

NOTE:
FOR SITES WHERE A CRANE IS NECESSARY, THE CONTRACTOR SHALL CONFIRM AN UNOBSTRUCTED ROUTE FOR THE CRANE FROM PUBLIC ROAD TO TOWER SITE PRIOR TO CONSTRUCTION. NO AERIAL OBSTRUCTIONS UNDER FIFTEEN FEET ABOVE GRADE, INCLUDING AERIAL UTILITY LINES, ARE ALLOWED ALONG SAID CRANE ROUTE.



SKAALEN

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NOTES

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 SITE WORK GENERAL NOTES (SEE PAGE C-5)
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 GENERAL NOTES (SEE PAGE C-5)

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 1275 McGREGOR WAY
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SURVEYOR
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PROJECT INFORMATION

SCOPE OF WORK:
 UNMANNED TELECOMMUNICATIONS FACILITY

TYPE OF CONSTRUCTION
 PROJECT TYPE: PROPOSED 160' SELF SUPPORT

SITE ADDRESS:
 1576 SPRING ROAD,
 STOUGHTON, WI 53589

TOWER INFORMATION:
 (LATITUDE & LONGITUDE BASED ON NAD 1983)
 LATITUDE: 42° 55' 56.81"N
 LONGITUDE: 89° 11' 05.74"W
 PROPOSED RAD CENTER HEIGHT: 155' AGL.

SQUARE FOOTAGE:
 PROPOSED LEASE AREA: 3,600 SQ. FT.

PROPERTY OWNERS:
 BRETT LUNDE
 1576 SPRING ROAD,
 STOUGHTON, WI 53589

PARCEL NUMBER (TAX I.D.):
 026/0511-032-8100-0

OCCUPANT LOAD:
 UNOCCUPIED

PARKING REQUIREMENTS:
 ADDITIONAL PARKING REQUIRED: NONE
 EXISTING PARKING MODIFICATIONS: NONE REQUIRED

DIRECTIONS TO SITE:

FROM STOUGHTON, WI, PROCEED EAST ON US-51 (CR-A) (EAST), APPROXIMATELY 1.0 MILES; TURN LEFT (NORTH) ONTO SPRING RD. AND PROCEED 1.1 MILES; TURN RIGHT (EAST) ONTO ACCESS DRIVE.



VICINITY MAP
 NOT TO SCALE



Matthew T. Mokanyk
 Matthew T. Mokanyk, P.S., P.E.
 Wisconsin P.S. No. 3078-8
 Date: 03/22/22



TOWER KING
 23434 ELLIOTT ROAD,
 DEFIANCE, OH 43512
 PH: (419) 782-8591

SKAALEN
 1576 SPRING RD.,
 STOUGHTON, WI 53589

NO.	DATE	REVISIONS	BY	CHK	APP'D
8	08/30/23	TOWER LIGHTING NOTES	RJH	MM	MM
7	08/25/23	TOWER LIGHTING	RJH	MM	MM
6	08/24/23	TOWER HEIGHT	RJH	MM	MM
5	02/22/23	REVD ACCESS EASEMENT	TLR	MM	MM
4	12/27/22	ADD'D 2ND CRAB APPLE TREE NORTH SIDE COMPOUND	TLR	MM	MM
3	12/15/22	ADD'D CRAB APPLE TREES AND SLATS-HEDGE LINK	TLR	MM	MM
2	09/29/22	REVD ZONING, REMD FAA LIGHTING PER CLIENT	TLR	MM	MM

SCALE: AS SHOWN DESIGNED BY: MM DRAWN BY: TLR

SHEET T-1

TITLE SHEET

DRAWING NUMBER

22359002

LATITUDE & LONGITUDE

LATITUDE AND LONGITUDE OF SITE ARE BASED ON NAD 83.
 LATITUDE: 42° 55' 56.81"N
 LONGITUDE: 89° 11' 05.74"W
 GROUND ELEVATION AT TOWER BASE: 889' AMSL
 ELEVATIONS ARE BASED ON NGVD88

SITE INFORMATION

PROPERTY OWNER:
 BRETT LUNDE
 1576 SPRING ROAD,
 STOUGHTON, WI 53589

ZONING INFORMATION

SUBJECT SITE ZONING: RURAL RESIDENTIAL
 ADJACENT ZONING:

NORTH: FARMLAND PRESERVATION
 SOUTH: FARMLAND PRESERVATION
 EAST: FARMLAND PRESERVATION
 WEST: FARMLAND PRESERVATION

TOWER SETBACKS:

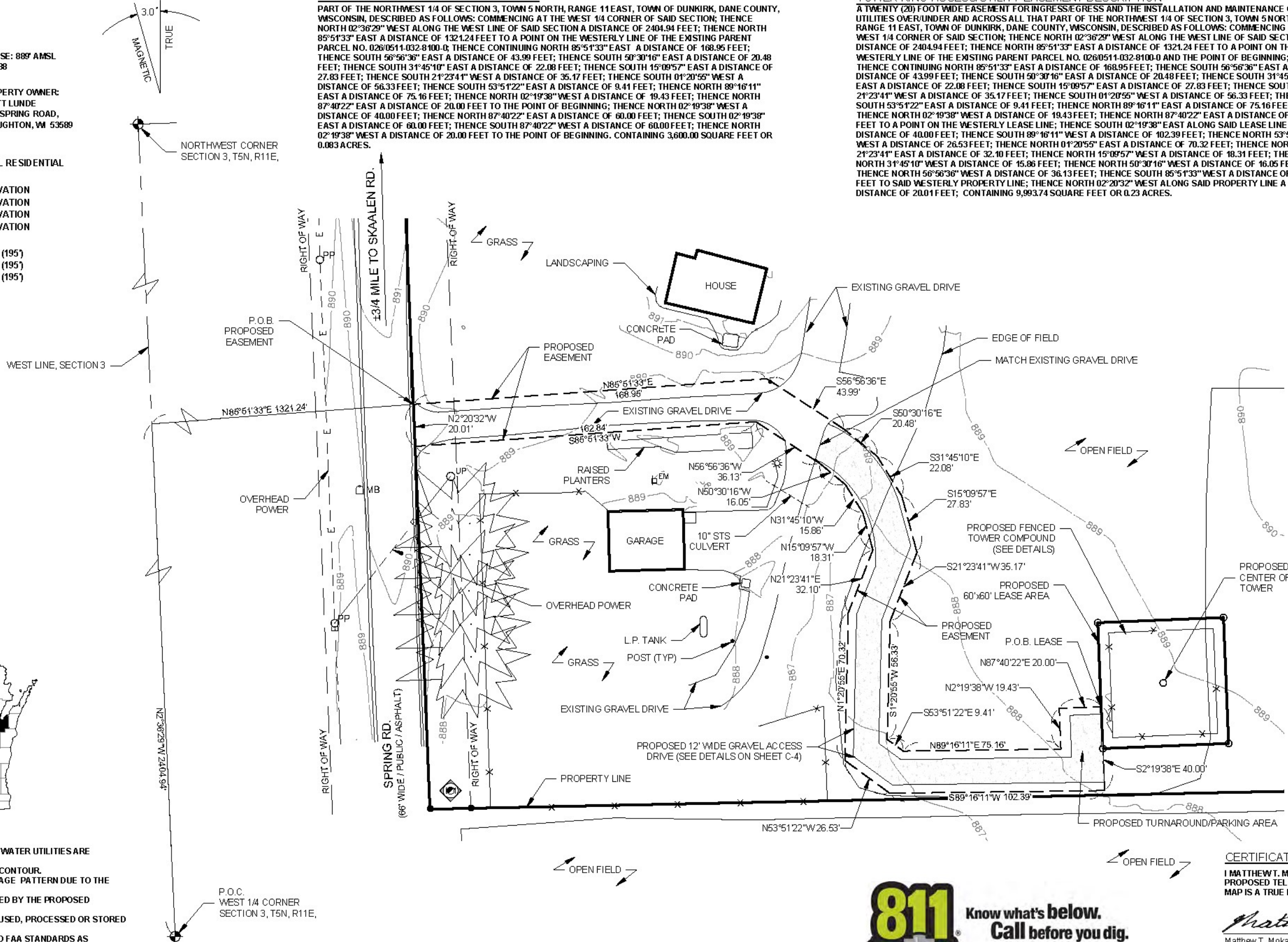
FRONT: 100% TOWER HEIGHT (195')
 REAR: 100% TOWER HEIGHT (195')
 SIDES: 100% TOWER HEIGHT (195')

