THE UNIVERSITY OF RHODE ISLAND

DIVISION OF ADMINISTRATION AND FINANCE

THINK BIG WE DO™

PURCHASING DEPARTMENT
210 Flagg Road, Kingston, RI 02881 USA p: 401.874.2171 f: 401.874.2306 uri.edu/strategic-procurement/purchasing

BID/PROPOSAL

COMMODITY: CONSTRUCTION OF NEW 400' RADIO TOWER & TRANSMITTER BLDG. DATE: 1/2/25

FORMAL BID NO. _____ PUBLIC BID NO. 101448

BIDS ARE TO BE RECEIVED IN URI PURCHASING DEPARTMENT BY: DATE: 1/30/25 TIME: 2:00 PM Eastern Time

BUYER: Andrea Boucher Digitally signed by Andrea Boucher Date: 2025.01.02 08:51:40 -05'00' rlc SURETY REQUIRED: YES: X NO: _____

PRE-BID/PROPOSAL CONFERENCE: DATE: 1/10/25 TIME: 11:00 AM

MANDATORY: YES: _____ NO: X

LOCATION: 210 FLAGG RD., 1ST FL. LARGE CONFERENCE RM.
KINGSTON, RI 02881

Questions concerning this solicitation must be received by: **DATE:** 1/13/25 **TIME:** 12:00 PM

Questions are to be submitted in a *Microsoft Word* document to: **URIPurchasing@uri.edu**

Please reference the Bid Number on all correspondence. Questions received, if any, will be posted on the Internet as an addendum to the bid. It is the responsibility of all interested parties to download this information.
For Bid Solicitation Information visit: http://web.uri.edu/purchasing/bid-information/

STATEMENT REGARDING COVID-19

Effective immediately, we are suspending all in-person public bid openings until further notice

Public Bid responses will be publicly read via Webex video conferencing. To participate in the bid opening, please visit the following site at the scheduled bid opening date and time:

*** URL: https://rhody.webex.com/meet/uripurchasing**

No offer will be considered that is not accompanied by the attached University of Rhode Island Bidder Certification Form/Contract Offer completed and signed by the offeror.

COMPANY NAME: Northeast Towers, Inc.
STREET AND NUMBER: 199 Buckland Road
CITY, STATE & ZIP CODE: Farmington CT 06032

Stephen Savino III, Project Manager — Print Name and Title
860-677-1919 / 860-677-1300 — Telephone Number/Facsimile Number

Signature
2/6/2025 — Date
SS3@NORTHEASTTOWERS.com — E-mail address

THIS BID WILL NOT BE HONORED UNLESS SIGNED

SECTION 2 – DISCLOSURES

ALL CONTRACT AWARDS ARE SUBJECT TO THE FOLLOWING DISCLOSURES & CERTIFICATIONS
Offerors must respond to every disclosure statement. A person authorized to enter into contracts must sign the offer and attest to the accuracy of all statements.

Indicate Yes (Y) or No (N):

N 1 State whether your company, or any owner, stockholder, officer, director, member, partner, or principal thereof, or any subsidiary or affiliated company, has been subject to suspension or debarment by any federal, state, or municipal government agency, or the subject of criminal prosecution, or convicted of a criminal offense with the previous five (5) years. If Yes, then provide details below.

N 2 State whether your company, or any owner, stockholder, officer, director, member, partner, or principal thereof, or any subsidiary or affiliated company, has had any contracts with a federal, state or municipal government agency terminated for any reason within the previous five (5) years. If Yes, then provide details below.

N 3 State whether your company or any owner, stockholder, officer, director, member, partner, or principal thereof, or any subsidiary or affiliated company, has been fined more than $5000 for violation(s) of Rhode Island environmental laws by the Rhode Island Department of Environmental Management within the previous five (5) years. If Yes, then provide details below.

N 4 State whether any officer, director, manager, stockholder, member, partner, or other owner or principal of the Bidder is serving or has served within the past two calendar years as either an appointed or elected official of any state governmental authority or quasi-public corporation, including without limitation, any entity created as a legislative body or public or state agency by the general assembly or constitution of this state. If Yes, then provide details below.

IF YOU HAVE ANSWERED "YES" TO QUESTIONS #1 – 4 PROVIDE DETAILS/EXPLANATION IN AN ATTACHED STATEMENT. INCOMPLETE CERTIFICATION FORMS SHALL BE GROUNDS FOR DISQUALIFICATION OF OFFER.

SECTION 3 - OWNERSHIP DISCLOSURE

Vendors must provide all relevant information. Bid proposals submitted without a complete response may be deemed nonresponsive.

If the vendor is privately held, the vendor shall provide ownership information below.
List each officer, director, manager, stockholder, member, partner, or other owner or principle of the Bidder, and each intermediate parent company and the ultimate parent company of the Bidder. For each individual, provide his or her name, business address, principal occupation, position with the Vendor, and the percentage of ownership, if any, he or she holds in the Vendor, and each intermediate parent company and the ultimate parent company of the Vendor.

If the company is publicly held, the vendor may provide owner information about only those stockholders, members, partners, or other owners that hold at least 10% of the record or beneficial equity interests of the vendor; otherwise, complete ownership disclosure is required.

Stephen Savino OR 100% OWNER Corp registered in CT, President
Lori Savino Vice President
Vincent Murphy, Secretary/Treasurer

SECTION 4 - CERTIFICATIONS

Bidders must respond to every statement. Bid proposals submitted without a complete response may be deemed nonresponsive.

Indicate "Y" (Yes) or "N" (No), and if "No," provide details below.

THE VENDOR CERTIFIES THAT:

Y 1 I/we certify that I/we will immediately disclose, in writing, to the University Purchasing Agent any potential conflict of interest which may occur during the course of the engagement authorized pursuant to this contract.

Y 2 I/we acknowledge that, in accordance with (1) Chapter §37-2-54(c) of the Rhode Island General Laws "no purchase or contract shall be binding on the state or any agency thereof unless approved by the Department [of Administration] or made under general regulations which the Chief Purchasing Officer may prescribe," and (2) RIGL section §37-2-7(16) which identifies the URI Board of Trustees as a public agency and gives binding contractual authority to the University Purchasing Agent, including change orders and other types of contracts and under State Purchasing Regulation 8.2.B any alleged oral agreement or arrangements made by a bidder or contractor with any agency or an employee of the University of Rhode Island may be disregarded and shall not be binding on the University of Rhode Island.

Y 3 I/we certify that I or my/our firm possesses all licenses required by Federal and State laws and regulations as they pertain to the requirements of the solicitation and offer made herein and shall maintain such required license(s) during the entire course of the contract resulting from the offer contained herein and, should my/our license lapse or be suspended, I/we shall immediately inform the University of Rhode Island Purchasing Agent in writing of such circumstance.

Y 4 I/we certify that I/we will maintain required insurance during the entire course of the contract resulting from the offer contained herein and, should my/our insurance lapse or be suspended, I/we shall immediately inform the University of Rhode Island Purchasing Agent in writing of such circumstance.

Y 5 I/we certify that I/we understand that falsification of any information herein or failure to notify the University of Rhode Island Purchasing Agent as certified herein may be grounds for suspension, debarment and/or prosecution for fraud.

Y 6 I/we acknowledge that the provisions and procedures set forth in this form apply to any contract arising from this offer.

Y 7 I/we acknowledge that I/we understand the State's Purchasing Laws (§37-2 of the General Laws of Rhode Island) and the URI Board of Trustees Regulations apply as the governing conditions for any contract or purchase order I/we may receive from the University of Rhode Island, including the offer contained herein.

Y 8 I/we certify that the bidder: (i) is not identified on the General Treasurer's list, created pursuant to R.I. Gen. Laws § 37-2.5-3, as a person or entity engaging in investment activities in Iran described in § 37-2.5-2(b); and (ii) is not engaging in any such investment activities in Iran.

N 9 If the product is subject to Department of Commerce Export Administration Regulations (EAR) or International Traffic in Arms Regulations (ITAR), please provide the Export Control Classification Number (ECCN) or the US Munitions List (USML) Category:_____

Y 10 I/we certify that the above information is correct and complete.

IF YOU ARE UNABLE TO CERTIFY YES TO QUESTIONS #1 – 8 and 10 OF THE FOREGOING, PROVIDE DETAILS/EXPLANATION IN AN ATTACHED STATEMENT. INCOMPLETE CERTIFICATION FORMS SHALL BE GROUNDS FOR DISQUALIFICATION OF OFFER.

Signature below commits vendor to the attached offer and certifies (1) that the offer has taken into account all solicitation amendments where applicable, (2) that the above statements and information are accurate and that vendor understands and has complied with the requirements set forth herein.

Vendor/Company Name: Northeast Towers Inc.

Vendor's Signature: [signature] Bid Number: 10148 Date: 2/6/2025
(Person Authorized ~~to enter into contracts~~; signature must be in ink) (if applicable)

Stephen Savino III, Project Manager
Print Name and Title of Company official signing offer

Solicitation # : 101448
Solicitation Title: CONSTRUCTION OF NEW 400' RADIO TOWER & TRANSMITTER BLDG.

BID FORM

To: University of Rhode Island, Purchasing Department
210 Flagg Road, Kingston, RI 02881

Project: University of Rhode Island Radio Tower Replacement
Project Number: KC.U.RTOW.2022.001

Bidder:

Northeast Towers, Inc.
Legal name of entity

199 Brickyard Road, Farmington, CT 06032
Address

Stephen Savino III SSavino3@Northeasttowers.com
Contact name Contact email

860. 965. 1919 860-677-1300
Contact telephone Contact fax

1. BASE BID PRICE

The Bidder submits this bid proposal to perform all of the work (including labor and materials) as described in the solicitation for this Base Bid Price, (including the costs for all Allowances, Bonds, and Addenda):

$ 891,327.70

(Base Bid Price *in figures* printed electronically, typed, or handwritten legibly in ink)

Eight Hundred Ninety-one Thousand, three Hundred twenty seven and Seventy cents

(Base Bid Price *in words* electronically, typed, or handwritten legibly in ink)

- **ALLOWANCES**

The Base Bid Price ***includes*** the costs for the following Allowances as defined in Specification Section 01 2000:

1. **ALLOWANCE #1** RF Equipment including antennas, cables, equipment racks, etc.	**$130,000.00**
2. **ALLOWANCE #2** Additional site work and tree clearing	**$50,000.00**
Total Allowances:	**$180,000.00**

- **BONDS**

The Base Bid Price ***includes*** the costs for all Bid and Payment and Performance Bonds required by the solicitation.

- **ADDENDA**

The Bidder has examined the entire solicitation (including the following Addenda), and the Base Bid Price ***includes*** the costs of any modifications required by the Addenda.

All Addenda must be acknowledged.

Addendum No. 1, dated 2/4/25
Addendum No. 2, dated 2/4/25
Addendum No. 3, dated 2/4/25

2. ALTERNATES N/A

(Amount *in words* electronically, typed, or handwritten legibly in ink)

3. UNIT PRICES N/A

4. CONTRACT TIME

The Bidder offers to perform the work in accordance with the timeline specified below:

- Start of Construction ..... April 1, 2025
- Substantial Completion ..... September 30, 2025
- Final Completion ..... October 31, 2025

The Final Completion date for Work shall be within **165** calendar days of the Purchase Order from the Division of Purchases.

5. LIQUIDATED DAMAGES

Solicitation # : 101448
Solicitation Title: CONSTRUCTION OF NEW 400' RADIO TOWER & TRANSMITTER BLDG.

The successful bidder awarded a contract pursuant to this solicitation shall be liable for and pay the State, as liquidated damages and not as a penalty, the following amount for ***each*** calendar day of delay beyond the date for substantial completion, as determined in the sole discretion of the State: **Five Hundred Dollars ($500.00) per day**.

BID FORM SIGNATURE(S)

This bid proposal is irrevocable for 60 days from the bid proposal submission deadline.

If the Bidder is determined to be the successful bidder pursuant to this solicitation, the bidder will promptly: (i) comply with each of the requirements of the Tentative Letter of Award; and (ii) commence and diligently pursue the work upon issuance and receipt of the purchase order from the State and authorization from the user agency.

The person signing below certifies that he or she has been duly authorized to execute and submit this bid proposal on behalf of the Bidder.

Date: 2/6/2025

BIDDER

Northeast Towers, Inc.
Name of Bidder

Signature in ink

Stephen Savino III / Project Manager
Printed name and title of person signing on behalf of Bidder

#
Bidder's Contractor Registration Number

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/5/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Magnolia Agency 5 Main St Essex CT 06426	CONTACT NAME: Rich Varrato PHONE (A/C, No, Ext): (860)581-8155 FAX (A/C, No): E-MAIL ADDRESS: rich@magnoliainsagency.com
INSURED Northeast Towers, Inc. 199 Brickyard Road Farmington CT 06032	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: Admiral Insurance Company — 24856 INSURER B: America Fire and Casualty Co — 24066 INSURER C: Third Coast Insurance Company — 10713 INSURER D: Carolina Casualty Insurance Company — 10510 INSURER E: Crum & Forster Specialty Insurance Comp — 44520 INSURER F: American Casualty Co. of Reading PA — 20427

COVERAGES **CERTIFICATE NUMBER:** CL24121202436 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC OTHER:	X	Y	CA000032900-07	12/17/2024	12/17/2025	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS	X	Y	BAW65184764	10/1/2024	10/1/2025	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $	X	Y	GXL0000286 05 AEC 9806051-13	12/17/2024 12/17/2024	12/17/2025 12/17/2025	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [Y] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	BNUWC0160045	6/3/2024	6/3/2025	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
E	Professional/Pollution			PKC-115649	9/18/2024	9/18/2025	Pollution Agg/Occurrence $2,000,000	Prof $5,000,000
F	Inland Marine			7034587345	10/01/2024	10/01/2025	Installation Floater $1,000,000	Rented $25,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

State of RI, The University of Rhode Island and the URI Board of Trustees are listed as additional insured.
Waiver of Subrogation applies in favor of additional insureds.
30 days' advance notice of cancellation, nonrenewal, or material change in coverage, except for 10 day notice for nonpayment, will be sent to URI,10 Tootell Rd, Kingston RI 02881

CERTIFICATE HOLDER

University of Rhode Island
10 Tootell Rd
Kingston, RI 02881

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Rich Varrato/MISHA

RI Department of Labor and Training
Workforce Regulation and Safety Division
Professional Regulation - Prevailing Wage

General Contractor Apprenticeship Certification Form

This form MUST be completed and submitted at the time of bidding and is available on the Department of Labor and Training's Website at www.dlt.ri.gov, under Workforce Regulation and Safety, Prevailing Wage, Publications and Forms.

Bid/RFP Number: 10148

Bid/RFP Title: Construction of new 400' radio tower: transmitter Building.

RIVIP Vendor ID#: N/A

Vendor Name: Northeast Towers Inc.

Address: 199 Backyard Road, Fammington, CT 06032

Telephone: 860.677.1999

Fax: 860.677.1300

E-Mail: Vmurphy@northeasttowers.com

Contact Person and Title: Vincent Murphy

Northeast Towers, Inc. (Company Name & Address) (hereafter "bidder") hereby certifies that bidder meets the general contractor apprenticeship requirements of R. I. Gen. Laws § 37- 13-3.1 because bidder meets one of the following qualifications (check):

A. __Bidder sponsors a current and duly approved Rhode Island Department of Labor and Training Apprenticeship Program and currently employs at least one apprentice per trade/occupation, who will obtain "on the job training" experience in the apprentice's trade by performing on the contract (attach apprenticeship program standards and apprenticeship agreement);

B. _____Bidder sponsors a current and duly registered Rhode Island Department of Labor and Training reciprocal apprenticeship program pursuant to R. I. Gen. Laws § 28-45-16 and currently employs at least one apprentice per trade/occupation, who will obtain "on the job training" experience in the apprentice's trade by performing work on the contract (attach apprenticeship program standards, apprenticeship agreement and Rhode Island Department of Labor and Training Reciprocal Apprenticeship Program Approval);

C. _____Bidder has entered into a current collective bargaining agreement with a duly approved Rhode Island Department of Labor and Training Apprenticeship Program sponsor and, pursuant to the terms of the collective bargaining agreement, will employ at least one apprentice per trade/occupation, who will obtain "on the job training" experience in the apprentice's trade by performing work on the contract (attach relevant section of collective bargaining agreement and signature page);

D. _____Bidder has entered into a current labor agreement with a duly approved Rhode Island Department of Labor and Training Apprenticeship Program sponsor and, pursuant to the terms of the labor agreement, will employ at least one apprentice per trade/occupation, who will obtain "on the job training" experience in the apprentice's trade by performing work on the contract (attach relevant section of labor agreement and signature page);

E. _____Bidder will not perform work on the awarded contract except through subcontractors (non performance);

F. _____Bidder has received approval from the Rhode Island Department of Labor and Training that it satisfies the general contractor requirements of R. I. Gen. Laws §37-13-3.1 for purposes of a particular bid (attach Rhode Island Department of Labor and Training correspondence).

Vincent Murphy — Printed Name and Title of Authorized Representative

2/5/25 — Date

V. Murphy — Signature of Authorized Representative

F. Northeast Towers doesn't have a formal apprentice program for civil field staff and tower technicians. We will request approval from the RI DOL if we are the bid winner.

STATE CONTRACT ADDENDUM

RHODE ISLAND DEPARTMENT OF LABOR AND TRAINING

PREVAILING WAGE REQUIREMENTS
(37-13-1 ET SEQ.)

The prevailing wage requirements are generally set forth in RIGL 37-13-1 et seq. These requirements refer to the prevailing rate of pay for regular, holiday, and overtime wages to be paid to each craftsmen, mechanic, teamster, laborer, or other type of worker performing work on public works projects when state or municipal funds exceed one thousand dollars ($1,000).

All Prevailing Wage Contractors and Subcontractors are required to:

1. Submit to the Awarding Authority a list of the contractor's subcontractors for any part or all of the prevailing wage work in accordance with RIGL § 37-13-4;

2. Pay all prevailing wage employees at least once per week and in accordance with RIGL §37-13-7 (see Appendix B attached);

3. Post the prevailing wage rate scale and the Department of Labor and Training's prevailing wage poster in a prominent and easily accessible place on the work site in accordance with RIGL §37-13-11; posters may be downloaded at www.dlt.ri.gov/pw/Posters.htm .poster/htm or obtained from the Department of Labor and Training, Center General Complex, 1511 Pontiac Avenue, Cranston, Rhode Island;

4. Access the Department of Labor and Training website, at www.dlt.ri.gov on or before July 1st of each year, until such time as the contract is completed, to ascertain the current prevailing wage rates and the amount of payment or contributions for each covered prevailing wage employee and make any necessary adjustments to the covered employee's prevailing wage rates effective July 1st of each year in compliance with RIGL §37-13-8;

5. Attach a copy of this CONTRACT ADDENDUM and its attachments as a binding obligation to any and all contracts between the contractor and any subcontractors and their assignees for prevailing wage work performed pursuant to this contract;

6. Provide for the payment of overtime for prevailing wage employees who work in excess of eight (8) hours in any one day or forty (40) hours in any one week as provided by RIGL §37-13-10;

7. Maintain accurate prevailing wage employee payroll records on a Rhode Island Certified Weekly Payroll form available for download at www.dlt.ri.gov/pw.forms/htm, as required by RIGL §37-13-13, and make those records available to the Department of Labor and Training upon request;

8. Furnish the fully executed RI Certified Weekly Payroll Form to the awarding authority on a monthly basis for all work completed in the preceding month.

9. For general or primary contracts one million dollars ($1,000,000) or more, shall maintain on the work site a fully executed RI Certified Prevailing Wage Daily Log listing the contractor's employees employed each day on the public works site; the RI Certified Prevailing Wage Daily Log shall be available for inspection on the public works site at all times; this rule shall not apply to road, highway, or bridge public works projects. Where applicable, furnish both the Rhode Island Certified Prevailing Wage Daily Log together with the Rhode Island Weekly Certified Payroll to the awarding authority.

10. Assure that all covered prevailing wage employees on construction projects with a total project cost of one hundred thousand dollars ($100,000) or more has a OSHA ten (10) hour construction safety certification in compliance with RIGL § 37-23-1;

11. Employ apprentices for the performance of the awarded contract when the contract is valued at one million dollars ($1,000,000) or more, and comply with the apprentice to journeyperson ratio for each trade approved by the apprenticeship council of the Department of Labor and Training in compliance with RIGL §37-13-3.1;

12. Assure that all prevailing wage employees who perform work which requires a Rhode Island trade license possess the appropriate Rhode Island trade license in compliance with Rhode Island law; and

13. Comply with all applicable provisions of RIGL §37-13-1, et. seq;

Any questions or concerns regarding this CONTRACT ADDENDUM should be addressed to the contractor or subcontractor's attorney. Additional Prevailing Wage information may be obtained from the Department of Labor and Training at www.dlt.ri.gov/pw.

CERTIFICATION

I hereby certify that I have reviewed this CONTRACT ADDENUM and understand my obligations as stated above.

Northeast Towers, Inc

By: [signature]

Title: Finance Director

Subscribed and sworn before me this 5th day of Feb, 2025

[signature]
Notary Public
My commission expires: 12/31/2026

STATE OF RHODE ISLAND
CONTRACTORS' REGISTRATION AND LICENSING BOARD

560 Jefferson Blvd. Warwick, RI 02886

BE IT KNOWN THAT

STEPHEN SAVINO III

of NORTHEAST TOWERS, INC.

has met the requirements of the law and has been granted this certificate of registration as a

Commercial Contractor

IN THE STATE OF RHODE ISLAND

Registration Number	Issue Date	Expiration Date
GC-47753	August 19, 2024	September 14, 2025

James Cambio
Building Code Commissioner

Thomas E. Furey, Chair
Contractors' Registration and Licensing Board

Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond

CONTRACTOR:
(Name, legal status and address)

Northeast Towers, Inc.
199 Brickyard Road
Farmington, CT 06032

SURETY:
(Name, legal status and principal place of business)
Travelers Casualty and Surety Company of America
One Tower Square
Hartford, CT 06183
Mailing Address for Notices

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)

University of Rhode Island
210 Flagg Road
Kingstown, RI 02881

BOND AMOUNT: 5% Five Percent of Amount Bid

PROJECT:
(Name, location or address, and Project number, if any)

University of Rhode Island Radio Tower Replacement - Project No. KC.U.RTOW.2022.001

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 7th day of February, 2025.

(Witness)

Northeast Towers, Inc.
(Principal) *(Seal)*

By:
(Title) PROJECT MANAGER

(Witness)

Travelers Casualty and Surety Company of America
(Surety) *(Seal)*

By: Wendy Krystopa
(Title) Wendy Krystopa, Attorney-In-Fact

TRAVELERS

Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company
Farmington Casualty Company

POWER OF ATTORNEY

Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, St. Paul Fire and Marine Insurance Company, and Farmington Casualty Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and the Companies do hereby make, constitute and appoint Wendy Krystopa of Glastonbury, CT , their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **4th** day of **March, 2024.**

SEAL SEAL SEAL SEAL

State of Connecticut

City of Hartford ss.

By: _____
Bryce Grissom, Senior Vice President

On this the **4th** day of **March, 2024**, before me personally appeared **Bryce Grissom**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June, 2026**

NOTARY PUBLIC

_____
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this February 7, 2025

SEAL SEAL SEAL SEAL

_____
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-In-Fact and the details of the bond to which this Power of Attorney is attached.

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PURCHASING DEPARTMENT
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DATE: February 5th, 2025

Addendum# 2

BID NO.: 101448
OPENING: 2/7/25 at 2:00 PM
COMMODITY: CONSTRUCTION OF NEW 400' RADIO TOWER & TRANSMITTER BLDG.

Due to inclement weather the bid opening is being extended from 2/6/25 at 1:00 PM to 2/7/25 at 2:00 PM.

Andrea Boucher Digitally signed by Andrea Boucher Date: 2025.02.05 08:40:43 -05'00'

Purchasing Department
The University of Rhode Island

Rev. 6-7-24

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DATE: January 21st, 2025

Addendum# 1

BID NO.: 101448
OPENING: 2/6/25 at 1:00 PM
COMMODITY: CONSTRUCTION OF NEW 400' RADIO TOWER & TRANSMITTER BLDG.

This addendum is being issued to make the following clarifications:

1. The bid opening is being extended from 1/30/25 at 2:00 PM to 2/6/25 at 1:00 PM.
2. Provide answers to the questions received by the deadline posted in the above referenced bid.
3. Provide a copy of the Non-Mandatory Pre-Bid Sign-In Sheet.

Andrea Boucher Digitally signed by Andrea Boucher
Date: 2025.01.21 13:56:50 -05'00'

Purchasing Department
The University of Rhode Island

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BID 101448 – CONSTRUCTION OF NEW 400' RADIO TOWER & TRANSMITTER BLDG.
QUESTIONS AND ANSWERS

1. **I do not see the Geo report called out in the spec document... Snip below:**

   The replacement tower and guy wire foundations shall be designed in accordance with the Geotechnical Investigation Report prepared by Tectonic Engineering Consultants, P.C. dated 8/30/23. B. Entire report and additional information are attached in Appendix E.

   Please let me know how to find it as it is not on the Purchasing portal.

Answer 1: Geotechnical report has been completed and is attached to this addendum.

2. **Geo Tech Report required to complete Bidding. Do you guys have Geo Tech Report?**

Answer 2: Please see Answer 1.

3. **Do you require PE Stamped CD for Tower & Foundation of Tower Only?**

Answer 3: Yes, as this is a delegated design. The Tower and foundation drawings and calculations shall be signed and sealed in the State of Rhode Island.

4. **Design Criteria DATA Required:**
   a. **3 sec wind Guest with Ice**
   b. **3 sec wind Guest No Ice**
   c. **As per CD Ice Thickness 1 inch, Reduction Applied, or No?**
   d. **Is the Building Code TIA 222-H-2017 or TIA-G-2005?**

Answer 4: See sheet T003 for design criteria. The design shall be in accordance with TIA 222-H.

5. **How many Gangs Meter Bank Required:**
   a. **C101 said 2 Gang**
   b. **C200 ask for 4 Gang**
   c. **E100 said 2 Gang**
   d. **E101 ask for Multi Gang**

Answer 5: We are designing the compound for 1 future carrier. A minimum of 2 is required.

6. **Detail of Antenna Quantity / Model and Mount detail as well.**

Answer 6: See chart on C200 for details. Antenna: Shively 6813-4.

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A ring-stub, pressurized, FM antenna with a slug matching transformer.
A power gain of 2.14 or 3.3 db when full-spaced.
Right-circular polarization and a 1 5/8 inch input connection.
High density polyethylene four element radomes to protect against ice and snow collection on elements.
the Shively antennas come with their own mounts because the spacing between the bays and the tower leg is crucial to the antenna's performance.

7. Lighting Detail Required (Our Concern is giving below):
   Lighting Requirements

    1. **System Type:**
        a. **Red Obstruction Lighting System** (L-810 for steady-burning lights, L-864 for flashing lights) OR
        b. **Dual Lighting System** (medium-intensity white lights for daytime and twilight, and red lights for nighttime).

Answer 7.1: DUAL MODE tower lighting is desired and encouraged by the FAA and FCC, (white lights day and red at night)

    2. Levels of Lights:
        a. For a tower of **400 ft, 3 levels** of lights are typically required:
            a. Top Level:
                1. At least one red flashing light (L-864) for nighttime visibility.
                2. Alternatively, medium-intensity flashing white light (L-865) for 24-hour operation.
            b. Intermediate Levels:
                1. Two or more lights per level positioned at diagonally opposite locations for redundancy and visibility.
                2. Typically required at approximately **150 ft** and **300 ft** (spaced evenly).
        b. Ground Level/Lower Structures:
            a. Additional steady-burning red lights (L-810) may be installed if the lower sections are obstructed by terrain, vegetation, or buildings.

Answer 7.2: Elevations of lights confirmed as noted above. May change based on final design but use for bidding purposes.

    3. **Horizontal Placement:**
        a. Lights must be installed to ensure 360-degree visibility for aircraft, with no obstructions to the light from any direction.

Answer 7.3: This is correct.

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Number of Locations to Install:

- **Top Level:** 1 location with a red flashing light (or white medium-intensity light).
- **Intermediate Levels:** 2 levels, each with at least 2 lights (diagonally opposite placement).
- **Total Locations:** At least **3 levels**, with lights positioned to provide full horizontal coverage.

Answer: Confirmed for pricing. May change once final tower design has been completed

Additional Notes:

- **Ice Shields:** Required in icing-prone areas to protect light fixtures.

Answer: Ice protection required as shown on drawings.

- **Automatic Monitoring:** Systems should be monitored automatically or visually inspected regularly for functionality.

Answer: Automatic monitoring of the tower lights and other parameters like, inside temperature, transmitter output, and unauthorized entry will be handled by the station's extensive required remote control monitoring which is required by the FCC.

8. **Any Accessories needs to Add:**
   - **Anti-Climb**
   - **Safety Climb**
   - **TIA Grounding**
   - **Step Bolts**
   - **Waveguide Ladder**
   - **Antenna Mounts**

Answer 8: Yes, to all of the above

9. **Does URI possibly have the original tower foundation and guy anchor foundation details?**

Answer 9: Yes, original tower by Rohn. Drawings are attached to this addendum.

10. **Is there any drawings or foundation details for the existing block building to be removed?**

Answer 10: Yes, all existing foundations shall be removed and new foundations to be installed. We do not have original drawings for this building or the foundation.

11. **There are large trees along the cleared new guy paths that were discussed with the need to remove etc. Is there an actual drawing showing how many of these large trees are required to be removed? Or does URI have an idea of how many to be removed?**

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Answer 11: A survey will need to be completed to confirm which trees will be required to be removed. Any tree within the fall zone shall be removed. An allowance has been included for this line item.

12. Can URI please provide geotechnical report in order to nail down proposed tower design and foundations?

Answer 12: Please see Answer 1.

13. What does the University consider "a substantial portion of the work" that needs to be self-performed?

Answer 13: The awarded vendor is meant to be held to the stated requirements and while subcontracting may be allowed for certain portions of the work (i.e. tree removal). the detailed requirements are not meant to be subcontracted.

14. What would be a "disproportionate amount" of the work for a subcontractor to be assigned?

Answer 14: The awarded vendor is meant to be held to the stated requirements and while subcontracting may be allowed for certain portions of the work (i.e. tree removal). the detailed requirements are not meant to be subcontracted.

