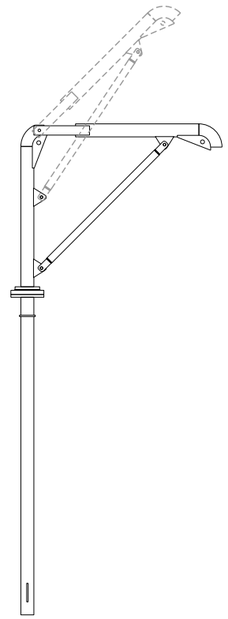
SPARTACUS ULTRALITE GIN POLE

SPECIAL NOTES

1. THE GIN POLE SHALL ONLY BE PERMISSIBLE TO USE DURING A NON-HURRICANE, NON-HIGH WIND EVENT WHERE THE ACCUMULATION OF ICE WILL NOT BE A FACTOR. THE MAXIMUM PERMISSIBLE WIND SPEED SHALL BE NO GREATER THAN 30 MPH 3-SECOND GUST.
2. THE GROSS LOAD (WT) LISTED IN THE "STANDARD LOAD CHARTS" INCLUDES THE WEIGHT OF THE LOAD BEING LIFTED, LOAD AND CONTROL LINE WEIGHT AND ALL RIGGING EQUIPMENT.
3. THE LOAD LINE MUST BE RIGGED THRU THE CENTER OF THE GIN POLE IN ORDER TO USE THE VALUES LISTED IN THE STANDARD LOAD CHART.
4. THE USE OF A "TAG LINE" AND/OR "TROLLEY SYSTEM" IS NOT PERMISSIBLE TO BE USED TO CREATE A LOAD ANGLE OTHER THAN VERTICAL FROM THE END OF THE GIN POLE. A "CONTROL LINE" SHALL BE USED TO KEEP THE LOAD VERTICAL AT ALL TIMES.
5. CHARTED REACTIONS TO THE SUPPORTING STRUCTURE SHALL BE USED TO DETERMINE THE SIZE OF THE CONNECTIONS WITH A MINIMUM SAFETY FACTOR OF 5.0, OR THE MANUFACTURE'S WORKING LOAD LIMITS (WLL).
6. THE ERECTOR/RIGGER SHALL ALWAYS USE CAUTION WHEN USING THE VALUES SPECIFIED IN THE "GIN POLE STANDARD LOAD CHARTS." IF THERE ARE ANY QUESTIONS INTERPRETING THESE VALUES PLEASE CONTACT SPARTACUS GIN POLE, LLC FOR CLARIFICATION PRIOR TO RIGGING THE GIN POLE.
7. THIS GIN POLE IS NOT DESIGNED, NOR SHALL IT BE USED TO LIFT PERSONNEL.
8. THESE LOAD CHARTS" SHALL ONLY BE USED TO DETERMINE THE LOAD LIFTING LIMITATIONS AND THE FORCES TO APPLY TO THE STRUCTURE OF THAT WHICH IT IS TO BE ATTACHED WHEN A THIRD-PARTY ENGINEERING SERVICE IS COMPLETING A CLASS IV REVIEW OF A CONTRACTORS RIGGING PLAN.
9. THE GIN POLE HAS BEEN ASSUMED TO BE PROPERLY FABRICATED, INSTALLED AND MAINTAINED IN GOOD CONDITION IN ACCORDANCE WITH ITS ORIGINAL ANSI/TIA-322-2016 DESIGN STANDARD AND MANUFACTURER'S SPECIFICATION.
10. GIN POLE INSPECTIONS SHALL BE IN ACCORDANCE SECTION 11.7 "GIN POLE INSPECTIONS" PER THE ANSI/ASSE A10.48-2016 "*CRITERIA FOR SAFETY PRACTICES WITH THE CONSTRUCTION, DEMOLITION, MODIFICATION AND MAINTENANCE OF COMMUNICATION STRUCTURES*". VISUAL INSPECTIONS SHALL FOLLOW SECTION 11.7.1 "*DETAILED VISUAL GIN POLE INSPECTION*" WITH A GIN POLE INSPECTION FORM WITH THE MINIMUM REQUIREMENTS LISTED IN APPENDIX A-11(H) "*GIN POLE INSPECTION*" TEMPLATE OF THE ANSI/ASSE A10.48-2016 STANDARD. WELD INSPECTIONS SHALL FOLLOW SECTION 11.7.2 "*DETAILED WELD INSPECTION*" OF THE ANSI/ASSE A10.48-2016 STANDARD.
11. IT IS CONTRACTOR'S RESPONSIBILITY TO PERFORM WORK UNDER THESE SPECIFIED CONDITIONS AND NOT DEVIATE FROM THE GUIDELINES SET FORTH BY THE ANSI/TIA-322-2016 *"LOADING, ANALYSIS, AND DESIGN CRITERIA RELATED TO THE INSTALLATION, ALTERATION AND MAINTENANCE OF COMMUNICATION STRUCTURES"*, ANSI/ASSE A10.48-2016 *"CRITERIA FOR SAFETY PRACTICES WITH THE CONSTRUCTION, DEMOLITION, MODIFICATION AND MAINTENANCE OF COMMUNICATION STRUCTURES"*, AND THE "GIN POLE STANDARD LOAD CHARTS" (APPENDIX C) AND THIS STRUCTURAL LETTER.
12. RECERTIFICATION OF THE GIN POLE SHALL BE COMPLETED WHENEVER A NEW REVISION, OR UPDATE TO THE CURRENT ANSI/TIA-322-2016 DESIGN STANDARD, OR WHEN THE GIN POLE TRANSFERS OWNERSHIP.
13. ENGINEERED TOWER SOLUTIONS, PLLC MAKES NO WARRANTIES, EXPRESSED AND/OR IMPLIED, IN CONNECTION WITH THIS REPORT, AND DISCLAIMS ANY LIABILITY ASSOCIATED WITH MATERIAL, FABRICATION, OR ERECTION OF THIS GIN POLE. ENGINEERED TOWER SOLUTIONS, PLLC WILL NOT BE HELD RESPONSIBLE FROM ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES SUSTAINED BY ANY PERSON, FIRM, OR ORGANIZATION AS A RESULT OF THE CONTENTS OF THIS REPORT. THE MAXIMUM LIABILITY OF ENGINEERED TOWER SOLUTIONS, PLLC PURSUANT TO THIS REPORT WILL BE LIMITED TO THE TOTAL FEE RECEIVED FOR COMPILATION OF THIS REPORT.
14. THE USE OF THIS REPORT SHALL BE LIMITED TO THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND MAY NOT BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF ENGINEERED TOWER SOLUTIONS, PLLC.
15. THE CONTRACTOR UNDER OWNERSHIP OF THIS GIN POLE IS ULTIMATELY RESPONSIBLE FOR UNDERSTANDING THE DESIGN INTENT, OPERATION, INSTALLATION AND RIGGING OF THIS GIN POLE. IT IS ADVISABLE AND RECOMMENDED THAT THE CONTRACTOR TAKING OWNERSHIP OF THIS GIN POLE TO SEEK PROFESSIONAL GUIDANCE AND INSTRUCTION DIRECTLY THROUGH DEMONSTRATION WITH THE MANUFACTURER OF THIS GIN POLE THROUGH SPARTACUS GIN POLE, LLC AT (334) 399-3901.



