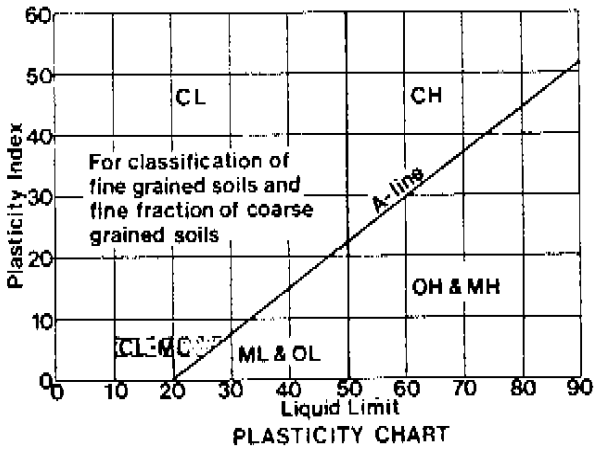
MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES	LABORATORY CLASSIFICATION CRITERIA
Coarse Grained Soils (More than half of material is larger than No. 200 sieve)	Gravel (More than half of coarse fraction is larger than No. 4 sieve size)	Clean Gravel (Little or no fines)	GW	Well graded gravel, gravel-sand mixtures, little or no fines	Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse grained soils are classified as follows: Less than 5 per cent . . . . . GW, GP, SW, SP. More than 12 per cent . . . . . GM, GC, SM, SC. 5 to 12 per cent . . . . . Borderline cases requiring dual symbols. $C_u = \frac{D_{60}}{D_{10}}$ greater than 4 : $C_z = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3
			GP	Poorly graded gravel, gravel-sand mixtures, little or no fines	Not meeting all gradation requirements for GW
		Gravel with fines (Appreciable amount of fines)	GM	Silty gravel, gravel-sand-silt mixtures	Atterberg limits below A-line or P.I. less than 4 — Above A-line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
			GC	Clayey gravel, gravel-sand-clay mixtures	Atterberg limits above A-line with P.I. greater than 7
	Sand (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean Sand Little or no fines	SW	Well graded sand, gravelly sand, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 6 : $C_z = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3
			SP	Poorly graded sand, gravelly sand, little or no fines	Not meeting all gradation requirements for SW
		Sand with fines (Appreciable amount of fines)	SM	Silty sand, sand-silt mixtures	Atterberg limits below A-line or P.I. less than 4 — Limits plotting in hatched zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
			SC	Clayey sand, sand-clay mixtures	Atterberg limits above A-line with P.I. greater than 7
Fine Grained Soils (More than half of material is smaller than No. 200 sieve)	Silt and Clay (Liquid Limit less than 50)		ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or clayey silt with slight plasticity	
			CL	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay, silty clay	
			OL	Organic silt and organic silty clay of low plasticity	
	Silt and Clay (Liquid limit greater than 50)		MH	Inorganic silt, micaceous or diatomaceous fine sandy or silty soil, elastic silt	
			CH	Inorganic clay of high plasticity	
			OH	Organic clay of medium to high plasticity, organic silt	
	Highly Organic Soils		Pt	Peat and other highly organic soil	



PLASTICITY CHART

SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES	LABORATORY CLASSIFICATION CRITERIA	
Coarse Grained Soils (More than half of material is larger than No. 200 sieve)	Gravel (More than half of coarse fraction is larger than No. 4 sieve size)	Clean Gravel (Little or no fines)	GW	Well graded gravel, gravel-sand mixtures, little or no fines	Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse grained soils are classified as follows: Less than 5 per cent . . . . . GW, GP, SW, SP; More than 12 per cent . . . . . GM, GC, SM, SC; 5 to 12 per cent . . . . . Borderline cases requiring dual symbols	$C_U = \frac{D_{60}}{D_{10}}$ greater than 4 : $C_Z = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3
			GP	Poorly graded gravel, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for GW
		Gravel with fines (Appreciable amount of fines)	GM	Silty gravel, gravel-sand-silt mixtures	Atterberg limits below A-line or P.I. less than 4	Above A-line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
			GC	Clayey gravel, gravel-sand-clay mixtures	Atterberg limits above A-line with P.I. greater than 7	
	Sand (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean Sand (Little or no fines)	SW	Well graded sand, gravelly sand, little or no fines	$C_U = \frac{D_{60}}{D_{10}}$ greater than 6 : $C_Z = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			SP	Poorly graded sand, gravelly sand, little or no fines	Not meeting all gradation requirements for SW	
		Sand with fines (Appreciable amount of fines)	SM	Silty sand, sand-silt mixtures	Atterberg limits below A-line or P.I. less than 4	Limits plotting in hatched zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
			SC	Clayey sand, sand-clay mixtures	Atterberg limits above A-line with P.I. greater than 7	
Fine Grained Soils (More than half of material is smaller than No. 200 sieve)	Silt and Clay (Liquid Limit less than 50)		ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or clayey silt with slight plasticity		
			CL	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay, silty clay		
			OL	Organic silt and organic silty clay of low plasticity		
	Silt and Clay (Liquid limit greater than 50)		MH	Inorganic silt, micaceous or diatomaceous fine sandy or silty soil, elastic silt		
			CH	Inorganic clay of high plasticity		
			OH	Organic clay of medium to high plasticity, organic silt		
	Highly Organic Soils		Pt	Peat and other highly organic soil		



PLASTICITY CHART

ATC TOWER INSPECTION FORM

ANSI-TIA/EIA222-G, Annex J Compliant

SECTION A - SITE INFORMATION

ATC Site Number: 303900
Site Address: 7001 Central Park
City/State: Chicago, IL
Contractor Name : Norman Tower Service, Inc.
Inspection Completed By: Kenny Vogel, Nick Alexander, Harold Hartman

ATC Site Name: Lincolnwood
Latitude: -42.00908
Longitude: -87.7187
Number of Compounds: 1
Date of Inspection: 2/4/10

SECTION B - TOWER INFORMATION

Structure Type: Self-Support
Tower Height: 100 ft
Overall Structure Height: 106 ft
Tower Lit: Y/N No

Number of Tower Legs: 3
Number of Platforms: 0
Climbing/Safety Device: Safety Cable
FCC/ASR Number: NR
AM Detuning: Y/N NO

SECTION C - SITE INFORMATION CATEGORIES

SECTION A - Site Information (Do not insert information here)
SECTION B - Tower Information
SECTION C - Tower Information Summary Comments
SECTION D - SUMMURY OF DEFECIENCIES
SECTION E - Tower Foundation Comments
SECTION F - Tower Structure Comments
SECTION G - Safety Comments
SECTION H - Grounding Comments
SECTION I - Guy Anchors & Wires Comments
SECTION J - AM Detuning Comments
SECTION K - Compliance

SECTION D- SUMMURY OF DEFECIENCIES

Instructions: Note only STRUCTURAL items from each subsection with picture(s) and location on structure- If NO items present enter " NONE" (add additional lines if necessary)

1) Rust spot (Pic #31, corrected #32) (Pic #54, corrected #56) (Pic #44, corrected #48)
2) Rusted Bolts (Pic #38-40,45-47,52,54,55, Corrected #41-43,49-51,53,56,57)
3)
4)
5)
6)
7)

SECTION E - TOWER FOUNDATION

Instructions

Tower base should be visually inspected for spalling and cracking of the concrete. The soil surrounding the tower base foundation should be inspected for evidence of settlement. Any such settlement or movement should be noted.

Base drains (if present) should be clear of any obstructions. Penetrate drain with object to ensure drains functioning.

Base insulators (if present) - The porcelain surface should be wiped clean with a soft cloth to remove any salt deposits or other foreign substance. A check should be made for any evidence of deterioration or cracks in the porcelain surface.

All discrepancies must be marked with masking tape and magic marker.

All discrepancies must be noted and photographed and numbered.

	Yes	No	Corrected	N/A
Is tower center pin in place?				x
Is tower center pin free of corrosion?				x
Are all plate bolts, nuts, and washers present?	x			
Is the tower foundation in good condition? (No cracking, spalling, or settling)	x			
Verify no standing water in base.	x			
Verify base drains are clear and free flowing (if present).	x	x	x	x
Is porcelain surface of base insulators (if present) in good condition? (no deterioration or cracking.)				x
Is the soil around the foundation in good condition? (no settling or movement)	x			

Place x in the proper box

Comments:

SECTION F - TOWER STRUCTURE

Instructions

Corrosion - If corrosion is observed, the source should be determined and noted. Clean with wire brush. Spray with cold galvanizing paint and mark as Corrected

Damaged or faulty members - A visual inspection must be made of the entire tower structure to determine if any of the members have been deformed or damaged.

Any bowed, bent or damaged member/bolt should be noted as to part number, size, location on tower, nature and magnitude of deformation or damage.

Do not remove any tower member for replacement unless authorized by ATC Engineering Dept - Signed/Sealed Construction Drawings are required in the event of modification is required.

All discrepancies must be marked with masking tape and magic marker.

All discrepancies must be noted and photographed before and after repair.

	Yes	No	Corrected	N/A	
Check bolts and nuts for tightness. ***(Tighten all loose bolts and mark as corrected.)***	x				**Place x in the proper box**
Inspect tower for rust. ***(If Needed clean and apply cold galvanize and mark as corrected - note details below.)***		x			
Verify all structural members are straight and not damaged, bent, and/or missing.	x				
Is the tower free of twisting and distortion? (Verify with transit - mark as needed on Twist and Plumb tab)	x				
Is the tower finish in good condition? (Obvious sign of cracking)	x				

Comments: Rust Spots (Pic #31,44,54, Corrected #32,48,56)

Rusted Splice bolts (Pic #38-40,45-47,52,54,55, Corrected #41-43,49-51,53,56,57)

SECTION G - SAFETY

Instructions

Safety is paramount- Report anything that makes it unsafe to operate or maintain this tower to ATC immediately.

All discrepancies must be marked with masking tape and magic marker.

All discrepancies must be noted and photographed before and after repair.

	Yes	No	Corrected	N/A	
Is there a safety climb system?	x				**Place x in the proper box**
Is the climbing path free from obstructions?	x				
Is the safety climb system properly installed and secure? If loose, tighten and note as Corrected.	x				
Is the FCC and ATC signage apparent and placed properly.	x				

Comments:

SECTION H - GROUNDING

Instructions

Connections - The connections above grade should be visually checked for loose fittings, ensure wires are snug in mechanical connections or well bonded with exothermic connections at the base of the tower.

Ground Wires - The ground wires at the base should be cad welded to each leg.

Take a photo of the grounding at the base and at each anchor.

All discrepancies must be marked with masking tape and magic marker.

All discrepancies must be noted and photographed.

	Yes	No	Corrected	N/A	
Is the tower base properly grounded?	x				**Place x in the proper box**
Are ground wires and connections in satisfactory condition?	x				
Is lightning rod or static dissipation array properly installed (if present)?	x				
Is the lightning rod mounted in a location making it the highest point on the tower?		x			
Are the anchors properly grounded?				x	

Comments: The dipole is the tallest point

SECTION I - GUY ANCHORS & WIRES

Instructions

All discrepancies must be marked with masking tape and magic marker.

All discrepancies must be noted and photographed.

	Yes	No	Corrected	N/A	
Are the guy anchors & paths clear of brush and vegetation?				x	**Place x in the proper box**
Are guy plates and rods free from any bends and/or fractures?				x	
Are exposed guy anchor foundations free from cracking, weathering?				x	
Excavate by hand to a minumum of 24" below grade for signs of corrosion				x	
Do the turnbuckles have room for adjusting tensions? (Fully extended or contracted? Overall condition?)				x	

Are anchors free of corroded areas?				x
Is guy anchor rod laterally aligned?				x
Are guy wires free of broken strands or insulators?				x
Are the guy dampers secured and in good condition?				x
Are all shackles, clevises, thimbles, cotter pins, and Crosby clamps properly installed and tight?				x
Are the pre-form grips in good condition?				x
Are guy wires and guy hardware free of corrosion?				x
Is each turnbuckle safety wire installed and secure?				x
Are guy wire connections in satisfactory condition?				x
Are ice breakers installed on pre-form grips?				x
Are guy attachment points to tower in good condition?				x

Comments:

SECTION J- AM DETUNING

Instructions

All discrepancies must be marked with masking tape and magic marker.

All discrepancies must be noted and photographed.

Note: If the tower has a base insulator (decomisioined AM hot tower) the box next to the tower with a single wire feed is NOT an AM detuning device.

	Yes	No	Corrected	N/A	
Is there an AM Detuning system on tower?				x	**Place x in the proper box**
Are the AM Detuning skirt wires securely attached to the tower?				x	
Are the AM Detuning wires in good condition? (Broken, sharp bends, etc)				x	
Is the AM Detuning box securely attached to the tower or other mounting system?				x	
Is the AM Detuning box in good condition? (Sealed, loose or missing hardware, etc)				x	
Is the exterior of the AM Detuning box free of rust and corrosion?				x	
Is the AM Detuning system properly grounded?				x	

Comments:

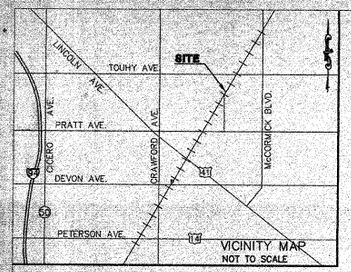
SECTION K - COMPLIANCE

I certify this report to be accurate and complete to the best of my knowledge and belief.

Name Kenny Vogel **Date 2/4/10**

Company: Norman Tower Service, Inc.

SCI CONSTRUCTION AS-BUILT LAND SURVEY



LEGEND

SANITARY MANHOLE	UTILITY POLE
STORM MANHOLE	LIGHT POLE(MAST ARM)
CATCH BASIN	LIGHT POLE
INLET, CURB BOX	ELECTRIC MANHOLE
ANCHOR	ELECTRIC METER
VALVE VAULT	TRAFFIC SIGNAL BOX
FIRE HYDRANT	TRAFFIC SIGNAL POLE
WATER METER	TRAFFIC SIGNAL MANHOLE
B-BOX	SIGN
VALVE BOX	MAIL BOX
GAS VALVE	BOLLARD POST
GAS BOX	X---X- FENCE
SET PEDESTAL	
TELEPHONE MANHOLE	

ELEVATION DATUM

TOWER TYPE: Lattice

ALL ELEVATIONS ARE BASED ON NAVD 1988 DATUM.

GROUND ELEVATION: 601'
STRUCTURE HEIGHT: 100.2'
ELEVATION OF TOP OF TOWER: 701.2'
ELEVATION OF HIGHEST POINT: 711.2'

LATITUDE AND LONGITUDE VALUES FOR THE CENTER OF THE TOWER ARE ACCURATE TO WITHIN 15 +/- FEET HORIZONTALLY. ELEVATION DATUM IS ACCURATE TO WITHIN 3 +/- FEET VERTICALLY.

LATITUDE & LONGITUDE

LATITUDE AND LONGITUDE FOR THE EXISTING TOWER

BASED ON NAD 83
LATITUDE: 42°-00'-32.7"
LONGITUDE: 87°-43'-07.2"

THIS IS TO CERTIFY THAT THE GEOGRAPHICAL LOCATION SHOWN ABOVE IS ACCURATE TO WITH IN +/- 15 FEET HORIZONTAL AND 3+/- FEET VERTICAL.

THE UTILITIES AS SHOWN ON THIS DRAWING WERE DEVELOPED FROM THE INFORMATION AVAILABLE. THIS IS NOT IMPLIED NOR INTENDED TO BE THE COMPLETE INVENTORY OF UTILITIES IN THIS AREA. IT IS THE CLIENTS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE.

ZONING DATA*

ZONE: M (Manufacturing)
As per Village of Lincolnwood Zoning Department,
847-673-7402
SETBACKS: FRONT: 25'
REAR: 5'
SIDE: 5', If side lot line adjoins a railroad right of way then N/A
Maximum Bulk: 1.2
Maximum Height: N/A
Parking, N/A

NOTES CORRESPONDING TO SCHEDULE B:

THE COMMITMENT FOR TITLE INSURANCE ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY DATED NOVEMBER 29, 2000, AS COMMITMENT NO.T1138, CONTAINS THE FOLLOWING EXCEPTIONS WHICH ARE SURVEY MATTERS:

(1) – (8) GENERAL IN NATURE AND ARE NOT PLOTTED HEREON.

