

VILLAGE OF DOWNERS GROVE
Report for the Village Council Meeting
10/11/2016

SUBJECT:	SUBMITTED BY:
License Agreements to install, maintain and operate antenna equipment on Village property	Enza Petrarca Village Attorney

SYNOPSIS

Resolutions have been prepared authorizing approval of a License Agreement with both the DuPage Amateur Radio, Inc. and xWAVE Communications, LLC to install, maintain and operate antenna equipment on Village property.

STRATEGIC PLAN ALIGNMENT

The goals for 2015-2017 include *Steward of Financial, Environmental and Neighborhood Sustainability*.

FISCAL IMPACT

Approval of the proposed xWAVE Communications, LLC agreement would result in the Village collecting \$4,000 in monthly license fees, with a 4% increase each year thereafter.

RECOMMENDATION

Approval on the October 11, 2016 consent agenda.

BACKGROUND

xWAVE Communications, LLC is a provider of digital communications in the Chicagoland area. xWAVE contacted the Village concerning its desire to enter into a license agreement with the Village to operate microwave dishes on the Village's water tower located at 1037 Summit. It was determined that the existing DuPage Amateur Radio Club antenna interfered with the installation of xWAVE's equipment. DuPage Amateur Radio has agreed (at the expense of xWAVE) to relocate their equipment to the 71st & Camden tower. License agreements for the installation of equipment have been prepared for both sites.

DuPage Amateur Radio Club has operated an antenna on Village property at no cost since 1987. The original antenna was located at 5401 Main Street and relocated to the Summit site when the fire station was reconstructed in 2007. The communications system operated by the DuPage Amateur Radio Club will serve as backup to the Village's emergency communications system in the event of a catastrophic communications systems failure. During certain emergency conditions these facilities would directly serve the health, safety, and welfare of Village residents. Additionally, the facilities operated by the Club serve the public interest in a variety of ways including the reporting of severe weather emergencies to the National Weather Service and functioning as the communications system provider for local events such as the Bonfield Express and South DuPage CROP Walk.

The proposed license agreements would commence upon the issuance of a building permit and be in effect for two 5-year terms ending on December 31, 2026. Approval of the proposed xWAVE agreement would result in the Village collecting \$4,000.00 in monthly license fees, with a four percent increase in each year thereafter. DuPage Amateur Radio club will continue to operate without monthly rental fees to the Village.

ATTACHMENTS

DuPage Amateur Radio Resolution & Agreement
xWAVE Communications Resolution & Agreement

RESOLUTION NO. _____

**A RESOLUTION AUTHORIZING EXECUTION OF A LICENSE AGREEMENT
BETWEEN THE VILLAGE OF DOWNERS GROVE
AND xWAVE COMMUNICATIONS, LLC
TO INSTALL, MAINTAIN AND OPERATE ANTENNA
EQUIPMENT ON VILLAGE PROPERTY**

BE IT RESOLVED by the Village Council of the Village of Downers Grove, DuPage County, Illinois as follows:

1. That the form and substance of a certain License Agreement ("Agreement"), between the Village of Downers Grove ("Village") and xWAVE Communications, LLC ("Licensee") for the maintenance and operation of antenna equipment on Village property located at 1037 Summit, Downers Grove, IL, as set forth in the Agreement submitted to this meeting with the recommendation of the Village Manager, is hereby approved.
2. That the Village Manager and Village Clerk are hereby respectively authorized and directed for and on behalf of the Village to execute, attest, seal and deliver the Agreement, substantially in the form approved in the foregoing paragraph of this Resolution, together with such changes as the Manager shall deem necessary.
3. That the proper officials, agents and employees of the Village are hereby authorized and directed to take such further action as they may deem necessary or appropriate to perform all obligations and commitments of the Village in accordance with the provisions of the Agreement.
4. That all resolutions or parts of resolutions in conflict with the provision of this Resolution are hereby repealed.
5. That this Resolution shall be in full force and effect from and after its passage as provided by law.

Mayor

Passed:

Attest: _____
Village Clerk

Site: 1037 Summit

**LICENSE AGREEMENT BETWEEN THE VILLAGE OF DOWNERS
GROVE AND xWAVE COMMUNICATIONS, LLC TO INSTALL,
MAINTAIN AND OPERATE ANTENNA EQUIPMENT
ON VILLAGE PROPERTY LOCATED AT 1037 SUMMIT**

WITNESSETH

WHEREAS, the Village of Downers Grove (hereinafter referred to as the "Village") is an Illinois municipal corporation and a home rule unit, pursuant to the laws of the State of Illinois; and

WHEREAS, the Village is the owner and lessor of certain real estate located at 1037 Summit, Downers Grove, Illinois (the "Property"), upon which is located a Village Water Tower (hereinafter referred to as the "Tower"); and

WHEREAS, xWave Communications, LLC (hereinafter referred to as the "Licensee") has requested permission to install communications antenna (hereinafter referred to as the "Antenna") on the top of the Tower (the "Tower Space") and certain related equipment on the ground (the "Ground Space"); and

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions, the Village and the Licensee agree as follows:

1. **CONTRACT DOCUMENTS:** The provisions set forth in the preamble and the following exhibits are incorporated into and made a part of this Agreement:

- a. **Exhibit 1** - Site map(s) of the Property (or upgrades thereto), as amended from time to time and approved by the Village, showing the Tower Space and the Ground Space, together with the areas on the Property licensed to Licensee to provide access and utility service to the Ground Space (collectively the "Licensed Premises") which includes location of any proposed underground utilities necessary for operation of the Antenna.
- b. **Exhibit 2** - Plans and specifications (or upgrades thereto), as amended from time to time and approved by the Village, for the Antenna and any cables or utility lines installed on the Licensed Premises and the equipment cabinets to be installed on the Licensed Premises and used for housing of the related Antenna equipment (collectively the "Licensee Improvements.")
- c. **Exhibit 3** - Plans and specifications (or upgrades thereto), as amended from time to time and approved by the Village, for the Antenna and any cables or utility lines installed on the Licensed Premises for any sublicensee.

2. **GRANT OF LICENSE:** The Village hereby grants to the Licensee the right, permission and authority to install, operate and maintain Licensee's Improvements upon the terms and conditions hereinafter specified. This Agreement shall not terminate upon the sale, assignment or transfer of the Property, but shall run with the land.

Site: 1037 Summit

3. **SPECIFICATIONS:** The Licensee shall comply with the following specifications:

a. *In general:* During the term of this Agreement, there shall be no substantial variations, modifications, or upgrades from the plans and specifications contained in the attached Exhibits without the prior written approval of the Village, which approval shall not be unreasonably withheld or delayed.

b. The Antenna shall be installed, attached to the Tower, and maintained in conformance with Exhibit 2 and any applicable State and federal requirements. The Antenna shall be located more than ten (10) feet from any existing antenna equipment and shall not exceed seventy-two (72) inches in height.

4. **CONSTRUCTION, INSTALLATION AND MAINTENANCE:** The Licensee may install, repair, maintain, or replace the Antenna, subject to the following conditions:

a. Licensee shall obtain all required permits and authorizations from the Village, in accordance with the applicable ordinances, prior to commencing any work under this Agreement. Such work shall comply with applicable codes and regulations and shall be conducted in a workmanlike manner.

b. Licensee shall obtain all necessary approvals from any regulatory authorities for the operation of the Antenna. Further, the Licensee shall comply with all applicable laws and regulations of such regulatory authorities including, but not limited to the Federal Communications Commission.

c. All costs connected with the installation, maintenance, repair, use and removal of Licensee's Improvements and any related equipment shall be the responsibility of the Licensee.

d. Licensee shall not take any action or allow any action to be done which may impair the use of or damage the Tower.

e. The Licensee may not interfere with the use by the Village, its officers, agents and employees, of the Tower or the Property on which it is located.

f. Licensee shall be entitled to access their equipment Monday through Friday, 7:00am to 3:30pm CST, by contacting the Village Building Services Department at 630/434-5551 (801 Burlington Tower) or the Public Works Department at 630/434-5460 (for all other Towers). If access is required after business hours, on weekends, on a holiday or in the event of an emergency, Licensee shall contact the Village Operations Center at 630/434-5600.

g. The Licensee shall maintain Licensee's Improvements in good repair, and in a clean and sightly condition.

Site: 1037 Summit

h. Upon termination of this Agreement by either party, the Licensee shall, within thirty (30) days and at its expense, remove the Licensee Improvements and restore the Licensed Premises to substantially its original condition, reasonable wear and tear excepted.

i. If Licensee abandons its use of Licensee's Improvements, Licensee shall, within thirty (30) days of receipt of written notice from the Village notifying the Licensee of such abandonment and at its expense, remove the Licensee's Improvements and restore the Tower to substantially its original condition. Licensee's Improvements will be presumed abandoned if it is not operated for a period of one month or more. If Licensee's Improvements are not removed within thirty (30) days, the Village may remove Licensee's Improvements and the Licensee shall reimburse the Village for the costs of such removal.

5. **NON-INTERFERENCE WITH VILLAGE OPERATIONS:** Neither this Agreement nor Licensee's Improvements shall interfere or obstruct the functioning of the Village's operations and services. Licensee warrants that Licensee's Improvements shall be constructed, installed, maintained and operated in such a manner as to not interfere or obstruct any radio or electronic equipment or signals of the Village's radio and data systems. In the event such interference occurs, and the interference cannot be eliminated by Licensee after reasonable efforts, the Village may terminate this Agreement, in accordance with Paragraph 8(b) of this Agreement. Provided after notice to Licensee, the Village may immediately terminate this Agreement, or require that operation of the Antenna or any of Licensee's Improvements be immediately ceased where it determines that the Antenna or Licensee's Improvements present an immediate and serious danger to the public health, welfare or safety due to interference with the operation of the Village's radio and data systems.

