Market: IL/WI
Cell Site Number: WI1018
Cell Site Name: West Allis Water Tower
Fixed Asset Number: 10080397

THIRD AMENDMENT TO WATER TOWER LEASE AGREEMENT

This Third Amendment to Water Tower Lease Agreement ("**Third Amendment**"), dated as of the latter of the signature dates below, is between the City of West Allis, having a mailing address of West Allis City Hall, 7525 West Greenfield Avenue, West Allis, WI 53214 ("**Owner**"), and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 1025 Lenox Park Blvd. NE, Atlanta, GA 30319 ("**Tenant**"). Owner and Tenant are collectively referred to as "**Parties**" and individually as "**Party**."

RECITALS

A. The Parties, and/or their predecessors in interest, entered into a Water Tower Lease Agreement dated October 19, 1998, as amended by an Estoppel and Consent Certificate and Lease Amendment dated June 22, 2000, and as further amended by a Second Amendment to Water Tower Lease Agreement dated October 6, 2016 (collectively, "**Lease**").

B. Owner owns property located at 11515 West Rogers Street, West Allis, WI 53227, as legally described on **Attachment A-1** to this Third Amendment, ("**Property**") on which Owner maintains a water tower ("**Tower**"). Pursuant to the Lease, Owner leases to Tenant a portion of the Property that is comprised of certain land space on the Property, as legally described on **Attachment A-1** and Exhibit 1 to First Amendment to Memorandum of Lease, recorded with the Milwaukee County Register of Deeds on November 1, 2016 as Document No. 10618686, and certain locations on the Tower on which Tenant maintains certain Antenna Facilities ("**Premises**").

C. As used in this Third Amendment, "**Antenna Facilities**" includes Tenant's existing equipment cabinet and any and all facilities Tenant has or will install on the Property.

D. The Parties desire to amend the Lease to permit Tenant to undertake an "**Upgrade Project**" to modify its Antenna Facilities on the Premises, including the Tower, subject to the terms of this Third Amendment.

E. The Parties also desire to amend the Lease to update the site survey to reflect a change in the access easement area and to identify certain utility easements that were previously not identified or recorded.

AGREEMENT

The Parties agree to amend the Lease as follows:

1. Grant of Easement Rights/Release of Prior Easement.

a. Access Easement. Subject to the provisions of the Lease and throughout its Term, Owner hereby grants to Tenant the right to access the Property via the access easement that is depicted on the site survey in **Attachment A-2** and legally described on **Attachment A-1**.

b. Utility Easements. Subject to the provisions of the Lease and throughout its Term, Owner hereby grants to Tenant a four-foot wide non-exclusive utility easement for the underground installation and maintenance of utility wires, cables, conduits, and pipes in the location depicted on the site survey in **Attachment A-2** and legally described on **Attachment A-1**.

c. Release of Easement. On Exhibit 1 to First Amendment to Memorandum of Lease, there is legally described a twenty-foot wide utility and ingress/egress easement. That easement may no longer be used and is hereby released by Owner and Tenant. This released easement is depicted on the site survey in **Attachment A-2** and is labeled "(to be released)."

2. Upgrade Project.

a. Lighting Plan.

i. Tenant's Upgrade Project shall include a plan for remediation of the violations of Federal Aviation Administration ("FAA") rules regarding tower lighting, which violations resulted from Tenant's prior work on the Tower. Tenant shall be solely responsible for the cost of implementing the lightening plan, once approved by Owner.

ii. Effective upon installation, all such tower lighting equipment shall be owned by Owner, and Owner assumes full responsibility for the operation and maintenance of the Tower in compliance with all federal, state and local laws and regulations applicable to the Tower and the Property. Nothing contained herein shall obligate Tenant to maintain Owner's Tower lighting or alarm system and Owner acknowledges that it, and not Tenant, shall be solely liable and responsible for compliance with all such Tower marking and lighting requirements. Owner's failure to comply with the foregoing obligations of this Section shall be a material default for which Tenant may terminate this Agreement immediately upon written notice to Landlord.

b. New Railing.

i. Tenant's Upgrade Project shall include the design and installation of a new railing on the Tower. Tenant shall be solely responsible for the cost of designing and installing the railing, once approved by Owner, except that, because Owner will be reconditioning the Tower, Owner shall be responsible for the cost of painting inside the Tower. Effective upon installation, the railing shall be owned by Owner and considered part of

the Tower.

ii. Once installed, Tenant may use up to 50 percent of the linear space on the railing, provided that such use does not exceed 50 percent of the railing's loading capacity.

c. Governmental Approvals. Tenant shall not begin installation of the Upgrade Project without first obtaining all necessary federal, state, and local governmental approvals and permits for such work.

d. Required Submissions. Prior to commencing construction of the Upgrade Project, Tenant shall submit all of the following to Owner:

i. *Application.* An Antenna Site Application ("**Application**") on a form supplied by Owner. The complete and executed Application is attached as **Attachment B-1** to this Third Amendment.

ii. *Deposit.* The required deposit, as set forth in the Application.

iii. *Construction Drawings.* Detailed construction plans and drawings ("**CDs**") for all improvements for Owner's written approval, which approval must be obtained before Tenant may commence any construction or installation work on the Property. If Owner disapproves the CDs, Tenant may provide Owner with revised plans for Owner's review. Owner's approval of the CDs shall not be unreasonably withheld, conditioned, or delayed.

iv. *Updated Site Survey.* Tenant shall provide an updated site survey, which shall be attachment as **Attachment A-2** once it is approved by Owner.

v. *Engineering Study/Structural Analysis.* An engineering study and structural analysis to determine whether the proposed installation of the Upgrade Project will adversely affect the structural integrity of the Tower.

3. Additional Rent. Tenant shall not be required to pay additional rent for the Upgrade Project provided that Tenant abides by Section 2(b)(ii) of this Third Amendment, which provides that AT&T may use up to 50% of the linear space on the railing provided that the use does not exceed 50% of the railing's loading capacity.

4. Future Modifications.

a. Once the Upgrade Project is completed, Tenant shall not seek to add any additional Antenna Facilities or otherwise modify its then-existing Antenna Facilities or make any other additions, alterations, or improvements to the Property ("**Modification Project**") without Owner's prior written approval, which approval shall not be unreasonably withheld, conditioned, or delayed, provided that any Modification Project which increases the number or size of the Antenna Facilities

on the Tower may be subject to an increase in rent and shall not be installed until the Parties have mutually agreed on the amount of the increase.

b. Prior to commencing construction of a Modification Project, Tenant shall submit to Owner all of the same information required under Section 2.d of this Third Amendment for the Upgrade Project. Such information shall be attached to this this Third Amendment and appropriately numbered (e.g., the Site Application for the first Modification Project, if any, shall be attached as **Attachment B-2**).

5. Additional Project Requirements.

a. Installation to Conform to CDs. Tenant's installation of the Upgrade Project or a future Modification Project (collectively, "**Projects**" and each, a "**Project**") shall be made at Tenant's sole expense and completed in a neat and workmanlike manner in accordance with sound engineering practices; applicable rules, regulations, and laws; and in strict compliance with the approved CDs. Once approved by Owner, the CDs for the Upgrade Project shall be attached as **Attachment C-1**. Approved CDs for a subsequent Project, if any, shall be attached as **Attachment C-2**.

b. As-Built Drawings. Within (30) days after installation of a Project, Tenant shall provide to Owner electronically formatted as-built drawings ("**As-Builts**") documenting the Antenna Facilities installed on the Property. The As-Builts shall show the actual location of all Tenant's Antenna Facilities and shall be accompanied by a complete and detailed inventory of all the existing and newly installed Antenna Facilities. The As-Builts for the Upgrade Project shall be attached as **Attachment D-1**. As-Builts for a subsequent Project, if any, shall be attached as **Attachment D-2**.

6. Repair/Replacement Notice.

a. With the exception of emergencies, Tenant shall submit to Owner advance written notice of the need for and the nature of any repair of Tenant's existing Antenna Facilities or the replacement of such facilities on a like-for-like basis, using the Antenna Site Service Notice form attached as **Attachment E** ("**Service Notice**") For the sake of clarity, "**like-for-like basis**" means that the existing Antenna Facilities are replaced with Antenna Facilities that are no greater in size (i.e., the dimensions are the same or smaller), weight, or number and that the new Antenna Facilities are attached in the same manner as Tenant's then-existing Antenna Facilities.

b. If Owner objects to the Service Notice, Owner shall notify Tenant in writing, within two (2) business days from its receipt of the Service Notice. Owner's notice to Tenant shall specify in detail the objection and whether Tenant is authorized to proceed with the repair or replacement. Tenant may resubmit a revised Service Notice as often as necessary until approved by Owner.

c. In the case of an emergency, Tenant shall provide written notice to Owner describing the replacement or repair, as well an explanation of the reason the repair or replacement constituted an emergency and did not require prior written notice to Owner, with the written notice being transmitted by Tenant to Owner within twenty-four (24) hours following the emergency replacement or repair. As used in this Third Amendment, "**emergency**" shall be deemed to exist only in instances in which the emergency conditions constitute an immediate threat to the health or safety of the public, an immediate danger to the operation of Tenant's communications services, or immediate danger to the Tower and its operations.

7. Review/Inspection. As directed by Owner, Owner's technical consultants shall review and periodically inspect Tenant's Project beginning with the pre-construction conference and continuing through installation, construction, punch-list review, and verification of the post-construction As-Builts.

8. Notices. Section 13 of the Lease is hereby deleted in its entirety and replaced with the following:

Notices. All notices, requests, and demands hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows.

If to Tenant: New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site #: WI1018; Cell Site Name: West Allis Water Tank (WI)
FA No: 10080397
1025 Lenox Park Blvd. NE
Atlanta, GA 30319

With copy to: New Cingular Wireless PCS, LLC
Attn: AT&T Legal Department
Re: Cell Site #: WI1018; Cell Site Name: West Allis Water Tank (WI)
FA No: 10080397
208 S. Akard Street
Dallas, TX 75202-4206

The copy sent to the Legal Department is an administrative step, which alone does not constitute legal notice.

If to Owner: City of West Allis
Attn: City Attorney
City Hall
7525 West Greenfield Avenue
Room 232
West Allis, WI 53214

With a Copy to: City of West Allis
Attn: Public Works Director
City Hall
6300 W. McGeoch Avenue
Room 232
West Allis, WI 53219

Either party hereto may change the place for the giving of notice to it by thirty (30) days prior written notice to the other as provided herein.

9. Responsibility for Professional Costs.

a. Tenant shall reimburse Owner for all commercially reasonable third-party professional costs that Owner incurs associated with a Project. Such costs shall include payments Owner makes to Owner's technical consultants for their work associated with a Project as well as payments made to outside legal counsel for their work associated with the Project (collectively, "**Professional Costs**").

b. In the event that Owner determines that the Professional Costs may exceed the amount of the deposit required in the Application, Owner shall endeavor, within ten (10) business days of making that determination, to notify Tenant in writing (email notice is sufficient) of the amount any expenses in excess of the deposit ("**Additional Professional Costs**"). Owner will invoice Tenant for the Additional Professional Costs, which invoice shall be due and payable within thirty (30) days of its receipt. Owner's failure to provide notice within the ten (10)-business day timeframe will not relieve Tenant of its obligation to pay the Additional Professional Costs to Owner. Owner shall also provide Tenant with an estimate of any "**Future Professional Costs**" to the extent such costs can be estimated.

c. Owner will provide Tenant, within thirty (30) days of Project Completion, a detailed final invoice for any unpaid Additional Professional Costs and for any Future Professional Costs, and Tenant shall pay such invoice within thirty (30) days of its receipt. Owner shall refund to Tenant any pre-payment amounts Tenant has paid to Owner for Professional Costs to the extend such pre-payment amounts exceed such costs. "**Project Completion**" means the point at which Owner has completed all post-construction inspection, Tenant has completed any and all remedial work to Owner's satisfaction, and Owner has approved in writing Tenant's post-construction As-Builts.

d. Once the deposit required in the Application is exhausted, this First Amendment supersedes and replaces Tenant's obligation to pay Owner's Costs as provided for in the Application.

10. Work Performed by Owner. Any work performed or service provided by Owner under

the Lease, the cost of which is Tenant's responsibility, shall be charged out at Owner's annually adopted fully loaded labor rate ("**Labor Rate**") and transportation rate ("**Transportation Rate**"), which rates shall include a charge for administrative and general costs. Owner will invoice Tenant for such costs, which invoice shall be due and payable within thirty (30) days of its receipt. Upon Tenant's request, Owner will provide Tenant with documentation of Owner's Labor Rate and Transportation Rate.

11. Tower Maintenance and Repair.

a. Antenna Facilities Remain in Place. The following process shall be followed when the Tower is to be painted and/or reconditioned and Owner, in its sole discretion, determines that it is reasonable to keep all or any portion of the Antenna Facilities in place while such work is performed.

i. Owner shall notify Tenant prior to the end of any calendar year during which Owner has planned and budgeted for Tower painting and/or reconditioning in the subsequent year, and shall further notify Tenant at least ninety (90) days in advance of the week when the work on the Tower is to be scheduled.

ii. Owner shall use the following method to determine the impact of the Antenna Facilities on the cost of painting the Tower:

(1) The painting contractor will bid on the cost of painting the Tower both with and without the Antenna Facilities. The contractor will then proceed to paint the Tower with the Antenna Facilities left in place.

(2) Tenant shall be responsible for the difference between the two (2) bids and shall pay any such invoice therefor within thirty (30) days of its receipt.

b. Temporary Relocation of Antenna Facilities. When, in Owner's sole discretion, maintenance, repair, repainting, restoration, or other such activity with respect to the Tower requires the Antenna Facilities to be temporarily relocated, Owner shall give Tenant at least (6) months' prior written notice of the date such work has been scheduled. Within that six-month period, Tenant shall relocate its equipment on a temporary basis to another location on the Property. If Tenant requires the use of a cell tower on wheels ("**COW**"), Owner shall permit Tenant, at Tenant's sole expense, to place a COW on the Property in a location mutually agreed upon by Owner and Tenant. Tenant shall cooperate with Owner regarding the placement of the COW on the Property.

c. Temporary Emergency Relocation. In case of an emergency that requires Owner to remove Tenant's Antenna Facilities, Owner may do so after giving advance telephone notice to Tenant as soon as practical by calling **(800) 298-3553**. In the event the use of Tenant's Antenna Facilities is interrupted, Tenant shall have the

right to maintain a COW temporarily on the Property in a location approved by Owner. If the Property will not accommodate a COW, it is Tenant's responsibility to locate alternative sites.

12. Access.

a. Tenant shall have 24/7 unsupervised access to its Antenna Facilities located on the ground space portion of the Premises. Tenant may have supervised access to its Antenna Facilities on the Tower by requesting access forty-eight (48) hours in advance. For instances involving regular maintenance, Tenant shall request access to the Tower by calling **(414) 302-8827**. If Tenant needs access to the Tower in an emergency, it shall give advance notice to Owner as soon as reasonably possible by calling **(414) 302-8827**. Tenant shall reimburse Owner for all costs Owner incurs in sending its personnel to the Site and in supervising Tenant's Tower access.

b. Tenant shall be subject to any and all emergency operation plans adopted by Owner applicable to the Tower. When accessing the Tower, Tenant's employees, contractors, and agents shall have proper identification. Tenant shall be responsible for maintaining a written record of the names of its employees, contractors, and agents who perform work on the Tower, the nature of the work performed, and the date and time such work is performed. Tenant shall make such records available to Owner upon request.

13. Other Provisions Unaffected. To the extent that any provision of this Third Amendment is inconsistent with any provision of the Lease, this Third Amendment shall control. Otherwise, all provisions of the Lease that are not affected by this Third Amendment shall remain in full force and effect.

14. Entire Agreement. This Third Amendment (including the recitals and all attachments to this Third Amendment, which are incorporated into and form part of this Third Amendment), together with the Lease, constitutes the entire understanding of the Parties with respect to the subject matter hereof and no other agreement, statement, or promise made by any Party or any employee, officer, or agent of any Party that is not contained in this Third Amendment or Lease shall be binding or valid.

[Signature Pages Follow]

CITY OF WEST ALLIS, WISCONSIN

By: _____

Print Name:_____

Title:_____

Date: _____

***

NEW CINGULAR WIRELESS PCS, LLC
By: AT&T Mobility Corporation
Its: Manager

Name: _____

Print Name: Andrew T. Flowers

Title: Sr Real Estate & Construction Manager

Date: 5/24/2021

ATTACHMENT A-1

LEGAL DESCRIPTIONS

PROPERTY

Parcel Two (2) of Certified Survey Map No. 5306, being a part of the Southeast One-Quarter (1/4) of Section Six (6), in Township Six (6) North, Range Twenty-One (21) East, in the City of West Allis, County of Milwaukee, State of Wisconsin, and recorded in the Office of the Register of Deeds of Milwaukee County on August 8, 1989 in Reel 2356, Image 1456 to 1459, inclusive, as Document No. 6300590.

PIN: 481-9993-028

PREMISES

A part of Parcel 2 of Certified Survey Map (C.S.M.) No. 5306 of Milwaukee County Records, being a part of the Southeast Quarter (SE 1/4) of Section Six (6), Township Six (6) North, Range Twenty-One (21) East, City of West Allis, Milwaukee County, Wisconsin containing 575 square feet (0.013 acres) of land and being described by:

Commencing at the Center of said Section 6; thence S01°-03'-039'E (Recorded as S00°-15'-05"E) 773.91 feet along the West line of the SE 1/4 of said Section 6 and also being the East line of South 116th Street; thence Southerly 69.37 feel along said East line and the arc of a curve to the left, having a radius of 1952.00 feet, and a chord of which bears S02°-04'-39"E (Recorded as N01°-16'-10"W) 69.36 feet to the Southwest Corner of said C.S.M. No. 5306; thence 89°-22'-01"E (N89°-49'-30"W) 195.09 feet; thence N00°-37'-59"W 65.81 feet to the point of beginning; thence S89°-22'-01"W 25.00 feet; thence N00°-37'-59"W 23.00 feet; thence N89°-22'-01"E 25.00 feet; thence S00°-37'-59"E 23.00 feet to the point of beginning; being subject to any and all easements and restrictions of record.

TWENTY-FOOT WIDE ACCESS EASEMENT CENTERLINE DESCRIPTION

A PORTION OF LAND LOCATED IN PARCEL TWO (2) OF CERTIFIED SURVEY MAP (C.S.M.) NUMBER 5306, BEING A PART OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION SIX (6), TOWNSHIP SIX (6) NORTH, RANGE TWENTY-ONE (21) EAST, CITY OF WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN AND BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND BRASS CAP IN CONCRETE LOCATING THE SOUTH QUARTER CORNER OF SAID SECTION 6; THENCE N0° 22' 22"E, 2026.52 FEET ALONG THE WEST LINE OF THE SE1/4 OF SAID SECTION 6 TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL ONE OF C.S.M. NUMBER 5306; THENCE S89° 16' 24"E, 100.20 FEET ALONG THE NORTH LINE OF SAID PARCEL ONE

TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL 2; THENCE S89° 13' 45"E, 22.83 FEET ALONG THE NORTH LINE OF PARCEL 2 TO THE POINT OF BEGINNING; THENCE S0° 22' 31"W, 152.90 FEET; THENCE S10° 06' 12"E, 19.97 FEET; THENCE S29° 06' 49"E, 12.18 FEET; THENCE S46° 10' 32"E, 15.61 FEET; THENCE S64° 57' 11"E, 14.95 FEET; THENCE S82° 38' 27"E, 13.95 FEET; THENCE N90° 00' 00"E, 12.64 FEET; THENCE N0° 48' 02"E, 37.13 FEET TO THE SOUTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL AND THE POINT OF TERMINATION. SAID AT&T ACCESS EASEMENT CENTERLINE CONTAINS 279.33 LINEAR FEET, MORE OR LESS, AND IS SUBJECT TO ANY AND ALL EASEMENTS OR AGREEMENTS, RECORDED OR UNRECORDED. SIDELINES OF SAID EASEMENT SHALL BE LENGTHENED OR SHORTENED TO BEGIN AT NORTH LINE OF PARCEL 2 AND TERMINATE AT THE SOUTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL.

FOUR-FOOT WIDE UTILITY EASEMENT CENTERLINE DESCRIPTION

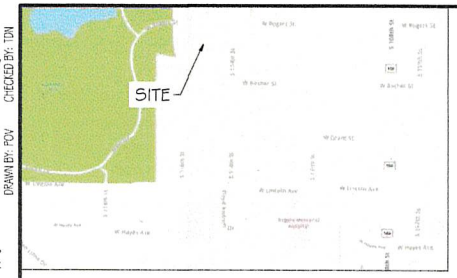
A PORTION OF LAND LOCATED IN PARCEL TWO (2) OF CERTIFIED SURVEY MAP (C.S.M.) NUMBER 5306, BEING A PART OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION SIX (6), TOWNSHIP SIX (6) NORTH, RANGE TWENTY-ONE (21) EAST, CITY OF WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN AND BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND BRASS CAP IN CONCRETE LOCATING THE SOUTH QUARTER CORNER OF SAID SECTION 6; THENCE N0° 22' 22"E, 2026.52 FEET ALONG THE WEST LINE OF THE SE1/4 OF SAID SECTION 6 TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL ONE OF C.S.M. NUMBER 5306; THENCE S89° 16' 24"E, 100.20 FEET ALONG THE NORTH LINE OF SAID PARCEL ONE TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL 2; THENCE S89° 13' 45"E, 160.03 FEET TO A FOUND 1" IRON PIPE LOCATING THE NORTHEAST CORNER OF PARCEL 2; THENCE S0° 19' 39"W, 110.96 FEET ALONG THE EAST LINE OF PARCEL 2 TO THE POINT OF BEGINNING; THENCE S79° 11' 48"W, 46.19 FEET; THENCE S54° 21' 40"W, 25.15 FEET; THENCE S0° 48' 02"W, 6.07 FEET TO THE NORTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL AND THE POINT OF TERMINATION. SAID AT&T UTILITY EASEMENT CENTERLINE CONTAINS 77.41 LINEAR FEET, MORE OR LESS, AND IS SUBJECT TO ANY AND ALL EASEMENTS OR AGREEMENTS, RECORDED OR UNRECORDED. SIDELINES OF SAID EASEMENT SHALL BE LENGTHENED OR SHORTENED TO BEGIN AT EAST LINE OF PARCEL 2 AND TERMINATE AT THE NORTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL.

ATTACHMENT A-2

SITE SURVEY

DRAWN BY: POV CHECKED BY: TDN



VICINITY MAP
NOT TO SCALE

PARENT PARCEL LEGAL DESCRIPTION (PARCEL NUMBER: 481-9993-028)

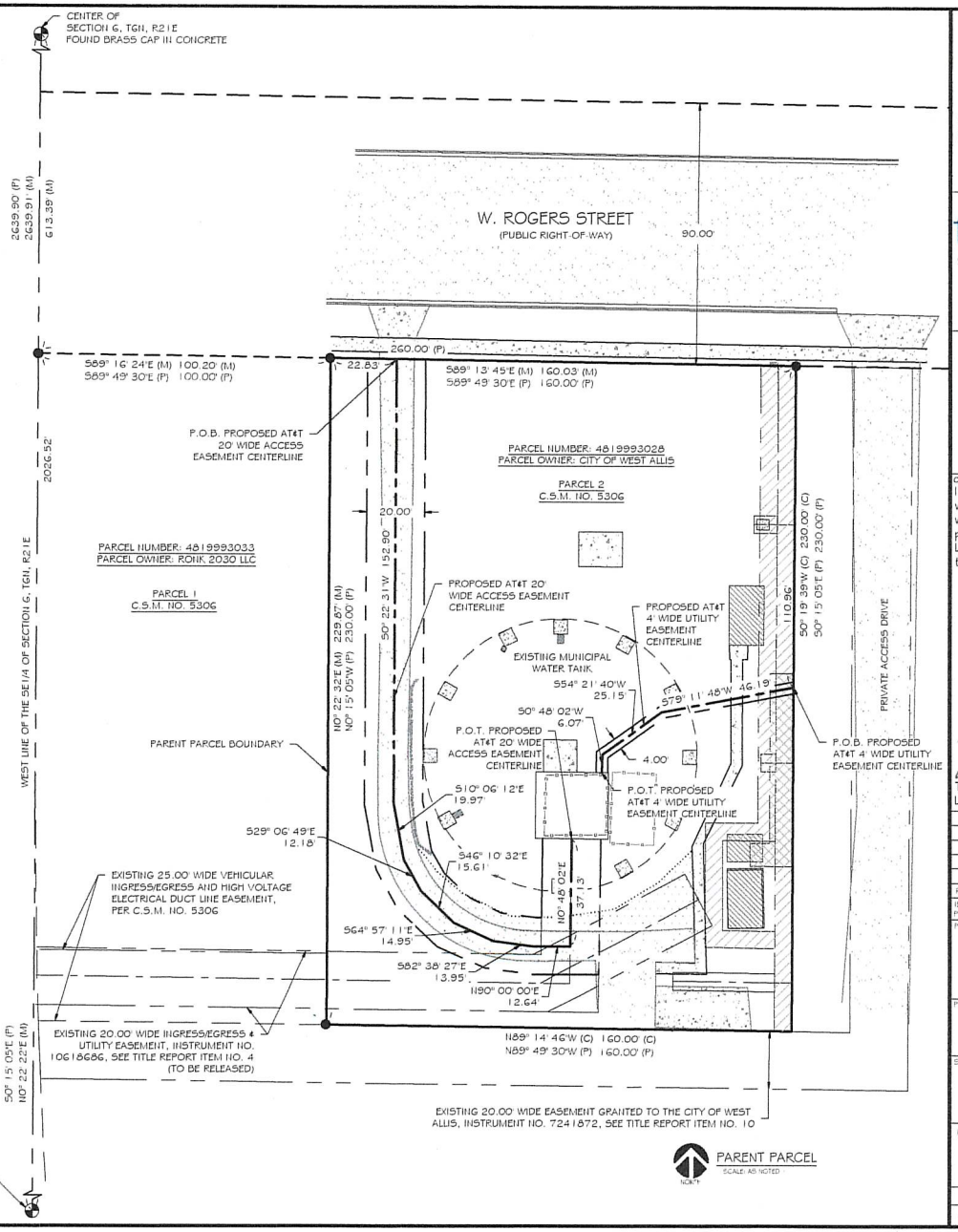
PARCEL TWO (2) OF CERTIFIED SURVEY MAP NO. 5306, BEING A PART OF THE SOUTHEAST ONE-QUARTER (1/4) OF SECTION SIX (6), IN TOWNSHIP SIX (6) NORTH, RANGE TWENTY-ONE (21) EAST, IN THE CITY OF WEST ALLIS, COUNTY OF MILWAUKEE, STATE OF WISCONSIN, AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS OF MILWAUKEE COUNTY ON AUGUST 8, 1988 IN REEL 2356, IMAGE 1456 TO 1459, INCLUSIVE, AS DOCUMENT NO. 6300590.