15. Is the sign-in sheet from the pre-bid proposal conference available?

Answer 15: Yes, a copy of the Non-Mandatory Pre-Bid Sign-In Sheet is attached to this addendum.

16. What is the schedule for construction? Substantial completion?

Answer 16: Please refer to the bid solicitation. This information is available on the bid form.

17. Officially, what is the website/url for where project information / addendums / etc. are posted?

Answer 17: Bid solicitations including addendums are posted here:
https://purchasing.ri.gov/bidding/externalbidsearch.aspx

Please search by the applicable bid number.

18. Are there any liquidated damages? If so, what's the value?

Answer 18: Please refer to the bid solicitation. This information is available on the bid form.

19. Please provide sign-in sheet/attendee list from the walkthrough.

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Answer 19: Please see Answer 15.

20. Page 7 on the project plans appears to be incomplete, see attached. Is the full page available?

Answer 20: Yes, attached to this addendum are the correct drawings.

21. Is there a geotechnical report available for this project?

Answer 21: Please see Answer 1.

22. Are there any W/MBE requirements for this project? Apprenticeship requirements?

Answer 22: Yes, please refer to the bid solicitation.

23. Will there be any FAA requirements/standards?

Answer 23: Yes, see lighting answer in section 7. We need to keep the NOTAM in effect as long as there we anticipate that will be a replacement tower of the same height at that site. The old tower shows up on pilot sectionals (mape) which every pilot should have and the NOTAM refers back to those sectionals.

24. We are To Purchase Everything Here Correct?
Tower
Generator
All Labor and Materials

Answer 24: Correct.

25. Is this a Prevailing Wage?

Answer 25: Yes, please refer to the bid solicitation regarding prevailing wage requirements.

26. Can you please supply the exact models of antennas that will be required so proper loading can be factored into the design calculations?

Answer 26:
Antenna: Shively 6813-4
A ring-stub, pressurized, FM antenna with a slug matching transformer.
A power gain of 2.14 or 3.3 db when full-spaced.
Right-circular polarization and a 1 5/8 inch input connection.
High density polyethylene four element radomes to protect against ice and snow collection on elements.

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the Shively antennas come with their own mounts because the spacing between the bays and the tower leg is crucial to the antenna's performance.

Tectonic

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University of Rhode Island
Office of Capital Projects
60 Tootell Road, Sherman Bldg.
Kingston, Rhode Island 02881

Attention: Kyle Coleman, P.E., Construction Manager
(Via email: kycoleman@uri.edu)

August 30, 2023

RE: W.O. 12117.01
GEOTECHNICAL INVESTIGATION
PROPOSED 400-FOOT GUYED TOWER
URI RADIO GUYED TOWER
875 PLAINS ROAD
SOUTH KINGSTOWN, WASHINGTON COUNTY, RHODE ISLAND

Dear Mr. Coleman:

Tectonic Engineering Consultants, Inc. (Tectonic) has performed a subsurface investigation and geotechnical engineering analyses for the proposed guyed tower at the above referenced site. This report presents our findings and recommendations for the design and construction of the foundations for the proposed tower.

1.0 DESIGN CONSIDERATIONS

The proposed tower is a guyed tower structure that will be used to mount communication antennas. It is expected that the guyed tower foundation will be subjected to relatively high overturning loads resulting in tension loads on the guy anchors, whereas static compressive loads at the base of the tower will be modest, in comparison. The actual loads from the guyed tower are to be determined by others.

In accordance with the publication entitled "Structural Standard for Antenna Supporting Structures and Antennas **and Small Wind Turbine Support Structures" (TIA**-222-H), it shall be permissible to determine seismic design parameters from the ASCE 7 online Hazard Tool based on ASCE 7-16. Additionally, it is our understanding that the monopole tower is categorized as Risk Category II.

2.0 SCOPE OF SERVICES

The following services were performed for The University of Rhode Island - Office of Capital Projects, hereafter referred to as Client.

- Review of geological information publicly available through the United States Geological Survey (USGS) and the National Resources Conservation Service (NRCS).
- Drilling, sampling, and logging of four (4) borings, designated as borings B-1 through B-4, to approximate depths up to 22 feet below existing grade (bgs).

Newburgh Office

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- Field inspection by a Tectonic representative, working under the purview of a Rhode Island State licensed Professional Engineer, to locate the borings; and log and classify all soil samples.
- Performance of in-situ soil resistivity testing by a Tectonic representative at two (2) locations in the general center of the project site.
- Laboratory testing of soil samples selected to verify the field classifications and corrosivity potential of the underlying soil, and to evaluate the engineering characteristics of the soil.
- Geotechnical engineering analyses of the subsurface conditions and laboratory test results as they relate to the design and construction of the foundations of the proposed guyed tower.
- Preparation of this geotechnical report presenting the results of the subsurface investigation, laboratory testing, engineering analyses, and our geotechnical recommendations as they relate to the design and construction of the foundations of the proposed guyed tower.

3.0 SITE AND PROJECT DESCRIPTIONS

The project site (site) is in an undeveloped land parcel, at the general end of Plains Road, South Kingstown, Washington County, Rhode Island. A previously constructed guyed tower, that has since been demolished, is purported to have existed in the general area, with concrete remnants visually observed during the Tectonic subsurface investigation. The site is bordered by heavily wooded areas on all sides, with an existing one-story structure in the general northwest portion of the site. Based on our onsite observations and review of a provided existing conditions topographic survey, prepared by Narragansett Engineering Inc. (NEI), Project # 21.0133, dated August 9, 2023, the site slopes downward to the north-northwest. Ground surface elevations range from approximately +175 to +144 feet. All elevations listed reference the North American Vertical Datum of 1988 (NAVD 88)

Per our discussion with members of the design team, the proposed project consists of the construction of an approximately 400-foot guyed tower, to be constructed in the same general footprint area of the previously referred and demolished guyed tower. Additionally, three (3) deadmen anchors will be constructed for support of the proposed tower. Structural loading was not available as of the preparation of this report. Also, no significant grading, or cutting and filling, is anticipated for construction of the proposed tower and deadmen anchors.

4.0 SUBSURFACE INVESTIGATION

The subsurface investigation consisted of the drilling, sampling, and logging of four (4) test borings, designated as borings B-1 through B-4. Boring B-1 was drilled approximately nine-feet offset of the previously demolished guyed tower base, and borings B-2 through B-4 were advanced approximately 11 to 16 feet offset of the **previously demolished guyed tower concrete anchorage. As previously mentioned, it is Tectonic's understanding** that the proposed guyed tower and concrete anchorages will be constructed in the same general footprint areas as the previously demolished structures. The approximate locations of the borings are indicated on the attached Location Plan, Figure 1.

The borings were performed by Geologic Earth Exploration, Inc. on July 19 and 20, 2023 using an Acker Recon ATV-mounted drill rig, equipped with an automatic hammer. The borings were advanced through overburden soil using 2-7/8-inch tricone roller bits and mud-rotary drilling techniques. Soils were stabilized with 4-inch nominal diameter driven steel casing. Standard Penetration Testing (SPT) and split-spoon sampling was performed within the borings and was performed in general accordance with the requirements of ASTM Standard D1586 Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils. SPT N-values were recorded for each soil sample taken. Samples of the soil obtained during the investigation were collected, retained, and are currently stored at our material testing laboratory. Upon completion, the boreholes were backfilled with drill cuttings to match the existing conditions.

All drilling, sampling, and logging of the borings, and soil resistivity testing, were performed under the full-time observation of a Tectonic representative working under the supervision of a Professional Engineer licensed in the State of Rhode Island. The Tectonic representative classified and collected soil samples for laboratory testing at the boring locations as they were recovered, and prepared logs of the soil and groundwater conditions encountered. The soils were classified in accordance with the latest edition of the Rhode Island State Building Code (Code), the Burmister Soil Classification System, and the Unified Soil Classification System (USCS) (ASTM D2488). Copies of the boring and soil resistivity test logs are attached.

5.0 RESISTIVITY TESTING

Soil resistivity testing was performed at the site and was completed on July 19, 2023. The testing was performed in general conformance with ASTM Standard G57 and consisted of the performance of two (2) Wenner arrays, designated as Test 1 and Test 2. The tests were performed approximately perpendicular to each other, in the approximate center position of the site. A more detailed location of the testing can be found on Figure 1.

The resistivity testing was performed with an AEMC Industries Model 6472 digital Ground Resistance Tester, **using Wenner electrode "a" spacings of 2.5, 5, 10, 20 and** 35 feet. Note, specific electrode spacing was not provided by the client, and therefore a generalized standard spacing was used. The data presented below in Table **5.1 includes the calculated earth resistivity, based on the measured resistance at each "a" spacing, which** per the assumption of the Wenner array method, represents the average earth resistivity of a hemisphere of soil **having a radius equal to the "a" spac**ing. Resistivity test logs are included in Appendix III.

Table 5.1 - Resistivity Test Results

Measured Resistivity for Varying "A" Spacings (Ohm Cm)

Array Number	Electrode Spacing				
	2.5 Ft	5 Ft	10 Ft	20 Ft	35 Ft
Test 1	219,759	305,461	315,994	250,114	252,029
Test 2	208,747	296,843	354,296	275,393	268,786

6.0 LABORATORY TESTING

Laboratory testing consisted of six (6) Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis performed in general accordance with ASTM D6913; and soil chemical (corrosivity) testing. Soil corrosivity testing was performed on two (2) composite soil samples collected from the borings. The

corrosivity testing includes a suite of tests to measure the chloride and sulfate contents, and pH of the soil. The laboratory test results are attached and incorporated into the soil descriptions presented in the following section.

7.0 SUBSURFACE CONDITIONS

The results of the subsurface investigation, and information obtained from the NRCS, indicate that the site is primarily underlain by glacially deposited soils, primarily consisting of coarse sands and silty melt-out till derived from granite and gneiss. The following subsections provide general descriptions of the subsurface conditions encountered. More detailed descriptions are provided on the boring logs, and the laboratory test results, attached.

As previously mentioned, an automatic hammer was used in the performance of the SPT sampling. The energy standardized N_{60}-value, which is typical of a safety hammer and is the standard for geotechnical analyses, is also used in the following descriptions of the soils. An automatic hammer typically imparts about 1.3 times as much energy to the soil as a safety hammer, and therefore, the field N-values reported in the boring logs are corrected by this factor to obtain the energy-corrected SPT N_{60}-values.

7.1 Native Soils

Native soils were encountered from the ground surface to the total depth explored in all borings. The native soils generally consisted of variably colored, coarse-to-fine sand, with varying amounts of coarse-to-fine gravel and silt. Pockets of coarse to fine gravel, as the primary material constituent, were encountered in all borings except boring B-3, and a small pocket of silt was encountered in the upper 2 feet bgs in boring B-1. Field SPT N-values within the native soils ranged from 4 blows per foot (bpf) to split spoon sampler refusal, which is defined as less than 6 inches of sampler penetration for 50 blows of the hammer. When corrected, the SPT N_{60}-values ranged from approximately 5 bpf to sampler refusal, indicating a loose to very dense condition. On average the native soils were encountered in a dense to very dense condition, with the loose layer only occurring in the upper 2 feet bgs in boring B-3. Additionally, note should be taken that numerous obstructions, in the form of cobbles and boulders, were encountered at varying and multiple depth layers in all borings. Auger refusal, on apparent cobble/boulder obstructions, was also encountered at the termination depth of all borings. The native soils have a USCS designation of SM and GM.

7.2 Groundwater

Due to the introduction of drilling fluid during mud rotary drilling, accurate groundwater readings could not be obtained during advancement of the borings. Groundwater, in the form of saturated soil samples, was observed in all borings at approximate depths ranging from 6 to 8 feet bgs. However, it should be noted that long-term measurements of groundwater were not part of the provided scope of services, and if required, Tectonic recommends the installation of a groundwater observation well. Additionally, groundwater levels vary seasonally, and with changing weather conditions. Consequently, groundwater may be encountered at other depths at other times, and in a perched condition above the very dense and fine-grained soils.

7.3 Soil Corrosivity

As noted in Section 5, chemical testing was performed on composite soil samples to evaluate the chloride and sulfate contents, pH, and electrical resistivity of the soils on site. Within the borings, composite samples were collected from the uncontrolled fill and native soils. The chemical testing was performed by Phoenix Environmental Laboratories, Inc. at their testing laboratory located in Manchester, Connecticut. Table 7.3.1 summarizes the results of the laboratory testing and the resulting relative corrosivity and resistivity of the subsurface soil at the site. The laboratory test report is included in Appendix II of this report.

Table 7.3.1 Corrosivity Test Results

Soil Type	Sample No.	Depth (ft)	Chloride Content (mg/kg[1])	pH	Sulfate Content (mg/kg[1])	Relative Corrosivity
Tower Base	Composite	2 to 10	< 55	6.60	< 55	Negative
Deadmen	Composite	2 to 8	< 54	6.26	< 54	Negative

Notes:
1. **Reference: "Understanding Soil Risks and Hazards Using Soil Survey to Identify Areas with Risks** and Hazards **to Human Life and Property" USDA**
2. The ratio mg/kg is equal to parts per million (ppm).
3. Content values preceded with a less than symbol (<) indicate that the content was below the detectable limit.

8.0 SITE CLASS AND SEISMIC SITE COEFFICIENTS

Based on the results of the subsurface investigation and the criteria outlined in the current edition of the Code and TIA-222-H, the subsurface conditions underlying the site should be considered Class D. The associated seismic design parameters from ASCE 7 are attached.

9.0 GUYED TOWER FOUNDATION RECOMMENDATIONS

Based on our understanding of the project and our conversations with the design team, the proposed construction will consist of the construction of an approximately 400-foot tall guyed tower. The following sub-sections provide our geotechnical recommendations for design and construction of the proposed guyed tower foundations. The recommendations are based on our understanding of the proposed construction, the results of the subsurface investigation, and our experience on other similar projects.

9.1 Tower Base and Guy Anchorages

The proposed guyed tower base can be supported on a conventional shallow spread footing (concrete block) that bears on the very dense native soils encountered at the site around boring B-1. The foundation can be designed for a maximum net allowable soil bearing pressure of 6,000 pounds per square foot (psf). Section 10 of this report provides the subgrade preparation procedures necessary to achieve the recommended bearing capacity. Using the above design criteria, total settlement is estimated to be up to 1 inch. It is recommended that the concrete block has a minimum width of 3.0 feet, and should bear at least 4.5 feet below outside grade, for frost protection.

Each of the guy anchorages will resist the uplift and lateral forces exerted by the guy wires through a combination of dead weight, resistance to soil shear along the anticipated failure planes, and passive earth pressure. The passive earth pressure will occur, because of the lateral loading, along the face of the concrete blocks that are oriented perpendicular to the direction of the guy anchor and are closest to the tower. Frictional resistance will also be developed along the sides and base of the block in the opposite direction of the applied force.

As previously mentioned, groundwater was encountered as shallow as approximately 6 feet bgs. A seasonally high depth to groundwater of 4 feet bgs should be used for design. Based on this depth, and the anticipated bearing depth of the proposed tower base and guy anchorages, construction phase dewatering may be required. Contractors, and others involved, should be prepared for the need to dewater.

The table below provides recommended soil parameters for use in evaluating the soil resistance to the imposed lateral and uplift loads:

Soil Parameter	Native Soils - Approximate Depth Below Existing Grade (ft.)		Imported Structural Fill
	0 to 4	Below 4	
Angle of Internal Friction	32°	36°	34°
Active Earth Pressure Coefficient (Ka)	0.31	0.26	0.28
Passive Earth Pressure Coefficient (Kp)[2]	3.25	3.85	3.54
At-Rest Earth Pressure Coefficient (Ko)	0.47	0.41	0.44
Coefficient of Base Friction [3]	0.35	0.45	0.42
Unit Weight of Soil (pounds per cubic foot)	115	67 [1]	125

1) Assumes a seasonally high depth to groundwater of 4 feet bgs.

2) Reduce the passive pressure above a depth of 4.5 feet below exterior grade by half to account for frost disturbance.

3) Coefficient of base friction applies to mass concrete placed directly against material indicated.

9.2 Foundation Construction Considerations

The foundation subgrades should be prepared by excavating to the bearing depth using hydraulic excavation equipment and using hand equipment to remove all soil and broken cobble and boulder materials loosened by excavation. The subgrade should then be inspected by the geotechnical engineer to verify that the materials are consistent with those described in this report. Any unsuitable materials (broken cobbles or boulders or soil other than those recommended for bearing) should be removed as directed by the geotechnical engineer.

Numerous cobbles and boulders were encountered during the subsurface investigation. Contractors involved in the excavation for the foundation of the proposed guyed tower should be prepared for the need for their removal.

Although not anticipated, any new fill slopes should be constructed on a slope inclination no steeper than 3 to 1 (Horizontal to Vertical) unless a detailed slope stability evaluation is performed. The sides of the excavation should be sloped back for safety unless a sheeting or bracing system is used. The Occupational Safety and Health Administration (OSHA) and other applicable agency requirements pertaining to worker safety should be met during the excavation activities.

10.0 EARTHWORK CONSTRUCTION CRITERIA

The following sections present our recommendations regarding earthwork and construction monitoring.

10.1 General Site Preparation and Excavations

Initially, the site should be stripped of all topsoil-like material and organics, debris, and vegetation. Debris and vegetation from the clearing operations should be removed from the site and disposed of at a legal dump site. All soft or unsuitable native materials, and subsurface obstructions, should be removed from the mat foundation footprint.

If encountered, any existing utilities within the project limits should be excavated and re-routed or removed. The resulting excavations should be backfilled with structural fill in accordance with the procedures outlined in Section 10.3. Trench excavations should be properly benched to allow for adequate compaction.

All excavations should conform to the latest OSHA requirements regarding worker safety. Based upon the soils encountered within the borings, the soils at the site should be considered OSHA Type C soils.

10.2 Foundation and Subgrade Preparation

All subgrades should be inspected by the Tectonic geotechnical engineer prior to the placement of structural fill, steel, or concrete. The foundation subgrade should be prepared by excavating to the bearing depth using hydraulic excavation equipment.

All foundation subgrades should also be proofrolled and be recompacted after excavation using the largest compaction equipment that can be practicably operated in the foundation excavation, such as a heavy plate tamper, or a trench roller, under the full-time observation of the geotechnical engineer. Any unsuitably yielding material should be removed and replaced as described above.

After the soil subgrade has been inspected and approved by the geotechnical engineer, an approximate 4-inch layer of free draining (Item #57 or similar) crushed stone can be placed to protect the subgrade and act as a working platform during construction.

10.3 Fill and Backfill Materials

The existing fill and native soils, due to their high fines content, are not suitable for structural fill, but may be used as general fill, such as in landscape areas. Imported structural fill materials should consist of clean imported on-site sand, gravel, crushed stone, crushed gravel, or a mixture of these, and should contain no organic matter and should meet the gradation as specified in the Rhode Island State Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, Section M.01.09, Gradation of Aggregates, Reclaimed Processed Material, and as recommended below.

Sieve Size	Percent Finer by Weight
3-inch	100
1-1/2-inch	70 - 100
3/4-inch	50 - 85
No. 4	30 - 55
No. 50	8 - 25
No. 200	2 – 10

All structural fill should be compacted to at least 95 percent of the maximum dry density at near optimum moisture contents as determined by ASTM Standard D1557, ***"Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))"***. The lift thickness for the fill soils will vary depending on the type of compaction equipment used. Fills should generally be placed in uniform horizontal lifts not exceeding 8 inches in loose thickness. In confined areas, the loose lift thickness should be reduced to 4 inches or less and each lift should be compacted with sufficient passes of hand operated vibratory or impact compaction equipment.

A geotechnical engineer with appropriate field and laboratory support should approve materials for use as fill, and test fill materials for compliance with the recommended compaction. Each lift of fill placed at the site should be tested for compaction.

10.4 Construction Dewatering and Protection of Subgrades

Approved subgrades should be protected from the effects of frost, construction traffic, perched groundwater, surface water, and precipitation. The necessary protection should be provided as soon after acceptance, as is practicable, and should be maintained until coverage with compacted fill or concrete. It is recommended that temporary surface drainage measures be installed to divert runoff away from the proposed construction limits.

Depending on the foundation bearing depths of the tower base and guy anchorages, construction phase dewatering may be warranted, and if required it should be performed in a manner that will prevent loosening or migration of the subgrade soils.

The operation of sumps directly in the foundation excavation should not be allowed. Sump pits should be placed at least 1 foot outside of foundation excavations for every foot below the foundation subgrade elevation that they excavated. As per our field observations, the on-site soils were observed to contain significant amounts of silt, which make them moisture sensitive. They will readily soften and experience a reduction in load-carrying capacity when exposed to moisture. These soils are also frost susceptible and will experience expansion and contraction during freeze-thaw cycles.

11.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical engineers and geologists practicing in this or similar situations. The interpretation of the field data is based on good judgment and experience. However, no matter how qualified the geotechnical engineer or detailed the investigation, subsurface conditions cannot always be predicted beyond the points of actual sampling and testing. No other warranty, expressed or implied, is made as to the professional advice included in this report.

The recommendations contained in this report are for design purposes only. Contractors and others involved in this project are advised to make an independent assessment of the subsurface conditions for the purpose of estimating quantities and scheduling. No warranty, express or implied, is made as to the advice provided in this report.

This report has been prepared for the exclusive use of the Client for the specific application to the proposed construction detailed in this report. If any changes in the design or location of the proposed construction is planned, the conclusions and recommendations contained in this report shall not be considered valid unless reviewed and verified in writing by Tectonic Engineering Consultants, Inc. It is recommended that Tectonic be retained to provide construction monitoring services to ensure proper implementation of the recommendations contained herein, which would otherwise limit our professional liability.

We trust this report will allow you to proceed with design of the existing foundations.

Sincerely,

TECTONIC ENGINEERING CONSULTANTS, INC.

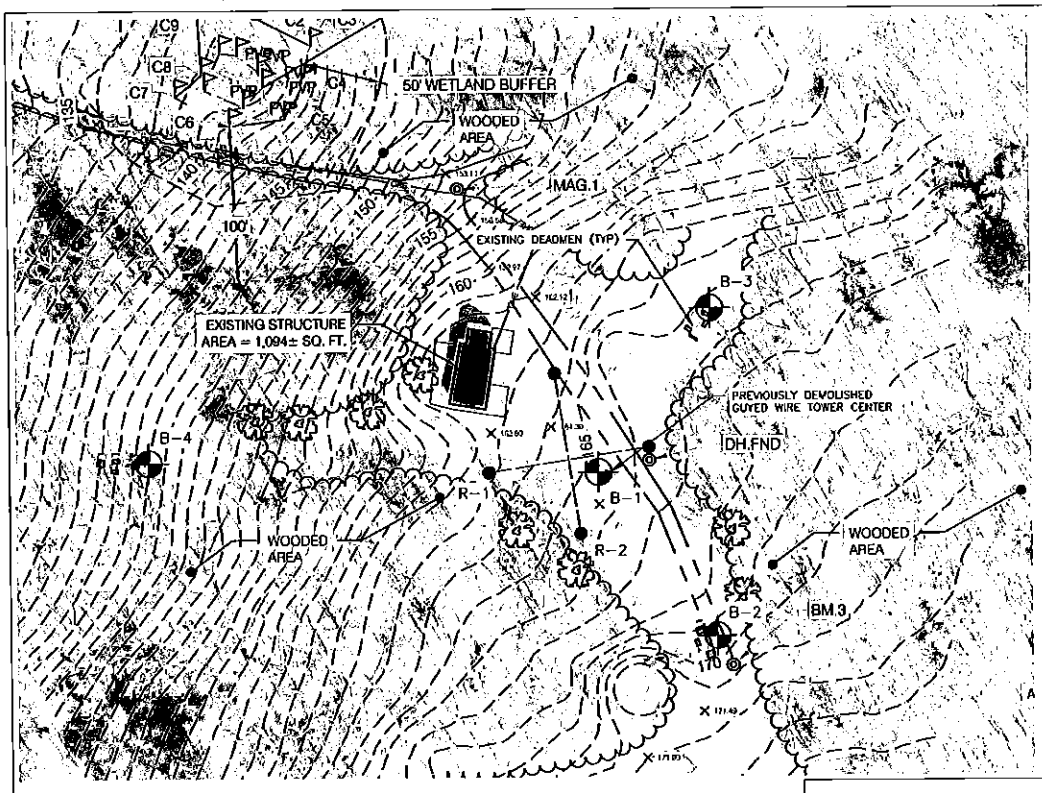
Prepared by:

DONALD A. BENVIE
No. 6345
REGISTERED
PROFESSIONAL ENGINEER

Donald A. Benvie, P.E.
President & CEO

CDF/CBB/DB G:\Newburgh\Geotechnical\12100\12117.01 URI Radio Tower System\Report\12117.01.Geo Report.docx

Attachments: Boring Location Plan, Figure 1
Boring Logs, By Tectonic
Soil Resistivity Results, by Tectonic
Laboratory Results, by Tectonic and Phoenix



LEGEND

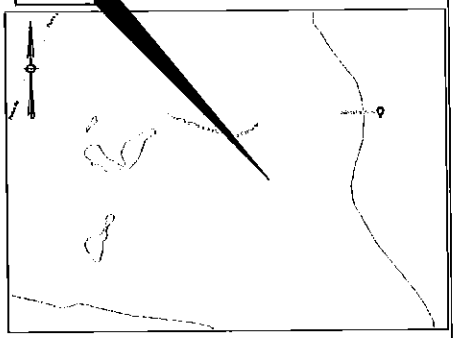
B-4 APPROXIMATE BORING LOCATION

R-2 APPROXIMATE SOIL RESISTIVITY TEST LOCATION

NOTES

1. PLAN BASED ON A TOPOGRAPHIC SURVEY PROVIDED BY THE CLIENT, TITLED "EXISTING CONDITIONS SURVEY AND TOPOGRAPHY PLAN", DRAWING NO. SV-101, DATED 08/09/23.
2. BORING AND SOIL RESISTIVITY TEST LOCATIONS WERE FIELD LOCATED BY TECTONIC AND SHOULD BE CONSIDERED APPROXIMATE.

SITE



0 1 2 3

ORIGINAL SIZE IN INCHES

Tectonic

A NATIONAL SOLUTIONS, EXCEPTIONAL SERVICE.

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BORING AND SOIL RESISTIVITY TEST LOCATION PLAN

URI RADIO TOWER SYSTEM
PLAINS ROAD
SOUTH KINGSTOWN, WASHINGTON COUNTY, RHODE ISLAND

Date	Work Order	Drawing No.	Rev
08/30/23	12117.01	FIGURE 1	0
Scale 1" = 60'			

Tectonic

PROJECT No.	12117.01
PROJECT:	URI Radio Tower System
LOCATION:	875 Plains Rd, South Kingstown, RI

BORING No. B-1

SHEET No. 1 of 1

CLIENT:	URI	GROUND WATER	DATE	TIME	DEPTH	INSPECTOR: Connor McCleary
CONTRACTOR:	Geo Logic - Earth Exploration, Inc.					DRILLER: Damien Jacobs
METHOD OF ADVANCING BORING	DIA.	DEPTH				SURFACE ELEVATION: 165.5
POWER AUGER:		TO	MON. WELL: ☐ YES		☒ NO	DATUM: See Remarks
ROT. DRILL:	2 7/8"	0 TO 22'	SCREEN DEPTH: —	TO	—	DATE START: 7/20/23
CASING:	4"	0 TO 22'	WEATHER: Clear	TEMP:	75° F	DATE FINISH: 7/20/23
DIAMOND CORE:		TO	DEPTH TO ROCK: Not Encountered'			UNCONFINED COMPRESS. STRENGTH (TONS/FT) ⊖ 1 2 3 4 5
Acker Rebel Track Rig with Automatic Hammer			'CHANGES IN STRATA ARE INFERRED			PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % 10 20 30 40 50
						STANDARD PENETRATION (BLOWS/FT.) 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	RECOV.: LENGTH (IN.)	RECOV.: RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	ELEVATION (FT.)
1	14	2 2 12 23	S-1	20		M	SM	Bwn-gy Silt, and c-f Sand, little f Gravel		
3	62	38 31 31 50/4	S-2	17		M	SM	Bwn-gy c-f SAND, and Gravel, little Silt		
5	50+	48 50/1	S-3	6		M	SM	Bwn-gy c-f SAND, little c-f Gravel, little Silt		160.5
7								Drilled through cobble/boulder obstruction to 8'		
9	45	20 17 28 30	S-4	17		W	SM	Gy c-f SAND, some c-f Gravel, little Silt		155.5
11	79	18 29 50 50/3	S-5	13		W	SM	Bwn c-f SAND, little c-f Gravel, little Silt		
13								Drilled through cobble/boulder obstruction to 15'		150.5
16	88+	40 38 50/1	S-6			W	GM	Bwn-gy c-f GRAVEL, and Sand, little Silt		
20	50+	50/0						Split spoon sampler refusal @ 20' Drilled to 22' Auger refusal at 22'		145.5
								End of Boring at 22'		140.5

REMARKS: Surface elevations estimated based on the NEI Survey, dated August 9, 2023, and reference NAVD 88.

BORING LOG 12117.01.GPJ TECTONIC ENG.GDT 8/25/23

Tectonic

PROJECT No. 12117.01
PROJECT: URI Radio Tower System
LOCATION: 875 Plains Rd, South Kingstown, RI

BORING No. B-2

SHEET No. 1 of 1

CLIENT: URI
CONTRACTOR: Geo Logic - Earth Exploration, Inc.
METHOD OF ADVANCING BORING
POWER AUGER:
ROT. DRILL: 2 7/8" 0 TO 15'
CASING: 4" 0 TO 15'
DIAMOND CORE:
Acker Rebel Track Rig with Automatic Hammer

GROUND WATER: DATE | TIME | DEPTH

INSPECTOR: Connor McCleary
DRILLER: Damien Jacobs
SURFACE ELEVATION: 175.0
DATUM: See Remarks
DATE START: 7/19/23
DATE FINISH: 7/19/23

MON. WELL ☐ YES ☒ NO
SCREEN DEPTH: — TO —
WEATHER: Clear TEMP: 80° F
DEPTH TO ROCK: Not Encountered'
*CHANGES IN STRATA ARE INFERRED

UNCONFINED COMPRESS. STRENGTH (TONS/FT) ● 1 2 3 4 5
PLASTIC LIMIT % × | WATER CONTENT % ⊗ | LIQUID LIMIT % △ 10 20 30 40 50
STANDARD PENETRATION (BLOWS/FT.) ● 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	RECOV. LENGTH (IN.)	RECOV. RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	ELEVATION (FT.)
1	50+	9 50/3	S-1	8		M	SM	Bwn c-f SAND, little c-f Gravel, little Silt, trace Organics		
2										
3								Drilled through cobble/boulder obstruction to 4'		
4										
5	40	9 20 20 18	S-2	15		M	SM	Gy c-f SAND, some Silt, little f Gravel		170.0
6										
7	50+	15 50/1	S-3	4		M	GM	Gy-bwn c-f GRAVEL, and c-f Sand, little Silt		
8										
9	97+	19 47 50/2	S-4	14		W	SM	Bwn c-f SAND, little c-f Gravel, little Silt		97
10										165.0
11										
12										
13										
14										
15										160.0
16	50+	14 50/6	S-5	12		W	SM	Bwn c SAND, trace Gravel, little Silt Drilled to 17'. Auger refusal at 17'.		
17								End of Boring at 17'		
18										
19										
20										155.0
21										
22										
23										
24										
25										150.0
26										
27										

REMARKS: Surface elevations estimated based on the NEI Survey, dated August 9, 2023, and reference NAVD 88.