TOWER KING LEASE AREA DESCRIPTION

PART OF THE NORTHWEST 1/4 OF SECTION 3, TOWN 5 NORTH, RANGE 11 EAST, TOWN OF DUNKIRK, DANE COUNTY, WISCONSIN, DESCRIBED AS FOLLOWS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION; THENCE NORTH 02°36'29" WEST ALONG THE WEST LINE OF SAID SECTION A DISTANCE OF 2404.94 FEET; THENCE NORTH 85°51'33" EAST A DISTANCE OF 1321.24 FEET TO A POINT ON THE WESTERLY LINE OF THE EXISTING PARENT PARCEL NO. 0260511-032-8100-0; THENCE CONTINUING NORTH 85°51'33" EAST A DISTANCE OF 168.95 FEET; THENCE SOUTH 56°56'36" EAST A DISTANCE OF 43.99 FEET; THENCE SOUTH 50°30'16" EAST A DISTANCE OF 20.48 FEET; THENCE SOUTH 31°45'10" EAST A DISTANCE OF 22.08 FEET; THENCE SOUTH 15°09'57" EAST A DISTANCE OF 27.83 FEET; THENCE SOUTH 01°20'55" WEST A DISTANCE OF 35.17 FEET; THENCE SOUTH 01°20'55" WEST A DISTANCE OF 56.33 FEET; THENCE SOUTH 53°51'22" EAST A DISTANCE OF 9.41 FEET; THENCE NORTH 89°16'11" EAST A DISTANCE OF 75.16 FEET; THENCE NORTH 02°19'38" WEST A DISTANCE OF 19.43 FEET; THENCE NORTH 87°40'22" EAST A DISTANCE OF 20.00 FEET TO THE POINT OF BEGINNING; THENCE NORTH 02°19'38" WEST A DISTANCE OF 40.00 FEET; THENCE NORTH 87°40'22" EAST A DISTANCE OF 60.00 FEET; THENCE SOUTH 02°19'38" EAST A DISTANCE OF 60.00 FEET; THENCE SOUTH 87°40'22" WEST A DISTANCE OF 60.00 FEET; THENCE NORTH 02°19'38" WEST A DISTANCE OF 20.00 FEET TO THE POINT OF BEGINNING. CONTAINING 3,600.00 SQUARE FEET OR 0.083 ACRES.

TOWER KING ACCESS/UTILITY EASEMENT DESCRIPTION

A TWENTY (20) FOOT WIDE EASEMENT FOR INGRESS/EGRESS AND THE INSTALLATION AND MAINTENANCE OF UTILITIES OVER/UNDER AND ACROSS ALL THAT PART OF THE NORTHWEST 1/4 OF SECTION 3, TOWN 5 NORTH, RANGE 11 EAST, TOWN OF DUNKIRK, DANE COUNTY, WISCONSIN, DESCRIBED AS FOLLOWS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION; THENCE NORTH 02°36'29" WEST ALONG THE WEST LINE OF SAID SECTION A DISTANCE OF 2404.94 FEET; THENCE NORTH 85°51'33" EAST A DISTANCE OF 1321.24 FEET TO A POINT ON THE WESTERLY LINE OF THE EXISTING PARENT PARCEL NO. 0260511-032-8100-0 AND THE POINT OF BEGINNING; THENCE CONTINUING NORTH 85°51'33" EAST A DISTANCE OF 168.95 FEET; THENCE SOUTH 56°56'36" EAST A DISTANCE OF 43.99 FEET; THENCE SOUTH 50°30'16" EAST A DISTANCE OF 20.48 FEET; THENCE SOUTH 31°45'10" EAST A DISTANCE OF 22.08 FEET; THENCE SOUTH 15°09'57" EAST A DISTANCE OF 27.83 FEET; THENCE SOUTH 01°20'55" WEST A DISTANCE OF 35.17 FEET; THENCE SOUTH 01°20'55" WEST A DISTANCE OF 56.33 FEET; THENCE SOUTH 53°51'22" EAST A DISTANCE OF 9.41 FEET; THENCE NORTH 89°16'11" EAST A DISTANCE OF 75.16 FEET; THENCE NORTH 02°19'38" WEST A DISTANCE OF 19.43 FEET; THENCE NORTH 87°40'22" EAST A DISTANCE OF 20.00 FEET TO A POINT ON THE WESTERLY LEASE LINE; THENCE SOUTH 02°19'38" EAST ALONG SAID LEASE LINE A DISTANCE OF 40.00 FEET; THENCE SOUTH 89°16'11" WEST A DISTANCE OF 102.39 FEET; THENCE NORTH 53°51'22" WEST A DISTANCE OF 26.53 FEET; THENCE NORTH 01°20'55" EAST A DISTANCE OF 70.32 FEET; THENCE NORTH 21°23'41" EAST A DISTANCE OF 32.10 FEET; THENCE NORTH 15°09'57" WEST A DISTANCE OF 18.31 FEET; THENCE NORTH 31°45'10" WEST A DISTANCE OF 15.86 FEET; THENCE NORTH 50°30'16" WEST A DISTANCE OF 16.05 FEET; THENCE NORTH 56°56'36" WEST A DISTANCE OF 36.13 FEET; THENCE SOUTH 85°51'33" WEST A DISTANCE OF 162.84 FEET TO SAID WESTERLY PROPERTY LINE; THENCE NORTH 02°20'32" WEST ALONG SAID PROPERTY LINE A DISTANCE OF 20.01 FEET; CONTAINING 9,993.74 SQUARE FEET OR 0.23 ACRES.