SURVEYOR'S NOTES

1) ALL EASEMENTS AND/OR LEASE AREAS SHOWN AND NOT LABELED AS EXISTING SHALL BE PENDING UNTIL RECORDED.
2) AN ATTEMPT WAS MADE TO LOCATE ALL PROPERTY CORNERS AND MONUMENTS. WHERE NO MONUMENTS WERE FOUND, THE PROPERTY LINE WAS DRAWN BASED ON RECORDED AND/OR FILED DOCUMENTS.
3) NOT TO BE USED AS CONSTRUCTION DRAWINGS.
4) LOCATION OF UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY WAS DETERMINED BY OBSERVED EVIDENCE, EVIDENCE FROM PLANS PROVIDED TO THE SURVEYOR OR MARKINGS PURSUANT TO A UTILITY LOCATE REQUESTED BY THE SURVEYOR. GPRS UTILITY LOCATE COMPANY WA NUMBER 237405.
5) FIELDWORK WAS PERFORMED BY RAMAKER & ASSOCIATES AND REVIEWED BY TRENT D. NELSON, WISCONSIN SURVEYOR NUMBER 3132-8.
6) THE PURPOSE OF THIS SURVEY IS TO ESTABLISH AND DESCRIBE A LEASE AREA AND ASSOCIATED EASEMENTS. THIS IS NOT A BOUNDARY SURVEY OF THE PARENT PARCEL.
7) PARENT PARCEL DESCRIPTION FROM RECORDED AND/OR FILED DOCUMENTS.
8) THIS MAP WAS PREPARED WITH THE AID OF A TITLE REPORT BY AMC SETTLEMENT SERVICES, DOCUMENT NUMBER: SAC200037653, DOCUMENT DATE: 11/03/2020.
9) AN EXTENSIVE SEARCH WAS PERFORMED TO PROVIDE ALL EXISTING LEASE AREAS AND ASSOCIATED EASEMENTS ON THE SURVEY. IN THE EVENT THAT NO DOCUMENTATION WAS FOUND, ONLY THE EXISTING EQUIPMENT AREA WAS DEPICTED ON THE SURVEY.
10) BEARINGS ARE REFERENCED TO THE WEST LINE OF THE SE1/4 OF SECTION 6, T6N, R21E, MEASURED TO BEAR N0° 22' 22"E BY GPS GRID USING THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, U.S. FOOT.
11) VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988.
12) F.E.M.A. FLOOD PANEL MAP NUMBER 55079C0068E, ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

LEGEND

	SECTION CORNER, FOUND
	1" IRON PIPE, FOUND
C.S.M.	CERTIFIED SURVEY MAP
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
P.O.T.	POINT OF TERMINATION
(M)	MEASURED BEARING & DISTANCE
(C)	CALCULATED BEARING & DISTANCE
(P)	PLATTED BEARING & DISTANCE
	PARENT PARCEL BOUNDARY
	EXISTING RIGHT-OF-WAY
	EXISTING LOT LINE
	EXISTING WOOD FENCE
	EXISTING EASEMENT SIDELINE
	EXISTING EASEMENT CENTERLINE
	EXISTING LEASE AREA
	EXISTING CONCRETE CURB & GUTTER
	EXISTING ASPHALT
	EXISTING CONCRETE
	EXISTING GRAVEL
	SECTION LINE
	QUARTER SECTION LINE
	QUARTER-QUARTER SECTION LINE



RAMAKER
employee-owned
(608) 643-4100 www.ramaker.com

telamon
simplifying business

1000 E. 116th STREET
CARMEL, IN 46032

NORTH

Certification & Seal:
I hereby certify that this Survey Document was prepared and the related Survey Work was performed by me or under my direct personal supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Wisconsin.

WISCONSIN
TRENT D NELSON
3132-8
WAUTOMA, WI
LAND SURVEYOR

Trent D. Nelson, PLS
License Number: 3132-8

REV	DATE	DESCRIPTION
2	4/22/21	PROPOSED ACCESS EASEMENT UPDATES
1	3/23/21	ADD AT&T PROPOSED EASEMENTS

ISSUE PHASE: FINAL
DATE ISSUED: 04/22/2021

PROJECT TITLE:
WEST ALLIS WATER TOWER

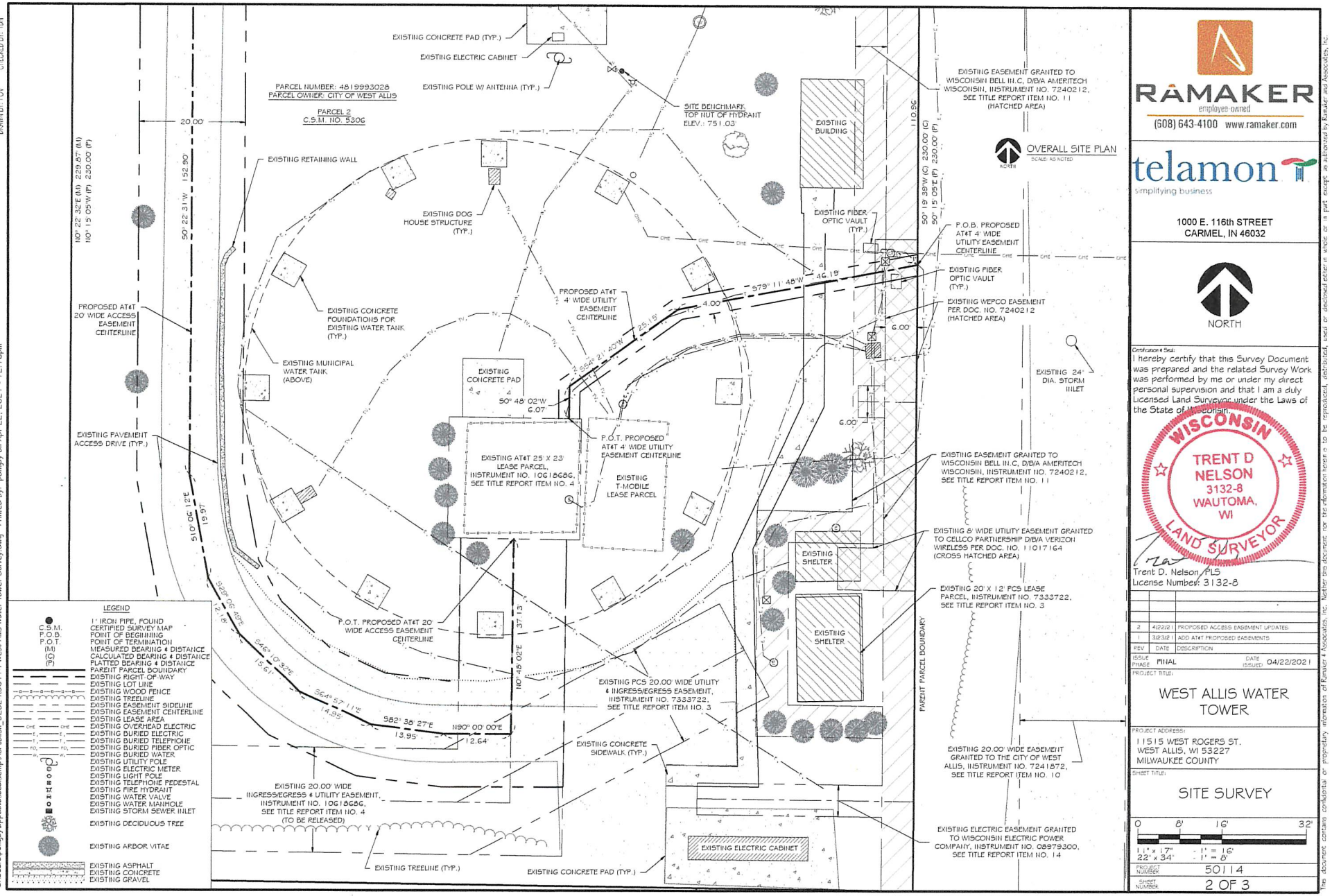
PROJECT ADDRESS:
11515 WEST ROGERS ST.
WEST ALLIS, WI 53227
MILWAUKEE COUNTY

SHEET TITLE:
SITE SURVEY

0 20' 40' 80'
1 1" x 17" - 1" = 40'
2 22" x 34" - 1" = 20'

PROJECT NUMBER: 50114
SHEET NUMBER: 1 OF 3

C:\Users\prongay\appdata\local\temp\AcPublish_52\82\50114 West Allis Water Tower Survey.dwg Printed by: prongay on Apr 22, 2021 - 12:16pm



LEGEND

●	1" IRON PIPE, FOUND
C.S.M.	CERTIFIED SURVEY MAP
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TERMINATION
(M)	MEASURED BEARING & DISTANCE
(C)	CALCULATED BEARING & DISTANCE
(P)	PLATTED BEARING & DISTANCE
	PARENT PARCEL BOUNDARY
	EXISTING RIGHT-OF-WAY
	EXISTING LOT LINE
	EXISTING WOOD FENCE
	EXISTING TREELINE
	EXISTING EASEMENT SIDELINE
	EXISTING EASEMENT CENTERLINE
	EXISTING LEASE AREA
	EXISTING OVERHEAD ELECTRIC
	EXISTING BURIED ELECTRIC
	EXISTING BURIED TELEPHONE
	EXISTING BURIED FIBER OPTIC
	EXISTING BURIED WATER
	EXISTING UTILITY POLE
	EXISTING ELECTRIC METER
	EXISTING LIGHT POLE
	EXISTING TELEPHONE PEDESTAL
	EXISTING FIRE HYDRANT
	EXISTING WATER VALVE
	EXISTING WATER MANHOLE
	EXISTING STORM SEWER INLET
	EXISTING DECIDUOUS TREE
	EXISTING ARBOR VITAE
	EXISTING ASPHALT
	EXISTING CONCRETE
	EXISTING GRAVEL

DRAWN BY: POY CHECKED BY: TDN
C:\Users\pongay\appdata\local\temp\AcPublish_52\82415011 4 West Allis Water Tower Survey.dwg Printed by: pongay on Apr 22, 2021 - 12:16pm

RAMAKER
employee-owned
(508) 643-4100 www.ramaker.com
telamon
simplifying business
1000 E. 116th STREET
CARMEL, IN 46032

Certification & Seal:
I hereby certify that this Survey Document was prepared and the related Survey Work was performed by me or under my direct personal supervision and that I am a duly Licensed Land Surveyor under the Laws of the State of Wisconsin.

WISCONSIN
TRENT D NELSON
3132-8
WAUTOMA, WI
LAND SURVEYOR

Trent D. Nelson, PLS
License Number: 3132-8

REV	DATE	DESCRIPTION
2	4/22/21	PROPOSED ACCESS EASEMENT UPDATES
1	3/23/21	ADD AT&T PROPOSED EASEMENTS

ISSUE PHASE: FINAL
DATE ISSUED: 04/22/2021

PROJECT TITLE:
WEST ALLIS WATER TOWER

PROJECT ADDRESS:
11515 WEST ROGERS ST.
WEST ALLIS, WI 53227
MILWAUKEE COUNTY

SHEET TITLE:
SITE SURVEY

0 8' 16' 32'
1" = 16'
1" = 8'

PROJECT NUMBER: 50114
SHEET NUMBER: 2 OF 3

TITLE REPORT REVIEW

PREPARED BY: AMC SETTLEMENT SERVICES
LOAN NUMBER: SAC20037653
DOCUMENT DATE: 11/03/2020

EXCEPTIONS PER AT&T MOBILITY TITLE REVIEW CHECKLIST BY LEGAL OPINION OF AMY B. HERZOG DATED OCTOBER 27, 2000 AND AMC SETTLEMENT SERVICES BRING TO DATE TITLE REPORT DATED NOVEMBER 6, 2020:

1.-2.: ***(NON-SURVEY RELATED EXCEPTION.)***

3. THE LOCATION OF THE LEASED PREMISES DESCRIBED IN THE MEMORANDUM OF PCS SITE AGREEMENT BETWEEN CITY OF WEST ALLIS AND SPRINT SPECTRUM L.P. RECORDED AS INSTRUMENT NO. 7333722 SHOULD BE VERIFIED TO DETERMINE IF ITS LOCATION INTERFERES WITH THE TOWER SITE. THE LEASED PREMISES SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES AFFECT THE PARENT PARCEL AND IS SHOWN ON SURVEY.)***

4. THE LOCATION OF THE LEASED PREMISES DESCRIBED IN THE MEMORANDA OF PCS SITE AGREEMENTS BETWEEN CITY OF WEST ALLIS AND INDUS, INC. RECORDED AS INSTRUMENT NOS. 7548522 AND 7919920, AS AMENDED BY THAT CERTAIN INSTRUMENT NO. 10618686 SHOULD BE VERIFIED TO DETERMINE IF ITS LOCATION INTERFERES WITH THE TOWER SITE. THE LEASED PREMISES SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES AFFECT THE PARENT PARCEL AND IS SHOWN ON SURVEY.)***

5. THE LOCATION OF THE EASEMENT GRANTED TO THE WISCONSIN ELECTRIC POWER COMPANY AND WISCONSIN TELEPHONE COMPANY RECORDED IN VOLUME 4186, PAGE 465 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(UNABLE TO DETERMINE EXACT LOCATION OF EXISTING EASEMENT DUE TO THE DOCUMENT BEING ILEGIBLE.)***

6. THE LOCATION OF THE EASEMENT GRANTED TO THE WISCONSIN ELECTRIC POWER COMPANY AND WISCONSIN TELEPHONE COMPANY RECORDED IN VOLUME 4086, PAGE 14 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(UNABLE TO DETERMINE EXACT LOCATION OF EXISTING EASEMENT DUE TO THE DOCUMENT NOT PROVIDING A PLOTTABLE DESCRIPTION.)***

7. THE LOCATION OF THE EASEMENT GRANTED TO THE WISCONSIN ELECTRIC POWER COMPANY AND WISCONSIN TELEPHONE COMPANY RECORDED IN VOLUME 3978, PAGE 617 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(UNABLE TO DETERMINE EXACT LOCATION OF EXISTING EASEMENT DUE TO THE DOCUMENT NOT PROVIDING A PLOTTABLE DESCRIPTION.)***

8. THE LOCATION OF THE EASEMENT GRANTED TO THE WISCONSIN ELECTRIC POWER COMPANY AND WISCONSIN TELEPHONE COMPANY RECORDED IN VOLUME 3978, PAGE 615 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(UNABLE TO DETERMINE EXACT LOCATION OF EXISTING EASEMENT DUE TO THE DOCUMENT NOT PROVIDING A PLOTTABLE DESCRIPTION.)***

9. THE LOCATION OF THE EASEMENT GRANTED TO THE METROPOLITAN SEWERAGE COMMISSION OF THE COUNTY OF MILWAUKEE RECORDED IN VOLUME 3951, PAGE 248 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES NOT AFFECT THE PARENT PARCEL THEREFORE NOT SHOWN ON SURVEY.)***

10. THE LOCATION OF THE EASEMENT GRANTED TO THE CITY OF WEST ALLIS RECORDED AS INSTRUMENT NO. 7241872 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES NOT AFFECT THE PARENT PARCEL. EXISTING EASEMENT IS SHOWN ON SURVEY.)***

11. THE LOCATION OF THE EASEMENT GRANTED TO WISCONSIN BELL INC., D/B/A AMERITECH WISCONSIN RECORDED AS INSTRUMENT NO. 7240202 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES AFFECT THE PARENT PARCEL. EXISTING EASEMENT IS SHOWN ON SURVEY.)***

12. THE LOCATION OF THE EASEMENT GRANTED TO THE CITY OF WEST ALLIS RECORDED IN VOLUME 174, PAGE 512 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES NOT AFFECT THE PARENT PARCEL. THEREFORE NOT SHOWN ON SURVEY.)***

13. CERTIFIED SURVEY MAP NO. 5306, RECORDED AS INSTRUMENT NO. 6300590 IS ACCEPTABLE. ***(EXISTING CERTIFIED SURVEY MAP IS SHOWN ON SURVEY.)***

14. THE LOCATION OF THE EASEMENT GRANTED TO WISCONSIN ELECTRIC POWER COMPANY RECORDED AS INSTRUMENT NO. 08979300 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES AFFECT THE PARENT PARCEL. EXISTING EASEMENT IS SHOWN ON SURVEY.)***

15. THE LOCATION OF THE EASEMENT GRANTED TO CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS RECORDED AS INSTRUMENT NO. 11017164 SHOULD BE VERIFIED TO THE EXTENT POSSIBLE TO ENSURE THE LOCATION DOES NOT INTERFERE WITH THE TOWER SITE. THE LOCATION SHOULD BE PLOTTED ON THE SITE PLANS AND CONSTRUCTION DRAWINGS FOR THE SITE. ***(EXISTING EASEMENT DOES AFFECT THE PARENT PARCEL. EXISTING EASEMENT IS SHOWN ON SURVEY.)***

PROPOSED AT&T 20' WIDE ACCESS EASEMENT CENTERLINE DESCRIPTION

A PORTION OF LAND LOCATED IN PARCEL TWO (2) OF CERTIFIED SURVEY MAP (C.S.M.) NUMBER 5306, BEING A PART OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION SIX (6), TOWNSHIP SIX (6) NORTH, RANGE TWENTY-ONE (21) EAST, CITY OF WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN AND BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND BRASS CAP IN CONCRETE LOCATING THE SOUTH QUARTER CORNER OF SAID SECTION 6; THENCE N0° 22' 22"E, 2026.52 FEET ALONG THE WEST LINE OF THE SE1/4 OF SAID SECTION 6 TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL ONE OF C.S.M. NUMBER 5306; THENCE S89° 16' 24"E, 100.20 FEET ALONG THE NORTH LINE OF SAID PARCEL ONE TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL 2; THENCE S89° 13' 45"E, 22.83 FEET ALONG THE NORTH LINE OF PARCEL 2 TO THE POINT OF BEGINNING; THENCE S0° 22' 31"W, 152.90 FEET; THENCE S10° 06' 12"E, 19.97 FEET; THENCE S29° 06' 49"E, 12.18 FEET; THENCE S46° 10' 32"E, 15.61 FEET; THENCE S64° 57' 11"E, 14.85 FEET; THENCE S82° 38' 27"E, 13.95 FEET; THENCE N90° 00' 00"E, 12.64 FEET; THENCE N0° 48' 02"E, 37.13 FEET TO THE SOUTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL AND THE POINT OF TERMINATION. SAID PROPOSED AT&T ACCESS EASEMENT CENTERLINE CONTAINS 279.33 LINEAR FEET, MORE OR LESS, AND IS SUBJECT TO ANY AND ALL EASEMENTS OR AGREEMENTS, RECORDED OR UNRECORDED. SIDELINES OF SAID EASEMENT SHALL BE LENGTHENED OR SHORTENED TO BEGIN AT NORTH LINE OF PARCEL 2 AND TERMINATE AT THE SOUTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL.

PROPOSED AT&T 4' WIDE UTILITY EASEMENT CENTERLINE DESCRIPTION

A PORTION OF LAND LOCATED IN PARCEL TWO (2) OF CERTIFIED SURVEY MAP (C.S.M.) NUMBER 5306, BEING A PART OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION SIX (6), TOWNSHIP SIX (6) NORTH, RANGE TWENTY-ONE (21) EAST, CITY OF WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN AND BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND BRASS CAP IN CONCRETE LOCATING THE SOUTH QUARTER CORNER OF SAID SECTION 6; THENCE N0° 22' 22"E, 2026.52 FEET ALONG THE WEST LINE OF THE SE1/4 OF SAID SECTION 6 TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL ONE OF C.S.M. NUMBER 5306; THENCE S89° 16' 24"E, 100.20 FEET ALONG THE NORTH LINE OF SAID PARCEL ONE TO A FOUND 1" IRON PIPE LOCATING THE NORTHWEST CORNER OF PARCEL 2; THENCE S89° 13' 45"E, 160.03 FEET TO A FOUND 1" IRON PIPE LOCATING THE NORTHEAST CORNER OF PARCEL 2; THENCE S0° 19' 39"W, 110.96 FEET ALONG THE EAST LINE OF PARCEL 2 TO THE POINT OF BEGINNING; THENCE S79° 11' 48"W, 46.19 FEET; THENCE S54° 21' 40"W, 25.15 FEET; THENCE S0° 48' 02"W, 6.07 FEET TO THE NORTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL AND THE POINT OF TERMINATION. SAID PROPOSED AT&T UTILITY EASEMENT CENTERLINE CONTAINS 77.41 LINEAR FEET, MORE OR LESS, AND IS SUBJECT TO ANY AND ALL EASEMENTS OR AGREEMENTS, RECORDED OR UNRECORDED. SIDELINES OF SAID EASEMENT SHALL BE LENGTHENED OR SHORTENED TO BEGIN AT EAST LINE OF PARCEL 2 AND TERMINATE AT THE NORTH LINE OF THE EXISTING AT&T 25 FEET X 23 FEET LEASE PARCEL.

RAMAKER
employee-owned
(608) 643-4100 www.ramaker.com

telamon
simplifying business

1000 E. 116th STREET
CARMEL, IN 46032

NORTH

Certification & Seal:
I hereby certify that this Survey Document was prepared and the related Survey Work was performed by me or under my direct personal supervision and that I am a duly Licensed Land Surveyor under the Laws of the State of Wisconsin.

WISCONSIN
TRENT D NELSON
3132-8
WAUTOMA, WI
LAND SURVEYOR

Trent D. Nelson, PLS
License Number: 3132-8

REV	DATE	DESCRIPTION
2	4/22/21	PROPOSED ACCESS EASEMENT UPDATES
1	3/23/21	ADD AT&T PROPOSED EASEMENTS

ISSUE PHASE: FINAL
DATE ISSUED: 04/22/2021

PROJECT TITLE:
WEST ALLIS WATER TOWER

PROJECT ADDRESS:
11515 WEST ROGERS ST.
WEST ALLIS, WI 53227
MILWAUKEE COUNTY

SHEET TITLE:
SITE SURVEY

SCALE:
NONE

PROJECT NUMBER: 50114
SHEET NUMBER: 3 OF 3

ATTACHMENT B-1

ANTENNA SITE APPLICATION

Date Received by Water Utility

_____

ANTENNA SITE APPLICATION

West Allis Municipal Water Utility
6300 West McGeoch Ave
West Allis, WI 53219
(414) 302-8245

A. SITE APPLICATION

- Water Tower Site Name and Location ("**Site**"): West Allis Watertank (WI)
- Wireless Carrier's Corporate Designation ("**Carrier**"): AT&T
- Desired Date of Operation: _____
- Description of Project (example: Install 3 new radio units, relocate 3 antennas):
  Replace: (6) Antennas, (9) RRUs; Remove: (12) TMAs, (3) Antennas;
  Relocate: (6) Coax [from p3 to p2], (3) RRUs [from p2 to p1];
  Add: (2) DC Cables, (1) Fiber, (1) Squid, (1) RET/Alarm Cable, (3) RRUs

1. Applicant Information

a. Name of Applicant: New Cingular Wireless PCS, LLC a Delaware limited liability company

b. Applicant's Address: 1025 Lennox Park Blvd. NE 3rd Floor, Atlanta GA 30319

c. Applicant's Contact Person: Deena Rudmann

i. Mobile: 630-881-5338

ii. Email: deena.rudmann@sacw.com

d. Technical Advisor (A&E Firm): CLS David Rogers

i. Mobile: 405-348-5460

ii. Email: _____

2. RF and Spectrum Information

a. Proposed Radio Band: 700/850/1900/2100/2300

b. Proposed Radio Frequencies: (see attached frequency list)
(attach list, if necessary)

c. Type of Service (e.g., SMR, ESMR, PCS, Wi-Fi): LTE/UMTS/FNET

d. ☒ Licensed Spectrum ☐ Unlicensed Spectrum (check box)

e. If unlicensed spectrum, attach a detail description of the portions of the project using unlicensed spectrum.

f. If this is a Distributed Antenna System project, attach the Radio Frequency Coverage Maps prepared by the FCC Licensee.

g. This Site will be interconnected via radio frequency transmission to other existing or anticipated site(s) -- Yes or No (circle one)

3. **Antenna Facilities (attach applicable specifications)**

a. Number of antennas: 9 Antennas

b. Number of zones: 3

c. Antenna dimensions: See attachment.

d. Antenna type, manufacturer, and model number: (3) Commscope NNH4- 65B- R6H4, (3) Commscope NNH4-65B-R6, (3) SBNHH-1D65C

e. Number of radio units: 15 RRUs

f. Radio unit dimensions: See attachment.

g. Radio unit type, manufacturer, and model number: Ericsson: (3) RRUS 32, (3) RRUS-4478, (3) RRUS 4415, (3) RRUS-32-B66, (3) RRUS 4449

h. Transmission line or cable manufacturer and model number: (12) Coax, (6) DC lines, (2) Fiber

i. Size of cables: Coax- 7/8", DC-7/8", Fiber- .40"

j. Number of cables: 20 Line count

k. Antenna location on tower: (Alpha 0, Beta 120, Gamma 240)

(N, S, E, W, NE etc. or specify the exact antenna azimuths)

l. GPS Antenna -- Yes or No (circle one)

m. If yes, provide size, dimensions, and weight: _____

_____

4. **Dish Equipment (attach applicable specifications)**

a. Number of dishes: N/A

b. Microwave -- Yes or No (circle one) Satellite -- Yes or No (circle one)

c. Dish dimensions: _____

_____

d. Dish type, manufacturer, and model number: _____

_____

e. Provide manufacturer and model number of transmission line or cable:

_____

_____

f. Size of cables:_____ Number of cables: _____

g. Dish location on tower:_____

5. **Ground Equipment (attach applicable specifications)**

a. Square feet required: Existing- 21' x 21'

b. Inside Tower -- Yes or (No) (circle one)

c. Inside Applicant's building -- Yes or (No) (circle one)

d. Number of cabinets: 6 Outdoor Cabinets, 1 proposed Outdoor Cabinet swap

e. Cabinet dimensions: Replacement Purcell FLX21-2520 Cabinet- 39.7" x 25.3" x 30"

f. Number of air conditioners: N/A Description: _____

_____

g. Generator on Site -- Yes or (No) (circle one)

h. If yes, provide type, size, and location: _____

_____

i. Isolator manufacturer and model number: _____

j. Duplexer manufacturer and model number:_____

k. Filters manufacturer and model number: _____

l. Controls used in addition to the transmitter/receiver cabinet(s) -- Yes or No (circle one)

m. If yes, how many? _____ Provide manufacturer and model number: _____

_____

B. **AGREEMENT TO PAY CITY OF WEST ALLIS'S COSTS ("OWNER'S COSTS")**

1. **Owner's Costs**. By signing this Application, Carrier agrees and acknowledges that it is responsible for all Owner's Cost, which include all costs and expenses incurred by Owner associated with Carrier's proposed use of Owner's water tower site. Owner's Costs include, but are not limited to, those costs associated with the following work if performed by Owner, its employees, or its legal or engineering consultants:

   a. Interference analysis and inter-modulation study

   b. Review of Carrier's construction drawings ("**CDs**")

   c. Negotiation of agreements or amendments to related agreements between Carrier and Owner and related attorney's fees

   d. Inspection of work done on Carrier's behalf

   e. Site coordination

   f. Surveying

2. **Deposit Required.**

   a. Carrier shall submit a deposit in the form of a certified check payable to **City of West Allis*** in the amount of **$10,000.00**. The check shall be submitted with a completed and executed Application. Owner shall use the deposit to pay Owner's Costs, as described above.

   b. If the initial deposit is insufficient to cover all of Owner's Costs, Carrier shall provide Owner with an additional deposit in an amount agreed upon by Owner and Carrier. Upon Owner's request, Carrier shall cease any work at the Site until Owner receives the additional deposit from Carrier.

   c. Any unused deposit amounts will be returned to Carrier within thirty (30) days after Carrier has completed its proposed project, provided that Owner's post-construction review confirms that the project has been built in accordance with the CDs for the project as approved by Owner.