PROJECT CONTACTS

1. GIN POLE MANUFACTURER

   GUY BONIFAS

   SPARTACUS GIN POLE, LLC
   P.O BOX 231149
   MONTGOMERY, AL 36123
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   GUY@SPARTACUSGINPOLELLC.COM

2. GIN POLE FABRICATOR

   KEVIN SHELTON

   SHELTON STEEL, INC.
   2012 BOOKER BRANCH ROAD
   HORTON, AL 35980
   OFFICE: (205) 466-7675

   KSHELTON1999@YAHOO.COM

3. ENGINEER ON RECORD (EOR):

   JEFFREY A. ARTHUR, P.E.

   ENGINEERED TOWER SOLUTIONS
   8120 SHERIDAN BLVD
   WESTMINSTER, CO 80003
   OFFICE: (919) 782-2710

   JEFF.ARTHUR@ETS-PLLC.COM

CODE COMPLIANCE

DESIGN STANDARDS	ANSI/TIA-322-2016 ANSI/ASSE A10.48-2016 ANSI/TIA-222-G-2-S009
WIND SPEED	30 MPH UNIFORM WIND SPEED
ICE LOADING	N/A
WIND ON ICE	N/A
SEISMIC LOADING	N/A
K_z, G_h, I, K_d, K_{zt}	1.00
STRENGTH CONDITION	D_p + 1.0 C_g + 1.0 W_l
SERVICE LOAD CONDITION	D_p + 1.0 C_s

SHEET INDEX

PREPARED BY:

ETS
ENGINEERED TOWER SOLUTIONS, PLLC

PREPARED FOR:

SPARTACUS GIN POLE, LLC

5528 ASH GROVE CIRCLE
MONTGOMERY, AL 36116

OFFICE: (334) 399-3901

SEAL:

ALABAMA LICENSED
No. 34599
PROFESSIONAL
ENGINEER
JEFFREY A. ARTHUR

Jeffrey A. Arthur, PE
Digitally signed by Jeffrey A. Arthur, PE
Date: 2020.03.03 16:54:26 -07'00'

GIN POLE IDENTIFICATION:
SPAGPUL12.8.11.ETS.SSI.0220001

PROJECT TYPE:
SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
0	03/03/2020	CONSTRUCTION

DRAWN BY: DJN | CHECKED BY: JAA

SHEET TITLE:

TITLE PAGE

SHEET NUMBER: **T-1**

REVISION: 0

ETS #: 200252.13

GENERAL NOTES

1. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST BE EXPERIENCED IN THE PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED, THAT HE IS PROPERLY LICENSED, AND THAT HE IS PROPERLY REGISTERED TO DO THIS WORK IN THE STATE AND/OR COUNTY IN WHICH IT IS TO BE PERFORMED.

2. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN STANDARD CED-STD-10253 INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH THE ANSI/TIA-322 (LATEST EDITION).

3. THE GENERAL NOTES AND TYPICAL DETAILS ARE APPLICABLE TO ALL PARTS OF THE STRUCTURE AND SHALL BE READ IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS AND PROJECT SPECIFICATIONS.

4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVALS FROM ALL AUTHORITIES HAVING JURISDICTION FOR THIS PROJECT AND SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY, OR CITY) ENGINEER 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.

6. ERECT GUARDS AND BARRIERS PER APPLICABLE LABOR AND CONSTRUCTION SAFETY REGULATIONS.

7. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, POSSIBLE INTERFERENCES, AND DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT ANY AND ALL DISCREPANCIES TO THE ENGINEER OF RECORD (EOR) AND TOWER OWNER FIELD PERSONNEL IMMEDIATELY. ANY AND ALL FIELD CHANGES SHALL BE APPROVED AND DOCUMENTED BY THE EOR PRIOR TO FIELD IMPLEMENTATION.

8. USE ONLY THE LATEST ISSUES OF ANY APPLICABLE CODES, STANDARDS, OR REGULATIONS MENTIONED IN THE FOLLOWING NOTES AND SPECIFICATIONS, UNO.

9. ALL WORKMANSHIP SHALL BE IN ACCORDANCE WITH ANSI, ASTM, ACI, TIA, AND AISC STANDARDS AS REFERENCED IN THE APPLICABLE CODE.

10. STRUCTURAL ELEMENTS SHOWN ON THESE DRAWINGS ARE DESIGNED IN ACCORDANCE WITH APPLICABLE BUILDING CODES/STANDARDS. ALL CONSTRUCTION, EXCEPT WHERE NOTED OTHERWISE, SHALL COMPLY WITH THOSE CODES/STANDARDS.

11. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS, AND IN CONFORMANCE WITH THE DRAWINGS. ANY AND ALL SUBSTITUTIONS MUST BE DULY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER OF RECORD PRIOR TO FABRICATION AND INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.

12. ALL MANUFACTURER'S HARDWARE ASSEMBLY INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION PROCEDURES MEET THE REQUIREMENTS OF OSHA, THE OWNER, AND ALL OTHER APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS.

14. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIAL ACCESS, WITH THE RESIDENT LEASING AGENT.

15. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SAFEGUARD ALL EXISTING STRUCTURES OR BURIED SERVICES AFFECTED BY THIS CONSTRUCTION. CONTRACTOR IS ALSO RESPONSIBLE FOR TEMPORARILY RELOCATING ANY LINES OR STRUTS AS NECESSARY TO COMPLETE THE REQUIRED WORK.

16. STRUCTURAL DESIGN IS FOR THE COMPLETE CONDITION ONLY. THE CONTRACTOR MUST BE COGNIZANT THAT THE REMOVAL OF ANY STRUCTURAL COMPONENT OF AN EXISTING TOWER HAS THE POTENTIAL TO CAUSE THE PARTIAL OR COMPLETE COLLAPSE OF THE STRUCTURE. ALL NECESSARY PRECAUTIONS MUST BE TAKEN TO ENSURE STRUCTURAL INTEGRITY, INCLUDING, BUT NOT LIMITED TO, ENGINEERING ASSESSMENT OF CONSTRUCTION STRESSES WITH INSTALLATION MAXIMUM WIND SPEED AND/OR TEMPORARY BRACING AND SHORING.

17. DO NOT SCALE DRAWINGS.

18. GIN POLE WORK SHALL BE COMPLETED IN CALM WIND CONDITIONS / OR APPROPRIATE WIND SPEED FOR THE TYPE OF MODIFICATION WORK TO BE INSTALLED.

19. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF TOWER OWNER. ALL ALTERATIONS TO A SAFETY CLIMB'S ORIGINAL MANUFACTURER'S CONFIGURATION MUST BE DESIGNED BY THE ENGINEER OF RECORD. IF THE GENERAL CONTRACTOR FINDS THE CLIMBING FACILITIES ARE IMPEDED, EITHER DURING BIDDING, DURING PRE-FABRICATION MAPPING, OR WHILE ON-SITE, THE GENERAL CONTRACTOR SHALL CONTACT THE TOWER OWNER TO DETERMINE A METHOD OF RESOLUTION.

STRUCTURAL STEEL NOTES

1. DESIGN, FABRICATION, ERECTION, ALTERATION AND MAINTENANCE SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE .
   A. ANSI/TIA-322-2016 "LOADING, ANALYSIS, AND DESIGN CRITERIA RELATED TO THE INSTALLATION, ALTERATION AND MAINTENANCE OF COMMUNICATION STRUCTURES"
   B. ANSI/ASSE A10.48-2016 "CRITERIA FOR SAFETY PRACTICES WITH THE CONSTRUCTION, DEMOLITION, MODIFICATION AND MAINTENANCE OF COMMUNICATION STRUCTURES"
   C. ANSI/TIA-222-G-2-2009 "STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS ADDENDUM 2"
   D. AISC 360-10 14TH EDITION: MANUAL OF STEEL CONSTRUCTION

2. ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, UNO.
   A. STRUCTURAL STEEL, ASTM A572 GRADE 65 (F_y = 65KSI).
   B. ALL BOLTS, ASTM A325 TYPE 1 GALVANIZED HIGH STRENGTH BOLTS.
   C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
   D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
   E. SCHEDULE PIPES, ASTM A500 GR. B (F_y = 42 KSI, F_u = 58 KSI)
   F. PLATES, ASTM A36 (F_y = 36 KSI, F_u = 58 KSI)

3. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER OF RECORD.