- IRON FOUND
- IRON SET
- ▲ P.K. NAIL FOUND
- P.K. NAIL SET
- ⊙ GPS MONUMENT
- ⊙ MONUMENT BOX FOUND
- ⊙ MONUMENT FOUND
- ⊙ MONUMENT SET
- (R) RECORD
- (M) MEASURED
- ⊙ STS STORM MAINHOLE
- ⊙ CATCH BASIN
- ⊙ SQUARE CATCH BASIN
- ⊙ SANITARY MANHOLE
- ⊙ SANITARY CLEAN-OUT
- ⊙ MONITOR WELL
- ⊙ TELCO. MAINHOLE
- ⊙ POWER POLE
- ⊙ GUY
- ⊙ LIGHT POLE
- ⊙ ELECTRIC TRANSFORMER
- ⊙ ELECTRIC METER
- ⊙ ELECTRIC HANDHOLE
- ⊙ WATER VALVE
- ⊙ HYDRANT
- ⊙ GAS METER
- ⊙ GAS MARKER
- ⊙ GAS VALVE
- ⊙ TELEPHONE PEDESTAL
- ⊙ SIGN POST
- ⊙ FENCE LINE
- ⊙ BENCHMARK
- ⊙ POST

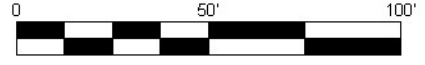
LEGEND

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.



SURVEY PLAN

SCALE: 1"=50'



GENERAL NOTES

- NO PROPOSED MUNICIPAL SEWER OR WATER UTILITIES ARE REQUIRED FOR THIS SITE.
- FINISH GRADE WILL MATCH EXISTING CONTOUR.
- THERE WILL BE NO CHANGE IN DRAINAGE PATTERN DUE TO THE PROPOSED INSTALLATION.
- NO SIGNIFICANT RUNOFF IS GENERATED BY THE PROPOSED INSTALLATION.
- NO HAZARDOUS MATERIALS WILL BE USED, PROCESSED OR STORED AT THE SITE.
- TOWER LIGHTING SHALL CONFORM TO FAA STANDARDS AS REQUIRED.
- ALL WORK SHALL CONFORM TO FAA & FCC REGULATIONS.

CERTIFICATION:

I MATTHEW T. MOKANYK CERTIFY THAT I HAVE SURVEYED AND MARKED THE PROPOSED TELECOM INSTALLATION AND EXISTING FEATURES AND THAT THIS MAP IS A TRUE REPRESENTATION THEREOF.

Matthew T. Mokanyk
 Matthew T. Mokanyk, P.S., P.E.
 Wisconsin P.S. No. 3078-8

02/17/20
 Date

BEARING BASIS: WISCONSIN STATE PLANE COORDINATES, SOUTH ZONE, NAD 83.



LANDTECH
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TOWER KING

TOWER KING
 23434 ELLIOTT ROAD,
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 PH: (419) 782-8591

SKAALEN
 1576 SPRING RD.,
 STOUGHTON, WI 53589

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7	08/25/23	TOWER LIGHTING	RJH	MM	MM
6	08/24/23	TOWER HEIGHT	RJH	MM	MM
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3	12/15/22	ADD'D CRAB APPLE TREES AND SLATS HEDGE LINK	TLR	MM	MM
2	09/29/22	REVD ZONING, REMD FAA LIGHTING PER CLIENT	TLR	MM	MM
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN			DESIGNED BY: MM		DRAWN BY: TLR

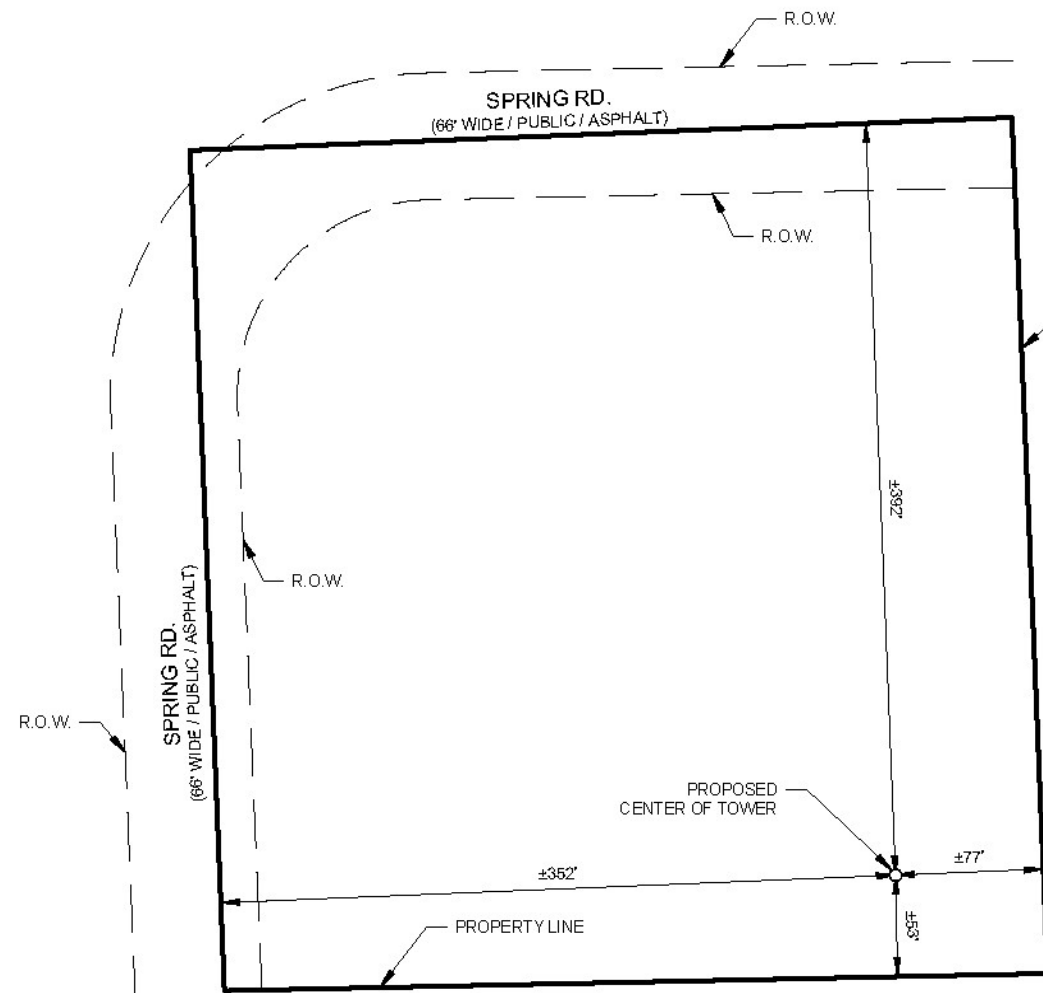
SHEET S-1
SURVEY PLAN
DRAWING NUMBER
22359002

GENERAL NOTES

1. NO PROPOSED MUNICIPAL SEWER OR WATER UTILITIES ARE REQUIRED FOR THIS SITE. FINISH GRADE WILL MATCH EXISTING CONTOURS.
2. THERE WILL BE NO CHANGE IN DRAINAGE PATTERN DUE TO THE PROPOSED INSTALLATION. NO SIGNIFICANT RUNOFF IS GENERATED BY THE PROPOSED INSTALLATION.
3. NO HAZARDOUS MATERIALS WILL BE USED, PROCESSED OR STORED AT THE SITE.
4. ALL WORK SHALL CONFORM TO FAA & FCC REGULATIONS.