BORING LOG 12117.01.GPJ TECTONIC ENG.GDT 8/25/23

Tectonic

BORING No. B-3

PROJECT No. 12117.01
PROJECT: URI Radio Tower System
LOCATION: 875 Plains Rd, South Kingstown, RI
SHEET No. 1 of 1

CLIENT: URI
CONTRACTOR: Geo Logic - Earth Exploration, Inc.
METHOD OF ADVANCING BORING
POWER AUGER:
ROT. DRILL: 2 7/8" 0 TO 20'
CASING: 4" 0 TO 20'
DIAMOND CORE:
Acker Rebel Track Rig with Automatic Hammer

GROUND WATER	DATE	TIME	DEPTH

MON. WELL ☐ YES ☒ NO
SCREEN DEPTH: --- TO ---
WEATHER: Clear TEMP: 80° F
DEPTH TO ROCK: Not Encountered*
*CHANGES IN STRATA ARE INFERRED

INSPECTOR: Connor McCleary
DRILLER: Damien Jacobs
SURFACE ELEVATION: 166.0
DATUM: See Remarks
DATE START: 7/19/23
DATE FINISH: 7/19/23

UNCONFINED COMPRESS. STRENGTH (TONS/FT) ⊖ 1 2 3 4 5
PLASTIC LIMIT % WATER CONTENT % LIQUID LIMIT % 10 20 30 40 50
STANDARD PENETRATION (BLOWS/FT.) ● 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	RECOV. LENGTH (IN.)	RECOV. RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	LITHOLOGY*	ELEVATION (FT.)
1	4	2 2 2 3	S-1	14		M	SM	Bwn c-f SAND, little c-f Gravel, little Silt		
5	46	21 24 22 20	S-2	16		M	SM	Bwn c-f SAND, little c-f Gravel, little Silt		161.0
7								Drilled through cobble/boulder obstruction to 8'		
9	50+	48 50/3	S-3	9		W	SM	Gy-blk c-f SAND, some f Gravel, little Silt		156.0
12								Drilled through cobble/boulder obstruction to 15'		
15										151.0
16	50+	45 50/4	S-4	7		W	SM	Gy c-f SAND, little c-f Gravel, little Silt		
18								Drilled through cobble/boulder obstruction to 20'		
20	50+	50/5	S-5	8		W	SM	Same		146.0
21								Drilled to 21' Auger refusal at 21'		
								End of Boring at 21'		141.0

REMARKS: Surface elevations estimated based on the NEI Survey, dated August 9, 2023, and reference NAVD 88.

BORING LOG 12117.01.GPJ TECTONIC ENG.GDT 8/25/23

Tectonic

PROJECT No.	12117.01
PROJECT:	URI Radio Tower System
LOCATION:	875 Plains Rd, South Kingstown, RI

BORING No. B-4

SHEET No. 1 of 1

CLIENT: URI			GROUND WATER	DATE	TIME / DEPTH
CONTRACTOR: Geo Logic - Earth Exploration, Inc.					
METHOD OF ADVANCING BORING	DIA.	DEPTH			
POWER AUGER:		TO			
ROT. DRILL:	2 7/8"	0 TO 15'			
CASING:	4"	0 TO 15'			
DIAMOND CORE:		TO			

Acker Rebel Track Rig with Automatic Hammer

MON. WELL ☐ YES ☒ NO

SCREEN DEPTH: — TO —

WEATHER: Clear TEMP: 80° F

DEPTH TO ROCK: Not Encountered'

*CHANGES IN STRATA ARE INFERRED

INSPECTOR: Connor McCleary

DRILLER: Damien Jacobs

SURFACE ELEVATION: 147.0

DATUM: See Remarks

DATE START: 7/20/23

DATE FINISH: 7/20/23

UNCONFINED COMPRESS. STRENGTH (TONS/FT) ⊖ 1 2 3 4 5

PLASTIC LIMIT % × — WATER CONTENT % ⊗ — LIQUID LIMIT % △ 10 20 30 40 50

STANDARD PENETRATION (BLOWS/FT.) ● 10 20 30 40 50

DEPTH (FT.)	N OR MIN./FT.	PENETRATION RESISTANCE (BL/6 IN.)	SAMPLES: SAMPLE NUMBER	RECOV. LENGTH (IN.)	RECOV. RQD (%)	MOISTURE	UNIFIED SOIL CLASS.	DESCRIPTION OF MATERIAL	ELEVATION (FT.)
1	10	3 4 6 8	S-1	22		M	SM	Bwn-gy c-f SAND, little f Gravel, little Silt	
3	33	12 13 20 18	S-2	18		M	SM	Same	
5	70+	17 20 50/5 4	S-3	11		M	SM	Bwn-tn c-f SAND, little c-f Gravel, little Silt	142.0
7	50	17 22 28 18	S-4	17		W	SM	Bwn-gy c-f Sand, and c-f Gravel, little Silt	
9	32	11 14 18 19	S-5	15		W	GM	Gy-bwn c-f GRAVEL, little c-f Sand, little Silt	137.0
15	50+	50/0	S-6	0				No Recovery Drilled to 15' Auger refusal at 15'	132.0
								End of Boring at 15'	127.0
									122.0

REMARKS: Surface elevations estimated based on the NEI Survey, dated August 9, 2023, and reference NAVD 88.

BORING LOG 12117.01.GPJ TECTONIC ENG.GDT 8/25/23

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PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

LEGEND FOR SOIL DESCRIPTION

COARSE GRAINED SOIL (Coarser then No. 200 Sieve)

DESCRIPTIVE TERM & GRAIN SIZE

TERM	SAND					GRAVEL
coarse - c	No.	4	Sieve to No.	10	Sieve	3" to 3/4"
medium - m	No.	10	Sieve to No.	40	Sieve	3/4" to 3/16"
fine - f	No,	40	Sieve to No.	200	Sieve	

COBBLES 3" to 10"

BOULDERS 10" +

GRADATION DESIGNATIONS	PROPORTIONS OF COMPONENT
fine, f	Less than 10% coarse to medium
medium to fine, m-f	Less than 10% coarse
medium, m	Less than 10% coarse and fine
coarse to medium, c-m	Less than 10% fine
coarse, c	Less than 10% medium and fine
coarse to fine, c-f	All greater than 10%

FINE GRAINED SOIL (Finer than No. 200 Sieve)

DESCRIPTION	PLASTICITY INDEX	PLASTICITY
Silt	0 - 1	none
Clayey Silt	2 - 5	slight
Silt & Clay	6 - 10	low
Clay & Silt	11 - 20	medium
Silty Clay	21 - 40	high
Clay	greater than 40	very high

PROPORTION

DESCRIPTIVE TERM	PERCENT OF SAMPLE WEIGHT
trace	1 - 10
little	10 - 20
some	20 - 35
and	35 - 50

The primary component is fully capitalized if >50% of sample

COLOR

Blue - blue	Gy - gray	Wh - white
Blk - black	Or - orange	Yl - yellow
Bwn - brown	Rd - red	Lgt - light
Gn - green	Tn - tan	Dk - dark

SAMPLE NOTATION

S - Split Spoon Soil Sample
U - Undisturbed Tube Sample
C - Core Sample
B - Bulk Soil Sample
NR - No Recovery of Sample

WOC - Weight of Casing
WOR - Weight of Rods
WOH - Weight of Hammer
PPR - Compressive Strength based on Pocket Penetrometer
TV - Shear Strength (tsf) based on Torvane

ADDITIONAL CLASSIFICATIONS

New York City Building Code soil classifications are given in parentheses at the end of each description of material, if applicable. See sections 1804.2 of the 2008 Building Code for further details.

Tectonic	SOIL RESISTIVITY DATA SHEET	W.O.#: 12117.01	PAGE 1 of 2
		PROJECT:	URI Radio Tower System
		LOCATION:	Rhode Island

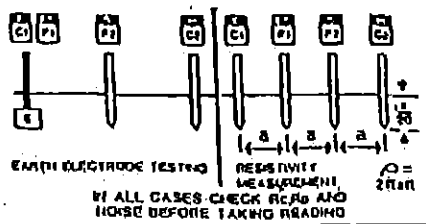
CLIENT:	URI	DATE:	7/19/2023	INSPECTOR:	Connor McCleary
CONTRACTOR:	Tectonic	Weather / Temp. (F):	Clear/ 75	SURFACE ELEVATION:	
LOCATION OF TEST:	R-1			DATUM:	
EQUIPMENT:	AEMC Instruments Model 6472 Digital Ground Resistance Tester				

Electrode Spacing "a" (ft)	Resistance (Ω)	Electrode Depth "a/20" (in)	Resistivity (Ω*cm)
2.5	459.0	6	219759
5	319.0	6	305461
10	165	6	315994
20	65.3	6	250114
35	37.60	6	252029
OTHER			
OTHER			

Orientation of leads:

Topography:

Remarks:



= Depth for Electrode

ADDITIONAL NOTES:
Wenner Four Point method

Tectonic	SOIL RESISTIVITY DATA SHEET	W.O.#: 12117.01	PAGE 2 of 2
		PROJECT:	URI Radio Tower System
		LOCATION:	Rhode Island

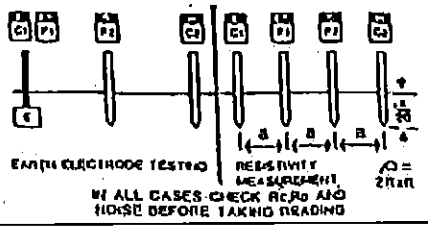
CLIENT:	URI	DATE:	7/19/2023	INSPECTOR:	Connor McCleary
CONTRACTOR:	Tectonic	Weather / Temp. (F):	Clear/ 75	SURFACE ELEVATION:	
LOCATION OF TEST:	R-2			DATUM:	
EQUIPMENT:	AEMC Instruments Model 6472 Digital Ground Resistance Tester				

Electrode Spacing "a" (ft)	Resistance (Ω)	Electrode Depth "a/20" (in)	Resistivity (Ω*cm)
2.5	436.0	6	208747
5	310.0	6	296843
10	185	6	354296
20	71.9	6	275393
35	40.10	6	268786
OTHER			
OTHER			

Orientation of leads:

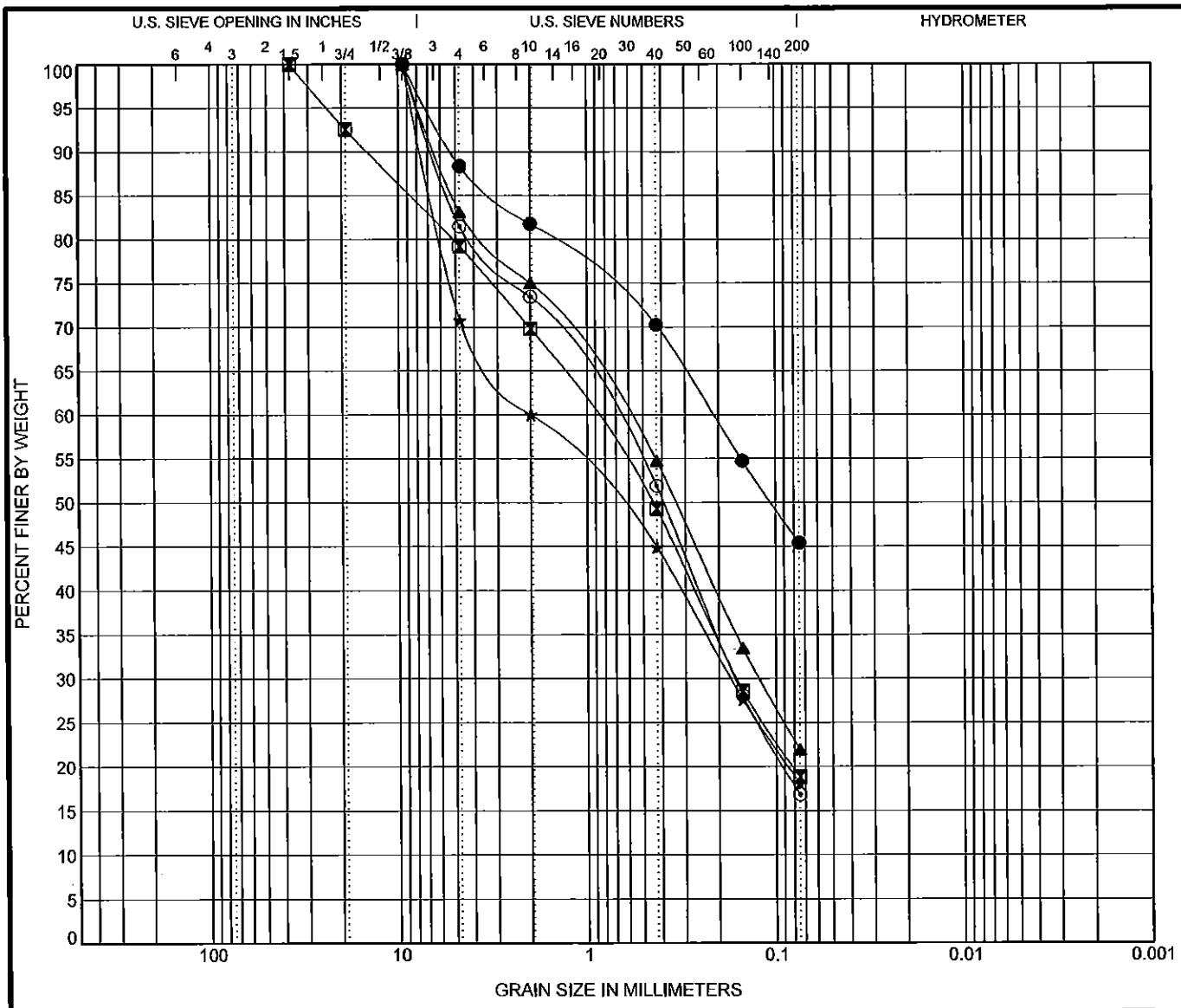
Topography:

Remarks:



= Depth for Electrode

ADDITIONAL NOTES:
Wenner Four Point method



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Identification			Classification	WC%	LL	PL	PI	Cc	Cu
●	B-1	0.0	S-1	Bwn-Gy Silt, and c-f Sand, little f Gravel	19.9					
⊠	B-1	8.0	S-4	Gy c-f SAND, some c-f Gravel, little Silt	8.9					
▲	B-2	4.0	S-2	Gy c-f SAND, some Silt, little f Gravel	9.4					
★	B-3	8.0	S-3	Gy-Blk c-f SAND, some f Gravel, little Silt	10.9					
⊙	B-4	2.0	S-2	Bwn-Gy c-f SAND, little f Gravel, little Silt	6.1					

	Sample Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	Source of Material
●	B-1	0.0	S-1	9.5	0.213			11.6	42.9	45.4		Boring
⊠	B-1	8.0	S-4	37.5	0.953	0.161		20.8	60.4	18.9		Boring
▲	B-2	4.0	S-2	9.5	0.633	0.122		16.9	61.2	22.0		Boring
★	B-3	8.0	S-3	9.5	2	0.173		29.2	52.7	18.1		Boring
⊙	B-4	2.0	S-2	9.5	0.76	0.163		18.5	64.7	16.8		Boring

Tectonic

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Newburgh, NY 12550
Telephone: (845) 563-9081 Fax: (845) 563-9085

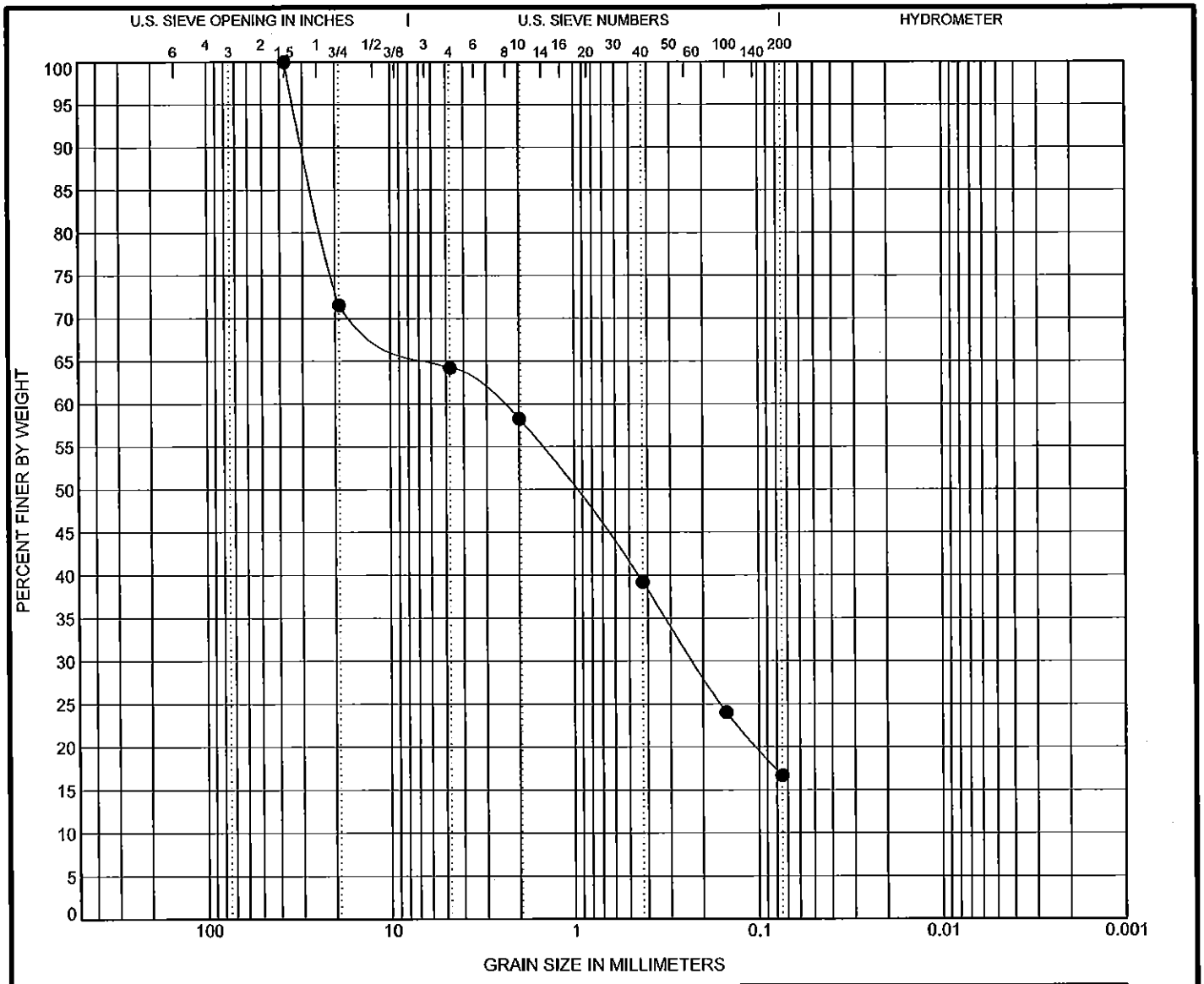
GRAIN SIZE DISTRIBUTION

Project No: **12117.01** Date: **8/9/23**

Project: **URI Radio Tower System**

Location: **Kingston, Rhode Island**

GRAIN SIZE DISTRIBUTION 12117.01.GPJ TECTONIC ENG.GDT 8/9/23



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Identification			Classification	WC%	LL	PL	PI	Cc	Cu
●	B-4	6.0	S-4	Bwn-Gy c-f Sand, and c-f Gravel, little Silt	9.5					

	Sample Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	Source of Material
●	B-4	6.0	S-4	37.5	2.57	0.226		35.8	47.5	16.7		Boring

Tectonic

280 Little Britain Road, Bldg. 2
Newburgh, NY 12550
Telephone: (845) 563-9081 Fax: (845) 563-9085

GRAIN SIZE DISTRIBUTION

Project No: **12117.01** Date: **8/9/23**

Project: **URI Radio Tower System**

Location: **Kingston, Rhode Island**

GRAIN SIZE DISTRIBUTION 12117.01.GPJ TECTONIC ENG.GDT 8/9/23

PHOENIX
Environmental Laboratories, Inc.

Wednesday, August 09, 2023

Attn: Chris Ferri
Tectonic Engineering
70 Pleasant Hill Road
Mountainville, NY 10953

Project ID: 12117.01 URI RADIO TOWER SYSTEM
SDG ID: GCO67701
Sample ID#s: CO67701 - CO67702

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

August 09, 2023

SDG I.D.: GCO67701

Project ID: 12117.01 URI RADIO TOWER SYSTEM

Client Id	Lab Id	Matrix
COMPOSITE: TOWER BASE	CO67701	SOIL
COMPOSITE: DEADMAN	CO67702	SOIL

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 09, 2023

FOR: Attn: Chris Ferri
Tectonic Engineering
70 Pleasant Hill Road
Mountainville, NY 10953

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/20/23	9:00
Location Code:	TECTONIC	Received by:	SR1	08/07/23	16:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	12117.01				

Laboratory Data

SDG ID: GCO67701
Phoenix ID: CO67701

Project ID: 12117.01 URI RADIO TOWER SYSTEM
Client ID: COMPOSITE: TOWER BASE

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		08/07/23	CV	SW846-%Solid
Chloride	< 55	55	mg/kg	10	08/07/23	BS/GD	SW9056A
Corrosivity	Negative		Pos/Neg	1	08/08/23	MW/ER	SW846-Corr
pH at 25C - Soil	6.60	1.00	pH Units	1	08/08/23 00:04	MW/ER	SW846 9045D
Sulfate	< 55	55	mg/kg	10	08/07/23	BS/GD	SW9056A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Corrosivity is based solely on the pH analysis performed above.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
August 09, 2023
Reviewed and Released by: Anil Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 09, 2023

FOR: Attn: Chris Ferri
Tectonic Engineering
70 Pleasant Hill Road
Mountainville, NY 10953

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/20/23	9:00
Location Code:	TECTONIC	Received by:	SR1	08/07/23	16:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	12117.01				

Laboratory Data

SDG ID: GCO67701
Phoenix ID: CO67702

Project ID: 12117.01 URI RADIO TOWER SYSTEM
Client ID: COMPOSITE: DEADMAN

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		08/07/23	CV	SW846-%Solid
Chloride	< 54	54	mg/kg	10	08/07/23	BS/GD	SW9056A
Corrosivity	Negative		Pos/Neg	1	08/08/23	MW/ER	SW846-Corr
pH at 25C - Soil	6.26	1.00	pH Units	1	08/08/23 00:04	MW/ER	SW846 9045D
Sulfate	< 54	54	mg/kg	10	08/07/23	BS/GD	SW9056A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Corrosivity is based solely on the pH analysis performed above.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
August 09, 2023
Reviewed and Released by: Anil Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

August 09, 2023

QA/QC Data

SDG I.D.: GCO67701

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 691117 (PH), QC Sample No: CO67445 (CO67701, CO67702)														
pH			6.71	6.76	0.70	101						85 - 115	20	
QA/QC Batch 691171 (mg/L), QC Sample No: CO67384 (CO67701, CO67702)														
Chloride	BRL	5.0	6.7	6.7	NC	95.0			104			90 - 110	20	
Sulfate	BRL	5.0	<5.0	<5.0	NC	99.7			112			90 - 110	20	m

m = This parameter is outside laboratory MS/MSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
August 09, 2023

Wednesday, August 09, 2023

Criteria: None

State: RI

Sample Criteria Exceedances Report

GCO67701 - TECTONIC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

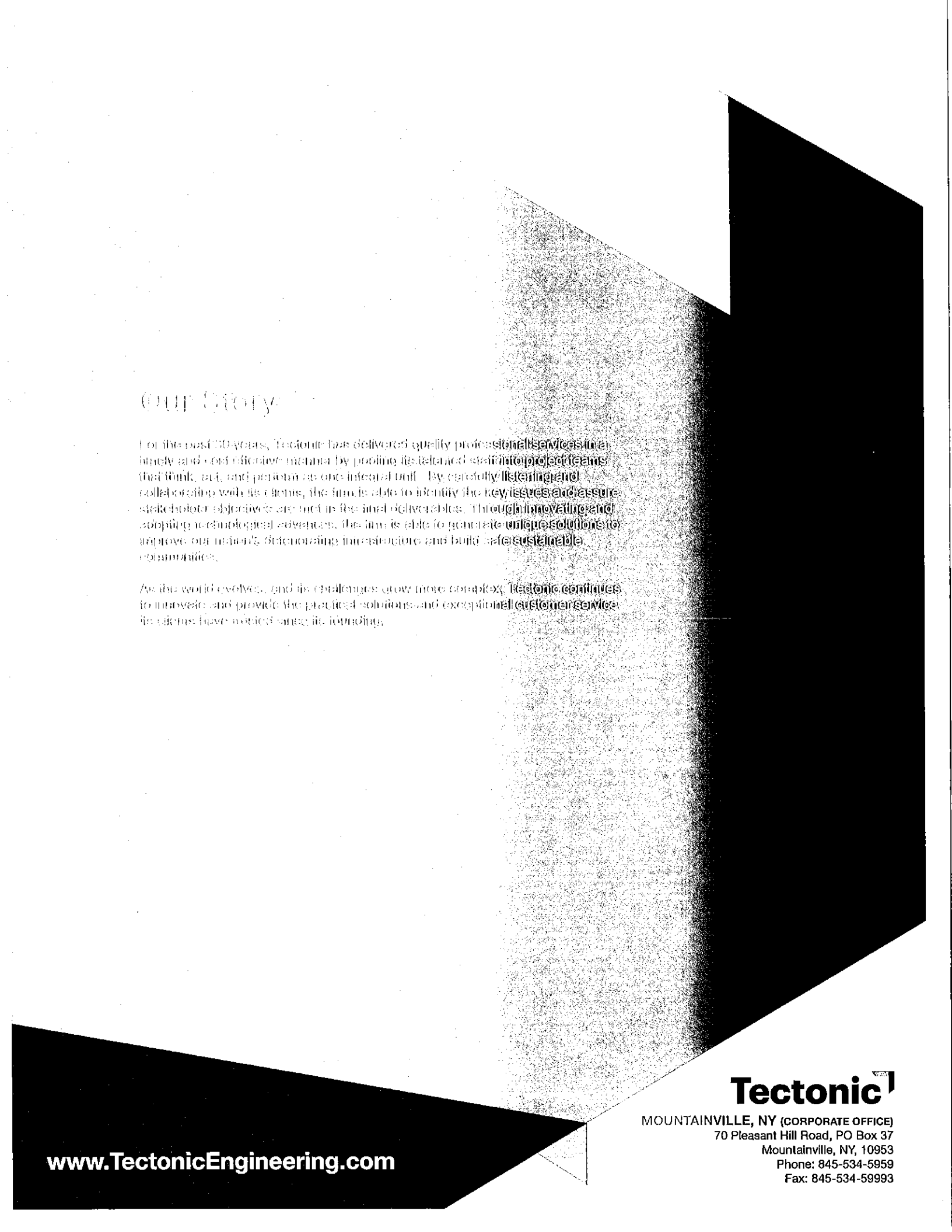
ACCREDITED IN ACCORDANCE WITH NELAC
NY # 11301

Analysis Comments

August 09, 2023

SDG I.D.: GCO67701

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.



Our Story

For the past 50 years, Tectonic has delivered quality professional services in a timely and cost effective manner by pooling its talented staff into project teams that think, act, and perform as one integral unit. By carefully listening and collaborating with its clients, the firm is able to identify the key issues and assure stakeholder objectives are met in the final deliverables. Through innovative and adaptive technological advances, the firm is able to generate unique solutions to improve our nation's deteriorating infrastructure and build safe sustainable communities.

As the world evolves, and its challenges grow more complex, Tectonic continues to innovate and provide the practical solutions and exceptional customer service its clients have noticed since its founding.