(9) GENERAL TAXES FOR THE YEAR 2000 AND THEREAFTER IS NOT PLOTTED HEREON.

(10) MORTGAGES, ENCUMBRANCES, AND INTERESTS SUBORDINATE TO THE INTEREST OF THE LESSEE UNDER SITE AGREEMENT IS NOT PLOTTED HEREON.

(11) TERMS AND PROVISIONS OF THE SITE AGREEMENT DATED MAY 17, 1990 RECORDED AS DOCUMENT NO. 90-350397 IS NOT PLOTTED HEREON.

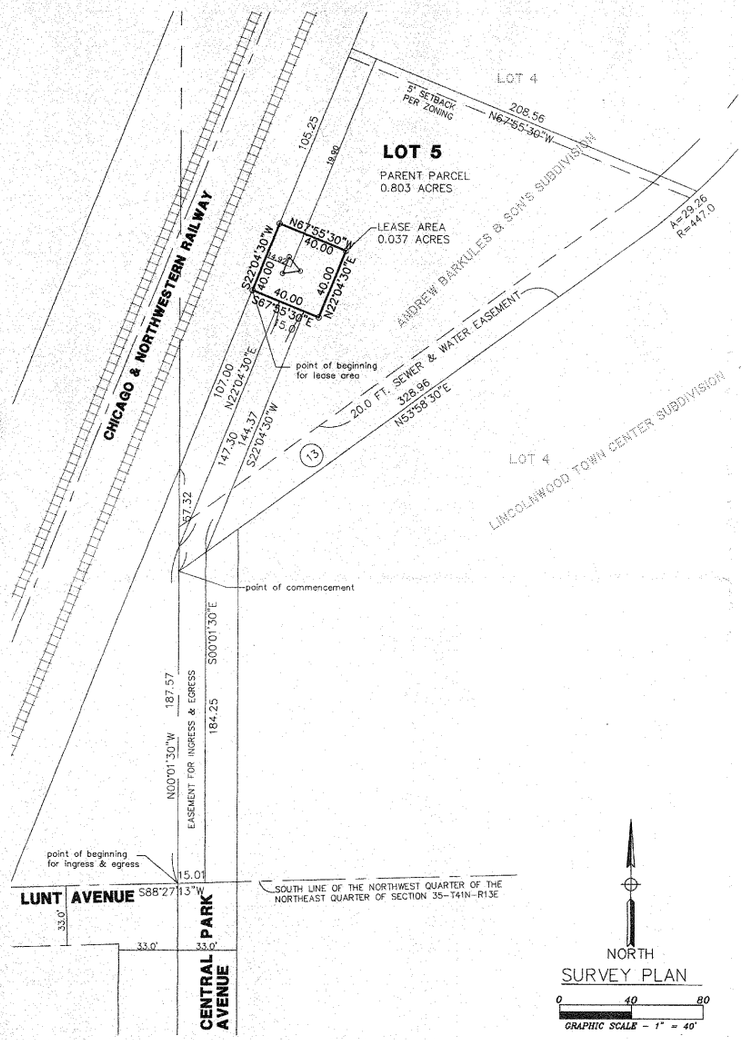
(12) EASEMENT GRANTED TO VILLAGE OF LINCOLNWOOD RECORDED AS DOCUMENT NO. 24899522 IS NOT AVAILABLE THEREFORE IS NOT PLOTTED HEREON.

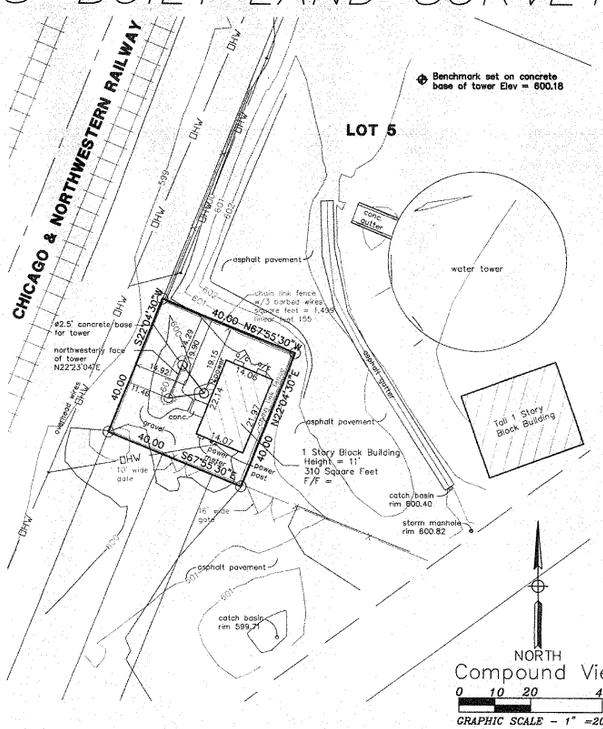
(13) EASEMENTS FOR PUBLIC UTILITIES AND DRAINAGE OVER, UPON AND UNDER THE SOUTHEASTERLY 20 FEET OF LAND AS SHOWN BY THE SUBDIVISION PLAT, IS PLOTTED HEREON.

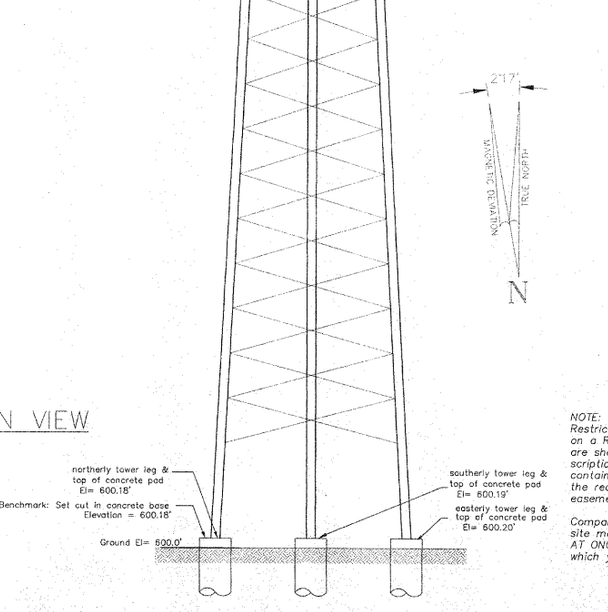
(14) TERMS, CONDITION AND PROVISION OF THE DOCUMENT CREATING THE EASEMENT DESCRIBED TOGETHER WITH THE RIGHTS OF THE ADJOINING OWNERS IN AND TO THE CONCURRENT USE OF SAID EASEMENT, IS NOT PLOTTED HEREON.

(15) TERMS, PROVISIONS AND CONDITIONS IN DEED RECORDED AS DOCUMENT NO. 14168825.

(16) GENERAL IN NATURE AND IS NOT PLOTTED HEREON.







NORTH
SURVEY PLAN
0 40 80
GRAPHIC SCALE - 1" = 40'

TOWER ELEVATION VIEW
not to scale

PARENT PARCEL LEGAL DESCRIPTION AS PROVIDED:

LOT 5 IN ANDREW BARKULES AND SONS SUBDIVISION ON THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 35, TOWNSHIP 41 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, SAID ANDREW BARKULES AND SONS SUBDIVISION RECORDED JUNE 24, 1966 AS DOCUMENT NO. 19867378, IN COOK COUNTY, ILLINOIS.

LEASE AREA LEGAL DESCRIPTION AS PROVIDED:

THAT PART OF LOT 5 IN ANDREW BARKULES AND SONS SUBDIVISION ON THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 35, TOWNSHIP 41 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, SAID ANDREW BARKULES AND SONS SUBDIVISION RECORDED JUNE 24, 1966 AS DOCUMENT NO. 19867378 BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE MOST SOUTHWESTERLY CORNER OF SAID LOT 5; THENCE NORTH 00°01'30" WEST, BEING AN ASSUMED BEARING ON THE WEST LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 35, ALSO BEING THE MOST WESTERLY LINE OF SAID LOT 5, A DISTANCE OF 57.32 FEET TO THE INTERSECTION WITH THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 22°04'30" EAST ON THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF SAID CHICAGO AND NORTHWESTERN RAILWAY, ALSO BEING THE NORTHWESTERLY LINE OF SAID LOT 5, A DISTANCE OF 107.0 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 67°55'30" EAST, A DISTANCE OF 40.0 FEET; THENCE NORTH 22°04'30" EAST A DISTANCE OF 40.0 FEET; THENCE NORTH 67°55'30" EAST WEST, A DISTANCE OF 40.0 FEET; THENCE SOUTH 22°04'30" WEST, A DISTANCE OF 40.0 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

EASEMENT FOR INGRESS AND EGRESS LEGAL DESCRIPTION AS PROVIDED:

THAT PART OF THE NORTH HALF OF SECTION 35, TOWNSHIP 41 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, AND PART OF LOT 5, IN ANDREW BARKULES AND SONS SUBDIVISION IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF OF SAID SECTION 35, SAID ANDREW BARKULES AND SONS SUBDIVISION RECORDED ON JUNE 24, 1966 AS DOCUMENT NO. 19867378 BOUNDED AND DESCRIBED AS FOLLOWS; BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 35; THENCE NORTH 00°01'30" WEST, BEING AN ASSUMED BEARING ON THE WEST LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 35, A DISTANCE OF 187.57 FEET; THENCE NORTH 22°04'30" EAST, A DISTANCE OF 147.30 FEET; THENCE SOUTH 67°55'30" EAST A DISTANCE OF 15.0 FEET; THENCE SOUTH 22°04'30" WEST A DISTANCE OF 144.37 FEET TO THE SOUTHEASTERLY LINE OF SAID LOT 5; THENCE SOUTH 00°01'30" EAST A DISTANCE OF 184.25 FEET TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 35; THENCE SOUTH 88°27'13" WEST ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 35 AND THE SOUTH LINE OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 35, A DISTANCE OF 15.01 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

ENCROACHMENT STATEMENT:

There are no encroachments onto or off of lease site.

ACCESS NOTE / NARRATIVE:

Access to site is via a 15' Easement for Ingress & Egress contiguous to Central Park Avenue.

SURVEYOR'S NOTES:

1. The description contained hereon describes all property described in First American Title Insurance Company commitment No.T1138, dated November 29, 2000.
2. No underground installations or improvements were located as a part of this survey.
3. No evidence of cemeteries or burial grounds was found on site at time of survey.
4. Ownership of this property is subject to opinion of title and is not expressed or implied by this survey.
5. This survey shows only dedications, restrictions and easements contained in the above-mentioned Title Commitment and provided to the surveyor. It is possible there are other recorded instruments, which may affect this property.
6. Bearings and distances are record and measured unless otherwise noted.
7. Bearings are based on record legal description.
8. Subject property appears to be located in Flood Zone "X" (area outside 500 year flood plain) per F.I.R.M. No. 17031C0265 F, dated November 6, 2000.
9. This survey was prepared expressly for the entities named. No other person or entity is entitled to rely upon this survey for any purpose whatsoever without the expressed written consent of International Land Services, Inc.
10. The survey shown hereon was prepared from a balanced and adjusted traverse.
11. Owner (lessor) of record is Village of Lincolnwood, Illinois.
12. Basis of bearings is the west line of the northwest quarter of the northeast quarter of section 35, township 41 north, range 13 east, assuming a bearing of North 00°01'30" West.

SURVEYOR'S CERTIFICATE:

I, KENT A. NAGEL, DO HEREBY CERTIFY TO SPECTRASITE COMMUNICATIONS, INC., FEDERAL AVIATION ADMINISTRATION, THAT THIS SURVEY WAS MADE ON THE GROUND UNDER MY PERSONAL SUPERVISION AND THAT THIS IS A TRUE, CORRECT REPRESENTATION OF THE FACTS AS FOUND AT THIS TIME OF THE SURVEY, AND MORE SPECIFICALLY, I SO HEREBY CERTIFY THAT THE SURVEY CONFORMS TO THE CONDITIONS AND STIPULATIONS AS CHECKED (X) BELOW (NOTE: ON LEASED PARCELS, "SUBJECT PROPERTY" IS DEFINED AS THE LEASED PREMISES AND ITS APPURTENANT EASEMENTS; AND THIS SURVEY SHALL NOT BE CONSTRUED AS A FULL BOUNDARY SURVEY OF THE PARENT TRACT):

(x) 1. CORRECTLY SHOWS THE LOCATION AND DIMENSION OF ALL ALLEYS, STREETS, ROADS, RIGHTS-OF-WAY, EASEMENTS AND OTHER MATTERS OF RECORD WHICH THE SURVEYOR HAS BEEN ADVISED AFFECTS THE SUBJECT PROPERTY (EACH HAS BEEN IDENTIFIED BY INSTRUMENT VOLUME AND PAGE NUMBER IF AVAILABLE).

(x) 2. EXCEPT AS SHOWN THERE ARE NO VISIBLE EASEMENTS, RIGHTS -OF-WAY, PARTY WALLS OR CONFLICTS.

(x) 3. ACCESS IS CONTIGUOUS BETWEEN THE SUBJECT PROPERTY AND A PUBLIC RIGHT-OF-WAY, AS SHOWN.

(x) 4. THE LEGAL DESCRIPTION DEPICTED HEREON IS THE SAME DEMISED IN THE TITLE COMMITMENT OR CURRENT LEASE REFERENCED HEREON.

(x) 5. SURVEY MEETS THE MINIMUM TOLERANCES OF PRECISION FOR BOUNDARY SURVEYS AS SET FORTH BY ILLINOIS STATE LAW.

NOTE: Only those Building Line Restrictions or Easements shown on a Recorded Subdivision Plat are shown hereon unless the descriptions ordered to be surveyed contains a proper description of the required building lines or easements.

Compare your description and site markings with this plat and AT ONCE report any discrepancies which you may find.

STATE OF ILLINOIS
COUNTY OF COOK S.S.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS OF PRACTICE APPLICABLE FOR A BOUNDARY SURVEY.

WHEELING, IL. 4/2 A.D. 200 1
GEOCON, LTD.