**Know what's below.
Call before you dig.**



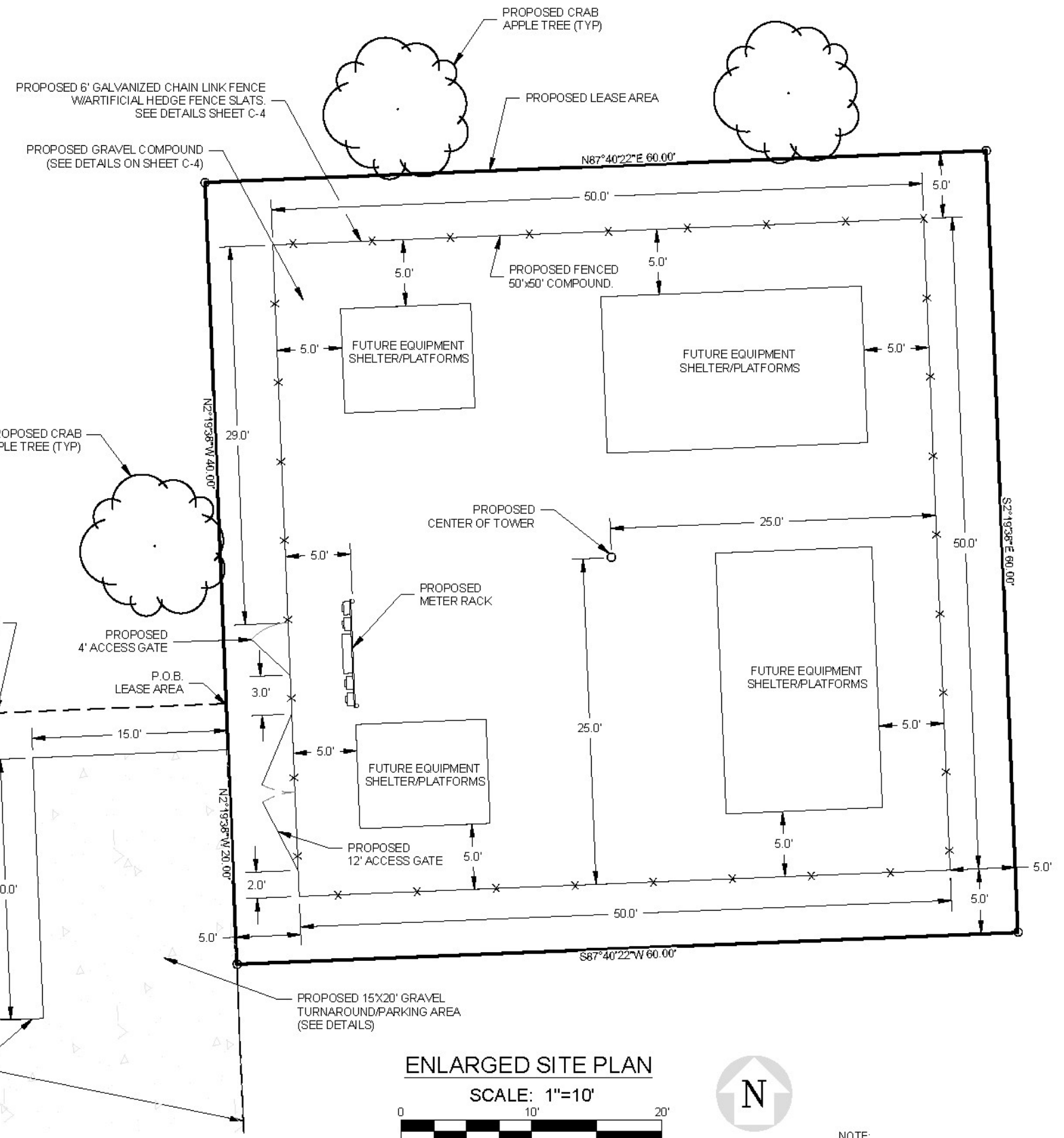
PARENT PARCEL DETAIL

SCALE: 1"=100'



PARENT PARCEL DESCRIPTION (AS PROVIDED)

LOT 1 CERTIFIED SURVEY MAP 11696, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS FOR DANE COUNTY, WISCONSIN, IN VOLUME 71 OF CERTIFIED SURVEY MAPS, PAGE 271 AS DOCUMENT NO. 4170081, LOCATED IN THE TOWN OF DUNKIRK, DANE COUNTY WISCONSIN.
TAX KEY NO. 026.0511-032-8100-0
ADDRESS: 1576 SPRING ROAD



ENLARGED SITE PLAN

SCALE: 1"=10'



NOTE: ACTUAL EQUIPMENT SIZE, TYPE AND LOCATION WITHIN COMPOUND WILL VARY PER CARRIER.

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TOWER KING

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23434 ELLIOTT ROAD,
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SKAALLEN
1576 SPRING RD.,
STOUGHTON, VA 53589