To be executed by Carrier or Carrier's authorized representative:

Signature: _____ Date: _____

Name: _____
(Print or Type)

Title: _____

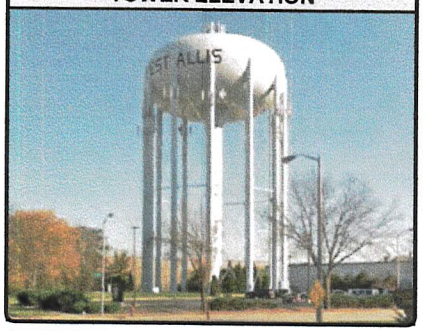
***Checks should be sent to:**
West Allis Municipal Water Utility
Attn: Utility Clerk
6300 West McGeoch Ave
West Allis, WI 53219

ATTACHMENT B-1

CONSTRUCTION DRAWINGS AND INVENTORY

(The attached Construction Drawings are approved by Owner.)

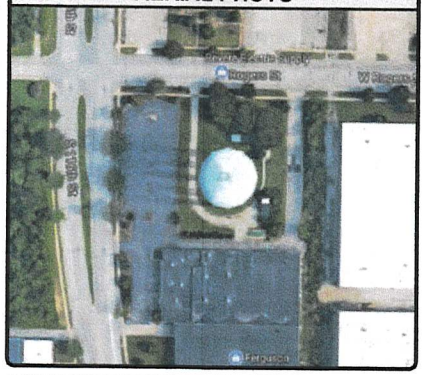
TOWER ELEVATION



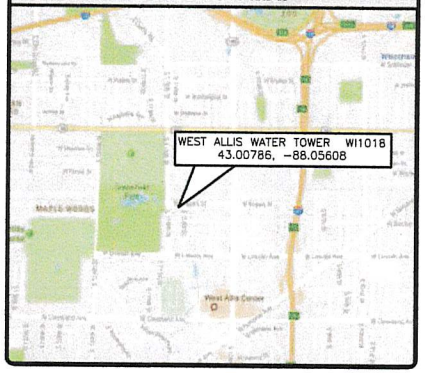
at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

SITE NAME:	**WEST ALLIS WATER TOWER**
FA # / SITE ID:	**10080397 / WI1018**
PROJECT TYPE:	**LTE 5C**
STRUCTURE TYPE:	**COLLOCATION 165'-0" WATER TOWER**

AERIAL PHOTO



LOCATION MAP



PROJECT INFORMATION

LATITUDE: (NAD 83)	43.00786°
LONGITUDE: (NAD 83)	-88.05608°
SITE ADDRESS:	WI1018-WEST ALLIS WATER TOWER 11515 W ROGERS ST. WEST ALLIS, WI 53227
GROUND ELEVATION:	745' AMSL
MARKET:	WISCONSIN-ILLINOIS
JURISDICTION:	WEST ALLIS
COUNTY:	MILWAUKEE
PARENT PACE ID:	MRCHI028995
PTN NUMBERS:	3352A0CLMS
OCCUPANCY TYPE:	UNMANNED
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T1	TITLE SHEET	0
GN1	GENERAL NOTES	0
A1	COMPOUND PLAN	0
A2	EXISTING EQUIPMENT PLAN	0
A2.1	PROPOSED EQUIPMENT PLAN	0
A3	TOWER ELEVATIONS	0
A4	ANTENNA PLANS/ANTENNA SCHEDULE	0
A5	EQUIPMENT DETAILS	0
A6	EQUIPMENT DETAILS	0
A7	EQUIPMENT DETAILS	0
E1-E2	UTILITY PLANS	0
E2	UTILITY PLAN	0
S1-S2	STRUCTURAL DETAILS	0
G1	GROUNDING DETAILS	0
G2	GROUNDING DETAILS	0
G3	GROUNDING DETAILS	0
ADDENDUM	STRUCTURAL/MOUNT ANALYSIS	-

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING APPLICABLE CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

BUILDING/DWELLING CODE:	IBC	2015
STRUCTURAL CODE:	IBC	2015
PLUMBING CODE:	IPC	2015
MECHANICAL CODE:	IMC	2015
ELECTRICAL CODE:	NEC	2017
FIRE & LIFE SAFETY CODE:	IFC	2015

DRIVING DIRECTIONS

FROM GENERAL MITCHELL INTERNATIONAL AIRPORT:

TAKE WI-119 W (SIGNS FOR I-94/MILWAUKEE/CHICAGO) AND KEEP RIGHT. CONTINUE FOR 1.2 MI AND TAKE THE EXIT TOWARD I-94 W. CONTINUE ANOTHER 1.2 MI AND KEEP LEFT, FOLLOW SIGNS FOR I-43 S. CONTINUE FOR 1.0 MI ONTO I-41/I-43 S/I-894 W. TRAVEL FOR 4.6 MI AND THEN KEEP RIGHT TO CONTINUE ON I-41/I-894 W AND FOLLOW SIGNS FOR I-894/US-45 N. TAKE EXIT 2A FOR NATIONAL AVENUE. TURN RIGHT ONTO W NATIONAL AVENUE AND TURN LEFT AT THE FIRST CROSS STREET ONTO S 99TH ST. TURN LEFT AT THE FIRST CROSS STREET ONTO W LINCOLN AVE. CONTINUE 0.5 MI AND TURN RIGHT ONTO S 108TH ST. CONTINUE FOR 0.4 MI AND TURN LEFT ONTO W ROGERS ST. THE SITE WILL BE IN 0.5 MI ON THE LEFT.

PROJECT TEAM

ENGINEER/ARCHITECT:
TELAMON CLS
319 CHAPANOKE ROAD,
SUITE 118
RALEIGH, NC 27603
PM: DAVID ROGERS
405-348-5460

CUSTOMER:
AT&T MOBILITY
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173
CONTACT: N/A
PHONE: 920-236-7330

TOWER OWNER:
CITY OF WEST ALLIS
CONTACT: MICHAEL BROFKA
PHONE: 414-302-8827
SITE NAME: WEST ALLIS
WATER TOWER
SITE NUMBER: N/A

PROJECT MANAGEMENT:
SAC WIRELESS
540 W. MADISON ST. 9TH FLOOR
CHICAGO, ILLINOIS 60661
CONTACT: MILLIE PARKARA
EMAIL: MILLIE.PARKARA@SACW.COM

SITE ACQUISITION:
SAC WIRELESS
CONTACT: DEENA RUDMANN
EMAIL: DEENA.RUDMAN@SACW.COM

CONSTRUCTION:
SAC WIRELESS
CONTACT: LUIS GONZALEZ
EMAIL: LUIS.GONZALEZ@SACW.COM

SCOPE OF WORK

TOWER SOW:
1. REMOVE GSM TMAS IN POSITON 1 & RETAIN GSM COAX.
2. REMOVE UMTS TMAS IN POSITION 3 EACH SECTOR.
3. RELOCATE UMTS FROM POSITION 3 TO POSITION 2 AND CONNECT DIRECTLY TO ANTENNA IN POSITION 2 EACH SECTOR.
4. REMOVE EXISTING SBNH-1D6565B ANTENNA IN POSITION 3 EACH SECTOR.
5. RELOCATE EXISTING RRUS-4415 FROM POSITION 2 TO POSITION 1 EACH SECTOR.
6. REPLACE (1) EXISTING SBNHH-1D65C ANTENNA IN POSITION 1 WITH (1) PROPOSED NNH4-65B-R6H4 ANTENNA EACH SECTOR.
7. REPLACE (1) EXISTING RRUS-11 AND (1) EXISTING RRUS-12 WITH (1) PROPOSED RRUS-4449 IN POSITION 2 EACH SECTOR.
8. DAISY CHAIN POSITION 1 TO POSITION 2 FOR RET.
9. REPLACE EXISTING CORRAL MOUNT WITH PROPOSED CORRAL MOUNT AS PER MOUNT ANALYSIS DONE BY TELAMON CLS, PROJECT #24015-10080397-05-MOD-R2, DATED JULY 20, 2020.

GROUND SOW:
10. REPLACE (1) EXISTING FLEX CABINET WITH (1) PROPOSED FLEX21 CABINET.
11. INSTALL (1) 6630 AND (1) IDLE IN PROPOSED FLEX21 CABINET.
13. INSTALL (1) GPS SPLITTER KIT, (1) PURCELL DOOR UPGRADE KIT, (1) MOUNTING BRACKET, AND (1) SFPS IN PROPOSED FLEX21 CABINET.
14. INSTALL (1) PROPOSED 15 AMP BREAKERS AND (6) PROPOSED 25 AMP BREAKERS FOR NEW CARRIERS IN EXISTING POWER PLANT.

ONE CALL

DIGGERS HOTLINE 811
CALL DIGGERS HOTLINE
3 DAYS BEFORE YOU DIG
811 OR 1-800-242-8511

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

REFERENCE MATERIALS

THESE DRAWINGS ARE BASED OFF AT&T SCOPING DOCUMENT DATED 01/20/2020.

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CLS PROJECT ID:
24015-10080397-A+E-P2
COA# 3677 EXP. 01/31/2022

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E	12/09/20	CLIENT COMMENTS	CM
0	03/03/21	FOR CONSTRUCTION	JT

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

WISCONSIN
TYLER M. BARKER
E-45562-6
APEX
NC
PROFESSIONAL ENGINEER
Tyler M. Barker
CLS Group
PE # 45562 - E Exp. 7/31/2022
COA # 3677 Exp. 1/31/2023
03/03/2021
Digitally signed by Tyler M. Barker PE
Date: 2021.03.03 13:29:03-05'00'

PE# 45562-6 EXP: 07/31/2022

WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T1

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – GENERAL CONTRACTOR
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – AT&T MOBILITY
   OEM – ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSIONS OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING ANY WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INSONSISTENCIES BEFORE PROCEEDING WITH THE WORK.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
8. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND TI CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR. ROUTING OF TRENCHING SHALL BE APPROVED BY CONTRACTOR.
9. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
10. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FOR THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
11. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
13. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS UNLESS OTHERWISE SPECIFIED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
14. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC 13 EDITION SPECIFICATIONS.
15. CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 25741-000-3APS-A00Z-00002, "GENERAL CONSTRUCTION SERVICES".
16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
17. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK MAY NEED TO BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
18. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUT DOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
19. ALL ANTENNA PIPES SHALL BE SCHEDULE 80.
20. LIMITS OF LIABILITY – ITEMS REFERENCED ARE OWNER/CLIENT DICTATED ITEMS, OR SUPPLIED ITEMS WHICH ARE REPRODUCED WITHOUT ALTERATION AS DIRECTED BY OWNER/CLIENT, AND OWNER/CLIENT ASSUMES ANY AND ALL LIABILITY FOR USE OF, CONSEQUENCES OF, OR INTERPRETATION OF SAID ITEM, SPECIFICATION, OR DIRECTIVE; AND AGREES TO INDEMNIFY AND HOLD ENGINEER COMPLETELY HARMLESS.
21. PROFESSIONAL SEAL – DETAILS, SPECIFICATION(S), OR ITEMS REFERENCED, ARE NOT PART OF THE PROFESSIONAL DESIGN PERFORMED BY LICENSEE AND THE PROFESSIONAL SEAL DOES NOT APPLY.
22. LIMITS OF LIABILITY – ITEMS REFERENCED ARE OWER/CLIENT DICTATED ITEMS, OR SUPPLIED ITEMS WHICH ARE REPRODUCED WITHOUT ALTERATION AS DIRECTED BY OWNER/CLIENT, AND OWNER/CLIENT ASSUMES ANY AND ALL LIABILITY FOR USE OF, CONSEQUENCES OF, OR INTERPRETATION OF SAID ITEM, SPECIFICATION, OR DIRECTIVE; AND AGREES TO INDEMNIFY AND HOLD ENGINEER COMPLETELY HARMLESS.

ELECTRICIAL INSTALLATION NOTES

1. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
2. SUBCONTRACTORS SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.

ELECTRICAL INSTALLATION NOTES CONT.

3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.
6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS WHERE PERMITTED SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES. USE LOW PROFILES TIE WRAPS.
10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (12 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR 2 AWG SOLID TINNED COPPED CABLE, UNLESS OTHERWISE SPECIFIED.
13. POWER WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (12 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT ON LESS THAN 75°C (90°C IF AVAILABLE).
15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
18. ELECTRICAL METALLIC TUBING (EMT) OR ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
23. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
25. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 34 (OR BETTER) OUTDOORS.
26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 34 (OR BETTER) OUTDOORS.
27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ). THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 91) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH 25471-000-3PS-EG00-0001, DESIGN & TESTING OF FACILITY GROUNDING FOR CELL SITES.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER INDOORS BTS; 2 AWG STRANDED COPPER FOR OUTDOORS BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED WITH STAINLESS STEEL HARDWARE TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL, SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
13. ALL TOWER GROUND SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANSI/TIA 222. FOR TOWERS BEING BUILT TO REV G OF THE STANDARD, THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE CHANGED FROM 2 AWG TO 2/0 AWG. IN ADDITION, THE MINIMUM LENGTH OF THE GROUND RODS SHALL BE INCREASED FOR 8 FEET TO 10 FEET.
14. ALL GROUND WIRE TO RRUS SHALL BE #2 GREEN STRANDED.
15. ALL OUTDOOR LUGS SHALL USE BLACK HEAT SHRINK AND INDOOR LUGS SHALL USE CLEAR HEAT SHRINK.
16. ALL OUTDOOR LUGS TO BE LONG BARREL 2 HOLE WITHOUT INSPECTION HOLES AND INDOOR LUGS TO HAVE INSPECTION HOLES.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	MFR	MANUFACTURER
AMSL	ABOVE MEAN SEA LEVEL	MGB	MASTER GROUND BAR
AWG	AMERICAN WIRE GAUGE	MIN	MINIMUM
BLDG	BUILDING	N.T.S.	NOT TO SCALE
DWG	DRAWING	(P)	PROPOSED
FT	FOOT	PPC	POWER PROTECTION CABINET
EMT	ELECTRICAL METALLIC TUBING	RBS	RADIO BASE STATION
ELEV	ELEVATION	IN	INCH(ES)
EQUIP	EQUIPMENT	INT	INTERIOR
(E)	EXISTING	LB(S) OR #	POUND(S)
EXT	EXTERIOR	SF	SQUARE FOOT
FND	FOUNDATION	TYP	TYPICAL
F	FIBER	W/	WITH
GALV	GALVANIZED	XFMR	TRANSFORMER
GPS	GLOBAL POSITIONING SYSTEM		
GND	GROUND		
LTE	LONG TERM EVOLUTION		
MAX	MAXIMUM		

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SHEET TITLE
GENERAL NOTES

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SEH PAINTING NOTES

SECTION 09 97 15

COATING SYSTEMS FOR TELECOMMUNICATION EQUIPMENT

PART 1 GENERAL

1.01 SUMMARY

A. SECTION INCLUDES PAINTING AND PAINTING REPAIR WORK ASSOCIATED WITH THE INSTALLATION OF ANTENNAS, COAXIAL CABLES, AND OTHER COMMON COMPONENTS WITH DIRECT ATTACHMENT TO WATER TANK FACILITIES.

1.02 REFERENCES

A. SOCIETY FOR PROTECTIVE COATINGS (SSPC):

WWW.SSPC.ORG

1. VOLUME 1: GOOD PAINTING PRACTICE
2. VOLUME 2: SYSTEMS AND SPECIFICATIONS

1.03 SUBMITTALS

A. PRODUCT DATA: SUBMIT DATA SHEET FOR EACH COATING SYSTEM.

PART 2 PRODUCTS

2.01 MATERIALS

A. MANUFACTURERS:

1. SHERWIN WILLIAMS COMPANY WWW.SHERWIN-WILLIAMS.COM
2. TNEMEC COMPANY WWW.TNEMEC.COM
3. X-I-M PRODUCTS WWW.XIMBONDER.COM

PART 3 EXECUTION

3.01 EXAMINATION

A. VISUALLY EVALUATE SURFACE PREPARATION BY COMPARISON WITH PICTORIAL STANDARDS OF SSPC-VIS-1-89.

3.02 PREPARATION

A. REMOVE ALL SURFACE CONTAMINANTS IN ACCORDANCE WITH SSPC-SP1 SOLVENT CLEANING.

1. DO NOT USE HYDROCARBON SOLVENTS ON SURFACES TO BE COATED WITH WATER-BASED COATINGS.

B. CLEAN AND REMOVE ALL RUST, SLAG, WELD SPLATTER, WELD SCABS, MILL SCALE, AND LOOSE PAINT.

C. PROTECT AREAS ADJACENT TO WELDING & OR GRINDING OPERATIONS TO PREVENT DAMAGE OF SURROUNDING INTACT PAINT SYSTEM.

D. FERROUS METAL: SSPC-SP6 COMMERCIAL BLAST CLEANING

E. GALVANIZED STEEL: SSPC-SP7 BRUSH OFF BLAST

F. ANTENNA COVERS, COAXIAL CABLE, NON-METALLIC SUBSTRATES AND PREVIOUSLY PAINTED SURFACES: SCARIFY TO DE-GLOSS. SPC-SP1 WITH A NON-HYDROCARBON SOLVENT.

G. SURFACE PROFILE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S PRODUCT RECOMMENDATION.

H. RE-BLAST ALL SURFACES:

1. WHERE RUSTING HAS RECURRED.
2. THAT DO NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.

3.03 APPLICATION

A. COATINGS SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.

B. SURFACES TO BE COATED SHALL BE CLEAN, DRY, AND FREE OF AIRBORNE DUST AND CONTAMINANTS AT THE TIME OF APPLICATION AND WHILE FILM IS FORMING.

C. FINISH COAT SHALL BE UNIFORM IN COLOR AND SHEEN WITHOUT STREAKS, LAPS, RUNS, SAGS OR MISSED AREAS.

D. SHOP PAINTING: TAPE-OFF (2-INCH MINIMUM) SURFACES THAT WILL BE IN THE HEAT-AFFECTED-ZONE DURING FIELD WELDING.

E. COMPONENT PAINTING:

1. INTERIOR EXPOSED FERROUS METAL AND GALVANIZED STEEL:
   a. PRODUCT: SHERWIN WILLIAMS MACROPOXY 646 OR TNEMEC SERIES 161
      1) NUMBER OF COATS: 2
      2) DRY FILM THICKNESS: 4.0-6.0 MILS (PER COAT)
      3) COLOR: BY OWNER
2. EXTERIOR EXPOSED FERROUS METAL AND GALVANIZED STEEL:
   a. PRIMER: SHERWIN WILLIAMS MACROPOXY 646 OR TNEMEC SERIES 161 OR N69
      1) NUMBER OF COATS: 1
      2) DRY FILM THICKNESS: 4.0-6.0 MILS
      3) COLOR: BY OWNER
   b. FINISH: SHERWIN WILLIAMS ACROLON 218 OR TNEMEC SERIES 10740/10750
      1) NUMBER OF COATS: 1
      2) DRY FILM THICKNESS: 2.0-3.0 MILS
      3) COLOR: BY OWNER
3. ANTENNA COVERS:
   a. PRIMER: SHERWIN WILLIAMS PRO-CRYL PRIMER
      1) NUMBER OF COATS: 1
      2) DRY FILM THICKNESS: 2.0-4.0 MILS
   b. FINISH: SHERWIN WILLIAMS SHER-CRYL HPA
      1) NUMBER OF COATS: 1
      2) DRY FILM THICKNESS: 2.5-4.0 MILS
      3) COLOR: BY OWNER
4. COAXIAL CABLE
   a. PRIMER: X-I-M 1138
      1) NUMBER OF COATS: 1
      2) DRY FILM THICKNESS: 2.0-3.0 MILS
   b. FINISH: SHERWIN WILLIAMS SHER-CRYL HPA
      1) NUMBER OF COATS: 1
      2) DRY FILM THICKNESS: 2.5-4.0 MILS
      3) COLOR: BY OWNER

3.04 REPAIR OF AREAS DAMAGED BY WELDING

A. PREPARE THE DAMAGE BY ONE OF THE TWO FOLLOWING METHODS AS DIRECTED BY THE ENGINEER.
   1. ABRASIVE-BLAST TO SSPC-SP6.
   2. MECHANICALLY CLEAN TO SSPC-SP11.

B. FEATHER EDGES TO PROVIDE SMOOTH COATING TRANSITION.

C. APPLY PRIME COAT TO BARE METAL SURFACE.

D. MASK OFF RECTANGULAR AREA AROUND PRIME COAT.

E. APPLY FINISH COAT.

3.05 QUALITY CONTROL

A. MEASURE DRY FILM THICKNESS WITH A MAGNETIC FILM THICKNESS GAGE IN ACCORDANCE WITH SSPC-PA2.

B. VISUALLY INSPECT DRIED FILM FOR RUNS, SAGS, DRY SPRAY, OVERSPRAY, EMBEDDED PARTICLES AND MISSED AREAS.

C. REPAIR DEFECTIVE OR DAMAGED AREAS IN ACCORDANCE WITH ARTICLES 3.02 AND 3.03.

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telamon CLS
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RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341-4625
CLS PROJECT ID:
24015-10080397-A+E-P2
COA# 3677 EXP. 01/31/2022

REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
B	08/27/19	CLIENT COMMENTS	JRD
C	09/23/20	CLIENT COMMENTS	JT
D	10/01/20	CLIENT COMMENTS	JT
E	12/09/20	CLIENT COMMENTS	CM
0	03/03/21	FOR CONSTRUCTION	JT

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

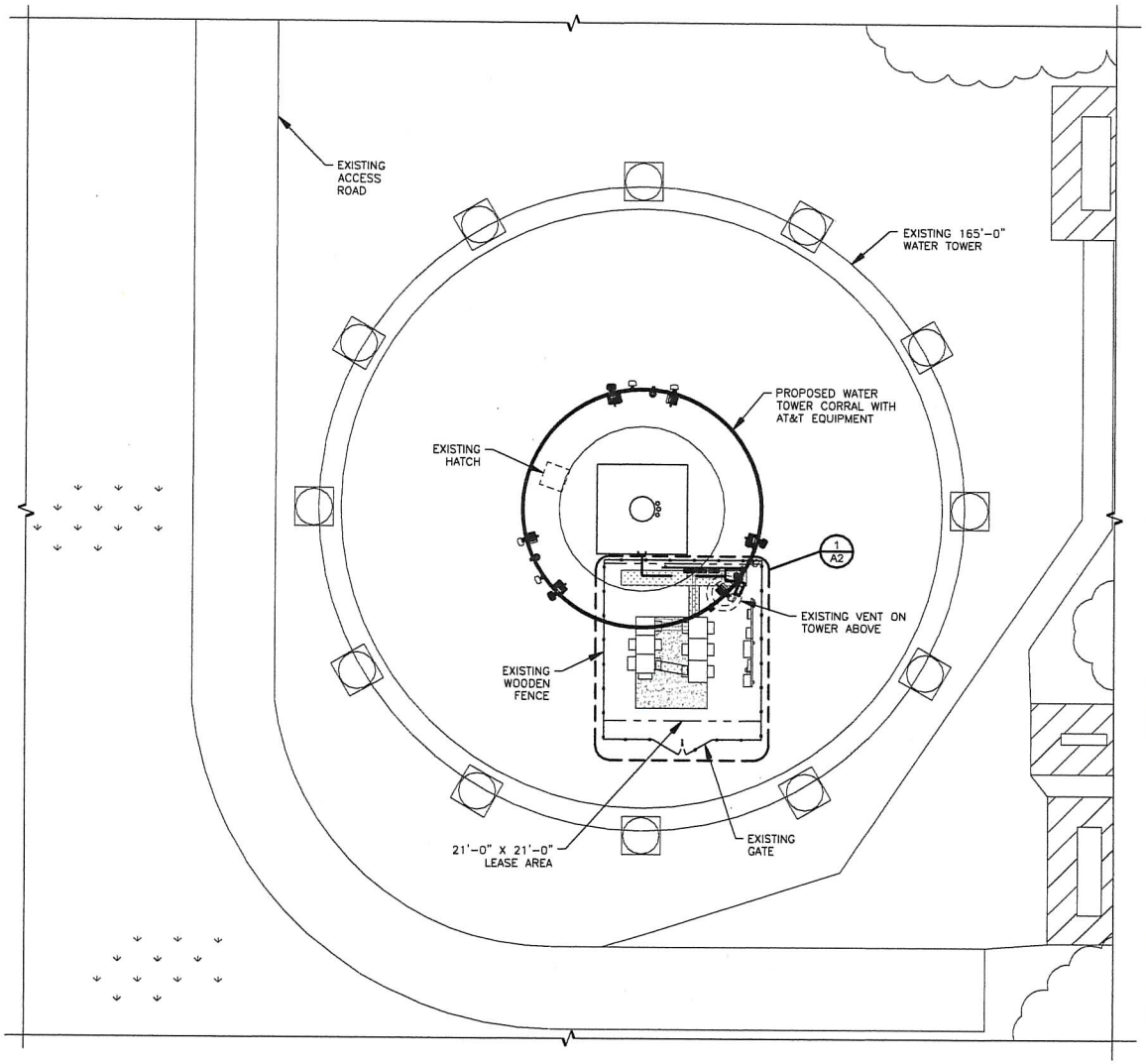
WISCONSIN
TYLER M. BARKER
E-45562-6
APEX
NC
PROFESSIONAL ENGINEER
Tyler M. Barker
CLS Group
PE # 45562 - 6 Exp. 7/31/2022
COA # 3677 Exp. 1/31/2022
03/03/2021