6. **TERM:**

a. This Agreement shall have an Initial Term beginning October 15, 2016, or upon the issuance of a building permit, (whichever occurs later), and ending December 31, 2016, and two (2) five-year Extension Terms beginning January 1, 2017, and January 1, 2022. The extension terms shall automatically commence unless either party provides written notice to the other party of its election not to renew the License at least one hundred and twenty (120) days prior to the expiration of the current term. The final date of the agreement shall be December 31, 2026.

b. After January 1, 2022, Licensee may request the Village to enter into negotiations towards renewing or extending this Agreement. Any renewal or extension shall be according to terms that are mutually agreeable and the Village shall not be bound to accept any particular terms or to renew any or all of the rights granted by this Agreement.

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7. **COMPENSATION:**

Upon execution of this agreement, Licensee shall pay to the Village a license fee of \$4,000.00 per month each month of 2016. **Thereafter, effective on the first day of January in each subsequent year during the term of the Agreement, the monthly license fee shall increase in an amount equal to the fee for the preceding year multiplied by 4%.** The monthly fee shall be paid to the Village of Downers Grove, Village Hall, 801 Burlington Avenue, Downers Grove, IL 60515 each month by the 10th of the month.

8. **TERMINATION:** This Agreement may be terminated as follows:

a. Licensee may terminate this Agreement at any time upon sixty (60) days written notice to the Village without further liability if Licensee does not obtain all permits or other approvals required from any governmental authority or any easements required from any third party to operate the PCS system, or if any such approval is canceled, expires or is withdrawn or terminated, or if the Village fails to have proper ownership of the Tower or the Property or authority to enter into this Agreement, or if Licensee, for any other reason, in its sole discretion, determines that it will be unable to use the Tower or the Property, however, if Licensee terminates this Agreement without cause, it shall pay the Village a termination penalty equal to three months of the current rental amount.

b. In the event either party fails to comply with the terms of this Agreement such party shall be considered in default and the non-defaulting party may serve written notice of its intent to terminate this Agreement. Except where the public health or safety is threatened, the notice shall give the defaulting party not less than thirty (30) days to correct such non-compliance. In the event the default is not corrected within thirty (30) days of such notice, the non-defaulting party may terminate this Agreement by serving a written notice of termination. Notwithstanding the preceding, if any default cannot be cured within thirty (30) days and the defaulting party has diligently commenced and continues to take reasonable action necessary to cure the default, the defaulting party shall be entitled to a reasonable extended period of time in order to cure the default.

c. In the event the Tower is destroyed or substantially damaged so as to substantially effect Licensee's use of the Property, this Agreement shall be considered terminated.

9. **TOWER REPAIR/MAINTENANCE:** Upon receiving ninety (90) days notice from the Village that it intends to repair or perform maintenance to the Tower, Licensee shall, at its own expense and in such manner as the Village shall reasonably request, immediately remove, relocate, change or alter the position of Licensee's Improvements. During the term of this Agreement, the Tower may be refurbished and/or painted. Refurbishment and/or painting will take several months to complete (approximately five to eight months). Prior to beginning refurbishment and/or painting, Licensee understands that its Antenna shall be removed from the Tower upon notice from the Village and that the Antenna shall not be reinstalled until the

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refurbishment and/or painting is completed and the Village has approved such reinstallation, which approval shall not be unreasonably withheld, conditioned or delayed. During such period, Licensee may, at its sole cost and expense, install the Antenna on a temporary telephone pole or bring a cell on wheels outside the shrouded area of the tower in a location approved by the Village. However, such temporary arrangement shall not interfere with the refurbishment and/or painting of the tower or with other Village operations on the site. The Village shall not be responsible for any costs of removal, relocation, and reinstallation of the Antenna as a result of the refurbishment and/or painting.

10. RESTORATION: When the Licensee does any work on or affecting the Licensed Premises, it shall, at its own expense, restore the Licensed Premises to as good a condition as existed before the work was undertaken, unless otherwise directed by the Village. If the Licensee fails to restore the Licensed Premises, the Village may, after communications with the Licensee and after affording the Licensee a reasonable opportunity to correct the situation, restore the Licensed Premises, or remove the obstruction therefrom. No such prior written notice shall be required in the event that the Village determines that an emergency situation exists. The Licensee shall pay the Village for any reasonable costs of such restoration within fourteen (14) days after receiving a bill from the Village for such work.

11. UTILITIES: Licensee shall be responsible for obtaining adequate utilities for operation of Licensee's Improvements, including electricity from any source available on the Property as long as the electricity for Licensee's Improvements are separately metered. Any utilities to be installed must be underground and at a location approved by the Village. Licensee shall pay for the electricity or any other utility it consumes in its operations at the rate charged by the servicing utility company and the Village shall not be liable for such charges.

12. TAXES: Licensee is solely responsible for payment of taxes on the leasehold on the Property (PIN # _____) which are assessed as a result of Licensee's Improvements and directly attributable to its use of the Property under the terms of this Agreement. Licensee shall provide a copy of this Agreement to the DuPage County Supervisor of Assessments and shall request and insure that the tax bill for the leasehold is sent directly to Licensee. Licensee shall then pay the taxes owed directly to the County Assessor's Office by the due date indicated on the tax bill. Licensee shall be solely responsible to pay any late fees, interest or penalties if not paid by the due date. Licensee shall have the right, at its own expense and without expense to the Village, to contest by appropriate proceedings, conducted with due diligence and in good faith, the validity of the amount of taxes or reassessment as applicable to the Licensed Premises or the Licensee Improvements. In the event that the Village becomes aware of any tax delinquency and that delinquency is not cured by the Licensee within thirty (30) days from the date the Village sends written notice, the Village shall have the right to remove any of Licensee's equipment and terminate this Agreement.

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All subsequent tax bills shall be sent to:

Licensee:
xWave Communications LLC
540 W. Madison St., Suite 2500
Chicago, IL 60661
Attn: General Counsel

13. INDEMNIFICATION: Licensee shall indemnify, become responsible for and hold harmless the Village, its boards, committees, commissions, officers, agents and employees from any and all liability arising out of the existence of this Agreement; the installation, existence, maintenance or repair of Licensee's Improvements; or any act or omission of Licensee, its officers, agents and employees, except for liability which arises from the Village's or its employees' or agents' negligence or intentional misconduct.

For purposes of this Agreement, the term "liability" includes, but is not limited to: actual or claimed loss or damage to property or injury to or death of persons; actual or claimed responsibility for such loss, damage, injury or death; and any and all judgments, decrees, costs and expenses of every sort and kind of incident to such loss, damage, injury, death or responsibility, including, but not limited to, court costs, fines and attorney's fees.

14. INSURANCE: At all times while this Agreement remains in effect, and in recognition of the indemnification provided in the foregoing Paragraph 13, the Licensee shall, at its own cost and expense, maintain a program of third party liability insurance and/or self-insurance to protect the Village, its officers, employees and agents from any liability for bodily injury, death, and property damage occasioned by the activities of the Licensee under this Agreement.

a. During the Term of the Agreement. Licensee shall procure, pay for and maintain in full force and effect during the entire term of the agreement (i) worker's compensation insurance as required by law and which insures Village against worker's compensation claims arising out of Licensee's activities on the Tower; (ii) fire and casualty insurance covering Licensee's Improvements in an amount not less than one hundred percent (100%) of their actual replacement cost; and (iii) commercial general liability insurance, including broad form property damage insurance for bodily injuries and property damage. Such General Liability Insurance shall include coverage for the premises, operations, underground, collapse, explosion, products and the loss of use, and shall name as Additional Insureds the Village, and its officers, boards, commissions, elected and appointed officials, agents and employees. Such insurance shall be in the amount of One Million Dollars (\$1,000,000.00) per occurrence and Two Million Dollars (\$2,000,000.00) in the aggregate.

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b. **During Construction/Installation.** During construction/installation, Licensee's contractor shall also maintain and provide Village with evidence of each of the insurance coverages specified in subparagraph (a) and in the amounts so specified. In addition, the contractor shall provide builder's risk insurance on an "all risks" basis for one hundred percent (100%) of the insurable value of all construction work in place or in progress from time to time, insuring the project, including materials in storage and while in transit, against loss or damage by fire or other casualty, with extended coverage, vandalism and malicious mischief coverage, bearing a replacement cost agreed amount endorsement.

c. **Policies.** The policy or policies of insurance required by subparagraphs (a) and (b) shall be underwritten by a company or companies authorized to do business in the State of Illinois, shall be reasonably satisfactory to Village, shall name Village as an additional insured and shall be delivered to the Village, together with evidence of the payment of the premiums, prior to the commencement of the term of this Agreement. Licensee or, where applicable, Licensee's contractors shall furnish Village with a written notice of any cancellation, reduction or modification of insurance required under this Section.

15. LIENS: Licensee agrees that it will not permit or suffer any lien to be put upon or arise or accrue against the Property in favor of any person or persons, individual or corporate, furnishing either labor or material in any work herein proposed, and the Licensee further covenants and agrees to hold the Village and its property free from any and all liens, or rights or claim of lien, which may or might arise or accrue under or be based upon any mechanic's lien law of the State of Illinois. If any such lien or claim for lien is filed or recorded against the Property, the Village shall give Licensee notice thereof and demand that Licensee remove the same, or post adequate security to insure the removal of the same following the resolution of any dispute between Licensee and the lienholder, within thirty (30) days after such notice. Nothing in this provision shall restrict Licensee from granting a security interest in all or any part of Licensee's Improvements and to file of record UCC financing statements and/or fixture filings to perfect the same.