Tectonic

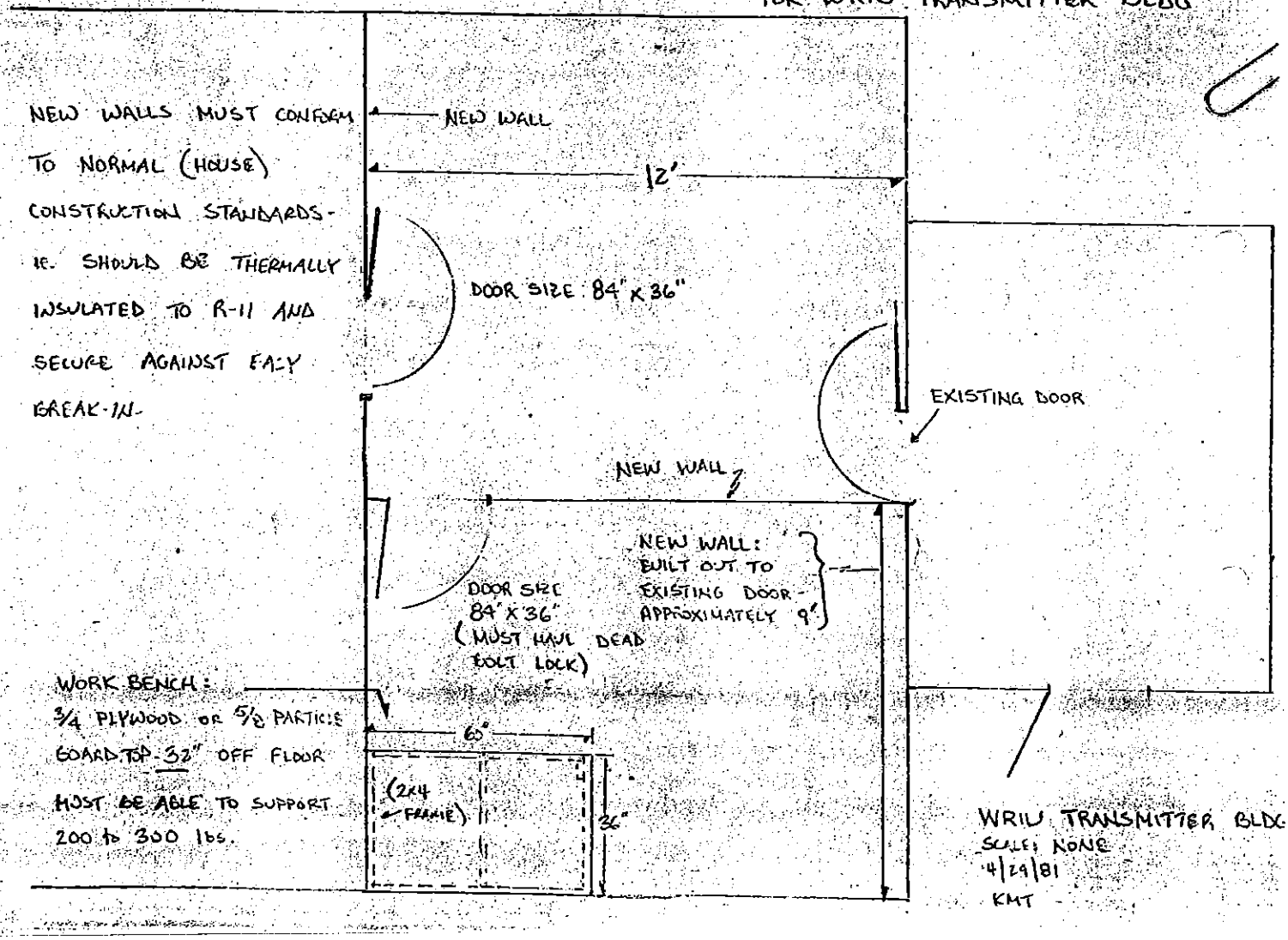
MOUNTAINVILLE, NY (CORPORATE OFFICE)
70 Pleasant Hill Road, PO Box 37
Mountainville, NY, 10953
Phone: 845-534-5959
Fax: 845-534-59993

www.TectonicEngineering.com

W. Moretti —

(21)

BASIC LAYOUT - WALLS AND DOORS FOR WRIU TRANSMITTER BLDG



SHEET D-1412
(Replaces D-1171)

October 1, 1978

BIG-GRIPS (DEAD END) COMPLETE WITH END SLEEVE

PART NUMBER			WT.
		FOR 7-STRAND GALVANIZED GUY WIRE	
BG2142	3/16"	Big-Grip, 23" length, complete with GC65303 end sleeve	28/100
BG2144	1/4"	Big-Grip, 27" length, complete with GC65136 end sleeve	38/100
BG2146	5/16"	Big-Grip, 33" length, complete with GC65128 end sleeve	66/100
*BG2147	3/8"	Big-Grip, 37" length, complete with GC65264 end sleeve	95/100
*BG2148	7/16"	Big-Grip, 40" length, complete with GC65265 end sleeve	140/100
*BG2115	1/2"	Big-Grip, 50" length, complete with GC65266 end sleeve	229/100
*BG2116	9/16"	Big-Grip, 55" length, complete with GC65267 end sleeve	342/100
*BG2111	5/8"	Big-Grip, 64" length, complete with GC65268 end sleeve	355/100
		FOR 19-STRAND GALVANIZED GUY WIRE	
*BG2112	3/4"	Big-Grip, 76" length, complete with GC65269 end sleeve	1080/100

NOTE: 1) End sleeves must be used on all Big-Grips. See Drawing B-700607 for procedure to apply end sleeve on Big-Grips.

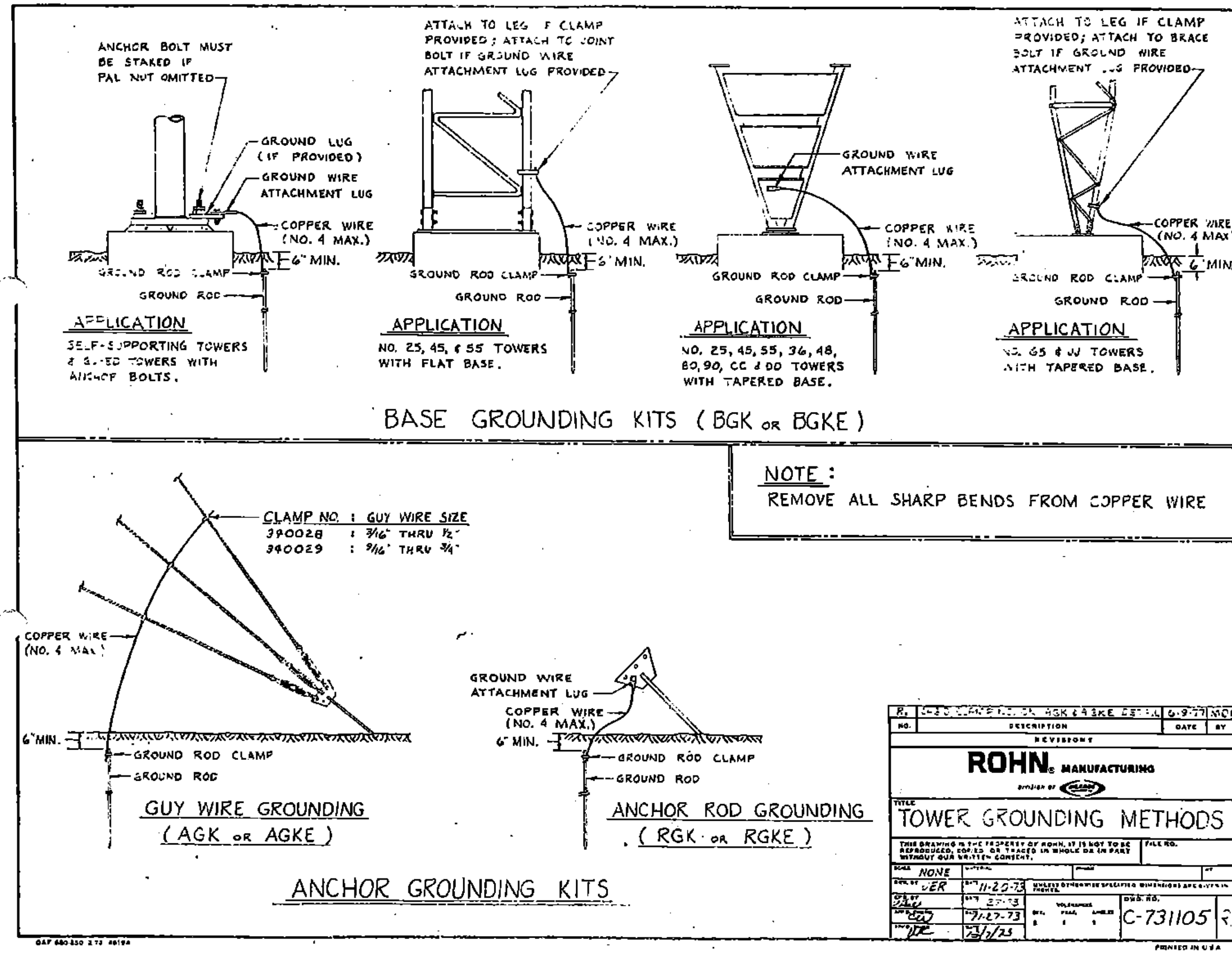
2) Oversized heavy duty thimbles must be used with all Big-Grips.

*Prices available upon request.

Refer to alphabetical/numerical price list for current prices on other items.

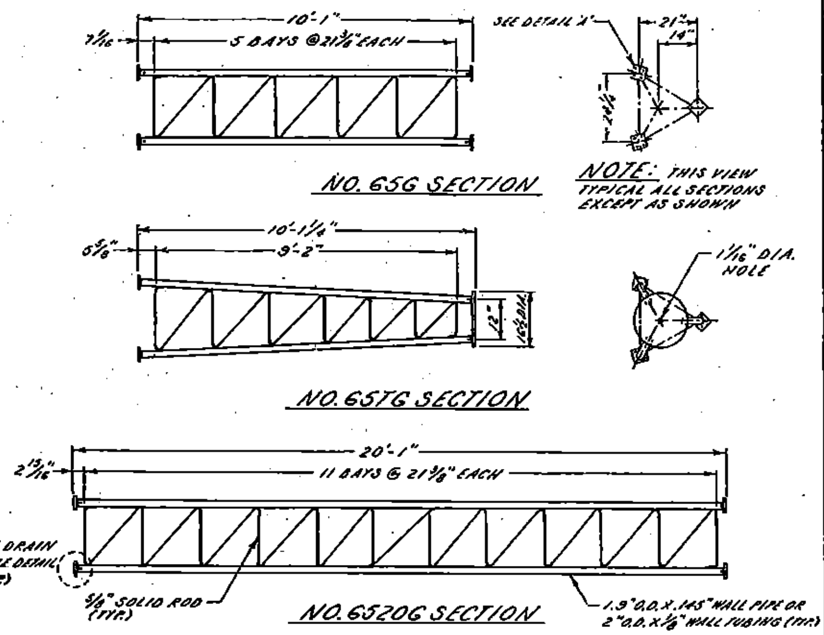
F.O.B. PEORIA, ILLINOIS

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.


ANCHOR BOLT MUST BE STAKED IF PAL NUT OMITTED
GROUND LUG (IF PROVIDED)
GROUND WIRE ATTACHMENT LUG
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
SELF-SUPPORTING TOWERS & GUYED TOWERS WITH ANCHOR BOLTS.
ATTACH TO LEG IF CLAMP PROVIDED; ATTACH TO JOINT BOLT IF GROUND WIRE ATTACHMENT LUG PROVIDED
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
NO. 25, 45, & 55 TOWERS WITH FLAT BASE.
GROUND WIRE ATTACHMENT LUG
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
NO. 25, 45, 55, 36, 48, 80, 90, CC & DD TOWERS WITH TAPERED BASE.
ATTACH TO LEG IF CLAMP PROVIDED; ATTACH TO BRACE BOLT IF GROUND WIRE ATTACHMENT LUG PROVIDED
COPPER WIRE (NO. 4 MAX)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
NO. 65 & JJ TOWERS WITH TAPERED BASE.
BASE GROUNDING KITS (BGK or BGKE)
NOTE:
REMOVE ALL SHARP BENDS FROM COPPER WIRE
CLAMP NO. : GUY WIRE SIZE
390028 : 3/16" THRU 1/2"
390029 : 9/16" THRU 3/4"
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
GUY WIRE GROUNDING (AGK or AGKE)
GROUND WIRE ATTACHMENT LUG
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
ANCHOR ROD GROUNDING (RGK or RGKE)
ANCHOR GROUNDING KITS
ROHN MANUFACTURING
TOWER GROUNDING METHODS
THIS DRAWING IS THE PROPERTY OF ROHN. IT IS NOT TO BE REPRODUCED, COPIED OR TRACED IN WHOLE OR IN PART WITHOUT OUR WRITTEN CONSENT.
NONE
11-20-73
9-27-73
C-731105
PRINTED IN U.S.A.

TOWER SPECIFICATIONS

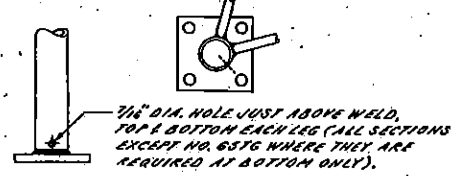
DISTANCE BETWEEN SIDE RAILS (CENTER TO CENTER)		24¼"
OVERALL LENGTH OF SECTION		20'-1"
WEIGHT PER SECTION		290 LBS.
SIDE RAIL DIAMETER AND GAUGE *		1.9 O.D. X .145 WALL
CROSS SECTIONAL AREA - ONE LEG		.799 SQ. IN.
GROSS ALLOWABLE VERTICAL LOAD ON THE BOTTOM TOWER SECTION		63,750 LBS.
MAXIMUM ALLOWABLE AXIAL COMPRESSION OF THE CROSS SECTION OF ONE SIDE RAIL		21,250 LBS.
MEASURED TENSILE STRENGTH OF ONE SIDE RAIL		61,900 LBS.
MEASURED TENSILE STRENGTH OF ONE BOLTED LEG JOINT		51,900 LBS.
MAXIMUM ALLOWABLE TENSION IN EACH BOLTED LEG JOINT		20,800 LBS.
SAFE MOMENT OF RESTRAINT		36,400 LBS.
L - UNBRACED LENGTH OF SIDE RAIL (DISTANCE BETWEEN CROSSPIECES)		21⅜"
R - RADIUS OF GYRATION OF SIDE RAIL		.623
L/R FOR MAIN LEG MEMBER		34.3
WIND LOAD PER LINEAL FOOT OF TOWER AT THE HORIZONTAL WIND PRESSURES (PER SQUARE FOOT OF FLAT SURFACE) LISTED BELOW:	30 LBS.	13.77
	40 LBS.	18.36
	50 LBS.	22.96



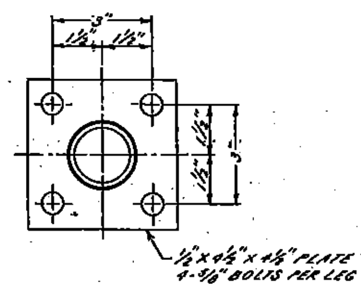
TOWER SECTIONS

GENERAL NOTES

1. ALL SECTIONS ARE HOT DIP GALVANIZED AFTER FABRICATION.
2. ALL SECTIONS CAN BE INSTALLED WITH EITHER END UP, EXCEPT NO. 65TG.
* 3. 2" O.D. X ⅛" WALL TUBING ALTERNATE.
4. 12 - ⅝" X 2" BOLTS REQUIRED PER SECTION, EXCEPT NO. 65TG.
5. FOR FABRICATION DETAIL SECTIONS NO. 65G & 65TG SEE DWG. NO. B770822R4 (DWG. FOR SHOP USE ONLY). FOR FABRICATION DETAIL SECTION NO. 6520G SEE DWG. NO. C771023R3 (DWG. FOR SHOP USE ONLY).



DRAIN HOLE DETAIL



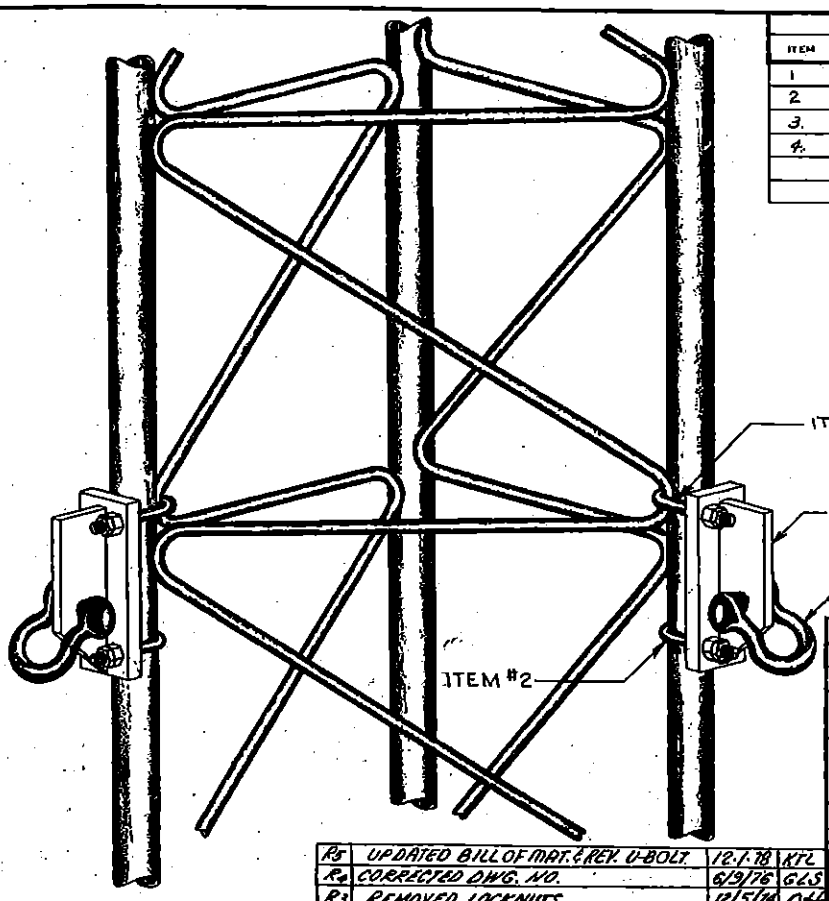
DETAIL A

R	RE-DRAW.	12/1/78 GLS
No. & Revision Description		Date / By

Unarco-Rohn
Division of Unarco Industries, Inc.

Title: MODEL 65G TOWER SECTIONS

Scale: NONE
Drawn by: GLS 11/27/78
Checked by: MBD 4-11-79
Approved by Engineering: TS 4-16-79
Approved by Production:
Approved by Sales: PAK 4-17-79
Drawing Number: C630665R3

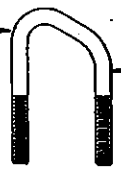


BILL OF MATERIAL

ITEM	QUAN.	PART. NO.	DESCRIPTION	DWG. NO.
1	3	B65G	GUY BRACKET	C 670701 R4
2	3	JR 810A	½" U-BOLT ASS'Y	B651028 R19
3.	3	JR655A	½" U-BOLT ASS'Y	B710909 R3
4.	3	½ S	½" SHACKLES	—

NOTE: UPPER U-BOLT OF BRACKET MUST INTERCONNECT WITH "ZIG-ZAG" BRACE AS SHOWN.

NOTE: BRACKET DESIGNED FOR USE WITH A MAXIMUM OF 3/8" EHS GUY STRAND.



SPECIAL PT. NO. JR 655A U-BOLT ASS'Y

NO.	DESCRIPTION	DATE	BY
R1	ADDED ITEM #5 REDUCED ITEM #2 QUAN.	10-6-71	OH
R5	UPDATED BILL OF MAT. & REV. U-BOLT	12-1-78	KTL
R4	CORRECTED DWG. NO.	6/3/76	GLS
R3	REMOVED LOCKNUTS	12/5/74	OH
R2	ADDED FAB. DWG. NOS. TO BILL OF MAT.	1/18/72	GLS

REVISIONS

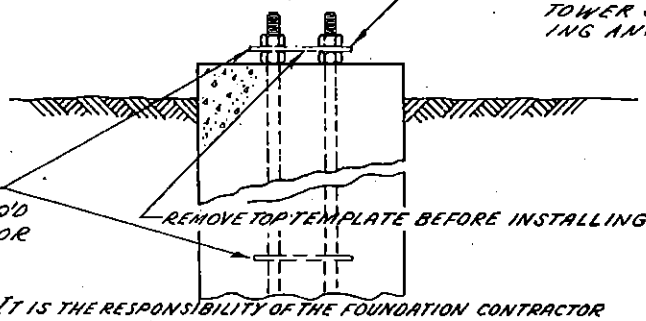
ROHN

TITLE

INSTALLATION INSTRUCTIONS
GA65G GUYING ASSEMBLY

FILE NO.

SCALE	NONE	MATERIAL	FINISH
DWN BY	A. JOHNSON	DATE 1-8-68	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES
CK'D BY	ck	DATE 1-16-68	TOLERANCES DEC ± FRAC ± ANGLES ±
APP'D	RAL	DATE 1-16-68	DWG. NO. B 680104 R5



ANCHOR BOLT SETTING TEMPLATE - (SEE ANCHOR BOLT LAYOUT OF EACH TOWER SITE FOR TEMPLATE PART NO.).
(R1) FOR 6" THRU 12" PIPE LEGS ONLY LOCATE TEMPLATE SUCH THAT SCRIBED LINE PASSING THRU CENTER HOLE & 2 CENTER PUNCH MARKS IS ON LINE TO TOWER AXIS. SEE ANCHOR BOLT LAYOUT OF EACH TOWER SITE FOR FURTHER INFORMATION CONCERNING ANCHOR BOLT ORIENTATION.

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

ANCHOR BOLT TEMPLATE (2 REQ'D FOR EACH ANCHOR BOLT GROUP)

REMOVE TOP TEMPLATE BEFORE INSTALLING TOWER.

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

NO	REVISIONS	DATE	BY
R2	CORRECTED LEG SIZE	4/20/73	GLS
R1	ADD NOTE.	10/20/72	GLS

ROHN MANUFACTURING

TITLE: ANCHOR BOLT TEMPLATE INSTALLATION

FILE NO

SCALE ~			
DWN BY O.H.	DATE 9-7-73	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
CKD BY T.S.	DATE 9-13-73		
APPD BY CW	DATE 9-13-73		DWG NO B 730521 R2
APPD BY BR	DATE 9-12-73		

ASSEMBLY BOLT INSTALLATION:

All tower assembly bolts are to be inserted out and/or up (with nuts and pal nuts on the outside of tower face and top of flange connections) - unless prohibited by lack of clearance.

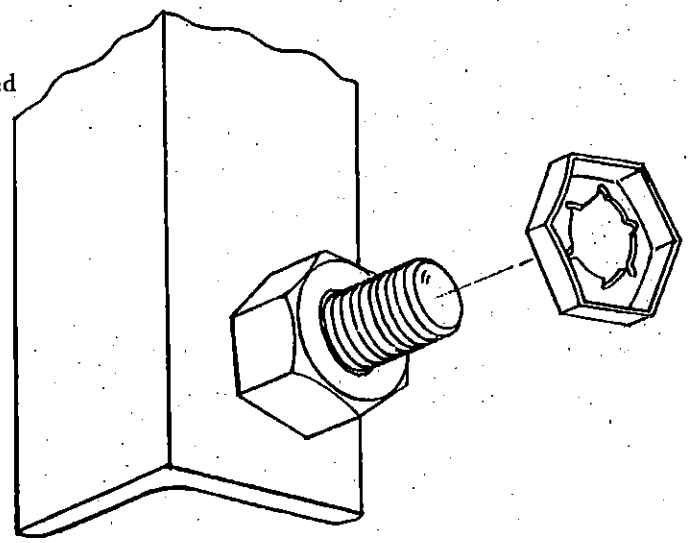
All assembly bolts are to be tightened according to E.I.A. Standard RS-222-B Subpart 1.1.5.2 - (where high strength galvanized bolts are used for nonfriction type connections, the bolts shall be tightened to a "snug tight" condition in accordance with "Specification for Structural Joints using A.S.T.M. A325 or A490 bolts".

Flat washers are to be installed with bolts over slotted holes.

CAUTION: Do not over-torque! Hot dipped galvanizing on bolts, nuts and steel parts tends to act as a lubricant, thus over-tightening can easily occur and can cause bolts to crack or snap off.

PAL NUT INSTALLATION:

Pal nuts are to be installed after nuts are tight and with edge lip out. (see picture below)



No. ▲	Revision Description	▲Date	▲By

Unarco-Rohn

Division of Unarco Industries, Inc.

Title: BOLT ASSEMBLY INSTALLATION

Scale: NONE

Unless otherwise specified, dimensions are given in inches.

Tolerances

Decimals	Fractions	Angles
±	±	±

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

Checked by	Date
JHB	7-5-79

Approved by Engineering	Date
TS	7-5-79

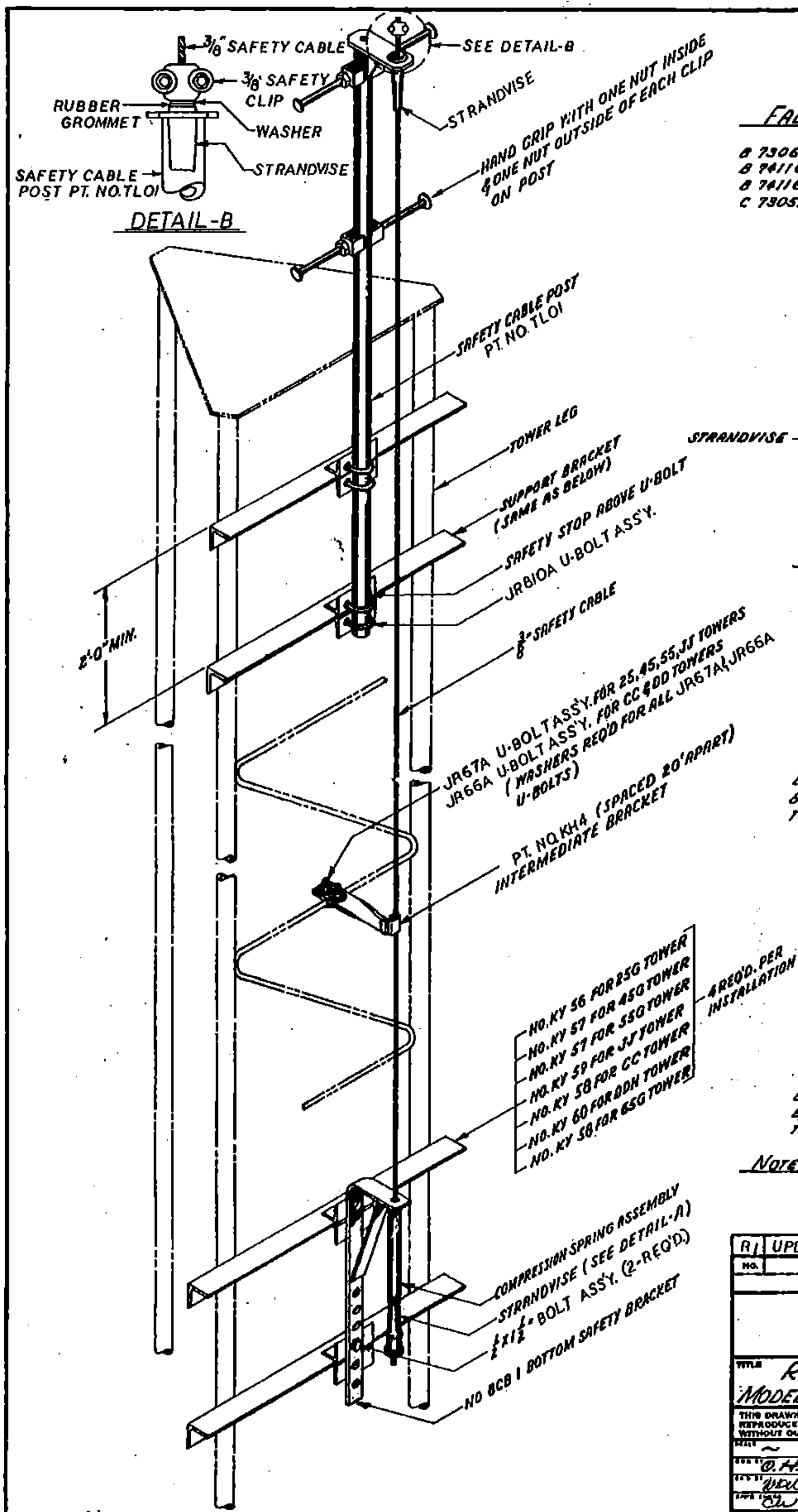
Approved by Production	Date

Approved by Sales	Date
PHL	7-10-79

Material | Finish | Weight

File Number

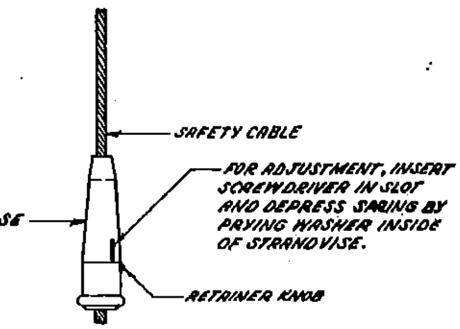
Drawing Number: A 790135



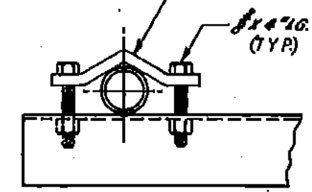
3/8" SAFETY CABLE
3/8" SAFETY CLIP
RUBBER GROMMET
WASHER
STRANDVISE
SAFETY CABLE POST PT. NO.TL01
DETAIL-B
SEE DETAIL-B
STRANDVISE
HAND GRIP WITH ONE NUT INSIDE & ONE NUT OUTSIDE OF EACH CLIP ON POST
SAFETY CABLE POST PT. NO. TL01
TOWER LEG
SUPPORT BRACKET (SAME AS BELOW)
SAFETY STOP ABOVE U-BOLT
JR810A U-BOLT ASS'Y.
3/8" SAFETY CABLE
2'-0" MIN.
JR67A U-BOLT ASS'Y. FOR 25,45,55,JJ TOWERS
JR66A U-BOLT ASS'Y. FOR CC & DD TOWERS
(WASHERS REQ'D FOR ALL JR67A & JR66A U-BOLTS)
PT. NO. KH4 (SPACED 20' APART) INTERMEDIATE BRACKET
NO. KY 56 FOR 25G TOWER
NO. KY 57 FOR 45G TOWER
NO. KY 57 FOR 55G TOWER
NO. KY 59 FOR JJ TOWER
NO. KY 58 FOR CC TOWER
NO. KY 60 FOR DDH TOWER
NO. KY 58 FOR 65G TOWER
4 REQ'D. PER INSTALLATION
COMPRESSION SPRING ASSEMBLY
STRANDVISE (SEE DETAIL-A)
1/2"x1 1/2" BOLT ASS'Y. (2-REQ'D.)
NO 8CB 1 BOTTOM SAFETY BRACKET

FABRICATION DRAWINGS
(FOR SHOP USE ONLY)

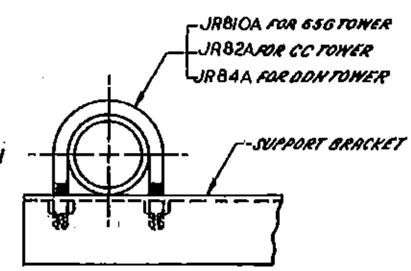
B 730650 — SAFETY CABLE POST
B 741168 — SUPPORT BRACKETS
B 741169 — INTERMEDIATE LATCH
C 730517R₁ — BOTTOM SAFETY BRACKET



DETAIL-A



METHOD SHOWN DIRECTLY ABOVE TO BE USED FOR FASTENING SUPPORT BRACKETS ON MODELS 25, 45, 55, & JJ TOWERS.