BY _____
ILLINOIS PROFESSIONAL LAND SURVEYOR
LICENSE EXPIRES: NOVEMBER 30, 2002

KENT A. NAGEL
3410
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
WHEELING, ILLINOIS
© 2001

Surveyor:
GEOCON, LTD.
an IC CONSULTING company
(847) 215-1133
(847) 215-1177 fax
geocon@gcconsulting.net
300 MARQUARDT DRIVE
WHEELING, IL 60090
FIRM NO. 048-000119

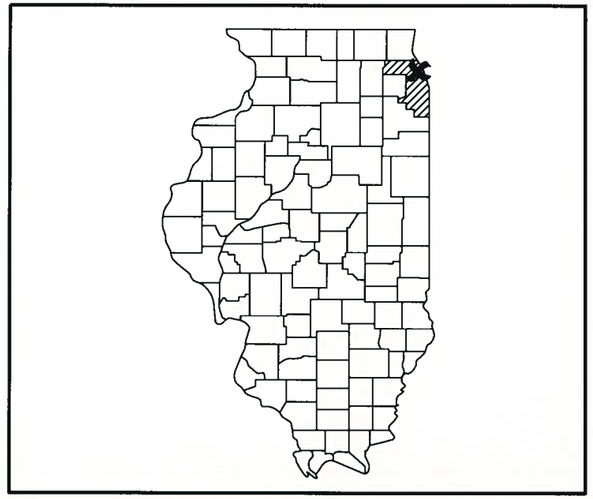
Work Coordinated by:
International WIRELESS SERVICES, LLC
2230 McKOWN DRIVE
Norman, Oklahoma 73072
(405) 701-2323 www.viewiws.com

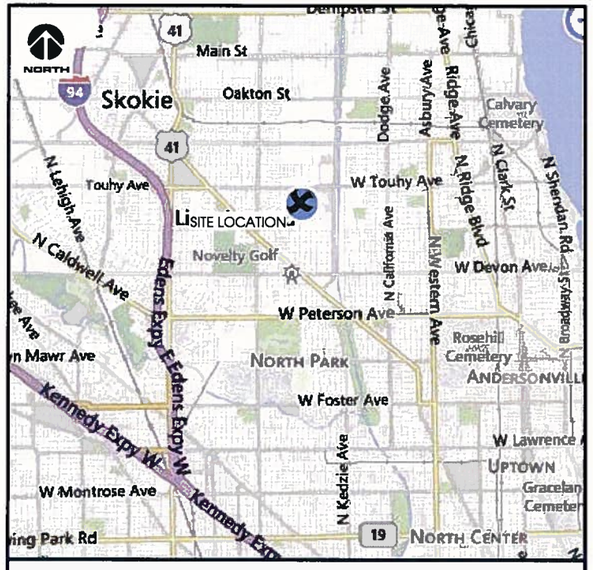
Prepared For:
SPECTRASITE COMMUNICATIONS
100 REGENCY FOREST DRIVE, SUITE 400
CARY, NC. 27511

Project Location	LINCOLNWOOD, ILLINOIS
Project Address	7001 CENTRAL PARK
Site Name	LINCOLNWOOD
SpectraSite Number	IL-0283

SHEET 1 OF 1

AS-BUILT SURVEY	
Date	8/29/01
Dwn. By	DMJ & SRM
Aprvd. By	KCL
Dwg. No.	201-333
IWS JOB #	01-06-72.244
REVISIONS	
DESCRIPTION:	DATE:
PER ILS	10/05/01





SITE LOCATION MAPS

SITE LOCATION SCAN

AMERICAN TOWER CORPORATION

verizonwireless

AMERICAN TOWER CORP.
LINCOLNWOOD [303900]
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

MARCH 2014

SHEET INDEX:

NO.:	PAGE TITLE:
T-1	TITLE SHEET & PROJECT DATA
1-2	SITE SURVEY*
C-1	SITE PLAN
C-2	COMPOUND PLAN
C-3	EQUIPMENT DETAILS
A-1	TOWER ELEVATION
A-2	ANTENNA DETAILS
A-3	ANTENNA CONFIGURATION
G-1	GROUNDING PLAN
G-2	GROUNDING DETAILS
E-1	ONE-LINE DIAGRAM

PREPARED BY OTHERS*

PROJECT DESCRIPTION:

PROJECT TYPE: 100' SELF-SUPPORT TOWER
PRO. ANTENNA C/L: 30' ABOVE T.O.C. (VERIFY WITH ECR)
ANTENNAS: 3 PRO. SMALL CELL ANT. (VERIFY WITH ECR)
COAX LINES: (2) PRO. FIBER CABLES (VERIFY WITH ECR)
(2) PRO. A/C POWER CABLES (VERIFY WITH ECR)
EQUIPMENT: (1) PRO. RRUS (VERIFY WITH ECR)
(1) PRO. RRUL (VERIFY WITH ECR)
GROUND EQUIPMENT: (1) CHARLES CABINET ON CONCRETE SLAB
LEASE AREAS: PRO. 3' x 6' LESSEE LEASE AREA
CONDUITS: (2) 2" CONDUITS

PROJECT DIRECTORY:

CLIENT:
AMERICAN TOWER CORP.
1101 PERIMETER DRIVE
SUITE 700
SCHAUMBURG, IL 60173
CONTACT: CHRISTOPHER FLICK
PHONE: 847.240.1508 EX. 2574

ENGINEERING COMPANY:
EDGE CONSULTING ENGINEERS, INC.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
CONTACT: BRUCE KIESLING
PHONE: 608.644.1449

SITE ACQUISITION:
LORA, CHANTHADOUANGSY & CASTELLANOS, LLC
10700 WEST HIGGINS ROAD, SUITE 240
ROSEMONT, IL 60018
CONTACT: KRISTIN HERSEMANN
PHONE: 847.380.5004

FIBER PROVIDER:
AT&T
CONTACT: HENRY TORRES

PROJECT INFO:

SITE LOCATION:
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, IL 60712

LESSEE:
VERIZON WIRELESS
1515 E. WOODFIELD ROAD
10TH FLOOR
SCHAUMBURG, IL 60173
SITE NAME: LINCOLNWOOD ATC SC
VZW LOCATION #: 277176

TOWER OWNER:
AMERICAN TOWER CORP. (ATC)
1101 PERIMETER DRIVE
SUITE 700
SCHAUMBURG, IL 60173
ATC #: 303900

1A INFORMATION *(PER ATC SITE BROCHURE)*
-TOWER BASE-
LAT: 42°-00'-32.7"
LONG: 87°-43'-07.3"
GROUND ELEVATION: 600'

STRUCTURAL REVIEW

TOWER STRUCTURAL ANALYSIS COMPLETED BY STRUCTURAL ENGINEER. REFER TO ANALYSIS BY:

AMERICAN TOWER CORPORATION
REPORT #: 56280725
DATE: 02/26/2014

CONTRACTOR TO REVIEW STRUCTURAL REPORT IN ITS ENTIRETY. ANY DISCREPANCIES OR DISAGREEMENTS BETWEEN THE REPORT AND THESE PLANS SHOULD BE RESOLVED PRIOR TO CONSTRUCTION.

CITY PLAN REVIEW

Edge
Consulting Engineers, Inc.

PROJECT ID:	303900
EDGE PROJECT NO:	10211
DRAWN BY:	APK
CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
B	03/11/2014	CD 90's SMALL CELL	JAH
A	02/25/2014	PRELIM SMALL CELL	APK

KENNETH C. BAUMGARDT
062-055227
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
3/4/14

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

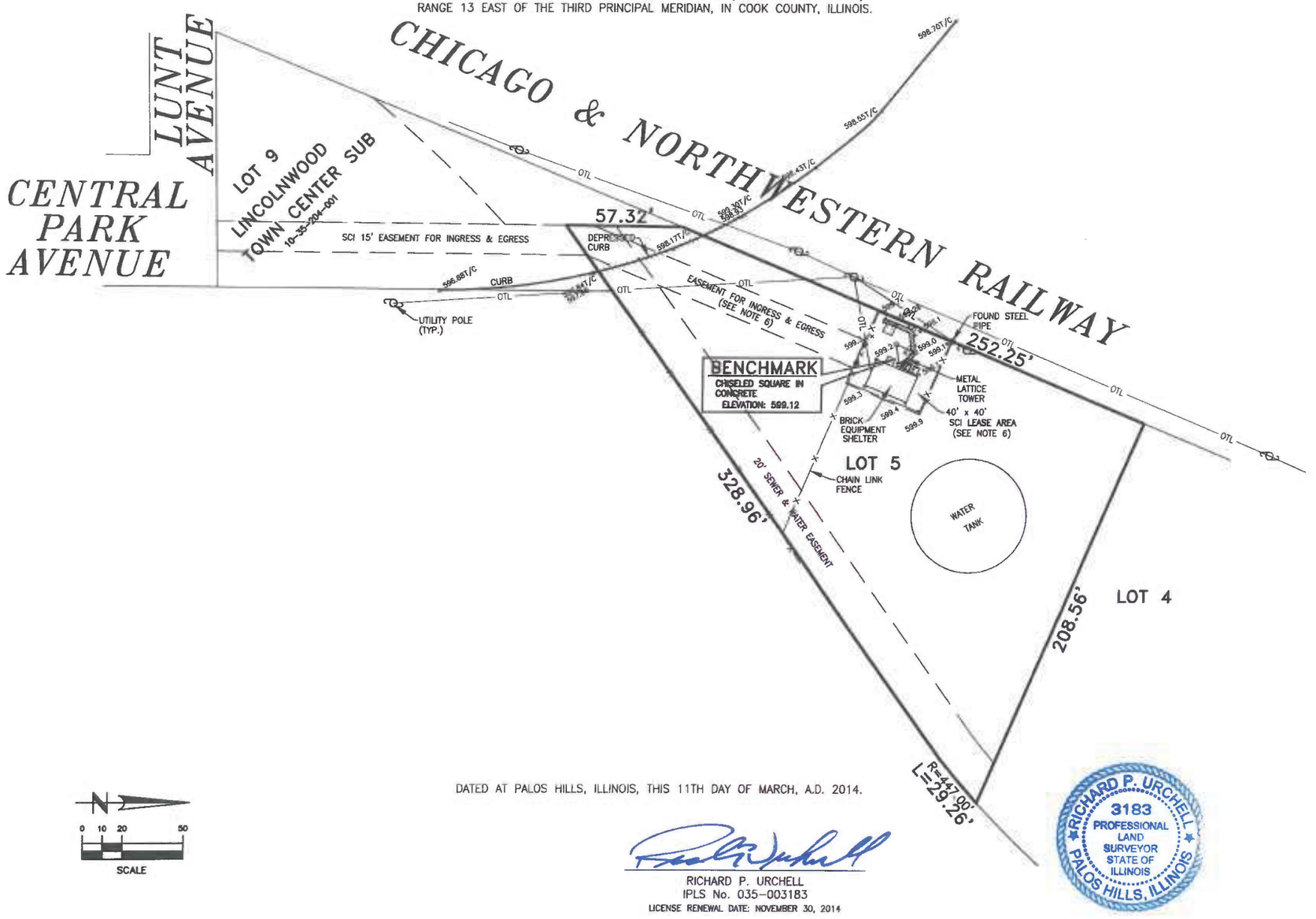
SHEET TITLE
TITLE SHEET & PROJECT DATA

SHEET NUMBER
T-1

L:\10200\10211\CAD\Port\Small Cell Drawings\T-1.dgn

SUBJECT PROPERTY

LOT 5 IN ANDREW BARKULAS AND SONS SUBDIVISION OF PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 35, TOWNSHIP 41 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.



0 10 20 50
SCALE

DATED AT PALOS HILLS, ILLINOIS, THIS 11TH DAY OF MARCH, A.D. 2014.

RICHARD P. URCHELL
IPLS No. 035-003183
LICENSE RENEWAL DATE: NOVEMBER 30, 2014

RICHARD P. URCHELL 3183 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS PALOS HILLS, ILLINOIS

Edge Consulting Engineers, Inc.

AMERICAN TOWER CORPORATION

2	3/11/14	SITE SURVEY
1	2/27/14	PRELIMINARY

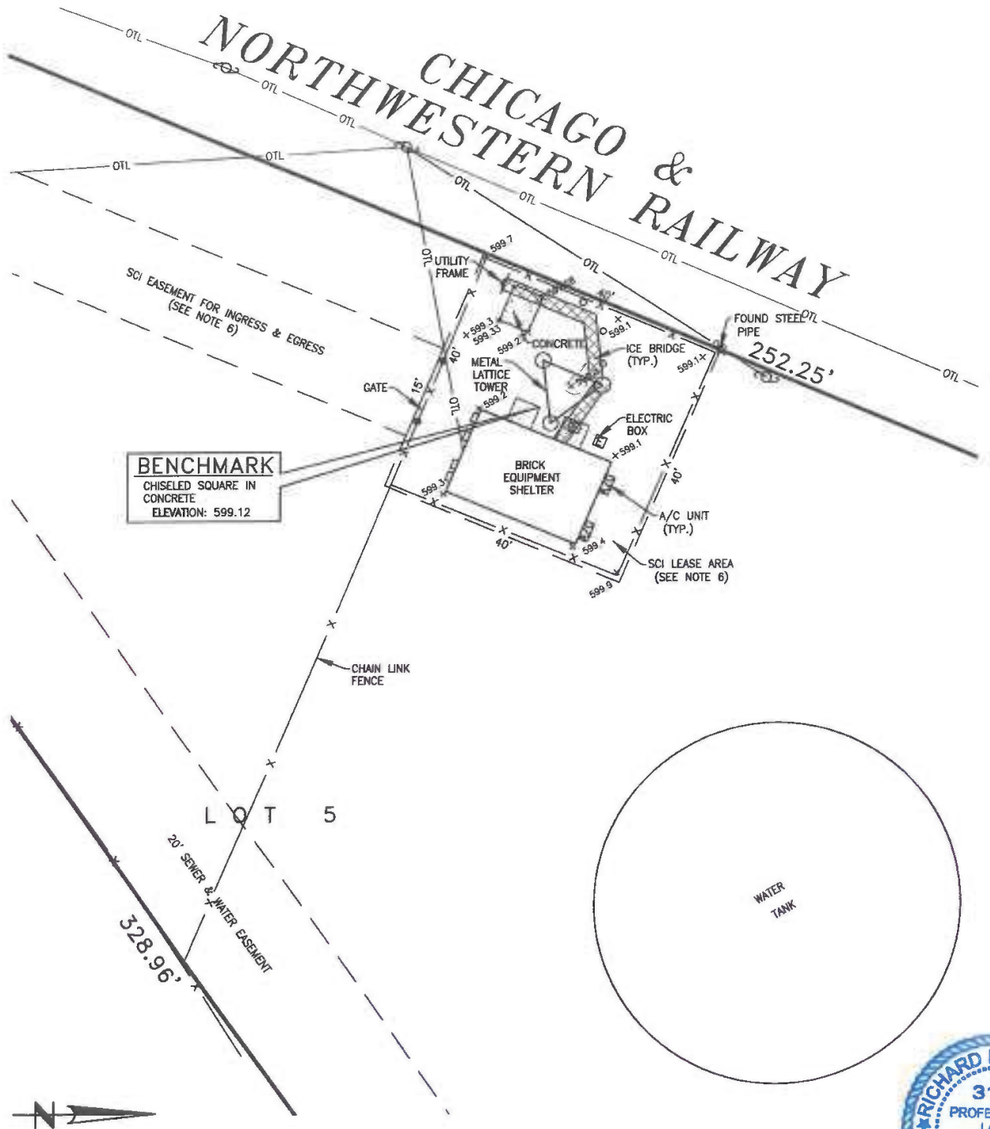
LANDMARK ENGINEERING LLC
DESIGN FIRM REGISTRATION NO. 184-005577
7808 WEST 103RD STREET
PALOS HILLS, ILLINOIS 60465-1529
Phone (708) 599-3737

PROJECT No. 14-02-039

ATC-303900
LINCOLNWOOD
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, IL
COOK COUNTY

SHEET TITLE
SITE SURVEY

SHEET NUMBER
SS 1 OF 2



NOTES

1. BEARINGS, IF ANY, SHOWN HEREON REFER TO NORTH DETERMINED BY GPS MEASUREMENT.
2. ELEVATIONS SHOWN ARE ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. BENCHMARK: CHISELED SQUARE IN CONCRETE LOCATED AS SHOWN:
   ELEVATION: 599.12
4. AFFECTS PERMANENT TAX INDEX NUMBER: 10-35-200-040, 10-35-200-041 AND 10-35-204-001.
5. SURFACE EVIDENCE OF UNDERGROUND IMPROVEMENTS, IF ANY, SHOWN HEREON IS BASED ON PHYSICAL OBSERVATIONS AND RECORDS, IF ANY, PROVIDED. NO DELINEATION OF UTILITY MARKERS OR UTILITY NOTATIONS BY A UTILITY MARKING SERVICE WAS PROVIDED FOR USE IN THE PREPARATION OF THIS SITE SURVEY.
6. NO TITLE COMMITMENT WAS PROVIDED FOR USE IN THE PREPARATION OF THIS SITE SURVEY. SUBJECT PROPERTY LEGAL DESCRIPTION, ATC LEASE AREA AND ATC EASEMENT FOR INGRESS AND EGRESS SHOWN HEREON ARE FROM AS-BUILT LAND SURVEY NUMBER 201-333, DATED NOVEMBER 2, 2001, ISSUED BY GEOCON, LTD, PROVIDED BY CLIENT FOR BUILDING LINES, EASEMENTS AND OTHER RESTRICTIONS NOT SHOWN HEREON, REFER TO DEED, TITLE INSURANCE POLICY, ABSTRACTS, CONTRACTS AND LOCAL BUILDING AND ZONING ORDINANCES.
7. THE SUBJECT PROPERTY SHOWN HEREON IS SITUATED WITHIN ZONE X AND NOT WITHIN A SPECIAL FLOOD HAZARD AREA, AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR COOK COUNTY, ILLINOIS, ON FLOOD INSURANCE RATE MAP PANEL NUMBER 17031C0265 J, DATED AUGUST 19, 2008.
8. CENTER OF EXISTING LATTICE TOWER:

NAD 83		
	LATITUDE NORTH	42°00'32.82"
	LONGITUDE WEST	87°43'07.36"
NAD 27		
	LATITUDE NORTH	42°00'32.71"
	LONGITUDE WEST	87°43'07.15"

   WITHIN TOLERANCES SET BY FAA IN 2C CERTIFICATE REQUIREMENTS.