16. ASSIGNMENT AND SUBLEASING: This Agreement may not be assigned or transferred without the express written consent of the Village, which shall not be unreasonably withheld, conditioned or delayed. The Village agrees to respond to any such request within thirty (30) days from receipt of the request. Any assignment or transfer without such written consent shall, at the option of the Village, be deemed to be void and of no effect. Provided, however, this Agreement may be assigned or transferred to Licensee's parent or subsidiary, successor legal entity or other affiliate of Licensee without the Village's written consent as long as the Village is given written notice of the assignment or transfer within thirty (30) days thereof.

The Village must approve any sublease to any entity that is not Licensee's parent or subsidiary, successor legal entity or other affiliate of Licensee and the Village shall be entitled to fifty percent (50%) of any such sublease in addition to the rental fee as described in Section 7. COMPENSATION, above.

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17. HAZARDOUS SUBSTANCES:

a. The Village represents and warrants that it has no knowledge of any hazardous substance existing on the Property in violation of any applicable federal, State or local law, regulation or ordinance. The Village further agrees to hold Licensee harmless from and indemnify Licensee against any damage, loss or expense or liability resulting from the existence on the Property of any such hazardous substance, including all attorney's fees and consultant fees, costs and penalties, incurred as a result thereof, unless caused by Licensee or any of its employees or agents.

b. Licensee represents and warrants that its use of the Licensed Premises will not generate any hazardous substance, and that it will not store or dispose on the Licensed Premises, nor transport to or over the Licensed Premises, any hazardous substance in violation of any applicable federal, State or local law, regulation or ordinance. Licensee further agrees to hold the Village harmless from and against and indemnify the Village against any release of such hazardous substance and any damage, loss, or expense or liability resulting from such release, including attorney's fees and consultant fees, costs and penalties, incurred as a result thereof, which was caused by Licensee or any of its employees or agents.

c. "Hazardous Substance" as used herein shall mean any substance or material defined or designated as hazardous or toxic waste, hazardous or toxic materials, hazardous or toxic radioactive substance, or other similar term by any federal, State or local environmental law, regulation or ordinance presently in effect or promulgated in the future.

18. COST OF ENFORCEMENT: The prevailing party in any action or proceeding in court or mutually agreed upon arbitration proceeding to enforce the terms of this Agreement shall be entitled to receive its reasonable attorney's fees and other reasonable enforcement costs and expenses from the non-prevailing party.

19. INVALIDITY: If any section, paragraph, clause or provision of this Agreement shall be held invalid, the invalidity of such section, paragraph, clause or provision shall not affect any of the other provisions of this Agreement.

20. FORCE MAJEURE: Neither party shall be deemed in violation of this Agreement for the delay in performance or failure to perform in whole or in part its obligations under this Agreement due to strike, war or act of war (whether an actual declaration is made or not), insurrection, riot, act of public enemy, fire, flood or other act of God or by other events to the extent that such events are caused by circumstances beyond such party's control.

21. NOTICES: Unless otherwise specified herein, all notices under this agreement shall be made in writing and delivered to:

Site: 1037 Summit

Village:
Village Manager
Village of Downers Grove
801 Burlington Avenue
Downers Grove, IL 60515
630.434-5500

Village Attorney
Village of Downers Grove
801 Burlington Avenue
Downers Grove, IL 60515
630.434-5541

With Copy to:
Licensee:

xWave Communications LLC
540 W. Madison
Suite 2500
Chicago, IL 60661

For notices and billing:
xWave Communications LLC, c/o 3268120 Nova Scotia Company
800 Rene-Levesque Blvd. W.
Suite 1400
Montreal, QC
H3B 1X9

Notices/General
Global Network Contract Administration
GNA-business@vigilantglobal.com
[\(888\) 845-2397](tel:(888)845-2397)

Billing
invoices@vigilantglobal.com

Emergency contact:
NOC
NOC@vigilantglobal.com
[\(888\) 939-1298](tel:(888)939-1298)

22. GOVERNING LAW: This Agreement shall be governed by the laws of the State of Illinois.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the ____ day of _____, 20__.

Site: 1037 Summit

LICENSEE:
xWAVE COMMUNICATIONS, LLC

VILLAGE:
VILLAGE OF DOWNERS GROVE

By: *[Signature]*

By: _____
Village Manager

Title: *Director*

ATTEST:

Village Clerk

Subscribed and sworn to
this 28 day of September, 2016.

[Signature]
Notary Public
Richard P. Salis

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EXHIBIT 1

EXHIBIT 2

LIST OF APPROVED EQUIPMENT

Dish Height /Azimuth	Dish/Equipment Description
Dish #1: 129ft /274 degrees	6 Foot Dish -[Qty 1] ½” Coax Feeder - [Qty 3] ODU - [Qty 3]
Dish #2: 129ft /94 degrees	6 Foot Dish -[Qty 1] ½” Coax Feeder - [Qty 3] ODU - [Qty 3]

Cabinet Ground Space Details: 4ft x 8ft

Electricity: 40 A / 220 V

EXHIBIT 3

PART III - EXECUTION

3.1 GENERAL

3.1.1 BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES...

3.2 STRUCTURAL EXCAVATION

3.2.1 FOUNDATION EXCAVATIONS SHALL BE CUT TO FIRM MATERIAL...

3.3 STRUCTURAL FILL

3.3.1 ALL COMPACTED FILL SHALL BE PLACED IN LAYERS, NOT EXCEEDING A LOOSE 8" THICKNESS...

3.4 BACK FILL

3.4.1 EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISH GRADE...

3.5 TRENCH EXCAVATION

3.5.1 UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS...

3.6 TRENCH BACK FILL REQUIREMENTS

3.6.1 PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS, DRAWINGS AND THE UTILITY REQUIREMENTS...

3.7 FINISH GRADING

3.7.1 PERFORM ALL FINISHED GRADING TO PROVIDE SMOOTH, EVEN SURFACE GRADING...

3.8 TOWER CONSTRUCTION

3.8.1 TOWER CONSTRUCTION SHALL BE ACCORDING TO THE SPECIFICATIONS, DRAWINGS AND THE UTILITY REQUIREMENTS...

3.9 SECURITY FENCE

3.9.1 SECURITY FENCE SHALL BE INSTALLED TO SECURE THE EXCAVATION AREA...

3.10 ELECTRICAL

3.10.1 ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE...

3.11 SAFETY

3.11.1 SAFETY IS OF PARAMOUNT CONCERN TO BOTH SITE WORKERS AND THE PUBLIC...

3.12 SCHEDULE OF REVISIONS

Table with columns: No., Description, Date, Drawn By, Issue Date

3.1.1 BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES...

3.2.1 FOUNDATION EXCAVATIONS SHALL BE CUT TO FIRM MATERIAL HAVING A SAFE BEARING VALUE OF 3000 PSF AND SHALL BE FREE OF ALL LOOSE AND WET MATERIALS...

3.3.1 ALL COMPACTED FILL SHALL BE PLACED IN LAYERS, NOT EXCEEDING A LOOSE 8" THICKNESS AND COMPACTED TO A MINIMUM DENSITY OF 95% OF THE MODIFIED PROCTOR DENSITY OBTAINED IN ACCORDANCE WITH ASTM D-1557...

3.4.1 EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISH GRADE. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL HAVE BEEN REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS AND UNSUITABLE MATERIALS...

3.5.1 UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE XWAVE COMMUNICATIONS CONSTRUCTION SUPERVISOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS...

3.6.1 PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS, DRAWINGS AND THE UTILITY REQUIREMENTS. NOTIFY THE XWAVE COMMUNICATIONS CONSTRUCTION SUPERVISOR 24 HOURS IN ADVANCE OF BACK FILLING...

3.7.1 PERFORM ALL FINISHED GRADING TO PROVIDE SMOOTH, EVEN SURFACE GRADING. FINISH GRADING SHALL BE PERFORMED TO PROVIDE A MINIMUM DRY DENSITY OF 95% OF THE MODIFIED PROCTOR TEST, ASTM D 1557...

3.8.1 TOWER CONSTRUCTION SHALL BE ACCORDING TO THE SPECIFICATIONS, DRAWINGS AND THE UTILITY REQUIREMENTS. SAFETY IS OF PARAMOUNT CONCERN TO BOTH SITE WORKERS AND THE PUBLIC...

3.9.1 SECURITY FENCE SHALL BE INSTALLED TO SECURE THE EXCAVATION AREA. THE FENCE SHALL BE 2 INCHES BELOW THE TOP OF THE COMPOUND GRAVEL...

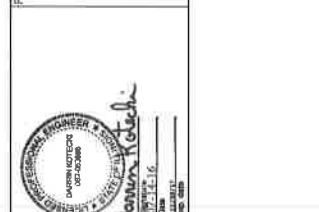
3.10.1 ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL ELECTRICAL WORKERS SHALL ADHERE TO ALL SAFETY RULES AND REGULATIONS FOR WORKER AND PUBLIC PROTECTION...

3.11.1 SAFETY IS OF PARAMOUNT CONCERN TO BOTH SITE WORKERS AND THE PUBLIC. CONSTRUCTION WORK PRESENTS UNIQUE THREATS TO HEALTH AND SAFETY...