METHOD SHOWN DIRECTLY ABOVE TO BE USED FOR FASTENING SUPPORT BRACKETS ON MODELS 65, CC, & DDH TOWERS.

NOTE: 4-FLAT WASHERS FOR 3/8" BOLTS REQ'D. FOR ALL KY 57 BRACKETS.
4-FLAT WASHERS FOR 1/2" BOLTS REQ'D. FOR ALL KY 58 BRACKETS.

NOTE: PAL NUTS PROVIDED FOR ALL BOLTS EXCEPT HAND GRIPS.

NO.	DESCRIPTION	DATE	BY
R1	UPDATED & ADDED DETAIL-B	7/9/80	KTL

REVISIONS

ROHN. MANUFACTURING

TITLE: ROHN-LOC INSTALLATION DETAILS MODELS 25, 45, 55, 65, JJ, CC, & DDH TOWERS

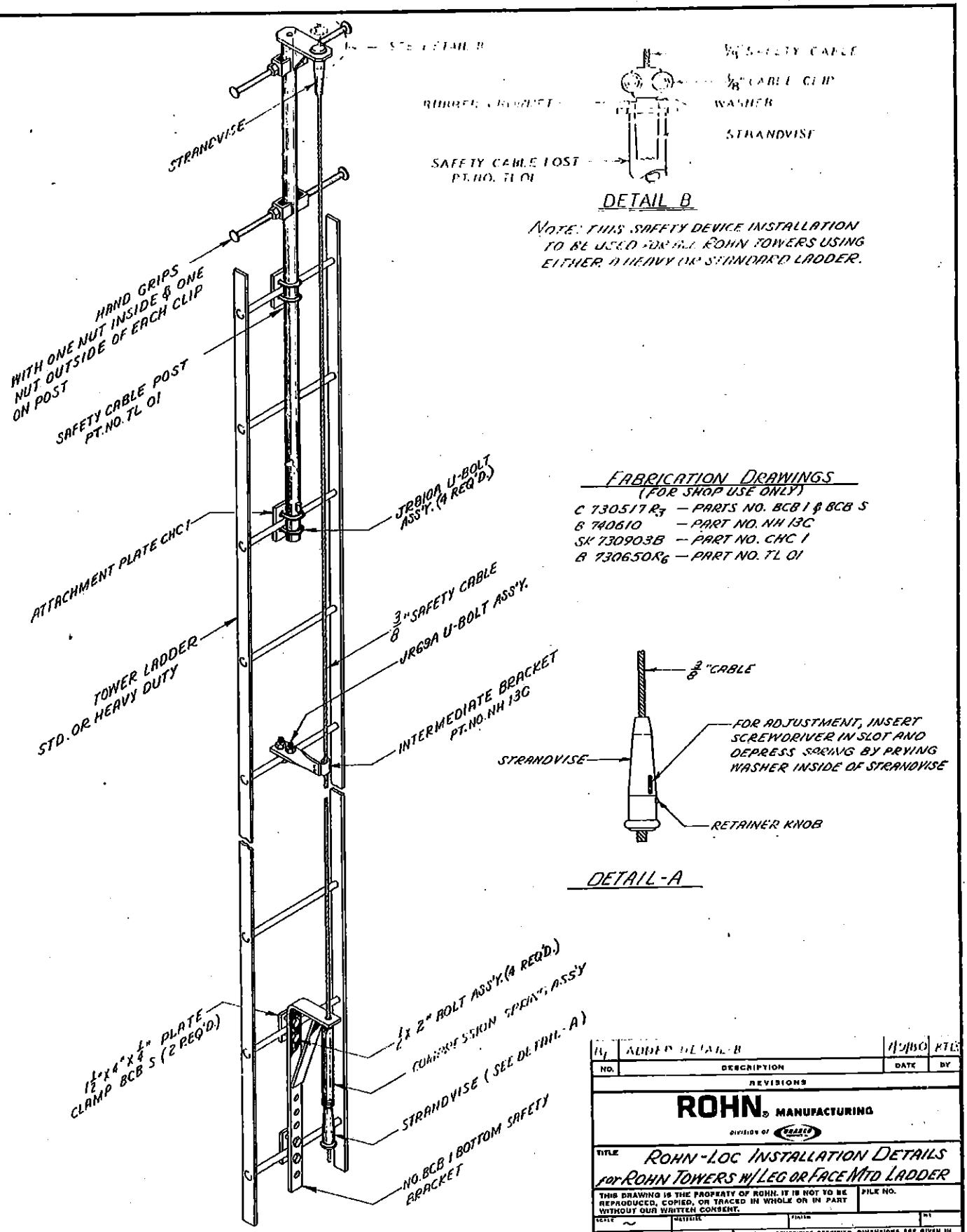
FILE NO.

SCALE ~

DRAWN BY: D.H. 11-20-74
CHECKED: 11-21-74
11-22-74
11-23-74

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.

DWG. NO. C741162 R1



DETAIL B

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

FABRICATION DRAWINGS
(FOR SHOP USE ONLY)

C 730517 R_3 — PARTS NO. BCB 1 & BCB 5
B 740610 — PART NO. NH 13C
SK 730903B — PART NO. CHC 1
B 730650 R_6 — PART NO. TL 01

DETAIL-A

NO.	DESCRIPTION	DATE	BY
R1	ADDED DETAIL-B	11/80	RTE

REVISIONS

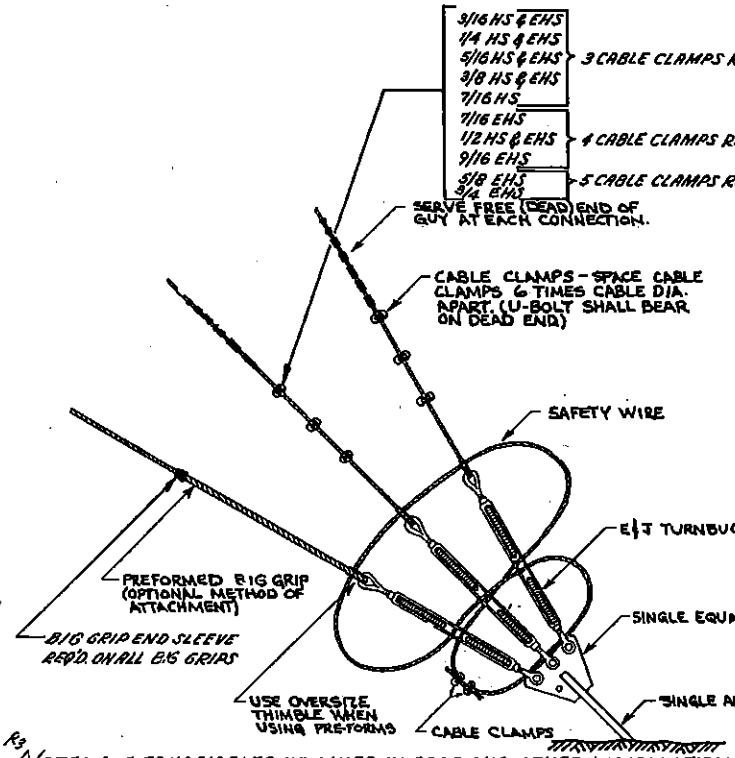
ROHN® MANUFACTURING
DIVISION OF ROBERTSON

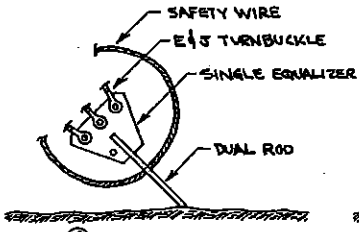
TITLE: ROHN-LOC INSTALLATION DETAILS for ROHN TOWERS W/ LEG OR FACE MTD LADDER

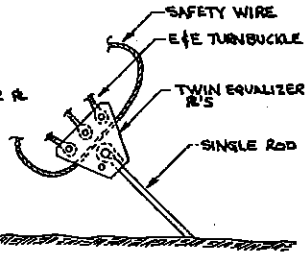
FILE NO.

SCALE: ~	MATERIAL	FINISH	WT.
DRN BY: W.M	DATE: 11-22-74	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
ENG'D BY: WDL	DATE: 12-3-74		
APP'D BY: CW	DATE: 1-8-75		
APP'D BY:	DATE:		

DWG. NO. C 741170 R1







R2 NOTE: SEE DWG. NO. C 611211 R3 FOR CABLE TENSIONING & TURNBUCKLE MAINTENANCE DETAILS.

R3 NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

NO.	DESCRIPTION	DATE	BY
R4	ADDED 3/4" EHS GUY WIRE	9-25-87	JM
R3	ADDED NOTE	7-8-76	DH
R2	ADDED NOTE	3-25-75	DH
R1	ADDED CABLE CLAMPS REQ'D PER GUY SIZE	12-18-74	DH

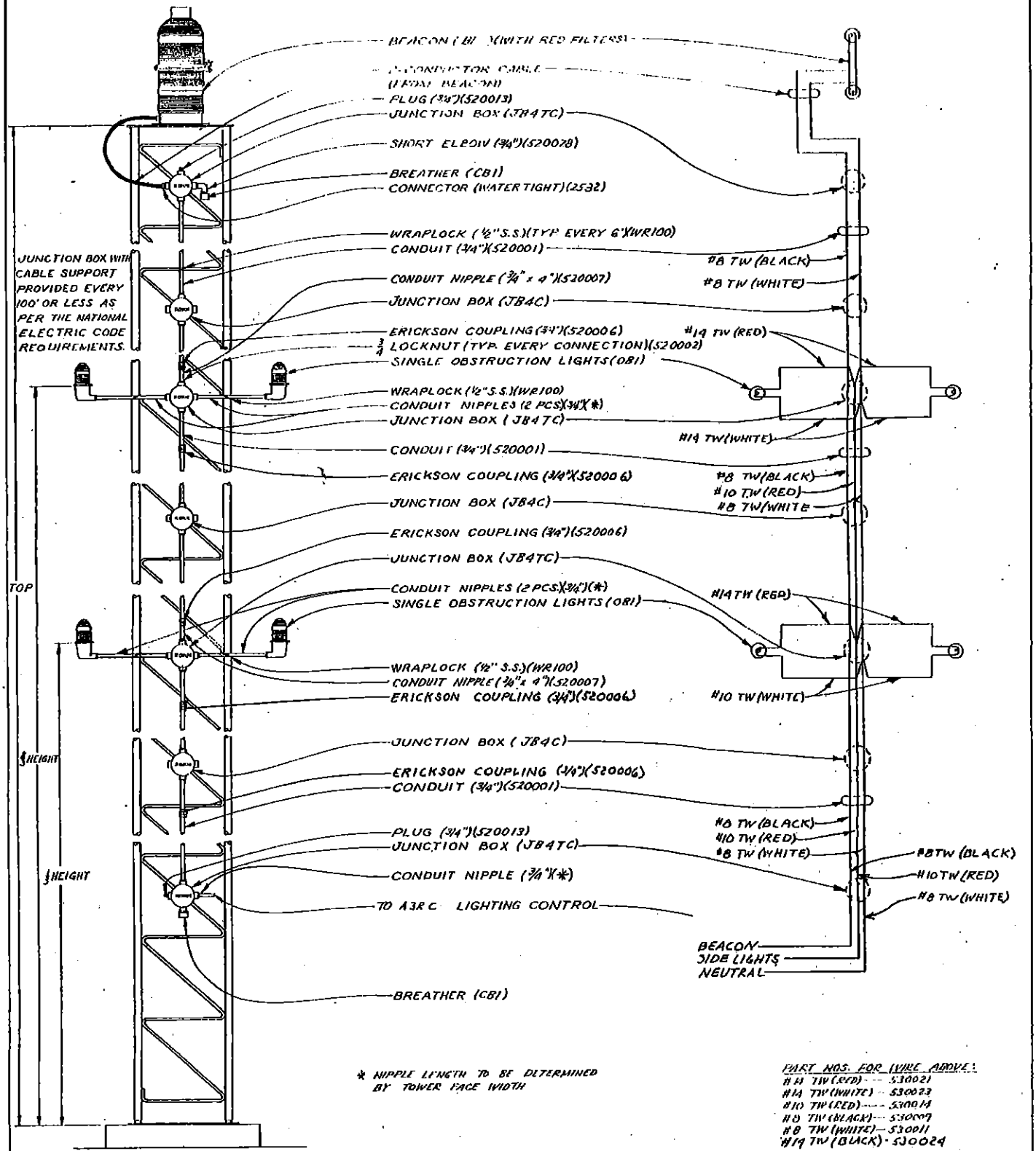
REVISIONS

ROHN

TITLE: TURNBUCKLE SAFETY METHODS

FILE NO.

SCALE: NONE	MATERIAL	FINISH	WT
DWN BY: A. JOHNSON	DATE: 3-16-68	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES	
CHK'D BY: DH	DATE: 4-4-68	TOLERANCES: DEC ± FRAC ± ANGLES ±	DWG. NO. B-680324 R4
APP'D: DH	DATE		



* NIPPLE LENGTH TO BE DETERMINED BY TOWER FACE WIDTH

PART NOS. FOR WIRE ABOVE:
#14 TW (RED) — 530021
#14 TW (WHITE) — 530023
#10 TW (RED) — 530014
#8 TW (BLACK) — 530009
#8 TW (WHITE) — 530011
#14 TW (BLACK) — 530024

MATERIAL LAYOUT

WIRING DIAGRAM

LIGHTING KIT — CONDUIT — RA 3C

TOWER HEIGHTS 301' - 450'
FAA - "A-3

NOTE:
ALL CONNECTIONS SHOULD BE COMPLETELY TIGHT.

R3	ADD ERICKSON COUPLING	6-19-80	JB
R2	ADDED A3RC	4-10-80	JB
R1	ADDED PART NOS, ETC.	8-21-70	AED
R4	ADDED JB-4C NOTE	8-17-76	DH

R3	11-9-70	DH	
R2	4-11-67	A.J.	
R1	11-13-62	L.H.	
NO.	REVISION		

DRAWN: L. HOFFMAN
CHECKED: R.S.
APPROVED: MWL
DATE: MAY 19, 1962
SCALE: NONE

TITLE: INSTALLATION DETAIL NO. RA3C LIGHTING KIT

CUSTOMER

ROHN® MANUFACTURING DIVISION OF ROHN

DRAWING NO. C 620501-R3

PARTS LIST P-354
(Replaces P-302)

July 1, 1980

RA3C LIGHTING KIT

301' to 450' w/conduit
120 volt AC

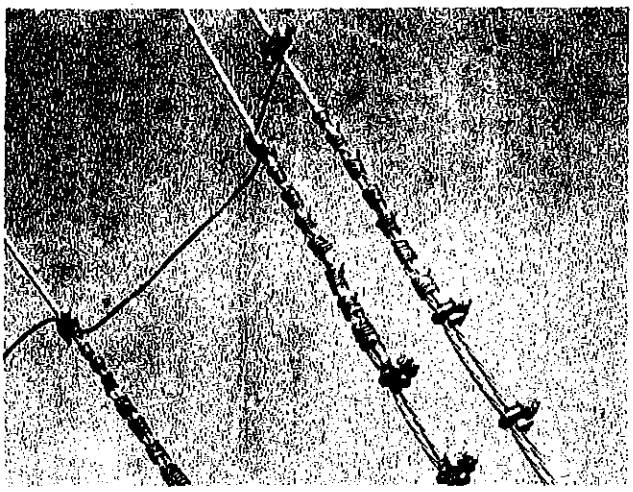
Qty.	Part Number	Description
4	OB1	Single obstruction lights
4	JB4TC	Junction boxes
3	JB4C	Junction boxes
1	2532	Water tight connector
1	520028	Short elbow 3/4"
2	CB1	Conduit breathers
6	520006	Erickson couplings 3/4"
2	520013	Plastic pipe plugs 3/4"
38	520002	Conduit lock nuts 3/4"
1	WR100	Can stainless steel wraplock (1/2" x 100')
1	520023	Can joint compound
20'	530021	#14 TW wire (red)
20'	530023	#14 TW wire (white)
2	520007	Conduit nipples 3/4" x 4"
XXXXXXXXX	530021	#14 TW wire (red) (tower height plus 15')
4	*	Conduit nipples 3/4" x *
1	OBLITECAT	Obstruction lighting catalog
-	530014	#10 TW wire (red) (2/3 tower height plus 15')
1	A3RC	Flasher box w/flasher mechanism and remote photocell
2	KH90	Saddle clamps
4	210013G	Galvanized bolts 3/8" x 4"
4	230005	Heavy nuts 3/8"
4	230007	Pal nuts 3/8"
4	250006	Flat stainless steel washers 3/8"
1	520036	Nipple 1/2" x 4"
1	520012	Reducer 3/4" x 1/2"
1	520040	Elbow 1/2"
3	520031	Conduit lock nuts 1/2"
1	520002	Conduit lock nut 3/4"
1	*	Conduit nipple 3/4" x *
1	B1	Beacon w/filters
4	B620W	Beacon bulbs (120 volt)
8	OB116W	Obstruction light bulbs (120 volt)
-	530009	#8 TW wire (black) (tower height plus 15')
-	530011	#8 TW wire (white) (tower height plus 15')
-	520001	Rigid galvanized conduit 3/4" (tower height)

*Determined by face width.

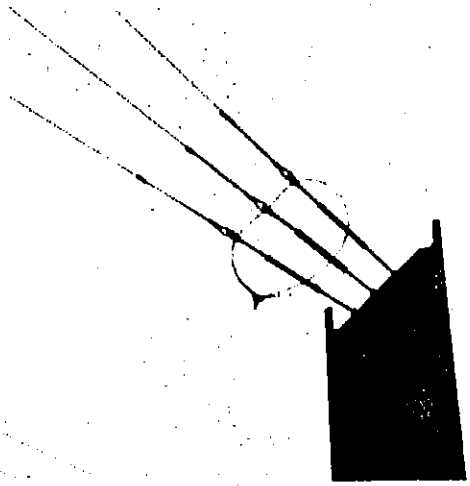
Parts list may vary for self-supporting tower.

See Drawing No. C-620504-R6 for installation data.

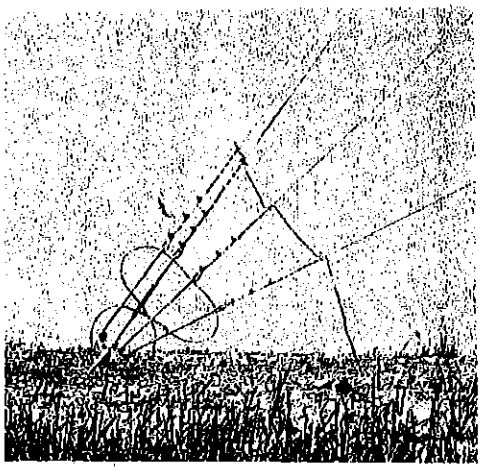
PROPER ANCHOR INSTALLATIONS



SERVING



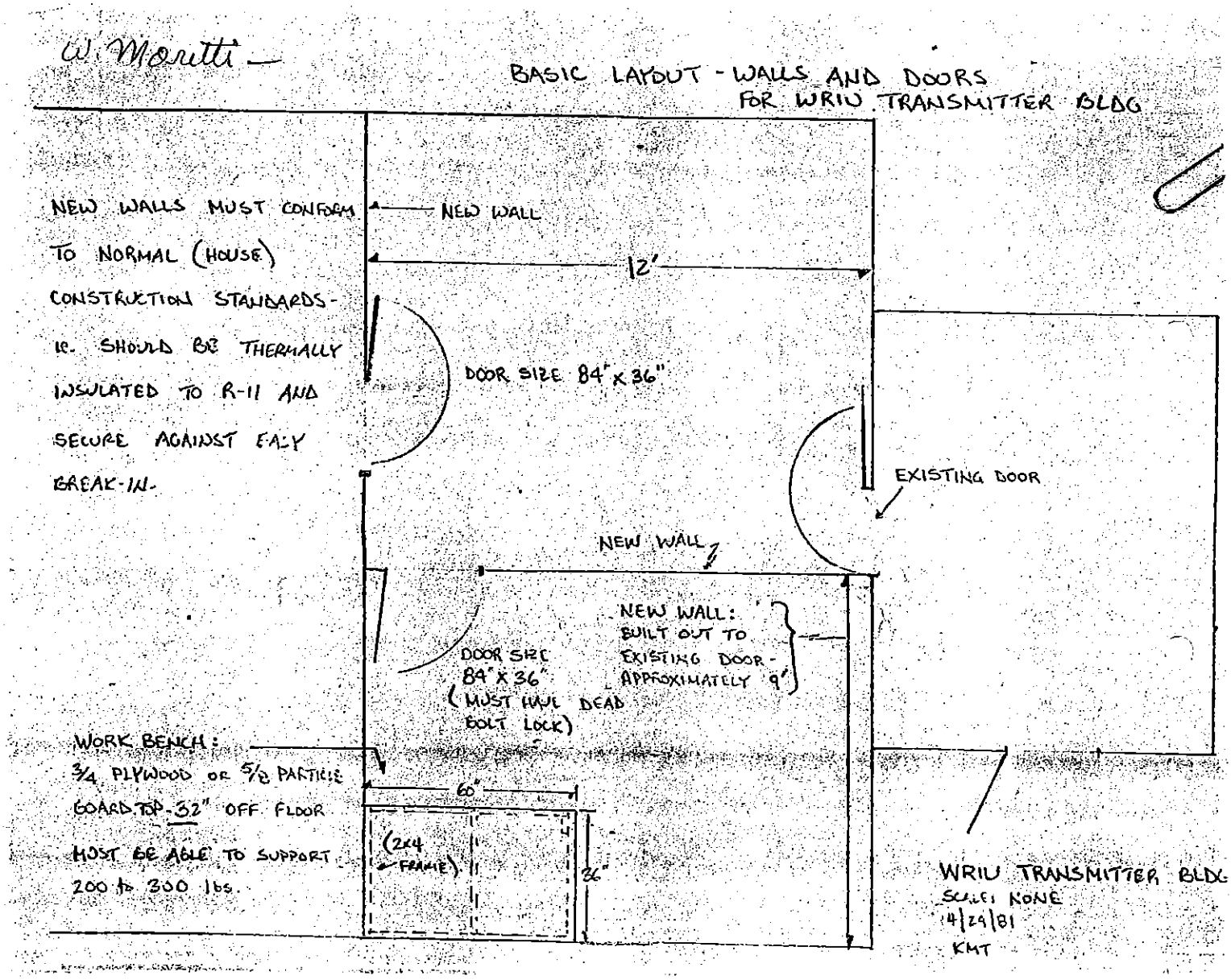
10" I" BEAM STUB ANCHOR WITH NICROPRESS SLEEVES AND SAFETY WIRE



SAFETY WIRE AND GROUNDING

W. Moretti —

BASIC LAYOUT - WALLS AND DOORS FOR WRIU TRANSMITTER BLDG



TO ACHIEVE MAXIMUM COVERAGE WITH THE END SLEEVE, THE APPLICATION SHOULD BE CONDUCTED IN THE FOLLOWING MANNER:

(BE SURE TO SELECT PROPER SIZE END SLEEVE)

1

PLACE THE SLOT SIDE OF THE END SLEEVE OVER THE LONG LEG OF THE DEAD-END.

2

DRIVE THE SLEEVE DOWNWARD UNTIL THE RODS OF SHORT LEG ARE COMPLETELY COVERED.

3

THE RODS OF THE LONG LEG SHOULD BE EVEN WITH, OR MAY EXTEND ABOVE, THE TOP EDGE OF THE SLEEVE.

NO.	DESCRIPTION	DATE	BY
R1	REVISED GUY GRIP TO BIG GRIP	7-6-76	DH

REVISIONS

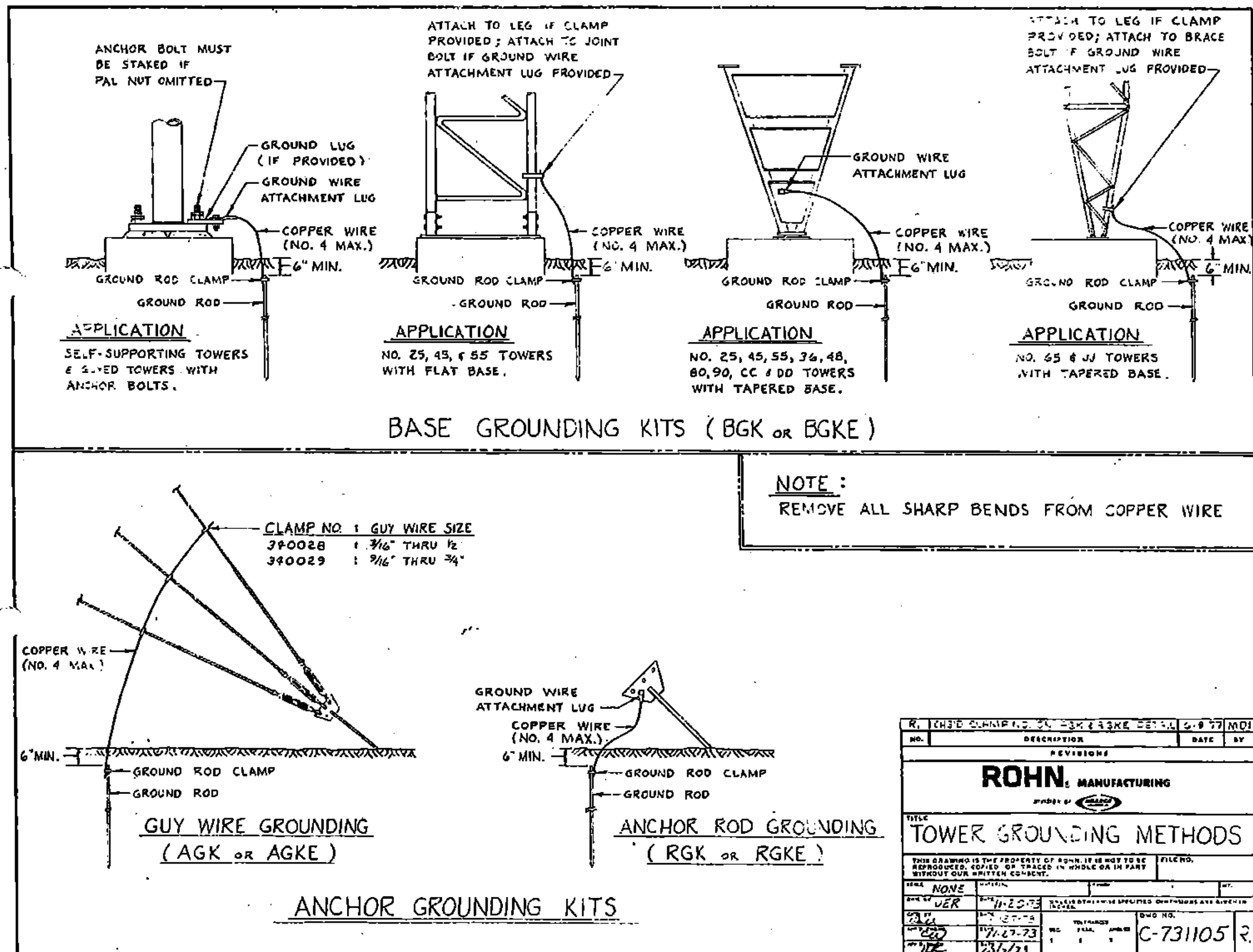
ROHN

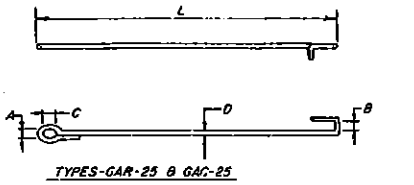
TITLE: APPLICATION PROCEDURE FOR BIG-GRIP END SLEEVE

FILE NO.

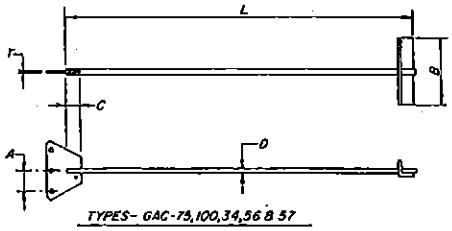
SCALE	MATERIAL	FINISH	QTY.
NONE			

DRN BY	DATE	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES			DWG. NO.	
R. ARCHULETA	6-9-70	DEC.	FRAC.	ANGLES	B-700607	R1
CHK'D	DATE	±	±	±		
[illegible]	6-9-70					

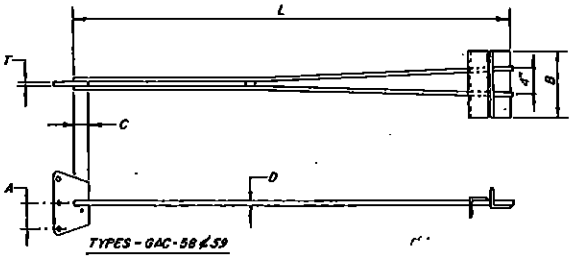

ANCHOR BOLT MUST BE STAKED IF PAL NUT OMITTED
GROUND LUG (IF PROVIDED)
GROUND WIRE ATTACHMENT LUG
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
SELF-SUPPORTING TOWERS & GUYED TOWERS WITH ANCHOR BOLTS.
ATTACH TO LEG IF CLAMP PROVIDED; ATTACH TO JOINT BOLT IF GROUND WIRE ATTACHMENT LUG PROVIDED
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
NO. 25, 45, & 55 TOWERS WITH FLAT BASE.
GROUND WIRE ATTACHMENT LUG
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
NO. 25, 45, 55, 36, 48, 80, 90, CC & DD TOWERS WITH TAPERED BASE.
ATTACH TO LEG IF CLAMP PROVIDED; ATTACH TO BRACE BOLT IF GROUND WIRE ATTACHMENT LUG PROVIDED
COPPER WIRE (NO. 4 MAX)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
APPLICATION
NO. 65 & JJ TOWERS WITH TAPERED BASE.
BASE GROUNDING KITS (BGK or BGKE)
NOTE:
REMOVE ALL SHARP BENDS FROM COPPER WIRE
CLAMP NO. : GUY WIRE SIZE
340028 : 3/16" THRU 1/2"
340029 : 9/16" THRU 3/4"
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
GUY WIRE GROUNDING (AGK or AGKE)
GROUND WIRE ATTACHMENT LUG
COPPER WIRE (NO. 4 MAX.)
6" MIN.
GROUND ROD CLAMP
GROUND ROD
ANCHOR ROD GROUNDING (RGK or RGKE)
ANCHOR GROUNDING KITS
REVISIONS
NO. DESCRIPTION DATE BY
ROHN MANUFACTURING
TOWER GROUNDING METHODS
THIS DRAWING IS THE PROPERTY OF ROHN. IT IS NOT TO BE REPRODUCED, COPIED OR TRACED IN WHOLE OR IN PART WITHOUT OUR WRITTEN CONSENT.
SCALE NONE
DWG NO. C-731105
PRINTED IN U.S.A.