PE# 45562-6 EXP: 07/31/2022

WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN2



1 COMPOUND PLAN
SCALE: 0' 5' 10' 20' 40' 1/16"=1'-0"

TRUE NORTH

SITE PHOTO 1

SITE PHOTO 2

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PE# 45562-6 EXP: 07/31/2022

WI1018
WEST ALLIS WATER TOWER
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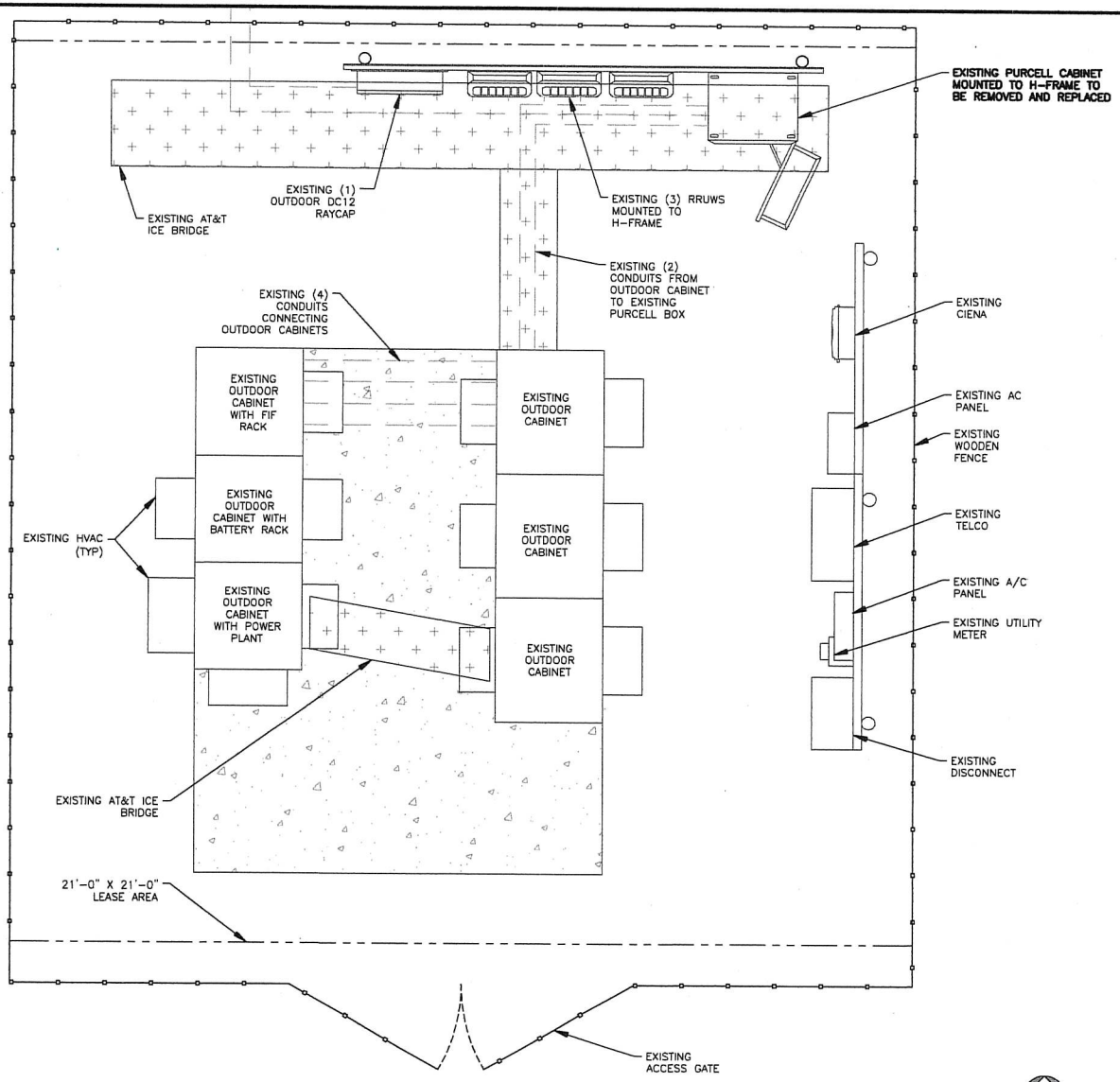
WEST ALLIS, WI 53227

SHEET TITLE
COMPOUND PLAN

SHEET NUMBER
A1



1 EXISTING EQUIPMENT PLAN

SCALE: 0' 6" 1' 3' 6' 3/8"=1'-0"

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SCHAUMBURG, IL 60173

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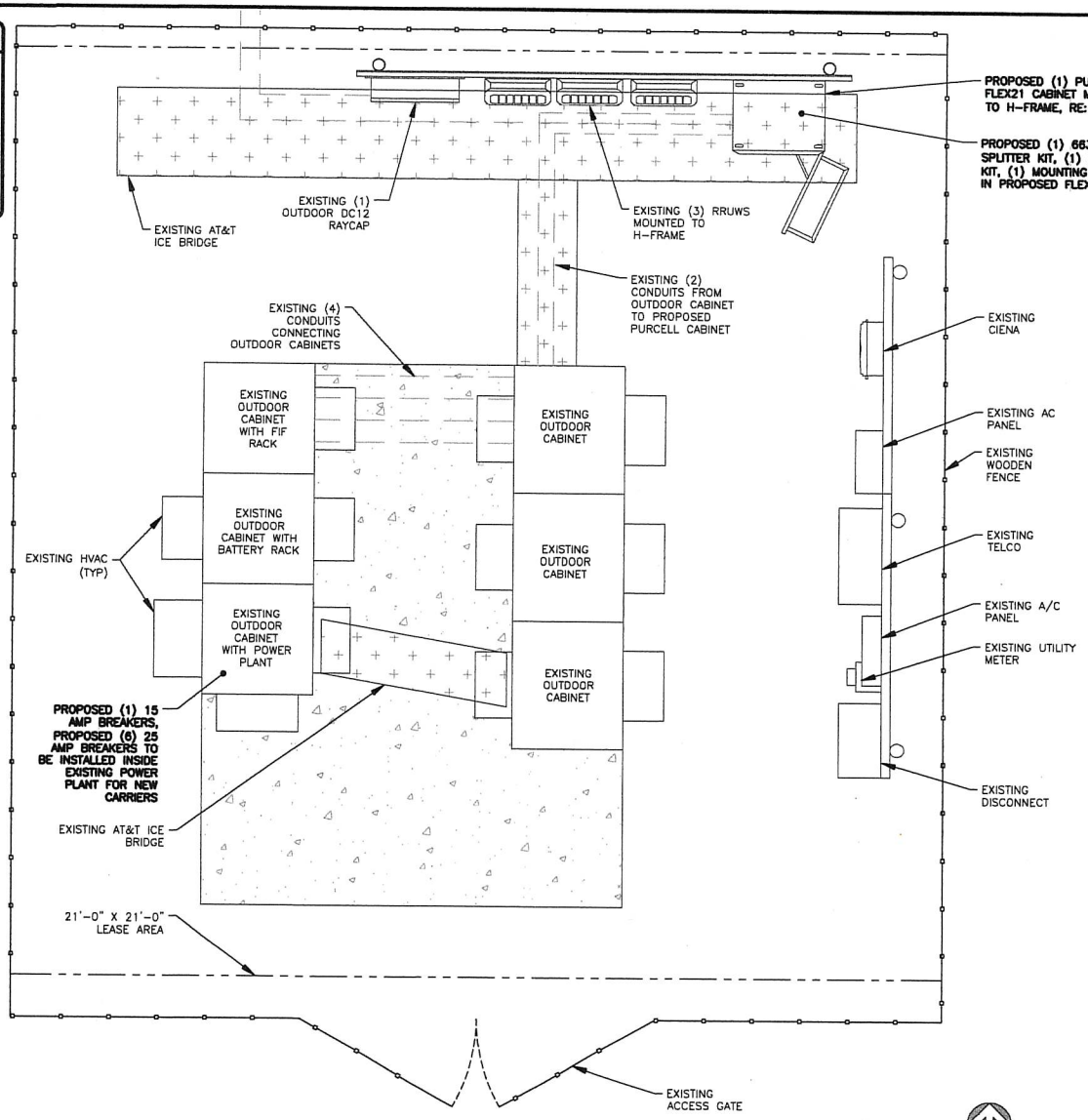
SHEET TITLE
EXISTING EQUIPMENT PLAN

SHEET NUMBER
A2

SCOPE OF WORK

GROUND

1. REPLACE (2) EXISTING DUS WITH (2) PROPOSED 5126.
2. REPLACE IDL2 WITH IDLe.
3. INSTALL (1) PROPOSED DC12 OUTDOOR RAYCAP.
4. INSTALL (2) PROPOSED RECTIFIERS, (6) PROPOSED 25 AMP BREAKERS, AND (6) PROPOSED 30 AMP BREAKERS FOR NEW CARRIERS IN EXISTING POWER PLANT.
5. INSTALL AT&T LOWER FIBER FOR NEW CARRIERS.



1 PROPOSED EQUIPMENT PLAN
SCALE: 0' 6" 1' 3' 6' 3/8"=1'-0"

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SHEET TITLE
PROPOSED EQUIPMENT & UTILITY PLAN

SHEET NUMBER
A2.1

LOADING NOTE:

OTHER CARRIERS EQUIPMENT MAY BE OMITTED FOR CLARITY.

TOWER NOTES

WATER TOWER IS SHOWN FOR ILLUSTRATION ONLY AND FOR LOCATION OF APPURTENANCE(S).

REFER TO WATER TOWER SURVEY FOR ALL EXISTING WATER TOWER COMPONENTS TO INCLUDE ANTENNAS, LIGHTS, LIGHTNING ROD & WATER TOWER HEIGHT.

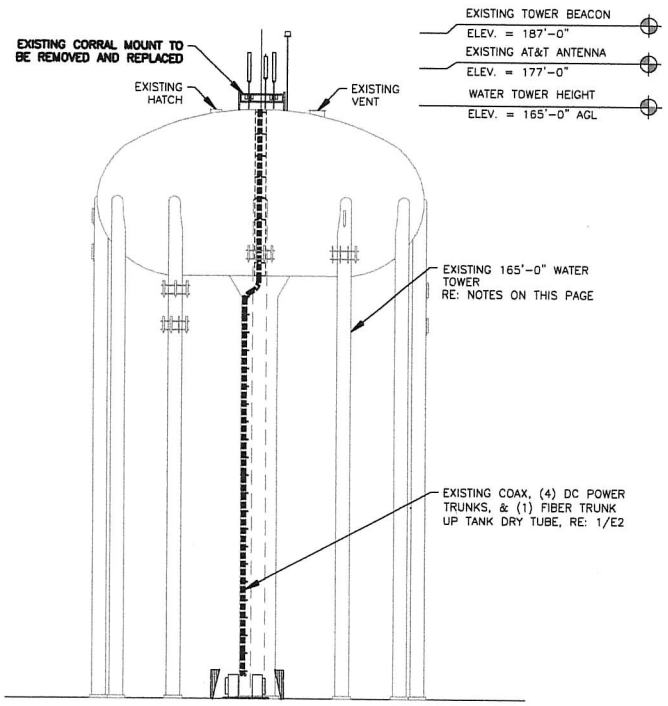
CONTRACTOR(S) TO COMPLY WITH ALL FCC AND FAA REGULATIONS ON THIS PROJECT.
COAX ROUTING MUST BE PER STRUCTURAL ANALYSIS.

PRIOR TO CONSTRUCTION:
CONTRACTOR SHALL VERIFY THAT A WATER TOWER AND MOUNT STRUCTURAL ANALYSIS, DEPICTING THE LOADING SHOWN, HAS BEEN PERFORMED AND SHOWS A "PASS" OR AN "ACCEPTABLE" RATING. UNDER NO CIRCUMSTANCE WHAT SO EVER SHALL THE PROPOSED EQUIPMENT BE INSTALLED WITHOUT SAID STRUCTURAL ANALYSIS. IF SAID STRUCTURAL ANALYSIS REQUIRES THAT THE WATER TOWER AND/OR MOUNT BE MODIFIED, SUCH MODIFICATIONS SHALL BE COMPLETED PRIOR TO INSTALLATION OF THE PROPOSED EQUIPMENT.

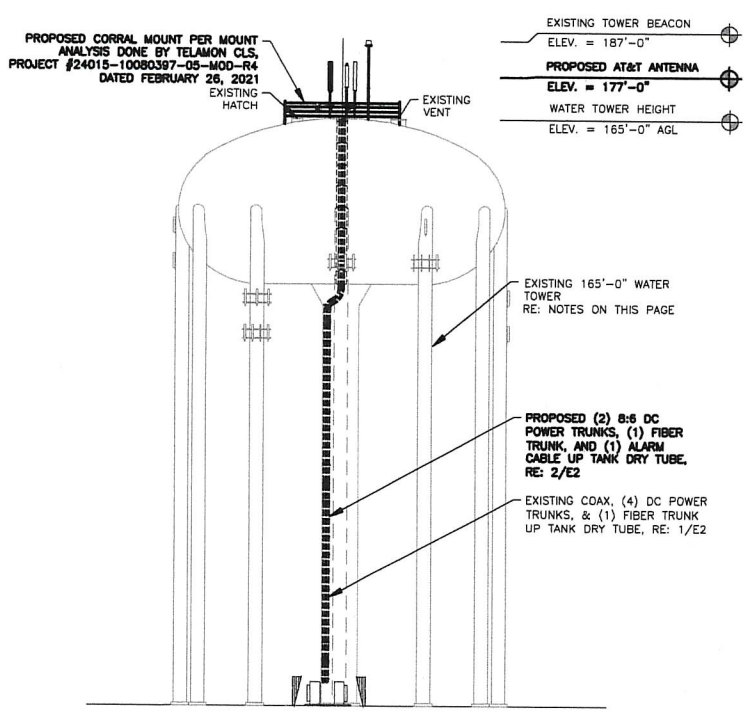
MOUNT DONE BY TELAMON CLS, PROJECT #24015-10080397-05-MOD-R4, DATED FEBRUARY 26, 2021.
STRUCTURAL ANALYSIS DONE BY TELAMON CLS, PROJECT #24015-10080397-07-STR-02, DATED DECEMBER 18, 2020.

NOTE:

GENERAL CONTRACTORS SHALL MAKE SURE SAFETY CLIMB IS 100% FREE OF COAX AND MOUNTS AFTER INSTALL IS COMPLETE.
TOWER MOUNTED EQUIPMENT NOT TO EXCEED MAXIMUM TIP HEIGHT OF 188'.



1 EXISTING ELEVATION
SCALE: N.T.S.



2 PROPOSED ELEVATION
SCALE: N.T.S.

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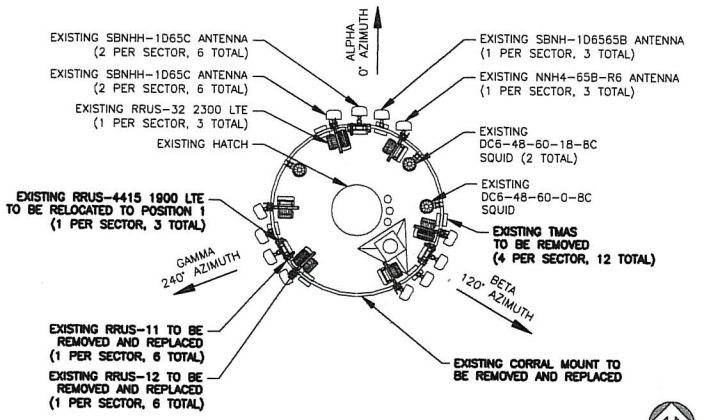
COA # 3677 Exp. 1/31/2022
03/03/2021

PE# 45562-6 EXP: 07/31/2022

WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

SHEET TITLE
TOWER ELEVATIONS

SHEET NUMBER
A3

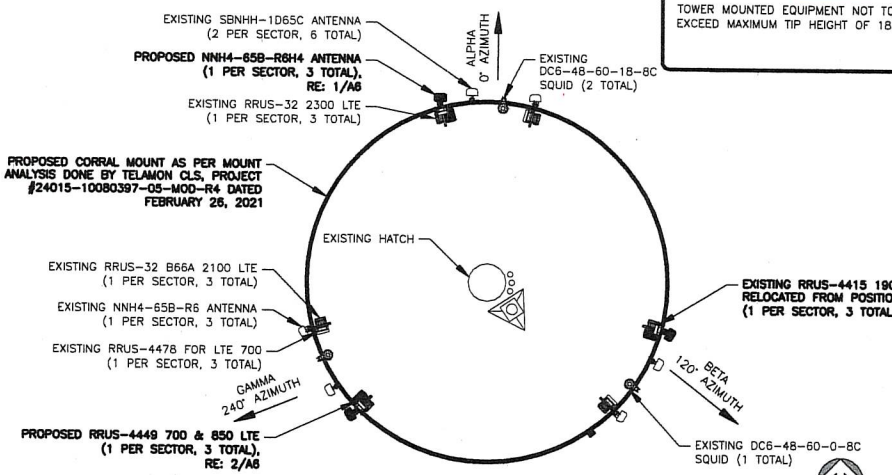


TRUE NORTH

1 EXISTING ANTENNA PLAN

SCALE: 1/8"=1'-0"

0' 1' 5' 10' 20'



TRUE NORTH

2 PROPOSED ANTENNA PLAN

SCALE: 3/32"=1'-0"

0' 5' 10' 15' 25'

NOTE:

TOWER MOUNTED EQUIPMENT NOT TO EXCEED MAXIMUM TIP HEIGHT OF 188'.

ANTENNA AND COAXIAL CABLE SCHEDULE
BOLD DENOTES PROPOSED EQUIPMENT

ANTENNA MARK	SECTOR	DESCRIPTION OF ANTENNAS	ANTENNA ORIENTATION	ANTENNA QUANTITY	RAD CENTER	TMA QUANTITY	COAX/CABLE	SURGE PROTECTION	RRU MODEL	TECHNOLOGY
A1	ALPHA	**(P) COMMSCOPE NNH4-65B-R6H4**	0°	1	177'	--	(E) (2) 7/8" COAX (E) (4) 0.82" DC (E) (1) 0.40" FIBER	(E) (1) RAYCAP DC6-48-60-18-8C	**(P) (1) RRUS-4449** (R) (1) RRUS-4415 (E) (1) RRUS-32	**LTE 700 LTE 850** LTE 1900 LTE 2300
A2	ALPHA	(E) ANDREW SBNHH-1D65C	0°	1	177'	--	(E) (2) 7/8" COAX	--	--	--
A3	ALPHA	--	--	--	--	--	--	--	(E) (2) RRUW (GROUND MOUNTED)	UMTS 1900
A4	ALPHA	(E) COMMSCOPE NNH4-65C-R6	0°	1	177'	--	(E) (2) 0.82" DC (E) (1) 0.40" FIBER	--	(P) (1) RRUS-4478 (P) (1) RRUS-32 B66A	LTE 700 LTE 2100
B1	BETA	**(P) COMMSCOPE NNH4-65B-R6H4**	120°	1	177'	--	(E) (2) 7/8" COAX	(E) (1) RAYCAP DC6-48-60-0-8C	**(P) (1) RRUS-4449** (R) (1) RRUS-4415 (E) (1) RRUS-32	**LTE 700 LTE 850** LTE 1900 LTE 2300
B2	BETA	(E) ANDREW SBNHH-1D65C	120°	1	177'	--	(E) (2) 7/8" COAX	--	--	--
B3	BETA	--	--	--	--	--	--	--	(E) (2) RRUW (GROUND MOUNTED)	UMTS 1900
B4	BETA	(E) COMMSCOPE NNH4-65C-R6	120°	1	177'	--	--	--	(P) (1) RRUS-4478 (P) (1) RRUS-32 B66A	LTE 700 LTE 2100
G1	GAMMA	**(P) COMMSCOPE NNH4-65B-R6H4**	240°	1	177'	--	(E) (2) 7/8" COAX	(E) (1) RAYCAP DC6-48-60-18-8C	**(P) (1) RRUS-4449** (R) (1) RRUS-4415 (E) (1) RRUS-32	**LTE 700 LTE 850** LTE 1900 LTE 2300
G2	GAMMA	(E) ANDREW SBNHH-1D65C	240°	1	177'	--	(E) (2) 7/8" COAX	--	--	--
G3	GAMMA	--	--	--	--	--	--	--	(E) (2) RRUW (GROUND MOUNTED)	UMTS 1900
G4	GAMMA	(E) COMMSCOPE NNH4-65C-R6	240°	1	177'	--	--	--	(P) (1) RRUS-4478 (P) (1) RRUS-32 B66A	LTE 700 LTE 2100

3 ANTENNA AND COAX SCHEDULE

SCALE: N.T.S.

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WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

SHEET TITLE
ANTENNA PLANS / ANTENNA & COAX SCHEDULE

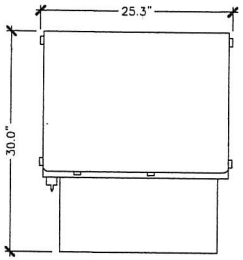
SHEET NUMBER
A4

PURCELL FLX21-2520 CABINET

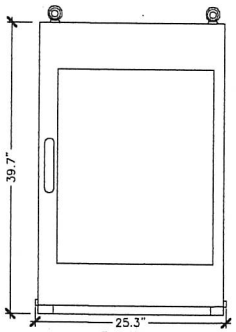
MANUFACTURER: PURCELL

MODEL: FLX21-2520
DIMENSIONS: 39.7" X 25.3" X 30"
H X W X D (IN)

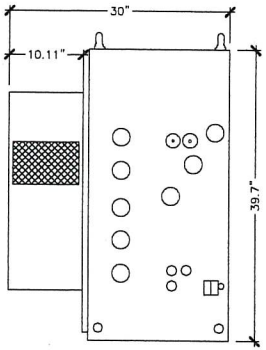
WEIGHT (LBS): 140.0 LBS



TOP VIEW



FRONT VIEW



SIDE VIEW

1 EQUIPMENT ENCLOSURE SPECIFICATIONS
SCALE: N.T.S.

RE: GN22/GN1

2 NOT USED
SCALE: N.T.S.

RE: GN22/GN1

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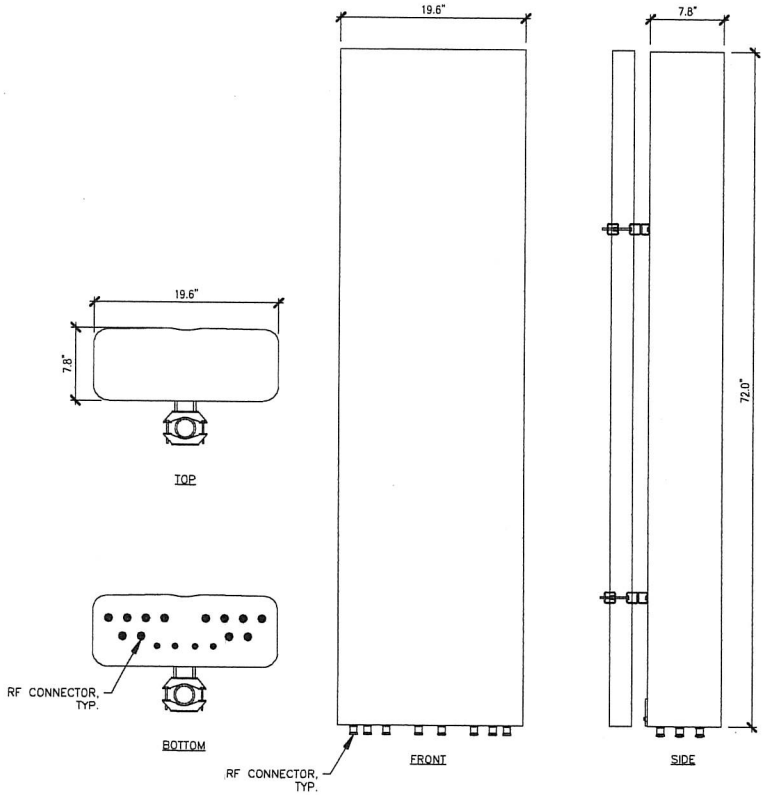
WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A5

NOTE:
ANTENNA INFORMATION
PULLED FROM PRELIMINARY
PRODUCT DATA SHEET

COMMSCOPE NNH4-65B-R6	
MANUFACTURER:	COMMSCOPE
MODEL:	NNH4-65B-R6H4
DIMENSIONS: (HxWxD)	72.0" X 19.6" X 7.8"
WEIGHT:	88.2 LB
FREQUENCY:	REFER TO RF DATA SHEET

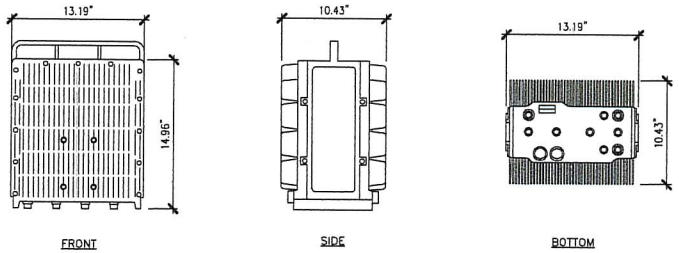


1 ANTENNA SPECIFICATIONS
SCALE: N.T.S.

RE: GN22/GN1

ERICSSON RRUS-4449 B5/B12	
MANUFACTURER:	ERICSSON
MODEL:	RRUS-4449 B5/B12
DIMENSIONS: (HxWxD)	17.9" x 13.19" x 9.44"
WEIGHT:	71.0 LBS
FREQUENCY:	REFER TO RF DATA SHEET

NOTE:
RRUS CAN ONLY BE
PAINTED ON SOLAR SHIELD.



2 REMOTE RADIO UNIT SPECIFICATIONS
SCALE: N.T.S.

RE: GN22/GN1

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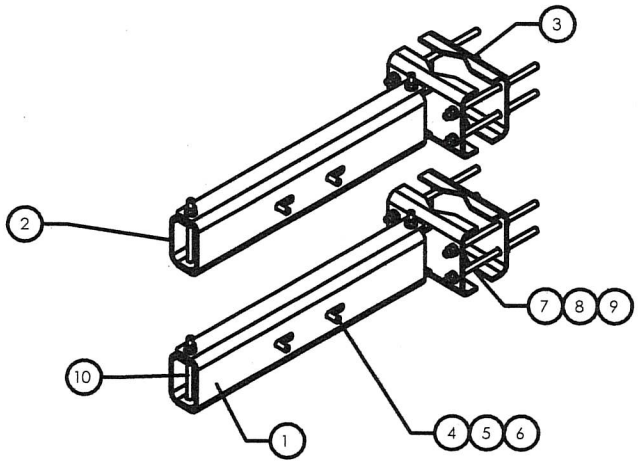
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

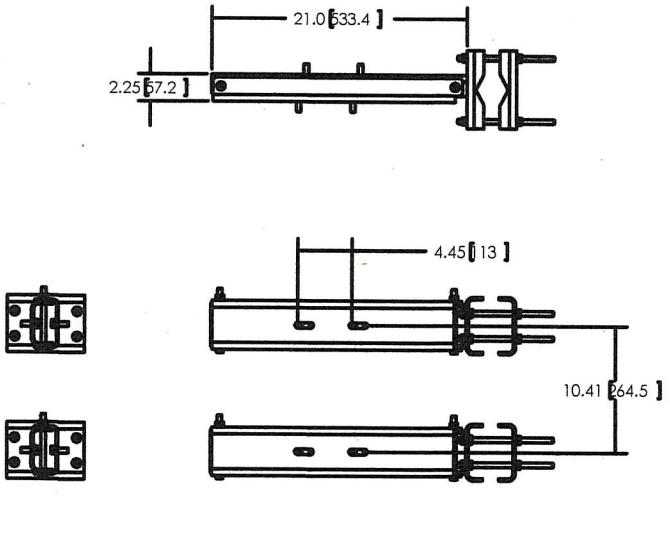
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A6

ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT
1	MTC332625	HD Swing Arm RRU Mount	2	7.58 LBS
2	MTC332626	Dual RRU Mount Weldment	2	9.00 LBS
3	MTC332629	Back Clamp Dual RRU Mount	2	2.13 LBS
4	MTC978703	M-10 X 30mm Hex Bolt, SS	8	0 LBS
5	SWF-03	3/8" SS FLAT WASHER	8	0.01 LBS
6	SWL-03	3/8" SS LOCK WASHER	8	0.00 LBS
7	GD03800	3/8" X 8" GALV THREADED ROD	8	0.25 LBS
8	GWL-03	3/8" GALV LOCK WASHER	16	0.00 LBS
9	GN-03	3/8" GALV HEX NUT	24	0.04 LBS
10	GB-03505	3/8" X 5" GALV BOLT KIT	4	0.18 LBS

REVISIONS				
REV.	ZONE	DESCRIPTION	BY	DATE
PRE2		INITIAL RELEASE	MSM	02/28/13





NOTES:
1. ALL METRIC DIMENSIONS ARE IN BRACKETS.
2. MOUNTS TO PIPES 2-3/8" - 4-1/2" OD.