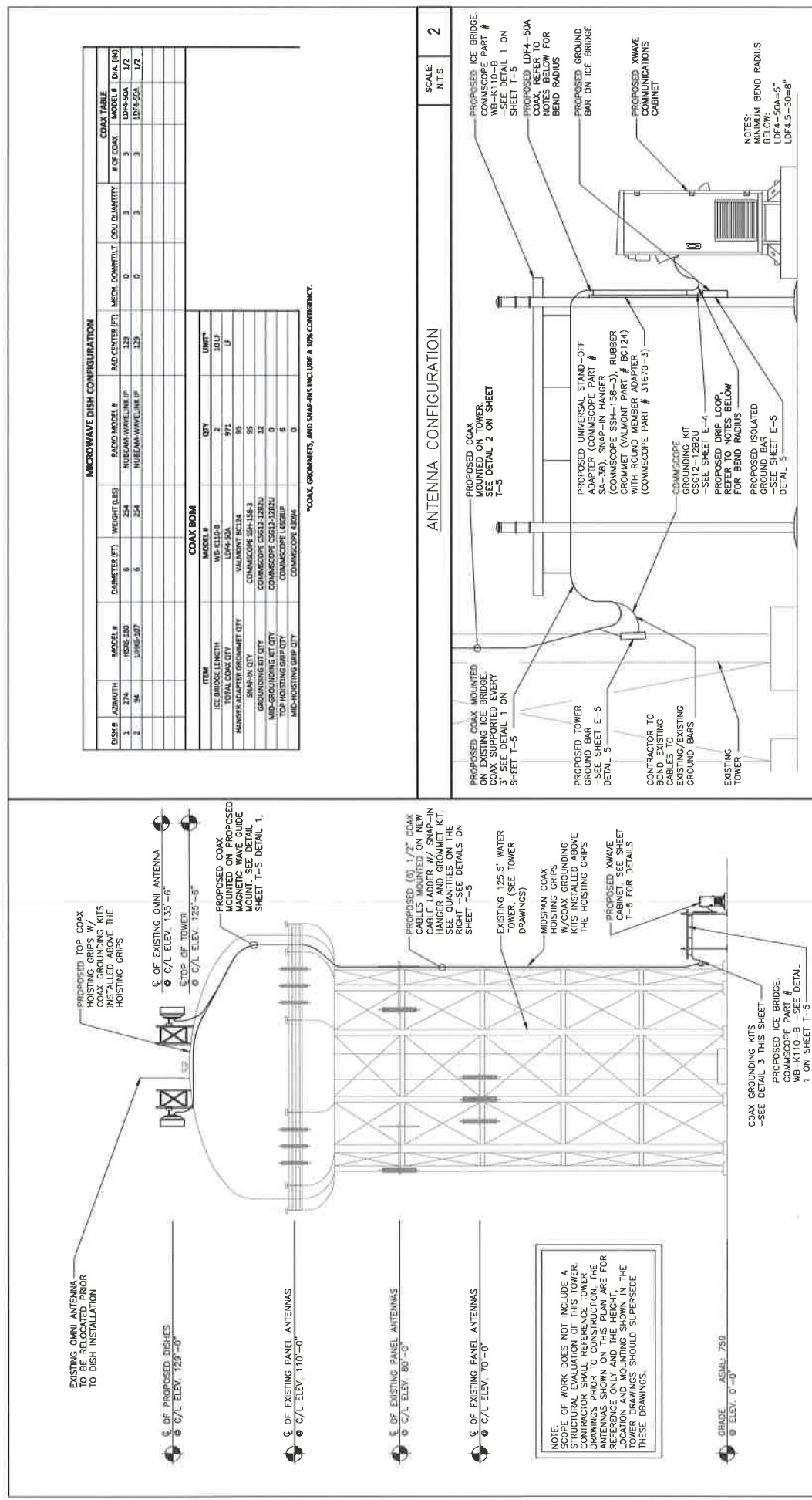
Table with columns: PROJECT NAME, DRAWING TITLE, GENERAL NOTES, DRAWING NUMBER

Table with columns: SCHEDULE OF REVISIONS, REV. DESCRIPTION OF CHANGE, DRAWN BY, AUTH. BY, ISSUE DATE

PROJECT LOCATION: US.IL.DG.WTOWER, 1037 SUMMIT STREET, DOWNERS GROVE, IL 60015



XXWAVE COMMUNICATIONS logo and contact information: 920 South Main Street, Suite 201, Downers Grove, IL 60015, 312.572.1100 Fax: 312.572.1101



MICROWAVE DISH CONFIGURATION

DISH #	AZIMUTH	MODEL #	DIAMETER (FT)	WEIGHT (LBS)	RAD. CENTER #	MCH. DOWNWELL	QUANTITY	COAX TABLE
1	274	INSE-180	6	254	129	0	3	# OF COAX. MODEL F. DIA. (IN)
2	94	UH95-107	6	254	129	0	3	1094-50A 1/2

COAX BOM

ITEM	MODEL #	QTY	UNIT*
ICE BRIDGE LENGTH	WB-4110-B	2	20 LF
TOTAL COAX QTY	UH4-50A	97	LF
HANGER ADAPTER GROMMET KIT	VALMONT BCI-124	97	
SNAP-IN QTY	COMSCOPE SSH-158-3	95	
COMSCOPE CRO-1282U	COMSCOPE CRO-1282U	15	
MID-GROUNDING KIT QTY	COMSCOPE CRO-1282U	0	
GROUNDING KIT QTY	COMSCOPE CRO-1282U	0	
MID-HOSTING GRIP QTY	COMSCOPE L529A	0	

*COAX, GROMMETS, AND SNAP-INS INCLUDE A 1/8" CONTINGENCY.

ANTENNA CONFIGURATION

SCALE: N.T.S. 2

TOWER ELEVATION

SCALE: N.T.S. 1

PROJECT LOCATION:
US, IL, DG, WTOWER
1037 SUMMIT STREET
DOWNERS GROVE, IL 60515

ENLARGED ELEVATION

SCALE: N.T.S. 3

PROJECT NAME:
US, IL, DG, WTOWER

SCHEDULE OF REVISIONS

NO.	DATE	BY	DESCRIPTION
1			
2			
3			
4			

DRAWING TITLE:
TOWER ELEVATION & ANTENNA SCHEDULE

DRAWING NUMBER:
T-1

SCALE: SHOWN/DESIGNED BY: GSI DRAWN BY: GSI

GPD JOB# 2016796 US, IL, DG, WTOWER 01



COMMSCOPE # PM-SC4-96 (FOR REFERENCE ONLY)			
ITEM	PART NO.	DESCRIPTION	QTY
1	SMU208004	MOUNT	2
2	SMU208006	CLAMP PLATE	2
3	MTC9851.01	INNER CHANNEL	2
4	MTC9851.02	OUTER CHANNEL	2
5	GB-05205	5/8" GALV FLAT WASHER	8
6	GMF-05	5/8" X 18" GALV THREADED ROD	12
7	MT-394-16	3/4" X 18" GALV THREADED ROD	4
8	GMR-05	3/4" GALV LOCK WASHER	8
9	GMF-06	3/4" GALV FLAT WASHER	8
10	GN-06	3/4" GALV HEX NUT	12
11	GUB-5456	5/8" X 4-5/8" X 6-1/2" GALV. U-BOLT	4
12	MT-654-96	PLAIN END PIPE 4-1/2" OD X 96"	1

COMMSCOPE PM-SC4-96 MOUNTING ASSEMBLY

SCALE: N.T.S. 1

NOTE: CONTRACTOR TO INSTALL RAYVOLVE SPLICE COVERS FOR CONNECTIONS AT ODUS AND REPEATERS.

PROPOSED ODU
PROPOSED ODU MOUNT
OD DISH MOUNT PIPE

REPEATER/ODU

SCALE: N.T.S. 3

ADD ELECTRICAL TAPE ON BOTH ENDS OF THE SLEEVE TO PREVENT ROLL-BACK

RAYVOLVE SPLICE COVER RVS-11. ROLL THE SPLICE COVER OVER THE CONNECTOR AREA.

L4TNM-PSA CONNECTOR

ODU TYPE N FEMALE CONNECTOR

COAX TO REPEATER/ODU WEATHERPROOFING DETAIL

SCALE: N.T.S. 4

2 LAYERS OF 3/4" TAPE, LAST LAYER UP

2 LAYERS OF 2" TAPE BUTYL ON BARE COAX

1/2" FROM TAPE

2" TAPE, STICKY SIDE DOWN

GROUNDING STRAP

COMMSCOPE CSG12-12B2U

LDF4-50A COAX

2" TAPE, STICKY SIDE OUT

MAKE FIRST WRAP IN SAME DIRECTION THAT JUMPER TIGHTENS, BUTYL MUST BE IN CONTACT WITH COAX TO FORM SEAL FOR ALL TYPES OF WEATHERPROOFING

GROUNDING KIT WEATHERPROOFING DETAIL

SCALE: N.T.S. 4

PROJECT LOCATION: US.IL.DG.WTOWER
1037 SUMMIT STREET
DOWNERS GROVE, IL 60515

SCHEDULE OF REVISIONS

NO.	DATE	DESCRIPTION
1		FOR CONSTRUCTION
2		FOR REVIEW
3		REVISED
4		REVISED

REVISIONS

REV#	DESCRIPTION OF CHANGE	DRAWN BY	ISSUE DATE
A	FOR CONSTRUCTION	CJM	07/14/16
B	FOR REVIEW	ODJ	07/14/16

SCALE: SHOWN/DESIGNED BY: CDM DRAWN BY: CDM

CPD JOB# 2016796.US.IL.DG.WTOWER.01

ODU MOUNT

SCALE: N.T.S. 2

PROPOSED HORIZONTAL PIPE MOUNT BRACKET

PROPOSED THREADED RODS

EXISTING TOWER

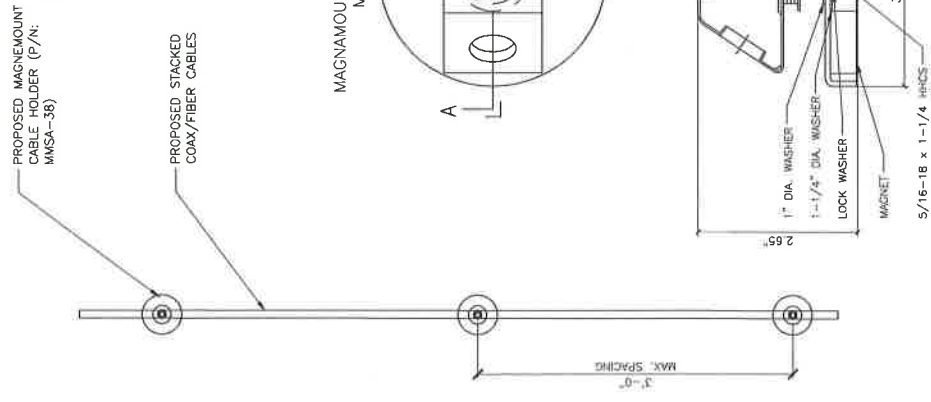
CPD GROUP, INC.
200 South Park Street, Suite 200
Downers Grove, IL 60515
312.572.3100 FAX: 312.572.3101