TYPES-GAR-25 & GAC-25



TYPES- GAC-75,100,34,56 & 57



TYPES - GAC-58 & 59

ANCHOR ROD DETAILS

ANCHOR ROD DATA

PART NUMBER	EQUALIZER PLATE TYPE	DIMENSIONS IN INCHES L	A	B	C	D	T	WEIGHT-LBS.	LOAD CAPACITY-LBS.
GAR-25	EYE	64	3/8	4	1 1/2	3/8	—	8	5,500
GAC-25-3	EE	64	2	4	1 1/2	3/8	3/16	12	5,500
GAC-25-5	EE	64	2	4	1 1/2	3/8	3/16	13	5,500
GAC-75-1	EJ	120	1 1/8	12	3	3/4	1/2	25	13,250
GAC-75-3	EJ	120	2 1/2	12	3	3/4	1/2	30	13,250
GAC-75-5	EJ	120	2 1/2	12	3	3/4	1/2	35	13,250
GAC-100-1	EJ	120	1 5/16	12	4	1 1/8	3/4	55	23,550
GAC-100-3	EJ	120	3	12	4	1 1/8	3/4	65	23,550
GAC-100-5	EJ	120	3	12	4	1 1/8	3/4	75	23,550
GAC-34-33	EJ	84	2	12	2 1/2	3/4	3/8	20	13,250
GAC-56-33	EJ	120	2 1/2	12	3	1 1/4	1/2	60	36,800
GAC-57-33	EJ	168	3	12	4	1 7/16	3/4	115	48,600
GAC-58-33	EJ	192	4	12	6	1 1/4	1	200	73,600
GAC-59-33	EJ	240	4	18 (2)	6	1 7/16	1	300	97,300
GAC-34-55	EJ	84	2	12	2 1/2	3/4	3/8	25	13,250
GAC-56-55	EJ	120	2 1/2	12	3	1 1/4	1/2	65	36,800
GAC-57-55	EJ	168	3	12	4	1 7/16	3/4	125	48,600
GAC-58-55	EJ	192	4	12	6	1 1/4	1	220	73,600
GAC-59-55	EJ	240	4	18 (2)	6	1 1/16	1	310	97,300

SEE NOTE 8

SEE NOTE 7

8) SEE DRAWING NO. C-730323 FOR ANCHOR ROD FAB. DETAILS.
7) USE EQUALIZER PLATES EP-57 WITH 1 1/16" SLOT FOR GAC-100 SERIES ANCHORS
6) USE EQUALIZER PLATES EP-56 WITH 13/16" SLOT FOR GAC-75 SERIES ANCHORS
5) TYPE-EJ EQUALIZER PLATES ARE USED WITH EYE & JAW TURNBUCKLES
4) TYPE-EE EQUALIZER PLATES ARE SUPPLIED IN PAIRS FOR EYE & EYE TURNBUCKLES
3) PART NO SUFFIXES-1,3,5,33 & 55 DENOTES-1,3 OR 5 HOLES IN PLATES
2) TYPE GAC-25 RODS ARE SUPPLIED WITH TYPE 2534-EE EQUALIZER PLATES
1) SEE DRAWING NO. C-660416-B, FOR EQUALIZER PLATE DETAILS.

R2	'A' DIMENSION WAS 1/4"	3/31/73	GLS
R1	REVISED #57 ROD D DIM. & CAPACITY	6-11-71	TS
0	DELETE #60 ROD, REVISE CAP. #25 ROD	7-15-75	LWEIL
NO	DESCRIPTION	DATE	BY

REVISIONS

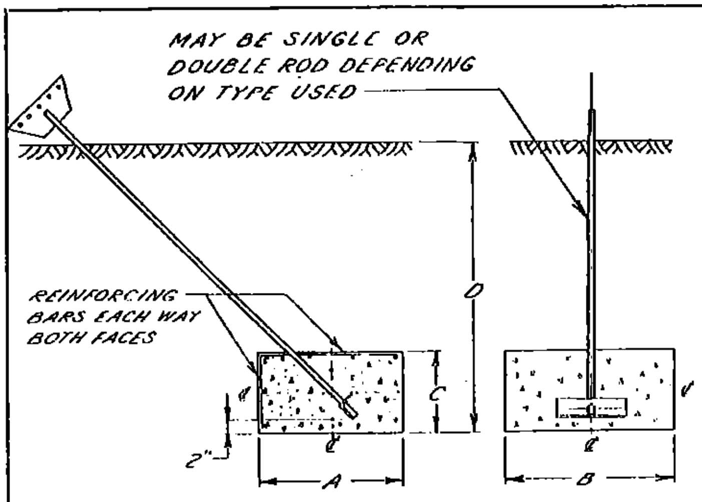
ROHN MANUFACTURING

TITLE: ANCHOR ROD SCHEDULE

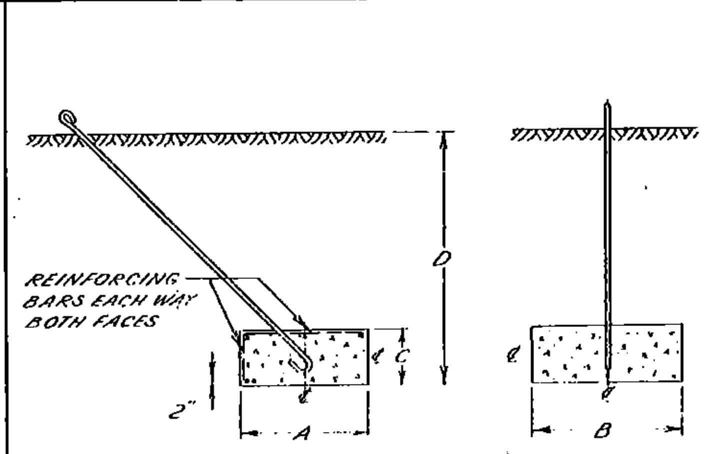
FILE NO

MAT'L	NONE		
DRN BY	DM	DATE 3-22-73	
CHD BY		DATE	
APP'D		DATE 3-27-73	
APP'D		DATE 3-28-73	

DWG NO C-660415 R2



ANCHOR DETAIL FOR GAC-34, 56, 57 & 58
SHOWN ON DWG. NO. C-660415R2



ANCHOR DETAIL FOR GAC-25

R9 NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

GENERAL NOTES

** 1. ANCHOR DESIGN ASSUMES E.I.A. NORMAL SOIL.
2. CONCRETE, 3,000 PSI MINIMUM ULTIMATE STRENGTH.
3. ASTM A-615 GRADE 40 DEFORMED REBARS.
4. MINIMUM CONCRETE COVER ON ALL REBARS IS 2".
5. MINIMUM ½" DIAMETER REINFORCING BARS IN ALL ANCHORS WITH MAXIMUM SPACING OF 12" EXCEPT NO. 10 BLOCK MAXIMUM SPACING OF 6".
6. ALL FORMS MUST BE REMOVED FROM CONCRETE BEFORE PLACING COMPACTED BACKFILL.

CONCRETE ANCHOR DATA

DEPTH, D (FT.)	ROD NO.	BLOCK NO.	ANCHOR DIMENSIONS (FT.) A	B	C	WEIGHT CONCRETE (LBS)	CONCRETE (CU. YDS.)	UPLIFT * CAPACITY (LBS)	LATERAL CAPACITY (LBS.)
3	GAC-25	3a	1.5	1.5	1	310	.08	900	1,500
		3b	2	2	1	560	.15	1,320	2,000
		3c	2.5	2.5	1	870	.23	1,810	2,500
		3d	3	3	1	1,260	.33	2,535	3,000
		3e	3	4	1	1,680	.44	3,020	4,000
4	GAC-34	4a	3	3	1.5	1,890	.50	3,490	5,850
		4b	3	4	1.5	2,520	.67	4,360	7,800
		4c	3	5	1.5	3,150	.84	4,985	9,750
		4d	3	6	1.5	3,780	1.00	6,090	11,100
		4e	4	6	1.5	5,050	1.33	7,660	11,100
6	GAC-56	6a	3	4	1.5	2,520	.67	10,035	12,600
		6b	3	5	1.5	3,150	.84	11,600	15,750
		6c	3	6	1.5	3,780	1.00	13,150	18,900
		6d	4	6	1.5	5,050	1.33	15,850	18,900
8	GAC-57	8a	3	5	1.5	3,150	.84	22,150	21,750
		8b	3	6	1.5	3,780	1.00	24,100	26,100
		8c	4	6	1.5	5,050	1.33	28,500	26,100
		8d	6	6	2.0	10,800	2.67	33,380	33,300
10	GAC-58	10a	3	6	2.0	5,040	1.33	37,450	43,200
		10b	4	6	2.0	6,720	1.78	42,700	43,200
		10c	4	7	2.0	7,840	2.07	46,800	50,400
		10d	5	7	2.0	9,800	2.59	52,350	50,400
		10e	5	9	2.0	12,600	3.33	61,700	64,800

* INCLUDES SAFETY FACTOR OF 2

** NORMAL SOIL IS A COHESIVE TYPE SOIL WITH A HORIZONTAL BEARING CAPACITY OF 400 POUNDS PER SQUARE FOOT PER LINEAL FOOT OF DEPTH. ROCK, NON-COHESIVE SOILS, OR SATURATED OR SUBMERGED SOILS ARE NOT TO BE CONSIDERED AS NORMAL.

REV.	DESCRIPTION	DATE	BY
R9	REVISED [illegible] DETAIL DWG. NO.	8-[illegible]-7[illegible]	[illegible]
R10	REMOVED RS-222-B FROM GEN. NOTE NO. 1	3/7/77	GLS
R7	ADDED NOTE	7-6-75	[illegible]
R6	REVISE DESIGN NOTE 1.	[illegible]-75	[illegible]
R5	REVISE DESIGN NOTE, & TITLE BLOCK	[illegible]	[illegible]
R?	GAC-25 WAS GA-25	12-7-73	JEK
	REVISED FOR EIA RS-222-B	4/4/7[illegible]	GLS

REVISIONS

ROHN® MANUFACTURING
DIVISION OF [illegible]

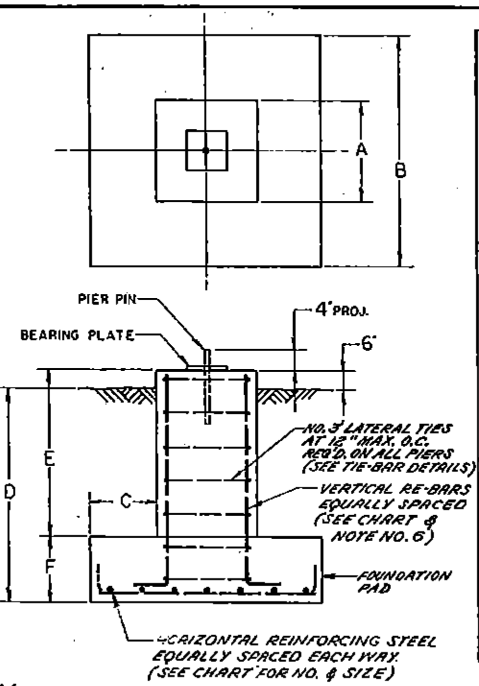
TITLE: STANDARD CONCRETE ANCHORS

FILE NO

SCALE: NONE
DRAWN BY: GLS — DATE: 4/1/73
CHECKED: 4-4-73
9-4-73
APPROVED: BR — 4-?-73

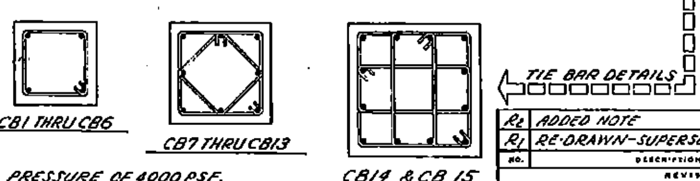
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES

DWG. NO. C-620643 R11



CONCRETE BASE SCHEDULE

CB NO.	TOWER BASE REACTION	DIMENSIONS A	B	C	D	E	F	BEARING PLATE	CONC. (CU. YDS)	VERTICAL BARS (NO. & SIZE)	HORIZ. BARS (NO. & SIZE)
1	14000	2'-0	2'-0	0	4'-0	0	0	BP 6	.70	4-NO.6	NONE*
2	22000	2'-6	2'-6	0	4'-0	0	0	BP 6	1.00	4-NO.6	NONE*
3	32000	3'-0	3'-0	0	4'-0	0	0	BP 6	1.50	4-NO.6	NONE*
4	44000	3'-6	3'-6	0	4'-0	0	0	BP 6	2.10	4-NO.6	NONE*
5	58000	2'-0	4'-0	1'-0"	4'-0	3'-3	1'-3	BP 6	1.22	[illegible]-NO.6	6-NO.4
6	74000	2'-0	4'-6	1'-3"	4'-0	3'-3	1'-3	BP 6	1.42	4-NO.6	6-NO.5
7	90000	2'-0	5'-0	1'-6	4'-6	3'-9	1'-3	BP 10	1.70	8-NO.6	6-NO.5
8	109000	2'-0	5'-6	1'-9	4'-6	3'-9	1'-3	BP 10	2.00	8-NO.6	6-NO.5
9	130000	2'-0	6'-0	2'-0	4'-6	3'-6	1'-6	BP 10	2.50	8-NO.6	7-NO.5
10	150000	2'-0	6'-6	2'-3	4'-6	3'-6	1'-6	BP 10	2.90	8-NO.6	8-NO.5
11	173000	2'-6	7'-0	2'-3	5'-0	3'-9	1'-9	BP 15	4.00	8-NO.7	8-NO.6
12	198000	2'-6	7'-6	2'-6	5'-0	3'-9	1'-9	BP 15	4.50	8-NO.7	8-NO.6
13	224000	2'-6	8'-0	2'-9	5'-0	3'-9	1'-9	BP 15	5.00	8-NO.7	9-NO.6
14	251000	3'-0	8'-6	2'-9	5'-0	3'-6	2'-0	BP 15	6.50	12-NO.7	9-NO.7
15	279000	3'-0	9'-0	3'-0	5'-0	3'-6	2'-0	BP 15	7.20	12-NO.7	10-NO.7



R2 NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

GENERAL NOTES:

1. BASE PIER DESIGNED FOR AN ALLOWABLE NET SOIL PRESSURE OF 4000 PSF.
2. CONCRETE - 3000 PSI MIN. ULT. STRENGTH AT 28 DAYS.
3. REINFORCING STEEL - ASTM A-615 GRADE 40 DEFORMED BARS.
4. MIN. COVER ON ALL REINFORCING STEEL IS 3".
5. ALL FORMS MUST BE REMOVED FROM CONCRETE BEFORE PLACING COMPACTED BACKFILL.
6. VERTICAL REINFORCING STEEL MAY BE PLACED WITH AN OPTIONAL STANDARD ACI 90° BEND AT BOTTOM.
7. FOUNDATION DESIGN PER E.I.A. STANDARDS.
8. BEARING PLATE PROVIDED ONLY ON TOWERS WITH TAPERED BASE.

*9. HORIZ. BARS IN CHART REFER ONLY TO THE BARS IN THE FOUNDATION PAD.

NO.	DESCRIPTION	DATE	BY
R5	ADDED GENERAL NOTE #9	1-21-90	JHD
R4	REMOVED RS-222-B FROM GEN. NOTE NO. 7	3/7/77	GLS
R3	DELETE SIZE PIER PIN.	7/29/76	GLS
R2	ADDED NOTE	7-6-76	DH
R1	RE-DRAWN-SUPERSEDES C610621D	2-26-75	DH

REVISIONS

ROHN MANUFACTURING

TITLE: CONCRETE BASE SCHEDULE

FILE NO.

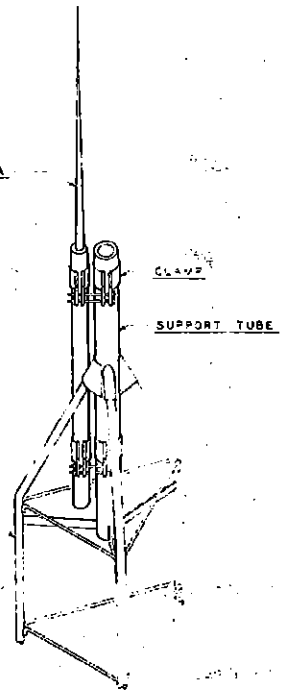
SCALE: ~

DWN. BY: D.H. — DATE: 2-26-75
CHK. BY: WDU — DATE: 3-7-75
APPD.: [illegible] — DATE: 3-7-75
[illegible]: BR — DATE: 3-15-75

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES

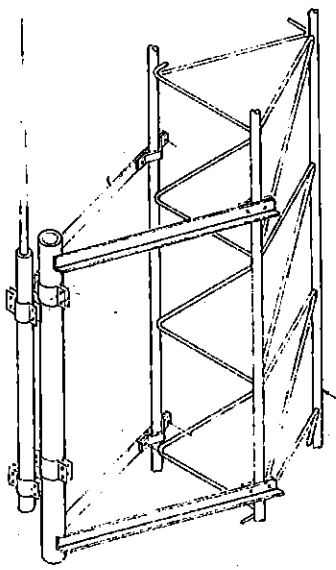
DWG. NO. C 610621 R5

C-661004



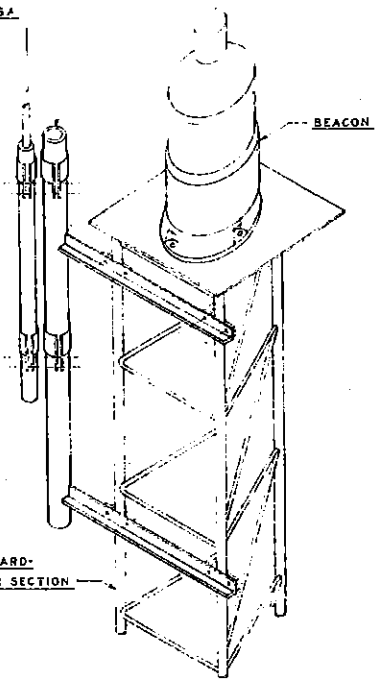
TOP MOUNTING

SIDE ARM WITH SUPPORT TUBE-TYPE-SA
AVAILABLE WITH SUPPORT TUBE
AT 2 FT., 4 FT OR 6 FT. FROM
TOWER.



SIDE MOUNTING-
(AT ANY LEVEL)

MOUNTING BRACKET-TYPE-SAB
WITH SUPPORT TUBE



TOP MOUNTING-
(WITH BEACON)

NO.	REVISION	BY	DATE
1	REDRAWN	KW	10-12-88

DRAWN CK
CHECKED
APPROVED
DATE 10-12-88
SCALE NONE

ANTENNA MOUNTING DETAILS

ROHN MANUFACTURING
PEORIA, ILLINOIS

DRAWING NO.
C-661004

UNIVERSITY OF RHODE ISLAND
RADIO REPLACEMENT
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

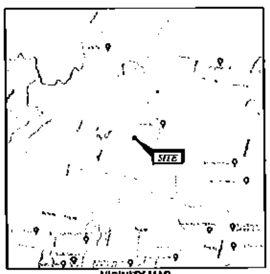
CONSTRUCTION DRAWINGS

PROJECT CONTACTS

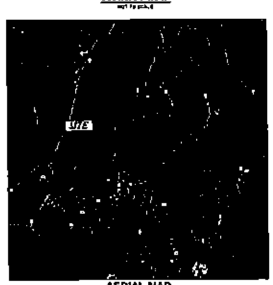
	NAME	COMPANY	NUMBER
APPLICANT	KYLE COLEMAN	UNIVERSITY OF RHODE ISLAND OFFICE OF CAPITAL BUILDINGS 60 TOOTELL ROAD - SHERMAN BUILDING KINGSTON, RI 02881	(401) 500-1064
A/E	EDWARD IAMICELI	TECTONIC ENGINEERING CONSULTANTS INC. 1279 ROUTE 300 NEWBURGH, NY 12550	(845) 567-6656

PROJECT INFORMATION

SCOPE OF WORK:	EXISTING EQUIPMENT SHELTER AND ASSOCIATED EQUIPMENT ALONG WITH THE FOUNDATION SHALL BE DEMOLISHED. A PROPOSED 400' GUYED TOWER, PROPOSED SHELTER & GENERATOR ON A PROPOSED CONCRETE FOUNDATION ARE TO BE INSTALLED WITHIN THE NEW FENCED-IN COMPOUND.
SITE ADDRESS:	875 PLAINS ROAD TOWN OF SOUTH KINGSTON WASHINGTON COUNTY, RI 02892
PROPERTY OWNER:	UNIVERSITY OF RHODE ISLAND
APPLICANT:	UNIVERSITY OF RHODE ISLAND
LATITUDE:	41° 29' 51.64"± N (NAD 83)
LONGITUDE:	71° 31' 41.93"± W (NAD 83)
ELEVATION:	1612'± AMSL (NAVD 88)
JURISDICTION:	TOWN OF SOUTH KINGSTON
PARCEL ID:	MAP 15-2, LOT 1



VICINITY MAP



AERIAL MAP

DRAWING INDEX

SHEET NO	DWG NO	DRAWING TITLE	REV	DATE
1 OF 16	T001	TITLE SHEET	3	8/26/2024
2 OF 16	T002	GENERAL/STR NOTES, TESTING & INSPECTIONS	3	8/26/2024
3 OF 16	T003	FOUNDATION NOTES, LEGEND & ABBREVIATIONS	3	8/26/2024
4 OF 16	C100	OVERALL SITE PLAN	3	8/26/2024
5 OF 16	C101	SITE DEMOLITION PLAN & ENLARGED SITE PLAN	3	8/26/2024
6 OF 16	C200	TOWER ELEVATION & OMNI ANTENNA PLANS	3	8/26/2024
7 OF 16	C500	TYPICAL DETAILS	3	8/26/2024
8 OF 16	C501	SIGNAGE ELEVATION & DETAILS	3	8/26/2024
9 OF 16	C502	STRUCTURAL PLANS, SECTIONS, & DETAILS	3	8/26/2024
10 OF 16	E100	ROUTING PLAN	2	6/18/2024
11 OF 16	E101	RISER DIAGRAM & NOTES	2	6/18/2024
12 OF 16	E102	PRELIMINARY WIRING SCHEMATICS	2	6/18/2024
13 OF 16	G100	GROUNDING PLAN & NOTES	2	6/18/2024
14 OF 16	G500	GROUNDING DETAILS & NOTES	2	6/18/2024
15 OF 16	G501	GROUNDING DETAILS	2	6/18/2024
16 OF 16	G502	GROUNDING DETAILS	2	6/18/2024
		SURVEY BY OTHERS	0	12/12/2023
1 OF 2	SV-100	EXISTING SITE OVERVIEW PLAN	0	8/9/2023
2 OF 2	SV-101	EXISTING CONDITIONS AND TOPOGRAPHY PLAN	0	8/9/2023

PLANS ARE NOT TO BE SCALED.

THE UNIVERSITY OF RHODE ISLAND

Tectonic

Tectonic Engineering Consultants Inc.

EDWARD IAMICELI
REGISTERED PROFESSIONAL ENGINEER

TITLE SHEET

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

Work Order	Drawing No.	Rev
12117.01	T001	3

EXISTING CONDITIONS NOTES

1. EXISTING SITE FEATURES AS SHOWN ARE BASED ON A SURVEY DRAWING PREPARED BY NARRAGANSETT ENGINEERING INC. PROJECT NUMBER 1-07-03. NOTED ELEVATIONS AND INFORMATION PROVIDED BY THE CLIENT. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION OF PROPOSED IMPROVEMENTS.
2. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL EXAMINE THE ADJACENT AREAS AND STRUCTURES ON THE SITE AND SHALL DETERMINE TO HIMSELF THE EXACT CONDITIONS THAT WILL PREVENT SATISFACTORY WORKMANSHIP OF THESE ITEMS TO THE OWNER'S REPRESENTATIVE. PRIOR TO COMMENCING ANY EXCAVATION OR DRILLING WORK, THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL SURVEY DATA AS INDICATED ON THE DRAWINGS, SPECIFICATIONS, AND IN ANY DOCUMENTS PROVIDED BY OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES, FINDINGS, OR OBSTRUCTIONS IN THE SURVEY DATA SO THAT THE NECESSARY ADJUSTMENTS CAN BE MADE. FAILURE TO NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES, FINDINGS, OR FAILS PRIOR TO COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE WITHOUT ANY CLAIMS OF ANY NATURE OF ADJUSTMENTS, CHANGES, EXPENSES, OR RESCHEDULES.
3. THE CONTRACTOR SHALL MAKE NECESSARY PRE-INSPECTIONS TO PROTECT EXISTING IMPROVEMENTS, EQUIPMENT, ETC. DURING CONSTRUCTION WORK'S. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION OR OTHER CAUSE. THE PRECEDING, THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PRESERVING ALL EXISTING AND "MARKED" CONTROL POINTS.

LEGEND & ABBREVIATIONS

SECTION OF ELEVATION VIEW

SECTION OF ELEVATION IDENTIFICATION

@	AT
℄	CENTERLINE
∅	DIAMETER
±	PLUS OR MINUS
#	NUMBER
&	AND
°	DEGREE (OF ANGLE)
'	MINUTE
"	SECOND
ABV	ABOVE FINISHED FLOOR
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
BOT	BOTTOM
BTWN	BETWEEN
CAB	CABINET
CAP	CAPACITY
CB	CATCH BASIN
CEM	CEMENT
CER	CERAMIC
CI	CAST IRON
CIP	CAST IN PLACE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCT
CONT	CONTINUOUS
CONTR	CONTRACTOR
CPT	CARPET
CTR	CENTER
DEMO	DEMOLISH
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXIST	EXISTING
FF	FACE OF
FIN	FINISH
FLR	FLOOR DRAIN
FOUND	FOUNDATION
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GL	GLASS
GYP	GYPSUM
HC	HOLLOW CORE
HDWD	HARDWOOD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HVAC	HEATING VENTILATING & AIR CONDITIONING
INSUL	INSULATION
INT	INTERIOR
JAN	JANITOR
JST	JOIST
LAV	LAVATORY
LT	LIGHT
MAT	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
PERP	PERPENDICULAR
PL	PLATE
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PT	PAINT
PTD	PAINTED
PTN	PARTITION
RAD	RADIUS
RB	RUBBER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFRIGERATOR
REINF	REINFORCED
REQ	REQUIRED
RM	ROOM
RO	ROUGH OPENING
SAN	SANITARY
SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
T	TREAD
TEL	TELEPHONE
TER	TERRAZZO
THK	THICK
TOC	TOP OF CURB
TOP	TOP OF
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WP	WATERPROOF
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

GENERAL AND TELECOMMUNICATIONS NOTES

GENERAL

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT BUILDING CODE AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES UNLESS NOTED, AND ALL OTHER APPLICABLE CODES AND ORDINANCES.
2. CONTRACTOR SHALL VISIT THE JOB SITE TO TAKE ANY MEASUREMENTS THAT ARE NECESSARY AND SHALL VERIFY FOR HIMSELF ALL THE FACTS RELATING TO THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ERRORS WHICH MAY APPEAR IN THE CONTRACT DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE BEFORE COMMENCEMENT OF WORK. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND THOSE INDICATED ON THE DRAWINGS. ANY DISCREPANCIES SHALL BE RESOLVED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
3. PLANS ARE NOT TO BE SCALED. EACH TRADE ARE ATTACHED TO BE A DRAWING'S SCALE OF USE, UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING OF DETAILS, APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. DIMENSIONS TAKEN FROM THE FIGURES SHOWN ON THE DRAWINGS, UNLESS OTHERWISE NOTED. FIGURED DIMENSIONS GOVERN A SCALED DIMENSION, AND LARGE DRAWINGS GOVERN SMALL. DIMENSIONS OF EXISTING BUILDINGS AND/OR SITES MUST BE VERIFIED BY THE CONTRACTOR AT THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN THE DIMENSIONS WHICH COULD HAVE BEEN DISCOVERED BY A COMPARISON FROM THE AUTHORIZED REPRESENTATIVE OF THE OWNER PRIOR TO PROCESSING WITH THE WORK.
5. DETAILS ARE INTENDED TO SHOW THE GENERAL DESIGN AND ARRANGEMENT ONLY. THEY ARE NOT INTENDED TO SHOW ALL CONSTRUCTION DETAILS. ALL CONSTRUCTION SHALL BE EXECUTED IN THE BEST OF THE TRADE.
6. CONTRACTOR SHALL RECEIVE CLARIFICATIONS IN WRITING AND SHALL RECEIVE A WRITTEN AUTHORIZATION TO PROCEED BEFORE STARTING WORK OR ANY ITEMS FOR WHICH EXTRAS OR CREDITS ARE TO BE CHARGED. NO EXTRA CHARGES OR CREDITS SHALL BE ALLOWED BY ANY PERSON UNLESS SUCH AUTHORIZATION HAS BEEN GIVEN.
7. CHECK ALL CONSTRUCTION AND EQUIPMENT SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL CHECK AND APPROVE ALL SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. SHOP DRAWINGS SHALL BEAR THE CONTRACTOR'S STAMP OF APPROVAL AND SHALL INDICATE THE SPECIFICATION SECTION AND PARAGRAPH NUMBER OF THE ITEM SUBMITTED. SHOP DRAWINGS SHALL BE SUBMITTED IN SUFFICIENT TIME TO ALLOW 14 DAYS FOR REVIEW. SUBMITTALS SHALL BE MADE IN ENOUGH TIME TO PREVENT DELAY IN THE WORK. THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY EXTRA COMPENSATION OR CONTRACT TIME DUE TO DELAYS IN SUBMITTALS.
8. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND TO BE IN ANY PLACE.
9. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST CONSTRUCTION SKILL AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND FOR COORDINATION ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL BE SOLELY AND EXPRESSLY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA. PROJECT SITES, AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL WORKERS SHALL BE GIVEN PROPER AND SAFE PLACES AND TOOLS TO DO THE WORK.
12. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL NOT PROCEED WITH WORK AND INSTALLATIONS WHERE DISCREPANCIES EXIST UNTIL THEY ARE RESOLVED BY THE OWNER'S REPRESENTATIVE.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE WORK OF OTHERS AS A RESULT BECAUSE OF THEIR NEGLIGENCE, ACTIONS AND/OR OMISSIONS.
14. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION TO PROTECT THE OWNER'S PROPERTY AND THE PROPERTY OF OTHERS FROM ALL DAMAGE DUE TO THE WORK OF OTHERS AS A RESULT OF THIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY OF OTHERS AS A RESULT OF THIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY OF OTHERS AS A RESULT OF THIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY OF OTHERS AS A RESULT OF THIS CONTRACT.
15. CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, LIGHTS, AND WARNING SIGNS AS REQUIRED FOR THE PROTECTION OF THE PUBLIC AND WORKERS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY OF OTHERS AS A RESULT OF THIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY OF OTHERS AS A RESULT OF THIS CONTRACT.
16. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY REQUIRED BY OTHER LOCAL CODES OR REGULATIONS THAT PREVAIL.
17. MAKE NECESSARY PROVISIONS TO PROTECT EXISTING BUILDINGS, EQUIPMENT, IMPROVEMENTS AND PAVED AREAS ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.
18. REPAIR ALL EXISTING SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND WITH ADJACENT SURFACES.
19. NOTIFY DIGSAFE (811) BEFORE YOU DIG, AND VERIFY IF ALL SITES AND UTILITIES, WHETHER THEY APPEARED OR SHOWN ON THE PROPERTY OR NOT, HAVE BEEN LOCATED. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.
20. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
21. PROVIDE 48 HOURS WRITTEN NOTICE TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
22. ALL EMPLOYEES OPERATING HAS MAINTENANCE MACHINES, CHAINSAWS, SHOP DRAWINGS AND OTHER EQUIPMENT SHALL BE TRAINED AND QUALIFIED IN THE USE OF SUCH EQUIPMENT.
23. COMPLETE AND SHALL BE EXAMINED FOR A PERIOD OF 12 MONTHS AFTER DATE OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE, AND WORK INSTALLED OR COMPLETED FOUND TO BE DEFECTIVE DURING THIS PERIOD SHALL BE CORRECTED IMMEDIATELY UPON WRITTEN NOTIFICATION AT NO ADDITIONAL COST TO THE OWNER.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNDERGROUND UTILITIES AND BUILDING SERVICES. THE CONTRACTOR SHALL HAVE LOCAL UTILITIES MARK OUT THEIR UNDERGROUND UTILITIES AND SHALL CONTACT THEM AT LEAST 72 HOURS BEFORE EXCAVATION IS TO BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES AND SERVICES WHICH ARE NOT MARKED OR ARE INCORRECTLY MARKED. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES AND SERVICES WHICH ARE NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL EXCAVATE BY HAND AS NECESSARY TO LOCATE AND PROTECT EXISTING UTILITIES AND SERVICES. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES OR SERVICES DAMAGED BY THE CONTRACTOR'S OPERATIONS AT NO ADDITIONAL COST TO THE OWNER.
25. THE CONTRACTOR SHALL NOTIFY DIGSAFE (811) AT LEAST 72 HOURS BEFORE DIGGING. DIGSAFE WILL NOTIFY ALL UTILITIES WHO HAVE UNDERGROUND FACILITIES IN THE AREA. THE CONTRACTOR SHALL ALSO NOTIFY THE OWNER'S REPRESENTATIVE AT LEAST 72 HOURS BEFORE DIGGING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES AND SERVICES WHICH ARE NOT MARKED OR ARE INCORRECTLY MARKED. THE CONTRACTOR SHALL EXCAVATE BY HAND AS NECESSARY TO LOCATE AND PROTECT EXISTING UTILITIES AND SERVICES. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES OR SERVICES DAMAGED BY THE CONTRACTOR'S OPERATIONS AT NO ADDITIONAL COST TO THE OWNER.
26. THE CONTRACTOR AND/OR SUB-CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE THAT ALL SYSTEMS AND EQUIPMENT HAVE BEEN INSTALLED UNDER AND CONTRACT OWNER'S PROPERLY, PRIOR TO THE FINAL INSPECTION/ACCEPTANCE. PROVIDE THE OPERATING AND MAINTENANCE MANUALS AS REQUIRED.
27. THE RESPONSIBILITY FOR THE SUBMITTED WORK DOES NOT CEASE BY CERTIFICATION SHALL BE APPROVED BY OWNER'S REPRESENTATIVE AND DRAWINGS PRIOR TO ANY CHANGES BEING MADE. THE OWNER'S BY RECORD SHALL HAVE BEEN FULL SUBMIT CHANGES TO OWNER'S REPRESENTATIVE AND ANY ASSOCIATED WORK AUTHORITY.