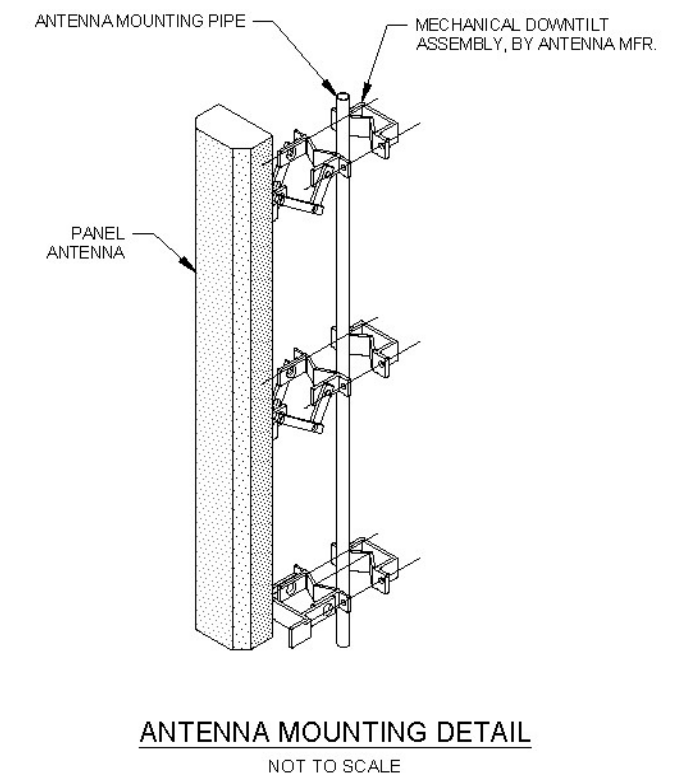
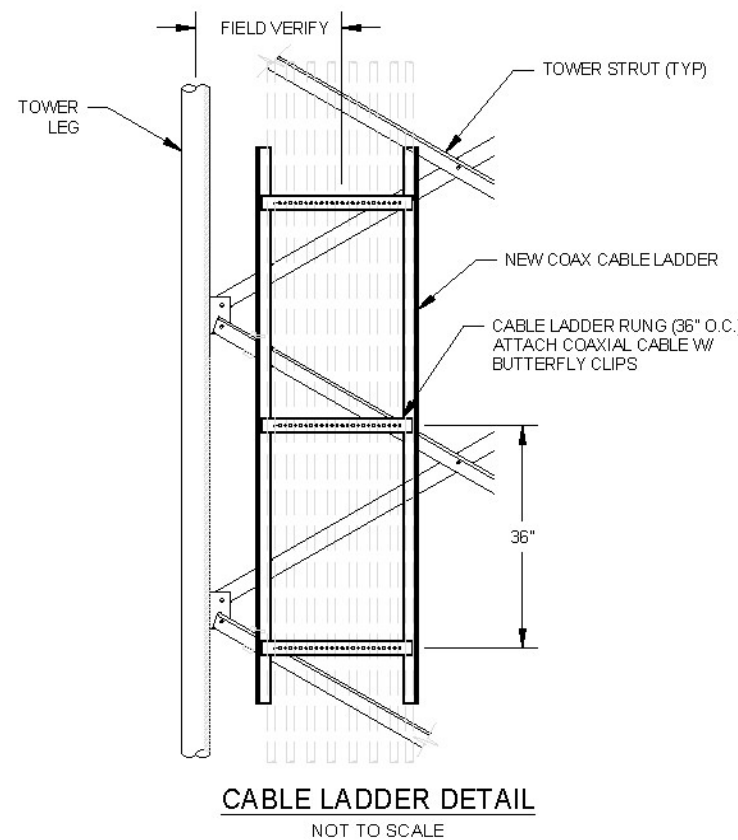
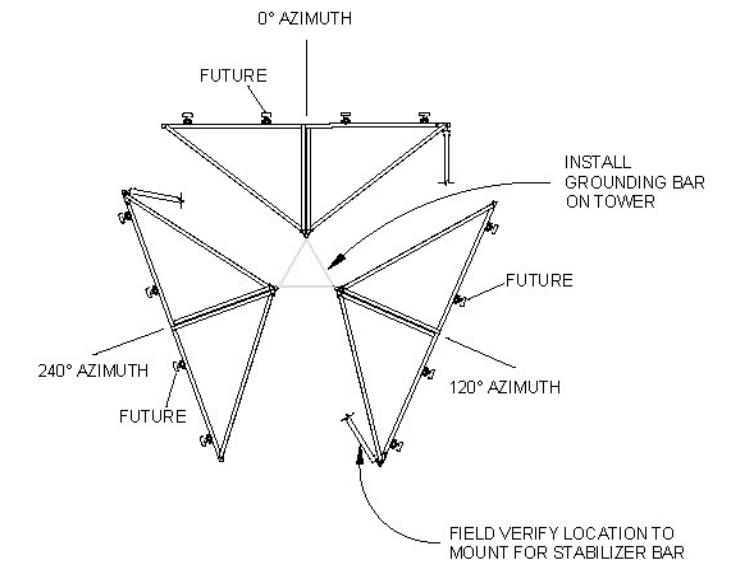
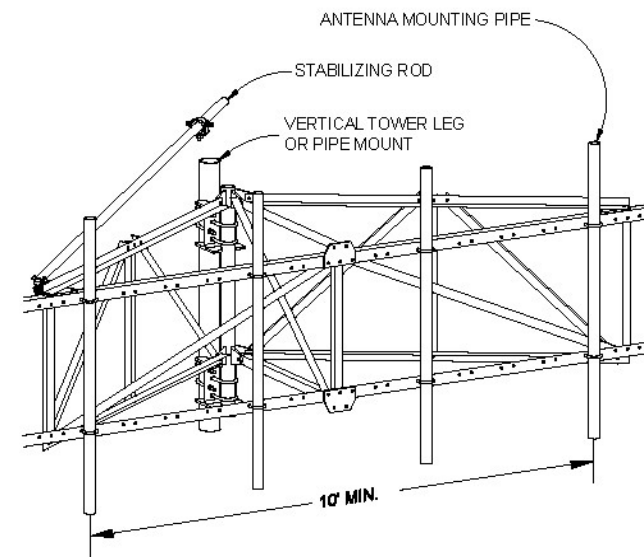
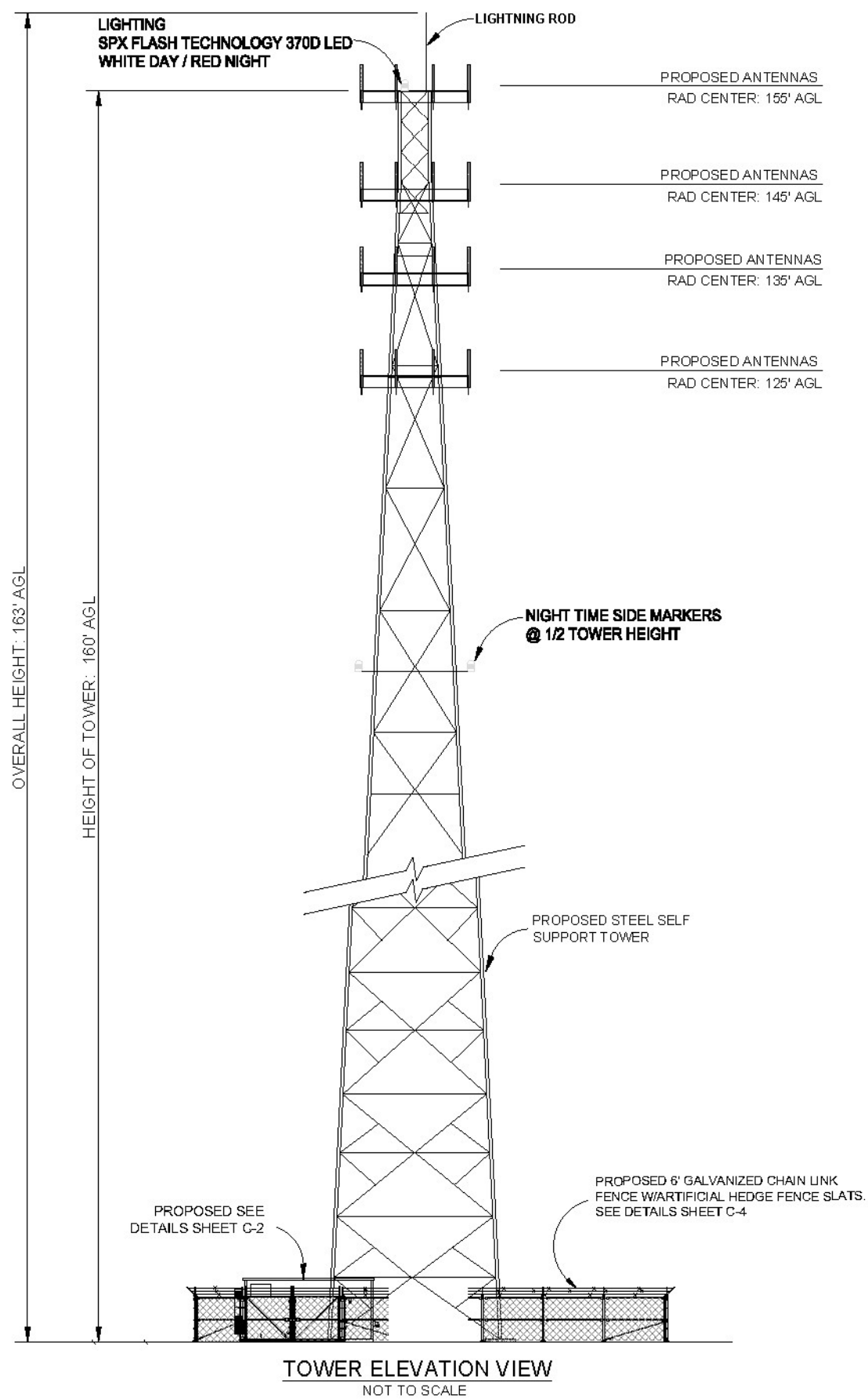
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7	08/25/23	TOWER LIGHTING	RJH	MM	MM
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NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: MM	DRAWN BY: TLR		