9. | | | |
|---|---|---|
| A.M.S.L. | HEIGHT OF GROUND | ELEVATION: 599 |
| A.M.S.L. | HEIGHT OF CENTER LINE OF ANTENNAE | ELEVATION: 698 |
| A.M.S.L. | HEIGHT OF TOP OF ANTENNAE | ELEVATION: 701 |
| A.M.S.L. | HEIGHT OF TOP OF TOWER | ELEVATION: 701 |
| A.M.S.L. | HEIGHT OF TOP OF ANTENNA | ELEVATION: 702 |

   WITHIN TOLERANCES SET BY FAA IN 2C CERTIFICATE REQUIREMENTS.
10. TOPOGRAPHICAL INFORMATION AND IMPROVEMENTS SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS AND MEASUREMENTS PERFORMED FEBRUARY 24, 2014. SOME GROUND IMPROVEMENTS MAY NOT BE SHOWN DUE TO SNOW COVER.

RICHARD P. URCHELL 3183 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS PALOS HILLS, ILLINOIS

DATED AT PALOS HILLS, ILLINOIS, THIS 11TH DAY OF MARCH, A.D. 2014.

RICHARD P. URCHELL
IPLS No. 035-003183
LICENSE RENEWAL DATE: NOVEMBER 30, 2014

Edge Consulting Engineers, Inc.

AMERICAN TOWER CORPORATION

2	3/11/14	SITE SURVEY
1	2/27/14	PRELIMINARY

LANDMARK ENGINEERING LLC
DESIGN FIRM REGISTRATION NO. 184-005977
7808 WEST 103RD STREET
PALOS HILLS, ILLINOIS 60465-1529
Phone (708) 599-3737
PROJECT No. 14-02-039

ATC-303900
LINCOLNWOOD
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, IL
COOK COUNTY

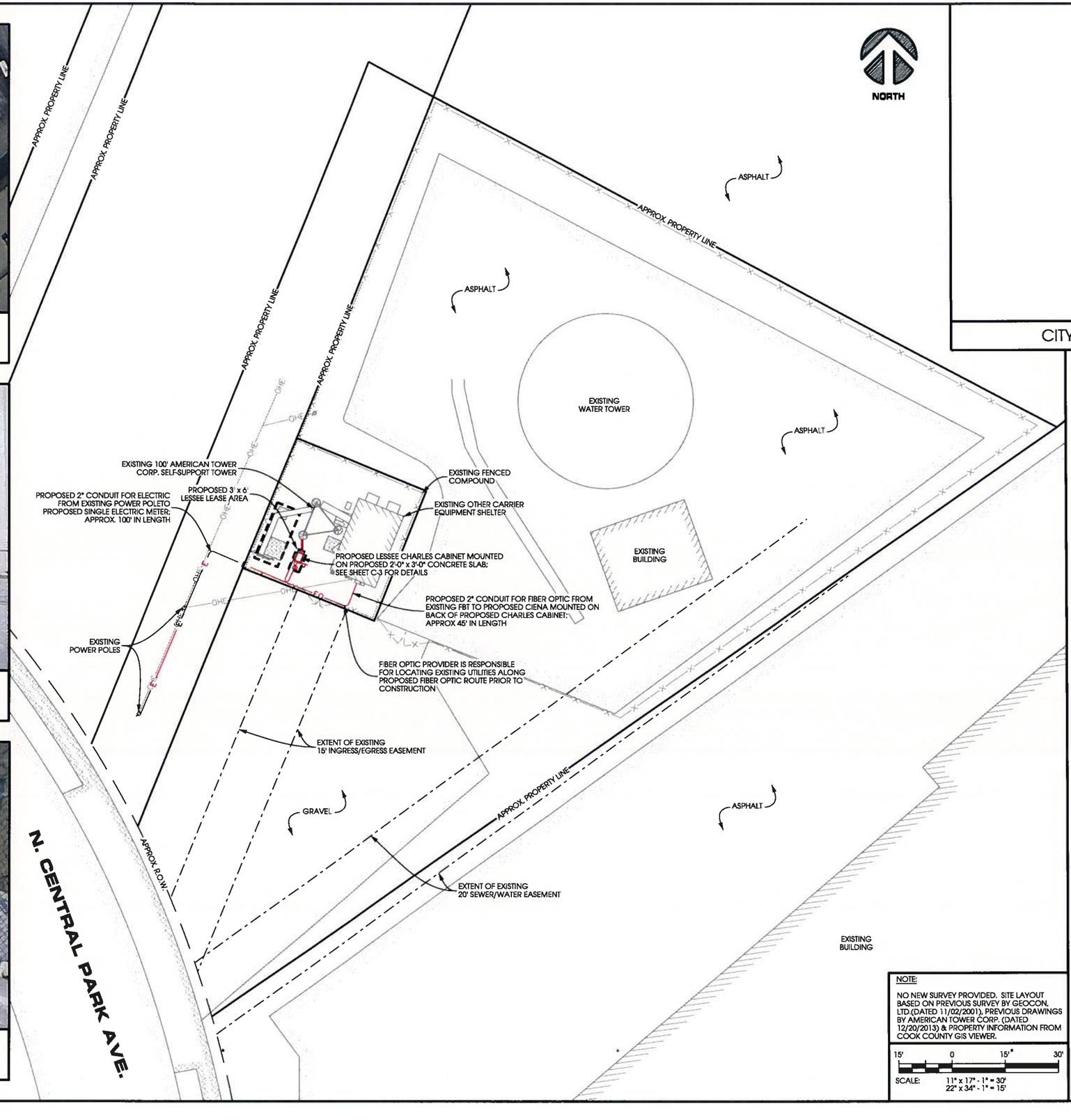
SHEET TITLE
SITE SURVEY

SHEET NUMBER
SS 2 OF 2

AERIAL OVERVIEW OF SITE

SITE OVERVIEW
- LOOKING NORTH -

PROPOSED EQUIPMENT LOCATION
- LOOKING NORTHEAST -



NOTE:

NO NEW SURVEY PROVIDED. SITE LAYOUT BASED ON PREVIOUS SURVEY BY GEOCON, LTD.(DATED 11/02/2001), PREVIOUS DRAWINGS BY AMERICAN TOWER CORP. (DATED 12/20/2013) & PROPERTY INFORMATION FROM COOK COUNTY GIS VIEWER.

15' 0 15' 30'

SCALE: 11" x 17" - 1" = 30'
22" x 34" - 1" = 15'

CITY PLAN REVIEW

Edge
Consulting Engineers, Inc.

PROJECT ID:	303900
EDGE PROJECT NO:	10211
DRAWN BY:	APK
CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
B	03/11/2014	CD 90's SMALL CELL	JAH
A	02/25/2014	PRELIM SMALL CELL	APK

KENNETH C. BAUMGARDT
062-055227
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
3/11/14

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LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

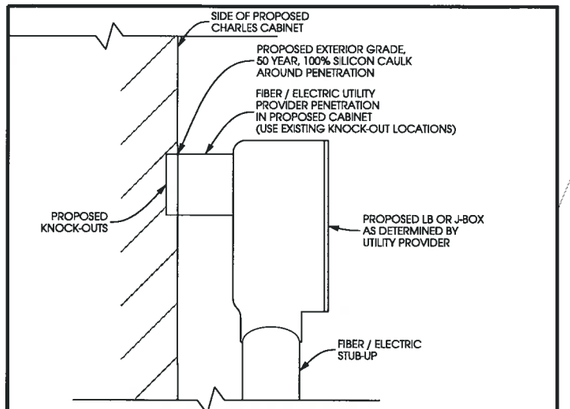
SHEET TITLE

SITE PLAN

SHEET NUMBER

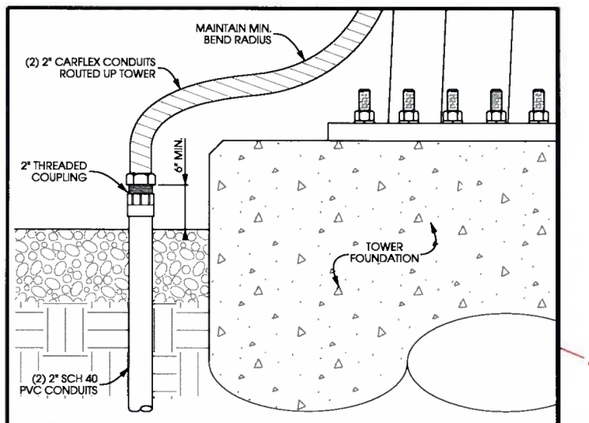
C-1

I:\10200\10211\CAD\Plot\Small Cell Drawings\C-1.dgn



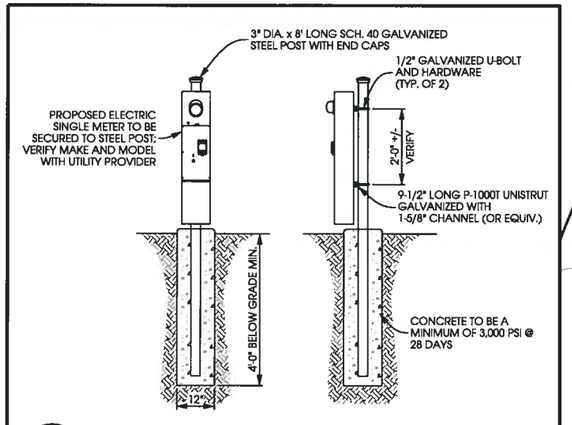
A C-2 **PROPOSED FIBER / ELECTRIC BOX PENETRATION DETAIL**

SCALE: NTS



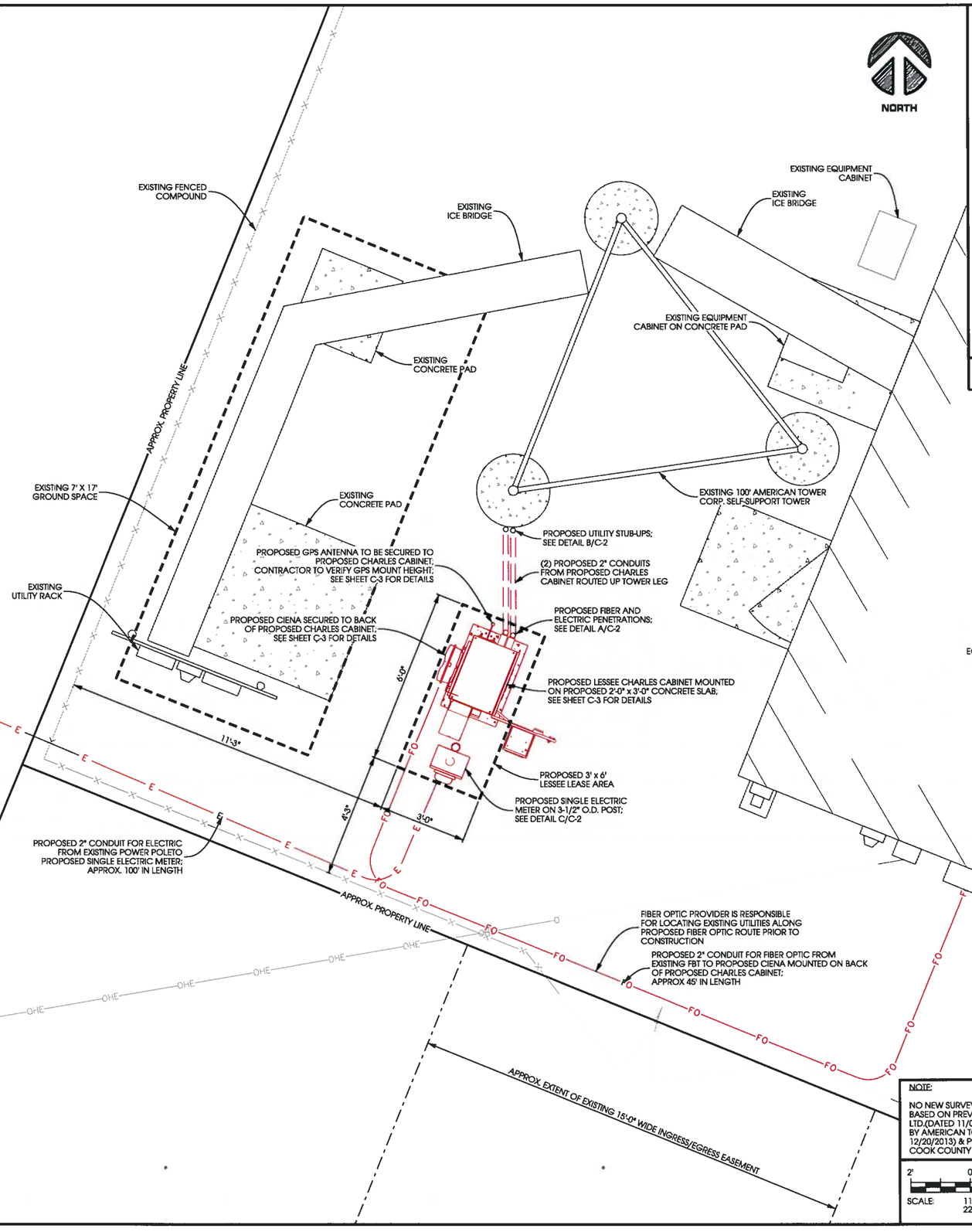
B C-2 **PROPOSED UTILITY STUB UPS**

SCALE: NTS



C C-2 **PROPOSED ELECTRIC METER**

SCALE: NTS



NOTE:

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2' 0 2' 4'

SCALE: 11" x 17" - 1" = 4'
22" x 34" - 1" = 2'

CITY PLAN REVIEW

Edge
Consulting Engineers, Inc.

PROJECT ID:	303900
EDGE PROJECT NO:	10211
DRAWN BY:	APK
CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
B	03/11/2014	CD 90's SMALL CELL	JAH
A	02/25/2014	PRELIM SMALL CELL	APK

KENNETH C. BAUMGARDT 062-055227 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS 3/11/14

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LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

SHEET TITLE

COMPOUND PLAN

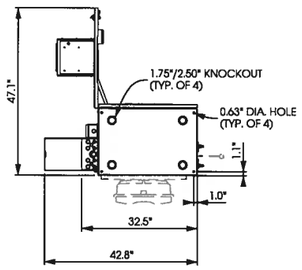
SHEET NUMBER

C-2

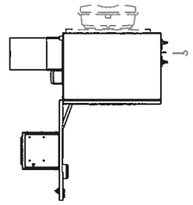
L:\10200\102111\CAD\Plan\Small Cell Drawings\C-2.dgn

NOTE:

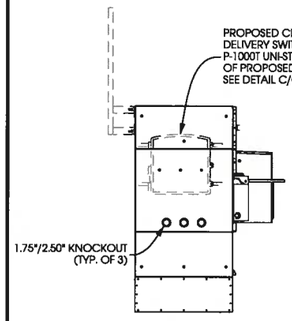
CONTRACTOR TO VERIFY THE PROPOSED EQUIPMENT CABINET WILL HAVE NO OBSTRUCTIONS WITH SURROUNDING BUILDINGS OR EQUIPMENT.