DANIEL KOTLIK
REGISTERED PROFESSIONAL ENGINEER
NO. 042-000000
STATE OF ILLINOIS
EXPIRES 12/31/16

US.IL.DG.WTOWER
ANTENNA MOUNT DETAILS
DRAWING NUMBER: T-2

WAVE COMMUNICATIONS

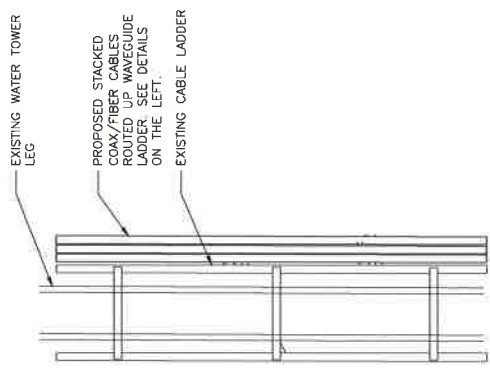
DESCRIPTION	QUANTITY
MAGNETMOUNT CABLE HOLDER	20



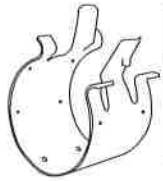
MAGNETIC WAVE GUIDE MOUNT (SIDE OF TANK) SCALE: N.T.S. 1

XWAVE COMMUNICATIONS

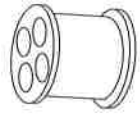
GPD GROUP, INC.
 320 South Main Street, Suite 201
 Downers Grove, IL 60515
 312.572.2100 Fax: 312.572.2101



DESCRIPTION	QUANTITY
SNAP-IN HANGER	44
HANGER ADAPTER GROMMET	44
HOSTING GRIP	4
GROUNDING KITS	8



VALMOUNT PART #	CABLE SIZE & TYPE	1-5/8" CORRUGATED & COMMSCOPE
158SH-3	1-5/8" CORRUGATED & COMMSCOPE	



VALMOUNT PART #	CABLE SIZE & TYPE	# OF HOLES	HOLE SIZE	MATING HANGER SIZE
BC124	1/2" COAX	4	0.63 (16)	1-5/8"

- NOTES:
- REFER TO OWNERS MANUAL FOR MANUFACTURES SPECIFICATIONS
 - ALL QUANTITIES ARE ASSUMED. CONSULT WITH KWAVE COMMUNICATIONS AND CONSTRUCTION MANAGER BEFORE ORDERING.
 - HANGERS SHOULD BE INSTALLED ON EVERY HORIZONTAL LEVEL OF THE LADDER

- NOTE:
- WAVEGUIDE LADDER MAY BE USED INTERNALLY FOR THE PROPER ALIGNMENT. WAVEGUIDE LADDER MAY BE MOUNTED INSIDE OR OUTSIDE OF TOWER AS REQUIRED.
 - CONTRACTOR TO VERIFY QUANTITIES DURING PREC CONSTRUCTION WALK FOR SNAP-IN'S AND GROMMETS. ALL CURRENT QUANTITIES ARE FOR A REFERENCE ONLY.

WAVE GUIDE LADDER (TOWER LEG) SCALE: N.T.S. 2

PROJECT LOCATION:
 US.IL.DG.WTOWER
 1037 SUMMIT STREET
 DOWNERS GROVE, IL 60515

PROJECT NAME:
 US.IL.DG.WTOWER

DRAWING TITLE:
 COAX MOUNTING DETAILS

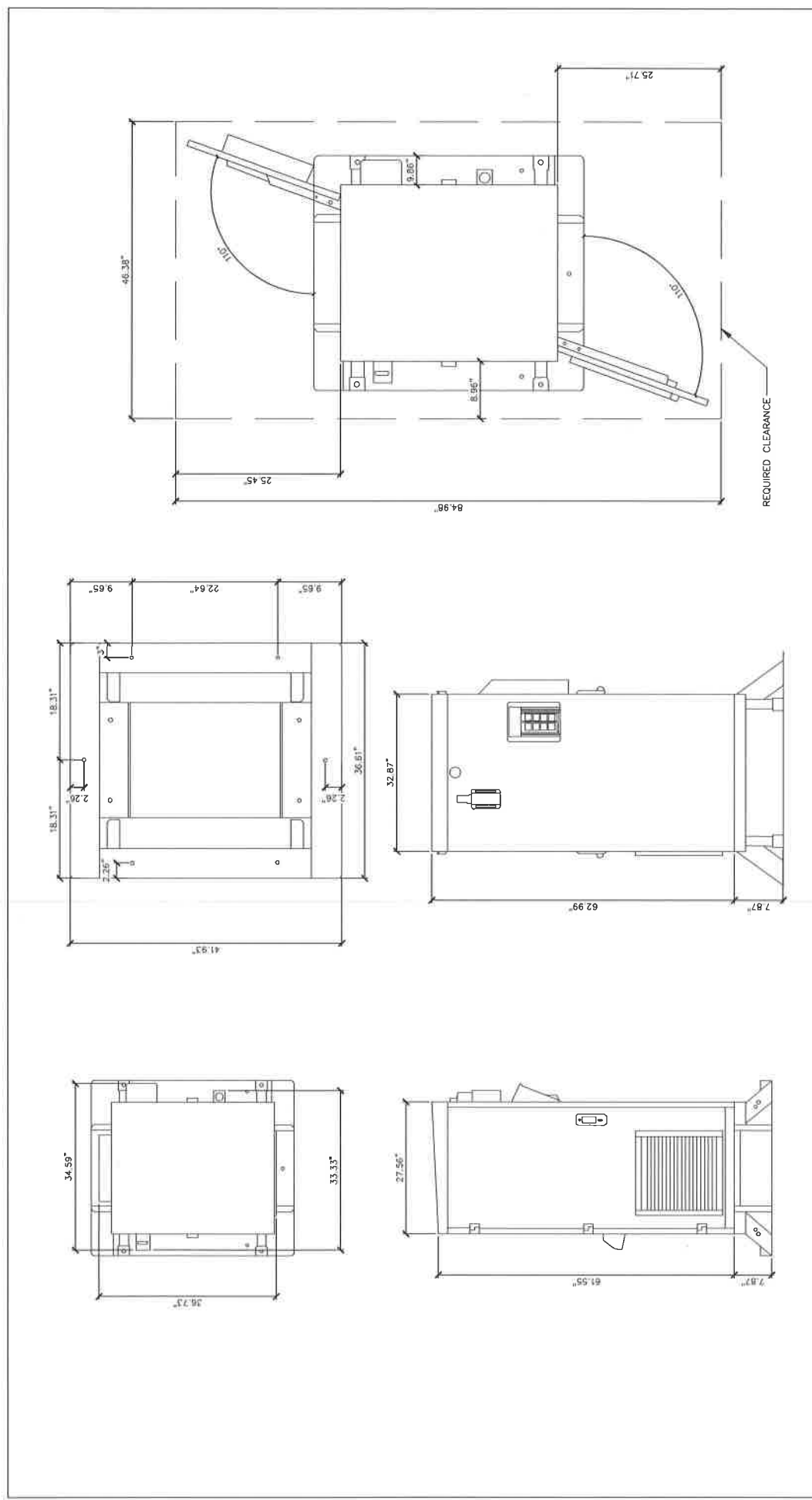
DRAWING NUMBER:
 T-5




SCHEDULE OF REVISIONS:

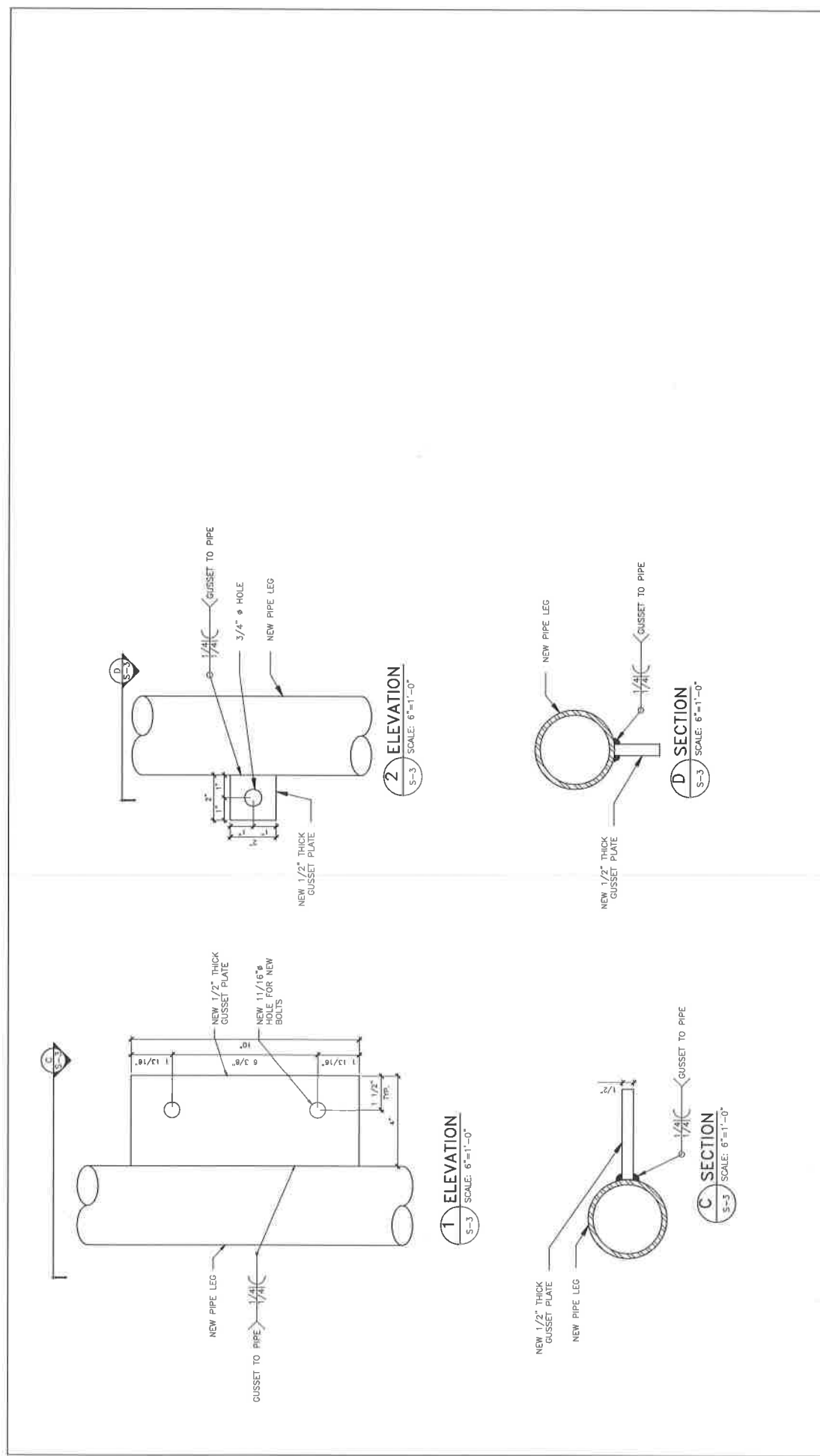
NO.	DESCRIPTION	DATE
4	FOR CONSTRUCTION	07/14/18
3	FOR REVIEW	03/20/18
2	BY: GDU	
1	BY: GDU	

REV DESCRIPTION OF CHANGE: DRAWN AUTH ISSUE DATE
 BY: GDU BY: GDU

SCALE(S) SHOWN/DESIGNED BY: GDU DRAWN BY: GDU
 GPD JOB# 2016796 US.IL.DG.WTOWER 01



CABINET SPECIFICATIONS		SCALE: N.T.S. 1																								
PROJECT LOCATION: US, IL, DG, WTOWER 1037 SUMMIT STREET DOWNERS GROVE, IL 60515		PROJECT NAME: US, IL, DG, WTOWER																								
		DRAWING TITLE: CABINET DETAILS																								
 <p>GPD GROUP INC. 520 South Main Street, Suite 2031 Downers Grove, IL 60515 38.5723100 Lat 90.5723101 Lon</p>		DRAWING NUMBER: T-6																								
		<table border="1"> <thead> <tr> <th colspan="4">SCHEDULE OF REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	SCHEDULE OF REVISIONS				NO.	DATE	BY	DESCRIPTION	1				2				3				4			
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1																										
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3																										
4																										
<p>REV. DESCRIPTION OF CHANGE</p> <p>SCALE: AS SHOWN / DESIGNED BY: GPD / DRAWN BY: GPD</p>		<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>BY</th> <th>AUTH.</th> <th>ISSUE DATE</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>07/14/16</td> <td>GOJ</td> <td>JB</td> <td></td> </tr> <tr> <td>A</td> <td>07/01/16</td> <td>GOJ</td> <td>JB</td> <td></td> </tr> </tbody> </table>	REV.	DATE	BY	AUTH.	ISSUE DATE	D	07/14/16	GOJ	JB		A	07/01/16	GOJ	JB										
REV.	DATE	BY	AUTH.	ISSUE DATE																						
D	07/14/16	GOJ	JB																							
A	07/01/16	GOJ	JB																							
<p>GPD JOB# 2016796.US,IL,DG,WTOWER.01</p>																										



US.IL.DG.WTOWER
1037 SUMMIT STREET
DOWNERS GROVE, IL 60515

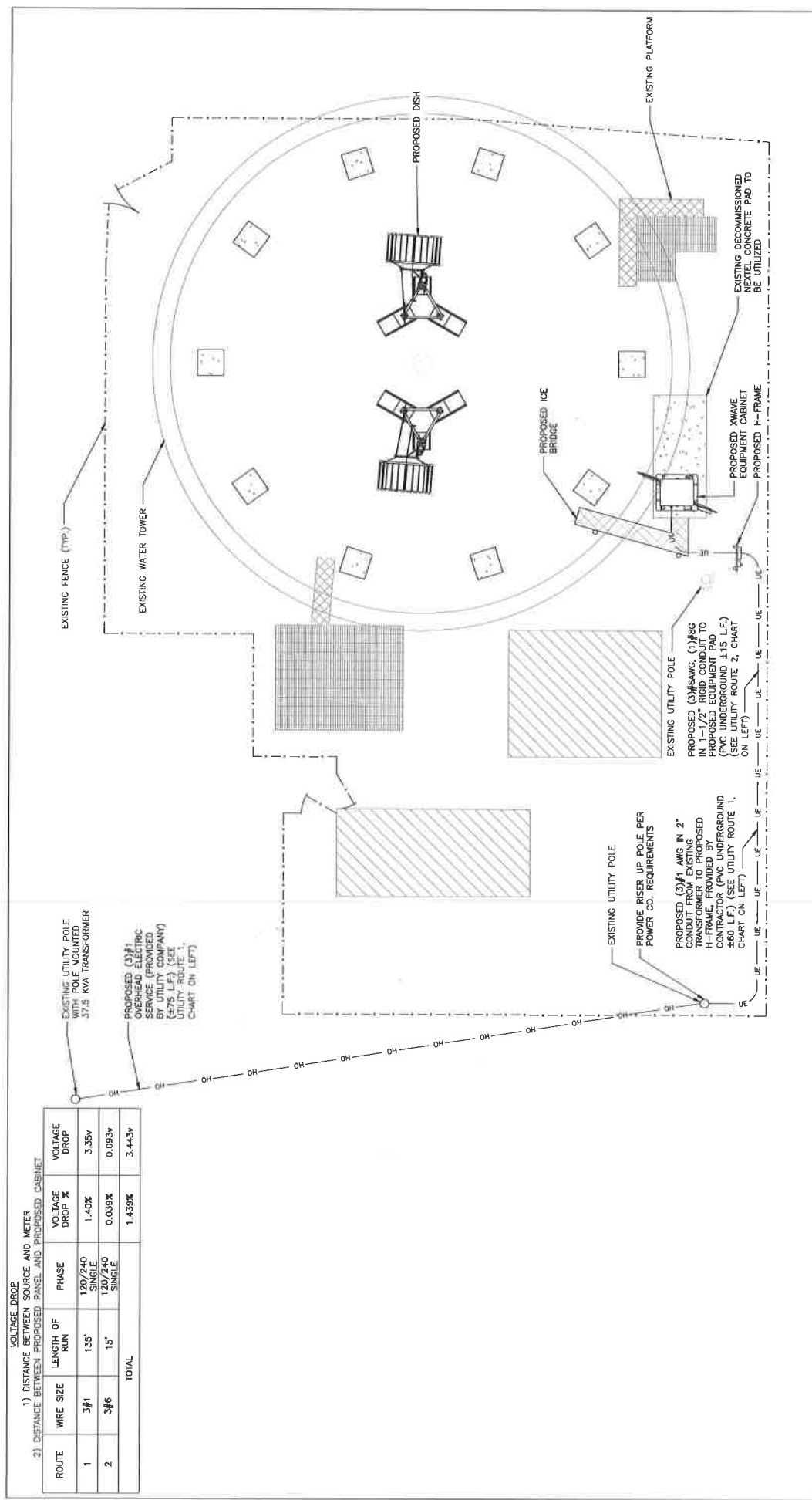
PROJECT NAME:
US.IL.DG.WTOWER

DRAWING TITLE:
STRUCTURAL DETAILS

DRAWING NUMBER:
S-3

SCHEDULE OF REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	FOR CONSTRUCTION	03/14/16	GUL
2	FOR CONSTRUCTION	03/14/16	GUL
3	FOR CONSTRUCTION	03/14/16	GUL
4	FOR CONSTRUCTION	03/14/16	GUL

REV. DESCRIPTION OF CHANGE: DRAWN BY: GUL AUTH: GUL ISSUE DATE: 03/14/16
 SCALE: DOWN DESIGNED BY: GUL DRAWN BY: GUL
 GPD JOB# 2016796 US.IL.DG.WTOWER.01



VOLTAGE DROP

1) DISTANCE BETWEEN SOURCE AND METER

2) DISTANCE BETWEEN PROPOSED PANEL AND PROPOSED CABINET

ROUTE	WIRE SIZE	LENGTH OF RUN	PHASE	VOLTAGE DROP %	VOLTAGE DROP
1	3#1	135'	120/240 SINGLE	1.40%	3.35v
2	3#6	15'	120/240 SINGLE	0.039%	0.093v
TOTAL				1.439%	3.443v

SITE UTILITY PLAN

PROJECT LOCATION:
US.I.L.DG.WTOWER
 1037 SUMMIT STREET
 DOWNERS GROVE, IL 60515

SCALE: AS SHOWN

PROJECT NAME:
US.I.L.DG.WTOWER

DRAWING TITLE:
UTILITY PLAN

DRAWING NUMBER:
E-1A

SCALE: 1" = 10'-0"