SHEET S-2

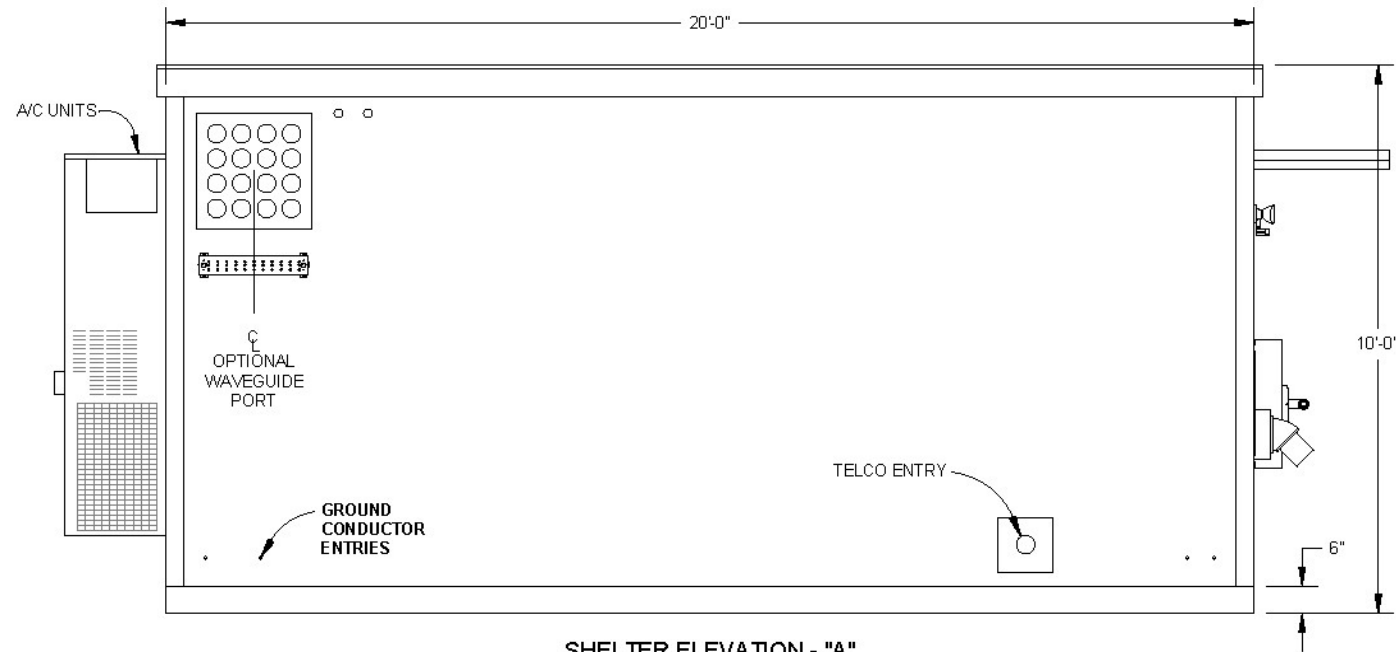
ENLARGED SITE PLAN

DRAWING NUMBER

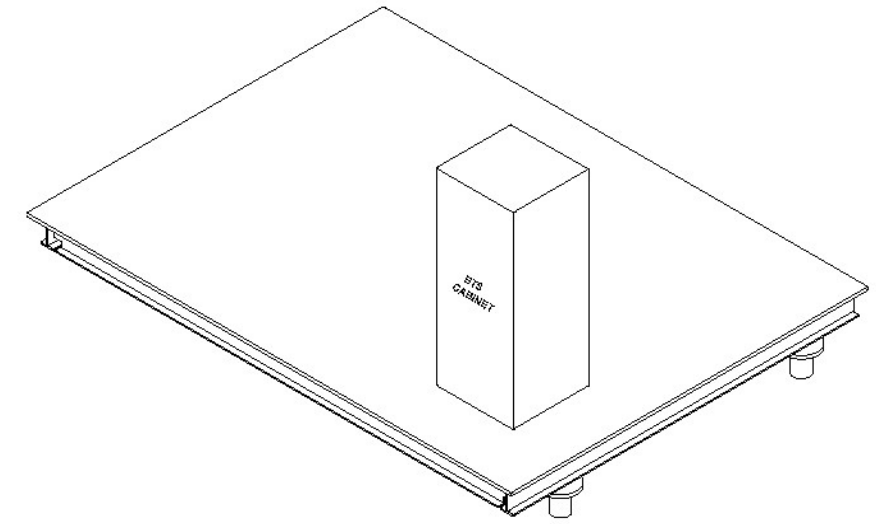
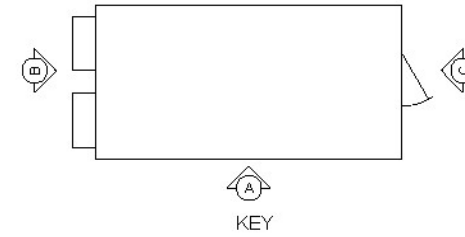
22359002