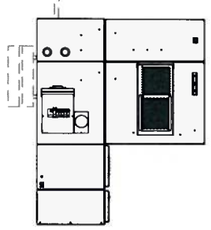
BOTTOM VIEW



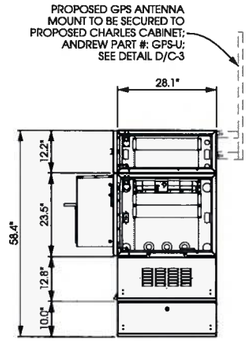
TOP VIEW



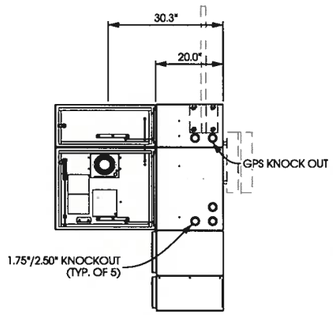
BACK VIEW



LEFT VIEW



FRONT VIEW

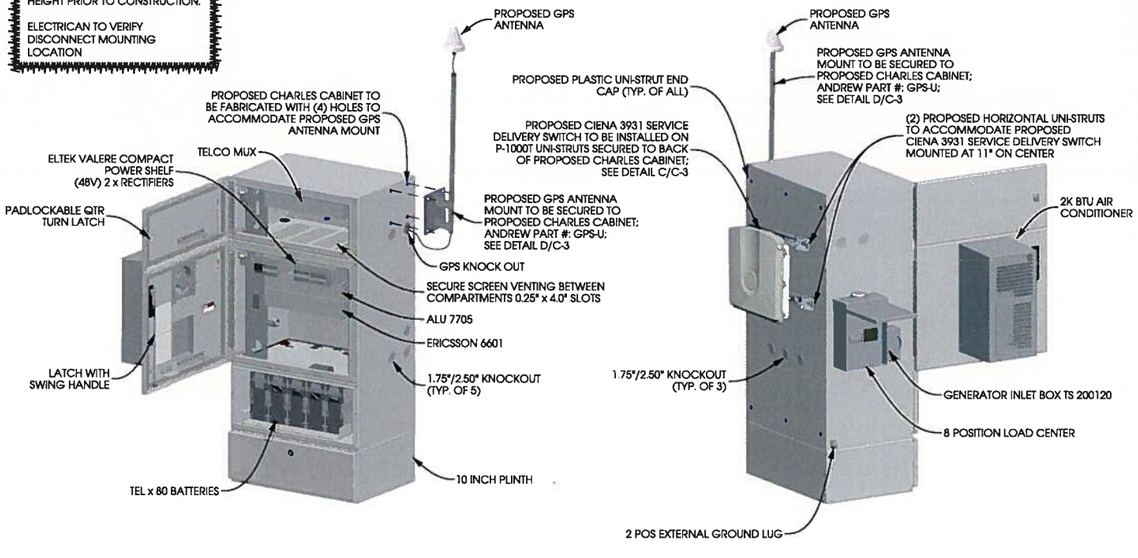


RIGHT VIEW

NOTE:

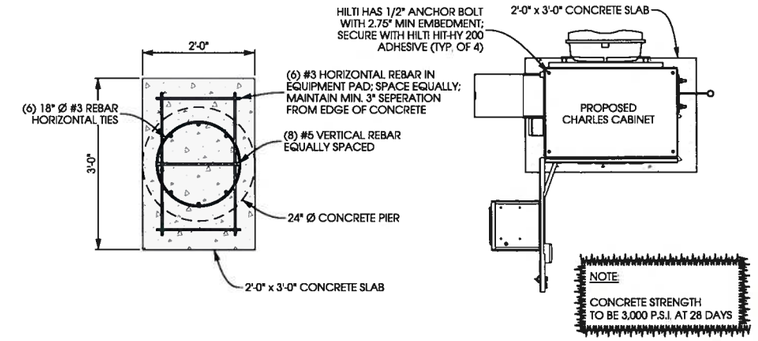
CONTRACTOR TO VERIFY PROPOSED GPS ANTENNA MOUNT HEIGHT PRIOR TO CONSTRUCTION.

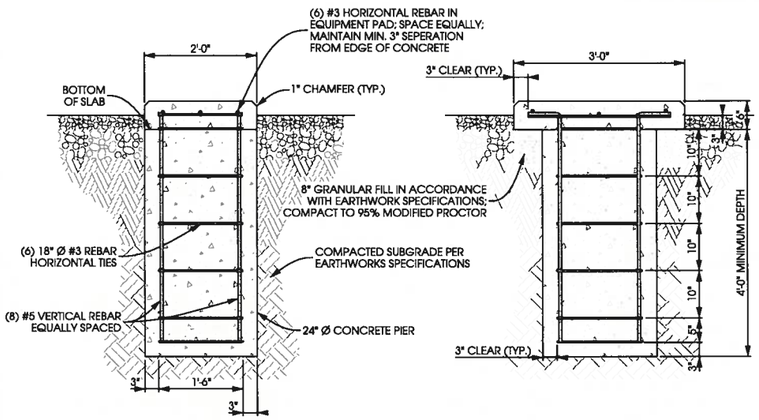
ELECTRICIAN TO VERIFY DISCONNECT MOUNTING LOCATION



A C-3 CHARLES CABINET DETAILS

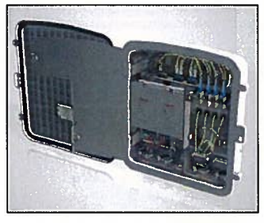
SCALE: NTS





B C-3 CABINET FOUNDATION DETAIL

SCALE: 11" x 17" - 3/8" = 1'
22" x 34" - 3/4" = 1'

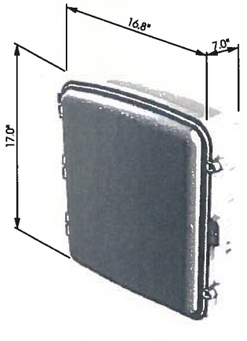


CIENA CABINET 3931 OVERVIEW:

- TO BE MOUNTED TO THE BACK OF THE CHARLES CABINET W/ (2) HORIZONTAL UNI-STRUTS SPACED 11" ON CENTER

-POWER FOR CIENA CABINET WILL BE FROM THE CHARLES LOAD CENTER

-PRODUCT WEIGHT: 13.0 kg (28.6 lbs.)



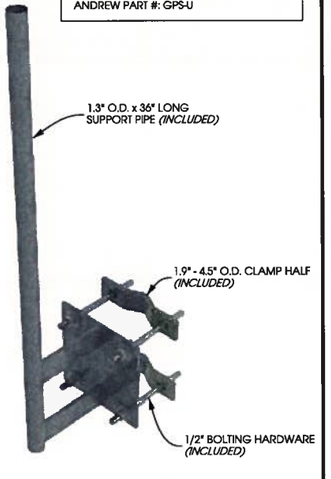
C C-3 CIENA 3931 DETAIL

NTS

GPS ANTENNA MOUNT OVERVIEW:

- TO BE MOUNTED TO THE SIDE OF THE PROPOSED CHARLES CABINET WITH SUPPLIED HARDWARE.

ANDREW PART #: GPS-U



D C-3 GPS MOUNT DETAIL

NTS

CITY PLAN REVIEW

Edge
Consulting Engineers, Inc.

PROJECT ID:	303900
EDGE PROJECT NO:	10211
DRAWN BY:	APK
CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
B	03/11/2014	CD 90's SMALL CELL	JAH
A	02/25/2014	PRELIM SMALL CELL	APK

KENNETH C. BAUMGARDT
062-055227
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
3/11/14

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LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

C-3

I:\10200\10211\CAD\Plot\Small Cell Drawings\C-3.dgn

FIBER CABLE INFO TABLE	
QUANTITY FROM CHARLES CABINET:	2
LENGTH FROM CHARLES CABINET TO EQUIPMENT ON TOWER:	55'±
MODEL #:	GENERIC

JUMPER CABLE INFO TABLE	
	DESCRIPTION:
ALPHA SECTOR:	15'± FROM RRU TO ALPHA SECTOR ANTENNA
BETA SECTOR:	15'± FROM RRU TO BETA SECTOR ANTENNA
GAMMA SECTOR:	15'± FROM RRU TO GAMMA SECTOR ANTENNA

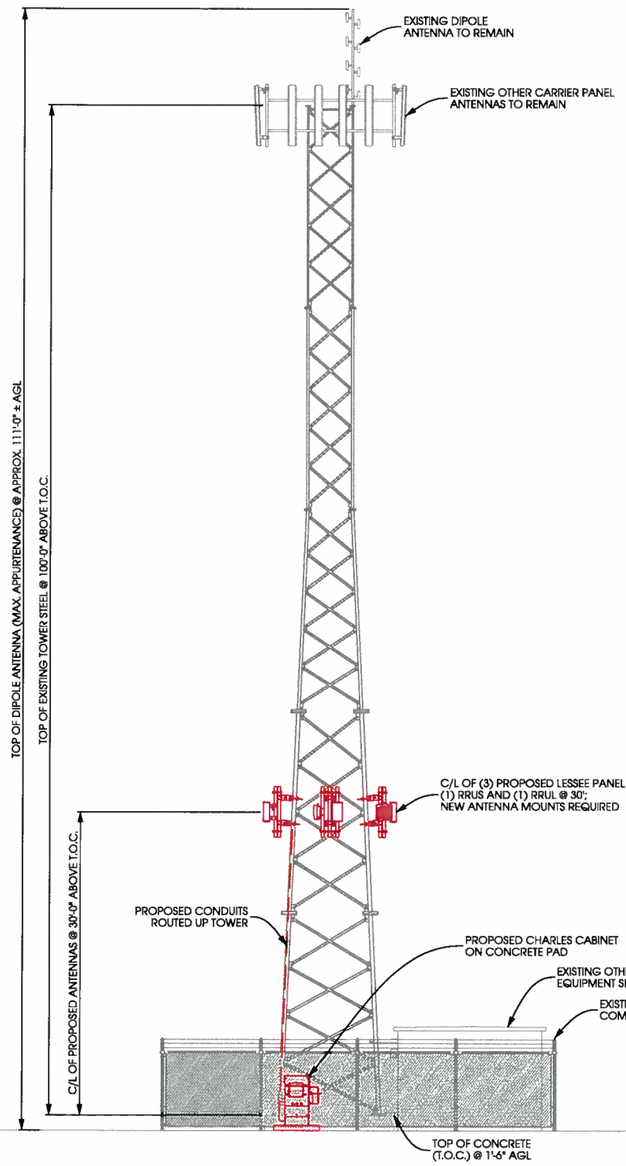
NOTES:

CONTRACTOR TO VERIFY HEIGHT AND DIRECTION OF ANTENNA WITH PROJECT MANAGER & FINAL RF DESIGN.

ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.

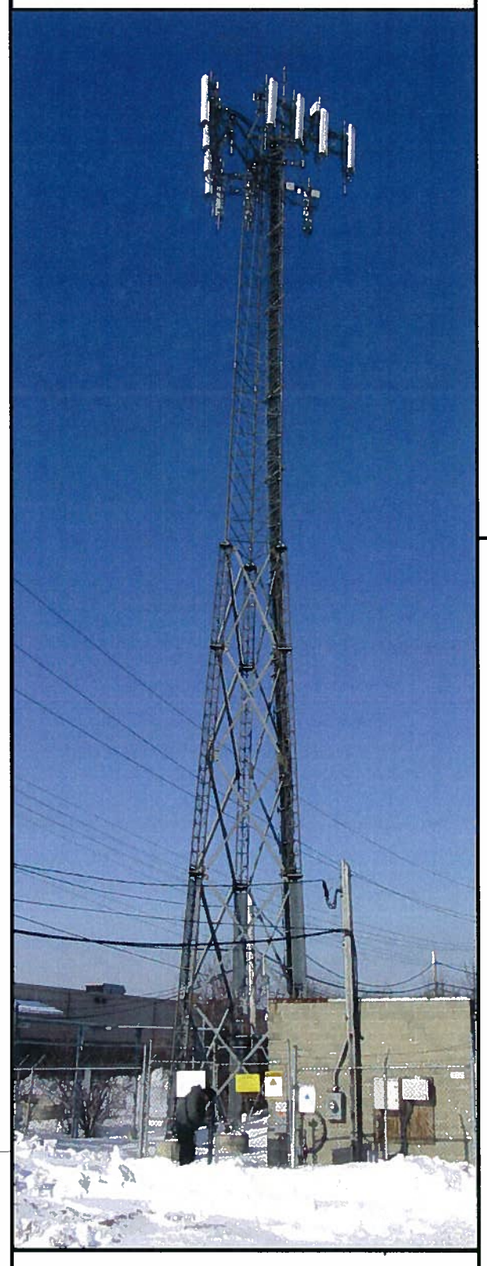
COLLOCATION NOTE:

REFER TO STRUCTURAL ANALYSIS AS IDENTIFIED ON T-1. CONTRACTOR TO THOROUGHLY REVIEW THE TOWER STRUCTURAL ANALYSIS FOR INFORMATION PERTAINING TO TOWER UPGRADES, MOUNTING TYPES, ANTENNA HEIGHTS, AND COAX ROUTING. ANY DISCREPANCIES BETWEEN THE DRAWINGS, STRUCTURAL ANALYSIS, AND TOWER PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO BIDDING AND INSTALLATION.



A / A-1 **TOWER PROFILE (SOUTH ELEVATION)**

SCALE: 11" x 17" - 1" = 15'
22" x 34" - 1" = 7'-6"



EXISTING TOWER PROFILE - LOOKING NORTHWEST -

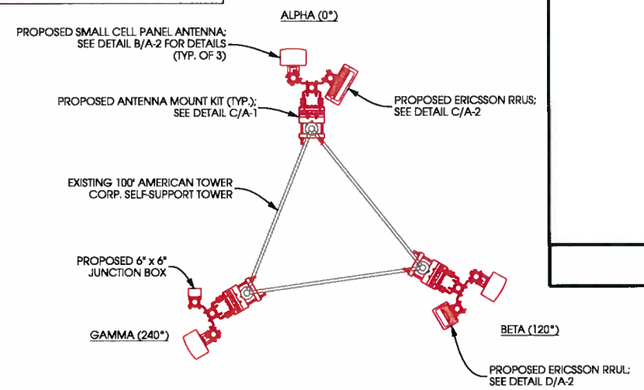
ANTENNA LEGEND:

- PROPOSED SMALL CELL ANTENNA
- PROPOSED RRUS
- PROPOSED RRUL
- PROPOSED 6" x 6" JUNCTION BOX

NOTE:

ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.

NORTH



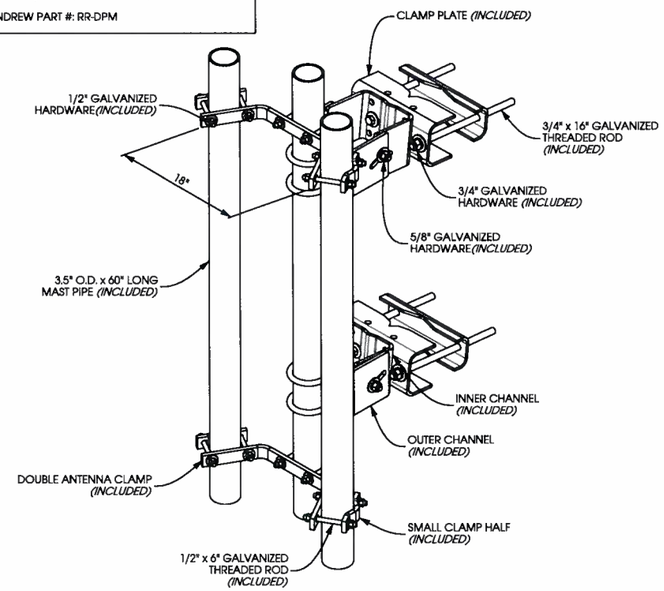
B / A-1 **PROPOSED ANTENNA ORIENTATION**

SCALE: NTS

DUAL PIPE MOUNT:

DUAL PIPE MOUNT FOR STRAIGHT OR TAPERED LEGS UP TO 8-5/8" O.D., 8° ANGLE 60°, OR 6° ANGLE 90°

ANDREW PART #: RR-DPM



C / A-1 **PROPOSED ANTENNA MOUNT DETAIL**

SCALE: NTS

CITY PLAN REVIEW

Edge
Consulting Engineers, Inc.