THE CONTRACTOR SHALL KEEP ON "AS-BUILT" MARKED-UP PRINTS OF THE APPROVED DRAWINGS. SUCH PRINTS SHALL BE KEPT AT THE JOB SITE AND SHALL BE AVAILABLE TO THE OWNER'S REPRESENTATIVE FOR REVIEW AT ALL TIMES. THE CONTRACTOR SHALL NOTE ON THESE PRINTS ALL CHANGES IN THE WORK WHICH ARE MADE DURING THE COURSE OF CONSTRUCTION. THESE MARKINGS SHALL BE MADE AS THE WORK IS INSTALLED. "AS-BUILT" DRAWINGS SHALL BE KEPT UP TO DATE. "AS-BUILT" DRAWINGS SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE AT THE COMPLETION OF THE PROJECT. FINAL PAYMENT WILL ALSO BASE THE FOLLOWING AS APPLICABLE:

- MECHANICAL TO BE AS-BUILT
- ELECTRICAL AS-BUILT
- UNDERGROUND FUEL LINE AS-BUILT
- UNDERGROUND FIELD CABLE AS-BUILT
- UNDERGROUND ELECTRICAL AS-BUILT

28. THE OWNER'S REPRESENTATIVE SHALL PROVIDE A CERTIFICATE OF COMPLETION AND APPROVE FINAL PAYMENT FOR ALL PLUMBING WORK AND SHALL DIRECTLY NOTIFY INTERESTED PARTIES. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING WHEN THE WORK IS COMPLETED AND READY FOR INSPECTION. THE CONTRACTOR SHALL SIGN A CERTIFICATE OF COMPLETION FROM THE OWNER'S REPRESENTATIVE, AFTER FINAL INSPECTION, STATING THAT THE WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THAT THE ENTIRE SYSTEM HAS BEEN TESTED AND IS READY FOR OPERATION. THE CERTIFICATE SHALL BE SIGNED BY THE CONTRACTOR AND THE OWNER'S REPRESENTATIVE BEFORE THE FINAL PAYMENT SHALL BE MADE.

SITEWORK

SITEWORK AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL ALSO CONFORM TO LATEST EIA APPLICABLE CODES AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO THE LATEST AND APPLICABLE ANSI/TIA-222 STANDARD.

1. ALL ANTENNA SUPPORTS AND FOUNDATIONS MANUFACTURED SHALL BE INSTALLED WITH SUITABLE NUTS AND BOLTS AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND GROUNDING.
3. ALL CABLES SHALL BE GROUNDED WITH GROUND CABLE GROUNDING KITS, FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
   a. GROUNDING AT THE ANTENNA LEVEL
   b. GROUNDING AT THE LOWER ANTENNA WHERE THE CABLE BEND RADIUS IS LESS THAN 90°, VERTICAL CABLE GROUNDING REQUIRED.
   c. GROUNDING AT BASE OF TOWER PRIOR TO CABLE HORIZONTAL.
   d. GROUNDING BEFORE THE EQUIPMENT BUILDING AT ENTRY POINT.
   e. GROUNDING WHERE THE EQUIPMENT BUILDING AT THE ENTRY POINT.
4. ALL PROPOSED GROUNDING AND BONDING ARE TO BE CONNECTED TO THE EXISTING GROUND SYSTEM INCLUDING BUT NOT LIMITED TO A MINIMUM OF 4'-0" DEEP GROUNDING ROD, TERMINATION BAR OR EQUIVALENT OR COMPARISON.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE GROUND AND THE SOIL EXCAVATION TO THE CORRECT SHAPE AND VOLUME PRIOR TO INSTALLATION.
6. ALL CONNECTIONS FOR GROUND, SUPPORTS, BRACKETS, ETC. SHALL BE INSTALLED PER THEIR MANUFACTURER'S SPECIFICATIONS & RECOMMENDATIONS.
7. CONTRACTOR SHALL ACCOMMODATE THE EXISTING STRUCTURAL AND FOUNDATION DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPORT ANTENNAS, RUNS, CONDUITS, AND ZONE DISTRIBUTION, MAKE AND MODELS PRIOR TO INSTALLATION.
9. CONTRACTOR SHALL ACCOMMODATE THE EXISTING STRUCTURAL ANALYSIS/CODES DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
10. ALL CHANGES OF DIRECTIONS/CONNECTIONS SHALL BE ACCOMMODATED, EXCEPT THE SIZE DIMENSIONS, LOOK ALIKE, NOT AFFECT INSTALLATION AND FINAL DIMENSIONS BUT MUST BE MIN. THIS SHALL HAVE A DEVIATION OF ONE—HALF INCH (1/2") BECAUSE OF THE SITE WORK AND EACH CASE MUST SHALL BE GRANTED THESE THESE RECOMMENDATIONS SHALL BE SUBMITTED WITHOUT ADDITIONAL BUYER, BUILDING OR NOT ALLOWED.
11. IF REQUIRED TO PAINT ANTENNA AND/OR CASE
   a. TEMPERATURE SHALL BE ABOVE 70° F.
   b. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/MANAGER.
   c. NON REGULATED MARKER, POLYPIC APPROVED PAINT IS REQUIRED.
   d. DO NOT PAINT OVER COLOR CODING OR OR COMPANY MODEL NUMBERS.
12. PRIOR TO BEGINNING ANTENNA ASSEMBLY AND SUBMITTAL, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA BRACKET FOR DISTANCES AND ENSURE THAT THE ANTENNA PLANES MATCHES LOCATIONS SHALL BE WITHIN THESE THAT WORK MUST BE REJECTED WITHIN +/- 5%. ANTENNA DIRECTION SHALL BE WITHIN +/- 5.0.
13. ALL ANTENNA MOUNTS ON ANY ANTENNA SHALL BE COMPLETED WITH A 12'-0x4' LOAD TO ENSURE DISTANCES MAINTAIN AT DISTANCE.
14. ANTENNA SHALL BE STRONG ENOUGH, STABLE, AND FIRMLY BE MANUFACTURED TO WITHSTAND, MINIMUM, A 90 MPH, FIRST SUSTAINED SPEED (3/4" GUST) WITH ICE LOADING OF 1/2" RADIAL ICE LOADING WITHOUT FAILURE AND SHALL BE 40'-0" OR GREATER FOR PROTECTION.
15. BUILDER SHOP MODEL OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURER RECOMMENDATIONS.
16. CONTRACTOR TO SUBMIT ALL REQUIRED LOCATIONS OF SWITCHES, PRIOR TO ORDERING MATERIALS.
17. CONTRACTOR TO TAG EACH CABLE AT BOTH ENDS WITH ANTENNA DESIGNATION AS REQUIRED BY CONSTRUCTION DRAWINGS.

NOTES

1. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, DURABLE CABLE TRAYS, OR CABLE RUNS WITH SUFFICIENT SUPPORT AT INTERVALS NOT EXCEEDING 4'-0" ON CENTER. THE FIBER OPTIC CABLES SHALL NOT BE SUBJECTED TO EXCESSIVE BENDING, TWISTING, CRUSHING, OR OTHER FORMS OF MECHANICAL STRESS THAT COULD DAMAGE THE FIBERS. THE MINIMUM BEND RADIUS FOR THE FIBER OPTIC CABLES SHALL BE MAINTAINED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO PREVENT SIGNAL LOSS OR DAMAGE. ANY SHARP EDGES OR OBSTRUCTIONS ALONG THE CABLE PATH SHALL BE SMOOTHED OR PROTECTED TO PREVENT DAMAGE TO THE CABLE JACKET. ADDITIONALLY, THE FIBER OPTIC CABLES SHALL BE PROTECTED FROM EXCESSIVE TENSION DURING INSTALLATION, AND THE MAXIMUM PULLING FORCE SPECIFIED BY THE CABLE MANUFACTURER SHALL NOT BE EXCEEDED.
2. ALL COPPER TWISTED PAIR CABLES SHALL BE INSTALLED WITH SUFFICIENT SLACK TO ALLOW FOR FUTURE MAINTENANCE AND REPAIRS. THE CABLES SHALL BE SECURED TO THE CABLE TRAY OR OTHER SUPPORT STRUCTURE USING APPROPRIATE CABLE TIES OR STRAPS, ENSURING THAT THEY ARE NOT OVERTIGHTENED TO AVOID DAMAGING THE CABLE JACKET. THE CABLES SHALL BE ROUTED AWAY FROM POTENTIAL SOURCES OF ELECTROMAGNETIC INTERFERENCE, SUCH AS POWER CABLES OR FLUORESCENT LIGHTING FIXTURES, TO MINIMIZE SIGNAL DEGRADATION. ADDITIONALLY, THE COPPER TWISTED PAIR CABLES SHALL BE TERMINATED ON APPROPRIATE PATCH PANELS OR CONNECTING HARDWARE, WITH EACH CONDUCTOR PROPERLY PUNCHED DOWN OR CRIMPED TO ENSURE A RELIABLE CONNECTION. THE TERMINATION PROCESS SHALL ADHERE TO THE TIA/EIA-568 STANDARD FOR COMMERCIAL BUILDING TELECOMMUNICATIONS CABLING, WHICH SPECIFIES THE CORRECT WIRE PAIRING AND COLOR CODING SCHEMES. FINALLY, THE INSTALLATION SHALL BE THOROUGHLY TESTED AND CERTIFIED TO VERIFY THAT ALL CABLES MEET THE REQUIRED PERFORMANCE STANDARDS FOR BANDWIDTH, ATTENUATION, AND CROSSTALK, ENSURING RELIABLE DATA TRANSMISSION ACROSS THE NETWORK.
3. ALL FIBER OPTIC AND COPPER CABLES SHALL BE CLEARLY AND PERMANENTLY LABELED AT BOTH ENDS AND AT REGULAR INTERVALS ALONG THEIR ROUTE TO FACILITATE EASY IDENTIFICATION AND TROUBLESHOOTING. THE LABELS SHALL INCLUDE UNIQUE ALPHANUMERIC IDENTIFIERS THAT CORRESPOND TO THE CABLE'S DESIGNATION IN THE NETWORK DOCUMENTATION. ADDITIONALLY, THE LABELS SHALL BE DURABLE AND RESISTANT TO FADING, SMEARING, AND ACCIDENTAL REMOVAL, ENSURING THAT THE CABLE INFORMATION REMAINS LEGIBLE THROUGHOUT THE LIFE OF THE INSTALLATION. THE LABELS SHALL BE PLACED IN A CONSISTENT AND EASILY ACCESSIBLE LOCATION, SUCH AS NEAR THE CABLE ENTRY POINTS INTO EQUIPMENT RACKS OR PATCH PANELS, TO FACILITATE QUICK AND EFFICIENT IDENTIFICATION DURING MAINTENANCE OR TROUBLESHOOTING EFFORTS.
4. ALL FIBER OPTIC CABLES SHALL BE TESTED AND CERTIFIED BY A QUALIFIED TECHNICIAN USING APPROPRIATE TESTING EQUIPMENT TO ENSURE THAT THEY MEET THE REQUIRED PERFORMANCE STANDARDS FOR ATTENUATION AND BANDWIDTH. THE TESTING PROCESS SHALL INCLUDE BOTH INSERTION LOSS AND OPTICAL TIME-DOMAIN REFLECTOMETER (OTDR) TESTS TO IDENTIFY ANY POTENTIAL ISSUES SUCH AS BREAKS, BENDS, OR EXCESSIVE CONNECTOR LOSS. THE RESULTS OF THESE TESTS SHALL BE DOCUMENTED AND PROVIDED TO THE OWNER AS PART OF THE FINAL PROJECT DELIVERABLES, ENSURING THAT THE INSTALLATION MEETS ALL SPECIFIED REQUIREMENTS BEFORE BEING PUT INTO SERVICE.

PLANS ARE NOT TO BE SCALED.

ORIGINAL SIZE IN INCHES

THE UNIVERSITY OF RHODE ISLAND

No.	Date	Revision	Approved
0	5/14/2024	ISSUED FOR BID	
1	5/17/24	ISSUED FOR PERMIT	
2	6/14/2024	REVISED FOR PERMIT	
3	8/26/24	REVISED FOR PERMIT	

DRAWING CONTROL

Designed by	MB	Drawn by	MP	Checked by	D
Revisions		Reviewed by		Date	
For Approval					
For Review					
For Permit					
For Construction					

Tectonic

TECTONIC ENGINEERING & SURVEYING CONSULTANTS, P.C.
Engineering Consultants, Inc.
Portland Corporate Center, 1210 Route 9, Wappingers Falls, NY 12590
Phone: (845) 297-0650, (800) 724-1897
www.tectonicengineering.com

EDWARD MICELI — No. 20178 — REGISTERED PROFESSIONAL ENGINEER — STATE OF RHODE ISLAND

GENERAL/STR NOTES, TESTING & INSPECTIONS

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

Date	Work Order	Drawing No.	Rev.
5/14/2024	12417.01	T002	3
Scale: AS NOTED			

SPECIAL INSPECTIONS REQUIRED

REQUIRED SUBMITTALS

TESTING PROCEDURES REQUIRED

DESIGN CRITERIA

FOUNDATION DESIGN DATA

DELEGATED DESIGN

NFPA NOTES

FOUNDATION NOTES

STRUCTURAL STEEL NOTES

PLANS ARE NOT TO BE SCALED.

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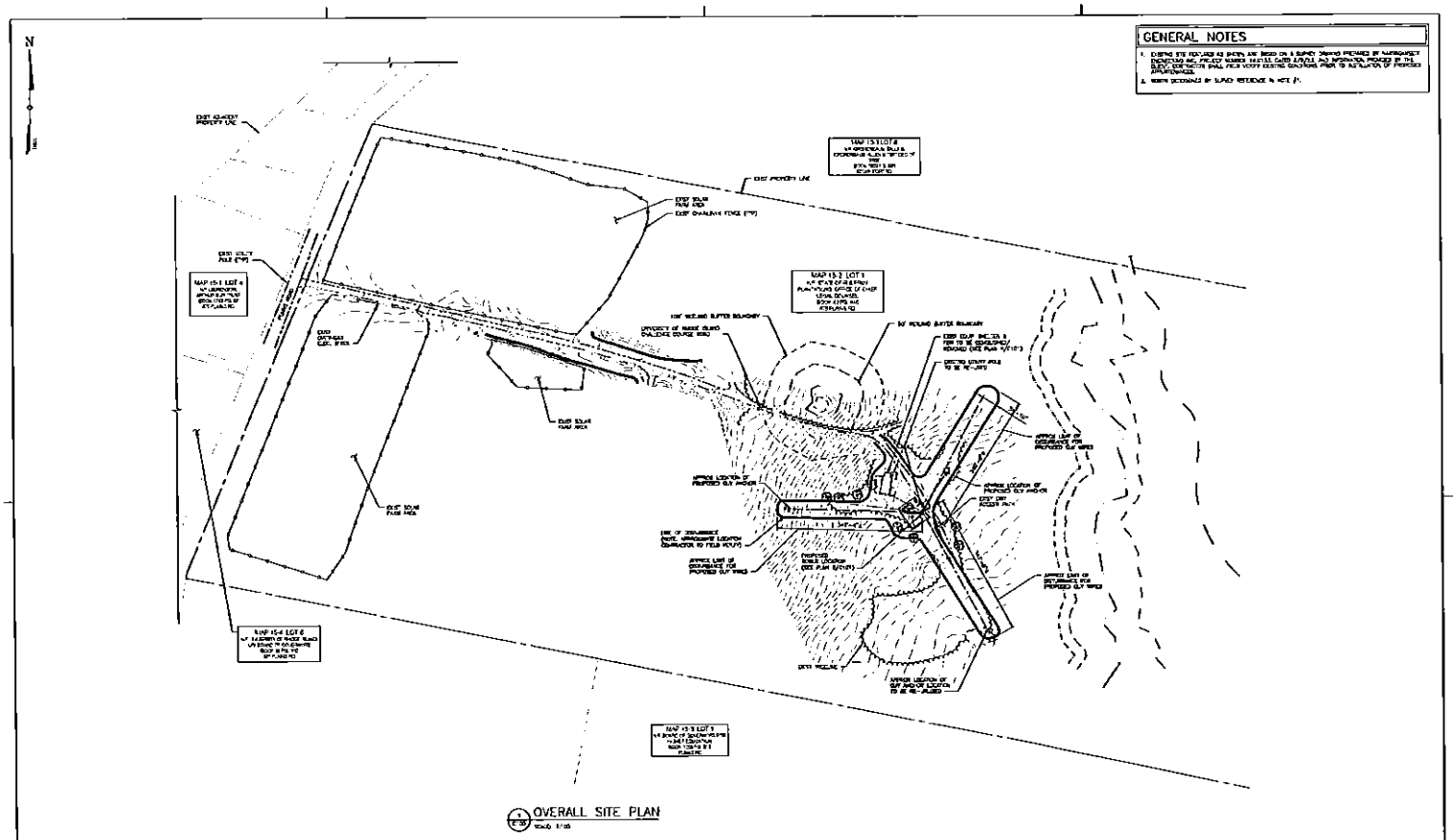
FOUNDATION NOTES, LEGEND & ABBREVIATIONS

PROPOSED GUYED TOWER
675 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

	12117.01	T003	3



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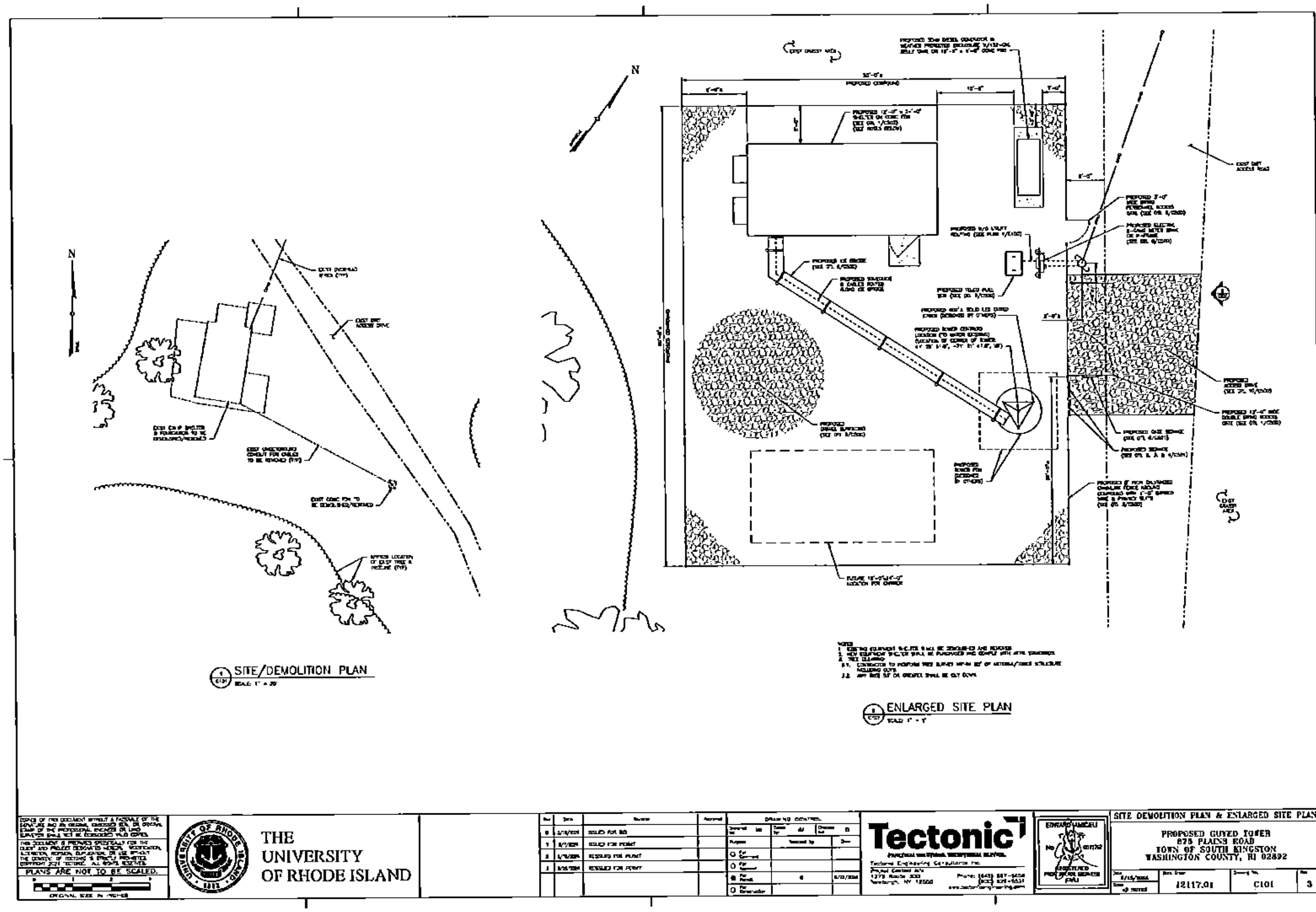
OVERALL SITE PLAN

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

12117.01 | C100 | 0


SITE/DEMOLITION PLAN
ENLARGED SITE PLAN
PLANS ARE NOT TO BE SCALED.
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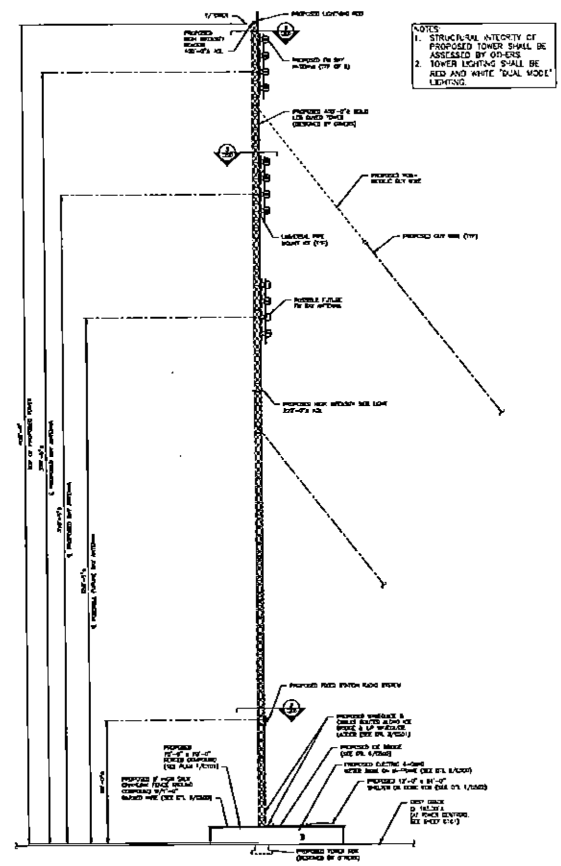
SITE DEMOLITION PLAN & ENLARGED SITE PLAN
PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892
12117.01
C101
3

NOTES:
1. STRUCTURAL INTEGRITY OF PROPOSED TOWER SHALL BE ASSESSED BY OTHERS.
2. TOWER LIGHTING SHALL BE RED AND WHITE "DUAL MODE" LIGHTING.

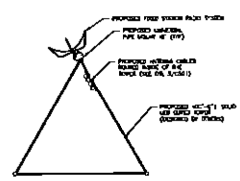


TOWER ELEVATION

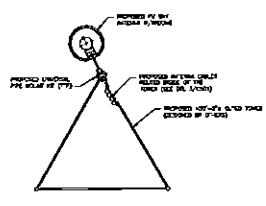
PROPOSED ANTENNA/CABLE CONFIGURATION SCHEDULE

MOUNT LEVEL (FT)	ELEVATION [illegible]	NUMBER OF ANTENNAS	ANTENNA TYPE	ANTENNA TYPE	NUMBER OF FEED LINES	FEED LINE TYPE
[illegible]	[illegible]	1	FM ANTENNA [illegible]	[illegible]	1	1-5/8" FEEDLINE
[illegible]	[illegible]	1	FM ANTENNA [illegible]	[illegible]	1	1-5/8" FEEDLINE
[illegible]	[illegible]	1	POSSIBLE FUTURE FM ANTENNA [illegible]	[illegible]	1	1-5/8" FEEDLINE
[illegible]	[illegible]	1	FIXED STATION RADIO SYSTEM	[illegible]	1	1/2" FEEDLINE

NOTES:
1. [illegible]
2. SEE SPECIFICATIONS FOR ANTENNA TYPE AND INFORMATION.



FIXED STATION RADIO SYSTEM @ 60'-0" LEVEL



FM BAY ANTENNA PLAN (TYP)

PLANS ARE NOT TO BE SCALED.