ALL DIMENSIONS ARE IN INCHES U.O.S.
TOLERANCES UNLESS OTHERWISE SPECIFIED
.X = ± .12 ANGLES ±2°
.XX = ± .06 FRACTIONS ±1/32
.XXX = ± .03
REMOVE BURRS AND BREAK EDGES .005
DO NOT SCALE THIS PRINT

DRAWN BY	MSM
CHECKED BY	TP
DATE	02/28/13
REVISION	PRE2
SHEET	1 of 2
SCALE	NTS
MATERIAL	A36
FINISH	GLAV A123
WEIGHT	40.92 LBS
PART NUMBER	MTC3326DHD
DESCRIPTION	Dual Mounting Bracket, Heavy Duty
DRAWING TYPE	ASSEMBLY DRAWING

COMMSCOPE®
Hickory, NC 28602 U.S.A.

1 RRH MOUNT DETAIL (COMMSCOPE MTC3326DHD)
SCALE: N.T.S.

RE: GN22/GN1

at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

SAC WIRELESS
540 W. MADISON ST.
18TH FLOOR
CHICAGO, IL 60661
www.sacw.com
312.895.4677

telamon CLS
319 CHAPANOKE RD, SUITE 118
RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341-4625
CLS PROJECT ID:
24015-10080397-A+E-P2
COA# 3677 EXP. 01/31/2022

REVISIONS			
REV.	DATE	DESCRIPTION	INITIALS
B	08/27/19	CLIENT COMMENTS	JRD
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0	03/03/21	FOR CONSTRUCTION	JT

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

WISCONSIN
TYLER M. BARKER
E-45562-6
APEX
NC
PROFESSIONAL ENGINEER
Tyler M. Barker
CLS Group
PE # 45562 - 6 Exp. 7/31/2022
COA # 3677 Exp. 1/31/2022.
03/03/2021

PE# 45562-6 EXP: 07/31/2022

WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
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WEST ALLIS, WI 53227

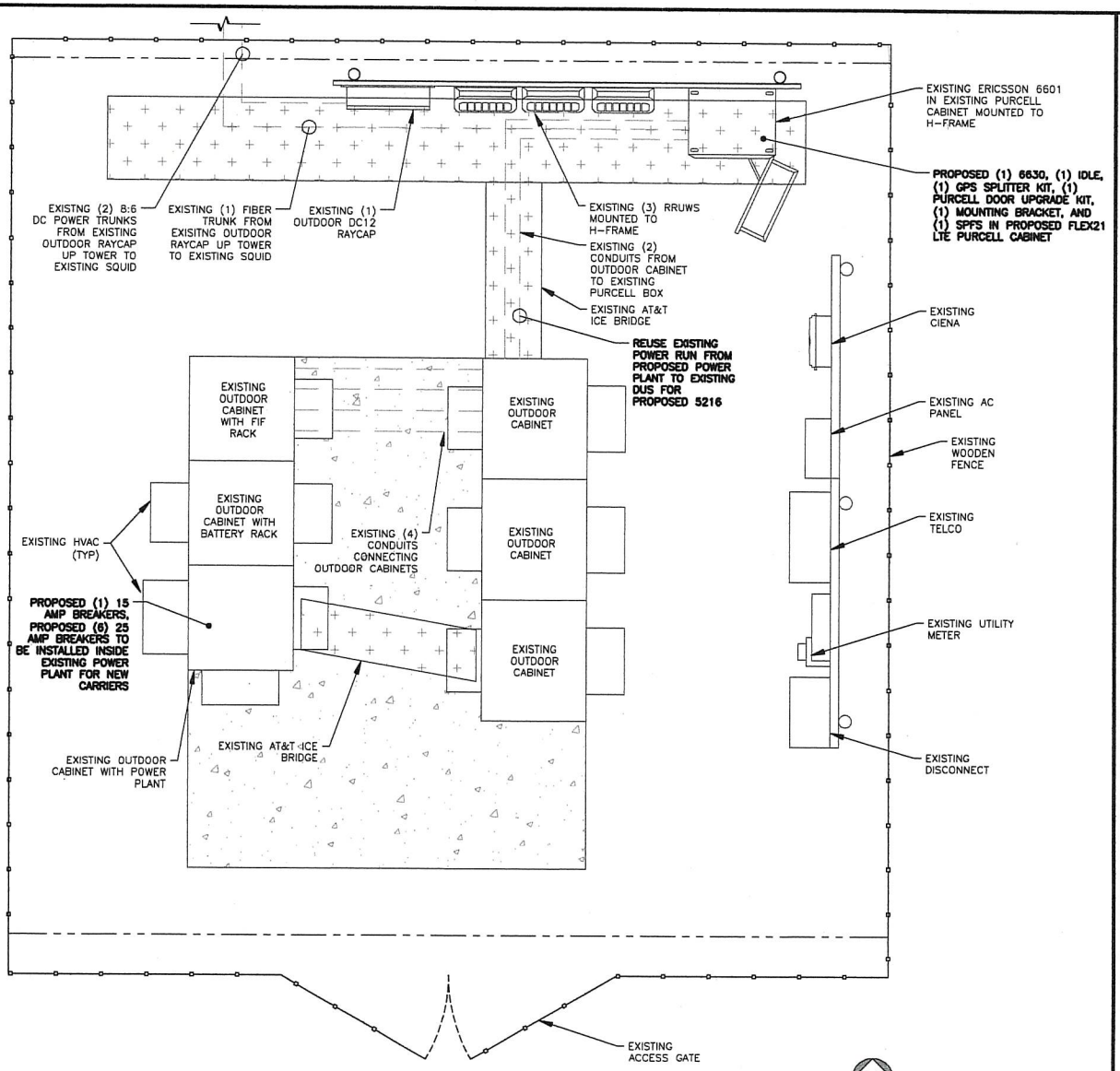
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A7

SCOPE OF WORK

GROUND

1. REPLACE (2) EXISTING DUS WITH (2) PROPOSED 5126.
2. REPLACE IDL2 WITH IDLe.
3. INSTALL (1) PROPOSED DC12 OUTDOOR RAYCAP.
4. INSTALL (2) PROPOSED RECTIFIERS, (6) PROPOSED 25 AMP BREAKERS, AND (6) PROPOSED 30 AMP BREAKERS FOR NEW CARRIERS IN EXISTING POWER PLANT.
5. INSTALL AT&T LOWER FIBER FOR NEW CARRIERS.



1 UTILITY PLAN
SCALE: 0' 6" 1' 3' 6' 3/8"=1'-0"

at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

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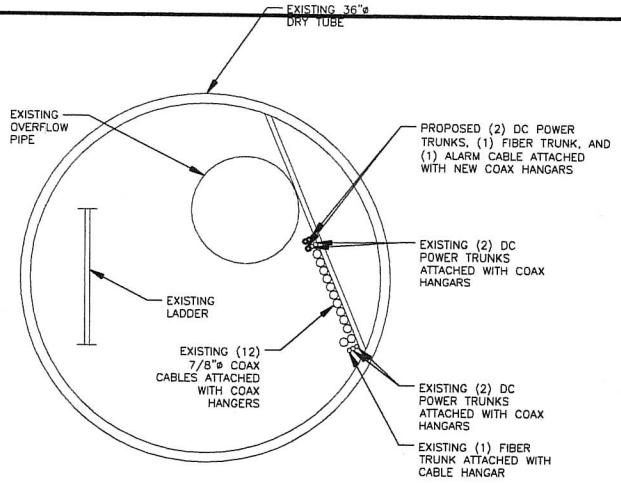
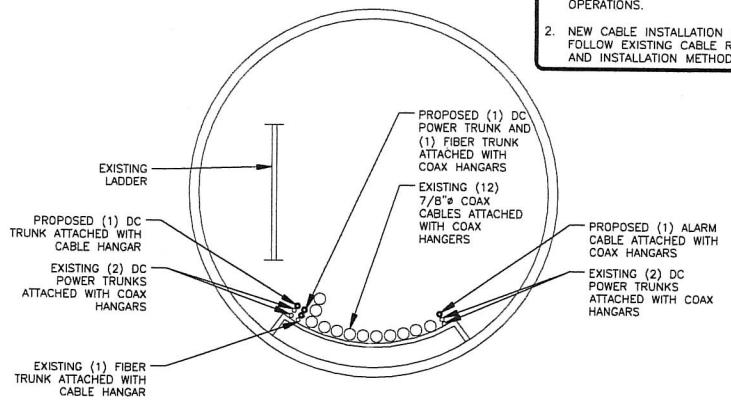
SHEET TITLE
UTILITY PLAN

SHEET NUMBER
E1



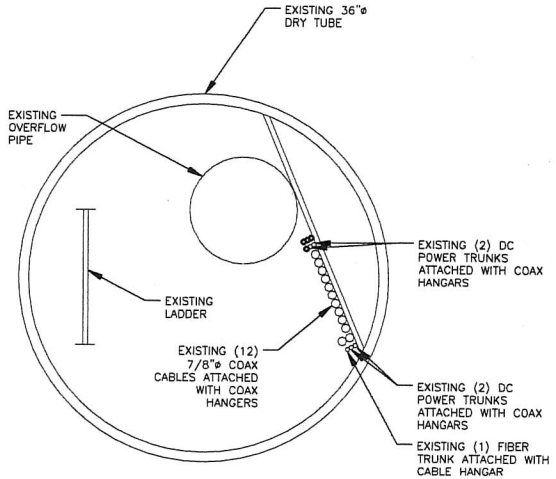
2 PROPOSED DRYTUBE LOWER SECTION
SCALE: N.T.S.



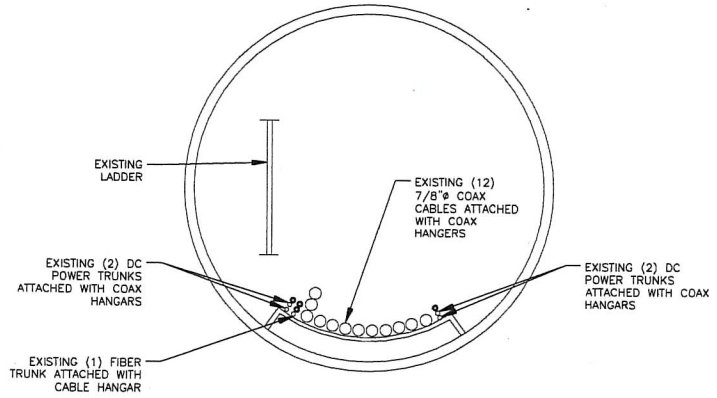
2 PROPOSED DRYTUBE UPPER SECTION
SCALE: N.T.S.

NOTES

1. INSTALLATION SHALL NOT INTERFERE WITH REGULAR TANK OPERATIONS.
2. NEW CABLE INSTALLATION SHALL FOLLOW EXISTING CABLE ROUTE AND INSTALLATION METHOD.



1 EXISTING DRYTUBE LOWER SECTION
SCALE: N.T.S.



3 EXISTING DRYTUBE UPPER SECTION
SCALE: N.T.S.

at&t
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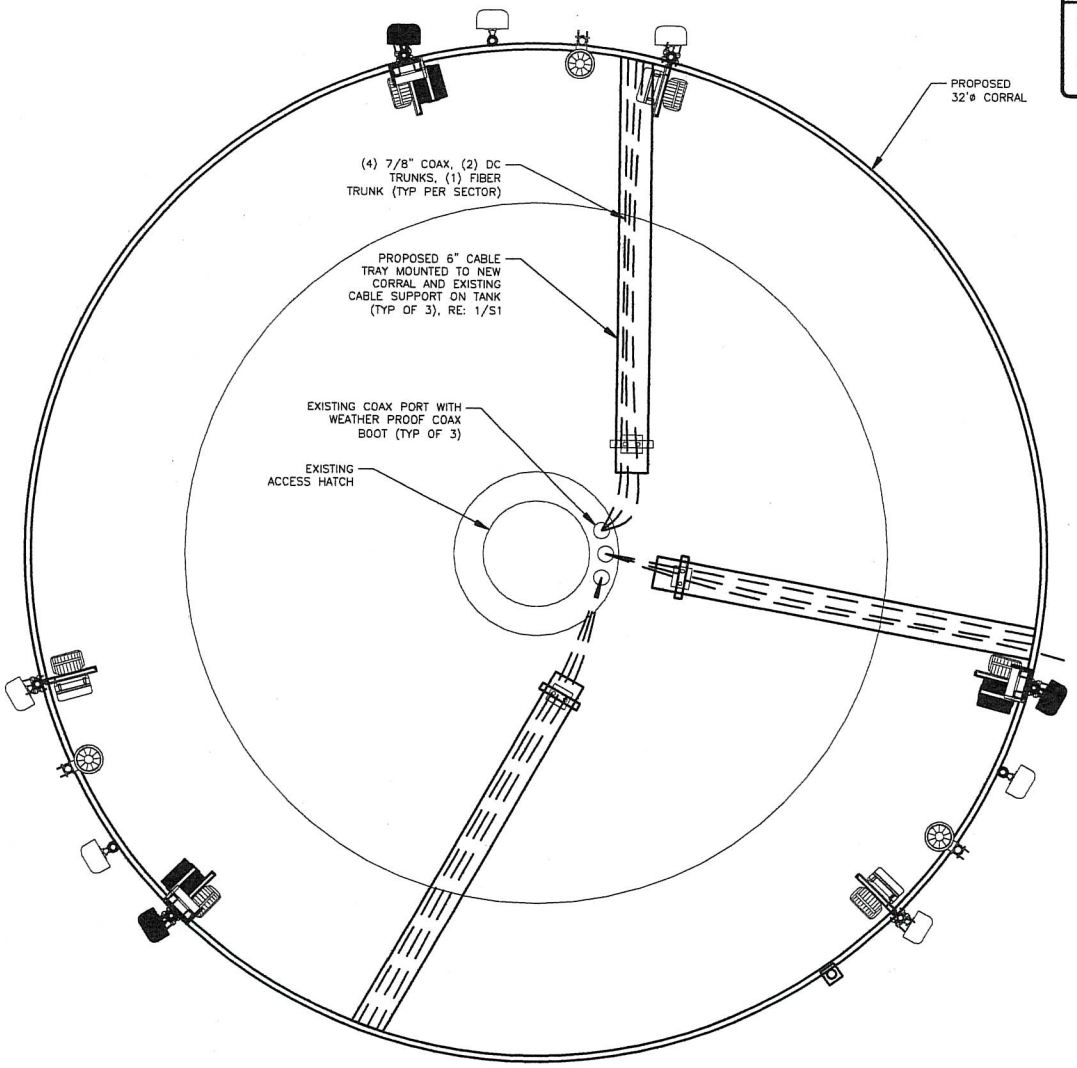
SHEET TITLE
UTILITY PLAN

SHEET NUMBER
E2



1 TOP OF TANK CABLE ROUTING PLAN
SCALE: N.T.S.

NOTES

1. INSTALLATION SHALL NOT INTERFERE WITH REGULAR TANK OPERATIONS
2. NEW CABLES TO USE EXISTING COAX PORTS/BOOTS.

at&t
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WEST ALLIS WATER TOWER
FA#: 10080397
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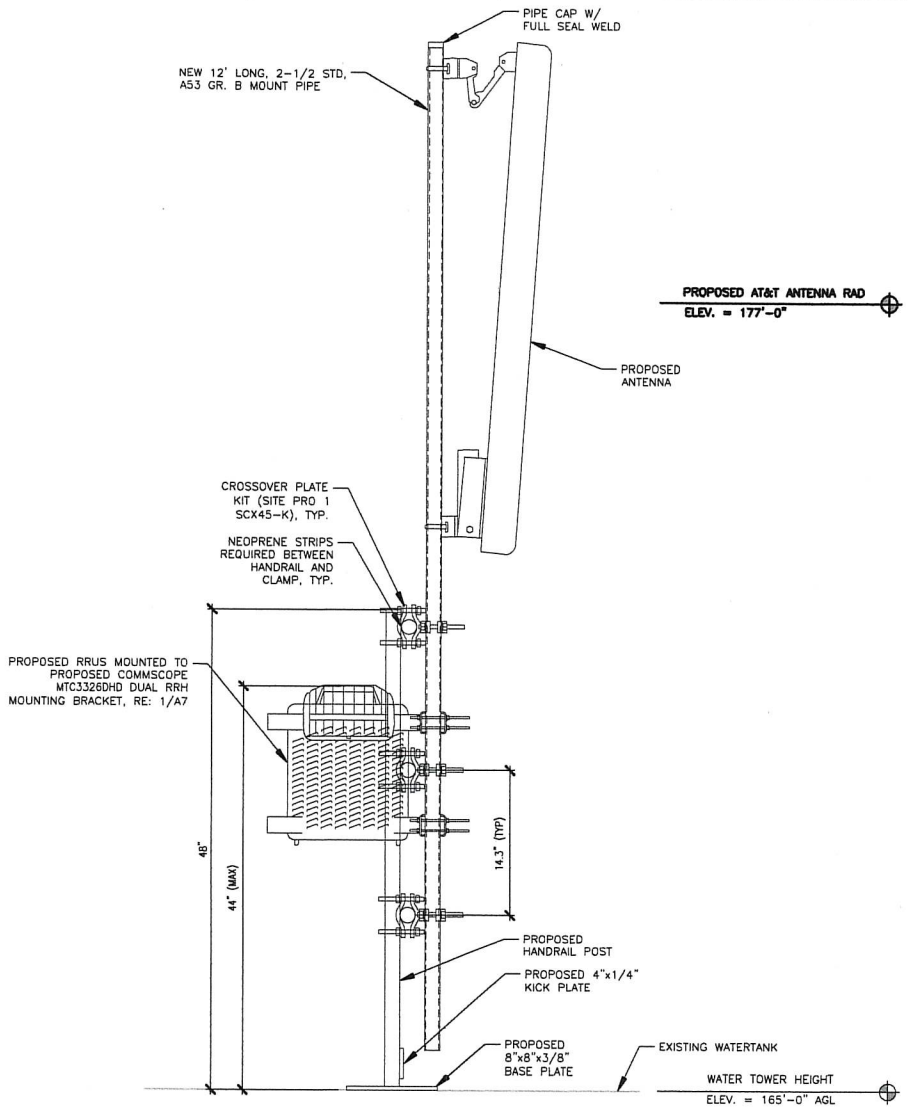
WEST ALLIS, WI 53227

SHEET TITLE
UTILITY PLAN

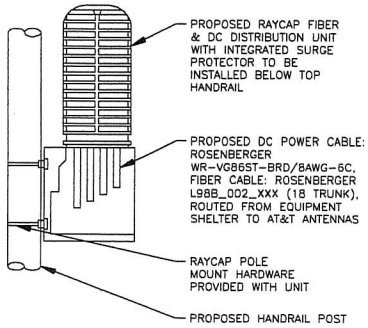
SHEET NUMBER
E2.1



1 ANTENNA & RADIO MOUNTING DETAIL
SCALE: N.T.S.

NOTES

1. ALL ATTACHMENTS TO PAINTED SURFACES ARE TO INCLUDE THE PLACEMENT OF NEOPRENE STRIPS BETWEEN HARDWARE AND POINTS OF CONTACT TO REDUCE/ELIMINATE DAMAGE TO THE PAINTED SURFACE. METAL SHIMS ARE REQUIRED IN SITUATIONS WHERE TIGHTENING A CLAMP MAY CAUSE THE NEOPRENE TO TEAR CAUSING METAL TO METAL CONTACT. WHERE POSSIBLE, EXPOSED NEOPRENE SHOULD BE WRAPPED WITH WHITE TAPE. FASTENING SEQUENCE SHOULD INCLUDE NYLON WASHERS BETWEEN THE PAINTED SURFACE AND THE GALVANIZED WASHER.
2. PROPOSED ANTENNAS INSTALLED ON THE EXTERIOR OF THE WATER TOWER SHALL BE SHOP PAINTED TO MATCH THE COLOR OF THE WATER TOWER (VERIFY COLOR).
3. PROPOSED MOUNTING PIPES ARE TO HAVE WELDED END CAPS. EXISTING MOUNTING PIPES ARE TO BE CAPPED AT BOTH ENDS WITH WHITE RUBBER CAPS.
4. DRILLING HOLES IN EXISTING HANDRAIL IS NOT ACCEPTABLE. FOR A TUBULAR HANDRAIL, SEH RECOMMENDS USING VALMONT SCPxxK PIPE TO PIPE CLAMP SET.
5. ALL EXPOSED JUMPERS, COAX AND OTHER CABLES ARE TO BE PROVIDED WITH MANUFACTURED WHITE JACKETING OR TAPED WHITE.
6. CONTRACTOR TO TOUCH UP PAINTING ON EXISTING ANTENNAS; SPOT REPAIRS MADE WITH BRUSH AND W/O FEATHERING AND SHOULD BE COMPLETELY ROLLED FOR UNIFORMITY.
7. CONTRACTOR TO TOUCH UP EXISTING ANTENNA PIPE MASTS. DEPENDING UPON THEIR CONDITION (DAMAGED/FAILED), THE CITY MAY REQUEST REPLACEMENT.
8. ALL ANTENNA FEED LINES, JUMPERS, COAX AND HYBRID CABLE CANNOT INTERFERE WITH TOP OF THE HANDRAIL AND MUST BE ROUTED AS SUCH THAT THEY COMPLY WITH OSHA REQUIREMENTS REGARDING HANDRAILS.
9. THE INSTALLATION OF NEW EQUIPMENT WILL BE PLACED BEHIND THE ANTENNAS AND IN A MANNER THAT MAINTAINS THE HANDRAILS COMPLIANCE WITH CURRENT OSHA GUIDELINES FOR ACCESS.
10. ALL ABANDONED ANTENNAS, COAXIAL CABLE AND DETACHABLE EQUIPMENT THAT IS NO LONGER USED ARE TO BE REMOVED DURING THE FINAL MIGRATION.
11. ALL EQUIPMENT ON THE WATER TOWER IS TO BE TAGGED (IDENTIFIED) BY THE TENANT.



2 SURGE UNIT MOUNTING DETAIL (TYP.)
SCALE: N.T.S.

at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

SAC WIRELESS
540 W. MADISON ST.
16TH FLOOR
CHICAGO, IL 60661
www.sacw.com
312.895.4977

telamon CLS
319 CHAPANOKE RD, SUITE 118
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PH: (405)348-5460 FAX: (405)341-4625
CLS PROJECT ID:
24015-10080397-A+E-P2
COA# 3677 EXP. 01/31/2022

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PE# 45562-6 EXP: 07/31/2022

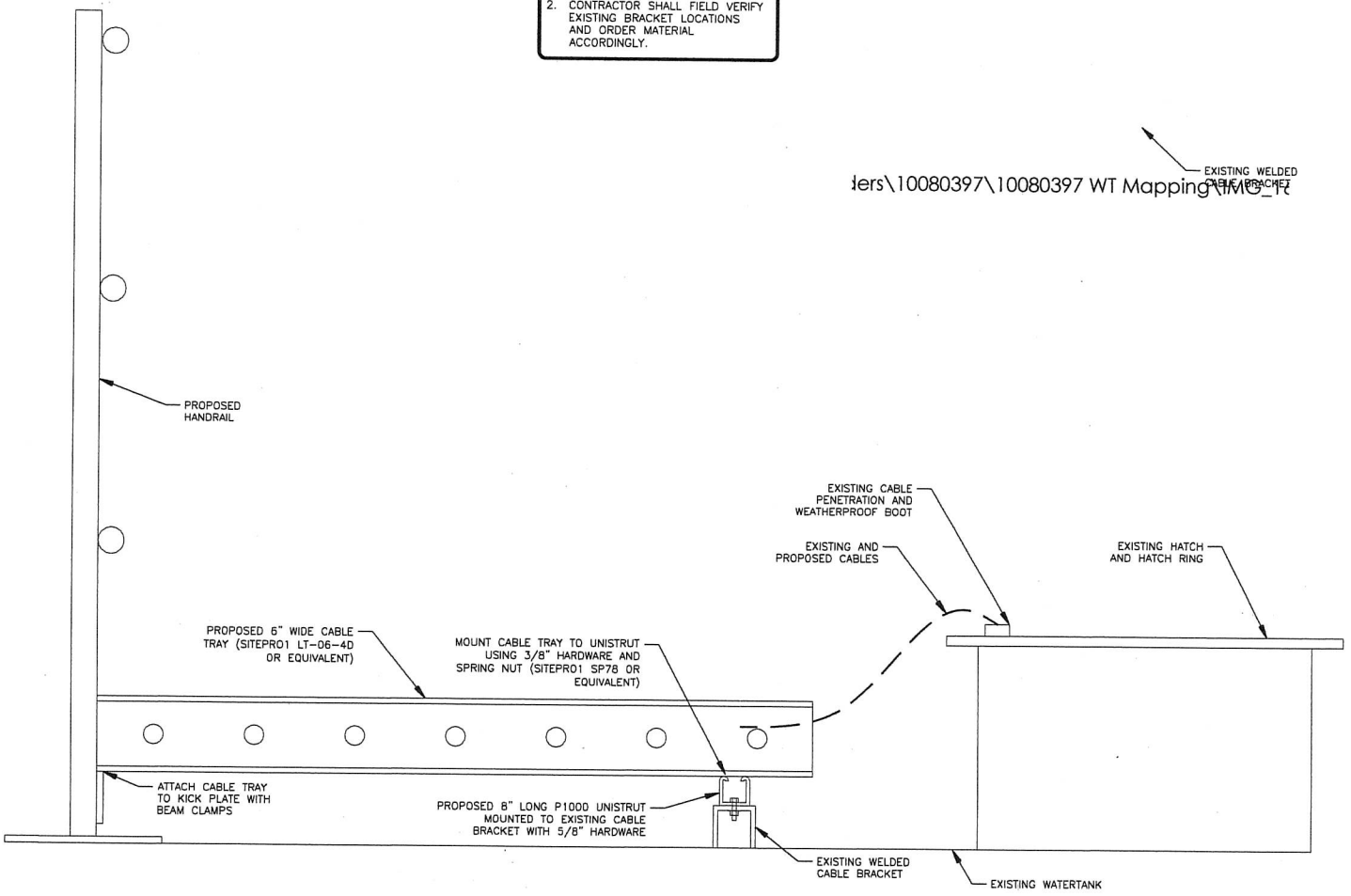
WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S1

NOTES

1. NEW HARDWARE SHALL BE PAINTED PER SEH REQUIREMENTS.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING BRACKET LOCATIONS AND ORDER MATERIAL ACCORDINGLY.