PROJECT ID:	303900
EDGE PROJECT NO:	10211
DRAWN BY:	APK
CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
B	03/11/2014	CD 90's SMALL CELL	JAH
A	02/25/2014	PRELIM SMALL CELL	APK

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3/11/14

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LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

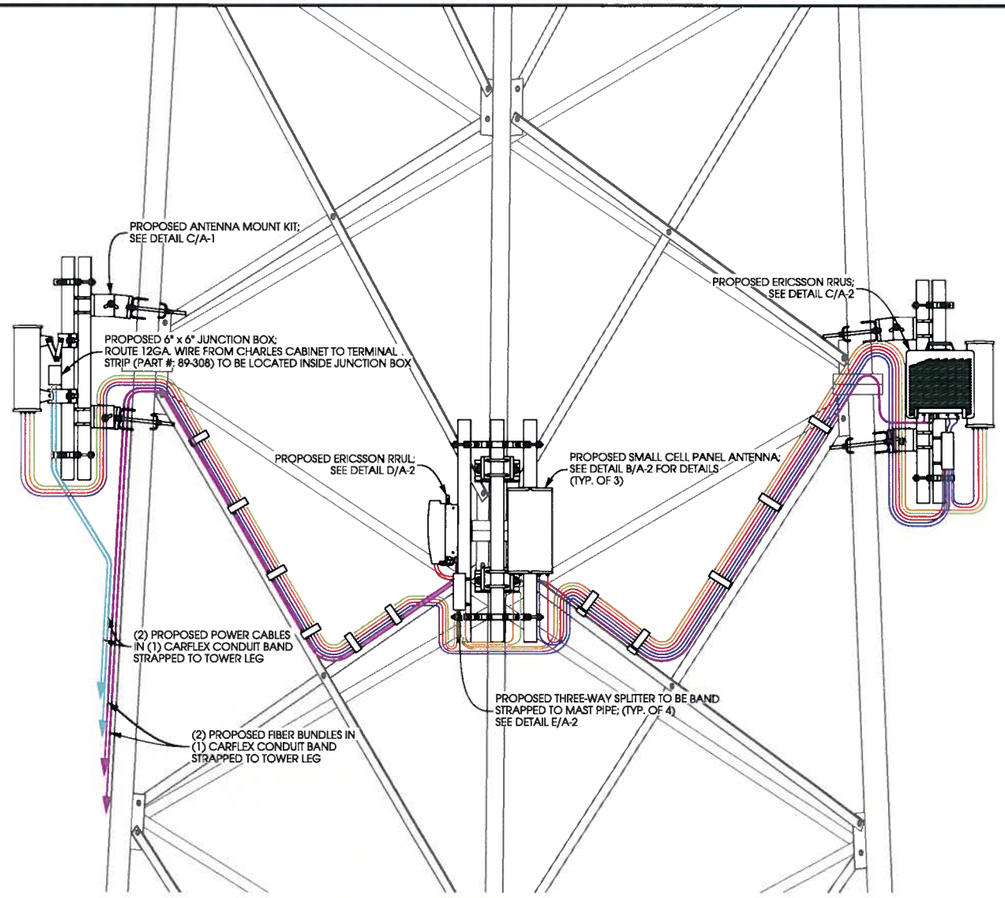
SHEET TITLE

TOWER ELEVATION

SHEET NUMBER

A-1

I:\10200\10211\CAD\Plot\Small Cell Drawings\A-1.dgn



A / A-2 **CABLING DIAGRAM**

SCALE: NTS

696-900 / 1710-2170 MHz

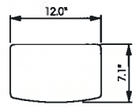
Amphenol ANTENNA SOLUTIONS

QXW-632X634XBF-EDIN

Replace "X" with desired electrical downtilt

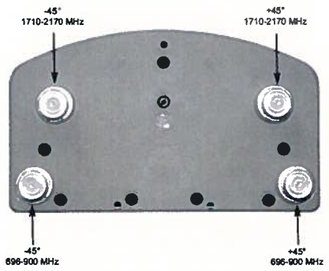
XX-Pol | Dual Band FET Panel | 63° / 63° | 11.6 / 14.3 dBi

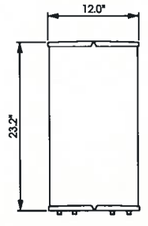
Electrical Characteristics	696-900 MHz		1710-2170 MHz		
Frequency bands	696-806	806-900	1710-1880	1850-1990	1900-2170
Polarization	±45°		±45°		
Horizontal beamwidth	70°	65°	65°	63°	61°
Vertical beamwidth	37°	35°	18°	18°	18°
Gain	9.0 dBd / 11.1 dBi	9.5 dBd / 11.6 dBi	11.8 dBd / 13.9 dBi	12.1 dBd / 14.2 dBi	12.2 dBd / 14.3 dBi
Electrical downtilt (X)	0		0		
Impedance	50Ω		50Ω		
VSWR	≤1.5:1		≤1.5:1		
Isolation between ports	25 dB		25 dB		
Input power	500 W		300 W		
Lightning protection	Direct ground				
Connector(s)	4 / 7-16 DIN / Female / Bottom				
Mechanical Characteristics					
Dimensions Length x Width x Depth	589 x 305 x 180 mm		23.2 x 12.0 x 7.1 in		
Weight without mounting brackets	5 kg		11 lbs		
Survival wind speed	> 201 km/hr		> 125 mph		
Wind area	Front: 0.18 m² Side: 0.11 m²		Front: 1.9 ft² Side: 1.1 ft²		
Wind load @ 161 km/hr (100 mph)	Front: 219 N Side: 129 N		Front: 49 lbf Side: 29 lbf		
Mounting Options	Part Number	Fits Pipe Diameter		Weight	
2-Point Mounting & Downtilt Bracket Kit	38210006	40-115 mm 1.57-4.5 in		4.1 kg 9.0 lbs	



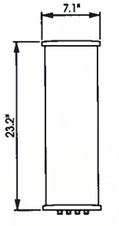
TOP VIEW

Antenna Bottom View





FRONT VIEW



SIDE VIEW

B / A-2 **ANTENNA SPECIFICATIONS**

NTS

CITY PLAN REVIEW

Edge Consulting Engineers, Inc.

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CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
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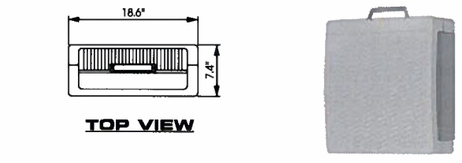


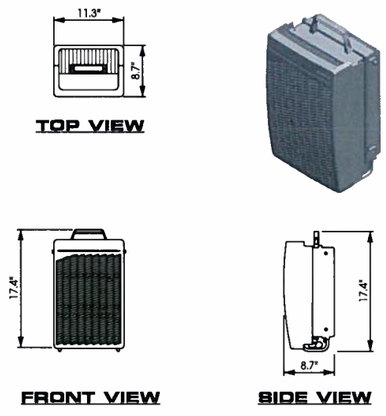
TOP VIEW

FRONT VIEW

SIDE VIEW

C / A-2 **ERICSSON RRUS UNIT**

SCALE: NTS



TOP VIEW

FRONT VIEW

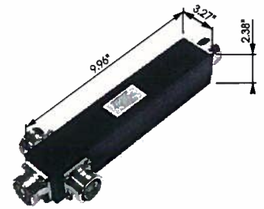
SIDE VIEW

D / A-2 **ERICSSON RRUL UNIT**

SCALE: NTS

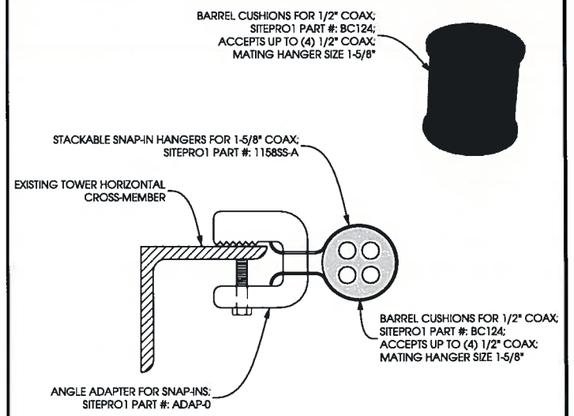
PRODUCT OVERVIEW:

OPERATING FREQUENCY BAND:	698 – 2700 MHZ
3RD ORDER IMD:	- 150 DBC (RELATIVE TO CARRIER)
3RD ORDER IMD TEST METHOD:	TWO +43 DBM CARRIERS
AVERAGE POWER, MAXIMUM:	700 W
DISSIPATIVE LOSS AT FREQUENCY BAND:	0.2 DB @ 698–2700 MHZ
IMPEDANCE:	50 OHM
PEAK POWER, MAXIMUM:	3 KW
POWER RATING, SPLITTING:	700 W
REFLECTED POWER, MAXIMUM:	700 W
RETURN LOSS, MINIMUM:	19.1 DB
SPLIT LOSS:	4.8 DB
VSWR:	1.25:1



E / A-2 **SPLITTER DETAIL**

SCALE: NTS



F / A-2 **ANGLE BRACKET DETAIL**

SCALE: NTS

KENNETH C. BAUMGARDT
062-055227
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
3/11/14

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303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

SHEET TITLE

ANTENNA DETAILS

SHEET NUMBER

A-2

L:\10200\10211\CAD\Plot\Small Cell Drawings\A-2.dgn

EQUIPMENT CHANGE REQUEST FORM - ECR

Name	*Lincolnwood ATC SC*	**RF Engineer**	*Vaughne Glymph*	**Cell ID**	
Location Number	0	**Market**	*ILWI*	**Address**	*7001 Central Park Chicago IL 60712*
Date of Request	*12/3/2013*	**Carriers**	*700 & AWS*	**Structure Type**	*Self-support Structure*

Sector	Power Required	Antenna Manufacturer	Antenna Model	Centerline	Azimuth	Mechanical Tilt	Variable Tilt
Alpha	40 W	Amphenol	QXW-6320630XBF-EDIN	30	0	0	0
							0
Beta	40 W	Amphenol	QXW-6320630XBF-EDIN	30	120	0	0
							0
Gamma	40 W	Amphenol	QXW-6320630XBF-EDIN	30	240	0	0
							0

	Manufacturer	Component Model	Location	Count	Length	Action	
Passive Components	COMMSCOPE	S-3-CPUSE-H-D	Behind Antenna	4		Install	See Layout Tab
Coax	Commscope	1/2"	Ant to Splitters	12	Varied	Install	
	Commscope	1/2"	Splitters to RRU	4	2	Install	
Fiber	Generic	1/2"	Pole	2	30	Install	
Power	Generic	1/2"	Pole	2	30	Install	
GPS	Generic	1/2"	Pole	Yes	Cabinet Mount	Install	

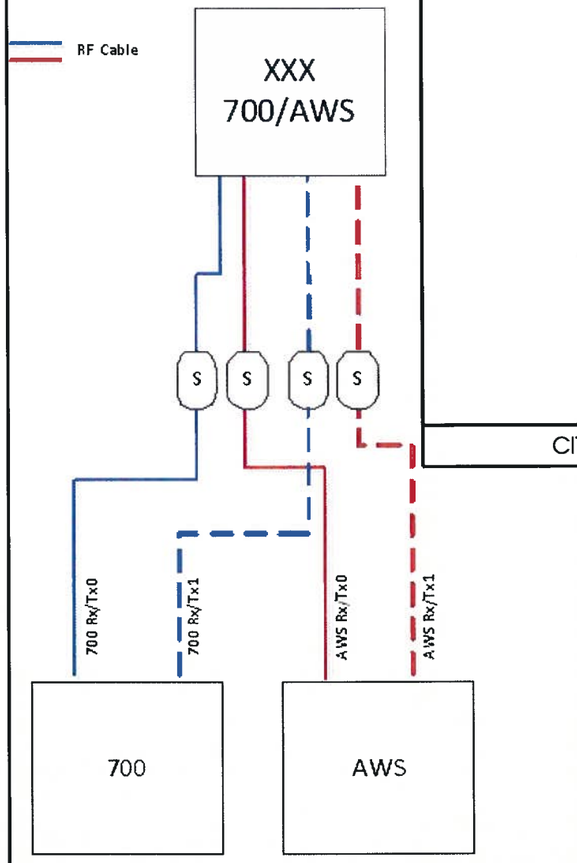
EQUIPMENT

Carrier - LTE/AWS	Power Required	Equipment Manufacturer	Equipment Model	CWDM?	Equipment Cabinet Needed?	Comments	Radios Location From Ground
700	40 W	Ericsson	RRUL	No	Charles 307 on Ground	Radio(s) on Pole	30'
2100	40 W	Ericsson	RRUS	-	-	-	-

INTERCONNECT

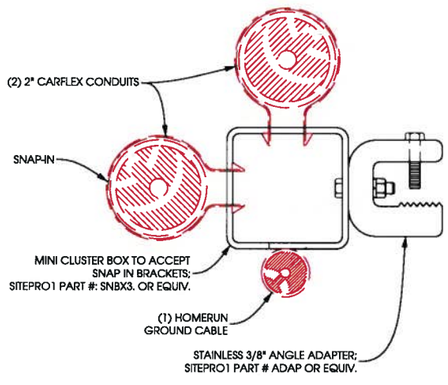
Telco Solution	EBH

PROPOSED EQUIPMENT CHANGE REQUEST FORM



PROPOSED ANTENNA CONFIGURATION

NOTE:
ROUTE CONDUIT AROUND FLANGE AS NECESSARY



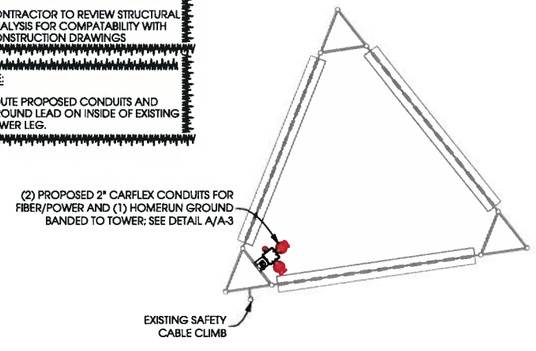
A / A-3 **CONDUIT ROUTING UP TOWER**
SCALE: NTS

NOTES:
ALL COAX SHOWN IS EXISTING UNLESS SPECIFIED OTHERWISE.

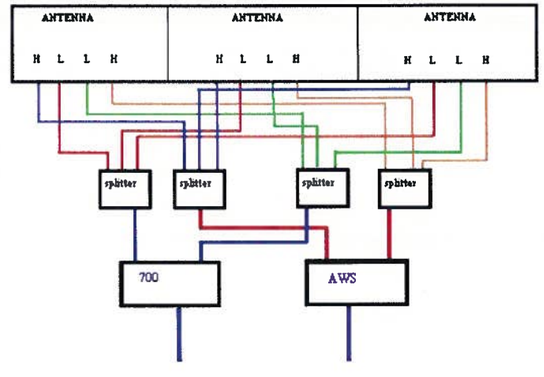
NOTE:
CONTRACTOR TO REVIEW STRUCTURAL ANALYSIS FOR COMPATABILITY WITH CONSTRUCTION DRAWINGS

NOTE:
ROUTE PROPOSED CONDUITS AND GROUND LEAD ON INSIDE OF EXISTING TOWER LEG.

NORTH



B / A-3 **SELF-SUPPORT TOWER COAX ROUTING**
SCALE: NTS



PROPOSED ANTENNA CONFIGURATION

CITY PLAN REVIEW

Edge Consulting Engineers, Inc.