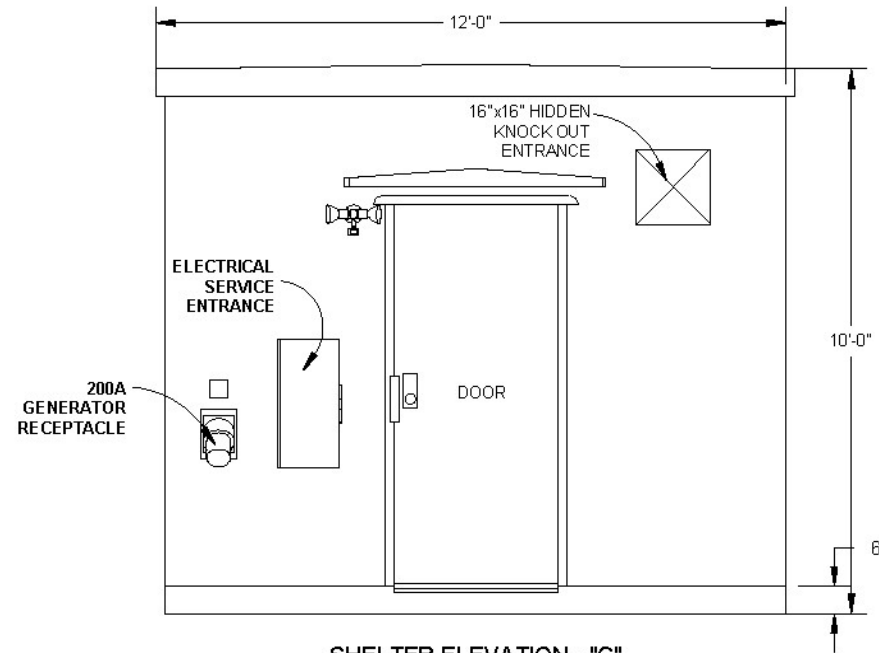
NOTE: SHELTER AND PLATFORM SHOWN ARE TYPICAL OF COMMUNICATION EQUIPMENT INSTALLATIONS AND ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. INDIVIDUAL EQUIPMENT PROVIDED BY CARRIERS MAY VARY FROM THESE DRAWINGS. DESIGN OF SUCH EQUIPMENT INSTALLATIONS AND THEIR FOUNDATIONS ARE BY OTHERS.



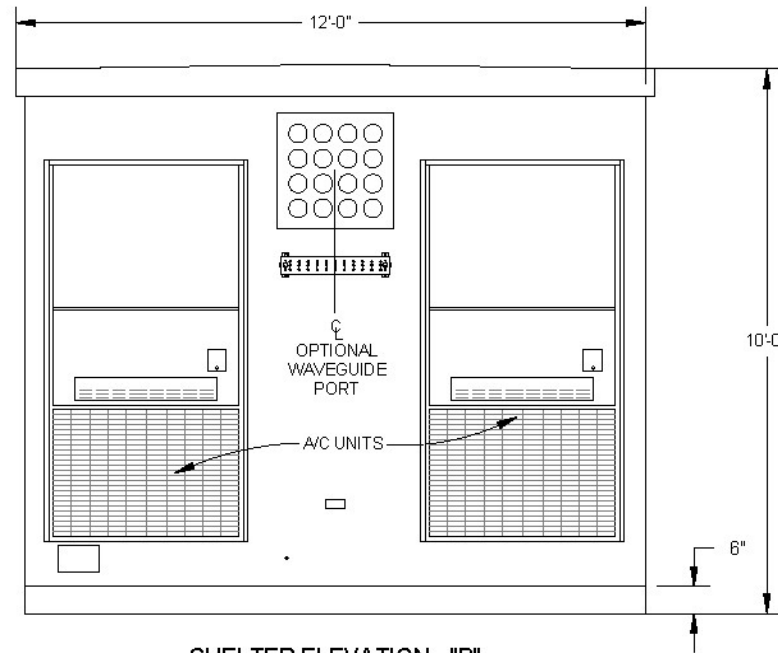
SHELTER ELEVATION - "A"
NOT TO SCALE



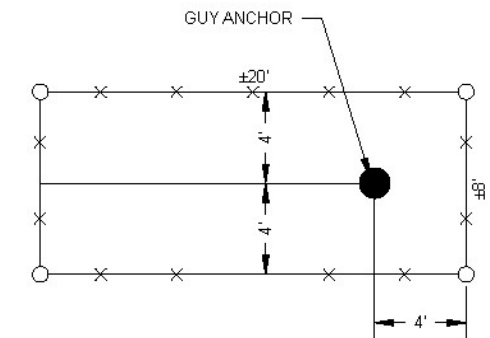
TYPICAL EQUIPMENT PLATFORM
NOT TO SCALE



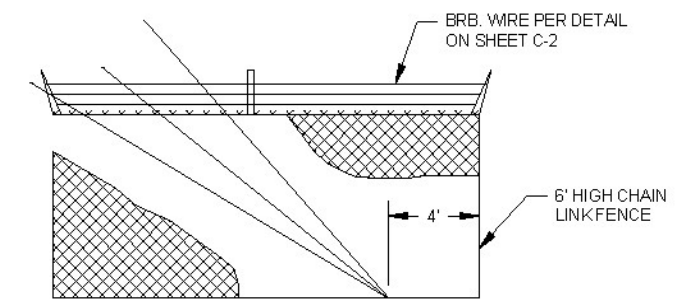
SHELTER ELEVATION - "C"
NOT TO SCALE



SHELTER ELEVATION - "B"
NOT TO SCALE



PLAN VIEW



PROFILE

TYPICAL GUY ANCHOR ENCLOSURE
NOT TO SCALE

8	08/30/23	TOWER LIGHTING NOTES	RJH	MM	MM
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NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN			DESIGNED BY: MM		DRAWN BY: TLR



Structural Design Report
160' S3TL Series HD1 Self-Supporting Tower
Site: Skaalen, WI

Prepared for: TOWER KING
by: Sabre Industries™

Job Number: 518875

August 31, 2023

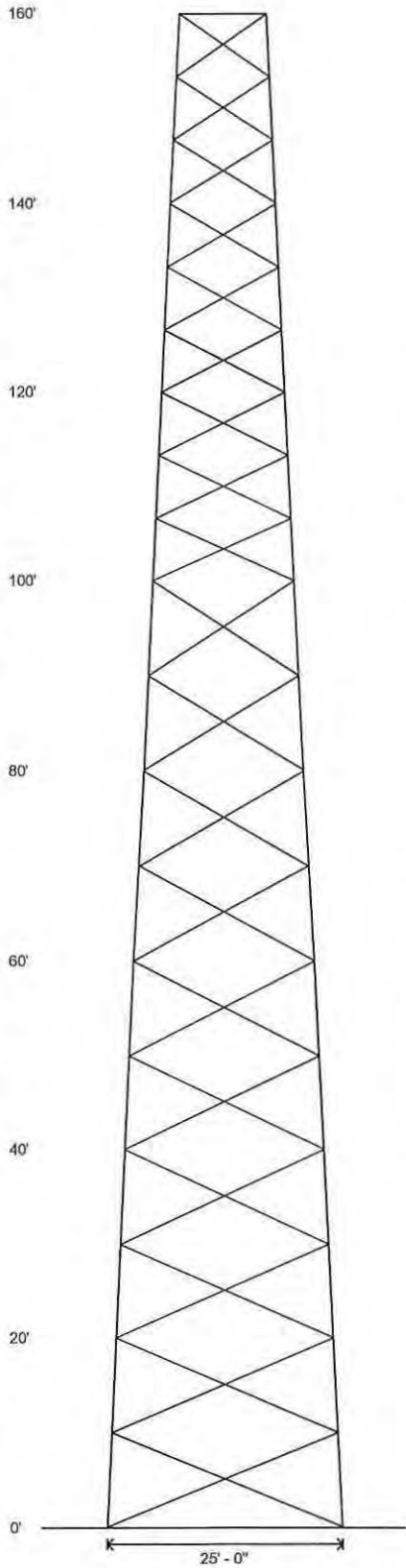
Tower Profile.....	1-2
Foundation Design Summary (Option 1).....	3
Foundation Design Summary (Option 2).....	4
Maximum Leg Loads.....	5
Maximum Diagonal Loads.....	6
Maximum Foundation Loads.....	7
Calculations.....	8-27