4. ALL FASTENERS SHALL NOT BE REUSED.

5. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED ASTM A325 BOLTS.

6. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.

7. HOT-DIP GALVANIZE ALL ITEMS, UNO.
   GALVANIZE PER ASTM A123, ASTM A153/A153M OR ASTM A653 G90, AS APPLICABLE.

8. FOR A LIST OF CROWN APPROVED COLD GALVANIZING COMPOUNDS, REFER TO CROWN ENG-BUL-10149, "TOWER PROTECTIVE COATINGS BULLETIN".

9. AFTER FINAL INSPECTION, ALL EXPOSED STRUCTURAL STEEL AS THE RESULT OF THIS SCOPE OF WORK INCLUDING WELDS, FIELD DRILLED HOLES, AND SHAFT INTERIORS (WHERE ACCESSIBLE), SHALL BE CLEANED AND COLD GALVANIZING APPLIED BY BRUSH IN ACCORDANCE WITH CROWN ENG-BUL-10149, "TOWER PROTECTIVE COATINGS BULLETIN". PHOTO DOCUMENTATION IS REQUIRED TO BE SUBMITTED TO THE MI INSPECTOR.

WELDING NOTES

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1-15, "STRUCTURAL WELDING CODE-STEEL".

2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.

3. ALL ARC WELDING ON CROWN STRUCTURES SHALL BE DONE IN ACCORDANCE WITH THE CROWN ENG-PLN-10015, "CUTTING AND WELDING SAFETY PLAN" AND AWS D1.1 (LATEST EDITION). THIS SHALL INCLUDE A CERTIFIED WELDING INSPECTOR (CWI) FOR ACCEPTANCE OR REJECTION OF ALL WELDING OPERATIONS, PRE-DURING-POST, USING THE ACCEPTANCE CRITERIA OF AWS D1.1. THE CWI SHALL WORK WITH THE GC ON THE LEVEL OF INTERACTION NEEDED TO CONDUCT THE WELDING INSPECTION. THE CERTIFIED WELDING INSPECTION IS THE RESPONSIBILITY OF THE GC.

4. FOR ALL WELDING, USE E70XX ELECTRODES FOR SMAW PROCESS AND E7XT-XX ELECTRODES FOR FCAW PROCESS, UNO.

5. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING.

6. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0° F. WHEN THE TEMPERATURE IS BETWEEN 0° F AND 32° F, PREHEAT AND MAINTAIN THE STEEL IN THE VICINITY OF THE WELD AREA AT 70° F DURING THE WELDING PROCESS.

7. DO NOT WELD ON WET OR FROST-COVERED SURFACES & PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.

DETAIL DRAWINGS SHALL GOVERN OVER ANY VARIANCE FROM THIS SHEET.

PREPARED BY:

ETS
ENGINEERED TOWER SOLUTIONS, PLLC

PREPARED FOR:

SPARTACUS GIN POLE, LLC

5528 ASH GROVE CIRCLE
MONTGOMERY, AL 36116

OFFICE: (334) 399-3901

SEAL:

ALABAMA LICENSED No. 34599 PROFESSIONAL ENGINEER JEFFREY A. ARTHUR

Jeffrey A. Arthur, PE Digitally signed by Jeffrey A. Arthur, PE Date: 2020.03.03 16:54:38 -07'00'

GIN POLE IDENTIFICATION:
SPAGPUL12.8.11.ETS.SSI.0220001

PROJECT TYPE:
SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
0	03/03/2020	CONSTRUCTION

DRAWN BY: DJN | CHECKED BY: JAA

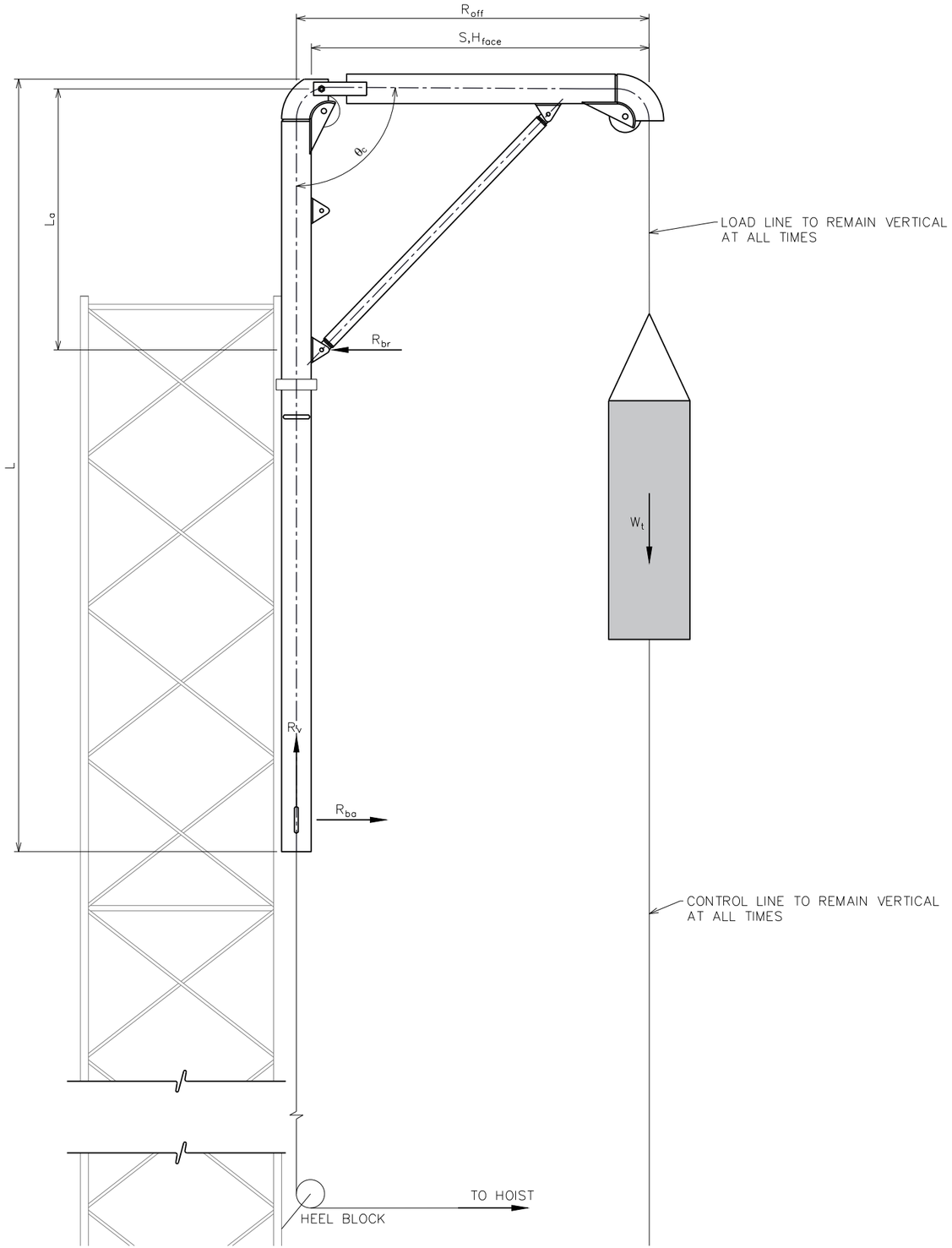
SHEET TITLE:

PROJECT NOTES

SHEET NUMBER: **N-1**

REVISION: 0

ETS #: 200252.13



GIN POLE DETAILS

GIN POLE IDENTIFICATION		SPAGPUL12.8.11.ETS.SSI.0220001
GIN POLE TYPE		POLE
GIN POLE FACE WIDTH/DIAM.		3.500 IN
GIN POLE CLASS		A
GIN POLE EFFECTIVE PROJECTED AREA (EPA)		5.50 FT^2
GIN POLE WEIGHT		150 LBS
ROOSTER SHEAVE	MIN SYNTHETIC ROPE LINE SIZE	1/2 IN
	MAX SYNTHETIC ROPE LINE SIZE	5/8 IN
LINE TYPE		SYNTHETIC ROPE
R_{off} (NO-LOAD LINE POSITION FROM CENTERLINE)		49.75 IN
S (NO LOAD LINE STANDOFF DISTANCE FROM GIN POLE LEG)		48 IN
I_g (GIN POLE IMPACT FACTOR)		1.70
INTERNAL LOAD LINE RESTRAINT REQUIRED		NO
LOAD LINE NUMBER OF PARTS		1-Part
L (OVERALL GIN POLE LENGTH)		11.0 FT

GIN POLE LOAD CHART
SINGLE PART LOAD LINE

PARAMETERS		SYNTHETIC ROPE
GIN POLE ANGLE $\theta_c = 90°$	W_t	325 LBS
	P	325 LBS
	L_a	37.16 IN
	K_{eff}	3.25
	R_{br}	300 LBS
	R_{ba}	290 LBS
	R_v	790 LBS

GIN POLE
MATERIAL DESIGN STRENGTHS

MAIN PIPES: 3SCH40 ASTM A500 GR. B (F_y = 42 KSI, F_u = 58 KSI)
KICKER SUPPORT: 1-1/2SCH40 ASTM A53 GR. B (F_y = 35 KSI, F_u = 58 KSI)
STRUCTURAL PLATES: ASTM A36 (F_y = 36 KSI, F_u = 58 KSI)
STRUCTURAL CONNECTIONS: A325 TYPE "N"

LOAD CHART NOTES

1. LOAD CHART CALCULATED IN ACCORDANCE WITH THE ANSI/TIA-322-2016 STANDARD.
2. RIGGING FORCES RESULTING FROM THE GROSS LOAD (WT) SHALL NOT EXCEED THE WORKING LOAD LIMIT (WLL) OF THE LOAD LINE OR ANY OTHER RIGGING COMPONENTS.
3. CHARTED GIN POLE REACTIONS SHOULD BE USED FOR THE SIZING OF BASKET AND BRIDLE RIGGING CONNECTIONS.
4. PLEASE NOTE, SPECIFIED GIN POLE REACTIONS DO NOT INCLUDE AN IMPACT FACTOR.
5. GIN POLE REACTIONS MUST BE INCREASED BY 30% FOR INVESTIGATING STRENGTH AND STABILITY OF THE SUPPORTING STRUCTURE.
6. THE MAXIMUM OPERATIONAL WIND SPEED AT THE GIN POLE SHALL BE LIMITED TO 30 MPH.
7. LEG WALL THICKNESS REDUCED TO 93% OF NOMINAL THICKNESS FOR CALCULATIONS.
8. THIS CHART ONLY REPRESENTS THE STRENGTH CAPACITY OF THE STEEL GIN POLE MAST COMPONENTS AND PULLEYS, AND DOES NOT CONSIDER ANY POTENTIAL LIMITING STRENGTH(S) OF THE HOIST, LOAD LINE, POLE AND/OR BASE BLOCK ATTACHMENTS, ETC…
9. A HEEL BLOCK SHALL BE REQUIRED AND SIZED ACCORDINGLY WITH THE LOAD LINE FORCE.
10. THE LIFTED LOAD SHALL REMAIN VERTICAL AT ALL TIMES. THIS GIN POLE IS NOT DESIGNED FOR A LIFTED LOAD ANGLE OR TAG ANGLE.

SYMBOLS AND NOMENCLATURE

K_{eff}	OVERALL GIN POLE EFFECTIVE LENGTH FACTOR
L_a	CANTILEVER LENGTH
W_t	GROSS LOAD (LIFTED WEIGHT + ALL RIGGING WEIGHT)
P	MAXIMUM LOAD LINE FORCE AT ROOSTER SHEAVE WITH LIFTED LOAD AT BRIDLE
θ_c	CHARTED LOAD LINE POSITION ANGLE
R_{br}	HORIZONTAL REACTION AT BRIDLE
R_{ba}	HORIZONTAL REACTION AT BASKET
R_v	VERTICAL REACTION AT BACKET

PREPARED BY:

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PREPARED FOR:

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5528 ASH GROVE CIRCLE
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OFFICE: (334) 399-3901

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ALABAMA LICENSED No. 34599 PROFESSIONAL ENGINEER JEFFREY A. ARTHUR

Jeffrey A. Arthur, PE

Digitally signed by Jeffrey A. Arthur, PE
Date: 2020.03.03 16:54:53 -05'00'

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SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
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DRAWN BY: DJN | CHECKED BY: JAA

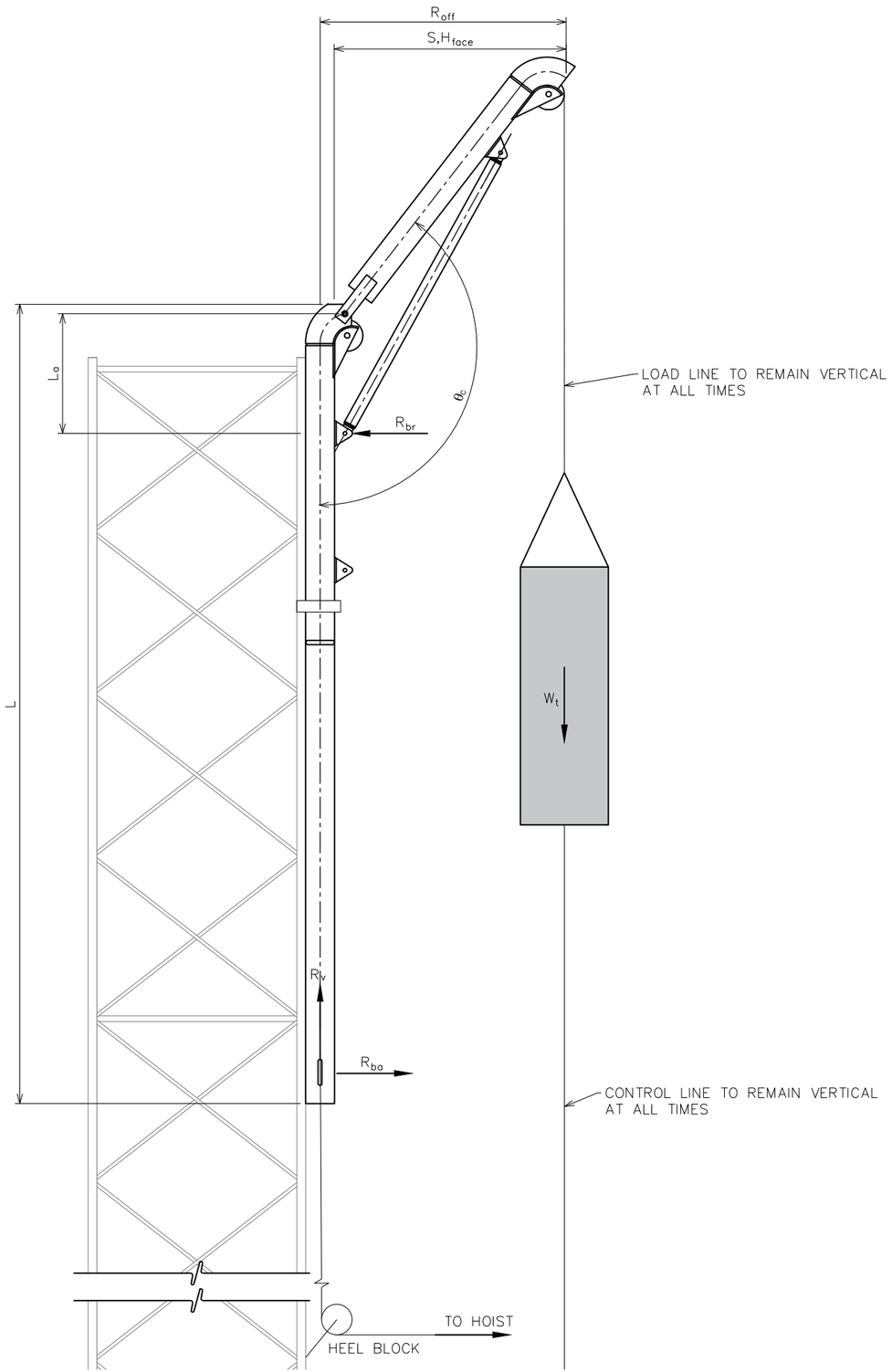
SHEET TITLE:

LOAD CHART IA
ONE PART SYSTEM

SHEET NUMBER: **S-1**

REVISION: 0

ETS #: 200252.13



GIN POLE DETAILS

GIN POLE IDENTIFICATION		SPAGPUL12.8.11.ETS.SSI.0220001
GIN POLE TYPE		POLE
GIN POLE FACE WIDTH/DIAM.		3.500 IN
GIN POLE CLASS		A
GIN POLE EFFECTIVE PROJECTED AREA (EPA)		5.50 FT^2
GIN POLE WEIGHT		150 LBS
ROOSTER SHEAVE	MIN SYNTHETIC ROPE LINE SIZE	3/8 IN
	MAX SYNTHETIC ROPE LINE SIZE	5/8 IN
LINE TYPE		SYNTHETIC ROPE
R_{off} (NO-LOAD LINE POSITION FROM CENTERLINE)		39 IN
S (NO LOAD LINE STANDOFF DISTANCE FROM GIN POLE LEG)		37.25 IN
I_g (GIN POLE IMPACT FACTOR)		1.70
INTERNAL LOAD LINE RESTRAINT REQUIRED		NO
LOAD LINE NUMBER OF PARTS		1-Part
L (OVERALL GIN POLE LENGTH)		11.0 FT

GIN POLE LOAD CHART
SINGLE PART LOAD LINE

PARAMETERS		SYNTHETIC ROPE
GIN POLE ANGLE θ_c = 135°	W_t	375 LBS
	P	375 LBS
	L_a	1.5 FT
	K_{eff}	5.30
	R_{br}	295 LBS
	R_{ba}	290 LBS
	R_v	890 LBS

GIN POLE
MATERIAL DESIGN STRENGTHS

MAIN PIPES: 3SCH40 ASTM A500 GR. B (F_y = 42 KSI, F_u = 58 KSI)
KICKER SUPPORT: 1-1/2SCH40 ASTM A53 GR. B (F_y = 35 KSI, F_u = 58 KSI)
STRUCTURAL PLATES: ASTM A36 (F_y = 36 KSI, F_u = 58 KSI)
STRUCTURAL CONNECTIONS: A325 TYPE "N"

LOAD CHART NOTES

1. LOAD CHART CALCULATED IN ACCORDANCE WITH THE ANSI/TIA-322-2016 STANDARD.
2. RIGGING FORCES RESULTING FROM THE GROSS LOAD (WT) SHALL NOT EXCEED THE WORKING LOAD LIMIT (WLL) OF THE LOAD LINE OR ANY OTHER RIGGING COMPONENTS.
3. CHARTED GIN POLE REACTIONS SHOULD BE USED FOR THE SIZING OF BASKET AND BRIDLE RIGGING CONNECTIONS.
4. PLEASE NOTE, SPECIFIED GIN POLE REACTIONS DO NOT INCLUDE AN IMPACT FACTOR.
5. GIN POLE REACTIONS MUST BE INCREASED BY 30% FOR INVESTIGATING STRENGTH AND STABILITY OF THE SUPPORTING STRUCTURE.
6. THE MAXIMUM OPERATIONAL WIND SPEED AT THE GIN POLE SHALL BE LIMITED TO 30 MPH.
7. LEG WALL THICKNESS REDUCED TO 93% OF NOMINAL THICKNESS FOR CALCULATIONS.
8. THIS CHART ONLY REPRESENTS THE STRENGTH CAPACITY OF THE STEEL GIN POLE MAST COMPONENTS AND PULLEYS, AND DOES NOT CONSIDER ANY POTENTIAL LIMITING STRENGTH(S) OF THE HOIST, LOAD LINE, POLE AND/OR BASE BLOCK ATTACHMENTS, ETC…
9. A HEEL BLOCK SHALL BE REQUIRED AND SIZED ACCORDINGLY WITH THE LOAD LINE FORCE.
10. THE LIFTED LOAD SHALL REMAIN VERTICAL AT ALL TIMES. THIS GIN POLE IS NOT DESIGNED FOR A LIFTED LOAD ANGLE OR TAG ANGLE.

SYMBOLS AND NOMENCLATURE

K_{eff}	OVERALL GIN POLE EFFECTIVE LENGTH FACTOR
L_a	CANTILEVER LENGTH
W_t	GROSS LOAD (LIFTED WEIGHT + ALL RIGGING WEIGHT)
P	MAXIMUM LOAD LINE FORCE AT ROOSTER SHEAVE WITH LIFTED LOAD AT BRIDLE
θ_c	CHARTED LOAD LINE POSITION ANGLE
R_{br}	HORIZONTAL REACTION AT BRIDLE
R_{ba}	HORIZONTAL REACTION AT BASKET
R_v	VERTICAL REACTION AT BACKET

PREPARED BY:

ETS
ENGINEERED TOWER SOLUTIONS, PLLC

PREPARED FOR:

SPARTACUS GIN POLE, LLC

5528 ASH GROVE CIRCLE
MONTGOMERY, AL 36116

OFFICE: (334) 399-3901

SEAL:

ALABAMA LICENSED No. 34599 PROFESSIONAL ENGINEER JEFFREY A. ARTHUR

Jeffrey A. Arthur, PE Digitally signed by Jeffrey A. Arthur, PE Date: 2020.03.03 16:55:09 -07'00'

GIN POLE IDENTIFICATION:
SPAGPUL12.8.11.ETS.SSI.0220001

PROJECT TYPE:
SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
0	03/03/2020	CONSTRUCTION