1 CABLE TRAY DETAIL
SCALE: N.T.S.

at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

SAC WIRELESS
540 W. MADISON ST.
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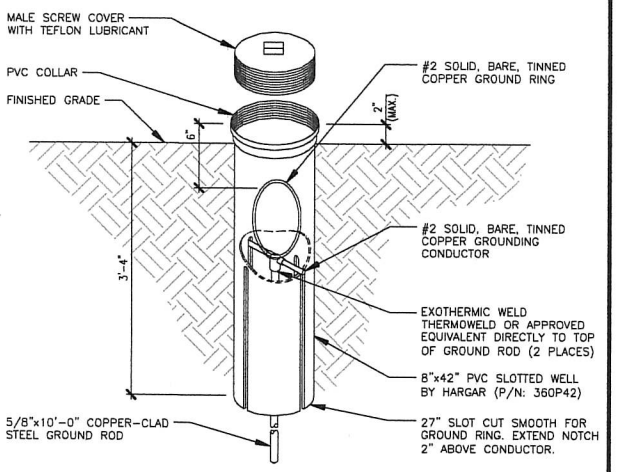
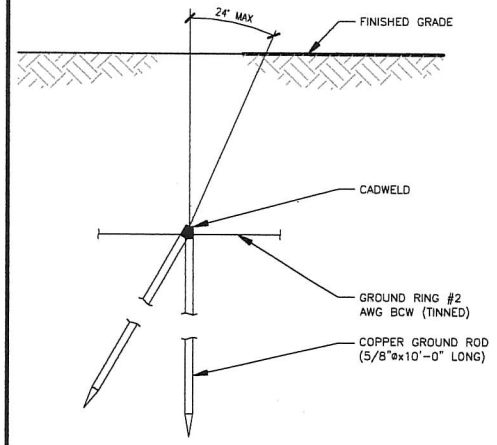
SHEET NUMBER
S2



1 GROUND ROD WITH INSPECTION WELL

SCALE: N.T.S. RE: GN22/GN1

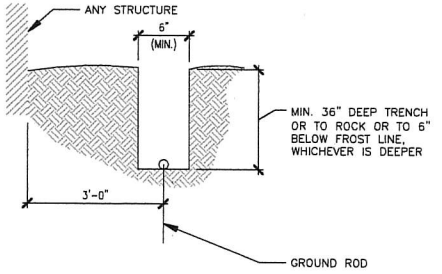


2 COPPER-CLAD STEEL GROUNDING ROD

SCALE: N.T.S. RE: GN22/GN1

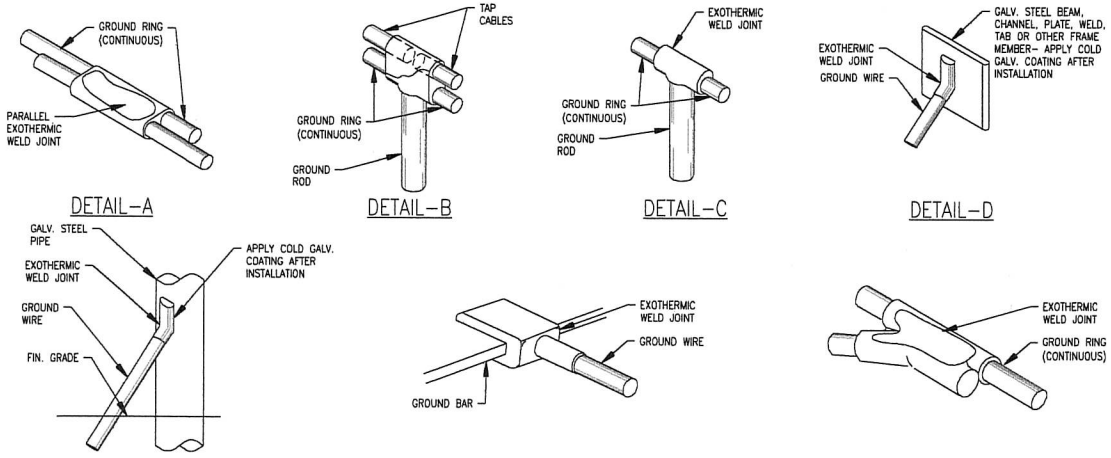
NOTES

GROUNDING EQUIPMENT, WIRE SIZE, CONNECTIONS, LOCATION AND NUMBER OF RODS PER OWNER REQUIREMENTS. THIS INFORMATION IS SCHEMATIC AND SUPPLIED TO US AND IS FOR GENERAL REFERENCE ONLY. CONTACT OWNER OR OWNERS ELECTRICAL ENGINEER FOR SPECIFICS OR QUESTIONS REGARDING ELECTRICAL CAPACITY, OR INSTALL PER PERTINENT ELECTRICAL CODES.



3 GROUND RING TRENCH DETAIL

SCALE: N.T.S. RE: GN22/GN1

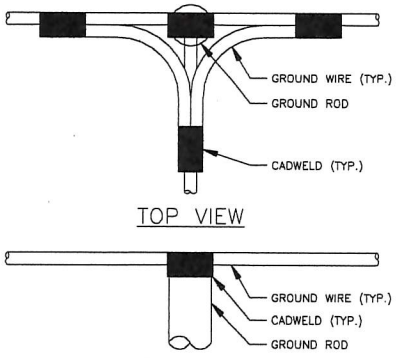


4 WELD CONNECTION DETAILS

SCALE: N.T.S. RE: GN22/GN1

NOTES

MINIMUM SPACING OF 12" BETWEEN ALL CADWELDS



5 CADWELD GROUNDING DETAIL

SCALE: N.T.S. RE: GN22/GN1

at&t
930 NATIONAL PARKWAY
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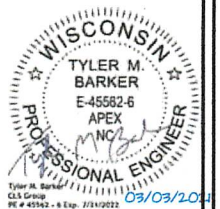

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G1

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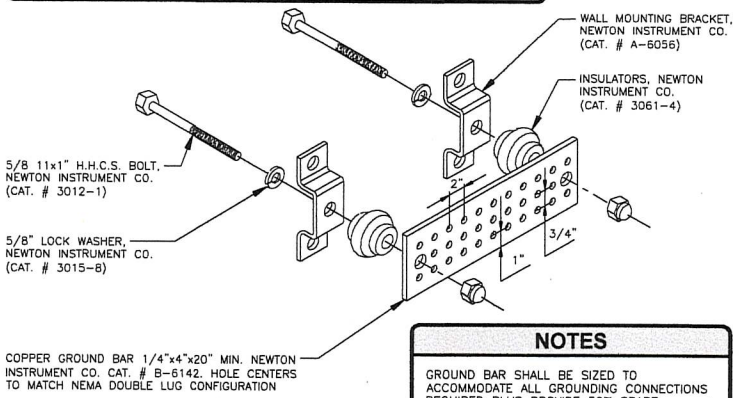
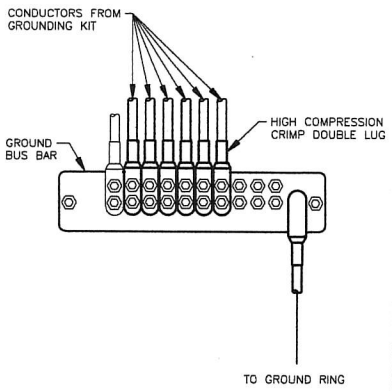


NOTES

GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY.

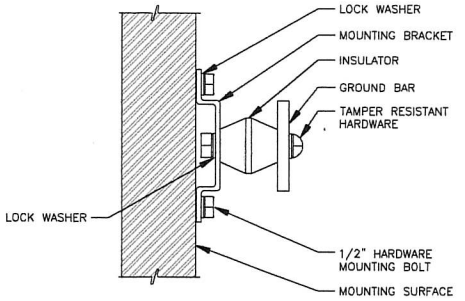
1 STANDARD GROUND BAR DETAIL

SCALE: N.T.S. RE: GN22/GN1



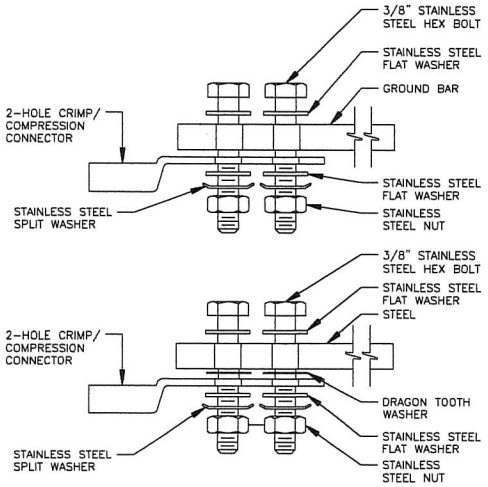
2 GROUND BAR DETAIL

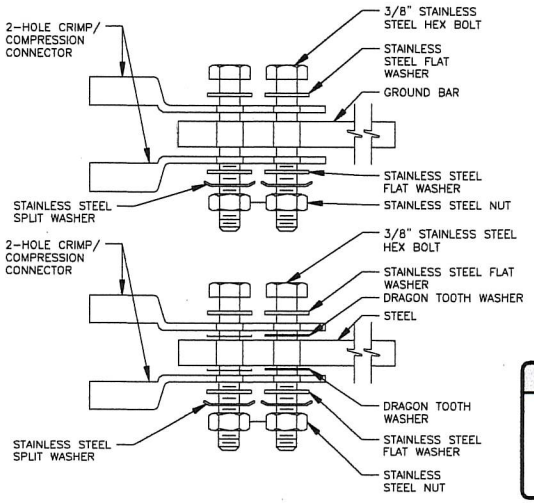
SCALE: N.T.S. RE: GN22/GN1

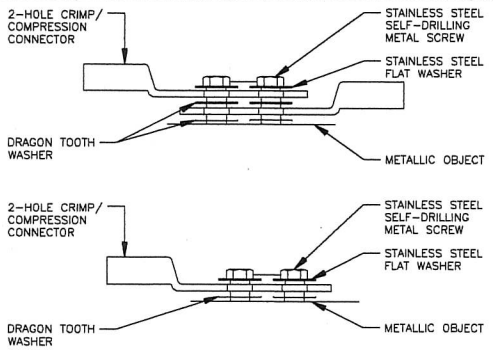


3 ISOLATED GND BAR MOUNTING DETAIL

SCALE: N.T.S. RE: GN22/GN1







NOTES

1. CHOOSE BOLT LENGTH TO ALLOW A MIN. OF THREE THREADS EXPOSED.
2. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF THE CONNECTOR.
3. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF CONNECTOR AND WIPE OFF EXCESS COMPOUND. FOR ALL DISSIMILAR METALS WHICH CONNECT.
4. APPLY CLEAR HEAT SHRINK OVER ENTIRE LENGTH OF LABEL FOR PROTECTION. (REFER TO CONDUCTOR LABELS SECTION.)

4 TYPICAL GROUND BAR CONNECTION DETAILS

SCALE: N.T.S. RE: GN22/GN1

at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

SAC WIRELESS
540 W. MADISON ST.
16TH FLOOR
CHICAGO, IL 60661
www.sacw.com
312.895.4977

telamon CLS
319 CHAPANOKE RD, SUITE 118
RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341-4625
CLS PROJECT ID:
24015-10080397-A+E-P2
COA# 3677 EXP. 01/31/2022

REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
B	08/27/19	CLIENT COMMENTS	JRD
C	09/23/20	CLIENT COMMENTS	JT
D	10/01/20	CLIENT COMMENTS	JT
E	12/09/20	CLIENT COMMENTS	CM
0	03/03/21	FOR CONSTRUCTION	JT

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

WISCONSIN
TYLER M. BARKER
E-45562-6
APEX
PROFESSIONAL ENGINEER
Tyler M. Barker
CLS Group
PE # 45562 - 6 Exp. 7/31/2022
COA # 3677 Exp. 1/31/2022
03/03/2021

PE# 45562-6 EXP: 07/31/2022

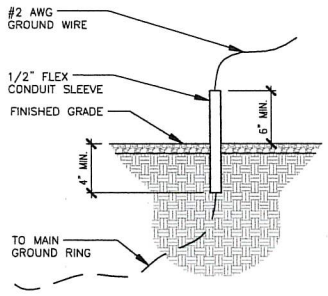
WI1018
WEST ALLIS WATER TOWER
FA#: 10080397
11515 W ROGERS ST.
WEST ALLIS, WI 53227

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G2

NOTES

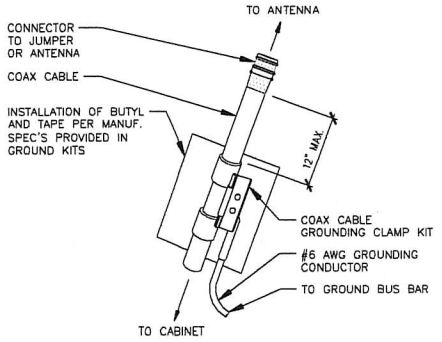
GROUNDING EQUIPMENT, WIRE SIZE, CONNECTIONS, LOCATION AND NUMBER OF RODS PER OWNER REQUIREMENTS. THIS INFORMATION IS SCHEMATIC AND SUPPLIED TO US AND IS FOR GENERAL REFERENCE ONLY. CONTACT OWNER OR OWNERS ELECTRICAL ENGINEER FOR SPECIFICS OR QUESTIONS REGARDING ELECTRICAL CAPACITY, OR INSTALL PER PERTINENT ELECTRICAL CODES.



1 GROUNDING SLEEVE DETAIL
SCALE: N.T.S.

RE: GN22/GN1

3 NOT USED
SCALE: N.T.S.



2 GROUNDING KIT DETAIL
SCALE: N.T.S.

RE: GN22/GN1

4 NOT USED
SCALE: N.T.S.

930 NATIONAL
SCHAUMBURG,

540 W. MA
16TH
CHICAGO
WWW.S
312.8

WIRELESS

telamon

319 CHAPANOKE RD, SUITE 11
RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341

CLS PROJECT ID:
24015-10080397-A+E-F
COA# 3677 EXP. 01/31/

REVISIONS

REV.	DATE	DESCRIPTION
B	08/27/19	CLIENT COMMENT
C	09/23/20	CLIENT COMMENT
D	10/01/20	CLIENT COMMENT
E	12/09/20	CLIENT COMMENT
0	03/03/21	FOR CONSTRUCTI

NOT FOR CONSTRUCTION UN
LABELED AS CONSTRUCTION

WISCON
TYLER M
BARKER
E-45562-6
APEX
NC
PROFESSIONAL E
Tyler M. Barker
CLS Group
PE # 45562 - 6 Exp. 3/31/2022
COA # 3677 Exp. 1/31/2022

PE# 45562-6 EXP: 0

WI1018
WEST ALLIS WA
TOWER
FA#: 10080397
11515 W ROGERS S
WEST ALLIS, WI 532

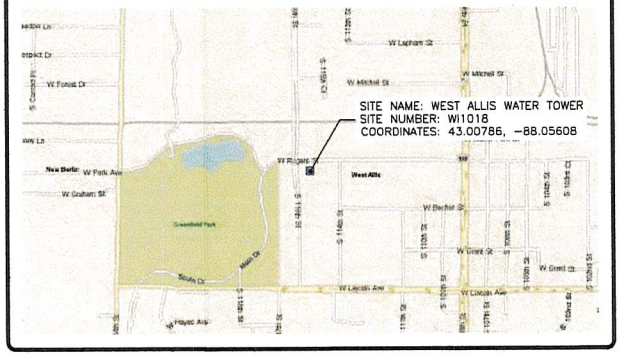
SHEET TITLE
GROUNDING DET

SHEET NUMBER
G3

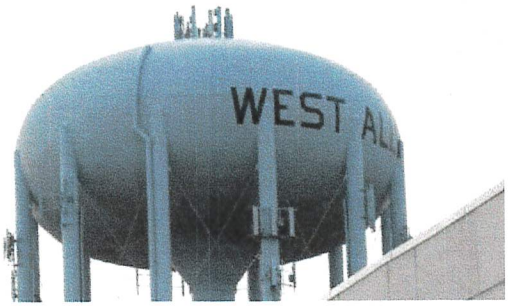
at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

SITE NAME:	**WEST ALLIS WATER TOWER**
FA # | SITE ID:	**10080397 | WI1018**
PROJECT TYPE:	**5G NR** (2)
PACE #:	**MRCHI049230**
STRUCTURE TYPE:	**165'-0" WATER TOWER**
PROJECT SCOPE:	**WATER TOWER CORRAL REPLACEMENT**

LOCATION MAP



STRUCTURE ELEVATION PHOTOGRAPH



DRAWING INDEX

SHEET	SHEET DESCRIPTION	REV
T-1	TITLE SHEET & DRAWING INDEX	4
GN-1	STRUCTURAL NOTES	0
IN-1	MODIFICATION INSPECTION NOTES	0
S-1	CORRAL VIEWS & SCHEDULE	4
S-2	CORRAL DETAIL VIEWS	2
S-3	CORRAL MOUNTING VIEWS & SCHEDULE	4
S-4	MOUNTING DETAIL VIEWS	4
S-5	MOUNTING DETAIL VIEWS	2

SCOPE OF WORK

1. (4) THIS MODIFICATION PLAN HAS BEEN DESIGNED UTILIZING THE STRUCTURAL ANALYSIS BY CLS GROUP, REPORT #24015-10080397-05-MOD-R4, DATED FEBRUARY 26, 2021.
2. FULL MODIFICATION SCHEDULE CAN BE FOUND ON S-1.
3. CONTRACTOR SHALL SCHEDULE A SITE VISIT TO CONFIRM ALL EXISTING STRUCTURE DIMENSIONS, SITE CONSTRAINTS, PROPOSED REINFORCING DIMENSIONS, THE CLEARANCES OF THE PROPOSED REINFORCING, EXISTING FOUNDATION INFORMATION, EXISTING SITE UTILITIES, AND ALL OTHER INFORMATION NECESSARY TO PERFORM THE WORK ON THESE DRAWINGS IN ORDER TO ELIMINATE THE RISK OF RFIS ONCE CONSTRUCTION AND FABRICATION HAVE BEGUN. THE CONTRACTOR SHALL NOT BEGIN FABRICATION OR CONSTRUCTION PRIOR TO PERFORMING THIS SITE VISIT AND VALIDATING THE INFORMATION ON THESE DRAWINGS AND ANY ADDITIONAL INFORMATION THE CONTRACTOR NEEDS TO PERFORM THE WORK.
4. THE CONTRACTOR SHALL PERFORM THIS PRE-CONSTRUCTION WORK AND REPORT ALL DISCREPANCIES TO THE CUSTOMER AND THE ENGINEER OF RECORD OR BE LIABLE FOR THE LABOR & MATERIALS FOR DISCREPANCIES NOT CAUGHT BY THE CONTRACTOR'S DUE DILIGENCE SITE VISIT.

DRIVING DIRECTIONS

FROM GENERAL MITCHELL INTERNATIONAL AIRPORT:

TAKE WI-119 W (SIGNS FOR I-94/ MILWAUKEE/CHICAGO) AND KEEP RIGHT. CONTINUE FOR 1.2 MILES AND TAKE THE EXIT TOWARD I-94 W. CONTINUE ANOTHER 1.2 MILES AND KEEP LEFT, FOLLOW SIGNS FOR I-43 S. CONTINUE FOR 1.0 MILES ONTO I-41/ I-43 S/I-894 W. TRAVEL FOR 4.6 MILES AND THEN KEEP RIGHT TO CONTINUE ON I-41/ I-894 W AND FOLLOW SIGNS FOR I-894/ US-45 N. TAKE EXIT 2A FOR NATIONAL AVENUE. TURN RIGHT ONTO W NATIONAL AVENUE AND TURN LEFT AT THE FIRST CROSS STREET ONTO S 99TH ST. TURN LEFT AT THE FIRST CROSS STREET ONTO W LINCOLN AVE. CONTINUE 0.5 MILES AND TURN RIGHT ONTO S 108TH ST. CONTINUE FOR 0.4 MILES AND TURN LEFT ONTO W ROGERS ST. THE SITE WILL BE IN 0.5 MILES ON THE LEFT.

PROJECT TEAM

ENGINEER/ARCHITECT:
CLS GROUP, INC.
319 CHAPANOKE ROAD, SUITE 118
RALEIGH, NC 27603
(405) 348-5460

APPLICANT/CUSTOMER:
AT&T MOBILITY
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

STRUCTURE OWNER:
CITY OF WEST ALLIS

OWNER SITE NAME:
WEST ALLIS WATER TOWER

OWNER SITE NUMBER:
N/A

PROJECT INFORMATION

STRUCTURE TYPE:	WATER TOWER
STRUCTURE HEIGHT:	165'-0"
LATITUDE:	43.00786 (NAD 83)
LONGITUDE:	-88.05608 (NAD 83)
ADDRESS:	WI1018 - WEST ALLIS WATER TOWER
	11515 W RODGERS STREET
	WEST ALLIS, WI 53227
COUNTY:	MILWAUKEE
CODE JURISDICTION:	CITY OF WEST ALLIS
GROUND ELEVATION:	745' AMSL

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

STRUCTURAL CODE:	IBC 2015
DESIGN STANDARD:	TIA-222-G

ONE CALL

DIGGERS HOTLINE 811
CALL DIGGERS HOTLINE
3 DAYS BEFORE YOU DIG
811 OR 1-800-242-8511

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

SAC WIRELESS

telamon CLS
319 CHAPANOKE RD, SUITE 118
RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341-4625
TELAMON CLS PROJECT ID:
24015-10080397-A+E-P2
COA# 3677 EXP. 01/31/2022

REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
A	07/19/19	PRELIMINARY ISSUE	CWD
0	07/26/19	FOR CONSTRUCTION	CWD
1	11/21/19	REPORT CHANGE	CWD
2	07/20/20	SCOPE CHANGE	AND
3	12/15/20	REPORT CHANGE	CWD
4	02/26/21	CLIENT COMMENTS	CWD

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

WISCONSIN
TYLER M. BARKER
E-45562-6
APEX
NC
PROFESSIONAL ENGINEER
Tyler M. Barker
CLS Group
Director of Engineering
PE # 45562 - 6 Exp. 7/31/2022
COA # 3677 Exp. 1/31/2022
02/26/2021

PE# 45562-6 EXP: 07/31/2022

WEST ALLIS WATER TOWER
SITE NUMBER: WI1018
FA LOCATION: 10080397
11515 W RODGERS STREET
WEST ALLIS, WI 53227

SHEET TITLE
TITLE SHEET & DRAWING INDEX

SHEET NUMBER
T-1

C:\USERS\CRAIG.DUNN\DESKTOP\MOD TEMPLATES\MODS\24015-10080397-A+E-P2-REV3\24015-10080397-A+E-P2-R4.DWG - CLS PROJECT ID: 24015-10080397-A+E-P2

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF TIA/EIA-222, ASCE 7, AWS, ACI, AND AISC. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE-MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.
2. ALL MATERIALS UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS.
3. ALL PRODUCT OR MATERIAL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER SUITABLE TO DETERMINE IF SUBSTITUTE IS ACCEPTABLE FOR USE AND MEETS THE ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWING(S) TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
5. UNLESS NOTED OTHERWISE, ALL NEW MEMBERS AND REINFORCING SHALL MAINTAIN THE EXISTING MEMBER WORK LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.
6. ANY CONTRACTOR-CAUSED DAMAGE TO PROPERTY OF THE LAND OWNER, PROPERTY OF THE STRUCTURE OWNER, PROPERTY OF THE CUSTOMER, SITE FENCING OR GATES, ANY AND ALL UTILITY AND/OR SERVICE LINES, SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE REPAIRED OR REPLACED AT THE SOLE COST OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED BY THE CONTRACTOR OR SUBCONTRACTOR AS APPROVED BY THE ENGINEER OF RECORD AND LAND OWNER. DAMAGE TO EQUIPMENT OR PROPERTY OF ANY KIND BELONGING TO OTHER COMPANIES (BESIDES THE INDICATED CUSTOMER) SHALL BE ADDRESSED BY THE CONTRACTOR WITH THE COMPANIES THAT OWN THE DAMAGED ITEMS.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:
   - A. STRUCTURAL STEEL SHAPES, PLATES AND BARS (EXCEPT W-SHAPES)- ASTM A36, Fy=36 KSI
   - B. PIPES - ASTM A53, GRADE B, Fy=35 KSI
   - C. HSS-SHAPES - ASTM A500, GRADE B, Fy=42 KSI (ROUND) Fy=46 KSI (SQUARE & RECTANGULAR)
   - D. ANCHOR & ALL-THREAD RODS - ASTM F1554, GRADE 55
   - E. STRUCTURAL BOLTS 1/2"ø AND LARGER - ASTM A325
   - F. STRUCTURAL BOLTS SMALLER THAN 1/2"ø - DIMENSIONS: ASME B18.2.1 MATERIAL: SAE J429 GRADE 5 | THREADING: ASME B1.1, UNC, CLASS 2A | FINISH: HOT-DIP GALVANIZED OR ZINC-PLATED
   - G. SHEET METAL SCREWS - DIMENSIONS: ASME B18.6.3 MATERIAL: SAE J933 | FINISH: HOT-DIP GALVANIZED OR ZINC-PLATED
   - H. NUTS FOR BOLTS/ALL-THREAD - ASTM A563 (THREADING TO MATCH BOLT)
   - I. WASHERS FOR BOLTS/ALL-THREAD - ASTM F436
   - J. W & WT SHAPES - ASTM A36, Fy=36 KSI ALTERNATE SPEC: ASTM A992 (IF OTHER SPEC IS UNAVAILABLE)
2. STRUCTURAL BOLTS SHALL CONFORM TO THIS NOTE. ALL BOLT HOLES SHALL BE STANDARD SIZE BOLT HOLES PER AISC 360, UNLESS OTHERWISE NOTED. ALL HOLES SHALL BE SHOP DRILLED OR SUB-PUNCHED AND REAMED. BURNING OF HOLES IS NOT PERMITTED. WHERE SLOTTED OR OVERSIZE HOLES ARE SPECIFIED ON THE DRAWINGS, EXTRA-THICK ASTM F436 PLATE WASHERS SHALL BE USED (5/16" MINIMUM THICKNESS) WITH A DIAMETER SUITABLE TO COVER THE EXTENTS OF THE SLOT OR HOLE. BOLTS SHALL BE HEAVY-HEX WHERE AVAILABLE IN THE SIZE AND GRADE SPECIFIED, OTHERWISE BOLTS SHALL BE HEX HEAD CAP SCREWS.
3. ALL STEEL HARDWARE, INCLUDING ADHESIVE OR EMBEDDED ANCHOR BOLTS AND THEIR ACCESSORIES, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 (EXCEPT BOLTS SMALLER THAN 1/2" SHALL CONFORM TO FE/ZN 3 AT PER ASTM F1941 WHERE HOT-DIP GALVANIZED BOLTS ARE NOT AVAILABLE). ALL STEEL MEMBERS, INCLUDING WELDMENTS, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123. REPAIR DAMAGE TO GALVANIZED COATINGS USING ASTM A780 PROCEDURES WITH A ZINC RICH PAINT (SUCH AS ZRC GALVILITE) FOR GALVANIZING DAMAGED BY HANDLING, TRANSPORTING, CUTTING, WELDING, OR BOLTING. DO NOT HEAT SURFACES TO WHICH REPAIR PAINT HAS BEEN APPLIED. CALL OUT HOLES REQUIRED FOR HOT-DIP GALVANIZING ON SHOP DRAWINGS.
4. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE - STEEL". WELD ELECTRODES SHALL BE E70XX. UNLESS OTHERWISE NOTED, PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE OF 3/16 INCH OR OF A SIZE EQUAL TO THE THICKNESS OF THE THINNER MATERIAL BEING JOINED (WHICHEVER IS LESS). FOR ACUTE OR OBTUSE JOINT ANGLES, THE FILLET WELD LEG SIZE SHALL BE ADJUSTED AS REQUIRED TO MAINTAIN THE EFFECTIVE THROAT OF A 3/16 INCH FILLET WELD IN A 90° JOINT. ALL WELD SIZES SHOWN IN INCHES.
5. PRIOR TO WELDING, THE CONTRACTOR SHALL SUBMIT CERTIFICATION FOR EACH WELDER STATING THE TYPE OF WELDING AND POSITIONS QUALIFIED FOR, THE CODE AND PROCEDURE QUALIFIED UNDER, DATE QUALIFIED, AND THE FIRM AND INDIVIDUAL CERTIFYING THE QUALIFICATION TESTS. THIS INFORMATION SHALL BE SUBMITTED TO THE MODIFICATION INSPECTOR (SEE SHEET S-003) AS WELL AS ANY THIRD-PARTY CERTIFIED WELD INSPECTOR (CWI).
6. MEMBERS SHALL BE SHOP-FABRICATED AND WELDED TO THE EXTENT PRACTICABLE IN ORDER TO REDUCE FIELD INSTALLATION COSTS.