PROJECT ID:	303900
EDGE PROJECT NO:	10211
DRAWN BY:	APK
CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
B	03/11/2014	CD 90's SMALL CELL	JAH
A	02/25/2014	PRELIM SMALL CELL	APK

KENNETH C. BAUMGARDT
062-055227
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
3/14/14

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LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

SHEET TITLE
ANTENNA CONFIGURATION

SHEET NUMBER
A-3

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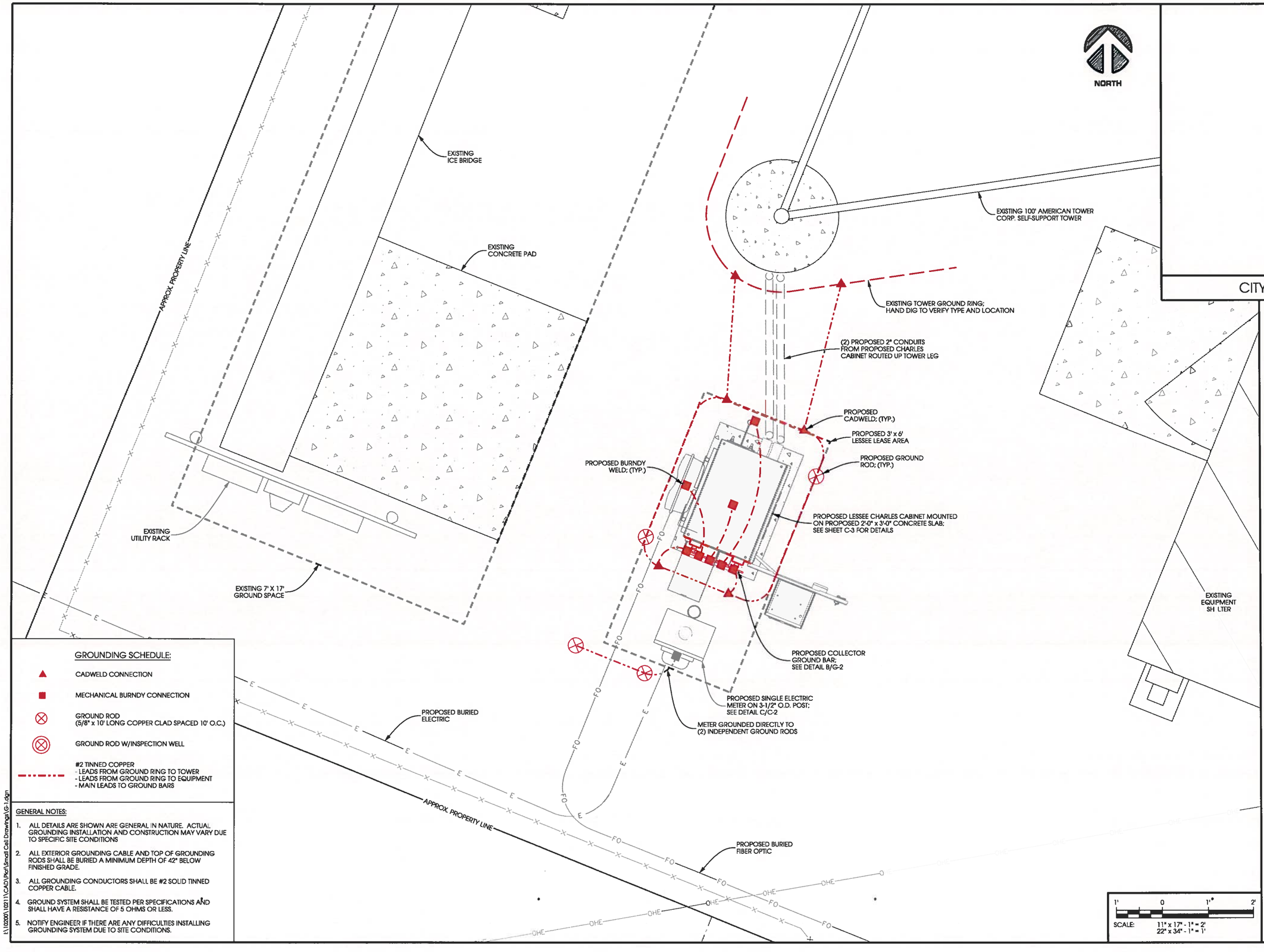

GROUNDING SCHEDULE:

- CADWELD CONNECTION
- MECHANICAL BURNDY CONNECTION
- GROUND ROD (5/8" x 10' LONG COPPER CLAD SPACED 10' O.C.)
- GROUND ROD W/INSPECTION WELL
- #2 TINNED COPPER
  - LEADS FROM GROUND RING TO TOWER
  - LEADS FROM GROUND RING TO EQUIPMENT
  - MAIN LEADS TO GROUND BARS

GENERAL NOTES:

1. ALL DETAILS ARE SHOWN ARE GENERAL IN NATURE. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SPECIFIC SITE CONDITIONS
2. ALL EXTERIOR GROUNDING CABLE AND TOP OF GROUNDING RODS SHALL BE BURIED A MINIMUM DEPTH OF 42" BELOW FINISHED GRADE.
3. ALL GROUNDING CONDUCTORS SHALL BE #2 SOLID TINNED COPPER CABLE.
4. GROUND SYSTEM SHALL BE TESTED PER SPECIFICATIONS AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS.
5. NOTIFY ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE CONDITIONS.

SCALE: 11" x 17" - 1" = 2'; 22" x 34" - 1" = 1'

CITY PLAN REVIEW

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LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

SHEET TITLE
GROUNDING PLAN

SHEET NUMBER
G-1

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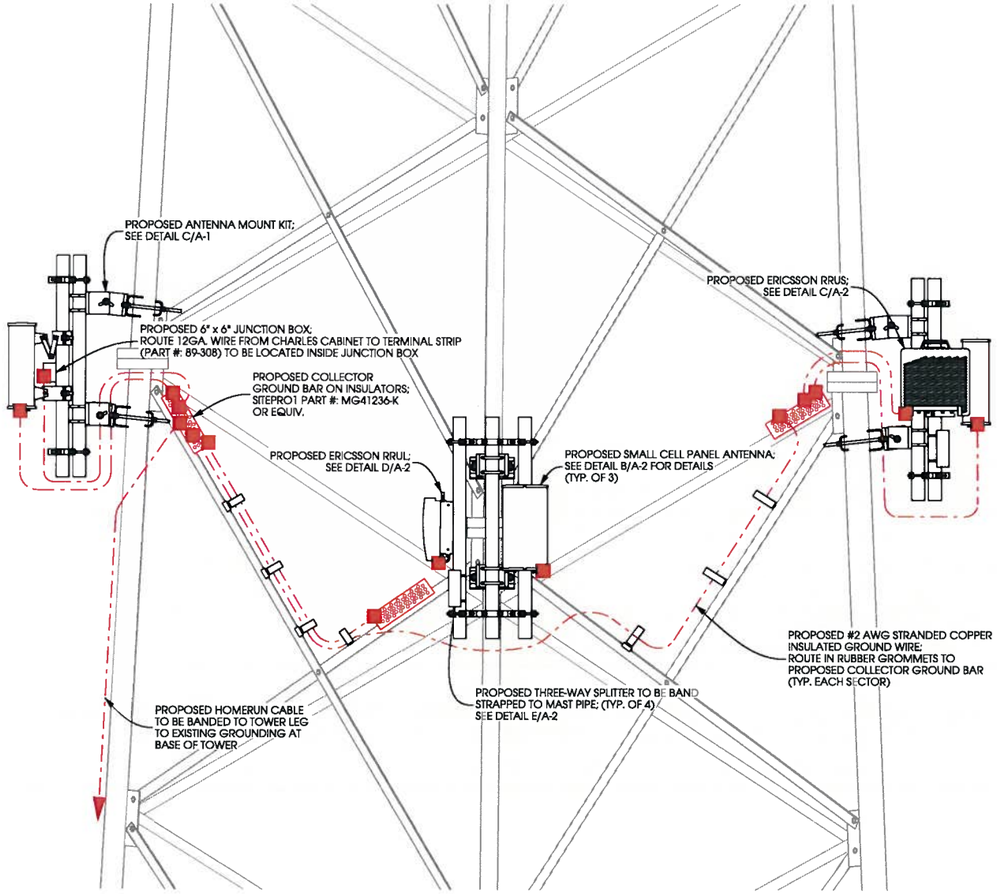
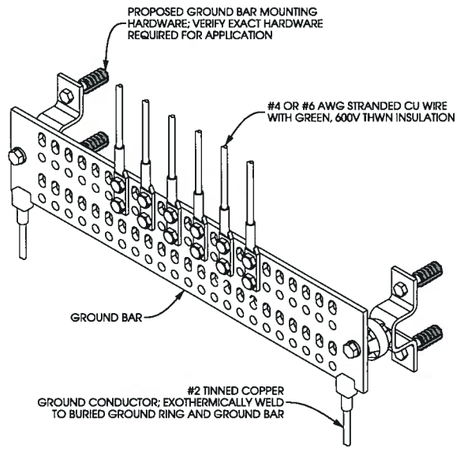


A G-2 **EQUIPMENT GROUNDING DETAIL**

SCALE: NTS

NOTES:

USE UV-RATED HEAT SHRINK FOR OUTDOOR GROUND BAR APPLICATIONS AND CLEAR HEAT SHRINK FOR INDOOR APPLICATIONS.



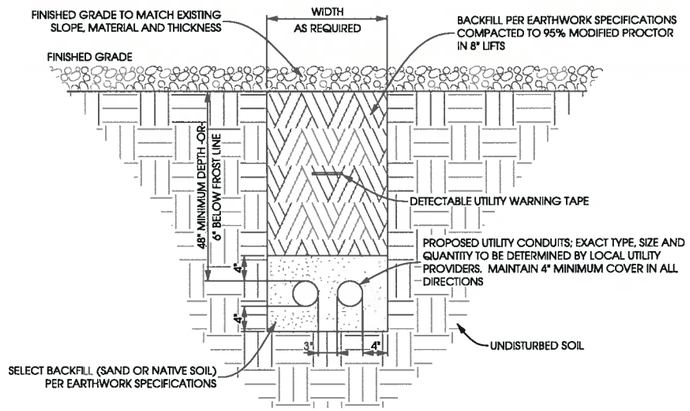
B G-2 **GROUND BAR DETAIL**

SCALE: NTS

NOTES:

UTILITY CONDUITS TO BE BURIED A MINIMUM OF 48" BELOW GROUND LEVEL OR 6" BELOW THE FROST LINE.

CONDUIT TYPE, SIZE, QUANTITY AND SEPARATION TO BE VERIFIED WITH LOCAL UTILITY PROVIDER REQUIREMENTS.



C G-2 **UTILITY TRENCH DETAIL**

SCALE: NTS

CITY PLAN REVIEW

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Consulting Engineers, Inc.

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CHECKED BY:	BDK

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3/11/14

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LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-2

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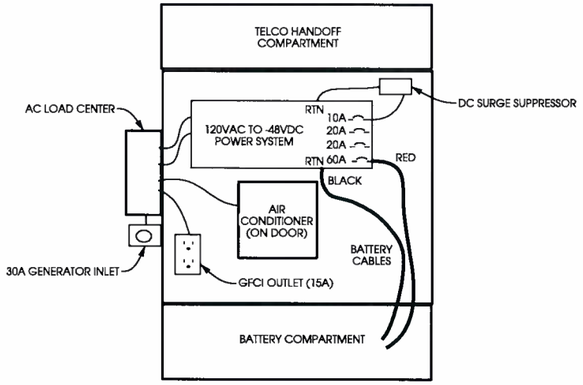
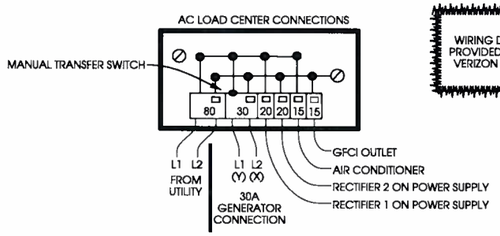
NOTE: GROUND WIRES ARE PRESENT BUT NOT SHOWN





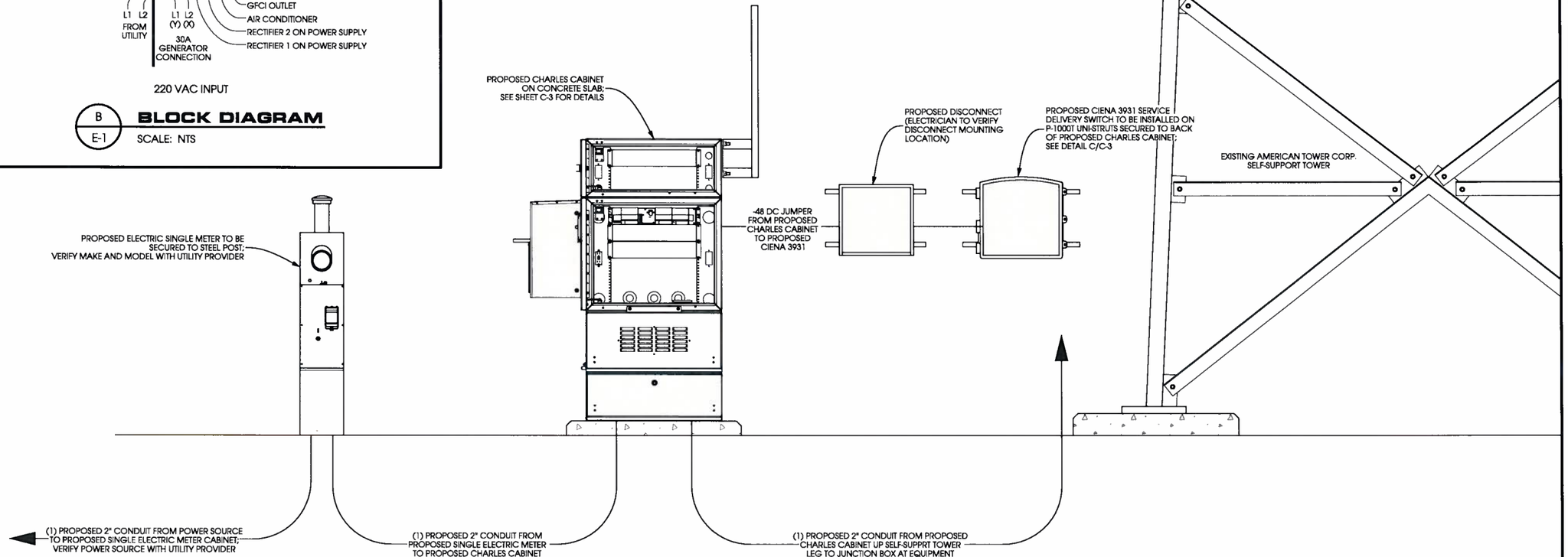
WIRING DIAGRAM PROVIDED BY ATC & VERIZON WIRELESS

220 VAC INPUT

B / E-1 **BLOCK DIAGRAM**

SCALE: NTS

CATEGORY	
DIMENSIONS AND WEIGHT	48.4" H x 28"W x 20"D 220 LBS
19" EQUIPMENT RACK SPACE EQUIPMENT COMPARTMENT HANDOFF COPARTMENT	21" (12RU) 8.75" (5RU)
HOLE SPACING	EIA TAPPED 12-24
COLOR	OFF WHITE
MATERIAL	.125" WELDED ALUMINUM
MAXIMUM HEAT DISSIPATION	585W
2000 BTU AIR CONDITIONER	DANTHERM #CS020020A
48VDC POWER SHELF	ELTEK #CK3S-ANL-VC
(2) 1000W RECTIFIER	ELTEK #V1000A-VC PLACE IN SLOTS 1 & 3
CONTROLLER	ELTEK #BC2000-A01-10VC
48VDC SURGE SUPPRESSOR	RAYCAP # DC1-60
BONDING AND GROUNDING	TWO 2x8 POSITION GROUND BARS
OPTIONAL MOUNTING KITS	POLE: #97-CABPMTKIT H-FRAME: #97-001971-A PAD: #97-PM4XPLINTH-A
OPERATING TEMP. RANGE, INSIDE CABINET	-40° TO +149° F
OPERATING TEMP. RANGE OUTSIDE CABINET	-40° TO +115° F
HUMIDITY	0 TO 95% (NON-CONDENSING)
ALTITUDE	UP TO 2,000 METERS (6560')



A / E-1 **ONE-LINE DIAGRAM**

SCALE: NTS

CITY PLAN REVIEW

Edge
Consulting Engineers, Inc.

PROJECT ID:	303900
EDGE PROJECT NO:	10211
DRAWN BY:	APK
CHECKED BY:	BDK

REV.	DATE	DESCRIPTION	INT.
B	03/11/2014	CD 90's SMALL CELL	JAH
A	02/25/2014	PRELIM SMALL CELL	APK

KENNETH C. BAUMGARDT
062-055227
LICENSED PROFESSIONAL ENGINEER
OF
ILLINOIS
3/11/14

LINCOLNWOOD
303900
7001 N. CENTRAL PARK AVENUE
LINCOLNWOOD, ILLINOIS
SMALL CELL DRAWINGS

SHEET TITLE
ONE-LINE DIAGRAM

SHEET NUMBER
E-1

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Agenda Item #6

Staff Report
Plan Commission
May 7, 2014

Subject Property: N/A (Text Amendment)

Requested Action: Text Amendment to Section 9.02 of the Zoning Ordinance to consider regulations to permit, as a Special Use, the relocation of legal nonconforming Bank, Credit Union, Savings and Loans within the Business/Residential Transition Overlay of the B-1 District.