DRAWN BY: DJN | CHECKED BY: JAA

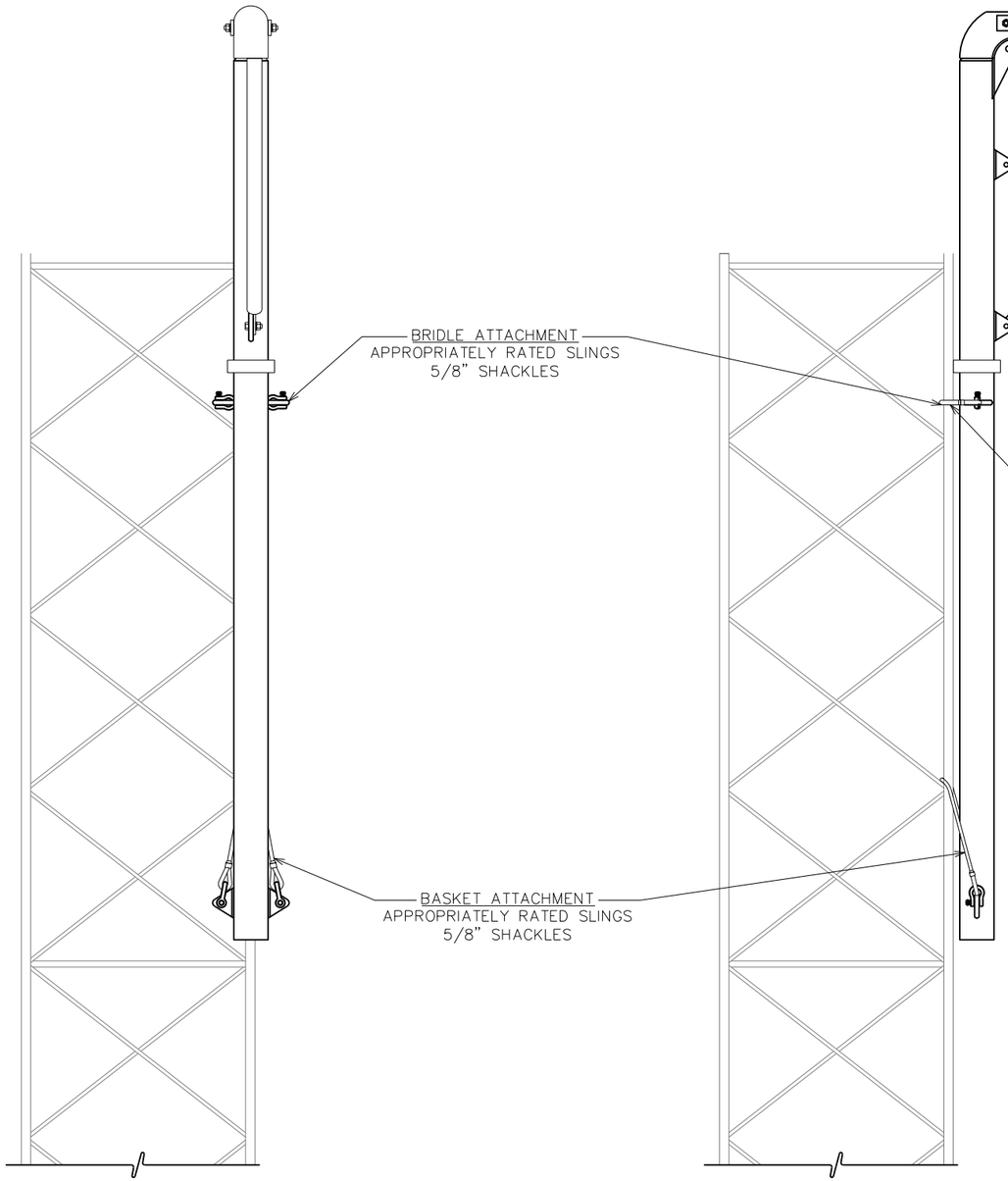
SHEET TITLE:

LOAD CHART IIA
ONE PART SYSTEM

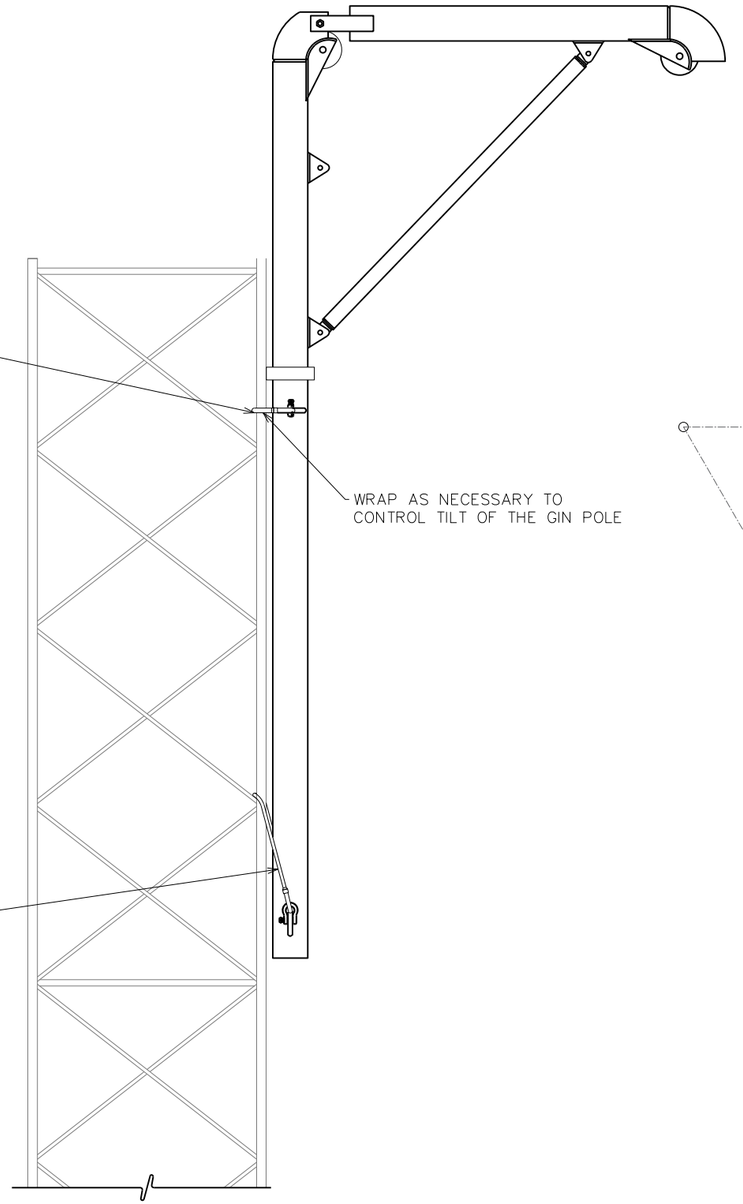
SHEET NUMBER: **S-2**

REVISION: 0

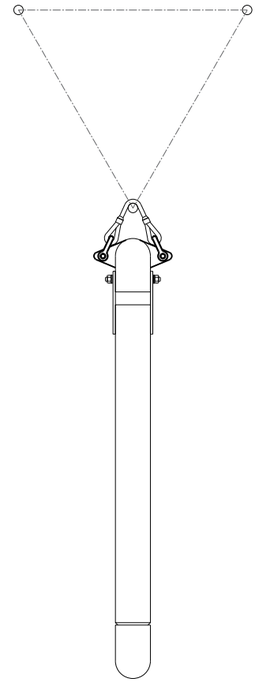
ETS #: 200252.13



ELEVATION VIEW



SIDE VIEW



PLAN VIEW

PREPARED BY:

ETS
ENGINEERED TOWER SOLUTIONS, PLLC

PREPARED FOR:

SPARTACUS GIN POLE, LLC

5528 ASH GROVE CIRCLE
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Jeffrey A. Arthur, PE Digitally signed by Jeffrey A. Arthur, PE Date: 2020.03.03 16:55:20 -07'00'