Digitally Signed By Amy R.
Herbst
DN: c=US, st=Texas, l=Alvarado,
o=SABRE INDUSTRIES, INC.,
cn=Amy R. Herbst,
email=arherbst@sabreindustries
.com Date: 2023.08.31 11:13:19

8/31/23

Legs	8.625 OD X .322	5.563 OD X .500	5.563 OD X .375	4.500 OD X .337
Diagonals	L 4 X 4 X 1/4	L 3 X 3 X 1/4	L 3 X 3 X 3/16	L 2 1/2 X 2 1/2 X 3/16
Horizontals		NONE		A
Brace Bolts	(2) 5/8"	(1) 3/4"		
Top Face Width	23'	19'	13'	9'
Panel Count/Height	4329	10 @ 10'	9 @ 6.6667'	
Section Weight	4089	3730	2587	1993



Design Criteria - ANSI/TIA-222-G

ASCE 7-16 Ultimate Wind Speed (No Ice)	107 mph
Wind Speed (Ice)	40 mph
Design Ice Thickness	1.50 in
Structure Class	II
Risk Category	II
Exposure Category	C
Topographic Category	1
Seismic Importance Factor, I _e	1.00
0.2-sec Spectral Response, S _s	0.079 g
1-sec Spectral Response, S ₁	0.05 g
Site Class	D (DEFAULT)
Seismic Design Category	B
Basic Seismic Force-Resisting System	Telecommunication Tower (Truss: Steel)

Base Reactions - Wind/Ice

Total Foundation		Individual Footing	
Shear (kips)	41.35	Shear (kips)	25.03
Axial (kips)	151.84	Compression (kips)	226
Moment (ft-kips)	4433	Uplift (kips)	181

Base Reactions - Seismic


Total Foundation		Individual Footing	
Shear (kips)	1.62	Shear (kips)	2.67
Axial (kips)	67.24	Compression (kips)	32
Moment (ft-kips)	203	Uplift (kips)	0

Material List

Display	Value
A	L 2 1/2 X 2 1/2 X 3/16


Notes

- 1) All legs are A500 (50 ksi Min. Yield).
- 2) All braces are A572 Grade 50.
- 3) All brace bolts are A325-X.
- 4) The tower model is S3TL Series HD1.
- 5) Transmission lines are to be attached to standard 6 hole waveguide ladders with stackable hangers.
- 6) Azimuths are relative (not based on true north).
- 7) Foundation loads shown are maximums.
- 8) All unequal angles are oriented with the short leg vertical.
- 9) Weights shown are estimates. Final weights may vary.
- 10) This tower design and, if applicable, the foundation design(s) shown on the following page(s) also meet or exceed the requirements of the 2015 International Building Code.
- 11) Tower Rating: 88.29%
- 12) No grout is required under the base plates.

 <p>Sabre Industries 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6900 Fax: (712) 279-0514</p>	<p>Job: 518875</p> <p>Customer: TOWER KING</p> <p>Site Name: Skaalen, WI</p> <p>Description: 160' S3TL</p> <p>Date: 8/31/2023</p>
	<p>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 530 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</p> <p>By: ARH</p>

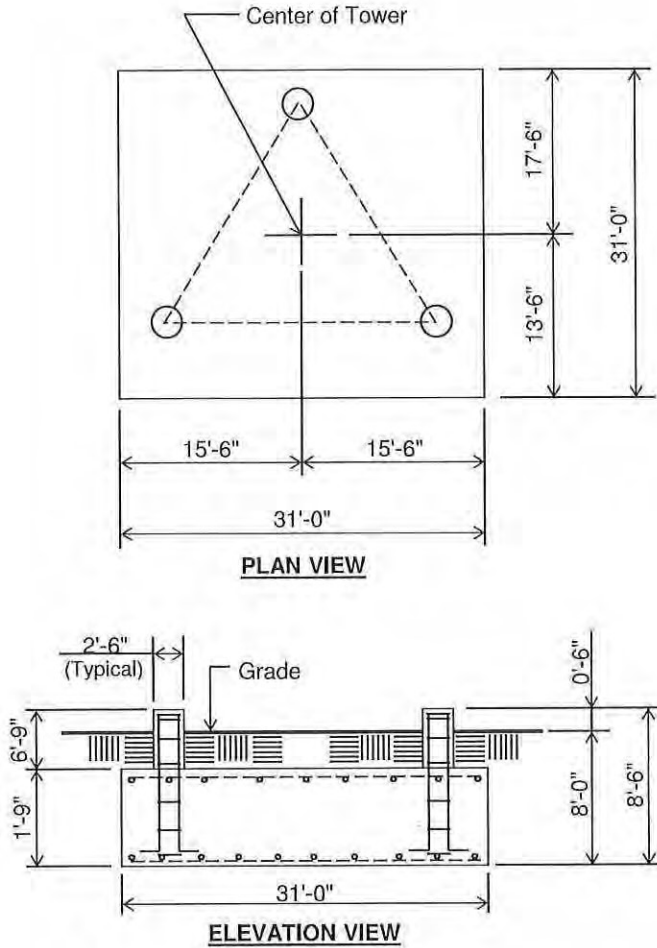
Designed Appurtenance Loading

Elev	Description	Tx-Line	Elev	Description	Tx-Line
160	(1) 30,000 sq. in. (5000 lbs) (below top)	(6) 1 1/4"	136	(1) 25,000 sq. in. (8000 lbs) (below top)	(6) 1 1/4"
148	(1) 30,000 sq. in. (5000 lbs) (at top)	(6) 1 1/4"	124	(1) 25,000 sq. in. (8000 lbs) (below top)	(6) 1 1/4"

 <p>Sabre Industries INNOVATION DELIVERED</p>	<p>Sabre Industries 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6990 Fax: (712) 278-0814</p>	<p>Job: 518875</p>
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Customer: TOWER KING
Site: Skaalen, WI

160 ft. Model S3TL Series HD1 Self Supporting Tower



(66.0 cu. yds.)
(1 REQD.; NOT TO SCALE)

CAUTION: Center of tower is not in center of slab.

Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by ECS Midwest, LLC, project no. 59:3329, dated December 7, 2022.
- 6) See the geotechnical report for compaction requirements, if specified.
- 7) The foundation is based on the following factored loads:
Factored download (kips) = 62.55
Factored overturn (kip-ft) = 4,432.56
Factored shear (kips) = 41.35
- 8) 6.25' of soil cover is required over the entire area of the foundation slab.
- 9) The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

Rebar Schedule per Mat and per Pier	
Pier	(12) #9 vertical rebar w/ hooks at bottom w/ #4 rebar ties, two (2) within top 5" of pier then 12" C/C
Mat	(36) #6 horizontal rebar evenly spaced each way top and bottom. (144 total)
Anchor Bolts per Leg	
(6) 1.25" dia. x 63" F1554-105 on a 12.75" B.C. w/ 8" max. projection above concrete.	

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