2

GPD JOB# 2016796.US.I.L.DG.WTOWER.01

SCHEDULE OF REVISIONS

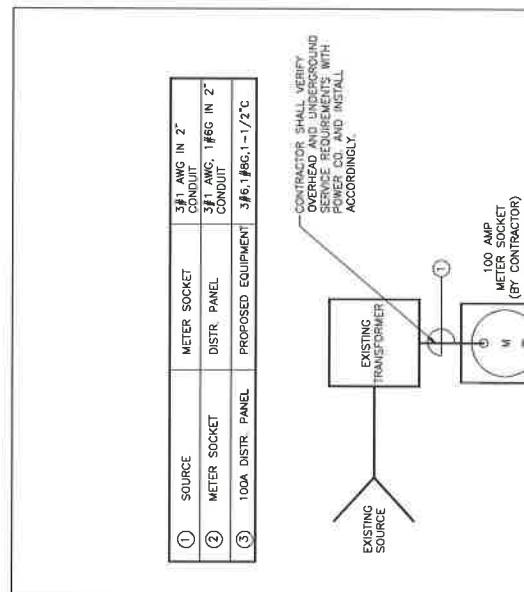
NO.	DATE	DESCRIPTION	BY	APP'D.
1	03/14/16	FOR CONSTRUCTION	GM	
2	03/17/16	SIX REVIEW	GM	
3	03/17/16			
4				

REV | DESCRIPTION OF CHANGE | DRAWN BY | AUTH BY | ISSUE DATE

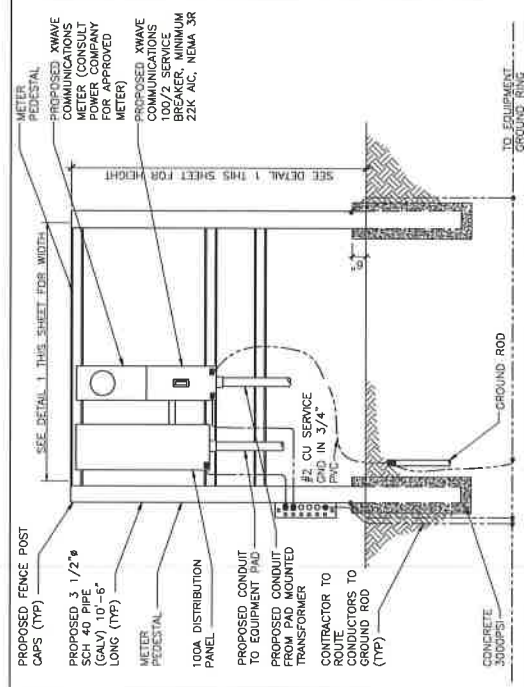
SCALE AS SHOWN | DESIGNED BY: GDL | DRAWN BY: GDL

GPD GROUP, INC.
 200 South New Street, Suite 203
 Downers Grove, IL 60515
 Tel: 630.572.2100 Fax: 630.572.2111

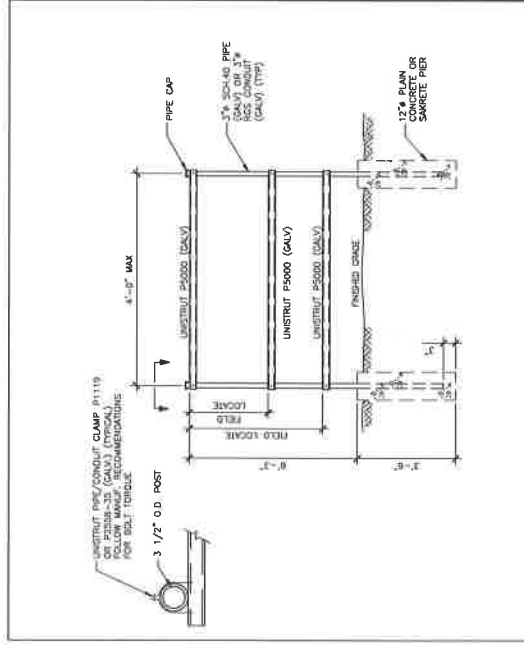
XWAVE COMMUNICATIONS



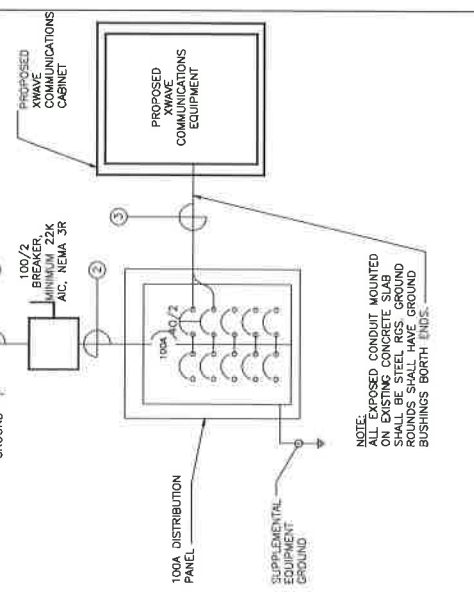
PROPOSED H-FRAME (FRONT)
SCALE: N.T.S. 2



TYPICAL CONDUIT TRENCH DETAIL
SCALE: N.T.S. 3



PROPOSED H-FRAME (FRONT)
SCALE: N.T.S. 2



ONE-LINE DIAGRAM
SCALE: N.T.S. 4

SCHEDULE OF REVISIONS

NO.	DATE	DESCRIPTION
1		FOR CONSTRUCTION
2		FOR REVIEW
3		FOR REVIEW
4		FOR REVIEW

REV DESCRIPTION OF CHANGE: GUL BY: GUL AUTH: GUL ISSUE DATE: 03/27/18

SCALE: SHEET DESIGNED BY: GUL DRAWN BY: GUL

US.IL.DG.WTOWER
1037 SUMMIT STREET
DOWNERS GROVE, IL 60015

GPD GROUP, INC.
520 South West Street, Suite 201
Downers Grove, IL 60015
312.572.1200 Fax: 312.572.1201

XWAVE COMMUNICATIONS

US.IL.DG.WTOWER
ONE-LINE DIAGRAM & UTILITY DETAILS
DRAWING NUMBER: E-2

GPD JOB# 2016796.US.IL.DG.WTOWER.01



SITE NUMBER:		US,IL,DG,WTOWER		MODEL NUMBER:		TRANSECTOR		WIRE:		3					
VOLTAGE:		240V/120		PHASE:		1		AIC:		10K					
MAIN BREAKER:		100 AMP		NEUTRAL BAR:		YES		GROUND BAR:		YES					
MOUNT:		SURFACE		N to GROUND BOND:		NO		INTERNAL TVSS:		YES					
ENCLOSURE TYPE:		NEMA 3R		PROPOSED											
PANEL STATUS:		PROPOSED													
CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD VA	USAGE FACTOR	PHASE A VA	PHASE B VA	USAGE FACTOR	SERVICE LOAD VA	BREAKER STATUS	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	CKT
1	PROPOSED CABINET	40	2	OM	3000	1.00	3000	0	1.00	0	N/A	--	--	--	2
3				OM	3000	1.00	3000	0	1.00	0	N/A	--	--	--	4
5				N/A	0	1.00	0	0	1.00	0	N/A	--	--	--	6
7				N/A	0	1.00	0	0	1.00	0	N/A	--	--	--	8
9				N/A	0	1.00	0	0	1.00	0	N/A	--	--	--	10
11				N/A	0	1.00	0	0	1.00	0	N/A	--	--	--	12
												TOTAL KVA	6.00		
												AMPS	28.00		
PROPOSED PANEL															