GIN POLE IDENTIFICATION:
SPAGPUL12.8.11.ETS.SSI.0220001

PROJECT TYPE:
SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
0	03/03/2020	CONSTRUCTION

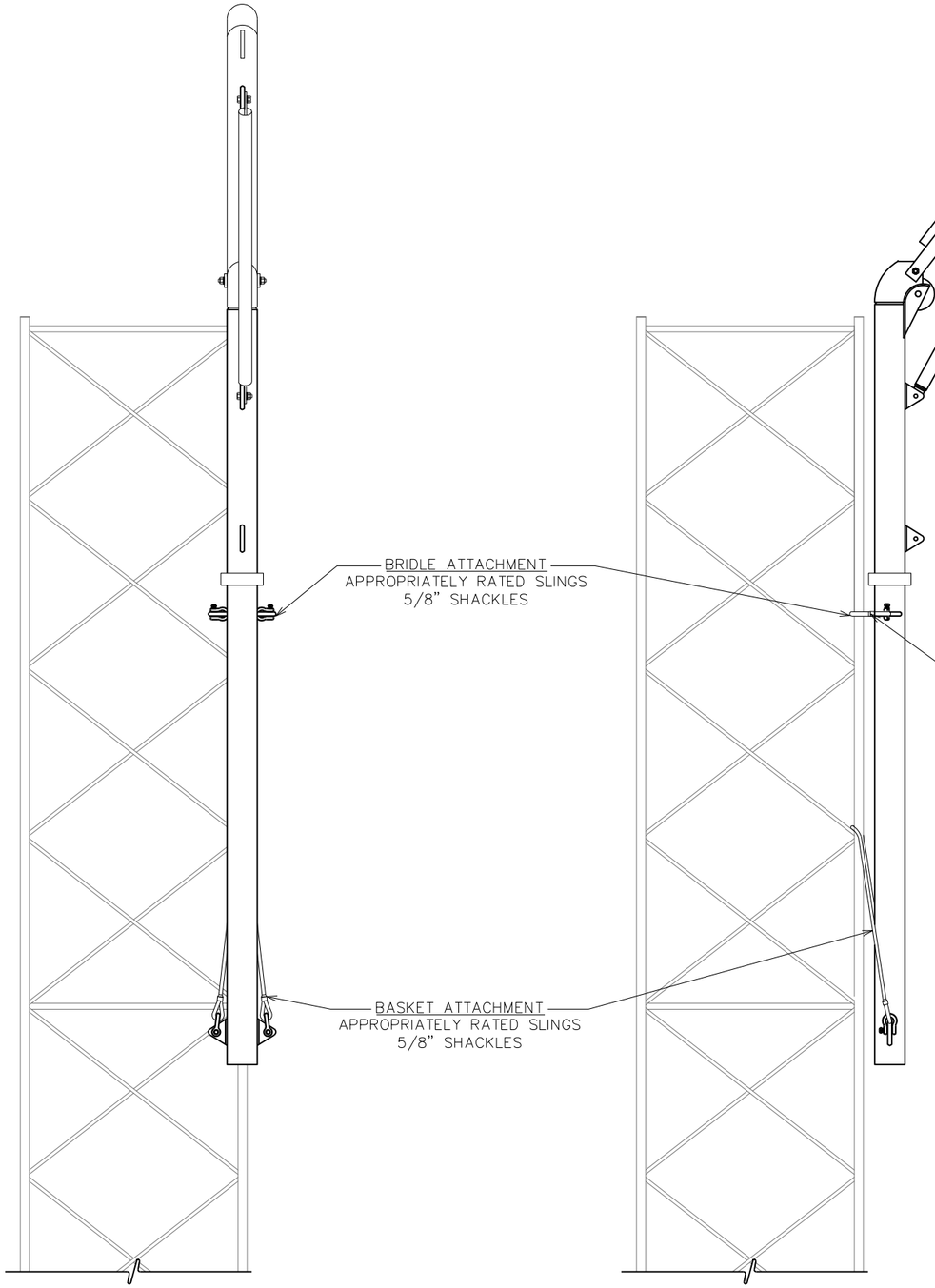
DRAWN BY: DJN | CHECKED BY: JAA

SHEET TITLE:
STANDARD INSTALLATION LATTICE TOWER POSITION I

SHEET NUMBER: **S-3**

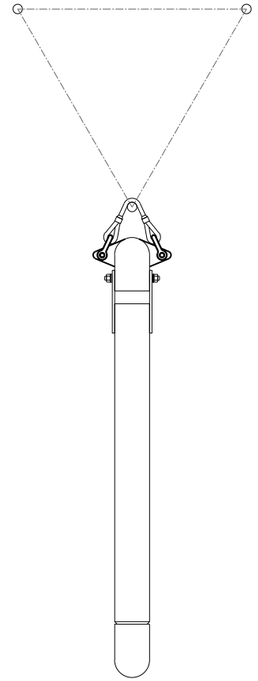
REVISION: 0

ETS #: 200252.13



ELEVATION VIEW

SIDE VIEW



PLAN VIEW

PREPARED BY:

ETS
ENGINEERED TOWER SOLUTIONS, PLLC

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5528 ASH GROVE CIRCLE
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GIN POLE IDENTIFICATION:
SPAGPUL12.8.11.ETS.SSI.0220001

PROJECT TYPE:
SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
0	03/03/2020	CONSTRUCTION