CONTRACTOR NOTES

1. PRIOR TO BEGINNING CONSTRUCTION, ALL CONTRACTORS AND SUBCONTRACTORS MUST ACKNOWLEDGE IN WRITING TO STRUCTURE OWNER THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW STRUCTURE OWNER STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL SITE AND STRUCTURE/TOWER SAFETY PROCEDURES, ALL PRODUCT LIMITATIONS AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. RECEIPT OF ACKNOWLEDGEMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION OR CLIMBING. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE THIS DOCUMENTATION FOR STRUCTURE OWNER ON COMPANY LETTERHEAD AND THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM ANY SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD) AND DELIVER IT TO THE STRUCTURE OWNER.
2. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, THE ENGINEER OF RECORD SHALL BE CONTACTED IMMEDIATELY TO EVALUATE THE SIGNIFICANCE OF THE DEVIATION.
3. THE CONTRACTOR SHALL SOLICIT AND HIRE THE SERVICES OF A QUALIFIED MODIFICATION INSPECTOR PRIOR TO BEGINNING CONSTRUCTION. THE MODIFICATION INSPECTOR MAY BE AN EMPLOYEE OF THE CONTRACTOR'S FIRM, HOWEVER THE INSPECTOR'S ONLY DUTIES SHALL BE INSPECTION, TESTING, AND REPORT CREATION AS REQUIRED ON THE "MODIFICATION INSPECTION NOTES" SHEET. THE INSPECTOR SHALL BE QUALIFIED AS A REGISTERED PROFESSIONAL ENGINEER (PE) OR AS AN ENGINEERING INTERN (EI) OR ENGINEER IN TRAINING (EIT) UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER (PE). IT IS ALSO ACCEPTABLE FOR THE CONTRACTOR TO SUBCONTRACT THE MODIFICATION INSPECTOR DUTIES TO A THIRD PARTY FIRM MEETING THE ABOVE REQUIREMENTS.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AND TOWER OWNER OF THE PLANNED CONSTRUCTION & INSPECTION SCHEDULE, AS WELL AS ANY CHANGES TO THE SCHEDULE, WITHIN TWO BUSINESS DAYS OF THE COMPLETION OF THE SCHEDULE OR SCHEDULE REVISION BOTH PRIOR TO BEGINNING CONSTRUCTION AND DURING CONSTRUCTION AS THE SCHEDULE CHANGES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD WHEN PHASES OF CONSTRUCTION HAVE BEEN MOVED UP AND SHALL GIVE THE ENGINEER ADEQUATE NOTICE SO THAT THE ENGINEER OF RECORD MAY, AT THEIR DISCRETION, INSPECT PORTIONS OF THE WORK THAT ARE DEEMED CRITICAL TO THE INTEGRITY OF THE STRUCTURE. FAILURE TO PROVIDE THIS NOTICE MAY RESULT IN REJECTION OF THE CONTRACTOR'S WORK. THE CONTRACTOR SHALL ALSO NOTIFY THE ENGINEER OF RECORD AND THE STRUCTURE OWNER WHEN THE WORK HAS BEEN COMPLETED WITHIN 2 BUSINESS DAYS OF THE COMPLETION OF THE WORK AND ASSOCIATED MODIFICATION INSPECTIONS & TESTING.
5. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE. THIS INCLUDES PROVIDING THE NECESSARY CERTIFICATIONS TO THE STRUCTURE OWNER AND ENGINEER INCLUDING BUT NOT LIMITED TO TOWER CLIMBER AND RESCUE CLIMBER CERTIFICATIONS, QUALIFIED WELDER CERTIFICATES, CERTIFIED WELDING INSPECTOR CREDENTIALS, ET CETERA.
6. THESE DRAWINGS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES AND PROCEDURES.
7. CONTRACTOR SHALL WORK WITHIN THE LIMITS OF THE STRUCTURE OWNER'S PROPERTY OR LEASE AREA AND APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR.

SYMBOLS AND CALL-OUTS

TYPICAL DETAIL CALL-OUT

DETAIL REFERENCE IDENTIFIER

SHEET ON WHICH DETAIL IS LOCATED

NOTE: THE DETAIL CALL-OUT INFORMATION IS THE SAME FOR SECTION, ELEVATION, AND PHOTOGRAPH CALL-OUTS

TYPICAL SECTION CALL-OUT

ARROW AND TAIL INDICATE DIRECTION SECTION VIEW IS FACING

EXTENT OF TAIL INDICATES APPROXIMATE WIDTH OF SECTION VIEW

TYPICAL ELEVATION CALL-OUT

ARROW INDICATES ORIENTATION OF ELEVATION VIEW

TYPICAL PHOTOGRAPH CALL-OUT

ARROW INDICATES APPROXIMATE ORIENTATION OF CAMERA

CALL-OUT INDICATES APPROXIMATE POSITION OF CAMERA

STANDARD ABBREVIATIONS

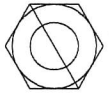
AFF	ABOVE FINISHED FLOOR	LONG	LONGITUDINAL
ARCH	ARCHITECT, -URAL	MAS	MASONRY
BLDG	BUILDING	MATL	MATERIAL
BOD	BOTTOM OF DECK	MAX	MAXIMUM
BOT	BOTTOM	MECH	MECHANICAL
BRCG	BRACING	MFR	MANUFACTURER
BRDG	BRIDGING	MIN	MINIMUM
C	CHANNEL	MOD	MODIFICATION
CL	CENTER LINE	MPH	MILES PER HOUR
CLR	CLEAR	MRI	MEAN RECURRENCE INTERVAL
CMU	CONCRETE MASONRY UNIT	#	NUMBER
CONC	CONCRETE	NTS	NOT TO SCALE
CONT	CONTINUOUS	OC	ON CENTER
DIA (OR) ø	DIAMETER	OPH	OPPOSITE HAND
DWGS	DRAWINGS	OPNG	OPENING
EA	EACH	PC	PIECE
EL	ELEVATION	PL	PLATE
EQ, EQUIV	EQUAL, EQUIVALENT	PSF	POUNDS PER SQUARE FOOT
EW	EACH WAY	PSI	POUNDS PER SQUARE INCH
EXIST	EXISTING	REF	REFERENCE
' OR FT	FEET (DIMENSION)	REINF	REINFORCE/REINFORCEMENT
f'c	COMPRESSIVE STRESS	REQD	REQUIRED
FDN	FOUNDATION	REV	REVISION
FTG	FOOTING	SF	SQUARE FEET
GALV	GALVANIZED	SIM	SIMILAR
HORIZ	HORIZONTAL	SR	SOLID ROUND (SHAPE)
HSS	HOLLOW STRUCTURAL SHAPES	STD	STANDARD
		T&B	TOP AND BOTTOM
KIP	KILOPOUNDS (1000 LBS PER UNIT)	THK	THICKNESS
		TOF	TOP OF FOOTING
KSI	KIPS PER SQUARE INCH	TOM	TOP OF MASONRY
" OR IN	INCH	TOS	TOP OF STEEL
L	ANGLE	TYP	TYPICAL
LB	POUND	UON	UNLESS OTHERWISE NOTED
LLH	LONG LEG HORIZONTAL	VERT	VERTICAL
LLV	LONG LEG VERTICAL	W/	WITH

BOLT TIGHTENING PROCEDURE

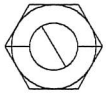
1. TIGHTEN BOLTS BY AISC "TURN OF THE NUT" METHOD USING THE CHART BELOW:
   - BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS: +1/3 TURN BEYOND SNUG TIGHT
   - BOLT LENGTHS OVER FOUR AND UP TO EIGHT DIAMETERS: +1/2 TURN BEYOND SNUG TIGHT
   - BOLT LENGTHS OVER EIGHT AND UP TO TWELVE DIAMETERS: +2/3 TURN BEYOND SNUG TIGHT
2. SPLICE BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8(d)(1) OF THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS AS FOLLOWS:

"FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND BE TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8(d)(1) THROUGH 8(d)(4).

8(d)(1) TURN-OF-THE-NUT TIGHTENING.
BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION. SNUG TIGHT IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN THE PLIES OF A JOINT ARE IN FIRM CONTACT. THIS MAY BE OBTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. SNUG TIGHTENING SHALL PROGRESS SYSTEMATICALLY...UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION, ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION, THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY.

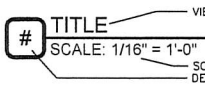


BEFORE ¼ TURN



AFTER ¼ TURN

SECTION / ELEVATION / DETAIL VIEW CALLOUTS



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COA# 3677 EXP. 01/31/2022

REVISIONS

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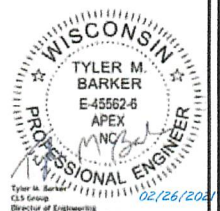

PE# 45562-6 EXP: 07/31/2022

WEST ALLIS WATER TOWER

SITE NUMBER: WI1018

FA LOCATION: 10080397

11515 W ROBERTS STREET
WEST ALLIS, WI 53227

SHEET TITLE

STRUCTURAL NOTES

SHEET NUMBER

GN-1

PRE-CONSTRUCTION INSPECTION CHECKLIST

CONSTRUCTION AND/OR INSTALLATION INSPECTIONS REQUIRED FOR REPORT? (CHECK=YES, BLANK=NO)	INSPECTION REPORT ITEM
√	MODIFICATION INSPECTION CHECKLIST
√	SHOP DRAWINGS APPROVED BY ENGINEER OF RECORD (LATEST REVISION)
√	FABRICATION INSPECTION
√	FABRICATOR'S CERTIFIED WELD INSPECTOR (CWI)
√	FABRICATOR'S QUALIFIED PERSONNEL FOR WELDING
√	MATERIAL TEST REPORT(S) / MILL CERTIFICATE(S)
	FABRICATOR'S NON-DESTRUCTIVE TESTING (NDT) TECHNICIAN
√	PACKING SLIPS FOR STRUCTURAL MATERIALS

CONSTRUCTION INSPECTION CHECKLIST

CONSTRUCTION AND/OR INSTALLATION INSPECTIONS REQUIRED FOR REPORT? (CHECK=YES, BLANK=NO)	INSPECTION REPORT ITEM
√	CONSTRUCTION INSPECTIONS
	FOUNDATION INSPECTIONS
	CONCRETE COMPRESSIVE STRENGTH AND SLUMP TESTING RESULTS/CERTIFICATES
	ADHESIVE ANCHOR ROD(S) INSTALLATION INSPECTION
	BASE PLATE GROUT INSPECTION
√	THIRD-PARTY CERTIFIED WELD INSPECTION (INCLUDING IBC SPECIAL INSPECTIONS)
	SOIL EXCAVATION - DENSITY TESTING, COMPACTION INSPECTION/VERIFICATION, USE OF SUITABLE FILL
√	GALVANIZING REPAIR MATERIAL PREPARATION, INSPECTION, & PAINT APPLICATION
	GUY WIRE (RE-)TENSION REPORT AND INSPECTION
√	PRIME CONTRACTOR'S AS-BUILT DOCUMENTS (SIGNED & DATED)

POST-CONSTRUCTION INSPECTION CHECKLIST

CONSTRUCTION AND/OR INSTALLATION INSPECTIONS REQUIRED FOR REPORT? (CHECK=YES, BLANK=NO)	INSPECTION REPORT ITEM
√	MODIFICATION INSPECTOR'S ISSUE LIST (INCLUDING CORRECTIVE ACTIONS TAKEN) AND/OR REDLINED RECORD DRAWINGS
	POST-INSTALLED ADHESIVE ANCHOR ROD PULL-OUT TESTING
√	PHOTOGRAPHS OF MODIFICATIONS (INCLUDE PHOTOS OF BOTH SIDES OF WELDED OR BOLTED CONNECTIONS, OF OVERALL AND DETAIL VIEWS OF INSTALLED MODIFICATIONS, AND BEFORE/AFTER PHOTOS OF ANY ISSUES IDENTIFIED BY THE INSPECTOR)

GENERAL NOTES

1. THE POST-MODIFICATION INSPECTION IS A VISUAL EXAMINATION OF STRUCTURE MODIFICATIONS AND A REVIEW OF ANY REQUIRED CONSTRUCTION INSPECTIONS, TESTING, AND OTHER DATA TO VERIFY THAT THE MODIFICATIONS ARE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AS DESIGNED BY THE ENGINEER OF RECORD. THE CONTRACT DOCUMENTS INCLUDE THESE MODIFICATION DRAWINGS, ANY PROJECT SPECIFICATIONS REFERENCED TO IN THE PROJECT NOTES OR OTHERWISE PROVIDED WITH THE DRAWINGS, AND OTHER DOCUMENTS OR DRAWINGS PROVIDED WITH THE MODIFICATION DRAWINGS WITH THE INTENT THAT THEY BE USED AS A DESIGN AID OR GUIDELINE FOR CONSTRUCTION.
2. THE POST-MODIFICATION INSPECTION SHALL CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A QUALITATIVE REVIEW OF THE ENGINEERING ASPECTS OF THE DESIGN OR THE DESIGN DRAWINGS. THE MODIFICATION INSPECTOR IS NOT TAKING OWNERSHIP OF THE MODIFICATION DESIGN IN THE PERFORMANCE OF THEIR DUTIES. OWNERSHIP OF THE MODIFICATION DESIGN'S EFFECTIVENESS AND INTENT, AS WELL AS ALL ASSOCIATED RISK, LIES WITH THE ENGINEER OF RECORD AT ALL TIMES.
3. TO ENSURE THAT THE REQUIREMENTS OF THE POST-MODIFICATION INSPECTION ARE MET, IT IS ESSENTIAL THAT COORDINATION BETWEEN THE PRIME CONTRACTOR AND THE MODIFICATION INSPECTOR BEGIN AS SOON AS THE PROJECT IS FUNDED AND WORK ENTERS THE PLANNING STAGE. THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR SHALL BE PROACTIVE IN IDENTIFYING CONSTRUCTION ISSUES AND COMMUNICATING THESE ISSUES TO EACH OTHER AND TO THE ENGINEER OF RECORD AND STRUCTURE OWNER & CUSTOMER, AS REQUIRED.

INSPECTION AND REPORT RECOMMENDATIONS

1. THE FOLLOWING ARE PROVIDED WITH THE INTENT OF ENHANCING THE EFFECTIVENESS OF THE MODIFICATION INSPECTION AND IMPROVING THE EFFICIENCY OF THE PROCESS OF COLLECTING AND COMPILING THE INFORMATION INTO A USABLE REPORT:

1.1. IT IS RECOMMENDED THAT THE PRIME CONTRACTOR PROVIDE THE MODIFICATION INSPECTOR AT LEAST 5 BUSINESS DAYS NOTICE FOR WHEN THE SITE WILL BE READY FOR THE MODIFICATION INSPECTION.
1.2. THE PRIME CONTRACTOR AND THE MODIFICATION INSPECTOR SHALL COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
1.3. THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR SHALL BOTH BE PRESENT DURING THE INITIAL INSPECTION IN ORDER TO ALLOW FOR THE REMEDIATION OF DEFICIENCIES DURING THE INSPECTION, AS PRACTICABLE. IT MAY BE PREFERABLE TO KEEP WORK CREWS AND THEIR EQUIPMENT ON-SITE TO REMEDIATE DEFICIENCIES DURING INSPECTIONS.

INSPECTION RESCHEDULING AND CANCELLATION

1. IF THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR HAVE AGREED UPON A TIME AND DATE FOR A GIVEN INSPECTION AND EITHER PARTY RESCHEDULES OR CANCELS THE INSPECTION, THE STRUCTURE OWNER SHALL NOT BE RESPONSIBLE FOR COSTS, FEES, LOST DEPOSITS, OR OTHER EXPENSES INCURRED BY THE PRIME CONTRACTOR, THEIR SUBCONTRACTOR(S), OR THE MODIFICATION INSPECTOR DUE TO THESE SCHEDULING CHANGES. EXCEPTIONS MAY BE MADE IN THE EVENT OF UNCONTROLLABLE SITUATIONS SUCH AS NATURAL DISASTERS, SEVERE WEATHER, OR OTHER CONDITIONS THAT COMPROMISE THE SAFETY OF THE PARTIES INVOLVED.

REMEDIATION OF FAILING INSPECTION

1. IN THE EVENT THAT ANY PORTION OF THE MODIFICATION WORK IS DETERMINED TO BE UNSATISFACTORY BY THE MODIFICATION INSPECTOR, THE PRIME CONTRACTOR SHALL WORK WITH THE MODIFICATION INSPECTOR TO CREATE A PLAN OF ACTION THAT WILL EITHER:

1.1. REPAIR THE DEFICIENT WORK TO SATISFACTORY CONDITION AND INCLUDE A SUBSEQUENT RE-INSPECTION OF THE WORK TO VERIFY THAT IT IS SATISFACTORY
1.2. OR, WITH THE PERMISSION OF THE STRUCTURE OWNER AND/OR CUSTOMER, THE PRIME CONTRACTOR MAY WORK WITH THE ENGINEER OF RECORD TO REVIEW THE AS-BUILT CONDITION OF THE MODIFICATION TO DETERMINE IF IT IS STRUCTURALLY ACCEPTABLE. IF THIS ACTION IS NOT ACCEPTABLE TO ANY PARTY, THE PRIME CONTRACTOR SHALL PROCEED TO REPAIR THE DEFICIENT WORK TO A SATISFACTORY CONDITION.

MODIFICATION INSPECTOR'S RESPONSIBILITIES

1. THE MODIFICATION INSPECTOR SHALL CONTACT THE PRIME CONTRACTOR AS SOON AS THEY HAVE RECEIVED A PURCHASE ORDER OR PAYMENT FOR THIS INSPECTION. THE MODIFICATION INSPECTOR SHALL REVIEW THE REQUIREMENTS OF THE INSPECTION CHECKLIST, SHALL WORK WITH THE PRIME CONTRACTOR TO DEVELOP A SCHEDULE OF NECESSARY ON-SITE INSPECTIONS, AND SHALL DISCUSS ANY SITE-SPECIFIC INSPECTION REQUIREMENTS OR OTHER CONCERNS.
2. THE MODIFICATION INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL PRIME CONTRACTOR INSPECTION AND TEST REPORTS (INCLUDING THOSE OF ASSIGNED SUB-CONTRACTORS), SHALL REVIEW THE REPORTS FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS, SHALL CONDUCT THE NECESSARY ON-SITE INSPECTIONS, AND SHALL COMPILE AND SUBMIT THE MODIFICATION INSPECTION REPORT.

PRIME CONTRACTOR'S RESPONSIBILITIES

1. THE PRIME CONTRACTOR SHALL CONTACT THE MODIFICATION INSPECTOR AS SOON AS THEY HAVE RECEIVED A PURCHASE ORDER OR PAYMENT FOR THE MODIFICATION INSTALLATION OR PROJECT. THE PRIME CONTRACTOR SHALL REVIEW THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST, SHALL WORK WITH THE MODIFICATION INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, AND SHALL DISCUSS SPECIFIC INSPECTION AND TESTING REQUIREMENTS WITH THE MODIFICATION INSPECTOR IN DETAIL TO OBTAIN A FULL UNDERSTANDING OF THE REQUIRED INSPECTIONS AND TESTING.
2. THE PRIME CONTRACTOR SHALL PERFORM AND RECORD THE TESTING AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST.

PHOTOGRAPHY REQUIREMENTS

1. THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR SHALL, BETWEEN THE EFFORTS OF BOTH PARTIES AND THEIR EMPLOYED PERSONNEL, PROVIDE PHOTOGRAPHS WITH THE INSPECTION REPORT TO INCLUDE THE FOLLOWING:

a. GENERAL SITE PHOTOGRAPHS PRE-CONSTRUCTION
b. MODIFICATION INSTALLATION PHOTOGRAPHS DURING CONSTRUCTION/ERECTION OPERATIONS AND INSPECTIONS
b.1. RAW MATERIALS
b.2. PHOTOS OF DETAILED WORK REQUIRED ON THE DRAWINGS (CONNECTIONS, WELDMENTS, FIELD-FABRICATED MEMBERS, ETC)
b.3. WELD PREPARATION AND COMPLETED WELD INSPECTION (INCLUDING A FILLET WELD SIZE GAUGE, AS APPLICABLE)
b.4. BOLT INSTALLATION AND TORQUE/PRETENSION.
b.5. FINAL INSTALLED CONDITION (AFTER DEFICIENT CONDITIONS, IF ANY, ARE REMEDIATED).
b.6. REPAIR OF SURFACE COATINGS (INCLUDING GALVANIZING AND/OR PAINT COATING)
c. POST-MODIFICATION PHOTOGRAPHS OF THE SITE & WORK.
d. PHOTOGRAPHS OF THE FINAL STATE OF THE SITE AT CONCLUSION OF THE WORK BY THE PRIME CONTRACTOR, ASSOCIATED SUBCONTRACTORS, AND THE MODIFICATION INSPECTOR.
e. OTHER PHOTOS MAY BE INCLUDED AT PRIME CONTRACTOR & MODIFICATION INSPECTOR'S DISCRETION.

NOTE: PHOTOS OF MODIFICATIONS INSTALLED ON THE STRUCTURE ABOVE AN ELEVATION OF 20 FT SHALL REQUIRE PHOTOS TAKEN FROM THE STRUCTURE AS WELL AS OVERALL PHOTOGRAPHS OF THE MODIFICATIONS TAKEN FROM THE GROUND.

OWNER INSPECTIONS

1. THE STRUCTURE OWNER MAY CONDUCT INSPECTIONS TO VERIFY THE QUALITY AND COMPLETENESS OF THE PREVIOUSLY COMPLETED MODIFICATION INSPECTION REPORTS FOR THE MODIFICATION INSTALLATION WORK.
2. INSPECTIONS MAY BE COMPLETED BY A 3RD-PARTY FIRM OF THE STRUCTURE OWNER'S CHOOSING AFTER A MODIFICATION PROJECT IS COMPLETED AND A PASSING MODIFICATION INSPECTION REPORT IS ISSUED.

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TYLER M. BARKER
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APEX
PROFESSIONAL ENGINEER
Tyler M. Barker
CLS Group
Director of Engineering
PE # 45562 - 6 Exp. 7/31/2022
COA # 3677 Exp. 1/31/2022
02/26/2021

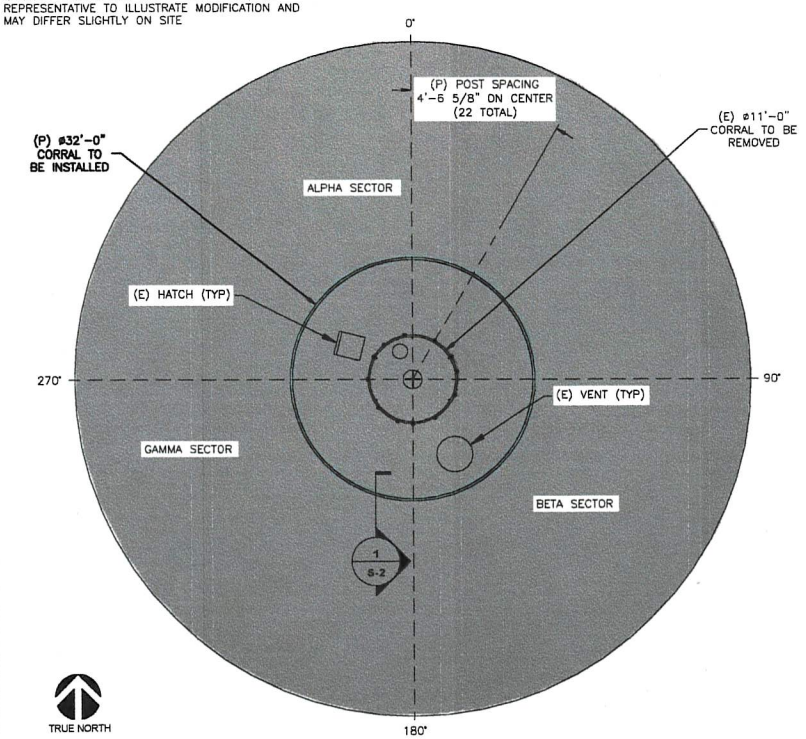
PE# 45562-6 EXP: 07/31/2022

WEST ALLIS WATER TOWER
SITE NUMBER: WI1018
FA LOCATION: 10080397
11515 W RODGERS STREET
WEST ALLIS, WI 53227

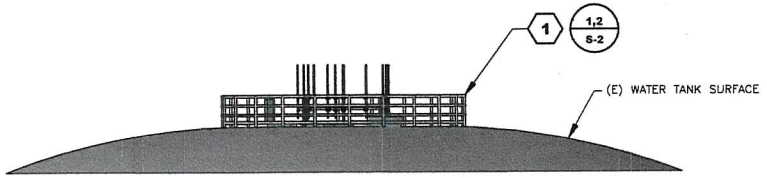
SHEET TITLE
MODIFICATION INSPECTION NOTES

SHEET NUMBER
IN-1

NOTE:
EXISTING CORRAL AND WATER TANK SHOWN IS REPRESENTATIVE TO ILLUSTRATE MODIFICATION AND MAY DIFFER SLIGHTLY ON SITE



2 CORRAL - PLAN VIEW
SCALE: N.T.S.



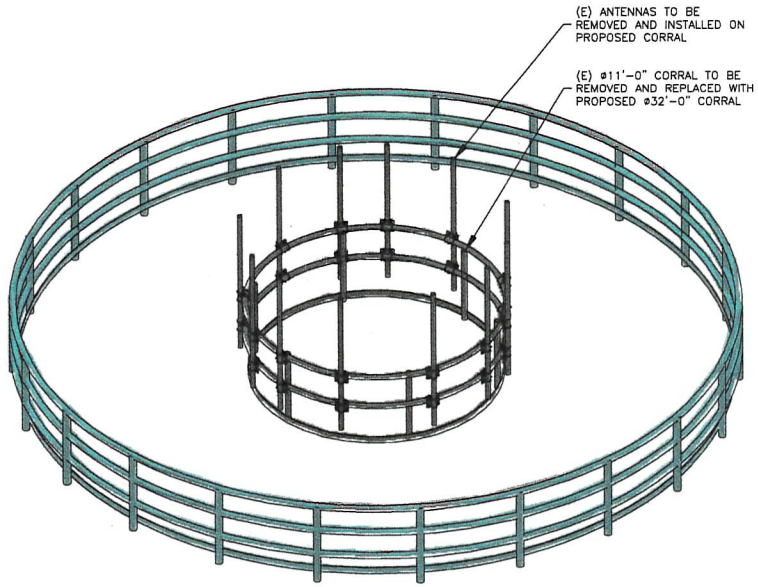
1 CORRAL - FRONT ELEVATION VIEW
SCALE: N.T.S.