Nature of Request: A text amendment is proposed concerning Bank, Credit Union, Savings and Loans and Legal Nonconforming Uses located in the Business/Residential Transition area of the B-1 Traditional Business Zoning District.

Petitioner: Brickyard Bank

Summary:
Brickyard Bank, which is a tenant at 6676 Lincoln Avenue, has expressed a desire to relocate its banking operations within the Village to property it owns at 6530 Lincoln Avenue. Both the Bank's existing leased location at 6676 Lincoln Avenue and the Bank's proposed location to property they own at 6530 Lincoln Avenue are located within the Business/Residential Transitional Overlay area of the Village's B-1 Zoning District.

The Zoning Code no longer permits banks in any portion of the B-1 Zoning District and currently restricts bank uses in the Village to the Village's B-2 Zoning District. Brickyard Bank is now considered a legal nonconforming use at its present location in the B-1 Zoning District and the Zoning Code does not allow a legally nonconforming use to relocate.

To allow Brickyard Bank to relocate to its property at 6530 Lincoln Avenue, a Zoning Code Text Amendment would be required. To this end, staff requested that the Village Attorney craft text amendment language that would allow the Brickyard Bank to relocate to its property at 6530 Lincoln Avenue, but which would otherwise keep the text amendment narrow in scope.

To accomplish this, the Village Attorney has recommended a modification to the Zoning Code's Nonconforming Use Section that would allow a legal nonconforming bank, such as Brickyard Bank, to relocate within this Overlay area of the B-1 Zoning District, subject to Special Use Approval by the Village. In addition to Brickyard Bank, Liberty Bank and

Charter One Bank are two other banks currently located in the Business/Residential Transition Overlay area of the B-1 Zoning District and which could conceivably also benefit from this proposed text amendment. The Business/Residential Overlay area is that portion of the B-1 Zoning District located along Lincoln Avenue, approximately between Monticello and Harding Avenues.

The text amendment, as proposed, would not allow new banks to operate in the B-1 Zoning District: it would retain this prohibition. The proposed amendment would only allow existing legal nonconforming banks (and credit unions and savings and loans) which are currently located in the Business/Residential Transition Overlay area of the B-1 Zoning District, to relocate within this Business/Residential Transition Overlay area of the B-1 Zoning District, subject to Special Use Approval.

Attachments:

1. Text Amendment Application
2. Proposed Amendment

VILLAGE OF LINCOLNWOOD Public Hearing Application

Community Development Department — Text Amendment

PETITIONER INFORMATION

Name: Brickyard Bank

Address: 6676 N. Lincoln Ave, Lincolnwood

Telephone: (847) 679-2265 Fax: (847) 679-9077 E-mail Address: msallis@brickyardbank.net

COST REIMBURSEMENT REQUIREMENT

The Village requires reimbursement of certain out-of-pocket costs incurred by the Village in connection with applications for zoning approvals and relief. These costs include, but are not limited to, mailing costs, attorney and engineer costs, and other out-of-pocket costs incurred by the Village in connection with this application. In accordance with Section 5.02 of the Village of Lincolnwood Zoning Ordinance, both the petitioner and the property owner shall be jointly and severely liable for the payment of such out-of-pocket costs. Out-of pocket costs incurred shall be first applied against any hearing deposit held by the Village, with any additional sums incurred, to be billed at the conclusion of the hearing process.

Invoices in connection with this application shall be directed to:

Name: Brickyard Bank

Address: 6676 N. Lincoln Ave

City, State: Lincolnwood, IL 60712

ATTESTMENT AND SIGNATURE

I hereby state that I have read and understand the Village cost reimbursement requirement, as well as the requirements and procedures outlined in Article V of the Village Zoning Ordinance, and I agree to reimburse the Village within 30 days after receipt of an invoice therefor. I further attest that all statements and information provided in this application are true and correct to the best of my knowledge and that I have vested in me the authority to execute this application.

PROPERTY OWNER

Mimi Sallis 4/7/14

Signature President Date

Mimi Sallis

Print Name

PETITIONER *(If different than property owner)*

_____ _____

Signature Date

_____

Print Name

REQUIRED ATTACHMENTS *

Check all documents that are attached:

Proposed Text Amendment Language ✓

**The above documents are required for all applications. The Zoning Officer may release an applicant from specific required documents or may require additional documents as deemed necessary.*

For Office Use Only

Fee: _____ Deposit: _____

Date Received: _____

Checked By: _____

The article(s), section(s) and paragraph(s) of the Village of Lincolnwood Zoning Ordinance from which the Action is being sought:

_____

_____

_____

_____

_____

TEXT AMENDMENT STANDARDS

To be approved, the requested text amendment must meet certain specific standards. These standards are listed below. After each listed standard, explain how the text amendment the listed standard. Use additional paper if necessary.

1. **Nature of Request**: Explain below why you are seeking a text amendment to the zoning code. What is it that you would like to do that requires a change in the text of the zoning code?

Brickyard Bank is requesting to relocate the bank's main office from leased space at 6676 N. Lincoln Ave to Bank owned property at 6530 N. Lincoln Ave.

2. **What zoning district(s) would be affected by the proposed text amendment?** Categorize the type of properties or area of the Village that likely would be affected by the proposed change?

Zoning to be affected is the Business/ Residential Trasition Area of the B1 Traditional Business Zoning District.

3. **Cite the specific section(s) of the code proposed to be amended.**

Article IX Section 9.02

4. **Provide the proposed text amendment.** Provide below or attach the exact section code language, as it is currently written, then use strikeouts for proposed deletion of existing language and insert/add the proposed new language using highlighting (bolding) so that the language is shown exactly as you propose (with all deletions and additions indicated).

See attached - proposed text amendment

5. **Indicate why you believe this text change is needed and why it would benefit the Village.**

The text amendment will allow Brickyard Bank to relocate its main office and allow a long standing business to remain in Lincolnwood.

VILLAGE OF LINCOLNWOOD
COMMUNITY DEVELOPMENT DEPARTMENT

PUBLIC HEARING FEES & DEPOSITS SCHEDULE

Plan Commission

Hearing Type	Hearing Fee*	Hearing Deposit**
Special Use – Non Residential Property	$500	$2,000
Special Use – Residential Property	$250	NA
Reasonable Accommodation	$250	$2,000
Text Amendment	$500	$2,000
Map Amendment	$500	$2,000
Planned Unit Development (PUD) 0 to 5 acres	$1,250	$10,000
Planned Unit Development (PUD) 5 to 10 acres	$2,500	$10,000
Planned Unit Development (PUD) Over 10 acres	$3,000	$10,000
Minor Subdivision	$250	NA
Major Subdivision	$500	$2,000

Zoning Board of Appeals

Hearing Type	Hearing Fee*	Hearing Deposit**
Major Variation – Non Residential Property	$500	NA
Major Variation – Residential Property	$250	NA
Variation – Off-Street Parking	$500	NA
Variation – Design Standards	$250	NA
Minor Variation	$125	NA
Sign Variation/Special Signs	$500	NA

* Hearing fees are non-refundable.

** Hearing Deposits shall be applied to out-of-pocket expenses incurred by the Village as the result of the public hearing process. If additional costs are incurred, or if no deposit is provided, such out-of-pocket expenses will be billed directly to the applicant.

Proposed Text Amendment

to Article IX NonConforming Building, Structures, and Uses Part B Nonconforming Uses

Proposed text amendment is to add a new section (4) as indicated below to
9.02 Continuance of nonconforming use

(4) Notwithstanding any provision of this Chapter to the contrary, a legal nonconforming use may relocate to a new location within the Village, and continue operations at that new location as a legal nonconforming use subject to the limitations and standards provided in this Article IX, which new location may be of a greater square footage than the existing location, but only upon issuance of a special use permit therefor in accordance with Section 5.17 of this Zoning Ordinance, and only if:

a. The use is a bank, credit union, or savings and loan;

b. As of January 1, 2014, the use was located within the Business/Residential Transition Area of the B-1 Traditional Business Zoning District;

c. The new location is also within the Business/Residential Transition Area of the B-1 Traditional Business Zoning District; and

d. The bank, credit union, or savings and loan (as the case may be) must have been under continuous ownership by the same entity for at least six months prior to the relocation, and must remain under continuous ownership by such entity for at least six months after the relocation.

Agenda Item #7

Staff Report
Plan Commission
May 7, 2014
(Continued from April 2, 2014)

Subject Property: N/A (Text Amendment)

Zoning District: Non-Residentially Zoned and Non-Residentially Used Properties

Nature of Request: Consideration of possible Zoning Ordinance amendments governing medical cannabis-related uses.

Petitioner: Village Board

Summary:
Below is a summary of the matter provided by the Village Attorney and presented for the April 2, 2014 meeting. Mr. Passman will be present at the May 7th meeting to assist the Plan Commission.

On August 1, 2013, Governor Quinn signed into law the Compassionate Use of Cannabis Pilot Program Act (the "Act"). The Act, which went into effect on January 1, 2014, establishes a four-year program legalizing the use of marijuana for medical purposes.

Under the new law, registered qualifying patients ("*RQPs*") may purchase up to 2.5 ounces of marijuana every 14 days from a State-licensed dispensary. The law lists more than 30 debilitating medical conditions that can qualify for marijuana prescriptions. People seeking RQP status must file an application that includes a written recommendation from a physician based on an in-person examination and must provide medical documentation related to the debilitating condition. The Illinois Department of Public Health will issue identification cards to all registered users, including qualifying patients and designated caregivers. RQPs will be able to use cannabis without being subject to arrest, prosecution, or denial of any right or privilege for the medical use of cannabis.

The Act provides that medical cannabis must be grown and harvested in licensed cultivation centers, and then distributed to medical cannabis dispensaries, which will sell the cannabis to RQPs. Both the Act and the draft regulations (proposed by various State government departments and currently under review by the State) impose limitations on the locations of these facilities, including the following:

Cultivation Centers

- Only 22 cultivation centers will be allowed in the State, one in each State Police district. All of Cook County constitutes one State Police district; thus, there may be only one cultivation center in the County.
- Cultivation centers may not be located within 2,500 feet of the property line of a pre-existing school, day care center, group day care home, child care facility, or area zoned for residential use.
- Cultivation centers may not be located within 1,000 feet of another cultivation center or a cannabis dispensary.

Due to the 2,500-foot buffer between cultivation centers and residentially-zoned areas, there is ***no location*** within Lincolnwood at which a cultivation center can be located.

Dispensaries

- Only 60 dispensaries will be allowed in the State.
- According to the draft regulations, there can only be one dispensary somewhere in *either* Evanston Township or Niles Township.
- Dispensaries may not be located within 1,000 feet of the property line of a pre-existing school, day care center, group day care home, or child care facility.
- Dispensaries may not be located within a house, apartment, condominium, or area zoned for residential use.

Attached to this Staff Report is a map of the Village showing all locations at which a dispensary could be sited within Lincolnwood.

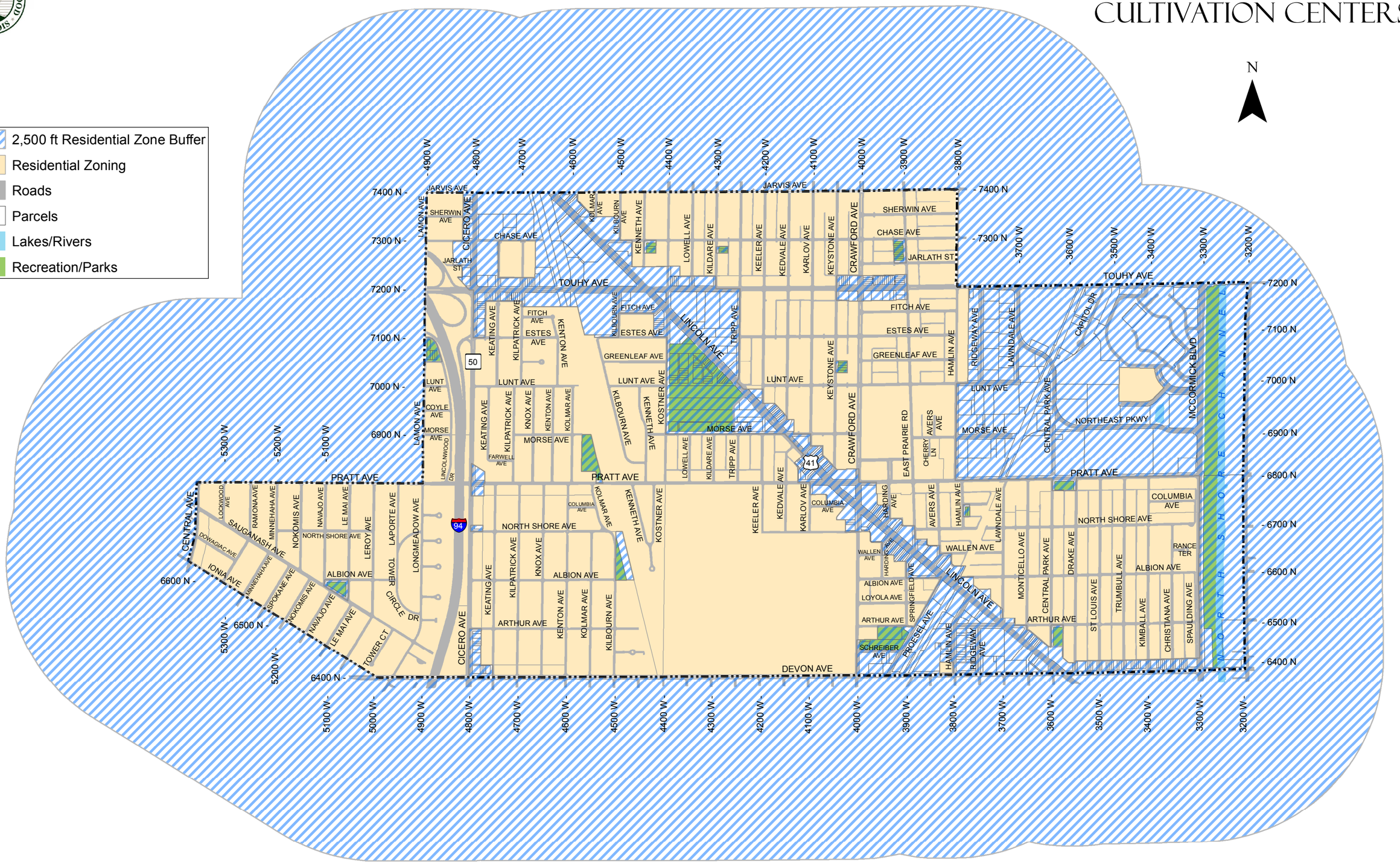
Importantly, the new law allows municipalities to impose reasonable zoning regulations on cultivation centers and dispensaries - but not "unreasonable" regulations. The draft regulations further provide that municipalities may not impose ordinances that "conflict with the Act . . . or would otherwise impede or place unreasonable restrictions on the location of dispensaries contrary to the mandate of the Act that dispensing organizations shall be geographically dispersed throughout the State…". Thus, the Village cannot completely prohibit cultivation centers or dispensaries.

Because of the time needed to license marijuana cultivation centers and dispensaries, the State anticipates that marijuana dispensaries will not open for business until 2015. Nevertheless, in order to ensure that appropriate local ordinances are in place to regulate cultivation centers and dispensaries that may locate within the Village, the Village Board adopted a resolution in November 2013, directing the Plan Commission to conduct this Public Hearing and to forward recommendations concerning possible Zoning Ordinance amendments governing medical cannabis-related uses.

Attachments

1. Separation Map – Cultivation Centers
2. Separation Map – Dispensing Organizations

VILLAGE OF LINCOLNWOOD
CULTIVATION CENTERS



GIS consortium

Date: 4/14/2014

VILLAGE OF LINCOLNWOOD
DISPENSING ORGANIZATIONS

- Potential Dispensing Properties
- 1000 ft Buffer around School
- Roads
- School
- Mixed Use Hub
- Business Transition Area Overlay
- Business / Residential Transition Area
- B1
- B2
- MB
- O
- P
- Planned Unit Development

N

0 0.25 0.5 1 Miles

GIS consortium

Date: 4/14/2014