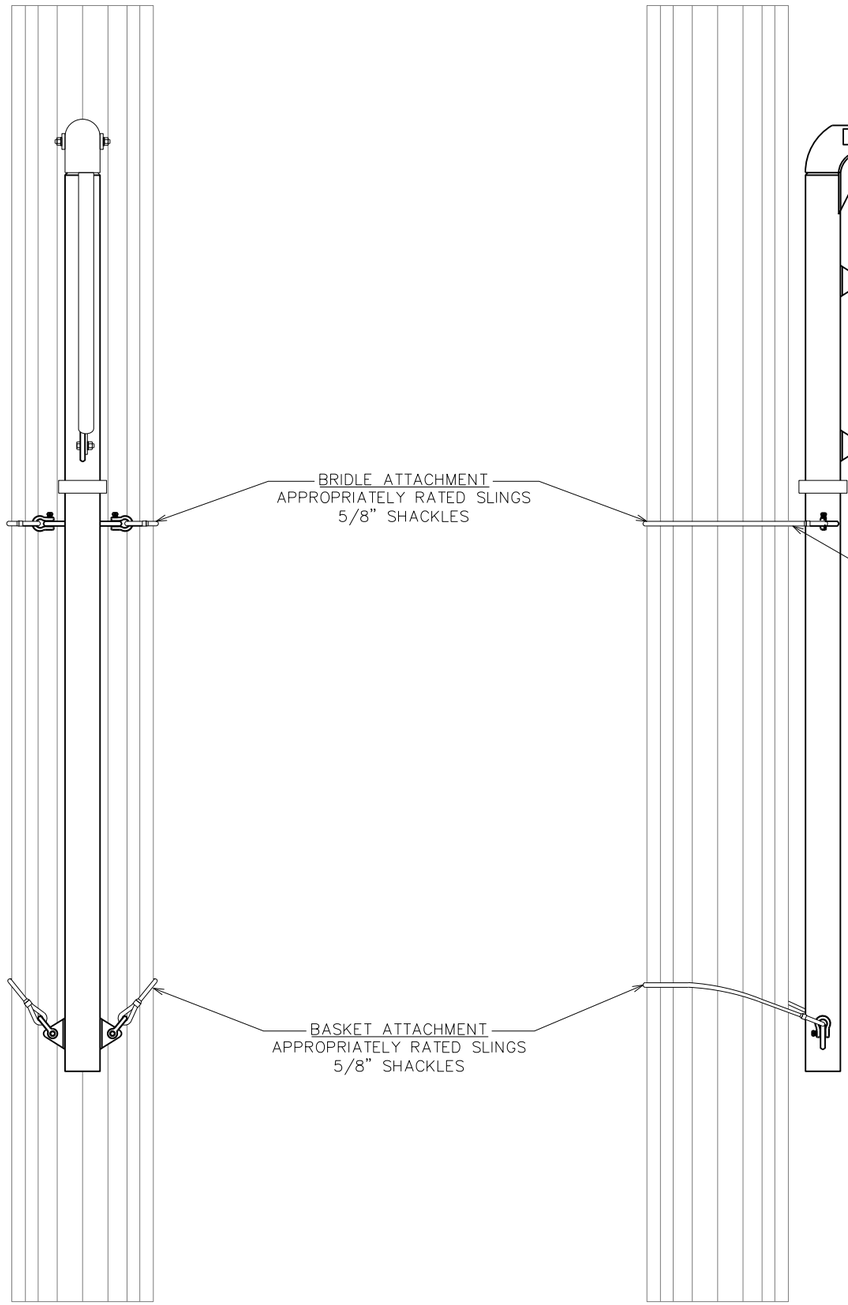
DRAWN BY: DJN | CHECKED BY: JAA

SHEET TITLE:
STANDARD INSTALLATION LATTICE TOWER POSTION II

SHEET NUMBER:
S-4

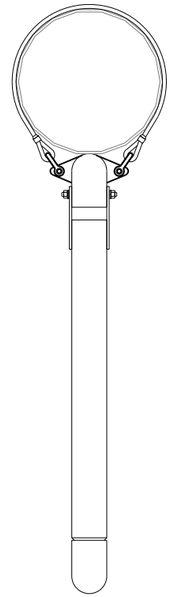
REVISION:
0

ETS #: 200252.13



ELEVATION VIEW

SIDE VIEW



PLAN VIEW

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PREPARED FOR:

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PROFESSIONAL
ENGINEER
JEFFREY A. ARTHUR

Jeffrey A. Arthur, PE

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Date: 2020.03.03 16:55:57 -07'00'

GIN POLE IDENTIFICATION:
SPAGPUL12.8.11.ETS.SSI.0220001

PROJECT TYPE:
SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
0	03/03/2020	CONSTRUCTION

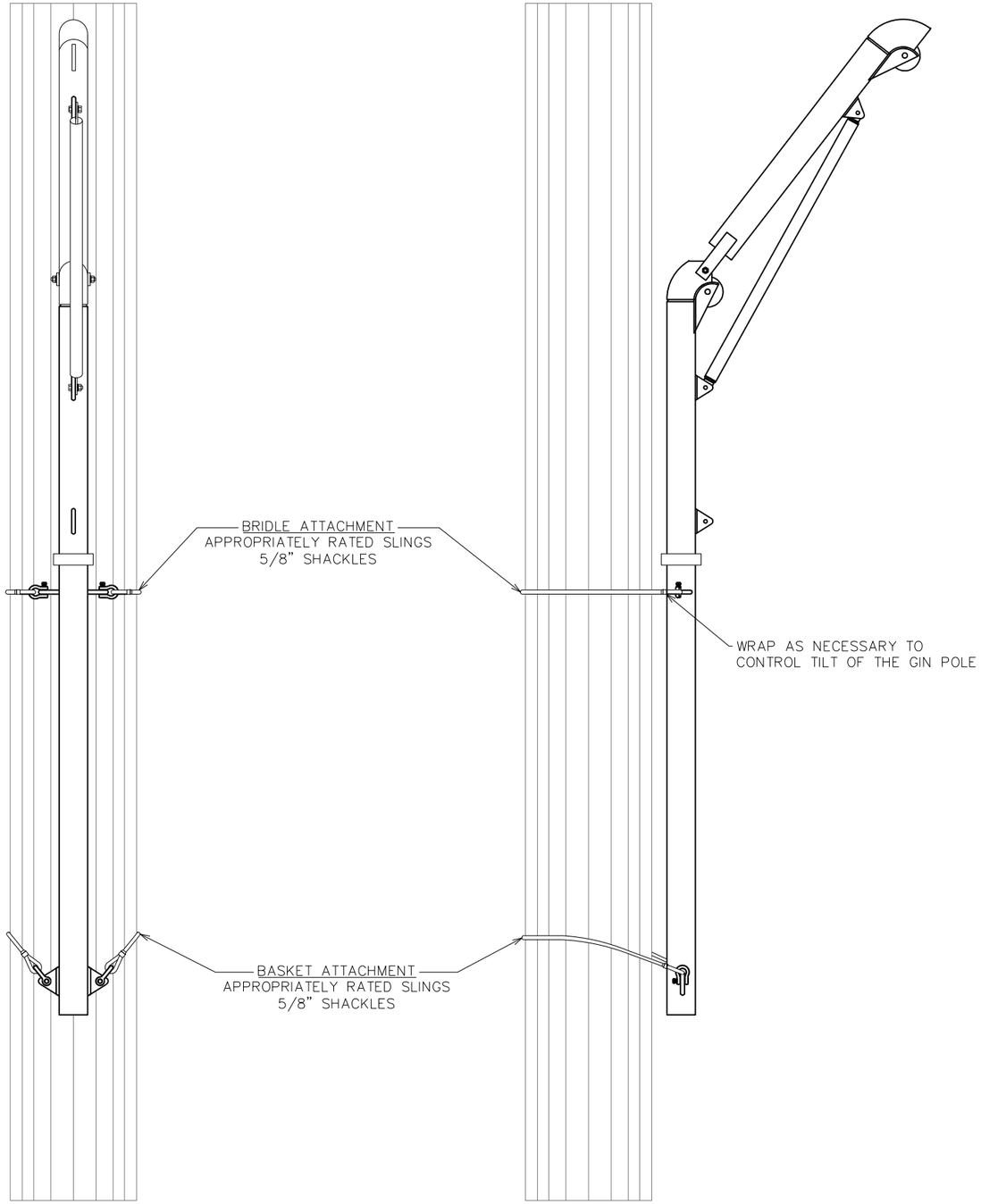
DRAWN BY: DJN | CHECKED BY: JAA

SHEET TITLE:
STANDARD INSTALLATION MONOPOLE TOWER POSITION I

SHEET NUMBER:
S-5

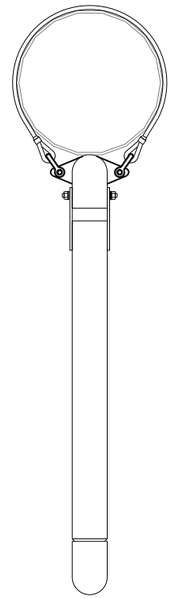
REVISION:
0

ETS #: 200252.13



ELEVATION VIEW

SIDE VIEW



PLAN VIEW

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Digitally signed by Jeffrey A. Arthur, PE
Date: 2020.03.16:56:09 -07'00'

GIN POLE IDENTIFICATION:
SPAGPUL12.8.11.ETS.SSI.0220001

PROJECT TYPE:
SPARTACUS ULTRALITE GIN POLE

REV	DATE	ISSUED FOR:
0	03/03/2020	CONSTRUCTION

DRAWN BY: DJN | CHECKED BY: JAA

SHEET TITLE:
STANDARD INSTALLATION MONOPOLE TOWER POSTION II

SHEET NUMBER:
S-6

REVISION:
0

ETS #: 200252.13