CONSTRUCTION NOTES

1. SCOPE OF WORK MUST BE COMPLETED AT WIND SPEEDS < 20 MPH.
2. ALL DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION OF STEEL AND COMMENCEMENT OF WORK. FIELD CUT MEMBERS AS REQUIRED.
3. ALL HARDWARE SHOULD BE INSTALLED WITH "TURN OF THE NUT" METHOD (RE: GN-1).

CORRAL SCHEDULE

LABEL	ELEVATION	SCOPE	MATERIAL	NOTES
1	±172'-6"	INSTALL (1) PROPOSED WATER TANK CORRAL MOUNT AS SPECIFIED.	PIPE 3 X-STRONG PL 1/4"X4" PL 3/8"X8"X0'-8"	S-1 S-2 S-3
4 2	±172'-6"	INSTALL (1) PROPOSED PIPE MAST AT BETA SECTOR AS SPECIFIED. ATTACH TO PROPOSED CORRAL POST BETWEEN RAILS USING (1) SITE PRO 1 DCP12K CROSSOVER CLAMP SET. ATTACH AT TOP AND BASE OF THE PROPOSED CORRAL POST USING 3/8"X9" X 0'-6" PLATES AND 5/8"ø X 6" LONG A325 BOLTS. SHIM AS REQUIRED. ATTACH MAST PIPE TO 3/8"X9" X 0'-6" PLATES USING 3/4"øX6-1/2" X 1-3/4" LONG A325X BOLTS FORMING A HINGE AT BASE. **FIELD-CUT PROPOSED PIPE AS REQUIRED. NOTE: BEACON TIP HEIGHT NOT TO EXCEED 187'-6".**	PIPE 3-1/2 X-STRONG X 20'-0" LONG SITE PRO 1 DCP12K PL 3/8"X9"X 0'-6" PL 1/8"X1'-6" X1'-6" (4) 5/8"ø X 6" LONG A325 BOLTS (2) 3/4"øX6-1/2" X 1-3/4" LONG A325X BOLTS	S-3 S-4 S-5
3	±172'-6"	INSTALL (4) 12'-0" LONG PIPE 2-1/2 STD, A53 GR. B, MOUNT PIPES AT EACH SECTOR OF PROPOSED CORRAL MOUNT (12 TOTAL). CONNECT MOUNT PIPES TO CORRAL HORIZONTAL RAIL MEMBERS WITH SITE PRO 1 SCX45-K CROSSOVER PLATE KITS OR EQUAL.	PIPE 2-1/2 STD X 12'-0" LONG SITE PRO 1 SCX45-K	S-3 S-5



3 CORRAL - ISOMETRIC VIEW
SCALE: N.T.S.

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02/26/2021

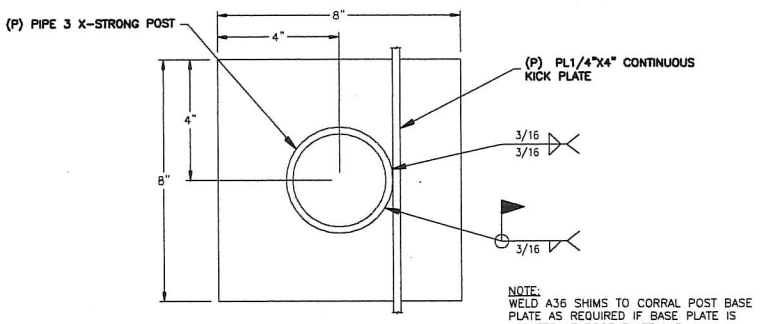
PE# 45562-6 EXP: 07/31/2022

WEST ALLIS WATER TOWER
SITE NUMBER: WI1018
FA LOCATION: 10080397
11515 W RODGERS STREET
WEST ALLIS, WI 53227

SHEET TITLE
CORRAL VIEWS & SCHEDULE
2

SHEET NUMBER
S-1

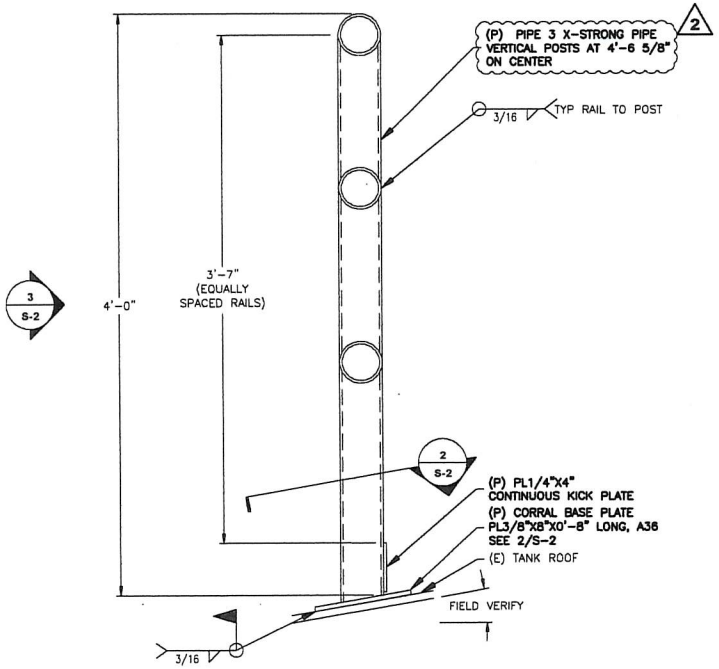
C:\USERS\CRAIG.DUNN\DESKTOP\ACD TEMPLATES\ACDS\24015-10080397-A+E-P2-REV_1\24015-10080397-A+E-P2-R4.DWG - CLS PROJECT ID: 24015-10080397-A+E-P2



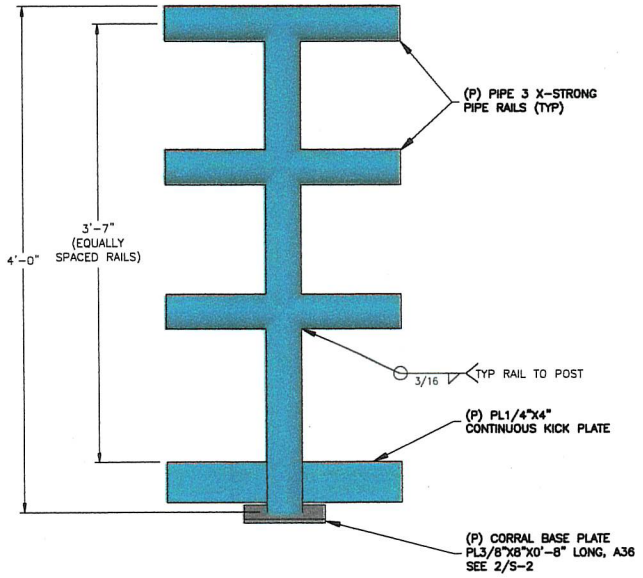
NOTE:
WELD A36 SHIMS TO CORRAL POST BASE PLATE AS REQUIRED IF BASE PLATE IS LOCATED AT ROOF PLATE LAP

2 CORRAL BASEPLATE WELD DETAIL
SCALE: N.T.S.

NOTE:
FABRICATE CORRAL STRUCTURE ON THE GROUND AND INSTALL ON BASE PLATES AS A COMPLETE UNIT



1 PROPOSED CORRAL SECTION VIEW
SCALE: N.T.S.



3 PROPOSED CORRAL FRONT ELEVATION VIEW
SCALE: N.T.S.

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SHEET TITLE
CORRAL DETAIL VIEWS

SHEET NUMBER
S-2

C:\USERS\CRAIG.DUNN\DESKTOP\A&D TEMPLATES\MODS\24015-10080397-A+E-P2-REV.1\24015-10080397-A+E-P2-R4.DWG - CLS PROJECT ID: 24015-10080397-A+E-P2

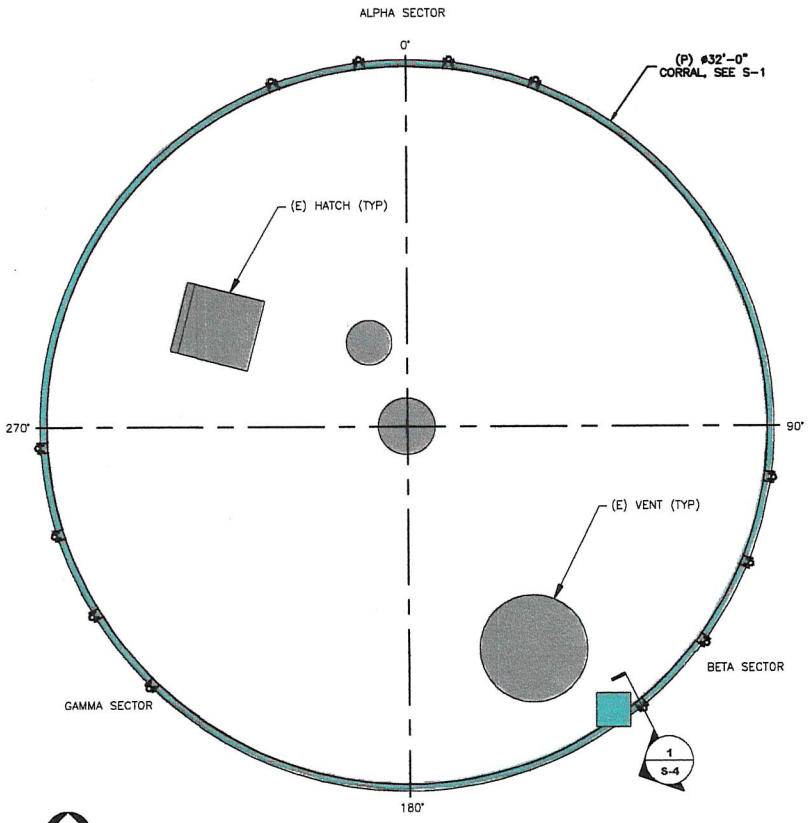
NOTE:
EXISTING MOUNT SHOWN IS REPRESENTATIVE TO ILLUSTRATE MODIFICATION AND MAY DIFFER SLIGHTLY ON SITE. WATER TANK NOT SHOWN FOR CLARITY

CONSTRUCTION NOTES

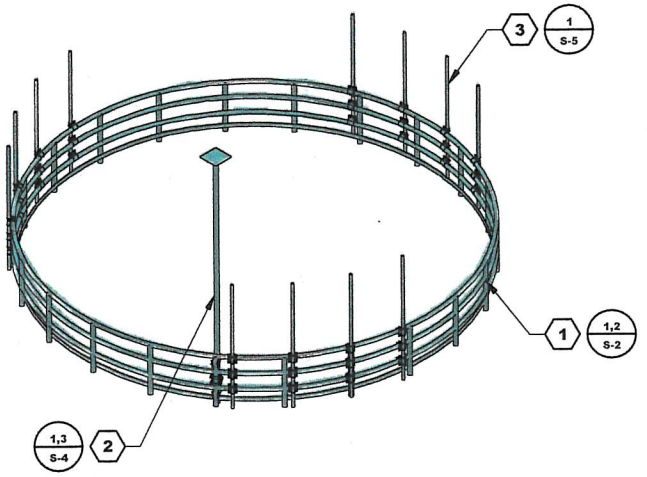
1. SCOPE OF WORK MUST BE COMPLETED AT WIND SPEEDS < 20 MPH.
2. ALL DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION OF STEEL AND COMMENCEMENT OF WORK. FIELD CUT MEMBERS AS REQUIRED.
3. ALL HARDWARE SHOULD BE INSTALLED WITH "TURN OF THE NUT" METHOD (RE: GN-1).

CORRAL MOUNTING SCHEDULE

LABEL	ELEVATION	SCOPE	MATERIAL	NOTES
1	±172'-6"	INSTALL (1) PROPOSED WATER TANK CORRAL MOUNT AS SPECIFIED.	PIPE 3 X-STRONG PL 1/4"X4" PL 3/8"X8"X0'-8"	S-1 S-2 S-3
4 2	±172'-6"	INSTALL (1) PROPOSED PIPE MAST AT BETA SECTOR AS SPECIFIED. ATTACH TO PROPOSED CORRAL POST BETWEEN RAILS USING (1) SITE PRO 1 DCP12K CROSSOVER CLAMP SET. ATTACH AT TOP AND BASE OF THE PROPOSED CORRAL POST USING 3/8"X9" X 0'-6" PLATES AND 5/8"ø X 6" LONG A325 BOLTS. SHIM AS REQUIRED. ATTACH MAST PIPE TO 3/8"X9" X 0'-6" PLATES USING 3/4"øX6-1/2" X 1-3/4" LONG A325X BOLTS FORMING A HINGE AT BASE. **FIELD-CUT PROPOSED PIPE AS REQUIRED. NOTE: BEACON TIP HEIGHT NOT TO EXCEED 187'-6".**	PIPE 3-1/2 X-STRONG X 20-0" LONG SITE PRO 1 DCP12K PL 3/8"X9"X 0'-6" PL 1/8"X1'-6" X1'-6" (4) 5/8"ø X 6" LONG A325 BOLTS (2) 3/4"øX6-1/2" X 1-3/4" LONG A325X BOLTS	S-3 S-4 S-5
3	±172'-6"	INSTALL (4) 12'-0" LONG PIPE 2-1/2 STD, A53 GR. B, MOUNT PIPES AT EACH SECTOR OF PROPOSED CORRAL MOUNT (12 TOTAL). CONNECT MOUNT PIPES TO CORRAL HORIZONTAL RAIL MEMBERS WITH SITE PRO 1 SCX45-K CROSSOVER PLATE KITS OR EQUAL.	PIPE 2-1/2 STD X 12'-0" LONG SITE PRO 1 SCX45-K	S-3 S-5



1 CORRAL - PLAN VIEW
SCALE: N.T.S.



2 CORRAL - ISOMETRIC VIEW
SCALE: N.T.S.

at&t
630 NATIONAL PARKWAY SCHAUMBURG, IL 60173

SAC WIRELESS

telamon CLS
319 CHAPANOKE RD, SUITE 118
RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341-4625
TELAMON CLS PROJECT ID:
24015-10080397-A+E-P2
CoA# 3677 EXP. 01/31/2022

REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
A	07/19/19	PRELIMINARY ISSUE	CWD
0	07/26/19	FOR CONSTRUCTION	CWD
1	11/21/19	REPORT CHANGE	CWD
2	07/20/20	SCOPE CHANGE	AND
3	12/15/20	REPORT CHANGE	CWD
4	02/26/21	CLIENT COMMENTS	CWD

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

WISCONSIN
TYLER M. BARKER
E-45562-6
APEX
NC
PROFESSIONAL ENGINEER
Tyler M. Barker
CLS Group
Director of Engineering
PE # 45562 - 6 Exp. 7/31/2022
CDA # 3677 Exp. 1/31/2022
02/26/2021

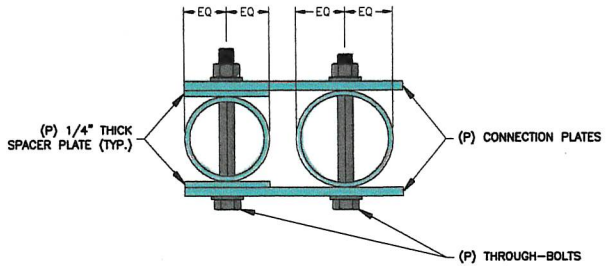
PE# 45562-6 EXP: 07/31/2022

WEST ALLIS WATER TOWER
SITE NUMBER: WI1018
FA LOCATION: 10080397
11515 W RODGERS STREET
WEST ALLIS, WI 53227

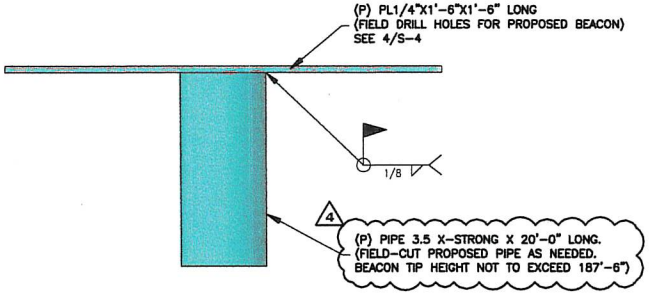
SHEET TITLE
2 CORRAL MOUNTING VIEWS & SCHEDULE

SHEET NUMBER
S-3

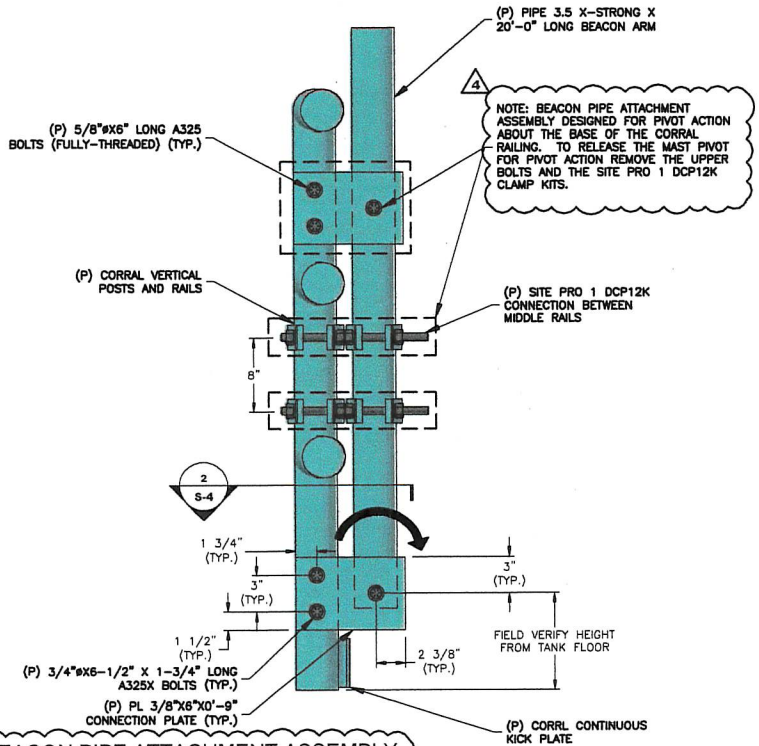
C:\USERS\CRAIG.DUNN\DESKTOP\MOD. TEMPLATES\MODS\24015-10080397-A+E-P2-REV.1\24015-10080397-A+E-P2-R4.DWG - CLS PROJECT ID: 24015-10080397-A+E-P2



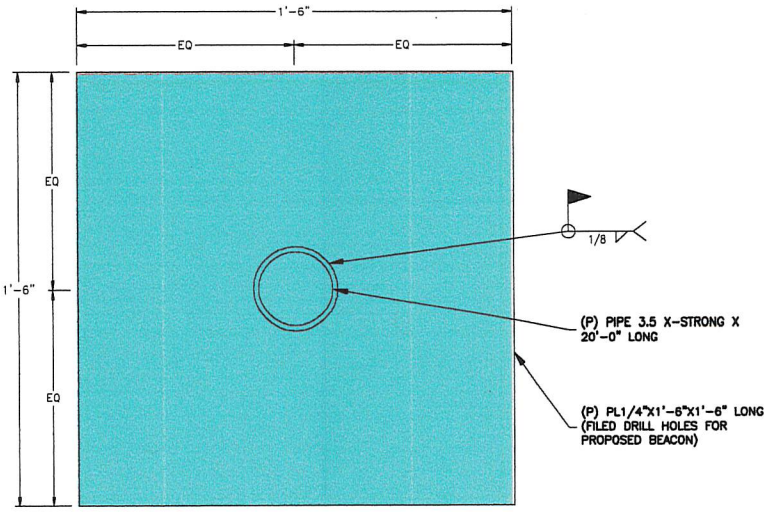
2 BEACON PIPE BOTTOM CONNECTION DETAIL
SCALE: N.T.S.



3 BEACON PIPE TOP MOUNT DETAIL - ELEVATION VIEW
SCALE: N.T.S.



1 BEACON PIPE ATTACHMENT ASSEMBLY
SCALE: N.T.S.



4 BEACON PIPE TOP MOUNT DETAIL - PLAN VIEW
SCALE: N.T.S.

at&t
930 NATIONAL PARKWAY SCHAUMBURG, IL 60173

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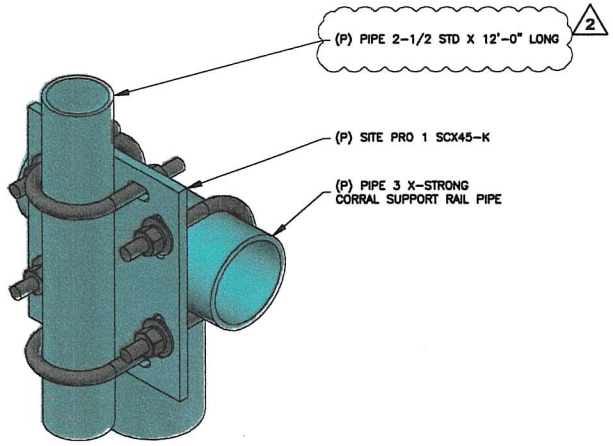
02/26/2021
Tyler M. Barker
CLS Group
Director of Engineering
PE # 45562 - 6 Exp. 7/31/2022
COA # 3677 Exp. 1/31/2022

PE# 45562-6 EXP: 07/31/2022

WEST ALLIS WATER TOWER
SITE NUMBER: WI1018
FA LOCATION: 10080397
11515 W RODGERS STREET
WEST ALLIS, WI 53227

SHEET TITLE
2 MOUNTING DETAIL VIEWS

SHEET NUMBER
S-4



1 SITE PRO 1 SCX45-K
SCALE: N.T.S.

at&t
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

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SITE NUMBER: WI1018
FA LOCATION: 10080397
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WEST ALLIS, WI 53227

SHEET TITLE
MOUNTING
DETAIL VIEWS

SHEET NUMBER
S-5

ATTACHMENT C-1

AS-BUILT DRAWINGS

(To be attached in accordance with Section 5.b. of this Third Amendment)

ATTACHMENT D

FORM OF ANTENNA SITE SERVICE NOTICE

Date Received by Water Utility _____

ANTENNA SITE SERVICE NOTICE

West Allis Municipal Water Utility
6300 West McGeoch Ave.
West Allis, WI 53219
(414) 302-8245

Water Tower Site Name & Address: _____

Wireless Carrier: _____

Name of Service Company _____

1. Address: _____
2. Contact person for Carrier: _____ Telephone: _____

   Mobile: _____ Email: _____
3. Technical Site Advisor : _____ Telephone: _____

   Mobile: _____ Email: _____
4. Proposed Radio Band: _____
5. Propose Radio Frequency(s): _____
6. Type of Service Request (supply service ticket # if available) _____
7. List all personnel to be on site during service (attached copy of driver's license or US identification):

   A. _____

   B. _____

   C. _____

   D. _____

   E. _____

   F. Antenna equipment – Attach applicable specifications

   G. Number of antennas _____

   H. Number of zones _____

   I. Antenna dimensions _____

J. Antenna type, manufacturer & model no. _____

K. Number of Radio Units _____

L. Radio Unit dimensions _____

M. Radio Unit type, manufacturer & model no. _____

N. Transmission line or cable manufacturer & model no. _____

O. Size of cables _____ Number of cables _____

P. Antenna location on the tower: _____
(N, S, E, W, NE, etc. or specify the exact antenna azimuths)

Q. GPS Antenna Y / N (Circle One)

If yes, provide Dimensions and Weight: _____

8. Dish equipment – Attach applicable specifications

A. Number of dishes ____ Dish dimensions _____ Microwave Y / N (Circle One) Satellite Y / N (Circle One)

B. Dish type, manufacturer & model no. _____

C. Transmission line or cable manufacturer & model no. _____

D. Size of cables _____ Number of cables _____

E. Dish location on tower: _____

Initial here _____ to indicate specifications are attached.

9. Ground equipment – Attach applicable specifications

A. Square feet required _____

B. Inside Tower Y / N (Circle One) Inside Lessee building Y / N (Circle One) Outside Y / N (Circle One)

C. Number of cabinets _____ Cabinet dimensions _____

D. Number of air conditioners _____ Air conditioner description _____

E. Generator on site Y / N (Circle One) If yes, provide type, size and where to be located. _____

_____

F. Isolator manufacturer & model no. _____

G. Duplexer manufacturer & model no. _____

H. Filters manufacturer & model no. _____

I. Controls used in addition to the transmitter/receiver cabinet(s) Y / N (Circle One)

If yes, how many? _____ Manufacturer & model no. _____

Initial here _____ to indicate specifications are attached

10. Desired date of operation: _____

11. Description of Scope of Work (Example: Diagnose and repair 3 radio head units; replace nonfunctioning antenna with same model)

_____

_____

_____

[Signature Required Below]

Service Company Representative _____ Date: _____

Print Name _____