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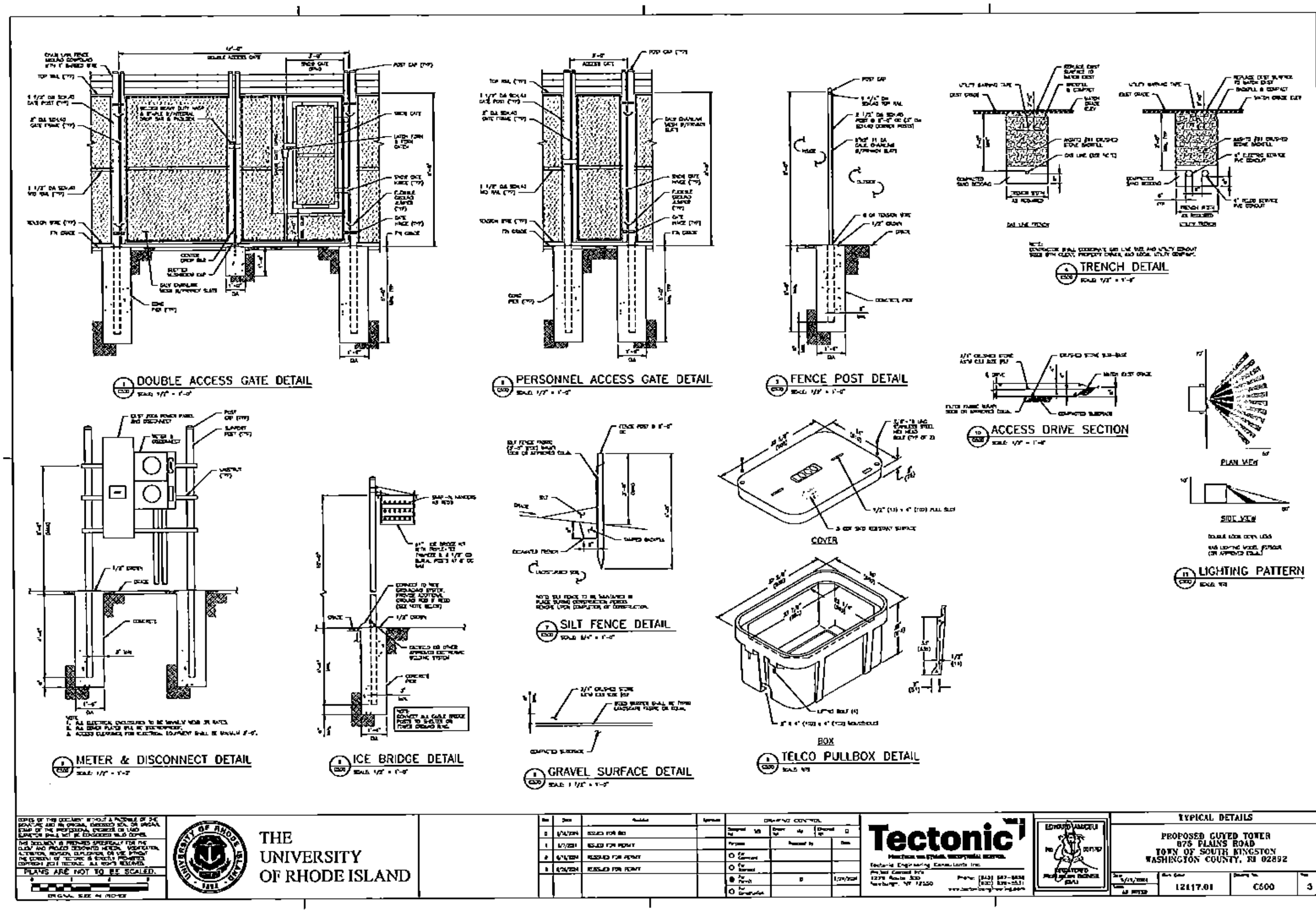
TOWER ELEVATION & OMNI ANTENNA PLANS

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

Work Order	Drawing No.	Rev.
12117.01	C200	3


DOUBLE ACCESS GATE DETAIL
PERSONNEL ACCESS GATE DETAIL
FENCE POST DETAIL
TRENCH DETAIL
ACCESS DRIVE SECTION
PLAN VIEW
SIDE VIEW
LIGHTING PATTERN
METER & DISCONNECT DETAIL
ICE BRIDGE DETAIL
SILT FENCE DETAIL
COVER
BOX
GRAVEL SURFACE DETAIL
TELCO PULLBOX DETAIL
PLANS ARE NOT TO BE SCALED.
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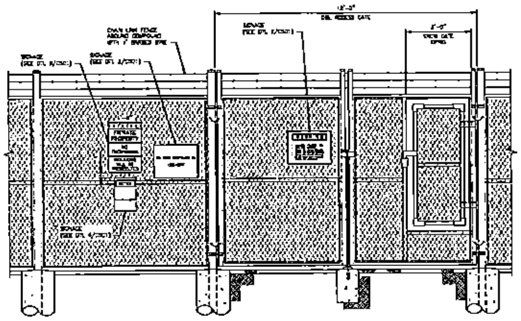
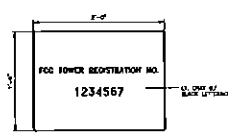
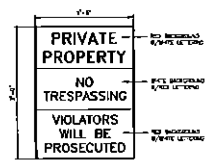
TYPICAL DETAILS
PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892
12117.01
C500
3



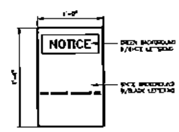
1 C601 SIGNAGE ELEVATION
SCALE: N.T.S.



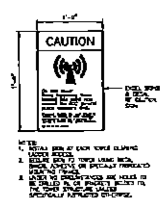
2 C601 FCC REGISTRATION SIGN
SCALE: N.T.S.



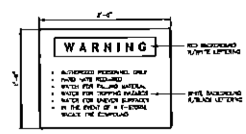
3 C601 NO TRESPASSING SIGN
SCALE: N.T.S.



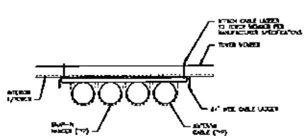
4 C601 NOTICE-RFE SIGN
SCALE: N.T.S.



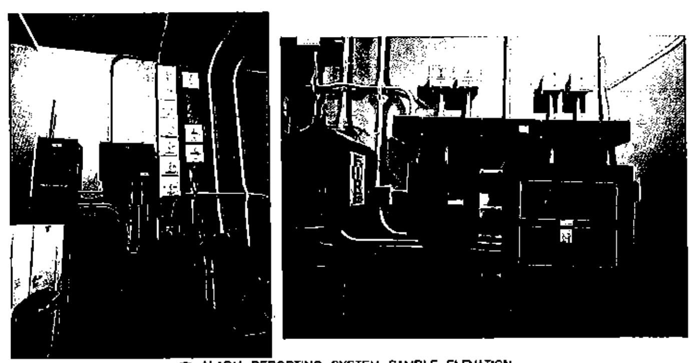
5 C601 RF CAUTION SIGN
SCALE: N.T.S.



6 C601 CAUTION-HARD HAT CONSTRUCTION AREA AND TRIPPING HAZARDS
SCALE: N.T.S.



7 C601 CABLE LADDER DETAIL
SCALE: N.T.S.



8 C601 ALARM REPORTING SYSTEM SAMPLE ELEVATION
SCALE: N.T.S.

PLANS ARE NOT TO BE SCALED.

THE UNIVERSITY OF RHODE ISLAND

Tectonic
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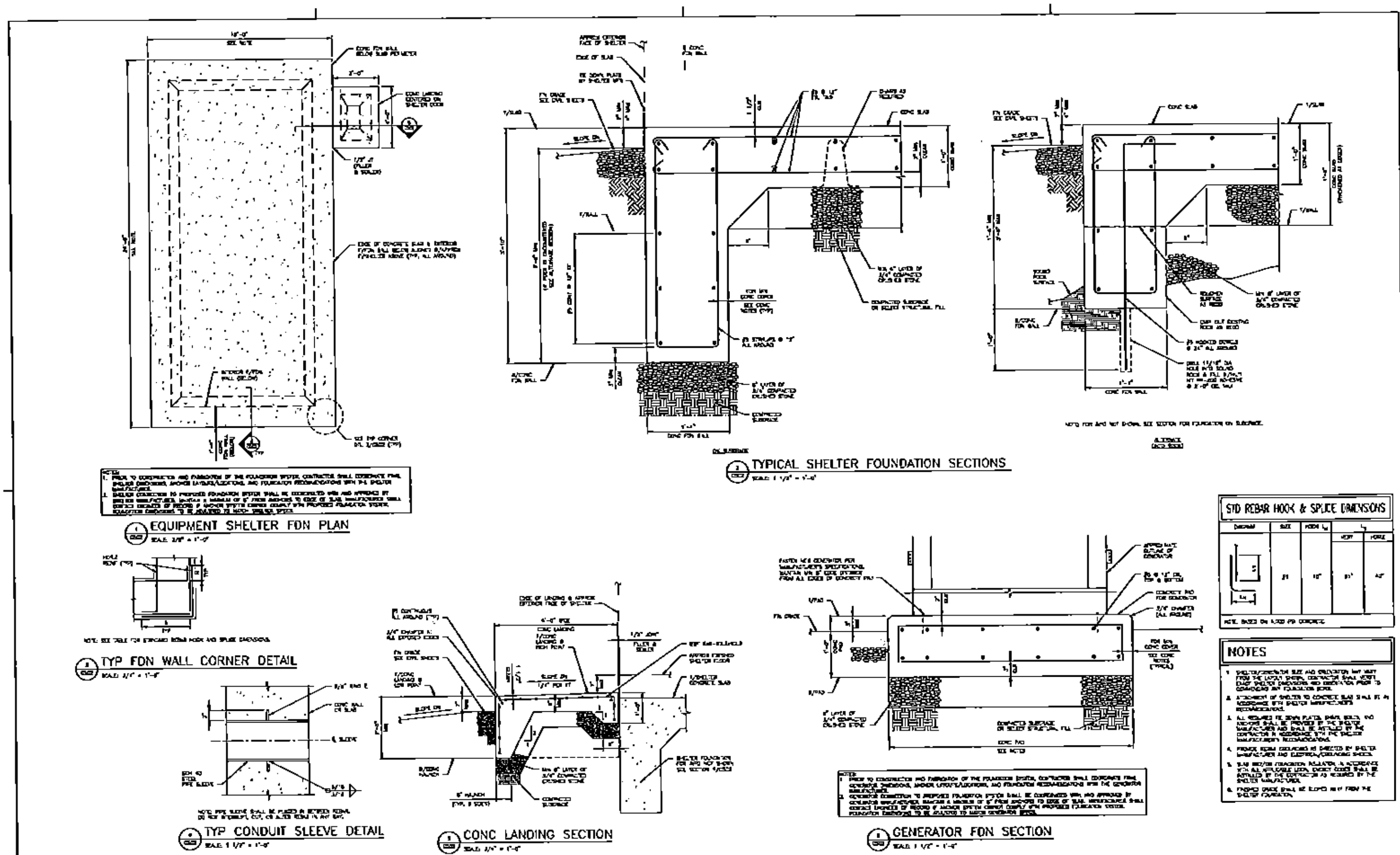
EDWARD VANCELI
REGISTERED PROFESSIONAL ENGINEER

SIGNAGE ELEVATION & DETAILS

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

Work Order	Drawing No.	Rev.
12117.01	C601	3



PLANS ARE NOT TO BE SCALED.

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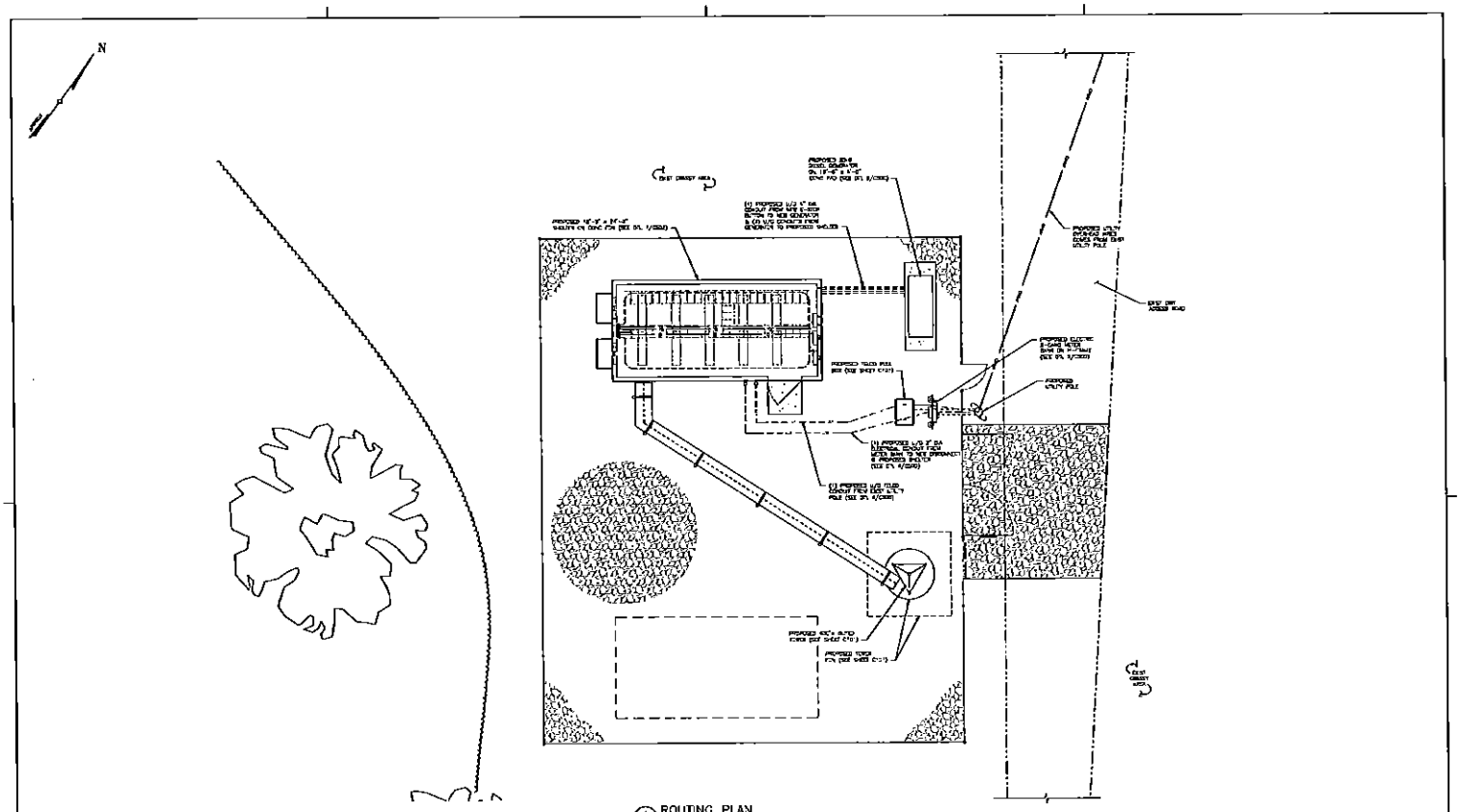
STRUCTURAL PLANS, SECTIONS, & DETAILS

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

12117.01 | C502 | 3



ROUTING PLAN
SCALE: 1/8

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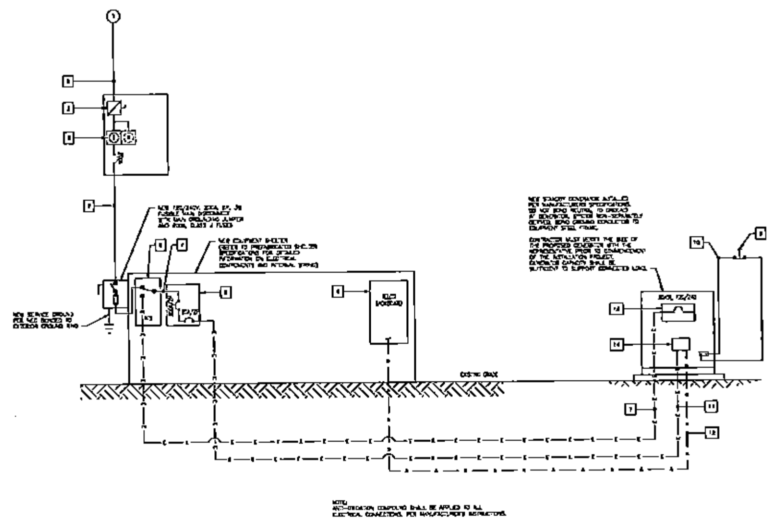
CENTEK engineering
Centered on Solutions

Tectonic

ROUTING PLAN

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

12117.01 | E100 | 2



RISER DIAGRAM

KEY NOTE LEGEND

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Centered on Solutions

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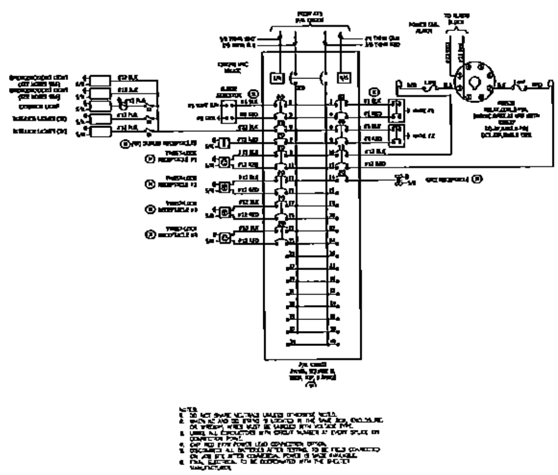
RISER DIAGRAM & NOTES

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

AS NOTED	12117.01	E101	2



1 PRELIMINARY PANEL "A" WIRING SCHEMATIC

SCALE: N/S

PLANS ARE NOT TO BE SCALED.

THE UNIVERSITY OF RHODE ISLAND

CENTEK engineering

Centered on Solutions

Tectonic

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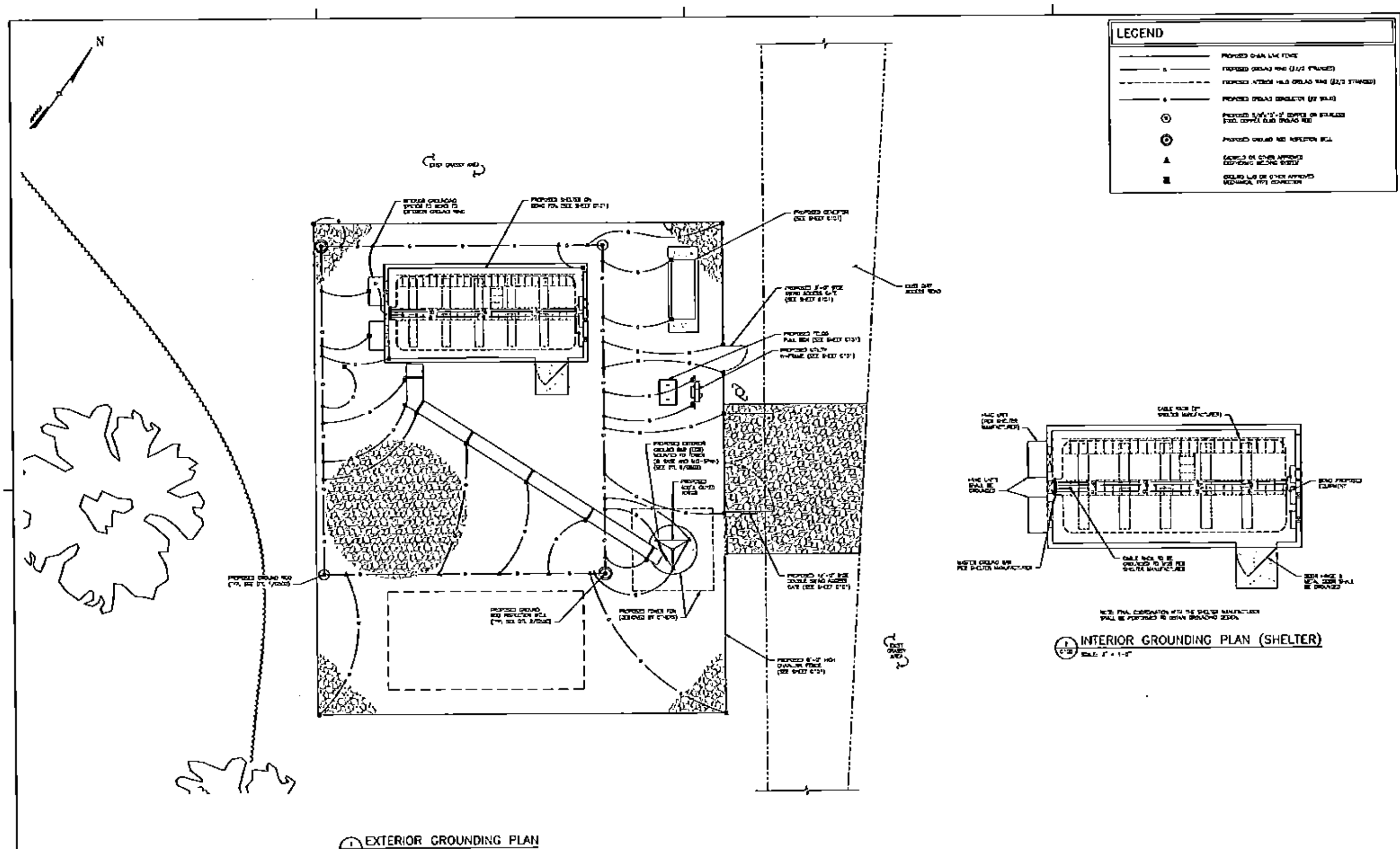
PRELIMINARY WIRING SCHEMATICS

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

Work Order	Drawing No.	Rev
12117.01	E102	2



PLANS ARE NOT TO BE SCALED.

THE UNIVERSITY OF RHODE ISLAND

CENTEK engineering

Tectonic

GROUNDING PLANS & NOTES

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

12117.01 | G100 | 2

GROUNDING NOTES

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]
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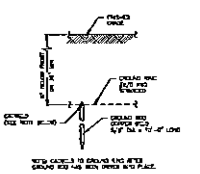
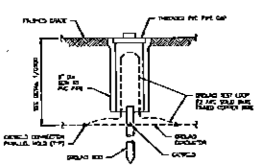
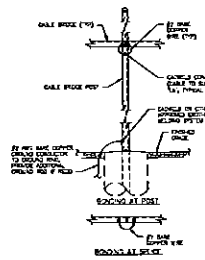


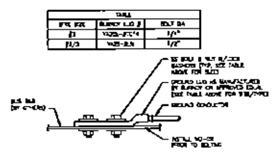
1 GROUND ROD DETAIL



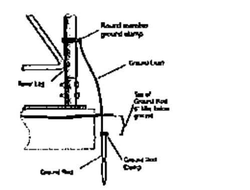
2 GROUND INSPECTION WELL



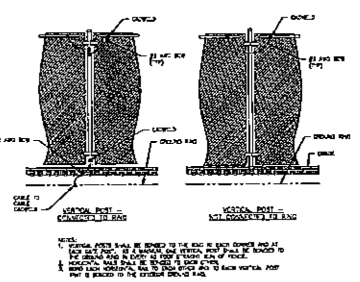
3 CABLE BRIDGE BONDING DETAIL



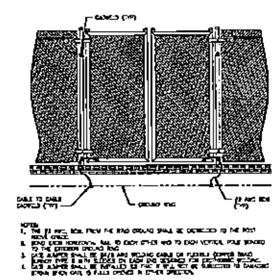
4 LUG GROUND CONNECTION



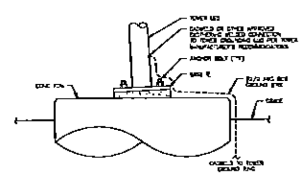
5 TOWER BASE GROUND CONNECTION



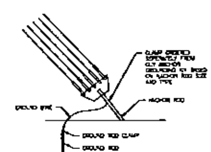
6 FENCE GROUNDING DETAIL



7 GATE GROUNDING DETAIL



8 TOWER LEG GROUNDING DETAIL



9 GUY ANCHOR GROUND CONNECTION

PLANS ARE NOT TO BE SCALED.

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GROUNDING DETAILS & NOTES

PROPOSED GUYED TOWER
675 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

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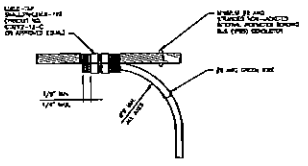
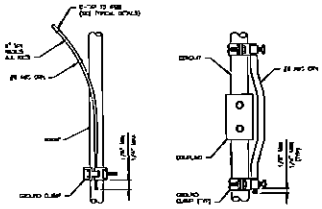
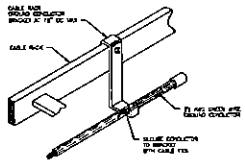


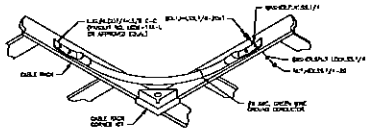
IPBB CONDUCTOR RING GROUND TAP



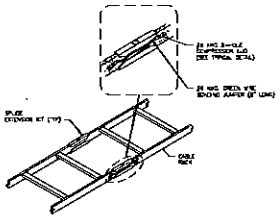
CONDUIT BOND DETAILS



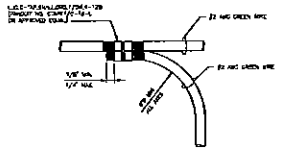
CABLE RACK BRACKET FOR GROUND WIRE



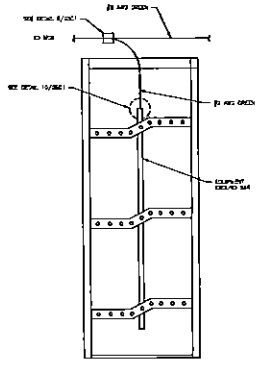
CABLE RACK BONDING AT CORNER



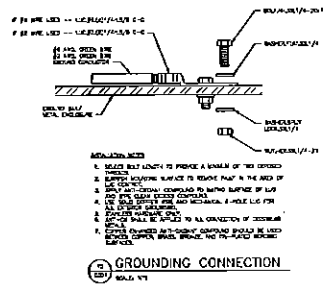
CABLE RACK BONDING AT SPLICE



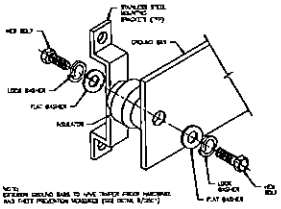
EQUIPMENT GROUND TAP



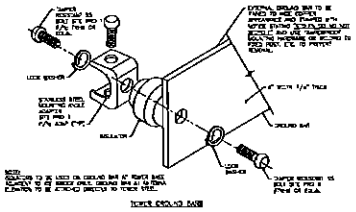
EQUIPMENT GROUNDING ELEVATION



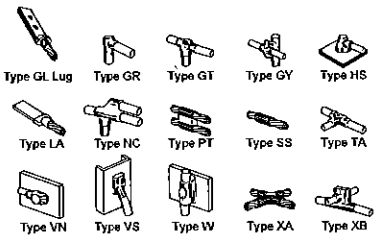
GROUNDING CONNECTION



GROUND BAR WALL INSTALLATION



GROUND BAR TOWER INSTALLATION DETAIL



EXOTHERMIC (CADWELD) DETAILS

PLANS ARE NOT TO BE SCALED.

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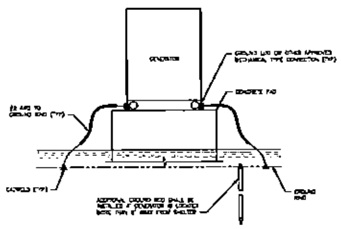
GROUNDING DETAILS

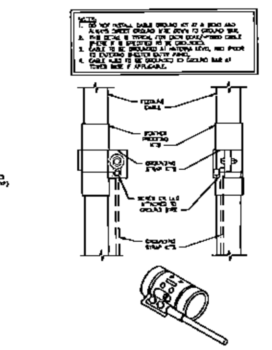
PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

12117.01 | G501 | 2



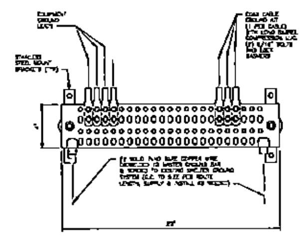
GENERATOR GROUNDING DETAIL

SCALE: N.T.S.



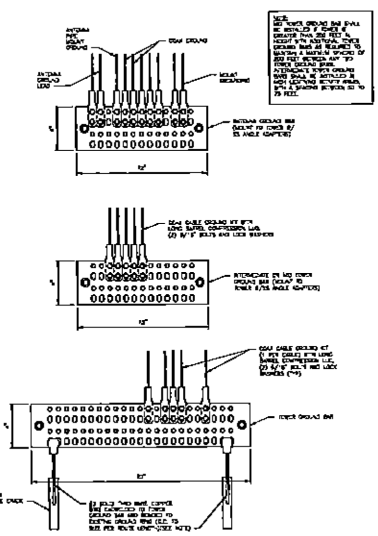
COAX CABLE GROUND KIT DETAIL

SCALE: N.T.S.



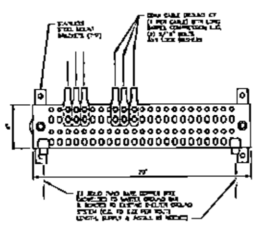
INTERIOR GROUND BAR (IGB)

SCALE: N.T.S.



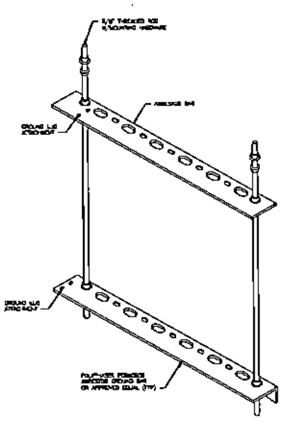
ANTENNA GROUND BAR (AGB)
MID GROUND BAR (MGB)
& TOWER GROUND BAR (TGB)

SCALE: N.T.S.



EXTERIOR GROUND BAR (EGB)

SCALE: N.T.S.



POLYPHASER SURGE ARRESTOR RACK DETAIL

SCALE: N.T.S.

PLANS ARE NOT TO BE SCALED.

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GROUNDING DETAILS

PROPOSED GUYED TOWER
875 PLAINS ROAD
TOWN OF SOUTH KINGSTON
WASHINGTON COUNTY, RI 02892

Work Order	Drawing No.	Rev
12117.01	C502	2

THE
UNIVERSITY
OF RHODE ISLAND
DIVISION OF
ADMINISTRATION
AND FINANCE

PURCHASING DEPARTMENT
210 Flagg Road, Kingston, RI 02881 USA p: 401.874.2171 f: 401.874.2508 uri.edu/strategic-procurement/purchasing/

THINK BIG WE DO"

NON - MANDATORY PRE-BID CONFERENCE SIGN-IN SHEET

11:18 am

BID NUMBER:	101448	PURCHASING REPRESENTATIVE:	Andrea Boucher
BID TITLE:	Construction of New 400' Radio Tower & Transmitter Building		
LOCATION:	210 Flagg Road, 1st Floor, Large Conference Room, Kingston, RI 02881		
PRE BID DATE AND TIME:	1/10/25 at 11:00 AM		

Company Name:	Representative:	Email Address:	Phone Number
URI - Purchasing	Andrea Boucher	andrea.boucher@uri.edu	401-874-9133
PATRIOT TOWERS INC.	SHAWN SIMMONS	RFP@PATRIOTTOWERS.com	585.889.3591
PNS/Pyramid	Mike D: Monda	MD:monda@PYRamidns.com	518 366-5679
TECTONIC ENG.	GREG LAMEY	glamey@tectonicengineering.com	914 475-4950
E W Burman	Joshua Moniz	ESTimating@EWBurman.com	401-738-5400
URI - OCP	Kyle Coleman	kycoleman@uri.edu	617 855 9530