XWAVE COMMUNICATIONS INTEGRATED PANEL

SCALE: N.T.S. 1

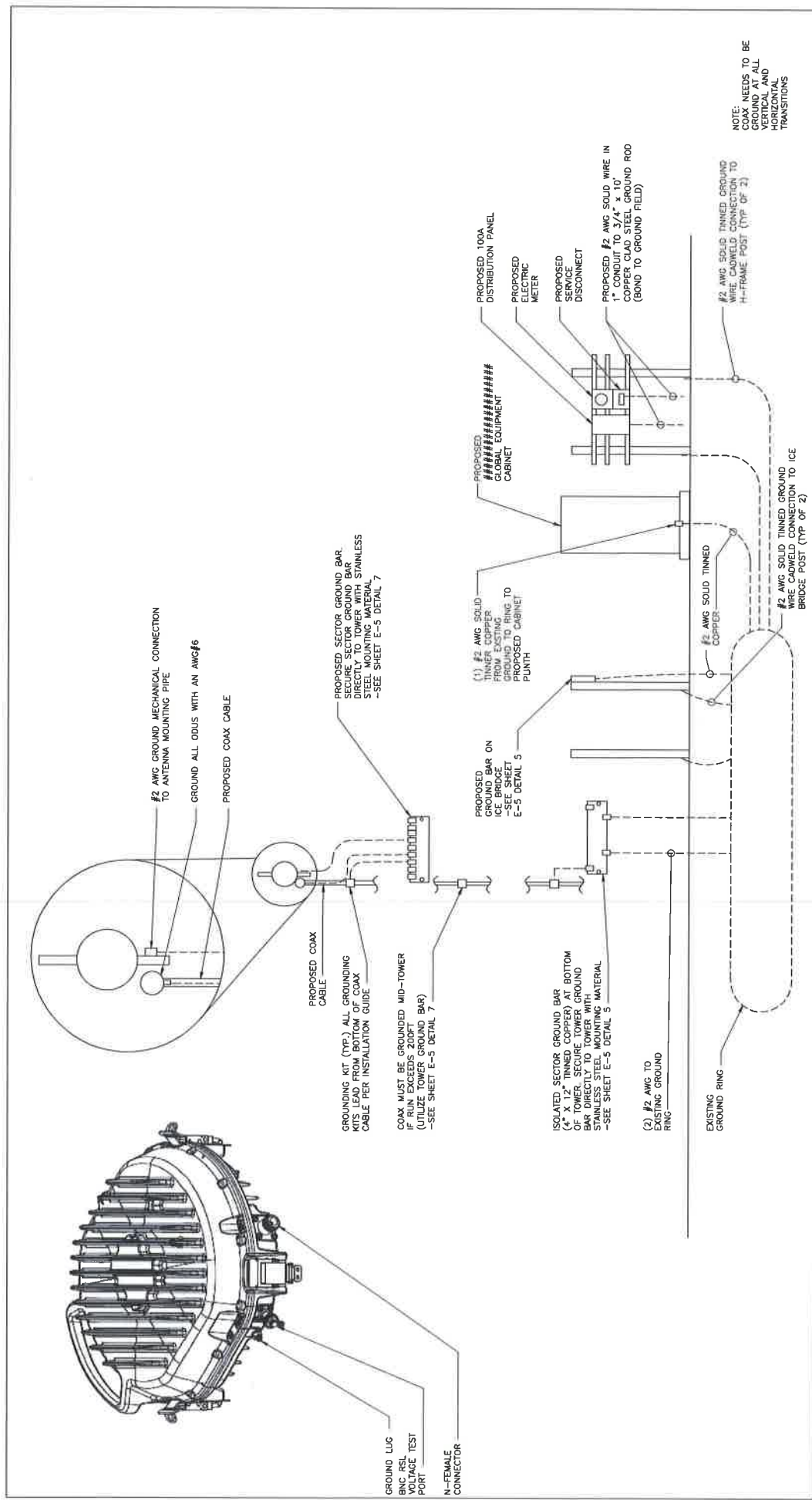
NOT USED

PROJECT LOCATION:
US,IL,DG,WTOWER
1037 SUMMIT STREET
DOWNERS GROVE, IL 60515

GPD GROUP INC
232 South Main Street, Suite 201
Downers Grove, IL 60521
TEL: 630.572.2100 FAX: 630.572.2101

SCALE: N.T.S. 2	<table border="1" style="width: 100%;"> <tr> <td colspan="2">PROJECT NAME: US,IL,DG,WTOWER</td> </tr> <tr> <td colspan="2">DRAWING TITLE: PANEL SCHEDULE</td> </tr> <tr> <td colspan="2">DRAWING NUMBER: E-3</td> </tr> </table>	PROJECT NAME: US,IL,DG,WTOWER		DRAWING TITLE: PANEL SCHEDULE		DRAWING NUMBER: E-3	
PROJECT NAME: US,IL,DG,WTOWER							
DRAWING TITLE: PANEL SCHEDULE							
DRAWING NUMBER: E-3							
SCHEDULE OF REVISIONS							
#	DATE	DESCRIPTION	BY	CHK	APP		
1	07/14/18	FOR CONSTRUCTION	GM	SB			
2	03/07/18	REV REVIEW	GM	SB			
3	03/07/18	REV DESCRIPTION OF CHANGE	GM	SB			
SCALE: SHOWN/DESIGNED BY:		GM	SB	GM	SB		
GPD JOB# 2016796 US,IL,DG,WTOWER.01							



XWAVE
COMMUNICATIONS

330 South Main Street, Suite 2021
Naperville, IL 60563
TEL: 630.231.1100 FAX: 630.231.1101

SCALE: 1

PROJECT NAME: US.IL.DG.WTOWER

PROJECT LOCATION: ANTENNA GROUNDING RISER

US.IL.DG.WTOWER
1037 SUMMIT STREET
DOWNERS GROVE, IL 60515

ISSUING TITLE: GROUNDING RISER DIAGRAM

DRAWING NUMBER: E-4

SCHEDULE OF REVISIONS	
4	
3	
2	
1	

REV	DESCRIPTION OF CHANGE	DRAWN BY	ISSUE DATE
A	FOR CONSTRUCTION	CJM	07/14/18
B	FOR REVIEW	DLB	03/01/18

SCALE: AS SHOWN
DESIGNED BY: GDU
DRAWN BY: DLB
GPD JOB# 2016796 US.IL.DG.WTOWER.01

<p>CADWELD TYPE NC THERMOWELD TYPE CR-2 DOUBLE CABLE TO GROUND ROD</p> <p>CADWELD TYPE CR-17 THERMOWELD TYPE CR-20 HORIZONTAL TO GROUND ROD</p>	<p>SCALE: N.T.S. 1</p> <p>GROUND ROD DETAIL</p> <p>NOTE: *GROUND ROD SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)</p>	<p>SCALE: N.T.S. 2</p> <p>INSPECTION PORT DETAIL</p> <p>NOTE: * GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)</p>	<p>SCALE: N.T.S. 3</p> <p>TOWER GROUND BAR</p>	<p>SCALE: N.T.S. 4</p> <p>CADWELDS (TYPICAL)</p>																			
<p>SCALE: N.T.S. 5</p> <p>TOWER BASE INSULATED GROUND BAR</p> <p>NOTES: 1. SECURE TO INTERIOR OR EXTERIOR WALL w/SS LAG HARGER CAT #68B-1442-G OR APPROVED EQUAL</p>	<p>SCALE: N.T.S. 6</p> <p>GROUNDING FLAT SURFACES (TYPICAL)</p> <p>INSTALLATION NOTES: 1. BOLTS, WASHERS, AND NUTS SHALL BE STAINLESS STEEL. 2. SELECT BOLT LENGTH TO PROVIDE MINIMUM OF TWO EXPOSED THREADS. 3. BURNISHING MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF CONTACT. 4. USE OF COPPER COMPOUND TO MATING SURFACE OF LUG AND WIPE CLEAN EXCESS COMPOUND. 5. ALL METAL ELECTRICAL EQUIPMENT SHALL BE EXTERNALLY GROUND TO THE TOWER EGR. (PAINTED METAL SURFACES MUST HAVE SMALL SECTION OF PAINT REMOVED BEFORE INSTALLATION). 6. SURFACES SHALL BE SPRAYED LIGHTLY WITH CLEAR COAT LACQUER FINISH.</p>	<p>SCALE: N.T.S. 7</p> <p>PROJECT LOCATION</p> <p>US.I.L.DG.WTOWER 1037 SUMMIT STREET DOWNERS GROVE, IL 60515</p>	<p>SCALE: N.T.S. 8</p> <p>DETAIL NOT USED</p> <p>PROJECT NAME: US.I.L.DG.WTOWER DRAWING TITLE: GROUNDING DETAILS DRAWING NUMBER: E-5</p> <p>SCHEDULE OF REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION OF CHANGE</th> <th>BY</th> <th>DATE</th> </tr> <tr> <td>1</td> <td>FOR CONSTRUCTION</td> <td>CJM</td> <td>07/14/18</td> </tr> <tr> <td>2</td> <td>FOR REVIEW</td> <td>CDL</td> <td>07/17/18</td> </tr> <tr> <td>3</td> <td>FOR REVIEW</td> <td>CDL</td> <td>07/17/18</td> </tr> <tr> <td>4</td> <td>FOR REVIEW</td> <td>CDL</td> <td>07/17/18</td> </tr> </table> <p>SCALE: AS SHOWN/DESIGNED BY: CDL DRAWN BY: CDL CHECKED BY: CDL ISSUE DATE: 07/17/18</p> <p>CPD JOB# 2016796 US.I.L.DG.WTOWER.01</p>	NO.	DESCRIPTION OF CHANGE	BY	DATE	1	FOR CONSTRUCTION	CJM	07/14/18	2	FOR REVIEW	CDL	07/17/18	3	FOR REVIEW	CDL	07/17/18	4	FOR REVIEW	CDL	07/17/18
NO.	DESCRIPTION OF CHANGE	BY	DATE																				
1	FOR CONSTRUCTION	CJM	07/14/18																				
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<p>DIRECTIONS</p> <p>-TAKE EXIT 274 OFF I-55S FOR IL-83N/KINGERY RD. -MERGE RIGHT ONTO IL-83N/KINGERY HWY S. -TURN LEFT ONTO 63RD ST. TURN RIGHT ONTO MAIN ST. -SITE IS LOCATED ON THE LEFT.</p>	<p style="text-align: center;">LOCAL MAP</p>	<p style="text-align: center;">SCHEDULE OF REVISIONS</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION OF CHANGE</th> <th>DATE</th> <th>BY</th> <th>ISSUE DATE</th> </tr> </thead> <tbody> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	NO.	DESCRIPTION OF CHANGE	DATE	BY	ISSUE DATE	4					3					2					1					<p style="text-align: center;">PROJECT LOCATION: US.IL.DG.WTOWER 1037 SUMMIT STREET DOWNERS GROVE, IL 60515</p>																																									
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<p>SPECIAL NOTES</p> <p>CONTRACTOR SHALL VERIFY ALL (EX.) CONDITIONS IN FIELD. IF SIGNIFICANT DEVIATIONS OR DETERIORATION ARE ENCOUNTERED AT THE TIME OF CONSTRUCTION, A REPAIR ORDER SHALL BE OBTAINED AND CONTRACTOR SHALL NOTIFY STRUCTURAL ENGINEER IMMEDIATELY.</p> <p>CONTRACTOR SHALL VERIFY ALL PLANS AND (EX.) DIMENSIONS AND CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME. THESE DRAWINGS ARE SCALED ON 22"x34" AND PLOTTED AT 11"x17". PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED</p> <p style="text-align: center;">CALL BEFORE YOU DIG! MINNESOTA LAW REQUIRES 3 WORKING DAYS IN ADVANCE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL STATE One Call System Inc. 811</p>	<p style="text-align: center;">SEAL</p>	<p style="text-align: center;">GPD GROUP, INC. 520 South Main Street, Suite 2531 Akron, OH 44311 330-572-2100 Fax: 330-572-2101</p>																																																																			